



# Sunshine Coast Regional District

# Request for Proposal

**Number: 2337014**

**for**

## **Exposed Intake Line Trestles Rehabilitation**

**Issue Date:**

August 11, 2023

**Closing Date of**

**September 15, 2023 at 3:00 PM local time**

**OPTIONAL/MANDATORY SITE MEETING:** A optional site meeting will be held on 30<sup>th</sup> August, 2023 at 1:00 pm local time at [https://maps.app.goo.gl/tU8wKGe71DkJHbu2A?g\\_st=com.microsoft.Office.Outlook.compose-shareextension](https://maps.app.goo.gl/tU8wKGe71DkJHbu2A?g_st=com.microsoft.Office.Outlook.compose-shareextension). Proponents need to RSVP to [purchasing@scrd.ca](mailto:purchasing@scrd.ca) by August 29<sup>th</sup> at noon, if no RSVP's are received the site meeting may be cancelled.

**CONTACT:** All enquiries related to this Request for Proposal, including any requests for information and clarification, are to be submitted by August 31, 2023 and directed, in writing, to [purchasing@scrd.ca](mailto:purchasing@scrd.ca), who will respond if time permits with a Q&A on BC Bid by September, 82023 Information obtained from any other source is not official and should not be relied upon. Enquiries and any responses providing new information will be recorded and posted to BC Bid or otherwise distributed to prospective Proponents.

**DELIVERY OF PROPOSALS:** Proposals must be in English and must be submitted using one of the submission methods below, and must either **(1)** include a copy of this cover page that is signed by an authorized representative of the Proponent or **(2)** be submitted by using the e-bidding key on BC Bid (if applicable), in accordance with the requirements set out in the RFP.

**BC Bid Electronic Submission:** Proponents may submit an electronic proposal using BC Bid. Proposals must be submitted in accordance with the BC Bid requirements and e-bidding key requirements (found at <https://www.bcbid.gov.bc.ca/>). Only pre-authorized electronic bidders registered on the BC Bid system can submit an electronic proposal using the BC Bid system. Use of an e-bidding key is effective as a signature.

**OR**

**Hard Copy Submission:** Proponents must submit **ONE (1)** hard-copies and **ONE (1)** electronic copy on a USB Drive of the proposal. Proposals submitted by hard copy must be submitted by hand or courier to:

**Sunshine Coast Regional District  
1975 Field Road  
Sechelt, BC V7Z 0A8**

Regardless of submission method, proposals must be received before Closing Time to be considered.

### **CONFIRMATION OF PROPONENT'S INTENT TO BE BOUND:**

The enclosed proposal is submitted in response to the referenced Request for Proposal, including any Addenda. By submitting a proposal the Proponent agrees to all of the terms and conditions of the RFP including the following:

- The Proponent has carefully read and examined the entire Request for Proposal;
- The Proponent has conducted such other investigations as were prudent and reasonable in preparing the proposal; and
- The Proponent agrees to be bound by the statements and representations made in its proposal.

**PROONENT NAME (please print):** \_\_\_\_\_

**NAME OF AUTHORIZED REPRESENTATIVE (please print):** \_\_\_\_\_

**SIGNATURE OF AUTHORIZED REPRESENTATIVE:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

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## 1. GENERAL TERMS & CONDITIONS

### 1.1 DEFINITIONS

Throughout this Request for Proposal, the following definitions apply:

**"Addenda"** means all additional information regarding this RFP, including amendments to the RFP;

**"BC Bid"** means the BC Bid website located at <https://www.bcbid.gov.bc.ca/> ;

**"Closing Location"** includes the location or email address for submissions indicated on the cover page of this RFP, or BC Bid, as applicable;

**"Closing Time"** means the closing time and date for this RFP as set out on the cover page of this RFP;

**"Contract"** means the written agreement resulting from the RFP executed by the Regional District and the successful Proponent;

**"Contractor"** means the successful Proponent to the RFP who enters into a Contract with the Regional District;

**"Must"**, or **"mandatory"** means a requirement that must be met in order for a proposal to receive consideration;

**"Proponent"** means a person or entity (excluding its parent, subsidiaries or other affiliates) with the legal capacity to contract, that submits a proposal in response to the RFP;

**"Proposal"** means a written response to the RFP that is submitted by a Proponent;

**"Request for Proposals"** or **"RFP"** means the solicitation described in this document, including any attached or referenced appendices, schedules or exhibits and as may be modified in writing from time to time by the Regional District by Addenda; and

**"Should"**, **"may"** or **"weighted"** means a requirement having a significant degree of importance to the objectives of the Request for Proposals.

**"SCRD"**, **"Regional District"**, **"Organization"**, **"we"**, **"us"**, and **"our"** mean Sunshine Coast Regional District.

### 1.2 FORM OF PROPOSAL

This Proposal must be completed in its entirety. Failure to properly complete this Proposal form may cause your Proposal to be rejected. The signing officer must initial all corrections. The Sunshine Coast Regional District (Regional District) reserves the right to permit a correction, clarification or amendment to the Proposal or to correct minor errors and irregularities.

### 1.3 SUBMISSION OF PROPOSAL

- a) Proposals must be submitted before Closing Time to the Closing Location using one of the submission methods set out on the cover page of this RFP. Proposals must not be sent by fax. The Proponent is solely responsible for ensuring that, regardless of submission method selected, the Regional District receives a complete Proposal, including all attachments or enclosures, before the Closing Time.
- b) For electronic submissions (BC Bid or email), the following applies:
  - (i) The Proponent is solely responsible for ensuring that the complete electronic

Proposal, including all attachments, is received before Closing Time;

- (ii) The Regional District limits the maximum size of any single email message to 20MB or less.
- (iii) Proponents should endeavour to submit emailed proposal submissions in a single message and avoid sending multiple email submissions for the same opportunity. If an electronic submission exceeds the applicable maximum single message size, the Proponent may make multiple submissions (BC Bid upload or multiple emails for the same opportunity). Proponents should identify the order and number of emails making up the email proposal submission (e.g. "email 1 of 3, email 2 of 3...");
- (iv) For email proposal submissions sent through multiple emails, the Regional District reserves the right to seek clarification or reject the proposal if the Regional District is unable to determine what documents constitute the complete proposal;
- (v) Attachments must not be compressed or encrypted, must not contain viruses or malware, must not be corrupted, and must be able to be opened using commonly available software (e.g. Adobe Acrobat). Proponents submitting by electronic submission are solely responsible for ensuring that any emails or attachments are not corrupted. The Regional District has no obligation to attempt to remedy any message or attachment that is received corrupted or cannot be viewed. The Regional District may reject proposals that are compressed encrypted, cannot be opened or that contain viruses or malware or corrupted attachments.
- c) For BC Bid e-submissions only pre-authorized e-bidders registered on BC Bid can submit electronic bids on BC Bid. BC Bid is a subscription service (\$150 per year) and the registration process may take two business days to complete. If using this submission method, Proponents should refer to the BC Bid website or contact BC Bid Helpdesk at 250-387-7301 for more information. An electronic proposal submitted on BC Bid must be submitted using the e-bidding key of an authorized representative of the Proponent. Using the e-bidding key of a subcontractor is not acceptable.
- d) For email proposal submissions, including any notices of amendment or withdrawal referred to in Section 1.6, the subject line of the email and any attachment should be clearly marked with the name of the Proponent, the RFP number and the project or program title.
- e) The Regional District strongly encourages Proponents using electronic submissions to submit proposals with sufficient time to complete the upload and transmission of the

complete proposal and any attachments before Closing Time.

- f) The Proponent bears all risk associated with delivering its Proposal by electronic submission, including but not limited to delays in transmission between the Proponent's computer and the Regional District Electronic Mail System or BC Bid.
- g) While the Regional District may allow for email proposal submissions, the Proponent acknowledges that email transmissions are inherently unreliable. The Proponent is solely responsible for ensuring that its complete email proposal submission and all attachments have been received before Closing Time. If the Regional District Electronic Mail System rejects an email proposal submission for any reason, and the Proponent does not successfully resubmit its proposal by the same or other permitted submission method before Closing Time, the Proponent will not be permitted to resubmit its proposal after Closing Time. The Proponent is strongly advised to contact the Regional District Contact immediately to arrange for an alternative submission method if:

- (i) the Proponent's email proposal submission is rejected by the Regional District Electronic Mail System; or
- (ii) the Proponent does not receive an automated response email from the Regional District confirming receipt of each and every message transmitted, within a half hour of transmission by the Proponent.

