

**TOWN OF FORT FRANCES**  
**OPERATIONS AND FACILITIES DIVISION**  
**TRENCHLESS RELINING OF WATERMAINS**  
**TENDER NO. 21-OF-09**  
**April 8, 2021**

**TENDER NO. 21-OF-09**

**TERNCHLESS RELINING OF WATERMANS**

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**Section I**

**TOWN OF FORT FRANCES**

**OPERATIONS AND FACILITIES DIVISION**

**CALL FOR TENDER**

**TRENCHLESS RELINING OF WATERMAINS**

Sealed Tenders clearly marked “**Tender No. 21-OF-09**” will be received by the Corporation of the Town of Fort Frances (the “Town”) up to but not later than:

2:00 p.m. Local Fort Frances Time  
Tuesday, **May 18, 2021**

After which time such proposals will be opened publicly and read aloud at the Fort Frances Civic Centre, 320 Portage Avenue, Fort Frances, Ontario. Public Participation will be via conference call in at +1 807-701-5975, 439515869#.

Certain Tender Forms (“Tender Forms”) are required to be submitted. Please submit such completed Tender Forms to:

The Corporation of the Town of Fort Frances  
Attention: Mr. Doug Brown, Administrator  
Town of Fort Frances  
320 Portage Avenue  
Fort Frances, Ontario  
P9A 3P9  
Fax: 1-807-274-8479

Information relating to this Tender, is available at the Information Desk, Fort Frances Civic Centre, 320 Portage Avenue, Fort Frances, Ontario

Please direct any questions regarding this tender to: Travis Rob, Manager of Operations and Facilities (807)274-9893, [trob@fortfrances.ca](mailto:trob@fortfrances.ca)

Lowest or any Tender not necessarily accepted. The Corporation of the Town of Fort Frances (the “Town”) reserves the right to reject any or all Tenders, to waive irregularities and informalities therein, and to award the contract in the best interest of the Town in its sole and unfettered discretion. Tender award has to be approved by Council. See Tender information, Tender Forms and other Tender documents, for all terms, conditions and requirements.

## SECTION 2

### TENDER INFORMATION

- 2.1 The Tenderer acknowledges that the Town shall have the right to reject any, or all, Tenders for any reason, or to accept any Tender which the Town in its sole unfettered discretion deems most advantageous to itself. The lowest, or any, Tender will not necessarily be accepted and the Town shall have the unfettered right to:
- (a) accept any regular, irregular, unbalanced, informal or qualified Tender;
  - (b) disqualify Tenders not submitted in accordance with the requirements of any Tender documents;
  - (c) accept a Tender which is not the lowest Tender; and
  - (d) reject a Tender that is the lowest Tender (and even if it is the only Tender received).
- 2.2 The Town reserves the right to consider, during the evaluation of Tenders:
- (a) information provided in the Tender document itself;
  - (b) information provided in response to enquiries of credit and industry references set out in the Tender;
  - (c) information received in response to enquiries made by the Town of third parties apart from those disclosed in the Tender in relation to the reputation, reliability, experience and capabilities of the Tenderer,
  - (d) the manner in which the Tenderer provides services to others;
  - (e) the experience and qualification of the Tenderer's senior management, and project management;
  - (f) the compliance of the Tenderer with the Town's requirements and specifications, and
  - (h) any other thing or matter which the Town, in its sole unfettered discretion, deems appropriate.
- 2.3 By submitting a Tender, the Tenderer acknowledges the Town's rights under this section 2 and absolutely waives any right, or cause of action against the Town and its consultants, by reason of the Town's failure to accept the Tender

submitted by the Tenderer, whether such right or cause of action arises in contract, negligence, or otherwise.

2.4 (a) The following schedules are attached to and form an integral part hereof:

- (i) Schedule 1 - Tender Forms (the "Tender Forms");
- (ii) Schedule 2 - Standard Form of Agreement (the "Agreement");
- (iii) Schedule 3 - Occupational Health and Safety Agreement (the "OH&S Agreement"); and
- (iv) Schedule 4 - Specifications and Other Provisions (the "Specifications and Other Provisions").

(b) In this Tender, the Tender Information, Tender Forms, Addenda (as defined in section 2.5), the Agreement, and the Specifications and Other Provisions, are collectively referred to as the "Tender Documents".

2.5 Tenderers may, up to the three (3) business days prior to Closing Time, be advised by Addenda of, without limitation, additions to, deletions from, alterations in, or other changes to, the Tender Documents. All such changes shall become an integral part of the Tender Documents and allowed for by the Tenderer in its Tender and Tender pricing. The Tender Forms provide for an acknowledgement by the Tenderer of receipt by the Tenderer of any and all Addenda.

2.6 All Tenders are to be submitted upon the Tender forms.

2.7 This Tender closes at 2:00 p.m. Local (Fort Frances) time, **May 18, 2021** (herein sometimes referred to as the "Closing Time"), after which time Tenders received will be opened publicly and read aloud at the Fort Frances Civic Centre, 320 Portage Avenue, Fort Frances, Ontario. **Public Participation will be via conference call in at +1 807-701-5975, 439 515 869#.**

Two (2) sets of originally signed Tender Forms fully completed, sealed and marked "**Tender No."21-OF-09**" must be received by the Town Administrator or designee up to but not later than the Closing Time.

2.8 The Tenderer shall examine the Tender Documents as soon as possible, and immediately notify the Town Administrator or designee of any errors, omissions or conflicts discovered.

