

**IN THE SUPREME COURT OF NEWFOUNDLAND AND LABRADOR
IN BANKRUPTCY AND INSOLVENCY**

**IN THE MATTER OF THE *COMPANIES' CREDITORS*
ARRANGEMENT ACT, R.S.C. 1985, C. C-36**

**AND IN THE MATTER OF A PLAN OF COMPROMISE OR ARRANGEMENT OF
EDWARD COLLINS CONTRACTING LIMITED, H & E DESIGNS LTD.,
CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND
51037 NEWFOUNDLAND & LABRADOR INC.**

**Fourteenth Report of Grant Thornton Limited,
in its Capacity as Monitor**

February 23, 2024



**Grant Thornton Limited,
Monitor**

Suite 300 - 15 International Place
St. John's, NL A1A 0L4

Fourteenth Report of the Monitor

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Introduction

1. Pursuant to an order of the Supreme Court of Newfoundland and Labrador (the “**Court**”) made on October 5, 2022 (the “**Initial Order**”), Edward Collins Contracting Limited (“**ECC**”), H&E Designs Ltd. (“**H&E**”), Classic Security Ltd. (“**Classic**”), FGC Holdings Ltd. (“**FGC**”) and 51037 Newfoundland and Labrador Inc. (“**51037**”) (collectively, the “**Company**”) were granted protection under the *Companies’ Creditors Arrangement Act*, R.S.C. 1985, c. C-36, as amended, (the “**CCAA**”).
2. The Initial Order appointed Grant Thornton Limited as monitor (the “**Monitor**”) in the CCAA proceedings and granted a stay of proceedings (the “**Stay Period**”) initially expiring on October 17, 2022. On October 17, 2022, the Court issued an Amended and Restated Initial Order (“**ARIO**”) which affirmed the terms of the Initial Order.
3. This is the Fourteenth Report of the Monitor (the “**Eleventh Report**”). Additional background information on the Company and the CCAA Proceedings along with all the unsealed documents filed with the Court are available on the Monitor’s website, located at: www.grantthornton.ca/ecc (the “**Monitor’s Website**”). The Monitor continues to update this website as appropriate.

Purpose of this Report

4. The purpose of this Fourteenth Report is to provide this Honourable Court and the Company’s stakeholders with the Monitor’s record with regards to the Monitor’s determination of the Government of Newfoundland and Labrador (“**GNL**”) pursuant to the Notice of Determination of Claim issued by the Monitor on January 12, 2024.

Terms of Reference and Disclaimer

5. In preparing this Fourteenth Report, the Monitor has relied upon unaudited financial information, the Company’s records, financial information and projections, and discussions with the Company’s management. While the Monitor reviewed various documents provided by the Company (including, among other things, unaudited internal financial documents and financial projections) and believes that the information therein provides a fair summary of the transactions as reflected in the documents, such work does not constitute an audit or verification of such information for accuracy, completeness or compliance with Generally Accepted Assurance Standards (“**GAAS**”), Generally Accepted Accounting Principles (“**GAAP**”), or International Financial Reporting Standards (“**IFRS**”). Accordingly, the Monitor expresses no opinion or other form of assurance pursuant to GAAS, GAAP or IFRS with respect to such information.
6. In the course of its mandate, the Monitor has assumed the integrity and truthfulness of the information and explanations presented to it by the Company, its management and other stakeholders, within the context in which such information was presented. To date, nothing has come to the Monitor’s attention that would cause it to question the reasonableness of these assumptions, or accuracy of the information. The Monitor has requested that management bring to its attention any significant matters which were not addressed in the course of the Monitor’s specific inquiries. Accordingly, this Report is based solely on the

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information (financial or otherwise) made available to the Monitor by the Company, its management, and other stakeholders.

7. This Fourteenth Report has been prepared for the use of this Honourable Court and the Company's stakeholders as general information relating to the Company and to assist the Court in administering this proceeding. Accordingly, the reader is cautioned that this Report may not be appropriate for any other purpose. The Monitor will not assume responsibility or liability for losses incurred by the reader as a result of the circulation, publication, reproduction or use of this Fourteenth Report contrary to the provisions of this paragraph.
8. Capitalized terms not defined in this Fourteenth Report have the meanings ascribed to them in the Initial Order, the Originating Application, or the previous reports of the Monitor.
9. All references to dollars are in Canadian currency unless otherwise noted.

Claims Procedure Order

10. The Company, GNL and the Affected Parties consented to the Claims Procedure Order dated March 17, 2023, which is attached hereto as **Appendix A**.
11. The Claims Procedure Order was amended on November 6, 2023 to remove the liquidated damages and forced account claims of ECC. These claims were purchased by 92712 and will be dealt with outside the CCAA process.
12. The Amended Claims Procedure Order deals exclusively with ECC's claim against GNL for the payment of statutory holdbacks related to contracts 12-21, 45-20 and 46-21 (the "**GNL Claim**"). The Amended Claims Procedure Order dated November 6, 2023 is attached hereto as **Appendix B**.
13. The claim totals \$347,109 (HST included) detailed by project as follows:

Project	Holdback (10%)	Holdback (10%) (Includes HST at 15%)
12-21PHC Avalon Culvert Rehab	\$ 96,242	\$ 110,678
45-20PHP Stephenville Paving	\$ 163,761	\$ 188,325
46-21PHP Central Paving and Bridge Rehab	\$ 41,831	\$ 48,106
Total:	\$ 301,835	\$ 347,109

14. GNL filed its submissions before the claims bar date of July 31, 2023 at 5pm Newfoundland and Labrador time.

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15. The submissions made by GNL and ECC were as follows:
 - a. **Appendix C** – GNL Claim on Project 12-21
 - b. **Appendix D** – GNL Claim on Project 45-20
 - c. **Appendix E** – GNL Claim on Project 46-21
 - d. **Appendix F** – ECC Submission dated October 31, 2023
 - e. **Appendix H** – Affidavit of Josh Collins dated November 15, 2023
 - f. **Appendix I** – GNL reply to Affidavit of Josh Collins dated November 15, 2023
 - g. **Appendix K** – GNL Appeal dated January 19, 2024
16. After reviewing the submissions, the Monitor issued the following determinations:
 - a. **Appendix G** – Monitor’s Partial Determination on GNL Claim; and
 - b. **Appendix J** – Monitor’s Final Determination.
17. GNL filed a Notice of Objection on January 19, 2024 within the time frame provided for in paragraph 18 of the Claim Procedure Order. The objection is attached hereto as **Appendix K**.
18. The reasons attached to the Notice of Objection were not included in the Monitor’s adjudication process.

Summary of Claims and the Monitor’s Determination

19. GNL’s submissions on the GNL Claim was based on a claim for liquidated damages that exceeded the value of the holdbacks, and therefore no payment to ECC on account of the holdbacks is owing.
20. The Monitor’s partial determination of the GNL Claim was based on ECC’s assertion made in its October 31, 2023 submission that GNL was not legally entitled to use statutory holdback funds retained on each contract as a set off against GNL’s other claims, and that alone could finalize the Monitor’s review of the GNL Claim.
21. The Monitor’s determination on this issue was that GNL could set off the holdback in respect of alleged liquidation damages, provided the claimant establishes that it is entitled to the liquidated damages.
22. The Monitor then reviewed the materials provided by ECC dated November 15, 2023. The Monitor determined that GNL had already recovered the liquidated damages set out in its claim by way of set offs against progress payments made by GNL to ECC. The deductions taken on account of liquidated damages for progress payments exceeded the holdbacks claimed by ECC. The Monitor determined that GNL could therefore not claim against the holdback for liquidated damages a second time.

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23. GNL's appeal is based on an assertion that the Monitor erred in fact and law in not considering that its submission also included a claim for estimated costs to complete, which could be offset against the holdback.
24. It is the Monitor's position that GNL did not assert a claim for costs to complete in its submission made by the claims bar date. At best, a passing reference to GNL's cost to complete was referenced in the GNL submission, but no particulars were provided. A claim for costs to complete is a separate claim and not made pursuant to the Claims Procedure Order.

Dated at Halifax, Nova Scotia the 23rd day of February 2024.

GRANT THORNTON LIMITED, in its capacity as
Monitor of **EDWARD COLLINS CONTRACTING
LIMITED, H & E DESIGNS LTD., CLASSIC
SECURITY LTD., FGC HOLDINGS LTD. AND 51037
NEWFOUNDLAND & LABRADOR INC.** and not in its
personal capacity

Per: 

Name: Phil Clarke, CPA, CA, CIRP, LIT
Title: Senior Vice President

Appendix A

Claims Procedure Order

**IN THE SUPREME COURT OF NEWFOUNDLAND AND LABRADOR
IN BANKRUPTCY AND INSOLVENCY**

IN THE MATTER OF The *Companies' Creditors Arrangement Act*, R.S.C. 1985, c. C-36 as amended (the "CCAA")

AND IN THE MATTER OF an application Of Edward Collins Contracting Limited, Classic Security Ltd, FGC Holdings Ltd, 51037 Newfoundland & Labrador Inc., and H & E Designs Ltd. (collectively "ECC" or the "Company")

CLAIMS PROCEDURE ORDER

Before the Honourable Justice Alexander MacDonald on March 14, 2023:

THIS MOTION made by Grant Thornton Limited.. in its capacity as the monitor (the "Monitor") of Edward Collins Contracting Limited, H&E Designs Ltd., Classic Security Ltd., FGC Holdings Ltd. and 51037 Newfoundland and Labrador Inc. (collectively, the "Debtors"), for an order that, among other things: establishes a procedure for the determination and resolution of certain claims against the Debtors related to construction project receivables, holdbacks, liquidated damages and forced account balances owing.

UPON HEARING the submissions of counsel for the Monitor, and upon the Monitor confirming that he has consulted, through counsel, with each person affected by the within order (each an "Affected Party"), and that the comments and changes requested by all Affected Parties have been incorporated in the draft order.



SERVICE

1. **THIS COURT ORDERS** that the time for service of the Notice of Motion and the Motion Record is hereby abridged and validated so that this Motion is properly returnable today and hereby dispenses with further service hereof.

DEFINITIONS AND INTERPRETATION

2. **THIS COURT ORDERS** that for the purposes of this Order, the following terms shall have the following meanings:

- (a) **"Act"** means the *Mechanic Lien Act*, RSNL 1990 Chapter M-3;
- (b) **"Business Day"** means a day, other than a Saturday or a Sunday, on which banks are generally open for business in St. John's, Newfoundland and Labrador;
- (c) **"Bryant's Cove Claim"** means the Claim of the town of Bryant's Cove against the Debtors in respect to the town of Bryant's Cove slope stabilization construction project, pursuant to which the Statutory Holdback of \$109,109.99 is being held;
- (d) **"CCAA"** means the *Companies' Creditors Arrangement Act*, RSC 1985, c C-36;
- (e) **"Claim"** means the entirety of any right or claim against the Debtors, whether or not asserted, in connection with any indebtedness, liability or obligation of any kind whatsoever of the Debtors and does not include an Excluded Claim;
- (f) **"Claimants"** means collectively:
 - (i) the town of Bryant's Cove in respect to the Bryant's Cove Claim;

- (ii) the town of Fox Harbour in respect to the town of Fox Harbour Claim;
 - (iii) the Government of Newfoundland and Labrador, Intact Insurance Company and Western Surety in respect to the GNL Claims;
 - (iv) the town of Deer Lake in respect to the Town of Deer Lake Claim;
 - (v) Rodco Mechanical (2014) Ltd. in respect to the Town of Humber Arm South Rodco Claim; and
 - (vi) the CRA in respect to the CRA Priority Claim;
- (g) **"Claims Process Claims"** means collectively:
- (i) the Bryant's Cove Claim;
 - (ii) the Town of Fox Harbour Claim;
 - (iii) the GNL Claims;
 - (iv) the Town of Deer Lake Claim;
 - (v) Town of Humber Arm South Rodco Claim; and
 - (vi) the CRA Priority Claim;
- (h) **"Claims Bar Date"** means 5:00 PM Newfoundland Standard Time on March 27, 2023, or such later date as may be ordered by this Court;
- (i) **"Claims Process"** means the process outlined in this Order for the resolution of the Claims;

- (j) “**Court**” means the Supreme Court of Newfoundland and Labrador sitting in Bankruptcy and Insolvency;
- (k) “**CRA**” means the Canadian Revenue Agency;
- (l) “**CRA Priority Claim**” means the statutory deemed trust claim of the CRA in respect of amounts designated under section 37(2) of the CCAA, including amounts deemed to be held in trust under subsection 227(4) or (4.1) of the *Income Tax Act*, R.S.C., 1985, c. 1 (5th Supp.);
- (m) “**Debtors**” means Edward Collins Contracting Limited, H&E Designs Ltd., Classic Security Ltd., FGC Holdings Ltd. and 51037 Newfoundland and Labrador Inc.;
- (n) “**Excluded Claim**” means, subject to further order of this Court, all Claims other than the Claims Process Claims;
- (o) “**GNL**” means the Government of Newfoundland and Labrador;
- (p) “**GNL Claims**” means the respective Claims of GNL, Western Surety and Intact Insurance Company relating to the payment or withholding of Liquidated Damages, billed, earned and unpaid contract funds, Statutory Holdbacks or force account claims in connection with 12-21 PCP (“**Contract 12-21**”), 46-21 PHP (“**Contract 46-21**”), and 45-20 PHP (“**Contract 45-20**”);
- (q) “**Initial Order**” means the amended and restated initial order of the Supreme Court of Newfoundland and Labrador made on October 17, 2022;

- (r) **"Liquidated Damages"** means Claims for liquidated damages, which damages were deducted from progress payments due to ECC in connection with Contract 12-21, Contract 46-21 and Contract 45-20,
- (s) **"Monitor"** means Grant Thornton Limited;
- (t) **"Notice of Determination of Claim"** means the notice provided by the Monitor pursuant to paragraph 17 of this Order, substantially in the form attached as Schedule "B" to this Order;
- (u) **"Notice of Objection"** means the notice provided pursuant to paragraph 18 of this Order, substantially in the form attached as Schedule "C" to this Order;
- (v) **"Proof of Claim"** means the proof of claim referred to herein, substantially in the form attached as Schedule "A" and including all supporting documentation, to be filed in connection with any Claims Process Claim;
- (w) **"Statutory Holdback"** means funds related to the services or materials supplied under a contract or subcontract and which were required to be withheld and released pursuant to and in accordance with the Act;
- (x) **"Town of Deer Lake Claim"** means the Claim of the Town of Deer Lake against the Debtors in respect to the paving construction project, pursuant to which the amount of \$57,070.50 in Statutory Holdback is being withheld;

- (y) **"Town of Humber Arm South Rodco Claim"** means the lien Claim of Rodco Mechanical (2014) Ltd. in connection with the Town of Humber Arm South project, in the amount of \$149,503.01;
- (z) **"Town of Fox Harbour Claim"** means the Claim of the town of Fox Harbour against the Debtors in respect to the town of Fox Harbour's armour stone construction project, pursuant to which the amount of \$19,896.72 in Statutory Holdback and \$179,070.53 in progress payments are being withheld; and
- (aa) **"Western Surety"** means Western Surety Company

3. **THIS COURT ORDERS** that all references as to time herein shall mean local time in St. John's, Newfoundland, Canada, and any reference to an event occurring on a Business Day shall mean prior to 5:00 p.m Newfoundland Standard Time on such Business Day unless otherwise indicated herein.

4. **THIS COURT ORDERS** that all references to the word "including" shall mean "including without limitation", and that all references to the singular herein include the plural, the plural include the singular, and that any gender includes all genders.

5. **THIS COURT ORDERS** that the form and substance of each of the Proof of Claim, Notice of Determination of Claim and Notice of Objection, substantially in the forms attached as Schedules "A", "B" and "C" respectively, to this Order are hereby approved. Notwithstanding the foregoing, the Monitor may, from time to time, make changes to such forms as the Monitor considers necessary or advisable.

MONITOR'S ROLE

6. **THIS COURT ORDERS** that the Monitor, in addition to its prescribed rights and obligations under the CCAA and under the Initial Order, shall administer this Claims Process and engage in the determination of the Claims Process Claims, and is hereby directed and empowered to take such actions and fulfill such other roles as are contemplated by this Order.

7. **THIS COURT ORDERS** that the Monitor is authorized to call for the Claims Process Claims.

8. **THIS COURT ORDERS** that (a) in carrying out the terms of this Order, the Monitor shall have all of the protections given to it by the CCAA, the Initial Order, this Order, and as an officer of the Court, (b) the Monitor shall incur no liability or obligation as a result of the carrying out of the provisions of this Order, except for claims based on gross negligence or wilful misconduct, (c) the Monitor shall be entitled to rely on the books and records of the Debtors and any information provided by the Debtors, all without independent investigation, and (d) the Monitor shall not be liable for any claims or damages resulting from any errors or omissions in such books, records or information or in any information provided by any Claimant, except for claims based on gross negligence or wilful misconduct.

9. **THIS COURT ORDERS** that the Monitor, with the consent of the Debtors is authorized to enter into settlement negotiations with a Claimant at any stage of this Claims Process and is further authorized to enter into agreements with such Claimant to resolve the applicable Claims Process Claims.

10. **THIS COURT ORDERS** that the Monitor shall, no later than two (2) Business Days after the date of this Order, send the Proof of Claim by electronic mail or courier to each of the Claimants and/or their legal counsel holding a Claims Process Claim.

11. **THIS COURT ORDERS** that the service of this Order on Claimants holding a Claims Process Claim is the good and sufficient service of the Claims Bar Date on the Claimants and no other notice or service needs to be given or made.

CLAIMS BAR DATE

12. **THIS COURT ORDERS** that the Claimants shall deliver to the Monitor a Proof of Claim, together with all relevant supporting documentation in respect of the Claims Process Claim on or before the Claims Bar Date. The Monitor shall provide copies of the Proofs of Claim submitted by Claimants in respect of their Claims Process Claims to counsel for the Royal Bank of Canada as they are received by the Monitor.

13. **THIS COURT ORDERS** that those Claimants who do not deliver a Proof of Claim to the Monitor by the Claims Bar Date shall be forever extinguished and barred, shall be required to immediately remit to the Monitor any and all amounts being held by such Claimant in connection with their applicable Claims Process Claims and all such Claimants shall be deemed to have fully and finally released and discharged all such Claims Process Claims as against the Debtors and the Monitor.

PROOFS OF CLAIM

14. **THIS COURT ORDERS** that the Monitor shall maintain a list of all Proofs of Claim received by it, including the name of the Claimant, the amount claimed, and the status of the Claims Process Claims.

DETERMINATION OF CLAIMS

15. **THIS COURT ORDERS** that following the Claims Bar Date, the Monitor shall: (i) review the Proofs of Claim filed on or before the Claims Bar Date by Claimants and shall, after consultation with the Debtors and at the Monitor's discretion, determine either to allow, partially allow, partially disallow or entirely disallow the Claims Process Claims.

16. **THIS COURT ORDERS** that the Monitor may attempt to consensually resolve the amount of any asserted Claims Process Claims with the Claimant prior to partially allowing, partially disallowing or entirely disallowing such Claims Process Claims.

17. **THIS COURT ORDERS** that, where a Claims Process Claim is to be partially allowed, partially disallowed or entirely disallowed pursuant to the process contained in this Order, the Monitor shall deliver to the Claimant a written notice of such determination setting out the reasons for the determination (a "Notice of Determination of Claim") as soon as reasonably practicable.

RESOLUTION OF DISPUTES

18. **THIS COURT ORDERS** that in the event that a Claimant objects to the Monitor's determination of a Claims Process Claim, and intends to contest the Notice of Determination of Claim, such Claimant shall deliver written notice of its objection and a brief description of the grounds for such objection (a "Notice of Objection") so that such Notice of Objection is received

by the Monitor no later than 5:00 p.m. on the day which is seven (7) days after the date the Notice of Determination of Claim is deemed to be received.

19. **THIS COURT ORDERS** that any Claimant that does not provide the Monitor with a Notice of Objection within the deadline set forth in paragraph 18 shall be deemed to have agreed with the Notice of Determination of Claim pertaining to that Claimant's Claim Process Claim. Any Claim Process Claim, or any portion thereof, that is disallowed pursuant to a Notice of Determination of Claim, and in respect of which no Notice of Objection is received by the Monitor by the deadline set forth in paragraph 18, shall be forever extinguished, barred, discharged and released as against the Debtors and the Monitor without any further act or notification and the Claimant shall be required to immediately remit to the Monitor, on behalf of the Debtors, the amount of the Claims Process Claim as set out in the Notice of Determination of Claim

20. **THIS COURT ORDERS** that where a Claimant who receives a Notice of Determination of Claim agrees to same, or where the Claims Process Claim is otherwise determined in accordance with paragraph 19 of this Order, the value and status of such Claimant's Claim Process Claim shall be deemed to be as set out in the Notice of Determination of Claim or as determined in accordance with paragraph 19 of this Order, as the case may be, and such value and status, if any, shall constitute such Claimant's determined Claims Process Claim (a "**Determined Claim**").

21. **THIS COURT ORDERS** that where a Claimant provides the Monitor with a Notice of Objection within the deadline set forth in paragraph 18, the resolution of the applicable Claims Process Claim for which a Notice of Objection has been sent shall be referred to the Court for judicial determination pursuant to a timetable established by the Court;

NOTICES AND COMMUNICATIONS

22. **THIS COURT ORDERS** that, except as set out in this Order, any notice or communication (including Notices of Determination of Claims) to be given under this Order by the Monitor to a Claimant shall be in writing and may be delivered by prepaid ordinary mail, by courier, by delivery or electronic mail to the Claimant to such address or e-mail address, as applicable, for such Claimant as shown on the books of the Debtors or as set out in such Claimant's Proof of Claim. Any such service and delivery shall be deemed to have been received: (i) if sent by ordinary mail, on the third Business Day after mailing within Newfoundland and Labrador, the fifth Business Day after mailing within Canada (other than within Newfoundland and Labrador) and the tenth Business Day after mailing internationally; (ii) if sent by courier or personal delivery, on the next Business Day following dispatch; and (iii) if delivered by email by 5:00 p.m. on a Business Day, on such Business Day, and if delivered after 5:00 p.m. or other than on a Business Day, on the following Business Day.

23. **THIS COURT ORDERS** that any document, notice or other communication (including, without limitation, Proofs of Claim) required to be delivered to the Monitor under this Order shall be in writing and, where applicable, substantially in the form provided for in this Order, and will be sufficiently delivered only if delivered to:

Grant Thornton Limited
in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

Attention: Allan MacDonald
Phone: (902) 491.4179

Email: Allan.MacDonald@ca.gt.com

24. **THIS COURT ORDERS** that in the event that the day on which any notice or communication required to be delivered pursuant to the Claims Process is not a Business Day, then such notice or communication shall be required to be delivered on the next Business Day.

GENERAL

25. **THIS COURT ORDERS** that the Monitor may, from time to time, apply to this Court for advice and directions in connection with the discharge or variation of its powers and duties under this Order.

26. **THIS COURT HEREBY REQUESTS** the aid and recognition of any court, tribunal, regulatory or administrative body having jurisdiction in Canada or in the United States to give effect to this Order and to assist the Monitor and its agents in carrying out the terms of this Order. All courts, tribunals, regulatory and administrative bodies are hereby respectfully requested to make such orders and to provide such assistance to the Monitor, as an officer of this Court, as may be necessary or desirable to give effect to this Order, to grant representative status to the Monitor in any foreign proceeding, or to assist the Monitor and its agents in carrying out the terms of this Order.

27. **THIS COURT ORDERS** that the Monitor be at liberty, and is hereby authorized and empowered, to apply to any court, tribunal, regulatory or administrative body, wherever located, for the recognition of this Order and for assistance in carrying out the terms of this Order, and that the Monitor is authorized and empowered to act as a representative in respect of the within proceedings for the purpose of having these proceedings recognized in a jurisdiction outside Canada.

A handwritten signature in blue ink, appearing to read "Julie Hawks", is written over a horizontal line.

**COURT
OFFICER**

A small, stylized handwritten mark or signature in blue ink, located in the bottom right corner of the page.

SCHEDULE A

PROOF OF CLAIM IN RESPECT OF CLAIMS AGAINST EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the "Debtors")

1. PARTICULARS OF CLAIMANT

Full Legal Name of Claimant: _____ (the "Claimant")
(the full legal or corporate name should be the name of the original Claimant)

Full Mailing Address of the Claimant:

Telephone Number of the Claimant: _____

Facsimile Number of the Claimant: _____

Contact Person of the Claimant: _____

Email Address of Contact Person: _____

Was the Claim sold or assigned to another party? ☐ Yes ☐ No

2. PROOF OF CLAIM

I, _____ [name of the Claimant or the Representative], do hereby
certify:

That I: ☐ am the Claimant; or
☐ hold the following position _____ of the
Claimant and having personal knowledge of all of the circumstances
connected with the Claim as described herein.

3. PARTICULARS OF CLAIM

	Amount	Currency	Claim Specification
Total \$	_____		

Description of transaction, agreement or event giving rise or relating to the Claim. Please include contract, invoices, and evidence of preservation and perfection of lien (if applicable) along with any other relevant information:

If the Claim includes an amount for any accrued interest thereon and costs payable in respect thereof, state the basis for such interest and/or cost claim, the rate of interest, and provide evidence upon which the claim for interest and/or costs is being made:

If the Claim is contingent or unliquidated, state the basis and provide evidence upon which the Claim has been valued:

IF CLAIMANTS REQUIRE ADDITIONAL SPACE, PLEASE ATTACH A SCHEDULE HERETO. CLAIMANTS SHOULD PROVIDE PARTICULARS OF THE CLAIM AND COPIES OF ALL SUPPORTING DOCUMENTATION, INCLUDING AMOUNT AND DESCRIPTION OF TRANSACTION(S), AGREEMENT(S) OR LEGAL BREACH(ES) GIVING RISE TO THE CLAIM.

4. PARTICULARS OF ASSIGNEE(S) (IF ANY):

Full Legal Name of Assignee(s) of the Claim (if all or a portion of the Claim has been sold). If there is more than one assignee, please attach separate sheets with the following information (the "Assignee(s)")

Amount of Claim Assigned: \$ _____

Amount of Claim Not Assigned: \$ _____

Total Amount of Claim: \$ _____

(should equal total amount of Claim in Section 3 above)

Mailing Address of Assignee(s):

Telephone Number of the Assignee: _____

Facsimile Number of the Assignee: _____

Contact Person of the Assignee: _____

Email Address of Contact Person: _____

5. FILING CLAIMS:

The duly completed Proof of Claim together with supporting documentation must be returned and received by the Monitor, no later than 5:00 p.m. local St. John's time on March 27, 2023, to the email address or address listed below.

FAILURE TO FILE YOUR PROOF OF CLAIM BY SUCH DATE WILL RESULT IN YOUR CLAIM BEING FOREVER EXTINGUISHED AND BARRED AND YOU WILL BE PROHIBITED FROM MAKING OR ENFORCING A CLAIM AGAINST THE DEBTORS.

This Proof of Claim must be delivered by email, facsimile, personal delivery, courier or prepaid mail at the following address:

Grant Thornton Limited
in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

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Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

DATED the _____ day of _____ 2023.

(Signature of Witness)

(Signature of Claimant)

If the Claimant is not an individual, print name of Claimant, and name and title of authorized signatory:

Per: _____

Name: _____

Title: _____

I have the authority to bind the corporation

2

SCHEDULE B

NOTICE OF DETERMINATION OF CLAIM

To: _____ (the "Claimant")

Date: _____

IN THE MATTER OF THE CCAA PROCEEDINGS OF EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the "DEBTORS")

Take notice that Grant Thornton Limited., in its capacity as Monitor (in such capacity, the "Monitor") appointed pursuant to the Order of Justice MacDonald dated October 5, 2022, has reviewed the Claim in respect of the above-noted Claimant and has assessed the Claim in accordance with the Claims Procedure Order of the Supreme Court of Newfoundland and Labrador dated February 9, 2023 (the "Claims Procedure Order").

All capitalized terms not defined herein have the meaning given to such terms in the Claim Procedure Order.

The Monitor has reviewed your Claim in accordance with the Claims Procedure Order, and has made the following determination:

☐ Claim Allowed

Claim Determination

☐ Claim Partially Allowed/Claim Partially Disallowed

☐ Claim Disallowed

The Monitor has made the above-noted determination in respect of your Claim for the following reason(s):

2

Subject to further dispute by you in accordance with the Claims Procedure Order, your Claim will be allowed as follows:

Name of Claimant	Claim Amount per Proof of Claim	Amount of Claim Allowed (if any)
	\$	\$

IF YOU WISH TO DISPUTE THIS NOTICE OF DETERMINATION OF CLAIM AS SET FORTH HEREIN, YOU MUST TAKE THE STEPS OUTLINED BELOW.

The Claims Procedure Order provides that if you disagree with the determination of your Claim herein, you must deliver to the Monitor a completed Notice of Objection **before 5:00 p.m. on the day which is fourteen (14) days after the date the Notice of Determination of Claim is deemed to be received.**

If you do not dispute the determination of your Claim herein in accordance with the above instructions and the Claim Procedure Order, the amount of your Claim will be deemed to be accepted in the amount set forth herein.

If you have any questions or concerns regarding the Claims Procedure Order, please contact the Monitor directly.

DATED the _____ day of _____ 2023.

**Grant Thornton Limited, solely in its capacity as
Monitor of the Debtors.**

Per: _____
Name:
Title:

SCHEDULE C

NOTICE OF OBJECTION

IN THE MATTER OF THE CCAA PROCEEDINGS OF EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the "DEBTORS")

To: Grant Thornton Limited, in its capacity as Monitor of the Debtors (the "Monitor")

Date: the _____ day of _____ 2023

Claimant: _____ (the "Claimant")

Pursuant to the Claims Procedure Order dated ●, 2023, the Claimant hereby gives notice that it disputes the Notice of Determination of Claim dated ●, 2023, issued by the Monitor.

The Claimant disputes the Claim as partially allowed, partially disallowed or disallowed in the said Notice of Determination of Claim as follows:

Amount of Claim determined by the Monitor as set out in the Notice of Determination of Claim	Amount of Claim per Claimant
\$	\$
\$	\$

Reason for the dispute *(attach copies of any supporting documentation)*

Address for service of this Notice of Objection:

Grant Thornton Limited



in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

THIS FORM AND ANY REQUIRED SUPPORTING DOCUMENTATION MUST BE RETURNED TO THE MONITOR BY REGISTERED MAIL, PERSONAL SERVICE, EMAIL (IN PDF FORMAT), FACSIMILE OR COURIER TO THE ABOVE-NOTED ADDRESS AND MUST BE RECEIVED BY THE MONITOR BEFORE 5:00 P.M. ON THE FOURTEENTH (14) CALENDAR DAY AFTER THE DATE THE NOTICE OF DETERMINATION OF CLAIM IS DEEMED TO BE RECEIVED.

DATED the _____ day of _____ 2023.

(Signature of Witness)

(Signature of Claimant)

If the Claimant is not an individual, print name of Claimant, and name and title of authorized signatory:

Per: _____
Name: _____
Title: _____
I have the authority to bind the corporation



Appendix B

Claims Bifurcation Order

IN THE SUPREME COURT OF NEWFOUNDLAND AND LABRADOR
IN BANKRUPTCY AND INSOLVENCY

IN THE MATTER OF *The Companies' Creditors Arrangement Act*, R.S.C. 1985, c. C-36 as amended (the "**CCAA**")

AND IN THE MATTER OF an application Of Edward Collins Contracting Limited, Classic Security Ltd, FGC Holdings Ltd, 51037 Newfoundland & Labrador Inc., and H & E Designs Ltd. (collectively "**ECC**" or the "**Company**")

AMENDED CLAIMS PROCEDURE ORDER

Before the Honourable Justice Alexander MacDonald on November 6, 2023:

THIS MOTION made by Grant Thornton Limited., in its capacity as the monitor (the "**Monitor**") of Edward Collins Contracting Limited, H&E Designs Ltd., Classic Security Ltd., FGC Holdings Ltd. and 51037 Newfoundland and Labrador Inc. (collectively, the "**Debtors**"), for an order that, among other things: establishes a procedure for the determination and resolution of certain claims against the Debtors related to construction project receivables, holdbacks, liquidated damages and forced account balances owing.

UPON HEARING the submissions of counsel for the Monitor, and upon the Monitor confirming that he has consulted, through counsel, with each person affected by the within order (each an "**Affected Party**"), and that the comments and changes requested by all Affected Parties have been incorporated in the draft order.

SERVICE

1. **THIS COURT ORDERS** that the time for service of the Notice of Motion and the Motion Record is hereby abridged and validated so that this Motion is properly returnable today and hereby dispenses with further service hereof.

DEFINITIONS AND INTERPRETATION

2. **THIS COURT ORDERS** that for the purposes of this Order, the following terms shall have the following meanings:

- (a) **“Act”** means the *Mechanic Lien Act*, RSNL 1990 Chapter M-3;
- (b) **“Business Day”** means a day, other than a Saturday or a Sunday, on which banks are generally open for business in St. John’s, Newfoundland and Labrador;
- (c) **“Bryant’s Cove Claim”** means the Claim of the town of Bryant’s Cove against the Debtors in respect to the town of Bryant’s Cove slope stabilization construction project, pursuant to which the Statutory Holdback of \$109,109.99 is being held;
- (d) **“CCAA”** means the *Companies’ Creditors Arrangement Act*, RSC 1985, c C-36;
- (e) **“Claim”** means the entirety of any right or claim against the Debtors, whether or not asserted, in connection with any indebtedness, liability or obligation of any kind whatsoever of the Debtors and does not include an Excluded Claim;
- (f) **“Claimants”** means collectively:
 - (i) the town of Bryant’s Cove in respect to the Bryant’s Cove Claim;

- (ii) the town of Fox Harbour in respect to the town of Fox Harbour Claim;
 - (iii) the Government of Newfoundland and Labrador, Intact Insurance Company and Western Surety in respect to the GNL Claims;
 - (iv) the town of Deer Lake in respect to the Town of Deer Lake Claim;
 - (v) Rodco Mechanical (2014) Ltd. in respect to the Town of Humber Arm South Rodco Claim; and
 - (vi) the CRA in respect to the CRA Priority Claim;
- (g) **“Claims Process Claims”** means collectively:
- (i) the Bryant’s Cove Claim;
 - (ii) the Town of Fox Harbour Claim;
 - (iii) the GNL Claims;
 - (iv) the Town of Deer Lake Claim;
 - (v) Town of Humber Arm South Rodco Claim; and
 - (vi) the CRA Priority Claim;
- (h) **“Claims Bar Date”** means 5:00 PM Newfoundland Standard Time on March 27, 2023, or such later date as may be ordered by this Court;
- (i) **“Claims Process”** means the process outlined in this Order for the resolution of the Claims;

- (j) “**Court**” means the Supreme Court of Newfoundland and Labrador sitting in Bankruptcy and Insolvency;
- (k) “**CRA**” means the Canadian Revenue Agency;
- (l) “**CRA Priority Claim**” means the statutory deemed trust claim of the CRA in respect of amounts designated under section 37(2) of the CCAA, including amounts deemed to be held in trust under subsection 227(4) or (4.1) of the *Income Tax Act*, R.S.C., 1985, c. 1 (5th Supp.);
- (m) “**Debtors**” means Edward Collins Contracting Limited, H&E Designs Ltd., Classic Security Ltd., FGC Holdings Ltd. and 51037 Newfoundland and Labrador Inc.;
- (n) “**Excluded Claim**” means, subject to further order of this Court, all Claims other than the Claims Process Claims;
- (o) “**GNL**” means the Government of Newfoundland and Labrador;
- (p) “**GNL Claims**” means the ~~respective Claims of GNL, Western Surety and Intact Insurance Company~~ relating to the payment or withholding of Liquidated Damages, billed, earned and unpaid contract funds, Statutory Holdbacks or ~~free account claims~~ in connection with 12-21 PCP (“**Contract 12-21**”), 46-21 PHP (“**Contract 46-21**”), and 45-20 PHP (“**Contract 45-20**”);
- (q) “**Initial Order**” means the amended and restated initial order of the Supreme Court of Newfoundland and Labrador made on October 17, 2022;

- (r) **“Liquidated Damages”** means Claims for liquidated damages, which damages were deducted from progress payments due to ECC in connection with Contract 12-21, Contract 46-21 and Contract 45-20,
- (s) **“Monitor”** means Grant Thornton Limited;
- (t) **“Notice of Determination of Claim”** means the notice provided by the Monitor pursuant to paragraph 17 of this Order, substantially in the form attached as Schedule “B” to this Order;
- (u) **“Notice of Objection”** means the notice provided pursuant to paragraph 18 of this Order, substantially in the form attached as Schedule “C” to this Order;
- (v) **“Proof of Claim”** means the proof of claim referred to herein, substantially in the form attached as Schedule “A” and including all supporting documentation, to be filed in connection with any Claims Process Claim;
- (w) **“Statutory Holdback”** means funds related to the services or materials supplied under a contract or subcontract and which were required to be withheld and released pursuant to and in accordance with the Act;
- (x) **“Town of Deer Lake Claim”** means the Claim of the Town of Deer Lake against the Debtors in respect to the paving construction project, pursuant to which the amount of \$57,070.50 in Statutory Holdback is being withheld;

- (y) **“Town of Humber Arm South Rodco Claim”** means the lien Claim of Rodco Mechanical (2014) Ltd. in connection with the Town of Humber Arm South project, in the amount of \$149,503.01;
- (z) **“Town of Fox Harbour Claim”** means the Claim of the town of Fox Harbour against the Debtors in respect to the town of Fox Harbour’s armour stone construction project, pursuant to which the amount of \$19,896.72 in Statutory Holdback and \$179,070.53 in progress payments are being withheld; and
- (aa) **“Western Surety”** means Western Surety Company

3. **THIS COURT ORDERS** that all references as to time herein shall mean local time in St. John’s, Newfoundland, Canada, and any reference to an event occurring on a Business Day shall mean prior to 5:00 p.m Newfoundland Standard Time on such Business Day unless otherwise indicated herein.

4. **THIS COURT ORDERS** that all references to the word “including” shall mean “including without limitation”, and that all references to the singular herein include the plural, the plural include the singular, and that any gender includes all genders.

5. **THIS COURT ORDERS** that the form and substance of each of the Proof of Claim, Notice of Determination of Claim and Notice of Objection, substantially in the forms attached as Schedules “A”, “B” and “C” respectively, to this Order are hereby approved. Notwithstanding the foregoing, the Monitor may, from time to time, make changes to such forms as the Monitor considers necessary or advisable.

MONITOR'S ROLE

6. **THIS COURT ORDERS** that the Monitor, in addition to its prescribed rights and obligations under the CCAA and under the Initial Order, shall administer this Claims Process and engage in the determination of the Claims Process Claims, and is hereby directed and empowered to take such actions and fulfill such other roles as are contemplated by this Order.

7. **THIS COURT ORDERS** that the Monitor is authorized to call for the Claims Process Claims.

8. **THIS COURT ORDERS** that (a) in carrying out the terms of this Order, the Monitor shall have all of the protections given to it by the CCAA, the Initial Order, this Order, and as an officer of the Court, (b) the Monitor shall incur no liability or obligation as a result of the carrying out of the provisions of this Order, except for claims based on gross negligence or wilful misconduct, (c) the Monitor shall be entitled to rely on the books and records of the Debtors and any information provided by the Debtors, all without independent investigation, and (d) the Monitor shall not be liable for any claims or damages resulting from any errors or omissions in such books, records or information or in any information provided by any Claimant, except for claims based on gross negligence or wilful misconduct.

9. **THIS COURT ORDERS** that the Monitor, with the consent of the Debtors is authorized to enter into settlement negotiations with a Claimant at any stage of this Claims Process and is further authorized to enter into agreements with such Claimant to resolve the applicable Claims Process Claims.

10. **THIS COURT ORDERS** that the Monitor shall, no later than two (2) Business Days after the date of this Order, send the Proof of Claim by electronic mail or courier to each of the Claimants and/or their legal counsel holding a Claims Process Claim.

11. **THIS COURT ORDERS** that the service of this Order on Claimants holding a Claims Process Claim is the good and sufficient service of the Claims Bar Date on the Claimants and no other notice or service needs to be given or made.

CLAIMS BAR DATE

12. **THIS COURT ORDERS** that the Claimants shall deliver to the Monitor a Proof of Claim, together with all relevant supporting documentation in respect of the Claims Process Claim on or before the Claims Bar Date.

13. **THIS COURT ORDERS** that those Claimants who do not deliver a Proof of Claim to the Monitor by the Claims Bar Date shall be forever extinguished and barred, shall be required to immediately remit to the Monitor any and all amounts being held by such Claimant in connection with their applicable Claims Process Claims and all such Claimants shall be deemed to have fully and finally released and discharged all such Claims Process Claims as against the Debtors and the Monitor.

PROOFS OF CLAIM

14. **THIS COURT ORDERS** that the Monitor shall maintain a list of all Proofs of Claim received by it, including the name of the Claimant, the amount claimed, and the status of the Claims Process Claims.

DETERMINATION OF CLAIMS

15. **THIS COURT ORDERS** that following the Claims Bar Date, the Monitor shall: (i) review the Proofs of Claim filed on or before the Claims Bar Date by Claimants and shall, after consultation with the Debtors and at the Monitor's discretion, determine either to allow, partially allow, partially disallow or entirely disallow the Claims Process Claims.

16. **THIS COURT ORDERS** that the Monitor may attempt to consensually resolve the amount of any asserted Claims Process Claims with the Claimant prior to partially allowing, partially disallowing or entirely disallowing such Claims Process Claims.

17. **THIS COURT ORDERS** that, where a Claims Process Claim is to be partially allowed, partially disallowed or entirely disallowed pursuant to the process contained in this Order, the Monitor shall deliver to the Claimant a written notice of such determination setting out the reasons for the determination (a "**Notice of Determination of Claim**") as soon as reasonably practicable.

RESOLUTION OF DISPUTES

18. **THIS COURT ORDERS** that in the event that a Claimant objects to the Monitor's determination of a Claims Process Claim, and intends to contest the Notice of Determination of Claim, such Claimant shall deliver written notice of its objection and a brief description of the grounds for such objection (a "**Notice of Objection**") so that such Notice of Objection is received by the Monitor no later than 5:00 p.m. on the day which is seven (7) days after the date the Notice of Determination of Claim is deemed to be received.

19. **THIS COURT ORDERS** that any Claimant that does not provide the Monitor with a Notice of Objection within the deadline set forth in paragraph 18 shall be deemed to have agreed

with the Notice of Determination of Claim pertaining to that Claimant's Claim Process Claim. Any Claim Process Claim, or any portion thereof, that is disallowed pursuant to a Notice of Determination of Claim, and in respect of which no Notice of Objection is received by the Monitor by the deadline set forth in paragraph 18, shall be forever extinguished, barred, discharged and released as against the Debtors and the Monitor without any further act or notification and the Claimant shall be required to immediately remit to the Monitor, on behalf of the Debtors, the amount of the Claims Process Claim as set out in the Notice of Determination of Claim

20. **THIS COURT ORDERS** that where a Claimant who receives a Notice of Determination of Claim agrees to same, or where the Claims Process Claim is otherwise determined in accordance with paragraph 19 of this Order, the value and status of such Claimant's Claim Process Claim shall be deemed to be as set out in the Notice of Determination of Claim or as determined in accordance with paragraph 19 of this Order, as the case may be, and such value and status, if any, shall constitute such Claimant's determined Claims Process Claim (a "**Determined Claim**").

21. **THIS COURT ORDERS** that where a Claimant provides the Monitor with a Notice of Objection within the deadline set forth in paragraph 18, the resolution of the applicable Claims Process Claim for which a Notice of Objection has been sent shall be referred to the Court for judicial determination pursuant to a timetable established by the Court;

NOTICES AND COMMUNICATIONS

22. **THIS COURT ORDERS** that, except as set out in this Order, any notice or communication (including Notices of Determination of Claims) to be given under this Order by the Monitor to a Claimant shall be in writing and may be delivered by prepaid ordinary mail, by courier, by delivery or electronic mail to the Claimant to such address or e-mail address, as

applicable, for such Claimant as shown on the books of the Debtors or as set out in such Claimant's Proof of Claim. Any such service and delivery shall be deemed to have been received: (i) if sent by ordinary mail, on the third Business Day after mailing within Newfoundland and Labrador, the fifth Business Day after mailing within Canada (other than within Newfoundland and Labrador) and the tenth Business Day after mailing internationally; (ii) if sent by courier or personal delivery, on the next Business Day following dispatch; and (iii) if delivered by email by 5:00 p.m. on a Business Day, on such Business Day, and if delivered after 5:00 p.m. or other than on a Business Day, on the following Business Day.

23. **THIS COURT ORDERS** that any document, notice or other communication (including, without limitation, Proofs of Claim) required to be delivered to the Monitor under this Order shall be in writing and, where applicable, substantially in the form provided for in this Order, and will be sufficiently delivered only if delivered to:

Grant Thornton Limited
in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

24. **THIS COURT ORDERS** that in the event that the day on which any notice or communication required to be delivered pursuant to the Claims Process is not a Business Day, then such notice or communication shall be required to be delivered on the next Business Day.

GENERAL

25. **THIS COURT ORDERS** that the Monitor may, from time to time, apply to this Court for advice and directions in connection with the discharge or variation of its powers and duties under this Order.

26. **THIS COURT HEREBY REQUESTS** the aid and recognition of any court, tribunal, regulatory or administrative body having jurisdiction in Canada or in the United States to give effect to this Order and to assist the Monitor and its agents in carrying out the terms of this Order. All courts, tribunals, regulatory and administrative bodies are hereby respectfully requested to make such orders and to provide such assistance to the Monitor, as an officer of this Court, as may be necessary or desirable to give effect to this Order, to grant representative status to the Monitor in any foreign proceeding, or to assist the Monitor and its agents in carrying out the terms of this Order.

27. **THIS COURT ORDERS** that the Monitor be at liberty, and is hereby authorized and empowered, to apply to any court, tribunal, regulatory or administrative body, wherever located, for the recognition of this Order and for assistance in carrying out the terms of this Order, and that the Monitor is authorized and empowered to act as a representative in respect of the within proceedings for the purpose of having these proceedings recognized in a jurisdiction outside Canada.

SCHEDULE A

PROOF OF CLAIM IN RESPECT OF CLAIMS AGAINST EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the "Debtors")

1. PARTICULARS OF CLAIMANT

Full Legal Name of Claimant: _____ (the "Claimant")
(the full legal or corporate name should be the name of the original Claimant)

Full Mailing Address of the Claimant:

Telephone Number of the Claimant: _____

Facsimile Number of the Claimant: _____

Contact Person of the Claimant: _____

Email Address of Contact Person: _____

Was the Claim sold or assigned to another party? ☐ Yes ☐ No

2. PROOF OF CLAIM

I, _____ [name of the Claimant or the Representative], do hereby
certify:

That I: ☐ am the Claimant; or
☐ hold the following position _____ of the
Claimant and having personal knowledge of all of the circumstances
connected with the Claim as described herein.

3. PARTICULARS OF CLAIM

	Amount	Currency	Claim Specification
Total \$			

Description of transaction, agreement or event giving rise or relating to the Claim. Please include contract, invoices, and evidence of preservation and perfection of lien (if applicable) along with any other relevant information:

If the Claim includes an amount for any accrued interest thereon and costs payable in respect thereof, state the basis for such interest and/or cost claim, the rate of interest, and provide evidence upon which the claim for interest and/or costs is being made:

If the Claim is contingent or unliquidated, state the basis and provide evidence upon which the Claim has been valued:

IF CLAIMANTS REQUIRE ADDITIONAL SPACE, PLEASE ATTACH A SCHEDULE HERETO. CLAIMANTS SHOULD PROVIDE PARTICULARS OF THE CLAIM AND COPIES OF ALL SUPPORTING DOCUMENTATION, INCLUDING AMOUNT AND DESCRIPTION OF TRANSACTION(S), AGREEMENT(S) OR LEGAL BREACH(ES) GIVING RISE TO THE CLAIM.

4. PARTICULARS OF ASSIGNEE(S) (IF ANY):

Full Legal Name of Assignee(s) of the Claim (if all or a portion of the Claim has been sold). If there is more than one assignee, please attach separate sheets with the following information (the "Assignee(s)")

Amount of Claim Assigned: \$ _____

Amount of Claim Not Assigned: \$ _____

Total Amount of Claim: \$ _____

(should equal total amount of Claim in Section 3 above)

Mailing Address of Assignee(s):

Telephone Number of the Assignee: _____

Facsimile Number of the Assignee: _____

Contact Person of the Assignee: _____

Email Address of Contact Person: _____

5. FILING CLAIMS:

The duly completed Proof of Claim together with supporting documentation must be returned and received by the Monitor, no later than 5:00 p.m. local St. John's time on March 27, 2023, to the email address or address listed below.

FAILURE TO FILE YOUR PROOF OF CLAIM BY SUCH DATE WILL RESULT IN YOUR CLAIM BEING FOREVER EXTINGUISHED AND BARRED AND YOU WILL BE PROHIBITED FROM MAKING OR ENFORCING A CLAIM AGAINST THE DEBTORS.

This Proof of Claim must be delivered by email, facsimile, personal delivery, courier or prepaid mail at the following address:

Grant Thornton Limited
in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

DATED the _____ day of _____ 2023.

(Signature of Witness)

(Signature of Claimant)

If the Claimant is not an individual, print name of Claimant, and name and title of authorized signatory:

Per: _____
Name: _____
Title: _____
I have the authority to bind the corporation

SCHEDULE B

NOTICE OF DETERMINATION OF CLAIM

To: _____ (the “Claimant”)

Date: _____

IN THE MATTER OF THE CCAA PROCEEDINGS OF EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the “DEBTORS”)

Take notice that Grant Thornton Limited., in its capacity as Monitor (in such capacity, the “Monitor”) appointed pursuant to the Order of Justice MacDonald dated October 5, 2022, has reviewed the Claim in respect of the above-noted Claimant and has assessed the Claim in accordance with the Claims Procedure Order of the Supreme Court of Newfoundland and Labrador dated February ●, 2023 (the “Claims Procedure Order”).

All capitalized terms not defined herein have the meaning given to such terms in the Claim Procedure Order.

The Monitor has reviewed your Claim in accordance with the Claims Procedure Order, and has made the following determination:

☐ Claim Allowed

Claim Determination

☐ Claim Partially Allowed/Claim Partially Disallowed

☐ Claim Disallowed

The Monitor has made the above-noted determination in respect of your Claim for the following reason(s):

Subject to further dispute by you in accordance with the Claims Procedure Order, your Claim will be allowed as follows:

Name of Claimant	Claim Amount per Proof of Claim	Amount of Claim Allowed (if any)
	\$	\$

IF YOU WISH TO DISPUTE THIS NOTICE OF DETERMINATION OF CLAIM AS SET FORTH HEREIN, YOU MUST TAKE THE STEPS OUTLINED BELOW.

The Claims Procedure Order provides that if you disagree with the determination of your Claim herein, you must deliver to the Monitor a completed Notice of Objection **before 5:00 p.m. on the day which is fourteenseven (147) days after the date the Notice of Determination of Claim is deemed to be received.**

If you do not dispute the determination of your Claim herein in accordance with the above instructions and the Claim Procedure Order, the amount of your Claim will be deemed to be accepted in the amount set forth herein.

If you have any questions or concerns regarding the Claims Procedure Order, please contact the Monitor directly.

DATED the _____ day of _____ 2023.

**Grant Thornton Limited, solely in its capacity as
Monitor of the Debtors.**

Per: _____
Name:
Title:

SCHEDULE C

NOTICE OF OBJECTION

IN THE MATTER OF THE CCAA PROCEEDINGS OF EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the “DEBTORS”)

To: Grant Thornton Limited, in its capacity as Monitor of the Debtors (the “**Monitor**”)

Date: the _____ day of _____ 2023

Claimant: _____ (the “**Claimant**”)

Pursuant to the Claims Procedure Order dated ●, 2023, the Claimant hereby gives notice that it disputes the Notice of Determination of Claim dated ●, 2023, issued by the Monitor.

The Claimant disputes the Claim as partially allowed, partially disallowed or disallowed in the said Notice of Determination of Claim as follows:

Amount of Claim determined by the Monitor as set out in the Notice of Determination of Claim	Amount of Claim per Claimant
\$	\$
\$	\$

Reason for the dispute *(attach copies of any supporting documentation)*

Address for service of this Notice of Objection:

Grant Thornton Limited

in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

THIS FORM AND ANY REQUIRED SUPPORTING DOCUMENTATION MUST BE RETURNED TO THE MONITOR BY REGISTERED MAIL, PERSONAL SERVICE, EMAIL (IN PDF FORMAT), FACSIMILE OR COURIER TO THE ABOVE-NOTED ADDRESS AND MUST BE RECEIVED BY THE MONITOR BEFORE 5:00 P.M. ON THE FOURTEENTH (14) CALENDAR DAY AFTER THE DATE THE NOTICE OF DETERMINATION OF CLAIM IS DEEMED TO BE RECEIVED.

DATED the _____ day of _____ 2023.

(Signature of Witness)

(Signature of Claimant)

If the Claimant is not an individual, print name of Claimant, and name and title of authorized signatory:

Per: _____
Name: _____
Title: _____
I have the authority to bind the corporation

Appendix C

Government of Newfoundland & Labrador
Claim on Project 12-21

SCHEDULE A

PROOF OF CLAIM IN RESPECT OF CLAIMS AGAINST EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the "Debtors")

1. PARTICULARS OF CLAIMANT

Full Legal Name of Claimant: Government of NL (the "Claimant")
(the full legal or corporate name should be the name of the original Claimant)

Full Mailing Address of the Claimant:

Civil Division - office of the Attorney General
Dept. of Justice + Public Safety, Gov. of NL
Confederation Bldg., 4th floor, East Block, P.O. Box 8700
St. John's, NL A1B 4J6

Telephone Number of the Claimant: (709) 729-1337

Facsimile Number of the Claimant: _____

Contact Person of the Claimant: David L. Hearn

Email Address of Contact Person: davidhearn@gov.nl.ca

Was the Claim sold or assigned to another party? ☐ Yes ☒ No

2. PROOF OF CLAIM

I, David L. Hearn [name of the Claimant or the Representative], do hereby
certify:

That I: ☐ am the Claimant; or
☒ hold the following position Solicitor of the
Claimant and having personal knowledge of all of the circumstances
connected with the Claim as described herein.

3. PARTICULARS OF CLAIM

Amount	Currency	Claim Specification
Total \$		<u>\$715,812.99</u>

Description of transaction, agreement or event giving rise or relating to the Claim. Please include contract, invoices, and evidence of preservation and perfection of lien (if applicable) along with any other relevant information:

Contract 12-21	Contract 45-20	Contract 46-21
LD - \$67,878.69	LD - \$209,325.00	LD - \$80,500.00
HB - \$96,242.03	HB - \$163,761.09	HB - \$48,106.18
details attached	details attached	details attached

If the Claim includes an amount for any accrued interest thereon and costs payable in respect thereof, state the basis for such interest and/or cost claim, the rate of interest, and provide evidence upon which the claim for interest and/or costs is being made:

If the Claim is contingent or unliquidated, state the basis and provide evidence upon which the Claim has been valued:

IF CLAIMANTS REQUIRE ADDITIONAL SPACE, PLEASE ATTACH A SCHEDULE HERETO. CLAIMANTS SHOULD PROVIDE PARTICULARS OF THE CLAIM AND COPIES OF ALL SUPPORTING DOCUMENTATION, INCLUDING AMOUNT AND DESCRIPTION OF TRANSACTION(S), AGREEMENT(S) OR LEGAL BREACH(ES) GIVING RISE TO THE CLAIM.

[Handwritten mark]

4. PARTICULARS OF ASSIGNEE(S) (IF ANY):

Full Legal Name of Assignee(s) of the Claim (if all or a portion of the Claim has been sold). If there is more than one assignee, please attach separate sheets with the following information (the "Assignee(s)")

Amount of Claim Assigned: \$ _____

Amount of Claim Not Assigned: \$ _____

Total Amount of Claim: \$ _____

(should equal total amount of Claim in Section 3 above)

Mailing Address of Assignee(s):

Telephone Number of the Assignee: _____

Facsimile Number of the Assignee: _____

Contact Person of the Assignee: _____

Email Address of Contact Person: _____

5. FILING CLAIMS:

The duly completed Proof of Claim together with supporting documentation must be returned and received by the Monitor, no later than 5:00 p.m. local St. John's time on March 27, 2023, to the email address or address listed below.

FAILURE TO FILE YOUR PROOF OF CLAIM BY SUCH DATE WILL RESULT IN YOUR CLAIM BEING FOREVER EXTINGUISHED AND BARRED AND YOU WILL BE PROHIBITED FROM MAKING OR ENFORCING A CLAIM AGAINST THE DEBTORS.

This Proof of Claim must be delivered by email, facsimile, personal delivery, courier or prepaid mail at the following address:

Grant Thornton Limited
in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

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Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

DATED the 27th day of March 2023.

(Signature of Witness)

(Signature of Claimant)

If the Claimant is not an individual, print name of Claimant, and name and title of authorized signatory:

Per:

DJH

Name: David Horn

Title: Solicitor

I have the authority to bind the corporation

Contract 12-21

1. On or about 30 April 2021, Edward Collins Contracting Ltd. (“**ECC**”) submitted a bid in for a contract for the replacement of culverts on the Trans-Canada Highway near Holyrood known as Project 12-21 PHP in response to a Tender issued by His Majesty in Right of Newfoundland and Labrador as represented by the Minister for the Department of Transportation and Infrastructure (“**GNL**”). ECC was the successful bidder and was awarded the contract pursuant to an award letter dated 31 May 2021 (“Contract 12-21”). The Contract Price of Contract 12-21 was \$1,561,209.76 (HST included).¹
2. Pursuant to Contract 12-21, work was to commence on 31 May 2021 and “be substantially performed within 2.5 months from the date of the notification of award of contract or **AUGUST 15, 2021, whichever is later**”.²
3. The relevant sections of the Contract for the purposes of these submissions are GC 9, GC 46 and SGC 3.
4. GC 9 of the Contract states:
 - 9.1 If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of the Contract, the Owner may notify the Contractor in writing that the Contractor is in default of the Contractor’s contractual obligations and instruct the Contractor to correct the default within five (5) working days of receiving the notice.
 - 9.2 If the correction of the default cannot be completed within the five (5) working days specified, the Contractor shall be considered to be in compliance with the Owner’s instructions if the Contractor:
 - a) commences the correction of the default within the specified time, and
 - b) provides the Owner with an acceptable schedule for such correction, and
 - c) completes the correction in accordance with such schedule.
 - 9.3 If the Contractor fails to comply with the provisions of GC 9.1 and GC 9.2 the Owner may, without prejudice to any other right or remedy the Owner may have, correct such default and may deduct the cost thereof from the payment then or thereafter due the Contractor.

¹ Contract 12-21, Agreement, Tab 1.

² Contract 12-21, Bid Form, para. 2, Tab 1.

5. GC 46 of the Contract states:

- 46.1 For the purposes of this General Condition
- a) The Work shall be deemed to be completed on the date that a Certificate of Substantial Performance referred to in GC 21.6 is issued, and
 - b) "Period of delay" means the number of days commencing on the day fixed by the Articles of Agreement for completion of the Work and ending on the day immediately preceding the day on which the Work is completed but does not include any day in which, in the opinion of the Owner, completion of the Work was delayed for reasons beyond the control of the Contractor.
- 46.2 If the Contractor does not complete the Work by the day fixed for its completion by the Articles of Agreement but completes it thereafter, the Contractor shall pay the Owner for liquidated damages.
- 46.3 The Liquidated Damage Daily Rate has been determined as the total of the department's costs associated with maintaining a presence and carrying out typical contract administration duties on the project which includes, but has not been limited to the following: salaries including overtime, for the staff complement on the project, travel costs for the normal staff complement on the project, vehicle rental charges, fuel for vehicles, and other equipment rental charges, such as internal survey equipment, which may be utilized on the project. **The Liquidated Damage Daily Rate for this project is indicated in the Supplementary General Condition Section of this document** (original emphasis).
- 46.4 Depending on the scope of work, there may be other direct or indirect costs to the department, which will also be deemed to be recoverable as supplemental liquidated damages including but not limited to consulting, third parties etc. These other costs shall be quantified and considered as additional to the Liquidated Damage Daily Rate noted above.
- 46.5 No bonus will be assessed for completing the project ahead of the given Contract Completion date.
- 46.6 Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree to the Liquidated Damage Daily Rate as being a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.
- 46.7 Liquidated Damages will be applied to the contract payment at the per diem amount specified for each calendar day of the Period of Delay, as defined above, not as a penalty but as Liquidated Damages. It will apply until work is considered no longer feasible in the construction season or the work is completed according to the definition of Substantial Performance. Paving work will be considered no longer feasible when asphalt paving is

terminated by the Department's Highway Specifications or an approved end of paving season extension date as communicated by the Department. Liquidated damages in a subsequent construction seasons will apply from the day after the Victoria Day holiday to when work is completed according to the definition of Substantial Performance.

- 46.8 In the event that a Contractor is awarded multiple contracts by Government within a construction season, Government reserves the right in its sole discretion to amend the Contract Completion Date if an approved amended execution plan and/or schedule allows more effective and efficient execution of all related multiple Contracts.

6. SGC 3 states:

Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree the Liquidated Damage Daily Rate of \$1,500 per diem is a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.

The Liquidated Damages Application Date for the purposes of applying liquidated damages shall be the earlier of the following:

- i. The date identified in Article A-1 of the Form of Agreement unless otherwise agreed in writing; or
- ii. No later than August 15, 2021 unless otherwise agreed in writing.

7. GNL states that due to ECC's failure to adhere to the Contract schedule and substantially complete the project as per the contract terms GNL applied the following amounts as liquidated damages pursuant to Contract 12-21 as follows:

August 16 to August 20, 2021	\$ 7,500.00
August 21 to September 20, 2021	\$40,500.00
September 21 to October 20, 2021	\$19,878.69. ³

Application of Liquidated Damages

8. GNL states that it applied Liquidated Damages pursuant to the provisions of the Contract as a result of ECC's failure to adhere to the contractual schedule, failure to substantially

³ Project Projection Estimates Nos. 2 and 3, Tab 2.

complete the Project by the date stipulated in the Contract, and failure to provide adequate reasons and/or supporting documentation to justify the delay in completing the Project.

9. On 11 June 2021, Chad O'Connell, Resident Engineer, Avalon Regional Engineering Office, Transportation and Infrastructure ("**O'Connell**") made an inquiry to Lorne Stuckey ("**Stuckey**") of Armtec, supplier of the tunnel plate liner used for the culverts on the Project, as to the current delivery times for an aluminum plate liner. Stuckey replied that Armtec would need 2 weeks to get a drawing package ready and that the plate liner could be on site approximately 5 weeks after drawings are approved. As O'Connell indicates to Regional Engineer for the Avalon Region Bill Skanes ("**Skanes**"), that is a shorter timeframe than the 12 weeks as indicated by ECC at the pre-construction meeting.⁴
10. On 16 July 2021, O'Connell emailed Josh Collins of ECC ("**Collins**") approving the shop drawings for the tunnel plate liner.⁵
11. On 11 August, 2021, Bill Hillier, Director, TI Highway Design and Construction ("**Hillier**"), wrote to Collins requesting a proposed global schedule for ECC's ongoing projects with GNL. Hillier clearly indicated to Collins that GNL would be applying Liquidated Damages if schedule completions were not met. Hillier writes:

As an FYI the Department is applying LD's if schedule completions are not met. When there are multiple awards there is an ability to modify at the sole discretion of the Department (as per the contract SGC). If that's a potential it is important to do that proactively. It's not a given but sometimes this will be considered. It is not typical to allow extensions to the following year except in special situations.⁶
- Collins provided the proposed global schedule on 19 August 2021.
12. On 16 August 2021 O'Connell wrote to Collins expressing confusion over the shop drawings and seeking clarification as to who was actually dealing with this issue. Collins responded stating there had been another revision submitted and requesting it to be reviewed and returned.⁷

⁴ Email correspondence between O'Connell and Skanes, and O'Connell and Stuckey, 11 June 2021, Tab 3.

⁵ Email correspondence from O'Connell to Collins, 16 July 2021, Tab 4.

⁶ Email correspondence between Hillier and Collins, 11 August 2021, Tab 5.

⁷ Email correspondence between O'Connell and Collins, 16 August 2021, Tab 6.

13. On 13 September 2021 Lorne Stuckey of Armtec emailed O'Connell stating the following:

Are you able to update me with what's going on with Edward Collins Tunnel Liner Plate job?

I gave the contractor an extended delivery date on the Aluminum structure and I haven't heard from them since. Do you know if they are still planning to proceed with the Aluminum TLP, or have they switched the job to an alternate material?

I need to know since we are actively trying to source Aluminum plate.

O'Connell responded to Stuckey's email stating he did not have much information and expressing concern regarding that lack of information from ECC. O'Connell forwarded this email exchange to Skanes who emailed Stuckey directly requesting when ECC placed the order for the Aluminum tunnel plate liner and when exactly sourcing aluminum became an issue. Stuckey replied that he was not able to "divulge" that information.⁸

14. On 13 September 2021 Collins forwarded O'Connell an alternate proposal for the pipe installation for the Project indicating it would take six weeks for delivery if approved. O'Connell replied on 16 September stating that the proposed alternate could not be used and provided reasons for this determination.⁹

15. On 28 September 2021 O'Connell replied to an email from Skanes containing a revised global schedule from ECC expressing his concerns regarding the proposed schedule and the work on the Project generally. In particular, with respect to the pipe delivery, O'Connell writes:

[ECC] say they are awaiting pipe delivery until Jan 2022 but I have seen no back up on this and no further correspondence returned to me since I told them a HDPE option was not acceptable. According to aluminum tunnel plate suppliers there should be no reason the pipe will be until Jan 2022 to be delivered. It should have been ordered in May or June 2021 for the project.¹⁰

16. In an email exchange between O'Connell, Skanes and Hillier dated 4-5 October 2021, GNL discussed the current status of the Project and whether Liquidated Damages should

⁸ Email correspondence between O'Connell and Stuckey, and email correspondence between Skanes and Stuckey, 13 September 2021, Tab 7.

⁹ Email correspondence between Collins and O'Connell, 13-16 September 2021, Tab 8.

¹⁰ Email correspondence between O'Connell and Skanes, 28 September 2021, Tab 9.

be applied against ECC as a result of the delay in completing the Project. The main concern raised was delay in the delivery of the remaining pipe to be installed. ECC had advised that the pipe could not be delivered until January 2022 due to the problems in sourcing materials. However, GNL raised many questions concerning the reasons provided and the lack of information forthcoming from ECC regarding details about the order and delivery time of the pipe as well as efforts made in sourcing alternate options. GNL expressed concern over the lack of documentation supporting ECC's claims regarding the delayed delivery despite repeated requests from GNL. Hillier concluded that if adequate supporting documentation is not provided by ECC regarding the delay in the delivery of the pipe then GNL will have no choice but to apply Liquidated Damages, but leaves the option open to reconsider if circumstances allow.¹¹

17. As discussed with Hillier and Skanes, O'Connell emailed Collins requesting supporting documentation "regarding the ordering and delivery of the aluminum pipe" on 5 October 2021. Collins replied on the same day that he would provide the information by the end of the week and on 12 October 2021 Collins provided numerous portions of text conversations with Stuckey of Armtec in response to O'Connell's request. On 12 October 2021 Skanes responded to Collins stating that the documentation was inadequate and does not provide the information requested confirming the ordering and delivery of the pipe. At this point, Skanes gives notice to Collins that unless the information is provided, that being confirmation that an order was placed for the pipe "in a timely fashion" GNL would be applying Liquidated Damages pursuant to the contract. Collins responded to Skanes attaching a quote for the materials from Armtec as evidence that the materials were all ordered at the same time, to which Skanes responded that the quote provided was dated prior to the close of the tender and was "likely used in the preparation of the tender bid". Skanes then explicitly requests that ECC provide a "dated order invoice for the tunnel plate liner, written confirmation from the supplier of the delivery date at the time of the order, and a revised schedule to complete the project" and any correspondence confirming other suppliers were sourced for materials once ECC realized the delivery date would not be met.¹²

¹¹ Email correspondence between Hillier, Skanes and O'Connell, 4-5 October 2021, Tab 10.

¹² Email correspondence between Collins, O'Connell and Skanes, 5-12 October 2021, Tab 11.

18. On 22 November 2021 Collins emailed GNL and advised that he had heard from Armtec and in order to receive the pipe in the New Year it would have to be thicker than originally designed and requested confirmation that this was satisfactory. O'Connell replied on 23 November 2021 asking if the pipe had been ordered or was ECC looking for approval, to which Collins replied "this has been ordered" and approval of drawings was all that was being sought.¹³
19. GNL and ECC met on 2 February 2022 following which GNL made a proposal on 9 February 2022 to ECC to try and resolve outstanding issues with ECC's contracts with GNL, including Contract 12-21. On 7 March 2022 GNL wrote to ECC seeking a response to the proposal. On 14 March 2022 ECC wrote to GNL requesting removal of all remaining work from its projects with GNL, including Contract 12-21, to which GNL responded on 25 March 2022 that it was not prepared to delete all remaining scope of work from the GNL projects and requested a work plan on how ECC would be able to complete the projects by 31 August 2022. No plan was ever received from ECC.
20. On 8 April 2022 GNL issued a Notice of Default to ECC for Contract 12-21 due to "lack of performance and the lack of a plan for successful completion of the Work" and required ECC to provide a detailed plan within five working days and no later than 16 April 2022 to "demonstrate how ECC will successfully complete the work."¹⁴
21. In April 2022 counsel for ECC and counsel for GNL exchanged correspondence regarding the GNL projects including Contract 12-21. In preparation for a meeting between the Parties and their counsel, GNL reviewed ECC's position as put forward by its counsel. On 19 April 2022, Skanes provided a succinct overview of the issue with Contract 12-21, that being the ordering and delivery of the pipe:

We were told at the pre-construction meeting it would be around late August that they would be installing pipe. The pre-construction meeting was on June 10th and they told us it was a 10-12 week delivery on the pipe.

On June 11th, the supplier, Armtec, informed us it would be 2 weeks to get the shop drawings prepared and then the pipe will be on site 5 weeks after they were approved.

¹³ Email correspondence between Collins and O'Connell, 22 November 2021 to 22 February 2022, Tab 12.

¹⁴ Contract 12-21 Default Letter, 8 April 2022, Tab 14

The original shop drawings were received on July 9th, 2021 and approved on July 16th, 2021. ECC submitted revised drawings on July 21, 2021. As far as I could tell, the only difference was they changed the title on the drawings and made some very minor note changes.

We asked ECC multiple times if the pipe was ordered and when it will arrive on site. In August, they inform us that the delivery on the pipe will now be January 2022, because they can't source aluminum.

On September 10th, 2021 we received a request for an alternate pipe instead of the aluminum tunnel liner. We denied this due to reduced end area capacity on Sept 16, 2021. What is curious, is that on Sept 13, 2021 we received an inquiry from Armtec, asking us if we knew if ECC was still going to order the pipe.

November 22, 2022 ECC requests to change the thickness of the pipe. So it still wasn't ordered. Armtec informed them they could meet the schedule and fabricate it over the winter if this change was implemented. January 2022, TI approves the request to change the thickness of the pipe.

The pipe is still not ordered. And now we are looking at Aug 2022 installation? They haven't met a schedule yet, so this will be Sept / Oct ... and if we get weather we are into 2023.

The Department is not responsible for them sourcing supplies. But every step of the way we were led to believe that could meet the schedules put forth.

O'Connell replied expressing concerns regarding the state of the existing culvert and insisting that "this pipe needs immediate attention", attaching pictures of the deteriorating culvert.¹⁵

22. On 29 April 2022 in response to ECC issuing a Notice of Default against GNL for withholding Liquidated Damages on Contract 12-21, GNL wrote to ECC stating that ECC was paid in full for work completed on the Project as per Contract 12-21, and stated that pursuant to the Contract GNL "has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied."¹⁶

23. It is GNL's position that the ECC failed to adhere to the contractual schedule and failed to source materials in a timely fashion in order to maintain the contract schedule. GNL states

¹⁵ Email correspondence between Skanes, Hillier and O'Connell, 19-20 April 2022, Tab 15.

¹⁶ ECC Notice of Default, GNL Response to ECC Notice of Default, Tab 16.

that the sourcing of materials is the responsibility of ECC and that the delay in completion of Contract 12-21 rests solely with ECC. As a result, GNL exercised its contractual right to apply liquidated damages as a result of ECC's failure to substantially complete Contract 12-21.

Holdback

24. On 9 November 2022 ECC registered a lien at the Mechanics' Lien Registry for the Province of Newfoundland and Labrador claiming a lien against the holdback of Contract 12-21. ECC states that the holdback amount \$201,175.00 and includes the liquidated damages claimed above.
25. GNL disputes the validity of this lien and the amount of the holdback claimed in the Statement of Claim filed pursuant to the Mechanics' Lien Act. GNL is not aware of any outstanding subcontractor claims with respect to Contract 12-21 and ECC failed to file a Certificate of Substantial Performance with respect to the Contract that would enable the holdback payable by GNL. The amount claimed as the holdback by ECC grossly exceeds the actual amount of the remaining holdback on Contract 12-21 and is comprised of the liquidated damages claimed by ECC as set out above as well as statutory holdback funds.
26. GNL states that ECC has been paid all amounts owing under Contract 12-21 as set out above and that the Statement of Claim accompanying the Lien Claim contains no cause of action and is without merit. ECC has no valid claim to holdback funds under Contract 12-21.



TRANSPORTATION AND INFRASTRUCTURE

CONTRACT BOOK

PROJECT NO. 12-21 PHC

Noon: APRIL 30, 2021

PROJECT NAME

Culvert Replacements & Rehabilitations on the TCH in the Avalon Region
Part "A" – Replacement of Trout Pond 1200mm CSP on the TCH km 29.5; Part "B" -
Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH km 35.3; Part "C"
- Replacement of Finnies Pond 1800mm CSP on the TCH km 44.2; Part "D" –
Culvert Rehabilitation of Four Mile Pond 2400mm CSP on the TCH km 48.5; Part "E"
– Replacement of Unnamed Stream 1200mm CSP on the TCH km 55.0

CONTRACTOR: EDWARD COLLINS CONTRACTING LTD

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
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2	Tender Form
3	Award Letter
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5	Declaration of Equipment Form
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7	Construction Schedule Form
8	Instructions to Bidders
9	Supplementary General Conditions
10	General Conditions

LIST OF PROJECT PLANS

LOCATION PLANS (3)

PART A – PLAN & PROFILE

PART B – ELEVATION VIEW

PART C – PLAN & PROFILE

PART D – ELEVATION VIEW

PART E – ELEVATION VIEW

Section One

Form of
Agreement

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
for use when a Bid Price forms the
basis of payment and to be used only
with the Contract Documents of the Contract**

THIS AGREEMENT made on the 31st of May in the year two thousand and twenty one.

BY AND BETWEEN

Her Majesty the Queen in Right of Newfoundland and Labrador as represented by the Minister of Transportation and Infrastructure acting pursuant to the Executive Council Act, SNL 1995 c. E-16.1.

hereinafter called the "Owner"

AND EDWARD COLLINS CONTRACTING LTD

hereinafter called the "Contractor"

WITNESSETH: that the Owner and Contractor undertake and agree as follows:

ARTICLE 1: THE WORK

The Contractor shall:

- (a) perform all the Work required by the Contract Documents for **PROJECT 012-21PHC**. (See Bid Form for Description) which have been signed by both the parties,
- (b) do and fulfil everything indicated by this Agreement, and
- (c) commence the Work by the 31st day of May, 2021 and substantially perform the Work of this Contract as certified by the Owner's Representative by the **15th August, 2021.**

ARTICLE 2: CONTRACT DOCUMENTS

The following is an exact list of the Contract Documents referred to in Article A-1:
(SEE SPECIFICATION INDEX FOR LIST OF DOCUMENTS AND DRAWINGS).
See Attached

ARTICLE 3: CONTRACT PRICE

THE CONTRACT PRICE IS \$ One Million Five Hundred and Sixty One Thousand Two Hundred and Nine Dollars and Seventy Six Cents (\$1,561,209.76) (HST INCLUDED) Canadian funds which price shall be subject to adjustments as may be required in accordance with the General Conditions of the Contract.

ARTICLE 4: PAYMENT

- (a) Subject to applicable legislation and, where such legislation does not exist or apply, in accordance with such prescribed regulations or industry practice respecting holdback percentages and in accordance with the provisions of the General Conditions of the Contract, the Owner shall:
 - (1) make monthly payments to the Contractor on account of the Contract Price. The amounts of such payments shall be as certified by the Owner; and
 - (2) upon Substantial Performance of the work as certified by the Owner pay to the contractor any unpaid balance of holdback monies then due; and
 - (3) upon Total Performance of the Work as certified by the Owner pay to the contractor any unpaid balance of the Contract Price then due.
- (b) If the Owner fails to make payments to the Contractor as they become due under the terms of this Contract or in any award by a court, interest at the rate and in the manner specified in GC21-Certificates and Payments, shall become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

ARTICLE 5: ADDRESSES FOR NOTICES

All communications in writing between the parties or between them and the Owner shall be deemed to have been received by the addressee if delivered to the individual or to a member of the firm or to an officer of the Corporation for whom they are intended or if sent by post addressed as follows:

The Owner at: Tendering & Contracts, Dept. of Transportation & Infrastructure
 Ground Floor-West Wing, East Block, Confederation Bldg.
 P.O. Box 8700, St. John's, NL A1B 4J6

The Contractor at: Edward Collins Contracting Ltd.
 P.O. Box 51
 Jerseyside, NL AOS 2G0

ARTICLE 6: SUCCESSION

The General Conditions of the Contract hereto annexed, and all other aforesaid Contract Documents, are all to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties and subject to law and the provisions of the Contract Documents shall ensure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors and assigns.

IN WITNESS WHEREOF the parties hereto have executed this Agreement under their respective corporate seals and by the hands of their proper officers hereunto duly authorized.

SIGNED, SEALED AND DELIVERED
in the presence of:

OWNER:

CONTRACTOR

SIGNED

SIGNED

NAME AND TITLE

NAME AND TITLE

DATE

DATE

CORPORATE SEAL

SIGNED / WITNESSED

NAME AND TITLE

DATE

N.B. Where any legal jurisdiction, local practice or client requirement calls for proof of authority to execute this document, proof of such authority in the form of a certified copy of a resolution naming the person or persons in question as authorized to sign the Agreement for and on behalf of the Corporation or Partnership, should be attached.

Section Two

Tender Form

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Open Call for Bids
Bid Form

Bid for. Culvert Replacements & Rehabilitations on the TCH in the Avalon Region
Part "A" – Replacement of Trout Pond 1200mm CSP on the TCH km 29.5; Part "B" -
Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH km 35.3; Part "C" -
Replacement of Fannies Pond 1800mm CSP on the TCH km 44.2; Part "D" – Culvert
Rehabilitation of Four Mile Pond 2400mm CSP on the TCH km 48.5; Part "E" –
Replacement of Unnamed Stream 1200mm CSP on the TCH km 55.0

To: **Tendering & Contracts (Contract Administrator)**
Ground Floor, Confederation Building, East Block
P.O. Box 8700
St. John's, NL, A1B 4J6

From: *EDWARD COLLINS CONTRACTING LTD.*

1. Having carefully examined the site of the proposed work and all conditions affecting such, as well as the Contract Documents including the Specifications, all Drawings and all Amendments and hereby acknowledge the requirements of the Instructions to Bidders,

WE, THE UNDERSIGNED, offer to furnish all necessary Labour, materials, superintendence, plant, tools and equipment, and everything else required to perform expeditiously and complete in a satisfactory manner the work for the sum as indicated on Appendix A of this Bid Form.

2. The Work will be substantially performed within 2.5 months from the date of notification of award of contract or AUGUST 15, 2021, whichever is later.
3. WE hereby acknowledge receipt of amendments issued related to this procurement.
4. In order for a Bid to be valid, it must be signed by duly authorized officials as indicated in the Instructions to Bidders.

Transportation and Infrastructure

SIGNATURE OF BIDDER

Firm Name: EDWARD COLLINS CONTRACTING LTD.

Address: P.O. Box 51 JERSEY SIDE, NL

Postal Code: A0B 2G0 E-Mail: JOSEPH - 56 @ ICLOW.COM

Phone # 709-227-5509.

[Signature]
Signing Officer
JOSEPH COLLINS (V.P.)

Name and Title (Print)

APRIL 30/2021

Date

Corporate Seal



Signing Officer

Name and Title (Print)

Date

[Signature]
Witnessed by

Karen Whittle - Office Manager
Name and Title (Print)

April 30, 2021

Date

Section Three

Award Letter



Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Deputy Minister

MAY 31 2021
CON/2021/0432

Edward Collins Contracting Ltd
P.O. Box 51
Jerseyside, NL
A0B 2G0

Re: 012-21PHC - Culvert Replacements & Rehabilitations on the TCH in the Avalon Region

Part "A" – Replacement of Trout Pond 1200mm CSP on the TCH km 29.5
Part "B" - Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH km 35.3
Part "C" - Replacement of Finnies Pond 1800mm CSP on the TCH km 44.2
Part "D" – Culvert Rehabilitation of Four Mile Pond 2400mm CSP on the TCH km 48.5
Part "E" – Replacement of Unnamed Stream 1200mm CSP on the TCH km 55.0

I am pleased to inform you that your bid for the above noted project in the amount of \$1,561,209.76 (HST Included) has been accepted, subject to you meeting the conditions listed below. You are advised that Government is subject to the Harmonized Sales Tax (HST) and HST must be added to each billing as a line item. (HST Registration #R107442683).

Please be advised that this acceptance is conditional upon our receipt of the following documents within two (2) weeks of the date of this correspondence to the Manager of Tendering and Contracts, Department of Transportation and Infrastructure, at the mailing address in the footer below:

- A completed certificate of insurance (enclosed);
- A performance security and a labour & materials security;

As contractor, you are responsible in ensuring that the work is carried out as outlined in the tender specifications. Where required, no work is to commence until a Site Specific Safety Plan has been submitted and approved.

A copy of the Agreement between Owner and Contractor will be forwarded via separate correspondence at a later date. I take this opportunity to remind you that it is the contractor's responsibility to ensure familiarity and compliance with the contract specifications and detailed terms and conditions. Once received, please have the Agreement Between Owner and Contractor signed and sealed by your company and returned to Tendering and Contracts at the below noted address within two (2) weeks. When the document has been counter-signed, an electronic copy will be forwarded to you for your records.

Please note that your bid security will be retained until all conditions are met and the documents are received. No work is to start and payments will not be made until the above noted conditions are met documents are received at Tendering and Contracts and the approval of the Department's designated representative is provided.



In the meantime, please contact our Regional Engineer, Bill Skanes at (709) 729-0135, Transportation and Infrastructure, Avalon Region, concerning this contract.

Sincerely,

A handwritten signature in black ink, appearing to read "Cory Grandy".

CORY GRANDY
Deputy Minister

"Don't Learn By Accident"

encl: Certificate of Insurance Form

cc. William Hillier, Director, Highway Design & Construction, TW
Bill Skanes, Regional Engineer, Avalon Region
Loyola Power, Director, Occupational Health & Safety
David Legge, Occupational Health & Safety, TW
Donald Stone, Accounts Payable, TW

CERTIFICATE OF INSURANCE

DESCRIPTION & LOCATION OF WORK: Culvert Replacements & Rehabilitations on the TCH in the Avalon Region
 Part "A" – Replacement of Trout Pond 1200mm CSP on the TCH km 29.5;
 Part "B" - Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH km 35.3;
 Part "C" - Replacement of Fannies Pond 1800mm CSP on the TCH km 44.2;
 Part "D" – Culvert Rehabilitation of Four Mile Pond 2400mm CSP on the TCH km 48.5;
 Part "E" – Replacement of Unnamed Stream 1200mm CSP on the TCH km 55.0

PROJECT NO: 012-21PHC	AWARD DATE: May 31st, 2021	VALUE: \$1,561,209.76 (HST Incl.)
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INSURER: Northbridge General Insurance Corporation (Section 1.1 – Section 3)

INSURER: Certain Underwriters at Lloyd's (Section 6)

INSURER ADDRESS: 1801 Hollis Street, Suite 900, Halifax, NS B3J 3N4

BROKER: AON Reed Stenhouse Inc.

BROKER ADDRESS: 125 Kelsey Drive, Suite 100, St. John's, NL A1B 0L2

INSURED NAME OF CONTRACTOR: Edward Collins Contracting Ltd.

CONTRACTOR ADDRESS: P O Box 51, Jerseyside, NL A0B 2G0

ADDITIONAL INSURED (Excluding Automobile Liability Policy)

✓ The OWNER: "Her Majesty the Queen in Right of the Province of NL as represented by the Minister of Transportation & Infrastructure, Dept. of Transportation & Infrastructure, P.O. Box 8700, St. John's, NL., A1B 4J6, Attn: Tendering & Contracts

✓ The Occupant/Operator of the Property:

✓ Project Consultants of the OWNER: (excluding professional liabilities)

This document certifies that the following policies of insurance and indicated coverage are at present in force subject to the terms, conditions and exclusions as contained therein covering the operations of the insured in connection with the above noted contract made between the named insured and the Owner.

POLICY TYPE	NUMBER	INCEPTION DATE	EXPIRY DATE Y/M/D	LIMITS OF LIABILITY
1.1 COMMERCIAL GENERAL LIABILITY or 1.2 WRAP-UP LIABILITY (Including where indicated) A. BLASTING B. PILE DRIVING OR CAISSON WORK C. REMOVAL OR WEAKENING OF SUPPORT	CBC 0912261	2020/08/15	2021/08/15	\$2,000,000 Minimum
2A. BUILDERS' RISK "BROAD FORM" or 2B. INSTALLATION FLOATER "BROAD FORM" or 2C. PIERS, WHARVES, & DOCKS RIDER	Not required			
3. AUTOMOBILE LIABILITY INSURANCE	CBC 0912261	2020/08/15	2021/08/15	\$2,000,000 Minimum
4. AIRCRAFT AND/OR WATERCRAFT WATERCRAFT LIABILITY (IF APPLICABLE)	Not required			\$2,000,000 Minimum
5. AIRPORT CONTRACTORS LIABILITY	Not required			\$5,000,000.00 Minimum
6. ENVIRONMENTAL IMPAIRMENT LIABILITY	20123308	2020/10/25	2021/08/15	\$2,000,000 Minimum
The Insurer will endeavour to notify the Owner and Her Majesty, as defined above, in writing, thirty (30) days prior to cancellation, termination or material change of any policy.				
NAME OF INSURER'S OFFICER or AUTHORIZED REPRESENTATIVE : Aon Reed Stenhouse Inc.	SIGNATURE: <i>Aon Reed Stenhouse Inc</i>		Date: June 2 nd , 2021	
			Tel.: 709-739-1040	
			Email: dianne.buckle@aon.ca	
Issuance of this certificate shall not limit or restrict the right of the Owner to request at any time duplicate certified copies of said insurance policies.				

Section Four

Engineering Verified Unit Price Table

UNIT PRICE TABLE
HIGHWAYS

NO.	TENDER ITEM	Unit	Estimated Quantity	Unit Price	Amount
CARRIED FORWARD \$					
0 General					
0(a)	Mobilization & Demobilization Bid Limits Apply - See SGC 25	Lump-Sum	1	BID THIS ITEM	20,000. ⁰⁰
0(c)	Accommodation of Traffic See SGC 15	Lump-Sum	1	BID THIS ITEM	20,000. ⁰⁰
0(d)	Contractor Safety Representative (CSR) SEE SGC 25	Lump-Sum	1	BID THIS ITEM	5,000. ⁰⁰
6 Excavation for Foundations					
6(b)	Other Material	Cubic Meter	6900	5. ⁰⁰	34,500. ⁰⁰
9 Rip Rap Treatment					
9(f)	Hydraulic Class II (500 mm Diameter)	Cubic Meter	40	50. ⁰⁰	2,000. ⁰⁰
9(g)	Hydraulic Class III (800 mm Diameter)	Cubic Meter	30	50. ⁰⁰	1,500. ⁰⁰
12 Selected Granular Base Course					
12(a)	Granular "A"	Tonne	455	25. ⁰⁰	11,375. ⁰⁰
12(b)	Granular "B"	Tonne	1300	25. ⁰⁰	32,500. ⁰⁰
14 Storage or Disposal of Old Asphaltic Pavement					
14(b)	Disposal of Old Asphaltic Pavement	Cubic Meter	160	5. ⁰⁰	800. ⁰⁰
15	Tack Coat SEE SGC 25	Square Meter	1200	0.50	600. ⁰⁰
16 Hot Mix Asphaltic Concrete See SGC 10 & 25					
16(a)	Hot Asphaltic Base Course	Tonne	192	110. ⁰⁰	21,120. ⁰⁰
16(b)	Hot Asphaltic Surface Course	Tonne	300	110. ⁰⁰	33,000. ⁰⁰
16(g)	Liquid Asphalt (58-28)	Tonne	31.9	1100. ⁰⁰	35,090. ⁰⁰
16(j)	Blending Sand	Tonne	73.8	30. ⁰⁰	2,214. ⁰⁰
17 Supply & Installation of Guide Rail SEE SGC 11					
17(a)	Standard Type Guide Rail	Linear Meter	114.3	79. ⁰⁰	9,029. ⁷⁰
17(b)	Standard Type Buried Ends	Each	2	800. ⁰⁰	1,600. ⁰⁰
21	Contingency	Lump-Sum	1	\$ 12,500.00	\$ 12,500.00
28 Disposal of Culvert or Pipe SEE SGC 12					
28(c)	> 1000mm	Linear Meter	155.5	10. ⁰⁰	1,555. ⁰⁰
35	Cold Planing SEE SGC 13	Square Meter	1200	1. ⁰⁰	1,200. ⁰⁰
38 Salvage & Reinstallation of Guide Rail SEE SGC 11					
38(a)	Salvage & Reinstallation of Guide Rail with New Posts	Linear Meter	167.6	50. ⁰⁰	8,380. ⁰⁰

S.C.
A.M. 3/4/21253,963.⁷⁰

**UNIT PRICE TABLE
HIGHWAYS**

NO.	TENDER ITEM	Unit	Estimated Quantity	Unit Price	Amount
CARRIED FORWARD \$					253,963.⁷⁰
42 Landscaping					
42(a)	Hydroseeding	Square Meter	450	5.⁰⁰	2250.⁰⁰
42(b)	Lime for Hydroseeding	Tonne	0.3	100.⁰⁰	30.⁰⁰
42(c)	Soil for Hydroseeding	Square Meter	450	5.⁰⁰	2250.⁰⁰
43 Supply & Installation of Fish Baffles					
43(a)	Reinforced Concrete Baffles SEE SGC 25	Cubic Meter	5	3500.⁰⁰	17,500.⁰⁰
47 Supply Fill in Place SEE SGC 14					
47(c)	Supply Rock Fill in Place	Tonne	5070	14.⁰⁰	70,980.⁰⁰
100	Salvage and Reinstall Hydraulic Rip Rap (all sizes) SEE SGC 16	Each	180	25.⁰⁰	4,500.⁰⁰
101	Design, Supply & Install 1200mm culvert rehabilitation with HDPE Liner SEE SGC 17	Linear Meter	61	2000.⁰⁰	122,000.⁰⁰
102	Design, Supply & Install 2400mm Culvert Rehabilitation with Aluminum Tunnel Plate Liner SEE SGC 18	Linear Meter	46	7,500.⁰⁰	345,000.⁰⁰
121 Supply and Install Culvert Outlet Energy Dissipator SEE SGC 19					
121(a)	Hydraulic Rip Rap Class II (500mm Diameter)	Cubic Meter	40	100.⁰⁰	4,000.⁰⁰
121(b)	Hydraulic Rip Rap Class III (800mm Diameter)	Cubic Meter	50	100.⁰⁰	5,000.⁰⁰
121(c)	Non-Woven geotextile membrane	Square Meter	60	100.⁰⁰	6,000.⁰⁰
122 Supply and Install Round Polymer Laminated CSP SEE SGC 20					
122(a)	1800mm (min. thickness = 2.0mm)	Linear Meter	51	3100.⁰⁰	158,100.⁰⁰
122(b)	2400mm (min. thickness = 2.8mm)	Linear Meter	48	4000.⁰⁰	192,000.⁰⁰
122(c)	1400mm (min thickness = 2.0mm)	Linear Meter	58	3000.⁰⁰	174,000.⁰⁰

Total Estimated Tender carried forward to Appendix A of the Bid Form

HST 15% of above

Total Estimated Tender Including HST Carried Forward to Appendix A of the Bid Form

1,357,573.⁷⁰
203,636.⁰⁶
1,561,209.⁷⁶



BID

No. 533,353

Bond Amount 10% of tender

EDWARD COLLINS CONTRACTING LIMITED as Principal, hereinafter called the Principal, and **WESTERN SURETY COMPANY** a corporation created and existing under the laws of Canada and duly authorized to transact the business of Suretyship in all provinces and territories of Canada, as Surety, hereinafter called the Surety, are held and firmly bound unto **HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF NEWFOUNDLAND AND LABRADOR AS REPRESENTED BY THE DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE** as Obligee, hereinafter called the Obligee, in the amount of **TEN PERCENT OF TENDER** (10% of tender) lawful money of Canada, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS, the Principal has submitted a written bid to the Obligee, dated 30th day of April, in the year 2021 for 12-21 PHC - Culvert Replacements & Rehabilitations on the TCH in the Avalon Region Part "A" - Replacement of Trout Pond 1200mm CSP on the TCH km 29.5; Part "B" - Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH km 35.3; Part "C" - Replacement of Finnies Pond 1800mm CSP on the TCH km 44.2; Part "D" - Culvert Rehabilitation of Four Mile Pond 2400mm CSP on the TCH km 48.5; Part "E" - Replacement of Unnamed Stream 1200mm CSP on the TCH km 55.0, Soldier's Pond, Newfoundland and Labrador.

The condition of this obligation is such that if the Principal shall have the bid accepted within the time period prescribed in the Obligee's bid documents, or, if no time period is specified in the Obligee's bid documents, within Sixty(60) days from the closing date as specified in the Obligee's bid documents, and the Principal enters into a formal contract and gives the specified security, then this obligation shall be void; otherwise, provided the Obligee takes all reasonable steps to mitigate the amount of such excess costs, the Principal and the Surety will pay to the Obligee the difference in money between the amount of the bid of the Principal and the amount for which the Obligee legally contracts with another party to perform the work if the latter amount be in excess of the former.

The Principal and Surety shall not be liable for a greater sum than the Bond Amount.

It is a condition of this bond that any suit or action must be commenced within seven (7) months of the date of this Bond.

No right of action shall accrue hereunder to or for the use of any person or corporation other than the Obligee named herein, or the heirs, executors, administrators or successors of the Obligee.

IN WITNESS WHEREOF, the Principal and the Surety have Signed and Sealed this Bond dated 29th day of April, in the year 2021.

SIGNED and SEALED

in the presence of

EDWARD COLLINS CONTRACTING LIMITED
Principal

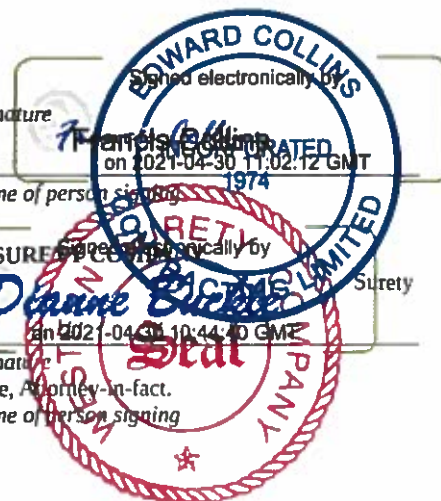
Signature

Name of person signing

WESTERN SURETY COMPANY
Surety

Signature

Dianne Buckle, Attorney-in-fact.
Name of person signing



Copyright 2002
Canadian Construction Documents Committee

(CCDC 220 – 2002 has been approved by the Surety Association of Canada)

To verify hardcopy, click on SignatureMaster™ website "Verify Document" link, enter Document Key: 56A404FF-0D3C9BBB-D40CCCC7-E49880B1-753339B4

Code	Description	UOM	Group Id	Group Name	Group Type	Project Name	Comment	Price
0(a)	Mobilization	Lump-Sum	0	General	Standard	Unit Price Contract		20,000.00
0(c)	Accommodation	Lump-Sum	0	General	Standard	Unit Price Contract		20,000.00
0(d)	Contractor	Lump-Sum	0	General	Standard	Unit Price Contract		5,000.00
6(b)	Other Materials	Cubic Meter	6	Excavation	Standard	Unit Price Contract		5
9(f)	Hydraulic Cement	Cubic Meter	9	Rip Rap Tree	Standard	Unit Price Contract		50
9(g)	Hydraulic Cement	Cubic Meter	9	Rip Rap Tree	Standard	Unit Price Contract		50
12(a)	Granular Material	Tonne	12	Selected Gravel	Standard	Unit Price Contract		25
12(b)	Granular Material	Tonne	12	Selected Gravel	Standard	Unit Price Contract		25
14(b)	Disposal of	Cubic Meter	14	Storage or	Standard	Unit Price Contract		5
	15 Tack Coat	Square Meter	15	Tack Coat	Standard	Unit Price Contract		0.5
16(a)	Hot Asphalt	Tonne	16	Hot Mix	Standard	Unit Price Contract		110
16(b)	Hot Asphalt	Tonne	16	Hot Mix	Standard	Unit Price Contract		110
16(g)	Liquid Asphalt	Tonne	16	Hot Mix	Standard	Unit Price Contract		1,100.00
16(j)	Blending Sand	Tonne	16	Hot Mix	Standard	Unit Price Contract		30
17(a)	Standard Timber	Linear Meter	17	Supply & Install	Standard	Unit Price Contract		79
17(b)	Standard Timber	Each	17	Supply & Install	Standard	Unit Price Contract		800
	21 Contingency		21	Contingency Cost Allowance		Unit Price Contract		
28(c)	> 1000mm	Linear Meter	28	Disposal of	Standard	Unit Price Contract		10
	35 Cold Plan	Square Meter	35	Cold Plan	Standard	Unit Price Contract		1
38(a)	Salvage & Fill	Linear Meter	38	Salvage & Fill	Standard	Unit Price Contract		50
42(a)	Hydroseed	Square Meter	42	Landscaping	Standard	Unit Price Contract		5
42(b)	Lime for Hydroseed	Tonne	42	Landscaping	Standard	Unit Price Contract		100
42(c)	Soil for Hydroseed	Square Meter	42	Landscaping	Standard	Unit Price Contract		5
43(a)	Reinforced	Cubic Meter	43	Reinforced	Standard	Unit Price Contract		3,500.00
47(c)	Supply Rock	Tonne	47	Supply Fill	Standard	Unit Price Contract		14
	100 Salvage and	Each	100	Salvage and	Standard	Unit Price Contract		25
	101 Design, Supply	Linear Meter	101	Design, Supply	Standard	Unit Price Contract		2,000.00
	102 Design, Supply	Linear Meter	102	Design, Supply	Standard	Unit Price Contract		7,500.00
121(a)	Hydraulic Rammed	Cubic Meter	121	Supply and	Standard	Unit Price Contract		100
121(b)	Hydraulic Rammed	Cubic Meter	121	Supply and	Standard	Unit Price Contract		100
121(c)	Non-Woven Geotextile	Square Meter	121	Supply and	Standard	Unit Price Contract		100
122(a)	1600mm (round)	Linear Meter	122	Supply and	Standard	Unit Price Contract		3,100.00
122(b)	2400mm (round)	Linear Meter	122	Supply and	Standard	Unit Price Contract		4,000.00
122(c)	1400mm (round)	Linear Meter	122	Supply and	Standard	Unit Price Contract		3,000.00
HST	Harmonize	Lump-Sum	HST	Harmonize	Standard	Unit Price Contract		203,636.06

Quantity	Total Cost
1	20,000.00
1	20,000.00
1	5,000.00
6,900.00	34,500.00
40	2,000.00
30	1,500.00
455	11,375.00
1,300.00	32,500.00
160	800
1,200.00	600
192	21,120.00
300	33,000.00
31.9	35,090.00
73.8	2,214.00
114.3	9,029.70
2	1,600.00
	12,500.00
155.5	1,555.00
1,200.00	1,200.00
167.6	8,380.00
450	2,250.00
0.3	30
450	2,250.00
5	17,500.00
5,070.00	70,980.00
180	4,500.00
61	122,000.00
46	345,000.00
40	4,000.00
50	5,000.00
60	6,000.00
51	158,100.00
48	192,000.00
58	174,000.00
1	203,636.06

Name

Question 1

Question 2

Question 3

Question 4

Description

Having carefully examined the site of the proposed work and all conditions affecting such, as well as the Contract I
WE, THE UNDERSIGNED, offer to furnish all necessary Labour, materials, superintendence, plant, tools and equi
The Work will be substantially performed within 2.5 months from the date of notification of award of contract or Aug
WE hereby acknowledge receipt of amendments issued related to this procurement.

Answer

Yes

Yes

Yes

Yes

Edward Collins Contracting Ltd.
Joshua Collins
P.O. Box 51
Jerseyside Newfoundland and Labrador
A0B 2G0 Canada

Section Five

Declaration of Equipment Form

Section Six

Declaration of Subcontractors

DECLARATION OF SUB CONTRACTORS

APPENDIX 'B'

State OWN FORCES if a Sub-Contractor is not required for any of the trades listed. If additional trades are required, insert in blank spaces.

DECLARATION OF SUBCONTRACTORS 1

Section Seven

Construction Schedule Form

CONSTRUCTION SCHEDULE FORM APPENDIX 'C'

CONSTRUCTION SCHEDULE FORM 1

Section Eight

Instructions to Bidders

INSTRUCTIONS TO BIDDERS

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INSTRUCTIONS TO BIDDERS**1. INTERPRETATION**

- (a) This document shall be governed by and interpreted in accordance with the laws of the Province of Newfoundland and Labrador and the laws of Canada.
- (b) Where the Contractor consists of more than one person, the obligations of the Contractor shall be joint and several.
- (c) If any provision of this Contract is void, illegal, invalid or unenforceable; it shall be severable from the Contract and shall not invalidate or impair the remaining provisions of the Contract.
- (d) The Contractor is acknowledged to be an independent Contractor and neither the Contractor, nor any officer, servant nor agent of the Contractor is deemed to be an employee of the Government of Newfoundland and Labrador.
- (e) The Contract constitutes the entire agreement between the Government of Newfoundland and Labrador and the Contractor. There are no other agreements of any kind other than those contained within the Contract.

2. OPEN CALL FOR BIDS

- (a) Bids must be received on or before the exact closing time and date indicated in the advertisement. BIDS RECEIVED AFTER THAT TIME WILL NOT BE CONSIDERED OR OPENED.
- (b) The Form of Agreement is included in the Contract Documents at the time of the Open Call for Bids for the purpose of information to Bidders and shall not be completed at the time of Bid submission.
- (c) Before submitting a Bid, Bidders shall carefully examine the Contract Documents and the site of the proposed Work and fully inform themselves of the existing conditions and limitations. No subsequent allowance under the Contract Documents will be considered for any Bidder who had failed to become familiar with all aspects of the Work.
- (d) By submitting a Bid, a Bidder represents to the Government of Newfoundland and Labrador that the Bidder has made such examination and is satisfied as to the conditions that will be encountered in performing the Work and as to the requirements described in the Open Call for Bids.
- (e) The Owner will not defray any expenses incurred by the Bidders in the preparation and submission of their Bids.
- (f) Bidders shall identify any information in the Bid that may qualify for an exemption from disclosure under subsection 39(1) of the **Access to Information and Protection of Privacy Act, 2015**.

INSTRUCTIONS TO BIDDERS

- (g) This procurement is subject to trade agreements, such as the Canada Free Trade Agreement and the Canada European Union Comprehensive & Economic Trade Agreement, where applicable.

3. CONTRACT DOCUMENTS

- (a) Notices of Open Calls for Bids will be posted on the Government of Newfoundland and Labrador's online procurement service provider website www.MERX.com (www.MERX4.MERX.com/govnl)
- (b) The Contract Documents that form part of the Open Call for Bids consist of the Instructions to Bidders, Bid Form, Agreement, General Conditions, Supplementary General Conditions, Drawings, Specifications, and any Amendments to the Contract Documents issued during the Bid period.
- (c) Every interpretation of, or addition to, the Contract Documents to be considered a valid part of the Contract Documents will be issued in the form of a written amendment.
- (d) No amendments will be issued less than five (5) days prior to the closing date of the Open Call for Bids.
- (e) Bidders are responsible for ensuring they have received all Open Call for Bids Amendments and are advised to check the Government of Newfoundland and Labrador's online procurement service provider website for Open Call for Bids Amendments before submitting their Bids.
- (f) Bidders shall acknowledge amendments:
 - (i) where submitting a Bid electronically, by using the online acknowledgement space provided; or
 - (ii) where submitting Bids in paper form, by submitting the Open Call for Bids Form.
- (g) The Government of Newfoundland and Labrador may also avail of the e-procurement service provider, MERX, audit log for the purpose of verifying Bidder receipt and/or acknowledgement of amendments.

4. ENQUIRIES

- (a) A Bidder is solely responsible for obtaining all information that may be necessary in order to understand the requirements of the Open Call for Bids and to submit a Bid in accordance with the terms and conditions of the Open Call for Bids.
- (b) If a Bidder finds errors, discrepancies or omissions in the Open Call for Bids, the Bidder should notify the Contract Administrator of the error, discrepancy or omission as soon as possible. If a Bidder is unsure of the meaning or intent of

INSTRUCTIONS TO BIDDERS

any provision in the Open Call for Bids, the Bidder should request clarification from the Contract Administrator.

- (c) All enquiries related to the Open Call for Bids must be directed, in writing, to the Contract Administrator identified in the Open Call for Bids.
- (d) Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction or modification to the Open Call for Bids will be provided by an Amendment.
- (e) Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction or modification to the Open Call for Bids, will be provided by the Contract Administrator only to the Bidder that made the enquiry.
- (f) A Bidder is not entitled to rely on any response or interpretation received pursuant to an enquiry unless that response or interpretation is provided in writing by the Contract Administrator or by an Amendment to the Open Call for Bids.
- (g) If a Bidder has sent an enquiry and has not received any acknowledgement of its enquiry, the Bidder should follow up with the Contract Administrator.
- (h) Enquiries received within 48 hours of the Submission Deadline may not receive a response from the Contract Administrator.

5. BID SURETY AND BONDING

- (a) Bidding Security
 - (i) Every Bidder shall submit with the Bid a Bid Bond issued by an approved Surety Company licensed to do business in the Province of Newfoundland and Labrador and made out in favour of the Newfoundland Exchequer Account.
 - (ii) The Bid Bond shall be at least ten percent (10%) of the Bid amount, not including the Harmonized Sales Tax (HST). All Bids, regardless of monetary value require a Bid Security of at least ten percent (10%) of the total Bid amount, with a minimum security of five hundred dollars (\$500.00). Bid Securities shall be in the form of a Bid Bond or Certified Cheque in favour of the Newfoundland Exchequer. An approved certified cheque may be substituted in lieu of the Bid Bond. The bidding security will be returned upon receipt of the Performance and Labour and Materials Payment Bonds.
 - (iii) For Bids less than \$25,000.00, the terms of the Bid Security will be invoked and the amount retained by the Owner, if the Bidder fails to provide the required insurances and commence work within 30 days of being notified of the award of the Work within the Open Call for Bids validity period.

Transportation and Infrastructure

INSTRUCTIONS TO BIDDERS

- (iv) The Bid Security of the unsuccessful Bidders numbers 2 & 3 will be returned to them upon award of the contract. Bid Securities of Bidders higher than 3 will be returned after the Open Call for Bids opening.
 - (v) Failure to submit a Bid security in accordance with this requirement will result in rejection of Bid submitted.
 - (vi) The terms of the Bid security will be invoked and the amount retained by the Owner if the Bidder fails to enter into an agreement when notified of the award of the Work within the Open Call for Bids validity period; or fails to provide the Performance and Labour and Materials Payment Bonds in the amount and within the period specified.
- (b) Performance Bond
- (i) A Performance Bond will be required in the amount of fifty percent (50%) of the contract price, not including the Harmonized Sales Tax (HST). The Performance Security is to be received not later than two (2) weeks after the award of the contract and prior to the formal execution of the agreement. No work is to be undertaken until the Performance Security has been received. Performance Security will not be required for a contract value of less than \$25,000.
 - (ii) In lieu of the Performance Bond, the Minister may accept at their sole discretion an approved certified cheque for ten percent (10%) of the Bid amount, not including the Harmonized Sales Tax (HST). The cheque will be retained until satisfactory completion of the Work including the warranty period, after which this amount will be returned to the Contractor together with the accrued interest thereon at the current bank rate.
- (c) Labour and Materials Payment Bond
- (i) A Labour and Materials Payment Bond will be required in the amount of fifty percent (50%) of the contract price, not including the Harmonized Sales Tax (HST). The Labour and Materials Payment Bond is to be received not later than two (2) weeks after the award of the contract and prior to the execution of the formal agreement. No work is to be undertaken until the Labour and Materials security has been received. Labour and Materials security will not be required for a contract valued at less than \$25,000.
 - (ii) In lieu of the Labour and Materials Payment Bond, the Minister may accept at their sole discretion an approved certified cheque of ten percent (10%) of the Bid amount. The cheque will be retained until substantial completion of the Work. This security, if in the form of a cheque, will be returned to the Contractor together with the accrued interest thereon at the current bank rate.

INSTRUCTIONS TO BIDDERS

(d) E-Bonds

- (i) Contractors may provide Bid Bonds, Performance Bonds as well as Labour and Material Payment Bonds in either paper or electronic format (E-Bonds).
- (ii) In accordance with the recommendations of the Surety Association of Canada, the E-Bonds shall be digitally verifiable through a third party digital certification service provider that can maintain integrity of E-Bond content and provide secure access to the E-Bond such as Mobile Bonds, Xenex Enterprises or Trisura Guarantee Insurance Company.
- (iii) Where Bids are submitted through the Government of Newfoundland and Labrador's online procurement service provider, MERX, E-Bonds are to be submitted through the MERX website.
- (iv) Where paper Bids are submitted, E-Bonds are to be emailed to tenderingandcontracts@gov.nl.ca in advance of the specified closing date and time. The subject line must include "Electronic Bond for Open Call for Bids (reference number)".

- (e) Contractors are advised that Certified Cheques, Money Orders, or Bank Drafts from a recognized financial institution registered to do business in the Province of Newfoundland and Labrador, are acceptable forms of Bid Surety and Bonding in lieu of Bonds for Bid Security, Performance Bonds, and Labour and Materials Payment Bonds. No other forms of Bid Surety and Bonding, including cash, will be accepted.
- (f) Where a certified cheque, money order or bank draft is the format chosen by the Bidder, and the Bid is submitted electronically, the Bidder may submit the certified cheque, money order or bank draft in person at the Tendering and Contracts office prior to closing, or via registered post. The registered post must be received no later than two (2) business days prior to the submission deadline or the Bid will be disqualified. The Bidder must scan a copy of the certified cheque and registered mail receipt and include the documentation with the electronic Bid.

6. BID PROCEDURES

- (a) Bids must be submitted before the Submission Deadline to the Submission Location, using one of the submission methods specified in the Open Call for Bids for this purpose.
- (b) Where a Bidder chooses to submit a Bid electronically, it is recommended to complete the Bid process electronically. Where a Bidder chooses to submit a Bid in paper format, it is recommended to continue with this format throughout the process. Alternating between formats is not recommended.

INSTRUCTIONS TO BIDDERS

- (c) Bids received by the Government of Newfoundland and Labrador after the Submission Deadline, or at an incorrect Submission Location, or by an unacceptable submission method, will be rejected.
- (d) The Open Call for Bids indicates which methods of delivery are acceptable for the Bid (e.g. mail, personal or courier delivery), and the Bidder shall submit the Bid only in accordance with the methods permitted.
- (e) Bids that are submitted by mail, personal delivery or courier must be enclosed in a sealed envelope clearly marked with the Open Call for Bids reference number. The envelope should also indicate the Bidder's name and the Bidder's return address.
- (f) The Government of Newfoundland and Labrador may extend the Submission Deadline by issuing an Amendment to the Open Call for Bids at any time before the Submission Deadline.
- (g) Bidders must submit their Bids using the forms contained in the Open Call for Bids if submitting paper Bids. Paper Bids that are submitted on one or more forms that are different from the forms contained in the Open Call for Bids may be rejected by the Government of Newfoundland and Labrador.
- (h) For the purpose of the evaluation of Bids received on the Bid Form
 - (i) the Bid shall be the Total Bid Amount.
 - (ii) Costs associated with Unit Price Work will vary depending upon the quantities authorized by the Owner during the course of construction and the final contract amount will be adjusted accordingly, upwards or downwards, based upon the quoted unit rate, within the limits of the Public Procurement Act.
- (i) **ONLINE BID SUBMISSION PROCEDURES**
 - (i) The online procurement service provider for the Government of Newfoundland and Labrador is www.MERX.com.
 - (ii) Bidders are required to submit a Bid through the Government of Newfoundland and Labrador's online procurement service provider.
 - (iii) The Bidders are required to register a user profile with the Government of Newfoundland and Labrador's online procurement service provider, and the submission procedures set out on the online procurement service provider website shall apply, including those with respect to Amendment Acknowledgements and Bid Bond submission.
 - (iv) It is solely the Bidder's responsibility to ensure that its Bid is received by the online procurement service provider before the Submission Deadline. Bids received after the Submission Deadline will not be accepted.
- (j) **PAPER COPY BID SUBMISSION PROCEDURES**
 - (i) The Bidder may submit a paper copy Bid in lieu of an electronic Bid. For greater clarity, the submission procedures set out in this subsection do not

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apply to Bids submitted using the Government of Newfoundland and Labrador's online procurement service provider.

- (ii) Envelopes containing the Bid are to be clearly marked with the relevant Open Call for Bids information as follows:

Bid for:

Project Number

Project Address (if applicable)

Project Title

Addressed to:

Deputy Minister

c/o Tendering & Contracts

Ground Floor, Confederation Building, East Block

P.O. Box 8700, St. John's, NL, A1B 4J6

The name and address of the Bidder and the closing time must be shown on the envelope.

- (iii) A Bidder must complete in its entirety and submit the Bid Form contained in the Open Call for Bids as part of its Bid. The Bidder should retain a copy for their records.
- (iv) Type or legibly print the Bidders full business name and address in the spaces provided on the Bid Form.
- (v) The attention of the Bidder is drawn to the necessity of legibly pricing each and every item in any schedule of quantities and of calculating the units and totals exactly correct to agree with the tender amounts. Failure to do so will be sufficient grounds for rejection.
- (vi) Sign the Bid Form in the space provided as indicated:
- (a) In the case of a Sole Proprietorship, signature of Sole Proprietor will sign where indicated in the presence of a witness who will sign where indicated. Insert the words "Sole Proprietor" next to the signature.
- (b) In the case of a Partnership, signature of all partners will sign where indicated in the presence of a witness who will sign where indicated. Insert the word "Partner" next to signatures.
- (c) In the case of a Limited Company, signatures of authorized signing officers in the presence of a witness who will sign where indicated, and the corporate seal will be affixed. Indicate next to signature the corporate title of each signer.

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- (vii) If it becomes necessary to correct an error made on the Bid Form, such correction must be initialed and dated by the person or persons signing the Bid Form.
- (k) If the Government of Newfoundland and Labrador requests more information about a Bidder's legal name or status, address or contact information, the Bidder must provide the Government of Newfoundland and Labrador with such information within three (3) calendar days of the request. Failure to provide the Government of Newfoundland and Labrador with the requested information within such time period may result in that Bidder's Bid being rejected.
- (l) It is solely the Bidder's responsibility to ensure that its Bid and any Bid change or Bid withdrawal is received at the Submission Location specified in the Open Call for Bids prior to the Submission Deadline.
- (m) Notwithstanding that a Bidder may be entitled to use facsimile transmission or e-mail to change or withdraw a Bid, the Government of Newfoundland and Labrador cannot assure Bidders that information or documents sent by facsimile transmission or e-mail will reach the intended recipient before the Submission Deadline. By using facsimile transmission or e-mail, Bidders acknowledge that all risks associated with failed or late delivery are borne by the Bidder. Bidders are responsible for ensuring that the intended recipient received such information or documents by the Submission Deadline.

7. CURRENCY AND TAX CONDITIONS

- (a) All prices must be quoted in Canadian dollars.
- (b) Newfoundland and Labrador certifies that the amounts payable to the successful Bidder for the Work will be paid by the Government of Newfoundland and Labrador with Crown funds.

8. GOVERNMENT OF NEWFOUNDLAND AND LABRADOR OWNERSHIP AND RELEASE OF INFORMATION

- (a) Bids that are not withdrawn in accordance with these Bidding Procedures become the property of the Government of Newfoundland and Labrador after the Submission Deadline.
- (b) The Bidder is advised that any information contained in a Bid may be released by the Government of Newfoundland and Labrador in original or other forms if authorized or required by the Government of Newfoundland and Labrador's policies or procedures, including these Bidding Procedures, or by any law, including the **Auditor General Act (Newfoundland and Labrador)**, and the **Access to Information and Protection of Personal Privacy Act (2015)**.

INSTRUCTIONS TO BIDDERS

- (c) The financial value of the contract will be publicly released by the Government of Newfoundland and Labrador as a part of the award notification.

9. IRREVOCABLE BID PERIOD

- (a) The Government of Newfoundland and Labrador will endeavour to award a Contract within the specified validity period; however, Bids are irrevocable for sixty (60) calendar days after the Submission Deadline. A Bidder is bound to enter into the Contract if it is awarded the Contract during this period of irrevocability.
- (b) The Government of Newfoundland and Labrador may request that Bidders agree to an extension of this period of irrevocability. The Bid of each Bidder that consents to such an extension remains irrevocable for the additional time requested by the Government of Newfoundland and Labrador. The Bid of each Bidder that does not consent to such an extension remains irrevocable for the irrevocable Bid period currently in force upon the Bid.
- (c) No Bidder has any obligation to enter into a Contract with the Government of Newfoundland and Labrador upon the expiration of the irrevocable Bid period. Where the irrevocable Bid period in force upon a Bid has expired, further Bid information will not be released by the Government of Newfoundland and Labrador provided the Bidder has so requested.

10. BIDDER DECLARATIONS

- (a) In submitting a Bid, the Bidder declares that the Bidder:
 - (i) is incorporated and in good standing under **The Corporations Act (Newfoundland and Labrador)**, or otherwise authorized or permitted to legally carry on business in the Province of Newfoundland and Labrador;
 - (ii) is financially capable of carrying out the terms of the Contract; and
 - (iii) possesses all the necessary experience, capital, organization, and equipment to perform the Work in accordance with the terms and conditions of the Contract.
- (b) In submitting a Bid, the Bidder declares and represents that it has not knowingly participated in bid-rigging, collusion, or fraud in the preparation of its Bid. Further, the Bidder declares and represents that it has produced the Bid independently from, and without consultation, communication, agreement or arrangement with, any competitor, except where the competitor intends to become a Subcontractor for a portion of the Work or intends to form a joint venture arrangement with the Bidder.

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- (c) The Bidder is advised that, under the **Competition Act (Canada)**, the Bidder is responsible for notifying The Government of Newfoundland and Labrador of any aforementioned agreements or arrangements with its competitors.
- (d) In submitting a Bid, the Bidder declares and represents that the Bidder does not knowingly have a conflict of interest related to the performance of the Work by the Bidder or by its Subcontractors. If the Bidder is in doubt as to whether individuals or circumstances give rise to a conflict of interest, the Bidder should consult with the Contract Administrator prior to submitting a Bid. The Government of Newfoundland and Labrador may reject any Bid if, in its sole discretion, the Government of Newfoundland and Labrador determines that an actual or potential conflict of interest exists.
- (e) By submitting a Bid, the Bidder agrees that:
 - (i) the Open Call for Bids, in its entirety, is deemed to be incorporated into and form part of the Bid notwithstanding that all parts of the Open Call for Bids may not be attached to or accompany the Bid;
 - (ii) all Open Call for Bids amendments have been received, considered and addressed in the Bid;
 - (iii) any changes to the submitted Bid received by the Government of Newfoundland and Labrador before the Submission Deadline form part of the Bid;
 - (iv) any proposals, counter-offers, qualifications or changes to the terms, conditions or specifications in the Open Call for Bids by the Bidder will not be accepted by the Government of Newfoundland and Labrador but will be disregarded and will not be incorporated into the Contract;
 - (v) if they are the preferred Bidder, the Bidder will enter into a Contract with the Government of Newfoundland and Labrador to complete the Work in accordance with the Bid and the terms, conditions and specifications contained in the Open Call for Bids; and
 - (vi) the Bid will form part of the Contract.
- (f) Bidders will not engage in any form of political or other lobbying whatsoever in relation to the Open Call for Bids, including for the purpose of influencing the outcome of the process. Further, no such person (other than as expressly contemplated by this Open Call for Bids) will attempt to communicate in relation to the Open Call for Bids, directly or indirectly, with any representative of the Government of Newfoundland and Labrador (GNL) (including any Minister or Deputy Minister, or any Members of the House of Assembly, or any employee of the GNL), or any director, officer, employee, agent, advisor, consultant or representative of any of the foregoing, as applicable, for any purpose whatsoever. In the event of any lobbying or communication in contravention of this Section,

INSTRUCTIONS TO BIDDERS

the Province in its sole and absolute discretion may at any time, but will not be required to, reject any and all Bids submitted by that proponent without further consideration or compensation.

11. UNACCEPTABLE BIDS

- (a) Bids not submitted on the Bid Form provided or electronically through the MERX Website will not be considered.
- (b) Facsimile Bids will not be accepted.
- (c) Bids received after the Open Call for Bids Closing time will not be considered.
- (d) Incomplete Bids will be rejected.
- (e) Bids not accompanied by an approved security in the correct amount will be rejected.
- (f) Bids containing qualification or additional clauses to the Bid Form will be rejected.
- (g) Incorrectly prepared Bids may be rejected.

12. CHANGES TO BIDS

- (a) Where a Bidder has submitted a paper Bid, the Bidder may make changes to the Bid using one of the submission methods specified in the Open Call for Bids for this purpose. Any changes to a Bid must be received before the Submission Deadline.
- (b) If a paper Bid is submitted, a Bid change may be made by letter or by re-submission of a form. All Bid changes made by paper copy must be signed by a representative of the Bidder with the authority to bind the Bidder. Bid changes must clearly state the name of the Bidder and the number of the Open Call for Bids to which the change relates, and should state the address of the Bidder. The Bidder must indicate those portions of the Bid that have changed from the Bidder's original Bid submission.
- (c) Where a change affects one or more Prices on the Bid Form, the Bidder shall clearly indicate the change to all affected Prices, or resubmit the Bid Form.
- (d) When changes are made to the unit price items, the change in unit price (amount increased or decreased) is to be clearly identified as well as the change to the subtotal Bid price (increase/decrease).
- (e) If, in the Government of Newfoundland and Labrador's opinion, there is any ambiguity about the nature or effect of any change, the Government of Newfoundland and Labrador may reject such a change and evaluate the Bidder's Bid without regard to the change.
- (f) Where a form of Bidding Security other than a Bid Bond is provided with the original tender, an increase in the bid price will render the Bidding Security

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inadequate. Bidding Security adequate to cover the increased Bid price must be provided to the Department prior to the submission deadline. Failure to provide additional Bid Security prior to Submission Deadline to cover increases to the original Bid will make the Bid subject to disqualification.

13. WITHDRAWAL OF BIDS

- (a) A Bidder may withdraw a Bid without penalty at any time before the Submission Deadline by giving written notice to the Government of Newfoundland and Labrador for this purpose. A Bid withdrawal must be received at the Submission Location before the Submission Deadline.
- (b) Where a paper Bid has been submitted, a notice of Bid withdrawal must be signed by a representative of the Bidder with the authority to bind the Bidder, must clearly state the name of the Bidder and the number of the Open Call for Bids to which the Bid was responding, and should state the address of the Bidder.
- (c) If the Government of Newfoundland and Labrador receives notice of a Bid withdrawal before the Submission Deadline, the Government of Newfoundland and Labrador will not consider the Bid during the Bid evaluation and will return the Bid to the Bidder only at the request and expense of the Bidder.

14. SUBSTITUTION OF MATERIALS

- (a) Bids shall be based upon using the materials or products as specified without substitution. Where two or more brand names are specified, the choice shall be left to the Contractor. Where only one brand name is stated there shall be no substitution.

15. ACCEPTANCE OF BID

- (a) The Owner will not necessarily accept the lowest or any Bid.
- (b) Upon written acceptance of the Bid within the Open Call for Bids validity period, the Bid Form becomes part of the Contract Documents and the successful Bidder becomes the Contractor. The Contractor will be required to execute a formal agreement with the Owner within thirty (30) days of the date of the letter of intent to award or letter to award.

16. OPENING OF BIDS

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- (a) Bids received by the Submission Deadline will be opened publicly at the Submission Location immediately after the Submission Deadline, unless prevented to do so by Special Measures Orders. See further clarifications below.
- (b) The Government of Newfoundland and Labrador will post the Bid results on the Government of Newfoundland and Labrador Tendering and Contract's Bid results web page immediately after the Submission Deadline.
<https://www.merx.com/govnl>
- (c) Where an Open Call for Bids requires the submission of a Bid Bond (whether electronic or hard copy) but the Bid Bond has not been received prior to the Submission Deadline, the corresponding Bid will be rejected.
- (d) All Bids which were received at the time of the public opening will be evaluated after the public opening.
- (e) Anyone may attend the public opening. Attendance may be via Skype meeting platform as detailed below, depending on the current Special Measures Orders in force at the time.
 - (i) Solicitations are currently undertaken in accordance with the Public Procurement Regulations and with applicable Special Measures Orders pursuant to the **Public Health Protection and Promotion Act**. The opening of submissions will be held on the designated date and time with two representatives of the Department of Transportation and Infrastructure Tendering and Contracts.
 - (ii) Bidders may to view the opening via a Skype meeting platform. To access the Skype meeting for the opening your organization may be interested in, please email tenderingandcontracts@gov.nl.ca no less than four hours prior to the stated date and time of the opening of submissions. The subject of the email must read 'Interest in Tender (Reference Number) Opening'. The body of the email must include the email of the individual who will be joining the Skype session. Email requests received less than four hours in advance of the opening shall not be acknowledged. Prior to the opening, an email including a Skype meeting invitation will be sent to the email address indicated in the request.
 - (iii) The following resources are available for organizations who do not currently use the Skype platform:
<http://2016-17.elearnwithnca.co.uk/help/lync/86-installing-skype-for-business-web-app-browser-plugin-in>
<https://support.office.com/en-us/article/join-a-skype-for-business-meeting-with-skype-meetings-app-skype-for-business-web-app-4828ad18-ed21-422a-a870-94d676d4b72a>

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<https://support.office.com/en-us/article/trouble-installing-the-skype-for-business-web-app-plug-in-958fc5f1-2d6f-42e3-815d-a9516c591274>

17. EVALUATION PROCESS

- (a) Bids that were opened at the public opening and recorded in the Report After Open Call for Bids Call (Unofficial Results) will be reviewed and evaluated by the Government of Newfoundland and Labrador after the public opening.
- (b) The process of evaluating Bids is as follows:
 - (i) Determine Bid Compliance (Pass/Fail),
 - (ii) Compare Total Prices,
- (c) Determining Bid Compliance (Pass/Fail)
 - (i) The Government of Newfoundland and Labrador will evaluate all Bids that were opened at the time of public opening to determine whether they comply with the requirements of the Open Call for Bids.
 - (ii) Bids which the Government of Newfoundland and Labrador determines, in its sole discretion, comply with the requirements of the Open Call for Bids will progress to the second step of the evaluation process. The Government of Newfoundland and Labrador may reject a Bid submission if it is incomplete, incorrect or conditional, or contains additions, deletions, alterations or other irregularities. Bids which the Government of Newfoundland and Labrador determines do not comply with the requirements of the Open Call for Bids will not progress to the second step of the evaluation and will be rejected.
 - (iii) The Government of Newfoundland and Labrador may waive irregularities or reject all or any Bids if, in the sole discretion of the Government of Newfoundland and Labrador, it is deemed appropriate.
- (d) Comparing Total Prices
 - (i) The Government of Newfoundland and Labrador will compare the Total Prices of all compliant Bids to determine the Bid ranking. All compliant Bids will be assigned their respective places in order of lowest Total Price to highest Total Price. The preferred Bidder is the Bidder that submitted the compliant Bid with the lowest Total Price.
 - (ii) Where a Bidder fails to provide a Lump Sum Price, Separate Price, or Unit Price as identified in the Bid Form, the Bid will be rejected.
- (e) The Government of Newfoundland and Labrador has the right to contact not only any of the references provided by the Bidder, but also any other references identified by the Government of Newfoundland and Labrador who have had dealings with the Bidder or the Bidder's Subcontractors without prior notice to the Bidder.

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- (f) If a preferred Bidder is rejected, the Bidder with the second-lowest Total Price becomes the preferred Bidder, and so on until either a Contract is awarded to a qualified Bidder having submitted a compliant Bid or the Open Call for Bids is cancelled.
- (g) A Bidder will be notified, in writing, if its Bid is rejected.

18. AWARD AND SIGNING OF CONTRACT

- (a) The Government of Newfoundland and Labrador is under no obligation to award a Contract to a Bidder, even if one or more Bids are determined to be compliant and one or more Bidders are determined to be qualified. Without limiting the generality of the foregoing, the Government of Newfoundland and Labrador will have no obligation to award a Contract where:
 - (i) there is only one Bid received;
 - (ii) the prices exceed the funds available for the Work;
 - (iii) the prices materially exceed prices for similar work in the past;
 - (iv) the prices materially exceed the Government of Newfoundland and Labrador's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (v) the prices are unbalanced;
 - (vi) in the sole opinion of the Government of Newfoundland and Labrador, the interests of the Government of Newfoundland and Labrador would be best served by not awarding a Contract.
- (b) If no Contract is awarded, the Government of Newfoundland and Labrador will give written notice to all Bidders, that no Contract award will be made and (where applicable) will post a notice on the Government of Newfoundland and Labrador's online procurement service provider website that the Open Call for Bids has been cancelled and no further Bid information will be released, provided the Bidder has so requested.
- (c) If the Government of Newfoundland and Labrador decides to award a Contract, it will award the Contract to the qualified Bidder that has submitted a compliant Bid with the lowest Total Price.
- (d) The successful Bidder will be notified in writing that the Bidder has been awarded the Contract, subject to the Bidder complying with the specific conditions precedent to the Contract as set out in the Open Call for Bids or the notification of award.
- (e) The Bidder shall, within two (2) weeks after the date on which the notification of award was sent to the Bidder, demonstrate to the Government of Newfoundland

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and Labrador that the Bidder has satisfied any conditions precedent to the Contract or in the notification of award. The Government of Newfoundland and Labrador will execute the Contract and send a copy to the Contractor upon being satisfied that the requirement of this section is being met.

19. FAILURE TO RESPOND TO AWARD NOTIFICATION

- (a) If, within two (2) weeks after the date on which the notification of award was sent to the Bidder, the Government of Newfoundland and Labrador has not received all of the following from the Bidder:
- (i) the Contract, duly signed by the Bidder (if applicable);
 - (ii) a Performance Bond (if applicable);
 - (iii) a Labour and Material Payment Bond (if applicable); and
 - (iv) evidence that the Bidder has satisfied any conditions precedent to the Contract;

The Government of Newfoundland and Labrador may do one or more of the following:

- (a) where a Bid Bond was required, claim against the Bid Bond;
- (b) declare the Bidder ineligible to Bid on Open Call for Bids issued by the Government of Newfoundland and Labrador for a period of up to two (2) years;
- (c) proceed to award the Contract to another Bidder;
- (d) cancel the Open Call for Bids;
- (e) exercise whatever other remedies are available by law.

20. COMMENCEMENT OF WORK

- (a) Unless otherwise authorized by the Government of Newfoundland and Labrador, in writing, the Contractor shall not commence any Work until the Contractor has:
- (i) submitted an approved Performance Bond (if required);
 - (ii) submitted an approved Labour and Materials Payment Bond (if required);
 - (iii) submitted confirmation of all required insurances.
 - (iv) submitted a Site Specific Safety Plan acceptable to the Government of Newfoundland and Labrador;
 - (v) complied with the conditions precedent to the Contract;
 - (vi) confirmed that the Government of Newfoundland and Labrador has executed the Contract that was signed and submitted by the Contractor and,
 - (vii) attended a pre-construction meeting (if required).

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- (a) In the event the Tendering and Contracts office is closed, any Open Call for Bids that would have closed on that day will be deferred to close at the same time on the next work day that normal hours are resumed.
- (b) Other than as impacted above, Bids and changes to Open Call for Bids, etc., will be accepted at the Tendering and Contracts office on or before the deferred closing time and date. Bids received after this deferred time and date will not be considered.

22. CONTRACT ADMINISTRATOR

- (a) Bidders are advised for the purpose of this Open Call for Bids, the Tendering and Contract Division of the Department will be the designated Contract Administrator as required under item 4 – Enquiries of the Instructions to Bidders.

Section Nine

Supplementary General Conditions

SUPPLEMENTARY GENERAL CONDITIONS**SGC 1. SCOPE OF WORK**

Contractors are advised the PROJECT shall include, but will not be limited to, the scope as outlined in the following summary.

Part "A" – Replacement of Trout Pond 1200mm CSP on the TCH km 29.5

Work in this part includes remove and disposal of an existing 50.9m x 1200mm CSP, supply and install 51.0m x 1600mm polymer laminated round CSP with concrete baffles, backfilling, placement of rock cap, granular A, granular B and reinstatement of base and surface course asphalt. Guiderail installation and granular B shouldering.

Part "B" - Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH km 35.3

Work in this part includes the design, supply and installation of a 61.0m x 900mm minimum inside diameter HDPE slip liner, associated grouting, site preparation (includes any excavation required to prepare site for assembly/joining/inserting liner pipe, debris removal, pressure washing, etc.), maintenance of traffic and unwatering. All work shall be completed in the dry. A site visit is strongly recommended prior to bidding. Also included in this part is the installation of a culvert outlet rip rap energy dissipator.

Part "C" - Replacement of Fannies Pond 1800mm CSP on the TCH km 44.2

Work in this part includes remove and disposal of an existing 47.2m x 1800mm CSP, supply and install 48.0m x 2400mm polymer laminated round CSP with concrete baffles, backfilling, placement of rock cap, granular A, granular B and reinstatement of base and surface course asphalt. Guiderail installation and granular B shouldering.

Part "D" – Culvert Rehabilitation of Four Mile Pond 2400mm CSP on the TCH km 48.5

Work in this part includes the design, supply and installation of a 46m x 2100mm minimum inside diameter aluminum tunnel plate liner, associated grouting, site preparation (debris removal, pressure washing, etc.), maintenance of traffic and unwatering. All work shall be completed in the dry. A site visit is strongly recommended prior to bidding.

Part "E" – Replacement of Unnamed Stream 1200mm CSP on the TCH km 55.0

Work in this part includes remove and disposal of an existing 57.4m x 1200mm CSP, supply and install 58.0m x 1400mm polymer laminated round CSP, backfilling, placement of rock cap, granular A, granular B and reinstatement of base and surface course asphalt. Guiderail installation and granular B shouldering.

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Refer to contract drawings for additional details.

For further information, please refer to the breakdown of quantities in the tender document and the updated Department's Specifications Book.

SGC 2. SPECIFICATIONS BOOK AND TRAFFIC CONTROL MANUAL

Contractors are advised that the specifications book of the Department of Transportation and Infrastructure dated MARCH 2011 and the 2012 and 2013 Errata apply to this project. These specifications are available on the Internet at <http://www.gov.nl.ca/ti/publications> under the Manuals section and on the following pages: <http://www.gov.nl.ca/ti> under the Road Contractors section and at <http://www.gov.nl.ca/ti/road.html>. It is the contractor's responsibility to ensure that the correct version of the specifications book is used when bidding on this project.

Contractors are advised the 2018 Edition of the Department's Traffic Control Manual and any amendments applies to this project. The manual is available for download on the Internet at <http://www.tw.gov.nl.ca/> under the Road Contractors section; <http://www.tw.gov.nl.ca/publications/index.html> under Manuals section; and at <http://www.tw.gov.nl.ca/road.html>. It is the contractor's responsibility to ensure that the correct version of the Traffic Control Manual is used when bidding on this project.

SGC 3. GC 46 – ASSESSMENT AND DAMAGES FOR LATE COMPLETION

Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree the Liquidated Damage Daily Rate of \$ **1500** per diem is a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.

The Liquidated Damages Application Date for the purposes of applying liquidated damages shall be the later of the following:

- i.) the date identified in Article A-1 of the Form of Agreement unless otherwise agreed in writing; or
- ii.) No later than **AUGUST 15, 2021** unless otherwise agreed in writing.

SGC 4. PETROLEUM PRODUCTS COST ADJUSTMENT**Fuel Cost Adjustment**

Adjustments will be made to progress estimates to reflect changes in fuel prices from The Benchmark Tender Price to those in effect during construction. The Benchmark Tender Price shall be the price established by the Newfoundland and Labrador Board of

SUPPLEMENTARY GENERAL CONDITIONS

Commissioners of Public Utilities, Petroleum Pricing Office, at time of tender closing. Increases or decreases in excess of 10% of the Benchmark Tender Price will be paid or deducted accordingly.

For the calculation of adjustments the governing price will be the price in place at the 21st of the month for the zone in which the majority of the contract is being carried out, established by the Newfoundland and Labrador Board of Commissioners of Public Utilities, Petroleum Pricing Office. This price will apply for the period from the 21st of that month to the 20th of the following month. This adjustment will include any changes in taxes outlined in GC 22.2. No adjustments will be made for price changes resulting from the use of the "Interruption Formula".

The adjustment for fuel cost variation shall apply only to those items given in the accompanying list. For other tender items, there will be no fuel cost adjustments.

The adjustments shall be computed based on changes in the governing price, as defined above, in excess of or less than the Benchmark Tender Price at time of production. The Engineer shall then calculate the adjustment to be stated in the Monthly Progress Estimates. No adjustment will be made due to an increase in the price on fuel used after the identified contract completion date or approved contract extension date but adjustments due to a decrease in the price of fuel will be made after the identified contract completion date or approved contract extension date.

For the contract items included in the accompanying list, the fuel cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate.

l - litre		Nominal Fuel Consumption Rate	
Contract Item	Clear Diesel Fuel (3)	Furnace Oil (3)	Marked Diesel Fuel (4)
Excavation Other Material (1)	2.0 l/m3 or 1.0 l/t	N/A	N/A
Excavation Solid Rock (2)	3.0 l/m3 or 1.1 l/t	N/A	N/A
Granular "A" and Maintenance Grade III	1.0 l/t (5 & 6)	N/A	0.7 l/t
Granular "B"	1.0 l/t (5 & 6)	N/A	0.5 l/t
Asphaltic Base, Surface & Levelling Courses	2.0 l/t (5)	11.0 l/t	0.7 l/t

SUPPLEMENTARY GENERAL CONDITIONS

Overhaul on Excavation Items Only	0.4 l/m ³ -km	N/A	N/A
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(1) Excavation Other Material shall also include Ditching Other Material, Other Material Borrow, Other Material Fill in Place, Unsuitable Material, Bog, and Excavation for Foundation Other Material.

(2) Excavation Solid Rock shall also include Ditching Solid Rock, Quarried Rock, Rock Fill in Place, and Excavation for Foundation Solid Rock.

(3) Clear diesel fuel adjustment and furnace oil adjustment applies to the respective items at the time of excavation or placement as applicable.

(4) Marked diesel fuel adjustment applies to granular material and asphalt aggregate at the time of production. If the crusher used to produce the granular material or asphalt aggregate is not powered by a diesel generator, there will be no adjustment for marked fuel. If a contractor uses granular material or asphalt aggregate that was crushed previous to the project, there will be no adjustment for marked fuel.

(5) If the granular material or asphalt aggregate is produced from a rock quarry source, an additional 0.15 l/t of clear diesel fuel will be added to the quantity shown in the table applicable at the time of drilling and blasting.

(6) If the tender identifies Granular A, Granular B or Maintenance Grade III to be stockpiled for use by the Department of Transportation and Infrastructure, then the Nominal Fuel Consumption Rate to apply to stockpiled aggregate will be 0.50 l/t for Clear Diesel.

Liquid Asphalt Cost Adjustment

Adjustments will be made to progress estimates to compensate for changes in liquid asphalt prices at time of Tender and prices in effect during construction. Increases or decreases in excess of 5% of the Benchmark Tender Price will be paid or deducted accordingly. The governing price will be the average price quoted by local suppliers on the 20th of each month for the two Holyrood and the Come by Chance Terminals. This adjustment will include any changes in taxes outlined in GC 22.2.

The benchmark price shall be the average monthly price quoted by local suppliers for the two Holyrood and the Come by Chance Terminals, from the 20th of the month prior to tender closing. The adjustments shall be computed based on changes in the average monthly price in excess of or less than this benchmark at time of production. The

SUPPLEMENTARY GENERAL CONDITIONS

Engineer shall then calculate the adjustment to be stated in the Monthly Progress Estimates.

The liquid asphalt cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate. In cases where liquid asphalt is included in the price of Asphalt Concrete, the liquid asphalt quantity will be determined using the mix design.

SGC 5. ADDITIONAL DECLARATION FORMS

Bidders who are requested to submit the following forms must do so within 72 hours of the time of their notifications. The forms will be provided at the time of notification.

- (a) The Declaration of Equipment Form
- (b) The Declaration of Sub-Contractor Form
- (c) The Construction Schedule Form

SGC 6. CHANGE IN OWNER'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT

Contractors are advised of the following changes to General Condition 10 of the Contract:

The Province maintains the right to terminate the agreement for convenience at any time. Upon termination, the Province will compensate for all costs incurred to the date of termination and associated costs to shut down the work in a manner as specified by the Province. There will be no compensation for any further incidental costs including but not limited to lost profit.

SGC 7. COR CERTIFICATION AND WORKPLACENL DOCUMENTATION

Tender award is contingent on the submission of the following documentation that is acceptable to the Department:

- (a) A Letter of Good Standing stating Certificate of Recognition (COR) certified from the Newfoundland and Labrador Construction Safety Association (NLCSA).
- (b) A Certificate of Clearance from WorkplaceNL.

Bidders who are requested to submit the aforementioned information must do so within 72 hours of the time of their notification. Should the bidder fail to provide the required documentation within the timeframe above, The Government of Newfoundland and Labrador may do one or more of the following:

SUPPLEMENTARY GENERAL CONDITIONS

- i.) proceed to award the Contract to another Bidder;
- ii.) cancel the Open Call for Bids; or
- iii.) exercise any other remedy the Department, in its sole discretion, deems appropriate.

SGC 8. SAFETY PROTOCOLS RELATED TO COVID19 PANDEMIC

The Contractor is required to develop and implement safe work processes and procedures in response to the COVID-19 pandemic, in accordance with all applicable orders and recommendations in place for the Province of Newfoundland and Labrador. This shall include methods used for training procedures, methods used for monitoring, and action to be taken if processes and procedures are not followed. The Contractor is required to include these processes and procedures in the Site Specific Safety Plan and update as orders and recommendations evolve. Information related to the COVID-19 pandemic and the Public Health Emergency is available at <https://www.gov.nl.ca/covid-19>

In addition to the requirements of Section 110 of the Specification Book, field offices provided to the Department by the Contractor, must also satisfy COVID19 requirements. Field offices (including washroom) shall be cleaned and sanitized regularly as per Health Authority recommendations, but no less than once daily. The size of the office shall be of such size that physically distancing will not be an issue and have a separate room for storing and recharging equipment. The Contractor may be asked to provide a separate washroom facility for field crew depending on layout of field office. Also, the Contractor shall be responsible for ensuring there is adequate hand sanitizer, soap and cleaning materials to clean shared surfaces.

These requirements shall be deemed incidental to the work and no additional payment shall be made to incorporate this into the work.

SGC 9. WASHROOM FACILITIES FOR SCALEHOUSES

In addition to the specifications as outlined in Section 501.04 Weight Scales of the Department of Transportation and Works Specification Book, contractors are advised that all scale houses must be equipped with suitable facilities that meet the OHS Act and Regulations under Sections 13 and 14 of the Regulations. These facilities must be within 100m of the scale house.

These facilities must be provided for use of the Transportation & Works employees only for the duration of the project while scales are being used. Other accommodations must be provided for contractors/subcontractors personnel.

SUPPLEMENTARY GENERAL CONDITIONS

The sanitary provisions shall be in accordance with the various Provincial Government and Municipal Government Regulations.

If portable toilets are used they must be a minimum of 2m (height) x 1m x 1m and must be approved by the Government Service Center. The contractor shall transport the waste from these units, using a collection company (whenever possible) licensed by Government Service Center. Otherwise, transportation and disposal shall be by a means and a facility or location as approved by the Government Service Center.

Toilet facilities must also be approved by the Resident Engineer. These facilities must be cleaned twice weekly and in the case of a portable toilet, emptied of sewage as well. Contractor must also supply toiletries for the facility. Also, adequate and suitable provisions for washing (hot and cold water, soap, towels or ample supply of hand sanitizer liquid) must be included with facility. The door to the facility must contain a lock and a key shall be provided to the Resident Engineer.

All costs associated to provide and maintain the sanitary provisions as discussed above are incidental to the contract.

SGC 10. ITEM NO. 16 OF THE UNIT PRICE TABLE: HOT MIX ASPHALTIC CONCRETE

Contractors are advised that the reinstatement of pipe excavation cuts on the Trans Canada Highway will require paving of a 60mm base course lift and 50mm surface course lift. The base and surface course mix shall be manufactured using PG 58-28 liquid asphalt.

SGC 11. ITEMS NO. 17 & 38(a) OF THE UNIT PRICE TABLE: SUPPLY AND INSTALL GUIDERAIL / SALVAGE AND REINSTALLATION OF GUIDERAIL ON NEW POSTS

Contractors are advised that the mounting height of the guide rail from the top of asphalt, as depicted in drawings 1279-1, 1280-1 and 1282-1, shall be increased from 500mm to **635mm**. Additionally, the depth of bury shall be increased from 1200mm to **1500mm**. All other dimensions shall remain the same.

The contractor is advised that this item includes both left-hand side and right-hand side pieces. The contractor shall confirm all quantities of guide rail and buried ends with the Resident Engineer.

SUPPLEMENTARY GENERAL CONDITIONS**SGC 12. ITEM NO. 28 (c) OF THE UNIT PRICE TABLE: DISPOSAL OF PIPES AND CULVERTS**

Contractors are advised that Section 522 of the General Specifications shall apply to this item with the following addition:

522.05.01 Basis of Payment for Disposal of Pipe

Payment at the contract price for the disposal of pipe of a particular material and size shall be compensation in full for all materials, labour, and use of equipment to: provide any hand work excavation necessary to complete the pipe disposal operation, remove the pipe and couplers, remove any steel or concrete baffles, remove any concrete, provide any dewatering necessary to carry out the work, provide an approved waste disposal site, transport pipes, couplers, baffles and concrete to the waste disposal site, dispose of the pipes, couplers, baffles and concrete and backfill and compact the excavated material.

Excavation above and around the pipe shall be compensated for under Item No. 6-Excavation for Foundations, but any additional hand work excavation required to remove the pipe shall be considered compensated for as part of payment for Item No. 28 – Disposal of Pipes and Culverts.

SGC 13. ITEM NO. 35 OF THE UNIT PRICE TABLE: COLD PLANING

The following shall replace Section **360.03 OPERATIONS** of the Department's Specification Book:

360.03 OPERATIONS

The existing pavement shall be removed to the depth specified in the unit price table. Should the pavement not be removed to the required depth in the first pass, then the Contractor shall return again to mill down the pavement to the required depth.

Removal may be required across the full width of the road, one lane width, one lane and shoulder width or in tapered strips along the curb, depending upon the suitability of the resulting cross section. In areas where the cold milling equipment cannot remove the pavement to the depths required, such pavement shall be removed to the required grade using other means acceptable to the Engineer.

Prior to paving operations commencing a transverse butt joint must be constructed. If a transverse vertical cut is milled in the existing pavement at the limit of the work area the

SUPPLEMENTARY GENERAL CONDITIONS

contractor shall immediately construct with hot mix asphalt concrete a temporary smooth 1.5 meter long taper. The temporary taper must be removed prior to paving of the milled area.

In locations where cold planing and paving of adjacent lanes is required, sequential mill and fill for longitudinal joint construction and paving is to be followed. The first lane is to be completed (cold planed and paved) prior to cold planing of the adjacent second lane. Cold planing of the adjacent second lane must include the removal of the shared longitudinal joint by cold planing a minimum of 100 mm of the first paved lane. Cold planing and paving of the adjacent second lane is not to take place until the next day. All lane edges remaining in the work are to be clean and coated with a double application of tack coat.

All residue left by the cold planing process shall be removed immediately from the road. Mechanical sweeping shall be performed at the end of each day's operations. Low points in the asphalt as a result of cold planing operations at the end of each day's operation, where water ponding may occur, shall have the shoulder milled for draining rainfall. Any guide rail contaminated as a result of cold planing or sweeping operations shall be cleaned to the satisfaction of the Engineer. Any milled material that is lost over the shoulder shall be immediately retrieved and disposed of in an approved manner.

The Contractor shall dispose of residue at an approved waste disposal area provided by the Contractor at his own expense.

The Contractor shall continuously maintain the work site free of pot holes and standing water and in a condition providing for a safe and efficient flow of traffic, from the time of removal, until such time as the new asphalt concrete is placed. Hot mix asphalt concrete shall be placed in the pot holes; cold mix or RAP are acceptable only as a temporary repair. Areas cold milled must be paved within 7 days of the cold milling operation. Signage indicating the driving condition of the milled surface shall be posted. (I.e. Construction Signs TC-47 and TC-49) Milled and aged asphalt concrete surfaces shall be treated with bituminous tack coat in accordance with Section 320 prior to the placing of asphalt concrete.

SGC 14. ITEM NO. 47(c) OF THE UNIT PRICE TABLE – SUPPLY ROCKFILL IN PLACE

The Contractor is advised this item is to be used for a rock cap as part of the road reinstatement work after installation of the culvert across the TCH should the excavated material be deemed unsuitable for use by the resident engineer.

SUPPLEMENTARY GENERAL CONDITIONS

Additionally, this item shall be used to construct a rock mattress under any required select bedding for the new pipe should it be deemed necessary. As such, the Contractor shall take these requirements into consideration when bidding this item as no additional compensation will be made for any additional costs associated with the placement and compaction of the rockfill as part of the rock mattress construction.

SGC 15. ITEM NO. 0(C) OF THE UNIT PRICE TABLE: ACCOMMODATION OF TRAFFIC

Contractors are advised that prior to commencing any work, a detailed traffic control plan outlining signage layouts, public notification methods and special instructions must be submitted to the Department as per Section 190.4.6 of the Department and Transportation and Infrastructure Specifications Book. No work shall commence until the Contractor has received written approval of their plan submission. This review in no way relieves the Contractor of responsibility of ensuring an appropriate Traffic Control Plan. The Contractor will remain primarily responsible to ensure appropriate signage and resources are in place to safely accommodate the work site at all times.

The Contractor's procedure to control traffic shall form part of their Traffic Control plan. In the event that traffic delays become excessive (ie. queues in excess of 3km total or delays in excess of 30 minutes) or the buildup of traffic is creating unsafe conditions, as determined by the Engineer, the Contractor shall be required to remove equipment from the roadway to alleviate congestion. Delay claims or other compensation shall not be considered in the event construction must be halted due to traffic issues.

Contractors are advised that any highway median crossovers proposed to accommodate traffic during culvert work on the TCH shall be paved with hot mix asphalt. Gravel or unpaved driving surfaces will not be permitted.

Contractors are also advised construction shall not be permitted on the Trans-Canada Highway during Friday afternoon and Sunday afternoon (or Monday afternoon on long weekends) on any weekend during the project. This is due to the high traffic volumes anticipated during these time periods. The Contractor shall have all equipment and crews off the road by 12:00 pm on these days.

The Contractor shall be allowed to work on Saturday on these weekends as well as Sunday when the holiday falls on the Monday. The following weekends shall be designated holiday weekends for this contract:

Victoria Day Friday, May 21st to Monday, May 24th

Labour Day Friday, September 3rd to Monday, September 6th

SUPPLEMENTARY GENERAL CONDITIONS

Additionally, Contractors are advised that on this project a designated “Traffic Control Supervisor” is required whose sole duty is to ensure that all construction signage and personnel are present on the project site as required by the latest version of the Department of Transportation and Infrastructure Traffic Control Manual. This manual can be found on the Government of Newfoundland and Labrador website at: <https://www.tw.gov.nl.ca/publications/Traffic%20Control%202018.pdf>

The Traffic Control Supervisor will be required to have Traffic Control Person II Training from a certified trainer as prescribed by WorkplaceNL. Contractors must provide copies of this certificate and contact information to the Resident Engineer one week prior to construction. Responsibilities of the Traffic Control Supervisor are:

1. Adhere to all requirements as outlined under **Section 190.4.6 Traffic Control**;
2. Implement the contractor traffic control plan for all phases of the project and ensure that the signage used is in good condition, installed as required by the Traffic Control Manual and to monitor the signage daily;
3. Ensure that there are adequate traffic control persons on site at all times while work is ongoing and ensure these individuals are completing their duties as required;
4. Liaise with the Resident Engineer as required including reporting any deficiencies, changes, or concerns;
5. Maintain a presence on the project from the start of the work and until all work has ceased on the project including while sub-contractors are on site.

The Traffic Control Supervisor must have the authority to direct and allocate the necessary resources to ensure all traffic control requirements as noted above are met. The Traffic Control Supervisor cannot be the Contractor Safety Representative nor the project superintendent/supervisor.

All costs associated with these requirements as well as the use of a Traffic Control Supervisor, providing him/her with all necessary tools, equipment and personnel to complete all tasks as described above, shall be incidental to the item.

Contractor shall provide adequate resources (equipment, flagpersons, signs, message boards, traffic lights, etc.) which conforms to Division 7 Temporary Condition Signs and Devices of the Department and Transportation and Infrastructure Specifications Book as well as the latest edition of the Department’s Traffic Control Manual and amendments to ensure the safety and convenience of the public and workers. If the Department deems adequate resources are not in place to safely accommodate the work site, the Resident

SUPPLEMENTARY GENERAL CONDITIONS

Engineer will provide the Contractor with notification, either verbal or written that additional resources are required. The Contractor must comply with the Resident Engineers requests or construction will be halted until appropriate resources are in place. Contractors are reminded that it is their responsibility to adhere the latest edition of the Department's Traffic Control Manual at all times for the safe accommodation of traffic throughout the work site and to continually monitor the work site to ensure compliance and not rely on notification from the Department that changes or additional resources are required. Delay claims or other compensation will not be considered in the event construction is halted due to the lack of appropriate resources.

During the asphalt sample coring operations, the Contractor must provide all traffic control in the form of flag persons and signs for Transportation and Infrastructure employees. Coring will not be permitted until all traffic control devices are erected and flag persons are in position.

Flagpersons are responsible to accommodate all working operations conducted on the jobsite and sufficient flagpersons must be available to safely perform all tasks. This includes but is not limited to: Culvert installations, milling, paving, tack coat, shouldering, temporary line striping, coring operations, etc. ALL Flagpersons are required to have current Traffic Control Person I training from a certified trainer as prescribed by WorkplaceNL.

LIQUIDATED DAMAGES FOR NON-COMPLIANCE

The Department shall document and provide the Contractor with notification, either verbal or written, when an infraction has been noted so as to allow the Contractor to develop corrective actions to safely accommodate traffic throughout the work site. The Department of Transportation and Infrastructure will cease work operations until adequate resources are in place. Failure to comply with the direction of the resident engineer to cease work operations for not complying with this specification, shall result in the application of a **\$10,000** penalty for each instance of noncompliance.

BASIS OF PAYMENT

Payment for this item will be a Lump Sum price. This lump sum price shall be compensation in full for all flagperson hours, labour, materials, and use of equipment and devices required to safely accommodate traffic for all operations throughout the entire duration of the project.

SUPPLEMENTARY GENERAL CONDITIONS

The Contractor shall be paid this item based on a percentage of the tender value they completed during the pertinent progress payment period. A value of 10% of this Lump Sum cost is to be paid on the first progress estimate.

If the Department of Transportation and Infrastructure and the Contractor agree to perform extra work outside of the Scope of Work identified in the original contract, "Accommodation of Traffic" Lump Sum price will be pro-rated based on a cost of extra work completed compared to the total original contract value.

SGC 16. ITEM NO 100 OF THE UNIT PRICE TABLE: SALVAGE AND REINSTALL HYDRAULIC RIP RAP (ALL SIZES)

Contractors are advised that all existing rip rap and boulders encountered in the excavation shall be salvaged and reinstalled for rip rap end treatment around the new culverts. The contractor shall set the rip rap aside for measurement and before incorporating them into the culvert end treatment as directed by the Engineer.

SGC 17. ITEM NO. 101 OF THE UNIT PRICE TABLE: DESIGN, SUPPLY AND INSTALL 1200mm DIAMETER CULVERT REHABILITATION WITH HDPE LINER**Scope**

This specification covers the specific requirements for the design, supply and installation of Culvert Rehabilitation by High Density Polyethylene (HDPE) Slip-Lining Culvert (SLC) Method for the rehabilitation of existing 1200mm Corrugated Steel Pipe (CSP) on the TCH at:

Part B – TCH km 35.3 (Length = 61.0m)

Design

The Contractor shall be responsible for the design of the SLC. The SLC shall be of stated length and minimum 900mm inside diameter, although minor variations in the diameter of the pipe will be considered. The design life of the SLC shall be a minimum of 75 years.

The design shall be carried out in accordance with the following applicable specifications and standards:

- ASTM F585, Practice for Insertion of Flexible Polyethylene Pipe into existing sewers

SUPPLEMENTARY GENERAL CONDITIONS

- CAN/CSA B182.8, Profile Polyethylene Storm Sewer and Drainage Pipe and Fittings
- ASTM D3350, Specification for Polyethylene Plastics Pipe and Fittings Materials
- ASTM D2321, Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications
- ASTM D2412, Standard Test method for Determination of External Loading Characteristics of Plastic Pipe by Parallel-Plate Loading

The design shall be prepared by a Professional Engineer who shall submit shop drawings and installation procedures to the Department at least two weeks prior to the start of construction. Shop drawings shall bear the stamp and signature of a Professional Engineer licensed to practice in the Province of Newfoundland and Labrador.

The shop drawings shall specify the intended wall thickness and the finished inside and outside diameters of the SLC. Design calculations shall be included with the shop drawings showing all technical assumptions and identifying the design formulas used. The ovality condition and pipe stiffness used in the calculations shall be identified.

The design shall be carried out with generally accepted standards of practice to meet CL-625 loading requirements, in accordance with the Canadian Highway Bridge Design Code.

Environmental Permits and Authorizations

Authorization from the Fish Habitat Management Branch, Fisheries and Oceans Canada is required for work in or near any watercourse or water body deemed to be viable fish habitat.

Where unwatering is required, the Contractor shall carry out this work in accordance with Section 180 of the Department's Specification Book "Unwatering Incidental to Work".

The Contractor shall be aware of the requirements of Division 8 of the Department's Specification Book.

Materials

The selected SLC shall be of the length, size and thickness, as approved by the Department. The Contractor shall supply the liner, the grout, any necessary support blocking during installation, bulkheads, and all necessary materials and equipment to join the SLC sections and install the SLC according to the manufacturer's requirements.

SUPPLEMENTARY GENERAL CONDITIONS**High Density Polyethylene Pipe**

The SLC liner material shall be manufactured from a high density polyethylene resin which meets or exceeds the minimum cell classification for gravity flow pipe when classified in accordance with ASTM D3350 (PE 435420C)

The liner pipe shall have smooth interior and exterior walls and be homogenous throughout and free from visible cracks, holes, foreign inclusions or other defects. The pipe shall be as uniform as practical in colour, opacity, density and other physical properties.

The liner pipe shall have sufficient wall stiffness to safely resist external hydrostatic pressures generated by ground water levels above the top of the pipe and any additional pressures generated by the grouting process.

The liner pipe material shall be resistant to corrosion from pH values between 2 and 13.

Grout

The Contractor shall design and supply the non-shrink grout suitable for low pressure pumping into the annular void between the plastic pipe and the surrounding existing culvert.

The Contractor shall provide a detailed grouting plan which contains a description of the equipment and operational procedures to accomplish the annular grouting operation, including grout design, grout mix type, grout samples, and test data.

The grout mix design and representative samples shall be submitted to the Department's Materials Engineering Division for approval at least 14 days in advance of anticipated use. The mix design and procedure must be approved by the Engineer prior to grouting. The grout shall be mixed and placed as per the manufacturer's instructions and under the supervision of the Engineer. The compressive strength of the grout shall be between 1.0 and 5.0 MPa in 28 days.

The Contractor shall be responsible for all mix design and quality control of grout production and placing. Quality assurance testing of the grout will be carried out by the Department.

SUPPLEMENTARY GENERAL CONDITIONS**Construction Requirements****Transporting, Unloading, Storing, and Handling Materials**

The Manufacturer's recommendations for transporting, unloading, storing, and handling of materials shall be followed. Assembly and installation of the liner pipe shall be monitored by an Industry Representative of the Slip-Lining Culvert industry. The industry representative will be responsible for supervising the liner pipe assembly, placement and grouting, and generally ensuring that the SLC is installed in accordance with the requirements of the Designer and the Manufacturer.

Preparation for Installation

In general, the installation requirements of ASTM F585 shall be followed.

Before ordering the new slip-lining culverts, a pre-installation inspection by the Contractor and Industry Representative shall be completed in the presence of the Department's Representative prior to the commencement of the culvert rehabilitation. The Contractor shall ensure that there are no locations within the deteriorated culvert that are so badly misaligned or deflected that the liner pipe cannot be pulled or pushed past them. In this case, a smaller liner pipe may be selected or the appropriate repairs may be made to the existing culvert, pending the Department's approval. A pipe diameter change in the slip line pipe may be accommodated with a reducer section and/or increaser section.

The existing culvert to be rehabilitated shall be prepared in accordance with the manufacturers requirements for SLC installation. Debris, grease, and other materials which may hamper the insertion process shall be flushed and scoured with water under pressure. Appropriate blocking and/or supports shall be set up to stabilize and properly align the SLC pipe during insertion and to prevent floating of the SLC pipe during grouting operations. Access pits at the upstream or downstream ends of the existing culvert may need to be excavated to accommodate the assembly and insertion of the SLC. Should any area be destabilized by this process, appropriate mitigation measures shall be taken to prevent runoff of silt laden water from being carried downstream. Any destabilized areas shall be repaired at the Contractor's expense.

Inserting the SLC

The liner pipe may be inserted using a variety of pushing or pulling techniques. The pushing or pulling force must be evenly distributed around the perimeter of the liner pipe to avoid concentrated loading which may result in damage to the pipe. The pipe

SUPPLEMENTARY GENERAL CONDITIONS

manufacturer's recommendations should be followed regarding the most appropriate method of applying push or pull forces to the end of the liner pipe.

Pipe Joining

The SLC pipe sections shall be joined together by means of a threaded joint and joint wrap to form a flexible snug tight seal to resist infiltration of deleterious material. Each piece of pipe shall be threaded onto the preceding pipe and the wrap applied over the centre of the joint. Joints shall not be deflected beyond the Manufacturer's recommended maximum. The Manufacturer's recommendations on pipe joining shall be followed.

Grouting

The annular space between the existing culvert and the SLC shall be filled with grout. The Contractor shall construct bulkheads at the upstream and downstream ends of the existing culvert to contain the grout within the annular void. Vents shall be installed in the annular space to ensure sufficient air flow and proper flowing of the grout into the annular space. It is the Contractor's responsibility not to trap air in the annular space during the grouting operation. All stream flow shall be held back or bypassed during the grouting operation.

The Contractor shall ensure that ovalising due to floatation forces during the grouting operations does not exceed the recommended maximum of 5%. To reduce floatation forces during grouting, the Contractor may fill the liner pipe with water to counter-act the buoyancy forces experienced, use a lighter than water grout, or place the grout in lifts.

Due care shall be taken when pressure pumping so that excessive pressure does not damage the liner.

The maximum amount of time permitted between the completion of the insertion of the SLC to the beginning of the grouting process shall not exceed two weeks. The Contractor shall ensure the grout does not freeze and that the grout meets the design strength within 28 days.

Grout equipment shall be specifically designed for the job and approved by the Manufacturer's Representative and by the Engineer. Grout shall be mixed in an approved mechanical mixer or concrete mixing truck such that it can be placed in the approved mixing time before set.

After grouting procedures are completed, all exposed vents and hoses are to be removed to the finished surface of the bulkheads and road side slopes.

SUPPLEMENTARY GENERAL CONDITIONS**Measurement for Payment**

Measurement for payment for the High Density Polyethylene Slip-Lining Culvert shall be at the unit price bid for the length of the installed pipe, measuring along the centerline invert of pipe installed as a liner. The measurement shall be computed in meters, rounded to one decimal place.

Basis of Payment

Payment at the contract price for the Design, Supply and Installation of Culvert Rehabilitation by HDPE SLC shall be compensation in full for preparation and flushing of existing culverts, correcting any protrusions in existing culverts, any excavation required for pipe assembly and insertion, and the use of all materials, equipment, tools and labour to: design, supply, transport, assemble and install the SLC including grouting, provide any required unwatering, together with the provision of supervision by a qualified representative from the Slip-Lining Culvert industry. No extra compensation will be made for installing a slip liner larger in diameter than the minimum diameter stated.

**SGC 18. ITEM NO. 102 OF THE UNIT PRICE TABLE: DESIGN, SUPPLY AND
INSTALL 2400mm CULVERT REHABILITATION WITH ALUMINUM
TUNNEL PLATE LINER**

Scope

This specification covers the specific requirements for the Design, Supply and Installation of Culvert Rehabilitation by Aluminum Tunnel Plate-Lining Method for the rehabilitation of an existing 2400mm x 45.9m Corrugated Steel Pipe (CSP) on the TCH at km 48.5.

This work consists of assembling a minimum 2100mm inside diameter x 46m long segmental plate aluminum tunnel liner reline pipe inside the host pipe and pumping a flowable grout in the annular space between the two pipes.

Design

The Contractor shall be responsible for the design of the rehabilitation to meet the diameter and length shown in the Unit Price Table. The design shall be of stated length and minimum stated diameter; minor variations in the diameter of the pipe may be considered. The design life shall be a minimum of 75 years.

SUPPLEMENTARY GENERAL CONDITIONS

The design shall be carried out with generally accepted standards of practice to meet CL-625 loading requirements, in accordance with the latest edition of the Canadian Highway Bridge Design Code.

The design shall be prepared by a Professional Engineer who shall submit shop drawings and installation procedures to the Department at least two weeks prior to the start of construction. Shop drawings shall bear the stamp and signature of a Professional Engineer licensed to practice in the Province of Newfoundland and Labrador.

The shop drawings shall specify the intended wall thickness and the finished inside and outside diameters of the tunnel plate liner. Design calculations shall be included with the shop drawings showing all technical assumptions and identifying the design formulas used.

A thorough inspection by the Contractor and Industry Representative shall be completed in the presence of the Department's Representative prior to the commencement of the culvert rehabilitation. The Contractor shall ensure that there are no locations within the deteriorated culvert that are so badly misaligned or deflected that the liner pipe cannot be constructed, pulled or pushed past them. In the case of misalignments and/or deflections a smaller liner pipe may be selected or appropriate repairs may be made to the existing culvert. Repair methods to the existing misaligned and/or deflected CSP culvert or changes to the rehabilitated culverts diameter shall require prior written approval from the Engineer.

Unwatering and Environmental Considerations

Where unwatering is required, the Contractor shall carry out this work in accordance with Section 180 of the Department's Specification Book "Unwatering Incidental to Work".

The Contractor is advised that, during all phases of unwatering, the flow of water entering the culvert's inlet and discharging into the body of water immediately downstream of the culvert's outlet is to be maintained at all times.

The Contractor shall be aware of the requirements of Division 8 of the Department's Specification Book.

Material Specification

The relined pipe shall be a two flange tunnel liner plate fabricated to permit in-place assembly of a continuous aluminum liner.

SUPPLEMENTARY GENERAL CONDITIONS

Plates shall be fabricated from marine grade aluminum alloy 5052.

Factory punched holes along longitudinal and circumferential plate seams shall permit plate assembly to be completed from the inside of the pipe.

Longitudinal plate lap seams shall be offset by the gauge of the shell plate along its length to allow the cross section of the plate to be continuous across the seam.

Each ring is comprised of 6 plates with a net covering length of 500 mm measured along the length of the pipe.

Galvanized connector bolts shall be grade A307 x 15.9 mm (5/8") diameter.

Factory installed 50.8 mm (2") diameter threaded grout injection ports shall be welded into select plates to facilitate pumping grout into the annular space between the two pipes.

Site Preparation

The Contractor shall provide access to the site to safely accommodate staging and transportation of construction materials and equipment as required and so as to not cause damage to the pipe in the installation process.

Contractor shall supply and install temporary waterway diversions and or cofferdams/pumps to permit plate assembly in reasonably dry working conditions. All stream flow shall be held back or bypassed during the grouting operation.

Any material including boulders, mud, rock, gravel, debris and any other deleterious material located within the host pipe shall be removed and disposed of in accordance with Division 8 "General Environmental Requirements" of the Specifications.

Plate Assembly

The 2100 minimum diameter tunnel liner pipe should be comprised of 6 plates per ring - 4 single swage plates, 1 double swage plate and 1 no swage plate ranging in length from 300 pi to 400 pi long.

All rings to be 500 mm long. Reline pipe invert length = 46 m (92 rings)

Plates shall be assembled in accordance with Plate Assembly Drawings provided by the manufacturer.

Start plate assembly at the crown working towards the invert to complete each ring.

SUPPLEMENTARY GENERAL CONDITIONS

Swaged end of plate nests inside of adjoining plate.

Double swage invert plate nests inside both sides of adjoining plates to close the ring.

Recommended bolt torque is between 135 & 170 n-m (115-135 foot-pounds) OR as specified by the tunnel liner manufacturer.

Bracing

Contractor shall place blocking between the reline pipe sections and the host culvert to maintain a uniform annular space of approximately 125mm between the two pipes while grouting. Blocking to be used to maintain the proper alignment and grade of the reline pipe as required. Aluminum reline pipe shall not be in direct contact with the existing steel pipe after grouting operation is complete.

Any internal shoring of the reline pipe required to hold the design diameter during grouting shall be supplied by the contractor.

Critical span & rise dimensions shall be monitored and recorded while pumping grout.

The contractor shall close off inlet and outlet ends of the culvert with bulkheads to retain grout.

Grouting

The Contractor shall design and supply the grout suitable for low pressure pumping into the annular void between the aluminium pipe and the surrounding existing culvert.

The Contractor shall provide a detailed grouting plan which contains a description of the equipment and operational procedures to accomplish the annular grouting operation, including grout design, grout mix type, grout samples, and test data.

Grout mixture shall freely flow and consolidate with minimal vibration or tamping.

Grout shall be pumped through 50.8mm (2") diameter grout ports. Contractor shall insert plugs into grout ports after pumping operation is complete.

Grout to be placed in a minimum of 3 equal and uniform lifts (pours) along both sides of the pipe while ensuring the design diameter of the reline pipe is held at all times.

Maximum difference in grout elevations on opposing sides not to exceed 200mm.

SUPPLEMENTARY GENERAL CONDITIONS

Grout to completely fill annular space between relined pipe and host pipe. Vibrate as required to eliminate air voids in the grout.

Each lift of grout shall be adequately cured before placing subsequent lifts.

Grout pressure shall not exceed 100 kPa during the grout pumping process.

The grout mix design and representative samples shall be submitted to the Department's Materials Engineering Division for approval at least 14 days in advance of anticipated use. The mix design and procedure must be approved by the Engineer prior to grouting. The grout shall be mixed and placed as per the manufacturer's instructions and under the supervision of the Engineer. The non-shrink grout shall have a minimum 28 day compressive strength between 1 and 5 MPa.

Measurement for Payment

Measurement for payment for the Aluminum Tunnel Plate-Lining Culvert shall be at the unit price bid for the length of the installed pipe, measuring along the centerline invert of pipe installed as a liner. The measurement shall be computed in meters, rounded to one decimal place.

Basis of Payment

Payment at the contract price for the Design, Supply and Installation of Culvert Rehabilitation by Aluminum Tunnel Plate-Lining shall be compensation in full for preparation and flushing of existing culverts, correcting any protrusions in existing culverts, any excavation required for pipe assembly and insertion, and the use of all materials, equipment, tools and labour to: design, supply, transport, assemble and install the Aluminum Tunnel Plate-Lining including grouting, provide any required unwatering, together with the provision of providing shop drawings and supervision by a qualified representative from the Aluminum Tunnel Plate-Lining Culvert industry. No extra compensation will be made for installing an Aluminum Tunnel Plate-Lining larger in diameter than the minimum diameter stated.

**SGC 19. ITEM NO. 121 OF THE UNIT PRICE TABLE - SUPPLY AND INSTALL
CULVERT OUTLET ENERGY DISSIPATOR**

The Contractor is advised that under Part "B" of the Contract, Class II and Class III hydraulic rip rap shall be used to construct a culvert outlet energy dissipator. The plan area of the energy dissipator shall have nominal dimensions of 5m wide by 10m long. The dissipator shall consist of a bottom layer of Hydraulic Class III Rip rap embedded 0.5m

SUPPLEMENTARY GENERAL CONDITIONS

below the stream bed with a top layer of Hydraulic Class II rip rap. The supply and placement of all rip rap shall be in accordance with section 917 of the Specification.

Prior to placement of the bottom layer of Class III rip rap, a geotextile membrane shall be placed to line the excavation. The geotextile membrane shall be a needle punched, non-woven type membrane meeting the following minimum specifications:

Grab Tensile Strength:	1600N
Mullen Burst Strength:	3.7MPa
Tear Strength:	600N
Elongation at Break:	50%

Measurement for payment for non-woven geotextile membrane shall be by the square meter, rounded to one decimal place for the actual ground area covered by the membrane.

SGC 20. ITEM NO. 122 OF THE UNIT PRICE TABLE – SUPPLY AND INSTALL ROUND POLYMER LAMINATED CORRUGATED STEEL PIPE

This specification outlines the supply and installation of:

- 51m x 1600mm x 2.0mm wall thickness round polymer laminated corrugated steel pipe at km 29.5 on the Trans-Canada Highway.
- 48m x 2400mm x 2.8mm wall thickness round polymer laminated corrugated steel pipe at km 44.2 on the Trans-Canada Highway
- 58.0m x 1400mm x 2.0mm wall thickness round polymer laminated corrugated steel pipe at km 55.0 on the Trans-Canada Highway

Alternatively, corrugated aluminum pipe will be considered by the Department given that the required end area is equivalent. Minimum thickness of any aluminum pipe shall meet the pipe manufacturer's requirements for the height of cover present at the site but shall not be less than 3.43mm. The Contractor must notify the Department in writing in advance of any proposed substitutions. Any additional work required by the Contractor/Manufacturer for the installation of the selected pipe, including the supply and installation of select backfill, shall be deemed incidental to the item.

Details of the proposed pipe and the manufacturer's installation procedures including such items as the extents of compaction requirements, compaction equipment requirements, gradation details (including a percent passing sieve gradation table) and all other select backfill requirements stipulated by the pipe manufacturer are to be supplied to the Resident Engineer as appropriate.

SUPPLEMENTARY GENERAL CONDITIONS**Installation**

The work shall be carried out in accordance with the requirements of Section 421 of the Department's Specifications Book. This shall include the partial construction and loading of the structure with traffic and construction loadings prior to full structure assembly to accommodate any traffic routing through the site throughout the project. Any temporary measures to accommodate this requirement shall be designed and installed by the Contractor as part of this item.

The Contractor shall be responsible for **all testing** of select backfill materials required to meet the requirements of the pipe manufacturer. The Contractor shall use professional engineering services and a qualified testing firm licensed in Newfoundland and Labrador, as required, for all sampling and testing of the select backfill.

In addition to initial testing, the Contractor shall sample and test the backfill for conformance with the gradation requirements at least once every 250 m³ of material placed. All sampling shall be carried out in the presence of the resident engineer.

The Contractor will be responsible for testing to establish the Standard Proctor Maximum Dry Density of the approved backfill and will be responsible for having the compaction of each lift of backfill tested for conformance with the specification's compaction requirements. All results shall be provided to the engineer as the work progresses. Where conventional material testing is not possible the contractor shall use professional engineering services licensed in Newfoundland and Labrador to provide a visual inspection of each lift, ensuring proper compaction. The contractor shall provide a letter of conformance from the third party engineering firm stating that the backfill meets the compaction requirements stipulated by the specifications and pipe manufacturer as appropriate.

Compaction of the backfill shall be in accordance with the requirements and directions of the pipe manufacturer and the Department's Specifications Book as appropriate. The Contractor shall provide the Resident Engineer with proper documentation from the manufacturer on the compaction equipment and procedures required to successfully complete the compaction work around the pipe.

Payment

Measurement for payment for the structure shall be the actual installed length. The measurement shall be computed in meters, rounded to one decimal place.

SUPPLEMENTARY GENERAL CONDITIONS

Contractors are advised that the supply, transport, placement and compaction of select backfill, meeting the Department's highway specifications and these supplementary general condition requirements will be compensated for as part of the basis of payment for the supply and installation of the pipe and no separate payment will be made for select backfill of the pipe structure.

Where unwatering is required, the Contractor will carry out this work in accordance with section 180 "Unwatering Incidental to Work" of the Department's Specification Book.

SGC 21. EXCESS EXCAVATION MATERIALS

The Contractor is advised that excess excavation material on the project shall become responsibility of the Contractor to dispose of. There are no areas to be designated by the Department within the highway right of way for disposal of excess materials. No additional compensation or overhaul payment will be considered for this requirement.

SGC 22. ELECTRONIC TICKETS:

Contractors are advised that all scale houses on this project shall be equipped with all the necessary equipment to produce and print electronic copies of all weigh scale tickets for all materials that would normally be weighed. These materials shall include but are not limited to Surface Asphalt, Base Asphalt, Leveling Asphalt, Class A, Class B, Rock, OM, MGIII, etc, and any other material types to be provided by the Resident Engineer. The Electronic Ticket System shall include the following:

Hardware:

- Micro controller c/w internal USB flash drive and operating software.
- Ticket printer with RS - 232 interfaces, capable of printing 4 layered copies
- All components require 120 Volts AC.
- Provide UPS with backup power supply, 20 minutes minimum.

Software:

- Must be able to store up to 750 transactions.
- Must be able to store and recall up to 50 trucks.
- Must be able to store and recall up to 20 products.
- Must be able to store and recall project numbers.
- Must be able to store and recall truck tare weights.
- Must be able to export data to a USB flash drive, to be used with Microsoft Excel.

SUPPLEMENTARY GENERAL CONDITIONS

- Must have the option to delete data after exporting.
- Must have password protection for exporting data.
- Must be able to recall the amount of material weighed at any particular time.
- Must provide ticket with the following information:
 - Government name and address
Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
**White Hills Transportation Depot, Building 1170 Harding Road, St. John's
A1A 5G6**
 - Date and time.
 - Ticket number
 - Project number
 - Product ID
 - Truck ID
 - Gross, Tare, Net
 - Station line
 - Rear axle line
 - Signature line
 - Checker line
 - Time unloaded.

Contractors are advised that the electronic ticket system must include all the requirements above and is also subject to prior approval by the Resident Engineer. The Contractor shall ensure that the system is installed and working properly and to provide the necessary training and instruction to Departmental Staff as to its operation.

Contractors are advised that all costs associated with the supply, installation, training and maintenance of the electronic ticket system shall be incidental to the contract bid prices, including the supply of the blank tickets. No additional payment will be made and the Department will not be liable for any associated downtime.

SGC 23. COMMUNICATION DEVICES

Contractor is advised that flagpersons shall be equipped with either 2-way or 3-way radios only. Flagpersons shall **not** be permitted to use any cellular devices during hours of operation unless it is deemed an emergency. If flagpersons are seen using cellular devices for any other purposes they will be asked to leave site immediately.

SUPPLEMENTARY GENERAL CONDITIONS

The Department will not accept any claims resulting from work delays for the dismissal of any flagpersons who fail to abide by this item. Contractors are strongly advised to enforce this item promoting site safety.

SGC 24. UNDERGROUND FACILITIES

The Contractor is advised there may be sensor cables, hydro lines, underground electrical, telephone conduits, water and sewer lines and private wells located in the project limits. It is the Contractor's responsibility to contact local residents, municipal authorities, building managers and utility companies to determine the location of all underground facilities within the project limits before commencing work.

The Contractor shall conduct his work operations in such a manner as not to damage any property or utility services. If any damage should happen, the Contractor shall make good at his own expense. The contractor is reminded of the requirements of Section 130 of the Specification Book "Protection Against Negligence and Damage."

SGC 25. UPDATES TO THE DEPARTMENT SPECIFICATION BOOK

The following sections of the Department's Specification Book shall be replaced or added, as applicable, with those sections appended to the Supplementary General Conditions portion of this tender document.

SECTION	TITLE
110	Engineer's Field Office
111	Field Laboratory
157	Mobilization and Demobilization
160	Contractor Performance Evaluation System
190	Occupational Health and Safety
316	Compaction for Granular and Other Material
320	Tack Coat
330	Hot Mix Asphaltic Concrete
904	Concrete Structures

SECTION 110

ENGINEER'S FIELD OFFICE

On projects having a total estimated tender value of \$250,000 or greater, the Contractor shall supply a field office together with furniture for the use of engineering staff. The Field Office shall not be of a lesser standard than that shown in Section 1201 "Field Office" and furniture shall be of a standard to prevent musculoskeletal injury (ergonomic) as per the OH&S Act. Prior written approval must be obtained from the Department should the Contractor wish to supply an office other than that shown and described on this plan. The Contractor must ensure the office can be serviced by utilities (i.e.: communication suppliers).

The field office is to have a plain paper fax and separate photocopier. The photocopier must be capable of copying letter (8.5" x 11") and legal (8.5" x 14") sized paper as well as bound field books.

On projects having a total estimated tender value of less than \$250,000, the Contractor must still supply a field office and furniture, but the field office and furniture may be to a lower standard than that shown in Section 1201 "Field Office". Furniture and facilities may be reduced accordingly as agreed to by the Engineer; however, floor area shall not be less than fifteen square metres.

On contracts, which involve the construction of a concrete bridge or concrete pavement, the Contractor shall equip the office with a concrete test cylinder-curing tank of capacity not less than 0.2 cubic metres.

The field office must be located on the site of the project and shall be ready for use from the first day the Contractor commences work and it shall remain available for use for the duration of the contract. All doors for accessing the Engineer's Field Office shall be secured by means of an exterior latch suitable for a Department supplied padlock. Any other means of accessing the Field Office shall be securable and accessible from the inside only.

The Contractor shall clean the office and maintain all electric lights, heating, hot and cold water, and the washroom facilities in good working condition at all times. Cleaning of the office shall be done on a biweekly basis unless the Engineer agrees to an alternate schedule.

All costs of providing the office, furniture, equipment and providing and maintaining the required heat, light, hot and cold water, and sanitary provisions together with periodic clean out shall be borne by the Contractor. No payment will be made for this item. The

provision and maintenance of the Field Office shall be considered as part of carrying out the other contract items.

SECTION 111

FIELD LABORATORY

On projects having a total estimated tender value of \$250,000.00 or greater and on which soils testing will be required, the Contractor shall supply a field laboratory together with furniture for use by engineering staff.

The field laboratory shall be heated, have 110 volts 60 cycle electrical outlets, electric light, work benches, clean running water, washroom facilities, electric laboratory oven, propane table top stove, and be suitable for the type of testing called for in the specifications. The field laboratory shall be of a standard not less than that shown on the plan in Section 1203 "Field Laboratory" and furniture shall be of a standard to prevent musculoskeletal injury (ergonomic) as per the OH&S Act. Should the Contractor wish to supply a field laboratory other than that shown in Section 1203, then prior written approval of the Engineer must be obtained.

The field laboratory is to have a photocopier capable of copying letter (8.5" x 11") and legal (8.5" x 14") sized paper as well as bound field books. The office area in the laboratory shall also be fitted with an air conditioning unit.

Whenever asphalt testing is conducted, the Contractor shall provide a fume hood located inside the field laboratory for Department testing purposes, having adequate forced air circulation. This requirement is necessary to ensure the safety of personnel conducting the extraction of asphalt cement from the hot-mix asphalt using N-Propyl Bromide. Contractors shall also provide the required N-Propyl Bromide solvent to conduct the testing.

The fume hood must be located appropriately within the laboratory to allow proper functional access and not interfere with other laboratory functions or testing.

Fume hoods complete with work surfaces, cabinets, sinks, exhaust blowers and chemical extraction pumps must be approved by the Materials Engineering Division prior to purchase. Proposed fume hoods shall meet or exceed ASHRAE-110, NFPA-45, and UL 1805 standards as well SEFA recommended practices.

Materials and description criteria below shall be met:

1. Fume Hood

- Minimum dimensions of 72 inches wide x 32 inches deep x 48 inches high to permit placement of vacuum extractor, vacuum pump and hot plate.
- Constructed of chemical resistant, flame retardant, non-metallic composite resin, both interior and exterior.
- Interior fume chamber is moulded one piece seamless with all corners coved.
- Equipped with vertical slide safety tempered glass slash with chemical resistant sash frame – sash track – and sash lift.
- Sash stops which can be manually adjusted by field personnel.
- Vapour-proof light fixture mounted in hood with switch pre-wired to junction box.
- 115v, 20amp, single phase 2-duplex receptacle installed on front column of fume hood for a vacuum pump and hot plate.
- Switch installed for chemical extraction pump.

(Hemco Uniflow LE Fume Hood Part No. 35611 or Equivalent)

(Hemco Safety Sash Lock Part No. 51651 or Equivalent)

(Hemco 2 Duplex Receptacle Part No. 50029-2 or Equivalent)

(Hemco Single Receptacle Part No. 50030-2 or Equivalent)

2. Work Surface (Countertop)

- Stainless steel work surface with dimensions to match internal fume hood chamber.
- Surface dished minimum 3/8" to contain spillage.
- Hole must be cut in surface to allow installation of oval cup sink.
- Polyolefin 3 inch by 9 inch oval cup sink for drainage

(Hemco Stainless Steel Work Surface Part No. 20616 or Equivalent)

(Hemco Oval Cup Sink Part No. 40121 or Equivalent)

3. Acid Storage Base Cabinets

- Storage base cabinets having dimensions to match fume hood chamber (minimum dimensions for one cabinet 72 inches wide or two cabinets 36 inches wide each.)
- Constructed of top grade furniture steel with a chemical resistant finish.
- Interior shall have a moulded one piece seamless liner constructed of

chemical resistant composite resin.

- Adequate space for two 5-gallon containers. One container will hold clean solvent to pump into extractor whereas the second container will hold the asphalt cement / N-Propyl bromide extract solution from the vacuum extractor. (Rather than setting up the two containers, the Contractor may run lines for clean solvent and extract to barrels outside the trailer that are properly secured)
- Adjustable Shelf and vented hinged doors.

(Two Hemco Acid Storage Base Cabinets Part No. 15030 (36 inches wide) or equivalent)

4. Fume Hood Exhaust Blower

- Belt driven exhaust blower installed next to hood or externally on the trailer roof. Capacity of 500-1000 CFM
- ¼ HP, 115 V motor
- Pilot light switch for air blower.
- Ventilation duct hardware and vents shall be supplied and installed as per fume hood manufacturer's instructions

(Hemco Epoxy Coated Steel Blower Belt Drive Part No. 51705X or Equivalent)

(Hemco Blower Switch with Pilot Light Part No. 50027-1 or Equivalent)

5. Chemical Extraction Pump

- 115v liquid-flow pump to be installed in base cabinet to extract N-Propyl Bromide from container
- Pump outfitted with chemical resistant Viton diaphragm
- Piping made of PVC plastic

The fume hood must also be inspected prior to use in accordance with all applicable regulations.

Contractors are to provide the required N-Propyl Bromide solvent to conduct the testing. For rough estimate purposes, each extraction test requires approximately 5 litres solvent.

Contractors must also dispose of used solvent by means of an approved chemical waste disposal company. Verification of proper disposal of the solvent shall be provided to the Owner's Representative upon completion of the work.

The field laboratory shall be located on the site of the project and shall be ready for use from the first day the Contractor commences work for which testing is required, and it shall remain available for use for the duration of the contract. All doors for accessing the Field Laboratory shall be secured by means of an exterior latch suitable for a Department supplied padlock. Any other means of accessing the Field Laboratory shall be securable and accessible from the inside only.

The Contractor shall supply a separate vented steel storage locker for the Department's coring machine and mixed gas. The storage unit shall be located near the field laboratory and have a means of properly securing its contents.

The Contractor shall periodically clean the laboratory and maintain all electric lights, heating, running water, and sanitary provisions in good working condition during the time the laboratory is required.

On projects having a total estimated tender value of less than \$250,000, the Contractor shall provide and maintain a field laboratory as described, or provide transportation of all Test Samples from the job site to the Department's Materials Engineering Division at LeMarchant Road in St. John's.

The Engineer, or their representatives shall select test samples, and the number and the frequency of taking test samples shall be at the sole discretion of the Engineer.

All costs of providing and maintaining the field laboratory as described, or of transporting test samples shall be borne by the Contractor. No payment will be made for this item. The provision and maintenance of the field laboratory shall be considered as part of carrying out those contract items for which tests are required.

SECTION 157 MOBILIZATION AND DEMOBILIZATION

Mobilization shall be defined as the loading, transportation, unloading, and complete set-up of all plant, materials, and equipment necessary to complete the work associated with the contract. Demobilization shall be defined as the decommissioning, loading, transportation, unloading and moth balling of all plant, excess materials and equipment after the work associated with the contract is complete.

Where excess materials are demobilized and the Department purchases these materials, demobilization shall include the loading, transportation and unloading of the same from the job site to the nearest district or regional depot. Demobilization does not apply to the loading, transportation to a storage site, and removing of existing materials which are to be salvaged.

The Contractor is advised that payment at the lump sum price for Mobilization and Demobilization shall be compensation in full for all labour, supplies, materials and equipment use required to mobilize and demobilize plus the provision of storage and security required during the mobilization and demobilization phases of the work.

For Bridge Rehabilitation Projects, refer to Section 919 for information regarding additional requirements specific to that type of work.

The price bid for this item in contracts on the island portion of the province shall not exceed the limits given in the following table for the Island Portion of Province:

Island Portion of Province

Total Estimated Tender (including Mobilization & Demobilization but not including HST)	Mobilization & Demobilization Tender Item Maximum Bid Permitted
Less than \$500,000	10% of Total Estimated Tender
Between \$500,000 & \$1,000,000	\$50,000 + 7.5% of the amount that the Total Estimated Tender exceeds \$500,000
Greater than \$1,000,000	\$87,500 + 5.0% of the amount that the Total Estimated Tender exceeds \$1,000,000

The price bid for this item in contracts in the Labrador portion of the province shall not exceed the limits given in the following table for Labrador:

Labrador

Total Estimated Tender (including Mobilization & Demobilization but not including HST)	Mobilization & Demobilization Tender Item Maximum Bid Permitted
Less than \$1,000,000	15% of Total Estimated Tender
Between \$1,000,000 & \$2,000,000	\$150,000 + 12.5% of the amount that the Total Estimated Tender exceeds \$1,000,000
Greater than \$2,000,000	\$275,500 + 10.0% of the amount that the Total Estimated Tender exceeds \$2,000,000

Should the amount bid exceed the limits specified, the tender will be considered unbalanced and shall be rejected.

BASIS OF PAYMENT

For Bridge Rehabilitation Projects, refer to Section 919 for details regarding payment for Mobilization and Demobilization.

For projects with a bid price of \$300,000.00 or less, at the time of tender, fifty percent of the total of this item shall be paid on the first progress estimate provided that the Contractor has fully mobilized, and 50% will be paid on the final progress estimate. In instances where the Contractor has not fully mobilized, payment shall be as determined by the Owner's Representative with all considerations due to the specifics of the work.

For projects with a bid price over \$300,000.00, at the time of tender, payment* for this item will be made in partial payments as follows:

- No Mobilization & Demobilization will be paid until 5% of the tender price (excluding Mobilization & Demobilization) is achieved.
- When 5% of the tender price is earned by the progress to date in contract items (excluding Mobilization & Demobilization), 20% of the amount bid for this item will be paid.
- Continued progress payment based on a prorated amount for the percentage of work completed – up to a max of 80% of the bid amount.
- 20% once the contract has reached final completion

There shall be no change in the lump sum price of this item due to a change in contract scope or an extension to the contract completion date. At no time shall the total of the amounts paid to the Contractor under this item be greater than the tender's lump sum bid price.

The payments for the lump sum price shall be full compensation for the work under this item regardless of the number of times the Contractor mobilizes/demobilizes to the project location(s).

*Payments for interim blasting, crushing, stocking aggregate and materials on site are not considered as value of work completed on a bid item when payment for this item is calculated.

SECTION 160

CONTRACTOR PERFORMANCE EVALUATION SYSTEM

INDEX

160.01	GENERAL
160.02	PERFORMANCE RATING METHODOLOGY
160.03	INTERPRETATION OF RATINGS
160.04	COMPLETION OF THE EVALUATION
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160.06	REINSTATEMENT OF BIDDING PRIVILEGES
160.07	CONTRACTOR REQUESTED REVIEW OF EVALUATION
160.08	CONFIDENTIALITY OF INFORMATION

160.01 GENERAL

The Contractor Performance Evaluation System is a process designed to maintain an acceptable level of performance from Contractors carrying out work for the Department of Transportation and Infrastructure (hereafter the “Department”). It will also provide a means to identify contractors with acceptable performance records and to provide a means to identify and deal with contractors with deficient or unsatisfactory performance records.

A record of the performance of Contractors will be maintained to identify the following:

- (a) Those Contractors who by virtue of satisfactory performance (as defined herein) will continue to be eligible to submit tenders for work with the Department.
- (b) Those Contractors who by virtue of deficient performance (as defined herein) who may have their bidding privileges suspended based on an evaluation of their contract work on a particular project and other projects completed for the Department.
- (c) Those Contractors who by virtue of unsatisfactory performance (as defined herein) may be subject to having their bidding privileges suspended by the Department for a period of time determined by the Department based on a review and an evaluation of their contract work on a particular project.

The Contractor Performance Evaluation System is not to interfere with, or substitute, the normal written communication that the Department would initiate when confronted with unsatisfactory performance during the execution of the work of the contract before the issuance of a Final Completion Certificate under the contract or during the execution of warranty work related to GC 31 of the contract. The Contractor is to be notified immediately through normal project communication if the work is not proceeding or being completed in a satisfactory manner.

160.02 PERFORMANCE RATING METHODOLOGY

The TI Site Representative or TI Project Manager will conduct the Contractor Performance Evaluation. The Evaluation will be conducted in two parts in accordance with the methodology provided in this document by using the Forms 160A and 160B. Form 160A being the "Contractor Performance Evaluation Report Part I: Contract Work Other Than Warranty Work" and as Form 160B being the "Contractor Performance Evaluation Report Part II: Warranty Work Under The Contract."

An unsatisfactory performance (as defined herein) on a single project may result in the suspension of bidding privileges for a period to be determined by the Department.

A deficient performance (as defined herein) on a particular project subject to a review of Contractor performance on other projects for the Department may result in the suspension of bidding privileges for a period of time to be determined by the Department.

Performance Rating Methodology for Contractor's Work Other Than Warranty Work (Form 160A) will be completed within thirty (30) days of the earlier of:

1. The issuance of a Final Completion Certificate for the project; or
2. The abandonment of the work by the Contractor; or
3. The termination of the work of the Contractor under the contract by the Department.

Performance Rating Methodology for Contractor's Warranty Work under the Contract (Form 160B) will be completed within thirty (30) days of the earlier of:

1. The completion of warranty work under GC 31; or
2. Where the Contractor refuses to do warranty work under GC 31; or
3. Where the Contractor abandons the warranty work before completion; or
4. The Contractor is terminated by the Department pursuant to the contract.

The Contractor's performance will be evaluated on a point rating system relative to the six (6) category listed on the latest version of Form 160A and/or Form 160B at the time of tender of the contract.

- (a) Project Execution and Timeliness (15 points)
- (b) Leadership and Accountability (20 points)
- (c) Project Administration and Management (15 points)
- (d) Quality of Work Completed (20 points)
- (e) Safety (25 points)
- (f) Environmental Considerations & Compliance (5 points)

160.03 INTERPRETATION OF RATINGS

The interpretation of points rating under Form 160A will be as follows:

- (a) 66 - 100 shall be defined as "Satisfactory Performance"
- (b) 50 - 65 shall be defined as "Deficient Performance"
- (c) 0 - 50 shall be defined as "Unsatisfactory Performance"

The interpretation of points rating under Form 160B will be as follows:

- (a) > 70 shall be defined as "Satisfactory Performance"
- (b) ≤ 70 shall be defined as "Unsatisfactory Performance"

160.04 COMPLETION OF THE EVALUATION

Completion of a Contractor Contract Performance Evaluation Report i.e., Form 160A and Form 160B being the Contractor Performance Evaluation Report Part I: Contract Work Other Than Warranty Work and the Contractor Performance Evaluation Report Part II: Warranty Work under the Contract is required for all publicly tendered roadwork contracts.

Part one (Form 160A) of the Evaluation Report will be completed by the TI Site Representative and/or TI Project Manager and will be reviewed and signed by the Regional Engineer and the Director of Highway Design and Construction. The Final Report will be distributed to the Contractor and to the Tendering & Contracts office.

Part two (Form 160B) of the Performance Evaluation Report will be completed by the TI Project Manager and/or the Regional Engineer if the Department makes a claim against the Contractor in respect of warranty work under GC 31.

The Project Manager will complete form 160B within thirty (30) days of the expiration of the GC 31 warranty period related to the work even if the Department does not make a

claim against the Contractor under GC 31. The Regional Engineer and the Director of Highway Design and Construction will sign this report and distribute it to the Contractor and Tendering & Contracts office.

160.05 SUSPENSION OF BIDDING PRIVILEGES

Tendering and Contracts will record the Contract Performance Evaluation rating on each contract and maintain a record of the Contractor's assessment on previous contracts.

Contractors receiving a "Deficient" rating on the Form 160A of the Contractor Performance Evaluation Report will be notified in writing by Tendering and Contracts that their performance needs to be improved. A Contractor in this category will be put on notice that a review of that Contractor's bidding privileges is to occur and that that Contractor's bidding privileges on work for the Department may be suspended based upon a review of the Contractor's performance on the current contract and on previous contracts for the Department.

Contractors receiving an "Unsatisfactory" rating on the Form 160A or form 160B of the Contractor Performance Evaluation Report will be notified of possible suspension of bidding privileges. The review will be based upon the Contractor's overall performance on previous contracts and, if necessary, a more detailed report from the Regional Engineer on the current contract including any warranty work related to that contract. The results of the review will be communicated to the Contractor in writing by Tendering and Contracts.

The decision to suspend the bidding privileges of a Contractor and for what period in any particular instance shall rest with the Deputy Minister of the Department. The decision will be based on the facts and circumstances, including all Contractor Performance Evaluation Reports related to the same and will be communicated to the Contractor concerned by a letter from the Deputy Minister copied to Tendering and Contracts.

If the Department approves a suspension of bidding privileges, then all future bids from the Contractor will be rejected prior to tender opening.

Alternatively, any tenders from a Contractor under suspension, discovered after tender opening, will be marked "disqualified". [PT Act Regulations 3.(4)]

Suspensions apply to all Department tendered projects. Attempts by suspended companies to submit tenders under a new company name or structure (successor corporations) are to be rejected. It is incumbent on the "new" company to establish the merits of having the opportunity to tender.

160.06 REINSTATEMENT OF BIDDING PRIVILEGES

The duration of suspensions may vary depending upon individual circumstances but will generally be for at least one (1) year and/or until the circumstances related to the suspension are addressed to the satisfaction of the Deputy Minister of the Department.

A Contractor's suspension may be lifted by the Deputy Minister of the Department upon written request from the Contractor. The Contractor shall demonstrate its ability to perform satisfactory work on future projects to the satisfaction of the Deputy Minister of the Department. This may be achieved by the successful completion of comparable projects for other jurisdictions completed after the time of suspension or the identification and correction of problems that led to the suspension. Where the suspension relates to the Contractor's failure to perform corrective work related to a GC 31 Warranty; the Deputy Minister may lift that suspension when the warranty work has been completed to the satisfaction of the Regional Engineer. The Contractor will need to satisfy the Department regarding the steps that that Contractor will take in future to avoid the reoccurrence of such defects.

In the event of reinstatement, the Contractor must achieve a "Satisfactory" rating on the first subsequent contract in order to retain eligibility to continue bidding Transportation and Infrastructure projects.

160.07 CONTRACTOR REQUESTED REVIEW OF EVALUATION

A Contractor may request a review be conducted by the Department of a Performance Evaluation in respect to a particular project by submitting a written request, with supporting documentation, to Tendering and Contracts.

A committee established by the Assistant Deputy Minister of the Department will conduct the review. The review is to be completed within sixty (60) of the request and the results will be communicated in writing to the Contractor.

160.08 CONFIDENTIALITY OF INFORMATION

The Department intends the information compiled through the Contractor Performance Evaluation System to be solely for internal use. Evaluation information related to a particular contractor(s) will not be released to outside parties, such as reference checks from other tendering agencies, without the consent of the affected contractor(s).

SECTION 190

OCCUPATIONAL HEALTH AND SAFETY

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190.06 OWNER'S STATEMENT

190.01 GENERAL

- .1 The following requirements apply to all contracts awarded by the Department of Transportation and Infrastructure for maintenance, operations, upgrades, support services, or construction related to the transportation network assets including but not limited to roads, bridges, airports, marine assets, and similar.
- .2 All work is to be performed in accordance with the requirements of the Newfoundland and Labrador Occupational Health and Safety Act and Regulations as amended, the Department of Transportation and Infrastructure's Contractor Safety Management Program and any specified Contract requirements.
- .3 The Contractor shall comply with and enforce compliance by employees, subcontractors, suppliers and visitors with all safety requirements of the Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with the Project Site Specific Safety Plan.
- .4 The Contractor is responsible for all work coordination at the project site, safety oversight, and must maintain full ownership and control of safety within the project area at all times. The Contractor will be delegated and shall assume the duties of the Principle Contractor for the work area(s). As such, the Contractor shall ensure co-ordination of work schedules and tasks, and communication thereof for the purpose of ensuring health and safety on the worksite(s).

- .5 The Department may perform project due diligence, site visits, safety monitoring activities, make suggestions or recommendations for improvement, and/or request changes in how work is performed. Notwithstanding, the Contractor has full responsibility, authority, and accountability for safely performing all work on the project site(s) and/or under the project. The Department solely relies on the Contractor to know how to safely perform all Work including making appropriate decisions on Department recommendations or requests.
- .6 Subsequent to awarding of the tender and at least 10 (ten) working days prior to commencement of work, and prior to the pre-start Health and Safety meeting, the Contractor must submit to the Owner's Representative a detailed Site Specific Safety Plan (SSSP). **See Section 190.2.**
- .7 Review of the Project Site Specific Safety Plan and other submitted documents by the Owner's Representative shall only be viewed as acknowledgment that the Contractor has submitted the required documentation under this specification. The Owner's Representative makes no representation and provides no warranty for the accuracy, completeness and legislative compliance of the Project Site Specific Safety Plan and other submitted documents by this acceptance. Responsibility for errors and omissions in the Project Site Specific Safety Plan and other submitted documents is not relieved by acceptance by the Owner's Representative.
- .8 For projects exceeding thirty (30) days or more, the Contractor shall, prior to the commencement of work, notify in writing the Department of Digital Government and Service NL, Occupational Health and Safety Division. **See Section 190.3.9.**

190.02 PROJECT SITE SPECIFIC SAFETY PLAN (SSSP)

190.02.01 PROJECT SITE SPECIFIC SAFETY PLAN REQUIREMENTS

The Contractor shall:

- .1 Prepare and complete all work in accordance with a detailed Project Site Specific Safety Plan (SSSP) specific to each project and specific project location conditions. The plan shall identify, evaluate and control job specific hazards through a detailed hazard assessment of the tendered project outlining phases of the project and hazards/controls associated with specific work, equipment, locations and tasks associated with the work conducted during each phase of the project. The plan shall also ensure adequate policies, procedures and safe work practices are in place to manage hazards identified in the hazard assessment that cannot be addressed through engineering controls. Furthermore, it is the responsibility of the Contractor to submit only one SSSP that incorporates all relevant portions of their subcontractors' safety documentation.
- .2 Provide a copy of the Project SSSP to the Owner's Representative.

190.02.02 PROJECT SITE SPECIFIC SAFETY PLAN CONTENTS

The Contractor is responsible to determine the appropriate safety actions, plans, and information for the Project SSSP.

Notwithstanding, the written SSSP shall incorporate the following minimum information:

- .1 An organizational structure, in the form of an organizational chart with contact information of the key positions, which shall establish the specific chain of command and specify the overall responsibilities of Contractors' employees at the work site. The chart shall also include relevant information for all subcontractors.
- .2 Identification of the designated qualified work coordinator(s) (i.e. Supervisor, Contractor Safety Representative) as per Section 21 of the OHS Regulations.
- .3 A comprehensive work plan which shall:
 - .1 Outline the phases of the Project and the required tasks, equipment, positions, resources and objectives for each phase, including all subcontracted work.
 - .2 Conduct a detailed hazard assessment of each project phase, including all subcontracted work, taking into consideration the objectives, tasks, equipment, positions, resources, training, etc.
 - .3 Identify the controls required for all identified hazards and project phases that may include engineering controls, policies, procedures, equipment, safe work practices, training and communication with staff, etc.
 - .4 Establish personnel requirements for implementing the plan and controls, and establish site-specific training and notification requirements and schedules.
- .4 General safety rules for the Project.
- .5 A Project training matrix (tabular or spreadsheet format) identifying all necessary training by occupation for the scope of the contract as per the Contractor's health and safety training plan. **Refer to Section 190.3.6.**
- .6 A personal protective equipment (PPE) Program. **Refer to Section 190.4.5.**
- .7 A traffic control plan. **Refer to Section 190.4.6.**
- .8 A fall protection plan, if necessary. **Refer to Section 190.4.7.**
- .9 A dust suppression management program, if necessary.
- .10 A hearing conservation program in accordance with Part VI, Section 68 of the OHS Regulations.
- .11 An assessment of all possible risks of violence for the project and corresponding control measures. Considerations should include location and circumstances of the site, previous history of incidents and or possible triggers.

- .12 A visitor safety and orientation policy that will include education on hazards, required PPE to be worn by visitors and accompaniment by staff while on site. This program shall also take into consideration the safety of the general public that may come in contact with the work site and appropriate measures for notification and safety.
- .13 As part of the SSSP the Contractor shall provide a vehicle inspection matrix (tabular or spreadsheet format) showing required inspection type and date of most recent inspection for all powered mobile equipment (including light vehicles) that will be used in fulfilling the terms of the contract, including rented and the subcontractor's equipment. Upon request, the Contractor shall provide to the Owner's Representative, individual inspection forms that at a minimum state that the equipment is in a safe operating condition and is signed by a qualified journey person mechanic.
- .14 The SSSP shall include an acceptable parking plan for all powered mobile equipment (including light vehicles) to be used on the Project. The plan shall address both daytime parking requirements to reduce congestion in the work area, nighttime parking considerations, and overall impacts on the public (i.e., visibility/sightlines, impeding traffic flow, etc.). At a minimum, the plan shall be based on a hazard assessment that considers factors such as equipment type, potential for roll over, load capacity of the parking area, pedestrian and vehicular traffic, and potential for equipment tampering, equipment energy, and equipment contact with power lines.
- .15 The SSSP shall include a site specific emergency response plan for the job site and ensure that supervisors and workers are trained in the emergency response plan. The emergency response plan shall address, as a minimum:
 - .1 Emergency recognition and evaluation (identification of each potential type of emergency and evaluation of requirements for response).
 - .2 Pre-emergency planning (included the assessment of controls to reduce the likelihood of such an emergency if possible).
 - .3 Personnel roles, lines of authority and communication (include a communication list of all emergency services in the immediate and surrounding areas).
 - .4 Required communication equipment including landlines, mobile phones, radios, satellite phones, and/or other equipment needed to ensure appropriate emergency communications in the area of the Project.
 - .5 Safe distances and places of refuge.
 - .6 Site security and control.
 - .7 Evacuation routes and procedures.
 - .8 Decontamination procedures which are not covered by the Project SSSP.
 - .9 Emergency medical treatment and first aid.

- .10 Emergency alarm, notification and response procedures including procedures for reporting incidents to local, provincial and federal government departments.
- .11 PPE and emergency equipment.
- .12 Procedures for handling emergency incidents.
- .13 Procedures and protocol for working alone and/or remote working.
- .14 Site specific emergency response training requirements and emergency response drills shall be identified along with written rescue plan for high risk emergencies (i.e. fall rescue, confined space entry, etc.).
- .15 The emergency response procedures shall be tested regularly and the results documented. The frequency at which all aspects of the emergency response plan will be rehearsed must be stated.
- .16 Provide adequate first aid facilities for the job site and ensure that a minimum number of workers are trained in first aid in accordance with the OHS First Aid Regulations.
- .17 Provide requirements and permits for isolated campsite locations such as coordinates, fire suppression systems, alarms, camp monitoring, nuisance wildlife, drinking water provisions, etc.
- .18 Depending on the specifics of the contract, the SSSP may require other programs and documents to meet health and safety provisions as required in the OHS Act and Regulations. See **Sections 190.4 and 190.5** for examples of potential additional requirements.

190.03 SAFETY MONITORING

190.03.01 CONTRACTOR ROLES AND RESPONSIBILITIES

The Contractor shall:

- .1 Ensure that their organization is staffed appropriately to ensure completion of project tasks and all necessary safety related duties and responsibilities.
- .2 Ensure co-ordination of work schedules and tasks, and communication thereof for the purpose of ensuring health and safety on the worksite(s).
- .3 Develop a Project SSSP, as indicated above, that thoroughly assesses the health and safety hazards of each project phase, including all subcontracted work.
- .4 Implement all requirements of the Project SSSP. The Contractor shall take all necessary measures to immediately implement any engineering controls, administrative controls, personal protective equipment required or termination of work procedures to ensure compliance with the SSSP and the OHS Act and Regulations. All measures should be immediately communicated to staff.
- .5 The Contractor shall comply with and enforce compliance by employees, subcontractors, suppliers and visitors with all safety requirements of the Contract

- Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with the Project SSSP.
- .6 Periodically review and modify the SSSP as required including but not limited to when a new hazard is identified during completion of work or when an error or omission is identified in any part of the SSSP.
 - .7 Support/permit periodic inspections of the Contractor's work by the Owner's Representative and/ or the Department of Transportation and Infrastructure Occupational Health and Safety team to maintain compliance with the SSSP. Inspections may include visual inspections of the site and documentation, as well as testing and sampling as required.
 - .8 Be responsible for any and all costs associated with delays as a result of the Contractor's failure to comply with the requirements outlined in **Section 190** or the OHS Act and Regulations.
 - .9 Ensure that all workers receive necessary training as per the training matrix contained in the SSSP prior to the start of work. Maintain training records in a tabular format or spreadsheet for all employees on the project site and complete periodic reviews to ensure that necessary re-certifications are completed prior to expiration dates.
 - .10 Ensure all equipment, vehicles, tools, or other devices necessary throughout the Project are suitable for the task and are inspected and maintained in accordance with the manufacturers' specifications and/or CSA standards adopted by the OHS Regulations.
 - .11 Be responsible to ensure that site inspections have been completed at no less than 1 week intervals. These site inspections shall include risk assessments where the nature of the ongoing work or tasks associated with the work increase in risk or significantly change due to phases in the project or project progression.
 - .12 Ensure that toolbox meetings are held with staff no less than once per week and shall include review of safety related information that is pertinent to the safety of employees.
 - .13 Ensure that all toolbox meetings, site inspections, risk assessments, OHS Committee meetings and any OHS Directives or reports are documented and submitted with the Contractor's Monthly OHS Performance Report.
 - .14 Review for completeness the hazard assessment results immediately prior to commencing work, when a new hazard is identified during completion of work or when an error or omission is identified.
 - .15 Be solely responsible for investigating, evaluating and managing any report of actual or potential hazards.
 - .16 Retain copies of all completed hazard assessments at the project site and provide a copy to the Owner's Representative. Copies of any hazard assessments not included in the original SSSP must be submitted immediately

to the Owner's Representative and noted on the Contractor's Monthly OHS Performance Report.

- .17 Promote the employees' right to work in a respectful, harassment-free, and psychologically healthy and safe work environment. Assist the Owner's Representative to investigate incidents of workplace violence or harassment carried out against a TI employee by Contractor or Subcontractor employees.

190.03.02 SUPERVISION

190.03.02.01 The Contractor shall:

- .1 Develop an organizational structure that establishes a specific chain of command and overall responsibilities of all employees at the work site.
- .2 Assign a sufficient number of supervisory personnel to the work site and ensure that all work is performed under the direct supervision of competent persons.
- .3 Ensure that any person assigned to supervisory duties on site shall not conduct significant work in relation to the contract that inhibits them from the ability to properly supervise the work site.
- .4 Ensure the site supervisor(s) have complete understanding, working knowledge and familiarity with the Project SSSP, applicable codes and standards as well as the OHS Act and Regulations.
- .5 Ensure the site supervisor(s) fully implements, enforces, and monitors the SSSP.
- .6 Prior to the start of work, ensure that the site supervisor(s) have the training, knowledge, and understanding in:
 - .1 Project tasks and construction activities.
 - .2 Hazard recognition evaluation and control.
 - .3 Development and implementation of safe work practices and procedures.
 - .4 Accident incident investigations and reporting.
 - .5 Workplace violence and harassment prevention.
 - .6 Equipment maintenance and inspections required for preventive safety.
 - .7 Care and maintenance of PPE to be used on site.
 - .8 Standard First Aid training certified by WorkplaceNL.
 - .9 WHMIS 2015.
 - .10 Other certifications may be required depending on the work tasks associated with a specific contract to ensure that adequate controls are in place to mitigate the risks to workers, and to abide by all applicable legislation, codes and standards. This may include, but is not limited to:
 - i. Traffic Control Person (level I and II) training certified by WorkplaceNL.
 - ii. Power Line Hazards training certified by WorkplaceNL.
 - iii. Fall Protection training certified by WorkplaceNL.

- iv. Confined Space Entry training certified by WorkplaceNL.
 - v. Rescue and emergency response.
 - vi. Trenching and excavation.
 - vii. Scaffolding.
 - viii. Rigging and slinging.
 - ix. Transportation of Dangerous Goods.
 - x. Other training as specified by the Department.
- .7 Assign a dedicated on-site safety representative to assist the Site Supervisor during the completion of high-risk activities. This person shall have training, knowledge, and understanding regarding the activity(s) being completed. High-risk activities may include, but are not limited to:
- .1 Heavy lift operations which includes items greater than 1000 kg or which may need an engineered lift plan due to other identified risk factors.
 - .2 Lift operations that occur closer than 10 m of energized power lines or close proximity to moving traffic, public and residential areas, or other sensitive locations.
 - .3 When greater than 3 employers are working in close proximity at the same time. Close proximity execution means any time the operations of each employer are close enough to directly influence or add risk to another employer.
 - .4 Working within or near highly populated residential areas when there is an appreciable ongoing risk to the public that needs continual safety oversight.
 - .5 When a complex traffic control plan is needed in high volume areas.
 - .6 Work involving confined space entry.
 - .7 Working with or near toxic and hazardous substances.
 - .8 Any other high-risk activity identified through hazard/risk assessment by the Contractor or by the Department.

In such instances, the Contractor may request and the Department may agree that such dedicated safety representation is not needed if the Contractor demonstrates there are adequate safety controls in place to mitigate the risk.

190.03.02.02 The Site Supervisor(s) shall:

- .1 Be responsible for project safety by ensuring the work complies with all requirements of the SSSP and with the appropriate section(s) of OHS Act and Regulations, latest edition.
- .2 Prior to mobilization on site, hold a pre-start Health and Safety meeting with the Contractors, Subcontractors, and Owner's Representatives to review of the SSSP including all its contents.
- .3 Be responsible for the delivery and documentation of the site safety orientations and ensure that personnel who have not been oriented are not permitted to enter

- the site. This applies to all workers (Contractor, Subcontractor, and Department), and visitors. **Refer to Section 190.3.6.7.**
- .4 Advise of the health and safety hazards for the work site, provide written or verbal instructions of any precautions to be taken to protect everyone at the work site and ensure that the applicable personal protective equipment is used and worn on site at all times.
 - .5 Review hazard assessment for completeness immediately prior to commencing work, when a new hazard is identified during completion of work, or when an error or omission is identified.
 - .6 Address all safety concerns brought to their attention in a timely manner depending on the severity of the hazard.
 - .7 Be responsible for the maintenance of a daily log of inspections, meetings, infractions and mitigating measures. The log is to be filed daily and copies provided to the Owner's Representative as requested.
 - .8 Be responsible to log, investigate, track and follow-up on mitigations for all near misses, incidents and/or accidents.
 - .9 Promote employees' right to work in a respectful, harassment-free, and psychologically healthy and safe work environment. Assist the Owner's Representative to investigate incidents of workplace violence or harassment carried out against a TI employee by Contractor or Subcontractor employees.
 - .10 Ensure the correct traffic control signage plan is utilized on site and staff have been notified of the requirements. Ensure that road signage is inspected for accuracy and condition by a competent and trained person upon set-up, each morning prior to work, and at any point in which the signage requires change during the workday or life of the contract. A Traffic Control Signage log must be submitted with the Contractor's Monthly OHS Performance Report. **Refer to Section 190.4.6.**
 - .11 If required for the project, coordinate with and support the efforts of the on-site safety representative.

190.03.03 PROJECT DEDICATED FULL TIME CONTRACTOR SAFETY REPRESENTATIVE (CSR)

The Department of Transportation and Infrastructure recognizes that, based on complexity, certain construction projects will need a higher level of diligence and focus on safety management and oversight. Providing such diligence by the Contractor may be accomplished by a dedicated safety resource to support the Contractor's Site Supervisor. For some projects the Department may elect to cover the additional costs of dedicated site support in the form of a full time Contractor Safety Representative (CSR) (formally known as Contractor Safety Officer). A dedicated CSR means dedicated full time to the project and cannot be shared over multiple projects. As such, it will be identified in the

Supplemental General Conditions and a cost line item will be included in the pricing table. Should it become evident after contract award that the CSR is only required on site part time, or where the duties can be performed by other members of the Contractor's site team, the bid price payments will be reduced/pro-rated accordingly.

For projects where the Department has not included for specific payment of a CSR, the Contractor will be expected to ensure the Contractor's organization is staffed appropriately to ensure completion of project tasks and all necessary safety related duties and responsibilities.

The CSR role is intended to provide expertise and dedicated site safety support to the Contractor's Site Supervisor(s). Under no situation does the requirement to have a CSR alleviate the safety responsibility of the Contractor or Site Supervisor(s). When specified for inclusion by the Department, the CSR is intended to be a focused role with formal training and knowledge in safety management. In this case, the Contractor shall ensure that a CSR is appointed, and has sufficient authority and resources to support the implementation and monitoring of the SSSP.

- .1 The CSR shall have:
 - .1 Formal training in OHS Management (degree, diploma, or certificate) combined with at least two (2) years of relevant experience, or
 - .2 A designation such as National Construction Safety Officer (NCSO), Construction Safety Officer (CSO), Canadian Registered Safety Technician (CRST), Canadian Registered Safety Professional (CRSP), or Certified Health and Safety Consultant (CHSC), or other similar designation.
- .2 Prior to the start of work, the CSR may also require additional certifications depending on the work tasks associated with a specific contract. This may include, but is not limited to:
 - .1 Traffic Control Person (level I and II) training certified by WorkplaceNL.
 - .2 Power Line Hazards training certified by WorkplaceNL.
 - .3 Standard First Aid training certified by WorkplaceNL.
 - .4 Fall Protection training certified by WorkplaceNL.
 - .5 Confined Space Entry training certified by WorkplaceNL.
 - .6 Rescue and emergency response.
 - .7 Trenching and excavation.
 - .8 Scaffolding.
 - .9 Rigging and slinging.
 - .10 Transportation of Dangerous Goods.
 - .11 WHMIS 2015.

- .12 Other training as specified by the Department.

190.03.04 HEALTH AND SAFETY COMMITTEE

The Contractor shall:

- .1 Establish a site Occupational Health and Safety Committee where ten or more workers are employed on the job site for greater than 30 days.
- .2 Committee members shall receive training from a WorkplaceNL recognized training provider.
- .3 Provide a copy of all committee minutes with the Contractor's Monthly OHS Performance Report.

190.03.05 REPORTING AND INVESTIGATION

The Contractor shall adhere to a documented incident, hazard, safety reporting, and investigation process. The system shall:

- .1 Ensure all hazards, near misses, incidents, accidents, injuries, equipment damage are recorded and properly investigated.
- .2 Rank actual and potential severity of observations and report all high potential near misses, accidents, and incidents immediately to the Owner's Representative and to the OHS Division of Digital Government and Service NL.
- .3 Advise the Owner's Representative and the OHS Division of Digital Government and Service NL verbally and in writing immediately of any incident that results in serious injury to a person or results in the death of a person; or had the reasonable potential to cause serious injury.
- .4 Provide a copy of all notifications made to the OHS Division of Digital Government and Service NL to Transportation and Infrastructure.
- .5 Where life safety risks or other high potential risks exists, the Contractor must stop work until such time as the risk can be mitigated to a safe level.
- .6 Make appropriate steps to ensure that the hazards are mitigated to a safe level, workers are notified of the hazards and how to protect themselves. Additionally, workers must be provided with any new safe work practices or information regarding mitigation of the risk.

190.03.06 INSTRUCTION AND TRAINING

- .1 Workers shall not participate in, or supervise, any activity on the work site until they have been trained to a level required by the job function and responsibility.
- .2 Contractors shall develop an OHS training program that reflects OHS Legislative requirements and specific safety hazards based on Project work.
- .3 Contractors must supply, as a component of the SSSP, a training matrix identifying all necessary training by occupation for the scope of the contract.

- .4 Training requirements will depend on the work tasks associated with a specific contract, however, as a minimum, shall include the following:
 - .1 Federal and/or Provincial Health and Safety Legislative requirements including roles and responsibilities of supervisors, workers and other person(s) responsible for implementing, monitoring and enforcing health and safety requirements.
 - .2 Instruction and training on the hazards associated with any work that workers will be performing and how to protect themselves and others. This will include a review of all safe work practices, the reporting and documentation of hazards, and the reporting of accidents and injuries.
 - .3 Limitations, use, maintenance and care of engineering controls and equipment.
 - .4 Workers must receive training from a WorkplaceNL recognized training provider as outlined in the OHS legislation (i.e. fall protection, confined space entry, power line hazards, traffic control persons training).
 - .5 Training in the use, care and maintenance of PPE to be used on site.
 - .6 Limitations, use, maintenance and disinfection/decontamination of personal protective equipment associated with completing work.
 - .7 Training in the Contractor's emergency response plan for the Project. Workers engaged in fall arrest or confined space rescue operations will require specific training for the tasks involved.
 - .8 Limitations and use of emergency notifications and response equipment including emergency response protocol(s).
 - .9 All workers at site must receive training in Workplace Violence and Harassment Prevention.
 - .10 Training in WHMIS 2015.
 - .11 Safety and health hazards associated with working in extreme weather conditions (i.e. heat/cold hazards).
 - .12 Appropriate number of persons trained in emergency and Standard First Aid according to the OHS First Aid Regulations.
 - .13 Safety and health hazards associated with working on a contaminated site, if applicable, including recognition of symptoms and signs which might indicate over exposure to hazards.
 - .14 Refer to **Sections 190.3.2 and 190.3.3** for training requirements for Site Supervisors and CSRs.
- .5 Detailed training records must be provided to the Owner's Representative upon request. Site training records must be in tabular or spreadsheet format, stating employee name, occupation, required training, date that training was obtained and expiry date. This must be signed and dated by a member of the Contractor's management team.

- .6 Only qualified operators shall operator powered mobile equipment. Contractors must maintain records of worker's driver's license classification, expiry date, endorsements and the type of equipment (excavator, paver, loader etc...) they are qualified to operate for the complete scope of work on the Project. Such records must be provided to the Owner's Representative upon request. Records must be in tabular format or spreadsheet that has been signed and dated by a member of the Contractor's management team. Please note, that Driver's License Numbers should not be provided as this is confidential information. Provision of the License Number may breach PIPEDA - the Personal Information Protection and Electronic Documents Act. (Federal Act) or ATIPPA - Access to Information and Protection of Privacy Act - Part IV. (Provincial Act of NL & Lab).
- .7 Authorized visitors shall not access the work site until they have received orientation which would include :
 - .1 Notification of the names of persons responsible for implementing, monitoring and enforcing the Project SSSP.
 - .2 Briefed on safety and health hazards present on the site.
 - .3 Instruction in the proper use and limitations of personal protective equipment.
 - .4 Briefed on the emergency response protocols including notification and evacuation processes.
 - .5 Advisement of practices and procedures to minimize risks from hazards and applicable to activities performed by visitors.
 - .6 Being accompanied while on site and provided the appropriate PPE.

190.03.07 CONSTRUCTION SAFETY MEASURES

The Contractor shall:

- .1 Observe construction safety measures of the Federal or Provincial Government, OHS Act and Regulations, WorkplaceNL, and Municipal Authority. In cases of conflict or discrepancy, the more stringent requirement shall apply.
- .2 Administer the project in a manner that will ensure, at all times, full compliance with Federal and Provincial Acts, regulations and applicable safety codes and the Project Site Specific Safety Plan.
- .3 Provide the Owner's Representative with copies of all orders, directions and any other documentation, issued by the Occupational Health and Safety Division with the Department of Digital Government and Service NL and Employment and Social Development Canada (ESDC).
- .4 Forward copies of all orders, directions or any other documentation immediately after receipt.

190.03.08 POSTING OF DOCUMENTS

- .1 The Contractor shall ensure applicable items, articles, notices, minutes and orders are posted in a prominent location on site in accordance with OHS Act and Regulations or as required by WorkplaceNL.

190.03.09 NOTIFICATION

- .1 For projects exceeding thirty (30) days or more, the Contractor shall, prior to the commencement of work, notify in writing the Department of Digital Government and Service NL, Occupational Health and Safety Division the following information and provide a copy to the Owner's Representative:
 - .1 Completion of Notice of Project Form.
 - .2 Company name and mailing address of the Contractor doing the work.
 - .3 The number of workers to be employed.
 - .4 A copy of the Project Site Specific Safety Plan if requested.

190.03.10 CORRECTION OF NONCOMPLIANCE

- .1 The Contractor must immediately address health and safety non-compliance issues identified by the authority having jurisdiction or by the Owner's Representative.
- .2 The Contractor must provide the Owner's Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 The Owner's Representative may stop work if noncompliance of health and safety regulations are not corrected.

190.03.11 LIQUIDATED DAMAGES FOR NON-COMPLIANCE

- .1 Poor safety performance leads to extreme risks, delays, and overall extra resource by the Department of Transportation and Infrastructure to provide incremental administration and additional due diligence on the Contractor Work. As such, if the Work fails to meet any specific safety requirement in this **Section 190** the Department will apply Liquidated Damages to the work.
- .2 The Department shall document and provide the Contractor with notification, either verbal or written, when an infraction has been noted so as to allow the Contractor to develop corrective actions to prevent future infractions.
 - .1 The Contractor will be given a minimum of one written warning for failure to comply with this specification.
 - .2 The next three infractions will result in Liquidated Damages of \$500/day for non-compliance being applied to the work. For each successive infraction the Liquidated Damages increases to \$1,000/day.

- .3 The possibility of project shutdown or termination exists at any time where the Contractor fails to observe the provisions of **Section 190** and the Owner's Representative and the Department believe such action is warranted from a safety and/or contractual perspective. Such shutdown or termination may occur irrespective of whether Liquidated Damages were applied or not.
- .4 Typical infractions may include but are not limited to:
 - .1 CSR not present on site as required.
 - .2 Safety reports not provided within specified timelines.
 - .3 Working without appropriate safety work practices, procedures, etc.
 - .4 Incidents and hazards not investigated, nor communicated to the Owner's Representative in a timely fashion.
 - .5 Failure to action OHS orders and/or other identified safety gaps in a timely manner.
 - .6 Not adhering to training requirements.
 - .7 Utilizing or operating unsafe or uninspected mobile equipment (including light vehicles).
 - .8 Not adhering to approved signage plans and requirements.
 - .9 Violation of any portion of **Section 190** or the Contractor's Site Specific Safety Plan without appropriate investigations and mitigations. This includes not adhering to their SWP's, safety procedures, OHS Act and Regulations, and policies.

190.04 SAFETY REGULATIONS

The Department solely relies on the Contractor to know and adhere to appropriate safety regulations. The following sections are provided for convenience and are not intended to be an all-inclusive list of safety regulations. In addition to the items stated in **section 190.4**, it is the Contractor's responsibility to ensure compliance with applicable Federal, Provincial, Territorial and Local statutes, regulations, and ordinances. Should there be any conflicts in latest regulations, Contractor safe work practices, or other recognized safety needs the latest and most stringent safety requirements shall apply.

190.04.01 WHMIS 2015

The Contractor shall:

- .1 Ensure that all controlled products are in accordance with the Workplace Hazardous Materials Information System (WHMIS 2015) Regulations and Chemical Substances of the OHS Act and Regulations regarding use, handling, labeling, storage, and disposal of hazardous materials.
- .2 Deliver copies of relevant Safety Data Sheets (SDS) to job site and the Owner's Representative. The SDS must be acceptable to Health Canada for all controlled products that will be used in the performance of this Work.

- .3 Train workers required to use or work in close proximity to controlled products as per OHS Act and Regulations. This must be documented as part of the on-site orientation and a copy provided to the Owner's Representative.
- .4 Label controlled products at jobsite as per OHS Act and Regulations.
- .5 Provide appropriate emergency facilities as specified in the SDS where workers may be exposed to contact with chemicals, e.g. eyewash facilities, emergency shower.
 - .1 Workers shall be trained in use of such emergency equipment.
- .6 Provide appropriate personal protective equipment as specified in the SDS where workers are required to use controlled products.
 - .1 Properly fit workers for personal protective equipment.
 - .2 Train workers in care, use and maintenance of personal protective equipment.
- .7 Ensure that SDS remain on site at all times and are accessible to everyone on site.

190.04.02 OVERLOADING

The Contractor shall:

- .1 Ensure no part of the Work or associated equipment is subjected to loading that will endanger its safety or cause permanent deformation.
- .2 Ensure equipment operations follow manufacturer's operating manual.

190.04.03 FALSEWORK

The Contractor shall:

- .1 Design and construct falsework in accordance with CSA S269.1.

190.04.04 SCAFFOLDING

The Contractor shall:

- .1 Design, erect and maintain scaffolding in accordance with CSA S269.2: Access Scaffolding for Construction Purposes and Part XI: sections 147-249 of the OHS Regulations.
- .2 Ensure that fall protection devices are used by all workers working at elevations of 1.22 meters or greater in accordance with CSA Z259 and CSA S269.2.
- .3 All workers performing work at height and who will be required to utilize a fall arrest system must be trained in a fall protection program certified by WorkplaceNL.
- .4 Scaffolding shall be inspected each day prior to use by a competent inspector. Records and copies of these inspections shall be kept on site and provided upon

request to the Department of Transportation and Infrastructure officials, Owner's Representative, etc.

- .5 Scaffolding inspection reports may be required to be provided with the Contractor's Monthly OHS Performance Reports, at the discretion of the Owner's Representative.

190.04.05 PERSONAL PROTECTIVE EQUIPMENT

The Contractor shall:

- .1 Develop a Personal Protective Equipment (PPE) Program which shall detail:
 - .1 Selection criteria based on site hazards as determined by the hazard assessment.
 - .2 Use, maintenance, inspection and storage requirements and procedures.
 - .3 Decontamination and disposal procedures.
 - .4 Inspection procedures prior to, during and after use, and other appropriate medical considerations.
 - .5 Limitations during temperature extremes, heat stress and other appropriate medical consideration.
- .2 Ensure that in addition to those requirements set forth in the OHS Act and Regulations, all persons, including those employed by the Contractor or their Subcontractors, working on projects for The Department of Transportation and Infrastructure shall wear the following mandatory Personal Protective Equipment at **ALL** times while working on the project.
 - .1 CSA approved safety boots meeting the CSA Z195 Standard.
 - .2 CSA approved hard hat meeting the CSA Z94.1 Standard.
 - .3 CSA approved safety glasses meeting CSA Z94 Standard.
 - .4 High visibility apparel as defined in the OHS Regulations.
 - .5 Where noise exceeds standards set out in the OHS Regulations hearing protection shall be worn, and hearing conservation program implemented.
 - .6 Other personal protective equipment, as may be required by the work tasks, hazard assessments or the Contractor, depending on duties being performed.

190.04.06 TRAFFIC CONTROL

The Contractor shall:

- .1 Provide traffic control measures when working on, or adjacent to, roadways. This will include but is not limited to appropriate signage, traffic control persons and control vehicles.
- .2 Ensure that traffic control measures conform with the Department of Transportation and Infrastructure's Traffic Control Manual, latest edition and errata.

- .3 Ensure daily completion of the Department of Transportation and Infrastructure, Contractor Daily Traffic Control Signage Log. This log is to be completed daily at a minimum and at any point where the signage required changes to ensure accuracy. The log will be submitted monthly with the Contractor OHS Monthly Performance Report and may be inspected randomly by staff of Transportation and Infrastructure for completion and accuracy.
- .4 Ensure that signage utilized on site shall meet the requirements of the Traffic Control Manual.
- .5 Submit traffic control plans for all portions of the contract work to the Owner's Representative as part of the SSSP including all accompanying hazards assessments. These traffic control plans must note the location, plan number if referencing a plan contained in the Traffic Control Manual, spacing of signs, location and number of traffic control persons and be prepared in a professional manner. If the construction situation is not specifically addressed in the Traffic Control Manual then the Contractor must provide the Owner's Representative with a site specific traffic control plan addressing all of the items listed above in a professional format.
- .6 Complete hazard assessments for traffic control plans to identify hazards unique to the work (i.e., volume of heavy equipment, size of lanes and barriers to protect workers from traffic, additional decreases in posted speeds, etc.).
- .7 The Contractor shall ensure that traffic control persons have completed Traffic Control Person Level I training as certified by WorkplaceNL.
- .8 The Contractor shall ensure that a competent individual is responsible for monitoring, maintaining and adjusting traffic control plans throughout the life of the project. This individual shall:
 - .1 Have completed Traffic Control Person Level II training as certified by WorkplaceNL.
 - .2 Be provided with authority and resources to ensure continuous monitoring of the worksite and revision of the traffic control plan when necessary.
 - .3 Be responsible to complete the Daily Traffic Control Signage Log to accompany the Contractor's Monthly OHS Performance Report requirements.
- .9 Contractors should plan their work activities daily to ensure work will not occur in twilight or dark hours. However, if this does occur due to unforeseen circumstances, the Contractor shall have provisions in place for illumination of the work area and ensure the traffic control persons are properly equipped as required.
- .10 Ensure compliance with Part XVI of the OHS Regulations 5/12.

190.04.07 WORKING AT HEIGHT

The Contractor shall:

- .1 Ensure that Fall Protection devices in accordance with the regulations are utilized at a height of 1.22 meters.
- .2 Develop a site specific fall protection plan, including a rescue plan, and provide it to the Owner's Representative as a part of the SSSP when fall protection systems (as per Part X of the OHS Regulations), are required during the course of the Project.
- .3 Ensure that fall restraint or fall arrest devices used by workers are in accordance with CSA Z259.
- .4 Ensure that all workers performing work at height and who will be required to utilize a fall arrest system are trained in a fall protection program certified by WorkplaceNL.
- .5 Maintain a list of all persons trained in WorkplaceNL certified fall protection training on site. To be combined with other training records as required in a tabular or spreadsheet format listed throughout **Section 190**.
- .6 Ensure regular inspections of all fall protection and fall arrest equipment are completed and that records are maintained and kept on site. Daily inspections of fall restraint and horizontal fall protection/arrest systems shall be conducted.
- .7 Ensure that manufacturer's specifications for engineered fall protection/arrest/restraint systems are kept on site at all times.
- .8 Ensure that anchor points for fall arrest systems are identified and certified annually by a Professional Engineer per CSA standards.
- .9 Develop Working from Height Safe Work Practices specific to the Work, location and risks, and ensure the workers receive specific instruction regarding the work tasks and associated rescue plans.
- .10 Ensure that rescue equipment for fall rescues is kept in close proximity to workers working at height.
- .11 Where necessary the Contractor shall ensure that adequate protection from falling debris is addressed in site specific safety plans, this may include debris nets, barriers, etc.

190.04.08 WORKING OVER OR NEAR WATER

The Contractor shall:

- .1 Where the risk of entering water is identified and other means of fall protection or rescue are not adequate to prevent the worker from entering the water, develop water rescue plans and ensure that workers on site are trained.
- .2 Keep and maintain a list of all persons trained in water rescue on site. This list shall be combined with other training records as required in a tabular or spreadsheet format listed throughout **Section 190**.

- .3 Require that workers wear personal flotation devices where workers are at risk of entering the water.
- .4 Ensure that life-saving equipment is available near entry site for water rescue. This may include life boats, throw lines, life preservers, etc.

190.04.09 ACCESS, EGRESS AND WALKWAYS

The Contractor shall:

- .1 Ensure that all accesses, egresses and walkways are continuously monitored for hazards which may include slips, trips, slippery conditions and other hazards.
- .2 Develop provisions for snow clearing of walkways, accesses and egresses.
- .3 Ensure that all access, egress hatches, holes or other potential hazards of this nature are clearly identified to workers and adequately covered.

190.04.10 RIGGING AND SLINGING

The Contractor shall:

- .1 Ensure that workers required to perform work related to rigging and slinging are trained and deemed competent in such operations and practices.
- .2 Maintain and inspect all rigging and slinging equipment in accordance with manufacturers' specifications, CSA Standards and OHS Regulations.
- .3 Ensure that the working load limit of rigging and slinging equipment on site is marked and visible on the product.
- .4 At a minimum, ensure that rigging and slinging operations meet the requirements of the OHS Act and Regulations.
- .5 Ensure that rigging and slinging equipment identified in daily inspections or otherwise identified as damaged, worn or unacceptable to manufacturers' specifications, appropriate standards or OHS Regulations is immediately taken out of service and destroyed.

190.04.11 WORKPLACE VIOLENCE AND HARASSMENT

- .1 The Contractor shall develop a Workplace Violence and Harassment Prevention Plan for the project that complies with the latest edition of the OHS Regulations.

190.05 SAFETY OPERATIONS

The Department solely relies on the Contractor to know how to safely perform the Work and the Contractor is fully responsible for the safety of its operations. The following are minimum expectations and may not be all inclusive. The Contractor shall ensure that all work meets the latest safety requirements and that all work is performed safely irrespective of the stated following requirements. Should there be any conflicts in latest standards, Contractor safe work procedures/practices, or other recognized safety needs

the latest and most stringent safety requirements as deemed appropriate by the Contractor shall apply.

190.05.01 EXCAVATION OPERATIONS

The Contractor shall:

- .1 Protect excavations more than 1.22 meters deep against cave-ins or wall collapse by side wall sloping to the appropriate angle of repose, an engineered shoring/sheathing system or an approved trench box.
- .2 Provide a ladder where excavation is greater than 1.22 meters deep, extending from the bottom of the excavation to at least 0.91 meters above the top of the excavation.
- .3 Ensure that all excavations less than 1.22 meters deep are effectively protected when hazardous ground movement may be expected.
- .4 Ensure that trench boxes are designed and certified by a registered Professional Engineer. Ensure the manufacturer's Depth Certificate Statement is permanently affixed to the trench box. Use trench boxes in strict accordance with manufacturer's instructions and depth certification data.
- .5 For excavations deeper than five (5) meters, provide a certificate from a registered Professional Engineer stating that the protection methods proposed have been properly designed in accordance with accepted engineering practice. The Engineer's certificate shall verify that trench boxes, if used, are properly designed and constructed to suit the depth and soil conditions.
- .6 Ensure that the Department of Digital Government and Service NL, OHS Division signs off on excavations greater than five (5) meters.
- .7 Ensure that the superintendent and every crew chief, foreperson and lead hand engaged in trenching operations or working in trenches have the appropriate training and have in their possession a copy of the OHS Regulations: PART XVIII EXCAVATION, UNDERGROUND WORK AND ROCK CRUSHING.

190.05.02 BLASTING OPERATIONS

Where blasting is required, the Contractor, at a minimum, must:

- .1 Ensure a valid Blaster's Certificate and Certificates of Qualification acceptable to the OHS Regulations 5/12 under Section 419 identifying the Level of Qualification for the project requirements (Journey Persons Blaster Certificate will still be accepted). An acceptable letter of extension of blasters certificate from the Apprenticeship and Trades Certification Division of the Department of Advanced Education, Skills and Labour is required where their certificate expires (5 years max.). Certificate numbers and names are required for all blasters proposed for the project.

- .2 Hold a Temporary Magazine License, when required, issued by Natural Resources Canada.
- .3 Hold an Explosives Vehicle Certificate, when required, issued by Transport Canada for transport of explosives regulated under the Transportation of Dangerous Goods Act.
- .4 Ensure that the Blaster's resume clearly states and demonstrates:
 - .1 Minimum five (5) years of experience in handling, storage and detonation of explosives.
 - .2 Training at a blaster's school which is acceptable to the Provincial Government.
- .5 Ensure blasting operations are carried out under the direct visual supervision of a certified Blaster either registered with the Apprenticeship and Trades Certification Division of the Department of Advanced Education, Skills and Labour or has been issued a certificate from completion of a program approved by the Department of Digital Government and Service NL. Ensure that the certificate level is appropriate for the blasting activities which will occur. Comply with the requirements of:
 - .1 Explosives Act.
 - .2 Explosives Regulations.
 - .3 Newfoundland Regulation 5/12, Occupational Health and Safety Regulations.
 - .4 Role of certified blaster set out in section 419 of the Occupational Health and Safety Regulations 5/12.
- .6 Store explosives in accordance with the "Explosives Act (Canada)" and transport, handle and use in the manner prescribed by the manufacturer of the substance and subject to specific regulations. An inventory of explosives shall be kept at all times.
- .7 Ensure that workers required to transport explosives have a valid Transportation of Dangerous Goods Training Certification in accordance with the Transportation of Dangerous Goods Act and the Explosives Act. Vehicle used to transport explosives on site shall be placarded and explosives shall be transported in containers lined with non-sparking materials (reference section 428 of the Occupational Health and Safety Regulations 5/12). Detonators shall not be placed in a magazine or daybox with other types of explosives or in a compartment of a vehicle with another type of explosive.
- .8 Ensure that the use of explosives on site complies with the Occupational Health and Safety Regulations 5/12 General Blasting requirements are set out in Part XIX of the Regulations. Loaded holes shall be clearly identified with barricades put in place to prevent access to the holes. Drilling shall not be done closer to a loaded bore hole than a distance half the total depth of the hole being drilled and

- in no case shall drilling be conducted at a distance closer than 6 meters from a loaded borehole. Drill cuttings shall not be used as stemming material.
- .9 Advise the public by suitable public notices, advertisements, house to house contacts etc. for blasting operations in close proximity to areas occupied by the public. Advise of the warning device to be sounded and the procedure to be used before detonation of individual blasts. Roads and approaches to the danger area are guarded or barricaded to prevent anyone from entering. Loaded holes which have not been fired by the end of the day shall not be left unattended.
 - .10 Prior to detonation of a blast, give sufficient warning in every direction and ensure that all persons have reached a place of safety before the blast is fired.
 - .11 File an Emergency Response Assistance Plan with the Explosives Branch, Natural Resources Canada.
 - .12 Ensure that the Blaster:
 - .1 Is solely responsible for implementation of the Explosives Management Program.
 - .2 Has a valid blaster's safety certificate from the Apprenticeship and Trades Certification Division of the Provincial Department of Advanced Education, Skills and Labour and have a valid temporary Magazine License, when required, issued by Natural Resources Canada, for storage and explosives.
 - .3 Possess a thorough working knowledge of the Federal Explosives Act and Provincial Regulations.
 - .4 Possess a specialized training in handling storage and detonation of explosives.
 - .5 Keeps a field journal concerning all blast activities.

190.05.03 HEAVY EQUIPMENT OPERATIONS

The Contractor shall:

- .1 Ensure mobile equipment used on job site is fitted with a Roll Over Protective Structure (ROPS) and Falling Object Protective Structures (FOPS) as specified in OHS Act and Regulations (specific to sections 261-265).
- .2 Ensure that operators of mobile equipment have adequate instruction and are competent in the operation of mobile equipment.
- .3 Ensure that operators of heavy equipment are Power Line Hazards certified from WorkplaceNL.
- .4 Obtain written clearance from the power utility where equipment is used in close proximity to (within 5.5 meters) overhead or underground power lines.
- .5 Equip cranes with:
 - .1 A mechanism which will effectively prevent the hook assembly from running into the top boom pulley.

- .2 A legible load chart.
- .3 A maintenance log book.
- .6 Ensure that there is no overnight parking of heavy equipment on road shoulders, where exposure to the public may be present.

190.05.04 BRUSH CLEARING OPERATIONS

The Contractor shall:

- .1 Ensure workers using chain saws or brush saws are competent and wear the following safety equipment:
 - .1 CSA approved safety hat fitted with face screen or shield.
 - .2 Approved eye protection.
 - .3 Hearing protection, e.g. ear muffs.
 - .4 CSA approved chain saw pants.
 - .5 CSA approved chain saw boots.
 - .6 Cut resistant gloves.
- .2 Chain saws must be equipped with a chain brake.
- .3 A safe work practice (SWP) must be developed, implemented and all workers trained in the SWP prior to undertaking such tasks and utilizing tree and brush clearing equipment.

190.05.05 DIVING OPERATIONS

When diving operations are required, the Contractor shall ensure that the diving contractor, completes, at a minimum, the following:

- .1 Development of site specific diving safety plan.
- .2 Maintains records of the diver(s) and dive supervisor (s), including:
 - .1 Copy of valid Diving Certificate and Supervisor Certificate from the Diving Certification Board of Canada (or equivalent) for the required work on the project. (i.e. Restricted SCUBA Diver, Unrestricted SCUBA Diver, SCUBA Supervisor, Restricted Surface-Supplier Diver, Unrestricted Surface-Supplied Diver, etc.(See www.divercertification.com).
 - .2 Resume which clearly demonstrates years of experience for the specific type (SCUBA, Surface Supplied Air, etc.) of diving to be performed at the site and projects completed to achieve minimum number of logged bottom time hours.
 - .3 First Aid and CPR Training Certification.
- .3 Maintains the dive tender(s) resume which must clearly state relevant training (including first aid and CPR and experience for the specific task (i.e. dive tender log book).
- .4 Ensures current (less than one year) medical examination certificate(s) for all divers, from a licensed medical doctor in the Province of Newfoundland and

- Labrador who is knowledgeable and competent in diving and hyperbaric medicine for all dives.
- .5 Maintains Certificates of Analysis for quality/purity of breathing air to be used by diver(s).
 - .6 Ensures documentation showing that diving life support equipment is in good working order and properly maintained.
 - .7 Ensures copies of documentation to show:
 - .1 An up-to-date dive site listing of the contact Hyperbaric facility and phone numbers for each location.
 - .2 Written arrangements with standby physician(s) specializing in diving/hyperbaric medicine for contingent emergency response and post dive follow-up for 48 hours after dive is completed.
 - .3 Effective means of communication between the diving supervisor and physician are available.
 - .4 The name, location and telephone number of the hospital and emergency department nearest the dive site.
 - .8 Develops emergency rescue procedures that include:
 - .1 Managing deteriorating environmental conditions.
 - .2 Managing unexpected weather or sea state condition.
 - .3 Evacuation of diver(s) under pressures greater than atmospheric pressure
 - .4 In water emergency transfers.
 - .5 Managing failing of equipment below the surface that impairs the ability of a diver to complete a dive.
 - .6 Managing failure of any major component of diving plant or equipment.
 - .7 Emergency signaling between divers involved in the diving program and between the diver(s) and the attendants using umbilical, tethers or other suitable methods.
 - .8 Mobilizing standby divers.
 - .9 Mobilizing crafts, standby boats and any other devices to be used for rescue.
 - .10 Contacting evacuation, rescue, treatment facilities and medical services that will be used in the diving program.
 - .11 Operation of emergency power and lighting facilities
 - .9 Ensures diving operations conform to CSA Z275.2-04 Occupational Safety Code for Diving Operations and CSA Z275.4-02 Competency Standard for Diving Operations or later edition.
 - .10 Ensures sampling:
 - .1 Prior to commencing diving activities, sample water and analyze sample(s) for:
 - i. Fecal Coliforms (*Escherichia coli*).

- ii. Total Coliforms.
 - iii. Any health hazard identified during the site specific hazard assessment.
 - iv. Any parameter as directed by the Department of Digital Government and Service NL.
- .2 Water will be designated a contaminant if the chemical concentration of a contaminant exceeds:
 - i. 200 fecal Coliforms (*Escherichia coli*) per 1000 milliliter of water.
 - ii. 100 times the guidelines concentration established in the most recent Guidelines of Canadian Drinking Water Quality.
 - iii. Any other criteria established by the Department of Digital Government and Service NL.
- .11 Ensures that sample analysis is to be completed by a laboratory that is accredited by the Canadian Associates of Environmental and Analytical Laboratories (CAEAL) or other national equivalent.
- .12 Ensures that dive personnel must meet the minimum competency requirements of CSA 275.4-02.
 - .1 The Dive supervisor(s) shall as a minimum:
 - i. Possess a Valid Diving Certificate, or equivalent, for a minimum of three (3) years for the type of diving to be performed.
 - ii. Have completed one hundred and fifty (150) hours of logged diving time for the type of diving to be performed.
 - iii. Have completed fifty (50) hours of dive supervision for the type of diving to be performed.
 - .2 Diver(s) shall as a minimum:
 - i. Possess a valid Diving Certificate or equivalent, for the type of diving to be performed.
 - ii. Have completed fifty (50) hours of logged dive time for the type of diving to be performed.
- .13 Ensures that a diving operation shall be interrupted or discontinued or not commenced when:
 - .1 Continuation of the diving operation would or is likely to compromise the safety of any person involved in the diving operation.
 - .2 The water currents at the underwater work site are likely to compromise the safety of any person involved in the diving operation.
 - .3 Combustible material is stored too close for safety to any diving plant and equipment used in the diving operation.
- .14 Ensures that a diving operation shall:
 - .1 Not be conducted in the vicinity for any other activity that might pose a danger to any person involved in the diving operation.

- .2 Not use any craft that has insufficient power or stability for the safe continuity of the diving operation.
- .3 Provide measures for making work area boundary and stopping unauthorized entry into the work area.
- .4 Provide adequate illumination of the dive site and the underwater work site of the diving operation.
- .15 Provides, at the work site while completing diving operations, a diving operations log book that is permanently bound and has numbered pages.
 - .1 Produce on request, any log books, records or other documentation associated with the diving operation, for inspection by the Owner's Representative.
 - .2 As a minimum, for each diving operation enter into the diving operation logbook:
 - i. date and time the diving operation commenced and terminated including any time the diving operation was interrupted.
 - ii. name of supervisor; names of all other persons involved.
 - iii. the procedures followed.
 - iv. the decompression table and the schedule in that the decompression table was used.
 - v. the maximum depth, bottom time, dive time and total dive time for each dive.
 - vi. the type of diving plant and equipment and the type of breathing mixture used.
 - vii. the type of discomfort, injury or illness including decompression sickness, suffered by any person involved
 - viii. any environmental conditions that affected or might have affected the diving operation.
 - ix. any other factors relevant to the safety to health of any person involved.
- .16 Ensures that diving in free swim mode is not permitted at the work site.
- .17 Provides separate first aid supplies for dive operation. All dive team personnel shall be trained in first aid and cardiopulmonary resuscitation (CPR).
- .18 Provides medical oxygen for emergency response at work site. The dive supervisor shall be trained in administering medical oxygen.

190.05.06 CONFINED SPACE OPERATIONS

When confined space entry is required, the Contractor, at a minimum, must:

- .1 Develop a site specific confined space entry plan that is specific to the nature of work performed and provide it to the Owner's Representative as a part of the

- SSSP. This shall include a CSE permit system, rescue plan, testing, equipment, communication considerations and safe work procedures.
- .2 Ensure confined space operations are carried out in accordance with the OHS Act and Regulations PART XXVII CONFINED SPACE ENTRY.
 - .3 The Contractor shall ensure that all appropriate policies, assessments, training, testing and rescue plans are in place, communicated to workers and utilized prior to confined space entry.
 - .4 All staff required to enter a confined space shall be trained in confined space entry through a program certified by WorkplaceNL.
 - .5 Provide approved air monitoring equipment when workers are working in confined spaces as appropriate. Ensure any testing equipment to be used is calibrated, in good working order and used by trained persons.
 - .6 Maintain 'entry permit' records for each entry into a confined space to ensure compliance with Provincial Legislation. Records shall be made available to Owner's Representative upon request.

190.05.07 CRANE OPERATIONS

The Contractor shall:

- .1 Ensure that training records and certifications for operators of cranes are kept on site and maintained. This training shall meet the requirements of the OHS Act and Regulations, CSA standards and identify the operators as competent.
- .2 Ensure that manufacturers' specifications for all lifting equipment is kept on site.
- .3 Inspect and maintain lifting equipment in accordance with the appropriate CSA standards and manufacturers' specifications by a competent and qualified individual.
- .4 Ensure that maintenance records for lifting equipment is maintained and available upon request.
- .5 Develop safe work practices for working around cranes and ensure that the information is reviewed with operators and staff.
- .6 Ensure that safe work practices for crane operations are developed and reviewed with all operators. Additional attention shall be provided for safe work practices related to operations for tandem crane lifts.
- .7 Complete a hazard assessment and develop a corresponding plan, when tandem crane lifts are required for the construction, maintenance and or repair of a structure, road or bridge.
- .8 Ensure that operators and signalers shall have radios or other suitable means of communications.
- .9 Ensure that where an apprentice crane operator will be operating a crane he/she is under the direct supervision of a journey person operator as required by the

Apprenticeship and Trades Certification Division of the Department of Advanced Education, Skills and Labour.

- .10 Ensure that the load capacity of the crane is clearly marked in a visible location.

190.05.08 PIT AND QUARRY OPERATIONS

- .1 The Contractor shall ensure that pits and quarry operations comply with OHS Regulations. The Contractor may be required to provide the following documents certified by the appropriate professionals in accordance with the regulations:
 - .1 Mine design plan, certified by a Professional Engineer (where three or more benches are to be mined) (OHS section 519).
 - .2 A plan for electrical energy at the mine, certified by a Professional Engineer (OHS section 679).
 - .3 Ground Control Log Book (OHS section 525).
 - .4 Ensure appropriate signage is utilized to prohibit unauthorized entry.
 - .5 Monitor conditions and utilize a dust suppression management program, particularly for drilling and crushing operations, if necessary.

190.06 OWNER'S STATEMENT

- .1 The Owner shall not be responsible for injury or damage occasioned by a failure of the Contractor to adhere to these provisions.

SECTION 316

COMPACTION FOR GRANULAR AND OTHER MATERIAL

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316.01 SCOPE

This specification covers the requirements for the compaction of granular and other materials. Use of this specification or any other specification shall be according to the Contract Documents.

316.02 REFERENCES

Reference standards shall be the latest revision at the date of Tender closing. This specification refers to the following standards, specifications or publications:

- ASTM D698 "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³))"
- ASTM D4718 "Standard Practice for Correction of Unit Weight and Water Content for Soils Containing Oversize Particles"

- ASTM D6938 “Standard Test Methods for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods”
-
- ASTM D7759 “Standard Guide for Nuclear Surface Moisture and Density Gauge Calibration”

316.03 DEFINITIONS

Control Strip: A single lift of material constructed and compacted as to determine the control density. The strip shall be a minimum of 500 m².

Control Density: The maximum dry density attained on a “Control Strip”.

316.04 MATERIALS

All materials must conform to the requirements in the Contract Documents.

316.05 EQUIPMENT

Compaction Equipment: The type of compaction equipment used shall be suited to the material to be compacted, degree of compaction required and space available. Compaction equipment for control strips shall have a minimum vibratory roller not less than 9 tonnes with a vibratory capacity of at least 1500 VPM.

Nuclear Gauge: Each nuclear gauge shall have been calibrated within the last 12 months either by the manufacturer or other qualified agent using ASTM D7759. In addition, the density standard count and the moisture standard count shall be within 2.0 % and 4.0%, respectively of the most recent values. The registered owner of the gauge shall maintain a valid Nuclear Substance and Radiation Device License.

316.06 CONSTRUCTION

316.06.01 General Construction

Granular and other material shall be placed according to lift thicknesses and cross section requirements as per contract documents. Each lift shall have a finished surface free from loose material.

Compaction operations shall be carried out as closely as possible behind the placing and spreading operation. At the end of each working day, all materials placed shall have been compacted to the specified density.

Material must be handled and compacted without segregating or adversely breaking down (such that its gradation falls outside the specified grading limits, as determine by

sieve analysis on random samples of the compacted in place material). Frozen material shall not be incorporated into the roadbed and material shall not be placed on a frozen roadbed.

Each layer of material shall be graded, compacted and verified prior to placing the next layer.

Water shall be applied as necessary to facilitate compaction in order to achieve the degree of compaction required. However, it shall not be added in such quantities that it seeps into the underlying subgrade or exceeds the optimum moisture content (as determine by ASTM D698 and ASTM D4718, if applicable) by 1.0%.

Lifts shall be compacted to meet or exceed the requirements for the granular or other material as per the applicable Contract Documents. Percent compaction shall be based off the maximum dry density obtained by ASTM D698 and ASTM D4718, if applicable. When field tests indicate that the required degree of compaction cannot be obtained with the equipment in use or the procedures being followed, the operations shall be modified so that the equipment will produce the required results.

Hand operated vibratory type compaction equipment shall be used behind all structures to compact fill material within restricted zones such as abutments, retaining walls, wingwalls, pipes, culvert, etc. Details of the restricted zones shall be as per the Contract Documents and any designer recommendations.

316.06.02 Control Strip

As an alternative to using the maximum dry density obtained as per ASTM D698 and ASTM D4718, if applicable (as described above in 316.06.01), a control strip may be constructed at the beginning of the Work to determine a control density. Prior to construction of a control strip the Contractor shall:

- Give a minimum notice of 24 hours to the Owner's Representative.
- Determine the optimum moisture content as per ASTM D698 and ASTM D4718, if applicable.

The control strip shall be constructed as per the maximum thickness in accordance with Contract Documents. Additional control strips will be required if lift thicknesses change, the source of material changes or a change in compaction equipment. No additional lifts shall be placed until the control density has been reviewed by the Owner's Representative.

Control strips shall not be constructed during freezing ambient temperatures, with frozen aggregate or on frozen subgrades.

The type and mass of the compaction equipment used shall be such that uniform density is obtained throughout the depth of the layer being compacted. Equipment shall be a vibratory roller not less than 9 tonnes with a vibratory capacity of at least 1500 VPM.

After initial placement of the material, the compaction equipment shall make a full pass over the entire control strip in vibratory mode at a speed of no more than 5 km/h. After each pass moisture and density measurements shall be determined at 6 random locations using nuclear equipment. Test results will be averaged to determine the in-place dry density.

The control strip moisture content shall be adjusted to provide necessary compaction without inadvertently breaking down or segregating the material. Care must be taken to avoid saturating the granular material. The average field moisture content must be maintained within the range of not less than 2.0% lower than and no more than 1.0% greater than the optimum moisture content of the control strip material as determined by ASTM D698 and ASTM D4718, if applicable.

Testing will continue after every pass until the average dry density either:

- Remains constant,
- Increases by less than 10 kg/m³,
- Decreases.

The maximum dry density shall be the control density and used to determine percent compaction throughout the project.

Lifts shall be compacted to meet or exceed the requirements for the granular or other material as per the applicable Contract Documents. Percent compaction shall be based off the control density as determined from the control strip.

316.06.03 Deficient Areas

Deficient areas shall be re-compacted with adjustments to the moisture content, as required, until satisfactory compaction is achieved. The re-compacted area is required to be retested.

316.07 QUALITY CONTROL

Quality Control (QC) testing shall be carried out to ensure that granular and other material used in the work are compacted according to the requirements as specified in the Contract Documents. The Contractor shall be responsible for the QC testing of

compacted material and establishing the control density test strip, if applicable. All testing shall be carried out in the presence of the Owner's Representative.

316.07.01 Submission Requirements

The following records must be submitted on behalf of the Contractor to the Owner's Representative:

- Name of professional engineering services licensed in practice in Newfoundland and Labrador.
- Copy of their Nuclear Substance and Radiation device license number.
- Copy of the nuclear gauge original certificate, calibration certificate and most recent density standard count and moisture standard count.
- Copy of their CCIL certification for Type D Advanced Aggregate Quality testing
- Identification of the nuclear gauge operator(s) and proof of training and proficiency as required below.
- Prior to either field compaction testing or the construction of control strip(s) a copy of all QC laboratory test results for ASTM D698 and D4718 (when required) used in determining optimum moisture and maximum dry density. Results must be reviewed, signed and stamped by a Professional Engineer.
- All documentation used to determine the control density for the control strip, if utilized, must be reviewed, signed and stamped by a Professional Engineer. Further, this must be reviewed by the Owners Representative Department Engineer prior to the construction of additional lifts. No further compaction activities are to take place until this review has been completed.
- All field QC test results and associated information including date, daily standardization, station location, offset, lift thickness, probe depth, moisture content, wet density, dry density and percent compaction.

QC records may be audited by the Owner's Representative for errors and missing test data. If errors or omissions are found that identify insufficiently compacted or improperly/untested areas, the Contractor shall make those areas available and re-compact or retest to ensure they comply with the specified compaction requirements.

316.07.02 Equipment and Personnel

Field density and moisture measurements for QC compaction testing shall be carried out by means of nuclear testing equipment. The Contractor shall use professional engineering services licensed to practice in Newfoundland and Labrador. The laboratory must be CCIL certified for Type D advanced aggregate testing and must include ASTM D698 "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12 400 ft-lbf/ft³ (600 kN-m/m³))".

Only qualified operators using properly calibrated gauges shall conduct QC compaction testing. A copy of a valid calibration certificate, including the make, model number and serial number shall be submitted to the Owner's Representative prior to use of the nuclear gauge. If the nuclear gauge does not meet these requirements or exhibits malfunctions of any kind it shall be replaced.

Each nuclear gauge operator must be trained in the safe operation, transportation and handling of the gauge. The operator must provide acceptable proof of training and proficiency in the use of the gauge to the Owner's Representative prior to any compaction testing. Proof of training must include a copy of a valid certificate from an acceptable training program. Proof of proficiency must be a signed document from the qualified testing firm that the operator has demonstrated proficiency in utilizing the gauge on other projects.

316.07.03 Testing

Prior to on site compaction the QC representative must complete testing as per ASTM D698 and ASTM D4718, if applicable. This must be submitted to the Department prior to commencing any onsite testing.

Once the control/maximum dry density has been established all further compaction testing will occur at a minimum frequency of one nuclear gauge tests every 40 m in each lane. Sites must be randomly selected across the entire width of the lane, including the shoulder. Conditions may require an increase in the frequency of compaction testing, the decision, arrangements and cost for which are the responsibility of the Contractor.

The QC representative must utilize the direct transmission method as per ASTM D693 and ASTM D4718, if applicable, and ensure that the gauge probe extends the full depth of the lift but not beyond. Results must be available at any time for review and submitted to the Owner's Representative prior to the placement of any subsequent lift and within 1 business day following testing. Failure to do so may result in a stoppage of work.

The Contractor and their QC Consultant must ensure that the established rolling pattern is followed and the entire cross section is compacted uniformly throughout the project. This includes warranting compaction requirement are met under all granular windrows at centerline and edge locations. Care must be taken to ensure no bridging of the roller during compaction operations.

Previously accepted compacted materials damaged by traffic or other means shall be restored and retested prior to placement of any overlying material. Any costs for making the materials acceptable again will be at the Contractor's expense.

316.08 QUALITY ASSURANCE

QA testing will be randomly carried out by the Department who at its sole discretion can examine, inspect or test any aspect of the Contractor's work as deemed appropriate. Such inspection or testing shall not in any way relieve the Contractor of their QC responsibilities.

The Department may verify the control density established for the control strip. Areas to be found deficient shall require immediate remedial action at the Contractor's expense. Subsequent lifts may not be placed until QA testing has been conducted or as instructed by the Owner's Representative.

316.09 BASIS OF PAYMENT

Payment shall be considered incidental to the tender item requiring compaction and shall include all labour, equipment and material to complete the work in accordance with the requirements above including the supply and application of water for compaction purposes.

Any work required to be repaired or removed shall be at no additional cost to the Department.

Replacement of a gauge shall be at no additional cost to the Department.

SECTION 320

TACK COAT

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320.01 SCOPE

This section covers the requirements for the supply and application of Tack Coat to pavement surfaces prior to repaving with asphaltic concrete.

320.02 MATERIALS

Tack Coat shall consist of RS-1 emulsified asphalt conforming to ASTM D977 “Standard Specifications for Emulsified Asphalt”, CRS-1 emulsified asphalt conforming to ASTM D2397 “Standard Specifications for Cationic Emulsified Asphalt” or a non-tracking emulsion. The non-tracking emulsion shall be a Clean Bond Coat, or equivalent, applied un-diluted or diluted with a maximum of 40% water and shall meet the requirements of **Table 1** and **Table 2**. Dilution of the emulsion shall be permitted provided the Manufacturer’s dilution process is followed.

Table 1:Non-Tracking Emulsion Requirements (Prior to Dilute)

Test Type	Specification Range	
	Minimum	Maximum
Tests on Emulsions		
SF Viscosity, 25°C, SFs	20	-
Sieve Test, 850µm, %	-	0.1
Residue by Distillation, 260°C, %	55	-
Oil Portion of Dist, %	-	Trace

Test Type	Specification Range	
	Minimum	Maximum
Particle Charge	(-) or (+)	
Test on Residue		
Penetration, 25°C, dmm	20	55
Ash Content,%	-	1.0

Table 2: Non-Tracking Emulsion Requirements (Diluted)

Test Type	Specification Range	
	Minimum	Maximum
Tests on Emulsions		
Residue by Distillation, 260°C, %	39.3	-
Test on Residue		
Penetration, 25°C, dmm	20	55
Ash Content, %	-	1.0

Should the Contractor wish to use an alternate product, then prior written authorization of the Owner's Representative must first be obtained. A written request must be submitted to the Owner's Representative a minimum of 14 days prior to the intended use of the alternate product. The Contractor's request must include reasons for the use of the alternate product, manufacturer's product literature and required application rates as well as applicable Safety Data Sheets.

The Contractor shall collect samples of emulsified asphalt as required by the Owner's Representative. The Owner's Representative may opt to request one random sample per day. Samples shall be taken from the Contractor's storage tank in accordance with ASTM D140 "Standard Practice for Sampling Bituminous Materials". The sample size shall be at least eight litres placed in two separate four litre containers. Collection of the asphalt binder sample shall be witnessed by the Owner's Representative. The sample shall be appropriately identified including the time and date of samples, type of emulsified asphalt, manufacturer, and refiner. If the sample is Clear Bond Coat it should also be recorded if the sample is un-diluted or diluted and the percentage of water added. The sample shall be immediately forwarded to the witnessing Owner's Representative.

It shall be the Department's responsibility to submit emulsified asphalt samples for quality assurance testing.

320.03 EQUIPMENT

Tack Coat shall be applied by means of an approved pressure distributor designed and

equipped so that the emulsion may be applied uniformly at even heat on variable widths at easily determined and controlled application rates under uniform pressure. The distributor shall maintain a constant height of the spray bar as the tank is unloaded.

The distributor shall be equipped with a suitable thermometer with a minimum range from 10°C to 150°C placed to accurately show the temperature of the contents. The approved pressure distributor shall be equipped with a tachometer measuring speeds in meters per minute that is visible to the truck driver so as to maintain constant application speeds at specified rates. The distributor's pump shall be equipped with a tachometer registering liters per minute that is visible to the truck driver. The distributor shall be equipped with a hose and nozzle attachment to be used for spraying by hand, areas inaccessible to the spray bar.

All spray nozzles shall be in good condition and of the same type, orifice size and manufacturer and capable of producing a uniform fog-type spray without streaking. Prior to spraying the Contractor shall check with the Manufacturer to ensure the correct spray nozzles are being utilized. Clogged nozzles shall be removed and cleaned with solvent. The slot of each nozzle shall be set at 30 degrees to the axis of the spray bar and the spray bar shall be set at a height above the existing pavement that will permit the fan from each nozzle to overlap its neighbouring fan by exactly half. The spray bar shall be provided with a positive shut-off to prevent dribbling.

320.04 APPLICATION

Tack Coat shall only be placed on surfaces that are clean and dry, with no threat of precipitation or fog and then only when the atmospheric temperature is at least 10°C. The emulsion shall not be applied to a prepared surface when the surface temperature is less than 2°C.

Should the surface to be treated be dirty, then the Contractor shall thoroughly clean the surface by means of a power broom, or equivalent to ensure bonding of the Tack Coat.

Tack Coat shall only be placed on surfaces that are to the satisfaction of the Owner's Representative.

The Contractor shall plan their work so that no more Tack Coat than is necessary for the days paving operation is applied at one time.

To avoid nuisance and possible property damage to the traveling public, the Contractor shall install portable traffic lights or other means of directing one-way traffic while the Contractor is working on the adjacent part of the road. All other means of traffic control

must be in accordance with Division 7 of the Specifications Book, Temporary Condition Signs and Devices.

The spraying temperature shall be between 20°C and 70°C for RS-1 and Clean Bond Coat, 60°C and 80°C for CRS-1, or the temperature recommended by the manufacturer. This recommendation from the manufacturer shall be provided in writing to the Owner's Representative. Application rates shall meet the requirements of **Table 3**. On pavement which was placed during the previous construction season, the rate of application shall be as directed by the Owner's Representative. This rate will not exceed the rates provided in **Table 3**.

Table 3: Tack Coat Application Rates

Emulsion Type	Application Range
RS-1	0.15 to 0.25 l/m ² *
CRS-1	
Clean Bond Coat Un-diluted	0.15 to 0.25 l/m ² *
Clean Bond Coat diluted (40%)	0.25 to 0.35 l/m ² *

* Or the Department approved application rate as recommended from the Manufacturer.

Tack Coat application shall be visually uniform. Areas of insufficient or non-uniform Tack Coat coverage shall be re-sprayed by the Contractor at no additional cost.

320.05 ENVIRONMENTAL PROVISIONS

The Contractor shall follow the requirements of Section 820, and the procedure for reporting spills.

320.06 CURING

No Hot Mix shall be placed upon the Tack Coat until it has dried to a proper condition of tackiness, as determined by the Owner's Representative. The Contractor is advised that the period required for such drying will depend upon weather conditions; generally it can be 1 hour or more.

Where appropriate, the Contractor shall keep traffic off the Tack Coat to maximize product performance.

320.07 MEASUREMENT FOR PAYMENT

Measurement for payment shall be by means of the horizontal area actually treated with Tack Coat lying within the area designated by the Owner's Representative for

treatment. The area shall be computed in square meters, rounded to one decimal place.

320.08 BASIS OF PAYMENT

Payment at the contract price for Tack Coat shall be compensation in full for all labour, materials and equipment-use to; clean the existing surface, supply and apply the Tack Coat, together with the provision of all required traffic control necessary.

SECTION 330

HOT MIX ASPHALT CONCRETE

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330.01 SCOPE

This specification covers the Department's requirements for the production, placing and compaction of hot mix, hot laid base course, surface course and leveling course asphalt concrete for pavement construction. Sections 330.02 to 330.04 provides aggregate and asphalt pavement specifications and general requirements that are common to both method specification and end product specification projects. Section 330.05 provides specifications specific to method specifications projects, while Section 330.06 details the specifications for end product projects.

Method specification projects are identified as projects where the Department conducts all materials testing and engineering services and the Contractor's payment is based upon tonnage of production for a specific project with some minimal performance criteria applied.

End product specification projects are defined as projects where the Contractor is solely responsible for quality control functions and the Department is responsible for the provision of all quality assurance testing. Payment to the Contractor is also based on tonnage of production with a more extensive bonus/penalty system which in turn is based upon the end product quality assurance test results carried out by the Department.

The base, surface and leveling course asphaltic concrete pavement shall consist of asphaltic cement, coarse and fine mineral aggregate, blending sand, plus mineral filler if required, combined as hereinafter specified, placed and compacted on a prepared base

in conformity with the lines, grades, dimensions and cross sections, as staked by the Owner's Representative.

Any project paving work (base, levelling and surface coarse) with a truck haul time to the laydown location exceeding 90 minutes will require a Warm Mix Asphalt (WMA) mix design in accordance with Section 337, for the entirety of the paving work. The preparation and development of WMA mix design(s), as well as any additional materials and work, will be at the Contractors expense and is considered incidental to the Work. No additional payment will be made for this requirement. The WMA mix design and material shall be primarily utilized as a compaction aid to ensure good inplace compaction densities.

The paving of bridge decks and approach slabs shall be in accordance with Section 922.

330.02 MATERIALS

330.02.01 Mixture Materials

330.02.01.01 Asphalt Cement

Unless otherwise specified, the asphalt cement (binder) shall conform to the latest edition of AASHTO M320, "Standard Specification for Performance Graded Asphalt Binder". The Performance Grade (PG) of asphalt binder shall be PG 58-28 and shall conform to the requirements of Table 1 in the AASHTO Specification. Other PG binders may be specified in individual contracts when warranted. Irrespective of the PG binder specified the ash content of any binder must be less than 0.50% following AASHTO T111 "Standard Method of Test for Mineral Matter or Ash in Asphalt Materials".

All PG asphalt binders will be subject to testing for acceptance prior to and during use. Samples failing to meet the relevant performance grade will require classification and be subject to penalty based on the following formulation.

Temperature Deviation	Price Reduction (% of Asphalt Cement and Mix Prices)
Within 3 degrees of Specified Grade	NA
From 3 degrees to 6 degrees of Specified Grade	10%
From 6 degrees to 9 degrees of Specified Grade	20%
Greater than 9 degrees of Specified Grade	Rejection

Projects with only one asphalt binder sample collected and not meeting the specified grade will have the penalty applied to all the unit prices of the entire quantity of hot mix asphalt

concrete. Projects with multiple samples of asphalt binder will have the penalty applied proportionally to the affected asphalt.

Performance Graded Asphalt Binder with either higher than the maximum or lower than the minimum design temperature will be accepted at full price and no bonus will be applied.

Prior to the start of and throughout pavement production current copies of certification of all project asphalt binders shall be provided to the Department. Safety Data Sheets for the Asphalt cement and any chemical additives must also be submitted.

Any asphalt binder other than the asphalt binder specified must be removed from the Contractor's tanks to prevent contamination. Binders meeting the performance specifications but obtained from different sources cannot be stored in the same tank unless approved by the asphalt suppliers.

330.02.01.01.01 Graded Asphalt Binder (PGAB) Sampling

The Contractor shall collect samples of asphalt cement as required by the Owner's Representative. At least one sample shall be collected per project and per additional 5000 tonnes of hot mix asphalt produced. The Owner's Representative may opt to request one random sample per day. Samples shall be taken from the Contractor's storage tank in accordance with ASTM D140, "Standard Practice for Sampling Bituminous Materials". The sample size shall be at least two litres placed in one litre containers. Collection of the asphalt binder sample shall be witnessed by the Owner's Representative. The sample shall be appropriately identified including the time and date of samples, grade and type of binder, supplier, refinery and the name and proportions of any additives added. The sample shall be immediately forwarded to the witnessing Owner's Representative.

It shall be the Department's responsibility to submit PGAB samples for quality assurance testing.

330.02.01.01.02 Asphalt Binder Temperature Viscosity Chart

The Contractor shall supply a temperature viscosity chart from the manufacturer/supplier for each source or type asphalt binder provided. The Contractor shall also request of the manufacturer/supplier any information or recommendations regarding the production and handling of the mix relating to the asphalt binder. All such requested information shall be available in advance of the pre-paving meeting for discussion and review during the meeting. During the hot mix production the maximum mixing temperature shall be the lower of either; the high end temperature for recommended mixing from the temperature viscosity chart provided by manufacturer/supplier or 165° C.

330.02.01.02 Crushed Aggregate

Additional to all other requirements, the designated aggregates shall be split on the 4.75 mm screen during crushing operations, and each material shall be stockpiled separately such that intermixing of each size and type does not occur.

Where aggregates are processed from pits the naturally occurring fines shall be pre-screened prior to crushing, individually stockpiled and referenced as “naturally occurring fine aggregate”. No more than 5% naturally occurring fine aggregate passing the 4.75 mm screen shall be permitted with the retained naturally occurring screened coarse aggregate prior to crushing. Naturally occurring coarse aggregate must be stockpiled separately prior to crushing. Fine aggregate sizes generated during the crushing phase shall also be individually stockpiled and identified as “crushed fines”. In no cases shall the fine aggregate stockpiles be combined or mixed with other aggregate types. For all mixes the maximum percentage passing the 75 μ m sieve is limited to 10 % for naturally occurring fine aggregate.

As an alternative to the above pre-screening on the 4.75mm screen, where aggregates are processed from pits, contractors may choose to pre-screen with a 19 mm or larger screen size provided that no more than 10% of the retained material for aggregate production passes the 19 mm sieve. For this pre-screening operation a completely safe means of accessing the retained material for sampling is to be provided by the Contractor. The Department shall have full control over the time of sampling. If the Contractor chooses to pre-screen with a 19 mm or larger screen size, material passing the 19 mm or larger screen size can not be utilized as a naturally occurring fine aggregate.

330.02.01.02.01 Coarse Aggregate

Coarse Aggregate shall consist of hard, durable crushed stone or crushed gravel particles, reasonably uniform in quality and free from soft or disintegrated pieces. The portion of material retained on the 4.75 mm sieve shall be known as coarse aggregate. The coarse aggregate stockpile shall contain no more than 10% passing the 4.75 mm screen.

Coarse Aggregates shall be washed if necessary to have clean surfaces free from coatings of foreign matter. Coarse Aggregates shall conform to the physical requirements shown in Table 1.

Irrespective of compliance with the physical requirements of Table 1, any coarse aggregate may be accepted or rejected on the basis of past field performance at the discretion of the Department.

TABLE 1
Physical Requirements for Coarse Aggregates

TEST METHOD	TEST NO.	HIGHWAY CLASSIFICATION		
		RAU & RAD-100 RAU & RAD-90, RCU-80		RLU-60, RLU- 70 RLU-80
		SURFACE	BASE	ALL COURSES
LOS ANGELES ABRASION - % MAXIMUM (A)	ASTM C131	35	35	35
ABSORPTION - % MAXIMUM	ASTM C127	1.75	2	2
MAGNESIUM SULPHATE - SOUNDNESS - 5 CYCLES - % MAXIMUM (B)	ASTM C88	12	12	12
PETROGRAPHIC NUMBER - MAXIMUM	CSA A23.2-15A	135	135	135
FREEZE-THAW TEST - 5 CYCLES - % MAXIMUM	CSA A23.2-24A	8	10	10
CRUSHED PARTICLES - % MINIMUM (C)	ASTM D5821	90	90	70
FLAT & ELONGATED PARTICLES - % MAXIMUM (D)	ASTM D 4791	20	20	20
LOSS BY WASHING - % MAXIMUM PASSING (E)	ASTM C117	1.75	1.75	1.75
MICRO DEVAL - % MAXIMUM (EXCLUDING LABRADOR)	ASTM D 6928	18	20	20
MICRO DEVAL - % MAXIMUM (LABRADOR ONLY)	ASTM D 6928	16	16	16
CLAY LUMPS - % MAXIMUM	CSA A23.2-3A	1	1	1
LOW DENSITY PARTICLES - % MAXIMUM	CSA A23.2-4A	1	1	1
FRIABLE OR SLATEY SILTSTONE - % MAXIMUM	CSA A23.2-15A	1	1	1

Notes:

- (A) The ratio of the loss after 100 revolutions to the loss after 500 revolutions shall not exceed 0.265. ***This Physical Property is not applicable to projects in Labrador.***
- (B) Test to be conducted on basalt rich or highly absorptive (> 1.5%) aggregates.

- (C) Pieces having two or more freshly fractured faces only will be considered as crushed material. Pieces with only small chips removed will not be considered as crushed.
- (D) Flat and elongated pieces are those whose greatest dimension exceeds four times their least dimension.
- (E) When only quarried rock is used as a source of coarse aggregate, a maximum of 2 percent passing the 75 µm sieve shall be permitted

The Contractor must meet all the requirements above, while the guidelines below are provided for information purposes. The Contractor is responsible for ensuring the combination of aggregate conforms to the grading requirements of Table 3.

Guidelines for Coarse Aggregate Gradation

Sieve Size	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
22.0 mm	100	100
19.0 mm	100	85-100
12.5 mm	85-100	50-80
9.5 mm	45-75	25-60
4.75 mm	0-10	0-10

330.02.01.02.02 Fine Aggregate

Fine aggregate shall consist of clean, tough, rough-surfaced grains, free from clay, loam and other foreign matter. The fine aggregate stockpile shall contain no more than 20% retained on the 4.75 mm screen.

For RCU-80 and above highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 15% (by dry weight). For RLU-80 and below highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 20% (by dry weight).

For all base and levelling type II course mixes the fine aggregates maximum percentage passing the 75 µm sieve is limited to 8% prior to mix production at the asphalt plant. All surface and levelling type I course mixes the fine aggregates maximum percentage passing the 75 µm sieve is limited to 8 % prior to mix production at the asphalt plant.

Irrespective of compliance with the physical requirements of Tables 2 any fine aggregate may be accepted or rejected on the basis of past field performance at the discretion of the Department.

TABLE 2
Physical Requirements for Fine Aggregates

TEST METHOD	TEST NO.	HIGHWAY CLASSIFICATION		
		RAU & RAD-100, RAU & RAD-90, RCU-80		RLU-60, RLU-70, RLU-80
		SURFACE	BASE	ALL COURSES
MICRO-DEVAL TEST FOR FINE AGGREGATE - % MAXIMUM (EXCLUDING LABRADOR)	ASTM D 7428	18	20	20
MICRO-DEVAL TEST FOR FINE AGGREGATE - % MAXIMUM (LABRADOR ONLY)	ASTM D 7428	17	17	17
PLASTICITY INDEX	ASTM D4318	0	0	0
SAND EQUIVALENT - % MINIMUM	ASTM D 2419	50	50	50
FINE AGGREGATE ANGULARITY - % MINIMUM (A)	ASTM C 1252	45	45	45

Note:

- (A) FAA tests shall be conducted on a representative sample of the total fine aggregate inclusive of all fine aggregate materials as indicated in the mix design including blending sand. The test will be conducted in accordance with Standard Graded Sample Method A

The Contractor must meet all the requirements above, while the guidelines below are provided for information purposes. The Contractor is responsible for ensuring the combination of aggregate conforms to the grading requirements of Table 3. Contractors should also be aware of material breakdown after crusher production testing for the material being utilized and their plants capabilities in producing the mixture in accordance with Table 3.

Guidelines for Fine Aggregate Gradation

Sieve Size	Percent Passing by Dry Weight	
	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
9.5 mm	100	100
4.75 mm	90-100	85-100

Sieve Size	Percent Passing by Dry Weight	
	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
2.00 mm	40-60	40-90
0.425 mm	15-30	20-55
0.150 mm	5-16	10-25
0.075 mm	2-6	2-7

330.02.01.02.03 Crushing Tolerances

After the Contractor starts crushing, an average grading will be determined and tolerances will be applied to subsequent production. The average grading will be determined by averaging at least six washed sieved results on a minimum of 1500 tonnes or 30% of the required amount.

The tolerances for subsequent production are as follows:

Tolerance for Production of Asphalt Aggregate

Aggregate Passing 25.0 mm to 9.5 mm sieves	± 6%
Aggregate Passing 4.75 mm sieve	± 5%
Aggregate Passing 2.00 mm sieve	± 4%
Aggregate Passing 425 µm sieve	± 4%
Aggregate Passing 150 µm sieve	± 3%
Aggregate Passing 75 µm sieve	± 2%

330.02.01.03 Blending Sand

Blending sand shall consist of clean, tough, rough surfaced grains, free from clay, loam, or any other foreign matter. Blending sand is considered as a fine aggregate and thus must meet the requirements of Table 2. Blending sand may be either a naturally occurring screened sand or a manufactured sand added to the mix for the purposes of enhancing mix properties.

The gradation of the blending sand shall be such that when used in the asphalt mix, the resulting mix shall meet the requirements of Tables 2 and 3 of this section. In any case, the blending sand shall have 100% (by dry weight) passing the 9.5 mm sieve and at least 80% (by dry weight) passing the 4.75mm sieve.

For RCU-80 and above highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 15% (by dry weight). For RLU-80 and below highway classifications the maximum

allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 20% (by dry weight).

Blending sand shall be supplied by the Contractor.

330.02.01.04 Mineral Filler

Material Filler shall meet the requirements of ASTM D242 “Standard Specification for Mineral Filler for Bituminous Paving Mixtures”. Where filler is required, it shall be supplied by the Contractor.

330.02.01.05 Anti-Stripping Additive

An approved anti-stripping additive shall be added to all Hot Mix Asphaltic Concrete. The anti-stripping additive may be either an approved liquid anti-stripping additive or hydrated lime ($\text{Ca}(\text{OH})_2$) with each meeting the requirements outlined as follows.

If an approved liquid anti-stripping additive is utilized it shall be added to all Hot Mix Asphaltic Concrete at a minimum application rate of 0.5% of additive by weight of asphalt cement or the recommended percentage as determined from Lottman test results. Approved liquid anti-stripping additives include the following products:

- AD-here LOF 6500 (ARR-MAZ Custom Chemicals)
- AD-here 77-00 (ARR-MAZ Custom Chemicals)
- Evotherm M1 (Meadwestvaco Corp.)
- Evotherm P25 (Meadwestvaco Corp.)
- Redicote C-3082 (Akzo Nobel Chemicals)
- Rediset LQ-1102C (Akzo Nobel Chemicals)
- Warmgrip N1 (ARR-MAZ Custom Chemicals)

All other products must be approved by the Department’s Materials Engineering Division.

Suppliers of the asphalt cement and anti-stripping additives shall provide in writing all mixing requirements and proof of product compatibility. Treated asphalt PG binders must meet the relevant performance grade specifications. Some of the additives noted above at various dosage rates are understood to lower the required mixing and compaction temperature of the asphalt mixture. All information in this regard shall be provided 10 days prior to mix design. This information shall also be made available for proper production, laydown and field testing.

Contractors must inform the Owner's Representative and advise workers of the proper procedures, use of protective clothing and equipment when handling anti-stripping additives. Hot mix asphaltic concrete with liquid anti-strip additives is known to produce strong odours. Contractors must ensure the mix materials are used under proper environmental conditions to guarantee the safety and comfort of construction personnel and the public.

Modified Lottman tests in accordance with AASHTO T 283 "Resistance of Compacted Hot Mix Asphalt (HMA) to Moisture-Induced Damage" shall be completed within the mix design procedure to determine if the minimum application rate is sufficient. An additional rate of anti-strip and/or an alternate anti-stripping additive will be required if one of the following conditions occurs as determined by AASHTO T 283:

- The tensile strength ratio of the hot mix asphalt concrete is less than 0.80
- There is visual evidence of stripping. Acceptable specimens shall have a visual stripping rating of 1.0 or lower based on a scale from 0 to 10 (with 0 being no visual stripping and 10 being fully stripped).
- The results of the mix utilizing neat hot mix asphalt concrete (or with no anti-stripping additive) significantly exceed the performance of the mix with the anti-stripping additive.

In addition to AASHTO T 283 requirements, the asphalt hot mix containing the anti-stripping additive shall pass a boiling water test in accordance with ASTM D3625 "Standard Practice for the Effect of Water on Bituminous-Coated Aggregate Using Boiling Water" within the mix design procedure. The pass criterion for ASTM D 3625 is 95% or greater retained bitumen coating of aggregate.

An additional rate of anti-strip and/or an alternate anti-stripping additive will also be required if the aggregate is known to be prone to stripping from past performance and the minimum application rate was insufficient.

If additional or alternative anti-stripping additives are required, a further 10 working days will be required after the Contractor has advised the Department of its new anti-strip proposal and all materials have been received by the Materials Engineering Division. The Contractor and their supplier shall provide sample materials, any technical information and Manufacturer's recommended application rates.

Modified Lottman Tests (AASHTO T 283) and Boiling Water Tests (ASTM D3625) shall also be conducted on field produced samples of hot mix. All field produced samples shall also pass the requirements above.

Where hydrated lime is used as an anti-strip additive the dosage requirement shall be the greater of one half (1/2) percent by mass of total dry aggregate, or the recommended percentage as determined from the Lottman and Boiling Water test results.

Where hydrated lime is utilized the hydrated lime shall be added to all aggregates by either of the following methods:

- a) Hydrated lime slurry shall be homogeneously mixed with the aggregate in a pug-mill or tumble mixer prior to entering the asphalt plant (the hydrated lime slurry shall be produced at the approximate rate of 1 part lime to 3-4 parts water).
- b) Dry hydrated lime shall be homogeneously mixed with wetted aggregate in a pug-mill or tumble mixer prior to entering the asphalt plant. The wetted aggregate shall have a minimum moisture content of 2% by weight for coarse aggregate and 3% by weight for fine aggregate.

Hydrated lime shall be mixed with the aggregate at least 4 hours prior to entering the asphalt plant. Aggregate treated with hydrated lime shall be used within the same construction season. Treatment shall include both coarse and fine aggregate components of the asphalt aggregate.

Where hydrated lime is to be utilized, the Contractor shall provide the Department with complete information on how the hydrated lime is to be used in the treatment of aggregates. Hot mix produced containing hydrated lime, shall conform to all requirements of the contract before acceptance. The design amount of hydrated lime will be added as a percentage of the total dry aggregate weight.

The cost of all anti-stripping additives (including hydrated lime) will be borne by the Contractor no separate or additional payment will be made.

330.02.01.06 Recycled Asphalt Pavement (RAP)

If the Contractor wishes, the Contractor will be permitted to use Recycled Asphalt Pavement (RAP) in levelling or base course asphalt. The amount of RAP in the pavement mixture will be limited to 20% and subject to the following conditions:

Preparation and submission of a Marshall Asphalt Design Mix Formula (including all supporting documentation) for the asphalt mixture containing RAP, to be submitted to the Materials Engineering Division for review, is the responsibility of the Contractor. The Contractor shall use professional engineering services and a qualified testing laboratory, to assess the aggregate materials, asphalt binders, blending sands, mineral fillers, anti-stripping agents and asphalt cement rejuvenation agents proposed for use and to carry out the design of the asphalt concrete mix. No compensation will be provided to the Contractor, for the production of the asphalt design mix formula for the asphalt mixture containing RAP.

The asphalt mixture containing RAP shall be designed in accordance with the Ontario Ministry of Transportation, Design Procedure for Recycled Hot Mix Asphalt, latest edition, except that all test methods referred to shall be replaced with the appropriate ASTM Standards.

RAP percentages may require the use of asphalt cement rejuvenation agents to ensure the overall asphalt cement characteristics meet the specified Performance Grade. Testing to confirm the rheological characteristics of the combined Performance Graded Asphalt Cement and the RAP asphalt cement shall be supplied as part of the Marshall Mix Design. In all cases the Performance Grade of the asphalt cement shall meet the project specifications.

RAP shall be comprised of asphalt millings and be free of uncoated particles. The use of non-milled reclaimed asphalt pavement is subject to the Department's satisfaction.

The quality of the aggregate in the RAP and the quality of the final pavement mixture shall meet all requirements set forth in this specification.

Where RAP is included in base or levelling course mixes the following process will be followed:

- RAP shall be fractionated into a minimum of three separate sizes.
- The gradation of the individual fractionated RAP shall be:
 - 9.5mm and above
 - 4.75mm to 9.5mm
 - minus 4.75mm
- The asphalt plant must be equipped with a metering system that allows the fractionated RAP to be added in a controlled manner acceptable to the Department.

The Contractor shall provide the Department with a minimum 30 day notice of their intention to use RAP. The Department reserves the right to accept or reject any particular source of RAP, irrespective of its quality.

330.02.02 Composition of Pavement Mixture

330.02.02.01 General Requirements for Pavement Mixture

The mixture shall consist of suitably graded fine and coarse aggregate thoroughly mixed with asphalt cement as specified. Blending sand, filler and chemical additives shall be added when required.

Unless otherwise specified, the aggregates shall be combined in such proportions as to produce a mixture conforming to the grading of Table 3.

TABLE 3
Asphalt Aggregate Mixtures

Sieve Sizes	Percent Passing by Dry Weight			
	Surface Course RCU 80 and above	Surface Course RLU 80 and below	Levelling Course Type I**	Base & Levelling Course Type II***
22.0 mm	100	100	100	100
19.0 mm	100	100	100	90-100
12.5 mm	93-100	93-100	75-100	75-90
9.5 mm	75-92	75-92	63-95	63-84
4.75 mm	45-60	50-65	35-78	35-55
2.00 mm	32-55	32-55	20-55	20-42
0.425 mm	16-25	16-25	10-25	10-25
0.150 mm	5-12	5-12	5-12	5-12
0.075 mm	2-5*	2-5*	2-5*	2-6*
Asphalt Cement (% By Weight of Total Mixture)	4.5 – 7.0	4.5 – 7.0	4.5 – 7.0	4.5 – 7.0

Notes:

- * The dust/effective asphalt ratio of all mixtures shall be between 0.6 and 1.2. Dust is defined as material passing the 0.075 mm sieve. For surface course mixtures on roads of less than 500 vehicles per day the upper gradation limit on the 0.075 mm sieve can be increased to 6% passing by dry weight. Commercial truck traffic will also be considered in identifying the roadways applicable to the modification of the gradation limit on the 0.075 mm sieve. Road sections will be identified in the project

tender documents with the surface courses applicable to the modification of the gradation limit on the 0.075 mm sieve.

- ** Levelling Course Type I to be used where thickness of compacted lift is to be less than or equal to 30 mm.
- *** Levelling Course Type II to be used where thickness of compacted lift is to be greater than 30 mm.

Once a mix design has been designated or recognized by the Materials Engineering Division, the Contractor shall be required to produce a pavement mixture conforming to the following mix control tolerances. The mix must still fall inside the gradation envelopes of Table 3.

Individual Sample Tolerance for Production of Combined HMA

Aggregate Passing 19.0 mm sieve	± 5%
Aggregate Passing 12.5 mm sieve	± 5%
Aggregate Passing 9.5 mm sieve	± 5%
Aggregate Passing 4.75 mm sieve	± 5%
Aggregate Passing 2.00 mm sieve	± 4%
Aggregate Passing 425 µm sieve	± 3%
Aggregate Passing 150 µm sieve	± 2%
Aggregate Passing 75 µm sieve	± 1%

330.02.02.02 Physical Requirements for Mixture

The aggregates and the asphalt cement shall be mixed in such proportions as to satisfy the criteria contained in Table 4. These criteria are based on the Standard Marshall Test Procedures and using a compactive effort of 75 blows on each face of the specimen.

All test procedures used shall be the latest versions of ASTM or AASHTO standards, except where indicated.

TABLE 4
Physical Requirements for Asphaltic Concrete Mixture (All Courses)

	Minimum	Maximum
MARSHALL STABILITY N. AT 60°C		
(I) FOR HIGHWAY CLASSIFICATIONS RLU-60, RLU-70, RLU-80	5 400	---
(II) FOR HIGHWAY CLASSIFICATIONS RAU & RAD-100, RAU & RAD-90, RCU-80	8 000	---
MARSHALL FLOW INDEX MM	2.5	4.25

	Minimum	Maximum
% AIR VOIDS (A) (I) FOR ALL HIGHWAY CLASSIFICATIONS RLU-60, RLU-70, RLU-80, RAU & RAD-100, RAU & RAD-90, RCU-80	2.5	4.5
% VOIDS IN COMPACTED MINERAL AGGREGATES (I) LEVELING & BASE COURSE (II) SURFACE COURSE	14.0 15.0	--- ---
MODIFIED LOTMAN AASHTO T283 - TENSILE STRENGTH RATIO (PLUS VISUAL) 330.02.01.05	0.8	---
% RETAINED COATING OF AGGREGATE - BOILING WATER TEST ASTM D3625	95	---
MOISTURE CONTENT OF HOT MIX ASPHALT BY OVEN METHOD, AASHTO T329 AS PERCENT OF HMA	---	0.3

330.03 USE OF PITS, QUARRIES AND STOCKPILES

The use of pits and quarries for the production of the aggregates, together with the requirements for the stockpiling of the aggregates shall be in compliance with the provisions of Section 310.

330.04 ENVIRONMENTAL PROVISIONS

Pits and quarries shall be stripped, worked and at the completion of the work restored, all in compliance with the provisions of Section 310.

Out of specification asphalt shall be disposed of in accordance with Division 8.

330.04.01 Environmental Requirements for Asphalt Mixing Plants

Any asphalt plant being operated within a radius of 1.5 km of a regularly used building, either residential or commercial, or an organized recreational area, must control their dust emissions such that compliance is obtained with the air standards enforced by the Department of Environment, Climate Change and Municipalities. In order to comply, the efficient operations of either a bag house dust collector or a water scrubber on the dryer emissions would be necessary.