An alternate submission method may be made available, at the Regional District's discretion, immediately to arrange for an alternative submission method, and it is the Proponent's sole responsibility for ensuring that a complete proposal (and all attachments) submitted using an approved alternate submission method is received by the Regional District before the Closing Time. The Regional District makes no guarantee that an alternative submission method will be available or that the method available will ensure that a Proponent's proposal is received before Closing Time.

#### **1.4 SIGNATURE REQUIRED**

Proposals must be properly signed by an officer, employee or agent having authority to bind the Proponent by that signature.

#### **1.5 CLARIFICATIONS, ADDENDA & MINOR IRREGULARITIES**

If any Proponent finds any inconsistencies, errors or omissions in the proposal documents or requires information, clarification of any provision contained therein, they shall submit their query in writing or email, addressed as follows:

Purchasing Division  
Sunshine Coast Regional District  
1975 Field Road, Sechelt, BC V7Z 0A8  
[purchasing@scrd.ca](mailto:purchasing@scrd.ca)

Any interpretation of, addition to, deletions from or any corrections to the proposal documents will be issued as written addendum by the Regional District.

All Addenda will be posted on BC Bid. It is the sole responsibility of the Proponent to check for Addenda on BC Bid. Proponents are strongly encouraged to subscribe to BC Bid's email notification service to receive notices of Addenda.

#### **1.6 WITHDRAWAL OR REVISIONS**

Proposals or revisions may be withdrawn by written notice provided such a notice of withdrawal is received prior to the closing date and time. Proposals withdrawn will be returned to the Proponent unopened. Revisions to the proposals already received shall be submitted only by electronic mail, or signed letter. The revision must state only the amount by which a figure is to be increased or decreased, or specific directions as to the exclusions or inclusion of particular words.

#### **1.7 CONDUCT OF THE CONTRACT**

Unless otherwise specified within this document, any queries regarding this Request for Proposal are to be directed to [purchasing@scrd.ca](mailto:purchasing@scrd.ca). No other verbal or written instruction or information shall be relied upon by the Bidder, nor will they be binding upon the Regional District.

#### **1.8 CONFLICT OF INTEREST/NO LOBBYING**

- (a) A Proponent may be disqualified if the Proponent's current or past corporate or other interests, or those of a proposed subcontractor, may, in the Regional District's opinion, give rise to an actual or potential conflict of interest in connection with the services described in the RFP. This includes, but is not limited to, involvement by a Proponent in the preparation of the RFP or a relationship with any employee, contractor or representative of the Regional District involved in preparation of the RFP, participating on the evaluation committee or in the administration of the Contract. If a Proponent is in doubt as to whether there might be a conflict of interest, the Proponent should consult with the Regional District Contact prior to submitting a proposal. By submitting a proposal, the Proponent represents that it is not aware of any circumstances that would give rise to a conflict of interest that is actual or potential, in respect of the RFP.

- (b) A Proponent must not attempt to influence the outcome of the RFP process by engaging in lobbying activities. Any attempt by the Proponent to communicate, for this purpose directly or indirectly with any employee, contractor or representative of the Regional District, including members of the evaluation committee and any elected officials of the Regional District, or with the media, may result in disqualification of the Proponent.

#### **1.9 CONTRACT**

By submitting a proposal, the Proponent agrees that should its proposal be successful the Proponent will

enter into a Contract with the Regional District on substantially the same terms and Conditions set out in [www.scrd.ca/bid](http://www.scrd.ca/bid) and such other terms and conditions to be finalized to the satisfaction of the Regional District, if applicable.

#### **1.10 SUSTAINABLE PROCUREMENT**

The Regional District adheres to its sustainable consideration factors. Proposals will be considered not only on the total cost of services, but Proposals that addresses the environment and social factors.

#### **1.11 INVOICING AND PAYMENT**

Unless otherwise agreed, the Regional District payment terms are Net 30 days following receipt of services or approved invoices, whichever is later. Original invoices are to be forwarded to the accounts payable department of the Regional District. The purchase order number assigned by the Regional District must be stated on the invoice otherwise payment may be delayed.

#### **1.12 PRICING, CURRENCY AND TAXES**

Offered prices are to be attached as a price schedule in Canadian dollars with taxes stated separately when applicable.

#### **1.13 IRREVOCABLE OFFER**

This Proposal must be irrevocable for 90 days from the Proposal closing date and time.

#### **1.14 TIME IS OF THE ESSENCE**

Time shall be of the essence in this contract.

#### **1.15 ASSIGNMENT**

The Proponent will not, without written consent of the Regional District, assign or transfer this contract or any part thereof.

#### **1.16 OWNERSHIP OF DOCUMENTS & FREEDOM OF INFORMATION**

All documents submitted in response to this Request for Proposal shall become the property of the Regional District and as such will be subject to the disclosure provisions of the *Freedom of Information and Protection of Privacy Act* and any requirement for disclosure of all or a part of a Proposal under that Act.

The requirement for confidentiality shall not apply to any Proposal that is incorporated into a Contract for the Work. Further, the Regional District may disclose the top scoring proponent's aggregate pricing to the Regional District Board at a public meeting, when making a recommendation for the award of the Contract.

For more information on the application of the Act, go to [http://www.cio.gov.bc.ca/cio/priv\\_leg/index.page](http://www.cio.gov.bc.ca/cio/priv_leg/index.page).

#### **1.17 AWARD OF CONTRACT**

The Purchasing Policy at the Regional District offers contracts to businesses through an open, fair and consistent competitive bidding process. This ensures that the Regional District will receive the best overall value for the goods and services it requires. The Regional District reserves the right to cancel, award all or part of the scope of work described in this document

to a single Proponent or may split the award with multiple Proponents.

All awards are subject to Board approval that meets the needs as determined by the Board. The Regional District, in receipt of a submission from a Proponent, may in its sole discretion consider the Proponent to have accepted the terms and conditions herein, except those expressly excluded or changed by the Proponent in writing.

The RFP shall not be construed as an agreement to purchase goods or services. The lowest priced or any proposal will not necessarily be accepted. The RFP does not commit the Regional District in any way to award a contract and that no legal relationship or obligation regarding the procurement of any good or service will be created between Regional District and the proponent unless and until Regional District and the proponent execute a written agreement for the Deliverables

#### **1.18 COST OF PROPOSAL**

The Proponent acknowledges and agrees that the Regional District will not be responsible for any costs, expenses, losses, damage or liability incurred by the Proponent as a result of or arising out submitting a Proposal for the proposed contract or the Regional District's acceptance or non-acceptance of their proposal. Further, except as expressly and specifically permitted herein, no Proponent shall have any claim for any compensation of any kind whatsoever, as a result of participating in this RFP, and by submitting a proposal each Proponent shall be deemed to have agreed that it has no claim.

#### **1.19 PROPONENT'S RESPONSIBILITY**

It is the Proponent's responsibility to ensure that the terms of reference contained herein are fully understood and to obtain any further information required for this proposal call on its own initiative. The Regional District reserves the right to share, with all proponents, all questions and answers related to this bid call.

#### **1.20 EVALUATIONS**

Proposals will be evaluated in private, including proposals that were opened and read in public, if applicable. Proposals will be assessed in accordance with the evaluation criteria.

If only one Proposal is received, the Regional District reserves the right to open the Proposal in private or if the total bid price exceeds the estimated budget for the Contract, the Regional District may cancel and re-tender, accept, not accept and cancel or re-scope the Work seeking a better response, with or without any substantive changes being made to the solicitation documents. If more than one Proposal is received from the same Proponent, the last Proposal received, as determined by the Regional District, will be the only Proposal considered.

#### **1.21 ACCEPTANCE OF TERMS**

The submission of the Proposal constitutes the agreement of the Proponent that all of the terms and conditions of the RFP are accepted by the Proponent

and incorporated in its Proposal, except those conditions and provisions which are expressly excluded and clearly stated as excluded by the Proponent's proposal.

#### **1.22 MANDATORY REQUIREMENTS**

Proposals not clearly demonstrating that they meet the mandatory requirements will receive no further consideration during the evaluation process.