2.9 Tenders received prior to the Closing Time may be withdrawn by the Tenderer only upon, and by, written notice of withdrawal, which written notice of withdrawal must be received by the Town Administrator no later than the Closing Time. If

such written notice of withdrawal is not so received by the Town Administrator, such Tender shall be deemed as being open for the Town to consider and/or accept. The last Tender received shall invalidate all previous Tenders received from the same Tenderer.

- 2.10 Tender award has to be approved by Council of the Town (“Council”). No Tender will be awarded except after approval of Council.
- 2.11 Tenderers are advised to review the Tender Documents for all terms, conditions and requirements. For general informational purposes only, Tenderers are advised that :

the Town is requesting Tenders for the supply and delivery of certain material (all as more fully detailed in the Tender Documents):

- (i) AWWA Class III Semi Structural lining of 250mm Cast Iron watermain along Wright Avenue Right of Way (ROW);
- (ii) AWWA Class III Semi Structural lining of 250mm Ductile Iron watermain along Keating Avenue Right of Way (ROW);

- 2.13 As it is the responsibility of the Tenderer to determine levy and collection of the Harmonized and Sales Tax (HST), the Tenderer is requested to ensure that it provides its HST number (or alternatively cite the basis for exemption in lieu thereof), and that the amounts bid show the HST separately where and as required by the Tender Documents.
- 2.14 The Town is governed by the Municipal Freedom of Information and Protection of Privacy Act. Tenderers shall and do hereby consent that Tenders and Tender contents may be made public as a condition of the Tendering process.
- 2.15 A deposit (in the Tender Documents sometimes referred to as the “Deposit”) by way of certified cheque, bid bond, or equivalent, in the amount of **10%** of the Total Tender Price payable to the Town shall accompany each Tender submitted.
- 2.16 Forthwith upon the Town notifying a Tenderer that such Tenderer has been awarded the Tender, such Tenderer shall:
- (a) execute the Agreement;
  - (b) deliver, to the Town, bonds, proof of insurance, the OH&S Agreement, Workers’ Safety Insurance Board (“WSIB”) clearance certificate, and otherwise, as required in and by the Tender Forms and elsewhere in the other Tender Documents; and

- (c) be ready to supply and deliver, and supply and deliver, in accordance with the Tender Documents, sidewalk works as successfully tendered for.

If the Tenderer fails to deliver to the Town the Agreement and the OH&S Agreement properly executed by the Tenderer or to supply the specified bonds and insurance documents, within two weeks of the date of acceptance of the Tender, or to start the supply and delivery when directed:

- (i) the Town shall be entitled, without prejudice to any other right or remedy it may have, to deem the Tenderer to have abandoned the Tender made by the Tenderer, and the Town shall be entitled to retain the Deposit as liquidated damages (and not as a penalty); and
- (ii) the Tenderer shall pay to the Town the difference between, the Total Tender Price set out in its Tender and any other Tender which the Town accepts (if such other Tender is for a larger amount) and, in addition thereto, any costs which the Town may incur by reason of the Town re-Tendering, and, further, the Tenderer shall fully indemnify and save harmless the Town, its officers, employees, and agents from all loss, damage, liability, cost, charge and expense whatever which it, they or any of them may suffer, incur or be put to by reason of such default or failure of the Tenderer.

2.17 Deposits of unsuccessful Tenderers will be returned not later than three weeks following the Tender award. Except as otherwise provided for herein, the Deposit of the successful Tenderer will be returned with the first progress certificate.

2.18 The successful Tenderer(s) shall take out and keep in force, throughout and for the duration of such Tenderer's obligations to and/or contract with the Town but in any event for no less time than for all Year(s) for which the Tenderer is awarded the Tender to supply and deliver any Type(s) Of Granular Material, a comprehensive policy (herein sometimes referred to as the "Policy") of public liability and property damage insurance in the amount of not less than \$5,000,000.00 inclusive per occurrence.

Such Policy shall name the Town as an additional insured thereunder and shall contain:

- (a) the insurer's waiver of any rights of subrogation or indemnity or any other claim to which the insurer might otherwise be entitled as against the Town and any other corporation owned, operated, or controlled by or affiliated with the Town, together with a severability of interest clause and a cross liability clause; and
- (b) an undertaking by the insurer not to cancel, change, lapse or refuse to renew the insurance therein granted without first giving the parties notice

of its intentions in writing of at least 60 days prior to the intended change, lapse, cancellation or termination.

A certified copy of the Policy or certificate thereof shall be deposited with the Town upon signing of the Agreement or as the Town may direct.

- 2.19 Tenders may be submitted via facsimile to the Town office (807-274-8479) provided that:
- (a) the original of such Tenders shall be received by the Town within 5 business days of the Closing Time; and
  - (b) the Town shall not be liable, and assumes no responsibility whatsoever, for proper receipt of such facsimile transmittals or anything else relating to such facsimile.
- 2.20 In the Tender Documents, the singular, or masculine, or personal, pronouns herein shall be construed as meaning the plural, or feminine, or neuter, as the context requires.
- 2.21 If your company is awarded the tender by Council, there will be a requirement for your company to be responsible to make application and obtain a Town of Fort Frances business license. Business License application can be obtained from the Town office at 320 Portage Avenue.
- 2.22 The Contractor shall provide:
- a. Performance Bond, in the Form of CCDC 221, in the amount of 100% of the Contract Price,
  - b. and a Labour and Material Payment Bond, in the Form of CCDC 222, in the amount of 25% of the Contract Price.