These controls may be waived in an area where there are three or less regularly used buildings if the Contractor makes satisfactory arrangements with the owners and occupiers of all buildings. Under such circumstances, a written agreement between the

Contractor and owner/occupier, signed by both parties, must be submitted to both the Department of Transportation and Infrastructure and the Department of Environment, Climate Change and Municipalities.

Contractors are referred to the "Environmental Code of Practice for Asphalt Plant Operations" prepared by the Department of Environment, Climate Change and Municipalities (Latest Edition). The link can be found here: <https://www.gov.nl.ca/dgsnl/licenses/env-protection/asphalt/>. Hydrocarbon storage shall be in accordance with Section 820. The Contractor shall follow the procedure for spill reporting.

All sections of the asphalt plant which could contribute to air or water pollution must be maintained in efficient operating condition.

Where a water scrubber is used, the scrubber effluent must be given retention time in suitably sized artificial settling ponds. Such ponds must be sufficiently impermeable to enable seepage water to meet the Environment Control (water and sewage) Regulations, 2003.

All storage tanks for fuel must be drained within one week after production has been completed. Fuel oil must not remain in tanks over the winter.

330.04.02 Environmental Approval

Contractors wishing to set up an asphalt mixing plant at a site must first obtain environmental approval before proceeding.

Contractors must apply in writing to the Digital Government and Service NL for a Ministerial Approval as required under the Environmental Protection Act SNL 2002. The following information must be supplied with the application:

1. Location of the proposed site and description of its surroundings within a radius of 1.5 km.
2. Soil type and particulars of protective dyking near storage tanks.
3. Sieve analysis of cold feed aggregate or at least the percentage of minus 75 ~ sieve.
4. Description of the plant and associated equipment to reduce air contaminants (plans if available).
5. Capacity of plant in tonnes per hour.
6. Source of heat (and sulphur content if it is oil).

7. Rate of air flow through the dryer at operating conditions and diameter of the dryer.
8. Relevant operation details of air pollution control equipment (ie. Pressure drop across cyclones or scrubbers).
9. Air to cloth ratio if baghouse filter is used.
10. Height of exhaust stacks.
11. Temperature and velocity of exhaust gases from dryer and/or stack.
12. Expected dates of operation of the plant including:
 - Proposed starting date
 - hours in operation per day
 - proposed completion date
 - total days in operation
13. If using a water scrubber, the rate of use of water (l/s), the number and dimensions of settling ponds and the method of lining of the ponds.

For inspection purposes, the Contractor shall notify the Department of Environment, Climate Change and Municipalities at least 5 days prior to site closure.

Should the Contractor wish to leave their equipment at the site beyond the completion of their work for the Department, or beyond the proposed completion date as stated in their application, the Contractor shall state in writing their commitment to undertake the cleanup and restoration requirements of this section and those of Section 310, and also state the updated proposed completion date. Copies of this letter shall be sent to both the Department of Transportation and Infrastructure and the Department of Environment, Climate Change and Municipalities.

330.05 METHOD SPECIFICATION FOR ASPHALT CONCRETE MIX - HOT PLACED

330.05.01 General

This item consists of supplying crushed aggregates, sand and mineral filler, anti-stripping additive, asphalt binder, with the production, loading, hauling, placing and compaction of hot mix asphalt concrete. The limits of placement, application rates and the asphalt concrete mixture type shall be as stated in the contract specifications. Production and Placement of hot mix asphalt will be subjected to various quality tests.

All aspects of the production and placement of the Hot Mix Asphalt will be supervised by the Department. All appropriate inspection and testing will be determined by the Department.

The mixing period and temperature shall be such as to produce a uniform mixture in which all the particles are thoroughly coated, and the moisture content of the material as it leaves the mixer must be reduced to 0.3% or less. Facilities for sampling and observing the mix shall be provided.

The temperature of the mix immediately after mixing shall not exceed the lower of either; the high end temperature for recommended mixing from the temperature viscosity chart provided by manufacturer/supplier or 165° C.

Quality control tests shall be performed, by the Department, on random samples taken either at the production site or lay-down site.

Asphalt concrete is defined as a carefully controlled mixture of asphalt cement and mineral aggregate thoroughly mixed to be free from segregation and contamination and then placed and compacted to a uniform density and smooth finish. The following sections describe the requirements applicable to quality control and quality assurance, manufacturing, transportation, placing, compaction, finishing and measurement and payment of asphalt concrete. The requirements of specific materials for the asphalt concrete shall be in accordance with Section 330.02.

330.05.02 Testing and inspection

The Contractor shall provide a field laboratory in accordance with the provisions of Section 111. The field laboratory shall be provided at the site of the asphalt mixing plant.

The requirements for pit and quarry sampling and processed material sampling and approval as set forth in Section 310 shall apply to this section. The Contractor shall send to the Department's Main Laboratory in St. John's, samples of the proposed paving aggregate for testing as to quality, mix design and approval by the Materials Engineering Division. No samples will be accepted for mix design until 100% of the total aggregate required (including filler and blending sand) has been crushed, tested and properly stockpiled.

The Contractor shall be notified of the designated composition of the mixture not later than 10 working days after the day on which all necessary samples have been received at the Department's Laboratory and shall not commence mix production before such notification.

330.05.02.01 Designation of Mixture

The Materials Engineering Division shall specify a job mixture within the required limits of grading and conforming to the Marshall Test requirements given in Table 4 of Section 330.02.02 for each mix selected. The Materials Engineering Division may select one or more mix proportions to suit job conditions. The actual grading of the job mix, when plotted, shall so range from course through fine sizes that it will approximate the shape of the plotted average grading for corresponding mix given in Table 3 Section 330.02.02. For that portion of the aggregate passing the 4.75 mm sieve, gradients which range from the maximum of one sieve to the minimum of the next larger sieve, shall not be permitted.

330.05.02.02 Unauthorized Tampering with Plant Settings and Materials

Any person employed by the Contractor, who, in the opinion of the Owner's Representative, alters or causes to be altered, any settings or screens of an asphalt plant after it has been calibrated, or who adds or causes to be added, any unapproved material to a stockpile or aggregate, or in any way hampers the production of the mix as designed shall, at the written request of the Owner's Representative, be immediately removed from the project and shall not be employed in the work.

330.05.03 Equipment

All manufacturing of asphalt concrete shall be conducted using batch, drum or continuous mixing plants. All plants shall conform to the requirements of ASTM D995 "Standard Specification for Mixing Plants for Hot-Mixed, Hot Laid Bituminous Paving Mixtures" and as specified herein.

330.05.03.01 Mixing Plants

330.05.03.01.01 General Requirements and Equipment for Storage of Asphalt Cement

Tanks for storage of asphalt cement shall be capable of heating and maintaining the temperature of the asphalt cement at a constant temperature range between 120°C and 160°C. The actual working temperature shall not vary by more than $\pm 5^\circ\text{C}$ when the amount of asphalt cement added to the mixture is measured volumetrically. Heating shall be by steam or oil coils, electricity, or other means such that no flame shall contact the heating tank.

A circulating system for the asphalt cement shall be of adequate capacity to thoroughly mix the asphalt cement and provide continuous circulation between the storage tank and proportioning units during the entire operation period. All pipe lines and fittings shall be steam or oil jacketed and properly insulated to prevent heat loss.

Storage tank capacity shall be such as to ensure continuous operation of the plant and uniform temperature of the asphalt cement when it is introduced into the mixing unit. Tanks shall be accessible for measuring the volume of asphalt cement at any time.

A sampling outlet shall be provided in the asphalt cement feed lines connecting the plant storage tanks to the weighing system or spray bar. The outlet shall consist of a valve installed in such a manner that samples may be withdrawn from the line slowly at any time during plant operation. The sampling outlet shall be installed between the pump and the return line discharge in a location that is readily accessible and free from obstruction. A drainage receptacle shall be provided for flushing the outlet prior to sampling.

330.05.03.01.02 Cold Bins

All plant types shall be equipped with operational cold bins capable of being calibrated. Cold bins shall be divided into not less than three compartments, each to be equipped with individual gate controls, so as to enable accurate and positive proportioning of each aggregate size. Partitions of sufficient height to eliminate intermingling of the aggregate shall be provided between adjoining bins, if the bins are being fed with a front-end loader the width of each bin must be at least 500 mm wider than the width of the loader bucket.

330.05.03.01.03 Dryer

A rotary dryer, of satisfactory design, for drying and heating the aggregate shall be provided. Dryer units shall be of sufficient capacity to uniformly heat the aggregate and reduce the moisture content to the specified level. Upon request the asphalt Contractor shall make available to the Owner's Representative the following information:

- a) The specified rate of production in tonnes per hour versus aggregate moisture content.
- b) Within drum plants the specified location and length of the of the asphalt cement delivery pipe.

330.05.03.01.04 Screens

Plant screens on batch and continuous mix plants shall have adequate capacity and size range to properly separate all of the aggregate into the sizes required for proportioning so that they may be recombined consistently within the specification limits.

All screens shall have square openings and be free any rips or holes. Screen decks shall be stacked in such a manner that cross contamination of aggregates is prevented.

330.05.03.01.05 Hot Aggregate Storage Bins

Batch and continuous mix plants shall have hot bin storage of sufficient capacity to ensure uniform and continuous operation. Bins shall be divided into compartments arranged to ensure separate and adequate storage of appropriate fractions of the aggregate. Each compartment shall be provided with an overflow pipe of such size and at such a location to prevent any backing up of material into other bins or into contact with the screen. Adequate and convenient facilities shall be provided for obtaining aggregate samples from each hot bin.

330.05.03.01.06 Asphalt Cement Control Unit

Satisfactory means, either by weight, metering or volumetric measurements, shall be provided to obtain the proper amount of asphalt cement. All measuring devices shall prove accurate to within $\pm 2.0\%$ when tested for accuracy.

330.05.03.01.07 Thermometric Equipment

An armoured thermometer of suitable range shall be fixed in the asphalt cement feed line at a convenient location near the discharge of the mixer unit. The plant shall be further equipped with approved recording thermometers, pyrometers, or other approved recording thermometric instruments at the discharge chute of the dryer and in the hot fines bin to register and record automatically the temperature of the heated aggregate.

330.05.03.01.08 Dust Collectors

Dust collectors shall be provided where required under the provisions of Section 330.04.01. Provision shall be made to waste the material so collected, or to return all or any part uniformly to the aggregate mixture.

330.05.03.01.09 Safety Requirements

Adequate and safe stairways to the mixer platform shall be provided, and guarded ladders to other plant units shall be located where requested.

All gears, pulleys, chains, sprockets, and other dangerous moving parts shall be thoroughly protected. Ample unobstructed passage shall be maintained at all times in and around the truck-loading space. This space shall be kept free of drippings from the mixing platform. A ladder or platform shall be located at the truck-loading space to permit easy and safe inspection of the mixture as it is delivered into the trucks.

A suitable sampling platform with stairs or ramp access including railing shall be provided for sampling material in the truck bed. The height of the platform shall be adequate to prevent the personnel from having to climb up on to the truck in order to obtain a sample. The platform shall be constructed such that the truck is able to park on either side. If it is not possible for the platform to be constructed in such a manner, then two separate platforms shall be provided or the truck will be required to reverse direction so that a sample may be obtained. Overhead protection shall be provided where necessary.

330.05.03.01.10 Capacity

Unless indicated otherwise asphalt mixing plants must have a minimum rated capacity of 120 tonnes per hour delivered to the spreader, with a production history to support this requirement.

330.05.03.02 Special Requirements for Batching Plants

330.05.03.02.01 Weigh Box or Hopper

The equipment shall include a means for weighing each bin size of aggregate into a weigh box or hopper, suspended on scales, and ample in size to hold a full batch without running over. The weigh box or hopper shall be supported on fulcrums and knife edges that will not easily be thrown out of alignment or adjustment. Gates both on the bins and the hopper shall be constructed to prevent leakage when closed.

330.05.03.02.02 Plant Scales

Scales shall be of the dial or digital type and of a standard make and design. Scales for weighing aggregates shall be accurate and sensitive to 0.5% of the maximum loading required. All scales shall provide a positive means of balancing the tare weight of the hopper or asphalt bucket. After each plant set-up and prior to batching any materials, and whenever deemed necessary by the Owner's Representative, the Contractor shall, at their own expense, have the plant scales tested to the satisfaction of the Owner's Representative.

330.05.03.02.03 Mixer Unit

The plant shall include a batch mixer of an approved twin shaft pug mill type capable of producing a uniform mixture within the permissible job mix tolerances. The clearance between the mixer blades and liner plates shall not exceed 20 mm. The mixer shall be constructed to prevent leakage of the contents. Mixer discharge shall not cause appreciable segregation. The mixer shall be fitted with separate dry and wet mixing cycle timers and locking devices so that asphalt cement cannot be discharged and the pug mill gate cannot be opened until the desired mixing times have elapsed.

330.05.03.03 Special Requirements for Continuous Mixer Plants

330.05.03.03.01 Gradation Control Unit

The plant shall include means for accurately proportioning by volumetric measurement the aggregate discharged from each hot bin. The unit shall include a feeder, mounted under the compartment bins. Each bin shall have an accurately controlled individual gate to form an orifice for volumetrically measuring the material drawn from each respective bin compartment. The orifice shall be rectangular with dimension adjustable by positive mechanical means. Indicators shall be provided on each gate to show the gate opening in millimetres. Each gate will be provided with a lock.

330.05.03.03.02 Weight Calibration of Material Feed

The plant shall include a means for calibration of gate openings by weighted test samples. The equipment shall include a method of obtaining hot aggregates from the bins fully representative of the flow from the specific gate openings. It shall also include platform scales capable of accurately weighing test samples of aggregates and asphalt cement.

All calibration equipment, including revolution counters, shall be kept in good operating order at all times and shall be available whenever required.

330.05.03.03.03 Synchronization of Aggregate and Asphalt Feed

In order to ensure the correct flow of aggregate from the bins and the flow of asphalt from the meter or other proportioning sources, satisfactory means shall be provided to afford positive interlocking control between the flow of aggregate from the bins and the flow of asphalt from the meter or other proportioning sources. In order to ensure the correct flow of asphalt cement to the mixer at all times, the plant shall be equipped with means of maintaining a constant head of asphalt cement to the metering device. A satisfactory pressure gauge shall be installed on the asphalt line between the metering device and the spray bar.

330.05.03.03.04 Mixer Unit

The plant shall include a continuous mixer of an approved twin shaft pug mill type that shall be capable of producing a uniform mixture within the specified tolerances. The clearance of the blades from the inner surfaces of the pug mill liners shall not exceed 20 mm. The paddles shall be of a type adjustable for angular position on the shafts and reversible to retard the flow of the mixture. The mixer shall be equipped with an adjustable dam gate at the discharge end to control the level of the material. The mixer

shall carry a manufacturer's plate giving the net volumetric contents of the mixer at several heights.

Unless otherwise required, determination of mixing time shall be by weight method under the following formula. The weights shall be determined for the job by tests made by the Owner's Representative.

Mixing time in seconds = Pug mill capacity in kg / Pug mill output in kg/s

330.05.03.03.05 Discharge Hopper

All continuous mix plants shall be equipped with a controlled discharge storage hopper. The minimum capacity of the hopper in tonnes shall be equal to 1.5% of the hourly production rate of the plant but shall not be less than one tonne. This hopper shall be kept in satisfactory operating condition at all times and operated to prevent segregation of the mixture.

330.05.03.03.06 Material Level Indicators

Material level indicators shall be installed in each hot aggregate bin at the one-third full level and at the two-thirds full level and they shall be connected to remote high-low indicator lights mounted at the operator's station. Operation of the mixer shall not be permitted when the low-level indicator shows any bin to be less than one-third full.

330.05.03.04 Special Requirements for Drum Mixer Plants

330.05.03.04.01 Aggregate Feed

Aggregates shall be fed to the dryer drum by means of a multi bin (minimum 3 or 4 bins) cold feed unit and shall be blended to meet the design mix proportions by adjustment of variable speed feed belts and gates on each bin. There shall be no overflow from one bin to another.

A reliable moisture probe shall be installed in the fine aggregate cold feed bin with a meter mounted in the plant control panel.

The total flow of aggregate shall be metered by an electronic weigh belt system with an indicator that can be monitored by the plant operator and which is interlocked with a variable speed asphalt pump so that the proportions of aggregate and asphalt cement entering the mixer remain constant.

Cold feed calibration and asphalt cement pump calibration shall be performed at the start of each contract and whenever deemed necessary by the Owner's Representative. The calibration shall be done in the presence of the plant inspector. The cold feed shall be recalibrated whenever the weighing conveyor is moved.

A positive interlocked automatic shut off shall be provided so that the plant shuts down automatically if there is any disruption in the flow of aggregate or asphalt cement.

A vibrating screen of adequate capacity shall be provided to remove oversize from the combined cold feed.

An aggregate sampling device shall be provided which will divert a representative combined aggregate sample of adequate size into a container or hopper for the purposes of gradation testing. The sampling device shall be located after the cold feed aggregates have passed through the vibrating screen and prior to mixing with asphalt cement.

330.05.03.04.02 Asphalt Cement Feed

The asphalt cement feed system shall be equipped with a calibration system which will enable approximately 200 litres of asphalt cement to be by-passed into a container which can be weighed. Adequate scales shall be provided by the Contractor.

A temperature gauge, showing the temperature of the asphalt cement at the metering pump, shall be provided in the control trailer. The gauge shall be graduated to cover at least the range 100°C to 200°C with increments of not more than 2.5°C.

A temperature compensating system shall be installed in the asphalt cement metering system designed to provide a volume of asphalt cement which will be constant when referenced to 15°C regardless of variations in the temperature of the asphalt cement from the storage tank.

330.05.03.04.03 Asphalt Cement Mixing

The heating, coating and mixing of the asphalt mix shall be accomplished in an approved parallel flow dryer-mixer. The aggregate and asphalt shall enter the drum at the burner end and travel parallel to the flame and exhaust gas stream. Heating shall be controlled to prevent fracture of the aggregate or excessive oxidization of the asphalt. The system shall be equipped with automatic burner controls and shall provide for continuous temperature sensing of the bituminous mixture of discharge, with a printing recorder that can be monitored by the plant operator. The printed record of mix temperatures shall be available to the Department for inspection.

The method used to transfer the mixture from the drum mixer to the haulage units shall be designed, constructed and operated so that there shall be no segregation of, or damage to, the mix.

A system for wasting unacceptable asphalt aggregate mixture shall be provided between the drum mixer discharge and holding bin.

The plant shall not be operated below 50% of the rated capacity of the belt scale.

330.05.04 Truck Weigh Scales

The scales shall be in accordance with Section 501.

330.05.05 Haulage Equipment

Trucks for hauling asphaltic mix shall be of the metal box type and their use shall be authorized by the Owner's Representative. The metal box shall be treated with an approved release agent and be in smooth condition with no rust scales or foreign materials. Where ever possible trucks shall be loaded such that the front and back of the truck body are loaded prior to placement of asphalt in the middle section.

Vehicles shall be equipped with tarpaulins of water repellent material (no open mesh types) of sufficient size to completely cover the truck box and overhang the box on all sides by a minimum of 150 mm. The tarpaulins shall have enough tie-down points so that they can be properly secured, and shall be in good condition and be free of holes and tears. They shall be securely tied down as an effective barrier against rain infiltration and air flow over the HMA mixture.

Tarpaulins are to be used at all times for protection of the load of Hot Mix Asphalt. Tarpaulins shall be rolled back to uncover the hot mix for inspection immediately prior to dumping the load into the paver. Trucks will stop ahead of the paver and allow the paver to smoothly pick up the truck.

330.05.06 Spreading Equipment

Mechanical self-powered pavers shall be used which are capable of spreading the mixture true to line, grade and crown as specified and as directed by the Owner's Representative.

Pavers shall be equipped with hoppers and reversing distributing screws to place the mixture evenly in front of the screed. The distributor screws shall always be kept 1/3 to 2/3 covered.

Asphalt concrete shall be dumped into the middle of the paver hopper. The hopper shall not be emptied to less than 25% of its capacity when moving except when the spreading operation is suspended. All cold or segregated asphalt must be shovelled out and wasted. In no case shall cold asphalt be allowed in the pavement mix.

Pavers shall be equipped with heated vibrating screeds and shall be capable of spreading the mixture, without segregation, in thickness of from 10 mm to 200 mm and in widths of from 2500 mm to the greater of the maximum width of the project travel lane and paved shoulder combined or 4000 mm, in increments of 150 mm.

The Contractor shall provide on each paver a 3 m straight edge with a level recessed in its upper surface parallel to the lower face and capable of detecting a variation from the horizontal of 3 mm in 1000 mm.

The term "screed" shall mean any strike-off device operated by cutting, crowding, or other practical action which is effective on the mixture and which produces a finished surface of the evenness and texture required. The screed shall have an approved vibratory application and be adjustable as to level and crown and shall be heated in an approved manner.

Pavers shall be equipped with automatic screed controls, as recommended by the paver manufacturer, for the control of longitudinal grade and transverse slope. The longitudinal grade control shall be equipped to operate from a joint matching shoe except when a spreader with ski is required by the specifications. Longitudinal joints shall be matched by the spreader with ski where ever a spreader with ski is required or specified. The transverse slope control shall be capable of operating from either side of the paver.

A paver with a ski shall be required for paving base course and surface course on the Trans Canada Highway. On other projects, a paver with a ski will also be required where the contract item description includes the phrase "Spreader with Ski".

The paver with a ski shall be equipped with an authorized 12 m ski. Where such a ski is a flexible unit, it shall be equipped with a spring tensioned wire extending between brackets fitted on and slightly above each end of the ski. The sensing grid shall ride on the wire, not on the ski.

330.05.07 Rollers

All rollers shall be of the types specifically designed for asphalt compaction.

All rollers shall be in good condition and capable of reversing without backlash. They should be operated at all times by competent and experienced operators.

All rollers shall be weighed in the presence of the Owner's Representative and ballasted, if required, immediately before commencing work and whenever subsequently required by the Owner's Representative. There shall be no additional cost to the Department for meeting these requirements.

Steel drum rollers shall be equipped with satisfactory means to supply sufficient water to the drum to prevent adhesion of asphalt mixture. The rear wheels of combination rollers shall each be not less than 450 mm in width, drums of tandem rollers shall each be not less than 1250 mm in width. Steel drum rollers shall weigh at least 12 tonnes and shall exert a load on the compression roll of at least 6 tonnes per metre of wheel width. All pneumatic tired rollers shall be self-propelled and shall have not less than nine wheels revolving on two axles. The tires on the front and rear axles shall be staggered to cover the entire area over which the roller travels with a minimum overlap of 15 mm. Under working conditions, the roller shall exert a load of not less than 5 tonnes per metre of tire width on the asphalt surface. The tires shall be inflated to an air pressure of not less than 400 kPa. The roller shall be equipped with an adequate scraping or cleaning device on each tire to prevent the bituminous mixture from accumulating on the tires. The roller shall be equipped with a water system which will keep all tires uniformly wet, and which will have a capacity that will provide not less than two hours continuous operations without refilling.

330.05.08 Material Transfer Device/Vehicle

Unless otherwise noted within the tender documents for all highway classifications, a Material Transfer Device/Vehicle shall be used at no extra cost to transfer the project's top lift of asphalt mixture (base, leveling or surface material) from the transport vehicles to the asphalt spreader. The purpose of the Materials Transfer Device is to minimize segregation during placement of the asphalt pavement and to increase the smoothness of the pavement surface by reducing the number of stops and starts during the placement of the asphalt pavement. The Material Transfer Device shall be utilized in conjunction with a hopper insert in the asphalt spreader. The hopper insert on the asphalt paver shall be kept full at all times. Cycling the hopper wings of the asphalt paver shall be kept to a minimum.

When required to pave on granulars, a self-propelled transfer vehicle is required.

Prior to being utilized the Material Transfer Device/Vehicle shall be to the satisfaction of the Owner's Representative.

Locations where it is deemed by the Owner's Representative that it is not practical to maneuver and/or safe to utilize a Material Transfer Device/Vehicle shall be identified within the tender documents. For such pre-identified locations no price adjustments to the various hot mix asphalt unit prices will be applied. However, if a Contractor still chooses to proceed with the use of their Material Transfer equipment in a safe manner no additional or other compensation will be applied.

Locations as noted by the Contractor and subsequently agreed with by the Owner's Representative as not practical to maneuver and/or safe to utilize a Material Transfer Device/Vehicle and which were not pre-identified within the tender documents shall have a 5% unit price reduction applied. The price reduction will apply to the various hot mix asphalt unit prices of the material quantities where the Material Transfer Device/Vehicle was not utilized.

The Contractor will be responsible for all surface defects or any other pavement defect irrespective of the utilization or not of a Material Transfer Device/Vehicle.

330.05.09 CONSTRUCTION

330.05.09.01 Preparation of Gravel Road Surface

Where paving is to take place directly on top of a gravel surface, then the Contractor shall prepare the road to the satisfaction of the Owner's Representative before paving. Not less than 300 m of prepared grade shall be maintained in front of the paver at all times, except at the end of the paving operation for that day.

Where the top layer of Granular "A" is placed under the same contract as the paving, then the preparation of the Granular "A" prior to paving shall be carried out in accordance with Section 315. However, where the paving is to take place directly on top of materials that were not placed in the paving contract, then such preparation prior to paving as the Owner's Representative may require shall be carried out in accordance with Section 301.

330.05.09.02 Preparation of Paved Surface

When required by the Owner's Representative, paved surfaces shall be cleaned and treated with tack coat prior to repaving with asphaltic concrete. Such treatment with tack coat as may be required shall be carried out in accordance with Section 320.

330.05.09.03 Placing of Asphaltic Courses

The base on which paving is to take place shall be cleaned of all loose or foreign material before paving may take place. The asphaltic mixture shall be laid only upon a base which is dry or at least free from standing water, and when weather conditions are suitable. No paving shall take place during rain.

No course shall be placed upon a previously laid course less than 12 hours after final compaction of the latter, except with the permission of the Owner's Representative in circumstances where in their opinion this requirement would be impractical.

No hot mix shall be placed unless the air temperature at the surface of the road is 7°C or above without the written permission of the Owner's Representative. The temperature of the mixture immediately after spreading and prior to initial rolling shall not be less than 125°C.

The longitudinal joints in the surface course shall correspond to the demarcation between driving lanes, speed change lanes, tapers, etc. indicated in the contract or as directed by the Owner's Representative. The width of succeeding courses shall be adjusted by an offset of width of from 150 mm to 300 mm so that longitudinal joints do not coincide.

Immediately after any pavement course is laid and before roller compaction is started the surface and edges shall be checked and any irregularities adjusted by the addition or removal of mixture.

Pavers must be equipped with heated vibratory screeds. There should be no allowance for pavers with non- vibratory screeds. All mechanical apparatus designed to aid compaction of the mixture shall have such devices operating continuously when the mixture is being placed unless otherwise directed by the Owner's Representative. Where screed extensions are used, such extensions shall be designed so that the tamping or vibratory action of the screed is effectively transferred to the extensions in such manner as to provide a uniform degree of initial compaction across the full width of the freshly laid mat.

To ensure continuous operation of the pavers, they shall operate at whatever speed necessary to match the output of the plant provided that a consistent and satisfactory mat is being laid. However, in no case shall the speed of the paver exceed 0.7 km/h.

When two or more pavers are in echelon in order to match longitudinal joints, pavers following the lead paver shall use joint matching shoes, or a satisfactory 12 m ski as per the contract requirements, designed for the purpose, which shall ride on the previously placed undisturbed mat. Pavers are considered to be paving in echelon when the lead paver is not more than 60 m in advance of an adjacent succeeding paver.

Mixtures may be spread by hand only in places inaccessible to the paver. Hand placing shall be from a steel dump board by means of hot shovels. Hand spreading shall be with rakes of suitable design. The mixture shall be spread to the depth required to give the compacted design thickness after rolling. No loads of mixture shall leave the plant so late in the day as to preclude the spreading and compacting of the mixture during daylight.

Paving of intersections, ramps and driveway tie-ins are integral with the work. No separate payment or compensation will be provided for this work.

330.05.09.04 End of Paving Season for Asphaltic Surface Course

The season for laying asphaltic surface course shall end on the 30th of September each year, unless extended by the Owner's Representative.

No paving of asphaltic surface course shall take place beyond the designated end of the asphaltic surface course paving season. No pavement shall be removed from a roadway that cannot meet the requirement of replacing the asphalt before the end of the paving season.

330.05.09.05 Joints

All joints shall be made in such a manner as to ensure a thorough and continuous bond and to provide a smooth riding surface.

All foreign material and all loose material shall be removed from all faces against which joints are to be made. All cold faces against which joints are to be made shall be cut back to full depth to expose a fresh vertical face and coated with a double application of emulsified asphalt (tack coat).

Longitudinal joints shall be rolled immediately upon placement of the fresh mixture and before the adjacent strip has completely cooled. The joint shall be set up with the back

of a rake or lute at proper height and grade to receive the required compression under rolling. The depth of the newly laid mat shall be adjusted to allow for compaction. The paver shall overlap the existing mat by approximately 25 to 40 mm.

In locations where cold planing and paving of adjacent lanes is required, sequential mill and fill for longitudinal joint construction and paving is to be followed. The first lane is to be completed (cold planed and paved) prior to cold planing of the adjacent second lane. Cold planing of the adjacent second lane must include the removal of the shared longitudinal joint by cold planing a minimum of 100 mm of the first paved lane. Cold planing and paving of the adjacent second lane is not to take place until the next day. All lane edges remaining in the work are to be clean and coated with a double application of tack coat.

Prior to placing the adjacent mat, the exposed edge of each longitudinal joint must be coated with a double application of emulsified asphalt (tack coat). Upon completion of each day's paving, the maximum length of exposed joint edge shall be 60 metres.

Asphalt mat edges having companion longitudinal joints shall be matched within the maximum allotted time period as determined by the Owner's Representative. The maximum allotted time period shall be restricted to a lower limit of one hour with an upper limit of two and one half hours. The allotted time limit will be proportioned on the paving lay-down conditions; with the lower time limit applied to least favorable placement conditions and the upper time limit applied to favorable placement conditions. Lay-down conditions considered by the Owner's Representative in establishing the time limit will include ground surface temperature, hot mix lay-down temperature, placement capacity, ultraviolet intensity, wind speed and air temperature. Longitudinal joints shall be matched by the end of each day's operations. Unmatched asphalt longitudinal joints left exposed at the end of the day, or exposed to moisture, shall be cut back to full depth to expose a fresh vertical face, and coated with a continuous thin coating of hot asphalt cement to the full fresh vertical face.

All joints shall be constructed such that any excess material is not scattered on the surface of the freshly laid mat. Such excess material shall be carefully removed and disposed of as directed.

Transverse joints shall be checked with a straight edge immediately after initial rolling. Any irregularity in the pavement surface at the joint shall immediately be corrected by the addition of or removal of mixture. When possible, the transverse joints shall be initially rolled in a direction perpendicular to the direction of paving.

330.05.09.05.01 Keyed Joints

When overlaying existing asphalt concrete pavement, keyed joints shall be constructed at both ends of the project, at all intersecting roads, ramps and at all bridge decks in the repaving area. The taper length for such keyed joints shall be a minimum of 15m. Keyed joints will only be required between the final lift of pavement and the existing pavement, unless otherwise directed by the Owner's Representative.

When existing pavement has been removed in advance of paving the joint area, the Contractor shall construct a temporary (hot mix asphalt concrete ramp) taper at the joint area to a slope of at least 50 horizontal to 1 vertical (50H:1V). Temporary tapers (ramps) shall be installed immediately following milling of the keyed joint and prior to opening the area to traffic.

330.05.09.06 General Requirements for Compaction

The pavement mixture shall be compacted to a density of 94% of the Maximum Theoretical Density of the comparative laboratory Marshall mixture based on the criteria given in Section 330.02.02.02. Steel drum rollers shall have vibratory capabilities satisfactory to the Owner's Representative. Static rolling will only be allowed on bridge decks or where shallow underground utilities are present. The decision to use static rolling will be the responsibility of the Owner's Representative.

It is an express condition of this specification that all mixtures be compacted to the specified density immediately following placement. If, during the course of the paving operation, measured insitu field densities fall below the specified minimum, the Contractor shall revise their compaction process by (a) increasing the number of passes of the compaction train; (b) adjusting the frequency amplitude or tire pressure of individual rollers; or (c) by adding additional rollers to the compaction train. Steel drum rollers should operate with the drive wheel forward in the direction of paving. In all cases, the production and placing of the pavement mixture shall be controlled so that all rolling shall be completed before the pavement mat temperature falls below 80 degrees Celsius. The compaction process shall be completed before sunset.

330.05.09.06.01 Compacting Asphaltic Base, Levelling and Surface Courses

Unless otherwise authorized by the Owner's Representative as per Section 330.05.09.06.02, the Contractor shall supply a minimum of two vibratory rollers and one pneumatic tired roller.

The initial compaction shall be obtained by the vibratory roller followed by the pneumatic tired roller. Rolling shall commence as soon after placing as the mixture will bear the roller without checking or undue displacement. Final rolling will be with a roller operating in static mode. Static rolling will be conducted only to remove any irregularities in the pavement surface.

The initial breakdown rolling by a steel wheel roller shall commence as soon after placing as the mixture will bear the roller without checking or undue displacement. Rolling shall start longitudinally at the lower edge and proceed towards the higher edge of the course, overlapping on successive passes. Alternate passes of the roller shall be staggered.

Intermediate rolling, using a pneumatic tire roller, shall follow the breakdown roller as closely as possible. Passes shall be so arranged as to ensure overlapping successive tire paths. The Contractor shall be responsible for ensuring that the tires are in proper condition at all times to prevent pick up of the mixture.

Finishing rolling, using a steel wheel roller, shall be accomplished with the minimum number of passes required to produce a satisfactory surface. Rolling shall start longitudinally at the higher edge and proceed towards the lower edge.

While rolling longitudinal joints, steel drums or rubber tires shall extend 150 mm over the previously placed mat.

When paving in echelon the contractor shall provide sufficient rollers required to compact the asphalt pavement to the required degree of compaction. As a minimum there shall be four vibratory rollers and one pneumatic roller on site.

Based on plant output the minimum number of rollers to be supplied by the Contractor shall be as shown below unless the Contractor is able to achieve the required density, surface texture, and smoothness with fewer rollers.

Plant Output, t/h	Rollers (min)
120	3
180	4
240	5
300	6

330.05.09.06.02 Compacting With Static Wheel Rollers

In areas where a vibratory roller cannot operate (i.e. shallow utilities and bridge decks) compaction shall be obtained using suitable oscillatory or static steel wheel rollers but only when authorized by the Owner's Representative. To compact the mixture using static wheel rollers, a minimum of 2 steel wheel and 1 pneumatic tire rollers will be required to operate with each paver used. The operating speed of static steel wheel rollers shall not exceed 5 km/h and shall be slow enough to avoid displacement of the mix.

330.05.09.06.03 Asphalt Density Measurement and Unit Price Adjustment

The Contractor shall be responsible for the compaction stage of the work to ensure that the density conforms to requirements.

Compaction testing and unit price adjustments shall be based on daily production. Daily production is defined as the production and placement of 200 tonnes or more of asphalt concrete. If the daily production is less than 200 tonnes, the quantity for that day will be added to the next day or days in accordance with Table 5. If it is the last day of production for the project, the quantity for that day will be added to the previous day's production. If the total quantity of asphalt mix is less than 200 tonnes for the project, two cores will be used to determine asphalt core density.

Test coring must be completed prior to placement of the next lift of asphalt concrete. If the Contractor believes that certain areas to be tested should be excluded from unit price adjustments, then those areas should be identified and submitted to the Department in writing prior to the pre-paving meeting with the Department.

Pavement samples will be taken on the road by an Owner's Representative at random sample locations. Cores shall be a nominal 100 mm diameter. Sample locations will be determined by the Owner's Representative using random sample procedures, in which the daily production is divided into segments as shown in Table 5. A random sample is taken from each segment.

TABLE 5
Number of Segments per Daily Production

DAILY PRODUCTION OF ASPHALT CONCRETE	NUMBER OF SEGMENTS
200 to 500 t	2
500 to 1000 t	3
1000 to 1500 t	4
More than 1500 t	5

Segments shall be of approximately equal length. In each segment, a test site will be located by using random numbers to determine the longitudinal distance from the end of the segment and the lateral distance from the edge of the segment. Cores shall not be taken within 0.15 m of the pavement edge or longitudinal joint, nor closer than 6 m from transverse joint.

Areas not to be cored include; small areas such as tapers, bullnoses, aprons, bridge approaches, bridge decks, areas of handwork, and asphalt mix used for isolated levelling.

Cores shall be obtained in accordance with ASTM 5361 "Standard Practice for Sampling Compacted Asphalt Mixtures for Laboratory Testing" after a minimum of 12 hours from mix laydown. Typically cores will be sampled within 24 hours after mix laydown. However, the length of time to core the pavement may be extended as authorized by the Owner's Representative in order to exclude Saturdays, Sundays and holidays unless the Contractor is placing asphalt concrete on either day or to meet the minimum 200 tonne production requirement described above.

If the Contractor would like to have the cores removed immediately upon completion of their compaction process (and therefore avail of normal paving construction signage), the Contractor may supply dry ice at their expense for this purpose. With the application of approximately 1.5 kg of dry ice, coring can typically be completed within 20 minutes. Traffic control must be in place prior to and throughout the application of the dry ice, as this area must be protected from traffic.

During the coring operation, the Contractor must provide all traffic control in the form of flag persons and signs which conforms to Division 7 as well as the latest edition of the Department's Traffic Control Manual and amendments. Coring will not be permitted until all traffic control devices are erected and flag persons are in position.

Immediately following each coring operation, the Contractor shall reinstate the pavement at the core sample location in conjunction with removal of the core by dewatering the core hole and filling it with hot mixed asphalt concrete in 50 mm lifts to the pavement surface elevation, compacting each lift with 25 blows using a standard Marshall hammer. Each coring operation and the reinstatement of core hole is to be conducted during a single traffic control and flag person set up.

Failure to meet the time requirements for the core hole repair may result in delayed paving of any subsequent asphalt production.

Mat densities will be tested by the Owner's Representative by core analysis throughout the course of the work and shall conform to the density requirements indicated in Table 6. The asphalt cores will be retained and stored safely by the Owner's Representative.

The percent compaction will be determined by comparing the core bulk densities, in accordance with ASTM D2726 with the average theoretical maximum density of the loose mix samples corresponding with the daily production of these cores, in accordance with ASTM D2041.

The Owner's Representative will provide the Contractor with a copy of the results of acceptance tests within one working day of their availability. For asphaltic base and leveling courses unit price adjustments will be applied utilizing Table 6 to each tonne of asphalt mix for the day (or days if daily production is less than 200 tonne) represented by the segments cored and the percent compaction averaged. For asphaltic surface courses unit price adjustments will be applied utilizing Table 6 for each individual core's percent of maximum theoretical, and the unit price adjustment will be applied to each tonne of asphalt mix for the day divided by the daily segments cored (or days if daily production is less than 200 tonne).

For each asphaltic base, leveling and surface course mixture type for the day, in addition to the requirements noted above, if an individual core's percent of maximum theoretical falls below 93.5% or above 97.5% no bonuses will be paid for the paving day for that mixture. Also, irrespective of the paving day, the average of any four consecutive samples of a mixture type (base, leveling or surface) shall have a reject limit of 92.0 % based on the four individual core's percent of maximum theoretical. The rejected material represented by the averaged four cores will be the sum of the four units of material represented by each core defined as the tonnes of the asphalt mixture type for the day divided by the daily segments cored (or days if daily production is less than 200 tonne). Units of rejected material will not be rejected twice or more.

TABLE 6
Unit Price Adjustment for Density

% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)
> 97.5	0
>97.0 to ≥ 97.5	+0.50
>95.0 to ≥ 97.0	+1.50
>94.5 to ≥ 95.0	+0.50
>94.0 to ≥ 94.5	0

% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)
>93.5 to $\geq$ 94.0	-0.50
>93.0 to $\geq$ 93.5	-1.00
>92.5 to $\geq$ 93.0	-2.00
>92.0 to $\geq$ 92.5	-4.00
>91.5 to $\geq$ 92.0	-6.00
>91.0 to $\geq$ 91.5	-10.00
>90.5 to $\geq$ 91.0	-15.00
>90.0 to $\geq$ 90.5	-20.00
$\leq$ 90.0	REJECT

330.05.09.07 Requirement for Asphaltic Leveling Course

Asphaltic Leveling Course shall be used to fill surface depressions on old pavement, to restore the surface to the original profile and cross section. Patching and leveling shall not be carried out simultaneously at the same place. The patch shall be placed and fully compacted before leveling operations may proceed over the patch.

330.05.09.08 Requirements for Completed Asphaltic Base and Surface Courses

Each course, after final compaction shall be smooth, true to the established crown and grade, shall have the average thickness specified, and shall at no point vary more than 6 mm from the specified thickness. The surfaces of each base course, and any surface not subjected to smoothness testing under Section 330.07.10, shall be free from deviations exceeding 3 mm as measured with a 3 m straight edge paralleling the centerline of the roadway.

Any low or defective locations shall immediately be remedied by removal of the defective area by cutting and replacing it with fresh hot asphalt. The area should be tacked and allowed to cure prior to the placement of any new asphalt. The new asphalt shall immediately be compacted to conform to the surrounding area and be thoroughly bonded to it.

330.05.09.09 Segregation and Other Surface Defects

The finished surface of any Pavement Course shall have a uniform texture and be free of visible signs of poor workmanship.

Any obvious defects, as determined by the Owner's Representative, will be cause for rejection of the pavement course. Such defects shall include but not necessarily be limited to the following:

1. **Segregated areas.**
2. **Areas of excess or insufficient asphalt cement.**
3. **Roller marks.**
4. **Cracking or tearing.**
5. **Improper matching of longitudinal and transverse joints.**
6. **Tire marks.**
7. **Improperly constructed patches.**
8. **Improper cross slope.**
9. **Fuel spills on the mat.**

Segregation is defined here as areas with predominantly coarser texture than that of the surrounding pavement, and will normally be first identified visually.

Slight Segregation:

Area where the matrix is in place between the stones but there is slightly more stone in comparison with the surrounding acceptable mix. Slight segregation will normally be left in place without price adjustment. The severity of segregation can be determined through a number of test methods, as specified by the Owner's Representative.

Medium Segregation:

Area has significantly more stone than the surrounding acceptable mat and usually exhibits some lack of surface matrix. Medium segregation in surface-courses will be subject to a penalty of \$25/m² for the area in question, but for base-courses will normally be left in place with no price reduction. However, any areas of medium segregation that deteriorate prior to being overlaid by another pavement course must be repaired at the Contractor's cost.

Severe Segregation:

Area appears very stony, with stone against stone and little or no matrix. All areas of severe segregation in any pavement course will require removal and repair across the full lane width.

Defects as determined by the Owner's Representative, which occur in the finished surface of any pavement course during the two year warranty period resulting from poor workmanship, shall be repaired by the Contractor. The Contractor's method of repair shall

be to the satisfaction of the Owner's Representative and performed according to specifications.

330.05.10 Pavement Smoothness

Asphalt Pavement Smoothness will be in accordance with Section 334.

330.05.11 Asphaltic Patching

Asphaltic patching involves patching pot holes in bituminous pavement, patching cuts for culverts or patching transverse cracks with hot mix asphaltic concrete.

Holes to be patched shall have loose material removed and be cleaned of dirt and gravel.

Tack coat shall be applied to all edges to be repaired. Surfaces shall be thoroughly dry before tack coat is applied.

Asphaltic concrete for use in patching shall conform to the requirements of Asphaltic Surface Course or Asphaltic Leveling Course Type I.

Asphaltic concrete shall be placed and leveled in the hole in one lift, so that when compacted, the repaired hole is level with the surrounding surface. The patches shall be compacted in accordance with the requirements of 330.05.09.06.

330.05.12 Measurement for Payment

330.05.12.01 Measurement for Payment for Asphaltic Surface, Asphaltic Base Course, Asphaltic Leveling Courses Type I and Type II

Measurement for payment will only be made for those materials accepted for use under this specification and then only when incorporated into the work at the required locations.

Measurement for payment for the particular type of asphaltic course shall be by the weight of that material in tonnes, rounded to one decimal place.

Payment Adjustment Factors, if applicable, shall be as described throughout this specification. The material shall be weighed by means of the truck scales. The Department will supply scale tickets and the Department Scale Checker will issue the tickets. Only loads certified by the Owner's Representative, as being placed in the works at the required locations, shall be included in measurement for payment.

330.05.12.02 Measurement for Payment for Asphaltic Patching

Measurement for payment will only be made for those materials accepted for use under this specification and then only when incorporated into the work at the required locations.

Measurement for payment shall be by the square metre of that material placed, rounded to the whole number.

330.05.12.03 Measurement for Payment for Asphalt Cement

The asphalt cement will be measured in tonnes, rounded to two decimal places. Payment for Asphalt Cement shall be as per the percentage (%) of asphalt cement required in the Design Mix Formula specified by the Materials Engineering Division. However, where Asphalt Cement contents are found to be deficient to the point of being in the penalty zones subsequently described, Asphalt Cement will be paid on actual content only, as determined by ASTM D2172. Any moisture content in the hot mix asphalt will be determined and deducted. The method of determination of this moisture content will be in accordance with AASHTO 329. The design mix formula may be revised, as required, by the Department throughout the project and at any point throughout production during the day.

Samples of hot mix asphalt shall be taken randomly, throughout each day of production, and tested to ensure conformance with the specifications stated herein. Sampling and testing shall be performed in accordance with ASTM D979 and ASTM D2172. Additional samples may also be taken and tested in accordance with ASTM D2172, for verification purposes.

In the event of any and all disputes over asphalt content, the asphalt contents as determined by the Owner's Representative, in accordance with the above stated method, shall govern in all cases.

Acceptance Criteria

The following acceptance criteria shall apply for all mixes:

TABLE 7
Asphalt Content Acceptance Criteria

TYPE OF TEST	ACCEPTABLE ZONE (%)	PENALTY ZONE (%)	REJECTABLE ZONE (%)
INDIVIDUAL SAMPLE	± 0.30	-0.30 TO - 0.50 +0.30 TO +0.50	<-0.50 OR >+0.50

Payment Adjustment Factor

If the test results representing the individual sample for asphalt cement content falls into the above-stated “Penalty Zone”, the payments for both Asphalt Cement and Hot Mix Asphalt shall be adjusted by deducting a percentage from the unit prices per Table 8 for the Individual Sample. These adjustments shall apply to the areas of pavement represented by these samples.

If the test results representing the individual sample fall into the above-stated “Rejectable Zone”, then no payment will be made for either the asphalt cement or hot mix asphalt represented by those samples.

TABLE 8
AC Content Penalty (Individual Sample)

Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %
0.30	0.0	0.37	7	0.44	14
0.31	1	0.38	8	0.45	15
0.32	2	0.39	9	0.46	16
0.33	3	0.40	10	0.47	17
0.34	4	0.41	11	0.48	18
0.35	5	0.42	12	0.49	19
0.36	6	0.43	13	0.50	20
				> 0.50	Reject

330.05.12.04 Measurement for Payment for Blending Sand

The blending sand will be measured in tonnes, rounded to the nearest whole number.

Measurement for blending sand shall be determined on the basis of the computed quantity calculated from the percentage of blending sand specified in the mix design and the total tonnage of asphalt mix of that design used by the Department.

330.05.12.05 Measurement for Payment for the Cutting and Removal of Asphaltic Pavement

The cutting and removal of pavement in connection with the preparation of joints, as required in Section 330.05.09.05, shall be measured for payment in accordance with Section 510, and Section 520, except where the preparation of joints is required as the result of a break in the paving operations, in which case no measurement for payment will be made for either cutting asphaltic pavement or storage or disposal of old asphaltic pavement.

330.05.13 Basis of Payment

330.05.13.01 Basis of Payment for Asphaltic Surface Course, Asphaltic Base Course and Asphaltic Leveling Courses Type I and Type II

Payment at the contract price for asphaltic base course, asphaltic surface course, asphaltic leveling course Type I or asphaltic leveling course, Type II as appropriate, shall be full compensation for:

1. The supply of all materials with the exception of asphalt cement and blending sand. The asphalt cement and the blending sand shall be paid for separately under other contract items.
2. The use of the required equipment, including a paver with a ski for base and surface course application on the TCH on other projects, where the contract item description, in the unit price table, includes the phrase "spreader with ski" then a ski attached to the lead spreader will be included as well.
3. The handling, storing, crushing, hauling, stockpiling, and preparation of all materials with the exception of blending sand and asphaltic cement.
4. The preparation of all joints with hot asphalt cement, together with the cutting and removal of pavement where a joint is required as the result of a break in the paving operations.
5. The mixing, placing and compacting of the asphaltic mixture, together with all haulage of the mixture to places within the contract.
6. All other costs arising from the requirements of the section for which payment is not otherwise specifically provided, including all keyed joints and the paving required for tie-ins at intersections, ramps and driveways.

330.05.13.02 Basis of Payment for Asphaltic Patching

Payment at the contract price for Asphaltic Patching shall be full compensation for:

1. The supply of all materials including asphalt cement and blending sand.
2. The use of the required equipment.
3. The handling, storing, crushing, hauling, stockpiling and preparation of all materials.
4. The clearing of all holes to be patched, together with the removal of loose material from the holes.
5. The supply and application of tack coat to the edges of the holes.
6. The mixing of the asphaltic mixture, and placing and compacting of the asphaltic mixture in the holes.
7. All other costs arising from the requirements of the section for which payment is not otherwise specifically provided.

330.05.13.03 Basis of Payment for Asphalt Cement

Payment at the contract price for Asphalt Cement shall be compensation in full for all labor, materials, and equipment to supply the Asphalt Cement including the purchase, loading, transportation, unloading and storage at the asphalt plant.

330.05.13.04 Basis of Payment for Blending Sand

Payment at the contract price for Blending Sand shall be compensation in full for all labor, materials, equipment-use and all other expenses to: provide a pit, obtain all required permits and approvals, provide and transport samples to the Materials Engineering Division in St. John's, excavate, load and provide all haulage from the source to the asphalt plant, stockpile the sand at the asphalt plant, pay any royalties for the material, clean up and restore the pit as may be required.

330.05.13.05 Basis of Payment for the Cutting and Removal of Asphaltic Pavement

Where cutting and removal of pavement is carried out in order to prepare a joint resulting from a break in the paving operations, then no payment will be made for the cutting and removal of the pavement since such work is considered part of the basis of payment for asphaltic base and surface courses.

However, where other asphaltic pavement is cut and removed then payment will be in accordance with Section 510 and Section 520.

330.05.13.06 Basis of Payment for Asphaltic Mix for Department's Maintenance Division

The Department's Maintenance Division may, on occasion have need for asphalt in the areas of a project. The Contractor will allow Department trucks along with their own trucks to pick up asphalt from the plant as required. Payment will be made to the Contractor by the tonne weighed over the scales and invoiced to the Department based on the tendered unit price in the Contract except in cases where the Contractor has a Standing Offer Agreement with the Department for supply of asphalt and the Unit Price in the Standing Offer Agreement is less than the Unit Price Table in the highway contract, then the Unit Price in the Standing Offer Agreement will apply.

330.05.13.07 Basis of Payment for Rejected Mix

The Department will pay for only the original mix quantity. The Contractor is fully responsible to bear all costs associated with repair of rejected areas, including all materials, equipment, plant, labour, traffic control and incidentals necessary to complete the work to the satisfaction of Owner's Representative.

If the Department determines the rejected material may remain in the work, and the Contractor elects not to repair the affected area, payment for the rejected mix components will be at 50% of the various contract unit prices.

330.05.13.08 Basis of Payment on Account of Asphalt Density or IRI Smoothness

No payment shall be made to the Contractor pursuant to Sections 330.05.09.06.03 and Section 334 before the end of the warranty period provided for in GC 31. If a warranty claim has not been made under GC 31, or if a warranty claim has been made under GC 31 and resolved, all payment(s) due to the Contractor pursuant to the above stated sections of the Specifications Book shall be made within 3 days of the later of the resolution of the warranty claim or the expiration of the warranty period referenced in GC 31.

If a warranty claim has been made under GC 31, no payment shall be issued until that warranty claim has been resolved. The Owner shall notify the Contractor in writing of any claims, within the warranty period, or no later than 10 business days from the expiration of the warranty period, based on results of an inspection completed within the warranty period. The Contractor must respond within 30 days of notification with an acceptable schedule to complete repairs. If after 30 days the Owner does not receive an acceptable schedule, the Contractor will be notified one

additional time with another 30 day period to reach an acceptable schedule to rectify any claims. Thirty days after this second attempt, if there is no satisfactory resolution, and the warranty claims have not been resolved, the Owner will consider any payments under Sections 330.05.09.06.03 and Section 334 to be forfeited by the Contractor. Forfeiting of these payments does not relieve the Contractor of their warranty obligations as defined in GC 31.1 'Warranty'.

SECTION 520

STORAGE OR DISPOSAL OF OLD ASPHALTIC PAVEMENT

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520.06.02 Basis of Payment for Disposal of Old Asphaltic Pavement

520.01 SCOPE

This specification covers the requirements for the cutting and excavation of asphaltic pavement, together with either the storage of the debris, or the disposal of the debris.

520.02 EXCAVATION

The Contractor shall cut and excavate the asphaltic pavement from within the limits staked by the Owner's Representative. Cuts shall be made using an approved pavement cutter. The cuts shall be made straight and vertical and be made in such a manner that will allow neat tie-ins with new pavement.

Care shall be taken in excavating the pavement so as not to contaminate the underlying granular base course. In the case when the asphaltic pavement debris is to be stored, care shall also be taken not to excavate underlying granular materials with the pavement.

Pavement debris shall be broken into pieces of greatest dimension not more than one metre in length.

520.03 STORAGE

Where the contract item designates that old asphaltic pavement is to be stored, the Owner's Representative shall select a site where all the excavated asphaltic pavement is to be stockpiled. The site shall comply with requirements of Section 830.

The stockpile shall be made on a flat well drained area on firm ground so that the asphaltic debris will not become contaminated with deleterious materials when it is moved at some future date prior to recycling.

Should the Owner's Representative require that grading work be carried out to prepare the stockpile site, then such grading shall be carried out and paid for in accordance with Section 206 and Section 204.

After any required grading operations have been completed, the stockpile site shall be treated with an even mat of Granular "A" 100 mm thick. The Granular "A" mat shall be supplied and paid for in accordance with the contract price for Granular "A".

Old asphaltic pavement that is to be stored shall be handled, transported, and stockpiled at all times in such a manner that will avoid contamination by any deleterious material.

The pavement debris shall be hauled to the stockpile site and spot-dumped and levelled and then succeeding loads shall be dumped and levelled on top of the others to form a neat, unified, elevated stockpile.

520.04 DISPOSAL

On those jobs where the contract item states that the old asphaltic pavement is to be disposed of, then the old asphaltic pavement debris for disposal shall become the property of the Contractor.

If the Contractor wishes, the Contractor will be permitted to use Recycled Asphalt Pavement (RAP) in levelling course asphalt. The amount of Recycled Asphalt in the mixture of RAP plus Virgin Aggregate will be limited to a maximum of 10%.

In addition, the Contractor will be permitted to use RAP in Granular B. The Recycled Asphalt in the mixture of Virgin Granulars plus RAP will be limited to a maximum of 30% under the asphalt and 50% in the granular shoulders.

The Department reserves the right to accept or reject any particular source of RAP, irrespective of its quality.

As approved by the Owner's Representative, the Contractor shall be permitted to use old asphalt pavement in shouldering operations and as a surface stabilizer on gravel roads. The latest Department procedure for these operations shall be strictly adhered to by the Contractor in these operations.

The Contractor shall be aware of Division 8.

520.05 MEASUREMENT FOR PAYMENT

Measurement for payment will be by means of the volume of pavement excavated from within the required limits, calculated as the product of the exposed surface area of the excavated pavement before removal, times the centreline thickness of the asphalt and shall include any cutting required to complete the excavation. Should individual areas of asphalt removal exceed 100m in length, then the thickness used for volume calculation will be the average of the thickness of the asphalt measured at 100m intervals.

The volume of the excavated pavement shall be calculated in cubic metres rounded to two decimal places.

520.06 BASIS OF PAYMENT

520.06.01 Basis of Payment for Storage of Old Asphaltic Pavement

Payment at the contract price for storage of old asphaltic pavement hauled 1km or under, shall be payment in full for all labour, materials, and use of equipment to: cut and excavate the old pavement, break-up the pavement, transport the debris up to 1km, and place the debris in a stockpile.

However, where the Owner's Representative requires that excavated material be hauled in excess of the 1 km freehaul before being stored, additional payment for overhaul will be made in accordance with Section 215, at the appropriate rate for overhaul on excavation other material.

In the case of storage of old asphaltic pavement, the grading of the stockpile floor and the supply and placing of the Granular "A" mat for the stockpile shall be paid for in accordance with Section 206 and Section 315 for Granular "A", respectively.

520.06.02 Basis of Payment for Disposal of Old Asphaltic Pavement

Payment at the contract price for disposal of old asphaltic pavement, shall be payment in full for all labour, materials, and use of equipment to cut and excavate the old pavement, and provide all transportation and any other costs to remove the debris from the site.

SECTION 904

CONCRETE STRUCTURES

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904.01 SCOPE

The scope of this specification is to cover the supply of materials for concrete structures, production, delivery, placement, sampling, and testing of concrete, curing, and the subsequent protection. All work, plant, equipment and materials shall be in strict accordance with CSA A23.1/CSA A23.2 "Concrete materials and methods of concrete construction/Test methods and standard practices for concrete".

The plant from which the ready mix concrete is supplied shall be certified in accordance with the requirements for certification as per the Atlantic Concrete Association or equivalent. A copy of the certification of conformance shall be provided to the Owner's Representative prior to the start of delivery under the proposed contract.

A job meeting shall be held prior to the deck concrete placement to discuss all aspects of the concrete work including production, supply, delivery, placing, curing and any other related items. This meeting is to be called by the Owner's Representative; the Contractor and all others deemed necessary shall be in attendance.

904.02 MATERIALS

All concrete materials shall be in accordance with CSA-A23.1.

904.02.01 Cement

All cementing materials shall be in accordance with CSA A3000 "Cementitious Materials Compendium".

Cement for Superstructure, Substructure, MSE Panels, Bridge Arches, Reinforced Wharf Deck Concrete (with the exception of Pile, Levelling, Mass and Tremie Concrete), Cast-in-place Concrete Median Barrier and Precast Concrete Traffic Barriers shall be a blended Portland or Portland Limestone, Silica Fume, Fly Ash or Slag, Type GU(L)b F/SF or GU(L)b S/SF. Contractors are advised that the minimum proportion by mass of the total cementing materials for silica fume shall be 5% and a maximum of 8%. Contractors are advised that the minimum proportion by mass of the total cementing materials for fly ash or slag is 15%. The total mass of Supplementary Cementing Materials (SCM's) should not exceed 30% of the total weight of cementitious material.

Cement for deck and curb resurfacing in Section 919 shall be Portland cement Type GU or GUL unless otherwise specified.

Cement for all other concrete shall be Portland cement Type GU or GUL, a portion of which may be replaced by fly ash or ground granulated furnace slag up to 25% by mass of the total cementing material. Blending a combination of both fly ash and slag for incorporation into the GU or GUL cement is not permitted.

904.02.02 Aggregate

The source of the aggregate will be determined by the Contractor but all aggregate shall meet the requirements of CSA A23.1. The maximum petrographic number will be 125 in superstructure concrete and a maximum 140 for all other concrete classes.

Concrete aggregate shall consist of natural sands and gravels, crushed rock or other inert materials having clean, uncoated grains of strong and durable minerals.

Fine and coarse aggregate shall be stored in separate stock piles sufficiently removed from each other to prevent the materials at the edges of the piles from becoming intermixed.

The maximum size of stone to be used for the different thickness of concrete shall be 20mm unless otherwise ordered by the Engineer of Record. In no case shall the maximum size of stone used be greater than either $\frac{2}{3}$ the clear distance between the reinforcement or $\frac{2}{3}$ the clear distance between the exterior bars and the face of the structure except for girders where the latter criteria shall be 0.8 times the clear distance between the exterior bars and the face of the structure.

Stock piles of approved fine and coarse aggregate, in amounts of one quarter to one half of that required for the job, shall be placed on the site of the work at least one month previous to concrete placing operations. The stockpiles shall be protected by tarpaulins or plastic sheeting against formations of ice and accumulation of snow.

The Contractor shall provide with the concrete mix design relevant test data for all aggregate materials indicating conformance to the requirements of CSA A23.1 and this specification. The sources and test results of all aggregate materials shall be clearly identified. The aggregate tests shall be conducted by a laboratory CCIL or CSA Certified in accordance with CSA A283 "Qualification code for concrete testing laboratories" latest edition. The aggregate properties shall be signed and stamped by a Professional Engineer registered to practice in Newfoundland and Labrador. The Professional

Engineer shall attest to the validity of the material test data. The test data required but not be limited to shall include:

- Sieve analysis of fine and coarse aggregate CSA A23.2-2A
- Fineness modulus of fine aggregate CSA A23.2-2A
- Clay lumps in natural aggregate CSA A23.2-3A
- Low-density granular material of aggregate CSA A23.2-4A
- Amount of material finer than 80 μm in aggregate CSA A23.2-5A
- Relative density and absorption in fine aggregate CSA A23.2-6A
- Test for organic impurities in fine aggregate in concrete CSA A23.2-7A
- Soundness of coarse & fine aggregate by use of magnesium sulphate CSA A23.2-9A
- Relative density and absorption of coarse aggregate CSA A23.2-12A
- Flat and elongated particles in coarse aggregates CSA A23.2-13A
- Petrographic Analysis of Coarse Aggregate CSA A23.2-15A
- Resistance to degradation of coarse aggregate by abrasion and impact in the Los Angeles machine CSA A23.2-16A
- Test method for the resistance of fine aggregate to degradation by abrasion in the Micro-Deval apparatus CSA A23.2-23A
- Test method for the resistance of unconfined coarse aggregate to freezing and thawing CSA A23.2-24A
- Test method for detection of alkali-silica reactive aggregate by accelerated expansion of mortar bars CSA A23.1-25A
- Test method for detection of alkali-carbonate reactivity of quarried carbonate rocks by chemical composition CSA A23.1-26A
- Potential expansivity of aggregates (procedure for length change due to alkali-aggregate reaction in concrete prisms at 38 °C) CSA A23.1-14A

For a concrete mix with a tendered quantity of more than 50 m³ the test results are only considered valid for up to two years in advance of the date of the project mix design submission. For a concrete mix with a tendered quantity of 50 m³ or less the test results are considered valid for up to five years in advance of the date of the project mix design submission.

904.02.03 Water

All water shall be clear and free from injurious substances and shall be potable.

All water used for curing shall be clean and free of any material which would cause

staining or discoloration of the concrete. The Contractor shall not use water from shallow, stagnant or marshy sources.

904.02.04 Air Entraining Agent

All concrete shall be air entrained with the air entraining agent conforming to ASTM C260 "Standard Specification for Air-Entraining Admixtures for Concrete".

904.02.05 Admixtures

Any other admixture, utilized in the mix design must conform to ASTM C494/C494M "Standard Specification for Chemical Admixtures for Concrete" or ASTM C1017/C1017M "Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete"

904.02.06 Reinforcement

Reinforcement shall be in accordance with Section 905.

904.02.07 Form work and Falsework

Form work and falsework shall be in accordance with Section 907.

904.02.08 Burlap

Burlap shall conform to AASHTO M182 "Specification for Burlap Cloth made from Jute or Kenaf and Cotton Mats".

904.02.09 Liquid Membrane-Forming Curing Compounds

Liquid membrane-forming curing compounds shall meet the requirements of ASTM C309, and shall only be used as authorized by the Owner's Representative.

904.02.10 Concrete Curing Sheet Materials

Sheet materials that conform to ASTM C171, "Standard Specification for Sheet Materials for Curing Concrete", may be used as a cover to inhibit moisture loss during the concrete curing period.

904.02.11 Miscellaneous Materials

The supply and installation of miscellaneous materials shown on the drawings or mentioned in the Supplementary General Conditions but which have not been listed on the Unit Price Table, are considered incidental to the work and no separate payment will be made.

This shall include, but not necessarily limited to, all miscellaneous concrete accessories, evaporation retardant, abutment weep holes, drip grooves and guide rail modified end shoes.

904.03 EQUIPMENT

The Contractor shall supply the Owner's Representative before commencement of the project with adequate details of all equipment to be used. The intention is not to limit the Contractor's operation but to ensure adequate planning is undertaken.

The Contractor shall maintain all equipment used for handling, mixing, transporting, depositing, compacting, curing and finishing the concrete in a clean condition and in proper working order.

Pumping equipment may be utilized by the Contractor. Details of the pumping equipment and operation must be to the satisfaction of the Owner's Representative. The Contractor shall submit to the Owner's Representative, manufacturer's specifications detailing pumping capacity and pressure at the required elevations. Aluminum pipelines shall not be used. The Contractor shall be prepared in the event of a breakdown in pumping operations. These emergency preparations shall be discussed with and to the satisfaction of the Owner's Representative prior to the commencement of concrete placement utilizing pumping equipment.

Compaction equipment shall be capable of giving dense concrete in accordance with specification requirements. Internal vibrators may be utilized and must be capable of consolidating the concrete with a minimum duration of vibration. Care must be taken with superplasticized concrete to avoid segregation.

An approved self-propelled mechanical bridge deck finisher shall be used to strike off and finish concrete decks as per specifications. The approved machine shall travel on guides or rails supported so that they are completely clear of the finished surface. The guide or rail supports that extend through the roadway areas of the deck shall be such that they can be removed to at least 50 mm below the top of concrete. Two work platforms shall be used for finishing and curing operations.

Batch plant and mixing equipment shall be as defined in Section 904.04.03.

The equipment required for heating materials for Cold Weather Concreting shall be of adequate capacity and be accepted, prior to installation, by the Owner's Representative.

It shall be available, installed and tested ready for use before it is proposed to place concrete. Heating equipment shall be ready for use between September 1 and April 30 when so required by the Owner's Representative. Alternative methods of keeping concrete temperatures at acceptable levels may be accepted. Where the heating equipment is to be used for heating the housing as well as the materials at the same time, the term adequate capacity means that the equipment shall have adequate capacity to heat both materials and housing simultaneously to the required temperature.

Boilers used for heating materials or housing shall meet the inspection requirements and operating conditions laid down by Provincial Acts and Regulations.

904.04 CONCRETE PRODUCTION, DELIVERY AND PLACING

904.04.01 Measurement of Materials during Batching

All materials used in the production of concrete shall be measured by weighing. Materials shall be added to produce concrete conforming to the mix design prepared as per Section 904.04.02. The mixing water shall be measured by either volume or by weight. The apparatus provided for weighing the aggregate shall be suitably designed and constructed for this purpose. Each size of aggregate shall be weighed separately with a required accuracy of two per cent. The volume of concrete discharged by the supplier's equipment shall be expressed in cubic metres. All batch weights shall be recorded and shall be available for audit by the Owner's Representative.

Cement in standard bags need not be weighed.

All measuring devices shall be to the satisfaction of the Owner's Representative. Other methods of weighing shall only be used if specifically authorized, in writing, by the Owner's Representative.

904.04.02 Concrete Quality

Concrete mixes shall be designed in accordance with CSA A23.1 latest edition. Note that ACI 211.1 "Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete", should be used as a guide for determining mix proportions for normal and mass concrete.

Concrete strength shall be as shown on the drawings unless particular specifications require higher strength.

TABLE ONE

PARAMETER	SUPERSTRUCTURE & BRIDGE ARCHES ¹	SUBSTRUCTURE, REINFORCED WHARF DECK, CAST-IN-PLACE MEDIAN & PRECAST TRAFFIC BARRIER	CURB, GUTTER, SIDEWALKS, CATCH BASINS & WEIR BAFFLES	PILE CONCRETE	LEVELLING, MASS & TREMIE CONCRETE
CEMENT TYPE	GUb	GUb	GU	GU	GU
COMPRESSIVE STRENGTH WITHIN 28 DAYS	45 MPa	40 MPa	35 MPa	25 MPa	20 MPa
MAXIMUM WATER/ CEMENTITIOUS MATERIAL RATIO	0.35	0.37	0.39	0.45	0.45
SLUMP ²	AS PER APPROVED MIX DESIGN	AS PER APPROVED MIX DESIGN	60 ± 20 MM	100 ± 30 MM	190 ± 40 MM
AIR CONTENT	5 – 8 %	5 – 8 %	5 – 8 %	4 – 7 %	4 – 7 %
RAPID CHLORIDE PERMEABILITY (ASTM C1202)	<1000 COULOMBS	<1000 COULOMBS	NA	NA	NA
AIR VOID SPACING FACTOR (AVERAGE) ⁴	250 µm MAX	230 µm MAX	230 µm MAX	NA	NA

NOTES:

1. The Cementing materials content for 40 and 45 MPa concrete is 480 kg/m³ maximum.
2. If superplasticizers are used, the maximum concrete slump in a superplasticized condition shall be limited to 230 mm. The mix design shall state the design slump before and after the addition of superplasticizers along with the appropriate tolerances. Note that the slump in the above table may not be applicable when using superplasticizers.
3. The above mix parameters do not include required adjustments for prestressed girder concrete
4. For concrete with a water-to-cementitious materials ratio of 0.36 or less, the average air void spacing factor shall not exceed 250 µm.

The Contractor will be responsible for the mix design, accompanied by the trial batch mix data and quality control of concrete production.

All concrete mix design proportioning including the mix quality control operations shall be performed by a Laboratory CCIL or CSA Certified in accordance with CSA A283 latest edition. All testing shall be as conducted as stated in CSA-A23.1 and A23.2 latest edition. The proposed mixture design shall be signed and stamped by a Professional Engineer registered to practice in Newfoundland and Labrador. The Professional Engineer shall attest to the validity of the material test data.

For a concrete mix with a tendered quantity of more than 50 cubic metres, the mix designs and test results are only considered valid for up to two years in advance of the date of the project mix design submission. For a concrete mix with a tendered quantity of 50 cubic metres or less the test results are considered valid for up to five years in advance of the date of the project mix design submission.

The Contractor shall provide, with the proposed mix design, the following information based on actual trial mixes at least two weeks (14 days) in advance of concrete placement. The verification of the mix design through trial batching must meet the specified requirements in Table One and be performed by a laboratory certified by CCIL or CSA Standard A283 latest edition:

- Slump CSA A23.2-5C
- Air Content of Plastic Concrete by Pressure Method CSA A23.2-4C
- Mass Density and Yield CSA A23.2-6C
- Compressive Strength Testing CSA A23.2-9C
- Air Void Analysis on Hardened Concrete tested at 7 days ASTM C457
- Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration tested at 56 days ASTM C1202
- Alkali Reactivity Test Results A23.2-25A

Also to be included with each mix design submission is the following necessary information:

- Project number and title description
- Contractor company name with contact information
- Ready mix supplier
- Certifying laboratory with signing engineer

- Type of concrete, intended use, approximate quantity and method of placement
- Mix slump and air entraining agent range plus all admixtures with dosage rates
- Aggregate test information as per requirements of 904.02.02 Aggregates
- Type of Cement and test data showing conformance with CSA A3000
- Proof of current Atlantic Concrete Association (ACA) membership certificate

No adjustments shall be made to the concrete mix design without prior acknowledgement from the Materials Engineer. If material characteristics change from the original mix design a revised mix design must be resubmitted.

High range water reducing agents (superplasticizers) may be used at the Contractor's request, if so indicated when the mix design is submitted. The Contractor shall state their method of concrete placement when submitting the concrete mix design.

Where 45 MPa concrete is specified on the contract drawings, a trial batch consisting of a minimum of 20 cubic metres of superstructure concrete shall be placed in the substructure, i.e. abutments and footings, at least 28 days prior to the placement of any 45 MPa superstructure concrete, when directed by the Owner's Representative. The purpose of this exercise is to allow for fine tuning of the mix to achieve proper air and slump, and to obtain an early indication of the expected compressive strength. The additional cost of this trial batch and fine tuning of the mix design shall be considered incidental to the works.

904.04.03 Mixing Concrete

904.04.03.01 Batch Plant Requirements

The batching of concrete, unless otherwise authorized by the Owner's Representative, shall be done in an approved batch plant.

All materials shall be stored in a manner that will prevent contamination, segregation, deterioration and intermingling. Cement and SCM's must be stored in a suitable bin that will provide protection against dampness. Aggregates shall be separated into fine and coarse sizes as determined by the Concrete Mix Design.

The water shall be proportioned separately by weight or by volume to an accuracy of $\pm 1\%$. Metering devices which measure the volume of water should not be affected by variable pressure in the water supply line.

Scales and other mass-measuring devices must be accurate. The Contractor shall

provide standard certified test weights and/or devices for checking the accuracy of the controls. A certificate of accuracy not older than 180 days old shall be provided at the request of the Owner's Representative for the scales utilized. Checks shall be made just prior to the first concrete placement and at 150 cubic metres intervals thereafter. Recalibration shall be performed if the batching plant is moved or any major alterations performed. The Contractor shall carry out all tests in the presence of the Owner's Representative and shall supply them with results of all tests and make any and all alterations, repairs or replacements required to the equipment before authorization will be given to place concrete.

The equipment for batching shall have the capacity to produce at such a rate as to preclude cold joints in the concrete placement. In any event, the equipment is subject to the approval of the Owner's Representative.

904.04.03.02 Mixing

The mixing of concrete, unless otherwise authorized by the Owner's Representative, shall be done in either a stationary mixer or truck mixer. Small quantities of proprietary concrete mixtures may be mixed on site, as authorized by the Owner's Representative, and must follow all preparation, mixing and placing requirements set forth by the manufacture of the proprietary product.

The stationary plant must conform to the limitations set forth in the Concrete Plant Standards of the Concrete Plant Manufacturers Bureau. The truck mixer must conform to the limitations of TMMB 100 (Truck Mixer Manufacturer Bureau). Mixers shall carry the manufacturers rating plate in a prominent place. The mixer shall be equipped with a suitable charging hopper, water storage and water measuring device. It shall be cleaned at frequent intervals when in use and maintained in such a condition that the mixing will be unimpaired.

The mixer must be capable of combining the ingredients of the concrete within a time or number of revolutions recommended by the manufacturer of the mixer to produce a uniform mass.

Concrete transported in a truck mixer, agitator, or other transportation device shall be discharged at the job and placed in its final position in the forms within 120 minutes from the time of initial mixing, except in hot weather or under other conditions contributing to quick stiffening of the concrete. The maximum volume of mixed concrete transported in an agitator shall be in accordance with the specified rating. Time of charging the truck shall be clearly indicated and excess time in the mixer shall be cause for rejection of a

load. Each batch slip shall have the time of batching clearly clock stamped onto each such slip.

All Concrete shall be transported to site by means of a truck agitator conforming to the limitations of TMMB 100 (Truck Mixer Manufacturer Bureau).

904.04.04 Placing Concrete

Concrete shall not be placed if the air temperature is less than 5 degrees Celsius or greater than 27 degrees Celsius without the written permission of the Owner's Representative. When the air temperature exceeds 27 degrees Celsius or falls below 5 degrees Celsius, additional placement procedures must be followed in accordance with Sections 904.06 and 904.07 respectively.

Before concrete is placed, forms, reinforcement, foundations, granular bases, placing procedures and materials must comply with the project specifications and CSA A23.1. The Contractor shall give 24 hours notice (not including Saturday, Sundays, or holidays) of their intention to place concrete.

In preparation for the placing of concrete all sawdust, chips, and other construction debris and extraneous matter shall be removed from the interior of the forms. Struts, stays, and braces shall be removed when the concrete placing has reached an elevation rendering their service unnecessary. These temporary members shall be entirely removed from the forms and not buried in the concrete.

Concrete delivered to site must conform to the temperature requirements in Table Two. Concrete to be placed in superstructure elements shall not exceed 25 degrees Celsius.

TABLE TWO

LEAST DIMENSION OF SECTION	CONCRETE TEMPERATURE	
	MINIMUM °C	MAXIMUM °C
LESS THAN 0.3 M	10	32
0.3 M TO 1 M	10	30
1 TO 2 M	5	25
MORE THAN 2 M	5	20

Concrete shall be placed so as to avoid segregation, have no adverse effects on concrete properties or displace the reinforcement. An adequate supply of concrete must be

supplied to ensure it is placed in a continuous manner.

The use of long troughs, chutes and pipes for conveying from the mixer to the forms shall be permitted only on written authority of the Owner's Representative. In case an inferior quality of concrete is produced by the use of such conveyers, the Owner's Representative may order discontinuance.

Dewatering will not be permitted during the placing of concrete or for a period of at least 24 hours thereafter, unless it is done from a suitable sump separated from the concrete work by a watertight wall or other effective means. Pumping to unwater a sealed cofferdam shall not commence until the seal has set sufficiently to withstand the hydrostatic pressure.

The pumping of concrete from the delivery vehicle to its place of final deposition will be permitted as authorized by the Owner's Representative.

Concrete shall not be placed with a free fall greater than 1500mm. When placing operations would involve dropping the concrete more than 1500mm, it shall be deposited through sheet metal or other approved pipes. The pipes shall be kept full of concrete during placing and their lower ends shall be kept buried in the newly placed concrete.

After initial set of the concrete the forms shall not be jarred and no strain shall be placed on the ends of reinforcing bars which project.

When the placing of concrete is temporarily discontinued, the concrete, after becoming firm enough to retain its form, shall be cleaned of laitance and other objectionable material to a sufficient depth to expose sound concrete.

In the construction of box culverts more than 1200mm in height, the concrete in the walls shall be placed and allowed to set before the top slab is placed. In this case, appropriate keys shall be left in the sidewall for anchoring the cover slab.

Concrete for beams, girders, haunches and slabs shall be deposited uniformly in one continuous monolithic operation for the full length (or between vertical construction joints authorized by the Engineer of Record) and brought up evenly in horizontal layers. Efforts shall be made to eliminate segregation as may be evident by flow lines. In this regard, concrete must be deposited in place and thoroughly consolidated rather than be permitted to flow in place.

During wet weather, concrete must not be placed unless suitable means, approved by the Owner's Representative, have been provided to prevent washing of freshly deposited concrete or marring of the exposed surface.

904.04.04.01 Consolidation

Concrete, during and immediately after depositing, shall be compacted thoroughly and uniformly by hand-tamping tools, mechanical vibration or finishing machines. The structure shall be homogenous and free of cold joints, voids, honeycombing and large surface defects. Concrete must be in full contact with reinforcement, hardware and other embedded items.

The vibration may be internal and the intensity of vibration shall visibly affect concrete over a radius of 500 mm. The Contractor shall provide a sufficient number of vibrators and they shall be manipulated so as to thoroughly work the concrete around the reinforcement, embedded fixtures and into the corners and angles of the forms.

Vibration shall be applied at the point of deposit and in the area of freshly deposited concrete. The vibrators shall be inserted vertically and withdrawn out of the concrete slowly. The vibration shall be of sufficient duration and intensity to thoroughly compact the concrete, until the air bubbles stop breaking on the surface. Vibration shall not be continued at any one point to the extent that localized areas of grout are formed.

Vibration shall not be used to make concrete flow into place. Application of vibrators shall be at points uniformly spaced and not farther apart than twice the radius over which vibration is visible.

Vibration shall not be applied directly or through the reinforcement to concrete which has hardened. Vibration shall be supplemented by such spading as is necessary to ensure smooth surfaces and dense concrete along form surfaces. Concrete shall be placed in horizontal layers not more than 300 mm thick except when specified above. When less than a complete layer is placed in one operation it shall be terminated in a vertical bulkhead. Each layer shall be placed and compacted before the preceding batch has set to protect green concrete and avoid surfaces of separation. Vibrators shall project into preceding layer to avoid construction joint formation.

904.04.05 Depositing Concrete Under Water

Concrete shall not be deposited in water except with the authorization of the Owner's Representative and under their immediate supervision. To prevent segregation, it shall be carefully placed in a compact mass, in its final position, by means of a tremie tube or

other approved method. Still water shall be maintained at the point of deposit and the forms underwater shall be watertight. Precautions shall be taken to prevent the loss of concrete by washing action of the water.

The tremie tube shall have a minimum diameter eight times the maximum size of aggregate, constructed in sections having flanged couplings fitted with gaskets and must be watertight.

The discharge end shall be closed at the start of the work to prevent water entering. The tremie tube shall be filled to the bottom of the hopper and the flow of concrete shall be induced by slightly raising the discharge end, always keeping it in the deposited concrete at least 0.3 m. The flow shall be continuous until the work is completed.

No concrete shall be spread at any greater distance than 3 m from the discharge end of the tremie tube. When large areas are to be covered tremie tubes at maximum 6 m centres shall be used and concrete placed simultaneously.

If the tremie operation is unavoidably interrupted below water level, the surface laitance shall be removed by jetting one day after placing and removed by pumping.

904.04.06 Levelling and Mass Concrete

Levelling concrete shall be used to level excavated areas underneath footings or other structures where indicated on the contract drawings. It may also be used to fill large voids between structures and underlying materials. Where levelling concrete exceeds 300 mm thickness, the Engineer of Record shall be contacted. Levelling concrete shall be placed after all unwatering operations have been made effective in maintaining dry and controlled conditions as authorized by the Owner's Representative.

If the excavated area/void requires a thickness of 1.0 m or greater of concrete it is considered mass concrete and additional requirements must be satisfied as per CSA A23.1. The Contractor must prepare a thermal control plan in accordance with the CSA A23.1 that shall be reviewed and authorized by the Materials Engineer.

904.04.07 Construction Joints

Construction joints in concrete shall be positioned at the location shown on the drawings or where otherwise approved by the Owner's Representative.

The Contractor shall attach the appropriate horizontal and/or vertical wood strips, or approved alternative, to the face(s) of the formwork where all construction joints are

planned or occur for reasons beyond the Contractor's control. The concrete shall be worked such that the finished appearance will resemble narrow, neat and straight horizontal and/or vertical line(s) at all construction and cold joints. Forms shall be kept tight throughout the entire concrete placing operation.

At the bottom of curb - top of deck interface along the longitudinal sides of all decks, construction joints shall be neat, straight and properly formed as a 20 mm Vee groove and shall be straight and true to line and grade.

Where construction or cold joints are planned or occur for reasons beyond the Contractor's control, the concrete interface shall be rough, clean and free of laitance, with a full roughness amplitude of 6 mm or more. One exception to this would be at prestress steel box out locations, see Section 906 for more information.

Prior to butting the new concrete against previously hardened concrete the joint face shall be cleaned of all debris and dirt.

In addition, the surface film of laitance and mortar shall be removed from the joint face to present a clean sound concrete face that has the aggregate particles exposed.

904.04.08 Contraction Joints

A contraction joint is a control joint to control volume change mainly (shrinkage). Bonding of the new and existing concrete is not required but provisions to make the joint watertight are necessary.

Joints in concrete members shall be formed in location as shown on the plans.

Contraction joints shall extend to a depth equal to one-quarter of the member thickness. As soon as feasible the joint shall be thoroughly flushed out with compressed air and an approved flexible joint filler compound utilized to fill the joint. The joint filler compound shall be flexible over the extreme temperature conditions in the local area and must be approved by the Owner's Representative.

904.04.09 Concrete Beam Seats and Bearing Surfaces

Concrete beam seats which will not have a bearing placed directly against them shall be magnesium floated to the levels and slopes as shown on the drawings and to prevent the accumulation of water.

Concrete surfaces which are used as bearing surfaces shall be dead level and finished in accordance with Section 912 and the bearing manufacturer's recommendations.

904.04.10 Tolerances

All tolerances shall conform to CSA A23.1.

904.04.11 Evaporation Retardant

Immediately after the straight edge requirements have been met for the deck and curb concrete and the broom finish applied, the fresh concrete shall be coated with an evaporation retardant to preclude rapid evaporation of the bleed water. The Contractor must submit the material data sheets of the evaporation retardant intended to be utilized on the project prior to its use. Evaporation retardant to be MasterKure ER 50 manufactured by Master Builders Company Ltd, SikaFilm manufactured by Sika, or an equivalent satisfactory to Owner's Representative.

In some cases the film may need to be reapplied prior to the completion of the finishing operations and before the final curing conditions can be implemented. When all bleed water is gone, the concrete shall be cured as per Section 904.05. The supply and application of the evaporation retardant is deemed incidental to the placement of the deck concrete and as such, no separate payment will be made.

904.04.12 Caulking of Joints

Caulking shall be applied to all control and expansion joint locations.

The caulking or sealant and the substrate material must have a temperature greater than 5°C at the time of application unless otherwise specified by the manufacturer. Under no circumstances should sealant be applied to any surface which contains moisture, condensation, or frost. Joint surfaces are to be clean, dry and free of foreign matter before application of primer and sealant.

The work shall be performed by an approved caulking applicator. Otherwise, the contractor must designate a person for the caulking operation and that person should receive training acceptable to the Manufacturer and Owner's Representative.

The Contractor shall supply a written guarantee of all workmanship and materials for a period of two years following the date of final completion.

The sealant shall meet the requirements of ASTM C920 “Standard Specification for Elastomeric Joint Sealants” and must be Grade NS, minimum Class 50, use Type T and must pass the accelerated weathering test as per ASTM C793 “Standard Test Method for Effects of Laboratory Accelerated Weathering on Elastomeric Joint Sealants.”

Joint sealant products shall be one of the following or an approved equal:

- DOWSIL 888 Silicone Joint Sealant
- TREMCO Dymeric 240

Joint backing shall be a closed-cell non gaseous backer rod, such as Softrod specified by Tremco (Canada) Limited or an approved equal.

All work shall be in strict accordance with the Manufacturer’s recommendations.

Payment shall be considered incidental to the works associated with concrete work pay items.

904.05 CURING

Curing shall begin immediately following the placing and finishing operations and provide the temperature and moisture conditions for the period of time necessary for concrete to develop its strength. The Contractor must have all necessary equipment and personal on site ready to commence curing processes prior to the placement of concrete. Concrete temperature must be maintained at no less than 10°C throughout the curing period for a minimum of 7 days and for the time to reach 70% of the specified strength. Proper curing will be considered 15% of the associated unit price bid for concrete payment purposes.

Curing of concrete surface shall start as soon as the concrete has hardened sufficiently to prevent damage. The following methods may be used for curing concrete surfaces:

- Ponding or continuous sprinkling of water
- Applying water and covering with polyethylene sheets as per Section 904.02.10
- Applying water and covering with absorptive burlap as per Section 904.02.08
- Curing compounds as per section 904.02.09
- Forms in contact with concrete surfaces

Curing of Precast Concrete structures shall follow the requirements set forth in CSA A23.4.

Concrete in of all superstructure concrete, including barriers, approach slabs, expansion joint dams, end blocks, curbs and sidewalks must be cured by means of burlap and water.

Additional requirements are as follows:

Burlap

All burlap must be pre-soaked by immersing it in water for a period of at least 24 hours immediately prior to placing. Two layers of burlap must be applied to the surface of the concrete. Strips must overlap by 150 mm and must be held in place without marring the surface of the concrete.

Curing with burlap and water must be maintained for a minimum period of seven days. The burlap must be maintained in a continuously wet condition throughout the curing period by means of a soaker hose. The burlap must be covered with a layer of moisture vapour barrier within 12 hours of placing the concrete, in a manner which will prevent deformation of the surface of the concrete.

Air flow in the space between the moisture vapour barrier and the burlap must be prevented.

Regardless of ambient temperature, moist curing with burlap and water must be provided at all times. During cold weather, burlap must be prevented from freezing.

Liquid Membrane Curing

At the discretion of the Owner's Representative, liquid membrane curing compounds meeting the requirements of Section 904.02.09, may be used in place of moist curing on pier columns only. Liquid membrane curing shall not be permitted on other areas including bridge decks.

904.05.01 Curing of Bridge Decks

Prior to the commencement of curing operations a fog mist shall be applied to bridge decks. Misting shall be conducted through the use of a pressure washer capable of sustaining a minimum 14 MPa pressure. A continuous fog mist shall commence immediately behind the screeding operation until the concrete has hardened sufficiently to permit covering with burlap. The fog mist will maintain a high relative humidity above the concrete and prevent surface drying prior to curing operations. Water shall not be allowed to drip, flow or puddle on the concrete surface during fog misting at any time before concrete has reached final set.

The curing time required for deck concrete is moist curing for 7 days in accordance with this specification and a further 30 days for air drying. Also, the specified design strength must be obtained. Until the above conditions are satisfied, the application of waterproofing and the opening of the bridge to traffic will not be permitted.

Payment shall be considered incidental to the placement of Superstructure Concrete.

904.05.02 Plastic Shrinkage

Where excessive plastic shrinkage may occur, e.g. in a large expanse of concrete such as a bridge deck, more than one method of curing may be required.

If shrinkage cracks occur the Contractor shall grout any cracks and repair by an approved method at their own expense.

All methods and materials employed in concrete curing must be to the satisfaction of the Owner's Representative.

904.06 HOT WEATHER CONCRETING

When the air temperature is at 27 degrees Celsius or greater or is expected to rise to this limit, according to meteorological forecasts, then special measures shall be taken by the Contractor to protect the concrete. Surface moisture evaporation must not exceed $0.75\text{kg/m}^2/\text{hr}$.

Concrete placed in the forms shall be maintained at or below 27 degrees Celsius and the Contractor shall ensure all measures to achieve the temperature requirement are to the satisfaction of the Owner's Representative.

Curing shall be accomplished by moist-curing with water spray or by using absorptive burlap as specified in sections 904.02.08 and 904.05.

904.07 COLD WEATHER CONCRETING

904.07.01 General

When the air temperature is at or below 5 degrees Celsius or when, according to meteorological forecasts, it is likely to fall below this limit within the next 24 hours, then the Contractor shall take special precautions to protect the concrete placed. The Contractor shall obtain approval from the Owner's Representative for this method of protection.

Concrete for the superstructure (or approach slabs) shall not be placed between November 1 and April 1 unless otherwise approved of by the Owner's Representative.

The following table shall apply for determining degree of protection requested by the Owner's Representative:

TABLE THREE

PROTECTIVE MEASURE	OUTSIDE AIR TEMPERATURE FOR LEAST DIMENSION OF SECTION	
	LESS THAN 1M	MORE THAN 1M
SUITABLE HOUSING PLUS SUPPLEMENTARY HEAT OR ADEQUATE INSULATION	BELOW 0°C	BELOW -5°C
SUITABLE COVERING PLUS ADEQUATE INSULATION	0°C TO 5°C	0°C TO -5°C
NORMAL CURING NO TEMPERATURE PROTECTION REQUIRED	5°C TO 25°C	5°C TO 20°C

Any concrete damaged by freezing or by inadequate protection or curing shall be removed and replaced by the Contractor at no cost to the Department.

For additional guidance on Cold Weather Concreting see ACI 306 "Guide to Cold Weather Concreting" and the Portland Cement Association publication "Design and Control of Concrete Mixtures."

904.07.02 Placing

Concrete to be placed during cold weather must be within the temperature limits of Table Two.

This temperature can be obtained by heating the water or the aggregate or both; water and aggregate shall then be combined in the mixer first and the temperature of the mixture shall not exceed 38 degrees Celsius when the cement is added.

At temperature below freezing, aggregates are required to be heated prior to incorporation into the mixture. The aggregates shall be uniformly heated in the stockpiles and/or bins by steam, either injected live or circulated in coils, or by using dry heat before the aggregates are placed in the mixer. Whatever system is used, it shall be designed to give uniform heating that will avoid local overheating which may be injurious to the

materials. No frozen lump of aggregate will be allowed in the concrete mix and shall be discarded before batching.

When the air temperature is below 0 degrees Celsius the water shall be heated. It shall not be heated to a temperature greater than 60 degrees Celsius.

The use of salt, calcium chloride or other chemicals to lower the freezing point or accelerate the set is prohibited.

No concrete shall be placed on or against any surface that will lower the temperature of concrete in place below the minimum values in Table Two. The ground, formwork, existing concrete and steel against which concrete is to be placed shall be free from ice and snow have a temperature greater than 0°C before the Owner's Representative will authorize placing to commence. The Contractor shall preheat the area in which the concrete is to be placed, with live steam or moist hot air, this shall also remove snow and ice and heat the contact material to prevent the formation of a cold joint. Additional heating may be necessary if large quantities of steel elements are present, however care must be taken to avoid heating elements more than 5 degrees Celsius above the temperature of the concrete mixture.

Concrete shall not be placed on a frozen subgrade or against frozen ground. The ground must be thawed by either steaming, spreading hot sand/gravel, removing and replacing with unfrozen material, covering with insulation for a period of time or using heaters under insulated blankets. The Contractor shall protect excavations prepared for footings, etc., with covers prior to opening for placing concrete.

The concrete shall be placed rapidly and evenly, as near to its final position as possible to reduce the risk of segregation, flow lines and cold joints. The concrete shall be covered, as quickly as possible after placing.

904.07.03 Protecting Placed Concrete

Concrete placed should be maintained at a temperature no less than 10 degrees Celsius in accordance with Section 904.05 for the duration of the curing period. Depending on ambient temperatures it can either be protected by insulating materials or enclosed with an additional heat source. The proposed method of curing must be submitted and authorized by the Owner's Representative.

Insulating materials, such as moisture impervious insulating blankets, must have an R-value suitable to ensure thermal resistance. Corners, edges and thin/vulnerable concrete

sections may require additional insulation. All insulating materials shall be covered by polyethylene sheeting and a max/min thermometer placed in contact with the concrete. Temperatures shall be monitored and additional insulation placed as necessary.

Protective housing shall be utilized as required in Table Three above and must be wind and weather tight and constructed of suitable materials on a substantial framework. The framework must be such as to permit free circulation of warmed air. The housing must have suitable openings to let the concrete be placed and these openings shall be so designed that they may be fully covered and closed as soon as the concrete is placed. The use of "roll back" sheeting or tarpaulins supported on stools is permitted on horizontal surfaces, such as a bridge deck provided the concrete is covered progressively as soon as placed. The housing must be so constructed as to allow a uniform circulation of heat to all parts of the work. This shall include the underside of the bridge deck and beams unless the Owner's Representative has authorized the protection of these areas by fully insulated formwork.

904.07.04 Heating the Protective Housing

The Contractor shall have available, tested and approved, adequate equipment for the heating of the protective housing. Heating will be used to establish and maintain the required curing conditions.

Unless otherwise permitted by the Owner's Representative, concrete to be placed between September 1 and April 30, the Contractor shall supply a live heated wet steam system, such as a steam jenny, fully operational and fully capable of adequately protecting all concrete to be placed. Hot air blowers and the like may be used to supplement the steam heating as long as fine water or steam spray into the stream of hot air is provided. The humidity as measured by a wet and dry bulb thermometer shall at no time be less than 95% and the air temperature shall be not less than 13 degrees Celsius.

The Contractor shall on the day prior to placing concrete, conduct a trial run to verify their equipment, methods and workmanship to meet the specifications.

The use of salamanders, coke stoves, oil or gas burners and similar spot heaters which have an open flame and intense local heat are prohibited. In the event of any fire of the formwork or housing, the Owner's Representative must be immediately notified.

The system of heating and positioning of steam outlets so as to give the most uniform distribution possible of the heat must be satisfactory to the Owner's Representative. The Contractor shall make suitable arrangements to stoke boilers outside normal working

hours where required. A breakdown in heating is regarded as very serious especially in the early life of the concrete.

Protection shall be withdrawn in such a manner as not to introduce thermal shock stresses in the concrete.

The temperature of the concrete shall be gradually reduced to the permissible temperature differential as specified in CSA A23.1 to that of the surrounding air. To achieve this in a heated housing, the heat shall be slowly reduced and then shut off and the whole housing allowed to cool to within the permissible temperature differential before the housing itself or the formwork is removed. Where work is to proceed within the same housing on the next stage of the work, the formwork may be removed as soon as the prescribed curing period is over. With fully insulated formwork, the forms themselves maybe slackened and some insulation removed if needed. The forms themselves shall not be removed until the temperature of the concrete has fallen to within 12 degrees Celsius of the outside air temperature.

904.08 SURFACE FINISHING

904.08.01 General

All concrete surfaces that will be visible on completion of the work shall be rubbed finish, with the exception of the deck, approach slabs, curbs and/or sidewalks which shall be a floated finish.

The Contractor shall take special care during the planning, forming, concrete placing, curing and stripping phases to ensure defect-free surfaces. Should remedial measures be required, they shall be carried out by personnel expert in this aspect of concrete work. The surfaces shall be uniform in colour and texture when viewed from a distance of 15 m and shall be attained as follows.

904.08.02 Rubbed Finish

Immediately following the removal of forms, all fins and irregular projections shall be removed from all surfaces except from those which are not to be exposed or are not to be waterproofed. On all surfaces, the cavities produced by form ties and all other holes, honeycombs spots, broken corners or edges and other defects shall be cut back to sound concrete and thoroughly cleaned. No feather edging is permissible. If reinforcing steel is exposed, concrete shall be cut back for at least 50 mm around the reinforcement.

After having been kept saturated with water for a period of not less than three hours, the

cavities shall be carefully pointed and trued with a mortar of cement and fine aggregate mixed in the proportions used in the grade of the concrete being finished or an approved product. Mortar used in pointing shall be not more than one hour old. The mortar patches shall be cured as specified under Section 904.05. No mortar shall be placed when the air temperature is forecasted to fall below 5 degrees Celsius within 24 hours. All construction and expansion joints in the completed work shall be left carefully tooled and free of all mortar and concrete. The joint filler shall be left exposed for its full length with clean and true edges. The resulting surfaces shall be true and uniform.

After removal of forms, the rubbing of concrete shall be started as soon as its condition will permit. However, before starting this work the concrete shall be kept thoroughly saturated with water for a minimum period of three hours but sufficient time shall have elapsed before the wetting down to allow the mortar used in the pointing of rod holes and defects to thoroughly set. Surfaces to the finished shall be rubbed with a medium coarse carborundum stone.

When insufficient cement paste can be drawn from the concrete from rubbing use a small amount of mortar on its face. The mortar shall be composed of extra cement and fine sand mixed in proportions such as to match existing concrete verified by a test patch. Rubbing shall be continued until all form marks, projections and irregularities have been removed, all voids filled, and a uniform surface has been obtained. The paste produced by this rubbing shall be left in place at this time.

After all concrete above the surface being treated has been cast, the final finish shall be obtained by rubbing with a fine carborundum stone and water. This rubbing shall be continued until the entire surface is of a smooth texture and uniform colour. After the final rubbing is completed and the surface has dried, it shall be rubbed with burlap to remove loose powder and shall be left free from all unsound patches, paste, powder and objectionable marks.

904.08.03 Floated Surface Finish

The provision of an approved self-propelled Bridge Deck Finishing Machine capable of striking off and providing the required surface finish is mandatory for all horizontal structures not covered by fill.

For new bridge decks and rehabilitated bridge decks where the total deck length is greater than fifteen metres, the deck shall be finished with a GOMACO 450 bridge deck finishing machine with a vibrating screed and movable work bridge or approved equal.

For (a) decks less than fifteen metres in length, (b) thin overlay strips wider than two metres, (c) wharf decks and (d) bridge approach slabs greater than 3 metres in length, finishing shall be achieved with a self-propelled air operated vibrating Allen Screed or approved equal.

Deck repairs by overlay shall also meet the requirements in Section 919.

All finishing equipment, as referenced above, shall be equipped and operated in accordance with the manufacturer's literature for the particular concrete and work being performed.

For thin overlays less than two metres wide refer to Section 919.13.

Screed elevations shall be obtained as detailed in Section 907.

A dry run of the finishing machine covering the entire area requiring finishing shall be made to insure the design deck thicknesses and profiles will be attained. The run shall be completed at least 24 hours prior to commencing the deck concrete placement.

The finishing machine must be accompanied by a working platform with two qualified cement finishers assigned to the platform at all times. The Contractor shall submit letters to the Owner's Representative stating the qualifications of the finisher. The Contractor shall supply sufficient quantities of double railing to support the finishing machine equal to the overall length of the deck. This will enable the Owner's Representative to check the adjustment of the railing and the finishing machine prior to any concrete being placed.

Proper allowance shall be made for camber of pre-stressed channels or girders. Concrete placement shall be at a rate to provide satisfactory progress with the finishing machine or the cement finisher.

After the completion of screeding operations concrete shall be worked with a bull float or darby to remove any high spot, ridges or to fill voids in the concrete surface. Bull floating or darbying shall follow as close as practical behind the screed. If the concrete surface has the required smoothness/texture after screeding then bull floating or darbying may not be necessary.

After the deck surface has been floated and any bleed water evaporated, but while the concrete is still plastic, the Contractor shall furnish and use a 3 m straight edge swung from handles half the width of the slab.

The straight edge shall be held in successive positions parallel to the road centre line and in contact with the surface and the whole area gone over from one side of the slab to the other as necessary. Advancement along the deck shall be in successive stages of not more than one-half the length of the straight edge. Any depressions found shall be immediately filled with freshly mixed concrete, stuck off, consolidated and refinished. The straight edge testing and refloating shall continue until the entire surface is found to be free from observable departures from the straight edge and the slab has the required grade and contour, until there are no deviations of more than 8 mm under the 3 m straight edge.

The concrete deck surface, approach slabs, curbs and/or sidewalks shall be given a broom finish when the concrete has hardened sufficiently. Exposed concrete bridge decks shall be given a coarse broom finish. Treated or waterproofed bridge decks shall be given a fine broom finish. The broom shall be of an approved type. The strikes shall be square across the slab, from edge to edge, with adjacent strokes slightly overlapped and shall be made by drawing the broom without tearing the concrete but so as to produce regular corrugations not over 3 mm in depth for the coarse broom finish. The fine broom finish shall have corrugations not exceeding 1 mm in depth. The surface as thus finished shall be free from porous spots, irregularities, depressions and small pockets or rough spots such as may be caused by accidental disturbance during the final brooming of particles of coarse aggregate embedded near the surface. The Owner's Representative may decide to delete the broom finish requirements but tolerances previously stated will still apply.

904.09 SAMPLING AND TESTING

The Contractor shall co-operate fully with the Owner's Representative in enabling quality assurance tests to be carried out. Samples for quality testing purposes will normally be taken from concrete as delivered to the site (at the point of discharge from the delivery equipment). However, depending on the method of placement, random sampling of the concrete as incorporated into the structure shall also be performed to verify the above specified properties. This process shall entail the sampling of fresh concrete as close to the point of deposit in the structure as is practicable. Coring of the in-place hardened concrete may also be performed to verify the specified air void system. The Department reserves the right to designate the point of acceptance, with prior notice given to the Contractor.

Field quality assurance testing will be carried out by an Owner's Representative in accordance with CSA A23.2.

Quality assurance tests carried out by the Department shall conform to the following guidelines:

SUPERSTRUCTURE

AIR & SLUMP TESTS	Each load until 5 consecutive batches meet the requirements then test every second load thereafter.
STRENGTH & TEMPERATURE TESTS	At least 1 set of Laboratory cylinders per 100 cubic metres, minimum 1 set per day plus 1 set of field cures per category of concrete if required by the Owner's Representative.

SUBSTRUCTURE, REINFORCED WHARF DECK CONCRETE, CAST-IN-PLACE MEDIAN BARRIERS, CURB, GUTTER, SIDEWALKS, CATCH BASINS, WEIR BAFFLES, PILE, LEVELLING, MASS AND TREMIE CONCRETE

AIR & SLUMP TESTS	Each load until 5 consecutive batches meet the requirements then test every third load thereafter.
STRENGTH & TEMPERATURE TESTS	At least 1 set of Laboratory cylinders per 100 cubic metres, minimum 1 set per day plus 1 set of field cures per category of concrete if required by the Owner's Representative.

Additional strength tests will be required when early indications of strength are required such as before prestressing, girder transport, removal of falsework, backfilling structure, etc.

If either the measured slump, air content or temperature fall outside the limits specified, a repeat test shall be made. Failure to meet the contract requirements shall result in rejection of the concrete. Acceptance of the concrete will depend on the results and consistency of all of the above tests results being satisfactory.

904.10 MEASUREMENT FOR PAYMENT

904.10.01 Measurement for Payment for concrete work where the Unit Price Table states the unit to be cubic metres

For those concrete work contract items, except mass, levelling and tremie concrete, where the unit of measurement on the Unit Price Table is stated as cubic metre, then measurement for payment will be by the volume of concrete placed, measured in cubic metres rounded to two decimal places, based on the neat lines called for in the plans.

Measurement for payment purposes for mass concrete shall be based upon cross sections measured in cubic metres to the nearest one decimal place. Prior to concrete placing and forming operations, the Owner's Representative shall establish the lateral and vertical limits for mass concrete.

Measurement for payment purposes for tremie concrete shall be made based upon the number of cubic metres of batched concrete rounded to the nearest one decimal place and incorporated into the works as accepted by the Owner's Representative. Every precaution must be taken to prevent waste of concrete, i.e. carelessness resulting in the escape of concrete from within the confines of the forms or inaccuracy in placing. In the event of such occurrence(s) an estimate of the wastage will be made by the Owner's Representative and an appropriate deduction from the batch quantity will be made. All additional concrete required to be placed above the estimated quantity, accepted by the Owner's Representative.

No deductions will be made from the volume of concrete for:

- a) Volume of reinforcement, prestressing steel or prestressing ducts.
- b) Inserts of cross-sectional area of less than 0.1 square metres.

When it is specified that concrete is to be placed against undisturbed soil or set in rock, and where the excavation is made wider than the neat lines of the footings, the excess amount of concrete will not be measured for payment quantities.

Where the concrete footings are placed lower than that authorized by the Owner's Representative, any excess amount of concrete will not be measured for payment quantities.

Unless otherwise defined by the Contract Documents, the following will be the definitions for the structure and Unit Price Table:

Substructure concrete shall be that concrete used for slope paving, footings, abutments, back walls, bearing seats and pedestals, wing walls and piers. Wingwall concrete shall be all concrete behind the back face of the abutment, i.e. including the cleat excluding curb (superstructure) concrete.

Where integral curbs and wing walls exist, a horizontal surface at the bottom of the curb including the bevelled portion thereof if any and the horizontal surface at the top of the vertical portion of the wingwall shall constitute the dividing line between substructure and

superstructure concrete.

Retaining wall concrete shall be all concrete used in retaining walls and footings which are not cast integrally with the abutments.

Superstructure concrete will be all concrete used in columns, sidewalks, barriers, expansion joint dams, beams, diaphragms, decks, curbs, end blocks, including curbs and end blocks integral with the wing walls.

All concrete in rigid frames used in deck, curbs, barriers, sidewalks, end blocks, vertical or inclined legs and wing walls shall be classified as superstructure concrete.

All concrete for rigid frame footings shall be classified as substructure concrete. All approach slab concrete shall be classified as superstructure concrete.

Not included are AASHTO or CPCI girders, double tees, and any other superstructure work paid for separately.

Not more than 90% of the units will be certified until such time as the surface finish meets the specifications and is completed to the satisfaction of the Owner's Representative.

904.10.02 Measurement for Payment for concrete work where the Unit Price Table states the unit to be a unit other than cubic metres

For those concrete work contract items where the unit of measurement on the Unit Price Table is stated in some unit other than cubic metre, then the measurement for payment shall be in accordance with that stated in the appropriate specification for the item.

Not more than 90% of the units will be certified until such time as the surface finish meets the specifications and is completed to the satisfaction of the Owner's Representative.

904.11 BASIS OF PAYMENT

904.11.01 Basis of Payment for concrete work where the Unit Price Table states the unit to be cubic metres

For those concrete work items where the unit of measurement in the Unit Price Table is stated as cubic metre, then payment at the contract price shall be full compensation for all materials, labour, equipment, plant and services necessary to complete the concrete work as outlined herein.

In particular no separate payment will be made for:

- a) supply of cement, aggregates and other materials, plant and equipment-use required for producing the concrete
- b) Mix design, production, mixing, transportation, placing, consolidation, curing and quality control during production
- c) Formwork and falsework
- d) Precautions to be taken for hot weather
- e) Precautions to be taken for cold weather
- f) Provisions of shipping crates for concrete test specimens

No payment shall be made for any concrete required for normal testing procedures.

Where excessive camber in girders is permitted by the Owner's Representative, the extra concrete due to the camber in excess of the specifications will not be paid for.

Concrete not placed in accordance with the provisions of Section 904.07 the appropriate weather conditions prevail will not be paid for unless and until it can be established to the satisfaction of the Owner's Representative that there has been no harmful effect to the concrete. The onus for establishing this will belong to the Contractor.

904.11.02 Basis of Payment for concrete work where the Unit Price Table states the unit to be a unit other than cubic metres

For those concrete work contract items where the unit of measurement in the Unit Price Table is stated in some unit other than cubic metre, then the basis of payment shall be in accordance with that stated in the appropriate specification for the item.

Concrete not placed in accordance with the provisions of Section 904.07 when the appropriate weather conditions prevail will not be paid for unless and until it can be established to the satisfaction of the Owner's Representative that there has been no harmful effect to the concrete. The onus and costs for establishing this will belong to the Contractor.

904.11.03 Concrete Acceptance and Reduced Payment Criteria on Concrete Located in New Structures

Concrete on a project of a certain class, as defined by its specified strength at 28 days, must have an average tested strength at 28 days equal to or greater than that specified for payment at the bid price.

Concrete of a certain class having an average strength of less than that specified will be

accepted into the job at a reduced payment, provided the difference between specified strength and tested strength is no greater than 5 MPa. If the average of tests in a particular predefined portion of concrete is less than that specified by more than 5 MPa then that concrete shall be rejected.

When concrete is rejected, those provisions outlined in CSA A23.1 shall be followed to determine whether or not the concrete may remain in the work. Such work will be done at the Contractors cost. Notwithstanding the above, should the concrete remain in the work it will be subject to a reduction, as outlined below, for having a strength less than that specified.

Concrete of a specific class and otherwise acceptable but having an average strength deficiency as tested of less than 5 MPa compared with that specified, will be accepted but the bid price for all concrete in the predefined portion will be reduced according to the following procedure:

For concrete work where the Unit Price Table states the unit to be in cubic metres, the adjusted concrete price shall be calculated as follows:

$$\$(\text{Adjusted Concrete Unit Price}) = \text{Tested Strength} / \text{Specified Strength} * \$(\text{Bid Concrete Unit Price})$$

Division of the structure into predefined portions will be done by the Owner's Representative when the concrete placement sequence is outlined by the Contractor at the pre-job meeting. A predefined portion shall generally be established as that concrete placed within one operation.

There will be no bonus payment under the contract when the average strength is in excess of the specified strength.

904.11.04 Concrete Acceptance and Reduced Payment Criteria on Concrete Located in Rehabilitated Structures

Concrete on a rehabilitation project, as defined by its specified strength at 28 days, must have an average tested strength at 28 days equal to or greater than that specified for payment at the bid price.

Concrete having an average strength of less than that specified will be accepted into the job at a reduced payment, provided the difference between specified strength and tested strength is no greater than 5 MPa. If the average of tests in a particular predefined portion

of concrete is less than that specified by more than 5 MPa then that concrete shall be rejected.

When concrete is rejected, those provisions outlined in CSA A23.1 shall be followed to determine whether or not the concrete may remain in the work. Such work will be done at the Contractors cost. Notwithstanding the above, should the concrete remain in the work it will be subject to a reduction, as outlined below, for having a strength less than that specified.

Concrete of a specific class of repair and otherwise acceptable but having an average strength deficiency as tested of less than 5 MPa compared with that specified, will be accepted but the bid price for all concrete in the predefined portion will be reduced according to the following procedure:

For concrete work where the Unit Price Table states the unit to be square metres or cubic metres the adjusted price shall be calculated as follows:

$$\$(\text{Adjusted Concrete Unit Price}) = (\text{Tested Strength/Specified Strength}) \times \$(\text{Bid Concrete Unit Price})$$

Division of the structure into predefined portions will be done by the Owner's Representative when the concrete placement sequence is outlined by the Contractor at the pre-job meeting. A predefined portion shall generally be established as that concrete placed within one operation.

There will be no bonus payment under the contract when the average strength is in excess of the specified strength.

Section Ten

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GENERAL CONDITIONS**GC 1 DEFINITIONS****1.1 Amendment**

Modifications to the Open Call for Bids Documents identifying any required additions, deletions, clarifications or corrections.

1.2 Contract Documents

The Contract Documents consist of the Instruction to Bidders, executed Agreement, General Conditions of Contract, Supplementary General Conditions of Contract, Specifications, Drawings and such other documents as are listed in Article A-2 of the Agreement, including all amendments thereto incorporated before their execution and subsequent amendments thereto made pursuant to the provisions of the contract or agreed upon between the parties. The Successful Bidder's Bid, and any amendments to the Specification issued during the bidding period shall also form part of the Contract Documents.

1.3 Contractor

The Contractor means the person, firm or corporation identified as such in the Agreement. The term Contractor means the Contractor or the Contractor's authorized representative as designated by the Contractor to the Owner in writing.

1.4 Materials and Equipment

The term Materials and Equipment means all materials, machinery, equipment and fixtures forming the completed Work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

1.5 Other Contractor

The term Other Contractor means any person, firm or corporation employed by or having a separate contract directly or indirectly with the Owner for work other than that required by the Contract Documents.

1.6 Owner

The Owner is the person or entity identified as such in the Agreement. The term Owner means the Owner or the Owner's authorized representatives as designated by the Owner to the Contractor in writing.

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The Owner's Representative for the purposes of administering this construction Contract shall be the designated representative of the Government of Newfoundland and Labrador.

1.7 Products

The term Products means all material, machinery, equipment and fixtures forming the completed Work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

1.8 Project

The Project is the total construction of which the work performed under the Contract Documents may be the whole or a part.

1.9 Subcontractor

A Subcontractor is a person, firm or corporation having a direct contract with the Contractor to perform a part or parts of the Work included in the Contract, or to supply products worked to a special design according to the Contract Documents, but does not include one who merely supplies products not so worked.

1.10 Substantial Performance

A Contract shall be deemed to be substantially performed

- a) when the Work or a substantial part thereof is ready for use or is being used for the purpose intended; and
- b) when the Work to be done under the contract is capable of completion at a cost of not more than:
 - (i) three per centum of the first two hundred and fifty thousand dollars (\$250,000) of the contract price,
 - (ii) two per centum of the next two hundred and fifty thousand dollars (\$250,000) of the contract price, and
 - (iii) one per centum of the balance of the contract price.

GENERAL CONDITIONS**1.11 Time**

- a) The Contract Time is the time stated in Article A-1(c) of the Agreement for Substantial Performance of the Work.
- b) The date of Substantial Performance of the Work is the date certified by the Owner.
- c) The term day, as used in the Contract Documents, shall mean the calendar day.
- d) The term working day means any day observed by the construction industry in the area of the place of building.

1.12 Total Performance

Total Performance shall mean when the Work has been performed to the requirements of the Contract Documents and is so certified by the Owner.

1.13 Work

Work includes the whole of the works, materials, matters and things required to be done, furnished and performed by the Contractor under the Contract.

GC 2 DOCUMENTS

- 2.1 The Contract Documents shall be signed by the Owner and the Contractor.
- 2.2 Words which have well known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.
- 2.3 In the event of conflicts between Contract Documents the following shall apply:
 - a) Drawings of a later date shall govern.
 - b) Figured dimensions shown on the Drawings shall govern even though they may differ from scaled dimensions.
 - c) Drawings of larger scale shall govern over those of smaller scale of the same date.
 - d) Specifications shall govern over Drawings.

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- e) The General Conditions of Contract shall govern over Specifications.
- f) Supplementary General Conditions shall govern over the General Conditions of the Contract.

GC 3 ADDITIONAL INSTRUCTIONS AND SCHEDULE OF WORK

- 3.1 During the progress of the Work the Owner may furnish to the Contractor such additional instructions as may be necessary to supplement the Contract Documents. All such instructions shall be consistent with the intent of the Contract Documents.
- 3.2 Additional instructions may include minor changes to the Work which affect neither Contract Price nor the Contract Time.
- 3.3 Additional instructions may be in the form of drawings, samples, models or written instructions.
- 3.4 Additional instructions will be issued by the Owner with reasonable promptness and in accordance with any schedule agreed upon.
- 3.5 The Contractor shall, within thirty (30) days of the signing of this contract provide the Owner with a schedule of work.

GC 4 DOCUMENTS PROVIDED

- 4.1 The Contractor will be provided, without charge, the Contract Documents or parts thereof in an electronic PDF version for the performance of the Work.

GC 5 DOCUMENTS ON THE SITE

- 5.1 The Contractor shall keep one copy of all current Contract Documents and shop drawings on the site, in good order and available to the Owner and/or their representatives. This requirement shall not be deemed to include the executed Contract Documents.

GC 6 OWNERSHIP OF DOCUMENTS AND MODELS

- 6.1 All Contract documents and copies thereof, and all models are and shall remain the property of the Owner and are not to be used on other work.

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- 6.2 Such documents are not to be revised in any manner without the written authorization of the Owner.
- 6.3 Models furnished by the Contractor or the Owner are the property of the Owner.

GC 7 OWNER DECISIONS

- 7.1 The Owner, in the first instance, shall decide on questions arising under Contract Documents and interpret the requirements therein. Such decisions shall be given in writing.
- 7.2 The Contractor shall notify the Owner in writing within five (5) days of receipt of a decision of the Owner referred to in GC 7.1 should the Contractor hold that a decision by the Owner is in error and/or at variance with the Contract Documents. Unless the Contractor fulfills this requirement subsequent claims by the Contractor for extra compensation, arising out of the decision, will not be accepted.
- 7.3 If the question of error and/or variance is not resolved immediately, and the Owner decides that the disputed work shall be carried out, the Contractor shall act according to the Owner's written decision.
- 7.4 Any question of change in Contract Price and/or extension of Contract Time due to such error and/ or variance shall be decided as provided in GC 16 - Settlement of Disputes and Claims.

GC 8 DELAY

- 8.1 If it can be clearly shown that the Contractor is delayed in the performance of the Work by any act or fault of the Owner or other Contractor, then the Contract Time shall be extended for such reasonable time as the Owner may decide in consultation with the Contractor. The Contractor shall be reimbursed for any costs incurred by the Contractor as a result of such a delay occasioned by the act or fault, provided that it can be clearly shown that the Contractor's forces cannot work efficiently elsewhere on the project and that the incurred cost is limited to that which could not reasonably have been avoided.
- 8.2 If the Contractor is delayed in the performance of the Work by a Stop Work Order issued by any court or other public authority, and providing that such order was not issued as the result of any act or fault of the Contractor or of any one employed by the Contractor directly or indirectly, then the Contract Time shall be extended for such reasonable time as the Owner may decide, in consultation with the

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Contractor, and the Contractor shall be reimbursed for any on site costs incurred by the Contractor as the result of such delay.

- 8.3 If the Contractor is delayed in the performance of the Work by civil disorders, labour disputes, strikes, lock outs (including lock-outs decreed or recommended for its members by a recognized Contractor's Association, of which the Contractor is a member) fire, unusual delay by common carriers or unavoidable casualties or, without limit to any of the foregoing, by any cause of any kind whatsoever beyond the Contractor's control, then the Contract Time shall be extended for such reasonable time as may be decided by the Owner, in consultation with the Contractor, but in no case shall the extension of time be less than the time lost as the result of the event causing the delay, unless such shorter extension of time be agreed to by the Contractor.
- 8.4 No extension shall be made for delay unless written notice of claim is given to the Owner within fourteen (14) days of its commencement, providing that in the case of a continuing cause of delay only one notice shall be necessary.

GC 9 OWNER'S RIGHT TO DO WORK

- 9.1 If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of the Contract, the Owner may notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations and instruct the Contractor to correct the default within five (5) working days of receiving the notice.
- 9.2 If the correction of the default cannot be completed within the five (5) working days specified, the Contractor shall be considered to be in compliance with the Owner's instructions if the Contractor:
- a) commences the correction of the default within the specified time, and
 - b) provides the Owner with an acceptable schedule for such correction, and
 - c) completes the correction in accordance with such schedule.
- 9.3 If the Contractor fails to comply with the provisions GC 9.1 and GC 9.2 the Owner may, without prejudice to any other right or remedy the Owner may have, correct such default and may deduct the cost thereof from the payment then or thereafter due the Contractor.

GENERAL CONDITIONS**GC 10 OWNER'S RIGHT TO STOP WORK OR TERMINATE CONTRACT**

- 10.1 If the Contractor should be adjudged bankrupt, or makes a general assignment for the benefit of creditors or if a receiver is appointed on account of the Contractor's insolvency, the Owner may, without prejudice to any other right or remedy the Owner may have, by giving the Contractor written notice, terminate the Contract.
- 10.2 The Owner may notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations, if the Contractor:
- a) fails to proceed regularly and diligently with the Work; or
 - b) without reasonable cause wholly suspends the carrying out of the Work before the completion thereof, or
 - c) refuses or fails to supply sufficient properly skilled workers or proper workmanship, products or construction machinery and equipment for the scheduled performance of the Work within five (5) working days of receiving written notice from the Owner, except in those cases provided in GC 8 - Delay; or
 - d) fails to make payments due to the Contractor's Subcontractors, suppliers or workers; or
 - e) persistently disregards laws or ordinances, or the Owner's instructions; or
 - f) otherwise violates the provisions of the Contract to a substantial degree.

Such written notice by the Owner shall instruct the Contractor to correct the default within five (5) working days from the receipt of the written notice.

- 10.3 If the correction of the default cannot be completed within the five (5) working days specified, the Contractor shall be considered to be in compliance with the Owner's instructions if the Contractor:
- a) commences the correction of the default within the specified time, and
 - b) provides the Owner with an acceptance schedule for such correction, and
 - c) completes the correction in accordance with such schedule.

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- 10.4 If the Contractor fails to correct the default within the time specified or subsequently agreed upon, the Owner may, without prejudice to any other right or remedy the Owner may have, stop the Work or terminate the Contract.
- 10.5 If the Owner terminates the Contract under the conditions set out above, the Owner is entitled to:
- a) take possession of the premises and products and utilize the temporary buildings, plants, tools, construction machinery and equipment, goods, materials, intended for, delivered to and placed on or adjacent to the Work and may complete the Work by whatever method the Owner may deem expedient but without undue delay or expense;
 - b) withhold any further payments to the Contractor until the Work is finished.
 - c) upon Total Performance of the Work, charge the Contractor the amount by which the full cost of finishing the Work including compensation to the Owner for the Owner's additional services and a reasonable allowance to cover the cost of any corrections required by GC 31 - Warranty, exceeds the unpaid balance of the Contract Price; or if such cost of finishing the Work is less than the unpaid balance of the Contract Price, pay the Contractor the difference.
 - d) on expiry of the warranty period, charge the Contractor the amount by which the cost of corrections under GC 31 - Warranty exceeds the allowance provided for such corrections, or if the cost of such corrections is less than the allowance, pay the Contractor the difference.
- 10.6 The Owner maintains the right to terminate the agreement for convenience at any time. Upon termination, the Owner will compensate the Contractor for all costs incurred to the date of termination and associated costs to shut down the Work in a manner as specified by the Owner. There will be no compensation for any further incidental costs including but not limited to loss of profit.

GC 11 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

- 11.1 If the Owner should be adjudged bankrupt, or makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of the Owner's insolvency, the Contractor may, without prejudices to any other right or remedy the Contractor may have, by giving the Owner written notice, terminate the Contract.

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- 11.2 If the Work should be stopped or otherwise delayed for a period of thirty days or more under an order of any court, or other public authority, and providing that such order was not issued as the result of any act or fault of the Contractor or of any one directly or indirectly employed by the Contractor, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the Owner fifteen (15) days written notice, terminate the Contract.
- 11.3 The Contractor may notify the Owner in writing that the Owner is in default of the Owner's contractual obligations if:
- a) The Owner fails to issue a certificate in accordance with GC 21 - Certificates and Payments;
 - b) The Owner fails to pay to the Contractor when due any amount certified by the Owner and verified by the audit of the Owner.

Such written notice shall advise the Owner that if such default is not corrected within fifteen (15) days from the receipt of the written notice the Contractor may, without prejudice to any other right or remedy the Contractor may have, stop the Work and/ or terminate the contract.

- 11.4 If the Contractor terminates the Contract under the conditions set out above, the Contractor shall be entitled to be paid for all Work performed and for any loss sustained upon products and plant supplied with reasonable overhead, profit and damages.

GC 12 OTHER CONTRACTORS

- 12.1 The Owner reserves the right to let separate contracts in connection with the project of which the Work is part.
- 12.2 The Owner shall co ordinate the Work and insurance coverages of Other Contractors as it affects the Work of this Contract.
- 12.3 The Contractor shall coordinate the Contractor's work with that of Other Contractors and connect as specified or shown in the Contract Documents. Any change in the costs incurred by the Contractor in the planning and performance of such work which was not shown or included in the Contract documents as of the date of signing the Contract, shall be evaluated as provided under GC 19 - Valuation and Certification of Changes in the Work.

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- 12.4 The Contractor shall report to the Owner any apparent deficiencies in other Contractor's work which would affect the Work of this Contract immediately when they come to the Contractor's attention and shall confirm such report in writing. Failure by the Contractor to so report shall invalidate any claims against the Owner by reason of the deficiencies of Other Contractor's work except as to those of which the Contractor was not reasonably aware.

GC 13 ASSIGNMENT

- 13.1 The Contractor shall not assign the Contract or any part thereof or any benefit or interest therein or thereunder with/out the written consent of the Owner.

GC 14 SUBCONTRACTORS

- 14.1 The Contractor agrees to preserve and protect the rights of the Owner under the Contract with respect to any work to be performed under subcontract. The Contractor shall:

- a) require the Contractor's Subcontractors to perform their work in accordance with and subject to the terms and conditions of the Contract Documents, and
- b) be fully responsible to the Owner for acts and omissions of the Contractor's Subcontractors and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the Contractor.

The Contractor therefore agrees that the Contractor will incorporate all the terms and conditions of the Contract Documents into all Subcontract Agreements the Contractor enters into with the Contractor's Subcontractors.

- 14.2 The Contractor shall employ those Subcontractors proposed by the Contractor in writing and accepted by the Owner prior to the signing of the Contract for such portions of the Work as may be designated in the bidding requirements.
- 14.3 The Owner may, for reasonable cause, object to the use of a proposed Subcontractor and require the Contractor to employ one of the other Subcontractor Bidders.
- 14.4 In the event that the Owner requires a change from any proposed Subcontractor the Contract Price shall be adjusted by the difference in cost occasioned by such required change.

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- 14.5 The Contractor shall not be required to employ as a Subcontractor any person or firm to whom the Contractor may reasonably object.
- 14.6 The Owner may, upon reasonable request and at the Owner's discretion, provide to a Subcontractor information as to the percentage of the Subcontractor's work which has been certified for payment.
- 14.7 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the Owner.

GC 15 EMERGENCIES

- 15.1 The Owner has authority in an emergency to stop the progress of the Work whenever in the Owner's opinion such stoppage maybe necessary to ensure the safety of life, or the Work, or neighbouring property. This includes authority to make changes in the Work, and to order, assess and award the cost of such work, extra to the Contract or otherwise, as may in the Owner's opinion be necessary. The Owner shall, within two (2) working days, confirm in writing any such instructions. In such a case if work has been performed under direct order of the Owner, the Contractor shall keep the Contractor's right to claim the value of such work.
- 15.2 Should the Work be stopped by civil pickets, or other disorder, neither the Owner nor the Contractor shall have claim for change in the price of the Contract.

GC 16 SETTLEMENT OF DISPUTES AND CLAIMS

- 16.1 In the case of any dispute or claim arising between the Owner and the Contractor as to their respective rights and obligations under the Contract, either party hereto may give the other written notification of such dispute or claim. The notification of dispute or claim shall be made within fourteen (14) days of the dispute or cause of action arising. If the dispute or claim cannot be resolved to the satisfaction of both parties, either party may refer the matter to such judicial tribunal as the circumstances require.
- 16.2 Legal proceedings shall not take place until after the performance or the Substantial Performance of the disputed Work except:
 - a) when the dispute concerns a certificate for payment.

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- b) where either party can show that the matter in dispute requires immediate consideration while evidence is available.
- c) in the case of legal proceedings, where the action may become prescribed by reason of delay.

GC 17 INDEMNIFICATION

17.1 Except as provided in GC 17.2, the Contractor shall be liable for, and shall indemnify and hold harmless the Owner against all claims, demands, losses, costs, damages, actions, suits or proceedings, whatsoever arising under any statute or Common Law:

- a) in respect of personal injury to or the death of any person whomsoever arising out of or in the course of or caused by the carrying out of the Work; and
- b) in respect of any injury or damage whatsoever to any property, real or personal or any chattel real, insofar as such injury or damage arises out of or in the course of or by reason of the carrying out of the Work.

17.2 The Contractor shall not be liable under GC 17.1 if the injury, death, loss or damage is due to any act or neglect of the Owner.

GC 18 CHANGES IN THE WORK

18.1 The Owner may make changes by altering, adding to, or deducting from the Work, with the Contract Price and the Contract Time being adjusted accordingly.

18.2 Except as provided in GC 15 - Emergencies, no change shall be made without a written order from the Owner and no claim for an addition or deduction to the Contract Price or change in the Contract Time shall be valid unless so ordered and at the same time valued or agreed to be valued as provided in GC 19 - Valuation and Certification of Changes in the Work.

GC 19 VALUATION AND CERTIFICATION OF CHANGES IN THE WORK

19.1 The value of any change shall be determined in one or more of the following methods:

- a) by unit prices as agreed upon
- b) by estimate and acceptance in a lump sum

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- c) by cost and a fixed or percentage fee.

In the case of changes in the Work valued as outlined in GC 19.1 (a), where unit prices are provided in the Contract for the work to be done, those unit prices shall be used in determining the value of the change. If any unit price is not provided in the Contract for the work, a unit price shall be subsequently agreed upon or an alternate method of determining the value of the work shall be used.

In case of changes in the Work valued as outlined in GC 19.1 (b), the Contractor shall submit an itemized estimate for all materials and labour to complete the extra work.

In the case of changes in the Work valued as outlined in GC 19.1 (c), the Contractor shall submit detailed invoices, vouchers and time sheets for all materials and labour to complete the extra work.

Subject to the provisions of GC 19.2, when work is performed by the Contractor's own forces the Contractor's markup for overhead shall be ten (10) percent and the Contractor's profit ten (10) percent of the agreed or actual cost of the change. When work is performed by one of the Contractor's Subcontractors, the Subcontractor's markup for overhead shall be ten (10) percent of the agreed or actual cost of the change plus five (5) percent for profit. The Contractor's markup for overhead and profit shall be ten (10) percent of the Subcontractor's total price.

- 19.2 Notwithstanding the provisions of GC 19.1, in case of changes in the Work, the amount charged for equipment rentals shall be that provided in the Contract and no additional amount shall be paid as markup for overhead or profit for the Contractor or Subcontractor.
- 19.3 Notwithstanding the provisions of GC 19.1, in case of purchase of left over product or materials the Contractor's profit shall be ten (10) percent of the cost as supported by invoices or vouchers, or agreed upon price. No markup for overhead shall be added. This applied to material or product that are supplied only and not installed on site.
- 19.4 When a change in the Work is proposed or required the Contractor shall present to the Owner for approval the Contractor's claim for any change in the Contract Price and/or change in the Contract Time. The Owner shall be satisfied as to the correctness of such claim and, when approved shall issue a written order to the

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Contractor to proceed with the change. The value of work performed in the change shall be included for payment with the regular certificate for payment.

- 19.5 In the case of changes in the Work to be paid for under GC 19.1, the form of presentation of costs and methods of measurement shall be agreed to by the Owner and Contractor before proceeding with the change. The Contractor shall keep accurate records, as agreed upon, of quantities or costs and present an account of the cost of the change in the Work, together with vouchers where applicable.
- 19.6 If the method of valuation, measurement and the change in Contract Price and/or change in Contract Time cannot be promptly agreed upon, and the change is required to be proceeded with then the Owner shall determine the method of valuation, measurement and the change in Contract Price and/or Contract Time subject to final determination in the manner set out in GC 16 - Settlement of Disputes and Claims. In this case the Owner shall issue a written authorization for the change setting out the method of valuation and if by lump sum the Owner's valuation of the change in Contract Price and/or Contract Time.
- 19.7 In the case of a dispute in the valuation of a change authorized in the Work pending final determination of such value, the Owner shall certify the value of work performed and include the amount with the regular certificates for payment.
- 19.8 It is intended in all matters referred to above that both the Owner and Contractor shall act promptly.
- 19.9 Credits will be based on the net cost of material and labour or the net difference in unit price quantities.

GC 20 APPLICATION FOR PAYMENT

- 20.1 Applications for payment on account as provided for in Article A-4 of the Agreement may be made monthly as the Work progresses.
- 20.2 Application for payment shall be made monthly on a date to be agreed between the Owner and the Contractor and the amount claimed shall be for the value, proportionate to the amount of the Contract, of work performed and products delivered to the site at that date.
- 20.3 If requested by the Owner, due to the use of Fixed Price items in Appendix A of the Bid Form, the Contractor shall submit to the Owner, before the first application

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for payment, a schedule of values of the various parts of the Work, aggregating the total amount of the Contract Price and divided so as to facilitate evaluation of applications for payment.

- 20.4 The revised schedule, if required, shall be made out in such form, and supported by such evidence as to its correctness, as the Owner may reasonably direct, and when approved by the Owner shall be used as the basis for application for payment.
- 20.5 When making application for payment, the Contractor shall submit a statement based upon this schedule. Claims for products delivered to the site but not yet incorporated into the Work shall be supported by such evidence as the Owner may reasonably require to establish the value and delivery of the products.
- 20.6 Applications for release of holdback monies following the Substantial Performance of the Work and the application for final payment shall be made at the time and in the manner set forth in GC 21 - Certificates and Payments.

GC 21 CERTIFICATES AND PAYMENTS

- 21.1 The Owner shall, within ten (10) days of receipt of an application for payment from the Contractor submitted in accordance with GC 20 - Application for Payment, issue a certificate for payment in the amount applied for or such other amount as the Owner shall determine to be properly due. If the Owner amends the application the Owner shall promptly notify the Contractor in writing, giving the Owner's reasons for the amendment.
- 21.2 The Owner shall within twenty-one (21) days of the issuance of a certificate for payment by the Owner, make payment to the Contractor on account, in accordance with the provisions of the Agreement.
- 21.3 If payment is not made by the Owner within sixty (60) days of issuance of a certificate for payment, the Owner will be liable for interest on the amount owing at the rate of 2% per annum from the sixty-first (61st) day to the date of payment.
- 21.4 Notwithstanding any other provisions of this Contract:
 - a) If on account of climatic or other conditions reasonably beyond the control of the Contractor there are items of work that cannot be performed, the payment in full for that which has been performed as certified by the Owner shall not be withheld or delayed by the Owner on account thereof, but the Owner may

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withhold from the Contract Price until the remaining work is finished an amount sufficient to cover the cost to the Owner of performing such remaining work and to adequately protect the Owner from claims.

- b) Where legislation permits and where, upon application by the Contractor, the Owner has certified that a Subcontract has been totally performed to Owner's satisfaction prior to the Substantial Performance of this Contract, the Owner shall pay the Contractor the holdback retained for such Subcontractor on the day following the expiration of the Statutory Limitations Period stipulated in the Mechanics' Lien Act applicable to the place of building.
- c) Holdbacks will be released on the following conditions:
 - (i) a copy of the contract between the Subcontractor and the Contractor, or some other suitable Document satisfactory to the Owner, must be presented to the Owner,
 - (ii) the Subcontract is completed without deficiencies,
 - (iii) the warranty for the Subcontract will not start until Substantial Performance of the General Contract,
 - (iv) the Contractor provides an approved statutory declaration that all monies have been paid to the Subcontractors,
 - (v) the Owner will, at that time, release the total amount specified on the Subcontractor's Contract.

21.5 Notwithstanding the wording of such certificate the Contractor shall ensure that such work is protected pending the Total Performance of the Contract and be responsible for the correction of any defects in it regardless of whether or not they were apparent when such certificates were issued.

21.6 The Owner shall, within ten (10) days of receipt of an application from the Contractor for a Certificate of Substantial Performance, make an inspection and assessment of the work to verify the validity of the application. The Owner shall within seven (7) days of Owner's inspection notify the Contractor of the Owner's approval or disapproval of the application. When the Owner finds the Work to be Substantially Performed the Owner shall issue such a certificate. The date of this certificate shall be the date of Substantial Performance of the Contract. Immediately following the issuance of the Certificate of Substantial Performance,

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the Owner, in consultation with the Contractor shall establish a reasonable date for the Total Performance of the Contract.

- 21.7 Following the issuance of the Certificate of Substantial Performance and upon receipt from the Contractor of all documentation called for in the Contract Documents the Owner shall issue a certificate for payment of holdback monies. The release of holdback monies authorized by this certificate shall become due and payable on the day following the expiration of the Statutory Limitation Period stipulated in the Mechanics' Lien Act applicable to the place of building, providing that no lien or privilege claims against the Work exist and the Contractor has submitted to the Owner a sworn statement that all accounts for labour, Subcontracts, products, construction machinery and equipment and any other indebtedness which may have been incurred by the Contractor in the Substantial Performance of the Work and for which the Owner might in any way be held responsible have been paid in full except holdback monies properly retained.
- 21.8 The Owner shall, within ten (10) days of receipt of an application from the Contractor for payment upon Total Performance of the Contract, make an inspection and assessment of the Work to verify the validity of the application. The Owner shall within seven (7) days of the Owner's inspection notify the Contractor of the Owner's approval or disapproval of the application. When the Owner finds the Work to be totally performed to the Owner's satisfaction the Owner shall issue a Certificate of Total Performance and certify for payment the remaining monies due to the Contractor under the Contract less any holdback monies which are required to be retained. The date of this certificate shall be the date of Total Performance of the Contract. The Owner shall, within thirty (30) days of issuance of such certificate, make payment to the Contractor in accordance with the provisions of Article A-4 of the Agreement.
- 21.9 The release of any remaining holdback monies shall become due and payable on the day following the expiration of the Statutory Limitation Period stipulated in the Mechanics' Lien Act applicable to the place of building or where such legislation does not exist or apply in accordance with such other legislation, regulations governing privileges, industry practice or such other provisions which may be agreed to between the parties, provided that no claims against the Work exist and the Contractor has submitted to the Owner a sworn statement that all accounts for labour, Subcontracts, products, construction machinery and equipment and any other indebtedness which may have been incurred by the Contractor in the Total

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Performance of the Work and for which the Owner might in any way be held responsible, have been paid in full except holdback monies properly retained.

21.10 No certificate for payment, or any payment made thereunder, nor any partial or entire use of occupancy of the Work by the Owner shall constitute an acceptance of any work or products not in accordance with the Contract Documents.

21.11 The issuance of the Certificate of Total Performance shall constitute a waiver of all claims by the Owner against the Contractor except those previously made in writing and still unsettled, if any, and those arising from the provisions of GC 31 - Warranty, or those arising from negligence on the part of the Contractor.

The acceptance of the Certificate of Total Performance or of the payment due thereunder shall constitute a waiver of all claims by the Contractor against the Owner except those made in writing prior to the Contractor's application for payment upon Total Performance of the Contract and still unsettled, if any.

21.12 The holdback to be used by the Owner when issuing certificate of payment will be ten (10) percent of the value of the Work completed at the date of the Contractor's claim.

21.13 Notwithstanding the provisions of GC 21.3 or any other provision of this Contract, the Owner may:

- a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non performance of the Contract, withhold payment of any amount equal to the alleged damages until the liability for damages is established and no amount of interest will be paid on amounts held under this clause;
- b) set off amounts owing by the Contractor to the Owner,
- c) following the issuance of the Certificate of Substantial Performance, withhold payment of an amount equal to twice the cost, as estimated by the Owner, of remedying deficiencies until the issuance of a Certificate of Total Performance and no amount of interest will be paid on amounts held under this clause.

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- 22.1 The Contractor shall pay all government sales taxes, customs duties and excise taxes with respect to the Contract.

Contractors are advised that Government is not exempt from the Harmonized Sale Tax (HST). The Owner will pay the HST to the Contractor with each regular progress billing.

- 22.2 Any increase or decrease in costs to the Contractor due to changes in such taxes and duties after the date of the Agreement and up to the agreed date of completion shall increase or decrease the Contract Price accordingly. The Contractor is to co operate with the Owner and permit access to books and records in order to establish the amount of such taxes involved.
- 22.3 The Contractor shall maintain full records of the Contractor's estimates of and actual cost to the Contractor of the Work together with all proper Open Call for Bids, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, shall make them available to audit and inspection by the Owner, the Auditor General for Newfoundland and Labrador or by persons acting on their behalf, shall allow them to make copies thereof and to take extracts therefrom, and shall furnish them with any information which they may require from time to time in connection with such records.

GC 23 LAWS, NOTICES, PERMITS AND FEES

- 23.1 The laws of the place of building shall govern the Work.
- 23.2 The Contractor shall obtain all permits, licenses and certificates and pay all fees required for the performance of the Work which are in force at the date of the Open Call for Bids submission (but this shall not include the obtaining of permanent easements or rights of servitude).
- 23.3 The Contractor shall give all required notices and comply with all laws, ordinances, rules, regulations, codes and order of all authorities having jurisdiction relating to the Work, to the preservation of the public health and construction safety which are or become in force during the performance of the Work.
- 23.4 The Contractor shall not be responsible for verifying that the Contract Documents are in compliance with the applicable laws, ordinances, rules, regulations and codes relating to the Work. If the Contract Documents are at variance therewith,

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or changes which require modification to the Contract Documents are made to any of the laws, ordinances, rules, regulations and codes by the authorities having jurisdiction subsequent to the date of the Open Call for Bids submission, any resulting change in the cost shall constitute a corresponding change in the Contract Price. The Contractor shall notify the Owner in writing requesting direction immediately any such variance or change is observed by the Contractor.

- 23.5 If the Contractor fails to notify the Owner in writing and obtain the Owner's direction as required in GC 23.4 and performs any work knowing it to be contrary to any laws, ordinances, rules, regulations, codes and orders of any authority having jurisdiction, the Contractor shall be responsible for and shall correct any violations thereof and shall bear all costs, expense and damages, attributable to the Contractor's failure to comply with the Provisions of such laws, ordinances, rules, regulations, codes and orders.
- 23.6 The Contractor is not required to carry the cost of a municipal permit related to performance of the Work. If a municipal permit is requested, the Contractor shall advise the Owner of the request and where directed by the Owner, shall pay for and obtain a permit related to the conduct of the Work and the Owner will issue a change order to allow for payment of the cost of obtaining the permit. Nothing in this clause relieves the Contractor of its obligation to make such filings and to submit such documents and notices with respect to the Work on behalf of the Owner as are otherwise required by the municipality. All other permits are to remain the responsibility of the Contractor.

GC 24 PATENT FEES

- 24.1 The Contractor shall pay all royalties and patent license fees required for the performance of the Contract and such royalties or fees shall be deemed to have been included in the contract price. The Contractor shall hold the Owner harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention by the Contractor or anyone for whose acts the Contractor may be liable.
- 24.2 The Owner shall hold the Contractor harmless against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention in executing anything for the purpose of the

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Contract, the model, plan or design of which was supplied to the Contractor by the Owner.

GC 25 WORKPLACE NL

- 25.1 Prior to commencing the Work and prior to receiving payment on Substantial and Total Performance of the Work, the Contractor shall provide evidence of compliance with all requirements of the Province of the place of building with respect to worker's compensation including payments due thereunder.
- 25.2 At any time during the term of Contract, when requested by the Owner, the Contractor shall provide such evidence of compliance by the Contractor and any or all of the Contractor's Subcontractors.
- 25.3 Non-incorporated companies i.e.: partnerships, sole proprietorships, and independent operators must provide coverage for any employees and personal coverage for the principal(s).

GC 26 LIABILITY INSURANCE**26.1 Comprehensive General Liability Insurance**

- a) Without restricting the generality of GC 17 - Indemnification, the Contractor shall provide and maintain, either by way of a separate policy or by an endorsement to their existing policy, Commercial Liability Insurance acceptable to the Owner and subject to limits set out in detail in the Certificate of Insurance inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof.
- b) This insurance shall include as an additional insured Her Majesty the Queen in Right of Newfoundland and Labrador and the Occupant/Operator of the property. Such insurance must have the approval of the Owner and be to the limits, form and amounts specified. The Contractor will not permit any Subcontractor to commence work on this Project until the same insurance requirements have been complied with by the Subcontractor.
- c) The insurance shall also include as Unnamed Insureds the architectural and engineering consultants of the Owner with respect to work performed by the Contractor, but excluding professional liabilities associated with such architectural and engineering consultants.

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- d) The Comprehensive General Liability Insurance will not be limited to, but shall include coverage for:
- (i) premises and operations liability
 - (ii) products or completed operations liability
 - (iii) blanket contractual liability
 - (iv) broad form property damage
 - (v) cross liability
 - (vi) elevator and hoist liability
 - (vii) contingent employer's liability
 - (viii) personal injury liability.
 - (ix) liability with respect to non-owned licensed vehicles
 - (x) shoring, blasting, excavating, underpinning, demolition, pile driving and caisson work, work below ground surface, tunneling and grading as applicable.

26.2 Automobile Liability Insurance

The Contractor shall provide and maintain liability insurance in respect of (i) owned licensed vehicles and (ii) leased vehicles, subject to limits set out in this Contract.

26.3 Aircraft and/or Watercraft Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to owned and non-owned aircraft and watercraft, as may be applicable, subject to limits set out in this Contract. Such insurance shall be in the names of the Contractor, Her Majesty the Queen in Right of Newfoundland and Labrador and the Owner as defined in GC 26.1(b) and (c) where they have an insurable interest in the use and operation of such aircraft and watercraft.

26.4 Airport Contractor Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to work completed on the tarmac side of an airport and/or inside an airport and the area

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outside an airport if this is not provided within the Contractor's Commercial General Liability Insurance.

26.5 Environmental Impairment Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to environmental contamination/remediation at a work site.

26.6 Completed operations shall be maintained continuously until twenty four (24) months after the date the Engineer/Architect issues a Certificate of Substantial Performance**26.7 All insurance policies shall contain an endorsement requiring notification of Her Majesty and the Named Insured, in writing, thirty (30) days prior to cancellation of any policy or material change, except in the event of non-payment where policy conditions dealing with termination will apply.****GC 27 PROPERTY INSURANCE****27.1 The Contractor shall provide and maintain property insurance, acceptable to Her Majesty the Queen in the right of Newfoundland and Labrador, insuring the full value of the Work in the amount of the contract price and the full value as stated of products for incorporation into the Work. The insurance shall include as additional insured Her Majesty the Queen in Right of Newfoundland and Labrador.****27.2 Such coverage shall be provided for by **either** Broad Form Builders' Risks Policy **or** an Installation Floater **or** Piers, Wharves, and Docks Rider.****27.3 The policies shall insure on a Broad Form basis direct loss or damage subject to any exclusions specified in the Supplementary General Condition. Such coverage shall apply to:**

- a) all products, labour, and supplies of any nature whatsoever, the property of the Insureds or of others for which the Insureds may have assumed responsibility, to be used in or pertaining to the site preparations, demolitions of existing structures, erections and/or fabrication and/or reconstruction and/or repair of the insured project, while on the site or in transit, subject to the exclusion of the property specified.
- b) the installation, testing and any subsequent use of machinery and equipment including boilers, pressure vessels or vessels under vacuum.

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- c) damage to the Work caused by an accident to and/or the explosion of any boiler(s) or pressure vessel(s) forming part of the Work.
- d) damage to Work caused by earthquake or flooding.

Such coverage shall exclude construction machinery, equipment, temporary structural and other temporary facilities, tools, and supplies used in the construction of the Work and which are not expendable under the Contract.

- 27.4 Policies provided shall contain an endorsement requiring notification of Her Majesty and the Named Insured, in writing, thirty (30) days prior to cancellation of any policy or material change of coverage except in the event of non-payment where policy conditions dealing with termination will apply.
- 27.5 All such insurance shall be maintained continuously until the date the Owner issues a Certificate of Substantial Performance. All such insurance shall provide for the Owner to take occupancy of the Work or any part thereof during the term of the insurance. Any increase in the cost of this insurance arising out of such occupancy shall be at the Owner's expense.
- 27.6 The policies shall provide that in the event of a loss, payment for damage to the Work shall be made to the Owner and the Contractor as their respective interests may appear. The Contractor shall act on behalf of the Owner and the Contractor for the purpose of adjusting the amount of such loss with the Insurers. On the determination of the extent of the loss, the Contractor shall immediately proceed to restore the Work and shall be entitled to receive from the Owner (in addition to any sum due under the Contract) the amount at which the Owner's interest in the restoration work has been appraised, such amount to be paid as the work of restoration proceeds and in accordance with the Owner's certificates for payment. Damage shall not affect the rights and obligations of either party under the Contract except that the Contractor shall be entitled to such reasonable extension of time for Substantial and Total Performance of the Work as the Owner may decide.
- 27.7 The Contractor shall be responsible for any deductible amounts under the policies and for providing such additional insurance as may be required to protect the Insureds against loss on items excluded from the policies. Contractors are also advised that the Bid Documents contain a Certificate of Insurance indicating type and limit of liability insurance required for this project. The successful bidder will be required prior to commencement of work, to have the Certificate of Insurance completed by the Contractor's insurance company and delivered to the

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Government of Newfoundland and Labrador not later than thirty (30) days after the award of the contract.

GC 28 PROTECTION OF WORK AND PROPERTY

- 28.1 The Contractor shall protect the property adjacent to the Project site from damage as the result of the Contractor's operations under the Contract.
- 28.2 The Contractor shall protect the Work and the Owner's property from damage and shall be responsible for any damage which may arise as the result of the Contractor's operations under the Contract except damage which occurs as the result of:
- a) errors in the Contract Documents, and/or
 - b) acts or omissions by the Owner, the Owner's agents, employees or Other Contractors.
- 28.3 Should any damage occur to the Work and/or Owner's property for which the Contractor is responsible, the Contractor shall make good such damage at the Contractor's own expense or pay all costs incurred by others in making good such damage.
- 28.4 Should any damage occur to the Work and/or Owner's property for which the Contractor is not responsible as provided in GC 17 – Indemnification the Contractor shall make good such damage to the Work, and, if the Owner so directs to the Owner's property, and the Contract Price and Contract Time shall be adjusted in accordance with GC 18 - Changes in the Work.
- 28.5 The Contractor shall be completely responsible for the safety of the work as it applies to protection of the public and property and the construction of the work. All applicable Codes and Standards for the area and location of the Work shall apply to the project.
- 28.6 Any person not following the stipulated safety regulations shall be dismissed.

GC 29 DAMAGES AND MUTUAL RESPONSIBILITY

- 29.1 If either party to this Contract should suffer damage in any manner because of any wrongful act or neglect of the other party or anyone employed by that party then that party shall be reimbursed by the other party for such damages. The party

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reimbursing the other party shall be subrogated to the rights of the other party in respect of such wrongful act or neglect if it be that of a third party.

- 29.2 Claims under this GC shall be made in writing to the party liable within reasonable time after the first observance of such damage and not later than the time limits stipulated in GC 21 - Certificates and Payments, and may be adjusted by agreement or in the manner set out in GC 16 - Settlement of Disputes and Claims.
- 29.3 If the Contractor has caused damage to any Other Contractor on the work, the Contractor agrees upon due notice to settle with such Other Contractor by agreement or arbitration, if the Other Contractor will so settle. If such Other Contractor sues the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor and may require the Contractor to defend the action at the Contractor's expense. If any final order or judgment against the Owner arises therefrom the Contractor shall pay or satisfy it and pay all costs incurred by the Owner.
- 29.4 If the Contractor becomes liable to pay or satisfy any final order, judgment or award against the Owner then the Contractor, upon undertaking to indemnify the Owner against any and all liability for costs, shall have the right to appeal in the name of the Owner such final order or judgment to any and all courts of competent jurisdiction.

GC 30 BONDS

- 30.1 The Owner shall have the right during the period stated in the Bid Documents for acceptance of the Bid to require the Contractor to provide and maintain in good standing until the fulfillment of the Contract, Bonds covering the faithful performance of the Contract including the requirements of the Warranty provided for in GC 31 - Warranty, and the payment of all obligations arising under the Contract.
- 30.2 All such Bonds shall be issued by a duly incorporated surety company approved by the Owner and authorized to transact a business or surety ship in the Province of Newfoundland and Labrador.
- 30.3 If Bonds are called for in the Bid Documents or instructions to bidders, the costs attributable to providing such Bonds shall be included in the Bid price.

Transportation and Infrastructure

GENERAL CONDITIONS

- 30.4 Should the Owner require the provision of a Bond or Bonds by the Contractor other than those provided for under GC 30.3, the Contract Price shall be increased by all costs attributable to providing such Bonds.
- 30.5 The Contractor shall promptly provide the Owner with any Bonds that are required.

GC 31 WARRANTY

- 31.1 Without restricting any warranty or guarantee implied or stipulated by law, the Contractor shall, at the Contractor's own expense rectify and make good any defect or fault however caused appearing within a **period of two (2) years** from the date of Substantial Performance of the Work provided that the Contractor shall not be responsible for any defect or fault resulting from the design of the Work.
- 31.2 The Contractor shall correct and/or pay for any damage to other work resulting from any corrections required under the conditions of GC 31.1.
- 31.3 Neither the Owner's final certificate nor payment thereunder shall relieve the Contractor from the Contractor's responsibility hereunder.
- 31.4 The Owner shall give the Contractor written notice of observed defects promptly.
- 31.5 In any case where the Contractor claims that the Contractor is not responsible for a defect or fault because the Contractor claims such a defect or fault results from a design of the work by the Owner, the onus to establish that the same is so in the first instance shall be on the Contractor.
- 31.6 The Contractor shall, subject to the procedures for Settlement of Disputes contained in GC 16 – Settlement of Disputes and Claims, abide by the direction and decisions of the Owner made pursuant to the General Conditions and in particular GC 7 – Owner's Decision regarding the correction by the Contractor of any defect or fault in the work discovered during the warranty period referenced in GC 31.1 hereof.
- 31.7 The Contractor shall submit a schedule for the completion of the warranty work in respect of the defect or fault referenced in GC 31.1 hereof, which schedule must be acceptable to the Owner within thirty (30) days of the Owner requesting in writing such a schedule from the Contractor.
- 31.8 Where the Contractor rectifies and makes good any defect or fault for which the Contractor is responsible under this Warranty, the Contractor shall warrant the

GENERAL CONDITIONS

portion of the work that is corrected for a further two (2) years from the date that the correction was done.

GC 32 CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK

- 32.1 The Contractor shall have complete control of the Work except as provided in GC 15 - Emergencies. The Contractor shall effectively direct and supervise the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all parts of the Work under the Contract.
- 32.2 The Contractor shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structural and other temporary facilities and the design and execution of construction methods required in their use. The Contractor shall engage and pay for registered professional engineering personnel skilled in the appropriate discipline to perform these functions where required by law or by the Contract Documents and in all cases where such temporary facilities and their method of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 32.3 Notwithstanding the provisions of GC 32.1 and GC 32.2 above, or any provisions to the contrary elsewhere in the Contract Documents where such Contract Documents include designs for temporary structural and other temporary facilities and methods shall be deemed to comprise part of the overall design of the Work and the Contractor shall not be held responsible for that part of the design or the specified method of construction. The Contractor shall, however, be responsible for the execution of such design or specified method of construction in the same manner that the Contractor is responsible for the execution of the Work.
- 32.4 The Contractor shall carefully examine the Contract Documents and shall promptly report to the Owner any error, inconsistency or omission the Contractor may discover. The Contractor shall not be held liable for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents.

GC 33 SUPERINTENDENCE

- 33.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Work site at all times while work is being performed.

Transportation and Infrastructure

GENERAL CONDITIONS

- 33.2 The superintendent shall be satisfactory to the Owner and shall not be changed except for good reason and only then after consultation with and agreement by the Owner.
- 33.3 The superintendent shall represent the Contractor at the Work site. Directions given to the superintendent by the Owner shall be held to have been given to the Contractor. Important directions shall be confirmed to the Contractor in writing, other directions will be so confirmed if requested.

GC 34 LABOUR AND PRODUCTS

- 34.1 Unless otherwise stipulated elsewhere in the Contract Documents, the Contractor shall provide and pay for all labour products, tools, construction equipment and machinery, water, heat, light, power, transportation and other facilities and services necessary for the proper performance of the Work.
- 34.2 All products provided shall be new unless otherwise specified in the Contract Documents. Any products which are not specified shall be of a quality best suited to the purpose required and their use subject to the approval of the Owner.
- 34.3 The Contractor shall at all times maintain good order and discipline among the Contractor's employees engaged on the Work and shall not employ on the Work any unfit person nor anyone not skilled in the task assigned to that person.

GC 35 SUBSURFACE CONDITIONS

- 35.1 The Contractor shall promptly notify the Owner in writing if, in the Contractor's opinion, the subsurface conditions at the Project site differ materially from those indicated in the Contract Documents or as may have been represented to the Contractor by the Owner before the time of Open Call for Bids submission.
- 35.2 After prompt investigation, should the Owner determine that conditions do differ materially, the Owner shall issue appropriate instructions for changes in the Work as provided for in GC 18 - Changes in the Work.

GC 36 USE OF PREMISES

- 36.1 The Contractor shall confine the Contractor's apparatus, the storage of products and the operations of the Contractor's workers to limits indicated by laws, ordinances, permits or by directions of the Owner and shall not unreasonably encumber the premises with the Contractor's products.

Transportation and Infrastructure

GENERAL CONDITIONS

- 36.2 The Contractor shall not load or permit to be loaded any part of the Work with a mass that will endanger its safety.
- 36.3 The Contractor shall enforce the Owner's instructions regarding signs, advertisements, fires and smoking.
- 36.4 Unless otherwise provided the Contractor shall, at the Contractor's own expense, and without extra cost to the Owner, make suitable provision to accommodate all traffic either pedestrian or vehicular, over or around, the project upon which work is being performed, in a manner satisfactory to the Owner.
- 36.5 The Contractor shall provide and maintain at the Contractor's own expense such fences, barriers, signs, lights and security as may be necessary to prevent avoidable accidents to residents or to the public generally.

GC 37 CLEANUP AND FINAL CLEANING OF WORK

- 37.1 The Contractor shall maintain the Work in a tidy condition and free from the accumulation of waste products and debris, other than that caused by the Owner, other Contractors or their employees.
- 37.2 When the Work is Substantially Performed the Contractor shall remove all of the Contractor's surplus products, tools, construction machinery and equipment not required for the performance of the remaining work. The Contractor shall also remove any waste products and debris and leave the Work clean and suitable for occupancy by the Owner unless otherwise specified.
- 37.3 When the Work is Totally Performed, the Contractor shall remove all of the Contractor's surplus Products, tools, construction machinery and equipment. The Contractor shall also remove any waste products and debris, other than that caused by the Owner, other Contractors or their employees.

GC 38 CUTTING AND REMEDIAL WORK

- 38.1 The Contractor shall do all cutting and remedial work that may be required to make the several parts of the Work come together properly.
- 38.2 The Contractor shall co ordinate the schedule for the Work to ensure that this requirement is kept to a minimum.

Transportation and Infrastructure

GENERAL CONDITIONS

- 38.3 Should the Owner or anyone employed by the Owner be responsible for ill-timed work necessitating cutting and/or remedial work shall be valued as provided in GC 19 - Valuation and Certification of Changes in the Work and added to the Contract Price.
- 38.4 Cutting and remedial work shall be performed by specialists familiar with the materials affected and shall be performed in a manner to neither damage nor endanger any Work.

GC 39 INSPECTION OF WORK

- 39.1 The Owner shall have access to the Work for inspection wherever it is in preparation or progress. The Contractor shall co operate to provide reasonable facilities for such access.
- 39.2 If special tests, inspections or approvals are required by the Contract Documents, the Owner's instructions or the laws or ordinances of the place of building the Contractor shall give the Owner timely notice requesting inspection. Inspection by the Owner shall be made promptly. The Contractor shall arrange inspection by other authorities and shall notify the Owner of the date and time.
- 39.3 If the Contractor covers or permits to be covered any of the Work that is subject to inspection or before any special tests and approvals are completed without the approval of the Owner, the Contractor shall uncover the Work, have the inspection satisfactorily completed and make good the Work at the Contractor's own expense.
- 39.4 Examination of any questioned Work may be ordered by the Owner. If such Work be found in accordance with the Contract the Owner shall pay the cost of examination and replacement, together with the cost of subsequent verification testing. If such Work be found not in accordance with the Contract through the fault of the Contractor, the Contractor shall pay such cost.
- 39.5 The Contractor shall furnish promptly to the Owner all certificates and inspection reports relating to the Work.

GC 40 REJECTED WORK

- 40.1 Defective Work, whether the result of poor workmanship, use of defective products or damage through carelessness or other act or omission of the Contractor, and whether incorporated in the Work or not, which has been rejected by the Owner as failing to conform to the Contract Documents shall be removed promptly from the

Transportation and Infrastructure

GENERAL CONDITIONS

premises by the Contractor and replaced and/or executed promptly in accordance with the Contract Documents at the Contractor's expense.

- 40.2 Other Contractor's work destroyed or damaged by such removals or replacements shall be made good promptly at the Contractor's expense.
- 40.3 If in the opinion of the Owner it is not expedient to correct defective work not done in accordance with the Contract Documents, the Owner may deduct from the Contract Price the difference in value between the Work as done and that called for by the Contract, the amount of which shall be determined in the first instance by the Owner.

GC 41 SHOP DRAWINGS

- 41.1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are to be provided by the Contractor to illustrate details of a portion of the Work.
- 41.2 The Contractor shall arrange for the preparation of clearly identified shop drawings as called for by the Contract Documents or as the Owner may reasonably request.
- 41.3 Prior to Submission to the Owner the Contractor shall review all shop drawings. By this review the Contractor represents that the Contractor has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data or will do so and that the Contractor has checked and coordinated each shop drawing with the requirements of the Work and of the Contract Documents. The Contractor's review of each shop drawing shall be indicated by stamp, date and signature of a responsible person.
- 41.4 The Contractor shall submit shop drawings to the Owner for the Owner's review with reasonable promptness and in orderly sequence so as to cause no delay in the Work or in the Work of Other Contractors. If either the Contractor or the Owner so requests they shall jointly prepare a schedule fixing the dates for submission and return of shop drawings. Shop drawings shall be submitted in electronic format (PDF) or prints as the Owner may direct. At the time of submission the Contractor shall notify the Owner in writing of any deviations in the shop drawings from the requirements of the Contract Documents.
- 41.5 The Owner will review and return shop drawings in accordance with any schedule agreed upon, or otherwise with reasonable promptness so as to cause no delay. The Owner's review shall be for conformity to the design concept and for general

Transportation and Infrastructure

GENERAL CONDITIONS

arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the Contract Documents unless a deviation on the shop drawings has been approved in writing by the Owner.

- 41.6 The Contractor shall make any changes in shop drawings which the Owner may require consistent with the Contract Documents and resubmit unless otherwise directed by the Owner. When resubmitting the Contractor shall notify the Owner in writing of any revisions other than those requested by the Owner.

GC 42 SAMPLES

- 42.1 The Contractor shall submit for the Owner's approval such standard manufacturers' samples as the Owner may reasonably require. Samples shall be labelled as to origin and intended use in the Work and shall conform to the requirements of the Contract Documents.
- 42.2 The Contractor shall provide samples of special products, assemblies, or components when so specified. The cost of such samples not specified shall be authorized as an addition to the Contract Price as provided in GC 18 - Changes in the Work.

GC 43 TESTS AND MIX DESIGNS

- 43.1 The Contractor shall furnish to the Owner test results and mix designs as may be requested. The testing company must first be approved by the Owner.
- 43.2 The cost of tests and mix designs beyond those called for in the Contract Documents or beyond those required by laws, ordinances, rules and regulations relating to the work and the preservation of public health, shall be authorized as an addition to the Contract Price as provided in GC 18 - Changes in the Work.

GC 44 LABOUR

- 44.1 In carrying out the Contractor's duties under this contract, the Contractor should comply with all Provincial and Federal legislation respecting labour and the employment of labour, where applicable, including the labour standards code and shall not operate in conflict with the Human Rights legislation. In the employment of labour, preference should be given to persons normally resident in Newfoundland and Labrador.

Transportation and Infrastructure

GENERAL CONDITIONS

- 44.2 The Contractor and Subcontractors shall maintain and keep available for inspection by the Owner, a record of the names and addresses of all workers employed on the Project.
- 44.3 All Work shall be done by workers skilled in their various trades.
- 44.4 There shall be no discrimination in the selection of workers for employment on the project in respect of gender, race, religious views or political affiliation.
- 44.5 The Contractor shall pay fair wages and shall pay rates of wages and allowances to the various classes of labour not less favourable than those prevailing in the area where the Work is being performed.

GC 45 TIME OF ESSENCE

- 45.1 Time is of the essence of the Contract.

GC 46 ASSESSMENT AND DAMAGES FOR LATE COMPLETION

- 46.1 For purposes of this General Condition
- a) The Work shall be deemed to be completed on the date that a Certificate of Substantial Performance referred to in GC 21.6 is issued, and
 - b) "Period of delay" means the number of days commencing on the day fixed by the Articles of Agreement for completion of the Work and ending on the day immediately preceding the day on which the Work is completed but does not include any day in which, in the opinion of the Owner, completion of the Work was delayed for reasons beyond the control of the Contractor.
- 46.2 If the Contractor does not complete the Work by the day fixed for its completion by the Articles of Agreement but completes it thereafter, the Contractor shall pay the Owner for liquidated damages.
- 46.3 The Liquidated Damage Daily Rate has been determined as the total of the department's costs associated with maintaining a presence and carrying out typical contract administration duties on the project which includes, but has not been limited to the following: salaries including overtime, for the staff complement on the project, travel costs for the normal staff complement on the project, vehicle rental charges, fuel for vehicles, and other equipment rental charges, such as internal survey equipment, which may be utilized on the project. **The Liquidated Damage**

GENERAL CONDITIONS

Daily Rate for this project is indicated in the Supplementary General Condition Section of this document.

- 46.4 Depending on the scope of work, there may be other direct or indirect costs to the department, which will also be deemed to be recoverable as supplemental liquidated damages including but not limited to consulting, third parties etc. These other costs shall be quantified and considered as additional to the Liquidated Damage Daily Rate noted above.
- 46.5 No bonus will be assessed for completing the project ahead of the given Contract Completion date.
- 46.6 Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree to the Liquidated Damage Daily Rate as being a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.
- 46.7 Liquidated Damages will be applied to the contract payment at the per diem amount specified for each calendar day of the Period of Delay, as defined above, not as a penalty but as Liquidated Damages. It will apply until work is considered no longer feasible in the construction season or the work is completed according to the definition of Substantial Performance. Paving work will be considered no longer feasible when asphalt paving is terminated by the Department's Highway Specifications or an approved end of paving season extension date as communicated by the Department. Liquidated damages in a subsequent construction season will apply from the day after the Victoria Day holiday to when work is completed according to the definition of Substantial Performance.
- 46.8 In the event that a Contractor is awarded multiple contracts by Government within a construction season, Government reserves the right in its sole discretion to amend the Contract Completion Date if an approved amended execution plan and/or schedule allows more effective and efficient execution of all related multiple Contracts.

GC 47 CERTIFICATE OF RECOGNITION FOR CONTRACTS

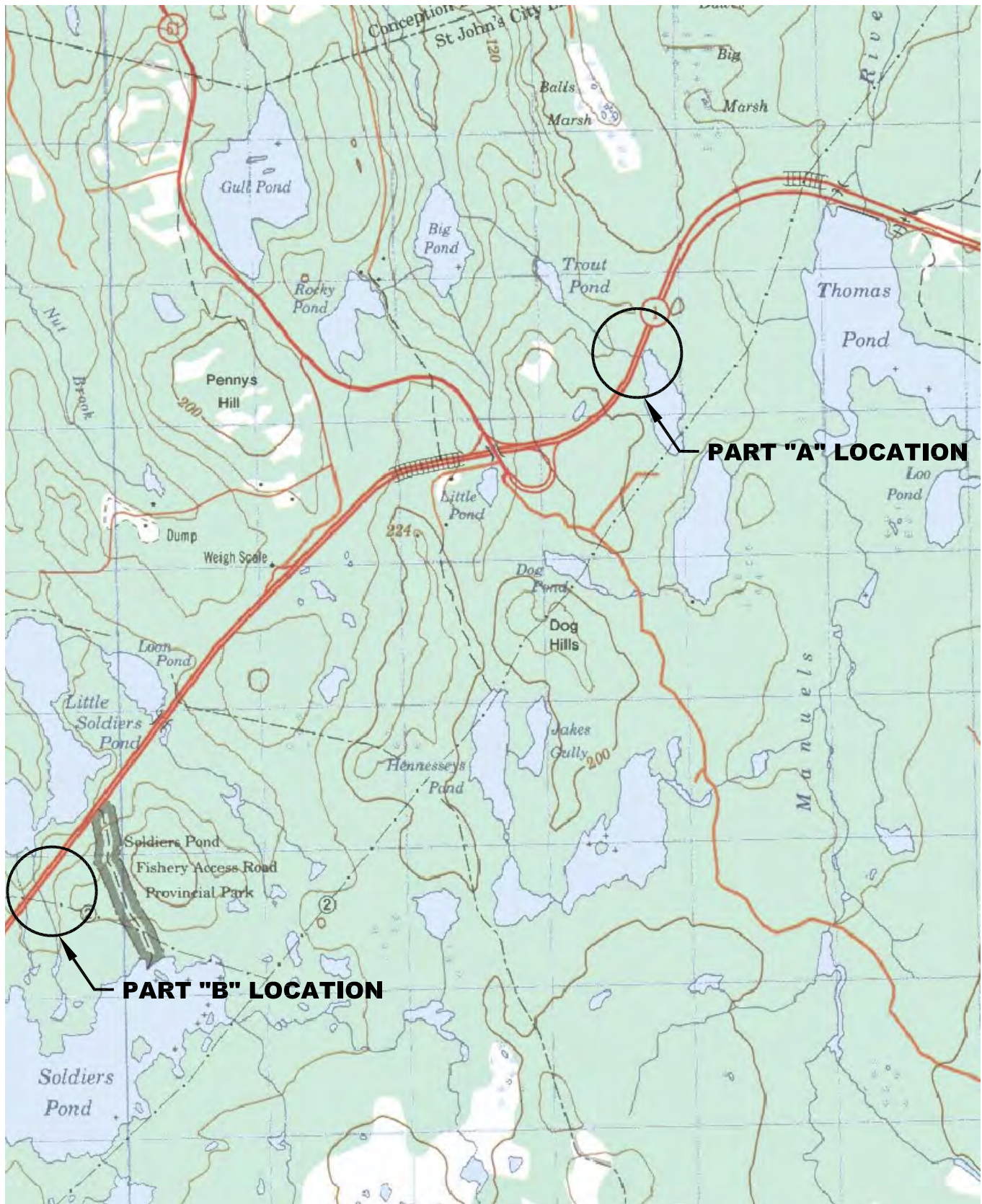
- 47.1 The Contractor shall within fourteen (14) days of award of the contract, and prior to commencement of the Work, provide a Letter of Good Standing stating Certificate of Recognition (COR) certified from the Newfoundland and Labrador

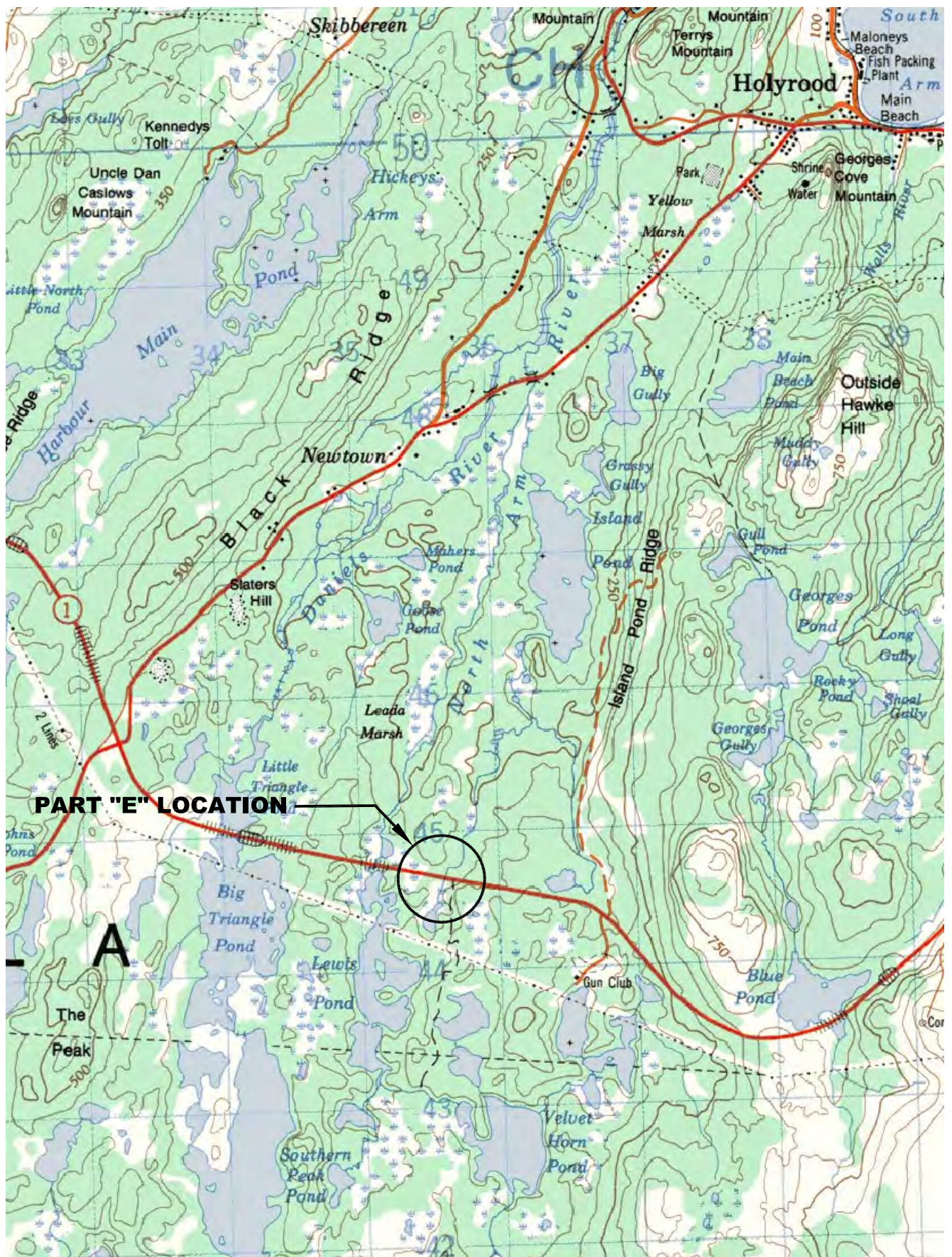
Transportation and Infrastructure

GENERAL CONDITIONS

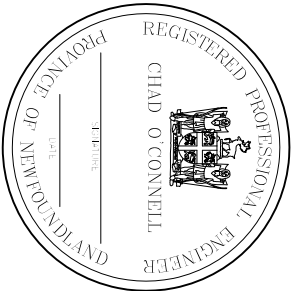
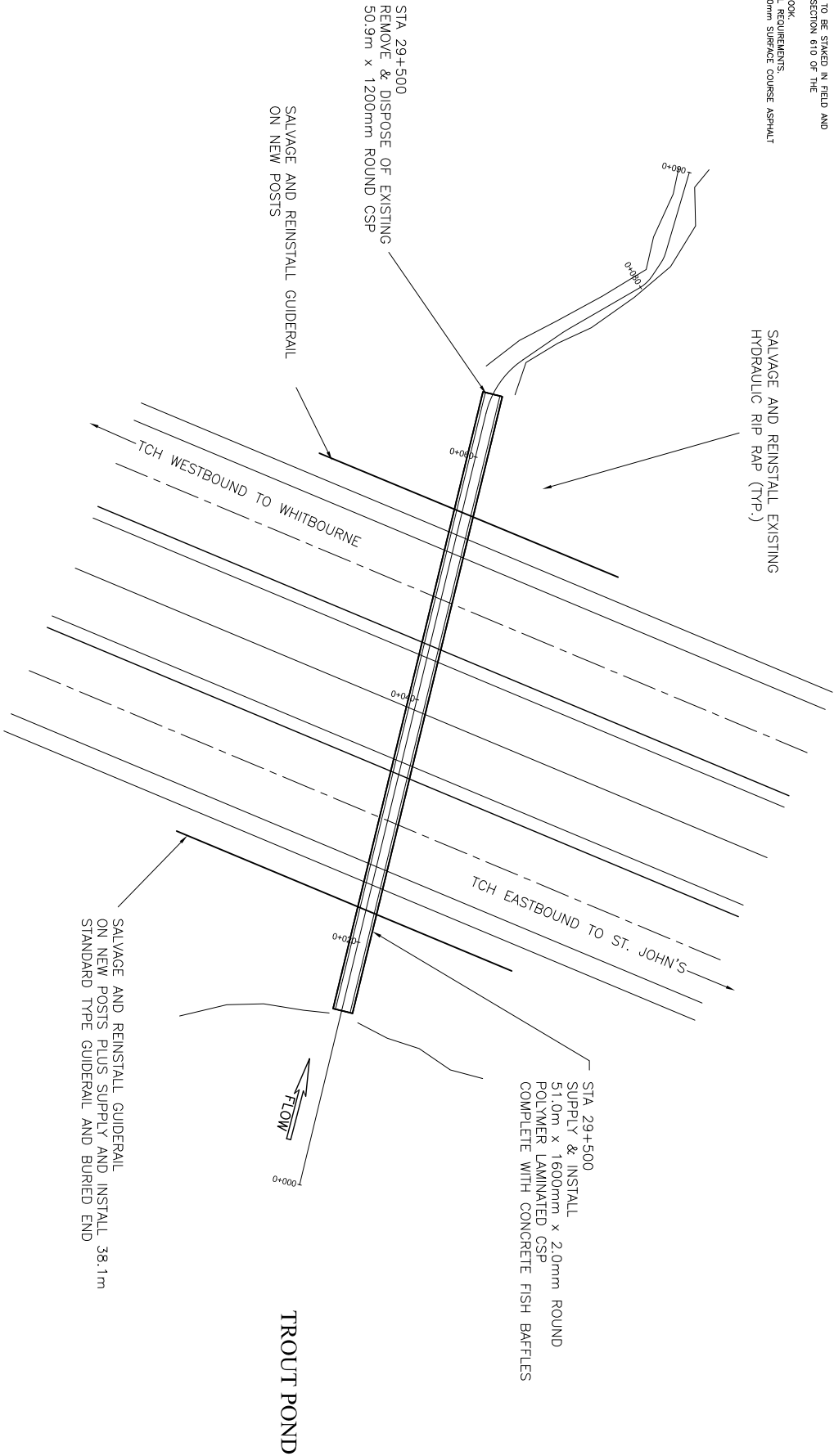
Construction Safety Association (NLCSA). The Contractor must remain in good standing with the COR program for the duration of the contract.

- 47.2 At any time during the term of the Contract, when requested by the Owner, the Contractor shall provide such evidence of compliance by any or all of his or her Subcontractors.





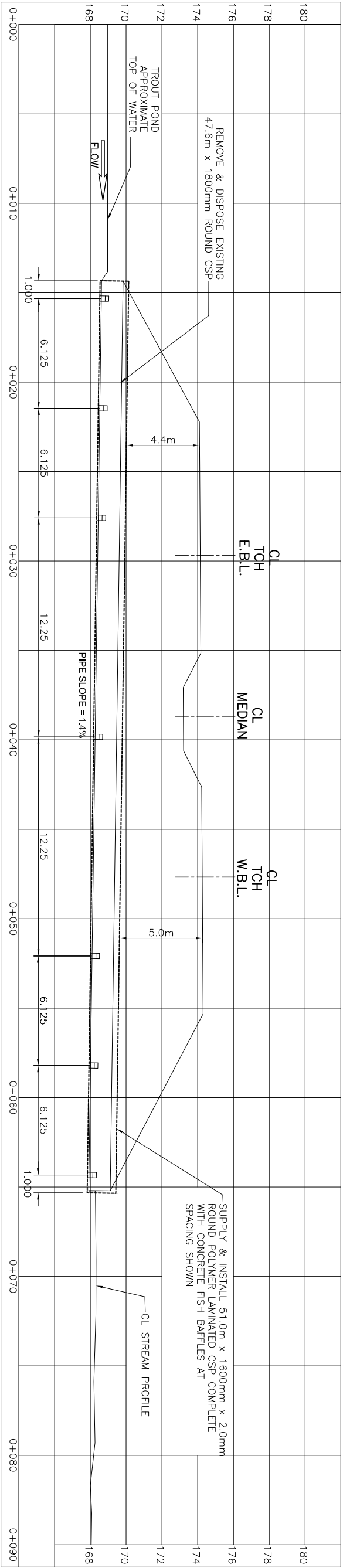
NOTES:
1. INLET AND OUTLET TREATMENT SHALL BE HYDRAULIC CLASS II & HYDRAULIC CLASS III. LIMITS TO BE STAKED IN FIELD AND PLACED AS DIRECTED BY THE RESIDENT ENGINEER. ALL RIP RAP WORK SHALL BE IN ACCORDANCE WITH SECTION 610 OF THE DEPARTMENT'S SPECIFICATION BOOK.
2. CONTRACTORS SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES.
3. CONTRACTORS ARE REMINDED OF DIVISION 8 OF THE DEPARTMENT'S SPECIFICATIONS BOOK ENVIRONMENTAL REQUIREMENTS.
4. RAO 100 STANDARD CROSS SECTION ON THE TRANS CANADA HIGHWAY WITH 60mm BASE COURSE AND 50mm SURFACE COURSE ASPHALT
5. ACCOMMODATION OF TRAFFIC AS PER BID ITEM NO. 111 AND SSC 29
6. ELEVATIONS GIVEN ARE BASED ON GEODETIC DATUM.
7. ALL DIMENSIONS ARE SHOWN IN THE FIELD BY THE RESIDENT ENGINEER.
8. DO NOT SCALE FROM DRAWINGS



" FOR TENDER ONLY "

PLAN - 29+500 TROUT POND - ROUTE 1 TCH

SCALE: 1:250



STREAM PROFILE - 29+500 TROUT POND - ROUTE 1 TCH

SCALE: 1:125



TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN DIVISION

Project No. 12-21 PHC

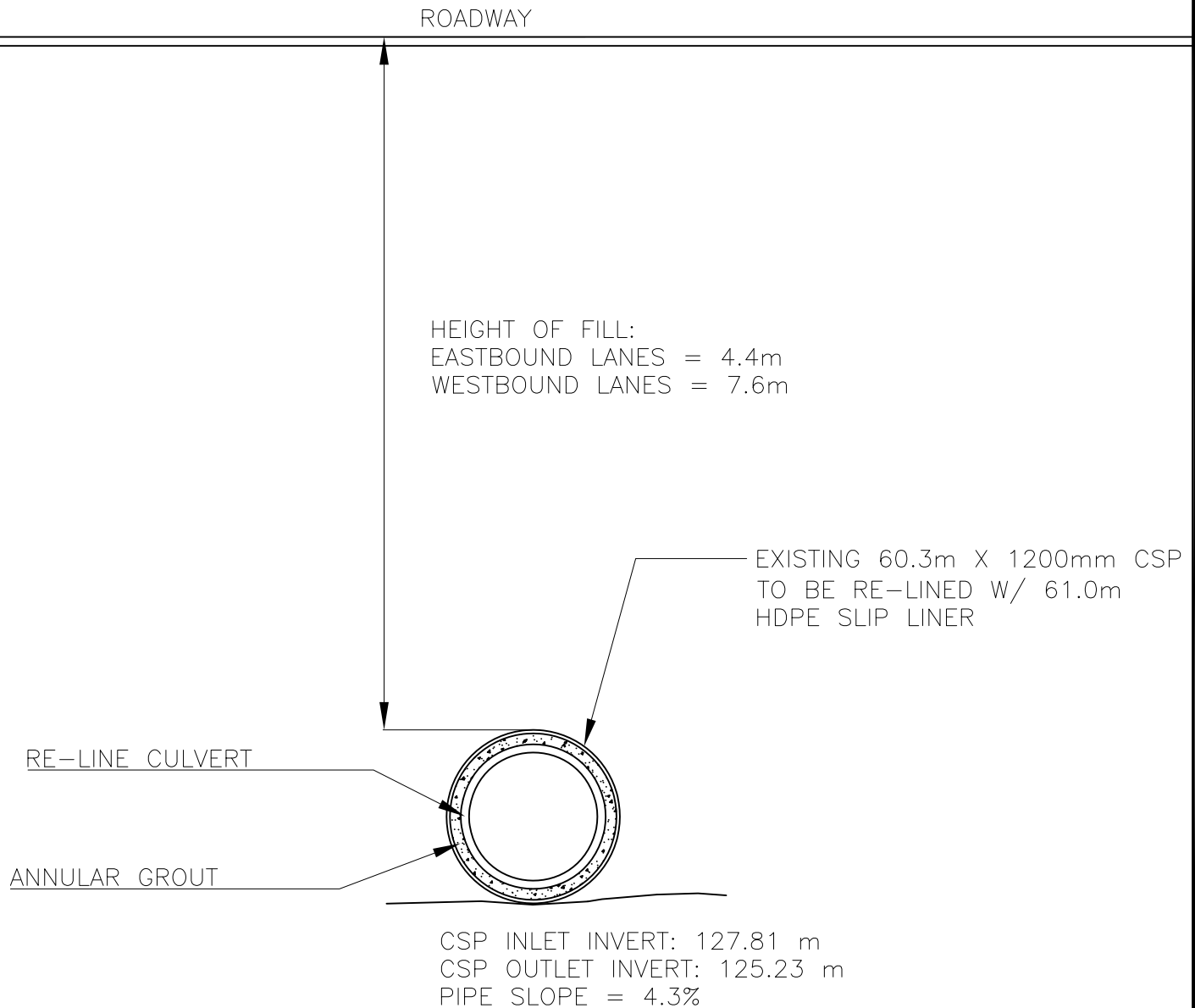
Sheet No. 1 of 1

Project/Drawing Title

*Project 12-21 PHC
Part "A" - Trout Pond Culvert Replacement
Plan and Profile*

HIGHWAY DESIGN DIVISION							
DO NOT SCALE DRAWINGS							
Drawn By	Date	Scale	Datum	Dwg	Chk'd By	Designed By	Des. Chk'd By
	MARCH 2021	Horiz. Vert.	GEODETIC				
				FOR USE BY TRAFFIC ENGINEERING ONLY			
No.	By	REVISION DESCRIPTION		Date	Des. By	Date	Chk'd By

EXISTING CSP IS SITUATED ON THE TCH AT
KM 35.3. COORDINATES:
LAT 47.4200
LONG -52.9968



NOTE: CONTRACTORS ARE ADVISED THAT ACTUAL PIPE
DIAMETER AND CLEARANCES SHALL BE CONFIRMED ON SITE
FOR ACCURATE SELECTION OF RE-LINER PIPE



TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN DIVISION

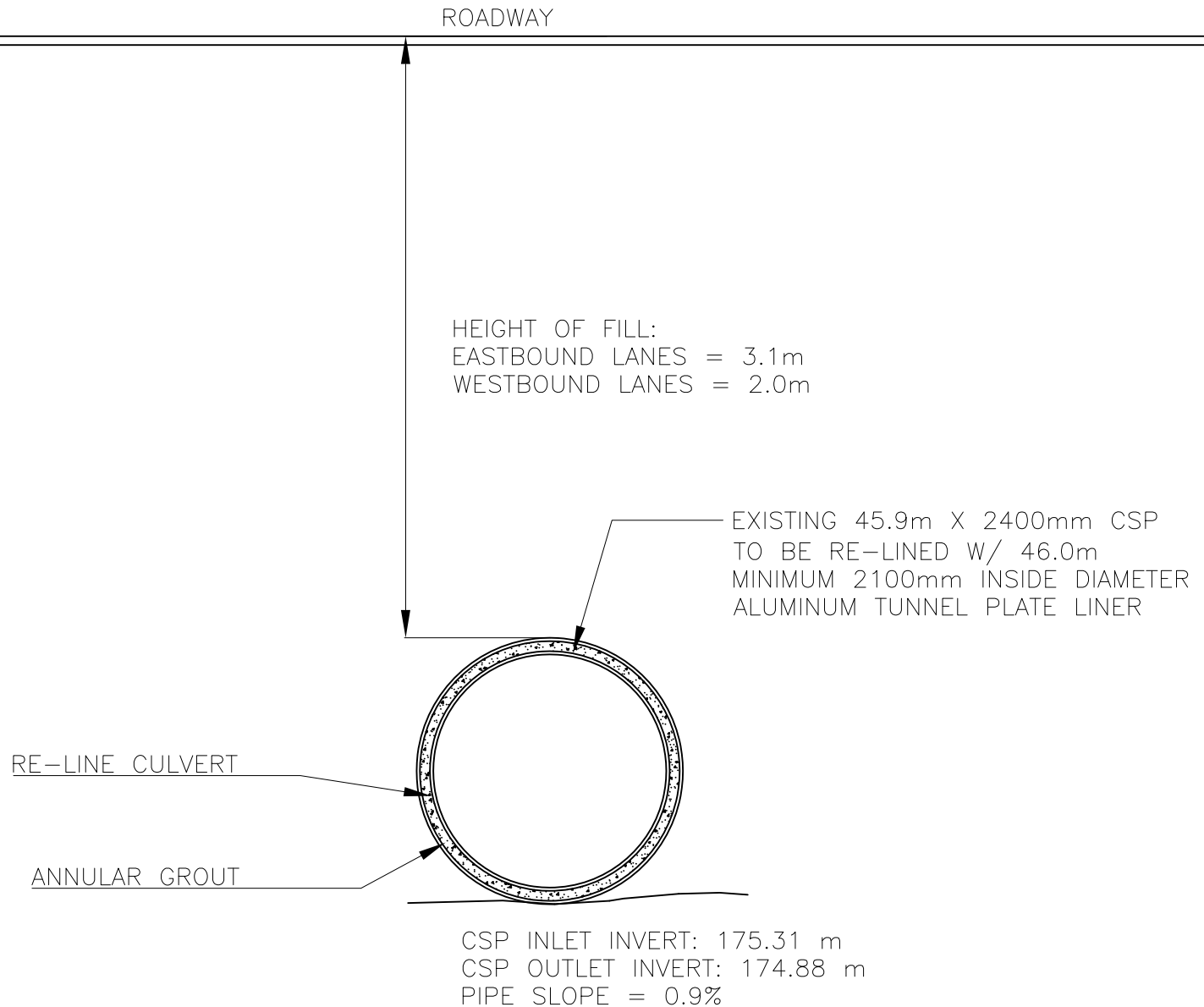
PROJECT NO .12-21PHC
PART "B" - ELEVATION VIEW
SOLDIERS POND 1200mm CSP KM 35.3 TCH

DRAWN BY: CO

DATE: FEBRUARY 2021

NOT TO SCALE

EXISTING CSP IS SITUATED ON THE TCH AT
KM 48.5. COORDINATES:
LAT 47.3420
LONG -53.1018



NOTE: CONTRACTORS ARE ADVISED THAT ACTUAL PIPE
DIAMETER AND CLEARANCES SHALL BE CONFIRMED ON SITE
FOR ACCURATE SELECTION OF RE-LINER PIPE



TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN DIVISION

PROJECT NO. 12 - 21 PHC
PART "D" - ELEVATION VIEW
FOUR MILE POND 2400mm CSP TCH KM 48.5

DRAWN BY: CO

DATE: FEBRUARY 2021

NOT TO SCALE

EXISTING CSP IS SITUATED ON THE TCH AT
KM 55.0. COORDINATES:
LAT 47.3367
LONG -53.1755

ROADWAY

HEIGHT OF FILL:
EASTBOUND LANES = 4.9m
WESTBOUND LANES = 4.8m

EXISTING 57.6m X 1200mm CSP
TO BE REMOVED AND DISPOSED

SUPPLY AND INSTALL 58.0M X
1400mm POLYMER LAMINATED
ROUND CSP

EXISTING CSP INLET INVERT: 81.58 m
EXISTING CSP OUTLET INVERT: 81.08 m
EXISTING PIPE SLOPE = 0.8%

NEW CULVERT GRADES TO BE ESTABLISHED BY
THE ENGINEER IN THE FIELD



TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN DIVISION

PROJECT NO. 12 - 21 PHC
PART "E" - ELEVATION VIEW
UNNAMED STREAM 1200mm CSP KM 55.0 TCH

DRAWN BY: CO

DATE: FEBRUARY 2021

NOT TO SCALE



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE

HIGHWAY DESIGN & CONSTRUCTION

PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 2 (TWO)
FINAL

MONTH ENDING: October 20, 2021

PROJECT NO: 12-21 PHC A

PROJECT: Replacement of Trout Pond 1200mm CSP on the TCH Km 29.5.

Part A of the Distribution Table

CONTRACTOR: Edward Collins Contracting Ltd.

ESTIMATED COST: \$266,435.90

ACCOUNT CENTER: 01-3025-311-1910-0624

DTC: 521844

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	AMOUNT
0	General							
0(a)	Mobilization & Demobilization	lump sum	\$5,000.00	\$2,100.00	\$2,900.00	\$5,000.00		\$5,000.00
0(c)	Accommodation of Traffic	lump sum	\$5,000.00	\$2,100.00	\$2,900.00	\$5,000.00		\$5,000.00
0(d)	Contractor Safety Representative	lump sum	\$1,000.00	\$420.00	\$580.00	\$1,000.00		\$1,000.00
6	Excavation for Foundation							
6(b)	Other Material	m3	2300	923	1216	2139	\$5.00	\$10,695.00
9	Rip Rap Treatment							
9(f)	Hydraulic Class II (500 mm Diameter)	m3					\$50.00	
9(g)	Hydraulic Class III (800 mm Diameter)	m3					\$50.00	
12	Selected Granular Base Course							
12(a)	Class "A"	t	140		149.6	149.6	\$25.00	\$3,740.00
12(b)	Class "B"	t	400		501.5	501.5	\$25.00	\$12,537.50
14	Storage or Disposal of Old Asphaltic Pavement							
14(b)	Disposal of Old Asphaltic Pavement	m3	50	58.64	33.65	93.49	\$5.00	\$467.45
15	Tack Coat	m2	400		424.2	424.2	\$0.50	\$212.10
16	Hot Mix Asphaltic Concrete							
16(a)	Hot Asphaltic Base Course	t	60		64.0	64.0	\$110.00	\$7,040.00
16(b)	Hot Asphaltic Surface Course	t	98		108.5	108.5	\$110.00	\$11,935.00
16(g)	Liquid Asphalt (58-28)	t	10.1		10.35	10.35	\$1,100.00	\$11,385.00
16(j)	Blending Sand	t	23.4		26	26	\$30.00	\$780.00
17	Supply and Installation of Guide Rail							
17(a)	Standard Type Guide Rail	m	38.1		30.8	30.8	\$79.00	\$2,433.20
17(b)	Standard Type Buried Ends	each	1				\$800.00	
21	Contingency		\$2,500.00					
28	Disposal of Culvert or Pipe							
28(c)	> 1000mm	m	50.9	25.0	25.9	50.9	\$10.00	\$509.00
35	Cold Planing	m2	400		424.2	424.2	\$1.00	\$424.20
38	Salvage & Reinstallation of Guide Rail							
38(a)	Salvage & Reinstallation of Guide Rail with New Posts	m	45.7		146.3	146.3	\$50.00	\$7,315.00
42	Landscaping							
42(a)	Hydroseeding	m2	150		185	185	\$5.00	\$925.00
42(b)	Lime for Hydroseeding	t	0.1		0.1	0.1	\$100.00	\$10.00
42(c)	Soil for Hydroseeding	m2	150		185	185	\$5.00	\$925.00
43	Supply & Installation of Fish Baffles							
43(a)	Reinforced Concrete Baffles	m3	2		0.98	0.98	\$3,500.00	\$3,430.00
47	Supply Fill in Place							
47(c)	Supply Rock Fill in Place	t	1600	1823.5	1879.9	3703.4	\$14.00	\$51,847.60
100	Salvage & Reinstall Hydraulic Rip Rap (all sizes)	each	100		55.5	55.5	\$25.00	\$1,387.50
101	Design, Supply & Install 1200mm Culvert Rehabilitation with HDPE Liner	m					\$2,000.00	
	Design, Supply & Install 2400mm Culvert Rehabilitation with Aluminium Plate Tunnel Liner	m					\$7,500.00	
102								
121	Supply & Install Culvert Outlet Energy Dissipator							
121(a)	Hydraulic Class II (500 mm Diameter)	m3					\$100.00	
121(b)	Hydraulic Class III (800 mm Diameter)	m3					\$100.00	
121(c)	Non-Woven geotextile Membrane	m2					\$100.00	

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN & CONSTRUCTION
PROJECT PROGRESS ESTIMATE

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN & CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 3 (THREE)

MONTH ENDING: September 20, 2021

PROJECT NO: 12-21 PHC C

FINAL

PROJECT: Replacement of Finnie's Pond 1800mm CSP on the TCH Km 44.2. Replacement of Unnamed Stream 1200mm CSP on the TCH Km 55.0.

Parts C & E of the Distribution Table

CONTRACTOR: Edward Collins Contracting Ltd.

ESTIMATED COST: \$592,137.80

ACCOUNT CENTER: 01-3025-311-1910-0624

DTC: 521856

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	AMOUNT
0	General							
0(a)	Mobilization & Demobilization	lump sum	\$10,000.00	\$8,000.00	\$2,000.00	\$10,000.00		\$10,000.00
0(c)	Accommodation of Traffic	lump sum	\$10,000.00	\$8,900.00	\$1,100.00	\$10,000.00		\$10,000.00
0(d)	Contractor Safety Representative	lump sum	\$2,000.00	\$1,780.00	\$220.00	\$2,000.00		\$2,000.00
6	Excavation for Foundation							
6(b)	Other Material	m3	4600	3927		3927	\$5.00	\$19,635.00
9	Rip Rap Treatment							
9(f)	Hydraulic Class II (500 mm Diameter)	m3	40				\$50.00	
9(g)	Hydraulic Class III (800 mm Diameter)	m3	30				\$50.00	
12	Selected Granular Base Course							
12(a)	Class "A"	t	315	418.9	48.9	467.8	\$25.00	\$11,695.00
12(b)	Class "B"	t	900	653.6	122.4	776.0	\$25.00	\$19,400.00
14	Storage or Disposal of Old Asphaltic Pavement							
14(b)	Disposal of Old Asphaltic Pavement	m3	110	215.18	6.90	222.08	\$5.00	\$1,110.40
15	Tack Coat	m2	800	872.0	183.0	1055.0	\$0.50	\$527.50
16	Hot Mix Asphaltic Concrete							
16(a)	Hot Asphaltic Base Course	t	132	108.0	40.8	148.8	\$110.00	\$16,368.00
16(b)	Hot Asphaltic Surface Course	t	204	192.8	62.2	255.0	\$110.00	\$28,050.00
16(g)	Liquid Asphalt (58-28)	l	21.8	18.35	6.22	24.57	\$1,100.00	\$27,027.00
16(j)	Blending Sand	t	50.4	43	16	59	\$30.00	\$1,770.00
17	Supply and Installation of Guide Rail							
17(a)	Standard Type Guide Rail	m	76.2		72.7	72.7	\$79.00	\$5,743.30
17(b)	Standard Type Buried Ends	each	1		1	1	\$800.00	\$800.00
21	Contingency		\$5,000.00					
28	Disposal of Culvert or Pipe							
28(c)	> 1000mm	m	104.6	93.1	11.8	104.9	\$10.00	\$1,049.00
35	Cold Planing	m2	800	617.1	200.0	817.1	\$1.00	\$817.10
38	Salvage & Reinstallation of Guide Rail							
38(a)	Salvage & Reinstallation of Guide Rail with New Posts	m	121.9	126.3	80.3	206.6	\$50.00	\$10,330.00
42	Landscaping							
42(a)	Hydroseeding	m2	300	550	125	675	\$5.00	\$3,375.00
42(b)	Lime for Hydroseeding	t	0.2	0.4	0.1	0.5	\$100.00	\$50.00
42(c)	Soil for Hydroseeding	m2	300	550	125	675	\$5.00	\$3,375.00
43	Supply & Installation of Fish Baffles							
43(a)	Reinforced Concrete Baffles	m3	3	2.06		2.06	\$3,500.00	\$7,210.00
47	Supply Fill in Place							
47(c)	Supply Rock Fill in Place	l	3470	3312.2	193.5	3505.7	\$14.00	\$49,079.80
100	Salvage & Reinstall Hydraulic Rip Rap (all sizes)	each	80	79.2	15.7	94.9	\$25.00	\$2,372.50
101	Design, Supply & Install 1200mm Culvert Rehabilitation with HDPE Liner	m					\$2,000.00	
102	Design, Supply & Install 2400mm Culvert Rehabilitation with Aluminium Plate Tunnel Liner	m					\$7,500.00	
121	Supply & Install Culvert Outlet Energy Dissipator							
121(a)	Hydraulic Class II (500 mm Diameter)	m3					\$100.00	
121(b)	Hydraulic Class III (800 mm Diameter)	m3					\$100.00	
121(c)	Non-Woven geotextile Membrane	m2					\$100.00	

HIGHWAY DESIGN & CONSTRUCTION

PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 3 (THREE)
FINAL

MONTH ENDING: September 20, 2021

PROJECT NO: 12-21 PHC C

PROJECT: Replacement of Finlines Pond 1800mm CSP on the TCH Km 44.2. Replacement of Unnamed Stream 1200mm CSP on the TCH Km 55.0.

CONTRACTOR: Edward Collins Contracting Ltd.

ESTIMATED COST: \$592,137.80

ACCOUNT CENTER: 01-3025-311-1910-0624

DTC: 521856

[illegible]

Gross to Date	\$590,437.91
Less Density Bonus	\$152.15
Total	\$590,285.76
Less 10% holdback	\$59,028.58
Paid holdback	
Certified to date	\$531,257.18
Less previous payments	\$490,200.71
Now certified	\$41,056.47

CERTIFIED CORRECT:

Goods Receipt: Engineer or Project Manager

Certified By: Regional Engineer

PAYMENT APPROVAL:

Review By: Corporate HDC Representative

Assistant Deputy Minister (Or Delegate)

From: O'Connell, Chad
Sent: Friday, June 11, 2021 9:55 AM
To: Skanes, Bill
Subject: Fwd: Aluminum Tunnel Plate Liner

FYI not 12 weeks

Begin forwarded message:

From: Lorne Stuckey <lorne.stuckey@armtec.com>
Date: June 11, 2021 at 9:52:57 AM NDT
To: "O'Connell, Chad" <ChadOConnell@gov.nl.ca>
Subject: RE: Aluminum Tunnel Plate Liner

Hi Chad,
We need 2 weeks to get a drawing package ready. It could be on site roughly 5 weeks after drawing approval.
This is the manufacturing update I received as of June 4th
It is possible things may have changed slightly since then.
Thank you,
Lorne Stuckey, P.Tech.
Regional Sales Manager
Armtec
p. (709) 754-3553

From: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Sent: Friday, June 11, 2021 9:47 AM
To: Lorne Stuckey <lorne.stuckey@armtec.com>
Subject: RE: Aluminum Tunnel Plate Liner

CAUTION: This email is from an external source. Do not click links or open attachments unless you recognize the sender and know the content is safe.

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Hi Lorne
Just wondering what the delivery time on an aluminum tunnel plate liner is currently looking like?
Thanks
Chad

From: O'Connell, Chad
Sent: Wednesday, March 10, 2021 3:57 PM
To: 'Lorne Stuckey'
Subject: RE: Aluminum Tunnel Plate Liner

Thanks Lorne

From: Lorne Stuckey <lorne.stuckey@armtec.com>
Sent: Wednesday, March 10, 2021 3:35 PM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: RE: Aluminum Tunnel Plate Liner
Hi Chad,

Attached is the Tunnel Liner quote you were looking for.
You can ignore the note about the charges for on-site supervision.
Let me know if you have any questions or need anything further
Thank you,

Lorne Stuckey, P.Tech.
Regional Sales Manager
Armtec
p. (709) 754-3553

From: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Sent: Thursday, March 4, 2021 1:57 PM
To: Lorne Stuckey <lorne.stuckey@armtec.com>
Subject: RE: Aluminum Tunnel Plate Liner

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Lorne

Height of cover in the westbound lanes is 2.0m and in the eastbound lanes it is 3.1m.

Thanks

Chad

From: Lorne Stuckey <lorne.stuckey@armtec.com>
Sent: Thursday, March 4, 2021 1:35 PM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: RE: Aluminum Tunnel Plate Liner

If you could tell me the height of cover over top of the existing pipe I should be able to get you a budget price.

Thanks,

Lorne Stuckey, P.Tech.
Regional Sales Manager
Armtec
p. (709) 754-3553

From: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Sent: Thursday, March 4, 2021 1:09 PM
To: Lorne Stuckey <lorne.stuckey@armtec.com>
Subject: RE: Aluminum Tunnel Plate Liner

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Perfect thanks Lorne

Yes I am considering a tunnel plate liner for a culvert near Holyrood Access Road on the TCH (Four Mile Pond).
Would be relining a 2400mm CSP, 46m long. Was hoping to maintain a minimum inside diameter of 2100mm if possible, the pipe looks pretty round but is half submerged, so there is some uncertainty about what can actually fit.

Thanks,

Chad

From: Lorne Stuckey <lorne.stuckey@armtec.com>
Sent: Thursday, March 4, 2021 12:38 PM

To: O'Connell, Chad <ChadOConnell@gov.nl.ca>

Subject: Re: Aluminum Tunnel Plate Liner

Hi Chad,

When we design these Tunnel Liner Plate structures, we don't consider the host pipe in the design calculations. We actually design the TLP as though it's a stand alone pipe, considering the live load and dead loads acting on it.

Should the host pipe fail (after the void has been grouted), it would not matter. If the host pipe failed before the void was grouted, This may cause an issue

Is there a site where you're considering TLP? I can get you some budget numbers if you need them

Thanks

Lorne

On Mar 4, 2021, at 12:10 PM, O'Connell, Chad <ChadOConnell@gov.nl.ca> wrote:

CAUTION: This email is from an external source. Do not click links or open attachments unless you recognize the sender and know the content is safe.

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Hi Lorne

I have a questions regarding Armtec's aluminum tunnel plate liner products. If it so happened that a culvert reline project failed due to insufficient clearance inside the host pipe, could an aluminum tunnel plate liner be assembled and installed as a direct buried structure?

Thanks

Chad O'Connell, P. Eng

Resident Engineer

Avalon Regional Engineering Office

Transportation and Infrastructure

tel 709.729.3266

fax 709.729.0081

chadoconnell@gov.nl.ca

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sender.”

From: O'Connell, Chad
Sent: Friday, July 16, 2021 5:16 PM
To: 'Joshua Collins'
Cc: 'bobbartlett@gmail.com'; Upshall, Trevor
Subject: FW: Message from _036472Scan
Attachments: S_036472Sca21071616230.pdf

Josh

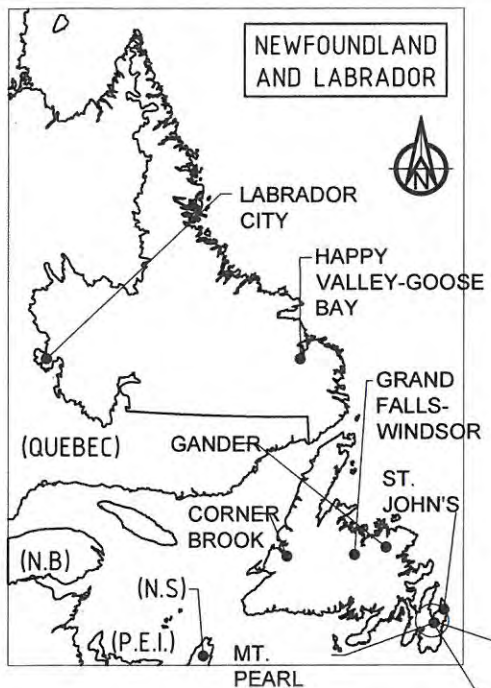
See attached approved as noted shop drawings for the tunnel plate liner.

If you have any questions please let me know.

Thanks
Chad

From: _036472Scam@psnl.ca <_036472Scam@psnl.ca>
Sent: Friday, July 16, 2021 5:24 PM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: Message from _036472Scan

Plot Date & Time: 2021-07-08, 4:13:15 PM
z:\1_projects\2021\21-116 nl atp four mile pond - tch\drawings\1_ ifa_r\21-116-ifa_r.dwg



KEY PLAN
SCALE: NTS

APPROXIMATE LOCATION OF SITE

OWNER	ARMTEC CUSTOMER/OWNER
NEWFOUNDLAND LABRADOR TRANSPORTATION AND INFRASTRUCTURE HIGHWAY DESIGN DIVISION	EDWARD COLLINS CONTRACTING LTD. PO BOX 51, JERSEYSIDE NL A0B 2G0 TEL: (709) 227-5509

**NEWFOUNDLAND/LABRADOR,
TRANSPORTATION AND INFRASTRUCTURE
PROJECT NO. 12-21 PHC CULVERT REHABILITATION**

T.C.H. AT KM 48.5
Ø2130π 2-FLANGE LINER PLATE
ARMTEC PROJECT #21-116

APPROVED AS NOTED

This drawing is approved as to general arrangement subject to corrections noted thereon. This approval does not release the Contractor from responsibility for conformity to specifications and correct details. The Contractor is responsible for checking all dimensions.

July 16, 2021
Date
Chris Deull
Signed By

DRAWING INDEX

DRAWING #	DRAWING TITLE	REV. DATE	REV #
21-116-001	COVER PAGE	2021-07-08	A
21-116-002	DESIGN NOTES	2021-07-08	A
21-116-003	SITE PLAN, LONGITUDINAL PROFILE	2021-07-08	A
21-116-004	STRUCTURE GEOMETRY, PLATE LAYOUT	2021-07-08	A
21-116-005	GROUT LIFT, SHORING JACKS, DETAILS	2021-07-08	A
21-116-006	RECOMMENDED PLATE ASSEMBLY AND BACKFILL OPERATION NOTES, CLOSED-SHAPE, ROUND PIPE STRUCTURES	2021-07-08	A
21-116-007	BILL OF MATERIALS	2021-07-08	A

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AUTHORIZED DISTRIBUTOR OF



armtec
CANADACULVERT

Plot Date & Time: 2021-07-08, 4:13:16 PM
z:\1_projects\2021\21-116 ml sltp four mile pond - tch\drawings\1. ifa_r_a\21-116-ifa_r_a.dwg

GENERAL DESIGN NOTES

1. DIMENSIONS

- 1.1. THE FOLLOWING DIMENSIONAL CONVENTIONS ARE FOLLOWED, UNLESS OTHERWISE NOTED:
- 1.2. ALL DIMENSIONS ARE IN MILLIMETERS (mm)
- 1.3. ALL ELEVATIONS ARE IN METERS (m)
- 1.4. ALL DIMENSIONS ARE TO THE INSIDE CREST OF STEEL.
- 1.5. ALL DIMENSIONS ARE TO THE CENTRE OF BOLT HOLE.

2. DESIGN STANDARDS

- 2.1. CANADIAN HIGHWAY BRIDGE DESIGN CODE CAN/CSA-S6-14.
- 2.2. CANADIAN STANDARDS ASSOCIATION (CSA).
- 2.3. AASHTO LRFD BRIDGE DESIGN SPECIFICATION 2012.
- 2.4. ASTM INTERNATIONAL (ASTM).

3. DESIGN PARAMETERS

- 3.1. SERVICE LOADS
 - 3.1.1. LIVE LOAD CL-625-ONT.
 - 3.1.2. DEAD LOAD SOIL COVER AS SHOWN ON LONGITUDINAL PROFILE SECTION ON DRAWING 21-116-003.
 - 3.1.3. UNIT WEIGHT OF SOIL 22 kN/m³.

4. MATERIAL SPECIFICATIONS

- 4.1. LINER PLATE STEEL SHALL CONFORM TO ALUMINUM ALLOY 5052-H141 TEMPER.
- 4.2. Ø16 [Ø5/8"] BOLTS SHALL CONFORM TO ASTM A 449, TYPE 1.
- 4.3. Ø16 [Ø5/8"] NUTS SHALL CONFORM TO ASTM A563, GRADE A.
- 4.4. PROTECTIVE COATING
 - 4.4.1.1. PLATES: NATURAL FACTORY COAT AS PER MATERIAL SPECIFICATION.
 - 4.4.2. BOLTS: MECHANICALLY GALVANIZED ACCORDING TO ASTM B 695, CLASS 50.
 - 4.4.3. NUTS: MECHANICALLY GALVANIZED ACCORDING TO ASTM B 695, CLASS 50.
 - 4.4.4. WHEN USED TOGETHER, BOLTS AND NUTS, SHALL BE COATED USING THE SAME ZINC COATING PROCESS (MECHANICALLY DEPOSITED PROCESS).

5. HYDRAULIC CAPACITY & SCOUR PROTECTION

- 5.1. HYDRAULIC CAPACITY OF THE CONDUIT AND STABILITY OF THE INLET AND OUTLET IS THE RESPONSIBILITY OF THE OWNER'S HYDROTECHNICAL ENGINEER.
- 5.2. TYPE AND EXTENT OF SCOUR PROTECTION TO PREVENT EROSION AT INLET / OUTLET AND FOUNDATION IS THE RESPONSIBILITY OF THE OWNER'S HYDROTECHNICAL ENGINEER.

6. ASSEMBLY

- 6.2. THERE ARE THREE STYLES OF PLATES
 - 6.2.1. NO-OFFSET PLATE HAS NO BREAK IN THE GENERAL CONTOUR.
 - 6.2.2. SINGLE OFFSET PLATE HAS ONE END OF THE PLATE WITH A 6 mm (1/4") OFFSET FOR ABOUT 75 mm (3") LONG.
 - 6.2.3. DOUBLE OFFSET PLATE HAS BOTH ENDS OF THE PLATE WITH A 6 mm (1/4") OFFSET FOR ABOUT 75 mm (3") LONG.
- 6.3. NO-OFFSET ENDS ARE PUNCHED WITH SQUARE HOLES.
- 6.4. OFFSET ENDS ARE PUNCHED WITH ROUND HOLES.
- 6.5. OFFSET PLATE END WILL ENABLE THE PLATE TO NEST INSIDE THE NO-OFFSET END OF THE ADJACENT PLATE IN A RING.
- 6.6. BOLTS SHALL BE TORQUED TO THE FOLLOWING RANGE:
 - MINIMUM 110 Nm (80 ft lbs)
 - MAXIMUM 135 Nm (100 ft lbs)
- 6.7. CARE SHALL BE TAKEN TO AVOID OVER TORQUING OF BOLTS.

A	ISSUED FOR APPROVAL	TCB	SM	SM	2021-07-08
REV.	REVISION NOTE	BY	CK'D	REV'D	DATE

7. GROUTING GENERAL NOTES

7.1. GROUT

- 7.1.1. NON-SHRINK GROUT SHALL HAVE STRENGTH OF 1 - 3 MPa.
- 7.1.2. MAXIMUM AGGREGATE SIZE = 5 mm, WHERE APPLICABLE.
- 7.1.3. MAXIMUM GROUT PRESSURE AT NOZZLE: 5 kPa.
- 7.1.4. GROUT DENSITY OF 2400 kg / m³ (MAX.).
- 7.1.5. GROUT SUPPLIER SHALL DESIGN GROUT TO MEET THE ABOVE CRITERIA.
- 7.1.6. GROUT LIFT HEIGHTS AS SHOWN ON DRAWING 21-116-005.

7.2. SHORING AND BLOCKING

- 7.2.1. ALL SHORING AND BLOCKING SUPPLIED BY CONTRACTOR AS PER CONTRACT DRAWING.
- 7.2.2. SHORING JACK SHALL HAVE HAVE CAPACITY OF 6790 kgf WITH APPROPRIATE SAFETY FACTOR.
- 7.2.3. INVERT BEAM SHALL BE W150 x 14 STRUCTURAL STEEL SECTION OR APPROVED EQUIVALENT.
- 7.2.4. EXTERNAL BLOCKING SHALL BE USED TO SECURE RELINE CULVERT INSIDE HOST CULVERT - BY OTHERS.

8. QUALITY ASSURANCE & INSPECTION

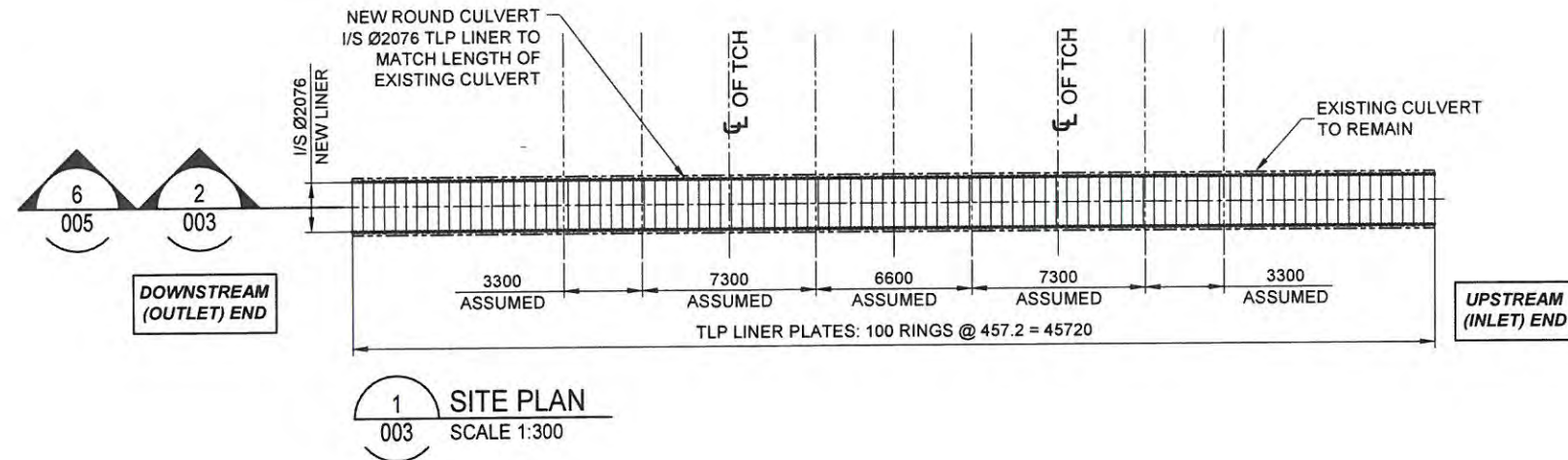
- 8.1. QUALITY ASSURANCE OF THE COMPLETE PROJECT INCLUDING INSTALLATION AND GROUT PLACEMENT SHALL BE COMPLETED IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS AND NOT BE THE RESPONSIBILITY OF ARMTEC CANADA CULVERT.
- 8.2. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR ENSURING THAT THE FOLLOWING ITEMS HAVE BEEN ACHIEVED WITHIN THE REQUIRED TOLERANCES:
- 8.3. TORQUE ON THE BOLT ASSEMBLIES
- 8.4. GROUT LIFT HEIGHTS AS PER DRAWING 21-116-005.
- 8.5. SPACING OF SHORING JACK AND CAPACITY
- 8.6. CONFIRMATION OF DIMENSIONAL CHECKS OF THE CONDUIT PRIOR TO AND AFTER GROUTING.

APPROVED AS NOTED
This drawing is approved as to general arrangement subject to corrections noted thereon. This approval does not release the Contractor from responsibility for conformity to specifications and correct details. The Contractor is responsible for checking all dimensions.
Date July 16/2021 Signed By [Signature]

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

armtec CANADACULVERT WWW.CANADACULVERT.COM		CUSTOMER EDWARD COLLINS CONTRACTING LTD.			
APPROVALS		DATE		PROJECT NAME STAFFORD LANE CULVERT REHABILITATION	
DESIGN BY MA		2021-06-23		DRAWING TITLE DESIGN NOTES	
DESIGN CHECK AR		2021-06-23			
DRAFT BY TCB		2021-07-05			
DRAFT CHECK					
		SALES ORDER NO. 230607	SHEET NO. 2 OF 7	SCALE AS NOTED	PROJECT NO. 21-116
				DRAWING NO. 002	REV. A

SITE PLAN & LONGITUDINAL PROFILE BASED ON NEWFOUNDLAND/LABRADOR TRANSPORTATION AND INFRASTRUCTURE HIGHWAY DIVISION DWG WITH TITLE "PROJECT No. 12-21 PHC PART "D" - ELEVATION VIEW, FOUR MILE POND 2400mm CSP TCH KM 48.5", DWG DATED: FEBRUARY 2021, DRAWN BY: CO <NO DWG NUMBER GIVEN NOR REVISION NUMBER>

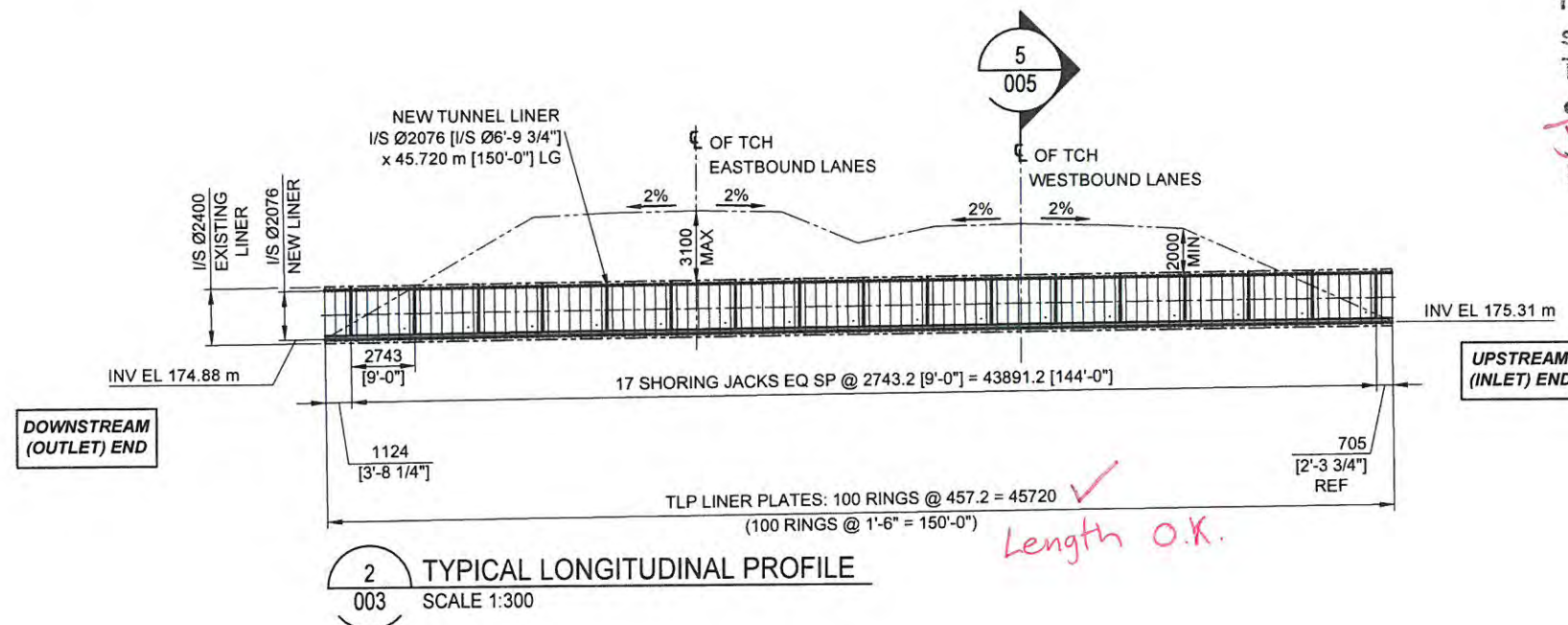


APPROVED AS NOTED

This drawing is approved as to general arrangement subject to corrections noted thereon. This approval does not release the Contractor from responsibility for conformity to specifications and correct details. The Contractor is responsible for checking all dimensions.

July 16/2021
Date

check null
Signed By



Length O.K.

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

REV.	ISSUED FOR APPROVAL	TCB	SM	SM	2021-07-08
REV.	REVISION NOTE	BY	CK'D	REV'D	DATE

armtec CANADACULVERT WWW.CANADACULVERT.COM		CUSTOMER EDWARD COLLINS CONTRACTING LTD.			
APPROVALS		DATE		PROJECT NAME STAFFORD LANE CULVERT REHABILITATION	
DESIGN BY MA		2021-06-23		Wrong Title	
DESIGN CHECK AR		2021-06-23		DRAWING TITLE	
DRAFT BY TCB		2021-07-05		SITE PLAN, LONGITUDINAL PROFILE	
DRAFT CHECK					
SALES ORDER NO. 230607		SHEET NO. 3 OF 7		SCALE AS NOTED	PROJECT NO. 21-116
				DRAWING NO. 003	REV. A

Plot Date & Time: 2021-07-08 4:13:23 PM

z:\1_projects\2021\21-116 n1 atp four mile pond - tch\drawings\1. ifa_r\21-116-ifa_r.a.dwg

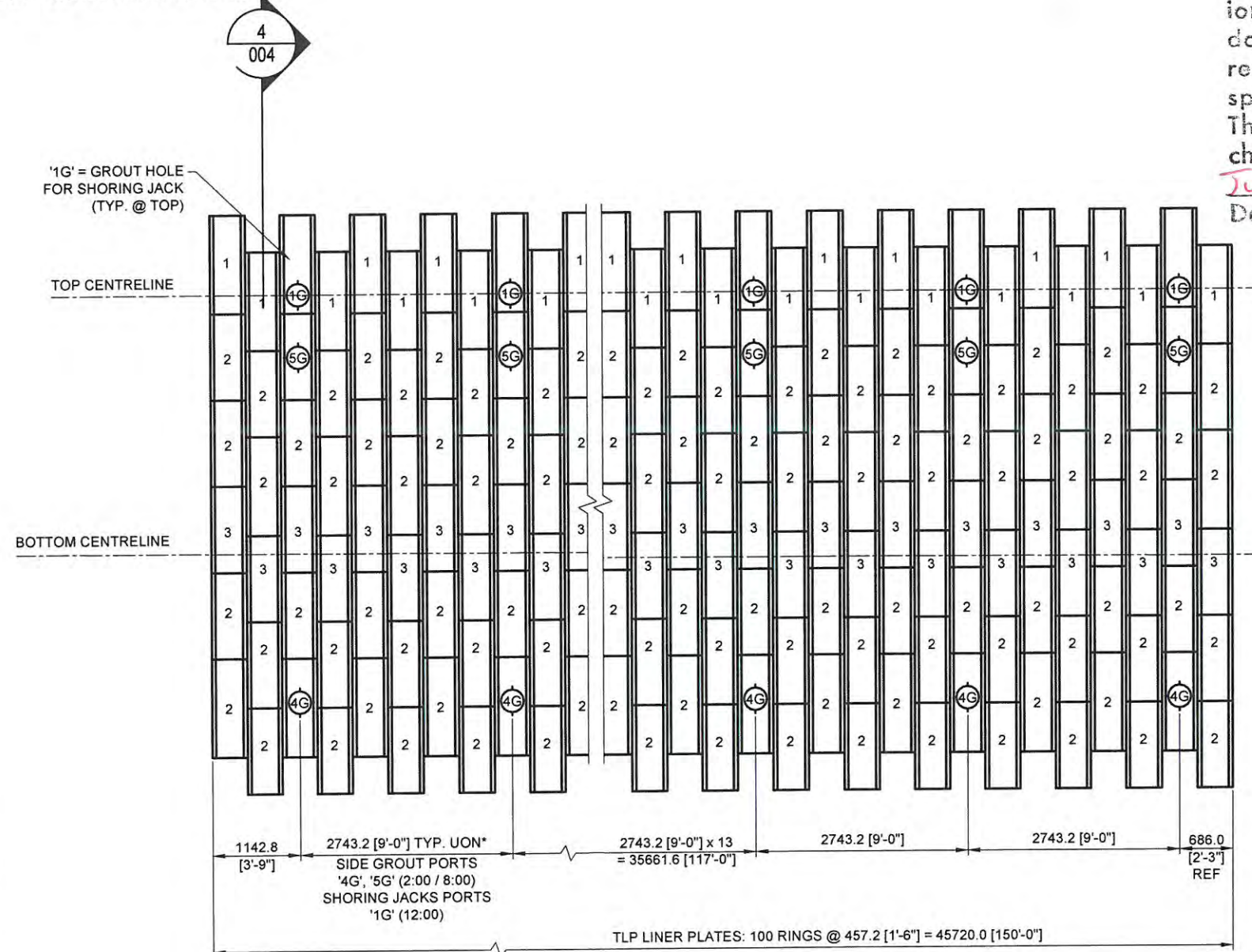
NOTES:

1. LOCATION OF GROUT FITTINGS AS SHOWN.
2. ALL LINER PLATES ARE 3.2 mm (0.125") THICK, ALUMINUM.
3. GROUT FITTINGS SHOP-WELDED TO PLATES.
4. 1 PI = APPROX. 79.8 mm (3.142").
5. "UON" = UNLESS OTHERWISE NOTED

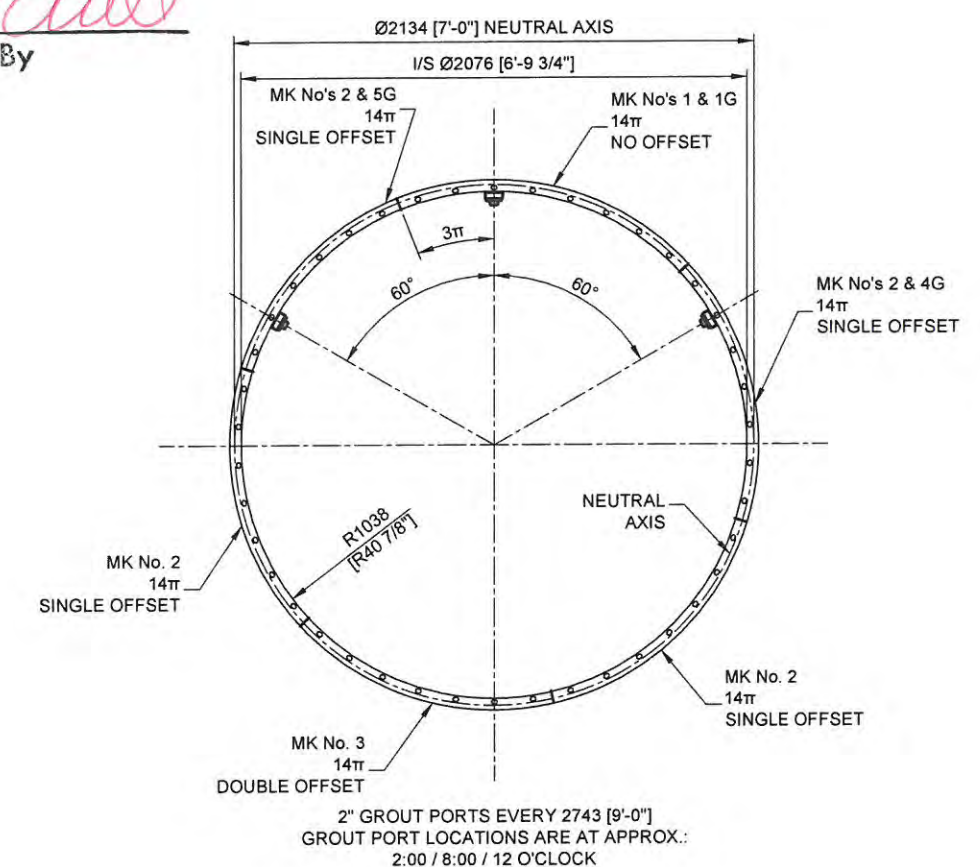
APPROVED AS NOTED

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Date July 16/2021 Signed By Chad Crull



3 STRUCTURE LAYOUT
004 INSIDE FLAT VIEW
SCALE 1:75



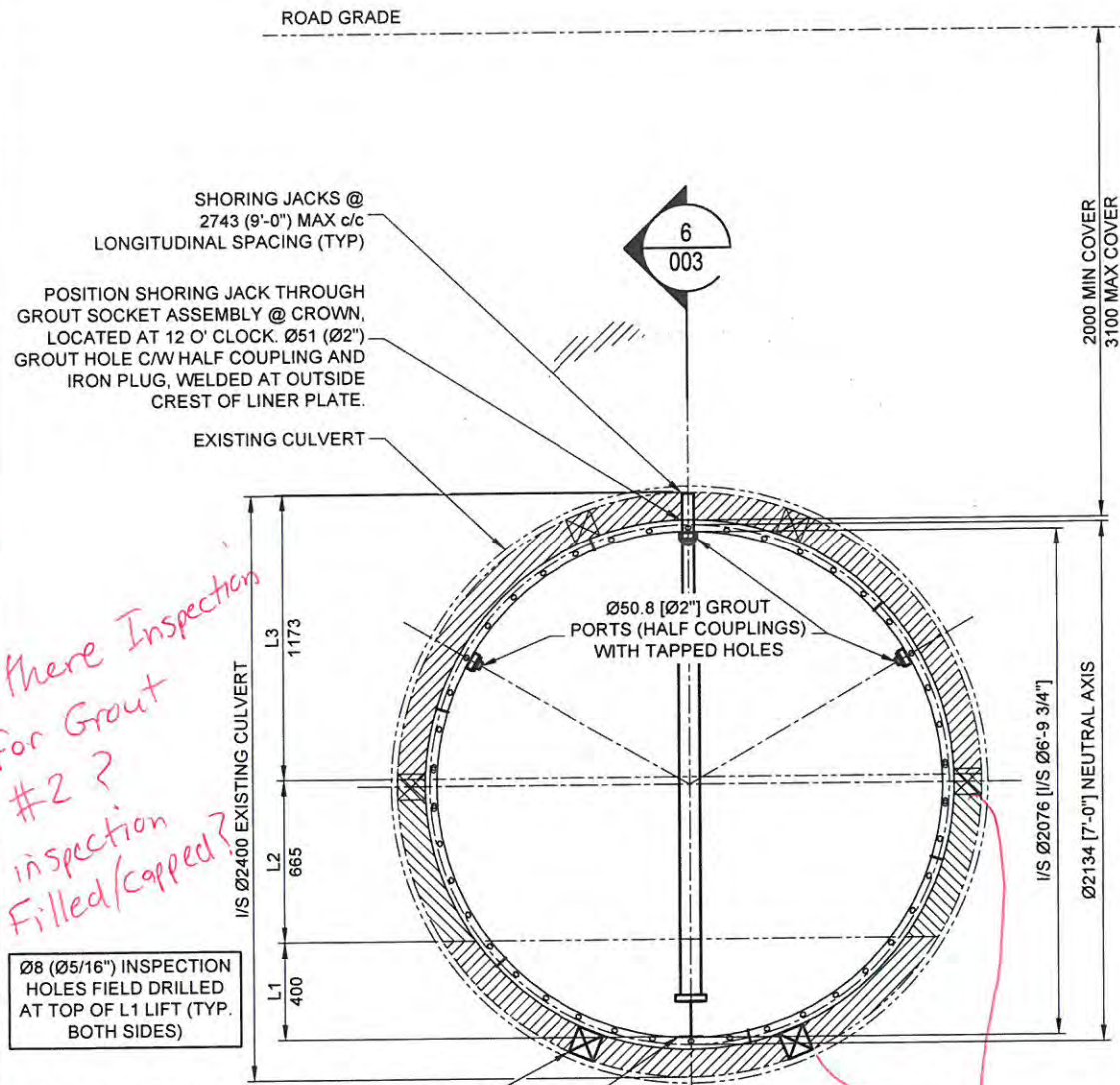
4 GEOMETRY
004 SCALE 1:30

REV.	ISSUED FOR APPROVAL	TCB	SM	SM	2021-07-08
REV.	REVISION NOTE	BY	CK'D	REV'D	DATE

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

armtec CANADACULVERT WWW.CANADACULVERT.COM		CUSTOMER EDWARD COLLINS CONTRACTING LTD.			
APPROVALS		DATE		PROJECT NAME STAFFORD LANE CULVERT REHABILITATION	
DESIGN BY MA		2021-06-23		DRAWING TITLE STRUCTURE GEOMETRY, PLATE LAYOUT	
DESIGN CHECK AR		2021-06-23			
DRAFT BY TCB		2021-07-05			
DRAFT CHECK					
SALES ORDER NO. 230607		SHEET NO. 4 OF 7		SCALE AS NOTED	PROJECT NO. 21-116
				DRAWING NO. 004	REV. A

Are there Inspection
holes for Grout
lift #2?
How are inspection
holes
Filled/capped?



TYPICAL: INTERMITTENT LINER RAIL WITH LONGITUDINAL CLEARANCE FOR GROUT FLOW, BY OTHERS. ENSURE LINER RAILS ARE LOCATED AT LEAST 100 mm CLEAR OF INSPECTION HOLES.

CONTINUOUS W150 x 14 OR APPROVED EQUIVALENT INVERT BEAM (TYP)

2" GROUT PORTS EVERY 2743 [9'-0"] GROUT PORT LOCATIONS ARE AT APPROX.: 2:00 / 8:00 / 12 O'CLOCK

GROUT LIFTS, SHORING JACK, EXTERNAL BLOCKING

5
003
SCALE 1:30

How much clearance
and how often?
10:00?

Ø51 (Ø2") GROUT SOCKET ASSEMBLY AT CROWN TO ALLOW PASSAGE OF SHORING JACK (TYP)
2 - Ø51 (Ø2") GROUT SOCKET ASSEMBLIES (ENLARGED FOR CLARITY) INLINE WITH SHORING JACKS (TYP)

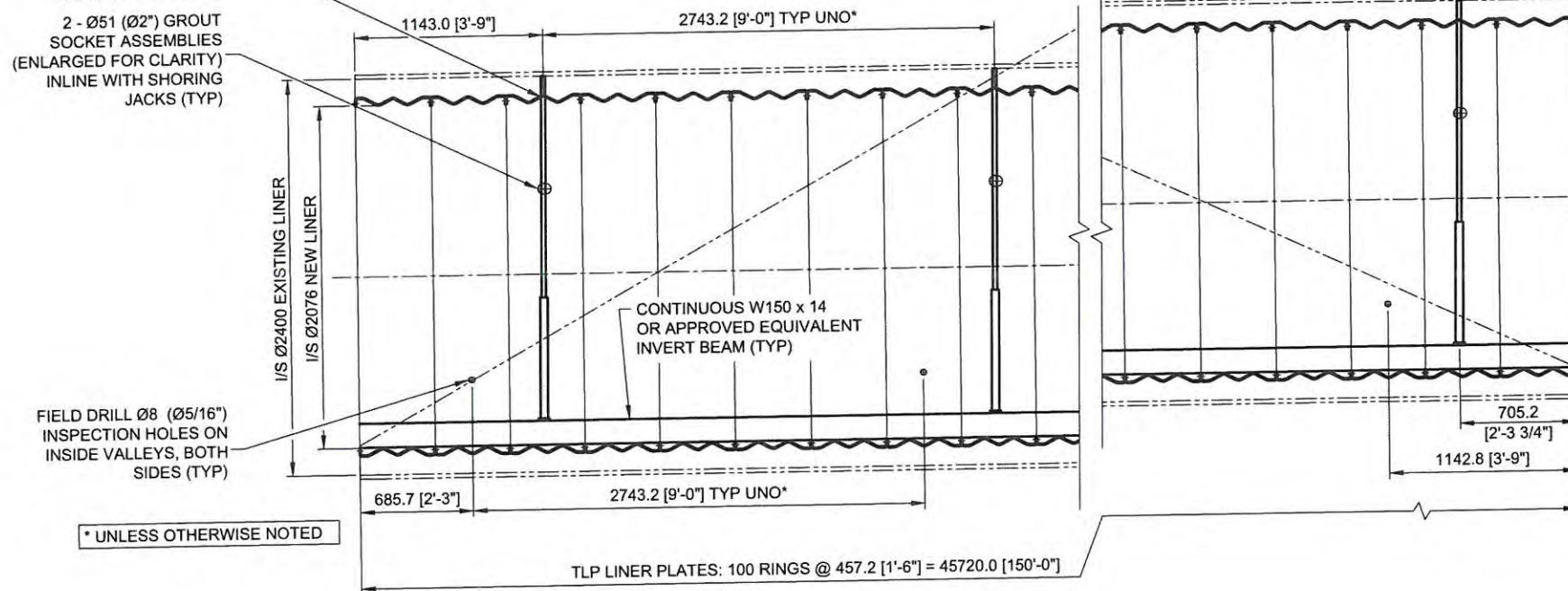
FIELD DRILL Ø8 (Ø5/16") INSPECTION HOLES ON INSIDE VALLEYS, BOTH SIDES (TYP)

* UNLESS OTHERWISE NOTED

Provide Grout Mix Design
and Grout Plan - Stamped
by Engineer.

GENERAL NOTES:

1. NON-SHRINK GROUT SHALL HAVE STRENGTH OF 1 - 3 MPa.
2. GROUT DENSITY OF 2400 kg / m³ (MAX.).
3. MAXIMUM GROUT PRESSURE AT NOZZLE: 5 kPa.
4. SHORING JACK SHALL HAVE CAPACITY OF 6790 kgf WITH APPROPRIATE SAFETY FACTOR OF 3.
5. INVERT BEAM SHALL BE W150 x 14 STRUCTURAL STEEL SECTION OR APPROVED EQUIVALENT.
6. EXTERNAL BLOCKING SHALL BE USED TO SECURE RELINE CULVERT INSIDE HOST CULVERT - BY OTHERS.



SHORING JACKS, GROUT HOLES & INSPECTION HOLES

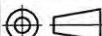
6
003
SCALE 1:40

APPROVED AS NOTED

This drawing is approved as to general arrangement subject to corrections noted thereon. This approval does not release the Contractor from responsibility for conformity to specifications and correct details. The Contractor is responsible for checking all dimensions.

July 16/2021
Date

Signed By

armtec CANADACULVERT WWW.CANADACULVERT.COM				CUSTOMER EDWARD COLLINS CONTRACTING LTD.									
APPROVALS		DATE		PROJECT NAME STAFFORD LANE CULVERT REHABILITATION									
DESIGN BY MA		2021-06-23		DRAWING TITLE GROUT LIFT, SHORING JACKS, DETAILS									
DESIGN CHECK AR		2021-06-23											
DRAFT BY TCB		2021-07-05											
DRAFT CHECK													
		SALES ORDER NO. 230607		SHEET NO. 5 OF 7		SCALE AS NOTED		PROJECT NO. 21-116		DRAWING NO. 005		REV. A	

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

REV.	REVISION NOTE	BY	CK'D	REV'D	DATE
A	ISSUED FOR APPROVAL	TCB	SM	SM	2021-07-08

Plot Date & Time: 2021-07-08 4:13:27 PM

z:\11_projects\2021\21-116 nl atp four mile pond - tch\drawings\1 ifa_r.a21-116-ifa_r.a.dwg

RECOMMENDED INSTALLATION NOTES FOR RELINE CULVERT

IMPORTANT: THE FOLLOWING NOTES ARE RECOMMENDATIONS BY ARMTC ONLY. CONTRACTOR SHALL APPLY OWN KNOWLEDGE, STANDARDS AND CONTRACT SPECIFICATIONS FOR APPROPRIATE INSTALLATION PROCEDURE BASED ON SITE CONDITIONS.

1. HOST CULVERT

- 1.1. REDIRECT WATER FLOW FROM THE HOST STRUCTURE.
- 1.2. REMOVE ALL SEDIMENT, SOIL, DEBRIS, ETC. TO ENSURE THE HOST STRUCTURE IS CLEAN AND DRY INSIDE. PROVIDE WATER CONTROL MEASURES DURING THE COMPLETE LINER INSTALLATION PROCESS.
- 1.3. CONDUCT A DETAILED SURVEY OF THE HOST STRUCTURE TO ENSURE LINER WILL FIT INSIDE HOST PIPE. ACCOUNT FOR ALL HIGH & LOW SPOTS, INTRUSIONS, DEFORMATIONS AND OBSTRUCTIONS.
- 1.4. REPAIR ANY AREAS AS REQUIRED TO ENSURE THE HOST STRUCTURE IS STABLE AND ALL VOIDS THAT CANNOT BE FILLED BY THE GROUTING STAGE ARE FILLED AND REPAIRED AS NECESSARY.
- 1.5. REPAIR REQUIRED AREAS USING A STIFF CONCRETE MIX. ENSURE THE INVERT HAS A SLIGHT SLOPE TO ENSURE WATER WILL DRAIN AND NOT POOL AS THIS WILL CREATE ISSUES DURING THE GROUTING STAGE.
- 1.6. INSTALL, LEVEL AND SECURE LINER RAILS ON THE INVERT OF THE HOST PIPE. THESE WILL ALLOW EASIER PLACEMENT OF THE LINER SECTIONS AND HELP IMPROVE ALIGNMENT OF THE LINER PIPE. THIS WILL ALSO HELP CREATE THE MINIMUM REQUIRED SPACE BETWEEN THE HOST PIPE AND LINER. NOTE THE LINER RAILS SHOULD NOT BE CONTINUOUS AS SPACES ARE REQUIRED FOR THE GROUT TO FLOW AROUND THEM AND UNDER THE LINER PIPE.

2. INSTALLATION OF LINER PIPE

- 2.1. INSTALL THE PIPE ENSURING IT HAS THE CORRECT ORIENTATION OF THE GROUT / SHORING JACK PORT AND INSPECTION HOLES.
- 2.2. INSTALL A CONTINUOUS INVERT BEAM ON THE INVERT OF THE LINER PIPE. SHORING JACKS SHOULD BE PLACED ON THE CONTINUOUS INVERT BEAM AND EXTEND THROUGH THE LINER PIPE TO THE OBVERT (CROWN) OF THE HOST PIPE.
- 2.3. PLACE EXTERNAL BLOCKING DEVICE BETWEEN THE LINER AND HOST STRUCTURE ON THE SIDES AND TOP AS PER CONTRACT DRAWINGS, TO PREVENT HORIZONTAL, VERTICAL AND ROTATIONAL MOVEMENT DURING GROUTING.
- 2.4. RECHECK ALL SHORING JACKS TO ENSURE THEY ARE TIGHT.

3. GROUTING

- 3.1. FORM BULK HEADS AT EACH END OF THE STRUCTURES TO HOLD GROUT IN PLACE.
- 3.2. POUR FIRST LIFT OF GROUT AS DIRECTED ON THE DRAWINGS. THE GROUT SHOULD BE PLACED SLOWLY AND UNIFORMLY THROUGHOUT THE LENGTH OF THE RELINE IN SYMMETRICAL LIFTS TO PREVENT ANY DISTORTION OR MOVEMENT OF THE LINER. FILL THE VOIDS BY GRAVITY KEEPING THE LEVELS AS LOW AS POSSIBLE BUT HIGH ENOUGH TO FORCE THE GROUT UNDER THE PIPE INVERT.
- 3.3. USE THE INSPECTION HOLES TO DETERMINE THE GROUT LIFTS AND SOUNDING WITH A HAMMER TO ENSURE ALL VOIDS ARE FILLED.
- 3.4. GROUT SHOULD SET FOR AT LEAST 24 HOURS (OR AS DETERMINED BY THE GROUT SUPPLIER) BEFORE THE NEXT LIFT IS INSTALLED.
- 3.5. REMOVE THE SHORING JACKS AND CAP THE GROUT FITTINGS BEFORE INSTALLING THE FINAL LIFT.
- 3.6. ONCE FINAL WORK IS APPROVED BY THE CONTRACT ADMINISTRATOR, REMOVE ANY REMAINING BRACING AND FORMWORK ON THE ENDS.

SHAPE MONITORING AND TOLERANCES

- 1. IT IS IMPORTANT THAT THE DESIGN SHAPE OF THE STRUCTURE BE MAINTAINED AT ALL STAGES OF CONSTRUCTION.
- 2. BEFORE STARTING GROUTING OPERATION, CHECKS SHALL BE MADE TO ENSURE THAT RISE AND SPAN DIMENSIONS ARE WITHIN THE ALLOWABLE ASSEMBLY TOLERANCE LIMITS.
- 3. STRUCTURE SHAPE SHALL BE MONITORED REGULARLY DURING THE GROUTING OPERATION TO ENSURE ACCEPTABILITY OF CONSTRUCTION METHOD.
- 4. DIMENSIONS AND TOLERANCES (RISE AND SPAN)
 - 4.1. DIMENSIONS OF ASSEMBLED SHAPE AFTER TORQUING AND PRIOR TO GROUTING SHALL BE WITHIN ±1% OF THE DESIGN DIMENSIONS.
 - 4.2. LENGTH OF ASSEMBLED STRUCTURE SHALL BE WITHIN ±1% OF THE SPECIFIED LENGTH.
 - 4.3. FINAL SHAPE AFTER GROUTING SHALL BE WITHIN ±1% OF ASSEMBLED SHAPE AND WITHIN ±2% OF DESIGN SHAPE.

Liner pipe shall not be in contact with host pipe at any location

APPROVED AS NOTED

This drawing is approved as to general arrangement subject to corrections noted thereon. This approval does not release the Contractor from responsibility for conformity to specifications and correct details. The Contractor is responsible for checking all dimensions.

July 16/2021
Date

cheed carroll
Signed By

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

A	ISSUED FOR APPROVAL	TCB	SM	SM	2021-07-08
REV.	REVISION NOTE	BY	CK'D	REV'D	DATE

armtec CANADACULVERT WWW.CANADACULVERT.COM			CUSTOMER EDWARD COLLINS CONTRACTING LTD.			
APPROVALS		DATE	PROJECT NAME STAFFORD LANE CULVERT REHABILITATION			
DESIGN BY	MA	2021-06-23				
DESIGN CHECK	AR	2021-06-23	DRAWING TITLE RECOMMENDED PLATE ASSEMBLY AND BACKFILL OPERATION NOTES, CLOSED-SHAPE, ROUND PIPE STRUCTURES			
DRAFT BY	TCB	2021-07-05				
DRAFT CHECK						
	SALES ORDER NO. 230607	SHEET NO. 6 OF 7	SCALE AS NOTED	PROJECT NO. 21-116	DRAWING NO. 006	REV. A

Plot Date & Time: 2021-07-08, 4:13:28 PM

z:\1_projects\2021\21-116 ni atip four mile pond - tch\drawings\1_ifa_r\21-116-ifa_r.a.dwg

BILL OF MATERIALS - LINER PLATE CULVERT

ITEM	MARK	QTY	DESCRIPTION	LENGTH (mm)	I/S RADIUS (mm)	NOMINAL THICKNESS (mm)	MATERIAL SPECIFICATION	COATING SPECIFICATION	COMMENT
-	1	83	14π TUNNEL LINER PLATE	1117.6 [44"]	1038.2 [40 7/8"]	3.2 (0.125")	ALUMINUM ALLOY 5052-H141 TEMPER	NATURAL FACTORY COAT AS PER MATERIAL SPECIFICATION	NO-OFFSET
-	1G	17	14π TUNNEL LINER PLATE c/w Ø51 [Ø2"] GROUT PORT & PLUG	1117.6 [44"]	1038.2 [40 7/8"]	3.2 (0.125")	ALUMINUM ALLOY 5052-H141 TEMPER	NATURAL FACTORY COAT AS PER MATERIAL SPECIFICATION	NO-OFFSET c/w GROUT PORT & PLUG
-	2	366	14π TUNNEL LINER PLATE	1117.6 [44"]	1038.2 [40 7/8"]	3.2 (0.125")	ALUMINUM ALLOY 5052-H141 TEMPER	NATURAL FACTORY COAT AS PER MATERIAL SPECIFICATION	SINGLE-OFFSET
-	5G	17	14π TUNNEL LINER PLATE c/w Ø51 [Ø2"] GROUT PORT & PLUG	1117.6 [44"]	1038.2 [40 7/8"]	3.2 (0.125")	ALUMINUM ALLOY 5052-H141 TEMPER	NATURAL FACTORY COAT AS PER MATERIAL SPECIFICATION	SINGLE-OFFSET c/w GROUT PORT & PLUG
-	3	100	14π TUNNEL LINER PLATE	1117.6 [44"]	1038.2 [40 7/8"]	3.2 (0.125")	ALUMINUM ALLOY 5052-H141 TEMPER	NATURAL FACTORY COAT AS PER MATERIAL SPECIFICATION	DOUBLE-OFFSET
-	4G	17	14π TUNNEL LINER PLATE c/w Ø51 [Ø2"] GROUT PORT & PLUG	1117.6 [44"]	1038.2 [40 7/8"]	3.2 (0.125")	ALUMINUM ALLOY 5052-H141 TEMPER	NATURAL FACTORY COAT AS PER MATERIAL SPECIFICATION	SINGLE-OFFSET c/w GROUT PORT & PLUG
-	TZA5222	*	Ø5/8"-7 x 1 1/4" LG SQ. SH. GR. 2, BOLT, GALV	31.75 [1 1/4"]	Ø15.875 [Ø5/8"]	-	ASTM A449 TYPE 1	ASTM B 695, CLASS 50	-
-	TZB0552	*	Ø5/8"-7 GRADE 5 GALV HEAVY NUT	-	Ø15.875 [Ø5/8"]	-	ASTM A563, GRADE A	ASTM B 695, CLASS 50	-
-	TZC5000	*	SPRING HOLDING CLIP	-	Ø15.875 [Ø5/8"]	-	-	GALVANIZED	-

* QUANTITIES ISSUED PENDING APPROVAL

APPROVED AS NOTED

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July 16/2021 *che docent*
Date Signed By

A	ISSUED FOR APPROVAL	TCB	SM	SM	2021-07-08
REV.	REVISION NOTE	BY	CK'D	REV'D	DATE

ISSUED FOR APPROVAL
NOT FOR CONSTRUCTION

armtec CANADACULVERT WWW.CANADACULVERT.COM			CUSTOMER EDWARD COLLINS CONTRACTING LTD.			
APPROVALS		DATE	PROJECT NAME STAFFORD LANE CULVERT REHABILITATION			
DESIGN BY	MA	2021-06-23				
DESIGN CHECK	AR	2021-06-23	DRAWING TITLE BILL OF MATERIALS			
DRAFT BY	TCB	2021-07-05				
DRAFT CHECK						
	SALES ORDER NO. 230607	SHEET NO. 7 OF 7	SCALE AS NOTED	PROJECT NO. 21-116	DRAWING NO. 007	REV. A

From: Skanes, Bill
Sent: Monday, August 23, 2021 10:27 AM
To: O'Connell, Chad
Subject: FW: Full Province Schedule Update
Attachments: Copy of Goba Schedule Aug 18-2021 gw.xlsx; ATT00001.htm

fyi

From: Hillier, William <WilliamHillier@gov.nl.ca>
Sent: Sunday, August 22, 2021 8:39 AM
To: Waterman, Wade <WatermanW@gov.nl.ca>; Coley, Dennis <DennisColey@gov.nl.ca>; Skanes, Bill <skanesb@gov.nl.ca>
Subject: Fwd: Full Province Schedule Update

FYI

Begin forwarded message:

From: Joshua Collins <josh_56@icloud.com>
Date: August 19, 2021 at 9:39:12 AM NDT
To: "Hillier, William" <WilliamHillier@gov.nl.ca>
Subject: Re: Full Province Schedule Update

I've itemized each task in each contract and it shows durations as well in the bar chart. Please open on a computer as bar chart will not show on your phone

44-21PHC Access to Work Site	27-Sep-21	2	0	2	29-Sep-21
44-21PHC Installation of Culvert (ETA for Pipe is third week of Sept)	30-Sep-21	8	0	8	8-Oct-21
44-21PHC Construct Headwall	11-Oct-21	20	0	20	31/Oct/21



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE GOBAL SCHEDULE

45-20PHP PAVING	2/Aug/21
46-21PHP BRIDGE DECK REPAIRS	2-Aug-21
46-21PHP CLEARING R.O.W	9-Aug-21
46-21PHP DITCHING	19-Aug-21
46-21PHP CULVERT INSTALLATION	1-Sep-21
46-21PHP COLD PLANNING	21-Sep-21
46-21PHP PAVING	21-Sep-21
12-21PHC PART C	21-Jul-21
12-21PHC PART A	1-Sep-21
12-21PHC PART B (AWAITING PIPE TO ARRIVE ETA SEPT 3/2021)	6-Sep-21
12-21PHC PART D (AWAITING PIPE TO ARRIVE ETA FIRST WEEK OF SEPT 2021)	13-Sep-21
71-21PHN CLEARING AND GRUBBING	30-Aug-21
71-21PHN SUPPLY AND INSTALL ROCKFILL	15-Sep-21
71-21PHN SUPPLY AND INSTALL CULVERTS	7-Sep-21

Sent from my iPhone

On Aug 12, 2021, at 6:20 AM, Joshua Collins <josh_56@icloud.com> wrote:

I will get this to you by end of day Monday.

Sent from my iPhone

On Aug 11, 2021, at 10:40 AM, Hillier, William <WilliamHillier@gov.nl.ca> wrote:

ECC have a few ongoing and awarded projects. Could you please provide a schedule outline for all of your awarded projects?

As a minimum for each project I would like to see:

Mob date
Start subgrade
End subgrade
Start Asphalt
End Asphalt
Planned Project completion
Contract completion date

As an FYI the Department is applying LD's if schedule completions are not met. When there are multiple awards there is an ability to modify at the sole discretion of the Department (as per the contract SGC). If that's a potential it is important to do that proactively. It's not a given but sometimes will be considered. It is not typical to allow extensions to the following year except in special situations.

Please provide in 1 excel file. Please advise when you can provide this.

Thanks,

Bill Hillier
Director, TI Highway Design and Construction
Email: williamhillier@gov.nl.ca

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From: Joshua Collins <josh_56@icloud.com>
Sent: Monday, August 16, 2021 12:45 PM
To: O'Connell, Chad
Subject: Re: Revised shop drawings

There has been another shop drawing submitted since this one. Revision B it's called. Can you see if you have it and if it's been reviewed then send back to us

Thank you,

Josh Collins

Sent from my iPhone

On Aug 16, 2021, at 7:18 AM, O'Connell, Chad <ChadOConnell@gov.nl.ca> wrote:

Josh

See below and attached

Who is looking after the shop drawings? You bob or jimmy? I am getting correspondence from all three you and it is not clear who is managing this.

Thanks

Chad

Begin forwarded message:

From: "O'Connell, Chad" <ChadOConnell@gov.nl.ca>
Date: July 21, 2021 at 4:24:55 PM NDT
To: bob bartlett <bobbartlett@gmail.com>
Subject: RE: Revised shop drawings

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<S_036472Sca21071616230.pdf>

From: Lorne Stuckey <lorne.stuckey@armtec.com>
Sent: Monday, September 13, 2021 1:48 PM
To: Skanes, Bill
Cc: O'Connell, Chad
Subject: RE: Collins Tunnel Liner Plate

Hi Bill,

Unfortunately, I'm unable to divulge any information pertaining to the dates you've requested below

Regards,

Lorne Stuckey, P.Tech.
Regional Sales Manager
Armtec
p. (709) 754-3553

From: Skanes, Bill <skanesb@gov.nl.ca>
Sent: Monday, September 13, 2021 1:22 PM
To: Lorne Stuckey <lorne.stuckey@armtec.com>
Cc: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: RE: Collins Tunnel Liner Plate

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Lorne

Are you able to tell us when ECC originally placed the order for the Aluminum TPL?

When did the issue of not being able to source aluminum plate occur?

William Skanes, P.Eng.
Regional Engineer
Avalon Region
Department of Transportation and Infrastructure
709-729-0135

From: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Sent: Monday, September 13, 2021 10:14 AM
To: Skanes, Bill <skanesb@gov.nl.ca>; Granville, Andre G. <granvillea@gov.nl.ca>
Subject: FW: Collins Tunnel Liner Plate

FYI

From: O'Connell, Chad
Sent: Monday, September 13, 2021 10:11 AM
To: 'Lorne Stuckey' <lorne.stuckey@armtec.com>

Subject: RE: Collins Tunnel Liner Plate

Lorne,

I have been requesting Josh Collins to provide an update on the delivery of this pipe since July. Right now they tell me the aluminum tunnel late is not coming in until January of 2022? Josh had mentioned he may propose an alternate design but they haven't provided anything on this. Any alternate design would need to be reviewed by the Department and would not necessarily be approved.

I am really not sure what is going on with this pipe at this point and I feel that ECC is not being forthcoming with details.

Thanks,
Chad

From: Lorne Stuckey <lorne.stuckey@armtec.com>
Sent: Monday, September 13, 2021 9:36 AM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: Collins Tunnel Liner Plate

Hi Chad,

Are you able to update me with what's going on with Edward Collins Tunnel Liner Plate job?

I gave the contractor an extended delivery date on the Aluminum structure and I haven't heard from them since. Do you know if they are still planning to proceed with the Aluminum TLP, or have they switched the job to an alternate material?

I need to know since we are still actively trying to source Aluminum plate

Thank you,

Lorne Stuckey, P.Tech.
Regional Sales Manager
Armtec
444 Conception Bay Highway , Unit 5 | Conception Bay South NL | A1B 2B8
p. (709) 754-3553
lorne.stuckey@armtec.com | armtec.com



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From: O'Connell, Chad
Sent: Thursday, September 16, 2021 10:36 AM
To: 'Joshua Collins'
Cc: Skanes, Bill
Subject: RE: alternate to aluminum plate culvert for Part D @ Four Mile Pond, TCH culvert project

Josh

I have reviewed the proposal to switch this pipe to HDPE and the alternative proposal cannot be accommodated. The HDPE pipe with baffles would result in too much of a reduction of the opening size and end area of the pipe.

Thanks
Chad

From: Joshua Collins <josh_56@icloud.com>
Sent: Monday, September 13, 2021 12:57 PM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: Fwd: alternate to aluminum plate culvert for Part D @ Four Mile Pond, TCH culvert project

6 weeks delivery on this options.

Sent from my iPhone

Begin forwarded message:

From: Stephen Fleming <sfleming@emcoltd.com>
Date: September 10, 2021 at 2:07:58 PM NDT
To: jamesedmunds19@gmail.com
Cc: Joshua Collins <josh_56@icloud.com>, bob bartlett <bobbartlett@gmail.com>
Subject: alternate to aluminum plate culvert for Part D @ Four Mile Pond, TCH culvert project

Hi Guys,

Please see attached alternate to the aluminum plate for the TCH project, Part D at Four Mile Pond. I included some info on fish baffles in case the DOT asks about them. We supplied the material and the equipment to install these fish baffles in 96" ID weholite on the TCH here on the Avalon peninsula a couple of years ago. This pic was taken this week of them still in operation. They keep a minimum level of water in the culvert and control water speed for the fish all year. Yet, the high flow and speeds of the HDPE/Weholite are available during storm events.

Steve Fleming

Account Manager – Newfoundland & Labrador
EMCO SANDALE
18 Bruce Street
Mount Pearl, NL A1N 5B1
(M): 709-727-7178
Email: sfleming@emcoltd.com
Web: www.sandale.ca
Web: www.emcowaterworks.ca

From: O'Connell, Chad
Sent: Tuesday, September 28, 2021 12:41 PM
To: Skanes, Bill
Subject: RE: Global Schedule Sept 26 2021

Bill

Normally I would but every schedule they have submitted to date has been wildly inaccurate.

Part A – Finish by October 08 is possible if well-organized but I would suspect at their rate it would be the week after (October 15)

Part B – Slip liner Shop drawings still not approved I highly doubt they will move in and get this complete by Sunday of this week (they usually find an excuse not to work weekends) plus I would think it will take at least 7-10 days work to fully complete if everything goes as planned.

Part D – They say they are awaiting pipe delivery until Jan 2022 but I have seen no back up on this and no further correspondence returned to me since I told them a HDPE option was not acceptable. According to aluminum tunnel plate suppliers there should be no reason the pipe will be until Jan 2022 to be delivered. It should have been ordered in May or June 2021 for the project.

Thanks
Chad

From: Skanes, Bill <skanesb@gov.nl.ca>
Sent: Tuesday, September 28, 2021 11:48 AM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: FW: Global Schedule Sept 26 2021

Do you think this is attainable?

From: Josh Collins <josh_4@hotmail.com>
Sent: Monday, September 27, 2021 7:31 AM
To: Hillier, William <WilliamHillier@gov.nl.ca>; Joshua Collins <josh_56@icloud.com>
Subject: Global Schedule Sept 26 2021

Sent from [Mail](#) for Windows

From: Hillier, William
Sent: Tuesday, October 5, 2021 9:48 AM
To: O'Connell, Chad; Skanes, Bill
Subject: RE: Global Schedule Sept 26 2021 (ECC LD issue)

If ECC do not provide adequate supporting documentation the Department has no choice but to apply LD's. The caveat to that is if your team feels there is a valid reason for some schedule extension. Should that be the case please propose such. If not, the progress claims get processed with LD's (and if ECC provide documentation than the Department can re-consider if appropriate).

We have no formal process on when to max out LD's (or if the Department will max out). Please let me know when we hit 7% of the contract value.

Regards,

Bill H

From: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Sent: Tuesday, October 5, 2021 9:45 AM
To: Skanes, Bill <skanesb@gov.nl.ca>
Cc: Hillier, William <WilliamHillier@gov.nl.ca>
Subject: Re: Global Schedule Sept 26 2021 (ECC LD issue)

I still haven't received any type of response / documentation or back up saying that the aluminum pipe has been ordered or when it's delivery date is. The last I spoke to Josh on this was in our last meeting the three of us had with Josh and Jim. He never did follow up in any type of way about the aluminum pipe.

I emailed josh this weekend requesting an update in general for Part D and he has not replied. The site supervisor Jim Edmunds just tells me on site that he doesn't know any info on it.

They don't work any weekends and they shut down the site 5-530pm daily. In my opinion a poor effort is being made to complete the project.

Thanks,
Chad

On Oct 5, 2021, at 9:32 AM, Skanes, Bill <skanesb@gov.nl.ca> wrote:

Bill

The answers you are looking for are not easily attainable, or "proveable". See below in red.

Chad, you can weigh in on this too if you like

From: Hillier, William <WilliamHillier@gov.nl.ca>
Sent: Tuesday, October 5, 2021 9:14 AM
To: Skanes, Bill <skanesb@gov.nl.ca>
Cc: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: RE: Global Schedule Sept 26 2021 (ECC LD issue)

This issue is not straight forward and requires sufficient investigation as ECC are stating the need to do in another

year solely due to raw materials.

Some of the final decision on the LD process may be related to how valid the claim is for 2022 delivery of material. Maybe you already sent some of your thoughts but I did not see it in my email.

In your ECC meeting on Sept 3 you asked for some back-up. Did ECC submit:

- Proof on when materials were ordered. **None received. I reached out to their supplier who would not give me the info**
- Proof off planned/scheduled delivery. **None received. Although Chad may have it**
- Proof of looking for alternate suppliers and that other suppliers could not supply. **They did request approval to use alternate materials. Upon looking into it, Chad deemed the substitution to be unsatisfactory. Other than that, we have no idea when they ordered it, when they realized they couldn't get aluminum, and any steps they took to find it elsewhere.**

Did you chat with suppliers to understand if the material issue is valid? I was speaking with AIL on another issue last week and I know they have (or had some) some aluminum in stock. It may not be what's needed. **Armtec would not give me any info. I spoke "off the record" to AIL twice and they were surprised to hear that aluminum could not be sourced. Both times I spoke with AIL, they told me that ECC had contacted them after tender and they told ECC it was 10-12 weeks delivery, and ECC told them the competition (Armtec) said it was 8-10 weeks. In a meeting with ECC, Josh claims he can't go elsewhere because he has a contract/agreement with Armtec now.**

Do you have a sense on the above? Has sufficient back-up been received and is it something that is valid? **My sense is that they are not being forthcoming, because they realize there are LD implications they want to avoid.**

Once that raw material and pipe order situation is understood it'll be possible to consider the appropriate response.

Regards,

Bill H

From: Skanes, Bill <skanesb@gov.nl.ca>
Sent: Monday, October 4, 2021 3:58 PM
To: Hillier, William <WilliamHillier@gov.nl.ca>
Cc: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: FW: Global Schedule Sept 26 2021 (ECC LD issue)

Bill

Is there any word on the Department's final stance on LDs with Edward Collins? We are estimating that 4 of the 5 pipes will be installed by the end of next week, with the 5th one not being delivered until January.

Please advise, as we expect them to demobilize once the fourth pipe is installed

From: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Sent: Tuesday, September 28, 2021 12:41 PM
To: Skanes, Bill <skanesb@gov.nl.ca>
Subject: RE: Global Schedule Sept 26 2021

Bill

Normally I would but every schedule they have submitted to date has been wildly inaccurate.

Part A – Finish by October 08 is possible if well-organized but I would suspect at their rate it would be the week after (October 15)

Part B – Slip liner Shop drawings still not approved I highly doubt they will move in and get this complete by Sunday of this week (they usually find an excuse not to work weekends) plus I would think it will take at least 7-10 days work to fully complete if everything goes as planned.

Part D – They say they are awaiting pipe delivery until Jan 2022 but I have seen no back up on this and no further correspondence returned to me since I told them a HDPE option was not acceptable. According to aluminum tunnel plate suppliers there should be no reason the pipe will be until Jan 2022 to be delivered. It should have been ordered in May or June 2021 for the project.

Thanks
Chad

From: Skanes, Bill <skanesb@gov.nl.ca>
Sent: Tuesday, September 28, 2021 11:48 AM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: FW: Global Schedule Sept 26 2021

Do you think this is attainable?

From: Josh Collins <josh_4@hotmail.com>
Sent: Monday, September 27, 2021 7:31 AM
To: Hillier, William <WilliamHillier@gov.nl.ca>; Joshua Collins <josh_56@icloud.com>
Subject: Global Schedule Sept 26 2021

Sent from [Mail](#) for Windows

From: Skanes, Bill
Sent: Tuesday, October 12, 2021 1:37 PM
To: 'Joshua Collins'
Cc: O'Connell, Chad; Hillier, William
Subject: RE: 12-21 PHC Part D Four Mile Pond Update

Josh

The attached picture below seems to be a quotation of prices, dated April 28th, 2021, which was likely used in the preparation of your tender bid. The tender closed on April 30th, 2021. While I do understand that you likely ordered your pipe at the same time, I do not think you ordered it 2 days before you knew you won the call for tender.

Could you please provide a dated order invoice for the tunnel plate liner, written confirmation from the supplier of the delivery date at the time of order, and a revised schedule to complete this project. As well, do you have any correspondence that you reached out to other suppliers once you realized that the delivery date was not going to be met?

Regards

Bill

From: Joshua Collins <josh_56@icloud.com>
Sent: Tuesday, October 12, 2021 12:08 PM
To: Skanes, Bill <skanesb@gov.nl.ca>
Cc: O'Connell, Chad <ChadOConnell@gov.nl.ca>; Hillier, William <WilliamHillier@gov.nl.ca>
Subject: Re: 12-21 PHC Part D Four Mile Pond Update

All of the steel/aluminum pipe was ordered from the same supplier. We did not hand pick certain pipes. All others showed up on time because it was all ordered the same time. I said in the initial meeting that it was 10-12 weeks out. How can you say it wasn't ordered in time? This is just wrong and unreasonable.

The quote below shows that it was all on the same order.



QUOTATION

PROJECT: (12-21) Culvert Replacement on the Anishnabek
TO: Estimator
DATE: April 28, 2021
CLOSING DATE: April 30, 2021
QUOTE NO.: C-077-2196
F.C.A. POINT: Truck, KM 26, TCH
DELIVERY: To be arranged

We are pleased to submit this quotation for SUPPLY ONLY of the construction products below.

Item	Quantity	Description	Price	Per	Amount
STEELCOR™ CSP - 48mm x 10mm Corrugations - Polypropylene Laminated					
1	58	Meters 1400 mm Diameter x 2.0 mm Thick	\$555.00	m	\$34,290.00
2	7	1400 mm Couplers	\$768.75	ea	\$5,381.25
3	51	Meters 1800 mm Diameter x 2.0 mm Thick	\$1,073.00	m	\$54,723.00
4	6	1800mm Couplers	\$948.00	ea	\$5,688.00
5	66	Meters 2400 mm Diameter x 2.0 mm Thick	\$2,284.00	m	\$150,504.00
6	7	2400mm Couplers	\$1,332.29	ea	\$9,326.03
7	100	Galvanized Hook Bolts for Concrete Fish Baffles ** This includes the cost of cutting holes in the pipe **	\$17.50	ea	\$1,750.00
Armed Tunnel Liner Plate					
8	3	3M of 2100 psi Minimum Tunnel Liner Plate - Length = 48 Meters - End Area = 3,363 Square Meters - C/A 409 Line (Load Considered) - Height of Cover = 2000 mm to 2100 mm - Minimum Plate Weight = 20 lbs - Total # Rings in the Structure = 92 - Total # Plates in the Structure = 92 - 2" Girth Pins Included - Studying Design Not Included - Contractor Responsible to Structure for Liner Plate Fits inside Hook Pins - Material (Ship - Unrepresented)	\$180,770.00	ea	\$180,770.00

Continued Pg. 2



QUOTATION

PROJECT: (12-21) Culvert Replacement on the Anishnabek
TO: Estimator
DATE: April 28, 2021
CLOSING DATE: April 30, 2021
QUOTE NO.: C-077-2196
F.C.A. POINT: Truck, KM 26, TCH
DELIVERY: To be arranged

Sent from my iPhone

On Oct 12, 2021, at 10:03 AM, Skanes, Bill <skanesb@gov.nl.ca> wrote:

Josh

The Department has reviewed the documentation you have provided in the email below. This information is not materially different from information and conversations that were had on this matter previously. It is the position of the Department, that what you have provided does not constitute proof that you placed an order in a timely fashion nor that you looked for alternate suppliers in an attempt to meet the schedule.

As such until more clear information is provided, the Department shall apply LD's up to a maximum of 5% of the contract value at this time. Additionally, the Department would like a clearer picture of when the tunnel plate liner is expected to be delivered, so that a new completion date can be determined, in case additional LDs are required on this project.

Regards

Bill

William Skanes, P.Eng.
Regional Engineer
Avalon Region
Department of Transportation and Infrastructure
709-729-0135

From: Joshua Collins <josh_56@icloud.com>
Sent: Tuesday, October 12, 2021 5:59 AM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Cc: Skanes, Bill <skanesb@gov.nl.ca>
Subject: Re: 12-21 PHC Part D Four Mile Pond Update

Below is a text that was sent to Armtec on June 3/2021 asking when the pipe will be delivered for project 12-21. This was 4 days after we received the award letter.



In our kick off meeting I stated after my conversations with Armtec that the tunnel plate liner wouldn't arrive until sometime in August.

Below is the email I received on Aug 20 confirming the pipe will not be delivered until possibly January.



Below is armtec asking for an update on the polymer option on Aug 24/2021. After discussions about the weight of the polymer and the great difficulty involved in getting it installed it was later decided not to go this route

Also is an email dated Sept 9/2021 confirming the original aluminum tunnel plate liner is still in motion.



Another email is attached below, this one showing we were looking for an option along the same design as the slip line near soldiers pond. We received a formal email from EMCO on Sept 10/2021 giving us another option that was later turned down by the department. After several conversations with EMCO prior to this, this is what they had come up with.



Sent from my iPhone

On Oct 5, 2021, at 12:21 PM, Joshua Collins <josh_56@icloud.com> wrote:

Yes. Will provide by the end of the week.

Sent from my iPhone

On Oct 5, 2021, at 12:19 PM, O'Connell, Chad <ChadOConnell@gov.nl.ca> wrote:

Josh

Will you be providing an update on this or any supporting documentation regarding the ordering and delivery of the aluminum pipe?

Thanks,
Chad

From: O'Connell, Chad
Sent: Saturday, October 2, 2021 12:21 PM
To: Joshua Collins <josh_56@icloud.com>
Subject: 12-21 PHC Part D Four Mile Pond Update

Josh

Can you provide an update for this part of the project?

Thanks

Chad O'Connell
Senior Engineer

Avalon Regional Engineering Office
Transportation and Infrastructure
tel 709.729.3266
fax 709.729.0081
chadoconnell@gov.nl.ca

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From: [O'Connell, Chad](#)
To: ["Joshua Collins"](#)
Subject: RE: 12-21 Tunnel Liner Plate - Rev C
Date: Tuesday, February 22, 2022 9:03:25 AM

Josh

I checked on this and the parts identified in the contract are for breakdown purposes only and do not constitute separate contracts. I can only release the holdback for the contract as a whole once it is complete.

Thanks
Chad

From: Joshua Collins <josh_56@icloud.com>
Sent: Monday, February 21, 2022 3:55 PM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: Re: 12-21 Tunnel Liner Plate - Rev C

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Chad,

All other contracts we have been involved in released when each "Part" was complete. Why is this one different?

Sent from my iPhone

On Feb 21, 2022, at 3:54 PM, O'Connell, Chad <ChadOConnell@gov.nl.ca> wrote:

Ok thanks.

For the holdback, I am unable to do individual release of holdback for parts. Can only be completed for the contract as a whole.

Thanks
Chad

On Feb 21, 2022, at 3:43 PM, Joshua Collins <josh_56@icloud.com> wrote:

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I will follow up. Is it possible to apply for holdback release on the parts that are completed?

Sent from my iPhone

On Feb 21, 2022, at 2:00 PM, O'Connell, Chad
<ChadOConnell@gov.nl.ca> wrote:

Josh

Is there any update on this part of the project?

Thanks
Chad

From: O'Connell, Chad
Sent: Friday, January 14, 2022 1:29 PM
To: 'Joshua Collins' <josh_56@icloud.com>
Cc: Skanes, Bill <skanesb@gov.nl.ca>; Hillier, William
<WilliamHillier@gov.nl.ca>
Subject: RE: 12-21 Tunnel Liner Plate - Rev C

Josh

The shop drawings Rev C are approved with the change to the plate thickness being 0.150". As mentioned, there will be no extra charge to the Department for the increased cost of the plate thickness due to issues supplying the previously designed thinner 0.125" plates on Revisions A and B.

Thanks,
Chad

From: Joshua Collins <josh_56@icloud.com>
Sent: Tuesday, November 30, 2021 3:10 PM
To: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Cc: Skanes, Bill <skanesb@gov.nl.ca>
Subject: Re: 12-21 Tunnel Liner Plate - Rev C

Chad,

Just wondering where we are with the drawings.

Thank you,
Josh Collins

Sent from my iPhone

On Nov 23, 2021, at 7:53 AM, Joshua
Collins <josh_56@icloud.com> wrote:

Chad,

This has been ordered. They just need a sign
off on the shop drawing

Sent from my iPhone

On Nov 23, 2021, at 7:51 AM,
O'Connell, Chad
<ChadOConnell@gov.nl.ca>
wrote:

Good Moring Josh

Has this pipe been ordered or are
you looking for approval on the
revised shop drawings before
giving Armtec the go ahead?

Thanks
Chad

From: Joshua Collins
<josh_56@icloud.com>
Sent: Monday, November 22,
2021 1:45 PM
To: Skanes, Bill
<skanesb@gov.nl.ca>; Hillier,
William
<WilliamHillier@gov.nl.ca>;
O'Connell, Chad
<ChadOConnell@gov.nl.ca>
Subject: Fwd: 12-21 Tunnel Liner
Plate - Rev C

Cory,

Lorne with Armtec called me last Thursday and advised in order to meet our schedule and receive the culvert in the early new year they would have to make it thicker than originally designed. They had another issue with the aluminum for the coil for the thinner spec which has already been approved. There will be no extra charge for the thicker aluminum as stated in his email below because of all of the supply issues. Can you review the drawings and confirm if there are any revisions required.

Thank you,
Josh Collins

Sent from my iPhone

Begin forwarded message:

From: Lorne
Stuckey
<lorne.stuckey@armtec.com>
Date: November
18, 2021 at
11:50:32 AM NST
To: Joshua Collins
<josh_56@icloud.com>
Subject: 12-21
Tunnel Liner
Plate - Rev C

Hi Josh,

As discussed, I have attached an updated copy of our approval drawings which have the plate thickness changed to 0.150". This will come at no extra cost to you

Please have the
department approve
this set and I can
schedule the structure
to be fabricated over
the winter

Thank you,

Lorne Stuckey,

P.Tech.

Regional Sales

Manager

Armtec

444 Conception Bay

Highway , Unit 5 |

Conception Bay

South NL | A1B 2B8

p. (709) 754-3553

lorne.stuckey@armtec.com

| armtec.com

<image001.png>

<image002.gif>

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COR/2022/02806

April 8, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyville,
Newfoundland and Labrador, Canada, A0B 2G0

RE: Default - Contract 12-21PHC Culvert Replacements & Rehabilitations on the TCH Avalon Region

Dear Josh,

Edward Collins Contracting Ltd (ECC) did not complete the Work in accordance with Contract 12-21PHC. Due to the lack of performance and the lack of a plan for successful completion of the Work, in accordance with GC 10.2(a) and (b), the Department considers Edward Collins Contracting Ltd to be in Default of its obligations under Contract 12-21PHC.

In accordance with the terms of the contract, the Department formally requests that ECC provide a detailed plan within 5 working days and no later than April 16/2022. The plan shall demonstrate how ECC will successfully complete the work. Some of the expected details include are not be limited to:

- Which Contractor/Sub-Contractor/Supplier will complete the work
- Equipment list (and equipment owner) that will be used for each project
- A schedule for each project that is sufficiently detailed to outline start and end dates per task, durations, long lead item orders and expected delivery, the key work steps to be completed, substantial completion and final completion dates.
- An outline on any conflicting priorities or dependencies between equipment, resources, etc. and all ECC 2022 work
- An integrated schedule showing how all TI projects will be sequenced/completed
- Any risk mitigations that ECC may have to ensure all work can be completed
- Verification from any suppliers and sub-contractors that they have been engaged/contracted and are committed to performing the work for/on behalf of ECC



Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Director of Highway Design & Construction

Should you have any questions, please feel free to contact me at your convenience at 709 -729-6610 or williamhillier@gov.nl.ca.

Regards,

A handwritten signature in blue ink, appearing to be "Bill Hillier", written over a horizontal line.

Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Western Surety, Bill Skanes

From: O'Connell, Chad
Sent: Wednesday, April 20, 2022 10:41 AM
To: Skanes, Bill; Hillier, William
Subject: RE: Your Client: Edward Collins Contracting
Attachments: USER0769.JPG; USER0773.JPG; USER0779.JPG; USER0781.JPG; USER0783.JPG

Bill

On a side note regarding the condition of the pipe:

I dropped in and inspected the pipe yesterday while taking photos of the other completed parts. The water level is down in the pipe and a lot of the pipe is visible below the High water mark. The pipe is overall in very poor condition with complete separation of the invert from the culvert barrel on both sides for the entire length of the pipe. At the outlet the top of the pipe has started to settle over the detached bottom (clam-shelling). At this point, due to the settling / deformation, I'm not sure if the clearance remains to be able to install a liner and dig and replace may be the only option. I don't know when the issue with current Contractor ECC will be resolved but I think this pipe needs immediate attention. Please see attached pictures.

Thanks
Chad

From: Skanes, Bill <skanesb@gov.nl.ca>
Sent: Tuesday, April 19, 2022 3:50 PM
To: Hillier, William <WilliamHillier@gov.nl.ca>
Cc: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: RE: Your Client: Edward Collins Contracting

Bill

I don't know how much into the weeds we should get on this. But the Avalon project basically pertains to one issue – the ordering of the pipe.

We were told at the pre-construction meeting it would be around late August that they would be installing the pipe. The pre-construction meeting was on June 10th and they told us it was a 10-12 week delivery on the pipe.

On June 11th, the supplier, Armtec, informed us it would be 2 weeks to get the shop drawings prepared and then the pipe will be on site 5 weeks after they were approved.

The original shop drawings were received on July 9th, 2021 and approved on July 16th, 2021. ECC submitted revised drawings on July 21, 2021. As far as I could tell, the only difference was they changed the title on the drawings and made some very minor note changes.

We asked ECC multiple times if the pipe was ordered and when will it arrive on site. In August, they inform us that the delivery on the pipe will now be January 2022,, because they can't source aluminum.

On Sept 10th, 2021 we received a request for an alternate pipe instead of the aluminum tunnel liner. We denied this due to reduced end area capacity on Sept 16, 2021. What is curious, is that on Sept 13, 2021 we received an inquiry from Armtec, asking us if we knew if ECC was still going to order the pipe.

November 22, 2022 ECC requests to change the thickness of the pipe. So it still wasn't ordered. Armtec informed them they could meet the schedule and fabricate it over the winter if this change was implemented. January 2022, TI approves the request to change the thickness of the pipe.

The pipe is still not ordered. And now we are looking at Aug 2022 installation? They haven't met a schedule yet, so this will be Sept / Oct ... and if we get weather, we are into 2023.

The Department is not responsible for them sourcing supplies. But every step of the way we were led to believe that could meet the schedules put forth.

From: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Sent: Tuesday, April 19, 2022 3:02 PM
To: Skanes, Bill <skanesb@gov.nl.ca>
Cc: Hillier, William <WilliamHillier@gov.nl.ca>; Waterman, Wade <WatermanW@gov.nl.ca>; Coley, Dennis <DennisColey@gov.nl.ca>
Subject: Re: Your Client: Edward Collins Contracting

Bill

I have reviewed and with regards to 12-21 I agree with your points.

I'm not sure why the Department would be in default due to non payment of LD's amount as the Project is still not substantially complete. If LDs were applied at the daily rate to date, the amount would be much higher.

It appears the pipe is still not ordered or that August installation is confirmed as the notes for the time line says "based on arrival of pipe". This is the same response we have had since July 2021. I think any agreement moving forward would need some kind of definite confirmation from the supplier that says it is purchased and the actual delivery date.

I think DFO would be ok as long as we are out of the water by September 30.

Thanks
Chad

On Apr 19, 2022, at 2:40 PM, Skanes, Bill <skanesb@gov.nl.ca> wrote:

Bill

Some notes in regards to my contract (12-21 PHC)

- 1) From letter the pipe is still not ordered.
- 2) The previous "Global Schedule" had them installing the pipe in April 2022. Not sure how they can now claim they are not off schedule
- 3) Just because a contractor submits a schedule does not mean it is accepted or LD's will be waived.
- 4) Both scheduling options have them installing the tunnel liner in August. Presumably this is because they have to wait for the pipe to be delivered. Why wasn't it ordered when drawings approved the first time (July 2021), and then when we accepted their thickness change (Jan 2022)?
- 5) DFO may take issue if install goes into September. The earlier the install the better for fisheries issues
- 6) Collins wants to be paid twice a month. GCs state when payments are to be made. I don't agree with this ask.

I have asked Chad to review to see if he sees other points of contention.

Bill S

From: Hillier, William <WilliamHillier@gov.nl.ca>
Sent: Tuesday, April 19, 2022 2:18 PM
To: Skanes, Bill <skanesb@gov.nl.ca>; Waterman, Wade <WatermanW@gov.nl.ca>; Coley, Dennis <DennisColey@gov.nl.ca>
Subject: FW: Your Client: Edward Collins Contracting

Please review the points in the letter from Benson and Buffet and provide commentary for your respective

project scope.

Regards,

Bill H

From: Sheppard, Mark <MarkSheppard@gov.nl.ca>
Sent: Tuesday, April 19, 2022 12:59 PM
To: Hillier, William <WilliamHillier@gov.nl.ca>
Cc: Clarke, Greg <GregClarke@gov.nl.ca>
Subject: FW: Your Client: Edward Collins Contracting

Hi Bill,

Please see below from ECC's lawyer. We should arrange a time to discuss when you have had a chance to review.

Regards,

Mark P. Sheppard
Solicitor, Civil Division
Office of the Attorney General
Department of Justice & Public Safety
Government of Newfoundland and Labrador
4th Floor, East Block
Confederation Building
100 Prince Philip Drive
P.O. Box 8700
St. John's, NL
A1B 4J6

Phone: (709) 729-0361

Fax: (709) 729-2129

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From: Paul Dicks <PDicks@benzonbuffett.com>
Sent: Tuesday, April 19, 2022 12:37 PM
To: Sheppard, Mark <MarkSheppard@gov.nl.ca>
Cc: Megan Reynolds <mReynolds@benzonbuffett.com>; Lindsay Winsor <lindsay@benzonbuffett.com>
Subject: RE: Your Client: Edward Collins Contracting

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Without Prejudice

Hi Mark,

Hope you had a good Easter weekend.

As discussed at our meeting of April 12, 2022, we attach the following documents:

1. Letter to you of today's date, April 19, 2022;
2. Schedule Option 1
3. Schedule Option 2
4. Equipment Declaration Project 12-21 PHC
5. Equipment Declaration Project 45-20 PHP
6. Equipment Declaration Project 46-21PHP
7. Notice of Default Project 12-21 PHC
8. Notice of Default Project 45-20 PHP
9. Notice of Default Project 46-21PHP

Thanks again for allowing us the additional time to respond.

Best regards,

Paul



Paul D. Dicks QC
Lawyer

Suite 900 Atlantic Place
Water Street, P.O. Box 1538
St. John's, NL
Canada A1C 5N8

T 709. 570.7253
F 709.579.2647
W bensoffett.com

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From: Sheppard, Mark <MarkSheppard@gov.nl.ca>
Sent: April 11, 2022 3:16 PM
To: Paul Dicks <PDicks@bensoffett.com>
Cc: Megan Reynolds <mReynolds@bensoffett.com>; Lindsay Winsor <lindsay@bensoffett.com>
Subject: RE: Your Client: Edward Collins Contracting

Hi Paul,

Thanks for the email. We think that a virtual meeting would be appropriate. Our virtual meeting platform (Skype) has issues with non-GNL persons attempting to use it. To that end, would you be able to arrange a virtual platform for the meeting?

Regards,

Mark P. Sheppard
Solicitor, Civil Division
Office of the Attorney General
Department of Justice & Public Safety

Government of Newfoundland and Labrador
4th Floor, East Block
Confederation Building
100 Prince Philip Drive
P.O. Box 8700
St. John's, NL
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From: Paul Dicks <PDicks@bensonbuffett.com>
Sent: Monday, April 11, 2022 2:09 PM
To: Sheppard, Mark <MarkSheppard@gov.nl.ca>
Cc: Megan Reynolds <mReynolds@bensonbuffett.com>; Lindsay Winsor <lindsay@bensonbuffett.com>
Subject: RE: Your Client: Edward Collins Contracting

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Mark,

Thanks very much for the quick reply. Tomorrow at 12:30 will be fine.

We hereby confirm that the meeting will be on a "without prejudice" basis and that anything said in the meeting cannot be relied upon or used in any other proceedings or for another purpose.

We look forward to meeting with you.

How would you prefer that the meeting be held?

Best regards,

Paul



Paul D. Dicks QC
Lawyer

Suite 900 Atlantic Place
Water Street, P.O. Box 1538
St. John's, NL
Canada A1C 5N8

T 709. 570.7253
F 709.579.2647
W benisonbuffett.com

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From: Sheppard, Mark <MarkSheppard@gov.nl.ca>
Sent: April 11, 2022 9:42 AM
To: Paul Dicks <PDicks@benisonbuffett.com>
Cc: Megan Reynolds <mReynolds@benisonbuffett.com>; Lindsay Winsor <lindsay@benisonbuffett.com>
Subject: RE: Your Client: Edward Collins Contracting

WITHOUT PREJUDICE

Hi Paul,

Bill Hillier, Director of Highway Design and Construction with TI and I are available to meet with you and your client tomorrow at 12:30. Can you please advise if this is acceptable?

In addition, it is our expectation that this meeting would be on a "without prejudice" basis and that anything said in the meeting cannot be relied upon or used in any other proceedings or for another purpose. Please confirm that this approach is agreeable to your client.

I trust this is satisfactory and I look forward to hearing from you.

Regards,

Mark P. Sheppard
Solicitor, Civil Division
Office of the Attorney General
Department of Justice & Public Safety
Government of Newfoundland and Labrador
4th Floor, East Block
Confederation Building
100 Prince Philip Drive
P.O. Box 8700
St. John's, NL
A1B 4J6

Phone: (709) 729-0361
Fax: (709) 729-2129

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From: Paul Dicks <PDicks@bensonbuffett.com>

Sent: Sunday, April 10, 2022 1:51 PM

To: Sheppard, Mark <MarkSheppard@gov.nl.ca>

Cc: Megan Reynolds <mReynolds@bensonbuffett.com>; Lindsay Winsor <lindsay@bensonbuffett.com>

Subject: RE: Your Client: Edward Collins Contracting

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Without Prejudice

Hi Mark,

Thanks again for the note.

Megan and I in discoveries all this week. However, we could meet at either at 12:30 – 2:30 pm or 5 – 6 pm if that would work for you and your client. We anticipate that the other counsel would agree to adjust the discovery schedule for these times.

We anticipate that an hour would be sufficient and that we would meet via zoom or similar technology.

As you may be aware, the global schedule provided on Oct 31, 2021 indicated that our client would start project 12-21 tomorrow. It is wondering if it should mobilize to site as there are two issues.

1) the pipe is not available:

2) the department hasn't provided a permit from DFO confirming that the company is permitted to start in-stream activity. The previous permit expired in October 2021.

Despite these issues, it is prepared and able to mobilize. 15 sand bags would be delivered to the work site for the work of diverting the water flow later when the special pipe is delivered and the permit is provided.

We look forward to hearing from you.

Paul



Paul D. Dicks QC
Lawyer

Suite 900 Atlantic Place
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St. John's, NL
Canada A1C 5N8

T 709. 570.7253
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From: Sheppard, Mark <MarkSheppard@gov.nl.ca>
Sent: April 8, 2022 12:40 PM
To: Paul Dicks <PDicks@bensonbuffett.com>
Subject: Your Client: Edward Collins Contracting

WITHOUT PREJUDICE

Good Afternoon Paul,

I represent the Department of Transportation and Infrastructure ("TI"). I am writing in response to your letter to William Hillier dated 07 April 2022.

On 21 January 2022, TI requested a meeting with your client to get an update on its progress with respect to outstanding projects. There was a meeting between our respective clients on 01 February 2022. On 09 February 2022, my client made a proposal to you to resolve outstanding issues with Projects 45-20PHP, 46-21PHP, 12-21PHC and to bring these projects to completion. On 07 March 2022, Mr. Hillier again wrote to your client requesting a response to this proposal. On 14 March 2022, your client sent a letter to my client requesting removal of all remaining work from Projects 45-20PHP and 46-21PHP. On 25 March 2022, Mr. Hillier wrote to your client again advising that TI was not prepare to delete all remaining scope of work from Projects 45-20PHP and 46-21PHP. That same letter requested a work plan on how your client would be able to complete the projects by August 31, 2022. That plan was never received.

It has been two months since our initial offer was made to resolve this matter. In our view, that was more than sufficient time to retain legal counsel and request a meeting. My client cannot wait any longer and requires a concrete plan for how these projects will be completed in a timely matter. Therefore, TI will be issuing notices of default to your client for Projects 46-21PHP and 12-21PHC pursuant to the terms of the contracts. Notice of Default was already issued to your client on Project 45-20PHP on 08 November 2021. TI will also be taking steps to notify the holders of the Performance Bonds for these projects of this development. TI must take all steps necessary to protect its interests.

That said, my client is willing to meet with you and your client next week, on a without prejudice basis, to discuss this matter.

I trust the foregoing outlines my client's position and I look forward to hearing from you.

Regards,

Mark P. Sheppard
Solicitor, Civil Division
Office of the Attorney General
Department of Justice & Public Safety
Government of Newfoundland and Labrador
4th Floor, East Block
Confederation Building
100 Prince Philip Drive
P.O. Box 8700
St. John's, NL

A1B 4J6

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Fax: (709) 729-2129

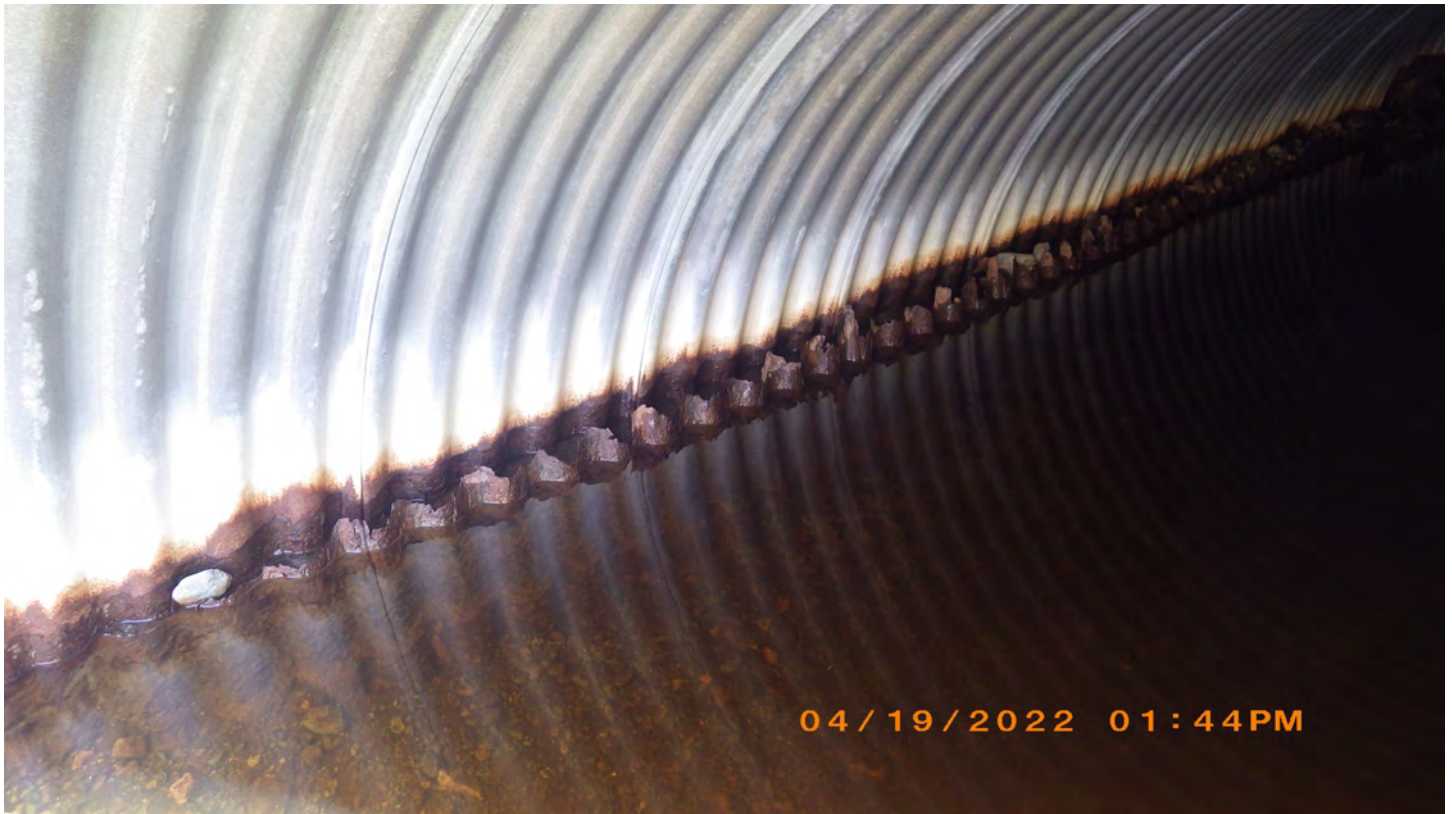
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EDWARD COLLINS CONTRACTING LTD.