#### **1.23 INSURANCE & WCB**

The Proponent shall obtain and continuously hold for the term of the contract, insurance coverage with the Regional District Listed as "Additional Insured" the minimum limits of not less than those stated below:

- (a) Commercial General Liability – not less than \$2,000,000 per occurrence
- (b) Automobile Liability Insurance, including Bodily Injury and Property Damage in an amount no less than \$2,000,000 per accident from the Insurance Corporation of British Columbia on any licensed motor vehicles of any kind used to carry out the Work.
- (c) Property and Boiler Machinery Insurance
- (d) Contractor's Equipment Insurance covering Construction Equipment used by the Proponent for the performance of the Work.
- (e) A provision requiring the Insurer to give the Owners a minimum of 30 days' notice of cancellation or lapsing or any material change in the insurance policy;

The Proponent must comply with all applicable laws and bylaws within the jurisdiction of the work. The Proponent must further comply with all conditions and safety regulations of the Workers' Compensation Act of British Columbia and must be in good standing during the term of any contract entered into from this process.

#### **1.24 COLLUSION**

Except otherwise specified or as arising by reason of the provisions of these documents, no person, or corporation, other than the Proponent has or will have any interest or share in this proposal or in the proposal contract which may be completed in respect thereof. There is no collusion or arrangement between the Proponent and any other actual or prospective Proponent in connection with proposals submitted for this project and the Proponent has no knowledge of the context of other proposals and has no comparison of figures or agreement or arrangement, express or implied, with any other party in connection with the making of the proposal.

#### **1.25 CONFLICT OF INTEREST**

Proponents shall disclose in its Proposal any actual or potential conflict of interest and existing business relationship it may have with the Regional District, its elected or appointed officials or employees.

#### **1.26 LIABILITY FOR ERRORS**

While the Regional District has used considerable efforts to ensure an acute representation of information in these bid documents, the information contained is supplied solely as a guideline for Proponents. The information is not guaranteed or warranted to be

accurate by the Regional District nor is it necessarily comprehensive or exhaustive.

#### **1.27 TRADE AGREEMENTS**

This RFP is covered by trade agreements between the Regional District and other jurisdictions, including the following:

- a) Canadian Free Trade Agreement; and
- b) New West Partnership Trade Agreement.

#### **1.28 LAW**

This contract and any resultant award shall be governed by and construed in accordance with the laws of the Province of British Columbia, which shall be deemed the proper law thereof.

#### **1.29 REPRISAL CLAUSE**

Tenders will not be accepted by the Regional District from any person, corporation, or other legal entity (the "Party") if the Party, or any officer or director of a corporate Party, is, or has been within a period of two years prior to the tender closing date, engaged either directly or indirectly through another corporation or legal entity in a legal proceeding initiated in any court against the Regional District in relation to any contract with, or works or services provided to, the Regional District; and any such Party is not eligible to submit a tender.

#### **1.30 FORCE MAJEURE (ACT OF GOD)**

Neither party shall be liable for any failure of or delay in the performance of this Agreement for the period that such failure or delay is due to causes beyond its reasonable control including but not limited to acts of God, war, strikes or labour disputes, embargoes, government orders or any other force majeure event. The Regional District may terminate the Contract by notice if the event lasts for longer than 30 days.

#### **1.31 CONFIDENTIAL INFORMATION OF PROPONENT**

A proponent should identify any information in its proposal or any accompanying documentation supplied in confidence for which confidentiality is to be maintained by Regional District. The confidentiality of such information will be maintained by Regional District, except the total proposed value, which must be publicly released for all proposals, or otherwise required by the Freedom of Information and Protection of Privacy Act ("FOIPPA"), law or by order of a court or tribunal. Proponents are advised that their proposals will, as necessary, be disclosed, on a confidential basis, to advisers retained by Regional District to advise or assist with the RFP process, including the evaluation of proposals. If a proponent has any questions about the collection and use of personal information pursuant to this RFP, questions are to be submitted to the RFP Contact.

#### **1.32 DISPUTE RESOLUTION**

All unresolved disputes arising out of or in connection with this Proposal or in respect of any contractual relationship associated therewith or derived therewith shall be referred to and finally resolved by arbitration as prescribed by Mediate BC services pursuant to its rules, unless otherwise mutually agreed between the parties.

**1.33 DEBRIEFING**

At the conclusion of the RFP process, all Proponents will be notified. Proponents may request a debriefing meeting with the Regional District.

## 2. INTRODUCTION

### 2.1 Purpose

The Regional District is requesting trestle bridge rehabilitation work at two (2) locations that span gorges leading into Chapman Creek and a geotechnical assessment and report of an embankment at the same location.

## 3. SITUATION/OVERVIEW

### 3.1 Background

In spring 2022, a structural assessment of the primary Chapman water intake transmission line was completed, and the results of the inspection revealed the presence of corrosion and deterioration of the supporting steel waterline trestle structure is present. A geotechnical investigation was also recommended to assess the stability of a slope where the west trestle is located. It is to note that a landslide occurred near this location in December 2020 (see Appendix 3.2 for the landslide hazard condition assessment).

The steel trestle structure was constructed as part of the original water intake line over 30 years ago and the aging structure needs considerable maintenance that has not been completed since the original construction.

The two (2) trestles that require rehabilitation are spanning across gorges adjacent to Chapman Creek. They are composite steel trestle systems composed of various I beam and C channels supporting a walkway and piping system. The handrails are composed of rounded metal tube pipe. The two (2) trestles are referred to as the west and east trestles within this RFP and locations are shown in the location map included in Appendix 6. It is understood that all the structures were constructed in the late 1980's, which would make the structures close to 30 years old. The geotechnical assessment requested as part of this scope of work and the location for this work will be at the known as the West Trestle Location.

### 3.2 Scope

1. Geotechnical assessment and report at West Trestle location  
The Contractor will complete a geotechnical assessment of the supporting embankment slope for the waterline between the limits of the beginning of the west trestle bridge by a Professional Geotechnical Engineer registered in the Province of BC. The completed report is to highlight the stability of the slope in relation to the watermain, trestle bridges, supporting structures and recommendations will be made to remediate any instability, if the supporting slope/s are identified to be unstable. Monitoring methods and frequency of the slope stability are to be suggested by the engineer. The Geotechnical analysis shall include a rotational slope stability analysis and provide the results to the Regional District in a written report complete with rotational slope slide diagrams. The report shall specify the assumptions used in the slope stability analysis. Any excavation, drilling or other ground disturbance shall be included as needed by the contracted Professional Engineer.
2. West Trestle Rehabilitation  
The scope of work consists of:
  - a. West trestle piers rehabilitation should not start prior to the slope stability assessment.



- b. Six (6) supporting columns attached to the concrete block foundation are missing grout.
  - i. Cleaning and repairing the concrete piers and reinstate the grout between the column base plate and the concrete block support – refer to the Appendix 2 - Supplementary General Conditions and Specifications for cleaning, repairing and grouting. Materials and methodology will be approved by the Regional District's Engineer on Record (EOR) prior to execution. Complete surface of concrete pier and trestle base plate shall be cleaned prior to repairing and grouting; if necessary, pier shall be daylighted for a complete grouting underneath the trestle base plate.
  - ii. Scrape away the rust of steel structure and paint with a rust preventive paint (black – refer to Appendix 2 specifications).
- c. Railing – North side (2" diameter(dia) pipe)
  - i. Replace bent pedestrian railing that is bent: materials, size and assembly will match the existing railing. Proposed materials and assembly shall be approved by the Regional District prior to execution. The railing will be restored to a condition that it does not protrude towards the walking pedestrians so as to not be a safety hazard.
  - ii. Clean, prepare surface and then paint with rust preventative paint (black – refer to attached Appendix 2 - Supplementary General Conditions and Specifications). Materials and methodology are to be approved by the Regional District prior to execution.
  - iii. Round the railing ends.
  - iv. Railing ends are horizontal, turn them down or add rounded edge added.
  - v. Touch up rust preventative paint as required, with proper cleaning and surface preparing (black – refer to the attached Appendix 2 - Supplementary General Conditions and Specifications). Materials and methodology are to be approved by the Regional District prior to execution.
- d. Addition of sacrificial anodes:
  - i. 10kg anode or equivalent attached to each of the column bases. Materials and assembly methodology will be compliant with the most recent standards (ASTM F1182-07, 2019) and approved by Regional District prior to the execution (proof of compliance shall be demonstrated).

### 3. East Trestle Rehabilitation

The scope of work consists of:

- a. Four (4) supporting columns to concrete block supports are missing grout.
  - i. Clean and repair the concrete piers and reinstate the grout between the column base plate and the concrete block support – refer to the Appendix 2 - Supplementary General Conditions and Specifications for cleaning, repairing and grouting. Materials and methodology will be approved by the Regional District prior to execution. Complete surface of concrete pier and trestle base plate shall be cleaned prior to repairing and grouting; if necessary, pier shall be daylighted for a complete grouting underneath the trestle base plate.
  - ii. Scrape away the rust and paint with a rust preventive paint (black – refer to attached Appendix 2 - Supplementary General Conditions and Specifications).
- b. Railing - South side (2" dia pipe, approximately 60' length – to be field verified).
  - i. Install missing railing and paint with rust preventative paint (black – refer to attached Appendix 2 - Supplementary General Conditions and Specifications). Materials, size and assembly will match existing railing. Materials and methodology will be approved by the Regional District prior to execution.
- c. Railing – North side (2" dia pipe).