## **SCHEDULE 1**

### **TENDER FORMS**

Tender No. 21-OF-09

#### **TRENCHLESS RELINING OF WATERMAINS**

The following Tender is hereby submitted to

THE CORPORATION OF THE TOWN OF FORT FRANCES  
(the "Town")

1. This Tender is submitted by \_\_\_\_\_  
(hereinafter sometimes referred to as the "Tenderer").
2. In the Tender Documents "Work" means the total provision of all labour, materials, plant, equipment, services, and otherwise, necessary for the proper execution and completion, in accordance with the Tender Documents, of the supply and delivery to and for the benefit and satisfaction of the Town, of:
  - (a) the sidewalk works, if the Town awards the Tender for the sidewalk works to the Tenderer; or
  - (b) those Type(s) of sidewalk works for which the Tenderer submits, and is awarded, the Tender.
3. The Tenderer acknowledges and agrees that:
  - (a) the items and quantities set out in, the Schedules of Unit Prices below (which shall be deemed to be attached to and form part of these Tender Forms) or elsewhere in the Tender Documents, are not to be and shall not be taken as a guarantee of actual quantities required;
  - (b) the Town reserves the right to increase, decrease or delete quantities of any or all items set out in, the Schedules of Unit Prices below or elsewhere in the Tender Documents, and no claim resulting from any increase, decrease or deletion in items and/or quantities will be considered;
  - (c) the Total Unit Price(s) given or set out by the Tenderer in this Tender:
    - (i) shall and does include all costs, expenses, and charges whatsoever for the performance and completion of the Work by the Tenderer, including,

without limitation, for all labour, materials, plant, equipment, services, duties, taxes, patent royalties, insurance, transportation, and otherwise; and

- (ii) shall apply for the purpose of progress payments and shall apply throughout the time period of Years or part thereof for which the Tenderer may be awarded a Tender except that any increase or decrease in taxes such as GST after the date of the awarding of the Tender shall increase or decrease the Total Unit Price accordingly by the amount of such increase or decrease in tax.

4. The undersigned Tenderer:

- (a) confirms that the Tenderer has examined the Tender Documents and ascertained all necessary particulars of and with regard to the Work to the Tenderer's satisfaction;
- (b) submits the following Tender and agrees, if such Tender is accepted, to:
  - (i) enter into the Agreement and the OH&S Agreement and provide same to the Town duly executed; and
  - (ii) perform and complete the Work for the respective Total Unit Price(s) and Total Prices quoted by the Tenderer herein except as may be increased or decreased by increase or decrease in taxes (such as HST) as set out in paragraph 3 hereof.

5. The Tenderer encloses herewith the Deposit.

6. The undersigned acknowledges receipt of the following addenda:

<u>No.</u>	<u>Date Issued</u>	<u>Date Received</u>
_____	_____	_____
_____	_____	_____

7. The Tenderer shall, forthwith upon request of the Town, provide a "Statement of Good Standing" and/or clearance certificate and/or such other evidence of compliance (with regard to workers' compensation insurance, including payments due thereunder) satisfactory to the Town, from the WSIB of Ontario.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

SIGNATURE OF TENDERER:

\_\_\_\_\_  
Witness to signature of Tenderer

\_\_\_\_\_  
If a corporation, the person signing has authority to bind such corporation

Print name of Witness:

PRINT NAME AND TITLE OF PERSON SIGNING:

\_\_\_\_\_

\_\_\_\_\_

IF A CORPORATION, PRINT PROPER NAME OF CORPORATION:

\_\_\_\_\_

Address of Witness:

Address of Tenderer:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone Number of Witness:

Phone Number of Tenderer:

\_\_\_\_\_

\_\_\_\_\_

Fax Number: \_\_\_\_\_

Cell Number: \_\_\_\_\_

## Schedule of Unit Prices

Any work called for in these Contract Documents, shown on the plans, or which is necessary for the completion of the Work called for in these Contract Documents and which is not specifically listed as a separate payment item in this document shall be deemed incidental to the performance of the Work and to the general purpose of the Contract; no separate payment will be made on account of any such Work, but the costs of any such incidental Work shall be included in the Unit and Lump Sum Prices.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE (\$)	AMOUNT (\$)
<b>1</b>	<b>GENERAL</b>				
1.1	Mobilization and Demobilization	L.S.	1		
1.2	Bonding and Insurance	L.S.	1		
<b>2</b>	<b>LINING</b>				
2.1	250 Ø AWWA class III structural liner on <b>Wright Ave. ROW</b> from 4 <sup>th</sup> Street to 5 <sup>th</sup> Street	m	110m		
2.2	250 Ø AWWA class III structural liner on <b>Keating Ave. ROW</b> from 4 <sup>th</sup> Street ROW to 5 <sup>th</sup> Street.	m	114m		
<b>Subtotal</b>					
<b>HST</b>					
<b>TOTAL TENDER PRICE</b>				<b>\$ _____</b>	

**Contractors Intended Start Date:** \_\_\_\_\_

**Contractors Anticipated work Duration:** \_\_\_\_\_

### Listing of Subcontractors

Name	Works	Previous Work


**Tenderers Experience in Similar Work**

Year	Description of Contract	Owners Name	Value

## SCHEDULE 2

### AGREEMENT

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 2021.

BETWEEN:

\_\_\_\_\_  
(herein sometimes referred to as the "Tenderer" or the "Contractor")

- and -

The Corporation of the Town of Fort Frances  
(the "Town")

Whereas the Contractor has represented to the Town that the Contractor is well able to perform the Work described in the Tender Documents for the respective Total Unit Price(s), quoted by the Tenderer in the Tender.