P.O. Box 51, JERSEYSIDE,

NEWFOUNDLAND AND LABRADOR, CANADA, A0B 2G0

TEL: (709) 227-5509/2821 FAX (709) 227-3704 email: eccl@nf.aibn.com

April 19, 2022

Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Director of Highway Design & Construction
P.O. box 8700, Prince Philip Drive, Confederation Building
St. John's, NL A1B 4J6

Attention: William Hillier
Director, TI Highway Design and Construction

Dear Mr. Hillier:

Re: **Notice of Default – Contract 12-21PHC Culvert Replacements & Rehabilitations on the TCH Avalon Region**

The Department of Transportation and Infrastructure of the Government of Newfoundland and Labrador (the "Department") did not compensate Edward Collins Contracting Ltd ("ECC") in accordance with the terms of Contract 12-21PHC. Due to non-payment, in accordance with GC 11.3(b), ECC considers the Department to be in default of its obligations under Contract 12-21PHC.

ECC hereby formally requests in accordance with GC 11.3 that the Department provide payment for the Work completed by ECC within fifteen (15) days from the receipt of this written notice. Under Contract 12-21PHC, the Department is in default for non-payment in the amount of Sixty Seven Thousand Eight Hundred Seventy Eight Dollars Sixty Nine Cents (\$67,878.69) to ECC.

If you require any further information or clarification, please contact us at your convenience at 709-227-5509/2821 or eccl@nf.aibn.com.

Regards,

A handwritten signature in black ink, appearing to read "Josh Collins", is written over a light blue horizontal line.

Josh Collins
Edward Collins Contracting Ltd.



Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Director of Highway Design & Construction

COR/2022/03462

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

**RE: TI Response to ECC April 19/2022 Notice of Default; Contract 12-21PHC
Culvert Replacements & Rehabilitations on the TCH Avalon Region**

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms.

As per Contract SGC 3, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,

Bill Hillier
Director, TI Highway Design and Construction

cc. Greg Clarke, Bill Skanes

Hearn, David

To: Skanes, Bill; Hillier, William
Attachments: USER0769.JPG; USER0773.JPG; USER0779.JPG; USER0781.JPG; USER0783.JPG

Bill

On a side note regarding the condition of the pipe:

I dropped in and inspected the pipe yesterday while taking photos of the other completed parts. The water level is down in the pipe and a lot of the pipe is visible below the High water mark. The pipe is overall in very poor condition with complete separation of the invert from the culvert barrel on both sides for the entire length of the pipe. At the outlet the top of the pipe has started to settle over the detached bottom (clam-shelling). At this point, due to the settling / deformation, I'm not sure if the clearance remains to be able to install a liner and dig and replace may be the only option. I don't know when the issue with current Contractor ECC will be resolved but I think this pipe needs immediate attention. Please see attached pictures.

Thanks
Chad

From: Skanes, Bill <skanesb@gov.nl.ca>
Sent: Tuesday, April 19, 2022 3:50 PM
To: Hillier, William <WilliamHillier@gov.nl.ca>
Cc: O'Connell, Chad <ChadOConnell@gov.nl.ca>
Subject: RE: Your Client: Edward Collins Contracting

Bill

I don't know how much into the weeds we should get on this. But the Avalon project basically pertains to one issue – the ordering of the pipe.

We were told at the pre-construction meeting it would be around late August that they would be installing the pipe. The pre-construction meeting was on June 10th and they told us it was a 10-12 week delivery on the pipe.

On June 11th, the supplier, Armtec, informed us it would be 2 weeks to get the shop drawings prepared and then the pipe will be on site 5 weeks after they were approved.

The original shop drawings were received on July 9th, 2021 and approved on July 16th, 2021. ECC submitted revised drawings on July 21, 2021. As far as I could tell, the only difference was they changed the title on the drawings and made some very minor note changes.

We asked ECC multiple times if the pipe was ordered and when will it arrive on site. In August, they inform us that the delivery on the pipe will now be January 2022,, because they can't source aluminum.

On Sept 10th, 2021 we received a request for an alternate pipe instead of the aluminum tunnel liner. We denied this due to reduced end area capacity on Sept 16, 2021. What is curious, is that on Sept 13, 2021 we received an inquiry from Armtec, asking us if we knew if ECC was still going to order the pipe.

November 22, 2022 ECC requests to change the thickness of the pipe. So it still wasn't ordered. Armtec informed them they could meet the schedule and fabricate it over the winter if this change was implemented. January 2022, TI approves the request to change the thickness of the pipe.

The pipe is still not ordered. And now we are looking at Aug 2022 installation? They haven't met a schedule yet, so this will be Sept / Oct ... and if we get weather, we are into 2023.

The Department is not responsible for them sourcing supplies. But every step of the way we were led to believe that could meet the schedules put forth.

From: O'Connell, Chad <ChadOConnell@gov.nl.ca>

Sent: Tuesday, April 19, 2022 3:02 PM

To: Skanes, Bill <skanesb@gov.nl.ca>

Cc: Hillier, William <WilliamHillier@gov.nl.ca>; Waterman, Wade <WatermanW@gov.nl.ca>; Coley, Dennis <DennisColey@gov.nl.ca>

Subject: Re: Your Client: Edward Collins Contracting

Bill

I have reviewed and with regards to 12-21 I agree with your points.

I'm not sure why the Department would be in default due to non payment of LD's amount as the Project is still not substantially complete. If LDs were applied at the daily rate to date, the amount would be much higher.

It appears the pipe is still not ordered or that August installation is confirmed as the notes for the time line says "based on arrival of pipe". This is the same response we have had since July 2021. I think any agreement moving forward would need some kind of definite confirmation from the supplier that says it is purchased and the actual delivery date.

I think DFO would be ok as long as we are out of the water by September 30.

Thanks
Chad

On Apr 19, 2022, at 2:40 PM, Skanes, Bill <skanesb@gov.nl.ca> wrote:

Bill

Some notes in regards to my contract (12-21 PHC)

- 1) From letter the pipe is still not ordered.
- 2) The previous "Global Schedule" had them installing the pipe in April 2022. Not sure how they can now claim they are not off schedule
- 3) Just because a contractor submits a schedule does not mean it is accepted or LD's will be waived.
- 4) Both scheduling options have them installing the tunnel liner in August. Presumably this is because they have to wait for the pipe to be delivered. Why wasn't it ordered when drawings approved the first time (July 2021), and then when we accepted their thickness change (Jan 2022)?
- 5) DFO may take issue if install goes into September. The earlier the install the better for fisheries issues

- 6) Collins wants to be paid twice a month. GCs state when payments are to be made. I don't agree with this ask.

I have asked Chad to review to see if he sees other points of contention.

Bill S

From: Hillier, William <WilliamHillier@gov.nl.ca>

Sent: Tuesday, April 19, 2022 2:18 PM

To: Skanes, Bill <skanesb@gov.nl.ca>; Waterman, Wade <WatermanW@gov.nl.ca>; Coley, Dennis <DennisColey@gov.nl.ca>

Subject: FW: Your Client: Edward Collins Contracting

Please review the points in the letter from Benson and Buffet and provide commentary for your respective project scope.

Regards,

Bill H

Appendix D

Government of Newfoundland & Labrador
Claim on Project 45-20

SCHEDULE A

PROOF OF CLAIM IN RESPECT OF CLAIMS AGAINST EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the "Debtors")

1. PARTICULARS OF CLAIMANT

Full Legal Name of Claimant: Government of NL (the "Claimant")
(the full legal or corporate name should be the name of the original Claimant)

Full Mailing Address of the Claimant:

Civil Division - office of the Attorney General
Dept. of Justice + Public Safety, Gov. of NL
Confederation Bldg., 4th floor, East Block, P.O. Box 8700
St. John's, NL A1B 4J6

Telephone Number of the Claimant: (709) 729-1337

Facsimile Number of the Claimant: _____

Contact Person of the Claimant: David L. Hearn

Email Address of Contact Person: davidhearn@gov.nl.ca

Was the Claim sold or assigned to another party? ☐ Yes ☒ No

2. PROOF OF CLAIM

I, David L. Hearn [name of the Claimant or the Representative], do hereby
certify:

That I: ☐ am the Claimant; or
☒ hold the following position Solicitor of the
Claimant and having personal knowledge of all of the circumstances
connected with the Claim as described herein.

3. PARTICULARS OF CLAIM

Amount	Currency	Claim Specification
Total \$		<u>\$715,812.99</u>

Description of transaction, agreement or event giving rise or relating to the Claim. Please include contract, invoices, and evidence of preservation and perfection of lien (if applicable) along with any other relevant information:

Contract 12-21	Contract 45-20	Contract 46-21
LD - \$67,878.69	LD - \$209,325.00	LD - \$80,500.00
HB - \$96,242.03	HB - \$163,761.09	HB - \$48,106.18
details attached	details attached	details attached

If the Claim includes an amount for any accrued interest thereon and costs payable in respect thereof, state the basis for such interest and/or cost claim, the rate of interest, and provide evidence upon which the claim for interest and/or costs is being made:

If the Claim is contingent or unliquidated, state the basis and provide evidence upon which the Claim has been valued:

IF CLAIMANTS REQUIRE ADDITIONAL SPACE, PLEASE ATTACH A SCHEDULE HERETO. CLAIMANTS SHOULD PROVIDE PARTICULARS OF THE CLAIM AND COPIES OF ALL SUPPORTING DOCUMENTATION, INCLUDING AMOUNT AND DESCRIPTION OF TRANSACTION(S), AGREEMENT(S) OR LEGAL BREACH(ES) GIVING RISE TO THE CLAIM.

2

4. PARTICULARS OF ASSIGNEE(S) (IF ANY):

Full Legal Name of Assignee(s) of the Claim (if all or a portion of the Claim has been sold). If there is more than one assignee, please attach separate sheets with the following information (the "Assignee(s)")

Amount of Claim Assigned: \$ _____

Amount of Claim Not Assigned: \$ _____

Total Amount of Claim: \$ _____

(should equal total amount of Claim in Section 3 above)

Mailing Address of Assignee(s):

Telephone Number of the Assignee: _____

Facsimile Number of the Assignee: _____

Contact Person of the Assignee: _____

Email Address of Contact Person: _____

5. FILING CLAIMS:

The duly completed Proof of Claim together with supporting documentation must be returned and received by the Monitor, no later than 5:00 p.m. local St. John's time on March 27, 2023, to the email address or address listed below.

FAILURE TO FILE YOUR PROOF OF CLAIM BY SUCH DATE WILL RESULT IN YOUR CLAIM BEING FOREVER EXTINGUISHED AND BARRED AND YOU WILL BE PROHIBITED FROM MAKING OR ENFORCING A CLAIM AGAINST THE DEBTORS.

This Proof of Claim must be delivered by email, facsimile, personal delivery, courier or prepaid mail at the following address:

Grant Thornton Limited
in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

2

Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

DATED the 27th day of March 2023.

(Signature of Witness)

(Signature of Claimant)

If the Claimant is not an individual, print name of Claimant, and name and title of authorized signatory:

Per:

DJH

Name: David Horn

Title: Solicitor

I have the authority to bind the corporation

CONTRACT 45-20

1. On or about 16 June 2020, Edward Collins Contracting Ltd. (“**ECC**”) submitted a bid in for a contract for road construction work on Routes 460, 461, 463, 404, 405, 407, 480 in response to a Tender issued by His Majesty in Right of Newfoundland and Labrador as Represented by the Minister for the Department of Transportation and Infrastructure (“**GNL**”). ECC Was the successful bidder and was awarded the contract pursuant to an award letter dated 22 July 2020. The Contract Price of Contract 45-20 was \$2,613,075.14 inclusive of HST.¹
2. Pursuant to Contract 45-20, ECC was to “commence the work by the 22nd day of July 2020 and substantially perform the Work of [the] Contract as certified by the Engineer by the **30th of September, 2020.**”²
3. There are three types of claims associated with this Contract: liquidated damages, payment of holdback monies and force accounts.

LIQUIDATED DAMAGES

1. Two types of Liquidated Damages were applied in relation to this project. Firstly, Liquidated Damages relating to delay amounting to **\$220,000** and secondly, liquidated damages associated with non-compliance with appropriate safety management requirements amounting to **\$5,500**, for a total of **\$225,500**.
2. The parties agreed that liquidated damages would be assessed at \$2,500 per diem. For Permit D, Liquidated Damages were applied for 27 days between July 25th and August 20th, 2021 for an amount of **\$67,500**. For Permit B, Liquidated Damages were applied for 31 days between August 21st and September 20th, 2021 for an amount of **\$77,500**. For Permit A and B, Liquidated Damages were applied for 30 days between September 21st and October 20th, 2021, for an amount of **\$75,000**. In total, Liquidated Damages relating to delay amount to **\$220,000**, prior to the inclusion of HST.

¹ Tab 1 (Contract Book, Form of Agreement) p. 1.

² Tab 1 (Contract Book, Form of Agreement) p. 1.

3. Liquidated damages were applied in relation to non-compliance with appropriate safety management requirements for seven days. Per the contractual stipulations, damages would be applied at a rate of \$500 per day for the first three violations, and a rate of \$1,000 per day for subsequent violations, the total for these damages was **\$5,500**, prior to the inclusion of HST.

Liquidated Damages Relating to Delay

4. GNL's position is that the application of liquidated damages relating to delay was justified. The parties agreed contractually that liquidated damages would be applied at a rate of \$2,500 *per diem*. The initial substantial completion date for this project 30 September 2020; fourteen months later in November of 2021, the project remained unfinished. GNL did not contribute to this delay. GNL waived liquidated damages in the 2020 construction season, and generously offered ECC a further 37 day extension for substantial completion until 24 July 2021, a deadline which was also not met. While GNL contractually had discretion to waive liquidated damages, it did not do so in this case and ECC was notified of same on several occasions.
5. Supplemental General Condition 9 states:

If the Substantial Performance date of The Work is later than the Liquidated Damages Application Date specified in the contract, liquidated damages for such default shall be payable by the Contractor to the Owner. The Department and the Contractor acknowledge the difficulty of making a precise determination of damages and, as a result, have agreed to a sum of money in the amount stipulated as the Liquidated Damages Daily Rate of \$ 2500. Such amount shall be charged against the Contractor for each calendar day that the work remains uncompleted after the Liquidated Damages Application Date, not as a penalty but as Liquidated Damages. The Liquidated Damage Daily Rate of \$ 2500 per diem will apply, which has been determined as the total of the department's costs associated with maintaining a presence and carrying out typical contract administration duties on the project [...]

Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree the Liquidated Damage Daily Rate of \$ 2500 per diem is a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.

The Liquidated Damages Application Date for the purposes of applying liquidated damages is the earlier of the following: (i) the date identified in

Article A-1 of the Form of Agreement unless otherwise agreed to in writing; or No later than **September 30, 2020** unless otherwise agreed in writing [...]

In event that a Contractor is awarded multiple contracts by Government within a construction season, Government reserves the right in its sole discretion to amend the Liquidated Damages Application Date if an approved amended execution plan and/or schedule allows more effective and efficient execution of all related multiple Contracts.³

6. By submission of the tender, ECC agreed that Liquidated Damages would apply at a Daily Rate of \$2,500 should the work remain incomplete after the Liquidated Damages Application Date.⁴
7. ECC did not meet the 30 September 2020 deadline to complete the work. However, due to the impact of the COVID-19 pandemic on the construction industry in 2020, GNL waived liquidated damages.
8. On 26 November 2020, Josh Collins ("**Collins**") communicated to GNL that ECC had officially finished work on the Project as of 15 November 2020 due to deteriorating weather conditions not suitable to allow the laying of asphalt. Collins also requested a 37 day extension on the project into the 2021 season to complete all remaining quantities. The extension would last until 30 June 2021 and was based on the assumption that the Asphalt Plant could start operations on the May 24th, 2021 weekend.⁵
9. In June of 2021, Brad Thomas ("**Thomas**") made a request to GNL for a further extension of time on the Project. Thomas provided the reasoning for this request as: delays in securing approval for access to the Steel Mountain Site, a delay until June 10th to meet with GNL to address requirements per the site approval letter, a delay until 17 June 2021 in receiving a Certificate of Approval for the Asphalt Plant from Digital Government and Service NL, and concerns with interfering with GNL's Salt Operation to occur between June 24th and June 30th. Mr. Thomas requested the substantial completion date be further extended until 31 August 2021.⁶

³ Tab 1 (Contract Book) at SGC 9.

⁴ Tab 1 (Contract Book) at SGC 9.

⁵ Tab 2 (November 26 Letter from Josh Collins).

⁶ Tab 3 (Spring 2021 Extension Request).

10. In 2020, GNL allowed ECC to use the Depot site as an exercise of good faith, it was not contemplated under the contract. Throughout the 2020 construction season, GNL had a number of safety concerns relating to ECC's usage of the site. As a result, issuance of a permit to use the site in 2021 was contingent on a list of agreements and safety protocols, which ECC willingly agreed to.⁷ These conditions were required in order to reduce the safety risks associated with having a contractor using a Government owned and operated site to conduct their operations.⁸
11. Collins initially requested the substantial completion date be extended until 30 June 2021, 37 days after ECC expected to be able to access the Asphalt Plant. On 24 June 2021, Regional Engineer Dennis Coley ("**Coley**") notified ECC that GNL granted an extension until 24 July 2021. This date is consistent with Collins' initial request, as it was 37 days after ECC gained a certificate of approval for accessing the asphalt site on 17 June 2021.⁹
12. ECC did not comply with the conditions outlined by GNL. As a result, GNL was forced to issue a stop work order on 28 October 2021 due to safety concerns with the contractor conducting private work out of this site in contravention of condition 7.0.¹⁰ ECC had previously been warned of these safety concerns.¹¹
13. GNL did not cause delay related to a salt delivery operation. GNL was expecting a delivery of salt, and as a result requested ECC place all barriers around the salt dome entrance. The asphalt plant was to be placed away from the area where salt deliveries were to occur. GNL did not prohibit ECC from accessing the site and did not prevent ECC from mobilizing, or beginning set up of their asphalt plant once the permit was given.
14. On 25 July 2021, GNL began to apply Liquidated Damages at a rate of \$2,500 per diem.¹²
15. On 11 August 2021, Bill Hillier ("**Hillier**"), Director of TI Highway Design and Construction contacted Collins by e-mail requesting an excel file documenting ECC's scheduled outline

⁷ Tab 4 (Conditions for Approval of Permit); Tab 5 (Communications with Brad Thomas).

⁸ Tab 20 (Dept Internal Response to LDs and FAs).

⁹ Tab 6 (Extension Approval).

¹⁰ Tab 7 (Stop Work Order).

¹¹ Tab 5 (Communications with Brad Thomas).

¹² Tab 8 (Liquidated Damages for Late Completion).

for all awarded projects. Hillier reminded Collins that GNL would be applying liquidated damages where schedule completions are not met. He states that waiving liquidated damages is “at the sole discretion of GNL (as per the Contract SGC).” Hillier asserts that it is important this is done proactively, and that it is not typical to allow extensions into the following year, except in special situations.¹³

16. On 3 November 2021, Collins responded to Hillier’s August 11th e-mail asking when ECC could expect payment for relief of liquidated damages applied on separate contracts and not in accordance with the global schedule.¹⁴

17. GC 10.2 provides:

The Owner may notify the Contractor in writing that the Contractor is in default of the Contractor’s contractual obligations, if the Contractor:

- (a) fails to proceed regularly and diligently with the work; or
 - (b) without reasonable cause wholly suspends the carrying out of the work before the completion thereof; or
 - (c) refuses or fails to supply sufficient properly skilled workmen or proper workers, products or construction machinery and equipment for the scheduled performance of the work within five (5) working days of receiving written notice from the Engineer/Architect, except in those cases provided in GC8 - Delay; or
 - (d) fails to make payments due to the Contractor’s Subcontractors, suppliers or his workmen; or
 - (e) persistently disregards laws or ordinances, or the Engineer/Architect’s instructions; or
 - (f) Otherwise violates the provisions of the Contract to a substantial degree.
- Such written notice by the Owner shall instruct the Contractor to correct the default within five (5) working days from the receipt of the written notice.¹⁵

18. In the Award Letter to ECC dated 22 July 2020, Deputy Minister Sean Dutton provided notice to ECC that “Where a contractor fails to honour its commitments under the tender documents and the contract to which it relates whether related to a warranty claim or other matter covered by the contract, Government will also be making a claim against the Contractor’s Bonding Company.”¹⁶

¹³ Tab 9 (Communication between Bill Hillier and Josh Collins)

¹⁴ Tab 9 (Communication between Bill Hillier and Josh Collins)

¹⁵ Tab 1 (Contract Book), GC 10.2 at p. GC 6.

¹⁶ Tab 1 (Contract Book), Part 3: Award Letter.

19. On 8 November 2021, GNL issued a Default Letter to ECC. Coley notified ECC that it was in default of its contractual obligations and it would be required to immediately submit an acceptable plan and schedule on how it intended to successfully complete remaining work outlined in the scope of work for the project. Absent the receipt of an acceptable plan in five calendar days, GNL would consider to move forward in terminating the contract.¹⁷

20. On 9 November 2021, Hillier responded to Collins that “the basic schedule outline is not a contractual basis for decisions on liquidated damages” and reiterates that the damages have been applied where ECC has not progressed work to meet the contractual schedules and had not put forth requests for extensions with valid justifications for delays incurred. Hillier expressed a number of further concerns including:

- lack of communication from ECC
- that Regional Engineers and / or Project Managers had not received adequate plans from ECC
- that ECC had not performed work for several days despite suitable weather conditions,
- that ECC was attempting to use the site for private work in contravention of condition 7 of the their permit

Hillier writes “I hope that ECC are committed to continuing work on Department Contracts and perform asphalt until weather prevents continuation.” Mr. Hillier encouraged Mr. Collins to urgently engage with Regional Engineers and Project Managers to develop acceptable plans for work completion, and appropriately respond to the Default Letter.¹⁸

21. Throughout the Winter of 2022, GNL remained open to negotiating with ECC to complete the work, so long as an acceptable schedule was provided.

22. On 29 April 2022, Hillier once again reiterated to Collins via letter that GNL was reserving its right to deduct liquidated damages.¹⁹

¹⁷ Tab 10 (Default Letter).

¹⁸ Tab 9 (Communication between Bill Hillier and Josh Collins)

¹⁹ Tab 11 (Letters to ECC).

Liquidated Damages Relating to Safety Requirements

23. Between 29 August and 16 September, 2020, ECC incurred liquidated damages for seven safety infractions, amounting to \$5,500 ($3 \times \$500 = \$1,500 + 4 \times \$1,000 = \$7,500$). GNL's position is that it met its contractual obligation to provide written notice to ECC in this regard, and that liquidated damages were rightfully levied after this point. Infractions included but were not limited to ECC's lack of commitment and support to an appropriate safety management system and site specific plan, as well as not including to SWPs, safety procedures, OH&S Act and regulations and policies.
24. The Contract mutually agreed upon by the parties specifies that the Contractor will be provided with one written warning for non-compliance with safety requirements; the next three infractions will result in liquidated damages at a rate of \$500 per day, and subsequent infractions will result in liquidated damages at a rate of \$1,000 per day.²⁰
25. The Contract specifies that the contractor shall operate in accordance with the latest version of the Newfoundland Occupational Health and Safety Act and Regulations. The Contract also requires that contractors wear approved footwear and other PPE as required by the work tasks, hazard assessments or Contractor depending on duties being performed.²¹
26. On 26 August 2020, Michael Fleming, Project Manager ("**Fleming**") provided a written warning for non-compliance with safety requirements to Collins by e-mail. The infractions included three near miss collisions between August 14th and 16th which were not disclosed or reported to GNL, OHS deficiencies observed on job sites August 18th and the site foreman's disregard for PPE requirements. Fleming warned Collins that penalties would be incurred for future infractions, and termination of the contract would be a possibility.²²
27. Between 29 August and 16 September 2020, CSO Stacey Burton ("**Burton**") observed safety infractions resulting in liquidated damages being imposed seven times. On four occasions, no washrooms were available on the job site. On two occasions, workers were

²⁰ Tab 1 (Contract Book), p. SGC 14-15.

²¹ Tab 1 (Contract Book), p. SGC 13-14.

²² Tab 12 (OHS Violation Records), pp. 2-3.

too close to operating equipment. On August 25th, Burton provided a verbal warning to Site Foreman Brad Bordeleau that it was unsafe to wear shorts on the job site; ECC was also provided with written notice of this infraction by Fleming on 26 August 2020. Notwithstanding these warnings, Bordeleau was observed wearing shorts or pants rolled up to his knees on four occasions, and improper footwear on one occasion.²³

HOLDBACK MONIES

28. To summarize, the contract, as mutually agreed upon by the parties, specifies “Following the issuance of the Certificate of Substantial Performance and upon receipt from the Contractor of all documentation called for in the Contract Documents the Engineer/Architect shall issue a certificate for payment of holdback monies” and the holdback is payable on the day following the expiration of the statutory limitation period outlined in the *Mechanics’ Lien Act*, provided there are not claims under the Act.²⁴

29. GC 21.13 states”

“Notwithstanding any other provisions of the contract, the owner may:

- a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non-performance of the Contract, withhold payment of any amount equal to the alleged damages until liability of damages is established and no amount of interest will be paid on amounts held under this clause;
- b) set-off amounts owing by the Contractor to the Owner;
- c) following the issuance of the Certificate of Substantial Performance, withhold an amount equal to twice the cost, as estimated by the Engineer / Architect of remedying efficiencies until the issuance of a Certificate of Total Performance and no amount of interest will be paid on amounts held under this clause.²⁵

30. Five different financial permits were issued for work under this contract:

Part	Estimated Cost	LDs	Gross to Date	Holdback
A	\$570,853.00	\$ 37,500.00	\$231,721.68	\$23,172.17

²³ Tab 12 (OHS Violation Records), pp. 6-26.

²⁴ Tab 1 (Contract Book), GC 21 at pp. GC 11-13.

²⁵ Tab 1 (Contract Book), GC 21 at pp. GC 11-13.

B	\$626,005.00	\$115,000.00	\$341,685.69	\$34,168.57
C	\$473,458.00		\$386,064.57	\$38,606.46
D	\$601,924.00	\$ 67,500.00	\$574,461.36	\$57,446.14
E	\$103,671.75		\$103,671.75	\$10,367.75
				\$163,761.09

31. On 18 July 2022, ECC applied for Creditor Protection and other relief under the *Companies' Creditor Arrangement Act*. On 14 October 2022, Justice MacDonald granted an initial order pursuant to the CCAA. It is GNL's position that it was contractually entitled to set-off liquidated damages from the holdback amounts pursuant to section 21.13 (b) of the Agreement. All amounts were calculated- and liquidated damages were applied in September and October of 2021. This set-off occurred well before the CCAA process was engaged.

32. Pursuant to section 21.13 of the agreement, in the event of non-performance, GNL was entitled to withhold amounts equal to alleged damages until liability is determined. In October of 2021, GNL prepared estimates of how the projected costs to complete the work, should ECC be able to complete it that season. Due to ECC's failure to complete the work contracted for in a timely manner, there was a further degradation of asphalt on the project sites. This delay increased the scope of this project from levelling and surface portions of the roadway to a pulverizing project.

33. It is GNL's position that because of ECC's failure to complete the work within the time-frame stipulated by the contract it incurred significant damages. GNL was contractually permitted to retain the holdback until these damages could be fully calculated.

FORCE ACCOUNTS

34. Section 150 of GNL's Highway Specification Book provides that "Where work is required for which no contract unit prices exist, then this work will be paid for in accordance with Clause GC 19.1(c) of the General Conditions of Unit Price Contract."²⁶

²⁶ Tab 13 (Force Account Policy).

35. The relevant portions of the contract to this claim are GC 18 and 19:

GC 18.1 and 18.2 provide:

18.1 The Owner may make changes by altering, adding to, or deducting from the Work, with the amount due under the Contract and the Contract Time being adjusted accordingly.

18.2 Except as provided in GC15 - Emergencies, no change shall be made without a written order from the Engineer/Architect and no claim for an addition or deduction from the amount due under the Contract or change in the Contract time shall be valid unless so ordered and at the same time valued or agreed to be valued as provided in GC19 - Valuation and Certification of Changes in the Work

GC 19.1 provides the method for valuating changes to work:

19.1 The value of any change shall be determined in one or more of the following methods:

- (a) by unit prices as provided in Article A-3 of the Agreement
- (b) by unit prices subsequently agreed upon
- (c) by cost and a fixed or percentage fee.

In the case of changes in the work valued as outlined in 19.1(c), the Contractor shall submit detailed invoices, vouchers and time sheets for all materials and labour to complete the extra work. When work is performed by the Contractor's own forces his markup for overhead shall be ten (10) percent and his profit ten (10) percent of the agreed or actual cost of the change. When work is performed by one of his Subcontractors the Subcontractor's markup for overhead shall be ten (10) percent of the agreed or actual cost of the change plus five (5) percent for profit.

19.2 clarifies

19.2 Notwithstanding the provisions of 19.1, in case of changes in the work:

- (a) where unit prices are provided in the contract for work to be done those unit prices shall be used in determining the value of any change, and
- (b) the amount charged for equipment rentals shall be that provided in the contract and no additional amount shall be paid as markup for overhead or profit for the Contractor or Subcontractor.²⁷

²⁷ Tab 1 (Contract Book) GC 18-19 at p. GC 9-10.

Force Account #1

36. ECC submitted a Force Account invoice for work done between August 24 and September 1, 2020. The amount totaled **\$88,526.18**, inclusive of HST.²⁸ It is GNL's position that this amount is not justifiable and does not constitute a force account.
37. GNL exercised its discretion to alter the work requested pursuant to GC 18.1. Fleming and / or Barry Spencer communicated with ECC's on-site representatives that the ditching to be completed under the contract was to be moved further along route 407.²⁹
38. The contract provided unit prices for this type of work and this change did not constitute an expansion in the scope of the contract. GNL compensated ECC for this work under Part C Estimate #1 in the amount of \$49,155.00.³⁰
39. On April 29th, 2022, Hillier advised Collins via letter of GNL's position that all quantities relating to this claim were paid in accordance with the contract rate.³¹ To subsequently compensate ECC at Force Account rates is inconsistent with the terms agreed upon, and would provide ECC with a wind-fall.

Force Account #2

40. ECC submitted a Force Account invoice for work done on 15 November 2020. The total amount requested was **\$30,459.87**, inclusive of HST.³² It is GNL's position that this work was provided for within the scope of the contract, and does not constitute a force account.
41. During normal planned operations, it is standard practice to cut key joints on the day prior to, or the day of anticipated asphalt placement in order to avoid safety hazards on the roadways. During the pre-construction meeting ECC was advised against pre-maturely doing asphalt cuts. Despite warnings from GNL, ECC prematurely milled two cross-cuts

²⁸ Tab 14 (Force Account 1 Invoice).

²⁹ Tab 20 (Internal Communication Re Force Accounts).

³⁰ Tab 16 (Confirmation of Payment); Tab 17 (Project Estimate Part C).

³¹ Tab 18 (Letters to ECC).

³² Tab 15 (Force Account 2 Invoice).

in an area which was not listed to be paved prior to identifying the asphalt sections which needed to be replaced on Route 407.

42. Given ECC's substantial delays in completing this project, they had to revisit and repair cross-cuts twice as they were unable to complete asphalt placement over two construction seasons. On 14 November 2020, Coley directed ECC to have the two asphalt key-ways on route 407 capped before the winter season to avoid the potential for unsafe conditions. In order to be compliant with the contract, this work would need to be valued.³³ Coley did not provide any valuation associated with this directive, as it was his position that this formed part of ECC's contractual obligations.

43. GNL's position is that ECC's capping of the asphalt cuts was ECC fulfilling its contractual obligations to remedy their previous error. This does not constitute a force account and compensating ECC for this remedy would amount to a windfall.

³³ Tab 19 (Email Re: Force Account 2).



TRANSPORTATION AND WORKS

CONTRACT BOOK

PROJECT 45-20PHP

Noon: JUNE 16, 2020

PROJECT NAME

Cold plane and repave a section of Route 460 between Gull Pond and Route 460/461 intersection for approx. 1.5km. Pave 3 sections of Route 460 between Stephenville and Cape St. George for a total of approx. 4.7km; sections of Route 404, Route 405 and Route 407 for a total of approx. 4.0 km; and a section of Route 480 between km 27.1 and km 30.4 for approx. 3.3 km. Asphalt leveling a section of Route 463 between Mainland and Cape St. George for approx. 3.0km. Replace culverts on Route 460 between intersection of Route 461 and Cape St. George.

CONTRACTOR: EDWARD COLLINS CONTRACTING LTD.

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR



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2	Tender Form
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LIST OF PROJECT PLANS

LOCATION PLANS (6)

Section One

Form of Agreement



Transportation and Works

**AGREEMENT BETWEEN OWNER AND CONTRACTOR for
use when a unit price forms the basis of payment and to
be used only with the General Conditions of the Contract**

THIS AGREEMENT made in duplicate the 22nd day of July in the year two thousand-twenty.

BY AND BETWEEN

Her Majesty the Queen in Right of Newfoundland and Labrador as represented by the Minister of Transportation and Works acting pursuant to the Executive Council Act, SNL 1995 c. E-16.1.

hereinafter called the "Owner"

AND Edward Collins Contracting Ltd.

hereinafter called the "Contractor"

WITNESSETH : that the Owner and Contractor undertake and agree as follows:

ARTICLE A-1 THE WORK

The Contractor shall:

- (a) perform all the Work required by the Contract Documents for **PROJECT 45-20PHP** (See Tender Form for Description) which have been signed in duplicate by both the parties,
- (b) do and fulfil everything indicated by this Agreement, and
- (c) commence the Work by the 22nd day of July 2020 and substantially perform the Work of this Contract as certified by the Engineer by the **30th of September, 2020.**
- (d) The "Engineer" is the person designated as such from time to time by the Owner.

ARTICLE A-2 CONTRACT DOCUMENTS

The following is an exact list of the Contract Documents referred to in Article A-1:
(SEE TABLE OF CONTENTS FOR LIST OF DOCUMENTS AND DRAWINGS).

ARTICLE A-3 CONTRACT PRICE

The Owner shall pay to the Contractor in lawful money of Canada for the performance of the Contract, the amounts determined for each of the items of work completed at the unit price stated in the unit price table, subject to the adjustments provided herein and in the General Conditions of the Contract. The quantities contained in the unit price table are approximate only, and the final payment shall be made for the actual quantities that are incorporated in or made necessary by the work covered by the Contract.

THE CONTRACT PRICE IS Two Million Six Hundred Thirteen Thousand Seventy-Five Dollars and Fourteen Cents (\$2,613,075.14) (including HST) in Canadian funds which price shall be subject to adjustments as may be required in accordance with the General Conditions of the Contract.

ARTICLE A-4 PAYMENT

- (a) Subject to applicable legislation and, where such legislation does not exist or apply, in accordance with such prescribed regulations or industry practice respecting holdback percentages and in accordance with the provisions of the General Conditions of the Contract, the Owner shall:



Transportation and Works

- a. make monthly payments to the Contractor on account of the Contract Price. The amounts of such payments shall be as certified by the Engineer and
 - b. upon Substantial Performance of the work as certified by the Engineer pay to the contractor any unpaid balance of holdback monies then due; and
 - c. upon Total Performance of the Work as certified by the Engineer pay to the contractor any unpaid balance of the Contract Price then due.
- (b) If the Owner fails to make payments to the Contractor as they become due under the terms of this Contract in any award by a court, interest at the rate and in the manner specified in GC21-Certificates and Payments, shall become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

ARTICLE A-5 ADDRESSES FOR NOTICES

All communications in writing between the parties or between them and the Engineer shall be deemed to have been received by the addressee if delivered to the individual or to a member of the firm or to an officer of the Corporation for whom they are intended or if sent by post or by facsimile addressed as follows:

The Owner at: Tendering and Contracts, Dept. of Transportation & Works
Ground Floor-West Wing, East Block, Confederation Bldg.
P.O. Box 8700, St. John's, NL, A1B 4J6

The Contractor at **Edward Collins Contracting Ltd., P. O. Box 51, Jerseyville, NL, A0B 2G0**

The Engineer at: Dennis Coley, Regional Engineer, Deer Lake, NL

ARTICLE A-6 SUCCESSION

The General Conditions of the Contract hereto annexed, and all other aforesaid Contract Documents, are all to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties and subject to law and the provisions of the Contract Documents shall enure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors and assigns.

IN WITNESS WHEREOF the parties hereto have executed this Agreement under their respective corporate seals and by the hands of their proper officers hereunto duly authorized.

SIGNED, SEALED AND DELIVERED in the presence of:

OWNER

Department of Transportation and Works

Sean Dutton, Deputy Minister Date

CORPORATE SEAL

CONTRACTOR

Name and Title (Print)

Signed Date

Name and Title

Signed Date

Name and Title



N.B. Where any legal jurisdiction, local practice or client requirement calls for proof of authority to execute this document, proof of such authority in the form of a certified copy of a resolution naming the person or persons in question as authorized to sign the Agreement for and on behalf of the Corporation or Partnership, should be attached.

Section Two

Tender Form



Transportation and Works

**TENDER FORM
UNIT PRICE TABLE
HIGHWAY****Tender for:**

Cold plane and repave a section of Route 460 between Gull Pond and Route 460/461 intersection for approx. 1.5km. Pave 3 sections of Route 460 between Stephenville and Cape St. George for a total of approx. 4.7km; sections of Route 404, Route 405 and Route 407 for a total of approx. 4.0 km; and a section of Route 480 between km 27.1 and km 30.4 for approx. 3.3 km. Asphalt leveling a section of Route 463 between Mainland and Cape St. George for approx. 3.0km. Replace culverts on Route 460 between intersection of Route 461 and Cape St. George.

To: Tendering and Contracts
Dept. of Transportation & Works
East Block, Confederation Building
c/o Deputy Minister of Transportation and Works
Government of Newfoundland and Labrador
P.O. Box 8700, St. John's, NL A1B 4J6

FROM: EDWARD COLLINS CONTRACTING LTD.

1. Having carefully examined the site of the proposed work and all conditions affecting such, as well as the Contract Documents including the Specifications, all drawings list in the Specifications, all Addenda, and the Instructions to Bidders for this project.

WE, THE UNDERSIGNED, hereby offer to furnish all necessary labour materials, superintendence, plant, tools, and equipment, and everything else required to perform expeditiously and complete in a satisfactory manner the work for unit prices totalling the sum of TWO MILLION / SIX HUNDRED / THIRTEEN THOUSAND AND

SEVENTY-FIVE DOLLAR AND FORTY CENTS (\$ 2,613,075.14).

in lawful money of Canada which includes all prime costs, allowances, and Government sales or excise taxes, including HST, in force at this date, except as otherwise provided in the tender documents.

2. The Work shall be substantially performed within 2.5 months from the date of notification of award of Contract or 30th OF September, 2020, whichever is later.
3. WE ENCLOSE HERewith if required by the Instructions to Bidders
 - (a) a Bid Bond in an acceptable form and correct amount issued by a company licensed to carry on such a business in the Province of Newfoundland and Labrador or
 - (b) a certified cheque in the correct amount.



In the event of this tender being accepted within the time stated in Section 4 below and our failure to enter into a contract in the form hereinafter mentioned for the unit prices in our tender the said security may at the option of the Owner be forfeited. The forfeiting of the security does not limit the right of action to the Owner against us for our failure or refusal to enter into a contract.

4. IF NOTIFIED IN WRITING BY THE OWNER OF THE ACCEPTANCE OF THIS TENDER WITHIN 30 DAYS OF THE REQUEST FOR TENDER CLOSING DATE SUBJECT TO SUCH OTHER PERIOD AS MAY BE SPECIFIED IN THE TENDER DOCUMENTS, WE WILL :
 - (a) execute the Standard Form of Construction Contract.
 - (b) if specified, furnish the security for the proper completion of the work, the said security, if in the form of bonds, to be issued on an acceptable form.
 - (c) complete substantially all the work included in the Contract within the time and under the conditions specified.
5. WE understand that Performance Bond, Labour and Materials Bond and Insurance as required by the Contract Documents must be provided and in force prior to the commencement of any work and satisfactory proof of such be provided to the Owner.
6. WE declare that the rates and prices variously set forth in the Schedule of Quantities and Prices (Appendix A) have been correctly computed for the purposes of this Tender and that they include and cover all contingencies and provisional sums and all duties, taxes, and handling charges and all transportation and all other charges.
7. WE confirm that the sums herein tendered include all sales taxes, royalties, custom duties, foreign exchange charges, transportation, travelling costs, all overhead and profit, all co-ordination fees, insurance premiums, and all other charges.
8. WE understand and agree to list the names of sub-contractors and suppliers whose bids have been used in the preparation of this tender price in Appendix "B". The list will be subject to the approval of the Owner. "By own forces" will be considered valid and satisfactory only if the bidder is recognized by the Newfoundland and Labrador Construction Association or by the Road Builders Association as being a "bona fide" contractor or supplier of that particular trade or item.

WE agree to authorize the Owner to release the names of any sub-contractor used in our tender where such information is requested from the Owner.

WE reserve to us the right to substitute other sub-contractors for any trades in the event of any sub-contractor becoming bankrupt after the date hereof. Any such substitution shall be subject to the approval of the Owner and contingent upon satisfactory evidence of bankruptcy.
9. WE understand and agree that the Owner may order changes to the work in the form of additions or deletions in accordance with the General Conditions, Supplementary General Conditions and the intent of the Contract Documents.

Section Three

Award Letter



Government of Newfoundland and Labrador
Department of Transportation & Works
Office of the Deputy Minister

July 22, 2020

Edward Collins Contracting Ltd
P.O. Box 51
Jerseyside, NL
A0B 2G0

Re: #045-20PHP - Cold plane and repave a section of Route 460 between Gull Pond and Route 460/461 intersection for approx. 1.5km. Pave 3 sections of Route 460 between Stephenville and Cape St. George for a total of approx. 4.7km; sections of Route 404, Route 405 and Route 407 total of approx. 4.0 km; and a section of Route 480 between km 27.1 and km 30.4 for approx. 3.3 km. Asphalt leveling a section of Route 463 between Mainland and Cape St. George for approx. 3.0km. Replace culverts Route 460

Your tender for the above noted project in the amount of \$2,613,075.14 (HST included), has been accepted. You are advised that Government is subject to the Harmonized Sales Tax and HST must be added to each billing as a line item (HST Registration #R107442683).

A Contract Book will be sent in separate correspondence covering the work involved in this project. Once received would you please have it signed and sealed by your company and returned to Tendering and Contracts within two (2) weeks. When the documents have been signed by department officials an electronic copy will be forwarded to you for your records.

Please have your insurance company complete the enclosed Certificate of Insurance and return it, together with the specified bonding, a current letter of good standing stating Certificate of Recognition certified from the Newfoundland & Labrador Construction Safety Association and a Certificate of Clearance from WorkplaceNL, to the Manager of Tendering and Contracts, Department of Transportation & Works, P.O. Box 8700, Ground Floor, East Block, Confederation Building, St. John's, NL A1B 4J6. Your bid security will be retained until these documents are received. No work is to start until the bonding, insurances and letters from the Newfoundland & Labrador Construction Safety Association & WorkplaceNL are received and the approval of the Department's Regional Engineer is given. No payment will be made until all documentation, including signed contracts, is received at Tendering and Contracts.

As you may be aware certain concerns have arisen with respect to the quality of certain hot mix asphalt concrete work done in this Province over the last several years and deficiencies in the same.

As a result of these concerns a number of changes have been made to a number of terms and conditions of the tender documents and specifications book that form part of the contract that you and all others bid on and that all successful bidders on road contracts are required to sign.

The terms and conditions of G.C. 31 (see the Supplementary General Conditions attached to the tender documents in this regard) have been altered. Specifically, the warranty period provided for in the same has been extended from one (1) to two (2) years. As well, where a Contractor claims a fault or defect in roadwork is as a result of a defect or fault resulting from the design of the work, the onus has been placed on the Contractor to establish the same. Additionally, where a dispute exists with respect to a warranty issue the Contractor may be required by the Owner to correct the work concerned pending resolution of this matter under the dispute resolution mechanisms provided for in the tender documents which form part of the contract.

Certain changes have also been made to section 160 of the Specifications Book, which forms part of the contract that all successful tender bidders must execute before beginning work on a project. The Contractor Performance Evaluation System provided for in section 160 of the Specifications Book has been revamped to make the compliance standards more rigid. Contractors whose work is found to be unsatisfactory at the time a Final Completion Certificate is issued and/or as part of any Contractor performance evaluation system may have their bidding privileges suspended for a period of time determined by the Department and not reinstated until they can demonstrate to the Department's satisfaction that the issue(s) giving rise to the suspension is/are addressed and that the Contractor can meet the appropriate standards in future. As noted the provisions of the Contractor Performance Evaluation system have also been broadened to cover the Contractor performance of the Contractor's obligations under GC 31 as amended during the extended warranty period referenced above. As part of the Contractor Performance Evaluation System a new Contractor Performance Report with respect to Warranty Work under the Contract being Part II of the Contractor Performance Evaluation Form which relates to the performance of work under the warranty provided in the contract has been created. Further to that process Contractors who do not appropriately address and correct faults or defects in their work will be subject to having their tendering privileges revoked until such deficiencies are corrected and/or the matter concerned otherwise resolved.

Another new Supplementary General Condition has also been added to the tender documents. This new Supplementary General Condition makes it clear that no payments will be made to the Contractor under Sections 330.05.10.01 and 330.06.09.03 of the Specifications Book related to Pavement Smoothness & Asphalt Density until any faults or defects in the Contractor's work identified in the Warranty Period provided for in GC 31 have been satisfactorily addressed and the warranty period has expired; unless no such deficiencies are found to exist in the Contractor's work that are covered by the warranty during the warranty period, in which case such payments will be made to the Contractor within thirty (30) days of the expiration of the warranty period.

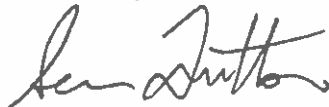
Where a Contractor fails to honour its commitments under the tender documents and the contract to which it relates whether related to a warranty claim or other matter covered by the contract, Government will also be making a claim against that Contractor's bonding company.

You are further advised that the Department will be closely and strictly monitoring all road construction projects to ensure that Contractors properly and fully comply with all applicable specifications. Where a Contractor does not comply with the same, as noted above the Department will pursue all of the contractual and other legal remedies available to it to ensure compliance and to address defective work by a Contractor.

We believe these measures to be in the public interest and in the interests of the industry in ensuring that specifications are appropriately met and that quality work is done by all contractors.

Accordingly, I would ask you to please contact our Regional Engineer, Dennis Coley at (709) 635-4132, Transportation and Works, Western Region, within the next ten (10) days to arrange for a suitable time to further discuss the work, the contract and the above.

Yours truly,



SEAN DUTTON
Deputy Minister

“Never give safety a day off”

cc: William Hillier, Director, Highway Design & Construction, TW
Dennis Coley, Regional Engineer, Western Region
Loyola Power, Director, Occupational Health & Safety
David Legge, Occupational Health & Safety, TW
Donald Stone, Accounts Payable, TW
Natasha Sharpe, Project Coordinator, Highway Design & Construction

Section Four

Engineering Verified
Unit Price Table
&
Distribution Table

UNIT PRICE TABLE
HIGHWAYS

NO.	TENDER ITEM	Unit	Estimated Quantity	Unit Price	Amount	
CARRIED FORWARD \$						
6 Excavation for Foundation						
6(b)	Other Material	m3	2491	10.00	24,910.00	
7 Supply and Installation of Pipe Culverts Aluminized Type 2 (SGC#23)						
7(b)	600 mm Diameter	m	375.5	300.00	112,650.00	
7(c)	800 mm Diameter	m	43.5	400.00	17,400.00	
7(d)	900 mm Diameter	m	76.5	550.00	42,075.00	
7(e)	1000 mm Diameter	m	33.5	650.00	21,775.00	
9 Rip Rap Treatment						
9(a)	Hand Laid with Sod	m3	21	100.00	2,100.00	
12 Selected Granular Base Course						
12(a)	Granular "A"	t	347	25.00	8,675.00	
12(b)	Granular "B"	t	715	25.00	17,875.00	

UNIT PRICE TABLE
HIGHWAYS

NO.	TENDER ITEM	Unit	Estimated Quantity	Unit Price	Amount	
CARRIED FORWARD \$					247,460 ⁰⁰	
14	Disposal of Old Asphaltic Pavement (See SGC #29)	m3	94	10 ⁰⁰	940 ⁰⁰	
15	Tack Coat (SGC#27)	m2	152325	0.45	68,546 ²⁵	
16	Hot Mix Asphaltic Concrete (SGC#24, 25 & 26)					
16(b)	Asphaltic Surface Course	t	14582	33 ⁰⁰	481,206 ⁰⁰	
16(c)	Asphaltic Levelling Course	t	2512	33 ⁰⁰	82,896 ⁰⁰	
16(d)	Liquid Asphalt	t	1111	700 ⁰⁰	777,700 ⁰⁰	
16(e)	Blending Sand	t	2563	15 ⁰⁰	38,445 ⁰⁰	
16(g)	Asphaltic Patching	m2	1096	50 ⁰⁰	54,800 ⁰⁰	
17	Supply and Installation of Guide Rail (SGC#20)					
17(a)	Standard Type Guide Rail	m	761	80 ⁰⁰	60,880 ⁰⁰	
17(b)	Standard Type Buried Ends	each	8	800 ⁰⁰	6,400 ⁰⁰	
18	Removal of Guide Rail	m	761	10 ⁰⁰	7,610 ⁰⁰	

UNIT PRICE TABLE
HIGHWAYS

NO.	TENDER ITEM	Unit	Estimated Quantity	Unit Price	Amount	
CARRIED FORWARD \$					1,826,883. ²⁵	
19	Supply & Install Wooden Guide Posts (See SGC#20)	each	212	50. ⁰⁰	10,600. ⁰⁰	
21	Contingency				\$ 30,000.00	
22	Flagperson Hours	hrs	2819	24. ⁰⁰	67,656. ⁰⁰	
23	Mobilization & Demobilization (Bid Limits Apply)	Lump Sum	Bid This Item	20,000. ⁰⁰	20,000. ⁰⁰	
28	Disposal of Pipes & Culverts					
28(a)	All Sizes	m	479	10. ⁰⁰	4,790. ⁰⁰	
35	Cold Planing Asphalt (SGC#22)	m2	11250	1.50	16,875. ⁰⁰	
47	Supply Fill in Place					
47(c)	Supply Rock Fill in Place	t	1178	20. ⁰⁰	23,560. ⁰⁰	
104	Contractor Safety Officer (SGC#14)	Lump Sum	Bid This Item	10,000. ⁰⁰	10,000. ⁰⁰	
112	Cleaning of Existing Ditches (SGC #18)	m	13050	7.50	97,875. ⁰⁰	

UNIT PRICE TABLE
HIGHWAYS

NO.	TENDER ITEM	Unit	Estimated Quantity	Unit Price	Amount	
	CARRIED FORWARD \$					2,108,239.²⁵
113	Shouldering (SGC #28)	m	32800	5.⁰⁰	164,000.⁰⁰	

Total Estimated Tender

HST 15% of above

Total Estimated Tender Including
HST Carried Forward to Page 1 of
Tender Form

2,272,239.²⁵	
340,835.⁸⁹	
2,613,075.¹⁴	

DISTRIBUTION TABLE

		Part "A" - Mill and Fill Route 480, Whites Road		Part "B" - Paving sections of R460 between Stephenville and Cape St George	Part "C" - Replace culverts on Route 460 between the intersection of Route 461 and Cape St George	Part "D" - Levelling a section of Route 463 between Mainland and Cape St George	Part "E" - Paving sections of Routes 404, 405 and 407	Part "F" - Paving a section of Route 480 between km 27.1 and km 30.4		
NO.	TENDER ITEM	Unit	Estimated Quantity	Estimated Quantity	Estimated Quantity	Estimated Quantity	Estimated Quantity	Estimated Quantity	Estimated Quantity	Total Quantities
PROJECT NO. 45-20 PHP										
6	Excavation for Foundation									
6(b)	Other Material	m3	0	0	683	0	0	1808	2491	
7	Supply and Installation of Pipe Culverts Aluminized Type 2 (SGC#23)									
7(b)	600 mm Diameter	m	0	0	300.5	0	0	75	375.5	
7(c)	800 mm Diameter	m	0	0	0	0	0	43.5	43.5	
7(d)	900 mm Diameter	m	0	0	0	0	0	76.5	76.5	
7(e)	1000 mm Diameter	m	0	0	15	0	0	18.5	33.5	
9	Rip Rap Treatment									
9(a)	Hand Laid with Sod	m3	0	21	0	0	0	0	21	
12	Selected Granular Base Course									
12(a)	Granular "A"	t	0	0	94	0	0	253	347	
12(b)	Granular "B"	t	0	0	194	0	0	521	715	
14	Disposal of Old Asphaltic Pavement (See SGC #29)	m3	0	0	15	0	0	79	94	
15	Tack Coat (SGC#27)	m2	11250	30875	0	39600	44200	26400	152325	
16	Hot Mix Asphaltic Concrete (SGC#24, 25 & 26)									
16(b)	Asphaltic Surface Course	t	1463	4015	0	2574	3296	3234	14582	
16(c)	Asphaltic Levelling Course	t	0	0	0	1287	1225	0	2512	
16(d)	Liquid Asphalt	t	95	261	0	251	294	210	1111	
16(e)	Blending Sand	t	219	602	0	579	678	485	2563	
16(g)	Asphaltic Patching	m2	0	0	381	0	0	715	1096	
17	Supply and Installation of Guide Rail (SGC#20)									
17(a)	Standard Type Guide Rail	m	0	61	0	0	0	700	761	
17(b)	Standard Type Buried Ends	each	0	2	0	0	0	6	8	
18	Removal of Guide Rail	m	0	61	0	0	0	700	761	
19	Supply & Install Wooden Guide Posts (See SGC#20)	each	0	22	0	0	0	190	212	
21	Contingency		10000	5000	2500	2500	5000	5000	30000	
22	Flagperson Hours Mobilization & Demobilization (Bid Limits Apply)	hrs	114	1312	240	111	562	480	2819	
23		Lump Sum	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	
28	Disposal of Pipes & Culverts									
28(a)	All Sizes	m	0	70	195.5	0	0	213.5	479	
35	Cold Planing Asphalt (SGC#22)	m2	11250	0	0	0	0	0	11250	
47	Supply Fill in Place									
47(c)	Supply Rock Fill in Place	t	0	0	274	0	0	904	1178	
104	Contractor Safety Officer (SGC#14)	Lump Sum	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	BID THIS ITEM	
112	Cleaning or Existing Drains (SGC #18)	m	1000	5500	0	1000	3900	1650	13050	
113	Shouldering (SGC #28)	m	3000	9400	0	6000	7800	6600	32800	

Section Five

Declaration of Equipment Form



Transportation and Works

DECLARATION OF EQUIPMENT

APPENDIX 'A'

In the event of being awarded the contract, the undersigned will make available for the work, the plant and the equipment listed below.

QTY	DESCRIPTION	CAPACITY	AGE	PRESENT LOCATION	OWNERS NAME
3	290G J.D EXCAVATOR	32T	2016	DEER LAKE, NL	ECC
1	470G J.D EXCAVATOR	42T	2014	DEER LAKE, NL	ECC
1	744K J.D LOADER	30T	2015	DEER LAKE, NL	ECC
2	W.S SEMI DUMP LOVE BOTTOM	30T	2020	DEER LAKE, NL	ECC
2	W.S SEMI DUMP LOVE BOTTOM	30T	2018	DEER LAKE, NL	ECC
1	K.W SEMI DUMP LOVE BOTTOM	30T	2000	DEER LAKE, NL	ECC
1	F.L SEMI DUMP LOVE BOTTOM	30T	2013	AKHEWITA, NL	ECC
1	C44 CONE CRUSHER MCHUSKEY	—	2014	DEER LAKE, NL	ECC
1	J50 JAW CRUSHER MCHUSKEY	—	2009	DEER LAKE, NL	ECC
1	S190 SPREADER MCHUSKEY	—	2014	DEER LAKE, NL	ECC
1	R230 SCRAPPER MCHUSKEY	—	2017	ST. JOHN'S, NL	ECC
1	LIJTEC Lx14000S	160TPH	2017	HALIFAX, NL	ECC
2	W.S TANDEN - TANDEN	20T	2017	AKHEWITA, NL	ECC
1	PERFECT TANDEN	15T	2009	TERRA NOVA, NL	ECC
1	W.S TANDEN	15T	2006	TERRA NOVA, NL	ECC
1	ROADTEC SB-2500C SHOTTE BULLY	25T	2005	AKHEWITA, NL	ECC
1	CAT PS150B PNEUMATIC ROLLER	—	2002	AKHEWITA, NL	ECC
1	CAT 655D PAVAR	—	2009	TERRA NOVA, NL	ECC
1	CAT CS54B ROLLER	10T	2013	TERRA NOVA, NL	ECC
1	WRIGHT 2200mm GILD PLANK	2200mm	2014	AKHEWITA, NL	ECC
CONTRACTOR EDWARD COLLINS CONTRACTING LTD.					
ADDRESS P.O Box 51 TREASURES, NL AOB 260					
DATE JULY 2/2020					
1	CAT CS54B XW ROLLER	—	2003	AKHEWITA, NL	ECC

Section Six

Declaration of Subcontractors

APPENDIX 'B'

Section Seven

Construction Schedule Form

Section Eight

Addendum Acknowledgement Form



Transportation and Works

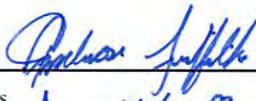
10. WE hereby acknowledge receipt of the following addenda:

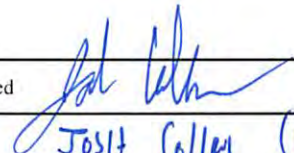
Addendum No. |

Addendum No.

11. In order for a Tender to be valid, it must be signed by duly authorized officials as indicated in the Instructions to Bidders.

Firm Name <u>EDWARD COLLINS CONTRACTING LTD.</u>		
Address <u>P.O. Box 51 JERSEYSIDE, NL</u>		Postal Code <u>A0B 2G0</u>
Telephone # <u>709-227-9105</u>	Fax# <u>709-227-3704</u>	E-Mail <u>JOSEPH-56@EC1000.com</u>


 Witness Ambrose Griffiths


 Signed JOSEPH COLLINS (V.P.)
 Name and Title (Print)
JUNE 19 / 2020
 Date

 Witness

 Signed

 Name and Title (Print)

 Date

CORPORATE SEAL



Section Nine

Tender Amendment Forms

ADDENDUM NO. 1

Project No. 45-20 PHP:

Cold plane and repave a section of Route 460 between Gull Pond and Route 460/461 intersection for approx. 1.5km. Pave 3 sections of Route 460 between Stephenville and Cape St. George for a total of approx. 4.7km; sections of Route 404, Route 405 and Route 407 for a total of approx. 4.0 km; and a section of Route 480 between km 27.1 and km 30.4 for approx. 3.3 km. Asphalt leveling a section of Route 463 between Mainland and Cape St. George for approx. 3.0km. Replace culverts on Route 460 between intersection of Route 461 and Cape St. George.

Closing Date:

Noon, June 16, 2020

CONTRACTORS ARE ADVISED OF THE FOLLOWING CHANGES TO THE TENDER PACKAGE:

1. This solicitation is undertaken in accordance with section 6(iv) of the Public Procurement Act. In lieu of a public opening and to comply with Special Measures Orders pursuant to the Public Health Protection and Promotion Act, the opening of submissions will be held on the designated date and time with two representatives of the Department of Transportation and Works Tendering and Contracts Division and will be audio recorded.

2. Add Supplementary General Condition 33 to the Tender Document as follows:

33. Change in Validity Period

Contractors are advised of the following changes to Item #4 of the Tender Form:

IF NOTIFIED IN WRITING BY THE OWNER OF THE ACCEPTANCE OF THIS TENDER WITHIN 60 DAYS OF THE TENDER CLOSING DATE SUBJECT TO SUCH OTHER PERIOD AS MAY BE SPECIFIED IN THE TENDERING DOCUMENTS, WE WILL:

- (a) execute the Standard Form of Construction Contract.
- (b) if specified, furnish the security for the proper completion of the work, the said security, if in the form of bonds, to be issued on an acceptable form.
- (c) complete substantially all the work included in the Contract within the time and under the conditions specified.

3. Revise the Closing Date for the Tender to: Noon, JUNE 19, 2020

Contractors are advised to acknowledge receipt of this Addendum on page 4, Item No. 10 of the Tender Form, when submitting a bid.

June 4, 2020

Section Ten

Notice to Bidders



NOTICE TO BIDDERS

1. THE CLOSING TIME AND DATE OF THIS REQUEST FOR TENDERS IS **NOON** of the day indicated on the cover of this document or as amended by the Deputy Minister.
2. Bidders are advised the Department's FAX NUMBER at Tendering and Contracts is 709-729-6729.
3. **Bidders who are requested to submit the following forms must do so within 72 hours of the time of their notification.**
 - (a) The Declaration of Equipment Form
 - (b) The Declaration of Sub-Contractor Form
 - (c) The Construction Schedule Form
 - (d) The Declaration of Safety Information Form
4. Schedule of Minimum Wage Rates applying to this Tender shall be the latest version approved by the Government of Newfoundland and Labrador.
5.
 - (a) Bidders are advised the latest version of the Specifications Book dated January 2008 shall apply to this Tender. The latest version of the Specifications Book is available on the Department of Transportation & Works website at www.tw.gov.nl.ca/publications.
 - (b) The Specifications Book may be inspected at Tendering and Contracts, Dept. of Transportation & Works, Ground Floor-West Wing, Confederation Building, East Block, St. John's, NL.
 - (c) Any amendments and additions to the Specifications Book can be viewed at www.tw.gov.nl.ca/publications.
 - (d) Bidders are advised any reference to specifications in these documents includes the Department's "Specifications Book".
6. Bidders are advised the "Use of Bid Depository" Item 9 of the Instructions to Bidders does not apply to this contract. "Bidding Security" Item 3(a) of Instructions to Bidders does apply.
7. **Bidders are advised when making a bid the COMPLETE REQUEST FOR TENDER FORM for the project being tendered MUST BE RETURNED INTACT. An altered Request for Tender Form originally issued for another project will not be accepted as a bid.**

Section Eleven

Instructions to Bidders



Transportation and Works

UNIT PRICE TABLE

INDEX

INSTRUCTION TO BIDDERS

PAGE	ITEM
1	Index
2	1. Tender
2	2. Tender Documents
2-3	3. Tender Surety and Bonding
3	4. Completion of Tender Form
4	5. Unacceptable Tenders
4	6. Amendments to Tender
4	7. Withdraw of Tender
4	8. Substitution of Materials
4	9. Use of Bid Depository
4	10. Acceptance of Tender



Transportation and Works

INSTRUCTIONS TO BIDDERS

1. TENDERS

- (a) Envelopes containing the Tender are to be clearly marked identifying the Project No. and the Project Name as shown on the Tender Form, and the envelopes to be addressed:

Tendering and Contracts, Dept. of Transportation & Works,
 East Block, Confederation Bldg., c/o Deputy Minister of Transportation and Works,
 Government of Newfoundland and Labrador, P.O. Box 8700, St. John's, NL A1B 4J6

The name and address of the Bidder and the closing time and date must be shown on the envelope.

- (b) Tenders must be received by Tendering and Contracts Section, Department of Transportation and Works on or before the exact closing time and date indicated in the advertisement or as amended by the Deputy Minister. **TENDERS RECEIVED AFTER THAT TIME WILL NOT BE CONSIDERED.**
- (c) The Form of Agreement is included in the Contract Documents at the time of tender requests for the purpose of information to Bidders and shall not be completed at the Time of Tender submission.
- (d) Before submitting a Tender, bidders shall carefully examine the Contract Documents and the site of the proposed work and fully inform themselves of the existing conditions and limitations. No subsequent allowance under the Contract Documents will be considered for any Bidder who had failed to become familiar with all aspects of the work.
- (e) The Owner will not defray any expenses incurred by the bidders in the preparation and submission of their tenders.

2. TENDER DOCUMENTS

- (a) The Tender Documents consist of the Instructions to Bidders, Tender Form, Agreement, Drawings, Specifications, and any Amendments to the Contract Documents issued during the tender period.
- (b) Every interpretation of or addition to the contract Documents to be considered a valid part of the Contract Documents will be issued in the form of a written addendum.
- (c) No addendums will be issued less than seven (7) days prior to the closing date of the Tender.

3. TENDER SURETY AND BONDING

- (a) Bidding Security

Every bidder shall submit with their Tender a bid bond issued by an approved Surety Company licensed to do business in the Province of Newfoundland and Labrador and made out in favour of the Department of Transportation and Works. The bid bond shall be at least ten percent (10%) of the tendered amount. No bidding security will be required for a tendered amount of less than \$25,000 unless specifically called for elsewhere in the tender document. An approved certified cheque may be substituted in lieu of the bid bond. The bidding security will be returned upon receipt of the Performance and Labour and Materials Bonds. The terms of the bid security will be invoked and the amount retained by the Owner if the Bidder fails to enter into an agreement when notified of the award of the work within the tender validity period; or fails to provide the Performance and Labour and Materials bonds in the amount and within the period specified.



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(b) Performance Bond

A Performance Bond will be required in the amount of fifty percent (50%) of the contract price. The Performance Security is to be received not later than two (2) weeks after the award of the contract by the letter of intent and prior to the formal execution of the agreement. No work is to be undertaken until the Performance Security has been received. Performance Security will not be required for a contract value of less than \$25,000. In lieu of the Performance Bond, the Minister may accept at his sole discretion an approved certified cheque for ten percent (10%) of the tendered amount. The cheque will be retained until satisfactory completion of the work including the guarantee period, after which this amount will be returned to the contractor together with the accrued interest thereon at the current bank rate.

(c) Labour and Materials Payment Bond

A Labour and Materials Payment Bond will be required in the amount of fifty percent (50%) of the contract price. The Labour and Materials Payment Bond is to be received not later than two (2) weeks after the award of the contract by the letter of intent and prior to the execution of the formal agreement. No work is to be undertaken until the Labour and Materials security has been received. Labour and Materials security will not be required for a contract valued at less than \$25,000.

In lieu of the Labour and Materials Bond, the Minister may accept at his sole discretion an approved certified cheque of ten percent (10%) of the tendered amount. The cheque will be retained until substantial completion of the work as defined by the Mechanics Lien Act and upon receipt of a completed and approved Statutory Declaration Form. This security, if in the form of a cheque, will be returned to the Contractor together with the accrued interest thereon at the current bank rate.

4. COMPLETION OF TENDER FORM

- (a) The Tender Form is to be completed in its entirety and submitted in the envelopes provided and the name of the Bidder entered in the "Name of Bidder" space on the tender envelope. The Bidder should retain a copy of the tender for their records.
- (b) Type or legibly print the information required on the Tender Form.
- (c) Type or legibly print the Bidder's full business name and address in the spaces provided on the Tender Form.
- (d) Sign the Tender Form in the space provided as indicated:
 - In the case of a Sole Proprietorship signature, Sole Proprietor will sign where indicated in the presence of a witness who will sign where indicated. Insert the words "Sole Proprietor" next to the signature. In the case of a Partnership signature, all partners will sign where indicated in the presence of a witness who will sign where indicated. Insert the word "Partner" next to signatures.
 - In the case of a Limited Company, signatures of authorized signing officers will sign where indicated, in the presence of a witness who will sign where indicated, and the corporate seal will be affixed. Indicate next to signature the corporate title of each signer.
- (e) The attention of the Bidder is drawn to the necessity of legibly pricing each and every item in any schedule of quantities and of calculating the units and totals exactly correct to agree with the tender amounts. Failure to do so will be sufficient grounds for rejection.
- (f) Spaces or Appendices will be provided with the Tender Form if required for a list of sub-contractors, use of bid depository, contractor's experience, list of equipment. All such spaces and appendices must be completed in their entirety, legibly by the typewriter or by printing in ink.
- (g) If it becomes necessary to correct an error made on the Tender Form, such correction must be initialled and dated by the person or persons signing the Tender Form.



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5. UNACCEPTABLE TENDERS

- (a) Tenders not submitted on the Tender Form provided will not be considered.
- (b) Telegraphic or telex tenders will not be accepted.
- (c) Tenders received after the Tender Closing time will not be considered.
- (d) Incomplete Tenders will be rejected.
- (e) Tenders not accompanied by an approved security in the correct amount will be rejected.
- (f) Tenders containing qualification or additional clauses to the Tender Form will be rejected.
- (g) Incorrectly prepared tenders may be rejected.

6. AMENDMENTS TO TENDER

Properly documented amendments to the Tender will be permitted up to the Tender closing time. Amendments documented by telegram, fax, telex, or written form will be acceptable.

7. WITHDRAWAL OF TENDERS

Bids may be withdrawn without penalty in written form, by fax, telegram, or by telex request if received prior to the time fixed for the opening.

8. SUBSTITUTION OF MATERIALS

- (a) Tenders shall be based upon using the materials or products as specified without substitution. Where two or more brand names are specified the choice shall be left to the Contractor. Where only one brand name is stated there shall be no substitution.
- (b) Where the Specifications include the "or approved equal" clause, substitutions may be proposed provided that:
 - 1. the request for a substitution is made in writing at least fourteen (14) days prior to the bid date;
 - 2. the request shall clearly define and describe the product for which the substitution is requested;
 - 3. the substituted article is equivalent to the specified article with regards to design, function, appearance, durability, operation and quality.

Approval of the substitution by the Architect/Engineer shall be in form of an addendum to the Specifications issued at least seven (7) days prior to the Tender closing date to all of those contractors listed as having received a copy of the Contract Documents.

9. USE OF BID DEPOSITORY

The attention of the Bidder is drawn to the fact that the Bid Depository of the Newfoundland and Labrador Construction Association will be used for the Trade as listed in Appendix ____.

10. ACCEPTANCE OF TENDER

- (a) The Owner will not necessarily accept the lowest or any tender.
- (b) Upon written acceptance of the tender within the tender validity period, the Tender Form becomes part of the Contract Documents and the successful bidder becomes the Contractor. The Contractor will be required to execute a formal agreement with the Owner within thirty (30) days of the date of the letter of intent.

Section Twelve

Supplementary
General Conditions



TRANSPORTATION AND WORKS
SUPPLEMENTARY GENERAL CONDITIONS

1. GC17 INDEMNIFICATION

- (a) Except as provided in (b) the Contractor shall be liable for, and shall indemnify and hold harmless the Owner against all claims, demands, losses, costs, damages, actions, suits or proceedings, whatsoever arising under any statute or Common Law:
 - (i) in respect of personal injury to or the death of any person whomsoever arising out of or in the course of or caused by the carrying out of the work; and
 - (ii) in respect of any injury or damage whatsoever to any property, real or personal or any chattel real, insofar as such injury or damage arises out of or in the course of or by reason of the carrying out of the work.
- (b) The Contractor shall not be liable under (a) if the injury, death, loss or damage is due to any act or neglect of the Owner.

2. INSURANCE

Contractors are advised that General Conditions #26 LIABILITY INSURANCE and #27 PROPERTY INSURANCE are revised as follows:

GC 26 LIABILITY INSURANCE

26.1 Commercial General Liability Insurance

- (a) Without restricting the generality of GC 17 - Indemnification, the Contractor shall provide and maintain, either by way of a separate policy or by an endorsement to his existing policy, Commercial Liability Insurance acceptable to the Owner and subject to limits set out in detail in the Supplementary General Conditions inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof.
- (b) This insurance shall include as an additional insured Her Majesty the Queen in the Right of Newfoundland. The Contractor shall not commence any work until he obtains, at his expense, all required insurances as specified in the General Conditions and the Supplementary General Conditions. Such insurance must have the approval of the Engineer and be to the limits, form and amounts specified. The Contractor will not permit any Subcontractor to commence work on this Project until the same insurance requirements have been compiled with by the Subcontractor.
- (c) The insurance shall also include as Unnamed Insureds the architectural and engineering consultants of the Owner with respect to work performed by the Contractor, but excluding professional liabilities associated with such architectural and engineering consultants.
- (d) The Commercial General Liability Insurance will not be limited to, but shall include coverage for:



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SUPPLEMENTARY GENERAL CONDITIONS

1. premises and operations liability	8. personal injury liability
2. products or completed operations liability	9. liability with respect to non-owned licensed vehicles
3. blanket contractual liability	10. shoring, blasting, excavating, underpinning, demolition, pile driving and caisson work, work below ground surface, tunnelling and grading, as applicable only.
4. broad form property damage	
5. Cross liability	
6. elevator and hoist liability	
7. Contingent employer's liability	

26.2 Automobile Liability Insurance

The Contractor shall provide and maintain liability insurance in respect of:

- (i) owned licensed vehicles and
- (ii) leased vehicles, subject to limits set out in the Supplementary General Conditions inclusive.

26.3 Aircraft and Water Craft Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to owned and non-owned aircraft and Water craft, as may be applicable, subject to limits set out in the Supplementary General Conditions inclusive. Such insurance shall be in the names of the Contractor, Her Majesty the Queen in the right of Newfoundland, the Owner and the Architect/Engineer as defined in 26.1(b) and (c) where they have an insurable interest in the use and operation of such aircraft and watercraft.

26.4 Completed operations shall be maintained continuously until twelve (12) months after the date the Architect/Engineer issues a Certificate of Substantial Completion.

26.5 All insurance policies shall contain an endorsement requiring notification of Her Majesty and the Named Insured, in writing, thirty (30) days prior to cancellation of any policy or material change except in the event of non-payment where policy conditions dealing with termination will apply.

GC 27 PROPERTY INSURANCE

27.1 The Contractor shall provide and maintain property insurance, acceptable to Her Majesty the Queen in the right of Newfoundland, insuring the full value of the work in the amount of the contract price and the full value as stated of products for incorporation into the work. The insurance shall include as additional insured Her Majesty the Queen in Right of Newfoundland.

27.2 Such coverage shall be provided for by either Broad Form Builders' Risks Policy or an Installation Floater or Piers, Wharves, and Docks Rider.

27.3 The policies shall insure on a Broad Form basis direct loss or damage subject to any exclusions specified in the Supplementary General Condition. Such coverage shall apply to:



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SUPPLEMENTARY GENERAL CONDITIONS

- (a) others for which the Insureds may have assumed responsibility, to be used in or pertaining to the site preparations, demolitions of existing structures, erections and/or fabrication and/or reconstruction and/or repair of the insured project, while on the site or in transit, subject to the exclusion of the property specified.
- (b) the installation, testing and any subsequent use of machinery and equipment including boilers, pressure vessels or vessels under vacuum.
- (c) damage to the Work caused by an accident to and/or the explosion of any boiler(s) or pressure vessel(s) forming part of the work. Such coverage shall exclude construction machinery, equipment, temporary structural and other temporary facilities, tools, and supplies used in the construction of the work and which are not expendable under the Contract.

27.4 Policies provided shall contain an endorsement requiring notification of Her Majesty and the Named Insured, in writing, thirty (30) days prior to cancellation of any policy or material change of coverage except in the event of non-payment where policy conditions dealing with termination will apply.

27.5 All such insurance shall be maintained continuously until the date the Architect/Engineer issues a Certificate of Substantial Completion. All such insurance shall provide for the Owner to take occupancy of the work or any part thereof during the term of the insurance. Any increase in the cost of this insurance arising out of such occupancy shall be at the Owner's expense.

27.6 The policies shall provide that in the event of a loss, payment for damage to the Work shall be made to the Owner and the Contractor as their respective interests may appear. The Contractor shall act on behalf of the Owner and himself for the purpose of adjusting the amount of such loss with the Insurers. On the determination of the extent of the loss, the Contractor shall immediately proceed to restore the Work and shall be entitled to receive from the Owner (in addition to any sum due under the Contract) the amount at which the Owner's interest in the restoration work has been appraised, such amount to be paid as the work of restoration proceeds and in accordance with the Engineer/Architect's certificates for payment. Damage shall not affect the rights and obligations of either party under the Contract except that the Contractor shall be entitled to such reasonable extension of time for Substantial and Total Performance of the work as the Engineer/Architect may decide.

27.7 The Contractor shall be responsible for any deductible amounts under the policies and for providing such additional insurance as may be required to protect the insureds against loss on items excluded from the policies. Contractors are also advised that tender documents contain a certificate of insurance indicating type and limit of liability of insurance required for this project. The successful bidder will be required prior to commencement of work, to have the Certificate of Insurance completed by his insurance company and delivered to the Department of Transportation and Works no later than 30 days after the award of the contract.



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CERTIFICATE OF INSURANCE

DESCRIPTION & LOCATION OF WORK:				
PROJECT NO:		AWARD DATE:		VALUE \$:
INSURER:				
ADDRESS:				
BROKER:				
ADDRESS:				
INSURED NAME OF CONTRACTOR:				
ADDRESS:				
ADDITIONAL INSURED (Excluding Automobile Liability Policy)				
☐ The OWNER: ☐ The Occupant/Operator of the Property: ☐ Project Consultants of the OWNER (excluding professional liabilities)				
This document certifies that the following policies of insurance and indicated coverage are at present in force subject to the terms, conditions and exclusions as contained therein covering the operations of the insured in connection with the above noted contract made between the named insured and the Owner.				
POLICY TYPE	NUMBER	INCEPTION DATE	EXPIRY DATE Y/M/D	LIMITS OF LIABILITY
1.1 COMMERCIAL GENERAL LIABILITY or 1.2 WRAP-UP LIABILITY (Including where indicated) A. BLASTING B. PILE DRIVING OR CAISSON WORK C. REMOVAL OR WEAKENING OF SUPPORT				\$2,000,000 Minimum
2A. BUILDERS' RISK "BROAD FORM" or 2B. INSTALLATION FLOATER "BROAD FORM" or 2C. PIERS, WHARVES, & DOCKS RIDER				100% Contract Value if Exceeds \$25,000
3. AUTOMOBILE LIABILITY INSURANCE				\$2,000,000 Minimum
4. AIRCRAFT and/or WATER CRAFT LIABILITY INSURANCE	Not required			
5. ENVIRONMENTAL IMPAIRMENT LIABILITY	Not required			
6. SHIPBUILDER'S or SHIP REPAIRER'S LIABILITY INSURANCE	Not required			
7. HULL & MACHINERY INSURANCE, and PROTECTION & INDEMNITY Insurance including 4/4th COLLISION LIABILITY	Not required			
The insurer agrees to notify the Owner, as defined above, in writing, thirty (30) days prior to cancellation, termination or material change of any policy.				
NAME OF INSURER'S OFFICER or AUTHORIZED REPRESENTATIVE:	SIGNATURE:	Date:		
		Tele:		
		Email:		
Issuance of this certificate shall not limit or restrict the right of the Owner to request at any time duplicate certified copies of said insurance policies.				



3. TENDER SURETY AND BONDING

(a) Bidding Security

Please delete the sentence

"No bidding security will be required for a tendered amount of less than \$25,000.00, unless specifically called for elsewhere in the tender documents"

and replace with:

"All tenders, regardless of monetary value, require a Bid Security of at least ten percent (10%) of the total tendered amount, with a minimum security of five hundred dollars (\$500,00)." Bid Securities shall be in the form of a Bid Bond or Certified Cheque in favour of the Department of Transportation and Works."

Add the Following:

For tenders less than \$25,000.00, the terms of the Bid Security will be invoked and the amount retained by the Owner, if the Bidder fails to provide the required insurances and commence work within 30 days of being notified of the award of the work within the tender validity period.

The Tender Security of the unsuccessful bidders numbers two & three will be returned to them upon the award of the contract, Tender Securities of bidders higher than three will be returned after the tender opening. The Tender Security of the successful bidder will be retained until the first progress payment.

Bidders are reminded that the failure to submit a bid security in accordance with this requirement will result in rejection of bid submitted.

The Instructions to Bidders may provide for the acceptance, up to the Tender Closing, of amendments documented by telegram, fax, telex or the like. Where a form of Bidding Security other than a Bid Bond is provided with the original tender, an increase in the bid price will render that Bidding Security inadequate. Bidding Security adequate to cover the increased bid price must be provided to the Department prior to tender closing.

For example, if the original bid was submitted at \$100,000.00 with a Bid Security of \$10,000.00 (\$100,000.00 x 10%), and an increase in the bid of \$2,000.00 is submitted by telegram, fax, telex, or the like, then additional Bid Security of \$200.00 (\$2,000.00 x 10%) must be delivered to the Department prior to tender closing.

Failure to provide additional Bid Security prior to tender closing to cover increases to the original bid will make the bid subject to disqualification.



(b) Performance Bond

Bidders are advised that the 50% Performance Bond referenced in 3(b) of the Instructions to Bidders will be based on the Contract Price which will either be the subtotal of Tender Prices or the Total Estimated Tender, not including the Harmonized Sales Tax.

(c) Labour and Materials Bond

Bidders are advised that the 50% Labour and Materials Bond referenced in 3 (c) of the Instructions to Bidders will be based on the Contract Price which will either be the subtotal of Tender Prices or the Total Estimated Tender, not including the Harmonized Sales Tax.

(d) Acceptable Bond Formats

Contractors may provide Bid Bonds, Performance Bonds as well as Labour and material Payment Bonds in either paper or electronic format (e-Bonds). In accordance with the recommendations of the Surety Association of Canada, the e-Bonds shall be digitally verifiable through a third party digital certification service provider that can maintain integrity of e-Bond content and provide secure access to the e-Bond such as Mobile Bonds, Xenex Enterprises or Trisura Guarantee Insurance Company.

Electronic Bonds are to be emailed to tenderingandcontracts@gov.nl.ca in advance of the specified closing date and time. The subject line must include "Electronic Bond for Tender (reference number)".

THE OWNER RESERVES THE RIGHT TO WAIVE THESE REQUIREMENTS IN PART OR IN WHOLE FOR ANY PROJECT, BY FURTHER SUPPLEMENTARY INSTRUCTIONS TO BIDDERS.

4. ISSUANCE OF ADDENDUM

Reference is made to Section 2. (c) Tender Documents in the Instructions to Bidders, regarding the time frame permitted for the issuance of addendum prior to the tender closing date. Change seven (7) days to read five (5) days. Reference is also made to Section 8 Substitution of Materials in the Instructions to Bidders. Change seven (7) days to read five (5) days in the last paragraph of this section.

5. PROVINCIAL PREFERENCE POLICY

Effective June 5, 1998 the Provincial Preference Act has been repealed. Please delete GC 46 - Provincial Preference Policy, Instructions to Bidders - Section 11 Provincial Preference Policy, or Notice to Bidders - Section 9, and any other references to Provincial Preference contained in the specifications.



6. SCOPE OF WORK

Contractors are advised the PROJECT shall include, but will not be limited to, the scope as outlined in the following summary.

Part “A”: Cold plane and repave one section on Route 460 between Gull Pond and Route 460/461 intersection for approximately 1.5 kms. Work will consist of, but is not limited to, ditching, cold planning existing asphalt, grading shoulders to be level with cold planed surface, applying tack coat to cold planed areas, and repaving with a 50mm lift of surface coarse asphalt.

Part “B”: Pave three sections on Route 460 between Stephenville and Cape St. George for approximately 4.7 kms. Work will consist of, but is not limited to, ditching, applying tack coat, placing leveling course asphalt at areas identified by the resident engineer, applying tack coat to leveling areas, and repaving with a 50mm lift of surface coarse asphalt.

Part “C”: Replace Culverts on Route 460, between Intersection of Route 461 and Cape St. George. Work includes excavation for foundation, supply and installation new pipe culverts for the complete replacement of the existing culvert crossing, placement of granular “A” and granular “B”, cutting and disposal of asphaltic pavement, asphaltic patching, disposal of the existing pipes and culverts. Traffic must be maintained at the project site while the culverts are being replaced.

Part “D”: Leveling one section on Route 463 between Mainland and Cape St. George for a total of approximately 3.0 km. Work will consist of, but is not limited to, ditching, applying tack coat, placing leveling course asphalt at areas identified by the resident engineer, applying tack coat to leveling areas, and repaving with a 50mm lift of surface coarse asphalt.

Part “E”: Pave sections on Route 404, 405, and 407 for approximately 4.0 kms. Work will consist of, but is not limited to, ditching, applying tack coat, placing leveling course asphalt at areas identified by the engineer, applying tack coat to leveling areas, and repaving with a 50mm lift of surface coarse asphalt.

Part “F”: Pave one section on Route 480 between km 27.1 to km 30.4 from the TCH for approximately 3.3 kms. Work will consist of, but is not limited to, ditching, replacing culverts including excavation for foundation, supply and installation new pipe culverts for the complete replacement of the existing culvert crossing, placement of granular “A” and granular “B”, cutting and disposal of asphaltic pavement, asphaltic patching, disposal of the existing pipes and culverts, applying tack coat, placing leveling course asphalt at areas identified by the engineer, applying tack coat to leveling areas, and repaving with a 50mm lift of surface coarse asphalt.

For further information please refer to the breakdown of quantities in the tender document and the updated Department’s Specifications Book.



7. **SPECIFICATIONS BOOK**

Contractors are advised that the specifications book of the Department of Transportation and Works dated MARCH 2011 and the 2012 and 2013 Errata apply to this project. These specifications are available on the Internet at <http://www.tw.gov.nl.ca/publications/specbook2011.pdf> and on the following pages: <http://www.tw.gov.nl.ca/> under the **Road Contractors** section; <http://www.tw.gov.nl.ca/publications/index.html> under **Manuals** section; and at <http://www.tw.gov.nl.ca/road.html>. It is the contractor's responsibility to ensure that the correct version of the specifications book is used when bidding on this project.

8. **BONA FIDE STATUS**

Contractors are advised that Item No. 8 of the Tender Form is revised as follows:

Delete the paragraph:

"WE understand and agree to list the names of sub-contractors and suppliers whose bids have been used in the preparation of this tender price in Appendix "B". The list will be subject to the approval of the Owner. "By own forces" will be considered valid and satisfactory only if the tenderer is recognized by the Newfoundland and Labrador Construction Association or by the Road Builders Association as being a "bona fide" contractor or supplier of that particular trade or item.

And replace with the following:

"WE understand and agree to list the names of sub-contractors and suppliers whose bids have been used in the preparation of this tender price in Appendix "B". The list will be subject to the approval of the Owner." The bona fide status of a contractor will be determined by the Owner and decisions made by the Owner will be final.

9. **LIQUIDATED DAMAGES**

If the Substantial Performance date of The Work is later than the Liquidated Damages Application Date specified in the contract, liquidated damages for such default shall be payable by the Contractor to the Owner. The Department and the Contractor acknowledge the difficulty of making a precise determination of damages and, as a result, have agreed to a sum of money in the amount stipulated as the Liquidated Damages Daily Rate of **\$ 2500**. Such amount shall be charged against the Contractor for each calendar day that the work remains uncompleted after the Liquidated Damages Application Date, not as a penalty but as Liquidated Damages. The Liquidated Damage Daily Rate of **\$ 2500** per diem will apply, which has been determined as the total of the department's costs associated with maintaining a presence and carrying out typical contract administration duties on the project which includes, but has not been limited to the following: salaries including overtime, for the staff complement on the project, travel costs for the normal staff complement on the project, vehicle rental charges, fuel for vehicles, and other equipment rental charges, such as internal survey equipment, which may be utilized on the project.



Depending on the scope of work, there may be other direct or indirect costs to the department, which will also be deemed to be recoverable as supplemental liquidated damages including but not limited to consulting, third parties etc. These other costs shall be quantified and considered as additional to the Liquidated Damage Daily Rate noted above.

No bonus will be assessed for completing the project ahead of the given Liquidated Damages Application date.

Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree the Liquidated Damage Daily Rate of **\$ 2500** per diem is a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.

The Liquidated Damages Application Date for the purposes of applying liquidated damages shall be the earlier of the following:

- i. the date identified in Article A-1 of the Form of Agreement unless otherwise agreed in writing; or
- ii. No later than **September 30, 2020** unless otherwise agreed in writing.

Liquidated damages will be applied to the contract payment at the per diem amount specified for each calendar day that the work remains uncompleted after the expiration of the Liquidated Damages Application Date, not as a penalty but as Liquidated Damages. It will apply until work is considered no longer feasible in the construction season or the work is completed according to the definition of Substantial Performance. Paving work will be considered no longer feasible when asphalt paving is terminated by the Department's Highway Specifications or an approved end of paving season extension date as communicated by the Department. Liquidated damages in a subsequent construction season will apply from the day after the Victoria Day holiday to when work is completed according to the definition of Substantial Performance.

Substantial Performance shall be defined by the General Conditions of the Contract including the cost of Mobilization and Demobilization considered as fully paid in the calculation of Substantial Performance.

In event that a Contractor is awarded multiple contracts by Government within a construction season, Government reserves the right in its sole discretion to amend the Liquidated Damages Application Date if an approved amended execution plan and/or schedule allows more effective and efficient execution of all related multiple Contracts.

10. PETROLEUM PRODUCTS COST ADJUSTMENT

Fuel Cost Adjustment

Adjustments will be made to progress estimates to reflect changes in fuel prices from The Benchmark Tender Price to those in effect during construction. The Benchmark Tender Price shall



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be the price established by the Newfoundland and Labrador Board of Commissioners of Public Utilities, Petroleum Pricing Office, at time of tender closing. Increases or decreases in excess of 10% of the Benchmark Tender Price will be paid or deducted accordingly.

For the calculation of adjustments the governing price will be the price in place at the 21st of the month for the zone in which the majority of the contract is being carried out, established by the Newfoundland and Labrador Board of Commissioners of Public Utilities, Petroleum Pricing Office. This price will apply for the period from the 21st of that month to the 20th of the following month. This adjustment will include any changes in taxes outlined in GC 22.2. No adjustments will be made for price changes resulting from the use of the *"Interruption Formula"*.

The adjustment for fuel cost variation shall apply only to those items given in the accompanying list. For other tender items, there will be no fuel cost adjustments.

The adjustments shall be computed based on changes in the governing price, as defined above, in excess of or less than the Benchmark Tender Price at time of production. The Engineer shall then calculate the adjustment to be stated in the Monthly Progress Estimates. No adjustment will be made due to an increase in the price on fuel used after the identified contract completion date or approved contract extension date but adjustments due to a decrease in the price of fuel will be made after the identified contract completion date or approved contract extension date.

For the contract items included in the accompanying list, the fuel cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate.

l-litre		Nominal Fuel Consumption Rate	
Contract Item	Clear Diesel Fuel (3)	Furnace Oil (3)	Marked Diesel Fuel (4)
Excavation Other Material (1)	2.0 l/m ³ or 1.0 l/t	N/A	N/A
Excavation Solid Rock (2)	3.0 l/m ³ or 1.1 l/t	N/A	N/A
Granular "A" and Maintenance Grade III	1.0 l/t (5 & 6)	N/A	0.7 l/t
Granular "B"	1.0 l/t (5 & 6)	N/A	0.5 l/t
Asphaltic Base, Surface & Levelling Courses	2.0 l/t (5)	11.0 l/t	0.7 l/t
Overhaul on excavation items only	0.4 l/m ³ -km	N/A	N/A

- (1) Excavation Other Material shall also include Ditching Other Material, Other Material Borrow, Other Material Fill in Place, Unsuitable Material, Bog, and Excavation for Foundation Other Material.
- (2) Excavation Solid Rock shall also include Ditching Solid Rock, Quarried Rock, Rock Fill in Place, and Excavation for Foundation Solid Rock.
- (3) Clear diesel fuel adjustment and furnace oil adjustment applies to the respective items at the time of excavation or placement as applicable.



- (4) Marked diesel fuel adjustment applies to granular material and asphalt aggregate at the time of production. If the crusher used to produce the granular material or asphalt aggregate is not powered by a diesel generator, there will be no adjustment for marked fuel. If a contractor uses granular material or asphalt aggregate that was crushed previous to the project, there will be no adjustment for marked fuel.
- (5) If the granular material or asphalt aggregate is produced from a rock quarry source, an additional 0.15 l/t of clear diesel fuel will be added to the quantity shown in the table applicable at the time of drilling and blasting.
- (6) If the tender identifies Granular A, Granular B or Maintenance Grade III to be stockpiled for use by the Department of Transportation and Works, then the Nominal Fuel Consumption Rate to apply to stockpiled aggregate will be 0.50 l/t for Clear Diesel.

Liquid Asphalt Cost Adjustment

Adjustments will be made to progress estimates to compensate for changes in liquid asphalt prices at time of Tender and prices in effect during construction. Increases or decreases in excess of 5% of the Benchmark Tender Price will be paid or deducted accordingly. The governing price will be the average price quoted by local suppliers on the 20th of each month for the two Holyrood and the Come by Chance Terminals. This adjustment will include any changes in taxes outlined in GC 22.2.

The benchmark price shall be the average monthly price quoted by local suppliers for the two Holyrood and the Come by Chance Terminals, from the 20th of the month prior to tender closing. The adjustments shall be computed based on changes in the average monthly price in excess of or less than this benchmark at time of production. The Engineer shall then calculate the adjustment to be stated in the Monthly Progress Estimates.

The liquid asphalt cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate. In cases where liquid asphalt is included in the price of Asphalt Concrete, the liquid asphalt quantity will be determined using the mix design.

11. WARRANTY CHANGE TO GENERAL CONDITION NO. 31

Contractors are advised that General Conditions #31 WARRANTY is revised as follows:

GC31 WARRANTY

31.1 Without restricting any warranty or guarantee implied or stipulated by law the Contractor shall at the Contractor's own expense rectify and make good any defect or fault however caused appearing within a period of two (2) years from the date of Substantial Performance of the Work provided that the Contractor shall not be responsible for any defect or fault resulting from the design of the work.



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- 31.2 The Contractor shall correct and/or pay for any damage to other work resulting from any corrections required under the conditions of 31.1.
- 31.3 Neither the Engineer/Architect's final certificate nor payment thereunder shall relieve the Contractor from the Contractor's responsibility hereunder.
- 31.4 The Owner and/or the Engineer/Architect shall give the Contractor written notice of observed defects promptly.
- 31.5 In any case where the Contractor claims that the Contractor is not responsible for a defect or fault because the Contractor claims such a defect or fault results from a design of the work by the Owner, the onus to establish that the same is so in the first instance shall be on the Contractor.
- 31.6 The Contractor shall, subject to the procedures for Settlement of Disputes contained in GC 16, abide by the direction and decisions of the Engineer/Architect made pursuant to the General Conditions and in particular GC 7 regarding the correction by the Contractor of any defect or fault in the work discovered during the warranty period referenced in GC 31.1 hereof.
- 31.7 The Contractor shall submit a schedule for the completion of the warranty work in respect of the defect or fault referenced in 31.1 hereof, which schedule must be acceptable to the Engineer/Architect within thirty (30) days of the Engineer/Architect requesting in writing such a schedule from the Contractor.
- 31.8 Where the Contractor rectifies and makes good any defect or fault for which the Contractor is responsible under this Warranty, the Contractor shall warrant the portion of the work that is corrected for a further two (2) years from the date that the correction was done.

12. PAYMENTS ON ACCOUNT OF PAVEMENT SMOOTHNESS, MATERIAL APPLICATION RATE OR ASPHALT DENSITY

No payment shall be made to the Contractor pursuant to Sections 330.05.09.06.03 and 330.05.10.02 or Sections 330.06.09.03, 330.06.09.04 and 330.06.09.05 of the Specifications Book that is referenced in SGC 7 before the end of the warranty period provided for in GC 31. If a warranty claim has not been made under GC 31, or if a warranty claim has been made under GC 31 and resolved, all certificates for payment(s) due to the Contractor pursuant to the above stated sections of the Specifications Book shall be issued within thirty (30) days of the later of the resolution of the warranty claim or the expiration of the warranty period referenced in GC 31.

If a warranty claim has been made under GC 31, no payment shall be issued until that warranty claim has been resolved. The owner shall notify the contractor in writing of any claims, within the warranty period, and no later than 10 business days after from the expiration of the warranty period, based on results of an inspection completed within the warranty period. The contractor must respond



within thirty (30) days of notification with an acceptable schedule to complete repairs. If after 30 days the owner does not receive an acceptable schedule for warranty correction, the contractor will be notified one additional time with another 15 day period to reach an acceptable schedule to rectify any claims. Fifteen days after this second attempt, if there is no satisfactory resolution, and the warranty claims have not been resolved, the owner will consider any payments under Sections 330.05.09.06.03 and 330.05.10.02 or Sections 330.06.09.03, 330.06.09.04 and 330.06.09.05 of the Specifications Book to be forfeited by the contractor. Forfeiting of these payments does not relieve the contractor of their obligations as defined in GC 31 'Warranty'.

13. OCCUPATIONAL HEALTH AND SAFETY DIRECTIVES

Contractors are advised portions of Section 190 of the Specifications, Occupational Health and Safety, have been revised in the 2012 and 2013 Errata for the 2011 Specifications Book to be consistent with the OHS Regulations, commonly seen OHS orders, as well as, some areas of best practice.

Contractors are advised that the specifications book of the Department of Transportation and Works dated MARCH 2011 and the 2012 and 2013 Errata are available on the following page <http://www.tw.gov.nl.ca/publications/index.html>.

Revise Section 190.2.1 PROJECT SAFETY PLAN REQUIREMENTS as follows:

190.2.1 PROJECT SAFETY PLAN REQUIREMENTS

The Contractor shall:

- .1 Conduct operations in accordance with latest edition of the Newfoundland Occupational Health and Safety (OH&S) Act and Regulations with specific reference to codes and standards referenced therein, and the Department of Transportation and Works Occupational Health and Safety Manual.
- .2 Prepare a detailed Project Site Specific Safety Plan for the Owner. The plan shall identify, evaluate and control job specific hazards through a detailed hazard assessment of the tendered project outlining phases of the project and hazards/controls associated with specific work, equipment, locations and task associated with the work conducted during each phase of the project. The plan shall also ensure adequate policies, procedures and safe work practices are in place to manage hazards identified in the hazard assessment that cannot be addressed through engineering controls. The contractor is required to develop and implement safe work processes and procedures in response to the COVID-19 pandemic, in accordance with all applicable orders and recommendations in place for the Province of Newfoundland and Labrador. This shall include methods used for training procedures, methods used for monitoring, and action to be taken if processes and procedures are not followed. The contractor is required to include these processes and procedures in the Site Specific Safety Plan and update as orders and recommendations evolve. Information related to the COVID-19 pandemic and the Public Health Emergency is available at <https://www.gov.nl.ca/covid-19>.
- .3 Provide a copy of the Project Site Specific Safety Plan to the Owner/Engineer.

Revise Section 190.4.5 PERSONAL PROTECTIVE EQUIPMENT to update CSA standards and to add a new section to eye protection as follows:



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190.4.5 PERSONAL PROTECTIVE EQUIPMENT

- .1 A personal protected equipment (PPE) Program which shall detail PPE:
 - .1 Selection criteria based on site hazards.
 - .2 Use, maintenance, inspection and storage requirements and procedures.
 - .3 Decontamination and disposal procedures.
 - .4 Inspection procedures prior to during and after use, and other appropriate medical considerations.
 - .5 Limitations during temperature extremes, heat stress and other appropriate medical consideration.
- .2 In addition to those requirements set forth in the Occupational Health and Safety Act and Regulations, all persons, including those employed by the contractor or sub-contractors, working on projects for The Department of Transportation and Works shall wear the following mandatory Personal Protective Equipment at **ALL** times while working on the project.
 - .1 CSA approved safety boots meeting the CSA Z195 Standard.
 - .2 CSA approved hard hat meeting the CSA Z94.1 Standard.
 - .3 High visibility apparel as defined in Occupational Health and Safety Regulations.
 - .4 Where noise exceeds standards set out in the Occupational Health and Safety Regulations hearing protection shall be worn, and hearing conservation program implemented.
 - .5 CSA approved eye protection meeting the CSA Z94.3 Standard
 - .6 Other personal protective equipment, as may be required by the work tasks, hazard assessments or the Contractor, depending on duties being performed.

Contractors are advised the forms “Contractor Monthly OHS Performance Report” and “Traffic Control Signage Log” are appended at the end of the Supplementary General Conditions. These forms must be submitted electronically in legible high quality pdf format to the Department Project Supervisor for submission with monthly progress estimates. Failure to provide these completed forms will delay the processing of contract payments.

DAMAGES FOR NON-COMPLIANCE WITH APPROPRIATE SAFETY MANAGEMENT REQUIREMENTS

Contractor shall demonstrate commitment to safe work and shall adhere to an appropriate safety management system with suitable policies, procedures, tools and work processes. The Department will apply Damages for infractions whereby the Contractor does not adhere to an appropriate safety management system and appropriate site specific safety plan. The Department will make reasonable efforts to communicate with the Contractor on observed safety infractions and application of Damages for infractions. Notwithstanding, it is the contractors obligation to meet the Contract requirements and the Department does not have to formally communicate all observed infractions. The Contractor shall be given a minimum of one written warning throughout the duration of the Contract for such safety infractions. After such first written warning, the next three infractions will result in Damages at a price of \$500/day. For each successive infraction the Damages increases to \$1,000/day. The Department reserves the right to shutdown the work and/or terminate the Contract where the Contractor fails to observe an appropriate safety management system, the provisions of Section 190 and the Department’s Resident Engineer and the Department believe such action is warranted from a safety and/or contractual perspective. Infractions include, but are not limited to:

- .1 Contractor shows lack of commitment and support for appropriate safety management system and site specific safety plan



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- .2 Inadequate reporting, investigation and corrective actions for hazards, near misses and incidents
- .3 CSO not present on site as appropriate and/or not completing duties as per SSSP
- .4 Safety reports not provided within specified timelines
- .5 Violation of any portion of Section 190 or the Contractors' SSSP without appropriate investigation and immediate rectification. This includes not adhering to their SWP's, safety procedures, OH&S Act and Regulations, and policies.
- .6 Work proceeding without appropriate risk assessments, tool box talks, safe work procedures

14. ITEM 104 OF THE UNIT PRICE TABLE: Contractor Safety Officer (CSO)

Contractors are advised that a Contractor Safety Officer (CSO) shall be required to oversee and ensure all safety requirements are in compliance with any and all regulations.

Contractors must ensure that the CSO is on site at all times when activities require the use of the Traffic Control Manual and where the SSSP has identified other activities requiring such.

The Contractor Safety Officer or Designated Safety Lead shall be a person other than the Contractor's project supervisor.

The CSO may have other related duties, providing such duties do not impede their ability to carry out the required safety functions. It is understood that on larger more complex jobs, the majority, if not all, of the CSO's time would be spent on safety oversight. All requirements associated with a CSO are outlined in Section 190 of the Departments Highway Specifications Book as well as the following amendments to section 190.3.3.

190.3.3 CONTRACTOR SAFETY OFFICER

- .1 Each Contractor shall have a Contractor Safety Officer (CSO). The CSO shall be responsible for the implementation and monitoring of the Project Site Specific Safety Plan and shall have the authority to implement all health and safety changes including those deemed necessary by the Resident Engineer/Supervisor. All requirements outlined within Section 190.3.3 shall apply to the CSO. The CSO shall be responsive to concerns raised by the Department's Resident Engineer/Supervisor and issues raised by Service NL Occupational Health and Safety Division personnel and shall ensure that the Site Specific Safety Plan addresses all aspects of the project.
 - .1 The CSO should have training and the Designated Safety Lead should have a combination of training and experience satisfactory to the department in the following areas. Completed training in hazard recognition evaluation, inspections, analysis and control.
 - .2 Completed training in WHMIS.
 - .3 A working knowledge of site safety and housekeeping.



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- .4 Experience in the development and implementation of safe work practices and procedures.
 - .5 Knowledge, understanding and experience in the use of the Traffic Control Manual
 - .6 Flag persons training certified by Workplace NL.
 - .7 Knowledge and experience in trenching and excavation that includes an understanding of the Occupational Health and Safety NL Regulations 5/12.
 - .8 Power line hazards training certified by Workplace NL.
 - .9 Knowledge and understanding of equipment maintenance and inspections required for preventive safety.
 - .10 Training and experience in the use, care and maintenance of PPE to be used on site.
 - .11 Completed training in Standard First Aid.
 - .12 Complete understanding, knowledge and familiarity with the Site Specific Safety Plan, applicable codes and standards as well as the Occupational Health and Safety Act and Regulations that include the newly released parts XXVII – XXXIII related to Mining.
 - .13 Supervisory training and/or experience.
 - .14 Formal incident reporting and incident investigation training
 - .15 Training in Workplace Violence Risk Assessment and development of Harassment Prevention Programs.
- .2 Where the work and/or contract require high risk activities, specific training of the CSO and/or Designated Safety Lead may be necessary and required by the Department before a person is acceptable as a CSO and/or a Designated Safety Lead in specific areas of safety. The list below is in no way an all-encompassing list of required training, though it represents some of the areas of high risk encountered in past contracts and the training required to mitigate and control hazards related to the specified activities. The Contractor shall be responsible through the risk assessment conducted during the development of the site specific safety plan to identify areas of high risk and ensure that the CSO is competent and has adequate knowledge to ensure adequate controls are in place to mitigate the risks to workers and abide by all applicable legislation, codes and standards.
- .1 Completed training in the use and maintenance of fall protection systems certified by Workplace NL.
 - .2 Completed training in the design, construction and inspection of scaffolding as referenced in the applicable CSA Standard.
 - .3 Completed training in confined space entry protocols, techniques and rescue plan as certified by Workplace NL.
 - .4 Completed training in hazardous materials management and response/protocols.
- .3 The CSO shall:
- .1 Review the Site Specific Safety Plan (SSSP) prior to submission to the Department to ensure that it satisfies all the requirements detailed in Section 190 of the Department's Highway Specification Book.



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- .2 Ensure any Designated Safety Lead, if required, has the required background and training to comply with the safety requirements of specific job they might be assigned to.
- .4 The CSO or Designated Safety Lead shall:
 - .1 Address all safety concerns brought to their attention in a timely fashion depending on the severity of the hazard. If the Resident Engineer specifies a response date then that time must be respected.
 - .2 Be responsible for implementing, oversight, monitoring and updating of the Site Specific Safety Plan.
 - .3 Be competent and qualified with respect to the project tasks and elements.
 - .4 Be responsible for the delivery of the site safety orientation and ensure that the personnel who have not been orientated are not permitted to enter the site. Copies of the orientations are to be forwarded to the Resident Engineer by no later than 21 days of project startup and after that within 21 days after they are conducted.
 - .5 Report directly to the site superintendent or Contractor's Project Manager.
 - .6 Prior to commencing work on-site, hold an orientation meeting with the contractors, and subcontractors performing work at, on or related to the project site and with Owner's Representative to review project Occupational Health and Safety. The meeting will include but not be limited to a review of:
 - .1 Site Specific Safety Plan.
 - .2 Construction Safety Measures.
 - .3 Supervision and Emergency Rescue Procedures.
 - .4 Hazard Assessments
 - .5 Hazard, near miss, and incident documentation and investigation protocols
 - .7 Maintain a daily log of inspections, meetings, infractions, accidents and incidents, and mitigating measures. This log is to be filed twice a week and copied to the Contractor's site superintendent. These reports must be forwarded to the Resident Engineer on a weekly basis in high quality scanned electronic pdf format.

.5 BASIS OF PAYMENT

The Contractor is advised that payment at the lump sum price to the Contractor for the CSO shall be considered full compensation for all labour, supplies, and equipment necessary for the CSO to complete their duties.

The Contractor shall be paid this item based on a percentage of the tender value they completed during the pertinent progress payment period. A value of 10% of this Lump Sum cost is to be paid on the first progress estimate.



.6 LIQUIDATED DAMAGES FOR NON-COMPLIANCE

- .1 If there is an infraction the Contractor shall be given one written warning for failure to comply with this specification. The next three infractions will result in Liquidated Damages of \$500/day for non-compliance. For each successive infraction the Liquidated Damages increases to \$1,000/day. The possibility of project shutdown or termination exists at any time where the Contractor fails to observe the provisions of Section 190 and the Department's Resident Engineer and the Department believe such action is warranted from a safety and/or contractual perspective.
- .1 The Department shall document and provide the Contractor with notification, either verbal or written, when an infraction has been noted so as to allow the Contractor to develop corrective actions to prevent future infractions.
- .2 Infractions include, but are not limited to:
 - .1 CSO not present on site as defined in the SSSP and/or the Contract documents
 - .2 Safety reports not provided within specified timelines.
 - .3 Violation of any portion of Section 190 or the Contractors' SSSP without disciplinary action or an investigation by the CSO. This includes not adhering to their SWP's, safety procedures, OH&S Act and Regulations, and policies.
 - .4 Hazards, near misses, and incidents not being documented and investigated in the Contractor systems with timely and appropriate corrective actions implemented
 - .5 Hazards, near misses, and incidents not being communicated to the Department

15. TRAFFIC CONTROL MANUAL

Contractors are advised the 2018 Edition of the Department's Traffic Control Manual applies to this project. The manual is available for download on the Internet at <http://www.tw.gov.nl.ca/> under the **Road Contractors** section; <http://www.tw.gov.nl.ca/publications/index.html>, under **Manuals** section; and at <http://www.tw.gov.nl.ca/road.html>. It is the contractor's responsibility to ensure that the correct version of the Traffic Control Manual is used when bidding on this project.

16. CHANGE IN OWNER'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT

Contractors are advised of the following changes to General Condition 10 of the Contract:

The Province maintains the right to terminate the agreement for convenience at any time. Upon termination, the Province will compensate for all costs incurred to the date of termination and



associated costs to shut down the work in a manner as specified by the Province. There will be no compensation for any further incidental costs including but not limited to lost profit.

17. TENDERING AND CONTRACTS OFFICE CLOSURE

Contractors are advised that in the event the Tendering and Contracts office is required to close due to weather, facility issues, security issues, etc., any tenders that would have closed on that day will be deferred to close at the same time on the next work day that normal hours are resumed. Other than as impacted above, tenders, amendments to tenders, etc., will be accepted at the Tendering and Contracts office on or before the deferred closing time and date. Tenders received after this deferred time and date will not be considered.

18. ITEM NO.112 OF THE UNIT PRICE TABLE: CLEANING OF EXISTING DITCHES

DESCRIPTION

This specification deals with work required to clean, deepen and widen existing ditches to a uniform cross section per the standard road cross section, or as established by the Resident Engineer. This work includes the excavation of various types of material, including rock up to 0.5 cubic meters as well as the transportation and disposal of that material to an approved disposal site as agreed to by the Contractor and Resident Engineer. Work also includes the cleaning of any materials deposited in all culvert ends encountered as part of the ditch cleaning operation.

GENERAL OPERATIONS

Areas where ditching is required will be identified by the Resident Engineer. Cleaning of existing ditches shall consist of removing all vegetal matter and debris up to a maximum depth of 300mm such that the final cross section has a continuously smooth grade providing positive drainage, without ponding, in the specified flow direction. The Contractor is advised that an excavator with a ditching bucket having a minimum capacity of 0.75m³ and a minimum width of 1500mm is required to complete this work, unless otherwise directed by the Resident Engineer.

Cleaning operations must not undermine the existing foreslope and shall maintain a uniform cross section without gouges or ridges evident in the completed work. The uniform cross section should carry throughout the entire ditch line, even in places where culverts were removed and not replaced. All back and side slopes of other material shall be finished to a neat condition, suitable for seeding, true to line and grade. Boulders removed as part of the cleaning operation shall not leave cavities in the final ditch slopes, all cavities shall be filled using suitable material from the cleaning operation as required. Any areas that cannot be finished satisfactorily by machine shall be completed by hand. In the event of damage to private property or existing culverts as a result of cleaning operations, the Contractor shall be responsible to rectify the damage in a reasonable timeframe at their own expense. For boulders present in other material, the three maximum rectilinear dimensions of boulders, actually moved will be measured and the volume of each so determined. Volumes of the boulders



greater than 0.5 cubic meters in volume will be included for payment under section 205

Classification of Excavated Materials - Solid Rock.

Material generated from this work shall become the property of the Contractor and shall be disposed of in the following manner:

- Within the contract right-of-way limits as directed by the Resident Engineer where possible, or
- At a site located by the Contractor, off the right-of-way, and approved by the Resident Engineer.

Where the Contractor wishes to dispose of excess materials from the Work onto private lands, the Contractor must:

1. Satisfy themselves that the land is actually owned by the private individual.
2. Shall be responsible to obtain permission from any property owner for use of their land as a disposal area for excess materials from the Work.
3. Dispose of all materials in such a way to conform to all Federal, Provincial and Municipal Regulations including buffer zones around waterbodies, environmentally sensitive areas, etc...
4. Have the property owner sign and date a release form supplied by the Resident Engineer for the approval to use the land as a disposal site.
5. Sign and date the release form and provide a copy of the signed release to the Resident Engineer including a description of the locations being used for disposal.
6. Be responsible for all costs associated with the disposal and rehabilitation of the disposal area.

Release forms hold the Department free from any and all claims related to the placement of excess materials from the Work onto private property. Release forms will be provided by the Resident Engineer and no disposal activities shall take place until the Resident Engineer has been provided with a copy of the signed release form.

Upon completion, the Contractor must grade and leave all disposal areas or dump sites in a condition acceptable to the Resident Engineer that does not obstruct flow of surface drainage or natural watercourses.

ENVIRONMENTAL CONSIDERATIONS

Excavations and embankments should be kept dry while work is in progress by draining and pumping as required. All necessary unwatering shall be completed in accordance with section 180 "Unwatering Incidental to Work". Material required to grade the ditchline should not be placed in freestanding water. To reduce siltation resulting from ditch cleaning operations, the Resident Engineer may require the installation of silt fence and/or check dam sediment traps in accordance with sections 816 and 817 of the Department's Specifications Book, respectively. Where instructed, the Contractor shall install silt fence and terminate roadside ditches a minimum of 30 meters from any watercourse or water body to allow drainage water to filter through a vegetated area prior to entering any watercourse or water body.



MEASUREMENT FOR PAYMENT

Measurement for payment shall be the total number of linear meters, rounded to one decimal place, of ditch cleaning carried out in accordance with this specification. No measurement for payment will be made for material excavated beyond theoretical lines. Areas identified by the Resident Engineer as being over-excavated shall be remedied by the Contractor at their own expense.

BASIS OF PAYMENT

Payment at the contract price for Cleaning of Existing Ditches, shall be compensation in full for all labour, materials, and equipment required to complete the work herein described together with the excavating, handling, hauling, placing and shaping up of all waste materials in an approved disposal area as required.

19. WEIGHING MATERIALS IN TRUCKS

The contractor is advised that, in addition to the requirements of Section 501 of the General Specifications, weighing of all construction materials shall be the sole responsibility of the contractor. All materials shall be weighed by the contractor and the truck driver provided with a ticket of the weighed material to be received by a Department of Transportation and Works official once delivered to the project site. Requirements are as follows:

Electronic Weigh Tickets

All scale houses must be equipped with all the necessary equipment to produce and print electronic copies of all weigh scale tickets for all materials that would normally be weighed. These materials shall include, but are not limited to: Surface Course Asphalt, Base Course Asphalt, Leveling Course Asphalt, Granular A, Granular B, Rock Fill, Other Material Fill, MG III and all other material types noted in the contract document where payment is in tonnes. The Electronic Ticket System shall include the following:

Hardware:

- Micro controller c/w internal USB flash drive and operating software.
- Ticket printer with RS - 232 interfaces, capable of printing 4 layered copies
- All components require 120 Volts AC.
- Provide UPS with backup power supply, 20 minutes minimum

Software:

- Must be able to store up to 750 transactions
- Must be able to store and recall up to 50 trucks
- Must be able to store and recall up to 20 products
- Must be able to store and recall project numbers
- Must be able to store and recall truck tare weights
- Must be able to export data to a USB flash drive, to be used with Microsoft Excel
- Must have the option to delete data after exporting



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- Must have password protection for exporting data
- Must be able to recall the amount of material weighed at any particular time
- Must provide ticket with the following information:
 - Government name and address
 - Date and time
 - Ticket number
 - Project number
 - Product ID
 - Truck ID
 - Gross, Tare, and Net Weight
 - Time loaded
 - Station line
 - Rear axle line
 - Signature line
 - Checker line
 - Time unloaded line

The contractor is advised that the electronic ticket system must include all the requirements above and is subject to prior approval by the Resident Engineer. The Contractor shall ensure that the system is installed and working properly before weighing any materials. Weighing of any material will not commence until the electronic ticketing system is working and is verified by the Resident Engineer. All data and tickets shall be provided to the resident engineer or designate at the end of each working day.

Tare Weights

All trucks must have a tare weight verified at the beginning of the project and at any time a dump is changed. Additional “tare checks” will be at the resident engineer’s request and can be made at any time of day and the number of tare checks is unlimited. If the tare check is different than that of the original tare, the tare check weight will be used for the tare of that truck until a subsequent change in the tare weight. Tare weights and tare checks must be provided to the resident engineer at the end of each working day. Should the Department at any time find abnormal discrepancies in any tare weight the contractor will be given written notification. Any further discrepancies will result in suspension of scale house operations pending an investigation. The resident engineer or designate will complete a “tare check verification” each time a tare is verified in their presence.

Licensed Weights

The contractor will be responsible for compliance with Service NL regulations with respect to maximum allowable weights for all contractor and sub-contractor owned trucks hauling material for the project. Should the contractor send an overweight truck to the project site the Department of Transportation and Works will only pay the maximum allowable weight for that truck. For example, the contractor sends a truck with a gross weight of 34500 kg and the maximum allowable weight for that truck is 34000 kg the Department will pay 34000 kg and the additional 500kg will be forfeited to the Department.



Weight Verification

The Department reserves the right to re-weigh loaded trucks for verification of weights entered on the weigh ticket. Trucks may be taken from any location within the project limits and at any point between the scale house and the project site and returned to the scales for weight verification in the presence of the resident engineer or designate. The Department reserves the right to re-weigh trucks at any time and the number of checks will be unlimited for the duration of the project. Should there be a discrepancy in the ticket weight and the verification weight the contractor will be given a written notification. Any further discrepancies will result in suspension of scale house operations pending an investigation. The resident engineer or designate will complete a "weigh check verification" each time a truck is re-weighed and a copy will be provided to the contractor.

Scale House Access

The resident engineer or designate shall have free access to the scale house for inspection and compliance purposes for the duration of the project. This will include, but not limited to: inspection of scales, witnessing tare checks and weighing of materials, acquiring completed weigh tickets and transfer of electronic data.

Payment

The contractor is advised that all costs associated with the supply of labour, materials, installation, and maintenance of the electronic ticket system will be incidental to the contract bid prices, including the supply of blank tickets. No additional payment will be made and the Department will not be liable for any associated downtime related to issues with the electronic weigh ticket system. In addition, any delays associated with any of the requirements above, notably tare checks and verification of truck weights will not be considered.

20. ITEM NO. 17 & 19 OF THE UNIT PRICE TABLE: SUPPLY AND INSTALLATION OF GUIDE RAIL AND SUPPLY AND INSTALL WOODEN GUIDE POSTS

Contractors are advised that the mounting height of the guide rail from the top of asphalt, as depicted in drawings 1279-1, 1280-1 and 1282-1, shall be increased from 500mm to **635mm**. Additionally, the depth of bury shall be increased from 1200mm to **1500mm**. All other dimensions shall remain the same.

The contractor is advised that this item includes both left-hand side and right-hand side pieces. The contractor shall confirm all quantities of guide rail and buried ends with the Resident Engineer prior to ordering.

21. UNDERGROUND FACILITIES

The contractor is advised there are hydro lines, telephone conduits, water and sewer lines, local household water and sewer lines and private wells located throughout each section of the project. It is the contractor's responsibility to contact local residents, municipal authorities, building managers



and utility companies to determine the location of all underground facilities within the project limits before commencing work.

The contractor shall conduct his work operations in such a manner as not to damage any property of facilities. If any damage should happen, the contractor shall make good at his own expense. The contractor is reminded of the requirements of Section 130 of the Specification Book "Protection against Negligence and Damage."

22. ITEM NO. 35 OF THE UNIT PRICE TABLE: COLD PLANING ASPHALTIC PAVEMENT

The following shall replace Section **360.03 OPERATIONS** of the Department's Specification Book:

360.03 OPERATIONS

The existing pavement shall be removed to the depth specified in the unit price table. Should the pavement not be removed to the required depth in the first pass, then the Contractor shall return again to mill down the pavement to the required depth.

Removal may be required across the full width of the road, one lane width, one lane and shoulder width or in tapered strips along the curb, depending upon the suitability of the resulting cross section. In areas where the cold milling equipment cannot remove the pavement to the depths required, such pavement shall be removed to the required grade using other means acceptable to the Engineer.

Prior to paving operations commencing a transverse butt joint must be constructed. If a transverse vertical cut is milled in the existing pavement at the limit of the work area the contractor shall immediately construct with hot mix asphalt concrete a temporary smooth 1.5 meter long taper. The temporary taper must be removed prior to paving of the milled area.

In locations where cold planing and paving of adjacent lanes is required, sequential mill and fill for longitudinal joint construction and paving is to be followed. The first lane is to be completed (cold planed and paved) prior to cold planing of the adjacent second lane. Cold planing of the adjacent second lane must include the removal of the shared longitudinal joint by cold planing a minimum of 100 mm of the first paved lane. Cold planing and paving of the adjacent second lane is not to take place until the next day. All lane edges remaining in the work are to be clean and coated with a double application of tack coat.

All residue left by the cold planing process shall be removed immediately from the road. Mechanical sweeping shall be performed at the end of each day's operations. Low points in the asphalt as a result of cold planing operations at the end of each day's operation, where water ponding may occur, shall have the shoulder milled for draining rainfall. Any guide rail contaminated as a result of cold planing or sweeping operations shall be cleaned to the satisfaction of the Engineer. Any milled material that is lost over the shoulder shall be immediately retrieved and disposed of in



an approved manner.

The Contractor shall dispose of residue at an approved waste disposal area provided by the Contractor at his own expense.

The contractor shall continuously maintain the work site free of pot holes and standing water and in a condition providing for a safe and efficient flow of traffic, from the time of removal, until such time as the new asphalt concrete is placed. Hot mix asphalt concrete shall be placed in the pot holes; cold mix or RAP are acceptable only as a temporary repair. Areas cold milled must be paved within 7 days of the cold milling operation. Signage indicating the driving condition of the milled surface shall be posted. (I.e. Construction Signs TC-47 and TC-49) Milled and aged asphalt concrete surfaces shall be treated with bituminous tack coat in accordance with Section 320 prior to the placing of asphalt concrete.

COLD PLANING REQUIREMENTS

Contractors are advised that Section 360 of the General Specifications shall apply to this item. The Department may, at its own discretion, decide to use milled material for shouldering as per section 360.04 of the Specifications Book. Any millings placed on roadway shoulders shall be neatly trimmed and compacted to ensure positive drainage from the adjacent pavement. No millings shall be placed near roadway adjacent guiderails or waterbodies. No additional payment shall be made for disposing of millings on shoulders. The Contractor shall not place millings on the shoulder of the road without permission from the Department. Areas where millings are placed on the shoulder without the permission of the Department, shall have the associated milling and asphalt quantities deducted from the progress payments and will not be paid until the millings are cleaned up from the shoulder and hauled away to the satisfaction of the Engineer.

Waste asphalt millings from other areas than those noted above shall become property of the Contractor. The Contractor shall be responsible to locate a suitable disposal site and obtain all applicable permits prior to any milling on the project.

Milling depth shall be a nominal 50mm, except in areas where milling will be done to reestablish the cross section of the existing asphalt. Milling depths in those areas will vary and may be less than or greater than 50mm as directed by the engineer. All vertical milled edges shall be treated, 100% coverage, with two coats of tack coat. All costs associated with the supply and application of the tack coat on the milled edges shall be incidental to the surface asphalt unit price.

All work shall follow the environmental guidelines set out in the document "Guideline for Waste Asphalt Reuse in New Pavement or in Roadbed Construction of Paved Roads; and/or Storage and Final Disposal" issued by the Department of Environment and Conservation. The document can be found at the following URL: http://www.env.gov.nl.ca/env/env_protection/waste/#wmsgd. All work associated with loading, transporting, placing, grading and compacting recycled milling materials shall be considered incidental to the unit price of Item No. 35 – Cold Planing.



The Contractor should note the requirement for the installation of temporary asphalt tapers (paper joints) in accordance with sections 330.05.09.05.01 and 330.06.05.05.05 Keyed Joints of the Department's Specifications Book as applicable at the limits of asphalt overlay areas.

TEMPORARY TAPERS AT TRANSVERSE JOINTS

For the start and end transverse joints for each milled section, including expansion joint dams and approach slabs at bridge structures, the Contractor's attention is drawn to the following statement from Section 360.03 of the Specifications Book:

"Prior to paving operations commencing a transverse butt joint must be constructed. If a transverse vertical cut is milled in the existing pavement at the limit of the work area the contractor shall immediately construct with hot mix asphalt concrete a temporary smooth 1.5 meter long taper. The temporary taper must be removed prior to paving of the milled area."

Temporary tapers (paper joints) must be constructed at transverse joints before opening the lane to traffic. To enforce this requirement, for each transverse joint where a temporary taper is not constructed, the Department shall apply a penalty of \$1000 per day, per joint. Penalties will be deducted from the progress estimate.

23. ITEM NO. 7 OF THE UNIT PRICE TABLE: SUPPLY & INSTALLATION OF PIPE CULVERTS

Contractor is to verify culvert quantity with the Resident Engineer prior to ordering culverts for this project.

Contractors are to be advised that in addition to specification 421.07.01 "Basis of Payment for Supply and Installation of Pipe Culverts", payment will also include the supply and placement of bedding around and/or under the culverts as required.

Contractors are advised that the Department will permit the substitution of equivalent nominal diameter culverts in Aluminum or HDPE as necessary. It is incumbent upon the Contractor to ensure these culverts meet the necessary wall thicknesses for the required height of fill at each location. Contractors who wish to substitute Aluminum and/or HDPE culverts under this item shall first submit to the Department details regarding the pipes being substituted along the corresponding manufacturer's product data demonstrating the suitability of the substituted material. Acceptance of any substituted materials shall be at the sole discretion of the Department's representative.

24. ITEM NO. 16 OF THE UNIT PRICE TABLE: HOT MIX ASPHALTIC CONCRETE

The appropriate parts of Section 330 of the Department of Transportation and Works Specifications Book are to be replaced with the revised sections provided below.



330.02.01.01 Asphalt Cement

Unless otherwise specified, the asphalt cement (binder) shall conform to the latest edition of AASHTO M320 entitled Standard Specification for Performance Graded Asphalt Binder. The Performance Grade (PG) of asphalt binder shall be PG 58-28 and shall conform to the requirements of Table 1 in the AASHTO Specification. Other PG binders may be specified in individual contracts when warranted. **Irrespective of the PG binder specified the ash content of any binder must be less than 0.50% following AASHTO T111.**

All PG asphalt binders will be subject to testing for acceptance prior to and during use. Samples failing to meet the relevant performance grade will require classification and be subject to penalty based on the following formulation.

Temperature Deviation	Price Reduction (% of Asphalt Cement and Mix Prices)
Within 3 degrees of Specified Grade	N/A
From 3 degrees to 6 degrees of Specified Grade	10%
From 6 degrees to 9 degrees of Specified Grade	20%
Greater than 9 degrees of Specified Grade	Rejection

Projects with only one asphalt binder sample collected and not meeting the specified grade will have the penalty applied to all the unit prices of the entire quantity of hot mix asphalt concrete. Projects with multiple samples of asphalt binder will have the penalty applied proportionally to the affected asphalt.

Performance Graded Asphalt Binder with either higher than the maximum or lower than the minimum design temperature will be accepted at full price and no bonus will be applied.

Prior to the start of and throughout pavement production current copies of certification of all project asphalt binders shall be provided to the Department. **Safety Data Sheets for the Asphalt cement and any chemical additives must also be submitted.**

Any asphalt binder other than the asphalt binder specified must be removed from the Contractor's tanks to prevent contamination. Binders meeting the performance specifications but obtained from different sources cannot be stored in the same tank unless approved by the asphalt suppliers.

330.02.01.02.01 Coarse Aggregate

Coarse Aggregate shall consist of hard, durable crushed stone or crushed gravel particles, reasonably uniform in quality and free from soft or disintegrated pieces. The portion of material retained on the 4.75 mm sieve shall be known as coarse aggregate. The coarse aggregate stockpile shall contain no more than 10% passing the 4.75 mm screen.



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Coarse Aggregates shall be washed if necessary to have clean surfaces free from coatings of foreign matter. Coarse Aggregates shall conform to the physical requirements shown in Table 1.

Irrespective of compliance with the physical requirements of Tables 1, any coarse aggregate may be accepted or rejected on the basis of past field performance at the discretion of the department.

TABLE 1
Physical Requirements For Coarse Aggregates

TEST METHOD	TEST NO.	HIGHWAY CLASSIFICATION		
		RAU & RAD-100 RAU & RAD-90, RCU-80		RLU-60, RLU-70 RLU-80
		SURFACE	BASE	ALL COURSES
LOS ANGELES ABRASION - % MAXIMUM (A)	ASTM C131	35	35	35
ABSORPTION - % MAXIMUM	ASTM C127	1.75	2	2
MAGNESIUM SULPHATE - SOUNDNESS - 5 CYCLES - % MAXIMUM (B)	ASTM C88	12	12	12
PETROGRAPHIC NUMBER - MAXIMUM	CSA A23.2-15A	135	135	135
FREEZE-THAW TEST - 5 CYCLES - % MAXIMUM	CSA A23.2-24A	8	10	10
CRUSHED PARTICLES - % MINIMUM (C)	ASTM D5821	90	90	70
FLAT & ELONGATED PARTICLES - % MAXIMUM (D)	ASTM D 4791	20	20	20
LOSS BY WASHING - % MAXIMUM PASSING (E)	ASTM C117	1.75	1.75	1.75
MICRO DEVAL - % MAXIMUM	ASTM D 6928	18	20	20
CLAY LUMPS - % MAXIMUM	CSA A23.2-3A	1	1	1
LOW DENSITY PARTICLES - % MAXIMUM	CSA A23.2-4A	1	1	1
FRIABLE OR SLATEY SILTSTONE - % MAXIMUM	CSA A23.2-15A	1	1	1

Notes:

- (A) The ratio of the loss after 100 revolutions to the loss after 500 revolutions shall not exceed 0.265.
- (B) Test to be conducted on basalt rich or highly absorptive (> 1.5%) aggregates.
- (C) Pieces having two or more freshly fractured faces only will be considered as crushed material. Pieces with only small chips removed will not be considered as crushed.
- (D) Flat and elongated pieces are those whose greatest dimension exceeds four times their least dimension.
- (E) When only quarried rock is used as a source of coarse aggregate, a maximum of 2 percent passing the 75 µm sieve shall be permitted



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The Contractor must meet all the requirements above, while the guidelines below are provided for information purposes. The Contractor is responsible for ensuring the combination of aggregate conforms to the grading requirements of Table 3.

Guidelines for Coarse Aggregate Gradation

Sieve Size	Percent Passing by Dry Weight	
	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
22.0 mm	100	100
19.0 mm	100	85-100
12.5 mm	85-100	50-80
9.5 mm	45-75	25-60
4.75 mm	0-10	0-10

330.02.01.02.02 Fine Aggregate

Fine aggregate shall consist of clean, tough, rough-surfaced grains, free from clay, loam and other foreign matter. The fine aggregate stockpile shall contain no more than 20% retained on the 4.75 mm screen.

For RCU-80 and above highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 15% (by dry weight). For RLU-80 and below highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 20% (by dry weight).

For all base and levelling type II course mixes the fine aggregates maximum percentage passing the 75 µm sieve is limited to 8% prior to mix production at the asphalt plant. All surface and levelling type I course mixes the fine aggregates maximum percentage passing the 75 µm sieve is limited to 8 % prior to mix production at the asphalt plant.

Irrespective of compliance with the physical requirements of Tables 2 any fine aggregate may be accepted or rejected on the basis of past field performance at the discretion of the department.



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TABLE 2
Physical Requirements for Fine Aggregates

TEST METHOD	TEST NO.	HIGHWAY CLASSIFICATION		
		RAU & RAD-100 RAU & RAD-90, RCU-80		RLU-60, RLU-70 RLU-80
		SURFACE	BASE	ALL COURSES
MICRO-DEVAL TEST FOR FINE AGGREGATE - % MAXIMUM	ASTM D 7428	18	20	20
PLASTICITY INDEX	ASTM D4318	0	0	0
SAND EQUIVALENT - % MINIMUM	ASTM D 2419	50	50	50
FINE AGGREGATE ANGULARITY - % MINIMUM (A)	ASTM C 1252	45	45	45

Note:

(A) FAA tests shall be conducted on a representative sample of the total fine aggregate inclusive of all fine aggregate materials as indicated in the mix design including blending sand. The test will be conducted in accordance with Standard Graded Sample Method A

The Contractor must meet all the requirements above, while the guidelines below are provided for information purposes. The Contractor is responsible for ensuring the combination of aggregate conforms to the grading requirements of Table 3. Contractors should also be aware of material breakdown after crusher production testing for the material being utilized and their plants capabilities in producing the mixture in accordance with Table 3.

Guidelines for Fine Aggregate Gradation

Sieve Size	Percent Passing by Dry Weight	
	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
9.5 mm	100	100
4.75 mm	90-100	85-100
2.00 mm	40-60	40-90
0.425 mm	15-30	20-55
0.150 mm	5-16	10-25
0.075 mm	2-6	2-7

330.02.01.03 Blending Sand

Blending sand shall consist of clean, tough, rough surfaced grains, free from clay, loam, or any other foreign matter. Blending sand is considered as a fine aggregate and thus must meet the requirements of Table 2. Blending sand may be either a naturally occurring screened sand or a manufactured sand added to the mix for the purposes of enhancing mix properties.



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The gradation of the blending sand shall be such that when used in the asphalt mix, the resulting mix shall meet the requirements of Tables 2 and 3 of this section. In any case, the blending sand shall have 100% (by dry weight) passing the 9.5 mm sieve and at least 80% (by dry weight) passing the 4.75mm sieve.

For RCU-80 and above highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 15% (by dry weight). For RLU-80 and below highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 20% (by dry weight).

Blending sand shall be supplied by the Contractor.

330.02.01.05 Anti-Stripping Additive

An approved anti-stripping additive shall be added to all Hot Mix Asphaltic Concrete. The anti-stripping additive may be either an approved liquid anti-stripping additive or hydrated lime ($\text{Ca}(\text{OH})_2$) with each meeting the requirements outlined as follows.

If an approved liquid anti-stripping additive is utilized it shall be added to all Hot Mix Asphaltic Concrete at a minimum application rate of 0.5% of additive by weight of asphalt cement or the recommended percentage as determined from Lottman test results. Approved liquid anti-stripping additives include the following products:

AD-here LOF 6500 (ARR-MAZ Custom Chemicals)
AD-here 77-00 (ARR-MAZ Custom Chemicals)
Evotherm M1 (Meadwestvaco Corp.)
Evotherm P25 (Meadwestvaco Corp.)
Redicote C-3082 (Akzo Nobel Chemicals)
Rediset LQ-1102C (Akzo Nobel Chemicals)
Warmgrip N1(ARR-MAZ Custom Chemicals)

All other products must be approved by the Department's Materials Engineering Division.

Suppliers of the asphalt cement and anti-stripping additives shall provide in writing all mixing requirements and proof of product compatibility. Treated asphalt PG binders must meet the relevant performance grade specifications. Some of the additives noted above at various dosage rates are understood to lower the required mixing and compaction temperature of the asphalt mixture. All information in this regard shall be provided 10 days prior to mix design. This information shall also be made available for proper production, laydown and field testing.

Contractors must inform the Engineer and advise workers of the proper procedures, use of protective clothing and equipment when handling anti-stripping additives. Hot mix asphaltic concrete with liquid anti-strip additives is known to produce strong odours. Contractors must ensure the mix



materials are used under proper environmental conditions to guarantee the safety and comfort of construction personnel and the public.

Modified Lottman tests in accordance with AASHTO T 283 Resistance of Compacted Hot Mix Asphalt (HMA) to Moisture-Induced Damage shall be completed within the mix design procedure to determine if the minimum application rate is sufficient. An additional rate of anti-strip and/or an alternate anti-stripping additive will be required if one of the following conditions occurs as determined by AASHTO T 283:

- The tensile strength ratio of the hot mix asphalt concrete is less than 0.80
- There is visual evidence of stripping. Acceptable specimens shall have a visual stripping rating of 1.0 or lower based on a scale from 0 to 10 (with 0 being no visual stripping and 10 being fully stripped).
- The results of the mix utilizing neat hot mix asphalt concrete (or with no anti-stripping additive) significantly exceed the performance of the mix with the anti-stripping additive.

In addition to AASHTO T 283 requirements, the asphalt hot mix containing the anti-stripping additive shall pass a boiling water test in accordance with ASTM D3625 Standard Practice for the Effect of Water on Bituminous-Coated Aggregate Using Boiling Water within the mix design procedure. The pass criterion for ASTM D 3625 is 95% or greater retained bitumen coating of aggregate.

An additional rate of anti-strip and/or an alternate anti-stripping additive will also be required if the aggregate is known to be prone to stripping from past performance and the minimum application rate was insufficient.

If additional or alternative anti-stripping additives are required, a further 10 working days will be required after the Contractor has advised the Department of its new anti-strip proposal and all materials have been received by the Materials Engineering Division. The Contractor and his supplier shall provide sample materials, any technical information and Manufacturer's recommended application rates.

Modified Lottman Tests (AASHTO T 283) and Boiling Water Tests (ASTM D3625) shall also be conducted on field produced samples of hot mix. All field produced samples shall also pass the requirements above.

Where hydrated lime is used as an anti-strip additive the dosage requirement shall be the greater of one half (1/2) percent by mass of total dry aggregate, or the recommended percentage as determined from the Lottman and Boiling Water test results.

Where hydrated lime is utilized the hydrated lime shall be added to all aggregates by either of the following methods:



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- (a) Hydrated lime slurry shall be homogeneously mixed with the aggregate in a pug-mill or tumble mixer prior to entering the asphalt plant (the hydrated lime slurry shall be produced at the approximate rate of 1 part lime to 3-4 parts water).
- (b) Dry hydrated lime shall be homogeneously mixed with wetted aggregate in a pug-mill or tumble mixer prior to entering the asphalt plant. The wetted aggregate shall have a minimum moisture content of 2% by weight for coarse aggregate and 3% by weight for fine aggregate.

Hydrated lime shall be mixed with the aggregate at least 4 hours prior to entering the asphalt plant. Aggregate treated with hydrated lime shall be used within the same construction season. Treatment shall include both coarse and fine aggregate components of the asphalt aggregate.

Where hydrated lime is to be utilized, the Contractor shall provide the Department with complete information on how the hydrated lime is to be used in the treatment of aggregates. Hot mix produced containing hydrated lime, shall conform to all requirements of the contract before acceptance. The design amount of hydrated lime will be added as a percentage of the total dry aggregate weight.

The cost of all anti-stripping additives (including hydrated lime) will be borne by the Contractor no separate or additional payment will be made.

330.02.02.01 General Requirements for Pavement Mixture

The mixture shall consist of suitably graded fine and coarse aggregate thoroughly mixed with asphalt cement as specified. Blending sand, filler and chemical additives shall be added when required.

Unless otherwise specified, the aggregates shall be combined in such proportions as to produce a mixture conforming to the grading of Table 3.

**TABLE 3
Asphalt Aggregate Mixtures**

Sieve Size	Percent Passing by Dry Weight			
	Surface Course RCU 80 and above	Surface Course RLU 80 and below	Levelling Course Type I**	Base & Levelling Course Type II***
22.0 mm	100	100	100	100
19.0 mm	100	100	100	90-100
12.5 mm	93-100	93-100	75-100	75-90
9.5 mm	75-92	75-92	63-95	63-84
4.75 mm	50-65	55-70	35-78	35-55
2.00 mm	32-55	32-55	20-55	20-42
0.425 mm	16-25	16-25	10-25	10-25
0.150 mm	5-12	5-12	5-12	5-12
0.075 mm	2-5*	2-5*	2-5*	2-6*
Asphalt Cement (% By Weight of Total Mixture)	4.5 – 7.0	4.5 – 7.0	4.5 – 7.0	4.5 – 7.0



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- * The dust/effective asphalt ratio of all mixtures shall be between 0.6 and 1.2. Dust is defined as material passing the 0.075 mm sieve. **For surface course mixtures on roads of less than 500 vehicles per day the upper gradation limit on the 0.075 mm sieve can be increased to 6% passing by dry weight. Commercial truck traffic will also be considered in identifying the roadways applicable to the modification of the gradation limit on the 0.075 mm sieve. Road sections will be identified in the project tender documents with the surface courses applicable to the modification of the gradation limit on the 0.075 mm sieve.**
- ** Levelling Course Type I to be used where thickness of compacted lift is to be less than or equal to 30 mm.
- *** Levelling Course Type II to be used where thickness of compacted lift is to be greater than 30 mm.

Once a mix design has been designated or approved by the Engineer, the Contractor shall be required to produce a pavement mixture conforming to the following mix control tolerances. The mix must still fall inside the gradation envelopes of Table 3.

Individual Sample Tolerance for Production of Combined HMA

Aggregate Passing 19.0 mm sieve	± 5%
Aggregate Passing 12.5 mm sieve	± 5%
Aggregate Passing 9.5 mm sieve	± 5%
Aggregate Passing 4.75 mm sieve	± 5%
Aggregate Passing 2.00 mm sieve	± 4%
Aggregate Passing 425 µm sieve	± 3%
Aggregate Passing 150 µm sieve	± 2%
Aggregate Passing 75 µm sieve	± 1%

330.02.02.02 Physical Requirements for Mixture

The aggregates and the asphalt cement shall be mixed in such proportions as to satisfy the criteria contained in Table 4. These criteria are based on the Standard Marshall Test Procedures and using a compactive effort of 75 blows on each face of the specimen.

All test procedures used shall be the latest versions of ASTM or AASHTO standards, except where indicated.



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TABLE 4
Physical Requirements for Asphaltic Concrete Mixture (All Courses)

	Minimum	Maximum
MARSHALL STABILITY N. AT 60OC (I) FOR HIGHWAY CLASSIFICATIONS RLU-60, RLU-70, RLU-80 (II) FOR HIGHWAY CLASSIFICATIONS RAU & RAD-100, RAU & RAD-90, RCU-80	5 400 8 000	--- ---
MARSHALL FLOW INDEX MM	2.5	4.25
% AIR VOIDS (A) (I) FOR ALL HIGHWAY CLASSIFICATIONS RLU-60, RLU-70, RLU-80, RAU & RAD-100, RAU & RAD-90, RCU-80	2.5	4.5
% VOIDS IN COMPACTED MINERAL AGGREGATES (I) LEVELING & BASE COURSE (II) SURFACE COURSE	14.0 15.0	--- ---
MODIFIED LOTMAN AASHTO T283 - TENSILE STRENGTH RATIO (PLUS VISUAL) See 330.02.01.05	0.8	---
% RETAINED COATING OF AGGREGATE - BOILING WATER TEST ASTM D3625	95	---
MOISTURE CONTENT OF HOT MIX ASPHALT BY OVEN METHOD, AASHTO T329 AS PERCENT OF HMA	---	0.3

Notes:

- (A) The test method, ASTM D2041 "Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixture", shall be modified as follows: The residual pressure in the vacuum cell shall be 27.5 mm $\pm$ 2.5mm.

330.05.08 Material Transfer Device/Vehicle

Unless otherwise noted within the tender documents for all highway classifications, a Material Transfer Device/Vehicle shall be used at no extra cost to transfer the project's top lift of asphalt mixture (base, leveling or surface material) from the transport vehicles to the asphalt spreader. The purpose of the Materials Transfer Device is to minimize segregation during placement of the asphalt pavement and to increase the smoothness of the pavement surface by reducing the number of stops and starts during the placement of the asphalt pavement. The Material Transfer Device shall be utilized in conjunction with a hopper insert in the asphalt spreader. The hopper insert on the asphalt paver shall be kept full at all times. Cycling the hopper wings of the asphalt paver shall be kept to a minimum.

When required to pave on granulars, a self-propelled transfer vehicle is required.

Prior to being utilized the Material Transfer Device/Vehicle shall be approved for use by the Engineer.

Locations where it is deemed by the Engineer that it is not practical to maneuver and/or safe to utilize a Material Transfer Device/Vehicle shall be identified within the tender documents. For such pre-identified locations no price adjustments to the various hot mix asphalt unit prices will be applied. However, if a Contractor still chooses to proceed with the use of their Material Transfer equipment in a safe manner no additional or other compensation will be applied.



Locations as noted by the Contractor and subsequently agreed with by the Engineer as not practical to maneuver and/or safe to utilize a Material Transfer Device/Vehicle and which were not pre-identified within the tender documents shall have a 5% unit price reduction applied. The price reduction will apply to the various hot mix asphalt unit prices of the material quantities where the Material Transfer Device/Vehicle was not utilized.

The Contractor will be responsible for all surface defects or any other pavement defect irrespective of the utilization or not of a Material Transfer Device/Vehicle.

330.05.09.02 Preparation of Paved Surface

When required by the Engineer, paved surfaces shall be cleaned and treated with tack coat prior to repaving with asphaltic concrete. Such treatment with tack coat as may be required shall be carried out in accordance with Section 320 "Tack Coat".

330.05.09.05 Joints

All joints shall be made in such a manner as to ensure a thorough and continuous bond and to provide a smooth riding surface.

All foreign material and all loose material shall be removed from all faces against which joints are to be made. All cold faces against which joints are to be made shall be cut back to full depth to expose a fresh vertical face and coated with a double application of emulsified asphalt (tack coat).

Longitudinal joints shall be rolled immediately upon placement of the fresh mixture and before the adjacent strip has completely cooled. The joint shall be set up with the back of a rake or lute at proper height and grade to receive the required compression under rolling. The depth of the newly laid mat shall be adjusted to allow for compaction. The paver shall overlap the existing mat by approximately 25 to 40 mm.

Prior to placing the adjacent mat, the exposed edge of each longitudinal joint must be coated with a double application of emulsified asphalt (tack coat). Upon completion of each day's paving, the maximum length of exposed joint edge shall be 60 meters.

Asphalt mat edges having companion longitudinal joints shall be matched within the maximum allotted time period as determined by the engineer. The maximum allotted time period shall be restricted to a lower limit of one hour with an upper limit of two and one half hours. The allotted time limit will be proportioned on the paving lay-down conditions; with the lower time limit applied to least favorable placement conditions and the upper time limit applied to favorable placement conditions. Lay-down conditions considered by the engineer in establishing the time limit will include ground surface temperature, hot mix lay-down temperature, placement capacity, ultraviolet intensity, wind speed and air temperature. Longitudinal joints shall be matched by the end of each day's operations. Unmatched asphalt longitudinal joints left exposed at the end of the day, or



exposed to moisture, also shall be painted with a continuous thin coating of hot asphalt cement to the full face.

All joints shall be constructed such that any excess material is not scattered on the surface of the freshly laid mat. Such excess material shall be carefully removed and disposed of as directed.

Transverse joints shall be checked with a straight edge immediately after initial rolling. Any irregularity in the pavement surface at the joint shall immediately be corrected by the addition of or removal of mixture. When possible, the transverse joints shall be initially rolled in a direction perpendicular to the direction of paving.

In locations where cold planing and paving of adjacent lanes is required, sequential mill and fill for longitudinal joint construction and paving is to be followed. The first lane is to be completed (cold planed and paved) prior to cold planing of the adjacent second lane. Cold planing of the adjacent second lane must include the removal of the shared longitudinal joint by cold planing a minimum of 100 mm of the first paved lane. Cold planing and paving of the adjacent second lane is not to take place until the next day. All lane edges remaining in the work are to be clean and coated with a double application of tack coat.

330.05.09.06 General Requirements for Compaction

The pavement mixture shall be compacted to a density of 94% of the Maximum Theoretical Density of the comparative laboratory Marshall mixture based on the criteria given in Section 330.02.02.02 "Physical Requirements for Mixture". Steel drum rollers shall have vibratory capabilities acceptable to the project engineer. Static rolling will only be allowed on bridge decks or where shallow underground utilities are present. The decision to use static rolling will be the responsibility of the project engineer.

It is an express condition of this specification that all mixtures be compacted to the specified density immediately following placement. If, during the course of the paving operation, measured insitu field densities fall below the specified minimum, the Contractor shall revise his compaction process by (a) increasing the number of passes of the compaction train; (b) adjusting the frequency amplitude or tire pressure of individual rollers; or (c) by adding additional rollers to the compaction train. Steel drum rollers should operate with the drive wheel forward in the direction of paving. In all cases, the production and placing of the pavement mixture shall be controlled so that all rolling shall be completed before the pavement mat temperature falls below 80 degrees Celsius. The compaction process shall be completed before sunset.

330.05.09.06.01 Compacting Asphaltic Base, Levelling and Surface Courses

Unless otherwise approved by the Engineer as per Section 330.05.09.06.02, the Contractor shall supply a minimum of two vibratory rollers and one pneumatic tired roller.



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The initial compaction shall be obtained by the vibratory roller followed by the pneumatic tired roller. Rolling shall commence as soon after placing as the mixture will bear the roller without checking or undue displacement. Final rolling will be with a roller operating in static mode. Static rolling will be conducted only to remove any irregularities in the pavement surface.

The initial breakdown rolling by a steel wheel roller shall commence as soon after placing as the mixture will bear the roller without checking or undue displacement. Rolling shall start longitudinally at the lower edge and proceed towards the higher edge of the course, overlapping on successive passes. Alternate passes of the roller shall be staggered.

Intermediate rolling, using a pneumatic tire roller, shall follow the breakdown roller as closely as possible. Passes shall be so arranged as to ensure overlapping successive tire paths. The Contractor shall be responsible for ensuring that the tires are in proper condition at all times to prevent pick up of the mixture.

Finishing rolling, using a steel wheel roller, shall be accomplished with the minimum number of passes required to produce a satisfactory surface. Rolling shall start longitudinally at the higher edge and proceed towards the lower edge.

While rolling longitudinal joints, steel drums or rubber tires shall extend 150 mm over the previously placed mat.

When paving in echelon the contactor shall provide sufficient rollers required to compact the asphalt pavement to the required degree of compaction. As a minimum there shall be four vibratory rollers and one pneumatic roller on site.

Based on plant output the minimum number of rollers to be supplied by the Contractor shall be as shown below unless the Contractor is able to achieve the required density, surface texture, and smoothness with fewer rollers.

Plant Output, t/h	Rollers (min)
120	3
180	4
240	5
300	6

330.05.09.06.02 Compacting With Static Wheel Rollers

In areas where a vibratory roller cannot operate (i.e. shallow utilities and bridge decks) compaction shall be obtained using suitable static steel wheel rollers but only under approval from the Engineer.

Where approved by the Engineer (as per above) to compact the mixture using static wheel rollers, a minimum of 2 steel wheel and 1 pneumatic tire rollers will be required to operate with each paver used.



The operating speed of static steel wheel rollers shall not exceed 5 km/h and shall be slow enough to avoid displacement of the mix.

330.05.09.06.03 Asphalt Density Measurement and Unit Price Adjustment

The Contractor shall be responsible for the compaction stage of the work to ensure that the density conforms to requirements.

Compaction testing and unit price adjustments shall be based on daily production. Daily production is defined as the production and placement of 200 tonnes or more of asphalt concrete. If the daily production is less than 200 tonnes, the quantity for that day will be added to the next day or days in accordance with Table 1. If it is the last day of production for the project, the quantity for that day will be added to the previous day's production. If the total quantity of asphalt mix is less than 200 tonnes for the project, two cores will be used to determine asphalt core density.

Test coring must be completed prior to placement of the next lift of asphalt concrete. If the Contractor believes that certain areas to be tested should be excluded from unit price adjustments, then those areas should be identified and submitted to the Department in writing prior to the pre-paving meeting with the Department.

Pavement samples will be taken on the road by Department personnel at random sample locations. Cores shall be a nominal 100 mm diameter. Sample locations will be determined by the Engineer using random sample procedures, in which the daily production is divided into segments as shown in Table 1. A random sample is taken from each segment.

**Table 1
Number of Segments per Daily Production**

Daily Production of Asphalt Concrete	Number of Segments
200 to 500 t	2
500 to 1000 t	3
1000 to 1500 t	4
More than 1500 t	5

Segments shall be of approximately equal length. In each segment, a test site will be located by using random numbers to determine the longitudinal distance from the end of the segment and the lateral distance from the edge of the segment. Cores shall not be taken within 0.15m of the pavement edge or longitudinal joint, nor closer than 6 m from transverse joint.

Areas not to be cored include; small areas such as tapers, bullnoses, aprons, bridge approaches, bridge decks, areas of handwork, and asphalt mix used for isolated levelling.



Cores shall be obtained in accordance with ASTM 5361 after a minimum of 12 hours from mix laydown. Typically cores will be sampled within 24 hours after mix laydown. However, the length of time to core the pavement may be extended as approved by the Engineer in order to exclude Saturdays, Sundays and holidays unless the Contractor is placing asphalt concrete on either day or to meet the minimum 200 tonne production requirement described above.

If the Contractor would like to have the cores removed immediately upon completion of his compaction process (and therefore avail of normal paving construction signage), the Contractor may supply dry ice at his expense for this purpose. With the application of approximately 1.5 kg of dry ice, coring can typically be completed within 20 minutes. Traffic control must be in place prior to and throughout the application of the dry ice, as this area must be protected from traffic.

During the coring operation, the Contractor must provide all traffic control in the form of flag persons and signs which conforms to Division 7 Temporary Condition Signs and Devices of the Department and Transportation and Works Specifications Book as well as the latest edition of the Department's Traffic Control Manual and amendments. Coring will not be permitted until all traffic control devices are erected and flag persons are in position.

Immediately following each coring operation, the Contractor shall reinstate the pavement at the core sample location in conjunction with removal of the core by dewatering the core hole and filling it with hot mixed asphalt concrete in corresponding lift thicknesses up to the pavement surface elevation, compacting each lift with 25 blows using a standard Marshall hammer. Each coring operation and the reinstatement of core hole is to be conducted during a single traffic control and flag person set up.

Failure to meet the time requirements for the core hole repair may result in delayed paving of any subsequent asphalt production.

Mat densities will be tested by the Engineer by core analysis throughout the course of the work and shall conform to the density requirements indicated in Table 2. The asphalt cores will be retained and stored safely by the Engineer.

The percent compaction will be determined by comparing the core bulk densities, in accordance with ASTM D2726 with the average theoretical maximum density of the loose mix samples corresponding with the daily production of these cores, in accordance with ASTM D2041.

The Engineer will provide the Contractor with a copy of the results of acceptance tests within one working day of their availability. For asphaltic base and leveling courses unit price adjustments will be applied utilizing Table 2 to each tonne of asphalt mix for the day (or days if daily production is less than 200 tonne) represented by the segments cored and the percent compaction averaged. For asphaltic surface courses unit price adjustments will be applied utilizing Table 2 for each individual core's percent of maximum theoretical, and the unit price adjustment will be applied to each tonne of



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asphalt mix for the day divided by the daily segments cored (or days if daily production is less than 200 tonne).

For each asphaltic base, leveling and surface course mixture type for the day, in addition to the requirements noted above, if an individual core's percent of maximum theoretical falls below 93.5 % or above 97.5 % no bonuses will be paid for the paving day for that mixture. Also, irrespective of the paving day, the average of any four consecutive samples of a mixture type (base, leveling or surface) shall have a reject limit of 92.0 % based on the four individual core's percent of maximum theoretical. The rejected material represented by the averaged four cores will be the sum of the four units of material represented by each core defined as the tonnes of the asphalt mixture type for the day divided by the daily segments cored (or days if daily production is less than 200 tonne). Units of rejected material will not be rejected twice or more.

**Table 2
Unit Price Adjustment for Density**

% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)
> 97.5	0
>97.0 to $\geq$ 97.5	+0.50
>95.0 to $\geq$ 97.0	+1.50
>94.5 to $\geq$ 95.0	+0.50
>94.0 to $\geq$ 94.5	0
>93.5 to $\geq$ 94.0	-0.50
>93.0 to $\geq$ 93.5	-1.00
>92.5 to $\geq$ 93.0	-2.00
>92.0 to $\geq$ 92.5	-4.00
>91.5 to $\geq$ 92.0	-6.00
>91.0 to $\geq$ 91.5	-10.00
>90.5 to $\geq$ 91.0	-15.00
>90.0 to $\geq$ 90.5	-20.00
$\leq$ 90.0	REJECT

330.05.12.03 Measurement for Payment for Asphalt Cement

The asphalt cement will be measured in tonnes, rounded to two decimal places. Payment for Asphalt Cement shall be as per the percentage (%) of asphalt cement required in the Design Mix Formula approved by the Materials Engineering Division. However, where Asphalt Cement contents are found to be deficient to the point of being in the penalty zones subsequently described, Asphalt Cement will be paid on actual content only, as determined by ASTM D6307 Method A -Standard Test Method for Asphalt Content of Hot-Mix Asphalt by the Ignition Method. Any moisture content



in the hot mix asphalt will be determined and deducted. The method of determination of this moisture content will be in accordance with AASHTO 329 Standard Method of Test for Moisture Content of Hot Mix Asphalt by Oven Method.

Samples of hot mix asphalt shall be taken randomly, throughout each day of production, and tested to ensure conformance with the specifications stated herein. Sampling and testing shall be performed in accordance with ASTM D979 and ASTM D6307, Method A. Additional samples may also be taken and tested in accordance with ASTM D2172, for verification purposes.

In the event of any and all disputes over asphalt content, the asphalt contents as determined by the Engineer, in accordance with the above stated method, shall govern in all cases.

Acceptance Criteria

The following acceptance criteria shall apply for all mixes:

Table 8
Asphalt Content Acceptance Criteria

TYPE OF TEST	ACCEPTABLE ZONE (%)	PENALTY ZONE (%)	REJECTABLE ZONE (%)
INDIVIDUAL SAMPLE	± 0.30	-0.30 TO -0.50 +0.30 TO +0.50	<-0.50 OR >+0.50

Payment Adjustment Factor

If the test results representing the individual sample for asphalt cement content falls into the above-stated "Penalty Zone", the payments for both Asphalt Cement and Hot Mix Asphalt shall be adjusted by deducting a percentage from the unit prices per Table 9 for the Individual Sample. These adjustments shall apply to the areas of pavement represented by these samples.

If the test results representing the individual sample fall into the above-stated "Rejectable Zone", then no payment will be made for either the asphalt cement or hot mix asphalt represented by those samples.

The design mix formula may be revised, as required, by the Department throughout the project. If a change in the mix design occurs during the day, then two or more averages will be computed, before and after the change was made.



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Table 9
AC Content Penalty (Individual Sample)

Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %
0.30	0.0	0.37	7	0.44	14
0.31	1	0.38	8	0.45	15
0.32	2	0.39	9	0.46	16
0.33	3	0.40	10	0.47	17
0.34	4	0.41	11	0.48	18
0.35	5	0.42	12	0.49	19
0.36	6	0.43	13	0.50	20
				> 0.50	Reject

25. ITEM NO. 16 OF THE UNIT PRICE TABLE: WARM MIX ASPHALT

This Supplementary General Condition covers the requirements for asphalt mix produced using Warm Mix Asphalt technology. For the tender items noted above Contractors are advised that Hot Mix Asphalt Concrete Section 330 of the specification is amended to include the addition to the following. If there are any direct conflicts the Supplementary General condition will govern. All other requirements of Section 330 Hot Mix Asphalt Concrete of the specification are applicable.

Definitions

Warm Mix Asphalt (WMA): Means warm mixed, warm laid asphaltic concrete produced using technologies that allow for the mixing, handling and compaction of the asphaltic concrete mixture at a temperature typically 20 to 50°C lower than conventional hot mix asphalt.

Hot Mix Asphalt (HMA): Means hot mixed, hot laid asphaltic concrete and includes mixes produced using WMA technologies. The terms are used interchangeably. HMA may include recycled or specialty mixes.

330.02 Materials

330.02.01.05 Anti-Strip Additive

Section 330.02.01.05 is amended by the addition of the following:

An Anti-Strip additive is to be incorporated into the WMA, the Contractor shall consult with the WMA technology supplier to determine whether or not the proposed additive is compatible with the WMA. In those cases where the supplier deems the anti-stripping additive incompatible, the anti-



stripping additive shall not be used and another shall be chosen and identified to the WMA technology supplier till a compatible additive is agreed upon. The Contractor shall provide a copy of the correspondence with the WMA technology supplier to the Materials Engineering Division detailing the compatibility with the proposed anti-stripping additive at least 21 days prior to paving.

330.02.01.07 Warm Mix Asphalt

Section 330.02.01.07 shall be added:

330.02.01.07.01 Mixture Requirements

The Contractor shall be responsible for the following:

1. Obtaining all materials, production of WMA, transportation, storage, and use of all materials.
2. Identifying and using a facility capable of producing the mix in accordance with the WMA technology supplier's instructions for the use of their WMA technology.
3. Obtaining from the WMA technology supplier any and all information required for the proper preparation, handling, storage and use of the WMA material, including Safety Data Sheets.
4. Ensuring the WMA technology is produced in accordance with the WMA technology supplier's recommendations to prevent any deleterious effects to the finished product.
5. Notifying the Engineer and Materials Engineering Division in writing, identifying the WMA technology (complete name and address of the supplier) that will be used.

Below is a list of WMA technologies that are permitted for use:

- | | |
|------------------------------------|--------------------|
| • Advera® | • Evotherm P25 |
| • Astec-Double Barrel Green System | • Evotherm DAT |
| • Cecabase RT | • Gencor Ultrafoam |
| • Evotherm M1 | • Rediset™ |
| | • Warngrip N1 |

Preparation and submission of the WMA mix design at the anticipated WMA production temperature is the responsibility of the Contractor. The Contractor shall use professional engineering services and a CCIL or AASHTO certified testing laboratory to assess and carry out the design of the WMA mix design. During the development and verification of the WMA mix design the laboratory must ensure that WMA technology does not adversely affect the asphalt cement performance grade and WMA mixture performance. The submitted documentation shall be signed and sealed by a Professional Engineer registered to practice in Newfoundland and Labrador attesting to the validity of the material test data.



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Please note that the Department will perform all gradation analysis and physical properties of asphalt aggregate for the WMA mix design. The Contractor is required to prepare and submit the WMA mix design as outlined in this section.

The asphalt mix design shall follow the Marshall method as outlined in the latest edition of the Asphalt Institute manual Series No. 2 (MS-2). The WMA materials and mix design shall meet the requirements of section 330.02. Mix designs shall be based on asphalt cement content as a percentage of the mixture. As a minimum each mix design shall have five (5) point of asphalt cement content starting at 5.0% with 0.5% increments to 7.0%.

The mix design must also include:

- Pit/quarry identification (Name, location, route and reference distance).
- The specific gravities and the percentage of aggregate by mass of each aggregate to be used in the mix.
- The mix design gradation of the combined aggregate.
- Fine Aggregate Angularity (FAA) tests shall be conducted on a representative sample of the total fine aggregate inclusive of all fine aggregate materials as indicated in the mix design including blending sand. The test will be conducted in accordance with ASTM C1252 Standard Graded Sample Method A.
- All Marshall mix design characteristic, including summary table, graphs, bulk relative densities of the combined aggregates and asphalt absorption of the combined aggregates.
- Dosage rate of WMA additive and how it will be incorporated to produce the WMA.
- WMA mixing and compaction temperatures as recommended by the manufacturer and used during the mix design process.
- The most current version of the Safety Data Sheet (SDS) for the WMA technology used.
- Identification of the anti-strip additive used in the WMA and current SDS.
- Modified Lottman and boiling water test results as per section 330.02.01.05. Both tests must be completed on neat asphalt samples as well as samples including WMA additive with anti-strip.

The Engineer will require up to ten (10) working days from the time of receipt of the WMA mix design for evaluation by the Department and/or the Department representative's laboratory. The Engineer will advise the Contractor of receipt of the required documentation. If the WMA mix design does not meet the requirements of Section 330.02, it shall be rejected. The Engineer shall provide a written explanation to the Contractor that details why the DMF failed. The Contractor shall then provide another complete WMA mix design and re-submit it to the Engineer for evaluation. Each time a WMA mix design is re-submitted, an additional five (5) working days, from the time of receipt of the revised WMA mix design, shall be required for evaluation by the Department and/or



the Department's representative's laboratory. The Engineer will not accept any asphalt concrete mix produced prior to the Contractor receiving written acknowledgement of receipt of all required documentation for the WMA mix design from the Engineer.

While the JMF presented in the WMA mix design may be accepted the Departments reserves the right to specify/select another JMF based on the Marshall results presented.

Previous WMA mix designs, meeting the requirements of the current specification, may be submitted if remaining material from that original specific mix design is still available. If new asphalt aggregate is required to be crushed then a new WMA mix design is required.

330.02.01.07.02 Asphalt Cement Mixing

The WMA shall be produced within the temperature range recommended by the WMA technology supplier to achieve target compaction in the field and to meet the requirements specified in the Contract Documents and this Supplementary General Condition. The maximum recommended mixing temperature of the WMA mix shall be 130°C unless otherwise approved by the Engineer. The Contractor shall maintain the mixing temperature of the WMA within $\pm 5^\circ\text{C}$ of the recommended temperature and shall provide the plant production temperatures obtained once per hour during production to the Engineer and Materials Engineering Division no later than 7 days from the date of measurement.

330.02.01.07.03 Placing Asphaltic Concrete

The Contractor shall provide notice of their intent to pave in writing to the Engineer and Materials Engineering Division, a minimum of 7 days prior to placing WMA.

The WMA Technology supplier's recommendations for placing the WMA mix shall be followed. The temperature of the WMA immediately after spreading shall be within the limits identified in Table A below:

Table A
Allowable limits for WMA Paving Temperature

Minimum Allowable WMA Paving Temperatures	Maximum Allowable WMA Paving Temperatures
The higher of 60°C and the minimum temperature recommended by the WMA technology supplier	The lower of 125°C and the maximum temperature recommended by the WMA technology supplier



The Contractor shall measure and record the temperature of the WMA immediately after spreading using an infrared thermometer gun at wheel paths and midlane, once every 250 lane meters during the WMA paving. The Contractor shall submit WMA temperature records to the Engineer for compliance verification no later than 7 days from the date of measurement.

The contractor shall utilize appropriate paving and compaction equipment to avoid mix segregation, roller pickup and/or any other surface defects.

No traffic shall be permitted on the newly placed surface mat until finish rolling is completed and the finished mat has been allowed to cool, as recommended by the WMA additive supplies. A transverse construction joint in the asphalt mat shall be constructed at the end of each day's work, and at other times when paving is halted for a period of time to permit the asphalt concrete to cool as recommended by the WMA technology supplier.

26. SOLVENT BASED EXTRACTION OF ASPHALT CEMENT TESTING

For this project, the Contractor shall provide a fume hood located inside his field laboratory for Department testing purposes, having adequate forced air circulation. This requirement is necessary to ensure the safety of personnel conducting the extraction of asphalt cement from the hot-mix asphalt using N-Propyl Bromide. Contractors shall also provide the required N-Propyl Bromide solvent to conduct the testing.

The fume hood must be located appropriately within the laboratory to allow proper functional access and so as to not interfere with other laboratory functions or testing.

Fume hoods complete with work surfaces, cabinets, sinks, exhaust blowers and chemical extraction pumps must be approved by the Materials Engineering Division prior to purchase. Proposed fume hoods shall meet or exceed ASHRAE-110, NFPA-45, and UL 1805 standards as well SEFA recommended practices.

Materials and description criteria below shall be met.

1. Fume Hood

- Minimum dimensions of 72 inches wide x 32 inches deep x 48 inches high to permit placement of vacuum extractor, vacuum pump and hot plate
- Constructed of chemical resistant, flame retardant, non-metallic composite resin, both interior and exterior
- Interior fume chamber is moulded one piece seamless with all corners coved.
- Equipped with vertical slide safety tempered glass slash with chemical resistant sash frame – sash track – and sash lift
- Sash stops which can be manually adjusted by field personnel
- Vapour-proof light fixture mounted in hood with switch pre-wired to junction box



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- 115v, 20amp, single phase 2-duplex receptacle installed on front column of fume hood for a vacuum pump and hot plate
- Switch installed for chemical extraction pump

(Hemco Uniflow LE Fume Hood Part No. 35611 or Equivalent)

(Hemco Safety Sash Lock Part No. 51651 or Equivalent)

(Hemco 2 Duplex Receptacle Part No. 50029-2 or Equivalent)

(Hemco Single Receptacle Part No. 50030-2 or Equivalent)

2. Work Surface (Countertop)

- Stainless steel work surface with dimensions to match internal fume hood chamber.
- Surface dished minimum 3/8" to contain spillage.
- Hole must be cut in surface to allow installation of oval cup sink.
- Polyolefin 3 inch by 9 inch oval cup sink for drainage

(Hemco Stainless Steel Work Surface Part No. 20616 or Equivalent)

(Hemco Oval Cup Sink Part No. 40121 or Equivalent)

3. Acid Storage Base Cabinets

- Storage base cabinets having dimensions to match fume hood chamber (minimum dimensions for one cabinet 72 inches wide or two cabinets 36 inches wide each.)
- Constructed of top grade furniture steel with a chemical resistant finish.
- Interior shall have a moulded one piece seamless liner constructed of chemical resistant composite resin.
- Adequate space for two 5 gallon containers. One container will hold clean solvent to pump into extractor whereas the second container will hold the asphalt cement / N-Propyl bromide extract solution from the vacuum extractor. (Rather than setting up the two containers, the Contractor may run lines for clean solvent and extract to barrels outside the trailer that are properly secured.)
- Adjustable Shelf and vented hinged doors.

(Two Hemco Acid Storage Base Cabinets Part No. 15030 (36 inches wide) or equivalent)

4. Fume Hood Exhaust Blower

- Belt driven exhaust blower installed next to hood or externally on the trailer roof. Capacity of 500-1000 CFM
- ¼ HP, 115 V motor
- Pilot light switch for air blower.
- Ventilation duct hardware and vents shall be supplied and installed as per fume hood manufacturer's instructions

(Hemco Epoxy Coated Steel Blower Belt Drive Part No. 51705X or Equivalent)

(Hemco Blower Switch with Pilot Light Part No. 50027-1 or Equivalent)



5. Chemical Extraction Pump

- 115v liquid-flow pump to be installed in base cabinet to extract N-Propyl Bromide from container
- Pump outfitted with chemical resistant Viton diaphragm
- Piping made of PVC plastic

The fume hood must also be inspected prior to use in accordance with all applicable regulations.

Contractors are to provide the required N-Propyl Bromide solvent to conduct the testing. For rough estimate purposes each extraction test requires approximately 5 litres solvent to complete while each 600 t subplot of asphalt mix production will require at least one full solvent extraction test.

Contractors must also dispose of used solvent by means of an approved chemical waste disposal company. Verification of proper disposal of the solvent shall be provided to the resident engineer upon completion of the work.

In addition to the requirement for the fume hood and solvent above the hot mix asphalt specifications are modified as follows:

CHANGE to Section 330.05.12.03 Measurement for Payment for Asphalt Cement

330.05.12.03 Measurement for Payment for Asphalt Cement

The asphalt cement will be measured in tonnes, rounded to two decimal places. Payment for Asphalt Cement shall be as per the percentage (%) of asphalt cement required in the Design Mix Formula approved by the Materials Engineering Division. However, where Asphalt Cement contents are found to be deficient to the point of being in the penalty zones subsequently described, Asphalt Cement will be paid on actual content only, as determined by ASTM D2172 Standard Test Methods for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures. Any moisture content in the hot mix asphalt will be determined and deducted. The method of determination of this moisture content will be in accordance with AASHTO 329 Standard Method of Test for Moisture Content of Hot Mix Asphalt by Oven Method.

Samples of hot mix asphalt shall be taken randomly, throughout each day of production, and tested to ensure conformance with the specifications stated herein. Sampling and testing shall be performed in accordance with ASTM D979 and ASTM D2172. Additional samples may also be taken and tested in accordance with ASTM D2172, for verification purposes.

In the event of any and all disputes over asphalt content, the asphalt contents as determined by the Engineer, in accordance with the above stated method, shall govern in all cases.



Acceptance Criteria

The following acceptance criteria shall apply for all mixes:

Table 8
Asphalt Content Acceptance Criteria

TYPE OF TEST	ACCEPTABLE ZONE (%)	PENALTY ZONE (%)	REJECTABLE ZONE (%)
INDIVIDUAL SAMPLE	± 0.30	-0.30 TO - 0.50 +0.30 TO +0.50	<-0.50 OR >+0.50

Payment Adjustment Factor

If the test results representing the individual sample for asphalt cement content falls into the above-stated “Penalty Zone”, the payments for both Asphalt Cement and Hot Mix Asphalt shall be adjusted by deducting a percentage from the unit prices per Table 9 for the Individual Sample. These adjustments shall apply to the areas of pavement represented by these samples.

If the test results representing the individual sample fall into the above-stated “Rejectable Zone”, then no payment will be made for either the asphalt cement or hot mix asphalt represented by those samples.

The design mix formula may be revised, as required, by the Department throughout the project. If a change in the mix design occurs during the day, then two or more averages will be computed, before and after the change was made.

Table 9
AC Content Penalty (Individual Sample)

Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %
0.30	0.0	0.37	7	0.44	14
0.31	1	0.38	8	0.45	15
0.32	2	0.39	9	0.46	16
0.33	3	0.40	10	0.47	17
0.34	4	0.41	11	0.48	18
0.35	5	0.42	12	0.49	19
0.36	6	0.43	13	0.50	20
				> 0.50	Reject



27. ITEM NO. 15 OF THE UNIT PRICE TABLE: TACK COAT

The following shall replace Section 320 of the Department's Specification Book:

320.01 SCOPE

This section covers the requirements for the supply and application of Tack Coat to pavement surfaces prior to repaving with asphaltic concrete.

320.02 MATERIALS

Tack Coat shall consist of RS-1 emulsified asphalt conforming to ASTM D977 "Standard Specifications for Emulsified Asphalt", CRS-1 emulsified asphalt conforming to ASTM D2397 "Standard Specifications for Cationic Emulsified Asphalt" or a non-tracking emulsion. The non-tracking emulsion shall be a Clean Bond Coat, or equivalent, applied un-diluted or diluted with a maximum of 40% water and shall meet the requirements of **Table 1** and **Table 2**. Dilution of the emulsion shall be permitted provided the Manufacturer's dilution process is followed.

Table 1: Non-Tracking Emulsion Requirements (Prior to Dilute)

Test Type	Specification Range	
	Minimum	Maximum
Tests on Emulsions		
SF Viscosity, 25°C, SFs	20	-
Sieve Test, 850µm, %	-	0.1
Residue by Distillation, 260°C, %	55	-
Oil Portion of Dist, %	-	Trace
Particle Charge	(-) or (+)	
Test on Residue		
Penetration, 25°C, dmm	20	55
Ash Content,%	-	1.0

Table 2: Non-Tracking Emulsion Requirements (Diluted)

Test Type	Specification Range	
	Minimum	Maximum
Tests on Emulsions		
Residue by Distillation, 260°C, %	39.3	-
Test on Residue		
Penetration, 25°C, dmm	20	55
Ash Content, %	-	1.0

Should the Contractor wish to use an alternate product, then prior written approval of the Engineer must first be obtained. A written request must be submitted to the Engineer a minimum of 14 days



prior to the intended use of the alternate product. The Contractor's request must include reasons for the use of the alternate product, manufacturer's product literature and required application rates as well as applicable Safety Data Sheets.

The Contractor shall collect samples of emulsified asphalt as required by the Engineer. The Engineer may opt to request one random sample per day. Samples shall be taken from the Contractor's storage tank in accordance with ASTM D140 "Standard Practice for Sampling Bituminous Materials". The sample size shall be at least eight litres placed in two separate four litre containers. Collection of the asphalt binder sample shall be witnessed by the Engineer. The sample shall be appropriately identified including the time and date of samples, type of emulsified asphalt, manufacturer, and refiner. If the sample is Clear Bond Coat it should also be recorded if the sample is un-diluted or diluted and the percentage of water added. The sample shall be immediately forwarded to the witnessing Engineer.

It shall be the Department's responsibility to submit emulsified asphalt samples for quality assurance testing.

320.03 EQUIPMENT

Tack Coat shall be applied by means of an approved pressure distributor designed and equipped so that the emulsion may be applied uniformly at even heat on variable widths at easily determined and controlled application rates under uniform pressure. The distributor shall maintain a constant height of the spray bar as the tank is unloaded.

The distributor shall be equipped with a suitable thermometer with a minimum range from 10°C to 150°C placed to accurately show the temperature of the contents. The approved pressure distributor shall be equipped with a tachometer measuring speeds in meters per minute that is visible to the truck driver so as to maintain constant application speeds at specified rates. The distributor's pump shall be equipped with a tachometer registering liters per minute that is visible to the truck driver. The distributor shall be equipped with a hose and nozzle attachment to be used for spraying by hand, areas inaccessible to the spray bar.

All spray nozzles shall be in good condition and of the same type, orifice size and manufacturer and capable of producing a uniform fog-type spray without streaking. Prior to spraying the Contractor shall check with the Manufacturer to ensure the correct spray nozzles are being utilized. Clogged nozzles shall be removed and cleaned with solvent. The slot of each nozzle shall be set at 30 degrees to the axis of the spray bar and the spray bar shall be set at a height above the existing pavement that will permit the fan from each nozzle to overlap its neighbouring fan by exactly half. The spray bar shall be provided with a positive shut-off to prevent dribbling.

320.04 APPLICATION

Tack Coat shall only be placed on surfaces that are clean and dry, with no threat of precipitation or fog and then only when the atmospheric temperature is at least 10°C. The emulsion shall not be applied to a prepared surface when the surface temperature is less than 2°C.



Should the surface to be treated be dirty, then the Contractor shall thoroughly clean the surface by means of a power broom, or equivalent to ensure bonding of the Tack Coat.

Tack Coat shall only be placed on surfaces that have been approved by the Engineer.

The Contractor shall plan his work so that no more Tack Coat than is necessary for the days paving operation is applied at one time.

To avoid nuisance and possible property damage to the traveling public, the Contractor shall install portable traffic lights or other means of directing one-way traffic while the Contractor is working on the adjacent part of the road. All other means of traffic control must be in accordance with Division 7 of the Specifications Book, Temporary Condition Signs and Devices.

The spraying temperature shall be between 20°C and 70°C for RS-1 and Clean Bond Coat, 60°C and 80°C for CRS-1, or the temperature recommended by the manufacturer. This recommendation from the manufacturer shall be provided in writing to the Engineer. Application rates shall meet the requirements of **Table 3**. On pavement which was placed during the previous construction season, the rate of application shall be as directed by the Engineer. This rate will not exceed the rates provided in **Table 3**.

Table 3: Tack Coat Application Rates

Emulsion Type	Application Range
RS-1	0.15 to 0.25 l/m ² *
CRS-1	
Clean Bond Coat Un-diluted	0.15 to 0.25 l/m ² *
Clean Bond Coat diluted (40%)	0.25 to 0.35 l/m ² *

* Or the Department approved application rate as recommended from the Manufacturer.

Tack Coat application shall be visually uniform. Areas of insufficient or non-uniform Tack Coat coverage shall be re-sprayed by the Contractor at no additional cost.

320.05 ENVIRONMENTAL PROVISIONS

The Contractor shall follow the requirements of Section 820 "Storage and Handling of Fuels and Other Hazardous, Toxic or Dangerous Material", and the procedure for reporting spills.

320.06 CURING

No hot mix shall be placed upon the Tack Coat until it has dried to a proper condition of tackiness, as determined by the Engineer. The Contractor is advised that the period required for such drying will depend upon weather conditions; generally it can be 1 hour or more.



Where appropriate, the Contractor shall keep traffic off the Tack Coat to maximize product performance.

320.07 MEASUREMENT FOR PAYMENT

Measurement for payment shall be by means of the horizontal area actually treated with Tack Coat lying within the area designated by the Engineer for treatment. The area shall be computed in square meters, rounded to one decimal place.

320.08 BASIS OF PAYMENT

Payment at the contract price for Tack Coat shall be compensation in full for all labour, materials and equipment-use to; clean the existing surface, supply and apply the Tack Coat, together with the provision of all required traffic control necessary.

28. ITEM NO.113 OF THE UNIT PRICE TABLE: SHOULDERING

DESCRIPTION

This specification applies to Class A shouldering material associated with Parts A, B, D, E, and F. Throughout each Part previously identified, shouldering material shall be placed by an approved shouldering machine by way of the traditional shouldering operation facilitated by traditional shouldering equipment. The thickness of shouldering material required shall be placed to match the finish grade of asphalt and extend to the edge of the design road shoulder width with a minimum of 1.0 meter offset from the newly placed edge of asphalt.

All driveway tie-ins, sign islands etc. will be brought to grade as deemed acceptable to the engineer. The Contractor is required complete all shouldering within 48 hours of asphalt completion.

Should the Contractor not complete shouldering within 48 hours of asphalt completion, the Department may deduct from other earned payments twice the value of the shouldering bid costs with a minimum deduction to \$10.00 per m.

If the Contractor fails to complete the shouldering within 96 hours of asphalt completion the Department may choose to complete by other sources and the deducted funds will be deemed forfeited by Contractor.

MEASUREMENT FOR PAYMENT

Measurement for payment shall be the total number of linear meters rounded to one decimal place, of shouldering carried out in accordance with this specification. No measurement for payment will be made for material placed beyond theoretical lines. Areas identified by the Resident Engineer as being un-acceptable shall be remedied by the Contractor at their own expense.



BASIS OF PAYMENT

Payment at the contract price for item 113 Shouldering (m), shall be compensation in full for all labor, materials, and equipment required to complete the associated work including but not limited to traffic control, handling, hauling, placing, grading, compacting, sweeping of the road surface, clean up and shaping to lines considered acceptable to the engineer.

Reductions in payment for shouldering deficiencies will be twice the value of the bid rate (minimum of \$10.00 per metre until the deficiency is remedied.

29. ITEM NO. 14 OF THE UNIT PRICE TABLE: DISPOSAL OF OLD ASPHALTIC PAVEMENT

The following shall replace Section 520 of the Department's Specification Book:

520.01 SCOPE

This specification covers the requirements for the cutting and excavation of asphaltic pavement, together with either the storage of the debris, or the disposal of the debris.

520.02 EXCAVATION

The Contractor shall cut and excavate the asphaltic pavement from within the limits staked by the Engineer. Cuts shall be made using an approved pavement cutter. The cuts shall be made straight and vertical and be made in such a manner that will allow neat tie-ins with new pavement.

Care shall be taken in excavating the pavement so as not to contaminate the underlying granular base course. In the case when the asphaltic pavement debris is to be stored, care shall also be taken not to excavate underlying granular materials with the pavement.

Pavement debris shall be broken into pieces of greatest dimension not more than one metre in length.

520.03 STORAGE

Where the contract item designates that old asphaltic pavement is to be stored, the Engineer shall select a site where all the excavated asphaltic pavement is to be stockpiled. The site shall comply with requirements of Section 830 Marshaling Yards and Temporary Work Camps.

The stockpile shall be made on a flat well drained area on firm ground so that the asphaltic debris will not become contaminated with deleterious materials when it is moved at some future date prior to recycling.

Should the Engineer require that grading work be carried out to prepare the stockpile site, then such



grading shall be carried out and paid for in accordance with Section 206 "Grading of Cuts" and Section 204 "Grading of Fill".

After any required grading operations have been completed, the stockpile site shall be treated with an even mat of Granular "A" 100 mm thick. The Granular "A" mat shall be supplied and paid for in accordance with the contract price for Granular "A".

Old asphaltic pavement that is to be stored shall be handled, transported, and stockpiled at all times in such a manner that will avoid contamination by any deleterious material.

The pavement debris shall be hauled to the stockpile site and spot-dumped and levelled and then succeeding loads shall be dumped and levelled on top of the others to form a neat, unified, elevated stockpile.

520.04 DISPOSAL

On those jobs where the contract item states that the old asphaltic pavement is to be disposed of, then the old asphaltic pavement debris for disposal shall become the property of the Contractor.

If the Contractor wishes, the Contractor will be permitted to use Recycled Asphalt Pavement (RAP) in levelling course asphalt. The amount of Recycled Asphalt in the mixture of RAP plus Virgin Aggregate will be limited to a maximum of 10%.

In addition, the Contractor will be permitted to use RAP in Granular B. The Recycled Asphalt in the mixture of Virgin Granulars plus RAP will be limited to a maximum of 30% under the asphalt and 50% in the granular shoulders.

The Department reserves the right to accept or reject any particular source of RAP, irrespective of its quality.

As approved by the Engineer, the Contractor shall be permitted to use old asphalt pavement in shouldering operations and as a surface stabilizer on gravel roads. The latest Department procedure for these operations shall be strictly adhered to by the Contractor in these operations.

The Contractor shall be aware of Division 8.

520.05 MEASUREMENT FOR PAYMENT

Measurement for payment will be by means of the volume of pavement excavated from within the required limits, calculated as the product of the exposed surface area of the excavated pavement before removal, times the centreline thickness of the asphalt and shall include any cutting required to complete the excavation. Should individual areas of asphalt removal exceed 100m in length, then the thickness used for volume calculation will be the average of the thickness of the asphalt



measured at 100m intervals.

The volume of the excavated pavement shall be calculated in cubic metres rounded to two decimal places.

520.06 BASIS OF PAYMENT

520.06.01 Basis of Payment for Storage of Old Asphaltic Pavement

Payment at the contract price for storage of old asphaltic pavement hauled 1km or under, shall be payment in full for all labour, materials, and use of equipment to: cut and excavate the old pavement, break-up the pavement, transport the debris up to 1km, and place the debris in a stockpile.

However, where the Engineer requires that excavated material be hauled in excess of the 1 km freehaul before being stored, additional payment for overhaul will be made in accordance with Section 215 "Overhaul on Excavated Material", at the appropriate rate for overhaul on excavation other material.

In the case of storage of old asphaltic pavement, the grading of the stockpile floor and the supply and placing of the Granular "A" mat for the stockpile shall be paid for in accordance with Section 206 "Grading of Cuts" and Section 315 "Selected Granular Base" for Granular "A", respectively.

520.06.02 Basis of Payment for Disposal of Old Asphaltic Pavement

Payment at the contract price for disposal of old asphaltic pavement, shall be payment in full for all labour, materials, and use of equipment to cut and excavate the old pavement, and provide all transportation and any other costs to remove the debris from the site.

30. FIELD OFFICE REQUIREMENTS

The following shall replace Section 110 of the Department's Specification Book:

SECTION 110 ENGINEER'S FIELD OFFICE

On projects having a total estimated tender value of \$250,000 or greater, the Contractor shall supply a field office together with furniture for the use of engineering staff. The Field Office shall not be of a lesser standard than that shown in Section 1201 "Field Office" and furniture shall be of a standard to prevent musculoskeletal injury (ergonomic) as per the OH&S Act. Prior written approval must be obtained from the Department should the Contractor wish to supply an office other than that shown and described on this plan.

The Contractor must provide the office with utilities including but not limited to: washroom facility, electricity, internet access and telephone service (long distance charges are to be itemized and



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reimbursed through Project Contingency allowances at cost based upon submitted supplier invoices). The field office is to have a plain paper fax and separate photocopier capable of scanning to Adobe PDF format. The photocopier must be capable of copying letter (8.5" x 11") and legal (8.5" x 14") sized paper as well as bound field books.

On projects having a total estimated tender value of less than \$250,000, the Contractor must still supply a field office and furniture, but the field office and furniture may be to a lower standard than that shown in Section 1201 "Field Office". Furniture and facilities may be reduced accordingly as agreed to by the Engineer, however, floor area shall not be less than fifteen square metres.

On contracts which involve the construction of a concrete bridge or concrete pavement, the Contractor shall equip the office with a concrete test cylinder curing tank of capacity not less than 0.2 cubic metres.

The field office must be located on the site of the project and shall be completely ready for use, including all above noted utilities, from the first day the Contractor commences work and it shall remain available for use until Total Performance of the contract as certified by the Engineer. All doors for accessing the Engineer's Field Office shall be secured by means of an exterior latch suitable for a Department supplied padlock. Any other means of accessing the Field Office shall be securable and accessible from the inside only.

The Contractor shall clean the office and maintain all electric lights, heating, ventilation, hot and cold water, telephone, internet and the washroom facilities in good working condition at all times. Cleaning of the office shall be done on a biweekly basis unless an alternate schedule is agreed to by the Engineer.

All costs of providing the office, furniture, equipment and providing and maintaining the required heat, light, hot and cold water, telephone, internet and sanitary provisions (including paper products, soap and sanitizer) together with twice a week clean out shall be borne by the Contractor. (note: all products for cleaning and sanitizing must meet Health Canada authorized products for disinfection.)

No payment will be made for this item. The provision and maintenance of the Field Office including all the noted requirements shall be considered as part of carrying out the other contract items.

31. FIELD LABORATORY REQUIREMENTS

The following shall replace Section 111 of the Department's Specification Book:

SECTION 111 FIELD LABORATORY

On projects having a total estimated tender value of \$250,000.00 or greater and on which soils testing will be required, the Contractor shall supply a field laboratory together with furniture for use by engineering staff.



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The field laboratory shall be heated, have 110 volts 60 cycle electrical outlets, electric light, work benches, clean running hot and cold water, washroom facilities, electric laboratory oven, propane table top stove, a certified carbon monoxide detector and be suitable for the type of testing called for in the specifications. The field laboratory shall be of a standard not less than that shown on the plan in Section 1203 "Field Laboratory" and furniture shall be of a standard to prevent musculoskeletal injury (ergonomic) as per the OH&S Act. Should the Contractor wish to supply a field laboratory other than that shown in Section 1203, then prior written approval of the Engineer must be obtained.

The field laboratory is to have a photocopier capable of copying letter (8.5" x 11") and legal (8.5" x 14") sized paper as well as bound field books and also be capable of scanning to Adobe PDF format. The office area in the laboratory shall also be fitted with an air conditioning unit.

Whenever asphalt testing is conducted, the Contractor shall provide a fume hood located inside the field laboratory for Department testing purposes, having adequate forced air circulation. This requirement is necessary to ensure the safety of personnel conducting the extraction of asphalt cement from the hot-mix asphalt using N-Propyl Bromide. Contractors shall also provide the required N-Propyl Bromide solvent to conduct the testing.

The fume hood must be located appropriately within the laboratory to allow proper functional access and so as to not interfere with other laboratory functions or testing.

Fume hoods complete with work surfaces, cabinets, sinks, exhaust blowers and chemical extraction pumps must be approved by the Materials Engineering Division prior to purchase. Proposed fume hoods shall meet or exceed ASHRAE-110, NFPA-45, and UL 1805 standards as well SEFA recommended practices.

Materials and description criteria below shall be met.

1. Fume Hood

- Minimum dimensions of 72 inches wide x 32 inches deep x 48 inches high to permit placement of vacuum extractor, vacuum pump and hot plate
- Constructed of chemical resistant, flame retardant, non-metallic composite resin, both interior and exterior
- Interior fume chamber is moulded one piece seamless with all corners coved.
- Equipped with vertical slide safety tempered glass sash with chemical resistant sash frame – sash track – and sash lift
- Sash stops which can be manually adjusted by field personnel
- Vapour-proof light fixture mounted in hood with switch pre-wired to junction box
- 115v, 20amp, single phase 2-duplex receptacle installed on front column of fume hood for a vacuum pump and hot plate
- Switch installed for chemical extraction pump

(Hemco Uniflow LE Fume Hood Part No. 35611 or Equivalent)

(Hemco Safety Sash Lock Part No. 51651 or Equivalent)

(Hemco 2 Duplex Receptacle Part No. 50029-2 or Equivalent)

(Hemco Single Receptacle Part No. 50030-2 or Equivalent)



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2. Work Surface (Countertop)

- a. Stainless steel work surface with dimensions to match internal fume hood chamber.
- b. Surface dished minimum 3/8" to contain spillage.
- c. Hole must be cut in surface to allow installation of oval cup sink.
- d. Polyolefin 3 inch by 9 inch oval cup sink for drainage

(Hemco Stainless Steel Work Surface Part No. 20616 or Equivalent)

(Hemco Oval Cup Sink Part No. 40121 or Equivalent)

3. Acid Storage Base Cabinets

- a. Storage base cabinets having dimensions to match fume hood chamber (minimum dimensions for one cabinet 72 inches wide or two cabinets 36 inches wide each.)
- b. Constructed of top grade furniture steel with a chemical resistant finish.
- c. Interior shall have a moulded one piece seamless liner constructed of chemical resistant composite resin.
- d. Adequate space for two 5 gallon containers. One container will hold clean solvent to pump into extractor whereas the second container will hold the asphalt cement / N-Propyl bromide extract solution from the vacuum extractor. (Rather than setting up the two containers, the Contractor may run lines for clean solvent and extract to barrels outside the trailer that are properly secured.)
- e. Adjustable Shelf and vented hinged doors.

(Two Hemco Acid Storage Base Cabinets Part No. 15030 (36 inches wide) or equivalent)

4. Fume Hood Exhaust Blower

- a. Belt driven exhaust blower installed next to hood or externally on the trailer roof. Capacity of 500-1000 CFM
- b. ¼ HP, 115 V motor
- c. Pilot light switch for air blower.
- d. Ventilation duct hardware and vents shall be supplied and installed as per fume hood manufacturer's instructions

(Hemco Epoxy Coated Steel Blower Belt Drive Part No. 51705X or Equivalent)

(Hemco Blower Switch with Pilot Light Part No. 50027-1 or Equivalent)

5. Chemical Extraction Pump

- a. 115 V liquid-flow pump to be installed in base cabinet to extract N-Propyl Bromide from container
- b. Pump outfitted with chemical resistant Viton diaphragm
- c. Piping made of PVC plastic

The fume hood must also be inspected prior to use in accordance with all applicable regulations.

Contractors are to provide the required N-Propyl Bromide solvent to conduct the testing. For rough estimate purposes, each extraction test requires approximately 5 litres solvent.



Contractors must also dispose of used solvent by means of an approved chemical waste disposal company. Verification of proper disposal of the solvent shall be provided to the resident engineer upon completion of the work.

The field laboratory shall be located on the site of the project and shall be ready for use from the first day the Contractor commences work for which testing is required, and it shall remain available for use for the duration of the contract. All doors for accessing the Field Laboratory shall be secured by means of an exterior latch suitable for a Department supplied padlock. Any other means of accessing the Field Laboratory shall be securable and accessible from the inside only.

The Contractor shall supply a separate vented steel storage locker for the Department's coring machine and mixed gas. The storage unit shall be located near the field laboratory and have a means of properly securing its contents.

The Contractor shall clean the laboratory biweekly and maintain all electric lights, heating, running water, and sanitary provisions (including paper products, soap and sanitizer) in good working condition during the time the laboratory is required. (note: all products for cleaning and sanitizing must meet Health Canada authorized products for disinfection.)

On projects having a total estimated tender value of less than \$250,000, the Contractor shall provide and maintain a field laboratory as described, or provide transportation of all Test Samples from the job site to the Department's Soils Laboratory at LeMarchant Road in St. John's.

Test samples shall be selected by the Engineer, or their representatives, and the number and the frequency of taking test samples shall be at the sole discretion of the Engineer.

All costs of providing and maintaining the field laboratory as described, or transporting test samples shall be borne by the Contractor. No payment will be made for this item. The provision and maintenance of the field laboratory shall be considered as part of carrying out those contract items for which tests are required.

32. HOT MIX ASPHALT CONCRETE – IRI SMOOTHNESS

THIS SPECIFICATION IS INCLUDED FOR INFORMATIONAL PURPOSES ONLY AND WILL NOT BE APPLIED TO THIS PROJECT. IRI DATA WILL BE COLLECTED AND CALCULATIONS COMPLETED IN ACCORDANCE WITH THIS SPECIFICATION. THE DETERMINATION OF BONUS/PENALTIES WILL ALLOW CONTRACTORS TO PREVIEW THEIR PERFORMANCE UNDER THIS FUTURE SPECIFICATION. NO PAY ADJUSTMENTS WILL BE MADE BASED ON THIS SPECIFICATION. EXISTING SMOOTHNESS SPECIFICATIONS IN ACCORDANCE WITH SECTION 330 ARE STILL APPLICABLE TO THIS PROJECT.

01 SCOPE

This specification applies to the final lift of newly placed asphalt concrete pavement. Smoothness requirements and Basis of Payment shall conform to the following specification unless otherwise indicated in the contract documents.



02 REFERENCES

Reference standards shall be the latest revision at the date of Tender closing. This specification refers to the following standards, specifications or publication:

- ASTM E950 “Standard Test Method for Measuring the Longitudinal Profile of Travelled Surfaces with an Accelerometer Established Inertial Profiling Reference”

03 DEFINITIONS

Roadway Smoothness Category: The smoothness category that applies for a particular section of roadway will be classified as either Category A, Category B or Category C. The category will be defined in the tender documents and are determined based on a number of factors, including but not limited to: roadway classification, geometry, access points (intersections, driveways), and the presence of other physical features that may impact the ability to achieve pavement smoothness as determined by the Engineer.

International Roughness Scale (IRI): IRI is a statistical measurement used to determine the amount of roughness in a measured longitudinal profile. IRI shall be measured in mm/m and reported to two (2) decimal places for all procedures relating to this specification.

Reporting Interval: The reporting interval for this specification shall be 100 meters for overall IRI and 10 meters for localized roughness.

Localized Roughness: Localized roughness is reported in 10 meter intervals where the IRI exceeds an established value as set out in Table 02, for a particular category.

Segment: A segment of roadway shall be defined by the full lane width (including paved shoulders) over a defined length. The segment length shall be 10 meters for localized roughness. The segment length shall be 100 meters for overall IRI, however, shorter segment length may exist as outlined in Section 06.04.

Project Chainage: The distance measured by the High Speed Profiler will be the only chainage deemed accurate and acceptable for the smoothness specification. This distance will be referenced to project chainage for informational purpose only.

04 EQUIPEMENT

A Class 1 Inertial Laser Profiler, with moving average filter (high pass 90 m and low pass 0.3 m), shall be used for all smoothness measurements. The equipment shall be installed and operated in accordance with manufacturer’s recommendations and ASTM E950.



05 PROCEDURES

05.01 Smoothness Testing

The Department will conduct smoothness testing in accordance with ASTM E950. The Department's smoothness testing results will be used in determining payment adjustments and areas requiring Corrective Work.

Smoothness testing will be carried out as soon as possible upon completion of the paving operation.

05.02 Profile Measurements

The Profiler will record the right and left wheel path IRI values simultaneously at 10 meter intervals. The final IRI readings will be the average of the left and right wheel path values reported at 10 meter intervals. The 100 meter interval averages will then be computed from the 10 meter interval average IRI values.

The profile measurements shall be collected in the direction of traffic. The start and end location of the measurement for each lane shall be 10 meters from the transverse construction joint. In the case of a tapered lane measurement shall commence at the location by which the full lane width occurs.

05.03 Exclusions

The 10 meter segment at the beginning and end of each test section will be excluded from the smoothness calculations. Bridges, underpass and overpass structures located within any 10 meter segment, including the 10 meter segments immediately before and after the structure shall be excluded from the payment adjustments.

Areas requiring hand work, tapers, intersections, gore areas, aprons, etc. shall be excluded

Individual 10 meter segments exhibiting roughness, which can be directly attributed to physical features including iron works or curb/gutter match-ins, may be excluded from payment adjustment at the discretion of the Engineer.

06 BASIS OF PAYMENT

The Engineer will provide the Contractor with a copy of the smoothness test results, including detailed payment adjustment summaries and Compulsory Corrective Work requirements.

06.01 100 Meter Segment

Payment adjustment for 100 meter segments shall be calculated based on the overall average IRI in mm/m for each 100 meter segment in each lane in accordance with Table 01.

06.02 Localized Roughness

With the exception of areas described in Section 05.03 each 10 meter segment with an IRI value greater than those shown in Table 02 shall be defined as localized roughness, resulting in negative payment adjustments.



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The total localized roughness payment adjustment shall be the numerical summation of all the individual localized roughness payments adjustments for the defined section of roadway.

06.03 Total Payment Adjustment

The total payment adjustment shall be the summation of all the individual payment adjustments for each 100 meter segment in each lane, including all localized roughness payment adjustments. If the total 100 meter segment payment adjustment is a positive value (bonus), the Contractor will be assessed the total 100 meter segment payment adjustment, and the total localized roughness payment for the defined section of roadway.

If the total 100 meter segment payment adjustment is a negative value (penalty), the Contractor will be assessed by either the total 100 meter segment payment adjustment or the total localized roughness payment adjustment, whichever results in a greater penalty to the Contractor. The two penalties shall not be applied in summation.

Example 1: 100 meter Segment (Station 7+700 – 7+800) Category B

Exclusions apply in four (4) of the individual 10 m segments (20 m bridge + 10 m at each end)

10 Meter Segment	IRI (mm/m)	Exclusion Applied? (yes/no)	Localized Roughness Payment Adjustment	Average IRI over 60 Meter Segment	IRI payment Adjustment (Table 01)	Total Payment Adjustment (for this 60 meter Segment)
7+700 – 7+710	0.53	NO	\$0	$\begin{aligned} &(0.53 + \\ &0.39 + \\ &0.34 + \\ &0.23 + \\ &0.28 + \\ &1.42)/6 = \\ &\mathbf{0.53} \end{aligned}$	$\begin{aligned} &\$470.00 \times \\ &6/10 = \\ &\mathbf{\$282.00} \end{aligned}$	$\begin{aligned} &\$282.00 - \$250.00 \\ &= \mathbf{\$32.00} \end{aligned}$
7+710 – 7+720	0.39	NO	\$0			
7+720 – 7+730	0.34	NO	\$0			
7+730 – 7+740	0.23	NO	\$0			
7+740 – 7+750	0.28	NO	\$0			
7+750 – 7+760	1.14	YES (Bridge Approach)	\$0			
7+760 – 7+770	1.86	YES (Bridge)	\$0			
7+770 – 7+780	2.43	YES (Bridge)	\$0			
7+780 – 7+790	0.91	YES (Bridge Approach)	\$0			
7+790 – 7+800	1.42	NO	-\$250.00			

06.04 Segments Less Than 100 Meters

For segments less than 100 meters in length, price adjustments shall be determined from 10 meter segments that are not subject to exclusions as described in Section **05.03**. Payment adjustments under Sections **06.01** and **06.02** shall apply to these areas based on the actual number of 10 meter segments that are not excluded. Price adjustments shall be prorated base on the number of non-excluded 10 meter segments in the 100 meter segment, as detailed in Table **01**.

Example 2: 30 Meter Segment (Station 6+420 – 6+450) at the end of paving section Exclusion applied in one (1) of the individual 10 m segment. The roadway is Category B



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10 Meter Segment	IRI (mm/m)	Exclusion Applied? (yes/no)	Localized Roughness Payment Adjustment	Average IRI over 30 Meter Segment	IRI payment Adjustment (Table 01)	Total Payment Adjustment (for this 30 meter Segment)
6+420 – 6+430	0.88	NO	\$0	(0.88 + 1.45)/2 = 1.16	- \$190.00 x (2/10) = -\$38.00	-\$250.00 (take whichever is the greater penalty)
6+430 – 6+440	1.45	NO	-\$250.00			
6+440 – 6+450	1.65	YES (manhole)	\$0			

Table 01
Average IRI Payment Adjustment - 100 Meter Segments

	Payment Adjustment for each 100 meter segment in each Lane		
IRI (mm/m)	Category A	Category B	Category C
0.00 – 0.10	+\$750.00	+\$950.00	+\$1010.00
0.11 – 0.20	+\$670.00	+\$860.00	+\$920.00
0.21 – 0.30	+\$580.00	+\$770.00	+\$830.00
0.31 – 0.40	+\$490.00	+\$670.00	+\$740.00
0.41 – 0.50	+\$400.00	+\$570.00	+\$650.00
0.51 – 0.60	+\$305.00	+\$470.00	+\$560.00
0.61 – 0.70	+\$205.00	+\$370.00	+\$460.00
0.71 – 0.80	+\$100.00	+\$270.00	+\$350.00
0.81 – 0.90	-\$20.00	+\$160.00	+\$260.00
0.91 – 1.00	-\$250.00	+\$50.00	+\$150.00
1.00 – 1.10	-\$490.00	-\$70.00	+\$50.00
1.11 – 1.20	-\$760.00	-\$190.00	-\$60.00
1.21 – 1.30	-\$1040.00	-\$320.00	-\$190.00
1.31 – 1.40	-\$1350.00	-\$450.00	-\$310.00
1.41 – 1.50	-\$1700.00	-\$590.00	-\$440.00
1.51 – 1.60	-\$2110.00	-\$740.00	-\$570.00
1.61 – 1.70	-\$2630.00	-\$900.00	-\$720.00
1.71 – 1.80	-\$3800.00	-\$1070.00	-\$870.00
1.81 – 1.90	-\$4690.00	-\$1260.00	-\$1040.00
1.91 – 2.00	-\$4700.00	-\$1480.00	-\$1220.00
2.01 – 2.10	-\$4700.00	-\$1720.00	-\$1430.00
2.11 – 2.20	-\$4700.00	-\$2040.00	-\$1670.00
2.21 – 2.30	-\$4700.00	-\$2750.00	-\$1980.00
2.31 – 2.40	-\$4700.00	-\$3290.00	-\$2670.00
2.41 – 2.50	-\$4700.00	-\$3300.00	-\$3190.00
2.51 – 3.00	-\$4700.00	-\$3300.00	-\$3200.00



Table 02
Localized Roughness Payment Adjustment - 10 Meter Segments

Roadway Classification	Localized Roughness IRI (mm/m) for 10 Meter Segment	Payment Adjustment (for each occurrence)
Category A	> 1.10	-\$250.00
Category B	> 1.40	-\$250.00
Category C	> 1.50	-\$250.00
All Categories	> 3.00	-\$2500.00 or Compulsory Corrective Work

07 CORRECTIVE WORK

With the exception of areas defined in Section **05.03**, all 10 meter segments with an IRI >3.00 mm/m shall be subjected to Compulsory Corrective Work or a Mandatory Penalty.

07.01 Mandatory Penalty

The Contractor shall be subjected to a mandatory penalty of \$2,500.00 for each 10 meter segment with an IRI > 3.00 mm/m irrespective of roadway classification.

The Engineer reserves the right to require Compulsory Corrective Work on any of the sections with an IRI > 3.0 mm/m. In sections where Compulsory Corrective Work is required the Mandatory Penalty of \$2,500.00 will be waived by the Department.

Based on overall smoothness results, the Department reserves the right to waive any or all Compulsory Corrective Work and enforce the Mandatory Penalty.

The Engineer shall notify the Contractor of areas where Compulsory Corrective Work is required.

07.02 Compulsory Corrective Work Procedure

Corrective work shall consist of Removal and Replacement of the surface course of asphalt concrete. The minimum length of any repair area shall be 10 meters.

Removal and Replacement: On each of the 10 meters segments affected, the contractor shall remove (by cold planning) and replace the full width of the lane and the full depth of the surface course of asphaltic concrete pavement affected, including paved shoulders.

Asphalt Concrete Mix Requirements: The asphalt concrete mix used to construct the surface course shall conform to Section 330 of Department Specification Book.

Incidental Corrective Work: Corrective Work may result in additional costs, including but not limited to: cold planning, tack coat, additional shouldering, guide rail adjustments, re-application of pavement markings,



etc. Such work shall be carried out in accordance with the Department's Specification Book and at the Contractor's expense.

Disposal of Asphaltic Concrete: Asphaltic concrete that has been removed as a result of Corrective Work undertaken by the Contractor shall become the property of the Contractor to haul, stockpile or otherwise dispose of in an environmentally acceptable manner, at the Contractor's expense.

Time Limit for Corrective Work: Corrective work shall be completed within 30 calendar days of receipt of smoothness test results, including any appeal test results. Corrective work not completed within the 30 calendar days will automatically be subjected to the Mandatory Penalty as stated in Section **07.01** and would still require the completion of the Compulsory Corrective Work. For each 30 calendar days thereafter the mandatory penalty will be applied.

07.02.01 Retesting Following Corrective Work

Resting Following Corrective Work: After corrective work has been completed, each of the 100 meter segments containing the corrective work shall be retested, using the same profiler used in the original testing. The new IRI values will be evaluated in accordance with Section **06** and results shall be binding. Should the new IRI values result in another Mandatory Penalty as outlined in Section **07.01** the Engineer still reserves the right to require Compulsory Corrective Work or can apply the mandatory penalty of \$2,500.00 for each 10 m segment.

Costs for Corrective Work: All costs associated with Corrective Work shall be the responsibility of the Contractor.

The report below is to be completed on a monthly basis by all contractors engaged in Construction/Maintenance and or other project work for the Government of Newfoundland and Labrador, Department of Transportation and Works.
Please attach information pertaining to items highlighted with an asterisk (*)

Contractor Information				
Contractor/Company Name				
Report Prepared By				
Report for Period		Beginning:	Ending:	
Project and Location				
Contact	Name		Contact Number	
Contract Manager				
Contractor CSO				
Site Manager				
Monthly OHS Performance Indicators				
Lagging Indicators		Leading Indicators		
<i>Indicate the total within reporting period above</i>	Monthly Total	<i>Indicate the total within reporting period above</i>	Monthly Total	Records available
Lost Time Injuries		Tool Box Talks (safety specific)*		
Working Days Lost		OHS Committee/Rep Meetings*		
Return to Work Plans		Bi-Weekly Project Meeting		
First Aid Incidents		Site Safety Orientations		
Medical Aid Incidents		Site Inspections*		
Total Hours Worked (site)		Hazard Reports Submitted		
Accident /Incident reports		Hazard Assessments Conducted*		
Accident Incident Investigations Conducted*		Traffic Control Signage Log Completed*		
OHS Division Activities				
OHS Division Inspections		OHS Division Directives Issued*		
Sub-Contractor Information				
Name sub-contractors working on site	Description of work conducted by sub-contractors		Days on site	COR Certified (Y/N)
Training Information				
Training conducted with staff	Brief description of training conducted with safety or work practice focus		Total staff trained	Records available (Y/N)
Equipment Maintenance				
Annual equipment inspections conducted (Y/N)	All equipment passed inspection (Y/N)	Records Available (Y/N)	Non-Routine maintenance required? Identify equipment	List maintenance conducted
Report completed on:		Signature:		

Definitions

First Aid incident – An Occupational Injury/Illness that requires first aid treatment only and does not result in loss of time from work or Restricted Work.

Medical aid incident – A classification of Occupational Injury/Illness for Medical Treatment beyond First Aid Injury where there has been no Lost Days. i.e: Visit to a health care provider or hospital specific to the injury

Lost-Time Injury – An injury/illness resulting in Lost Days beyond the date of injury as a direct result of an Occupational Injury/Illness incident on the project.

Working Days Lost – The number of calendar days that the employee is unable to work beyond the day of injury specific to the project in which the injury occurred. Calculate total days for all employees working on the project.

Total Hours Worked – Total number of hours of employment (i.e., the actual worked hours) of all employees for each contractor and sub-contractor companies for the reporting period specific to the project.

Accident – An undesired event resulting in death, ill health, injury, damage or other loss.

Incident -- An unplanned, undesired event that had the potential to cause injury or other damage.

Accident/Incident Report – all accidents and incidents must be reported, whether through an internal reporting structure or through the WHSCC employers form 7. All accidents of a serious nature must also be reported to the OHS Division within 24 hours (serious accidents re outlined in section 54(3) of the OHS Act)

Accident/Incident Investigation – is an investigation by the employer into the root cause of an accident or incident to identify hazards and prevent workplace accidents/incidents from recurring.



DEPARTMENT OF TRANSPORTATION AND WORKS

Contractor Daily Traffic Control and Signage Log

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Section Thirteen

General Conditions



Transportation and Works

GENERAL CONDITIONS OF UNIT PRICE CONTRACT

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Transportation and Works

GENERAL CONDITIONS OF UNIT PRICE CONTRACT

GC1 DEFINITIONS

1.1 Contract Documents

The Contract Documents consist of the instruction to Bidders, executed Agreement, General Conditions of Contract, Supplementary General Conditions of Contract, Specifications, Drawings and such other documents as are listed in Article A-2 of the Agreement, including all amendments thereto incorporated before their execution and subsequent amendments thereto made pursuant to the provisions of the contract or agreed upon between the parties. The Successful Bidder's tender, and any addenda to the Specification issued during the bidding period shall also form part of the Contract Documents.

1.2 Owner, Engineer/Architect, Contractor

The Owner, Engineer/Architect and Contractor are the persons, firms or corporations identified as such in the Agreement and referred to throughout the Contract Documents as if singular in number and masculine in gender. The Term Owner, Engineer/Architect and Contractor means the Owner, Engineer/Architect or Contractor or their authorized representatives as designated by each party in writing.

1.3 Subcontractor

A Subcontractor is a person, firm or corporation having a direct contract with the Contractor to perform a part of the Work included in the Contract, or to supply products worked to a special design according to the Contract Documents, but does not include one who merely supplies products not so worked.

1.4 The Project

The Project is the total construction of which the work performed under the Contract Documents may be the whole or a part.

1.5 Products

The term Products means all material, machinery, equipment and fixtures forming the completed work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

1.6 The Work

Work includes the whole of the works, materials, matters and things required to be done, furnished and performed by the Contractor under the Contract.

1.7 Materials and Equipment

The term Materials and Equipment means all materials, machinery, equipment and fixtures forming the completed work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the work and normally referred to as construction machinery and equipment.



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1.8 Other Contractor

The term Other Contractor means any person, firm or corporation employed by or having a separate contract directly or indirectly with the Owner for work other than that required by the Contract Documents.

1.9 Time

The Contract Time is the time stated in Article A-1(c) of the Agreement for Substantial Performance of the Work.

- (a) The date of Substantial Performance of the Work is the date certified by the Engineer/Architect.
- (b) The term day, as used in the Contract Documents, shall mean the calendar day.
- (c) The term working day means any day observed by the construction industry in the area of the place of building.

1.10 Substantial Performance

A Contract shall be deemed to be substantially performed

- (a) when the work or a substantial part thereof is ready for use or is being used for the purpose intended; and
- (b) when the work to be done under the contract is capable of completion or correction at a cost of not more than
 - (i) three per centum of the first two hundred and fifty thousand dollars (\$250,000) of the contract price,
 - (ii) two per centum of the next two hundred and fifty thousand dollars (\$250,000) of the contract price, and
 - (iii) one per centum of the balance of the contract price.

1.11 Total Performance

Total Performance shall mean the entire work has been performed to the requirements of the Contract Documents and is so certified by the Engineer/Architect.

GC2 DOCUMENTS

2.1 The Contract Documents shall be signed in duplicate by the Owner and the Contractor.

2.2 Words which have well known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.

2.3 In the event of conflicts between Contract Documents the following shall apply:

- | | |
|---|--|
| <ul style="list-style-type: none"> (a) Documents of later date shall govern. (b) Figured dimensions shown on the Drawings shall govern even though they may differ from scaled dimensions. (c) Drawings of larger scale shall govern over those of smaller scale of the same date. | <ul style="list-style-type: none"> (d) Specifications shall govern over Drawings (e) The General Conditions of Contract shall govern over Specifications. (f) Supplementary General Conditions shall govern over the General Conditions of the Contract. (g) The Agreement shall govern over all documents |
|---|--|



Transportation and Works

GC3 ADDITIONAL INSTRUCTIONS AND SCHEDULE OF WORK

- 3.1 During the progress of the Work the Engineer/Architect shall furnish to the Contractor such additional instructions as may be necessary to supplement the Contract Documents. All such instructions shall be consistent with the intent of the Contract Documents.
- 3.2 Additional instructions may include minor changes to the Work which affect neither the Contract Price nor the Contract Time.
- 3.3 Additional instructions may be in the form of drawings, samples, models or written instructions.
- 3.4 Additional instructions will be issued by the Engineer/Architect with reasonable promptness and in accordance with any schedule agreed upon.
- 3.5 The Contractors shall, within thirty (30) days of the signing of this contract provide the Owner with a schedule of work.

GC4 DOCUMENTS PROVIDED

- 4.1 The Contractor will be provided, without charge, a reasonable number of Contract Documents or parts thereof as reasonably necessary for the performance of the Work.

GC5 DOCUMENTS ON THE SITE

- 5.1 The Contractor shall keep one copy of all current Contract Documents and shop drawings on the site, in good order and available to the Engineer/Architect and/or his representatives. This requirement shall not be deemed to include the executed Contract Documents.

GC6 OWNERSHIP OF DOCUMENTS AND MODELS

- 6.1 All Contract documents and copies thereof, and all models are and shall remain the property of the Owner and are not to be used on other work.
- 6.2 Such documents are not to be copied or revised in any manner without the written authorization of the Owner.
- 6.3 Models furnished by the Contractor or the Owner are the property of the Owner.

GC7 ENGINEER/ARCHITECTS DECISIONS

- 7.1 The Engineer/Architect, in the first instance, shall decide on questions arising under the Contract Documents and interpret the requirements therein. Such decisions shall be given in writing.
- 7.2 The Contractor shall notify the Engineer/Architect in writing within five (5) days of receipt of a decision of the Engineer/Architect referred to in 7.1 should the Contractor hold that a decision by the Engineer/Architect is in error and/or at variance with the contract Documents. Unless the Contractor fulfils this requirement subsequent claims by him for extra compensation, arising out of the decision, will not be accepted.
- 7.3 If the question of error and/or variance is not resolved immediately, and the Engineer/Architect decides that the disputed work shall be carried out, the Contractor shall act according to the Engineer/Architect's written decision.



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Any question of change in Contract Price and/or extension of Contract Time due to such error and/or variance shall be decided as provided in GC16 - Settlement of Disputes.

GC8 DELAY

- 8.1 If it can be clearly shown that the Contractor is delayed in the performance of the work by any act or fault of the Owner or other Contractor, then the contract time shall be extended for such reasonable time as the Engineer/Architect may decide in consultation with the Contractor.

The Contractor shall be reimbursed for any costs incurred by the Contractor as a result of such a delay occasioned by the act or fault, provided that it can be clearly shown that the Contractor's forces cannot work efficiently elsewhere on the project and that the incurred cost is limited to that which could not reasonably have been avoided.

- 8.2 If the Contractor is delayed in the performance of the Work by a Stop Work Order issued by any court or other public authority, and providing that such order was not issued as the result of any act or fault of the Contractor or of any one employed by him directly or indirectly, then the Contract Time shall be extended for such reasonable time as the Engineer/Architect may decide, in consultation with the Contractor, and the Contractor shall be reimbursed for any onsite costs incurred by him as the result of such delay.
- 8.3 If the Contractor is delayed in the performance of the Work by civil disorders, labour disputes, strikes, lock-outs (including lock-outs decreed or recommended for its members by a recognized Contractor's Association, of which the Contractor is a member) fire, unusual delay by common carriers or unavoidable casualties or, without limit to any of the foregoing, by any cause of any kind whatsoever beyond the Contractor's control, then the Contract Time shall be extended for such reasonable time as may be decided by the Engineer/Architect in consultation with the Owner and the Contractor, but in no case shall the extension of time be less than the time lost as the result of the event causing the delay unless such shorter extension or time be agreed to by the Contractor.
- 8.4 No extension shall be made for delay unless written notice of claim is given to the Engineer/Architect within fourteen (14) days of its commencement, providing that in the case of a continuing cause of delay only one notice shall be necessary.

GC9 OWNER'S RIGHT TO DO WORK

- 9.1 If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of the Contract, the Owner may notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations and instruct the Contractor to correct the default within five (5) working days of receiving the notice.
- 9.2 If the correction of the default cannot be completed within the five (5) working days specified, the Contractor shall be considered to be in compliance with the Owner's instructions if the Contractor:
- (a) commences the correction of the default within the specified time, and
 - (b) provides the Owner with an acceptable schedule for such correction, and
 - (c) completes the correction in accordance with such schedule.
- 9.3 If the Contractor fails to comply with the provisions 9.1 and 9.2 the Owner may, without prejudice to any other right or remedy the Owner may have, correct such default and may deduct the cost thereof from the payment then or thereafter due the Contractor.



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GC10 OWNER'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

- 10.1 If the Contractor should be adjudged bankrupt, or makes a general assignment for the benefit of creditors or if a receiver is appointed on account of the Contractor's insolvency, the Owner may, without prejudice to any other right or remedy he may have, by giving the Contractor written notice, terminate the Contract.
- 10.2 The Owner may notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations, if the Contractor:
- (a) fails to proceed regularly and diligently with the work; or
 - (b) without reasonable cause wholly suspends the carrying out of the work before the completion thereof; or
 - (c) refuses or fails to supply sufficient properly skilled workmen or proper workers, products or construction machinery and equipment for the scheduled performance of the work within five (5) working days of receiving written notice from the Engineer/Architect, except in those cases provided in GC8 - Delay; or
 - (d) fails to make payments due to the Contractor's Subcontractors, suppliers or his workmen; or
 - (e) persistently disregards laws or ordinances, or the Engineer/Architect's instructions; or
 - (f) Otherwise violates the provisions of the Contract to a substantial degree. Such written notice by the Owner shall instruct the Contractor to correct the default within five (5) working days from the receipt of the written notice.
- 10.3 If the correction of the default cannot be completed within the five (5) working days specified, the Contractor shall be considered to be in compliance with the Owner's instructions if the Contractor:
- (a) commences the correction of the default within the specified time,
 - (b) provides the Owner with an acceptance schedule for such correction, and
 - (c) completes the correction in accordance with such schedule.
- 10.4 If the Contractor fails to correct the default within the time specified or subsequently agreed upon, the Owner may, without prejudice to any other right or remedy the Owner may have, stop the work or terminate the Contract.
- 10.5 If the Owner terminates the contract under the conditions set out above, the Owner is entitled to:
- (a) take possession of the premises and products and utilize the temporary buildings, plants, tools, construction machinery and equipment, goods, materials, intended for, delivered to and placed on or adjacent to the work and may complete the work by whatever method he may deem expedient but without undue delay or expense;
 - (b) withhold any further payments to the Contractor until the work is finished;
 - (c) upon total performance of the work, charge the Contractor the amount by which the full cost of finishing the work including compensation to the Engineer/Architect for his additional services and a reasonable allowance to cover the cost of any corrections required by GC31 - Warranty, exceeds the unpaid balance of the Contract Price; or if such cost of finishing the work is less than the unpaid balance of the Contract Price, pay the Contractor the difference.
 - (d) on expiry of the warranty period, charge the Contractor the amount by which the cost of corrections under GC31 - Warranty exceeds the allowance provided for such corrections, or if the cost of such corrections is less than the allowance, pay the Contractor the difference.

GC11 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

- 11.1 If the Owner should be adjudged bankrupt, or makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of the Owner's insolvency, the Contractor may, without prejudices to



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any other right or remedy the Contractor may have, by giving the Owner written notice, terminate the Contract.

- 11.2 If the work should be stopped or otherwise delayed for a period of thirty (30) days or more under an order of any court, or other public authority, and providing that such order was not issued as the result of any court, or other public authority, and providing that such order was not issued as the result of any act or fault of the Contractor or of any one directly or indirectly employed by him, the Contractor may, without prejudice to any other right or remedy he may have, by giving the Owner fifteen (15) days written notice, terminate the Contract.
- 11.3 The Contractor may notify the Owner in writing that the Owner is in default of the Owner's contractual obligations if:
 - (a) the Engineer/Architect fails to issue a certificate in accordance with GC21 - Certificates and Payments;
 - (b) The Owner fails to pay to the Contractor when due any amount certified by the Engineer/Architect and verified by the audit of the Owner. Such written notice shall advise the Owner that if such default is not corrected within fifteen (15) days from the receipt of the written notice the Contractor may, without prejudice to any other right or remedy the Contractor may have, stop the work and/or terminate the contract.
- 11.4 If the Contractor terminates the Contract under the conditions set out above, the Contractor shall be entitled to be paid for all work performed and for any loss sustained upon products and plant supplied with reasonable overhead, profit and damages.

GC12 OTHER CONTRACTORS

- 12.1 The Owner reserves the right to let separate contracts in connection with the project of which the Work is part.
- 12.2 The Owner shall coordinate the work and insurance coverage of Other Contractors as it affects the Work of this Contract.
- 12.3 The Contractor shall coordinate his work with that of Other Contractors and connect as specified or shown in the Contract Documents. Any change in the cost incurred by the Contractor in the planning and performance of such work which was not shown or included in the Contract documents as of the date of signing the Contract, shall be evaluated as provided under GC19 - Valuation and Certification of Changes in the Work.
- 12.4 The Contractor shall report to the Engineer/Architect any apparent deficiencies in other Contractor's work which would affect the Work of this Contract immediately they come to the Contractor's attention and shall confirm such report in writing. Failure by the Contractor to so report shall invalidate any claims against the Owner by reason of the deficiencies of Other Contractor's work except as to those of which the Contractor was not reasonably aware.

GC13 ASSIGNMENT

- 13.1 The Contractor shall not assign the contract or any part thereof or any benefit or interest therein or thereunder without the written consent of the Owner.



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GC14 SUBCONTRACTORS

- 14.1 The Contractor agrees to preserve and protect the rights of the Owner under the Contract with respect to any work to be performed under subcontract. The Contractor shall:
- (a) require the Contractor's Subcontractors to perform their work in accordance with and subject to the terms and conditions of the Contract Documents, and
 - (b) be fully responsible to the Owner for acts and omissions of the Contractor's Subcontractors and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by them.

The Contractor therefore agrees that the Contractor will incorporate all the terms and conditions of the Contract Documents into all Subcontract Agreements the Contractor enters into with the Contractor's Subcontractors.

- 14.2 The Contractor shall employ those Subcontractors proposed by the Contractor in writing and accepted by the Owner prior to the signing of the Contract for such portions of the work as may be designated in the bidding requirements.
- 14.3 The Owner may, for reasonable cause, object to the use of a proposed Subcontractor and require the Contractor to employ one of the other Subcontractor Bidders.
- 14.4 In the event that the Owner requires a change from any proposed Subcontractor the Contract Price shall be adjusted by the difference in cost occasioned by such required change.
- 14.5 The Contractor shall not be required to employ as a Subcontractor any person or firm to whom the Contractor may reasonably object.
- 14.6 The Engineer/Architect may, upon reasonable request and at his or her discretion, provide to a Subcontractor information as to the percentage of the Subcontractor's work which has been certified for payment.
- 14.7 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the Owner.

GC15 EMERGENCIES

- 15.1 The Engineer/Architect has authority in an emergency to stop the progress of the work whenever in his or her opinion such stoppage may be necessary to ensure the safety of life, or the work, or neighbouring property. This includes authority to make changes in the work, and to order, assess and award the cost of such work, extra to the Contract or otherwise, as may in his or her opinion be necessary. The Engineer/Architect shall, within two (2) working days, confirm in writing any such instructions. In such a case if the work has been performed under direct order of the Engineer/Architect, the Contractor shall keep the Contractor's right to claim the value of such work.
- 15.2 Should the work be stopped by civil pickets, or other disorder, neither the Owner nor the Contractor shall have claim for a change in the price of the Contract.

GC16 SETTLEMENT OF DISPUTES AND CLAIMS

- 16.1 In the case of any dispute or claim arising between the Owner and the Contractor as to their respective rights and obligations under the Contract, either party hereto may give the other written notification of such



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dispute or claim. The notification of dispute or claim shall be made within fourteen (14) days of the dispute or cause of action arising. If the dispute or claim cannot be resolved to the satisfaction of both parties, either party may refer the matter to such judicial tribunal as the circumstances require.

- 16.2 Legal proceedings shall not take place until after the performance or the substantial performance of the disputed work except:
- (a) when the dispute concerns a certificate for payment.
 - (b) where either party can show that the matter in dispute requires immediate consideration while evidence is available.
 - (c) in the case of legal proceedings, where the action may become prescribed by reason of delay.

GC17 INDEMNIFICATION

- 17.1 Except as provided in 17.2, the Contractor shall be liable for, and shall indemnify and hold harmless the Owner and the Engineer/Architect, their agents and employees from and against all claims, demands, losses, costs, damages, actions, suits or proceedings, whatsoever arising under any statute or Common Law:
- (a) in respect of personal injury to or the death of any person whomsoever arising out of or in the course of or caused by the carrying out of the work; and
 - (b) in respect of any injury or damage whatsoever to any property, real or personal or any chattel real, insofar as such injury or damage arises out of or in the course of or by reason of the carrying out of the work.
- 17.2 The Contractor shall not be liable under 17.1 if the injury, death, loss or damage is due to any act or neglect of the Owner or Engineer/Architect, their agents or employees.

GC18 CHANGES IN THE WORK

- 18.1 The Owner may make changes by altering, adding to, or deducting from the Work, with the amount due under the Contract and the Contract Time being adjusted accordingly.
- 18.2 Except as provided in GC15 - Emergencies, no change shall be made without a written order from the Engineer/Architect and no claim for an addition or deduction from the amount due under the Contract or change in the Contract time shall be valid unless so ordered and at the same time valued or agreed to be valued as provided in GC19 - Valuation and Certification of Changes in the Work.

GC19 VALUATION AND CERTIFICATION OF CHANGES IN THE WORK

- 19.1 The value of any change shall be determined in one or more of the following methods:
- (a) by unit prices as provided in Article A-3 of the Agreement
 - (b) by unit prices subsequently agreed upon
 - (c) by cost and a fixed or percentage fee.

In the case of changes in the work valued as outlined in 19.1(c), the Contractor shall submit detailed invoices, vouchers and time sheets for all materials and labour to complete the extra work.

When work is performed by the Contractor's own forces his markup for overhead shall be ten (10) percent and his profit ten (10) percent of the agreed or actual cost of the change. When work is performed by one of his Subcontractors the Subcontractor's markup for overhead shall be ten (10) percent of the agreed or actual cost of the change plus five (5) percent for profit.



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The Contractor's markup for overhead and profit shall be (10) percent of the Subcontractor's total price.

- 19.2 Notwithstanding the provisions of 19.1, in case of changes in the work:
- (a) where unit prices are provided in the contract for work to be done those unit prices shall be used in determining the value of any change, and
 - (b) the amount charged for equipment rentals shall be that provided in the contract and no additional amount shall be paid as markup for overhead or profit for the Contractor or Subcontractor.
- 19.3 When a change in the work is proposed or required the Contractor shall present to the Engineer/Architect for approval the Contractor's claim for any change in the Contract Price and/or change in Contract Time. The Engineer/Architect shall satisfy himself or herself as to the correctness of such claim and, when approved shall issue a written order to the Contractor to proceed with the change. The value of work performed in the change shall be included for payment with the regular certificate for payment.
- 19.4 In case of changes in the Work to be paid for under methods (b) and (c) of 19.1, the form of presentation of costs and methods of measurement shall be agreed to by the Engineer/Architect and Contractor before proceeding with the change. The Contractor shall keep accurate records, as agreed upon, of quantities or costs and present an account of the cost of the change in the Work, together with vouchers where applicable.
- 19.5 If the method of valuation, measurement and the change in Contract Price and/or change in Contract Time cannot be promptly agreed upon, and the change is required to be proceeded with then the Engineer/Architect shall determine the method of valuation, measurement and the change in Contract Price and/or Contract Time subject to final determination in the manner set out in GC16 - Settlement of Disputes and Claims. In this case the Engineer/Architect shall issue a written authorization for the change setting out the method of valuation and if by lump sum his or her valuation of the change in Contract Price and/or Contract Time.
- 19.6 In the case of a dispute in the valuation of a change authorized in the Work pending final determination of such value, the Engineer/Architect shall certify the value of work performed and include the amount with the regular certificates for payment.
- 19.7 It is intended in all matters referred to above that both the Engineer/Architect and Contractor shall act promptly.

GC20 APPLICATION FOR PAYMENT

- 20.1 Applications for payment on account as provided for in Article A-4 may be made monthly as the Work progresses.
- 20.2 Application for payment shall be made monthly on a date to be agreed between the Owner and the Contractor and the amount claimed shall be for the value of work performed and products delivered to the site at that date.
- 20.3 Application for release of **holdback monies** following the Substantial Performance of the Work and the application for final payment shall be made at the time and in the manner set forth in GC21 - Certificates and Payments.



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GC21 CERTIFICATES AND PAYMENTS

- 21.1 The Engineer/Architect shall, within ten (10) days of receipt of an application for payment from the Contractor submitted in accordance with GC20 - Application for Payment, issue a certificate for payment in the amount applied for or such other amount as he or she shall determine to be properly due. If the Engineer/Architect amends the application he shall promptly notify the Contractor in writing, giving his or her reasons for the amendment.
- 21.2 The Owner shall within twenty-one (21) days of issuance of a certificate for payment by the Engineer/Architect, make payment to the Contractor on account, in accordance with the provisions of the Agreement.
- 21.3 If payment is not made within sixty (60) days of issuance of a certificate for payment by the Engineer/Architect the Owner will be liable for interest on the amount owing at the rate of 9% per annum from the sixty-first (61st) day to the date of payment.
- 21.4 Notwithstanding any other provisions of this Contract:
- (a) If on account of climatic or other conditions reasonably beyond the control of the Contractor there are items of work that cannot be performed, the payment in full for that which has been performed as certified by the Engineer/Architect shall not be withheld or delayed by the Owner on account thereof, but the Owner may withhold from the Contract Price until the remaining work is finished an amount sufficient to cover the cost to the Owner of performing such remaining work and to adequately protect the Owner from claims.
 - (b) Where legislation permits and where, upon application by the Contractor, the Engineer/Architect has certified that a Subcontract has been totally performed to his or her satisfaction prior to the Substantial Performance of this Contract, the Owner shall pay the Contractor the holdback retained for such Subcontractor on the day following the expiration of the Statutory Limitations Period stipulated in the Mechanics' Lien Act applicable to the place of building.
- The holdbacks will be released on the following conditions:
- (i) a copy of the contract between the Subcontractor and the Contractor, or some other suitable Document satisfactory to the Owner, must be presented to the Owner.
 - (ii) the Subcontract is completed without deficiencies.
 - (iii) the warranty for the Subcontract will not start until Substantial Performance of the General Contract;
 - (iv) the Contractor provides an approved statutory declaration that all monies have been paid to the Subcontractors;
 - (v) the Owner will, at that time, release the total amount specified on the Subcontractors Contract.
- 21.5 Notwithstanding the provisions of 21.4(b) and notwithstanding the wording of such certificate the Contractor shall ensure that such work is protected pending the Total Performance of the Contract and be responsible for the correction of any defects in it regardless of whether or not they were apparent when such certificates were issued.
- 21.6 The Engineer/Architect shall, within ten (10) days of receipt of an application from the Contractor for a Certificate of Substantial Performance, make an inspection and assessment of the work to verify the validity of the application. The Engineer/Architect shall within seven (7) days of his or her inspection notify the Contractor of his or her approval or disapproval of the application. When the Engineer/Architect finds the Work to be Substantially Performed he or she shall issue such a certificate. The date of this certificate shall be the date of Substantial Performance of the Contract. Immediately following the issuance of the Certificate of Substantial Performance, the Engineer/Architect, in consultation with the Contractor shall establish a reasonable date for the Total Performance of the Contract.



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- 21.7 Following the issuance of the Certificate of Substantial Performance and upon receipt from the Contractor of all documentation called for in the Contract Documents the Engineer/Architect shall issue a certificate for payment of holdback monies. The release of holdback monies authorized by this certificate shall become due and payable on the day following the expiration of the Statutory Limitation Period stipulated in the Mechanics' Lien Act applicable to the place of building, providing that no lien or privilege claims against the Work exist and the Contractor has submitted to the Owner a sworn statement that all accounts for labour, subcontracts, products, construction machinery and equipment and any other indebtedness which may have been incurred by the Contractor in the Substantial Performance of the Work and for which the Owner might in any way be held responsible have been paid in full except holdback monies properly retained.
- 21.8 The Engineer/Architect shall, within ten (10) days of receipt of an application from the Contractor for payment upon Total Performance of the Contract, make an inspection and assessment of the work to verify the validity of the application. The Engineer/Architect shall within seven (7) days of his or her inspection notify the Contractor of his or her approval or disapproval of the application. When the Engineer/Architect finds the Work to be totally performed to his or her satisfaction he or she shall issue a Certificate of Total Performance and certify for payment the remaining monies due to the Contractor under the Contract less any holdback monies which are required to be retained. The date of this certificate shall be the date of Total Performance of the Contract. The Owner shall, within thirty (30) days of issuance of such certificate, make payment to the Contractor in accordance with the provisions of Article A-4 of the Agreement.
- 21.9 The release of any remaining holdback monies shall become due and payable on the day following the expiration of the Statutory Limitation Period stipulated in the Mechanics' Lien Act applicable to the place of building or where such legislation does not exist or apply in accordance with such other legislation, regulations governing privileges, industry practice or such other provisions which may be agreed to between the parties, provided that no claims against the Work exist and the Contractor has submitted to the Owner a sworn statement that all accounts for labour, subcontracts, products, construction machinery and equipment and any other indebtedness which may have been incurred by the Contractor in the Total Performance of the Work and for which the Owner might in any way be held responsible, have been paid in full except holdback monies properly retained.
- 21.10 No certificate for payment, or any payment made thereunder, nor any partial or entire use of occupancy of the Work by the Owner shall constitute an acceptance of any work or products not in accordance with the Contract Documents.
- 21.11 The issuance of the Certificate of Total Performance shall constitute a waiver of all claims by the Owner against the Contractor except those previously made in writing and still unsettled, if any, and those arising from the provisions of GC31 - Warranty, or those arising from negligence on the part of the Contractor. The acceptance of the Certificate of Total Performance or of the payment due thereunder shall constitute a waiver of all claims by the Contractor against the Owner except those made in writing prior to his application for payment upon Total Performance of the Contract and still unsettled, if any.
- 21.12 The holdback to be used by the Engineer/Architect when issuing certificate of payment will be ten (10) percent of the value of the work completed at the date of the Contractor's claim.
- 21.13 Notwithstanding the provisions of 21.3 or any other provision of this Contract, the Owner may:
- (a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non-performance of the Contract, withhold payment of any amount equal to the alleged damages until the liability of damages is established and no amount of interest will be paid on amounts held under this clause;



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- (b) set-off amounts owing by the Contractor to the Owner;
- (c) following the issuance of the Certificate of Substantial Performance, withhold payment of an amount equal to twice the cost, as estimated by the Engineer/Architect of remedying efficiencies until the issuance of a Certificate of Total Performance and no amount of interest will be paid on amounts held under this clause.

GC22 TAXES AND DUTIES

- 22.1 Unless otherwise stated in Supplementary General Conditions the Contractor shall pay all government sales taxes, customs duties and excise taxes with respect to the Contract.
- 22.2 Any increase or decrease in costs to the Contractor due to changes in such taxes and duties after the date of the Agreement and up to the agreed date of completion shall increase or decrease the Contract Price accordingly. If the Owner so desires the Contractor is to co-operate with the Engineer/Architect and Owner and permit access to books and records in order to establish the amount of such taxes involved.
- 22.3 The Contractor shall maintain full records of the Contractor's estimates of and actual cost to the Contractor of the work together with all proper tender calls, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, shall make them available to audit and inspection by the Owner, the Auditor General for Newfoundland and Labrador or by persons acting on their behalf, shall allow them to make copies thereof and to take extracts therefrom, and shall furnish them with any information which they may require from time to time in connection with such record.

GC23 LAWS, NOTICES, PERMITS AND FEES

- 23.1 The laws of the place of building shall govern the work.
- 23.2 The Contractor shall obtain all permits licenses and certificates and pay all fees required for the performance of the Work which are in force at the date of tender submissions (but this shall not include the obtaining of permanent easements or rights of servitude).
- 23.3 The Contractor shall give all required notices and comply with all laws, ordinances, rules, regulations, codes and order of all authorities having jurisdiction relating to the Work, to the preservation of the public health and construction safety which are or become in force during the performance of the Work.
- 23.4 The Contractor shall not be responsible for verifying that the Contract Documents are in compliance with the applicable laws, ordinances, rules, regulations and codes relating to the Work. If the Contract Documents are at variance therewith, or changes which require modification to the Contract Documents are made to any of the laws, ordinances, rules, regulations and codes by the authorities having jurisdiction subsequent to the date of tender submission, any resulting change in the cost shall constitute a corresponding change in the Contract Price. The Contractor shall notify the Engineer/Architect in writing requesting direction immediately of any such variance or change is observed by him or her.
- 23.5 If the Contractor fails to notify the Engineer/Architect in writing and obtain his or her direction as required in GC23.4 and performs any work knowing it to be contrary to any laws, ordinances, rules, regulations, codes and orders of any authority having jurisdiction, the Contractor shall be responsible for and shall correct any violations thereof and shall bear all costs, expense and damages, attributable to the Contractor's failure to comply with the provisions of such laws, ordinances, rules, regulations, codes and orders.



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GC24 PATENT FEES

- 24.1 The Contractor shall pay all royalties and patent license fees required for the performance of the contract and such royalties or fees shall be deemed to have been included in the contract price. The Contractor shall hold the Owner harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention by the Contractor or anyone for whose acts the Contractor may be liable.
- 24.2 The Owner shall hold the Contractor harmless against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention in executing anything for the purpose of the Contract, the model, plan or design of which was supplied to the Contractor by the Owner.

GC25 WORKER'S COMPENSATION

- 25.1 Prior to commencing the Work and prior to receiving payment on Substantial and Total Performance of the Work, the Contractor shall provide evidence of compliance with all requirements of the Province of the place of building with respect to worker's compensation including payments due thereunder.
- 25.2 At any time during the term of Contract, when requested by the Engineer/Architect, the Contractor shall provide such evidence of compliance by the Contractor and any or all of the Contractor's Subcontractors.

GC26 LIABILITY INSURANCE

- 26.1 Comprehensive General Liability Insurance
- (a) Without restricting the generality of GC17 - Indemnification, the Contractor shall provide and maintain, either by way of a separate policy or by an endorsement to his existing policy, Comprehensive General Liability insurance acceptable to the Owner and subject to limits set out in detail in the Supplementary General Conditions inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof.
 - (b) The insurance shall be in the joint names of the Contractor and the Owner, shall also cover as Unnamed Insureds all Subcontractors and anyone employed directly or indirectly by the Contractor or the Contractor's Subcontractors to perform a part or parts of the Work but excluding suppliers whose only functions is to supply and or transplant products to the project site.
 - (c) The insurance shall also include as Unnamed Insureds the architectural and engineering consultants of the Owner and Engineer/Architect.
 - (d) The insurance shall preclude subordination claims by the Insurer against anyone insured thereunder.
 - (e) The Comprehensive General Liability Insurance will not be limited to, but shall include coverage for:

(1) premises and operations liability	(7) personal injury liability arising out of false arrest, detention or imprisonment or malicious prosecution, libel, slander or defamation of character, invasion of privacy, wrongful eviction or wrongful entry.
(2) products or completed operations liability	(8) shoring, blasting, excavation, underpinning, demolition, pile driving and caisson work, work below ground surface, tunneling and grading, as applicable.
(3) blanket contractual liability	(9) liability with respect to non-owned licensed vehicles.
(4) cross liability	
(5) elevator and hoist liability	
(6) contingent employers's liability	



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26.2 Automobile Liability Insurance

The Contractor shall provide and maintain liability insurance in respect of owned licensed vehicles subject to limits set out in detail in the Supplementary General Conditions inclusive.

26.3 Aircraft and Water craft Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to owned and non-owned aircraft and water craft, as may be applicable, subject to limits set out in detail in the Supplementary General Conditions inclusive. Such insurance shall be in the joint names of the Contractor, the Owner, the Engineer/Architect and those parties defined in 26.1(b)(c) where they have an interest in the use and operation of such aircraft or water craft. The insurance shall preclude subordination claims by the Insurer against anyone insured thereunder.

26.4 All liability insurance shall be maintained continuously until twelve (12) months after the date the Engineer/Architect issues a certificate of Substantial Performance.

26.5 The Contractor shall provide the Owner with evidence of all liability insurance prior to the commencement of the work and shall promptly provide the Owner with a certified true copy of each insurance policy.

26.6 All liability insurance policies shall contain an endorsement to provide all Named Insureds with prior notice of changes and cancellations. Such endorsements shall be in the following form:

"It is understood and agreed that the coverage provided by this policy will not be changed or amended in any way or cancelled until 30 days after written notice of such change or cancellation shall have been given to all Named Insureds".

GC27 PROPERTY INSURANCE

27.1 The Contractor shall provide and maintain property insurance, acceptable to the Owner, insuring the full value of the Work in the amount of the Contract Price and the full value as stated of products for incorporation into the Work. The insurance shall be in the joint names of the Contractor, the Owner, the Subcontractors and all others having an insurable interest in the Work. The policies shall include all Subcontractors as Unnamed Insureds or, if they specifically request, as Named Insureds. The Policies shall preclude subordination claims by the Insurer against anyone insured thereunder.

27.2 Such coverage shall be provided for by EITHER an ALL Risks Builder's Risk Policy OR by a combination of a standard Builders' Risk Fire Policy including Extended Coverage and Malicious Damage Endorsements and a Builders' Risk Difference in Conditions Policy providing equivalent coverage, of Piers, Wharves and Docks Government Structures Policy.

27.3 The policies shall insure against all risks of direct loss or damage subject to the exclusion specified in the Supplementary General Conditions. Such coverage shall apply to:

- (a) all products, labour and supplies of any nature whatsoever, the property of the Insureds or of others for which the Insureds may have assumed responsibility, to be used in or pertaining to the site preparations, demolition of existing structures, erections and/or fabrication and/or reconstruction and/or repair of the insured project, while on the site or in transit, subject to the exclusion of the property specified.
- (b) the installation, testing and any subsequent use of machinery and equipment including boilers, pressure vessels or vessels under vacuum.



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- (c) damage to the Work caused by an accident to and/or the explosion of any boiler(s) or pressure vessels(s) forming part of the work.

Such coverage shall exclude construction machinery, equipment, temporary structural and other temporary facilities, tools, and supplies used in the construction of the work and which are not expendable under the Contract.

- 27.4 The Contractor shall provide the Owner with evidence of all insurance prior to commencement of the Work and shall promptly provide the Owner with a certified true copy of each insurance policy.

Policies provided shall contain an endorsement to provide all Named Insureds with prior notice of changes and cancellations. Such endorsements shall be in the following form: "It is understood and agreed that the coverage provided by this policy will not be changed or amended in any way or cancelled until 30 days after written notice of such change or cancellation shall have been given to all Named Insureds".

- 27.5 All such insurance shall be maintained continuously until ten (10) days after the date the Engineer/Architect issues a certificate to Total Performance. All such insurance shall provide for the Owner to take occupancy of the work or any part thereof during the terms of this insurance. Any increase in the cost of this insurance arising out of such occupancy shall be at the Owner's expense.
- 27.6 The policies shall provide that, in the event of a loss, payment for damage to the Work shall be made to the Owner and the Contractor as their respective interests may appear. The Contractor shall act on behalf of the Owner and the Contractor for the purpose of adjusting the amount of such loss with the Insurers. On the determination of the extent of the loss, the Contractor shall immediately proceed to restore the Work and shall be entitled to receive from the Owner (in addition to any sum due under the Contract) the amount at which the Owner's interest in the restoration work has been appraised, such amount to be paid as the work of the restoration proceeds and in accordance with the Engineer/Architect's certificates for payment.

Damage shall not affect the rights and obligations of either party under the Contract except that the Contractor shall be entitled to such reasonable extension of time for Substantial and Total Performance of the Work as the Engineer/Architect may decide.

- 27.7 The Contractor and/or the Contractor's Subcontractors as may be applicable shall be responsible for any deductible amounts under the policies and for providing such additional insurance as may be required to protect the insureds against loss on items excluded from the policies.

GC28 PROTECTION OF WORK AND PROPERTY

- 28.1 The Contractor shall protect the property adjacent to the Project site from damage as the result of his operations under the Contract.
- 28.2 The Contractor shall protect the Work and the Owner's property from damage and shall be responsible for any damage which may arise as the result of the Contractor's operations under the Contract except damage which occurs as the result of:
- (a) errors in the Contract Documents, and/or
 - (b) acts or omissions by the Owner's agents, employees or Other Contractors.
- 28.3 Should any damage occur to the Work and/or property for which the Contractor is responsible the Contractor shall make good such damage at the Contractor's own expense or pay all costs incurred by others in making good such damage.



Transportation and Works

- 28.4 Should any damage occur to the Work and/or Owner's property for which the Contractors is not responsible as provided in GC17 the Contractor shall make good such damage to the Work, and, if the Owner so directs to the Owner's property, and the Contract Price and Contract Time shall be adjusted in accordance with GC18 - Changes in the Work.
- 28.5 The Contractor shall be completely responsible for the safety of the work as it applies to protection of the public and property and the construction of the work.

The Codes that must be followed and enforced for safety are:

- (a) The National Building Code, Part 8 Construction Safety Measures (Latest Edition);
- (b) The Workmen's Compensation Board Accident Prevention Regulations (Latest Edition);
- (c) Canadian Code for Construction Safety (Latest Edition) as issued by the Associate Committee of the National Building Code.

- 28.6 Any person not following stipulated safety regulations shall be dismissed.

GC29 DAMAGES AND MUTUAL RESPONSIBILITY

- 29.1 If either party to this Contract should suffer damage in any manner because of any wrongful act or neglect of the other party or anyone employed by that party then that party shall be reimbursed by the other party for such damages. The party reimbursing the other party shall be subrogated to the rights of the other party in respect of such wrongful act or neglect if it be that of a third party.
- 29.2 Claims under this GC shall be made in writing to the party liable within reasonable time after the first observance of such damage and not later than the time limits stipulated in GC21-Certificates and Payments, and may be adjusted by agreement or in the manner set out in GC16-Settlement of Disputes and Claims
- 29.3 If the Contractor has caused damage to any Other Contractor on the work, the Contractor agrees upon due notice to settle with such Other Contractor by agreement or arbitration, if the other Contractor will so settle. If such Other Contractor sues the Owner on account of any damaged alleged to have been so sustained, the Owner shall notify the Contractor and may require the Contractor to defend the action at the Contractor's expense. If any final order or judgement against the Owner arises therefrom the Contractor shall pay or satisfy it and pay all costs incurred by the Owner.
- 29.4 If the Contractor becomes liable to pay or satisfy any final order, judgement or award against the Owner then the Contractor, upon undertaking to indemnify the Owner against any and all liability for costs, shall have the right to appeal in the name of the Owner such final order or judgement to any and all courts of competent jurisdiction.

GC30 BONDS

- 30.1 The Owner shall have the right during the period stated in the tender documents for acceptance of the tender to require the Contractor to provide and maintain in good standing until the fulfilment of the Contract, bonds covering the faithful performance of the Contract including the requirements of the Warranty provided for in GC31-Warranty, and the payment of all obligations arising under the Contract.
- 30.2 All such bonds shall be issued by a duly incorporated surety company approved by the Owner and authorized to transact the business of surety-ship in the Province of Newfoundland and Labrador.
- 30.3 If bonds are called for in the tender documents or supplementary general conditions or instructions to bidders, the costs attributable to providing such bonds shall be included in the tender price.



Transportation and Works

- 30.4 Should the Owner require the provision of a bond or bonds by the Contractor other than those provided for under 30.3, the Contract Price shall be increased by all costs attributable to providing such bonds.
- 30.5 The Contractor shall promptly provide the Owner with any bonds that are required.

GC31 WARRANTY

- 31.1 Without restricting any warranty or guarantee implied or stipulated by law the Contractor shall at the Contractor's own expense rectify and make good any defect or fault however caused appearing within a period of one year from the date of Substantial Performance of the Work provided that the Contractor shall not be responsible for any defect or fault resulting from the design of the work.
- 31.2 The Contractor shall correct and/or pay for any damage to other work resulting from any corrections required under the conditions of 31.1.
- 31.3 Neither the Engineer/Architect's final certificate nor payment thereunder shall relieve the Contractor from the Contractor's responsibility hereunder.
- 31.4 The Owner and/or the Engineer/Architect shall give the Contractor written notice of observed defects promptly.

GC32 CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK

- 32.1 The Contractor shall have complete control of the Work except as provided in GC15 - Emergencies. The Contractor shall effectively direct and supervise the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all parts of the Work under the Contract.
- 32.2 The Contractor shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structural and other temporary facilities and the design and execution of construction methods required in their use. The Contractor shall engage and pay for registered professional engineering personnel skilled in the appropriate discipline to perform these functions where required by law or by the Contract Documents and in all cases where such temporary facilities and their method of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 32.3 Notwithstanding the provisions of paragraphs 32.1 and 32.2 above, or any provisions to the contrary elsewhere in the Contract Documents where such Contract Documents include design for temporary structural and other temporary facilities and methods shall be deemed to comprise part of the overall design of the Work and the Contractor shall not be held responsible for that part of the design or the specified method of construction. The Contractor shall, however, be responsible for the execution of such design or specified method of construction in the same manner that the Contractor is responsible for the execution of the Work.
- 32.4 The Contractor shall carefully examine the Contract Documents and shall promptly report to the Engineer/Architect any error, inconsistency or omission the Contractor may discover. The Contractor shall not be held liable for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents.

GC33 SUPERINTENDENCE

- 33.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Work site at all times while work is being performed.



Transportation and Works

- 33.2 The superintendent shall be satisfactory to the Engineer/Architect and shall not be changed except for good reason and only then after consultation with an agreement by the Engineer/Architect.
- 33.3 The superintendent shall represent the Contractor at the Work site and directions given to the Contractor by the Engineer/Architect shall be held to have been given to the Contractor. Important directions shall be confirmed to the Contractor in writing, other directions will be so confirmed if requested.

GC34 LABOUR AND PRODUCTS

- 34.1 Unless otherwise stipulated elsewhere in the Contract Documents, the Contractor shall provide and pay for all labour products, tools, construction equipment and machinery, water, heat, light, power, transportation and other facilities and services necessary for the proper performance of the Work.
- 34.2 All products provided shall be new unless otherwise specified in the Contract Documents. Any products which are not specified shall be of a quality best suited to the purpose required and their use subject to the approval of the Engineer/Architect.
- 34.3 The Contractor shall at all times maintain good order and discipline among his employees engaged on the Work and shall not employ on the Work any unfit person nor anyone not skilled in the task assigned to him.

GC35 SUBSURFACE CONDITIONS

- 35.1 The Contractor shall promptly notify the Engineer/Architect in writing if, in the Contractor's opinion, the subsurface conditions at the Project site differ materially from those indicated in the Contract Documents or as may have been represented to the Contractor by the Owner or Engineer/Architect before the time of tender submission.
- 35.2 After prompt investigation, should the Engineer/Architect determine that conditions do differ materially, he or she shall issue appropriate instructions for changes in the Work as provided for in GC18 - Changes in the Work.

GC36 USE OF PREMISES

- 36.1 The Contractor shall confine the Contractor's apparatus, the storage of products and the operations of the Contractor's workers to limits indicated by laws, ordinances, permits or by directions of the Engineer/Architect and shall not unreasonably encumber the premises with his products.
- 36.2 The Contractor shall not load or permit to be loaded any part of the Work with a mass that will endanger its safety.
- 36.3 The Contractor shall enforce the Engineer/Architect's instructions regarding signs, advertisements, fires and smoking.
- 36.4 Unless otherwise provided the Contractor shall, at the Contractor's own expense, and without extra cost to the Owner, make suitable provision to accommodate all traffic either pedestrian or vehicular, over or around, the project upon which work is being performed in a manner satisfactory to the Engineer/Architect.
- 36.5 The Contractor shall provide and maintain at the Contractor's own expense such fences, barriers, signs, lights and watchmen as may be necessary to prevent avoidable accidents to residents or to the public generally.



Transportation and Works

GC37 CLEANUP AND FINAL CLEANING OF WORK

- 37.1 The Contractor shall maintain the work in a tidy condition and free from the accumulation of waste products and debris, other than that caused by the Owner, Other Contractors or their employees.
- 37.2 When the Work is Substantially Performed the Contractor shall remove all of the Contractor's surplus products, tools, construction machinery and equipment not required for the performance of the remaining work. The Contractor shall also remove any waste products and debris and leave the Work clean and suitable for occupancy by the Owner unless otherwise specified.
- 37.3 When the Work is totally Performed, the Contractor shall remove all of the Contractor's surplus products, tools, construction machinery and equipment. The Contractor shall also remove any waste products and debris, other than that caused by the Owner, Other Contractors or their employees.

GC38 CUTTING AND REMEDIAL WORK

- 38.1 The Contractor shall do all cutting and remedial work that may be required to make the several parts of the Work come together properly.
- 38.2 The Contractor shall coordinate the schedule for the Work to ensure that this requirement is kept to a minimum.
- 38.3 Should the Owner or anyone employed by the Contractor be responsible for ill-timed work necessitating cutting and/or remedial work shall be valued as provided in GC19 - Valuation and Certification of Changes in the work and added to the Contract Price.
- 38.4 Cutting and remedial work shall be performed by specialists familiar with the materials affected and shall be performed in a manner to neither damage nor endanger any Work.

GC39 INSPECTION OF WORK

- 39.1 The Owner and the Owner's authorized representatives shall have access to the Work for inspection wherever it is in preparation or progress. The Contractor shall cooperate to provide reasonable facilities for such access.
- 39.2 If special tests, inspections or approvals are required by the Contract Documents, the Engineer/Architect instructions or the laws or ordinances of the place of building the Contractor shall give the Engineer/Architect timely notice requesting inspection. Inspection by the Engineer/Architect shall be made promptly. The Contractor shall arrange inspection by other authorities and shall notify the Engineer/Architect of the date and time.
- 39.3 If the Contractor covers or permits to be covered any of the Work that is subject to inspection or before any special tests and approvals are completed without the approval of the Engineer/Architect, the Contractor shall uncover the Work, have the inspection satisfactorily completed and make good the Work at the Contractor's own expense.
- 39.4 Examination of any questioned work may be ordered by the Engineer/Architect. If such work be found in accordance with the Contract the Owner shall pay the cost of examination and replacement, together with the cost of subsequent verification testing. If such Work be found not in accordance with the Contract through the fault of the Contractor, the Contractor shall pay such cost.
- 39.5 The Contractor shall furnish promptly to the Engineer/Architect two (2) copies of all certificates and inspection reports relating to the Work.



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GC40 REJECTED WORK

- 40.1 Defective Work, whether the result of poor workmanship, use of defective products or damage through carelessness or other act or omission of the Contractor, and whether incorporated in the Work or not, which has been rejected by the Engineer/Architect as failing to conform to the Contract Documents shall be removed promptly from the premises by the Contractor and replaced and/or executed promptly in accordance with the Contract Documents at the Contractor's expense.
- 40.2 Other Contractor's Work destroyed or damaged by such removals or replacements shall be made good promptly at the Contractor's expense.
- 40.3 If in the opinion of the Engineer/Architect it is not expedient to correct defective work not done in accordance with the Contract Documents, the Owner may deduct from the Contract Price the difference in value between the Work as done and that called for by the Contract, the amount of which shall be determined in the first instance by the Engineer/Architect.

GC41 SHOP DRAWINGS

- 41.1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are to be provided by the Contractor to illustrate details of a portion of the Work.
- 41.2 The Contractor shall arrange for the preparation of clearly identified shop drawings as called for by the Contract Documents or as the Engineer/Architect may reasonably request.
- 41.3 Prior to Submission to the Engineer/Architect the Contractor shall review all shop drawings. By this review the Contractor represents that the Contractor has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data or will do so and that the Contractor has checked and coordinated each shop drawing with the requirements of the work and the Contract Documents. The Contractor's review of each shop drawing shall be indicated by stamp, date and signature of a responsible person.
- 41.4 The Contractor shall submit shop drawings to the Engineer/Architect for his or her review with reasonable promptness and in orderly sequence so as to cause no delay in the Work or in the Work of Other Contractors. If either the Contractor or the Engineer/Architect so requests they shall jointly prepare a schedule fixing the dates for submission and return of shop drawings. Shop drawings shall be submitted in the form of a reproducible transparency or prints as the Engineer/Architect may direct. At the time of submission the Contractor shall notify the Engineer/Architect in writing of any deviations in the shop drawings from the requirements of the Contract Documents.
- 41.5 The Engineer/Architect will review and return shop drawings in accordance with any schedule agreed upon, or otherwise with reasonable promptness so as to cause no delay. The Engineer/Architect's review shall be for conformity to the design concept and for general arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the Contract Documents unless a deviation on the shop drawings has been approved in writing by the Engineer/Architect.
- 41.6 The Contractor shall make any changes in shop drawings which the Engineer/Architect may require consistent with the Contract Documents and resubmit unless otherwise directed by the Engineer/Architect. When resubmitting the Contractor shall notify the Engineer/Architect in writing of any revisions other than those requested by the Engineer/Architect.

**GC42 SAMPLES**

- 42.1 The Contractor shall submit for the Engineer/Architect's approval such standard manufacturers' samples as the Engineer/Architect may reasonably require. Samples shall be labeled as to origin and intended use in the Work and shall conform to the requirements of the Contract Documents.
- 42.2 The Contractor shall provide samples of special products, assemblies, or components when so specified. The cost of such samples not specified shall be authorized as an addition to the Contract Price as provided in GC18 - Changes in the Work.

GC43 TESTS AND MIX DESIGNS

- 43.1 The Contractor shall furnish to the Engineer/Architect test results and mix designs as may be requested. The testing company must first be approved by the Engineer/Architect.
- 43.2 The cost of test and mix designs beyond those called for in the Contract Documents or beyond those required by laws, ordinances, rules and regulations relating to the work and the preservation of public health, shall be as authorized an addition to the Contract Price as provided in GC18-Changes in the Work.

GC44 MATERIALS AND SUBSTITUTIONS

- 44.1 Materials, described and named in the specifications with "or approved equal" clause after the Manufacturer's name, or so described as to establish quality only and substitutions of a similar material may be made after award of the contract provided the Engineer/Architect's approval is obtained.
- 44.2 Requests for substitutions must be accompanied by sufficient information in the form of shop drawings, manufacturer's literature, samples and other data to permit proper investigation of the substitutes proposed. Also, indicate the increase or decrease in price.
- 44.3 Whenever a substitute is proposed for approval the Contractor shall guarantee that such proposed substitute will not adversely affect the space requirements allocated on the drawings for the material specified, and the Contractor shall agree to bear any additional expense incurred due to the Contractor's use of the proposed substitute.
- 44.4 The Engineer/Architect may accept or reject any or all of the proposed substitutions as he or she sees fit, and his or her decision on a question of equality shall be final.

GC45 LABOUR

- 45.1 In carrying out his duties under this contract, the Contractor should comply with all Provincial and Federal legislation respecting labour and the employment of labour, where applicable, including the labour standards code and shall not operate in conflict with the Human Rights legislation. In the employment of labour, preference should be given to persons normally resident in Newfoundland and Labrador.
- 45.2 The Contractor and Subcontractors shall maintain and keep available for inspection by the Owner, a record of the names and addresses of all persons employed on the project.
- 45.3 All work shall be done by workers skilled in their various trades.



Transportation and Works

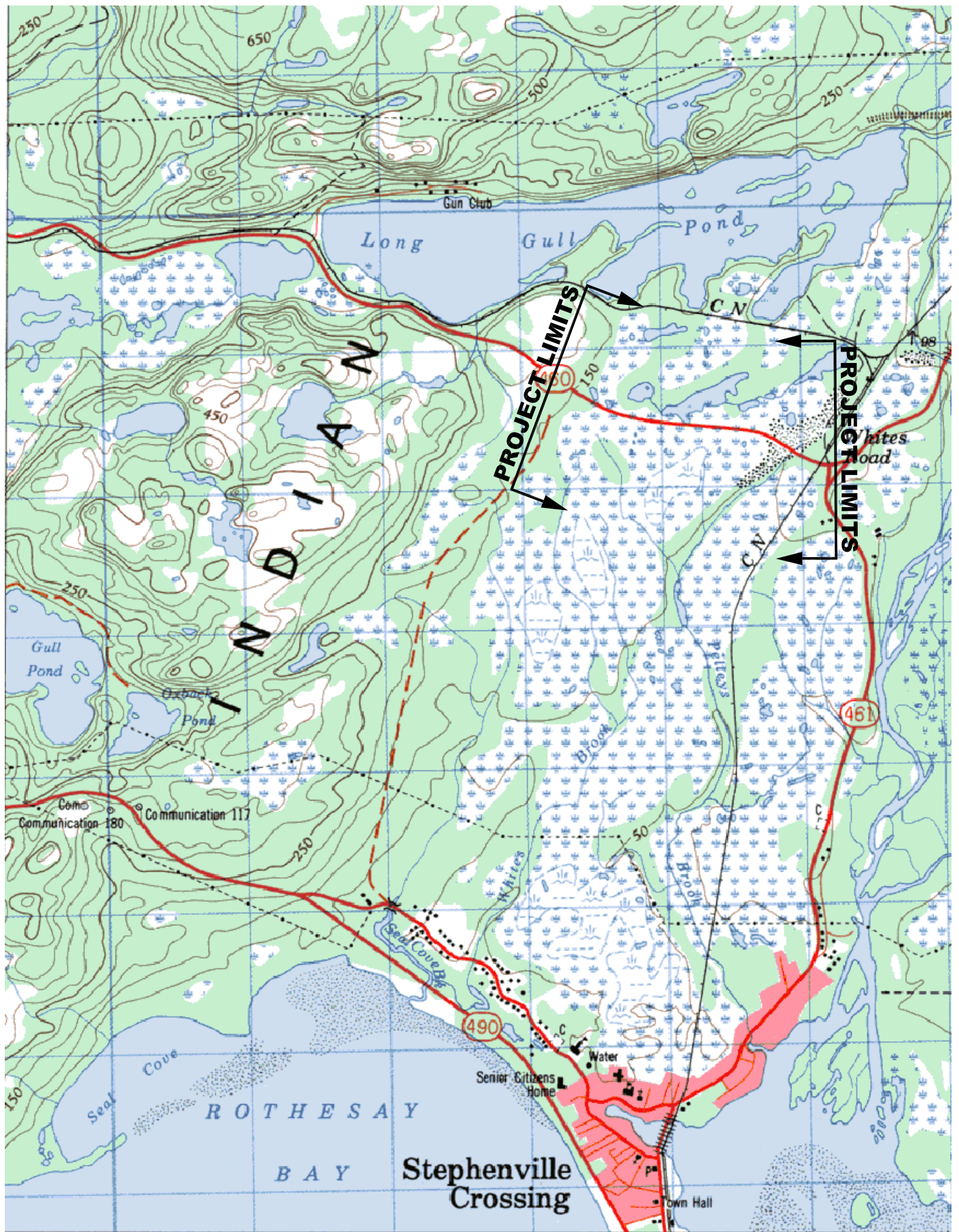
- 45.4 There shall be no discrimination in the selection of workers for employment on the project in respect of race, religious views or political affiliation, and the office of the Canada Manpower will be used in the recruitment of workers where practicable.
- 45.5 The Contractor shall pay fair wages and shall pay rates of wages and allowances to the various classes of labour not less favorable than those prevailing in the area where the work is being performed.

GC46 PROVINCIAL PREFERENCE POLICY

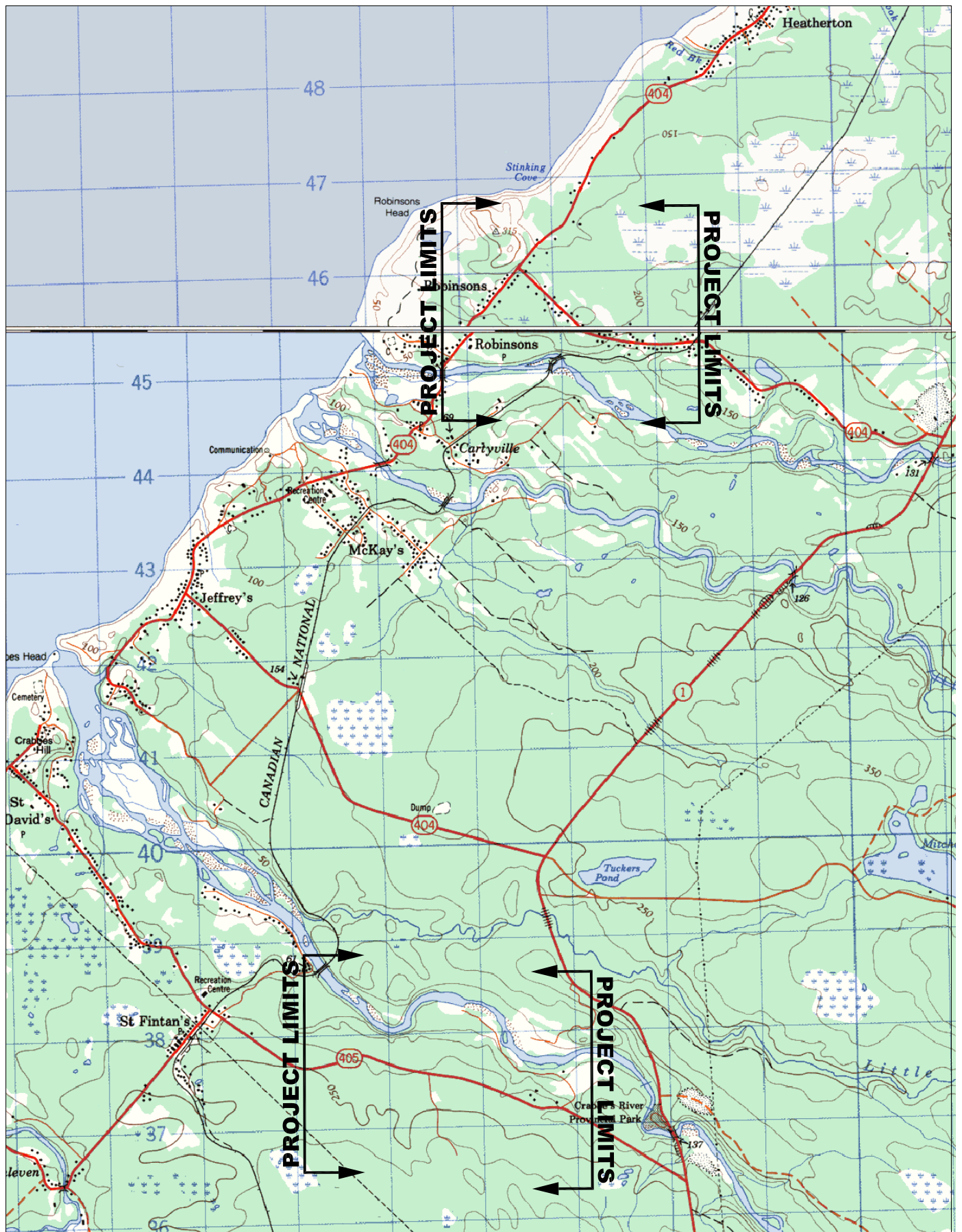
- 46.1 Preference will be given to Newfoundland and Labrador Contractors and Subcontractors and to products manufactured, processed or supplied in Newfoundland and Labrador, in accordance with the Provincial Preference Act, associated regulations and guidelines.

GC47 TIME OF ESSENCE

- 47.1 Time is of the essence of the Contract.







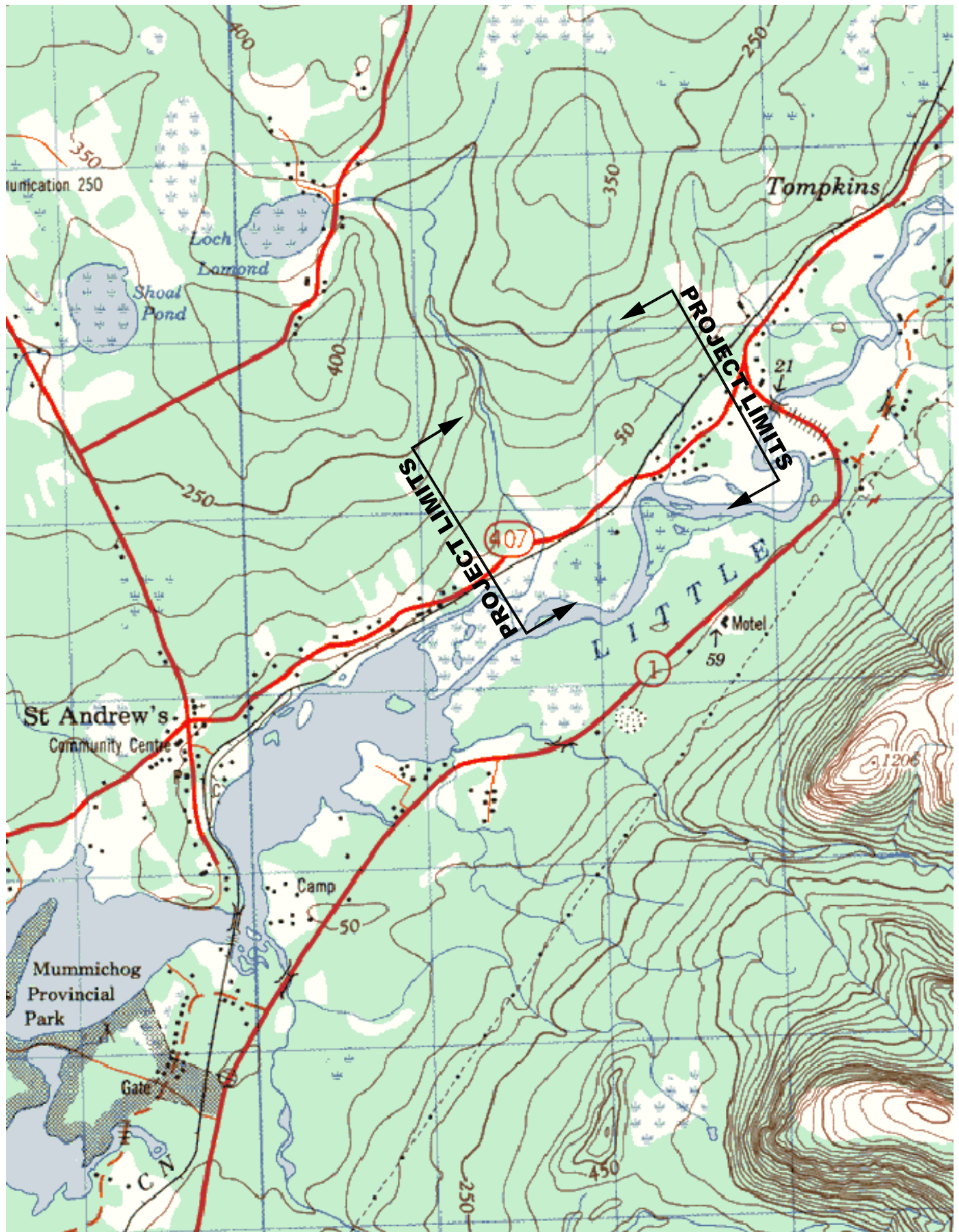
TRANSPORTATION AND WORKS
HIGHWAY DESIGN DIVISION

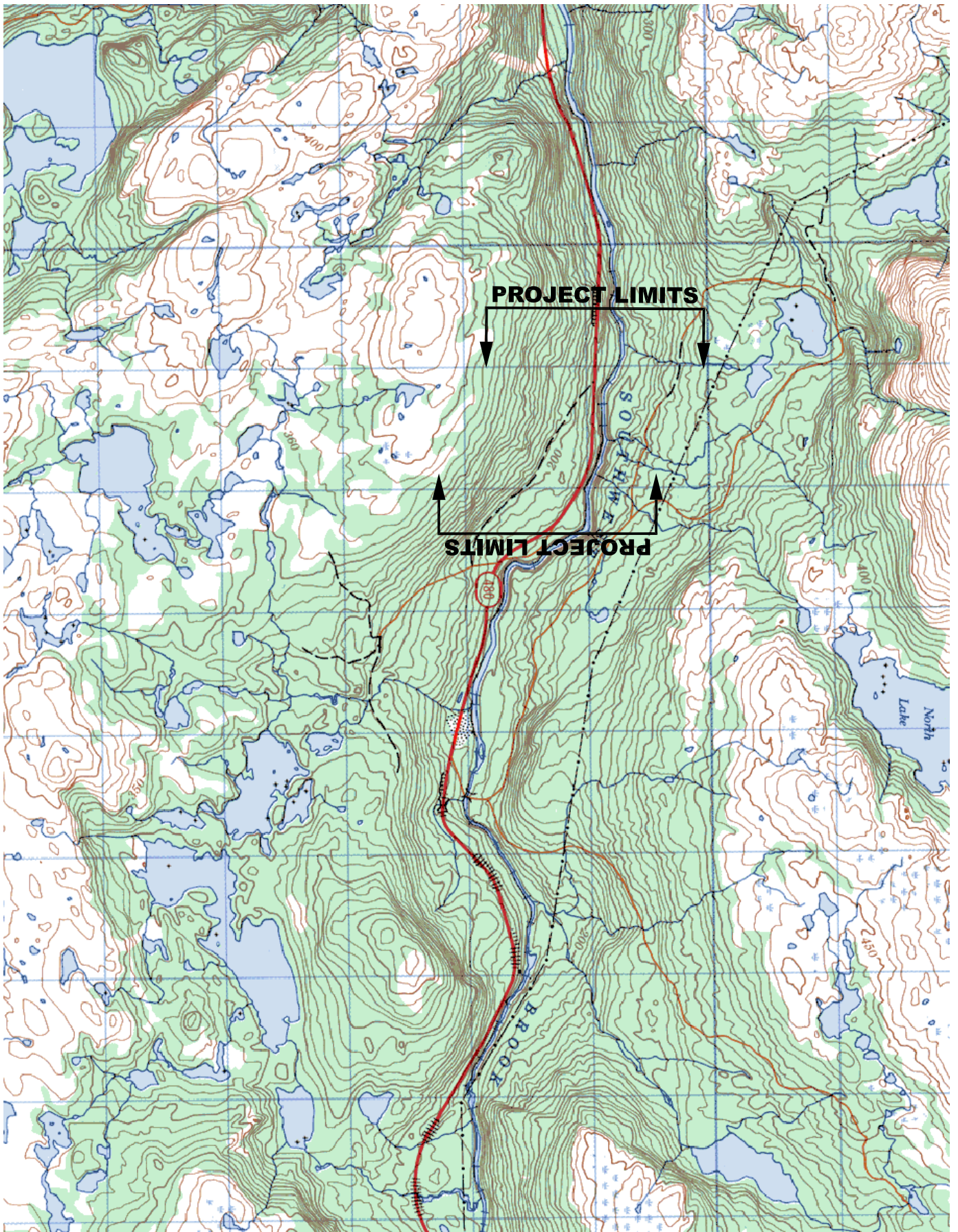
LOCATION PLAN
PROJECT NO. 45-20 PHP
PART "E"

DRAWN BY: MF

DATE: April 16, 2020

NOT TO SCALE





TRANSPORTATION AND WORKS
HIGHWAY DESIGN DIVISION

LOCATION PLAN
PROJECT NO. 45-20 PHP
PART "F"

DRAWN BY: MF

DATE: April 16, 2020

NOT TO SCALE



EDWARD COLLINS CONTRACTING LTD.

P.O. BOX 51, JERSEYSIDE, PLACENTIA BAY

NEWFOUNDLAND, CANADA, A0B 2G0

TEL: (709) 227-5509/2821 FAX (709) 227-3704 email: eccl@nf.aibn.com

November 26, 2020

Department of Transportation and Infrastructure

P.O. Box 8700

St. John's, NL

A1B 4J6

RE: Project 45-20PHP

To Whom it May Concern

We have officially finished work on Project 45-20PHP as of November 15, 2020 due to deteriorating weather conditions not suitable to allow us to lay asphalt.

We are requesting an extension to carry over this project until June 30, 2021 to complete all remaining quantities.

This will be achievable providing the weather allows us to start the asphalt plant on May 24th weekend, 2021.

Thank you

A handwritten signature in black ink, appearing to read "Josh Collins", is written over the "Thank you" text.

Josh Collins
Vice President

Coley, Dennis

From: Coley, Dennis
Sent: Thursday, June 24, 2021 11:18 AM
To: 'Brad Thomas'; 'Joshua Collins'
Cc: Fleming, Michael; Hillier, Judy
Subject: RE: extension letter
Attachments: ECC extension request response June 24th 2021.pdf

Brad we have reviewed your request for extension and provide the following notes:

TI approval to occupy the steel mountain depot was issued on May 26, 2021. Giving allowable time of 3 weeks for mob to site, plant set up and environmental permit (which was issued on June 15th 2021.)

A previous request for extension submitted on Nov 26, 2020 requested an extension of 37 days after spring start-up.

These 37 days have been moved forward to commence after this permit was issued will end on July 22nd.

Based on the above review your new Substantial completion date is up to the end of the week of July 24th 2021, after which liquidated damages will be applied as per the contract.

Dennis Coley, P-Eng.
District Engineer Western Region
Department of Transportation and Infrastructure
74 Old Bonne Bay Rd
Deer Lake, NL A8H 3H4
Office # 635-4132
Cell # 632-3175
Fax # 635-5715
Email: DennisColey@gov.nl.ca

From: Brad Thomas <bradthomas@edwardcollinscontracting.com>
Sent: Wednesday, June 23, 2021 5:54 PM
To: Coley, Dennis <DennisColey@gov.nl.ca>
Subject: extension letter

Please see attached letter for the remaining work to be completed

Brad Thomas



PH. 709-293-0164



Government of Newfoundland and Labrador

Department of Transportation and Infrastructure
Western Region

June 24, 2021

Edward Collins Contracting Ltd.
P.O. Box 51
Jerseyside, Placentia Bay, NL
A0B 2G0

Attention: Brad Thomas

Re: Request for Extension on Substantial Completion for 45-20PHP. Cold Plane and repave a section of Route 460 between Gull Pond and Route 460/461 intersection for approx. 1.5 KM. Pave 3 sections of route 460 between Stephenville and Cape St. George for a total of approx. 4.7KM. Sections of Route 404, Route 405, and Route 407 for a total of approx. 4.0 KM: and a section of Route 480 between km 27.1 and km 30.4 for approx. 3.3 km. Asphalt leveling a section of route 463 between Mainland and Cape St. George for approx. 3.0 km. Replace culverts on route 460 between intersection of route 461 and Cape St. George.

As per your request, for an extension to the substantial completion date for the above noted project, the Department of Transportation and Infrastructure has reviewed your request and based on our review your new substantial completion date for this project will be July 24th, 2021.

We trust this is satisfactory.

Sincerely

Dennis Coley
Regional Engineer

cc: William Hillier, Director, Highway Design & Construction. TW
Josh Collins, Vice President ECC Ltd.



EDWARD COLLINS CONTRACTING LTD.

P.O. Box 51, JERSEYSIDE, PLACENTIA BAY

NEWFOUNDLAND, CANADA, A0B 2G0

TEL: (709) 227-5509/2821 FAX (709) 227-3704 email: eccl@nf.aibn.com

Project: 45-20PHP extension request

Based on the reasons given in the last extension request:

- "We have been since April 20/2021 trying to get permission to setup in the same location we were approved to setup in last year and it was not until June 10/2021 that all parties were satisfied to allow us to return. It was June 17/2021 when we finally received approval from Digital Government and Services NL to officially have permission to setup the asphalt plant. Now with the salt operation for the department experiencing additional delays it could possibly be July 1/2021 before ECC can resume the assembly of the asphalt plant, then proceed with the completion of the contract. We request until August 31/2021 to complete this contract. With the remaining quantities and considering other factors we feel this timeline is adequate for completion."

We were able to resume the assembly of the asphalt plant during the last week of June when the salt was finished being hauled into the St. Georges depot. This is relevant because the department didn't want us working near the depot when they had that operation in progress, additionally we had a new self-erect silo and blending system delivered which we are using to replace the old silo that we were having trouble with last year. Unfortunately, the silo was dropped in the Halifax port during shipping causing damage that gave us another 3 weeks in delays for our setup. We understand that this has nothing to do with the department, but it was out of our control and has since been rectified.

Originally, we requested a completion date of Aug 31/2021 on our last extension letter. Given the amount of work left and for the reasons listed above we feel a new completion date of Sept 10/2021 will give us enough time to complete this project.

Also, we are currently working with the department to provide a master schedule for all the work we have awarded and currently have on going at this time. Given the amount that we have in progress we would like that to be taken into consideration when extensions are being granted.

Thank you,

A handwritten signature in black ink, appearing to read "Josh Collins", is written over a horizontal line.

Josh Collins

May 20, 2021

Edward Collins Contracting Ltd.
Box 51 Jerseyside Placentia Bay, NL
A0B 2G0

Attention: Josh Collins

Re: Asphalt plant setup at Steel Mountain Depot Site Transportation and Infrastructure

Dear, Mr. Collins

As per your request for an asphalt plant setup at Transportation and Infrastructure operations depot site located at Steel Mountain, the department has reviewed your request and at this time will provide a list of conditions that must be put in place and adhered to:

- 1.0 As a separation between the area of the asphalt plant operations and TI area the contractor shall install physical barriers which would run down from the access road and in front of the existing Salt Dome. Prior to installation the contractor will be required to meet with TI operations and identify type and location of these barriers.
- 2.0 The contractor will be provided access from the TCH directly down to an access point at the lower end of the pit where the scales are currently installed. No other access across the site or parking of any equipment on areas being utilized by TI staff will be permitted.
- 3.0 The contractor will not be permitted to install or set up any trailers for accommodations anywhere on this site
- 4.0 The contractor will be required to obtain and provide a copy of insurance which will cover environmental cleanup in case there is a spill of any kind on the site due to their equipment or operations.
- 5.0 In the event that a spill should happen that would result in any contamination of the supply of salt or winter sand the contractor will be held responsible and hold all cost of a new supply and location prior to winter operations
- 6.0 This setup will be permitted only as to allow the contractor short term access for completion of the existing contract that is currently in place with TI. This permit will not be extended to allow the contractor to conduct operations on any new upcoming work that they may be successful in obtaining during this upcoming season

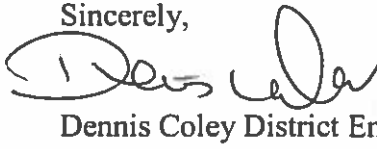
- 7.0 Any contract work outside of TI requirements such as private work or municipal work will not be permitted from this location
- 8.0 Upon completion of the contract the asphalt plant and all of the contractor's equipment will be removed from the site and the site cleaned and left in a clean and tidy state, TI will conduct an inspection and acceptance to the clean up before final payments to the contractor are released.
- 9.0 The material and testing lab can remain on site in its current location. For electrical supply and connection the contractor will be required to contact and coordinate with the TI buildings division manager. Connections and disconnections will be conducted by a qualified electrician and under supervision of the buildings manager.
- 10.0 The Lab will require a septic hook up. The contract can provide an above ground tank for this purpose. A copy of a contract or PO with a certified sewage disposal company for cleanouts and disposal of the raw sewage will be provided to TI prior to any startup of operations
- 11.0 Contractor will accept all safety accountability and responsibilities for workers that will be required to enter the site.

Included as an attachment are primary identified areas/access that must be adhered to while occupying this site. Keeping mind that TI operations will have further contracts in place for the delivery of winter salt and sand throughout the summer and the provide layout and access may be further restricted during that time.

Upon recite of the above listed documents and written acceptance by the contractor that these conditions are understood and will be strictly adhere to TI will provide written approval/permit to your request.

We trust that this is satisfactory, if you have any further questions or need clarifications please contact us at 709 635 4132

Sincerely,



Dennis Coley District Engineer Western Region

c.c.: William Hillier Director Transportation and Infrastructure (HDC)
Joe Dunford ADM Transportation and Infrastructure (Operations)
Barry Ellsworth Superintendent Operations Western Division.

Untitled Map

Write a description for your map.



Legend

-  Feature 1
-  Untitled Path
-  Untitled Polygon

Area off limits

Barriers

access

Google Earth

Image © 2021 Maxar Technologies

©2021 Google



600 ft

Buggie, Chelsey

From: Brad Thomas <bradthomas@edwardcollinscontracting.com>
Sent: Monday, May 31, 2021 5:50 PM
To: Coley, Dennis
Cc: Joshua Collins; Hillier, William; Dunford, Joe; Ellsworth, Barry W.; Fleming, Michael
Subject: Re: Steel Mt Depot Asphalt plant Permit

Good Day,

After reviewing your response to the additional request. We accept the terms and conditions of the proposed agreement so we can acquire the approval letter to get the Certificate of Approval in motion.

With reference to the option of setting up in the quarry location where we completed the crushing, we will consider this for additional works. We trust that you can provide assistance on the application to gain road access when we decide on a route from the quarry to the TCH in that given area.

On Fri, May 28, 2021 at 11:01 AM Coley, Dennis <DennisColey@gov.nl.ca> wrote:

Good Day Brad/Josh:

In response to your request noted below first of all I would assume you are referencing point # 6 and not # 8.

From a departments interest we can only be concern about the contract the ECC has in place with TI and not with any other clients that you folks may have in that area. This list of conditions has been provided in collaboration with our Engineering and operations departments and currently we do not support the use of a TI owned site to permit contractors to deliver private work. There is elevated risk to the department to even allow the set up to continue this year to complete the TI contract work and to allow private work from this site to continue is something that the department is not willing to accept at this time.

There is an option that ECC may wish to consider and investigate for current and future benefit and that is the use of the quarry pit that is directly behind the Steel Mt depot site via the access road through the site, it is where you folks had the crusher installed last year, this pit is independent to the depot site and only connected by the access road. An option would be to construct a new temporary access road directly off the highway (there is a section that is really close to the highway) and use this quarry site for an asphalt plant setup. It will be available to do any current work or future work that ECC may be successful in acquiring in the area.

The site could be prepared while the asphalt contract work is being done for TI and when finished the plant can be moved down in that area for any extra or new work that is available.

Dennis Coley, P-Eng.

District Engineer Western Region

Department of Transportation and Infrastructure

74 Old Bonne Bay Rd

Deer Lake, NL A8H 3H4

Office # 635-4132

Cell # 632-3175

Fax # 635-5715

Email: DennisColey@gov.nl.ca

From: Brad Thomas <bradthomas@edwardcollinscontracting.com>

Sent: Thursday, May 27, 2021 2:02 PM

To: Coley, Dennis <DennisColey@gov.nl.ca>

Cc: Joshua Collins <josh_56@icloud.com>; Hillier, William <WilliamHillier@gov.nl.ca>; Dunford, Joe <JoeDunford@gov.nl.ca>; Ellsworth, Barry W. <ellsworthb@gov.nl.ca>; Fleming, Michael <MichaelFleming@gov.nl.ca>

Subject: Re: Steel Mt Depot Asphalt plant Permit

Good day,

We are pleased to see this proposal letter for the operational permit located in the TI depot at Steel Mountain. We have read and understand the terms and conditions of the letter, and will work with the TI staff to put in place all necessary requirements of the agreement. The only point we would like to make reference to would be # 8.

While we were crushing for TI we also completed additional crushing for our private commitments. TI staff were aware the plant mix was tested by a third party firm and is stockpiled onsite. These materials are in separate areas and remain on the TI site. We have previously committed contracts to utilize this plant mix for the private work secured last season.

We do not plan to prolong the TI project and plan to complete these additional projects inside the TI project window. We do not plan to complete any additional private or TI projects from this site.

We suggest that # 8 be amended to the Contractor will not introduce any additional crushed material to the current stockpiles. The Contractor will utilize only crushed plant mix presently stored at the location and then will demobilize the asphalt plant.

The private projects are important to the success of the TI project because these projects are utilized by TI lab technicians to test asphalt batches to ensure they meet specifications prior to paving the TI project.

Once point # 8 is successfully amended, we will be available to sign the agreement.

On Wed, May 26, 2021 at 1:45 PM Coley, Dennis <DennisColey@gov.nl.ca> wrote:

Josh:

As per Edward Collins Request to allow an asphalt plant setup in TI steel mountain depot site attached are a list of conditions that must be accepted prior to approval. Please review and provide a written response and supplementary documentation as required for our review. If and when we have this documentation we will issue a letter of approval to permit this setup

We trust this is satisfactory

Dennis Coley, P-Eng.

District Engineer Western Region

Department of Transportation and Infrastructure

74 Old Bonne Bay Rd

Deer Lake, NL A8H 3H4

Office # 635-4132

Cell # 632-3175

Fax # 635-5715

Email: DennisColey@gov.nl.ca

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EDWARD COLLINS CONTRACTING LTD.

P.O. BOX 51, JERSEYSIDE, PLACENTIA BAY

NEWFOUNDLAND, CANADA, A0B 2G0

TEL: (709) 227-5509/2821 FAX (709) 227-3704 email: eccl@nf.aibn.com

Good day, Mr. Coley

As per correspondence completed on June 16/2021, between Mr. Fleming and myself we made reference about submitting an extension letter for the project. Due to the unfortunate delays that we have experienced in meeting the requirements for the Certificate of Approval for the asphalt plant from Digital Government and Service NL, Edward Collins Contracting LTD is requesting a 60-day extension on the project.

This request for extension is due to the following factors:

- Delays in securing the approval letter from Transportation and Infrastructure to obtain access to return to the Steel Mountain Site filed on April 20/2021
- Site meeting with Transportation and Infrastructure to address the requirements as per the site approval letter did not take place until June 10/2021
- Certificate of Approval from Digital Government and Service NL issued on June 17/2021
- During the site meeting with Transportation and Infrastructure along with the department's maintenance staff they expressed concern about the salt haulage operation and the ECC operation on the tentative dates of June 17/2021 to June 21/2021. We moved gear to site prior to that date to avoid any interference and planned to start set up when their operation was completed. The salt haulage has since been furthered delayed and is now supposed to start on June 24/2021 and run until June 30/2021

To summarize we have been since April 20/2021 trying to get permission to setup in the same location we were approved to setup in last year and it was not until June 10/2021 that all parties were satisfied to allow us to return. It was June 17/2021 when we finally received approval from Digital Government and Service NL to officially have permission to setup the asphalt plant. Now with the salt operation for the department experiencing additional delays it could possibly be July 1/2021 before ECC can resume the assembly of the asphalt plant, then proceed with the completion of the contract. We request until August 31/2021 to complete this contract. With the remaining quantities and considering other factors we feel this extension timeline is adequate for completion.

Sincerely

A handwritten signature in black ink, appearing to read "B. Thomas", written over a horizontal line.

Brad Thomas
Edward Collins Contracting LTD.



Government of Newfoundland and Labrador

Department of Transportation and Infrastructure
Western Region

June 24, 2021

Edward Collins Contracting Ltd.
P.O. Box 51
Jerseyside, Placentia Bay, NL
A0B 2G0

Attention: Brad Thomas

Re: Request for Extension on Substantial Completion for 45-20PHP. Cold Plane and repave a section of Route 460 between Gull Pond and Route 460/461 intersection for approx. 1.5 KM. Pave 3 sections of route 460 between Stephenville and Cape St. George for a total of approx. 4.7KM. Sections of Route 404, Route 405, and Route 407 for a total of approx. 4.0 KM: and a section of Route 480 between km 27.1 and km 30.4 for approx. 3.3 km. Asphalt leveling a section of route 463 between Mainland and Cape St. George for approx. 3.0 km. Replace cuverts on route 460 between intersection of route 461 and Cape St. George.

As per your request, for an extension to the substantial completion date for the above noted project, the Department of Transportation and Infrastructure has reviewed your request and based on our review your new substantial completion date for this project will be July 24th, 2021.

We trust this is satisfactory.

Sincerely

Dennis Coley
Regional Engineer

cc: William Hillier, Director, Highway Design & Construction. TW
Josh Collins, Vice President ECC Ltd.

October 28, 2021

Edward Collins Contracting Ltd.
Box 51 Jerseyside Placentia Bay, NL
A0B 2G0

Attention: Josh Collins

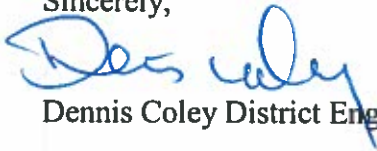
Re: Stop Work Order Asphalt production at Steel Mountain Depot Site Transportation and Infrastructure

Dear, Mr. Collins

Due to violation of the terms and conditions outlined in your permit to set up and operate your asphalt plant within the confines of the Transportation and Infrastructure depot site located at Steel Mountain we are immediately issuing a stop work order for ongoing work in this area.

Arrangements are now in place and the main gate to this site is being locked. Any further access required by ECC will not be permitted and violations will be considered Trespassing.

Sincerely,



Dennis Coley District Engineer Western Region

c.c.: William Hillier Director Transportation and Infrastructure (HDC)
Barry Ellsworth Superintendent Operations Western Division.