- i. Replace bent railing sections: materials, size and assembly will match the existing railing. Proposed materials and assembly shall be approved by the Regional District prior to execution.
  - ii. Clean, prepare surface and then paint with rust preventative paint (black – refer to attached Appendix 2 - Supplementary General Conditions and Specifications). Materials and methodology are to be approved by the Regional District prior to execution.
  - iii. Round the railing ends.
  - iv. Railing ends are horizontal, turn them down, or add rounded edge added.
  - v. Touch up rust preventative paint as required with proper cleaning and surface preparing (black – refer to attached Appendix 2 - Supplementary General Conditions and Specifications). Materials and methodology are to be approved by the Regional District prior to execution.
- d. Addition of sacrificial anodes
- i. 10kg anode or equivalent attached to each of the column bases and buried. Materials and assembly methodology will be compliant with the most recent standards (ASTM F1182-07, 2019) and approved by Regional District prior to the execution (proof of compliance shall be demonstrated).

All works are to comply with Federal Provincial and Local laws, rules, regulations and standards. No debris or scrap material to be left on site. Efforts will be taken to minimize the ground contamination, and adequate protections will be put in place to prevent any debris from entering the Chapman Creek.

Proponents should understand these trestles are located on a Sechelt First Nation owned property therefore respect to their culture and values are expected.

### **3.1 Alternatives**

No alternatives or equals to the specified products will be considered unless a written request is provided from the Proponents requesting an alternative or equal product to be used, the request needs to include specifications and information on how they meet the requirements. Any proposed alternatives or equals will be approved or denied based on the sole discretion of the Regional District.

## **4. CONTRACT**

### **4.1 General Contract Terms and Conditions**

Proponents should review carefully the terms and conditions set out in the Canadian Construction Documents Committee, Standard Construction Document CCDC 18 – Civil Works Contract 2001.

### **4.2 Service Requirements**

The Contractor's responsibilities will include the following:

- a) Prior to signing the Contract, the Contractor will provide:

- a. Performance and Labour and Material Bond within 15 days of receipt of the written notice of award, will deliver to the Regional District a performance bond and a labour and material bond, each in the amount of 50% of the contract price, covering the performance of the work including the Contractor's obligations during the maintenance period, issued by a surety licensed to carry on the business of suretyship in the province of British Columbia and in a form acceptable to the Regional District; or
  - b. A bank draft, in the amount of 20% of the total contract price. The bank draft less 5% of the total contract price will be returned 60 days after the completion of the contract which will be held until the end of the maintenance period; or
  - c. A letter of credit, in the amount of 20% of the total contract price, without a termination date. The letter of credit will be returned 60 days after the completion of the contract and after the issuance of a letter of credit for the warrantee period, without a termination date in the amount of 5% of the total contract price which will be held until the end of the maintenance period.
- b) Provision of all the deliverables as outlined above; and
  - c) Employing skilled and qualified people to complete the work; and
  - d) Being aware of and comply with all by-laws or relations regarding noise for each respective jurisdiction; and
  - e) Notifying the Regional District when the work has reached substantial performance and shall review all completed work with the Regional District for the purposes of final inspection, deficiencies and commissioning. Any deficiencies identified the Contractor is required to provide the Regional District with a reasonable time period for the correction. The Regional District will provide acknowledgment of those corrections and time frame. The Regional District will conduct further inspections; and
  - f) Warranty that work will be completed in a good and skilful manner and provide a minimum of one (1) year warranty.
    - a. If within warranty period any part of the Work is found by the Regional District to be defective or faulty due to imperfect or bad construction or material (Excludes any defects due to Base Failures), the Contractor will replace such defective items without expense to the Regional District; and
  - g) Obtaining all permits, licenses, approvals and certificate which, as are generally required for the performance of the work. The Contractor permits shall include all municipal construction permits and approvals. The Contractor shall pay all permit fees; and
  - h) Maintaining the site in a clean and orderly condition.
  - i) Upon attaining Substantial Performance, the Contractor shall remove all surplus products, tools, construction machinery and equipment relating to the work that is not required for the performance of the remaining work. The Contractor shall also remove waste, debris and waste products other than that cause by the Regional District or other Contractors, and leave the place of work clean and suitable for occupancy by the Regional District unless otherwise specified in the contract documents or directed.
    - a. If the Contractor fails or refused to removal all such products, materials, equipment and waste within a reasonable time after achieving Substantial Performance. The Regional District will issue a written notice to the Contractor to remedy such failure or refusal by providing a reasonable time, the Regional District may do or cause to be done the removal and all reasonable resulting costs incurred by the Regional District may be deducted from any amounts owing to the Contractor.

### 4.3 Related Documents

The following reports are available in Appendices 3.3, 3.1, 4 and 3.2 respectively for information, but the exact current condition of sites and structures should be assessed by the Proponents as specified in this RFP:

- a) Sunshine Coast Regional District – Exposed Water Main Inspections  
Dated May 7th, 2015  
Produced by OPUS DaytonKnight
- b) Inspection of Utility Trestle Structures – Chapman Creek  
Dated May 26th, 2022  
Produced by DesignWorks Inspections
- c) Landslide Hazard Condition Assessment report  
Dated December 2022  
Produced by Arya Engineering Inc.
- d) Chapman Creek Landslide Stabilization Completed Works report  
Dated March 1st, 2021  
FNLOR

## 5. REQUIREMENTS

In order for a proposal to be considered, a Proponent must clearly demonstrate that they meet the mandatory requirements set out in Section 7.1 (Mandatory Criteria) of the RFP.

This section includes “Response Guidelines” which are intended to assist Proponents in the development of their proposals in respect of the weighted criteria set out in Section 7.2 of the RFP. The Response Guidelines are not intended to be comprehensive. Proponents should use their own judgement in determining what information to provide to demonstrate that the Proponent meets or exceeds the Regional District’s expectations.

Please address each of the following items in your proposal in the order presented. **Proponents may find it helpful to use the individual Response Guidelines as headings for proposal responses.**

### 5.1 Capabilities

#### 5.1.1 Relevant Experience

- a) The Proponent’s superintendent experience should have completed a minimum of 3 projects of similar nature and size.
- b) The Proponents shall provide details regarding the performance of the Proponents and the proposed subcontractors on similar projects including without limitation, the proponent’s history with the respect to the quality of work, schedule, changes in the work, and force account work.

### **5.1.2 Qualifications**

Proponents shall provide a list of qualifications for their key personal and subcontractors to meet the requirements outline in the specifications.

### **5.1.3 References**

Proponents need to provide a minimum of 3 references (i.e. names and contact information) of individuals who can verify the quality of work provided specific to the relevant experience of the Proponent and of any subcontractors named in the proposal. References from the Proponent's own organization or from named subcontractors are not acceptable.

The Regional District reserves the right to seek additional references independent of those supplied by the Proponent, including internal references in relation to the Proponent's and any subcontractor's performance under any past or current contracts with the Regional District or other verifications as are deemed necessary by it to verify the information contained in the proposal and to confirm the suitability of the Proponent.

### **5.1.4 Environmental Requirements**

The Proponent need to provide details on how they will meet the following environmental regulations:

- a) Water Sustainability Act
- b) Fisheries Act
- c) BC Drinking Water Protection Act
- d) VCH Regulations

## **5.2 Schedule**

The trestle bridges are above or near watercourses and marine environment, and the Contractor will be responsible for ensuring that no debris, contaminant, or deleterious material is allowed to fall into the water. Conformance with the fish window and other ministry conditions is a requirement.

## **5.3 Sustainable Social Procurement**

A factor in the Regional District evaluation process is sustainable social procurement and the evaluation of proposals will take this into consideration.

As part of any submission the Proponent is encouraged to identify how they may contribute to the following key social, employment and economical goals, but not limited to the following:

- a) Contribute to a stronger local economy by:
  - promoting a Living Wage
  - Using fair employment practices;
  - Increase training and apprenticeship opportunities;
- b) Local expertise knowledge by:
  - a. Being locally owned;
  - b. Utilization of local subcontractors;

- c) Environmental Cost of Ownership;
- d) Energy efficient products;
- e) Minimal or environmental friendly use of packing materials; and
- f) Reducing hazardous materials (toxics and ozone depleting substances).

