Sunshine Coast Regional District

Request for Proposal

Number: 2337009

for

Exposed Watermain Rehabilitation

Issue Date:

June 5, 2023

Closing Date of

July 5, 2023 at 3:00 PM local time

OPTIONALSITE MEETING: A site meeting will be held on Tuesday June 20, 2023 at 11:00 am local time at the Chapman Creek Crossing #1 location (see location map in Appendix 4). It is highly recommended that prospective Proponents attend this meet to understand geographical and accessibility challenges inherent due to project location. Proponents will need to RSVP to purchasing@scrd.ca by June 19, 2023 at noon; if no RSVP's are received the site meeting may be canceled.

CONTACT: All enquiries related to this Request for Proposal, including any requests for information and clarification, are to be submitted by June 21, 2023 and directed, in writing, to purchasing@scrd.ca, who will respond if time permits with a Q&A on BCBid by June 28, 2023 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.

A proposal is deemed to incorporate the Confirmation of Proponent's Intent to Be Bound below, without alteration.

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:

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

PROPONENT NAME (please print): _____

NAME OF AUTHORIZED REPRESENTATIVE (please print): _____

SIGNATURE OF AUTHORIZED REPRESENTATIVE: _____

DATE: _____

TABLE OF CONTENTS

Page

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

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. 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 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.

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 tern 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's water distribution includes several sections of above ground water mains. In 2015 a Regional District consultant conducted a visual condition assessment of all the exposed sections of water main and made recommendations for its rehabilitation. The consultant's report is included in Appendix 3 to this RFP.

The Regional District is requesting proposals for the preparation, cleaning, and recoating of three watermain segments spanning across three aerial crossings over Chapman Creek. See appendix 4 for the location of the creek crossing locations.

3. SITUATION/OVERVIEW

3.1 Background

The three (3) exposed water main sections were subject to an inspection in 2015. Those sections are spanning over the Chapman Creek and access to all sites is extremely limited, thus rendered difficult to access, maintain, inspect and repair. The 2015 inspection was a visual inspection only and the recommendations from the inspection was to undertake close quarters inspections using a specialist access equipment, but it was noted then that the pipes were in a similar condition then those that required rehabilitation. In 2023, a drone survey was completed on the 3 aerial crossings. A copy of this drone survey is located in appendix 5.

3.2 Scope

The following locations are the aerial segments of watermain to be rehabilitated:

- Chapman Creek Crossing #1 Old Intake. This segment consists of a 600 mm dia type pipe approximately 35 m in length.
- Chapman Creek Crossing #2 Sedimentation Box. This segment consists of a 600 mm dia type pipe approximately 60 m in length.
- Chapman Creek Crossing #3 Intake (from the Intake to the West embankment). This segment consists of a 600 mm dia type pipe approximately 70m in length.

*The names of those sections are referenced to the 2015 inspection report by DaytonKnight and a copy of this report is provided in Appendix 3.

The Contractor is required to implement an environmental protection plan that will prevent any debris or material/chemical to be released into the environment and the portable drinking water source, chapman creek.

The watermain rehabilitation work consists of:

- Removing the damaged section of pie wrapping.
- Cleaning the exposed section of pipe by scraping/brushing as required to achieve a cleanliness level as defined by SSPCSWJ-4/NACE WJ-4 Light Cleaning, also known as "Near White Metal Cleaning."

- Where corrosion is observed under the wrapping (following the cleaning), peel back and remove enough of the wrapping to expose the metal pipe, paint the section of pipe with a rust preventive paint, such as TNEMEC PROTUFF SERIES 138 or an approved equivalent with a phenalkamide epoxy finish mastic.
- Provide and use a safe method to access the pipe and capture and dispose of any debris, rust, pipe wrapping pieces or any other foreign material in a safe and regulated manner.

All works are to comply with Federal Provincial and Local laws, rules, regulations and standards. No debris or scrap material are to be left on site, nor is any debris to be entered into any of the waterways. Efforts shall be taken to minimize the ground contamination. Proponents will understand these trestles are located on a Sechelt First Nation owned property therefore respect to their culture and values are expected.

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

a. The Contractor is responsible for submitting applications and obtaining the required Provincial Ministry of Forests (MOF) permit.
b. The Contractor is required to install a temporary access structure to allow for a safe final inspection and the following rehabilitation works. A schedule of quantities listing the exact confirmed areas to be rehabilitated will be produced by the Contractor and rehabilitation can start when the Owner has agreed to the schedule.
c. The Contractor shall maintain a daily site record of the progress of work on provided Regional District standard site diary form, submitted on a weekly basis.
d. 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. Proponents shall demonstrate how they plan on meeting this expectation.

4.3 Approved Equals

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 will include specifications and information on how they meet or exceed the requirements. Any proposed alternatives or equals will be approved of denied based on the sole discretion of the Regional District.

4.4 Related Documents

The inspection report is available in the Appendix 3 for information, but the exact current condition of sites should be assessed by the Proponents (as per section 4.2.b above) and the

areas that will require rehabilitation will be identified and confirmed by the Regional District following a close visual inspection allowed by the Proponent's required temporary access:

a) Sunshine Coast Regional District – Exposed Water Main Inspections

   Dated May 7th, 2015
   Produced by OPUS DaytonKnight

Location sealed Drawings are also presented in the Appendix 4 for reference, and the results of the 2023 drone survey are presented in Appendix 5.