**Newfoundland
Labrador**
 TRANSPORTATION AND WORKS
 SUPPLEMENTARY GENERAL CONDITIONS

7. SPECIFICATIONS BOOK

Contractors are advised that the specifications book of the Department of Transportation and Works dated MARCH 2011 and the 2012 and 2013 Errata apply to this project. These specifications are available on the Internet at <http://www.tw.gov.nl.ca/publications/specbook2011.pdf> and on the following pages: <http://www.tw.gov.nl.ca/> under the **Road Contractors** section; <http://www.tw.gov.nl.ca/publications/index.html> under **Manuals** section; and at <http://www.tw.gov.nl.ca/road.html>. It is the contractor's responsibility to ensure that the correct version of the specifications book is used when bidding on this project.

8. BONA FIDE STATUS

Contractors are advised that Item No. 8 of the Tender Form is revised as follows:

Delete the paragraph:

"WE understand and agree to list the names of sub-contractors and suppliers whose bids have been used in the preparation of this tender price in Appendix "B". The list will be subject to the approval of the Owner. "By own forces" will be considered valid and satisfactory only if the tenderer is recognized by the Newfoundland and Labrador Construction Association or by the Road Builders Association as being a "bona fide" contractor or supplier of that particular trade or item.

And replace with the following:

"WE understand and agree to list the names of sub-contractors and suppliers whose bids have been used in the preparation of this tender price in Appendix "B". The list will be subject to the approval of the Owner." The bona fide status of a contractor will be determined by the Owner and decisions made by the Owner will be final.

9. LIQUIDATED DAMAGES

If the Substantial Performance date of The Work is later than the Liquidated Damages Application Date specified in the contract, liquidated damages for such default shall be payable by the Contractor to the Owner. The Department and the Contractor acknowledge the difficulty of making a precise determination of damages and, as a result, have agreed to a sum of money in the amount stipulated as the Liquidated Damages Daily Rate of \$ 2500. Such amount shall be charged against the Contractor for each calendar day that the work remains uncompleted after the Liquidated Damages Application Date, not as a penalty but as Liquidated Damages. The Liquidated Damage Daily Rate of \$ 2500 per diem will apply, which has been determined as the total of the department's costs associated with maintaining a presence and carrying out typical contract administration duties on the project which includes, but has not been limited to the following: salaries including overtime, for the staff complement on the project, travel costs for the normal staff complement on the project, vehicle rental charges, fuel for vehicles, and other equipment rental charges, such as internal survey equipment, which may be utilized on the project.

**Newfoundland
Labrador**
TRANSPORTATION AND WORKS
SUPPLEMENTARY GENERAL CONDITIONS

Depending on the scope of work, there may be other direct or indirect costs to the department, which will also be deemed to be recoverable as supplemental liquidated damages including but not limited to consulting, third parties etc. These other costs shall be quantified and considered as additional to the Liquidated Damage Daily Rate noted above.

No bonus will be assessed for completing the project ahead of the given Liquidated Damages Application date.

Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree the Liquidated Damage Daily Rate of \$ 2500 per diem is a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.

The Liquidated Damages Application Date for the purposes of applying liquidated damages shall be the earlier of the following:

- i. the date identified in Article A-1 of the Form of Agreement unless otherwise agreed in writing; or
- ii. No later than September 30, 2020 unless otherwise agreed in writing.

Liquidated damages will be applied to the contract payment at the per diem amount specified for each calendar day that the work remains uncompleted after the expiration of the Liquidated Damages Application Date, not as a penalty but as Liquidated Damages. It will apply until work is considered no longer feasible in the construction season or the work is completed according to the definition of Substantial Performance. Paving work will be considered no longer feasible when asphalt paving is terminated by the Department's Highway Specifications or an approved end of paving season extension date as communicated by the Department. Liquidated damages in a subsequent construction season will apply from the day after the Victoria Day holiday to when work is completed according to the definition of Substantial Performance.

Substantial Performance shall be defined by the General Conditions of the Contract including the cost of Mobilization and Demobilization considered as fully paid in the calculation of Substantial Performance.

In event that a Contractor is awarded multiple contracts by Government within a construction season, Government reserves the right in its sole discretion to amend the Liquidated Damages Application Date if an approved amended execution plan and/or schedule allows more effective and efficient execution of all related multiple Contracts.

10. PETROLEUM PRODUCTS COST ADJUSTMENT

Fuel Cost Adjustment

Adjustments will be made to progress estimates to reflect changes in fuel prices from The Benchmark Tender Price to those in effect during construction. The Benchmark Tender Price shall

LIQUIDATED DAMAGES for LATE COMPLETION

PROJECT #: 45-20 PHP

CONTRACTOR: Edward Collins Contracting Ltd.

SUBSTANTIAL COMPLETION DATE EXTENSION: JULY 24, 2021

Daily Rate: \$2500.00

TTD \$220,000.00

DATE	RATE	DATE	RATE	DATE	RATE
25-Jul-21	\$2,500.00	21-Aug-21	\$2,500.00	21-Sep-21	\$2,500.00
26-Jul-21	\$2,500.00	22-Aug-21	\$2,500.00	22-Sep-21	\$2,500.00
27-Jul-21	\$2,500.00	23-Aug-21	\$2,500.00	23-Sep-21	\$2,500.00
28-Jul-21	\$2,500.00	24-Aug-21	\$2,500.00	24-Sep-21	\$2,500.00
29-Jul-21	\$2,500.00	25-Aug-21	\$2,500.00	25-Sep-21	\$2,500.00
30-Jul-21	\$2,500.00	26-Aug-21	\$2,500.00	26-Sep-21	\$2,500.00
31-Jul-21	\$2,500.00	27-Aug-21	\$2,500.00	27-Sep-21	\$2,500.00
1-Aug-21	\$2,500.00	28-Aug-21	\$2,500.00	28-Sep-21	\$2,500.00
2-Aug-21	\$2,500.00	29-Aug-21	\$2,500.00	29-Sep-21	\$2,500.00
3-Aug-21	\$2,500.00	30-Aug-21	\$2,500.00	30-Sep-21	\$2,500.00
4-Aug-21	\$2,500.00	31-Aug-21	\$2,500.00	1-Oct-21	\$2,500.00
5-Aug-21	\$2,500.00	1-Sep-21	\$2,500.00	2-Oct-21	\$2,500.00
6-Aug-21	\$2,500.00	2-Sep-21	\$2,500.00	3-Oct-21	\$2,500.00
7-Aug-21	\$2,500.00	3-Sep-21	\$2,500.00	4-Oct-21	\$2,500.00
8-Aug-21	\$2,500.00	4-Sep-21	\$2,500.00	5-Oct-21	\$2,500.00
9-Aug-21	\$2,500.00	5-Sep-21	\$2,500.00	6-Oct-21	\$2,500.00
10-Aug-21	\$2,500.00	6-Sep-21	\$2,500.00	7-Oct-21	\$2,500.00
11-Aug-21	\$2,500.00	7-Sep-21	\$2,500.00	8-Oct-21	\$2,500.00
12-Aug-21	\$2,500.00	8-Sep-21	\$2,500.00	9-Oct-21	\$2,500.00
13-Aug-21	\$2,500.00	9-Sep-21	\$2,500.00	10-Oct-21	\$2,500.00
14-Aug-21	\$2,500.00	10-Sep-21	\$2,500.00	11-Oct-21	\$2,500.00
15-Aug-21	\$2,500.00	11-Sep-21	\$2,500.00	12-Oct-21	\$2,500.00
16-Aug-21	\$2,500.00	12-Sep-21	\$2,500.00	13-Oct-21	\$2,500.00
17-Aug-21	\$2,500.00	13-Sep-21	\$2,500.00	14-Oct-21	\$2,500.00
18-Aug-21	\$2,500.00	14-Sep-21	\$2,500.00	15-Oct-21	\$2,500.00
19-Aug-21	\$2,500.00	15-Sep-21	\$2,500.00	16-Oct-21	\$2,500.00
20-Aug-21	\$2,500.00	16-Sep-21	\$2,500.00	17-Oct-21	\$2,500.00
		17-Sep-21	\$2,500.00	18-Oct-21	\$2,500.00
		18-Sep-21	\$2,500.00	19-Oct-21	\$2,500.00
		19-Sep-21	\$2,500.00	20-Oct-21	\$2,500.00
		20-Sep-21	\$2,500.00		

TOTAL \$67,500.00
Applied to PERMIT "D"
ESTIMATE #5

TOTAL \$77,500.00
Applied to PERMIT "B"
ESTIMATE # 5

TOTAL \$75,000.00
Applied to Permit A & B
"A" - \$ 37,500.00
"B" - \$ 37,500.00

Sent from my iPhone

Begin forwarded message:

From: "Hillier, William" <WilliamHillier@gov.nl.ca>
Date: November 9, 2021 at 11:28:11 AM NST
To: Joshua Collins <josh_56@icloud.com>
Subject: RE: Full Province Schedule Update

Josh,

Thanks for the data albeit the basic schedule outline is not a contractual basis for decisions on liquidated damages.

Liquidated damages have been applied where ECC have not progressed work to meet the contractual schedules. Should ECC feel there are valid reasons to obtain contract extensions it will be necessary for ECC to request such. The request must detail the justification outlining the contractual basis for the extension. In the absence of such the Department are applying liquidated damages due to ECC non-compliance with the contract schedules. Should there be valid justification and approved contract extensions the Department will revisit any liquidated damages that have been applied.

In speaking with many Regions it is my understanding that Department Regional Engineers and/or project managers have not received adequate information related to ECC plans.

I would suggest that you urgently engage with the appropriate Regional Engineers and/or project managers to develop acceptable plans for work completion.

The Department is very concerned with ECC project progress. The weather has been suitable for asphalt work albeit ECC have not performed any such work for several days. A stop work order had to be issued as ECC were not adhering to permit conditions including but not limited to attempting to use the site for private work. Condition 7 of the permit was clear that private work could not be undertaken. There was never in restriction for working on Department projects. I am fairly certain that your site team were aware of such. ECC personnel have been allowed access to the site as needed and the Regions have been asking for a plan. Due to no communication and no work by ECC a default letter was issued for your contract 45-20.

I hope that ECC are committed to continuing work on Department contracts and perform asphalt until weather prevents continuation. Should ECC be ready to commence asphalt on Department contracts than I would suggest you urgently make contact with the appropriate Department representative. I would also suggest that you respond appropriately to the default letter for 45-20.

Regards,

Bill H

From: Joshua Collins <josh_56@icloud.com>
Sent: Wednesday, November 3, 2021 2:00 PM
To: Hillier, William <WilliamHillier@gov.nl.ca>
Subject: Re: Full Province Schedule Update

William,

Regarding the email below can you please advise when I can expect payment for relief of liquidated damages applied on separate contracts and not in accordance to the global schedule.

Thank you,
Josh Collins

Sent from my iPhone

On Aug 11, 2021, at 10:40 AM, Hillier, William <WilliamHillier@gov.nl.ca> wrote:

ECC have a few ongoing and awarded projects. Could you please provide a schedule outline for all of your awarded projects?

As a minimum for each project I would like to see:

- Mob date
- Start subgrade
- End subgrade
- Start Asphalt
- End Asphalt
- Planned Project completion
- Contract completion date

As an FYI the Department is applying LD's if schedule completions are not met. When there are multiple awards there is an ability to modify at the sole discretion of the Department (as per the contract SGC). If that's a potential it is important to do that proactively. It's not a given but sometimes will be considered. It is not typical to allow extensions to the following year except in special situations.

Please provide in 1 excel file. Please advise when you can provide this.

Thanks,

Bill Hillier
Director, TI Highway Design and Construction
Email: williamhillier@gov.nl.ca

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Government of Newfoundland and Labrador
Department of Transportation & Infrastructure
Western Region

November 08, 2021

Edward Collins Contracting Ltd.
Box 51 Jerseyside Placentia Bay, NL
A0B 2G0

Attention: Josh Collins

Re: 45-20PHP Default of Contract

Dear, Mr. Collins

Due to the lack of performance on the 45-20PHP project we consider this contract to be currently in default as per GC 10.2 outlined in the contract documents. At this time we will require ECC to immediately provide to this department an acceptable plan and schedule on how you plan to successfully complete this year all of the remaining work as outlined in the scope of work for this project.

If we do not immediately return to work and or we do not receive an acceptable plan and schedule from you within the next 5 (five) Calendar days, the department will consider to move forward in the termination of this contract as outlined under the GC enclosed in the tender documents.

Sincerely,

Dennis Coley District Engineer Western Region

c.c.: William Hillier Director Transportation and Infrastructure (HDC)



Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Director of Highway Design & Construction

COR/2022/03463

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

RE: TI Response to ECC April 19/2022 Notice of Default; Contract 46-21PHP Road and Bridge Rehabilitation work on TCH – Central Region

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms. The Department would like to highlight that it has also made good faith payments for materials stockpiled which are yet to be installed by ECC in accordance with the Contract.

As per Contract SGC 3, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,

A handwritten signature in blue ink, appearing to be "Bill Hillier", with a long horizontal stroke extending to the right.

Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Wade Waterman

COR/2022/03462

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

**RE: TI Response to ECC April 19/2022 Notice of Default; Contract 12-21PHC
Culvert Replacements & Rehabilitations on the TCH Avalon Region**

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms.

As per Contract SGC 3, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,



Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Bill Skanes

COR/2022/03464

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

RE: TI Response to ECC April 19/2022 Notice of Default; Contract 45-20PHP West Coast Asphalt

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms. The Department Regional Teams and ECC previously discussed the work that it believes to be under the quoted value of \$88,526.18 and all quantities have been paid using the applicable contract rates. The Department is not aware of the specifics of the quoted \$30,459.87 but it believes that all quantities received has been paid in accordance with the contract rates.

As per Contract SGC 9, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,



Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Dennis Coley

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE

PROJECT # 45-20 PHP

DAMAGES FOR NON-COMPLIANCE WITH APPROPRIATE SAFETY MANAGEMENT REQUIREMENTS

Infractions include but not limited to:

- 1) Contractor shows lack of commitment and support for appropriate safety management system and site specific safety plan.
- 2) Violation of any portion of section 190 or the contractors SSSP without appropriate investigation and immediate rectification. This includes not adhering to their SWP's, safety procedures, OH &S Act and regulations, and policies

Written Notice given to ECC on August 26th,2020

INFRACTION	DATE	\$/DAY
1	29-Aug-20	\$500.00
2	3-Sep-20	\$500.00
3	8-Sep-20	\$500.00
4	9-Sep-20	\$1,000.00
5	10-Sep-20	\$1,000.00
6	11-Sep-20	\$1,000.00
7	16-Sep-20	\$1,000.00
TOTAL		\$5,500.00

Halbot, Judy

From: Fleming, Michael
Sent: Wednesday, August 26, 2020 9:31 PM
To: 'Joshua Collins'
Cc: Spencer, Barry (TW); Aylward, Jonathan; King, Jonathon; Halbot, Judy; Stacey Burton; Rose, Jennifer A (TW); Pike, Selma; Coley, Dennis
Subject: Written Warning---SGC #13 Project 45-20PHP
Attachments: Monthly Report_.pdf; Brad Bordeleau.jpg
Importance: High

Josh,

This email will constitute your written warning regarding violation of SGC #13. A minimum of one written warning is required throughout the duration of the contract for safety infractions; after such, the next three infractions will result in damages at a price of \$500/day and each successive infraction \$1000/day. I have instructed Transportation and Infrastructure workers to closely monitor the situation and report any findings accordingly. Below are the events leading up to this written warning.

- August 14, 2020: Near miss collision incident on Route 460 (Whites Road) due to improper procedures being followed when installing signage (e-mail was sent to ECC on August 15 regarding the incident and a written statement from the individual involved in the near miss was received on August 26).
 - ECC failed to disclose and report the near miss collision
 - ECC failed to follow proper procedures when installing signage
 - ECC did follow-up and completed a toolbox discussion.
- August 16, 2020: Near miss collision incident on Route 460 (Whites Road) when a vehicle proceeded though an active construction zone and the counter weight of the excavator passed over the center line nearly striking the vehicle (written statement from the individual was received on August 26).
 - ECC failed to disclose and report the near miss collision
 - ECC failed to follow proper procedures in order to provide a safe work zone
- August 16, 2020: Near miss collision incident on Route 460 (Whites Road) when a vehicle was proceeding through a construction zone and a dump truck was backing up towards the on-coming vehicle. A flags person directed the passenger vehicle to drive in the ditch to avoid a head on collision (written statement from the individual was received on August 26).
 - ECC failed to disclose and report the near miss collision
 - ECC failed to follow proper procedures in order to provide a safe work zone
- August 18, 2020: Seven OHS deficiencies were noted by a Service NL OHS Inspector on two job sites on Route 460 (See Monthly Report Attachment)
- August 18, 2020: Four OHS orders were issued to ECC by Service NL (OHS Inspections Division; See Monthly Report Attachment).
- August 11 to August 26, 2020: Throughout the entire duration of the contract thus far, even after previous warnings by T&I and ECC, Brad Bordeleau (Site Foreman) continues to disregard PPE requirements by 1) not having his legs covered with protective clothing while on the job site as required

by s. 73 and 78 of the OH&S Regulation, and s. 190.18 of T&I Specifications and also 2) having safety boots below his ankle which is in violation of ECC's SSSP SOP C.1 Personal Protective Equipment (See Attachment Pic taken on August 26, 2020 and August 17 Site Safety Inspection & Hazard Assessment Form found in the Attached Monthly Report).

Again, penalties will commence immediately for any further safety infractions that occur throughout the duration of this contract. Also note, that the Department reserves the right to shut-down the work and/or terminate the Contract where the Contractor fails to observe an appropriate safety management system, the provisions of Section 190 and where the Department's Resident Engineer and the Department believe such action is warranted from a safety and/or contractual perspective.

Josh, its best that we work together to keep everyone safe while completing the required work.

Regards,

Mike

Halbot, Judy

From: Fleming, Michael
Sent: Thursday, September 17, 2020 2:21 PM
To: Halbot, Judy
Subject: RE: St. Andrews

Judy: this is what I have recorded up to September 09. Johnny has additional items on his daily sheets. Call me at 647-3741

- Saturday, August 29: \$500
- Thursday, September 03: \$500
- Tuesday, September 08: \$500
- Wednesday, September 09: \$1000

From: Halbot, Judy <JudyHalbot@gov.nl.ca>
Sent: Thursday, September 17, 2020 11:51 AM
To: Fleming, Michael <MichaelFleming@gov.nl.ca>
Subject: RE: St. Andrews

Hi Mike

Do you have a summary of the days ECC were in LD since you gave them the written warning?
We will be applying LD this estimate.
Or will I take the info from Johnny's Daily Construction Report?

Judy

From: Fleming, Michael <MichaelFleming@gov.nl.ca>
Sent: Thursday, September 17, 2020 11:30 AM
To: Halbot, Judy <JudyHalbot@gov.nl.ca>
Subject: RE: St. Andrews

2200m of ditching on Route 407

Mike

From: Halbot, Judy <JudyHalbot@gov.nl.ca>
Sent: Wednesday, September 16, 2020 1:47 PM
To: Fleming, Michael <MichaelFleming@gov.nl.ca>
Subject: St. Andrews
Importance: High

Hi Mike

Would you ask Barry to email me the ditching measurement for St. Andrews as well as Flag Hours?

Thanks
Judy

DAILY CONSTRUCTION REPORT

REPORT No. 1 DATE: 8/25/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT OF RTE (469)
WEATHER: OVERCAST 480, 405, 406, 407
TEMPERATURE RANGE: 14° TIME ARRIVED ON SITE: 7AM
NAME OF CSO SAFETY STACY BURTON NAME OF SAFETY LEAD HAND: _____
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAW
WORK COORDINATOR: BRAD BORDERLAW
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1- 210G J. DEERE EXCAV.
1- CS550 CAT ROLLER
1- DPU 655 W/ TAMPER
1- 272D² BOBCAT w/ MILLING ATTACHMENT
1- 30SK J. DEERE BACKHOE

DETAILS OF WORK BEING PERFORMED TODAY

- ARRIVED ON SITE @ 7AM. ALL SIGNAGE SETUP WAS CORRECT AND AT PROPER DIST. ACCORDING TO TCM.
- ECC HAD TOOLBOX/SAFETY MEETING @ 7AM PRESENTED BY BRAD.
- ECC STARTED ON CULV #121 AND COMPLETING TO GOV'T SPE. (MAINTAINING PROPER SLOPES, TAMPING, ROLLING, TOPPING WITH CLASS "A")
- BRAD WEARING SHORTS ON JOB SITE TODAY. I TOLD HIM I KNEW SOMEONE SPOKE TO HIM ABOUT HIS SHORTS BUT WHERE THIS IS MY FIRST DAY I HAD TO DO MY DUE DILIGENCE AND TELL HIM ABOUT HIS SHORTS. I ADVISED BRAD THAT ITS AN OHS REGULATION TO WEAR PANTS ON THE WORK SITE AND THAT HE (BRAD) SHOULD BE AWARE OF THAT AS WELL, HAVING 7 YRS WITH D.O.T IN CLARENVILLE. HE SAID HE FOUGHT WITH D.O.T IN CLARENVILLE ABOUT THE PANTS ISSUE, THAT HE DID WEAR PANTS BUT ROLLED THEM UP AND IT WAS STILL AN ISSUE. I ADVISED BRAD THAT I WOULD HAVE TO SEE ANYTHING HAPPEN OR PENALTIES APPLIED DUE TO NON-COMPLIANCE WITH AN OHS REGULATION. HE SAID HE HAS PANTS IN HIS TRUCK AND WILL PUT THEM ON BUT WILL CONT. TO ROLL THEM UP. I SPOKE WITH HIM @ ~9AM, IT IS NOW 11AM AND HE STILL HAS SHORTS ON. I TOOK A PICTURE AND SENT IT TO JUNE FOR OUR FILES.
- AS OF TODAY, ALL UNNECESSARY EQUIP. IS OFF ROAD AND EXCAV. STOPS

DAILY CONSTRUCTION REPORT

REPORT No. 2 DATE: 8/26/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE / PAVE RTE 460, 404, 405, 407, 480
WEATHER: OVERCAST / RAIN
TEMPERATURE RANGE: 18° TIME ARRIVED ON SITE: 7AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: BRAD BORDERLAU
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAU
WORK COORDINATOR: BRAD BORDERLAU
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1- 210G J. DEERE EXCAV
1- CS-583E CAT ROLLER
1- 310SK J. DEERE BACKHOE
1- DPU 656S TAMPER
1- 2720² BOBCAT w/ MILLING ATTACHMENT

DETAILS OF WORK BEING PERFORMED TODAY

- ARRIVED ON SITE @ 7AM AND CONTRACTOR NOT ON SITE. CALLED BRAD AND HE DELAYED WORK UNTIL 8AM. BRAD DIDN'T INFORM ME OF THIS CHANGE.
- * - BRAD WEARING SHORTS AGAIN TODAY.
- ECC STARTED REPLACEMENT ON CULV #119 @ 8AM. ONLY 12M ALLOTTED TO INSTALL, BUT INSTALLED 12.5M TO TRY AND GET PROPER SLOPE. NO NOTES ON ORIGINAL X-SECTIONS ABOUT EXTRA ADDED LENGTH REQ. ON CERTAIN CULV'S, SAME PROB WITH #187. ACTUALLY COULD OF USED EXTRA 1-1.5m ON #119 BUT ONLY HAS 0.5m EXTRA TO WORK WITH.
- #119 COMPLETED @ 1PM, ECC MOVED TO #118.
- #118 COMPLETED @ 4:45 PM. ECC STARTED BYPASS ON #116
- GRADING CREW OUT @ CAPE (PATCH #4) MILLING D/W'S IN PREP FOR ASPHALT
- BRAD WAS ON THE FENCE ABOUT STARTING #116. AT 5:30 HE TOLD ME THAT THEY WOULD REPLACE IT TOMORROW MORNING. ME AND SHEILA LEFT SITE @ 5:35 PM.

DAILY CONSTRUCTION REPORT

REPORT No. 3 DATE: 8/27/20 CONTRACTOR: ECL
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/ANE VARIOUS SECT RTE 460
WEATHER: 480, 405, 406, 407
TEMPERATURE RANGE: _____ TIME ARRIVED ON SITE: 9:30am
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: BRAD BORDERLAW
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAW
WORK COORDINATOR: BRAD BORDERLAW
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1- 2106 J. DEERE EXCAV
1- CS-588E CAT ROLLER
1- 310SK J. DEERE BACKHOE
1- DPU 6555 TAMPER
1- 2720² Bobcat w/mixing attachment

DETAILS OF WORK BEING PERFORMED TODAY

- ARRIVED ON SITE @ 9:30AM, 1ST 6 M INSTALLED WHEN I ARRIVED.
- I WENT TO RTE 404/405 WITH KEVIN LOCKE + TAKE BARCOCK TO SHOW DRAINING/DITCHING AREAS.
- WHEN I ARRIVED IN CAMPBELL'S CREEK THEY WERE PUTTING "B" AND "A" ON A.T. THEY SWITCHED SIDES @ 10AM.
- ETC ~~REMOVED~~ INSTALLED LAST 6 M TO HWY SPEC. CULV #116 FULLY COMPLETED @ 11:30AM.
- BRAD BORDERLAW CALLED ME @ 11:45AM AND SHUT JOB DOWN TO HEAVY RAIN AND WIND (50-60mm AND ~70-80KM WIND)
- WENT AND COMPLETED OFFICE WORK FOR REST OF DAY. ANSWERING QUESTIONS ON 45-20 PHP FOR FINAL EST. IN EVENING FOR APRIL/VICKI.
- * ALL STORAGE OUT AND MEETS TCM SPEC
- FLAGGERS PROPER DIST. FROM FLAG SIGN AND WORK ZONE.
- BRAD BORDERLAW WEARING PANTS AND LEGS COVERED
- NO PORTA POTTY/WASH STN ON SITE STILL

DAILY CONSTRUCTION REPORT

REPORT No. 4 DATE: 8/28/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT. RTE (469)
WEATHER: SUNNY 400, 405, 406, 407
TEMPERATURE RANGE: 17° TIME ARRIVED ON SITE: 7AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: BRAD BORDERLAU
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAU
WORK COORDINATOR: BRAD BORDERLAU
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1- 2106 J. DEERE EXCAV
1- CS-5836 CAT ROLLER
1- DPU 6555 TAMPER
1- 360SK J. DEERE BACKHOE
1- 272D² BOBCAT w/ MILLING ATTACHMENT

DETAILS OF WORK BEING PERFORMED TODAY

- ARRIVED ON SITE, CONTRACTOR WORKING. ALL SIGNAGE CORRECT ACCORDING TO TEM. BRAD WEARING PANTS (LOIS COVERED), FLAGGERS PROTECT DIST FROM SIGN AND WORK ZONE. STILL NO WASHROOM/WASH STN ON SITE.
- CONTRACTOR CHANGING CULV #115 THIS MORNING. GRADES ON CULV, BUT WHEN BRAD AND I LOOKED, IF THE CULV WAS SET AT THAT GRADE THERE WOULDN'T BE ENOUGH COVER ON THE CULV. I CHANGED GRADE SO THAT WE WILL HAVE 0.5M COVER OVER THE 1000MM CULV AND PUT CULV. ON 1% GRADE. IN DOING THIS, ECC WILL HAVE TO ~~DETECT~~ CLEAN BELT ~60M FROM OUTLET. WILL COMPENSATE WITH 1 BACKHOE HR. ~~272D² BOBCAT~~
- TRAVELLED TO CULV #114 @ 1:40PM AND MADE BY-PASS. ASPHALT IS CONSISTANT @ 150MM THRU CAMPBELL'S CREEK. AT 1:55, EXCAVATOR UNCOVERED WHAT LOOKS TO BE A 25-50 PAR CABLE. ~~BRASS~~
- BELL ALIANT GUY CAME BY AND I FLAGGED HIM DOWN, THE CABLE ECC BROKE WAS A 50 PERSON PHONE CABLE. WORK STOPPED ASAP. I/BRAD SPOKE TO BELL GUY AND HE SAID IT WAS OK TO FINISH CULV, BUT NOT TO FELL IN SHOULDER BECAUSE IT HAS TO BE REPAIRED TODAY.
- CALLED MIKE AND ADVISED HIM WHAT HAPPENED. ECC DIDN'T DO ANY LOCATES (UT S6C 21 CLEARLY STATES UNDERGROUND LINES/LOCATES ARE CONTRACTOR'S RESPONSIBILITY
- MIKE CALLED DENNIS AND ADVISED HIM OF SITUATION, DENNIS SAID 100% NO MORE

DAILY CONSTRUCTION REPORT

REPORT No. 5 DATE: 8/29/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT OF RTE 460
WEATHER: 480, 40S, 406, 407
TEMPERATURE RANGE: _____ TIME ARRIVED ON SITE: 7:00AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: BRAD BORDERLAW ? KAN JR.
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAW
WORK COORDINATOR: BRAD BORDERLAW
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1 - 2106 J. DEERE EXCAV
1 - 3106 J. DEERE BACKHOE
1 - DPU 6500 TAPER
1 - CS-5835 CAT ROLLER

DETAILS OF WORK BEING PERFORMED TODAY

- ARRIVED ON SITE @ 7:00AM, ALL SIGNAGE CORRECT, BRAD HAD PANTS ON WITH LEGS COVERED.
- ECC @ CAPE TODAY INSTALLING #193 ~20M BACK FROM ORIGINAL LOCATION.
- BRAD PREVIOUSLY SAID BUSTER WAS REQ., BUT EXAMINED WITH NO ISSUE, IT WAS ALL FERT AND SHALE ROCK.
- 12.5M WAS ALLOTTED TO BE INSTALLED BUT I INSTALLED 14.0M OF 600MM. OWNER OF PROPERTY (STEVE LAINEY) HAD BUILT OUT SH FOR D/W AND SO WATER RUNOFF WOULDN'T FLOOD LAND IN NEW LOCATION WHERE #193 WILL BE INSTALLED BUT 14M THERE TO REBUILD WHAT MR. LAINEY HAD DONE TO HIS PROPERTY.
- AFTER CULV #193 WAS INSTALLED, ECC WENT TO CULV #187 TO INSTALL 2 1M PIECES OF 1000MM TO I/L AND O/L SO WE COULD REESTABLISH SHOULDER. I ASSURED MIKE THAT ENDS WERE SECURE AND WILL NOT BREAK OFF.
- AFTER CULV'S WERE COMPLETED, I LEFT SITE, CREW ENDED OFF DAY DOING RIP RAP IN CAPE. ECC ENDED @ 5PM.

DAILY CONSTRUCTION REPORT

REPORT No. 6 DATE: 8/30/20 CONTRACTOR: ECC
PROJECT NO.: 45-20PHP PROJECT NAME: URGENT/PAVE VARIOUS SECT. OF RTE 460,
WEATHER: SUNNY 460, 405, 406, 407
TEMPERATURE RANGE: 14°C TIME ARRIVED ON SITE: 8:30 AM
NAME OF CSO STACY BURTON NAME OF SAFETY LEAD HAND: ?
CSO/LEAD HAND PRESENT ON SITE: YES NO
SUPERVISOR/SUPER-INTENDENT: BRAD BORNERLAW
WORK COORDINATOR: BRAD BORNERLAW
TRAFFIC CONTROL IN PLACE: YES: ✓ NO: N/A:

LIST OF EQUIPMENT ON SITE

DETAILS OF WORK BEING PERFORMED TODAY

- DUE TO ~~HAZARD~~ TRAFFIC ACCIDENT/SCENE THAT ECC CAME UPON ON THERE WAY HOME ON RTE 460 (BY ABBOTS STORE), BRAD AND TASH (OWNER) GAVE THE CREW A DAY OFF TO DEBRIEF AND ~~WORKING~~ RELAX.
- I CHECKED CUTS ON RTE 460 TODAY, GOOD SHAPE BUT WILL ADVISE ECC TO TOP THEM UP DUE TO RAIN.

DAILY CONSTRUCTION REPORT

REPORT No. 7 DATE: 8/31/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT OF RTE 460
WEATHER: LIGHT RAIN 180, 404, 405, 407
TEMPERATURE RANGE: 14°C TIME ARRIVED ON SITE: 8:10 AM
NAME OF CSO STEVEY BURTON NAME OF SAFETY LEAD HAND: _____
CSO/LEAD HAND PRESENT ON SITE: YES _____ NO _____
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAW
WORK COORDINATOR: BRAD BORDERLAW
TRAFFIC CONTROL IN PLACE: YES: ✓ NO: _____ N/A: _____

LIST OF EQUIPMENT ON SITE

1 - 310SK JOHN DEERE BACKHOE
1 - DPU 6595 TRAYER
1 - 200 JOHN DEERE EXCAV.

DETAILS OF WORK BEING PERFORMED TODAY

- ECC HAD 2 OPERATIONS TODAY.
- WATCHING ON RTE 465. I WENT OUT TO SEE WORK ZONE AND TALK TO JACK (FORMAN). SIGNS WERE UP AND ALL CORRECT. ECC HAD 3CS SET IN LAIT LEELEEN INTERSECTION.
- ASKED JACK TO DITCH FROM ENR20M TO CULVERT BY RAILWAY BED. CULV IS COLLAPSED ON I/L SIDE AND HOLES IN NEW ASPHALT PLACED LAST YEAR. CALLED MIKE TO SEE IF WE COULD CHANGE IT, HE INFORMED DENNIS OF REQUEST. DENNIS SAID WE WEREN'T GOING TO REPLACE IT THIS YEAR.
- REP RAP CREW OUT @ CAPE UNTIL BRAD CAN OBTAIN LOCATES FOR LAST 4 CULV. ON RTE 460. BRAD CALLED @ 8:45 AM TO LET ME KNOW HE WAS MEETING BELL ALIANT TO GET THE REMAINDER OF THE LOCATES DONE ON RTE 460 (CULV #109, 107, 89, 70). WE WILL START @ CULV. EXCAVATIONS AGAIN TOMORROW MORNING. I WENT ON BRAD'S SITE TO VIEW HIS PPE.
- WENT TO VIEW AND TAKE PICTURES OF REP RAP. REP RAP COMPLETED AND VERY CLEAN LOOKING.
- ENDED DAY @ 6 PM

DAILY CONSTRUCTION REPORT

REPORT No. 8 DATE: 9/1/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/AVG VARIOUS SECT RTE 460
WEATHER: SUNNY 480, 404 (405) 407
TEMPERATURE RANGE: 16° TIME ARRIVED ON SITE: 8 am
NAME OF CSO: STACEY BERTON NAME OF SAFETY LEAD HAND: BOBBY WHITE?
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAW
WORK COORDINATOR: BRAD BORDERLAW
TRAFFIC CONTROL IN PLACE: YES: ☐ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1- 210G T. DEERE EXCAV
1- 310SK T. DEERE BACKHOE
1- CS553E CAT ROLLER
1- D9L 655S TAMPER
1- 200G T. DEERE EXCAV (DITCHING - RTE 405)

DETAILS OF WORK BEING PERFORMED TODAY

- ARRIVED ON SITE @ 8 AM TODAY (RTE 460). I WENT ON RTE 480 TO FINALIZE G-ROLL PERMIT FOR ECC IN AM
- ECC CULV. CREW DOING CLEANUP ON #114. RE-ESTABLISH SIGN ON LT SHOULDER FROM WHERE BELL REPAIRED PHONE LINE. ECC MOVED TO CULV #107 TO COMPLETE REPLACEMENT UNTIL BRAD GOT A PUMP TO REMOVE WATER ON #109.
- STARTED #107 @ 9:15 AM AND COMPLETED IT @ 3 PM. EVERYTHING WAS DONE TO SPEC. SIGNAGE WAS UP AND CORRECT. * BRAD'S PPE WAS GOOD, LEGS COVERED *
- ECC MOVED TO #109 AND BROKE ASPHALT @ 3:20 PM. SLOW GOING WHERE BELL LINE WAS. NO ISSUES WITH ANYTHING ON SITE TODAY. CULV #109 COMPLETED @ 7:30 PM.
- CONTRACTOR HAD TO DITCH OUTLET @ #107. 1 BACKLOG HR.
- ORIGINAL V-SECTIONS WERE COMPLETED CORRECT ON RTE 460, BUT NO NOTES MADE. HAD TO CUT 1 M OFF OF #107 ON INLET AND TOOK THE 1 M PIECE AND ADDED TO #109, ~~BEFORE~~ HAD ECC PUT 1 M ~~PIECE~~ PIECE JOINING THE CULV'S UNDER THE E. SO THE 1 M PIECE WOULDN'T BE ON THE END.
- DITCHING CREW CONT. ON RTE 405 TODAY. NO ISSUES ON THIS SITE. EXPECTS TO BE DONE MID NEXT SHIFT ON RTE 405
- DITCHING CREW HAS 3 FLAGGERS. 2 FOR OPERATION AND 1 @ DUMP SITE.

DAILY CONSTRUCTION REPORT

REPORT No. 9 DATE: 9/2/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UNGRAVE / AVE VARIOUS SECT RTE 410
WEATHER: CLEAR 400, 404, 405, 407
TEMPERATURE RANGE: 11° TIME ARRIVED ON SITE: 7:30 AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: ROBERT WHITE JR. & STEVEN JR.
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐ RTE 405
SUPERVISOR/SUPER-INTENDENT: BRAD BORDENLAW / JACK
WORK COORDINATOR: BRAD BORDENLAW / JACK
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1 - 210G J. DEERE EXCAV
1 - 310SK J. DEERE BACKHOE
1 - CS583E CAT ROLLER
1 - DPU 655S TAMPER
1 - 200G J. DEERE EXCAV (DITCHING CREW)

DETAILS OF WORK BEING PERFORMED TODAY

- STARTED DAY BY CLEANING UP @ CULV #109 THEN MOVED TO CULV. #89 FOR REPLACEMENT @ 8 AM.
- BROKE ASPHALT ON #89 @ 9 AM. ALL SIGNAGE GOOD, BRADS ATTIRE GOOD, CULV INSTALLED AND TAMPED TO SPEC. FINISHED CULV REPLACEMENT @ 2:45 PM AND MOVED TO CULV #70 (BY ABBOTS STORE)
- SELMA PIKE (ONS) ARRIVED ON SITE @ ~2 PM. SHE SAID SITE SIGNAGE AND APPROPRIATE DISTANCES OF FLAG PERSONS TO WORK ZONE WAS GOOD. SHE ASKED GENERAL QUESTIONS ABOUT CSO/CSO LEAD HAND, MAINTAINING PROPER SLOPES, BRAD ANY PROBLEMS WITH BRAD OR CREW, IF THERE IS A SWAMP ON SITE, PERMITS ETC. I ADVISED HER OF BELL LATE NOT DONE BY ECC AND LINE WAS TIRE OUT OF GROUND ON A CULV REPLACEMENT. ADVISED HER THAT REMAINING CULV REPLACEMENTS WAS STOPPED UNTIL ECC OBTAINED LATE AND THAT ECC HAD IT DONE ON MONDAY MORNING. TOLD HER ABOUT WORK ON RTE 400 AND SHE WILL TALK TO DENNIS ABOUT SAT PHONE.
- BROKE ASP ON #70 @ 3 PM. WORKED WITHIN WEST COAST EXCAVATION SIGNAGE. SPOKE WITH WCE FORMAN (PHILLIP) AND HE WAS OK WITH THIS. CULVERT INSTALLED TO SPEC AND COMPLETED BY PM
- DITCHING CREW CONTINUES DITCHING ON RTE 405. WILL CHECK ON THEM TOMORROW MORNING.

DAILY CONSTRUCTION REPORT

REPORT No. 10 DATE: 9/3/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT RTE 460,
WEATHER: OVERCAST/RAIN (480, 404, 405, 407)
TEMPERATURE RANGE: 12° TIME ARRIVED ON SITE: 9 AM/10 AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: KEN CERNEW
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAU/JACK
WORK COORDINATOR: BRAD BORDERLAU/JACK
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1- 2906 J. DEERE EXCAV. (DITCHING)
2- TT

DETAILS OF WORK BEING PERFORMED TODAY

- ON SITE FOR 10 AM, CREW ON RTE 480 WERE DITCHING AS THIS IS
TURN AROUND WAY. CREW ENDED DAY @ 12 NOON.
- ON SITE FOR 9 AM, CREW ON RTE 405 CONT. DITCHING OPERATION.
CREW ENDED DAY @

* NO WASHROOM ON SITE (RTE 480), BRAD IN TRUCK ALL MORNING, COULDN'T SEE
WHAT HE HAD ON.

FLAGGERS -> HOLLY WOODS 7AM-12PM: 5 HRS

BOBBY WHITE 7AM-12PM: 5 HRS

MATT HEATHERINGTON 7AM-12PM: 5 HRS -> DUMP SITE

ZACK JARA JUSTIN CLARK 7AM-1:30PM: 6.5 HRS

JORDAN ROMAIN 7AM-1:30PM: 6.5 HRS -> DUMP SITE

BERTHA BUTT 7AM-1:30PM: 6.5 HRS

RTE 480

RTE 405

DAILY CONSTRUCTION REPORT

REPORT No. 15-11 DATE: 9/8/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT. RTE 460,
WEATHER: OVERCAST/RAIN SUNNY 420, 404, 405, 407
TEMPERATURE RANGE: 18° TIME ARRIVED ON SITE: 8:30AM 7:30AM
NAME OF CSO STEVEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐ RTE 405
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAW / JACK
WORK COORDINATOR: BRAD BORDERLAW / JACK
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1 - 2006 J. DEERE EXCAV (DITCH RTE 405) ← 2 T
2 - 2906 J. DEERE EXCAV (DITCH RTE 400) ← 2 TT
000000

DETAILS OF WORK BEING PERFORMED TODAY

- WENT TO RTE 405 (ST. DAVIDS) WHERE JACK CREW CONT. DITCHING. EVERYTHING RUNNING SMOOTHLY AND DITCHING IS GOOD.
- LEFT RTE 405 AND WENT TO CHECK BRAD'S CREW ON RTE 400, 2ND CREW ON RTE 400 TODAY. PLAN IS TO HAVE 2 CREWS CHANGING CULVERTS.
- ALL CULVERTS NOT ON SITE SO BOTH CREWS SPENT THE FULL DAY DITCHING.
- CREWS ONLY HAD 1 TT PER EXCAV SO NOT ALOT OF DITCHING WAS DONE. APPROX. 700M OUT OF 1450M.
- SHEILA AND MYSELF MARKED OUT ALL THE CUTTING DISTANCES ON ALL 9 CULVERTS FOR ECC TO MAINTAIN A 1:1 SLOPE.
- STEVEY BURTON ON SITE TODAY. SPOKE ABOUT BATHROOMS AND BRAD ROLLING PANTS UP TO KNEES. STEVEY WORKING ON BATHROOM FACILITIES TODAY AND WILL SPEAK WITH BRAD AGAIN TODAY.
- * * NO WASHROOMS ON SITE
- * + BRAD HAD PANTS ON BUT ROLLED UP TO HIS KNEES.
- BRAD TOLD ME ON FRIDAY THAT CULV REPLACEMENT WILL START TUESDAY. STARTED WORK @ 6:30 AM TO BE ON SITE FOR 7:30AM BUT WHEN ARRIVED ON SITE, BOTH CREWS WENT DITCHING.

DAILY CONSTRUCTION REPORT

REPORT No. 12 DATE: 9/9/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/ABOVE VARIOUS SECT RTE 480
WEATHER: SUNNY 460, 404, 405, 407
TEMPERATURE RANGE: 15° TIME ARRIVED ON SITE: 9:30am
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: _____
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORNERLAW/JACK
WORK COORDINATOR: BRAD BORNERLAW/JACK
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1- 200G J. DEERE EXCAV (DITCHING)	} RTE 405	1- Intergal	} RTE 480
2- TANDEM		1- INGERSOLL RAND P20 P20K SERIES 100 ROLLER	
1- 290G J. DEERE EXCAV (CULV REPLACEMENT)		1- 290G J. DEERE EXCAV (DITCHING)	
1- DPU 6555 TAMPER		2- TT	
1- 3105K J. DEERE BACKHOE			

DETAILS OF WORK BEING PERFORMED TODAY

- SPOKE TO JACK ON RTE 405 (DITCHING). EVERYTHING RUNNING SMOOTHLY. SHOULD BE COMPLETED EARLY NEXT WEEK.
- ARRIVED ON SITE @ 9:30AM (RTE 480). CREW #1 REPLACING CULV #106 TODAY. ALL SIGNAGE OUT AND OK. CREW HAD 7.5m OF 900mm TAMPER/ROLLER TO SPEC. DIVERSION MADE AND TRAFFIC SWITCHED OVER BY 1:30PM.
- ECC WILL OPEN REMAINDER OF ROAD AND INSTALL FINAL 14m.
- CREW ONLY HAD TO TAKE DOWN 6 LENGTHS OF G. RAIL TO REPLACE OUTLET BUT I TOLD THEM TO TAKE DOWN 9 LENGTHS DUE TO 4 POSTS MISSING AND G. RAIL ON GROUND. WILL INSTALL NEW POSTS AND REINSTALL G. RAIL @ OLD SPEC.
- NEEDED ~900M TO CHANGE ALL 5 SECTION IN THIS 3KM STRETCH BUT ONLY HAD 700M IN TENDER. ADVISED MILE F. OF THIS BUT NO EXTRA \$ AVAILABLE FOR ALL NEW RAIL SO SOME RAIL WILL BE REINSTALLED @ OLD SPEC.
- CREW #2 CONT. DITCHING ON RTE 480 WITH 2 TT TODAY. DITCHING SHOULD BE CLOSE TO COMPLETION TODAY. ONLY 1600M IN CONTRACT.
- * - NO WASHROOMS ON SITE TODAY, BRAD HAD PANTS ON BUT ROLLED UP TO HIS KNEES *
- BRAD UNROLLED PANTS @ 5:30PM
- NEW ROLLER AND EXCAV OPERATOR, MAKES FOR A LONG DAY

DAILY CONSTRUCTION REPORT

REPORT No. 13 DATE: 9/10/20 CONTRACTOR: ECC
PROJECT NO.: 45-20PHP PROJECT NAME: UPGRADE/ANE VARIOUS SET. RTE 460
WEATHER: OVERCAST 480, 404, 405, 407
TEMPERATURE RANGE: 13° TIME ARRIVED ON SITE: 7:40 AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: _____
CSO/LEAD HAND PRESENT ON SITE: YES _____ NO _____ RTE 405
SUPERVISOR/SUPER-INTENDENT: BRAD BOERGLAU / BOB / TACK
WORK COORDINATOR: BRAD BOERGLAU / BOB / TACK
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: _____ N/A: _____

LIST OF EQUIPMENT ON SITE

1- 2006 J. DEERE EXCAV. (CULV. REPLACEMENT)	1- 2006 J. DEERE EXCAV. (DITCHING RTE 405)
1- 60CS-SIZE CAT ROLLER	
1- DAV 6555 TAMPER	
1- 3105K J. DEERE BACKHOE	
1- 2006 J. DEERE EXCAV. (DITCHING - RTE 460)	

DETAILS OF WORK BEING PERFORMED TODAY

- ECC CONT. DITCHING ON RTE 405 (ST. DAVIDS) NO ISSUES.
- ARRIVED ON SITE (RTE 460) @ 7:40 AM. ECC CONT. TO WORK ON CULV #106 AND BROUGHT ROAD TO GRADE. BRAD TOLD ME THEY USED 3 LOANS OF "A" AND ASKED IF I WANTED IT REMOVED AND BROUGHT TO SPEC WITH "B" + "A". I SAID I WAS OK WITH THE "A" BUT WE WOULD ONLY PAY THEORETICAL FOR "B" + "A" SPEC. BRAD WAS FINE WITH THIS. SHOULDERS ARE RE-ESTABLISHED BUT WAITING ON EXTRA ROCK TO COMPLETE SHOULDER. WILL BE HERE MID AFTERNOON AND THEN #106 WILL BE COMPLETED.
- WHILE WAITING FOR ROCK, ECC MOVED TO CULV #104 FOR REPLACEMENT AS THIS IS ONLY 2.8 M DEEP. I ADVISED BRAD, BOB AND CLIFF (operator) TO KEEP MAINTAINING A 1:1 SLOPE ON ALL CULV REPLACEMENTS. THEY WILL DO THIS.
- * - NO BATHROOMS ON SITE, BRAD HAS ALL PPE ON AND FULL LEGS COVERED. (1:25 PM) BRAD HAD PANTS ROLLED UP TO HIS KNEES. BRAD WEARING STEEL TOE DAKOTA SHOES. WASHROOMS ARRIVED ON SITE @ 1:30 PM.
- HAD 12.8 M IN GROUND @ 12:45 PM. STARTED BACK-FILLING TO SPEC
- * - SAFETY CONCERNS: WORKERS TOO CLOSE TO OPERATING EQUIP., OPERATOR KEEPS BACKFILLING WHILE WORKERS TAMING IN HOLE, OPERATOR ON STEPS OF MOVING EQUIP. (BACKHOE), & EXCAV. BUCKET IN AIR WHILE MEN WORKING WHEN IT SHOULD BE ON GROUND.

DAILY CONSTRUCTION REPORT

REPORT No. 14 DATE: 9/11/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT. RTE 460,
WEATHER: OVERCAST (460, 404, 405) 407
TEMPERATURE RANGE: 10° TIME ARRIVED ON SITE: 7:45AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐ RTE 405
SUPERVISOR/SUPER-INTENDENT: BRAD BORNERLAW / BOB / JACK
WORK COORDINATOR: BRAD BORNERLAW / BOB / JACK
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1- 2006 J. DEERE EXCAV. (DITCHING RTE 405)	1- 3106 J. DEERE BACKHOE.
1- 2906 J. DEERE EXCAV. (DITCHING RTE 460)	
1- 2906 J. DEERE EXCAV (CULV. REPLACE RTE 460)	
1- DPU 6555 TAMPER	
1- CS523E CAT ROLLER	

DETAILS OF WORK BEING PERFORMED TODAY

- ECC ON RTE 405, CONTINUED DITCHING TODAY. EVERYTHING ALL GOOD.
- ARRIVED ON SITE @ RTE 460 @ 7:45AM. ECC HAD STARTED REMOVING ASPHALT TO REPLACE CULV #102.
- CONTRACTOR HAD 12M INSTALLED BY 11PM AND STARTED BACKFILLING AND TAMPING AS PER SPEC. SWITCHED TRAFFIC OVER @ 1:10PM AND BEGAN TO EXCAVATE FOR FINAL 7M.
- 2ND CREW ON RTE 460 BEGAN DITCHING @ 7AM AND ENDED @ 2PM. AFTER DITCHING WAS COMPLETED, CREW GOURBED I/L AND O/L OF REMAINING CULVERTS TO BE REPLACED.
- ECC BROUGHT IN 3 LOADS OF ROCK TO STABILIZE SHOULDERS AND SLOPES ON CULV #106.
- CULV #102 => HAD TO PUT ~200mm OF CLASS B UNDER THE 12M INSTALLED TO STABILIZE BOTTOM. BOTTOM WAS LIKE TELLO. TOOK OUT USM AND REPLACED WITH CLASS "B". FINAL 7M OF INLET WAS A GOOD BOTTOM. NO CLASS "B" USED.
- FINAL 7M INSTALLED @ 2:40PM. ECC STARTED BACKFILLING.
- * - SAME SAFETY CONCERNS AS YESTERDAY *
- * - BRAD HAD LONG PANTS ON BUT ~~WAS WEARING STEEL TOE WORK SHOES~~ ← MY MISTAKE AND NEW STEEL TOE FOOTWEAR WITH ANKLE SUPPORT. PICTURE TO PROVE.
- I'VE EXPRESSED THESE SAFETY CONCERNS BEFORE WHEN CHANGING CULVS

DAILY CONSTRUCTION REPORT

REPORT No. 15A DATE: Sept 12/20 CONTRACTOR: ECC
PROJECT NO.: 415-20 PHP PROJECT NAME: UPGRADE/PAVE VARNUS SECT ATO
WEATHER: Foggy, mist 460, 418, 419, 415, 417
TEMPERATURE RANGE: 3°C - 14°C TIME ARRIVED ON SITE: 7:00am
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: Brad Bardenau / Bob
WORK COORDINATOR: "
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

John Deere 2906 Excavator
Cat Rubber Tire Backhoe
Wacker Neuson Plate Tamper

DETAILS OF WORK BEING PERFORMED TODAY

- Crew started Replacement of Culvert #97 @ 7:00am
- Foggy morning, 3°C
- Started on outlet side, Depth 2.8m. Excavated Material was suitable for Reuse. Outlet side placed at 9:00am. Crew Filling and Tamping in Half meter lifts.
- 3 meter sectioned was placed in middle at 10:45am
- Left Lane opened up and crew switched To Inlet side 11:20am
- Pipe # 97 Complete at 3:30pm. Class "A" placed and rolled. Excavator dressing up shoulder and slope now

DAILY CONSTRUCTION REPORT

REPORT No. 153 DATE: 9/12/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT RTE 460
WEATHER: OVERCAST/RAIN 480, 404, 405, 407
TEMPERATURE RANGE: 13° TIME ARRIVED ON SITE: 7:40 AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐ RTE 405
SUPERVISOR/SUPER-INTENDENT: BRAD BORDERLAW / JACK
WORK COORDINATOR: BRAD BORDERLAW / JACK
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

1 - 2006 J. DEERE EXCAV (DITCHING RTE 405) 1 - JIMBERLL RAIN 100 PD SERIES
1 - 2906 J. DEERE EXCAV (CULV REPLACE #103)
1 - 3105K J. DEERE BACKHOE } ~~SHARED WITH~~
1 - ~~CSO/LEAD HAND~~ ~~ROLLER~~ } ~~2ND CULV~~
1 - DPU 6555 TAMPER ~~CREW~~

DETAILS OF WORK BEING PERFORMED TODAY

- SPOKE TO JACK WHO IS DITCHING ON RTE 405, HE WILL BE FINISHED DITCHING THE 2 KM SECTION BY SUNDAY AND WILL MOVE TO 2ND AREA ON RTE 405 (300m) AND THAT SHOULD BE COMPLETED BY TUESDAY. I ADVISED JACK NOT TO DO DITCHING ON RTE 404 (ROBINSONS)
- ARRIVED ON SITE (RTE 480) @ 7:40 AM. 2 CULV CREWS WORKING TODAY. BRAD'S CREW WAS @ CULV #103 AND BOB'S CREW WAS @ CULV #97. KYLE HACKETT IS LOOKING AFTER CULV #97.
- ECC HAD BEGUN EXCAVATION ON INLET ON CULV #103 WHEN I ARRIVED. CULV ON O/L SIDE IS 3.6M DEEP. ECC BEGAN ON INLET AND HAD 12M IN GROUND @ 12 PM. STARTED BACKFILLING AND ~~TAMP~~ COMPACTING TO SPEC. ALOT OF BIG ROCK IN EXCAVATION THAT ECC USED TO RAP I/L & O/L OF CULVERT.
- ECC SWITCHED TRAFFIC OVER @ 2:40 PM AND STARTED EXCAVATING O/L (CULV #103)
- * - BRAD HAS PROPER FOOTWEAR ON AND LONG LEG PANTS ROLLED ALL THE WAY DOWN TODAY.*
- ECC HAD COMPLETED CULV #103 @ 8:00 PM. I STAYED TO MAKE SURE THE SHOULDERS WERE RE-ESTABLISHED. ECC WILL DO CLEANUP + RE ESTABLISH SLOPES TOMORROW.
- MIKE ON SITE @ ~5 PM TO VIEW PROGRESS. MIKE WAS HAPPY WITH WORK DONE SO FAR.

DAILY CONSTRUCTION REPORT

REPORT No. 16A DATE: Sept 13/20 CONTRACTOR: ECC
PROJECT NO.: 415-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT RTE
WEATHER: Overcast 4160, 4180, 4104, 4105, 4107
TEMPERATURE RANGE: 4°C - 12°C TIME ARRIVED ON SITE: 7:00am
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: Brad Borderlou / Bob
WORK COORDINATOR: "
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

John Deere 2906 (2)
Cat Rubber tire Backhoe
Roller
2 T.T TR

DETAILS OF WORK BEING PERFORMED TODAY

- Darryls crew started replacement of Pipe #98 @ 7:00am. Cliff's crew is dressing up Pipe they completed yesterday.
- 10:30am 2 sections of 1000mm Pipe placed in ground. Starting to backfill and Tamp now. Excavated material suitable for reuse.
- 1:00pm Last section of pipe was excavated and removed. No bedding needed on bottom.
- Pipe was installed at 2:46pm.
- Backfilled and properly tamped
- Crew placed more "B" than required. Only pay theoretical on this culvert.
- 5:30pm Class "A" Spread & rolled.

DAILY CONSTRUCTION REPORT

REPORT No. 16B DATE: 9/13/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT RTE 460,
WEATHER: SUNNY (480) 404 (405) 407
TEMPERATURE RANGE: 14° TIME ARRIVED ON SITE: 8am - 2pm 1:30pm
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐ RTE 405
SUPERVISOR/SUPER-INTENDENT: BRAD BOERELAO/BOB /JACK BARACK
WORK COORDINATOR: BRAD BOERELAO/BOB /JACK BARACK
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

- 1- 2006 J. DEERE EXCAV (DITCHING RTE 405)
- 2- TANDEM TRUCKS

DETAILS OF WORK BEING PERFORMED TODAY

- LEFT OFFICE @ 8AM AND DROVE OVER ALL CULV CROSSINGS ON RTE 460 FROM #35 (SIVILLE CROSSING/WHITE RD) TO #193 (CAPE ST. GEORGE). ALL CROSSINGS NEEDED TO BE ~~MAINTAINED~~ TOPPED UP.
- LEFT THE CAPE AND DROVE TO RTE 480 AND ARRIVED ON SITE @ ~11:30AM AND SPOKE TO BRAD ABOUT CUTS.
- * - BRAD WEARING PROPM PPE AND TAHT LEGS HAULED DOWN ALL THE WAY. *
- TOLD BRAD THAT ALL CUTS ON RTE 460 NEEDED REPAIR AND TOPPED UP AND THAT IT HAD TO BE DONE TODAY (SUNNY) BEFORE MONDAY MORNING DUE TO THE AMOUNT OF TRAFFIC ON RTE 460.
- I ADVISED BRAD THAT PROPM SIGNAGE AND TRAFFIC CONTROL MUST BE USED AS ECC WILL BE WORKING IN THE TRAVEL LANES. BRAD UNDERSTOOD AND AGREED TO DO SO.
- KYLE HACKETT/SHENIA WHITE WERE WITH ECC CREW #2 WHILE THEY WERE REPLACING CULV #98. CREW #1 ~~WAS~~ WAS DOING CLEANUP AND RE-ESTABLISHING SLOPES ON CULV CROSSINGS WHERE NEEDED.
- I LEFT SITE ON RTE 480 AND TRAVELLED TO RTE 405 TO SEE PROGRESS ON DITCHING. WHEN I ARRIVED, ECC DITCHING CREW HAD ~350m LEFT AND THEN ALL DITCHING ON RTE 405 AND PROJECT 45-20PHP WILL BE COMPLETED.
- ECC DITCHING CREW (JACK) HAD A NEW FLAGGER (ZACK JESSE) SINCE

DAILY CONSTRUCTION REPORT

REPORT No. 17 DATE: 9/14/20 CONTRACTOR: ECC
PROJECT NO.: 45-20 P1P PROJECT NAME: UPGRADE/PAVE VARIOUS SECT RTE 469
WEATHER: OVERCAST 480, 404, 405, 407
TEMPERATURE RANGE: 16° TIME ARRIVED ON SITE: 7:40AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORBERLAW / BOB
WORK COORDINATOR: BRAD BORBERLAW / BOB
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

2 - 290G J. DEERE EXCAV
1 - 310SK J. DEERE BACKHOE
1 - CS523E CAT ROLLER
1 - DPU 4555 TAMPER

DETAILS OF WORK BEING PERFORMED TODAY

- ARRIVED ON SITE @ 7:40AM, BOTH EXCAVATORS WORKING ON THE NEXT 2 DEEP CULVERTS (#101-4.1m / #100-4.7m)
- ALL SIGNAGE CORRECT, FLAGGERS PROPER DISTANCE FROM SIGN / WORK ZONE
- ECC TOOK MORE ASPHALT THEN MY CUTTING DISTANCE. ECC DIDN'T HAVE TO BECAUSE IT WAS MORE THEN A 1:1 SLOPE. MATERIAL WAS STABLE ENOUGH THAT A 1:1 WOULD OF BEEN GOOD.
- ECC HAD 11.5 m IN PLACE @ 11:15AM. ECC BEGAN BACKFILLING AND COMPACTING.
- * - BRAD HAD PROPER PPE ON AND PAINTS HAILED DOWN. *
- CULV #101 IS 23m LONG. ECC WAS TOLD TO ORDER 27.5m AS PER RFI DATA, BECAUSE WHEN ORGINAL SURVEY WAS DONE, THE CREW NEVER PICKED UP ANY OF THE CULV OUTLETS ON ALL 9 CULVERTS ON RTE 460. NOTHING WAS WRITTEN IN A BOOK, ONLY STORED ON GPS (TEMPORAL). THIS WAS ONLY KNOWN WHEN TONY WENT TO PLOT THEM BUT ALL CULV. WERE ORDERED AS PER RFI. I HAD COLE/JOHN RENO FULL SURVEY AND IT WAS ONLY THEN THAT #101 AND #100 ARE 3.5-4m TOO LONG. WE WILL HAVE TO CUT PIPES SO THERE NOT STICKING OUT BY THESE AMOUNTS. THIS IS D.O.T'S ERROR. NOT ECC.
- SWITCHED TRAFFIC OVER @ 2:10PM AND STARTED TO EXCAVATE OUTLET

DAILY CONSTRUCTION REPORT

REPORT No. 18 DATE: 9/15/20 CONTRACTOR: ECC
PROJECT NO.: 45-20PHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT RTE 460
WEATHER: SUNNY 480, 404, 405, 407
TEMPERATURE RANGE: 11° TIME ARRIVED ON SITE: 7:35AM
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BORNERLAW / BOB BARRETT
WORK COORDINATOR: BRAD / BOB
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

2- 290G J. DEERE EXCAV

1- 305K J. DEERE BACKHOE

1- CS523E CAT ROLLER

1- DPU 455S TAMPER

DETAILS OF WORK BEING PERFORMED TODAY

- ARRIVED ON SITE @ 7:35AM. ECC WAS ALREADY STARTING TO EXCAVATE INLET OF #99.
- ALL SIGNAGE WAS UP AND GOOD.
- * - BRAD WEARING PROPER PPE AND PAINT LEGS HAULED DOWN ALL THE WAY *
- ECC DECIDED TO REPLACE CULV #99 TODAY WITH 1 EXCAVATOR WHILE THE OTHER EXCAVATOR IS PREPARING SITE FOR #100 (4.7m DEEP).
- ECC IS HAULING ROCK FOR DIVERSION BUT ^{FOR CULV} NOT ~~WAS~~ #100, BUT WILL ONLY BE PAID FOR ROCK USED ON THE REPLACEMENT. HAD TO TAKE MORE ASP. FOR SMOOTH TRANSITION. (NO PAY)
- 1ST 7m IN GROUND @ 10AM. STARTED BACKFILLING AND COMPACTING EACH LIFT.
- ECC BUILT DIVERSION OVER INLET, USED 2 LOADS (SIDE DUMPS) OF ROCK HERE, WILL PAY IF USED IN ROAD
- 2ND LENGTH IN GROUND @ 1:35PM, ECC WILL COMPACT THIS AND OPEN 1 LANE SO THEY CAN UTILIZE THE DIVERSION AS FILL SO THEY WON'T USE AS MUCH ROCK.
- FINAL LENGTH IN GROUND @ 2:30, BACKFILLING/COMPACTING STARTED
- ECC PLACED "B" @ 3:36 PM AND HAD 1 LANE ALMOST OPEN. WAITING ON "A"
- ECC PLACED "A" @ 3:50 PM AND HAD 75% OF ROAD OPENED. ECC WORKING ON REMAINING 25% OF RD, AND RE ESTABLISH SHOULDERS AND SLOPES.
- 2ND EXCAVATOR THAT WAS WORKING ON #100 IN PREP FOR TOMORROW FINISHED @ 3PM AND CAME UP TO #99 TO HELP. HOLLY/MAT FINISHED FLAGGING @ 3PM. BORNERlAW/TRAUTS

DAILY CONSTRUCTION REPORT

REPORT No. 19 DATE: 9/16/20 CONTRACTOR: ECC
PROJECT NO.: A5-20 AHP PROJECT NAME: UPGRADE/PAVE VARIOUS SECT RTE 460,
WEATHER: SUNNY 480, 404, 405, 407
TEMPERATURE RANGE: 12° TIME ARRIVED ON SITE: 8:00
NAME OF CSO STACEY BURTON NAME OF SAFETY LEAD HAND: CLIFF
CSO/LEAD HAND PRESENT ON SITE: YES ☒ NO ☐
SUPERVISOR/SUPER-INTENDENT: BRAD BODERLAW / TSOB BARRETT
WORK COORDINATOR: BRAD / TSOB
TRAFFIC CONTROL IN PLACE: YES: ☒ NO: ☐ N/A: ☐

LIST OF EQUIPMENT ON SITE

2 - 2906 J. DEERE EXCAV.

1 - 310SK J. DEERE BACKHOE

1 - CS523E CAT ROLLER

1 - DPU 4555 TAMPER

DETAILS OF WORK BEING PERFORMED TODAY

- CONTRACTOR BROKE ASPHALT AT 7:15 AM. ECC CONSTRUCTED DIVERSION YESTERDAY.

- ECC HAD 11.5M OF 900MM IN GROUND @ 10:00AM. STARTED BACKFILLING / COMPACTING LIFTS. AS SOON AS ROLLER COULD GET IN HOLE I ALLOWED 1M LIFTS.

- 13 LOADS OF ROCK ON SITE, WILL PAY ONLY FOR LOADS USED ON CUT. I EXPECT TO USE THIS. SLOPE ON OUTLET SIDE WASN'T SPEC TO BEGIN WITH. I WILL RE-ESTABLISH PROPER SLOPES.

- SWITCHED TRAFFIC OVER @ 11:40 AM. STARTED EXCAVATING OUTLET.

- FINAL 14M FN GROUND @ 1:05PM. STARTED BACKFILLING / COMPACTING FN LIFTS TO PARTIALLY OPEN ROAD. THEN THEY WILL USE THE DIVERSION MATERIAL FOR REST OF ROAD. ALERT-2

- ALOT OF BIG ROCK IN ROAD. I SAID TO USE ROCK TO BUILD / STABILIZE BOTH SHOULDERS. ROCKS TOOK ALOT OF VOLUME IN ROAD. WILL REPLACE WITH SMALLER ROCK ECC BROUGHT TO SITE.

- SLOPES ON I/L AND O/L WERE SEVERALLY UNDERBUILT, BUILT SHOULDERS @ A 1:1 SLOPE.

- WILL HAVE 75% OF ROAD OPEN BY 5PM. PLACED "B" AT 4:20PM. PLACED "A" @ 4:50PM. ECC SWITCHED OVER TO INLET TO RE ESTABLISH SHOULDERS AND SLOPE.

* - BRAD WEARING DAWG SNEAKERS AND PANTS ROLLED UP TO KNEES ALL DAY. *

SECTION 150**FORCE ACCOUNT PAYMENT**

Where work is required for which no contract unit prices exist, then this work will be paid in accordance with Clause GC 19.1(c) of the General Conditions of the Contract.

With reference to Actual Cost as mentioned in Clause GC 19.1(c), Payroll Burden together with Board and Lodging shall be considered as components of Actual Cost.

For Contractor's personnel working on Force Account Work, who are lodged in the Contractor's own accommodations, Board and Lodging expenses allowed shall be at the same rates as those detailed in Section 112.

However, for Contractor's personnel working on Force Account work, who are lodged in a hotel, Board and Lodging expenses allowed shall be the actual billed cost of hotel accommodations, plus compensation for meals at the same rates as those detailed in Section 112.

When the Contractor does work with their own forces, including their own equipment, the rental rate for equipment, which includes overhead and profit, shall be as specified in Division 10, Equipment Rental Rate Schedule. Additional allowance for overhead and profit in accordance with General Conditions of the Contract. Clause 19.1(c) shall be calculated upon materials, labour and payroll burden only.

When the Contractor does work with rented equipment and the equipment is approved by the Owner's Representative, the Contractor shall be entitled to reimbursement equal to the rental cost of the equipment, supported by detailed invoices, plus a markup of ten (10%) percent on the rental cost to cover overhead and profit.

When the Contractor does work with their own forces including their own equipment, but a rental rate for the equipment is not included in Division 10, the rental rate for the equipment in question shall be calculated by the Department.

If force account work is being carried out under a formal contract, which has been tendered by the Department, and changes in the work are made through the General Conditions of the contract, Clause 18 and/or 19, as the case may be, then payroll burden shall be calculated to be 35% of the cost of labour.

Where a flagperson is required during the carrying out of Force Account Work, the flagperson shall be compensated for in accordance with the provisions given in Section 125 dealing with flagperson hours, without any additional mark-up for overhead or profit.



EDWARD COLLINS CONTRACTING LTD.

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Attention: William Hillier

FORCE ACCOUNT 45-20PHP

Civil Works

Aug 24/2020-Aug 30/2020 Mob/Demob

- **Supervisor (Jack Badcock):** 13.5 hrs. x (\$25.00 x 1.35) = \$455.63
- **Laborer (Kyle Ash):** 13.5 hrs. x (\$23.00 x 1.35) = \$419.18
- **Laborer (Brian Jesso):** 13.5 hrs. x (\$22.00 x 1.35) = \$400.95
- **Flagger (Justin Clarke):** 13.5 hrs. x (\$15.00 x 1.35) = \$273.38
- **Flagger (Jordan Romaine):** 13.5 hrs. x (\$15.00 x 1.35) = \$273.38
- **Pickups:** (2812-3810kg) \$17.88 x 13.5 = \$241.38 x 2 = \$482.76
- **Float:** (55T Float) \$115.00/hr. x 13.5 = \$1552.50
- **Driver (Jamie Hobbs):** 13.5 hrs. x (\$23.00 x 1.35) = \$449.18
- **Room & Board:** 6 people x \$100.00 = \$600

Total: \$4876.96 X 2 = \$9753.92

Aug 25/2020-Aug 29/2020

- **Supervisor (Jack Badcock):** 13 hrs. x (\$25.00 x 1.35) x 5 days = \$2193.15
- **Excavator Operator (Kyle Ash):** 13 hrs. x (\$23.00 x 1.35) x 5 days = \$2018.25
- **Backhoe Operator (Corey Jesso):** 12 hrs. x (\$23.00 x 1.35) x 5 days = \$1863.00
- **Driver (Jamie Hobbs & Robert Crosbie):** 12 hrs. x (\$23.00 x 1.35) x (2) x 5 days = \$3564.00
- **Flaggers (Justin Clarke, Jordan Romaine, Sandra Taylor, Corwin Anderson):**
12 hrs. x (\$15.00 x 1.35) x (4) x 5 days = \$4860.00
- **Excavator:** 13 hrs. x \$163.00 x 5 days = \$10,647.00
- **Backhoe:** 12 hrs. x \$66.78 x 5 days = 4005.00
- **Tandem Dump Trucks:** 12 hrs. x \$70.00 x (2) x 5 days = \$8400.00
- **Pickups:** 12 hrs. x \$17.88 x (2) x 5 days = \$2745.60
- **Room & Board:** 9 people x \$100 x 5 days = \$4500.00

Total: \$39,696.55
+ \$9,753.92
\$49,450.47

Paving

Aug 30/2020-Sept 1/2020 Mob/Demob

- **Supervisor (Kevin Locke):** 10 hrs. x (\$32.00 x 1.35) = \$432.00
- **Laborer (Rodney Gillingham & Dwayne Downey):** 10 hrs. x (2) x (\$30.00 x 1.35) = \$810.00
- **Flagger (Sandra Taylor):** 10 hrs. x (\$15.00 x 1.35) = \$202.50
- **Float Driver (Jamie Hobbs):** 10 hrs. x (\$15.00 x 1.35) = \$273.38
- **Pickups:** (2812-3810kg) 10 hrs. x (2) x (\$17.88 x 1.35) = \$357.60
- **Float:** (55T Float) \$115.00/hr. x 10 hrs. = \$1150.00
- **Room & Board:** 5 people x \$100.00 = \$1150

Total: \$3362.60 x 2 = \$7525.20

Aug 31/2020

- **Supervisor (Kevin Locke):** 10 hrs. x (\$32.00 x 1.35) = \$432.00
- **Crew (Rodney Gillingham & Ivan Clouter):** 10 hrs. x (2) x (\$30.00 x 1.35) = \$810.00
- **Crew (Darren Pelley, Randy Gillingham, Lindy Gates, Dwayne Downey, Brad Dawe):** 10 hrs. x (5) (\$27.00 x 1.35) = \$1822.50
- **Flaggers (Sandra Taylor, Corwin Anderson):** 10 hrs. x (2) x (\$15.00 x 1.35) = \$405.00
- **Skid Steer:** 10 hrs. x (2) x \$41.20 = \$824.00
- **Hydraulic Broom 84'':** 10 hrs. x (1) \$11.20 = \$112.00
- **Milling Machine:** 10 hrs. x \$238.50 = \$2385.00
- **Pickups:** 10 hrs. x (4) x \$17.88 = \$715.20
- **Room & Board:** 10 people x \$100 = \$1000.00

Total: \$8505.50
+ \$7525.20
\$16,030.70

TOTAL: \$69,981.11 x 10% = \$76,979.29

\$76,979.29 + HST= **\$88,526.18**



EDWARD COLLINS CONTRACTING LTD.

P.O. Box 51, JERSEYSIDE, PLACENTIA BAY

NEWFOUNDLAND AND LABRADOR, CANADA, A0B 2G0

TEL: (709) 227-5509/2821 FAX (709) 227-3704 email: eccl@nf.aibn.comin

Attention: William Hillier

FORCE ACCOUNT #2 45-20PHP

Paving Road Crew

Nov 15/2020 – Nov 16/2020 Mob/Demob

- **Supervisor (Kevin Locke):** 10 hrs. x (\$32.00 x 1.35) = \$432.00
- **Laborer (Rodney Gillingham & Dwayne Downey):** 10 hrs. x (2) x (\$30.00 x 1.35) = \$810.00
- **Flagger (Sandra Taylor):** 10 hrs. x (\$15.00 x 1.35) = \$202.50
- **Float Driver (Jamie Hobbs):** 10 hrs. x (\$15.00 x 1.35) = \$273.38
- **Pickups:** (2812-3810kg) 10 hrs. x (2) x (\$17.88 x 13.5) = \$357.60
- **Float:** (55T Float) \$115.00/hr. x 10 hrs. = \$1150.00

Total: \$3362.60 x 2 = \$7525.20

Nov 15/2020

- **Supervisor (Kevin Locke):** 10 hrs. x (\$32.00 x 1.35) = \$432.00
- **Crew (Rodney Gillingham & Ivan Clouter):** 10 hrs. x (2) x (\$30.00 x 1.35) = \$810.00
- **Crew (Darren Pelley, Randy Gillingham, Lindy Gates, Dwayne Downey, BradDawe):** 10 hrs. x (5) (\$27.00 x 1.35) = \$1822.50
- **Flaggers (Sandra Taylor, Corwin Anderson):** 10 hrs. x (2) x (\$15.00 x 1.35) = \$405.00
- **Skid Steer:** 10 hrs. x (2) x \$41.20 = \$824.00
- **Hydraulic Broom 84'':** 10 hrs. x (1) \$11.20 = \$112.00
- **Pickups:** 10 hrs. x (4) x \$17.88 = \$715.20
- **Room & Board:** 10 people x \$100 = \$1000.00

Total: \$8505.50

+\$7525.20

\$16,030.70

Asphalt Plant Operation

Nov 15/2020

- **Supervisor (Brad Thomas):** 10 hrs. x (\$32.00 x 1.35) = \$432.00
- **Crew (Cyril Downey, John Wakem & Colin Whiffen):** 10 hrs. x (2) x (\$30.00 x 1.35) = \$810.00
- **Asphalt Plant:** 10 hrs x 295.00 = \$2,950.00
- **Pickups:** 10 hrs. x (2) x \$17.88 = \$357.60
- **Room & Board:** 4 people x \$100 = \$400.00

Total: \$4,949.60

Materials

Nov 15/2020

- **Fuel for Asphalt Plant:** 1850L x \$0.88 = \$1,628.00
- **Surface Coarse Aggerate:** 5.53T x \$65.00 = \$359.45
- **Blending Sand:** 1.05T x \$35.00 = \$367.50
- **Liquid (58-28):** 0.42T x \$1,100 = \$462.00

Total: \$2,816.95 x 10% = \$3,098.65

TOTAL: \$24,078.95 x 10% = **\$26,486.84**

\$26,486.84 + HST = **\$30,459.87**

Payment Overview (GOVT_AP_INV_INV_WST)

Operating Unit	Govt Headquarters Organ	Payee	
Number	62159568	Paid To Name	EDWARD COLLINS CONTRACTING LIM
Currency	CAD	Taxpayer ID	
Amount	157,962.38	Supplier Number	003106837
Date	08-OCT-2020	Site	JER-BOX 51
Payment Process Request	ERC07CT20EFT	Address	PO Box 51 Jerseyside, A0B 2G0 Canada
Voucher			
Status	Cleared	Bank	
Cleared Amount	157,962.38	Name	CIBC
Cleared Date	08-OCT-2020	Account	AP Chequing Account
Void Date		Payment Document	EFT Elec Funds Xfer
Maturity Date		Payment Method	Electronic
Acknowledged Status		Payment Process Profile	GNL EFT - CAD

Invoices

Number	Amount Paid	GL Date	Description
PE1-45-20PHPC	64,364.24	08-OCT-2020	
PE2-45-20PHPB	93,598.14	08-OCT-2020	

Invoice Overview

Bank

Supplier

Payments

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 1 (ONE)

MONTH ENDING: 20-Sep-20

Project No. 45-20 PHP (PART "C")

Project Title: Paving Sections in Codroy Valley on Routes 404, 405, & 407

Contractor: Edward Collins Contracting Ltd.

Estimated Cost: \$ 473,458.00

Account Center: 01-3025-311-1910

D.T.C.: 20-521770

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS ESTIMATE	TOTAL TO DATE	UNIT PRICE	AMOUNT
15	Tack Coat	m2	44200	0	0	0	\$0.45	\$0.00
16	Hot Mix Asphalt Concrete							
(b)	Asphalt Surface Course	t	3298	0	0	0	\$33.00	\$0.00
(c)	Asphalt Leveling Course	t	1225	0	0	0	\$33.00	\$0.00
(d)	Liquid Asphalt	t	294	0	0	0	\$700.00	\$0.00
(e)	Blending Sand	t	678	0	0	0	\$15.00	\$0.00
21	Contingency		5000	0	0	0	\$1.00	\$0.00
						0	\$1.00	\$0.00
						0	\$1.00	\$0.00
						0	\$1.00	\$0.00
						0	\$1.00	\$0.00
22	Flagperson Hours	hours	562	0	534	534	\$24.00	\$12,816.00
104	Contractor Safety Officer	lump sum	1	0	0.13	0.13	\$1,666.67	\$216.67
112	Cleaning of Existing Ditches	m	3900	0	6554	6554	\$7.50	\$49,155.00
113	Shouldering	m	7800	0	0	0	\$5.00	\$0.00
	Petroleum Cost Adj.	LS		0	0	0	\$1.00	\$0.00
	Liquid Cost Adj.	LS		0	0	0	\$1.00	\$0.00

Gross to Date	\$62,187.67
Less PRI & Density Bonus	
Total	\$62,187.67
Less 10% holdback	\$6,218.77
Paid holdback	
Certified to date	\$55,968.90
Less previous payments	\$0.00
Now certified	\$55,968.90

CERTIFIED CORRECT



Mike Fleming

Resident Engineer



Regional Engineer

APPROVED BY

Corporate HDC Representative

Assistant Deputy Minister T.S.

Sep. 24/20


9/24
Sept. 24/20

E-MAILED
Sep. 24/20
Natasha



Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Director of Highway Design & Construction

COR/2022/03463

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

RE: TI Response to ECC April 19/2022 Notice of Default; Contract 46-21PHP Road and Bridge Rehabilitation work on TCH – Central Region

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms. The Department would like to highlight that it has also made good faith payments for materials stockpiled which are yet to be installed by ECC in accordance with the Contract.

As per Contract SGC 3, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,

A handwritten signature in blue ink, appearing to read "Bill Hillier", with a long horizontal line extending to the right.

Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Wade Waterman

COR/2022/03462

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

**RE: TI Response to ECC April 19/2022 Notice of Default; Contract 12-21PHC
Culvert Replacements & Rehabilitations on the TCH Avalon Region**

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms.

As per Contract SGC 3, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,



Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Bill Skanes

COR/2022/03464

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

RE: TI Response to ECC April 19/2022 Notice of Default; Contract 45-20PHP West Coast Asphalt

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms. The Department Regional Teams and ECC previously discussed the work that it believes to be under the quoted value of \$88,526.18 and all quantities have been paid using the applicable contract rates. The Department is not aware of the specifics of the quoted \$30,459.87 but it believes that all quantities received has been paid in accordance with the contract rates.

As per Contract SGC 9, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,



Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Dennis Coley

Coley, Dennis

From: Joshua Collins <josh_56@icloud.com>
Sent: Saturday, November 14, 2020 1:45 PM
To: Coley, Dennis
Cc: Fleming, Michael; Hillier, William
Subject: Re: Project 45-20PHP

In accordance to GC 7.2 we hereby give notice that your directive to cap two asphalt key ways on R407 is in error.

The following errors have been identified:

- 1) ECC is not party to project 43-20php as stated in your email below.
- 2) the location of the two asphalt key ways has not been established.
- 3) If the locations of the two key ways are north of St. Andrews and south of Searston This location is subject to current dispute in accordance to section GC 16 under project 45-20php which has not been resolved.
- 4) the notice contained in the directive is unreasonable and insufficient time has been given to the contractor to mobilize to this location. At least 72hrs notice should be given.
- 5) any directive intended to be issued should be RE issued and precisely outlined.
- 6) the proper contract number shall be noted and a change order attached to any directive issued in accordance with GC 7 which includes compensation based on force account rates.

Sent from my iPhone

> On Nov 14, 2020, at 1:11 PM, Coley, Dennis <DennisColey@gov.nl.ca> wrote:

>

> Josh:

> Based on our understanding of the unit price contract and our rights
> to flexibility within reason for distributing of the quantities
> provided under the contract documents and your decision to dispute
> this, I will provide you with the two identified GC clauses within the
> contract documents for project 43-20PHP. By cover of this email I am
> issuing a directive to have the two asphalt keyways on route 407
> capped before the winter season, seeing that time is of the essence
> here and potential for an unsafe condition we will require this work
> to be completed at the end of day tomorrow. Any dispute to this item
> and related details I will refer you to GC #16 settlement of dispute
> and claims (attached below) under contract you have a right to
> provide notification within 14 days from which we will follow the
> outline procedure identified

>

>

>

>

- >
- > GC7 ENGINEER/ARCHITECTS DECISIONS
- > 7.1 The Engineer/Architect, in the first instance, shall decide on
- > questions arising under the Contract Documents and interpret the requirements therein. Such decisions shall be given in writing.
- > 7.2 The Contractor shall notify the Engineer/Architect in writing
- > within five (5) days of receipt of a decision of the
- > Engineer/Architect referred to in 7.1 should the Contractor hold that
- > a decision by the Engineer/Architect is in error and/or at variance
- > with the contract Documents. Unless the Contractor fulfils this requirement subsequent claims by him for extra compensation, arising out of the decision, will not be accepted.
- > 7.3 If the question of error and/or variance is not resolved
- > immediately, and the Engineer/Architect decides that the disputed work
- > shall be carried out, the Contractor shall act according to the Engineer/Architect's written decision.
- > Any question of change in Contract Price and/or extension of Contract
- > Time due to such error and/or variance shall be decided as provided in GC16 - Settlement of Disputes.

> GC16 SETTLEMENT OF DISPUTES AND CLAIMS

- > 16.1 In the case of any dispute or claim arising between the Owner and
- > the Contractor as to their respective rights and obligations under the
- > Contract, either party hereto may give the other written notification
- > of such dispute or claim. The notification of dispute or claim shall
- > be made within fourteen (14) days of the dispute or cause of action arising. If the dispute or claim cannot be resolved to the satisfaction of both parties, either party may refer the matter to such judicial tribunal as the circumstances require.
- > 16.2 Legal proceedings shall not take place until after the
- > performance or the substantial performance of the disputed work except:
- > (a) when the dispute concerns a certificate for payment.
- > (b) where either party can show that the matter in dispute requires
- > immediate consideration while evidence is available.
- > (c) in the case of legal proceedings, where the action may become
- > prescribed by reason of delay.

>

> Dennis Coley, P-Eng.
 > District Engineer Western Region
 > Department of Transportation and Infrastructure
 > 74 Old Bonne Bay Rd
 > Deer Lake, NL A8H 3H4
 > Office # 635-4132
 > Cell # 632-3175
 > Fax # 635-5715
 > Email: DennisColey@gov.nl.ca

> -----Original Message-----

> From: Joshua Collins <josh_56@icloud.com>
 > Sent: Saturday, November 14, 2020 11:02 AM
 > To: Coley, Dennis <DennisColey@gov.nl.ca>
 > Cc: Fleming, Michael <MichaelFleming@gov.nl.ca>; Hillier, William
 > <WilliamHillier@gov.nl.ca>
 > Subject: Re: Project 45-20PHP

> We haven't been given the original work that was suppose to be in our contract inside those limits. We were put outside our limits and given work to do elsewhere on that route. We are still waiting for the layout in the original area.

>

> To finish this we need a force account.

>

> Thank you,

> Josh Collins

>

> Sent from my iPhone

>

>> On Nov 14, 2020, at 10:55 AM, Joshua Collins <josh_56@icloud.com> wrote:

>>

>> We are outside the project limits in our contact. R407 is actually 16km long. Our plan when bidding this project was to stay out of Doyle's intersection and not Travel through the housing area down there. It's slower and not how we intend on doing the job. We priced and planned to go directly to R 407. Not drive through R406 first. You can't expect it to be done for the unit prices as it does not accurately cover our costs.

>>

>> You have to stay inside the project limits. That's why they are there. To pick anywhere on the a route would be an unfair advantage to another bidder. Knowing that the job isn't actually where the contract says it is.

>>

>> Yes, you can increase as you see fit. The last meeting we were left with the threat of having it completely taking out of the contact.

>>

>> The keys were cut with the full intention of getting the work done this year and signs were left in place as required to maintain safe passage for motorists. We had a schedule but due to all the unforeseen delays we were unable to meet it.

>>

>> Based on our award letter date our original completion date was Oct. 6 even though you continue to maintain it isn't after we repeatedly correct you. Please read the contract.

>>

>> We are outside the project limits. I don't know what else to say.

>>

>> Sent from my iPhone

>>

>>> On Nov 14, 2020, at 10:16 AM, Coley, Dennis <DennisColey@gov.nl.ca> wrote:

>>>

>>> Josh i understand that you may have a perceived issue with the location of work on route 407 however your statement on being misled or dishonesty is unsettling as the contract has indicated approx 1 km of work to be done on route 407. This route itself is approx 5km in length and forms a circular route through St. Andrews and back to Doyle's intersection. The work completed is on route 407 and your statement of further down the route is also an incorrect statement as if you enter through Doyle's intersection is actually closer to the highway. Under unit price contracts we move increase or decrease quantities to fall within the contract value and as per the norm we pick the worst sections with in the general location to complete under contract. This years work was generally picked up where we left of last year.

>>> It is not extra work added (which we would have indeed approach ECC

>>> to confirm if you would be willing to accept extra work with the contract prices) it is quantities listed in the contract. From TI point of view we are following the contract documents when it comes to delivering this project.

>>> The underlying reason we are having this discussion now as it relates to the cut key ways is that they were cut prematurely without a scheduled time to expect asphalt normal process is to cut key ways on the day off or day before placing to avoid a safety hazard on the roadways. These cuts were done very early in the summer and has been a hazard every since and we are expecting that the key ways you have open on route 407 to be capped for the winter same as the rest on the other roads that you have capped.

>>> As for LD under this contract: as you are aware the completion date for this contract is Sept 30th and to date we have been tracking (and continue to do so)the daily cost and this will be review and final decision on the applied value will be made in the near future.

>>> If you are not expecting to complete this contract this fiscal year I would suggest you submit a formal request for season shut down and a revised acceptable schedule for completion.

>>>

>>>

>>>

>>> Dennis

>>>

>>>

>>>>> On Nov 14, 2020, at 9:03 AM, Joshua Collins <josh_56@icloud.com> wrote:

>>>>

>>>> Our position on this matter remains the same. Our company was misled to do work outside the project limits set out in the contract. The area we done the work in was further down the route than the original contract we had bid on. We only figured it out once the ditching was complete and the keys were cut. Had we been told it was outside the limits and further away in the beginning we would have come to an agreement on it, but due to the fact it was done dishonestly hoping we wouldn't figure it out and now at the 11th hour we are discussing it is disappointing.

>>>> When we had our meeting to discuss our extension request along with the matter in St. Andrews it was anything but productive. Our position was not taken seriously and we were told in that meeting that there was a possibility the department would take that section out of the contract. We haven't had any feedback since.

>>>> We have a serious issue with creditability at this point. We were assured on the last contract (49-19thp) in Cormack that all quantities were accounted for on our claims after we had questioned the numbers only to do our own audit to find almost \$30,000 worth of material missing which has now been added.

>>>> Our claim on that same contract in Cormack for August was never submitted and we had to wait until mid September to find this out. Then we had to wait for it to be submitted on September 20 for work done between July 20 - Aug 20. This caused the payment to be delayed until October for this work.

>>>> Finally we were told we had to remove our scale house attendant from the scale house In steel mountain on this project and told She was only allowed in if we were doing private work. That will not happen, we have to check to make sure all the asphalt is accounted for as we do not trust the department to do so.

>>>> We done the work off our project. We do sympathize with you as this is now a safety concern, but it isn't on our project or our responsibility. We will do the keys but we want to do them under force account to keep it consistent with the pervious claim for work done in that same area.

>>>> We would like to acknowledge that Liquidated damages is not a bargaining chip that should be threatened by the department and used to bully us into doing work. We stated our case for the delays in this contract. Unlike some of our competitors who have work in this region we have been here and worked every day possible to try and get this done even with all the uncontrollable delays. Our competitors have either packed up and gone home for the season or put in no effort to complete there projects. Suggesting that doing the St. Andrews keys will improve our position on not being charged damages definitely raises some concerns.

>>>> Let us know if you wish to proceed.

>>>> Thank you,

>>>> Josh Collins

>>>> Sent from my iPhone

>>>>> On Nov 13, 2020, at 2:34 PM, Fleming, Michael <MichaelFleming@gov.nl.ca> wrote:

>>>>> Hi Josh,

>>>>> just following up to our telephone conversation. First I appreciate you taking the time to discuss some project related issues with me over the telephone, and although there is some disagreement with the project limits on Route 407 and also some hesitation to repair the open key-ways on Route 407 due to a claim, I am suggesting that the claim and project limit disagreement can be further discussed and hopefully resolved over the winter. In the mean time, I am respectfully requesting that the open key-ways on Route 407 are repaired as soon as possible as they pose a safety hazard. Repairing the key-ways will not be any sort of acknowledgement that you concede with the Project Limits as determined in the field.

>>>>> Josh, we also need you to submit an official request for carryover as soon as possible.

>>>>> Please feel free to call if you have any further questions or

>>>>> concerns Respectively Mike Sent from my iPhone "This email and any

>>>>> attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."

>

> "This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender."

>

Buggie, Chelsey

From: Buggie, Chelsey
Sent: Monday, March 27, 2023 12:46 PM
To: Buggie, Chelsey
Subject: FW: Your Client: Edward Collins Contracting

From: Coley, Dennis <DennisColey@gov.nl.ca>
Sent: Tuesday, April 19, 2022 3:26 PM
To: Hillier, William <WilliamHillier@gov.nl.ca>; Skanes, Bill <skanesb@gov.nl.ca>; Waterman, Wade <WatermanW@gov.nl.ca>
Subject: RE: Your Client: Edward Collins Contracting

45-20PHP Comments:

The work considered as Force account work in the amount of \$88,526.18 is not justifiable the contractor was paid for this work under Part C estimate # 1 in the amount of \$49,155.00 their claim as to work outside of the project limits was identified and discussed on site with site representatives from Department and Contractor, the work which include ditching was moved further down along route 407 at start of operations, the work actually completed was paid for under the contract at contract rates as noted above. At best the department would compensated an additional small cost for the additional Mob and De-mod to the new location, there would be no additional cost for the work as the contract units has this included.

Liquid Damages are being applied as per the contract for late completions.

Contactor claims an additional Force account work in the amount of \$30,459.87, I have no record and is not aware of this work.

TI issuing a permit to work in TI operated depot site was all depending on a list of agreements and safety protocols that were put in place to try and reduce a safety risk of having a construction contract setting up and conduction their operations in a Government owned and operated site. The contractor had later ignore the guidelines outlined in the temporary permit from which the department had issued a stop work order due to safety concerns with contractor conduction private work out of this site.



Dennis Coley, P-Eng.
District Engineer Western Region
Department of Transportation and Infrastructure
74 Old Bonne Bay Rd

Deer Lake, NL A8H 3H4
Office # 635-4132
Cell # 632-3175
Fax # 635-5715
Email: DennisColey@gov.nl.ca

Appendix E

Government of Newfoundland & Labrador
Claim on Project 46-21

SCHEDULE A

PROOF OF CLAIM IN RESPECT OF CLAIMS AGAINST EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the "Debtors")

1. PARTICULARS OF CLAIMANT

Full Legal Name of Claimant: Government of NL (the "Claimant")
(the full legal or corporate name should be the name of the original Claimant)

Full Mailing Address of the Claimant:

Civil Division - office of the Attorney General
Dept. of Justice + Public Safety, Gov. of NL
Confederation Bldg., 4th floor, East Block, P.O. Box 8700
St. John's, NL A1B 4J6

Telephone Number of the Claimant: (709) 729-1337

Facsimile Number of the Claimant: _____

Contact Person of the Claimant: David L. Hearn

Email Address of Contact Person: davidhearn@gov.nl.ca

Was the Claim sold or assigned to another party? ☐ Yes ☒ No

2. PROOF OF CLAIM

I, David L. Hearn [name of the Claimant or the Representative], do hereby
certify:

That I: ☐ am the Claimant; or
☒ hold the following position Solicitor of the
Claimant and having personal knowledge of all of the circumstances
connected with the Claim as described herein.

3. PARTICULARS OF CLAIM

Amount	Currency	Claim Specification
Total \$		<u>\$715,812.99</u>

Description of transaction, agreement or event giving rise or relating to the Claim. Please include contract, invoices, and evidence of preservation and perfection of lien (if applicable) along with any other relevant information:

Contract 12-21	Contract 45-20	Contract 46-21
LD - \$67,878.69	LD - \$209,325.00	LD - \$80,500.00
HB - \$96,242.03	HB - \$163,761.09	HB - \$48,106.18
details attached	details attached	details attached

If the Claim includes an amount for any accrued interest thereon and costs payable in respect thereof, state the basis for such interest and/or cost claim, the rate of interest, and provide evidence upon which the claim for interest and/or costs is being made:

If the Claim is contingent or unliquidated, state the basis and provide evidence upon which the Claim has been valued:

IF CLAIMANTS REQUIRE ADDITIONAL SPACE, PLEASE ATTACH A SCHEDULE HERETO. CLAIMANTS SHOULD PROVIDE PARTICULARS OF THE CLAIM AND COPIES OF ALL SUPPORTING DOCUMENTATION, INCLUDING AMOUNT AND DESCRIPTION OF TRANSACTION(S), AGREEMENT(S) OR LEGAL BREACH(ES) GIVING RISE TO THE CLAIM.

[Handwritten mark]

4. PARTICULARS OF ASSIGNEE(S) (IF ANY):

Full Legal Name of Assignee(s) of the Claim (if all or a portion of the Claim has been sold). If there is more than one assignee, please attach separate sheets with the following information (the "Assignee(s)")

Amount of Claim Assigned: \$ _____

Amount of Claim Not Assigned: \$ _____

Total Amount of Claim: \$ _____

(should equal total amount of Claim in Section 3 above)

Mailing Address of Assignee(s):

Telephone Number of the Assignee: _____

Facsimile Number of the Assignee: _____

Contact Person of the Assignee: _____

Email Address of Contact Person: _____

5. FILING CLAIMS:

The duly completed Proof of Claim together with supporting documentation must be returned and received by the Monitor, no later than 5:00 p.m. local St. John's time on March 27, 2023, to the email address or address listed below.

FAILURE TO FILE YOUR PROOF OF CLAIM BY SUCH DATE WILL RESULT IN YOUR CLAIM BEING FOREVER EXTINGUISHED AND BARRED AND YOU WILL BE PROHIBITED FROM MAKING OR ENFORCING A CLAIM AGAINST THE DEBTORS.

This Proof of Claim must be delivered by email, facsimile, personal delivery, courier or prepaid mail at the following address:

Grant Thornton Limited
in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

2

Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

DATED the 27th day of March 2023.

(Signature of Witness)

(Signature of Claimant)

If the Claimant is not an individual, print name of Claimant, and name and title of authorized signatory:

Per:

DJH

Name: David Horn

Title: Solicitor

I have the authority to bind the corporation

CONTRACT 46-21

1. On or about 16 June 2021, Edward Collins Contracting (“**ECC**”) submitted a bid for Road and Bridge Rehabilitation work on the TCH in the Central region known as Project 46-21 (the “**Project**”) in response to a Tender issued by His Majesty the King in Right of Newfoundland and Labrador (“**GNL**”). ECC was the successful bidder and was awarded the contract on 18 June 2021. The Contract Price was \$6,263,549.52 with HST included. This project was bonded by Western Surety Company (“**Western**”).¹
2. Pursuant to Contract 46-21, work was to commence on 18 June 2021. SGC 1 “The Work will be substantially performed within **2.0** months from the date of notification of award of contract or **SEPTEMBER 30, 2021, whichever is later**”²
3. There are two types of claims associated with this contract: Liquidated Damages and a claim for the Holdback Funds.

Application of Liquidated Damages

GNL Did Not Waive Its Contractual Right to Liquidated Damages

4. For this project, GNL applied Liquidated Damages October 1 to 20, 2021. The 20 days of liquid damages were assessed at a rate of \$3,500 per day for a total of **\$70,000 plus HST**.
5. GNL’s position is that the application of liquidated damages relating to delay were justified. The parties contractually agreed that liquidated damages would be assessed at a rate of \$3,500 per day. The initial substantial completion date for this project was 30 September 2021, a deadline which ECC failed to meet and the work remains incomplete to this day. Further, ECC failed to provide justifiable reasoning for missing this deadline.
6. ECC was provided with notice that liquidated damages would be applied by multiple representatives of the Department of Transportation and Infrastructure on multiple

¹ Tab 1 (Contract Book), Part 1 Form of Agreement. SGC 3.

² Tab 1 (Contract Book), SGC 1 Scope of Work at p.

occasions.

7. By virtue of submitting its bid, ECC agreed that it would be subject to liquidated damages assessed at a rate of \$3,500 per diem. The Liquidated Damages Application Date was 30 September 2021 unless otherwise agreed upon in writing.³
8. The General Conditions of the agreement provide that where a contractor is awarded multiple contracts in a single construction season, “Government reserves the right in its sole discretion to amend the Contract Completion Date if an approved amended execution plan and/or schedule allows more effective and efficient execution of all related multiple Contracts.”⁴ While GNL contractually had discretion to waive liquidated damages, it did not do so in this case and ECC was notified of same on several occasions.
9. On 11 August 2021, Bill Hillier (“**Hillier**”) requested a schedule outlined on an excel sheet from Josh Collins for all awarded projects.⁵
10. On 12 August 2021, Regional Engineer Wade Waterman (“**Waterman**”) provided a letter to Josh Collins (“**Collins**”) outlining GNL’s concerns that ECC would not meet its completion deadline, given that as of that date, “very little work” had started on the project. Waterman invited Collins to provide a revised schedule for completion of the contract on or before 16 August 2021.⁶
11. On 30 August 2021, Sherman Strugnell (“**Strugnell**”) contacted Collins by e-mail to ask when paving would be done on South Brook Bridge, and reminded Collins that liquidated damages would be applied.⁷
12. On 9 September 2021, Strugnell once again contacted Collins by e-mail. He asked when the top lift of asphalt would be paved at South Brook and Grand Falls Bridges. Strugnell inquired where ECC would source their asphalt, noting concerns about the liquid in the

³ Tab 1 (Contract Book), GC 46 – Assessment and Damages for Late Completion at pp SCG 5.

⁴ Tab 1 (Contract Book), GC 46.8, at p. GC 38.

⁵ Tab 2 (Bill Hillier E-mail), pp. 2-3.

⁶ Tab 3 (August 12 Letter from Wade Waterman).

⁷ Tab 4 (Communication from Sherman Strugnell).

asphalt placed the day before at South Brook. Strugnell once again reminded Collins liquidated damages would be applied.⁸

13. On 3 November 2021, Collins contacted Hillier, inquiring when he could expect payment for relief of liquidated damages applied on separate contracts and not in accordance with the global schedule.⁹

14. On 9 November 2021, Hillier responded to Collins' correspondence. He reiterated that the formation of a global schedule is not a contractual basis for decisions on liquidated damages, and that damages would be applied where ECC has not progressed work to meet the contractual schedules. If ECC felt there were valid reasons to obtain contract extensions, ECC would need to make such a request outlining the contractual basis for same. Hillier expressed a number of further concerns including:

- lack of communication from ECC;
- that Regional Engineers and / or Project Managers had not received adequate plans from ECC;
- that ECC had not performed work for several days despite suitable weather conditions;
- that ECC was attempting to use the site for private work in contravention of condition 7 of the their permit.

Hillier writes "I hope that ECC Are committed to continuing work on Department Contracts and perform asphalt until weather prevents continuation" and encouraged Collins to urgently engage with Regional Engineers and Project Managers to develop acceptable plans for work completion.¹⁰

15. Throughout the Winter of 2022, GNL remained willing to negotiate with ECC in order to have this project completed.

⁸ Tab 4 (Communication from Sherman Strugnell).

⁹ Tab 2 (Bill Hillier E-mail), p. 2.

¹⁰ Tab 2 (Bill Hillier E-mail), pp. 1-2.

16. On 8 April 8, 2022, Hillier, on behalf of GNL, issued a Default Letter to ECC “due to lack of performance and the lack of a plan for successful completion of the work” and requested that ECC submit a detailed plan within five working days that demonstrates how ECC would successfully complete the work. Western Surety was cc’d in this correspondence.¹¹

17. On 29 April 2022, Hillier informed Collins that it had made all payments required to date, including good faith payments for materials stockpiled which were yet to be installed by ECC in accordance with the contract. Hillier reiterated GNL’s right to deduct liquidated damages where the work was not substantially complete.¹²

GNL Did Not Cause Delays

Ordering of the Pipe

18. ECC claimed that it was unable to order pipe for project 46-21 in a timely manner due to the departmental delay in providing a complete pipe schedule. ECC requested a pipe list from GNL on July 21st, 2011, and this list was provided five days later, on July 26th.

19. In October of 2021, Waterman received communication from Atlantic Industries Ltd. that they had been directed by ECC to manufacture custom pipe, but were unable to get in touch with ECC to find out if or when the material would be picked up.¹³

20. As of April 19th, 2022, to Waterman’s knowledge, the culverts were never ordered or fabricated for the project.¹⁴

Oscillatory Roller Delays

21. ECC claimed that delays were attributed to the fact that it would be required to use an oscillating roller to pave the bridge decks and that this did not form part of the contractual

¹¹ Tab 5 (Default Letter).

¹² Tab 11 (Bill Hillier’s Response to Default Notification).

¹³ Tab 12.1-12.2, Communication from AIL.

¹⁴ Tab 6 (Internal Communications Re: Delay).

terms. GNL's position is that these terms were incorporated into the Contract any delays relating to same were a result of ECC's lack of preparation to meet these requirements and cannot be attributed to GNL.

22. SGC 2 dictates that "Contractors are advised that the specifications book of GNL of Transportation and Infrastructure dated MARCH 2011 and the 2012 and 2013 Errata apply to this project."¹⁵ SGC 30 further elaborates that "Bridge paving will be in accordance with section [...] 922 [...] except as noted below."¹⁶ Section 922.03 specifies "All paving equipment and plant shall conform to Section 330; however, oscillatory rollers shall be used for all paving on bridge decks." Section 922.04.04.02 elaborates "temperature of the asphalt placed on the waterproofed bridge deck shall cool to 115 degrees Celsius before breakdown rolling begins with a suitable oscillating roller."¹⁷ Specification 330.05.07 states "Steel drum rollers shall weigh at least 12 tonnes and shall exert a load on the compression roll of at least 6 tonnes per metre of wheel width" this provision further warns that rollers will be assessed by the engineer and "There shall be no additional cost to the Department for meeting these requirements."¹⁸

Payment of Subcontractors

23. It is GNL's understanding that several subcontractors were not paid resulting in delay, and that claims in this regard were brought forth to Western.

Holdback

24. The contract price was **\$6,263,548.60**, the value of the work completed by ECC as of June 30, 2022 was **\$481,061.79**, **\$80,500** in liquidated damages (\$70,000 + HST) was applied from this amount and the statutory holdback amounted to \$48,106.18.¹⁹ The holdback amount was calculated at 10% of the value of the work complete, in accordance with GC 21.12.

¹⁵ Tab 1 (Contract Book), SGC 2 "Specifications Book and Traffic Control Manual" at p. SGC 5.

¹⁶ Tab 1 (Contract Book) SGC 30 "Asphaltic Paving on Bridge Decks", at p. SGC 32.

¹⁷ Tab 7 (Highway Specification Book, Division 922).

¹⁸ Tab 8 (Highway Specification Book Division 330).

¹⁹ Tab 9 (Holdback Release Calculation), Tabs 10.1-10.4 (Permits A-D).

25. The Contract specifies that:

“Following the issuance of the Certificate of Substantial Performance and upon receipt from the Contractor of all documentation called for in the Contract Documents the Engineer/Architect shall issue a certificate for payment of holdback monies” and the holdback is payable on the day following the expiration of the statutory limitation period outlined in the *Mechanics’ Lien Act*, provided there are not claims under the Act”.²⁰

To date, portions of Contract 46-21 remain outstanding.

26. GC 21.13 of the Contract asserts that “Notwithstanding any other provisions of the contract, the owner may:

- a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non-performance of the Contract, withhold payment of any amount equal to the alleged damages until liability of damages is established and no amount of interest will be paid on amounts held under this clause;
- b) set-off amounts owing by the Contractor to the Owner;
- c) following the issuance of the Certificate of Substantial Performance, withhold an amount equal to twice the cost, as estimated by the Engineer / Architect of remedying efficiencies until the issuance of a Certificate of Total Performance and no amount of interest will be paid on amounts held under this clause.²¹

27. On July 18th, 2022, ECC applied for Creditor Protection and other relief under the *Companies’ Creditor Arrangement Act*. On October 14, 2022, Justice MacDonald granted an initial order pursuant to the CCAA. It is GNL’s position that it was contractually entitled to set-off liquidated damages from the holdback amounts pursuant to section 21.13 of the Agreement. All amounts were calculated- and liquidated damages were applied in October of 2021. This set-off occurred well before the CCAA process was engaged. To date, the Contract has still not been completed, thus a certificate of substantial completion has not been issued.

²⁰ Tab 1 (Contract Book), GC 21.7.

²¹ Tab 1 (Contract Book), GC 21.3 at pp. GC 20-21.



TRANSPORTATION AND INFRASTRUCTURE

CONTRACT BOOK

PROJECT NO. 46-21 PHP

Noon: June 16th, 2021

PROJECT NAME

Road and Bridge Rehabilitation work on the TCH – Central Region

Part "A" - Rehabilitate 4.9kms of the TCH South Brook to West Bottom KM 511.1 to KM 516. Part "B" - Rehabilitate Southbrook Bridge TCH km 512.5, Parts "C" and "D" Grand Falls Windsor East and West Overpasses TCH km 433.3, and Part "E" Grand Falls Windsor Pedestrian Overpass TCH km 432.3, Part "F" Rehabilitate 5.6kms of the TCH, KM 392.5 to KM 398, East of Penstock Bridge.

CONTRACTOR: EDWARD COLLINS CONTRACTING LTD

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
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Transportation and Infrastructure

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LIST OF PROJECT PLANS

Part A/F LOCATION PLANS

QUARRY EXCLUSION ZONE

No.	DRAWING TITLE	No.	DRAWING TITLE
1	COVER SHEET		
	PART 'B'		
2	GENERAL ARRANGEMENT AND REPAIR DETAILS		
	PART 'C' & 'D'		
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	TYPICAL DETAILS		
5	ASPHALT PLUG EXPANSION JOINT DETAILS		
6	SITE NUMBER TO END BLOCK DETAIL		

Section One

Form of
Agreement

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
for use when a Bid Price forms the
basis of payment and to be used only
with the Contract Documents of the Contract**

THIS AGREEMENT made on the 18th of June in the year two thousand and twenty one.

BY AND BETWEEN

Her Majesty the Queen in Right of Newfoundland and Labrador as represented by the Minister of Transportation and Infrastructure acting pursuant to the Executive Council Act, SNL 1995 c. E-16.1.

hereinafter called the "Owner"

AND EDWARD COLLINS CONTRACTING LTD

hereinafter called the "Contractor"

WITNESSETH: that the Owner and Contractor undertake and agree as follows:

ARTICLE 1: THE WORK

The Contractor shall:

- (a) perform all the Work required by the Contract Documents for **PROJECT 046-21PHP** (See Bid Form for Description) which have been signed by both the parties,
- (b) do and fulfil everything indicated by this Agreement, and
- (c) commence the Work by the 18th day of June, 2021 and substantially perform the Work of this Contract as certified by the Owner's Representative by the **30th day of September, 2021.**

ARTICLE 2: CONTRACT DOCUMENTS

The following is an exact list of the Contract Documents referred to in Article A-1:
(SEE SPECIFICATION INDEX FOR LIST OF DOCUMENTS AND DRAWINGS).
See Attached

ARTICLE 3: CONTRACT PRICE

THE CONTRACT PRICE IS \$ Six Million Two Hundred and Sixty Three Thousand Five Hundred and Forty Nine Dollars and Fifty Two Cents (\$6,263,549.52) (HST INCLUDED) Canadian funds which price shall be subject to adjustments as may be required in accordance with the General Conditions of the Contract.

ARTICLE 4: PAYMENT

- (a) Subject to applicable legislation and, where such legislation does not exist or apply, in accordance with such prescribed regulations or industry practice respecting holdback percentages and in accordance with the provisions of the General Conditions of the Contract, the Owner shall:
 - (1) make monthly payments to the Contractor on account of the Contract Price. The amounts of such payments shall be as certified by the Owner; and
 - (2) upon Substantial Performance of the work as certified by the Owner pay to the contractor any unpaid balance of holdback monies then due; and
 - (3) upon Total Performance of the Work as certified by the Owner pay to the contractor any unpaid balance of the Contract Price then due.
- (b) If the Owner fails to make payments to the Contractor as they become due under the terms of this Contract or in any award by a court, interest at the rate and in the manner specified in GC21-Certificates and Payments, shall become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

ARTICLE 5: ADDRESSES FOR NOTICES

All communications in writing between the parties or between them and the Owner shall be deemed to have been received by the addressee if delivered to the individual or to a member of the firm or to an officer of the Corporation for whom they are intended or if sent by post addressed as follows:

The Owner at: Tendering & Contracts, Dept. of Transportation & Infrastructure
Ground Floor-West Wing, East Block, Confederation Bldg.
P.O. Box 8700, St. John's, NL A1B 4J6

The Contractor at: Edward Collins Contracting Ltd.
P.O. Box 51
Jerseyside, NL A0B 2G0

ARTICLE 6: SUCCESSION

The General Conditions of the Contract hereto annexed, and all other aforesaid Contract Documents, are all to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties and subject to law and the provisions of the Contract Documents shall ensure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors and assigns.

Transportation and Infrastructure

IN WITNESS WHEREOF the parties hereto have executed this Agreement under their respective corporate seals and by the hands of their proper officers hereunto duly authorized.

SIGNED, SEALED AND DELIVERED

in the presence of:

OWNER:**CONTRACTOR**

SIGNED

SIGNED

NAME AND TITLE

NAME AND TITLE

DATE

DATE**CORPORATE SEAL**

SIGNED / WITNESSED

NAME AND TITLE

DATE

N.B. Where any legal jurisdiction, local practice or client requirement calls for proof of authority to execute this document, proof of such authority in the form of a certified copy of a resolution naming the person or persons in question as authorized to sign the Agreement for and on behalf of the Corporation or Partnership, should be attached.

Section Two

Award Letter



Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Deputy Minister

JUN 18 2021
COR/2021/03375

Edward Collins Contracting Ltd
P.O. Box 51
Jerseyside, NL
A0B 2G0

Re: 046-21PHP - Road and Bridge Rehabilitation work on the TCH - Central Region

I am pleased to inform you that your bid for the above noted project in the amount of \$6,263,549.52 (HST Included) has been accepted, subject to you meeting the conditions listed below. You are advised that Government is subject to the Harmonized Sales Tax (HST) and HST must be added to each billing as a line item. (HST Registration #R107442683).

Please be advised that this acceptance is conditional upon our receipt of the following documents within two (2) weeks of the date of this correspondence to the Manager of Tendering and Contracts, Department of Transportation and Infrastructure, at the mailing address in the footer below:

- A completed certificate of insurance (enclosed);
- A performance security and a labour & materials security;

As contractor, you are responsible in ensuring that the work is carried out as outlined in the tender specifications. Where required, no work is to commence until a Site Specific Safety Plan has been submitted and approved.

A copy of the Agreement between Owner and Contractor will be forwarded via separate correspondence at a later date. I take this opportunity to remind you that it is the contractor's responsibility to ensure familiarity and compliance with the contract specifications and detailed terms and conditions. Once received, please have the Agreement Between Owner and Contractor signed and sealed by your company and returned to Tendering and Contracts at the below noted address within two (2) weeks. When the document has been counter-signed, an electronic copy will be forwarded to you for your records.

Please note that your bid security will be retained until all conditions are met and the documents are received. No work is to start and payments will not be made until the above noted conditions are met documents are received at Tendering and Contracts and the approval of the Department's designated representative is provided.

In the meantime, please contact our Regional Engineer, Wade Waterman at (709) 292-4313, Transportation and Infrastructure, Central Region, concerning this contract.



Sincerely,

A handwritten signature in black ink, appearing to read "Cory Grandy".

CORY GRANDY
Deputy Minister

"Don't Learn By Accident"

encl: Certificate of Insurance Form

cc. William Hillier, Director, Highway Design & Construction, TI
Wade Waterman, Regional Engineer, Central Region, TI
Loyola Power, Director, Occupational Health & Safety
David Legge, Occupational Health & Safety, TI
Donald Stone, Accounts Payable, TI
Brian Scott, Director of Communications, TI

Section Three

Bid Form

Bid Questions & Answers

Question Name	Question Description	Question Type	Edward Collins Contracting Ltd.
Question 1	Having carefully examined the site of the proposed work and all conditions affecting such, as well as the Contract Documents including the Specifications, all Drawings listed in the Specifications, all Amendments, and the Instructions to Bidders for this project; and hereby acknowledge the requirements of the Instructions to Bidders,	Mandatory	Yes
Question 2	WE, THE UNDERSIGNED, offer to furnish all necessary Labour, materials, superintendence, plant, tools and equipment, and everything else required to perform expeditiously and complete in a satisfactory manner the work for the sum as indicated.”	Mandatory	Yes
Question 3	The Work will be substantially performed within 2.0 months from the date of notification of award of contract or September 30, 2021, whichever is later.	Mandatory	Yes
Question 4	WE hereby acknowledge receipt of amendments issued related to this procurement.	Mandatory	Yes

Section Four

Engineering Verified Unit Price Table

Edward Collins Contracting Ltd.							
Item No	Code	Group Name	Description	UOM	Quantity	Price	Total Cost
1	0(a)	General	Mobilization & Demobilization	Lump-Sum	1	\$50,000.00	\$50,000.00
2	0(c)	General	Bid Limits Apply	Lump-Sum	1	\$100,000.00	\$100,000.00
			Accommodation of Traffic (SGC #14)	Lump-Sum			
3	0(d)	General	Contractor Safety Representative (CSR, See SGC 33)	Lump-Sum	1	\$20,000.00	\$20,000.00
4	6(b)	Excavation for Foundations	Other Material	Cubic Meter	14500	\$10.00	\$145,000.00
		Supply & Installation of Pipe Culverts (Polymer Coated)					
5	7(b)	SEE SGC 7	600mm Diameter	Linear Meter	87	\$275.00	\$23,925.00
		Supply & Installation of Pipe Culverts (Polymer Coated)					
6	7(c)	SEE SGC 7	800mm Diameter	Linear Meter	155	\$400.00	\$62,000.00
		Supply & Installation of Pipe Culverts (Polymer Coated)					
7	7(e)	SEE SGC 7	1000mm Diameter	Linear Meter	76	\$550.00	\$41,800.00
		Supply & Installation of Pipe Culverts (Polymer Coated)					
8	7(j)	SEE SGC 7	2000mm Diameter	Linear Meter	36	\$2,000.00	\$72,000.00
9	9(f)	Rip Rap Treatment	Hydraulic Class II (500 mm Diameter)	Cubic Meter	20	\$25.00	\$500.00
10	12(a)	Selected Granular Base Course	Granular 'A'	Tonne	1040	\$35.00	\$36,400.00
11	12(b)	Selected Granular Base Course	Granular 'B'	Tonne	9300	\$20.00	\$186,000.00
12	14(b)	Storage or Disposal of Old Asphaltic Pavement, SGC #9	Disposal of Old Asphaltic Pavement	Cubic Meter	275	\$10.00	\$2,750.00
13	15	Tack Coat	Tack Coat	Square Meter	235442	\$0.40	\$94,176.80
14	16(b)	Hot Mix Asphaltic Concrete	Hot Asphaltic Surface Course (SGC#10 and #30)	Tonne	21769	\$45.00	\$979,605.00
			Warm Asphaltic Levelling Course (Type 1) SGC #11 and #30				
15	16(f)	Hot Mix Asphaltic Concrete		Tonne	7123	\$45.00	\$320,535.00
16	16(g)	Hot Mix Asphaltic Concrete	Liquid Asphalt (58-28)	Tonne	787	\$1,000.00	\$787,000.00
			Liquid Asphalt (64-34 PMA)				
17	16(h)	Hot Mix Asphaltic Concrete	See SGC #31	Tonne	1072	\$1,275.00	\$1,366,800.00
18	16(j)	Hot Mix Asphaltic Concrete	Blending Sand	Tonne	4343	\$21.00	\$91,203.00
19	16(l)	Hot Mix Asphaltic Concrete	Asphaltic Patching (100mm) , SGC #12	Square Meter	1412	\$70.00	\$98,840.00
20	17(a)	Supply & Installation of Guide Rail (SGC #13)	Standard Type Guide Rail	Linear Meter	827	\$100.00	\$82,700.00
21	17(b)	Supply & Installation of Guide Rail (SGC #13)	Standard Type Buried Ends	Each	11	\$1,000.00	\$11,000.00
22	18	Removal & Disposal of Guide Rail	Removal & Disposal of Guide Rail	Linear Meter	910	\$10.00	\$9,100.00
23	21	Contingency	Contingency			\$65,000.00	\$65,000.00
24	23	Cleaning of Existing Ditches (SGC #15)	Cleaning of Existing Ditches (SGC #15)	Linear Meter	11000	\$12.00	\$132,000.00
25	28(a)	Disposal of Culvert or Pipe	All Sizes	Linear Meter	387	\$10.00	\$3,870.00
26	35	Cold Planing See (SGC #32)	Cold Planing See (SGC #32)	Square Meter	45040	\$1.00	\$45,040.00
27	47(d)	Supply Fill in Place	Supply Rock Fill in Place	Cubic Meter	1460	\$14.00	\$20,440.00
		Supply and Installation of Aluminum pipe culvert					
28	112	1400mm (SEE SGC 7)	Supply and Installation of Aluminum pipe culvert 1400mm (SEE SGC 7)	Linear Meter	33	\$1,500.00	\$49,500.00
29	122(a)	Clearing	Clearing 30m Right of Way (SGC#17)	Linear Kilometer	9	\$6,000.00	\$54,000.00
30	155	Blast Clean and Zinc Paint Pot Bearings (SCG #26)	Blast Clean and Zinc Paint Pot Bearings (SCG #26)	Unit	2	\$2,000.00	\$4,000.00
31	159	Replace Hazard Marker	Replace Hazard Marker	Unit	1	\$500.00	\$500.00
		Bridge Deck Waterproofing					
32	223	(SGC #27)	Bridge Deck Waterproofing (SGC #27)	Square Meter	2314	\$65.00	\$150,410.00
33	230(a)	Supply & Installation of Guide Rail - Structures (SGC#28)	Supply & Install Guiderail - Structures	Linear Meter	46	\$125.00	\$5,750.00
34	230(b)	Supply & Installation of Guide Rail - Structures (SGC#28)	Supply & Install Buried Ends	Each	4	\$1,100.00	\$4,400.00
35	236	Installation of Site Number Plates	Installation of Site Number Plates	Each	6	\$500.00	\$3,000.00
		Removal & Disposal of Old Asphalt From Structures (SGC #29)					
36	246		Removal & Disposal of Old Asphalt From Structures (SGC #29)	Cubic Meter	232	\$10.00	\$2,320.00
		Concrete Repairs with Latex Modified Concrete (SGC #23)					
37	250		Concrete Repairs with Latex Modified Concrete (SGC #23)	Cubic Meter	2	\$5,000.00	\$10,000.00
		Repair of Concrete Deck by Overlay					
38	252	(SGC #25)	Repair of Concrete Deck by Overlay (SGC #25)	Square Meter	390	\$300.00	\$117,000.00
39	257	Supply & Install Asphalt Plug Expansion Joint (SGC#24)	Supply & Install Asphalt Plug Expansion Joint (SGC#24)	Each	6	\$33,000.00	\$198,000.00
40	HST	Harmonized Sales Tax	Harmonized Sales Tax	Lump-Sum	1	\$816,984.72	\$816,984.72
			TOTAL ESTIMATED TENDER INCLUDING HST				\$6,263,549.52

Section Five

Distribution Table

	DISTRIBUTION TABLE		Part "A" Rehab 4.9kms TCH KM 511.1 to KM 516 South Brook to West Bottom	Part 'B' Rehabilitation of Southbrook Bridge	Part 'C' Rehabilitation of GFW West Overpass (Eastbound)	Part 'D' Rehabilitation of GFW West Overpass (Westbound)	Part 'E' Rehabilitation of GFW Pedestrian Overpass	Part "F" Rehabilitate 5.6kms of the TCH, KM 392.5 to KM 398, East of Penstock Bridge.
NO.	TENDER ITEM	Unit	Estimated Quantity	Estimated Quantity	Estimated Quantity	Estimated Quantity	Estimated Quantity	Estimated Quantity
0	General							
0(a)	Mobilization & Demobilization Bid Limits Apply	Lump-Sum	Bid this Item	Bid this Item	Bid this Item	Bid this Item	Bid this Item	Bid this Item
0(c)	Accommodation of Traffic (SGC #14)	Lump-Sum	Bid this Item	Bid this Item	Bid this Item	Bid this Item	Bid this Item	Bid this Item
0(d)	Contractor Safety Representative (CSR, See SGC 33)	Lump-Sum	Bid this Item	Bid this Item	Bid this Item	Bid this Item	Bid this Item	Bid this Item
6	Excavation for Foundations							
6(b)	Other Material	Cubic Meter	1900.0					12600.0
7	Supply & Installation of Pipe Culverts (Polymer Coated) SEE SGC 7							
7(b)	600mm Diameter	Linear Meter	77.0					10.0
7(c)	800mm Diameter	Linear Meter	25.0					130.0
7(e)	1000mm Diameter	Linear Meter	25.0					51.0
7(j)	2000mm Diameter	Linear Meter						36.0
9	Rip Rap Treatment							
9(f)	Hydraulic Class II (500 mm Diameter)	Cubic Meter	10.0					10.0
12	Selected Granular Base Course							
12(a)	Granular 'A'	Tonne	700.0					340.0
12(b)	Granular 'B'	Tonne	4500.0					4800.0
14	Storage or Disposal of Old Asphaltic Pavement, SGC #9							
14(b)	Disposal of Old Asphaltic Pavement	Cubic Meter	65.0					210.0
15	Tack Coat	Square Meter	113500.0	1200.0	400.0	400.0	1042.0	118900.0
16	Hot Mix Asphaltic Concrete							
16(b)	Hot Asphaltic Surface Course (SGC#10 and #30)	Tonne	6810.0	247.0	137.0	137.0	178.0	14260.0
16(f)	Warm Asphaltic Levelling Course (Type 1) SGC #11 and #30	Tonne	6810.0	116.0	75.0	75.0	47.0	
16(g)	Liquid Asphalt (58-28)	Tonne	430.0	8.0	5.0	5.0	4.0	335.0
16(h)	Liquid Asphalt (64-34 PMA) See SGC #31	Tonne	430.0	17.0	9.0	9.0	12.0	595.0
16(j)	Blending Sand	Tonne	2050.0	55.0	32.0	32.0	34.0	2140.0
16(l)	Asphaltic Patching (100mm) , SGC #12	Square Meter	260.0				2.0	1150.0

17	Supply & Installation of Guide Rail (SGC #13)							
17(a)	Standard Type Guide Rail	Linear Meter	275.0					552.0
17(b)	Standard Type Buried Ends	Each	4.0					7.0
18	Removal & Disposal of Guide Rail	Linear Meter	305.0					605.0
21	Contingency		5200.0	15600.0	15600.0	15600.0	7800.0	5200.0
23	Cleaning of Existing Ditches (SGC #15)	Linear Meter	5800.0					5200.0
28	Disposal of Culvert or Pipe							
28(a)	All Sizes	Linear Meter	160.0					227.0
35	Cold Planing See (SGC #32)	Square Meter		1200.0	400.0	400.0	1040.0	42000.0
47	Supply Fill in Place							
47(d)	Supply Rock Fill in Place	Cubic Meter	200.0					1260.0
112	Supply and Installation of Aluminum pipe culvert 1400mm (SEE SGC 7)	Linear Meter	33.0					
122	Clearing							
122(a)	Clearing 30m Right of Way (SGC#17)	Linear Kilometer	9.0					
155	Blast Clean and Zinc Paint Pot Bearings (SCG #26)	Unit			2.0			
159	Replace Hazard Marker	Unit		1.0				
223	Bridge Deck Waterproofing (SGC #27)	Square Meter		1050.0	450.0	450.0	364.0	
230	Supply & Installation of Guide Rail - Structures (SGC#28)							
230(a)	Supply & Install Guiderail - Structures	Linear Meter		46.0				
230(b)	Supply & Install Buried Ends	Each		4.0				
236	Installation of Site Number Plates	Each		2.0	2.0	2.0		
246	Removal & Disposal of Old Asphalt From Structures (SGC #29)	Cubic Meter		105.0	45.0	45.0	37.0	
250	Concrete Repairs with Latex Modified Concrete (SGC #23)	Cubic Meter		1.5	0.3	0.3		
252	Repair of Concrete Deck by Overlay (SGC #25)	Square Meter		210.0	90.0	90.0		
257	Supply & Install Asphalt Plug Expansion Joint (SGC#24)	Each		2.0	2.0	2.0		
HST	Harmonized Sales Tax	Lump-Sum						

Section Six

Declaration of
Equipment Form

DECLARATION OF EQUIPMENT APPENDIX 'A'

In the event of being awarded the contract, the undersigned will make available for the work, the plant and the equipment listed below.

QTY	DESCRIPTION	CAPACITY	AGE	PRESENT LOCATION	OWNERS NAME
4	290G EXCAVATORS	32T	2015	ARLENTA, NL	ECLL
2	744K 3-D LOADERS	6.5 cu yd/m	2015	ARLENTA, NL	ECLL
1	CAT 655 D PAVER.	—	2009	ARLENTA, NL	ECLL
2	W.S SEMI DUMP LOBE BOTTOMS	32T	2020	DEER LAKE, NL	ECLL
2	W.S SEMI DUMP LOBE BOTTOMS	32T	2018	ARLENTA, NL	ECLL
1	K.W SEMI DUMP LOBE BOTTOM	32T	2000	ARLENTA, NL	ECLL
1	F.L SEMI DUMP LOBE BOTTOM	32T	2013	ARLENTA, NL	ECLL
1	INT. T-T DUMP TRUCK	20T	2009	ARLENTA, NL	ECLL
2	W.S T-T DUMP TRUCKS	20T	2018	ARLENTA, NL	ECLL
1	C44 McCloskey CRANE	—	2014	ARLENTA, NL	ECLL
1	J 50 McCloskey JAW	—	2009	ARLENTA, NL	ECLL
1	MFE TRAPIC DRUM SCISSOR	—	2006	ARLENTA, NL	ECLL
1	S190 McCloskey SCISSOR	—	2014	ARLENTA, NL	ECLL
1	R236 McCloskey SCISSOR	—	2017	STEPHENSBURG, NL	ECLL
1	LINTEC Lx4400S PLANT	160 TPH	2017	STEEL MOUNTAIN, NL	ECLL
1	PONDFAL SPS-2500C SHUTTERING	25T	2005	DEER LAKE, NL	ECLL
1	CAT PS150B PNEUMATIC ROLLER	—	2002	DEER LAKE, NL	ECLL
1	CAT CS54B ROLLER	10T	2013	ARLENTA, NL	ECLL
1	WKEBLOW 2200mm GOLF PLANT	2200mm	2014	ARLENTA, NL	ECLL
1	CAT CB534D XLW ROLLER	—	2003	ARLENTA, NL	ECLL
CONTRACTOR <u>EDWARD COLLIER CONTRACTORS LTD.</u>					
ADDRESS <u>P.O. Box 51 JERSEY/STEE, NL</u>					
DATE <u>JUNE. 17/2021</u>					

Section Seven

Declaration of
Subcontractors

DECLARATION OF SUB CONTRACTORS

APPENDIX 'B'

The Tender submitter also agrees that the following is a complete list of Sub-Contractors that will be required in the performance of the work and that no addition, deletion, or changes to this list will be permitted after the list is submitted.

State OWN FORCES if a Sub-Contractor is not required for any of the trades listed. If additional trades are required, insert in blank spaces.

[illegible]

Section Eight

Construction Schedule Form

CONSTRUCTION SCHEDULE FORM APPENDIX 'C'

Section Nine

Contractor's Insurance and Securities

CERTIFICATE OF INSURANCE

DESCRIPTION & LOCATION OF WORK : Road and Bridge Rehabilitation work on the TCH – Central Region 046-21 PHP – Road and Bridge Rehabilitation work on the TCH – Central Region Part "A" – Rehabilitate 4.9 kms of the TCH South Brook to West Bottom KM 511.1 to KM 516. Part "B" – Rehabilitate Southbrook Bridge TCH km 512.5 Parts "C" and "D" Grand Falls Windsor East and West Overpasses TCH km 433.3 and Part "E" Grand Falls Windsor Pedestrian Overpass TCH km 432.3 Part "F" Rehabilitate 5.6kms of the TCH, KM 392.5 to KM 398, East of Penstock Bridge.				
PROJECT NO: 046-21PHP		AWARD DATE: June 28 th , 2021		VALUE: \$6,263,549.52 (HST Incl.)
INSURER: Northbridge General Insurance Corporation (Section 1.1 – Section 3)				
INSURER: Certain Underwriters at Lloyd's (Section 6)				
INSURER ADDRESS: 1801 Hollis Street, Suite 900, Halifax, NS B3J 3N4				
BROKER: AON Reed Stenhouse Inc.				
BROKER ADDRESS: 125 Kelsey Drive, Suite 100, St. John's, NL A1B 0L2				
INSURED NAME OF CONTRACTOR: Edward Collins Contracting Ltd.				
CONTRACTOR ADDRESS: P O Box 51, Jerseyside, NL A0B 2G0				
ADDITIONAL INSURED (Excluding Automobile Liability Policy) ✓ The OWNER: "Her Majesty the Queen in Right of the Province of NL as represented by the Minister of Transportation & Infrastructure. Dept. of Transportation & Infrastructure, P.O. Box 8700, St. John's, NL., A1B 4J6, Attn: Tendering & Contracts ✓ The Occupant/Operator of the Property: ✓ Project Consultants of the OWNER: (excluding professional liabilities)				
This document certifies that the following policies of insurance and indicated coverage are at present in force subject to the terms, conditions and exclusions as contained therein covering the operations of the insured in connection with the above noted contract made between the named insured and the Owner.				
POLICY TYPE	NUMBER	INCEPTION DATE	EXPIRY DATE Y/M/D	LIMITS OF LIABILITY
1.1 COMMERCIAL GENERAL LIABILITY or 1.2 WRAP-UP LIABILITY (Including where indicated) A. BLASTING B. PILE DRIVING OR CAISSON WORK C. REMOVAL OR WEAKENING OF SUPPORT	CBC 0912261	2020/08/15	2021/08/15	\$2,000,000 Minimum
2A. BUILDERS' RISK "BROAD FORM" or 2B. INSTALLATION FLOATER "BROAD FORM" or 2C. PIERS, WHARVES, & DOCKS RIDER	Not required			
3. AUTOMOBILE LIABILITY INSURANCE	CBC 0912261	2020/08/15	2021/08/15	\$2,000,000 Minimum
4. AIRCRAFT AND/OR WATERCRAFT WATERCRAFT LIABILITY (IF APPLICABLE)	Not required			\$2,000,000 Minimum
5. AIRPORT CONTRACTORS LIABILITY	Not required			\$5,000,000.00 Minimum
6. ENVIRONMENTAL IMPAIRMENT LIABILITY	20123308	2020/10/25	2021/08/15	\$2,000,000 Minimum
The Insurer will endeavour to notify the Owner and Her Majesty, as defined above, in writing, thirty (30) days prior to cancellation, termination or material change of any policy.				
NAME OF INSURER'S OFFICER or AUTHORIZED REPRESENTATIVE : Aon Reed Stenhouse Inc.	SIGNATURE: <i>Aon Reed Stenhouse Inc</i>		Date: June 22 nd , 2021	
			Tel.: 709-739-1040	
			Email: dianne.buckle@aon.ca	
Issuance of this certificate shall not limit or restrict the right of the Owner to request at any time duplicate certified copies of said insurance policies.				



PERFORMANCE

No. 534,413

Bond Amount \$3,131,774.76

EDWARD COLLINS CONTRACTING LIMITED as Principal, hereinafter called the Principal, and **WESTERN SURETY COMPANY** a corporation created and existing under the laws of Canada and duly authorized to transact the business of Suretyship in all provinces and territories of Canada, as Surety, hereinafter called the Surety, are held and firmly bound unto **HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF NEWFOUNDLAND AND LABRADOR AS REPRESENTED BY THE DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE** as Obligor, hereinafter called the Obligor, in the amount of **THREE MILLION ONE HUNDRED AND THIRTY ONE THOUSAND SEVEN HUNDRED AND SEVENTY FOUR -----76/100 DOLLARS (\$3,131,774.76)** lawful money of Canada, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS, the Principal has entered into a written contract with the Obligor, dated 18th day of June, in the year 2021 for **046-21 PHP – ROAD AND BRIDGE REHABILITATION WORK ON THE TCH – CENTRAL REGION. PART “A” – REHABILITATE 4.9 KMS OF THE TCH SOUTH BROOK TO WEST BOTTOM KM 511.1 TO KM 516. PART “B” – REHABILITATE SOUTHBROOK BRIDGE TCH KM 512.5 PARTS “C” AND “D” GRAND FALLS WINDSOR EAST AND WEST OVERPASSES TCH KM 433.3 AND PART “E” GRAND FALLS WINDSOR PEDESTRIAN OVERPASS TCH KM 432.3 PART “F” REHABILITATE 5.6KMS OF THE TCH, KM 392.5 TO KM 398, EAST OF PENSTOCK BRIDGE., SOUTHBROOK, NEWFOUNDLAND AND LABRADOR** including One(1) year maintenance from the date of substantial completion hereinafter referred to as the Contract.

The condition of this obligation is such that if the Principal shall promptly and faithfully perform the Contract then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever the Principal shall be, and declared by the Obligor to be, in default under the Contract, the Obligor having performed the Obligor's obligations thereunder, the Surety shall promptly:

- 1) remedy the default, or;
- 2) complete the Contract in accordance with its terms and conditions or;
- 3) obtain a bid or bids for submission to the Obligor for completing the Contract in accordance with its terms and conditions and upon determination by the Obligor and the Surety of the lowest responsible bidder, arrange for a contract between such bidder and the Obligor and make available as work progresses (even though there should be a default, or a succession of defaults, under the contract or contracts of completion, arranged under this paragraph) sufficient funds to pay to complete the Principal's obligations in accordance with the terms and conditions of the Contract and to pay those expenses incurred by the Obligor as a result of the Principal's default relating directly to the performance of the work under the Contract, less the balance of the Contract price; but not exceeding the Bond Amount. The balance of the Contract price is the total amount payable by the Obligor to the Principal under the Contract, less the amount properly paid by the Obligor to the Principal, or;
- 4) pay the Obligor the lesser of (1) the Bond Amount or (2) the Obligor's proposed cost of completion, less the balance of Contract price.

It is a condition of this bond that any suit or action must be commenced before the expiration of two (2) years from the earlier of (1) the date of Substantial Performance of the Contract as defined in the lien legislation where the work under the Contract is taking place, or, if no such definition exists, the date when the work is ready for use or is being used for the purpose intended, or (2) the date on which the Principal is declared in default by the Obligor.

The Surety shall not be liable for a greater sum than the Bond Amount.

No right of action shall accrue on this Bond, to or for the use of, any person or corporation other than the Obligor named herein, or the heirs, executors, administrators or successors of the Obligor.

IN WITNESS WHEREOF, the Principal and the Surety have Signed and Sealed this Bond dated 22nd day of June, in the year 2021

SIGNED and SEALED
in the presence of

EDWARD COLLINS CONTRACTING LIMITED
Signed electronically by Principal
Francis Collins
Francis Collins
1974
Signature
Name of person signing
EDWARD COLLINS CONTRACTING LIMITED



Copyright 2002

Canadian Construction Documents Committee

(CCDC 221 – 2002 has been approved by the Surety Association of Canada)

WESTERN SURETY COMPANY, Inc. by _____
Signature _____ Surety
Dianne Buckle
of 2021-06-22 12:56:24 GMT
Dianne Buckle, Attorney-in-Fact
Name of person signing



LABOUR & MATERIAL PAYMENT BOND (Trustee Form)

Standard Construction Document

DC 222 - 2002

No. 534,413

Bond Amount \$3,131,774.76

EDWARD COLLINS CONTRACTING LIMITED as Principal, hereinafter called the Principal, and **WESTERN SURETY COMPANY** a corporation created and existing under the laws of Canada and duly authorized to transact the business of Suretyship in all provinces and territories of Canada, as Surety, hereinafter called the Surety, are held and firmly bound unto **HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF NEWFOUNDLAND AND LABRADOR AS REPRESENTED BY THE DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE** as Oblige, hereinafter called the Oblige, in the amount of **THREE MILLION ONE HUNDRED AND THIRTY ONE THOUSAND SEVEN HUNDRED AND SEVENTY FOUR —————76/100 DOLLARS (\$3,131,774.76)** lawful money of Canada, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS, the Principal has entered into a written contract with the Oblige, dated 18th day of June, in the year 2021 for **046-21 PHP – ROAD AND BRIDGE REHABILITATION WORK ON THE TCH – CENTRAL REGION. PART “A” – REHABILITATE 4.9 KMS OF THE TCH SOUTH BROOK TO WEST BOTTOM KM 511.1 TO KM 516. PART “B” – REHABILITATE SOUTH BROOK BRIDGE TCH KM 512.5 PARTS “C” AND “D” GRAND FALLS WINDSOR EAST AND WEST OVERPASSES TCH KM 433.3 AND PART “E” GRAND FALLS WINDSOR PEDESTRIAN OVERPASS TCH KM 432.3 PART “F” REHABILITATE 5.6KMS OF THE TCH, KM 392.5 TO KM 398, EAST OF PENSTOCK BRIDGE., SOUTH BROOK, NEWFOUNDLAND AND LABRADOR** in accordance with the Contract Documents submitted, and which are by reference made part hereof and are hereinafter referred to as the Contract.

The Condition of this obligation is such that, if the Principal shall make payment to all Claimants for all labour and material used or reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

1. A Claimant for the purpose of this Bond is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof, shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial rental value of equipment shall be determined, insofar as it is practical to do so, by the prevailing rates in the equipment marketplace in which the work is taking place.
2. The Principal and the Surety, hereby jointly and severally agree with the Oblige, as Trustee, that every Claimant who has not been paid as provided for under the terms of its contract with the Principal, before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labour was done or performed or materials were furnished by such Claimant, may as a beneficiary of the trust herein provided for, sue on this Bond, prosecute the suit to final judgment for such sum or sums as may be justly due to such Claimant under the terms of its contract with the Principal and have execution thereon. Provided that the Oblige is not obliged to do or take any act, action or proceeding against the Surety on behalf of the Claimants, or any of them, to enforce the provisions of this Bond. If any act, action or proceeding is taken either in the name of the Oblige or by joining the Oblige as a party to such proceeding, then such act, action or proceeding, shall be taken on the understanding and basis that the Claimants, or any of them, who take such act, action or proceeding shall indemnify and save harmless the Oblige against all costs, charges and expenses or liabilities incurred thereon and any loss or damage resulting to the Oblige by reason thereof. Provided still further that, subject to the foregoing terms and conditions, the Claimants, or any of them may use the name of the Oblige to sue on and enforce the provisions of this Bond.
3. It is a condition precedent to the liability of the Surety under this Bond that such Claimant shall have given written notice as hereinafter set forth to each of the Principal, the Surety and the Oblige, stating with substantial accuracy the amount claimed, and that such Claimant shall have brought suit or action in accordance with this Bond, as set out in sub-clauses 3 (b) and 3 (c) below. Accordingly, no suit or action shall be commenced hereunder by any Claimant:
 - a) unless such notice shall be served by mailing the same by registered mail to the Principal, the Surety and the Oblige, at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or Territory in which the subject matter of the Contract is located. Such notice shall be given.
 - i) in respect of any claim for the amount or any portion thereof, required to be held back from the Claimant by the Principal, under either the terms of the Claimant's contract with the Principal, or under the lien Legislation applicable to the Claimant's contract with the Principal, whichever is the greater, within one hundred and twenty (120) days after such Claimant should have been paid in full under the Claimant's contract with the Principal;
 - ii) in respect of any claim other than for the holdback, or portion thereof, referred to above, within one hundred and twenty (120) days after the date upon which such Claimant did, or performed, the last of the work or labour or furnished the last of the materials for which such claim is made under the Claimant's contract with the Principal;

- b) after the expiration of one (1) year following the date on which the Principal ceased work on the Contract, including work performed under the guarantees provided in the Contract;
 - c) other than in a Court of competent jurisdiction in the Province or Territory in which the work described in the Contract is to be installed or delivered as the case may be and not elsewhere, and the parties hereto agree to submit to the jurisdiction of such Court.
4. The Surety agrees not to take advantage of Article 2365 of the Civil Code of the Province of Quebec in the event that, by an act or an omission of a Claimant, the Surety can no longer be subrogated in the rights, hypothec and privileges of said Claimant.
 5. Any material change in the contract between the Principal and the Obligor shall not prejudice the rights or interest of any Claimant under this Bond, who is not instrumental in bringing about or has not caused such change.
 6. The amount of this Bond shall be reduced by, and to the extent of any payment or payments made in good faith, and in accordance with the provisions hereof, inclusive of the payment by the Surety of claims made under the applicable lien legislation or legislation relating to legal hypothecs, whether or not such claim is presented under and against this Bond.
 7. The Surety shall not be liable for a greater sum than the Bond Amount.

IN WITNESS WHEREOF, the Principal and the Surety have Signed and Sealed this Bond dated 22nd day of June, in the year 2021.

SIGNED and SEALED

in the presence of

EDWARD COLLINS CONTRACTING LIMITED
 Signed electronically by Principal
Edward Collins
 2021-06-22 18:55:20 GMT
 1974
 Signature
 Name of person signing

WESTERN SURETY COMPANY
 Signed electronically by Surety
Dianne Buckle
 2021-06-22 18:55:12 GMT
 Signature
 Dianne Buckle, Attorney-in-Fact
 Name of person signing

Section Ten

Tender Amendment Forms

AMENDMENT NO. 1

Project No. 46-21 PHP: Road and Bridge Rehabilitation work on the TCH – Central Region

Part “A” - Rehabilitate 4.9kms of the TCH South Brook to West Bottom KM 511.1 to KM 516. Part “B” - Rehabilitate Southbrook Bridge TCH km 512.5, Parts “C” and “D” Grand Falls Windsor East and West Overpasses TCH km 433.3, and Part “E” Grand Falls Windsor Pedestrian Overpass TCH km 432.3, Part “F” Rehabilitate 5.6kms of the TCH, KM 392.5 to KM 398, East of Penstock Bridge.

Closing Date: Noon, June 16th, 2021

CONTRACTORS ARE ADVISED OF THE FOLLOWING CHANGES TO THE TENDER PACKAGE:

1. This solicitation is undertaken in accordance with section 6(iv) of the Public Procurement Act. In lieu of a public opening and to comply with Special Measures Orders pursuant to the Public Health Protection and Promotion Act, the opening of submissions will be held on the designated date and time with two representatives of the Department of Transportation and Infrastructure Tendering and Contracts Division and will be audio recorded.
2. Modify SGC 24 – “ITEM #257 OF THE UNIT PRICE TABLE: SUPPLY AND INSTALL ASPHALTIC EXPANSION JOINT SYSTEM”, by replacing the sentence:
“Refer to Section 919.10 and 919.11 in the Specification Book for details”
With:
“Refer to Section 913 in the Specification Book for details”

Contractors are advised to acknowledge receipt of this Amendment when:

- (i) submitting a Bid electronically, by using the online acknowledgement space provided; or
- (ii) submitting Bids in paper form, by submitting the Open Call for Bids Form.

Date June 11th, 2020

Section Eleven

Instructions to Bidders

Transportation and Infrastructure

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Transportation and Infrastructure

1. INTERPRETATION

- (a) This document shall be governed by and interpreted in accordance with the laws of the Province of Newfoundland and Labrador and the laws of Canada.
- (b) Where the Contractor consists of more than one person, the obligations of the Contractor shall be joint and several.
- (c) If any provision of this Contract is void, illegal, invalid or unenforceable; it shall be severable from the Contract and shall not invalidate or impair the remaining provisions of the Contract.
- (d) The Contractor is acknowledged to be an independent Contractor and neither the Contractor, nor any officer, servant nor agent of the Contractor is deemed to be an employee of the Government of Newfoundland and Labrador.
- (e) The Contract constitutes the entire agreement between the Government of Newfoundland and Labrador and the Contractor. There are no other agreements of any kind other than those contained within the Contract.

2. OPEN CALL FOR BIDS

- (a) Bids must be received on or before the exact closing time and date indicated in the advertisement. BIDS RECEIVED AFTER THAT TIME WILL NOT BE CONSIDERED OR OPENED.
- (b) The Form of Agreement is included in the Contract Documents at the time of the Open Call for Bids for the purpose of information to Bidders and shall not be completed at the time of Bid submission.
- (c) Before submitting a Bid, Bidders shall carefully examine the Contract Documents and the site of the proposed Work and fully inform themselves of the existing conditions and limitations. No subsequent allowance under the Contract Documents will be considered for any Bidder who had failed to become familiar with all aspects of the Work.
- (d) By submitting a Bid, a Bidder represents to the Government of Newfoundland and Labrador that the Bidder has made such examination and is satisfied as to the conditions that will be encountered in performing the Work and as to the requirements described in the Open Call for Bids.
- (e) The Owner will not defray any expenses incurred by the Bidders in the preparation and submission of their Bids.
- (f) Bidders shall identify any information in the Bid that may qualify for an exemption from disclosure under subsection 39(1) of the **Access to Information and Protection of Privacy Act, 2015**.
- (g) This procurement is subject to trade agreements, such as the Canada Free Trade Agreement and the Canada European Union Comprehensive & Economic Trade Agreement, where applicable.

Transportation and Infrastructure

3. CONTRACT DOCUMENTS

- (a) Notices of Open Calls for Bids will be posted on the Government of Newfoundland and Labrador's online procurement service provider website www.MERX.com
- (b) The Contract Documents that form part of the Open Call for Bids consist of the Instructions to Bidders, Electronic Bid Form, Agreement, General Conditions, Supplementary General Conditions, Drawings, Specifications, and any Amendments to the Contract Documents issued during the Bid period.
- (c) Every interpretation of, or addition to, the Contract Documents to be considered a valid part of the Contract Documents will be issued in the form of a written amendment.
- (d) No amendments will be issued less than five (5) days prior to the closing date of the Open Call for Bids.
- (e) Bidders are responsible for ensuring they have received all Open Call for Bids Amendments and are advised to check the Government of Newfoundland and Labrador's online procurement service provider website for Open Call for Bids Amendments before submitting their Bids.
- (f) Bidders shall acknowledge amendments by using the online acknowledgement space provided.
- (g) The Government of Newfoundland and Labrador may also avail of the e-procurement service provider, MERX, audit log for the purpose of verifying Bidder receipt and/or acknowledgement of amendments.
- (h) All work to be Substantially Performed within the timeframe indicated in the Supplementary General Conditions or the Agreement, whichever is later.

4. ENQUIRIES

- (a) A Bidder is solely responsible for obtaining all information that may be necessary in order to understand the requirements of the Open Call for Bids and to submit a Bid in accordance with the terms and conditions of the Open Call for Bids.
- (b) If a Bidder finds errors, discrepancies or omissions in the Open Call for Bids, the Bidder should notify the Contract Administrator of the error, discrepancy or omission as soon as possible. If a Bidder is unsure of the meaning or intent of any provision in the Open Call for Bids, the Bidder should request clarification from the Contract Administrator.
- (c) All enquiries related to the Open Call for Bids must be directed, in writing, to the Contract Administrator identified in the Open Call for Bids.
- (d) Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction or modification to the Open Call for Bids will be provided by an Amendment.

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- (e) Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction or modification to the Open Call for Bids, will be provided by the Contract Administrator only to the Bidder that made the enquiry.
- (f) A Bidder is not entitled to rely on any response or interpretation received pursuant to an enquiry unless that response or interpretation is provided in writing by the Contract Administrator or by an Amendment to the Open Call for Bids.
- (g) If a Bidder has sent an enquiry and has not received any acknowledgement of its enquiry, the Bidder should follow up with the Contract Administrator.
- (h) Enquiries received within 48 hours of the Submission Deadline may not receive a response from the Contract Administrator.

5. BID SURETY AND BONDING

- (a) Bidding Security
 - (i) Every Bidder shall submit with the Bid a Bid Bond issued by an approved Surety Company licensed to do business in the Province of Newfoundland and Labrador and made out in favour of the Newfoundland Exchequer Account.
 - (ii) The Bid Bond shall be at least ten percent (10%) of the Bid amount, including the Harmonized Sales Tax (HST). All Bids, regardless of monetary value require a Bid Security of at least ten percent (10%) of the total Bid amount, with a minimum security of five hundred dollars (\$500.00). Bid Securities shall be in the form of a Bid Bond or Certified Cheque in favour of the Newfoundland Exchequer. An approved certified cheque may be substituted in lieu of the Bid Bond. The bidding security will be returned upon receipt of the Performance and Labour and Materials Payment Bonds.
 - (iii) For Bids less than \$25,000.00, the terms of the Bid Security will be invoked and the amount retained by the Owner, if the Bidder fails to provide the required insurances and commence work within 30 days of being notified of the award of the Work within the Open Call for Bids validity period.
 - (iv) The Bid Security of the unsuccessful Bidders numbers 2 & 3 will be returned to them upon receipt of all documentation from the successful bidder or expiry of the irrevocable bid period, whichever comes first. Bid Securities of Bidders higher than 3 will be returned after the Open Call for Bids opening.
 - (v) Failure to submit a Bid security in accordance with this requirement will result in rejection of Bid submitted.
 - (vi) The terms of the Bid security will be invoked and the amount retained by the Owner if the Bidder fails to enter into an agreement when notified of the award of the Work within the Open Call for Bids validity period; or fails to provide the

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Performance and Labour and Materials Payment Bonds in the amount and within the period specified.

(b) Performance Bond

- (i) A Performance Bond will be required in the amount of fifty percent (50%) of the contract price, not including the Harmonized Sales Tax (HST). The Performance Security is to be received not later than two (2) weeks after the award of the contract and prior to the formal execution of the agreement. No work is to be undertaken until the Performance Security has been received. Performance Security will not be required for a contract value of less than \$25,000.
- (ii) In lieu of the Performance Bond, the Minister may accept at their sole discretion an approved certified cheque for ten percent (10%) of the Bid amount, not including the Harmonized Sales Tax (HST). The cheque will be retained until satisfactory completion of the Work including the warranty period, after which this amount will be returned to the Contractor together with the accrued interest thereon at the current bank rate.

(c) Labour and Materials Payment Bond

- (i) A Labour and Materials Payment Bond will be required in the amount of fifty percent (50%) of the contract price, not including the Harmonized Sales Tax (HST). The Labour and Materials Payment Bond is to be received not later than two (2) weeks after the award of the contract and prior to the execution of the formal agreement. No work is to be undertaken until the Labour and Materials security has been received. Labour and Materials security will not be required for a contract valued at less than \$25,000.
- (ii) In lieu of the Labour and Materials Payment Bond, the Minister may accept at their sole discretion an approved certified cheque of ten percent (10%) of the Bid amount. The cheque will be retained until substantial completion of the Work. This security, if in the form of a cheque, will be returned to the Contractor together with the accrued interest thereon at the current bank rate.

(d) E-Bonds

- (i) Contractors may provide Bid Bonds, Performance Bonds as well as Labour and Material Payment Bonds in either paper or electronic format (E-Bonds).
- (ii) In accordance with the recommendations of the Surety Association of Canada, the E-Bonds shall be digitally verifiable through a third party digital certification service provider that can maintain integrity of E-Bond content and provide secure access to the E-Bond such as Mobile Bonds, Xenex Enterprises or Trisura Guarantee Insurance Company.
- (iii) All security bonds, paper or E-Bonds are to be submitted through the MERX website.

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- (e) Contractors are advised that Certified Cheques, Money Orders, or Bank Drafts from a recognized financial institution registered to do business in the Province of Newfoundland and Labrador, are acceptable forms of Bid Surety and Bonding in lieu of Bonds for Bid Security, Performance Bonds, and Labour and Materials Payment Bonds. No other forms of Bid Surety and Bonding, including cash, will be accepted.
- (f) Where a certified cheque, money order or bank draft is the format chosen by the Bidder, and the Bid is submitted electronically, the Bidder may submit the certified cheque, money order or bank draft in person at the Tendering and Contracts office prior to closing, or via registered post. The registered post must be received no later than two (2) business days after the submission deadline or the Bid will be disqualified. The Bidder must scan a copy of the certified cheque and registered mail receipt and include the documentation with the electronic Bid.

6. BID PROCEDURES

- (a) Bids must be submitted before the Submission Deadline using one of the submission methods specified in the Open Call for Bids for this purpose.
- (b) Bids received by the Government of Newfoundland and Labrador after the Submission Deadline, or at an incorrect Submission Location will be rejected.
- (c) The Government of Newfoundland and Labrador may extend the Submission Deadline by issuing an Amendment to the Open Call for Bids at any time before the Submission Deadline.
- (d) For the purpose of the evaluation of Bids received in the Electronic Bid Form
 - (i) the Bid shall be the Total Bid Amount.
 - (ii) Costs associated with Unit Price Work will vary depending upon the quantities authorized by the Owner during the course of construction and the final contract amount will be adjusted accordingly, upwards or downwards, based upon the quoted unit rate, within the limits of the **Public Procurement Act**.
- (e) **ONLINE BID SUBMISSION PROCEDURES**
 - (i) The online procurement service provider for the Government of Newfoundland and Labrador is www.MERX.com.
 - (ii) Bidders are required to submit a Bid through the Government of Newfoundland and Labrador's online procurement service provider.
 - (iii) The Bidders are required to register a user profile with the Government of Newfoundland and Labrador's online procurement service provider, and the submission procedures set out on the online procurement service provider website shall apply, including those with respect to Amendment Acknowledgements and Bid Bond submission.

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- (iv) It is solely the Bidder's responsibility to ensure that its Bid is received by the online procurement service provider before the Submission Deadline. Bids received after the Submission Deadline will not be accepted.
- (f) If the Government of Newfoundland and Labrador requests more information about a Bidder's legal name or status, address or contact information, the Bidder must provide the Government of Newfoundland and Labrador with such information within three (3) calendar days of the request. Failure to provide the Government of Newfoundland and Labrador with the requested information within such time period may result in that Bidder's Bid being rejected.
- (g) It is solely the Bidder's responsibility to ensure that its Bid and any Bid change or Bid withdrawal is received prior to the Submission Deadline.

7. REQUIRED DOCUMENTS WITH BID SUBMISSION

Evidence of compliance with all requirements with respect to worker's compensation (Workplace NL Certificate of Clearance documentation) and Certificate of Recognition (COR) certified from the Newfoundland and Labrador Construction Safety Association (NLCSA) where required must be uploaded in the space provided in the electronic bidding system at the time of bid submission. Failure to provide these documents at the time of bidding may result in disqualification of bid.

8. CURRENCY AND TAX CONDITIONS

- (a) All prices must be quoted in Canadian dollars.
- (b) Newfoundland and Labrador certifies that the amounts payable to the successful Bidder for the Work will be paid by the Government of Newfoundland and Labrador with Crown funds.

9. GOVERNMENT OF NEWFOUNDLAND AND LABRADOR OWNERSHIP AND RELEASE OF INFORMATION

- (a) Bids that are not withdrawn in accordance with these Bidding Procedures become the property of the Government of Newfoundland and Labrador after the Submission Deadline.
- (b) The Bidder is advised that any information contained in a Bid may be released by the Government of Newfoundland and Labrador in original or other forms if authorized or required by the Government of Newfoundland and Labrador's policies or procedures, including these Bidding Procedures, or by any law, including the **Auditor General Act (Newfoundland and Labrador)**, and the **Access to Information and Protection of Personal Privacy Act (2015)**.

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- (c) The financial value of the contract will be publicly released by the Government of Newfoundland and Labrador as a part of the award notification.

10. IRREVOCABLE BID PERIOD

- (a) The Government of Newfoundland and Labrador will endeavour to award a Contract within the specified validity period; however, Bids are irrevocable for sixty (60) calendar days after the Submission Deadline. A Bidder is bound to enter into the Contract if it is awarded the Contract during this period of irrevocability.
- (b) The Government of Newfoundland and Labrador may request that Bidders agree to an extension of this period of irrevocability. The Bid of each Bidder that consents to such an extension remains irrevocable for the additional time requested by the Government of Newfoundland and Labrador. The Bid of each Bidder that does not consent to such an extension remains irrevocable for the irrevocable Bid period currently in force upon the Bid.
- (c) No Bidder has any obligation to enter into a Contract with the Government of Newfoundland and Labrador upon the expiration of the irrevocable Bid period. Where the irrevocable Bid period in force upon a Bid has expired, further Bid information will not be released by the Government of Newfoundland and Labrador provided the Bidder has so requested.

11. BIDDER DECLARATIONS

- (a) In submitting a Bid, the Bidder declares that the Bidder:
 - (i) is incorporated and in good standing under **The Corporations Act (Newfoundland and Labrador)**, or otherwise authorized or permitted to legally carry on business in the Province of Newfoundland and Labrador;
 - (ii) is financially capable of carrying out the terms of the Contract; and
 - (iii) possesses all the necessary experience, capital, organization, and equipment to perform the Work in accordance with the terms and conditions of the Contract.
- (b) In submitting a Bid, the Bidder declares and represents that it has not knowingly participated in bid-rigging, collusion, or fraud in the preparation of its Bid. Further, the Bidder declares and represents that it has produced the Bid independently from, and without consultation, communication, agreement or arrangement with, any competitor, except where the competitor intends to become a Subcontractor for a portion of the Work or intends to form a joint venture arrangement with the Bidder.
- (c) The Bidder is advised that, under the **Competition Act (Canada)**, the Bidder is responsible for notifying The Government of Newfoundland and Labrador of any aforementioned agreements or arrangements with its competitors.

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- (d) In submitting a Bid, the Bidder declares and represents that the Bidder does not knowingly have a conflict of interest related to the performance of the Work by the Bidder or by its Subcontractors. If the Bidder is in doubt as to whether individuals or circumstances give rise to a conflict of interest, the Bidder should consult with the Contract Administrator prior to submitting a Bid. The Government of Newfoundland and Labrador may reject any Bid if, in its sole discretion, the Government of Newfoundland and Labrador determines that an actual or potential conflict of interest exists.
- (e) By submitting a Bid, the Bidder agrees that:
 - (i) the Open Call for Bids, in its entirety, is deemed to be incorporated into and form part of the Bid notwithstanding that all parts of the Open Call for Bids may not be attached to or accompany the Bid;
 - (ii) all Open Call for Bids amendments have been received, considered and addressed in the Bid;
 - (iii) any changes to the submitted Bid received by the Government of Newfoundland and Labrador before the Submission Deadline form part of the Bid;
 - (iv) any proposals, counter-offers, qualifications or changes to the terms, conditions or specifications in the Open Call for Bids by the Bidder will not be accepted by the Government of Newfoundland and Labrador but will be disregarded and will not be incorporated into the Contract;
 - (v) if they are the preferred Bidder, the Bidder will enter into a Contract with the Government of Newfoundland and Labrador to complete the Work in accordance with the Bid and the terms, conditions and specifications contained in the Open Call for Bids; and
 - (vi) the Bid will form part of the Contract.
- (f) Bidders will not engage in any form of political or other lobbying whatsoever in relation to the Open Call for Bids, including for the purpose of influencing the outcome of the process. Further, no such person (other than as expressly contemplated by this Open Call for Bids) will attempt to communicate in relation to the Open Call for Bids, directly or indirectly, with any representative of the Government of Newfoundland and Labrador (GNL) (including any Minister or Deputy Minister, or any Members of the House of Assembly, or any employee of the GNL), or any director, officer, employee, agent, advisor, consultant or representative of any of the foregoing, as applicable, for any purpose whatsoever. In the event of any lobbying or communication in contravention of this Section, the Province in its sole and absolute discretion may at any time, but will not be required to, reject any and all Bids submitted by that proponent without further consideration or compensation.

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12. UNACCEPTABLE BIDS

- (a) Bids not submitted on the Electronic Bid Form through the MERX Website will not be considered.
- (b) Facsimile Bids will not be accepted.
- (c) Bids received after the Open Call for Bids Closing time will not be considered.
- (d) Incomplete Bids will be rejected.
- (e) Bids not accompanied by an approved security in the correct amount will be rejected.
- (f) Bids containing qualification or additional clauses to the Electronic Bid Form will be rejected.
- (g) Incorrectly prepared Bids may be rejected.

13. CHANGES TO BIDS

- (a) Any changes to a Bid must be completed by amending the electronic Bid before the Submission Deadline.
- (b) If, in the Government of Newfoundland and Labrador's opinion, there is any ambiguity about the nature or effect of any change, the Government of Newfoundland and Labrador may reject such a change and evaluate the Bidder's Bid without regard to the change.
- (c) Where a form of Bidding Security other than a Bid Bond is provided with the original tender, an increase in the bid price will render the Bidding Security inadequate. Bidding Security adequate to cover the increased Bid price must be provided to the Department prior to the submission deadline. Failure to provide additional Bid Security prior to Submission Deadline to cover increases to the original Bid will make the Bid subject to disqualification.

14. WITHDRAWAL OF BIDS

- (a) A Bidder may withdraw a Bid without penalty at any time before the Submission Deadline in MERX.

15. SUBSTITUTION OF MATERIALS

- (a) Bids shall be based upon using the materials or products as specified without substitution. Where two or more brand names are specified, the choice shall be left to the Contractor. Where only one brand name is stated there shall be no substitution.

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16. ACCEPTANCE OF BID

- (a) The Owner will not necessarily accept the lowest or any Bid.
- (b) Upon written acceptance of the Bid within the Open Call for Bids validity period, the Electronic Bid Form becomes part of the Contract Documents and the successful Bidder becomes the Contractor. The Contractor will be required to execute a formal agreement with the Owner within two (2) weeks of the date of the letter of intent to award or letter to award.

17. OPENING OF BIDS

- (a) Bids received by the Submission Deadline will be opened publicly by Tendering and Contracts immediately after the Submission Deadline, unless prevented to do so by Special Measures Orders. See further clarifications below.
- (b) The Government of Newfoundland and Labrador will post the Bid results on the Government of Newfoundland and Labrador Tendering and Contract's Bid results web page immediately after the Submission Deadline.
<https://www.merx.com/govnl>
- (c) Where an Open Call for Bids requires the submission of a Bid Bond (whether electronic or paper) but the Bid Bond has not been received prior to the Submission Deadline, the corresponding Bid will be rejected.
- (d) All Bids which were received at the time of the public opening will be evaluated after the public opening.
- (e) Anyone may attend the public opening. Attendance may be via Skype meeting platform as detailed below, depending on the current Special Measures Orders in force at the time.
 - (i) Solicitations are currently undertaken in accordance with the Public Procurement Regulations and with applicable Special Measures Orders pursuant to the **Public Health Protection and Promotion Act**. The opening of submissions will be held on the designated date and time with two representatives of the Department of Transportation and Infrastructure Tendering and Contracts.
 - (ii) Bidders may view the opening via a Skype meeting platform. To access the Skype meeting for the opening your organization may be interested in, please email tenderingandcontracts@gov.nl.ca no less than four hours prior to the stated date and time of the opening of submissions. The subject of the email must read 'Interest in Tender (Reference Number) Opening'. The body of the email must include the email of the individual who will be joining the Skype session. Email requests received less than four hours in advance of the opening shall not be acknowledged. Prior to the opening, an email

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including a Skype meeting invitation will be sent to the email address indicated in the request.

- (iii) The following resources are available for organizations who do not currently use the Skype platform:

<http://2016-17.elearnwithnca.co.uk/help/lync/86-installing-skype-for-business-web-app-browser-plug-in>

<https://support.office.com/en-us/article/join-a-skype-for-business-meeting-with-skype-meetings-app-skype-for-business-web-app-4828ad18-ed21-422a-a870-94d676d4b72a>

<https://support.office.com/en-us/article/trouble-installing-the-skype-for-business-web-app-plug-in-958fc5f1-2d6f-42e3-815d-a9516c591274>

18. EVALUATION PROCESS

- (a) Bids that were opened at the public opening and recorded in the Report After Open Call for Bids Call (**Unofficial Results**) will be reviewed and evaluated by the Government of Newfoundland and Labrador after the public opening.
- (b) The process of evaluating Bids is as follows:
- (i) Determine Bid Compliance (Pass/Fail),
 - (ii) Compare Total Prices,
- (c) Determining Bid Compliance (Pass/Fail)
- (i) The Government of Newfoundland and Labrador will evaluate all Bids that were opened at the time of public opening to determine whether they comply with the requirements of the Open Call for Bids.
 - (ii) Bids which the Government of Newfoundland and Labrador determines, in its sole discretion, comply with the requirements of the Open Call for Bids will progress to the second step of the evaluation process. The Government of Newfoundland and Labrador may reject a Bid submission if it is incomplete, incorrect or conditional, or contains additions, deletions, alterations or other irregularities. Bids which the Government of Newfoundland and Labrador determines do not comply with the requirements of the Open Call for Bids will not progress to the second step of the evaluation and will be rejected.
 - (iii) The Government of Newfoundland and Labrador may waive irregularities or reject all or any Bids if, in the sole discretion of the Government of Newfoundland and Labrador, it is deemed appropriate.
- (d) Comparing Total Prices
- (i) The Government of Newfoundland and Labrador will compare the Total Prices of all compliant Bids to determine the Bid ranking. All compliant Bids will be assigned their respective places in order of lowest Total Price to

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highest Total Price. The preferred Bidder is the Bidder that submitted the compliant Bid with the lowest Total Price.

- (ii) Where a Bidder fails to provide a Lump Sum Price, Separate Price, or Unit Price as identified in the Electronic Bid Form, the Bid will be rejected.
- (e) The Government of Newfoundland and Labrador has the right to contact not only any of the references provided by the Bidder, but also any other references identified by the Government of Newfoundland and Labrador who have had dealings with the Bidder or the Bidder's Subcontractors without prior notice to the Bidder.
- (f) If a preferred Bidder is rejected, the Bidder with the second-lowest Total Price becomes the preferred Bidder, and so on until either a Contract is awarded to a qualified Bidder having submitted a compliant Bid or the Open Call for Bids is cancelled.
- (g) A Bidder will be notified, in writing, if its Bid is rejected.

19. AWARD AND SIGNING OF CONTRACT

- (a) The Government of Newfoundland and Labrador is under no obligation to award a Contract to a Bidder, even if one or more Bids are determined to be compliant and one or more Bidders are determined to be qualified. Without limiting the generality of the foregoing, the Government of Newfoundland and Labrador will have no obligation to award a Contract where:
 - (i) there is only one Bid received;
 - (ii) the prices exceed the funds available for the Work;
 - (iii) the prices materially exceed prices for similar work in the past;
 - (iv) the prices materially exceed the Government of Newfoundland and Labrador's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (v) the prices are unbalanced;
 - (vi) in the sole opinion of the Government of Newfoundland and Labrador, the interests of the Government of Newfoundland and Labrador would be best served by not awarding a Contract.
- (b) If no Contract is awarded, the Government of Newfoundland and Labrador will give written notice to all Bidders, that no Contract award will be made and (where applicable) will post a notice on the Government of Newfoundland and Labrador's online procurement service provider website that the Open Call for Bids has been cancelled and no further Bid information will be released, provided the Bidder has so requested.

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- (c) If the Government of Newfoundland and Labrador decides to award a Contract, it will award the Contract to the qualified Bidder that has submitted a compliant Bid with the lowest Total Price.
- (d) The successful Bidder will be notified in writing that the Bidder has been awarded the Contract, subject to the Bidder complying with the specific conditions precedent to the Contract as set out in the Open Call for Bids or the notification of award.
- (e) The Bidder shall, within two (2) weeks after the date on which the notification of award was sent to the Bidder, demonstrate to the Government of Newfoundland and Labrador that the Bidder has satisfied any conditions precedent to the Contract or in the notification of award. The Government of Newfoundland and Labrador will execute the Contract and send a copy to the Contractor upon being satisfied that the requirement of this section is being met.

20. FAILURE TO RESPOND TO AWARD NOTIFICATION

- (a) If, within two (2) weeks after the date on which the notification of award was sent to the Bidder, the Government of Newfoundland and Labrador has not received all of the following from the Bidder:
 - (i) the Contract, duly signed by the Bidder (if applicable);
 - (ii) a Performance Bond (if applicable);
 - (iii) a Labour and Material Payment Bond (if applicable); and
 - (iv) evidence that the Bidder has satisfied any conditions precedent to the Contract;

The Government of Newfoundland and Labrador may do one or more of the following:

- (a) where a Bid Bond was required, claim against the Bid Bond;
- (b) declare the Bidder ineligible to Bid on Open Call for Bids issued by the Government of Newfoundland and Labrador for a period of up to two (2) years;
- (c) proceed to award the Contract to another Bidder;
- (d) cancel the Open Call for Bids;
- (e) exercise whatever other remedies are available by law.

21. COMMENCEMENT OF WORK

- (a) Unless otherwise authorized by the Government of Newfoundland and Labrador, in writing, the Contractor shall not commence any Work until the Contractor has:
 - (i) submitted an approved Performance Bond (if required);
 - (ii) submitted an approved Labour and Materials Payment Bond (if required);
 - (iii) submitted confirmation of all required insurances.

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- (iv) submitted a Site Specific Safety Plan acceptable to the Government of Newfoundland and Labrador;
- (v) complied with the conditions precedent to the Contract;
- (vi) confirmed that the Government of Newfoundland and Labrador has executed the Contract that was signed and submitted by the Contractor and,
- (vii) attended a pre-construction meeting (if required).

22. TENDERING AND CONTRACTS OFFICE CLOSURE

- (a) In the event the Tendering and Contracts office is closed, any Open Call for Bids that would have closed on that day will be deferred to close at the same time on the next work day that normal hours are resumed.
- (b) Other than as impacted above, Bids and changes to Open Call for Bids, etc., will be accepted on or before the deferred closing time and date. Bids received after this deferred time and date will not be considered.

23. CONTRACT ADMINISTRATOR

Bidders are advised for the purpose of this Open Call for Bids, the Tendering and Contract Division of the Department will be the designated **Contract Administrator** as required under item 4 – Enquiries of the Instructions to Bidders.

24. CONTRACTOR PERFORMANCE

- (a) Performance monitoring is required in accordance with the Public Procurement Act and Regulations. Upon completion of each contract, the contractor's performance will be evaluated according to prescribed criteria.
- (b) In accordance with Public Procurement Regulations Section 26, bidding privileges may be suspended due to noncompliant performance on a single contract or substandard performance on two (2) or more contracts.

25. INTERPRETATION OF ESTIMATE OF QUANTITIES

Bidders is advised that the quantities contained in the Electronic Bid Form for the project are approximate only and are given as a basis for calculating the award of the Contract to the successful Bidder (The Contractor).

The Department does not guarantee that all quantities will be utilized in the Work and payment will only be made for the actual quantities incorporated in or made necessary by the Work covered in the Contract. The Department reserves the right to alter (either increase or decrease) or omit any/all of the quantities identified in the Tender Form, if deemed necessary. The Bidder/Contractor shall not claim

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for any discrepancies between the estimated quantity and the actual quantities incorporated in the Work.

Section Twelve

Supplementary
General Conditions

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SUPPLEMENTARY GENERAL CONDITIONS**SGC 1. SCOPE OF WORK**

The Work will be substantially performed within **2.0** months from the date of notification of award of contract or **SEPTEMBER 30, 2021, whichever is later**.

Contractors are advised the PROJECT shall include, but will not be limited to, the scope as outlined in the following summary.

Part A: Rehabilitate 4.9 kms of the Trans Canada Highway to a RAU 100 from South Brook to West Bottom (KM 511.1 – KM 516). The scope of work includes replacement of existing road crossings and driveway pipes of various sizes ranging from 600mm to 1400mm. Contractors are advised that temporary bypasses may be required during construction and must be well maintained to accommodate traffic at all times and will be incidental to the work. The culvert crossings are to be paved with 2 – 5cm lifts of surface course asphalt prior to the application of levelling asphalt. In addition, the Contractor will be responsible for clearing and ditching as directed by the Engineer. Prior to placing levelling asphalt, the contractor is to sweep the existing asphalt prior to tack coating. All potholes and deficiencies must be patched with levelling course asphalt (paid as levelling course asphalt) as directed by the Engineer. After all repairs are completed the contractor is responsible for the placement and compaction of 5cm of levelling course and 5cm of surface course asphalt to be placed on the complete section of highway. Class B and Class A shoulders will then be completed throughout the project. Tie-ins to existing intersections, driveways, interchange ramps and businesses will be completed to the limits as outlined by the Engineer. Also, included is the replacement of guide rail as directed by the Engineer.

Part B – Rehabilitation of South Brook Bridge

1. Remove and replace existing expansion joints with new asphalt plug joints
2. Remove and replace guide rails
3. Remove and replace asphalt and waterproofing layer on bridge deck and approach slabs
4. Remove deteriorated concrete from abutments and wing walls, repair with latex modified concrete
5. Remove deteriorated concrete from deck and repair by deck overlay
6. Replace missing hazard marker, install site number plates
7. Tie in new bridge paving with existing road profile.

Part C/D: Rehabilitation of Grand Falls-Windsor West Overpass

SUPPLEMENTARY GENERAL CONDITIONS

1. Remove and replace asphalt and waterproofing layer on bridge deck and approach slabs
2. Remove deteriorated concrete from deck and repair by deck overlay
3. Tie in new bridge paving with existing road profile.
4. Repair wing walls with latex modified concrete.
5. Replace expansion joints with new asphaltic expansion joint system.
6. Clean and zinc paint corroded bearings.
7. Install site number plates

Part E: Rehabilitation of Grand Falls -Windsor Pedestrian Overpass

1. Remove and replace asphalt and waterproofing layer on bridge deck and approach slabs
2. Tie in new bridge paving with existing road profile.
3. Repair potholes pedestrian walkway with asphalt.

Part F: Rehabilitate 5.6kms of the TCH, KM 392.5 to KM 398, East of Penstock Bridge.

The scope of work generally involves the rehabilitation of 5.6kms of the TCH, East of Penstock Bridge (KM 392.4 to 398). This includes removing and replacing various culverts ranging in size from 600mm to 2000mm and a structural overlay of asphalt pavement. The 5.6kms requires milling of rutted areas of approximately 3.8 m wide and 50 mm in depth. Milling sections of the paved shoulder may be required as directed by the Engineer. After the milling and subsequent cleaning of all deleterious material from the milled section, with particular attention being paid to the vertical planes, an application of tack coat is to be applied the milled surface, including vertical planes, followed by the placement and compaction of approximately 50 mm of surface course asphalt. If there is an excess of material, the Contractor must provide any haulage to transport the debris from the point of milling to the proposed stockpile at the nearest Transportation & Infrastructure depot, and shape the stockpile to the approval of the Engineer.

After paving the milled section, all the remaining area will require a complete 50mm layer of surface course asphalt on the complete section of highway (full existing width of highway or as directed by Engineer). Tie-ins to existing intersections, driveways, interchange ramps, bridges, and businesses will also be completed to the limits as outlined by the Engineer. Finally, the contractor will be responsible for repairing small dip at the approach to Penstock Bridge as directed by Engineer.

For further information, please refer to the breakdown of quantities in the tender document and the updated Department's Specifications Book.

SUPPLEMENTARY GENERAL CONDITIONS**SGC 2. SPECIFICATIONS BOOK AND TRAFFIC CONTROL MANUAL**

Contractors are advised that the specifications book of the Department of Transportation and Infrastructure dated MARCH 2011 and the 2012 and 2013 Errata apply to this project. These specifications are available on the Internet at <http://www.gov.nl.ca/ti/publications> under the Manuals section and on the following pages: <http://www.gov.nl.ca/ti> under the Road Contractors section and at <http://www.gov.nl.ca/ti/road.html>. It is the contractor's responsibility to ensure that the correct version of the specifications book is used when bidding on this project.

Contractors are advised the 2018 Edition of the Department's Traffic Control Manual and any amendments applies to this project. The manual is available for download on the Internet at <http://www.tw.gov.nl.ca/> under the Road Contractors section; <http://www.tw.gov.nl.ca/publications/index.html> under Manuals section; and at <http://www.tw.gov.nl.ca/road.html>. It is the contractor's responsibility to ensure that the correct version of the Traffic Control Manual is used when bidding on this project.

SGC 3. GC 46 – ASSESSMENT AND DAMAGES FOR LATE COMPLETION

Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree the Liquidated Damage Daily Rate of \$ **3500.00** per diem is a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.

The Liquidated Damages Application Date for the purposes of applying liquidated damages shall be the later of the following:

- i.) the date identified in Article A-1 of the Form of Agreement unless otherwise agreed in writing; or
- ii.) No later than **SEPTEMBER 30, 2021** unless otherwise agreed in writing.

SGC 4. PETROLEUM PRODUCTS COST ADJUSTMENT**Fuel Cost Adjustment**

Adjustments will be made to progress estimates to reflect changes in fuel prices from The Benchmark Tender Price to those in effect during construction. The Benchmark Tender Price shall be the price established by the Newfoundland and Labrador Board of Commissioners of Public Utilities, Petroleum Pricing Office, at time of tender closing. Increases or decreases in excess of 10% of the Benchmark Tender Price will be paid or deducted accordingly.

SUPPLEMENTARY GENERAL CONDITIONS

For the calculation of adjustments the governing price will be the price in place at the 21st of the month for the zone in which the majority of the contract is being carried out, established by the Newfoundland and Labrador Board of Commissioners of Public Utilities, Petroleum Pricing Office. This price will apply for the period from the 21st of that month to the 20th of the following month. This adjustment will include any changes in taxes outlined in GC 22.2. No adjustments will be made for price changes resulting from the use of the "Interruption Formula".

The adjustment for fuel cost variation shall apply only to those items given in the accompanying list. For other tender items, there will be no fuel cost adjustments.

The adjustments shall be computed based on changes in the governing price, as defined above, in excess of or less than the Benchmark Tender Price at time of production. The Engineer shall then calculate the adjustment to be stated in the Monthly Progress Estimates. No adjustment will be made due to an increase in the price on fuel used after the identified contract completion date or approved contract extension date but adjustments due to a decrease in the price of fuel will be made after the identified contract completion date or approved contract extension date.

For the contract items included in the accompanying list, the fuel cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate.

I - litre			
Nominal Fuel Consumption Rate			
Contract Item	Clear Diesel Fuel (3)	Furnace Oil (3)	Marked Diesel Fuel (4)
Excavation Other Material (1)	2.0 l/m3 or 1.0 l/t	N/A	N/A
Excavation Solid Rock (2)	3.0 l/m3 or 1.1 l/t	N/A	N/A
Granular "A" and Maintenance Grade III	1.0 l/t (5 & 6)	N/A	0.7 l/t
Granular "B"	1.0 l/t (5 & 6)	N/A	0.5 l/t
Asphaltic Base, Surface & Levelling Courses	2.0 l/t (5)	11.0 l/t	0.7 l/t
Overhaul on Excavation Items Only	0.4 l/m3-km	N/A	N/A

SUPPLEMENTARY GENERAL CONDITIONS

- (1) Excavation Other Material shall also include Ditching Other Material, Other Material Borrow, Other Material Fill in Place, Unsuitable Material, Bog, and Excavation for Foundation Other Material.
- (2) Excavation Solid Rock shall also include Ditching Solid Rock, Quarried Rock, Rock Fill in Place, and Excavation for Foundation Solid Rock.
- (3) Clear diesel fuel adjustment and furnace oil adjustment applies to the respective items at the time of excavation or placement as applicable.
- (4) Marked diesel fuel adjustment applies to granular material and asphalt aggregate at the time of production. If the crusher used to produce the granular material or asphalt aggregate is not powered by a diesel generator, there will be no adjustment for marked fuel. If a contractor uses granular material or asphalt aggregate that was crushed previous to the project, there will be no adjustment for marked fuel.
- (5) If the granular material or asphalt aggregate is produced from a rock quarry source, an additional 0.15 l/t of clear diesel fuel will be added to the quantity shown in the table applicable at the time of drilling and blasting.
- (6) If the tender identifies Granular A, Granular B or Maintenance Grade III to be stockpiled for use by the Department of Transportation and Infrastructure, then the Nominal Fuel Consumption Rate to apply to stockpiled aggregate will be 0.50 l/t for Clear Diesel.

Liquid Asphalt Cost Adjustment

Adjustments will be made to progress estimates to compensate for changes in liquid asphalt prices at time of Tender and prices in effect during construction. Increases or decreases in excess of 5% of the Benchmark Tender Price will be paid or deducted accordingly. The governing price will be the average price quoted by local suppliers on the 20th of each month for the two Holyrood and the Come by Chance Terminals. This adjustment will include any changes in taxes outlined in GC 22.2.

The benchmark price shall be the average monthly price quoted by local suppliers for the two Holyrood and the Come by Chance Terminals, from the 20th of the month prior to tender closing. The adjustments shall be computed based on changes in the average monthly price in excess of or less than this benchmark at time of production. The Engineer shall then calculate the adjustment to be stated in the Monthly Progress Estimates.

SUPPLEMENTARY GENERAL CONDITIONS

The liquid asphalt cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate. In cases where liquid asphalt is included in the price of Asphalt Concrete, the liquid asphalt quantity will be determined using the mix design.

SGC 5. ADDITIONAL DECLARATION FORMS

Bidders who are requested to submit the following forms must do so within 72 hours of the time of their notifications. The forms will be provided at the time of notification.

- (a) The Declaration of Equipment Form
- (b) The Declaration of Sub-Contractor Form
- (c) The Construction Schedule Form

SGC 6. CHANGE IN OWNER'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT

Contractors are advised of the following changes to General Condition 10 of the Contract:

The Province maintains the right to terminate the agreement for convenience at any time. Upon termination, the Province will compensate for all costs incurred to the date of termination and associated costs to shut down the work in a manner as specified by the Province. There will be no compensation for any further incidental costs including but not limited to lost profit.

SGC 7. ITEM NO. 7 & 112 OF THE UNIT PRICE TABLE - SUPPLY AND INSTALLATION OF CULVERTS

Contractors are advised that ALL culverts listed under Item No. 7 of Unit Price Table are to be **POLYMER COATED** pipes unless otherwise specified in tender documents. Contractor is to ensure these culverts meet the necessary wall thicknesses for the required height of fill at each location. Polymer laminated corrugated steel pipe, couplers, wyes, tees, bends, adapters, nuts and bolts shall conform to the requirements of the most recent revisions of the CSA G401 specification. These culverts will be paid under Item 7 of the Unit Price Table.

Contractors are advised that the culvert located on TCH km 514.8 will require supply and installation of 33m of 1400mm **aluminum** culvert with approximately 6m of fill. The contractor is to ensure this culvert will meet the necessary wall thickness for the required fill. The culvert will be paid under item 112 of the unit price table.

SUPPLEMENTARY GENERAL CONDITIONS**Installation:**

The work shall be carried out in accordance with the requirements of Section 421 of the Department's Specification Book, "Supply and Installation of Pipe Culverts".

Where unwatering is required, the Contractor will carry out this work in accordance with Section 180 "Unwatering Incidental to Work" of the departments specification book.

Backfilling:

The contractor will be responsible for supplying and placing select backfill around ALL culverts as per Form 1236 "Typical Culvert Bedding and Backfill Details" of the Department's Specification Book. The contractor must ensure that the Select Backfill gradation meets the requirements as stated under section 421 of the Department's Specifications Book. All cost associated with supplying, placing and compacting of the select backfill will be considered incidental to the unit price of this item. If the existing excavated material is deemed unsuitable by the Resident Engineer and additional backfill is required outside of the Select Backfill envelope, the contractor will supply and place rock fill, paid per cubic meter, under item 47 – Supply Rock Fill in Place.

Payment:

Payment for this item will be per metre, rounded to one decimal place. This per metre price shall be compensation in full for all labour, materials and equipment to supply and install all culverts throughout the project, including the supply, transportation, placement and compaction of all select backfill.

SGC 8. MAINTENANCE OF TRAFFIC FOR CULVERTS REQUIRING BYPASS

The Contractor shall maintain traffic at all times during all phases on the project. All work shall be in accordance with Section 919.04 of the Departments Specifications Book, "Maintenance of Traffic", except where superseded by the requirements of this or another Supplementary General Condition.

If required, the temporary bypass shall consist of a single lane with a minimum top width of 5.5 meters. The fill material for the bypass must consist of clean blasted rock and must be topped with 10cm of granular "A".

If the flow traffic is to be reduced overnight (two lanes of traffic cannot be sustained) a temporary fully operational automated traffic signal system may be required at each end of the bypass for lane traffic control. If a traffic signal system is required, the traffic control

SUPPLEMENTARY GENERAL CONDITIONS

system shall remain the Contractor's property upon contract completion. If required, the Contractor shall ensure the traffic light system will operate around the clock for the entire duration of the reduced lane traffic flow or an alternate method approved by the Engineer. The Contractor shall have on site at all times one of each red, green, and amber lenses, four spare bulbs and one auxiliary power source for the traffic control system. The Departments Traffic Engineer will provide the time cycles to suit traffic flow. If at any time due to unforeseen circumstances, a temporary breakdown occurs with the traffic light system, the Contractor shall, as a temporary measure, immediately provide appropriate radio and sign equipped flag persons to control vehicular traffic. The Contractor shall have, in case of breakdown, a set of two-way radios in good operating condition and a set of stop and slow signs.

The traffic control plan shall be submitted for approval prior to implementation.

The Contractor will indemnify and hold harmless the department with regard to claims arising from damages or injury.

If a bypass is required the Department will not permit traffic on the temporary bypass until all the required construction work on it is complete, all the required signs are in place, and all the required barricades and traffic control devices are ready to be brought into service.

The Contractor will be responsible for the maintenance (with the exception of snow and ice removal) of the thoroughfare, all signage, and traffic control devices from the time of mobilization to site until project completion.

All repairs to the bypass deemed necessary by the Department will be implemented by the Contractor immediately after verbal or written notification by the Engineer. If after notification the Contractor fails to initiate repairs, repairs will be completed by others and the cost deducted from the progress payments.

The Contractor will be required to supply and install all signs.

On completion of the installation of the culvert, the Contractor shall completely remove any and all temporary gravel and fill, and then grade and trim the site as required by the Engineer. Any removed materials shall be hauled away and disposed of a site approved by the Engineer.

All labor, supply of materials, and use of equipment involved in the construction, maintenance and removal of temporary travel lanes shall be deemed incidental to the project, and no separate or additional payment for compensation will be made.

SUPPLEMENTARY GENERAL CONDITIONS**SGC 9. ITEM NO. 14 OF THE UNIT PRICE TABLE: DISPOSAL OF OLD ASPHALTIC PAVEMENT**

The following shall replace Section 520 of the Department's Specification Book:

520.01 SCOPE

This specification covers the requirements for the cutting and excavation of asphaltic pavement, together with either the storage of the debris, or the disposal of the debris.

520.02 EXCAVATION

The Contractor shall cut and excavate the asphaltic pavement from within the limits staked by the Engineer. Cuts shall be made using an approved pavement cutter. The cuts shall be made straight and vertical and be made in such a manner that will allow neat tie-ins with new pavement.

Care shall be taken in excavating the pavement so as not to contaminate the underlying granular base course. In the case when the asphaltic pavement debris is to be stored, care shall also be taken not to excavate underlying granular materials with the pavement.

Pavement debris shall be broken into pieces of greatest dimension not more than one meter in length.

520.03 STORAGE

Where the contract item designates that old asphaltic pavement is to be stored, the Engineer shall select a site where all the excavated asphaltic pavement is to be stockpiled. The site shall comply with requirements of Section 830 Marshaling Yards and Temporary Work Camps.

The stockpile shall be made on a flat well drained area on firm ground so that the asphaltic debris will not become contaminated with deleterious materials when it is moved at some future date prior to recycling.

Should the Engineer require that grading work be carried out to prepare the stockpile site, then such grading shall be carried out and paid for in accordance with Section 206 "Grading of Cuts" and Section 204 "Grading of Fill".

After any required grading operations have been completed, the stockpile site shall be treated with an even mat of Granular "A" 100 mm thick. The Granular "A" mat shall be supplied and paid for in accordance with the contract price for Granular "A".

SUPPLEMENTARY GENERAL CONDITIONS

Old asphaltic pavement that is to be stored shall be handled, transported, and stockpiled at all times in such a manner that will avoid contamination by any deleterious material.

The pavement debris shall be hauled to the stockpile site and spot-dumped and levelled and then succeeding loads shall be dumped and levelled on top of the others to form a neat, unified, elevated stockpile.

520.04 DISPOSAL

On those jobs where the contract item states that the old asphaltic pavement is to be disposed of, then the old asphaltic pavement debris for disposal shall become the property of the Contractor.

If the Contractor wishes, the Contractor will be permitted to use Recycled Asphalt Pavement (RAP) in levelling course asphalt. The amount of Recycled Asphalt in the mixture of RAP plus Virgin Aggregate will be limited to a maximum of 10%.

In addition, the Contractor will be permitted to use RAP in Granular B. The Recycled Asphalt in the mixture of Virgin Granulars plus RAP will be limited to a maximum of 30% under the asphalt and 50% in the granular shoulders.

The Department reserves the right to accept or reject any particular source of RAP, irrespective of its quality.

As approved by the Engineer, the Contractor shall be permitted to use old asphalt pavement in shouldering operations and as a surface stabilizer on gravel roads. The latest Department procedure for these operations shall be strictly adhered to by the Contractor in these operations.

The Contractor shall be aware of Division 8.

520.05 MEASUREMENT FOR PAYMENT

Measurement for payment will be by means of the volume of pavement excavated from within the required limits, calculated as the product of the exposed surface area of the excavated pavement before removal, times the centerline thickness of the asphalt and shall include any cutting required to complete the excavation. Should individual areas of asphalt removal exceed 100m in length, then the thickness used for volume calculation will be the average of the thickness of the asphalt measured at 100m intervals.

The volume of the excavated pavement shall be calculated in cubic meters rounded to two decimal places.

SUPPLEMENTARY GENERAL CONDITIONS**520.06 BASIS OF PAYMENT****520.06.02 Basis of Payment for Disposal of Old Asphaltic Pavement**

Payment at the contract price for disposal of old asphaltic pavement, shall be payment in full for all labour, materials, and use of equipment to cut and excavate the old pavement, and provide all transportation and any other costs to remove the debris from the site.

Asphalt removal will be required across Southeast Brook Bridge (Loon Bay). Contractors shall be compensated in full for all labour, material and use of equipment to excavate the old pavement, break up the pavement, and provide all haulage to transport the debris from the point of excavation to the waste disposal site under this item.

SGC 10. ITEM NO. 16(B) OF THE UNIT PRICE TABLE: HOT MIX ASPHALTIC SURFACE COURSE

Payment for the contract price for Surface Course Asphalt shall be compensated for in full for all labour, materials, and use of equipment to: Tie-in existing intersections, driveways, interchange ramps, and businesses into the new roadway to the limits as outlined by the Engineer. Also, note that **PG 64-34 PMA** liquid will be used for all surface mix asphalt, except **PG 58-28** shall be used for the mill and fill portion of Part 'F'

This unit price also includes the 50mm surface course layer of the bridge decks and approaches; see SGC 35 for further details on the bridge deck paving requirements.

SGC 11. ITEM NO. 16(C) OF THE UNIT PRICE TABLE: WARM MIX ASPHALTIC LEVELLING COURSE TYPE 1

Contractors are advised that the recapping of the existing road on TCH (KM 511.1 to KM 516) requires sweeping of the existing road surface prior to the application of tack coat as directed by the engineer. This unit price also includes the 50mm base course layer of the bridge decks; see SGC 30 for further details on the bridge deck paving requirements.

Payment for the contract price for Levelling Course Asphalt shall be compensated for in full for all labour, materials, and use of equipment to: sweep the existing road surface and repair all raveled areas (potholes, deficiencies, etc. Contractors are advised that all work associated with the patching of potholes and raveled areas will be included in the unit price for this item, 16 (c). No additional payment will be made.

Contractors shall note that liquid **PG 58-28** will be used for all warm mix leveling asphalt with in accordance to Sections 337, 922 and SGC 30.

SUPPLEMENTARY GENERAL CONDITIONS**SGC 12. ITEM NO. 16(L) OF THE UNIT PRICE TABLE: ASPHALTIC PATCHING
(100 MM)**

Asphalt patching at the all culvert replacement areas will require **2 lifts of 50mm**. Payment for the contract price for Asphalt Patching in square meters shall be compensated for in full for all labour, materials, and use of equipment to: pave two 50mm lifts of asphalt at the culvert locations.

For Part 'E', this item will also include the repair of potholes inside the pedestrian overpass with asphalt. Payment includes all labour, materials, access, signage and equipment required to do the work to the Department's satisfaction.

**SGC 13. ITEM NO. 17 OF THE UNIT PRICE TABLE: SUPPLY AND
INSTALLATION OF GUIDE RAIL**

Contractors are advised that the mounting height of the guide rail from the top of asphalt, as depicted in drawings 1279-1, 1280-1 and 1282-1, shall be increased from 500mm to 635mm. Additionally, the depth of bury shall be increased from 1200mm to 1500mm. All other dimensions shall remain the same.

The contractor is advised that this item includes both left-hand side and right-hand side pieces. The contractor shall confirm all quantities of guide rail and buried ends with the Resident Engineer prior to ordering.

**SGC 14. ITEM NO. 0(C) OF THE UNIT PRICE TABLE: ACCOMMODATION OF
TRAFFIC**

Contractors are advised that prior to commencing any work, a detailed traffic control plan outlining signage layouts, public notification methods and special instructions must be submitted to the Department as per Section 190.4.6 of the Department and Transportation and Infrastructure Specifications Book. No work shall commence until the Contractor has received written approval of their plan submission. This review in no way relieves the Contractor of responsibility of ensuring an appropriate Traffic Control Plan. The Contractor will remain primarily responsible to ensure appropriate signage and resources are in place to safely accommodate the work site at all times.

If working on roadways with 3 or more lanes, contractors are advised that two-way traffic shall be maintained at all times during construction. Where this provision cannot be accommodated (i.e. two-lane roadways) and traffic must be reduced to one lane to accommodate the work, Contractors shall make every effort to keep traffic delays to a minimum.

SUPPLEMENTARY GENERAL CONDITIONS

The Contractor's procedure to control traffic shall form part of their Traffic Control plan. In the event that traffic delays become excessive (ie. queues in excess of 3km total or delays in excess of 30 minutes) or the buildup of traffic is creating unsafe conditions, as determined by the Engineer, the Contractor shall be required to remove equipment from the roadway to alleviate congestion. Delay claims or other compensation shall not be considered in the event construction must be halted due to traffic issues.

Contractors shall be aware that all work operations shall be confined to one lane/location in any given work zone; the Contractor shall finish all work in a given lane/location before moving equipment and crews to an adjacent lane in order to maintain continuous two-way traffic flow. For the purposes of this SGC, work operations include but is not limited to cold planing asphalt (milling, sweeping, placement or trucking of millings), tack coat placement (including curing time) or laying hot mix asphalt (paving, completing compaction, joint construction, clean-up work).

Contractors are also advised construction shall not be permitted on the Trans-Canada Highway during Friday afternoon and Sunday afternoon (or Monday afternoon on long weekends) on any weekend during the project. This is due to the high traffic volumes anticipated during these time periods. The Contractor shall have all equipment and crews off the road by 12:00 pm on these days.

The Contractor shall be allowed to work on Saturday on these weekends as well as Sunday when the holiday falls on the Monday. The following weekends shall be designated holiday weekends for this contract:

Victoria Day Friday, May 21st to Monday, May 24th

Labour Day Friday, September 3rd to Monday, September 6th

Thanksgiving Day Friday, October 8th to Monday, October 11th

Additionally, Contractors are advised that on this project a designated "Traffic Control Supervisor" is required whose sole duty is to ensure that all construction signage and personnel are present on the project site as required by the latest version of the Department of Transportation and Infrastructure Traffic Control Manual. This manual can be found on the Government of Newfoundland and Labrador website at: <https://www.tw.gov.nl.ca/publications/Traffic%20Control%202018.pdf>

The Traffic Control Supervisor will be required to have Traffic Control Person II Training from a certified trainer as prescribed by WorkplaceNL. Contractors must provide copies of this certificate and contact information to the Resident Engineer one week prior to construction. Responsibilities of the Traffic Control Supervisor are:

SUPPLEMENTARY GENERAL CONDITIONS

1. Adhere to all requirements as outlined under Section 190.4.6 Traffic Control;
2. Implement the contractor traffic control plan for all phases of the project and ensure that the signage used is in good condition, installed as required by the Traffic Control Manual and to monitor the signage daily;
3. Ensure that there are adequate traffic control persons on site at all times while work is ongoing and ensure these individuals are completing their duties as required;
4. Liaise with the Resident Engineer as required including reporting any deficiencies, changes, or concerns;
5. Maintain a presence on the project from the start of the work and until all work has ceased on the project including while sub-contractors are on site.

The Traffic Control Supervisor must have the authority to direct and allocate the necessary resources to ensure all traffic control requirements as noted above are met. The Traffic Control Supervisor cannot be the CSO/Designated Safety Lead nor the project superintendent/supervisor.

All costs associated with these requirements as well as the use of a Traffic Control Supervisor, providing him/her with all necessary tools, equipment and personnel to complete all tasks as described above, shall be incidental to the item.

Contractor shall provide adequate resources (equipment, flagpersons, signs, message boards, traffic lights, etc.) which conforms to Division 7 Temporary Condition Signs and Devices of the Department and Transportation and Infrastructure Specifications Book as well as the latest edition of the Department's Traffic Control Manual and amendments to ensure the safety and convenience of the public and workers. If the department deems adequate resources are not in place to safely accommodate the work site, the Resident Engineer will provide the Contractor with notification, either verbal or written that additional resources are required. The Contractor must comply with the Resident Engineers requests or construction will be halted until appropriate resources are in place. Contractors are reminded that it is their responsibility to adhere the latest edition of the Department's Traffic Control Manual at all times for the safe accommodation of traffic throughout the work site and to continually monitor the work site to ensure compliance and not rely on notification from the Department that changes or additional resources are required. Delay claims or other compensation will not be considered in the event construction is halted due to the lack of appropriate resources.

During the asphalt sample coring operations, the Contractor must provide all traffic control in the form of flag persons and signs for Transportation and Infrastructure employees. Coring will not be permitted until all traffic control devices are erected and flag persons are in position.

SUPPLEMENTARY GENERAL CONDITIONS

Flagpersons are responsible to accommodate all working operations conducted on the jobsite and sufficient flagpersons must be available to safely perform all tasks. This includes but is not limited to: Culvert installations, milling, paving, tack coat, shouldering, temporary line striping, coring operations, etc. ALL Flagpersons are required to have current Traffic Control Person I training from a certified trainer as prescribed by WorkplaceNL. These traffic control requirements shall be deemed incidental to the item and no additional payment will be made.

The Department shall document and provide the Contractor with notification, either verbal or written, when an infraction has been noted so as to allow the Contractor to develop corrective actions to safely accommodate traffic throughout the work site. The Department of Transportation and Infrastructure will cease work operations until adequate resources are in place. Failure to comply with the direction of the resident engineer to cease work operations for not complying with this specification, shall result in the application of a \$10,000 liquidated damage for each instance of noncompliance.

BASIS OF PAYMENT

Payment for this item will be a Lump Sum price. This lump sum price shall be compensation in full for all flagperson hours, labour, materials, and use of equipment and devices required to safely accommodate traffic for all operations throughout the entire duration of the project.

The Contractor shall be paid this item based on a percentage of the tender value they completed during the pertinent progress payment period. A value of 10% of this Lump Sum cost is to be paid on the first progress estimate.

If the Department of Transportation and Infrastructure and the Contractor agree to perform extra work outside of the Project Limits identified in the original contract, "Accommodation of Traffic" Lump Sum price will be pro-rated based on the cost of extra work completed outside of the project limits compared to the total original contract value. Contractors are advised that there will be no pro ration made for adjustment in Contract quantities within the original project limits.

SGC 15. ITEM NO. 23 OF THE UNIT PRICE TABLE: CLEANING OF EXISTING DITCHES**DESCRIPTION**

This specification deals with work required to clean, deepen and widen existing ditches to a uniform cross section per the standard road cross section, or as established by the

SUPPLEMENTARY GENERAL CONDITIONS

Resident Engineer. This work includes the excavation of various types of material, including rock up to 0.5 cubic meters as well as the transportation and disposal of that material to an approved disposal site as agreed to by the Contractor and Resident Engineer. Work also includes the cleaning of any materials deposited in all culvert ends encountered and offtake ditches as part of the ditch cleaning operation. Contractors are advised that ditching must be completed in the area prior to culvert installation.

GENERAL OPERATIONS

Areas where ditching is required will be identified by the Resident Engineer. Cleaning of existing ditches shall consist of removing all vegetal matter and debris. Typical depths vary from 300mm to 500mm, however, it is the Contractors obligation to visit site to determine prior to bidding. The ditch shall be created such that the final cross section has a continuously smooth grade providing positive drainage, without ponding, in the specified flow direction. The Contractor is advised that an excavator with a ditching bucket having a minimum capacity of 0.75m³ and a minimum width of 1500mm is required to complete this work, unless otherwise directed by the Resident Engineer.

Cleaning operations must not undermine the existing foreslope and shall maintain a uniform cross section without gouges or ridges evident in the completed work. The uniform cross section should carry throughout the entire ditch line, even in places where culverts were removed and not replaced. All back and side slopes of other material shall be finished to a neat condition, suitable for seeding, true to line and grade. Boulders removed as part of the cleaning operation shall not leave cavities in the final ditch slopes, all cavities shall be filled using suitable material from the cleaning operation as required. Any areas that cannot be finished satisfactorily by machine shall be completed by hand. In the event of damage to private property or existing culverts as a result of cleaning operations, the Contractor shall be responsible to rectify the damage in a reasonable timeframe at their own expense.

For boulders present in other material, the three maximum rectilinear dimensions of boulders, actually moved will be measured and the volume of each so determined. Volumes of the boulders greater than 0.5 cubic meters in volume will be included for payment under section 205 Classification of Excavated Materials - Solid Rock.

Material generated from this work shall become the property of the Contractor and shall be disposed of in the following manner:

- Within the contract right-of-way limits as directed by the Resident Engineer where possible, or

SUPPLEMENTARY GENERAL CONDITIONS

- At a site located by the Contractor, off the right-of-way, and approved by the Resident Engineer.

Where the Contractor wishes to dispose of excess materials from the Work onto private lands, the Contractor must:

1. Satisfy themselves that the land is actually owned by the private individual.
2. Shall be responsible to obtain permission from any property owner for use of their land and as a disposal area for excess materials from the Work.
3. Dispose of all materials in such a way to conform to all Federal, Provincial and Municipal Regulations including buffer zones around waterbodies, environmentally sensitive areas, etc...
4. Have the property owner sign and date a release form supplied by the Resident Engineer for the approval to use the land as a disposal site.
5. Sign and date the release form and provide a copy of the signed release to the Resident Engineer including a description of the locations being used for disposal.
6. Be responsible for all costs associated with the disposal and rehabilitation of the disposal area.

Release forms hold the Department free from any and all claims related to the placement of excess materials from the Work onto private property. Release forms will be provided by the Resident Engineer and no disposal activities shall take place until the Resident Engineer has been provided with a copy of the signed release form.

Upon completion, the Contractor must grade and leave all disposal areas or dump sites in a condition acceptable to the Resident Engineer that does not obstruct flow of surface drainage or natural watercourses.

ENVIRONMENTAL CONSIDERATIONS

Excavations and embankments should be kept dry while work is in progress by draining and pumping as required. All necessary unwatering shall be completed in accordance with section 180 "Unwatering Incidental to Work". Material required to grade the ditchline should not be placed in freestanding water. To reduce siltation resulting from ditch cleaning operations, the Resident Engineer may require the installation of silt fence and/or check dam sediment traps in accordance with sections 816 and 817 of the Department's Specifications Book, respectively. Where instructed, the Contractor shall install silt fence and terminate roadside ditches a minimum of 30 meters from any watercourse or water body to allow drainage water to filter through a vegetated area prior to entering any watercourse or water body.

SUPPLEMENTARY GENERAL CONDITIONS**MEASUREMENT FOR PAYMENT**

Measurement for payment shall be the total number of linear meters, rounded to one decimal place, of ditch cleaning carried out in accordance with this specification. No measurement for payment will be made for material excavated beyond theoretical lines. Areas identified by the Resident Engineer as being over-excavated shall be remedied by the Contractor at their own expense.

BASIS OF PAYMENT

Payment at the contract price for Cleaning of Existing Ditches, shall be compensation in full for all labour, materials, and equipment required to complete the work herein described together with the excavating, handling, hauling, placing and shaping up of all waste materials in an approved disposal area as required.

SGC 16. WEIGHING MATERIALS IN TRUCKS

The contractor is advised that, in addition to the requirements of Section 501 of the General Specifications, weighing of all construction materials shall be the sole responsibility of the contractor. All materials shall be weighed by the contractor and the truck driver provided with a ticket of the weighed material to be received by a Department of Transportation and Works official once delivered to the project site. Contractor will be required to have scale calibrated and a copy of the calibration provided to the Resident Engineer. Requirements are as follows:

Electronic Weigh Tickets

All scale houses must be equipped with all the necessary equipment to produce and print electronic copies of all weigh scale tickets for all materials that would normally be weighed. These materials shall include, but are not limited to: Surface Course Asphalt, Base Course Asphalt, Leveling Course Asphalt, Granular A, Granular B, Rock Fill, Other Material Fill, MG III and all other material types noted in the contract document where payment is in tonnes. The Electronic Ticket System shall include the following:

Hardware:

- Micro controller c/w internal USB flash drive and operating software.
- Ticket printer with RS - 232 interfaces, capable of printing 4 layered copies
- All components require 120 Volts AC.
- Provide UPS with backup power supply, 20 minutes minimum

SUPPLEMENTARY GENERAL CONDITIONS**Software:**

- Must be able to store up to 750 transactions
- Must be able to store and recall up to 50 trucks
- Must be able to store and recall up to 20 products
- Must be able to store and recall project numbers
- Must be able to store and recall truck tare weights
- Must be able to export data to a USB flash drive, to be used with Microsoft Excel
- Must have the option to delete data after exporting
- Must have password protection for exporting data
- Must be able to recall the amount of material weighed at any particular time
- Must provide ticket with the following information:
 - Government name and address
 - Date and time
 - Ticket number
 - Project number
 - Product ID
 - Truck ID
 - Gross, Tare, and Net Weight
 - Time loaded
 - Station line
 - Rear axle line
 - Signature line
 - Checker line
 - Time unloaded line

The contractor is advised that the electronic ticket system must include all the requirements above and is subject to prior approval by the Resident Engineer. The Contractor shall ensure that the system is installed and working properly before weighing any materials. Weighing of any material will not commence until the electronic ticketing system is working and is verified by the Resident Engineer. All data and tickets shall be provided to the resident engineer or designate at the end of each working day.

Tare Weights

All trucks must have a tare weight verified at the beginning of the project and at any time a dump is changed. Additional "tare checks" will be at the resident engineer's request and can be made at any time of day and the number of tare checks is unlimited. If the tare check is different than that of the original tare, the tare check weight will be used for

SUPPLEMENTARY GENERAL CONDITIONS

the tare of that truck until a subsequent change in the tare weight. Tare weights and tare checks must be provided to the resident engineer at the end of each working day.

Licensed Weights

The contractor will be responsible for compliance with Service NL regulations with respect to maximum allowable weights for all contractor and sub-contractor owned trucks hauling material for the project. If truck is overweight the contractor representative weighing the trucks shall inform the driver that he is overweight and is required to dump some of the load and re-weigh. Should the contractor send an overweight truck to the project site the Department of Transportation and Works will only pay the maximum allowable weight for that vehicle. For example, the contractor sends a truck with a gross weight of 34500 kg and the maximum allowable weight for that truck is 34000 kg the Department will pay 34000 kg and the additional 500kg will be forfeited to the Department.

Weight Verification

The Department reserves the right to re-weigh loaded trucks for verification of weights entered on the weigh ticket. Trucks may be taken from any location within the project limits and at any point between the scale house and the project site and returned to the scales for weight verification in the presence of the resident engineer or their designate. The Department reserves the right to re-weigh trucks at any time and the number of checks will be unlimited for the duration of the project. Should there be a discrepancy in the ticket weight and the verification weight the contractor will be given a written warning. Should there be a second discrepancy the project will be suspended pending an investigation and possible termination of contract. The resident engineer will complete a "weigh check verification" each time a truck is re-weighed and a copy will be provided to the contractor.

Scale House Access

The resident engineer or designate shall have free access to the scale house for inspection and compliance purposes for the duration of the project. This will include, but not limited to: inspection of scales, witnessing tare checks and weighing of materials, verification of loaded trucks, acquiring completed weigh tickets and transfer of electronic data.

Payment

The contractor is advised that all costs associated with the supply of labour, materials, installation, and maintenance of the electronic ticket system will be incidental to the

SUPPLEMENTARY GENERAL CONDITIONS

contract bid prices, including the supply of the blank tickets. No additional payment will be made and the

Department will not be liable for any associated downtime related to issues with the electronic weigh ticket system. In addition, any delays associated with any of the requirements above, notably tare checks and verification of truck weights will not be considered.

SGC 17. ITEM NO. 122(A) OF THE UNIT PRICE TABLE: CLEARING (30 METER RIGHT OF WAY)

All brush clearing is to correspond with Section 202 of the Department's Specification Book except that the Contractor will be responsible for layout of the clearing limits and payment will be paid per linear Km. Contractors are advised that clearing operations must be completed prior to commencing ditching operations. The Contractor will be required to layout and cut 30m offset from the centerline on TCH.

In addition Contractors are advised that measurement for payment will be changed from hectares to linear kilometers and paid to two decimal place. The distance measured for payment will consist of the length of roadway that has been cleared as directed by the Engineer to the appropriate width mentioned above (300mm tolerance). No payment will be made for any section of roadway that no clearing has taken place (i.e: bogs, water bodies, rock cuts, areas previously cleared, etc.)

The Engineer may, at their discretion, confirm the clearing boundary width at any location throughout the project, to ensure compliance with the appropriate clearing limits.

In the event that the clearing limits have not been met, that specific location will not be included for payment until the contractor completes the specified additional clearing to the indicated limits and widths.

SGC 18. ENVIRONMENTAL REQUIREMENTS

All aspects of the work shall be carried out in accordance with Section 902 of the Specifications Book and the accepted **Contractor Environmental Mitigation Plan (CEMP)**. Prior to the commencement of construction, the Contractor shall submit to the Department for review and acceptance a CEMP. The CEMP is required to show understanding and mitigations for any planned activities that may interact with a valued ecosystem component.

SUPPLEMENTARY GENERAL CONDITIONS

The Contractor shall abide by restrictions provided by the Water Resources Management Division, Provincial Department of Municipal Affairs and Environment on any in-stream activity or alteration to a body of water. The Contractor shall apply for approvals and comply with requirements of Chapters 5, 7 and 13 of Environmental Guidelines for Alterations to Bodies of Water (<http://www.env.gov.nl.ca/env/waterres/regulations/appforms/index.html>); and conditions of Permit No: **ALT11608-2021**. Any environmental protection measures outlined in Division 8, GENERAL ENVIRONMENTAL REQUIREMENTS, of the Specifications book will be considered incidental to this item”.

A CEMP **is required** for this project and it should include:

- Pre-construction planning, including the identification project-environmental interactions (e.g., wildlife, habitat, plants, resource users, etc.);
- Detailed environmental mitigation measures for planned activities to avoid negative or irreversible environmental impacts;
- Contingency plans for unplanned events;
- Scheduling of a Contractor environmental awareness and training session (with DTW participation);
- List of DTW and Contractor contacts and reporting numbers; and
- Decommissioning Plan that includes site rehabilitation measures.

The Contractor Environmental Mitigation Plan shall follow the template requirements outlined below:

CEMP TEMPLATE

All submissions should be presented in report style manner with proper formatting including a cover page and a table of contents. The cover page should state the project number, project description and company name with contact information.

Section 1: Project Location & Description

- This section should clearly identify the exact project location identifying all project limits (a map would be recommended for clarification).
- The project description should summarize the tendered scope of work

Section 1.1 Job Procedure & Schedule.

- A step by step process is preferred to ensure order of tasks are clearly understood.

SUPPLEMENTARY GENERAL CONDITIONS

- For those projects with separate parts, it is recommended to provide a separate step by step process for each part.
- A schedule indicating proposed start date and length of each task, thereby, identifying the critical path for the project and estimated completion date.

Section 2: Potential Environmental Sensitivities and Impacts

- This section should clearly state the relevant construction activity and the potential environmental impact that those activities will have on the Valuable Ecosystem Components (VEC's). A clear understanding of the project VEC's would come from the 'Project Environmental Interaction' section in the Environmental Protection Plan (EPP) and the supplementary general condition.
 - o For clarity and formatting it is suggested this section be presented in a table format.

Section 3: Mitigation Strategies

- This section should identify and explain the proposed mitigation strategies that would be used throughout the entirety of the project including the correct procedures to follow for any unplanned events.
 - o This section should include a drawing/legible sketch showing a detailed plan view of the proposed worksite highlighting the mitigation strategies (settling ponds, pump placement, hose discharge location, silt fence and/or hay bales, check dam sediment traps, coffer dams, etc.) This could be included as an Appendix if so desired.

Section 4: Permits & Authorizations

- Identify any required permits, authorizations and approvals required to carry out the scope of work.

Section 5: Monitoring & Reporting

- Explain how the contractor plans to ensure that the worksite is abiding by the CEMP
- An explanation of the reporting process showing a clear chart indicating the appropriate reporting process complete with specific names and contact information

Section 6: Communication & Document Control

SUPPLEMENTARY GENERAL CONDITIONS

- Training session for environmental awareness explaining how the CEMP will be communicated to all those involved in site activities and documentation indicating this training occurred at a preconstruction meeting and any time it is required.

Section 7: Decommissioning

- This section should include a clear & concise plan on all measures that will be taken to ensure proper rehabilitation of the construction site once the scope of work has been completed.

Suggested Appendices:

- Map of Project Location (referenced in Section 1)
- Drawings or sketch(es) of Mitigation Strategies
- DTI Environmental Protection Plan
- DTI Highways Specifications Book - Division 8: General Environmental Requirements
- Permits & Approvals: As identified/explained in Section 2
- Any relevant sections and templates from the contractor Site Specific Safety Manual (ex. Job procedures related to any environmental considerations, incident/accident/near miss reporting, emergency response procedure with appropriate contacts)

The Contractor shall comply with conditions outlined in a Letter C (formerly called 'Letter of Advice') that is issued by Fisheries and Oceans Canada (DFO) for this project. This letter will be provided by Owner's Representative, or assigned staff, and should be kept on site at all times during construction and decommissioning activities.

The Contractor shall be advised that any serious violations of the Contractor's Environmental Mitigation Plan or of the environmental requirements of the project contract documents will be investigated by the Department and the costs associated with such assessment(s) and required mitigations/remediation/cleanup shall be charged to the Contractor.

SGC 19. SUPPLY AND PLACEMENT OF TEMPORARY STRIPING AND PAINT SCHEME FOR PAVING OPERATION

The Contractor is required to supply and place temporary striping for all work in accordance with the existing line layouts. Temporary striping will be required for ALL lines located throughout the job. This includes, but is not limited to: centerline, shoulder lines,

SUPPLEMENTARY GENERAL CONDITIONS

bull noses, turning lanes, tapers, merge lanes, etc. The Contractor shall ensure that an appropriate safe work practice is available and workers are trained.

The Contractor is required to supply and place temporary striping on all layers of asphalt (levelling/base and surface). Contractor is to make every effort to install the temporary striping tape immediately following the placement of the new mat of asphalt. Placement must be completed in dry conditions on dry asphalt. If the contractor fails to complete the striping within the 24 hours, a penalty of \$2500 dollars per day will be applied. Should weather prevent placement of temporary striping immediately after placing the new mat of asphalt then the temporary striping must be installed on the next calendar day that the weather is suitable, otherwise the penalty will apply.

Temporary striping shall be installed in accordance with the existing line layouts. The contractor is required to complete all necessary surveying of the existing paint scheme prior to pulverizing, milling or paving, in order to place temporary striping back at the same original location. Surveying will occur at intersections, merge lanes, bull noses, turning lanes, tapers, etc. All surveying must be documented, including but not limited to double solid line, solid line with dash line, single dash line, merge lanes, arrow symbols, passing lanes, bull noses, tapers, shoulder lanes, etc. Correct lane widths must be established at all times. A copy of the documented paint scheme must be provided to the Project Manager upon completion. Contractors will then be required to illustrate where each noted transitions take place by marking the appropriate notation on final lift of asphalt.

The temporary stripping must meet the specifications as detailed in Attachment #1- 'Specification for Wet Reflective, Self-Adhesive, Pavement Tape'. Both yellow and white tape may be required based on the roads existing paint scheme. Each individual strip shall have dimensions of 150mm length and 152mm width. They shall be placed 20 meters apart on tangents and 10 meters apart on curvatures. Contractors are advised that spacing may be altered in various situations as agreed by the Project Manager (i.e bull noses, sharp turns, tapers, etc.).

Sufficient traffic control will be required to be maintained during all placement operations as per the latest version of the Traffic Control Manual.

The Department may perform its own quality verification of the work and check against the contractor's layout. The contractor will be informed of the results of these checks, but the Department by doing so in no way relieves the Contractor of responsibility for the accuracy of their layout work.

SUPPLEMENTARY GENERAL CONDITIONS

The contractor shall correct or replace, at the contractors own expense, any deficient layout and the construction work which may be the result of the inaccuracies in the construction layout operations. If the contractor fails to comply and the paint scheme and/or temporary striping remains insufficient, \$2.00/tonne will be deducted from the applicable item (Item 16(b) Surface Course Asphalt or Item 16(c) Leveling Course Asphalt) until the issues are rectified. If the issues are not rectified within 7 calendar days of notice of inaccuracies, the Department may choose to use the deducted funds to have the work completed by other sources. Should the department complete by other sources, the deducted funds will be deemed forfeited by the Contractor.

Payment for this item will be incidental and included with payment of the applicable item (Item 16(e) Hot Mix Asphaltic Surface Course and Item 16(f) Warm Mix Asphaltic Levelling Course). It shall include all materials, labor, equipment, etc. required to complete the full scope of work. Traffic control required to complete this task will be compensated under Item 0(c) – Accommodation of Traffic of the unit price table. Any traffic control used to rectify any errors in the contractors work will be considered incidental and no compensation will be made by Department.

Specification for Wet Reflective, Self-Adhesive, Pavement Tape

1.0 DESCRIPTION.

The following specifications cover wet reflective, self adhesive, pavement tape used by the Department of Transportation and Works.

2.0 MATERIALS.

2.1 General – the pavement tape shall be made from material that is durable, flexible and easily cut into strips of any length. It shall be self adhesive and conform/mold to even or un-even asphalt, concrete or chip seal surfaces. It shall be lead free and wet reflective, providing high reflectivity in wet or dry conditions.

2.2 Colors - yellow and white.

2.3 Dimensions – the pavement tape shall be supplied in the following sizes:

2.3.1 Length – various roll lengths available

2.3.2 Width – the pavement tape shall be supplied in rolls 152mm (6”) wide.

2.3.3 Thickness – the pavement tape shall be nominal thickness of 0.080in. (2 mm) at pattern heights.

SUPPLEMENTARY GENERAL CONDITIONS

2.4 Retro-reflectivity – the pavement tape shall be reflectorized with high quality glass beads or other specially designed optics which provide superior reflectivity in wet or dry conditions.

Retro reflectance values shall be measured under dry conditions in accordance with ASTM D4061. The values measured under wet or rainy conditions with accordance of ASTM E2176 or ASTM E2177.

2.5 Application – the pavement tape shall be self-adhesive and be capable of being applied to surfaces that are clean and dry, at temperatures of 40 C (400 F) and above. Application shall be performed manually by unwinding the roll, and pressure applying the tape onto the desired surface.

SGC 20. SAFETY PROTOCOLS RELATED TO COVID-19 PANDEMIC

The contractor is required to develop and implement safe work processes and procedures in response to the COVID-19 pandemic, in accordance with all applicable orders and recommendations in place for the Province of Newfoundland and Labrador. This shall include methods used for training procedures, methods used for monitoring, and action to be taken if processes and procedures are not followed. The contractor is required to include these processes and procedures in the Site Specific Safety Plan and update as orders and recommendations evolve. Information related to the COVID-19 pandemic and the Public Health Emergency is available at <https://www.gov.nl.ca/covid-19>.

In addition to the requirements of Section 110 of the Specification Book, field offices provided to the Department by the Contractor, must also satisfy COVID19 requirements. Field offices (including washroom) shall be cleaned and sanitized regularly as per Health Authority recommendations, but no less than once daily. The size of the office shall be of such size that physically distancing will not be an issue and have a separate room for storing and recharging equipment. The contractor may be asked to provide a separate washroom facility for field crew depending on layout of field office. Also, the contractor shall be responsible for ensuring there is adequate hand sanitizer, soap and cleaning materials to clean shared surfaces.

These requirements shall be deemed incidental to the work and no additional payment shall be made to incorporate this into the work.

SGC 21. PAVEMENT SMOOTHNESS

The Contractor is advised Section 334 – Pavement Smoothness will be applied for determining the asphalt pavement smoothness on this project. IRI data will be collected

SUPPLEMENTARY GENERAL CONDITIONS

and calculations completed in accordance with this new specification. For this project, pay adjustments will be applied at a rate of **25%** based on this IRI pavement smoothness specification.

The Contractor is advised that for the purposes of applying the Section 334 Asphalt Smoothness Specification for TCH shall have a **Category A** Smoothness Category.

SGC 22. DEMOLITION AND DISPOSAL OF WASTE

Work under this SGC will include the removal and disposal, at an approved dump site, of all concrete, granular material, rock, OM approach fill, guiderail, guiderail posts, gabion baskets, drainage pipe, debris from drainage, rubbish and any other material which the Engineer determines should be removed.

Costs for the demolition and disposal of demolition waste shall be considered incidental to the work being undertaken unless specifically noted in this SGC. Waste shall be disposed of at an approved dumpsite and in accordance with applicable provincial and federal regulations.

Any asphalt cutting, disposal, and removal in this contract shall be incidental to the work. No separate payment will be made. Disposal shall be as detailed in Section 520.

If a significant amount of demolition debris enters the roadway, as decided by the Resident Engineer, the contractor's lump sum bid price for 'Mobilization and Demobilization' shall be reduced by 20 percent per incident. Demolition work will be immediately stopped and not proceed until debris is cleaned, removed, and appropriate mitigation measures are in place.

SGC 23. ITEM #250 OF THE UNIT PRICE TABLE: CONCRETE REPAIRS WITH LATEX MODIFIED CONCRETE

The Contractor shall repair deteriorated concrete as directed by the Resident Engineer and repair using latex modified concrete.

Refer to Section 919.10 and 919.11 in the Specification Book for details.

SGC 24. ITEM #257 OF THE UNIT PRICE TABLE: SUPPLY AND INSTALL ASPHALTIC EXPANSION JOINT SYSTEM

The contractor shall replace existing expansion joints with asphaltic expansion joints as detailed on the Contract Drawings. Existing expansion joints are strip seal type and shall be removed according to the Resident Engineer's directions.

SUPPLEMENTARY GENERAL CONDITIONS

Refer to Section 919.10 and 919.13 in the Specification Book for details.

SGC 25. ITEM #252 OF THE UNIT PRICE TABLE: REPAIR OF CONCRETE DECK BY OVERLAY

The Contractor shall demolish the deck and approach slab top layer concrete as specified on Contract drawings. The Contractor shall repair the bridge deck and approach slabs using the method of deck overlay.

The concrete deck can be open to traffic once the 7 day wet cure and the earlier of: either a 7 day dry cure or the new concrete has reached 75% of the 28 day concrete strength; has occurred. Waterproofing cannot commence until both the 7 day wet cure and 7 day dry cure has occurred. Waterproofing and paving on each lane is to commence no later than the first fine day after 21 days since the last concrete deck pour on that lane. Failure to do so will result in the liquidated damages amount being charged for each day that this is exceeded.

This pay item also covers the 0.5m wide concrete placement adjacent to newly installed asphaltic expansion joints, refer to contract drawings for details.

Refer to Section 919.10, 919.13 in the Specification Book for details.

SGC 26. ITEM #155 OF THE UNIT PRICE TABLE: BLAST CLEAN AND ZINC PAINT POT BEARINGS

The Contractor shall blast clean and zinc paint corroded pot bearings. Bearings to be rehabilitated are marked on Contract Drawings. All parts of exposed bearing surface (bolts, nuts, top and bottom plate, piston, and pot plate) shall be blast cleaned and painted with zinc primer. Care must be taken to prevent exposing or damage to the elastomer material confined inside the pot plate during blast cleaning operations.

Refer to Department Specification Book Section 919.06 and 919.07 for blast clean and paint requirements.

Payment shall be per bearing repaired as per bid item "Blast Clean and Zinc Paint Pot Bearings". The unit price shall be considered full compensation for all items required to do the work, including but not limited to access, material, equipment and labor.

SGC 27. ITEM #223 OF THE UNIT PRICE TABLE: SUPPLY AND INSTALL BRIDGE DECK WATERPROOFING MEMBRANE

SUPPLEMENTARY GENERAL CONDITIONS

The Contractor shall install water proofing system on the bridge deck (or rigid frame structure) and approach slabs as marked on Contract Drawings.

The water proofing system used shall be hot applied asphalt membrane system placed in accordance with Section 914 of the Specifications Book. In addition to the waterproofing systems stated in Section 914; Henry Baker 790-11 Hot Applied Rubberized Asphalt Waterproofing Membrane is approved for use on this project.

This price item also includes the repair of the longitudinal joint with hot applied asphaltic sealer in Part B. Payment include all material, labour and equipment needed to seal joint.

SGC 28. ITEM #230 OF THE UNIT PRICE TABLE: SUPPLY AND INSTALL GUIDE RAIL STRUCTURES

The Contractor shall install new guiderail structures according to direction from the Resident Engineer.

Refer to Section 640, standard drawing 1282-1 and 1282-2 in the Specification Book for details.

SGC 29. ITEM 246 OF THE UNIT PRICE TABLE: REMOVAL AND DISPOSAL OF OLD ASPHALT

The Contractor shall remove the existing asphalt from the deck and approaches and dispose the waste material at an approved location acceptable to the Engineer. Refer to Section 919.18 and Section 520 in the Specification Book for details.

SGC 30. ASPHALTIC PAVING ON BRIDGE DECKS

Bridge paving will be in accordance with section 330, 337, 922 and 926 except as noted below. See SGC 32 for updates to the Departmental Specifications Book.

The Contractor shall install new asphaltic paving as indicated on Contract Drawings.

For the bridge deck's base course, paving will consist of 50mm of Warm Mix Levelling Course Type 1 and will use PG 58-28 liquid asphalt.

For the bridge deck surface course and approaches paving will be 50mm of Hot Asphaltic Surface Course and will consist of PG 64-34 PMA as per the requirements stated in SGC 10 and 31.

SUPPLEMENTARY GENERAL CONDITIONS

A Material Transfer Vehicle will be required for this work. Cutting of asphalt shall be incidental to the work. The bridge deck and approach slabs shall be treated with tack coat prior to paving.

Final grade of paved surfaces shall be as specified on Contract Drawings. The Contractor shall provide paving for bridge approaches to ensure a smooth transition to existing road profile. Surveying before and after paving of the bridge decks will be required as detailed in Section 922 and 926 and will be considered incidental to the work.

Pavement shall be shaped to ensure runoff flows into the bridge deck drains but sloping shall not extend into the driving lanes.

Payment for the bridge deck base course shall be included in items number 16(c) "Warm Mix Asphaltic Levelling Course Type 1", 16(g) "Liquid Asphalt (58-28) and 16(j) Blending Sand and shall include all items specified as incidental noted above and in SGC 11 and in Sections 337 and 922.

Payment for the bridge deck surface course and the approaches shall be included in items number 16(b) "Hot Asphaltic Surface Course", 16(h) "Liquid Asphalt (64-34 PMA) and 16(j) Blending Sand and shall include all items specified as incidental noted above and in SGC 10, SGC 31 and in Section 922.

SGC 31. ITEM NO. 16(H) OF THE UNIT PRICE TABLE: HOT MIX ASPHALTIC CONCRETE – LIQUID ASPHALT (PG 64-34 POLYMER MODIFIED)

The asphalt cement required for this item on this project shall be in accordance with Section 330.02.01.01 of the Specifications Book, 'Asphalt Cement', with the exception that the Performance Grade shall be PG 64-34 PMA with a minimum 3% styrene-butadiene-styrene (SBS) pre-blended at the terminal. The PG 64-34 PMA binder shall have a minimum of 60% elastic recover at 10°C following ASTM D6084 method B. Polyphosphoric Acid (PPA) modified asphalt cements or asphalt cements containing waste engine oils are not permitted.

The polymer modified asphalt cement must utilize a dual chemical anti-strip and Warm Mix Asphalt (WMA) additive. Current approved additives meeting this criteria include, Evotharm M1, Evotharm P25, Rediset LQ and Warmgrip N1. All other products must be approved by the Materials Engineering Division. The purpose of the WMA additive is to act as a compaction aid and for this project is not intended to be a traditional WMA mix design and material, unless otherwise required within the contract documents. The Contractor and their Consultant shall follow the approved additive supplier's recommendations on the materials proper use. The additive used must also meet all the

SUPPLEMENTARY GENERAL CONDITIONS

requirements of section 330.02.01.05 anti-stripping additive. The polymer modified asphalt must be compatible with the dual anti-stripping WMA additive utilized.

The tanker of asphalt cement must not be mixed or contaminated with any other performance graded material including PG 58-28. The contractor shall supply a 20 liter sample for the production of a mix design as well as a temperature viscosity chart from the manufacturer/supplier for the material. The contractor shall request of the supplier any information or recommendations regarding the production and handling of the mix. This item shall include all transportation and storage costs necessary to provide the requested grade of asphalt binder. All Hot Mix Surface Asphaltic Concrete produced for this project shall utilize the PG 64-34 PMA binder.

There shall be liquid asphalt cost adjustment applied to PG 64-34 PMA in this contract; however, it shall be based on the relative price difference of PG 58-28 from one month to the next month.

Adjustments shall be made to progress estimates to compensate for changes in liquid asphalt prices at time of tender and prices in effect during construction. Increases or decreases in excess of 5% of the Benchmark Tender Price for PG 58-28 shall be paid or deducted accordingly. The governing price shall be the average price quoted by local suppliers on the 20th of each month for the two Holyrood and the Come by Chance Terminals. This adjustment shall include any changes in taxes outlined in GC 22.2.

The benchmark price shall be the average monthly price quoted for PG 58-28 by local suppliers for the two Holyrood and the Come by Chance Terminals, from the 20th of the month prior to tender closing. The adjustments shall be computed based on changes in the average monthly price in excess of or less than this benchmark at time of production. The Engineer shall then calculate the relative adjustment to be stated in the Monthly Progress Estimates for PG 64-34 PMA.

The liquid asphalt cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate.

SGC 32. ITEM 35 OF THE UNIT PRICE TABLE: COLD PLANING

The nominal depth of milling for this contract will be approximately 50mm or as directed by the Engineer.

Any cold milling of paved intersections, parking lots and driveways as directed by the Engineer will be considered incidental and no payment will be made.

SUPPLEMENTARY GENERAL CONDITIONS

For Part 'F' of this project the contractor is responsible for transporting the material to the Bishops Falls depot in an area approved by the Engineer, and stockpile the material using their own equipment.

Payment for the contract price for cold milling asphalt shall be compensated for in full for all labour, materials, and equipment required to complete the work herein described together with the milling, handing and placement of material on the shoulder as directed by the Engineer, provide any haulage to the transport the debris from the point of milling to the proposed stockpile (if necessary), and shape the stockpile to the approval of the Engineer.

The following shall replace Section 360.03 OPERATIONS of the Department's Specification Book:

360.03 OPERATIONS

The existing pavement shall be removed to the depth specified in the unit price table. Should the pavement not be removed to the required depth in the first pass, then the Contractor shall return again to mill down the pavement to the required depth.

Removal may be required across the full width of the road, one lane width, one lane and shoulder width or in tapered strips along the curb, depending upon the suitability of the resulting cross section. In areas where the cold milling equipment cannot remove the pavement to the depths required, such pavement shall be removed to the required grade using other means acceptable to the Owner's Representative.

Prior to paving operations commencing a transverse butt joint must be constructed. If a transverse vertical cut is milled in the existing pavement at the limit of the work area the Contractor shall immediately construct with hot mix asphalt concrete a temporary smooth 1.5 meter long taper. The temporary taper must be removed prior to paving of the milled area.

In locations where cold planing and paving of adjacent lanes is required, sequential mill and fill for longitudinal joint construction and paving is to be followed. The first lane is to be completed (cold planed and paved) prior to cold planing of the adjacent second lane. Cold planing of the adjacent second lane must include the removal of the shared longitudinal joint by cold planing a minimum of 100 mm of the first paved lane. Cold planing and paving of the adjacent second lane is not to take place until the next day. All

SUPPLEMENTARY GENERAL CONDITIONS

lane edges remaining in the work are to be clean and coated with a double application of tack coat.

All residue left by the cold planing process shall be removed immediately from the road. Mechanical sweeping shall be performed at the end of each day's operations. Low points in the asphalt as a result of cold planing operations at the end of each day's operation, where water ponding may occur, shall have the shoulder milled for draining rainfall. Any guide rail contaminated as a result of cold planing or sweeping operations shall be cleaned to the satisfaction of the Owner's Representative. Any milled material that is lost over the shoulder shall be immediately retrieved and disposed of in an approved manner.

The Contractor shall dispose of residue at an approved waste disposal area provided by the Contractor at their own expense.

The Contractor shall continuously maintain the work site free of pot holes and standing water and in a condition providing for a safe and efficient flow of traffic, from the time of removal, until such time as the new asphalt concrete is placed. Hot mix asphalt concrete shall be placed in the pot holes; cold mix or RAP are acceptable only as a temporary repair. Areas cold milled must be paved within 7 days of the cold milling operation. Signage indicating the driving condition of the milled surface shall be posted. (I.e. Construction Signs TC-47 and TC-49) Milled and aged asphalt concrete surfaces shall be treated with bituminous tack coat in accordance with Section 320 prior to the placing of asphalt concrete.

SGC 33. NOTIFICATION OF CONTRACTOR SAFETY REPRESENTATIVE (CSR) REQUIREMENT

The Contractor is advised that as referenced in Section 190.03.03 of the Department's Specifications Book a dedicated full time Contractor Safety Representative (CSR) shall be required for this project.

Payment at the lump-sum contract price for Contractor Safety Representative (CSR) shall be compensation in full for all costs to provide a dedicated full time CSR meeting all requirements stipulated in Section 190.

SGC 34. QUARRY SOURCE EXCLUSION ZONE

Quarries and cuts adjacent to the Trans-Canada Highway between New Bay Road and Botwood.

SUPPLEMENTARY GENERAL CONDITIONS

Highway and vicinity shall not be an accepted source of granular or asphalt aggregates for this project. These exclusion limits are indicated on the drawing “Quarry Source Exclusionary Zone” including as part of the projects drawings.

SGC 35. UPDATES TO THE DEPARTMENT SPECIFICATION BOOK

The following sections of the Department’s Specification Book shall be replaced or added, as applicable, with those sections appended to the Supplementary General Conditions portion of this tender document.

List of Updated Specification Book Sections		
Section	110	Engineer's Field office
Section	111	Field Laboratory
Section	157	Mobilization and Demobilization
Section	160	Contractor Performance Evaluation System
Section	190	Occupational Health & Safety
Section	320	Tack Coat
Section	330	Hot Mix Asphaltic Concrete
Section	334	Pavement Smoothness
Section	337	Warm Mix Asphalt
Section	901	Removal of Existing Structure
Section	904	Concrete Structures
Section	913	Expansion Joints
Section	914	Bridge Deck Waterproofing
Section	919	Rehabilitation of Concrete Structures
Section	922	Asphaltic Paving of Bridge Decks and Approaches
Section	926	Construction Layout and Surveying Requirements
Section	520	Storage and Disposal of Old Asphaltic Concrete
Section	640	Supply and Installation of Guiderail
Section	1282-1	Guiderail with Additional Posts
Section	1282-2	Guiderail Structures

Contractors are advised that the new/replaced sections of the Department’s Specifications Book, as listed above and appended to this section, shall apply to this project.

SECTION 110

ENGINEER'S FIELD OFFICE

On projects having a total estimated tender value of \$250,000 or greater, the Contractor shall supply a field office together with furniture for the use of engineering staff. The Field Office shall not be of a lesser standard than that shown in Section 1201 "Field Office" and furniture shall be of a standard to prevent musculoskeletal injury (ergonomic) as per the OH&S Act. Prior written approval must be obtained from the Department should the Contractor wish to supply an office other than that shown and described on this plan. The Contractor must ensure the office can be serviced by utilities (i.e.: communication suppliers).

The field office is to have a plain paper fax and separate photocopier. The photocopier must be capable of copying letter (8.5" x 11") and legal (8.5" x 14") sized paper as well as bound field books.

On projects having a total estimated tender value of less than \$250,000, the Contractor must still supply a field office and furniture, but the field office and furniture may be to a lower standard than that shown in Section 1201 "Field Office". Furniture and facilities may be reduced accordingly as agreed to by the Engineer; however, floor area shall not be less than fifteen square metres.

On contracts, which involve the construction of a concrete bridge or concrete pavement, the Contractor shall equip the office with a concrete test cylinder-curing tank of capacity not less than 0.2 cubic metres.

The field office must be located on the site of the project and shall be ready for use from the first day the Contractor commences work and it shall remain available for use for the duration of the contract. All doors for accessing the Engineer's Field Office shall be secured by means of an exterior latch suitable for a Department supplied padlock. Any other means of accessing the Field Office shall be securable and accessible from the inside only.

The Contractor shall clean the office and maintain all electric lights, heating, hot and cold water, and the washroom facilities in good working condition at all times. Cleaning of the office shall be done on a biweekly basis unless the Engineer agrees to an alternate schedule.

All costs of providing the office, furniture, equipment and providing and maintaining the required heat, light, hot and cold water, and sanitary provisions together with periodic clean out shall be borne by the Contractor. No payment will be made for this item. The

provision and maintenance of the Field Office shall be considered as part of carrying out the other contract items.

SECTION 111

FIELD LABORATORY

On projects having a total estimated tender value of \$250,000.00 or greater and on which soils testing will be required, the Contractor shall supply a field laboratory together with furniture for use by engineering staff.

The field laboratory shall be heated, have 110 volts 60 cycle electrical outlets, electric light, work benches, clean running water, washroom facilities, electric laboratory oven, propane table top stove, and be suitable for the type of testing called for in the specifications. The field laboratory shall be of a standard not less than that shown on the plan in Section 1203 "Field Laboratory" and furniture shall be of a standard to prevent musculoskeletal injury (ergonomic) as per the OH&S Act. Should the Contractor wish to supply a field laboratory other than that shown in Section 1203, then prior written approval of the Engineer must be obtained.

The field laboratory is to have a photocopier capable of copying letter (8.5" x 11") and legal (8.5" x 14") sized paper as well as bound field books. The office area in the laboratory shall also be fitted with an air conditioning unit.

Whenever asphalt testing is conducted, the Contractor shall provide a fume hood located inside the field laboratory for Department testing purposes, having adequate forced air circulation. This requirement is necessary to ensure the safety of personnel conducting the extraction of asphalt cement from the hot-mix asphalt using N-Propyl Bromide. Contractors shall also provide the required N-Propyl Bromide solvent to conduct the testing.

The fume hood must be located appropriately within the laboratory to allow proper functional access and not interfere with other laboratory functions or testing.

Fume hoods complete with work surfaces, cabinets, sinks, exhaust blowers and chemical extraction pumps must be approved by the Materials Engineering Division prior to purchase. Proposed fume hoods shall meet or exceed ASHRAE-110, NFPA-45, and UL 1805 standards as well SEFA recommended practices.

Materials and description criteria below shall be met:

1. Fume Hood

- Minimum dimensions of 72 inches wide x 32 inches deep x 48 inches high to permit placement of vacuum extractor, vacuum pump and hot plate.
- Constructed of chemical resistant, flame retardant, non-metallic composite resin, both interior and exterior.
- Interior fume chamber is moulded one piece seamless with all corners coved.
- Equipped with vertical slide safety tempered glass slash with chemical resistant sash frame – sash track – and sash lift.
- Sash stops which can be manually adjusted by field personnel.
- Vapour-proof light fixture mounted in hood with switch pre-wired to junction box.
- 115v, 20amp, single phase 2-duplex receptacle installed on front column of fume hood for a vacuum pump and hot plate.
- Switch installed for chemical extraction pump.

(Hemco Uniflow LE Fume Hood Part No. 35611 or Equivalent)

(Hemco Safety Sash Lock Part No. 51651 or Equivalent)

(Hemco 2 Duplex Receptacle Part No. 50029-2 or Equivalent)

(Hemco Single Receptacle Part No. 50030-2 or Equivalent)

2. Work Surface (Countertop)

- Stainless steel work surface with dimensions to match internal fume hood chamber.
- Surface dished minimum 3/8" to contain spillage.
- Hole must be cut in surface to allow installation of oval cup sink.
- Polyolefin 3 inch by 9 inch oval cup sink for drainage

(Hemco Stainless Steel Work Surface Part No. 20616 or Equivalent)

(Hemco Oval Cup Sink Part No. 40121 or Equivalent)

3. Acid Storage Base Cabinets

- Storage base cabinets having dimensions to match fume hood chamber (minimum dimensions for one cabinet 72 inches wide or two cabinets 36 inches wide each.)
- Constructed of top grade furniture steel with a chemical resistant finish.
- Interior shall have a moulded one piece seamless liner constructed of

chemical resistant composite resin.

- Adequate space for two 5-gallon containers. One container will hold clean solvent to pump into extractor whereas the second container will hold the asphalt cement / N-Propyl bromide extract solution from the vacuum extractor. (Rather than setting up the two containers, the Contractor may run lines for clean solvent and extract to barrels outside the trailer that are properly secured)
- Adjustable Shelf and vented hinged doors.

(Two Hemco Acid Storage Base Cabinets Part No. 15030 (36 inches wide) or equivalent)

4. Fume Hood Exhaust Blower

- Belt driven exhaust blower installed next to hood or externally on the trailer roof. Capacity of 500-1000 CFM
- ¼ HP, 115 V motor
- Pilot light switch for air blower.
- Ventilation duct hardware and vents shall be supplied and installed as per fume hood manufacturer's instructions

(Hemco Epoxy Coated Steel Blower Belt Drive Part No. 51705X or Equivalent)

(Hemco Blower Switch with Pilot Light Part No. 50027-1 or Equivalent)

5. Chemical Extraction Pump

- 115v liquid-flow pump to be installed in base cabinet to extract N-Propyl Bromide from container
- Pump outfitted with chemical resistant Viton diaphragm
- Piping made of PVC plastic

The fume hood must also be inspected prior to use in accordance with all applicable regulations.

Contractors are to provide the required N-Propyl Bromide solvent to conduct the testing. For rough estimate purposes, each extraction test requires approximately 5 litres solvent.

Contractors must also dispose of used solvent by means of an approved chemical waste disposal company. Verification of proper disposal of the solvent shall be provided to the Owner's Representative upon completion of the work.

The field laboratory shall be located on the site of the project and shall be ready for use from the first day the Contractor commences work for which testing is required, and it shall remain available for use for the duration of the contract. All doors for accessing the Field Laboratory shall be secured by means of an exterior latch suitable for a Department supplied padlock. Any other means of accessing the Field Laboratory shall be securable and accessible from the inside only.

The Contractor shall supply a separate vented steel storage locker for the Department's coring machine and mixed gas. The storage unit shall be located near the field laboratory and have a means of properly securing its contents.

The Contractor shall periodically clean the laboratory and maintain all electric lights, heating, running water, and sanitary provisions in good working condition during the time the laboratory is required.

On projects having a total estimated tender value of less than \$250,000, the Contractor shall provide and maintain a field laboratory as described, or provide transportation of all Test Samples from the job site to the Department's Materials Engineering Division at LeMarchant Road in St. John's.

The Engineer, or their representatives shall select test samples, and the number and the frequency of taking test samples shall be at the sole discretion of the Engineer.

All costs of providing and maintaining the field laboratory as described, or of transporting test samples shall be borne by the Contractor. No payment will be made for this item. The provision and maintenance of the field laboratory shall be considered as part of carrying out those contract items for which tests are required.

SECTION 160

CONTRACTOR PERFORMANCE EVALUATION SYSTEM

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160.01	GENERAL
160.02	PERFORMANCE RATING METHODOLOGY
160.03	INTERPRETATION OF RATINGS
160.04	COMPLETION OF THE EVALUATION
160.05	SUSPENSION OF BIDDING PRIVILEGES
160.06	REINSTATEMENT OF BIDDING PRIVILEGES
160.07	CONTRACTOR REQUESTED REVIEW OF EVALUATION
160.08	CONFIDENTIALITY OF INFORMATION

160.01 GENERAL

The Contractor Performance Evaluation System is a process designed to maintain an acceptable level of performance from Contractors carrying out work for the Department of Transportation and Infrastructure (hereafter the “Department”). It will also provide a means to identify contractors with acceptable performance records and to provide a means to identify and deal with contractors with deficient or unsatisfactory performance records.

A record of the performance of Contractors will be maintained to identify the following:

- (a) Those Contractors who by virtue of satisfactory performance (as defined herein) will continue to be eligible to submit tenders for work with the Department.
- (b) Those Contractors who by virtue of deficient performance (as defined herein) who may have their bidding privileges suspended based on an evaluation of their contract work on a particular project and other projects completed for the Department.
- (c) Those Contractors who by virtue of unsatisfactory performance (as defined herein) may be subject to having their bidding privileges suspended by the Department for a period of time determined by the Department based on a review and an evaluation of their contract work on a particular project.

The Contractor Performance Evaluation System is not to interfere with, or substitute, the normal written communication that the Department would initiate when confronted with unsatisfactory performance during the execution of the work of the contract before the issuance of a Final Completion Certificate under the contract or during the execution of warranty work related to GC 31 of the contract. The Contractor is to be notified immediately through normal project communication if the work is not proceeding or being completed in a satisfactory manner.

160.02 PERFORMANCE RATING METHODOLOGY

The TI Site Representative or TI Project Manager will conduct the Contractor Performance Evaluation. The Evaluation will be conducted in two parts in accordance with the methodology provided in this document by using the Forms 160A and 160B. Form 160A being the "Contractor Performance Evaluation Report Part I: Contract Work Other Than Warranty Work" and as Form 160B being the "Contractor Performance Evaluation Report Part II: Warranty Work Under The Contract."

An unsatisfactory performance (as defined herein) on a single project may result in the suspension of bidding privileges for a period to be determined by the Department.

A deficient performance (as defined herein) on a particular project subject to a review of Contractor performance on other projects for the Department may result in the suspension of bidding privileges for a period of time to be determined by the Department.

Performance Rating Methodology for Contractor's Work Other Than Warranty Work (Form 160A) will be completed within thirty (30) days of the earlier of:

1. The issuance of a Final Completion Certificate for the project; or
2. The abandonment of the work by the Contractor; or
3. The termination of the work of the Contractor under the contract by the Department.

Performance Rating Methodology for Contractor's Warranty Work under the Contract (Form 160B) will be completed within thirty (30) days of the earlier of:

1. The completion of warranty work under GC 31; or
2. Where the Contractor refuses to do warranty work under GC 31; or
3. Where the Contractor abandons the warranty work before completion; or
4. The Contractor is terminated by the Department pursuant to the contract.

The Contractor's performance will be evaluated on a point rating system relative to the six (6) category listed on the latest version of Form 160A and/or Form 160B at the time of tender of the contract.

- (a) Project Execution and Timeliness (15 points)
- (b) Leadership and Accountability (20 points)
- (c) Project Administration and Management (15 points)
- (d) Quality of Work Completed (20 points)
- (e) Safety (25 points)
- (f) Environmental Considerations & Compliance (5 points)

160.03 INTERPRETATION OF RATINGS

The interpretation of points rating under Form 160A will be as follows:

- (a) 66 - 100 shall be defined as "Satisfactory Performance"
- (b) 50 - 65 shall be defined as "Deficient Performance"
- (c) 0 - 50 shall be defined as "Unsatisfactory Performance"

The interpretation of points rating under Form 160B will be as follows:

- (a) > 70 shall be defined as "Satisfactory Performance"
- (b) ≤ 70 shall be defined as "Unsatisfactory Performance"

160.04 COMPLETION OF THE EVALUATION

Completion of a Contractor Contract Performance Evaluation Report i.e., Form 160A and Form 160B being the Contractor Performance Evaluation Report Part I: Contract Work Other Than Warranty Work and the Contractor Performance Evaluation Report Part II: Warranty Work under the Contract is required for all publicly tendered roadwork contracts.

Part one (Form 160A) of the Evaluation Report will be completed by the TI Site Representative and/or TI Project Manager and will be reviewed and signed by the Regional Engineer and the Director of Highway Design and Construction. The Final Report will be distributed to the Contractor and to the Tendering & Contracts office.

Part two (Form 160B) of the Performance Evaluation Report will be completed by the TI Project Manager and/or the Regional Engineer if the Department makes a claim against the Contractor in respect of warranty work under GC 31.

The Project Manager will complete form 160B within thirty (30) days of the expiration of the GC 31 warranty period related to the work even if the Department does not make a

claim against the Contractor under GC 31. The Regional Engineer and the Director of Highway Design and Construction will sign this report and distribute it to the Contractor and Tendering & Contracts office.

160.05 SUSPENSION OF BIDDING PRIVILEGES

Tendering and Contracts will record the Contract Performance Evaluation rating on each contract and maintain a record of the Contractor's assessment on previous contracts.

Contractors receiving a "Deficient" rating on the Form 160A of the Contractor Performance Evaluation Report will be notified in writing by Tendering and Contracts that their performance needs to be improved. A Contractor in this category will be put on notice that a review of that Contractor's bidding privileges is to occur and that that Contractor's bidding privileges on work for the Department may be suspended based upon a review of the Contractor's performance on the current contract and on previous contracts for the Department.

Contractors receiving an "Unsatisfactory" rating on the Form 160A or form 160B of the Contractor Performance Evaluation Report will be notified of possible suspension of bidding privileges. The review will be based upon the Contractor's overall performance on previous contracts and, if necessary, a more detailed report from the Regional Engineer on the current contract including any warranty work related to that contract. The results of the review will be communicated to the Contractor in writing by Tendering and Contracts.

The decision to suspend the bidding privileges of a Contractor and for what period in any particular instance shall rest with the Deputy Minister of the Department. The decision will be based on the facts and circumstances, including all Contractor Performance Evaluation Reports related to the same and will be communicated to the Contractor concerned by a letter from the Deputy Minister copied to Tendering and Contracts.

If the Department approves a suspension of bidding privileges, then all future bids from the Contractor will be rejected prior to tender opening.

Alternatively, any tenders from a Contractor under suspension, discovered after tender opening, will be marked "disqualified". [PT Act Regulations 3.(4)]

Suspensions apply to all Department tendered projects. Attempts by suspended companies to submit tenders under a new company name or structure (successor corporations) are to be rejected. It is incumbent on the "new" company to establish the merits of having the opportunity to tender.

160.06 REINSTATEMENT OF BIDDING PRIVILEGES

The duration of suspensions may vary depending upon individual circumstances but will generally be for at least one (1) year and/or until the circumstances related to the suspension are addressed to the satisfaction of the Deputy Minister of the Department.

A Contractor's suspension may be lifted by the Deputy Minister of the Department upon written request from the Contractor. The Contractor shall demonstrate its ability to perform satisfactory work on future projects to the satisfaction of the Deputy Minister of the Department. This may be achieved by the successful completion of comparable projects for other jurisdictions completed after the time of suspension or the identification and correction of problems that led to the suspension. Where the suspension relates to the Contractor's failure to perform corrective work related to a GC 31 Warranty; the Deputy Minister may lift that suspension when the warranty work has been completed to the satisfaction of the Regional Engineer. The Contractor will need to satisfy the Department regarding the steps that that Contractor will take in future to avoid the reoccurrence of such defects.

In the event of reinstatement, the Contractor must achieve a "Satisfactory" rating on the first subsequent contract in order to retain eligibility to continue bidding Transportation and Infrastructure projects.

160.07 CONTRACTOR REQUESTED REVIEW OF EVALUATION

A Contractor may request a review be conducted by the Department of a Performance Evaluation in respect to a particular project by submitting a written request, with supporting documentation, to Tendering and Contracts.

A committee established by the Assistant Deputy Minister of the Department will conduct the review. The review is to be completed within sixty (60) of the request and the results will be communicated in writing to the Contractor.

160.08 CONFIDENTIALITY OF INFORMATION

The Department intends the information compiled through the Contractor Performance Evaluation System to be solely for internal use. Evaluation information related to a particular contractor(s) will not be released to outside parties, such as reference checks from other tendering agencies, without the consent of the affected contractor(s).

SECTION 190

OCCUPATIONAL HEALTH AND SAFETY

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190.06 OWNER'S STATEMENT

190.01 GENERAL

- .1 The following requirements apply to all contracts awarded by the Department of Transportation and Infrastructure for maintenance, operations, upgrades, support services, or construction related to the transportation network assets including but not limited to roads, bridges, airports, marine assets, and similar.
- .2 All work is to be performed in accordance with the requirements of the Newfoundland and Labrador Occupational Health and Safety Act and Regulations as amended, the Department of Transportation and Infrastructure's Contractor Safety Management Program and any specified Contract requirements.
- .3 The Contractor shall comply with and enforce compliance by employees, subcontractors, suppliers and visitors with all safety requirements of the Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with the Project Site Specific Safety Plan.
- .4 The Contractor is responsible for all work coordination at the project site, safety oversight, and must maintain full ownership and control of safety within the project area at all times. The Contractor will be delegated and shall assume the duties of the Principle Contractor for the work area(s). As such, the Contractor shall ensure co-ordination of work schedules and tasks, and communication thereof for the purpose of ensuring health and safety on the worksite(s).

- .5 The Department may perform project due diligence, site visits, safety monitoring activities, make suggestions or recommendations for improvement, and/or request changes in how work is performed. Notwithstanding, the Contractor has full responsibility, authority, and accountability for safely performing all work on the project site(s) and/or under the project. The Department solely relies on the Contractor to know how to safely perform all Work including making appropriate decisions on Department recommendations or requests.
- .6 Subsequent to awarding of the tender and at least 10 (ten) working days prior to commencement of work, and prior to the pre-start Health and Safety meeting, the Contractor must submit to the Owner's Representative a detailed Site Specific Safety Plan (SSSP). **See Section 190.2.**
- .7 Review of the Project Site Specific Safety Plan and other submitted documents by the Owner's Representative shall only be viewed as acknowledgment that the Contractor has submitted the required documentation under this specification. The Owner's Representative makes no representation and provides no warranty for the accuracy, completeness and legislative compliance of the Project Site Specific Safety Plan and other submitted documents by this acceptance. Responsibility for errors and omissions in the Project Site Specific Safety Plan and other submitted documents is not relieved by acceptance by the Owner's Representative.
- .8 For projects exceeding thirty (30) days or more, the Contractor shall, prior to the commencement of work, notify in writing the Department of Digital Government and Service NL, Occupational Health and Safety Division. **See Section 190.3.9.**

190.02 PROJECT SITE SPECIFIC SAFETY PLAN (SSSP)

190.02.01 PROJECT SITE SPECIFIC SAFETY PLAN REQUIREMENTS

The Contractor shall:

- .1 Prepare and complete all work in accordance with a detailed Project Site Specific Safety Plan (SSSP) specific to each project and specific project location conditions. The plan shall identify, evaluate and control job specific hazards through a detailed hazard assessment of the tendered project outlining phases of the project and hazards/controls associated with specific work, equipment, locations and tasks associated with the work conducted during each phase of the project. The plan shall also ensure adequate policies, procedures and safe work practices are in place to manage hazards identified in the hazard assessment that cannot be addressed through engineering controls. Furthermore, it is the responsibility of the Contractor to submit only one SSSP that incorporates all relevant portions of their subcontractors' safety documentation.
- .2 Provide a copy of the Project SSSP to the Owner's Representative.

190.02.02 PROJECT SITE SPECIFIC SAFETY PLAN CONTENTS

The Contractor is responsible to determine the appropriate safety actions, plans, and information for the Project SSSP.

Notwithstanding, the written SSSP shall incorporate the following minimum information:

- .1 An organizational structure, in the form of an organizational chart with contact information of the key positions, which shall establish the specific chain of command and specify the overall responsibilities of Contractors' employees at the work site. The chart shall also include relevant information for all subcontractors.
- .2 Identification of the designated qualified work coordinator(s) (i.e. Supervisor, Contractor Safety Representative) as per Section 21 of the OHS Regulations.
- .3 A comprehensive work plan which shall:
 - .1 Outline the phases of the Project and the required tasks, equipment, positions, resources and objectives for each phase, including all subcontracted work.
 - .2 Conduct a detailed hazard assessment of each project phase, including all subcontracted work, taking into consideration the objectives, tasks, equipment, positions, resources, training, etc.
 - .3 Identify the controls required for all identified hazards and project phases that may include engineering controls, policies, procedures, equipment, safe work practices, training and communication with staff, etc.
 - .4 Establish personnel requirements for implementing the plan and controls, and establish site-specific training and notification requirements and schedules.
- .4 General safety rules for the Project.
- .5 A Project training matrix (tabular or spreadsheet format) identifying all necessary training by occupation for the scope of the contract as per the Contractor's health and safety training plan. **Refer to Section 190.3.6.**
- .6 A personal protective equipment (PPE) Program. **Refer to Section 190.4.5.**
- .7 A traffic control plan. **Refer to Section 190.4.6.**
- .8 A fall protection plan, if necessary. **Refer to Section 190.4.7.**
- .9 A dust suppression management program, if necessary.
- .10 A hearing conservation program in accordance with Part VI, Section 68 of the OHS Regulations.
- .11 An assessment of all possible risks of violence for the project and corresponding control measures. Considerations should include location and circumstances of the site, previous history of incidents and or possible triggers.

- .12 A visitor safety and orientation policy that will include education on hazards, required PPE to be worn by visitors and accompaniment by staff while on site. This program shall also take into consideration the safety of the general public that may come in contact with the work site and appropriate measures for notification and safety.
- .13 As part of the SSSP the Contractor shall provide a vehicle inspection matrix (tabular or spreadsheet format) showing required inspection type and date of most recent inspection for all powered mobile equipment (including light vehicles) that will be used in fulfilling the terms of the contract, including rented and the subcontractor's equipment. Upon request, the Contractor shall provide to the Owner's Representative, individual inspection forms that at a minimum state that the equipment is in a safe operating condition and is signed by a qualified journey person mechanic.
- .14 The SSSP shall include an acceptable parking plan for all powered mobile equipment (including light vehicles) to be used on the Project. The plan shall address both daytime parking requirements to reduce congestion in the work area, nighttime parking considerations, and overall impacts on the public (i.e., visibility/sightlines, impeding traffic flow, etc.). At a minimum, the plan shall be based on a hazard assessment that considers factors such as equipment type, potential for roll over, load capacity of the parking area, pedestrian and vehicular traffic, and potential for equipment tampering, equipment energy, and equipment contact with power lines.
- .15 The SSSP shall include a site specific emergency response plan for the job site and ensure that supervisors and workers are trained in the emergency response plan. The emergency response plan shall address, as a minimum:
 - .1 Emergency recognition and evaluation (identification of each potential type of emergency and evaluation of requirements for response).
 - .2 Pre-emergency planning (included the assessment of controls to reduce the likelihood of such an emergency if possible).
 - .3 Personnel roles, lines of authority and communication (include a communication list of all emergency services in the immediate and surrounding areas).
 - .4 Required communication equipment including landlines, mobile phones, radios, satellite phones, and/or other equipment needed to ensure appropriate emergency communications in the area of the Project.
 - .5 Safe distances and places of refuge.
 - .6 Site security and control.
 - .7 Evacuation routes and procedures.
 - .8 Decontamination procedures which are not covered by the Project SSSP.
 - .9 Emergency medical treatment and first aid.

- .10 Emergency alarm, notification and response procedures including procedures for reporting incidents to local, provincial and federal government departments.
- .11 PPE and emergency equipment.
- .12 Procedures for handling emergency incidents.
- .13 Procedures and protocol for working alone and/or remote working.
- .14 Site specific emergency response training requirements and emergency response drills shall be identified along with written rescue plan for high risk emergencies (i.e. fall rescue, confined space entry, etc.).
- .15 The emergency response procedures shall be tested regularly and the results documented. The frequency at which all aspects of the emergency response plan will be rehearsed must be stated.
- .16 Provide adequate first aid facilities for the job site and ensure that a minimum number of workers are trained in first aid in accordance with the OHS First Aid Regulations.
- .17 Provide requirements and permits for isolated campsite locations such as coordinates, fire suppression systems, alarms, camp monitoring, nuisance wildlife, drinking water provisions, etc.
- .18 Depending on the specifics of the contract, the SSSP may require other programs and documents to meet health and safety provisions as required in the OHS Act and Regulations. See **Sections 190.4 and 190.5** for examples of potential additional requirements.

190.03 SAFETY MONITORING

190.03.01 CONTRACTOR ROLES AND RESPONSIBILITIES

The Contractor shall:

- .1 Ensure that their organization is staffed appropriately to ensure completion of project tasks and all necessary safety related duties and responsibilities.
- .2 Ensure co-ordination of work schedules and tasks, and communication thereof for the purpose of ensuring health and safety on the worksite(s).
- .3 Develop a Project SSSP, as indicated above, that thoroughly assesses the health and safety hazards of each project phase, including all subcontracted work.
- .4 Implement all requirements of the Project SSSP. The Contractor shall take all necessary measures to immediately implement any engineering controls, administrative controls, personal protective equipment required or termination of work procedures to ensure compliance with the SSSP and the OHS Act and Regulations. All measures should be immediately communicated to staff.
- .5 The Contractor shall comply with and enforce compliance by employees, subcontractors, suppliers and visitors with all safety requirements of the Contract

- Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with the Project SSSP.
- .6 Periodically review and modify the SSSP as required including but not limited to when a new hazard is identified during completion of work or when an error or omission is identified in any part of the SSSP.
 - .7 Support/permit periodic inspections of the Contractor's work by the Owner's Representative and/ or the Department of Transportation and Infrastructure Occupational Health and Safety team to maintain compliance with the SSSP. Inspections may include visual inspections of the site and documentation, as well as testing and sampling as required.
 - .8 Be responsible for any and all costs associated with delays as a result of the Contractor's failure to comply with the requirements outlined in **Section 190** or the OHS Act and Regulations.
 - .9 Ensure that all workers receive necessary training as per the training matrix contained in the SSSP prior to the start of work. Maintain training records in a tabular format or spreadsheet for all employees on the project site and complete periodic reviews to ensure that necessary re-certifications are completed prior to expiration dates.
 - .10 Ensure all equipment, vehicles, tools, or other devices necessary throughout the Project are suitable for the task and are inspected and maintained in accordance with the manufacturers' specifications and/or CSA standards adopted by the OHS Regulations.
 - .11 Be responsible to ensure that site inspections have been completed at no less than 1 week intervals. These site inspections shall include risk assessments where the nature of the ongoing work or tasks associated with the work increase in risk or significantly change due to phases in the project or project progression.
 - .12 Ensure that toolbox meetings are held with staff no less than once per week and shall include review of safety related information that is pertinent to the safety of employees.
 - .13 Ensure that all toolbox meetings, site inspections, risk assessments, OHS Committee meetings and any OHS Directives or reports are documented and submitted with the Contractor's Monthly OHS Performance Report.
 - .14 Review for completeness the hazard assessment results immediately prior to commencing work, when a new hazard is identified during completion of work or when an error or omission is identified.
 - .15 Be solely responsible for investigating, evaluating and managing any report of actual or potential hazards.
 - .16 Retain copies of all completed hazard assessments at the project site and provide a copy to the Owner's Representative. Copies of any hazard assessments not included in the original SSSP must be submitted immediately

to the Owner's Representative and noted on the Contractor's Monthly OHS Performance Report.

- .17 Promote the employees' right to work in a respectful, harassment-free, and psychologically healthy and safe work environment. Assist the Owner's Representative to investigate incidents of workplace violence or harassment carried out against a TI employee by Contractor or Subcontractor employees.

190.03.02 SUPERVISION

190.03.02.01 The Contractor shall:

- .1 Develop an organizational structure that establishes a specific chain of command and overall responsibilities of all employees at the work site.
- .2 Assign a sufficient number of supervisory personnel to the work site and ensure that all work is performed under the direct supervision of competent persons.
- .3 Ensure that any person assigned to supervisory duties on site shall not conduct significant work in relation to the contract that inhibits them from the ability to properly supervise the work site.
- .4 Ensure the site supervisor(s) have complete understanding, working knowledge and familiarity with the Project SSSP, applicable codes and standards as well as the OHS Act and Regulations.
- .5 Ensure the site supervisor(s) fully implements, enforces, and monitors the SSSP.
- .6 Prior to the start of work, ensure that the site supervisor(s) have the training, knowledge, and understanding in:
 - .1 Project tasks and construction activities.
 - .2 Hazard recognition evaluation and control.
 - .3 Development and implementation of safe work practices and procedures.
 - .4 Accident incident investigations and reporting.
 - .5 Workplace violence and harassment prevention.
 - .6 Equipment maintenance and inspections required for preventive safety.
 - .7 Care and maintenance of PPE to be used on site.
 - .8 Standard First Aid training certified by WorkplaceNL.
 - .9 WHMIS 2015.
 - .10 Other certifications may be required depending on the work tasks associated with a specific contract to ensure that adequate controls are in place to mitigate the risks to workers, and to abide by all applicable legislation, codes and standards. This may include, but is not limited to:
 - i. Traffic Control Person (level I and II) training certified by WorkplaceNL.
 - ii. Power Line Hazards training certified by WorkplaceNL.
 - iii. Fall Protection training certified by WorkplaceNL.

- iv. Confined Space Entry training certified by WorkplaceNL.
 - v. Rescue and emergency response.
 - vi. Trenching and excavation.
 - vii. Scaffolding.
 - viii. Rigging and slinging.
 - ix. Transportation of Dangerous Goods.
 - x. Other training as specified by the Department.
- .7 Assign a dedicated on-site safety representative to assist the Site Supervisor during the completion of high-risk activities. This person shall have training, knowledge, and understanding regarding the activity(s) being completed. High-risk activities may include, but are not limited to:
- .1 Heavy lift operations which includes items greater than 1000 kg or which may need an engineered lift plan due to other identified risk factors.
 - .2 Lift operations that occur closer than 10 m of energized power lines or close proximity to moving traffic, public and residential areas, or other sensitive locations.
 - .3 When greater than 3 employers are working in close proximity at the same time. Close proximity execution means any time the operations of each employer are close enough to directly influence or add risk to another employer.
 - .4 Working within or near highly populated residential areas when there is an appreciable ongoing risk to the public that needs continual safety oversight.
 - .5 When a complex traffic control plan is needed in high volume areas.
 - .6 Work involving confined space entry.
 - .7 Working with or near toxic and hazardous substances.
 - .8 Any other high-risk activity identified through hazard/risk assessment by the Contractor or by the Department.

In such instances, the Contractor may request and the Department may agree that such dedicated safety representation is not needed if the Contractor demonstrates there are adequate safety controls in place to mitigate the risk.

190.03.02.02 The Site Supervisor(s) shall:

- .1 Be responsible for project safety by ensuring the work complies with all requirements of the SSSP and with the appropriate section(s) of OHS Act and Regulations, latest edition.
- .2 Prior to mobilization on site, hold a pre-start Health and Safety meeting with the Contractors, Subcontractors, and Owner's Representatives to review of the SSSP including all its contents.
- .3 Be responsible for the delivery and documentation of the site safety orientations and ensure that personnel who have not been oriented are not permitted to enter

- the site. This applies to all workers (Contractor, Subcontractor, and Department), and visitors. **Refer to Section 190.3.6.7.**
- .4 Advise of the health and safety hazards for the work site, provide written or verbal instructions of any precautions to be taken to protect everyone at the work site and ensure that the applicable personal protective equipment is used and worn on site at all times.
 - .5 Review hazard assessment for completeness immediately prior to commencing work, when a new hazard is identified during completion of work, or when an error or omission is identified.
 - .6 Address all safety concerns brought to their attention in a timely manner depending on the severity of the hazard.
 - .7 Be responsible for the maintenance of a daily log of inspections, meetings, infractions and mitigating measures. The log is to be filed daily and copies provided to the Owner's Representative as requested.
 - .8 Be responsible to log, investigate, track and follow-up on mitigations for all near misses, incidents and/or accidents.
 - .9 Promote employees' right to work in a respectful, harassment-free, and psychologically healthy and safe work environment. Assist the Owner's Representative to investigate incidents of workplace violence or harassment carried out against a TI employee by Contractor or Subcontractor employees.
 - .10 Ensure the correct traffic control signage plan is utilized on site and staff have been notified of the requirements. Ensure that road signage is inspected for accuracy and condition by a competent and trained person upon set-up, each morning prior to work, and at any point in which the signage requires change during the workday or life of the contract. A Traffic Control Signage log must be submitted with the Contractor's Monthly OHS Performance Report. **Refer to Section 190.4.6.**
 - .11 If required for the project, coordinate with and support the efforts of the on-site safety representative.

190.03.03 PROJECT DEDICATED FULL TIME CONTRACTOR SAFETY REPRESENTATIVE (CSR)

The Department of Transportation and Infrastructure recognizes that, based on complexity, certain construction projects will need a higher level of diligence and focus on safety management and oversight. Providing such diligence by the Contractor may be accomplished by a dedicated safety resource to support the Contractor's Site Supervisor. For some projects the Department may elect to cover the additional costs of dedicated site support in the form of a full time Contractor Safety Representative (CSR) (formally known as Contractor Safety Officer). A dedicated CSR means dedicated full time to the project and cannot be shared over multiple projects. As such, it will be identified in the

Supplemental General Conditions and a cost line item will be included in the pricing table. Should it become evident after contract award that the CSR is only required on site part time, or where the duties can be performed by other members of the Contractor's site team, the bid price payments will be reduced/pro-rated accordingly.

For projects where the Department has not included for specific payment of a CSR, the Contractor will be expected to ensure the Contractor's organization is staffed appropriately to ensure completion of project tasks and all necessary safety related duties and responsibilities.

The CSR role is intended to provide expertise and dedicated site safety support to the Contractor's Site Supervisor(s). Under no situation does the requirement to have a CSR alleviate the safety responsibility of the Contractor or Site Supervisor(s). When specified for inclusion by the Department, the CSR is intended to be a focused role with formal training and knowledge in safety management. In this case, the Contractor shall ensure that a CSR is appointed, and has sufficient authority and resources to support the implementation and monitoring of the SSSP.

- .1 The CSR shall have:
 - .1 Formal training in OHS Management (degree, diploma, or certificate) combined with at least two (2) years of relevant experience, or
 - .2 A designation such as National Construction Safety Officer (NCSO), Construction Safety Officer (CSO), Canadian Registered Safety Technician (CRST), Canadian Registered Safety Professional (CRSP), or Certified Health and Safety Consultant (CHSC), or other similar designation.
- .2 Prior to the start of work, the CSR may also require additional certifications depending on the work tasks associated with a specific contract. This may include, but is not limited to:
 - .1 Traffic Control Person (level I and II) training certified by WorkplaceNL.
 - .2 Power Line Hazards training certified by WorkplaceNL.
 - .3 Standard First Aid training certified by WorkplaceNL.
 - .4 Fall Protection training certified by WorkplaceNL.
 - .5 Confined Space Entry training certified by WorkplaceNL.
 - .6 Rescue and emergency response.
 - .7 Trenching and excavation.
 - .8 Scaffolding.
 - .9 Rigging and slinging.
 - .10 Transportation of Dangerous Goods.
 - .11 WHMIS 2015.

- .12 Other training as specified by the Department.

190.03.04 HEALTH AND SAFETY COMMITTEE

The Contractor shall:

- .1 Establish a site Occupational Health and Safety Committee where ten or more workers are employed on the job site for greater than 30 days.
- .2 Committee members shall receive training from a WorkplaceNL recognized training provider.
- .3 Provide a copy of all committee minutes with the Contractor's Monthly OHS Performance Report.

190.03.05 REPORTING AND INVESTIGATION

The Contractor shall adhere to a documented incident, hazard, safety reporting, and investigation process. The system shall:

- .1 Ensure all hazards, near misses, incidents, accidents, injuries, equipment damage are recorded and properly investigated.
- .2 Rank actual and potential severity of observations and report all high potential near misses, accidents, and incidents immediately to the Owner's Representative and to the OHS Division of Digital Government and Service NL.
- .3 Advise the Owner's Representative and the OHS Division of Digital Government and Service NL verbally and in writing immediately of any incident that results in serious injury to a person or results in the death of a person; or had the reasonable potential to cause serious injury.
- .4 Provide a copy of all notifications made to the OHS Division of Digital Government and Service NL to Transportation and Infrastructure.
- .5 Where life safety risks or other high potential risks exists, the Contractor must stop work until such time as the risk can be mitigated to a safe level.
- .6 Make appropriate steps to ensure that the hazards are mitigated to a safe level, workers are notified of the hazards and how to protect themselves. Additionally, workers must be provided with any new safe work practices or information regarding mitigation of the risk.

190.03.06 INSTRUCTION AND TRAINING

- .1 Workers shall not participate in, or supervise, any activity on the work site until they have been trained to a level required by the job function and responsibility.
- .2 Contractors shall develop an OHS training program that reflects OHS Legislative requirements and specific safety hazards based on Project work.
- .3 Contractors must supply, as a component of the SSSP, a training matrix identifying all necessary training by occupation for the scope of the contract.

- .4 Training requirements will depend on the work tasks associated with a specific contract, however, as a minimum, shall include the following:
 - .1 Federal and/or Provincial Health and Safety Legislative requirements including roles and responsibilities of supervisors, workers and other person(s) responsible for implementing, monitoring and enforcing health and safety requirements.
 - .2 Instruction and training on the hazards associated with any work that workers will be performing and how to protect themselves and others. This will include a review of all safe work practices, the reporting and documentation of hazards, and the reporting of accidents and injuries.
 - .3 Limitations, use, maintenance and care of engineering controls and equipment.
 - .4 Workers must receive training from a WorkplaceNL recognized training provider as outlined in the OHS legislation (i.e. fall protection, confined space entry, power line hazards, traffic control persons training).
 - .5 Training in the use, care and maintenance of PPE to be used on site.
 - .6 Limitations, use, maintenance and disinfection/decontamination of personal protective equipment associated with completing work.
 - .7 Training in the Contractor's emergency response plan for the Project. Workers engaged in fall arrest or confined space rescue operations will require specific training for the tasks involved.
 - .8 Limitations and use of emergency notifications and response equipment including emergency response protocol(s).
 - .9 All workers at site must receive training in Workplace Violence and Harassment Prevention.
 - .10 Training in WHMIS 2015.
 - .11 Safety and health hazards associated with working in extreme weather conditions (i.e. heat/cold hazards).
 - .12 Appropriate number of persons trained in emergency and Standard First Aid according to the OHS First Aid Regulations.
 - .13 Safety and health hazards associated with working on a contaminated site, if applicable, including recognition of symptoms and signs which might indicate over exposure to hazards.
 - .14 Refer to **Sections 190.3.2 and 190.3.3** for training requirements for Site Supervisors and CSRs.
- .5 Detailed training records must be provided to the Owner's Representative upon request. Site training records must be in tabular or spreadsheet format, stating employee name, occupation, required training, date that training was obtained and expiry date. This must be signed and dated by a member of the Contractor's management team.

- .6 Only qualified operators shall operator powered mobile equipment. Contractors must maintain records of worker's driver's license classification, expiry date, endorsements and the type of equipment (excavator, paver, loader etc...) they are qualified to operate for the complete scope of work on the Project. Such records must be provided to the Owner's Representative upon request. Records must be in tabular format or spreadsheet that has been signed and dated by a member of the Contractor's management team. Please note, that Driver's License Numbers should not be provided as this is confidential information. Provision of the License Number may breach PIPEDA - the Personal Information Protection and Electronic Documents Act. (Federal Act) or ATIPPA - Access to Information and Protection of Privacy Act - Part IV. (Provincial Act of NL & Lab).
- .7 Authorized visitors shall not access the work site until they have received orientation which would include :
 - .1 Notification of the names of persons responsible for implementing, monitoring and enforcing the Project SSSP.
 - .2 Briefed on safety and health hazards present on the site.
 - .3 Instruction in the proper use and limitations of personal protective equipment.
 - .4 Briefed on the emergency response protocols including notification and evacuation processes.
 - .5 Advisement of practices and procedures to minimize risks from hazards and applicable to activities performed by visitors.
 - .6 Being accompanied while on site and provided the appropriate PPE.

190.03.07 CONSTRUCTION SAFETY MEASURES

The Contractor shall:

- .1 Observe construction safety measures of the Federal or Provincial Government, OHS Act and Regulations, WorkplaceNL, and Municipal Authority. In cases of conflict or discrepancy, the more stringent requirement shall apply.
- .2 Administer the project in a manner that will ensure, at all times, full compliance with Federal and Provincial Acts, regulations and applicable safety codes and the Project Site Specific Safety Plan.
- .3 Provide the Owner's Representative with copies of all orders, directions and any other documentation, issued by the Occupational Health and Safety Division with the Department of Digital Government and Service NL and Employment and Social Development Canada (ESDC).
- .4 Forward copies of all orders, directions or any other documentation immediately after receipt.

190.03.08 POSTING OF DOCUMENTS

- .1 The Contractor shall ensure applicable items, articles, notices, minutes and orders are posted in a prominent location on site in accordance with OHS Act and Regulations or as required by WorkplaceNL.

190.03.09 NOTIFICATION

- .1 For projects exceeding thirty (30) days or more, the Contractor shall, prior to the commencement of work, notify in writing the Department of Digital Government and Service NL, Occupational Health and Safety Division the following information and provide a copy to the Owner's Representative:
 - .1 Completion of Notice of Project Form.
 - .2 Company name and mailing address of the Contractor doing the work.
 - .3 The number of workers to be employed.
 - .4 A copy of the Project Site Specific Safety Plan if requested.

190.03.10 CORRECTION OF NONCOMPLIANCE

- .1 The Contractor must immediately address health and safety non-compliance issues identified by the authority having jurisdiction or by the Owner's Representative.
- .2 The Contractor must provide the Owner's Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 The Owner's Representative may stop work if noncompliance of health and safety regulations are not corrected.

190.03.11 LIQUIDATED DAMAGES FOR NON-COMPLIANCE

- .1 Poor safety performance leads to extreme risks, delays, and overall extra resource by the Department of Transportation and Infrastructure to provide incremental administration and additional due diligence on the Contractor Work. As such, if the Work fails to meet any specific safety requirement in this **Section 190** the Department will apply Liquidated Damages to the work.
- .2 The Department shall document and provide the Contractor with notification, either verbal or written, when an infraction has been noted so as to allow the Contractor to develop corrective actions to prevent future infractions.
 - .1 The Contractor will be given a minimum of one written warning for failure to comply with this specification.
 - .2 The next three infractions will result in Liquidated Damages of \$500/day for non-compliance being applied to the work. For each successive infraction the Liquidated Damages increases to \$1,000/day.

- .3 The possibility of project shutdown or termination exists at any time where the Contractor fails to observe the provisions of **Section 190** and the Owner's Representative and the Department believe such action is warranted from a safety and/or contractual perspective. Such shutdown or termination may occur irrespective of whether Liquidated Damages were applied or not.
- .4 Typical infractions may include but are not limited to:
 - .1 CSR not present on site as required.
 - .2 Safety reports not provided within specified timelines.
 - .3 Working without appropriate safety work practices, procedures, etc.
 - .4 Incidents and hazards not investigated, nor communicated to the Owner's Representative in a timely fashion.
 - .5 Failure to action OHS orders and/or other identified safety gaps in a timely manner.
 - .6 Not adhering to training requirements.
 - .7 Utilizing or operating unsafe or uninspected mobile equipment (including light vehicles).
 - .8 Not adhering to approved signage plans and requirements.
 - .9 Violation of any portion of **Section 190** or the Contractor's Site Specific Safety Plan without appropriate investigations and mitigations. This includes not adhering to their SWP's, safety procedures, OHS Act and Regulations, and policies.

190.04 SAFETY REGULATIONS

The Department solely relies on the Contractor to know and adhere to appropriate safety regulations. The following sections are provided for convenience and are not intended to be an all-inclusive list of safety regulations. In addition to the items stated in **section 190.4**, it is the Contractor's responsibility to ensure compliance with applicable Federal, Provincial, Territorial and Local statutes, regulations, and ordinances. Should there be any conflicts in latest regulations, Contractor safe work practices, or other recognized safety needs the latest and most stringent safety requirements shall apply.

190.04.01 WHMIS 2015

The Contractor shall:

- .1 Ensure that all controlled products are in accordance with the Workplace Hazardous Materials Information System (WHMIS 2015) Regulations and Chemical Substances of the OHS Act and Regulations regarding use, handling, labeling, storage, and disposal of hazardous materials.
- .2 Deliver copies of relevant Safety Data Sheets (SDS) to job site and the Owner's Representative. The SDS must be acceptable to Health Canada for all controlled products that will be used in the performance of this Work.

- .3 Train workers required to use or work in close proximity to controlled products as per OHS Act and Regulations. This must be documented as part of the on-site orientation and a copy provided to the Owner's Representative.
- .4 Label controlled products at jobsite as per OHS Act and Regulations.
- .5 Provide appropriate emergency facilities as specified in the SDS where workers may be exposed to contact with chemicals, e.g. eyewash facilities, emergency shower.
 - .1 Workers shall be trained in use of such emergency equipment.
- .6 Provide appropriate personal protective equipment as specified in the SDS where workers are required to use controlled products.
 - .1 Properly fit workers for personal protective equipment.
 - .2 Train workers in care, use and maintenance of personal protective equipment.
- .7 Ensure that SDS remain on site at all times and are accessible to everyone on site.

190.04.02 OVERLOADING

The Contractor shall:

- .1 Ensure no part of the Work or associated equipment is subjected to loading that will endanger its safety or cause permanent deformation.
- .2 Ensure equipment operations follow manufacturer's operating manual.

190.04.03 FALSEWORK

The Contractor shall:

- .1 Design and construct falsework in accordance with CSA S269.1.

190.04.04 SCAFFOLDING

The Contractor shall:

- .1 Design, erect and maintain scaffolding in accordance with CSA S269.2: Access Scaffolding for Construction Purposes and Part XI: sections 147-249 of the OHS Regulations.
- .2 Ensure that fall protection devices are used by all workers working at elevations of 1.22 meters or greater in accordance with CSA Z259 and CSA S269.2.
- .3 All workers performing work at height and who will be required to utilize a fall arrest system must be trained in a fall protection program certified by WorkplaceNL.
- .4 Scaffolding shall be inspected each day prior to use by a competent inspector. Records and copies of these inspections shall be kept on site and provided upon

request to the Department of Transportation and Infrastructure officials, Owner's Representative, etc.

- .5 Scaffolding inspection reports may be required to be provided with the Contractor's Monthly OHS Performance Reports, at the discretion of the Owner's Representative.

190.04.05 PERSONAL PROTECTIVE EQUIPMENT

The Contractor shall:

- .1 Develop a Personal Protective Equipment (PPE) Program which shall detail:
 - .1 Selection criteria based on site hazards as determined by the hazard assessment.
 - .2 Use, maintenance, inspection and storage requirements and procedures.
 - .3 Decontamination and disposal procedures.
 - .4 Inspection procedures prior to, during and after use, and other appropriate medical considerations.
 - .5 Limitations during temperature extremes, heat stress and other appropriate medical consideration.
- .2 Ensure that in addition to those requirements set forth in the OHS Act and Regulations, all persons, including those employed by the Contractor or their Subcontractors, working on projects for The Department of Transportation and Infrastructure shall wear the following mandatory Personal Protective Equipment at **ALL** times while working on the project.
 - .1 CSA approved safety boots meeting the CSA Z195 Standard.
 - .2 CSA approved hard hat meeting the CSA Z94.1 Standard.
 - .3 CSA approved safety glasses meeting CSA Z94 Standard.
 - .4 High visibility apparel as defined in the OHS Regulations.
 - .5 Where noise exceeds standards set out in the OHS Regulations hearing protection shall be worn, and hearing conservation program implemented.
 - .6 Other personal protective equipment, as may be required by the work tasks, hazard assessments or the Contractor, depending on duties being performed.

190.04.06 TRAFFIC CONTROL

The Contractor shall:

- .1 Provide traffic control measures when working on, or adjacent to, roadways. This will include but is not limited to appropriate signage, traffic control persons and control vehicles.
- .2 Ensure that traffic control measures conform with the Department of Transportation and Infrastructure's Traffic Control Manual, latest edition and errata.

- .3 Ensure daily completion of the Department of Transportation and Infrastructure, Contractor Daily Traffic Control Signage Log. This log is to be completed daily at a minimum and at any point where the signage required changes to ensure accuracy. The log will be submitted monthly with the Contractor OHS Monthly Performance Report and may be inspected randomly by staff of Transportation and Infrastructure for completion and accuracy.
- .4 Ensure that signage utilized on site shall meet the requirements of the Traffic Control Manual.
- .5 Submit traffic control plans for all portions of the contract work to the Owner's Representative as part of the SSSP including all accompanying hazards assessments. These traffic control plans must note the location, plan number if referencing a plan contained in the Traffic Control Manual, spacing of signs, location and number of traffic control persons and be prepared in a professional manner. If the construction situation is not specifically addressed in the Traffic Control Manual then the Contractor must provide the Owner's Representative with a site specific traffic control plan addressing all of the items listed above in a professional format.
- .6 Complete hazard assessments for traffic control plans to identify hazards unique to the work (i.e., volume of heavy equipment, size of lanes and barriers to protect workers from traffic, additional decreases in posted speeds, etc.).
- .7 The Contractor shall ensure that traffic control persons have completed Traffic Control Person Level I training as certified by WorkplaceNL.
- .8 The Contractor shall ensure that a competent individual is responsible for monitoring, maintaining and adjusting traffic control plans throughout the life of the project. This individual shall:
 - .1 Have completed Traffic Control Person Level II training as certified by WorkplaceNL.
 - .2 Be provided with authority and resources to ensure continuous monitoring of the worksite and revision of the traffic control plan when necessary.
 - .3 Be responsible to complete the Daily Traffic Control Signage Log to accompany the Contractor's Monthly OHS Performance Report requirements.
- .9 Contractors should plan their work activities daily to ensure work will not occur in twilight or dark hours. However, if this does occur due to unforeseen circumstances, the Contractor shall have provisions in place for illumination of the work area and ensure the traffic control persons are properly equipped as required.
- .10 Ensure compliance with Part XVI of the OHS Regulations 5/12.

190.04.07 WORKING AT HEIGHT

The Contractor shall:

- .1 Ensure that Fall Protection devices in accordance with the regulations are utilized at a height of 1.22 meters.
- .2 Develop a site specific fall protection plan, including a rescue plan, and provide it to the Owner's Representative as a part of the SSSP when fall protection systems (as per Part X of the OHS Regulations), are required during the course of the Project.
- .3 Ensure that fall restraint or fall arrest devices used by workers are in accordance with CSA Z259.
- .4 Ensure that all workers performing work at height and who will be required to utilize a fall arrest system are trained in a fall protection program certified by WorkplaceNL.
- .5 Maintain a list of all persons trained in WorkplaceNL certified fall protection training on site. To be combined with other training records as required in a tabular or spreadsheet format listed throughout **Section 190**.
- .6 Ensure regular inspections of all fall protection and fall arrest equipment are completed and that records are maintained and kept on site. Daily inspections of fall restraint and horizontal fall protection/arrest systems shall be conducted.
- .7 Ensure that manufacturer's specifications for engineered fall protection/arrest/restraint systems are kept on site at all times.
- .8 Ensure that anchor points for fall arrest systems are identified and certified annually by a Professional Engineer per CSA standards.
- .9 Develop Working from Height Safe Work Practices specific to the Work, location and risks, and ensure the workers receive specific instruction regarding the work tasks and associated rescue plans.
- .10 Ensure that rescue equipment for fall rescues is kept in close proximity to workers working at height.
- .11 Where necessary the Contractor shall ensure that adequate protection from falling debris is addressed in site specific safety plans, this may include debris nets, barriers, etc.

190.04.08 WORKING OVER OR NEAR WATER

The Contractor shall:

- .1 Where the risk of entering water is identified and other means of fall protection or rescue are not adequate to prevent the worker from entering the water, develop water rescue plans and ensure that workers on site are trained.
- .2 Keep and maintain a list of all persons trained in water rescue on site. This list shall be combined with other training records as required in a tabular or spreadsheet format listed throughout **Section 190**.

- .3 Require that workers wear personal flotation devices where workers are at risk of entering the water.
- .4 Ensure that life-saving equipment is available near entry site for water rescue. This may include life boats, throw lines, life preservers, etc.

190.04.09 ACCESS, EGRESS AND WALKWAYS

The Contractor shall:

- .1 Ensure that all accesses, egresses and walkways are continuously monitored for hazards which may include slips, trips, slippery conditions and other hazards.
- .2 Develop provisions for snow clearing of walkways, accesses and egresses.
- .3 Ensure that all access, egress hatches, holes or other potential hazards of this nature are clearly identified to workers and adequately covered.

190.04.10 RIGGING AND SLINGING

The Contractor shall:

- .1 Ensure that workers required to perform work related to rigging and slinging are trained and deemed competent in such operations and practices.
- .2 Maintain and inspect all rigging and slinging equipment in accordance with manufacturers' specifications, CSA Standards and OHS Regulations.
- .3 Ensure that the working load limit of rigging and slinging equipment on site is marked and visible on the product.
- .4 At a minimum, ensure that rigging and slinging operations meet the requirements of the OHS Act and Regulations.
- .5 Ensure that rigging and slinging equipment identified in daily inspections or otherwise identified as damaged, worn or unacceptable to manufacturers' specifications, appropriate standards or OHS Regulations is immediately taken out of service and destroyed.

190.04.11 WORKPLACE VIOLENCE AND HARASSMENT

- .1 The Contractor shall develop a Workplace Violence and Harassment Prevention Plan for the project that complies with the latest edition of the OHS Regulations.

190.05 SAFETY OPERATIONS

The Department solely relies on the Contractor to know how to safely perform the Work and the Contractor is fully responsible for the safety of its operations. The following are minimum expectations and may not be all inclusive. The Contractor shall ensure that all work meets the latest safety requirements and that all work is performed safely irrespective of the stated following requirements. Should there be any conflicts in latest standards, Contractor safe work procedures/practices, or other recognized safety needs

the latest and most stringent safety requirements as deemed appropriate by the Contractor shall apply.

190.05.01 EXCAVATION OPERATIONS

The Contractor shall:

- .1 Protect excavations more than 1.22 meters deep against cave-ins or wall collapse by side wall sloping to the appropriate angle of repose, an engineered shoring/sheathing system or an approved trench box.
- .2 Provide a ladder where excavation is greater than 1.22 meters deep, extending from the bottom of the excavation to at least 0.91 meters above the top of the excavation.
- .3 Ensure that all excavations less than 1.22 meters deep are effectively protected when hazardous ground movement may be expected.
- .4 Ensure that trench boxes are designed and certified by a registered Professional Engineer. Ensure the manufacturer's Depth Certificate Statement is permanently affixed to the trench box. Use trench boxes in strict accordance with manufacturer's instructions and depth certification data.
- .5 For excavations deeper than five (5) meters, provide a certificate from a registered Professional Engineer stating that the protection methods proposed have been properly designed in accordance with accepted engineering practice. The Engineer's certificate shall verify that trench boxes, if used, are properly designed and constructed to suit the depth and soil conditions.
- .6 Ensure that the Department of Digital Government and Service NL, OHS Division signs off on excavations greater than five (5) meters.
- .7 Ensure that the superintendent and every crew chief, foreperson and lead hand engaged in trenching operations or working in trenches have the appropriate training and have in their possession a copy of the OHS Regulations: PART XVIII EXCAVATION, UNDERGROUND WORK AND ROCK CRUSHING.

190.05.02 BLASTING OPERATIONS

Where blasting is required, the Contractor, at a minimum, must:

- .1 Ensure a valid Blaster's Certificate and Certificates of Qualification acceptable to the OHS Regulations 5/12 under Section 419 identifying the Level of Qualification for the project requirements (Journey Persons Blaster Certificate will still be accepted). An acceptable letter of extension of blasters certificate from the Apprenticeship and Trades Certification Division of the Department of Advanced Education, Skills and Labour is required where their certificate expires (5 years max.). Certificate numbers and names are required for all blasters proposed for the project.

- .2 Hold a Temporary Magazine License, when required, issued by Natural Resources Canada.
- .3 Hold an Explosives Vehicle Certificate, when required, issued by Transport Canada for transport of explosives regulated under the Transportation of Dangerous Goods Act.
- .4 Ensure that the Blaster's resume clearly states and demonstrates:
 - .1 Minimum five (5) years of experience in handling, storage and detonation of explosives.
 - .2 Training at a blaster's school which is acceptable to the Provincial Government.
- .5 Ensure blasting operations are carried out under the direct visual supervision of a certified Blaster either registered with the Apprenticeship and Trades Certification Division of the Department of Advanced Education, Skills and Labour or has been issued a certificate from completion of a program approved by the Department of Digital Government and Service NL. Ensure that the certificate level is appropriate for the blasting activities which will occur. Comply with the requirements of:
 - .1 Explosives Act.
 - .2 Explosives Regulations.
 - .3 Newfoundland Regulation 5/12, Occupational Health and Safety Regulations.
 - .4 Role of certified blaster set out in section 419 of the Occupational Health and Safety Regulations 5/12.
- .6 Store explosives in accordance with the "Explosives Act (Canada)" and transport, handle and use in the manner prescribed by the manufacturer of the substance and subject to specific regulations. An inventory of explosives shall be kept at all times.
- .7 Ensure that workers required to transport explosives have a valid Transportation of Dangerous Goods Training Certification in accordance with the Transportation of Dangerous Goods Act and the Explosives Act. Vehicle used to transport explosives on site shall be placarded and explosives shall be transported in containers lined with non-sparking materials (reference section 428 of the Occupational Health and Safety Regulations 5/12). Detonators shall not be placed in a magazine or daybox with other types of explosives or in a compartment of a vehicle with another type of explosive.
- .8 Ensure that the use of explosives on site complies with the Occupational Health and Safety Regulations 5/12 General Blasting requirements are set out in Part XIX of the Regulations. Loaded holes shall be clearly identified with barricades put in place to prevent access to the holes. Drilling shall not be done closer to a loaded bore hole than a distance half the total depth of the hole being drilled and

- in no case shall drilling be conducted at a distance closer than 6 meters from a loaded borehole. Drill cuttings shall not be used as stemming material.
- .9 Advise the public by suitable public notices, advertisements, house to house contacts etc. for blasting operations in close proximity to areas occupied by the public. Advise of the warning device to be sounded and the procedure to be used before detonation of individual blasts. Roads and approaches to the danger area are guarded or barricaded to prevent anyone from entering. Loaded holes which have not been fired by the end of the day shall not be left unattended.
 - .10 Prior to detonation of a blast, give sufficient warning in every direction and ensure that all persons have reached a place of safety before the blast is fired.
 - .11 File an Emergency Response Assistance Plan with the Explosives Branch, Natural Resources Canada.
 - .12 Ensure that the Blaster:
 - .1 Is solely responsible for implementation of the Explosives Management Program.
 - .2 Has a valid blaster's safety certificate from the Apprenticeship and Trades Certification Division of the Provincial Department of Advanced Education, Skills and Labour and have a valid temporary Magazine License, when required, issued by Natural Resources Canada, for storage and explosives.
 - .3 Possess a thorough working knowledge of the Federal Explosives Act and Provincial Regulations.
 - .4 Possess a specialized training in handling storage and detonation of explosives.
 - .5 Keeps a field journal concerning all blast activities.