## 5.4 Approach

The approach identified within the Proponent's proposal for the West and East Trestle should include at a minimum; site access and rigging used for hard to reach areas, materials (including rust preventive paint and related material like cleaner and primer), railing repairs proposed assembly, debris containment, site cleanup, and safety measures set in place for completing the work.

For the geotechnical slope stability section, the proposal shall include the Professional Engineer's qualifications and resume and should include a scope of work that outlines all work to be performed to satisfy the requirements stated under scope for a definitive assessment useful for either immediate or future corrective measures; at minimum, the type of supporting ground (weather bedrock or earth) underneath the blocks shall be identified.

Proponents shall provide preliminary schedule identifying all the milestones and time periods for each task including geotechnical investigation.

## 5.5 Price

Proponents need to submit a fee proposal that sets out the separate costs for each site in accordance with Appendix 1 as well as an all-inclusive cost for all the projects; the proposal should include a breakdown of the fix prices including time, travel, hourly billable rates and material costs.

Prices quoted will be deemed to be:

- in Canadian dollars ;
- inclusive of duty, FOB destination, and delivery charges where applicable; and
- exclusive of any applicable taxes.

## 6. PROPOSAL FORMAT

Proponents should ensure that they fully respond to all requirements in the RFP in order to receive full consideration during evaluation.

The following format, sequence, and instructions should be followed in order to provide consistency in Proponent response and ensure each proposal receives full consideration. All pages should be consecutively numbered.

- a) Signed cover page (see section 7.1 Mandatory Criteria).
- b) Table of contents including page numbers.
- c) A short (one or two page) summary of the key features of the proposal.
- d) The body of the proposal, including pricing, i.e. the "Proponent Response".
- e) Appendices, appropriately tabbed and referenced.
- f) Identification of Proponent (legal name)

- g) Identification of Proponent contact (if different from the authorized representative) and contact information.

## **7. EVALUATION**

Evaluation of proposals will be by a committee formed by the Regional District and may include other employees and contractors.

The Regional District's intent is to enter into a Contract with the Proponent who has met all mandatory criteria and minimum scores (if any) and who has the highest overall ranking.

Proposals will be assessed in accordance with the entire requirement of the RFP, including mandatory and weighted criteria.

The Regional District reserves the right to be the sole judge of a qualified proponent.

The Evaluation Committee may, at its discretion, request clarifications or additional information from a Proponent with respect to any Proposal, and the Evaluation Committee may make such requests to only selected Proponents. The Evaluation Committee may consider such clarification or additional information in evaluating a Proposal.

### **7.1 Mandatory Criteria**

Proposals not clearly demonstrating that they meet the following mandatory criteria will be excluded from further consideration during the evaluation process.

<b>Mandatory Criteria</b>
The proposal must be received at the Closing Location before the Closing Time.
The proposal must be in English.
The proposal must be submitted using one of the submission methods set out on the cover page of the RFP
The proposal must either (1) include a copy of the Confirmation of Proponent's Intent to be Bound that is signed by an authorized representative of the Proponent, this is also required for email submissions or (2) be submitted by using the e-bidding key on BC Bid (if applicable), in accordance with the requirements set out in the RFP

## 7.2 Weighted Criteria

Proposals meeting all of the mandatory criteria will be further assessed against the following weighted criteria.

<b>Weighted Criteria</b>	<b>Weight (%)</b>
Experience / Qualifications	30
Schedule	10
Approach	20
Sustainable Social Procurement	10
Price	30
<b>TOTAL</b>	<b>100</b>

## 7.3 Price Evaluation

The lowest priced Proposal will receive full points for pricing. All other prices will be scored using the following formula: lowest priced proposal/price of this proposal\* total points available for price.



# Appendix 1 Response Form

(provided as a separate document)

# **Appendix 2 - Supplementary General Conditions and Specifications**

**Division 01 General Requirements****Section 013300 Submittal Procedures****1.0 GENERAL****1.1 General Requirements**

- .1 Unless otherwise noted, make submittals to the Owner for review.
- .2 Make submittals with reasonable promptness and in an orderly sequence to avoid any delay in the Work. Failure to submit in ample time is not considered cause for an extension of Contract Time, and no claim for extension by reason of such default will be allowed.
- .3 Do not proceed with Work affected by submittals until review is complete.
- .4 The submittal reviews do not authorize changes in cost or time. Changes involving cost or time are authorized only by a signed change order.

**1.2 Shop Drawings/Submittal Data Sheets**

- .1 "Shop Drawings" mean custom drawings, specific product data, diagrams, illustrations, schedules, performance charts, brochures and other data, which are to be provided to illustrate details of a portion of the Work.
- .2 Arrange for the preparation of clearly identified shop drawings as specified or as the Owner may reasonably request. Shop drawings are to clearly indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of the Work. Where articles or equipment attach or connect to other articles or equipment, clearly indicate that all such attachments and connections have been properly coordinated, regardless of the trade under which the adjacent articles or equipment will be supplied and installed. Shop drawings shall be submitted with the appropriate Specification Sections attached. Notify the Owner in writing of any deviations in shop drawings from the requirements of the Contract Documents.
- .3 Examine all shop drawings prior to submission to the Owner to ensure that all necessary requirements have been determined and verified and that each shop drawing has been checked and coordinated with the requirements of the Work and the Contract Documents. Examination of each shop drawing shall be indicated by stamp, date and signature of a responsible person of the Subcontractor for supplied items and of the General Contractor for fabricated items. Shop drawings not stamped, signed and dated will be returned without being reviewed and stamped "Resubmit".
- .4 The Owner will review and return shop drawings in accordance with the schedule agreed upon or otherwise with reasonable promptness so as to cause no delay in the Work. Allow sufficient time for review and consideration by the Owner. Claims for costs or contract extensions due to such review time will not be allowed.
- .5 Submit a reproducible original or digital copy, minimum of one (1) electronic copies of white prints and two (2) copies of all fixture cuts and brochures. If the Contractor needs more copies for his own distribution purposes, additional copies should be submitted.
- .6 Shop drawing review by the Owner is solely to ascertain conformance with the general design concept. Responsibility for approval of detail design inherent in shop drawings rests with the Contractor and review by the Owner shall not imply such approval.
- .7 Review of Shop Drawings by the Owner shall not relieve the Contractor of his responsibility for errors or omissions in shop drawings or for proper completion of the Work in accordance with the Contract Documents.
- .8 Responsibility for verification and correlation of field dimensions, fabrication processes, techniques of construction, installation and coordination of all parts of the Work rests with

the Contractor.

- .9 Shop drawings will be returned to the Contractor with one of the following notations:
- .1 When stamped "NO EXCEPTIONS TAKEN", distribute additional copies as required for execution of the Work.
  - .2 When stamped "MAKE CORRECTIONS NOTED", ensure that all copies for use are modified and distributed, same as specified for "NO EXCEPTIONS TAKEN". Resubmit for final records.
  - .3 When stamped "REVISE RESUBMIT", make the necessary revisions, as indicated, consistent with the Contract Documents and submit again for review.
  - .4 When stamped "REJECTED", submit other drawings, brochures, etc. for review consistent with the Contract Documents.
  - .5 Only shop drawings bearing "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED" shall be used on the Work unless otherwise authorized by the Owner.
  - .6 It is understood that the following is to be read in conjunction with the wording on the Owner's shop drawing review stamp applied to each and every data sheet or drawing submitted:  

*"THESE (SHOP DRAWINGS) (SUBMITTALS), (PLANS)*  
*HAVE BEEN REVIEWED FOR GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS. NO RESPONSIBILITY IS ASSUMED BY THE OWNER FOR QUANTITIES, CORRECTNESS OR DIMENSIONS OR DETAILS."*

*This does not mean that the Owner approves the detail design inherent in the shop drawings, responsibility for which remains with the Contractor, and such review does not relieve the Contractor of the responsibility for errors or omissions in the shop drawing or of his responsibility for meeting all requirements of the Contract Documents. Be responsible for confirming and correlating dimensions at the Place of the Work, for information that pertains solely to fabrication processes or to techniques of construction and installation, and for coordination of the work of all subtrades."*
  - .10 After submittals are stamped "NO EXCEPTIONS TAKEN", no further revisions are permitted unless re-submitted to the Owner for further review.
  - .11 Any adjustments made on shop drawings by the Owner are not intended to change the Contract Price. If it is deemed that such adjustments affect the Contract Price, clearly state as such in writing prior to proceeding with fabrication and installation of work.
  - .12 Make changes in shop drawings which the Owner may require consistent with Contract Documents. When re-submitting, notify the Owner in writing of any revisions other than those requested by the Owner.
  - .13 Shop drawings indicating design requirements not included in the Contract Documents require the seal of a qualified Professional Owner, registered in British Columbia.
  - .14 Only two (2) reviews of a shop drawing will be made by the Owner at no cost. Each additional review will be charged to the Contractor at the Owner's scheduled rates. The Owner's charges for additional work will be deducted from the Contractor's Progress Certificates.