Now therefore the Contractor and the Town (herein sometimes referred to as the "Parties") undertake and agree as follows:

1. The Tenderer shall perform and complete the Work:
  - (a) to, and for, the benefit and satisfaction of the Town, in accordance with the Tender Documents;
  - (b) for the respective Total Unit Price(s) and Total Prices quoted by the Tenderer in the Tender Forms except as may be increased or decreased by increase or decrease in taxes (such as HST) as set out in paragraphs 3 and 4 of the Tender Forms.
2. The Tender Documents shall collectively be and the whole shall constitute the Contract between the Parties.
3. The Town agrees to pay to the Contractor in lawful money of Canada for the performance of the Work with the amounts to be paid on account thereof being determined by actual measured quantities in accordance with the Specifications

and Other Provisions and subject to adjustments, additions, deductions and deletions as provided in and by the Tender Documents. The Town shall pay on account thereof upon the approval of the Town Manager, Operations and Facilities Division (in the Tender Documents the Town Manager, Operations and Facilities Division is sometimes referred to as the "Manager"). Upon receipt of invoices, any adjustments to monies owing will be made with notification to the Contractor.

4. If the Town fails to make payments to the Contractor as they become due under the terms of the Tender Documents, interest equal to the current bank prime rate + 2% per annum on such unpaid amounts shall become due and payable until payment.
5. If:
  - (a) the Contractor should be adjudged bankrupt, or becomes insolvent, or makes a general assignment for the benefit of creditors, or if a receiver is appointed of the Tenderer or the Tenderer's business or any part thereof; or
  - (b) a petition in bankruptcy for liquidation, reorganization, or other proceeding, is filed by or against the Tenderer;
  - (c) the Contractor fails or neglects to properly perform or complete the Work or otherwise fails to comply with the requirements of the Tender Documents (including, without limitation, failure to meet specifications, or to meet delivery dates, or otherwise)

the Town may, without prejudice to any other right or remedy it may have, terminate this Agreement by giving the Contractor written notice.

The Contractor's obligation under the Tender Documents as to quality, correction and warranty of the work performed by him up to the time of termination shall continue in force after such termination.

6. Time shall in all respects be of the essence.
7. Neither this Agreement nor any rights or entitlements under it shall be assignable or transferable by the Contractor without the prior written consent of the Town.
8. Any notice required or permitted to be given hereunder shall be in writing and shall be effectively given if:
  - (a) delivered personally;
  - (b) sent by prepaid courier service or mail; or

(c) sent prepaid by telecopier, telex or other similar means of electronic communication (confirmed on the same or following day by prepaid mail) addressed,

(i) in case of notice to the Town, as follows:

320 Portage Avenue  
FORT FRANCES, Ontario  
P9A 3P9  
Attention: Administrator

(ii) in case of the Contractor, as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Any notice so given shall be deemed conclusively to have been given and received when so personally delivered or sent by telex, telecopier or other electronic communication or on the second day following the sending thereof by private courier or mail. Any Party hereto or others mentioned above may change any particulars of its address for notice by notice to the others in the manner aforesaid.

IN WITNESSETH WHEREOF the Parties hereto have executed this Agreement.

SIGNATURE OF CONTRACTOR:

\_\_\_\_\_  
Witness to signature of Tenderer

\_\_\_\_\_  
If a corporation, the person signing has the authority to bind such corporation

Print name of Witness:

PRINT NAME AND TITLE OF PERSON  
SIGNING:

\_\_\_\_\_

\_\_\_\_\_

IF A CORPORATION, PRINT PROPER NAME  
OF CORPORATION:

\_\_\_\_\_

Address of Witness:

Address of Contractor:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone Number of Witness:

Phone Number of Contractor:

\_\_\_\_\_

\_\_\_\_\_

Fax Number: \_\_\_\_\_

Cell Number: \_\_\_\_\_

The Corporation of the Town of Fort Frances

per: \_\_\_\_\_

per: \_\_\_\_\_

I/we have authority to bind the Town

### SCHEDULE 3

#### OCCUPATIONAL HEALTH AND SAFETY AGREEMENT

The undersigned Tenderer, \_\_\_\_\_  
shall and does hereby agree and confirm that:

1. it is aware that the Town places great importance on the compliance with and adherence to the Occupational Health and Safety Act (the "Act") and the safety standards and policies of all authorities having jurisdiction;
2. all Work performed by the Tenderer or on its behalf shall be in conformity with the Act and the construction, health, and safety standards and policies of all authorities having jurisdiction;
3. the Tenderer and its employees, personnel, contractors, subcontractors, agents and/or representatives are knowledgeable and well versed in and with the requirements of, the Act and the safety procedures required for during the performance and completion of the Work;
4. all persons involved with the Work shall be required to wear proper safety equipment at all times; and
5. the Tenderer shall be solely responsible for, and the Tenderer shall not hold nor seek to hold the Town responsible in any way for, any violations of the Act or the failure of the Tenderer to comply with and adhere to the safety standards and policies of any and all authorities having jurisdiction.

SIGNATURE OF CONTRACTOR:

\_\_\_\_\_  
Witness to signature of Tenderer

\_\_\_\_\_  
If a corporation, the person signing has authority to bind such corporation

Print name of Witness:  
\_\_\_\_\_

PRINT NAME AND TITLE OF PERSON  
SIGNING:  
\_\_\_\_\_

IF A CORPORATION, PRINT PROPER NAME  
OF CORPORATION:

\_\_\_\_\_

Address of Witness:

Address of Contractor:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone Number of Witness:

Phone Number of Contractor:

\_\_\_\_\_

\_\_\_\_\_

Fax Number: \_\_\_\_\_

Cell Number: \_\_\_\_\_

The Corporation of the Town of Fort Frances  
per:

\_\_\_\_\_

per:

\_\_\_\_\_

I/we have authority to bind the Town

Date: \_\_\_\_\_, 2021.