190.05.03 HEAVY EQUIPMENT OPERATIONS

The Contractor shall:

- .1 Ensure mobile equipment used on job site is fitted with a Roll Over Protective Structure (ROPS) and Falling Object Protective Structures (FOPS) as specified in OHS Act and Regulations (specific to sections 261-265).
- .2 Ensure that operators of mobile equipment have adequate instruction and are competent in the operation of mobile equipment.
- .3 Ensure that operators of heavy equipment are Power Line Hazards certified from WorkplaceNL.
- .4 Obtain written clearance from the power utility where equipment is used in close proximity to (within 5.5 meters) overhead or underground power lines.
- .5 Equip cranes with:
 - .1 A mechanism which will effectively prevent the hook assembly from running into the top boom pulley.

- .2 A legible load chart.
- .3 A maintenance log book.
- .6 Ensure that there is no overnight parking of heavy equipment on road shoulders, where exposure to the public may be present.

190.05.04 BRUSH CLEARING OPERATIONS

The Contractor shall:

- .1 Ensure workers using chain saws or brush saws are competent and wear the following safety equipment:
 - .1 CSA approved safety hat fitted with face screen or shield.
 - .2 Approved eye protection.
 - .3 Hearing protection, e.g. ear muffs.
 - .4 CSA approved chain saw pants.
 - .5 CSA approved chain saw boots.
 - .6 Cut resistant gloves.
- .2 Chain saws must be equipped with a chain brake.
- .3 A safe work practice (SWP) must be developed, implemented and all workers trained in the SWP prior to undertaking such tasks and utilizing tree and brush clearing equipment.

190.05.05 DIVING OPERATIONS

When diving operations are required, the Contractor shall ensure that the diving contractor, completes, at a minimum, the following:

- .1 Development of site specific diving safety plan.
- .2 Maintains records of the diver(s) and dive supervisor (s), including:
 - .1 Copy of valid Diving Certificate and Supervisor Certificate from the Diving Certification Board of Canada (or equivalent) for the required work on the project. (i.e. Restricted SCUBA Diver, Unrestricted SCUBA Diver, SCUBA Supervisor, Restricted Surface-Supplier Diver, Unrestricted Surface-Supplied Diver, etc.(See www.divercertification.com).
 - .2 Resume which clearly demonstrates years of experience for the specific type (SCUBA, Surface Supplied Air, etc.) of diving to be performed at the site and projects completed to achieve minimum number of logged bottom time hours.
 - .3 First Aid and CPR Training Certification.
- .3 Maintains the dive tender(s) resume which must clearly state relevant training (including first aid and CPR and experience for the specific task (i.e. dive tender log book).
- .4 Ensures current (less than one year) medical examination certificate(s) for all divers, from a licensed medical doctor in the Province of Newfoundland and

- Labrador who is knowledgeable and competent in diving and hyperbaric medicine for all dives.
- .5 Maintains Certificates of Analysis for quality/purity of breathing air to be used by diver(s).
 - .6 Ensures documentation showing that diving life support equipment is in good working order and properly maintained.
 - .7 Ensures copies of documentation to show:
 - .1 An up-to-date dive site listing of the contact Hyperbaric facility and phone numbers for each location.
 - .2 Written arrangements with standby physician(s) specializing in diving/hyperbaric medicine for contingent emergency response and post dive follow-up for 48 hours after dive is completed.
 - .3 Effective means of communication between the diving supervisor and physician are available.
 - .4 The name, location and telephone number of the hospital and emergency department nearest the dive site.
 - .8 Develops emergency rescue procedures that include:
 - .1 Managing deteriorating environmental conditions.
 - .2 Managing unexpected weather or sea state condition.
 - .3 Evacuation of diver(s) under pressures greater than atmospheric pressure
 - .4 In water emergency transfers.
 - .5 Managing failing of equipment below the surface that impairs the ability of a diver to complete a dive.
 - .6 Managing failure of any major component of diving plant or equipment.
 - .7 Emergency signaling between divers involved in the diving program and between the diver(s) and the attendants using umbilical, tethers or other suitable methods.
 - .8 Mobilizing standby divers.
 - .9 Mobilizing crafts, standby boats and any other devices to be used for rescue.
 - .10 Contacting evacuation, rescue, treatment facilities and medical services that will be used in the diving program.
 - .11 Operation of emergency power and lighting facilities
 - .9 Ensures diving operations conform to CSA Z275.2-04 Occupational Safety Code for Diving Operations and CSA Z275.4-02 Competency Standard for Diving Operations or later edition.
 - .10 Ensures sampling:
 - .1 Prior to commencing diving activities, sample water and analyze sample(s) for:
 - i. Fecal Coliforms (*Escherichia coli*).

- ii. Total Coliforms.
 - iii. Any health hazard identified during the site specific hazard assessment.
 - iv. Any parameter as directed by the Department of Digital Government and Service NL.
- .2 Water will be designated a contaminant if the chemical concentration of a contaminant exceeds:
 - i. 200 fecal Coliforms (*Escherichia coli*) per 1000 milliliter of water.
 - ii. 100 times the guidelines concentration established in the most recent Guidelines of Canadian Drinking Water Quality.
 - iii. Any other criteria established by the Department of Digital Government and Service NL.
- .11 Ensures that sample analysis is to be completed by a laboratory that is accredited by the Canadian Associates of Environmental and Analytical Laboratories (CAEAL) or other national equivalent.
- .12 Ensures that dive personnel must meet the minimum competency requirements of CSA 275.4-02.
 - .1 The Dive supervisor(s) shall as a minimum:
 - i. Possess a Valid Diving Certificate, or equivalent, for a minimum of three (3) years for the type of diving to be performed.
 - ii. Have completed one hundred and fifty (150) hours of logged diving time for the type of diving to be performed.
 - iii. Have completed fifty (50) hours of dive supervision for the type of diving to be performed.
 - .2 Diver(s) shall as a minimum:
 - i. Possess a valid Diving Certificate or equivalent, for the type of diving to be performed.
 - ii. Have completed fifty (50) hours of logged dive time for the type of diving to be performed.
- .13 Ensures that a diving operation shall be interrupted or discontinued or not commenced when:
 - .1 Continuation of the diving operation would or is likely to compromise the safety of any person involved in the diving operation.
 - .2 The water currents at the underwater work site are likely to compromise the safety of any person involved in the diving operation.
 - .3 Combustible material is stored too close for safety to any diving plant and equipment used in the diving operation.
- .14 Ensures that a diving operation shall:
 - .1 Not be conducted in the vicinity for any other activity that might pose a danger to any person involved in the diving operation.

- .2 Not use any craft that has insufficient power or stability for the safe continuity of the diving operation.
- .3 Provide measures for making work area boundary and stopping unauthorized entry into the work area.
- .4 Provide adequate illumination of the dive site and the underwater work site of the diving operation.
- .15 Provides, at the work site while completing diving operations, a diving operations log book that is permanently bound and has numbered pages.
 - .1 Produce on request, any log books, records or other documentation associated with the diving operation, for inspection by the Owner's Representative.
 - .2 As a minimum, for each diving operation enter into the diving operation logbook:
 - i. date and time the diving operation commenced and terminated including any time the diving operation was interrupted.
 - ii. name of supervisor; names of all other persons involved.
 - iii. the procedures followed.
 - iv. the decompression table and the schedule in that the decompression table was used.
 - v. the maximum depth, bottom time, dive time and total dive time for each dive.
 - vi. the type of diving plant and equipment and the type of breathing mixture used.
 - vii. the type of discomfort, injury or illness including decompression sickness, suffered by any person involved
 - viii. any environmental conditions that affected or might have affected the diving operation.
 - ix. any other factors relevant to the safety to health of any person involved.
- .16 Ensures that diving in free swim mode is not permitted at the work site.
- .17 Provides separate first aid supplies for dive operation. All dive team personnel shall be trained in first aid and cardiopulmonary resuscitation (CPR).
- .18 Provides medical oxygen for emergency response at work site. The dive supervisor shall be trained in administering medical oxygen.

190.05.06 CONFINED SPACE OPERATIONS

When confined space entry is required, the Contractor, at a minimum, must:

- .1 Develop a site specific confined space entry plan that is specific to the nature of work performed and provide it to the Owner's Representative as a part of the

- SSSP. This shall include a CSE permit system, rescue plan, testing, equipment, communication considerations and safe work procedures.
- .2 Ensure confined space operations are carried out in accordance with the OHS Act and Regulations PART XXVII CONFINED SPACE ENTRY.
 - .3 The Contractor shall ensure that all appropriate policies, assessments, training, testing and rescue plans are in place, communicated to workers and utilized prior to confined space entry.
 - .4 All staff required to enter a confined space shall be trained in confined space entry through a program certified by WorkplaceNL.
 - .5 Provide approved air monitoring equipment when workers are working in confined spaces as appropriate. Ensure any testing equipment to be used is calibrated, in good working order and used by trained persons.
 - .6 Maintain 'entry permit' records for each entry into a confined space to ensure compliance with Provincial Legislation. Records shall be made available to Owner's Representative upon request.

190.05.07 CRANE OPERATIONS

The Contractor shall:

- .1 Ensure that training records and certifications for operators of cranes are kept on site and maintained. This training shall meet the requirements of the OHS Act and Regulations, CSA standards and identify the operators as competent.
- .2 Ensure that manufacturers' specifications for all lifting equipment is kept on site.
- .3 Inspect and maintain lifting equipment in accordance with the appropriate CSA standards and manufacturers' specifications by a competent and qualified individual.
- .4 Ensure that maintenance records for lifting equipment is maintained and available upon request.
- .5 Develop safe work practices for working around cranes and ensure that the information is reviewed with operators and staff.
- .6 Ensure that safe work practices for crane operations are developed and reviewed with all operators. Additional attention shall be provided for safe work practices related to operations for tandem crane lifts.
- .7 Complete a hazard assessment and develop a corresponding plan, when tandem crane lifts are required for the construction, maintenance and or repair of a structure, road or bridge.
- .8 Ensure that operators and signalers shall have radios or other suitable means of communications.
- .9 Ensure that where an apprentice crane operator will be operating a crane he/she is under the direct supervision of a journey person operator as required by the

Apprenticeship and Trades Certification Division of the Department of Advanced Education, Skills and Labour.

- .10 Ensure that the load capacity of the crane is clearly marked in a visible location.

190.05.08 PIT AND QUARRY OPERATIONS

- .1 The Contractor shall ensure that pits and quarry operations comply with OHS Regulations. The Contractor may be required to provide the following documents certified by the appropriate professionals in accordance with the regulations:
 - .1 Mine design plan, certified by a Professional Engineer (where three or more benches are to be mined) (OHS section 519).
 - .2 A plan for electrical energy at the mine, certified by a Professional Engineer (OHS section 679).
 - .3 Ground Control Log Book (OHS section 525).
 - .4 Ensure appropriate signage is utilized to prohibit unauthorized entry.
 - .5 Monitor conditions and utilize a dust suppression management program, particularly for drilling and crushing operations, if necessary.

190.06 OWNER'S STATEMENT

- .1 The Owner shall not be responsible for injury or damage occasioned by a failure of the Contractor to adhere to these provisions.

SECTION 157 MOBILIZATION AND DEMOBILIZATION

Mobilization shall be defined as the loading, transportation, unloading, and complete set-up of all plant, materials, and equipment necessary to complete the work associated with the contract. Demobilization shall be defined as the decommissioning, loading, transportation, unloading and moth balling of all plant, excess materials and equipment after the work associated with the contract is complete.

Where excess materials are demobilized and the Department purchases these materials, demobilization shall include the loading, transportation and unloading of the same from the job site to the nearest district or regional depot. Demobilization does not apply to the loading, transportation to a storage site, and removing of existing materials which are to be salvaged.

The Contractor is advised that payment at the lump sum price for Mobilization and Demobilization shall be compensation in full for all labour, supplies, materials and equipment use required to mobilize and demobilize plus the provision of storage and security required during the mobilization and demobilization phases of the work.

For Bridge Rehabilitation Projects, refer to Section 919 for information regarding additional requirements specific to that type of work.

The price bid for this item in contracts on the island portion of the province shall not exceed the limits given in the following table for the Island Portion of Province:

Island Portion of Province

Total Estimated Tender (including Mobilization & Demobilization but not including HST)	Mobilization & Demobilization Tender Item Maximum Bid Permitted
Less than \$500,000	10% of Total Estimated Tender
Between \$500,000 & \$1,000,000	\$50,000 + 7.5% of the amount that the Total Estimated Tender exceeds \$500,000
Greater than \$1,000,000	\$87,500 + 5.0% of the amount that the Total Estimated Tender exceeds \$1,000,000

The price bid for this item in contracts in the Labrador portion of the province shall not exceed the limits given in the following table for Labrador:

Labrador

Total Estimated Tender (including Mobilization & Demobilization but not including HST)	Mobilization & Demobilization Tender Item Maximum Bid Permitted
Less than \$1,000,000	15% of Total Estimated Tender
Between \$1,000,000 & \$2,000,000	\$150,000 + 12.5% of the amount that the Total Estimated Tender exceeds \$1,000,000
Greater than \$2,000,000	\$275,500 + 10.0% of the amount that the Total Estimated Tender exceeds \$2,000,000

Should the amount bid exceed the limits specified, the tender will be considered unbalanced and shall be rejected.

BASIS OF PAYMENT

For Bridge Rehabilitation Projects, refer to Section 919 for details regarding payment for Mobilization and Demobilization.

For projects with a bid price of \$300,000.00 or less, at the time of tender, fifty percent of the total of this item shall be paid on the first progress estimate provided that the Contractor has fully mobilized, and 50% will be paid on the final progress estimate. In instances where the Contractor has not fully mobilized, payment shall be as determined by the Owner's Representative with all considerations due to the specifics of the work.

For projects with a bid price over \$300,000.00, at the time of tender, payment* for this item will be made in partial payments as follows:

- No Mobilization & Demobilization will be paid until 5% of the tender price (excluding Mobilization & Demobilization) is achieved.
- When 5% of the tender price is earned by the progress to date in contract items (excluding Mobilization & Demobilization), 20% of the amount bid for this item will be paid.
- Continued progress payment based on a prorated amount for the percentage of work completed – up to a max of 80% of the bid amount.
- 20% once the contract has reached final completion

There shall be no change in the lump sum price of this item due to a change in contract scope or an extension to the contract completion date. At no time shall the total of the amounts paid to the Contractor under this item be greater than the tender's lump sum bid price.

The payments for the lump sum price shall be full compensation for the work under this item regardless of the number of times the Contractor mobilizes/demobilizes to the project location(s).

*Payments for interim blasting, crushing, stocking aggregate and materials on site are not considered as value of work completed on a bid item when payment for this item is calculated.

SECTION 901

REMOVAL OF EXISTING STRUCTURE

INDEX

901.01	SCOPE
901.02	GENERAL
901.03	DEMOLITION, REMOVAL, SALVAGE AND DISPOSAL
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901.01 SCOPE

The scope of the work involves the demolition, removal, salvage and disposal of an existing structure, structural components and debris.

The intention of this specification is to cover both rehabilitation and complete removal and disposal works. For rehabilitation type projects, if complete structural components are to be removed, a supplementary general condition shall describe which structural components are to be removed, salvaged, and disposed of. The removal of deteriorated or damaged concrete, steel, and other components to facilitate repairs shall be carried out as per Section 919.

Debris shall be defined as pieces of timber, concrete, steel, wood, sticks, branches, bushes, garbage and the like including that above and below the water level. Also included is the accumulation of any debris from the time of tender closing up to and including the date of substantial completion.

Structural components and related debris shall include that related to the superstructure, railings, bearings, abutments, piers, piles, footings and wing walls.

All demolition work shall be carried out in accordance with all applicable National and Provincial Regulations.

901.02 GENERAL

The demolition, removal, disposal and salvage of an existing structure shall be carried out under the conditions specified in this section and in accordance with the following Sections and regulations:

- a. Division 8
- b. Section 902
- c. Department of Fisheries and Oceans Regulations and Best Practices
- d. Applicable Environmental Permits
- e. Occupational Health and Safety Regulations

The structure shall be completely removed unless otherwise accepted by the Owner's Representative. If portions of the existing structure are to remain, including piles, they shall be removed to 0.6 metres below grade or stream bed. In both cases, removal shall be carried out with as little disturbance to the area or river bed as possible. The bending down of reinforcing steel to meet the above 0.6 metre criteria shall not be permitted. Reinforcing steel shall be cut off flush with the concrete remaining. The area or stream bed will be restored as near to original condition as possible and to the satisfaction of the Owner's Representative.

Where unwatering is required and is incidental to the work, it shall be as detailed under Section 180. Where unwatering is a separate pay item, it shall be completed as per Section 902.

When all activity is complete, the affected work area must be restored to its natural condition acceptable to the Owner's Representative. This shall include the backfilling of holes left after the existing foundation has been removed with material compatible with the natural environment.

The Contractor is advised that the indiscriminate disturbance of the general area or stream bed will not be permitted.

901.03 DEMOLITION, REMOVAL, SALVAGE AND DISPOSAL

The Contractor shall provide a disposal site satisfactory to all municipal, provincial and federal agencies having jurisdiction. Such disposal site shall be reviewed by the Owner's Representative before demolition commences.

Demolition, removal, salvage and disposal shall include the excavation, disassembly, breaking into pieces, handling, transportation from the job to disposal or storage site, and

disposal or storage of bridge components and debris including burial and trimming of the disposal site to neat contours as required.

Demolition and removal of the old superstructure and substructures shall be carried out so no significant debris enters the watercourse or harbour. Busting of the superstructure while in place shall not be permitted. The Contractor shall submit a demolition plan to the Owner's Representative for review and approval prior to demolition commencing.

Contractors shall be aware of the requirements of the Specifications Book including, but not limited to those in Division 8, Section 180, and Section 902 ensuring that the demolition plan reflects the requirements in these sections.

Demolition, salvage and removal operations shall be conducted in a neat, orderly, safe and environmentally manner as accepted by the Owner's Representative. Debris which moves downstream during the work shall be recovered. Debris with a larger dimension of 500 mm shall be removed from streams and rivers.

The use of explosives will only be permitted where they are authorized for use by the Owner's Representative. The use of explosives will not be permitted where any part of the structure is intended for salvage or to remain in future work

Excavations deeper than 1m shall be fitted with trench boxes or sloped or stepped at a minimum of 1 Vertical to 1 Horizontal. The Contractor shall implement shallower slopes or other measures as needed to maintain a safe work site or to meet the requirements of regulatory agencies.

The Contractor shall ensure that temporary works are at no time compromised by the removal of the existing bridge. If the removal operation interferes with the temporary works, the Contractor shall provide a method of retention acceptable to the Owner's Representative at no additional cost to the Department.

In the event that areas to be occupied by new footings overlap the areas occupied by the existing footings, utmost care must be taken during removal. For shallow foundations, any material in these areas which is below the bottom elevation of the new footing or new rock mattresses and which must, in the opinion of the Owner's Representative, be disturbed to achieve the demolition, will be excavated and the area will be compacted and filled with "Select Material Compacted – Rock." For foundations supported on piles, the piles shall be removed to 0.6m below the proposed bottom of footing and be replaced with "Select Material Compacted – Rock" to the satisfaction of the Owner's Representative. If needed, the Contractor shall also replace any disturbed or excavated

soil up to the bottom elevation of the new footing with "Select Material Compacted – Rock".

901.04 SALVAGE

Where structural components, regardless of material type, are destined to be salvaged, the contract shall contain a supplementary general condition indicating which components are to be salvaged, how and where they are to be stored and whatever other pertinent requirements must be fulfilled by the Contractor.

Where the removal of aluminum railing, steel guiderail and any related components is required, it shall be salvaged by the Contractor. This shall include loading, transportation to the nearest maintenance Depot, off-loading and storage in a manner acceptable to the Owner's Representative. The Contractor shall provide an inventory of all salvaged materials delivered to the Depot to the Owner's Representative prior to acceptance of delivery.

Storage shall include the provision for wooden spacers to separate the various items from the ground and from each other. Provision for suitable water tight containers necessary to store components which may become lost or scattered is also required.

901.05 MEASUREMENT FOR PAYMENT

Measurement for payment purposes shall be lump sum for the excavation, demolition, removal, disposal, and salvage if so required, of the existing structure, structural components and debris as outlined above.

Once demolition has been completed to the satisfaction of the Owner's Representative, Contractors shall provide the Owner's Representative with a minimum of 48 hours notice to conduct a survey of the site prior to further excavation or construction. Failure to provide an opportunity for this survey will negate any associated claims including, but not limited to, claims for "Removal of Existing Structure", "Excavation for Foundations" and the supply of any backfill materials.

901.06 BASIS OF PAYMENT

Payment at the contract price for "Removal of Existing Structure" in the Unit Price Table shall be full compensation for all labour, materials and equipment used to demolish, remove, salvage and dispose of the entire existing structure, structural components and related debris as outlined above.

Any excavation and replacement of any soil required to carry out the removal of the existing structure shall be considered incidental to "Removal of Existing Structure." No additional payment will be made for extra excavation required as a result of Contractor error or negligence.

For extra excavation and rock fill directed by the Owner's Representative as described under 901.03, payment will be made as per "Excavation for Foundation" and "Supply and Install Select Rock Material".

Also included in the basis of payment is the cost to the Contractor of selecting and providing the disposal site, cost of all permits, fees and royalties in addition to all necessary backfilling, grading and trimming of both the job and disposal site to neat and slightly contours.

If a significant amount of demolition debris from the bridge superstructure enters the watercourse or harbor, as decided by the Owner's Representative, the Contractors bid price for "Removal of Existing Structure" shall be reduced by 50 percent.

Any materials identified for salvage by the Department which is damaged by the Contractor as a result of negligence will be replaced by the Contractor at their expense.

SECTION 904

CONCRETE STRUCTURES

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904.01 SCOPE

The scope of this specification is to cover the supply of materials for concrete structures, production, delivery, placement, sampling, and testing of concrete, curing, and the subsequent protection. All work, plant, equipment and materials shall be in strict accordance with CSA A23.1/CSA A23.2 "Concrete materials and methods of concrete construction/Test methods and standard practices for concrete".

The plant from which the ready mix concrete is supplied shall be certified in accordance with the requirements for certification as per the Atlantic Concrete Association or equivalent. A copy of the certification of conformance shall be provided to the Owner's Representative prior to the start of delivery under the proposed contract.

A job meeting shall be held prior to the deck concrete placement to discuss all aspects of the concrete work including production, supply, delivery, placing, curing and any other related items. This meeting is to be called by the Owner's Representative; the Contractor and all others deemed necessary shall be in attendance.

904.02 MATERIALS

All concrete materials shall be in accordance with CSA-A23.1.

904.02.01 Cement

All cementing materials shall be in accordance with CSA A3000 "Cementitious Materials Compendium".

Cement for Superstructure, Substructure, MSE Panels, Bridge Arches, Reinforced Wharf Deck Concrete (with the exception of Pile, Levelling, Mass and Tremie Concrete), Cast-in-place Concrete Median Barrier and Precast Concrete Traffic Barriers shall be a blended Portland or Portland Limestone, Silica Fume, Fly Ash or Slag, Type GU(L)b F/SF or GU(L)b S/SF. Contractors are advised that the minimum proportion by mass of the total cementing materials for silica fume shall be 5% and a maximum of 8%. Contractors are advised that the minimum proportion by mass of the total cementing materials for fly ash or slag is 15%. The total mass of Supplementary Cementing Materials (SCM's) should not exceed 30% of the total weight of cementitious material.

Cement for deck and curb resurfacing in Section 919 shall be Portland cement Type GU or GUL unless otherwise specified.

Cement for all other concrete shall be Portland cement Type GU or GUL, a portion of which may be replaced by fly ash or ground granulated furnace slag up to 25% by mass of the total cementing material. Blending a combination of both fly ash and slag for incorporation into the GU or GUL cement is not permitted.

904.02.02 Aggregate

The source of the aggregate will be determined by the Contractor but all aggregate shall meet the requirements of CSA A23.1. The maximum petrographic number will be 125 in superstructure concrete and a maximum 140 for all other concrete classes.

Concrete aggregate shall consist of natural sands and gravels, crushed rock or other inert materials having clean, uncoated grains of strong and durable minerals.

Fine and coarse aggregate shall be stored in separate stock piles sufficiently removed from each other to prevent the materials at the edges of the piles from becoming intermixed.

The maximum size of stone to be used for the different thickness of concrete shall be 20mm unless otherwise ordered by the Engineer of Record. In no case shall the maximum size of stone used be greater than either $\frac{2}{3}$ the clear distance between the reinforcement or $\frac{2}{3}$ the clear distance between the exterior bars and the face of the structure except for girders where the latter criteria shall be 0.8 times the clear distance between the exterior bars and the face of the structure.

Stock piles of approved fine and coarse aggregate, in amounts of one quarter to one half of that required for the job, shall be placed on the site of the work at least one month previous to concrete placing operations. The stockpiles shall be protected by tarpaulins or plastic sheeting against formations of ice and accumulation of snow.

The Contractor shall provide with the concrete mix design relevant test data for all aggregate materials indicating conformance to the requirements of CSA A23.1 and this specification. The sources and test results of all aggregate materials shall be clearly identified. The aggregate tests shall be conducted by a laboratory CCIL or CSA Certified in accordance with CSA A283 "Qualification code for concrete testing laboratories" latest edition. The aggregate properties shall be signed and stamped by a Professional Engineer registered to practice in Newfoundland and Labrador. The Professional

Engineer shall attest to the validity of the material test data. The test data required but not be limited to shall include:

- Sieve analysis of fine and coarse aggregate CSA A23.2-2A
- Fineness modulus of fine aggregate CSA A23.2-2A
- Clay lumps in natural aggregate CSA A23.2-3A
- Low-density granular material of aggregate CSA A23.2-4A
- Amount of material finer than 80 μm in aggregate CSA A23.2-5A
- Relative density and absorption in fine aggregate CSA A23.2-6A
- Test for organic impurities in fine aggregate in concrete CSA A23.2-7A
- Soundness of coarse & fine aggregate by use of magnesium sulphate CSA A23.2-9A
- Relative density and absorption of coarse aggregate CSA A23.2-12A
- Flat and elongated particles in coarse aggregates CSA A23.2-13A
- Petrographic Analysis of Coarse Aggregate CSA A23.2-15A
- Resistance to degradation of coarse aggregate by abrasion and impact in the Los Angeles machine CSA A23.2-16A
- Test method for the resistance of fine aggregate to degradation by abrasion in the Micro-Deval apparatus CSA A23.2-23A
- Test method for the resistance of unconfined coarse aggregate to freezing and thawing CSA A23.2-24A
- Test method for detection of alkali-silica reactive aggregate by accelerated expansion of mortar bars CSA A23.1-25A
- Test method for detection of alkali-carbonate reactivity of quarried carbonate rocks by chemical composition CSA A23.1-26A
- Potential expansivity of aggregates (procedure for length change due to alkali-aggregate reaction in concrete prisms at 38 °C) CSA A23.1-14A

For a concrete mix with a tendered quantity of more than 50 m³ the test results are only considered valid for up to two years in advance of the date of the project mix design submission. For a concrete mix with a tendered quantity of 50 m³ or less the test results are considered valid for up to five years in advance of the date of the project mix design submission.

904.02.03 Water

All water shall be clear and free from injurious substances and shall be potable.

All water used for curing shall be clean and free of any material which would cause

staining or discoloration of the concrete. The Contractor shall not use water from shallow, stagnant or marshy sources.

904.02.04 Air Entraining Agent

All concrete shall be air entrained with the air entraining agent conforming to ASTM C260 "Standard Specification for Air-Entraining Admixtures for Concrete".

904.02.05 Admixtures

Any other admixture, utilized in the mix design must conform to ASTM C494/C494M "Standard Specification for Chemical Admixtures for Concrete" or ASTM C1017/C1017M "Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete"

904.02.06 Reinforcement

Reinforcement shall be in accordance with Section 905.

904.02.07 Form work and Falsework

Form work and falsework shall be in accordance with Section 907.

904.02.08 Burlap

Burlap shall conform to AASHTO M182 "Specification for Burlap Cloth made from Jute or Kenaf and Cotton Mats".

904.02.09 Liquid Membrane-Forming Curing Compounds

Liquid membrane-forming curing compounds shall meet the requirements of ASTM C309, and shall only be used as authorized by the Owner's Representative.

904.02.10 Concrete Curing Sheet Materials

Sheet materials that conform to ASTM C171, "Standard Specification for Sheet Materials for Curing Concrete", may be used as a cover to inhibit moisture loss during the concrete curing period.

904.02.11 Miscellaneous Materials

The supply and installation of miscellaneous materials shown on the drawings or mentioned in the Supplementary General Conditions but which have not been listed on the Unit Price Table, are considered incidental to the work and no separate payment will be made.

This shall include, but not necessarily limited to, all miscellaneous concrete accessories, evaporation retardant, abutment weep holes, drip grooves and guide rail modified end shoes.

904.03 EQUIPMENT

The Contractor shall supply the Owner's Representative before commencement of the project with adequate details of all equipment to be used. The intention is not to limit the Contractor's operation but to ensure adequate planning is undertaken.

The Contractor shall maintain all equipment used for handling, mixing, transporting, depositing, compacting, curing and finishing the concrete in a clean condition and in proper working order.

Pumping equipment may be utilized by the Contractor. Details of the pumping equipment and operation must be to the satisfaction of the Owner's Representative. The Contractor shall submit to the Owner's Representative, manufacturer's specifications detailing pumping capacity and pressure at the required elevations. Aluminum pipelines shall not be used. The Contractor shall be prepared in the event of a breakdown in pumping operations. These emergency preparations shall be discussed with and to the satisfaction of the Owner's Representative prior to the commencement of concrete placement utilizing pumping equipment.

Compaction equipment shall be capable of giving dense concrete in accordance with specification requirements. Internal vibrators may be utilized and must be capable of consolidating the concrete with a minimum duration of vibration. Care must be taken with superplasticized concrete to avoid segregation.

An approved self-propelled mechanical bridge deck finisher shall be used to strike off and finish concrete decks as per specifications. The approved machine shall travel on guides or rails supported so that they are completely clear of the finished surface. The guide or rail supports that extend through the roadway areas of the deck shall be such that they can be removed to at least 50 mm below the top of concrete. Two work platforms shall be used for finishing and curing operations.

Batch plant and mixing equipment shall be as defined in Section 904.04.03.

The equipment required for heating materials for Cold Weather Concreting shall be of adequate capacity and be accepted, prior to installation, by the Owner's Representative.

It shall be available, installed and tested ready for use before it is proposed to place concrete. Heating equipment shall be ready for use between September 1 and April 30 when so required by the Owner's Representative. Alternative methods of keeping concrete temperatures at acceptable levels may be accepted. Where the heating equipment is to be used for heating the housing as well as the materials at the same time, the term adequate capacity means that the equipment shall have adequate capacity to heat both materials and housing simultaneously to the required temperature.

Boilers used for heating materials or housing shall meet the inspection requirements and operating conditions laid down by Provincial Acts and Regulations.

904.04 CONCRETE PRODUCTION, DELIVERY AND PLACING

904.04.01 Measurement of Materials during Batching

All materials used in the production of concrete shall be measured by weighing. Materials shall be added to produce concrete conforming to the mix design prepared as per Section 904.04.02. The mixing water shall be measured by either volume or by weight. The apparatus provided for weighing the aggregate shall be suitably designed and constructed for this purpose. Each size of aggregate shall be weighed separately with a required accuracy of two per cent. The volume of concrete discharged by the supplier's equipment shall be expressed in cubic metres. All batch weights shall be recorded and shall be available for audit by the Owner's Representative.

Cement in standard bags need not be weighed.

All measuring devices shall be to the satisfaction of the Owner's Representative. Other methods of weighing shall only be used if specifically authorized, in writing, by the Owner's Representative.

904.04.02 Concrete Quality

Concrete mixes shall be designed in accordance with CSA A23.1 latest edition. Note that ACI 211.1 "Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete", should be used as a guide for determining mix proportions for normal and mass concrete.

Concrete strength shall be as shown on the drawings unless particular specifications require higher strength.

TABLE ONE

PARAMETER	SUPERSTRUCTURE & BRIDGE ARCHES ¹	SUBSTRUCTURE, REINFORCED WHARF DECK, CAST-IN-PLACE MEDIAN & PRECAST TRAFFIC BARRIER	CURB, GUTTER, SIDEWALKS, CATCH BASINS & WEIR BAFFLES	PILE CONCRETE	LEVELLING, MASS & TREMIE CONCRETE
CEMENT TYPE	GUb	GUb	GU	GU	GU
COMPRESSIVE STRENGTH WITHIN 28 DAYS	45 MPa	40 MPa	35 MPa	25 MPa	20 MPa
MAXIMUM WATER/ CEMENTITIOUS MATERIAL RATIO	0.35	0.37	0.39	0.45	0.45
SLUMP ²	AS PER APPROVED MIX DESIGN	AS PER APPROVED MIX DESIGN	60 ± 20 MM	100 ± 30 MM	190 ± 40 MM
AIR CONTENT	5 – 8 %	5 – 8 %	5 – 8 %	4 – 7 %	4 – 7 %
RAPID CHLORIDE PERMEABILITY (ASTM C1202)	<1000 COULOMBS	<1000 COULOMBS	NA	NA	NA
AIR VOID SPACING FACTOR (AVERAGE) ⁴	250 µm MAX	230 µm MAX	230 µm MAX	NA	NA

NOTES:

1. The Cementing materials content for 40 and 45 MPa concrete is 480 kg/m³ maximum.
2. If superplasticizers are used, the maximum concrete slump in a superplasticized condition shall be limited to 230 mm. The mix design shall state the design slump before and after the addition of superplasticizers along with the appropriate tolerances. Note that the slump in the above table may not be applicable when using superplasticizers.
3. The above mix parameters do not include required adjustments for prestressed girder concrete
4. For concrete with a water-to-cementitious materials ratio of 0.36 or less, the average air void spacing factor shall not exceed 250 µm.

The Contractor will be responsible for the mix design, accompanied by the trial batch mix data and quality control of concrete production.

All concrete mix design proportioning including the mix quality control operations shall be performed by a Laboratory CCIL or CSA Certified in accordance with CSA A283 latest edition. All testing shall be as conducted as stated in CSA-A23.1 and A23.2 latest edition. The proposed mixture design shall be signed and stamped by a Professional Engineer registered to practice in Newfoundland and Labrador. The Professional Engineer shall attest to the validity of the material test data.

For a concrete mix with a tendered quantity of more than 50 cubic metres, the mix designs and test results are only considered valid for up to two years in advance of the date of the project mix design submission. For a concrete mix with a tendered quantity of 50 cubic metres or less the test results are considered valid for up to five years in advance of the date of the project mix design submission.

The Contractor shall provide, with the proposed mix design, the following information based on actual trial mixes at least two weeks (14 days) in advance of concrete placement. The verification of the mix design through trial batching must meet the specified requirements in Table One and be performed by a laboratory certified by CCIL or CSA Standard A283 latest edition:

- Slump CSA A23.2-5C
- Air Content of Plastic Concrete by Pressure Method CSA A23.2-4C
- Mass Density and Yield CSA A23.2-6C
- Compressive Strength Testing CSA A23.2-9C
- Air Void Analysis on Hardened Concrete tested at 7 days ASTM C457
- Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration tested at 56 days ASTM C1202
- Alkali Reactivity Test Results A23.2-25A

Also to be included with each mix design submission is the following necessary information:

- Project number and title description
- Contractor company name with contact information
- Ready mix supplier
- Certifying laboratory with signing engineer

- Type of concrete, intended use, approximate quantity and method of placement
- Mix slump and air entraining agent range plus all admixtures with dosage rates
- Aggregate test information as per requirements of 904.02.02 Aggregates
- Type of Cement and test data showing conformance with CSA A3000
- Proof of current Atlantic Concrete Association (ACA) membership certificate

No adjustments shall be made to the concrete mix design without prior acknowledgement from the Materials Engineer. If material characteristics change from the original mix design a revised mix design must be resubmitted.

High range water reducing agents (superplasticizers) may be used at the Contractor's request, if so indicated when the mix design is submitted. The Contractor shall state their method of concrete placement when submitting the concrete mix design.

Where 45 MPa concrete is specified on the contract drawings, a trial batch consisting of a minimum of 20 cubic metres of superstructure concrete shall be placed in the substructure, i.e. abutments and footings, at least 28 days prior to the placement of any 45 MPa superstructure concrete, when directed by the Owner's Representative. The purpose of this exercise is to allow for fine tuning of the mix to achieve proper air and slump, and to obtain an early indication of the expected compressive strength. The additional cost of this trial batch and fine tuning of the mix design shall be considered incidental to the works.

904.04.03 Mixing Concrete

904.04.03.01 Batch Plant Requirements

The batching of concrete, unless otherwise authorized by the Owner's Representative, shall be done in an approved batch plant.

All materials shall be stored in a manner that will prevent contamination, segregation, deterioration and intermingling. Cement and SCM's must be stored in a suitable bin that will provide protection against dampness. Aggregates shall be separated into fine and coarse sizes as determined by the Concrete Mix Design.

The water shall be proportioned separately by weight or by volume to an accuracy of $\pm 1\%$. Metering devices which measure the volume of water should not be affected by variable pressure in the water supply line.

Scales and other mass-measuring devices must be accurate. The Contractor shall

provide standard certified test weights and/or devices for checking the accuracy of the controls. A certificate of accuracy not older than 180 days old shall be provided at the request of the Owner's Representative for the scales utilized. Checks shall be made just prior to the first concrete placement and at 150 cubic metres intervals thereafter. Recalibration shall be performed if the batching plant is moved or any major alterations performed. The Contractor shall carry out all tests in the presence of the Owner's Representative and shall supply them with results of all tests and make any and all alterations, repairs or replacements required to the equipment before authorization will be given to place concrete.

The equipment for batching shall have the capacity to produce at such a rate as to preclude cold joints in the concrete placement. In any event, the equipment is subject to the approval of the Owner's Representative.

904.04.03.02 Mixing

The mixing of concrete, unless otherwise authorized by the Owner's Representative, shall be done in either a stationary mixer or truck mixer. Small quantities of proprietary concrete mixtures may be mixed on site, as authorized by the Owner's Representative, and must follow all preparation, mixing and placing requirements set forth by the manufacture of the proprietary product.

The stationary plant must conform to the limitations set forth in the Concrete Plant Standards of the Concrete Plant Manufacturers Bureau. The truck mixer must conform to the limitations of TMMB 100 (Truck Mixer Manufacturer Bureau). Mixers shall carry the manufacturers rating plate in a prominent place. The mixer shall be equipped with a suitable charging hopper, water storage and water measuring device. It shall be cleaned at frequent intervals when in use and maintained in such a condition that the mixing will be unimpaired.

The mixer must be capable of combining the ingredients of the concrete within a time or number of revolutions recommended by the manufacturer of the mixer to produce a uniform mass.

Concrete transported in a truck mixer, agitator, or other transportation device shall be discharged at the job and placed in its final position in the forms within 120 minutes from the time of initial mixing, except in hot weather or under other conditions contributing to quick stiffening of the concrete. The maximum volume of mixed concrete transported in an agitator shall be in accordance with the specified rating. Time of charging the truck shall be clearly indicated and excess time in the mixer shall be cause for rejection of a

load. Each batch slip shall have the time of batching clearly clock stamped onto each such slip.

All Concrete shall be transported to site by means of a truck agitator conforming to the limitations of TMMB 100 (Truck Mixer Manufacturer Bureau).

904.04.04 Placing Concrete

Concrete shall not be placed if the air temperature is less than 5 degrees Celsius or greater than 27 degrees Celsius without the written permission of the Owner's Representative. When the air temperature exceeds 27 degrees Celsius or falls below 5 degrees Celsius, additional placement procedures must be followed in accordance with Sections 904.06 and 904.07 respectively.

Before concrete is placed, forms, reinforcement, foundations, granular bases, placing procedures and materials must comply with the project specifications and CSA A23.1. The Contractor shall give 24 hours notice (not including Saturday, Sundays, or holidays) of their intention to place concrete.

In preparation for the placing of concrete all sawdust, chips, and other construction debris and extraneous matter shall be removed from the interior of the forms. Struts, stays, and braces shall be removed when the concrete placing has reached an elevation rendering their service unnecessary. These temporary members shall be entirely removed from the forms and not buried in the concrete.

Concrete delivered to site must conform to the temperature requirements in Table Two. Concrete to be placed in superstructure elements shall not exceed 25 degrees Celsius.

TABLE TWO

LEAST DIMENSION OF SECTION	CONCRETE TEMPERATURE	
	MINIMUM °C	MAXIMUM °C
LESS THAN 0.3 M	10	32
0.3 M TO 1 M	10	30
1 TO 2 M	5	25
MORE THAN 2 M	5	20

Concrete shall be placed so as to avoid segregation, have no adverse effects on concrete properties or displace the reinforcement. An adequate supply of concrete must be

supplied to ensure it is placed in a continuous manner.

The use of long troughs, chutes and pipes for conveying from the mixer to the forms shall be permitted only on written authority of the Owner's Representative. In case an inferior quality of concrete is produced by the use of such conveyers, the Owner's Representative may order discontinuance.

Dewatering will not be permitted during the placing of concrete or for a period of at least 24 hours thereafter, unless it is done from a suitable sump separated from the concrete work by a watertight wall or other effective means. Pumping to unwater a sealed cofferdam shall not commence until the seal has set sufficiently to withstand the hydrostatic pressure.

The pumping of concrete from the delivery vehicle to its place of final deposition will be permitted as authorized by the Owner's Representative.

Concrete shall not be placed with a free fall greater than 1500mm. When placing operations would involve dropping the concrete more than 1500mm, it shall be deposited through sheet metal or other approved pipes. The pipes shall be kept full of concrete during placing and their lower ends shall be kept buried in the newly placed concrete.

After initial set of the concrete the forms shall not be jarred and no strain shall be placed on the ends of reinforcing bars which project.

When the placing of concrete is temporarily discontinued, the concrete, after becoming firm enough to retain its form, shall be cleaned of laitance and other objectionable material to a sufficient depth to expose sound concrete.

In the construction of box culverts more than 1200mm in height, the concrete in the walls shall be placed and allowed to set before the top slab is placed. In this case, appropriate keys shall be left in the sidewall for anchoring the cover slab.

Concrete for beams, girders, haunches and slabs shall be deposited uniformly in one continuous monolithic operation for the full length (or between vertical construction joints authorized by the Engineer of Record) and brought up evenly in horizontal layers. Efforts shall be made to eliminate segregation as may be evident by flow lines. In this regard, concrete must be deposited in place and thoroughly consolidated rather than be permitted to flow in place.

During wet weather, concrete must not be placed unless suitable means, approved by the Owner's Representative, have been provided to prevent washing of freshly deposited concrete or marring of the exposed surface.

904.04.04.01 Consolidation

Concrete, during and immediately after depositing, shall be compacted thoroughly and uniformly by hand-tamping tools, mechanical vibration or finishing machines. The structure shall be homogenous and free of cold joints, voids, honeycombing and large surface defects. Concrete must be in full contact with reinforcement, hardware and other embedded items.

The vibration may be internal and the intensity of vibration shall visibly affect concrete over a radius of 500 mm. The Contractor shall provide a sufficient number of vibrators and they shall be manipulated so as to thoroughly work the concrete around the reinforcement, embedded fixtures and into the corners and angles of the forms.

Vibration shall be applied at the point of deposit and in the area of freshly deposited concrete. The vibrators shall be inserted vertically and withdrawn out of the concrete slowly. The vibration shall be of sufficient duration and intensity to thoroughly compact the concrete, until the air bubbles stop breaking on the surface. Vibration shall not be continued at any one point to the extent that localized areas of grout are formed.

Vibration shall not be used to make concrete flow into place. Application of vibrators shall be at points uniformly spaced and not farther apart than twice the radius over which vibration is visible.

Vibration shall not be applied directly or through the reinforcement to concrete which has hardened. Vibration shall be supplemented by such spading as is necessary to ensure smooth surfaces and dense concrete along form surfaces. Concrete shall be placed in horizontal layers not more than 300 mm thick except when specified above. When less than a complete layer is placed in one operation it shall be terminated in a vertical bulkhead. Each layer shall be placed and compacted before the preceding batch has set to protect green concrete and avoid surfaces of separation. Vibrators shall project into preceding layer to avoid construction joint formation.

904.04.05 Depositing Concrete Under Water

Concrete shall not be deposited in water except with the authorization of the Owner's Representative and under their immediate supervision. To prevent segregation, it shall be carefully placed in a compact mass, in its final position, by means of a tremie tube or

other approved method. Still water shall be maintained at the point of deposit and the forms underwater shall be watertight. Precautions shall be taken to prevent the loss of concrete by washing action of the water.

The tremie tube shall have a minimum diameter eight times the maximum size of aggregate, constructed in sections having flanged couplings fitted with gaskets and must be watertight.

The discharge end shall be closed at the start of the work to prevent water entering. The tremie tube shall be filled to the bottom of the hopper and the flow of concrete shall be induced by slightly raising the discharge end, always keeping it in the deposited concrete at least 0.3 m. The flow shall be continuous until the work is completed.

No concrete shall be spread at any greater distance than 3 m from the discharge end of the tremie tube. When large areas are to be covered tremie tubes at maximum 6 m centres shall be used and concrete placed simultaneously.

If the tremie operation is unavoidably interrupted below water level, the surface laitance shall be removed by jetting one day after placing and removed by pumping.

904.04.06 Levelling and Mass Concrete

Levelling concrete shall be used to level excavated areas underneath footings or other structures where indicated on the contract drawings. It may also be used to fill large voids between structures and underlying materials. Where levelling concrete exceeds 300 mm thickness, the Engineer of Record shall be contacted. Levelling concrete shall be placed after all unwatering operations have been made effective in maintaining dry and controlled conditions as authorized by the Owner's Representative.

If the excavated area/void requires a thickness of 1.0 m or greater of concrete it is considered mass concrete and additional requirements must be satisfied as per CSA A23.1. The Contractor must prepare a thermal control plan in accordance with the CSA A23.1 that shall be reviewed and authorized by the Materials Engineer.

904.04.07 Construction Joints

Construction joints in concrete shall be positioned at the location shown on the drawings or where otherwise approved by the Owner's Representative.

The Contractor shall attach the appropriate horizontal and/or vertical wood strips, or approved alternative, to the face(s) of the formwork where all construction joints are

planned or occur for reasons beyond the Contractor's control. The concrete shall be worked such that the finished appearance will resemble narrow, neat and straight horizontal and/or vertical line(s) at all construction and cold joints. Forms shall be kept tight throughout the entire concrete placing operation.

At the bottom of curb - top of deck interface along the longitudinal sides of all decks, construction joints shall be neat, straight and properly formed as a 20 mm Vee groove and shall be straight and true to line and grade.

Where construction or cold joints are planned or occur for reasons beyond the Contractor's control, the concrete interface shall be rough, clean and free of laitance, with a full roughness amplitude of 6 mm or more. One exception to this would be at prestress steel box out locations, see Section 906 for more information.

Prior to butting the new concrete against previously hardened concrete the joint face shall be cleaned of all debris and dirt.

In addition, the surface film of laitance and mortar shall be removed from the joint face to present a clean sound concrete face that has the aggregate particles exposed.

904.04.08 Contraction Joints

A contraction joint is a control joint to control volume change mainly (shrinkage). Bonding of the new and existing concrete is not required but provisions to make the joint watertight are necessary.

Joints in concrete members shall be formed in location as shown on the plans.

Contraction joints shall extend to a depth equal to one-quarter of the member thickness. As soon as feasible the joint shall be thoroughly flushed out with compressed air and an approved flexible joint filler compound utilized to fill the joint. The joint filler compound shall be flexible over the extreme temperature conditions in the local area and must be approved by the Owner's Representative.

904.04.09 Concrete Beam Seats and Bearing Surfaces

Concrete beam seats which will not have a bearing placed directly against them shall be magnesium floated to the levels and slopes as shown on the drawings and to prevent the accumulation of water.

Concrete surfaces which are used as bearing surfaces shall be dead level and finished in accordance with Section 912 and the bearing manufacturer's recommendations.

904.04.10 Tolerances

All tolerances shall conform to CSA A23.1.

904.04.11 Evaporation Retardant

Immediately after the straight edge requirements have been met for the deck and curb concrete and the broom finish applied, the fresh concrete shall be coated with an evaporation retardant to preclude rapid evaporation of the bleed water. The Contractor must submit the material data sheets of the evaporation retardant intended to be utilized on the project prior to its use. Evaporation retardant to be MasterKure ER 50 manufactured by Master Builders Company Ltd, SikaFilm manufactured by Sika, or an equivalent satisfactory to Owner's Representative.

In some cases the film may need to be reapplied prior to the completion of the finishing operations and before the final curing conditions can be implemented. When all bleed water is gone, the concrete shall be cured as per Section 904.05. The supply and application of the evaporation retardant is deemed incidental to the placement of the deck concrete and as such, no separate payment will be made.

904.04.12 Caulking of Joints

Caulking shall be applied to all control and expansion joint locations.

The caulking or sealant and the substrate material must have a temperature greater than 5°C at the time of application unless otherwise specified by the manufacturer. Under no circumstances should sealant be applied to any surface which contains moisture, condensation, or frost. Joint surfaces are to be clean, dry and free of foreign matter before application of primer and sealant.

The work shall be performed by an approved caulking applicator. Otherwise, the contractor must designate a person for the caulking operation and that person should receive training acceptable to the Manufacturer and Owner's Representative.

The Contractor shall supply a written guarantee of all workmanship and materials for a period of two years following the date of final completion.

The sealant shall meet the requirements of ASTM C920 “Standard Specification for Elastomeric Joint Sealants” and must be Grade NS, minimum Class 50, use Type T and must pass the accelerated weathering test as per ASTM C793 “Standard Test Method for Effects of Laboratory Accelerated Weathering on Elastomeric Joint Sealants.”

Joint sealant products shall be one of the following or an approved equal:

- DOWSIL 888 Silicone Joint Sealant
- TREMCO Dymeric 240

Joint backing shall be a closed-cell non gaseous backer rod, such as Softrod specified by Tremco (Canada) Limited or an approved equal.

All work shall be in strict accordance with the Manufacturer’s recommendations.

Payment shall be considered incidental to the works associated with concrete work pay items.

904.05 CURING

Curing shall begin immediately following the placing and finishing operations and provide the temperature and moisture conditions for the period of time necessary for concrete to develop its strength. The Contractor must have all necessary equipment and personal on site ready to commence curing processes prior to the placement of concrete. Concrete temperature must be maintained at no less than 10°C throughout the curing period for a minimum of 7 days and for the time to reach 70% of the specified strength. Proper curing will be considered 15% of the associated unit price bid for concrete payment purposes.

Curing of concrete surface shall start as soon as the concrete has hardened sufficiently to prevent damage. The following methods may be used for curing concrete surfaces:

- Ponding or continuous sprinkling of water
- Applying water and covering with polyethylene sheets as per Section 904.02.10
- Applying water and covering with absorptive burlap as per Section 904.02.08
- Curing compounds as per section 904.02.09
- Forms in contact with concrete surfaces

Curing of Precast Concrete structures shall follow the requirements set forth in CSA A23.4.

Concrete in of all superstructure concrete, including barriers, approach slabs, expansion joint dams, end blocks, curbs and sidewalks must be cured by means of burlap and water.

Additional requirements are as follows:

Burlap

All burlap must be pre-soaked by immersing it in water for a period of at least 24 hours immediately prior to placing. Two layers of burlap must be applied to the surface of the concrete. Strips must overlap by 150 mm and must be held in place without marring the surface of the concrete.

Curing with burlap and water must be maintained for a minimum period of seven days. The burlap must be maintained in a continuously wet condition throughout the curing period by means of a soaker hose. The burlap must be covered with a layer of moisture vapour barrier within 12 hours of placing the concrete, in a manner which will prevent deformation of the surface of the concrete.

Air flow in the space between the moisture vapour barrier and the burlap must be prevented.

Regardless of ambient temperature, moist curing with burlap and water must be provided at all times. During cold weather, burlap must be prevented from freezing.

Liquid Membrane Curing

At the discretion of the Owner's Representative, liquid membrane curing compounds meeting the requirements of Section 904.02.09, may be used in place of moist curing on pier columns only. Liquid membrane curing shall not be permitted on other areas including bridge decks.

904.05.01 Curing of Bridge Decks

Prior to the commencement of curing operations a fog mist shall be applied to bridge decks. Misting shall be conducted through the use of a pressure washer capable of sustaining a minimum 14 MPa pressure. A continuous fog mist shall commence immediately behind the screeding operation until the concrete has hardened sufficiently to permit covering with burlap. The fog mist will maintain a high relative humidity above the concrete and prevent surface drying prior to curing operations. Water shall not be allowed to drip, flow or puddle on the concrete surface during fog misting at any time before concrete has reached final set.

The curing time required for deck concrete is moist curing for 7 days in accordance with this specification and a further 30 days for air drying. Also, the specified design strength must be obtained. Until the above conditions are satisfied, the application of waterproofing and the opening of the bridge to traffic will not be permitted.

Payment shall be considered incidental to the placement of Superstructure Concrete.

904.05.02 Plastic Shrinkage

Where excessive plastic shrinkage may occur, e.g. in a large expanse of concrete such as a bridge deck, more than one method of curing may be required.

If shrinkage cracks occur the Contractor shall grout any cracks and repair by an approved method at their own expense.

All methods and materials employed in concrete curing must be to the satisfaction of the Owner's Representative.

904.06 HOT WEATHER CONCRETING

When the air temperature is at 27 degrees Celsius or greater or is expected to rise to this limit, according to meteorological forecasts, then special measures shall be taken by the Contractor to protect the concrete. Surface moisture evaporation must not exceed $0.75\text{kg/m}^2/\text{hr}$.

Concrete placed in the forms shall be maintained at or below 27 degrees Celsius and the Contractor shall ensure all measures to achieve the temperature requirement are to the satisfaction of the Owner's Representative.

Curing shall be accomplished by moist-curing with water spray or by using absorptive burlap as specified in sections 904.02.08 and 904.05.

904.07 COLD WEATHER CONCRETING

904.07.01 General

When the air temperature is at or below 5 degrees Celsius or when, according to meteorological forecasts, it is likely to fall below this limit within the next 24 hours, then the Contractor shall take special precautions to protect the concrete placed. The Contractor shall obtain approval from the Owner's Representative for this method of protection.

Concrete for the superstructure (or approach slabs) shall not be placed between November 1 and April 1 unless otherwise approved of by the Owner's Representative.

The following table shall apply for determining degree of protection requested by the Owner's Representative:

TABLE THREE

PROTECTIVE MEASURE	OUTSIDE AIR TEMPERATURE FOR LEAST DIMENSION OF SECTION	
	LESS THAN 1M	MORE THAN 1M
SUITABLE HOUSING PLUS SUPPLEMENTARY HEAT OR ADEQUATE INSULATION	BELOW 0°C	BELOW -5°C
SUITABLE COVERING PLUS ADEQUATE INSULATION	0°C TO 5°C	0°C TO -5°C
NORMAL CURING NO TEMPERATURE PROTECTION REQUIRED	5°C TO 25°C	5°C TO 20°C

Any concrete damaged by freezing or by inadequate protection or curing shall be removed and replaced by the Contractor at no cost to the Department.

For additional guidance on Cold Weather Concreting see ACI 306 "Guide to Cold Weather Concreting" and the Portland Cement Association publication "Design and Control of Concrete Mixtures."

904.07.02 Placing

Concrete to be placed during cold weather must be within the temperature limits of Table Two.

This temperature can be obtained by heating the water or the aggregate or both; water and aggregate shall then be combined in the mixer first and the temperature of the mixture shall not exceed 38 degrees Celsius when the cement is added.

At temperature below freezing, aggregates are required to be heated prior to incorporation into the mixture. The aggregates shall be uniformly heated in the stockpiles and/or bins by steam, either injected live or circulated in coils, or by using dry heat before the aggregates are placed in the mixer. Whatever system is used, it shall be designed to give uniform heating that will avoid local overheating which may be injurious to the

materials. No frozen lump of aggregate will be allowed in the concrete mix and shall be discarded before batching.

When the air temperature is below 0 degrees Celsius the water shall be heated. It shall not be heated to a temperature greater than 60 degrees Celsius.

The use of salt, calcium chloride or other chemicals to lower the freezing point or accelerate the set is prohibited.

No concrete shall be placed on or against any surface that will lower the temperature of concrete in place below the minimum values in Table Two. The ground, formwork, existing concrete and steel against which concrete is to be placed shall be free from ice and snow have a temperature greater than 0°C before the Owner's Representative will authorize placing to commence. The Contractor shall preheat the area in which the concrete is to be placed, with live steam or moist hot air, this shall also remove snow and ice and heat the contact material to prevent the formation of a cold joint. Additional heating may be necessary if large quantities of steel elements are present, however care must be taken to avoid heating elements more than 5 degrees Celsius above the temperature of the concrete mixture.

Concrete shall not be placed on a frozen subgrade or against frozen ground. The ground must be thawed by either steaming, spreading hot sand/gravel, removing and replacing with unfrozen material, covering with insulation for a period of time or using heaters under insulated blankets. The Contractor shall protect excavations prepared for footings, etc., with covers prior to opening for placing concrete.

The concrete shall be placed rapidly and evenly, as near to its final position as possible to reduce the risk of segregation, flow lines and cold joints. The concrete shall be covered, as quickly as possible after placing.

904.07.03 Protecting Placed Concrete

Concrete placed should be maintained at a temperature no less than 10 degrees Celsius in accordance with Section 904.05 for the duration of the curing period. Depending on ambient temperatures it can either be protected by insulating materials or enclosed with an additional heat source. The proposed method of curing must be submitted and authorized by the Owner's Representative.

Insulating materials, such as moisture impervious insulating blankets, must have an R-value suitable to ensure thermal resistance. Corners, edges and thin/vulnerable concrete

sections may require additional insulation. All insulating materials shall be covered by polyethylene sheeting and a max/min thermometer placed in contact with the concrete. Temperatures shall be monitored and additional insulation placed as necessary.

Protective housing shall be utilized as required in Table Three above and must be wind and weather tight and constructed of suitable materials on a substantial framework. The framework must be such as to permit free circulation of warmed air. The housing must have suitable openings to let the concrete be placed and these openings shall be so designed that they may be fully covered and closed as soon as the concrete is placed. The use of "roll back" sheeting or tarpaulins supported on stools is permitted on horizontal surfaces, such as a bridge deck provided the concrete is covered progressively as soon as placed. The housing must be so constructed as to allow a uniform circulation of heat to all parts of the work. This shall include the underside of the bridge deck and beams unless the Owner's Representative has authorized the protection of these areas by fully insulated formwork.

904.07.04 Heating the Protective Housing

The Contractor shall have available, tested and approved, adequate equipment for the heating of the protective housing. Heating will be used to establish and maintain the required curing conditions.

Unless otherwise permitted by the Owner's Representative, concrete to be placed between September 1 and April 30, the Contractor shall supply a live heated wet steam system, such as a steam jenny, fully operational and fully capable of adequately protecting all concrete to be placed. Hot air blowers and the like may be used to supplement the steam heating as long as fine water or steam spray into the stream of hot air is provided. The humidity as measured by a wet and dry bulb thermometer shall at no time be less than 95% and the air temperature shall be not less than 13 degrees Celsius.

The Contractor shall on the day prior to placing concrete, conduct a trial run to verify their equipment, methods and workmanship to meet the specifications.

The use of salamanders, coke stoves, oil or gas burners and similar spot heaters which have an open flame and intense local heat are prohibited. In the event of any fire of the formwork or housing, the Owner's Representative must be immediately notified.

The system of heating and positioning of steam outlets so as to give the most uniform distribution possible of the heat must be satisfactory to the Owner's Representative. The Contractor shall make suitable arrangements to stoke boilers outside normal working

hours where required. A breakdown in heating is regarded as very serious especially in the early life of the concrete.

Protection shall be withdrawn in such a manner as not to introduce thermal shock stresses in the concrete.

The temperature of the concrete shall be gradually reduced to the permissible temperature differential as specified in CSA A23.1 to that of the surrounding air. To achieve this in a heated housing, the heat shall be slowly reduced and then shut off and the whole housing allowed to cool to within the permissible temperature differential before the housing itself or the formwork is removed. Where work is to proceed within the same housing on the next stage of the work, the formwork may be removed as soon as the prescribed curing period is over. With fully insulated formwork, the forms themselves maybe slackened and some insulation removed if needed. The forms themselves shall not be removed until the temperature of the concrete has fallen to within 12 degrees Celsius of the outside air temperature.

904.08 SURFACE FINISHING

904.08.01 General

All concrete surfaces that will be visible on completion of the work shall be rubbed finish, with the exception of the deck, approach slabs, curbs and/or sidewalks which shall be a floated finish.

The Contractor shall take special care during the planning, forming, concrete placing, curing and stripping phases to ensure defect-free surfaces. Should remedial measures be required, they shall be carried out by personnel expert in this aspect of concrete work. The surfaces shall be uniform in colour and texture when viewed from a distance of 15 m and shall be attained as follows.

904.08.02 Rubbed Finish

Immediately following the removal of forms, all fins and irregular projections shall be removed from all surfaces except from those which are not to be exposed or are not to be waterproofed. On all surfaces, the cavities produced by form ties and all other holes, honeycombs spots, broken corners or edges and other defects shall be cut back to sound concrete and thoroughly cleaned. No feather edging is permissible. If reinforcing steel is exposed, concrete shall be cut back for at least 50 mm around the reinforcement.

After having been kept saturated with water for a period of not less than three hours, the

cavities shall be carefully pointed and trued with a mortar of cement and fine aggregate mixed in the proportions used in the grade of the concrete being finished or an approved product. Mortar used in pointing shall be not more than one hour old. The mortar patches shall be cured as specified under Section 904.05. No mortar shall be placed when the air temperature is forecasted to fall below 5 degrees Celsius within 24 hours. All construction and expansion joints in the completed work shall be left carefully tooled and free of all mortar and concrete. The joint filler shall be left exposed for its full length with clean and true edges. The resulting surfaces shall be true and uniform.

After removal of forms, the rubbing of concrete shall be started as soon as its condition will permit. However, before starting this work the concrete shall be kept thoroughly saturated with water for a minimum period of three hours but sufficient time shall have elapsed before the wetting down to allow the mortar used in the pointing of rod holes and defects to thoroughly set. Surfaces to the finished shall be rubbed with a medium coarse carborundum stone.

When insufficient cement paste can be drawn from the concrete from rubbing use a small amount of mortar on its face. The mortar shall be composed of extra cement and fine sand mixed in proportions such as to match existing concrete verified by a test patch. Rubbing shall be continued until all form marks, projections and irregularities have been removed, all voids filled, and a uniform surface has been obtained. The paste produced by this rubbing shall be left in place at this time.

After all concrete above the surface being treated has been cast, the final finish shall be obtained by rubbing with a fine carborundum stone and water. This rubbing shall be continued until the entire surface is of a smooth texture and uniform colour. After the final rubbing is completed and the surface has dried, it shall be rubbed with burlap to remove loose powder and shall be left free from all unsound patches, paste, powder and objectionable marks.

904.08.03 Floated Surface Finish

The provision of an approved self-propelled Bridge Deck Finishing Machine capable of striking off and providing the required surface finish is mandatory for all horizontal structures not covered by fill.

For new bridge decks and rehabilitated bridge decks where the total deck length is greater than fifteen metres, the deck shall be finished with a GOMACO 450 bridge deck finishing machine with a vibrating screed and movable work bridge or approved equal.

For (a) decks less than fifteen metres in length, (b) thin overlay strips wider than two metres, (c) wharf decks and (d) bridge approach slabs greater than 3 metres in length, finishing shall be achieved with a self-propelled air operated vibrating Allen Screed or approved equal.

Deck repairs by overlay shall also meet the requirements in Section 919.

All finishing equipment, as referenced above, shall be equipped and operated in accordance with the manufacturer's literature for the particular concrete and work being performed.

For thin overlays less than two metres wide refer to Section 919.13.

Screed elevations shall be obtained as detailed in Section 907.

A dry run of the finishing machine covering the entire area requiring finishing shall be made to insure the design deck thicknesses and profiles will be attained. The run shall be completed at least 24 hours prior to commencing the deck concrete placement.

The finishing machine must be accompanied by a working platform with two qualified cement finishers assigned to the platform at all times. The Contractor shall submit letters to the Owner's Representative stating the qualifications of the finisher. The Contractor shall supply sufficient quantities of double railing to support the finishing machine equal to the overall length of the deck. This will enable the Owner's Representative to check the adjustment of the railing and the finishing machine prior to any concrete being placed.

Proper allowance shall be made for camber of pre-stressed channels or girders. Concrete placement shall be at a rate to provide satisfactory progress with the finishing machine or the cement finisher.

After the completion of screeding operations concrete shall be worked with a bull float or darby to remove any high spot, ridges or to fill voids in the concrete surface. Bull floating or darbying shall follow as close as practical behind the screed. If the concrete surface has the required smoothness/texture after screeding then bull floating or darbying may not be necessary.

After the deck surface has been floated and any bleed water evaporated, but while the concrete is still plastic, the Contractor shall furnish and use a 3 m straight edge swung from handles half the width of the slab.

The straight edge shall be held in successive positions parallel to the road centre line and in contact with the surface and the whole area gone over from one side of the slab to the other as necessary. Advancement along the deck shall be in successive stages of not more than one-half the length of the straight edge. Any depressions found shall be immediately filled with freshly mixed concrete, stuck off, consolidated and refinished. The straight edge testing and refloating shall continue until the entire surface is found to be free from observable departures from the straight edge and the slab has the required grade and contour, until there are no deviations of more than 8 mm under the 3 m straight edge.

The concrete deck surface, approach slabs, curbs and/or sidewalks shall be given a broom finish when the concrete has hardened sufficiently. Exposed concrete bridge decks shall be given a coarse broom finish. Treated or waterproofed bridge decks shall be given a fine broom finish. The broom shall be of an approved type. The strikes shall be square across the slab, from edge to edge, with adjacent strokes slightly overlapped and shall be made by drawing the broom without tearing the concrete but so as to produce regular corrugations not over 3 mm in depth for the coarse broom finish. The fine broom finish shall have corrugations not exceeding 1 mm in depth. The surface as thus finished shall be free from porous spots, irregularities, depressions and small pockets or rough spots such as may be caused by accidental disturbance during the final brooming of particles of coarse aggregate embedded near the surface. The Owner's Representative may decide to delete the broom finish requirements but tolerances previously stated will still apply.

904.09 SAMPLING AND TESTING

The Contractor shall co-operate fully with the Owner's Representative in enabling quality assurance tests to be carried out. Samples for quality testing purposes will normally be taken from concrete as delivered to the site (at the point of discharge from the delivery equipment). However, depending on the method of placement, random sampling of the concrete as incorporated into the structure shall also be performed to verify the above specified properties. This process shall entail the sampling of fresh concrete as close to the point of deposit in the structure as is practicable. Coring of the in-place hardened concrete may also be performed to verify the specified air void system. The Department reserves the right to designate the point of acceptance, with prior notice given to the Contractor.

Field quality assurance testing will be carried out by an Owner's Representative in accordance with CSA A23.2.

Quality assurance tests carried out by the Department shall conform to the following guidelines:

SUPERSTRUCTURE

AIR & SLUMP TESTS	Each load until 5 consecutive batches meet the requirements then test every second load thereafter.
STRENGTH & TEMPERATURE TESTS	At least 1 set of Laboratory cylinders per 100 cubic metres, minimum 1 set per day plus 1 set of field cures per category of concrete if required by the Owner's Representative.

SUBSTRUCTURE, REINFORCED WHARF DECK CONCRETE, CAST-IN-PLACE MEDIAN BARRIERS, CURB, GUTTER, SIDEWALKS, CATCH BASINS, WEIR BAFFLES, PILE, LEVELLING, MASS AND TREMIE CONCRETE

AIR & SLUMP TESTS	Each load until 5 consecutive batches meet the requirements then test every third load thereafter.
STRENGTH & TEMPERATURE TESTS	At least 1 set of Laboratory cylinders per 100 cubic metres, minimum 1 set per day plus 1 set of field cures per category of concrete if required by the Owner's Representative.

Additional strength tests will be required when early indications of strength are required such as before prestressing, girder transport, removal of falsework, backfilling structure, etc.

If either the measured slump, air content or temperature fall outside the limits specified, a repeat test shall be made. Failure to meet the contract requirements shall result in rejection of the concrete. Acceptance of the concrete will depend on the results and consistency of all of the above tests results being satisfactory.

904.10 MEASUREMENT FOR PAYMENT

904.10.01 Measurement for Payment for concrete work where the Unit Price Table states the unit to be cubic metres

For those concrete work contract items, except mass, levelling and tremie concrete, where the unit of measurement on the Unit Price Table is stated as cubic metre, then measurement for payment will be by the volume of concrete placed, measured in cubic metres rounded to two decimal places, based on the neat lines called for in the plans.

Measurement for payment purposes for mass concrete shall be based upon cross sections measured in cubic metres to the nearest one decimal place. Prior to concrete placing and forming operations, the Owner's Representative shall establish the lateral and vertical limits for mass concrete.

Measurement for payment purposes for tremie concrete shall be made based upon the number of cubic metres of batched concrete rounded to the nearest one decimal place and incorporated into the works as accepted by the Owner's Representative. Every precaution must be taken to prevent waste of concrete, i.e. carelessness resulting in the escape of concrete from within the confines of the forms or inaccuracy in placing. In the event of such occurrence(s) an estimate of the wastage will be made by the Owner's Representative and an appropriate deduction from the batch quantity will be made. All additional concrete required to be placed above the estimated quantity, accepted by the Owner's Representative.

No deductions will be made from the volume of concrete for:

- a) Volume of reinforcement, prestressing steel or prestressing ducts.
- b) Inserts of cross-sectional area of less than 0.1 square metres.

When it is specified that concrete is to be placed against undisturbed soil or set in rock, and where the excavation is made wider than the neat lines of the footings, the excess amount of concrete will not be measured for payment quantities.

Where the concrete footings are placed lower than that authorized by the Owner's Representative, any excess amount of concrete will not be measured for payment quantities.

Unless otherwise defined by the Contract Documents, the following will be the definitions for the structure and Unit Price Table:

Substructure concrete shall be that concrete used for slope paving, footings, abutments, back walls, bearing seats and pedestals, wing walls and piers. Wingwall concrete shall be all concrete behind the back face of the abutment, i.e. including the cleat excluding curb (superstructure) concrete.

Where integral curbs and wing walls exist, a horizontal surface at the bottom of the curb including the bevelled portion thereof if any and the horizontal surface at the top of the vertical portion of the wingwall shall constitute the dividing line between substructure and

superstructure concrete.

Retaining wall concrete shall be all concrete used in retaining walls and footings which are not cast integrally with the abutments.

Superstructure concrete will be all concrete used in columns, sidewalks, barriers, expansion joint dams, beams, diaphragms, decks, curbs, end blocks, including curbs and end blocks integral with the wing walls.

All concrete in rigid frames used in deck, curbs, barriers, sidewalks, end blocks, vertical or inclined legs and wing walls shall be classified as superstructure concrete.

All concrete for rigid frame footings shall be classified as substructure concrete. All approach slab concrete shall be classified as superstructure concrete.

Not included are AASHTO or CPCI girders, double tees, and any other superstructure work paid for separately.

Not more than 90% of the units will be certified until such time as the surface finish meets the specifications and is completed to the satisfaction of the Owner's Representative.

904.10.02 Measurement for Payment for concrete work where the Unit Price Table states the unit to be a unit other than cubic metres

For those concrete work contract items where the unit of measurement on the Unit Price Table is stated in some unit other than cubic metre, then the measurement for payment shall be in accordance with that stated in the appropriate specification for the item.

Not more than 90% of the units will be certified until such time as the surface finish meets the specifications and is completed to the satisfaction of the Owner's Representative.

904.11 BASIS OF PAYMENT

904.11.01 Basis of Payment for concrete work where the Unit Price Table states the unit to be cubic metres

For those concrete work items where the unit of measurement in the Unit Price Table is stated as cubic metre, then payment at the contract price shall be full compensation for all materials, labour, equipment, plant and services necessary to complete the concrete work as outlined herein.

In particular no separate payment will be made for:

- a) supply of cement, aggregates and other materials, plant and equipment-use required for producing the concrete
- b) Mix design, production, mixing, transportation, placing, consolidation, curing and quality control during production
- c) Formwork and falsework
- d) Precautions to be taken for hot weather
- e) Precautions to be taken for cold weather
- f) Provisions of shipping crates for concrete test specimens

No payment shall be made for any concrete required for normal testing procedures. Where excessive camber in girders is permitted by the Owner's Representative, the extra concrete due to the camber in excess of the specifications will not be paid for.

Concrete not placed in accordance with the provisions of Section 904.07 the appropriate weather conditions prevail will not be paid for unless and until it can be established to the satisfaction of the Owner's Representative that there has been no harmful effect to the concrete. The onus for establishing this will belong to the Contractor.

904.11.02 Basis of Payment for concrete work where the Unit Price Table states the unit to be a unit other than cubic metres

For those concrete work contract items where the unit of measurement in the Unit Price Table is stated in some unit other than cubic metre, then the basis of payment shall be in accordance with that stated in the appropriate specification for the item.

Concrete not placed in accordance with the provisions of Section 904.07 when the appropriate weather conditions prevail will not be paid for unless and until it can be established to the satisfaction of the Owner's Representative that there has been no harmful effect to the concrete. The onus and costs for establishing this will belong to the Contractor.

904.11.03 Concrete Acceptance and Reduced Payment Criteria on Concrete Located in New Structures

Concrete on a project of a certain class, as defined by its specified strength at 28 days, must have an average tested strength at 28 days equal to or greater than that specified for payment at the bid price.

Concrete of a certain class having an average strength of less than that specified will be

accepted into the job at a reduced payment, provided the difference between specified strength and tested strength is no greater than 5 MPa. If the average of tests in a particular predefined portion of concrete is less than that specified by more than 5 MPa then that concrete shall be rejected.

When concrete is rejected, those provisions outlined in CSA A23.1 shall be followed to determine whether or not the concrete may remain in the work. Such work will be done at the Contractors cost. Notwithstanding the above, should the concrete remain in the work it will be subject to a reduction, as outlined below, for having a strength less than that specified.

Concrete of a specific class and otherwise acceptable but having an average strength deficiency as tested of less than 5 MPa compared with that specified, will be accepted but the bid price for all concrete in the predefined portion will be reduced according to the following procedure:

For concrete work where the Unit Price Table states the unit to be in cubic metres, the adjusted concrete price shall be calculated as follows:

$$$(Adjusted Concrete Unit Price) = \text{Tested Strength} / \text{Specified Strength} * $(Bid Concrete Unit Price)$$

Division of the structure into predefined portions will be done by the Owner's Representative when the concrete placement sequence is outlined by the Contractor at the pre-job meeting. A predefined portion shall generally be established as that concrete placed within one operation.

There will be no bonus payment under the contract when the average strength is in excess of the specified strength.

904.11.04 Concrete Acceptance and Reduced Payment Criteria on Concrete Located in Rehabilitated Structures

Concrete on a rehabilitation project, as defined by its specified strength at 28 days, must have an average tested strength at 28 days equal to or greater than that specified for payment at the bid price.

Concrete having an average strength of less than that specified will be accepted into the job at a reduced payment, provided the difference between specified strength and tested strength is no greater than 5 MPa. If the average of tests in a particular predefined portion

of concrete is less than that specified by more than 5 MPa then that concrete shall be rejected.

When concrete is rejected, those provisions outlined in CSA A23.1 shall be followed to determine whether or not the concrete may remain in the work. Such work will be done at the Contractors cost. Notwithstanding the above, should the concrete remain in the work it will be subject to a reduction, as outlined below, for having a strength less than that specified.

Concrete of a specific class of repair and otherwise acceptable but having an average strength deficiency as tested of less than 5 MPa compared with that specified, will be accepted but the bid price for all concrete in the predefined portion will be reduced according to the following procedure:

For concrete work where the Unit Price Table states the unit to be square metres or cubic metres the adjusted price shall be calculated as follows:

$$\$(\text{Adjusted Concrete Unit Price}) = (\text{Tested Strength/Specified Strength}) \times \$(\text{Bid Concrete Unit Price})$$

Division of the structure into predefined portions will be done by the Owner's Representative when the concrete placement sequence is outlined by the Contractor at the pre-job meeting. A predefined portion shall generally be established as that concrete placed within one operation.

There will be no bonus payment under the contract when the average strength is in excess of the specified strength.

SECTION 913

EXPANSION JOINTS

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913.06.03 Concrete Rejection and Penalties

913.06.04 Supply and Install Asphalt Plug Expansion Joint

913.01 SCOPE

The scope of this specification is to cover the design, supply, material, fabrication and installation of expansion joint assemblies of the type as shown in the contract documents.

Typical strip seal expansion joint systems are comprised of two separate metal assemblies which hold a seal consisting of a flexible material between them. Movement in the bridge is accommodated by the flexible seal which is free to stretch and compress to a specified degree. The system also includes sealants, backer rods, caulking, foams, drainage, and metal plates used to accommodate movement in the deck, curbs, and barriers.

Typical asphalt plug expansion joints consist of a mixture of elastic material (binder) and aggregate placed over the joint between sections of the bridge. Movement in the bridge is accommodated by the binder/aggregate mix compressing and stretching to a specified degree. The system also includes sealants, backer rods, caulking, foams, and metal plates used to accommodate movement in the deck, curbs, and barriers.

Expansion joint design, materials, fabrication and installation shall comply with the latest edition of CSA S6 "Canadian Highway Bridge Design Code."

913.02 APPROVALS

Prior to any fabrication or the purchase of materials, shop drawings must be reviewed by the Owner's Representative.

Contractor shall submit 1 hardcopy and 1 electronic copy of the shop drawings with 2 weeks required for review.

The shop drawings shall show:

- a. Movement chart showing total rated movement.
- b. The required setting width for temperatures in increments of 5°C within the normal setting range.
- c. Grade, type and dimension of all material used.
- d. Location and full details of all splices and welds.
- e. Full details of anchors, clamping devices and curb details.
- f. Preset shipping dimensions.
- g. Site storage and installation procedures.
- h. Relationship of expansion joint assembly to deck, approach slab, roadway and all adjacent reinforcement.
- i. For strip seal expansion joints, confirmation from the neoprene seal manufacturer that the lubricants to be used during installation are compatible with the seal.
- j. For asphalt plug expansion joints confirmation from the neoprene seal binder and aggregate plug manufacturer that all other components of the system are compatible with the plug.

913.03 STRIP SEAL EXPANSION JOINT SYSTEM

The expansion joint assembly shall be a mechanically locked joint of the type shown on the contract drawings or an accepted equivalent. It shall be capable of satisfactory operation between -35 and +40 degrees Celsius.

913.03.01 Materials

913.03.01.01 Seal

The seal shall be a neoprene seal conforming to OPSS.PROV 1210 "Material Specification for Deck Joint Assemblies" and having the following properties:

Seal Physical Requirements Preformed Seal	Physical Requirements	Test Procedure
Physical Requirements Property		
Tensile Strength	Minimum 13.5 MPa	ASTM D 412 Test Method A
Ultimate Elongation	Minimum 250%	ASTM D 412 Test Method A
Hardness,	55 Shore A, + 7, -5	ASTM D 2240

Oven Aging Test, 70 h @ 100 °C Change in Tensile Strength	Maximum 20%	ASTM D 573 ASTM D 412 Test Method A
Change in Elongation	Maximum 20%	ASTM D 412 Test Method A
Change in Hardness	Maximum 10 points	ASTM D 2240
Permanent set at break	Maximum 10%	ASTM D 412 Test Method A
Low Temperature Crystallization Hardness, ShoreA 7 d @ -10 °C Change in Hardness	Maximum 15 points	ASTM D 832 ASTM D 2240
Oil Swell, ASTM Oil No. 3, 70 h @ 100 °C Weight Change	Maximum 45%	ASTM D 471
Ozone Resistance, 20% Strain, 150 pphm in air 70 h @ 40 °C	No cracks	ASTM D 1149 Method B, Procedure B1
Notes: A. All tests shall be made on specimens prepared from the preformed seals.		

Manufacturer's storage and handling requirements shall be followed. The seal shall not be exposed to ultraviolet rays for more than 3 days before installation.

913.03.01.02 Lubricant

The Contractor shall supply a suitable lubricant to facilitate the installation of the seal into the expansion joint rail. The lubricant shall be compatible with the neoprene seal and the Contractor shall provide a letter from the seal manufacturer to this effect when requested by the Owner's Representative.

913.03.01.03 Steel

All steel used in the expansion joint assembly shall conform to CSA-G40.21 "Structural Quality Steels." The steel grade shall be 300W and galvanized in accordance with 913.03.02.

Reinforcing steel shall be as specified in the contract documents and in accordance with Section 905.

If the protective galvanized coating is damaged prior to final acceptance, regardless of cause, the Contractor shall wire brush to clean the metal and hand paint with a cold galvanizing compound accepted by the Owner's Representative. The cleaned surface shall receive one application of metal conditioner to de-oxide, degrease and phosphatise the metal surface to be treated. Pre-mixed, ready-to apply, liquid cold galvanizing

compound should be applied to the prepared clean dry metal surface. The cold galvanizing compound must be of a type that imparts cathodic action against corrosion. The cold-galvanizing compound shall have a minimum 50 mm overlap of the surrounding galvanized metal. Both metal conditioner and cold galvanizing compound must be accepted by Underwriters Laboratories of Canada for component coatings (organic) and meet or exceed CGSB 1.181-99 "Ready Mixed Organic Zinc Rich Coating.". All materials must be applied in accordance with the manufacturer's instructions.

913.03.01.04 Concrete

Concrete in the expansion joint dam shall be as per "Superstructure Concrete" of Section 904.

Concrete which does not meet the specified compressive strengths shall be rejected or payment will be reduced as per Section 913.06.03.

913.03.02 Fabrication

All cut edges shall be smooth, regular and free of slag.

All holes shall be drilled and bleed holes shall be 12 millimetre diameter.

All welding shall be in accordance with CSA W59 "Welded Steel Construction.". The company undertaking welding fabrication shall be certified in Division 1 or Division 2.1 of CSA W47.1 "Fusion Welding of Steel Company Certification."

The roadway part of the expansion joint shall be bent up 150 millimetres at a 45 degree angle into the curb, the neoprene seal shall extend 25 millimetres beyond the end of the joint.

Unless otherwise indicated, all joints shall be fitted with snowplow deflector plates. Snow plow deflectors shall be placed parallel to the center line of the roadway.

The steel shall be zinc metallized or hot dipped galvanized.

Zinc metalizing shall be in accordance with CSA G189 "Sprayed Metal Coatings for Atmospheric Corrosion Protection" providing a minimum metallized coating of 200µm.

Hot dip galvanizing shall be in accordance with the most recent edition of CSA G164 "Hot Dip Galvanizing of Irregularly Shaped Articles" providing a minimal galvanized coating thickness of 200µm.

The neoprene seal shall be continuous. If the seal is cut over the installation length, it shall be rejected, removed, and replaced at the Contractor's expense. No schedule extensions shall be given for this reason.

913.03.03 Transportation and Storage

The joint assembly shall be shipped with the preset dimensions of 50 millimetres for 10 degrees Celsius unless otherwise indicated on the drawings. Care shall be taken in the shipping to prevent bending, warping or other damage.

The joint assembly shall be stored such that it is protected from rusting, dirt and distortion.

913.03.04 Installation of Strip Seal Expansion Joint Systems in New Construction

913.03.04.01 General

The Contractor shall provide a technician, accepted by the Owner's Representative, familiar with the expansion joint assembly being installed, to supervise all works involved with its installation.

Before the placement of the expansion joint assembly, all deck concrete shall have been placed and cured for a minimum period of 3 days with enough area for the proper placement of the expansion joint assembly "boxed-out" as per detail on contract drawings.

Seals shall be continuous over their installation length. No cutting of the seal shall be permitted, except for trimming of excess length at the ends. If the seal is cut over the installation length, it shall be rejected, removed, and replaced at the Contractor's expense. No schedule extensions shall be given for this reason.

The expansion joint installation sequence is outlined as follows:

- a. Install steel expansion joint assembly. Adjustment for the prevailing temperature shall be made and clamps re-tightened.
- b. Erect form work, prepare concrete surfaces, place expansion joint and dam concrete; this concrete is to be cast separately from the deck concrete. Clamps shall be removed shortly after the concrete has set.
- c. Remove form work, polystyrene and debris, request inspection and approval to install seal from the Owner's Representative. The use of heat,

fire, gasoline or the application of corrosive chemicals is not an acceptable means of polystyrene removal.

- d. Install the seal in the expansion joint.

Concrete the same as that specified for "Superstructure Concrete" in accordance with Section 904, shall be placed around the expansion joint in the previously boxed-out area with great care being taken during consolidation that no voids are left under the steel components.

The joint assembly shall be placed precisely as called for in the drawings and such that it will remain true to elevation and grade and remain firm after the concrete has hardened. Deviation from the grade or elevation shall be cause for rejection. Rejection would mean the complete removal of the expansion joint assembly and its subsequent replacement.

After the concrete has hardened, the exposed face of the seal and structural steel shapes shall be cleaned of deleterious material. Bleeder holes and bolt holes shall be cleaned and filled with an accepted epoxy grout and any scratches in the metallizing shall be touched-up with zinc rich touch-up paint.

913.03.05 Installation of Strip Seal Expansion Joint Systems in Rehabilitation Projects

913.03.05.01 General

Where existing expansion joints on the structure(s) are to be replaced by a new strip seal expansion joint system, the expansion joint system shall be in accordance with Section 913.03.

For rehabilitation projects, areas of the deck adjacent to the expansion joints may have an undetermined degree of deterioration and it may be necessary to remove sections of the deck and backwall to accommodate the new joint system.

All concrete to asphalt joints must be sawcut and a space provided and filled with an accepted sealant, as described on the drawings.

It will be the Contractor's responsibility to ensure that exact dimensions of the replacement joint are correct.

All deck repairs adjacent to joints and overlays must be complete prior to the installation of concrete in expansion joint dams and asphaltic plug joints.

913.03.05.02 Removal of Existing Joint

The work shall entail the removal of concrete, existing sealants and joint fillers, and water stops. The work shall be performed as detailed on the drawings. All existing formwork remaining from the original construction along with any accumulated debris on the beam seats shall be removed and disposed of to the Owner's Representative's satisfaction.

Concrete shall be removed to 300mm each side of the joint in plan view and removal shall be to a depth of 200mm in the deck and 300mm in the backwall, unless otherwise indicated on the contract drawings. If concrete is to be removed by jackhammer, the maximum hammer mass permitted is 13 kg. All tools used in concrete removal should be pointed.

If any reinforcing steel is found to be exposed, the concrete shall be removed to a clear distance of 25mm below the underside of the reinforcement.

If any concrete is required to be removed around reinforcing steel, then the maximum hammer size permitted shall be 7 kg. The Contractor shall take care not to damage any existing steel.

913.03.05.03 Surface Preparation

At the edge of areas to be repaired, a neat line shall be saw cut a minimum of 30mm to preclude feather edges.

Prior to restoration of these areas, the concrete substrate and all exposed reinforcing steel shall be satisfactorily blast cleaned and painted in accordance with Section 919.06 and 919.07 until the steel is free of all rust and all loose particles of concrete. Remaining blasting medium shall be removed with oil-free jets of compressed air or water producing a minimum pressure of 6 MPa. If the substrate is wet at the time of cleaning, then it shall be cleaned with high pressure jets of water. A pressure gauge shall be installed in the water or air lines in order to verify the specified pressure.

The deck and backwall shall then be restored as per the drawings. However, no concrete shall be placed until the prepared surface to be restored is inspected and approval in writing is given by the Owner's Representative.

Concrete substrate shall be kept damp for a minimum of 24 hours prior to placement of concrete.

Contractor shall provide and apply a bonding agent, SikaTop Armatec-110 EpoCem manufactured by Sika or an accepted equivalent, prior to pouring concrete. Bonding agents shall be applied in accordance with the manufacturer's instructions.

913.03.05.04 Supply And Placement Of Concrete

The joint assembly shall be placed precisely as called for in the drawings and such that it will remain true to elevation and grade and remain firm after the concrete has hardened. Deviation from the grade or elevation shall be cause for rejection. Rejection would mean the complete removal of the expansion joint assembly and its subsequent replacement.

All aspects of concrete supply and placement are subject to approval of the Owner's Representative. High range water reducing agents (superplasticizers) may be used at the Contractor's request if so indicated when the mix design is submitted. The Contractor must demonstrate competence and experience in their use and specific approval must be obtained.

Concrete shall meet the requirements of "Superstructure Concrete" specified in Section 904.

If superplasticizers are used, the maximum slump permitted will be 90 mm.

913.03.05.05 Finishing

Concrete must be finished immediately after strike off before the appearance of bleed water using a magnesium float. All concrete must be broom finished. The surface shall not be overworked. The Contractor shall supply a 3 m straight edge and the surface shall not deviate from the design grade by more than 8 mm.

913.03.05.06 Curing

Immediately after the concrete has been placed and finished, the Contractor shall apply the evaporation retardant "MasterKure ER 50" manufactured by Master Builders Company Ltd, SikaFilm manufactured by Sika, or an accepted equivalent. The product shall be applied as per manufacturer's instructions and recommendations.

All aspects of curing shall be in accordance with Section 904.05.

After the concrete has hardened, the exposed face of the seal and structural steel shapes shall be cleaned of deleterious material. Bleeder holes and bolt holes shall be cleaned

and filled with an accepted epoxy grout and any scratches in the metallizing shall be touched-up with zinc rich touch-up paint.

913.03.06 Removal and Replacement of Expansion Joint Seal

For rehabilitation projects that only require the removal and replacement of the Neoprene Seal, the existing seal shall be removed and debris removed from the gap. The steel assembly shall be painted with a zinc-rich paint as per Section 919 before the new seal is installed.

Seals shall be continuous over their installation length. No cutting of the seal shall be permitted, except for trimming of excess length at the ends. If the seal is cut over the installation length, it shall be rejected, removed, and replaced at the Contractor's expense. No schedule extensions shall be given for this reason.

Lubricant as specified in Section 913.03.01.02 shall be used to install the seal.

913.04 ASPHALT PLUG EXPANSION JOINTS

913.04.01 Materials

913.04.01.01 Binder and Aggregate Plug

Binder and aggregate plug shall be WABO Expandex, Prismo Thormajoint, or an accepted equal.

All components of the joint system shall be accepted, in writing, by the manufacturer of the binder and aggregate plug.

913.04.01.02 Steel

The steel grade shall be 300W and galvanized in accordance with Section 913.03.02 unless otherwise noted on the contract drawings.

New steel shall be provided for all Asphalt Plug Expansion Joints unless otherwise indicated on the drawings.

913.04.02 Installation

Installation shall be as per manufacturer's instructions.

Asphalt or concrete adjacent to the plug joint shall be sawcut the full depth of the plug to ensure a clean joint.

For rehabilitation of existing asphalt plug joints, all components of the existing plug joint and any debris shall be removed from the joint prior to the new plug joint being installed.

913.05 MEASUREMENT FOR PAYMENT

913.05.01 Supply and Install Expansion Joints

Measurement for payment will be made for each expansion joint assembly installed and accepted by the Owner's Representative. The assembly shall include the preparation of the expansion joint block-out, expansion joint, neoprene seal, all related components within the boxed-out area or zone, drainage, concrete, and reinforcing steel.

Materials to protect the seal, fill gaps, and accommodate movement in the deck, curbs, sidewalks, and barriers are also included as part of the expansion joint. This includes, but is not limited to, sealants, backer rods, caulking, foams, and metal plates used to accommodate movement in the deck, curbs, and barriers.

913.05.02 Remove and Replace Expansion Joint Seal

Measurement for payment will be made for each expansion joint seal removed and installed in the works and accepted by the Owner's Representative.

Materials to protect the seal, fill gaps, and accommodate movement in the deck, curbs, sidewalks, and barriers are also included as part of the expansion joint. This includes, but is not limited to, sealants, backer rods, caulking, foams, and metal plates used to accommodate movement in the deck, curbs, and barriers.

913.05.03 Supply and Install Asphalt Plug Expansion Joint

Measurement for payment will be made for each expansion joint assembly installed and accepted by the Owner's Representative.

Materials to protect the asphalt plug, fill gaps, and accommodate movement in the deck, curbs, sidewalks, and barriers are also included as part of the expansion joint. This includes, but is not limited to, sealants, backer rods, caulking, foams, and metal plates used to accommodate movement in the deck, curbs, and barriers.

913.06 BASIS OF PAYMENT

913.06.01 Supply and Install Strip Seal Expansion Joint System

Payment at the contract price for "Supply and Install Strip Seal Expansion Joint" in the Unit Price Table shall be full compensation for all labour, equipment, materials, plant and services required for the design, supply, fabrication, transportation to the job site, storage, handling, satisfactory preparation and installation for the expansion joint assembly of the type as indicated on the contract drawings.

The supply and application of all metal plates, drainage components, lubricants, grouts, sealants, galvanizing compound, epoxy, styrofoam, evafoam, or accepted equal, adhesive, caulking, bonding agents, evaporation retarder, and backer rods shall be incidental to the work and payment will not be made for such.

Concrete and steel reinforcement in the expansion joint block out shall be incidental to the cost of the expansion joint assembly.

The removal of all polystyrene, form work, and debris between the back face of the deck and the front face of the stem shall be incidental to the works.

For rehabilitation projects, the cost of demolition, disposal, and preparation of the expansion joint block out for the replacement expansion joint shall be incidental to the works.

Payment for repairs to the adjacent concrete deck outside of the expansion joint block out shall be as per Section 919.

Concrete which does not meet the specified compressive strengths shall be rejected or penalized as per Section 913.06.03.

913.06.02 Remove and Replace Expansion Joint Seal

Payment at the contract price for "Remove and Replace Expansion Joint Seal" in the Unit Price Table shall be full compensation for all labour, equipment, materials, plant and services required for the design, supply, fabrication, transportation to the job site, storage, handling, satisfactory preparation and installation for the expansion joint seal of the type as indicated on the contract drawings.

Application of zinc-rich paint to the expansion joint steel shall be incidental to the work.

If joint seals specified in the contract are ordered and delivered to site but not used, they shall be paid at invoice price only. Unused seals shall be delivered to a Department of Transportation and Infrastructure depot as directed by the Owner's Representative.

913.06.03 Concrete Rejection and Penalties

Expansion joints constructed where the average tested 28 day strength of the concrete in the expansion joint dam is less than the specified strength but otherwise meets the specifications will be accepted at a reduced payment provided the difference between the specified strength and the average tested 28 day strength is no greater than 5 MPa. If the difference is greater than 5 MPa than the expansion joint shall be rejected. The Contractor shall remove the expansion joint dam and re-pour the concrete.

When concrete is rejected, those provisions outlined in CSA A23.1 "Concrete Materials and Methods of Concrete Construction" shall be followed to determine whether or not the concrete may remain in the work. Such work shall be done at the Contractor's expense. Notwithstanding the above, should the concrete remain in the work it shall be subject to a reduction as outlined below, for having a strength less than that specified.

If the concrete in any portion of the expansion joint is found to have a strength deficiency of less than 5 MPa than the lump sum bid price for the expansion joint will be adjusted in accordance with the following:

$$ALSP = BLSP - BLSP * .02 * (SS - TS) * (LJDC / LJ)$$

where:

ALSP = Adjusted Lump Sum Price for the Expansion Joint

BLSP = Bid Lump Sum Price per Expansion Joint

SS = Specified 28 day strength (MPa)

TS = Tested Average 28 day strength (MPa)

LJDC = Length of Joint with Deficient Concrete (m)

LJ = Length of Joint (m)

913.06.04 Supply and Install Asphalt Plug Expansion Joint

Payment at the contract price for "Supply and Install Asphalt Plug Expansion Joint" in the Unit Price Table shall be full compensation for all labour, equipment, materials, plant and services required for the design, supply, fabrication, transportation to the job site, storage, handling, satisfactory preparation and installation for the expansion joint as indicated on the contract drawings.

The supply and application of all metal plates, lubricants, grouts, sealants, galvanizing compound, epoxy, Styrofoam, evafoam, or accepted equal, adhesive, caulking, and backer rods shall be incidental to the work and payment will not be made for such.

For rehabilitation projects, the cost of demolition, disposal, and preparation of the expansion joint block out for the replacement expansion joint shall be incidental to the works.

Payment for repairs to the underlying or adjacent concrete shall be as per Section 919 "Rehabilitation of Concrete Structures."

Payment for repairs to the adjacent asphalt wearing surface shall be as per "Asphaltic Patching" in Section 330.05.13.02.

SECTION 914

BRIDGE DECK WATERPROOFING

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914.01 SCOPE

The scope of this specification is the preparation and treatment of the concrete bridge deck, as shown on the plans and where designated by the Owner's Representative, with

a surface conditioner, hot applied rubberized asphalt membrane, membrane reinforcement, and fiber protection board. Joint filling compound shall fill grooves adjacent to curbs, sidewalk, and barrier walls. Undiluted tack coat shall be applied to the asphalt adjacent to curbs, sidewalks and barrier walls.

914.02 GENERAL

The Contractor shall submit for approval to the Owner's Representative the following documentation:

1. Product Data Sheets and the Manufacturer's Installation Instructions for all products to be used in the water proofing system, including, but not limited to the following:
 - a. Surface Conditioner /Primer
 - b. Hot Applied Rubberized Waterproofing Membrane
 - c. Reinforcing Material (If required)
 - d. Protection Board
2. In addition to the above information, the submission shall contain:
 - a. the project name and number;
 - b. proposed dates of application for priming, waterproofing, and paving;
 - c. the specific gravity and the weight or mass per drum of the asphalt membrane;
 - d. Overview of the Contractor's and foreman's previous experience installing the proposed system or similar systems;
 - e. Letter from the manufacturer of the waterproofing membrane that all components to be used in the waterproofing system are accepted for use and are compatible with their product;
 - f. Letter from the manufacturer of the waterproofing membrane that the contractor applying the waterproofing membrane is accepted to install their waterproofing system.
3. A copy of the Contractor's pre-waterproofing briefing which shall include, at a minimum, the following information:
 - a. Overview of the waterproofing system's components and how the components will be applied;
 - b. Any relevant safety information;
 - c. Required surface preparation prior to application of primer/conditioner
 - d. Required air temperatures and kettle temperatures for application;
 - e. Required application thickness of membrane and how the thickness will be measured during application;

- f. How defects such as bubbles, pinholes, and missed areas will be corrected
- g. Where and how reinforcing materials will be placed
- h. How protection board will be placed and rolled including the required overlap and joint staggering distances.

The pre-waterproofing briefing will be carried out with all workers that will be involved in the waterproofing operation. Multiple briefings shall be conducted as required to ensure that all workers are fully versed in the installation procedure or how to correct any installation errors. The Owner's Representative shall be provided with 48 hours notice to be present for briefings.

The Contractor shall give the Owner's Representative a minimum of 48 hours notice prior to commencing the waterproofing application; in addition, the prepared bridge deck shall be specifically accepted by the Owner's Representative.

All concrete surfaces shall be cured in accordance with Section 904.05 and be in a dry condition before waterproofing operations may begin. Waterproofing work shall not be performed during rainy or inclement weather or on frost covered surfaces.

The Contractor shall adhere to Section 820.02 and the required procedures.

914.03 MATERIALS

The waterproofing system will include a surface conditioner/primer, asphalt membrane, membrane reinforcement (as construction details require), protection board, and tack coat emulsion. All components to be used in the overall waterproofing system shall be accepted for use by the manufacturer of the hot applied (poured) rubberized asphalt membrane for compatibility with their product.

914.03.01 Surface Primer for Asphalt Membrane

The surface conditioner shall conform to the requirements of CGSB 37-GP-9Ma "Primer, Asphalt, Unfilled for Asphalt Roofing, Damproofing and Waterproofing" and accepted by the Owner's Representative and accepted for use by the manufacturer of the asphalt membrane.

914.03.02 Asphalt Membrane

The asphalt membrane shall be as follows or an accepted equivalent accepted by the Owner's Representative:

- 1) Ultraseal 3750 by Craftco Inc.
- 2) MACSEAL BDM by McAsphalt Industries

914.03.03 Reinforcing Materials

The rubber materials shall be as follows or an accepted equal accepted by the Owner's Representative. Any product, including those listed below shall be accepted for use by the manufacturer of the asphalt membrane:

- 1) SBM 63 Butyl Rubber Membrane by Stedfast
- 2) Ultraseal Reinforcing Fabric by Craftco Inc.

914.03.04 Protection Board

Protection board shall be asphalt impregnated fiberboard accepted by the Owner's Representative and accepted for use by the manufacturer of the asphalt membrane:

914.03.05 Tack Coat for Protection Board

The tack coat used in conjunction with the protection board shall be as specified in Section 320.

914.03.06 Joint Sealing Compound

Joint sealing compound shall be as per Section 914.03.02 or an accepted equal accepted by the Owner's Representative.

914.03.07 Asphaltic Concrete Sealant

The asphaltic concrete sealant shall be an undiluted tack coat as per Section 914.03.05.

914.04 INSTALLATION

914.04.01 Concrete Surface Preparation

The existing surface of the concrete shall be treated by sandblasting, bush hammering or other such methods as the Owner's Representative may accept, so as to expose solid, laitance-free concrete. All dirt and debris shall be swept off and disposed of to leave a prepared surface satisfactory to the Owner's Representative before application of the surface primer/ conditioner. Immediately prior to the application of the surface primer/ conditioner, the concrete surface shall be cleaned with a jet of oil-free compressed air to remove all dust and any other foreign material. Waterproofing shall not commence until the Owner's Representative has accepted all preparation work.

Without limiting the generality thereof, in the preparation of new concrete decks the following can be anticipated: removal of concrete and grout spills, small depressions

must be filled with Portland cement mixture, areas of heavy laitance require removal, sharp projections must be ground off and honeycombed concrete requires patching.

Old decks will generally require the removal of larger expanses of old hot mix pavement and waterproofing which is not well bonded. Scaled or spalled concrete must be removed and replaced with Portland cement concrete. This will generally be considered as rehabilitation work and will be paid for separately under Section 919.

Hot mix asphaltic patching shall not be used to level a deck prior to waterproofing.

914.04.02 Surface Primer for Asphalt Membrane

Surface primers shall be applied as directed by the manufacturer.

Surface primer shall be applied with accepted equipment which will provide a uniform application at the required rate.

The surface primer shall be applied only when the concrete is dry, clean and when the air and concrete surface temperature are above 5 degrees Celsius. No traffic shall be permitted upon the surface conditioner until it has fully cured.

The surface primer shall be applied to the entire deck surface including those vertical surfaces which are to be treated with waterproofing such as the vertical faces at curbs and expansion joint dams.

Surface primer shall be applied in accordance with CGSB 37-GP-15M "Application of Asphalt Primer for Asphalt Roofing, Dampproofing and Waterproofing."

914.04.03 Application of Asphalt Membrane

Application of hot applied, rubberized asphalt membrane for bridge deck waterproofing shall generally comply with CGSB 37-GP-51M "Application of Rubberized Asphalt, Hot Applied, for Roofing and Waterproofing."

Cakes of hot applied rubberized asphalt membrane shall be melted in an accepted, indirect heating or double boiler type mechanically agitated heating and mixing until which shall keep the contents continuously agitated until the material can be drawn free flowing and lump free from the mixing unit at a temperature not exceeding that recommended by the manufacturer. The kettle shall be equipped with a thermometer to measure membrane temperature.

No membrane shall be applied until the surface primer has cured completely. The hot applied rubberized asphalt membrane shall be applied at the temperature recommended by the manufacturer, to the clean primer coated concrete deck, so as to form a uniform single coat having a minimum thickness of 4mm and a maximum thickness of 5mm. The average thickness shall not be less than 4.5mm.

The operation shall be such that discontinuities in the membrane are avoided and any joints lapped 150mm. The membrane shall extend up the face of curbs, dams at expansion joints and deck drains to the height of the top of the hot mix asphaltic surface course and into the chase where this has been provided.

Membrane application temperature shall be not less than 175 degrees Celsius and not greater than 212 degrees Celsius. Overheated material may gel or become stringy and shall be rejected. The membrane shall be applied in such a manner to eliminate entrapped air, be of uniform thickness and essentially free of pinholes and blisters.

914.04.04 Application of Reinforcing Materials

In the areas indicated on the drawings, at all cracks and construction joints reinforcing material shall be placed directly over the hot applied rubberized asphalt membrane while it is still tacky. The reinforcing material shall extend up the face of the curbs or barrier walls to the top of the asphaltic pavement, or into the chase where this has been provided. The reinforcing material shall then be covered with a layer of hot applied rubberized asphalt membrane as shown on the plans or as directed by the manufacturer. At the horizontal and vertical surfaces, the reinforcing material shall be shaped to fit the interface, ensuring that air is not entrapped, fish mouths shall be eliminated.

914.04.05 Application of Protection Board

Protection boards shall be laid on the asphalt membrane while the surface is still warm and tacky. Materials or substances shall not be applied to either the membrane surface or the protection board to remove the tackiness prior to installation of the protection board. Protection boards may be butt jointed if the asphaltic paving immediately follows completion of waterproofing operations. Otherwise, protection boards shall be placed with edges overlapping a maximum of 25mm both longitudinally and transversely. The overlap pattern shall be consistently applied in one direction such that the quality of paving will not be reduced. The overlap pattern shall be such as to facilitate paving operations in the downgrade direction. The protection board edge shall be within 6mm of all curbs, drain verticals and expansion joint verticals.

Protection board shall be rolled as directed by the manufacturer.

No traffic or equipment shall be permitted upon the hot applied rubberized asphalt membrane until the protection board has been placed and the membrane has cooled to ambient temperature. The membrane, when wet, presents a surface which is hazardous to traffic.

914.04.06 Application of Protection Board Tack Coat

The diluted tack coat material shall be applied at the rate of 0.5 litre per square metre.

Tack coat material shall be applied to the protection board cover with accepted equipment which will provide a uniform application at the required rate. The tack coat shall be applied only when the protection board cover is dry, clean and when the air temperature is above 5 degrees Celsius. The tack coat on the protection board cover shall be placed just sufficiently ahead of paving to allow for adequate curing.

914.04.07 Paving Operations

The Contractor shall schedule their operations so that paving shall be carried out as soon as the membrane has cooled to ambient temperature.

Asphalt shall be placed within 24 hours after waterproofing is complete unless otherwise accepted by the Department. Paving equipment shall not be permitted upon the tack coat until it has fully cured. Asphaltic paving of bridge decks shall be in accordance with Section 922.

914.04.08 Forming and Filling Grooves with Joint Sealing Compound

Along each curb and for the full length of each curb, sidewalk, barrier wall, or where indicated in the contract drawings, the Contractor shall form a rectangular groove 12mm-20mm wide extending from the surface to the top of the base course of asphalt. If only one lift of asphalt is present, the groove shall extend to the top of the waterproofing membrane. This groove shall be made using asphalt impregnated strips or timber placed against the curb prior to the placing of the hot mix asphaltic concrete.

If required, the material used to form the groove shall be coated with an accepted bond breaker and shall be fully removed after the mix has been fully compacted. The Contractor may use an alternative method of forming the grooves with the approval of the Owner's Representative.

Immediately prior to pouring the sealing compound, the groove shall be completely empty, dry and then cleaned of any dust or debris by an oil-free compressed air jet.

The joint sealing compound shall be poured in place after the asphaltic pavement reaches ambient air temperature.

Cakes of joint sealing compound shall be melted on the job site and shall be continuously agitated in the mechanically agitated heating and mixing kettle. The contents shall be continuously agitated until the material can be drawn free flowing and lump free from the mixing kettle at a temperature within the range recommended by the manufacturer.

The compound shall not be heated in excess of the pouring temperature recommended by the manufacturer. The Contractor may be required to demonstrate with the equipment proposed for use that it will consistently produce a joint sealing compound of proper pouring consistency.

Pouring shall be done by the use of hand pouring pots, mechanical methods, or any other method which will give satisfactory results. The pouring equipment shall be designed such that a minimum of time will elapse during pouring operations so the compound will be placed in a workmanlike manner. Shields shall be provided to prevent the compound from being spilled on the concrete curb and on the newly placed bituminous surface.

Sufficient compound shall be poured into the groove so that upon completion of the work the surface of the compound will be flush with the surface of the pavement when the air temperature at time of pouring is 27 degrees Celsius or over, or 5mm below the surface of the pavement when the temperature is below 27 degrees Celsius. If the compound subsides to a level below the surface of the pavement, a second pouring will be required. When more than one pouring is required to fill the groove, succeeding pours will be made immediately.

Damage such as stones embedded in the joint sealing compound by construction traffic and Contractor's operation shall be repaired by the Contractor at their expense.

Traffic will not be permitted upon the surface course during the operation of forming and filling the grooves.

914.04.09 Sealing Surface of Asphaltic Concrete Adjacent To Curbs

After the grooves at curbs have been filled and before it has become contaminated with dirt or debris, the surface shall be spray or brush painted with a uniform continuous, liberal application of undiluted tack coat specified in Section 914.03.07 at the rate as per manufacturer's instructions, or as directed by the Owner's Representative, for a width of 600mm adjacent to all curbs, barrier walls, or where otherwise specified, to completely seal the surface. The tack coat shall extend 25mm up adjacent concrete surfaces.

914.05 SAMPLING

The Department's representatives may at their discretion require that sufficient quantities of the surface conditioner, hot poured rubberized asphalt membrane, joint sealing compound, or tack coat be obtained from the materials being used on the project as might be required for immediate analysis or future testing purposes.

914.06 MEASUREMENT FOR PAYMENT

The area treated with hot applied rubberized asphalt membrane will be measured in square metres to the nearest one decimal place and will for payment purposes be considered the product of the width of the bridge deck measured perpendicular to faces of curb and side walk and the length of the bridge measured in plan between centre lines of abutment bearings. No allowance will be made in the measurement for the turn-up at the curb line or for any overlaps.

914.07 BASIS OF PAYMENT

Payment at the contract price for "Bridge Deck Waterproofing" in the Unit Price Table shall be full compensation for the preparation of the concrete deck surface, the supply and application of surface conditioner, hot applied rubberized asphalt membrane, rubber membrane, protection boards, tack coat, joint sealing compound, the forming and filling of the grooves, the supply and application of undiluted seal coat, the handling and controlling of traffic, and for all other items incidental to the satisfactory completion of work as determined by the Owner's Representative.

SECTION 919

REHABILITATION OF CONCRETE STRUCTURES

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919.20 SUPPLY AND PLACE TREMIE CONCRETE

919.01 SCOPE

The scope of this specification is to cover the supply of materials for concrete repair, methods of repair including concrete removal, surface preparation and the placement, finishing and curing of repair materials. All work, equipment and materials shall be in strict accordance with CSA A23.1 "Concrete Materials and Methods of Concrete Construction" and the relevant sections of the Department Specification Book.

919.02 MOBILIZATION AND DEMOBILIZATION

919.02.01 General

In addition to the requirements specified in this Section, the applicable requirements specified in Division 1 shall also apply and be adhered to.

As part of Mobilization, Contractor shall remove all debris, sand, and rubbish from the bridge deck and bearing seats. Contractor shall also clean any deck drains, curbs, and gutters to ensure they are free flowing. These items shall be cleaned again prior to demobilization if required by the Department.

If snow clearing or removal is required at any time during the work, it shall be considered incidental to Mobilization and Demobilization.

Prior to demobilization, the Contractor shall gather all debris and rubbish from the work site and adjacent areas including, the bearing seats, ditches, watercourses, and treelines. This shall include debris not due to the Contractor's activities or operations.

919.02.02 Contractor's Outline of Repair Procedures

For all rehabilitation projects the Contractor shall submit their outline of repair procedures at the pre-construction meeting. The Contractor must be specific with their repair procedures. The intention of the submission is to determine details of the Contractor's proposed equipment, methods, materials, and key personnel to ensure general acceptability and that important aspects of work have been fully understood.

The first payment for mobilization shall be withheld until the Department accepts the Contractor's repair procedure outline.

919.02.03 Payment

Measurement for payment for "Mobilization and Demobilization" shall be lump-sum and shall be payment for all parts of any multi-part contracts.

Payment at the contract price for "Mobilization and Demobilization" in the Unit Price Table shall be compensation in full for all labour, supplies, materials and equipment use required to mobilize and demobilize plus the provision of storage and security required during the mobilization and demobilization phases of the work.

Contractors are advised that bid limits apply to this item. Refer to Section 157 for more information. Additional details may also be contained in the Supplementary General Conditions for the contract.

For projects which do not have "Access to Work Site" as a separate bid item, any work, equipment, materials, etc required to access the work site shall be considered incidental to "Mobilization and Demobilization".

For each part of a project, payment for "Mobilization and Demobilization" shall be as follows:

- a) 20% upon full mobilization to the site including all preparation, equipment, and materials to begin the work.
- b) 20% upon full demobilization from the work site including the removal of all rubbish and the acceptance of any required documentation by the Department
- c) The remainder shall be paid as a percentage of the work completed as determined by the value of progress payments.*

*Payments for interim blasting, crushing, stocking aggregate and materials on site are not considered as value of work completed on a bid item when payment for this item is calculated.

There shall be no change in the lump sum price of this item due to a change in contract scope or an extension to the contract completion date. At no time shall the total of the amounts paid to the Contractor under this item be greater than the tender's lump sum bid price.

The payments for the lump sum price shall be full compensation for the work under this item regardless of the number of times the contractor mobilizes/demobilizes to the project location(s).

For multi-part projects, the total payment available for mobilization and demobilization of each part shall be determined using the equation below. This payment value shall be paid in the percentages specified above.

$$MD_i = LS \times (V_i / LS)$$

Where:

MD_i = Mobilization and Demobilization payment available for Part i of a project

LS = Lump Sum bid for Mobilization and Demobilization for the entire Project

V_i = Bidded value of the work for Part i of the project (excluding lump sum items that apply to all parts)

919.03 ACCESS TO WORK SITE

919.03.01 General

The work under this items shall include the following:

- a) Accessing all areas of the work site requiring work to be completed including, but not limited to, scaffolding, lifts, or any other materials/equipment the Contractor deems necessary;
- b) Access to the piers and abutments;
- c) Payment for any fees associated with the work;
- d) Design, installation, and certification of tie off points for fall arrest or other safety gear;
- e) Design, installation, and maintenance of any systems needed to work in or around water. Contractor is responsible to protect their work against any changes in water level until completion;
- f) Design and installation of any systems needed to capture demolition debris; and;
- g) Any other items the Contractor deems necessary to access and/or complete the work which does not fall under another item of the unit price table.

The Contractor shall supply, erect, maintain and dismantle scaffolding, swing staging, barges and/or portable lifts at all repair locations. The scaffolding, staging, barges or lifts shall be erected in such a manner that all areas that require repairs are accessible. All equipment used for access shall conform to the latest edition of the Occupational Health and Safety Act including all amendments.

When scaffolding is used, ladders longer than 3m shall not be used without Departmental approval. Intermediate platforms or staircases shall be used where possible. For any scaffolding platforms over 4m high, staircases shall be used to access the platform.

919.03.02 Payment

Measurement for payment for "Access to Work Site" shall be made as lump-sum.

Payment at the contract price for "Access to Work Site" in the Unit Price Table shall cover all aspects of the work including full compensation for all labour, engineering, permits, training, equipment and material considered necessary.

During the entirety of the contract, the Contractor is solely responsible for the protection and maintenance of all access equipment and materials. No extra payment will be made for loss of, or damage to, any access materials and equipment due to any factors including, but not limited to, theft, weather, water, accidents etc.

919.04 MAINTENANCE OF TRAFFIC

919.04.01 General

A sign and traffic plan shall be submitted to the Owner's Representative for review and approval before the Contractor works on the roadway. Contractors shall plan for a two-week review period by the Department.

Unless specified otherwise, one 3.2m wide traffic lane, at a minimum, shall be maintained at all times.

Signage and traffic control shall conform to relevant portions of Section 7 and the Department Traffic Control Manual.

The Contractor shall be responsible for all traffic signs, barricades and traffic control devices.

The Contractor shall pay particular attention to the flow of traffic through the construction zone. Any damage incurred to vehicles or their cargo or injury sustained to their occupants as direct or indirect result of the Contractor's actions, procedures or negligence, shall be the sole responsibility of the Contractor.

The Contractor shall indemnify the Department with regard to claims arising from damages or injury.

The Contractor shall be responsible for the placement and maintenance of all traffic signs, barricades and other traffic control devices deemed necessary as per Division 7 and the Department Traffic Control Manual.

Contractor shall submit 1 Hardcopy and 1 Electronic copy of their traffic control plan, including drawings, for acceptance.

919.04.02 Temporary Traffic Light

For projects where two way traffic will be reduced to one lane and flag persons will not be on-site the entire period that the reduction is in effect, temporary traffic lights shall be installed and maintained at the Contractor's expense.

Temporary traffic lights shall be a fully operational, automated traffic signal system subject to the approval of the Traffic Engineer. One set of lights is required at each end of the structure for lane traffic control. The traffic control systems shall remain the Contractor's

property upon contract completion. The Contractor shall ensure the traffic light system will operate around the clock for the entire duration of the reduced lane traffic flow. The Contractor shall have on site, at all times, one of each red, green, and amber lenses, four spare bulbs and one auxiliary power source for the traffic control system. The Department's Traffic Engineer will provide the time cycles to suit traffic flow.

If at any time due to unforeseen circumstances, a temporary breakdown occurs with the traffic light system, the Contractor shall, as a temporary measure, immediately provide appropriate radio and sign equipped flag persons to control vehicular traffic. The Contractor shall have on site, in the event of a breakdown, a set of two-way radios in good operating condition and a set of stop and slow signs. Contractors shall have in place, provisions to deal with inoperable traffic lights at any time including after work-hours, weekends, and holidays.

Failure of the temporary traffic light system in either direction greater than a 10 minute period will result in the following liquidated damages being applied:

- 2nd failure, 0.5 x liquidated damages daily rate
- 3rd failure, 1 x liquidated damages daily rate
- 4th failures, 2 x liquidated damages daily rate
- 5th or more failures, 4 x liquidated damages daily rate for each subsequent failure

No separate payment shall be made for the provision of temporary flag persons and related items and all associated costs shall be included in this contract item.

For longer duration projects, Contractor's are strongly encouraged to connect the temporary traffic signals to the provincial electrical grid. However, if during the duration of the project, traffic lights connected to their own power source become inoperable six or more times due to failure of their power source, the Contractor shall connect the traffic lights to the provincial electrical grid or a suitable gasoline or diesel generation system accepted by the Department. All costs, permits, and approvals associated with connecting temporary traffic lights to the provincial electrical grid are the responsibility of the Contractor.

919.04.03 Temporary By-pass

For certain projects where a temporary by-pass will be required, it shall be stated in the Supplementary General Conditions detailing span and load carrying capacity.

If noted in the Contract Documents that the bypass shall be designed by the Contractor, The Contractor shall be responsible for the location and route of the by-pass, the hydrological, hydraulic, and structural and foundation design of the river crossing, the maintenance and upkeep, and the placement and maintenance of all traffic control devices required to ensure safe traffic flow. The hydraulic design shall be for a minimum 1 in 25 year event, however, the Contractor shall use their own judgement and select a larger design storm if appropriate. The Department will not accept a claim if a storm exceeds the 1 in 25 year event.

Section 140, "Environmental Requirements" and any other environmental requirements specified in the contract documents shall be adhered to by the Contractor. If unwatering is required, the requirements of Section 902.03 shall also be adhered to.

1 Hardcopy and 1 Electronic copy of the detailed drawings and calculations, signed and sealed by a Professional Engineer licensed to practice in the Province of Newfoundland and Labrador, shall be submitted by the Contractor for acceptance to the Owner's Representative and shall, at a minimum, show the following:

1. The proposed route of the by-pass.
2. The structure
3. The sign and barricade layout.
4. Design and posted speed through the construction zone

All repairs to the by-pass deemed necessary by the Department shall be implemented by the Contractor immediately after written notification by the Owner's Representative. If after notification the Contractor fails to initiate repairs, repairs will be done by others. The cost of such repairs will be deducted from progress payments.

919.04.04 Traffic Resumption

Curing time required for deck concrete is wet curing for 7 days and a further 30 days for air drying, and specified design strength must be obtained,

Until the above conditions are satisfied, no traffic will be permitted on a new deck or overlay.

The area used as a route for the by-pass must be returned to its original condition as determined by the Department.

919.04.05 Payment

Measurement for payment for “Maintenance of Traffic” shall be lump sum.

The contract price for “Maintenance of Traffic” in the Unit Price Table shall cover all costs of maintenance of traffic including all labour, equipment, and material necessary to carry out all the work described.

Costs for flagperson(s) shall be incidental to “Maintenance of Traffic” unless otherwise stated in the contract documents.

20% of the bid price of “Maintenance of Traffic” shall be withheld by the Department until the Owner’s Representative is satisfied that the area has been returned to its original condition.

For multi-part projects, the total payment available for “Maintenance of Traffic” of each part shall be determined using the equation below. This payment value shall be paid in the percentages specified above.

$$MT_i = LS \times (V_i / LS)$$

Where:

MT_i = Maintenance of Traffic payment available for Part i of a project

LS = Lump Sum bid for Maintenance of Traffic for the entire Project

V_i = Bidded value of the work for Part i of the project (excluding lump sum items that apply to all parts)

919.05 JACKING OF BRIDGE SUPERSTRUCTURE FOR REHABILITATION WORKS

919.05.01 General

This section covers the requirements for raising and lowering the superstructure by the use of jacks, as required, to complete specified rehabilitation work.

Jacking Design Engineer means an Engineer retained by the Contractor qualified to provide the services specified in the Contract Documents to both design and certify the provided jacking.

Jacking System means all components required to perform the lifting and temporary support of the bridge superstructure. This includes but is not limited to; jacks, hydraulic hoses and fluid, valves, sensors, jacking systems, shims, temporary support systems, and all related appurtenances.

Survey means precise and detailed measurements and elevations taken, recorded, documented and certified by a Newfoundland and Labrador Land Surveyor or an Engineer.

919.05.02 Design

Contractor shall be responsible for the design of the jacking system. When certain aspects of a jacking system are provided in the Contract Documents, the Contractor shall incorporate these aspects into the design of the jacking system.

When jacking locations are provided in the Contract Documents, they shall be incorporated into the design of the Contractor's proposed jacking system and shall not be changed without written permission from the Owner's Representative and the Engineer of Record that specified the locations.

Where the replacement of bearings is called for in the Contract Documents, the design shall take into account the possible difference in bearings size between the new and the original and ensure that the placement of the temporary supports does not interfere with the proper placing of bearings.

The design shall account for the structural work and condition of the structure at the time of jacking, and the stages that may interfere with temporary supports or jacking locations. It shall take into account any deterioration and/or removals prior to and during the duration of the jacking and remedial work.

The design of temporary supports shall account for articulation of the superstructure including thermal movements, as well as any potential slip in supports. Jack and support locations shall account for conflicts between structural work and temporary works designed by the Contractor.

The Contractor shall be responsible for determining an appropriate amount of pre-loading to be applied to the jacks prior to the start of displacement controlled jacking. The pre-loading amount shall be no less than 15% of the specified jacking load and shall be sufficient to account for decompression of bearings, gaps between shims (if used) and any other geometric imperfections in the proposed jacking system.

Shims and blocking used to support the jacks shall also be designed for no less than 150% of the jacking loads determined by the Jacking Design Engineer

919.05.02.01 Pre-Approved Jacking Engineers

The Department will provide a list of prequalified Jacking Design Engineers in the contract documents. Alternative engineers may be submitted for acceptance.

919.05.02.02 Jacking Drawings and Calculations

The Contractor shall submit 1 hardcopy and 1 electronic copy of the jacking drawings and calculations to the Owner's Representative 14 days prior to the commencement of the jacking operations, for information purposes only. Submissions shall bear stamped by a Professional Engineer licensed to practice in the Province of Newfoundland and Labrador.

The jacking drawings and calculations shall include the following:

- a) Jacking methodology and sequence.
- b) Location, number, type and capacity of the jacks to be used.
- c) Description of the control system, complete with all design, schematics and equipment to be used.
- d) Location and material to be used for temporary blocking and shimming.
- e) Proposed pre-loading to be applied to jacks.
- f) Schematic showing the configuration of all jacks, stop valves, gauges, manifolds and hydraulic pumps.
- g) Current calibration certificates for all jacks, gauges, and lifting/lowering controller.
- h) Full details of the temporary support system including forces to be transmitted and method of transferring the loads to the substructure or founding strata, including considerations for thermal expansion and contraction.
- i) Strengthening of the existing structure where necessary.
- j) Restrictions on traffic and construction traffic.
- k) Calculations as per section 927.

Any required modifications to accommodate the proposed jacking system that may affect the final configuration of the bridge shall be submitted as a written proposal to the Owner's Representative prior to commencing jacking operations.

The Contractor shall have a copy of the signed and sealed jacking drawings at the site during jacking setup and operations.

When jacking design considerations or field conditions necessitate amendments to the jacking drawings, revised jacking drawings shall be submitted according to the above requirements.

919.05.03 Materials

All structural steel shall be according to CSA G40.20/G40.21 "General Requirements for Rolled or Welded Structural Quality Steel/Structural Quality Steel."

High strength bolts shall be according to ASTM F3125M "Standard Specification for High Strength Structural Bolts and Assemblies, Steel and Alloy Steel, Heat Treated."

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High strength nuts, and hardened washers shall be suitable for use with the types of bolts being specified and shall be according to ASTM A563M "Standard Specification for Carbon and Alloy Steel Nuts" and ASTM F436M "Standard Specification for Hardened Steel Washers."

The nuts, bolts, and washers shall be shipped together as an assembly from the manufacturer. The requirements outlined in the Test Reports for Fasteners clause found in Section 910 shall apply.

Mechanical and/or adhesive anchors shall be suitable for dynamic loads and shall be installed according to the manufacturer's recommendations.

Cement based non-shrink grout shall be supplied.

919.05.04 Equipment

A synchronized jacking system shall be used and shall consist of either a Programmable Logic Controller (PLC) controlled system or a volumetric controlled system as detailed in this section.

The system shall be capable of adjusting pressures and hydraulic volumes in order to achieve a uniform lift and/or lowering to a tolerance of not more than 1.0 mm from the leading to lagging cylinders.

When different makes and models of jacks are used, the system shall be capable of adjusting for differing amounts of fluid required at different jacks in order to comply with the specified lifting and lowering tolerances.

919.05.04.01 PLC Jacking System Requirements

A PLC controlled system shall include a central unit which continuously monitors the relative and absolute position of each individual jacking point.

919.05.04.02 Volumetric Controlled Jacking System Requirements

A volumetric controlled jacking system shall be fully calibrated and designed to precisely deliver the same volume of hydraulic oil to each individual jack at the same time when the same make and model of jacks are used at all locations.

919.05.04.03 Displacement Sensors

The synchronized jacking system shall display real-time data for each jack location showing vertical displacement, hydraulic pressure, and applied force for monitoring purposes during the jacking operation. The data shall be automatically recorded at 1 second intervals in a data log file for the entire duration of the jacking/lowering operation(s) and stop only after the bridge is firmly on the temporary supports or permanent bearings.

Each jacking location shall have either a digital displacement sensor or linear transducer accurate to 0.1mm to monitor displacements. The displacement sensors can be either integrated into the jacking system or independently monitored such that displacement sensors, stroke sensors or calibrated volumetric control system is capable of achieving the relative lift/lowering tolerances specified in the Contract Documents. For jacks supported on temporary fixtures (such as jacking corbels), independent displacement sensors shall be used, and measurements shall be made relative to a fixed location on the adjacent bearing seat.

A data log file shall be submitted to the Owner's Representative within 7 days of any jacking operation in Microsoft Excel format (or Approved equivalent). Data log file format is to be in a table with individual columns representing each displacement sensor reading in millimetres, hydraulic pressure, and applied force at each jacking location. Individual rows shall represent the time in Hr:Min:Sec format.

919.05.05 Procedure**919.05.05.01 Pre-Construction Surveys**

Prior to the start of any work related to the jacking operation, the Contractor shall carry out field measurements of all components of the existing structure that might impact the installation of the jacking system and ensure that any necessary adjustments to the

jacking drawings and calculations based on these field measurements are made accordingly. The Jacking Design Engineer then determine whether any adjustments to the jacking system based on the field measurements will be required. If adjustments to the jacking drawings and calculations are required, the jacking drawings and calculations shall be resubmitted to the Owner's Representative along with a request for review.

The Contractor shall take measurements of the underside of deck or girders at bearing locations prior to jacking the structure as part of this detailed survey and shall be relative to an adjacent fixed point on the substructure which will not move during construction. This shall include a minimum of one local fixed marking on the abutment or pier immediately adjacent to each lift point and bearing location. This marking must be located such that it will not be moved or compromised by the construction operations. Measurements to the underside of each girder and lifting point shall be made relative to the corresponding fixed marking, which shall be recorded accurate to 1mm.

The Contractor shall submit these measurements to the Owner's Representative prior to jacking.

919.05.05.02 Detailed Surveys

Prior to the start of any work related to the jacking operation, the Contractor shall perform a detailed survey to establish geodetic elevations of the existing bridge deck, curb, and crown along deck joints to remain.

The Contractor shall also survey the underside of all girders to be jacked, before jacking, at all four corners of the shoe plates and all four corners of bearing pedestals, before any concrete removal and after the reconstruction, prior to the installation of the new plates or bearing pads.

The survey shall be in addition to the pre-construction survey, and the Contractor shall submit the results to the Owner's Representative prior to jacking.

All structural steel fabrication, delivery and erection shall be in accordance with Section 910. All formwork and falsework shall be in accordance with Section 907.

919.05.05.03 Jacking

919.05.05.03.01 General

The Contractor shall ensure that all existing expansion joints are free to move vertically prior to jacking. Bolts securing the handrail posts to the parapet walls, if present, shall be loosened to permit jacking without damaging the handrails.

Upon completion of the fabrication and installation of the components of the temporary works and prior to jacking, the Jacking Design Engineer shall conduct an inspection to verify that the fabrication and installation of the temporary works has been carried out according to the jacking drawings.

Traffic shall not be allowed on or below the bridge during jacking.

At no point shall the applied jacking loads exceed 200% of the jacking loads determined by the Jacking Design Engineer.

A Certificate of Conformance shall be submitted by the Jacking Design Engineer to the Owner's Representative prior to commencing each jacking operation.

A Certificate of Conformance shall be submitted by the Jacking Design Engineer to the Owner's Representative upon completion of each jacking operation.

919.05.05.03.02 Jacking Operations

The Contractor shall inform the Owner's Representative in writing at least 5 Days prior to the commencement of the jacking operations.

The lifting or lowering of the entire width of the structure shall be carried out in one uniform and synchronized operation using a synchronized jacking system. At no time during the lifting or lowering of the structure shall the elevation difference between any jacking points exceed 1.0 mm as measured at the centre line of the bearings.

Jacking operations shall be carried out under the direct supervision of the Jacking Design Engineer. Prior to the commencement of jacking operations, the accuracy of all transducer read-outs, relative to manual measurements shall be demonstrated to the Owner's Representative.

The lift and/or lowering at each jacking point shall be monitored continuously during the jacking operation from a centralized location by remote sensors or calibrated jacking system. The maximum lift for all jacking points shall be sufficient to decompress the

bearings and stop 3 mm above the final jacking elevation, unless otherwise specified in the Contract Documents.

919.05.05.03.03 Temporary Supports

The bridge superstructure shall not be supported on hydraulic jacks for a period longer than permitted on the jacking drawings and in no case longer than 8 hours.

When the required lift for all jacking points has been achieved and the bearings have been released, temporary supports (such as blocking and shimming) shall be placed to support the bridge. The jacks shall then be lowered in one synchronized operation while maintaining the maximum allowable difference between any two jacking points of 1.0 mm.

The jacking loads shall be transferred to the temporary supports and then the jacks released prior to the commencement of bearing removal and bearing seat reconstruction or bearing replacement work. Unless otherwise specified in the Contract Drawings, temporary supports shall be located at the jacking points.

The superstructure shall not be left on temporary supports for more than 15 Days or as specified in the Contract Documents.

919.05.05.03.04 Post-Jacking Survey

Immediately after the structure has been placed on temporary supports and prior to the bearing seats being reconstructed (if applicable), the underside of the superstructure that will be in contact with the new bearings shall be surveyed. The survey shall include the four corners in contact with the bearings and at least one point in the middle of the bearing area. Data from the survey shall be forwarded to the Owner's Representative to determine if adjustments to the design are required.

919.05.05.03.05 Lowering of the Superstructure

Where jacking of the superstructure is accompanied by rehabilitation of bearing seats, the superstructure may be jacked again for the removal of the temporary supports only after the concrete in the bearing seats has reached the required design strength determined by the Jacking Design Engineer.

The jacks shall then be lowered in one synchronized operation, while maintaining the maximum allowable difference between any two jacking points of 1.0 mm, and the superstructure shall be placed onto the bearings.

919.05.05.03.06 Bearing Contact

The bearings shall have uniform and full contact at top and bottom. The requirements for bearing full contact as specified in Section 912 shall be met. The jacking system shall remain in place until full contact of bearings is achieved.

919.05.05.03.07 Reinstatement of Structure

The bridge deck and girders shall be reinstated to the original elevations unless new elevations are specified in the Contract Documents or as otherwise directed by the Owner's Representative.

A final continuous and smooth riding surface not exceeding 3 mm in difference across all joints, approaches and adjacent spans where bearings are replaced shall be provided. The pre-jacking elevations, proposed new elevations, new bearing thickness, elastic compression of new bearings from the manufacturer, and any other new components installed shall be assessed as part of the Work in meeting this requirement.

The Contractor shall notify the Owner's Representative when any existing conditions or components will affect the ability to meet the above requirement. Anchor holes shall be filled with non-shrink grout finished flush with the surrounding concrete with matching color; no metal components of the jacking system shall be embedded permanently in concrete with less than 40 mm of cover.

All expansion joint and handrail components removed or loosened to facilitate jacking shall be reinstated.

919.05.06 Payment

Measurement for payment shall be a lump sum which will be full compensation for all jacking required to complete the work in the contract documents

Payment at the contract price for "Jacking of Superstructure for Rehabilitation Works" in the Unit Price Table shall include all design work, materials, equipment, surveying, labour, and any other items needed to complete the jacking operations.

The Contractor shall be responsible for the costs to repair any damage caused by error or negligence during the jacking operations.

Payment for the repairs to the structure undertaken during jacking operations shall be paid out as per the appropriate bid item.

Payments for jacking will be made as percentage of lifts completed and will not be paid until the lift is completed, the superstructure is lowered, and all required documentation is received for that lift. For example, if 4 lifts are required, each lift will result in a payment equal to 25% of the lump sum bid price.

919.06 BLAST CLEANING OF EXPOSED REINFORCING STEEL

919.06.01 General

Existing steel reinforcement which has been exposed during rehabilitation work and is to remain in place shall be cleaned using a vapor abrasive blast cleaning method. This operation uses a combination of pressurized water, air, and abrasive media to remove rust from the reinforcing steel.

Cleaned reinforcing steel shall be cleaned to the SSPC-SP7 definition, which is defined as:

"A method in which all oil, grease, dirt, rust scale, loose mill scale, loose rust and loose paint or coatings are removed completely. Tight mill scale and tightly adhered rust, paint and coatings are permitted to remain. However all mill scale and rust must have been exposed to the abrasive blast pattern sufficiently to expose numerous flecks of the underlying metal fairly uniformly distributed over the entire surface."

The equipment/materials used to complete this abrasive cleaning shall meet the following requirements:

- a) Capable of producing a blast pressure of at least 100 psi; and
- b) Abrasive medium shall be angular or sub-angular in shape and have a minimum hardness of 6 MOHS.

Other cleaning methods which are capable of achieving SSPC-SP7 can be submitted for acceptance by the Owner's Representative. Cleaning using only wire brushes or other unpowered hand tools will not be accepted. If alternative methods are accepted but, during the course of work, are found to not consistently meet SSPC-SP7 requirements, the Contractor shall correct the deficiencies and complete the remainder of the work using the vapour abrasive blast cleaning method outlined in this Section. No additional payment will be made for these changes.

Fine particles of cement or sand shall be removed by vacuum or with jets of oil-free compressed air.

All blast cleaned steel shall be painted with a zinc-rich primer as per Section 919.07.

919.06.02 Payment

Payment for blast cleaning shall be incidental to the work item which exposes the reinforcing steel. No additional payment will be made for equipment, materials, or labour required to complete the blast cleaning.

919.07 ZINC RICH PRIMING OF STEEL

919.07.01 General

Zinc rich primer shall be used to protect steel components that have damage to the hot dipped galvanizing layer.

Zinc rich primer shall be applied to any steel reinforcement that is used in rehabilitation projects and existing steel reinforcement which has been exposed during rehabilitation work.

Zinc rich primer is not required to be used in work which utilizes galvanic anodes unless galvanic anodes cannot be installed or as otherwise indicated in the contract documents.

919.07.02 Application of Zinc-Rich Primer

Reinforcing steel to be painted with a zinc rich primer shall be blast cleaned as per Section 919.06.

An approved zinc rich primer is Rust-Anode Primer by Galvatech 2000. Equivalent alternatives can be submitted for approval.

Zinc rich primers shall be a single component product specifically listed for use in rebar coating applications. Primer can be applied via brush or spray applications provided that the entire outer surface of the blast cleaned rebar is completely covered. Temperature of application, number of coats, and drying times shall be as per the manufacturer's directions. Contractor shall conduct the work in a manner that minimizes wastage.

919.07.03 Payment

Payment for the supply and application of primer shall be incidental to the work. No additional payment shall be made for any costs associated with zinc rich primer including, but not limited to, the supply, mixing, and application of primer.

919.08 SUPPLY AND INSTALLATION OF GALVANIC ANODES

919.08.01 General

Contractor shall install protective galvanic anodes within formed concrete repairs as indicated on the contract drawings.

Galvanic anodes shall be installed in concrete repairs when existing reinforcing steel is exposed as indicated on the Contract documents or as directed by the Owner's Representative.

Anodes shall be installed on the far side of the steel reinforcement from the nearest exposed face of concrete.

In locations where anodes are specified for use, but cannot be installed on exposed reinforcing steel, exposed steel shall be painted with a zinc rich primer as per Section 919.07.

919.08.02 Methods and Materials

Exposed reinforcing shall be blast cleaned as per Section 919.06 prior to the installation of galvanic anodes.

Galvanic anodes shall be manufactured by Vector Corrosion Technologies as listed in the Table below. Alternative products shall be submitted for approval and shall meet the following requirements:

- a) be alkali activated;
- b) have similar dimensions to the Vector specified product;
- c) have a similar internal pH as the Vector specified product; and
- d) have an equal or greater internal zinc mass when compared to the Vector specified product.

Galvanic anodes shall be installed as per the manufacturer's instructions.

Anode types shall be as follows:

Anode Type	Zinc Mass	Vector Product
Type 1	40 grams	Galvashield XP Compact
Type 2	60 grams	Galvashield XP
Type 3	100 grams	Galvashield XP2
Type 4	160 grams	Galvashield XP4

919.08.03 Payment

Measurement for payment for the supply and installation of anodes shall be on a per unit basis for each type of anode as per bid under "Supply and Installation of Galvanic Anodes" of the unit price table.

Payment at the contract price for "Supply and Installation of Galvanic Anodes" in the Unit Price Table shall be compensation for all costs associated with the supply and installation of anodes.

919.09 SUPPLY OF PORTLAND CEMENT, BONDING AGENTS AND OTHER SPECIALITY ITEMS

The Contractor is required to supply all cement, bonding agents, and other speciality items to be incorporated in the work.

All cement required shall be in accordance with Section 904.

The supply and use of all speciality items shall conform to manufacturer's instructions and recommendations, applicable governing standards and shall be subject to approval by the Owner's Representative. The Contractor shall also supply the Owner's Representative with copies of the relevant specifications for the above items.

The supply of these materials shall be considered incidental to the performance of the work and no separate payment will be made for the same.

919.10 SUPPLY AND REPLACEMENT OF REINFORCING STEEL DUE TO DAMAGE OR DETERIORATION

The following shall be considered additions or exceptions to Section 905, "Concrete Reinforcement", of the Specifications Book.

All reinforcing steel bars which are damaged by jack hammering or lost 10% of their cross-sectional area due to corrosion shall be replaced with a bar containing an equivalent cross-sectional area of steel to the original bar.

Replacement bars shall be dowelled into sound concrete using an accepted chemical adhesive or lapped along reinforcing steel in good condition. Adhesive embedment lengths shall be as per the manufacture's direction and lap lengths shall be as per the most recent edition of CSA S6 "Canadian Highway Bridge Design Code."

Replacement reinforcing steel shall be painted with a zinc-rich paint as specified in Section 919.07

The extent and exact nature of the work shall be determined by the Owner's Representative in the field.

Payment for replacement of existing deteriorated or damaged steel shall be made in accordance with Section 150 "Force Account Payment" at the unit price bid for "Black Steel Reinforcement", "Galvanized Steel Reinforcement", and "Stainless Steel Reinforcement", whichever is applicable.

Any reinforcing steel, which in the opinion of the Owner's Representative, has been damaged due to negligence of the Contractor, shall not be paid for.

919.11 CONCRETE REPAIRS WITH LATEX MODIFIED CONCRETE

919.11.01 General

Contractor shall remove damaged and deteriorated concrete as shown on the contract drawings and as directed by the Owner's Representative and repair using latex modified concrete

Any dowels or reinforcement which is damaged through negligence and cannot be reused as determined by the Owner's Representative, shall be reinstated at the Contractor's expense.

919.11.02 Removal and Surface Preparation

All existing formwork remaining from previous work along with any accumulated debris on the beam seats shall be removed and disposed of to the Owner's Representative's satisfaction.

Where fresh concrete will meet hardened concrete, a 30 mm deep sawcut shall be used, prior to jack hammering, to obtain straight clean lines and to preclude feather-edging.

The work shall entail the removal of deteriorated concrete and surface preparation. All loose, deteriorated and chloride contaminated concrete shall be removed to a minimum depth of 75 mm beyond original lines or further until sound concrete as determined by the Owner's Representative is encountered.

If any rebar is presently exposed or exposed by concrete removal, then the concrete surrounding the rebar shall be removed to a clear distance of 25 mm beyond the steel. Concrete removal shall be as detailed on the drawings and as directed by the Owner's Representative.

Concrete reinforcement exposed during repairs shall be blast cleaned as per Section 919.06. Fine particles of cement or sand shall be removed by vacuum or with jets of oil-free compressed air.

If specified in the contract documents, galvanic anodes shall be installed where existing reinforcing steel enters into the area to be repaired by latex modified concrete as per Section 919.08. If anodes are not specified, or are specified but cannot be installed, steel shall be painted with zinc-rich primer as per Section 919.07.

919.11.03 Concrete Supply and Placement

The Contractor shall inform the Owner's Representative of areas ready for new concrete or mortar placement at least 48 hours in advance of placement to allow for inspection and measurement. No concrete shall be placed until the prepared surface to be restored is inspected and acceptance in writing is given by the Owner's Representative. Acceptance does not alleviate the Contractor of responsibility for the quality of the final product.

These areas that shall then be restored to the original lines using a latex modified concrete, shall have a 28 day compressive strength of 35 MPa, maximum water:cement ratio of 0.37, 3% to 6% entrained air and maximum size aggregate of 10 mm, or an approved equal repair mortar. The latex emulsion used in the mix shall have a 46% - 49% solids content and the latex content (solids) in the concrete shall be 15 percent by weight of cement. Slump shall be suitable to properly complete the repair and completely fill the void.

All aspects of concrete supply and placement are subject to approval by the Owner's Representative.

The use of superplasticizers to ensure the proper consolidation of concrete will be permitted subject to the Owner's Representative's approval of the concrete mix design, however, the Contractor must demonstrate competence and experience in their use and specific approval must be obtained.

Latex modified concrete shall be mixed by mechanical mixer and placed within twenty minutes of batching.

Concrete for beam seats or bearing pad pedestals shall conform to section 904.04.09.

919.11.04 Curing

All aspects of curing shall be in accordance with Section 904, "Concrete Structures."

919.11.05 Payment

Measurement for payment shall be the volume in place measured in cubic metres of newly-built concrete bounded by lines pre-approved by the Owner's Representative.

The volume shall be the difference between sections of the remaining sound concrete and the face of the new concrete or mortar. The volume shall be calculated by the average end area method. Sections shall be taken at regular intervals of not more than 500 mm apart. Readings at each section shall be taken to best describe the profile of the concrete surface at that particular section. Representatives of the Owner's Representative and the Contractor shall be present when the section readings are taken.

Payment at the contract price for "Concrete Repairs with Latex Modified Concrete" in the Unit Price Table shall be full compensation for all labour, equipment and materials necessary to carry out all the work described herein.

919.12 SUPPLY AND REPLACE BEARING PADS

919.12.01 General

Existing bearing pads shall be replaced as detailed in the Contract Documents.

The work shall entail jacking up the superstructure, repair to concrete plinths, concrete bearing seats, the removal of the existing bearing pads, and the supply and placement of new bearing pads in accordance with Section 912 and as shown on the drawings.

Concrete for beam seats or bearing pad pedestals shall conform to section 904.04.09.

Bearing materials, manufacture, fabrication, and installation shall comply with Section 912.

The jacking procedure shall comply with Section 919.05.

919.12.02 Payment

Both the measurement for and basis of payment shall be in accordance with Section 912 of the Specifications Book.

Jacking of the structure, removal and disposal of the existing bearings, setting the superstructure down on the new bearings and all other labour, equipment-use, materials and services required to successfully complete the work specified shall be paid as per 919.05.

Concrete repairs shall be paid for under the appropriate concrete repair item or as specified in the Contract Documents.

919.13 REPAIR OF CONCRETE DECK BY OVERLAY

919.13.01 General

The Owner's Representative shall designate all areas to be repaired.

Deck repair by overlay shall be specified as one of two types as follows

- a) Complete/Lane Repair by Overlay involves repair across an entire lane or deck width for a length specified by the Owner's Representative.
- b) Partial Repair by Overlay involves repairs to parts of a lane/deck as directed by the Owner's Representative.

919.13.02 Removal

The perimeter of the designated areas shall be saw-cut to a depth of 30 mm, to the level of the rebar if less than 30 mm, or as shown on the drawings. Deteriorated concrete within the area shall be removed.

Concrete shall be removed to a minimum depth of 75mm below the existing deck elevation or until sound concrete is encountered, whichever is greater. If concrete is to be removed by jackhammer, the maximum hammer mass permitted is 13 kg. A higher hammer size up to a maximum of 23 kg may be used if the concrete is extremely hard

provided approval is given by the Owner's Representative. The contractor remains responsible for any damage that occurs as a result of using the larger hammer.

Around reinforcing steel, concrete shall be removed so that there is, at a minimum, a 25mm clear distance between the rebar and remaining concrete,

All tools used in concrete removal shall be pointed to avoid damage to the existing substrate. If any reinforcing steel is exposed before or during concrete removal, the concrete shall be removed to a clear distance of 25mm below the underside of the reinforcement. If any concrete is required to be removed around reinforcing steel, then the maximum hammer size permitted shall be 7 kg. The Contractor shall take care not to damage any existing steel.

During the concrete removal and placing operations, care should be taken to keep contaminants off newly exposed surfaces.

All machinery that might leak oil should be kept off this area of deck when possible. If machinery such as a compressor has to be on this portion of the deck, plastic polyethylene sheets should be placed under it and extreme care should be taken when refuelling. Air compressors must be equipped with a functioning oil trap.

48 hours of curing shall have elapsed prior to scarifying and/or chipping on adjacent concrete within 2 metres of a newly placed overlay.

If a spill does occur, the Contractor at their own expense shall have it wiped up and the contaminated concrete chipped away immediately. The deck shall be kept clean at all times.

The exposed reinforcing steel and the remaining sound concrete must be protected when mixer trucks and other vehicles are routed over them.

919.13.03 Surface Preparation

Prior to restoration of the deck, all exposed reinforcing steel and concrete substrate shall be satisfactory cleaned of debris and rust as per Section 919.06. If the steel is not exposed, the blasting may be waived provided that the surface is cleaned with high pressure water producing a minimum pressure of 13 MPa. Fine particles of concrete, sand or rust shall be removed by vacuum or jets of oil-free compressed air or water. If substrate is wet only high pressure water shall be used. Air compressors must be equipped with a functional oil trap.

If detailed in the contract documents, anodes shall be installed on the exposed reinforcing steel as per Section 919.08. If anodes are not specified, then all exposed rebar shall be painted as per Section 919.07.

Joints shall be located as shown on the plans. If not shown on the plans, joints shall be located as accepted and/or directed by the Owner's Representative. Longitudinal joints shall be located so as to avoid as much as practical their placement in the wheel paths.

At transverse and longitudinal joints, the concrete overlay course previously placed shall be sawed to a straight and vertical edge to a depth of 30mm before the placement of the adjacent course.

At the discretion of the Owner's Representative the concrete overlay thickness may be increased beyond the thickness of the concrete which has been removed so as to maintain the required concrete cover on the reinforcing steel.

No concrete shall be placed until the prepared surface to be restored is inspected and acceptance in writing is given by the Owner's Representative.

In areas where a substantial amount of concrete is removed in excess of 100mm, the excess space shall be filled with concrete as per Section 904 prior to the placement of the overlay.

For a 24-hour period, the substrate including all vertical joints shall be kept damp. Any pools of water which have collected on the concrete shall be blown away with compressed air before application of a bonding agent such as SikaTop Armatec-110 EpoCem manufactured by Sika or an approved equal.

919.13.04 Concrete Supply and Placement

Concrete shall be as per "Superstructure Concrete" in Section 904.

If superplasticizers are used the maximum slump permitted will be 90mm.

Concrete strength shall be a minimum of 25 MPa in 48 hours.

919.13.05 Finishing**919.13.05.01 Complete/Lane Deck Repair by Overlay**

A lane is considered a strip 2 metres wide or larger and the requirements of Section 904 shall apply in addition to those outlined below.

Finishing with a vibrating bridge deck finishing machine is mandatory. The machine and its operator must receive approval prior to its use. The machine shall be of the vibrating Allen screed type designed to consolidate the concrete by high frequency, low amplitude vibration. Vibration frequency shall be variable with positive control and shall be maintained at a frequency which will remove entrapped air without causing undue lateral flow, "pumping" of mortar or reduction of entrained air. The bottom face of the screeds shall not be less than 100mm wide and be metal. The screeds shall be provided with positive control of the vertical position. When more than one lane of overlay is being placed at one time, a moveable work bridge shall be supplied.

Ridges or depressions in the surface shall be removed by using a magnesium bullfloat. Areas around curbs, drains, and expansion joints shall be finished with a magnesium hand float. The surface shall not be overworked.

The Contractor shall supply a 3m straight edge and the surface shall not deviate from the design grade by more than 8mm. Two qualified concrete finishers approved by the Owner's Representative shall be supplied to perform float and broom finishing operations.

All concrete must be broom finished. Exposed concrete bridge decks shall be given a coarse broom finish. Treated or waterproofed bridge decks shall be given a fine broom finish. The concrete deck surface shall be given a broom finish when the concrete has hardened sufficiently. The broom shall be of an approved type. The strokes shall be square across the slab, from edge to edge, with adjacent strokes slightly overlapped, and shall be made by drawing the broom without tearing the concrete but so as to produce regular corrugations not over 3mm in depth for the coarse broom finish. Fine broom finish shall have corrugations not exceeding 1mm in depth. The surface as thus finished shall be free from porous spots, irregularities, depressions and small pockets or rough spots such as may be caused by accidental disturbance during the final brooming of particles of coarse aggregate embedded near the surface. The Owner's Representative may decide to delete the broom finish requirements but tolerances previously stated will still apply.

919.13.05.02 Partial Deck Repair by Overlay

Finishing shall be done using hand tools and bullfloats appropriate to the size of area being repaired.

Concrete shall be vibrated using internal vibrators as required to ensure concrete is properly consolidated

The Contractor shall supply a 3m straight edge and the surface shall not deviate from the design grade by more than 8mm. Two qualified concrete finishers approved by the Owner's Representative shall be supplied to perform float and broom finishing operations.

All concrete must be broom finished. Exposed concrete bridge decks shall be given a coarse broom finish. Treated or waterproofed bridge decks shall be given a fine broom finish. The concrete deck surface shall be given a broom finish when the concrete has hardened sufficiently. The broom shall be of an approved type. The strokes shall be square across the slab, from edge to edge, with adjacent strokes slightly overlapped, and shall be made by drawing the broom without tearing the concrete but so as to produce regular corrugations not over 3mm in depth for the coarse broom finish. Fine broom finish shall have corrugations not exceeding 1mm in depth. The surface as thus finished shall be free from porous spots, irregularities, depressions and small pockets or rough spots such as may be caused by accidental disturbance during the final brooming of particles of coarse aggregate embedded near the surface. The Owner's Representative may decide to delete the broom finish requirements but tolerances previously stated will still apply.

919.13.06 Curing

Immediately after the straight edge requirements have been met, the fresh concrete shall be coated with an evaporation retardant such as "MasterKure ER 50" manufactured by Master Builders Company Ltd, SikaFilm manufactured by Sika, or an approved equivalent to preclude rapid evaporation of the bleed water.

All aspects of curing shall be in accordance with Section 904.05.

All traffic or loads of any kind must be kept off the new concrete for the entire curing period.

919.13.07 Payment

Measurement for payment for repair to the deck shall be per square metre of deck surface repaired.

The mean depth of removal is to be 75mm unless otherwise approved by the Owner's Representative. If the depth removal is approved to be greater than or less than 75mm, the payment shall be prorated. e.g., if the removal of concrete over a certain area is required to be removed to a total average depth of 100mm, then the area for payment will be adjusted by a factor of 1.33. If the depth of removal is approved to be 50mm, then payment will be adjusted by a factor of 0.66. Factors for proration shall be rounded to the nearest two decimal places.

If the Owner's Representative requires that the concrete overlay thickness be increased beyond the thickness of the concrete which has been removed then payment will be made for the additional concrete material as supported by invoices plus 10%. No extra payment will be made for labour, material or equipment associated with placing this additional concrete.

Any crack sealing required due to cracking occurring up to one month from pour date will be considered incidental to the work and no separate payment will be made. Method of sealing must receive prior approval by the Owner's Representative.

Payment at the contract price for "Repair of Concrete Deck by Overlay" shall be considered complete compensation for all labour, equipment, and material necessary to carry out all the work described herein.

Payment for supply and application of the evaporation retardant is considered incidental to the work and no separate payment shall be made for the same.

Formwork required due to breaking through the deck shall be considered incidental to the works.

919.14 REPAIR OF CONCRETE SURFACES**919.14.01 General**

This section applies to all concrete surfaces except for the top surfaces of decks which shall be repaired by overlay as detailed in Section 919.13.

Areas designated for repairs using latex modified concrete shall be as per Section 919.11.

The Owner's Representative shall designate all areas to be repaired. The perimeter of the designated areas shall be saw cut to a depth of 30mm or to the level of the rebar if less than 30 mm or as shown on the Contract Drawings. Deteriorated concrete shall be removed.

Concrete surfaces shall be built out to achieve required depths of clear cover or as indicated in the contract documents.

919.14.02 Removal

All edges of concrete removal shall be saw cut to a depth of 30mm. Concrete shall be removed to a minimum depth of 75mm below original lines or further until sound concrete is encountered. If concrete is to be removed by a jackhammer, the maximum hammer mass permitted is 13 kg. All tools used in concrete removal shall be pointed. If any reinforcing steel is found to be exposed, the concrete shall be removed to a clear distance of 25mm below the underside of the reinforcement. If any concrete is required to be removed around reinforcing steel, then the maximum hammer size permitted shall be 7 kg. The Contractor shall take care not to damage any existing steel. The Owner's Representative shall be the sole judge of the extent of removal required.

919.14.03 Surface Preparation

Prior to restoration of the concrete, all exposed reinforcing steel and concrete substrate shall be satisfactory cleaned of debris and rust as per Section 919.06. If the steel is not exposed, the blasting may be waived provided that the surface is cleaned with high pressure water producing a minimum pressure of 6 MPa. Fine particles of concrete, sand or rust shall be removed by vacuum or jets of oil-free compressed air or water. If substrate is wet only high pressure water shall be used.

If detailed in the contract documents, anodes shall be installed on the exposed reinforcing steel as per Section 919.08. If anodes are not specified, then all exposed rebar shall be painted as per Section 919.07.

The concrete shall be restored as per the drawings. However, no concrete shall be placed until the prepared surface to be restored is inspected and approval in writing is given by the Owner's Representative.

At the discretion of the Owner's Representative the concrete resurfacing thickness may be increased beyond the thickness of the concrete which has been removed so as to

maintain the required concrete cover on the reinforcing steel or to provide a constant curb profile for rail mounting.

Concrete shall be kept damp for a minimum of 24 hours prior to placement of new material. Excess water shall be removed with compressed air before application of a bonding agent such as SikaTop Armatec-110 EpoCem manufactured by Sika or an approved equal.

919.14.04 Supply And Placement Of Concrete

Concrete shall be as per “Superstructure Concrete” or “Substructure Concrete “ in Section 904 as appropriate.

If superplasticizers are used, then the maximum slump shall be 90mm.

Concrete strength shall be at least 20 MPa in 48 hours. 28 Day strength of concrete shall be within ± 5 MPa of the existing concrete unless otherwise specified on the contract documents.

Concrete formwork shall meet the requirements of Section 907.

919.14.05 Finishing

The concrete shall be finished immediately after strike off and before the appearance of bleed water using a magnesium float.

The surface shall not be overworked or sealed. All concrete shall be broom finished. The Contractor shall supply a 3m straight edge and the surface shall not deviate from the design grade by more than 8mm.

Two qualified concrete finishers approved by the Owner’s Representative shall be supplied to perform float and broom finishing.

919.14.06 Curing

Immediately after finishing, the Contractor shall apply the evaporation retardant “MasterKure ER 50” manufactured by Master Builders Company Ltd, SikaFilm manufactured by Sika, or an approved equivalent. The product shall be applied as per manufacturer's instructions and recommendations.

All aspects of curing shall be in accordance with Section 904.05.

919.14.07 Payment

Measurement for payment shall be the volume in place measured in cubic metres of newly-built concrete bounded by lines pre-approved by the Owner's Representative.

Payment at the contract price for "Repair of Concrete Surfaces" in the Unit Price Table shall be considered complete compensation for all labour, equipment, plant and materials used to carry out this work including, but not limited to, demolition, surface preparation, and formwork.

Any crack sealing required due to cracking, occurring up to one month from pour date will be considered incidental to the work and no separate payment will be made. Method of sealing must receive prior approval.

Payment for supply and application of the evaporation retardant is considered incidental to the work and no separate payment shall be made for the same.

Replacement of damaged or deteriorated reinforcing steel shall be paid as per Section 919.10.

New reinforcing steel shall be paid as per Section 905.

919.15 REPLACEMENT OF EXPANSION JOINTS AND ASSOCIATED WORK

The supply and installation of expansion joint systems, parts, and measurement for and basis of payment shall be as outlined in Section 913.

919.16 REMOVAL AND REPLACEMENT OF HANDRAIL AND ANCHOR BLOCKS

The demolition, salvage, supply, and installation of handrails and measurement for and basis of payment shall be as outlined in Section 915.

The demolition, supply, and installation of anchor blocks and measurement for and basis of payment shall be as outlined in Section 904.

919.17 REPLACEMENT OF DECK DRAINS AND ASSOCIATED WORK

The demolition, supply, and installation of deck drains and associated work and measurement for and basis of payment shall be as outlined in Section 918.

919.18 REMOVAL AND DISPOSAL OF OLD ASPHALT FROM STRUCTURES

919.18.01 General

Work under this section shall include the removal of asphalt from the bridge deck, approach slabs, and approaches. The approaches shall be defined as a point 40 metres from the abutment back wall, or as indicated in the Contract Documents.

The approaches shall be saw cut transversely across the roadway as approved by the Owner's Representative. Rounded milling joints shall be cut to produce a vertical face.

The waste disposal area shall be provided by the Contractor and approved by the Owner's Representative. The Contractor shall follow all requirements of Division 8.

The Contractor shall transport the pavement debris to the waste disposal area then place and trim the debris to sightly proportions.

When traffic is maintained on the structure during repair, only one lane of asphalt shall be removed at a time until the concrete in the adjoining lane has been cured in accordance with Section 919.13.

919.18.01.01 Removal of Asphalt from Bridge Deck and Approach Slabs

For complete removal of the asphalt surface over the bridge deck and approach slabs, removal shall be completed using a smooth bladed excavator or backhoe bucket. For removal of asphalt patches, pneumatic hammers having maximum rating of 28 kg and equipped with chisel bits shall be used. Other methods of removal shall be submitted to the Owner's Representative for acceptance.

Asphalt removal from bridge decks and approach slabs shall be full depth and include the removal of any waterproofing systems.

Milling of asphalt from bridge decks and approach slabs shall not be permitted.

Removal of sand, debris from the bridge deck prior to asphalt removal shall be as per Section 919.02.

919.18.01.02 Removal of Pavement on Approaches

Pavement on approaches shall be removed to a depth of 50mm.

For situations where there is less than 50mm of asphalt, asphalt and granulars shall be excavated to a depth of 50mm from within the limits described above, removed, loaded, transported, and disposed of at a site approved by the Owner's Representative.

The cutting of old asphaltic pavement to be excavated shall be as outlined in accordance with Section 510.

919.18.02 Payment

Measurement for payment for the removal and disposal of old asphaltic pavement shall be in cubic metres rounded to one decimal place. Measurements shall be made before the removal and shall be the plan area of the pavement surface multiplied by the measured thickness of asphalt actually removed. Asphalt thickness shall be measured separately on the approaches and structure to account for different thickness. Measurement for payment regarding the cutting of old asphaltic pavement will not be made.

Payment at the contract price for "Removal and Disposal of Old Asphalt From Structures" in the Unit Price Table shall be full compensation for all labour, materials and equipment use for: saw cutting, excavation, removal, loading, and transporting the old asphalt and waste from the job to disposal site, off-loading, placing the debris and trimming to slightly proportions. The obtaining of an approved waste disposal area, the disposal of waterproofing debris, and the excavation, removal, transportation, disposal, and trimming of granular material shall be considered incidental to the work.

919.19 REHABILITATION WITH SHOTCRETE

919.19.01 General

The work will require the complete removal of old concrete, surface preparation, reinforcement, and the application of shotcrete. This work shall be carried out in accordance with ACI 506.2 "Specifications for Shotcrete" except as modified by the requirements of the project.

Nozzlepersons for shotcreting operations shall be certified as per ACI C660 "Shotcrete Nozzleman Certification Program."

919.19.02 Removal of Deteriorated Concrete

Existing concrete shall be removed to a minimum depth of 75mm beyond original lines or as shown on the drawings. If sound concrete is not encountered, then the removal shall continue beyond the specified depth as determined by the Owner's Representative.

Approval to proceed beyond the specified depth must be obtained from the Owner's Representative.

If concrete is to be removed by jackhammer, the maximum hammer mass permitted will be 13 kg. All tools used in concrete removal shall be pointed. If any reinforcing steel is found to be exposed the concrete shall be removed to a clear distance of 25mm beyond the reinforcement. If any concrete is required to be removed around reinforcing steel, then the maximum hammer size permitted shall be 7 kg. The Contractor shall take care not to damage any existing steel. All edges of concrete removal should be tapered to a 1/1 slope, to the full depth of removal, to prevent the entrapment of rebound. The Owner's Representative shall be the sole judge of the extent of removal required.

Reinforcing steel which is found to be deteriorated or damaged shall be removed and replaced as determined by the Owner's Representative.

919.19.03 Surface Preparation

Prior to restoration of the sections, the concrete substrate and all exposed reinforcing steel shall be blasted cleaned as per Section 919.06. Fine particles of concrete and sand shall be removed with oil-free jets of water or compressed air producing a minimum pressure of 6 MPa. If the substrate is wet at the time of cleaning, then it shall be cleaned with high pressure jets of water. Air compressors must be equipped with a functioning oil trap.

If detailed in the contract documents, anodes shall be installed on the exposed reinforcing steel as per Section 919.08. If anodes are not specified, then all exposed rebar shall be painted as per Section 919.07.

The Contractor shall inform the Owner's Representative of areas ready for shooting at least 24 hours in advance of shooting to allow for inspection and measurement.

The concrete substrate shall be kept damp for a minimum of 24 hours prior to shooting. Any excess water shall be removed with compressed air.

919.19.04 Materials

Materials shall comply with latest requirements of the following CSA Standards:

Cement CSA A5.1 Portland Cement - Type 10
Sand CSA A23.1 Section 5.3 Fine Aggregate

Water CSA A23.1 Clause 5.2 Water

The Owner's Representative may require samples of the materials to be used before work starts and periodically during the work to ensure quality and consistency.

919.19.05 Mix Design

The proportion of cement to sand shall be based on dry and loose volumes and shall be one part of cement to not more than 3½ parts of sand. The sand shall contain not less than 3% and not more than 5% moisture by weight. The water content of the final mixture shall be maintained at a practical minimum, but not more than 0.35 kg of water per kg of cement. The moisture content of the sand will be checked from time to time during the course of the work. The shotcrete shall have a minimum compressive strength of 35 MPa at 28 days.

The dry mix process only is deemed to be acceptable as described in ACI 506R "Guide to Shotcrete."

Measurements of sand and cement by shovel, wheelbarrow or similar haphazard means will not be acceptable. No premixed material shall stand for more than 45 minutes prior to delivery through the hose.

919.19.06 Welded Wire Mesh

A welded, plain, WGW steel mesh with a wire spacing of 51mm (2") in each direction of 14 gauge wire shall be attached to the area to be repaired. This mesh shall be placed so that:

- a) the cover to the mesh is 40mm minimum,
- b) the space between the mesh and existing concrete is not less than 10mm. The mesh shall be securely fastened by approved concrete anchors embedded in the concrete on a 450mm square grid with tie wire. Wire mesh shall be lapped 1½ squares in all directions.

919.19.07 Application of Shotcrete

No shotcrete shall be applied at an air temperature lower than 8 degrees Celsius. Prior to the application, a test panel shall be shot to ensure competency of the nozzle person.

The test panel will be approximately 3 square metres, with one half vertical and the other half horizontal, in order for the nozzle person to demonstrate horizontal and overhead

shooting on the same panel unit. Short reinforcing bars and wire mesh will be attached to the test panel as directed by the Owner's Representative. This requirement may be waived if reliable references who attest to the nozzle person's ability are supplied.

Before application of the shotcrete, the cleaned surfaces shall be washed down with water and all loose material such as rebound or over spray removed by a water or air blast. The concrete substrate at the time of shooting should be damp with no free moisture on the surface.

The shotcrete shall be pneumatically applied by a suitable apparatus, operated only by experienced and competent persons who fulfil the requirements as set out in Chapter 5 of ACI 506.66. The Contractor shall submit letters to the Owner's Representative stating the qualifications and experience of the nozzle person and the shotcrete pump operator. It is necessary to obtain acceptance from the Owner's Representative before any nozzle person is employed on the site.

The pressures applied to the materials shall be such that the water is thoroughly mixed with the sand-cement mixture with the water pressure being "0.1 MPa higher". The air and water pressures shall be uniform so that a steady continuous flow of shotcrete is applied with no surging.

The velocity of the shotcrete as it leaves the nozzle shall be maintained uniform at a rate determined for the given job conditions to produce the minimum rebound. The nozzle shall be held perpendicular to the surface at a distance between 600 and 1500mm. The rate of application and the depth of build-up of the shotcrete shall be adjusted to avoid sag or separation. In general, the maximum thickness of a single layer shall be 50mm on vertical surfaces and 25mm on overhead surfaces.

Rebound or accumulated loose material shall be removed from any surface prior to the placing of additional layers of mortar. This rebound or loose material shall not be used. The Contractor shall supply and install ground wires to control thickness and to assist the Owner's Representative's and Contractor's representatives in making the necessary measurements for payment purposes. The maximum thickness of a single vertical or horizontal layer may be increased if sagging or separation can be avoided, with approval from the Owner's Representative.

Forms shall be structurally sufficient and of such design that rebound or accumulated loose material can freely escape or can be readily removed. Shooting strips shall be used wherever necessary to form chamfers, corners, edges, and/or surfaces where it is

necessary to obtain true lines, proper thickness and cover over steel. Cold joints shall be avoided wherever possible.

At the end of any period of placing shotcrete, the material shall be sloped to a thin edge. Before placing an adjacent section, this sloped portion shall be thoroughly cleaned by sandblasting or water blasting and wetting. This shall also apply when placing an additional lift atop a previously placed layer, where the shotcrete has taken final set.

For curing and subsequent testing purposes, the Contractor shall supply the Owner's Representative with test panels of the shotcrete approximately 400mm x 400mm x 100mm in size. The panels shall be supplied whenever required by the Owner's Representative throughout the project, with at least one panel supplied per 8 hour shift.

919.19.08 Finishing

The shotcrete shall have a natural gun finish unless otherwise specified. Any roughness around the edges or over spray shall be removed with a trowel.

919.19.09 Curing

All areas shall be cured first using a fog spray on the surface of the shotcrete.

After the shotcrete has set, curing with wet burlap or wet white non-woven filter fabric as per Specification 904.05.01 with a continuous sprinkling system shall begin and continue for 7 days.

919.19.10 Measurement for Payment

Measurement for payment will be based upon the volume measured in place in cubic metres of newly built shotcrete as per the appropriate item in the Unit Price Table. No payment shall be made for concrete removed or replaced beyond the specified depth or lines, unless the Owner's Representative has instructed the removal or replacement in writing.

If the Owner's Representative has instructed further removal, the following shall apply.

The volume shall be the difference between sections of the remaining concrete and the face of the new shotcrete. The volume shall be calculated by the average end area method. Sections shall be taken at regular intervals of not more than 500mm apart, readings at each section shall be taken to best describe the profile of the concrete surface at that location.

Representatives of the Contractor and the Owner's Representative shall be present when the section readings are taken.

919.19.11 Basis of Payment

Payment at the contract price for "Rehabilitation with Shotcrete" in the Unit Price Table shall represent full compensation for all labour, equipment, and materials necessary to carry out all the work described herein.

919.20 SUPPLY AND PLACE TREMIE CONCRETE

The supply of concrete materials, supply, mixing, transportation, placing and curing of concrete, measurement for and basis of payment shall be as outlined in Section 904.

SECTION 922

ASPHALTIC PAVING OF BRIDGE DECKS AND APPROACHES

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922.06.04 Reduced Payment Criteria for Bridge Deck and Approach Slab Paving

922.01 SCOPE

This specification applies to existing, rehabilitated, and new concrete bridge decks where asphaltic paving is being undertaken. The scope of the work covers the Department's requirements for the asphaltic paving of both treated and waterproofed concrete bridge decks and concrete approach slabs with hot or warm mix asphaltic concrete.

For the paving of rehabilitated bridges and their approaches, the supply, transportation, placing and compaction of selected granular base course shall form part of this work. For treated bridge decks the scope includes supply and application of tack coat.

If paving items are contained in a current or ongoing road contract, the approaches including the approach slab, where appropriate, will be paved under the road contract. Otherwise, granular and paving operations up to 40 metres from the abutment back wall, or as indicated in the Contract Documents, shall be included in the bridge contract.

The thickness of paving on decks and approach slabs shall be in accordance with the contract documents with deductions for being outside tolerance as per the Reduced Payment section.

Construction procedures for treated bridge decks is included in this section. Waterproofing of bridge decks shall be as detailed in Section 914.

Asphalt overlays of bridge decks is not permitted without the written approval of the Bridge Office, Highway Design Division for the specific bridge.

922.02 MATERIALS

922.02.01 Tack Coat for Treated Bridge Decks and Approaches

Tack coat shall conform to Section 320.

922.02.02 Selected Granular Base Course

Selected granular base course shall be of GRANULAR "A" or GRANULAR "B" gradation as required. This material shall conform to Section 315.

922.02.03 Asphaltic Concrete

Asphalt shall be Warm Mix as per Section 337.

Where only one lift of asphalt is to be placed on a bridge deck, it shall conform to the requirements of surface course asphalt.

Where two lifts of asphalt are to be placed, the base course shall conform to the requirements of base course asphalt and the surface course shall conform to the requirements of surface course asphalt unless otherwise accepted in writing by the Owner's Representative.

922.02.04 Joint Sealing Compound

Joint sealing compound shall conform to Section 914.03.06.

922.02.05 Asphaltic Concrete Sealant

Asphaltic concrete sealant shall conform to Section 914.03.07.

922.03 EQUIPMENT

For treated bridge decks only, an accepted pressure distributor may be utilized to place tack coat on the concrete deck. The distributor shall strictly conform to Section 320.03. Over spray along curbs, barriers, and expansion joint dams shall not be permitted. Soil or gravel shall not be tracked onto the bridge unless otherwise accepted by the Owner's Representative stating the conditions of use.

Equipment for applying tack coat on bridge decks to be waterproofed shall be limited to a manually operated spray rod which shall produce a uniform fog-type spray. The lower part of the spray rod shall be bent 30 degrees to form a section of rod parallel to the deck. The pressurized container which holds the tack coat shall be equipped with a thermometer and pressure gauge.

Pavers shall be equipped with heated vibrating screeds and shall be capable of spreading the mixture, without segregation. Vibratory screeds shall be in operation for all paving on bridge deck and approach slabs.

Contractor shall submit a detailed equipment list to the Owner's Representative during the pre-construction/paving meeting.

All plant and equipment required to supply, produce, transport, place, spread and compact granulars shall conform to Section 315 for "Selected Granular Base Course."

All paving equipment and plant shall conform to Section 330; however, oscillatory rollers shall be used for all paving on bridge decks. Vibratory rollers are not permitted.

The equipment used for filling grooves and sealing the surface adjacent to the curbs/barriers and transverse joint filling with sealant at each expansion joint dam shall be accepted by the Owner's Representative.

922.04 CONSTRUCTION PROCEDURES

922.04.01 General

All concrete surfaces shall be cured in accordance with Section 904.05 and be in a dry condition before the work as described herein may commence. Work shall not be performed during rainy or inclement weather or on wet, snow or frost covered surfaces. Tack coat shall be required between each lift of asphalt

For bridge paving which requires multiple lifts, there shall be a minimum of 12 hours after final compaction between lifts. Any paving that commences before this 12 hour period has elapsed shall be subject to rejection by the Department and no payment shall be made for either lifts of asphalt, tack coat, and waterproofing (if applicable).

922.04.02 Surveying Requirements

The Contractor shall survey the approach slabs and bridge deck both before and after paving in accordance with Section 926. The preliminary survey shall not occur until after all deck repairs are complete.

Payment reductions in accordance with Section 922.06.04 shall be applied based on the results of the surveys.

The survey of the prepared bridge deck shall be accepted by the Owner's Representative before paving will be permitted to proceed.

922.04.03 Treated Bridge Decks

Treated bridge deck construction procedures shall apply to all bridge decks where waterproofing is not carried out. The treatment procedure shall be as outlined herein and shall apply to both the deck and the concrete approach slab.

922.04.03.01 Deck Cleaning and Preparation

Removal and disposal of old asphaltic pavement and deck rehabilitation by overlay shall be in accordance with Section 919.

The Contractor shall sweep the bridge deck and approach slabs either manually or with a power broom. This shall be followed by a cleaning of the deck and approach slabs with oil-free compressed air. Tack coat shall be applied in accordance with Section 320.

922.04.03.02 Granulars

Additional granular material shall be produced, supplied, transported, stored, placed, graded and compacted in accordance with Section 315. The width and thickness of the granular base course and granular shoulders shall be in conformance with the bridge approaches and the standard of roadway to which it is being applied as per the typical cross section. The length shall be in accordance with the length of existing pavement removed and disposed of.

Contaminated granular material shall be excavated and disposed of as directed by the Owner's Representative.

Suitable existing selected granular base course shall be reshaped and recompact (100% maximum standard proctor dry density, ASTM D698) to grade as established by the Owner's Representative.

922.04.03.03 Paving

All construction procedures related to paving shall conform to Section 330 except as outlined herein.

In accordance with the Contract Documents, the deck and concrete approach slab grades shall be paved and finished to match the elevations of the concrete expansion joint dams. If the required thickness to reach the expansion joint elevation, for either the approach slab or deck, has a thickness greater than 75 mm it shall be paved in two lifts or as directed by the Owner's Representative. Prior to the commencement of paving the Contractor's surveyor shall profile the prepared surface as per Section 926, (treated or waterproofed) to determine the theoretical asphalt tonnage quantities.

Prior to commencing deck paving operations the Contractor shall cover all deck drains to prevent the entry of asphalt. The covers shall be secured to the deck drains. After breakdown rolling is complete the cover(s) shall be removed from all deck drains and any asphalt that may have infiltrated the drainage system shall be removed. Payment shall be held until the Owner's Representative has verified all asphalt has been removed from the drainage system.

The approaches to the bridge shall be paved first thus avoiding the transfer of foreign particles on the deck.

Paving operations shall proceed downgrade. Paving shall commence as soon as practical after the tack coat has adequately cured and shall not be left for longer than 12 hours.

For paving on bridges with expansion joints, the Contractor shall place a removable filler strip in each expansion joint gap along the full length of each joint. The purpose of the expansion joint filler strip is to prevent the asphalt from entering the flexible expansion joint gap(s). After paving operations are complete, the filler strip shall be removed. The Contractor shall clean the expansion joints and dispose of waste material.

The final profile of the asphalt surface shall be free from bumps and dips and considered a smooth riding surface. Pavement profiles that do not meet these requirements may be rejected at the sole discretion of the Department.

922.04.04 Waterproofed Bridge Decks

922.04.04.01 Waterproofing

The materials and treatment procedure for the concrete surface preparation, surface conditioner for asphaltic membrane, application of asphalt and rubber membranes, protection boards and protection board tack coat, the forming and filling of grooves with joint sealing compound and sealing of the asphaltic surface adjacent to the concrete curbs and barriers shall be as outlined in accordance with Section 914.

Approach slabs shall be waterproofed unless otherwise specified in the contract documents. If waterproofing on the concrete approach slabs is not required as per the contract documents, they shall be treated as per Section 922.04.03.

922.04.04.02 Paving

All construction procedures relating to paving shall be as outlined in Section 922.04.03.03 except as outlined herein.

Paving of the bridge deck should commence as soon as practical after waterproofing operations described in Section 914 have been completed but not more than 24 hours unless otherwise accepted by the Owner's Representative. Care should be taken so as to not damage the installed waterproofing system. Displacement or puncturing of the protection board is not acceptable, and rejection may result in the removal and reapplication of the entire waterproofing system at the Contractor's expense. Turning of vehicles on the bridge deck is prohibited.

Paving operations shall be conducted downgrade in the direction of protection board overlap.

Trucks shall dump part of their load into the paver and then move away so that the paver does not have to push the truck. Care must be taken to remove any material from the deck that may have spilled in front of the paver's tracks or tires so that it does not perforate the membrane.

The speed of the asphalt spreader shall be kept in the range of 3 to 4 metres per minute in order to provide maximum traction.

The temperature of the asphalt placed on the waterproofed bridge deck shall cool to 115 degrees Celsius before breakdown rolling begins with a suitable oscillating roller. At higher temperatures the protection boards may shift under the roller, resulting in cracking the asphalt around the protection board perimeter if breakdown rolling is attempted too soon. Starting and stopping on the newly paved deck is not permitted.

922.04.04.03 Paving Adjacent to Expansion Joint Dams

In accordance with the contract documents the deck and approach slab grades shall match the height of the concrete expansion dams. Should the thickness of asphalt required be greater than 75mm, paving shall be completed in two lifts or as directed by the Owner's Representative.

922.04.05 Forming and Filling Grooves with Joint Sealing Compound

This operation applies to the joints created adjacent to and for the full length of each curb. The work shall be carried out in accordance with Section 914.04.08.

922.04.06 Sealing Surface Of Asphaltic Concrete Adjacent To Curbs and Barriers

This work shall be carried out in accordance with Section 914.04.09.

922.04.07 Transverse Joint Filling

The groove shall be saw cut across the width of the deck as indicated on the contract drawings and against each concrete face at each expansion joint dam.

The application of sealant or compound shall be carried out when the temperature is at or above 5 degrees Celsius and the joint is dry. Traffic shall be kept off the transverse joint until the sealant has set in accordance with the manufacturer's specification.

922.05 MEASUREMENT FOR PAYMENT

922.05.01 Treated Bridge Decks

Measurement for payment for the asphaltic paving of bridge decks, shall be as outlined in Section 330, with the following amendments.

Measurement for payment for the asphaltic paving of bridge decks will be limited to the weighted tonnage of asphalt concrete actually placed on the bridge deck and approach slabs. However payment shall be capped at a maximum of the theoretical tonnage plus 10%. Theoretical tonnage shall be calculated from the profile data as per Section 922.04.02 and the density from the approved mix design. Additionally, asphalt payment shall be subject to the Reduced Payment Criteria as stipulated in Section 922.06.04.

Payment for bridge deck and concrete approach slab sweeping, cleaning, preparation, tack coating, forming and filling grooves with cold applied sealant or joint sealing compound, sealing the surface of asphaltic concrete adjacent to curbs and barriers, transverse joint forming and filling, the provision for deck drain cover plates and expansion joint filler strips shall be deemed incidental to the work.

Measurement for payment for the production, supply, storage, transportation, placing, grading and compaction of selected granular base course material on new construction projects shall be in accordance with Section 315 for Selected Granular Base Course.

Payment for cutting existing asphaltic pavement, removal, transportation and disposal of old asphaltic pavement will be made in accordance with Section 919.18.

922.05.02 Waterproofed Bridge Decks

Measurement for payment for deck waterproofing shall be as detailed in Section 914.

Measurement for payment for the Asphaltic Paving of Bridge Decks shall be as outlined in Section 330 with the following amendments.

Measurement for payment for the asphaltic paving of bridge decks will be limited to the weighted tonnage of asphalt concrete actually placed on the bridge deck and approach slabs. However payment shall be capped at a maximum of the theoretical tonnage plus 10%. Theoretical tonnage shall be calculated from the profile data as per Section 922.04.02 and the density from the approved mix design additionally asphalt payment shall be subject to the Reduced Payment Criteria as stipulated in Section 922.06.04.

Payment for concrete approach slab sweeping, cleaning, preparation, tack coating, forming and filling grooves with joint sealing compound, sealing the surface of asphaltic concrete adjacent to curbs and barriers, transverse joint forming and filling, the provision for deck drain cover plates and expansion joint filler strips shall be deemed incidental to the work.

Measurement for payment for the production, supply, storage, transportation, placing, grading and compaction of selected granular base course material on new construction projects shall be in accordance with Section 315.

922.06 BASIS OF PAYMENT

922.06.01 General

The basis of payment for the asphaltic paving of bridge decks shall be as outlined in Section 330 with the amendments as noted herein.

922.06.02 Treated Bridge Decks

The basis of payment at the contract unit price for the asphaltic paving of bridge decks shall include full compensation for all equipment, labour, materials and plant necessary to prepare, sweep and clean the deck, supply and apply tack coat, pave the bridge deck, concrete approach slabs and approaches on rehabilitation type projects, form and fill grooves with joint sealing compound, sealing the surface of asphaltic concrete adjacent to curbs and barriers and transverse joint forming and filling as described above. Also included is the supply and transportation of all blending sand and asphaltic cement from the source to the mixing plant.

For rehabilitation type projects the excavation, removal, transportation and disposal of contaminated granulars, the reshaping and recompacting of suitable existing granulars shall be considered incidental to the work.

The production, supply, storage, transportation, placing, grading and compaction of selected granular base course shall be paid for separately under Section 315.

The basis of payment for cutting existing asphalt, removal, transportation and disposal of old asphaltic pavement on rehabilitation type projects shall be made in accordance with terms outlined elsewhere in the Section 919.18.

The covering of deck drains and expansion joints to prevent the entry of hot mix asphaltic concrete, the removal of the cover plates and filler strips, clean up and disposal of waste material shall be considered incidental to the work.

922.06.03 Waterproofed Bridge Decks

Payment for the waterproofing of bridge decks and all related work shall be as outlined in Section 914.

The basis of payment at the contract unit price for asphaltic paving of waterproofed bridge decks shall include full compensation for all equipment, labour, materials and plant necessary to prepare, sweep, clean and tack coat the concrete approach slabs, pave the bridge deck and concrete approach slabs. Included is the forming and filling of approach slab grooves with joint sealing compound and sealing the asphaltic surface adjacent to the concrete curbs and barriers, and transverse joint forming and filling as described above. Also included in the basis of payment is the supply and transportation of all blending sand and asphaltic cement from the source to the mixing plant.

The production, supply, storage, transportation, placing, grading and compaction of selected granular base course shall be provided for separately under Section 315.

The covering of deck drains and expansion joints to prevent the entry of hot mix asphaltic concrete, the removal of the cover plates and filler strips, clean up and disposal of waste material shall be considered incidental to the work.

922.06.04 Reduced Payment Criteria for Bridge Deck and Approach Slab Paving

Where deviations occur over 20% of the total bridge deck and/or approach slab area, reductions will apply as per the below table:

Deviation from Specified Thickness	Reductions Applied to Bid Price
Less than 6 mm	None

6 mm to 10 mm	25% reduction
10 mm to 15 mm	50% reduction
15 mm to 20 mm	100% reduction
Greater than 20 mm	Reject and Replace

The Contractor may elect to remove and replace deficient asphalt at their own expense in an attempt to receive full payment for subsequent, properly placed asphalt.

In the event of rejection of the asphalt for either deviations from the asphalt thickness or is not considered a smooth driving surface, the Contractor shall remove and replace the asphalt at their own expense.

If the bridge deck was waterproofed and the asphalt is rejected for any reason, the waterproofing system shall be removed and replaced by the Contractor at their own expense.

Replacement asphalt shall be subject to the same requirements and reductions as stated above up to and including removal and replacement.

If insufficient time remains in the construction season to properly complete asphalt repairs, the rejected asphalt shall remain in place until the following construction season, at which time it shall be removed and replaced at the Contractor's expense. Where asphalt is rejected on waterproofed bridge decks, the Contractor will also be responsible for the removal and replacement of the waterproofing system.

SECTION 926

CONSTRUCTION LAYOUT AND SURVEYING REQUIREMENTS

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926.01 SCOPE

This work consists of furnishing, placing and preserving construction layout stakes, reference marks and other controls in accordance with the Contract Documents for the construction of various elements of the Project by an independent Surveying sub-contractor. The surveyor is to reproduce and submit field notes of all layout work to the Owner's Representative as the work progresses as described below.

926.02 GENERAL

The Contractor is responsible for having the finished Work conform to the lines, grades, elevations, and dimensions shown on the plans.

Unless noted otherwise in the contract documents all dimensional tolerances shall be +/- 5mm. The Department reserves the right to reject the work if this is exceeded, and the Contractor will be responsible for replacing the rejected item and any associated work. The Department reserves the right to hold back any monies that would be required for the

Contractor to return to site and complete the replacement of the rejected work. This applies for all items of the work and is not limited to the items noted for surveying below.

The Surveyor is to use competent personnel and suitable equipment for the layout work required and is to provide a Registered Surveyor in Newfoundland to supervise the operation. The Surveyor is to be specified under Appendix B "Declaration of Sub-Contractors" in the Tender Documents.

The Department will furnish the Contractor with a benchmark from which all site dimensions shall be derived.

The Department may check the control of the work, as established by the Contractor and verified by the Surveyor, at any time as the work progresses. The Contractor will be informed of the results of these checks, but the Department by so doing in no way relieves the Contractor of responsibility for the accuracy of the layout work.

The Contractor shall correct or replace, at the Contractor's own expense, any deficient layout and construction work which may be the result of the inaccuracies in the construction layout operations or the failure to report inaccuracies in the original conditions of the site that would lead to a layout that would not comply with the Contract Documents. If, as a result of these inaccuracies, the Department is required to make further studies, redesign, demolition, reconstruction or any combination of such, all expenses incurred by the Department due to such inaccuracies will be deducted from any monies due to the Contractor.

The Surveyor is to verify the location of the construction elements noted under section 926.03 and any others noted in the Contract Documents and provide copies of field notes and data used in the setting and referencing of stakes and other layout markings. Such provision of information shall be adequate for the Owner's Representative to review the location and elevation of the reference marks. The Surveyor is required to notify the Department and the Contractor in writing or electronic communication within 24 hours discovery of the existence and the magnitude of any discrepancies, greater than what is allowed in the Contract Documents.

926.03 LAYOUT

Layout Marks, Reference Points and Dimensions to confirm any of the following elements that are part of the contract: Line and Grade, Substructure, Bearings, Superstructure, Walls, Bridge Decks.

926.03.01 Line and Grade

The Contractor shall be solely and completely responsible for the accuracy of the line and grade of all features of the work. Any errors or apparent discrepancies found in previous surveys, plans, specifications or supplementary general conditions shall be called to the Owner's Representative's attention immediately for correction or interpretation prior to proceeding with the work.

926.03.02 Substructure

Stake, reference or otherwise identify locations, orientations, and elevations necessary for placement of substructure components, including but not limited to cofferdams, pilings (including batter), drilled shafts, footings, columns, abutments, caps, cross beams, bearing devices, temporary supports or falsework, and excavations and embankments associated with the construction. Verify and document the locations, elevations and spatial relationships with adjacent substructure components. Supply a copy of such documentation to the Owner's Representative for review before the next stage of construction.

926.03.03 Bearings

Verify and document the location, elevations and spatial relationships with adjacent sub- and super-structure. On bridges where prefabricated beams will be used, measure and document span lengths between bearing devices at each beam location as soon as practical. Supply a copy of such documentation to the Owner's Representative for review before the next stage of construction.

926.03.04 Superstructure

Stake, reference or otherwise identify locations, orientations, and elevations necessary for placement of superstructure components including but not limited to beams, girders, diaphragms, earthquake restraints, deck, rails, structure mounted traffic control and illumination devices, and concrete forms, temporary supports and falsework associated with any of the above. Stake grades at each stage of construction. Apply corrections to design grades based on the dynamics of the evolving structure within the tolerance specified by the Engineer of Record. Corrections that may be required depend upon the design of the bridge and the construction methods employed. Contractor is to provide proposed correction details to the Owner's Representative for approval by the Engineer of Record.

926.03.05 Walls

Stake, reference or otherwise identify locations, orientations, and elevations necessary for placement of the wingwalls, MSE walls, or any adjacent walls included in the Project. Walls are to be verified every 3 m in vertical height, and 3 m in the horizontal plane. A copy of such documentation is to be supplied to the Owner's Representative for review before continuation of the wall construction.

926.03.06 Bridge Decks

Bridge Decks shall be surveyed twice. The first survey shall be when the concrete deck is exposed, and all concrete repairs have been complete. The second survey shall be after the surface course of asphalt has been completed and is ready for traffic. The survey shall be on a 1 m by 1 m grid pattern, along the whole width of the bridge, and is to extend 20 m past the bridge in both directions. The survey shall include points along the joints, curbs, wheel paths, and drains.

926.04 UNASSIGNED

926.05 UNASSIGNED

926.06 MEASUREMENT FOR PAYMENT

No measurement for payment will be made.

926.07 BASIS OF PAYMENT

The work described above shall be included in the general cost of the work and no direct payment for "Construction Layout and Surveying Requirements" will be made.

The first 30% of any unit prices associated within the following specification sections within Table 1 will be withheld until the Surveyor has submitted the following field notes showing verification of their respective elements, the magnitude of any differences with the Contract Documents, and the Owner's Representative is satisfied that the layout is correct:

Table 1

Element described above	Specification Section
1. Line and Grade	157 "Mobilization and Demobilization"
2. Substructure	904 "Concrete Structures" and 903 "Piling"
3. Bearings	912 "Bearings"
4. Superstructure	904 "Concrete Structures"
5. Walls	925 "Inextensible Mechanically Stabilized Earth (MSE) Structures" and 904 "Concrete Structures"
6. Bridge Decks	922 "Asphaltic Paving of Bridge Deck and Approaches"

SECTION 320

TACK COAT

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320.01 SCOPE

This section covers the requirements for the supply and application of Tack Coat to pavement surfaces prior to repaving with asphaltic concrete.

320.02 MATERIALS

Tack Coat shall consist of RS-1 emulsified asphalt conforming to ASTM D977 “Standard Specifications for Emulsified Asphalt”, CRS-1 emulsified asphalt conforming to ASTM D2397 “Standard Specifications for Cationic Emulsified Asphalt” or a non-tracking emulsion. The non-tracking emulsion shall be a Clean Bond Coat, or equivalent, applied un-diluted or diluted with a maximum of 40% water and shall meet the requirements of **Table 1** and **Table 2**. Dilution of the emulsion shall be permitted provided the Manufacturer’s dilution process is followed.

Table 1:Non-Tracking Emulsion Requirements (Prior to Dilute)

Test Type	Specification Range	
	Minimum	Maximum
Tests on Emulsions		
SF Viscosity, 25°C, SFs	20	-
Sieve Test, 850µm, %	-	0.1
Residue by Distillation, 260°C, %	55	-
Oil Portion of Dist, %	-	Trace

Test Type	Specification Range	
	Minimum	Maximum
Particle Charge	(-) or (+)	
Test on Residue		
Penetration, 25°C, dmm	20	55
Ash Content,%	-	1.0

Table 2: Non-Tracking Emulsion Requirements (Diluted)

Test Type	Specification Range	
	Minimum	Maximum
Tests on Emulsions		
Residue by Distillation, 260°C, %	39.3	-
Test on Residue		
Penetration, 25°C, dmm	20	55
Ash Content, %	-	1.0

Should the Contractor wish to use an alternate product, then prior written authorization of the Owner's Representative must first be obtained. A written request must be submitted to the Owner's Representative a minimum of 14 days prior to the intended use of the alternate product. The Contractor's request must include reasons for the use of the alternate product, manufacturer's product literature and required application rates as well as applicable Safety Data Sheets.

The Contractor shall collect samples of emulsified asphalt as required by the Owner's Representative. The Owner's Representative may opt to request one random sample per day. Samples shall be taken from the Contractor's storage tank in accordance with ASTM D140 "Standard Practice for Sampling Bituminous Materials". The sample size shall be at least eight litres placed in two separate four litre containers. Collection of the asphalt binder sample shall be witnessed by the Owner's Representative. The sample shall be appropriately identified including the time and date of samples, type of emulsified asphalt, manufacturer, and refiner. If the sample is Clear Bond Coat it should also be recorded if the sample is un-diluted or diluted and the percentage of water added. The sample shall be immediately forwarded to the witnessing Owner's Representative.

It shall be the Department's responsibility to submit emulsified asphalt samples for quality assurance testing.

320.03 EQUIPMENT

Tack Coat shall be applied by means of an approved pressure distributor designed and

equipped so that the emulsion may be applied uniformly at even heat on variable widths at easily determined and controlled application rates under uniform pressure. The distributor shall maintain a constant height of the spray bar as the tank is unloaded.

The distributor shall be equipped with a suitable thermometer with a minimum range from 10°C to 150°C placed to accurately show the temperature of the contents. The approved pressure distributor shall be equipped with a tachometer measuring speeds in meters per minute that is visible to the truck driver so as to maintain constant application speeds at specified rates. The distributor's pump shall be equipped with a tachometer registering liters per minute that is visible to the truck driver. The distributor shall be equipped with a hose and nozzle attachment to be used for spraying by hand, areas inaccessible to the spray bar.

All spray nozzles shall be in good condition and of the same type, orifice size and manufacturer and capable of producing a uniform fog-type spray without streaking. Prior to spraying the Contractor shall check with the Manufacturer to ensure the correct spray nozzles are being utilized. Clogged nozzles shall be removed and cleaned with solvent. The slot of each nozzle shall be set at 30 degrees to the axis of the spray bar and the spray bar shall be set at a height above the existing pavement that will permit the fan from each nozzle to overlap its neighbouring fan by exactly half. The spray bar shall be provided with a positive shut-off to prevent dribbling.

320.04 APPLICATION

Tack Coat shall only be placed on surfaces that are clean and dry, with no threat of precipitation or fog and then only when the atmospheric temperature is at least 10°C. The emulsion shall not be applied to a prepared surface when the surface temperature is less than 2°C.

Should the surface to be treated be dirty, then the Contractor shall thoroughly clean the surface by means of a power broom, or equivalent to ensure bonding of the Tack Coat.

Tack Coat shall only be placed on surfaces that are to the satisfaction of the Owner's Representative.

The Contractor shall plan their work so that no more Tack Coat than is necessary for the days paving operation is applied at one time.

To avoid nuisance and possible property damage to the traveling public, the Contractor shall install portable traffic lights or other means of directing one-way traffic while the Contractor is working on the adjacent part of the road. All other means of traffic control

must be in accordance with Division 7 of the Specifications Book, Temporary Condition Signs and Devices.

The spraying temperature shall be between 20°C and 70°C for RS-1 and Clean Bond Coat, 60°C and 80°C for CRS-1, or the temperature recommended by the manufacturer. This recommendation from the manufacturer shall be provided in writing to the Owner's Representative. Application rates shall meet the requirements of **Table 3**. On pavement which was placed during the previous construction season, the rate of application shall be as directed by the Owner's Representative. This rate will not exceed the rates provided in **Table 3**.

Table 3: Tack Coat Application Rates

Emulsion Type	Application Range
RS-1	0.15 to 0.25 l/m ² *
CRS-1	
Clean Bond Coat Un-diluted	0.15 to 0.25 l/m ² *
Clean Bond Coat diluted (40%)	0.25 to 0.35 l/m ² *

* Or the Department approved application rate as recommended from the Manufacturer.

Tack Coat application shall be visually uniform. Areas of insufficient or non-uniform Tack Coat coverage shall be re-sprayed by the Contractor at no additional cost.

320.05 ENVIRONMENTAL PROVISIONS

The Contractor shall follow the requirements of Section 820, and the procedure for reporting spills.

320.06 CURING

No Hot Mix shall be placed upon the Tack Coat until it has dried to a proper condition of tackiness, as determined by the Owner's Representative. The Contractor is advised that the period required for such drying will depend upon weather conditions; generally it can be 1 hour or more.

Where appropriate, the Contractor shall keep traffic off the Tack Coat to maximize product performance.

320.07 MEASUREMENT FOR PAYMENT

Measurement for payment shall be by means of the horizontal area actually treated with Tack Coat lying within the area designated by the Owner's Representative for

treatment. The area shall be computed in square meters, rounded to one decimal place.

320.08 BASIS OF PAYMENT

Payment at the contract price for Tack Coat shall be compensation in full for all labour, materials and equipment-use to; clean the existing surface, supply and apply the Tack Coat, together with the provision of all required traffic control necessary.

SECTION 330

HOT MIX ASPHALT CONCRETE

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330.01 SCOPE

This specification covers the Department's requirements for the production, placing and compaction of hot mix, hot laid base course, surface course and leveling course asphalt concrete for pavement construction. Sections 330.02 to 330.04 provides aggregate and asphalt pavement specifications and general requirements that are common to both method specification and end product specification projects. Section 330.05 provides specifications specific to method specifications projects, while Section 330.06 details the specifications for end product projects.

Method specification projects are identified as projects where the Department conducts all materials testing and engineering services and the Contractor's payment is based upon tonnage of production for a specific project with some minimal performance criteria applied.

End product specification projects are defined as projects where the Contractor is solely responsible for quality control functions and the Department is responsible for the provision of all quality assurance testing. Payment to the Contractor is also based on tonnage of production with a more extensive bonus/penalty system which in turn is based upon the end product quality assurance test results carried out by the Department.

The base, surface and leveling course asphaltic concrete pavement shall consist of asphaltic cement, coarse and fine mineral aggregate, blending sand, plus mineral filler if required, combined as hereinafter specified, placed and compacted on a prepared base

in conformity with the lines, grades, dimensions and cross sections, as staked by the Owner's Representative.

Any project paving work (base, levelling and surface coarse) with a truck haul time to the laydown location exceeding 90 minutes will require a Warm Mix Asphalt (WMA) mix design in accordance with Section 337, for the entirety of the paving work. The preparation and development of WMA mix design(s), as well as any additional materials and work, will be at the Contractors expense and is considered incidental to the Work. No additional payment will be made for this requirement. The WMA mix design and material shall be primarily utilized as a compaction aid to ensure good inplace compaction densities.

The paving of bridge decks and approach slabs shall be in accordance with Section 922.

330.02 MATERIALS

330.02.01 Mixture Materials

330.02.01.01 Asphalt Cement

Unless otherwise specified, the asphalt cement (binder) shall conform to the latest edition of AASHTO M320, "Standard Specification for Performance Graded Asphalt Binder". The Performance Grade (PG) of asphalt binder shall be PG 58-28 and shall conform to the requirements of Table 1 in the AASHTO Specification. Other PG binders may be specified in individual contracts when warranted. Irrespective of the PG binder specified the ash content of any binder must be less than 0.50% following AASHTO T111 "Standard Method of Test for Mineral Matter or Ash in Asphalt Materials".

All PG asphalt binders will be subject to testing for acceptance prior to and during use. Samples failing to meet the relevant performance grade will require classification and be subject to penalty based on the following formulation.

Temperature Deviation	Price Reduction (% of Asphalt Cement and Mix Prices)
Within 3 degrees of Specified Grade	NA
From 3 degrees to 6 degrees of Specified Grade	10%
From 6 degrees to 9 degrees of Specified Grade	20%
Greater than 9 degrees of Specified Grade	Rejection

Projects with only one asphalt binder sample collected and not meeting the specified grade will have the penalty applied to all the unit prices of the entire quantity of hot mix asphalt

concrete. Projects with multiple samples of asphalt binder will have the penalty applied proportionally to the affected asphalt.

Performance Graded Asphalt Binder with either higher than the maximum or lower than the minimum design temperature will be accepted at full price and no bonus will be applied.

Prior to the start of and throughout pavement production current copies of certification of all project asphalt binders shall be provided to the Department. Safety Data Sheets for the Asphalt cement and any chemical additives must also be submitted.

Any asphalt binder other than the asphalt binder specified must be removed from the Contractor's tanks to prevent contamination. Binders meeting the performance specifications but obtained from different sources cannot be stored in the same tank unless approved by the asphalt suppliers.

330.02.01.01.01 Graded Asphalt Binder (PGAB) Sampling

The Contractor shall collect samples of asphalt cement as required by the Owner's Representative. At least one sample shall be collected per project and per additional 5000 tonnes of hot mix asphalt produced. The Owner's Representative may opt to request one random sample per day. Samples shall be taken from the Contractor's storage tank in accordance with ASTM D140, "Standard Practice for Sampling Bituminous Materials". The sample size shall be at least two litres placed in one litre containers. Collection of the asphalt binder sample shall be witnessed by the Owner's Representative. The sample shall be appropriately identified including the time and date of samples, grade and type of binder, supplier, refinery and the name and proportions of any additives added. The sample shall be immediately forwarded to the witnessing Owner's Representative.

It shall be the Department's responsibility to submit PGAB samples for quality assurance testing.

330.02.01.01.02 Asphalt Binder Temperature Viscosity Chart

The Contractor shall supply a temperature viscosity chart from the manufacturer/supplier for each source or type asphalt binder provided. The Contractor shall also request of the manufacturer/supplier any information or recommendations regarding the production and handling of the mix relating to the asphalt binder. All such requested information shall be available in advance of the pre-paving meeting for discussion and review during the meeting. During the hot mix production the maximum mixing temperature shall be the lower of either; the high end temperature for recommended mixing from the temperature viscosity chart provided by manufacturer/supplier or 165° C.

330.02.01.02 Crushed Aggregate

Additional to all other requirements, the designated aggregates shall be split on the 4.75 mm screen during crushing operations, and each material shall be stockpiled separately such that intermixing of each size and type does not occur.

Where aggregates are processed from pits the naturally occurring fines shall be pre-screened prior to crushing, individually stockpiled and referenced as “naturally occurring fine aggregate”. No more than 5% naturally occurring fine aggregate passing the 4.75 mm screen shall be permitted with the retained naturally occurring screened coarse aggregate prior to crushing. Naturally occurring coarse aggregate must be stockpiled separately prior to crushing. Fine aggregate sizes generated during the crushing phase shall also be individually stockpiled and identified as “crushed fines”. In no cases shall the fine aggregate stockpiles be combined or mixed with other aggregate types. For all mixes the maximum percentage passing the 75 µm sieve is limited to 10 % for naturally occurring fine aggregate.

As an alternative to the above pre-screening on the 4.75mm screen, where aggregates are processed from pits, contractors may choose to pre-screen with a 19 mm or larger screen size provided that no more than 10% of the retained material for aggregate production passes the 19 mm sieve. For this pre-screening operation a completely safe means of accessing the retained material for sampling is to be provided by the Contractor. The Department shall have full control over the time of sampling. If the Contractor chooses to pre-screen with a 19 mm or larger screen size, material passing the 19 mm or larger screen size can not be utilized as a naturally occurring fine aggregate.

330.02.01.02.01 Coarse Aggregate

Coarse Aggregate shall consist of hard, durable crushed stone or crushed gravel particles, reasonably uniform in quality and free from soft or disintegrated pieces. The portion of material retained on the 4.75 mm sieve shall be known as coarse aggregate. The coarse aggregate stockpile shall contain no more than 10% passing the 4.75 mm screen.

Coarse Aggregates shall be washed if necessary to have clean surfaces free from coatings of foreign matter. Coarse Aggregates shall conform to the physical requirements shown in Table 1.

Irrespective of compliance with the physical requirements of Table 1, any coarse aggregate may be accepted or rejected on the basis of past field performance at the discretion of the Department.

TABLE 1
Physical Requirements for Coarse Aggregates

TEST METHOD	TEST NO.	HIGHWAY CLASSIFICATION		
		RAU & RAD-100 RAU & RAD-90, RCU-80		RLU-60, RLU- 70 RLU-80
		SURFACE	BASE	ALL COURSES
LOS ANGELES ABRASION - % MAXIMUM (A)	ASTM C131	35	35	35
ABSORPTION - % MAXIMUM	ASTM C127	1.75	2	2
MAGNESIUM SULPHATE - SOUNDNESS - 5 CYCLES - % MAXIMUM (B)	ASTM C88	12	12	12
PETROGRAPHIC NUMBER - MAXIMUM	CSA A23.2-15A	135	135	135
FREEZE-THAW TEST - 5 CYCLES - % MAXIMUM	CSA A23.2-24A	8	10	10
CRUSHED PARTICLES - % MINIMUM (C)	ASTM D5821	90	90	70
FLAT & ELONGATED PARTICLES - % MAXIMUM (D)	ASTM D 4791	20	20	20
LOSS BY WASHING - % MAXIMUM PASSING (E)	ASTM C117	1.75	1.75	1.75
MICRO DEVAL - % MAXIMUM (EXCLUDING LABRADOR)	ASTM D 6928	18	20	20
MICRO DEVAL - % MAXIMUM (LABRADOR ONLY)	ASTM D 6928	16	16	16
CLAY LUMPS - % MAXIMUM	CSA A23.2-3A	1	1	1
LOW DENSITY PARTICLES - % MAXIMUM	CSA A23.2-4A	1	1	1
FRIABLE OR SLATEY SILTSTONE - % MAXIMUM	CSA A23.2-15A	1	1	1

Notes:

- (A) The ratio of the loss after 100 revolutions to the loss after 500 revolutions shall not exceed 0.265. ***This Physical Property is not applicable to projects in Labrador.***
- (B) Test to be conducted on basalt rich or highly absorptive (> 1.5%) aggregates.

- (C) Pieces having two or more freshly fractured faces only will be considered as crushed material. Pieces with only small chips removed will not be considered as crushed.
- (D) Flat and elongated pieces are those whose greatest dimension exceeds four times their least dimension.
- (E) When only quarried rock is used as a source of coarse aggregate, a maximum of 2 percent passing the 75 µm sieve shall be permitted

The Contractor must meet all the requirements above, while the guidelines below are provided for information purposes. The Contractor is responsible for ensuring the combination of aggregate conforms to the grading requirements of Table 3.

Guidelines for Coarse Aggregate Gradation

Sieve Size	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
22.0 mm	100	100
19.0 mm	100	85-100
12.5 mm	85-100	50-80
9.5 mm	45-75	25-60
4.75 mm	0-10	0-10

330.02.01.02.02 Fine Aggregate

Fine aggregate shall consist of clean, tough, rough-surfaced grains, free from clay, loam and other foreign matter. The fine aggregate stockpile shall contain no more than 20% retained on the 4.75 mm screen.

For RCU-80 and above highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 15% (by dry weight). For RLU-80 and below highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 20% (by dry weight).

For all base and levelling type II course mixes the fine aggregates maximum percentage passing the 75 µm sieve is limited to 8% prior to mix production at the asphalt plant. All surface and levelling type I course mixes the fine aggregates maximum percentage passing the 75 µm sieve is limited to 8 % prior to mix production at the asphalt plant.

Irrespective of compliance with the physical requirements of Tables 2 any fine aggregate may be accepted or rejected on the basis of past field performance at the discretion of the Department.

TABLE 2
Physical Requirements for Fine Aggregates

TEST METHOD	TEST NO.	HIGHWAY CLASSIFICATION		
		RAU & RAD-100, RAU & RAD-90, RCU-80		RLU-60, RLU-70, RLU-80
		SURFACE	BASE	ALL COURSES
MICRO-DEVAL TEST FOR FINE AGGREGATE - % MAXIMUM (EXCLUDING LABRADOR)	ASTM D 7428	18	20	20
MICRO-DEVAL TEST FOR FINE AGGREGATE - % MAXIMUM (LABRADOR ONLY)	ASTM D 7428	17	17	17
PLASTICITY INDEX	ASTM D4318	0	0	0
SAND EQUIVALENT - % MINIMUM	ASTM D 2419	50	50	50
FINE AGGREGATE ANGULARITY - % MINIMUM (A)	ASTM C 1252	45	45	45

Note:

- (A) FAA tests shall be conducted on a representative sample of the total fine aggregate inclusive of all fine aggregate materials as indicated in the mix design including blending sand. The test will be conducted in accordance with Standard Graded Sample Method A

The Contractor must meet all the requirements above, while the guidelines below are provided for information purposes. The Contractor is responsible for ensuring the combination of aggregate conforms to the grading requirements of Table 3. Contractors should also be aware of material breakdown after crusher production testing for the material being utilized and their plants capabilities in producing the mixture in accordance with Table 3.

Guidelines for Fine Aggregate Gradation

Sieve Size	Percent Passing by Dry Weight	
	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
9.5 mm	100	100
4.75 mm	90-100	85-100

Sieve Size	Percent Passing by Dry Weight	
	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
2.00 mm	40-60	40-90
0.425 mm	15-30	20-55
0.150 mm	5-16	10-25
0.075 mm	2-6	2-7

330.02.01.02.03 Crushing Tolerances

After the Contractor starts crushing, an average grading will be determined and tolerances will be applied to subsequent production. The average grading will be determined by averaging at least six washed sieved results on a minimum of 1500 tonnes or 30% of the required amount.

The tolerances for subsequent production are as follows:

Tolerance for Production of Asphalt Aggregate

Aggregate Passing 25.0 mm to 9.5 mm sieves	± 6%
Aggregate Passing 4.75 mm sieve	± 5%
Aggregate Passing 2.00 mm sieve	± 4%
Aggregate Passing 425 µm sieve	± 4%
Aggregate Passing 150 µm sieve	± 3%
Aggregate Passing 75 µm sieve	± 2%

330.02.01.03 Blending Sand

Blending sand shall consist of clean, tough, rough surfaced grains, free from clay, loam, or any other foreign matter. Blending sand is considered as a fine aggregate and thus must meet the requirements of Table 2. Blending sand may be either a naturally occurring screened sand or a manufactured sand added to the mix for the purposes of enhancing mix properties.

The gradation of the blending sand shall be such that when used in the asphalt mix, the resulting mix shall meet the requirements of Tables 2 and 3 of this section. In any case, the blending sand shall have 100% (by dry weight) passing the 9.5 mm sieve and at least 80% (by dry weight) passing the 4.75mm sieve.

For RCU-80 and above highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 15% (by dry weight). For RLU-80 and below highway classifications the maximum

allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 20% (by dry weight).

Blending sand shall be supplied by the Contractor.

330.02.01.04 Mineral Filler

Material Filler shall meet the requirements of ASTM D242 “Standard Specification for Mineral Filler for Bituminous Paving Mixtures”. Where filler is required, it shall be supplied by the Contractor.

330.02.01.05 Anti-Stripping Additive

An approved anti-stripping additive shall be added to all Hot Mix Asphaltic Concrete. The anti-stripping additive may be either an approved liquid anti-stripping additive or hydrated lime ($\text{Ca}(\text{OH})_2$) with each meeting the requirements outlined as follows.

If an approved liquid anti-stripping additive is utilized it shall be added to all Hot Mix Asphaltic Concrete at a minimum application rate of 0.5% of additive by weight of asphalt cement or the recommended percentage as determined from Lottman test results. Approved liquid anti-stripping additives include the following products:

- AD-here LOF 6500 (ARR-MAZ Custom Chemicals)
- AD-here 77-00 (ARR-MAZ Custom Chemicals)
- Evotherm M1 (Meadwestvaco Corp.)
- Evotherm P25 (Meadwestvaco Corp.)
- Redicote C-3082 (Akzo Nobel Chemicals)
- Rediset LQ-1102C (Akzo Nobel Chemicals)
- Warmgrip N1 (ARR-MAZ Custom Chemicals)

All other products must be approved by the Department’s Materials Engineering Division.

Suppliers of the asphalt cement and anti-stripping additives shall provide in writing all mixing requirements and proof of product compatibility. Treated asphalt PG binders must meet the relevant performance grade specifications. Some of the additives noted above at various dosage rates are understood to lower the required mixing and compaction temperature of the asphalt mixture. All information in this regard shall be provided 10 days prior to mix design. This information shall also be made available for proper production, laydown and field testing.

Contractors must inform the Owner's Representative and advise workers of the proper procedures, use of protective clothing and equipment when handling anti-stripping additives. Hot mix asphaltic concrete with liquid anti-strip additives is known to produce strong odours. Contractors must ensure the mix materials are used under proper environmental conditions to guarantee the safety and comfort of construction personnel and the public.

Modified Lottman tests in accordance with AASHTO T 283 "Resistance of Compacted Hot Mix Asphalt (HMA) to Moisture-Induced Damage" shall be completed within the mix design procedure to determine if the minimum application rate is sufficient. An additional rate of anti-strip and/or an alternate anti-stripping additive will be required if one of the following conditions occurs as determined by AASHTO T 283:

- The tensile strength ratio of the hot mix asphalt concrete is less than 0.80
- There is visual evidence of stripping. Acceptable specimens shall have a visual stripping rating of 1.0 or lower based on a scale from 0 to 10 (with 0 being no visual stripping and 10 being fully stripped).
- The results of the mix utilizing neat hot mix asphalt concrete (or with no anti-stripping additive) significantly exceed the performance of the mix with the anti-stripping additive.

In addition to AASHTO T 283 requirements, the asphalt hot mix containing the anti-stripping additive shall pass a boiling water test in accordance with ASTM D3625 "Standard Practice for the Effect of Water on Bituminous-Coated Aggregate Using Boiling Water" within the mix design procedure. The pass criterion for ASTM D 3625 is 95% or greater retained bitumen coating of aggregate.

An additional rate of anti-strip and/or an alternate anti-stripping additive will also be required if the aggregate is known to be prone to stripping from past performance and the minimum application rate was insufficient.

If additional or alternative anti-stripping additives are required, a further 10 working days will be required after the Contractor has advised the Department of its new anti-strip proposal and all materials have been received by the Materials Engineering Division. The Contractor and their supplier shall provide sample materials, any technical information and Manufacturer's recommended application rates.

Modified Lottman Tests (AASHTO T 283) and Boiling Water Tests (ASTM D3625) shall also be conducted on field produced samples of hot mix. All field produced samples shall also pass the requirements above.

Where hydrated lime is used as an anti-strip additive the dosage requirement shall be the greater of one half (1/2) percent by mass of total dry aggregate, or the recommended percentage as determined from the Lottman and Boiling Water test results.

Where hydrated lime is utilized the hydrated lime shall be added to all aggregates by either of the following methods:

- a) Hydrated lime slurry shall be homogeneously mixed with the aggregate in a pug-mill or tumble mixer prior to entering the asphalt plant (the hydrated lime slurry shall be produced at the approximate rate of 1 part lime to 3-4 parts water).
- b) Dry hydrated lime shall be homogeneously mixed with wetted aggregate in a pug-mill or tumble mixer prior to entering the asphalt plant. The wetted aggregate shall have a minimum moisture content of 2% by weight for coarse aggregate and 3% by weight for fine aggregate.

Hydrated lime shall be mixed with the aggregate at least 4 hours prior to entering the asphalt plant. Aggregate treated with hydrated lime shall be used within the same construction season. Treatment shall include both coarse and fine aggregate components of the asphalt aggregate.

Where hydrated lime is to be utilized, the Contractor shall provide the Department with complete information on how the hydrated lime is to be used in the treatment of aggregates. Hot mix produced containing hydrated lime, shall conform to all requirements of the contract before acceptance. The design amount of hydrated lime will be added as a percentage of the total dry aggregate weight.

The cost of all anti-stripping additives (including hydrated lime) will be borne by the Contractor no separate or additional payment will be made.

330.02.01.06 Recycled Asphalt Pavement (RAP)

If the Contractor wishes, the Contractor will be permitted to use Recycled Asphalt Pavement (RAP) in levelling or base course asphalt. The amount of RAP in the pavement mixture will be limited to 20% and subject to the following conditions:

Preparation and submission of a Marshall Asphalt Design Mix Formula (including all supporting documentation) for the asphalt mixture containing RAP, to be submitted to the Materials Engineering Division for review, is the responsibility of the Contractor. The Contractor shall use professional engineering services and a qualified testing laboratory, to assess the aggregate materials, asphalt binders, blending sands, mineral fillers, anti-stripping agents and asphalt cement rejuvenation agents proposed for use and to carry out the design of the asphalt concrete mix. No compensation will be provided to the Contractor, for the production of the asphalt design mix formula for the asphalt mixture containing RAP.

The asphalt mixture containing RAP shall be designed in accordance with the Ontario Ministry of Transportation, Design Procedure for Recycled Hot Mix Asphalt, latest edition, except that all test methods referred to shall be replaced with the appropriate ASTM Standards.

RAP percentages may require the use of asphalt cement rejuvenation agents to ensure the overall asphalt cement characteristics meet the specified Performance Grade. Testing to confirm the rheological characteristics of the combined Performance Graded Asphalt Cement and the RAP asphalt cement shall be supplied as part of the Marshall Mix Design. In all cases the Performance Grade of the asphalt cement shall meet the project specifications.

RAP shall be comprised of asphalt millings and be free of uncoated particles. The use of non-milled reclaimed asphalt pavement is subject to the Department's satisfaction.

The quality of the aggregate in the RAP and the quality of the final pavement mixture shall meet all requirements set forth in this specification.

Where RAP is included in base or levelling course mixes the following process will be followed:

- RAP shall be fractionated into a minimum of three separate sizes.
- The gradation of the individual fractionated RAP shall be:
 - 9.5mm and above
 - 4.75mm to 9.5mm
 - minus 4.75mm
- The asphalt plant must be equipped with a metering system that allows the fractionated RAP to be added in a controlled manner acceptable to the Department.

The Contractor shall provide the Department with a minimum 30 day notice of their intention to use RAP. The Department reserves the right to accept or reject any particular source of RAP, irrespective of its quality.

330.02.02 Composition of Pavement Mixture

330.02.02.01 General Requirements for Pavement Mixture

The mixture shall consist of suitably graded fine and coarse aggregate thoroughly mixed with asphalt cement as specified. Blending sand, filler and chemical additives shall be added when required.

Unless otherwise specified, the aggregates shall be combined in such proportions as to produce a mixture conforming to the grading of Table 3.

TABLE 3
Asphalt Aggregate Mixtures

	Percent Passing by Dry Weight			
Sieve Sizes	Surface Course RCU 80 and above	Surface Course RLU 80 and below	Levelling Course Type I**	Base & Levelling Course Type II***
22.0 mm	100	100	100	100
19.0 mm	100	100	100	90-100
12.5 mm	93-100	93-100	75-100	75-90
9.5 mm	75-92	75-92	63-95	63-84
4.75 mm	45-60	50-65	35-78	35-55
2.00 mm	32-55	32-55	20-55	20-42
0.425 mm	16-25	16-25	10-25	10-25
0.150 mm	5-12	5-12	5-12	5-12
0.075 mm	2-5*	2-5*	2-5*	2-6*
Asphalt Cement (% By Weight of Total Mixture)	4.5 – 7.0	4.5 – 7.0	4.5 – 7.0	4.5 – 7.0

Notes:

- * The dust/effective asphalt ratio of all mixtures shall be between 0.6 and 1.2. Dust is defined as material passing the 0.075 mm sieve. For surface course mixtures on roads of less than 500 vehicles per day the upper gradation limit on the 0.075 mm sieve can be increased to 6% passing by dry weight. Commercial truck traffic will also be considered in identifying the roadways applicable to the modification of the gradation limit on the 0.075 mm sieve. Road sections will be identified in the project

tender documents with the surface courses applicable to the modification of the gradation limit on the 0.075 mm sieve.

- ** Levelling Course Type I to be used where thickness of compacted lift is to be less than or equal to 30 mm.
- *** Levelling Course Type II to be used where thickness of compacted lift is to be greater than 30 mm.

Once a mix design has been designated or recognized by the Materials Engineering Division, the Contractor shall be required to produce a pavement mixture conforming to the following mix control tolerances. The mix must still fall inside the gradation envelopes of Table 3.

Individual Sample Tolerance for Production of Combined HMA

Aggregate Passing 19.0 mm sieve	± 5%
Aggregate Passing 12.5 mm sieve	± 5%
Aggregate Passing 9.5 mm sieve	± 5%
Aggregate Passing 4.75 mm sieve	± 5%
Aggregate Passing 2.00 mm sieve	± 4%
Aggregate Passing 425 µm sieve	± 3%
Aggregate Passing 150 µm sieve	± 2%
Aggregate Passing 75 µm sieve	± 1%

330.02.02.02 Physical Requirements for Mixture

The aggregates and the asphalt cement shall be mixed in such proportions as to satisfy the criteria contained in Table 4. These criteria are based on the Standard Marshall Test Procedures and using a compactive effort of 75 blows on each face of the specimen.

All test procedures used shall be the latest versions of ASTM or AASHTO standards, except where indicated.

TABLE 4
Physical Requirements for Asphaltic Concrete Mixture (All Courses)

	Minimum	Maximum
MARSHALL STABILITY N. AT 60°C		
(I) FOR HIGHWAY CLASSIFICATIONS RLU-60, RLU-70, RLU-80	5 400	---
(II) FOR HIGHWAY CLASSIFICATIONS RAU & RAD-100, RAU & RAD-90, RCU-80	8 000	---
MARSHALL FLOW INDEX MM	2.5	4.25

	Minimum	Maximum
% AIR VOIDS (A) (I) FOR ALL HIGHWAY CLASSIFICATIONS RLU-60, RLU-70, RLU-80, RAU & RAD-100, RAU & RAD-90, RCU-80	2.5	4.5
% VOIDS IN COMPACTED MINERAL AGGREGATES (I) LEVELING & BASE COURSE (II) SURFACE COURSE	14.0 15.0	--- ---
MODIFIED LOTMAN AASHTO T283 - TENSILE STRENGTH RATIO (PLUS VISUAL) 330.02.01.05	0.8	---
% RETAINED COATING OF AGGREGATE - BOILING WATER TEST ASTM D3625	95	---
MOISTURE CONTENT OF HOT MIX ASPHALT BY OVEN METHOD, AASHTO T329 AS PERCENT OF HMA	---	0.3

330.03 USE OF PITS, QUARRIES AND STOCKPILES

The use of pits and quarries for the production of the aggregates, together with the requirements for the stockpiling of the aggregates shall be in compliance with the provisions of Section 310.

330.04 ENVIRONMENTAL PROVISIONS

Pits and quarries shall be stripped, worked and at the completion of the work restored, all in compliance with the provisions of Section 310.

Out of specification asphalt shall be disposed of in accordance with Division 8.

330.04.01 Environmental Requirements for Asphalt Mixing Plants

Any asphalt plant being operated within a radius of 1.5 km of a regularly used building, either residential or commercial, or an organized recreational area, must control their dust emissions such that compliance is obtained with the air standards enforced by the Department of Environment, Climate Change and Municipalities. In order to comply, the efficient operations of either a bag house dust collector or a water scrubber on the dryer emissions would be necessary.

These controls may be waived in an area where there are three or less regularly used buildings if the Contractor makes satisfactory arrangements with the owners and occupiers of all buildings. Under such circumstances, a written agreement between the

Contractor and owner/occupier, signed by both parties, must be submitted to both the Department of Transportation and Infrastructure and the Department of Environment, Climate Change and Municipalities.

Contractors are referred to the "Environmental Code of Practice for Asphalt Plant Operations" prepared by the Department of Environment, Climate Change and Municipalities (Latest Edition). The link can be found here: <https://www.gov.nl.ca/dgsnl/licenses/env-protection/asphalt/>. Hydrocarbon storage shall be in accordance with Section 820. The Contractor shall follow the procedure for spill reporting.

All sections of the asphalt plant which could contribute to air or water pollution must be maintained in efficient operating condition.

Where a water scrubber is used, the scrubber effluent must be given retention time in suitably sized artificial settling ponds. Such ponds must be sufficiently impermeable to enable seepage water to meet the Environment Control (water and sewage) Regulations, 2003.

All storage tanks for fuel must be drained within one week after production has been completed. Fuel oil must not remain in tanks over the winter.

330.04.02 Environmental Approval

Contractors wishing to set up an asphalt mixing plant at a site must first obtain environmental approval before proceeding.

Contractors must apply in writing to the Digital Government and Service NL for a Ministerial Approval as required under the Environmental Protection Act SNL 2002. The following information must be supplied with the application:

1. Location of the proposed site and description of its surroundings within a radius of 1.5 km.
2. Soil type and particulars of protective dyking near storage tanks.
3. Sieve analysis of cold feed aggregate or at least the percentage of minus 75 ~ sieve.
4. Description of the plant and associated equipment to reduce air contaminants (plans if available).
5. Capacity of plant in tonnes per hour.
6. Source of heat (and sulphur content if it is oil).

7. Rate of air flow through the dryer at operating conditions and diameter of the dryer.
8. Relevant operation details of air pollution control equipment (ie. Pressure drop across cyclones or scrubbers).
9. Air to cloth ratio if baghouse filter is used.
10. Height of exhaust stacks.
11. Temperature and velocity of exhaust gases from dryer and/or stack.
12. Expected dates of operation of the plant including:
 - Proposed starting date
 - hours in operation per day
 - proposed completion date
 - total days in operation
13. If using a water scrubber, the rate of use of water (l/s), the number and dimensions of settling ponds and the method of lining of the ponds.

For inspection purposes, the Contractor shall notify the Department of Environment, Climate Change and Municipalities at least 5 days prior to site closure.

Should the Contractor wish to leave their equipment at the site beyond the completion of their work for the Department, or beyond the proposed completion date as stated in their application, the Contractor shall state in writing their commitment to undertake the cleanup and restoration requirements of this section and those of Section 310, and also state the updated proposed completion date. Copies of this letter shall be sent to both the Department of Transportation and Infrastructure and the Department of Environment, Climate Change and Municipalities.

330.05 METHOD SPECIFICATION FOR ASPHALT CONCRETE MIX - HOT PLACED

330.05.01 General

This item consists of supplying crushed aggregates, sand and mineral filler, anti-stripping additive, asphalt binder, with the production, loading, hauling, placing and compaction of hot mix asphalt concrete. The limits of placement, application rates and the asphalt concrete mixture type shall be as stated in the contract specifications. Production and Placement of hot mix asphalt will be subjected to various quality tests.

All aspects of the production and placement of the Hot Mix Asphalt will be supervised by the Department. All appropriate inspection and testing will be determined by the Department.

The mixing period and temperature shall be such as to produce a uniform mixture in which all the particles are thoroughly coated, and the moisture content of the material as it leaves the mixer must be reduced to 0.3% or less. Facilities for sampling and observing the mix shall be provided.

The temperature of the mix immediately after mixing shall not exceed the lower of either; the high end temperature for recommended mixing from the temperature viscosity chart provided by manufacturer/supplier or 165° C.

Quality control tests shall be performed, by the Department, on random samples taken either at the production site or lay-down site.

Asphalt concrete is defined as a carefully controlled mixture of asphalt cement and mineral aggregate thoroughly mixed to be free from segregation and contamination and then placed and compacted to a uniform density and smooth finish. The following sections describe the requirements applicable to quality control and quality assurance, manufacturing, transportation, placing, compaction, finishing and measurement and payment of asphalt concrete. The requirements of specific materials for the asphalt concrete shall be in accordance with Section 330.02.

330.05.02 Testing and inspection

The Contractor shall provide a field laboratory in accordance with the provisions of Section 111. The field laboratory shall be provided at the site of the asphalt mixing plant.

The requirements for pit and quarry sampling and processed material sampling and approval as set forth in Section 310 shall apply to this section. The Contractor shall send to the Department's Main Laboratory in St. John's, samples of the proposed paving aggregate for testing as to quality, mix design and approval by the Materials Engineering Division. No samples will be accepted for mix design until 100% of the total aggregate required (including filler and blending sand) has been crushed, tested and properly stockpiled.

The Contractor shall be notified of the designated composition of the mixture not later than 10 working days after the day on which all necessary samples have been received at the Department's Laboratory and shall not commence mix production before such notification.

330.05.02.01 Designation of Mixture

The Materials Engineering Division shall specify a job mixture within the required limits of grading and conforming to the Marshall Test requirements given in Table 4 of Section 330.02.02 for each mix selected. The Materials Engineering Division may select one or more mix proportions to suit job conditions. The actual grading of the job mix, when plotted, shall so range from course through fine sizes that it will approximate the shape of the plotted average grading for corresponding mix given in Table 3 Section 330.02.02. For that portion of the aggregate passing the 4.75 mm sieve, gradients which range from the maximum of one sieve to the minimum of the next larger sieve, shall not be permitted.

330.05.02.02 Unauthorized Tampering with Plant Settings and Materials

Any person employed by the Contractor, who, in the opinion of the Owner's Representative, alters or causes to be altered, any settings or screens of an asphalt plant after it has been calibrated, or who adds or causes to be added, any unapproved material to a stockpile or aggregate, or in any way hampers the production of the mix as designed shall, at the written request of the Owner's Representative, be immediately removed from the project and shall not be employed in the work.

330.05.03 Equipment

All manufacturing of asphalt concrete shall be conducted using batch, drum or continuous mixing plants. All plants shall conform to the requirements of ASTM D995 "Standard Specification for Mixing Plants for Hot-Mixed, Hot Laid Bituminous Paving Mixtures" and as specified herein.

330.05.03.01 Mixing Plants

330.05.03.01.01 General Requirements and Equipment for Storage of Asphalt Cement

Tanks for storage of asphalt cement shall be capable of heating and maintaining the temperature of the asphalt cement at a constant temperature range between 120°C and 160°C. The actual working temperature shall not vary by more than $\pm 5^\circ\text{C}$ when the amount of asphalt cement added to the mixture is measured volumetrically. Heating shall be by steam or oil coils, electricity, or other means such that no flame shall contact the heating tank.

A circulating system for the asphalt cement shall be of adequate capacity to thoroughly mix the asphalt cement and provide continuous circulation between the storage tank and proportioning units during the entire operation period. All pipe lines and fittings shall be steam or oil jacketed and properly insulated to prevent heat loss.

Storage tank capacity shall be such as to ensure continuous operation of the plant and uniform temperature of the asphalt cement when it is introduced into the mixing unit. Tanks shall be accessible for measuring the volume of asphalt cement at any time.

A sampling outlet shall be provided in the asphalt cement feed lines connecting the plant storage tanks to the weighing system or spray bar. The outlet shall consist of a valve installed in such a manner that samples may be withdrawn from the line slowly at any time during plant operation. The sampling outlet shall be installed between the pump and the return line discharge in a location that is readily accessible and free from obstruction. A drainage receptacle shall be provided for flushing the outlet prior to sampling.

330.05.03.01.02 Cold Bins

All plant types shall be equipped with operational cold bins capable of being calibrated. Cold bins shall be divided into not less than three compartments, each to be equipped with individual gate controls, so as to enable accurate and positive proportioning of each aggregate size. Partitions of sufficient height to eliminate intermingling of the aggregate shall be provided between adjoining bins, if the bins are being fed with a front-end loader the width of each bin must be at least 500 mm wider than the width of the loader bucket.

330.05.03.01.03 Dryer

A rotary dryer, of satisfactory design, for drying and heating the aggregate shall be provided. Dryer units shall be of sufficient capacity to uniformly heat the aggregate and reduce the moisture content to the specified level. Upon request the asphalt Contractor shall make available to the Owner's Representative the following information:

- a) The specified rate of production in tonnes per hour versus aggregate moisture content.
- b) Within drum plants the specified location and length of the of the asphalt cement delivery pipe.

330.05.03.01.04 Screens

Plant screens on batch and continuous mix plants shall have adequate capacity and size range to properly separate all of the aggregate into the sizes required for proportioning so that they may be recombined consistently within the specification limits.

All screens shall have square openings and be free any rips or holes. Screen decks shall be stacked in such a manner that cross contamination of aggregates is prevented.

330.05.03.01.05 Hot Aggregate Storage Bins

Batch and continuous mix plants shall have hot bin storage of sufficient capacity to ensure uniform and continuous operation. Bins shall be divided into compartments arranged to ensure separate and adequate storage of appropriate fractions of the aggregate. Each compartment shall be provided with an overflow pipe of such size and at such a location to prevent any backing up of material into other bins or into contact with the screen. Adequate and convenient facilities shall be provided for obtaining aggregate samples from each hot bin.

330.05.03.01.06 Asphalt Cement Control Unit

Satisfactory means, either by weight, metering or volumetric measurements, shall be provided to obtain the proper amount of asphalt cement. All measuring devices shall prove accurate to within $\pm 2.0\%$ when tested for accuracy.

330.05.03.01.07 Thermometric Equipment

An armoured thermometer of suitable range shall be fixed in the asphalt cement feed line at a convenient location near the discharge of the mixer unit. The plant shall be further equipped with approved recording thermometers, pyrometers, or other approved recording thermometric instruments at the discharge chute of the dryer and in the hot fines bin to register and record automatically the temperature of the heated aggregate.

330.05.03.01.08 Dust Collectors

Dust collectors shall be provided where required under the provisions of Section 330.04.01. Provision shall be made to waste the material so collected, or to return all or any part uniformly to the aggregate mixture.

330.05.03.01.09 Safety Requirements

Adequate and safe stairways to the mixer platform shall be provided, and guarded ladders to other plant units shall be located where requested.

All gears, pulleys, chains, sprockets, and other dangerous moving parts shall be thoroughly protected. Ample unobstructed passage shall be maintained at all times in and around the truck-loading space. This space shall be kept free of drippings from the mixing platform. A ladder or platform shall be located at the truck-loading space to permit easy and safe inspection of the mixture as it is delivered into the trucks.

A suitable sampling platform with stairs or ramp access including railing shall be provided for sampling material in the truck bed. The height of the platform shall be adequate to prevent the personnel from having to climb up on to the truck in order to obtain a sample. The platform shall be constructed such that the truck is able to park on either side. If it is not possible for the platform to be constructed in such a manner, then two separate platforms shall be provided or the truck will be required to reverse direction so that a sample may be obtained. Overhead protection shall be provided where necessary.

330.05.03.01.10 Capacity

Unless indicated otherwise asphalt mixing plants must have a minimum rated capacity of 120 tonnes per hour delivered to the spreader, with a production history to support this requirement.

330.05.03.02 Special Requirements for Batching Plants

330.05.03.02.01 Weigh Box or Hopper

The equipment shall include a means for weighing each bin size of aggregate into a weigh box or hopper, suspended on scales, and ample in size to hold a full batch without running over. The weigh box or hopper shall be supported on fulcrums and knife edges that will not easily be thrown out of alignment or adjustment. Gates both on the bins and the hopper shall be constructed to prevent leakage when closed.

330.05.03.02.02 Plant Scales

Scales shall be of the dial or digital type and of a standard make and design. Scales for weighing aggregates shall be accurate and sensitive to 0.5% of the maximum loading required. All scales shall provide a positive means of balancing the tare weight of the hopper or asphalt bucket. After each plant set-up and prior to batching any materials, and whenever deemed necessary by the Owner's Representative, the Contractor shall, at their own expense, have the plant scales tested to the satisfaction of the Owner's Representative.

330.05.03.02.03 Mixer Unit

The plant shall include a batch mixer of an approved twin shaft pug mill type capable of producing a uniform mixture within the permissible job mix tolerances. The clearance between the mixer blades and liner plates shall not exceed 20 mm. The mixer shall be constructed to prevent leakage of the contents. Mixer discharge shall not cause appreciable segregation. The mixer shall be fitted with separate dry and wet mixing cycle timers and locking devices so that asphalt cement cannot be discharged and the pug mill gate cannot be opened until the desired mixing times have elapsed.

330.05.03.03 Special Requirements for Continuous Mixer Plants

330.05.03.03.01 Gradation Control Unit

The plant shall include means for accurately proportioning by volumetric measurement the aggregate discharged from each hot bin. The unit shall include a feeder, mounted under the compartment bins. Each bin shall have an accurately controlled individual gate to form an orifice for volumetrically measuring the material drawn from each respective bin compartment. The orifice shall be rectangular with dimension adjustable by positive mechanical means. Indicators shall be provided on each gate to show the gate opening in millimetres. Each gate will be provided with a lock.

330.05.03.03.02 Weight Calibration of Material Feed

The plant shall include a means for calibration of gate openings by weighted test samples. The equipment shall include a method of obtaining hot aggregates from the bins fully representative of the flow from the specific gate openings. It shall also include platform scales capable of accurately weighing test samples of aggregates and asphalt cement.

All calibration equipment, including revolution counters, shall be kept in good operating order at all times and shall be available whenever required.

330.05.03.03.03 Synchronization of Aggregate and Asphalt Feed

In order to ensure the correct flow of aggregate from the bins and the flow of asphalt from the meter or other proportioning sources, satisfactory means shall be provided to afford positive interlocking control between the flow of aggregate from the bins and the flow of asphalt from the meter or other proportioning sources. In order to ensure the correct flow of asphalt cement to the mixer at all times, the plant shall be equipped with means of maintaining a constant head of asphalt cement to the metering device. A satisfactory pressure gauge shall be installed on the asphalt line between the metering device and the spray bar.

330.05.03.03.04 Mixer Unit

The plant shall include a continuous mixer of an approved twin shaft pug mill type that shall be capable of producing a uniform mixture within the specified tolerances. The clearance of the blades from the inner surfaces of the pug mill liners shall not exceed 20 mm. The paddles shall be of a type adjustable for angular position on the shafts and reversible to retard the flow of the mixture. The mixer shall be equipped with an adjustable dam gate at the discharge end to control the level of the material. The mixer

shall carry a manufacturer's plate giving the net volumetric contents of the mixer at several heights.

Unless otherwise required, determination of mixing time shall be by weight method under the following formula. The weights shall be determined for the job by tests made by the Owner's Representative.

Mixing time in seconds = Pug mill capacity in kg / Pug mill output in kg/s

330.05.03.03.05 Discharge Hopper

All continuous mix plants shall be equipped with a controlled discharge storage hopper. The minimum capacity of the hopper in tonnes shall be equal to 1.5% of the hourly production rate of the plant but shall not be less than one tonne. This hopper shall be kept in satisfactory operating condition at all times and operated to prevent segregation of the mixture.

330.05.03.03.06 Material Level Indicators

Material level indicators shall be installed in each hot aggregate bin at the one-third full level and at the two-thirds full level and they shall be connected to remote high-low indicator lights mounted at the operator's station. Operation of the mixer shall not be permitted when the low-level indicator shows any bin to be less than one-third full.

330.05.03.04 Special Requirements for Drum Mixer Plants

330.05.03.04.01 Aggregate Feed

Aggregates shall be fed to the dryer drum by means of a multi bin (minimum 3 or 4 bins) cold feed unit and shall be blended to meet the design mix proportions by adjustment of variable speed feed belts and gates on each bin. There shall be no overflow from one bin to another.

A reliable moisture probe shall be installed in the fine aggregate cold feed bin with a meter mounted in the plant control panel.

The total flow of aggregate shall be metered by an electronic weigh belt system with an indicator that can be monitored by the plant operator and which is interlocked with a variable speed asphalt pump so that the proportions of aggregate and asphalt cement entering the mixer remain constant.

Cold feed calibration and asphalt cement pump calibration shall be performed at the start of each contract and whenever deemed necessary by the Owner's Representative. The calibration shall be done in the presence of the plant inspector. The cold feed shall be recalibrated whenever the weighing conveyor is moved.

A positive interlocked automatic shut off shall be provided so that the plant shuts down automatically if there is any disruption in the flow of aggregate or asphalt cement.

A vibrating screen of adequate capacity shall be provided to remove oversize from the combined cold feed.

An aggregate sampling device shall be provided which will divert a representative combined aggregate sample of adequate size into a container or hopper for the purposes of gradation testing. The sampling device shall be located after the cold feed aggregates have passed through the vibrating screen and prior to mixing with asphalt cement.

330.05.03.04.02 Asphalt Cement Feed

The asphalt cement feed system shall be equipped with a calibration system which will enable approximately 200 litres of asphalt cement to be by-passed into a container which can be weighed. Adequate scales shall be provided by the Contractor.

A temperature gauge, showing the temperature of the asphalt cement at the metering pump, shall be provided in the control trailer. The gauge shall be graduated to cover at least the range 100°C to 200°C with increments of not more than 2.5°C.

A temperature compensating system shall be installed in the asphalt cement metering system designed to provide a volume of asphalt cement which will be constant when referenced to 15°C regardless of variations in the temperature of the asphalt cement from the storage tank.

330.05.03.04.03 Asphalt Cement Mixing

The heating, coating and mixing of the asphalt mix shall be accomplished in an approved parallel flow dryer-mixer. The aggregate and asphalt shall enter the drum at the burner end and travel parallel to the flame and exhaust gas stream. Heating shall be controlled to prevent fracture of the aggregate or excessive oxidization of the asphalt. The system shall be equipped with automatic burner controls and shall provide for continuous temperature sensing of the bituminous mixture of discharge, with a printing recorder that can be monitored by the plant operator. The printed record of mix temperatures shall be available to the Department for inspection.

The method used to transfer the mixture from the drum mixer to the haulage units shall be designed, constructed and operated so that there shall be no segregation of, or damage to, the mix.

A system for wasting unacceptable asphalt aggregate mixture shall be provided between the drum mixer discharge and holding bin.

The plant shall not be operated below 50% of the rated capacity of the belt scale.

330.05.04 Truck Weigh Scales

The scales shall be in accordance with Section 501.

330.05.05 Haulage Equipment

Trucks for hauling asphaltic mix shall be of the metal box type and their use shall be authorized by the Owner's Representative. The metal box shall be treated with an approved release agent and be in smooth condition with no rust scales or foreign materials. Where ever possible trucks shall be loaded such that the front and back of the truck body are loaded prior to placement of asphalt in the middle section.

Vehicles shall be equipped with tarpaulins of water repellent material (no open mesh types) of sufficient size to completely cover the truck box and overhang the box on all sides by a minimum of 150 mm. The tarpaulins shall have enough tie-down points so that they can be properly secured, and shall be in good condition and be free of holes and tears. They shall be securely tied down as an effective barrier against rain infiltration and air flow over the HMA mixture.

Tarpaulins are to be used at all times for protection of the load of Hot Mix Asphalt. Tarpaulins shall be rolled back to uncover the hot mix for inspection immediately prior to dumping the load into the paver. Trucks will stop ahead of the paver and allow the paver to smoothly pick up the truck.

330.05.06 Spreading Equipment

Mechanical self-powered pavers shall be used which are capable of spreading the mixture true to line, grade and crown as specified and as directed by the Owner's Representative.

Pavers shall be equipped with hoppers and reversing distributing screws to place the mixture evenly in front of the screed. The distributor screws shall always be kept 1/3 to 2/3 covered.

Asphalt concrete shall be dumped into the middle of the paver hopper. The hopper shall not be emptied to less than 25% of its capacity when moving except when the spreading operation is suspended. All cold or segregated asphalt must be shovelled out and wasted. In no case shall cold asphalt be allowed in the pavement mix.

Pavers shall be equipped with heated vibrating screeds and shall be capable of spreading the mixture, without segregation, in thickness of from 10 mm to 200 mm and in widths of from 2500 mm to the greater of the maximum width of the project travel lane and paved shoulder combined or 4000 mm, in increments of 150 mm.

The Contractor shall provide on each paver a 3 m straight edge with a level recessed in its upper surface parallel to the lower face and capable of detecting a variation from the horizontal of 3 mm in 1000 mm.

The term "screed" shall mean any strike-off device operated by cutting, crowding, or other practical action which is effective on the mixture and which produces a finished surface of the evenness and texture required. The screed shall have an approved vibratory application and be adjustable as to level and crown and shall be heated in an approved manner.

Pavers shall be equipped with automatic screed controls, as recommended by the paver manufacturer, for the control of longitudinal grade and transverse slope. The longitudinal grade control shall be equipped to operate from a joint matching shoe except when a spreader with ski is required by the specifications. Longitudinal joints shall be matched by the spreader with ski where ever a spreader with ski is required or specified. The transverse slope control shall be capable of operating from either side of the paver.

A paver with a ski shall be required for paving base course and surface course on the Trans Canada Highway. On other projects, a paver with a ski will also be required where the contract item description includes the phrase "Spreader with Ski".

The paver with a ski shall be equipped with an authorized 12 m ski. Where such a ski is a flexible unit, it shall be equipped with a spring tensioned wire extending between brackets fitted on and slightly above each end of the ski. The sensing grid shall ride on the wire, not on the ski.

330.05.07 Rollers

All rollers shall be of the types specifically designed for asphalt compaction.

All rollers shall be in good condition and capable of reversing without backlash. They should be operated at all times by competent and experienced operators.

All rollers shall be weighed in the presence of the Owner's Representative and ballasted, if required, immediately before commencing work and whenever subsequently required by the Owner's Representative. There shall be no additional cost to the Department for meeting these requirements.

Steel drum rollers shall be equipped with satisfactory means to supply sufficient water to the drum to prevent adhesion of asphalt mixture. The rear wheels of combination rollers shall each be not less than 450 mm in width, drums of tandem rollers shall each be not less than 1250 mm in width. Steel drum rollers shall weigh at least 12 tonnes and shall exert a load on the compression roll of at least 6 tonnes per metre of wheel width. All pneumatic tired rollers shall be self-propelled and shall have not less than nine wheels revolving on two axles. The tires on the front and rear axles shall be staggered to cover the entire area over which the roller travels with a minimum overlap of 15 mm. Under working conditions, the roller shall exert a load of not less than 5 tonnes per metre of tire width on the asphalt surface. The tires shall be inflated to an air pressure of not less than 400 kPa. The roller shall be equipped with an adequate scraping or cleaning device on each tire to prevent the bituminous mixture from accumulating on the tires. The roller shall be equipped with a water system which will keep all tires uniformly wet, and which will have a capacity that will provide not less than two hours continuous operations without refilling.

330.05.08 Material Transfer Device/Vehicle

Unless otherwise noted within the tender documents for all highway classifications, a Material Transfer Device/Vehicle shall be used at no extra cost to transfer the project's top lift of asphalt mixture (base, leveling or surface material) from the transport vehicles to the asphalt spreader. The purpose of the Materials Transfer Device is to minimize segregation during placement of the asphalt pavement and to increase the smoothness of the pavement surface by reducing the number of stops and starts during the placement of the asphalt pavement. The Material Transfer Device shall be utilized in conjunction with a hopper insert in the asphalt spreader. The hopper insert on the asphalt paver shall be kept full at all times. Cycling the hopper wings of the asphalt paver shall be kept to a minimum.

When required to pave on granulars, a self-propelled transfer vehicle is required.

Prior to being utilized the Material Transfer Device/Vehicle shall be to the satisfaction of the Owner's Representative.

Locations where it is deemed by the Owner's Representative that it is not practical to maneuver and/or safe to utilize a Material Transfer Device/Vehicle shall be identified within the tender documents. For such pre-identified locations no price adjustments to the various hot mix asphalt unit prices will be applied. However, if a Contractor still chooses to proceed with the use of their Material Transfer equipment in a safe manner no additional or other compensation will be applied.

Locations as noted by the Contractor and subsequently agreed with by the Owner's Representative as not practical to maneuver and/or safe to utilize a Material Transfer Device/Vehicle and which were not pre-identified within the tender documents shall have a 5% unit price reduction applied. The price reduction will apply to the various hot mix asphalt unit prices of the material quantities where the Material Transfer Device/Vehicle was not utilized.

The Contractor will be responsible for all surface defects or any other pavement defect irrespective of the utilization or not of a Material Transfer Device/Vehicle.

330.05.09 CONSTRUCTION

330.05.09.01 Preparation of Gravel Road Surface

Where paving is to take place directly on top of a gravel surface, then the Contractor shall prepare the road to the satisfaction of the Owner's Representative before paving. Not less than 300 m of prepared grade shall be maintained in front of the paver at all times, except at the end of the paving operation for that day.

Where the top layer of Granular "A" is placed under the same contract as the paving, then the preparation of the Granular "A" prior to paving shall be carried out in accordance with Section 315. However, where the paving is to take place directly on top of materials that were not placed in the paving contract, then such preparation prior to paving as the Owner's Representative may require shall be carried out in accordance with Section 301.

330.05.09.02 Preparation of Paved Surface

When required by the Owner's Representative, paved surfaces shall be cleaned and treated with tack coat prior to repaving with asphaltic concrete. Such treatment with tack coat as may be required shall be carried out in accordance with Section 320.

330.05.09.03 Placing of Asphaltic Courses

The base on which paving is to take place shall be cleaned of all loose or foreign material before paving may take place. The asphaltic mixture shall be laid only upon a base which is dry or at least free from standing water, and when weather conditions are suitable. No paving shall take place during rain.

No course shall be placed upon a previously laid course less than 12 hours after final compaction of the latter, except with the permission of the Owner's Representative in circumstances where in their opinion this requirement would be impractical.

No hot mix shall be placed unless the air temperature at the surface of the road is 7°C or above without the written permission of the Owner's Representative. The temperature of the mixture immediately after spreading and prior to initial rolling shall not be less than 125°C.

The longitudinal joints in the surface course shall correspond to the demarcation between driving lanes, speed change lanes, tapers, etc. indicated in the contract or as directed by the Owner's Representative. The width of succeeding courses shall be adjusted by an offset of width of from 150 mm to 300 mm so that longitudinal joints do not coincide.

Immediately after any pavement course is laid and before roller compaction is started the surface and edges shall be checked and any irregularities adjusted by the addition or removal of mixture.

Pavers must be equipped with heated vibratory screeds. There should be no allowance for pavers with non- vibratory screeds. All mechanical apparatus designed to aid compaction of the mixture shall have such devices operating continuously when the mixture is being placed unless otherwise directed by the Owner's Representative. Where screed extensions are used, such extensions shall be designed so that the tamping or vibratory action of the screed is effectively transferred to the extensions in such manner as to provide a uniform degree of initial compaction across the full width of the freshly laid mat.

To ensure continuous operation of the pavers, they shall operate at whatever speed necessary to match the output of the plant provided that a consistent and satisfactory mat is being laid. However, in no case shall the speed of the paver exceed 0.7 km/h.

When two or more pavers are in echelon in order to match longitudinal joints, pavers following the lead paver shall use joint matching shoes, or a satisfactory 12 m ski as per the contract requirements, designed for the purpose, which shall ride on the previously placed undisturbed mat. Pavers are considered to be paving in echelon when the lead paver is not more than 60 m in advance of an adjacent succeeding paver.

Mixtures may be spread by hand only in places inaccessible to the paver. Hand placing shall be from a steel dump board by means of hot shovels. Hand spreading shall be with rakes of suitable design. The mixture shall be spread to the depth required to give the compacted design thickness after rolling. No loads of mixture shall leave the plant so late in the day as to preclude the spreading and compacting of the mixture during daylight.

Paving of intersections, ramps and driveway tie-ins are integral with the work. No separate payment or compensation will be provided for this work.

330.05.09.04 End of Paving Season for Asphaltic Surface Course

The season for laying asphaltic surface course shall end on the 30th of September each year, unless extended by the Owner's Representative.

No paving of asphaltic surface course shall take place beyond the designated end of the asphaltic surface course paving season. No pavement shall be removed from a roadway that cannot meet the requirement of replacing the asphalt before the end of the paving season.

330.05.09.05 Joints

All joints shall be made in such a manner as to ensure a thorough and continuous bond and to provide a smooth riding surface.

All foreign material and all loose material shall be removed from all faces against which joints are to be made. All cold faces against which joints are to be made shall be cut back to full depth to expose a fresh vertical face and coated with a double application of emulsified asphalt (tack coat).

Longitudinal joints shall be rolled immediately upon placement of the fresh mixture and before the adjacent strip has completely cooled. The joint shall be set up with the back

of a rake or lute at proper height and grade to receive the required compression under rolling. The depth of the newly laid mat shall be adjusted to allow for compaction. The paver shall overlap the existing mat by approximately 25 to 40 mm.

In locations where cold planing and paving of adjacent lanes is required, sequential mill and fill for longitudinal joint construction and paving is to be followed. The first lane is to be completed (cold planed and paved) prior to cold planing of the adjacent second lane. Cold planing of the adjacent second lane must include the removal of the shared longitudinal joint by cold planing a minimum of 100 mm of the first paved lane. Cold planing and paving of the adjacent second lane is not to take place until the next day. All lane edges remaining in the work are to be clean and coated with a double application of tack coat.

Prior to placing the adjacent mat, the exposed edge of each longitudinal joint must be coated with a double application of emulsified asphalt (tack coat). Upon completion of each day's paving, the maximum length of exposed joint edge shall be 60 metres.

Asphalt mat edges having companion longitudinal joints shall be matched within the maximum allotted time period as determined by the Owner's Representative. The maximum allotted time period shall be restricted to a lower limit of one hour with an upper limit of two and one half hours. The allotted time limit will be proportioned on the paving lay-down conditions; with the lower time limit applied to least favorable placement conditions and the upper time limit applied to favorable placement conditions. Lay-down conditions considered by the Owner's Representative in establishing the time limit will include ground surface temperature, hot mix lay-down temperature, placement capacity, ultraviolet intensity, wind speed and air temperature. Longitudinal joints shall be matched by the end of each day's operations. Unmatched asphalt longitudinal joints left exposed at the end of the day, or exposed to moisture, shall be cut back to full depth to expose a fresh vertical face, and coated with a continuous thin coating of hot asphalt cement to the full fresh vertical face.

All joints shall be constructed such that any excess material is not scattered on the surface of the freshly laid mat. Such excess material shall be carefully removed and disposed of as directed.

Transverse joints shall be checked with a straight edge immediately after initial rolling. Any irregularity in the pavement surface at the joint shall immediately be corrected by the addition of or removal of mixture. When possible, the transverse joints shall be initially rolled in a direction perpendicular to the direction of paving.

330.05.09.05.01 Keyed Joints

When overlaying existing asphalt concrete pavement, keyed joints shall be constructed at both ends of the project, at all intersecting roads, ramps and at all bridge decks in the repaving area. The taper length for such keyed joints shall be a minimum of 15m. Keyed joints will only be required between the final lift of pavement and the existing pavement, unless otherwise directed by the Owner's Representative.

When existing pavement has been removed in advance of paving the joint area, the Contractor shall construct a temporary (hot mix asphalt concrete ramp) taper at the joint area to a slope of at least 50 horizontal to 1 vertical (50H:1V). Temporary tapers (ramps) shall be installed immediately following milling of the keyed joint and prior to opening the area to traffic.

330.05.09.06 General Requirements for Compaction

The pavement mixture shall be compacted to a density of 94% of the Maximum Theoretical Density of the comparative laboratory Marshall mixture based on the criteria given in Section 330.02.02.02. Steel drum rollers shall have vibratory capabilities satisfactory to the Owner's Representative. Static rolling will only be allowed on bridge decks or where shallow underground utilities are present. The decision to use static rolling will be the responsibility of the Owner's Representative.

It is an express condition of this specification that all mixtures be compacted to the specified density immediately following placement. If, during the course of the paving operation, measured insitu field densities fall below the specified minimum, the Contractor shall revise their compaction process by (a) increasing the number of passes of the compaction train; (b) adjusting the frequency amplitude or tire pressure of individual rollers; or (c) by adding additional rollers to the compaction train. Steel drum rollers should operate with the drive wheel forward in the direction of paving. In all cases, the production and placing of the pavement mixture shall be controlled so that all rolling shall be completed before the pavement mat temperature falls below 80 degrees Celsius. The compaction process shall be completed before sunset.

330.05.09.06.01 Compacting Asphaltic Base, Levelling and Surface Courses

Unless otherwise authorized by the Owner's Representative as per Section 330.05.09.06.02, the Contractor shall supply a minimum of two vibratory rollers and one pneumatic tired roller.

The initial compaction shall be obtained by the vibratory roller followed by the pneumatic tired roller. Rolling shall commence as soon after placing as the mixture will bear the roller without checking or undue displacement. Final rolling will be with a roller operating in static mode. Static rolling will be conducted only to remove any irregularities in the pavement surface.

The initial breakdown rolling by a steel wheel roller shall commence as soon after placing as the mixture will bear the roller without checking or undue displacement. Rolling shall start longitudinally at the lower edge and proceed towards the higher edge of the course, overlapping on successive passes. Alternate passes of the roller shall be staggered.

Intermediate rolling, using a pneumatic tire roller, shall follow the breakdown roller as closely as possible. Passes shall be so arranged as to ensure overlapping successive tire paths. The Contractor shall be responsible for ensuring that the tires are in proper condition at all times to prevent pick up of the mixture.

Finishing rolling, using a steel wheel roller, shall be accomplished with the minimum number of passes required to produce a satisfactory surface. Rolling shall start longitudinally at the higher edge and proceed towards the lower edge.

While rolling longitudinal joints, steel drums or rubber tires shall extend 150 mm over the previously placed mat.

When paving in echelon the contractor shall provide sufficient rollers required to compact the asphalt pavement to the required degree of compaction. As a minimum there shall be four vibratory rollers and one pneumatic roller on site.

Based on plant output the minimum number of rollers to be supplied by the Contractor shall be as shown below unless the Contractor is able to achieve the required density, surface texture, and smoothness with fewer rollers.

Plant Output, t/h	Rollers (min)
120	3
180	4
240	5
300	6

330.05.09.06.02 Compacting With Static Wheel Rollers

In areas where a vibratory roller cannot operate (i.e. shallow utilities and bridge decks) compaction shall be obtained using suitable oscillatory or static steel wheel rollers but only when authorized by the Owner's Representative. To compact the mixture using static wheel rollers, a minimum of 2 steel wheel and 1 pneumatic tire rollers will be required to operate with each paver used. The operating speed of static steel wheel rollers shall not exceed 5 km/h and shall be slow enough to avoid displacement of the mix.

330.05.09.06.03 Asphalt Density Measurement and Unit Price Adjustment

The Contractor shall be responsible for the compaction stage of the work to ensure that the density conforms to requirements.

Compaction testing and unit price adjustments shall be based on daily production. Daily production is defined as the production and placement of 200 tonnes or more of asphalt concrete. If the daily production is less than 200 tonnes, the quantity for that day will be added to the next day or days in accordance with Table 5. If it is the last day of production for the project, the quantity for that day will be added to the previous day's production. If the total quantity of asphalt mix is less than 200 tonnes for the project, two cores will be used to determine asphalt core density.

Test coring must be completed prior to placement of the next lift of asphalt concrete. If the Contractor believes that certain areas to be tested should be excluded from unit price adjustments, then those areas should be identified and submitted to the Department in writing prior to the pre-paving meeting with the Department.

Pavement samples will be taken on the road by an Owner's Representative at random sample locations. Cores shall be a nominal 100 mm diameter. Sample locations will be determined by the Owner's Representative using random sample procedures, in which the daily production is divided into segments as shown in Table 5. A random sample is taken from each segment.

TABLE 5
Number of Segments per Daily Production

DAILY PRODUCTION OF ASPHALT CONCRETE	NUMBER OF SEGMENTS
200 to 500 t	2
500 to 1000 t	3
1000 to 1500 t	4
More than 1500 t	5

Segments shall be of approximately equal length. In each segment, a test site will be located by using random numbers to determine the longitudinal distance from the end of the segment and the lateral distance from the edge of the segment. Cores shall not be taken within 0.15 m of the pavement edge or longitudinal joint, nor closer than 6 m from transverse joint.

Areas not to be cored include; small areas such as tapers, bullnoses, aprons, bridge approaches, bridge decks, areas of handwork, and asphalt mix used for isolated levelling.

Cores shall be obtained in accordance with ASTM 5361 "Standard Practice for Sampling Compacted Asphalt Mixtures for Laboratory Testing" after a minimum of 12 hours from mix laydown. Typically cores will be sampled within 24 hours after mix laydown. However, the length of time to core the pavement may be extended as authorized by the Owner's Representative in order to exclude Saturdays, Sundays and holidays unless the Contractor is placing asphalt concrete on either day or to meet the minimum 200 tonne production requirement described above.

If the Contractor would like to have the cores removed immediately upon completion of their compaction process (and therefore avail of normal paving construction signage), the Contractor may supply dry ice at their expense for this purpose. With the application of approximately 1.5 kg of dry ice, coring can typically be completed within 20 minutes. Traffic control must be in place prior to and throughout the application of the dry ice, as this area must be protected from traffic.

During the coring operation, the Contractor must provide all traffic control in the form of flag persons and signs which conforms to Division 7 as well as the latest edition of the Department's Traffic Control Manual and amendments. Coring will not be permitted until all traffic control devices are erected and flag persons are in position.

Immediately following each coring operation, the Contractor shall reinstate the pavement at the core sample location in conjunction with removal of the core by dewatering the core hole and filling it with hot mixed asphalt concrete in 50 mm lifts to the pavement surface elevation, compacting each lift with 25 blows using a standard Marshall hammer. Each coring operation and the reinstatement of core hole is to be conducted during a single traffic control and flag person set up.

Failure to meet the time requirements for the core hole repair may result in delayed paving of any subsequent asphalt production.

Mat densities will be tested by the Owner's Representative by core analysis throughout the course of the work and shall conform to the density requirements indicated in Table 6. The asphalt cores will be retained and stored safely by the Owner's Representative.

The percent compaction will be determined by comparing the core bulk densities, in accordance with ASTM D2726 with the average theoretical maximum density of the loose mix samples corresponding with the daily production of these cores, in accordance with ASTM D2041.

The Owner's Representative will provide the Contractor with a copy of the results of acceptance tests within one working day of their availability. For asphaltic base and leveling courses unit price adjustments will be applied utilizing Table 6 to each tonne of asphalt mix for the day (or days if daily production is less than 200 tonne) represented by the segments cored and the percent compaction averaged. For asphaltic surface courses unit price adjustments will be applied utilizing Table 6 for each individual core's percent of maximum theoretical, and the unit price adjustment will be applied to each tonne of asphalt mix for the day divided by the daily segments cored (or days if daily production is less than 200 tonne).

For each asphaltic base, leveling and surface course mixture type for the day, in addition to the requirements noted above, if an individual core's percent of maximum theoretical falls below 93.5% or above 97.5% no bonuses will be paid for the paving day for that mixture. Also, irrespective of the paving day, the average of any four consecutive samples of a mixture type (base, leveling or surface) shall have a reject limit of 92.0 % based on the four individual core's percent of maximum theoretical. The rejected material represented by the averaged four cores will be the sum of the four units of material represented by each core defined as the tonnes of the asphalt mixture type for the day divided by the daily segments cored (or days if daily production is less than 200 tonne). Units of rejected material will not be rejected twice or more.

TABLE 6
Unit Price Adjustment for Density

% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)
> 97.5	0
>97.0 to ≥ 97.5	+0.50
>95.0 to ≥ 97.0	+1.50
>94.5 to ≥ 95.0	+0.50
>94.0 to ≥ 94.5	0

% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)
>93.5 to $\geq$ 94.0	-0.50
>93.0 to $\geq$ 93.5	-1.00
>92.5 to $\geq$ 93.0	-2.00
>92.0 to $\geq$ 92.5	-4.00
>91.5 to $\geq$ 92.0	-6.00
>91.0 to $\geq$ 91.5	-10.00
>90.5 to $\geq$ 91.0	-15.00
>90.0 to $\geq$ 90.5	-20.00
$\leq$ 90.0	REJECT

330.05.09.07 Requirement for Asphaltic Leveling Course

Asphaltic Leveling Course shall be used to fill surface depressions on old pavement, to restore the surface to the original profile and cross section. Patching and leveling shall not be carried out simultaneously at the same place. The patch shall be placed and fully compacted before leveling operations may proceed over the patch.

330.05.09.08 Requirements for Completed Asphaltic Base and Surface Courses

Each course, after final compaction shall be smooth, true to the established crown and grade, shall have the average thickness specified, and shall at no point vary more than 6 mm from the specified thickness. The surfaces of each base course, and any surface not subjected to smoothness testing under Section 330.07.10, shall be free from deviations exceeding 3 mm as measured with a 3 m straight edge paralleling the centerline of the roadway.

Any low or defective locations shall immediately be remedied by removal of the defective area by cutting and replacing it with fresh hot asphalt. The area should be tacked and allowed to cure prior to the placement of any new asphalt. The new asphalt shall immediately be compacted to conform to the surrounding area and be thoroughly bonded to it.

330.05.09.09 Segregation and Other Surface Defects

The finished surface of any Pavement Course shall have a uniform texture and be free of visible signs of poor workmanship.

Any obvious defects, as determined by the Owner's Representative, will be cause for rejection of the pavement course. Such defects shall include but not necessarily be limited to the following:

1. **Segregated areas.**
2. **Areas of excess or insufficient asphalt cement.**
3. **Roller marks.**
4. **Cracking or tearing.**
5. **Improper matching of longitudinal and transverse joints.**
6. **Tire marks.**
7. **Improperly constructed patches.**
8. **Improper cross slope.**
9. **Fuel spills on the mat.**

Segregation is defined here as areas with predominantly coarser texture than that of the surrounding pavement, and will normally be first identified visually.

Slight Segregation:

Area where the matrix is in place between the stones but there is slightly more stone in comparison with the surrounding acceptable mix. Slight segregation will normally be left in place without price adjustment. The severity of segregation can be determined through a number of test methods, as specified by the Owner's Representative.

Medium Segregation:

Area has significantly more stone than the surrounding acceptable mat and usually exhibits some lack of surface matrix. Medium segregation in surface-courses will be subject to a penalty of \$25/m² for the area in question, but for base-courses will normally be left in place with no price reduction. However, any areas of medium segregation that deteriorate prior to being overlaid by another pavement course must be repaired at the Contractor's cost.

Severe Segregation:

Area appears very stony, with stone against stone and little or no matrix. All areas of severe segregation in any pavement course will require removal and repair across the full lane width.

Defects as determined by the Owner's Representative, which occur in the finished surface of any pavement course during the two year warranty period resulting from poor workmanship, shall be repaired by the Contractor. The Contractor's method of repair shall

be to the satisfaction of the Owner's Representative and performed according to specifications.

330.05.10 Pavement Smoothness

Asphalt Pavement Smoothness will be in accordance with Section 334.

330.05.11 Asphaltic Patching

Asphaltic patching involves patching pot holes in bituminous pavement, patching cuts for culverts or patching transverse cracks with hot mix asphaltic concrete.

Holes to be patched shall have loose material removed and be cleaned of dirt and gravel.

Tack coat shall be applied to all edges to be repaired. Surfaces shall be thoroughly dry before tack coat is applied.

Asphaltic concrete for use in patching shall conform to the requirements of Asphaltic Surface Course or Asphaltic Leveling Course Type I.

Asphaltic concrete shall be placed and leveled in the hole in one lift, so that when compacted, the repaired hole is level with the surrounding surface. The patches shall be compacted in accordance with the requirements of 330.05.09.06.

330.05.12 Measurement for Payment

330.05.12.01 Measurement for Payment for Asphaltic Surface, Asphaltic Base Course, Asphaltic Leveling Courses Type I and Type II

Measurement for payment will only be made for those materials accepted for use under this specification and then only when incorporated into the work at the required locations.

Measurement for payment for the particular type of asphaltic course shall be by the weight of that material in tonnes, rounded to one decimal place.

Payment Adjustment Factors, if applicable, shall be as described throughout this specification. The material shall be weighed by means of the truck scales. The Department will supply scale tickets and the Department Scale Checker will issue the tickets. Only loads certified by the Owner's Representative, as being placed in the works at the required locations, shall be included in measurement for payment.

330.05.12.02 Measurement for Payment for Asphaltic Patching

Measurement for payment will only be made for those materials accepted for use under this specification and then only when incorporated into the work at the required locations.

Measurement for payment shall be by the square metre of that material placed, rounded to the whole number.

330.05.12.03 Measurement for Payment for Asphalt Cement

The asphalt cement will be measured in tonnes, rounded to two decimal places. Payment for Asphalt Cement shall be as per the percentage (%) of asphalt cement required in the Design Mix Formula specified by the Materials Engineering Division. However, where Asphalt Cement contents are found to be deficient to the point of being in the penalty zones subsequently described, Asphalt Cement will be paid on actual content only, as determined by ASTM D2172. Any moisture content in the hot mix asphalt will be determined and deducted. The method of determination of this moisture content will be in accordance with AASHTO 329. The design mix formula may be revised, as required, by the Department throughout the project and at any point throughout production during the day.

Samples of hot mix asphalt shall be taken randomly, throughout each day of production, and tested to ensure conformance with the specifications stated herein. Sampling and testing shall be performed in accordance with ASTM D979 and ASTM D2172. Additional samples may also be taken and tested in accordance with ASTM D2172, for verification purposes.

In the event of any and all disputes over asphalt content, the asphalt contents as determined by the Owner's Representative, in accordance with the above stated method, shall govern in all cases.

Acceptance Criteria

The following acceptance criteria shall apply for all mixes:

TABLE 7
Asphalt Content Acceptance Criteria

TYPE OF TEST	ACCEPTABLE ZONE (%)	PENALTY ZONE (%)	REJECTABLE ZONE (%)
INDIVIDUAL SAMPLE	± 0.30	-0.30 TO - 0.50 +0.30 TO +0.50	<-0.50 OR >+0.50

Payment Adjustment Factor

If the test results representing the individual sample for asphalt cement content falls into the above-stated “Penalty Zone”, the payments for both Asphalt Cement and Hot Mix Asphalt shall be adjusted by deducting a percentage from the unit prices per Table 8 for the Individual Sample. These adjustments shall apply to the areas of pavement represented by these samples.

If the test results representing the individual sample fall into the above-stated “Rejectable Zone”, then no payment will be made for either the asphalt cement or hot mix asphalt represented by those samples.

TABLE 8
AC Content Penalty (Individual Sample)

Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %
0.30	0.0	0.37	7	0.44	14
0.31	1	0.38	8	0.45	15
0.32	2	0.39	9	0.46	16
0.33	3	0.40	10	0.47	17
0.34	4	0.41	11	0.48	18
0.35	5	0.42	12	0.49	19
0.36	6	0.43	13	0.50	20
				> 0.50	Reject

330.05.12.04 Measurement for Payment for Blending Sand

The blending sand will be measured in tonnes, rounded to the nearest whole number.

Measurement for blending sand shall be determined on the basis of the computed quantity calculated from the percentage of blending sand specified in the mix design and the total tonnage of asphalt mix of that design used by the Department.

330.05.12.05 Measurement for Payment for the Cutting and Removal of Asphaltic Pavement

The cutting and removal of pavement in connection with the preparation of joints, as required in Section 330.05.09.05, shall be measured for payment in accordance with Section 510, and Section 520, except where the preparation of joints is required as the result of a break in the paving operations, in which case no measurement for payment will be made for either cutting asphaltic pavement or storage or disposal of old asphaltic pavement.

330.05.13 Basis of Payment

330.05.13.01 Basis of Payment for Asphaltic Surface Course, Asphaltic Base Course and Asphaltic Leveling Courses Type I and Type II

Payment at the contract price for asphaltic base course, asphaltic surface course, asphaltic leveling course Type I or asphaltic leveling course, Type II as appropriate, shall be full compensation for:

1. The supply of all materials with the exception of asphalt cement and blending sand. The asphalt cement and the blending sand shall be paid for separately under other contract items.
2. The use of the required equipment, including a paver with a ski for base and surface course application on the TCH on other projects, where the contract item description, in the unit price table, includes the phrase "spreader with ski" then a ski attached to the lead spreader will be included as well.
3. The handling, storing, crushing, hauling, stockpiling, and preparation of all materials with the exception of blending sand and asphaltic cement.
4. The preparation of all joints with hot asphalt cement, together with the cutting and removal of pavement where a joint is required as the result of a break in the paving operations.
5. The mixing, placing and compacting of the asphaltic mixture, together with all haulage of the mixture to places within the contract.
6. All other costs arising from the requirements of the section for which payment is not otherwise specifically provided, including all keyed joints and the paving required for tie-ins at intersections, ramps and driveways.

330.05.13.02 Basis of Payment for Asphaltic Patching

Payment at the contract price for Asphaltic Patching shall be full compensation for:

1. The supply of all materials including asphalt cement and blending sand.
2. The use of the required equipment.
3. The handling, storing, crushing, hauling, stockpiling and preparation of all materials.
4. The clearing of all holes to be patched, together with the removal of loose material from the holes.
5. The supply and application of tack coat to the edges of the holes.
6. The mixing of the asphaltic mixture, and placing and compacting of the asphaltic mixture in the holes.
7. All other costs arising from the requirements of the section for which payment is not otherwise specifically provided.

330.05.13.03 Basis of Payment for Asphalt Cement

Payment at the contract price for Asphalt Cement shall be compensation in full for all labor, materials, and equipment to supply the Asphalt Cement including the purchase, loading, transportation, unloading and storage at the asphalt plant.

330.05.13.04 Basis of Payment for Blending Sand

Payment at the contract price for Blending Sand shall be compensation in full for all labor, materials, equipment-use and all other expenses to: provide a pit, obtain all required permits and approvals, provide and transport samples to the Materials Engineering Division in St. John's, excavate, load and provide all haulage from the source to the asphalt plant, stockpile the sand at the asphalt plant, pay any royalties for the material, clean up and restore the pit as may be required.

330.05.13.05 Basis of Payment for the Cutting and Removal of Asphaltic Pavement

Where cutting and removal of pavement is carried out in order to prepare a joint resulting from a break in the paving operations, then no payment will be made for the cutting and removal of the pavement since such work is considered part of the basis of payment for asphaltic base and surface courses.

However, where other asphaltic pavement is cut and removed then payment will be in accordance with Section 510 and Section 520.

330.05.13.06 Basis of Payment for Asphaltic Mix for Department's Maintenance Division

The Department's Maintenance Division may, on occasion have need for asphalt in the areas of a project. The Contractor will allow Department trucks along with their own trucks to pick up asphalt from the plant as required. Payment will be made to the Contractor by the tonne weighed over the scales and invoiced to the Department based on the tendered unit price in the Contract except in cases where the Contractor has a Standing Offer Agreement with the Department for supply of asphalt and the Unit Price in the Standing Offer Agreement is less than the Unit Price Table in the highway contract, then the Unit Price in the Standing Offer Agreement will apply.

330.05.13.07 Basis of Payment for Rejected Mix

The Department will pay for only the original mix quantity. The Contractor is fully responsible to bear all costs associated with repair of rejected areas, including all materials, equipment, plant, labour, traffic control and incidentals necessary to complete the work to the satisfaction of Owner's Representative.

If the Department determines the rejected material may remain in the work, and the Contractor elects not to repair the affected area, payment for the rejected mix components will be at 50% of the various contract unit prices.

330.05.13.08 Basis of Payment on Account of Asphalt Density or IRI Smoothness

No payment shall be made to the Contractor pursuant to Sections 330.05.09.06.03 and Section 334 before the end of the warranty period provided for in GC 31. If a warranty claim has not been made under GC 31, or if a warranty claim has been made under GC 31 and resolved, all payment(s) due to the Contractor pursuant to the above stated sections of the Specifications Book shall be made within 3 days of the later of the resolution of the warranty claim or the expiration of the warranty period referenced in GC 31.

If a warranty claim has been made under GC 31, no payment shall be issued until that warranty claim has been resolved. The Owner shall notify the Contractor in writing of any claims, within the warranty period, or no later than 10 business days from the expiration of the warranty period, based on results of an inspection completed within the warranty period. The Contractor must respond within 30 days of notification with an acceptable schedule to complete repairs. If after 30 days the Owner does not receive an acceptable schedule, the Contractor will be notified one

additional time with another 30 day period to reach an acceptable schedule to rectify any claims. Thirty days after this second attempt, if there is no satisfactory resolution, and the warranty claims have not been resolved, the Owner will consider any payments under Sections 330.05.09.06.03 and Section 334 to be forfeited by the Contractor. Forfeiting of these payments does not relieve the Contractor of their warranty obligations as defined in GC 31.1 'Warranty'.

SECTION 334

PAVEMENT SMOOTHNESS

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334.01 SCOPE

This specification applies to the final lift of newly placed asphalt concrete pavement. Smoothness requirements and Basis of Payment shall conform to the following specification unless otherwise indicated in the contract documents.

334.02 REFERENCES

Reference standards shall be the latest revision at the date of Tender closing. This specification refers to the following standards, specifications or publication:

- ASTM E950 "Standard Test Method for Measuring the Longitudinal Profile of Travelled Surfaces with an Accelerometer Established Inertial Profiling Reference"

334.03 DEFINITIONS

Roadway Smoothness Category: The smoothness category that applies for a particular section of roadway will be classified as either Category A, Category B or Category C. The category will be defined in the tender documents and are determined based on a number of factors, including but not limited to: roadway classification, geometry, access points (intersections, driveways), and the presence of other physical features that may impact the ability to achieve pavement smoothness as determined by the Owner's Representative.

International Roughness Scale (IRI): IRI is a statistical measurement used to determine the amount of roughness in a measured longitudinal profile. IRI shall be measured in mm/m and reported to two decimal places for all procedures relating to this specification.

Reporting Interval: The reporting interval for this specification shall be 100 metres for overall IRI and 10 metres for localized roughness.

Localized Roughness: Localized roughness is reported in 10 metre intervals where the IRI exceeds an established value as set out in Table 02, for a particular category.

Segment: A segment of roadway shall be defined by the full lane width (including paved shoulders) over a defined length. The segment length shall be 10 metres for localized roughness. The segment length shall be 100 metres for overall IRI, however, shorter segment length may exist as outlined in Section 334.06.04.

Project Chainage: The distance measured by the High Speed Profiler will be the only chainage deemed accurate and acceptable for the smoothness specification. This distance will be referenced to project chainage for informational purpose only.

334.04 EQUIPEMENT

A Class 1 Inertial Laser Profiler, with moving average filter (high pass 90 m and low pass 0.3 m), shall be used for all smoothness measurements. The equipment will be installed and operated in accordance with the manufacturer's recommendations and ASTM E950.

334.05 PROCEDURES

334.05.01 Smoothness Testing

The Department will conduct smoothness testing in accordance with ASTM E950. The Department's smoothness testing results will be used in determining payment adjustments and areas requiring Corrective Work.

Smoothness testing will be carried out as soon as possible upon completion of the paving operation.

334.05.02 Profile Measurements

The Profiler will record the right and left wheel path IRI values simultaneously at 10 metre intervals. The final IRI readings will be the average of the left and right wheel path values reported at 10 metre intervals. The 100 metre interval averages will then be computed from the 10-metre interval average IRI values.

The profile measurements shall be collected in the direction of traffic. The start and end location of the measurement for each lane shall be 10 metres from the transverse construction joint. In the case of a tapered lane measurement shall commence at the location by which the full lane width occurs.

334.05.03 Exclusions

The 10 metre segment at the beginning and end of each test section will be excluded from the smoothness calculations. Bridges, underpass and overpass structures located within any 10 metre segment, including the 10 metre segments immediately before and after the structure shall be excluded from the payment adjustments.

Areas requiring handwork, tapers, intersections, gore areas, aprons, etc. shall be excluded.

Individual 10 metre segments exhibiting roughness, which can be directly attributed to physical features including iron works or curb/gutter match-ins, may be excluded from payment adjustment at the discretion of the Owner's Representative.

334.06 MEASUREMENT FOR PAYMENT ADJUSTMENT

The Owner's Representative will provide the Contractor with a copy of the smoothness test results, including detailed payment adjustment summaries and Compulsory Corrective Work requirements.

334.06.01 100 Metre Segment

Payment adjustment for 100 metre segments shall be calculated based on the overall average IRI in mm/m for each 100 metre segment in each lane in accordance with Table 01.

334.06.02 Localized Roughness

With the exception of areas described in Section 334.05.03, each 10 metre segment with an IRI value greater than those shown in Table 02 shall be defined as localized roughness, resulting in negative payment adjustments. The total localized roughness payment adjustment shall be the numerical summation of all the individual localized roughness payments adjustments for the defined section of roadway.

334.06.03 Total Payment Adjustment

The total payment adjustment shall be the summation of all the individual payment adjustments for each 100 metre segment in each lane, including all localized roughness payment adjustments. If the total 100 metre segment payment adjustment is a positive value (bonus), the Contractor will be assessed the total 100 metre segment payment adjustment, and the total localized roughness payment for the defined section of roadway.

If the total 100 metre segment payment adjustment is a negative value (penalty), the Contractor will be assessed by either the total 100 metre segment payment adjustment or the total localized roughness payment adjustment, whichever results in a greater penalty to the Contractor. The two penalties shall not be applied in summation.

Example 1: 100 metre Segment (Station 7+700 – 7+800) Category B Exclusions apply in four (4) of the individual 10 m segments (20 m bridge + 10 m at each end)

10 Metre Segment	IRI (mm/m)	Exclusion Applied (Y/N)	Localized Roughness Payment Adjustment (Table 02)	Average IRI over 60 metre Segment	IRI Payment Adjustment (Table 01)	Total Adjustment (for this 60m Segment)
7+700 – 7+710	0.53	N	\$0	$(0.53 + 0.39 + 0.34 + 0.23 + 0.28 + 1.42)/6 =$ 0.53 AVG	$\$470 \times 6/10 =$ +\$282.00	+\$282.00- \$250.00= +\$32.00 (Bonus)
7+710 – 7+720	0.39	N	\$0			
7+720 – 7+730	0.34	N	\$0			
7+730 – 7+740	0.23	N	\$0			
7+740 – 7+750	0.28	N	\$0			
7+750 – 7+760	1.14	Y (Bridge)	\$0			

10 Metre Segment	IRI (mm/m)	Exclusion Applied (Y/N)	Localized Roughness Payment Adjustment (Table 02)	Average IRI over 60 metre Segment	IRI Payment Adjustment (Table 01)	Total Adjustment (for this 60m Segment)
7+760 – 7+770	1.86	Y (Bridge)	\$0			
7+770 – 7+780	2.43	Y (Bridge)	\$0			
7+780 – 7+790	0.91	Y (Bridge)	\$0			
7+790 – 7+800	1.42	N	-\$250.00			

334.06.04 Segments Less Than 100 Metres

For segments less than 100 metres in length, price adjustments shall be determined from 10 metre segments that are not subject to exclusions as described in Section 334.05.03. Payment adjustments under Sections 334.06.01 and 334.06.02 shall apply to these areas based on the actual number of 10 metre segments that are not excluded. Price adjustments shall be prorated base on the number of non-excluded 10 metre segments in the 100 metre segment, as detailed in Table 01.

Example 2: 30 Metre Segment (Station 6+420 – 6+450) at the end of paving section
Exclusion applied in one (1) of the individual 10 m segment. The roadway is Category B

10 Metre Segment	IRI (mm/m)	Exclusion Applied (Y/N)	Localized Roughness Payment Adjustment (Table 02)	Average IRI over 30 metre Segment	IRI Payment Adjustment (Table 01)	Total Adjustment (for this 60m Segment)
6+420 – 6+430	0.88	N	\$0	(0.88 + 1.45)/2 = 1.16 AVG	-\$190 x 2/10 = -\$38.00	-\$250.00* (Penalty) *take whichever value is the greater penalty
6+430 – 6+440	1.45	N	-250.00			
6+440 – 6+450	1.65	Y (Manhole)	\$0			

Table 01
Average IRI Payment Adjustment - 100 Metre Segments

	Payment Adjustment for each 100 metre segment in each Lane		
IRI (mm/m)	Category A	Category B	Category C
0.00 – 0.10	+\$750.00	+\$950.00	+\$1010.00
0.11 – 0.20	+\$670.00	+\$860.00	+\$920.00
0.21 – 0.30	+\$580.00	+\$770.00	+\$830.00
0.31 – 0.40	+\$490.00	+\$670.00	+\$740.00
0.41 – 0.50	+\$400.00	+\$570.00	+\$650.00
0.51 – 0.60	+\$305.00	+\$470.00	+\$560.00
0.61 – 0.70	+\$205.00	+\$370.00	+\$460.00
0.71 – 0.80	+\$100.00	+\$270.00	+\$350.00
0.81 – 0.90	-\$20.00	+\$160.00	+\$260.00
0.91 – 1.00	-\$250.00	+\$50.00	+\$150.00
1.00 – 1.10	-\$490.00	-\$70.00	+\$50.00
1.11 – 1.20	-\$760.00	-\$190.00	-\$60.00
1.21 – 1.30	-\$1040.00	-\$320.00	-\$190.00
1.31 – 1.40	-\$1350.00	-\$450.00	-\$310.00
1.41 – 1.50	-\$1700.00	-\$590.00	-\$440.00
1.51 – 1.60	-\$2110.00	-\$740.00	-\$570.00
1.61 – 1.70	-\$2630.00	-\$900.00	-\$720.00
1.71 – 1.80	-\$3800.00	-\$1070.00	-\$870.00
1.81 – 1.90	-\$4690.00	-\$1260.00	-\$1040.00
1.91 – 2.00	-\$4700.00	-\$1480.00	-\$1220.00
2.01 – 2.10	-\$4700.00	-\$1720.00	-\$1430.00
2.11 – 2.20	-\$4700.00	-\$2040.00	-\$1670.00
2.21 – 2.30	-\$4700.00	-\$2750.00	-\$1980.00
2.31 – 2.40	-\$4700.00	-\$3290.00	-\$2670.00
2.41 – 2.50	-\$4700.00	-\$3300.00	-\$3190.00
2.51 – 3.00	-\$4700.00	-\$3300.00	-\$3200.00

Table 02
Localized Roughness Payment Adjustment - 10 Metre Segments

Roadway Classification	Localized Roughness IRI (mm/m) for 10 Metre Segment	Payment Adjustment (for each occurrence)
Category A	> 1.10	-\$250.00
Category B	> 1.40	-\$250.00
Category C	> 1.50	-\$250.00

Roadway Classification	Localized Roughness IRI (mm/m) for 10 Metre Segment	Payment Adjustment (for each occurrence)
All Categories	>3.00	-\$2500.00 or Compulsory Corrective Work

Table 02
Localized Roughness Payment Adjustment - 10 Metre Segments

Roadway Classification	Localized Roughness IRI (mm/m) for 10 Metre Segment	Payment Adjustment (for each occurrence)
Category A	> 1.10	-\$250.00
Category B	> 1.40	-\$250.00
Category C	> 1.50	-\$250.00
All Categories	> 3.00	-\$2500.00 or Compulsory Corrective Work

334.07 CORRECTIVE WORK

With the exception of areas defined in Section 334.05.03, all 10 metre segments with an IRI >3.00 mm/m shall be subjected to Compulsory Corrective Work or a Mandatory Penalty.

334.07.01 Mandatory Penalty

The Contractor shall be subjected to a mandatory penalty of -\$2,500.00 for each 10 metre segment with an IRI > 3.00 mm/m irrespective of roadway classification.

The Owner's Representative reserves the right to require Compulsory Corrective Work on any of the sections with an IRI > 3.0 mm/m. In sections where Compulsory Corrective Work is required the Mandatory Penalty of -\$2,500.00 will be waived by the Department.

Based on overall smoothness results, the Department reserves the right to waive any or all Compulsory Corrective Work and enforce the Mandatory Penalty.

The Owner's Representative shall notify the Contractor of areas where Compulsory Corrective Work is required.

334.07.02 Compulsory Corrective Work Procedure

Corrective work shall consist of Removal and Replacement of the surface course of asphalt concrete. The minimum length of any repair area shall be 10 metres.

Removal and Replacement: On each of the 10 metres segments affected, the contractor shall remove (by cold planning) and replace the full width of the lane and the full depth of the surface course of asphaltic concrete pavement affected, including paved shoulders.

Asphalt Concrete Mix Requirements: The asphalt concrete mix used to construct the surface course shall conform to Section 330.

Incidental Corrective Work: Corrective Work may result in additional costs, including but not limited to: cold planning, tack coat, additional shouldering, guide rail adjustments, re-application of pavement markings, etc. Such work shall be carried out in accordance with the Department's Specification Book and at the Contractor's expense.

Disposal of Asphaltic Concrete: Asphaltic concrete that has been removed as a result of Corrective Work undertaken by the Contractor shall become the property of the Contractor to haul, stockpile or otherwise dispose of in an environmentally acceptable manner, at the Contractor's expense.

Time Limit for Corrective Work: Corrective work shall be completed within 30 calendar days of receipt of smoothness test results, including any appeal test results. Corrective work not completed within the 30 calendar days will automatically be subjected to the Mandatory Penalty as stated in Section 334.07.01 and is still be required to complete the Compulsory Corrective Work. For each 30 calendar days thereafter the mandatory penalty will be applied.

334.07.02.01 Retesting Following Corrective Work

Retesting Following Corrective Work: After corrective work has been completed, each of the 100 metre segments containing the corrective work shall be retested, using the same profiler used in the original testing. The new IRI values will be evaluated in accordance with Section 334.06 and results shall be binding. Should the new IRI values result in another Mandatory Penalty as outlined in Section 334.07.01 the Owner's Representative still reserves the right to require Compulsory Corrective Work or can apply the mandatory penalty of -\$2,500.00 for each 10 m segment.

Costs for Corrective Work: All costs associated with Corrective Work shall be the responsibility of the Contractor.

SECTION 337

WARM MIX ASPHALT

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337.01 SCOPE

Section 330 Hot Mix Asphalt Concrete of the Department's Specification Book is amended to include the addition of the following. If there are any direct conflicts this specification will govern. All other requirements of Section 330 of the specification are applicable.

337.02 REFERENCES

Reference standards shall be the latest revision at the date of Tender closing. This specification refers to the following standards, specifications or publication:

- Asphalt Institute – Asphalt Mix Design Methods - MS-2.

337.03 DEFINITIONS

Warm Mix Asphalt (WMA): Means warm mixed, warm laid asphaltic concrete produced using technologies that allow for the mixing, handling and compaction of the asphaltic concrete mixture at a temperature 20 to 50°C lower than conventional hot mix asphalt.

Hot Mix Asphalt (HMA): Means hot mixed, hot laid asphaltic concrete and includes mixes produced using WMA technologies. The terms are used interchangeably. HMA may include recycled or specialty mixes.

Design Mix Formula (DMF): The DMF is defined as the laboratory determination of the precise proportions of asphalt binder, additives and aggregates to be blended together to meet the specified properties for a given asphalt concrete mix.

Job Mix Formula (JMF): The JMF is the resultant establishment of the single definite percentage for each sieve fraction of aggregate and asphalt binder content that will produce the desired asphalt concrete mix properties under field conditions.

337.04 MATERIALS

337.04.01 Anti-Strip Additive

Section 330.02.01.05 is amended by the addition of the following:

An Anti-Strip additive is to be incorporated into the WMA, the Contractor shall consult with the WMA technology supplier to determine whether or not the proposed additive is compatible with the WMA. In those cases where the supplier deems the anti-stripping additive incompatible, the anti-stripping additive shall not be used and another shall be chosen and identified to the WMA technology supplier until a compatible additive is agreed upon. The Contractor shall provide a copy of the correspondence with the WMA technology supplier to the Materials Engineering Division detailing the compatibility with the proposed anti-stripping additive at least 21 days prior to paving.

337.05 WARM MIX ASPHALT

337.05.01 Mix Design Requirements

The Contractor shall be responsible for the following:

1. Obtaining all materials, production of WMA, transportation, storage, and use of all materials.
2. Identifying and using a facility capable of producing the mix in accordance with the WMA technology supplier's instructions for the use of their WMA technology.
3. Obtaining from the WMA technology supplier any and all information required for the proper preparation, handling, storage and use of the WMA material, including Safety Data Sheets.
4. Ensuring the WMA technology is produced in accordance with the WMA technology supplier's recommendations to prevent any deleterious effects to the finished product.
5. Notifying the Owner's Representative and Materials Engineering Division in writing, identifying the WMA technology (complete name and address of the supplier) that will be used.

Below is a list of WMA technologies that are permitted for use:

- Advera®
- Astec-Double Barrel Green
- Cecabase RT
- Evotherm M1
- Evotherm P25
- Evotherm DAT
- Gencor Ultrafoam
- Rediset™
- WarmGrip N1

Preparation and submission of the WMA mix design at the anticipated WMA production temperature is the responsibility of the Contractor. The Contractor shall use professional engineering services and a CCIL or AASHTO certified testing laboratory to assess and carry out the design of the WMA mix design. During the development and verification of the WMA mix design the laboratory must ensure that WMA technology does not adversely affect the asphalt cement performance grade and WMA mixture performance. The submitted documentation shall be signed and sealed by a Professional Engineer registered to practice in Newfoundland and Labrador attesting to the validity of the material test data.

Please note the Department will perform all gradation analysis and physical properties of asphalt aggregate for the WMA mix design. The Contractor is required to prepare and submit the WMA mix design as outlined in this section.

The asphalt mix design shall follow the Marshall method as outlined in the latest edition of the Asphalt Institute – Asphalt Mix Design Method - MS-2. The WMA materials and mix design shall meet the requirements of section 330.02. Mix designs shall be based on asphalt cement content as a percentage of the mixture. As a minimum each mix design shall have five point of asphalt cement content starting at 5.0% with 0.5% increments to 7.0%.

The mix design must also include:

- Pit/quarry identification (Name, location, route and reference distance).
- The specific gravities and the percentage of aggregate by mass of each aggregate to be used in the mix.
- The mix design gradation of the combined aggregate.
- Fine Aggregate Angularity (FAA) tests shall be conducted on a representative sample of the total fine aggregate inclusive of all fine aggregate materials as indicated in the mix design including blending sand. The test will be conducted in accordance with ASTM C1252 Standard Graded Sample Method A.

- All Marshall mix design characteristic, including summary table, graphs, bulk relative densities of the combined aggregates and asphalt absorption of the combined aggregates.
- Dosage rate of WMA additive and how it will be incorporated to produce the WMA.
- WMA mixing and compaction temperatures as recommended by the manufacturer and used during the mix design process.
- The most current version of the Safety Data Sheet (SDS) for the WMA technology used.
- Identification of the anti-strip additive used in the WMA and current SDS.
- Modified Lottman and boiling water test results as per section 330.02.01.05. Both tests must be completed on neat asphalt samples as well as samples including WMA additive with anti-strip.

The Materials Engineering Division will require up to ten (10) working days from the time of receipt of the WMA mix design for evaluation by the Department and/or the Department Representative's laboratory. The Materials Engineer will advise the Contractor of receipt of the required documentation. If the WMA mix design does not meet the requirements of Section 330.02, it shall be rejected. The Materials Engineer shall provide a written explanation to the Contractor that details why the DMF failed. The Contractor shall then provide another complete WMA mix design and re-submit it to the Materials Engineering Division for evaluation. Each time a WMA mix design is re-submitted, an additional five (5) working days, from the time of receipt of the revised WMA mix design, shall be required for evaluation by the Department and/or the Department's representative's laboratory. The Owner's Representative will not accept any asphalt concrete mix produced prior to the Contractor receiving written acknowledgement of receipt of all required documentation for the WMA mix design from the Materials Engineer.

While the JMF presented in the WMA mix design may be accepted, the Department reserves the right to specify/select another JMF based on the Marshall results presented. Previous WMA mix designs, meeting the requirements of the current specification, may be submitted if remaining material from that original specific mix design is still available. If new asphalt aggregate is required to be crushed then a new WMA mix design is required.

337.05.02 WMA Cement Mixing

The WMA shall be produced within the temperature range recommended by the WMA technology supplier to achieve target compaction in the field and to meet the requirements specified in the Contract Documents. The maximum recommended mixing temperature of the WMA mix shall be 130°C unless otherwise approved by the Owner's

Representative. The Contractor shall maintain the mixing temperature of the WMA within $\pm 5^{\circ}\text{C}$ of the recommended temperature and shall provide the plant production temperatures obtained once per hour during production to the Owner's Representative and Materials Engineering Division no later than 7 days from the date of measurement.

337.05.03 Placing WMA Concrete

The Contractor shall provide notice of their intent to pave in writing to the Owner's Representative and Materials Engineering Division, a minimum of 7 days prior to placing WMA.