## 2.0 PRODUCTS

*Not Applicable.*

**3.0 EXECUTION**

*Not Applicable.*

**END OF SECTION**

## **Division 01 General Requirements**

### **Section 013500 Special Project Procedures**

#### **1.0 GENERAL**

##### **1.1 Permits/Inspections**

- .1 The Contractor will be responsible for obtaining all project permits and coordinating the required inspections.
- .2 The Contractor shall arrange and pay for the regulatory submittals and inspections necessary for the completion of the Work in accordance with Federal, Provincial, regulations, and by-laws.

##### **1.2 Applicable Codes/Standards**

- .1 Conform to all Federal, Provincial, and District Codes, regulations and by laws.

#### **2.0 PRODUCTS**

*Not Applicable.*

#### **3.0 EXECUTION**

*Not Applicable.*

**END OF SECTION**

**Division 03 Concrete****Section 03 01 37 Concrete Restoration****1.0 GENERAL****1.1 REFERENCE STANDARDS****.1 ASTM International (ASTM)**

ASTM C 109/C 109M-[16a], Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. (50-mm) Cube Specimens)

ASTM C 157/C 157M- [17 (2014) e1], Standard Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete

ASTM C 348- [18], Standard Test Method for Flexural Strength of Hydraulic-Cement Mortars

ASTM C 469/C 469M- [14], Standard Test Method for Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression

ASTM C 496/C 496M- [17], Standard Test Method for Splitting Tensile Strength of Cylindrical Concrete Specimens

ASTM C 596- [18], Standard Test Method for Drying Shrinkage of Mortar Containing Hydraulic Cement

ASTM C 666/C 666M- [15], Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing

ASTM C 779/C 779M- [12], Standard Test Method for Abrasion Resistance of Horizontal Concrete Surfaces

ASTM C 1059/C 1059M- [13], Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete

ASTM C 1202- [19], Standard Test Method for Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration

**.2 Canadian General Standards Board (CGSB)**

- a. CAN/CGSB-19.24-[M90], Multicomponent, Chemical-Curing Sealing Compound

**.3 Transport Canada (TC)**

- a. Transportation of Dangerous Goods Act, 1992, c. 34 (TDGA)

**.4 International Concrete Repair Institute (ICRI)**

- a. ICRI Concrete Repair Terminology [2010]

**.5 NACE International (NACE)**

- a. ANSI/NACE No. 13/SSPC-ACS-1- [2016] -SG, Industrial Coating and Lining Application Specialist Qualification and Certification

**1.2 SECTION INCLUDES****.1 Work requirements for concrete restoration and waterproofing in accordance with Section 01 11 00 - Summary of Work including the following:**

- a. Chipping and breaking out all deteriorated, spalled and delaminated concrete, defective cold joints, and the subsequent filling of voids, cracks and rebuilding of exterior surface profiles.

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Provide submittals in accordance with Section 013300 General Conditions - Submittal Procedures.
- .2 Submit Product Data sheet for every material used for concrete repairs.
- .3 Submit a proposed work plan for approval by the Engineer. Work plan to include a list of materials and proposed plan to be implemented to perform the work.

#### **1.4 CLOSEOUT SUBMITTALS**

- .1 7 Day and 28 Day compressive strength test reports are to be provided with the project closeout report.

#### **1.5 QUALITY ASSURANCE**

- .1 7 Day and 28 Day compressive strength test reports are to be provided with the project closeout report.

#### **1.6 EXISTING CONDITIONS**

- .1 Examine existing conditions and existing surfaces to be restored.
- .2 Apply exterior base and finish coatings during dry weather and when imminent weather forecast is favourable for proper application and curing in accordance with manufacturer's recommendations.

#### **2.0 PRODUCTS**

##### **2.1 MATERIALS**

- .1 Patching compound (for 6-50 mm horizontal and 6-25 mm for vertical applications): fast setting, non-shrink, premixed, requiring addition of water only, free of wax, metal, tar, emulsion and calcium chloride.
  - a. Compressive Strength: To ASTM C 109/C 109M, 24 MPa at 24 h and 44 MPa at 28 days.
  - b. Flexural Strength: To ASTM C 348, 6.8 MPa at 7 days, 8.5 MPa at 28 days.
  - c. Modulus of Elasticity: To ASTM C 469/C 469M, 1.5 x 10 MPa at 28 days.
- .2 Patching compound (for 6-25 mm horizontal applications): fast setting, non-shrink, one component, polymer modified cementitious based, repair mortar.
  - a. Compressive Strength: To ASTM C 109/C 109M, 17.4 MPa at 1 day; 38.2 MPa at 7 days; 52.1 MPa at 28 days.
  - b. Flexural Strength: To ASTM C 348, 5.6 MPa at 1 day; 6.9 MPa at 7 days; 10.4 MPa at 28 days.
  - c. Splitting Tensile Strength: To ASTM C 496/C 496M, 2.6 MPa at 1 day; 3.1 MPa at 7 days; 4.2 MPa at 28 days.
  - d. Bond Strength: To ASTM C 1059/C 1059M, 6.8 MPa at 1 day; 12.1 MPa at 7 days; 17.7 MPa at 28 days.
  - e. Drying Shrinkage: To ASTM C 596, 28 day -0.093%.
  - f. Rapid Chloride Permeability: To ASTM C 1202, 28 day - 365/very low.
  - g. Freeze/Thaw Resistance: To ASTM C 666/C 666M, (Procedure A), 300 cycles - 93.0% RDF.
  - h. Abrasion Resistance: To ASTM C 779/C 779M, (Procedure A), depth of wear 0.419 mm/hour.
- .3 Bonding Agent: Acrylic polymer emulsion formulated for bonding new concrete to cured concrete, non-yellowing, water based, compatible with and recommended by patching compound manufacturer.



- a. Compressive Strength: To ASTM C 109/C 109M, 31 MPa at 28 days.
- b. Flexural Strength: To ASTM C 348, 12.4 MPa at 28 days.
- .4 Water: potable.
- .5 Aggregate: 6 to 9 mm clean limestone or pea gravel.
- .6 Joint filler: extruded polyethylene, closed cell, Shore A hardness 20, tensile strength, 140 to 200 kPa, oversized 30 to 50%, CFC free.

## 2.2 EQUIPMENT

- .1 For any activities that create dust, equipment shall be equipped with a mobile, high performance HEPA Vacuum/Drumming System as follows:
  - a. Two-stage positive filtration of hazardous particles.
    - i. First Stage: Automatic self-cleaning by reverse-flow pulses of high-pressure air. Efficiency of 95% at 1 micron.
    - ii. Second Stage: HEPA efficiency of 99.7% at 0.3 microns.
  - b. Controlled-seal drum fill system to allow filling, sealing, removal and waste drum replacement under controlled vacuum system.
  - c. Size: 1219 mm long x 711 mm wide x [1828 mm] [2134 mm] high.
  - d. Automatic, full-drum level alarm.

## 3.0 EXECUTION

### 3.1 Surface Preparation

- .1 Remove loose, spalled, cracked, eroded and disintegrated concrete to solid surface, 9 mm minimum depth.
- .2 Chisel under perimeter of areas to be patched.
- .3 Clean area of loose material, dirt, oil and scale.
- .4 Clean cracks 6 mm thick or wider with pressurized water jet.
- .5 Chip and break out all deteriorated concrete, previous repairs that are delaminated, existing delamination and defective cold joints to sound concrete.
- .6 Chip concrete away from exposed rusted surfaces of reinforcing bars, chipping to extend for a distance of about 150 mm along the bars beyond evident rusting.
- .7 If chipping operation results in a bar becoming debonded from the concrete, the concrete behind the debonded bar shall be cut out to a depth of at least 25 mm. In this case, adequate grouting should be used instead of repair patching material.
- .8 Rout out wall cracks wider than 1 mm to a minimum width and depth of 6 mm and clean free of dust and debris, for subsequent filling (after sandblasting).