## **SCHEDULE 4- Specifications and other provisions**

### **1.0 INTRODUCTION**

- 1.1 It is the intent of this specification to provide detailed information regarding the performance and installation of semi structural spray-in-place liner products specifically used in the rehabilitation of potable water mains (AWWA Class III SemiStructural).

### **2.0 SCOPE OF WORK**

- 2.1 Wright Avenue from 4<sup>th</sup> Street West. to 5<sup>th</sup> Street West.

Average Depth of Main:	1.21m
Approximate Length:	110m
Existing Pipe Material:	Cast Iron
Pipe Diameter:	250mm
No. of Service Connections:	1

- 2.2 Keating Avenue from 4<sup>th</sup> Street West to 5<sup>th</sup> Street West

Average Depth of Main:	1.7m
Approximate Length:	114m
Existing Pipe Material:	Ductile Iron
Pipe Diameter:	250mm
No. of Service Connections:	0

### **3.0 SPECIAL PROVISIONS**

- 3.1 These watermain sections cross under the CN Rail Fort Frances Yard and 5 active rail lines. The Town of Fort Frances has engaged CN on this project and they have confirmed that a Work Permit will be required to be submitted to CN for the above mentioned project. The Town will complete the work permit forms and submit on behalf of the Town and Contractor.
- 3.2 Attached in Appendix A is CN's safety procedures for when working in proximity to a railway which all contractors must abide by. No crossing of the rail lines by the contractor's employees will be permitted through the duration of the work.

### **4.0 REFERENCED DOCUMENTS**

- 4.1 This document references standards from the American Society for Testing and Materials. These references are used to help determine the proper selection per the specific criteria of each application and comparison of similar products. The following ASTM Standards are referenced:

ASTM D638-08, ASTM D 638-08, ASTM D790-07, ASTM D790-07, ASTM D2240-5, ASTM D7028-07, ASTM F 1206-09 and ASTM D570-98.

## 5.0 **MATERIALS**

### 5.1 Liner

- 5.1.1 The liner shall be certified to NSF/ANSI 61.
- 5.1.2 The liner can be a two-part, polyuria chemistry or approved alternate.
- 5.1.3 The liner material shall have no VOCs and be solvent, catalyst and BPAfree.
- 5.1.4 The liner may be applied via a trenchless spin cast application system.
- 5.1.5 The applied liner shall fit tightly to the host pipe.
- 5.1.6 The liner shall meet AWWA Class III semi-structural liner specifications.
- 5.1.7 Contractor to provide calculations to contract administrator that thicknesses of liner meets AWWA Class III semi-structural specification.

## 6.0 **PHYSICAL PROPERTIES**

- 6.1 The cured liner material shall meet the following minimum standards for physical properties:

<b><u>Property</u></b>	<b><u>Test Method</u></b>	<b><u>Minimum</u></b>
Tensile Strength at break	ASTM D638-08	38.8 MPa
Tensile Elongation	ASTM D638-08	3.8%
Flexural Strength	ASTM D790-07	65 MPa
Flexural Modulus	ASTM D790-07	2800 MPa
Hardness	ASTM D2240-5	98 Shore A 81 Shore D
Glass Transition Temp	ASTM D7028-07	Tg1 59° C Tg2 79° C
Water Absorption at 21 days	ASTM D570-98	0.75%

## 7.0 **LINING INSTALLATION REQUIREMENTS**

- 7.1 Bypass – Temporary bypass of water service connections is not required.
- 7.2 Isolation of water main – Precautions to completely isolate the section(s) of main to be lined from all water intrusion will be completed by Town of Fort Frances forces.
- 7.3 Access Pits – Determination of proposed access pits locations will be done collaboratively by the Contractor and the Town's Contract Administrator.
  - 7.3.1 Excavation of access pits (min. 4.5m x 4.5m 300mm below water main) will be completed by Town of Fort Frances forces.
- 7.4 Cleaning – the water main must be cleaned of tuberculation via mechanical cleaning process (including, but not limited to, rack feed boring or hydro jetting). This work will be completed by the Contractor. Removal of tuberculation and debris will be the responsibility of the contractor.
- 7.5 If hydro jetting is used as a cleaning process the contractor must use a potable hose approved by contract administrator.
  - 7.5.1 After cleaning, a thorough flushing process will be performed to remove all remaining debris from the water main.
  - 7.5.2 After the flushing process foam swabs shall be used (via pressurized air) to remove all standing water from the water main.
- 7.6 Pre-Lining Inspection – A pan & tilt color CCTV camera system will be used to fully inspect the entire section(s) of water main to be lined. This work will be completed by the Contractor.
  - 7.6.1 A record of the inspection shall be kept by the Contractor and provided to the City's Contract Administrator for their records.
  - 7.6.2 Upon inspection, if additional debris or standing water is found the cleaning process should be repeated.
  - 7.6.3 After cleaning, the pipe interior shall be free of corrosion by-products and be smooth and free of dust and particulate matter.
  - 7.6.4 Standing water shall not be present and no infiltration should be observed.
  - 7.6.5 CCTV shall also be used to check for any damage, either

from the cleaning process or from deterioration over the years that may be of significance prior to the lining process.

7.7 Installation of Liner – A trenchless spin cast application method will be used to apply the liner in each section. This work will be completed by the Contractor.