The WMA Technology supplier's recommendations for placing the WMA mix shall be followed. The temperature of the WMA immediately after spreading shall be within the limits identified in Table A below:

Table A
Allowable limits for WMA Paving Temperature

Minimum Allowable WMA Paving Temperatures	Maximum Allowable WMA Paving Temperatures
337.01 The higher of 60°C and the minimum temperature recommended by the WMA technology supplier	The lower of 125°C and the maximum temperature recommended by the WMA technology supplier

The Contractor shall measure and record the temperature of the WMA immediately after spreading using an infrared thermometer gun at wheel paths and midlane, once every 250 lane metres during the WMA paving. The Contractor shall submit WMA temperature records to the Owner's Representative for compliance verification no later than 7 days from the date of measurement.

The Contractor shall utilize appropriate paving and compaction equipment to avoid mix segregation, roller pickup and/or any other surface defects.

No traffic shall be permitted on the newly placed surface mat until finish rolling is completed and the finished mat has been allowed to cool, as recommended by the WMA additive supplier. A transverse construction joint in the asphalt mat shall be constructed at the end of each day's work, and at other times when paving is halted for a period of time to permit the asphalt concrete to cool as recommended by the WMA technology supplier.

SECTION 520

STORAGE OR DISPOSAL OF OLD ASPHALTIC PAVEMENT

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520.06 BASIS OF PAYMENT

520.06.01 Basis of Payment for Storage of Old Asphaltic Pavement

520.06.02 Basis of Payment for Disposal of Old Asphaltic Pavement

520.01 SCOPE

This specification covers the requirements for the cutting and excavation of asphaltic pavement, together with either the storage of the debris, or the disposal of the debris.

520.02 EXCAVATION

The Contractor shall cut and excavate the asphaltic pavement from within the limits staked by the Owner's Representative. Cuts shall be made using an approved pavement cutter. The cuts shall be made straight and vertical and be made in such a manner that will allow neat tie-ins with new pavement.

Care shall be taken in excavating the pavement so as not to contaminate the underlying granular base course. In the case when the asphaltic pavement debris is to be stored, care shall also be taken not to excavate underlying granular materials with the pavement.

Pavement debris shall be broken into pieces of greatest dimension not more than one metre in length.

520.03 STORAGE

Where the contract item designates that old asphaltic pavement is to be stored, the Owner's Representative shall select a site where all the excavated asphaltic pavement is to be stockpiled. The site shall comply with requirements of Section 830.

The stockpile shall be made on a flat well drained area on firm ground so that the asphaltic debris will not become contaminated with deleterious materials when it is moved at some future date prior to recycling.

Should the Owner's Representative require that grading work be carried out to prepare the stockpile site, then such grading shall be carried out and paid for in accordance with Section 206 and Section 204.

After any required grading operations have been completed, the stockpile site shall be treated with an even mat of Granular "A" 100 mm thick. The Granular "A" mat shall be supplied and paid for in accordance with the contract price for Granular "A".

Old asphaltic pavement that is to be stored shall be handled, transported, and stockpiled at all times in such a manner that will avoid contamination by any deleterious material.

The pavement debris shall be hauled to the stockpile site and spot-dumped and levelled and then succeeding loads shall be dumped and levelled on top of the others to form a neat, unified, elevated stockpile.

520.04 DISPOSAL

On those jobs where the contract item states that the old asphaltic pavement is to be disposed of, then the old asphaltic pavement debris for disposal shall become the property of the Contractor.

If the Contractor wishes, the Contractor will be permitted to use Recycled Asphalt Pavement (RAP) in levelling course asphalt. The amount of Recycled Asphalt in the mixture of RAP plus Virgin Aggregate will be limited to a maximum of 10%.

In addition, the Contractor will be permitted to use RAP in Granular B. The Recycled Asphalt in the mixture of Virgin Granulars plus RAP will be limited to a maximum of 30% under the asphalt and 50% in the granular shoulders.

The Department reserves the right to accept or reject any particular source of RAP, irrespective of its quality.

As approved by the Owner's Representative, the Contractor shall be permitted to use old asphalt pavement in shouldering operations and as a surface stabilizer on gravel roads. The latest Department procedure for these operations shall be strictly adhered to by the Contractor in these operations.

The Contractor shall be aware of Division 8.

520.05 MEASUREMENT FOR PAYMENT

Measurement for payment will be by means of the volume of pavement excavated from within the required limits, calculated as the product of the exposed surface area of the excavated pavement before removal, times the centreline thickness of the asphalt and shall include any cutting required to complete the excavation. Should individual areas of asphalt removal exceed 100m in length, then the thickness used for volume calculation will be the average of the thickness of the asphalt measured at 100m intervals.

The volume of the excavated pavement shall be calculated in cubic metres rounded to two decimal places.

520.06 BASIS OF PAYMENT

520.06.01 Basis of Payment for Storage of Old Asphaltic Pavement

Payment at the contract price for storage of old asphaltic pavement hauled 1km or under, shall be payment in full for all labour, materials, and use of equipment to: cut and excavate the old pavement, break-up the pavement, transport the debris up to 1km, and place the debris in a stockpile.

However, where the Owner's Representative requires that excavated material be hauled in excess of the 1 km freehaul before being stored, additional payment for overhaul will be made in accordance with Section 215, at the appropriate rate for overhaul on excavation other material.

In the case of storage of old asphaltic pavement, the grading of the stockpile floor and the supply and placing of the Granular "A" mat for the stockpile shall be paid for in accordance with Section 206 and Section 315 for Granular "A", respectively.

520.06.02 Basis of Payment for Disposal of Old Asphaltic Pavement

Payment at the contract price for disposal of old asphaltic pavement, shall be payment in full for all labour, materials, and use of equipment to cut and excavate the old pavement, and provide all transportation and any other costs to remove the debris from the site.

SECTION 640**SUPPLY AND INSTALLATION OF GUIDE RAIL****INDEX**

640.01	SCOPE
640.02	ENVIRONMENTAL REQUIREMENTS
640.03	MATERIALS
640.03.01	Rail Sections
640.03.02	Buried End Sections
640.03.03	Rail Terminal Sections
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640.03.07	Posts and Anchors
640.03.08	Wood Preservative
640.04	INSTALLATION
640.05	MEASUREMENT FOR PAYMENT
640.06	BASIS OF PAYMENT

640.01 SCOPE

This specification covers the requirements for the supply and installation of various guide rail installation types together with the accompanying posts.

Unless the type of guide rail installation is specified otherwise in the contract documents, the type of guide rail shall be the standard type shown on Form 1280 "Guide Rail Standard Installation".

"Guide Rail with Additional Posts" shall be as shown on Form 1282-1. The extent of "Guide Rail with Additional Posts" will be as per the extent shown in the contract documents.

"Guide Rail – Structures" shall be as shown on Form 1282-2. The extent of "Guide Rail - Structures" will be within 11527 mm of the structure approach and 7717 mm of the structure exit. Any guide rail past these limits will be considered "Guide Rail Standard

Installation" unless noted otherwise in the contract documents. If there is no guide rail shown past these limits there shall be a 'buried guide rail section' as shown on Form 1280-1 or a terminal fin as shown on the contract documents.

The supply, installation, measurement for and basis of payment for modified special end shoes is considered incidental.

Standard hazard markers, 2 each of WE-1 and WE-2, shall be supplied by the Department to the Contractor at no expense. The Contractor is responsible for posts, mounting hardware and the erection of hazard makers as per contract drawings. Posts for mounting the hazard markers shall be treated timber, a nominal 100 mm x100 mm, length as require.

640.02 ENVIRONMENTAL REQUIREMENTS

Guide rail posts located in Protected Water Supply areas shall only be chromated copper arsenate (CCA) treated type.

640.03 MATERIALS

Guide rail parts furnished under these specifications shall be interchangeable with similar parts, regardless of their source of manufacture.

640.03.01 Rail Sections

The rail elements shall consist of a corrugated steel W-beam with corrugations symmetrical about the horizontal axis and such that the edges and centre of the rail element may contact each post.

For "Guide Rail Standard Installation" and "Guide Rail with Additional Posts", the individual rail elements shall be of the Standard Type (W-beam) consisting of 2.75 mm thick rail. The length shall not be less than 4125 mm, having post bolt slots 3810 mm apart centre to centre for "Guiderail Standard Installation"; and 1905 mm apart centre to centre for "Guide Rail with Additional Posts".

For "Guide Rail – Structures" the individual rail elements shall be of the Standard Type (W-beam) consisting of 3.5 mm thick for one length of rail not less than 4125 mm at structure approach and exit and attached to each end block with the modified special end shoes. It shall have post bolt slots for each post as shown on Form 1282-2.

The rail metal shall be open hearth oxygen furnace or electric furnace steel having an elongation of not less than 12 per cent in 50 mm and shall withstand a cold bend, without

cracking, of 180° around a mandrel of a diameter equal to 2½ times the thickness of the plate.

The rail elements shall be hot-dip galvanized before or after fabrication. In accordance with the specifications of ASTM Designation A-515 (Class 2½ oz) or A123. Rail element joints shall be capable of withstanding a tensile load of not less than 350 kN without failure. The rail element shall not deflect more than 140 mm when tested as a simple beam with the traffic face up and with an 8.9 kN load applied at the centre of a 3650 mm span through a 76 mm wide flat bearing.

Workmanship shall be equivalent to good commercial practice and all edges, bolt holes and surfaces shall be free of torn metal, burns, sharp edges and protrusions.

Rail sections shall be supplied by the Contractor.

2 certified copies of mill test reports of each batch from which the rail element is formed, shall be furnished to the Owner's Representative, if so required.

640.03.02 Buried End Sections

Buried end sections shall be manufactured to meet the dimensions as shown on the drawings Section 1279 "Typical Guide Rail Installation Types" and Section 1280 "Guide Rail Standard Installation". The sections shall be shop fabricated from rail sections conforming to the requirements of Section 640.03.01. No punching, cutting or welding will be permitted in the field.

The weld shall be cleaned, pre-treated and coated with cold galvanizing compound as outlined.

Where corrugated steel beam is cut with a saw, drilled, or welded, the beam shall be thoroughly cleaned with a wire brush to remove scale, rust, slag residue, weld splatter, etc. and wiped clean. The cleaned surface shall receive at least one application of metal conditioner to de-oxidize, de-grease and phosphatize the metal surface to be treated if the surface is oily. Pre-mixed, ready-to-apply, liquid-zinc compound shall be applied to the prepared, clean, dry metal surface. The cold-galvanizing compound must be of a type that imparts cathodic action against corrosion. The cold-galvanizing compound shall have a minimum 50 mm overlap of the surrounding undamaged galvanized metal.

Both metal conditioner and cold-galvanizing compound must be approved by Underwriters Laboratories Inc. for component coatings -organic and meet or exceed

CGSB 1.181-99 "Ready Mixed Organic Zinc Rich Coating.". All materials must be applied in accordance with the manufacturer's instructions.

The Contractor shall supply the angled sections.

640.03.03 Rail Terminal Sections

Rail terminal sections shall be of the standard type, as illustrated on the drawing Sections 1279 "Typical Guide Rail Installation Types" and Section 1280 "Guide Rail Standard Installation". The metal and galvanizing shall be of the same thickness and quality as is stipulated for the rail sections in Section 640.02.01. The Contractor shall supply the terminal sections.

640.03.04 Bolts, Nuts, Washers and Spikes

All bolts, nuts and washers shall conform to the specifications of ASTM A307 or A325, except that rail splice bolts shall be button headed.

Post bolts and splice bolts shall have shoulders of such shape and size that they fit into the bolt slots in the rails and thus prevent the bolt from turning.

Post bolts shall be 16 mm diameter and 200 mm long for use with standard 150 mm x 150 mm posts, or 16 mm diameter and 250 mm long for use with 200 mm x 200 mm posts. The Contractor shall pay particular attention that post bolts be of sufficient length to accommodate the offset blocks as required.

Post bolt washers for the back of posts shall be 45 mm in diameter and 4 mm thick.

Bolts for anchors shall be 16 mm diameter and 350 mm long for use with standard 150 mm x 150 mm posts and anchors, or 16 mm diameter and 450 mm long for use with 200 mm x 200 mm posts and anchors. Washers shall be 45 mm round and 4 mm thick.

Spikes for anchors shall be 125 mm galvanized spikes.

Bolts, nuts, washers and other fittings shall be hot-dip galvanized in accordance with ASTM A153 "Standard Specification for Zinc Coating (Hot Dip) on Iron and Steel Hardware."

The Contractor shall supply the bolts, nuts, washers and spikes.

640.03.05 Signal Reflectors

Silver signal reflectors and yellow signal reflectors shall be of size 75 mm x 100 mm. The Department will supply both types of signal reflector free to the Contractor at the following district depots: White Hills in St. John's, Clarenville, Grand Falls, Deer Lake, and Goose Bay.

Nails for securing signal reflectors shall be supplied by the Contractor and shall consist of 30 mm galvanized flat head nails.

640.03.06 Standard Hazard Markers

Standard hazard markers, 2 each of WE-1 and WE-2, shall be supplied by the Department to the Contractor at no expense. The Contractor is responsible for posts, mounting hardware and the erection of hazard markers as per contract drawings. Posts for mounting the hazard markers shall be a nominal 100 mm x 100 mm, length as required.

Connections for the hazard markers shall be supplied by the Contractor and shall consist of two 80mm long by 10mm diameter galvanized lag bolts with a galvanized washer.

640.03.07 Posts and Anchors

Timber for posts and anchors shall be sound, well-seasoned structural grade lumber. Only birch wood will be acceptable for 150 x 150 guide rail posts. Hemlock or other approved species will be acceptable for 200 x 200 guide rail posts.

Posts shall have minimum dimensions of 150 mm x 150 mm x 2400 mm for "Guide Rail Standard Installation", and for "Guide Rail with Additional Posts."

"Guide Rail – Structures" posts shall have minimum dimensions of 200 mm x 200 mm x 2400 mm.

"Guide Rail with Additional Posts" and "Guide Rail – Structures" shall have offset blocks on all posts.

Anchors shall consist of either one piece of guide rail post cut 450 mm long, or two pieces of 38 mm x 140 mm x 450 mm lumber.

Posts and anchors shall be pressure treated with an acceptable wood preservative.

The minimum required depth of penetration of wood preservative shall be 13mm. To determine penetration, a borer core shall be taken from 20 pieces in each charge. If 80% of the borings meet the penetration requirements, the charge shall be accepted.

The minimum retention of preservative shall be as follows:

PRESERVATIVE	MINIMUM RETENTION	METHOD OF DETERMINATION
ACHLOROPHENOL	g/m ³	ASSAY
OMATED COPPER ENATE	g/m ³	ASSAY
ER	IN ACCORDANCE WITH CSA 080-M 89	

Incising will normally be required. However, this requirement will be waived if specifications for both penetration and retention are satisfied.

If requested by the Owner's Representative, the Contractor shall provide penetration and retention test reports for the guide posts and guide rail posts supplied for the project.

The Contractor shall supply all the required wood preservative treated posts and anchors.

640.03.08 Wood Preservative

Wood preservative for use in treating field cut ends of posts shall be of the same type and chemical composition as that used in the original treatment.

The Contractor shall supply the wood preservative.

640.04 INSTALLATION

Galvanized materials shall be loaded, hauled and handled in such manner that galvanizing will not be damaged. All bare, abraded, and damaged surfaces shall be cleaned, pre-treated if required and coated with cold galvanizing compound as outlined above.

Guide rail shall be placed to the lengths, lines and grades set by the Owner's Representative. Except where directed otherwise by the Owner's Representative, the guide rail shall be installed in accordance with the requirement of the drawings: Form 1279 "Typical Guide Rail Installation Types", Form 1280 "Guide Rail Standard

Installation", Form 1282-1 "Guide Rail with Additional Posts", or Form 1282-2 "Guide Rail – Structures" or the contract drawings as the case may be.

A buried end section shall be placed at each end of a run of guide rail unless directed otherwise by the Owner's Representative.

On divided highways, a buried end section shall be placed at the approach end of a run of guide rail and a terminal section shall be placed at the other end unless directed otherwise by the Owner's Representative.

The end post of a buried end section shall have an anchor secured to the bottom of the post.

Where a 150 mm x 150 mm x 450 mm timber anchor is used, it shall be secured to the post by means of a galvanized nut and 16 mm diameter bolt 350 mm long together with two 45 mm round 4 mm thick galvanized washers.

Where a double 38 mm x 140 mm x 450 mm lumber anchor is used, it shall be secured to the post by means of four 125 mm galvanized spikes.

Field boring and cutting to length of anchors will be permitted, provided that the hole is treated with two coats of wood preservative before driving the bolts and provided that the cut end is treated with two coats of wood preservative before burying.

The Contractor shall excavate holes for the posts such that when placed in the holes the bottom of the posts are at least 1500 mm below the ground surface.

Posts shall be set plumb and to the established lines and grades and shall be placed at 3810 mm intervals, unless directed by the Owner's Representative.

The posts shall be firmly backfilled with selected material, free of large rock, placed in layers of thickness not greater than 100 mm. Each layer shall be thoroughly compacted before the next layer is placed. Should the backfill be dry then each layer shall be moistened before tamping.

All backfill shall be compacted to 95% of Standard Proctor Density (ASTM D698).

All surplus excavated material shall be disposed of along the sides of fill, or in other locations as directed by the Owner's Representative.

The rails shall be secured to even lines such that the centre of the rail is 635 mm above the edge of pavement.

The Contractor shall bore holes in the posts for the post bolts and treat the holes with two coats of wood preservative before driving the bolts.

Rail elements and terminal sections shall be lapped so that the exposed ends will not face approaching traffic.

The bolted connections of the rail element to the post shall be capable of withstanding a 22.5 kN pull at right angles to the lines of the railing.

When the attachment of the rail elements to the posts has been completed, the tops of the posts shall be cut to a point 75 mm above the top of the rail as shown by Section 1279 "Typical Guide Rail Installation Types" and Section 1280 "Guide Rail Standard Installation". The tops of the posts shall be treated with two coats of wood preservative after cutting.

Signal reflectors shall be attached to posts at terminal sections, posts at the buried end sections, and to every fourth post in a length of guide rail. Silver reflectors shall be placed facing oncoming traffic and yellow reflectors shall be placed on the opposite side of the post except for divided highway. On divided highways, silver reflectors shall be placed facing oncoming traffic on the outside shoulder and yellow reflectors shall be placed facing oncoming traffic on the median shoulder.

The Contractor shall drill nail holes in the reflectors, bend the reflectors to the required shape and secure the reflectors with 30 mm galvanized flat head nails as shown as shown on drawing Section 1281 "Signal Reflectors on Guide Rail Post".

640.05 MEASUREMENT FOR PAYMENT

Measurement for payment for the supply and installation of Standard Type Guide Rail, "Guide Rail with Additional Posts", "Guide Rail – Structures", or Type "A" Guide Rail, as the case may be, shall be the length of that type of guide rail placed within the limits designated by the Owner's Representative, measured in metres, rounded to one decimal place, measured end to end along the face of the railing and terminal sections regardless of the type and kind of installation excluding the modified special end shoes.

Measurement for payment for the supply and installation of Type "B" Guide Rail shall be the length of rail and terminal sections placed within the limits designated by the Owner's

Representative, measured in metres, rounded to one decimal place, measured end to end along one side only.

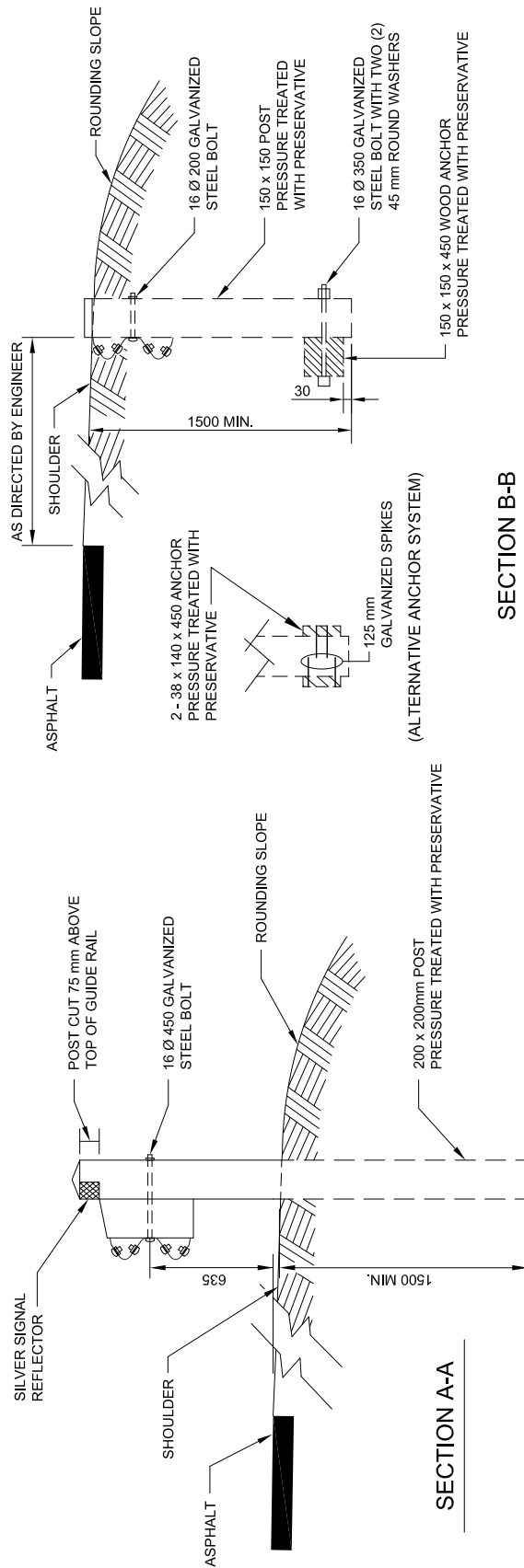
Where the guide rail structure is a composite of more than one type of guide rail installation, then measurement for payment shall be by the length of each type of guide rail installation making up the composite.

Measurement for payment for buried end sections will be by means of the number of buried end sections placed as directed by the Owner's Representative.

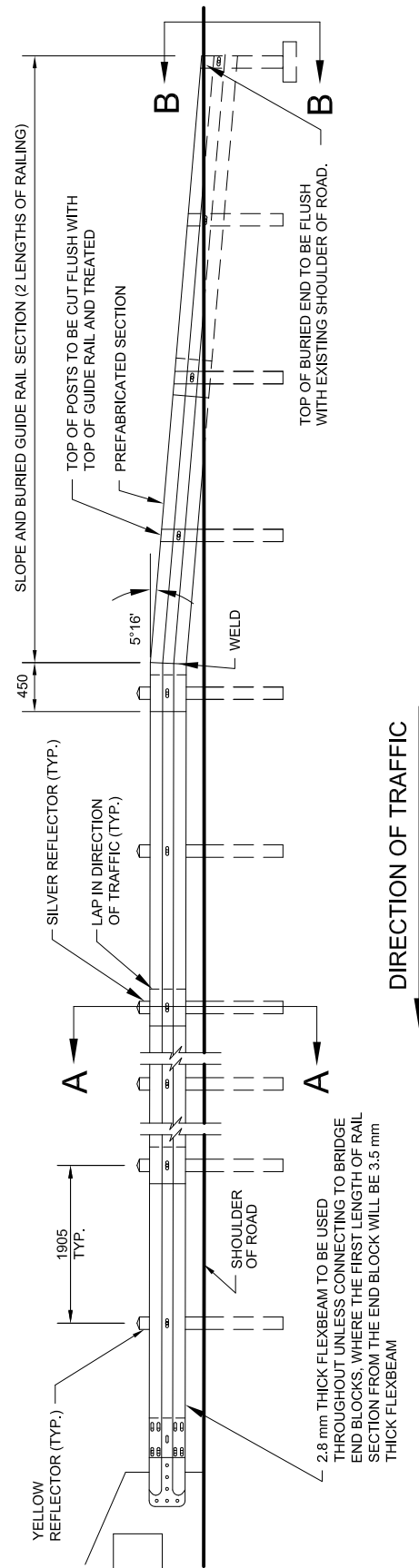
640.06 BASIS OF PAYMENT

Payment at the contract price for the Supply and Installation of Guide Rail of a particular type shall be compensation in full for all labour, materials, and equipment to: excavate post holes, supply and install all posts, anchors, rail sections, rail terminal sections, modified end shoes, standard hazard markers, bolts, nuts, washers, spikes and nails, bend rail sections where required to a uniform radius, backfill post holes, compact backfill, dispose of surplus excavation material, trim posts, supply and apply wood preservative, install reflectors, clean, pre-treat, and coat steel rail with cold galvanizing compound where so required, all in accordance with this specification.

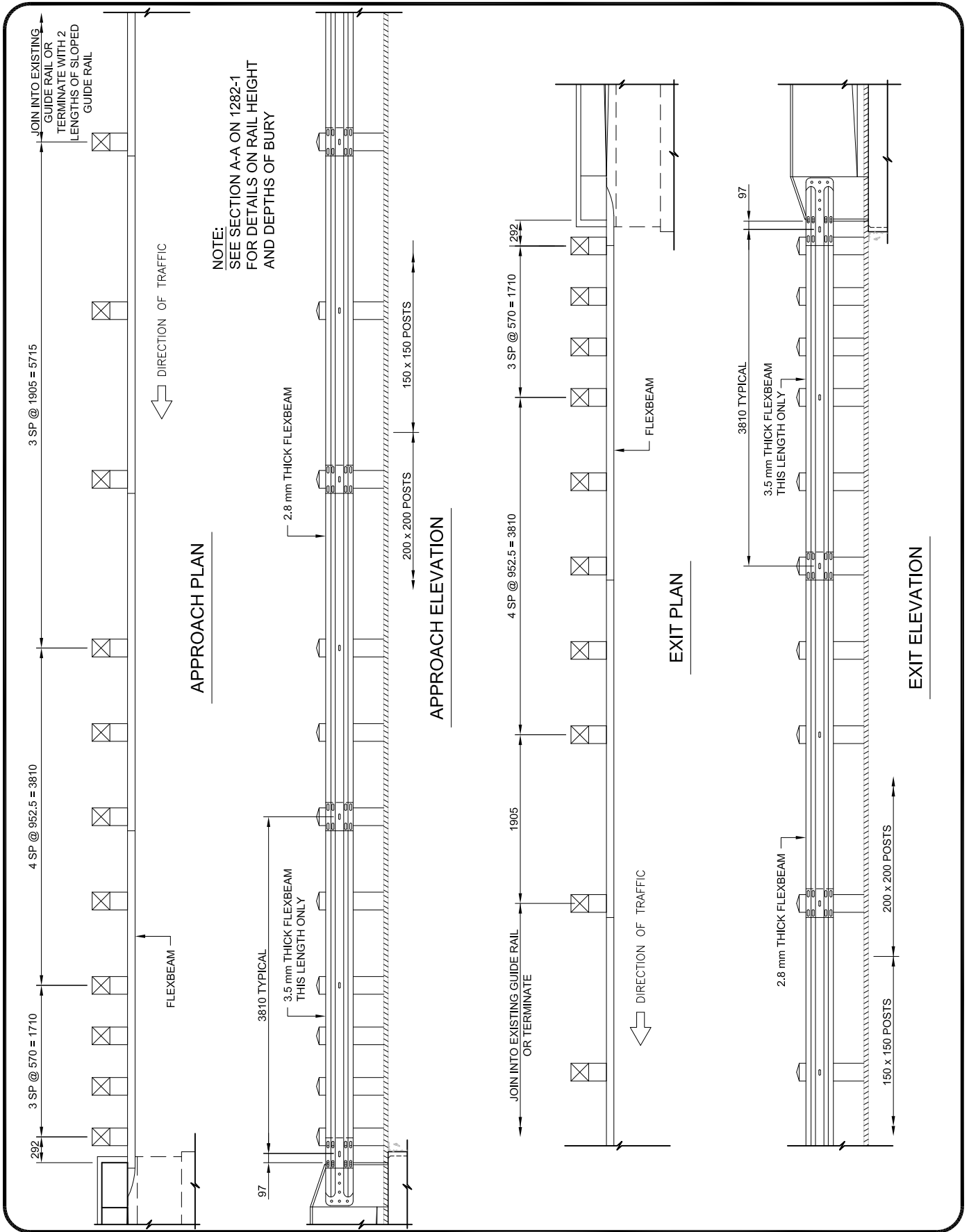
Payment at the contract price for the Supply and Installation of buried end sections shall be compensation in full for all labour, materials, and equipment to: excavate post holes, supply and install posts, anchors, buried end sections, bolts, nuts, washers, spikes and nails, backfill post holes, compact backfill, dispose of surplus excavation material, trim posts, supply and apply wood preservative, install reflectors, clean, pre-treat, and coat steel rail with cold galvanizing compound where so required, all in accordance with this specification.



SECTION B-B



NOTES:
 GUIDE RAIL WITH ADDITIONAL POSTS c/w OFFSET BLOCK TO BE PLACED UP TO A MINIMUM OF 7620 mm FROM EACH END BLOCK FOR ALL BRIDGES. UNLESS OTHERWISE SPECIFIED, SLOPED AND BURIED GUIDE RAIL OR ADDITIONAL GUIDE RAIL SHALL BE AS PER STANDARD INSTALLATION. INTERMEDIATE POSTS TO BE INSTALLED AS INDICATED. SEE SPECIFICATIONS BOOK, SECTION 640, WHERE APPROPRIATE.



TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN DIVISION

GUIDE RAIL - STRUCTURES

DRAWN BY: H. PRESTON

DATE: REV 10-03-21

NOT TO SCALE

MARCH 2021

1282 -2

Section Thirteen

General Conditions

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GENERAL CONDITIONS**GC 1 DEFINITIONS****1.1 Amendment**

Modifications to the Open Call for Bids Documents identifying any required additions, deletions, clarifications or corrections.

1.2 Contract Documents

The Contract Documents consist of the Instruction to Bidders, executed Agreement, General Conditions of Contract, Supplementary General Conditions of Contract, Specifications, Drawings and such other documents as are listed in Article A-2 of the Agreement, including all amendments thereto incorporated before their execution and subsequent amendments thereto made pursuant to the provisions of the contract or agreed upon between the parties. The Successful Bidder's Bid, and any amendments to the Specification issued during the bidding period shall also form part of the Contract Documents.

1.3 Contractor

The Contractor means the person, firm or corporation identified as such in the Agreement. The term Contractor means the Contractor or the Contractor's authorized representative as designated by the Contractor to the Owner in writing.

1.4 Materials and Equipment

The term Materials and Equipment means all materials, machinery, equipment and fixtures forming the completed Work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

1.5 Other Contractor

The term Other Contractor means any person, firm or corporation employed by or having a separate contract directly or indirectly with the Owner for work other than that required by the Contract Documents.

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GENERAL CONDITIONS**1.6 Owner**

The Owner is the person or entity identified as such in the Agreement. The term Owner means the Owner or the Owner's authorized representatives as designated by the Owner to the Contractor in writing.

The Owner's Representative for the purposes of administering this construction Contract shall be the designated representative of the Government of Newfoundland and Labrador.

1.7 Products

The term Products means all material, machinery, equipment and fixtures forming the completed Work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

1.8 Project

The Project is the total construction of which the work performed under the Contract Documents may be the whole or a part.

1.9 Subcontractor

A Subcontractor is a person, firm or corporation having a direct contract with the Contractor to perform a part or parts of the Work included in the Contract, or to supply products worked to a special design according to the Contract Documents, but does not include one who merely supplies products not so worked.

1.10 Substantial Performance

A Contract shall be deemed to be substantially performed

- a) when the Work or a substantial part thereof is ready for use or is being used for the purpose intended; and
- b) when the Work to be done under the contract is capable of completion at a cost of not more than:
 - (i) three per centum of the first two hundred and fifty thousand dollars (\$250,000) of the contract price,

Transportation and Infrastructure

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- (ii) two per centum of the next two hundred and fifty thousand dollars (\$250,000) of the contract price, and
- (iii) one per centum of the balance of the contract price.

1.11 Time

- a) The Contract Time is the time stated in Article A-1(c) of the Agreement for Substantial Performance of the Work.
- b) The date of Substantial Performance of the Work is the date certified by the Owner.
- c) The term day, as used in the Contract Documents, shall mean the calendar day.
- d) The term working day means any day observed by the construction industry in the area of the place of building.

1.12 Total Performance

Total Performance shall mean when the Work has been performed to the requirements of the Contract Documents and is so certified by the Owner.

1.13 Work

Work includes the whole of the works, materials, matters and things required to be done, furnished and performed by the Contractor under the Contract.

GC 2 DOCUMENTS

- 2.1 The Contract Documents shall be signed by the Owner and the Contractor.
- 2.2 Words which have well known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.
- 2.3 In the event of conflicts between Contract Documents the following shall apply:
 - a) Drawings of a later date shall govern.
 - b) Figured dimensions shown on the Drawings shall govern even though they may differ from scaled dimensions.

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- c) Drawings of larger scale shall govern over those of smaller scale of the same date.
- d) Specifications shall govern over Drawings.
- e) The General Conditions of Contract shall govern over Specifications.
- f) Supplementary General Conditions shall govern over the General Conditions of the Contract.

GC 3 ADDITIONAL INSTRUCTIONS AND SCHEDULE OF WORK

- 3.1 During the progress of the Work the Owner may furnish to the Contractor such additional instructions as may be necessary to supplement the Contract Documents. All such instructions shall be consistent with the intent of the Contract Documents.
- 3.2 Additional instructions may include minor changes to the Work which affect neither Contract Price nor the Contract Time.
- 3.3 Additional instructions may be in the form of drawings, samples, models or written instructions.
- 3.4 Additional instructions will be issued by the Owner with reasonable promptness and in accordance with any schedule agreed upon.
- 3.5 The Contractor shall, within thirty (30) days of the signing of this contract provide the Owner with a schedule of work.

GC 4 DOCUMENTS PROVIDED

- 4.1 The Contractor will be provided, without charge, the Contract Documents or parts thereof in an electronic PDF version for the performance of the Work.

GC 5 DOCUMENTS ON THE SITE

- 5.1 The Contractor shall keep one copy of all current Contract Documents and shop drawings on the site, in good order and available to the Owner and/or their representatives. This requirement shall not be deemed to include the executed Contract Documents.

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GENERAL CONDITIONS**GC 6 OWNERSHIP OF DOCUMENTS AND MODELS**

- 6.1 All Contract documents and copies thereof, and all models are and shall remain the property of the Owner and are not to be used on other work.
- 6.2 Such documents are not to be revised in any manner without the written authorization of the Owner.
- 6.3 Models furnished by the Contractor or the Owner are the property of the Owner.

GC 7 OWNER DECISIONS

- 7.1 The Owner, in the first instance, shall decide on questions arising under Contract Documents and interpret the requirements therein. Such decisions shall be given in writing.
- 7.2 The Contractor shall notify the Owner in writing within five (5) days of receipt of a decision of the Owner referred to in GC 7.1 should the Contractor hold that a decision by the Owner is in error and/or at variance with the Contract Documents. Unless the Contractor fulfills this requirement subsequent claims by the Contractor for extra compensation, arising out of the decision, will not be accepted.
- 7.3 If the question of error and/or variance is not resolved immediately, and the Owner decides that the disputed work shall be carried out, the Contractor shall act according to the Owner's written decision.
- 7.4 Any question of change in Contract Price and/or extension of Contract Time due to such error and/or variance shall be decided as provided in GC 16 - Settlement of Disputes and Claims.

GC 8 DELAY

- 8.1 If it can be clearly shown that the Contractor is delayed in the performance of the Work by any act or fault of the Owner or other Contractor, then the Contract Time shall be extended for such reasonable time as the Owner may decide in consultation with the Contractor. The Contractor shall be reimbursed for any costs incurred by the Contractor as a result of such a delay occasioned by the act or fault, provided that it can be clearly shown that the Contractor's forces cannot work efficiently elsewhere on the project and that the incurred cost is limited to that which could not reasonably have been avoided.

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- 8.2 If the Contractor is delayed in the performance of the Work by a Stop Work Order issued by any court or other public authority, and providing that such order was not issued as the result of any act or fault of the Contractor or of any one employed by the Contractor directly or indirectly, then the Contract Time shall be extended for such reasonable time as the Owner may decide, in consultation with the Contractor, and the Contractor shall be reimbursed for any on site costs incurred by the Contractor as the result of such delay.
- 8.3 If the Contractor is delayed in the performance of the Work by civil disorders, labour disputes, strikes, lock outs (including lock-outs decreed or recommended for its members by a recognized Contractor's Association, of which the Contractor is a member) fire, unusual delay by common carriers or unavoidable casualties or, without limit to any of the foregoing, by any cause of any kind whatsoever beyond the Contractor's control, then the Contract Time shall be extended for such reasonable time as may be decided by the Owner, in consultation with the Contractor, but in no case shall the extension of time be less than the time lost as the result of the event causing the delay, unless such shorter extension of time be agreed to by the Contractor.
- 8.4 No extension shall be made for delay unless written notice of claim is given to the Owner within fourteen (14) days of its commencement, providing that in the case of a continuing cause of delay only one notice shall be necessary.

GC 9 OWNER'S RIGHT TO DO WORK

- 9.1 If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of the Contract, the Owner may notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations and instruct the Contractor to correct the default within five (5) working days of receiving the notice.
- 9.2 If the correction of the default cannot be completed within the five (5) working days specified, the Contractor shall be considered to be in compliance with the Owner's instructions if the Contractor:
- a) commences the correction of the default within the specified time, and
 - b) provides the Owner with an acceptable schedule for such correction, and
 - c) completes the correction in accordance with such schedule.

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- 9.3 If the Contractor fails to comply with the provisions GC 9.1 and GC 9.2 the Owner may, without prejudice to any other right or remedy the Owner may have, correct such default and may deduct the cost thereof from the payment then or thereafter due the Contractor.

GC 10 OWNER'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

- 10.1 If the Contractor should be adjudged bankrupt, or makes a general assignment for the benefit of creditors or if a receiver is appointed on account of the Contractor's insolvency, the Owner may, without prejudice to any other right or remedy the Owner may have, by giving the Contractor written notice, terminate the Contract.
- 10.2 The Owner may notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations, if the Contractor:
- a) fails to proceed regularly and diligently with the Work; or
 - b) without reasonable cause wholly suspends the carrying out of the Work before the completion thereof, or
 - c) refuses or fails to supply sufficient properly skilled workers or proper workmanship, products or construction machinery and equipment for the scheduled performance of the Work within five (5) working days of receiving written notice from the Owner, except in those cases provided in GC 8 - Delay; or
 - d) fails to make payments due to the Contractor's Subcontractors, suppliers or workers; or
 - e) persistently disregards laws or ordinances, or the Owner's instructions; or
 - f) otherwise violates the provisions of the Contract to a substantial degree.

Such written notice by the Owner shall instruct the Contractor to correct the default within five (5) working days from the receipt of the written notice.

- 10.3 If the correction of the default cannot be completed within the five (5) working days specified, the Contractor shall be considered to be in compliance with the Owner's instructions if the Contractor:
- a) commences the correction of the default within the specified time, and

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- b) provides the Owner with an acceptance schedule for such correction, and
 - c) completes the correction in accordance with such schedule.
- 10.4 If the Contractor fails to correct the default within the time specified or subsequently agreed upon, the Owner may, without prejudice to any other right or remedy the Owner may have, stop the Work or terminate the Contract.
- 10.5 If the Owner terminates the Contract under the conditions set out above, the Owner is entitled to:
- a) take possession of the premises and products and utilize the temporary buildings, plants, tools, construction machinery and equipment, goods, materials, intended for, delivered to and placed on or adjacent to the Work and may complete the Work by whatever method the Owner may deem expedient but without undue delay or expense;
 - b) withhold any further payments to the Contractor until the Work is finished.
 - c) upon Total Performance of the Work, charge the Contractor the amount by which the full cost of finishing the Work including compensation to the Owner for the Owner's additional services and a reasonable allowance to cover the cost of any corrections required by GC 31 - Warranty, exceeds the unpaid balance of the Contract Price; or if such cost of finishing the Work is less than the unpaid balance of the Contract Price, pay the Contractor the difference.
 - d) on expiry of the warranty period, charge the Contractor the amount by which the cost of corrections under GC 31 - Warranty exceeds the allowance provided for such corrections, or if the cost of such corrections is less than the allowance, pay the Contractor the difference.
- 10.6 The Owner maintains the right to terminate the agreement for convenience at any time. Upon termination, the Owner will compensate the Contractor for all costs incurred to the date of termination and associated costs to shut down the Work in a manner as specified by the Owner. There will be no compensation for any further incidental costs including but not limited to loss of profit.

GC 11 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

- 11.1 If the Owner should be adjudged bankrupt, or makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of the Owner's

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insolvency, the Contractor may, without prejudices to any other right or remedy the Contractor may have, by giving the Owner written notice, terminate the Contract.

- 11.2 If the Work should be stopped or otherwise delayed for a period of thirty days or more under an order of any court, or other public authority, and providing that such order was not issued as the result of any act or fault of the Contractor or of any one directly or indirectly employed by the Contractor, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the Owner fifteen (15) days written notice, terminate the Contract.
- 11.3 The Contractor may notify the Owner in writing that the Owner is in default of the Owner's contractual obligations if:
- a) The Owner fails to issue a certificate in accordance with GC 21 - Certificates and Payments;
 - b) The Owner fails to pay to the Contractor when due any amount certified by the Owner and verified by the audit of the Owner.

Such written notice shall advise the Owner that if such default is not corrected within fifteen (15) days from the receipt of the written notice the Contractor may, without prejudice to any other right or remedy the Contractor may have, stop the Work and/ or terminate the contract.

- 11.4 If the Contractor terminates the Contract under the conditions set out above, the Contractor shall be entitled to be paid for all Work performed and for any loss sustained upon products and plant supplied with reasonable overhead, profit and damages.

GC 12 OTHER CONTRACTORS

- 12.1 The Owner reserves the right to let separate contracts in connection with the project of which the Work is part.
- 12.2 The Owner shall co ordinate the Work and insurance coverages of Other Contractors as it affects the Work of this Contract.
- 12.3 The Contractor shall coordinate the Contractor's work with that of Other Contractors and connect as specified or shown in the Contract Documents. Any change in the costs incurred by the Contractor in the planning and performance of such work which was not shown or included in the Contract documents as of the

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date of signing the Contract, shall be evaluated as provided under GC 19 - Valuation and Certification of Changes in the Work.

- 12.4 The Contractor shall report to the Owner any apparent deficiencies in other Contractor's work which would affect the Work of this Contract immediately when they come to the Contractor's attention and shall confirm such report in writing. Failure by the Contractor to so report shall invalidate any claims against the Owner by reason of the deficiencies of Other Contractor's work except as to those of which the Contractor was not reasonably aware.

GC 13 ASSIGNMENT

- 13.1 The Contractor shall not assign the Contract or any part thereof or any benefit or interest therein or thereunder with/out the written consent of the Owner.

GC 14 SUBCONTRACTORS

- 14.1 The Contractor agrees to preserve and protect the rights of the Owner under the Contract with respect to any work to be performed under subcontract. The Contractor shall:
- a) require the Contractor's Subcontractors to perform their work in accordance with and subject to the terms and conditions of the Contract Documents, and
 - b) be fully responsible to the Owner for acts and omissions of the Contractor's Subcontractors and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the Contractor.

The Contractor therefore agrees that the Contractor will incorporate all the terms and conditions of the Contract Documents into all Subcontract Agreements the Contractor enters into with the Contractor's Subcontractors.

- 14.2 The Contractor shall employ those Subcontractors proposed by the Contractor in writing and accepted by the Owner prior to the signing of the Contract for such portions of the Work as may be designated in the bidding requirements.
- 14.3 The Owner may, for reasonable cause, object to the use of a proposed Subcontractor and require the Contractor to employ one of the other Subcontractor Bidders.

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- 14.4 In the event that the Owner requires a change from any proposed Subcontractor the Contract Price shall be adjusted by the difference in cost occasioned by such required change.
- 14.5 The Contractor shall not be required to employ as a Subcontractor any person or firm to whom the Contractor may reasonably object.
- 14.6 The Owner may, upon reasonable request and at the Owner's discretion, provide to a Subcontractor information as to the percentage of the Subcontractor's work which has been certified for payment.
- 14.7 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the Owner.

GC 15 EMERGENCIES

- 15.1 The Owner has authority in an emergency to stop the progress of the Work whenever in the Owner's opinion such stoppage maybe necessary to ensure the safety of life, or the Work, or neighbouring property. This includes authority to make changes in the Work, and to order, assess and award the cost of such work, extra to the Contract or otherwise, as may in the Owner's opinion be necessary. The Owner shall, within two (2) working days, confirm in writing any such instructions. In such a case if work has been performed under direct order of the Owner, the Contractor shall keep the Contractor's right to claim the value of such work.
- 15.2 Should the Work be stopped by civil pickets, or other disorder, neither the Owner nor the Contractor shall have claim for change in the price of the Contract.

GC 16 SETTLEMENT OF DISPUTES AND CLAIMS

- 16.1 In the case of any dispute or claim arising between the Owner and the Contractor as to their respective rights and obligations under the Contract, either party hereto may give the other written notification of such dispute or claim. The notification of dispute or claim shall be made within fourteen (14) days of the dispute or cause of action arising. If the dispute or claim cannot be resolved to the satisfaction of both parties, either party may refer the matter to such judicial tribunal as the circumstances require.

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16.2 Legal proceedings shall not take place until after the performance or the Substantial Performance of the disputed Work except:

- a) when the dispute concerns a certificate for payment.
- b) where either party can show that the matter in dispute requires immediate consideration while evidence is available.
- c) in the case of legal proceedings, where the action may become prescribed by reason of delay.

GC 17 INDEMNIFICATION

17.1 Except as provided in GC 17.2, the Contractor shall be liable for, and shall indemnify and hold harmless the Owner against all claims, demands, losses, costs, damages, actions, suits or proceedings, whatsoever arising under any statute or Common Law:

- a) in respect of personal injury to or the death of any person whomsoever arising out of or in the course of or caused by the carrying out of the Work; and
- b) in respect of any injury or damage whatsoever to any property, real or personal or any chattel real, insofar as such injury or damage arises out of or in the course of or by reason of the carrying out of the Work.

17.2 The Contractor shall not be liable under GC 17.1 if the injury, death, loss or damage is due to any act or neglect of the Owner.

GC 18 CHANGES IN THE WORK

18.1 The Owner may make changes by altering, adding to, or deducting from the Work, with the Contract Price and the Contract Time being adjusted accordingly.

18.2 Except as provided in GC 15 - Emergencies, no change shall be made without a written order from the Owner and no claim for an addition or deduction to the Contract Price or change in the Contract Time shall be valid unless so ordered and at the same time valued or agreed to be valued as provided in GC 19 - Valuation and Certification of Changes in the Work.

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19.1 The value of any change shall be determined in one or more of the following methods:

- a) by unit prices as agreed upon
- b) by estimate and acceptance in a lump sum
- c) by cost and a fixed or percentage fee.

In the case of changes in the Work valued as outlined in GC 19.1 (a), where unit prices are provided in the Contract for the work to be done, those unit prices shall be used in determining the value of the change. If any unit price is not provided in the Contract for the work, a unit price shall be subsequently agreed upon or an alternate method of determining the value of the work shall be used.

In case of changes in the Work valued as outlined in GC 19.1 (b), the Contractor shall submit an itemized estimate for all materials and labour to complete the extra work.

In the case of changes in the Work valued as outlined in GC 19.1 (c), the Contractor shall submit detailed invoices, vouchers and time sheets for all materials and labour to complete the extra work.

Subject to the provisions of GC 19.2, when work is performed by the Contractor's own forces the Contractor's markup for overhead shall be ten (10) percent and the Contractor's profit ten (10) percent of the agreed or actual cost of the change. When work is performed by one of the Contractor's Subcontractors, the Subcontractor's markup for overhead shall be ten (10) percent of the agreed or actual cost of the change plus five (5) percent for profit. The Contractor's markup for overhead and profit shall be ten (10) percent of the Subcontractor's total price.

19.2 Notwithstanding the provisions of GC 19.1, in case of changes in the Work, the amount charged for equipment rentals shall be that provided in the Contract and no additional amount shall be paid as markup for overhead or profit for the Contractor or Subcontractor.

19.3 Notwithstanding the provisions of GC 19.1, in case of purchase of left over product or materials the Contractor's profit shall be ten (10) percent of the cost as supported by invoices or vouchers, or agreed upon price. No markup for overhead

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shall be added. This applied to material or product that are supplied only and not installed on site.

- 19.4 When a change in the Work is proposed or required the Contractor shall present to the Owner for approval the Contractor's claim for any change in the Contract Price and/or change in the Contract Time. The Owner shall be satisfied as to the correctness of such claim and, when approved shall issue a written order to the Contractor to proceed with the change. The value of work performed in the change shall be included for payment with the regular certificate for payment.
- 19.5 In the case of changes in the Work to be paid for under GC 19.1, the form of presentation of costs and methods of measurement shall be agreed to by the Owner and Contractor before proceeding with the change. The Contractor shall keep accurate records, as agreed upon, of quantities or costs and present an account of the cost of the change in the Work, together with vouchers where applicable.
- 19.6 If the method of valuation, measurement and the change in Contract Price and/or change in Contract Time cannot be promptly agreed upon, and the change is required to be proceeded with then the Owner shall determine the method of valuation, measurement and the change in Contract Price and/or Contract Time subject to final determination in the manner set out in GC 16 - Settlement of Disputes and Claims. In this case the Owner shall issue a written authorization for the change setting out the method of valuation and if by lump sum the Owner's valuation of the change in Contract Price and/or Contract Time.
- 19.7 In the case of a dispute in the valuation of a change authorized in the Work pending final determination of such value, the Owner shall certify the value of work performed and include the amount with the regular certificates for payment.
- 19.8 It is intended in all matters referred to above that both the Owner and Contractor shall act promptly.
- 19.9 Credits will be based on the net cost of material and labour or the net difference in unit price quantities.

GC 20 APPLICATION FOR PAYMENT

- 20.1 Applications for payment on account as provided for in Article A-4 of the Agreement may be made monthly as the Work progresses.

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- 20.2 Application for payment shall be made monthly on a date to be agreed between the Owner and the Contractor and the amount claimed shall be for the value, proportionate to the amount of the Contract, of work performed and products delivered to the site at that date.
- 20.3 If requested by the Owner, due to the use of Fixed Price items, the Contractor shall submit to the Owner, before the first application for payment, a schedule of values of the various parts of the Work, aggregating the total amount of the Contract Price and divided so as to facilitate evaluation of applications for payment.
- 20.4 The revised schedule, if required, shall be made out in such form, and supported by such evidence as to its correctness, as the Owner may reasonably direct, and when approved by the Owner shall be used as the basis for application for payment.
- 20.5 When making application for payment, the Contractor shall submit a statement based upon this schedule. Claims for products delivered to the site but not yet incorporated into the Work shall be supported by such evidence as the Owner may reasonably require to establish the value and delivery of the products.
- 20.6 Applications for release of holdback monies following the Substantial Performance of the Work and the application for final payment shall be made at the time and in the manner set forth in GC 21 - Certificates and Payments.

GC 21 CERTIFICATES AND PAYMENTS

- 21.1 The Owner shall, within ten (10) days of receipt of an application for payment from the Contractor submitted in accordance with GC 20 - Application for Payment, issue a certificate for payment in the amount applied for or such other amount as the Owner shall determine to be properly due. If the Owner amends the application the Owner shall promptly notify the Contractor in writing, giving the Owner's reasons for the amendment.
- 21.2 The Owner shall within twenty-one (21) days of the issuance of a certificate for payment by the Owner, make payment to the Contractor on account, in accordance with the provisions of the Agreement.
- 21.3 If payment is not made by the Owner within sixty (60) days of issuance of a certificate for payment, the Owner will be liable for interest on the amount owing at the rate of 2% per annum from the sixty-first (61st) day to the date of payment.

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21.4 Notwithstanding any other provisions of this Contract:

- a) If on account of climatic or other conditions reasonably beyond the control of the Contractor there are items of work that cannot be performed, the payment in full for that which has been performed as certified by the Owner shall not be withheld or delayed by the Owner on account thereof, but the Owner may withhold from the Contract Price until the remaining work is finished an amount sufficient to cover the cost to the Owner of performing such remaining work and to adequately protect the Owner from claims.
- b) Where legislation permits and where, upon application by the Contractor, the Owner has certified that a Subcontract has been totally performed to Owner's satisfaction prior to the Substantial Performance of this Contract, the Owner shall pay the Contractor the holdback retained for such Subcontractor on the day following the expiration of the Statutory Limitations Period stipulated in the Mechanics' Lien Act applicable to the place of building.
- c) Holdbacks will be released on the following conditions:
 - (i) a copy of the contract between the Subcontractor and the Contractor, or some other suitable Document satisfactory to the Owner, must be presented to the Owner,
 - (ii) the Subcontract is completed without deficiencies,
 - (iii) the warranty for the Subcontract will not start until Substantial Performance of the General Contract,
 - (iv) the Contractor provides an approved statutory declaration that all monies have been paid to the Subcontractors,
 - (v) the Owner will, at that time, release the total amount specified on the Subcontractor's Contract.

21.5 Notwithstanding the wording of such certificate the Contractor shall ensure that such work is protected pending the Total Performance of the Contract and be responsible for the correction of any defects in it regardless of whether or not they were apparent when such certificates were issued.

21.6 The Owner shall, within ten (10) days of receipt of an application from the Contractor for a Certificate of Substantial Performance, make an inspection and

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assessment of the work to verify the validity of the application. The Owner shall within seven (7) days of Owner's inspection notify the Contractor of the Owner's approval or disapproval of the application. When the Owner finds the Work to be Substantially Performed the Owner shall issue such a certificate. The date of this certificate shall be the date of Substantial Performance of the Contract. Immediately following the issuance of the Certificate of Substantial Performance, the Owner, in consultation with the Contractor shall establish a reasonable date for the Total Performance of the Contract.

- 21.7 Following the issuance of the Certificate of Substantial Performance and upon receipt from the Contractor of all documentation called for in the Contract Documents the Owner shall issue a certificate for payment of holdback monies. The release of holdback monies authorized by this certificate shall become due and payable on the day following the expiration of the Statutory Limitation Period stipulated in the Mechanics' Lien Act applicable to the place of building, providing that no lien or privilege claims against the Work exist and the Contractor has submitted to the Owner a sworn statement that all accounts for labour, Subcontracts, products, construction machinery and equipment and any other indebtedness which may have been incurred by the Contractor in the Substantial Performance of the Work and for which the Owner might in any way be held responsible have been paid in full except holdback monies properly retained.
- 21.8 The Owner shall, within ten (10) days of receipt of an application from the Contractor for payment upon Total Performance of the Contract, make an inspection and assessment of the Work to verify the validity of the application. The Owner shall within seven (7) days of the Owner's inspection notify the Contractor of the Owner's approval or disapproval of the application. When the Owner finds the Work to be totally performed to the Owner's satisfaction the Owner shall issue a Certificate of Total Performance and certify for payment the remaining monies due to the Contractor under the Contract less any holdback monies which are required to be retained. The date of this certificate shall be the date of Total Performance of the Contract. The Owner shall, within thirty (30) days of issuance of such certificate, make payment to the Contractor in accordance with the provisions of Article A-4 of the Agreement.
- 21.9 The release of any remaining holdback monies shall become due and payable on the day following the expiration of the Statutory Limitation Period stipulated in the Mechanics' Lien Act applicable to the place of building or where such legislation does not exist or apply in accordance with such other legislation, regulations

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governing privileges, industry practice or such other provisions which may be agreed to between the parties, provided that no claims against the Work exist and the Contractor has submitted to the Owner a sworn statement that all accounts for labour, Subcontracts, products, construction machinery and equipment and any other indebtedness which may have been incurred by the Contractor in the Total Performance of the Work and for which the Owner might in any way be held responsible, have been paid in full except holdback monies properly retained.

21.10 No certificate for payment, or any payment made thereunder, nor any partial or entire use of occupancy of the Work by the Owner shall constitute an acceptance of any work or products not in accordance with the Contract Documents.

21.11 The issuance of the Certificate of Total Performance shall constitute a waiver of all claims by the Owner against the Contractor except those previously made in writing and still unsettled, if any, and those arising from the provisions of GC 31 - Warranty, or those arising from negligence on the part of the Contractor.

The acceptance of the Certificate of Total Performance or of the payment due thereunder shall constitute a waiver of all claims by the Contractor against the Owner except those made in writing prior to the Contractor's application for payment upon Total Performance of the Contract and still unsettled, if any.

21.12 The holdback to be used by the Owner when issuing certificate of payment will be ten (10) percent of the value of the Work completed at the date of the Contractor's claim.

21.13 Notwithstanding the provisions of GC 21.3 or any other provision of this Contract, the Owner may:

- a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non performance of the Contract, withhold payment of any amount equal to the alleged damages until the liability for damages is established and no amount of interest will be paid on amounts held under this clause;
- b) set off amounts owing by the Contractor to the Owner,
- c) following the issuance of the Certificate of Substantial Performance, withhold payment of an amount equal to twice the cost, as estimated by the Owner, of remedying deficiencies until the issuance of a Certificate of Total

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Performance and no amount of interest will be paid on amounts held under this clause.

GC 22 TAXES AND DUTIES

- 22.1 The Contractor shall pay all government sales taxes, customs duties and excise taxes with respect to the Contract.

Contractors are advised that Government is not exempt from the Harmonized Sale Tax (HST). The Owner will pay the HST to the Contractor with each regular progress billing.

- 22.2 Any increase or decrease in costs to the Contractor due to changes in such taxes and duties after the date of the Agreement and up to the agreed date of completion shall increase or decrease the Contract Price accordingly. The Contractor is to co operate with the Owner and permit access to books and records in order to establish the amount of such taxes involved.
- 22.3 The Contractor shall maintain full records of the Contractor's estimates of and actual cost to the Contractor of the Work together with all proper Open Call for Bids, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, shall make them available to audit and inspection by the Owner, the Auditor General for Newfoundland and Labrador or by persons acting on their behalf, shall allow them to make copies thereof and to take extracts therefrom, and shall furnish them with any information which they may require from time to time in connection with such records.

GC 23 LAWS, NOTICES, PERMITS AND FEES

- 23.1 The laws of the place of building shall govern the Work.
- 23.2 The Contractor shall obtain all permits, licenses and certificates and pay all fees required for the performance of the Work which are in force at the date of the Open Call for Bids submission (but this shall not include the obtaining of permanent easements or rights of servitude).
- 23.3 The Contractor shall give all required notices and comply with all laws, ordinances, rules, regulations, codes and order of all authorities having jurisdiction relating to the Work, to the preservation of the public health and construction safety which are or become in force during the performance of the Work.

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- 23.4 The Contractor shall not be responsible for verifying that the Contract Documents are in compliance with the applicable laws, ordinances, rules, regulations and codes relating to the Work. If the Contract Documents are at variance therewith, or changes which require modification to the Contract Documents are made to any of the laws, ordinances, rules, regulations and codes by the authorities having jurisdiction subsequent to the date of the Open Call for Bids submission, any resulting change in the cost shall constitute a corresponding change in the Contract Price. The Contractor shall notify the Owner in writing requesting direction immediately any such variance or change is observed by the Contractor.
- 23.5 If the Contractor fails to notify the Owner in writing and obtain the Owner's direction as required in GC 23.4 and performs any work knowing it to be contrary to any laws, ordinances, rules, regulations, codes and orders of any authority having jurisdiction, the Contractor shall be responsible for and shall correct any violations thereof and shall bear all costs, expense and damages, attributable to the Contractor's failure to comply with the Provisions of such laws, ordinances, rules, regulations, codes and orders.
- 23.6 The Contractor is not required to carry the cost of a municipal permit related to performance of the Work. If a municipal permit is requested, the Contractor shall advise the Owner of the request and where directed by the Owner, shall pay for and obtain a permit related to the conduct of the Work and the Owner will issue a change order to allow for payment of the cost of obtaining the permit. Nothing in this clause relieves the Contractor of its obligation to make such filings and to submit such documents and notices with respect to the Work on behalf of the Owner as are otherwise required by the municipality. All other permits are to remain the responsibility of the Contractor.

GC 24 PATENT FEES

- 24.1 The Contractor shall pay all royalties and patent license fees required for the performance of the Contract and such royalties or fees shall be deemed to have been included in the contract price. The Contractor shall hold the Owner harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention by the Contractor or anyone for whose acts the Contractor may be liable.

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- 24.2 The Owner shall hold the Contractor harmless against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention in executing anything for the purpose of the Contract, the model, plan or design of which was supplied to the Contractor by the Owner.

GC 25 WORKPLACE NL

- 25.1 At the time of bid submission, and prior to receiving payment on Substantial and Total Performance of the Work, the Contractor shall provide evidence of compliance with all requirements of the Province in the place of building with respect to worker's compensation including payments due thereunder.
- 25.2 At any time during the term of Contract, when requested by the Owner, the Contractor shall provide such evidence of compliance by the Contractor and any or all of the Contractor's Subcontractors.
- 25.3 Non-incorporated companies i.e.: partnerships, sole proprietorships, and independent operators must provide coverage for any employees and personal coverage for the principal(s).

GC 26 LIABILITY INSURANCE

- 26.1 Comprehensive General Liability Insurance
- a) Without restricting the generality of GC 17 - Indemnification, the Contractor shall provide and maintain, either by way of a separate policy or by an endorsement to their existing policy, Commercial Liability Insurance acceptable to the Owner and subject to limits set out in detail in the Certificate of Insurance inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof.
 - b) This insurance shall include as an additional insured Her Majesty the Queen in Right of Newfoundland and Labrador and the Occupant/Operator of the property. Such insurance must have the approval of the Owner and be to the limits, form and amounts specified. The Contractor will not permit any Subcontractor to commence work on this Project until the same insurance requirements have been complied with by the Subcontractor.

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- c) The insurance shall also include as Unnamed Insureds the architectural and engineering consultants of the Owner with respect to work performed by the Contractor, but excluding professional liabilities associated with such architectural and engineering consultants.
- d) The Comprehensive General Liability Insurance will not be limited to, but shall include coverage for:
 - (i) premises and operations liability
 - (ii) products or completed operations liability
 - (iii) blanket contractual liability
 - (iv) broad form property damage
 - (v) cross liability
 - (vi) elevator and hoist liability
 - (vii) contingent employer's liability
 - (viii) personal injury liability.
 - (ix) liability with respect to non-owned licensed vehicles
 - (x) shoring, blasting, excavating, underpinning, demolition, pile driving and caisson work, work below ground surface, tunneling and grading as applicable.

26.2 Automobile Liability Insurance

The Contractor shall provide and maintain liability insurance in respect of (i) owned licensed vehicles and (ii) leased vehicles, subject to limits set out in this Contract.

26.3 Aircraft and/or Watercraft Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to owned and non-owned aircraft and watercraft, as may be applicable, subject to limits set out in this Contract. Such insurance shall be in the names of the Contractor, Her Majesty the Queen in Right of Newfoundland and Labrador and the Owner as

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defined in GC 26.1(b) and (c) where they have an insurable interest in the use and operation of such aircraft and watercraft.

26.4 Airport Contractor Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to work completed on the tarmac side of an airport and/or inside an airport and the area outside an airport if this is not provided within the Contractor's Commercial General Liability Insurance.

26.5 Environmental Impairment Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to environmental contamination/remediation at a work site.

26.6 Completed operations shall be maintained continuously until twenty four (24) months after the date the Engineer/Architect issues a Certificate of Substantial Performance**26.7 All insurance policies shall contain an endorsement requiring notification of Her Majesty and the Named Insured, in writing, thirty (30) days prior to cancellation of any policy or material change, except in the event of non-payment where policy conditions dealing with termination will apply.****GC 27 PROPERTY INSURANCE****27.1 The Contractor shall provide and maintain property insurance, acceptable to Her Majesty the Queen in the right of Newfoundland and Labrador, insuring the full value of the Work in the amount of the contract price and the full value as stated of products for incorporation into the Work. The insurance shall include as additional insured Her Majesty the Queen in Right of Newfoundland and Labrador.****27.2 Such coverage shall be provided for by **either** Broad Form Builders' Risks Policy **or** an Installation Floater **or** Piers, Wharves, and Docks Rider.****27.3 The policies shall insure on a Broad Form basis direct loss or damage subject to any exclusions specified in the Supplementary General Condition. Such coverage shall apply to:**

- a) all products, labour, and supplies of any nature whatsoever, the property of the Insureds or of others for which the Insureds may have assumed

Transportation and Infrastructure

GENERAL CONDITIONS

responsibility, to be used in or pertaining to the site preparations, demolitions of existing structures, erections and/or fabrication and/or reconstruction and/or repair of the insured project, while on the site or in transit, subject to the exclusion of the property specified.

- b) the installation, testing and any subsequent use of machinery and equipment including boilers, pressure vessels or vessels under vacuum.
- c) damage to the Work caused by an accident to and/or the explosion of any boiler(s) or pressure vessel(s) forming part of the Work.
- d) damage to Work caused by earthquake or flooding.

Such coverage shall exclude construction machinery, equipment, temporary structural and other temporary facilities, tools, and supplies used in the construction of the Work and which are not expendable under the Contract.

- 27.4 Policies provided shall contain an endorsement requiring notification of Her Majesty and the Named Insured, in writing, thirty (30) days prior to cancellation of any policy or material change of coverage except in the event of non-payment where policy conditions dealing with termination will apply.
- 27.5 All such insurance shall be maintained continuously until the date the Owner issues a Certificate of Substantial Performance. All such insurance shall provide for the Owner to take occupancy of the Work or any part thereof during the term of the insurance. Any increase in the cost of this insurance arising out of such occupancy shall be at the Owner's expense.
- 27.6 The policies shall provide that in the event of a loss, payment for damage to the Work shall be made to the Owner and the Contractor as their respective interests may appear. The Contractor shall act on behalf of the Owner and the Contractor for the purpose of adjusting the amount of such loss with the Insurers. On the determination of the extent of the loss, the Contractor shall immediately proceed to restore the Work and shall be entitled to receive from the Owner (in addition to any sum due under the Contract) the amount at which the Owner's interest in the restoration work has been appraised, such amount to be paid as the work of restoration proceeds and in accordance with the Owner's certificates for payment. Damage shall not affect the rights and obligations of either party under the Contract except that the Contractor shall be entitled to such reasonable extension of time for Substantial and Total Performance of the Work as the Owner may decide.

Transportation and Infrastructure

GENERAL CONDITIONS

- 27.7 The Contractor shall be responsible for any deductible amounts under the policies and for providing such additional insurance as may be required to protect the Insureds against loss on items excluded from the policies. Contractors are also advised that the Bid Documents contain a Certificate of Insurance indicating type and limit of liability insurance required for this project. The successful bidder will be required prior to commencement of work, to have the Certificate of Insurance completed by the Contractor's insurance company and delivered to the Government of Newfoundland and Labrador not later than thirty (30) days after the award of the contract.

GC 28 PROTECTION OF WORK AND PROPERTY

- 28.1 The Contractor shall protect the property adjacent to the Project site from damage as the result of the Contractor's operations under the Contract.
- 28.2 The Contractor shall protect the Work and the Owner's property from damage and shall be responsible for any damage which may arise as the result of the Contractor's operations under the Contract except damage which occurs as the result of:
- a) errors in the Contract Documents, and/or
 - b) acts or omissions by the Owner, the Owner's agents, employees or Other Contractors.
- 28.3 Should any damage occur to the Work and/or Owner's property for which the Contractor is responsible, the Contractor shall make good such damage at the Contractor's own expense or pay all costs incurred by others in making good such damage.
- 28.4 Should any damage occur to the Work and/or Owner's property for which the Contractor is not responsible as provided in GC 17 – Indemnification the Contractor shall make good such damage to the Work, and, if the Owner so directs to the Owner's property, and the Contract Price and Contract Time shall be adjusted in accordance with GC 18 - Changes in the Work.
- 28.5 The Contractor shall be completely responsible for the safety of the work as it applies to protection of the public and property and the construction of the work. All applicable Codes and Standards for the area and location of the Work shall apply to the project.

Transportation and Infrastructure

GENERAL CONDITIONS

28.6 Any person not following the stipulated safety regulations shall be dismissed.

GC 29 DAMAGES AND MUTUAL RESPONSIBILITY

29.1 If either party to this Contract should suffer damage in any manner because of any wrongful act or neglect of the other party or anyone employed by that party then that party shall be reimbursed by the other party for such damages. The party reimbursing the other party shall be subrogated to the rights of the other party in respect of such wrongful act or neglect if it be that of a third party.

29.2 Claims under this GC shall be made in writing to the party liable within reasonable time after the first observance of such damage and not later than the time limits stipulated in GC 21 - Certificates and Payments, and may be adjusted by agreement or in the manner set out in GC 16 - Settlement of Disputes and Claims.

29.3 If the Contractor has caused damage to any Other Contractor on the work, the Contractor agrees upon due notice to settle with such Other Contractor by agreement or arbitration, if the Other Contractor will so settle. If such Other Contractor sues the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor and may require the Contractor to defend the action at the Contractor's expense. If any final order or judgment against the Owner arises therefrom the Contractor shall pay or satisfy it and pay all costs incurred by the Owner.

29.4 If the Contractor becomes liable to pay or satisfy any final order, judgment or award against the Owner then the Contractor, upon undertaking to indemnify the Owner against any and all liability for costs, shall have the right to appeal in the name of the Owner such final order or judgment to any and all courts of competent jurisdiction.

GC 30 BONDS

30.1 The Owner shall have the right during the period stated in the Bid Documents for acceptance of the Bid to require the Contractor to provide and maintain in good standing until the fulfillment of the Contract, Bonds covering the faithful performance of the Contract including the requirements of the Warranty provided for in GC 31 - Warranty, and the payment of all obligations arising under the Contract.

Transportation and Infrastructure

GENERAL CONDITIONS

- 30.2 All such Bonds shall be issued by a duly incorporated surety company approved by the Owner and authorized to transact a business or surety ship in the Province of Newfoundland and Labrador.
- 30.3 If Bonds are called for in the Bid Documents or instructions to bidders, the costs attributable to providing such Bonds shall be included in the Bid price.
- 30.4 Should the Owner require the provision of a Bond or Bonds by the Contractor other than those provided for under GC 30.3, the Contract Price shall be increased by all costs attributable to providing such Bonds.
- 30.5 The Contractor shall promptly provide the Owner with any Bonds that are required.

GC 31 WARRANTY

- 31.1 Without restricting any warranty or guarantee implied or stipulated by law, the Contractor shall, at the Contractor's own expense rectify and make good any defect or fault however caused appearing within a **period of two (2) years** from the date of Substantial Performance of the Work provided that the Contractor shall not be responsible for any defect or fault resulting from the design of the Work.
- 31.2 The Contractor shall correct and/or pay for any damage to other work resulting from any corrections required under the conditions of GC 31.1.
- 31.3 Neither the Owner's final certificate nor payment thereunder shall relieve the Contractor from the Contractor's responsibility hereunder.
- 31.4 The Owner shall give the Contractor written notice of observed defects promptly.
- 31.5 In any case where the Contractor claims that the Contractor is not responsible for a defect or fault because the Contractor claims such a defect or fault results from a design of the work by the Owner, the onus to establish that the same is so in the first instance shall be on the Contractor.
- 31.6 The Contractor shall, subject to the procedures for Settlement of Disputes contained in GC 16 – Settlement of Disputes and Claims, abide by the direction and decisions of the Owner made pursuant to the General Conditions and in particular GC 7 – Owner's Decision regarding the correction by the Contractor of any defect or fault in the work discovered during the warranty period referenced in GC 31.1 hereof.

Transportation and Infrastructure

GENERAL CONDITIONS

- 31.7 The Contractor shall submit a schedule for the completion of the warranty work in respect of the defect or fault referenced in GC 31.1 hereof, which schedule must be acceptable to the Owner within thirty (30) days of the Owner requesting in writing such a schedule from the Contractor.
- 31.8 Where the Contractor rectifies and makes good any defect or fault for which the Contractor is responsible under this Warranty, the Contractor shall warrant the portion of the work that is corrected for a further two (2) years from the date that the correction was done.

GC 32 CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK

- 32.1 The Contractor shall have complete control of the Work except as provided in GC 15 - Emergencies. The Contractor shall effectively direct and supervise the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all parts of the Work under the Contract.
- 32.2 The Contractor shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structural and other temporary facilities and the design and execution of construction methods required in their use. The Contractor shall engage and pay for registered professional engineering personnel skilled in the appropriate discipline to perform these functions where required by law or by the Contract Documents and in all cases where such temporary facilities and their method of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 32.3 Notwithstanding the provisions of GC 32.1 and GC 32.2 above, or any provisions to the contrary elsewhere in the Contract Documents where such Contract Documents include designs for temporary structural and other temporary facilities and methods shall be deemed to comprise part of the overall design of the Work and the Contractor shall not be held responsible for that part of the design or the specified method of construction. The Contractor shall, however, be responsible for the execution of such design or specified method of construction in the same manner that the Contractor is responsible for the execution of the Work.
- 32.4 The Contractor shall carefully examine the Contract Documents and shall promptly report to the Owner any error, inconsistency or omission the Contractor may discover. The Contractor shall not be held liable for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents.

Transportation and Infrastructure

GENERAL CONDITIONS**GC 33 SUPERINTENDENCE**

- 33.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Work site at all times while work is being performed.
- 33.2 The superintendent shall be satisfactory to the Owner and shall not be changed except for good reason and only then after consultation with and agreement by the Owner.
- 33.3 The superintendent shall represent the Contractor at the Work site. Directions given to the superintendent by the Owner shall be held to have been given to the Contractor. Important directions shall be confirmed to the Contractor in writing, other directions will be so confirmed if requested.

GC 34 LABOUR AND PRODUCTS

- 34.1 Unless otherwise stipulated elsewhere in the Contract Documents, the Contractor shall provide and pay for all labour products, tools, construction equipment and machinery, water, heat, light, power, transportation and other facilities and services necessary for the proper performance of the Work.
- 34.2 All products provided shall be new unless otherwise specified in the Contract Documents. Any products which are not specified shall be of a quality best suited to the purpose required and their use subject to the approval of the Owner.
- 34.3 The Contractor shall at all times maintain good order and discipline among the Contractor's employees engaged on the Work and shall not employ on the Work any unfit person nor anyone not skilled in the task assigned to that person.

GC 35 SUBSURFACE CONDITIONS

- 35.1 The Contractor shall promptly notify the Owner in writing if, in the Contractor's opinion, the subsurface conditions at the Project site differ materially from those indicated in the Contract Documents or as may have been represented to the Contractor by the Owner before the time of Open Call for Bids submission.
- 35.2 After prompt investigation, should the Owner determine that conditions do differ materially, the Owner shall issue appropriate instructions for changes in the Work as provided for in GC 18 - Changes in the Work.

Transportation and Infrastructure

GENERAL CONDITIONS**GC 36 USE OF PREMISES**

- 36.1 The Contractor shall confine the Contractor's apparatus, the storage of products and the operations of the Contractor's workers to limits indicated by laws, ordinances, permits or by directions of the Owner and shall not unreasonably encumber the premises with the Contractor's products.
- 36.2 The Contractor shall not load or permit to be loaded any part of the Work with a mass that will endanger its safety.
- 36.3 The Contractor shall enforce the Owner's instructions regarding signs, advertisements, fires and smoking.
- 36.4 Unless otherwise provided the Contractor shall, at the Contractor's own expense, and without extra cost to the Owner, make suitable provision to accommodate all traffic either pedestrian or vehicular, over or around, the project upon which work is being performed, in a manner satisfactory to the Owner.
- 36.5 The Contractor shall provide and maintain at the Contractor's own expense such fences, barriers, signs, lights and security as may be necessary to prevent avoidable accidents to residents or to the public generally.

GC 37 CLEANUP AND FINAL CLEANING OF WORK

- 37.1 The Contractor shall maintain the Work in a tidy condition and free from the accumulation of waste products and debris, other than that caused by the Owner, other Contractors or their employees.
- 37.2 When the Work is Substantially Performed the Contractor shall remove all of the Contractor's surplus products, tools, construction machinery and equipment not required for the performance of the remaining work. The Contractor shall also remove any waste products and debris and leave the Work clean and suitable for occupancy by the Owner unless otherwise specified.
- 37.3 When the Work is Totally Performed, the Contractor shall remove all of the Contractor's surplus Products, tools, construction machinery and equipment. The Contractor shall also remove any waste products and debris, other than that caused by the Owner, other Contractors or their employees.

Transportation and Infrastructure

GENERAL CONDITIONS**GC 38 CUTTING AND REMEDIAL WORK**

- 38.1 The Contractor shall do all cutting and remedial work that may be required to make the several parts of the Work come together properly.
- 38.2 The Contractor shall co ordinate the schedule for the Work to ensure that this requirement is kept to a minimum.
- 38.3 Should the Owner or anyone employed by the Owner be responsible for ill-timed work necessitating cutting and/or remedial work shall be valued as provided in GC 19 - Valuation and Certification of Changes in the Work and added to the Contract Price.
- 38.4 Cutting and remedial work shall be performed by specialists familiar with the materials affected and shall be performed in a manner to neither damage nor endanger any Work.

GC 39 INSPECTION OF WORK

- 39.1 The Owner shall have access to the Work for inspection wherever it is in preparation or progress. The Contractor shall co operate to provide reasonable facilities for such access.
- 39.2 If special tests, inspections or approvals are required by the Contract Documents, the Owner's instructions or the laws or ordinances of the place of building the Contractor shall give the Owner timely notice requesting inspection. Inspection by the Owner shall be made promptly. The Contractor shall arrange inspection by other authorities and shall notify the Owner of the date and time.
- 39.3 If the Contractor covers or permits to be covered any of the Work that is subject to inspection or before any special tests and approvals are completed without the approval of the Owner, the Contractor shall uncover the Work, have the inspection satisfactorily completed and make good the Work at the Contractor's own expense.
- 39.4 Examination of any questioned Work may be ordered by the Owner. If such Work be found in accordance with the Contract the Owner shall pay the cost of examination and replacement, together with the cost of subsequent verification testing. If such Work be found not in accordance with the Contract through the fault of the Contractor, the Contractor shall pay such cost.

Transportation and Infrastructure

GENERAL CONDITIONS

- 39.5 The Contractor shall furnish promptly to the Owner all certificates and inspection reports relating to the Work.

GC 40 REJECTED WORK

- 40.1 Defective Work, whether the result of poor workmanship, use of defective products or damage through carelessness or other act or omission of the Contractor, and whether incorporated in the Work or not, which has been rejected by the Owner as failing to conform to the Contract Documents shall be removed promptly from the premises by the Contractor and replaced and/or executed promptly in accordance with the Contract Documents at the Contractor's expense.
- 40.2 Other Contractor's work destroyed or damaged by such removals or replacements shall be made good promptly at the Contractor's expense.
- 40.3 If in the opinion of the Owner it is not expedient to correct defective work not done in accordance with the Contract Documents, the Owner may deduct from the Contract Price the difference in value between the Work as done and that called for by the Contract, the amount of which shall be determined in the first instance by the Owner.

GC 41 SHOP DRAWINGS

- 41.1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are to be provided by the Contractor to illustrate details of a portion of the Work.
- 41.2 The Contractor shall arrange for the preparation of clearly identified shop drawings as called for by the Contract Documents or as the Owner may reasonably request.
- 41.3 Prior to Submission to the Owner the Contractor shall review all shop drawings. By this review the Contractor represents that the Contractor has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data or will do so and that the Contractor has checked and coordinated each shop drawing with the requirements of the Work and of the Contract Documents. The Contractor's review of each shop drawing shall be indicated by stamp, date and signature of a responsible person.
- 41.4 The Contractor shall submit shop drawings to the Owner for the Owner's review with reasonable promptness and in orderly sequence so as to cause no delay in

Transportation and Infrastructure

GENERAL CONDITIONS

the Work or in the Work of Other Contractors. If either the Contractor or the Owner so requests they shall jointly prepare a schedule fixing the dates for submission and return of shop drawings. Shop drawings shall be submitted in electronic format (PDF) or prints as the Owner may direct. At the time of submission the Contractor shall notify the Owner in writing of any deviations in the shop drawings from the requirements of the Contract Documents.

- 41.5 The Owner will review and return shop drawings in accordance with any schedule agreed upon, or otherwise with reasonable promptness so as to cause no delay. The Owner's review shall be for conformity to the design concept and for general arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the Contract Documents unless a deviation on the shop drawings has been approved in writing by the Owner.
- 41.6 The Contractor shall make any changes in shop drawings which the Owner may require consistent with the Contract Documents and resubmit unless otherwise directed by the Owner. When resubmitting the Contractor shall notify the Owner in writing of any revisions other than those requested by the Owner.

GC 42 SAMPLES

- 42.1 The Contractor shall submit for the Owner's approval such standard manufacturers' samples as the Owner may reasonably require. Samples shall be labelled as to origin and intended use in the Work and shall conform to the requirements of the Contract Documents.
- 42.2 The Contractor shall provide samples of special products, assemblies, or components when so specified. The cost of such samples not specified shall be authorized as an addition to the Contract Price as provided in GC 18 - Changes in the Work.

GC 43 TESTS AND MIX DESIGNS

- 43.1 The Contractor shall furnish to the Owner test results and mix designs as may be requested. The testing company must first be approved by the Owner.
- 43.2 The cost of tests and mix designs beyond those called for in the Contract Documents or beyond those required by laws, ordinances, rules and regulations

Transportation and Infrastructure

GENERAL CONDITIONS

relating to the work and the preservation of public health, shall be authorized as an addition to the Contract Price as provided in GC 18 - Changes in the Work.

GC 44 LABOUR

- 44.1 In carrying out the Contractor's duties under this contract, the Contractor should comply with all Provincial and Federal legislation respecting labour and the employment of labour, where applicable, including the labour standards code and shall not operate in conflict with the Human Rights legislation. In the employment of labour, preference should be given to persons normally resident in Newfoundland and Labrador.
- 44.2 The Contractor and Subcontractors shall maintain and keep available for inspection by the Owner, a record of the names and addresses of all workers employed on the Project.
- 44.3 All Work shall be done by workers skilled in their various trades.
- 44.4 There shall be no discrimination in the selection of workers for employment on the project in respect of gender, race, religious views or political affiliation.
- 44.5 The Contractor shall pay fair wages and shall pay rates of wages and allowances to the various classes of labour not less favourable than those prevailing in the area where the Work is being performed.

GC 45 TIME OF ESSENCE

- 45.1 Time is of the essence of the Contract.

GC 46 ASSESSMENT AND DAMAGES FOR LATE COMPLETION

- 46.1 For purposes of this General Condition
 - a) The Work shall be deemed to be completed on the date that a Certificate of Substantial Performance referred to in GC 21.6 is issued, and
 - b) "Period of delay" means the number of days commencing on the day fixed by the Articles of Agreement for completion of the Work and ending on the day immediately preceding the day on which the Work is completed but does not include any day in which, in the opinion of the Owner, completion of the Work was delayed for reasons beyond the control of the Contractor.

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GENERAL CONDITIONS

- 46.2 If the Contractor does not complete the Work by the day fixed for its completion by the Articles of Agreement but completes it thereafter, the Contractor shall pay the Owner for liquidated damages.
- 46.3 The Liquidated Damage Daily Rate has been determined as the total of the department's costs associated with maintaining a presence and carrying out typical contract administration duties on the project which includes, but has not been limited to the following: salaries including overtime, for the staff complement on the project, travel costs for the normal staff complement on the project, vehicle rental charges, fuel for vehicles, and other equipment rental charges, such as internal survey equipment, which may be utilized on the project. **The Liquidated Damage Daily Rate for this project is indicated in the Supplementary General Condition Section of this document.**
- 46.4 Depending on the scope of work, there may be other direct or indirect costs to the department, which will also be deemed to be recoverable as supplemental liquidated damages including but not limited to consulting, third parties etc. These other costs shall be quantified and considered as additional to the Liquidated Damage Daily Rate noted above.
- 46.5 No bonus will be assessed for completing the project ahead of the given Contract Completion date.
- 46.6 Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree to the Liquidated Damage Daily Rate as being a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.
- 46.7 Liquidated Damages will be applied to the contract payment at the per diem amount specified for each calendar day of the Period of Delay, as defined above, not as a penalty but as Liquidated Damages. It will apply until work is considered no longer feasible in the construction season or the work is completed according to the definition of Substantial Performance. Paving work will be considered no longer feasible when asphalt paving is terminated by the Department's Highway Specifications or an approved end of paving season extension date as communicated by the Department. Liquidated damages in a subsequent construction season will apply from the day after the Victoria Day holiday to when work is completed according to the definition of Substantial Performance.

Transportation and Infrastructure

GENERAL CONDITIONS

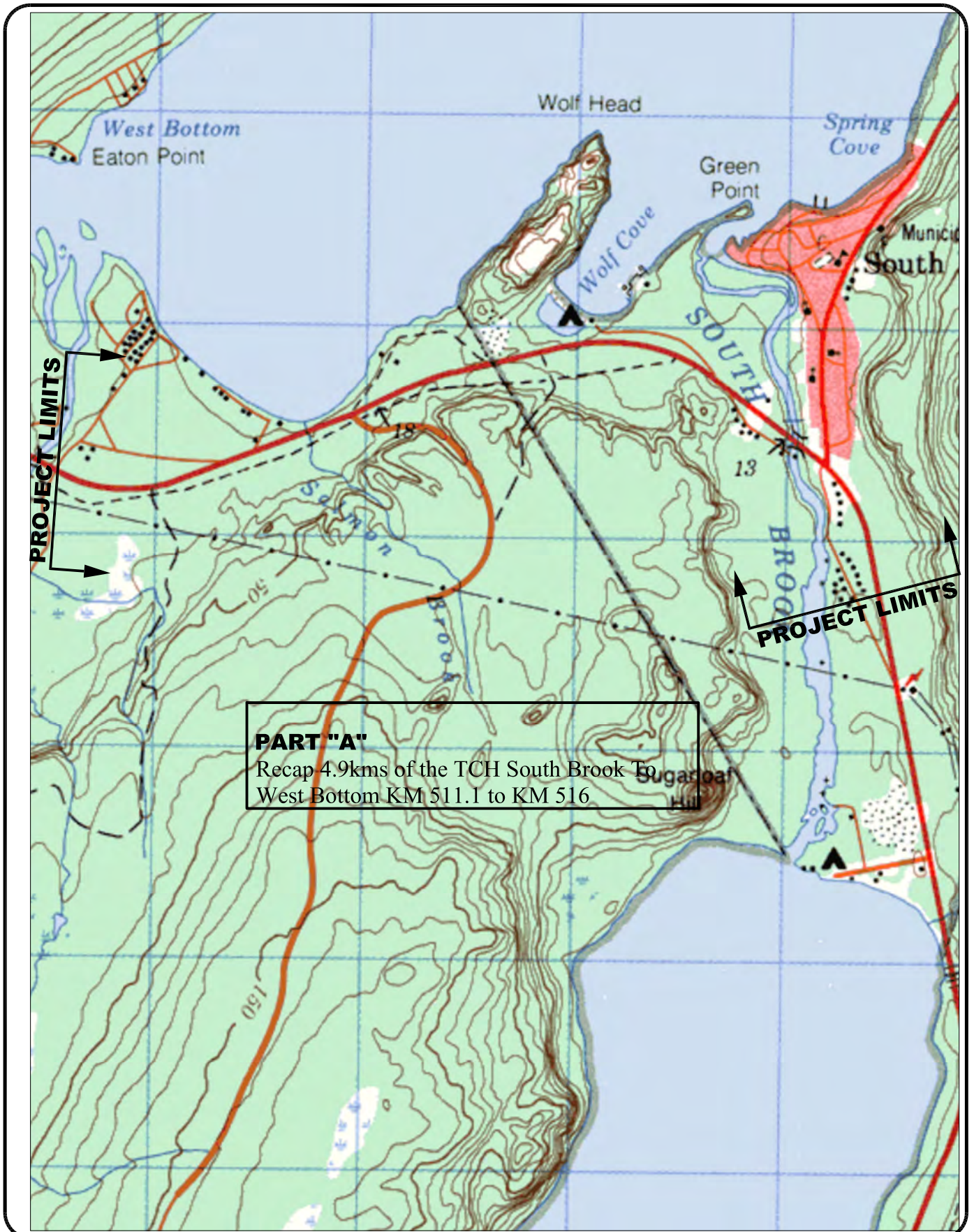
- 46.8 In the event that a Contractor is awarded multiple contracts by Government within a construction season, Government reserves the right in its sole discretion to amend the Contract Completion Date if an approved amended execution plan and/or schedule allows more effective and efficient execution of all related multiple Contracts.

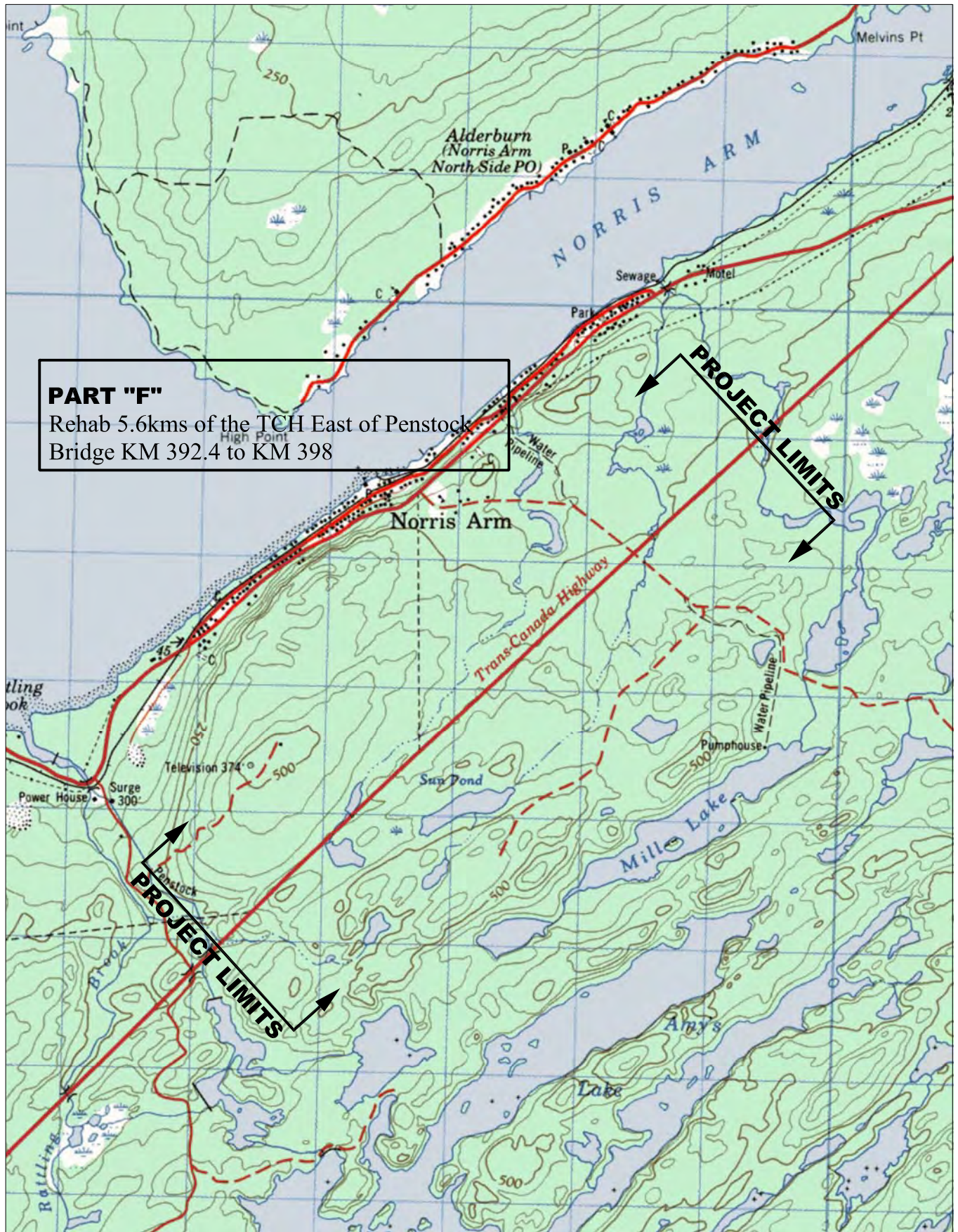
GC 47 CERTIFICATE OF RECOGNITION FOR CONTRACTS

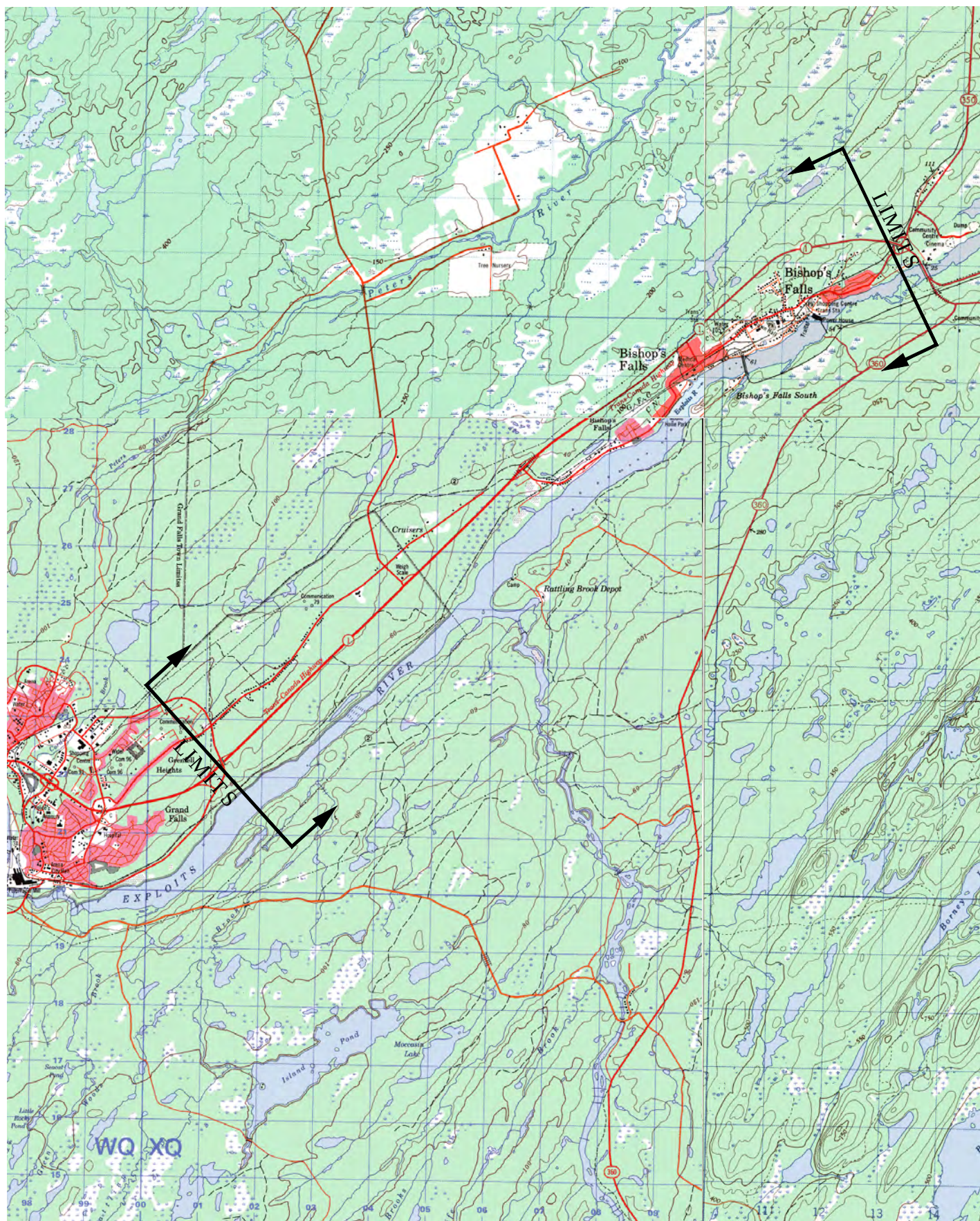
- 47.1 The Contractor shall, at the time of bid submission, submit a Letter of Good Standing stating Certificate of Recognition (COR) certified from the Newfoundland and Labrador Construction Safety Association, or equivalent.
- 47.2 At any time during the term of the Contract, when requested by the Owner, the Contractor shall provide such evidence of compliance by any or all of his or her Subcontractors.

Section Fourteen

List of Project Plans







TRANSPORTATION AND INFRASTRUCTURE

HIGHWAY DESIGN DIVISION

CONTRACT DRAWINGS FOR THE REHABILITATION OF

PART 'B' - SITE No. TCH-048

TCH - SOUTH BROOK BRIDGE km 512.5

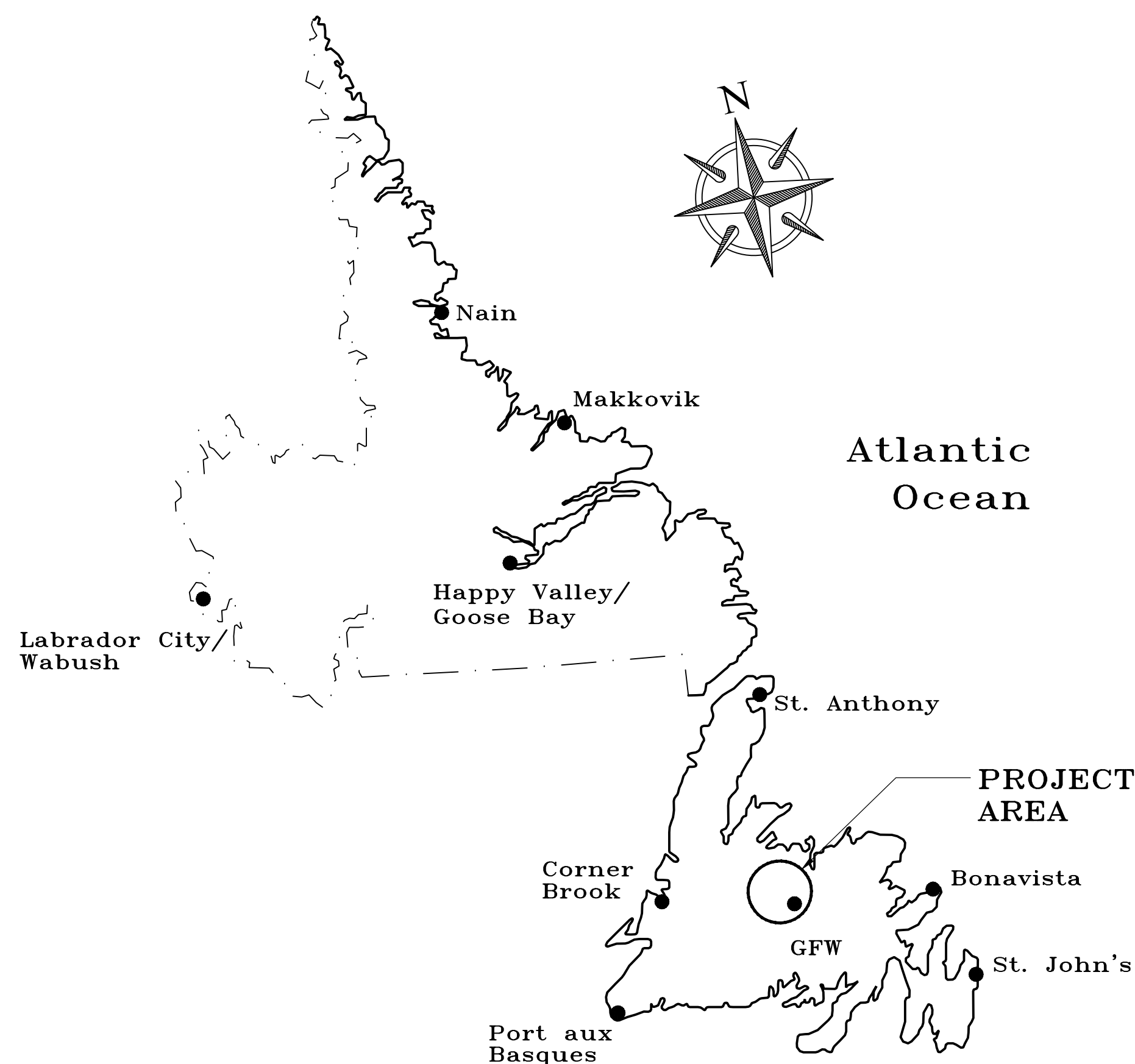
PART 'C' & 'D' - SITE No. TCH-147 EBL, TCH-148 WBL

TCH - GRAND FALLS-WINDSOR WEST OVERPASSES km 433.3

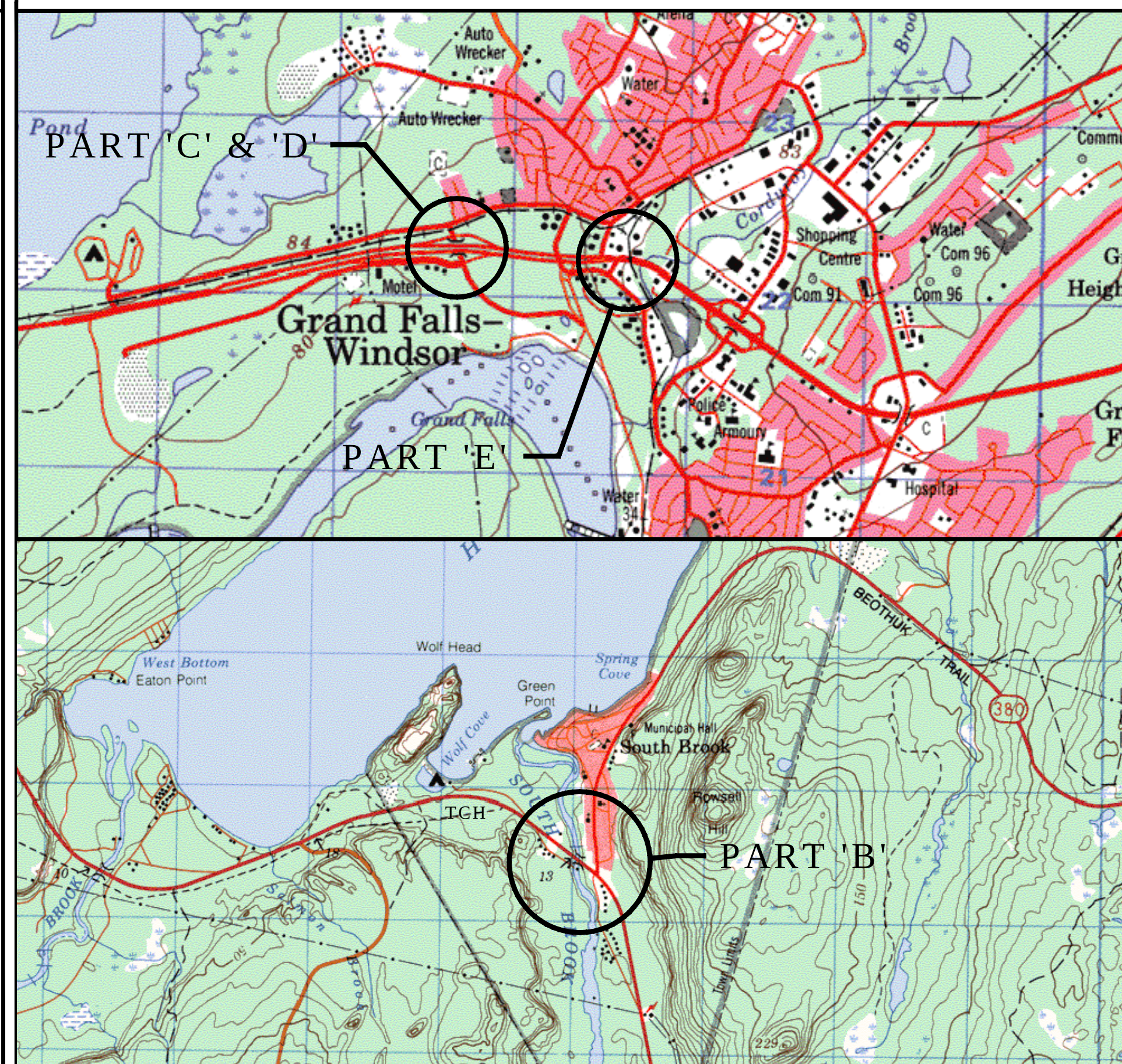
PART 'E' - SITE No. TCH-156

TCH - GRAND FALLS-WINDSOR PEDESTRIAN UNDERPASS km 432.3

SITE PLAN



LOCATION PLAN

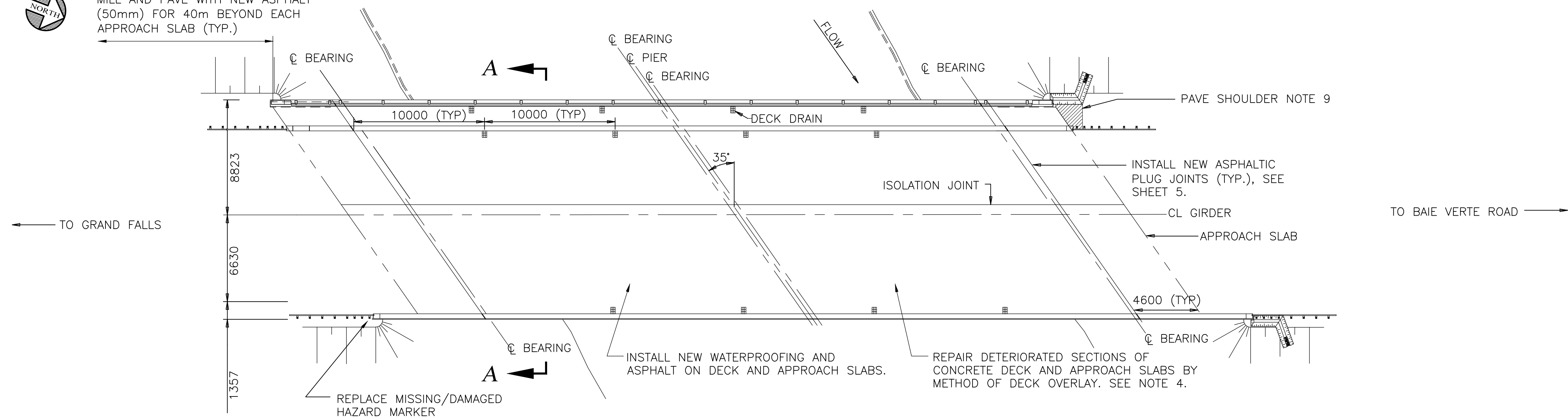


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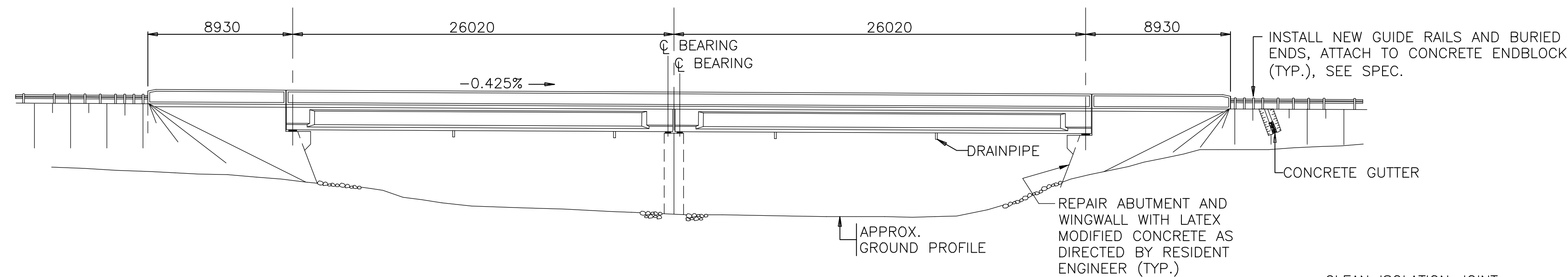
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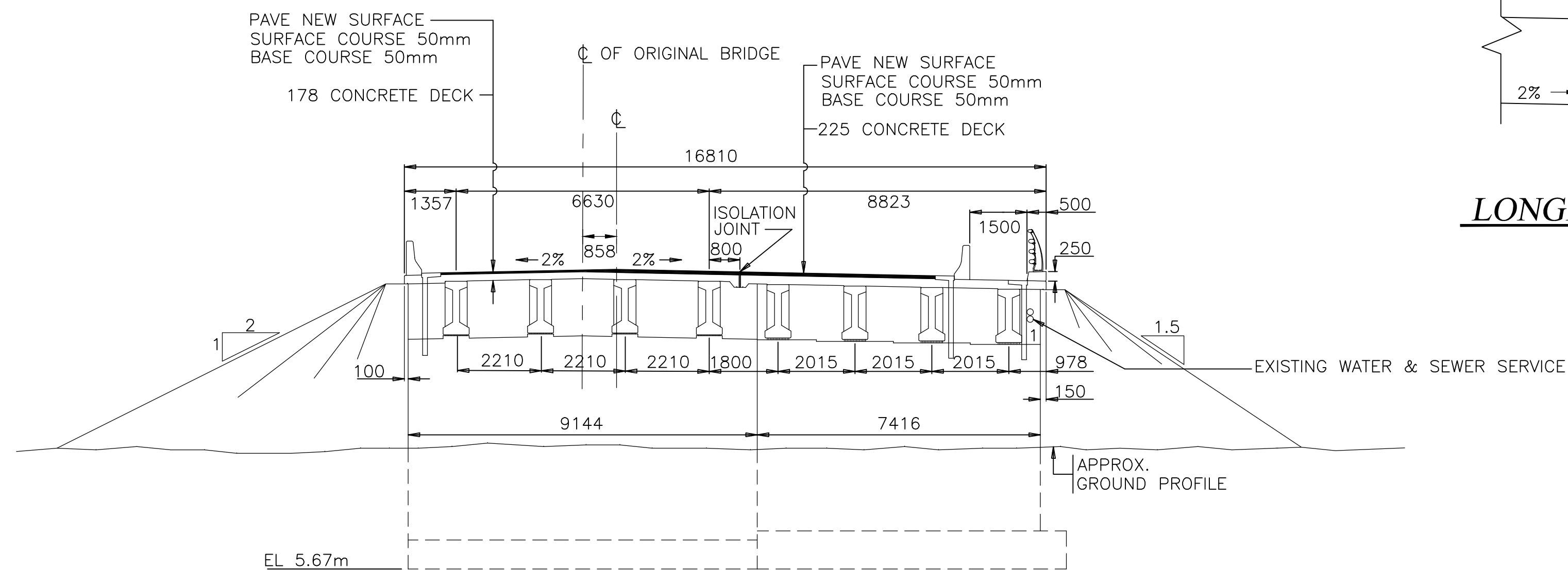
MILL AND PAVE WITH NEW ASPHALT (50mm) FOR 40m BEYOND EACH APPROACH SLAB (TYP.)



PLAN
SCALE 1:200

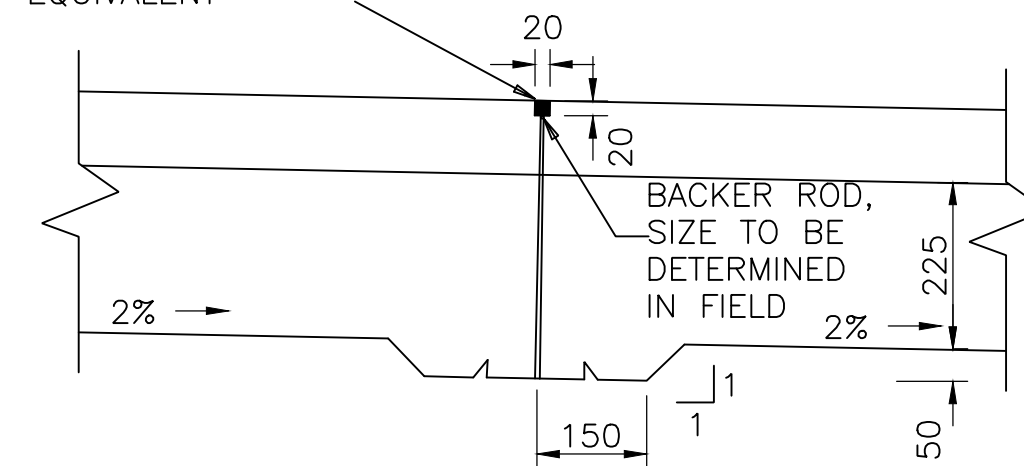


NORTHEAST ELEVATION
SCALE N.T.S.



SECTION A-A
SCALE 1:100

CLEAN ISOLATION JOINT AND FILL WITH HOT APPLIED ASPHALTIC SEALER, BERAM 195M OR APPROVED EQUIVALENT



LONGITUDINAL ISOLATION JOINT
SCALE 1:10

1. ALL EXPOSED REINFORCEMENT THAT IS TO REMAIN SHALL BE BLAST CLEANED AND PAINTED WITH ZINC RICH PRIMER, REFER TO RELEVANT SGC FOR DETAILS.
2. IF THE EXISTING REINFORCEMENT CROSS SECTIONAL AREA IS CORRODED MORE THAN 10% OF IT'S ORIGINAL CROSS SECTION, THE REINFORCEMENT MUST BE REPLACED. TO REPLACE, DOWEL STEEL REINFORCEMENT 350mm INTO EXISTING CONCRETE USING HILTI HIT-RE 500 V3 CHEMICAL ADHESIVE AS PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. REFER TO RELEVANT SGC FOR DETAILS OF EXPANSION JOINT INSTALLATION
4. EXTENT OF REPAIR SHALL BE DETERMINED BY THE RESIDENT ENGINEER ON SITE.
5. ALL WORK SHALL BE IN ACCORDANCE WITH CAN/CSA S6-19 DESIGN OF HIGHWAY BRIDGES AND CAN/CSA-A23.1 CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION
6. CONCRETE TO BE AS PER SECTION 904 OF DEPARTMENTS SPECIFICATION BOOK
7. REINFORCING STEEL TO BE AS PER SECTION 905 OF DEPARTMENTS SPECIFICATION BOOK
8. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL DIMENSIONS PRIOR TO CONSTRUCTION OR FABRICATION.
9. HATCHED AREA SHALL BE PAVED, ASPHALT ELEVATION TO MATCH TOP OF GUTTER.
10. BRIDGE DESIGNED TO CS 600 LIVE LOAD

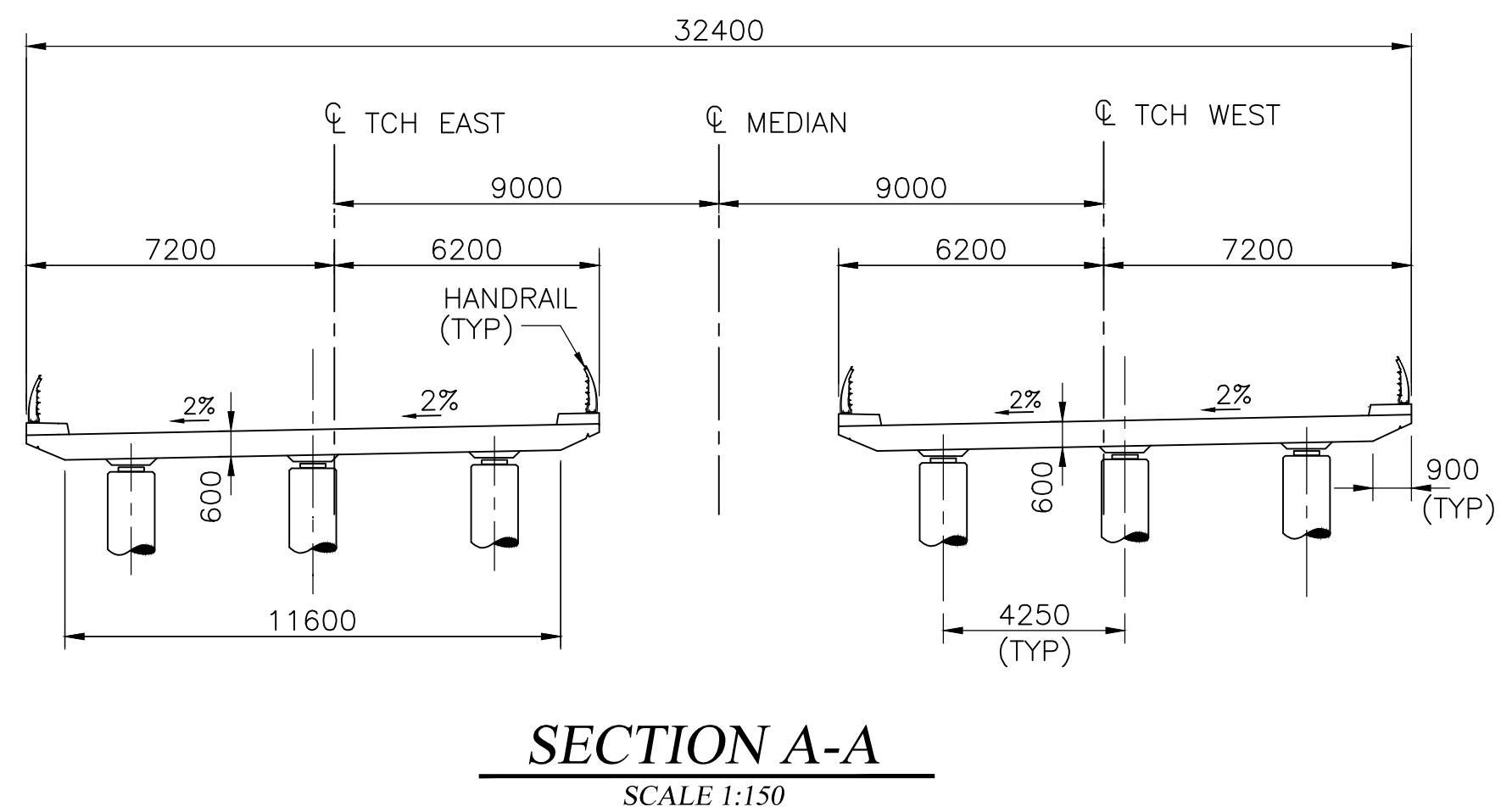
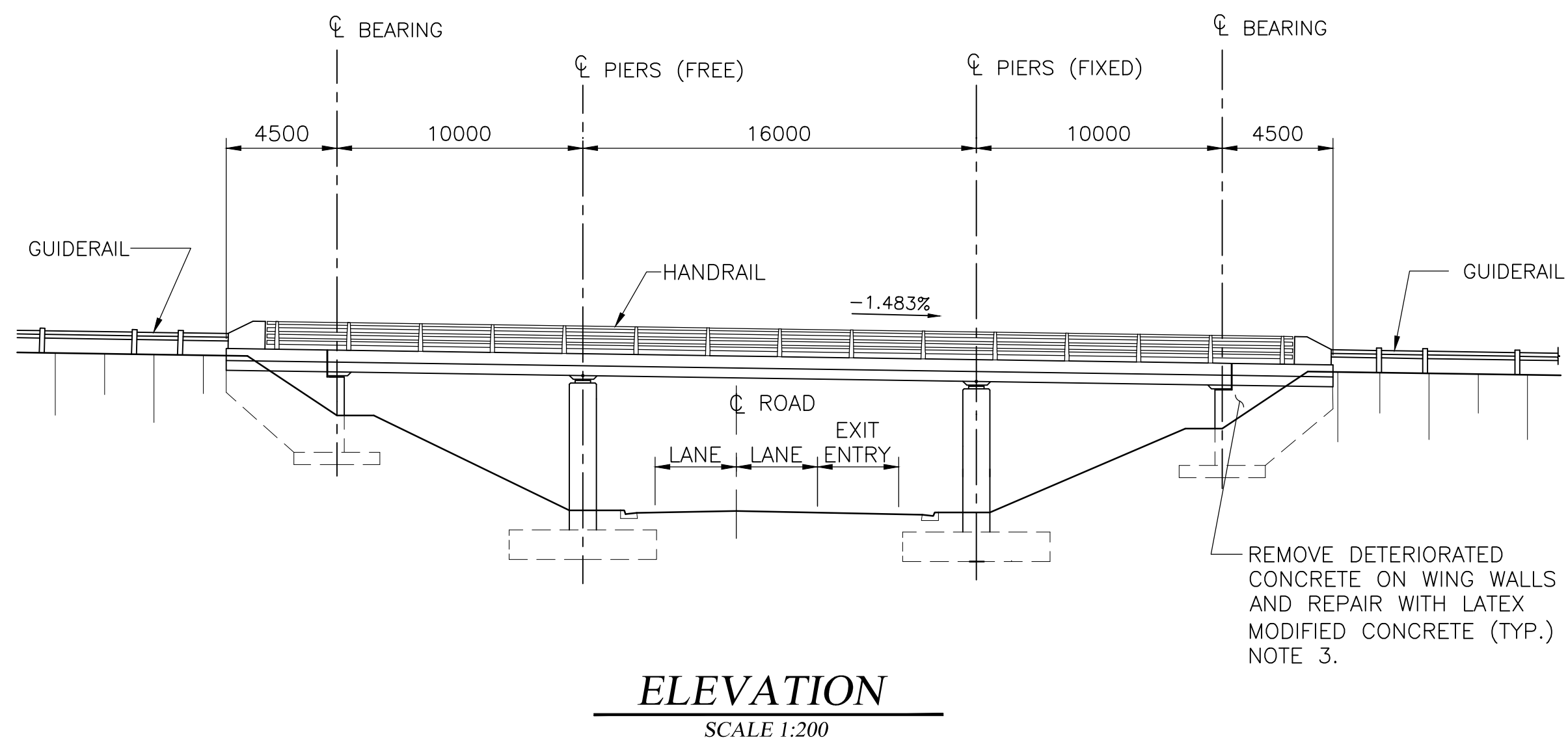
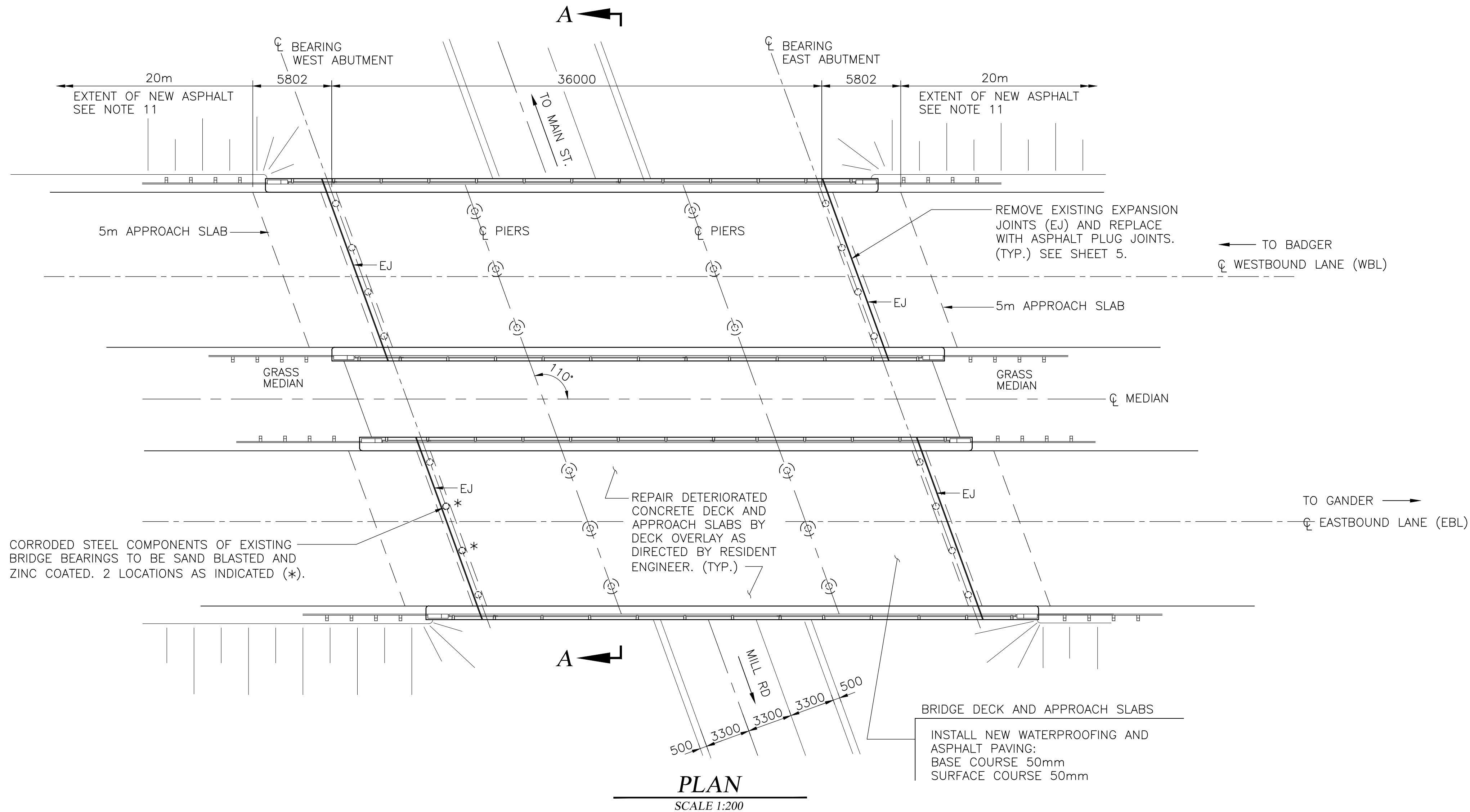
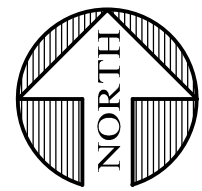
No.	By	REVISION DESCRIPTION	Date
FOR USE BY TRAFFIC ENGINEERING ONLY			
Designed By	Date	Checked By	Date
DETAIL SYMBOL		DO NOT SCALE DRAWINGS	
A. DETAIL NUMBER		B. SHEET WHERE TAKEN	
C. SHEET WHERE DETAILED			

Project/Drawing Title
PART 'B'
SOUTH BROOK BRIDGE
GENERAL ARRANGEMENT
AND REPAIR DETAILS

Drawn By B.B.	Design Engineer
Dwg Chk'd By	
Designed By Y.Y.	
Des Chk'd By	
Approved By	
Date MAY 2021	

" FOR TENDER ONLY "

Project No. 46 - 21 PHP



- CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL DIMENSIONS PRIOR TO CONSTRUCTION OR FABRICATION.
- ALL WORK SHALL BE IN ACCORDANCE WITH CAN/CSA S6-19 DESIGN OF HIGHWAY BRIDGES AND CAN/CSA-A23.1 CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION
- EXTENT OF REPAIR SHALL BE DETERMINED BY THE RESIDENT ENGINEER ON SITE.
- REFER TO DEPARTMENTS SPECIFICATION BOOK FOR CONCRETE, SECTION 904 AND REINFORCING, SECTION 905.
- REPAIRS NOTED ON THIS DRAWING ARE FOR BOTH EAST AND WEST BOUND LANES.
- THE CONCRETE DECK IS PRESTRESSED IN THE LONGITUDINAL AND TRANSVERSE DIRECTIONS. CONTRACTOR MUST ENSURE NOT TO DAMAGE THE PRESTRESSING DUCTS.
- EXISTING CONCRETE SLAB REINFORCEMENT:
 - 15M@400 TOP AND BOT EACH WAY,
 - 15M SHEAR BARS.CONCRETE COVER:
DECK AND APPROACH SLABS = 65mm
- MINIMUM SPLICE LENGTH FOR REINFORCEMENT EXCLUDING BUNDLED BARS IN mm:

BAR SIZE	SPLICE
10M	350
15M	500
20M	650
25M	800
30M	950
35M	1100
- PIER AND ABUTMENT PROFILES ARE FOR ILLUSTRATIVE PURPOSES ONLY.
- EXISTING BRIDGE DESIGN LOAD CS-600-88
- MILL AND PAVE BRIDGE APPROACHES TO TIE IN DECK WITH EXISTING ROAD PROFILE, EXTENT OF PAVING SHALL BE CONFIRMED BY THE RESIDENT ENGINEER

No.	By	REVISION DESCRIPTION	Date
FOR USE BY TRAFFIC ENGINEERING ONLY			
Designed By	Date	Checked By	Date

DETAIL SYMBOL	DO NOT SCALE DRAWINGS
A. DETAIL NUMBER B. SHEET WHERE TAKEN C. SHEET WHERE DETAILED	

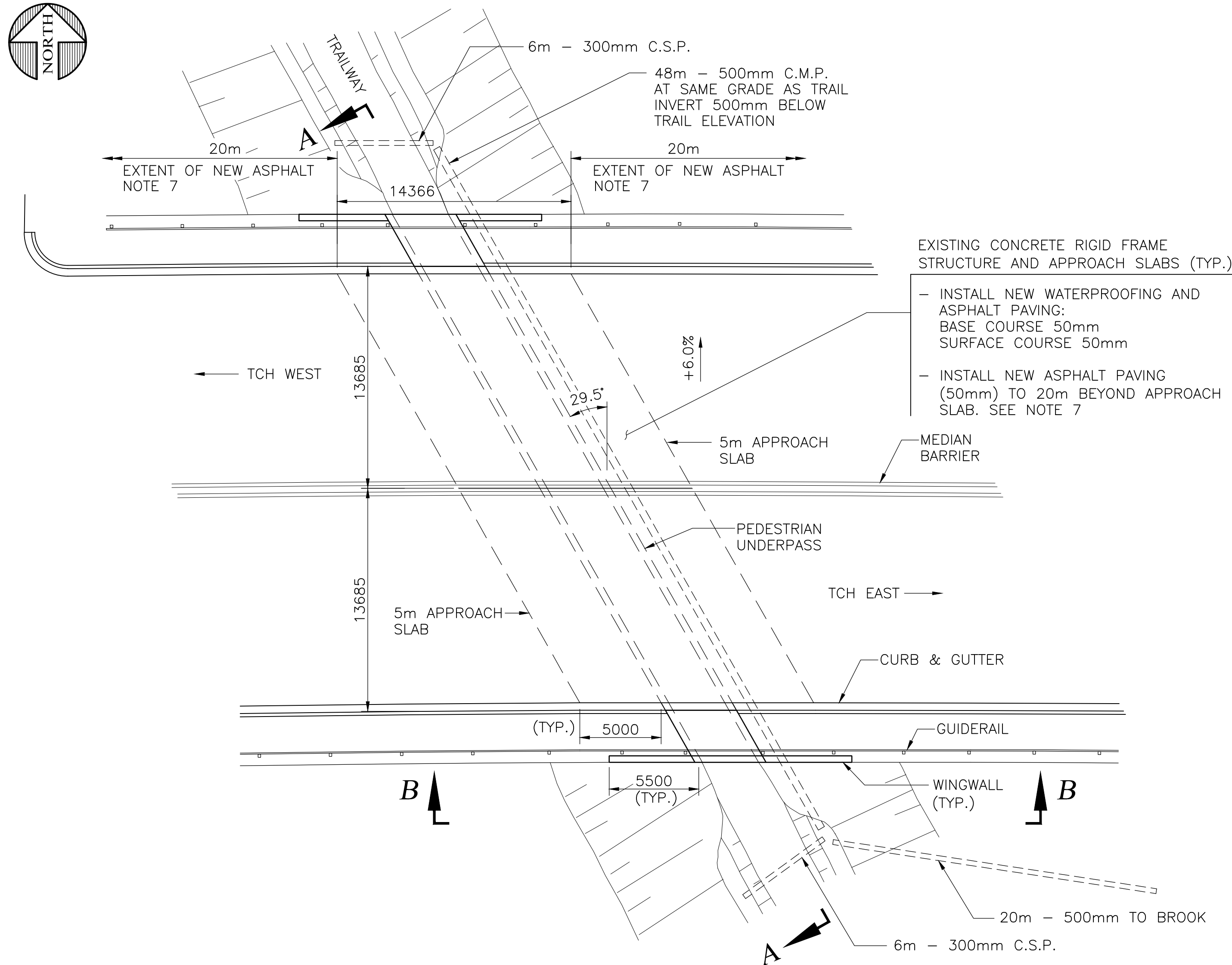
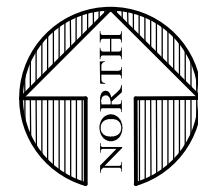
Project/Drawing Title
PART 'C' & 'D'
GRAND FALLS-WINDSOR
WEST OVERPASSES
GENERAL ARRANGEMENT
AND REPAIR DETAILS

Drawn By C.M.	Design Engineer
Dwg Chk'd By	
Designed By Y.Y.	
Des Chk'd By	
Approved By	
Date MAY 2021	



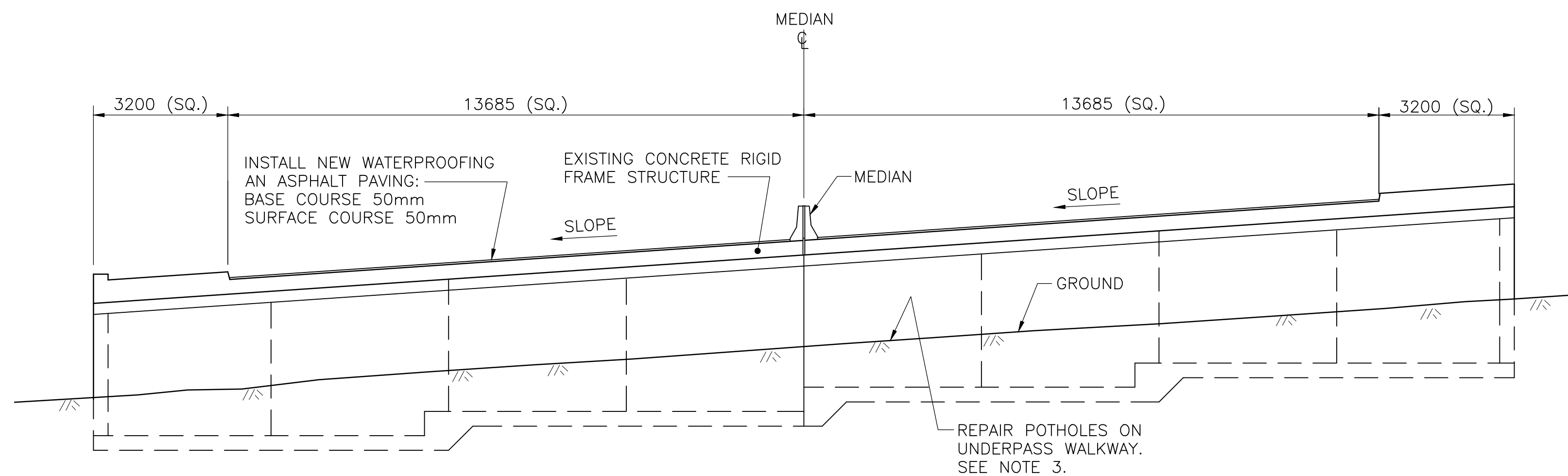
" FOR TENDER ONLY "

Project No. 46-21 PHP



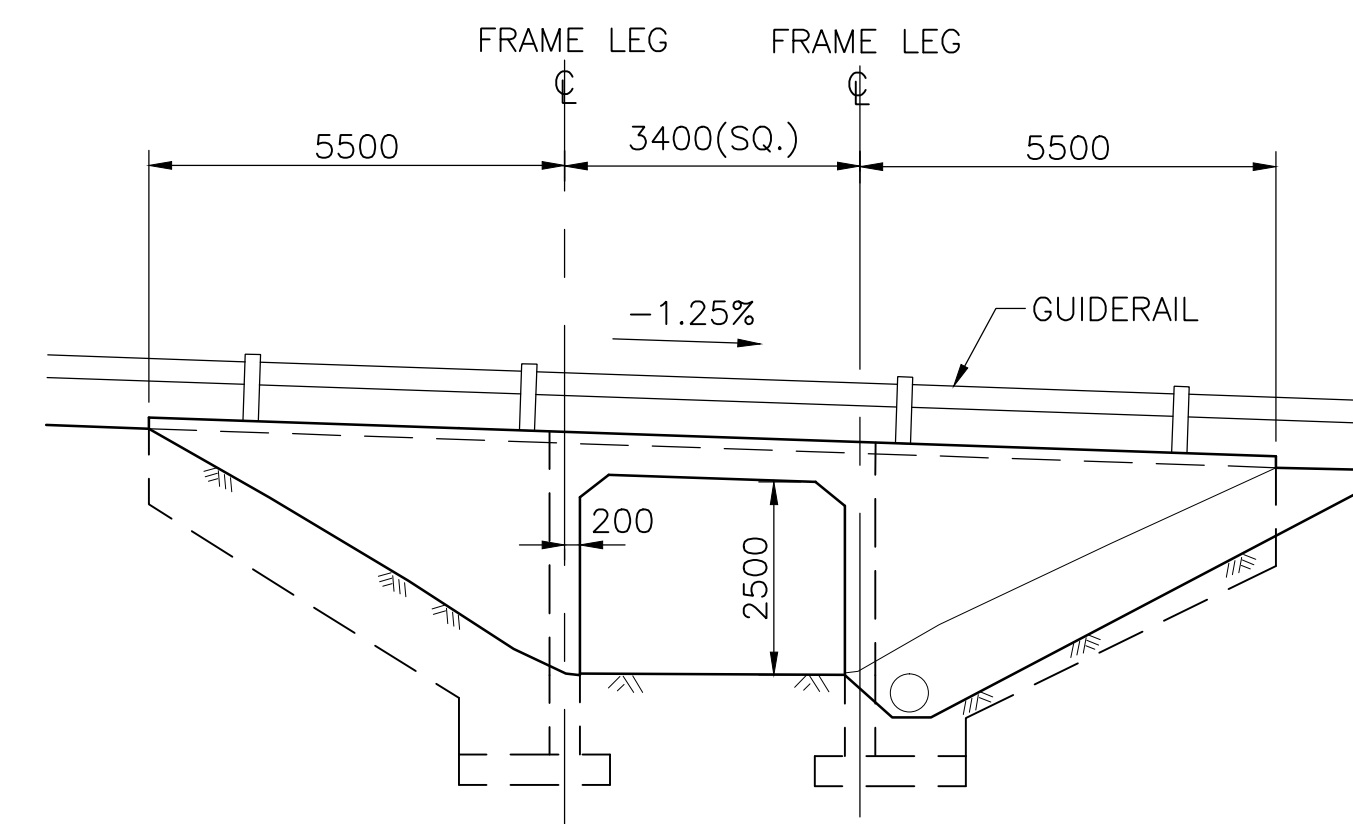
PLAN

SCALE 1:200



SECTION A-A

SCALE 1:100



ELEVATION B-B

SCALE 1:100

1. DIMENSIONS SHOWN ON THIS DRAWING ARE TO THE BEST OF THE DEPARTMENTS KNOWLEDGE. FIELD MEASUREMENTS MAY DIFFER.
2. ALL WORK SHALL BE IN ACCORDANCE WITH CAN/CSA S6-19 DESIGN OF HIGHWAY BRIDGES AND CAN/CSA-A23.1 CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION
3. EXTENT OF REPAIR SHALL BE DETERMINED BY THE RESIDENT ENGINEER ON SITE.
4. REFER TO DEPARTMENTS SPECIFICATION BOOK FOR CONCRETE, SECTION 904 AND REINFORCING, SECTION 905.
5. REPAIRS NOTED ON THIS DRAWING ARE FOR BOTH EAST AND WEST BOUND LANES.
6. EXISTING BRIDGE DESIGN LOAD CS-600-88
7. MILL AND PAVE BRIDGE APPROACHES TO TIE IN DECK WITH EXISTING ROAD PROFILE, EXTENT OF PAVING SHALL BE CONFIRMED BY THE RESIDENT ENGINEER

No.	By	REVISION DESCRIPTION	Date
FOR USE BY TRAFFIC ENGINEERING ONLY			
Designed By	Date	Checked By	Date

	DETAIL SYMBOL A. DETAIL NUMBER B. SHEET WHERE TAKEN C. SHEET WHERE DETAILED	DO NOT SCALE DRAWINGS

Project/Drawing Title	PART 'E' GRAND FALLS-WINDSOR PEDESTRIAN OVERPASS <i>GENERAL ARRANGEMENT</i> <i>AND REPAIR DETAILS</i>
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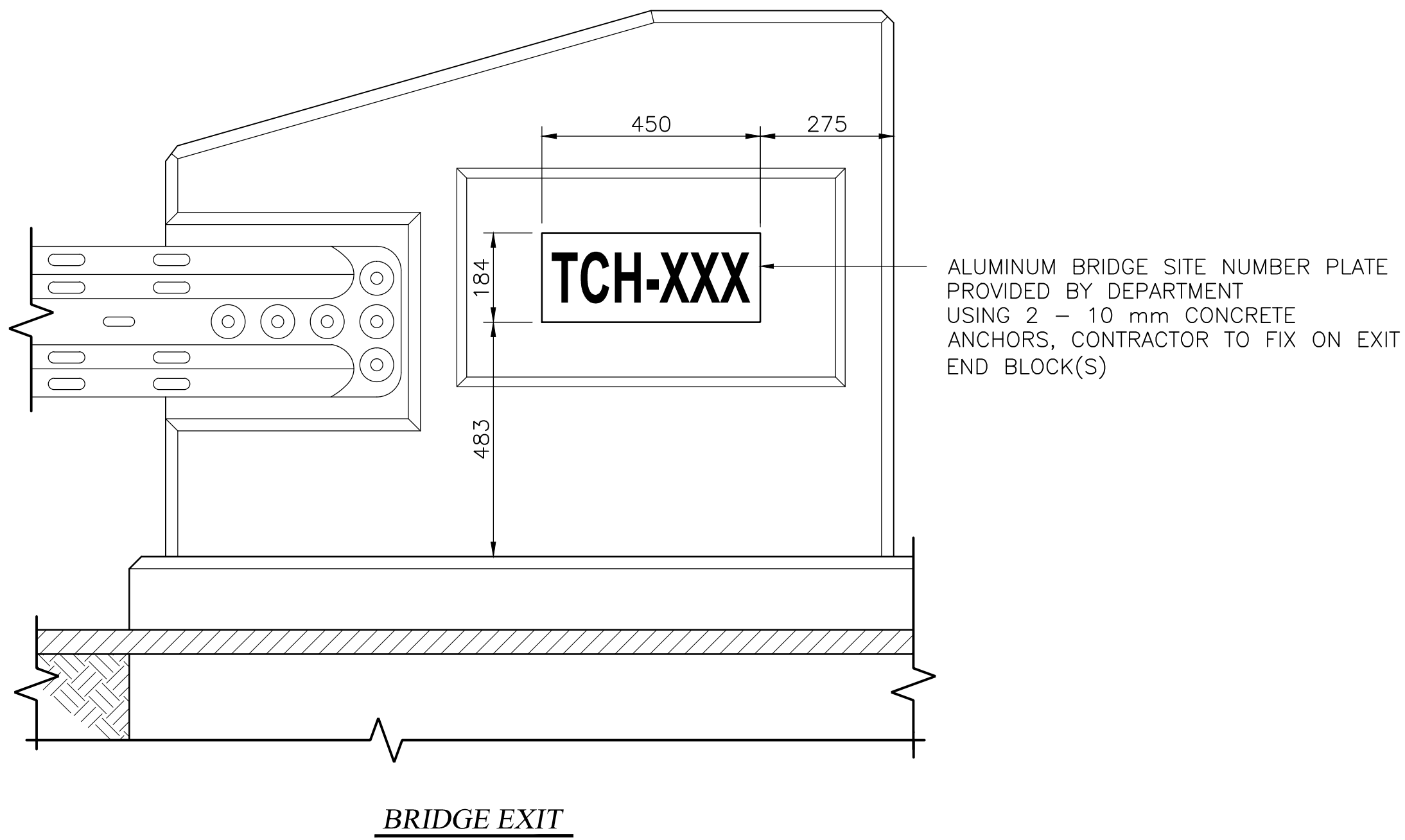
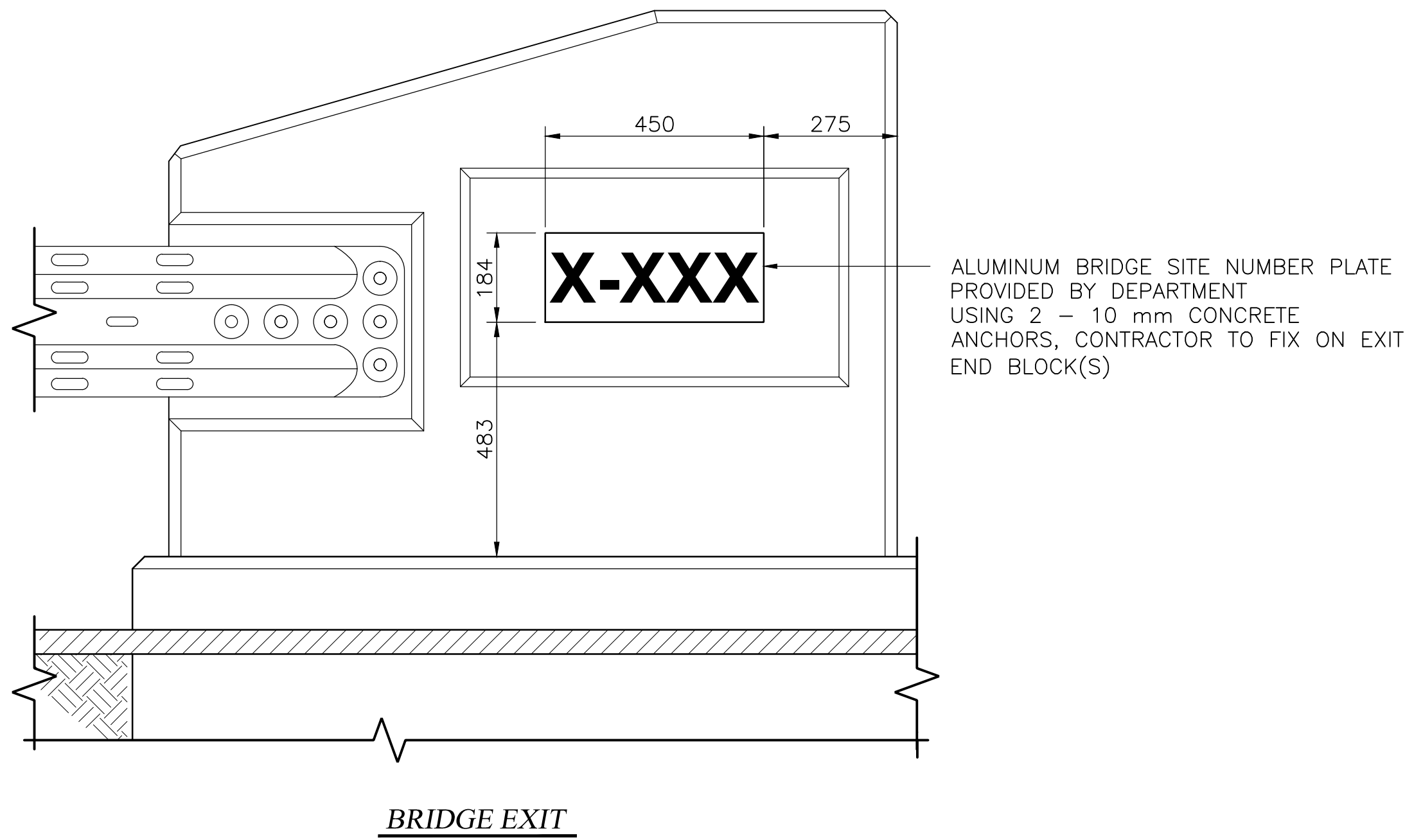
Drawn By	
C.M.	
Dwg Chk'd By	
Designed By	
Y.Y.	
Des Chk'd By	
Approved By	
Date	
MAY 2021	

” FOR TENDER ONLY ”

Project No. 46-21 PHP

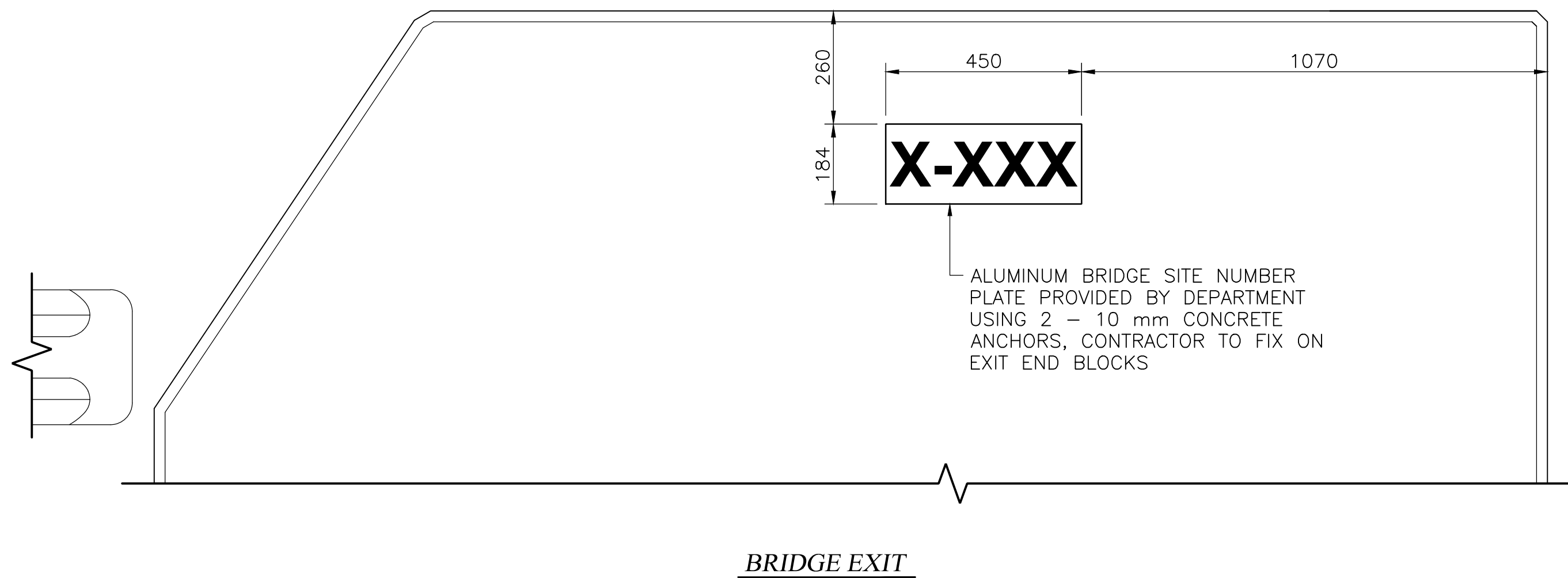
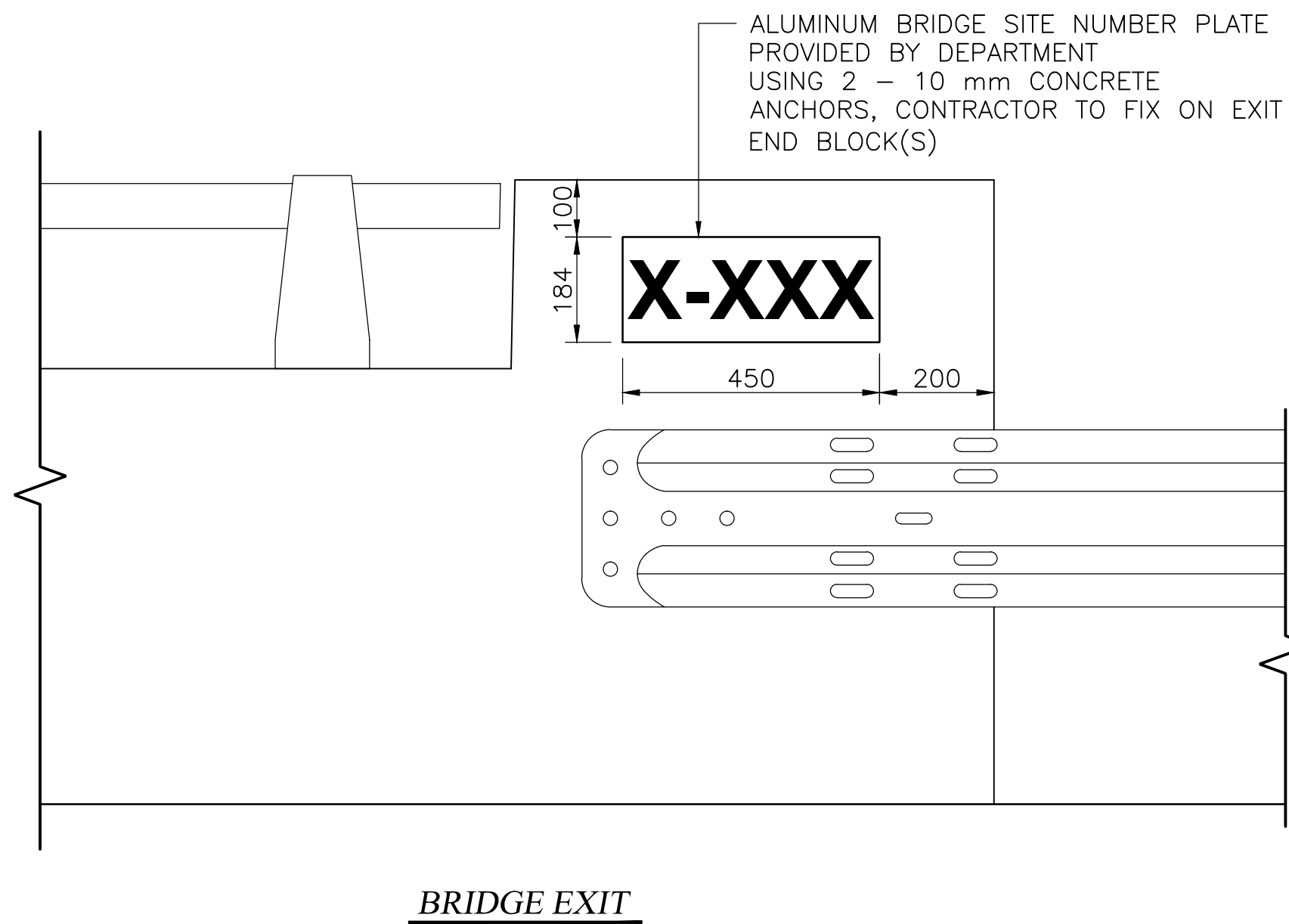
- Sheet No. 5 of 6

1. CONTRACTOR TO INSTALL DEPARTMENT
SUPPLIED SITE NUMBER PLATE FOR ALL PARTS



TYPICAL END BLOCK ELEVATIONS

SCALE 1 : 10



ATYPICAL END BLOCK ELEVATIONS

SCALE 1 : 10

No.	By	REVISION DESCRIPTION	Date
FOR USE BY TRAFFIC ENGINEERING ONLY			
Designed By	Date	Checked By	Date
DETAIL SYMBOL A. DETAIL NUMBER B. SHEET WHERE TAKEN C. SHEET WHERE DETAILED		DO NOT SCALE DRAWINGS	
Project/Drawing Title			
SITE NUMBER TO END BLOCK DETAILS			
Drawn By C.M.	" FOR TENDER ONLY "		
Dwg Chk'd By Y.Y.			
Designed By Y.Y.			
Des Chk'd By			
Approved By			
Date MAY 2021			
Project No. 46-21 PHP			
Sheet No. 6 of 6			

Sent from my iPhone

Begin forwarded message:

From: "Hillier, William" <WilliamHillier@gov.nl.ca>
Date: November 9, 2021 at 11:28:11 AM NST
To: Joshua Collins <josh_56@icloud.com>
Subject: RE: Full Province Schedule Update

Josh,

Thanks for the data albeit the basic schedule outline is not a contractual basis for decisions on liquidated damages.

Liquidated damages have been applied where ECC have not progressed work to meet the contractual schedules. Should ECC feel there are valid reasons to obtain contract extensions it will be necessary for ECC to request such. The request must detail the justification outlining the contractual basis for the extension. In the absence of such the Department are applying liquidated damages due to ECC non-compliance with the contract schedules. Should there be valid justification and approved contract extensions the Department will revisit any liquidated damages that have been applied.

In speaking with many Regions it is my understanding that Department Regional Engineers and/or project managers have not received adequate information related to ECC plans.

I would suggest that you urgently engage with the appropriate Regional Engineers and/or project managers to develop acceptable plans for work completion.

The Department is very concerned with ECC project progress. The weather has been suitable for asphalt work albeit ECC have not performed any such work for several days. A stop work order had to be issued as ECC were not adhering to permit conditions including but not limited to attempting to use the site for private work. Condition 7 of the permit was clear that private work could not be undertaken. There was never in restriction for working on Department projects. I am fairly certain that your site team were aware of such. ECC personnel have been allowed access to the site as needed and the Regions have been asking for a plan. Due to no communication and no work by ECC a default letter was issued for your contract 45-20.

I hope that ECC are committed to continuing work on Department contracts and perform asphalt until weather prevents continuation. Should ECC be ready to commence asphalt on Department contracts than I would suggest you urgently make contact with the appropriate Department representative. I would also suggest that you respond appropriately to the default letter for 45-20.

Regards,

Bill H

From: Joshua Collins <josh_56@icloud.com>
Sent: Wednesday, November 3, 2021 2:00 PM
To: Hillier, William <WilliamHillier@gov.nl.ca>
Subject: Re: Full Province Schedule Update

William,

Regarding the email below can you please advise when I can expect payment for relief of liquidated damages applied on separate contracts and not in accordance to the global schedule.

Thank you,
Josh Collins

Sent from my iPhone

On Aug 11, 2021, at 10:40 AM, Hillier, William <WilliamHillier@gov.nl.ca> wrote:

ECC have a few ongoing and awarded projects. Could you please provide a schedule outline for all of your awarded projects?

As a minimum for each project I would like to see:

- Mob date
- Start subgrade
- End subgrade
- Start Asphalt
- End Asphalt
- Planned Project completion
- Contract completion date

As an FYI the Department is applying LD's if schedule completions are not met. When there are multiple awards there is an ability to modify at the sole discretion of the Department (as per the contract SGC). If that's a potential it is important to do that proactively. It's not a given but sometimes will be considered. It is not typical to allow extensions to the following year except in special situations.

Please provide in 1 excel file. Please advise when you can provide this.

Thanks,

Bill Hillier
Director, TI Highway Design and Construction
Email: williamhillier@gov.nl.ca

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“This email and any attached files are intended for the sole use of the primary and copied addressee(s) and may contain privileged and/or confidential information. Any distribution, use or copying by any means of this information is strictly prohibited. If you received this email in error, please delete it immediately and notify the sender.”

August 12, 2021

Edward Collins Contracting Ltd.
P.O. Box 51,
Jerseyside, NL
A0B 2G0

Attention: Mr. Joshua Collins

Re: Project 46-21PHP – Part “A” – Rehabilitate 4.9km of the TCH South Brook to West Bottom km 511.1 to km 516; Part “B” – Rehabilitate Southbrook Bridge, TCH km 512.5; Parts “C” and “D” Grand Falls Windsor East and West Overpasses TCH km 433.3 and Part “E” Grand Falls Windsor Pedestrian Overpass TCH km 432.3; Part “F” Rehabilitate 5.6km of the TCH, km 392.5 to km 398, East of Penstock Bridge.

Dear Mr. Collins:

As you are aware the above referenced contract was awarded to Edward Collins Contracting Ltd. on June 18, 2021 with a completion date of September 30, 2021. As of today very little work have started on this project and there are concerns that the contract completion date will not be met. It is expected that your company will take the necessary action to get the project back on schedule and have the project completed by September 30, 2021. Please provide me with a revised schedule for the completion of this contract on or before August 16, 2021.

If you have any questions or require further information, please contact the undersigned.

Yours truly,



WADE WATERMAN, P. Eng.,
Regional Engineer

cc Bill Hillier, Director Highway Design and Construction

From: [Strugnell, Sherman](#)
To: [Joshua Collins](#)
Cc: [Waterman, Wade](#); [Can Construction](#)
Subject: 46-21php
Date: Monday, August 30, 2021 10:46:39 AM

When are you paving South Brook Bridge? Just want to remind contractor that liquidated damages will be applied!

Sent from my iPhone

From: [Strugnell, Sherman](#)
To: [Joshua Collins](#)
Cc: [Waterman, Wade](#)
Subject: 46-21php
Date: Thursday, September 9, 2021 11:26:11 AM

When will you be paving the top lift of asphalt that requires 64-34 at South Brook and Grand Falls bridges. Since there is no plant mix started here yet, where is the asphalt coming from? Also, the liquid in the asphalt that was placed yesterday at South Brook was only 5.45 and mix design is 5.7. Just want to remind you liquidated damages will be applied.

Sent from my iPhone

COR/2022/02807

April 8, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyville,
Newfoundland and Labrador, Canada, A0B 2G0

RE: Default - Contract 46-21PHP Road and Bridge Rehabilitation work on TCH – Central Region

Dear Josh,

Edward Collins Contracting Ltd (ECC) did not complete the Work in accordance with Contract 46-21PHP. Due to the lack of performance and the lack of a plan for successful completion of the Work, in accordance with GC 10.2(a) and (b), the Department considers Edward Collins Contracting Ltd to be in Default of its obligations under Contract 46-21PHP.

In accordance with the terms of the contract, the Department formally requests that ECC provide a detailed plan within 5 working days and no later than April 16/2022. The plan shall demonstrate how ECC will successfully complete the work. Some of the expected details include but are not be limited to:

- Which Contractor/Sub-Contractor/Supplier will complete the work
- Equipment list (and equipment owner) that will be used for each project
- A schedule for each project that is sufficiently detailed to outline start and end dates per task, durations, long lead item orders and expected delivery, the key work steps to be completed, substantial completion and final completion dates.
- An outline on any conflicting priorities or dependencies between equipment, resources, etc. and all ECC 2022 work
- An integrated schedule showing how all TI projects will be sequenced/completed
- Any risk mitigations that ECC may have to ensure all work can be completed
- Verification from any suppliers and sub-contractors that they have been engaged/contracted and are committed to performing the work for/on behalf of ECC



Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Director of Highway Design & Construction

Should you have any questions, please feel free to contact me at your convenience at 709 -729-6610 or williamhillier@gov.nl.ca.

Regards,

A handwritten signature in blue ink, appearing to be 'Bill Hillier', with a long horizontal stroke extending to the right.

Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Western Surety, Wade Waterman

Buggie, Chelsey

From: Buggie, Chelsey
Sent: Monday, March 27, 2023 12:45 PM
To: Buggie, Chelsey
Subject: FW: Your Client: Edward Collins Contracting

From: Waterman, Wade <WatermanW@gov.nl.ca>
Sent: Tuesday, April 19, 2022 3:51 PM
To: Hillier, William <WilliamHillier@gov.nl.ca>; Skanes, Bill <skanesb@gov.nl.ca>; Coley, Dennis <DennisColey@gov.nl.ca>
Subject: RE: Your Client: Edward Collins Contracting

Bill,

Comments for 46-21PHP

Default Letter:

I would not consider TI in default of GC 11.3(b). All payments have been made to contractor. The \$70,000 withheld is LD's is in accordance with SGC 3 of the contract

Letter from Benson Buffett:

Item #3: Pipe list was requested on July 22, 2021 and was provided on July 26, 2021. To my knowledge, the culverts were never ordered or fabricated for the project.

Item #5: ECC's claim that a Oscillatory roller was not a contractual term is not accurate. The oscillatory roller requirement is referenced in the contract and in the Specifications 922.03 and 922.04.04.02. The weight of 12t is located in section 330.05.07

I don't particularly like either one of the Global Schedule Options for project 46-21PHP.

Wade Waterman, Regional Engineer

Department of Transportation and Infrastructure

P.O. Box 10, Duggan Street

Grand Falls-Windsor, NL, A2A 2J3

709 292 4307 Email: watermanw@gov.nl.ca

SECTION 922

ASPHALTIC PAVING OF BRIDGE DECKS AND APPROACHES

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922.06.03 Waterproofed Bridge Decks

922.06.04 Reduced Payment Criteria for Bridge Deck and Approach Slab Paving

922.01 SCOPE

This specification applies to existing, rehabilitated, and new concrete bridge decks where asphaltic paving is being undertaken. The scope of the work covers the Department's requirements for the asphaltic paving of both treated and waterproofed concrete bridge decks and concrete approach slabs with hot or warm mix asphaltic concrete.

For the paving of rehabilitated bridges and their approaches, the supply, transportation, placing and compaction of selected granular base course shall form part of this work. For treated bridge decks the scope includes supply and application of tack coat.

If paving items are contained in a current or ongoing road contract, the approaches including the approach slab, where appropriate, will be paved under the road contract. Otherwise, granular and paving operations up to 40 metres from the abutment back wall, or as indicated in the Contract Documents, shall be included in the bridge contract.

The thickness of paving on decks and approach slabs shall be in accordance with the contract documents with deductions for being outside tolerance as per the Reduced Payment section.

Construction procedures for treated bridge decks is included in this section. Waterproofing of bridge decks shall be as detailed in Section 914.

Asphalt overlays of bridge decks is not permitted without the written approval of the Bridge Office, Highway Design Division for the specific bridge.

922.02 MATERIALS

922.02.01 Tack Coat for Treated Bridge Decks and Approaches

Tack coat shall conform to Section 320.

922.02.02 Selected Granular Base Course

Selected granular base course shall be of GRANULAR "A" or GRANULAR "B" gradation as required. This material shall conform to Section 315.

922.02.03 Asphaltic Concrete

Asphalt shall be Warm Mix as per Section 337.

Where only one lift of asphalt is to be placed on a bridge deck, it shall conform to the requirements of surface course asphalt.

Where two lifts of asphalt are to be placed, the base course shall conform to the requirements of base course asphalt and the surface course shall conform to the requirements of surface course asphalt unless otherwise accepted in writing by the Owner's Representative.

922.02.04 Joint Sealing Compound

Joint sealing compound shall conform to Section 914.03.06.

922.02.05 Asphaltic Concrete Sealant

Asphaltic concrete sealant shall conform to Section 914.03.07.

922.03 EQUIPMENT

For treated bridge decks only, an accepted pressure distributor may be utilized to place tack coat on the concrete deck. The distributor shall strictly conform to Section 320.03. Over spray along curbs, barriers, and expansion joint dams shall not be permitted. Soil or gravel shall not be tracked onto the bridge unless otherwise accepted by the Owner's Representative stating the conditions of use.

Equipment for applying tack coat on bridge decks to be waterproofed shall be limited to a manually operated spray rod which shall produce a uniform fog-type spray. The lower part of the spray rod shall be bent 30 degrees to form a section of rod parallel to the deck. The pressurized container which holds the tack coat shall be equipped with a thermometer and pressure gauge.

Pavers shall be equipped with heated vibrating screeds and shall be capable of spreading the mixture, without segregation. Vibratory screeds shall be in operation for all paving on bridge deck and approach slabs.

Contractor shall submit a detailed equipment list to the Owner's Representative during the pre-construction/paving meeting.

All plant and equipment required to supply, produce, transport, place, spread and compact granulars shall conform to Section 315 for "Selected Granular Base Course."

All paving equipment and plant shall conform to Section 330; however, oscillatory rollers shall be used for all paving on bridge decks. Vibratory rollers are not permitted.

The equipment used for filling grooves and sealing the surface adjacent to the curbs/barriers and transverse joint filling with sealant at each expansion joint dam shall be accepted by the Owner's Representative.

922.04 CONSTRUCTION PROCEDURES

922.04.01 General

All concrete surfaces shall be cured in accordance with Section 904.05 and be in a dry condition before the work as described herein may commence. Work shall not be performed during rainy or inclement weather or on wet, snow or frost covered surfaces. Tack coat shall be required between each lift of asphalt

For bridge paving which requires multiple lifts, there shall be a minimum of 12 hours after final compaction between lifts. Any paving that commences before this 12 hour period has elapsed shall be subject to rejection by the Department and no payment shall be made for either lifts of asphalt, tack coat, and waterproofing (if applicable).

922.04.02 Surveying Requirements

The Contractor shall survey the approach slabs and bridge deck both before and after paving in accordance with Section 926. The preliminary survey shall not occur until after all deck repairs are complete.

Payment reductions in accordance with Section 922.06.04 shall be applied based on the results of the surveys.

The survey of the prepared bridge deck shall be accepted by the Owner's Representative before paving will be permitted to proceed.

922.04.03 Treated Bridge Decks

Treated bridge deck construction procedures shall apply to all bridge decks where waterproofing is not carried out. The treatment procedure shall be as outlined herein and shall apply to both the deck and the concrete approach slab.

922.04.03.01 Deck Cleaning and Preparation

Removal and disposal of old asphaltic pavement and deck rehabilitation by overlay shall be in accordance with Section 919.

The Contractor shall sweep the bridge deck and approach slabs either manually or with a power broom. This shall be followed by a cleaning of the deck and approach slabs with oil-free compressed air. Tack coat shall be applied in accordance with Section 320.

922.04.03.02 Granulars

Additional granular material shall be produced, supplied, transported, stored, placed, graded and compacted in accordance with Section 315. The width and thickness of the granular base course and granular shoulders shall be in conformance with the bridge approaches and the standard of roadway to which it is being applied as per the typical cross section. The length shall be in accordance with the length of existing pavement removed and disposed of.

Contaminated granular material shall be excavated and disposed of as directed by the Owner's Representative.

Suitable existing selected granular base course shall be reshaped and recompact (100% maximum standard proctor dry density, ASTM D698) to grade as established by the Owner's Representative.

922.04.03.03 Paving

All construction procedures related to paving shall conform to Section 330 except as outlined herein.

In accordance with the Contract Documents, the deck and concrete approach slab grades shall be paved and finished to match the elevations of the concrete expansion joint dams. If the required thickness to reach the expansion joint elevation, for either the approach slab or deck, has a thickness greater than 75 mm it shall be paved in two lifts or as directed by the Owner's Representative. Prior to the commencement of paving the Contractor's surveyor shall profile the prepared surface as per Section 926, (treated or waterproofed) to determine the theoretical asphalt tonnage quantities.

Prior to commencing deck paving operations the Contractor shall cover all deck drains to prevent the entry of asphalt. The covers shall be secured to the deck drains. After breakdown rolling is complete the cover(s) shall be removed from all deck drains and any asphalt that may have infiltrated the drainage system shall be removed. Payment shall be held until the Owner's Representative has verified all asphalt has been removed from the drainage system.

The approaches to the bridge shall be paved first thus avoiding the transfer of foreign particles on the deck.

Paving operations shall proceed downgrade. Paving shall commence as soon as practical after the tack coat has adequately cured and shall not be left for longer than 12 hours.

For paving on bridges with expansion joints, the Contractor shall place a removable filler strip in each expansion joint gap along the full length of each joint. The purpose of the expansion joint filler strip is to prevent the asphalt from entering the flexible expansion joint gap(s). After paving operations are complete, the filler strip shall be removed. The Contractor shall clean the expansion joints and dispose of waste material.

The final profile of the asphalt surface shall be free from bumps and dips and considered a smooth riding surface. Pavement profiles that do not meet these requirements may be rejected at the sole discretion of the Department.

922.04.04 Waterproofed Bridge Decks

922.04.04.01 Waterproofing

The materials and treatment procedure for the concrete surface preparation, surface conditioner for asphaltic membrane, application of asphalt and rubber membranes, protection boards and protection board tack coat, the forming and filling of grooves with joint sealing compound and sealing of the asphaltic surface adjacent to the concrete curbs and barriers shall be as outlined in accordance with Section 914.

Approach slabs shall be waterproofed unless otherwise specified in the contract documents. If waterproofing on the concrete approach slabs is not required as per the contract documents, they shall be treated as per Section 922.04.03.

922.04.04.02 Paving

All construction procedures relating to paving shall be as outlined in Section 922.04.03.03 except as outlined herein.

Paving of the bridge deck should commence as soon as practical after waterproofing operations described in Section 914 have been completed but not more than 24 hours unless otherwise accepted by the Owner's Representative. Care should be taken so as to not damage the installed waterproofing system. Displacement or puncturing of the protection board is not acceptable, and rejection may result in the removal and reapplication of the entire waterproofing system at the Contractor's expense. Turning of vehicles on the bridge deck is prohibited.

Paving operations shall be conducted downgrade in the direction of protection board overlap.

Trucks shall dump part of their load into the paver and then move away so that the paver does not have to push the truck. Care must be taken to remove any material from the deck that may have spilled in front of the paver's tracks or tires so that it does not perforate the membrane.

The speed of the asphalt spreader shall be kept in the range of 3 to 4 metres per minute in order to provide maximum traction.

The temperature of the asphalt placed on the waterproofed bridge deck shall cool to 115 degrees Celsius before breakdown rolling begins with a suitable oscillating roller. At higher temperatures the protection boards may shift under the roller, resulting in cracking the asphalt around the protection board perimeter if breakdown rolling is attempted too soon. Starting and stopping on the newly paved deck is not permitted.

922.04.04.03 Paving Adjacent to Expansion Joint Dams

In accordance with the contract documents the deck and approach slab grades shall match the height of the concrete expansion dams. Should the thickness of asphalt required be greater than 75mm, paving shall be completed in two lifts or as directed by the Owner's Representative.

922.04.05 Forming and Filling Grooves with Joint Sealing Compound

This operation applies to the joints created adjacent to and for the full length of each curb. The work shall be carried out in accordance with Section 914.04.08.

922.04.06 Sealing Surface Of Asphaltic Concrete Adjacent To Curbs and Barriers

This work shall be carried out in accordance with Section 914.04.09.

922.04.07 Transverse Joint Filling

The groove shall be saw cut across the width of the deck as indicated on the contract drawings and against each concrete face at each expansion joint dam.

The application of sealant or compound shall be carried out when the temperature is at or above 5 degrees Celsius and the joint is dry. Traffic shall be kept off the transverse joint until the sealant has set in accordance with the manufacturer's specification.

922.05 MEASUREMENT FOR PAYMENT

922.05.01 Treated Bridge Decks

Measurement for payment for the asphaltic paving of bridge decks, shall be as outlined in Section 330, with the following amendments.

Measurement for payment for the asphaltic paving of bridge decks will be limited to the weighted tonnage of asphalt concrete actually placed on the bridge deck and approach slabs. However payment shall be capped at a maximum of the theoretical tonnage plus 10%. Theoretical tonnage shall be calculated from the profile data as per Section 922.04.02 and the density from the approved mix design. Additionally, asphalt payment shall be subject to the Reduced Payment Criteria as stipulated in Section 922.06.04.

Payment for bridge deck and concrete approach slab sweeping, cleaning, preparation, tack coating, forming and filling grooves with cold applied sealant or joint sealing compound, sealing the surface of asphaltic concrete adjacent to curbs and barriers, transverse joint forming and filling, the provision for deck drain cover plates and expansion joint filler strips shall be deemed incidental to the work.

Measurement for payment for the production, supply, storage, transportation, placing, grading and compaction of selected granular base course material on new construction projects shall be in accordance with Section 315 for Selected Granular Base Course.

Payment for cutting existing asphaltic pavement, removal, transportation and disposal of old asphaltic pavement will be made in accordance with Section 919.18.

922.05.02 Waterproofed Bridge Decks

Measurement for payment for deck waterproofing shall be as detailed in Section 914.

Measurement for payment for the Asphaltic Paving of Bridge Decks shall be as outlined in Section 330 with the following amendments.

Measurement for payment for the asphaltic paving of bridge decks will be limited to the weighted tonnage of asphalt concrete actually placed on the bridge deck and approach slabs. However payment shall be capped at a maximum of the theoretical tonnage plus 10%. Theoretical tonnage shall be calculated from the profile data as per Section 922.04.02 and the density from the approved mix design additionally asphalt payment shall be subject to the Reduced Payment Criteria as stipulated in Section 922.06.04.

Payment for concrete approach slab sweeping, cleaning, preparation, tack coating, forming and filling grooves with joint sealing compound, sealing the surface of asphaltic concrete adjacent to curbs and barriers, transverse joint forming and filling, the provision for deck drain cover plates and expansion joint filler strips shall be deemed incidental to the work.

Measurement for payment for the production, supply, storage, transportation, placing, grading and compaction of selected granular base course material on new construction projects shall be in accordance with Section 315.

922.06 BASIS OF PAYMENT

922.06.01 General

The basis of payment for the asphaltic paving of bridge decks shall be as outlined in Section 330 with the amendments as noted herein.

922.06.02 Treated Bridge Decks

The basis of payment at the contract unit price for the asphaltic paving of bridge decks shall include full compensation for all equipment, labour, materials and plant necessary to prepare, sweep and clean the deck, supply and apply tack coat, pave the bridge deck, concrete approach slabs and approaches on rehabilitation type projects, form and fill grooves with joint sealing compound, sealing the surface of asphaltic concrete adjacent to curbs and barriers and transverse joint forming and filling as described above. Also included is the supply and transportation of all blending sand and asphaltic cement from the source to the mixing plant.

For rehabilitation type projects the excavation, removal, transportation and disposal of contaminated granulars, the reshaping and recompacting of suitable existing granulars shall be considered incidental to the work.

The production, supply, storage, transportation, placing, grading and compaction of selected granular base course shall be paid for separately under Section 315.

The basis of payment for cutting existing asphalt, removal, transportation and disposal of old asphaltic pavement on rehabilitation type projects shall be made in accordance with terms outlined elsewhere in the Section 919.18.

The covering of deck drains and expansion joints to prevent the entry of hot mix asphaltic concrete, the removal of the cover plates and filler strips, clean up and disposal of waste material shall be considered incidental to the work.

922.06.03 Waterproofed Bridge Decks

Payment for the waterproofing of bridge decks and all related work shall be as outlined in Section 914.

The basis of payment at the contract unit price for asphaltic paving of waterproofed bridge decks shall include full compensation for all equipment, labour, materials and plant necessary to prepare, sweep, clean and tack coat the concrete approach slabs, pave the bridge deck and concrete approach slabs. Included is the forming and filling of approach slab grooves with joint sealing compound and sealing the asphaltic surface adjacent to the concrete curbs and barriers, and transverse joint forming and filling as described above. Also included in the basis of payment is the supply and transportation of all blending sand and asphaltic cement from the source to the mixing plant.

The production, supply, storage, transportation, placing, grading and compaction of selected granular base course shall be provided for separately under Section 315.

The covering of deck drains and expansion joints to prevent the entry of hot mix asphaltic concrete, the removal of the cover plates and filler strips, clean up and disposal of waste material shall be considered incidental to the work.

922.06.04 Reduced Payment Criteria for Bridge Deck and Approach Slab Paving

Where deviations occur over 20% of the total bridge deck and/or approach slab area, reductions will apply as per the below table:

Deviation from Specified Thickness	Reductions Applied to Bid Price
Less than 6 mm	None

6 mm to 10 mm	25% reduction
10 mm to 15 mm	50% reduction
15 mm to 20 mm	100% reduction
Greater than 20 mm	Reject and Replace

The Contractor may elect to remove and replace deficient asphalt at their own expense in an attempt to receive full payment for subsequent, properly placed asphalt.

In the event of rejection of the asphalt for either deviations from the asphalt thickness or is not considered a smooth driving surface, the Contractor shall remove and replace the asphalt at their own expense.

If the bridge deck was waterproofed and the asphalt is rejected for any reason, the waterproofing system shall be removed and replaced by the Contractor at their own expense.

Replacement asphalt shall be subject to the same requirements and reductions as stated above up to and including removal and replacement.

If insufficient time remains in the construction season to properly complete asphalt repairs, the rejected asphalt shall remain in place until the following construction season, at which time it shall be removed and replaced at the Contractor's expense. Where asphalt is rejected on waterproofed bridge decks, the Contractor will also be responsible for the removal and replacement of the waterproofing system.

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GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
Department of Transportation and Works
Highway Design Division

SECTION 330

HOT MIX ASPHALT CONCRETE

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330.01 SCOPE

This specification covers the Department's requirements for the production, placing and compaction of hot mix, hot laid base course, surface course and leveling course asphalt concrete for pavement construction. Sections 330.02 to 330.04 provides aggregate and asphalt pavement specifications and general requirements that are common to both method specification and end product specification projects. Section 330.05 provides specifications specific to method specifications projects, whilst Section 330.06 details the specifications for end product projects.

Method specification projects are identified as projects where Department personnel conduct all materials testing and engineering services and the contractor's payment is based upon tonnage of production for a specific project with some minimal performance criteria applied.

End product specification projects are defined as projects where the contractor is solely responsible for quality control functions and the Department is responsible for the provision of all quality assurance testing. Payment to the contractor is also based on tonnage of production with a more extensive bonus/penalty system which in turn is based upon the end product quality assurance test results carried out by the Department.

The base, surface and leveling course asphaltic concrete pavement shall consist of asphaltic cement, coarse and fine mineral aggregate, blending sand, plus mineral filler if required, combined as hereinafter specified, placed and compacted on a prepared base in conformity with the lines, grades, dimensions and cross sections, as staked by the Engineer.

The paving of bridge decks and approach slabs shall be in accordance with Section 922 "Asphaltic Paving of Bridge Decks".

330.02 MATERIALS

330.02.01 Mixture Materials

330.02.01.01 Asphalt Cement

Unless otherwise specified, the asphalt cement (binder) shall conform to the latest edition of AASHTO M320 entitled Standard Specification for Performance Graded Asphalt Binder. The Performance Grade (PG) of asphalt binder shall be PG 58-28 and shall conform to the requirements of Table 1 in the AASHTO Specification. Other PG binders may be specified in individual contracts when warranted.

All PG asphalt binders will be subject to testing for acceptance prior to and during use. Samples failing to meet the relevant performance grade will require classification and be subject to penalty based on the following formulation.

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Temperature Deviation	Price Reduction (% of Asphalt Cement and Mix Prices)
Within 3 degrees of Specified Grade	N/A
From 3 degrees to 6 degrees of Specified Grade	10%
From 6 degrees to 9 degrees of Specified Grade	20%
Greater than 9 degrees of Specified Grade	Rejection

Projects with only one asphalt binder sample collected and not meeting the specified grade will have the penalty applied to all the unit prices of the entire quantity of hot mix asphalt concrete. Projects with multiple samples of asphalt binder will have the penalty applied proportionally to the affected asphalt.

Performance Graded Asphalt Binder with either higher than the maximum or lower than the minimum design temperature will be accepted at full price and no bonus will be applied.

Prior to the start of and throughout pavement production current copies of certification of all project asphalt binders shall be provided to the Department.

Any asphalt binder other than the asphalt binder specified must be removed from the Contractor's tanks to prevent contamination. Binders meeting the performance specifications but obtained from different sources cannot be stored in the same tank unless approved by the asphalt suppliers.

330.02.01.01.01 Performance Graded Asphalt Binder (PGAB) Sampling

The Contractor shall collect samples of asphalt cement as required by the Engineer. At least one sample shall be collected per project and per additional 5000 t of hot mix asphalt produced. The Engineer may opt to request one random sample per day. Samples shall be taken from the Contractor's storage tank in accordance with ASTM D140 Standard Practice for Sampling Bituminous Materials. The sample size shall be at least two litres placed in one litre containers. Collection of the asphalt binder sample shall be witnessed by the Engineer. The sample shall be appropriately identified including the time and date of samples, grade and type of binder, supplier, refinery and the name and proportions of any additives added. The sample shall be immediately forwarded to the witnessing Engineer.

It shall be the Department's responsibility to submit PGAB samples for quality assurance testing.

330.02.01.01.02 Asphalt Binder Temperature Viscosity Chart

The Contractor shall supply a temperature viscosity chart from the manufacturer/supplier for each source or type asphalt binder provided. The contractor shall also request of the manufacturer/supplier any information or recommendations regarding the production and handling of the mix relating to the asphalt binder. All such requested information shall be available in advance of the pre-paving meeting for discussion and review during the meeting. During the hot mix production the maximum mixing temperature shall be the lower of either; the high end temperature for recommended mixing from the temperature viscosity chart provided by manufacturer/supplier or 165° C.

330.02.01.02 Crushed Aggregate

Additional to all other requirements, the designated aggregates shall be split on the 4.75 mm screen during crushing operations, and each material shall be stockpiled separately such that intermixing of each size and type does not occur.

Where aggregates are processed from pits the naturally occurring fines shall be pre-screened prior to crushing, individually stockpiled and referenced as "naturally occurring fine aggregate". No more than 5% naturally occurring fine aggregate passing the 4.75 mm screen shall be permitted with the retained naturally occurring screened coarse aggregate prior to crushing. Naturally occurring coarse aggregate must be stockpiled separately prior to crushing. Fine aggregate sizes generated during the crushing phase shall also be individually stockpiled and identified as "crushed fines". In no cases shall the fine aggregate stockpiles be combined or mixed with other aggregate types. For all mixes the maximum percentage passing the 75 µm sieve is limited to 10 % for naturally occurring fine aggregate.

As an alternative to the above pre-screening on the 4.75mm screen, where aggregates are processed from pits, contractors may choose to pre-screen with a 19 mm or larger screen size provided that no more than 10% of the retained material for aggregate production passes the 19 mm sieve. For this prescreening operation a completely safe means of accessing the retained material for sampling is to be provided by the contractor. The Department

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shall have full control over the time of sampling. If the Contractor chooses to pre-screen with a 19 mm or larger screen size, material passing the 19 mm or larger screen size can not be utilized as a naturally occurring fine aggregate.

330.02.01.02.01 Coarse Aggregate

Coarse Aggregate shall consist of hard, durable crushed stone or crushed gravel particles, reasonably uniform in quality and free from soft or disintegrated pieces. The portion of material retained on the 4.75 mm sieve shall be known as coarse aggregate. The coarse aggregate stockpile shall contain no more than 10% passing the 4.75 mm screen.

Coarse Aggregates shall be washed if necessary to have clean surfaces free from coatings of foreign matter. Coarse Aggregates shall conform to the physical requirements shown in Table 1.

Irrespective of compliance with the physical requirements of Tables 1, any coarse aggregate may be accepted or rejected on the basis of past field performance at the discretion of the department.

TABLE 1
Physical Requirements For Coarse Aggregates

TEST METHOD	TEST NO.	HIGHWAY CLASSIFICATION		
		RAU & RAD-100 RAU & RAD-90, RCU-80		RLU-60, RLU-70 RLU-80
		SURFACE	BASE	ALL COURSES
LOS ANGELES ABRASION - % MAXIMUM (A)	ASTM C131	35	35	35
ABSORPTION - % MAXIMUM	ASTM C127	1.75	2	2
MAGNESIUM SULPHATE - SOUNDNESS - 5 CYCLES - % MAXIMUM (B)	ASTM C88	12	12	12
PETROGRAPHIC NUMBER - MAXIMUM	CSA A23.2-15A	135	135	135
FREEZE-THAW TEST - 5 CYCLES - % MAXIMUM	CSA A23.2-24A	8	10	10
CRUSHED PARTICLES - % MINIMUM (C)	ASTM D5821	90	90	70
FLAT & ELONGATED PARTICLES - % MAXIMUM (D)	ASTM D 4791	20	20	20
LOSS BY WASHING - % MAXIMUM PASSING (E)	ASTM C117	1.75	1.75	1.75
MICRO DEVAL - % MAXIMUM	ASTM D 6928	18	20	20
CLAY LUMPS - % MAXIMUM	CSA A23.2-3A	1	1	1
LOW DENSITY PARTICLES - % MAXIMUM	CSA A23.2-4A	1	1	1
FRIABLE OR SLATEY SILTSTONE - % MAXIMUM	CSA A23.2-15A	1	1	1

Notes:

- (A) The ratio of the loss after 100 revolutions to the loss after 500 revolutions shall not exceed 0.265.
- (B) Test to be conducted on basalt rich or highly absorptive (> 1.5%) aggregates.
- (C) Pieces having two or more freshly fractured faces only will be considered as crushed material. Pieces with only small chips removed will not be considered as crushed.
- (D) Flat and elongated pieces are those whose greatest dimension exceeds four times their least dimension.
- (E) When only quarried rock is used as a source of coarse aggregate, a maximum of 2 percent passing the 75 µm sieve shall be permitted.

The Contractor must meet all the requirements above, while the guidelines below are provided for information purposes. The Contractor is responsible for ensuring the combination of aggregate conforms to the grading requirements of Table 3.

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Guidelines for Coarse Aggregate Gradation

Sieve Size	Percent Passing by Dry Weight	
	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
22.0 mm	100	100
19.0 mm	100	85-100
12.5 mm	85-100	50-80
9.5 mm	45-75	25-60
4.75 mm	0-10	0-10

330.02.01.02.02 Fine Aggregate

Fine aggregate shall consist of clean, tough, rough-surfaced grains, free from clay, loam and other foreign matter. The fine aggregate stockpile shall contain no more than 20% retained on the 4.75 mm screen.

For RCU-80 and above highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 15% (by dry weight). For RLU-80 and below highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 20% (by dry weight).

For all base and levelling type II course mixes the fine aggregates maximum percentage passing the 75 µm sieve is limited to 7% prior to mix production at the asphalt plant. All surface and levelling type I course mixes the fine aggregates maximum percentage passing the 75 µm sieve is limited to 6 % prior to mix production at the asphalt plant.

Irrespective of compliance with the physical requirements of Tables 2 any fine aggregate may be accepted or rejected on the basis of past field performance at the discretion of the department.

TABLE 2
Physical Requirements for Fine Aggregates

TEST METHOD	TEST NO.	HIGHWAY CLASSIFICATION		
		RAU & RAD-100 RAU & RAD-90, RCU-80		RLU-60, RLU-70 RLU-80
		SURFACE	BASE	ALL COURSES
MICRO-DEVAL TEST FOR FINE AGGREGATE - % MAXIMUM	ASTM D 7428	18	20	20
PLASTICITY INDEX	ASTM D4318	0	0	0
SAND EQUIVALENT - % MINIMUM	ASTM D 2419	50	50	50
FINE AGGREGATE ANGULARITY - % MINIMUM (A)	ASTM C 1252	45	45	45

Note:

- (A) FAA tests shall be conducted on a representative sample of the total fine aggregate inclusive of all fine aggregate materials as indicated in the mix design including blending sand. The test will be conducted in accordance with Standard Graded Sample Method A

The Contractor must meet all the requirements above, while the guidelines below are provided for information purposes. The Contractor is responsible for ensuring the combination of aggregate conforms to the grading requirements of Table 3. Contractors should also be aware of material breakdown after crusher production testing for the material being utilized and their plants capabilities in producing the mixture in accordance with Table 3.

FORM 330

Guidelines for Fine Aggregate Gradation

Sieve Size	Percent Passing by Dry Weight	
	Surface Course & Levelling Course Type I	Base Course & Levelling Course Type II
9.5 mm	100	100
4.75 mm	90-100	85-100
2.00 mm	40-60	40-90
0.425 mm	10-30	20-55
0.150 mm	5-16	10-25
0.075 mm	2-6	2-7

330.02.01.02.03 Crushing Tolerances

After the Contractor starts crushing, an average grading will be determined and tolerances will be applied to subsequent production. The average grading will be determined by averaging at least six washed sieved results on a minimum of 1500 tonnes or 30% of the required amount.

The tolerances for subsequent production are as follows:

Tolerance for Production of Asphalt Aggregate

Aggregate Passing 25.0 mm to 9.5 mm sieves	± 6%
Aggregate Passing 4.75 mm sieve	± 5%
Aggregate Passing 2.00 mm sieve	± 4%
Aggregate Passing 425 µm sieve	± 4%
Aggregate Passing 150 µm sieve	± 3%
Aggregate Passing 75 µm sieve	± 2%

330.02.01.03 Blending Sand

Blending sand shall consist of clean, tough, rough surfaced grains, free from clay, loam, or any other foreign matter. Blending sand is considered as a fine aggregate and thus must meet the requirements of Table 2. Blending sand may be either a naturally occurring screened sand or a manufactured sand added to the mix for the purposes of enhancing mix properties.

The gradation of the blending sand shall be such that when used in the asphalt mix, the resulting mix shall meet the requirements of Tables 2 and 3 of this section. In any case, the blending sand shall have 100% (by dry weight) passing the 9.5 mm sieve and at least 80% (by dry weight) passing the 4.75mm sieve. For all mixes the maximum percentage passing the 75 µm sieve is limited to 10% for all blend sands.

For RCU-80 and above highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 15% (by dry weight). For RLU-80 and below highway classifications the maximum allowable percentage in total of all natural occurring fine aggregates plus blending sand in the total combined aggregate shall be 20% (by dry weight).

Blending sand shall be supplied by the Contractor.

330.02.01.04 Mineral Filler

Material Filler shall meet the requirements of ASTM D242 Standard Specification for Mineral Filler for Bituminous Paving Mixtures. Where filler is required, it shall be supplied by the Contractor.

330.02.01.05 Anti-Stripping Additive

An anti-stripping additive may be required in the Hot Mix Asphaltic Concrete. Modified Lottman tests in accordance with AASHTO T 283 Resistance of Compacted Hot Mix Asphalt (HMA) to Moisture-Induced Damage shall be completed

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within the mix design procedure, to determine the need for, and the required amount of anti-stripping additive. Liquid anti-stripping additives and/or hydrated lime ($\text{Ca}(\text{OH})_2$) can be utilized as an anti-strip additive.

An anti-stripping additive will be required if one of the following conditions occurs as determined by AASHTO T 283:

- The tensile strength ratio of the hot mix asphalt concrete is less than 0.80
- There is visual evidence of stripping. Acceptable specimens shall have a visual stripping rating of 1.0 or lower based on a scale from 0 to 10 (with 0 being no visual stripping and 10 being fully stripped).

Stripping tests are deemed necessary on end product specification projects and the Contractor will conduct the required testing. The test report will contain the following:

- (a) The source and percentage of aggregates used within the proposed asphalt concrete
- (b) The type and percentage of asphalt binder used
- (c) The percentage of anti-stripping additive added.
- (d) The percentage air voids for both the untreated and treated mix
- (e) The average tensile strength of both the treated and untreated mix
- (f) The Tensile Strength Ratio (TSR)
- (g) Visual inspections of any moisture damage must also be noted

Contractors may choose to use an approved liquid anti-stripping additive in order to meet the AASHTO T283 requirements above. The liquid anti-stripping additive application rate added to the hot mix asphaltic concrete shall be the greater of 0.5% of additive by weight of asphalt cement, or the recommended percentage as determined from Lottman test results. Approved liquid anti-stripping additives include the products AD-here LOF 6500 (ARR-MAZ Custom Chemicals) and Redicote C-3082 (Akzo Nobel Chemicals). All other products must be approved by the Department's Materials Engineering Division.

Suppliers of the asphalt cement and liquid anti-stripping additives shall provide in writing all mixing requirements and proof of product compatibility. The treated asphalt PG binders must meet the relevant performance grade specifications.

Contractors must inform the Engineer and advise workers of the proper procedures, use of protective clothing and equipment when handling anti-stripping additives. Hot mix asphaltic concrete with liquid anti-strip additives is known to produce strong odours. Contractors must ensure the mix materials are used under proper environmental conditions to guarantee the safety and comfort of construction personnel and the public.

In addition to AASHTO T 283 requirements, the asphalt hot mix containing anti-stripping additive shall pass a boiling water test in accordance with ASTM D3625 Standard Practice for the Effect of Water on Bituminous-Coated Aggregate Using Boiling Water within the mix design procedure. The pass criterion for ASTM D 3625 is 95% or greater retained bitumen coating of aggregate.

An additional rate of anti-strip and/or an alternate anti-stripping additive will also be required if the aggregate is known to be prone to stripping from past performance and the minimum application rate was insufficient.

Modified Lottman Tests (AASHTO T 283) and Boiling Water Tests (ASTM D3625) shall also be conducted on field produced samples of hot mix. All field produced samples shall also pass the requirements above.

If liquid anti-stripping additive is required as described above and utilized by the contractor payment is set at twenty five dollars (\$25) per tonne of asphalt cement based on the quantity of cement as determined under 330.05.12.03 or 330.06.13.02 Measurement for Payment for Asphalt Cement as applicable. This payment price is compensation in full for all labor, materials and equipment to supply the liquid anti-stripping additive, mix the additive with the asphalt cement and utilize in accordance with the requirements set forth above.

Hydrated lime ($\text{Ca}(\text{OH})_2$) can also be utilized as an anti-strip additive. Where hydrated lime is used as an anti-strip additive the dosage requirement shall be the greater of one half (1/2) percent by mass of total dry aggregate, or the recommended percentage as determined from the Lottman and Boiling Water test results.

Where hydrated lime is utilized the hydrated lime shall be added to all aggregates by either of the following methods:

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- (a) Hydrated lime slurry shall be homogeneously mixed with the aggregate in a pug-mill or tumble mixer prior to entering the asphalt plant (the hydrated lime slurry shall be produced at the approximate rate of 1 part lime to 3-4 parts water).
- (b) Dry hydrated lime shall be homogeneously mixed with wetted aggregate in a pug-mill or tumble mixer prior to entering the asphalt plant. The wetted aggregate shall have a minimum moisture content of 2% by weight for coarse aggregate and 3% by weight for fine aggregate.

Hydrated lime shall be mixed with the aggregate at least 4 hours prior to entering the asphalt plant. Aggregate treated with hydrated lime shall be used within the same construction season. Treatment shall include both coarse and fine aggregate components of the asphalt aggregate.

Where hydrated lime is required, the Contractor shall provide the Department with complete information on how the hydrated lime is to be used in the treatment of aggregates. Hot mix produced containing hydrated lime, shall conform to all requirements of the contract before acceptance.

The requirement for hydrated lime anti-stripping additive will be determined following the mix design. The design amount of hydrated lime will be added as a percentage of the total dry aggregate weight. Measurement for hydrated lime anti-stripping additives shall be determined by the Department on the basis of the computed quantity calculated from the percentage of anti-stripping additive specified in the mix design and the total asphalt cement or dry aggregate used by the Contractor. If hydrated lime anti-stripping additive is required, payment is set at three hundred seventy five dollars (\$375) per tonne. This payment price is compensation in full for all labor, materials and equipment to supply the hydrated lime anti-stripping additive, mix the hydrated lime with water (if necessary) and add the hydrated lime in accordance with the requirements set forth above.

If an anti-stripping additive or additional/alternative anti-stripping additives are required, a further 10 working days will be required after the Contractor has advised the Department of its new anti-strip proposal and all materials have been received by the Materials Engineering Division. The Contractor and his supplier shall provide sample materials, any technical information and Manufacturer's recommended application rates.

330.02.01.06 Recycled Asphalt Pavement (RAP)

If the Contractor wishes, the Contractor will be permitted to use Recycled Asphalt Pavement (RAP) in levelling or base course asphalt. The amount of RAP in the pavement mixture will be limited to 20% and subject to the following conditions:

Preparation and submission of a Marshall Asphalt Design Mix Formula (including all supporting documentation) for the asphalt mixture containing RAP, for the Department's approval, is the responsibility of the Contractor. The Contractor shall use professional engineering services and a qualified testing laboratory, to assess the aggregate materials, asphalt binders, blending sands, mineral fillers, anti-stripping agents and asphalt cement rejuvenation agents proposed for use and to carry out the design of the asphalt concrete mix. No compensation will be provided to the Contractor, for the production of the asphalt design mix formula for the asphalt mixture containing RAP.

The asphalt mixture containing RAP shall be designed in accordance with the Ontario Ministry of Transportation, Design Procedure for Recycled Hot Mix Asphalt, latest edition, except that all test methods referred to shall be replaced with the appropriate ASTM Standards. Copies of this document are available from the Departments Materials Engineering Division.

RAP percentages may require the use of asphalt cement rejuvenation agents to ensure the overall asphalt cement characteristics meet the specified Performance Grade. Testing to confirm the rheological characteristics of the combined Performance Graded Asphalt Cement and the RAP asphalt cement shall be supplied as part of the Marshall Mix Design. In all cases the Performance Grade of the asphalt cement shall meet the project specifications.

RAP shall be comprised of asphalt millings and be free of uncoated particles. The use of non-milled reclaimed asphalt pavement is subject to the approval of the Department.

The quality of the aggregate in the RAP and the quality of the final pavement mixture shall meet all requirements set forth in this specification.

Where RAP is included in base or levelling course mixes the following process will be followed:

-RAP shall be fractionated into a minimum of three separate sizes.

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- The gradation of the individual fractionated RAP shall be:

- 9.5mm and above
- 4.75mm to 9.5mm
- minus 4.75mm

-The asphalt plant must be equipped with a metering system that allows the fractionated RAP to be added in a controlled manner acceptable to the Department.

The Contractor shall provide the Department with a minimum 30 day notice of his intention to use RAP. The Department reserves the right to accept or reject any particular source of RAP, irrespective of its quality.

330.02.02 Composition of Pavement Mixture

330.02.02.01 General Requirements for Pavement Mixture

The mixture shall consist of suitably graded fine and coarse aggregate thoroughly mixed with asphalt cement as specified. Blending sand, filler and chemical additives shall be added when required.

Unless otherwise specified, the aggregates shall be combined in such proportions as to produce a mixture conforming to the grading of Table 3.

TABLE 3
Asphalt Aggregate Mixtures

Sieve Size	Percent Passing by Dry Weight		
	Surface Course	Levelling Course Type I**	Base Course & Levelling Course Type II***
22.0 mm	100	100	100
19.0 mm	100	100	90-100
12.5 mm	93-100	75-100	75-90
9.5 mm	75-92	63-95	63-84
4.75 mm	55-75	35-78	35-55
2.00 mm	32-55	20-55	20-42
0.425 mm	16-25	10-25	10-25
0.150 mm	5-12	5-12	5-12
0.075 mm	2-5*	2-5*	2-6*
Asphalt Cement (% By Weight of Total Mixture)	4.5 – 7.0	4.5 – 7.0	4.5 – 7.0

* The dust/effective asphalt ratio of all mixtures shall be between 0.6 and 1.2. Dust is defined as material passing the 0.075 mm sieve.

** Levelling Course Type I to be used where thickness of compacted lift is to be less than or equal to 30 mm.

*** Levelling Course Type II to be used where thickness of compacted lift is to be greater than 30 mm.

Once a mix design has been designated or approved by the Engineer, the Contractor shall be required to produce a pavement mixture conforming to the following mix control tolerances. The mix must still fall inside the gradation envelopes of Table 3.

Individual Sample Tolerance for Production of Combined HMA

Aggregate Passing 19.0 mm sieve	± 5%
Aggregate Passing 12.5 mm sieve	± 5%
Aggregate Passing 9.5 mm sieve	± 5%
Aggregate Passing 4.75 mm sieve	± 5%
Aggregate Passing 2.00 mm sieve	± 4%
Aggregate Passing 425 µm sieve	± 3%
Aggregate Passing 150 µm sieve	± 2%
Aggregate Passing 75 µm sieve	± 1%

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330.02.02.02 Physical Requirements for Mixture

The aggregates and the asphalt cement shall be mixed in such proportions as to satisfy the criteria contained in Table 4. These criteria are based on the Standard Marshall Test Procedures and using a compactive effort of 75 blows on each face of the specimen.

All test procedures used shall be the latest versions of ASTM or AASHTO standards, except where indicated.

TABLE 4
Physical Requirements for Asphaltic Concrete Mixture (All Courses)

	Minimum	Maximum
MARSHALL STABILITY N. AT 60°C		
(I) FOR HIGHWAY CLASSIFICATIONS RLU-60, RLU-70, RLU-80	5 400	---
(II) FOR HIGHWAY CLASSIFICATIONS RAU & RAD-100, RAU & RAD-90, RCU-80	8 000	---
MARSHALL FLOW INDEX MM	2.5	4.25
% AIR VOIDS (A)		
(I) FOR HIGHWAY CLASSIFICATIONS RLU-60, RLU-70, RLU-80	2.5	4.5
(II) FOR HIGHWAY CLASSIFICATIONS RAU & RAD-100, RAU & RAD-90, RCU-80	3.0	5.0
% VOIDS IN COMPACTED MINERAL AGGREGATES		
(I) LEVELING & BASE COURSE	14.0	---
(II) SURFACE COURSE	15.0	---
MODIFIED LOTMAN AASHTO T283 - TENSILE STRENGTH RATIO (PLUS VISUAL)	0.8	---
% RETAINED COATING OF AGGREGATE - BOILING WATER TEST ASTM D3625	95	---
MOISTURE CONTENT OF HOT MIX ASPHALT BY OVEN METHOD, AASHTO T329 AS PERCENT OF HMA	---	0.3

Notes: (A)The test method, ASTM D2041 "Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixture", shall be modified as follows: The residual pressure in the vacuum cell shall be 30 mm $\pm$ 1 mm.

330.03 USE OF PITS, QUARRIES AND STOCKPILES

The use of pits and quarries for the production of the aggregates, together with the requirements for the stockpiling of the aggregates shall be in compliance with the provisions of Section 310 "Use of Pits, Quarries and Stockpiles for Production of Materials Supplied by Contractor".

330.04 ENVIRONMENTAL PROVISIONS

Pits and quarries shall be stripped, worked and at the completion of the work restored, all in compliance with the provisions of Section 310 "Use of Pits, Quarries and Stockpiles for Production of Materials Supplied by the Contractor".

Off-specification asphalt shall be disposed of in accordance with Division 8.

330.04.01 Environmental Requirements for Asphalt Mixing Plants

Any asphalt plant being operated within a radius of 1.5 km of a regularly used building, either residential or commercial, or an organized recreational area, must control their dust emissions such that compliance is obtained with the air standards enforced by the Department of Environment and Conservation. In order to comply, the efficient operations of either a bag house dust collector or a water scrubber on the dryer emissions would be necessary.

These controls may be waived in an area where there are three or less regularly used buildings if the Contractor makes satisfactory arrangements with the owners and occupiers of all buildings. Under such circumstances, a written agreement between the Contractor and owner/occupier, signed by both parties, must be submitted to both the Department of Transportation and Works and the Department of Environment and Conservation.

Contractors are referred to the "Environmental Code of Practice for Asphalt Plant Operations" prepared by the Department of Environment and Conservation (Latest Edition). Hydrocarbon storage shall be in accordance with Section 820. The Contractor shall follow the procedure for spill reporting.

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All sections of the asphalt plant which could contribute to air or water pollution must be maintained in efficient operating condition.

Where a water scrubber is used, the scrubber effluent must be given retention time in suitably sized artificial settling ponds. Such ponds must be sufficiently impermeable to enable seepage water to meet the Environment Control (water and sewage) Regulations, 2003.

All storage tanks for fuel must be drained within one week after production has been completed. Fuel oil must not remain in tanks over the winter.

330.04.02 Environmental Approval

Contractors wishing to set up an asphalt mixing plant at a site must first obtain environmental approval before proceeding.

Contractors must apply in writing to the Department of Government Services and Lands for a Ministerial Approval as required under the Department of Environment Act, 2002. The following information must be supplied with the application:

1. LOCATION OF THE PROPOSED SITE AND DESCRIPTION OF ITS SURROUNDINGS WITHIN A RADIUS OF 1.5 KM.
2. SOIL TYPE AND PARTICULARS OF PROTECTIVE DYKING NEAR STORAGE TANKS.
3. SIEVE ANALYSIS OF COLD FEED AGGREGATE OR AT LEAST THE PERCENTAGE OF MINUS 75 μ SIEVE.
4. DESCRIPTION OF THE PLANT AND ASSOCIATED EQUIPMENT TO REDUCE AIR CONTAMINANTS (PLANS IF AVAILABLE).
5. CAPACITY OF PLANT IN TONNES PER HOUR.
6. SOURCE OF HEAT (AND SULPHUR CONTENT IF IT IS OIL).
7. RATE OF AIR FLOW THROUGH THE DRYER AT OPERATING CONDITIONS AND DIAMETER OF THE DRYER.
8. RELEVANT OPERATION DETAILS OF AIR POLLUTION CONTROL EQUIPMENT (IE. PRESSURE DROP ACROSS CYCLONES OR SCRUBBERS)
9. AIR TO CLOTH RATIO IF BAGHOUSE FILTER IS USED.
10. HEIGHT OF EXHAUST STACKS.
11. TEMPERATURE AND VELOCITY OF EXHAUST GASES FROM DRYER AND/OR STACK.
12. EXPECTED DATES OF OPERATION OF THE PLANT:
 - PROPOSED STARTING DATE
 - HOURS IN OPERATION PER DAY
 - PROPOSED COMPLETION DATE
 - TOTAL DAYS IN OPERATION
13. IF USING A WATER SCRUBBER, THE RATE OF USE OF WATER (L/S), THE NUMBER AND DIMENSIONS OF SETTLING PONDS AND THE METHOD OF LINING OF THE PONDS

For inspection purposes, the Contractor is to notify the Department of Environment and Conservation at least five days prior to site closure.

Should the Contractor wish to leave his equipment at the site beyond the completion of his work for this Department, or beyond his proposed completion date as stated in his application, then the Contractor shall state in writing his commitment to undertake the cleanup and restoration requirements of this section and those of Section 310 "Use of Pits, Quarries and Stockpiles for Production of Materials Supplied by Contractor", and also state his updated proposed completion date. Copies of this letter shall be sent to both the Department of Transportation and Works and the Department of Environment and Conservation.

330.05 METHOD SPECIFICATION FOR ASPHALT CONCRETE MIX - HOT PLACED

330.05.01 GENERAL

This item consists of supplying crushed aggregates, sand and mineral filler, anti-stripping additive, asphalt binder, with the production, loading, hauling, placing and compaction of hot mix asphalt concrete. The limits of placement, application rates and the asphalt concrete mixture type shall be as stated in the contract specifications. Production and Placement of hot mix asphalt will be subjected to various quality tests.

All aspects of the production and placement of the Hot Mix Asphalt will be supervised by the Department. All appropriate inspection and testing will be determined by the Department.

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The mixing period and temperature shall be such as to produce a uniform mixture in which all the particles are thoroughly coated, and the moisture content of the material as it leaves the mixer must be reduced to 0.3% or less. Facilities for sampling and observing the mix shall be provided.

The temperature of the mix immediately after mixing shall not exceed the lower of either; the high end temperature for recommended mixing from the temperature viscosity chart provided by manufacturer/supplier or 165° C.

Quality control tests shall be performed, by the Department, on random samples taken either at the production site or lay-down site.

Asphalt concrete is defined as a carefully controlled mixture of asphalt cement and mineral aggregate thoroughly mixed to be free from segregation and contamination and then placed and compacted to a uniform density and smooth finish.

The following sections describe the requirements applicable to quality control and quality assurance, manufacturing, transportation, placing, compaction, finishing and measurement and payment of asphalt concrete. The requirements of specific materials for the asphalt concrete are described in Section 330.02.

330.05.02 TESTING AND INSPECTION

The Contractor shall provide a field laboratory in accordance with the provisions of Section 111 "Field Laboratory". The field laboratory shall be provided at the site of the asphalt mixing plant.

The requirements for pit and quarry sampling and processed material sampling and approval as set forth in Section 310 "Use of Pits, Quarries and Stockpiles for Production of Materials Supplied by Contractor", shall apply to this section. The Contractor shall send to the Department's Laboratory in St. John's, samples of the proposed paving aggregate for testing as to quality, mix design, and approval by the Engineer. No samples will be accepted for mix design until 100% of the total aggregate required (including filler and blending sand) has been crushed, tested and properly stockpiled.

The Contractor shall be notified of the designated composition of the mixture not later than ten (10) working days after the day on which all necessary samples have been received at the Department's Laboratory and shall not commence mix production before such notification.

330.05.02.01 Designation of Mixture

The Engineer shall specify or approve a job mixture within the required limits of grading and conforming to the Marshall Test requirements given in Table 4 of Section 330.02.02 for each mix selected. The Engineer may select one or more mix proportions to suit job conditions. The actual grading of the job mix, when plotted, shall so range from course through fine sizes that it will approximate the shape of the plotted average grading for corresponding mix given in Table 3 Section 330.02.02. For that portion of the aggregate passing the 4.75 mm sieve, gradients which range from the maximum of one sieve to the minimum of the next larger sieve, shall not be permitted.

330.05.02.02 Unauthorized Tampering with Plant Settings and Materials

Any person employed by the Contractor, who, in the opinion of the Engineer, alters or causes to be altered, any settings or screens of an asphalt plant after it has been calibrated, or who adds or causes to be added, any unapproved material to a stockpile or aggregate, or in any way hampers the production of the mix as designed, shall at the written request of the Engineer, be forthwith removed from the project and such persons shall not again be employed in the work.

330.05.03 EQUIPMENT

All manufacturing of asphalt concrete shall be conducted using batch, drum or continuous mixing plants. All plants shall conform to the requirements of ASTM D995 Standard Specification for Mixing Plants for Hot-Mixed, Hot Laid Bituminous Paving Mixtures and as specified herein.

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330.05.03.01 Mixing Plants

330.05.03.01.01 General Requirements and Equipment for Storage of Asphalt Cement

Tanks for storage of asphalt cement shall be capable of heating and maintaining the temperature of the asphalt cement at a constant temperature range between 120°C and 160°C. The actual working temperature shall not vary by more than $\pm 5^{\circ}\text{C}$ when the amount of asphalt cement added to the mixture is measured volumetrically. Heating shall be by steam or oil coils, electricity, or other means such that no flame shall contact the heating tank.

A circulating system for the asphalt cement shall be of adequate capacity to thoroughly mix the asphalt cement and provide continuous circulation between the storage tank and proportioning units during the entire operation period. All pipe lines and fittings shall be steam or oil jacketed and properly insulated to prevent heat loss.

Storage tank capacity shall be such as to ensure continuous operation of the plant and uniform temperature of the asphalt cement when it is introduced into the mixing unit. Tanks shall be accessible for measuring the volume of asphalt cement at any time.

A sampling outlet shall be provided in the asphalt cement feed lines connecting the plant storage tanks to the weighing system or spray bar. The outlet shall consist of a valve installed in such a manner that samples may be withdrawn from the line slowly at any time during plant operation. The sampling outlet shall be installed between the pump and the return line discharge in a location that is readily accessible and free from obstruction. A drainage receptacle shall be provided for flushing the outlet prior to sampling.

330.05.03.01.02 Cold Bins

All plant types shall be equipped with operational cold bins capable of being calibrated. Cold bins shall be divided into not less than three compartments, each to be equipped with individual gate controls, so as to enable accurate and positive proportioning of each aggregate size. Partitions of sufficient height to eliminate intermingling of the aggregate shall be provided between adjoining bins, if the bins are being fed with a front-end loader the width of each bin must be at least 500 mm wider than the width of the loader bucket.

330.05.03.01.03 Dryer

A rotary dryer, of satisfactory design, for drying and heating the aggregate shall be provided. Dryer units shall be of sufficient capacity to uniformly heat the aggregate and reduce the moisture content to the specified level. Upon request the asphalt contractor shall make available to the Engineer the following information.

- a) The specified rate of production in tonnes per hour versus aggregate moisture content.
- b) Within drum plants the specified location and length of the of the asphalt cement delivery pipe.

330.05.03.01.04 Screens

Plant screens on batch and continuous mix plants shall have adequate capacity and size range to properly separate all of the aggregate into the sizes required for proportioning so that they may be recombined consistently within the specification limits.

All screens shall have square openings and be free any rips or holes. Screen decks shall be stacked in such a manner that cross contamination of aggregates is prevented.

330.05.03.01.05 Hot Aggregate Storage Bins

Batch and continuous mix plants shall have hot bin storage of sufficient capacity to ensure uniform and continuous operation. Bins shall be divided into compartments arranged to ensure separate and adequate storage of appropriate fractions of the aggregate. Each compartment shall be provided with an overflow pipe of such size and at such a location to prevent any backing up of material into other bins or into contact with the screen. Adequate and convenient facilities shall be provided for obtaining aggregate samples from each hot bin.

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330.05.03.01.06 Asphalt Cement Control Unit

Satisfactory means, either by weight, metering or volumetric measurements, shall be provided to obtain the proper amount of asphalt cement. All measuring devices shall prove accurate to within $\pm 2.0\%$ when tested for accuracy.

330.05.03.01.07 Thermometric Equipment

An armoured thermometer of suitable range shall be fixed in the asphalt cement feed line at a convenient location near the discharge of the mixer unit. The plant shall be further equipped with approved recording thermometers, pyrometers, or other approved recording thermometric instruments at the discharge chute of the dryer and in the hot fines bin to register and record automatically the temperature of the heated aggregate.

330.05.03.01.08 Dust Collectors

Dust collectors shall be provided where required under the provisions of Section 330.04.01 "Environmental Requirements for Asphalt Mixing Plants". Provision shall be made to waste the material so collected, or to return all or any part uniformly to the aggregate mixture.

330.05.03.01.09 Safety Requirements

Adequate and safe stairways to the mixer platform shall be provided, and guarded ladders to other plant units shall be located where requested.

All gears, pulleys, chains, sprockets, and other dangerous moving parts shall be thoroughly protected. Ample unobstructed passage shall be maintained at all times in and around the truck-loading space. This space shall be kept free of drippings from the mixing platform. A ladder or platform shall be located at the truck-loading space to permit easy and safe inspection of the mixture as it is delivered into the trucks.

A suitable sampling platform with stairs or ramp access including railing shall be provided for sampling material in the truck bed. The height of the platform shall be adequate to prevent the inspector from having to climb up on to the truck in order to obtain a sample. The platform shall be constructed such that the truck is able to park on either side. If it is not possible for the platform to be constructed in such a manner, then two separate platforms shall be provided or the truck will be required to reverse direction so that a sample may be obtained. Overhead protection shall be provided where necessary.

330.05.03.01.10 Capacity

Unless indicated otherwise asphalt mixing plants must have a minimum rated capacity of 120 tonnes per hour delivered to the spreader, with a production history to support this requirement.

330.05.03.02 Special Requirements for Batching Plants

330.05.03.02.01 Weigh Box or Hopper

The equipment shall include a means for weighing each bin size of aggregate into a weigh box or hopper, suspended on scales, and ample in size to hold a full batch without running over. The weigh box or hopper shall be supported on fulcrums and knife edges that will not easily be thrown out of alignment or adjustment. Gates both on the bins and the hopper shall be constructed to prevent leakage when closed.

330.05.03.02.02 Plant Scales

Scales shall be of the dial or digital type and of a standard make and design. Scales for weighing aggregates shall be accurate and sensitive to 0.5% of the maximum loading required. All scales shall provide a positive means of balancing the tare weight of the hopper or asphalt bucket. After each plant set-up and prior to batching any materials, and whenever deemed necessary by the Engineer, the Contractor shall, at his own expense, have the plant scales tested to the satisfaction of the Engineer.

330.05.03.02.03 Mixer Unit

The plant shall include a batch mixer of an approved twin shaft pug mill type capable of producing a uniform mixture within the permissible job mix tolerances. The clearance between the mixer blades and liner plates shall not exceed 20

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mm. The mixer shall be constructed to prevent leakage of the contents. Mixer discharge shall not cause appreciable segregation. The mixer shall be fitted with separate dry and wet mixing cycle timers and locking devices so that asphalt cement cannot be discharged and the pug mill gate cannot be opened until the desired mixing times have elapsed.

330.05.03.03 Special Requirements for Continuous Mixer Plants

330.05.03.03.01 Gradation Control Unit

The plant shall include means for accurately proportioning by volumetric measurement the aggregate discharged from each hot bin. The unit shall include a feeder, mounted under the compartment bins. Each bin shall have an accurately controlled individual gate to form an orifice for volumetrically measuring the material drawn from each respective bin compartment. The orifice shall be rectangular with dimension adjustable by positive mechanical means. Indicators shall be provided on each gate to show the gate opening in millimetres. Each gate will be provided with a lock.

330.05.03.03.02 Weight Calibration of Material Feed

The plant shall include a means for calibration of gate openings by weighted test samples. The equipment shall include a method of obtaining hot aggregates from the bins fully representative of the flow from the specific gate openings. It shall also include platform scales capable of accurately weighing test samples of aggregates and asphalt cement.

All calibration equipment, including revolution counters, shall be kept in good operating order at all times and shall be available whenever required.

330.05.03.03.03 Synchronization of Aggregate and Asphalt Feed

In order to ensure the correct flow of aggregate from the bins and the flow of asphalt from the meter or other proportioning sources, satisfactory means shall be provided to afford positive interlocking control between the flow of aggregate from the bins and the flow of asphalt from the meter or other proportioning sources. In order to ensure the correct flow of asphalt cement to the mixer at all times, the plant shall be equipped with means of maintaining a constant head of asphalt cement to the metering device. A satisfactory pressure gauge shall be installed on the asphalt line between the metering device and the spray bar.

330.05.03.03.04 Mixer Unit

The plant shall include a continuous mixer of an approved twin shaft pug mill type that shall be capable of producing a uniform mixture within the specified tolerances. The clearance of the blades from the inner surfaces of the pug mill liners shall not exceed 20 mm. The paddles shall be of a type adjustable for angular position on the shafts and reversible to retard the flow of the mixture. The mixer shall be equipped with an adjustable dam gate at the discharge end to control the level of the material. The mixer shall carry a manufacturer's plate giving the net volumetric contents of the mixer at several heights.

Unless otherwise required, determination of mixing time shall be by weight method under the following formula. The weights shall be determined for the job by tests made by the Engineer.

$$\text{Mixing time in seconds} = \frac{\text{Pug mill capacity in kg}}{\text{Pug mill output in kg/s}}$$

330.05.03.03.05 Discharge Hopper

All continuous mix plants shall be equipped with a controlled discharge storage hopper. The minimum capacity of the hopper in tonnes shall be equal to 1.5% of the hourly production rate of the plant but shall not be less than one tonne. This hopper shall be kept in satisfactory operating condition at all times and operated to prevent segregation of the mixture.

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330.05.03.03.06 Material Level Indicators

Material level indicators shall be installed in each hot aggregate bin at the one-third full level and at the two-thirds full level and they shall be connected to remote high-low indicator lights mounted at the operator's station. Operation of the mixer shall not be permitted when the low-level indicator shows any bin to be less than one-third full.

330.05.03.04 Special Requirements for Drum Mixer Plants

330.05.03.04.01 Aggregate Feed

Aggregates shall be fed to the dryer drum by means of a multi bin (minimum 3 or 4 bins) cold feed unit and shall be blended to meet the design mix proportions by adjustment of variable speed feed belts and gates on each bin. There shall be no overflow from one bin to another.

A reliable moisture probe shall be installed in the fine aggregate cold feed bin with a meter mounted in the plant control panel.

The total flow of aggregate shall be metered by an electronic weigh belt system with an indicator that can be monitored by the plant operator and which is interlocked with a variable speed asphalt pump so that the proportions of aggregate and asphalt entering the mixer remain constant.

Cold feed calibration and asphalt cement pump calibration shall be performed at the start of each contract and whenever deemed necessary by the Engineer. The calibration shall be done in the presence of the plant inspector. The cold feed shall be recalibrated whenever the weighing conveyor is moved.

A positive interlocked automatic shut off shall be provided so that the plant shuts down automatically if there is any disruption in the flow of aggregate or asphalt cement.

A vibrating screen of adequate capacity shall be provided to remove oversize from the combined cold feed. An aggregate sampling device shall be provided which will divert a representative combined aggregate sample of adequate size into a container or hopper for the purposes of gradation testing. The sampling device shall be located after the cold feed aggregates have passed through the vibrating screen and prior to mixing with asphalt cement.

330.05.03.04.02 Asphalt Cement Feed

The asphalt cement feed system shall be equipped with a calibration system which will enable approximately 200 litres of asphalt cement to be by-passed into a container which can be weighed. Adequate scales shall be provided by the Contractor.

A temperature gauge, showing the temperature of the asphalt cement at the metering pump, shall be provided in the control trailer. The gauge shall be graduated to cover at least the range 100°C to 200°C with increments of not more than 2.5°C.

A temperature compensating system shall be installed in the asphalt cement metering system designed to provide a volume of asphalt cement which will be constant when referenced to 15°C of regardless of variations in the temperature of the asphalt cement from the storage tank.

330.05.03.04.03 Asphalt Cement Mixing

The heating, coating and mixing of the asphalt mix shall be accomplished in an approved parallel flow dryer-mixer. The aggregate and asphalt shall enter the drum at the burner end and travel parallel to the flame and exhaust gas stream. Heating shall be controlled to prevent fracture of the aggregate or excessive oxidization of the asphalt. The system shall be equipped with automatic burner controls and shall provide for continuous temperature sensing of the bituminous mixture of discharge, with a printing recorder that can be monitored by the plant operator. The printed record of mix temperatures shall be available to the Department for inspection.

The method used to transfer the mixture from the drum mixer to the haulage units shall be designed, constructed and operated so that there shall be no segregation of, or damage to, the mix.

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A system for wasting unacceptable asphalt aggregate mixture shall be provided between the drum mixer discharge and holding bin.

The plant shall not be operated below 50% of the rated capacity of the belt scale.

330.05.04 Truck Weigh Scales

The scales shall be in accordance with Section 501 "Weighing Materials in Trucks".

330.05.05 Haulage Equipment

Trucks for hauling asphaltic mix shall be of the metal box type and their use shall be approved by the Engineer. The metal box shall be treated with an approved release agent and be in smooth condition with no rust scales or foreign materials. Where ever possible trucks shall be loaded such that the front and back of the truck body are loaded prior to placement of asphalt in the middle section.

Vehicles shall be equipped with tarpaulins of water repellent material (no open mesh types) of sufficient size to completely cover the truck box and overhang the box on all sides by a minimum of 150 mm. The tarpaulins shall have enough tie-down points so that they can be properly secured, and shall be in good condition and be free of holes and tears. They shall be securely tied down as an effective barrier against rain infiltration and air flow over the HMA mixture.

Tarpaulins are to be used at all times for protection of the load of Hot Mix Asphalt. Tarpaulins shall be rolled back to uncover the hot mix for inspection immediately prior to dumping the load into the paver. Trucks will stop ahead of the paver and allow the paver to smoothly pick up the truck.

330.05.06 Spreading Equipment

Mechanical self-powered pavers shall be used which are capable of spreading the mixture true to line, grade and crown as specified and as directed by the Engineer.

Pavers shall be equipped with hoppers and reversing distributing screws to place the mixture evenly in front of the screed. The distributor screws shall always be kept 1/3 to 2/3 covered.

Asphalt concrete shall be dumped into the middle of the paver hopper. The hopper shall not be emptied to less than 25% of its capacity when moving except when the spreading operation is suspended. All cold or segregated asphalt must be shovelled out and wasted. In no case shall cold asphalt be allowed in the pavement mix.

Pavers shall be equipped with heated vibrating screeds and shall be capable of spreading the mixture, without segregation, in thickness of from 10 mm to 200 mm and in widths of from 2500 mm to the greater of the maximum width of the project travel lane and paved shoulder combined or 4000 mm, in increments of 150 mm.

The Contractor shall provide on each paver a 3 m straight edge with a level recessed in its upper surface parallel to the lower face and capable of detecting a variation from the horizontal of 3 mm in 1000 mm.

The term "screed" shall mean any strike-off device operated by cutting, crowding, or other practical action which is effective on the mixture and which produces a finished surface of the evenness and texture required. The screed shall have an approved vibratory application and be adjustable as to level and crown and shall be heated in an approved manner.

Pavers shall be equipped with automatic screed controls, as recommended by the paver manufacturer, for the control of longitudinal grade and transverse slope. The longitudinal grade control shall be equipped to operate from a joint matching shoe except when a spreader with ski is required by the specifications. Longitudinal joints shall be matched by the spreader with ski where ever a spreader with ski is required or specified. The transverse slope control shall be capable of operating from either side of the paver.

A paver with a ski shall be required for paving base course and surface course on the Trans Canada Highway. On other projects, a paver with a ski will also be required where the contract item description includes the phrase "Spreader with Ski".

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The paver with a ski shall be equipped with an approved 12 m ski. Where such a ski is a flexible unit, it shall be equipped with a spring tensioned wire extending between brackets fitted on and slightly above each end of the ski. The sensing grid shall ride on the wire, not on the ski.

330.05.07 Rollers

All rollers shall be of the types specifically designed for asphalt compaction.

All rollers shall be in good condition and capable of reversing without backlash. They should be operated at all times by competent and experienced operators.

All rollers shall be weighed in the presence of the Engineer and ballasted, if required, immediately before commencing work and whenever subsequently required by the Engineer. There shall be no additional cost to the Department for meeting these requirements.

Steel drum rollers shall be equipped with satisfactory means to supply sufficient water to the drum to prevent adhesion of asphalt mixture. The rear wheels of combination rollers shall each be not less than 450 mm in width, drums of tandem rollers shall each be not less than 1250 mm in width. Steel drum rollers shall weigh at least 12 tonnes and shall exert a load on the compression roll of at least 6 tonnes per metre of wheel width. All pneumatic tired rollers shall be self-propelled and shall have not less than nine wheels revolving on two axles. The tires on the front and rear axles shall be staggered to cover the entire area over which the roller travels with a minimum overlap of 15 mm. Under working conditions, the roller shall exert a load of not less than 5 tonnes per metre of tire width on the asphalt surface. The tires shall be inflated to an air pressure of not less than 400 kPa. The roller shall be equipped with an adequate scraping or cleaning device on each tire to prevent the bituminous mixture from accumulating on the tires. The roller shall be equipped with a water system which will keep all tires uniformly wet, and which will have a capacity that will provide not less than two hours continuous operations without refilling.

330.05.08 Material Transfer Device/Vehicle

For all highway classifications, a Material Transfer Device/Vehicle shall be used at no extra cost to transfer the project's top lift of asphalt mixture (base, leveling or surface material) from the transport vehicles to the asphalt spreader. The purpose of the Materials Transfer Device is to minimize segregation during placement of the asphalt pavement and to increase the smoothness of the pavement surface by reducing the number of stops and starts during the placement of the asphalt pavement. The Material Transfer Device shall be utilized in conjunction with a hopper insert in the asphalt spreader. The hopper insert on the asphalt paver shall be kept full at all times. Cycling the hopper wings of the asphalt paver shall be kept to a minimum.

When required to pave on granulars, a self-propelled transfer vehicle is required.

Prior to being utilized the Material Transfer Device/Vehicle shall be approved for use by the Engineer.

330.05.09 CONSTRUCTION

330.05.09.01 Preparation of Gravel Road Surface

Where paving is to take place directly on top of a gravel surface, then the Contractor shall prepare the road to the satisfaction of the Engineer before paving. Not less than 300 m of prepared grade shall be maintained in front of the paver at all times, except at the end of the paving operation for that day.

Where the top layer of Granular "A" is placed under the same contract as the paving, then the preparation of the Granular "A" prior to paving shall be carried out in accordance with Section 315 "Selected Granular Base Course". However, where the paving is to take place directly on top of materials that were not placed in the paving contract, then such preparation prior to paving as the Engineer may require shall be carried out in accordance with Section 301 "Scarifying and Reshaping".

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330.05.09.02 Preparation of Old Paved Surface

When required by the Engineer, old paved surfaces shall be cleaned and treated with tack coat prior to repaving with asphaltic concrete. Such treatment with tack coat as may be required shall be carried out in accordance with Section 320 "Tack Coat".

330.05.09.03 Placing of Asphaltic Courses

The base on which paving is to take place shall be cleaned of all loose or foreign material before paving may take place. The asphaltic mixture shall be laid only upon a base which is dry or at least free from standing water, and when weather conditions are suitable. No paving shall take place during rain.

No course shall be placed upon a previously laid course less than 12 hours after final compaction of the latter, except with the permission of the Engineer in circumstances where in his opinion this requirement would be impractical.

No hot mix shall be placed unless the air temperature at the surface of the road is 7°C or above without the written permission of the Engineer. The temperature of the mixture immediately after spreading and prior to initial rolling shall not be less than 125°C.

The longitudinal joints in the surface course shall correspond to the demarcation between driving lanes, speed change lanes, tapers, etc. indicated in the contract or as directed by the Engineer. The width of succeeding courses shall be adjusted by an offset of width of from 150 mm to 300 mm so that longitudinal joints do not coincide.

Immediately after any pavement course is laid and before roller compaction is started the surface and edges shall be checked and any irregularities adjusted by the addition or removal of mixture.

Pavers must be equipped with heated vibratory screeds. There should be no allowance for pavers with non- vibratory screeds. All mechanical apparatus designed to aid compaction of the mixture shall have such devices operating continuously when the mixture is being placed unless otherwise directed by the Engineer. Where screed extensions are used, such extensions shall be designed so that the tamping or vibratory action of the screed is effectively transferred to the extensions in such manner as to provide a uniform degree of initial compaction across the full width of the freshly laid mat.

To ensure continuous operation of the pavers, they shall operate at whatever speed necessary to match the output of the plant provided that a consistent and satisfactory mat is being laid. However, in no case shall the speed of the paver exceed 0.7 km/h.

When two or more pavers are in echelon in order to match longitudinal joints, pavers following the lead paver shall use joint matching shoes, or an approved 12 m ski as per the contract requirements, designed for the purpose, which shall ride on the previously placed undisturbed mat. Pavers are considered to be paving in echelon when the lead paver is not more than 60 m in advance of an adjacent succeeding paver.

Mixtures may be spread by hand only in places inaccessible to the paver. Hand placing shall be from a steel dump board by means of hot shovels. Hand spreading shall be with rakes of suitable design. The mixture shall be spread to the depth required to give the compacted design thickness after rolling. No loads of mixture shall leave the plant so late in the day as to preclude the spreading and compacting of the mixture during daylight.

Paving of intersections, ramps and driveway tie-ins are integral with the work. No separate payment or compensation will be provided for this work.

330.05.09.04 End of Paving Season for Asphaltic Surface Course

The season for laying asphaltic surface course shall end on the 30th of September each year, unless extended by the Engineer.

No paving of asphaltic surface course shall take place beyond the designated end of the asphaltic surface course paving season. No pavement shall be removed from a roadway that cannot meet the requirement of replacing the asphalt before the end of the paving season.

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330.05.09.05 Joints

All joints shall be made in such a manner as to ensure a thorough and continuous bond and to provide a smooth riding surface.

All foreign material and all loose material shall be removed from all faces against which joints are to be made. All cold faces against which joints are to be made shall be cut back to full depth to expose a fresh vertical face and painted with emulsified asphalt (tack coat).

Longitudinal joints shall be rolled immediately upon placement of the fresh mixture and before the adjacent strip has completely cooled. The joint shall be set up with the back of a rake or lute at proper height and grade to receive the required compression under rolling. The depth of the newly laid mat shall be adjusted to allow for compaction. The paver shall overlap the existing mat by approximately 25 to 40 mm.

Prior to placing the adjacent mat, the exposed edge of each longitudinal joint must be coated with emulsified asphalt (tack coat). Upon completion of each day's paving, the maximum length of exposed joint edge shall be 60 meters.

Asphalt mat edges having companion longitudinal joints shall be matched within the maximum allotted time period as determined by the engineer. The maximum allotted time period shall be restricted to a lower limit of one hour with an upper limit of two hours. The allotted time limit will be proportioned on the paving lay-down conditions; with the lower time limit applied to least favorable placement conditions and the upper time limit applied to favorable placement conditions. Lay-down conditions considered by the engineer in establishing the time limit will include ground surface temperature, hot mix lay-down temperature, placement capacity, ultraviolet intensity, wind speed and air temperature. Longitudinal joints shall be matched by the end of each day's operations. Unmatched asphalt longitudinal joints left exposed at the end of the day, or exposed to moisture, also shall be painted with a continuous thin coating of hot asphalt cement to the full face.

All joints shall be constructed such that any excess material is not scattered on the surface of the freshly laid mat. Such excess material shall be carefully removed and disposed of as directed.

Transverse joints shall be checked with a straight edge immediately after initial rolling. Any irregularity in the pavement surface at the joint shall immediately be corrected by the addition of or removal of mixture. When possible, the transverse joints shall be initially rolled in a direction perpendicular to the direction of paving.

330.05.09.05.01 Keyed Joints

When overlaying existing asphalt concrete pavement, keyed joints shall be constructed at both ends of the project, at all intersecting roads, ramps and at all bridge decks in the repaving area. The taper length for such keyed joints shall be a minimum of 15m. Keyed joints will only be required between the final lift of pavement and the existing pavement, unless otherwise directed by the Engineer.

When existing pavement has been removed in advance of paving the joint area, the Contractor shall construct a temporary (hot mix asphalt concrete ramp) taper at the joint area to a slope of at least 50 horizontal to 1 vertical (50H:1V). Temporary tapers (ramps) shall be installed immediately following milling of the keyed joint and prior to opening the area to traffic.

330.05.09.06 General Requirements for Compaction

The pavement mixture shall be compacted to a density of 93% of the Maximum Theoretical Density of the comparative laboratory Marshall mixture based on the criteria given in Section 330.02.02.02 "Physical Requirements for Mixture". Steel drum rollers shall have vibratory capabilities acceptable to the project engineer. Static rolling will only be allowed on bridge decks or where shallow underground utilities are present. The decision to use static rolling will be the responsibility of the project engineer.

It is an express condition of this specification that all mixtures be compacted to the specified density immediately following placement. If, during the course of the paving operation, measured insitu field densities fall below the specified minimum, the Contractor shall revise his compaction process by (a) increasing the number of passes of the compaction train; (b) adjusting the frequency amplitude or tire pressure of individual rollers; or (c) by adding additional rollers to the compaction train. Steel drum rollers should operate with the drive wheel forward in the direction of paving. In all cases, the production and placing of the pavement mixture shall be controlled so that all rolling shall be

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completed before the pavement mat temperature falls below 80 degrees Celsius. The compaction process shall be completed before sunset.

330.05.09.06.01 Compacting Asphaltic Base, Levelling and Surface Courses

Unless otherwise approved by the Engineer as per Section 330.05.09.06.02, the Contractor shall supply a minimum of two vibratory rollers and one pneumatic tired roller.

The initial compaction shall be obtained by the vibratory roller followed by the pneumatic tired roller. Rolling shall commence as soon after placing as the mixture will bear the roller without checking or undue displacement. Final rolling will be with a roller operating in static mode. Static rolling will be conducted only to remove any irregularities in the pavement surface.

The initial breakdown rolling by a steel wheel roller shall commence as soon after placing as the mixture will bear the roller without checking or undue displacement. Rolling shall start longitudinally at the lower edge and proceed towards the higher edge of the course, overlapping on successive passes. Alternate passes of the roller shall be staggered.

Intermediate rolling, using a pneumatic tire roller, shall follow the breakdown roller as closely as possible. Passes shall be so arranged as to ensure overlapping successive tire paths. The Contractor shall be responsible for ensuring that the tires are in proper condition at all times to prevent pick up of the mixture.

Finishing rolling, using a steel wheel roller, shall be accomplished with the minimum number of passes required to produce a satisfactory surface. Rolling shall start longitudinally at the higher edge and proceed towards the lower edge.

While rolling longitudinal joints, steel drums or rubber tires shall extend 150 mm over the previously placed mat.

When paving in echelon the contractor shall provide sufficient rollers required to compact the asphalt pavement to the required degree of compaction. As a minimum there shall be four vibratory rollers and one pneumatic roller on site.

330.05.09.06.02 Compacting With Static Wheel Rollers

In areas where a vibratory roller cannot operate (i.e. shallow utilities and bridge decks) compaction shall be obtained using suitable static steel wheel rollers but only under approval from the Engineer.

Where approved by the Engineer (as per above) to compact the mixture using static wheel rollers, a minimum of 2 steel wheel and 1 pneumatic tire rollers will be required to operate with each paver used.

The operating speed of static steel wheel rollers shall not exceed 5 km/h and shall be slow enough to avoid displacement of the mix.

330.05.09.06.03 Asphalt Density Measurement and Unit Price Adjustment

The Contractor shall be responsible for the compaction stage of the work to ensure that the density conforms to requirements.

Compaction testing and unit price adjustments shall be based on daily production. Daily production is defined as the production and placement of 200 tonnes or more of asphalt concrete. If the daily production is less than 200 tonnes, the quantity for that day will be added to the next day or days in accordance with Table 1. If it is the last day of production for the project, the quantity for that day will be added to the previous day's production. If the total quantity of asphalt mix is less than 200 tonnes for the project, two cores will be used to determine asphalt core density.

Test coring must be completed prior to placement of the next lift of asphalt concrete. If the Contractor believes that certain areas to be tested should be excluded from unit price adjustments, then those areas should be identified and submitted to the Department in writing prior to the pre-paving meeting with the Department.

Pavement samples will be taken on the road by Department personnel at random sample locations. Cores shall be a nominal 100 mm diameter. Sample locations will be determined by the Engineer using random sample procedures, in which the daily production is divided into segments as shown in Table 1. A random sample is taken

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from each segment.

Table 1
Number of Segments per Daily Production

DAILY PRODUCTION OF ASPHALT CONCRETE	NUMBER OF SEGMENTS
200 to 500 t	2
500 to 1000 t	3
1000 to 1500 t	4
More than 1500 t	5

Segments shall be of approximately equal length. In each segment, a test site will be located by using random numbers to determine the longitudinal distance from the end of the segment and the lateral distance from the edge of the segment. Cores shall not be taken within 0.15m of the pavement edge or longitudinal joint, nor closer than 6 m from transverse joint.

Areas not to be cored include; small areas such as tapers, bullnoses, aprons, bridge approaches, bridge decks, areas of handwork, and asphalt mix used for isolated levelling.

Cores shall be obtained in accordance with ASTM 5361 after a minimum of 12 hours from mix laydown. Typically cores will be sampled within 24 hours after mix laydown. However, the length of time to core the pavement may be extended as approved by the Engineer in order to exclude Saturdays, Sundays and holidays unless the Contractor is placing asphalt concrete on either day or to meet the minimum 200 tonne production requirement described above.

If the Contractor would like to have the cores removed immediately upon completion of his compaction process (and therefore avail of normal paving construction signage), the Contractor may supply dry ice at his expense for this purpose. With the application of approximately 1.5 kg of dry ice, coring can typically be completed within 20 minutes. Traffic control must be in place prior to and throughout the application of the dry ice, as this area must be protected from traffic.

During the coring operation, the Contractor must provide all traffic control in the form of flag persons and signs which conforms to Division 7 Temporary Condition Signs and Devices of the Department and Transportation and Works Specifications Book. Coring will not be permitted until all traffic control devices are erected and flag persons are in position.

Immediately following each coring operation, the Contractor shall reinstate the pavement at the core sample location in conjunction with removal of the core by dewatering the core hole and filling it with hot mixed asphalt concrete in 50 mm lifts to the pavement surface elevation, compacting each lift with 25 blows using a standard Marshall hammer. Each coring operation and the reinstatement of core hole is to be conducted during a single traffic control and flag person set up.

Failure to meet the time requirements for the core hole repair may result in delayed paving of any subsequent asphalt production.

Mat densities will be tested by the Engineer by core analysis throughout the course of the work and shall conform to the density requirements indicated in Table 2. The asphalt cores will be retained and stored safely by the Engineer.

The percent compaction will be determined by comparing the core bulk densities, in accordance with ASTM D2726 with the average theoretical maximum density of the loose mix samples corresponding with the daily production of these cores, in accordance with ASTM D2041.

The Engineer will provide the Contractor with a copy of the results of acceptance tests within one working day of their availability. For asphaltic base and leveling courses unit price adjustments will be applied utilizing Table 2 to each tonne of asphalt mix for the day (or days if daily production is less than 200 tonne) represented by the segments cored

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and the percent compaction averaged. For asphaltic surface courses unit price adjustments will be applied utilizing Table 2 for each individual core's percent of maximum theoretical, and the unit price adjustment will be applied to each tonne of asphalt mix for the day divided by the daily segments cored (or days if daily production is less than 200 tonne).

For each asphaltic base, leveling and surface course mixture type for the day, in addition to the requirements noted above, if an individual core's percent of maximum theoretical falls below 92.5 % or above 97.5 % no bonuses will be paid for the paving day for that mixture. Also, irrespective of the paving day, the average of any four consecutive samples of a mixture type (base, leveling or surface) shall have a reject limit of 91.0 % based on the four individual core's percent of maximum theoretical. The rejected material represented by the averaged four cores will be the sum of the four units of material represented by each core defined as the tonnes of the asphalt mixture type for the day divided by the daily segments cored (or days if daily production is less than 200 tonne). Units of rejected material will not be rejected twice or more.

**Table 2
Unit Price Adjustment for Density**

% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)	% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)	% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)
>98.5	REJECT	93.2	+ 0.20	91.2	- 3.20
98.5	-5.00	93.1	+ 0.10	91.1	- 3.60
98.4	-4.00	93.0	0.00	91.0	- 4.00
98.3	-3.00	92.9	- 0.10	90.9	- 4.40
98.2	-2.00	92.8	- 0.20	90.8	- 4.80
98.1	-1.00	92.7	- 0.30	90.7	- 5.20
98.0	-0.50	92.6	- 0.40	90.6	- 5.60
97.9	-0.40	92.5	- 0.50	90.5	- 6.00
97.8	-0.30	92.4	- 0.60	90.4	-7.00
97.7	-0.20	92.3	- 0.70	90.3	-8.00
97.6	-0.10	92.2	- 0.80	90.2	-9.00
97.5	0.00	92.1	- 0.90	90.1	-10.00
97.4	+0.10	92.0	- 1.00	90.0	-11.00
97.3	+0.20	91.9	- 1.20	89.9	-12.00
97.2	+0.30	91.8	- 1.40	89.8	-13.00
97.1	+0.40	91.7	- 1.60	89.7	-14.00
≤97.0 thru	+0.50	91.6	- 1.80	89.6	-15.00
to ≥93.5	+ 0.50	91.5	- 2.00	89.5	-16.00
93.4	+ 0.40	91.4	- 2.40	<89.5	REJECT
93.3	+ 0.30	91.3	- 2.80		

330.05.09.07 Requirement for Asphaltic Leveling Course

Asphaltic Leveling Course shall be used to fill surface depressions on old pavement, to restore the surface to the original profile and cross section. Patching and leveling shall not be carried out simultaneously at the same place. The patch shall be placed and fully compacted before leveling operations may proceed over the patch.

330.05.09.08 Requirements for Completed Asphaltic Base and Surface Courses

Each course, after final compaction shall be smooth, true to the established crown and grade, shall have the average thickness specified, and shall at no point vary more than 6 mm from the specified thickness. The surfaces of each base course, and any surface not subjected to smoothness testing under Section 330.07.10, shall be free from deviations exceeding 3 mm as measured with a 3 m straight edge paralleling the centerline of the roadway.

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Any low or defective locations shall immediately be remedied by removal of the defective area by cutting and replacing it with fresh hot asphalt. The area should be tacked and allowed to cure prior to the placement of any new asphalt. The new asphalt shall immediately be compacted to conform to the surrounding area and be thoroughly bonded to it.

330.05.09.09 Segregation and Other Surface Defects

The finished surface of any Pavement Course shall have a uniform texture and be free of visible signs of poor workmanship.

Any obvious defects, as determined by the Engineer, will be cause for rejection of the pavement course. Such defects shall include but not necessarily be limited to the following:

- 1. SEGREGATED AREAS**
- 2. AREAS OF EXCESS OR INSUFFICIENT ASPHALT CEMENT**
- 3. ROLLER MARKS**
- 4. CRACKING OR TEARING**
- 5. IMPROPER MATCHING OF LONGITUDINAL AND TRANSVERSE JOINTS**

- 6. TIRE MARKS**
- 7. IMPROPERLY CONSTRUCTED PATCHES**
- 8. IMPROPER CROSS SLOPE**
- 9. FUEL SPILLS ON THE MAT.**

Segregation is defined here as areas with predominantly coarser texture than that of the surrounding pavement, and will normally be first identified visually.

Slight Segregation:

Area where the matrix is in place between the stones but there is slightly more stone in comparison with the surrounding acceptable mix. Slight segregation will normally be left in place without price adjustment. The severity of segregation can be determined through a number of test methods, as specified by the Engineer.

Medium Segregation:

Area has significantly more stone than the surrounding acceptable mat and usually exhibits some lack of surface matrix. Medium segregation in surface-courses will be subject to a penalty of \$25/m² for the area in question, but for base-courses will normally be left in place with no price reduction. However, any areas of medium segregation that deteriorate prior to being overlaid by another pavement course must be repaired at the Contractor's cost.

Severe segregation:

Area appears very stony, with stone against stone and little or no matrix. All areas of severe segregation in any pavement course will require removal and repair across the full lane width.

Defects as determined by the Engineer, which occur in the finished surface of any pavement course during the two year warranty period resulting from poor workmanship, shall be repaired by the Contractor. The Contractor's method of repair shall be approved by the Engineer and performed according to specifications.

330.05.10 Pavement Smoothness

330.05.10.01 Pavement Smoothness Measurement

The smoothness of the finished surface of the top lift of the pavement structure shall be determined after final rolling of the surface to be tested. Normally, the outer wheel paths of all lanes will be tested, in 100 m sections, or lots. Other wheel paths may also be tested in addition to, or as a substitution for, the outer wheel path, as directed by the Engineer.

The profile measurement will normally be taken using a Class 1 inertial laser profiler, which will measure the profile in accordance with the manufacturer's recommendations and ASTM E950 – Standard Test Method for Measuring the Longitudinal Profile of Traveled Surfaces with an Accelerometer Established Inertial Profiling Reference. The resulting measurements will be compiled to produce a Profile Index (PI). This determination of smoothness will be made by the Department, or its representative.

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The Profile Index (PI) for each lane is the cumulative profile reading of the outer wheel path in millimeters per 100 m section, in excess of the 5 mm blanking band.

330.05.10.02 Profile Index Limits

The surface of the profiled pavement shall conform to the following Smoothness requirements:

Table 5 – Smoothness Requirements

Roadway Alignment Section	Profile Index (mm / 100 m)
RLU-80 CLASSIFICATION AND ABOVE	15 mm OR LESS
INTERCHANGE RAMPS, TAPERS*, AND HIGHWAYS OF LOWER CLASSIFICATION THAN RLU-80	N/A

If the Smoothness requirements are not met, the Contractor shall repair the sections, or pay a price adjustment based on the Profile Index. These price adjustments will be applied based on the square meters of the final pavement surface as outlined in Table 6. For price adjustment purposes, the width of the final pavement surface includes the driving lane and adjacent shoulders.

**Table 6
Profile Index Price Adjustment Schedule**

PROFILE INDEX PI (mm / 100m)	PRICE ADJUSTMENT \$ PER SQUARE METER	PROFILE INDEX PI (mm / 100m)	PRICE ADJUSTMENT \$ PER SQUARE METER
< 4.0	\$0.338	18.1 to 21.0	-\$0.540
4.1 to 5.5 incl.	\$0.270	21.1 to 22.5	-\$0.810
5.6 to 7.0	\$0.203	22.6 to 24.0	-\$1.080
7.1 to 8.5	\$0.135	24.1 to 25.5	-\$1.350
8.6 to 10.0	\$0.068	25.6 to 27.0	-\$1.620
10.1 to 15.0	\$0.00	27.1 to 28.5	-\$1.890
15.1 to 18.0	-\$0.270	28.6 to 30.0	-\$2.160
EACH ADDITIONAL 1.5mm INCREMENT ABOVE 30.0		-(NO OF INCREMENTS X \$0.54 +\$2.160)	

330.05.10.03 Surface Deviations (Individual Bumps and Dips)

Individual bumps and dips shall not exceed 8 mm in 7.6 m in the vertical direction. Where individual bumps and dips exceed 8 mm in 7.6 m, they may be corrected or the Contractor may elect to accept a penalty as per Table 7. The 5 mm blanking band is not applied to the bump and dip measurements. Notwithstanding, transverse joints are still subject to Section 330.05.09.05 and any irregularity should be immediately corrected.

**Table 7
Bump and Dip Penalties**

Bumps / Dips Measured in the Vertical Direction	Penalty	Bumps / Dips Measured in the Vertical Direction	Penalty
8.1 - 9 mm	\$ 200	13.1 - 14 mm	\$1200
9.1 - 10 mm	\$ 400	14.1 - 15 mm	\$1400
10.1 - 11 mm	\$ 600	15.1 - 16 mm	\$1600
11.1 - 12 mm	\$ 800	16.1 - 17 mm	\$1800
12.1 - 13 mm	\$1000	17.1 - 18 mm	\$2000
Each Additional 1 mm Increment Above 18 mm		(No. of Increments x \$500) + \$2000	

330.05.10.04 Testing

Testing and Evaluation: Testing will be performed as soon as possible after final rolling of the surface.

Profile measurements will terminate 15 metres from the end of each bridge deck, or from a joint between existing pavement and the new pavement. Profiles will be taken at approximately the outer wheel path for every lane of traffic, or as designated by the Engineer. Repeat profiles may be taken only to define the limits of an out-of-tolerance surface variation. Some sections may be omitted from testing, as determined by the Engineer. Tapers will be excluded from testing unless otherwise directed by the Engineer.

The Contractor shall give the Department at least 5 days notice prior to laying the final course of asphalt. A pre-paving meeting shall be convened on-site between the Contractor, the Engineer, and the Manager of Materials (or their representatives) to discuss any concerns either party might have regarding placement of the final course of asphalt. If the Contractor believes certain areas to be tested should be excluded from price adjustments, then those concerns should be submitted in writing for discussion at that meeting. Failure to submit those concerns in writing shall mean all areas shall be subject to price adjustments.

Re-testing to Verify Original Testing Results: Should the Contractor request retesting of pavement sections due to an excessive PI or excessive bump and dip heights, and the Department approves the re-test, then the Contractor shall bear all costs associated with testing if the original results are confirmed. If the retest results determine an improved PI or improved bump and dip heights over the original test, then testing costs shall be borne equally by the Contractor and the Department, and the average of the two results will be accepted as final. Only one retest, using the same profiler is permitted.

330.05.10.05 Remedial Action

Where the Profile Index (PI) and / or the bump and dip heights are greater than the limits specified, then the Contractor may elect to correct the smoothness of the deficient sections by i) rolling, ii) cold milling and replacing, iii) overlaying, or iv) removing and replacing.

Remedial Action Plan: Prior to initiating any remedial work, the Contractor shall submit to the Engineer for approval a detailed plan outlining the methods to be used to improve the smoothness. All remedial actions shall be done at the Contractor's expense, and shall comply with the following requirements:

Rolling: Additional rolling will only be permitted while asphalt is still workable, i.e., during the same day's paving operations, and at the sole direction of the Engineer. Additional rolling may be used only to correct deviations in transverse joints or excessive bump and dip deviations. Rolling shall not be used solely to reduce the overall PI of a section - rolling is to be used only for correction of individual bumps and dips, not 100 m sections or lots. Rolling must not cause any damage, such as but not limited to, crushing, cracking, or displacing the asphalt concrete. Should the rolling cause damage, the Contractor shall remove and replace the damaged area, at his expense.

Cold Milling and Replacing: Any section to be repaired by cold milling and replacing shall be milled the full lane width and a minimum length of 20 meters, to the full thickness of the lift of asphalt to be replaced.

All replacement asphalt concrete shall be of the same material and mix design as originally used on the section undergoing repairs.

Materials removed by cold milling shall become the property of the Contractor.

Overlaying: When an additional lift of asphalt concrete is used to improve smoothness, it shall extend the full width of the pavement surface and have a finished compacted thickness sufficient to produce compliance with smoothness limits, and produce a uniform final surface closely matching the existing asphalt pavement. Butt joints will be required at each end of the overlay.

All asphalt concrete used for overlay shall be of the same material and mix design as originally used on the section undergoing repairs.

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Removing and Replacing: Where the remedial action involves removal and replacement, the lift shall be removed to its full thickness and lane width. All asphalt removed shall become the property of the Contractor.

Asphalt concrete shall be replaced to its original thickness and shall be of the same material and mix design as used originally in the section to be replaced.

Retesting Following Remedial Action: Where Remedial Action is conducted, then the Contractor shall bear all costs associated with the verification of smoothness of the remedial work. The test results of the remedial work shall be accepted as final and replace the initial test results for price adjustment purposes.

Time Limits for Remedial Action: All remedial work should be completed within 30 days of receipt by the Contractor of testing results, but in no case later than September 30.

330.05.11 ASPHALTIC PATCHING

Asphaltic patching involves patching pot holes in bituminous pavement, patching cuts for culverts or patching transverse cracks with hot mix asphaltic concrete.

Holes to be patched shall have loose material removed and be cleaned of dirt and gravel.

Tack coat shall be applied to all edges to be repaired. Surfaces shall be thoroughly dry before tack coat is applied.

Asphaltic concrete for use in patching shall conform to the requirements of Asphaltic Surface Course or Asphaltic Leveling Course Type I.

Asphaltic concrete shall be placed and leveled in the hole in one lift, so that when compacted, the repaired hole is level with the surrounding surface. The patches shall be compacted in accordance with the requirements of 330.05.09.06 "General Requirements for Compaction".

330.05.12 MEASUREMENT FOR PAYMENT

330.05.12.01 Measurement for Payment for Asphaltic Surface, Asphaltic Base Course, Asphaltic Leveling Courses Type I and Type II

Measurement for payment will only be made for those materials accepted for use under this specification and then only when incorporated into the work at the required locations.

Measurement for payment for the particular type of asphaltic course shall be by the weight of that material in tonnes, rounded to one decimal place.

Payment Adjustment Factors, if applicable, shall be as described throughout this specification. The material shall be weighed by means of the truck scales. The Department will supply scale tickets and the Department Scale Checker will issue the tickets. Only loads certified by the Department Road Checker, as being placed in the works at the required locations, shall be included in measurement for payment.

330.05.12.02 Measurement for Payment for Asphaltic Patching

Measurement for payment will only be made for those materials accepted for use under this specification and then only when incorporated into the work at the required locations.

Measurement for payment shall be by the square meter of that material placed, rounded to the whole number.

330.05.12.03 Measurement for Payment for Asphalt Cement

The asphalt cement will be measured in tonnes, rounded to two decimal places. Payment for Asphalt Cement shall be as per the percentage (%) of asphalt cement required in the Design Mix Formula approved by the Materials Engineering Division. However, where Asphalt Cement contents are found to be deficient to the point of being in the penalty zones subsequently described, Asphalt Cement will be paid on actual content only, as determined by ASTM

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D6307 Method A -Standard Test Method for Asphalt Content of Hot-Mix Asphalt by the Ignition Method. Any moisture content in the hot mix asphalt will be determined and deducted. The method of determination of this moisture content will be in accordance with AASHTO 329 Standard Method of Test for Moisture Content of Hot Mix Asphalt by Oven Method.

Samples of hot mix asphalt shall be taken randomly, throughout each day of production, and tested to ensure conformance with the specifications stated herein. Sampling and testing shall be performed in accordance with ASTM D979 and ASTM D6307, Method A. Additional samples may also be taken and tested in accordance with ASTM D2172, for verification purposes.

In the event of any and all disputes over asphalt content, the asphalt contents as determined by the Engineer, in accordance with the above stated method, shall govern in all cases.

Acceptance Criteria

The following acceptance criteria shall apply for all mixes:

Table 8
Asphalt Content Acceptance Criteria

TYPE OF TEST	ACCEPTABLE ZONE (%)	PENALTY ZONE (%)	REJECTABLE ZONE (%)
INDIVIDUAL SAMPLE	± 0.25	-0.26 TO - 0.50 +0.26 TO +0.50	<-0.50 OR >+0.50

Payment Adjustment Factor

If the test results representing the individual sample for asphalt cement content falls into the above-stated "Penalty Zone", the payments for both Asphalt Cement and Hot Mix Asphalt shall be adjusted by deducting a percentage from the unit prices per Table 9 for the Individual Sample. These adjustments shall apply to the areas of pavement represented by these samples.

If the test results representing the individual sample fall into the above-stated "Rejectable Zone", then no payment will be made for either the asphalt cement or hot mix asphalt represented by those samples.

The design mix formula may be revised, as required, by the Department throughout the project. If a change in the mix design occurs during the day, then two or more averages will be computed, before and after the change was made.

Table 9
AC Content Penalty (Individual Sample)

Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Deviation %	Unit Price Payment Adjustment Factor %
0.26	0.5	0.35	5	0.44	14
0.27	1	0.36	6	0.45	15
0.28	1.5	0.37	7	0.46	16
0.29	2	0.38	8	0.47	17
0.30	2.5	0.39	9	0.48	18
0.31	3	0.40	10	0.49	19
0.32	3.5	0.41	11	0.50	20
0.33	4	0.42	12	> 0.50	Reject
0.34	4.5	0.43	13	--	--

330.05.12.04 Measurement for Payment for Blending Sand

The blending sand will be measured in tonnes, rounded to the nearest whole number.

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Measurement for blending sand shall be determined on the basis of the computed quantity calculated from the percentage of blending sand specified in the mix design and the total tonnage of asphalt mix of that design used by the Department.

330.05.12.05 Measurement for Payment for the Cutting and Removal of Asphaltic Pavement

The cutting and removal of pavement in connection with the preparation of joints, as required in Section 330.05.09.05, shall be measured for payment in accordance with Section 510 "Cutting Asphaltic Pavement", and Section 520 "Storage or Disposal of Old Asphaltic Pavement", except where the preparation of joints is required as the result of a break in the paving operations, in which case no measurement for payment will be made for either cutting asphaltic pavement or storage or disposal of old asphaltic pavement.

330.05.13 BASIS OF PAYMENT

330.05.13.01 Basis of Payment for Asphaltic Surface Course, Asphaltic Base Course and Asphaltic Leveling Courses Type I and Type II

Payment at the contract price for asphaltic base course, asphaltic surface course, asphaltic leveling course Type I or asphaltic leveling course, Type II as appropriate, shall be full compensation for:

1. THE SUPPLY OF ALL MATERIALS WITH THE EXCEPTION OF ASPHALT CEMENT AND BLENDING SAND. THE ASPHALT CEMENT AND THE BLENDING SAND SHALL BE PAID FOR SEPARATELY UNDER OTHER CONTRACT ITEMS.
2. THE USE OF THE REQUIRED EQUIPMENT, INCLUDING A PAVER WITH A SKI FOR BASE AND SURFACE COURSE APPLICATION ON THE T.C.H. ON OTHER PROJECTS, WHERE THE CONTRACT ITEM DESCRIPTION, IN THE UNIT PRICE TABLE, INCLUDES THE PHRASE "SPREADER WITH SKI" THEN A SKI ATTACHED TO THE LEAD SPREADER WILL BE INCLUDED AS WELL.
3. THE HANDLING, STORING, CRUSHING, HAULING, STOCKPILING, AND PREPARATION OF ALL MATERIALS WITH THE EXCEPTION OF BLENDING SAND AND ASPHALTIC CEMENT.
4. THE PREPARATION OF ALL JOINTS WITH HOT ASPHALT CEMENT, TOGETHER WITH THE CUTTING AND REMOVAL OF PAVEMENT WHERE A JOINT IS REQUIRED AS THE RESULT OF A BREAK IN THE PAVING OPERATIONS.
5. THE MIXING, PLACING AND COMPACTING OF THE ASPHALTIC MIXTURE, TOGETHER WITH ALL HAULAGE OF THE MIXTURE TO PLACES WITHIN THE CONTRACT.
6. ALL OTHER COSTS ARISING FROM THE REQUIREMENTS OF THE SECTION FOR WHICH PAYMENT IS NOT OTHERWISE SPECIFICALLY PROVIDED, INCLUDING ALL KEYED JOINTS AND THE PAVING REQUIRED FOR TIEINS AT INTERSECTIONS, RAMPS AND DRIVEWAYS.

330.05.13.02 Basis of Payment for Asphaltic Patching

Payment at the contract price for Asphaltic Patching shall be full compensation for:

1. THE SUPPLY OF ALL MATERIALS INCLUDING ASPHALT CEMENT AND BLENDING SAND.
2. THE USE OF THE REQUIRED EQUIPMENT.
3. THE HANDLING, STORING, CRUSHING, HAULING, STOCKPILING AND PREPARATION OF ALL MATERIALS.
4. THE CLEARING OF ALL HOLES TO BE PATCHED, TOGETHER WITH THE REMOVAL OF LOOSE MATERIAL FROM THE HOLES.
5. THE SUPPLY AND APPLICATION OF TACK COAT TO THE EDGES OF THE HOLES.
6. THE MIXING OF THE ASPHALTIC MIXTURE, AND PLACING AND COMPACTING OF THE ASPHALTIC MIXTURE IN THE HOLES.
7. ALL OTHER COSTS ARISING FROM THE REQUIREMENTS OF THE SECTION FOR WHICH PAYMENT IS NOT OTHERWISE SPECIFICALLY PROVIDED.

330.05.13.03 Basis of Payment for Asphalt Cement

Payment at the contract price for Asphalt Cement shall be compensation in full for all labor, materials, and equipment to supply the Asphalt Cement cost shall include purchase, loading, transportation, unloading and storage at the asphalt plant.

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330.05.13.04 Basis of Payment for Blending Sand

Payment at the contract price for Blending Sand shall be compensation in full for all labor, materials, equipment-use and all other expenses to: provide a pit, obtain all required permits and approvals, provide and transport samples to the Department's Soils Lab in St. John's, excavate, load and provide all haulage from the source to the asphalt plant, stockpile the sand at the asphalt plant, pay any royalties for the material, clean up and restore the pit as may be required.

330.05.13.05 Basis of Payment for the Cutting and Removal of Asphaltic Pavement

Where cutting and removal of pavement is carried out in order to prepare a joint resulting from a break in the paving operations, then no payment will be made for the cutting and removal of the pavement since such work is considered part of the basis of payment for asphaltic base and surface courses.

However, where other asphaltic pavement is cut and removed then payment will be in accordance with Section 510 "Cutting Asphaltic Pavement" and Section 520 "Storage or Disposal of Old Asphaltic Pavement".

330.05.13.06 Basis of Payment for Asphaltic Mix for Department's Maintenance Division

The Department's Maintenance Division may, on occasion have need for asphalt in the areas of a project. The Contractor will allow Department trucks along with his own trucks to pick up asphalt from the plant as required. Payment will be made to the Contractor by the tonne weighed over the scales and invoiced to the Department based on the tendered unit price in the Contract except in cases where the Contractor has a Standing Offer Agreement with the Department for supply of asphalt and the Unit Price in the Standing Offer Agreement is less than the Unit Price Table in the highway contract, then the Unit Price in the Standing Offer Agreement will apply.

330.05.13.07 Basis of Payment for Rejected Mix

The Department will pay for only the original mix quantity. The Contractor is fully responsible to bear all costs associated with repair of rejected areas, including all materials, equipment, plant, labour, traffic control and incidentals necessary to complete the work to the satisfaction of Engineer.

If the Department determines the rejected material may remain in the work, and the Contractor elects not to repair the affected area, payment for the rejected mix components will be at 50% of the various contract unit prices.

330.06 END PRODUCT SPECIFICATION (EPS) FOR ASPHALT CONCRETE MIX – HOT PLACED

330.06.01 General

This item consists of supplying crushed aggregates, blending materials, anti-stripping agent, asphalt binder, and the production, loading, hauling, placing and compaction of hot mix asphalt concrete. The limits of placement, application rates and the asphalt concrete mixture type shall be as stated in the contract specifications. Areas constructed will be subjected to various quality assurance testing.

It shall be the Contractor's responsibility to provide an acceptable product as specified. In order to achieve this, the Contractor shall implement and maintain a quality control system that will provide assurance that all components, as well as end result products, submitted to the Department for acceptance, conform to the contract requirements. This is without regard to whether the products are manufactured by the Contractor or purchased from suppliers or subcontractors. The Contractor's Quality Control System proposed for each project shall be provided to the Department in the form of a written Quality Control plan.

Quality assurance tests shall be performed, by the Department, on random samples taken either at the production site or lay down site.

330.06.02 Definitions

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330.06.02.01 End Product Specification (EPS)

An end product specification is a specification under which the Contractor has control of the processes that produce the items of construction. The Department accepts or rejects the end product according to identified bonus / penalty items. The Contractor is entirely responsible for quality control. End product acceptance is the responsibility of the Department based on a program of quality assurance testing.

330.06.02.02 Design Mix Formula (DMF)

The DMF is defined as the laboratory determination of the precise proportions of asphalt binder, additives and aggregates to be blended together to meet the specified properties for a given asphalt concrete mix.

330.06.02.03 Job Mix Formula (JMF)

The JMF is the resultant establishment of the single definite percentage for each sieve fraction of aggregate and asphalt binder content that will produce the desired asphalt concrete mix properties under field conditions.

330.06.02.04 Actual Asphalt Binder Content

This is the percentage of asphalt binder in the asphalt concrete mixture, determined from quality assurance testing in accordance with ASTM D6307.

330.06.02.05 Lot

For each mixture type specified, a Lot is defined as the quantity of asphalt concrete plant production, to a total of 2400 tonnes, where approved changes to the Job Mix Formula have not occurred. For loose samples, each Lot shall be divided into 4 (four) approximately equal segments and one loose sample is randomly selected from each segment. For core samples, each Lot shall be divided into 4 (four) approximately equal segments and three adjacent core samples are taken from each segment at a single random location.

If it is the last time the mix is produced and this criterion cannot be met (i.e. less than 2400 tonnes of mix remain), the following shall apply:

If the remaining plant production is 600 tonnes or less, the production will be added to the previous Lot. The adjusted Lot shall be divided into 5 (five) approximately equal segments and one loose sample is randomly selected from each segment. For core samples, the adjusted Lot shall be divided into 4 (four) approximately equal segments and three adjacent core samples are taken from each segment at a single random location.

If the remaining plant production is between 600 and 1200 tonnes, the production will be added to the previous Lot. The adjusted Lot shall be divided into 6 (six) approximately equal segments and one loose sample is randomly selected from each segment. For core samples, the adjusted Lot shall be divided into 4 (four) approximately equal segments and three adjacent core samples are taken from each segment at a single random location.

If the remaining plant production is greater than 1200 tonnes, but less than 2400 tonnes, the production will be designated as a separate Lot. The separate Lot shall be divided into 4 (four) approximately equal segments and one loose sample is randomly selected from each segment. For core samples, the adjusted Lot shall be divided into 4 (four) approximately equal segments and three adjacent core samples are taken from each segment at a single random location.

In all cases above, the lot size shall be equally segmented and random samples selected from each segment.

A separate Lot will be established at the discretion of the Engineer if conditions of construction indicate that it is likely that a portion of the Lot production is significantly different from the remainder of the Lot production.

330.06.02.06 Stratified Random Sample

A stratified random sample is defined as a representative sample taken in an unbiased manner, by dividing a Lot into approximately equal segments. A random sample is taken from each area or segment.

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330.06.02.07 Sample Mean

This is the arithmetic mean of the group of test results derived from the randomly selected samples.

330.06.02.08 Mean of the Deviations

This is the sum of the absolute values of the deviations divided by the number of tests in the Lot.

330.06.02.09 Thickness

Thickness is defined as the specified application rate indicated in the contract documents divided by the average bulk relative density obtained from the core samples for a given Lot. Price adjustments for thickness will be applied to new construction only.

330.06.02.10 Mix Property

Mix properties measured for product acceptance and price adjustments are as follows:

Gradation: Passing 4.75 mm and 75 µm sieves, Asphalt Binder Content, Binder Grade, Marshall Air Voids, Thickness, Application Rate, Density and Smoothness.

330.06.02.11 Referee Sample

A referee sample is defined as the portion of the loose or core sample that is set aside by the Department representative's laboratory in the case of an appeal of binder content, gradation, and/or density by the Contractor.

330.06.03 Materials

330.06.03.01 General

All materials required to produce the asphalt concrete will be supplied by the contractor. Details regarding the property requirements for the asphalt cement, coarse aggregate, fine aggregate, blending sand, anti-stripping admixtures are presented in section 330.02.

330.06.04 Mix Design Requirements

330.06.04.01 Establishing a Design Mix Formula (DMF)

Preparation and submission of the asphalt DMF for the Department's approval is the responsibility of the Contractor. The Contractor shall use professional engineering services and a CCIL or AASHTO certified testing laboratory, to assess the aggregate materials, asphalt binders, blending sands, mineral fillers and anti-stripping agents proposed for use and to carry out the design of the asphalt concrete mix. The submitted documentation shall be signed and sealed by a Professional Engineer registered to practice in Newfoundland and Labrador attesting to the validity of the material test data.

330.06.04.02 Requirements for Design Mix Formula

The asphalt mix design shall follow the Marshall method of the DMF as outlined in the latest edition of the Asphalt Institute Manual Series No. 2 (MS-2). The mix design, at the design asphalt binder content, shall meet the requirements presented in section 330.02 for each asphalt concrete mix specified. Mix designs shall be based on the asphalt cement content as a percentage of the mixture. As a minimum each mix design shall have five points of asphalt cement content starting at 5.0 % with 0.5% increments to 7.0%. For highway design classifications RAU & RAD-100, RAU & RAD-90 as well as RCU-80 the design air voids shall be chosen as the lowest value, within the range of 3.5 to 4.0% inclusive, such that all other mix design criteria are met. While for highway design classifications RLU-80, RLU-70, RLU-60 the design air voids shall be chosen as the lowest value, within the range of 3.0 to 3.5% inclusive, such that all other mix design criteria are met.

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330.06.04.03 Submission of Design Mix Formula

The Contractor's submission shall include the following information/materials:

- The specific gravity and the percentage by mass of each aggregate (including natural sand, lime) to be used in the mix.
- The mix design gradation of the combined aggregate (including natural sand, lime).
- Physical properties of the aggregates specified, in accordance with Section 330.02.
- All Marshall mix design characteristics, including graphs used in arriving at the final mix design, the bulk relative density of the combined aggregates, and the asphalt absorption of the combined aggregates.
- Pit identification consisting of its name, name of owner, public highway from which it is accessed.

330.06.04.04 Evaluation of Design Mix Formula

The Engineer will require up to ten (10) working days from the time of receipt of the DMF, for evaluation by the Department and/or the Department's representative's laboratory. The Engineer will advise the Contractor of the receipt of the required documentation. If the DMF does not meet the requirements of Section 330.02, it shall be rejected. The Engineer shall provide a written explanation to the Contractor that details why the DMF failed. The Contractor shall then provide another complete DMF in accordance with 330.06.04.02 Requirements for Design Mix Formula, and re-submit it to the Engineer for evaluation. Each time a DMF is re-submitted, an additional five (5) working days, from the time of receipt of the revised DMF, shall be required for evaluation by the Department and/or the Department's representative's laboratory.

The Engineer will not accept any asphalt concrete mix produced prior to the Contractor receiving written acknowledgement of receipt of all required documentation for the DMF from the Engineer.

330.06.04.05 Establishing a Job Mix Formula (JMF)

The Contractor shall establish a JMF for each mix type by placing a specified quantity of trial mix (asphalt concrete) at a location designated by the Engineer. The maximum allotted quantity of asphalt concrete allowed for establishment of the JMF is as follows:

- Base Course: 600 tonnes
- Surface Course: 600 tonnes
- Alternatively, the Contractor may elect to waive their trial mix option and submit their JMF (and supporting documentation) directly to the Engineer for approval.

The asphalt concrete placed in the trial sections will be tested with a minimum of 3 QC tests to determine if it meets the requirements of Section 330.02, however, unit price adjustments and repair/replace/reject criteria will be applied to the Thickness and Density properties. The asphalt concrete shall be assessed for surface defects in accordance with 330.06.07 Surface Defects.

330.06.04.06 Approval of Job Mix Formula

The Contractor shall submit the JMF in writing to the Engineer for approval. The Contractor's submission shall include the following information:

- The percentage by mass of each aggregate (including natural sand, lime) to be used in the mix
- The JMF target asphalt binder content and gradation
- The % Air Voids, Voids in Mineral Aggregate (VMA) and Voids Filled with Asphalt (VFA) from the trial mix.

The Engineer's written approval of the JMF will allow the Contractor to start/continue production. Rejection of the JMF shall require the appropriate action based on the Engineer's assessment.

330.06.04.07 Field Adjustments to the Job Mix Formula.

A field adjustment to the JMF is defined as a change in the target gradation, asphalt binder content and/or proportioning of various aggregate sizes, within specified limits (when compared to the original JMF) as follows, without a redesign of the mix.

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- $\pm 0.2\%$ in asphalt content
- $\pm 5.0\%$ in RAP proportion
- $\pm 5.0\%$ passing the 19.0 mm sieve
- $\pm 4.0\%$ passing the 12.7 and 9.5 mm sieves
- $\pm 3.0\%$ passing the 4.75 and 2.00 mm sieves
- $\pm 2.0\%$ passing the 0.425 and 0.150 mm sieves
- $\pm 1.0\%$ passing the 0.075 mm sieve

The Contractor shall request JMF changes in writing, including supporting test results (a minimum of 3 sets of QC results as per 330.06.04.05 Establishing a Job Mix Formula). In addition to the target gradation and asphalt binder content each request of JMF change shall provide predicted mix properties for air voids, voids in mineral aggregate and the dust to effective asphalt binder ratio as well as the new Lot upon which the change would be effective. Upon approval by the Engineer in writing, revisions to the JMF will be applied to subsequent Lots only. In no case will changes to the JMF be accepted during production of a Lot. The Department will limit the number of field adjustments to the originally approved JMF to two.

The Contractor shall submit a revised DMF in accordance with 330.06.04.02 Requirements for Design Mix Formula, for the following changes:

- A change in the source of asphalt cement used in the asphalt concrete mix.
- A change in the source of the aggregate used in the asphalt concrete mix.
- A change in material (different aggregate sizes) from the same source.
- A change in the percentage of the aggregate components from that established in the JMF.
- A change in the asphalt cement content from that established in the JMF
- A change in the source of the anti-strip additive used in the asphalt concrete mix.

330.06.05 Construction Methods

330.06.05.01 General

Equipment shall be designed and operated to produce an end product complying with the requirements of this specification. Equipment used shall be of adequate rated capacity and shall be in good working order.

330.06.05.02 Production

The asphalt mixing plant and its components shall meet the requirements of ASTM D 995 Standard Specification for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures.

The temperature of the mix immediately after mixing shall not exceed the lower of either; the high end temperature for recommended mixing from the temperature viscosity chart provided by manufacturer/supplier or 165° C. Asphalt concrete exceeding a temperature of 165°C at any point of the operation shall be cause for rejection.

330.06.05.03 Transportation

Vehicles shall be equipped with tarpaulins of water repellent material (no open mesh types) of sufficient size to completely cover the truck box and overhang the box on all sides by a minimum of 150 mm. The tarpaulins shall have enough tie-down points so that they can be properly secured, and shall be in good condition and be free of holes and tears. They shall be securely tied down as an effective barrier against rain infiltration and air flow over the HMA mixture.

Tarpaulins are to be used at all times for protection of the load of Hot Mix Asphalt. Tarpaulins shall be rolled back to uncover the hot mix for inspection immediately prior to dumping the load into the paver. Trucks will stop ahead of the paver and allow the paver to smoothly pick up the truck.

Asphalt concrete shall be transported from the paving plant to the work site in trucks that are properly equipped and in good working order.

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The use of hydrocarbon fuels or solvents to lubricate the truck bodies or to clean tools or equipment, will not be permitted. A biodegradable release agent shall be supplied by the Contractor to clean or lubricate tools, equipment and truck bodies.

330.06.05.04 Placement

The Contractor shall not place asphalt concrete during rain, or when the surface is frozen, nor when the pavement surface shows signs of free-standing water or when the air temperature at surface is below 7°C. A Material Transfer Device/Vehicle shall be used at no extra cost to transfer the asphalt mixture from the transport vehicles to the asphalt spreader.

Asphalt concrete shall be placed upon a prepared surface which is free of any loose or foreign material. The asphalt concrete shall be spread by a mechanical self-powered paver capable of achieving the specified grade, line and crown.

Placement of asphalt concrete shall only be conducted during daylight hours, unless specifically noted otherwise in the contract specifications.

Contact edges of existing mats, milled asphalt pavements, perimeters of asphalt patches and contact faces of curbs, gutters, manholes, sidewalks bridge structures, as well as any new mat joint having a temperature less than 60°C shall be coated with a thin film of hot liquid asphalt before placing the asphalt concrete all other joint edges shall be coated with asphalt tack coat.

Failed areas in existing surfaces (paved or gravel) shall be repaired, as directed by the Engineer. Areas requiring repair will be identified by the Engineer in consultation with the Contractor. Irregularities in the horizontal alignment and grade along the outside edge of the asphalt concrete shall be corrected by the addition or removal of mix before the edge is rolled. Paving of intersections, extra widths and other variations from standard lane alignment and as defined in the contract, whether by hand spreading or machine laying, shall be carried out concurrently with the machine laying operation of the regular mat, unless otherwise approved by the Engineer.

Fuel spills from the Contractor's equipment shall be immediately repaired by the Contractor to the satisfaction of the Engineer.

Paving of intersections, ramps and driveway tie-ins are integral with the work. No separate payment or compensation will be provided for this work.

330.06.05.05 Joint Construction

All joints shall be constructed to ensure a dense, well-bonded, continuous seal and to provide a smooth riding surface.

330.06.05.05.01 Transverse Construction Joints

Transverse joints shall be butt joints constructed at the end of each day's work and at other times when paving is halted for a period of time which results in the asphalt concrete cooling to below 120°C. When paving resumes, temporary tapers or ramps from previously placed asphalt concrete shall be cut back to full mat thickness to expose fresh, straight vertical surfaces. Loose or broken material shall be removed and surfaces tacked, at the Contractors expense, in accordance with the latest edition of the Standard Specification.

330.06.05.05.02 Longitudinal Construction Joints

Longitudinal joints in the top lift shall not be constructed within a travel lane except when paving tapers where it can not be avoided, but not in the wheel paths. Joints in preceding lifts shall be offset a minimum of 150 mm to 300 mm for the Trans Canada Highway. Joint offset for all other classes of road shall be a minimum of 150 mm.

Longitudinal joints shall be rolled immediately upon placement of the fresh mixture and before the adjacent strip has completely cooled. The joint shall be set up with the back of a rake or lute at proper height and grade to receive the required compression under rolling. The depth of the newly laid mat shall be adjusted to allow for compaction. The paver shall overlap the existing mat by approximately 25 to 40 mm.

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Asphalt mat edges having companion longitudinal joints shall be matched within the maximum allotted time period as determined by the engineer. All longitudinal joints shall be matched by the spreader with ski.

The maximum allotted time period shall be restricted to a lower limit of one hour with an upper limit of two hours. The allotted time limit will be proportioned on the paving lay-down conditions; with the lower time limit applied to least favorable placement conditions and the upper time limit applied to favorable placement conditions. Lay-down conditions considered by the engineer in establishing the time limit will include ground surface temperature, hot mix lay-down temperature, placement capacity, ultraviolet intensity, wind speed and air temperature.

Longitudinal joints shall be matched by the end of each day's operations. Unmatched asphalt longitudinal joints left exposed at the end of the day, or exposed to moisture, shall be cut back to full depth to expose a fresh vertical face, and painted with a continuous thin coating of hot asphalt cement to the full fresh vertical face.

330.06.05.05.03 Paving in Echelon

Where described in the contract specifications, pavers shall be used in echelon to lay the mat full width. Upon completion of each day's paving, the maximum length of exposed joint edge shall be 60 meters.

330.06.05.05.04 Conventional Paving

Prior to placing the adjacent mat, the exposed edge of each longitudinal joint must be coated with emulsified asphalt (tack coat). Upon completion of each day's paving, the maximum length of exposed joint edge shall be 60 meters.

330.06.05.05.05 Keyed Joints

When overlaying existing asphalt concrete pavement, keyed joints shall be constructed at both ends of the project, at all intersecting roads, ramps and at all bridge decks in the repaving area. The taper length for such keyed joints shall be a minimum of 15m. Keyed joints will only be required between the final lift of pavement and the existing pavement, unless otherwise directed by the Engineer.

When existing pavement has been removed in advance of paving the joint area, the Contractor shall construct a temporary (hot mix asphalt concrete ramp) taper at the joint area to a slope of at least 50 horizontal to 1 vertical (50H:1V). Temporary tapers (ramps) shall be installed immediately following milling of the keyed joint and prior to opening the area to traffic.

330.06.06 Compaction

Compaction equipment shall consist of at least one of each of the following:

- vibratory roller (a minimum of one roller must have double drum vibratory capacity)
- pneumatic-tired roller
- finish roller

Along curbs, manholes and similar structures and locations not accessible to full size rollers, the mix shall be compacted with smaller compaction equipment, such as vibrating plate tampers, or by hand tampers.

330.06.07 Surface Defects

The finished surface of any pavement course shall have a uniform texture and be free of visible signs of defects. The Engineer will identify any obvious defects and determine remedial requirements, which may include removal and replacement in accordance with 330.06.12.01 Removal and Replacement. Such defects shall include, but not necessarily be limited to, the following:

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1. SEGREGATED AREAS
2. AREAS OF EXCESS OR INSUFFICIENT ASPHALT CEMENT
3. ROLLER MARKS
4. CRACKING OR TEARING
5. IMPROPER MATCHING OF LONGITUDINAL AND TRANSVERSE JOINTS

6. TIRE MARKS
7. IMPROPERLY CONSTRUCTED PATCHES
8. IMPROPER CROSS SLOPE
9. FUEL SPILLS ON THE MAT.

Segregation is defined here as areas with predominantly coarser texture than that of the surrounding pavement, and will normally be first identified visually.

Slight Segregation:

Area where the matrix is in place between the stones but there is slightly more stone in comparison with the surrounding acceptable mix. Slight segregation will normally be left in place without price adjustment. The severity of segregation can be determined through a number of test methods, as specified by the Engineer.

Medium Segregation:

Area has significantly more stone than the surrounding acceptable mat and usually exhibits some lack of surface matrix. Medium segregation in surface-courses will be subject to a penalty of \$25/m² for the area in question, but for base-courses will normally be left in place with no price reduction. However, any areas of medium segregation that deteriorate prior to being overlaid by another pavement course must be repaired at the Contractor's cost.

Severe segregation:

Area appears very stony, with stone against stone and little or no matrix. All areas of severe segregation in any pavement course will require removal and repair across the full lane width.

Defects as determined by the Engineer, which occur in the finished surface of any pavement course during the two year warranty period resulting from poor workmanship, shall be repaired by the Contractor. The Contractor's method of repair shall be approved by the Engineer and performed according to specifications.

330.06.08 Quality Control

The Contractor shall be totally responsible for quality control testing throughout every stage of the work from the crushing and production of aggregates to final product acceptance, to ensure materials and workmanship comply with the requirements of this specification. At no time, will the Engineer issue instructions to the Contractor as to setting of dials, gauges, scales and meters. However, the Engineer may advise the Contractor against the continuance of any operations or sequences of operations which will result in non-compliance with specification requirements.

The Contractor shall also be responsible for Quality Control testing of asphalt concrete patching mix used within the limits of the Contract. Asphalt concrete patching mix shall not be considered as part of a Lot, however, QC records and documentation shall be made available in accordance with 330.06.08.02 Sampling and Test Results.

330.06.08.01 Quality Control Inspection Testing Plan (ITP)

Following award of Contract, and at least 10 (ten) working days prior to commencement of asphalt concrete aggregate production, the Contractor shall submit, in writing to the Engineer, an ITP covering all phases of the contract performance, including the name of the party retained to prepare the ITP.

The ITP shall include, but not be limited to, identification and description of inspection and required test procedures to be used to fulfill the conditions of the Contract. The ITP shall be sufficiently comprehensive and detailed to assure the Engineer of the Contractor's willingness and ability to control the construction production and processes. Once accepted by the Engineer the plan becomes a part of the Contract and shall be enforced accordingly.

If the Contractor elects to take loose samples from the roadway, the ITP shall describe the sampling procedure in sufficient detail to ensure that a minimum area is affected. The method used to reinstate the sample area must be outlined such that the resulting mix is uniform, non-segregated, and well compacted. Test methods that the ITP must include are listed in Table 10. The frequency of sampling and/or testing is left to the discretion of the contractor.

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The Engineer will provide written approval of the ITP within 5 (five) working days of receiving the same. The Contractor may be required to update and resubmit the ITP to the Engineer for approval, as conditions warrant.

Table 10
Quality Control Tests

Aggregate Characteristics/Mix Design Sampling Sieve Analysis Soundness (MgSO ₄) Los Angeles Abrasion Micro Deval Freeze Thaw Petrographic Number Flat & Elongated Particles (4:1) Specific Gravity and Absorption, Coarse Aggregate Specific Gravity and Absorption, Fine Aggregate Fine Aggregate Angularity, Method A Sand Equivalent Crushed Particles Stripping Test, Moisture Induced Damage Boiling Water Test Absorption	Standard ASTM D 75 ASTM C 117, C 136 ASTM C 88 ASTM C 131 ASTM D 6928, D 7428 CSA A23.2-24A CSA A23.2-15A ASTM D 4791 ASTM C 127 ASTM C 128 ⁽¹⁾ ASTM C 1252 ASTM C 2419 ASTM D 5821 AASHTO T283 (and visual) ASTM D 3625 ASTM C 127	Minimum Frequency (A) Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing Preliminary aggregate testing One per mix design formula One per mix design formula Preliminary aggregate testing
Aggregate Production Sampling Sieve Analysis (Crushed) Sieve Analysis (Blending Sand) Fractured Particles (Coarse) Flat & Elongated (Coarse) Fine Aggregate Angularity, Method A Sand Equivalent	ASTM D 75 ASTM C 136 & C 117 ASTM C 136 & C 117 ASTM D 5821 ASTM D 4791 ASTM C 1252 ASTM D 2419	Two coarse & two fine agg per lot One per 300 tonnes One per 1000 tonnes One per 5000 tonnes One per mix design formula One per mix design formula
Cold Feed Sampling Sieve Analysis (Combined Gradation) Aggregate Moisture Content Hot Bin (Batch Plants) Sampling Sieve Analysis	ASTM D 75 ASTM C 136 & C 117 ASTM D 2216 ASTM C 136 & C 117	Two per lot Two per lot Two per day As required
Mix Testing Mix Asphalt Binder Content Extracted Aggregate Sieve Analysis Mix Moisture Content Field Formed Marshall Briquettes Flow & Stability Maximum Theoretical Density Stripping Test, Moisture Induced Damage Boiling Water Test	ASTM D 2172, D 6307 ASTM D 5444 AASHTO T 329 ASTM D 6926 ASTM D 6927 ASTM D 2041 AASHTO T283 (and visual) ASTM D 3625	Four tests per lot Four tests per lot Four tests per lot Four tests per lot One per every two lots Four tests per lot One per 4000 tonnes One per 4000 tonnes
Other Related Tests Bulk Relative Density Void Calculations, Cores or Formed Specimens (B) Temperatures (plant and road) Sampling of Bituminous Mixes (Compaction/Height) Density of Bituminous Concrete (by Nuclear Methods) Random Test Site Locations Correction Factors, Nuclear Moisture-Density Smoothness of Pavements	ASTM D 2726 ASTM D 3203 ASTM D 5361/ D 3549 ASTM D 2950 ASTM D 3665 ASTM D 2950 See section 330.06.09.05	Each core or briquette Each core or briquette Five per day per location Four per lot One per hour Each lot Once per contract or as req'd Top Lift

Notes :

(A) Conditions may require an increase in the frequency of any of the QC tests; the decision, arrangements and costs for which, are the responsibility of the Contractor.

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(B) If two consecutive air void results fall outside the specified limits, the Contractor shall stop production. Prior to continuing production, the Contractor shall provide the Engineer with written details of what measures have been taken to improve the properties of the mix. The Contractor shall not continue production until such time that the Engineer has issued written approval to do so. Failure on the part of the Contractor to adhere to this requirement, may result in the portion of the Lot affected being ineligible for payment.

330.06.08.02 Sampling and Test Results

Where specified, random sampling procedures shall be followed, and where no specific random sampling procedure is specified, the sampling procedure shall be as identified by the Contractor in the ITP. The Contractor shall be responsible for the interpretation of the test results and the determination of any action to be taken to ensure that all materials and work conform to the requirements of the Contract.

The Contractor shall maintain all QC records and documentation. Results of all QC testing carried out in accordance with Table 10 shall be provided to the Engineer within 24 hours of sampling. All QC documentation shall also be made available for inspection by other Department personnel at all times during the course of the Contract.

At the end of the construction season, and no later than January 31 of the following year, the Contractor shall provide the Engineer with a final report detailing all quality control test data. The report shall be provided on CD ROM in Excel format. A copy shall also be provided to the Department's Materials Engineering Division.

330.06.09 Quality Assurance

Quality assurance (QA) is the responsibility of the Department. In addition to QA testing used to determine unit price adjustments, the Department may, at its sole discretion, examine, inspect or test any aspect of the Contractor's work as deemed appropriate. Such inspections and testing shall not relieve the Contractor of his responsibilities for quality control.

The Contractor shall supply a field laboratory for Quality Assurance purposes only as per Section 111 of the Department's Specifications Book. The laboratory will be located and setup as approved by the Engineer at the nearest highway depot. The Contractor will make separate arrangements for QC testing.

330.06.09.01 Sampling

All QA samples shall be taken and labeled by the Contractor in the presence of the Engineer (or designated representative). Random sample locations (loose samples and core samples) for QA testing shall be generated by the Engineer for each Lot and trial mix. Cores damaged during sampling or handling shall be discarded and new samples shall be taken immediately adjacent (within 0.3 meters) to the original sample location. For the trial mix, a minimum of 1 (one) random loose sample shall be taken for QA testing (i.e. for determination of maximum theoretical density).

The Engineer will be responsible for transporting the samples to the Department representative's laboratory.

Neither loose nor core samples will be taken from small areas such as tapers, aprons, bridge approaches, areas of handwork, and asphalt mix used for isolated leveling and repair of failed areas, however, the tonnage contained therein will be included in the Lot.

Random samples will not be taken in areas of obvious surface defects as indicated in 330.06.07 Surface Defects. These areas will be marked and repaired in accordance with 330.06.12.01 Removal and Replacement.

The Engineer may use discretion in relocating random core locations that fall within areas of severe vertical curvature or grade (i.e. at the base or crest of a hill or >10% grade).

330.06.09.02 Asphalt Binder Content, Gradation and Air Voids

Loose samples will be taken on the road behind the paver and retrieved prior to compaction per Section 330.06.02.05.

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The Engineer will provide the Contractor with approximately 30 minutes advance notice of loose sampling requirements, based on projected tonnage/production rates.

Each loose sample will be split into 3 (three) equal portions. One sample portion will be used for QC testing; another for QA and a third portion will be set aside by the Engineer in the event it is required for appeal testing.

Performance for asphalt binder content, air voids and gradation will be evaluated for unit price adjustment in accordance to Tables 12, 13 and 14 utilizing the mean of deviations for the lot.

The following acceptance criteria shall apply for all mixes:

Table 11

Asphalt Content Acceptance Criteria

TYPE OF TEST	ACCEPTABLE ZONE (%)	PENALTY ZONE (%)	REJECTABLE ZONE (%)
Lot Mean of Deviations	± 0.25	-0.26 TO -0.50 +0.26 TO +0.50	<-0.50 OR >+0.50

Table 12

Unit Price Adjustment for Asphalt Binder Content For Lot Mean of Deviations

Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %	Penalty Zone AC Content Déviation %	Unit Price Payment Adjustment Factor %
0.26	0.5	0.35	5	0.44	14
0.27	1	0.36	6	0.45	15
0.28	1.5	0.37	7	0.46	16
0.29	2	0.38	8	0.47	17
0.30	2.5	0.39	9	0.48	18
0.31	3	0.40	10	0.49	19
0.32	3.5	0.41	11	0.50	20
0.33	4	0.42	12	>0.50	Reject
0.34	4.5	0.43	13	--	--

Table 13

Unit Price Adjustment for Marshall Air Voids

AVERAGE DEVIATION OF AIR VOIDS FROM 3.50 or 4.00% *(as per highway classification)	UNIT PRICE ADJUSTMENT (\$ PER TONNE)
0.00 to 1.00	0.00
1.01 to 1.10	- 0.50
1.11 to 1.20	- 1.00
1.21 to 1.30	- 2.00
1.31 to 1.40	- 4.00
1.41 to 1.50	- 6.00
1.51 to 1.60	- 8.00
1.61 to 1.70	- 10.00
1.71 to 1.80	- 12.00
1.81 to 1.90	- 14.00
1.91 to 2.00	- 16.00
> 2.00	REJECT

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- For highway classifications RAU & RAD-100, RAU & RAD-90 as well as RCU-80 the average deviation of air voids shall be measured from 4.00%. While for highway classifications RLU-80, RLU-70, RLU-60 the average deviation of air voids shall be measured from 3.50%.

Table 14
Unit Price Adjustment for Gradation

SIEVE SIZE (DESIGNATION)	AVERAGE DEVIATION OF THE GRADATION FROM THE JOB MIX FORMULA		UNIT PRICE ADJUSTMENT (\$ PER TONNE)
	Base & Levelling Type II Course	Surface & Levelling Type I Course	
Passing 4.75mm (#4)	0.00 to 6.00	0.00 to 5.00	0.00
	6.01 to 6.20	5.01 to 5.20	- 0.50
	6.21 to 6.40	5.21 to 5.40	- 1.00
	6.41 to 6.60	5.41 to 5.60	- 1.50
	6.61 to 6.80	5.61 to 5.80	- 2.00
	6.81 to 7.00	5.81 to 6.00	- 2.50
	7.01 to 7.20	6.01 to 6.20	- 3.00
	7.21 to 7.40	6.21 to 6.40	- 3.50
	7.41 to 7.60	6.41 to 6.60	- 4.00
	7.61 to 7.80	6.61 to 6.80	- 4.50
	7.81 to 8.00	6.81 to 7.00	- 5.00
	8.01 to 9.00	7.01 to 8.00	- 10.00
	9.01 to 10.00	8.01 to 9.00	- 15.00
	> 10.00	> 9.00	REJECT
Passing 75µm (#200)	0.00 to 0.60	0.00 to 0.50	0.00
	0.61 to 0.70	0.51 to 0.60	- 1.00
	0.71 to 0.80	0.61 to 0.70	- 2.00
	0.81 to 0.90	0.71 to 0.80	- 3.00
	0.91 to 1.00	0.81 to 0.90	- 5.00
	1.01 to 1.10	0.91 to 1.00	- 7.50
	1.11 to 1.30	1.01 to 1.20	- 12.00
	> 1.30	> 1.20	REJECT

In addition to the acceptance/rejection requirements for gradation, the following shall apply:

- The Lot will be rejected if the average of the Lot test results from the 4.75mm sieve size falls outside the gradation limits specified in Table 3.
- The Lot payment will be reduced by \$5.00 per tonne if the average of the Lot test results for the 75µm sieve size exceeds, up to the maximum of 1.0%, the upper gradation limit specified in Table 3.
- The Lot will be rejected if the average of the Lot tests results from the 75µm sieve size exceeds, by more than 1.0%, the upper gradation limit specified in Table 3.