### 3.2 MIXING

- .1 Patching Compound:
  - a. Mix components and ratios shall be in accordance with manufacturer's written instructions.
  - b. Use drill mixer to mechanically mix components. Ensure components are thoroughly mixed.
    - i. Add up to 6.8 kg of aggregate to 25 kg bag of patching compound for large cavities and patches in excess of 25 mm thick.

- c. Apply mix immediately.
  - d. Dispose of unused mix immediately, do not retemper.
- .2 Base Coating:
- a. Perform coating in accordance with manufacturer's written instructions.  
Mix 1-part bonding agent to 3 parts water.  
Add bonding mixture to base coating and mix to cement mortar consistency with 50 to 76 mm slump.

### **3.3 SURFACE REPAIRS**

- .1 Rebuild surface profile following surface preparation, previously described, and fill with patching compound and bonding agent.
- .2 Install repair material in accordance with manufacturer's written instructions.
- .3 Mix patching compound to batter consistency and apply by brush over dampened concrete within patching area.
- .4 Slush mix over old concrete within patching area with brush coat before filling patch with heavier, trowel coat of patching compound.
- .5 Place and level patching compound within 5 to 10 minutes after mixing water is added.
- .6 Apply mix in successive 12 mm to 25 mm layers.
- .7 Scratch first layer, cool with water and apply second layer within 15 to 20 minutes.
- .8 Sponge float surface. If patch gets hot and turns light grey, cool by wetting. Keep patch damp 30 to 45 minutes after filling.
- .9 All previously embedded steel should be first thoroughly covered and slushed with brush coat before application of heavier trowel coat.
- .10 Repair scaled or spalled concrete and missing corners deeper or greater than 6 mm with patching compound and bonding agent to render a regular flush surface.
- .11 When rebuilding projecting concrete, such as cracked caps, key into existing concrete by means of edge cutting at a minimum depth of 20 mm.
- .12 Protect other trades work and/or other prepared surfaces from patching material spills.

### **3.4 INSPECTION**

- .1 Owner will inspect work for:
  - a. Adherence to specific procedures and materials
- .2 Final cleanliness and completion.
- .3 No additional costs will be allowed by Contractor for additional labour or materials required to provide specified performance level.

**END OF SECTION**

**Division 03 Concrete****Section 03 10 00 Cast-in-place Concrete****1.0 GENERAL****1.1 REFERENCE STANDARDS**

- .1 ASTM International (ASTM)
  - a. ASTM C 260/C 260M- [10a (2016)], Standard Specification for Air-Entraining Admixtures for Concrete.
  - b. ASTM C 309- [11], Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
  - c. ASTM C 494/C 494M- [17], Standard Specification for Chemical Admixtures for Concrete.
  - d. ASTM C 881/C 881M- [15], Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
  - e. ASTM C 1017/C 1017M-[13e1], Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
  - f. ASTM C C1059/C1059M- [13], Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete.
  - g. ASTM D 412- [16], Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension.
  - h. ASTM D 624- [2012], Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomer.
  - i. ASTM D 1751- [04(2014) e1], Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
  - j. ASTM D 1752- [04a (2013)], Standard Specification for Preformed Sponge Rubber Cork and Recycled PVC Expansion Joint Fillers for Concrete Paving and Structural Construction.
- .2 Canadian General Standards Board (CGSB)
  - a. CAN/CGSB-51.34-[M86], Vapour Barrier, Polyethylene Sheet for Use in Building Construction.
- .3 CSA Group (CSA)
  - a. CSA A23.1/A23.2- [14] [19], Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
  - b. CSA A283- [19], Qualification Code for Concrete Testing Laboratories.
  - c. CSA A3000- [13] [18], Cementitious Materials Compendium (Consists of A3001, A3002, A3003, A3004 and A3005),

**1.2 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Provide submittals in accordance with Section 013300 General Conditions - Submittal Procedures.
- .2 Product Data:
  - a. Submit manufacturer's instructions, printed product literature and data sheets for proprietary materials used in Cast-In-Place Concrete and additives and include product characteristics, performance criteria, physical size, finish and limitations.
- .3 Site Quality Control Submittals:
  - a. Concrete/grouting pours: provide accurate records of poured concrete items indicating date and location of pour, quality, air temperature and test samples taken.

**1.3 QUALITY ASSURANCE**

- .1 Provide test data and certification by qualified independent inspection and testing laboratory that materials and mix designs used in concrete mixture meet specified requirements.

#### **1.4 DELIVERY, STORAGE AND HANDLING**

- .1 Delivery and Acceptance Requirements:
  - a. Concrete hauling time: deliver to site of Work and discharged within 120 minutes maximum after batching.
  - b. Concrete delivery: ensure continuous concrete delivery from plant meets CSA A23.1/A23.2.

#### **1.5 SITE CONDITIONS**

- .1 Placing concrete/grouting during rain or weather events that could damage concrete is prohibited.
- .2 Protect newly placed concrete/grout from rain or weather events in accordance with CSA A23.1/A23.2.
- .3 Cold weather protection:
  - a. Maintain protection equipment, in readiness at site.  
Use such equipment when ambient temperature below 5°C, or when temperature may fall below 5°C before concrete cured.  
Placing concrete upon or against surface at temperature below 5°C is prohibited.
- .4 Hot weather protection:
  - a. Protect concrete from direct sunlight when ambient temperature above 27°C.
  - b. Prevent forms of getting too hot before concrete placed. Apply accepted methods of cooling not to affect concrete adversely. Protect concrete from drying using curing compounds or by other means.

#### **2.0 PRODUCTS**

##### **2.1 MATERIALS**

- .1 Cast in place concrete to be normal density (min 2300 kg/m<sup>3</sup>) unless noted otherwise.
- .2 Cement to be Portland cement type GU, unless noted otherwise of or required by exposure class. Cement to conform to CSA A3000.
- .3 Aggregate to conform to CSA A23.1 / A23.2. Do not use recycled concrete as aggregate.
- .4 Admixtures shall not contain chlorides.
- .5 All exterior applications:
  - a. Exposure Class: C1  
Minimum compressive strength at 28 days: 35 MPA  
Nominal size of coarse aggregate: 20 mm (3/4")

##### **2.2 GROUT**

- .1 For equipment, beam bearings and column bases use non-shrink, non-straining, premixed grout, Masterflow 928 by BASF, or equivalent. Apply in accordance with the manufacturer's recommendations.

##### **2.3 CURING MATERIALS**

- .1 Polyethylene Sheeting: 0.004-inch thick.
- .2 Waterproof Paper: Polyethylene-coated, Federal Specification UU-B-790 Type I, Grades A, B, C, Style 4. Define lap control lines clearly by printed markings.
- .3 Membrane Forming Compound: ASTM C309-81 Masterkure manufactured by BASF.

##### **2.4 BONDING AGENT**

- .1 Epoxy Adhesive Bonding Agent: A two-component compound, 100 percent solids, 100 percent reactive compound suitable for use on dry or damp surfaces. Provide manufacturer's specific instructions for application. Concrete Liquid (LPL) by BASF, or Sikadur 32 Hi Mod LPL by Sika, or equivalent.

## **2.5 HOT WEATHER FINISHING AID**

- .1 Evaporation retardant used to retard rapid evaporation of water from exposed concrete. "Confirm" by BASF or equal.

## **3.0 EXECUTION**

### **3.1 PREPARATION**

- .1 Notify Owner 48 hours prior to all concrete/grouting pours
- .2 Before placing of concrete/grout obtain Owner's approval of proposed method for protection of concrete during placing and curing in adverse weather.
- .3 Protect previous Work from staining.
- .4 Clean and remove stains before application for concrete finishes.
- .5 Maintain accurate records of poured concrete items to indicate date, location of pour, quality, workability, air content, temperature and test samples taken.
- .6 In locations where, new concrete dowelled to existing work, drill holes in existing concrete.

### **3.2 INSTALLATION/ APPLICATION**

- .1 Do cast-in-place concrete work in accordance with CSA A23.1/A23.2 .
- .2 Finishing and curing:
  - c. Finish concrete to CSA A23.1/A23.2 .