7.7.1 Coating thickness shall be 2 passes of 3.5mm thick for each pass. Quality assurance measures of the lining should be in compliance with design specifications and expected test results, in accordance with the manufacturer's guidelines for structural lining.

- 7.7.2 Lining application equipment should be approved and certified by the manufacturer of the lining product.
- 7.7.3 Curing of the spray-in-place liner must be done in accordance with the lining manufacturer's guidelines.
- 7.7.4 On pipes lined with new structural innings, the "bead" of lining material that curls around the pipe end must be cut back flush with the pipe end prior to reinstatement of service. This bead removal may be achieved by use of a grinder after the material has cured, or immediately upon the lining head entry or exit of the pipe with a putty knife.
- 7.7.5 All lining personnel must have certification of completion of the manufacturer's installation training program.
- 7.8 Post-Lining Inspection – A CCTV Camera system will be used to fully inspect the lining to ensure proper coverage. This work will be completed by the Contractor.
  - 7.8.1 A record of the post lining CCTV inspection shall be kept by the Contractor and provided to the Town's Contract Administrator for their records.
  - 7.8.2 Post lining inspection should ensure that pipe ends are free of defects (which may promote water ingress between the coating and the pipe) and that all active service connections are clear and operational.
  - 7.8.3 Any service connections that are shown to be plugged or restricted must be cut out by the Contractor.
  - 7.8.4 Any remediation must be reviewed and signed off by the Contractor and the Town's Contract Administrator. A re-inspection must then follow.
- 7.9 Disinfection & Flushing – Upon inspection and approval of the lining work, disinfection, flushing and water sampling of the water main will be completed by the Town of Fort Frances.
- 7.10 Reinstatement of Water – Water main tie-ins and any valve installation(s) will be completed by Town of Fort Frances forces.

## **8.0 MATERIAL AND WORKMANSHIP**

- 8.1 All workmanship and materials supplied will be as specified, in accordance with Specifications.
- 8.2 Work which is defective or not in accordance with the provisions of the Contract will be replaced at the Contractor's expense, upon written instructions from the Town's Contract Administrator.

## **9.0 WORK SCHEDULE**

- 9.1** A preliminary construction schedule should be included with the tender with a completion date for all the work by September 15, 2021. The schedule shall include a realistic time frame for all tasks.
- 9.2** The Contractor must establish a detailed work schedule to be supplied to the Town's Contract Administrator for approval prior to the commencement of the work.
- 9.3** The progress of the work shall be carried out according to this agreed schedule without delays within the control of the Contractor.
- 9.4** Any changes in scheduling must include a minimum notification of 24 hours.
- 9.5** If the weather does not permit the work to be completed as scheduled, the Contractor will complete the work on the next day that meets the weather requirements. The Town's Contract Administrator will be responsible for making the final decision to proceed or delay due to weather conditions.
- 9.6** The Town reserves the right to cancel any work scheduled and reschedule it at a later date due to unforeseen circumstances. The Town will provide 24 hours' notice (if possible) of any cancellation.

## **10.0 PROJECT DOCUMENTATION**

- 10.1** Upon completion of the work, the following is a list of project documentation and forms that should be delivered to the Town's Contract Administrator by the Contractor:
  - 10.1.1 Print out from the coating rig.
  - 10.1.2 Pre- and post- CCTV inspection digital files and reports.

## **Appendix A – CN Safety Guidelines for Contractors and Non-CN Personnel**



## **SAFETY GUIDELINES FOR CONTRACTORS AND NON-CN PERSONNEL**

### **Introduction**

This document is a condensed version of CN's mandatory safety training for Contractors and non-CN personnel. It should be noted that this document is not a substitute for the mandatory safety training for Contractors and non-CN personnel including eRailsafe or Contractor Orientation as the case may be. For the purposes of this document "Contractor" may also apply to individuals on CN property, whether under contract to CN or not.

Contractor's employees or subcontractors performing work within the CN right-of-way must familiarize themselves with CN's Contractor Safety Package, complete a Contractor Orientation Course and must be registered on the Contractor Completion Database which can be found at the following website: [www.contractororientation.com](http://www.contractororientation.com). If you have been contracted by CN and are completing work on behalf of CN, you are required to ensure anyone working on the project within CN right of way, or within 30 feet of the nearest rail (whichever is greater), has completed eRailSafe. This course can be found at the following website: [www.erailsafecanada.com](http://www.erailsafecanada.com)

These guidelines are not to be considered as a substitute for the applicable government regulations. These guidelines are the minimum requirement and must be exceeded where the hazard or government regulations warrant.

It is not possible to deal with every hazard in this one document. These guidelines are to be employed in conjunction with Government Acts, Regulations, local Ordinances, CN Safety and Operating Rules Standards, and good judgment to facilitate the safe completion of the work.

Additional information regarding safe work practices may be included in contract documents and specifications. In the event of a discrepancy between these guidelines and the contract, the contract shall govern.