330.06.09.03 Asphalt Density

Lots and trial mix areas will be divided into 4 (four) segments of approximately equal quantity. Three core samples will be taken at each location designated by the Engineer. One core sample will be used for QC testing;

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another for QA and a third sample will be set aside in the event it is required for appeal testing. Cores shall be a nominal 100 mm diameter. Coring locations for each Lot will be selected as follows:

The Engineer shall provide the Contractor with sample locations (station and offset) following placement of all asphalt concrete within a given Lot or trial mix area. Where traffic control conditions warrant, consideration shall be given to providing random core sample locations for a given mat (i.e. before all asphalt concrete for the Lot has been placed).

Cores shall not be taken within 0.15 m of the pavement edge or longitudinal joint, nor closer than 6 m to a transverse joint. Areas not to be cored include; small areas such as tapers, bullnoses, aprons, bridge approaches, bridge decks, areas of handwork, and asphalt mix used for isolated leveling. Cores shall not be taken within 10 m of a loose sample location. The Engineer may use discretion in relocating random core locations that fall within areas of severe vertical curvature or grade (i.e. base or crest of a hill).

Cores shall be obtained in accordance with ASTM D5361 within a minimum of 12 hours and a maximum 24 hours after the placement of the asphalt concrete. The Contractor shall have the option of using dry ice to obtain the cores earlier than 12 hours after placement.

During the coring operation, the Contractor must provide all traffic control in the form of flag persons and signs which conforms to Division 7 Temporary Condition Signs and Devices of the Department and Transportation and Works Specifications Book. Coring will not be permitted until all traffic control devices are erected and flag persons are in position.

Immediately following each coring operation, the Contractor shall reinstate the pavement at the core sample location in conjunction with removal of the core by dewatering the core hole and filling it with hot mixed asphalt concrete in 50 mm lifts to the pavement surface elevation, compacting each lift with 25 blows using a standard Marshall hammer. Each coring operation and the reinstatement of core hole is to be conducted during a single traffic control and flag person set up.

Failure to meet the time requirements for the core hole repair may result in delayed paving of any subsequent asphalt production.

The percent compaction will be determined by comparing the core bulk densities, in accordance with ASTM D2726 with the average theoretical maximum density of the loose mix samples for the Lot, in accordance with ASTM D2041. For asphaltic base and leveling courses unit price adjustments will be applied utilizing Table 15 to each tonne of asphalt mix for the Lot represented by the segments cored and the percent compaction averaged. For asphaltic surface courses unit price adjustments will be applied utilizing Table 15 for each individual core's percent of maximum theoretical, and the unit price adjustment will be applied to each tonne of asphalt mix for the Lot divided by the segments cored for the Lot.

For each asphaltic base, leveling and surface course mixture type per Lot, in addition to the requirements noted above, if an individual core's percent of maximum theoretical falls below 92.5 % or above 97.5 % no bonuses will be paid for the entire Lot for that mixture. Also, irrespective of the Lot, the average of any four consecutive samples of a mixture type (base, leveling or surface) shall have a reject limit of 91.0 % based on the four individual core's percent of maximum theoretical. The rejected material represented by the averaged four cores will be the sum of the four units of material represented by each core defined as the tonnes of the asphalt mixture type for the Lot divided by the segments cored for the Lot.

Table 15
Unit Price Adjustment for Density

% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)	% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)	% OF MAXIMUM THEORETICAL DENSITY	UNIT PRICE ADJUSTMENT (\$ PER TONNE)
>98.5	REJECT	93.2	+ 0.20	91.2	- 3.20
98.5	-5.00	93.1	+ 0.10	91.1	- 3.60
98.4	-4.00	93.0	0.00	91.0	- 4.00
98.3	-3.00	92.9	- 0.10	90.9	- 4.40
98.2	-2.00	92.8	- 0.20	90.8	- 4.80

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98.1	-1.00	92.7	- 0.30	90.7	- 5.20
98.0	-0.50	92.6	- 0.40	90.6	- 5.60
97.9	-0.40	92.5	- 0.50	90.5	- 6.00
97.8	-0.30	92.4	- 0.60	90.4	-7.00
97.7	-0.20	92.3	- 0.70	90.3	-8.00
97.6	-0.10	92.2	- 0.80	90.2	-9.00
97.5	0.00	92.1	- 0.90	90.1	-10.00
97.4	+0.10	92.0	- 1.00	90.0	-11.00
97.3	+0.20	91.9	- 1.20	89.9	-12.00
97.2	+0.30	91.8	- 1.40	89.8	-13.00
97.1	+0.40	91.7	- 1.60	89.7	-14.00
≤97.0 thru	+0.50	91.6	- 1.80	89.6	-15.00
to ≥93.5	+ 0.50	91.5	- 2.00	89.5	-16.00
93.4	+ 0.40	91.4	- 2.40	<89.5	REJECT
93.3	+ 0.30	91.3	- 2.80		

330.06.09.04 Thickness (New Construction)

The asphalt concrete shall be placed in lifts at the prescribed thickness as per the contract specifications and/or as directed by the Engineer. The pavement thickness shall be determined from the cores obtained in 330.06.09.03 Asphalt Density. Price adjustments for thickness will be applied to new construction only.

The maximum thickness for a Lot shall be determined on a Lot by Lot basis. Individual thickness results will be evaluated for Acceptance and Rejection requirements as indicated in Table 16.

Table 16
Unit Price Adjustment for Thickness

For all hot mix asphalt types the penalty for thickness shall be as follows: Full payment for at least 3 out of 4 samples meeting the below tolerances Repair/Replace/Reject for 2 or more out of 4 samples failing to meet the below tolerances
a) Thickness = specified application rate/bulk relative density obtained from core samples b) Lift thickness tolerance for base and surface course only Tolerance = 0.20 x specified thickness (base course) Tolerance = 0.15 x specified thickness (surface course) c) If the Thickness for the first lift of asphalt concrete is less than the tolerance, and a second lift of asphalt concrete is to be placed under the Contract, the Contractor shall place the second lift of the asphalt concrete to achieve a thickness equivalent to the total combined thickness required. The total first lift thickness shall be verified, for the deficient Lot, by the cores taken from the second lift of the identified deficient Lot.

330.06.09.04.01 Material Application Rate (Rehabilitated Pavements)

On rehabilitated pavements, hot mix asphalt shall be applied to the roadway at the rate or rates specified by the Engineer. Material application rates will be determined by the daily tonnage delivered to the paver as recorded by weigh tickets generated by automated scales, divided by the area covered the same day after allowance has been made for entrances and/or intersections. The Contractor shall provide the material application rates to the Engineer at the completion of each day. The appropriate backup information (including calculations) for determining the application rate shall be provided with the application rate, including paving start and end stations, pavement widths, intersection areas, etc.

The pay adjustment for material application rate is shown in the following table. The acceptance limit is the limiting value of the actual material application rate, expressed as a percentage of the specified material application rate for each day, below which the days production is rejected. If the application rate of a days production is outside the

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acceptance limit, the days production is rejected automatically regardless of the values of other acceptance parameters.

Table 17
Daily Adjustments for Material Application Rate

Actual Application Rate Expressed as % of Specified Application Rate*	Unit Price Adjustment (\$ per tonne) for all material daily	
	Lower Lift or Single Lift	Top Lift of Multiple Lifts
≥ 110	-\$6.00 for all material in the day up to 110% and no payment for product in excess of 110.0%	-\$6.00 for all material in the day up to 106% and no payment for product in excess of 106.0%
106.0 – 109.9	-\$4.00	-\$4.00
105.0 – 105.9		
104.0 – 104.9	\$0.00	-\$2.00
96.0 – 103.9	+\$0.50	+\$0.50
94.0 – 95.9	-\$1.00	-\$1.00
92.0 – 93.9	-\$2.00	-\$2.00
90.0 – 91.9	-\$3.00	-\$3.00
85.0 – 89.9	-\$5.00	-\$5.00
< 84.9	Rejected, Mill and Fill and/or rejected with no remedial work required at the discretion of the Engineer	Rejected, Mill and Fill, Overlay and/or rejected with no remedial work required at the discretion of the Engineer

*The specified application rate will be based on the asphalt mat thickness as per the highway classification. A 50mm asphalt mat thickness shall have a specified application rate of 117.5 kgs/m² while a 60mm asphalt mat thickness shall have a specified application rate of 141.0 kgs/m²

330.06.09.05 Pavement Smoothness

The smoothness of the finished surface of the top lift of the pavement structure shall be determined after final rolling of the surface to be tested. Normally, the outer wheel paths of all lanes will be tested, in 100 m sections, or lots. Other wheel paths may also be tested in addition to, or as a substitution for, the outer wheel path, as directed by the Engineer.

The profile measurement will normally be taken using a Class 1 inertial laser profiler, which will measure the profile in accordance with the manufacturer's recommendations and ASTM E950 – Standard Test Method for Measuring the Longitudinal Profile of Traveled Surfaces with an Accelerometer Established Inertial Profiling Reference. The resulting measurements will be compiled to produce a Profile Index (PI). This determination of smoothness will be made by the Department, or its representative.

The Profile Index (PI) for each lane is the cumulative profile reading of the outer wheel path in millimeters per 100 m section, in excess of the 5 mm blanking band.

330.06.09.05.01 Profile Index Limits

The surface of the profiled pavement shall conform to the following Smoothness requirements:

Table 18
Smoothness Requirements

Roadway Alignment Section	Profile Index (mm / 100 m)
RLU-80 CLASSIFICATION AND ABOVE	15 mm OR LESS
INTERCHANGE RAMPS, TAPERS*, AND HIGHWAYS OF LOWER CLASSIFICATION THAN RLU-80	N/A

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If the Smoothness requirements are not met, the Contractor shall repair the sections, or pay a price adjustment based on the Profile Index. These price adjustments will be applied based on the square meters of the final pavement surface as outlined in Table 19. For price adjustment purposes, the width of the final pavement surface includes the driving lane and adjacent shoulders.

Table 19
Profile Index Price Adjustment Schedule

PROFILE INDEX PI (mm / 100m)	PRICE ADJUSTMENT \$ PER SQUARE METER	PROFILE INDEX PI (mm / 100m)	PRICE ADJUSTMENT \$ PER SQUARE METER
< 4.0	\$0.338	18.1 to 21.0	-\$0.540
4.1 to 5.5 incl.	\$0.270	21.1 to 22.5	-\$0.810
5.6 to 7.0	\$0.203	22.6 to 24.0	-\$1.080
7.1 to 8.5	\$0.135	24.1 to 25.5	-\$1.350
8.6 to 10.0	\$0.068	25.6 to 27.0	-\$1.620
10.1 to 15.0	\$0.00	27.1 to 28.5	-\$1.890
15.1 to 18.0	-\$0.270	28.6 to 30.0	-\$2.160
EACH ADDITIONAL 1.5mm INCREMENT ABOVE 30.0		-(NO OF INCREMENTS X \$0.54 +\$2.160)	

330.06.09.05.02 Surface Deviations (Individual Bumps and Dips)

Individual bumps and dips shall not exceed 8 mm in 7.6 m in the vertical direction. Where individual bumps and dips exceed 8 mm in 7.6 m, they may be corrected or the Contractor may elect to accept a penalty as per Table 20. The 5 mm blanking band is not applied to the bump and dip measurements. Notwithstanding, transverse joints are still subject to Section 330.06.05.05.01 and any irregularity should be immediately corrected.

Table 20
Bump and Dip Penalties

Bumps / Dips Measured in the Vertical Direction	Penalty	Bumps / Dips Measured in the Vertical Direction	Penalty
8.1 - 9 mm	\$ 200	13.1 - 14 mm	\$ 1200
9.1 - 10 mm	\$ 400	14.1 - 15 mm	\$ 1400
10.1 - 11 mm	\$ 600	15.1 - 16 mm	\$ 1600
11.1 - 12 mm	\$ 800	16.1 - 17 mm	\$ 1800
12.1 - 13 mm	\$ 1000	17.1 - 18 mm	\$ 2000
Each Additional 1 mm Increment Above 18 mm		(No. of Increments x \$ 500) + \$ 2000	

330.06.09.05.03 Testing

Testing and Evaluation: Testing will be performed as soon as possible after final rolling of the surface.

Profile measurements will terminate 15 metres from the end of each bridge deck, or from a joint between existing pavement and the new pavement. Profiles will be taken at approximately the outer wheel path for every lane of traffic, or as designated by the Engineer. Repeat profiles may be taken only to define the limits of an out-of-tolerance surface variation. Some sections may be omitted from testing, as determined by the Engineer. Tapers will be excluded from testing unless otherwise directed by the Engineer.

The Contractor shall give the Department at least 5 days notice prior to laying the final course of asphalt. A pre-paving meeting shall be convened on-site between the Contractor, the Engineer, and the Manager of Materials (or their representatives) to discuss any concerns either party might have regarding placement of the final course of asphalt. If the Contractor believes certain areas to be tested should be excluded from price adjustments, then those concerns

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should be submitted in writing for discussion at that meeting. Failure to submit those concerns in writing shall mean all areas shall be subject to price adjustments.

Re-testing to Verify Original Testing Results: Should the Contractor request retesting of pavement sections due to an excessive PI or excessive bump and dip heights, and the Department approves the re-test, then the Contractor shall bear all costs associated with testing if the original results are confirmed. If the retest results determine an improved PI or improved bump and dip heights over the original test, then testing costs shall be borne equally by the Contractor and the Department, and the average of the two results will be accepted as final. Only one retest, using the same profiler is permitted.

330.06.09.06 Reporting

The Engineer will provide the Contractor with a copy of the results of QA testing within 1 (one) working day of their availability. However, QA test results for a given Lot will not be reported to the Contractor until the quality control results for that Lot have been reported to the Engineer. Tests performed by the Engineer will not be considered to be quality control tests. If the Lot results for any one of the QA properties are outside the acceptance limits as listed in Tables 11 to 17, the Lot will be evaluated in accordance with 330.06.11 Analysis of Rejected Lots.

330.06.10 Appeals

The Contractor may appeal the results of QA testing for density, asphalt binder content, gradation and thickness for any rejected or penalized Lot. The Contractor may appeal the results of QA testing for density and thickness for any rejected or penalized trial mix. In the event of an appeal, the Contractor shall serve notice of appeal to the Engineer, in writing, within 48 hours of receipt of the QA test results.

The Contractor may have a representative present during appeal testing. During the period of the testing, the Contractor's representative shall comment on anything concerning the testing which he or she does not consider to be valid and the Engineer shall respond to all comments in order to resolve them.

Prior to leaving the testing laboratory any unresolved comments regarding the testing procedures are to be given to the Engineer in writing. Any comments, with respect to the testing procedures, which are made subsequent to the Contractor's representative leaving the laboratory, will not be considered. The new Sample Result, Mean or Mean of the Deviations, whichever the case may be, so obtained shall be binding on both the Contractor and the Department.

330.06.10.01 Appeal of Individual Test Results

The Contractor may appeal individual results of acceptance testing for the asphalt binder content and gradation properties only. When an individual test result from a Lot is challenged, the validity of the test result in question will be determined in accordance with ASTM E 178, Standard Practice for Dealing with Outlying Observations, using a "t"-test at a 5 (five) percent significance level. If the outlier test procedure shows that the challenged test result is valid, then it will be used in the calculations. If the outlier test procedure shows that the challenged test result is not valid, then the test result will be discarded unless there is an obvious error in the calculations or in transposing of the numbers. If there is no obvious error, the referee sample will be tested by the Engineer. Regardless of the presence of outlying observations in the re-tested sample and remaining original results, the results from the referee sample will be binding on both the Contractor and the Department and will be used in the calculations. The results from the outlier testing will be used for any subsequent appeals. The referee sample shall be tested for the following mix properties: asphalt binder content, gradation, and maximum density, in the event that the results are needed for additional appeals, if required. A new Mean or Mean of the Deviations, for the combined test results, will be determined and this value will be used for acceptance and unit price adjustments.

330.06.10.02 Appeal of Test Results for the Entire Lot

The Contractor may appeal the entire Lot QA test results for the density, binder content, gradation and thickness properties for any rejected or penalized Lot only once. Appeal of test results for the entire Lot will only be considered if just cause can be shown by the Contractor that the acceptance test results are not representative of the product placed. If the Contractor's quality control test results indicate greater deviations from the JMF than the quality assurance test results, no appeal will be allowed.

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330.06.10.02.01 Appeal of Lot Binder Content, Gradation and Air Voids

If the individual sample or Lot asphalt binder content and/or Lot gradation, and/or Lot air voids are appealed, the Engineer will submit the referee samples obtained in 330.06.09.02 Asphalt Binder Content, Gradation and Air Voids for testing at the Department representative's laboratory. All original test results of the property appealed will not be considered. Only the new test results from the appeal will be used.

330.06.10.02.02 Appeal of Lot or Trial Mix Density

If the Lot or Trial Mix density is appealed, the Engineer will submit the appeal core samples obtained in 330.06.09.03 Asphalt Density. Only the new test results from the appeal will be used.

330.06.10.02.03 Appeal of Lot or Trial Mix Thickness

If the Lot or Trial Mix thickness is appealed, the Contractor will take 7 (seven) more cores at random locations as determined by the Engineer. These cores shall be tested at the Department representative's laboratory. The high and low test results from the original Lot will be discarded and the remaining test results will be combined with the test results for the new samples. For thickness appeals, 7 (seven) of the 9 (nine) test results must meet or exceed the lift thickness tolerance specified in Table 16.

330.06.10.02.04 Payment of Appeal Testing Costs

If the new test results after the appeal process indicate that a penalty no longer applies, then the testing costs incurred by the Department during the appeal process for that Lot shall be borne by the Department. The Contractor shall be responsible for any other costs that they may incur.

If the new test results after the appeal process verify that a unit price adjustment or rejection remains valid for that Lot, the sampling and testing costs incurred by the Department during the appeal procedure shall be charged to the Contractor.

330.06.11 Analysis of Rejected Lots

Following an appeal of the entire Lot, in accordance with 330.06.10.02 Appeal of Test Results for the Entire Lot, if the new test results continue to indicate rejection, the new test results will be analyzed, at the discretion of the Engineer, to determine whether or not a portion of the Lot is acceptable. An analysis, as determined by the Engineer, will be carried out to determine which segments may be acceptable. If the analysis indicates partial Lot acceptance, only those areas corresponding to the sample segment(s) in which rejected material placement occurred shall be subject to 330.06.12.01 Removal and Replacement. Any and all price adjustments corresponding to the recalculated test results (excluding those in the rejected segment(s)) shall apply.

330.06.12 Repairs

Rejected work shall be repaired, remedied, overlaid, or removed and replaced at the Contractor's expense. The asphalt concrete replacement or overlay shall be the same asphalt concrete mix designation as that which is removed or overlaid. All joints and the underlying asphalt concrete mat shall be tack-coated prior to repair.

The mix tonnage associated with the repair shall be produced in accordance with this specification. The repair tonnage shall be sampled in accordance with 330.06.02.05 Lot. Asphalt concrete comprising repaired areas shall be subject to testing in accordance with 330.06.08 (Quality Control) and 330.06.09 (Quality Assurance.) Unit price adjustments calculated in accordance with Tables 12 to 17 and price adjustments from Tables 19 and 20.

The cost of retesting shall be borne by the Contractor. All costs associated with repairs, removal and replacement, or overlays are the responsibility of the Contractor.

330.06.12.01 Removal and Replacement

Rejected Lots or segments of Lots shall be removed by cold milling the full width of the affected mat and full depth of the lift in which the work is being performed.

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Material removed shall become the property of the Contractor, to haul and stockpile or otherwise dispose of in an environmentally acceptable manner, at the Contractor's expense.

330.06.12.02 Overlaying

Overlaying as a method of repair will only be considered in areas designated by the Engineer, for Lots or segments of Lots which are subject to rejection based on thickness or smoothness. The asphalt concrete mix used to construct the overlay shall meet the same requirements as the pavement which is overlaid. The overlay shall extend the full width of the underlying pavement surface and have a finished compacted thickness of not less than 40 mm.

A keyed joint shall be constructed at each end of the overlaid section as per 330.06.05.05 Keyed Joints. If an acceptable grade and cross slope cannot be achieved, the Contractor shall repair the area in accordance with 330.06.12.01 Removal and Replacement. If an overlay results in the need for additional shouldering material or adjustments to guide posts and guardrail, this work shall be carried out, at the Contractor's expense, in accordance with the applicable items as per the Standard Specification.

330.06.13 Measurement for Payment

330.06.13.01 Measurement for Payment for Asphaltic Surface Course, Asphaltic Base Course, Asphaltic Levelling Course Type I and II

The quantity of asphalt concrete to be measured for payment shall be the number of tonnes of mix placed and accepted in accordance with this specification. Unit price adjustments calculated in accordance with Tables 12 to 17 shall apply.

330.06.13.02 Measurement for Payment for Asphalt Cement

The asphalt cement will be measured in tonnes, rounded to two decimal places. Payment for Asphalt Cement shall be as per the percentage (%) of asphalt cement required in the approved Job Mix Formula. However, where the Lot mean of deviations for Asphalt Cement contents are found to be in the penalty zones subsequently described, Asphalt Cement will be paid on actual content only for the individual sublots found to be deficient to the point of being in the penalty or rejectable zone, as determined by ASTM D6307 Standard Test Method for Asphalt Content of Hot-Mix Asphalt by the Ignition Method. Any moisture content in the hot mix asphalt will be determined and deducted. The method of determination of this moisture content will be in accordance with AASHTO 329 Standard Method of Test for Moisture Content of Hot Mix Asphalt by Oven Method.

Samples of hot mix asphalt shall be taken randomly, in accordance with 330.06.09.02 and tested to ensure conformance with the specifications stated herein. Sampling and testing shall be performed in accordance with ASTM D979 and ASTM D6307, Method A. Additional samples may also be taken and tested in accordance with ASTM D2172, for verification purposes.

If the test results representing the Lot mean of deviations for asphalt cement content falls into the above-stated "Penalty Zone", the payments for both Asphalt Cement and Hot Mix Asphalt shall be adjusted by deducting a percentage from the unit prices per Table 12 for the Lot mean of deviations as appropriate. These adjustments shall apply to the areas of pavement represented by these samples.

If the test results representing the Lot mean of deviations fall into the above-stated "Rejectable Zone", then no payment will be made for either the asphalt cement or hot mix asphalt represented by those samples.

In the event of any and all disputes over asphalt content, the asphalt contents as determined by the Engineer, in accordance with the above stated method, shall govern in all cases.

330.06.14 Basis of Payment

330.06.14.01 Basis of Payment for Asphaltic Surface, Asphaltic Base Course, Asphaltic Leveling Courses Type I and II, and Patching

Asphalt concrete will be paid for at the contract unit price per tonne for mix incorporated and accepted in the work, which price shall be full compensation for furnishing and transporting of all materials including aggregates, natural

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sand, PGAB, heating, handling, mixing, placing and compacting the mix, the supply of all equipment, plant, labour, traffic control and incidentals necessary to complete the work.

All price adjustments determined in accordance with this specification will be calculated and issued on the final progress estimate.

330.06.14.02 Basis of Payment for Asphalt Cement

Payment at the contract price for Asphalt Cement shall be compensation in full for all labor, materials, and equipment to supply the Asphalt Cement cost shall include purchase, loading, transportation, unloading and storage at the asphalt plant.

330.06.14.03 Basis of Payment for Rejected Mix

The Department will pay for only the original mix quantity. The Contractor is fully responsible to bear all costs associated with repair of rejected areas, including all materials, equipment, plant, labour, traffic control and incidentals necessary to complete the work to the satisfaction of Engineer.

If the Department determines the rejected material may remain in the work, and the Contractor elects not to repair the affected area, payment for the rejected mix components will be at 50% of the various contract unit prices.

46-21php - Holdback Release Calculation

Item No.	Item	Permit A	Permit B	Permit C	Permit D	TOTAL	TOTAL with HST
1	Contract Price	2,148,775.00	298,895.00	447,359.00	2,551,535.00	5,446,564.00	6,263,548.60
2	LD's Applied	-	-	35,000.00	35,000.00	70,000.00	80,500.00
3	Net Total Contract Payable	2,148,775.00	298,895.00	412,359.00	2,516,535.00	5,376,564.00	6,183,048.60
4	Value of Contract Work Earned /Completed as on June 30 2022 (LD's included)	163,212.00	83,486.40	77,417.00	94,199.20	418,314.60	481,061.79
5	Bonus retained until end of warranty	-	-	-	-	-	-
6	Payable (LD's included)	163,212.00	83,486.40	77,417.00	94,199.20	418,314.60	481,061.79
7	Statutory 10% Holdback at Date of Default – Held by Obligee	16,321.20	8,348.64	7,741.70	9,419.92	41,831.46	48,106.18



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 2 MONTH ENDING: Sept. 2021

PROJECT NO: 46-21 PHP Part A Permit A
PROJECT: Part 'A' Rehab 4.9 KM TCH to KM 511.1 to KM 516 South Brook to West Bottom

CONTRACTOR: Edward Collins Contracting Limited
ESTIMATED COST: \$ 2,148,775.00 ACCOUNT CENTER:01-3025-311-1910 DTC: 21-521853

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	TOTAL PROGRESS CLAIM
0a	Mobilization & Demobilization Bid Limits	LS	16000		3200.00	3200.000	\$1.00	\$3,200.00
0c	Accommodation of Traffic	LS	32000	3200	3200	6400	\$1.00	\$6,400.00
0d	Contractor Saffey Representative	LS	6400	640	640	1280	\$1.00	\$1,280.00
6	Excavation for Foundations							
	b Other Material	m³	1900				\$10.00	
7	Installation of Pipes or Culverts (Polymer Coated) See SGC 7							
	b 600mm Diameter	m	77				\$275.00	
	c 800mm Diameter	m	25				\$400.00	
	e 1000mm Diameter	m	25				\$550.00	
9	Rip Rap Treatment							
	f Hydrualic Class II (500mm Diameter)	m³	10				\$25.00	
12	Selected Granular Base Course							
	a Granular 'A'	t	700				\$35.00	
	b Granular 'B'	t	4500				\$20.00	
14	Storage or Disposal of Old Asphaltic Pavement, SGC #9							
	b Disposal of Old Asphaltic Pavement	m³	65				\$10.00	
15	Tack Coat	m²	113500				\$0.40	
16	Hot Mix Asphaltic Concrete							
	b Hot Asphaltic Surface Course (SGC #10 and #30)	t	6810				\$45.00	
	c Warm Asphaltic Levelling Course (Type 1) SGC #11 and #30	t	6810				\$45.00	
	g Liquid Asphalt (58-28)	t	430				\$1,000.00	
	h Liquid Asphalt (64-34 PMA) See SGC #31	t	430				\$1,275.00	
	j Blending Sand	t	2050				\$21.00	
	l Asphaltic Patching (100mm), SGC #12	m²	260				\$70.00	
17	Supply & Installation of Guide Rail (SGC #13)							
	a Standard Type Guide Rail	m	275				\$100.00	
	b Stand Type Buried Ends	Each	4				\$1,000.00	
18	Removal & Disposal of Guide Rail	m	305				\$10.00	
21	Contingency	LS	5200				\$1.00	
23	Cleaning of Existing Ditches (SGC #15)	m	5800		3464	3464	\$12.00	\$41,568.00
28	Disposal of Culvert or Pipe							
	a All Sizes	m	160				\$10.00	
47	Supply Fill in Place							
	d Supply Rock Fill in Place	m³	200				\$14.00	
112	Supply and Installation of Aluminium pipe culvert 1400mm (See SGC #7)	m	33				\$1,500.00	
122	Clearing							
	a Clearing 30m Right of Way (SGC#17)	KM	9	4.734	4.185	8.919	\$6,000.00	\$53,514.00
	1/2 crushing class a				350	350	\$35.00	\$12,250.00
	1/2 crushing class b				2250	2250	\$20.00	\$45,000.00
								\$163,212.00

CERTIFIED CORRECT

Gross to Date	\$163,212.00
Less 10% holdback	\$16,321.20
Paid holdback	
Certified to date	\$146,890.80
Less previous payments	\$29,019.60
Now certified	\$117,871.20

Goods Receipt: Engineer or Project Manager

Certified by: Regional Engineer

PAYMENT APPROVAL:

Review by: Corporate HDC Representative



**DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE**

ESTIMATE NO: 2

MONTH ENDING: Sept. 2021

PROJECT NO: **46-21 PHP Part B Permit B**

PROJECT: Part 'B' Rehabilitation of South Brook Bridge

CONTRACTOR: **Edward Collins Contracting Limited**

ESTIMATED COST: **\$298,895.00**

ACCOUNT CENTER: **01-3025-110-2210**

DTC: **21-523723**

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	TOTAL PROGRESS CLAIM
0a	Mobilization & Demobilization Bid Limits Apply	LS	5000	1000	500	1500	\$1.00	\$1,500.00
0c	Accommodation of Traffic	LS	10000	1000	2000	3000	\$1.00	\$3,000.00
0d	Contractor Safety Representative	LS	2000	200	600	800	\$1.00	\$800.00
15	Tack Coat	m ²	1200		957.0	957.0	\$0.40	\$382.80
16	Hot Mix Asphaltic Concrete							
b	Hot Mix Asphaltic Course (SGC #10 and #30)	t	247				\$45.00	
f	Warm Asphaltic Levelling Course (Type 1) (SGC #11 and #30)	t	116		118.0	118.0	\$45.00	\$5,310.00
g	Liquid Asphalt (58-28)	t	8		6.73	6.73	\$1,000.00	\$6,730.00
h	Liquid Asphalt (64-34)	t	17				\$1,275.00	
j	Blending Sand	t	55		14	14	\$21.00	\$294.00
21	Contingency	LS	15600				\$1.00	
35	Cold Planing (See SGC #32)	m ²	1200				\$1.00	
159	Replace Hazard Marker	Each	1				\$500.00	
223	Bridge Deck Waterproofing (SGC #27)	m ²	1050	525.0	432	957	\$65.00	\$62,205.00
230	Supply & Installation of Guide Rail Structures (SGC #28)							
a	Supply & Installation of Guide Rail Structures	m	46				\$125.00	
b	Supply and Install Buried Ends	Each	4				\$1,100.00	
236	Installation of Number Plates		2				\$500.00	
246	Removal & Disposal of Old Asphaltic pavement from structures	m ³	105	72.96	3.60	76.56	\$10.00	\$765.60
250	Concrete Repairs with Latex Modified Concrete	m ³	1.5				\$5,000.00	
252	Repair of Concrete Deck by Overlay	m ²	210	8.33		8.33	\$300.00	\$2,499.00
257	Supply & Installation Asphalt Plug Expansion Joint	Each	2				\$33,000.00	
								\$83,486.40

Gross to Date	<u>\$83,486.40</u>
Less 10% holdback	<u>\$8,348.64</u>
Paid holdback	
Certified to date	<u>\$75,137.76</u>
Less previous payments	<u>\$35,598.24</u>
Now certified	<u>\$39,539.52</u>

CERTIFIED CORRECT

Goods Receipt: Engineer or Project Manager

Certified by: Regional Engineer

PAYMENT APPROVAL:

Review by: Corporate HDC Representative

Assistant Deputy Minister (Or Delegate)



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 3

MONTH ENDING: Oct. 2021

PROJECT NO: 46-21 THP Part C Permit C

PROJECT: Part 'C' Rehabilitation of GFW West Overpass (Eastbound)

CONTRACTOR: Edward Collins Contracting Limited

ESTIMATED COST: \$ 188,797.00

ACCOUNT CENTER: 01-3025-110-2210

DTC: 21-523724

[illegible]



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 3MONTH ENDING: Oct. 2021PROJECT NO: **46-21 THP Part E Permit C**

PROJECT: Part 'E' Rehabilitation of GFW Pedestrian Overpass

CONTRACTOR: **Edward Collins Contracting Limited**ESTIMATED COST: **\$ 73,765.80**ACCOUNT CENTER: **01-3025-110-2210**DTC: **21-523724**

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	TOTAL PROGRESS CLAIM
0a	Mobilization & Demobilization Bid Limits							
	Apply	LS	3000				\$1.00	
0c	Accommodation of Traffic	LS	6000				\$1.00	
0d	Contractor Safety Representative	LS	1200				\$1.00	
15	Tack Coat	m ²	1042				\$0.40	
16	Hot Mix Asphaltic Concrete							
b	Hot Asphaltic Surface Course	t	178				\$45.00	
f	Warm Asphaltic Leveling Course (TypeXX)	t	47				\$45.00	
g	Liquid Asphalt (58-28)	t	4				\$1,000.00	
h	Liquid Asphalt (64-34 PMA) (See SGC #31)	t	12				\$1,275.00	
j	Blending Sand	t	34				\$21.00	
l	Asphaltic Patching (100mm)	m ²	2				\$70.00	
21	Contingency	LS	7800				\$1.00	
35	Cold Planing	m ²	1040				\$1.00	
223	Bridge Deck Waterproofing (See SGC #27)	m ²	364				\$65.00	
246	Removal & Disposal of Old Asphaltic Pavement from Structures (SGC #29)	m ³	37				\$10.00	
	Liquidated damages 10days @3500/day							-\$35,000.00
								-\$35,000.00

Gross to Date	\$77,417.00
Less 10% holdback	\$7,741.70
Paid holdback	
Certified to date	\$69,675.30
Less previous payments	\$54,776.70
Now certified	\$14,898.60

CERTIFIED CORRECTGoods Receipt: **Engineer or Project Manager**Certified by: **Regional Engineer****PAYMENT APPROVAL:**Review by: **Corporate HDC Representative**

Assistant Deputy Minister (Or Delegate)



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 2

MONTH ENDING: Oct. 2021

PROJECT NO: 46-21 THP Part F Permit D

PROJECT: Part 'F' Rehabilitate 5.6 kms of the TCH, KM 392.5 to KM 398. East of Penstock Bridge

CONTRACTOR: Edward Collins Contracting Limited

ESTIMATED COST: \$ 2,551,535.00

ACCOUNT CENTER: 01-3025-110-1910

DTC: 21-521854

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	TOTAL PROGRESS CLAIM
0a	Mobilization & Demobilization Bid Limits Apply	Lump Sum	16000		3200	3200	\$1.00	\$3,200.00
0c	Accommodation of Traffic	Lump Sum	32000	3200	3200	6400	\$1.00	\$6,400.00
0d	Contractor Saftey Representative	Lump Sum	6400	640	640	1280	\$1.00	\$1,280.00
6	Excavation for Foundations							
b	Other Material	m3	12600				\$10.00	
7	Supply & Installation of Pipe Culverts							
b	600mm Diameter	m	10				\$275.00	
c	800mm Diameter	m	130				\$400.00	
e	1000mm Diameter	m	51				\$550.00	
j	2000mm Diameter	m	36				\$2,000.00	
9	Rip Rap Treatment							
f	Hydraulic Class II (500mm Diameter)	m3	10				\$25.00	
12	Selected Granular Base							
a	Granular 'A'	Tonne	340				\$35.00	
b	Granular 'B'	Tonne	4800				\$20.00	
14b	Disposal of Old Asphaltic Pavement	m3	210				\$10.00	
15	Tack Coat	sq.m	118900				\$0.40	
16	Hot Mix Asphaltic Concrete							
b	Hot Asphaltic Surface Course	Tonne	14260				\$45.00	
g	Liquid Asphalt (58-28)	Tonne	335				\$1,000.00	
h	Liquid Asphalt (64-34 PMA) (See SGC #31)	Tonne	595				\$1,275.00	
j	Blending Sand	Tonne	2140				\$21.00	
l	Asphaltic Patching (100mm)	m²	1150				\$70.00	
17	Supply & Installation of Guide Rail							
a	Standard type Guide Rail	m	552				\$100.00	
b	Standard type Buried Ends	Ea	7				\$1,000.00	
18	Removal & Disposal of Guide Rail	m	605				\$10.00	
21	Contingency	Sum	5200				\$1.00	
23	Cleaning of Existing Ditches	m	5200	300	5064.1	5364.1	\$12.00	\$64,369.20
28	Disposal of Culvert of Pipe							
a	All Sizes	m	227				\$10.00	
35	Cold Planing	sq.m	42000				\$1.00	
47	Supply Fill in Place							
d	Rock Fill in Place	m3	1260				\$14.00	
	1/2 crushing class a			170		170	\$35.00	\$5,950.00
	1/2 crushing class b			2400		2400	\$20.00	\$48,000.00
	Liquidated damages 10days @3500/day							-\$35,000.00
								\$94,199.20

CERTIFIED CORRECT

Gross to Date	\$94,199.20
Less 10% holdback	\$9,419.92
Paid holdback	
Certified to date	\$84,779.28
Less previous payments	\$55,251.00
Now certified	\$29,528.28

Goods Receipt: Engineer or Project Manager

Certified by: Regional Engineer

PAYMENT APPROVAL:

Review by: Corporate HDC Representative

Assistant Deputy Minister (Or Delegate)

COR/2022/03463

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

RE: TI Response to ECC April 19/2022 Notice of Default; Contract 46-21PHP Road and Bridge Rehabilitation work on TCH – Central Region

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms. The Department would like to highlight that it has also made good faith payments for materials stockpiled which are yet to be installed by ECC in accordance with the Contract.

As per Contract SGC 3, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,



Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Wade Waterman

COR/2022/03462

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

**RE: TI Response to ECC April 19/2022 Notice of Default; Contract 12-21PHC
Culvert Replacements & Rehabilitations on the TCH Avalon Region**

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms.

As per Contract SGC 3, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,



Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Bill Skanes

COR/2022/03464

April 29, 2022

Edward Collins Contracting Ltd
P.O. Box 51, Jerseyside,
Newfoundland and Labrador, Canada, A0B 2G0

RE: TI Response to ECC April 19/2022 Notice of Default; Contract 45-20PHP West Coast Asphalt

Dear Mr Collins,

The Department has paid Edward Collins Contracting Ltd (ECC) in accordance with all terms of the Contract. All completed quantities have been paid in accordance with the applicable contract rates and terms. The Department Regional Teams and ECC previously discussed the work that it believes to be under the quoted value of \$88,526.18 and all quantities have been paid using the applicable contract rates. The Department is not aware of the specifics of the quoted \$30,459.87 but it believes that all quantities received has been paid in accordance with the contract rates.

As per Contract SGC 9, the Department has the right to deduct liquidated damages when the work is not substantially completed in accordance with the Contract. The work is not complete and, as a result, liquidated damages have and will continue to be applied.

Regards,



Bill Hillier

Director, TI Highway Design and Construction

cc. Greg Clarke, Dennis Coley

Buggie, Chelsey

From: Terry Dunn <tdunn@ail.ca>
Sent: Thursday, October 14, 2021 4:35 PM
To: Waterman, Wade
Cc: Stephen Ryan
Subject: 046-21PHP - Road and Bridge Rehabilitation work on the TCH - Central Region - Culverts
Attachments: pipe list 46-21php south brook.pdf

Hi Wade,

As per your conversation with Stephen Ryan, I would like to keep you in the loop that we, Atlantic Industries Limited, had received the order from Ed Collins Contracting Limited to supply the culverts and guiderail for the above noted project back in Early July, 2021.

We were provided the pipe runs (as attached) and instructed to start manufacturing. We were told that as soon as there was a load of 600 mm pipe ready they would be in to our facility and pick it up. We also manufactured one custom pipe run for the 1400mm Aluminum pipe at station 514.786.

At this point no materials have been shipped for this project and remain on our property in Deer Lake, however we are unable to get in contact with Ed Collins Contracting Limited, to find out if and when this material will be picked up.

Our concerns with the lack of correspondence from Ed Collins Limited on this project is that we will be stuck with the custom made 1400mm Aluminum pipe. Since this is manufactured from Aluminum it is a specialty pipe that was custom manufactured for this job.

If there is help that can be provided by the department to ensure this pipe will be utilized it would be greatly appreciated.

If you would like to discuss in further detail please feel free to contact me at your earliest convenience.

Thank you,

Terry Dunn, CET
Regional Manager

Atlantic Industries Limited
T: 709-738-2772 ext 55403
C: 709-682-1458
F: 709-738-2773
www.ail.ca

Disclaimer

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Culvert Replacement Information

Date: July. 26, 2021

Location: TCH - South Brook

Station	Existing Length	Existing Size	Proposed Length	Proposed Size	material	Notes	Fill (m)
511.100	-	-	-	-	-	New asphalt ends	-
511.411	-	-	23	600	-	D/w Eddys Resturant west access	
511.703	25.5	600	4	600	concrete/csp	Road crossing replace 4m csp ext on LT	
512.087	-	600	29	600	csp	R380 South Brook intersection RT, replace	
512.372	6.5	600	-	-	csp	Sign Island LT, pipe ok	
512.438	6	600	-	-	concrete	Birchview road, pipe ok	
512.453	-	-	-	-	-	D/W RT no pipe required	
512.612	-	-	-	-	-	Sign Island LT, no pipe ditch around island	
512.781	-	-	-	-	-	Sign Island RT, no pipe required	
512.832	-	600	-	-	csp	Access road RT, pipe ok	
512.873	-	600	-	-	concrete	Road crossing pipe ok	
513.077	-	600	20	600	csp	Access road RT, buried on right side, replace	
513.400	17.8	600	18	600	csp	Access road LT (spring water) replace	
513.487	-	750	-	-	concrete	Road crossing, pipe ok	
513.660	8	500	8	600	csp	Access road LT, almost completely buried replace	
513.963	13	600	13	600	csp	Access road RT, (old Halls bay road) replace	
514.210	-	600	-	-	concrete	Road crossing, pipe ok	
514.325	-	600	-	-	concrete	D/w LT clean out both ends	
514.558	16.3	600	17	600	csp	Quarry road LT, replace	
514.786	33	750	40	1400	concrete	Road crossing replace with aluminium pipe	6
514.840	24.5	900	22	1000	csp	Road crossing replace	2
515.126	24	600	-	-	concrete	Road crossing, inlet buried, clean out only	
516.054	9	600	-	-	csp	Clean out both ends	
516.000	-	-	-	-	-	West Brook Bridge	-

Note 1: There maybe more pipe locations found that need to be replaced after the clearing and ditching is completed.

Appendix F

ECC Submission

Dated October 31, 2023

O'KEEFE & SULLIVAN

BY EMAIL

Grant Thornton Ltd.
Nova Centre, North Tower
Suite 1000 – 1675 Grafton Street
Halifax, NS B3J 0E9
Email: phil.clarke@ca.gt.com
cc. Caitlin Fell, Reconstruct LLP: cfell@reconllp.com

31 October 2023

Dear Mr. Clarke:

RE: Government of Newfoundland and Labrador Claim Submission – Preliminary Issue

Further to our correspondence dated 26 October 2023, please accept the following submission on behalf of ECC.

Facts

On 18 July 2022, Edward Collins Contracting Ltd. (“ECC”) applied for Creditor Protection and other relief under the *Companies’ Creditor Arrangement Act* (“CCAA”). On 14 October 2022, Justice MacDonald granted an initial order pursuant to the CCAA (“ARIO”). On 14 March 2023, Justice MacDonald issued a “**Claims Process Order**” outlining steps for resolution of claims.

This submission pertains to three contracts between ECC and the Government of Newfoundland and Labrador (“GNL”); 45-20, 12-21, and 46-21 (each a “**Contract**” or collectively the “**Contracts**”), which were the subject of GNL’s Proof of Claim submitted on 27 March 2023 pursuant to the Claims Process Order (the “**GNL Claims**”).

The GNL Claims involve various issues related to alleged non-performance, scope changes, or delays on each Contract. These fall into three general categories: (a) GNL’s entitlement to liquidated

damage ("LD") payments, (b) GNL's purported pre-filing use of ECC's statutory holdback funds to 'set off' its alleged 'calculated and uncalculated' claims, (c) ECC's Force Account claims.

ECC disputes the LD claims because they fail to correspond with actual damages and constitute an unenforceable penalty. ECC's defences to GNL's claims for alleged non-performance and/or delay, as well as its position on the Force Account claims, are heavily factual in nature and will likely require cross-examination of the respective affiants to assess credibility.

ECC submits that the most efficient way to address the GNL Claims is to first deal with GNL's asserted legal entitlement to use statutory holdback funds retained on each Contract to set off its alleged other claims. There are only two possible outcomes:

- (1) a finding that GNL did not have the legal right to set off its alleged claims against ECC's holdback funds prior to the CCAA filing, thus must remit the holdback funds and adjudicate its claims as an unsecured creditor, if it chooses to do so; or
- (2) a finding that GNL applied valid set offs to the holdback funds prior to the CCAA filing, such that the holdback monies were never part of ECC's estate.

In either case, the burden on the Monitor will be significantly reduced by determining this issue on a preliminary basis. Accordingly, ECC makes this submission to the Monitor for adjudication on the discrete point of law regarding GNL's retention of holdback funds on each Contract.

Relevant Contractual Provisions

Each Contract contains the same General Conditions ("GCs") which include the requirement that the Owner, GNL, withhold statutory amounts such as the holdback required under s.6 of the *Mechanics Lien Act* RSNL M-16. In accordance with GC 21.12, the holdback amount is 10% of the value of the work complete.

Each Contract provides at GC 21.7:

Following the issuance of the Certificate of Substantial Performance and upon receipt from the Contractor of all documentation called for in the Contract Documents the Engineer/Architect shall issue a certificate for payment of holdback monies and the holdback is payable on the day following the expiration of the statutory limitation period outlined in the *Mechanics Lien Act*, provided there are not claims under the Act.

GC 21.13 states that, "Notwithstanding any other provisions of the contract", the Owner may:

- a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non-performance of the Contract, withhold payment of any amount equal to the alleged damages until liability of damages is established and no amount of interest will be paid on amounts held under this clause;
- b) set off amounts owing by the Contractor to the Owner;
- c) following the issuance of the Certificate of Substantial Performance, withhold an amount equal to twice the cost, as estimated by the Engineer / Architect of remedying efficiencies until the issuance of a Certificate of Total Performance and no amount of interest will be paid on amounts held under this clause.

GNL's Position

Although liability and quantum on the GNL Claims are disputed, GNL claims that it calculated its alleged damages on each Contract and then "set off" those amounts against the *Mechanics Lien Act* holdback funds otherwise payable to ECC itself upon the conditions of GC 21.7 being met. GNL claims that this occurred prior to ECC's July 2022 CCAA filing on each Contract.

With reference to 45-20 and 46-21, GNL summarized its position identically, as follows:

It is GNL's position that it was contractually entitled to set off liquidated damages from the holdback amounts pursuant to section 21.13 of the Agreement. All amounts were calculated and liquidated damages were applied in October of 2021. This set off occurred well before the CCAA process was engaged. To date, the Contract has still not been completed, thus a certificate of substantial completion has not been issued.

On Contract 12-21, ECC filed a lien on the holdback (its own holdback) because of GNL's arbitrary termination and its refusal to compensate ECC for its materials and services. GNL claims that ECC in fact owes money to GNL on Contract 12-21 and, as with the Contracts above, purports to have invoked its 'right' to exercise a set off its unproven claims against the holdback funds: [Confirm 12-21 details]

The amount claimed as the holdback by ECC grossly exceeds the actual amount of the remaining holdback on Contract 12-21 and is comprised of the liquidated damages claimed by ECC as set out above as well as statutory holdback funds.

GNL states that ECC has been paid all amounts owing under Contract 12-21 as set out above and that the Statement of Claim accompanying the Lien Claim contains no cause of action and is without merit. ECC has no valid claim to holdback funds under Contract 12-21.

ECC's Position

Per the decision of Justice MacDonald in *Re: Edward Collins Contracting, CCAA* [unreported, 24 August 2023] (the “**Deer Lake Decision**”)¹, which was rendered within the context of this CCAA matter, GNL had no authority to retain the holdback funds and apply it as a set off against its alleged damages because in all cases such damages were unproven, there was no notice to ECC, and there is no factual evidence that a set off occurred.

The Deer Lake Decision similarly involved disputes arising under a construction contract. The Town of Deer Lake (in its capacity as owner) had collected statutory holdback funds on behalf of ECC (acting as contractor), and then, after being called upon to remit them to the Monitor within the CCAA process, claimed that it had applied those funds to set off amounts allegedly owing to it by ECC for non-performance and/or delays prior to the CCAA filing. As in the present case, the Town failed to communicate its purported set off to ECC at the time it allegedly occurred. Justice MacDonald found that a party cannot set off against a *Mechanics Lien* holdback with no evidence of having done a set off and in absence of liability and damages being determined.

The GNL Claims are very similar to those rejected by Justice MacDonald in the Deer Lake Decision, i.e. claims in which there is no evidence that set offs occurred at the times alleged, and where liability and damages are undetermined such that they couldn't have been performed in any event. See GNL's description of its claims on Contract 45-20, for example:

32. Pursuant to section 21.13 of the agreement, in the event of non-performance, GNL was entitled to withhold amounts equal to alleged damages until liability is determined. In October of 2021, GNL prepared estimates of how the projected costs to complete the work, should ECC be able to complete it that season. Due to ECC's failure to complete the work contracted for in a timely manner, there was a further degradation of asphalt on the project sites. This delay increased the scope of this project from levelling and surface portions of the roadway to a pulverizing project.

33. It is GNL's position that because of ECC's failure to complete the work within the timeframe stipulated by the contract it incurred significant damages. GNL was contractually permitted to retain the holdback until these damages could be fully calculated.

To paraphrase, GNL acknowledges on Contract 45-20 that a liability determination was required but still admits it decided to retain holdback amounts equal to its *alleged* damages, then went ahead (allegedly) in October 2021 to apply set offs – without adjudication of its claims, not having reached

a settlement with ECC, without even providing notice to ECC, and based solely on its completely subjective view of ECC's liability and its own assessment of amounts owing.

GNL is unequivocally wrong as to its contractual entitlement to retain or set off funds in this manner. Prior to reaching Substantial Completion, GNL had no contractual or other ability to set off ECC's holdback funds against the purported GNL Claims. Once Substantial Completion was attained and the ensuing 30-day period expired without any valid lien claims being filed, GNL still had no ability to use those funds to complete a set off. It was required to pay out the holdback to ECC and to pursue its alleged claim(s) in the ordinary course.

It is paradoxical that GNL claims to have quantified its damages to an extent that it could apply set offs while also claiming that the Contracts were not even completed. This necessarily implies that the parties' total respective claims against one another remained unknown, and in fact they were not. A 'set off' requires quantified claims on both sides of the ledger. Given that ECC both denies the GNL Claims and asserts its own claims against GNL, and GNL's own admission that the Contracts had not reached Substantial Completion, the necessary information was not even available when GNL claims to have usurped ECC's holdback funds.

Further, the fact that a Certificate of Substantial Completion was not issued on the Contracts and thus the holdback funds were not 'payable' to ECC per the wording of 21.17 does not help GNL's position. GNL's purported appropriation of such funds for its own benefit while impressed with the statutory obligation to hold them separately is effectively an admission of wrongdoing. Furthermore, without notice of termination GNL, in clear breach of the ARIO and subsequent direction of the Court, breached the ARIO and re-tendered the Contracts.

A final but important overarching issue precluding GNL's asserted entitlement is that identified in ***Brook Construction (2007) Inc. v Blackwood Contractors Limited***, 2015 NLCA 18ⁱⁱ. Unlike in other jurisdictions, the NL *Mechanics Lien Act* does not contain a trust section; an owner in possession of holdback funds never has equitable or legal title to holdback funds and therefore has no lawful right to use them. ECC's legal and equitable rights to the holdback were subject only to any validly filed and perfected liens within the statutory limitation period. Leaving all the other grounds for finding against GNL aside, this principle alone is fatal to its position. In its

communications that followed GNL publicly admitted that its approach in setting off against the Holdback was wrongⁱⁱⁱ.

Double Recovery

GNL admits that it has made bonding claims with respect to Contract 12-21 in an amount of “to be determined” with Western Surety (“**Western**”) which Western admits it is obligated to pay. As per the order of Mr. Justice MacDonald dated the 20 of October 2023 (the “**AVO Order**”)^{iv}, Western may claim this amount against the Estate of ECC as an unsecured creditor only, and that otherwise the bonding claims are otherwise expunged against ECC or its Third Party (Universal Environmental Services Inc.) as a “secured” claim. In order for GNL to establish a right of set off against the Holdback, they must establish a “loss”, which in this case, they have not done (and arguably cannot do) because Western is the first recourse indemnitor to which GNL can be paid on any deficiency claims. Therefore, allowing GNL to claim against the Holdback for amounts that Western is contractual obligated to pay and that the Court has determined it is not entitled to claim against ECC, not only constitutes double recovery, but is inconsistent with the AVO Order.

Conclusion

GNL’s allegations relate to damages which are disputed both on quantum and liability. GNL itself identified in its submissions that liability was undetermined at the time it allegedly set off certain claims in question, yet still asserts it was contractually entitled to set off damages from the holdback “pending a determination of liability” or to withhold amounts equal to its alleged damages and then set them off, absent any discussion or agreement with ECC.

ECC denies every allegation of damages and losses included in the GNL Claims but states that their merits are irrelevant to the fundamental issue. Notwithstanding that the holdback funds were in GNL’s possession by virtue of the statutory regime, ECC had both legal and equitable title to the funds at all material times. ECC’s title was subject only to any validly filed and perfected liens within the applicable period. GNL had no lawful ability to impose a trust or a set off or to otherwise deal with ECC’s holdback funds, and GNL’s ongoing misappropriation of *Mechanics Lien Act* funds is a direct violation of its obligations under that regime.

ECC repeats the foregoing and submits that GNL must immediately remit the holdback funds that it has retained or allegedly 'set off' under each of the Contracts to the Monitor without further delay. If it chooses to do so, GNL may proceed with the GNL Claims recognizing that its position, if successful, will be that of an unsecured creditor, and ECC will respond accordingly.

Yours truly,



DARREN O'KEEFE

dokeefe@okeefesullivan.com

ⁱ *Re: Edward Collins Contracting, CCAA. Decision of MacDonald J.* [unreported, 24 August 2023] [TAB 1]

ⁱⁱ *Brook Construction (2007) Inc. v Blackwood Contractors Limited*, 2015 NLCA 18 [TAB 2]

ⁱⁱⁱ Government of Newfoundland and Labrador Circular COR/2023/11564 dated 28 August 2023 [TAB 3]

^{iv} *Edward Collins Contracting Ltd. (Re)* 2023 NLSC 139 [TAB 4]

TAB 1

August 24th, 2023

(matters are called)

THE CLERK: Who appears?

MR. O'KEEFE: Good morning, Justice MacDonald, Darren O'Keefe appearing on behalf of Edward Collins Contracting Limited, et al.

MS. WICKS MORROW: Good morning, Justice, Hilary Wicks Morrow appearing for Valero Energy Inc., the Plaintiff and Applicant in this matter.

THE COURT: Okay, so this is an application, this is a preliminary matter, everyone else in the court, good morning. There's an Application taken by Valero for Summary Judgement, or not Summary Judgement ... Summary Judgement, yes, against Universal Environmental Services Inc., correct?

MS. WICKS MORROW: Correct.



Rosalind Ebsary

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THE COURT: Right. Mr. O'Keefe, what do you think we should do with this?

MR. O'KEEFE: So I've got to apologize, Justice, we were so caught up in this I didn't bring my Valero file with me.

THE COURT: No problem.

MR. O'KEEFE: I did have a quick chat with my colleague before we started. We're okay to set dates, and maybe Ms., Ms. Wicks Morrow can remind us, I think we filed a Defence on this file. If we haven't we will be filing a Defence, and then we can set their Summary Trial Application down for a date, and then once we have a date we can work backward from there for some filing dates. I do know, this file has been discussed with my client, I do know that they will be filing a Defence and they do take some issue with enforcement of the guarantee, but I don't think that's to be unexpected, but we're happy to set dates. I don't want to, I don't want to derail Ms.



Rosalind Ebsary

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Morrow Wicks' (*sic*), or Ms. Wicks Morrow's ...

THE COURT: Okay, so I'm obviously not going to grant Summary Judgement, I would set it down for Summary Trial.

MS. WICKS MORROW: Okay.

THE COURT: So what is the status of the pleadings?

MS. WICKS MORROW: The Defence has been filed by both the Defendant and, the First Defendant and the Second Defendant.

THE COURT: Okay, so it seems to me one of the key issues is ... there's two things, of course, in a Summary Trial, and bear with me, Counsel, I'm thinking out loud rather than telling you how it's done ... there's the threshold issue, you know, is it appropriate for Summary Trial.

MS. WICKS MORROW: Uh hum.

THE COURT: And one of the issues that I assume Mr. O'Keefe is going to raise is the CCAA proceeding somehow trumps this. I



Rosalind Ebsary

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will draw your attention to an article on this very issue. It's not exactly the same because it relates to what the order says and whether the order on its face prohibits this type of action but it might be useful for you to frame your thoughts.

MS. WICKS MORROW: Okay.

THE COURT: It's 2022 CanLit Docs, 431-10, and 43-10 (*phonetic*), I'm sorry, and it's Section 11.04 of the CCAA. I'll actually hand this to the Clerk who can show it to you so you don't have to ...

MR. O'KEEFE: I have it, I can ...

THE COURT: Yeah, okay, so I'll need that back because I didn't take a copy for you but ...

MS. WICKS MORROW: Thank you, Justice.

THE COURT: You can make a note of the details.

MS. WICKS MORROW: Yes.

THE COURT: So you filed everything you want to file?



Rosalind Ebsary

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MS. WICKS MORROW: I assume that we'll be filing a brief in advance of ...

THE COURT: Oh yes, other than that, but your evidence, you've filed everything you need to file which you're required to do under the Rules.

MS. WICKS MORROW: Correct.

THE COURT: So you're satisfied with the evidence you've filed?

MS. WICKS MORROW: Perhaps upon review of this, of this article, perhaps it might ...

THE COURT: Okay, I don't think it will really affect your evidence per se.

MS. WICKS MORROW: Right.

THE COURT: It should affect your legal argument, depending on what Mr. O'Keefe says.

MS. WICKS MORROW: Correct.

THE COURT: He may not raise that.

MR. O'KEEFE: Well, Justice, if it's any help to my colleague, we're back again, I believe, on the 13th.



Rosalind Ebsary

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THE COURT: Okay, why don't we come back on the 13th.

MR. O'KEEFE: So if she wants to take some time and then come back on the 13th, I mean it's only a couple of weeks.

THE COURT: Review the article, review the order, the CCAA order, have a discussion with Mr. O'Keefe, he'll probably give you a heads-up as to what he's going to be arguing, and then we can narrow this issue, and if it's, if there's no issues surrounding the debt, which I don't know, then it's a very narrow issue, you know, and if there is issues surrounding the debt it's still, it's still a matter that's appropriate for Summary Trial because it's an action on a guarantee.

MS. WICKS MORROW: Correct.

THE COURT: So let's come back on September 13th.

MS. WICKS MORROW: Okay.

THE COURT: We'll hear you first and I think it's set for ten o'clock.



Rosalind Ebsary

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MS. WICKS MORROW: Okay.

THE COURT: And the plan will be, you'll tell me if you're ready to go and then we'll set filing dates and a date. The date is not going to be soon. I don't see this as, unless you will explain to me on September 13th why this is urgent and is jumping the queue over other matters it will be set in the ordinary course. It's not that bad for a half day hearing or whatever it's going to take.

MS. WICKS MORROW: Okay.

THE COURT: So I'll need to know how long, are you satisfied with your filings as made, and we'll set up dates. If you can agree with all this with counsel, you know, and when I say "agree", there'll be a date and you can work backwards when everyone needs to file and I'll accept that, no problem, okay?

MS. WICKS MORROW: Perfect, thank you very much.

THE COURT: Anything else you need today?



Rosalind Ebsary

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MS. WICKS MORROW: That's all, thank you, Justice.

THE COURT: So thank you for coming in.

MS. WICKS MORROW: And I'll return this, thank you.

THE COURT: Thank you, okay, the next matter please? We've called it already, haven't we. Okay, did we call the second matter?

THE CLERK: Yes.

THE COURT: Yes, so let's find out who is here, so starting with you, Mr. O'Keefe, who appears?

MR. O'KEEFE: Darren O'Keefe on behalf of Edward Collins Contracting Limited, et al.

MR. BURGESS, K.C.: Good morning, Justice MacDonald, Paul Burgess on behalf of the Town of Deer Lake, and with me is Mr. Jason Young. I point that out to the court, he is the Town Manager of Deer Lake, he's the representative of the Town so I assume he can stay here, but he's also a deponent that my learned friend has asked to ...



Rosalind Ebsary

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THE COURT: Well, we're going to start with him on cross-examination. Is there anyone on the phone?

MR. O'KEEFE: Mr. Collins is here as well to be cross-examined.

THE COURT: Yes.

MR. O'KEEFE: And he is happy to consent to be cross-examined.

THE COURT: So you want to cross-examine him?

MR. BURGESS, K.C.: I will, Justice.

THE COURT: Okay, we'll talk about the ground rules for the cross-examination in a moment. Anyone on the phone?

MS. FELL: Good morning, your lordship, it's Caitlin Fell and (inaudible), counsel for the Monitor.

THE COURT: I didn't hear, understand a word of that, who was that, did anyone get that?

MR. O'KEEFE: Caitlin Fell.

THE COURT: Okay, thank you.

MS. FELL: Caitlin Fell ...



THE COURT: Yes, good morning.

MS. FELL: ... and (inaudible), counsel for the Monitor, good morning.

THE COURT: Thank you.

MS. DUPRES: Good morning, Justice MacDonald, this is Chelsea Dupres (*phonetic*) for the Canada Revenue Agency.

THE COURT: Good morning.

MS. BUGGIE: Good morning, Justice, this is Chelsey Buggie with the Province.

THE COURT: Thank you. So Clerk, you're getting these names, right?

MR. CLARKE: Good morning, my lord, it's Phil Clarke, Grant Thornton, Monitor.

THE COURT: Good morning, Mr. Clarke. Okay, anyone else? Okay, so counsel, we're cross-examining the two deponents. Who do you want to go first? I would think the Applicant will be Deer Lake ... I'm sorry, the Respondent, I would have thought, went first but ...

MR. BURGESS, K.C.: It doesn't matter, Justice.



THE COURT: So I want to set some ground rules. This isn't an all day affair, this is tight focussed as I understand the issue, and I'd like to set the context for it just to make sure I've understood your issue so I can listen carefully to what you're going to ask.

There's a contract, a written contract, there was a tender and a written contract. The written contract provides for a holdback. It provides for the release of the holdback on certain terms. The holdback typically is released upon substantial completion. For some reason substantial completion was never made, or the application for substantial completion was never made which perhaps you could deal with that on your cross-examination. I'm curious as to why that is so ... so there was a holdback.

It appears, and I'll hear from the evidence, there's some conflicting evidence ... there's no clear documentation that says progress payment earned, unpaid, less ten percent,



but it's ... when you fill (*sic*) it all together it seems to be a holdback. There were no liens filed, there was a warranty claim a year later, and the Town purported to, I'll say terminate the contract on 24 hours notice. I'm curious as to where that 24 hours comes from, when you read the contract about termination, and therefore, since there was no lien claims ... you set off the liens claims against the cost of the warranty work. I think that's the gist of the Town's claim, okay?

So the issues that would arise, and I'll hear from Mr. O'Keefe, I think Mr. O'Keefe is plainer than that ... there was a statutory mechanic's lien, you ... it ... you didn't properly set off against it. He says in his brief that the first time he ever heard of it was the last time you were here, and therefore you shouldn't have set off against it ... therefore it's a mechanic's lien, therefore if you had a claim against a mechanic's lien you should



have complied with the claims process and here we are.

And if that is the case the issues are ... one, does the claims process order deal with this claim; two, was there a mechanic's lien holdback at some point; three, if the Town set off against it, on what basis, is it a statutory basis, is it a ... I'm sorry, is it a common law basis or is it a contractual basis. The contract is quite clear how you set off against the contractor, there's a process. You terminate and then you can (inaudible) the cost to complete. I'm not sure any of that was complied with but you'll have to lead me through all that in your argument.

And if so, fundamentally it comes down to was there a right of set-off that existed prior to the CCAA order that was exercised, and then what is, what is meant by "right of set-off", is it the contractual right of set-off or is it some other right of set-off that you're alleging because the contractual right of set-off, the



contractual terms on its face to me don't seem to have been complied with. For example, the contract breach has to be a notice, that's not 24 hours, and does that apply to the warranty or not, so those are the gist of the issues, okay.

So one is, does the order cover this; two, was there valid right of set-off before the order was issued in July, we'll say, of 2022; and there's some nuances around the way, how did this sit for a year without a substantial completion certificate being applied for, and \$50,000 or \$60,000 not being complied with. There's also some slight variation on what the ten percent is, is it \$57,000, is it \$59,000, so I'm interested in all those issues.

So that's what I understand the gist of this case is. Is there holdback, was the holdback properly set off against pursuant to the contract or otherwise ... and what is the "otherwise", and was this covered by the



order if that is not the case. Okay, so is that a fair summary of the issues, Mr. O'Keefe?

MR. O'KEEFE: I think that's a fair summary of Mr. Burgess's issues that he needs to address.

THE COURT: And your issues, do you ...

MR. O'KEEFE: We have additional issues.

THE COURT: Okay, let's hear yours.

MR. O'KEEFE: So our additional issues are, number one, the issue of costs.

THE COURT: Yeah.

MR. O'KEEFE: Number two, the issue of the evidence of Mr. Young. It's our client's position based on a review of the evidence, there's been an attempt to subvert this process.

THE COURT: Okay.

MR. O'KEEFE: It's been set out in our brief.

THE COURT: Uh hum.

MR. O'KEEFE: I don't need an open court to start blabbing on about what's set out in the



brief but we stand behind the submissions which (inaudible) read.

THE COURT: Yeah.

MR. O'KEEFE: Part of the focus of our cross-examination is going to be speaking to this, and there is an inquiry to be made under the *City of Montreal vs. Deloitte* about good faith on behalf of the creditor. Our position is that there is no good faith, not only did they not comply with the process but we believe the facts establish that when they ultimately were taken to task on this by virtue of a Contempt Application and brought before this court, from the very first appearance to now they have consistently led evidence and prepared a case, and presented a case that is less than truthful.

Before I say anything further on this I want to be clear that our allegations are against the Town. Nothing that we are submitting this morning and nothing that we submitted in writing is to be taken as a submission against



my learned colleague. We fully appreciate he's an advocate, he's doing what he's been instructed to do, but some of these allegations are serious. We are prepared to speak to them and, Justice, the facts of this case are such that we do not wish to trivialize these issues. We believe they're central, not only to this proceeding, but to the substantive body of law that we're trying to work with, within the confines of the CCAA in this Province, and whatever happens here today no doubt will set a direction as we move forward.

So I just want to note that we will spend a little bit of time ... my submissions are going to take approximately 40 minutes ...

THE COURT: Uh hum.

MR. O'KEEFE: About ten minutes of that is going to be focussed on this. My cross-examination will take between ten to fifteen minutes depending on the cooperation of the witness, so I think we'll get the case in today



but I don't want to sidetrack those issues even though I know that they're more difficult to deal with. I know that they're not easy issues to put before the court, and in CCAA matters we're often focussed on, you know, pre-post set-off was there security, was there not security; was there process, was there not process; those are all legitimate issues, we're prepared to address them, but we can't in good conscience leave the court today without addressing those other issues.

THE COURT: Yeah, and I assume in argument everyone will point out to me these inconsistencies and the attempt to mislead, so we'll start with Mr. Young, is that satisfactory to everyone or do you want to ...

MR. O'KEEFE: Yeah, that's fine with us, Justice, if Mr. Young is ...

THE COURT: I'll go either way, any way you want. If you prefer to do Mr. Collins first, that will be fine but ...



MR. O'KEEFE: It's up to ... I'll leave it to my learned friend, whichever way he wants to proceed. If he wants to, like the challenge that we have, and the only reason I hesitate, the ordinary course you've already set out but we don't know what their position is. Like they filed a Memorandum of Authorities with the case that you directed us to review at the last hearing ...

THE COURT: Uh hum.

MR. O'KEEFE: ... and an excerpt from the CCAA.

THE COURT: Yeah.

MR. O'KEEFE: We have an affidavit, we have no brief. We don't know what their position is. The last day they were here they intimated some issues with the invoicing which I don't bear (*phonetic*) to repeat on the record. Other than that I don't know what their position is, so it may be the case in this circumstance that the proceedings will have



to, we'll have to see what Mr. Burgess has to say first, I don't know.

THE COURT: Well, the only way ... Mr. O'Keefe is going to have to go through the Affidavit to address sort of the, I'll call it the floor issues ... how much money was owed, how much money was held back under the ten percent contractual provision, and what happened to it, so he's going to have to plod through that because your client didn't really deal with it in that much detail. Most of it comes from Mr. Collins, so is there any point you concede? Like do you concede the amount? Do you concede there was a holdback? Do you concede that the holdback was set off against, a year later, more than a year later on warranty work? Do you concede all those things?

MR. BURGESS, K.C.: My lord, so it's ... to give some clarification, I agree with your summary of what the issues were. The Town's position, I thought, was somewhat clear, or



attempted at least in Mr. Young's Affidavit, to put the facts forward. The Town's position is that the contract for paving was done in 2020. Now, there's, and I don't know how much you want me to get into this but it may help the process and Mr. O'Keefe narrow the issues.

THE COURT: I don't want anyone to lead the witness with new evidence.

MR. BURGESS, K.C.: Right.

MR. O'KEEFE: I would make one comment, Justice, if I can.

THE COURT: Yeah.

MR. O'KEEFE: And I don't want to interrupt my friend, but I will say this. I'm prepared this morning to be standing up a lot on my feet, if we get to a situation where Mr. Burgess is giving evidence as opposed to his client, to fill in the gaps, I have a serious issue with that.

THE COURT: Yeah, okay, and this is my fault because I asked you if you were going to concede anything. Let's get the witness on



and see what he has to say and we'll go from there, okay?

MR. BURGESS, K.C.: That's fine.

THE COURT: So Mr. Young, if you can take a seat here? I don't actually think there is a seat there.

MR. JASON YOUNG, SWORN, XX'D BY MR. O'KEEFE

THE CLERK: And can you please state and spell your name for the record?

MR. YOUNG: Jason Young, J-a-s-o-n, Y-o-u-n-g.

THE COURT: Okay, have you been in court before?

MR. YOUNG: No, I haven't.

THE COURT: Okay, so you're a witness, you're going to be cross-examined, we call it, by the counsel, Mr. O'Keefe here. Cross-examination just, it merely means that he's



cross-examining you on the evidence you've already given in this proceeding.

MR. YOUNG: Uh hum.

THE COURT: Sometimes it may stray from that evidence and your counsel may object, but ... and I will deal with that at the time. Your obligation obviously is to tell the truth.

MR. YOUNG: Uh hum.

THE COURT: And answer his questions as best you can unless I direct you to do otherwise, okay?

MR. YOUNG: Uh hum.

MR. O'KEEFE: Justice, before we start, I apologize, we should have addressed this at the beginning. As a matter of housekeeping I want to make sure that we understand what materials the court has.

THE COURT: Yeah

MR. O'KEEFE: So my list of materials, I'll read them out and I'll just ask that you confirm, Justice, that you have the materials.

THE COURT: Yeah.



MR. O'KEEFE: We have an Application; an Affidavit of Josh Collins that was filed 24 July '23.

THE COURT: Yes.

MR. O'KEEFE: We have a Memorandum of Authorities filed 25 July '23.

THE COURT: Yes.

MR. O'KEEFE: We have an Affidavit of Jason Young; and a Memorandum of Authorities that was filed, it's dated 8 August, I believe it was filed 14 August.

THE COURT: That's right.

MR. O'KEEFE: We have an Affidavit of Josh Collins; a Memorandum of Fact and Law filed 22 August.

THE COURT: Correct.

MR. O'KEEFE: We have three additional cases that were submitted, *ALC and Babstock*; *791526 Ontario*; and *Atlantic Sea Cucumber*, they were submitted, I believe, yesterday by my Assistant.

THE COURT: This one?



MR. O'KEEFE: That's correct.

THE COURT: That's two additional cases but ...

MR. O'KEEFE: My apologies, Babstock we actually included in the Memorandum as Tab 6 because we had an opportunity to switch it out before the courier showed up. And finally, there's a Monitor's Report dated 23 August 2023, do you have a copy of that, Justice?

THE COURT: No, I did not see the Monitor's Report.

MR. O'KEEFE: It was sent down yesterday by courier.

THE COURT: Okay, so it didn't find its way to my desk. Do you have a copy there?

MR. O'KEEFE: I have a copy of the report but not the attachments.

THE COURT: Well, how much of it is relevant to what's being said here now?

MR. O'KEEFE: Well, there's some conclusions that were drawn by the counsel for the



Monitor essentially providing an independent, I could say, opinion.

THE COURT: So I need to see it.

MR. O'KEEFE: Yes.

THE COURT: Okay, so if ...

MR. O'KEEFE: So if you want to take ... I apologize, Mr. Young, but if you want to take some time, Justice, we can try to get you a copy of that.

THE COURT: Well, I'm sure it's probably downstairs.

MR. O'KEEFE: I would think so, yes.

THE COURT: So I'll check with the Registry downstairs. You haven't seen it, Clerk?

THE CLERK: (inaudible).

THE COURT: Pardon me?

THE CLERK: (inaudible).

THE COURT: Okay, so maybe it's on my desk but I didn't see it, but I'll have a look.

(break)



THE COURT: Okay, before we proceed, paragraph 29 of the Monitor's report, I just want to understand, the Western Surety statutory holdback, what is that about? "The Monitor is seeking an order setting out the proposed procedure for the solicitation of proofs of claim ..."

MR. O'KEEFE: That is, I think what's happened here, I only saw this this morning ...

MS. FELL: Good morning, your lordship, it's Ms. Fell, (inaudible) counsel for the Monitor ... so that is a separate issue aside from the Town of Deer Lake. There is a proposed agreement with Western Surety, the Monitor, and ECC with respect to a claims procedure dealing with Western Surety's claim. We are not seeking to have this court approve that order today, we just wanted to put it on the radar ... (inaudible) the form of order that's agreed to, it is agreed to ... when everyone has signed off on the form of order we will send it up to your lordship for execution. It



mirrors the claims procedure order, it just sets out different dates for Western Surety's claim.

THE COURT: So that's not for today but are you going to send me a consent order, or do you want to deal with it on the 12th or the 13th, whatever the date is?

MR. O'KEEFE: I think we'll deal with it on the 13th, I do have one comment that I have to discuss with Ms. Fell. Again, I only read this this morning so I haven't had a chance to address it with her.

THE COURT: Okay, that's fine.

MR. O'KEEFE: It's not a major issue.

THE COURT: Okay.

MR. O'KEEFE: But we should probably address it on the 13th.

THE COURT: Okay, Mr. Young?

MR. O'KEEFE: Justice, I had my Assistant yesterday pull out the relevant exhibits from the various materials filed and prepare an exhibit book to aid Mr. Young in his



examination. A copy of that should have been sent to the court.

THE COURT: I have that.

MR. O'KEEFE: If it pleases the court I'd like to present a clean copy to the witness. I will, of course, prove the documents as I work through them.

THE COURT: Okay.

MR. O'KEEFE: For convenience I thought it would be, it would be helpful to the court to have it in the bound volume, a copy of which I believe was also delivered to my friend yesterday.

THE COURT: Thank you.

MR. BURGESS, K.C.: Justice, looking through it, and I did receive it late yesterday, I'm just wonder, the documents in the exhibit book, which certainly is helpful, but the documents, one to six inclusive, I'm just wondering are those new documents or are those in previously filed Affidavits, because we see reference from, from seven forward we see



the reference to where the document was filed and I'm just wondering if these are new documents from, in Tabs 1 to 6, or existing in the file?

MR. O'KEEFE: These documents were the emails exchanged between Mr. Young and Mr. Young's counsel at the time, Matthew Craig, and the Monitor. I believe they're all attached to the Monitor's Report. They also, of course, would be in the possession of the Town. They were not attached to any previous Affidavit because they are not our client's evidence. My client is not copied on this evidence so he has no capacity to attest to these documents so ...

THE COURT: And the Monitor submits documentation without sworn evidence, he's an Officer of the Court and acting for me, among others, on this (inaudible). So do you need time to review those or ...

MR. BURGESS, K.C.: Well, I don't think so. My concern is that, what the scope of this



hearing and the evidence ... if it's introducing new evidence then I'm concerned but, look, I'm ...

THE COURT: Yeah, but I would accept new evidence from the Monitor. I need to know what the Monitor did ... assuming it's in his report, I haven't looked at all the exhibits obviously since I got it two minutes ago. I would accept it all, if you need ten minutes or 20 minutes to review them ...

MR. BURGESS, K.C.: I don't, and let me just say, Justice, for the purposes of this, as well as the rest of the day, I understand the court has broad discretion and is trying to deal with this as expeditiously as possible. I'm not trying to impede that process, but I just want to understand ...

THE COURT: I understand that. As I understand it, setting aside Mr. O'Keefe's issues on conduct and good faith, it's a relatively simple issue to me, and most of this, these exhibits relate to that, you know,



and I think he's going to say that the Town ... well, let's wait to see what he has to say. But I don't see many of these documents being that controversial.

MR. BURGESS, K.C.: And during my presentation today and my arguments, I'm trying to keep it narrowed to what I think are the relevant issues, because quite frankly there was a number of issues that's in some of the material that I don't know that is that material. I mean that would be up to the court obviously to decide.

THE COURT: Okay, well obviously if Mr. O'Keefe asks a question that you're not satisfied, or it isn't grounded in the evidence, you can object and we'll deal with it then.

MR. BURGESS, K.C.: Thank you, Justice.

MR. O'KEEFE: I'll begin, Justice. Thank you, Mr. Young. You have indicated to the court that, and your counsel has indicated that you're here representing the Town of Deer Lake and you haven't been in court before, so



I'm just going to tell you how I'm going to operate this morning. I'm going to try to make this as painless as possible. I'm going to work through the material, I'm going to ask you a series of questions. I'll try to keep the questions short and I try to keep witness's answers short where possible, okay? In other words, if the question is asked and you decide to start making a speech I'm going to interrupt you, and I'm going to apologize upfront because that's been my experience with witnesses who have never given testimony before. It happens and it's natural, so ...

The first thing I want to ask you about is the timeframe where we're dealing with this claims procedure. As the court just intimated, there is an argument that's been made against the Town which I will be making in my submissions today that the Town is claims-barred from advancing this claim. In other words, the Town did not take the appropriate



steps to advance its claim within the CCAA process. Now, you've heard that argument before, correct?

MR. YOUNG: Yes.

Q. Okay, you'll have to speak up as well because ...

A. Sorry, yes, I have.

Q. Let me walk you through some emails that we have here. I've made copies. I'm going to start with an email of March 1st.

MR. BURGESS, K.C.: So is this not in the exhibit book, I take it?

MR. O'KEEFE: I believe this is, it's not in the exhibit book, I believe it's in the Monitor's Report. Again, this is an email that was addressed to the Town, I'll get to the proof in a moment, Mr. Burgess. Now, with respect to the exhibit book, Justice, there's a ... I just want to head off a couple of issues here so we don't have to keep getting interrupted every time I present an email. I think everyone in this room is fairly clear on the



rules of cross-examination under the Rules. We can present emails and documents on cross-examination to test the veracity of an Affidavit if those documents are already in their possession, right? We don't have to, it's not incumbent upon the, in this case, the Applicant, to supply documents that should have been supplied by the Defendant, or Respondent. So this is an email, I'm going to ask, Mr. Young, have you seen a copy of this email before?

MR. YOUNG: This email would not have been addressed to me, I would not have been the Town Manager at the time.

Q. That's not the question I asked you.

A. But I would have, I would have been privy to the information involved, yes.

Q. Okay, let me rephrase, or not rephrase, I'm going to ask you the question. Have you seen a copy of this email before?

A. Yes.



Q. When did you see a copy of this email? Would it have been on or around March 1st?

A. Yes.

Q. Okay, and the email address, deerlaketownmanager@nf.aibn.com, does that address go to your inbox?

A. No.

Q. Okay, where does that address go?

A. It would have went to the Manager at the time, which would have been Maxine Hayden.

Q. Okay, and did Maxine Hayden share this email with you when she received it?

A. Yes, she did.

Q. She did, so you were aware of the email, correct?

A. Yes.

Q. And Maxine Hayden, to your knowledge, was also aware of the email, correct?

A. Yes.

Q. Okay, and the email had attached to it a document called "claimsprocessorder.dotx",



did you receive a copy of that document at the same time?

A. Yes.

Q. Okay, and Maxine Hayden did as well, correct?

A. Correct.

Q. Did you or Maxine Hayden reply to Mr. Parsons when he sent this email?

A. No.

Q. Justice, I'm going to ask, unless there's any further objection, that this exhibit be entered as Exhibit No. 1?

THE COURT: JY No.1.

EXHIBIT JY-1 ENTERED

MR. O'KEEFE: The next email I want to show you, Mr. Young, is another email from Mr. Parsons.

THE COURT: And remind who Shaun (*phonetic*) Parsons is. Okay, I see it on this one.



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MR. O'KEEFE: This email is dated March 17th, 2023, so approximately 16 days after the last email, and it's addressed to a series of individuals including, you will note, the second line from the bottom, "mcraig@stewartmckelvey.com", now at this point in time, on the 17th of March, 2023, Mr. Craig was the lawyer for the Town, was he not, at this point in time?

MR. YOUNG: Correct.

Q. Okay, and were you made aware of this email on March 17th, 2023?

A. Yes.

Q. Okay, and did you get a copy of the order that was attached to this email on the same date?

A. Yes.

Q. Did you, or anyone from the Town to your knowledge, reply to this email?

A. No.

THE COURT: JY-2.

EXHIBIT JY-2 ENTERED



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MR. O'KEEFE: Thank you. This third email I'm showing you here is from Phil Clarke, who is the Monitor, addressed to "deerlaketownmanager@nf.aibn.com". Now, if I understand your evidence correctly, between March 17th and June 5th you actually became the Town Manager, is that correct?

MR. YOUNG: Correct.

Q. Okay, and at that point was this addressed, re-forwarded to you now as the new Town Manager?

A. Yes.

Q. Okay, so this is your current email address?

A. Correct.

Q. Okay, you received this email on June 5th, did you reply to this email?

A. No.

Q. Okay, this email confirms that there was a voicemail left for you as well by Mr. Clarke, did you call Mr. Clarke on this day to respond to this voicemail?



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A. The conversation with Mr. Clarke would have been on or about June 15th so not on June 5th.

Q. We'll get to June 15th, did you reply to Mr. Clarke on June 5th?

A. No.

Q. Justice, I'll ask that that go in as No. 4?

THE COURT: No. 4 or No. 3?

MR. O'KEEFE: It's No. 4.

MR. BURGESS, K.C.: I think it's three, Justice.

MR. O'KEEFE: Oh, is it three?

MR. BURGESS, K.C.: Yeah.

MR. O'KEEFE: I thought there was four. Let me double check.

MR. YOUNG: Well, I only have three so ...

MR. O'KEEFE: I've got March 1, No. 1.

THE COURT: Yeah.

MR. O'KEEFE: I've got March 17th, which I believe is No. 2, and everybody in the courtroom so far has said it's three, so I'm about to give up this protest, so June 5th is No. 3, okay.



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THE COURT: Yes.

EXHIBIT JY-3 ENTERED

MR. O'KEEFE: Mr. Young, I have presented you with a letter from Ms. Caitlin E. Fell, Partner with Reconstruct LLP, dated June 9th, 2023, sent to your address at "deerlaketownmanager", did you receive a copy of this letter?

MR. YOUNG: Yes.

Q. Okay, did you personally reply to Ms. Fell?

A. No.

Q. Did you instruct anyone to reply to Ms. Fell on your behalf?

A. No.

Q. Okay?

THE COURT: JY No. 4?

EXHIBIT JY-4 ENTERED



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MR. O'KEEFE: No. 4 please, thank you. Now, if I understand your evidence correctly, Mr. Young, and I will ask, do you have a copy of your Affidavit of would you prefer that I just read you excerpts as I work through the examination?

MR. YOUNG: You can just read the Affidavit and I'll use the exhibit book.

Q. Okay, now if I understand correctly, up until at least March 20th Stewart McKelvey were representing the Town of Deer Lake on this file, is that correct?

A. Right.

Q. Okay, now, I will not ask you any questions about your communications with Stewart McKelvey up until that point but can you explain to the court, or at least explain to me, when did Stewart McKelvey stop being your counsel on this file? In other words, when did they recuse themselves for the alleged conflict of interest?

A. It would have been on or about March 20th.



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Q. Around March 20th?

A. Yes.

Q. Okay, and once they recused themselves for a conflict of interest did you have any further discussions with Stewart McKelvey concerning this specific matter?

A. No.

Q. And what, if any, steps did you take between March 20th and July 1st to retain new legal counsel?

A. We didn't take any.

Q. Okay, and it's true, is it not, Mr. Young, you were aware during that period that there was a claims process order which involved the Town of Deer Lake that was in the context of this CCAA proceeding, correct?

A. Yes.

Q. Okay, and if I understand your evidence correctly, up until approximately June 14th, 15th, you had no communication with the Monitor concerning the Town's position on the claims process order, correct?



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A. Correct.

Q. Okay, I want to take you to Tab No. 6 in the exhibit book. Tab No. 6 includes an email from Phil Clarke to you at your Town of Deer Lake email address, I'll read it out.

A. Uh hum.

Q. "Jason, thanks, I will review and respond. Here are the invoices that total \$57,070.50." He closes the email with a question, "Have to ask, is there a reason why we didn't receive any responses to previous emails?" Your answer above, the same day at 3:13 p.m. is, "changeover in management here at the Town Office could be one reason for the communication being over looked. Another could also have been that our law firm, Stewart MacGillivray (*sic*)", which I believe is a typo, Stewart McKelvey.

A. Uh hum.

Q. "... who has been dealing with the E. Collins file on our behalf since 2021." You say here that the communications were, as you



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say, overlooked, but that's not true, is it, because you just actually acknowledged that you received every single communication leading up to June 14th, correct?

- A. Yes, I would have received information and it would have been, I guess, a miscommunication between myself and the current Town Manager over who should have been responding to some of these documents that would have been filed.
- Q. But to be clear on my question, the emails were not overlooked, they were received but they weren't addressed, is that correct?
- A. Correct, yes.
- Q. Okay, And on the 14th of June you supplied certain documents to Mr. Clarke, which I'll talk to you about in a minute, to substantiate that the Town's position, as I understand it, is that they did have a holdback of some nature, but they no longer had the holdback because they used it to



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pay for Mike Kelly & Sons Contracting work in 2021. Is that an accurate summary of the Town's position?

- A. Correct.
- Q. Okay, now let me just take you back in time, I'm going to go back, I'm trying to, I'm going to try to keep this as relevant as possible. I'm going to go to your Affidavit, I will come back to the exhibit book so you can keep it open. So in your Affidavit evidence, you'll appreciate, and I'm sure your counsel has shared with you the submissions from Edward Collins, that you have neglected to include a significant amount of information in your Affidavit. I'm going to go through some of that information with you.
- A. Uh hum.
- Q. In your Affidavit, I'm going to start you with paragraph six. Now, this talks about the events that, on or around late October 2020 when the project was being completed.



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What was your role at the time in October 2020?

- A. I would have been Director of Communications and Operations.
- Q. Okay, did you directly oversee construction work at that time?
- A. No.
- Q. Okay, did you have any involvement with construction work at that time?
- A. No.
- Q. Okay, you make a statement here that the ECC performed the majority of the road paving work. What percentage did they complete, by your estimation or your evidence, what percentage had they completed by that point in time?
- A. Based upon the contract they would have completed the contract work that would have been sent ...
- Q. Yeah, they completed all the work under the contract, right?
- A. Correct.



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- Q. Correct, okay, let me move on to, and I'm going to give you an opportunity to clarify something here.
- A. Uh hum.
- Q. We understand that the project, the contract was issued around August of 2020, is that ...
- A. Correct.
- Q. ... consistent with your memory?
- A. Yes.
- Q. And after the project was issued, the contract was issued in 2020, ECC were slow coming to work such that Gorman Engineering Limited, who was your consultant, sent a demand letter effectively saying, get to work or we're terminating the contract. That's correct, right?
- A. Correct.
- Q. Okay, and that was in September of 2020, right?
- A. Correct.



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- Q. Now, once the contract is completed in October/November of 2020, as you'll see from the evidence, and you've included copies of the invoices and confirmation of payment in your evidence, and I can bring you to that if you need it ...
- A. Uh hum.
- Q. ... but suffice it to say for brevity, in October/November two invoices were issued by ECC and they were paid in full, less a holdback, correct?
- A. Correct.
- Q. Okay, and it is the Town's position, as I understand it, that the holdback was a, what you're calling a deficiency holdback.
- A. Correct.
- Q. Okay, can you point us to any evidence that is before this court that demonstrates that this was a deficiency holdback?
- A. There was a meeting held in October of 2020.



- Q. Is this evidence before the court? It's not. I'm asking in all the documentation that we have ...
- A. Okay ...
- Q. ... okay, because the deficiency holdback ...
- A. ... well with the evidence in the court, no, no.
- Q. I would put it to you, Mr. Young, a deficiency holdback is a contractual matter that should be agreed between the parties. I'm not asking you to comment on that, I'm just putting that out there and I'm putting it on the record, okay, and I'm asking you, in all the paper, and there's lots of it here, can you point me to one piece of paper that, from October or November 2020, that says this holdback is a deficiency holdback?
- A. No, I cannot.
- Q. Okay, I want to fast-forward you to October of 2021, a year later. Now, before I ask you any questions, have you had an opportunity to review Edward Collins' Memorandum



- where they have made several statements about your conduct and the Town's conduct on this file? Have you had an opportunity to review that?
- A. Yes.
- Q. And you understand in layman's terms that Edward Collins' position is that they returned in October 2021 to conduct repair work on the roads, you understand that, correct?
- A. Yes.
- Q. Okay, and in October 2021 there was an email issued from you which was apparently a "24 hour notice" for ECC, I use that acronym to describe the Applicant.
- A. Yeah.
- Q. For ECC to return to the job site to complete the repair work. Do you recall sending that email?
- A. I do.
- Q. I'm going to ask that you turn to Tab No. 9 of the exhibit book which was originally



- included as Tab F of your Affidavit. You send an email on October 26th, 2021. At this point your role with the Town is Communications Manager and you have no involvement with the construction process by virtue of the evidence you have just given us, correct?
- A. Correct.
- Q. Okay, so as Communications Manager you sent this email, who instructed you to send this email?
- A. It would have been the Town Manager, Maxine Hayden.
- Q. Okay, did she write the email or did you write it?
- A. I would have wrote it.
- Q. Okay, so you wrote it based on a conversation that you had with her?
- A. Yes.
- Q. And are you comfortable in confirming for this court that this email properly captures



the conversation that you had with Maxine Hayden on or around October 26th, 2021?

A. I do.

Q. Okay, in the second paragraph of your email you make the following, let's call it a threat or demand to ECC, you say, "Failure to arrive on site in Deer Lake to commence paving by ten o'clock on Wednesday, October 27th, 2021, will result in the project being assigned to another company and legal action against Edward Collins Contracting Limited." You acknowledge that's what you said, right?

A. Correct.

Q. Okay, were you aware, Mr. Young, that on October 26th, Edward Collins Contracting had already mobilized to the site and by virtue of Mr. Collins' Affidavit evidence with this court, had began applying tack coat to the roads such that asphalt could be installed? Were you aware of that when you sent this email?



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A. Yes.

Q. Okay, so you are aware when you sent this email that ECC are on site, they're doing the work, yet you sent an email saying failure to arrive on site will allow us to terminate the contract, right?

A. Correct.

Q. Okay, can you explain for this court why you would send an email demanding that they return to site when they were already on site, like how does that make sense?

A. We had sought legal counsel because of a discontinuation of work on Goose Arm Road.

Q. Yeah, I'm not asking you what legal counsel you sought, this is a common sense question I want to ask you. Does it make sense to you that you would be instructed to send a demand letter to ECC saying you need to get on site and do this work or we're going to terminate your contract when



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they're already on site doing the work, does that make sense?

A. They were pulled off the site by the Provincial Government.

Q. When were they pulled off ... you say they were pulled off the site by the Provincial Government.

A. Yes, they failed to return because they were unable to lay asphalt.

Q. No, we'll get to that in a minute.

A. Uh hum.

Q. We'll get to that in a minute. You're alleging they were pulled off the site.

A. Uh hum

Q. And you're saying that today.

A. Uh hum.

Q. Why didn't you say that in your Affidavit?

A. Because they no longer provided pavement for the Town of Deer Lake.

Q. Okay, who no longer provided paving for the Town of Deer Lake?

A. E.C. Collins.



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Q. Just clarify that statement. They no longer ... I'm asking you why you didn't include it in your evidence. Why didn't you say in your Affidavit that as of October 26th, 27th, they were, quote, unquote, "pulled off the site"?

A. We were provided by legal counsel to write a 24 hour notice because we had been advised that if they didn't return by the 27th they wouldn't abide by both the correspondence sent from the Town and the Provincial Government deadline of October 31st.

Q. Okay, but none of that is in your Affidavit, right?

A. Correct.

Q. Why didn't you tell the court that when you were filing your original Affidavit? Why did you leave it out?

A. It was a miscommunication.

Q. It's an important fact, isn't it?

A. It would be, yes.



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- Q. Have you had an opportunity to read Mr. Collins' Affidavit?
- A. I have.
- Q. Okay, Mr. Collins is going to give evidence momentarily, my friend is going to cross-examine him on his evidence, but Mr. Collins has said to this court that, in fact, they were working on October 27th, and then on October 29th there was a Town Council meeting at 10:35 at night where the Town Council met with the specific agenda to terminate ECC's contract, correct?
- A. Correct.
- Q. Okay, and I'm going to suggest to you that a meeting at 10:35 at night would effectively be an emergency meeting, would it not?
- A. Correct.
- Q. Okay, were you present at that meeting?
- A. I was.
- Q. Okay, and did you have legal counsel present at that meeting?
- A. No.



- Q. Okay, can you explain to me what your role was in that meeting?
- A. I would have been ...
- Q. You're not a Councillor, right?
- A. No.
- Q. Okay, you're the Communications Director at this point.
- A. Correct.
- Q. What's your role in this meeting?
- A. Typically management attends all public and private meetings.
- Q. Okay.
- A. Which this would have been a special meeting of Council where minutes would have been recorded for the public to display.
- Q. Okay, well let's go to the minutes at Tab 10, so correct me if I'm wrong, you sent your demand letter on October 26th.
- A. Uh hum.
- Q. Mr. Collins' evidence is that they were on site working October 26th and October 27th,



- and then he says on October 28th they were issued a stop work order for their asphalt plant at Steel Mountain which prevented them from continuing to generate asphalt until the stop work order was dealt with. That's what he has told the court. Do you have any, anything to say to disprove that or do you accept that as true?
- A. I accept that.
- Q. Okay, and on the 29th, the day after the stop work order was issued, but two days after your original 24 hour notice, you have this meeting.
- A. Uh hum.
- Q. Now, I want to just ask you a question about the notice and I'll come back to the Town Council minutes. You said in your notice, I'm going to give you the quote again because this is very important, "Failure to arrive on site in Deer Lake to commence paving by 10:00 a.m. on Wednesday, October 27th, will result in the



- project being assigned to another company." Would you agree with me, based on the wording of your email, that if Edward Collins Contracting attended on site before ten o'clock on October 27th, that the Town was not going to assign this to another contractor.
- A. Correct.
- Q. Right, and so you issued a notice which required action.
- A. Uh hum.
- Q. And ECC took that action to cure your notice, correct?
- A. Correct.
- Q. Okay, the second point you say here is that if they didn't take this action not only would you assign the contract to another contractor, but that you would commence legal action against ECC, right?
- A. Correct.
- Q. Did you ever commence legal action against ECC?



A. No.

Q. Okay, I'll bring you back to the minutes, so the meeting happens 10:35 p.m., and let me just read from this, and this will acknowledge the state of what's happening at this point in time. The third "whereas", "Whereas Goose Arm has been milled and prepared for paving", okay, so this is, in fact, acknowledging and corroborating what Mr. Collins has said in his Affidavit, that they had milled the roads, they had put the tack coat down, they were in the middle of paving when the stop work order was issued, two days after your notice ... a notice that you've just agreed with me was cured by their return to work.

And then this resolution proceeds to say that, "The Town is resolved that they are going to accept the price quotation yet to be determined to complete the paving work."

And you were present at this meeting, right?

A. Right.



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Q. Okay, but here's the thing, you never sent this to Edward Collins, did you?

A. No, it would have been after the fact, yes.

Q. When did you send this to Edward Collins?

A. I can't recall.

Q. You have provided no evidence that you ever sent this to Edward Collins.

A. Correct.

Q. And I put it to you you didn't send it to Edward Collins. Unless you can establish how, when, why, where you did it, I'm putting it to you that you did not send this to Edward Collins.

A. No, I did not.

Q. So why did you say a second ago that you did?

A. I'm assuming that in Mr. Collins' Affidavit ...

Q. No, I don't want you to assume, I asked you if you sent it, you said, yes, I did, then I put it to you that you didn't, and then you said actually, no, I didn't.

A. In Mr. Collins' Affidavit he acknowledges ...



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Q. I'm not asking you about Mr. Collins' Affidavit, I want you to explain to me why in five seconds you just changed your testimony. You said, yes, I sent it to Mr. Collins ... I said, no, you didn't, Mr. Young, and then you ...

A. I couldn't recall sending it.

Q. Mr. Young ...

THE COURT: One at a time because ...

MR. O'KEEFE: ... I will ask the question, you can answer, that's how this works.

MR. YOUNG: Are you going to allow me to answer?

Q. I'm going to allow you to answer once I've finished my question.

A. Go ahead.

Q. I asked you, did you send the email to Mr. Collins, you said, yes, I did ... and then I said, you've got no evidence you did it, you didn't do it. You said, no, you're right, I didn't do it.



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A. There's no evidence before the court but in Mr. Collins' Affidavit he acknowledges that he received the minutes of the meeting from myself, Jason, Young.

Q. Say that again?

A. I cannot recall sending the minutes to Mr. Collins ...

Q. Just I want you to repeat what you just said for the court. You said that in Mr. Collins' Affidavit he acknowledges that he received the minutes of the meeting from you.

A. Correct.

Q. Okay, do you have a copy of Mr. Collins' Affidavit there?

MR. BURGESS, K.C.: I do.

MR. O'KEEFE: Would you show it to the witness?

MR. BURGESS, K.C.: There's markings on it, I assume, Justice, that's ...

THE COURT: August 22nd?

MR. O'KEEFE: That's correct, yeah.

THE COURT: Yeah, that's fine, we'll have to ...



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MR. BURGESS, K.C.: Is it okay if I stand next to the witness so I can see (inaudible)?

MR. O'KEEFE: Yeah, that's fine with me. Please point out for the court, Mr. Young, where in Mr. Collins' Affidavit he acknowledges that he received a copy of these minutes from you. Take all the time you need.

MR. YOUNG: I will. Obviously you are correct, it is not in Mr. Collins' ... it may have been a previous ... but, no, it's not there.

Q. Mr. Young, I'm going to ask that in this process that you please do your utmost to give accurate evidence and tell the absolute truth, even if it hurts you.

A. Yeah.

Q. Because it will hurt you more if you don't. I'd like to move on to Tab 11 but before I get there I want to close off on this issue about the minutes. We've just established ... these minutes were never sent to Mr. Collins ...



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MR. BURGESS, K.C.: Excuse me, Mr. O'Keefe, can I get the ...

MR. O'KEEFE: Oh yes, go ahead, Mr. Burgess, sorry. Following the Town Council meeting on 29 October 2021, did you have, did you personally have any further communications with Mr. Collins?

A. No.

Q. Did you call Mr. Collins to inform him of the outcome of this meeting?

A. No.

Q. So if I understand your evidence correctly, you gave the 24 hour notice ... I'm just going to recap, if I say anything that's wrong please put your hand up and tell me. 26 October you issued a 24 hour notice, that notice was cured, ECC were on site, 27, 28 October. 29 October you have a Town Council meeting, the Town Council decides to remove ECC from the project and to hire another contractor, those minutes were never communicated to ECC formally by the



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Town, and following October 29 neither you or anyone else from the Town had a discussion with ECC about the content of these minutes, to your knowledge?

A. To my knowledge, correct, there was no communication.

Q. Now, the following year, in May of 2021, what the evidence demonstrates for this court is that your Project Engineer, Mr. Gorman, and the Town both right around May 12th, 2021, wrote to Edward Collins and told them that there were repairs required on the roads. That's right, isn't it?

A. Correct.

Q. There was a letter sent by you on behalf of the Town where you acknowledge that there were (sic) repair work, or there was repair work required on the roads, do you recall that letter?

A. Yes, I do.

Q. Okay, excuse me a moment, Justice, I just have to pull it up. I think I'm going to have



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to bring you back to Mr. Collins' Affidavit because that's one of the eight crucial pieces of correspondence that were not included in your Affidavit, so I will bring you to Mr. Collins' Affidavit if I can.

Q. Okay, so you'll find it at Tab No. G of Mr. Collins' Affidavit. It's an email from you, still in your role as Communications Manager on 12 May 2021, where you say, "Good day, please see the attached letter from Town Manager, Maxine Hayden, requesting a meeting with representatives from you ..."

MR. BURGESS, K.C.: Hang on now, Mr. O'Keefe is not there.

MR. YOUNG: Oh, my apologies, you just tell me when you're ready.

MR. BURGESS, K.C.: Exhibit G?

MR. O'KEEFE: Exhibit G, it's about three pages in.

MR. YOUNG: Okay, sorry.

Q. It might be easier to turn from the back, it's two pages from the back.



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A. Yeah, I have it.

Q. You have it?

A. Yeah.

Q. There's an email from you, Mr. Young, "Good day, please see the attached letter from Town Manager, Maxine Hayden, requesting a meeting with representatives from your company to discuss road conditions here in Deer Lake." Do you recall sending that email?

A. I do.

Q. Okay, but at this point you're still not involved in the construction, you're still the communications director?

A. Correct.

Q. Okay, let's turn to the next page, the second paragraph, "The Town's Superintendent of Public Works has had initial discussions with representatives from your company regarding concerns with the asphalt conditions. Since this initial meeting the roads have continued to



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deteriorate significantly. An in-person meeting would allow an on-site analysis of the current conditions of the roads and sharing of work for these plans. During this meeting we would like to discuss the schedule of work for the proposed remediation." So let me recap on your earlier evidence to properly frame this letter.

A. Uh hum.

Q. We know that Edward Collins were on site. We know that they completed the contract in 2020. We know that there was a holdback taken which we'll get to shortly.

A. Uh hum.

Q. And we're now into May 2021 after the snow is melted and the ice has cleared off the roads, and the Town has discovered some of the asphalt is failing, correct?

A. Correct.

Q. And at this point you're instructed to send a letter to Edward Collins requesting a



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meeting to discuss how they were going to remediate the damage of the roads, right?

A. Correct.

Q. Okay, and just so I'm clear, at this point in time there was no new contract entered into. The only contract that you had with Edward Collins was the contract from the previous year, the work under which was complete, right?

A. Correct.

Q. So at this point what you're calling for is repair and remediation work, correct?

A. Correct.

Q. And you are aware, are you not, that the contract had a warranty provision whereby ECC would be obligated to make these repairs if they fell within the warranty period, correct?

A. Correct.

Q. Okay, and that is, in fact, what you're intending here, you want them to come out,



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look at the roads, and tell you what they're going to do to do the repairs, right?

A. Correct.

Q. Okay, you've told us earlier that the contract was completed in October 2020, or sorry, November 2020 and when we appeared here on 28 July we heard for the first time that the Town's holdback was a deficiency holdback, and if I understand it correctly, the Town's position is that they had the aforethought, they had the prescient of forethought ... in November of 2020 when the contract was completed, to hold back ten percent for defects that presented themselves in May, six months later, is that right?

A. The holdback would have been for 15 percent.

Q. Okay, I didn't ask you about the amount, but the general proposition that the Town is asking us to believe is that in November of



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2020 you held back, let's assume I agree with you.

A. Uh hum.

Q. You held back 15 percent in November to deal with defects that presented themselves six months later in May.

A. Correct.

Q. Okay, how did you know in November that the defects were going to present themselves?

A. It would have been through an internal review, obviously there is no documentation in any of these filings that would show the communication of those ...

Q. Do you have a paper, do you have a written internal review on this?

A. No.

Q. Okay, and you've provided no evidence on that, right, you admit that?

A. No.

Q. Okay.

A. Yes.



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Q. So you just want us to take your word for it now in the middle of this hearing, without having provided any evidence. Okay, I gotcha. Now, the meeting that was requested did, in fact, happen, correct? Mr. Brad Thomas was sent by ECC to the Town, as evidenced here on page two of Exhibit H. I'll read you the email just to frame it once you have it open. May 20, 2021, 1:53 p.m., Mr. Collins writes to Maxine Hayden, "Brad Thomas is in the area today, who should he call to discuss the areas of concern?" She writes back, "Thanks for your reply, Brad can connect with Dave Thomas, our Superintendent of Public Works." Now, I'm going to put it to you that Mr. Brad Thomas did, in fact, connect with Dave Thomas and discuss the remediation required, right?

A. He did, correct.

Q. Okay, and the Town and ECC had agreed that a schedule would be, would be set out



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between the parties and that ECC would return in September of 2021 to complete the repair work, correct?

A. Correct.

Q. Okay, and Mr. Collins' evidence says that they did, in fact, return in September 2021 and they milled out the Goose Arm Road, and they prepared for asphalt to be laid, once they had the opportunity to bring their asphalt equipment from a job in Central Newfoundland to Deer Lake, on their way to a job in Stephenville. Do you dispute any of that evidence that Mr. Collins has put before the court?

A. No.

Q. Okay, so if you agree with me then, Mr. Collins and his company returned in September, they started doing the repair work, they milled out the road, they had the road ready for tack coat, and then in October when the gear that they had, I say "gear" but it's paving equipment that they



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had in Central Newfoundland was on its way to Stephenville, they planned on stopping in Deer Lake and doing the paving on the way. That's what he has said and I'm going to ask you, do you dispute any of that?

A. I don't.

Q. Okay, and the next things Mr. Collins has said, and we've already covered this, is that they did, in fact, get the equipment on site and they started doing the work on October 26th, and we have already covered that time period.

A. I agree.

Q. So just to draw a clean line for this court so I can move on to the whole back issue, and I'm going to summarize everything you've said and then I'll move on. The contract was complete in October/November 2020. The Town took a 15 percent deficiency holdback based on some yet undisclosed information that they thought that there was



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going to be deficiencies in the following year. In May of 2021, these deficiencies presented themselves and when they did they made a claim under the warranty to which ECC responded and returned to the site in the fall of 2021 to do the warranty work. Is anything I've said there incorrect?

A. No.

Q. Okay, let's move on to the 15 percent, alleged 15 percent deficiency holdback. Mr. Collins has given evidence on what transpired with the holdback and I'll summarize his evidence. The court has the written document, if I summarize anything incorrectly the court will certainly address it. But Mr. Collins said that in October and November his company issued two invoices that represent the complete contract payment and that in the October and November invoices they had neglected to include a ten percent, he says a ten percent mechanic's lien holdback. He further says



that this was recognized by both him and the then Mayor, Dean Ball, that they had discussed it by phone, that they had subsequently had a text message exchange on it, and that he had agreed that the Town could, to rectify this administrative error, take the full ten percent out of the second December payment. That's his evidence.

In contradiction, your evidence is that there was no mechanic's lien holdback and that the holdback that was taken was 15 percent of the contract price for deficiencies, right?

A. Uh hum.

Q. Okay, were you directly involved in any discussions concerning the holdback?

A. No.

Q. Were you directly involved in making any of the payments on this contract?

A. No.

Q. Were you directly involved in handling any of the money on this contract?



A. No.

Q. Were you directly involved in speaking with the then Mayor, Dean Ball, about this alleged oversight in the invoicing?

A. No.

Q. Okay, do you have any direct evidence that you can give this court about your direct involvement with the retention of the holdback?

A. No, I did not.

Q. The last thing I want to ask you about, Mr. Young, and unfortunately we find ourselves in a situation on this file where it appears that you have neglected to include a significant amount of correspondence in your materials. And Mr. Collins has given evidence on this, and his evidence is that there are several letters, they're all set out in his Affidavit, which talk about repair work, to corroborate the company's position which exactly follows that timeline you just agreed to, that there was no deficiency holdback,



there was no deficiencies identified a year prior. In fact, this was simply repair work under the warranty provisions that everybody knew about it and it was agreed. Can you explain to us ... I know your evidence that you have to give on behalf of the Town but when was the first time you personally heard that this was a deficiency holdback versus a mechanic's lien holdback? When was the first time you heard that?

A. I would have been aware in November of 2020.

Q. That there was a holdback?

A. Yes.

Q. But you just told us you had no direct involvement in those discussions ...

A. I had no direct involvement but through proceedings and conversations I was aware.



Q. Were those proceedings and conversations in the context of what we're doing here now?
A. No.
Q. Okay, when were you told it was a deficiency holdback?
A. It would have been in November of 2020.
Q. Who told you that?
A. I can't recall.
Q. Where did they tell you that?
A. It would have been in my office.
Q. Okay, so who was it that was in your office that told you that?
A. Maxine Hayden.
Q. Okay, so now you remember who it was, and Maxine Hayden told you, when did she tell you this, sorry?
A. November 2020.
Q. In November 2020 Maxine Hayden told you that there was a 15 percent deficiency holdback?
A. Uh hum.



Q. I'm going to give you an opportunity now to confirm that categorically, no comebacks, Maxine Hayden told you personally ...
A. Yes.
Q. ... in November 2020 it was a deficiency holdback.
A. Correct.
Q. Okay, and do you have any evidence other than your testimony here now that Maxine Hayden characterized this holdback as a, quote, unquote, "deficiency holdback"?
A. I would have had no knowledge as to why, I was only advised that she did.
Q. Okay, have you done the calculations on the holdback?
A. I have from Invoice No. 2.
Q. And is it your position that the holdback represents 15 percent of the contract price?
A. It's \$57,000 ...
Q. No, no, no, the question is, is it your calculation ...
A. Yes.



Q. ... that the holdback ...
A. My calculation is that ...
Q. ... equals 15 percent of the contract price?
A. Of the second invoice of \$271,000, the held back amount was \$57,000 ...
Q. Let me back you up because you're not answering the question I'm asking you, and it might be my problem.
MR. BURGESS, K.C.: If I can, I think he did answer, the 15 percent is based on ...
MR. O'KEEFE: He didn't answer it, and I don't need Mr. Burgess to answer it either. I'm going to rephrase the question.
MR. BURGESS, K.C.: It's based on the second invoice.
MR. O'KEEFE: If there's an objection I'd like to hear it because if not I'm going to rephrase the question.
THE COURT: I think the question is clear, did the 15 percent represent 15 percent of the contract.



MR. O'KEEFE: Yeah, the contract price, not the second invoice, the contract price.
THE COURT: And that's not what he said, he didn't say that.
MR. BURGESS, K.C.: I thought he followed up and said it was ... I don't want to give evidence but I thought I heard him say ...
THE COURT: Just let the cross-examination go on, I'm not clear myself.
MR. O'KEEFE: I'll rephrase the question. I asked was it, did the number, the math that you did, did the number represent 15 percent of the contract price, and your answer was it represented 15 percent of the second invoice. That wasn't the question I asked. Are you aware of what the contract price was, which would include invoice one and invoice two with no holdback.
MR. YOUNG: I am aware.
Q. That's the contract price.
A. Yes.



- Q. Mr. Collins has given evidence that's the contract price.
- A. Yes.
- Q. And I'm asking you, was the 15 percent holdback 15 percent of the contract price or was it 15 percent of something else?
- A. It would have been an invoice of something else.
- Q. I would put it to you that the holdback is almost exactly ten percent of the contract price, do you disagree with that, the contract price being the sum of invoices one and two?
- A. I would have to know, I would have to have it in front of me what the contract price was.
- Q. Okay.
- A. Was it approximate or was it exactly ten percent.
- Q. Do you have, so you have a copy of Mr. Collins' Affidavit?
- A. I do, yeah.



- Q. Okay, let me just bring you to paragraph 11. So Mr. Collins says that there was never a deficiency holdback and that it was, in fact, a ten percent mechanic's lien holdback. Paragraph 12 he tries to explain the calculations and what he says is that the Town was obligated to hold ten percent due on the contract, and he gives the math. The contract price of \$515,471.32, that's the total contract price, multiplied by ten percent, \$51,547.32 (*sic*), plus HST at 15 percent, which equals \$59,279.41, and he says that that amount was the amount that should have been deducted from the November invoice which represents the ten percent mechanic's lien holdback. That's his evidence. Do you have any calculations that you present to this court to refute that evidence?
- A. No, I do not.
- Q. I have no further questions for this witness, Justice.



THE COURT: Just let me finish my note and you can do any kind of redirect that you would like.

MR. BURGESS, K.C.: My lord, while you're making those notes, the scope of the redirect, do you want to clarify, anything that was raised on cross, I assume?

THE COURT: Usually you would deal with issues that he raised on cross, it's not a chance to sure up your evidence.

MR. BURGESS, K.C.: No, I just wanted to make sure.

THE COURT: So just ... I'll wait for the redirect but I have a couple of questions for you myself. Redirect, your lawyer now has an opportunity to allow you to clarify questions and answers that you gave to Mr. O'Keefe but it's not an opportunity for you to present new evidence, understand?

MR. BURGESS, K.C.: Yeah.

THE COURT: Okay.



MR. JASON YOUNG, RE-X'D BY MR. BURGESS, K.C.

MR. BURGESS, K.C.: Thank you, Justice, I've only got a couple of questions. Mr. Young, I just wanted to, so that we clarify, this is direct questions that were just asked of you by Mr. O'Keefe that I'm following up on. There was a fair bit of discussion about the knowledge and the, of what issues or what deficiencies existed in or about November of 2020 and what foresight you may have had or whatever, and while I think the question focussed on perhaps direct knowledge, are you aware from the Town's perspective, of any issues known to the Town in November of 2020 at all or are you saying that there was nothing known at that time and it was just an arbitrary holdback?

MR. O'KEEFE: I object, Justice, the witness can only speak to his direct knowledge, he can't speak ... I think my friend has phrased



the question, are you aware of any general knowledge, not in your direct knowledge, he can only speak to direct knowledge.

MR. BURGESS, K.C.: I can clarify, I don't ...

THE COURT: Are you aware of any issues.

MR. BURGESS, K.C.: That's it.

MR. YOUNG: Yes, we were aware of issues unfortunately with contracts such as this, that there are many fingers in the pie, and quite often it's not only the Town Manager and those in the office in small towns. Sometimes there's an elected official involved and unfortunately none of that was present, so no, in any of my documentation for the court there is no "document" knowledge of any deficiencies in November of 2020.

Q. What were you aware of, if anything, in November of 2020?

A. We were aware of that there were organics identified in some of the asphalt and that there was day-to-day testing completed by



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a third party, All Rock Consulting (*phonetic*), that identified ...

MR. O'KEEFE: I object, Justice, none of this is before the court.

THE COURT: I mean it's rather critical evidence that was neglected to be provided.

MR. BURGESS, K.C.: Right ... Justice, look, one of the issues in this case is how this has all unfolded, so we came here initially on a contempt order and the big issue on the contempt order was the mechanic's lien holdback and so on. So then we were given a week, ten days, whatever you want, and we weren't given ... in a trial, whether it be a summary trial or something else there would be a disclosure of evidence and so ...

THE COURT: Counsel, your witness on the stand has said he had no involvement with the contract, he had no involvement with the contract administration, he had no involvement with the payment, unless I misunderstood what he said ... he had



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nothing to do with this contract. Now, I sympathize with him, he's the one here giving evidence, but that is his evidence, and now we're asking, what was wrong with the asphalt. How can he possibly know that given what he's already told me, that he had no involvement with this contract.

MR. BURGESS, K.C.: Well, if I could ask him a question on that, Justice?

THE COURT: Yes, go ahead.

MR. BURGESS, K.C.: Mr. Young, can you explain, and as the Justice just pointed out, in your response to Mr. O'Keefe you said you had no involvement, so in your capacity and in your employment in October and November of 2020, while you directly may have not drafted documentation, what, if anything, was your role in relation to the paving contract with E.C. Collins?

MR. YOUNG: It would only have been through committee meetings that I would have been involved in where it would have been



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second-hand knowledge that is shared, you know, within the room of Council, but no, there was no direct involvement from my part. We had a Superintendent who, it was well documented, who would have been, I guess, the man on the ground, we would say, in terms of overseeing this project.

THE COURT: Right, so if he's now going to, on cross-examination, talk about things that someone else told him for the truth of its content, that's problematic, don't you think?

MR. BURGESS, K.C.: It is, although I think in his role as an employee, and now Town Manager, if he was involved in committee meetings and things of that nature he can testify as to what the Town's understanding was. That doesn't necessarily go to the truth of it but it goes to the understanding of what the Town knew at the time.

THE COURT: Except that's useful to you if it's being put to the purpose of ... but the broader issue here is, he filed an Affidavit,



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it's pretty clear. He says, that the 15 percent was, he was explicit on it, was on the second invoice, not the total invoice. He has no real knowledge whether that calculation is ten percent of the total contract price, and that he says that that was held in anticipation of future problems under the warranty, but there's no evidence, no documentation, nothing to support that. He's been clear on that, he's not trying to mislead me.

MR. BURGESS, K.C.: Right.

THE COURT: So the cross has to be in relation to that.

MR. BURGESS, K.C.: Okay.

THE COURT: And I point out, counsel, the contract also has provisions for deficiencies.

MR. BURGESS, K.C.: Yes.

THE COURT: There's not a shred of evidence that anyone ever complied with that contract.



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MR. BURGESS, K.C.: Yes, no.

THE COURT: I mean they can say anything now but the contract has a provision and a provision of how you use set-off funds, so I'll be interested in your argument as to how that all turns. I mean ...

MR. BURGESS, K.C.: Right.

THE COURT: So what is the question you want to ask him?

MR. BURGESS, K.C.: Well, I'll follow up with a different question, Justice.

THE COURT: Well, tell me what the question is that you want to ask him.

MR. BURGESS, K.C.: The question deals with, when you responded to my learned friend with respect to the calculations of Mr. Collins, when you answered that you understand his calculation do you agree with his calculation?

MR. YOUNG: I agree with the calculation based upon what's presented in the Affidavit, yes.



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THE COURT: Okay, so it's an important point, you ... he says it's \$59,279.41, the ten percent.

MR. YOUNG: Yes.

THE COURT: There some other amount, but for my purposes, if they're right, I'm not deciding that, but if they're right that it's actually a ten percent holdback on the contract amount, do you agree that it's \$59,279 or ...

MR. YOUNG: If there was a mechanic's lien holdback, yes, that would be the amount.

THE COURT: Okay.

MR. BURGESS, K.C.: And that's fine, Justice, (inaudible). I don't have anything else, Justice.

MR. JASON YOUNG, X'D PER CURIAM

THE COURT: Thank you very much. I have a couple of questions. So I'm ... there's the Town Manager, I just want to talk about the



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Town, and during the operative times of this contract before you became Town Manager, so there's the Town Manager, who else was there that dealt with contracts? Like who dealt with your municipal contracts?

MR. YOUNG: It would have been pretty much the Town Manager.

Q. Okay, the Town Manager.

A. This contract was quite unique because ...

Q. Or your consultant.

A. Our consultant would have been involved because there was actually provincial and federal money involved in the entire scope of, we had Pine Tree Drive which was from disaster mitigation, as well as the Small Communities Fund, which was High Street.

Q. Right.

A. The Town of Deer Lake then used Gas Tax as well as when the bid came in from Collins that was so inviting, the Town actually borrowed money to pretty much



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double the amount of roads that we wanted completed.

Q. Okay, now you're very...

A. But yes, there was a contract, there was a consultant involved.

Q. And you had a consultant.

A. We hired a consultant.

Q. So you had an engineer hired to assist in the contract?

A. Yes.

Q. Okay, you're a Communications Manager, now I acknowledge that it's a small town and everyone did a lot of things ...

A. Yeah.

Q. ... there was a Town Manager, there was no municipal works person on site? There was no Superintendent or ...

A. We have a Superintendent who would have been involved, yes.

Q. Right, right, and did you at any time during all of these discussions ever pick up the



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contract and see what the contract said about any of these things?

A. No, I would have only started with the Town of Deer Lake in October of 2020.

Q. Right, so you have no idea what ...

A. This would have been within the first, we'll say 60 days of my employment.

Q. So you were ...

A. Where I would have been aware but, no, not reading line-for-line the details involved in this contract.

Q. So you have no evidence to give me whether, or knowledge whether there was a contractual provision to hold back ten percent, whether there was a holdback at ten percent, whether the contract allowed a 15 percent deficiency holdback, you don't know anything about these ...

A. I wouldn't have been privy to any of that information.

Q. Okay, so you are giving me an anecdotal story of you, the way you think this looks



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but you didn't actually, when you were doing all this, look at the contract and say, well, does the contract provide for deficiency holdback and ...

A. During the time of the contract, no, I did not.

Q. Okay, and when you're talking about termination of the contract, which was the 24 hour notice, you didn't make that decision.

A. No.

Q. No, you communicated the decision.

A. Yes.

Q. So is it fair to say that most of your knowledge of this, now you're the Town Manager, the buck stops with you now, and I'm not criticizing you in any way ...

A. No, no, no.

Q. ... but during the operative times here, you're the communications guy, you would have passed on information, you would ...

A. I would have been told and instructed on what to ...



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Q. Right, but you didn't make the decision to terminate.

A. No.

Q. You didn't make the decision on how much was held back.

A. No.

Q. You didn't make the decision of what you paid Collins.

A. No.

Q. You didn't make the decision that the 15 percent was a deficiency holdback.

A. No.

Q. Okay, you didn't make the decision whether or not to hold back ten percent contemplated by the contract, the mechanic's liens.

A. No.

Q. Okay, anything arising out of that anyone?

MR. BURGESS, K.C.: No, Justice.

THE COURT: Thank you. Thank you very much.

MR. YOUNG: Thank you.



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THE COURT: You're welcome to stay or go, it's up to you.
MR. YOUNG: No, I'll stay.
MR. O'KEEFE: Justice, can we take ten minutes before (inaudible).
THE COURT: We'll take ten minutes, thank you.

(break)

THE COURT: Whenever you're ready, Mr. Collins?
MR. O'KEEFE: I'd ask that Mr. Collins be sworn or affirmed?

MR. JOSH COLLINS, SWORN, XX'D BY MR. BURGESS, K.C.

THE CLERK: State your name for the record?
MR. COLLINS: Josh Collins.
MR. BURGESS, K.C.: Mr. Collins, good morning, my name is Paul Burgess and,



unlike Mr. Young I take it, and I'm just guessing, you've been through this process of being cross-examined before, have you?
MR. COLLINS: I haven't, no.

Q. Oh, I'm sorry, my mistake, as you heard though, I'll be asking you questions and I would ask that you ask (sic) them as directly as possible.
A. Yeah.
Q. You submitted a few Affidavits, Mr. Collins, and I just want to, I don't have many questions but I just want to clarify some things. If I understand your evidence, it's ECC, or it's Collins Contracting's position that this contract for the paving was completed in November of 2020, correct?
A. That's correct, yes.
Q. Okay, and you take issue in your Affidavit, Mr. Collins, about it being one contract or two contracts, but it really doesn't matter because if the same terms apply, does it really matter, one or two contracts? I'm



having trouble seeing the distinction, can you explain why you take issue with that?
A. We bid on two, on one contract so I don't know why we suggest there's two, but there's only one singular contract.
Q. Right, the same terms, same conditions, so really, I don't think anything turns on it, would you agree with me?
A. That would be a fair statement, yes.
Q. Okay, on this contract, and the work, and when I say the "contract", the work, the paving work for Deer Lake is what I'm talking about. Your company never filed a claim for a lien on this, did they?
A. File a claim for a lien?
Q. Yes, a mechanic's lien.
A. We don't, you don't file a claim for a mechanic's lien.
Q. Why?
A. That's just not how the process works, you, typically you fill out an invoice, you send it



in, and then the owner deducts ten percent holdback.
Q. Okay, and is it, I'm trying to understand, when you say you just don't file the claim for the lien, how does that work?
A. There's a process, normally there's a form you fill out, a Municipal Affairs form, and as you fill out that form it shows the deductions and at the bottom it tells you how much you're going to get paid for the claim.
Q. Okay, has your company ever filed a claim for a mechanic's lien?
A. We file the form for Municipal Affairs when it's appropriate for the proper contract where you do the calculation and it shows that there's ten percent held back and you get paid the amount at the bottom.
Q. Okay, and in that scenario then, how do you ever get your ten percent? So what you're saying is, if I understand you correctly, and you help me so that I understand you correctly, that there's a holdback and



there's forms you fill out, but if the owner, in this case the Town of Deer Lake, says we're not paying you, how do you get your money?

A. I don't understand the question.

Q. Okay, you said to me that you don't file a claim for a lien in a case like this, that's your understanding, and that the process that I'm trying to understand is, okay, the town of Deer Lake says ... let's just say, whether it's the Town of Deer Lake or anyone, the owner who you did the contract for says we're not paying you, okay, are you with me so far?

A. Yeah.

Q. How do you ever get the money?

A. Well, if I send out a full invoice and they don't take the ten percent holdback, they pay the full invoice and I get the money that way. If I make out an invoice and then we acknowledge that if you want to take, there's a ten percent holdback in our



contract, then you deduct ten percent. At the end ...

THE COURT: No, he's asking a very different question.

MR. COLLINS: Yeah, then I'm not following it.

THE COURT: He's asking a question, if the Town says "I'm not paying you", as they have in this case ...

MR. COLLINS: Right.

THE COURT: ... and you're in a CCAA proceeding, what do you do? He's suggesting you'd file a lien, but you say you don't file a lien, what would you do?

MR. COLLINS: Well I, if they didn't want to pay and they owed me the money, I'd sue them ... I'm not ...

MR. O'KEEFE: Justice, can I just ... this question, my apologies, I apologize to my friend, it's an utterly confusing question because by it's very nature a mechanic's lien holdback is not released until 30 days, which means they couldn't file a lien



because the period expired. You wouldn't file a lien on your own project so I ...

THE COURT: The broader issue is the mechanic's lien is held for the benefit of subcontractors, so they were the general. They have a direct claim against the owner and against the property and anything else they can seize, so typically, I'm not saying the general, and I'm not giving evidence, but a general contractor typically doesn't file a lien except in very large projects because they don't need to. It's the ... the ten percent is not held for them, it's held for the subcontractors, if he had any, and then it's released to the contractor only if subcontractors haven't filed a lien. It's not, it's not held by the owner if the contractor files a lien because he's entitled to the money if there's no subcontractor liens, do you understand?

MR. BURGESS, K.C.: I do.



THE COURT: So I think, I think Mr. O'Keefe is probably right, the question for the contractor would be confusing. I think you, I think you need to clarify ... why don't you file liens, he says we don't file liens.

MR. BURGESS, K.C.: And that's fine.

THE COURT: Right.

MR. BURGESS, K.C.: And so in this case do you have any subcontractors?

MR. COLLINS: No, we did not.

Q. Would you agree that notwithstanding the contract provisions, you've looked at, and so explain to the court, if you could, what your role was so ... because I had misunderstood that you were probably, the court was more familiar with you through the CCAA proceedings, and it may be, but what is your role with the company as it was in relation to this paving contract?

A. I was bidding on all the projects so I was the main estimator. I bid on all projects, I done all the hiring of all the employees, I



done, I looked after payroll, and the normal course of business.

Q. And who would do the administration of the contract on the paving contract with Deer Lake?

A. On-site foremen, are you talking about project managers?

Q. Well, you explain to me who was, who was dealing with, like the payments and the invoices, who was dealing with that?

A. Right, so we had, we set up shop in Deer Lake when we bought the office in 2019, 2020, so we had a new girl start actually that year in 2020, and she, this was her first job that she invoiced out.

Q. Okay, and so was she the one who ... we're going to talk about some of the invoices, was she the one that dealt with the invoices on this project?

A. Yes, she was.



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Q. In this, in this job you would acknowledge that the first invoice was for about \$221,000 and that was paid in full, correct?

A. That's correct, yeah.

Q. And in the second invoice the amount was submitted of, let me just get it, and I can show it to you if you want, but the second invoice was \$371,044.32, I don't think there's anything controversial about that, correct?

A. No, there's not, no.

Q. And so what we're trying to do is we're trying to figure out from your perspective, in your Affidavit, and you've heard the Town say, they say the holdback was 15 percent of the second invoice, okay? You're aware of that.

A. Yes, I heard them say that, yeah.

Q. And do you, your position is that's not the case, is that correct?

A. That's not correct, no.



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Q. And explain to me, take me through, so paragraph 12 of your Affidavit, and I don't know if ...

MR. O'KEEFE: Yeah, I have a clean copy here I can present to the witness.

MR. BURGESS, K.C.: Okay.

MR. O'KEEFE: I think my, my printed copy (inaudible).

MR. BURGESS, K.C.: Okay, so if I could just, if you could take me through that, it's ... you say it's clear from the contract there was a ten percent amount due on the contract as a holdback and that your calculation is, and you go with \$515,471.32, and you take your ten percent, plus HST, and you come to \$59,279.41, but that's not what was withheld, was it?

MR. COLLINS: No, that's not what was withheld, no.

MR. BURGESS, K.C.: And do you acknowledge that 15 percent of the second invoice is exactly \$55,656?



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MR. O'KEEFE: I object to the question, Justice, Mr. Collins hasn't done the math, he might want to ask the witness if he's actually done the calculations before he asks him to confirm something.

MR. BURGESS, K.C.: Justice, I wouldn't have thought that's a contentious ...

THE COURT: It's implicit, are you ... do you think that the \$55,000 is 15 percent of the second invoice?

MR. COLLINS: I can do the calculation and let you know, I don't know.

THE COURT: It's a matter of fact, counsel, isn't it?

MR. BURGESS, K.C.: I thought so, yeah, so it's not approximately because in one of your Affidavits you said it was, your calculation got you approximately ten percent but that calculation of the 15 percent on the second invoice is exact, isn't it, would you agree with that?



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MR. O'KEEFE: I object, I just noted the objection, it's the same question.

MR. BURGESS, K.C.: I'll save it for argument, Justice.

THE COURT: You can lead me through the math.

MR. BURGESS, K.C.: Pardon?

THE COURT: You can lead me through the math.

MR. BURGESS, K.C.: So in this case, as I think you've indicated in your affidavit evidence, there was no payment certifier in this case, was there?

MR. COLLINS: There was no form that was filled out for payment, we just generated invoices for the work completed, which were based on load slips for the asphalt that were verified by the Town.

Q. Right.

A. Right.



Q. Have you, have you worked on jobs before where there's a payment certifier? Do you know what that ...

A. Yeah, it's somebody who has to sign off on your invoice.

Q. Right.

A. I know what you're talking about, yeah, yes, I am, yeah.

Q. And oftentimes in your experience would it be that it was a third party, like a consultant hired as a payment certifier, has that been your experience?

A. Yeah, in cases where there's engineers involved sometimes, yeah.

Q. Right, and that wasn't the case though, even though the contract ... would you agree the contract provided for a payment certifier?

A. I would have to actually read the literature to see that ... it's possible.

Q. Okay, have you read the contract?



A. I've read quite a bit of it, yeah, I don't recall that part.

Q. Okay, so what I'm trying to understand, the contract, your evidence is you complete the contract in November of 2020, there's a holdback of \$55,000 and change, \$55,656, but the Town doesn't receive any demand from you for any payment until February of 2023, can you explain why that gap of 16 months or so?

A. Well, the first few months, like I said, this was done through our office in Deer Lake, not in Placentia, that's how it started. When May came of 2021 there was discussions of warranty in an email from Jason, and then following that email from Jason we had a request from Mike Gorman to, for, to release the holdback and so forth, right.

THE COURT: Say that again?

MR. COLLINS: That we had an email from Mike Gorman, which I do believe I have here, that states that we've got to apply for



a statutory dec (*phonetic*), substantial completion, among other items.

MR. BURGESS, K.C.: I'm sorry, the date of that was when?

MR. COLLINS: That would have been May 20th.

Q. May of '20?

A. May 20th, 2021.

Q. Right, and ...

A. Which was eight days after I received the email from Jason Young regarding the warranty work.

Q. Right, and then after that what happens is you go back on site to do more work, correct?

A. That's correct.

Q. Right.

A. Warranty work, yeah.

Q. And in the documentation, and I can show you, it's attached to Tab 9 of Mr. Young's Affidavit, and I can show you if you wish, it's the Contract Payment Form, Form 15.



A. That's correct.
Q. And can you tell me, and I'll show you this, can you tell me whose signature is at the bottom of that document?
A. That would be Frank Collins.
Q. Frank Collins, so Justice, just for the record and for your own purpose, it's the document that would be found attached to Mr. Young's Affidavit at Tab 9, so ...
MR. O'KEEFE: I apologize, there is no Tab 9, the tabs are lettered, can you tell us what letter it is that ...
THE COURT: No, I have Tab 9, I have Tab 9 of Mr. Young's Affidavit.
MR. O'KEEFE: When I look at Mr. Young's Affidavit, it looks like this, Exhibit F, Exhibit G, I suppose I could count and figure out what nine is.
THE COURT: Well, I'm looking at Tab 9 and there it is.
MR. BURGESS, K.C.: And Mr. O'Keefe, just so you know, there was, there may have ... I



don't think there was ever anything emailed but there was three copies of this with reference ... the tabs, the only difference, at one point in a draft the tabs were lettered but then ultimately what was filed and what was provided in hard copy, which would have a blue cover, Mr. O'Keefe, so that would be at Tab 9.

MR. O'KEEFE: I have to ask a question here because the hard copy that I have is this. Okay, I don't have a hard copy, I have an emailed copy which was printed off by my office and I have a concern I need to address, and I'm sorry, I really apologize for interrupting the examination but I need to make sure I have the right Affidavit. So the Affidavit of Mr. Young that I have has 26 paragraphs.

THE COURT: Yeah.

MR. O'KEEFE: And the content talks about exhibit numbers, 11, 12, 13, 14.



MR. BURGESS, K.C.: I can explain, I think, Justice, and for Mr. O'Keefe's purposes ...
MR. O'KEEFE: I'm okay to count, all I want to make sure is that I have the right Affidavit, that you're not, that there's not another Affidavit filed with this court that I do not have.
MR. BURGESS, K.C.: No.
MR. O'KEEFE: Okay.
MR. BURGESS, K.C.: What it is, if ...
THE COURT: It should be Exhibit K, is your exhibit ...
MR. O'KEEFE: Yeah, I can figure that part out, Justice, I just don't want to be here under the pretense that the Affidavit I'm speaking about today is not the Affidavit that was filed with the court.
THE COURT: Right.
MR. O'KEEFE: But if it's all the same Affidavit we can proceed, I really apologize for the interruption.
THE COURT: Yeah, no problem.



MR. BURGESS, K.C.: No, Justice, I think what happened was, I circulated by email a copy to the Monitor's legal counsel, and the Monitor, and again, to Mr. O'Keefe, and indicated in my email that those were lettered and the originals that have been filed and the hard copy provided to Mr. O'Keefe were numbered so that's probably why ...
MR. O'KEEFE: That's fine if it's the same Affidavit, thank you.
MR. BURGESS, K.C.: Yeah, so again, you're telling me, Mr. Collins, that document, and it's three pages, I don't know if you want to look at it.
MR. COLLINS: No, I know the document.
Q. Right, and that's prepared by Mr. Frank Collins, what is his role in the company?
A. He's one of the owners.
Q. He's what?
A. One of the owners.
Q. Right, and what is his role in this contract?



- A. He filled out that paperwork with regards to the Form 15.
- Q. Right, and do you have, did you have any involvement with the preparation of that document?
- A. Yes, I did.
- Q. You guess you did or you did?
- A. Yes, I did.
- Q. Oh, yes, sorry, and so you stand behind whatever is in the accuracy of these numbers, I take it?
- A. I do, yeah.
- Q. So can you explain to me, when it's filled out, I see at the bottom, it says, the net amount due, and this is February 27th of 2023, my understanding is you forwarded these documents to the Town Manager by email, is that correct?
- A. That is correct, yeah.
- Q. And at the bottom of the, it says, net amount due, it says, \$59,279.20, do you



see that or do you want me to show you, I'll show you that?

- A. Yes, yeah, that's correct, yeah.
- Q. And if you look at this, when you look at the, the details, on the right-hand side when you come down and there's, under number four there's "less holdback, work, and material", it says, zero.
- A. Right, because this is the holdback so this would be typically claim number three, that is the holdback amount, that's why there is no holdback. It got to be zero because I'm asking for the money back, right. There can't be any amount.
- Q. So why aren't you saying there that the holdback is fifteen hundred ...
- A. Because this is the holdback, it's just zero now, that's how the form is filled.
- Q. And if you ... no, that's fine, would you acknowledge that while there was a contract, and you've seen the contract, really no one, I don't want to say, "paid



attention" to the contract, but it wasn't followed. What happened is you would come to do the work, you would submit an invoice, it would get paid, and that was it. Is that what happened?

- A. We would take all the slips from the tonnage for the job, that were all signed off by the Town's representative, I would calculate those tonnages for each street, and then I would, we submitted them, well, I wasn't there, you know, I didn't actually submit them. Brad Thomas would collect them, which was the Superintendent. He would give them to the lady in the Deer Lake office, she would calculate them and she would generate an invoice, which she did, and she submitted it to the Town for payment.
- Q. Right, and in November of 2020 isn't it true that you had discussions with Mr. Gorman and the Town with respect to the mixes of the asphalt, and concerns?



MR. O'KEEFE: I object, Justice, what does the mix of the asphalt, where does that appear anywhere in the materials and what does it have to do with this file? There is absolutely nothing in the file talking about the asphalt mix and where Mr. Burgess is going is he is going to try to allege there was a problem with the mix and that there's something off about the contract. So I would just like to know, what's the foundation for that question because it's not mentioned anywhere in Mr. Collins' Affidavit.

THE COURT: I have no evidence on it whatsoever, how is this being done on ...

MR. BURGESS, K.C.: Well, there was a deficiency, the Town alleges that there was a deficiency holdback.

THE COURT: Right, but your client acknowledged he didn't calculate it, he didn't know if it was a contractual provision, he had nothing to do with the contract. He's



the one that presented the evidence, he did not mention this asphalt deficiency problem in his Affidavit, how is it a proper thing to raise now in cross-examination?

MR. BURGESS, K.C.: Well, the ...

THE COURT: Your client didn't even raise it.

MR. BURGESS, K.C.: No, but Mr. Collins has said there was some issues that he wasn't aware of until ...

THE COURT: Point out the affidavit provision that you think this relates to.

MR. BURGESS, K.C.: Well he says that he was contacted in 2021 that there was issues and I'm asking him was he contacted ...

THE COURT: Just point that out to me please, where he says that, and ask him to ... tell him, you can ask questions around that. Mr. Collins, in paragraph 26 of your Affidavit it talks about issues being raised in May of 2021 with respect to the current road conditions and you submitted in your



discussions with respect to remediation and deficiencies, and that's my word, maybe not yours, but issues with the road in May of 2021. Was there any issues raised with you prior to May of 2021 with respect to the quality of the work?

MR. COLLINS: Not that I recall, no.

Q. And so you don't recall anything in November of 2020 being raised with you?

A. I do not, no.

Q. Okay, I don't have any other further questions, Justice.

MR. JOSH COLLINS, X'D PER CURIAM

THE COURT: Okay, so just so I understand your evidence of why this is still outstanding in 2023, so I just want to go through the scenario. In 2020 everyone agrees, including the Town, that you completed the work, substantially completed the work. I don't think he used the word, the term



"substantial" but he completed the work. So in the ordinary course of events you would have applied for a substantial completion certificate.

MR. COLLINS: In order to get the ...

Q. And the holdback would have been released at the end of the 30 days as long as there's no liens filed against the project. That didn't happen, so I think your testimony was, it slipped through the cracks during the fall, I'm putting words in your mouth but something to that effect. You didn't get around to it in December, January, February, March, and then in May they raised warranty issues and you undertook the process to get those resolved. Then you got a notice, if you want substantial completion you've got to fill out the form, and then you did eventually fill out the forms. But it's odd, is it not, that a contractor wouldn't be aware of when he's



entitled to his holdback, why are you giving \$59,000 to the Town?

A. I think the issue is the way the invoices were done. We done them through our office in Deer Lake without using the form.

Q. The form, yeah.

A. So it was missed in that sense because they were just invoices that ...

Q. Right, it's not at all a usual progress report.

A. Right, because the invoice was generated through our Deer Lake office and it was the way it was recorded by the lady up there, not our normal office ...

Q. Okay, so it's all through 2021, you knew then you were facing a repair bill, that's on your account, right?

MR. O'KEEFE: Justice, I have to interject, and I apologize ...

THE COURT: Yeah.

MR. O'KEEFE: ... but you're saying that they're facing a repair bill ...



THE COURT: Repair work, I'm sorry, not a repair bill.

MR. O'KEEFE: Okay.

THE COURT: You had to do the work on your account, right?

MR. O'KEEFE: I apologize, Justice, I just wanted to clarify because that is an issue.

THE COURT: But you were aware of that and there was discussions, negotiations back and forth how much you had to re-pave and so on, and we don't need to go through the evidence about that, but you still, so did you leave the holdback pending resolution of the warranty work, or why was that not pursued?

MR. COLLINS: That slipped through the cracks.

Q. Yeah.

A. Because there was a lot going on. ECC was entered into FRG (*phonetic*) at this time as well with the bank, so in that spring, so and just to be ... you know, we invested in



the Town of Deer Lake by buying a business, a building, and setting up, and we spent money out there so the last thing we wanted was a fall-out with the Town, so to go back and to fix six ton or 150 ton, or whatever, of asphalt, that was, that was our goal. It was here trying to get away with anything, it was ... we wanted to go back and fix it. The invoicing is the reason why it slipped through the cracks with the holdback so we made an attempt to, to go up and to re-pave the work.

But the way this process works as well, you know, when you're doing a paving contract, when you produce the aggregate, that's all monitored by a third party, all the results are taken and submitted. When you do a mix design you get a third party to do the design for the asphalt, submit it to the Town, they approve it. When you produce asphalt at the plant a third party takes a sample immediately from the plant and then



writes it down to make sure it follows the spec that you guys approved, and when it shows up to the road it comes out of the back of the truck, before it ever gets into the spreader, a sample is taken again, it's broken down, and it's shown that it meets, and then the temperature is taken, everything is checked. Like at the end of the day, when you're talking warranty with an asphalt job, it's very hard for anyone else to point the finger at the contractor because all these things are a third party hired by the Town that monitors, so if there's an issue anywhere along the way it should be raised and it should be stopped.

Q. Okay, so that was not my question ...

A. Sorry.

Q. ... my question was, why did it take so long, it slipped between the cracks, it was invoiced out of Deer Lake, they just sent invoices instead of the contract form which didn't specifically identify the holdback.



A. Right.

Q. It just was an invoice.

A. Exactly.

Q. I have the evidence about the, when it was deducted and how the Town says that the 15 percent of the second invoice was deficiency. It just so happens it's nearly ten percent of the contract, so it was eventually, they held back something, depending how you characterize it, and then the issue of the warranty came up, it just slipped between the cracks, it wasn't high on your priority list, and that's why you didn't pursue it, that's your evidence, correct?

A. Correct.

Q. Okay, that's it.

MR. JOSH COLLINS, RE-X'D BY MR. O'KEEFE

MR. O'KEEFE: I only have one redirect question, Justice, if I can.



THE COURT: Yeah.

MR. O'KEEFE: And it's on the theme that you're exploring, and Mr. Collins, I'd ask you to just take your time and answer this question because I think it's important. The question that the Justice asked was, you know, this holdback was due, it's due in November 2020, and then as I understand the evidence, the construction season sort of stops at the end of November. You get into May, there's a request to do repair work, you say you're committed to the Town, you wanted to have a good relationship. You went back to do the repair work, and we know all the evidence about how that was done, but just explain to the court, just take your time and explain, like what was happening with ECC as a company between November of 2021 when you were taken off the repair work, and February 2023, like why is it that you waited so long to make that request for the money?



Like your position is it was there, it was owed, what would have distracted you from making that request?

MR. COLLINS: It would have been the financial state of the company, and all the issues we were facing and everything was going on. It was ultimately picked up, you know, by the Monitor in February and that's when we made our claim for the money, right, but up to that point it was just, you know, everybody knows what happened with the business so ...

Q. Well, I know that the court's record is sort of, has articulated that but I'm not sure that, in fairness to Mr. Burgess and the Town, that's why I asked the question, because if I understand, you mentioned the word "FRG", that's ... you said you went into FRG, that's the special loans unit with the bank, correct?

A. Right, right, so met into FRG, the company was in turmoil at this point so the \$57,000



was not, you know, it slipped through the cracks, there was many, many issues during that whole time.

Q. Thank you for clarifying that.

MR. BURGESS, K.C.: Nothing arising, Justice.

THE COURT: Okay, sir, thank you. Okay, counsel, are you ready to go?

MR. O'KEEFE: I'm ready to move directly into argument, Justice.

THE COURT: Okay.

SUBMISSIONS BY MR. O'KEEFE

MR. O'KEEFE: Now, we have filed, we went through at the beginning the materials that have been filed and we have, we're going to treat those materials as read, there's cases before the court to support the various issues of law that we're going to talk about. I'm going to try to be brief but there's some issues that I'm going to pause on and spend a bit more time than others because



they're crucially important to the issues before us.

The first thing I'll do, Justice, is I'll just address the, I'll address the sort of framework for what we have before us ... the allegations on both sides, and then I'm going to weave that into what we have heard in terms of evidence.

The framework of the issue, Justice, is that, there's a contract in place between the Town and ECC to complete paving work, and that's a written, signed, binding contract. The contract clearly contemplates a mechanic's lien holdback. Nowhere in the contract does it talk about a deficiency holdback, it does talk about deficiencies, but it doesn't talk about a deficiency holdback.

There is absolutely no evidence, not one shred of evidence that there was a discussion between ECC and the Town about a deficiency holdback. In fact, when



we started this process in February of 2023 and the claim against the Town was characterized both in the emails and in the claims order as being a mechanic's lien holdback, no one from the Town put their hand up and said, stop, this is actually a deficiency holdback. In fact, that was never alleged until the 28th of July when the Town were forced to appear before this court on an Application for Contempt.

The deficiency holdback narrative is completely unbelievable. There is no evidence there was a deficiency holdback. There is no evidence there were deficiencies identified. There is no evidence there was a discussion about deficiencies. The only evidence we have is that there was a contract that called for a mechanic's lien holdback, there were two invoices issued, the company has admitted there were administrative oversights in withdrawing the appropriate ten percent



from those invoices, and Mr. Collins has provided evidence to this court as to exactly how that was resolved as between him and the owner.

And what Mr. Collins said was that when it was identified in early October he received a call from Mr. Ball, who was the then Mayor, and Ball told him you missed ... you missed, we missed, we all missed the ten percent and we need to deal with it, and Mr. Collins said, fine, take the ten percent out of the final draw for the whole contract. And on that point I direct the court to the evidence, the evidence of Mr. Collins, I have his Affidavit, the evidence of Mr. Collins included at Tab J of his Affidavit.

And at Tab J there's a number of text messages, and before I get into these, everybody in this courtroom will appreciate that ...

THE COURT: Counsel, we'll hear from the other side but I'm satisfied that it's a



mechanic's lien holdback based on the evidence.

MR. O'KEEFE: Okay, I'll move on.

THE COURT: I'll hear argument and if he raises points that cause me to waiver on that ...

MR. O'KEEFE: Well, I'll just address it in rebuttal.

THE COURT: I don't want you to have to ... I mean based on what I see the contract calls for a ten percent holdback, the amount, there's evidence ... there's no evidence from this witness at all whether there was a ten percent mechanic's lien holdback, he doesn't know. He was told it was a deficiency holdback. There's no provision in the contract for a deficiency holdback. There is a provision in the contract dealing with how work can be completed by other contractors. There's no evidence that the Town complied with that in any fashion. They terminated the contract on a 24 hour



notice, not called for in the contract. The contract calls for five days. The witness on the stand conceded that that breach, if it was a breach, was rectified when the contractor returned to site.

So I'm more interested in, so what ... let's assume that is all the case, that it is a ten percent holdback. As we all know, the ten percent holdback is held for mechanic's lien claims. If there are no mechanic's lien claims the substantial performance is certified. The owner must release it to the owner (*sic*), or to the contractor. But there were no mechanic's lien claims, if there were deficiencies in the work they're entitled to set-off against the holdback, and if that, if that set-off against the holdback occurred prior to the initial order then the *Town of Montreal* has made it clear that that is not even a subject to the CCAA proceeding because it was a debt before, and set-off before the order.



So the real issue to me is, the Town seems to have terminated the contract, or let me put it this way, improperly had someone complete the warranty work without complying with the termination provisions in the contract ... is that something I can take into account? In other words, is the real issue here ... yes, there were deficiencies, everyone agrees there were deficiencies. The work for the deficiencies far exceeded the holdback, at least that seems to be the evidence in the documentation. The Town ... Collins didn't pursue it, probably because they knew that if they completed the repair work it would far exceed the holdback, so isn't that the real issue? Did the Town properly set-off against the mechanic's lien? They're entitled to if it arose prior to the initial order, and unless you can make an argument that, no, they can't set-off because they didn't properly terminate the contract, therefore



the provision in the contract that they can hire someone else to do the work of the contract, which includes the warranty, was improperly exercised and therefore they couldn't have charged it against it, so therefore they have no right of set-off.

And then the contract specifically provides for right of set-off upon termination or completion of the work by someone else. They didn't comply with any of that, but do they have a common law right of set-off in this circumstance, so fundamentally, 62,000 feet, there was a holdback. Let's say it was to the mechanic's lien holdback called for under the contract, what else could it be? There was no other provision for a deficiency holdback, except in very limited circumstances, and it just so happens to be ten percent, or thereabouts, of the contract, so it's a mechanic's lien holdback.

If there are no mechanic's liens and there is a proper claim arising under the



contract for deficiency, under the warranty or otherwise, they're entitled to set-off against it. They didn't seem to do that under the terms of the contract because they didn't terminate, they gave a 24 hour notice which is not called for under the contract. The contractor complied with that direction and they were back on site, the Town concedes all that.

Therefore the argument might go that there is no right of set-off because they didn't, they didn't crystallize their set-off, but do they have a common law right of set-off? All of these expenses were incurred prior to the order. The holdback was owed prior to the order. It's a classic pre-pre issue in accordance with the *Town of Montreal*, isn't it?

MR. O'KEEFE: Can I respond to that?

THE COURT: Yeah, I think that is the issue to me. Whether they acted in bad faith and everything else, I think it could go to costs



and so on, and maybe it goes to the validity of their claim, and if they didn't pre pre-set-off properly then it's open and shut. They didn't comply with the claims proceeding and that's the end of the matter ... too bad, they should have made all these arguments before, but if they did, they had no claim to make because it's not subject to the CCAA process, so I'd like you to deal with, I'm trying to think of the practicalities, there's a lot of clouding issues here but the (inaudible) to work. I expect the deficiencies far exceeded the \$50,000, and the Town didn't properly, it appears, comply with the contract to do that ... but, you know, how is your client in the right here?

MR. O'KEEFE: I'd like to address your questions if I can?

THE COURT: Yes, go for it.

MR. O'KEEFE: And before I do so, I've listened to everything you've just said ...

THE COURT: Yeah.



MR. O'KEEFE: ... none of which is unexpected, but I'm going to ask the court to just hear our position with an open mind.

THE COURT: I will.

MR. O'KEEFE: And I will walk you through each step to address each of the questions.

THE COURT: Okay.

MR. O'KEEFE: Question No. 1, I want to clarify the language, you've said several times, Justice, that we're dealing with "deficiencies", there is a difference between a deficiency ...

THE COURT: And a warranty.

MR. O'KEEFE: ... and a warranty, and a repair. A deficiency, and I give this example to people when I explain this case, okay, if I have a contract that calls for me to pave ten roads and I don't complete all ten roads my contract work was deficient, I'm deficient by, let's say two roads. There's a deficiency in my work, it hasn't been completed. Maybe I didn't do the gutters,



maybe I didn't do tie-ins, there's a deficiency in the work that needs to be rectified.

The contract was complete, there's a warranty provision that requires our client to go back to do repairs. That warranty is supported by a bond that our client obtained and paid for to ensure that the Town would never be out-of-pocket for those repairs. That's the Town's first contractual redress. By their own admission the Town said as a matter of convenience they chose not to make a claim on the bond and instead chose to help themselves to our client's holdback money to hire an alternate contractor ... so to be clear, we're talking about repairs, not deficiencies.

The second issue about the alleged set-off, there are effectively three types of set-off; contractual set-off, there is what I'll call "legal set-off", which is a right of set-off by operation of law; and there's equitable set-



off, but a set-off cannot happen in secret. The fact (*phonetic*) of a set-off has to be communicated.

Again, by way of example, I explained this point to my client by saying the following, if I'm a bank and I have a million dollars of your money in a deposit account, and I've also given you a mortgage on your property for \$500,000, and I have a meeting internally at the bank that you don't know about because I don't communicate it to you, and I say we've decided we don't want to be in the mortgage business anymore so we're going to set-off the \$500,000 you owe us for your mortgage as against the deposit account. Well, first of all, they have to have a contractual basis to do that but in order for that set-off to be effective they also have to communicate that to the person against whose assets they're setting off.

What really happened here, Justice, and let's make no mistake, everyone is aware of



the context, everyone is aware that ECC are circling the drain of insolvency during this period between October of 2021 and February of 2023, the relevant timeframe for these claims and notices and all the rest. So everyone is aware of what's going on, and in order for the Town to establish that they have a set-off, first of all they have to establish what is the category of set-off ...

MR. BURGESS, K.C.: Justice, if I might interject for a second, Mr. O'Keefe at the beginning today indicated he would object if I was trying to give evidence. The fact of whatever the financial condition of ECC was or wasn't, I don't think there's any evidence

...

MR. O'KEEFE: That evidence is on the record, volumes of it.

THE COURT: There's a great deal of evidence

...

MR. BURGESS, K.C.: In 2022 perhaps.



THE COURT: I've been involved since July of 2022, nothing turns on it, I think I can take judicial notice of the information that's in the CCAA application and when the financial circumstances arose. Whether you knew now, you can't give that evidence so ...

MR. O'KEEFE: Justice, I want to address this very quickly.

THE COURT: Yeah.

MR. O'KEEFE: Because this objection is invalid. I know nothing turns on it, there's volumes of evidence about what was transpiring, it's all referenced in the claims order. This is all public record stuff. We're in a proceeding, this isn't it's own proceeding.

THE COURT: Right, I know, but I think he's objecting that in the time of the alleged termination, and where the set-off could have conceptually arisen. In 2020, the fall of 2020, we have no evidence that the Town of Deer Lake actually knew ...



MR. O'KEEFE: Okay, so I'll move on, I accept that point.

THE COURT: Yeah.

MR. O'KEEFE: I'll move on because it's not, as you say, it's not really important. What's more important is for me to address the various propositions of law that you've put to me to address.

THE COURT: Right, so can the Town exercise the set-off?

MR. O'KEEFE: So the Town allegedly exercised the set-off. The first we heard that there was a set-off was on July 28th ... February, May, June, no one ever said anything about a set-off ... the first we heard of this notion of a set-off was July 28th, so you must ask yourself, when does a set-off happen? A set-off happens when the owner of the funds says, give me my money, and the person who has the funds says, you're not getting it because, I'm keeping it because you owe me, I have a



claim against you that you owe me for. There's one assumption that's been made throughout this proceeding, and with the utmost of respect I believe the court has also made the assumption ... we are assuming they have a claim, a valid claim.

THE COURT: But counsel, before you even get to that, Article 10.(5) of the contract says if the owner terminates the contract under the conditions set above, so they terminate, okay, "upon performance of the work charge the contractor the amount by which full cost of finishing the work including", blah, blah, blah, blah, "exceeds the amount that's owed".

MR. O'KEEFE: Yeah, that's right.

THE COURT: I would concede to you, I would observe that there is no evidence that they exercised that right of set-off. In other words, they terminated and then said they'll charge the cost to complete against the



contract proceeds. There's no ... is there any evidence that they actually ...

MR. O'KEEFE: There's zero evidence, that's my point.

THE COURT: Right, so I'm not making any assumptions, I am asking you to deal with what I think the issue is here ... if the Town exercised a valid set-off, in the absence of your arguments on good faith and everything else that's the end of the matter. If they didn't it is also the end of the matter because there's no provision in this contract that allows them to do what they did, absent the set-off.

MR. O'KEEFE: So I'll deal specifically with the set-off, I didn't mean to be disrespectful in my comments.

THE COURT: No, no, no, that's fine.

MR. O'KEEFE: It's just you present more information, Justice, then it's difficult to ...

THE COURT: Right, but I'm trying to narrow this to the key issue.



MR. O'KEEFE: So the key issue on the set-off.

THE COURT: Yeah.

MR. O'KEEFE: There's no evidence that they actually did a set-off. What the evidence suggests is that when they were brought in on this contempt application they said, oh, no, we don't have the money anymore, it was set off against it, and it was a deficiency holdback, and it was on that basis that we could set it off.

THE COURT: Clear.

MR. O'KEEFE: We've established it wasn't a deficiency holdback, that evidence, in our view that story was just fabricated to support this, like there is no deficiency, there is no evidence to ...

THE COURT: It can't be a deficiency set-off without a notice to the contractor of the deficiencies, and an indication of what the deficiencies are.

MR. O'KEEFE: But not only that ...

THE COURT: So there's no evidence



MR. O'KEEFE: ... in order for you to have a valid set-off, Justice, you also have to have established that you've had a claim, right? There's a process that has to be followed here. They would have had to terminate the contract, they would have had to quantify their claim. We know they paid Mike Kelly & Sons \$128,000, we don't know what they paid them for. We don't know how much of the materials on site they used. They make reference in the Town Council Minutes to having the roads milled and tarped out, so there's no firm evidence that they even could substantiate a claim.

Like if you think about it, if they were to sue Edward Collins for breach of contract, like you didn't do the repair work, if they had to sue them they would have to prove this is why you should have done the repair work. Edward Collins could come back and say, we were there to do it, we were on site to do it and you kicked us off the site, you



terminated our contract wrongfully. All those defences could come up. So they don't, they haven't even proven they have a claim pursuant to which a liquidated sum could be identified to set off, they haven't done any of that.

And remember what they said in their email, we're going to terminate you from the project and we're going to commence legal action, they didn't do that either, so they didn't even comply with their own notice, even if it was a valid notice, which it was not, they didn't even comply with that.

Like the set-off argument is a knee-jerk reaction to us asking for the money back. There is no evidence at all they ever took steps to set off, there's no evidence they ever communicated that, there's no evidence that they even have proven a claim pursuant to which they could set off. The set-off argument has to fail, there's no facts here to support a set-off.



I get the argument, and I get the cases. I've read those cases dozens of times, I'm well familiar with pre-post set-off, I've argued it before this court dozens of times. In order for them to avoid paying the holdback they have to convince this court that they exercised, properly exercised their right of set-off prior to the CCAA and they, there's no evidence that they did that.

THE COURT: Don't you agree that is the central issue?

MR. O'KEEFE: That is one of two central issues.

THE COURT: What's the other one?

MR. O'KEEFE: The other central issue is the fact that I'm here before you now arguing on the central issue that should have been plainly obvious to anyone who actually looked at the facts.

THE COURT: The costs.

MR. O'KEEFE: It's costs and it's the fact, Justice, that we are in a claims process.



We have been before this court dozens of times talking to this court about the expense of what we're doing and how the expense of people who do not want to participate, who attempt to subvert this process, that expense could crush this company completely, so we're fighting about \$60,000, it's ECC's money ... yes, it got overlooked in the maelstrom of the insolvency process, they have admitted that, *mea culpa*, they didn't pursue the holdback when they should have. It doesn't change the underlying title to the money. It doesn't change who owns it. It doesn't change the fact they didn't validly set off. Slap them on the wrist, you should have claimed it earlier, but at this stage in a CCAA, when the Monitor and the company have a responsibility to this court, to their creditors, to collect every penny they can, they have to pursue every penny that appears on the



corporate records. That's how this came about.

So the whole narrative about deficiency holdback, the whole narrative that we apply to set-off, that is just out of thin air. The first we heard it was July 28th in response to our application for contempt. They haven't established, and I'm going to bring this back to a very fine point and then I'll move on because I think it's clear on the evidence ... they've alleged a set-off, they may have been entitled to a set-off had they followed the correct contractual procedures, had they actually commenced a claim against the company, had they actually quantified the liquidated damages amount that they alleged are owed.

Like by the way of a drastic example, they paid Mike Kelly \$128,000, they took \$86,000 from us, what's not to say Mike Kelly's work to finish what we started, which by the evidence we clearly had started,



what's not to say that that was only 25 grand to finish what we started? Who knows what was in the rest of that. They haven't provided an accounting, they haven't done anything. There's just a bare bald assertion, a bare allegation.

Mr. Young's evidence is worth zero. Mr. Young knows nothing about this, he knows nothing about this file. By his own admission he knows nothing, virtually nothing, about this, so the Town has offered zero evidence, none. They've offered no legal argument, no brief, there's two cases, there's one case and an excerpt from the CCAA. So in absence of a cogent and clear legal argument, in complete absence of any evidence at all, in complete absence of demonstrating they followed any contractual procedures, how can we agree that they effected a proper set-off, in secret, unbeknownst to everybody, that only came to our attention in the middle of our ...



actually not even in the middle, in the very late stages of our CCAA process.

Which brings me to the second point, unless you have questions about set-off, it brings me to the second point. I'll address pre-post. Everyone in this room has read the *City of Montreal* case, we all know what "pre-post" means. There's a fine point on this set-off issue ... even if they're right, even if I accept that they did the set-off, even if I could accept that, the fact that that set-off did not occur until we were inside the CCAA ... because it doesn't occur until we go looking for our money and they say, we have a claim against you, you can't have it.

You can't set off in secret, I gave you the example of the bank setting off because they feel like it. You can't do that, so even if they did set-off ... which we categorically, to be clear, say that they did not ... it would have happened, the fact of that set-off, the



communication of the set-off would have happened within the CCAA.

The second point about the Town's position ...

THE COURT: But is that really true? I'm not sure what turns on it but often a set-off will be communicated after the initial order because it had already happened, so until there is an initial order they don't need to inform anyone about the set-off. They need to ... I take your point, do they need to inform Collins, I would have certainly thought so, they've taken their money and spent it, but setting that aside, they don't need to tell the court until the issue arises.

MR. O'KEEFE: But Justice, you'd have to agree with me, if you're going to take remedial steps under a contract you have to provide notice to the contractor.

THE COURT: I would have thought so, I'll hear from Mr. ...



MR. O'KEEFE: And the whole basis for the set-off is that it's a contractual remedial step that was available.

THE COURT: Well it's more fundamental than that, I don't see under the contract that they complied with the set-off provisions.

MR. O'KEEFE: Well, they didn't, that's why you didn't see it.

THE COURT: So contractual set-off they did not comply with as far as I can see, because they didn't terminate the contract in accordance with these terms.

MR. O'KEEFE: Correct.

THE COURT: They terminated on 24 hours notice, and then the 24 hour notice they gave said you had to be back on site.

MR. O'KEEFE: Correct.

THE COURT: And the witnesses acknowledged they were back on site, and he actually acknowledged on the stand that the breach was rectified. He just did that now.



MR. O'KEEFE: Right.

THE COURT: So there's no issue that the termination of the warranty work was improper, or not to use the word "improper", it was in breach of contract, acknowledged by the, the Town, so the question is, is there, if you have a contractual right of set-off that you didn't comply with, can you deal with a legal right of set-off ...

MR. O'KEEFE: Okay.

THE COURT: ... and I think your argument on the legal right of set-off argument is, one, it has to be communicated; and two, it has to have happened.

MR. O'KEEFE: And ...

THE COURT: And there's no evidence of either one.

MR. O'KEEFE: And three, it has to have a legal foundation, like normally a legal set-off is something that, for example, we provided (inaudible) there's some construction lien statutes that allow set-off.



THE COURT: I can't see how it's a legal set-off when they breached their own contract dealing with the set-off.

MR. O'KEEFE: Correct.

THE COURT: So the third point is, is it an equitable set-off. In order for you to affect an equitable set-off there would have to be a communication of the fact that you're doing this, right? Our point is that you can't just decide years later, I'm just going to affect an equitable set-off. I think it's legitimate and Mr. Collins makes reference to this in his Affidavit, if they had communicated to him at the time, we're setting off against your funds, then they would have immediately been able to take steps to prevent that from happening. They could have sought court relief, they could have sought an injunction, but they operated on the assumption, and he has given evidence on this, that they had the protection of the *Mechanic's Lien Act*. So



this was effectively money in the bank so to speak, sitting with the Town, and we'll get to it when we get to it.

So in order to effect even an equitable set-off, you can't do that in secret, you can't take someone's assets and, you know, use them for your own purposes without communicating it.

THE COURT: But assume, assume the termination was proper, which I'm not sure there's any evidence that it was, isn't the letter terminating the contract and hiring someone else to do it, isn't that, in effect, exercising their set-off rights? Your client would have known he's not getting his money.

MR. O'KEEFE: I disagree with that. A notice of termination, isn't that, in effect, a notice of set-off against the mechanic's lien holdback.

THE COURT: Yeah, I know, but he doesn't, the contractor, the owner is entitled to



charge the contractor the amount of work. Now, did he need to communicate that after the fact, probably, but it doesn't go to his underlying right. So the key issue is was the termination proper. In other words, did they terminate the contract in accordance with Article 10, and if they didn't, which they, it's clear they didn't ... I mean the witness admitted that he didn't because the default was rectified.

MR. O'KEEFE: So how is that provision helpful to them?

THE COURT: I don't think it is.

MR. O'KEEFE: I agree with you.

THE COURT: Because there has to be a termination before they can set off. Unless there's some other set-off right ...

MR. O'KEEFE: But that's what I'm arguing, they don't have a contractual set-off, there's no legal basis for the set-off.

THE COURT: No, but that's the point. It isn't that they didn't communicate it, the point is



that they didn't have a contractual basis to do so.

MR. O'KEEFE: I agree, I raised the communication issue in the third bucket, equitable set-off.

THE COURT: Yeah, okay.

MR. O'KEEFE: That's why I raised communication because I said at the beginning of my submissions, there's three buckets of set-off. In order to effect an equitable set-off you have to have the fact of communication. You can't just decide you're going to, on the basis of equity just set-off, it's just ... you know, it just defies common sense that you could even do that. So it brings me, if I can move on from set-off ...

THE COURT: Yes.

MR. O'KEEFE: The pre-post analysis, as interesting as it may be, and it's often a topic, is not even really the big issue here. I mean, you know, there was no set-off, so



the pre-post issue doesn't need to be addressed. Even if there was a set-off it could only be an equitable set-off, and the fact that the communication of that set-off didn't happen until after the CCAA, and that's the point at which the right of set-off was exercised, so the pre-post issue decides the matter in our favour.

The third issue about set-off is that a set-off could never trump all the other rights that are out there, for example, as this court has heard, the rights of CRA to their deemed trust. How could the Town set-off against this fund ever affect the rights of these other creditors who have security, who have statutory trust imposed on the assets of ECC? That has been completely ignored in their submissions. They never addressed that issue at all, it's just ... we set-off, we get to take your money.

So there's no set-off, it's our view, and we've filed materials on this which, as of



right now, are uncontroverted. Like the Town has not tried to disprove the evidence of Josh Collins concerning the Town's conduct ... that's uncontroverted evidence on the record that the Town, when they were brought before this court on contempt, decided to present the narrative about deficiency holdback, which not only defies the evidence but defies common sense ... how would they know in November that they were going to have cracks in the pavement in May? They didn't know that. And, oh, somebody came into my office and they told me, and I heard at a meeting ... like that's all hogwash. If that was the case, file something ... bring Maxine Hayden in here, bring someone in here to tell us what they knew, bring their engineer in. They said there was some report that was done by their engineer so I'm sure he'd be happy to provide his report for a fee, bring him in.



It's all fabricated, a story to avoid their obligations under the order, so there was no deficiency holdback, there was no set-off, they just didn't want to pay the money, and now they've dragged ECC through this process at significant expense, we're here at our third hearing, all the material in front of you. The cost of this is going to eat up most of what we're even fighting about in the first place.

So it brings us to the second point which, in fact, we probably should have just started with and dispatched of the whole thing, they didn't comply with the process. I walked Mr. Young through nine different pieces of correspondence, they had them, they saw them, they decided not to hire new lawyers, and Mr. Craig told him that he was conflicted on March 20th, they just decided not to respond to them, that they didn't ... not that they didn't have them, that they didn't know what they said, they just



decided not to deal with them. They were busy doing other things. That's basically what he said, they were busy doing other things, they were distracted doing other things, and it was only when they got served with the contempt application that they actually took steps to hire counsel and to come in, and it's at that point that the Town decided to present a new narrative that this was a deficiency holdback, based on a convenient interpretation of the calculations, that ... well, we set this money off ...

Like Justice, just think about this, if they had set the money off because of a deficiency holdback, why didn't they tell us that in February, March, April, May, June? Why didn't they tell us? Why was it this just, like "manna from heaven", just the argument just appeared when the contempt application was filed. It's because they made it up, that's what it's about, this



deficiency thing is made up. It was a mechanic's lien holdback.

So it goes to the point on costs, and to be clear, on today's proceedings, we may not have enough time to (inaudible) costs, we've put our materials before the court. But I read a quote when I was going through all these cases, and I ran this by a colleague of mine yesterday and she laughed, and she said, you can't use that quote in court because everyone is going to laugh at you, and I said I'm going to use it anyway ... there's a quote in the 73858 Ontario case which I will go to. It's at paragraph nine of that case and it's where the court cites *Pirbhai vs. Singh* which is an Ontario Supreme Court case where a party was looking for fully indemnified costs and a punitive award for the conduct of the other party, and Justice Quinn said in that case that equity



requires that the Plaintiff not be put to one penny of expense in their pursuit of justice.

Now justice may be a strong word in a civil context, I would rephrase that by saying, equity requires that a Plaintiff not be put to one penny of expense in pursuit of its remedies and its restructuring under the CCAA, one penny of unnecessary expense, which is exactly what's going on here. The Town didn't want to pay the money, they hired a lawyer, with all due respect to my friend, they presented arguments, they didn't file any evidence really to substantiate the arguments. They made the decision to leave out all the letters that talked about repair work, like the admission, or at least the tacit admission that this was repair work happened today. Up until today it was deficiency holdback, there were deficiencies on the contract. The contract wasn't complete.



Mr. Young got on the stand and admitted that all that stuff was not true. In fact, Mr. Young, when I asked him, and I feel bad for Mr. Young because it's his first time on the stand, and I get all that ... but I'm not here to provide sympathy for Mr. Young, I'm here to talk about what this court observed today.

He was lying on the stand, and I called him on it. He was making stuff up as he was talking. Oh yeah, such-and-such told me that. Did they, when did they tell you? Oh no, no, I'm sorry, actually they didn't tell me that. He was literally making it up as I was asking him questions. It's the same thing they did in these materials. And I understand that the allegation that a party is trying to mislead the court to pad their case is a strong allegation, but I've never in nearly 20 years of doing this, I have never seen a situation like this where a public official from a municipality filed an affidavit



and a brief that was as misleading on the facts as what we've seen here.

I mean even taking letters from a year prior to the event in question and presenting them in a chronological narrative as if that was the first notice, and you picked up on the issue, Justice, that they tried to pull the wool over our eyes on, because anyone looking at this file knows that that 24 hour notice was cured. That 24 hour notice does not help you under the contract, so what they did was they took the letter from Gorman from a year before, put it into their brief, changed the date so that it read as if we got out first notice in September, and the 24 hour notice just happened to be a reminder that we were in breach. That was how the material was presented.

They were trying to develop a narrative on their feet, on the fly, to completely subvert our attempts to get our money and in essence, Justice, they're subverting this



process, and they are committing a wrong on the court. We're not asking for a million dollars in punitive damages, we're just asking for an acknowledgement that that conduct cannot happen, especially in a CCAA, it can't happen.

If that is, if that conduct is sanctioned, and if that's what the court says, look, Mr. O'Keefe, I've heard you but none of this is deserving of reproach, like it is what it is, then that is a license for whoever wants to come into this process and just make up a narrative and just ignore the process claims order ... do what you want, you're not going to be taken to task, do what you want.

So we're asking the court to take the Town to task on this. I know it's a hard question to ask of you, Justice, I know it's a hard issue for the court to deal with, it's an uncomfortable issue, I get it, but the facts are clear and we're asking for it.



And so, you know, in summary ... because we filed written materials, I don't need to regurgitate everything that we put into writing ... there was no deficiency holdback, there was no valid set-off, the Town of Deer Lake has done nothing since February but try to subvert this process. They have been untruthful, they've tried to misdirect us, they have not given sufficient or reliable evidence.

So what we're asking is that the holdback be ordered to be paid to the Monitor, we're asking for our fully indemnified costs, that is costs of counsel for the company, costs of counsel for the Monitor, and the Monitor's costs to be paid by the Town ... in making us go through this process, this unnecessary process, and we can come back at a later date to assess those costs, and we're asking for a punitive award against the Town to sanction this conduct in whatever amount the court



thinks appropriate, but the mere fact of a sanction is what we're after. That is important to us. Those are my submissions and I thank you, Justice, for listening.
THE COURT: Thank you.

SUBMISSIONS BY MR. BURGESS, K.C.

MR. BURGESS, K.C.: Thank you, Justice, I'll try to be fairly brief because I don't think the facts are much in dispute here, and I think it's more on how they get applied. There was, ECC was the successful bidder on the paving contract, it was done in, started, awarded in August 28th of 2020, an original contract award for \$415,000 which went further than that.

As I said earlier, and it's important that the contract was with the Town, while the bids were to the Government the contract was with the Town, and whether it's one contract or two contracts, again, I don't



think anything matters. There was two invoices ...

THE COURT: How could there possibly be two contracts? I mean it doesn't matter but it's not true, there's one contract. I only have one contract, I have one tender, I have one tender acceptance ... I have one contract.

MR. BURGESS, K.C.: Right, we have one contract for \$415,000 and we know that's not correct, right, the amount of the work ...

THE COURT: Right, but it's a municipality, there would have been a change order under the contract. They can't just issue another contract to someone without going through the public tender, so this is ... throughout this, your client's case practice in contracts, how contracts work, how contracts are administered, they've ignored it all, so now this suggestion that there's somehow two contracts that they did non-tendered, I don't think so, and if so, someone needs to tell me the evidence and



not give me the evidence that there's one contract.

So you know, it's a throw-off statement, oh, whether there's one or whether there's two, it doesn't matter, it does matter. If your client entered into a non-tendered contract with Collins, it's news to them and it will be news to me, so the facts matter.

MR. BURGESS, K.C.: Well, Justice, but what I'm saying is we don't have any evidence how it got from \$415,000 worth of work to ...

THE COURT: But it's your contract.

MR. BURGESS, K.C.: It is, but we're talking ...

THE COURT: Why aren't you giving me the evidence?

MR. BURGESS, K.C.: Because I didn't think it was that critical for the purposes of this hearing. We got ...

THE COURT: The contract ... your client has taken \$59,000 of someone else's money. It has not provided an accounting of where the money went. It has not provided an



accounting of the so-called cost to complete of the warranty work. It terminated the contract on a 24 hour notice, which I ... unless you're arguing that the contract termination provisions don't apply to a warranty which is clearly within the scope of work. They then let a contract apparently, no evidence, no one has given me any evidence ... the only evidence presented to me is by someone who acknowledges he doesn't know anything.

MR. BURGESS, K.C.: No, but the evidence that is not, I don't think it was refuted was they hired Kelly, there's a Resolution of the Town and there's ...

THE COURT: Right, and what did Kelly do?

MR. BURGESS, K.C.: ... a payment to Kelly, and the Affidavit says to finish the work under the contract, that's what the Affidavit says, and I didn't hear anything that contradicts that. Now, you can argue, it can



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be argued was there sufficient notice and things like that, but the evidence was that ...
THE COURT: You just argued that there's two contracts because the contract work increased, that somehow the scope changed in contract one, so therefore ...

MR. BURGESS, K.C.: I'm not trying to argue there's two contracts.

THE COURT: ... but how do we know the same thing didn't happen with Kelly? Isn't it your client's obligation when they're taking someone's money, to explain where the money went, or explain to me, I have no idea.

MR. BURGESS, K.C.: Right, but ...

THE COURT: So what ... let's get away from this, I'm just dealing with the throw-off statement that it doesn't matter. It does matter, but what is the contractual basis, we have a contract, for your client doing what they did? Tell me that.



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MR. BURGESS, K.C.: Right, well let me go back, notwithstanding your comments about the mechanic's lien holdback.

THE COURT: Yeah.

MR. BURGESS, K.C.: What I would suggest there is, there is evidence that there was 15 percent holdback based on 15 percent of the second contract.

THE COURT: Where is the evidence, tell me about the evidence. Your client says that someone told him ... he was not the contract administrator, he didn't deal with any payments, he didn't deal with the contract at all. He's a communications person, he says there was a, someone told him, the Mayor I think told him that it was 15 percent deficiency holdback. Have you ever seen the deficiency holdback? A deficiency holdback says here are the deficiencies, your client testified that the work was completed, so where is the evidence, number one, that there was



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deficiencies, and number two, where the 15 percent came from, and number three, what were they?

MR. BURGESS, K.C.: Right.

THE COURT: If there is any.

MR. BURGESS, K.C.: There is not, Justice.

THE COURT: Okay, so what am I to do with that? And the contract doesn't call for a deficiency holdback ... deficiency lists are always done where you get a certification and the owner won't pay the deficiencies, saying we're withdrawing these amounts and here are the deficiencies. There's a punch list, where is that? It leads you to the impression that there is no deficiencies, and then you have to speculate that they're guessing that in six months after the winter the thing will delaminate, or whatever happened to it, there's no evidence of that ... none ... zero.

MR. BURGESS, K.C.: Right.



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MR. BURGESS, K.C.: They did.

THE COURT: They terminated the contract, on its face they terminated the contract, even



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MR. BURGESS, K.C.: No, no, on Tab 6 of the Affidavit of Jason Young ...

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deficiencies, and number two, where the 15 percent came from, and number three, what were they?

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MR. BURGESS, K.C.: Right.



THE COURT: So these, this Communications Manager is a pretty impressive person if he can guess what the default is, so there's no basis to believe any of that. Am I wrong? What am I missing here?

MR. BURGESS, K.C.: Well, no, there's no question there was no communication, the facts are the facts, I can't refute that.

THE COURT: Right, so you had a deficiency list (*sic*) without a deficiency list. I mean you had a deficiency ... you had a holdback of 15 percent that your client doesn't have any personal knowledge of but someone told him in a meeting, you have an engineer hired on this project, you have a municipal person responsible for this project.

I sympathize with your client, he was a Communications Manager, how is he in the middle of a contract administration? He admits that he wasn't ... that's my evidence.

MR. BURGESS, K.C.: Right.



THE COURT: Zero, Mr. O'Keefe is saying that it's almost zero is pretty close to the truth. At best it's hearsay, but he doesn't even identify where the hearsay came from.

MR. BURGESS, K.C.: Right.

THE COURT: So what is the legal basis which I can say that you had a set-off against this holdback, this ... whatever you call the holdback, I don't care what you call it. The contract called for a ten percent holdback, it didn't call for a 15 percent deficiency holdback. There was no punch list, so it had to be a statutory ten percent holdback because that was what was in the contract. So you terminated him, correct me where I'm wrong here ...

MR. BURGESS, K.C.: Well, I don't know if ...

THE COURT: ... on a 48 (*sic*) hours notice, 24 hours notice.

MR. BURGESS, K.C.: I don't know if it's correct to say "terminated" because if the contract was completed in, if you accept the



evidence which was clear that the contract was completed in November of 2020, there's nothing to terminate.

MR. O'KEEFE: Well, they terminated, if I may, they have a right to come back and do the residual rights under the contract. The contract was completed but they have a right to do the repairs, and if the repairs aren't done there's a bond.

THE COURT: Yeah, the warranty is part of a contract, it's part of the scope of work.

MR. BURGESS, K.C.: It is.

THE COURT: Okay, they terminated his, the contractor's obligation to finish the work.

MR. BURGESS, K.C.: The right to do the warranty work.

THE COURT: And they hired someone else to do it and used the contractor's money to do that.

MR. BURGESS, K.C.: They did.

THE COURT: They terminated the contract, on its face they terminated the contract, even



though your client said they had rectified the default. That's what he said, so it's a simple question ... to get to the point where you're entitled to take the money there has to be some sort of legal right for you to get there and there isn't in this contract, is there? There only is if you properly terminated the contract and then under the contract you're entitled to set off the cost to complete, in this case the warranty work, against what the contractor is owed, but I have no evidence that that happened, do I?

MR. BURGESS, K.C.: Well what you have, if you go to Tab 6, that notice.

THE COURT: Yeah.

MR. BURGESS, K.C.: There is two parts.

THE COURT: Right, one, I will terminate; two, we'll hire someone else; three, we'll sue you.

MR. BURGESS, K.C.: No, no, on Tab 6 of the Affidavit of Jason Young ...

THE COURT: Yeah.



MR. BURGESS, K.C.: ... which includes the 24 hour notice, it says, "Failure to come here by October 27th by 10:00 a.m. will result in the project being assigned to another company", and legal action.

THE COURT: Right.

MR. BURGESS, K.C.: And the second part of that is, "the Goose Arm Road work must be completed by October 31st", and that wasn't completed. Now, is that sufficient notice, because that's what the Town is saying to them, you have to do that ...

THE COURT: I understand that, but you acknowledge the contract has a five day notice for termination, and the contractor has a period of time to begin ... have you read the termination provisions?

MR. BURGESS, K.C.: Yes.

THE COURT: So it's not a 24 hour notice, right, where did that come from? Are you arguing that a termination under the



contract for warranty work is different than terminating the contract in general?

MR. BURGESS, K.C.: I can't explain, I don't see, there's nothing in the contract.

THE COURT: You acknowledge they didn't terminate the contract according to the terms.

MR. BURGESS, K.C.: I would argue that the argument is, that if you look at it, they gave them the notice and the notice on October 26th was two parts ... get out here and start doing the work by October 27th, which the evidence was that they came there, but the other was that the Goose Arm Road must be completed, and that wasn't done because they were ...

THE COURT: But let's look at the owner's right to stop or terminate the contract, Article 10. "The owner may notify the contractor in writing that the contractor is in default of the contractor's obligations if", let's say it was (a), "failed to diligently proceed with the



work" ... "that such written notice by the owner shall instruct the contractor to correct the default within five working days from the receipt of the written notice. If the correction of the default cannot be completed within the five working days, the contractor shall" ... cannot be completed ... "the contractor will be considered to be in compliance with the owner's instructions if he commences the work and provides a schedule and completes the correction according to the schedule." If he fails to do those things then the contractor may terminate.

MR. BURGESS, K.C.: Right.

THE COURT: So did your client comply with that provision or not?

MR. BURGESS, K.C.: Well, again, under that notice it says you've got to do two things, and it didn't do the second part. It did come out and start the work.



THE COURT: Did they give him five days to do it?

MR. BURGESS, K.C.: It said completed by October 31st, five days.

THE COURT: So you think that is a five day notice?

MR. BURGESS, K.C.: I don't see how it can't be, so if you were to stop and say you're only obligation is to come out here and start the work I would agree with you a hundred percent, but if you look at ...

THE COURT: So when did they terminate?

MR. BURGESS, K.C.: Pardon?

THE COURT: Didn't they terminate on October 29th?

MR. BURGESS, K.C.: No, we've got evidence that there was a resolution put before Council that said we can go out, if that's not going to be done we're going to go out and get someone else to do it. So they had the five day notice, is my argument, by virtue of ...



THE COURT: So you say that this was a five day notice?

MR. BURGESS, K.C.: I do.

MR. O'KEEFE: Justice, except, if I may ...

THE COURT: Yeah.

MR. O'KEEFE: Mr. Burgess is saying it's a five day notice because I believe you suggested it to him. It's the first we're hearing of it. Like this has been, this is making it up on the fly. I will deal with it in rebuttal, but like he's saying that now because you've just suggested it to him.

THE COURT: Okay, so do you agree that if your client didn't properly set off, your claim must fail?

MR. BURGESS, K.C.: Well, one of the issues I think that is a live issue for the court is whether this is pre-CCAA or post, because does ... if this took place prior to the initial order, I would suggest we're outside the CCAA.

THE COURT: If what occurred, the set-off?



MR. BURGESS, K.C.: The relationship between the parties, so you have to ask yourself ... so there's a couple of things. In the normal course what we would find, this would be a trial of sorts, there would be allegations of breach of contract, there'd be allegations of set-off, and it would be a fulsome disclosure of all the evidence. There would be lists of documents, there would be discoveries, so I've heard a number of times ... and I apologize if there hasn't been a disclosure of a lot of documents, but I tried with my client to comply on a very short timeframe.

Now, did they bring that on themselves, absolutely, that goes back to the issue of the compliance with the claims procedure order, but we're not dealing with a normal litigation process, and that's fair enough, that's what we're in. But, so what we try to do is focus on the issues. Is it a mechanic's lien holdback, and I think that's a valid issue



because I would submit, well I'll go into that ... but you're talking about five day notices and termination, the communication was less than ideal between the parties both ways, but let's not forget when they come to court they sat on this for so long that there had to be some obligation of them to bring forward the claim and say, wait now, you're not giving me my money, and it goes back to a fundamental issue for the court in relation to the mechanic's lien holdback ... when does the holdback expire?

The Town does not have to retain a mechanic's lien holdback forever and a day, and so going back to that, when you deal with is it a mechanic's lien holdback, the Town's evidence is we held back for deficiencies and it was 15 percent, and the court can accept that or not, that's obviously what the court may decide.

But our position is that they didn't hold back, they didn't hold back on the first



advance, they didn't hold back a mechanic's lien, they don't hold back the mechanic's liens. Now, is that proper? I acknowledge not, but what's the repercussions if they don't hold back?

THE COURT: There's no evidence that I'm aware of that the Town does not routinely hold back a mechanic's lien. You've said so.

MR. BURGESS, K.C.: No, the ...

THE COURT: But I'd be ... you think the Town in its contracts does not hold back mechanic's lien holdbacks ... which they can do if they want but they're going to pay the price.

MR. BURGESS, K.C.: But that's what I'm saying to the court, I'm not disagreeing, but the evidence before the court is we don't hold back. Now, what I would say to that is, from a legal perspective, a failure to do that may see that you're going to be liable for your failure to do so.



THE COURT: To pay again, right, but that's why we're here, isn't it?

MR. BURGESS, K.C.: Well, except that, so when does a mechanic's lien expire, when does that holdback get released?

THE COURT: If a mechanic's lien isn't applied for for substantial completion, it's not your money. You pay it into court and discharge your lien rights.

MR. BURGESS, K.C.: Right.

THE COURT: How does it become your money, because someone delayed in collecting from you? Are you making some sort of argument that if I don't pursue my debt for five years it's gone and you can keep it?

MR. BURGESS, K.C.: No, but in order to have a valid mechanic's lien action you have to do it within 30 days of performing the work.

THE COURT: They don't need a mechanic's lien action, they're the general contractor.



MR. BURGESS, K.C.: They need to get it if they're calling it a mechanic's lien holdback, otherwise ...

THE COURT: No, they don't, you apply for substantial completion and you get your certification ... there's a provision in the contract how you get it. The contractor doesn't file a lien against ... to get his own holdback.

MR. BURGESS, K.C.: There are, there are claims, Justice, where a general does file a claim for ...

THE COURT: Yes, and it's usually large industrial projects and there's multiple contractors and everything else, but generally speaking, the mechanic's lien system is designed to protect subcontractors so the mechanic's lien is held for the benefit of the subs.

MR. BURGESS, K.C.: I agree.

THE COURT: So he's not going to file, he might file a lien to screw up his financing or



something like that, that's why you would do it, because an owner won't be able to get money advanced by a mortgage if he files a lien ... anyway, this is beside the point now.

The fundamental issue here is, to me, setting aside Mr. O'Keefe's issue on costs and the conduct of your client, was there a valid set-off, and if there was a valid set-off did it occur prior to the CCAA. If that set-off in 2021 was valid, if I had evidence that that was valid then your case ... yes, you didn't, you know, cover yourself in glory here, your client, but I'm not sure I have any legal basis to say it's covered by the CCAA because it all was completed before the CCAA.

But for that to occur you need to establish evidence that the ... and I think the issue of whether it's a deficiency holdback or a holdback, I'm not sure what turns on that other than it's the most convoluted argument I've ever seen to deal with the



clear fact that they hold back ten percent, it was about ten percent, and nothing turns on it ... I mean if, in fact, there was a valid set-off, you're entitled to set-off against it anyway.

So I'm not sure why we've put this whole added level of complication that really goes to credibility because it's not credible. It's not credible that someone would arbitrarily, because someone told him in a meeting to take 15 percent, and he doesn't really know because he didn't administer the contract, but it was anticipating there was some problem, and there's some report of an engineer that was alluded to but not provided ... there is no deficiency holdback.

MR. BURGESS, K.C.: And Justice, all I can say to the court is that the evidence, as you say, there was a lack of communication.

The Town's position ...

THE COURT: Right, but don't you agree that it's a simple case, it's a ten percent



mechanic's lien holdback. You set off against it because there were no mechanic's liens, and that's the end of the matter.

MR. BURGESS, K.C.: Rightly or wrongly that's exactly what happened. They had the funds there, they used it to hire someone to finish.

THE COURT: Right, but why do we have the superstructure of a deficiency holdback that makes no sense and it's not supported by the evidence?

MR. BURGESS, K.C.: Well, I'm not sure I would agree with that, but I would agree that I don't think it matters for the purposes of this hearing whether it's deficiency or mechanic's lien ...

THE COURT: But that only works if you have a valid set-off.

MR. BURGESS, K.C.: Right.



THE COURT: And that only works if you complied with the contract which provided for the set-off.

MR. BURGESS, K.C.: Right, but in this case ...

THE COURT: And Mr. O'Keefe says it only works if you told someone you did it and you provided an accounting of what you did with that person's money, none of which you have done.

MR. BURGESS, K.C.: But in this case you have got the ECC who just sat back and did nothing, and I'd say ...

THE COURT: It's not their obligation to collect the money.

MR. BURGESS, K.C.: Well, they can't sit back forever and a day.

THE COURT: Why not?

MR. BURGESS, K.C.: Because there's certain, because they have to proceed with their claim.



THE COURT: Is there some legal process that people have to collect the money when it's due?

MR. O'KEEFE: Sorry to interrupt, can someone peg this discussion with reference to some law?

THE COURT: Yes.

MR. O'KEEFE: Because the *Mechanic's Lien Act* is clear that after 30 days the owner has an obligation to discharge, to release the money. The *Act* sets that out, like we're talking as if there's no guidance out there, like this is the most absurd discussion, with all due respect, I've ever heard.

THE COURT: Okay, well we're going to have to break, we're not going to finish, so we'll have to come back at 2:30. Now, let me talk about ... I find the discussion frustrating because I really think it comes down to a set-off. Whether it's a mechanic's lien or whether it's deficiency, I fail to understand how the Town has alleged a deficiency



holdback when there was no identified deficiencies, I just fail to understand how that makes any sense, and it has clouded the issue and it's giving me pause as to why would anyone after the fact construct it in such a fashion ... because they perceived, it leads me to the impression that they perceive it gives them some sort of a tactical advantage, whereas the obvious facts on the face of it and in accordance with the contract, would make this issue very narrow, and it gives rise to the real issue ... and it's an interesting issue, was there a valid set-off?

Does the claims procedure deal with it anyway because you are alleging now for the first time, after the CCAA, that you have a valid claim to that money because you've already dealt with it. I would have thought that would go to the claims procedure anyway and if you are right the Monitor very likely would have allowed your claim, but



your client chose to ignore it all and then it gives the impression they decided to ... the way the case is presented, it seems to be done for tactical advantage. Where does the deficiency holdback come from? What is the contractual basis for it?

Deficiency holdbacks are often done but they have some sort of deficiency list so the client knows, okay, they took (inaudible) \$5,000 because (a), (b) and (c) is wrong ... no evidence of any of that ... as a matter of fact, I think your client said that didn't happen ... and it's all overlaid with the fact that your client, I can sympathize with him, but he doesn't know any of this. He doesn't know a word of this other than what happened, what other people told him.

So yes, he can testify about the letters and who sent what and, you know, these are the letters ... he can't really even testify about the contents of those letters, but the ones he wrote he can do, but he can't talk



about deficiencies because he doesn't know. He can't talk about what the holdback is because he doesn't know. He can't talk about who paid what to whom because he doesn't know, so I'm not sure what I do with any of it.

MR. O'KEEFE: Justice, may I make one point?

THE COURT: Yes, yeah.

MR. O'KEEFE: We're talking about set-off, and the whole theory is that we had to pay Mike Kelly & Sons after they did the work, once we knew how much we had to pay them and we took your holdback. My friend suggests, well we don't have to have the holdback forever, like when does it expire? It doesn't expire, you either pay it back in accordance with the *Act* after 30 days, which is an obligation on the owner to do so, or you hold it forever, but here's a simple point ...

THE COURT: Counsel, there are too many extraneous issues, it doesn't matter that



Collins didn't pursue its claim, they're not required to pursue its claim. If you owe me \$500 and I decide to wait a year, unless you can argue latches (*phonetic*), or waiver, or something, some legal principle ... nothing turns on that.

MR. O'KEEFE: There is a very crucial point, Justice, a very crucial point that I need to make. Under the *Act* the holdback has to be released within 30 days. They terminated ... it's from substantial completion or abandonment ... they terminated allegedly on October 31.

THE COURT: A year later.

MR. O'KEEFE: Yes, but that holdback should have been released long before that.

THE COURT: Right, and even if October 31 is the date, they should have released it by November 31 (*sic*), or whatever, or December 1 ... but here's the point, they didn't pay Kelly, by their own evidence, until the end of December. So they were legally



obligated under the *Act* to release that money before they ever had to pay Kelly. We don't even know when they hired Kelly, we don't even know what work he did. This whole argument is just so circular, it doesn't make any sense.

THE COURT: Okay, so I'm just trying to think of the schedule now, so we'll break now, we'll come back at 2:30, and you know, I've intervened a bit so I'm going to allow you to make your full presentation start to finish. My focus is on what is the authorization at law for what your client did, what they did, then I'd ask you to deal with the issue of costs. I want to get this decision out, it's going to be an oral decision. I don't know if I'll get it out today now so we'll have to see how it goes. Okay, anything else?

MR. O'KEEFE: I just apologize because I keep interrupting, Justice, some of these issues I feel that we should be heard, and I want to apologize to my friend.



THE COURT: No, yeah, and we're a little fluid here, there's an argument and a response, and ... but I think it's important that we focus on the issues that matter and the issues of credibility and who did what to whom, and timing are important but the core issue here is, is there a legal justification for what the Town did, and the only way it's relevant to me is if it all happened before the order ... in other words, before I had jurisdiction on the claims procedure because I'm ... it's not my job to decide the claim. My job was to adjudicate any disputes arising out of the claims procedure, so the fundamental issue is here, should you have complied with the claims procedure and that turns on whether this was completely finished before the CCAA. In other words, any other dispute the contractor had prior to the CCAA that was resolved. That's what matters. Then the other issues of colour, and who said what, and how you structured your case,



and whether there was any credible defence and everything else, goes to costs and sanctions, if I were to grant that. I haven't made any decision on those. But let's focus the issue on that.

And to me, the issue focus is on the set-off, I can be convinced otherwise, and the set-off I would have thought would be governed by the contract and, therefore, did your client comply with the contract. If they didn't they have no right of set-off. I'm not saying they don't have a right of set-off, they didn't have a right of set-off that was completely exercised prior to the CCAA ... in which case they should have gone to the claims procedure and you made your case. Yeah, we delayed a year for our set-off but we still set off, that's a valid argument. I don't know if it would succeed but it all turns ... the only reason we're here is because the claims procedure required that you do



that through them unless it had been finished.

So that's what we're talking about, it's a very narrow issue. It's relatively simple and we've clouded this with all these other issues and, to be fair, it's in part because the Town hasn't participated, right, so we're here in ...

MS. FELL: (inaudible).

THE COURT: What's that?

MS. FELL: It's Ms. Fell, counsel for the Monitor, so we're breaking and I assume that we will have a chance to make submissions after?

THE COURT: You want to make submissions, yes, okay, I didn't realize that, so we'll come back at 2:30?

MS. FELL: Sure, thank you.

(break)



MR. BURGESS, K.C.: Good afternoon, Justice, I'll be very brief and focussed and ... I'll be very brief, but given your comments earlier this morning I think that's appropriate.

What the Town of Deer Lake's position is, whether accepted by the court or not, is that it was a contractual set-off, that the contractual terms are contained in two parts of the contract, that ... first of all, the clause of the contract, or Article 21.13.

THE COURT: Just let me catch up to you there, counsel, please. 21?

MR. BURGESS, K.C.: ... 21.13.

THE COURT: Yeah.

MR. BURGESS, K.C.: That it states in paragraph 21.13 that the, "Notwithstanding the provisions of 21.3 or any other provision of this contract, the owner may: (a) in the event of a claim by the owner against the contractor for damages arising out of the performance or nonperformance of the



contract, withhold payment of any amount equal to the alleged damages until the liability for damages established ... and no amount of interest will be paid on amounts held under this clause", and sub (b), "the set-off amounts owing by the contractor to the owner."

The other contractual provision regarding the set-off, as we've talked about earlier, and again, I won't go into it in great detail, but under clause GC-10, it says under clause ten that you give the five day notice. If after the five day notice the cure is not defaulted then you can go under 10.5 and do the work and charge the contractor.

THE COURT: Okay, so based on 21.13, that would mean then that you need to characterize it as a deficiency holdback because that would allow you to have held that back for that purpose.

MR. BURGESS, K.C.: Well, I don't know if you need to necessarily call it a deficiency



holdback. At this point it's a holdback and whether it's a mechanic's lien holdback or a deficiency holdback, for this argument I don't think it matters, and if I may try to explain that because I'm not sure you accept it, and I respect that, but you didn't accept the previous argument.

There's a mechanic's lien holdback, whether the Town held it or, held it back or not, they're responsible and they're deemed to have a mechanic's lien holdback. And so at the end of the day, 30 days after they do the work or the contract is terminated or something, and there's no liens registered, which we know there's not, there is money sitting there and that's due to the general contract.

And at that point in time that is not shielded from, in this case, the Town's use for set-off because at that point in time there's no other third party other than ECC that has a claim against that money.



THE COURT: So then you can use 21.13 or 10 to set off.

MR. BURGESS, K.C.: Right, then the argument with the set-off, because there was some discussion this morning ...

THE COURT: Yeah.

MR. BURGESS, K.C.: ... and so we have the evidence that the default is not cured. We have a resolution filed, I accept your ...

MR. O'KEEFE: I object to that, there's no evidence that the default was not cured. That's what Mr. Burgess just said, he said we have evidence that the default was not cured.

THE COURT: Yeah, you'll be able to respond.

MR. O'KEEFE: Yeah, I'm just objecting to it so that it's on the record.

THE COURT: Yeah, make a note, yeah.

MR. BURGESS, K.C.: And so what we have is that on October 28th, Mr. Collins has admitted that was the last time we were on site, and then we ran into issues with the



asphalt, and then we have the resolution of the Town Council, and the Affidavit of Mr. Young that says the work was done, and I've heard your comments with your concerns with respect to his comments, but paragraph 11 of his Affidavit says the work was done by a third party, and we would argue that there was no notice requirement under the contract for the set-off.

Now, with leave of the court I'd like to file two cases, and it's only, they're very narrow cases.

MR. O'KEEFE: I don't need the cases, I'm not going to review them.

MR. BURGESS, K.C.: The first case, Justice, is an Ontario Court of Appeal, 2021 case, the *Baylin Technologies* case, and the purpose of providing the court with this is to support the principle of the fact that a contractual set-off is governed by the terms of the set-off in the contract. So you look to the four corners of the contract, and in



particular at paragraph 68, in that paragraph quotes Kelly Palmer, and *The Law of Set-off in Canada*, notes the normal rules of set-off such as mutuality, liquid debts, connected debts, do not apply and that the parties are free to contract for whatever result they wish. He concludes that agreements to set-off which would aside from the agreement not be granted relief due to the absence of the requirements of set-off would be upheld.

And then paragraph 69 refers to the Supreme Court of Canada case that, and cites paragraph 22 to support that, and for fullness of the record, I have provided the court with the Supreme Court of Canada case that, again, the reference there is that quote.

THE COURT: Okay, so just let me understand that, so the set-off is contained entirely within those two contractual provisions, 20.13 and 10, and that doesn't require any notice.



MR. BURGESS, K.C.: Correct, well, I didn't see any contractual provision that said notice had to be given for set-off, and they rely on the principle that the four corners of the contract determined the requirements for any set-off. So the Town of Deer Lake's position is that the set-off occurred in December of 2021.

Lastly, on the costs, I'm not going to go into that in any great detail. The court has all the relevant facts, it's a broad discretion, I would urge the court not to impose any kind of punitive damages in this case. This is the Town of Deer Lake, a relatively small town, that we would ask that, that such costs ...

THE COURT: Well, it's solicitor and client costs, which would be the highest costs I could order, indemnity costs. The Court of Appeal has put very strict guidelines on that which requires ... I'll ask Mr. O'Keefe to respond to this, but I'm not sure the test is



met. It's a reprehensible, scandalous, abuse of process, there's a specific ruling by then Justice Green, Chief Justice, that, you know, a bad case is not an option, or a poor case is not enough to award solicitor and client costs, but I don't think I'm bound by that to order anything on the scale Column 1, Column 2, Column 4, Column 5, any comment on that?

MR. BURGESS, K.C.: Well, I think in this case that, I acknowledge that the Town ignored the Monitor, virtually, and while I appreciate if you're involved in this process, from March to July is a long period of time, when you step outside the courtroom, I'm not sure that is a lengthy period of time. I think it has to be kept in mind that we started this process at the beginning of July and we're in the middle of August, in the summertime ... I hesitate to use that as an excuse, Justice, but that's ...



THE COURT: I'll give you, or I'll only observe, in these type of matters, four months is like an eternity, but setting that aside, I'd like you to comment on the general proposition that Mr. O'Keefe didn't really focus on in his argument but did in his brief ... all interesting ... the claims procedure specifically identifies the Town of Deer Lake claim as \$57,000 which is what you held back, you say statutory holdback, and it identifies that as a claim against the statutory holdback. It doesn't say when the claim arose, it just says the claim against the statutory holdback, and that specifically was given to your client in draft form, and the final order was given to your client in draft form, so they knew it, they read it.

And assuming I were to find that this is a holdback, statutory holdback, not a deficiency holdback, what is the argument to say, well, you may be right, maybe it all occurred before the CCAA, but that's what



the claims procedure is supposed to decide. Any one of these claimants could have raised the set-off argument or something along those lines, so why wasn't the claims procedure the way that you had to resolve this matter? And you knew about it, I believe, I can't recall, but I'm certain the Town of Deer Lake was on many of the calls ... why is this carved out?

So for example, you would have no idea whether Western Surety had a pre-pre-set-off claim. I suspect they have advanced that in the claims process, I don't know, but I suspect that was a live issue. So why is this type of claim exempted from the claims order?

In other words, it's an interesting discussion we've had here about the characterization of the claim. Once you characterize it as statutory holdback isn't it covered by the claims proceeding, and



that's the end of the matter? You've picked your wrong forum in other words.

MR. BURGESS, K.C.: Arguably so, but I would respond with a couple of, in a couple of ways. Number one, I think in order to get encompassed by the claims process it has to, in fact, be a statutory holdback because in this case, the claims process identified a statutory holdback of \$57,000 and change.

THE COURT: Uh hum.

MR. BURGESS, K.C.: I'd be hard pressed but I will argue that if the amount is different then that's an issue, but that's a stretch, but I'll make it, but it is not a statutory holdback then, I think that's a very valid issue ... and the issue I take with it, and why I think this was necessary ... the good, and the bad, and the ugly ... this was never scrutinized. I don't know how it became in this process labelled a mechanic's lien holdback because, well, we take issue that it wasn't a mechanic's lien holdback, and so that goes



to it, but somehow it comes out, even in my learned friend's correspondence to the Town ... so if you look at Mr. Young's correspondence, or sorry, his Affidavit, even if you look at Tab 10 of his Affidavit, and that's the letter from Mr. O'Keefe to the Town of Deer Lake, February 12th of 2023. It talks about a holdback, it doesn't talk about a mechanic's lien holdback, so in the second paragraph it says, "the outstanding holdback owed to ECC". Now ...

THE COURT: Okay, but that's (inaudible) in argument and I guess now it's crystallizing to me why you're calling it a deficiency holdback, but you're asking me to accept that an active participant in the process, albeit, I'm not criticizing the Town of Deer Lake, he didn't even have the job, you know, and I can imagine what it was like at the end of the process and ... but that's not the process in which we're involved.



This wasn't thrown at them as a fait accompli, it was discussed in court on numerous occasions and went to them for comment in draft form, many of the other parties commented, and there it is. So you're asking me to say, oh well, the Monitor improperly characterized the holdback ... well, your client watched it happen, and you know, as I pointed out to you the last time, and the Supreme Court of Canada has made it very clear, that participants in the CCAA owe a duty of good faith, I'm not convinced that you breached that obligation, but you certainly acknowledge that they did not act with due diligence. They ignored it all ... received but ignored and I'm not entirely surprised given that a Communications Director, I wouldn't have thought, would be involved in a legal document involving the claims process, but that's the way it is, and I'm not sure I can give your client much slack because it's a



small town. You know, they have competent counsel, now they have competent counsel, they had counsel at the time ... five minutes would have resolved the issue, it would have been referred to counsel who would have said it's not a statutory holdback, or we shouldn't be part of this process at all ... one of the parties refused to participate in this process until a lot of water went under the bridge, all of which were open to your client.

So fundamentally I'm asking you, the only way CCAAs can proceed with multiple claimants, if we were doing this for every one of the hundreds of claimants of Collins, there would never be a CCAA because the costs would bury everyone and it would never be done.

So there is a strong argument, I'm asking you to respond to, I think your argument here is, it doesn't apply because it's not a statutory holdback, it's a deficiency



holdback and therefore it's not the claim that we're talking about ... that's the best you can do, I think, is it?

MR. BURGESS, K.C.: Well, that's one of the arguments. It's no different than if it had said, the Town ... and by the way, Mr. Young in his Affidavit at paragraph 20 does allude, or not allude, but states, we misunderstood, we thought it was in relation to our claim against the Town and now the claim against us ... ignorance is no defence, I can't ...

THE COURT: Well, it is your claim against the Town, you are advancing a claim against the holdback, that's the whole process. Everyone here had a claim against ...

MR. BURGESS, K.C.: No, we're saying we have, we're saying it was ours, we took it. We took it in ...

THE COURT: Yeah, no, no, but you had a claim against their holdback, you took it.



MR. BURGESS, K.C.: We took it in December of 2021.

THE COURT: But isn't that something for the claims procedure to say? If you could establish to the Monitor ... set-off, dusted, done, months, years before the order, why are we here ... you would have made that resolution.

MR. BURGESS, K.C.: And it might have ...

THE COURT: But every one of these claimants ... Western Surety I am guaranteeing you made a similar ... I shouldn't say that, I haven't seen it, but Western Surety made similar arguments in this court, you know, they were subrogated to this, they were subrogated to the rights of lien claims and so on, and it wasn't resolved here. If you had gone on the claim procedure and were aggrieved by it, you would have appealed and I would have had to deal with it then. We would have been doing this then.



MR. BURGESS, K.C.: Right, except that ...

THE COURT: But the position you're putting a CCAA court in is I'm not participating because my claim is already decided. I've decided I don't have a claim because I did it before the CCAA. Well, the Monitor doesn't agree so ... and the company does not agree, so it is a dispute. I'm not saying you're wrong. You might be completely right, but is it necessary for me to pretend you've made your argument at the Monitor and lost and now you're appealing it ... is what this more feels like because you didn't make your case where you were supposed to.

MR. BURGESS, K.C.: Well, other than if, I would submit to you one of the arguments in relation to that, along that frame, is that the claims process order said, Town, if you're going to assert a claim you've got to assert it or else it's extinguished, and by the way, if you don't or if you lose you've got to



pay the statutory holdback of \$57,000 ... well, what if that claims process had said, and I don't mean to trivialize this at all, but what if it said if you don't assert your claim, not only does your right extinguish but you have to give back the Ford Mustang 2020 ... and the Town is here saying, we didn't have a Ford Mustang 2020, as novel as that may sound ...

THE COURT: But that only works if they've mischaracterized the holdback as statutory holdback.

MR. BURGESS, K.C.: It does, it does.

THE COURT: Now, it didn't say a mechanic's lien holdback, I will note, it says "statutory", but everyone knows that means mechanic's lien holdback.

MR. BURGESS, K.C.: I don't think there's any other one it could be but ...

THE COURT: So I have to accept your argument then that it is not a mechanic's lien holdback for this argument to hold any



water. If I reject that you'll acknowledge it covers your claim?

MR. BURGESS, K.C.: Yes.

THE COURT: So you don't want ... what is your position on costs if you fail?

MR. BURGESS, K.C.: Costs under Column 3.

THE COURT: Anything for you?

MR. O'KEEFE: Do you want to hear all my rebuttal or just on costs because I have to respond to a number of things.

THE COURT: Go ahead, you're entitled to rebut.

MR. O'KEEFE: I think the Monitor can be heard, I guess, after our rebuttal argument, Justice?

THE COURT: Well, you might have some issues with the Monitor so let's hear the Monitor first.

MR. O'KEEFE: Okay.

THE COURT: Now ...

MR. O'KEEFE: Go ahead, Ms. Fell.



THE COURT: ... you're going to have to speak up, I'm afraid you might have to pick up the phone because I can't hear most of what you say. Now, maybe we can put the speaker up next to me, is that possible? It would be nice if we could invest in a 20 foot cord. Okay, over to you, Ms. Fell, is it?

SUBMISSIONS BY MS. FELL

MS. FELL: My lord, can you hear me?

THE COURT: Yes, is this Ms. Fell?

MS. FELL: Yes, this is Ms. Fell.

THE COURT: Yeah, okay, yes, I can hear you.

MS. FELL: Okay, great, thank you. My lord, I understand that you didn't get our report which is unfortunate but, as it was given to the court, however, I can take you through that, we just haven't had a chance.

THE COURT: No, the Monitor's Report I did get it, we found it and I've reviewed it, but I



didn't review any of the attachments but I've read the report.

MS. FELL: Okay.

THE COURT: You can highlight anything critical that you think I need to focus on.

MS. FELL: Okay, thank you, my lord, so I think, you know, the point that the Monitor would like to raise is that the Town had an occasion, multiple occasions to comment on the draft order. The order was circulated to all prospective (*phonetic*) claimants and if you remember, my lord, the order is (inaudible) because there was A/R that was appearing to be owed to ECC on the books and records of the company and the idea was to be able to ascertain and bring those funds in in the event that they were due and owing to the company. So the Monitor did send the draft order for comment and that was on March 1st, 2023, the draft order was circulated by counsel to the Monitor, by us, to the Town.



Following the case management hearing on March 17th, 2023, the Monitor also sent the final issued and endorsed claims procedure order to the Town, so not only could the Town comment on the order and (inaudible) up any discrepancies, including the fact that maybe there was a set-off, or maybe there was nothing owing, but they could have also made submissions as well. No one appeared, no one emailed the Monitor.

After the hearing, pursuant to the order the Monitor was required to send a proof of claim to each claimant, and on March 20th the Monitor sent the Town the order as well as the proof of claim, and the order is very clear. It says that the amount of \$57,000, approximately \$57,000 is due, or is owing by ECC (*sic*), sorry, owing by the Town to ECC.

So the Town of Deer Lake was defined in the order as the "Claim of the Town of



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Deer Lake against the Debtors in respect to a paving construction project pursuant to which the amount of \$57,000 in statutory holdback is being withheld." No one ever contacted the Monitor to state that this was incorrect, or there was holdback, or it was just unaccounted (*phonetic*) deficiencies.

So as of the claims bar date no proof of claim was submitted by the Town, so at this opportunity the Town also could have stated that there might have been amounts owing to ECC pursuant to this alleged deficiency holdback, however ... and the Town was exercising a right to set-off. However, that did not happen. No one responded and no proof of claim was delivered.

After that date and until June, Phil Clarke of Grant Thornton followed up with the Town to try to obtain any response as to information about their claim or whether



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they were going to respond at all to the claims procedure order.

Following the claims bar date the Monitor again followed up with the Town and stated that this amount is due and owing of the statutory holdback, no response, so at any given point before the claims procedure order was granted and June the Town could have asserted, and the Monitor would have listened, to the position that nothing was due and owing.

Now, my lord, as a Court Officer I would not, I would review a claim notwithstanding it has been submitted following the claims bar date and (inaudible) to know that it is a meritable claim, notwithstanding that it would be barred. So the Monitor did undertake to review the documents provided by the parties, it reviewed the tender documents and it seems clear to the Monitor that there clearly was an identified statutory holdback under the Mechanic's



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Lien ... it also was not clear that there was any sort of, quote, unquote, "deficiency holdback".

So based on a review of that documentation and a review of the Affidavits supporting and attached to the Josh Collins Affidavit, including the text messages early in 2020 mentioning a ten percent holdback, the Monitor does not believe that there was any deficiency holdback compensated (*phonetic*), and nor was this ever communicated to ECC.

So in its entirety, taking into account the fact of the evidence that (inaudible) the Josh Collins Affidavit, the tender documents, as well as the fact that the Town had numerous attempts to not only comment on the order but make submissions or file a proof of claim to support their position as to any sort of set-off. We do not see that and so, therefore, you know, it's the Monitor's view that in



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accordance with the claims procedure order which is (inaudible) 13, "the claimant who does not deliver a proof of claim to the monitor by the claims bar date shall be forever extinguished and barred, shall be required to immediately submit to the Monitor any and all amounts being held by such claimant in connection with their (inaudible)."

So by default the Town is required to remit those funds to the Monitor. At no point did they suggest that there was no statutory holdback. At no point did they contest any portion of this order, or that amounts were due until past, well past the deadline.

I will not go into the set-off (inaudible) we do not believe that there is evidence for a set-off for any deficiencies, but the Monitor is relying on the claims procedure order and the claims bar date in respect to the proof of claim (inaudible) the claim and



for the Town to remit the funds. Those are my submissions, if you have any other questions ...

THE COURT: Do you have anything to say on costs for the Monitor?

MS. FELL: The Monitor is supportive of the Debtor's argument for costs and the petition for costs, and that is because significant time has (inaudible) and I do not say that lightly. We, as the Monitor, the Monitor obviously has an obligation to ensure that stakeholders know what's going on and we were aware that the Town may or may not have counsel and we were cognizant of that and made sure that we were constantly following up. I think it is ... at least the Monitor believes the evidence is clear that (inaudible) whether there's a claim or not to holdback, we are of the view that it's clear that there is a statutory mechanic's lien holdback, and so given that the (inaudible) as well is the fact that the Monitor had to



expend significant time and cost to do this, and the Applicant had to seek a contempt order for even the Town to respond, we are supportive of the Debtor's position on costs.

THE COURT: Thank you.

MR. BURGESS, K.C.: Justice, I had a hard time hearing her at the end.

THE COURT: They support the, they support Collins' position on costs.

MR. BURGESS, K.C.: Thank you.

THE COURT: Thank you, Ms. Fell.

MS. FELL: Thank you.

THE COURT: Mr. O'Keefe?

REBUTTAL SUBMISSIONS BY MR. O'KEEFE

MR. O'KEEFE: Thank you. I've got a few issues to raise in rebuttal. Some of these will go to the issue of the alleged set-off, some of them will go to the evolving case that we have to meet, that has further



evolved over the lunch period to include two new cases that we have not seen before, and a new argument that I would respectfully submit was, the seed of which was planted by the court in its questions before the lunch break on the contract, and I believe it was Section 10 and 21.13 of the contract that my learned friend referred to in his submissions. I'll go to 21.13 first.

My friend alleges that after we've gone through the exercise of talking about what types of holdbacks (*sic*) would be available, sorry, what types of set-off would be available to the Town, that they decided now it's going to be a contractual set-off, so it's not legal, it's not equitable, it's contractual, and if they are going to rely on a contractual set-off they absolutely must comply with the contractual steps to get there.

And when you look at 21.13, sub-paragraph (a), it talks about withholding



payment, and there's a crucial phrase in 21.13 (a), "until the liability for damages is established", that has never been done, ever ... the whole set-off claim is based on an allegation, an unproven allegation that they suffered losses that has never been proven on the evidence. The contractual set-off claim, with all due respect, is filed, or at least submitted beyond the eleventh hour, it's submitted now, today, in real time.

Let me address a few other points that were raised by my friend in his submissions. Not only do they try to convince us that there's a contractual set-off, the court asked my friend, what do you make of this email on August (*sic*), or sorry, on October 26th, was that your five day notice? And I sat here and watched my learned friend ... yes, it is, that's our five day notice, yes, Judge, that's the five day notice ... the first we heard of it. He characterized



it as a five day notice literally in the middle of submissions.

The case is being made up as we go along, it's extraordinary. We went from, we have a deficiency holdback which I think everybody can see now is fictitious ... to now, the claims order was confusing so we're not really sure if it applies to us or if it doesn't apply to us so we just decided not to comply with an order of the court ... to, we have a set-off, we're not sure what type of set-off it is but now it's a contractual set-off and that email we sent, that's our notice. Like it's literally being made up as we go along.

So you mentioned something, and we're going to talk about costs in a second, you mentioned something in your comments, Justice, you said, and referring to Justice Green and the Court of Appeal, you said well, you know, you're only going to get fully indemnified costs if you can establish that



there's been reprehensible conduct, and I will qualify my next comments again by saying none of this is meant to reflect on my friend's presentation of his case or his client. I'm going to focus my comments on the Town of Deer Lake's conduct.

The Town of Deer Lake has pursued a fictitious narrative about deficiency holdback. That was clearly made up because they thought it was going to give them a strategic advantage in claiming that they issued a set-off. The second thing is that the Town of Deer Lake clearly and deliberately ignored the claims process. There's no two ways about it. The time for excuses is over.

Like we were here on July 28th and my learned friend made submissions that I'm going to the Town of Deer Lake, I'm going to get instructions, I'm going to get all the documents, Justice, I'll come back and, Justice MacDonald said, where is my



evidence? Mr. Burgess, where is my evidence? We're here today almost a month later and we still have zero probable (*phonetic*) evidence. We have a witness who knows nothing about this, who has filed an Affidavit, just a plain reading, and this is uncontroverted evidence ... like we put this in issue and nothing has been done today to walk that back. That is before the court.

They filed an Affidavit that is clearly misleading. They left out all the correspondences that talk about remediation and repair because they wanted to support the narrative that they had decided with some power of, like prescient forethought that they had decided six months prior that they were going to hold back 15 percent for deficiencies that had not even materialized. Like it's completely bogus, it's obvious.



And now we're talking about costs and we're saying, well, maybe they shouldn't get costs ... like if we don't get fully indemnified costs why are we even doing this? The costs, the value of this claim is gone, like it's gone. Like there's no point for us to even do a claims process. Like if any creditor, or potential creditor can come in here and make up whatever story they want, put us through months of preparation and affidavits, and all the stuff we had to go through, just to say at the end, well, we tried our best, I'm sorry, you know, if this was a real trial here, you know, we'd have more time, and like that's not what this is about.

Like look at the evidence ... it's not even about not having the time, it's about the misleading nature in how the evidence was put together, and if Mr. Young wasn't the guy, if the excuse is well, I'm sorry, I didn't know what I was doing, like I'm new on the scene, that's not our problem.



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They are, they are a claimant, right, like the whole nature of this process appears to be misunderstood. The claims order says there's an amount you owe us. If you want to claim against that amount, you or anybody else want to claim against that amount, file your claim. It's not for us to prove it's our money, even though that's how this has evolved ... it's for them to prove it's their money. Like they have to take the proactive steps, otherwise we get our money and we're moving on with the CCAA.

So it's crucially important that we establish this because if we walk away from here today and we have to pay one nickel towards this bogus process that we've been involved in, with all due respect, I'm not saying the court's process is bogus, I'm saying the position is bogus, if we have to walk away and pay one nickel towards that, if we have to take one dollar from RBC, or



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one dollar from CRA, where does that stop, because then the Town of Bryant's Cove will be in next, and then it will be the Government of Newfoundland, it will be all the other claimants that are listed in the claims process order, and we won't have a \$60,000 problem, we'll have a \$300,000 problem.

And then what happens? What if we don't have the money? What happens to our CCAA? Like these things have a way of eroding the very fabric and integrity of the CCAA process, so it is clear to us, they have been making this case up on the fly, strategically to avoid paying. There was no contractual set-off, they did not comply with the contract, the characterization of that October 26th email as a five day notice, it doesn't even comply with the contract, and it's not even the type of notice that they want it to be.



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If you actually look at that email, and it's the last exhibit I'm going to refer to in my submissions today, if you look at that email, it's attached as exhibit ... my apologies, I'll find it. Just bear with me, Justice, I apologize.

THE COURT: I think it's Tab 10, isn't it? No, 10 is the ...

MR. O'KEEFE: I'll go to the Deer Lake Affidavit because it seems unfortunately that my printed copy ...

THE COURT: Yes, it's Tab 9 of Jason ...

MR. O'KEEFE: Yeah, if you go to this email, this alleged notice, okay, that's now being, mid-trial, characterized as the contractual notice. It says, "Please be advised that the Town is formally providing Edward Collins Contracting with a 24 hour notice to be on site to commence paving operations." Well, they did that, that's established on the record that they did that.



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Then my friend goes on to say, no, no, no, but just because they showed up, that didn't cure it. No, no, there's a second piece to this, read on ... "As previously communicated this work on Goose Arm Road must be completed by October 31, 2021." They terminated the contract on October 29th.

So in summary, I appreciate the valiant effort of counsel to present, to try to pull something from the ashes on this file and present a cogent argument. We have heard this morning questions like when does the mechanic's lien expire? The mechanic's lien doesn't expire, like read the *Act*. The *Act* says clearly after 30 days, once substantial completion is achieved and a certificate is submitted, you pay it ... it doesn't expire, it doesn't evaporate to the ether because you haven't claimed it.

We've heard questions like, why didn't you file a mechanic's lien against your own



project to get your mechanic's lien holdback? We've heard questions like, look at your substantial completion certificate and tell me why it says zero for mechanic's lien? It says zero for mechanic's lien because we're claiming the holdback. We don't put a lien on our own holdback. These sort of circular nonsensical questions, with all due respect, are being asked because the case is just evolving on the fly. Like what are we doing, are we on set-off, no ... which type of set-off are we ... oh yes, we're going to re-characterize this as a notice. It's completely all over the place.

And that brings us to the issue of costs, you want to talk about reprehensible conduct or things that rise to the level of fully indemnified costs as directed by our court of appeal. What more do we need other than a case that's been manufactured out of thin air; that has been dragged out for



six months at great expense to a company who is legitimately trying to get through a CCAA; an Affidavit from somebody who has admittedly no personal knowledge at all of any of the allegation ... an Affidavit that on its face, uncontroverted on its face, is misleading and deliberately constructed to be misleading. Like it's not a mistake, they deliberately left out emails that weren't helpful and letters that weren't helpful, and deliberately used notices from a year prior to give the impression that there was a contractual framework that they were following. It's not by mistake, it's ... you read it, it's clear, it's by design. That was not addressed, and the time for addressing that is over, evidence is in. No amount of argument in the world is going to address that because there's no evidence to deal with it.

So from our perspective, Justice, and I know I'm very emphatic here today, I'm very



animated because this is so unbelievably excruciating for the company who is trying to do the right thing and turn this around, to have to deal with this kind of stuff. The company must get fully indemnified costs, it has to, because even costs on Column 3 is going to see this award, if we are successful here today, I don't want to be presumptuous, but even if we were successful, it's going to erode the award to the point that next time this happens, a week, or a month, or two months from now, the company is going to say what's the point, why are we even doing this claims process ... sure, anybody can come in and say anything and we'll spend \$100,000 trying to prove a bogus case is bogus and we're going to be no further ahead. Why would we even bother?

THE COURT: Okay, well I'm just going to read you the excerpt and the Court of Appeal



has given a decision on costs as recently as a week ago.

MR. O'KEEFE: Which is the case, Justice?

THE COURT: This is *Perry vs. Heywood*, this is sort of one of the leading cases referred to by ...

MR. O'KEEFE: I'm familiar with the case, yes.

THE COURT: "(inaudible) normally give for cases where an award of solicitor and client costs is appropriate are taking action in bad faith by making serious but unfounded allegations of wrongdoing such as fraud or arson; committing a fraud on the court by deceptive conduct or perjury; engaging in obstructionist tactics or time-consuming trial time on unnecessary or irrelevant issues to exhaust the opponent's resources. However, the fact that an application has little merit is and of itself no basis for awarding solicitor and client costs. I would add, there is another category of contact which is oppressive contact", and in this



case it's a minority shareholder. So I am sympathetic to your argument that the potential for abuse in CCAA is immense if you have a well-funded litigant who intends to exhaust the applicant through legal fees, but I'll also note that, you know, the text on CCAAs quite often will comment that costs are rarely awarded against claimants because they're an involuntary participant in the process.

So my discretion is much broader on Column 5, for example, I don't have to meet all of these tests to award Column 5 costs, as opposed to Column 3, or any other column, than I do in solicitor and own client costs. Not to say I can't do it but ...

MR. O'KEEFE: Well, if you wonder what I'm doing, I'm pulling up the case because I want to respond. I don't have a copy of it but I'm going to get it because I want to respond to it.



THE COURT: Yeah, so I need ... if you want solicitor and client costs, and I assume that the Monitor will want the same, and Ms. Fell can comment otherwise, but I took her position to mean that she wants solicitor and client costs. I have to fit within the Court of Appeal direction on that and I don't ... my discretion isn't as limited in Column 5.

MR. O'KEEFE: Well I have a reply, and I want to pull up the text of what you just read.

THE COURT: Yeah.

MR. O'KEEFE: Because you enumerated four, maybe five categories where solicitor-client costs, indemnified costs would be appropriate. I thought I was clear in my submissions that, we hit at least three of what you've just recalled ... we don't meet all of them.

THE COURT: So bad faith ...

MR. O'KEEFE: So let's talk about bad faith.

Now, we know that the CCAA imposes on all participants in this proceeding an



obligation of good faith, Section 18.6, it's in our brief, so there's a statutory obligation to act in good faith. What does acting in good faith mean? Well the first thing that acting in good faith means is you comply with directions of the CCAA court, you comply with orders. You don't blatantly disregard and ignore orders of this court, that's the first issue.

The second issue is, if you're going to challenge a debtor company who is already in financial stress from claiming money that is legitimately theirs you better have a clear and cogent case supported by clear and reliable evidence. That didn't happen here.

When we think about good and bad faith, we often think about bad faith as being, you know, the person who comes in and, you know, files fraudulent documents with the court, that kind of stuff ... that's like a scale ten, right, that's like really egregious



bad faith ... the Town is somewhere on that scale, right?

I'm not saying that they're malicious, I'm not saying they're malevolent, but what I'm saying is that they haven't approached this process with the necessary element of good faith, due diligence, and honest participation that they should have, so they have hit, in our respectful submission, based on everything I've said about the veracity of their evidence, based on Mr. Young's testimony this morning, I mean even as he was testifying, and again, I sympathize with Mr. Young, but even as he was testifying he was changing his narrative on the fly, he was literally making up things on the fly ... somebody told him this, and then I, you know, I tried to impeach him on the question ... oh no, no, never mind, no, they didn't tell me this, it was just ... it's been like that since the beginning, so they have met the threshold of bad faith. And



what's the next one you'd like me to address, Justice?

THE COURT: Well, it's not fraud or arson, I don't think they committed a fraud.

Engaging in obstructionist tactics on time-consuming or unnecessary applications.

MR. O'KEEFE: Okay, well, let's talk about obstructionist tactics, what more obstruction do we need to demonstrate other than a party who deliberately ignores a court order. Like we're in the final months of our CCAA, we started this in March ... why is the company spending, like we all know the CCAA is meant to give the company breathing room from creditors not to have to deal with spurious and frivolous claims, so we're, you know, six months into this, that's why I walked Mr. Young through all the emails ... did you get this email, yes, I did ... did you get this one, yes, I did ... did you get this one, yes, I did. Did you do anything, no, I didn't. You knew your counsel was



apparently off as of March '20, did you hire anybody else? No, we didn't bother. Like, you know, where does it stop? Like what do you need to do to show that you're being obstructionist, like you're ignoring a process that you're bound by. There's a more better definition of being obstructionist than that.

Like they are subverting the process, they are plugging their ears and saying we don't want to listen, they're not ... no, we're subverting this process. Like go away, we don't want to hear you, Mr. Justice MacDonald, we don't care about your order, you know, that doesn't apply to us, and then when they ultimately do hire counsel five months later, we're going to make up stories as to why it doesn't apply to us, notwithstanding we never spoke about any of this for five months.

Like my friend challenged us on the issue of my letter, he said, Mr. O'Keefe wrote a letter in February where he



characterizes the holdback as a "holdback", he didn't say that it was a mechanic's lien holdback ... what was he expecting, that I was going to say it's a mechanic's lien holdback, brackets, not a deficiency holdback? Sure the deficiency holdback was just a recently made up concept, it wouldn't have even crossed my mind. I wouldn't even expect a deficiency holdback because like you said, Justice, I would have expected some evidence of this, like a deficiency punch list or whatever ... this was all made up last minute.

So I think the evidence is pretty clear, they have been obstructionist, they've been obstructionist through this process. They have deliberately ignored the process and they forced not only the monitor and the company to spend money in the process ... what a massive distraction this is to the company in the middle of their closing of their SISP progress, trying to do what this



court has asked them to do, which is restructure their business for the benefit of the community, and we're here distracted with this, what we would say, sort of frivolous pursuit. So yes, they have been obstructionist, they have clearly obstructed this process. And what's the third one, Justice, you would like me to respond to?

THE COURT: On unnecessary or irrelevant issues to exhaust the opponent's resources.

MR. O'KEEFE: I think my answer to that is probably subsumed in what I just said.

THE COURT: Yeah.

MR. O'KEEFE: So look, on costs, Justice, to summarize, there's a number of other things that my friend said in his submissions ... I'll probably end up repeating myself. We have filed written submissions, they have not ... I have not read those two cases, I don't know what they stand for, but I'm not willing to read them now and respond to them. I've never seen them before, they



have ... (inaudible) talk about obstructionist ... this court said have all your materials in by August 14th, like this is where we are. It's been constant this whole process, so from us, from our perspective, we have to get fully indemnified costs, otherwise this claims process is useless to us. I think we've met the threshold set out by the Court of Appeal, I think we've met the thresholds set out by Section 18.3 of CCAA. We set it out clearly in our brief, we have provided the court with numerous cases to support this type of relief.

And the final point ... on punitives, as I said earlier, we're not looking for a million dollars but what we're looking for, it could be five hundred bucks, but what we're looking for is the court to tell the Town of Deer Lake, and every other person that comes behind them, this type of behaviour is not going to be accepted by this court. If we issue an order in a CCAA process that



requires you to participate then you better show up when you're asked to show up, and don't put a debtor company through all this heartache, and grief, and financial expense just because you want five months to strategize on rewriting the narrative, because that's exactly what happened here. So those would be my submissions and I thank you very much for your indulgence.

THE COURT: Okay, Ms. Fell, just to clarify, what costs is the Monitor looking for? Can you hear me? Ms. Fell, you are probably on mute if you're still there.

MR. O'KEEFE: Justice, I will add one thing before Ms. Fell joins, there is one other issue I should raise on costs which I'd be remiss not to raise, one of the parties in this proceeding has issued a Rule 20A, and if the court is so inclined to deal with costs, the court may want to inquire as to the content of that Rule 20A and which of the



parties made that offer. As an Officer of the Court, I want to bring that to your attention.

THE COURT: Well, am I entitled to know that before I give my decision?

MR. O'KEEFE: I think the ...

MR. BURGESS, K.C.: I can say, no, Justice, because I was in the Court of Appeal when that issue was discussed and even to disclose that is inappropriate.

MR. O'KEEFE: Well, I think it has to be disclosed if you're going to intend on dealing with costs today.

THE COURT: No, I think I give my cost order and then it's ...

MR. O'KEEFE: Yeah, well I'm not sure exactly what the procedure is but I don't think it's inappropriate for ...

MR. BURGESS, K.C.: *Campbell*, Court of Appeal.

THE COURT: Pardon me?

MR. BURGESS, K.C.: The *Campbell* case in the Court of Appeal.



THE COURT: Yeah.

MR. BURGESS, K.C.: And Justice, if I might ...

MS. FELL: Hi, my lord, my apologies, I couldn't actually get my phone off mute.

THE COURT: That's quite alright, so what costs do you want?

MS. FELL: We were thinking around, at least around, for the Monitor, around \$35,000.

THE COURT: Is that solicitor and own client?

MS. FELL: That is solicitor and own client, yes.

THE COURT: Okay, okay, so we're looking at \$70,000 in costs.

MR. O'KEEFE: This goes back to the point, like if we don't get our costs we shouldn't have even come here, there's no point.

THE COURT: Anything you need to say?

MR. BURGESS, K.C.: Just three quick points, Justice, you talked about late filings, and I appreciate that I gave two cases to the court today, I received two cases from Mr. O'Keefe around suppertime last night. I



didn't raise any issue with it. It's a fluid process, I get it.

Number two, completely inappropriate, I'll put on the record, to raise the fact of a potential, one of the parties, a Rule 20A. You're going to have to consider what the impact of that is because I think there is an impact.

Number three, distraction, and I understand and appreciate CCAA and all the litigants before the court ... court is a distraction in all cases. I'm not minimizing it but those kinds of comments could apply to everything. Those are my comments, Justice.

THE COURT: Well, on the Rule 20 ... how do you think I would consider the fact that that statement was made? If you have no comment, that's fine, but are you asking me to do something?

MR. BURGESS, K.C.: I'd have to consider it, Justice, I don't know off the top of my ... as I



recall the *Campbell* case out of the Court of Appeal, and it was *Campbell vs. ...* sorry, *Tremblett vs. Campbell*, I do think the Court of Appeal, because I was involved myself on that, indicated that it was inappropriate to even raise it but I don't think in that case they held that it was sufficient for ...

THE COURT: I'm not going to consider it in any event in my decision, so anything else anyone else needs to tell me? I'm going to take about 15 or 20 minutes and I'm going to give an oral decision. I don't think it's necessary to do anything in writing here. If it takes longer than that to get my thoughts together I will let you know, so it will be done today, okay?

MR. BURGESS, K.C.: Thank you, Justice.

THE COURT: And I have to take some of this stuff so bear with me while you're watching me pick stuff up.

(break)



MR. BURGESS, K.C.: ... a preliminary matter if I could. After, during our break Mr. O'Keefe raised with me a little concern, or not a little, a concern with me about my saying that the, divulging the potential Rule 20 offer was somehow derogatory to him. I want it made clear to the court and everyone in this court that, it was not in any way asserting that he was unprofessional and meant in a derogatory way, so I want that made clear, and that's important for Mr. O'Keefe, I understand that ... as Officers of the Court our reputation is paramount. Thank you.

ORAL DECISION OF JUSTICE MacDONALD

THE COURT: Thank you. So first of all, thank you, everyone. Thank you, witnesses who testified, and thank you, counsel, for the assistance you've given me, I appreciate it. I know this is high stress times for, particularly for the company when it's



attempting to resolve its restructuring under the CCAA, and it is a type of proceeding that has not been commonly heard in this court until the last couple of years so I acknowledge all that and counsel's adaptability in coming to terms with the fact that we're doing litigation on the fly and it's not a usual litigation process, so I appreciate that.

So first of all I'd like to give some context, this is an application in the CCAA process. I have to consider any application in the light of the remedial objectives of the CCAA which have been enunciated by the Supreme Court on a number of occasions, and in particular the *City of Montreal, Ville de Montreal*.

The remedial objectives the court highlights in paragraph 86 include avoiding, including the following, and I'm quoting, "Avoiding the social and economic losses resulting from a liquidation of an insolvent



company; maximizing creditor recovery; ensuring fair and equitable treatment of claims against the debtor company; preserving going-concern value where possible; protecting jobs and communities affected by the company's financial distress; and enhancing the credit system generally." They took this from *Callidus* which is another well-known Supreme Court of Canada case on the CCAA.

So in this regard they continue and say, "the (inaudible) restructuring by way of liquidation or otherwise, and the impact of the pre-post-composition (*phonetic*) and its progress can be weighed by a court in the exercise of its discretion", but I have to consider those factors. "In addition, protecting the public interest, although it overlaps a number of the remedial objectives to be considered by the courts, it must be included in the list." So that's my obligation when I consider this cases.



So in light of this guidance and pursuant to the process instituted by the Monitor, I instituted a claims resolution process, that was crystalized by an order dated March 14th, 2020. This was prepared and revised by the Monitor after input from various creditors. The Town of Deer Lake acknowledged today, and the evidence of the Monitor is clear, was aware of both draft orders and the final order. The Monitor circulated the claims process and the claims form directly to both the Town and other creditors, and Mr. Young acknowledged all of this.

One of the claims set out in the Claims Process Order was described as "Town of Deer Lake Claim", which means the claim of the Town of Deer Lake against the debtors, which is the Collins companies, in respect of the paving construction project pursuant to which the amount of \$57,070.50 in statutory holdback is being withheld.



That was in the drafts and in the final version.

Article 13 of that order specifically provided ... "the court orders that those claimants who do not deliver proof of claim to the Monitor by the claims bar date", the claims bar date is March 27th, 2023, "shall be forever extinguished and barred and shall be required to immediately remit to the Monitor any and all amounts being held by such claimant in connection with their applicable claims, process claims" ... which has been defined in the context of Deer Lake as the statutory holdback ... "and all claimants shall be deemed to be fully and finally released and discharged if all claims, process claims, against the Debtor and the Monitor."

It's important at this stage to just pause and say why do we do a claims process in a CCAA. CCAAs in line with the remedial objectives of the Supreme Court direction,



is designed to try to preserve companies as a going concern, or if they're liquidated to try as best as possible to protect the communities and the employees to which, who rely on these companies.

The court has been clear in *Callidus*, as confirmed by *Ville de Montreal*, that a party's failure to participate in the CCAA proceedings in a diligent and timely fashion can undermine these procedures, and more generally, the effective functioning of the CCAA. So this is critical, without a claims resolution procedure, as we can see in this process, this is a small claim among many, much larger claims for the company. Legal fees can overwhelm the process and make the whole thing ineffective, and in this case I've heard evidence that it's over \$70,000 in legal fees for the company, and the Monitor, and probably a similar amount to the Town of Deer Lake on a claim of 50 some thousand dollars ... it is ... or \$57,000, or



\$59,000, and it can completely overwhelm the process and make the entire CCAA process unworkable.

If I had to have this kind of hearing and this kind of effort for every one of the claimants that could be expeditiously, and simply, and cheaply resolved by the Monitor, with an appeal to the court if they're unsatisfied, the entire system would be severely adversely affected. So it's in that context that it's very important to understand why CCAAs often have claims procedures because otherwise the system would become bogged down and it would adversely affect the objectives directed for me to apply by the Supreme Court of Canada.

The evidence is clear, and I won't go through the dates, the Town did not respond to any of the drafts, the final order, or any of the follow-up requests from the Monitor to present claims. In fact, the



Monitor has told me today that despite their failure to do so by the claims extinguish (*sic*), the claims ... whatever I called it, the claims date, they still reviewed their documentation and came to the conclusion that the Town had no valid claim ... but that's not particularly relevant to my decision.

The Monitor told me, the Monitor's counsel, that they did so because the Town, they knew, was unrepresented, although they were unrepresented by their own choice and not for any other reason. So it is clear to me that the Town of Deer Lake did not act with due diligence and in a timely manner. It is clear they didn't, they didn't do anything.

In that sense they are the author of the situation they find themselves in now because it would have been completely in order for them to solicit changes from the Monitor if they were unsatisfied with the



process, of if they were unsatisfied with the classification or the description of the holdback ... they did neither. They sat and did nothing and it's not for me to judge whether the Town should or should not have done so. It was in transition in leadership, I could easily understand how this could happen in a small town with only so many people to do the work and someone moving on to something else.

I think Mr. Young was clear that there was no response because there was miscommunication within the Town as to who was supposed to do what and whatever it is, it's not the problem of the court, or the CCAA process, or the Monitor, or the companies, to deal with that sort of problem. As a matter of fact, in my view the Monitor went above and beyond the call of duty here by continually following up with the Town as to what they want done.



One of the Town's objections is the classification of this holdback and I'll deal with the holdback, there's some disagreement of how much it is. It's either \$57,000 ... but I understand Mr. Young said he agreed that if it's a statutory holdback, the ten percent would be \$59,279.41.

The Town characterized this in the court proceedings before me, and really in the last month, that this was not a statutory holdback, which I think everyone concedes, statutory holdback is shorthand for a mechanic's lien holdback. They say it is a deficiency holdback ... a mechanic's lien holdback at \$59,279 is about, is ten percent of the contract proceeds, whereas the \$57,000 and some odd dollars is, I'm told, calculated on the basis of 15 percent of deficiencies that were then retained by the Town ... so says the Town ... by way of a deficiency holdback. I do not accept that it is a deficiency holdback.



The Town did not comply with any of the statutory, of the contractual provisions that would allow for statutory holdback, deficiency holdback. They did not quantify what these holdbacks were. They did not quantify what the deficiencies were. They prepared, they held this money back in the fall of 2020 when the project was substantially complete, by their own admission.

The deficiencies, I have no evidence what deficiencies there were, of any kind, in the fall of 2020, and it became apparent that the deficiencies, if I'll call them that, really relate to warranty work called for under the contract. The contract has a specific provision that from one year from the date of substantial completion, which is obviously a motivator for contractors to close substantial completion because this warranty still theoretically exists because substantial completion has not been



certified ... these were warranties under that claim, nothing to do with deficiencies. They were work in the course of the first year, and in this case a little bit less than a year, that were, proved deficient for some reason, weather, whatever, I have no evidence on what that is, and the contractor at his cost was required to fix that work if there was a deficiency in the work, so it is not a deficiency holdback.

And in particular, the contract itself has two provisions that deal with an ability to withhold money because of deficiencies. The first would be Article 10 which allows the company to hire another contractor, the owner to hire another contractor to complete work if there's a fault, and if five day notice has not (*sic*) been complied with, has been complied with, and the owner does not begin a rectification within the period set out in that contract with the schedule and the other requirements,



there's no evidence that that provision was ever invoked.

The second one is the general ability to set off against any other claims against the company. The problem with the, the Town's characterization of that set-off is at the time of the so-called deficiency holdback, there's no evidence there was any set-off. There was no evidence that there was any deficiencies. There was no evidence there was anything wrong with the work. In fact, the evidence, uncontradicted, before me is that the project was substantially completed. I think that's the exact words that Mr. Young used. The work was finished in the fall of 2020, and the so-called deficiencies are, in fact, warranty work which arose six months later, so there's no evidence before me at all that there was ever any set-off because there was no crystalized amount.



And even if you look at some of the Section 23.13 (*phonetic*), it requires that before the set-off to occur there has to be a quantification of the damages ... and again, there's no evidence of that. Even if that set-off had occurred sometime thereafter there's no evidence before me as to what the deficiencies actually were that the Town hired someone else to do. All I know is what they paid the other person, I haven't been given the contract for that person, I don't know what that contractor did, I don't know if there was additional work done on top of the work done.

So even if I could get over the hurdle that there was no set-off in the fall, but that there was some sort of set-off after the warranty work was undertaken in, or called for in May, there's no evidence what this contractor did in any way related to what the deficiencies were in the, or that triggered the warranty, none.



I would have expected the Town to tell me that. Here's the contract to complete, here's how it related to the other contract, the 100 and some odd thousand that we spent relates to this, and this, and that ... none of that is there, and that's a full expectation, before you can even assert a set-off you have to know how much are you setting off, not just that there's the damage.

There's other provisions in the contract to allow the Town to withhold certain amounts for deficiencies, no evidence that that ever occurred, so there's no documentary evidence at all that the Town in any way invoked any sort of set-off.

On the other hand, the contract is quite clear, there is a ten percent holdback on amounts due under this contract. One scenario is that the \$59,000, or the high \$50,000 amount was the statutory holdback under the contract, called for under the contract, makes sense, completely makes



sense. The other interpretation requires me to assume that in the fall of 2020 the Town arbitrarily took 15 percent off one invoice for alleged deficiencies when there was no suggestion at that time there were any deficiencies, it makes no sense. If you allege deficiencies, you have to tell the contractor, these are the deficiencies, you will fix these deficiencies ... that did not happen.

So I therefore find that this is, in fact, a mechanic's lien holdback and that the description in the claims process is accurate, but even if the claims process description is inaccurate and it was some sort of deficiency holdback, the Town did not correct this error in its many opportunities to do so.

Even if it was a deficiency holdback the Town has not established that they, in fact, had an amount to set off against that deficiency holdback. It's not enough to say



there is a deficiency, there is a requirement to account for that deficiency, you have to account for it in accordance with the contractual terms. You have to set it off in accordance with the contractual terms, and the Town concedes that that is where their rights arise.

The Town alleged, well it didn't, the Town did terminate the contract in the fall of 2021 by giving a 24 hour notice which is not within the contract terms, it required a five day notice; and they gave a 24 hour notice to return to the site even when Mr. Young concedes they were on the site and that that error had been rectified. They then said that the paving had to be completed by a certain date, but the Town terminated earlier than that on the basis that the work had to be completed by that date.

Well, let's assume that's even true, what is the contractual basis to insist the work be done on a five day notice? The requirement



on a five day notice is that you notify the owner of a default and the owner has an opportunity to respond. None of that happened, so even if it were a deficiency holdback, which I find it is not, it did not allow the Town to do what it did.

Therefore I find that the Town held back \$59,279.41 and it was on a mechanic's lien holdback. This gives rise to, can you claim a set-off against a mechanic's lien holdback, and I think the answer to that is clearly, yes, in certain circumstances. However, it goes to the fundamental issue that that is the process that is governed by the claims resolution process. I find that the claim is properly characterized and the Town had an ability to either give input on the claims process or accept the claims process as it was ordered, and comply with the claims process.

If they were aggrieved by the claims process they could come to the court



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seeking a review of that issue. What they can't do is what they did, which is ignore it completely, force the parties to litigate this matter, and in effect spend more money than the claim is worth, which if was followed by other creditors, would destroy the CCAA process.

I've already talked about the ramifications of allowing parties to ignore a claims process when they've been fully involved or had the ability to be fully involved in its implementation. It would dramatically effect CCAA in the extreme, well-funded litigants would refuse to pay, would require the company to sue, would be in this process that we've taken, taken many months, when they all could have been resolved very quickly and the parties still would have had the ability to appeal to the Judge if they thought they were hard done by.



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This had to go to the claims process, it's not open now to the parties to say, well, had we done the claims process this is what would have occurred ... they didn't do it. Even if that were not the case, the Monitor did review the case and has told me that they don't think that you have, the Town has any efficiency (*phonetic*).

So we cannot be in a position where litigants under CCAA are, are companies under, seeking the protection of the CCAA and the court when it's obliged to consider the policy considerations directed by the Supreme Court of Canada, can be in a situation where one party can derail the claims process when they had ample opportunity to attempt to do so in the consultation process.

I want to pause here and say, I don't blame anyone for this. Counsel was not retained at the time, and I can understand, I can see a scenario that this could have



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fallen between the cracks. We have the money, we don't owe them any money, and we forget about it, but it's a very superficial function and it goes directly against the direction of the Supreme Court of Canada that participants in the CCAA, part of the process if you're looking for money, that on its face is covered by the stay orders, you have to participate diligently and in good faith in the process, and I don't think the Town did proceed diligently.

Furthermore, even if we accept, I accept all the Town's arguments, this is a deficiency process, a deficiency holdback, there were deficiencies broadly defined, I mean work that was covered by warranty, although that is not classically a deficiency, it's not enough to say so ... even now I have no idea what these deficiencies were, I don't know what the problem was, I don't know if it's ... I have no idea.



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Implicit in the deficiency holdback is that the Town has identified the deficiencies and it's just not credible that they identified the deficiencies in the fall of 2020 when they seem to have occurred in May, after the winter of 2021.

Therefore I order that the Town will immediately pay the sum of \$59,279.41 to the Monitor. You will also pay the contractual rate of interest from the date of the claims extinguishing date, bear with me, what is that defined term everyone, the claims bar date ... so you will pay interest on the contractual rate set out in the contract, from March 27th, 2023, until the date it is paid.

I now turn to the issue of costs. There's no doubt, as the Monitor and the company have been successful in their application, they're entitled to their costs. The question is what amount of costs? This is an unusual case, the Town, although



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participating in the process, chose to ignore it. The order was not complied with. The order is designed to prevent exactly what has happened here. It is designed to allow an expedited process without over-legalizing the file, to resolve issues quickly and relatively economically.

It does not mean that the Town, or any other claimant, who is unhappy with the decision of the Monitor cannot appeal that order, but it does mean you have to play in the game. You have to make the, the claim under that claims process.

So the question is, what costs will I order? I'm guided by the Court of Appeal on when I can order solicitor and own-client costs which is another way of saying indemnity costs that the parties will pay, the unsuccessful party will pay the actual legal fees, in this case of the Monitor and the Collins Group of Companies. These costs



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are still taxed even if I were to award them, it's taxed cost on a solicitor and client basis.

So the Court of Appeal on many cases, but particularly often quotes *Perry vs. Heywood*, gives me the guidelines for when I can do this and I will read it to you again. "The illustration is normally given for cases where award of solicitor/client costs are appropriate are, taking action in bad faith by making serious but unfounded allegations of wrongdoing such as fraud or arson; committing a fraud in the court by deceptive conduct or perjury; engaging in obstructionist tactics or consuming, time consuming trial time on unnecessary or irrelevant issues to exhaust the opponent's resources." Just because the Town's claim has no merit, or little merit, is not a basis for awarding solicitor and client costs. Sometimes in shareholder oppression actions, solicitor and client costs are awarded.



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I am very concerned about the precedent this could establish. It would be open for any party to refuse to participate in a court ordered process and then force the parties into litigation. Column 3 costs are insufficient to cover the cost of this claim.

And this is a very illustrative claim, this is \$59,000. I have been told and I will accept counsel's representations to me that they've spent \$70,000 or thereabouts to collect this. Column 3 costs will not be sufficient to do this.

This is a case where the Town knew there was a valid court order, they chose to ignore it, they presented evidence from a deponent who had almost no personal knowledge of the facts in question. He did have personal knowledge of what was sent when, and who sent what letter and he, he acted in most cases as an assistant to see the delivery of this documentation, but he had no, by his own admission he had no



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involvement with contract administration. He had no involvement with the payments under the contract. He had no involvement with the contractual interpretation or whether the contractor is in default. He had no involvement in making the decision whether the contract was to be terminated. He had no involvement in making the decision as to who was to get the other contract. He had no involvement in assessing deficiencies. He had no involvement in the characterization of this claim as a deficiency holdback. This was told to him by someone else. He had no ... in other words, he had no personal knowledge of any use in this proceeding. This is the evidence presented by the Town.

I could have dismissed the case on that basis alone. There is no evidence to support anything in the Town's brief ... none. And I'm not criticizing Mr. Young,



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what else was he supposed to do? But there was an engineer hired on this project, there was a Mayor who apparently was quite front and centre in the project, there was someone else from the Town that prepared the invoices and paid them. There were many people who had personal knowledge and it's unfortunate for Mr. Young that he is the last one standing and had to come here and tell me about things that someone else told him. So that is a big concern with me. In this regard I think this has been a time-consuming process that has very little merit and has the effect of bleeding the company and the Monitor of funds to successfully comply with their project, and on that basis I am prepared to order solicitor and own client costs on a taxed basis to both the Monitor and to the Collins Group of Companies. Anything arising from that anyone?

MR. BURGESS, K.C.: Nothing, Justice.



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THE COURT: Thank you everyone, thank you for your presentations.

THE CLERK: All rise.

(matter adjourned)



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\$100,000 (252)	183-186, 195, 200, 244, 267, 277, 283)	28th (59, 137, 150, 158, 178, 215, 243)
\$128,000 (154, 158)	150 (130)	29 (27, 66, 67)
\$221,000 (110)	15th (40, 43)	29th (57, 59, 192, 249)
\$271,000 (83)	16 (38, 115)	3 (40, 41, 44, 212, 230, 252, 254, 262, 292)
\$300,000 (247)	17th (38-40, 233)	3:13 (44)
\$35,000 (265)	18.3 (262)	30 (106, 127, 197, 203, 206-208, 211, 214, 31 (207, 249)
\$371,044.32 (110)	18.6 (256)	31st (56, 192)
\$415,000 (178-180)	1st (34, 36, 43, 232)	4 (40-42, 219)
\$5,000 (205)	2 (38, 40, 82, 203, 208, 211, 219)	40 (17)
\$50,000 (14, 144, 282)	2:30 (203, 208, 211)	48 (186)
\$500 (147, 207)	20 (31, 74, 121, 174, 217, 226, 231, 266-268)	5 (151, 205, 213, 219, 254, 255)
\$500,000 (147)	20.13 (217)	50 (14, 44, 144, 271, 273, 282)
\$51,547.32 (86)	2019 (109)	5th (39, 40)
\$515,471.32 (86, 111)	2020 (21, 46-50, 70, 72, 73, 76, 80-82, 88, 89, 91, 98, 102, 109, 115, 123, 126, 133, 149, 178, 187, 229, 236, 271, 278, 280, 283, 289)	6 (25, 30, 44, 188, 256)
\$55,000 (112, 115)	2021 (44, 46, 50-53, 66-68, 70, 74, 75, 77, 115, 116, 125, 126, 128, 133, 148, 199, 216, 218, 227, 249, 284, 289)	60 (14, 98, 157, 247)
\$55,656 (111, 115)	2022 (4, 14, 148, 149)	62,000 (142)
\$57,000 (14, 82, 83, 134, 220, 222, 229, 233, 234, 273, 277)	2023 (1, 25, 38, 41, 115, 121, 126, 133, 137, 148, 223, 232, 233, 272, 289)	68 (217)
\$57,070.50 (44, 271)	20A (263, 266)	69 (217)
\$59,000 (14, 128, 180, 274, 282, 292)	20th (42, 43, 116, 170, 233)	73858 (172)
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\$59,279.20 (121)	21.13 (212, 213, 215, 240, 241)	8 (24)
\$59,279.41 (86, 95, 111, 277, 285, 289)	21.3 (212)	86 (158, 269)
\$60,000 (14, 157, 247)	22 (24, 217)	9 (51, 116-118, 248)
\$70,000 (265, 273, 292)	22nd (64)	9th (41)
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TAB 2

Reasons for Judgment by Green C.J.N.L.
Concurred in by White J.A.
Dissenting Reasons by Welsh J.A.

Counsel for Appellant: Adam J. Crocker
Counsel for First Respondent: Paul D. Dicks Q.C.
Counsel for Second Respondent: William S. Kennedy
Counsel for Intervenor: Peter E. Ralph Q.C.

Green C.J.N.L.:

[1] This appeal challenges a decision of an applications judge who refused to vacate a mechanics' lien claim on the grounds that the lien claim was made against Crown land, which, it was alleged, is not lienable, and that the lien claimant failed to commence an action against the owner of the property.

Leave to Appeal

[2] As the order made in the Trial Division did not resolve the substantive issues between the parties, it is to be characterized as an interlocutory decision (see *United Food and Commercial Workers, Local 1252 Fishermen's Union v. Cashin* (1994), 124 Nfld. & P.E.I.R. 201 (Nfld. C.A.) at paragraph 30; *Newfoundland Government Fund Ltd. v. Hickman*, 2008 NLCA 56, 287 Nfld. & P.E.I.R. 7 at paragraphs 7-8). It therefore requires leave to appeal pursuant to rule 57.02(1)(a) of the *Rules of the Supreme Court, 1986*.

[3] The fact that there is a separate provision relating to appeals contained in the *Mechanics' Lien Act*, RSNL 1990, c. M-3, section 40 relating to mechanics' lien matters does not change this: *Pennecon Energy Ltd. v. Metal World Inc.*, 2013 NLCA 67, 344 Nfld. & P.E.I.R. 32.

[4] In this case, the issues raised and the arguments presented are novel. This Court's discussion of them may clarify the scope and operation of the *Mechanics' Lien Act* and may provide guidance for future cases. Accordingly, I would grant leave to appeal on the basis of the application of rule 57.02(4)(c) as the appeal "involves matters of such importance that leave to appeal should be granted." Additionally, rule 57.02(4)(a) is also applicable, as there is a decision of this Court, *Kitchen Cabinets Ltd. v.*

Pinsent Construction Co. Ltd. and Harmon Corp. (1974), 6 Nfld. & P.E.I.R. 426 (NFSC, On Appeal), which is arguably conflicting with the decision of the applications judge.

Background

[5] The applicant in the court below and the appellant in this appeal, Brook Construction (2007) Inc., allegedly contracted with the Crown to construct a new school in St. Anthony. Brook subcontracted the supply and installation of heating, plumbing and ventilation work to Blackwood Contractors Limited. Blackwood further subcontracted a portion of the supply of materials to EMCO Corporation.

[6] Blackwood ceased work on the project and on November 2, 2012 registered a claim for lien in the amount of \$604,513.84, describing the land on which the work was done as Crown land. EMCO followed suit with a lien claim of \$104,172.66.

[7] Blackwood's lien claim also purported to claim a charge against funds held back under the main contract (the "holdback funds") even though there is no provision in the *Mechanics' Lien Act* for registration of a claim to a holdback.

[8] On November 26, 2012, Blackwood filed a statement of claim in the Supreme Court against Brook alleging a breach of contract. It did not claim enforcement of the lien by sale of the property on which the school was being constructed. Furthermore, it did not name the Crown as a party to the proceeding. It did, however, assert that it brought the action "to enforce the lien as provided for in the *Mechanics' Lien Act*..." without specifying its nature, but in its claim for relief it simply asked that "proper directions be given, inquiries made and accounts taken" and that judgment be entered in the amount of the contract claim plus interest, consequential damages and costs. There was no specific claim to, or for a share of, the holdback funds.

[9] Brook applied under section 26 of the *Mechanics' Lien Act* to vacate Blackwood's claim for lien on the grounds that (i) Blackwood failed to commence an action naming the Crown as the owner of the property; and (ii) one cannot, in any event, claim a lien against Crown land. Alternatively, Brook also offered to post security in the Court so as to obtain the vacating of the lien in that manner if its other grounds were not successful.

The Decision of the Applications Judge

[10] The applications judge refused to vacate the lien on the primary grounds asserted by Brook. Instead, she made an order that the lien be vacated upon Brook posting a bond with the Court for the amount of Blackwood's claim.

[11] In rejecting Brook's primary arguments, the applications judge concluded that even if Blackwood could not be said to be entitled to a lien against the property because of Crown immunity, there was a distinction recognized by the legislation between a lien against the property and a lien against the holdback. In her oral judgment, she concluded:

... I accept the Plaintiff's submission that the *Mechanics' Lien Act* contemplates not only a lien against land but also a lien against the holdback. The fact that a claimant may not be able to claim a lien against Crown lands does not prevent a claim for a lien against the holdback under the provisions of the *Mechanics' Lien Act*.

[12] It followed from this, she reasoned, that if a lien claimant had no right to claim a lien against the property because of Crown immunity, there was no obligation to name the Crown as a defendant in the resulting statement of claim. It further followed that the lien claimed by Blackwood could continue to exist as a claim against the holdback and therefore should not be vacated, because "an action can be taken under the *Mechanics' Lien Act* even where the work was undertaken on Crown lands." She relied on section 12(5) of the *Mechanics' Lien Act*:

The language of section 12(5) of our *Mechanics' Lien Act*, and specifically the reference to there being a charge upon the holdback, is even more so than a trust [which does not exist under the Newfoundland and Labrador legislation], the equivalent of a lien on monies. I agree that the charge against the holdback is separate and distinct from the charge against the land. Both are potential claims under the *Mechanics' Lien Act*, except that for actions against the Crown there is an issue as to whether there is a right to claim a lien against Crown lands.

As a result, the second ground set forth in the Applicant's application does not suffice so as to require the action be vacated. The Plaintiff has a legitimate *Mechanics' Lien Act* [claim] as it has the right to advance a claim under section 12(5) against the Applicant, that there exists a charge against the holdback.

Interventions

[13] EMCO had applied for and was granted intervenor status in Brook's application to vacate the lien in the Trial Division on the basis that EMCO's lien claim as a sub-sub-contractor might be affected if Blackwood lost its lien. (EMCO had not filed a certificate of action as required by the *Act* and accordingly had to shelter under Blackwood's claim if it were to succeed in its own claim). In this Court, EMCO, having been served with the notice of appeal, appeared and was made a party to the appeal.

[14] Although it did not participate substantively in the original application in the Trial Division, the Crown in right of the province applied for and was granted leave to intervene in the appeal.

Issues

[15] The essence of Brook's argument on appeal is that the applications judge erred in law in not vacating the lien on the basis that Blackwood had no lien right because the work was performed on Crown land, which is not lienable. In deciding that Blackwood was capable of maintaining a lien claim because it held a lien against the holdback, the judge effectively created a new right – a trust of the holdback monies – that was not recognized in the *Mechanics' Lien Act*. Accordingly, Brook argues, the judge should not have made it a condition of vacating the lien that Brook deposit a lien bond with the Court.

[16] In response, Blackwood argues that when the relevant provisions of the *Mechanics' Lien Act* are read in harmony with the *Interpretation Act*, RSNL 1990, c. I-19, and the *Proceedings Against the Crown Act*, RSNL 1990, c. P-26, the judge was right in concluding that the holdback is subject to a lien separate and apart from any lien against the land. Blackwood argues that it is entitled to maintain that claim and to sue for its enforcement notwithstanding that it is not seeking to enforce the lien against the land and that it is not suing the Crown with respect to that enforcement.

[17] Having considered the matter, I have concluded that Blackwood's argument, though creative, is not sustainable and that the applications judge did err in law in refusing to vacate the lien. My reasons follow.

Considerations

(a) Nature and Extent of the Holdback Provisions

[18] Section 12 of the *Mechanics' Lien Act* provides in pertinent part:

12(1) In all cases, the person primarily liable upon a contract under and by virtue of which a lien may arise shall, as the work is done or the materials are provided under the contract, retain for a period of 30 days after the completion or abandonment of the work done or to be done under the contract 10% of the value of the work and materials actually done, placed or provided, as referred to in section 6 ...

...

(5) Where there is a lien under section 6, the lien is a charge upon the amount directed to be retained by this section in favour of lien claimants whose liens are derived under persons to whom the money required to be retained are respectively payable and where there is no lien on the land by virtue of section 5, a claim for work done or materials placed or furnished is a charge upon the amount directed to be retained by this section.

(Emphasis added.)

[19] The holdback required to be maintained by section 12 enables claimants who are not parties to the main contract (and hence with no claim under that contract because of lack of privity) nevertheless to maintain their claims (to the extent of the amount in the holdback fund) as beneficiaries of the holdback fund by creating a lien in their favour on the fund. Without the imposition of subsection (5), the subcontractor would be treated as a third party beneficiary under the main contract with limited rights to access the holdback.

[20] It is clear from section 12 that the statutory holdback is only required to be maintained in respect of contracts “under and by virtue of which a lien may arise” and “[w]here there is a lien under section 6.” Section 6 is the provision that creates the statutory lien. Without its operation, there would be no claim on the land benefitted by the work. The right to the lien on the holdback is parasitic upon the existence of a lien on the benefitted land. The only exception to this requirement is in respect of work done on a public street, road or highway under section 5. In that circumstance, the land comprising the street, road or highway is not subject to a lien “[e]xcept for the purpose of section 12.” In other words, the land comprising the street,

road or highway is notionally made subject to a lien (without the right to claim for its enforcement against the land) but only so that the claimant can assert its lien against the holdback within subsection 12(5) as being a situation “[w]here there is a lien under section 6.” This is the only circumstance recognized by the *Act* where the lien on the holdback is not parasitic on the existence of a lien on the benefitted land.

[21] By contrast, the applications judge held, as quoted above, that “the charge against the holdback is separate and distinct from the charge against the land” and that “[t]he fact that a claimant may not be able to claim a lien against Crown lands does not prevent a claim for a lien against the holdback ...” In concluding that the lien against the holdback is a stand-alone remedy not parasitic upon a lien against the land, she erred in her interpretation of the *Act*.

[22] In coming to her conclusion, the applications judge relied on two New Brunswick trial decisions, *T.J.’s Electric Limited v. SAR Petroleum Inc.*, 2003 NBQB 461, 270 N.B.R. (2d) 317 and *Fowler Brothers Limited v. Morrison*, 2008 NBQB 64, 332 N.B.R. (2d) 386. In *T.J.’s Electric*, the liens claimed against the benefitted property were invalid because the land belonged to the federal Crown, which constitutionally could not be affected by provincial legislation; nevertheless the court held that the trust provisions of the New Brunswick mechanics’ lien legislation were “stand-alone” provisions which could be invoked and enforced even though there was no lien to be enforced against the land. The right to the lien on the trust monies was “completely independent” of the lien on the land (citing Macklem & Bristow, *Mechanics’ Liens in Canada*, 4th ed., (Carswell), section 1, page 2 and 3; and *Canadian Bank of Commerce v. T. McAvity & Sons Ltd.*, [1959] S.C.R. 478, per Rand J. at p. 483). Similar statements were made by Glennie J. in *obiter* in the *Fowler* decision at paragraphs 23-42.

[23] Unlike New Brunswick, Newfoundland and Labrador does not have trust provisions in its legislation. The New Brunswick trust provisions impress with a trust all sums received by a builder, contractor or sub-contractor under any contract in the construction pyramid for the benefit of those contractors, subcontractors, workers and materials suppliers who have worked on or supplied materials to the project. As such, it is a separate security for payment that exists independently of any lien security on the land of the owner. It is not made subject to the existence of a lien on the land as is the case in this province with respect to the lien on the holdback. It was precisely because of a perceived injustice caused by the parasitic nature of

the holdback-lien provisions that the trust amendments in New Brunswick and some other provinces, such as Ontario, were enacted (see the comments of Rand J. in *Canadian Bank of Commerce*, p. 482). In this province, the Newfoundland Law Reform Commission addressed this issue and, while concluding that “[t]he current Newfoundland statute contains no trust provisions,” recommended that the remedies of the lien against the land and the holdback “be reinforced by inclusion of trust provisions” along the lines of the Ontario legislation: Newfoundland Law Reform Commission, *Report on The Mechanics’ Lien Act: Certain Substantive Issues* (St. John’s, NL: NLRC-R3, 1990), Chapter 5 at pages 84-87). No such amending legislation was ever enacted.

[24] Accordingly, I conclude that the New Brunswick cases previously referred to have no application, and the applications judge erred in relying on them for the purposes of her analysis. It follows that she further erred in concluding on an interpretation of the *Mechanics’ Lien Act* that the lien on the holdback was a stand-alone remedy that was not dependent on the claimant being able to establish the existence of a lien on the benefitted land. Inasmuch as all parties – in particular, Blackwood – conceded that Blackwood could not claim a lien against the Crown’s property, the application judge’s errors undermine the basis for her decision to reject the primary arguments of Brook that Blackwood’s claim should be vacated on the grounds that Crown land is not lienable and that Blackwood failed to commence an action against the Crown.

[25] It is therefore necessary to consider these issues in detail and to address Blackwood’s submissions that the interplay between the *Mechanics’ Lien Act*, the *Interpretation Act* and the *Proceedings Against the Crown Act* nevertheless means that Blackwood can assert a claim against the holdback funds.

(b) Failure to Sue the Crown

[26] Following the registration of a lien claim, the claimant is required to commence an action, within a limited time, “to realize the claim”: *Act*, subsection 24(1). One cannot make a claim to “realize” a claim unless it is made against the person from whom relief can be obtained. Thus, if a lien is claimed against land, the claim must include the owner of the land as a party. If the claim is against a fund of money, the claim must include as a defendant the person in whose hands the money is being held.

[27] The ownership of the money is not the determining factor; it is the person who is in custody of or has control over the money, i.e. the person who is obligated to retain the holdback, that is key. Thus, Blackwood's argument that because Brook is due the contract money, including the 10% held back, the holdback is owned by Brook and not the Crown and that it is therefore sufficient to sue Brook, cannot succeed. The Crown is the body who, if the *Act* applies, is statutorily required to "retain" the holdback funds, and it is the Crown, as the body who has possession and control over the money by virtue of holding it back, that would have to be made subject to an order to release the money to Blackwood and not to Brook pursuant to the contract. This view is inferentially supported by subsection 22(5) of the *Mechanics' Lien Act* which sets out the persons to whom notice of a claim to the holdback under subsection 12(5) must be made where there is no lien on the land by virtue of section 5 (the streets, roads and highways exception): the owner, the municipality and "every person in whose hands sums are retained under section 12" (emphasis added). The reason why it is the retainer of the funds who must be given notice is because that is the actor who has control over the money and must be given the opportunity to honor the lien claim. In like manner, it is the same person who must be sued if litigation results.

[28] In its claim for lien, Blackwood claimed a lien against the benefitted land, which it claimed was Crown land. It also claimed a charge against the holdback funds. The holdback funds were monies held back by the Crown pursuant to the main contract with Brook. If they were not held back by the Crown and were instead paid to the payee (Brook) under the contract, they would no longer be holdback funds. Any money held back by Brook in relation to its contract with Blackwood for the benefit of subcontractors, workers or material men of Blackwood would be irrelevant to Blackwood as its claim is in contract against Brook (with whom it is in privity) directly for the total amount claimed, not just the holdback amount, as due and owing under the subcontract. On the other hand, even if the Crown is wrongfully retaining the money as holdback, the Crown in such circumstances is the party who must be subjected to an order for payment.

[29] Thus, even though Blackwood subsequently conceded that it has no lien claim against the land, it must continue to assert, as it does, that it has a claim to holdback money in the hands of the Crown. Either way, it must seek relief from the Crown. Accordingly, even on Blackwood's theory of the case, it must sue the Crown in order to maintain its claim.

[30] Failure to do so, in my view, is fatal to Blackwood's claim as a statement of claim asserting a claim or cause of action under the *Mechanics' Lien Act* against persons from whom the statutory remedies conferred by the *Act* are being sought. Of course, Blackwood may continue to proceed with its claim for breach of contract against Brook, as that is not dependent on the *Act*. See section 38 of the *Act*.

(c) Crown Immunity in the Mechanics' Lien Context

[31] Section 12 of the *Interpretation Act* provides that no provision in a statute binds or affects the Crown or the Crown's rights or prerogatives "unless it is expressly stated in it that the Crown is bound by it." The *Mechanics' Lien Act* does not contain any provision which either expressly or even by implication subjects the provincial Crown to its provisions. Many other provincial statutes do contain such a provision. It follows that none of the provisions of the *Mechanics' Lien Act* apply to the Crown. Without more, therefore, the estate or interest of the Crown could not be subjected to a lien and, as well, the Crown would not be subject to the holdback provisions.

[32] On the above analysis, the position that Crown land is not lienable has been accepted in the case law and by text writers and law reform agencies: *Halsbury's Laws of Canada – Construction*, 1st ed. (Markham, Ontario: LexisNexis, 2013), pages 294-296; David I. Bristow et. al., *Construction Builders' and Mechanics' Liens in Canada*, 7th ed., loose-leaf (Toronto: Carswell, 2005), p. 2-50; Newfoundland Law Reform Commission, *Report*, pp. 73-76. (As well, section 20 of the *Proceedings Against The Crown Act* – which provides that nothing in that Act authorizes proceedings in respect of a claim against Crown property or the seizure, attachment or sale of Crown property – while not dealing with mechanics' liens specifically, could also be said to confirm the non-lienability of Crown property.)

[33] This position of non-lienability of Crown property was essentially affirmed by Furlong C.J. in *Kitchen Cabinets Ltd. v. Pinsent Construction Co. Ltd. and Harmon Corp.* He stated:

[2] ... there is no provision in the Mechanics' Lien Act for its application to the Crown and that consequently by common law, as well as by The Interpretation Act ... Her Majesty is not affected in any way by the Act.

...

[6] ... the Harmon Corporation enjoys the same position as the Crown itself and that no act of the legislature unless it is expressly directed to apply to the Corporation affects its operations. Though I do not think it necessary for the determination of the question before us I am of the opinion that the vesting of the title to the land at Harmon in the Corporation as the agent for the Crown does not create an interest in land which is subject to the operation of the Mechanics' Lien Act.

(Emphasis added.)

See also to the same effect, *Eastern Home Products Ltd. v. Parsons Construction (St. John's) Ltd. Newfoundland and Labrador Housing Corp.* (1980), 112 D.L.R. (3d) 756 (NFSC, TD), paragraphs 15-19, where Goodridge J., relying on what is now section 12 of the *Interpretation Act*, cryptically observed:

[17] There is no provision in the *Mechanics' Lien Act* which expressly states that Her Majesty is bound thereby. Therefore, Her Majesty is not bound thereby.

[34] The Crown immunity rule also applies to other provisions of the *Mechanics' Lien Act*. Thus, the Crown, as the person primarily liable under a construction contract, would not be bound by the requirement under subsection 12(1) to hold back 10% of the value of the work and materials actually done, placed or provided for 30 days after completion or abandonment of the work. See Newfoundland Law Reform Commission, *Report*, pp.75-81; *Eastern Home Products Ltd.*, paragraph 21. While as a practical matter, the Crown may agree as a term of a construction contract to maintain a holdback, its obligation to do so would, under this analysis, arise out of the contract and not from the *Act* (*Eastern Home Products Ltd.*, paragraph 21) unless the Crown voluntarily submitted to the application of the *Act's* provisions: *Re Hillsboro Construction Ltd. (Bankrupt)* (1987), 64 Nfld. & P.E.I.R. 152 (PEISC, TD).

[35] The right of a third party lien claimant to assert a claim on the holdback in those circumstances would have to be made on a basis that does not involve invocation of the *Act*, such as, possibly, on the basis of the assertion and establishment of a constructive trust (*Re Hillsboro* and *Re Crown Construction Co.*, 1979 CarswellNfld 170 [SC], per Goodridge J. at paragraphs 108-113; affirmed on appeal without reference to this point: [1980] N.J. No. 48 (CA) [QL]). Neither the existence of a constructive trust nor a voluntary submission by the Crown to the application of the *Act* has been pleaded or otherwise asserted in this case.

[36] The point that the Crown is not bound by the holdback provisions of the *Act* is reinforced indirectly by the developments in the law in other jurisdictions. In Ontario, for example, the *Construction Lien Act* was amended specifically to provide, while reaffirming that a lien does not attach to Crown “premises,” that it nevertheless constitutes a charge against the holdback fund in the hands of the Crown, thereby assimilating the process involving liens against public streets, road and highways to Crown land generally: RSO 1990, c. C.30, section 16. The law in this province is in the same state as it existed in Ontario before the amendments there. The Newfoundland Law Reform Commission, in Chapter 4 of its *Report*, recognized this distinction and recommended that the *Act* be amended along the lines of the Ontario provisions to make what is now the present subsection 12(5) “applicable to the Crown generally” (p. 81). These recommended amendments were never enacted.

[37] It was also suggested that because the public streets, roads and highways exception under section 5 of the *Mechanics’ Lien Act* is not expressly limited to municipalities (as it is in the legislation of some other jurisdictions), it in principle applies to Crown-owned streets, roads and highways, thereby indicating an intention on the part of the legislature to subject Crown land to the *Act*. This argument cannot succeed because first, it assumes the point in issue. It contradicts the Crown immunity principle in section 12 of the *Interpretation Act*, which applies unless the Crown is expressly named; thus, regardless of whether Crown-owned streets, roads and highways are excluded or included by the wording of section 5, they would nevertheless be excluded by the Crown immunity principle. Secondly, even if the intent of section 5 was to apply to Crown-owned streets, roads and highways, the very fact that the legislature only dealt with such matters, and not Crown land generally, strongly suggests, applying the maxim *expressio unius est exclusio alterius*, the *Act* was not intended to apply to other types of Crown land.

[38] Accordingly, were it not for the argument that this position is affected by the *Proceedings Against the Crown Act*, the foregoing analysis would result in allowance of the appeal. The potential impact of that *Act* must now be considered.

(d) Potential Impact of the *Proceedings Against the Crown Act*

[39] The *Proceedings Against the Crown Act* (*PAC Act*) was enacted in 1973 and brought into force on May 1 of that year. As such, it ante-dates the

Mechanics' Lien Act and the *Interpretation Act*. As a subsequently-enacted statute, it enjoys the presumption that where two statutes are inconsistent, the latter can be said to have implicitly amended the former. This is confirmed by section 28. Furthermore, to the extent that conflicting legislative provisions can be read in harmony, the court should attempt to give both statutory provisions a compatible interpretation so as to avoid treating one statute as implicitly amended by another and so as to permit all provisions to operate without contradicting one another.

[40] The *PAC Act* substantially assimilated the Crown to that of other litigants in respect of certain proceedings alleging liability of the Crown. It removed the procedural impediments of being required to use the petition of right to sue the Crown (section 4), and it removed the immunity of the Crown from suit in tort (section 5). It also made certain other substantive legal and equitable rules, such as contribution and indemnity, and the obligation to pay interest on judgment debts applicable to the Crown (sections 6 and 22). Much of the rest of the *PAC Act* eliminated some differences in procedure affecting suits involving the Crown (sections 7-13 and 25) but preserved or imposed other differences (sections 17, 18, 19 and 27) and also substantially insulated the Crown from certain types of remedial orders that could be made against other litigants, such as injunctions (section 15), recovery of property (section 16) and execution against Crown property (sections 20 and 24).

[41] Section 14 is more general. It provides:

14 In proceedings against the Crown the rights of the parties are as nearly as possible the same as in an action between person and person, and the court

(a) may make an order, including an order as to costs, that it may make in proceedings between persons; and

(b) may otherwise give the relief that the case requires.

[42] It was suggested on this appeal that the effect of section 14 is to modify the operation of section 12 of the *Interpretation Act* and to subject the Crown to a lien on holdback funds under the *Mechanics' Lien Act*. It was further submitted that because the *PAC Act* was not considered by the Court in *Kitchen Cabinets Ltd.*, that case does not settle the question on this appeal.

[43] As a starting point, it must be said that these submissions are inconsistent with the implications of the current jurisprudence. In *Eastern Home Products Ltd.*, for example, it was held that the Crown “has no statutory obligation in respect of ... lien claimants and no statutory right to hold back funds for their benefit” (paragraph 21). Goodridge J. referred to the *PAC Act* and, while not discussing it in detail, certainly indicated he was alive to its potential relevance but declined to hold that it applied to make the holdback provisions applicable to the Crown.

[44] As well, in *Re Crown Construction Ltd.*, this Court upheld a decision of Goodridge J. denying claims by subcontractors to holdback funds in the hands of Memorial University, the project owner. Mifflin C.J.N. wrote:

... For essentially the reasons given by Goodridge, J. we agree with his finding that Memorial University has no estate or interest in the lands occupied by the Marine Sciences Laboratory within the meaning of the *Mechanics' Lien Act* ... and we also agree with his finding that the funds withheld from the contractor were not impressed with a trust in favour of the sub-contractors.

[45] While there was no extensive discussion of the impact of the *PAC Act* in either *Eastern Home Products Ltd.* or *Re Crown Construction Ltd.*, the cases are still *sub silentio* authority for the proposition that there cannot be a charge on the holdback funds under the *Mechanics' Lien Act* where there is no lien available on the land of the owner (except, of course, in the case of work performed on a public street, road or highway).

[46] The question to still be addressed is whether, on a careful analysis of the *PAC Act* in relation to the *Mechanics' Lien Act*, it can be said that the *PAC Act* effectively modifies the law that has clearly been recognized in a plain reading of the holdback provisions of the *Mechanics' Lien Act* and in the cases that have considered the issue.

[47] The *PAC Act* does not explicitly purport to amend the *Mechanics' Lien Act* or the *Interpretation Act*. One would have thought that if the legislature had intended to make the Crown subject to the provisions of the *Mechanics' Lien Act*, either for all purposes or with some restrictions, it would have expressly said so either by a general provision or by enacting specific amendments, such as what Ontario did with respect to trust provisions, and creating a charge on the holdback, as discussed above. In like manner, if the legislature intended that section 12 of the *Interpretation Act* was no longer to have general application such that the Crown could be

bound by statutes even though it is not expressly mentioned in the legislation, it could have passed an amendment to section 12 as a consequential provision in the *PAC Act*.

[48] Can it be said nevertheless that the language of the *PAC Act* implicitly amends them because there is an inconsistency with their provisions? I think not.

[49] In *Canadian Industrial Gas and Oil Ltd. v. Saskatchewan*, [1979] 1 S.C.R. 37 (hereinafter, *CIGOL*) it was held that the Saskatchewan equivalent of this province's *Interpretation Act*, section 12 must be read in light of section 17 of the *Saskatchewan Proceedings Against the Crown Act*, RSS 1965, c. 87, the equivalent of section 14 of our *PAC Act*, with the result that interest was payable on a judgment against the Crown in the same way as interest would be payable by a private litigant, notwithstanding that the statutory provision authorizing interest did not expressly state that it bound the Crown. To that extent, the proceedings against the Crown legislation can be said to modify previous legislation that, by virtue of the *Interpretation Act* considered alone, would not have bound the Crown and thereby subject the Crown to liability. The Court also expressed the view that section 17 of the *Saskatchewan Proceedings Against the Crown Act* was not necessarily limited to procedural rights.

[50] In *CIGOL*, a judgment interest statute which by its general language could apply to the Crown but for the presumption of Crown immunity was held nevertheless to apply as a result of the Saskatchewan equivalent of our section 14. The application was relatively straightforward in that case. "Proceedings" against the Crown had been started and judgment obtained. The *PAC* section specifically provided that in such proceedings the court could make an order in the same manner as it could between person and person. Hence, where interest was applicable to a judgment in "proceedings" between private persons, it was also applicable where one of the parties was the Crown.

[51] The situation in the current case does not fit this mould. First, what is being argued here is that the *PAC Act* makes statutory provisions in the *Mechanics' Lien Act* applicable to the Crown regardless of whether "proceedings" have been commenced or might ever be commenced. The respondent is saying that the holdback provisions apply to the Crown and regulate its relationship with others in the construction pyramid from the moment the Crown enters into a construction contract ("the person primarily

liable upon a contract” within the meaning of subsection 12(1)).
 “Proceedings” may or may not ultimately result.

[52] Secondly, the argument also requires a conclusion that the *PAC Act* effectively amends the language of subsections 12(1) and (5) to remove the requirement that the holdback obligation is (except in the case of public streets, roads and highways) parasitic on the existence of a lien on the benefitted land (i.e. to excise from the subsections the words “under and by virtue of which a lien may arise” and “where there is a lien under section 6”, as they apply to the Crown). This would effectively accomplish something much more than merely making an existing provision applicable to the Crown.

[53] Thirdly, it would require a conclusion that, notwithstanding the language of the section 5 exception, it can now effectively be applied to Crown land that does not comprise a public street, road or highway. This also would effectively amount to a statutory amendment rather than a mere application of a provision to the Crown. That would involve a change to the scheme contemplated by the *Mechanics’ Lien Act*.

[54] Fourthly, if the *PAC Act* were to make the holdback provisions applicable to the Crown, it should in principle make all of the *Mechanics’ Lien Act* applicable; yet, everyone concedes that section 6 of the *Act* does not, by virtue of Crown immunity, operate to impose a lien on the Crown’s land.

[55] If the intent of the *PAC Act* was to make the Crown subject to all provisions on the statute books (except those specially exempted by section 3) in the same way a private citizen is, all that would have to be done would be to repeal section 12 of the *Interpretation Act*. It is far too much of a stretch to conclude that section 14 of the *PAC Act* was intended to achieve that result, no matter how complex, interrelated and self-contained particular statutory provisions may be.

[56] I conclude, therefore, that section 14 of the *PAC Act* on a true construction cannot be said to have incidentally made the statutory lien scheme of the *Mechanics’ Lien Act*, including the holdback provisions, applicable to the Crown.

[57] Counsel for Blackwood also submitted that subsection 24(2) of the *PAC Act* makes the holdback retained by the Crown subject to claims by Blackwood. Section 24 reads as follows:

(1) No enforcement proceeding, execution, attachment proceeding or similar process shall be issued against the Crown

(2) Notwithstanding subsection (1), a garnishment, attachment, or similar process that is otherwise lawful may issue against the Crown for the payment of money owing or accruing as remuneration payable by the Crown for goods or services.

...

Blackwood submits that subsection 24(2) qualifies section 12 of the *Interpretation Act* to allow the holdback provisions to bind the Crown. I see no merit in this suggestion.

[58] By its terms, subsection 24(2) only applies to a situation where Blackwood sued Brook to judgment and, in execution, sought to attach the money (i.e. the holdback) still owing by the Crown to Brook under the main contract. It is well-known that this provision was intended to make the wages of Crown employees subject to garnishment by a judgment creditor. While it by its terms could theoretically apply to situations other than civil service wage garnishment, it is not possible to extend it to render enforceable a statutory lien on a holdback in a legislative scheme like the *Mechanics' Lien Act*, which, by its terms (in particular subsections 12(1) and 12(5)), which make a charge on a holdback parasitic on the existence of a lien on the benefitted land) cannot apply to the Crown. The claim of a lien on holdback funds cannot be said on any reasonable interpretation to be a "garnishment, attachment or similar process" within subsection 24(2).

Conclusion and Disposition

[59] Accordingly, I reject the argument that the *PAC Act* in some manner qualifies the Crown immunity rule as it applies to the *Mechanics' Lien Act*. The appellant's arguments that the applications judge erred in her interpretation and application of the *Act* have merit.

[60] I would allow the appeal and make an order vacating Blackwood's claim for lien and order that the security posted by Brook, as ordered by the applications judge, be released and returned to Brook.

[61] At the hearing, counsel for Blackwood submitted that if the security were released at this point, Blackwood would be prejudiced. Clearly, Blackwood will now be in a less secure position than it was in with the bond in place. However, that is the inevitable result of my conclusion that the applications judge should have vacated the lien claim and not required the posting of a bond in the first place. Counsel did not elaborate on how any prejudice may have resulted to Blackwood in reliance on the existence of the security. I would, nevertheless, stay enforcement of my decision for a period of 90 days to enable Blackwood to take such other steps as it may consider possible and advisable, by way of amendment of pleadings or pre-judgment attachment or other proceedings, to ameliorate any prejudice resulting from having its security removed at this point rather than at the time of the original hearing.

[62] I would award costs on a party and party basis to Brook against Blackwood in this Court and in the court below. Emco and the Crown should bear their own costs.

J. D. Green C.J.N.L.

I Concur: _____

C. W. White J.A.

Dissenting Reasons by Welsh J.A.:

[63] This appeal involves a question of law regarding the Crown's immunity from the application of the *Mechanics' Lien Act*. A subcontractor submits that, while a lien could not be enforced as against the property of the Crown, this does not preclude access to holdback funds mandated by the *Act*.

[64] The issue arises from the applications judge's decision dismissing the main contractor's application to vacate the lien that was registered by the subcontractor. The contractor seeks leave to appeal and, if granted, appeals that decision.

Background

[65] Brook Construction (2007) Inc. was the main contractor for the construction of a school in St. Anthony, NL. On February 7, 2011, Brook entered into a subcontract with Blackwood Contractors Limited for the supply and installation of heating, plumbing and ventilation equipment and materials. Blackwood, in turn, entered into a subcontract with EMCO Corporation for the supply of plumbing materials.

[66] As of October 31, 2012, Blackwood ceased providing services under the subcontract and demanded payment of \$604,513.84, the amount claimed as owing from Brook. On November 2, 2012, Blackwood registered a claim for lien in that amount against the property on which the school was being built. The lien claim included a charge against funds that had been held back, as would be required under the *Mechanics' Lien Act*, RSNL 1990, c. M-3 (the "holdback funds"). On November 22, 2012, Blackwood filed a statement of claim alleging breach of contract by Brook.

[67] On February 7, 2013, Brook applied to have the lien vacated. On February 27, 2013, in an oral decision, the applications judge concluded that a charge against the holdback funds existed under the *Mechanics' Lien Act*:

... I agree that the charge against the holdback is separate and distinct from the charge against the land. Both are potential claims under the *Mechanics' Lien Act*, except that for actions against the Crown there is an issue as to whether there is a right to claim a lien against Crown lands.

The applications judge went on to order, upon the request and consent of the parties, that the lien be vacated upon Brook posting with the Court a satisfactory bond for the amount claimed by Blackwood.

[68] The claim of lien registered by Blackwood refers to the holdback funds as well as the property and work at issue:

1. Blackwood Contractors Limited, a body corporate incorporated under the laws of Newfoundland and Labrador, claims a Lien upon the Estate and interest of *Her Majesty the Queen in Right of Newfoundland and Labrador* in the under mentioned land, in respect of the following work, that is to say:

The provision of labour, equipment and materials for heating, plumbing and ventilation to construct a school at Elementary Road, in the Town of St. Anthony ... which was provided to and for the benefit of *Her Majesty the Queen in Right of Newfoundland and Labrador*.

...

9. In addition, this lien shall be a charge on holdback funds held with respect to the said land and premises pursuant to the provisions of the *Mechanics' Lien Act*.

[69] The operation of the *Act* where the property is Crown-owned engages issues relating to Crown immunity. In this case, ownership of the property, by the Crown or the School Board, and the effect of ownership by one or the other, have not been argued and determined. In the Trial Division, Blackwood took the position that a lien which could be enforced against the property was not necessary, but rather, as found by the applications judge, there was an independent charge against the holdback funds. On March 8, 2013, Brook applied for leave to appeal the applications judge's decision.

[70] During a preliminary application in this Court, Her Majesty the Queen in Right of Newfoundland and Labrador ("the Crown"), having not participated in the Trial Division proceeding, applied for and was granted leave to intervene in the appeal. In addition, in the Trial Division, EMCO participated as an intervenor. It was determined at the hearing in this Court, and so ordered, that EMCO should be a party to the proceeding.

Issues

[71] The first issue is whether leave to appeal should be granted. The issue raised by the appeal is whether a charge on holdback funds under the *Mechanics' Lien Act* applies in respect of work done on Crown property.

Analysis

Leave to Appeal

[72] This is an interlocutory appeal for which leave to appeal pursuant to rule 57.02 of the *Rules of the Supreme Court, 1986* is required (*Pennecon Energy Ltd. v. Metal World Inc.*, 2013 NLCA 67, 344 Nfld. & P.E.I.R. 32, at paragraphs 5 to 11). Factors to be considered in determining whether leave should be granted are set out in rule 57.02(4), the relevant provisions in this case being clauses (c) and (e):

(c) the Court considers that the appeal involves matters of such importance that leave to appeal should be granted,

...

(e) the Court is of the view that the interests of justice require that leave be granted.

[73] Consideration of the issues raised in this appeal will provide guidance as to the operation and effect of the *Mechanics' Lien Act*, as well as relevant provisions of the *Interpretation Act*, RSNL 1990, c. I-19, and the *Proceedings Against the Crown Act*, RSNL 1990, c. P-26. Accordingly, I would grant leave to appeal.

The Appeal

Foundation for the Appeal

[74] The parties did not argue and the applications judge did not determine the question of whether Crown immunity applies in this case, depending on whether the property is owned by the School Board or the Crown, and, if by the Board, whether Crown immunity would be engaged. As a result, there is an absence of a factual foundation which ordinarily would be required.

[75] At the instance of the parties, that requirement was waived, and the Court agreed to proceed on the basis that Crown immunity would apply. Assessing whether Crown immunity may be claimed in the context of the *Mechanics' Lien Act* and the extent of such immunity is a question of law involving analysis of the *Interpretation Act* and the *Proceedings Against the Crown Act*, as well as the *Mechanics' Lien Act*. That analysis may be undertaken in the absence of a determination regarding the preliminary issue, though it would have been preferable to have had the foundation laid at the outset with a determination regarding the application of Crown immunity.

Crown Immunity - Relationship between the Interpretation Act and the Proceedings Against the Crown Act

[76] I begin with section 12 of the *Interpretation Act* which provides that the Crown is bound by legislation only where the statute so specifies:

No provision in an Act is binding on the Crown or affects the Crown or the Crown's rights or prerogatives unless it is expressly stated in it that the Crown is bound by it.

[77] This section must be interpreted in light of the *Proceedings Against the Crown Act* which deals with causes of action that may be brought against

the Crown. Section 3 specifies that the *Act* “does not affect and is subject to” certain enumerated statutes. Those statutes deal with the subjects of taxation, royalties, expropriation, Crown lands, minerals, income support, emergency services and workers’ compensation. Causes of action arising under those statutes would be governed by the relevant statute. The *Mechanics’ Lien Act* is not mentioned. There is, therefore, room for the possible application of the provisions of the *Proceedings Against the Crown Act*.

[78] Turning next to the *Mechanics’ Lien Act*, the analysis begins with Blackwood’s proposition that the *Act* has two components, a lien against real property and a charge against the holdback funds mandated by the *Act*. Regarding the former, with respect to Crown-owned property, section 16 of the *Proceedings Against the Crown Act* limits the court to granting declaratory relief:

In proceedings against the Crown in which the recovery of real or personal property is claimed, the court shall not make an order for its recovery or delivery, but instead may make an order declaring that the claimant is entitled as against the Crown to the property claimed or to the possession of it.

Section 20 also imposes limits regarding Crown-owned property:

Nothing in this Act authorizes proceedings in respect of a claim against the property of the Crown or the seizure, attachment, arrest, detention or sale of property of the Crown.

[79] With respect to the holdback funds’ component of the *Mechanics’ Lien Act*, section 24 of the *Proceedings Against the Crown Act* limits legal proceedings that may be taken against the Crown, with certain exceptions:

- (1) No enforcement proceeding, execution, attachment proceeding or similar process shall be issued against the Crown.
- (2) Notwithstanding subsection (1), a garnishment, attachment, or similar process that is otherwise lawful may issue against the Crown for the payment of money owing or accruing as remuneration payable by the Crown for goods or services.
- (3) Notwithstanding subsection (1), a garnishment order may issue against the Crown according to section 4 of the *Public Officials Garnishee Act*.

[80] Blackwood submits that the holdback funds would fall within the exception set out in subsection (2). It is not disputed that, in this case, the

Crown, while submitting that it is not bound by the *Mechanics' Lien Act*, in fact, held back funds which were subsequently paid out.

[81] There are many statutes, at least eighty, both historical and recent, that include a provision such as, "This Act binds the Crown". Such provisions are consistent with the requirement set out in section 12 of the *Interpretation Act*, which presumes that the Crown is not bound by legislation unless the statute so provides. It would have been a simple matter for the legislature to include a similar statement binding the Crown to the provisions of the *Mechanics' Lien Act*. This was not done. It is necessary, then, to consider whether, nonetheless, relying on other considerations, there is a basis for concluding that the Crown is bound by the *Mechanics' Lien Act*, including the requirement regarding holdback funds.

[82] It is a fundamental principle of statutory interpretation that conflict among statutes is to be avoided based on the presumption that the legislature did not intend to enact contradictory legislation. In the result, when there is uncertainty, statutory provisions will be interpreted in a manner that permits all to operate. This principle was referenced by Lamer C.J.C. in *Pointe-Claire (City) v. Quebec (Labour Court)*, [1997] 1 S.C.R. 1015:

[61] ... There is no doubt that the principle that statutes dealing with similar subjects must be presumed to be coherent means that interpretations favouring harmony among those statutes should prevail over discordant ones: P.-A. Côté, *The Interpretation of Legislation in Canada* (2nd ed. 1991). ...

See also: *Friends of the Oldman River Society v. Canada (Minister of Transport)*, [1992] 1 S.C.R. 3, at page 38.

[83] Accordingly, in the case of section 12 of the *Interpretation Act* and the *Proceedings Against the Crown Act*, an interpretation, consistent with law, that allows both to operate harmoniously will be adopted.

[84] As noted above, section 3 of the *Proceedings Against the Crown Act* makes clear that the enumerated statutes have an overriding effect, displacing the operation of that *Act*. Similarly, there is clarity where the statute specifies that the Crown is bound. However, in circumstances where such clarity is not achieved, it is necessary to consider whether the bar to the application of a statute to the Crown, set out in section 12 of the *Interpretation Act*, may be qualified by the operation of the *Proceedings Against the Crown Act*.

[87] The same language as in section 17 is found in section 14 of the *Proceedings Against the Crown Act* in this Province. Prior to the 1979 decision of the Supreme Court of Canada in the *Canadian Industrial Gas & Oil* case, Furlong C.J.N., sitting as a single judge, discussed the *Mechanics' Lien Act* in *Kitchen Kabinets Ltd. v. Pinsent Construction Co. Ltd. and Harmon Corp.* (1974), 6 Nfld. & P.E.I.R. 426:

[4] It is undoubtedly true that Section 14 surrenders certain of the attributes of the Crown as to its liability in the Courts. This can only apply to "actions, suits or other legal proceedings in respect of any right or obligation acquired or incurred by the corporation". The proceedings under *The Mechanics' Lien Act* are purely of a statutory nature and in effect confer a right to security upon any land upon which a workman has performed labour and is wholly incidental to the possession of an interest in land upon which the work is bestowed.

[5] ... The position of the [Harmon] Corporation is that for the convenience of management the land is vested in its name but in dealing with the land it operates wholly as an agent and not as an owner.

[6] I reached the conclusion then that the Harmon Corporation enjoys the same position as the Crown itself and that no act of the legislature unless it is expressly directed to apply to the Corporation affects its operations. Though I do not think it was necessary for the determination of the question before us I am of the opinion that the vesting of the title of the land at Harmon in the Corporation as the agent for the Crown does not create an interest in land which is subject to the operation of *The Mechanics' Lien Act*.