### **3.3 SITE QUALITY CONTROL**

- .1 NA

**END OF SECTION**

**Division 09 Finishes****Section 0999100 Paint****1.0 GENERAL****1.1 SUMMARY**

- .1 Section includes:
  - a. Field applied paints and coatings as specified in accordance with Manufacturer's Specifications.
  - b. Painting Accessories.
- .2 Related sections:
  - a. The Contract Documents are complementary; what is called for by one is as binding as if called for by all.
  - b. It is the Contractor's responsibility for scheduling and coordinating the Work of subcontractors, suppliers, and other individuals or entities performing or furnishing any of Contractor's Work.
  - c. The following Sections are related to the Work described in this Section. This list of Related Sections is provided for convenience only and is not intended to excuse or otherwise diminish the duty of the Contractor to see that the completed Work complies accurately with the Contract Documents.
    - i. Section 013300 - Submittal Procedures.

**1.2 SUBMITTALS**

- .1 General: Submit as specified in Section 013300 General Conditions.
- .2 Shop drawings: Include schedule of where and for what use coating materials are proposed in accordance with requirements for Product Data.
- .3 Product data: Include description of physical properties of coatings including solids content and ingredient analysis, VOC content, temperature resistance, typical exposures and limitations, and manufacturer's standard color chips.
- .4 Paint Schedule: Provide schedule of all proposed paint products for the items to be painted in format matching the Schedule provided in Part 3 of this Section.

**1.3 QUALITY ASSURANCE**

- .1 Products: First line or best grade.
- .2 Materials for each paint system: By single manufacturer.
- .3 Applicator qualifications: Applicator of products similar to specified products with minimum 5 years experience.
- .4 Regulatory requirements:
  - a. Comply with by using paints that do not exceed governing agency's VOC limits or do not contain lead.
  - b. Conform to applicable code for flame and smoke rating requirements for products and finishes.
- .5 Field samples:
- .6 Paint 1 complete surface of each color scheme to show colors, finish texture, materials, and workmanship.
- .7 Obtain Owner approval before painting other surfaces.

**1.4 PROTECTION**

- .1 Implement adequate measures to prevent paint or other chemicals from dropping into or affecting the environment and wildlife.
- .2 Protect adjacent surfaces from paint and damage. Repair damage resulting from inadequate or unsuitable protection.
- .3 Furnish sufficient drop cloths, shields, and protective equipment to prevent spray or droppings from fouling surfaces not being painted and in particular, surfaces within storage and preparation area.
- .4 Place cotton waste, cloths, and material that may constitute fire hazard in closed metal containers and remove daily from site.
- .5 Remove electrical plates, surface hardware, fittings and fastenings, prior to painting operations.
- .6 Carefully store, clean and replace on completion of painting in each area.
- .7 Do not use solvent or degreasers to clean hardware that may remove permanent lacquer finish.

**1.5 EXTRA MATERIALS**

- .1 Extra materials: Deliver minimum 1 gallon of each type and color of coating applied:
- .2 When manufacturer packages material in gallon cans, deliver unopened labeled cans as comes from factory.
- .3 When manufacturer does not package material in gallon cans, deliver material in new gallon containers, properly sealed and identified with typed labels indicating brand, type, and color.

**1.6 WARRANTY**

- .1 Masonry Clear Water Repellent: Manufacturer shall warrant clear water-repellent product for a period of 10 years against loss of water repellency of 1.0 mL or greater/20 minutes. Manufacturer shall correct deficiencies promptly and without inconveniences or cost to the Owner.
- .2 Contractor shall coordinate pre-approval of the materials to receive water repellent with manufacturer's warranty provisions.

**2.0 PRODUCTS**

**2.1 MANUFACTURERS**

- .1 Paints:
- .2 Tnemec: Tnemec Co., Kansas City, MO.

**1.1 PRETREATMENT, PRIMERS, AND PRIMER-SEALERS**

- .1 Ferrous metal primer:  
Tnemec: Series 1, 20, FC20, 27, 37H, 66, L69, L69F, N69, N69F, V69, V69F, 90-97, H90-97, 90G-1K97, 91-H2O, H91-H2O, 94- H2O, 135, L140, L140F, N140, N140F, V140, V140F, 141, 161, 394, 530
- .2 Galvanized metal surface pre-treatment materials:
- .3 TNEMEC: Surface Cleaner.
- .4 Galvanized metal surface primer:
- .5 Tnemec: Series 66, L69, L69F, N69, N69F, V69, V69F, 161
- .6 Metal Surfaces Coating System
- .7 Tnemec: Endura-Shield Series 73. Alpha Acrylic Polyurethane- Color to be Forest Green.

**3.0 EXECUTION**

**3.1 INSPECTION**

- .1 Thoroughly examine surfaces scheduled to be painted before starting work.
- .2 Start painting when unsatisfactory conditions have been corrected.

**3.2 SURFACE PREPARATION**

- .1 Prepare surfaces in accordance with paint manufacturer's instructions or when none, the following:
  - .2 Unprimed steel and iron: Remove grease, rust, scale, dirt and dust by use of an MBX Bristle blaster or approved equal equipped with a vacuum attachment to collect and mitigate dust generation. Prime bare steel and iron surfaces
  - .3 Painted steel and iron: Remove grease, rust, scale, dirt and dust by use of an MBX Bristle blaster or approved equal equipped with a vacuum attachment to collect and mitigate dust generation.

**3.3 APPLICATION**

- .1 Apply each coat at proper consistency.
- .2 Tint each coat of paint slightly darker than preceding coat.
- .3 Follow manufactures cure times between coats to achieve required finish.
- .4 Do not apply finishes on surfaces that are not sufficiently dry.
- .5 Allow each coat of finish to dry before following coat is applied, unless directed otherwise by manufacturer.

**3.4 CLEANING**

- .1 As work proceeds and upon completion, promptly remove paint where spilled, splashed, or spattered.
- .2 During progress of work, keep premises free from unnecessary accumulation of tools, equipment, surplus materials, and debris.
- .3 Upon completion of work, leave premises neat and clean.

**END OF SECTION**



**Division 40 Process Interconnections****Section 404616 Coatings and Wrappings for Process Corrosion Protection****1.0 CORROSION PROTECTION**

Anti-corrosion wrap shall consist of Denso paste or Denso priming Solution (for cold temperature application), Denso Profiling Mastic or Denso Blankets, and Denso LT Tape

All mechanical parts that are not PVC shall be corrosion protected with Denso Paste; it is applied prior to the tape application (Denso Petrolatum Tapes or Denso Bituminous Tapes). Denso Profiling Mastic will be used to provide a smooth profile on irregular shaped fittings such as flanged and mechanical joints and valves. The corrosion protection should extend a minimum of 150mm above and below each mechanical joint or flange and installed as per manufacturer's specifications and shall cover all exposed areas of pipe where the existing pipe wrap has broken off the pipe.

All fasteners shall have sacrificial bolt caps.

**1.1 CORROSION PROTECTION – MATERIAL SPECIFICATIONS**

Item	Size Range	Description	Approved Products
Petrolatum Tape Systems	As Specified in the Contract	Anti-corrosion wrap shall consist of Denso paste or Denso priming Solution (for cold temperature application), Denso Profiling Mastic or Denso Blankets, and Denso LT Tape	Denso North America Inc.

**1.2 TYPICAL PRODUCT PROPERTIES FOR PETROLATUM TAPE SYSTEMS****.1 All-Purpose Protective Tape**

PROPERTIES	20 MIL (0.50 MM)	
	ENGLISH	METRIC
Thickness (ASTM D1000)	20 mils	0.50 mm
Weight	0.14 lbs/ft	2 .68 kg/m2
Breaking Strength (ASTM 1000)	40 lbf/in.	360 N/50 mm
Elongation @ Break	150% min.	150% min.
Temperature Range	-22 to 175°F	-30 to 80°C
Breakdown Voltage	16 kV	16 kV
Roll Widths	2", 4", 6"	50, 100, 150 mm
Roll Length	100 ft	30 m
Minimum Overlap	1"	25mm
UV Protection	Yes	Yes
Surface Preparation	As specified by the Manufacture and Specifications on this document	As specified by the Manufacture and Specifications on this document

**Note**

*Properties listed are typical properties that have been listed for the approved product. Please seek engineer's approval for different product approval. Contractor to submit product properties, specifications, similar applications in North America along with the approval request.*

**END OF SECTION**

## **Appendix 3.1, 3.2 & 3.3 Inspection Reports**

(Attached as a separate document)

# **Appendix 4 Landslide Hazard Conditions Assessment Report**

(December 2022 Landslide)  
(Attached as a separate document)

# Appendix 5 Drone Survey

(Attached as a separate document)

# Appendix 6 Location Maps

(Attached as a separate document)

**Appendix 7 CCDC**  
(Attached as a separate document)