### **CN's Basic Safety Requirements**

The Contractor's attention is drawn to the following highlights from CN's "Basic Safety Requirements":

1. Take all reasonable measures to ensure the protection of employees, customers, property, and the general public.
2. Address promptly all environmental and safety concerns.
3. Analyze all accidents or incidents resulting in, or having potential for, loss or injury, and take remedial action promptly to prevent recurrence.
4. Require all persons granted access to Company property to comply with applicable Risk Management policies, standards, and procedures.
5. Provide employees with appropriate training to enable them to work safely.
6. Inspect personal protective equipment (PPE), tools and equipment before use to ensure that they are in good working condition.
7. Contractor's employees or subcontractors performing work within the CN right-of-way must familiarize themselves with CN's Contractor Safety Package, complete a Contractor Orientation Course and must be registered on the Contractor Completion Database which can be found at the following website: <https://contractororientation.com> If you have been contracted by CN and are completing work on behalf of CN, you are required to ensure anyone working on the project within CN right of way has completed eRailSafe. This can be found at the following website: [www.erailsafecanada.com](http://www.erailsafecanada.com)

***CN's Risk Management policy is premised on the following:***

- to work in a safe manner is a condition of employment/Contract;
- all accidents or incidents resulting in loss or injury are preventable;
- it is possible to eliminate or safeguard all operating conditions that may result in injury, property damage, or other losses;
- employees will be provided with appropriate training to enable them to work safely;
- employees and management must work jointly in efforts to promptly resolve and improve safety and health conditions in the workplace.

## **GENERAL RULES AND INFORMATION**

***“Expect the movement of a train, engine, rail car or track unit at any time, on any track, in either direction. Protect yourself and others from the movement of trains, engines, railcars and track units and do not expect them to stop.”***

If any situation arises which affects the safe movement of trains, CN must be contacted immediately at:

**1-800-465-9239.**

Alternatively, contact CN's Network Operations Centre in Edmonton at:

**1-800-661-3963.**

Before any digging is performed on CN property, proper clearance and instructions must be obtained through the Information Technology Command Centre (ITCC Network Management Centre) at:

**1-800-661-3687 or 1-800-NO1-FOTS.**

***In an emergency, any object waved violently by anyone on or near the track is a signal for trains to stop.***

Violation of CN's mandatory Contractor Safety training or contravention of these guidelines may result in the immediate removal of the Contractor or the offending personnel from CN property.

### **Compliance with Government Regulations**

Contractors shall follow all applicable Federal, Provincial, and Municipal Acts, Regulations, Laws and Codes, including but not limited to those related to the licensing of workers, occupational health and safety, transportation or handling of dangerous substances, inspection and certification of equipment. As CN is a federally regulated enterprise, Contractors are advised that work undertaken on CN right-of-way may be governed by Federal regulation.

The Contractor must become familiar with all applicable regulations and must ensure compliance by workers at the job site. Supplementary instructions may be issued by CN representatives from time to time.

### **Contractor's Responsibility**

1. Before entering upon CN right-of-way, the Contractor must have all documentation properly executed and available for review by CN personnel at the working site. (i.e. Permits, Licenses, Contract Documents, Contractor Safety Approved identification card and/or Waivers).
2. Daily briefings must be held at every work site to review the contents of these guidelines and any unique conditions at the site relating to safety. A record must be kept of such briefings by the Contractor's responsible person at the work site. Work site briefings must be updated regularly as the job conditions change
3. Unless explicitly permitted by CN, no equipment or vehicle may enter upon the operated right-of-way.
4. Unless explicitly permitted by CN, no work shall take place within thirty (30) feet of the nearest rail except in the presence of a CN Protecting Foreman. The CN Protecting Foreman is concerned only with the safe movement of trains and will not be responsible for the safety of the Contractor, the Contractor's personnel or the Contractor's equipment.
5. Contractor's personnel must not crawl under, climb over or pass through standing railway equipment.
6. Contractor's personnel must not cross a track within thirty (30) feet, of standing railway equipment.
7. CN has many power and/or communication cables buried within the CN right-of-way. The Contractor shall be sure of their location before making any excavation, driving stakes or otherwise penetrating the ground surface. In the event of any excavation work that strikes an underground cable adjacent to CN's track, the contractor must make immediate contact with CN
8. In accordance with CN's safety standards, Contractor's personnel must wear CN required personal protective equipment at all times while on CN right-of-way. Such equipment will include hard hats, safety glasses, reflective apparel, safety footwear (protective footwear shall meet or exceed CSA Z195 and/or ASTM F2413, shall cover and support the ankle and have a defined heel. In

Canada, the defined heel must be a minimum of 9 mm (3/8 inch) and shall not exceed 25 mm (1 inch). In the US, the defined heel must be a minimum of 12 mm (1/2 inch) and shall not exceed 25mm (1 inch). Boots must be equipped with laces, which must be laced to the top and tied. Hearing and respiratory protection and fall arrest equipment shall be worn where signs are posted or when a potential hazard exists.

9. No CN plant, signal, structure, equipment or property of any kind may be tampered with, modified or removed.
10. "Hi-rail" equipment shall only be operated on the track by personnel qualified in the latest version of the "Canadian Rail Operating Rules".
11. Horseplay, practical jokes, fighting or any other activity that may create a hazard will not be tolerated.
12. Contractor's personnel must immediately abide by instructions from CN personnel.

#### **Approaching Train**

1. On the approach of a train, the Protecting Person will communicate to the Contractor's Responsible Person, either by radio or by personal contact, that a train is approaching.
2. After receiving the train information from the Protecting Person, the Contractor's Responsible Person must ensure that all workers, equipment and materials are "Clear Of The Track" (as defined in 5.3.5. below) then communicate this to the Protecting Person.
3. The Protecting Person will not authorize any trains through the working limits nor authorize cancellation of protection before receiving confirmation that all workers have been alerted, stopped working and the track is clear of workers and machinery.
4. After the train has passed, no one is to foul or occupy the track until the Protecting Person has given the authorization. Authorization will be communicated to the Contractor's Responsible Person.