[88] The *Proceedings Against the Crown Act*, 1973, SN 1973, c. 59, came into force on May 1, 1973. Although the *Act* was in force at the time when *Kitchen Kabinets Ltd.* was heard in the Trial Division on April 3, 1974, the interaction between that statute, the *Interpretation Act* and the *Mechanics' Lien Act* was not analyzed on the appeal. Given this omission and the later consideration of the same legislative provision by the Supreme Court of Canada in the *Canadian Industrial Gas & Oil* case, I accept the latter as the correct statement of the law. In that case, the Court read the *Interpretation Act* and the *Proceedings Against the Crown Act* together to harmonize the legislation, effectively qualifying the express bar set out in the *Interpretation Act*.

[89] As applied in this case to the *Mechanics' Lien Act*, sections 16 and 20 of the *Proceedings Against the Crown Act* restrict the actions that may be taken in respect of Crown property. As noted above, section 16 provides that the court may not make an order for the recovery or delivery of property

by the Crown, though a declaratory order may be made. Section 20 states that nothing in the *Proceedings Against the Crown Act* “authorizes proceedings in respect of a claim against the property of the Crown or ... sale of property of the Crown”. The result is that the *Proceedings Against the Crown Act* would preclude interference with or the sale of Crown property under the *Mechanics’ Lien Act*. Such relief is, in fact, not sought by Blackwood.

Operation of the Mechanics’ Lien Act

[90] Rather, the question is whether the *Proceedings Against the Crown Act* qualifies section 12 of the *Interpretation Act* such that Blackwood may, relying on the *Mechanics’ Lien Act*, access holdback funds retained by the Crown. This question requires an assessment of the purpose and operation of the *Mechanics’ Lien Act*, including whether, in the absence of an enforcement option in respect of Crown property, the *Act* nonetheless may be engaged, with the limited enforcement option of a charge on the holdback funds.

[91] In *Pennecon Energy Ltd. v. Metal World Inc.*, *supra*, reference is made to one of the purposes of the *Mechanics’ Lien Act*:

[35] ... In *Northern Electric Company Limited v. The Manufacturers Life Insurance Company*, [1977] 2 S.C.R. 762, at page 773, Laskin C.J.C., for the majority, noted parenthetically that the object of mechanics’ lien legislation is “to offer protection to persons doing work or providing services or furnishing materials in respect of any building or improvement”. ...

[92] The holdback fund is intended to assist in that purpose by ensuring that funds will be available to at least partially satisfy liens that may arise. In Bristow, Glaholt, Reynolds & Wise, *Construction Builders’ and Mechanics’ Liens in Canada*, 7th edition (Toronto, ON: Carswell, 2009), the rationale underlying the retention of holdback funds is discussed, at pages 4-3 to 4-4:

Construction projects tend to be pyramidal in structure, with an owner at the apex and contractors, subcontractors, and those claiming under them in descending degree of privity of contract forming the base of the pyramid. ...

Using the Newfoundland and Labrador *Mechanics’ Lien Act* as an example, section 12(1) provides that “the person primarily liable” under any type of contract under which liens may arise must, as the work progresses, retain for a period of 30 days after the completion or abandonment of such work, 10 per cent

of the value of the work, service, or materials actually done, placed, or furnished. Therefore, the holdback must be retained by the person primarily liable on each contract, whether that person is an owner, contractor, or subcontractor, for the benefit of those below that person on the pyramid.

[93] In this case, the Crown concedes that holdback funds were retained in a manner consistent with the requirements of the *Mechanics' Lien Act*. While counsel for the Crown submits that the holdback was the result of a contractual rather than a statutory obligation, the fact of the holdback is consistent with the public policy purpose underlying the *Mechanics' Lien Act*.

[94] In assessing whether the Crown has a statutory obligation regarding the holdback funds, two questions must be considered; that is, (1) what effect, if any, flows from section 24(2) of the *Proceedings Against the Crown Act*, and (2) does the charge against the holdback funds permit an enforcement option separate from enforcement by means of a charge against the lands?

[95] For convenience, I repeat the relevant parts of section 24 of the *Proceedings Against the Crown Act*:

(1) No enforcement proceeding, execution, attachment proceeding or similar process shall be issued against the Crown.

(2) Notwithstanding subsection (1), a garnishment, attachment, or similar process that is otherwise lawful may issue against the Crown for the payment of money owing or accruing as remuneration payable by the Crown for goods or services.

[96] The legislative intention is that this provision will apply generally to claims against the Crown, binding the Crown in any setting in which it arises. In this case the holdback funds constitute money owing or accruing as remuneration payable by the Crown for goods or services as referenced in subsection (2). As discussed in *Canadian Industrial Gas & Oil Ltd.*, section 12 of the *Interpretation Act*, specifying that a statute must expressly state that the Crown is bound, must be read subject to the operation of section 24(2) of the *Proceedings Against the Crown Act*. The holdback funds mandated by the *Mechanics' Lien Act* and intended for the payment of money owing by the Crown, would fall within the scope of section 24(2).

[97] This leads to the final question which is whether the *Mechanics' Lien Act* contemplates a charge on the holdback funds in the absence of a lien that

would be enforceable against the property. The relevant provisions of the *Act* are sections 6(1), 12(1), 12(5) and 5(1). The general right to register a lien is set out in section 6(1):

Unless a person signs an express agreement to the contrary, where he or she does work upon or in respect of, or places or provides materials to be used in, the making, construction, erecting, fitting, altering, improving or repairing of land, a building, structure or works or the appurtenances to that land, building, structure or works for an owner, contractor or subcontractor, that person has, by doing that work or placing or providing those materials, a lien for the price of the work or materials upon the estate or interest of the owner in the land, building, structure or works and appurtenances and the land occupied or enjoyed, or upon or in respect of which the work is done, or upon which the materials are placed or provided to be used, limited, however, in amount to the sum due to the person entitled to the lien and to the sum owing, except as provided here, by the owner.

(Emphasis added.)

[98] Section 12(1) specifies the requirement for holdback funds:

In all cases, the person primarily liable upon a contract under and by virtue of which a lien may arise shall, as the work is done or the materials are provided under the contract, retain for a period of 30 days after the completion or abandonment of the work done or to be done under the contract 10% of the value of the work and materials actually done, placed or provided, as referred to in section 6, irrespective of whether the contract or subcontract provides for partial payment or payment on completion of the work, and the value shall be calculated, upon evidence given in that regard, on the basis of the contract price or, where there is no specific contract price, on the basis of the actual value of the work or materials.

(Emphasis added.)

[99] Section 12(5) of the *Act* provides for a charge upon the holdback funds:

Where there is a lien under section 6, the lien is a charge upon the amount directed to be retained by this section in favour of lien claimants whose liens are derived under persons to whom the money required to be retained are respectively payable and where there is no lien on the land by virtue of section 5, a claim for work done or materials placed or furnished is a charge upon the amount directed to be retained by this section.

(Emphasis added.)

[100] Section 5(1) of the *Act* provides for an exception to the attachment of a lien:

Except for the purpose of section 12, the lien given by subsection 6(1) does not attach to a public street, road or highway or to a work or improvement done on, in or to a public street, road or highway.

[101] I begin with section 5(1) of the *Mechanics' Lien Act* which specifies a particular circumstance involving Crown property, when a lien will not attach. It may be that this exception for public streets, roads and highways results from the difficulty in describing the property for purposes of attaching a lien to this type of work. I note that the provision applies to works undertaken by the Province, that is, the Crown, as well as those that may be undertaken by municipalities. If the provision was intended to be limited to the latter, specific language would have been used to achieve that purpose. (See, for example, *P.T. Construction Ltd., Re* (1995), 123 Nfld. & P.E.I.R. 300 (NLTD).)

[102] It is also noteworthy that the section 5(1) exception, while precluding a lien attaching to the property, nonetheless permits a charge upon the holdback funds. That is, work on public streets, roads and highways undertaken by the Provincial Crown would be subject to the section 12(5) charge upon the holdback funds. This exception has implications for the interpretation of the *Mechanics' Lien Act* in respect of other Crown-owned property.

[103] As discussed above, statutes will be interpreted so as to permit them to operate harmoniously. A second relevant principle of statutory interpretation is discussed in Sullivan, *Sullivan on the Construction of Statutes*, fifth edition (Markham, ON: LexisNexis, 2008), at page 244:

... As explained by Noel, J.A. in *Canada (Canadian Private Copying Collective) v. Canadian Storage Media Alliance*, dealing with a series of express exceptions, "if a statute specifies one exception (or more) to a general rule, other exceptions are not to be read in. The rationale is that the legislator has turned its mind to the issue and provided for the exemptions which were intended."

[104] In this case, section 5(1) of the *Mechanics' Lien Act* deals with a specific exception for a particular type of work on Crown property; that is, the legislation provides for the situation when a lien against Crown property under section 6(1) is precluded, but a charge upon the holdback funds is permitted. If the Crown were not bound in any way by the *Mechanics' Lien*

Act, there would be no need for this exception. It follows, by inference, that a lien may attach in respect of works on Crown property other than roads and highways. However, the manner in which a lien may be enforced in respect of work done on Crown property is limited by the *Proceedings Against the Crown Act*.

[105] Applying sections 16 and 20 of the *Proceedings Against the Crown Act*, a lien under the *Mechanics' Lien Act* could not be enforced as against the property. Encumbering or sale of the property is not an option. To enforce the lien, it would be necessary to look to section 12(5) which provides that "[w]here there is a lien under section 6, the lien is a charge upon the amount directed to be retained by this section in favour of lien claimants". The net effect is that the person having done work or provided materials in respect of erecting a building on Crown-owned lands has a lien for the price of the work and materials, but the sole enforcement process available under the *Mechanics' Lien Act* would be a charge upon the holdback funds. This interpretation allows the *Mechanics' Lien Act*, the *Proceedings Against the Crown Act* and the *Interpretation Act* to operate fully and harmoniously.

[106] In this case, Blackwood registered a claim for lien specifying the materials and work claimed, identifying the property where the work was done, and claiming that the lien is a charge upon the holdback funds with respect to the work on that property. Assuming that the work was undertaken on Crown property and that the lien was compliant with the provisions of the *Mechanics Lien Act*, Blackwood, while precluded from enforcing the lien by action affecting the property, would have a charge upon the holdback funds.

Summary

[107] I would grant leave to appeal. While it would have been preferable to have a proper factual foundation, the interpretation of the *Mechanics' Lien Act* in respect of work done on Crown property for purposes of this appeal is a question of law which it is appropriate to address here.

[108] Based on the interpretation of the *Mechanics' Lien Act*, the *Proceedings Against the Crown Act* and the *Interpretation Act*, a lien in respect of work done on Crown property, while not enforceable as against the property, is a charge upon the holdback funds mandated by the *Mechanics' Lien Act*.

[109] Accordingly, I would dismiss Brook's appeal. I would remit the matter to the Trial Division for adjudication on the facts. I would award costs on a party-and-party basis to Blackwood as against Brook. EMCO and the Crown should bear their own costs.

B. G. Welsh J.A.

TAB 3

COR/2023/11564

CIRCULAR

To: All Municipalities, Local Service Districts, Inuit Community Governments, Consultants, Heavy Civil Association of Newfoundland and Labrador, Construction Association – NL, PMA, MNL, MHAs

Re: Contract Payments Reminders

Date: August 28, 2023

It has come to my attention, that there have been some significant delays in issuing payments to Contractors and Consultants.

Please reference below the contractual obligations for Consultants and Contractors:

1. Once a Contractor has issued an invoice for payment, the Owner has 10 calendar days to respond with any markups adjusting the invoice total. After this time, it is assumed that the invoice is in order and will be paid.
2. Contractors are required to receive payment 21 calendar days after acceptance of invoice.
3. Contractors are required to receive Mechanics Lien Holdback 30 calendar days after the date of the Substantial Performance certificate.
4. Contractors are required to receive final payment 30 calendar days after the date of the Total Performance Certificate.
5. Consultants are required to receive payment 60 calendar days after receipt of properly documented invoice.

Failure to pay in a timely manner may result in the Contractor or Consultant charging interest on the outstanding balance.

1. Contractors can charge Bank of Canada Prime rate +1% after 60 calendar days of non-payment after acceptance of invoice.
2. Interest is an ineligible project cost, and is 100% the responsibility of the Owner.

To avoid delay and costly interest charges we ask that:

1. Consultants upload the Contractors invoice in MSIS within 14 calendar days of receipt.
2. Owners pay the invoices immediately once approved by MI if able, if you need to wait for release of funds from MI, then payment should be made within 5 business days of receipt of funding from MI.
3. If possible, Owners provide their project manager (Clerk, CAO, Works director, etc.) delegated authority to pay project invoices that are within project budget and without issues. This will decrease the delay associate with the requirement of a council meeting.

It is the owner's responsibility to secure project funds. In doing so please ensure the following:

1. If using financing for the project:
 - a. Loan for recipient share is secured and approved prior to project starting.
 - b. Loan to cover HST/GST rebate is approved prior to project starting.

2. If using Canada Community Building Fund (CCBF), formerly Gas Tax Fund:
 - a. Approval has been obtained, and funds secured in the project account.
 - b. CCBF funds are not used for other purposes.
 - c. CCBF may be used only to the maximum of federal program stacking rules.
3. Bank Accounts:
 - a. Project bank account is opened, only funds for the project may be deposited or withdrawn from this account.
 - b. Bank account for Mechanics Lien Holdback retention is opened.
4. Funds released by MI for the project shall not be used for other purposes.

Mechanics Lien Holdback is:

1. 10% of the contractor's payment that is held until Substantial Performance date. This money is earned by the contractor in the evaluation of invoices, but held for use in the event of a lien on the project. This is the contractor's money.
2. Not used for contractor deficiencies or incomplete work.
3. Legislatively required to be released in the 30 calendar day timeframe from Substantial Performance.

Retention of payment to address deficiencies:

1. As the project progresses, it is imperative that the payments made to the contractor are for work completed to the satisfaction of the contract documents.
2. When work that is completed, but is deficient (not to spec, incomplete or missing elements), the Town may withhold payment for such work. The contract allows for 2 times the value of the work. (This is NOT part of the Mechanics Lien Holdback)
3. Invoices including work that is not complete shall be reduced to a value representative of the work complete.
4. Work that may have seasonally effected work (paving 2nd lift, commissioning of HVAC, etc.) shall hold payment of funds sufficient to complete the work.

As the failure to pay in a timely manner has great impacts on companies, workers, local economy, etc., MI would like to note, that:

1. Failure of the consultant to perform their duties in the timeframes identified may result in limited opportunities for future engagement.

Should you need any assistance, please reach out to the regional office

Inayat Rehman, P. Eng.

Eastern Regional Office

Phone: (709) 729-5337

Email: InayatRehman@gov.nl.ca

Wilfred Maloney, P. Eng.

Central Regional Office

Phone: (709) 256-1055

Email: WilfMaloney@gov.nl.ca

Chris Power, P. Eng.

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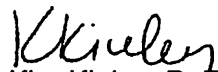
Ehsan Khan, P. Eng.

Labrador Regional Office

Phone: (709) 896-2942

Email: EhsanKhan@gov.nl.ca

Sincerely,



Kim Kieley, P. Eng., FEC

Director – Municipal Infrastructure

TAB 4

Caitlin E. Fell Appearing on behalf the Monitor

Alexander T. Wells	Appearing on behalf of 92712 Newfoundland and Labrador Inc.
Neil L. Jacobs, K.C.	Appearing on behalf of Royal Bank of Canada
Maeve A. Baird	Appearing on behalf of the Minister of National Revenue
David L. Hearn Chelsey Buggie	Appearing on behalf of the Government of Newfoundland and Labrador
Jason Dutrizac	Appearing on behalf of Intact Insurance Western Surety Company
Phil Clarke	Appearing on behalf of Grant Thornton Limited
Ronald A. Cole, K.C.	CANAM Construction
William S. Kennedy	EMCO Limited

Authorities Cited:

CASES CONSIDERED: *Royal Bank of Canada v. Soundair Corporation* (1991), 4 O.R. (3d) 1, 7 C.B.R. (3d) 1 (C.A.); *Harte Gold Corp. (Re)*, 2022 ONSC 653; 9354-9186 *Québec Inc. v. Callidus Capital Corporation*, 2020 SCC 10; *Lydian International Limited (Re)*, 2020 ONSC 4006; *PricewaterhouseCoopers Inc. v. Canadian Fluorspar (NL) Inc.*, 2023 NLSC 88; *Target Canada Co., Re*, 2016 ONSC 3651; *Sports Villas Resort Inc. (Re)*, 2020 NLSC 109

STATUTES CONSIDERED: *Companies' Creditors Arrangement Act*, R.S.C. 1985, c. C-36

REASONS FOR JUDGMENT

MACDONALD J.

INTRODUCTION

[1] On July 8, 2022, the Royal Bank of Canada (RBC) applied to appoint Ernst and Young Inc. as a court-appointed receiver over all or substantially all of the assets of Edward Collins Contracting Limited, Classic Security Ltd., FGC Holdings Ltd., 51037 Newfoundland and Labrador Inc., and H & E Designs Ltd. (EEC Group). The ECC Group opposed the application.

[2] On July 18, 2022, the ECC Group applied for creditor protection and other relief under the *Companies' Creditors Arrangement Act*, R.S.C. 1985, c. C-36, as amended (*CCAA*).

[3] On July 20, 2022, the Court granted a consent order (Consent Order). The Court ordered that any persons having a contractual arrangement or a statutory mandate for the supply of goods or services were restrained until further order from the Court from discontinuing, altering or terminating the supply of such goods or services until September 16, 2022.

[4] On September 16, 2022, I continued the Consent Order. On October 5, 2022, I granted an initial order under the *CCAA*, and extended the stay until the comeback hearing on October 17, 2022. I appointed Grant Thornton Limited (GTL) as Monitor.

[5] On October 17, 2022, I issued the Amended and Restated Initial Order (ARIO).

[6] On November 3, 2022, I dismissed an application by His Majesty in right of Newfoundland and Labrador seeking amendments to the ARIO.

[7] On December 14, 2022, I extended the stay until March 17, 2023.

[8] On March 14, 2023, I issued a claims procedure order. The order provides for a procedure to resolve Edward Collins Contracting Limited's (CCL) claims relating to construction project receivables holdbacks, liquidated damages, and force account balances owing to CCL.

[9] On April 17, 2023, I issued a Vesting Order allowing for the sale of certain real property.

[10] On June 16, 2023, I approved a Sales Investment and Solicitation Process (SISP) and extended the stay until September 14, 2023.

[11] The SISP included a so-called stalking horse bid. This bid set a floor sales price for the assets of CCL and H & E Designs Ltd. (Vendors). The Asset Purchase Agreement (APA) between the Monitor and 92712 Newfoundland and Labrador Inc. (Purchaser) provides that the purchase price is \$6.9 million, together with some other adjustments as is provided for in that Agreement, described in paragraph 74e of the Monitor's Ninth Report.

[12] A third party unrelated to the Collins family now owns 100% of the shares of the Purchaser. I will describe the potential future changes in this ownership later.

[13] In August, I amended the Claims Procedure Order to provide for certain claims made by Western Surety Company.

[14] On September 13, 2023, I extended the stay until October 11, 2023.

[15] On September 20, 2023, I ordered the Town of Deer Lake pay certain sums to the Monitor.

[16] This is a Motion by the Vendors for an approval of:

- (a) an Asset Vesting Order (AVO) to allow for the sale of their assets and certain liabilities to the Purchaser as set out in the APA;
- (b) an order, also contained in the AVO, releasing the Vendors, the Purchaser, and the Monitor (and certain individuals associated with each as described in the AVO). They also seek a release of Universal Environment Services Inc. (UESI) as I describe later in this decision (UESI Release);
- (c) a Distribution Order authorizing the Monitor to disburse the proceeds of the AVO; and
- (d) an order sealing the Schedule A of Josh Collin's Affidavit filed September 21, 2023.

[17] The Vendors served the Monitor and all known creditors and shareholders with its application materials. Monitor's counsel provided notice to stakeholders previously registered for prior court applications. It also published its report accompanying this application on GTL's website.

[18] No one opposes the AVO. CanAm, an unsecured creditor, wants the Monitor to pay it even if I grant the AVO. The Sureties and EMCO Limited (EMCO) oppose the UESI Release. The Canada Revenue Agency (CRA), RBC and the Monitor all asked me to approve the AVO and the Releases contained in it.

[19] I hereby approve:

- (a) the AVO including the Releases as set out in the revised AVO provided to me by counsel at the end of the hearing;
- (b) the Distribution Order; and
- (c) an order sealing Schedule A of Josh Collins' Affidavit filed September 21, 2023.

FACTS

[20] I explained the background of this *CCAA* proceeding and the circumstances that gave rise to it in my previous oral decisions. I will not repeat all of that background today.

[21] ECC Group as of June 16, 2023, owes RBC, as principal secured creditor, about \$5.7 million. It owes CRA about \$4.98 million of which about \$1.86 million is a deemed trust amount that ranked ahead of the RBC security.

[22] The ECC Group also owes secured equipment lenders about \$1.36 million.

[23] Intact Insurance Company and Western Surety Limited (Sureties) provided construction bonding to CCL. They are unsecured creditors of ECC Group. They do hold indemnity agreements from UESI as I will describe in a moment.

[24] Although not a debtor company under the *CCAA*, UESI, a company associated with the ECC Group, has:

- (a) guaranteed the ECC Group's debts to RBC. RBC has a General Security Agreement dated in May 2005 and registered that month at the Newfoundland and Labrador Personal Property Registry (PPR);
- (b) guaranteed CCL's account with EMCO. Although EMCO identified its claim, it did not tell me the outstanding amounts due. EMCO opposed the UESI Release;
- (c) guaranteed CCL's fuel account with Energie Valero Inc. Valero did not make any submissions in this Motion; and
- (d) indemnified the Sureties for any losses it suffers because of payments it makes under the construction bonds. Intact registered its indemnity at the PPR in March of 2022. Western registered its indemnity in December 2021. The Sureties oppose the UESI Release.

[25] Western Surety Limited claims it paid about \$1.04 million in claims against its construction bonds and has outstanding claims against it of about \$1.66 million. It also says it has incurred about \$659,000 in legal fees and expenses.

[26] Intact Insurance Company claims it paid about \$154,000 in claims under its construction bonds and has outstanding claims of about \$1.31 million. It also says it has incurred about \$164,000 in legal fees and expenses.

[27] As of July 31, 2022, UESI had shareholders equity, mostly in the form of retained earnings, of about \$1.9 million. Its property and equipment was valued at about \$1.7 million.

[28] The Monitor has completed the SISP. It describes a process it followed pursuant to the SISP in paragraph 62 of its Ninth Report. Despite its best efforts, the Monitor received no bids by the bid deadline.

[29] On that basis, the Monitor deemed that the stalking horse bidder, the Purchaser, was the successful bidder. The Vendors seek approval of sale to, the Purchaser. It seeks to implement the transaction through a proposed AVO.

[30] An AVO generally involves a series of steps whereby the Purchaser acquires the assets of the debtor company free and clear of any encumbrances or claims, other than those assumed by the Purchaser, as contemplated by s. 36(4) of the *CCAA*.

[31] The purchase price stands in place of the assets and is available to satisfy creditor claims in accordance with their pre-existing priority.

[32] In this case, the Purchaser, agreed to pay \$6.9 million, subject to the adjustments for assets and assumed liabilities provided for in the APA. In particular, the Purchaser will acquire all of the assets of the Vendors including most ongoing contracts, excluding one with the Government of Newfoundland and Labrador. The Purchaser intends to initiate a process whereby the Purchaser will hire ECC Group's employees.

[33] The Purchaser will assume liabilities of about \$340,000 to Newport Capital Corporation (an arm's-length entity but related by common control to the Purchaser) and the Placentia Mall Ltd. (a non-arm's-length entity). The Vendors and the Monitor refer to these entities, not subject to the *CCAA* proceedings, as the Third Party Sponsors.

[34] The Purchaser paid a \$200,000 deposit to the Monitor on May 19, 2023. It will pay an additional deposit of \$490,000 upon issuance of the AVO.

[35] Pillar Capital Corporation (Pillar) will fund \$6.1 million of the cash component of the purchase price while UESI will fund \$800,000.

[36] After or on closing, the Monitor will pay secured creditors about \$8,946,958 as of June 16, 2023, by paying:

- (a) \$4,058,070 to RBC. The ECC Group, the Monitor, and RBC agreed to this amount in a confidential settlement agreement executed on June 16, 2023 (Settlement Agreement). \$3,817,957 of this amount is due from ECC and the balance from FGC Holdings Ltd.;
- (b) \$1,885,494 to CRA for its deemed trust (This amount is now \$2,079,198 in the Distribution Order). An additional amount of \$347,743.63 is due from Classic Security Limited; and
- (c) \$1,362,094 to equipment lease holders.

[37] I will deal with the Distribution Order later in this decision.

[38] Secured creditors subordinate to RBC, and unsecured creditors will receive nothing.

[39] The payments to RBC will repay all mortgages, lines of credit, equipment leases, Visa overdraft balances, and certain accrued interest, which as of March 7, 2023. This excludes a mortgage on real property that another of the ECC Group will deal with.

[40] The Monitor will not repay RBC Highly Affected Sectors Credit Availability Program (HASCAP) loan secured by a 90% guarantee from the Business Development Bank of Canada. It will not pay its protective disbursements (expenses incurred in enforcing its security) and the Canada Emergency Business Account (CEBA) loan of about \$1.6 million.

[41] CRA will not receive any outstanding HST amounts or income taxes owed by the ECC Group sellers as these claims are subordinate to RBC and other secured creditors.

[42] The combined ECC Group and UESI asset value is about \$8.37 million. Thus, there is about a \$572,000 shortfall on the total secured and deemed trust debt due (and is more than this given that the CRA debt is more than what is set out in Josh Collins' Affidavit filed on September 21, 2023), assuming liquidation of assets at 100% of their values.

[43] To make up the shortfall on the secured debt and to pay other expenses, the Third Party Sponsors will make a contribution of about \$1.8 million. This is made up as follows:

- (a) A transfer of 11 acres of land in Point Verde appraised at \$500,000 to support the Pillar financing;
- (b) A transfer of land with an appraised value of \$300,000 to support the Pillar financing;
- (c) A subordination of Newport Capital Corporation and Placentia Mall Limited's first mortgage of certain equipment to support the financing; and
- (d) A cash injection of \$1,023,000 to pay Pillar's legal and loan fees and make up the remaining shortfall. UESI's \$800,000 is included in this amount.

[44] The Settlement Agreement also provides that:

- (a) RBC, UESI, Josh Collins, and Frank Collins will provide mutual releases;
- (b) the “Third-Party Sponsors have agreed to make such contributions... on the condition that UESI is released from the subordinated debts of ECC that existed prior to the *CCAA* proceedings”;
- (c) parties acknowledge that the ECC Group requires a release of UESI “as a Third-Party Sponsor in order for the proposed settlement scheme to work as it should”; and
- (d) the Purchaser informed RBC and ECC Group that the asset sale is only viable if the Purchaser can operate the construction business as a going concern with the support of UESI.

[45] The Monitor recommends that the Purchaser’s bid is in the best interests of the creditors and I should approve its acceptance.

[46] The Monitor says that, but for the contribution of UESI the Vendors’ restructuring would not occur. If I do not approve the AVO, the Monitor says it is unlikely that the combined value of the assets of the ECC Group and UESI in a forced liquidation will exceed the outstanding amount owed to RBC and CRA.

[47] The parties agreed that the Vendors would ask me to approve the UESI Release as part of the transaction. If granted, UESI will not be liable for the contingent EMCO or the Surety Indemnity claims. The Vendors do not ask me to release the directors of UESI.

[48] The Purchaser will then own all of the Vendors’ assets and liabilities. The Vendors retain its environmental obligations.

[49] It became apparent in argument, and in the Monitor and Vendors' filings, that the APA and AVO is a vehicle to allow for an eventual transition of the ownership of the Purchaser to the Collins family to allow it to continue to operate the construction business through the auspices of the Purchaser.

[50] Although the Purchaser is now 100% owned by an unrelated party, counsel tells me that it is likely that post-transaction the Collins family will eventually control the Purchaser. Monitor's counsel tells me that some of the Collins family have creditor issues with creditors that make it impossible to make this transition now.

[51] It is now clear that UESI operated as a proxy for the Collins family's construction business interests during the *CCAA* process. I will describe this later when I discuss the Releases.

[52] This AVO structure sees the Purchaser continue to operate the Collins construction business as a successor to CCL. It offers the possibility of continued employment for CCL employees.

[53] None of this can happen unless UESI can pay the \$800,000. UESI says it will not pay it unless it receives the UESI Release.

[54] UESI's counsel and Josh Collins say it is an essential component of the transaction that I release UESI from the Surety Indemnities and the EMCO claim. The Vendors says I should order the UESI Release or UESI will be liable for construction claims arising from the default of CCL.

[55] Finally, the Monitor obtained a security review from its counsel, which concluded that the RBC security from the debtors is valid, enforceable, and effective against a trustee in bankruptcy.

ISSUES

[56] The issues are, should I approve the:

- (a) AVO;
- (b) the AVO provisions providing the Releases; and
- (c) order sealing Schedule A of Josh Collins' Affidavit, filed on September 21, 2023?

[57] I will first deal with whether I should approve the AVO.

ANALYSIS

Should I approve the AVO?

[58] I hereby approve the AVO. I will deal with the UESI Release in a moment.

[59] A successful *CCAA* process offers results in a plan of arrangement that creditors approve. However, s. 36(1) of the *CCAA* says, "A debtor company in respect of which an order has been made under this *Act* may not sell or otherwise dispose of assets outside the ordinary course of business unless authorized to do so by a court."

[60] Section 36 provides that shareholder approval is not necessary. Furthermore, it does not require creditor approval. Section 11 of the *CCAA* also gives me general authority. It provides, "[t]he court, on the application of any person interested in the matter, may ... make any order that it considers appropriate in the circumstances."

[61] Thus, creditors need not approve a sale of assets outside the ordinary course of business. An AVO is such a transaction. No one disputes that I have authority to approve an AVO. Many courts have approved these types of transactions on numerous occasions.

[62] Section 36 of the *CCAA* directs I consider:

- (a) whether the SISP process leading to the proposed sale or disposition was reasonable in the circumstances;
- (b) whether the Monitor approved the process leading to the proposed sale or disposition;
- (c) whether the Monitor filed with the Court a report stating that in their opinion the sale or disposition would be more beneficial to the creditors than a sale or disposition under a bankruptcy;
- (d) the extent to which the creditors were consulted;
- (e) the effects of the proposed sale or disposition on the creditors and other interested parties; and
- (f) whether the consideration for the assets is reasonable and fair, taking into account their market value.

[63] Additional factors apply if the AVO vests to a related person. Given the unusual circumstances of this case, I will also only approve the AVO if I am satisfied that:

- (a) Good-faith efforts were made to sell or otherwise dispose of the assets to persons who are not related to the company; and
- (b) the consideration is superior to the consideration under any other offer made in accordance with the process leading to the proposed sale or disposition.

[64] I will also consider the guidance in *Royal Bank of Canada v. Soundair Corporation* (1991), 4 O.R. (3d) 1, 7 C.B.R. (3d) 1 (C.A.), a case for the approval of the sale of assets in an insolvency, and the additional factors referred to in paragraph 38 of *Harte Gold Corp. (Re)*, 2022 ONSC 653, a case for the approval of a reverse vesting order. I consider many of the factors described in these cases applicable to an AVO.

[65] I need not consider all of these factors. Each need not support the issuing of the AVO. I use them to assist me in exercising the broad discretion I have under the *CCAA*.

[66] Finally, I will bear in mind the direction of the Supreme Court of Canada in *9354-9186 Québec Inc. v. Callidus Capital Corporation*, 2020 SCC 10 (at para. 49), when it said, “The discretionary authority conferred by the *CCAA*, while broad in nature, is not boundless. This authority must be exercised in furtherance of the remedial objectives of the *CCAA*. ... Additionally, the court must keep in mind three ‘baseline considerations’ which the applicant bears the burden of demonstrating: (1) that the order sought is appropriate in the circumstances, and (2) that the applicant has been acting in good faith and (3) with due diligence.”

[67] I find as follows:

- (a) The Vendors have acted in good faith with due diligence. The Monitor is also of this opinion;
- (b) The AVO produces an economic result at least as favourable as any other viable alternative. There are no other bids;
- (c) No stakeholder is worse off under the AVO than it would have been under any other viable alternative. If the AVO fails, it is likely RBC will pursue its receivership motion and a receiver will sell the assets of the ECC Group at a liquidation sale;

- (d) The AVO better preserves the value of the Vendors' assets than this liquidation alternative;
- (e) No stakeholder is worse off under the AVO than it would have been under any other viable alternative. Simply stated, there is no other alternative. A liquidation sale will hurt all creditors;
- (f) Furthermore, the transaction contemplates the sale to a new corporate entity. Thus, the Vendors' shareholders receive no recovery of their investment;
- (g) The SISP is reasonable in the circumstances. I find that the Monitor approved the SISP. The Monitor ran the SISP in a fair, open and transparent manner. The Monitor ran the process supported by the Vendors;
- (h) The Monitor sufficiently canvassed the market. Third parties could participate in the sale process in a confidential manner. The SISP provided sufficient time for parties to express interest and evaluate the opportunity. The SISP was open to all parties;
- (i) The process leading to the AVO was reasonable in the circumstances. The Monitor sought Court approval of the SISP. Creditors received notice of these applications. The Court process allowed secured creditors the opportunity to provide input to the Court on these processes. The SISP is not innovative or unique; and
- (j) Many courts have approved similar sales processes. The use of the stalking horse bid is widely accepted in Canadian *CCAA* proceedings.

[68] I find that the Monitor made sufficient effort to obtain the best price. There is no evidence that the Vendors acted improvidently. I agree with the Monitor and find that the purchase price is fair and reasonable.

[69] The Monitor says that the proposed sale would be more beneficial to the creditors than disposition under a bankruptcy.

[70] Bankruptcy would jeopardize the possibility of future operations. As structured, the Purchaser will continue CCL's relationship with UESI. A bankruptcy would destroy this form of a going-concern sale and thereby risk the sale or reduce the purchase price.

[71] A bankruptcy sale would delay and perhaps jeopardize the sale. Before an AVO can be approved under a bankruptcy, Vendors must be bankrupt, a meeting of creditors must be held, inspectors must be appointed, and they must approve the sale. Thus, this transaction will provide a superior recovery for creditors than would a liquidation of the Vendors' assets in bankruptcy.

[72] The Monitor did consult with CRA and other secured creditors. I have no evidence if it consulted with unsecured creditors. I do know that it did not consult with the Sureties on the APA or the Settlement Agreement.

[73] Although there is no obligation for the Monitor to consult with creditors who will receive nothing, it is good practice that they do so.

[74] In this case, I find that the lack of consultation did not have a material effect on the Sureties' position. They are to receive, and were likely always to receive, nothing in this *CCAA* proceeding.

[75] Given that the APA and the AVO intend to support a transaction whereby the Collins family may eventually gain control of the Purchaser and continue the CCL business through this company, I must be satisfied that:

- (a) good-faith efforts were made to sell or otherwise dispose of the assets to persons who are not related to the company; and
- (b) the consideration is superior to the consideration under any other offer made in accordance with the process leading to the proposed sale or disposition.

[76] I find that the Monitor did make good-faith efforts to sell the assets to the public. The use of the stalking horse bid does not create any assumption that this is not so. Since there was no other bid, arm's length or otherwise, the Purchaser's bid is inherently superior.

[77] Furthermore, the proposed transaction has the prospect of renewed employment for some of the CCL employees. It has the prospect of providing ongoing business opportunities for suppliers of goods and services to the construction business.

[78] The AVO will provide an expedient efficient transfer of Vendors' intangible assets to the Purchaser. This would support a timely continuation of the construction business through the auspices of UESI and the Purchaser. This will provide an opportunity for employees, stakeholders, and the unsecured creditors to engage with the new business. The Monitor says, and I agree that this will benefit the local community.

[79] Finally and importantly, the Monitor supports the use of the AVO.

[80] The AVO will:

- (a) provide for timely, efficient and impartial resolution of the Vendors' insolvency;
- (b) preserve and maximize the value of the Vendors' assets;
- (c) ensure a fair and equitable treatment of the claims against the Vendors;
- (d) protect the public interest and have the potential to preserve employment and third-party suppliers and service providers; and
- (e) Balance the costs and benefits of Vendors' restructuring.

[81] For all these reasons, I find the proposed AVO is necessary to achieve the clear benefits of the purchase and that it is appropriate to approve this transaction in the circumstances. I find there is no reason to exempt CanAm from the operation of this order, and I dismiss its request to do so. I now turn to whether I should approve the Releases.

Should I approve the AVO provisions providing for the Releases?

[82] I approve the Releases. No one disputes most of the Releases. The only dispute is whether I should order the UESI Release. Notably, no one asks me to release UESI's directors or any of the Collins family in their personal capacity (other than in their roles as directors, officers or employees of the Vendors).

[83] The Releases will cover any present and future claims against the released parties based on any fact, or matter, or occurrence in respect of the purchase transaction. It does not release any claim for fraud or willful misconduct. It does not release any claim that I may not release pursuant to s. 5.1(2) of the *CCAA*. It does not release any environmental liability to the Government of Newfoundland and Labrador (GNL).

[84] I find that the Releases are reasonable and appropriate in the circumstances.

[85] I base my decision on an assessment of s. 5.1 of the *CCAA* and the factors taken from *Lydian International Limited (Re)*, 2020 ONSC 4006 (at para. 54) , and from my decision in *PricewaterhouseCoopers Inc. v. Canadian Fluorspar (NL) Inc.*, 2023 NLSC 88.

[86] Justice Morawetz in *Target Canada Co., Re*, 2016 ONSC 3651, gave an oral judgement on approval of the plan of arrangement under the *CCAA*. One of the issues was the matter of providing releases to Target Corporation (the U.S. parent of the Canadian entity), one of the "Plan Sponsor Released Parties."

[87] Target was not a debtor under the *CCAA*. At paragraph 40 he says, “It is not uncommon for *CCAA* courts to approve third-party releases in favour of a person ... who could assert contribution and indemnity claims against the debtor company.” He considered the economic contributions made by Target Corporation as a plan sponsor. He gave the third-party release. The Court did preserve Target Corporation guarantees of certain landlord claims for reasons not applicable here.

[88] I find this case supports the proposition that I have authority to issue a third-party release. I will consider the following factors:

- (a) Whether the parties to be released from claims were necessary and essential to the restructuring of the debtor;
- (b) Whether the claims to be released were rationally connected to the purpose of the plan and necessary for its success;
- (c) Whether the plan could succeed without the Releases;
- (d) Whether the parties being released were contributing to the AVO; and
- (e) Whether the Releases will benefit the debtors as well as the creditors, generally.

[89] Again, I need not consider all of these factors. Each need not support the issuing of the Releases. I use the factors to assist me in exercising the broad discretion I have under the *CCAA*.

[90] No one says that the Releases do not meet this criteria, other than the one to UESI. I find that each of the Monitor, the Purchaser, the Vendors, and their current and former directors, officers, employees, legal counsel and advisors, met these criteria and I hereby order their release.

[91] With respect to the UESI Release, no one seriously disputes that the UESI Release satisfies consideration (a), (b) or (d). Stated simply, without the UESI contribution as I described in this judgement, the *CCAA* process could have unfolded in a very different fashion.

[92] This proceeding is notable in that there is no Debtor in Place financing (DIP). In many ways, the CCL avoided DIP financing by the following mechanism.

[93] After the commencement of the *CCAA*, UESI became the contracting party in its first major contract, the so-called Boskalis Contract in Argentina. CCL had negotiated much of this contract before the *CCAA*, however, CCL could not obtain bonding because of its insolvency and because of the claims of Intact and Western.

[94] The parties enter into an arrangement whereby UESI and an independent third party obtain bonding for that contract. UESI became the contracting party and split the proceeds: 8% to the independent third party, and 92% to UESI. From the 92%, UESI rented equipment from ECC Group at market rates.

[95] The same parties entered into an Argentina road-widening contract on similar terms. In this contract, UESI provided cash security in lieu of bond.

[96] UESI also assumed CCL employee obligations and discharged payroll obligations. Josh Collins acted as the construction manager. The net result is that UESI facilitated allowing ECC Group to survive the *CCAA* proceeding without DIP financing. I will discuss this in more detail later.

[97] This structure allowed for:

- (a) UESI to use profits from the work to pay CRA and RBC settlement amounts; and
- (b) the Collins family's core construction business to remain intact, even though UESI operated it using CCL equipment and its former employees. UESI completed both projects July 2023.

[98] Thus in addition to the \$800,000 contribution toward the AVO, UESI was instrumental in allowing the *CCAA* proceeding to continue thereby maintaining ECC Group's core assets and employees. This, in turn, allows the Vendors to transfer employees and equipment to the Purchaser, which will eventually become the Collins family construction business vehicle. All of this alleviated the need for DIP financing.

[99] I find that the released parties' efforts directly lead to the AVO and the sale of the enterprise. Thus, there is cash available to satisfy some creditor claims. If I do not grant the UESI Release, there is a risk that the Purchaser might not proceed. If the Purchaser does proceed, it might reduce the purchase price.

[100] The plan is that the Collins family construction business will transition to another corporate vehicle. It will continue to provide employment. It will provide benefits to suppliers and the larger community. The Releases help achieve the purposes of a *CCAA* proceeding, which includes maximizing creditor recovery and preserving continued employment in a restructured enterprise. Therefore, I find that the Releases connect rationally to the restructuring.

[101] Thus, I find that the released parties made significant contributions to the Vendors' restructuring, both prior to and throughout these *CCAA* proceedings.

[102] Furthermore, the Sureties' claims related to CCL construction defaults. These liabilities contributed to the CCL insolvency.

[103] In this case, it would be impossible to restructure CCL under the *CCAA* if I do not release the Sureties' indemnities.

[104] This case is unusual in that UESI could have participated in the *CCAA* proceeding as a debtor. In that case, the indemnitor could have compromised the Sureties' claim in a more straightforward manner.

[105] If this did occur, it is unlikely that UESI could have contributed to the Collins construction business in the manner I just described. In particular, it would have been difficult if not impossible for UESI to enter into new contracts. It would have been difficult for it to provide bonding.

[106] UESI will continue to provide bonding support and employees for the short term after the AVO. This will allow the Purchaser the potential to continue the CCL construction business as a going concern. This contribution helped facilitate RBC and CRA payments. This contribution presumably facilitated their support for the AVO.

[107] The Sureties did not seriously contest these facts.

[108] The Sureties say there is no evidence that the purchase will not close if I deny the UESI Release. They say that if this was so, the APA would have a condition precedent that the debtors arrange for the UESI Release. It did not. They argue that if UESI was critical to the continued operation as a going concern of the Collins family construction business through the vehicle of the Purchaser, the APA would have said so.

[109] The Sureties acknowledge that if the AVO fails they will likely receive nothing. Sureties' counsel did not disagree with the Monitor's contention that there would be insufficient funds to repay both CRA's and the RBC's secured debt.

[110] When I asked Sureties counsel what his clients want, he said they want more than nothing. Thus the Sureties do not oppose the AVO but want more money.

[111] The Sureties say there is no evidence that the Purchaser will not close without the UESI Release. Although this is the Sureties view, I must consider whether UESI will make the \$800,000 contribution without a release and, if not, whether RBC or CRA consent to the transaction without the \$800,000 injection.

[112] I can only conclude that the parties mean what they say. RBC has compromised its claim significantly. CRA is entitled by law to the deemed trust amount. This is a carefully negotiated settlement, which balances the amounts paid to principal secured creditors with the risk inherent in demanding that UESI contribute \$800,000, while still assuming significant liabilities for CCL residual operations.

[113] The Sureties suggest then that I should force RBC into a high-stakes negotiation knowing that if UESI refuses to contribute without a release RBC will suffer a significantly greater loss.

[114] Fundamentally, the Sureties are and have always been in a second position behind RBC with respect to UESI assets. RBC is in a second position behind CRA with respect to CCL assets. The two creditors with the strongest claims, who under any reasonable scenario are entitled to all the proceeds of a liquidation sale have compromised their claims.

[115] In a complex settlement agreement with many moving parts, it is not practical to pull out one piece and expect the transaction to survive. In the end, the Sureties are unsecured creditors of CCL.

[116] Thus, the Sureties want to evoke a nuclear option that if they do not receive, as counsel said, “something more than nothing” the secured creditors will suffer.

[117] This is an unusual case. This transaction has the potential for the Collins family to continue the business under the auspices of what is now a third party Purchaser.

[118] Unusually, the ECC Group navigated the *CCAA* without DIP financing. Because RBC has security over UESI assets, and CCL business could not continue without bonding, UESI stepped into contributing in the manner it did rather than as a DIP lender. Thus, UESI could not obtain the DIP priority position they might have had under the *CCAA*.

[119] Finally, the Sureties say the Vendors did not consult them on the AVO or the Settlement Agreement.

[120] Although there is no obligation for the Monitor to consult with creditors who will receive nothing, it is good practice that they do so.

[121] However, I find that the lack of consultation did not have a material effect on the Sureties’ position. They are to receive, and were likely always to receive, nothing in this *CCAA* proceeding.

[122] In all the circumstances, I find the that:

- (a) the Releases are fair and reasonable;
- (b) the released claims rationally connect to the restructuring;
- (c) the released parties are necessary and essential to the restructuring of the Vendors; and
- (d) the released parties contributed to the restructuring.

[123] With respect to the other releases, the Monitor, Purchaser and Vendors are unaware of any claims against them or their advisors related to these *CCAA* proceedings. Therefore, the Releases should not materially prejudice any stakeholders.

[124] Furthermore, that the Releases are sufficiently narrow, any environmental liabilities to the GNL are unaffected. The Releases do not affect claims referred to in s. 5.1(2) of the *CCAA* or claims arising from fraud or willful misconduct.

[125] The scope of the Releases is sufficiently balanced. It allows the released parties to move forward with the transaction and to conclude these *CCAA* proceedings.

[126] The Monitor and its counsel served creditors with materials relating to this Motion in accordance with the process set out in the AIROs.

[127] The Monitor included the form of the Releases in the draft AVO. This provided stakeholders with ample notice and time to raise concerns with RBC or the Monitor. Only the Sureties and EMCO objected. The Sureties conceded that I had the power to order these Releases.

[128] I find that the Releases are fair and reasonable. Because of the unusual circumstances of this case, the willingness of the Court to give third-party releases like the UESI Release has little precedential value. I now turn to the Distribution Order.

Distribution Order

[129] Given that I approved the AVO, I also approve the Distribution Order as it relates to the Vendors. The Distribution Order provides that the Monitor will pay \$2,079,198 to CRA, and \$3,817,957 to RBC.

[130] The Monitor will make a motion approving the distribution of \$240,103 to RBC for FGC Holdings Limited, and \$347,742.63 to CRA for Classic Security Limited. I will hear the Motion at 9:30 a.m. on November 6, 2023.

[131] Appendix L of the Monitor's Ninth Report contains details of the complete distribution. I now turn to whether I should seal Schedule A of Josh Collins' Affidavit, filed on September 21, 2023.

Should I Approve the Order Sealing Schedule A of Josh Collins' Affidavit, Filed on September 21, 2023?

[132] I hereby seal Schedule A of Josh Collins' confidential Affidavit filed on September 21, 2023. I have the authority to grant such sealing order (See *Sports Villas Resort Inc. (Re)*, 2020 NLSC 109).

[133] At the hearing, I ordered that the Vendors provide the Sureties with parts of Schedule A, the UESI Balance Sheet and "Breakdown of the Outstanding Debts." I did not order the disclosure of the appraisals contained in that schedule.

[134] I also find that the extent of the sealing order required is the minimum that will preserve the confidentiality of the financial information. No less onerous sealing order is suitable in the circumstances.

Other Observations

[135] Finally, I will comment about the way the Monitor and the Vendors presented this Motion to the Court.

[136] It was not apparent that the ultimate objective of this transaction is that the Collins family will eventually acquire the Purchaser. The Monitor and the Vendor described the form of the transaction clearly, but not its substance.

[137] Ultimately, one had to read between the lines that the Purchaser was in effect a proxy for the Collins family interests. Monitor's counsel explained, and I accept, that this was a consequence of counsels' intense focus on the details of the transaction. This focus caused them to assume that the ultimate purpose was obvious to me.

[138] While I appreciate the efforts made by the Monitor and the Vendor's counsel during the hearing to address my concerns, debtors and monitors should be mindful that they should transparently and plainly describe a transaction so it is understandable to the public and to the Court.

ALEXANDER MACDONALD
Justice

Appendix G

Monitor's Partial Determination
On Government of Newfoundland & Labrador Claim

NOTICE OF PARTIAL DETERMINATION OF CLAIM

To: Government of Newfoundland and Labrador (the “**Claimant**”)

Date: December 12, 2023

IN THE MATTER OF THE CCAA PROCEEDINGS OF EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the “DEBTORS”)

Take notice that Grant Thornton Limited., in its capacity as Monitor (in such capacity, the “**Monitor**”) appointed pursuant to the Order of Justice MacDonald dated October 5, 2022, has reviewed the Claim in respect of the above-noted Claimant and has assessed the Claim in accordance with the Claims Procedure Order (the “**Claims Procedure Order**”) of the Supreme Court of Newfoundland and Labrador dated March 14, 2023 (the “**Claims Procedure**”).

All capitalized terms not defined herein have the meaning given to such terms in the Claim Procedure Order.

The Monitor has reviewed your Claim in accordance with the Claims Procedure Order, and has made the following determination:

Claim Determination

- ☐ Claim Allowed
- ☒ Claim Partially Allowed/Claim Partially Disallowed
- ☐ Claim Disallowed

The Monitor has made the above-noted determination in respect of your Claim for the following reason(s):

At this time, the Monitor makes a partial allowance of the Claimant's Proof of Claim solely regarding the ability of the Claimant to set off its claims against the holdback amounts that may be owing to ECC for reasons outlined below. Further determination will be made by the Monitor as to the entitlement of the Claimant to liquidated damages, including whether liquidated damages were already deducted from the progress payments.

1. Assertion of liquidated damages as a penalty

The contracts between the Claimant and Edward Collins Contracting Ltd. ("ECC") each specify that ECC agreed to the liquidated damages. Each contract states as follows with respect to the liquidated damages amount:

...the total of the department's costs associated with maintaining a presence and carrying out typical contract administration duties on the project which includes, but has not been limited to the following: salaries including overtime, for the staff complement on the project, travel costs for the normal staff complement on the project, vehicle rental charges, fuel for vehicles, and other equipment rental charges, such as internal survey equipment, which may be utilized on the project.

For contract 12-21, the liquidated damages for delay were agreed at \$1,500 per day on a contract valued at \$1,561,209.76. ("**Contract 1**").

For contract 45-20, the liquidated damages for delay were agreed at \$2,500 per day on a contract value of \$2,613,075.14, and liquidated damages for safety violations in the amount of \$500 for the first three occurrences and thereafter at \$1,000 per occurrence. ("**Contract 2**")

For contract 46-21 the liquidated damages for delay were agreed at \$3,500 per day on a contract value of \$6,263,549.52. ("**Contract 3**" collectively with Contract 1 and Contract 2, the "**Contracts**").

On the materials submitted, the Monitor at this time cannot conclude that the liquidated damages sought by the Claimant under the Contracts are an unenforceable penalty.

2. Proof of Damages

In the case of the Claimant's Proof of Claim, the materials by filed by the Claimant indicate that it did expressly notify ECC on several occasions and on each of the projects at issue that liquidated damages could be, and later were being, applied. These notifications took place prior to the CCAA filing in this matter. The Claimant has complied with the Claims Procedure Order and has provided evidence that, on its face, could substantiate the damages claimed given that the damages are exclusively liquidated damages for what the Claimant asserts were periods of time for which ECC had unexcused lateness in respect to the Contracts.

Pursuant to the terms of the Contracts, the Claimant was entitled to hold funds under GC 21.13(a) but also under (b):

21.13 Notwithstanding the provisions of GC 21.3 or any other provision of this Contract, the Owner may:

a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non performance of the Contract, withhold payment of any amount equal to the alleged damages until the liability for damages is established and no amount of interest will be paid on amounts held under this clause;

b) set off amounts owing by the Contractor to the Owner,

Liquidated damages fall within the meaning of subclause (b) but would also fall within subclause (a) insofar as the Claims Procedure is the vehicle to determine the validity of the Claimant's damages claims. Under the Contracts, amounts are entitled to be withheld pending determination of the alleged damages.

The Monitor is of the view that the absence of any certificates of substantial completion on the projects at issue in the Claimant's Proof of Claim is not determinative of the Claimant's ability to set off. A certificate of substantial completion is a pre-condition under the *Mechanics Lien Act* (and the terms of the Contracts at issue) for the release of the holdback funds, being 10% of the progress under the Contract in question. In this case, it appears that none of the projects in question made it to substantial completion. Any entitlement of the parties upon termination of the Contracts is to be made with regard to the state of performance under such Contracts to the date of termination and then an accounting for any contractually permissible bases to alter the state of accounts between the parties as of that date. Such grounds could include liquidated damages, as asserted by the Claimant in its Proof of Claim, or also damages for breach of contract generally, such as any further costs incurred by the Claimant in re-letting the work to another contractor if those costs exceeded the remaining amounts payable under the Contract. The Monitor understands that the Claimant does not assert the latter form of claim.

3. Absence of trust provisions in the *Mechanics Lien Act*

The Monitor is aware of the decision of the Court of Appeal for Newfoundland and Labrador in *Brook Construction (2007) Inc. v. Blackwood Contractors Limited*, 2015 NLCA 18 for the proposition that the *Mechanics Lien Act* contains no trust provisions, as does similar legislation in other provinces such as New Brunswick or Ontario.

In jurisdictions where a trust obligation is present, an owner is restricted from asserting set off rights as against the statutory holdback payable to the contractor where there are claims of subtrades. The absence of trust obligations in the *Mechanics Lien Act* removes a possible restriction on the ability of the Claimant, as owner of the projects at issue, to exercise rights against the holdback funds.

4. Risk of double recovery

The Monitor understands that ECC takes the position that a claim by the Claimant under a surety bond on contract 12-21 gives rise to a risk of double recovery. ECC asserts that the Claimant is obliged to look to the surety as "the first recourse indemnitor".

On the materials provided, the Monitor cannot conclude that the Claimant's Proof of Claim in relation to Contract 12-21 is extinguished by any rights it has as against the

surety on that Contract. Surety contracts typically provide that (a) a claimant must pursue other recourses in respect of the amounts claimed, and (b) that any payment by the surety will subrogate the surety to the extent of the payment made in connection with any rights by the claimant. In the absence of any documentation to suggest that this is not the case, the Monitor cannot conclude at this point that the Claimant's Proof of Claim against ECC is improper.

5. CRA Deemed Trust

The Canadian Revenue Agency ("**CRA**") holds a proven deemed trust claim in respect to source deduction remittances as against ECC. It is the position of the Monitor that the holdback is not the property of ECC until and unless such time as it is determined that the Claimant is not entitled to liquidated damages at which point, the holdback will in fact, be the property of ECC.

In considering the CRA's deemed trust claim over the holdback funds, the Court in *PCL Constructors Westcoast Inc. v Norex Civil Contractors Inc.* (2009 BSSC 95) held that the CRA can have no higher right to the holdback than the tax debtor. If and when ECC becomes entitled to the holdback, then CRA's deemed trust will attach on to such asset.

6. Conclusion

At this time, it is the position of the Monitor that the holdback can be set off by the Claimant in respect to alleged liquidated damages, provided that the Claimant establishes that it is entitled to liquidated damages. Accordingly, the entitlement to the holdback as between the Claimant and ECC depends on the determination as to the validity of the claims of the Claimant for liquidated damages or whether liquidated damages have already been charged to ECC and deducted from the progress payments.

Subject to further dispute by you in accordance with the Claims Procedure Order, your Claim will be allowed as follows:

Name of Claimant	Claim Amount per Proof of Claim	Amount of Claim Allowed (if any)
Government of Newfoundland and Labrador	\$ 715,812.99	\$ [to be determined]

IF YOU WISH TO DISPUTE THIS NOTICE OF DETERMINATION OF CLAIM AS SET FORTH HEREIN, YOU MUST TAKE THE STEPS OUTLINED BELOW.

The Claims Procedure Order provides that if you disagree with the determination of your Claim herein, you must deliver to the Monitor a completed Notice of Objection **before 5:00 p.m. on the**

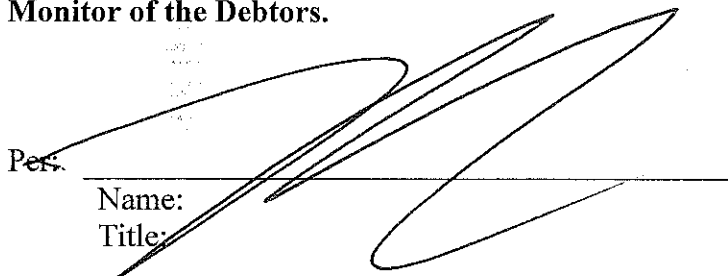
day which is seven (7) days after the date the Notice of Determination of Claim is deemed to be received.

If you do not dispute the determination of your Claim herein in accordance with the above instructions and the Claim Procedure Order, the amount of your Claim will be deemed to be accepted in the amount set forth herein.

If you have any questions or concerns regarding the Claims Procedure Order, please contact the Monitor directly.

DATED the 18th day of January 2024.

**Grant Thornton Limited, solely in its capacity as
Monitor of the Debtors.**

Per: 

Name:

Title:

P. Phillip Clarke, CPA, CA, CIRP, LIT
Senior Vice President
Grant Thornton Limited

Appendix H

Affidavit of Josh Collins
Dated November 15, 2023

2022 01G 1964
IN THE SUPREME COURT OF NEWFOUNDLAND AND LABRADOR
IN BANKRUPTCY AND INSOLVENCY

IN THE MATTER OF the *Companies Creditors Arrangement Act* R.S.C., 1985 c. C-36 as Amended (the “**CCAA**”); and

AND IN THE MATTER OF an application of Edward Collins Contracting Ltd., Classic Security Limited, FGC Holdings Limited, 51037 Newfoundland and Labrador Inc. and H&E Designs Ltd. (collectively, “**ECC**” or the “**Company**”).

SUMMARY OF CURRENT DOCUMENT	
Court File Number (s):	2022 01G 1964
Date of Filing of Document:	15 November 2023
Name of Filing Party or Person:	Applicant, Edward Collins Contracting Ltd. (“ ECC ”), Classic Security Limited (“ Classic ”), FGC Holdings Limited (“ FGC ”), 51037 Newfoundland and Labrador Inc. (“ 51037 ”) and H&E Designs Ltd. (“ H&E ”) (collectively, “ ECC Group ” or the “ Company ”)
Application to which Document being filed relates:	Claims Process Order
Statement of purpose in filing:	In support of ECC’s submission to the Monitor regarding GNL’s Proof of Claim and accompanying submissions
Court Sub-File Number, if any:	N/A

AFFIDAVIT

I, **Josh Collins** of the Town of Placentia, in the Province of Newfoundland and Labrador,
MAKE OATH AND SAY THAT:

1. I am Vice President of the ECC Group and am familiar with and status of the within application. Accordingly, I have personal knowledge of the matters set out below. Where I have relied on information from others, I state the source of such information and verily believe it to be true.

2. On 18 July 2022, ECC applied for creditor protection and other relief under the CCAA. ECC was given the benefit of a Stay of Proceedings on that date, pending a final determination of its CCAA application.
3. On 05 October 2022, Justice MacDonald granted an Initial Order that provided ECC with protection under the CCAA. An Amended and Restated Initial Order was issued on 14 October 2022 (the "ARIO"), which continues to govern the CCAA proceeding.
4. On 14 March 2023, the Monitor presented a claims process order to the Court and an order was issued (the "Claims Process Order") outlining steps for resolution of claims.

GNL CLAIMS

5. The Government of Newfoundland and Labrador ("GNL") Department of Transportation and Infrastructure submitted a Proof of Claim to the Monitor on 27 March 2023 and followed with detailed submissions.
6. Prior to 05 October 2022 when the Initial Order was issued, GNL had already applied/set-off Liquidated Damages ("LDs") against payments made to ECC under Contract 45-20PHP ("45-20"), Contract 12-21PHC ("12-21") and Contract 46-21PHC ("46-21") (collectively, the "Contracts"), in the aggregate amount of **\$357,878.69**, broken down as follows:

45-20:	\$220,000.00
12-21:	\$67,878.69
46-21:	\$70,000.00

7. Notwithstanding the above, GNL failed to state in its Proof of Claim or in its submissions to the Monitor under the Claims Process Order that it had received Surety payments for certain of the claims or that it had already applied the LDs against prior invoices as noted above, and instead portrayed them as being actively owed amounts which it asserted as set-off claims to be applied against the Holdbacks in question on each of the Contracts. To be clear, these are the same amounts claimed in GNL's submissions to the Monitor.
8. Aside from what GNL included in its submissions to the Monitor pursuant to the Claims Process Order, GNL has provided no accounting, notice, or documentation to ECC, before

or after the issuance of the ARIO on 05 October 2022, to substantiate its application of set offs of LDs against monies owed and outstanding for payment to ECC.

9. Further, since the Stay of Proceedings granted to ECC, GNL has not issued further demands with respect to additional LDs beyond those already applied as setoffs.
10. As of the present date, none of the Contracts have been formally terminated in writing by GNL, as required by their terms. As discussed in further detail below, however, each of the Contracts have been constructively terminated since the issuance of the ARIO and in contravention of its terms.

45-20

11. As of 21 September 2022, hearing of ECC's Application for a CCAA was ongoing and the Court had stayed termination of all Contracts, including 45-20. Nonetheless, GNL and its Surety, Intact Insurance ("**Intact**"), entered a "mitigation agreement", attached as **Exhibit A** to this Affidavit (the "**Mitigation Agreement**").
12. The Mitigation Agreement, dated 21 September 2022, specified that it provided for GNL to hire a "Replacement Contractor" for 45-20, notwithstanding a Court Order which had a Stay of Proceedings already in place and prohibited GNL's termination of the Contracts.
13. The Mitigation Agreement clearly establishes that GNL did not set-off any claims for LDs or otherwise against the holdback funds pre-CCAA. Per section 11 "The Obligee has to date maintained the Principals' Holdback, as required by the *Mechanics Lien Act*". Further, **Schedule B** to the Mitigation Agreement demonstrates that LDs of \$220,000 were separately applied to reach the amount Payable (5c), while the holdback remained in place.
14. On 12 October 2022, Intact issued a "**Letter of Decision**" which provided that it would pay GNL the full value of the Surety Bond, a total of **\$1,306,537.57 million**, so that GNL could carry out the intent of the Mitigation Agreement. A copy of the Letter of Decision is attached as **Exhibit B** to this Affidavit. A copy of the draft Full and Final Release between GNL and Intact is attached as **Exhibit C** to this Affidavit.
15. I can confirm that GNL received \$1,306,537.57 from Intact because Intact subsequently sued ECC for this amount, presumably as a subrogated claim, notwithstanding that ECC

continued to have the benefit of the Stay of Proceedings. A copy of Intact's Statement of Claim dated 24 October 2022 is attached as **Exhibit D** to this Affidavit.

16. Rather than use a Replacement Contractor, as anticipated under the Mitigation Agreement, GNL (a) abandoned materials that ECC had already supplied and left them at the project site to be damaged by the elements, (b) issued a new tender for a broader scope work which incorporated the remaining elements of 45-20, and (c) had the successful bidder to the new contract then supply all new materials, including materials for work that had been included in 45-20, leaving ECC's purchased materials abandoned onsite to go to waste.
17. It is my view, which has been confirmed by my counsel, that GNL's actions in this respect constituted a constructive termination of 45-20, in contravention of the ARIO.
18. Attached as **Exhibit E** to this Affidavit are the progress claims that evidence **\$220,000** LDs being set off and deducted from work completed by ECC under 45-20 as follows:
 - a. 20 August 2021 - LD Amount setoff **\$67,500.00** (no dates indicated)
 - b. 20 September 2021 - LD Amount setoff **\$77,500.00** (21 August - September 2021)
 - c. 20 September 2021 - LD Amount setoff **\$37,500.00** (21 September - 05 October 2021)
 - d. 20 October 2021 - LD Amount setoff **\$37,500.00** (05 October - 20 October 2021)
19. The second 20 September 2021 amount above setoff for the period of 21 September – 05 October 2021 was setoff notwithstanding that the progress payment period ended 20 September 2021 and the LDs are applied for a later date.
20. The 20 October 2021 LD amount includes 05 October 2021, notwithstanding that LDs had been previously set-off on the 20 September 2021 progress payment.
21. ECC has had no notice from GNL as to additional LDs being claimed since the date of the Initial Order or ARIO. It appears clear that in this instance GNL has not only double but triple claimed its purported entitlement to LDs (both directly as set offs applied against amounts owing to ECC and again its through receipt of payments from Intact).

12-21

22. Attached as **Exhibit F** are the progress claims that evidence **\$67,878.69** LDs set off and deducted from work completed by ECC under 12-21 as follows:

- a. 20 August 2021 - Part C - LD setoff **\$7,500.00** (16 August - 20 August 2021)
 - b. 20 September 2021 - Part A - LD setoff **\$40,500.00** (no dates indicated)
 - c. 20 October 2021 - Part A - LD setoff **\$19,878.69.00** (20 September - 20 October 2021)
23. Contract 12-21 was not terminated prior to the issuance of the ARIO. Parts A, B, C and E of the Contract had been completed by ECC as of 05 October 2022.
24. On 24 October 2022, GNL appeared before the Court seeking to terminate 12-21 on the basis that it was not bound by the CCAA based on Crown immunity. Justice MacDonald denied the application.
25. Nonetheless, on 28 October 2022, GNL retained Farrells Excavating Ltd. to install the final culvert, part D of the Contract. I understand from discussions with my counsel that their actions constituted a constructive termination and breach of the ARIO and that this was effectively contrary to the determination made by Justice MacDonald at the hearing on 24 October 2022.
26. In response to GNL's interference with the contract, ECC filed a Claim for Lien under the *Mechanics Lien Act* on 9 November 2022 against the 12-21 holdback funds. See attached **Exhibit G** to this Affidavit. ECC's Lien remains in place and thus, in addition to the LDs having already been separately applied, ECC can also confirm that GNL could not have applied a set off against the holdback funds pre-CCAA pursuant to the provisions of the *Mechanics Lien Act*, including s. 12(9).

46-21

27. Attached as **Exhibit H** to this Affidavit are the progress claims that evidence **\$70,000.00** LDs set off and deducted from work completed by ECC under 46-21 as follows:
- a. October 2021 - Part F - LD Amount setoff **\$35,000.00** (10 days LDs applied)
 - b. October 2021 - Part E - LD Amount setoff **\$35,000.00** (10 days LDs applied)
28. 46-21 was not terminated prior to the issuance of the ARIO. I do not know the date in October 2022 that J-1 Contracting Ltd. began replacing ECC for a portion of the work. It is my understanding that Municipal Construction Ltd. were hired to complete the balance of

46-21 on 30 June 2023 with new work added to the contract, similar to 45-20, and that this new Contract was renamed 31-23PHP.

29. GNL again did not terminate 46-21 in the fashion required by that 46-21. Instead, GNL constructively terminated 46-21 in June 2023 by tendering the remaining work to Municipal Construction Ltd. under the new contract referenced above. I believe based on my discussions with counsel that this constituted a breach of the ARIO.
30. As with the other Contracts, it is evident that there was no pre-CCAA set off applied against the holdback on 46-21 and therefore I believe that GNL must release the holdback.

Claims Process Submission

31. I have reviewed GNL's submission and ECC's documentation, and I have consulted with ECC's professional advisors on this matter regarding our response to GNL's submission to the Monitor. It is my belief that GNL did not apply LDs or other claims against ECC against holdback funds retained in respect of the Contracts. With respect to the LDs, this would be double compensation as GNL already applied the LDs against regular progress payments for each Contract at different times in 2021.
32. Moreover, regardless of the nature of its alleged claims, GNL could not have set them off against the holdback after ECC's application for the initial CCAA order (July 2022) because this is not allowable under the Act. It is clear from the evidence, particularly the Mitigation Agreement as it pertains to 45-20, that any action taken by GNL to use holdback funds for the purpose of set off did not occur pre-filing and in each case would have necessarily occurred after the ARIO was already in place. ECC is therefore asking that the Monitor direct GNL to release the holdback funds on each Contract and pay them to the Monitor without further delay.

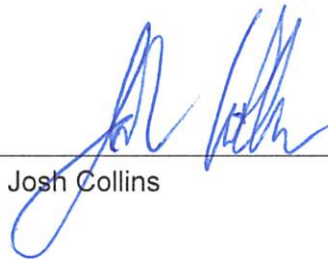
SIGNATURE PAGE IS SEPARATE

[Signature page to affidavit of Josh Collins dated 15th November 2023]

SWORN at St. John's, Newfoundland and
Labrador, on the 15th day of November
2023, before me



Commissioner, notary public, etc.



Josh Collins

EXHIBIT A

MITIGATION AGREEMENT

As of this 21st day of September, 2022

BETWEEN:

**HIS MAJESTY IN RIGHT OF NEWFOUNDLAND AND LABRADOR, as represented by the
Minister of Transportation and Infrastructure
(hereinafter referred to as the "Obligee")**

- And -

**THE GUARANTEE COMPANY OF NORTH AMERICA
(NOW INTACT INSURANCE COMPANY)
(hereinafter referred to as the "Surety")**

(each of the Obligee and Surety being a "Party" and collectively the "Parties")

WHEREAS the Obligee entered into an agreement with Edward Collins Contracting Limited (the "Principal") on June 16, 2020 (the "Contract") pursuant to which the Principal agreed, for a specified price of \$2,613,075.14 plus HST (the "Contract Price"), to perform the Work described in the Contract (the "Contract Work"), as part of a road construction project known as **Contract 45-20PHP** – Cold plane and repave a section of route 460 between Gull Pond and Route 460 / 461 intersection for approx. 1.5 km. Pave 3 sections of Route 460 between Stephenville and Cape St. George for a total approx. 4.7Km; sections of Route 404, route 405 and Route 407 for a total of approx. 4.0 km; and a section of route 480 between km 27.1 and km30.4 for approx. 3.3 km. Asphalt leveling a section of route 463 between Mainland and Cape St. George for approx. 3.0 km. Replace culverts on Route 460 between intersection of route 461 and Cape St. George (the "Project");

AND WHEREAS the Surety issued to the Obligee, Performance Bond No. HS4222419 dated July 24 2020 (the "**Performance Bond**") with respect to the Contract, a copy of which is attached at Schedule "A";

AND WHEREAS the Surety also issued, at the request of the Obligee, Labour and Material Payment Bond No. HS4222419 dated July 24 2020 (the "**Labour and Material Payment Bond**") with respect to the Contract;

AND WHEREAS the Surety is receiving and investigating claims under the Labour and Material Payment Bond;

AND WHEREAS the Obligee has duly notified the Surety of the default by the Principal and provided to the Surety a notice of claim letter dated April 11, 2022 and has called upon the Surety to honour its obligations under the terms of the Performance Bond. The Obligee has also informed the Surety that the revised completion date of the Contract was July 24, 2021 and due to the Principal's lack of performance, the Project has suffered delays (the "**Notice of Performance Claim**");

AND WHEREAS the Obligee has informed the Surety that a notice of default ("**Default Notice**") had been issued to the Principal on November 8 2021;

AND WHEREAS the Principal has informed the Surety that it contests the Default Notice;

AND WHEREAS the Principal has also informed the Surety its position is that the deductions of Liquidated Damages and imposition of a global schedule as per clause 9 of the Supplementary General Conditions of the Contract by the Obligee have led to the stoppage of the Contract Work by the Principal; (the "**Principal's Position**");

AND WHEREAS the Obligee disputes the Principal's Position in its entirety and reiterates their contractual rights to Liquidated Damages, and the right to hold the Principal in default under the Contract due to non conformance to the Contractual Obligations and collect any and all damages available to the Obligee (the "**Obligee's Position**");

AND WHEREAS the Parties agree there is insufficient time for the Surety to conduct a full investigation of the Obligee's Position and the Principal's Position and that notwithstanding the positions taken by the Obligee and the Principal, the focus of this Agreement is for the Parties to try to mitigate any and all potential future damages on the Project and to agree on a completion solution in the best interest of the Project.

AND WHEREAS the Surety is prepared to concurrently continue its investigation and to enter into this Agreement, subject to a full reservation of the Surety's rights under the Performance Bond and the applicable law;

AND WHEREAS the Surety acknowledges that the Contract Work under the Contract is incomplete, including contractual warranties, and that the Principal has not worked on the Project since October 2021 (the "Balance Works");

AND WHEREAS the Surety undertakes to enter into a settlement under this Agreement on a reservation of rights basis for the Parties, including reserving the Principal's rights to defend the Notice of Default.

AND WHEREAS as of the date of the Notice of Performance Claim, the Obligee has represented that immediate steps are required in order to mitigate any schedule delays, potential additional costs and to mitigate further damages to the Project.

AND WHEREAS the Obligee has informed the Surety that they have a completion solution ready for implementation to mitigate the damages wherein they intend to appoint a completion contractor (the "Replacement Contractor") to complete the Balance Works;

AND WHEREAS the Surety has agreed with the Obligee on the process for selecting the Replacement Contractor under the terms of the Performance Bond;

AND WHEREAS the Obligee is prepared to enter into this Agreement subject to a full reservation of the Obligee's rights to claim under the Performance Bond, the Contract and applicable law;

AND WHEREAS the Obligee and the Surety wish to cooperate to achieve in the most cost effective and expeditious manner the completion of the Contract Work, on a without prejudice basis to the Parties rights under the Contract, Performance Bond and applicable law, and to document their agreement regarding the manner in which the Contract Work is to be completed

by a Replacement Contractor, and any additional agreements necessary to complete the Balance Works under the Contract;

AND WHEREAS all dollar values and amounts referred to herein are inclusive of H.S.T.;

NOW THEREFORE, in consideration of the mutual promises contained herein, and other good and valuable consideration, the receipt and sufficiency whereof is hereby acknowledged, the Parties agree as follows:

1. The Parties agree that the statements set forth in the preamble are hereby incorporated herein as if totally set forth herein.
2. The Obligee represents to the Surety that:
 - (i) At the date of this agreement, the financial status under the Contract is as set out in the Original Contract Financial Status Summary attached as Schedule "B" (the **"Balance Contract Funds"**) hereto;
 - (ii) The list of outstanding Contract Work not completed by the Principal has been accurately represented to the Replacement Contractor by the Obligee and the Replacement Contractor has provided the Obligee and Surety with an estimate for completion of the Contract Work and the known deficiencies including warranties under the Contract, a copy of which is attached as Schedule "C" (The **"Costs to Complete"**).
3. The Obligee represents to the Surety that as of June 30 2022, the Principal had performed Contract Work with a value (subject to the confirmed certification value) of \$1,885,351.17, and the Principal has been paid \$1,694,921.22 to date, leaving a balance of \$800,113.94 inclusive of statutory holdbacks of \$188,324.58 (the **"Principal's Holdback"**).
4. The Obligee represents to the Surety that the unpaid amount attributable to the Principal, not including the Principal's Holdback, in the amount \$611,789.26 as of June 30 2022, shall be paid to the Surety in accordance with written instructions in Option No. 3 in the Performance Bond.
5. The Parties have agreed to proceed with the performance of the Contract Work through the Replacement Contractor to mitigate losses as permitted under the Performance Bond.

6. The Surety has selected Option No. 3 within the Performance Bond and the Obligor confirms that they will work with the Surety on a completion solution to review the scope and quotations of the Replacement Contractor to complete the Balance Works in accordance with the terms of the Contract.
7. Upon selection of a Replacement Contractor by the Surety and Obligor and acceptance by the Obligor of the due diligence of the completion solution, the Obligor, with the consent of the Surety, issued Tender 66-22PHP inviting the Replacement Contractor to perform the Contract Work, with tender 66-22PHP closing on September 2 2022. The Parties agree that the Obligor will enter into an agreement with the Replacement Contractor to complete the Balance Works and rectify any noted/identified defects and deficiencies in the Contract Work, including any subsequently identified deficiencies in the Contract Work, whether they are the responsibility of the Principal or the Replacement Contractor, in accordance with the Contract's terms and conditions. A copy of the draft Replacement Contractor Agreement 66-22PHP, including the relevant Tender 66-22PHP documentation, is appended hereto as Schedule "D" (the "**Replacement Contractor Agreement**").
8. In accordance with the terms of Contract 66-22PHP, the Replacement Contractor shall provide a new performance bond and labour & material payment bond in favour of the Obligor, with the Replacement Contractor as Principal, in the amount of 50% of the Replacement Contractor's estimate appended as Schedule "C".
9. The Obligor shall pay the Replacement Contractor in accordance with the terms of the Contract as it completes the Contract Work, up to the total of the Contract Price and, assuming no Contract Change Orders are issued to the Replacement Contractor in accordance with the Contract, any amounts payable to the Replacement Contractor over and above the Contract Price shall be the responsibility of the Surety and payable under the Performance Bond (the "**Excess Contract Costs**") to the Obligor. In no case shall the Surety be liable for any amounts above the maximum amount under the Performance Bond. For greater certainty, the amount currently attributable to the Excess Contract Costs is \$1,410,485.75. The Parties acknowledge and agree that this number is merely an

estimate and is subject to change during the performance of the Replacement Contract, and is exclusive of the Principal's Holdback under the Contract.

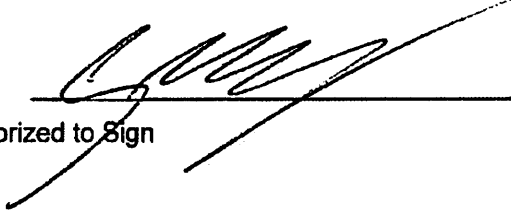
10. The Obligee shall keep the Surety reasonably apprised of the completion work and financial status under the Contract and shall advise the Surety when the progress amount has equalled the Contract Price. Subject to the maximum amount under the Performance Bond, the Surety shall pay to the Obligee any Excess Contract Costs within 15 days of the Obligee presenting to the Surety a certified Contract payment certificate for a progress amount, or part thereof, in excess of the Contract Price.
11. The Obligee has to date maintained the Principal's Holdback, as required by the *Mechanics Lien Act* (the "*Act*"). The Obligee will continue to hold the Principal's Holdback plus the statutory holdback payable to the Replacement Contractor, as required by the *Act*, until all claims for lien and written claims for lien in respect of the Contract have expired or been vacated in accordance with the *Act* ("**Lien Expiry**").
12. Following the Lien Expiry, and confirmation by the Obligee that all potential claims in respect of the Contract have expired or are vacated, the Principal's Holdback shall be payable to the Surety in accordance with the provisions of the Performance Bond, and the remaining statutory holdback under the Contract shall be payable to the Replacement Contractor.
13. In the event any claim for lien is preserved, or written notice of lien received, in respect of the Contract Work at any time prior to the Lien Expiry, no holdback held by the Obligee in accordance with the *Act* including the Principal's Holdback, shall be released or paid out, except in accordance with the *Act*, which may include an agreement or agreements in writing with all persons having an interest in such holdbacks.
14. The Surety shall at its own expense keep title to the Project clear of or otherwise vacate any claims for lien preserved by contractors or suppliers of the Principal relating to the Contract.

15. In the event that the Surety is liable to the Obligee under the Performance Bond, the Obligee agrees that any payments made by the Surety related to the completion of the Contract are deemed to be payments made by the Surety under this Agreement and the Performance Bond.
16. The Parties agree any payments made one to the other are made without prejudice to the rights of the Parties under the Performance Bond.
17. The Obligee and the Surety agree to work together in collaboration towards the completion solution, and the Obligee further agrees to cooperate with the Surety's investigation of the Notice of Performance Claim.
18. This Agreement and the performance thereof by the Obligee and the Surety shall be without prejudice to the positions of the Obligee, the Principal and the Surety with respect to their rights, obligations or liability under the Contract or Performance Bond. For greater certainty, nothing in this Agreement shall be deemed to be an admission of liability by any Party.
19. Nothing contained herein shall expand the liability of the Surety under the Performance Bond, and without limiting the generality of the foregoing, the Surety shall not be required, under the terms of this Agreement, to pay in the aggregate more than the maximum amount payable under the Performance Bond.
20. The Surety may not assign this agreement in whole or in part to any third party without the prior written approval of the Obligee.
21. This Agreement may be amended, supplemented or modified in accordance with a written instrument duly signed on behalf of the Parties.
22. This Agreement shall be governed and construed in accordance with the laws of the province of Newfoundland and Labrador.
23. If any provision of this Agreement is determined to be invalid or unenforceable in whole or in part, such invalidity or unenforceability shall attach only to such provision and all other provisions shall continue in full force and effect.

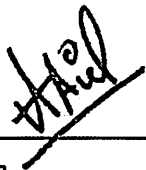
24. Time shall be of the essence of this Agreement.
25. All capitalized terms used but not defined in this Agreement shall have the respective meanings ascribed in the Contract.
26. This Agreement may be executed in separate counterparts, each of which shall be deemed to be an original, but such separate counterparts shall together constitute one and the same instrument. Execution of this Agreement may be communicated by facsimile transmission or email of an originally executed counterpart thereof.

[SIGNATURE PAGE TO FOLLOW]

**HIS MAJESTY IN RIGHT OF NEWFOUNDLAND AND
LABRADOR**

Per:  c/s
Authorized to Sign

INTACT INSURANCE COMPANY

Per:  ANKUR ANIL c/s
Authorized to Sign

Per: *Riccardo Orsini* c/s
Authorized to Sign Riccardo Orsini

SCHEDULE "A"

PERFORMANCE BOND



PERFORMANCE BOND

No: HS-4222419

Bond Amount: \$1,306,537.57

EDWARD COLLINS CONTRACTING LTD. as Principal, hereinafter called the Principal, and **THE GUARANTEE COMPANY OF NORTH AMERICA** a corporation created and existing under the laws of Canada and duly authorized to transact the business of Suretyship in Canada as Surety, hereinafter called the Surety, are held and firmly bound unto Department of Transportation and Works as Obligor, hereinafter called the Obligor, in the amount of One Million Three Hundred Six Thousand Five Hundred Thirty-Seven 57/100 Dollars (\$1,306,537.57) lawful money of Canada, for the payment of which sum the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

WHEREAS, the Principal has entered into a written contract with the Obligor, dated the 22nd day of July, 2020, for:

Project 45-20PHEP - Cold plane and repave a section of Route 460 between Gull Pond and Route 460 / 461 intersection for approx. 1.5km. Pave 3 sections of Route 460 between Stephenville and Cape St. George for a total of approx. 4.7km; sections of Route 464, Route 465 and Route 407 for a total of approx. 4.0 km; and a section of Route 480 between km 27.1 and km 30.4 for approx. 3.3 km. Asphalt leveling a section of Route 463 between Mainland and Cape St. George for approx. 3.0km. Replace culverts on Route 460 between intersection of Route 461 and Cape St. George.

hereinafter referred to as the Contract.

The condition of this obligation is such that if the Principal shall promptly and faithfully perform the Contract then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever the Principal shall be, and declared by the Obligor to be, in default under the Contract, the Obligor having performed the Obligor's obligations thereunder, the Surety shall promptly:

- (1) remedy the default, or;
- (2) complete the Contract in accordance with its terms and conditions or;
- (3) obtain a bid or bids for submission to the Obligor for completing the Contract in accordance with its terms and conditions and upon determination by the Obligor and the Surety of the lowest responsible bidder, arrange for a contract between such bidder and the Obligor and make available as work progresses (even though there should be a default, or a succession of defaults, under the contract or contracts of completion, arranged under this paragraph) sufficient funds to pay to complete the Principal's obligations in accordance with the terms and conditions of the Contract and to pay those expenses incurred by the Obligor as a result of the Principal's default relating directly to the performance of the work under the Contract, less the balance of the Contract price; but not exceeding the Bond Amount. The balance of the Contract price is the total amount payable by the Obligor to the Principal under the Contract, less the amount properly paid by the Obligor to the Principal, or;
- (4) pay the Obligor the lesser of (1) the Bond Amount or (2) the Obligor's proposed cost of completion, less the balance of Contract price.

It is a condition of this bond that any suit or action must be commenced before the expiration of two (2) years from the earlier of (1) the date of Substantial Performance of the Contract as defined in the lien legislation where the work under the Contract is taking place, or if no such definition exists, the date when the work is ready for use or is being used for the purpose intended, or (2) the date on which the Principal is declared in default by the Obligor.

The Surety shall not be liable for a greater sum than the Bond Amount.

No right of action shall accrue on this Bond, to or for the use of, any person or corporation other than the Obligor named herein, or the heirs, executors, administrators or successors of the Obligor.

IN WITNESS WHEREOF, the Principal and the Surety have Signed and Sealed this bond dated 24th day of July, in the year of 2020.

SIGNED and SEALED
in the presence of

Witness as to Principal

EDWARD COLLINS CONTRACTING LTD.
Francis Collins
Principal
1974

THE GUARANTEE COMPANY OF NORTH AMERICA
Signed electronically by
Dianne Buckle
On 2020-07-24 12:50:35 GMT
Dianne Buckle, Attorney-in-Fact

Westway 2, 120 Western Parkway, Suite 208, Bedford, Nova Scotia B4B 0V2 | Tel: 502 425 4700 | 1 800 565 0013 | Fax: 502 425 4702



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SCHEDULE "B"

ORIGINAL CONTRACT FINANCIAL STATUS SUMMARY

NOTE: All below amounts are in \$ CAD

Item No.	Item	TOTAL	TOTAL with HST
1	Contract Price	2,272,239.33	2,613,075.23
2	Approved Change Orders	103,671.75	119,222.51
3	Liquid and Fuel (to Oct 2021)	101,385.59	116,593.43
	Quality Adjustments	(28,742.64)	(33,054.04)
	Quantity Adjustments	(57,127.57)	(65,696.71)
4=1+ 2+3	Total Contract Price (Before LD's)	2,391,426.46	2,750,140.43
4b	LD's Applied	220,000.00	253,000.00
4c	Net Total Contract Payable	2,171,426.46	2,497,140.43
5	Value of Contract Work Earned /Completed as on June 30 2022 (Net LD's)	1,639,435.80	1,885,351.17
5a	Bonus retained until end of warranty	1,829.95	2,104.44
5c	Payable (Net LD's)	1,533,934.10	1,764,024.22
6= 10% x 5	Statutory 10% Holdback at Date of Default – Held by Obligee	163,760.59	188,324.67
7	Amount Paid to Principal	1,473,844.54	1,694,921.22
8	Amount Earned Unpaid to Principal	-	-
9 = 4c-5	Working Remaining	531,990.66	611,789.26
10		-	-
11 = 9-10	Balance of Contract Funds Retained by Owner EXCLUDING 10% Statutory Holdback	531,990.66	611,789.26
12=6 +11	Balance of Contract Funds Available for Completion (Work to Go PLUS Holdback)	695,751.25	800,113.94

SCHEDULE "C"

PHASE 2 – OUTSTANDING CONTRACT WORK

The outstanding Contract Work, as represented by the Replacement Contractor under tender 66-22PHP, is as follows:

Item No.	Item	Amount	Amount incl. HST
1	Costs to Complete (as provided by the Replacement Contractor including Contractual warranties)	1,758,500.00	2,022,275.00

SCHEDULE "D"

DRAFT AGREEMENT

Between Oblige and Replacement Contractor:



TRANSPORTATION AND INFRASTRUCTURE

CONTRACT BOOK

PROJECT NO. 66-22PHP

PROJECT NAME

Paving Sections of Route 460 and Route 463 – Western Region

Part A: Pave Section of Route 460 through the Community of Cape St. George

Part B: Pave a Section of Route 463 between Cape St. George and Mainland

CONTRACTOR: MARINE CONTRACTORS INC.

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR

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LIST OF PROJECT PLANS

1. Location Plans (2)

Section One

Form of
Agreement

DRAFT

**AGREEMENT BETWEEN OWNER AND CONTRACTOR
for use when a Bid Price forms the
basis of payment and to be used only
with the Contract Documents of the Contract**

THIS AGREEMENT made on the 14th day of September in the year two thousand and twenty two.

BY AND BETWEEN

Her Majesty the Queen in Right of Newfoundland and Labrador as represented by the Minister of Transportation and Infrastructure acting pursuant to the Executive Council Act, SNL 1995 c. E-16.1.

hereinafter called the "Owner"

AND MARINE CONTRACTORS INC.

hereinafter called the "Contractor"

WITNESSETH: that the Owner and Contractor undertake and agree as follows:

ARTICLE 1: THE WORK

The Contractor shall:

- (a) perform all the Work required by the Contract Documents for **PROJECT NO. 0066-22PHP**, which have been signed by both the parties,
- (b) do and fulfil everything indicated by this Agreement, and
- (c) commence the Work by the 14th day of September, 2022 and substantially perform the Work of this Contract as certified by the Owner's Representative by the 31st day of October, 2022.

ARTICLE 2: CONTRACT DOCUMENTS

The following is an exact list of the Contract Documents referred to in Article A-1:
(SEE SPECIFICATION INDEX FOR LIST OF DOCUMENTS AND DRAWINGS).
See Attached

ARTICLE 3: CONTRACT PRICE

THE CONTRACT PRICE IS \$ One Million Seven Hundred Fifty Eight Thousand Five Hundred Dollars (\$1,758,500.00) (EXCLUDING HST) Canadian funds which price shall be subject to adjustments as may be required in accordance with the General Conditions of the Contract.

ARTICLE 4: PAYMENT

- (a) Subject to applicable legislation and, where such legislation does not exist or apply, in accordance with such prescribed regulations or industry practice respecting holdback percentages and in accordance with the provisions of the General Conditions of the Contract, the Owner shall:
- (1) make monthly payments to the Contractor on account of the Contract Price. The amounts of such payments shall be as certified by the Owner;
 - (2) upon Substantial Performance of the work as certified by the Owner pay to the contractor any unpaid balance of holdback monies then due; and
 - (3) upon Total Performance of the Work as certified by the Owner pay to the contractor any unpaid balance of the Contract Price then due.
- (b) If the Owner fails to make payments to the Contractor as they become due under the terms of this Contract or in any award by a court, interest at the rate and in the manner specified in GC21-Certificates and Payments, shall become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

ARTICLE 5: ADDRESSES FOR NOTICES

All communications in writing between the parties or between them and the Owner shall be deemed to have been received by the addressee if delivered to the individual or to a member of the firm or to an officer of the Corporation for whom they are intended or if sent by post addressed as follows:

The Owner at:

The Contractor at:

ARTICLE 6: SUCCESSION

The General Conditions of the Contract hereto annexed, and all other aforesaid Contract Documents, are all to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties and subject to law and the provisions of the Contract Documents shall ensure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors and assigns.

IN WITNESS WHEREOF the parties hereto have executed this Agreement under their respective corporate seals and by the hands of their proper officers hereunto duly authorized.

SIGNED, SEALED AND DELIVERED
in the presence of:

OWNER:

CONTRACTOR

SIGNED

SIGNED

NAME AND TITLE

NAME AND TITLE

DATE

DATE

CORPORATE SEAL

SIGNED / WITNESSED

NAME AND TITLE

DATE

DRAFT

N.B. Where any legal jurisdiction, local practice or client requirement calls for proof of authority to execute this document, proof of such authority in the form of a certified copy of a resolution naming the person or persons in question as authorized to sign the Agreement for and on behalf of the Corporation or Partnership, should be attached.

Section Two

Award Letter



Government of Newfoundland and Labrador
Department of Transportation and Infrastructure
Office of the Deputy Minister

COR/2022/10342

Marine Contractors Inc.
P.O. Box 640
4 White Lakes Road
Corner Brook, NL
A2H 6G1

Re: 0066-22PHP – Paving Sections of Route 460 and Route 463 – Western Region

I am pleased to inform you that your bid for the above noted project in the amount of \$1,758,500.00 (plus HST) has been accepted, subject to you meeting the conditions listed below. You are advised that Government is subject to the Harmonized Sales Tax (HST) and HST must be added to each billing as a line item. (HST Registration #R107442683).

Please be advised that this acceptance is conditional upon our receipt of the following documents within fourteen (14) calendar days of the date of this correspondence to the Manager of Tendering and Contracts, Department of Transportation and Infrastructure, at the mailing address in the footer below:

- Completed Certificate of Insurance (enclosed);
- Performance Security;
- Labour & Materials Security.

As contractor, you are responsible in ensuring that the work is carried out as outlined in the tender specifications. Where required, no work is to commence until a Site Specific Safety Plan has been submitted and approved.

A copy of the Agreement between Owner and Contractor will be forwarded via separate correspondence at a later date. I take this opportunity to remind you that it is the contractor's responsibility to ensure familiarity and compliance with the contract specifications and detailed terms and conditions. Once received, please have the Agreement Between Owner and Contractor signed and sealed by your company and returned to Tendering and Contracts at the below noted address within fourteen (14) calendar days. When the document has been counter-signed, an electronic copy will be forwarded to you for your records.

Please note that your bid security will be retained until all conditions are met and the documents are received. No work is to start and payments will not be made until the above noted conditions are met documents are received at Tendering and Contracts and the approval of the Department's designated representative is provided.

In the meantime, please contact our Regional Engineer, Dennis Coley at (709) 635 -4132 Transportation and Infrastructure, Western Region, concerning this contract.

Sincerely,

CORY GRANDY
Deputy Minister

"Don't Learn By Accident"

encl: Certificate of Insurance Form

cc. Dennis Coley, Regional Engineer, Western Region, Transportation and Infrastructure
Bill Hillier, Director, Highway Design and Construction, Transportation and Infrastructure
Loyola Power, Director OH&S, Digital Government and Service NL

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Section Three

Bid Form

Bid Questions & Answers

Question Name	Question Description	Question Type	MARINE CONTRACTORS INC
Question 1	Having carefully examined the site of the proposed work and all conditions affecting such, as well as the Contract Documents including the Specifications, all Drawings listed in the Specifications, all Amendments, and the Instructions to Bidders for this project; and hereby acknowledge the requirements of the Instructions to Bidders,	Mandatory	Yes
Question 2	WE, THE UNDERSIGNED, offer to furnish all necessary Labour, materials, superintendence, plant, tools and equipment, and everything else required to perform expeditiously and complete in a satisfactory manner the work for the sum as indicated.	Mandatory	Yes
Question 3	The Work will be substantially performed within 1.0 months from the date of notification of award of contract or October 31st, 2022, whichever is later.	Mandatory	Yes
Question 4	WE hereby acknowledge receipt of all amendments issued related to this procurement.	Mandatory	Yes
Question 5	We hereby acknowledge that any incorrectly prepared bids may be disqualified.	Mandatory	Yes
Question 6	We hereby acknowledge that bids submitted are exclusive of H.S.T. and that H.S.T. will be applied to the overall total price at contract award.	Mandatory	Yes
Question 7	We hereby acknowledge that any applicable Bidding Security submitted is calculated based on the bid price (exclusive of H.S.T.).	Mandatory	Yes

Section Four

Engineering Verified Unit Price Table

MARINE CONTRACTORS INC.							
Item No	Code	Group Name	Description	UOM	Quantity	Revised Bid Unit Price	Total Cost
1	0(a)	General	Mobilization & Demobilization Bid Limits Apply	Lump-Sum	1	\$50,000.00	\$50,000.00
2	0(c)	General	Accommodation of Traffic (See SGC 9)	Lump-Sum	1	\$35,000.00	\$35,000.00
10	102	SHOULDERING	SHOULDERING	Linear Meter	11000	\$14.00	\$154,000.00
11	104	Deficiencies and Warranty on Completed Work (S	Deficiencies and Warranty on Completed Work (See SGC 14)	Lump-Sum	1	\$100,000.00	\$100,000.00
3	12(a)	Selected Granular Base Course	Granular 'A'	Metric Ton/Tonne	5500	\$40.00	\$220,000.00
4	15	Tack Coat	Tack Coat	Square Meter	16250	\$2.00	\$32,500.00
5	16(b)	Hot Mix Asphaltic Concrete	Hot Asphaltic Surface Course	Metric Ton/Tonne	4800	\$112.00	\$537,600.00
6	16(g)	Hot Mix Asphaltic Concrete	Liquid Asphalt (58-28)	Metric Ton/Tonne	300	\$1,650.00	\$495,000.00
7	16(j)	Hot Mix Asphaltic Concrete	Blending Sand	Metric Ton/Tonne	720	\$20.00	\$14,400.00
8	21	Contingency	Contingency		1	\$7,500.00	\$7,500.00
9	34	Pulverize Existing Asphalt	Pulverize Existing Asphalt	Square Meter	22500	\$5.00	\$112,500.00
						Sept 9/2022 Marine Price Update	\$1,758,500.00
						Original Submission	\$1,822,000.00
						Total Price Reduction	\$63,500.00
			TOTAL ESTIMATED TENDER EXCLUDING HST			New Revised Price	\$1,758,500.00

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Section Five

Distribution Table

DISTRIBUTION TABLE

Part A: Pave Section of Route 460 through
the Community of Cape St. GeorgePart B: Pave a Section of Route 463
between Cape St. George and
Mainland

NO.	TENDER ITEM	Unit	Estimated Quantity	Estimated Quantity
0	General			
0(a)	Mobilization & Demobilization Bid Limits Apply	Lump-Sum	Bid this Item	Bid this Item
0(c)	Accommodation of Traffic (See SGC 9)	Lump-Sum	Bid this Item	Bid this Item
12	Selected Granular Base Course			
12(a)	Granular 'A'	Metric Ton/Tonne	0	5500
15	Tack Coat	Square Meter	16250	0
16	Hot Mix Asphaltic Concrete			
16(b)	Hot Asphaltic Surface Course	Metric Ton/Tonne	2000	2500
16(g)	Liquid Asphalt (58-28)	Metric Ton/Tonne	125	175
16(j)	Blending Sand	Metric Ton/Tonne	300	420
21	Contingency		3750	3750
34	Pulverize Existing Asphalt	Square Meter	0	22500
102	SHOULDERING	Linear Meter	5000	6000
104	Deficiencies and Warranty on Completed Work (See SGC 14)	Lump-Sum	Bid this Item	Bid this Item

Section Six

Declaration of Equipment Form

DECLARATION OF EQUIPMENT APPENDIX 'A'

In the event of being awarded the contract, the undersigned will make available for the work, the plant and the equipment listed below.

QTY	DESCRIPTION	CAPACITY	AGE	PRESENT LOCATION	OWNERS NAME
1	Gencor Asphalt Plant	200 t/hr	8	Corner Brook, NL	Own
10	Highway Dump Trucks	15-20 t	2-6	Corner Brook, NL	Own
1	Asphalt Spreader		7	Corner Brook, NL	Own
2	Rollers	5-10 t	1-7	Corner Brook, NL	Own
1	Pulverizer		10	Corner Brook, NL	Own
1	Grader		6	Corner Brook, NL	Own

CONTRACTOR Marine Contractors Inc.

ADDRESS 4 White Lakes Road PO Box 640 Corner Brook, NL A2H 6G1.

DATE Sept 13, 2022

Section Seven

Declaration of Subcontractors

DECLARATION OF SUB CONTRACTORS APPENDIX 'B'

The Tender submitter also agrees that the following is a complete list of Sub-Contractors that will be required in the performance of the work and that no addition, deletion, or changes to this list will be permitted after the list is submitted.

State OWN FORCES if a Sub-Contractor is not required for any of the trades listed. If additional trades are required, insert in blank spaces.

[illegible]

Section Eight

Construction Schedule Form

Transportation and Infrastructure

CONSTRUCTION SCHEDULE FORM APPENDIX 'C'

[illegible]

Section Nine

Contractor's Insurance & Securities

TO BE ADDED

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Section Ten

Tender Amendment Forms

**No Tender
Amendment Forms**

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Section Eleven

Instructions to Bidders

**Transportation and Infrastructure
Instructions to Bidder**

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Transportation and Infrastructure
Instructions to Bidder

PROJECT NO. 0066-22PHP

1. INTERPRETATION

- (a) This document shall be governed by and interpreted in accordance with the laws of the Province of Newfoundland and Labrador and the laws of Canada.
- (b) Where the Contractor consists of more than one person, the obligations of the Contractor shall be joint and several.
- (c) If any provision of this Contract is void, illegal, invalid or unenforceable; it shall be severable from the Contract and shall not invalidate or impair the remaining provisions of the Contract.
- (d) The Contractor is acknowledged to be an independent Contractor and neither the Contractor, nor any officer, servant nor agent of the Contractor is deemed to be an employee of the Government of Newfoundland and Labrador.
- (e) The Contract constitutes the entire agreement between the Government of Newfoundland and Labrador and the Contractor. There are no other agreements of any kind other than those contained within the Contract.

2. INVITATION TO BID

- (a) Marine Contractors Inc., (the "**Bidder**"), has been invited to provide a Bid on the Work as per the terms of Performance Bond No. HS4222419 dated July 24 2020 issued by The Guarantee Company of North America (Now "Intact Insurance Company") in relation to Contract 45-20PHP (the "**Performance Bond**").
- (b) Bid must be received on or before the exact closing time and date indicated. A BID RECEIVED AFTER THAT TIME WILL NOT BE CONSIDERED OR OPENED.
- (c) The bidding process herein and any related process or any documents derived therefrom, including but not limited to the Contract Documents, are to be completed as per the terms of the Performance Bond, the Invitation to Bid, and the Contract Documents, and are not subject to the Public Procurement Act or any other procurement legislation.
- (d) The Form of Agreement is included in the Contract Documents at the time of the Invitation to Bid for the purpose of information to the Bidder and shall not be completed at the time of Bid submission.
- (e) Before submitting a Bid, Bidder shall carefully examine the Contract Documents and the site of the proposed Work and fully inform themselves of the existing conditions and limitations. **Site visits are strongly recommended but not mandatory.** No subsequent allowance under the Contract Documents will be considered for the Bidder if they had failed to become familiar with all aspects of the Work.
- (f) By submitting a Bid, Bidder represents to the Government of Newfoundland and Labrador that the Bidder has made such examination and is satisfied as to the

Transportation and Infrastructure
Instructions to Bidder

conditions that will be encountered in performing the Work and as to the requirements described in the Invitation to Bid.

- (g) Neither the Province nor any of its employees, officers, agents, elected or appointed officials, advisors or representatives will be liable, under any circumstances, for any claim arising out of this process including but not limited to costs of preparation of the bid, loss of profits, loss of opportunity or for any other claim; and
- (h) The Bidder waives any right to or claim for any compensation of any kind whatsoever including claims for costs of preparation of the bid, loss of profit or loss of opportunity by reason of the Province's decision not to accept the bid submitted by the Bidder, to enter into an agreement with any other bidder or to cancel this bidding process and the bidder shall be deemed to have agreed to waive such right or claim.
- (i) Bidder shall identify any information in the Bid that may qualify for an exemption from disclosure under subsection 39(1) of the **Access to Information and Protection of Privacy Act, 2015**.
- (j) This procurement is subject to trade agreements, such as the Canada Free Trade Agreement and the Canada European Union Comprehensive & Economic Trade Agreement, where applicable.

3. CONTRACT DOCUMENTS

- (a) The Contract Documents that form part of the Invitation to Bid consist of the Instructions to Bidder, Electronic Bid Form, Agreement, General Conditions, Supplementary General Conditions, Drawings, Specifications, and any Amendments to the Contract Documents issued during the Bid period.
- (b) Every interpretation of, or addition to, the Contract Documents to be considered a valid part of the Contract Documents will be issued in the form of a written amendment.
- (c) Bidder is responsible for ensuring they have received all Invitation to Bid Amendments and are advised to check the Government of Newfoundland and Labrador's online procurement service provider website for Invitation to Bid Amendments before submitting their Bids.
- (d) Bidder shall acknowledge amendments by using the online acknowledgement question provided.
- (e) The Government of Newfoundland and Labrador may also avail of the e-procurement service provider, MERX, audit log for the purpose of verifying Bidder receipt and/or acknowledgement of amendments.
- (f) All work to be Substantially Performed within the timeframe indicated in the Supplementary General Conditions or the Agreement, whichever is later.

4. ENQUIRIES

- (a) A Bidder is solely responsible for obtaining all information that may be necessary in order to understand the requirements of the Invitation to Bid and to submit a Bid in accordance with the terms and conditions of the Invitation to Bid.
- (b) If a Bidder finds errors, discrepancies or omissions in the Invitation to Bid, the Bidder should notify the Contract Administrator of the error, discrepancy or omission as soon as possible. If a Bidder is unsure of the meaning or intent of any provision in the Invitation to Bid, the Bidder should request clarification from the Contract Administrator.
- (c) All enquiries related to the Invitation to Bid must be directed, in writing, to the Contract Administrator identified in the Invitation to Bid.
- (d) Responses to enquiries which, in the sole judgment of the Contract Administrator, require a correction or modification to the Invitation to Bid will be provided by an Amendment.
- (e) Responses to enquiries which, in the sole judgment of the Contract Administrator, do not require a correction or modification to the Invitation to Bid, will be provided by the Contract Administrator only to the Bidder that made the enquiry.
- (f) A Bidder is not entitled to rely on any response or interpretation received pursuant to an enquiry unless that response or interpretation is provided in writing by the Contract Administrator or by an Amendment to the Invitation to Bid.
- (g) If a Bidder has sent an enquiry and has not received any acknowledgement of its enquiry, the Bidder should follow up with the Contract Administrator.
- (h) Enquiries received within 48 hours of the Submission Deadline may not receive a response from the Contract Administrator.

5. BID SURETY AND BONDING

- (a) Bidding Security
 - (i) Every Bidder shall submit with the Bid a Bid Bond issued by an approved Surety Company licensed to do business in the Province of Newfoundland and Labrador and made out in favour of the Newfoundland Exchequer Account.
 - (ii) The Bid Bond shall be at least ten percent (10%) of the Bid amount (without HST). All Bids, regardless of monetary value require a Bid Security of at least ten percent (10%) of the Bid amount (without HST), with a minimum security of five hundred dollars (\$500.00). Bid Securities shall be in the form of a Bid Bond or Certified Cheque in favour of the Newfoundland Exchequer. An approved certified cheque may be substituted in lieu of the Bid Bond. The

bidding security will be returned upon receipt of the Performance and Labour and Materials Payment Bonds.

- (iii) For Bids less than \$25,000.00, the terms of the Bid Security will be invoked and the amount retained by the Owner, if the Bidder fails to provide the required insurances and commence work within 30 days of being notified of the award of the Work within the Invitation to Bid validity period.
 - (iv) Failure to submit a Bid security in accordance with this requirement may result in rejection of Bid submitted.
 - (v) The terms of the Bid security will be invoked and the amount retained by the Owner if the Bidder fails to enter into an agreement when notified of the award of the Work within the Invitation to Bid validity period; or fails to provide the Performance and Labour and Materials Payment Bonds in the amount and within the period specified.
- (b) Performance Bond
- (i) A Performance Bond will be required in the amount of fifty percent (50%) of the contract price (exclusive of HST). The Performance Security is to be received not later than two (2) weeks after the award of the contract and prior to the formal execution of the agreement. No work is to be undertaken until the Performance Security has been received. Performance Security will not be required for a contract value of less than \$25,000.
- (c) Labour and Materials Payment Bond
- (i) A Labour and Materials Payment Bond will be required in the amount of fifty percent (50%) of the contract price (exclusive of HST). The Labour and Materials Payment Bond is to be received not later than two (2) weeks after the award of the contract and prior to the execution of the formal agreement. No work is to be undertaken until the Labour and Materials security has been received. Labour and Materials security will not be required for a contract valued at less than \$25,000.
- (d) E-Bonds
- (i) Contractors may provide Bid Bonds, Performance Bonds as well as Labour and Material Payment Bonds in either paper or electronic format (E-Bonds).
 - (ii) In accordance with the recommendations of the Surety Association of Canada, the E-Bonds shall be digitally verifiable through a third party digital certification service provider that can maintain integrity of E-Bond content and provide secure access to the E-Bond such as Mobile Bonds, Xenex Enterprises or Trisura Guarantee Insurance Company.
 - (iii) All security bonds, paper or E-Bonds are to be submitted through the MERX website.
- (e) Contractors are advised that Certified Cheques, Money Orders, or Bank Drafts from a recognized financial institution registered to do business in the Province

Transportation and Infrastructure
Instructions to Bidder

of Newfoundland and Labrador, are acceptable forms of Bid Surety and Bonding in lieu of Bonds for Bid Security, Performance Bonds, and Labour and Materials Payment Bonds. No other forms of Bid Surety and Bonding, including cash, will be accepted.

- (f) Where a certified cheque, money order or bank draft is the format chosen by the bidder, the bidder may submit the certified cheque, money order or bank draft in person at the Tendering and Contracts office or via **registered post** no later than three (3) business days after the Submission Deadline or the bid may be disqualified. The bidder must scan a copy (front and back) of the certified cheque, money order or bank draft, clearly showing certification stamp, and **registered mail receipt** and include the documentation with the electronic bid.

6. BID PROCEDURES

- (a) Bids must be submitted before the Submission Deadline using one of the submission methods specified in the Invitation to Bid for this purpose.
- (b) Bids received by the Government of Newfoundland and Labrador after the Submission Deadline, or at an incorrect Submission Location will be rejected.
- (c) The Government of Newfoundland and Labrador may extend the Submission Deadline by issuing an Amendment to the Invitation to Bid at any time before the Submission Deadline.
- (d) For the purpose of the evaluation of Bids received in the Electronic Bid Form
 - (i) the Bid shall be the Total Bid Amount, exclusive of HST. HST will be added to the contract price.
 - (ii) Costs associated with Unit Price Work will vary depending upon the quantities authorized by the Owner during the course of construction and the final contract amount will be adjusted accordingly, upwards or downwards, based upon the quoted unit rate, within the limits of any applicable legislation.
- (e) **ONLINE BID SUBMISSION PROCEDURES**
 - (i) The online procurement service provider for the Government of Newfoundland and Labrador is www.MERX.com.
 - (ii) Bidder is required to submit a Bid through the Government of Newfoundland and Labrador's online procurement service provider.
 - (iii) The Bidder is required to register a user profile with the Government of Newfoundland and Labrador's online procurement service provider, and the submission procedures set out on the online procurement service provider website shall apply, including those with respect to Amendment Acknowledgements and Bid Bond submission.
 - (iv) It is solely the Bidder's responsibility to ensure that its Bid is received by the online procurement service provider before the Submission Deadline. Bids

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received after the Submission Deadline will not be accepted.

- (f) If the Government of Newfoundland and Labrador requests more information about a Bidder's legal name or status, address or contact information, the Bidder must provide the Government of Newfoundland and Labrador with such information within three (3) calendar days of the request. Failure to provide the Government of Newfoundland and Labrador with the requested information within such time period may result in that Bidder's Bid being rejected.
- (g) It is solely the Bidder's responsibility to ensure that its Bid is prepared correctly.
- (h) It is solely the Bidder's responsibility to ensure that its Bid and any Bid change or Bid withdrawal is received prior to the Submission Deadline.

7. REQUIRED DOCUMENTS WITH BID SUBMISSION

- (a) Evidence of compliance with all requirements with respect to worker's compensation (Workplace NL Certificate of Clearance documentation) and a Certificate of Recognition (COR) certified from the Newfoundland and Labrador Construction Safety Association (NLOSA), valid at the date of the Submission Deadline (Closing Date), where required must be uploaded in the space provided in the electronic bidding system at the time of bid submission. Failure to provide these documents at the time of bidding shall result in disqualification of Bid.

8. CURRENCY AND TAX CONDITIONS

- (a) All prices must be quoted in Canadian dollars.
- (b) Newfoundland and Labrador certifies that the amounts payable to the successful Bidder for the Work will be paid by the Government of Newfoundland and Labrador with Crown funds.

9. GOVERNMENT OF NEWFOUNDLAND AND LABRADOR OWNERSHIP AND RELEASE OF INFORMATION

- (a) Bids that are not withdrawn in accordance with these Bidding Procedures become the property of the Government of Newfoundland and Labrador after the Submission Deadline.
- (b) The Bidder is advised that any information contained in a Bid may be released by the Government of Newfoundland and Labrador in original or other forms if authorized or required by the Government of Newfoundland and Labrador's policies or procedures, including these Bidding Procedures, or by any law, including the **Auditor General Act (Newfoundland and Labrador)**, and the **Access to Information and Protection of Personal Privacy Act (2015)**.
- (c) The financial value of the contract, including unit prices where applicable, will be publicly released by the Government of Newfoundland and Labrador as a part of the award notification.

10. IRREVOCABLE BID PERIOD

- (a) The Government of Newfoundland and Labrador will endeavour to award a Contract within the specified validity period; however, Bids are irrevocable for sixty (60) calendar days after the Submission Deadline. A Bidder is bound to enter into the Contract if it is awarded the Contract during this period of irrevocability.
- (b) The Government of Newfoundland and Labrador may request that Bidder agree to an extension of this period of irrevocability. The Bid of the Bidder, if they consent to such an extension, remains irrevocable for the additional time requested by the Government of Newfoundland and Labrador. The Bid of each Bidder that does not consent to such an extension remains irrevocable for the irrevocable Bid period currently in force upon the Bid.
- (c) The Bidder does not have any obligation to enter into a Contract with the Government of Newfoundland and Labrador upon the expiration of the irrevocable Bid period. Where the irrevocable Bid period in force upon a Bid has expired, further Bid information will not be released by the Government of Newfoundland and Labrador provided the Bidder has so requested.

11. BIDDER DECLARATIONS

- (a) In submitting a Bid, the Bidder declares that the Bidder:
 - (i) is incorporated and in good standing under **The Corporations Act (Newfoundland and Labrador)**, or otherwise authorized or permitted to legally carry on business in the Province of Newfoundland and Labrador;
 - (ii) is financially capable of carrying out the terms of the Contract; and
 - (iii) possesses all the necessary experience, capital, organization, and equipment to perform the Work in accordance with the terms and conditions of the Contract.
- (b) In submitting a Bid, the Bidder declares and represents that it has not knowingly participated in bid-rigging, collusion, or fraud in the preparation of its Bid. Further, the Bidder declares and represents that it has produced the Bid independently from, and without consultation, communication, agreement or arrangement with, any competitor, except where the competitor intends to become a Subcontractor for a portion of the Work or intends to form a joint venture arrangement with the Bidder.
- (c) The Bidder is advised that, under the **Competition Act (Canada)**, the Bidder is responsible for notifying The Government of Newfoundland and Labrador of any aforementioned agreements or arrangements with its competitors.
- (d) In submitting a Bid, the Bidder declares and represents that the Bidder does not knowingly have a conflict of interest related to the performance of the Work by the Bidder or by its Subcontractors. If the Bidder is in doubt as to whether individuals or circumstances give rise to a conflict of interest, the Bidder should consult with the Contract Administrator prior to submitting a Bid. The Government of Newfoundland and Labrador may reject the Bidder's Bid if, in its sole discretion, the Government of Newfoundland and Labrador determines that an actual or potential conflict of interest exists.
- (e) By submitting a Bid, the Bidder agrees that:
 - (i) the Invitation to Bid, in its entirety, is deemed to be incorporated into and form part of the Bid notwithstanding that all parts of the Invitation to Bid may not be attached to or accompany the Bid;
 - (ii) all Invitation to Bid amendments have been received, considered and addressed in the Bid;
 - (iii) any changes to the submitted Bid received by the Government of Newfoundland and Labrador before the Submission Deadline form part of the Bid;
 - (iv) any proposals, counter-offers, qualifications or changes to the terms, conditions or specifications in the Invitation to Bid by the Bidder will not be

accepted by the Government of Newfoundland and Labrador but will be disregarded and will not be incorporated into the Contract;

- (v) if they are the preferred Bidder, the Bidder will enter into a Contract with the Government of Newfoundland and Labrador to complete the Work in accordance with the Bid and the terms, conditions and specifications contained in the Invitation to Bid; and
 - (vi) the Bid will form part of the Contract.
- (f) Bidder will not engage in any form of political or other lobbying whatsoever in relation to the Invitation to Bid, including for the purpose of influencing the outcome of the process. Further, no such person (other than as expressly contemplated by this Invitation to Bid) will attempt to communicate in relation to the Invitation to Bid, directly or indirectly, with any representative of the Government of Newfoundland and Labrador (GNL) (including any Minister or Deputy Minister, or any Members of the House of Assembly, or any employee of the GNL), or any director, officer, employee, agent, advisor, consultant or representative of any of the foregoing, as applicable, for any purpose whatsoever. In the event of any lobbying or communication in contravention of this Section, the Province in its sole and absolute discretion may at any time, but will not be required to, reject any and all Bids submitted by that proponent without further consideration or compensation.

12. UNACCEPTABLE BIDS

- (a) Bids not submitted on the Electronic Bid Form through the MERX Website will not be considered.
- (b) Facsimile Bids will not be accepted.
- (c) Bids received after the Invitation to Bid Closing time will not be considered.
- (d) Incomplete Bids will be rejected.
- (e) Bids not accompanied by an approved security in the correct amount will be rejected.
- (f) Bids containing qualification or additional clauses to the Electronic Bid Form will be rejected.
- (g) A Bid that is found to be unacceptable to The Guarantee Company of North America, as per the terms of the Performance Bond.
- (h) Incorrectly prepared Bids may be rejected.

13. CHANGES TO BIDS

- (a) Any changes to a Bid must be completed by amending the electronic Bid before the Submission Deadline.

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- (b) If, in the Government of Newfoundland and Labrador's opinion, there is any ambiguity about the nature or effect of any change, the Government of Newfoundland and Labrador may reject such a change and evaluate the Bidder's Bid without regard to the change.
- (c) Where a change affects one or more Prices, the Bidder is reminded to make changes to all affected Prices. Where a form of Bidding Security other than a Bid Bond is provided with the original tender, an increase in the Bid price will render the Bidding Security inadequate. Bidding Security adequate to cover the increased Bid price must be provided to the Department prior to the Submission Deadline. Failure to provide additional Bid Security prior to Submission Deadline to cover increases to the original Bid will make the Bid subject to disqualification.

14. WITHDRAWAL OF BIDS

- (a) The Bidder may withdraw a Bid, within the Electronic procurement system, without penalty, at any time before the Submission Deadline in MERX.

15. SUBSTITUTION OF MATERIALS

- (a) Bids shall be based upon using the materials or products as specified without substitution. Where two or more brand names are specified, the choice shall be left to the Contractor. Where only one brand name is stated there shall be no substitution.

16. ACCEPTANCE OF BID

- (a) The Owner will not necessarily accept the lowest or any Bid.
- (b) Acceptance of the Bid by the Owner is subject to the approval of The Guarantee Company of North America as per the terms of the Performance Bond.
- (c) Upon written acceptance of the Bid within the Invitation to Bid validity period, the Electronic Bid Form becomes part of the Contract Documents and the successful Bidder becomes the Contractor. The Contractor will be required to execute a formal agreement with the Owner within two (2) weeks of the date of the letter of intent to award or letter to award.

17. OPENING OF BIDS

- (a) Where an Invitation to Bid requires the submission of a Bid Bond (whether electronic or paper) but the Bid Bond has not been received prior to the Submission Deadline, the corresponding Bid will be rejected.

18. EVALUATION PROCESS

- (a) The process of evaluating Bids is as follows:
 - (i) Determine Bid Compliance (Pass/Fail),
 - (ii) Evaluate Total Prices,
- (b) Determining Bid Compliance (Pass/Fail)
 - (i) The Government of Newfoundland and Labrador will evaluate the Bid to determine whether it complies with the requirements of the Invitation to Bid.
 - (ii) Bids which the Government of Newfoundland and Labrador determines, in its sole discretion, comply with the requirements of the Invitation to Bid will progress to the second step of the evaluation process. The Government of Newfoundland and Labrador may reject a Bid submission if it is incomplete, incorrect or conditional, or contains additions, deletions, alterations or other irregularities. Bids which the Government of Newfoundland and Labrador determines do not comply with the requirements of the Invitation to Bid will not progress to the second step of the evaluation and will be rejected.
 - (iii) The Government of Newfoundland and Labrador may waive irregularities or reject all or any Bids if, in the sole discretion of the Government of Newfoundland and Labrador, it is deemed appropriate.
- (c) Comparing Total Prices
 - (i) Where a Bidder fails to provide a Lump Sum Price, Separate Price, or Unit Price as identified in the Electronic Bid Form, the Bid may be rejected.
- (d) The Government of Newfoundland and Labrador has the right to contact not only any of the references provided by the Bidder, but also any other references identified by the Government of Newfoundland and Labrador who have had dealings with the Bidder or the Bidder's Subcontractors without prior notice to the Bidder.
- (e) A Bidder will be notified, in writing, if its Bid is rejected.

19. AWARD AND SIGNING OF CONTRACT

- (a) The Government of Newfoundland and Labrador is under no obligation to award a Contract to a Bidder, even if the Bid is determined to be compliant and qualified. Without limiting the generality of the foregoing, the Government of Newfoundland and Labrador will have no obligation to award a Contract where:

- (i) there is only one Bid received;
 - (ii) the prices exceed the funds available for the Work;
 - (iii) the prices materially exceed prices for similar work in the past;
 - (iv) the prices materially exceed the Government of Newfoundland and Labrador's cost to perform the Work, or a significant portion thereof, with its own forces;
 - (v) the prices are unbalanced;
 - (vi) the Bid is not acceptable to The Guarantee Company of North America, as per the terms of the Performance Bond;
 - (vii) in the sole opinion of the Government of Newfoundland and Labrador, the interests of the Government of Newfoundland and Labrador would be best served by not awarding a Contract.
- (b) If no Contract is awarded, the Government of Newfoundland and Labrador will give written notice to the Bidder, that no Contract award will be made.
- (c) The successful Bidder will be notified in writing that the Bidder has been awarded the Contract, subject to the Bidder complying with the specific conditions precedent to the Contract as set out in the Invitation to Bid or the notification of award.
- (d) The Bidder shall, within 14 calendar days after the date on which the notification of award was sent to the Bidder, demonstrate to the Government of Newfoundland and Labrador that the Bidder has satisfied any conditions precedent to the Contract or in the notification of award. The Government of Newfoundland and Labrador will execute the Contract and send a copy to the Contractor upon being satisfied that the requirement of this section is being met.

20. FAILURE TO RESPOND TO AWARD NOTIFICATION

- (a) If, within two (2) weeks after the date on which the notification of award was sent to the Bidder, the Government of Newfoundland and Labrador has not received all of the following from the Bidder:
- (i) the Contract, duly signed by the Bidder (if applicable);
 - (ii) a Performance Bond (if applicable);
 - (iii) a Labour and Material Payment Bond (if applicable); and
 - (iv) evidence that the Bidder has satisfied any conditions precedent to the Contract;

The Government of Newfoundland and Labrador may do one or more of the following:

- (a) where a Bid Bond was required, claim against the Bid Bond;
- (b) declare the Bidder ineligible to Bid on Invitation to Bid issued by the Government of Newfoundland and Labrador for a period of up to two (2) years;
- (c) proceed to award the Contract to another Bidder;
- (d) cancel the Invitation to Bid;
- (e) exercise whatever other remedies are available by law.

21. COMMENCEMENT OF WORK

- (a) Unless otherwise authorized by the Government of Newfoundland and Labrador, in writing, the Contractor shall not commence any Work until the Contractor has:
 - (i) submitted an approved Performance Bond (if required);
 - (ii) submitted an approved Labour and Materials Payment Bond (if required);
 - (iii) submitted confirmation of all required insurances.
 - (iv) submitted a Site Specific Safety Plan acceptable to the Government of Newfoundland and Labrador;
 - (v) complied with the conditions precedent to the Contract;
 - (vi) confirmed that the Government of Newfoundland and Labrador has executed the Contract that was signed and submitted by the Contractor and,
 - (vii) attended a pre-construction meeting (if required).

22. TENDERING AND CONTRACTS OFFICE CLOSURE

- (a) SECTION DELETED.

23. CONTRACT ADMINISTRATOR

- (a) Bidder are advised for the purpose of this Invitation to Bid, the Tendering and Contracts Division of the Department will be the designated Contract Administrator as required under item 4 – Enquiries of the Instructions to Bidder.

24. CONTRACTOR PERFORMANCE

- (a) [SECTION DELETED]

Section Twelve

Supplementary General
Conditions

SUPPLEMENTARY GENERAL CONDITIONS

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SGC 1. SCOPE OF WORK

The Work will be substantially performed within **1.0** months from the date of notification of award of contract or **October 31, 2022, whichever is later.**

Contractors are advised the PROJECT shall include, but will not be limited to, the scope as outlined in the following summary.

Part A: Pave section of Route 460 through the community of Cape St George

- Rehabilitation of approximately 2.0KM through the community of Cape St George. Placing Leveling at areas identified by resident engineer, apply Tack coat, Repave with 50mm of Surface Asphalt and Shouldering
- Project limits Route 460 at approximate location (45.847343N, 59.21988W) to (48.46673N, 59.25305W)

Work will include:

- Leveling sections as identified by Resident Engineer;
- Application of tack coat on existing and leveling asphalt courses.
- Place 1-50mm lift of new asphalt throughout leveled area as described herein or as directed by the Resident Engineer. The contractor will adjust and tie in to all existing intersections, highway access locations and roadside features in accordance with the parameters described in the Department's Highway Access Policy or as directed by the Resident Engineer;
- Application of granular for shouldering.
- All work is to conform to Typical Cross Section RLU 60, Form 1110 of the Department's Specification Book

Part B: Pave section of Route 463 between Cape St George and Mainland

- Rehabilitation of approximately 3.0KM between Cape St. George and Mainland. Pulverizing, Class A, New Asphalt and Shouldering
- Project limits Route 463 at approximate location (45.55627N, 59.18590W) to (48.54135N, 59.18133W)

Work will include:

- Pulverizing the existing asphalt

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- Place 100mm Class A
- Reshaping and compaction
- Place 1-50mm lift of new asphalt throughout various locations as described herein or as directed by the Resident Engineer. The contractor will adjust and tie in to all existing intersections, highway access locations and roadside features in accordance with the parameters described in the Department's Highway Access Policy or as directed by the Resident Engineer;
- Application of granular for shouldering.
- All work is to conform to Typical Cross Section RLU 80, Form 1120 of the Department's Specification Book.

For further information, please refer to the breakdown of quantities in the tender document and the updated Department's Specifications Book.

SGC 2. SPECIFICATIONS BOOK AND TRAFFIC CONTROL MANUAL

Contractors are advised that updated versions of the Department's Specifications have been published, effective March 16th, 2022.

All updated specifications can be found at the following URL:

<https://www.gov.nl.ca/ti/hdc/highway-specification-book/>

It is the responsibility of all holders of the Department's Specifications Book to obtain and become familiar with the most recently published new or revised specification sections. The latest revised specifications published on the Government of Newfoundland and Labrador webpage at the time of tendering shall apply to this project.

It is the Contractor's responsibility to ensure that the correct version of the specifications book is used when bidding on this project.

Contractors are advised the 2018 Edition of the Department's Traffic Control Manual and any amendments applies to this project.

The latest Traffic Control Manual can be found at the following URL:

<https://www.gov.nl.ca/ti/hdc/>

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It is the Contractor's responsibility to ensure that the correct version of the Traffic Control Manual is used when bidding on this project.

SGC 3. GC 46 – ASSESSMENT AND DAMAGES FOR LATE COMPLETION

Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree the Liquidated Damage Daily Rate of \$ 1500 per diem is a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.

The Liquidated Damages Application Date for the purposes of applying liquidated damages shall be the later of the following:

- i.) the date identified in Article A-1 of the Form of Agreement unless otherwise agreed in writing; or
- ii.) No later than **October 31st, 2022** unless otherwise agreed in writing.

SGC 4. PETROLEUM PRODUCTS COST ADJUSTMENT

Fuel Cost Adjustment

Adjustments will be made to progress estimates to reflect changes in fuel prices from The Benchmark Tender Price to those in effect during construction. The Benchmark Tender Price shall be the price established by the Newfoundland and Labrador Board of Commissioners of Public Utilities, Petroleum Pricing Office, at time of tender closing. Increases or decreases in excess of 10% of the Benchmark Tender Price will be paid or deducted accordingly.

For the calculation of adjustments the governing price will be the price in place at the 21st of the month for the zone in which the majority of the contract is being carried out, established by the Newfoundland and Labrador Board of Commissioners of Public Utilities, Petroleum Pricing Office. This price will apply for the period from the 21st of that month to the 20th of the following month. This adjustment will include any changes in taxes outlined in GC 22.2. No adjustments will be made for price changes resulting from the use of the "Interruption Formula".

The adjustment for fuel cost variation shall apply only to those items given in the accompanying list. For other tender items, there will be no fuel cost adjustments.

The adjustments shall be computed based on changes in the governing price, as defined above, in excess of or less than the Benchmark Tender Price at time of production. The

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Engineer shall then calculate the adjustment to be stated in the Monthly Progress Estimates. No adjustment will be made due to an increase in the price on fuel used after the identified contract completion date or approved contract extension date but adjustments due to a decrease in the price of fuel will be made after the identified contract completion date or approved contract extension date.

For the contract items included in the accompanying list, the fuel cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate.

Contract Item	Nominal Fuel Consumption Rate		
	Clear Diesel Fuel (3)	Furnace Oil (3)	Marked Diesel Fuel (4)
Excavation Other Material (1)	2.0 l/m ³ or 1.0 l/t	N/A	N/A
Excavation Solid Rock (2)	3.0 l/m ³ or 1.1 l/t	N/A	N/A
Granular "A" and Maintenance Grade III	1.0 l/t (5 & 6)	N/A	0.7 l/t
Granular "B"	1.0 l/t (5 & 6)	N/A	0.5 l/t
Asphaltic Base, Surface & Levelling Courses	2.0 l/t (5)	11.0 l/t	0.7 l/t
Overhaul on Excavation Items Only	0.4 l/m ³ -km	N/A	N/A

(1) Excavation Other Material shall also include Ditching Other Material, Other Material Borrow, Other Material Fill in Place, Unsuitable Material, Bog, and Excavation for Foundation Other Material.

(2) Excavation Solid Rock shall also include Ditching Solid Rock, Quarried Rock, Rock Fill in Place, and Excavation for Foundation Solid Rock.

(3) Clear diesel fuel adjustment and furnace oil adjustment applies to the respective items at the time of excavation or placement as applicable.

(4) Marked diesel fuel adjustment applies to granular material and asphalt aggregate at the time of production. If the crusher used to produce the granular material or asphalt aggregate is not powered by a diesel generator, there will be no adjustment for marked

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fuel. If a contractor uses granular material or asphalt aggregate that was crushed previous to the project, there will be no adjustment for marked fuel.

(5) If the granular material or asphalt aggregate is produced from a rock quarry source, an additional 0.15 l/t of clear diesel fuel will be added to the quantity shown in the table applicable at the time of drilling and blasting.

(6) If the tender identifies Granular A, Granular B or Maintenance Grade III to be stockpiled for use by the Department of Transportation and Infrastructure, then the Nominal Fuel Consumption Rate to apply to stockpiled aggregate will be 0.50 l/t for Clear Diesel.

Liquid Asphalt Cost Adjustment

Adjustments will be made to progress estimates to compensate for changes in liquid asphalt prices at time of Tender and prices in effect during construction. Increases or decreases in excess of 5% of the Benchmark Tender Price will be paid or deducted accordingly. The governing price will be the average price quoted by local suppliers on the 20th of each month for the two Holyrood and the Come by Chance Terminals. This adjustment will include any changes in taxes outlined in GC 22.2.

The benchmark price shall be the average monthly price quoted by local suppliers for the two Holyrood and the Come by Chance Terminals, from the 20th of the month prior to tender closing. The adjustments shall be computed based on changes in the average monthly price in excess of or less than this benchmark at time of production. The Engineer shall then calculate the adjustment to be stated in the Monthly Progress Estimates.

The liquid asphalt cost adjustment shall be calculated using the quantity of the item added to the progress estimate since the last estimate. In cases where liquid asphalt is included in the price of Asphalt Concrete, the liquid asphalt quantity will be determined using the mix design.

SGC 5. ADDITIONAL DECLARATION FORMS

If Bidder is requested to submit the following forms they must do so within 72 hours of the time of their notifications. The forms will be provided at the time of notification.

- (a) The Declaration of Equipment Form
- (b) The Declaration of Sub-Contractor Form

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(c) The Construction Schedule Form

SGC 6. CHANGE IN OWNER'S RIGHT TO STOP WORK OR TERMINATE THE CONTRACT

Contractors are advised of the following changes to General Condition 10 of the Contract: The Province maintains the right to terminate the agreement for convenience at any time. Upon termination, the Province will compensate for all costs incurred to the date of termination and associated costs to shut down the work in a manner as specified by the Province. There will be no compensation for any further incidental costs including but not limited to lost profit.

SGC 7. END PRODUCT SPECIFICATION

Contractors are advised for this project, Section 333 of the Specification Book, 'Hot Mix Asphalt Concrete – End Product Specification' shall be applied in addition to the applicable Sections of 330, 334 and 337, except where the specification has been modified by the Supplementary General Conditions. As part of the specifications for this project the Contractor will be solely responsible for all hot mix asphalt mix designs and quality control functions in accordance with the above noted specifications. As per the specifications, the Contractor must also submit a quality control inspection testing plan.

SGC 8. SECTION 333 - HOT MIX ASPHALT CONCRETE – END PRODUCT SPECIFICATION

The following shall replace **Section 333.08.04 Material Application Rate** of the Department's Specification Book:

333.08.04 Material Application Rate

The specified material application rate will be based on the specified asphalt design thickness as per the highway classification. The specified material application rate (MAR) will be calculated in accordance with the following formula:

$$\text{MAR} = \text{TD} \times \text{BD}$$

Where: TD = Specified Asphalt Design Thickness, metres
BD = Bulk Density of the JMF, kilograms per cubic metre

For instance, a 50 millimetre asphalt mat thickness shall have a specified material application rate of 117.5 kilograms per square metre while a 60 millimetre asphalt mat thickness shall have a specified material application rate of 141.0 kilograms per square

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metre, based on a theoretical asphalt bulk density of 2350 kilograms per cubic metre.

On new construction and rehabilitated pavements, HMA shall be applied to the roadway at the rate or rates as specified by the Contractor and calculated as indicated above. Material application rates will be determined by the daily tonnage delivered to the paver as recorded by weigh tickets generated by automated scales, divided by the area covered the same day after allowance has been made for entrances and/or intersections. The Contractor shall provide the material application rates to the Owner's Representative at the completion of each day. The appropriate backup information (including calculations) for determining the material application rate shall be provided and include paving start and end stations, pavement widths, intersection areas, etc.

The payment adjustment for material application rate is shown in the following table. The acceptance limit is the limiting value of the actual material application rate, expressed as a percentage of the specified material application rate for each day. If the material application rate of a days production is outside the acceptance limits, the days production is rejected automatically regardless of the values of other acceptance parameters. Rejection for actual material application rates above the 110% or 106% will be applicable to the tonnage of HMA, PGAC and blend sand that is in excess.

TABLE 6
Daily Adjustments for Material Application Rate

Actual Application Rate Expressed as % of Specified Application Rate*	Unit Price Adjustment (\$ per tonne) for all material daily	
	Lower Lift or Single Lift	Top Lift of Multiple Lifts
≥ 110	-\$6.00 for all material in the day up to 110% and no payment for product in excess of 110.0%	-\$6.00 for all material in the day up to 106% and no payment for product in excess of 106.0%
106.0 – 109.9	-\$4.00	-\$4.00
105.0 – 105.9		
104.0 – 104.9	\$0.00	-\$2.00
96.0 – 103.9	+\$0.50	+\$0.50
94.0 – 95.9	-\$1.00	-\$1.00
92.0 – 93.9	-\$2.00	-\$2.00
90.0 – 91.9	-\$3.00	-\$3.00
85.0 – 89.9	-\$5.00	-\$5.00
< 84.9	Rejected, Mill and Fill and/or rejected with no remedial work required at the	Rejected, Mill and Fill, Overlay and/or rejected with no remedial work required at

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Actual Application Rate Expressed as % of Specified Application Rate	Unit Price Adjustment (\$ per tonne) for all material daily	
	discretion of the Owner's Representative	the discretion of the Owner's Representative

*The specified application rate will be calculated based on the asphalt mat thickness as per the highway classification and the asphalt bulk density of the approved JMF.

SGC 9. ITEM NO. 0(c) OF THE UNIT PRICE TABLE: ACCOMMODATION OF TRAFFIC

Contractors are advised that prior to commencing any work, a detailed traffic control plan outlining signage layouts, public notification methods and special instructions must be submitted to the Department as per Section 190.4.6 of the Department and Transportation and Infrastructure Specifications Book. No work shall commence until the Contractor has received written approval of their plan submission. This review in no way relieves the Contractor of responsibility of ensuring an appropriate Traffic Control Plan. The Contractor will remain primarily responsible to ensure appropriate signage and resources are in place to safely accommodate the work site at all times.

If working on roadways with 3 or more lanes, contractors are advised that two-way traffic shall be maintained at all times during construction. Where this provision cannot be accommodated (i.e. two-lane roadways) and traffic must be reduced to one lane to accommodate the work, Contractors shall make every effort to keep traffic delays to a minimum.

The Contractor's procedure to control traffic shall form part of their Traffic Control plan. In the event that traffic delays become excessive (ie. queues in excess of 3km total or delays in excess of 30 minutes) or the buildup of traffic is creating unsafe conditions, as determined by the Engineer, the Contractor shall be required to remove equipment from the roadway to alleviate congestion. Delay claims or other compensation shall not be considered in the event construction must be halted due to traffic issues.

Contractors shall be aware that all work operations shall be confined to one lane/location in any given work zone; the Contractor shall finish all work in a given lane/location before moving equipment and crews to an adjacent lane in order to maintain continuous two-way traffic flow. For the purposes of this SGC, work operations include but is not limited to cold planing asphalt (milling, sweeping, placement or trucking of millings), tack coat

SUPPLEMENTARY GENERAL CONDITIONS

placement (including curing time) or laying hot mix asphalt (paving, completing compaction, joint construction, clean-up work).

Contractors are also advised construction shall not be permitted on the Trans Canada Highway during Friday afternoon and Sunday afternoon (or Monday afternoon on long weekends) on any weekend during the project. This is due to the high traffic volumes anticipated during these time periods. The Contractor shall have all equipment and crews off the road by 12:00 pm on these days.

The Contractor shall be allowed to work on Saturday on these weekends as well as Sunday when the holiday falls on the Monday. The following weekends shall be designated holiday weekends for this contract:

Victoria Day Weekend
Labour Day Weekend
Thanksgiving Day Weekend

Additionally, Contractors are advised that on this project a designated "Traffic Control Supervisor" is required whose sole duty is to ensure that all construction signage and personnel are present on the project site as required by the latest version of the Department of Transportation and Infrastructure Traffic Control Manual. This manual can be found on the Government of Newfoundland and Labrador website at:

<https://www.gov.nl.ca/ti/files/publications-traffic-control-2018.pdf>

The Traffic Control Supervisor will be required to have Traffic Control Person II Training from a certified trainer as prescribed by WorkplaceNL. Contractors must provide copies of this certificate and contact information to the Owner's Representative one week prior to construction. Responsibilities of the Traffic Control Supervisor are:

1. Adhere to all requirements as outlined under Section 190.4.6 Traffic Control;
2. Implement the contractor traffic control plan for all phases of the project and ensure that the signage used is in good condition, installed as required by the Traffic Control Manual and to monitor the signage daily;
3. Ensure that there are adequate traffic control persons on site at all times while work is ongoing and ensure these individuals are completing their duties as required;
4. Liaise with the Owner's Representative as required including reporting any deficiencies, changes, or concerns;

SUPPLEMENTARY GENERAL CONDITIONS

5. Maintain a presence on the project from the start of the work and until all work has ceased on the project including while sub-contractors are on site.

The Traffic Control Supervisor must have the authority to direct and allocate the necessary resources to ensure all traffic control requirements as noted above are met. The Traffic Control Supervisor cannot be the project superintendent/supervisor.

All costs associated with these requirements as well as the use of a Traffic Control Supervisor, providing him/her with all necessary tools, equipment and personnel to complete all tasks as described above, shall be incidental to the item.

Contractor shall provide adequate resources (equipment, flagpersons, signs, message boards, traffic lights, etc.) which conforms to Division 7 Temporary Condition Signs and Devices of the Department and Transportation and Infrastructure Specifications Book as well as the latest edition of the Department's Traffic Control Manual and amendments to ensure the safety and convenience of the public and workers. If the department deems adequate resources are not in place to safely accommodate the work site, the Owner's Representative will provide the Contractor with notification, either verbal or written that additional resources are required. The Contractor must comply with the Owner's Representatives requests or construction will be halted until appropriate resources are in place. Contractors are reminded that it is their responsibility to adhere the latest edition of the Department's Traffic Control Manual at all times for the safe accommodation of traffic throughout the work site and to continually monitor the work site to ensure compliance and not rely on notification from the Department that changes or additional resources are required. Delay claims or other compensation will not be considered in the event construction is halted due to the lack of appropriate resources.

During the asphalt sample coring operations, the Contractor must provide all traffic control in the form of flag persons and signs for Transportation and Infrastructure employees. Coring will not be permitted until all traffic control devices are erected and flag persons are in position.

Flagpersons are responsible to accommodate all working operations conducted on the jobsite and sufficient flagpersons must be available to safely perform all tasks. This includes but is not limited to: Culvert installations, milling, paving, tack coat, shouldering, temporary line striping, coring operations, etc. ALL Flagpersons are required to have current Traffic Control Person I training from a certified trainer as prescribed by WorkplaceNL. These traffic control requirements shall be deemed incidental to the item and no additional payment will be made.

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LIQUIDATED DAMAGES FOR NON-COMPLIANCE

The Department shall document and provide the Contractor with notification, either verbal or written, when an infraction has been noted so as to allow the Contractor to develop corrective actions to safely accommodate traffic throughout the work site. The Department of Transportation and Infrastructure will cease work operations until adequate resources are in place. Failure to comply with the direction of the Owner's Representative to cease work operations for not complying with this specification, shall result in the application of a \$10,000 liquidated damage for each instance of noncompliance.

BASIS OF PAYMENT

Payment for this item will be a Lump Sum price. This lump sum price shall be compensation in full for all flagperson hours, labour, materials, and use of equipment and devices required to safely accommodate traffic for all operations throughout the entire duration of the project.

The Contractor shall be paid this item based on a percentage of the tender value they completed during the pertinent progress payment period. A value of 10% of this Lump Sum cost is to be paid on the first progress estimate.

If the Department of Transportation and Infrastructure and the Contractor agree to perform extra work outside of the Scope of Work identified in the original contract, "Accommodation of Traffic" Lump Sum price will be pro-rated based on a cost of extra work completed compared to the total original contract value.

SGC 10. CONTRACTOR SUPPLIED CHAINAGE

The Contractor will be required to provide all labor, materials and equipment to install chainage stations throughout the identified project limits. Chainage will consist of clearly identified visible station numbers on wooden survey pegs. Pegs shall be offset into the existing shoulder on one side of the roadway and placed at every 20 metre station.

The Department will provide the location of the starting station, typically 0+000, from which the Contractor will install the chainage prior to start of onsite activities. All chainage shall remain clearly visible and in place for the duration of the project. Any pegs removed or destroyed during the construction activities shall be reinstalled by the Contractor.

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Payment for this item will be incidental and included with payment of the applicable Item (0) General - Mobilization and Demobilization.

SGC 11. COMPACTION OF GRANULAR AND OTHER MATERIAL

Contractors are advised that all Quality Control and Quality Assurance requirements of Section 316 shall be performed by Department Representatives. Use of this specification or any other specification referenced herein shall be in accordance with the Contract Documents.

SGC 12. ITEM NO. 102 OF THE UNIT PRICE TABLE: SHOULDERING

DESCRIPTION

This specification applies to all Class A shouldering material and procedures associated with **Parts A & B** of the project.

Shouldering operations shall be completed as per section 315.06 of the Department's Specifications Book in conjunction with the requirements outlined below. All shouldering material shall be placed by an approved shouldering machine as per standard shouldering procedures. The shouldering material shall be placed to match the finish grade of asphalt and extend to the design road shoulder width of **1.0 meter offset** from the newly placed edge of asphalt. IF the design shoulder as specified cannot be obtained from the newly placed edge of asphalt, the contractor shall place the shoulders to the edge of the existing shoulder as directed by the Owner's Representative. Note: shouldering thickness should be approximately **75** millimetres for **Part A** and **50mm** for **Part B** (Granular A Material) to match the finish grade of asphalt but may fluctuate throughout the project limits. The Contractor is encouraged to visit the site(s) during tendering period to familiarize with the existing shoulder conditions and adjust the unit price accordingly, no additional payment or proration factor will be applied. Contractors are advised that costs associated with all granular tie ins throughout the project (including but not limited to: driveways, parking lots, sign islands, fire hydrants, etc.) shall be incidental to this item and no additional payment will be made. Contractors are required bring all tie ins to grade, providing a smooth transition as deemed acceptable to the Owner's Representative.

In the event the Department agrees to place millings on the shoulders; the millings shall be placed in a manner that allows a minimum of 50 millimetres of crushed granular material to cover the millings and match the finish grade of asphalt.

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The Contractor is advised that for this project the Granular A material required for shouldering operations is currently stockpiled at the Steel Mountain Transportation Depot for the Contractors use. No payment will be made for the supply of this material. All Payments covered under the LM Unit price for shouldering will be for labor, equipment to load, transport to and placement on site.

BASIS OF PAYMENT

Measurement for payment shall be the total number of linear meters rounded to one decimal place, of shouldering carried out in accordance with this specification. Payment at the contract price for item **102** Shouldering (m), shall be compensation in full for all labor, materials, and equipment required to complete all shouldering and granular tie in operations as outline above to a standard acceptable to the Department Representative (including but not limited to traffic control, handling, hauling, placing, grading, compacting, sweeping of the road surface, clean up and shaping, etc.). No payment will be made for material placed beyond theoretical lines.

Areas identified by the Owner's Representative as being unacceptable shall be remedied by the Contractor at their own expense.

Reductions in payment for shouldering deficiencies will be twice the value of the bid rate (minimum of \$10.00 per metre) until the deficiency is remedied.

SGC 13. SUPPLY AND PLACEMENT OF TEMPORARY STRIPING AND PAINT SCHEME FOR PAVING OPERATION

The Contractor is required to supply and place temporary striping for all work in accordance with the existing line layouts. Temporary striping will be required for ALL lines located throughout the job. This includes, but is not limited to: centerline, shoulder lines, bull noses, turning lanes, tapers, merge lanes, passing lanes, etc. The Contractor shall ensure that an appropriate safe work practice is available and workers are trained.

The Contractor is required to supply and place temporary striping on all layers of asphalt (levelling/base and surface). Contractor is to make every effort to install the temporary striping tape immediately following the placement of the new mat of asphalt. Placement must be completed in dry conditions on dry asphalt. If the Contractor fails to complete the striping within the 24 hours, a penalty of \$2500 dollars per day will be applied. Should weather prevent placement of temporary striping immediately after placing the new mat of asphalt then the temporary striping must be installed on the next calendar day that the

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weather is suitable, otherwise the penalty will apply.

Temporary striping shall be installed in accordance with the existing line layouts. The Contractor is required to complete all necessary surveying of the existing paint scheme

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SUPPLEMENTARY GENERAL CONDITIONS

prior to pulverizing, milling or paving, in order to place temporary striping back at the same original location. Surveying will occur at intersections, merge lanes, bull noses, turning lanes, tapers, etc. All surveying must be documented, including but not limited to double solid line, solid line with dash line, single dash line, merge lanes, arrow symbols, passing lanes, bull noses, tapers, shoulder lanes, etc. Correct lane widths must be established at all times. A copy of the documented paint scheme must be provided to the Project Manager upon completion. Contractors will then be required to illustrate where each noted transitions take place by marking the appropriate notation on final lift of asphalt.

The temporary striping must meet the specifications as detailed in Attachment #1- 'Specification for Wet Reflective, Self-Adhesive, Pavement Tape'. Both yellow and white tape may be required based on the roads existing paint scheme. Each individual strip shall have dimensions of 150mm length and 152mm width. They shall be placed 20 meters apart on tangents and 10 meters apart on curvatures. Contractors are advised that spacing may be altered in various situations as agreed by the Owner's Representative (ie bull noses, sharp turns, tapers, etc.).

Sufficient traffic control will be required to be maintained during all placement operations as per the latest version of the Traffic Control Manual.

The Department may perform its own quality verification of the work and check against the Contractor's layout. The Contractor will be informed of the results of these checks, but the Department by doing so in no way relieves the Contractor of responsibility for the accuracy of their layout work.

The Contractor shall correct or replace, at their own expense, any deficient layout and the construction work which may be the result of the inaccuracies in the construction layout operations. If the Contractor fails to comply and the paint scheme and/or temporary striping remains insufficient, \$2.00/tonne will be deducted from the applicable item Hot or Warm Mix – Surface, Base or Levelling as appropriate) until the issues are rectified. If the issues are not rectified within 7 calendar days of notice of inaccuracies, the Department may choose to use the deducted funds to have the work completed by other sources. Should the Department complete by other sources, the deducted funds will be deemed forfeited by the Contractor.

Payment for this item will be incidental and included with payment of the applicable item (Hot or Warm Mix – Surface, Base or Levelling as appropriate). It shall include all materials, labor, equipment, etc. required to complete the full scope of work. Traffic control required to complete this task will be compensated under Item 0(c) –

SUPPLEMENTARY GENERAL CONDITIONS

Accommodation of Traffic of the unit price table. Any traffic control used to rectify any errors in the contractors work will be considered incidental and no compensation will be made by Department.

Attachment # 1

Specification for Wet Reflective, Self Adhesive, Pavement Tape

1.0 DESCRIPTION

The following specifications cover wet reflective, self adhesive, pavement tape used by the Department of Transportation and Infrastructure

2.0 MATERIALS

2.1 General – the pavement tape shall be made from material that is durable, flexible and easily cut into strips of any length. It shall be self adhesive and conform/mold to even or un-even asphalt, concrete or chip seal surfaces. It shall be lead free and wet reflective, providing high reflectivity in wet or dry conditions.

2.2 Colors - yellow and white,

2.3 Dimensions – the pavement tape shall be supplied in the following sizes:

2.3.1 Length – various roll lengths available

2.3.2 Width – the pavement tape shall be supplied in rolls 152mm (6") wide.

2.3.3 Thickness – the pavement tape shall be nominal thickness of 0.080in. (2 mm) at pattern heights.

2.4 Retro-reflectivity – the pavement tape shall be reflectorized with high quality glass beads or other specially designed optics which provide superior reflectivity in wet or dry conditions.

Retro reflectance values shall be measured under dry conditions in accordance with ASTM D4061. The values measured under wet or rainy conditions with accordance of ASTM E2176 or ASTM E2177.

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2.5 Application – the pavement tape shall be self-adhesive and be capable of being applied to surfaces that are clean and dry, at temperatures of 4⁰ C (40⁰ F) and above. Application shall be performed manually by unwinding the roll, and pressure applying the tape onto the desired surface.

SGC 14. DEFICIENCIES AND WARRANTY ON WORK ALREADY COMPLETE UNDER 45-20PHP

Contractor to include cost to assume liabilities for any deficiencies and warranty obligations of previously completed work under project 45-20PHP:

The following scope of work has been completed. No further base scope is required at this time. However, as required by the conditions of the Surety, contractor shall include a cost under line item # 104 "Deficiencies and Warranty on Completed work" to assume all liabilities for deficiencies and warranty obligations for work completed under 45-20PHP. Warranty coverage will as per the contract conditions and for 2 years from substantial completion of this contract 66-22PHP.

Note: Warranty for all work to be completed and paid under this Contract 66-22PHP shall be deemed included in the base pricing for the work being performed.

Previously completed work:

Part "A" (45-20PHP): Cold plane and repave one section on Route 460 between Gull Pond and Route 460/461 intersection for approximately 1.5 kms.

Work will consist of, but is not limited to, ditching, cold planning existing asphalt, grading shoulders to be level with cold planed surface, applying tack coat to cold planed areas, and repaving with a 50mm lift of surface coarse asphalt

Part "B" (45-20PHP): Pave sections on Route 460 between Stephenville and Cape St. George for approximately 2.7 kms.

Work will consist of, but is not limited to, ditching, applying tack coat, placing leveling course asphalt at areas identified by the resident engineer, applying tack coat to leveling areas, and repaving with a 50mm lift of surface coarse asphalt.

Part "C" (45-20PHP): Replace Culverts on Route 460, between Intersection of Route 461 and Cape St. George.

Work includes excavation for foundation, supply and installation new pipe culverts for the complete replacement of the existing culvert crossing, placement of granular "A" and granular "B", cutting and

SUPPLEMENTARY GENERAL CONDITIONS

disposal of asphaltic pavement, asphaltic patching, disposal of the existing pipes and culverts. Traffic must be maintained at the project site while the culverts are being replaced.

Part "D" (45-20PHP): Pave sections on Route 404, 405, and 407 for approximately 4.0 kms.

Work will consist of, but is not limited to, ditching, applying tack coat, placing leveling course asphalt at areas identified by the engineer, applying tack coat to leveling areas, and repaving with a 50mm lift of surface coarse asphalt.

Part "E" (45-20PHP): Pave one section on Route 480 between km 27.1 to km 30.4 from the TCH for approximately 3.3 kms.

Work will consist of, but is not limited to, ditching, replacing culverts including excavation for foundation, supply and installation new pipe culverts for the complete replacement of the existing culvert crossing, placement of granular "A" and granular "B", cutting and disposal of asphaltic pavement, asphaltic patching, disposal of the existing pipes and culverts, applying tack coat, placing leveling course asphalt at areas identified by the engineer, applying tack coat to leveling areas, and repaving with a 50mm lift of surface coarse asphalt.

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Section Thirteen

General Conditions

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GC 1 DEFINITIONS

1.1 Amendment

Modifications to the Invitation to Bid Documents identifying any required additions, deletions, clarifications or corrections.

1.2 Contract Documents

The Contract Documents consist of the Instruction to Bidder, Electronic Bid Form, executed Agreement, General Conditions of Contract, Supplementary General Conditions of Contract, Specifications, Drawings and such other documents as are listed in Article A-2 of the Agreement, including all amendments thereto incorporated before their execution and subsequent amendments thereto made pursuant to the provisions of the contract or agreed upon between the parties. The Successful Bidder's Bid, and any amendments to the Specification issued during the bidding period shall also form part of the Contract Documents.

1.3 Contractor

The Contractor means the person, firm or corporation identified as such in the Agreement. The term Contractor means the Contractor or the Contractor's authorized representative as designated by the Contractor to the Owner in writing.

1.4 Materials and Equipment

The term Materials and Equipment means all materials, machinery, equipment and fixtures forming the completed Work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

1.5 Other Contractor

The term Other Contractor means any person, firm or corporation employed by or having a separate contract directly or indirectly with the Owner for work other than that required by the Contract Documents.

1.6 Owner

The Owner is the person or entity identified as such in the Agreement. The term Owner means the Owner or the Owner's authorized representatives as designated by the Owner to the Contractor in writing.

The Owner's Representative for the purposes of administering this construction Contract shall be the designated representative of the Government of Newfoundland and Labrador.

1.7 Products

The term Products means all material, machinery, equipment and fixtures forming the completed Work as required by the Contract Documents but does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

1.8 Project

The Project is the total construction of which the work performed under the Contract Documents may be the whole or a part.

1.9 Subcontractor

A Subcontractor is a person, firm or corporation having a direct contract with the Contractor to perform a part or parts of the Work included in the Contract, or to supply products worked to a special design according to the Contract Documents, but does not include one who merely supplies products not so worked.

1.10 Substantial Performance

A Contract shall be deemed to be substantially performed

- a) when the Work or a substantial part thereof is ready for use or is being used for the purpose intended; and
- b) when the Work to be done under the contract is capable of completion at a cost of not more than:
 - (i) three per centum of the first two hundred and fifty thousand dollars (\$250,000) of the contract price,
 - (ii) two per centum of the next two hundred and fifty thousand dollars (\$250,000) of the contract price, and
 - (iii) one per centum of the balance of the contract price.

1.11 Time

- a) The Contract Time is the time stated in Article A-1(c) of the Agreement for Substantial Performance of the Work.
- b) The date of Substantial Performance of the Work is the date certified by the Owner.
- c) The term day, as used in the Contract Documents, shall mean the calendar day.
- d) The term working day means any day observed by the construction industry in the area of the place of building.

1.12 Total Performance

Total Performance shall mean when the Work has been performed to the requirements of the Contract Documents and is so certified by the Owner.

1.13 Work

Work includes the whole of the works, materials, matters and things required to be done, furnished and performed by the Contractor under the Contract.

GC 2 DOCUMENTS

- 2.1 The Contract Documents shall be signed by the Owner and the Contractor.
- 2.2 Words which have well known technical or trade meanings are used in the Contract Documents in accordance with such recognized meanings.
- 2.3 In the event of conflicts between Contract Documents the following shall apply:
 - a) Drawings of a later date shall govern.
 - b) Figured dimensions shown on the Drawings shall govern even though they may differ from scaled dimensions.
 - c) Drawings of larger scale shall govern over those of smaller scale of the same date.
 - d) Specifications shall govern over Drawings.

- e) The General Conditions of Contract shall govern over Specifications.
- f) Supplementary General Conditions shall govern over the General Conditions of the Contract.

GC 3 ADDITIONAL INSTRUCTIONS AND SCHEDULE OF WORK

- 3.1 During the progress of the Work the Owner may furnish to the Contractor such additional instructions as may be necessary to supplement the Contract Documents. All such instructions shall be consistent with the intent of the Contract Documents.
- 3.2 Additional instructions may include minor changes to the Work which affect neither Contract Price nor the Contract Time.
- 3.3 Additional instructions may be in the form of drawings, samples, models or written instructions.
- 3.4 Additional instructions will be issued by the Owner with reasonable promptness and in accordance with any schedule agreed upon.
- 3.5 The Contractor shall, within thirty (30) days of the signing of this contract provide the Owner with a schedule of work.

GC 4 DOCUMENTS PROVIDED

- 4.1 The Contractor will be provided, without charge, the Contract Documents or parts thereof in an electronic PDF version for the performance of the Work.

GC 5 DOCUMENTS ON THE SITE

- 5.1 The Contractor shall keep one copy of all current Contract Documents and shop drawings on the site, in good order and available to the Owner and/or their representatives. This requirement shall not be deemed to include the executed Contract Documents.

GC 6 OWNERSHIP OF DOCUMENTS AND MODELS

- 6.1 All Contract documents and copies thereof, and all models are and shall remain the property of the Owner and are not to be used on other work.
- 6.2 Such documents are not to be revised in any manner without the written authorization of the Owner.

- 6.3 Models furnished by the Contractor or the Owner are the property of the Owner.

GC 7 OWNER DECISIONS

- 7.1 The Owner, in the first instance, shall decide on questions arising under Contract Documents and interpret the requirements therein. Such decisions shall be given in writing.
- 7.2 The Contractor shall notify the Owner in writing within five (5) days of receipt of a decision of the Owner referred to in GC 7.1 should the Contractor hold that a decision by the Owner is in error and/or at variance with the Contract Documents. Unless the Contractor fulfills this requirement subsequent claims by the Contractor for extra compensation, arising out of the decision, will not be accepted.
- 7.3 If the question of error and/or variance is not resolved immediately, and the Owner decides that the disputed work shall be carried out, the Contractor shall act according to the Owner's written decision.
- 7.4 Any question of change in Contract Price and/or extension of Contract Time due to such error and/or variance shall be decided as provided in GC 16 - Settlement of Disputes and Claims.

GC 8 DELAY

- 8.1 If it can be clearly shown that the Contractor is delayed in the performance of the Work by any act or fault of the Owner or other Contractor, then the Contract Time shall be extended for such reasonable time as the Owner may decide in consultation with the Contractor. The Contractor shall be reimbursed for any costs incurred by the Contractor as a result of such a delay occasioned by the act or fault, provided that it can be clearly shown that the Contractor's forces cannot work efficiently elsewhere on the project and that the incurred cost is limited to that which could not reasonably have been avoided.
- 8.2 If the Contractor is delayed in the performance of the Work by a Stop Work Order issued by any court or other public authority, and providing that such order was not issued as the result of any act or fault of the Contractor or of any one employed by the Contractor directly or indirectly, then the Contract Time shall be extended for such reasonable time as the Owner may decide,

in consultation with the Contractor, and the Contractor shall be reimbursed for any on site costs incurred by the Contractor as the result of such delay.

- 83 If the Contractor is delayed in the performance of the Work by civil disorders, labour disputes, strikes, lock outs (including lock-outs decreed or recommended for its members by a recognized Contractor's Association, of which the Contractor is a member) fire, unusual delay by common carriers or unavoidable casualties or, without limit to any of the foregoing, by any cause of any kind whatsoever beyond the Contractor's control, then the Contract Time shall be extended for such reasonable time as may be decided by the Owner, in consultation with the Contractor, but in no case shall the extension of time be less than the time lost as the result of the event causing the delay, unless such shorter extension of time be agreed to by the Contractor.
- 84 No extension shall be made for delay unless written notice of claim is given to the Owner within fourteen (14) days of its commencement, providing that in the case of a continuing cause of delay only one notice shall be necessary.

GC 9 OWNER'S RIGHT TO DO WORK

- 91 If the Contractor should neglect to prosecute the Work properly or fail to perform any provisions of the Contract, the Owner may notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations and instruct the Contractor to correct the default within five (5) working days of receiving the notice.
- 92 If the correction of the default cannot be completed within the five (5) working days specified, the Contractor shall be considered to be in compliance with the Owner's instructions if the Contractor:
- a) commences the correction of the default within the specified time, and
 - b) provides the Owner with an acceptable schedule for such correction, and
 - c) completes the correction in accordance with such schedule.
- 93 If the Contractor fails to comply with the provisions GC 9.1 and GC 9.2 the Owner may, without prejudice to any other right or remedy the Owner may have, correct such default and may deduct the cost thereof from the payment then or thereafter due the Contractor.

- 104 If the Contractor fails to correct the default within the time specified or subsequently agreed upon, the Owner may, without prejudice to any other right or remedy the Owner may have, stop the Work or terminate the Contract.
- 105 If the Owner terminates the Contract under the conditions set out above, the Owner is entitled to:
- a) take possession of the premises and products and utilize the temporary buildings, plants, tools, construction machinery and equipment, goods, materials, intended for, delivered to and placed on or adjacent to the Work and may complete the Work by whatever method the Owner may deem expedient but without undue delay or expense;
 - b) withhold any further payments to the Contractor until the Work is finished.
 - c) upon Total Performance of the Work, charge the Contractor the amount by which the full cost of finishing the Work including compensation to the Owner for the Owner's additional services and a reasonable allowance to cover the cost of any corrections required by GC 31 - Warranty, exceeds the unpaid balance of the Contract Price; or if such cost of finishing the Work is less than the unpaid balance of the Contract Price, pay the Contractor the difference.
 - d) on expiry of the warranty period, charge the Contractor the amount by which the cost of corrections under GC 31 - Warranty exceeds the allowance provided for such corrections, or if the cost of such corrections is less than the allowance, pay the Contractor the difference.
- 106 The Owner maintains the right to terminate the agreement for convenience at any time. Upon termination, the Owner will compensate the Contractor for all costs incurred to the date of termination and associated costs to shut down the Work in a manner as specified by the Owner. There will be no compensation for any further incidental costs including but not limited to loss of profit.

GC 11 CONTRACTOR'S RIGHT TO STOP WORK OR TERMINATE CONTRACT

- 11.1 If the Owner should be adjudged bankrupt, or makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of the Owner's insolvency, the Contractor may, without prejudices to any other right or remedy the Contractor may have, by giving the Owner written notice, terminate the Contract.

11.2 If the Work should be stopped or otherwise delayed for a period of thirty days or more under an order of any court, or other public authority, and providing that such order was not issued as the result of any act or fault of the Contractor or of any one directly or indirectly employed by the Contractor, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the Owner fifteen (15) days written notice, terminate the Contract.

11.3 The Contractor may notify the Owner in writing that the Owner is in default of the Owner's contractual obligations if:

- a) The Owner fails to issue a certificate in accordance with GC 21 - Certificates and Payments;
- b) The Owner fails to pay to the Contractor when due any amount certified by the Owner and verified by the audit of the Owner.

Such written notice shall advise the Owner that if such default is not corrected within fifteen (15) days from the receipt of the written notice the Contractor may, without prejudice to any other right or remedy the Contractor may have, stop the Work and/ or terminate the contract.

11.4 If the Contractor terminates the Contract under the conditions set out above, the Contractor shall be entitled to be paid for all Work performed and for any loss sustained upon products and plant supplied with reasonable overhead, profit and damages.

GC 12 OTHER CONTRACTORS

12.1 The Owner reserves the right to let separate contracts in connection with the project of which the Work is part.

12.2 The Owner shall co-ordinate the Work and insurance coverages of Other Contractors as it affects the Work of this Contract.

12.3 The Contractor shall coordinate the Contractor's work with that of Other Contractors and connect as specified or shown in the Contract Documents. Any change in the costs incurred by the Contractor in the planning and performance of such work which was not shown or included in the Contract documents as of the date of signing the Contract, shall be evaluated as provided under GC 19 - Valuation and Certification of Changes in the Work.

- 124 The Contractor shall report to the Owner any apparent deficiencies in other Contractor's work which would affect the Work of this Contract immediately when they come to the Contractor's attention and shall confirm such report in writing. Failure by the Contractor to so report shall invalidate any claims against the Owner by reason of the deficiencies of Other Contractor's work except as to those of which the Contractor was not reasonably aware.

GC 13 ASSIGNMENT

- 13.1 The Contractor shall not assign the Contract or any part thereof or any benefit or interest therein or thereunder with/out the written consent of the Owner.

GC 14 SUBCONTRACTORS

- 14.1 The Contractor agrees to preserve and protect the rights of the Owner under the Contract with respect to any work to be performed under subcontract. The Contractor shall:
- a) require the Contractor's Subcontractors to perform their work in accordance with and subject to the terms and conditions of the Contract Documents, and
 - b) be fully responsible to the Owner for acts and omissions of the Contractor's Subcontractors and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the Contractor.

The Contractor therefore agrees that the Contractor will incorporate all the terms and conditions of the Contract Documents into all Subcontract Agreements the Contractor enters into with the Contractor's Subcontractors.

- 14.2 The Contractor shall employ those Subcontractors proposed by the Contractor in writing and accepted by the Owner prior to the signing of the Contract for such portions of the Work as may be designated in the bidding requirements.
- 14.3 The Owner may, for reasonable cause, object to the use of a proposed Subcontractor and require the Contractor to employ one of the other Subcontractor Bidders.
- 14.4 In the event that the Owner requires a change from any proposed Subcontractor the Contract Price shall be adjusted by the difference in cost occasioned by such required change.

- 14.5 The Contractor shall not be required to employ as a Subcontractor any person or firm to whom the Contractor may reasonably object.
- 14.6 The Owner may, upon reasonable request and at the Owner's discretion, provide to a Subcontractor information as to the percentage of the Subcontractor's work which has been certified for payment.
- 14.7 Nothing contained in the Contract Documents shall create any contractual relationship between any Subcontractor and the Owner.

GC 15 EMERGENCIES

- 15.1 The Owner has authority in an emergency to stop the progress of the Work whenever in the Owner's opinion such stoppage maybe necessary to ensure the safety of life, or the Work, or neighbouring property. This includes authority to make changes in the Work, and to order, assess and award the cost of such work, extra to the Contract or otherwise, as may in the Owner's opinion be necessary. The Owner shall, within two (2) working days, confirm in writing any such instructions. In such a case if work has been performed under direct order of the Owner, the Contractor shall keep the Contractor's right to claim the value of such work.
- 15.2 Should the Work be stopped by civil pickets, or other disorder, neither the Owner nor the Contractor shall have claim for change in the price of the Contract.

GC 16 SETTLEMENT OF DISPUTES AND CLAIMS

- 16.1 In the case of any dispute or claim arising between the Owner and the Contractor as to their respective rights and obligations under the Contract, either party hereto may give the other written notification of such dispute or claim. The notification of dispute or claim shall be made within fourteen (14) days of the dispute or cause of action arising. If the dispute or claim cannot be resolved to the satisfaction of both parties, either party may refer the matter to such judicial tribunal as the circumstances require.
- 16.2 Legal proceedings shall not take place until after the performance or the Substantial Performance of the disputed Work except:
 - a) when the dispute concerns a certificate for payment.

- b) where either party can show that the matter in dispute requires immediate consideration while evidence is available.
- c) in the case of legal proceedings, where the action may become prescribed by reason of delay.

GC 17 INDEMNIFICATION

- 17.1 Except as provided in GC 17.2, the Contractor shall be liable for, and shall indemnify and hold harmless the Owner against all claims, demands, losses, costs, damages, actions, suits or proceedings, whatsoever arising under any statute or Common Law:
 - a) in respect of personal injury to or the death of any person whomsoever arising out of or in the course of or caused by the carrying out of the Work; and
 - b) in respect of any injury or damage whatsoever to any property, real or personal or any chattel real, insofar as such injury or damage arises out of or in the course of or by reason of the carrying out of the Work.
- 17.2 The Contractor shall not be liable under GC 17.1 if the injury, death, loss or damage is due to any act or neglect of the Owner.

GC 18 CHANGES IN THE WORK

- 18.1 The Owner may make changes by altering, adding to, or deducting from the Work, with the Contract Price and the Contract Time being adjusted accordingly.
- 18.2 Except as provided in GC 15 - Emergencies, no change shall be made without a written order from the Owner and no claim for an addition or deduction to the Contract Price or change in the Contract Time shall be valid unless so ordered and at the same time valued or agreed to be valued as provided in GC 19 - Valuation and Certification of Changes in the Work.

GC 19 VALUATION AND CERTIFICATION OF CHANGES IN THE WORK

- 19.1 The value of any change shall be determined in one or more of the following methods:
 - a) by unit prices as agreed upon
 - b) by estimate and acceptance in a lump sum

- c) by cost and a fixed or percentage fee.

In the case of changes in the Work valued as outlined in GC 19.1 (a), where unit prices are provided in the Contract for the work to be done, those unit prices shall be used in determining the value of the change. If any unit price is not provided in the Contract for the work, a unit price shall be subsequently agreed upon or an alternate method of determining the value of the work shall be used.

In case of changes in the Work valued as outlined in GC 19.1 (b), the Contractor shall submit an itemized estimate for all materials and labour to complete the extra work.

In the case of changes in the Work valued as outlined in GC 19.1 (c), the Contractor shall submit detailed invoices, vouchers and time sheets for all materials and labour to complete the extra work.

Subject to the provisions of GC 19.2, when work is performed by the Contractor's own forces the Contractor's markup for overhead shall be ten (10) percent and the Contractor's profit ten (10) percent of the agreed or actual cost of the change. When work is performed by one of the Contractor's Subcontractors, the Subcontractor's markup for overhead shall be ten (10) percent of the agreed or actual cost of the change plus five (5) percent for profit. The Contractor's markup for overhead and profit shall be ten (10) percent of the Subcontractor's total price.

- 19.2 Notwithstanding the provisions of GC 19.1, in case of changes in the Work, the amount charged for equipment rentals shall be that provided in the Contract and no additional amount shall be paid as markup for overhead or profit for the Contractor or Subcontractor.
- 19.3 Notwithstanding the provisions of GC 19.1, in case of purchase of left over product or materials the Contractor's profit shall be ten (10) percent of the cost as supported by invoices or vouchers, or agreed upon price. No markup for overhead shall be added. This applied to material or product that are supplied only and not installed on site.
- 19.4 When a change in the Work is proposed or required the Contractor shall present to the Owner for approval the Contractor's claim for any change in the Contract Price and/or change in the Contract Time. The Owner shall be satisfied as to the correctness of such claim and, when approved shall issue a written order to the Contractor to proceed with the change. The value of

work performed in the change shall be included for payment with the regular certificate for payment.

- 19.5 In the case of changes in the Work to be paid for under GC 19.1, the form of presentation of costs and methods of measurement shall be agreed to by the Owner and Contractor before proceeding with the change. The Contractor shall keep accurate records, as agreed upon, of quantities or costs and present an account of the cost of the change in the Work, together with vouchers where applicable.
- 19.6 If the method of valuation, measurement and the change in Contract Price and/or change in Contract Time cannot be promptly agreed upon, and the change is required to be proceeded with then the Owner shall determine the method of valuation, measurement and the change in Contract Price and/or Contract Time subject to final determination in the manner set out in GC 16 - Settlement of Disputes and Claims. In this case the Owner shall issue a written authorization for the change setting out the method of valuation and if by lump sum the Owner's valuation of the change in Contract Price and/or Contract Time.
- 19.7 In the case of a dispute in the valuation of a change authorized in the Work pending final determination of such value, the Owner shall certify the value of work performed and include the amount with the regular certificates for payment.
- 19.8 It is intended in all matters referred to above that both the Owner and Contractor shall act promptly.
- 19.9 Credits will be based on the net cost of material and labour or the net difference in unit price quantities.

GC 20 APPLICATION FOR PAYMENT

- 20.1 Applications for payment on account as provided for in Article A-4 of the Agreement may be made monthly as the Work progresses.
- 20.2 Application for payment shall be made monthly on a date to be agreed between the Owner and the Contractor and the amount claimed shall be for the value, proportionate to the amount of the Contract, of work performed and products delivered to the site at that date.

- 20.3 If requested by the Owner, due to the use of Fixed Price items, the Contractor shall submit to the Owner, before the first application for payment, a schedule of values of the various parts of the Work, aggregating the total amount of the Contract Price and divided so as to facilitate evaluation of applications for payment.
- 20.4 The revised schedule, if required, shall be made out in such form, and supported by such evidence as to its correctness, as the Owner may reasonably direct, and when approved by the Owner shall be used as the basis for application for payment.
- 20.5 When making application for payment, the Contractor shall submit a statement based upon this schedule. Claims for products delivered to the site but not yet incorporated into the Work shall be supported by such evidence as the Owner may reasonably require to establish the value and delivery of the products.
- 20.6 Applications for release of holdback monies following the Substantial Performance of the Work and the application for final payment shall be made at the time and in the manner set forth in GC 21 - Certificates and Payments.

GC 21 CERTIFICATES AND PAYMENTS

- 21.1 The Owner shall, within ten (10) days of receipt of an application for payment from the Contractor submitted in accordance with GC 20 - Application for Payment, issue a certificate for payment in the amount applied for or such other amount as the Owner shall determine to be properly due. If the Owner amends the application the Owner shall promptly notify the Contractor in writing, giving the Owner's reasons for the amendment.
- 21.2 The Owner shall within twenty-one (21) days of the issuance of a certificate for payment by the Owner, make payment to the Contractor on account, in accordance with the provisions of the Agreement.
- 21.3 If payment is not made by the Owner within sixty (60) days of issuance of a certificate for payment, the Owner will be liable for interest on the amount owing at the rate of 2% per annum from the sixty-first (61st) day to the date of payment.
- 21.4 Notwithstanding any other provisions of this Contract:

- a) If on account of climatic or other conditions reasonably beyond the control of the Contractor there are items of work that cannot be performed, the payment in full for that which has been performed as certified by the Owner shall not be withheld or delayed by the Owner on account thereof, but the Owner may withhold from the Contract Price until the remaining work is finished an amount sufficient to cover the cost to the Owner of performing such remaining work and to adequately protect the Owner from claims.
 - b) Where legislation permits and where, upon application by the Contractor, the Owner has certified that a Subcontract has been totally performed to Owner's satisfaction prior to the Substantial Performance of this Contract, the Owner shall pay the Contractor the holdback retained for such Subcontractor on the day following the expiration of the Statutory Limitations Period stipulated in the Mechanics' Lien Act applicable to the place of building.
 - c) Holdbacks will be released on the following conditions:
 - (i) a copy of the contract between the Subcontractor and the Contractor, or some other suitable document satisfactory to the Owner, must be presented to the Owner,
 - (ii) the Subcontract is completed without deficiencies,
 - (iii) the warranty for the Subcontract will not start until Substantial Performance of the General Contract,
 - (iv) the Contractor provides an approved statutory declaration that all monies have been paid to the Subcontractors,
 - (v) the Owner will, at that time, release the total amount specified on the Subcontractor's Contract.
- 21.5 Notwithstanding the wording of such certificate the Contractor shall ensure that such work is protected pending the Total Performance of the Contract and be responsible for the correction of any defects in it regardless of whether or not they were apparent when such certificates were issued.
- 21.6 The Owner shall, within ten (10) days of receipt of an application from the Contractor for a Certificate of Substantial Performance, make an inspection and assessment of the work to verify the validity of the application. The Owner shall within seven (7) days of Owner's inspection notify the Contractor of the Owner's approval or disapproval of the application. When the Owner finds

the Work to be Substantially Performed the Owner shall issue such a certificate. The date of this certificate shall be the date of Substantial Performance of the Contract. Immediately following the issuance of the Certificate of Substantial Performance, the Owner, in consultation with the Contractor shall establish a reasonable date for the Total Performance of the Contract.

- 21.7 Following the issuance of the Certificate of Substantial Performance and upon receipt from the Contractor of all documentation called for in the Contract Documents the Owner shall issue a certificate for payment of holdback monies. The release of holdback monies authorized by this certificate shall become due and payable on the day following the expiration of the Statutory Limitation Period stipulated in the Mechanics' Lien Act applicable to the place of building, providing that no lien or privilege claims against the Work exist and the Contractor has submitted to the Owner a sworn statement that all accounts for labour, Subcontracts, products, construction machinery and equipment and any other indebtedness which may have been incurred by the Contractor in the Substantial Performance of the Work and for which the Owner might in any way be held responsible have been paid in full except holdback monies properly retained.
- 21.8 The Owner shall, within ten (10) days of receipt of an application from the Contractor for payment upon Total Performance of the Contract, make an inspection and assessment of the Work to verify the validity of the application. The Owner shall within seven (7) days of the Owner's inspection notify the Contractor of the Owner's approval or disapproval of the application. When the Owner finds the Work to be totally performed to the Owner's satisfaction the Owner shall issue a Certificate of Total Performance and certify for payment the remaining monies due to the Contractor under the Contract less any holdback monies which are required to be retained. The date of this certificate shall be the date of Total Performance of the Contract. The Owner shall, within thirty (30) days of issuance of such certificate, make payment to the Contractor in accordance with the provisions of Article A-4 of the Agreement.
- 21.9 The release of any remaining holdback monies shall become due and payable on the day following the expiration of the Statutory Limitation Period stipulated in the Mechanics' Lien Act applicable to the place of building or where such legislation does not exist or apply in accordance with such other legislation, regulations governing privileges, industry practice or such other

provisions which may be agreed to between the parties, provided that no claims against the Work exist and the Contractor has submitted to the Owner a sworn statement that all accounts for labour, Subcontracts, products, construction machinery and equipment and any other indebtedness which may have been incurred by the Contractor in the Total Performance of the Work and for which the Owner might in any way be held responsible, have been paid in full except holdback monies properly retained.

- 21.10 No certificate for payment, or any payment made thereunder, nor any partial or entire use of occupancy of the Work by the Owner shall constitute an acceptance of any work or products not in accordance with the Contract Documents.
- 21.11 The issuance of the Certificate of Total Performance shall constitute a waiver of all claims by the Owner against the Contractor except those previously made in writing and still unsettled, if any, and those arising from the provisions of GC 31 - Warranty, or those arising from negligence on the part of the Contractor.

The acceptance of the Certificate of Total Performance or of the payment due thereunder shall constitute a waiver of all claims by the Contractor against the Owner except those made in writing prior to the Contractor's application for payment upon Total Performance of the Contract and still unsettled, if any.

- 21.12 The holdback to be used by the Owner when issuing certificate of payment will be ten (10) percent of the value of the Work completed at the date of the Contractor's claim.
- 21.13 Notwithstanding the provisions of GC 21.3 or any other provision of this Contract, the Owner may:
- a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non-performance of the Contract, withhold payment of any amount equal to the alleged damages until the liability for damages is established and no amount of interest will be paid on amounts held under this clause;
 - b) set off amounts owing by the Contractor to the Owner,
 - c) following the issuance of the Certificate of Substantial Performance, withhold payment of an amount equal to twice the cost, as estimated by the Owner, of

remedying deficiencies until the issuance of a Certificate of Total Performance and no amount of interest will be paid on amounts held under this clause.

GC 22 TAXES AND DUTIES

- 221 The Contractor shall pay all government sales taxes, customs duties and excise taxes with respect to the Contract.

Contractors are advised that Government is not exempt from the Harmonized Sale Tax (HST). The Owner will pay the HST to the Contractor with each regular progress billing.

- 222 Any increase or decrease in costs to the Contractor due to changes in such taxes and duties after the date of the Agreement and up to the agreed date of completion shall increase or decrease the Contract Price accordingly. The Contractor is to cooperate with the Owner and permit access to books and records in order to establish the amount of such taxes involved.
- 223 The Contractor shall maintain full records of the Contractor's estimates of and actual cost to the Contractor of the Work together with all proper Invitation to Bid, quotations, contracts, correspondence, invoices, receipts and vouchers relating thereto, shall make them available to audit and inspection by the Owner, the Auditor General for Newfoundland and Labrador or by persons acting on their behalf, shall allow them to make copies thereof and to take extracts therefrom, and shall furnish them with any information which they may require from time to time in connection with such records.

GC 23 LAWS, NOTICES, PERMITS AND FEES

- 23.1 The laws of the place of building shall govern the Work.
- 23.2 The Contractor shall obtain all permits, licenses and certificates and pay all fees required for the performance of the Work which are in force at the date of the Invitation to Bid submission (but this shall not include the obtaining of permanent easements or rights of servitude).
- 23.3 The Contractor shall give all required notices and comply with all laws, ordinances, rules, regulations, codes and order of all authorities having jurisdiction relating to the Work, to the preservation of the public health and construction safety which are or become in force during the performance of the Work.

- 23.4 The Contractor shall not be responsible for verifying that the Contract Documents are in compliance with the applicable laws, ordinances, rules, regulations and codes relating to the Work. If the Contract Documents are at variance therewith, or changes which require modification to the Contract Documents are made to any of the laws, ordinances, rules, regulations and codes by the authorities having jurisdiction subsequent to the date of the Invitation to Bid submission, any resulting change in the cost shall constitute a corresponding change in the Contract Price. The Contractor shall notify the Owner in writing requesting direction immediately any such variance or change is observed by the Contractor.
- 23.5 If the Contractor fails to notify the Owner in writing and obtain the Owner's direction as required in GC 23.4 and performs any work knowing it to be contrary to any laws, ordinances, rules, regulations, codes and orders of any authority having jurisdiction, the Contractor shall be responsible for and shall correct any violations thereof and shall bear all costs, expense and damages, attributable to the Contractor's failure to comply with the Provisions of such laws, ordinances, rules, regulations, codes and orders.
- 23.6 The Contractor is not required to carry the cost of a municipal permit related to performance of the Work. If a municipal permit is requested, the Contractor shall advise the Owner of the request and where directed by the Owner, shall pay for and obtain a permit related to the conduct of the Work and the Owner will issue a change order to allow for payment of the cost of obtaining the permit. Nothing in this clause relieves the Contractor of its obligation to make such filings and to submit such documents and notices with respect to the Work on behalf of the Owner as are otherwise required by the municipality. All other permits are to remain the responsibility of the Contractor.

GC 24 PATENT FEES

- 24.1 The Contractor shall pay all royalties and patent license fees required for the performance of the Contract and such royalties or fees shall be deemed to have been included in the contract price. The Contractor shall hold the Owner harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention by the Contractor or anyone for whose acts the Contractor may be liable.

- 242 The Owner shall hold the Contractor harmless against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the Contractor's performance of the Contract which are attributable to an infringement or an alleged infringement of any patent or invention in executing anything for the purpose of the Contract, the model, plan or design of which was supplied to the Contractor by the Owner.

GC 25 WORKPLACE NL

- 25.1 At the time of bid submission, and prior to receiving payment on Substantial and Total Performance of the Work, the Contractor shall provide evidence of compliance with all requirements of the Province in the place of building with respect to worker's compensation including payments due thereunder.
- 25.2 At any time during the term of Contract, when requested by the Owner, the Contractor shall provide such evidence of compliance by the Contractor and any or all of the Contractor's Subcontractors.
- 25.3 Non-incorporated companies i.e.: partnerships, sole proprietorships, and independent operators must provide coverage for any employees and personal coverage for the principal(s).

GC 26 LIABILITY INSURANCE

- 26.1 Comprehensive General Liability Insurance
- a) Without restricting the generality of GC 17 - Indemnification, the Contractor shall provide and maintain, either by way of a separate policy or by an endorsement to their existing policy, Commercial Liability Insurance acceptable to the Owner and subject to limits set out in detail in the Certificate of Insurance inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof.
 - b) This insurance shall include as an additional insured Her Majesty in Right of Newfoundland and Labrador and the Occupant/Operator of the property. Such insurance must have the approval of the Owner and be to the limits, form and amounts specified. The Contractor will not permit any Subcontractor to commence work on this Project until the same insurance requirements have been complied with by the Subcontractor.
 - c) The insurance shall also include as Unnamed Insureds the architectural and engineering consultants of the Owner with respect to work performed by the

Contractor, but excluding professional liabilities associated with such architectural and engineering consultants.

- d) The Comprehensive General Liability Insurance will not be limited to, but shall include coverage for:
- (i) premises and operations liability
 - (ii) products or completed operations liability
 - (iii) blanket contractual liability
 - (iv) broad form property damage
 - (v) cross liability
 - (vi) elevator and hoist liability
 - (vii) contingent employer's liability
 - (viii) personal injury liability.
 - (ix) liability with respect to non-owned licensed vehicles
 - (x) shoring, blasting, excavating, underpinning, demolition, pile driving and caisson work, work below ground surface, tunneling and grading as applicable.

26.2 Automobile Liability Insurance

The Contractor shall provide and maintain liability insurance in respect of (i) owned licensed vehicles and (ii) leased vehicles, subject to limits set out in this Contract.

26.3 Aircraft and/or Watercraft Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to owned and non-owned aircraft and watercraft, as may be applicable, subject to limits set out in this Contract. Such insurance shall be in the names of the Contractor, Her Majesty in Right of Newfoundland and Labrador and the Owner as defined in GC 26.1(b) and (c) where they have an insurable interest in the use and operation of such aircraft and watercraft.

26.4 Airport Contractor Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to work completed on the tarmac side of an airport and/or inside an airport and the area outside an airport if this is not provided within the Contractor's Commercial General Liability Insurance.

26.5 Environmental Impairment Liability Insurance

The Contractor shall provide and maintain liability insurance with respect to environmental contamination/remediation at a work site.

26.6 Completed operations shall be maintained continuously until twenty four (24) months after the date the Engineer/Architect issues a Certificate of Substantial Performance

26.7 All insurance policies shall contain an endorsement requiring notification of Her Majesty and the Named Insured, in writing, thirty (30) days prior to cancellation of any policy or material change, except in the event of non-payment where policy conditions dealing with termination will apply.

GC 27 PROPERTY INSURANCE

27.1 The Contractor shall provide and maintain property insurance, acceptable to Her Majesty in Right of Newfoundland and Labrador, insuring the full value of the Work in the amount of the contract price and the full value as stated of products for incorporation into the Work. The insurance shall include as additional insured Her Majesty in Right of Newfoundland and Labrador.

27.2 Such coverage shall be provided for by either Broad Form Builders' Risks Policy or an Installation Floater or Piers, Wharves, and Docks Rider.

27.3 The policies shall insure on a Broad Form basis direct loss or damage subject to any exclusions specified in the Supplementary General Condition. Such coverage shall apply to:

- a) all products, labour, and supplies of any nature whatsoever, the property of the Insureds or of others for which the Insureds may have assumed responsibility, to be used in or pertaining to the site preparations, demolitions of existing structures, erections and/or fabrication and/or reconstruction

and/or repair of the insured project, while on the site or in transit, subject to the exclusion of the property specified.

- b) the installation, testing and any subsequent use of machinery and equipment including boilers, pressure vessels or vessels under vacuum.
- c) damage to the Work caused by an accident to and/or the explosion of any boiler(s) or pressure vessel(s) forming part of the Work.
- d) damage to Work caused by earthquake or flooding.

Such coverage shall exclude construction machinery, equipment, temporary structural and other temporary facilities, tools and supplies used in the construction of the Work and which are not expendable under the Contract.

- 27.4 Policies provided shall contain an endorsement requiring notification of Her Majesty and the Named Insured in writing, thirty (30) days prior to cancellation of any policy or material change of coverage except in the event of non-payment where policy conditions dealing with termination will apply.
- 27.5 All such insurance shall be maintained continuously until the date the Owner issues a Certificate of Substantial Performance. All such insurance shall provide for the Owner to take occupancy of the Work or any part thereof during the term of the insurance. Any increase in the cost of this insurance arising out of such occupancy shall be at the Owner's expense.
- 27.6 The policies shall provide that in the event of a loss, payment for damage to the Work shall be made to the Owner and the Contractor as their respective interests may appear. The Contractor shall act on behalf of the Owner and the Contractor for the purpose of adjusting the amount of such loss with the Insurers. On the determination of the extent of the loss, the Contractor shall immediately proceed to restore the Work and shall be entitled to receive from the Owner (in addition to any sum due under the Contract) the amount at which the Owner's interest in the restoration work has been appraised, such amount to be paid as the work of restoration proceeds and in accordance with the Owner's certificates for payment. Damage shall not affect the rights and obligations of either party under the Contract except that the Contractor shall be entitled to such reasonable extension of time for Substantial and Total Performance of the Work as the Owner may decide.

- 27.7 The Contractor shall be responsible for any deductible amounts under the policies and for providing such additional insurance as may be required to protect the Insureds against loss on items excluded from the policies. Contractors are also advised that the Bid Documents contain a Certificate of Insurance indicating type and limit of liability insurance required for this project. The successful bidder will be required prior to commencement of work, to have the Certificate of Insurance completed by the Contractor's insurance company and delivered to the Government of Newfoundland and Labrador not later than thirty (30) days after the award of the contract.

GC 28 PROTECTION OF WORK AND PROPERTY

- 28.1 The Contractor shall protect the property adjacent to the Project site from damage as the result of the Contractor's operations under the Contract.
- 28.2 The Contractor shall protect the Work and the Owner's property from damage and shall be responsible for any damage which may arise as the result of the Contractor's operations under the Contract except damage which occurs as the result of:
- a) errors in the Contract Documents, and/or
 - b) acts or omissions by the Owner, the Owner's agents, employees or Other Contractors.
- 28.3 Should any damage occur to the Work and/or Owner's property for which the Contractor is responsible, the Contractor shall make good such damage at the Contractor's own expense or pay all costs incurred by others in making good such damage.
- 28.4 Should any damage occur to the Work and/or Owner's property for which the Contractor is not responsible as provided in GC 17 – Indemnification the Contractor shall make good such damage to the Work, and, if the Owner so directs to the Owner's property, and the Contract Price and Contract Time shall be adjusted in accordance with GC 18 - Changes in the Work.
- 28.5 The Contractor shall be completely responsible for the safety of the work as it applies to protection of the public and property and the construction of the work. All applicable Codes and Standards for the area and location of the Work shall apply to the project.
- 28.6 Any person not following the stipulated safety regulations shall be dismissed.

GC 29 DAMAGES AND MUTUAL RESPONSIBILITY

- 29.1 If either party to this Contract should suffer damage in any manner because of any wrongful act or neglect of the other party or anyone employed by that party then that party shall be reimbursed by the other party for such damages. The party reimbursing the other party shall be subrogated to the rights of the other party in respect of such wrongful act or neglect if it be that of a third party.
- 29.2 Claims under this GC shall be made in writing to the party liable within reasonable time after the first observance of such damage and not later than the time limits stipulated in GC 21 - Certificates and Payments, and may be adjusted by agreement or in the manner set out in GC 16 - Settlement of Disputes and Claims.
- 29.3 If the Contractor has caused damage to any Other Contractor on the work, the Contractor agrees upon due notice to settle with such Other Contractor by agreement or arbitration, if the Other Contractor will so settle. If such Other Contractor sues the Owner on account of any damage alleged to have been so sustained, the Owner shall notify the Contractor and may require the Contractor to defend the action at the Contractor's expense. If any final order or judgment against the Owner arises therefrom the Contractor shall pay or satisfy it and pay all costs incurred by the Owner.
- 29.4 If the Contractor becomes liable to pay or satisfy any final order, judgment or award against the Owner then the Contractor, upon undertaking to indemnify the Owner against any and all liability for costs, shall have the right to appeal in the name of the Owner such final order or judgment to any and all courts of competent jurisdiction.

GC 30 BONDS

- 30.1 The Owner shall have the right during the period stated in the Bid Documents for acceptance of the Bid to require the Contractor to provide and maintain in good standing until the fulfillment of the Contract, Bonds covering the faithful performance of the Contract including the requirements of the Warranty provided for in GC 31 - Warranty, and the payment of all obligations arising under the Contract.

- 302 All such Bonds shall be issued by a duly incorporated surety company approved by the Owner and authorized to transact a business or surety ship in the Province of Newfoundland and Labrador.
- 303 If Bonds are called for in the Bid Documents or Instructions to Bidder, the costs attributable to providing such Bonds shall be included in the Bid price.
- 304 Should the Owner require the provision of a Bond or Bonds by the Contractor other than those provided for under GC 30.3, the Contract Price shall be increased by all costs attributable to providing such Bonds.
- 305 The Contractor shall promptly provide the Owner with any Bonds that are required.

GC 31 WARRANTY

- 31.1 Without restricting any warranty or guarantee implied or stipulated by law, the Contractor shall, at the Contractor's own expense rectify and make good any defect or fault however caused appearing within a period of two (2) years from the date of Substantial Performance of the Work provided that the Contractor shall not be responsible for any defect or fault resulting from the design of the Work.
- 31.2 The Contractor shall correct and/or pay for any damage to other work resulting from any corrections required under the conditions of GC 31.1.
- 31.3 Neither the Owner's final certificate nor payment thereunder shall relieve the Contractor from the Contractor's responsibility hereunder.
- 31.4 The Owner shall give the Contractor written notice of observed defects promptly.
- 31.5 In any case where the Contractor claims that the Contractor is not responsible for a defect or fault because the Contractor claims such a defect or fault results from a design of the work by the Owner, the onus to establish that the same is so in the first instance shall be on the Contractor.
- 31.6 The Contractor shall, subject to the procedures for Settlement of Disputes contained in GC 16 – Settlement of Disputes and Claims, abide by the direction and decisions of the Owner made pursuant to the General Conditions and in particular GC 7 – Owner's Decision regarding the

correction by the Contractor of any defect or fault in the work discovered during the warranty period referenced in GC 31.1 hereof.

- 31.7 The Contractor shall submit a schedule for the completion of the warranty work in respect of the defect or fault referenced in GC 31.1 hereof, which schedule must be acceptable to the Owner within thirty (30) days of the Owner requesting in writing such a schedule from the Contractor.
- 31.8 Where the Contractor rectifies and makes good any defect or fault for which the Contractor is responsible under this Warranty, the Contractor shall warrant the portion of the work that is corrected for a further two (2) years from the date that the correction was done.

GC 32 CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK

- 32.1 The Contractor shall have complete control of the Work except as provided in GC 15 - Emergencies. The Contractor shall effectively direct and supervise the Work using the Contractor's best skill and attention. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all parts of the Work under the Contract.
- 32.2 The Contractor shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structural and other temporary facilities and the design and execution of construction methods required in their use. The Contractor shall engage and pay for registered professional engineering personnel skilled in the appropriate discipline to perform these functions where required by law or by the Contract Documents and in all cases where such temporary facilities and their method of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 32.3 Notwithstanding the provisions of GC 32.1 and GC 32.2 above, or any provisions to the contrary elsewhere in the Contract Documents where such Contract Documents include designs for temporary structural and other temporary facilities and methods shall be deemed to comprise part of the overall design of the Work and the Contractor shall not be held responsible for that part of the design or the specified method of construction. The Contractor shall, however, be responsible for the execution of such design or specified method of construction in the same manner that the Contractor is responsible for the execution of the Work.

- 324 The Contractor shall carefully examine the Contract Documents and shall promptly report to the Owner any error, inconsistency or omission the Contractor may discover. The Contractor shall not be held liable for any damage resulting from any such errors, inconsistencies or omissions in the Contract Documents.

GC 33 SUPERINTENDENCE

- 33.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Work site at all times while work is being performed.
- 33.2 The superintendent shall be satisfactory to the Owner and shall not be changed except for good reason and only then after consultation with and agreement by the Owner.
- 33.3 The superintendent shall represent the Contractor at the Work site. Directions given to the superintendent by the Owner shall be held to have been given to the Contractor. Important directions shall be confirmed to the Contractor in writing, other directions will be so confirmed if requested.

GC 34 LABOUR AND PRODUCTS

- 34.1 Unless otherwise stipulated elsewhere in the Contract Documents, the Contractor shall provide and pay for all labour products, tools, construction equipment and machinery, water, heat, light, power, transportation and other facilities and services necessary for the proper performance of the Work.
- 34.2 All products provided shall be new unless otherwise specified in the Contract Documents. Any products which are not specified shall be of a quality best suited to the purpose required and their use subject to the approval of the Owner.
- 34.3 The Contractor shall at all times maintain good order and discipline among the Contractor's employees engaged on the Work and shall not employ on the Work any unfit person nor anyone not skilled in the task assigned to that person.
- 34.4 The Contractor shall ensure that all employees (including owners, management, and subcontracted employees) are aware that workplace violence and harassment will not be tolerated. Allegations of workplace violence and harassment perpetrated against employees of the Department

of Transportation and Infrastructure will be investigated and addressed as per the Department's Workplace Violence and Harassment Prevention Program, and may result in correction actions aimed at individuals or the Contractor. The Contractor hereby agrees to be bound by the Department's Workplace Violence and Harassment Prevention Program and shall cooperate fully in any resulting investigations and shall ensure compliance with any subsequent corrective actions.

GC 35 SUBSURFACE CONDITIONS

- 35.1 The Contractor shall promptly notify the Owner in writing if, in the Contractor's opinion, the subsurface conditions at the Project site differ materially from those indicated in the Contract Documents or as may have been represented to the Contractor by the Owner before the time of the Invitation to Bid submission.
- 35.2 After prompt investigation, should the Owner determine that conditions do differ materially, the Owner shall issue appropriate instructions for changes in the Work as provided for in GC 18 - Changes in the Work.

GC 36 USE OF PREMISES

- 36.1 The Contractor shall confine the Contractor's apparatus, the storage of products and the operations of the Contractor's workers to limits indicated by laws, ordinances, permits or by directions of the Owner and shall not unreasonably encumber the premises with the Contractor's products.
- 36.2 The Contractor shall not load or permit to be loaded any part of the Work with a mass that will endanger its safety.
- 36.3 The Contractor shall enforce the Owner's instructions regarding signs, advertisements, fires and smoking.
- 36.4 Unless otherwise provided the Contractor shall, at the Contractor's own expense, and without extra cost to the Owner, make suitable provision to accommodate all traffic either pedestrian or vehicular, over or around, the project upon which work is being performed, in a manner satisfactory to the Owner.
- 36.5 The Contractor shall provide and maintain at the Contractor's own expense such fences, barriers, signs, lights and security as may be necessary to prevent avoidable accidents to residents or to the public generally.

GC 37 CLEANUP AND FINAL CLEANING OF WORK

- 37.1 The Contractor shall maintain the Work in a tidy condition and free from the accumulation of waste products and debris, other than that caused by the Owner, other Contractors or their employees.
- 37.2 When the Work is Substantially Performed the Contractor shall remove all of the Contractor's surplus products, tools, construction machinery and equipment not required for the performance of the remaining work. The Contractor shall also remove any waste products and debris and leave the Work clean and suitable for occupancy by the Owner unless otherwise specified.
- 37.3 When the Work is Totally Performed, the Contractor shall remove all of the Contractor's surplus Products, tools, construction machinery and equipment. The Contractor shall also remove any waste products and debris, other than that caused by the Owner, other Contractors or their employees.

GC 38 CUTTING AND REMEDIAL WORK

- 38.1 The Contractor shall do all cutting and remedial work that may be required to make the several parts of the Work come together properly.
- 38.2 The Contractor shall coordinate the schedule for the Work to ensure that this requirement is kept to a minimum.
- 38.3 Should the Owner or anyone employed by the Owner be responsible for ill-timed work necessitating cutting and/or remedial work shall be valued as provided in GC 19 - Valuation and Certification of Changes in the Work and added to the Contract Price.
- 38.4 Cutting and remedial work shall be performed by specialists familiar with the materials affected and shall be performed in a manner to neither damage nor endanger any Work.

GC 39 INSPECTION OF WORK

- 39.1 The Owner shall have access to the Work for inspection wherever it is in preparation or progress. The Contractor shall cooperate to provide reasonable facilities for such access.

- 392 If special tests, inspections or approvals are required by the Contract Documents, the Owner's instructions or the laws or ordinances of the place of building the Contractor shall give the Owner timely notice requesting inspection. Inspection by the Owner shall be made promptly. The Contractor shall arrange inspection by other authorities and shall notify the Owner of the date and time.
- 393 If the Contractor covers or permits to be covered any of the Work that is subject to inspection or before any special tests and approvals are completed without the approval of the Owner, the Contractor shall uncover the Work, have the inspection satisfactorily completed and make good the Work at the Contractor's own expense.
- 394 Examination of any questioned Work may be ordered by the Owner. If such Work be found in accordance with the Contract the Owner shall pay the cost of examination and replacement, together with the cost of subsequent verification testing. If such Work be found not in accordance with the Contract through the fault of the Contractor, the Contractor shall pay such cost.
- 395 The Contractor shall furnish promptly to the Owner all certificates and inspection reports relating to the Work.

GC 40 REJECTED WORK

- 401 Defective Work, whether the result of poor workmanship, use of defective products or damage through carelessness or other act or omission of the Contractor, and whether incorporated in the Work or not, which has been rejected by the Owner as failing to conform to the Contract Documents shall be removed promptly from the premises by the Contractor and replaced and/or executed promptly in accordance with the Contract Documents at the Contractor's expense.
- 402 Other Contractor's work destroyed or damaged by such removals or replacements shall be made good promptly at the Contractor's expense.
- 403 If in the opinion of the Owner it is not expedient to correct defective work not done in accordance with the Contract Documents, the Owner may deduct from the Contract Price the difference in value between the Work as done and that called for by the Contract, the amount of which shall be determined in the first instance by the Owner.

GC 41 SHOP DRAWINGS

- 41.1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures, and other data which are to be provided by the Contractor to illustrate details of a portion of the Work.
- 41.2 The Contractor shall arrange for the preparation of clearly identified shop drawings as called for by the Contract Documents or as the Owner may reasonably request.
- 41.3 Prior to Submission to the Owner the Contractor shall review all shop drawings. By this review the Contractor represents that the Contractor has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data or will do so and that the Contractor has checked and coordinated each shop drawing with the requirements of the Work and of the Contract Documents. The Contractor's review of each shop drawing shall be indicated by stamp, date and signature of a responsible person.
- 41.4 The Contractor shall submit shop drawings to the Owner for the Owner's review with reasonable promptness and in orderly sequence so as to cause no delay in the Work or in the Work of Other Contractors. If either the Contractor or the Owner so requests they shall jointly prepare a schedule fixing the dates for submission and return of shop drawings. Shop drawings shall be submitted in electronic format (PDF) or prints as the Owner may direct. At the time of submission the Contractor shall notify the Owner in writing of any deviations in the shop drawings from the requirements of the Contract Documents.
- 41.5 The Owner will review and return shop drawings in accordance with any schedule agreed upon, or otherwise with reasonable promptness so as to cause no delay. The Owner's review shall be for conformity to the design concept and for general arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the Contract Documents unless a deviation on the shop drawings has been approved in writing by the Owner.
- 41.6 The Contractor shall make any changes in shop drawings which the Owner may require consistent with the Contract Documents and resubmit unless otherwise directed by the Owner. When resubmitting the Contractor shall

notify the Owner in writing of any revisions other than those requested by the Owner.

GC 42 SAMPLES

- 421 The Contractor shall submit for the Owner's approval such standard manufacturers' samples as the Owner may reasonably require. Samples shall be labelled as to origin and intended use in the Work and shall conform to the requirements of the Contract Documents.
- 422 The Contractor shall provide samples of special products, assemblies, or components when so specified. The cost of such samples not specified shall be authorized as an addition to the Contract Price as provided in GC 18 - Changes in the Work.

GC 43 TESTS AND MIX DESIGNS

- 43.1 The Contractor shall furnish to the Owner test results and mix designs as may be requested. The testing company must first be approved by the Owner.
- 43.2 The cost of tests and mix designs beyond those called for in the Contract Documents or beyond those required by laws, ordinances, rules and regulations relating to the work and the preservation of public health, shall be authorized as an addition to the Contract Price as provided in GC 18 - Changes in the Work.

GC 44 LABOUR

- 44.1 In carrying out the Contractor's duties under this contract, the Contractor should comply with all Provincial and Federal legislation respecting labour and the employment of labour, where applicable, including the labour standards code and shall not operate in conflict with the Human Rights legislation. In the employment of labour, preference should be given to persons normally resident in Newfoundland and Labrador.
- 44.2 The Contractor and Subcontractors shall maintain and keep available for inspection by the Owner, a record of the names and addresses of all workers employed on the Project.
- 44.3 All Work shall be done by workers skilled in their various trades.

- 44.4 There shall be no discrimination in the selection of workers for employment on the project in respect of gender, race, religious views or political affiliation.
- 44.5 The Contractor shall pay fair wages and shall pay rates of wages and allowances to the various classes of labour not less favourable than those prevailing in the area where the Work is being performed.

GC 45 TIME OF ESSENCE

- 45.1 Time is of the essence of the Contract.

GC 46 ASSESSMENT AND DAMAGES FOR LATE COMPLETION

- 46.1 For purposes of this General Condition
 - a) The Work shall be deemed to be completed on the date that a Certificate of Substantial Performance referred to in GC 21.6 is issued, and
 - b) "Period of delay" means the number of days commencing on the day fixed by the Articles of Agreement for completion of the Work and ending on the day immediately preceding the day on which the Work is completed but does not include any day in which, in the opinion of the Owner, completion of the Work was delayed for reasons beyond the control of the Contractor.
- 46.2 If the Contractor does not complete the Work by the day fixed for its completion by the Articles of Agreement but completes it thereafter, the Contractor shall pay the Owner for liquidated damages.
- 46.3 The Liquidated Damage Daily Rate has been determined as the total of the department's costs associated with maintaining a presence and carrying out typical contract administration duties on the project which includes, but has not been limited to the following: salaries including overtime, for the staff complement on the project, travel costs for the normal staff complement on the project, vehicle rental charges, fuel for vehicles, and other equipment rental charges, such as internal survey equipment, which may be utilized on the project. **The Liquidated Damage Daily Rate for this project is indicated in the Supplementary General Condition Section of this document.**
- 46.4 Depending on the scope of work, there may be other direct or indirect costs to the department, which will also be deemed to be recoverable as supplemental liquidated damages including but not limited to consulting, third

parties etc. These other costs shall be quantified and considered as additional to the Liquidated Damage Daily Rate noted above.

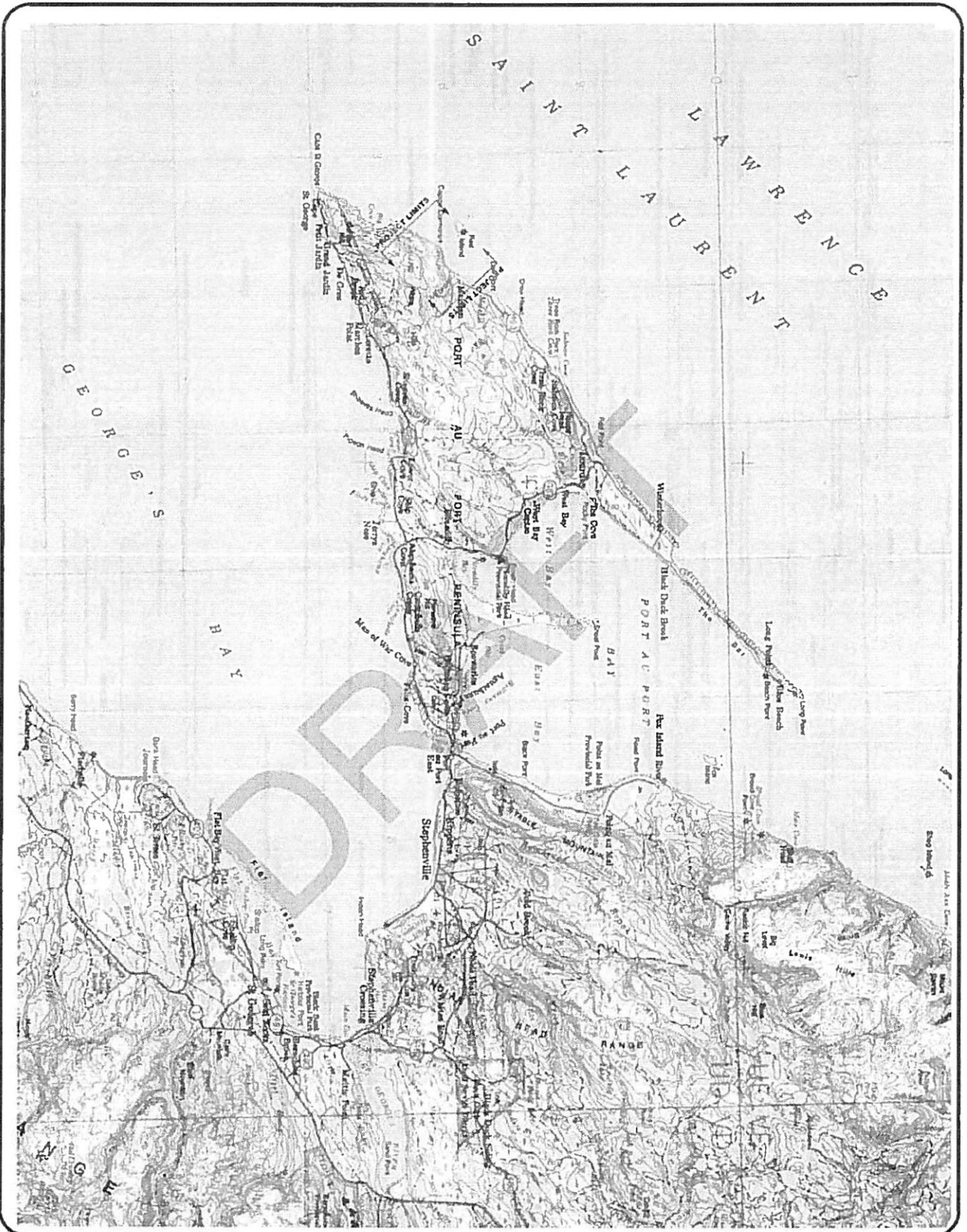
- 46.5 No bonus will be assessed for completing the project ahead of the given Contract Completion date.
- 46.6 Contractors, by submission of their tender, shall be deemed to have accepted these terms and agree to the Liquidated Damage Daily Rate as being a genuine reasonable pre-estimate of costs, or loss to the Department, for contract administration.
- 46.7 Liquidated Damages will be applied to the contract payment at the per diem amount specified for each calendar day of the Period of Delay, as defined above, not as a penalty but as Liquidated Damages. It will apply until work is considered no longer feasible in the construction season or the work is completed according to the definition of Substantial Performance. Paving work will be considered no longer feasible when asphalt paving is terminated by the Department's Highway Specifications or an approved end of paving season extension date as communicated by the Department. Liquidated damages in a subsequent construction season will apply from the day after the Victoria Day holiday to when work is completed according to the definition of Substantial Performance.
- 46.8 In the event that a Contractor is awarded multiple contracts by Government within a construction season, Government reserves the right in its sole discretion to amend the Contract Completion Date if an approved amended execution plan and/or schedule allows more effective and efficient execution of all related multiple Contracts.

GC 47 CERTIFICATE OF RECOGNITION FOR CONTRACTS

- 47.1 The Contractor shall, at the time of bid submission, submit a Letter of Good Standing stating Certificate of Recognition (COR) certified from the Newfoundland and Labrador Construction Safety Association, or equivalent. The Letter of Good Standing stating COR certified must be valid at the Submission Deadline (Closing Date).
- 47.2 At any time during the term of the Contract, when requested by the Owner, the Contractor shall provide such evidence of compliance by any or all of his or her Subcontractors.

Section Fourteen

List of Project Plans



2
 Newfoundland
 Labrador
 TRANSPORTATION AND INFRASTRUCTURE
 HIGHWAY DESIGN DIVISION

LOCATION PLAN
 PROJECT NO. 66 22 PHP
 PART B

DRAWN BY: RH

DATE: August 2022

NOT TO SCALE

EXHIBIT B



VIA EMAIL: williamhillier@gov.nl.ca

October 12, 2022

William Hillier
Director, TI Highway Design and Construction
Department of Transportation and Works
PO Box 8700, St. John's
NL, Canada A1B4J6
1-709-729-3676

Attention: **Mr. William Hillier**

Re: Surety's Decision Letter
Bond No.: HS4222419 ("Bond")
Claim No.: 8033867691
Principal: Edward Collins Contracting Limited ("ECC")
Obligee: Department of Transportation and Works ("DOT")
Project: Contract 45-20PHP – Cold plane and repave a section of route 460 between Gull Pond and Route 460 / 461 intersection for approx. 1.5 km. Pave 3 sections of Route 460 between Stephenville and Cape St. George for a total approx. 4.7Km; sections of Route 404, route 405 and Route 407 for a total of approx. 4.0 km; and a section of route 480 between km 27.1 and km 30.4 for approx. 3.3 km. Asphalt leveling a section of route 463 between Mainland and Cape St. George for approx. 3.0 km. Replace culverts on Route 460 between intersection of route 461 and Cape St. George ("Project")

Intact Insurance Company ("Intact") is in receipt of your Notice of Claim dated April 11, 2022. Intact has completed its investigation of the DOT's claim pursuant to the Bond. Intact has reviewed all the documents, information provided pertaining to the Claim and finds that DOT has a valid claim pursuant to the Bond and Intact hereby takes the liability of your claim.

DOT brought this claim under the Bond alleging that ECC had defaulted on its Contract and the Project was unfinished at the time of the Claim Notice. Our investigation revealed that the DOT had issued a notice of default had been issued to ECC on November 8 2021 and that the works under the Contract was incomplete at the time of the Notice of Claim, including contractual warranties, also ECC had not worked on the Project since October 2021. Hence, ECC was found to be in default of its Contract with DOT.

Further to the above, Intact entered into a Mitigation Agreement with DOT on September 21, 2022 on a reservation of rights basis, including reserving the ECC's rights to defend the Notice of Default. Intact and DOT worked in close cooperation to workout a completion solution to complete the balance works on the Project in accordance with the terms of the Contract and the



Mitigation Agreement. The balance works, being undertaken by the replacement contractor, is under execution and nearing completion as of the date of this letter.

In light of the foregoing, Intact is offering to pay the Obligee the all-inclusive amount of \$1,306,537.57 in full settlement of the claim pursuant to the Bond. Please note that this offer is made pursuant to the Mitigation Agreement and we expect DOT to complete the accounting of the Project and that the remaining Principal Holdback be paid back to Intact in accordance with clause 12 of the Mitigation Agreement.

Attached hereto is the Full and Final Release that we require to be executed before payment of the settlement amount. Once we receive an executed copy of same, we will process the payment of \$1,306,537.57 and deliver same to DOT.

Kindly advise as to your acceptance of same. If you have any questions or concerns, do not hesitate to contact me.

Regards,


Ankur Anil PQS PMP
Claims Technical Consultant
Intact Insurance Company
ON - Toronto, 700 University Ave.
416-341-1464 x 40222
ankur.anil@intact.net

cc

Jennifer Love
Riccardo Orsini
Ruby Noseworthy
Joshua Collins

Intact Insurance
Intact Insurance
Aon Reed Stenhouse Inc.
ECC

Via email
Via email
Via email
Via email

Encl:

full and final release
Executed Mitigation Agreement

EXHIBIT C

FULL AND FINAL RELEASE

IN CONSIDERATION of the payment of \$1,306,537.57 (One Million Three Hundred and Six Thousand Five Hundred and Thirty Seven DOLLARS and Fifty Seven CENTS) lawful money of Canada, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the **Department of Transportation and Works**, including its officers, directors, successors and assigns (the "Releasor"), hereby releases **Intact Insurance Company** from any and all actions, causes of action, debts, accounts, covenants, claims and demands for damages, loss, costs, expense or injury of every kind and nature whatsoever in connection with any and all issues and claims or causes of action by reason of, or in any way connected with the Performance Bond No. **HS4222419** ("the Bond"), issued to **Edward Collins Contracting Limited** as Principal on the Contract 45-20PHP – Cold plane and repave a section of route 460...Replace culverts on...Cape St. George. (the "Project")

IT IS UNDERSTOOD AND AGREED that the acceptance of the said consideration is in full accord and satisfaction of a claim pursuant to the Bond and the giving of the said consideration is made on a without prejudice basis.

IT IS HEREBY EXPRESSLY UNDERSTOOD AND AGREED that this Full and Final Release is intended to cover and does cover not only all known losses and damages, but any future losses and damages not now known or anticipated which may later develop or be discovered, including all of the effects or any consequences thereof, with respect to the Bond.

IN WITNESS WHEREOF, the Releasor has executed this release by the hand of its proper signing officer in that regard duly authorized this _____ day of _____, 2022.

Department of Transportation and Works

By: _____

Name:

Title:

EXHIBIT D

Form 5.03A

(rule 5.03)

File number: 20 22 91 G 4574

**IN THE SUPREME COURT OF NEWFOUNDLAND AND LABRADOR
GENERAL DIVISION**

BETWEEN:	INTACT INSURANCE COMPANY	PLAINTIFF
AND:	EDWARD COLLINS CONTRACTING LIMITED	FIRST DEFENDANT
AND:	UNIVERSAL ENVIRONMENTAL SERVICES INC.	SECOND DEFENDANT
AND:	E. & T. INVESTMENTS LIMITED	THIRD DEFENDANT
AND:	EDWARD COLLINS	FOURTH DEFENDANT
AND:	THERESA COLLINS	FIFTH DEFENDANT
AND:	FRANCIS COLLINS	SIXTH DEFENDANT

Statement of Claim

Parties

1. The Plaintiff, Intact Insurance Company ("Intact"), is an insurer and surety operating throughout Canada. Intact was amalgamated with The Guarantee Company of North America ("GCNA") on April 1, 2021, and the legal entity resulting from said amalgamation is Intact.
2. The First Defendant, Edward Collins Contracting Limited ("ECCL"), is a body corporate incorporated pursuant to the laws of Newfoundland and Labrador, with a registered office and mailing address of P.O Box 51, Jerseyside, NL, A0B 2G0.
3. The Second Defendant, Universal Environmental Services Inc. ("UESI"), is a body corporate incorporated pursuant to the laws of Newfoundland and Labrador, with a registered office and mailing address of P.O Box 51, Jerseyside, NL, A0B 2G0.

4. The Third Defendant, E. & T. Investments Limited ("ETIL"), is a body corporate incorporated pursuant to the laws of Newfoundland and Labrador, with a registered office and mailing address of P.O Box 51, Jerseyside, NL, A0B 2G0.
5. The Fourth Defendant, Edward Collins, is an individual resident in Placentia, Newfoundland and Labrador and has a mailing address of P.O Box 51, Jerseyside, NL, A0B 2G0.
6. The Fifth Defendant, Theresa Collins, is an individual resident in Placentia, Newfoundland and Labrador and has a mailing address of P.O Box 51, Jerseyside, NL, A0B 2G0.
7. The Sixth Defendant, Francis Collins, is an individual resident in Placentia, Newfoundland and Labrador and has a mailing address of P.O Box 51, Jerseyside, NL, A0B 2G0.

Indemnity Agreements

8. On or about April 12, 2002, as a condition for GCNA providing a bonding facility to both or either ECCL and UESI; ECCL, UESI, Edward Collins and Theresa Collins provided a General Application and Indemnity Agreement ("Indemnity Agreement #1") for the benefit of GCNA, whereby; ECCL, UESI, Edward Collins and Theresa Collins agreed to, *inter alia*: indemnify GCNA for any expenses incurred in any way relating to the bonding of ECCL and UESI.
9. On or about May 15, 2020, as a condition for GCNA continuing to provide a bonding facility to both or either ECCL and UESI; ECCL, UESI, ETIL, and Francis Collins provided a General Application and Indemnity Agreement ("Indemnity Agreement #2") for the benefit of GCNA, whereby; ECCL, UESI, ETIL and Francis Collins agreed to, *inter alia*: indemnify GCNA for any expenses incurred in any way relating to the bonding of ECCL and UESI.
10. Intact seeks rectification for any misspelling of ETIL in Indemnity Agreement #2.

The Bonds and Payments

11. On or about June 7, 2019, ECCL entered into contract titled Project #: 021-19TSB ("**Contract #1**") with Department of Transport and Works ("DTW").
12. On or about June 14, 2019, GCNA issued Labour and Material Payment Bond No. HS4222400 to ECCL, with GCNA as Surety, ECCL as Principal, and DTW as Obligee/Trustee ("**Bond #1**").
13. Bond #1 bound GCNA and ECCL to DTW in the amount of \$888,520.19 such obligation being null and void if ECCL paid all claimants, as defined in Bond #1, for labour and material provided in fulfillment of Contract #1.

14. Intact received a claim on Bond #1 from Apex Construction Specialties Inc. ("**Apex**"). Intact investigated the claim, determined it to be valid, and paid Apex \$33,866.75.
15. On or about July 22, 2020, ECCL entered into a paving contract titled Project 45-20PHP ("**Contract #2**") with DTW.
16. On or about July 24, 2020, GCNA issued Performance Bond No. HS4222419 to ECCL, with GCNA as Surety, ECCL as Principal, and DTW as Obligee ("**Bond #2**").
17. On or about July 24, 2020, GCNA issued Labour and Material Payment Bond No. HS4222419 to ECCL, with GCNA as Surety, ECCL as Principal, and DTW as Obligee/Trustee ("**Bond #3**").
18. Bond #2 bound GCNA and ECCL to DTW in the amount of \$1,306,537.57, such obligation being null and void if ECCL met its obligations pursuant to Contract #2.
19. Intact received a claim on Bond #2 from DTW. Intact investigated the claim, determined on an interim basis that the claim was valid, and paid, or will pay, the limit of Bond #2, being \$1,306,537.57, to DTW.
20. Bond #3 bound GCNA and ECCL to DTW in the amount of \$1,306,537.57, such obligation being null and void if ECCL paid all claimants, as defined in Bond #3, for labour and material provided in fulfillment of Contract #2.
21. Intact received a claim on Bond #3 from On Grade Construction ("**OGC**"). Intact investigated the claim, determined it to be valid, and paid OGC \$15,194.38.
22. On or about October 16, 2020, ECCL entered into contract titled Project #: 083 - 20PHG ("**Contract #3**") with Her Majesty the Queen in Right of the Province of Newfoundland and Labrador as represented by the Minister of Transportation and Infrastructure ("**HMQ**").
23. On or about October 20, 2020, GCNA issued Labour and Material Payment Bond No. HS4222428 to ECCL, with GCNA as Surety, ECCL as Principal, and HMQ as Obligee/Trustee ("**Bond #4**").
24. Bond #4 bound GCNA and ECCL to HMQ in the amount of \$139,736.66, such obligation being null and void if ECCL paid all claimants, as defined in Bond #4, for labour and material provided in fulfillment of Contract #3.
25. Intact received a claim on Bond #4 from Atlantic Industries Limited ("**AIL**"). Intact investigated the claim, determined it to be valid, and paid AIL \$61,642.67.

26. On or about October 28, 2020, ECCL entered into contract titled Project #: 084 - 20PHG ("**Contract #4**") with HMQ.
27. On or about October 30, 2020, GCNA issued Labour and Material Payment Bond No. HS4222430 to ECCL, with GCNA as Surety, ECCL as Principal, and HMQ as Obligee/Trustee ("**Bond #5**").
28. Bond #5 bound GCNA and ECCL to HMQ in the amount of \$99,458.90, such obligation being null and void if ECCL paid all claimants, as defined in Bond #5, for labour and material provided in fulfillment of Contract #4.
29. Intact received a claim on Bond #5 from AIL. Intact investigated the claim, determined it to be valid, and paid AIL \$42,993.13.
30. Alternatively, any reference to Intact above refers to GCNA.

Demand for Indemnification

31. Intact demanded indemnification from the Defendants for the above referenced payments, and the Defendants have failed to indemnify Intact; alternatively, Intact demands indemnification of the above reference payments by the service of the within Statement of Claim.

Intact therefore seeks the following relief for breach of Indemnification Agreement #1 and/or Indemnification Agreement #2 from the Defendants on a joint and several basis:

1. Judgment in the amount of \$1,460,234.50.
2. Costs.
3. Interest.
4. Rectification.
5. Other such relief as requested and deemed appropriate by this Honourable Court.

[signature page to follow]

DATED at St. John's, Newfoundland and Labrador, on the 21st of October, 2022.


**Trent Kulshar, Solicitor for
Plaintiff**

Whose address for service is:

Intact Financial Corporation
700, 10830 Jasper Avenue
Edmonton, AB T5J 2B3
c/o
Intact Financial Corporation
5th Floor, 20 Crosbie Place
St. John's, NL A1B 3Y8
Attn: Laura Brazil

TO: EDWARD COLLINS CONTRACTING LIMITED
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: UNIVERSAL ENVIRONMENTAL SERVICES INC.
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: E. & T. INVESTMENTS LIMITED
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: EDWARD COLLINS
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: THERESA COLLINS
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: FRANCIS COLLINS
P.O. Box 51
Jerseyside, NL A0B 2G0

ISSUED at St. John's (city/town) in the Province of Newfoundland
and Labrador this 24th (day) of October (month), 2022 (year).

(Affix seal of the court)

Sgt. Stephanie Stevens
(signature)

Registrar/Registry Clerk

**COURT
OFFICER**

File number: 2022 01 G 4574

**IN THE SUPREME COURT OF NEWFOUNDLAND AND LABRADOR
GENERAL DIVISION**

BETWEEN:	INTACT INSURANCE COMPANY	PLAINTIFF
AND:	EDWARD COLLINS CONTRACTING LIMITED	FIRST DEFENDANT
AND:	UNIVERSAL ENVIRONMENTAL SERVICES INC.	SECOND DEFENDANT
AND:	E. & T. INVESTMENTS LIMITED	THIRD DEFENDANT
AND:	EDWARD COLLINS	FOURTH DEFENDANT
AND:	THERESA COLLINS	FIFTH DEFENDANT
AND:	FRANCIS COLLINS	SIXTH DEFENDANT

(Modify title of proceeding as necessary.)

Notice to Defendant(s)

You are hereby notified that the plaintiff(s) may enter judgment in accordance with the statement of claim or such order as, according to the practice of the Court, the plaintiff is entitled to, without any further notice to you unless within ten (10) days, after service hereof upon you, you cause to be filed with the Supreme Court of Newfoundland and Labrador at St. John's a defence and unless within the same time a copy of your defence is served upon the plaintiff(s) or the plaintiff's solicitor(s) at the plaintiff's solicitor(s) stated address(es) for service.

Provided that if the claim is for a debt or other liquidated demand and you pay the amount claimed in the statement of claim and the sum of \$ 0 (or such sum as may be allowed on taxation) for costs to the plaintiff(s) or the plaintiff's solicitor(s) within ten (10) days from the service of this notice upon you, then this proceeding will be stayed.

TO: EDWARD COLLINS CONTRACTING LIMITED
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: UNIVERSAL ENVIRONMENTAL SERVICES INC.
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: E. & T. INVESTMENTS LIMITED
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: EDWARD COLLINS
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: THERESA COLLINS
P.O. Box 51
Jerseyside, NL A0B 2G0

AND TO: FRANCIS COLLINS
P.O. Box 51
Jerseyside, NL A0B 2G0

EXHIBIT E



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 4 (four)

MONTH ENDING: 20-Aug-21

Project No. 45-20 PHP (Permit "D")
Project Title: Paving on R480 Burgeo Highway
Contractor: Edward Collins Contracting Ltd.
Estimated Cost: \$ 601,924.00

Account Center: 01-3025-311-1910-

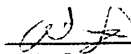
D.T.C.: 20-621771

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS ESTIMATE	TOTAL TO DATE	UNIT PRICE	AMOUNT
	PETROLEUM COST ADJUSTMENT							
a)	FUEL	LS			0	0	\$1.00	\$0.00
b)	LIQUID							
	Est #3 - November 2020	LS		618.85		618.85	\$1.00	\$618.85
	Est #4 - August 20, 2021	LS		0	20813.85	20813.85	\$1.00	\$20,813.85
	LIQUIDATED DAMAGES FOR OHS NON-COMPLIANCE	LS		5500	0	5500	\$1.00	-\$5,500.00
	LIQUID ASPHALT PENALTIES	LS		0	4105.1	4105.1	\$1.00	-\$4,105.10
	DENSITY UNIT PRICE COST ADJUSTMENT	LS		0	1042.95	1042.95	\$1.00	\$1,042.95
	LATE COMPLETION LIQUIDATED DAMAGES	LS		0	67500	67500	\$1.00	-\$67,500.00

\$560,189.64

Gross to Date	\$560,189.64
Less PRI & Density Bonus	\$1,042.95
Total	\$559,146.69
Less 10% holdback	\$55,914.67
Paid holdback	
Certified to date	\$503,232.02
Less previous payments	\$349,762.91
Now certified	\$153,469.11

CERTIFIED CORRECT


Michael Fleming
Resident Engineer

Regional Engineer

APPROVED BY

Corporate HDC Representative

Assistant Deputy Minister T.S.

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

Project No. 45-20 PHP (PERMIT "A")

ESTIMATE NO: 4 (four)

MONTH ENDING: 20-Oct-21

Project Title: Paving Sections R460 from Trans Canada Highway to Gull Pond Area and Levelling R463

Contractor: Edward Collins Contracting Ltd.

Estimated Cost: \$ 570,853.00

Account Center: 01-3025-110-2210-0624

D.T.C.: 20-521768

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS ESTIMATE	TOTAL TO DATE	UNIT PRICE	AMOUNT
15	Tack Coat	m2	50850	0	13689.6	13689.6	\$0.45	\$6,160.72
16	Hot Mix Asphalt Concrete							
(b)	Asphalt Surface Course	t	4037	739.14	1064.12	1853.26	\$33.00	\$61,157.58
(c)	Asphalt Levelling Course	t	1287	0	0	0	\$33.00	\$0.00
(d)	Liquid Asphalt	t	346	45	60.66	105.66	\$700.00	\$73,962.00
(e)	Blending Sand	t	798	95	127.69	223	\$15.00	\$3,340.35
21	Contingency		12500	0	0	0	\$1.00	\$0.00
						0	\$1.00	\$0.00
						0	\$1.00	\$0.00
22	Flagperson Hours	hours	225	339	93	432	\$24.00	\$10,368.00
23	Mobilization & Demobilization	lump sum	1	0.5	0	0.5	\$20,000.00	\$10,000.00
35	Cold Planning Asphalt	m2	11250	13680	0	13680	\$1.50	\$20,520.00
104	Contractor Safety Officer	lump sum	1	0.39	0	0.39	\$3,333.50	\$1,300.07
112	Cleaning of Existing Ditches	m	2000	3329	0	3329	\$7.50	\$24,967.50
113	Shouldering	m	9000	0	3389.7	3389.7	\$5.00	\$16,948.50
	PETROLEUM COST ADJUSTMENT							
	Fuel/Furnace Oil	lump sum		3136.5	-3136.5	0	\$1.00	\$0.00
	Liquid	lump sum		3830.95	5166.41	8997.36	\$1.00	\$8,997.36
	Materials on Site							
	Shouldering - Class "A" pay 2/3	lump sum		1260	0	1260	\$25.00	\$31,500.00
	Plant Mix - Pay 2/3 @ Class "A" price	lump sum		2730	-2760	0	\$25.00	\$0.00
	LATE COMPLETION LIQUIDATED DAMAGES	LS						
	October 6 - October 20, 2021			0	-37500	-37500	\$1.00	-\$37,500.00

\$231,721.68

CERTIFIED CORRECT

Gross to Date \$231,721.68
Less PRI & Density Bonus
Total \$231,721.68
Less 10% holdback \$23,172.17
Paid holdback

Certified to date \$208,549.51
Less previous payments \$208,221.88

Now certified \$327.63

Resident Engineer

Regional Engineer

APPROVED BY

Corporate HDC Representative

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO. 4 (four)

MONTH ENDING 20 Aug 21

Project No. 45-20 PHP (Permit "D")
Project Title: Paving on R480 Burgoo Highway
Contractor: Edward Collins Contracting Ltd.
Estimated Cost \$ 601,924.00

Account Center 01-3025-311-1910-

D.T.C. 20-521771

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS ESTIMATE	TOTAL TO DATE	UNIT PRICE	AMOUNT
6	Excavation for Foundation							
a)	Other Material	m3	1808	1807	16	1887	\$10.00	\$18,870.00
7	Supply and Installation of Pipe Culverts							
b)	600 mm Diameter	m	75	77	0	57	\$300.00	\$17,100.00
c)	800 mm Diameter	m	43.5	43.5	0	43.5	\$400.00	\$17,400.00
d)	900 mm Diameter	m	76.5	77.5	0	72.5	\$550.00	\$39,875.00
e)	1000 mm Diameter	m	18.5	18.5	0	18.5	\$650.00	\$12,025.00
12	Selected Granular Base Course							
a)	Class A	t	253	252.5	69.5	284	\$25.00	\$7,100.00
b)	Class B	t	521	565.5	43.5	325.8	\$25.00	\$8,145.00
14	Disposal of Old Asphaltic Pavement	m3	79	78.1	0	28.1	\$10.00	\$281.00
15	Tack Coat	m2	26400	0	25776	25776	\$0.45	\$11,599.20
16	Hot Mix Asphalt Concrete							
a)	Asphalt Surface Course	t	3234	0	3528.14	3528.14	\$33.00	\$116,428.62
c)	Asphalt Leveling Course	t	0	0	0	0	\$33.00	\$0.00
d)	Liquid Asphalt	t	210	0	201.1	201.1	\$700.00	\$140,770.00
e)	Blending Sand	t	485	0	423	423	\$15.00	\$6,345.00
f)	Asphalt Patching	m2	715	644.2	0.3	988.5	\$50.00	\$48,425.00
17	Supply and Installation of Guide Rail							
a)	Standard Type Guide Rail	m	700	704.9	0	704.9	\$80.00	\$56,392.00
b)	Standard Type Bored Ends	each	6	7	0	7	\$800.00	\$5,600.00
18	Removal of Guide Rail	m	700	751.2	0	751.2	\$10.00	\$7,512.00
19	Supply & Install Wooden Guide Posts	each	190	202	22	224	\$50.00	\$11,200.00
21	Contingency		5000	0	0	0	\$1.00	\$0.00
						0	\$1.00	\$0.00
						0	\$1.00	\$0.00
						0	\$1.00	\$0.00
22	Flagperson Hours	hours	480	264	246.5	1130.5	\$24.00	\$27,132.00
28	Disposal of Pipes and Culverts							
a)	All Sizes & Types	m	213.5	185.5	0	185.5	\$10.00	\$1,855.00
47	Supply Fill in Place							
c)	Supply Rock Fill in Place	t	904	1510.2	27.9	1482.3	\$20.00	\$29,646.00
104	Contractor Safety Officer	lump sum	1	0.39	0.31	0.9	\$1,666.67	\$1,500.00
112	Cleaning of Existing Ditches	m	1650	1624	0	1524	\$7.50	\$11,430.00
113	Shouldering	m	6600	731.2	3544	3775.2	\$5.00	\$18,876.00
	MATERIAL IN STOCKPILE							
	Class "A" in Stockpile @ 2/3	LS		0	0	0	\$25.00	\$0.00
	Class "B" in Stockpile @ 2/3	LS		0	0	0	\$25.00	\$0.00
	Plant Mix - Pay 2/3 @ Class A Price	LS		2124	2124	0	\$25.00	\$0.00
	Shouldering - Class A - Pay 2/3 @ Class A Price	LS		639	639	0	\$25.00	\$0.00



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 5 (five)

MONTH ENDING: 20-Sep-21

Project No. 45-20 PHP (PERMIT "B")

Project Title: Culvert Replacements and Paving Sections of R460 between Stephenville & Cape St. George

Contractor: Edward Collins Contracting Ltd.

Estimated Cost: \$ \$626,005.00

Account Center: 01-3025-311-1910-0624

D.T.C.: 20-621769

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS ESTIMATE	TOTAL TO DATE	UNIT PRICE	AMOUNT
6	Excavation for Foundation							
(b)	Other Material	m3	683	587	39	626	\$10.00	\$6,260.00
7	Supply and Installation of Pipe Culverts							
(b)	600 mm Diameter	m	300.5	242	-0.5	241.5	\$300.00	\$72,450.00
(c)	1000 mm Diameter	m	15	40.5	0	40.5	\$650.00	\$26,325.00
9	Rip Rap Treatment	m3						
(a)	Hand Laid with Sod	m3	21	13.6	0	13.6	\$100.00	\$1,360.00
12	Selected Granular Base Course							
(a)	Class A	t	94	172.4	13.7	186.1	\$25.00	\$4,652.50
(b)	Class B	t	194	208.6	-11.3	197.3	\$25.00	\$4,932.50
14	Disposal of Old Asphaltic Pavement	m3	15	60.13	0	60.13	\$10.00	\$601.30
15	Tack Coat	m2	30875	0	18205.6	18205.6	\$0.45	\$8,192.52
16	Hot Mix Asphalt Concrete							
(b)	Asphalt Surface Course	t	4015	0	2711.2	2711.2	\$33.00	\$89,469.60
(d)	Liquid Asphalt	t	261	0	154.54	154.54	\$700.00	\$108,178.00
(e)	Blending Sand	t	602	0	325	325	\$15.00	\$4,875.00
(g)	Asphalt Patching	m2	381	617	0	617	\$50.00	\$30,850.00
17	Supply and Installation of Guide Rail							
(a)	Standard Type Guide Rail	m	61	53.3	0	53.3	\$80.00	\$4,264.00
(b)	Standard Type Buried Ends	each	2	2	0	2	\$800.00	\$1,600.00
18	Removal of Guide Rail	m	61	57.2	0	57.2	\$10.00	\$572.00
19	Supply & Install Wooden Guide Posts	each	22	17	0	17	\$50.00	\$850.00
21	Contingency		7500	0	0	0	\$1.00	\$0.00
						0	\$1.00	\$0.00
						0	\$1.00	\$0.00
22	Flagperson Hours	hours	1552	864	218	1082	\$24.00	\$25,968.00
23	Mobilization & Demobilization	lump sum	0			0		\$0.00
28	Disposal of Pipes and Culverts							
(a)	All Sizes & Types	m	265.5	279.5	-2.5	277	\$10.00	\$2,770.00
47	Supply Fill in Place							
(c)	Supply Rock Fill in Place	t	274	17.8	15.8	33.6	\$20.00	\$672.00
104	Contractor Safety Officer	lump sum	1	0.45	0.26	0.71	\$3,333.50	\$2,366.79
112	Cleaning of Existing Ditches	m	5500	3190	0	3190	\$7.50	\$23,925.00
113	Shouldering	m	9400	167	4303.1	4490.1	\$5.00	\$22,450.50



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 5 (five)

MONTH ENDING: 20-Sep-21

Project No. 45-20 PHP (PERMIT "B")

Project Title: Culvert Replacements and Paving Sections of R460 between Stephenville & Cape St. George

Contractor: Edward Collins Contracting Ltd.

Estimated Cost: \$ \$626,005.00

Account Center: 01-3025-311-1910-0624

D.T.C.: 20-521769

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS ESTIMATE	TOTAL TO DATE	UNIT PRICE	AMOUNT
	PETROLEUM COST ADJUSTMENTS							
	Fuel/Furnace Oil			0	0	0	\$1.00	\$0.00
	Liquid			6119	13162.17	13100.98	\$1.00	\$13,100.98
	MATERIAL IN STOCKPILE							
	Class "A" in Stockpile @ 2/3	lump sum		0	0	0	\$25.00	\$0.00
	Class "B" in Stockpile @ 2/3	lump sum		0	0	0	\$25.00	\$0.00
	Shouldering - Class "A" @ 2/3	lump sum		1290	-1290	0	\$25.00	\$0.00
	Plant Mix - pay 2/3 @ Class "A" price	lump sum		2677	-2677	0	\$25.00	\$0.00
	LATE COMPLETION LIQUIDATED DAMAGES							
	August 21 - September 20, 2021	LS		0	-77500	-77500	\$1.00	-\$77,500.00
	September 21 - October 5, 2021	LS		0	-37500	-37500	\$1.00	-\$37,500.00

\$341,685.69

CERTIFIED CORRECT

Gross to Date	\$341,685.69
Less PRI & Density Bonus	
Total	\$341,685.69
Less 10% holdback	\$34,168.57
Paid holdback	
Certified to date	\$307,517.12
Less previous payments	\$273,400.37
Now certified	\$34,116.75

Resident Engineer

Regional Engineer

APPROVED BY

Corporate HDC Representative

Assistant Deputy Minister T.S.

EXHIBIT F

PROJECT NO: 12-21 PHC A

PROJECT: Replacement of Trout Pond 1200mm CSP on the TCH Km 29.5.
Part A of the Distribution Table

CONTRACTOR: Edward Collins Contracting Ltd.
ESTIMATED COST: \$266,435.90

ACCOUNT CENTER: 01-3025-311-1910-0624

DTC: 521844

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	AMOUNT
0	General							
0(a)	Mobilization & Demobilization	lump sum	\$5,000.00		\$2,100.00	\$2,100.00		\$2,100.00
0(c)	Accommodation of Traffic	lump sum	\$5,000.00		\$2,100.00	\$2,100.00		\$2,100.00
0(d)	Contractor Safety Representative	lump sum	\$1,000.00		\$420.00	\$420.00		\$420.00
6	Excavation for Foundation							
6(b)	Other Material	m3	2300		923	923	\$5.00	\$4,615.00
8	Rip Rap Treatment							
8(f)	Hydraulic Class II (500 mm Diameter)	m3					\$50.00	
8(g)	Hydraulic Class III (800 mm Diameter)	m3					\$50.00	
12	Selected Granular Base Course							
12(a)	Class "A"	t	140				\$25.00	
12(b)	Class "B"	t	400				\$25.00	
14	Storage or Disposal of Old Asphaltic Pavement							
14(b)	Disposal of Old Asphaltic Pavement	m3	50		59.84	59.84	\$5.00	\$299.20
15	Tack Coat	m2	400				\$0.50	
16	Hot Mix Asphaltic Concrete							
16(a)	Hot Asphaltic Base Course	t	90				\$110.00	
16(b)	Hot Asphaltic Surface Course	t	90				\$110.00	
16(c)	Liquid Asphalt (58-28)	t	10.1				\$1,100.00	
16(i)	Blending Sand	t	23.4				\$30.00	
17	Supply and Installation of Guide Rail							
17(a)	Standard Type Guide Rail	m	38.1				\$79.00	
17(b)	Standard Type Bored Ends	each	1				\$800.00	
21	Contingency		\$2,500.00					
28	Disposal of Culvert or Pipe							
25(c)	> 1000mm	m	50.9		25.0	25.0	\$10.00	\$250.00
35	Cold Planing	m2	400				\$1.00	
38	Salvage & Reinstallation of Guide Rail							
38(a)	Salvage & Reinstallation of Guide Rail with New Posts	m	45.7				\$50.00	
42	Landscaping							
42(a)	Hydroseeding	m2	150				\$5.00	
42(b)	Lime for Hydroseeding	t	0.1				\$100.00	
42(c)	Sod for Hydroseeding	m2	150				\$5.00	
43	Supply & Installation of Fish Baffles							
43(a)	Reinforced Concrete Baffles	m3	2				\$3,500.00	
47	Supply Fill in Place							
47(c)	Supply Rock Fill in Place	t	1600		1823.5	1823.5	\$14.00	\$25,529.00
100	Salvage & Reinstall Hydraulic Rip Rap (all sizes)	each	100				\$25.00	
101	Design, Supply & Install 1200mm Culvert Rehabilitation with HDPE Liner	m					\$2,000.00	
102	Design, Supply & Install 2400mm Culvert Rehabilitation with Aluminum Plate Tunnel Liner	m					\$7,500.00	
121	Supply & Install Culvert Outlet Energy Dissipator							
121(a)	Hydraulic Class II (500 mm Diameter)	m3					\$100.00	
121(b)	Hydraulic Class III (800 mm Diameter)	m3					\$100.00	
121(c)	Non-Woven geotextile Membrane	m2					\$100.00	

MONTH ENDING: September 20, 2021

PROJECT NO: 12-21 PHC A

**PROJECT: Replacement of Trout Pond 1200mm CSP on the TCH Km 29.5.
Part A of the Distribution Table**

CONTRACTOR: Edward Collins Contracting Ltd.

ESTIMATED COST: \$266,435.80

ACCOUNT CENTER: 01-3025-311-1910-0624

OTC: 521844

[illegible]

Gross to Date	<u>\$72,313.20</u>
Loss 10% holdback	<u>\$7,231.32</u>
Paid holdback	<u> </u>
Certified to date	<u>\$65,081.88</u>
Less previous payments	<u>\$0.00</u>
Now certified	<u>\$65,081.88</u>

CERTIFIED CORRECT:

Goods Receipt: Engineer or Project Manager

Continued By: Regional Engineer

PAYMENT APPROVAL:

Review By: Corporate KDC Representative

Assistant Deputy Minister (Or Delegate)

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN & CONSTRUCTION
PROJECT PROGRESS ESTIMATE

PROJECT NO: 12-21 PHC A

PROJECT: Replacement of Trout Pond 1200mm CSP on the TCH Km 29.5
Part A of the Distribution Table

ESTIMATE NO: 2 (TWO)
FINAL

MONTH ENDING: October 20, 2021

CONTRACTOR: Edward Collins Contracting Ltd.
ESTIMATED COST: \$266,435.90

ACCOUNT CENTER: 01-3025-311-1910-0624

DTC: 521844

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	AMOUNT
0	General							
0(a)	Mobilization & Demobilization	Lump sum	\$5,000.00	\$2,100.00	\$2,900.00	\$5,000.00		\$5,000.00
0(c)	Accommodation of Traffic	Lump sum	\$5,000.00	\$2,100.00	\$2,900.00	\$5,000.00		\$5,000.00
0(d)	Contractor Safety Representative	Lump sum	\$1,000.00	\$420.00	\$580.00	\$1,000.00		\$1,000.00
6	Excavation for Foundation							
6(b)	Other Material	m3	2300	923	1216	2139	\$5.00	\$10,695.00
9	Rip Rap Treatment							
9(i)	Hydraulic Class II (500 mm Diameter)	m3					\$50.00	
9(g)	Hydraulic Class III (800 mm Diameter)	m3					\$50.00	
12	Selected Granular Base Course							
12(a)	Class "A"	t	140		149.6	149.6	\$25.00	\$3,740.00
12(b)	Class "B"	t	400		501.5	501.5	\$25.00	\$12,537.50
14	Storage or Disposal of Old Asphaltic Pavement							
14(b)	Disposal of Old Asphaltic Pavement	m3	50	59.84	33.65	93.49	\$5.00	\$467.45
15	Tack Coat	m2	400		424.2	424.2	\$0.50	\$212.10
16	Hot Mix Asphaltic Concrete							
16(a)	Hot Asphaltic Base Course	t	60		64.0	64.0	\$110.00	\$7,040.00
16(b)	Hot Asphaltic Surface Course	t	96		108.5	108.5	\$110.00	\$11,935.00
16(c)	Liquid Asphalt (58-28)	t	10.1		10.35	10.35	\$1,100.00	\$11,385.00
16(j)	Blending Sand	t	23.4		26	26	\$30.00	\$780.00
17	Supply and Installation of Guide Rail							
17(a)	Standard Type Guide Rail	m	38.1		30.8	30.8	\$79.00	\$2,433.20
17(r)	Standard Type Burred Ends	each	1				\$800.00	
21	Contingency		\$2,500.00					
28	Disposal of Culvert or Pipe							
28(c)	> 1000mm	m	50.9	25.0	25.9	50.9	\$10.00	\$509.00
35	Cold Planing	m2	400		424.2	424.2	\$1.00	\$424.20
36	Salvage & Reinstallation of Guide Rail							
36(a)	Salvage & Reinstallation of Guide Rail with New Posts	m	45.7		146.3	146.3	\$50.00	\$7,315.00
42	Landscaping							
42(a)	Hydroseeding	m2	150		185	185	\$5.00	\$925.00
42(b)	Lime for Hydroseeding	t	0.1		0.1	0.1	\$100.00	\$10.00
42(c)	Soil for Hydroseeding	m2	150		185	185	\$5.00	\$925.00
43	Supply & Installation of Fish Baffles							
43(a)	Reinforced Concrete Baffles	m3	2		0.98	0.98	\$3,500.00	\$3,430.00
47	Supply Fill in Place							
47(c)	Supply Rock Fill in Place	t	1800	1823.5	1879.9	3703.4	\$14.00	\$51,847.60
100	Salvage & Reinstall Hydraulic Rip Rap (all sizes)	each	100		55.5	55.5	\$25.00	\$1,387.50
101	Design, Supply & Install 1200mm Culvert Rehabilitation with HDPE Liner	m					\$2,000.00	
102	Design, Supply & Install 2400mm Culvert Rehabilitation with Aluminium Plate Tunnel Liner	m					\$7,500.00	
121	Supply & Install Culvert Outlet Energy Dissipator							
121(a)	Hydraulic Class II (500 mm Diameter)	m3					\$100.00	
121(b)	Hydraulic Class III (800 mm Diameter)	m3					\$100.00	
121(c)	Non-Woven geotextile Membrane	m2					\$100.00	

PROJECT NO: 12-21 PHC A

ESTIMATE NO: 2 (TWO)
FINAL

MONTH ENDING: October 20, 2021

PROJECT: Replacement of Trout Pond 1200mm CSP on the TCH Km 29.5
Part A of the Distribution Table

CONTRACTOR: Edward Collins Contracting Ltd.
ESTIMATED COST: \$266,435.90

ACCOUNT CENTER: 01-3025-311-1910-0624

DTC: 521844

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	AMOUNT
122	Supply & Install Round Polymer Laminated CSP							
122(a)	1600mm (min. thickness = 2.0mm)	m	51	25.0	26.0	51.0	\$3,100.00	\$158,100.00
122(b)	2400mm (min. thickness = 2.8mm)	m					\$4,000.00	
122(c)	1400mm (min. thickness = 2.0mm)	m					\$3,000.00	
	FUEL COST ADJUSTMENTS							
	Estimate # 2 October 2021				\$64.69	\$64.69		\$64.69
	LIQUID COST ADJUSTMENTS							
	Liquidated Damages							
	August 21 - September 20, 2021				-\$40,500.00	-\$40,500.00		-\$40,500.00
	September 21 - October 20, 2021				-\$19,878.69	-\$19,878.69		-\$19,878.69
	Density							
	Bonus				\$549.90	\$549.90		\$549.90

Gross to Date	\$237,334.45
Less Density Bonus	\$549.90
Total	\$236,784.55
Less 10% holdback	\$23,678.46
Paid holdback	
Certified to date	\$213,106.10
Less previous payments	\$65,081.88
Now certified	\$148,024.22

CERTIFIED CORRECT:

Goods Receipt: Engineer or Project Manager

Bill Kane Oct 22/21
Certified By: Regional Engineer

PAYMENT APPROVAL:

Review By: Corporate HDC Representative

Assistant Deputy Minister (Or Delegate)



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN & CONSTRUCTION
PROJECT PROGRESS ESTIMATE

PROJECT NO: 12-21 PHC B

ESTIMATE NO: 1 (ONE)
FINAL

MONTH ENDING October 20, 2021

PROJECT: Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH Km 35.3
Part B of the Distribution Table

CONTRACTOR: Edward Collins Contracting Ltd.
ESTIMATED COST: \$145,500.00

ACCOUNT CENTER: 01-3025-110-2210-0624

DTC: 521845

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	AMOUNT
0	General							
0(a)	Mobilization & Demobilization	lump sum	\$7,500.00		\$2,500.00	\$2,500.00		\$2,500.00
0(c)	Accommodation of Traffic	lump sum	\$2,500.00		\$2,500.00	\$2,500.00		\$2,500.00
0(d)	Contractor Safety Representative	lump sum	\$1,000.00		\$1,000.00	\$1,000.00		\$1,000.00
6	Excavation for Foundation							
6(b)	Other Material	m3					\$5.00	
9	Rip Rap Treatment							
9(f)	Hydraulic Class II (500 mm Diameter)	m3					\$50.00	
9(g)	Hydraulic Class III (800 mm Diameter)	m3					\$50.00	
12	Selected Granular Base Course							
12(a)	Class "A"	l					\$25.00	
12(b)	Class "B"	l					\$25.00	
14	Storage or Disposal of Old Asphaltic Pavement							
14(b)	Disposal of Old Asphaltic Pavement	m3					\$5.00	
15	Tack Coat	m2					\$0.50	
16	Hot Mix Asphaltic Concrete							
16(a)	Hot Asphaltic Base Course	l					\$110.00	
16(b)	Hot Asphaltic Surface Course	l					\$110.00	
16(g)	Liquid Asphalt (56-28)	l					\$1.100.00	
16(i)	Blending Sand	l					\$30.00	
17	Supply and Installation of Guide Rail							
17(a)	Standard Type Guide Rail	m					\$79.00	
17(b)	Standard Type Buried Ends	each					\$800.00	
21	Contingency		\$2,500.00					
28	Disposal of Culvert or Pipe							
28(c)	> 1000mm	m					\$10.00	
35	Cold Planing	m2					\$1.00	
38	Salvage & Reinstallation of Guide Rail							
38(a)	Salvage & Reinstallation of Guide Rail with New Posts	m					\$50.00	
42	Landscaping							
42(a)	Hydroseeding	m2					\$5.00	
42(b)	Time for Hydroseeding	l					\$100.00	
42(c)	Soil for Hydroseeding	m2					\$5.00	
43	Supply & Installation of Fish Baffles							
43(a)	Reinforced Concrete Baffles	m3					\$3,500.00	
47	Supply Fd in Place							
47(b)	Supply Rock Fill in Place	l					\$14.00	
100	Salvage & Reinstall Hydraulic Rip Rap (all sizes)	each					\$25.00	
101	Design, Supply & Install 1200mm Culvert Rehabilitation with HDPE Liner	m	61		61.0	61.0	\$2,000.00	\$122,000.00
102	Design, Supply & Install 2400mm Culvert Rehabilitation with Aluminum Plate Tunnel Liner	m					\$7,500.00	
121	Design							
121(a)	Hydraulic Class II (500 mm Diameter)	m3	40		19.6	19.6	\$100.00	\$1,960.00
121(b)	Hydraulic Class III (800 mm Diameter)	m3	50		13.1	13.1	\$100.00	\$1,310.00
121(c)	Non-Woven geotextile Membrane	m2	60		40.8	40.8	\$100.00	\$4,080.00

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN & CONSTRUCTION
PROJECT PROGRESS ESTIMATE

PROJECT NO: 12-21 PHC B

PROJECT: Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH Km 35.3.
Part B of the Distribution Table

ESTIMATE NO. 1 (ONE)
FINAL

MONTH ENDING. October 20, 2021

CONTRACTOR: Edward Collins Contracting Ltd.
ESTIMATED COST: 5145,500.00

ACCOUNT CENTER: 01-3025-110-2210-0024

DTC: 521845

NO	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	AMOUNT
122	Supply & Install Round Polymer Laminated CSP							
122(a)	1600mm (min. thickness = 2.0mm)	m						
122(b)	2400mm (min. thickness = 2.0mm)	m					\$3,100.00	
122(c)	1400mm (min. thickness = 2.0mm)	m					\$4,000.00	
							\$3,000.00	
	FUEL COST ADJUSTMENTS							
	LIQUID COST ADJUSTMENTS							

Gross to Date	\$135,350.00
Less 10% holdback	\$13,535.00
Paid holdback	
Certified to date	\$121,815.00
Less previous payments	\$0.00
Now certified	\$121,815.00

CERTIFIED CORRECT:

Goods Receipt: Engineering or Project Manager

Certified By: Regional Engineer

PAYMENT APPROVAL:

Review By: Corporate HDC Representative

Assistant Deputy Minister (Or Delegate)

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN & CONSTRUCTION
PROJECT PROGRESS ESTIMATE

PROJECT NO: 12-21 PHC C

ESTIMATE NO: 2 (TWO)

MONTH ENDING: AUG 20/2021

PROJECT: Replacement of Finnie's Pond 1800mm CSP on the TCH Km 44.2. Replacement of Unnamed Stream 1200mm CSP on the TCH Km 55.0.
Parts C & E of the Distribution Table

CONTRACTOR: Edward Collins Contracting Ltd.
ESTIMATED COST: \$592,137.80

ACCOUNT CENTER: 01-3025-311-1910-0824

DTC: 521836

NO	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	AMOUNT
0	General							
0(b)	Mobilization & Demobilization	lump sum	\$10,000.00	\$1,400.00	\$3,600.00	\$8,000.00		\$8,000.00
0(c)	Accommodation of Traffic	lump sum	\$10,000.00	\$4,400.00	\$4,500.00	\$8,900.00		\$8,900.00
0(c)	Contractor Safety Representative	lump sum	\$2,000.00	\$880.00	\$900.00	\$1,780.00		\$1,780.00
6	Excavation for Foundation							
6(b)	Other Material	m3	4600	2293	1634	3927	\$5.00	\$19,635.00
9	Rip Rap Treatment							
9(f)	Hydraulic Class II (500 mm Diameter)	m3	40				\$50.00	
9(g)	Hydraulic Class III (800 mm Diameter)	m3	30				\$50.00	
12	Selected Granular Base Course							
12(a)	Class "A"	t	315	300.4	118.5	418.9	\$25.00	\$10,472.50
12(b)	Class "B"	t	900	484.2	169.4	653.6	\$25.00	\$16,340.00
14	Storage or Disposal of Old Asphaltic Pavement							
14(b)	Disposal of Old Asphaltic Pavement	m3	110	115.88	99.30	215.18	\$5.00	\$1,075.90
15	Tack Coat	m2	800	402.0	470.0	872.0	\$0.50	\$436.00
16	Hot Mix Asphaltic Concrete							
16(a)	Hot Asphaltic Base Course	t	132	35.0	73.0	108.0	\$110.00	\$11,880.00
16(b)	Hot Asphaltic Surface Course	t	204	55.2	137.8	192.8	\$110.00	\$21,208.00
16(c)	Liquid Asphalt (58-28)	t	21.8	5.60	12.85	18.35	\$1,100.00	\$20,185.00
16(d)	Binding Sand	t	50.4	13	30	43	\$30.00	\$1,290.00
17	Supply and Installation of Guide Rail							
17(a)	Standard Type Guide Rail	m	78.2					
17(b)	Standard Type Buried Ends	each	1				\$79.00	
21	Contingency		\$5,000.00				\$800.00	
28	Disposal of Culvert or Pipe							
28(c)	> 1000mm	m	104.6	57.5	35.6	93.1	\$10.00	\$931.00
35	Cold Planing	m2	800	417.1	200.0	617.1	\$1.00	\$617.10
38	Salvage & Reinstallation of Guide Rail							
38(a)	Salvage & Reinstallation of Guide Rail with New Posts	m	121.9	76.5	49.8	126.3	\$50.00	\$6,315.00
42	Landscaping							
42(a)	Hydroseeding	m2	300		550	550	\$5.00	\$2,750.00
42(b)	Lime for Hydroseeding	t	0.2		0.4	0.4	\$100.00	\$40.00
42(c)	Soil for Hydroseeding	m2	300		550	550	\$5.00	\$2,750.00
43	Supply & Installation of Fish Baffles							
43(a)	Reinforced Concrete Baffles	m3	3		2.06	2.06	\$3,500.00	\$7,210.00
47	Supply Fill in Place							
47(c)	Supply Rock Fill in Place	t	3470	1990.4	1411.8	3312.2	\$14.00	\$46,370.80
100	Salvage & Reinstall Hydraulic Rip Rap (all sizes)	each	80	64.4	14.8	79.2	\$25.00	\$1,980.00
101	Design, Supply & Install 1200mm Culvert Rehabilitation with HDPE Liner	m					\$2,000.00	
102	Design, Supply & Install 7400mm Culvert Rehabilitation with Aluminum Plate Tunnel Liner	m					\$7,502.00	
121	Supply & Install Culvert Outlet Energy Dissipator							
121(a)	Hydraulic Class II (500 mm Diameter)	m3					\$100.00	
121(b)	Hydraulic Class III (800 mm Diameter)	m3					\$100.00	
121(c)	Non-Woven geotextile Membrane	m2					\$100.00	

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN & CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 2 (TWO)

MONTH ENDING: AUG 20/2021

PROJECT NO: 12-21 PHC C

PROJECT: Replacement of Finleys Pond 1800mm CSP on the TCH Km 44.2. Replacement of Unnamed Stream 1200mm CSP on the TCH Km 55.0.
Parts C & E of the Distribution Table

CONTRACTOR: Edward Collins Contracting Ltd.

ESTIMATED COST: \$592,137.80

ACCOUNT CENTER: 01-3025-311-1910-0624

DTC: 521856

[illegible]

Gross to Date	<u>\$544,667.46</u>
Less 10% holdback	<u>\$54,466.75</u>
Paid holdback	
Certified to date	<u>\$490,200.71</u>
Less previous payments	<u>\$238,441.59</u>
Now certified	\$251,759.12

CERTIFIED CORRECT:

Goods Receipt: Engineer or Project Manager

Certified By: Regional Engineer

PAYMENT APPROVAL:

Review By: Corporate HUC Representative

Assistant Deputy Minister (Or Delegate)

EXHIBIT G

IN THE MATTER OF the *Mechanics'*
Lien Act, R.S.N. 1990, c. M-3

AND

IN THE MATTER OF a Claim for Lien of
Edward Collins Contracting Ltd. a body
corporate, duly incorporated under the
Laws of the Province of Newfoundland
against certain holdback funds held by
the His Majesty in right of
Newfoundland and Labrador acting
through Department of Transportation
and Works, a division of the Government
of Newfoundland and Labrador ("GNL")
for highway paving contract concerning
culvert replacements and rehabilitation on
the Trans-Canada Highway ("Contract
12-21").

MECHANICS LIEN

No. 70205
Registered 9th day of November
20 22 at 3:30 O'Clock p.m
Fee Paid \$ 24.00 Receipt No. 80007 nbs
Jan Zyl
Registrar of Deeds

CLAIM FOR LIEN

1. **Edward Collins Contracting Ltd.** (the "Lien Claimant"), of the Town of Placentia, in the Province of Newfoundland, under the *Mechanics' Lien Act*, claims a lien upon the holdback funds held by GNL with respect to Contract 12-21, in respect of the following work that is to say:

All goods, services and materials to complete the following scope of work for culvert replacements and rehabilitations on the Trans Canada Highway in the Avalon Region of Newfoundland pursuant to the tender documents for Project 12-21, including:

- Part "A" – Replacement of Trout Pond 1200mm CSP on the TCH km 29.5;
- Part "B" - Culvert Rehabilitation of Soldier's Pond 1200mm CSP on the TCH km 35.3;
- Part "C" - Replacement of Fannies Pond 1800mm CSP on the TCH km 44.2;
- Part "E" – Replacement of Unnamed Stream 1200mm CSP on the TCH km 55.0

2. The address for service of the Lien Claimant is:

c/o O'Keefe & Company
84B Airport Road,
St. John's, NL
A1A 4Y3

J. Keefe and Company

3. The description of the property to be charged is as follows:

The holdback funds held by GNL in respect of Contract 12-21, which said contract was performed on a public highway near kilometer 48.5 of the Trans Canada Highway, near Holyrood, Newfoundland and Labrador (the "Land").

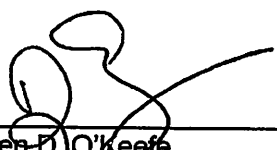
3. The addresses of the person whom the lien claimant believes to be the owners of, or may have an interest in, the land as defined in the *Mechanics' Lien Act* are:

Government of Newfoundland and Labrador
c/o Department of Justice and Minister of Justice
Confederation Building
4th Floor, East Block
PO Box 8700
St. John's, NL, A1B 4J6

4. The said materials and work were provided by the Lien Claimant at the request of GNL.
5. The said labour and materials were last performed/delivered on: 13 October 2022.
6. The amount claimed and due is **\$201,175.49**
7. This lien shall be a charge on holdback funds held with respect to the said Land and premises pursuant to the provisions of the *Mechanics' Lien Act*.

DATED at St. John's, Newfoundland this 9th day of November 2022.

O'KEEFE & COMPANY

Per: 
Darren D. O'Keefe
Solicitors for the Lien Claimant whose
84B Airport Road,
St. John's, NL
A1A 4Y3

IN THE MATTER OF the *Mechanics'*
Lien Act, R.S.N. 1990, c. M-3

AND

IN THE MATTER OF a Claim for Lien of
Edward Collins Contracting Ltd. a
body corporate, duly incorporated under
the Laws of the Province of
Newfoundland against certain holdback
funds held by the His Majesty in right of
Newfoundland and Labrador acting
through Department of Transportation
and Works, a division of the
Government of Newfoundland and
Labrador ("**GNL**") for highway paving
contract concerning culvert
replacements and rehabilitation on the
Trans-Canada Highway ("**Contract 12-
21**").

**CANADA
NEWFOUNDLAND AND LABRADOR
ST. JOHN'S**

AFFIDAVIT

I, Josh Collins, of the Town of Placentia, in the Province of Newfoundland, make oath and say
as follows:

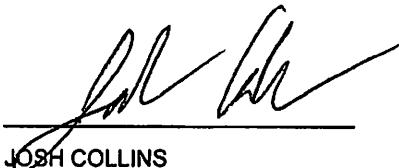
1. That I am the Vice-President of Edward Collins Contracting Ltd., the Lien Claimant, in
the within Claim for Lien.
2. That I have personal knowledge of the matters contained in the within Claim for Lien.
3. That the facts contained in the said Claim for Lien are true to the best of my knowledge,
information and belief.

SWORN TO at St. John's, in the
Province of Newfoundland and Labrador
aforesaid, this 9th day of November,
2022 before me:

CANDACE SEYMOUR

A Commissioner for Oaths in and for
the Province of Newfoundland and Labrador.
My commission expires on September 21, 2027.

Candace Seymour


JOSH COLLINS



Government of Newfoundland and Labrador

Issued by: Digital Government and Service NL
Commercial Registrations Division

Official Receipt

Official Receipt #: 8000ZWDS Payment Date: 2022-11-09

O'Keefe & Company

Method of Payment: Cheque
Payment Number: 0048

Item	Amount	Tax	Tax Amount
Mechanics Lien x 1 @ \$24.00	\$24.00		
Sub Total:	\$24.00 CAD		
Tax Total:	\$0.00 CAD		
Total:	\$24.00 CAD		

Issued under authority of: Department of Finance
Expenditure and Revenue Control
PO Box 8700
St. John's NL
A1B 4J6
709-729-3042

For inquiries please contact: Commercial Registrations Division
709-729-3317
cado@gov.nl.ca

EXHIBIT H

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 2

MONTH ENDING: Oct. 2021

PROJECT NO: 46-21 THP Part F Permit D

PROJECT: Part F Rehabilitate 5.6 kms of the TCH KM 302.5 to KM 308 East of Pinstock Bridge

CONTRACTOR: Edward Collins Contracting Limited

ESTIMATED COST: \$ 2,551,535.00

ACCOUNT CENTER: 01-3025-110-1910

DTC: 21-521854

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS QUANTITY	TOTAL TO DATE	UNIT PRICE	TOTAL PROGRESS CLAIM
0a	Mobilization & Demobilization Bid Limits Apply	Lump Sum	16000		3200	3200	\$1.00	\$3,200.00
0c	Accommodation of Traffic	Lump Sum	32000		3200	6400	\$1.00	\$6,400.00
0d	Contractor Safety Representative	Lump Sum	6400		640	1280	\$1.00	\$1,280.00
6	Excavation for Foundations							
b	Other Material	m3	12600				\$10.00	
7	Supply & Installation of Pipe Culverts							
b	600mm Diameter	m	10				\$275.00	
c	600mm Diameter	m	130				\$400.00	
e	1000mm Diameter	m	51				\$550.00	
f	2000mm Diameter	m	38				\$2,000.00	
9	Rip Rap Treatment							
f	Hydraulic Class II (500mm Diameter)	m3	10				\$25.00	
12	Selected Granular Base							
a	Granular 'A'	Tonne	340				\$35.00	
b	Granular 'B'	Tonne	4800				\$20.00	
14b	Disposal of Old Asphaltic Pavement	m3	210				\$10.00	
15	Tack Coat	sq m	118900				\$0.40	
16	Hot Mix Asphaltic Concrete							
b	Hot Asphaltic Surface Course	Tonne	14260				\$45.00	
c	Liquid Asphalt (58-26)	Tonne	335				\$1,000.00	
d	Liquid Asphalt (64-34 PMA) (See SGC #31)	Tonne	585				\$1,275.00	
e	Blending Sand	Tonne	2140				\$21.00	
f	Asphaltic Patching (100mm)	m²	1150				\$70.00	
17	Supply & Installation of Guide Rail							
a	Standard type Guide Rail	m	552				\$100.00	
b	Standard type Bored Ends	Ea	7				\$1,000.00	
c	Removal & Disposal of Guide Rail	m	605				\$10.00	
21	Contingency	Sum	5200				\$1.00	
23	Cleaning of Existing Ditches	m	5200	300	5064.1	5384.1	\$12.00	\$64,369.20
28	Disposal of Culvert of Pipe							
a	All Sizes	m	227				\$10.00	
35	Cold Planing	sq m	42000				\$1.00	
47	Supply Fill in Place							
d	Rock Fill in Place	m3	1260				\$14.00	
	1/2 crushing class a			170		170	\$35.00	\$5,950.00
	1/2 crushing class b			2400		2400	\$20.00	\$48,000.00
	Liquidated damages 10days @3600/day							\$36,000.00
								\$94,199.20

Gross to Date \$94,199.20
Less 10% holdback \$9,419.92
Paid holdback _____
Certified to date \$84,779.28
Less previous payments \$55,251.00
Now certified \$29,528.28

CERTIFIED CORRECT 2021-10-25
Goods Receipt: Engineer or Project Manager

Certified by: Regional Engineer

PAYMENT APPROVAL:

Review by: Corporate HDC Representative

Assistant Deputy Minister (Or Delegate)

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

ESTIMATE NO: 3

MONTH ENDING: Oct. 2021

PROJECT NO: 46-21 THP Part C Permit C

PROJECT: Part 'C' Rehabilitation of GFW West Overpass (Eastbound)

CONTRACTOR: Edward Collins Contracting Limited
ESTIMATED COST: \$ 188,797.00

ACCOUNT CENTER: 01-3025-110-2210

DTC: 21-523724

[illegible]

DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION
PROJECT PROGRESS ESTIMATE

PROJECT NO: 46-21 THP Part D Permit C

ESTIMATE NO: 3

MONTH ENDING: Oct. 2021

PROJECT: Part 'D' Rehabilitation of GFW West Overpass (Westbound)

CONTRACTOR: Edward Collins Contracting Limited

ESTIMATED COST: \$ 184,797.00

ACCOUNT CENTER: 01-3025-110-2210

DTC: 21-523724

[illegible]

ESTIMATE NO: 3

PROJECT NO: 46-21 THP Part E Permit C

PROJECT: Part 'E' Rehabilitation of GFW Pedestrian Overpass

ACCOUNT CENTER: 01-3025-110-2210

[illegible]

Assistant Deputy Minister (Or Delegate)

Appendix I

Government of Newfoundland & Labrador

Reply to Josh Collins

Dated November 15, 2023

7 December 2023

Phil Clarke
Grant Thornton LLP
Nova Centre, North Tower
Suite 1000 – 1675 Grafton Street
Halifax, NL B3J 0E9

Re: Edwards Collins Contracting Limited – Claims Process Submissions

Dear Sir:

We write in response to the Affidavit of Josh Collins dated 15 November 2023 and the issue raised that the Department of Transportation and Infrastructure ("TI") has inappropriately off-set Liquidated Damages against Holdback funds retained pursuant to three contracts with Edward Collins Contracting Ltd. ("ECC") and to reiterate that position taken by TI the Holdback funds should be retained by TI for completion of the ECC Contracts. TI states as follows:

Liquidated Damages

1. TI confirms that Liquidated Damages were not set off against the Holdback funds in Contracts 45-20, 46-21 or 12-21 (collectively referred to as the "**Contracts**"). TI states that there was an error in the submissions prepared by counsel in the submissions related to Contract 45-20 and 46-21 that indicated that Liquidated Damages were set-off against the Holdback funds, however this is not the case.
2. In paragraph 31 of the submissions on Contract 45-20 and paragraph 27 in the submissions on Contract 46-21, counsel for TI erroneously stated as follows:

"It is GNL's position that it was contractually entitled to set-off liquidated damages from the holdback amounts pursuant to section 21.13(b) of the Agreement."

TI states that Liquidated damages were applied to progress payments pursuant to the respective Contracts and that those amounts were applied well in advance of the initial Stay Order.

3. TI states that it is evident from the filings, particularly the amounts claimed with respect to the Holdback, that neither Liquidated Damages nor any other charge has been claimed against the Holdback funds. The amounts claimed in the Process Claim forms reflect 10% of the respective contract prices as required under the terms of the Contracts, and those amounts are being retained by TI pending a final decision in the Claims Process.
4. The amounts claimed for Liquidated Damages as set out in TI's previous submissions under this Claims Process are the only Liquidated Damages claimed by TI under the Contracts. Apart from those amounts, which were applied to progress payments well in advance of the Stay Order, TI has not claimed any other amounts for Liquidated Damages.
5. TI states that it has not received payment from Intact pursuant to the performance bond on Contract 45-20 as alleged in the affidavit of Josh Collins, nor has TI received payment under the performance bonds for the other contracts with ECC. TI acknowledges the Mitigation Agreement but states that, pursuant to that agreement, no payment with respect

to the Holdback amounts will be made until a final decision is made with respect to the Holdback pursuant to the Claims Process.

Holdback

6. TI states that, as the *Mechanics' Lien Act*, RSNL 1990 Chapter M-3, does not apply to the Crown¹, the Holdbacks for the Contracts are governed by the terms and conditions of the Contracts.
7. As noted in TI's previous filings, TI issued Notices of Default against ECC for the Contracts as follows:

Contract 45-20	Notice of Default issued on 8 November 2021
Contract 46-21	Notice of Default issued on 8 April 2022
Contract 12-21	Notice of Default issued on 8 April 2022

It is TI's position that ECC failed to rectify the defaults on the Contracts as required and, as a result, TI engaged the performance bonds on the Contracts in an effort to bring them to completion.

8. GC 21.13 of the Contracts determines what happens to the Holdback funds in the event of a claim by the owner for non-performance. GC 21.13 states as follows:

21.13 Notwithstanding the provisions of GC 21.3 or any other provision of this Contract, the Owner may:

a) in the event of a claim by the Owner against the Contractor for damages arising out of the performance or non performance of the Contract, withhold payment of any amount equal to the alleged damages until the liability for damages is established and no amount of interest will be paid on amounts held under this clause;

b) set off amounts owing by the Contractor to the Owner,

c) following the issuance of the Certificate of Substantial Performance, withhold payment of an amount equal to twice the cost, as estimated by the Owner, of remedying deficiencies until the issuance of a Certificate of Total Performance and no amount of interest will be paid on amounts held under this clause.

9. As stated in its initial Claims Process submissions, TI asserts that pursuant to GC 21.13 of the Contracts, in the event of non-performance TI was entitled to withhold amounts equal to alleged damages until liability is determined. In October of 2021, GNL prepared estimates of the completion costs for ECC but ECC failed to complete the work or provide a plan for completion of the Contracts. As a result, costs increased on each project.
10. TI maintains its position that because of ECC's default and failure to complete the work on each of the Contracts, TI was contractually permitted to retain the Holdback and to off-

¹ *Brook Construction (2007) Inc. v. Blackwood Contractors Limited*, 2015 NLCA 18

set the completion costs against the remaining contract funds, including the Holdback. TI is of the position this set-off occurred immediately upon ECC's failure to rectify the defaults as per the Notices issued by TI. At that point, the remaining funds, including the Holdback, were eligible to be applied against the completion costs and were withheld for that purpose to be paid out following the completion of the work under each of the Contracts.

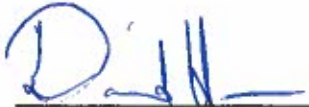
11. While the costs for completion of the projects are not fully calculated, TI has prepared estimates for the completion costs for each project and are attached as follows:

Estimated Costs for Completion – Contract 46-21	Schedule A
Estimated Costs for Completion – Contract 12-21	Schedule B
Estimated Costs for Completion – Contract 45-20	Schedule C

12. Based on the foregoing, TI states that as a result of ECC's defaults under the Contracts, TI is permitted to set off amounts owing under the Contracts, including payment of the Holdback, against the costs of completing the Contracts. Further, TI states that as of the date of the Notice of Default the remaining funds for the Contracts, including the Holdbacks, were withheld for completion costs as a result of ECC's non-performance.
13. Crucially, this withholding for the purposes of completing the Contracts occurred prior to the date of the Stay Order or the date that ECC entered into Companies' Creditors Arrangement Act ("CCAA") protection. The Holdbacks could not be used to pay for completion costs until the actual remaining work under each of the Contract was completed, which occurred following the Stay Order.
14. Therefore, TI states that it is the language of the Contracts that govern TI's ability to withhold and subsequently utilize the holdback funds once the Work under the Contract is complete, not the *Mechanics Lien Act* or the CCAA. As a result, TI is entitled to retain the Holdback funds for completion costs.

Mechanics' Lien

15. As stated above, the Mechanics Lien Act does not apply to the Crown. As a result, and as stated in its previous submissions, TI states that the Mechanics' Lien filed against the Holdback funds under Contract 12-21 is invalid and that neither a lien nor a charge against a holdback can be registered against the Crown.
16. TI states that the Holdback in 12-21 is governed by the Contract and that the Holdback funds are set-off against the completion costs as set out above.



David L. Hearn
Department of Justice &
Public Safety

Schedule A

INCLUDES HOLDBACK, LD's, and BONUSES and EXCLUDES HST

Project	46-21php	35-22php	31-23php	TOTAL
Year	2021	2022	2023	
Contractor	ECC	J1-Contracting	Municipal Construction	
Part A Rehab TCH South Brook to West Bottom	\$163,212.00	\$1,269,448.36	\$1,990,886.98	\$3,423,547.34
Part B Rehab South Brook Bridge	\$83,486.40		\$178,168.53	\$261,654.93
Part C Rehab GF Overpass Eastbound	\$58,439.30		\$117,939.64	\$176,378.94
Part D Rehab GF Overpass Westbound	\$53,977.70		\$113,825.63	\$167,803.33
Part E Rehab GF Pedestrian	\$0.00		\$92,186.09	\$92,186.09
Part F Rehab TCH East of Penstock	\$94,199.20	\$1,278,455.57	\$3,328,986.19	\$4,701,640.96
Total	\$453,314.60	\$2,547,903.93	\$5,821,993.06	\$8,823,211.59

INCLUDES HOLDBACK, LD's, and BONUSES and INCLUDES HST

Project	46-21php	35-22php	31-23php	TOTAL
Year	2021	2022	2023	
Contractor	ECC	J1-Contracting	Municipal Construction	
Part A Rehab TCH South Brook to West Bottom	\$187,693.80	\$1,459,865.61	\$2,289,520.03	\$3,937,079.44
Part B Rehab South Brook Bridge	\$96,009.36		\$204,893.81	\$300,903.17
Part C Rehab GF Overpass Eastbound	\$67,205.20		\$135,630.59	\$202,835.78
Part D Rehab GF Overpass Westbound	\$62,074.36		\$130,899.47	\$192,973.83
Part E Rehab GF Pedestrian	\$0.00		\$106,014.00	\$106,014.00
Part F Rehab TCH East of Penstock	\$108,329.08	\$1,470,223.91	\$3,828,334.12	\$5,406,887.10
Total	\$521,311.79	\$2,930,089.52	\$6,695,292.02	\$10,146,693.33

SCHEDULE B

Project	Gross to date	Bonuses	Total	Holdback	Certified for payment	
12-21 PHC "A"	\$237,334.45	\$549.90	\$236,784.55	\$23,678.46	\$213,106.09	
12-21 PHC "B"	\$135,350.00	\$0.00	\$135,350.00	\$13,535.00	\$121,815.00	
12-21 PHC "C"	\$590,437.91	\$152.15	\$590,285.76	\$59,028.58	\$531,257.18	
12-21 PHC "D"						Removed from contract and given to replacement contractor 64-22 PHC. Value of this portion under 12-21PHC was \$353,500.00
64-22 PHC "C"	\$389,340.71	\$281.94	\$389,058.77	\$38,905.88	\$350,152.89	Work completed Nov 2022 Holdback released Jan 2023 Bonuses still not paid
Department purchased culvert	\$99,776.06					
Total cost to TI	\$489,116.77					

Schedule C

GOVERNMENT OF NEWFOUNDLAND AND LABRADOR DEPARTMENT OF TRANSPORTATION & INFRASTRUCTURE CERTIFICATE OF PAYMENT

PROJECT TITLE: Pave Section of R460 through community of Cape St. George

PROJECT NO. 66-22PHPA-22

INVOICE NO. PE1-66-22PHPA

CONTRACTOR: MARINE CONTRACTORS INC

DATE: 28-Oct-2022

SUPPLIER SITE REF: COR-BOX 640

VENDOR NO: 31593312

DTC (PERMIT NO.): 521768.00

ACCOUNT: 01-3025-110-2210

PURCHASE ORDER NO. 222018335

TOTAL VALUE OF WORK COMPLETED

\$670,226.10

TOTAL BONUS

\$0.00

LESS PREVIOUS BONUS VALUE

\$0.00

BONUS THIS CERTIFICATE

\$0.00

TOTAL HOLDBACK VALUE

\$67,022.61

LESS PREVIOUS HOLDBACK VALUE

\$0.00

HOLDBACK THIS CERTIFICATE

\$67,022.61

VALUE OF WORK NOW CERTIFIED

\$603,203.49

LESS PREVIOUS PAYMENT AMOUNT

\$0.00

BEFORE TAX - SUBTOTAL OF THIS CERTIFICATE

\$603,203.49

HST @ 15%

\$90,480.52

TOTAL OF THIS CERTIFICATE

\$693,684.01

Match to PO : \$670,226.10

Add to Holdback Amount \$67,022.61

Requestor Name: Sherri Hiscock

Holdback Account: 01-9999-810-9902-6575

Regional Engineer: Dennis Coley

Add to Bonus Account: \$0.00

Bonus Account: 01-9999-810-9902-6595

REMARKS:

PREPARED BY

Sherri Hiscock

CORPORATE HDC REPRESENTATIVE

Friday, October 28, 2022

DATE

APPROVED FOR PAYMENT

DIRECTOR OF HDC - William Hillier

11/08/2022

DATE

TRANSPORTATION AND INFRASTRUCTURE FINANCIAL PROCESSING

INVOICE PROCESSED BY: TI FINANCE REPRESENTATIVE

Date



DEPARTMENT OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY DESIGN AND CONSTRUCTION

PROJECT PROGRESS ESTIMATE

Project No. 66-22 PHP "A"

ESTIMATE NO: 1 (one) FINAL

MONTH ENDING: 20-Oct-22

Project Title: Part A - Pave section of R460 through the Community of Cape St. George.

PO 222018335

Contractor: Marine Contractors Inc.

Account Center: 01-3025-110-2210-0624

D.T.C.: 621766

Estimated Cost: \$ 685,000.00

NO.	DESCRIPTION OF WORK	UNIT	ESTIMATED QUANTITY	PREVIOUS QUANTITY	SINCE PREVIOUS ESTIMATE	TOTAL TO DATE	UNIT PRICE	AMOUNT
0	General							
0a	Mobilization & Demobilization	LS	1	0	1	1	\$25,000.00	\$25,000.00
0c	Accommodation of Traffic - SGC 9	LS	1	0	1	1	\$17,500.00	\$17,500.00
15	Tack Coat	m2	16250	0	16278.6	16278.6	\$2.00	\$32,557.20
16	Hot Mix Asphaltic Concrete (See SGC 14, 15 & 17)							
16b	Hot Mix Surface Course	t	2000	0	2019.1	2019.1	\$112.00	\$226,139.20
16c	Liquid Asphalt (50-28)	t	125	0	117.11	117.11	\$1,650.00	\$193,231.50
16d	Blending Sand	t	300	0	303	303	\$20.00	\$6,060.00
21	Contingency	LS	3750	0	0	0		\$0.00
		LS		0		0	\$1.00	\$0.00
				0		0	\$1.00	\$0.00
				0		0	\$1.00	\$0.00
102	Shouldering	m	5000	0	4981.3	4981.3	\$14.00	\$69,738.20
104	Deficiencies and Warranty on Completed Work (SGC 14)	LS	1	0	1	1	\$100,000.00	\$100,000.00
	Asphalt Extraction Adjustments	LS	0	0	0	0	\$1.00	\$0.00
	Fuel/Furnace Oil Adjustments					0		
	Estimate #1 - Oct 20th, 2022	lump sum	0	0	0	0	\$1.00	\$0.00
		lump sum	0	0	0	0	\$1.00	\$0.00
		lump sum	0	0	0	0	\$1.00	\$0.00
	Liquid Adjustments					0		
	Estimate #1 - Oct 20th, 2022	lump sum	0	0	0	0	\$1.00	\$0.00
		lump sum	0	0	0	0	\$1.00	\$0.00

CERTIFIED CORRECT

Gross to Date \$670,226.10
Less Bonus Payments
Sub-Total \$670,226.10
Less 10% holdback \$67,022.61
Paid holdback
Certified to date \$603,203.49
Less previous payments \$0.00
Now certified \$603,203.49

Goods Receipt: Engineer or Project Manager

Certified by: Regional Engineer

PAYMENT APPROVAL

Assistant Deputy Minister (Or Delegate)

Oct. 27/22
R

26-10-22
J.H.

**GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
DEPARTMENT OF TRANSPORTATION & INFRASTRUCTURE
CERTIFICATE OF PAYMENT**

PROJECT TITLE:	Pave Section of R463 between Cape St. George & Mainland	PROJECT NO. 66-22PHPB-22	
		INVOICE NO. PE1-66-22PHPB	
CONTRACTOR:	MARINE CONTRACTORS INC	DATE: 28-Oct-2022	
SUPPLIER SITE REF:	COR-BOX 640		
VENDOR NO:	31593312	DTC (PERMIT NO.): 521769.00	
ACCOUNT:	01-3025-311-1910	PURCHASE ORDER NO. 222018338	

TOTAL VALUE OF WORK COMPLETED	\$991,095.64
TOTAL BONUS	\$1,705.96
LESS PREVIOUS BONUS VALUE	\$0.00
BONUS THIS CERTIFICATE	\$1,705.96
TOTAL HOLDBACK VALUE	\$98,938.97
LESS PREVIOUS HOLDBACK VALUE	\$0.00
HOLDBACK THIS CERTIFICATE	\$98,938.97
VALUE OF WORK NOW CERTIFIED	\$890,450.71
LESS PREVIOUS PAYMENT AMOUNT	\$0.00
BEFORE TAX - SUBTOTAL OF THIS CERTIFICATE	\$890,450.71
HST @ 15%	\$133,567.61
TOTAL OF THIS CERTIFICATE	\$1,024,018.32

Match to PO :	\$991,095.64	Add to Holdback Amount	\$98,938.97
Requestor Name:	Sherri Hiscock	Holdback Account:	01-9999-810-9902-6575
Regional Engineer:	Dennis Coley	Add to Bonus Account:	\$1,705.96
		Bonus Account:	01-9999-810-9902-6595

REMARKS: _____

PREPARED BY Sherri Hiscock CORPORATE HDC REPRESENTATIVE Friday, October 28, 2022 DATE	APPROVED FOR PAYMENT  DIRECTOR OF HDC - William Hillier 11/08/2022 DATE
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TRANSPORTATION AND INFRASTRUCTURE FINANCIAL PROCESSING	
INVOICE PROCESSED BY: TI FINANCE REPRESENTATIVE	Date

26-10-22
gdl

Appendix J

Monitor's Final Determination

NOTICE OF PARTIAL DETERMINATION OF CLAIM

To: Government of Newfoundland and Labrador (the “**Claimant**”)

Date: January 12, 2023

IN THE MATTER OF THE CCAA PROCEEDINGS OF EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the “DEBTORS”)

Take notice that Grant Thornton Limited., in its capacity as Monitor (in such capacity, the “**Monitor**”) appointed pursuant to the Order of Justice MacDonald dated October 5, 2022, has reviewed the proof of claim dated March 27, 2023 (the “**Claim**”) in respect of the above-noted Claimant and has assessed the Claim in accordance with the Claims Procedure Order (the “**Claims Procedure Order**”) of the Supreme Court of Newfoundland and Labrador dated March 14, 2023 (the “**Claims Procedure**”).

All capitalized terms not defined herein have the meaning given to such terms in the Claim Procedure Order.

The Monitor has reviewed your Claim in accordance with the Claims Procedure Order, and has made the following determination:

Claim Determination

- ☐ Claim Allowed
- ☐ Claim Partially Allowed/Claim Partially Disallowed
- ☒ Claim Disallowed

The Monitor has made the above-noted final determination in respect of your Claim for the following reason(s):

Previous Partial Determination

The Monitor previously issued a partial determination whether the Claimant was precluded from making a claim to set off liquidated damages from the holdback as asserted in a letter from counsel for the Debtors dated October 31, 2023. A copy of such determination is attached hereto as Appendix “A” (the “Partial Determination”). The Partial Determination did not deal with whether the Claimant was entitled to liquidated damages or the quantum thereof. This Final Determination address such issue.

Further Materials provided by the Debtors and the Claimant

Following the Partial Determination, the Debtors provided an affidavit of Josh Collins sworn November 15, 2023 (the "**Collins Affidavit**"). The Claimant then provided a response by letter dated December 7, 2023 (the "**Claimant's Response**").

Determination of the Claim

On review of the materials submitted by the Claimant with the Claim as well as the Collins Affidavit and the Claimant's Response, the Monitor has determined that the Claimant had already recovered liquidated damages set out in the Claim by way of set off against the progress payments made by the Claimant to ECC. The claims for liquidated damages deducted from the ECC progress payments exceeded the holdback claimed.

Project	Holdback (10%)	Holdback (10%) (Includes HST at 15%)	Unpaid Liquidated Damages Deducted from Progress Payments
12-21PHC Avalon Culvert Rehab	\$ 96,242	\$ 110,678	\$ 78,060.50
45-20PHP Stephenville Paving	\$ 163,761	\$ 188,325	\$ 253,000.00
46-21PHP Central Paving and Bridge Rehab	\$ 41,831	\$ 48,106	\$ 80,500.00
Total:	\$ 301,835	\$ 347,109	\$ 411,560.50

The Claimant's Response accepts this.

As the Claimant has received the liquidated damages set out in the Claim against the progress payments, it cannot now claim for liquidated damages a second time against the holdback.

New allegations by the Claimant

The Claimant's Response goes on to assert that it should be entitled to now claim against the Debtors for the estimated costs to complete the projects at issue in the Claim. In support, the Claimant attaches estimates of such costs to the Claimant's Reply.

The Claims Procedure Order provides as follows in paragraphs 12:

12. **THIS COURT ORDERS** that the Claimants shall deliver to the Monitor a Proof of Claim, together with relevant supporting documentation in respect of the Claims Process Claim on or before the Claims Br Date. [...]

The Monitor has determined that claims for costs to complete the projects at issue in the Claim were not asserted as part of the Claim, which appears to be a breach of the Claims Procedure Order. There was at best passing reference to costs to complete being claimable, but no particulars were provided. Moreover, had the Claimant intended to seek such amounts in the Claim, the Claimant failed to provide the supporting documentation in that respect, which appears to be a separate claim which was not filed pursuant to the Claims Procedure Order.

The Monitor concludes that the Claim is restricted to the liquidated damages amounts to which it refers, and for which the Claimant has already obtained recovery as noted above.

Conclusion

At this time, it is the position of the Monitor that the Claimant should remit the holdback in the amount of \$347,109 (HST included) to ECC.

Subject to further dispute by you in accordance with the Claims Procedure Order, your Claim will be allowed as follows:

Name of Claimant	Claim Amount per Proof of Claim	Amount of Claim Allowed (if any)
Government of Newfoundland and Labrador	\$ 715,812.99	\$Nil

IF YOU WISH TO DISPUTE THIS NOTICE OF DETERMINATION OF CLAIM AS SET FORTH HEREIN, YOU MUST TAKE THE STEPS OUTLINED BELOW.

The Claims Procedure Order provides that if you disagree with the determination of your Claim herein, you must deliver to the Monitor a completed Notice of Objection **before 5:00 p.m. on the day which is seven (7) days after the date the Notice of Determination of Claim is deemed to be received.**

If you do not dispute the determination of your Claim herein in accordance with the above instructions and the Claim Procedure Order, the amount of your Claim will be deemed to be accepted in the amount set forth herein.

If you have any questions or concerns regarding the Claims Procedure Order, please contact the Monitor directly.

DATED the 12th day of January 2024.

**Grant Thornton Limited, solely in its capacity as
Monitor of the Debtors.**

Per:



Name: Phil Clarke, CPA, CA, CIRP, LIT
Title: Vice President

Appendix K

Government of Newfoundland & Labrador Appeal

Dated January 19, 2024

SCHEDULE C

NOTICE OF OBJECTION

IN THE MATTER OF THE CCAA PROCEEDINGS OF EDWARD COLLINS CONTRACTING LIMITED, H&E DESIGNS LTD., CLASSIC SECURITY LTD., FGC HOLDINGS LTD. AND 51037 NEWFOUNDLAND AND LABRADOR INC (the "DEBTORS")

To: Grant Thornton Limited, in its capacity as Monitor of the Debtors (the "Monitor")

Date: the 19th day of January 2023 2024

Claimant: Government of Newfoundland and Labrador (the "Claimant")

Pursuant to the Claims Procedure Order dated ●, 2023, the Claimant hereby gives notice that it disputes the Notice of Determination of Claim dated ●, 2023, issued by the Monitor.

The Claimant disputes the Claim as partially allowed, partially disallowed or disallowed in the said Notice of Determination of Claim as follows:

Amount of Claim determined by the Monitor as set out in the Notice of Determination of Claim	Amount of Claim per Claimant
\$ 0.00	\$ 347,109.00
\$	\$

Reason for the dispute *(attach copies of any supporting documentation)*

See Schedule "A" attached

Address for service of this Notice of Objection:

Grant Thornton Limited

in its capacity Monitor of the Debtors

Nova Centre, North Tower
Suite 1000 - 1675 Grafton Street
Halifax NS Canada, B3J 0E9

Attention: Allan MacDonald
Phone: (902) 491.4179
Email: Allan.MacDonald@ca.gt.com

THIS FORM AND ANY REQUIRED SUPPORTING DOCUMENTATION MUST BE RETURNED TO THE MONITOR BY REGISTERED MAIL, PERSONAL SERVICE, EMAIL (IN PDF FORMAT), FACSIMILE OR COURIER TO THE ABOVE-NOTED ADDRESS AND MUST BE RECEIVED BY THE MONITOR BEFORE 5:00 P.M. ON THE FOURTEENTH (14) CALENDAR DAY AFTER THE DATE THE NOTICE OF DETERMINATION OF CLAIM IS DEEMED TO BE RECEIVED.

DATED the 19th day of January 2023.



(Signature of Witness)



(Signature of Claimant)

If the Claimant is not an individual, print name of Claimant, and name and title of authorized signatory:

Per: Government of Newfoundland and Labrador

Name: David L. Hearn

Title: Solicitor

I have the authority to bind the corporation

SCHEDULE "A"

1. Government of Newfoundland and Labrador ("GNL") disputes the Partial Claim Determination of the Monitor dated 12 January 2024.
2. GNL states that the Monitor erred in fact and law by finding that the claim by GNL to off-set the Holdback amounts on Contract 12-21, 45-20 and 46-21 (collectively referred to herein as the "Contracts") against the completion costs of the Contracts was a "new allegation" and was not asserted as part of the initial Claims Procedure Order.
3. GNL objects to the statement by the Monitor that "there was at best a passing reference to costs to complete being claimable." GNL states that the right to set-off is clearly established in the Contracts and that right was expressly argued in the initial Claims Process submissions with reference to the specific provisions of the Contracts along with the express statement that GNL had the right to set-off amounts owing to the Owner by the Contractor.
4. GNL states that the Monitor further erred in stating that GNL failed to provide particulars to support the set-off of the Holdback amounts of the Contracts to amounts owing by the Contractor. In each of the claims, GNL provided Project Progress Estimates up to the time of the last payment to ECC on each Project. These Progress Estimates clearly establish the amounts remaining on each Contract at the time of last payment prior to the Defaults being issued on the respective Contracts, and each Progress Estimate clearly establishes that the remaining costs to complete each Contract far exceeded the value of the Holdback amounts for each respective Contract.
5. GNL states that the completion costs for each of the Contracts were not available at the time of the Claims Process filing dates. GNL states that the cost completion estimates provided in the supplementary filings referred to by the Monitor were merely as a courtesy to confirm that the amounts were far in excess of the Holdback amounts. GNL states that these costs are still estimates as outstanding issues in each Contract need to be determined before the final completion costs are established. However, for the purposes of the Claims Process, the final determination of costs is moot as the costs will inevitably exceed the Holdback amounts as the Progress Estimates indicate.

6. GNL repeats the foregoing and states that the Monitor erred in its determination that GNL did not claim to off-set the completion costs against the Holdback amounts and that GNL did not provide supporting documentation. As a result, GNL objects to the Monitor's determination and respectfully requests that GNL be entitled to retain the Holdback amounts as set out in the Proof of Claim.

ALL OF WHICH IS RESPECTFULLY SUBMITTED on behalf of the Government of Newfoundland and Labrador this 19th day of January 2024.

Per:



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