#### **Clear Of The Track**

To be Clear of the Track shall be defined as:

1. All work has been stopped.
2. All workers are made aware of the approaching train and route to be followed.
3. All workers, equipment and material have been positioned beyond the clearance limits or at any other location deemed safe by CN. (at least 5 meters (15 feet) from the nearest rail of the track on which the train is to pass with additional allowances for curvature and super elevation).
4. All off-track equipment by special approval less than 5 (15 feet) meters of the nearest rail has stopped working and operators have left their equipment.
5. All off-track equipment more than 5 meters (15 feet) from the nearest rail has stopped working. Operators may remain in their cabs unless directed otherwise by the Contractor's Responsible Person. All equipment must be properly secured against unintentional movement
6. All on-track equipment has been moved into the siding or other track as per the Protecting Person's instruction. Operators will leave their equipment unless directed otherwise by the Contractor's Responsible Person. All unattended equipment must be properly secured against unintentional movement
7. Booms, cranes or other similar equipment have been immobilized and the boom is parallel to the railway track(s), and clear of the nearest rail be 5 meters (15 feet)
8. Provided there is no possible way for the worker to become unintentionally foul of a passing train, and at the discretion of the CN Supervisor, workers may continue working.

## **POLICY TO PREVENT WORKPLACE ALCOHOL AND DRUG PROBLEMS**

### **Policy standards**

The Contractor, subcontractors, employees, suppliers and visitors must remain free from any adverse effects of alcohol or other drugs and conduct themselves in an appropriate manner while on CN business or premises. The Contractor must ensure that all those having access to the site adhere to the following standards when on CN business or premises, including vehicles and equipment:

1. No use, possession, distribution or sale of illegal drugs or drug paraphernalia.
2. No use, possession, distribution or sale of beverage alcohol or any form of alcohol.
3. Responsible use of prescribed and over-the-counter medications.
4. No distribution, offering or sale of prescription medications.
5. To report for duty and remain during the entire period of duty free of the negative effects of alcohol and other drugs, including the after effects of such use.

### **Consequences of violation**

Failure to meet these standards will be considered a breach of the contract. This may at CN's sole discretion, trigger the suspension or termination of the contract.

### **Policy violation procedures**

Where CN has reasonable grounds to believe any individual in the employ of the Contractor or a supplier is on duty in an unsafe condition or otherwise in violation of the Policy, or where during the preliminary phase of any investigation such an individual has been identified as being directly involved in the chain of acts or omissions leading up to an accident or incident:

1. CN will escort the individual(s) to a safe place.
2. CN will notify the Contractor or supplier.
3. The Contractor will investigate the situation.
4. The Contractor must satisfy CN that there has been no policy breach.
5. If a policy breach has occurred, the individual will not be allowed to continue providing services to CN without written permission from a CN official, and he/she will be required to adhere to any conditions governing his/her return.

### **Firearms**

Firearms (loaded or empty) are not permitted on CN property, except for CN Police officers and other designated persons performing authorized work and when authorized to do so. In all cases, any firearms must be accompanied with a written authorization from the Chief of CN Police and the person should have in his possession all pertinent government permits.

### **Explosives**

No explosives will be permitted on CN property without written CN approval.

### **Vehicles**

Contractor's vehicles on the site must be in safe operating condition. Operators must observe all site speed limits. Unattended vehicles must not be left running unnecessarily. Where they must be left running, the parking brake must be applied. The operator is responsible for the safety of all passengers and the stability of materials being transported.

All vehicles will be parked in a pre-determined area and where required, a designated Contractor entrance shall be used.

### **Smoking in the Workplace**

Smoking is not permitted in any CN interior workplace or motor vehicle.

## **Security**

Contractor's personnel will proceed directly to the Contractor's work location. Contractor's employees must remain at their designated work site and must not wander about the site.

The Contractor shall not permit persons other than the Contractor's personnel to enter the site without the prior written authority of the CN representative.

## **Emergency Evacuation Procedures**

Prior to commencing work, all Contractor's employees must be familiar with the emergency evacuation plan for that work site. The Contractor shall issue written emergency and rescue procedures to the Contractor's personnel and shall post such procedures on the job site.

## **Unsafe Conditions or Practices**

Contractors shall correct or report any unsafe conditions or practices they observe. All such conditions or practices shall be reported to the CN representative at the work site as soon as practical.

## **Reporting Accidents/Incidents**

All accidents/incidents occurring on CN property, that result in or had the potential of causing serious injury, lost work days, vehicle or property damage must be reported to the CN representative within twenty-four (24) hours. All such incidents will be fully investigated by the Contractor.

The Contractor shall subsequently provide a written report to CN (i.e. Company Officer assigned as Liaison to Contractor) within seven (7) days detailing the nature of the incident, the cause(s), regulatory authorities notified, and a specific action plan to prevent recurrence.

## **Treatment of Injured Personnel (Contractors)**

Contractors shall ensure the following is provided for their personnel as required by CN and in accordance with applicable government regulations:

1. Adequate first-aid supplies and equipment.
2. Qualified personnel to render first-aid treatment.

## **Audio and Visual Recording Equipment**

Cameras and audio-visual equipment are not permitted on CN property without prior approval. Use of personal electronic devices such as smart phones for the purpose of recording video, photographic or audio information is prohibited while on CN property.

## **Summary**

In conclusion, CN requires the full cooperation of the Contractor and the Contractor's employees with these guidelines and all other applicable regulations. Should there be any doubt as to the meaning or interpretation of these guidelines, consult with the CN representative responsible for the worksite.

## **Contractor Acknowledgement**

Contractor/Sub-contractor personnel must read and understand CN's "Safety Guidelines for Contractors and Non-CN Personnel". The Contractor/Sub-contractor must also follow the appropriate Contractor Safety training.