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 Proponents superintendent experience should have completed a minimum of three (3) projects of similar nature and size. Similar scope and complexity is defined as:
   1. Proficiency in coordinating and completing similar rehabilitation and geotechnical investigations for steel bridges or trestles;
   2. Preparing and certifying reports to summarize findings.
   3. Preferably all of the above for Local Government as customer.

b. The Proponents should provide details regarding the performance of the Proponents and the proposed subcontractors on similar projects including without limitation, the Proponents history with the respect to the quality of work, schedule, changes in the work, and force account work.

5.1.2 Qualifications

Proponents should 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 Contractor will ensure that all appropriate environmental regulations are followed during a works, particularly when accessing water courses. This includes, but is not limited to:

- Water Sustainability Act
- Fisheries Act
- BC Drinking Water Protection Act
- VCH Regulations

5.2 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).

5.3 Approach

The approach identified within the Proponents proposal for the three (3) watermain sections rehabilitation should include at a minimum; site access and rigging used for hard to reach areas, presentation of the proposed temporary structure for the three (3) sections, materials and rehabilitation equipment and methodology, debris containment methodology, site clean-up, and safety measures set in place for completing the work.

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

5.4 Price

Proponents need to submit a fee proposal that sets out the separate costs of each project described, using the same Schedule layout provided as 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. For the purposes of pricing, all submissions are to include pricing of the full preparation, cleaning, and recoating of the pipe segments along the entire pipe circumference and length for each of the pipe segments. Should the successful contractor determine shorter lengths pipe not require recoating, the Regional District will then reduce the price to be paid to the contractor based upon appropriate calculation agreed by both parties. 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.

Mandatory Criteria
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 cover page 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.

Weighted Criteria	**Weight (%)**
Experience / Qualifications	20
Schedule	10
Approach	20
Sustainable Social Procurement	10
Price	40
TOTAL	**100**

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 Schedule of Prices

The Bid Price for the Work is comprised of the following components and the Proponent's overhead and profit are included in each component the entire cost: Items 1 through 9.

#	Description	Amount
1	Chapman Creek Crossing #1: Temporary access structure and work layout/mobilization	$
2	Chapman Creek Crossing #1: Watermain rehabilitation. Removing the damaged section of pipe wrapping. Cleaning the exposed section of pipe by scraping/brushing as required to achieve a cleanliness level as defined by SSPCSWJ-4/NACE WJ-4 Light Cleaning. Where corrosion is observed under the wrapping (following the cleaning), paint the section of pipe with a rust preventive paint, such as TNEMEC PROTUFF SERIES 138 or an approved equivalent with a phenalkamide epoxy finish mastic.	$
3	Chapman Creek Crossing #1: Environmental protection plan and site clean-up/demobilization	$
4	Chapman Creek Crossing #2: Temporary access structure and work layout/mobilization	$
5	Chapman Creek Crossing #2: Watermain rehabilitation. Removing the damaged section of pipe wrapping. Cleaning the exposed section of pipe by scraping/brushing as required to achieve a cleanliness level as defined by SSPCSWJ-4/NACE WJ-4 Light Cleaning. Where corrosion is observed under the wrapping (following the cleaning), paint the section of pipe with a rust preventive paint, such as TNEMEC PROTUFF SERIES 138 or an approved equivalent with a phenalkamide epoxy finish mastic.	$
6	Chapman Creek Crossing #2: Environmental protection plan and site clean-up/demobilization	$
7	Chapman Creek Crossing #3: Temporary access structure and work layout/mobilization	$
8	Chapman Creek Crossing #3: Watermain rehabilitation. Removing the damaged section of pipe wrapping. Cleaning the exposed section of pipe by scraping/brushing as required to achieve a cleanliness level as defined by SSPCSWJ-4/NACE WJ-4 Light Cleaning. Where corrosion is observed under the wrapping (following the cleaning), paint the section of pipe with a rust preventive paint, such as TNEMEC PROTUFF SERIES 138 or an approved equivalent with a phenalkamide epoxy finish mastic.	$
9	Chapman Creek Crossing #3: Environmental protection plan and site clean-up/demobilization	$
	Total Tender Price (excluding GST)	**$**
	GST (5%)	**$**
	Total Tender Price (including GST)	**$**

Experience of Superintendent

Water Main Rehabilitation

(TITLE OF PROJECT)

Name:

Experience:

Dates:

Project Name:

Responsibility:

References:

Dates:

Project Name:

Responsibility:

References:

Comparable Work Experience (including subonctractors)

Water Main Rehabilitation

(TITLE OF PROJECT)

Indicate the work experience of your organization and the proposed subcontractors, this should include a summary of the quality of the work, schedule, any changes to the work and any force account work

PROJECT	WORK COMPLETED BY:	SUMMARY OF THE WORK:

References

Water Main Rehabilitation

(TITLE OF PROJET)

Indicate a minimum of 2 comparable work experience projects of a similar nature

PROJECT	OWNER / CONTACT NAME	PHONE NUMBER	WORK DESCRIPTION	VALUE ($)

List of Subcontractors

Water Main Rehabilitation

(TITLE OF PROJECT)

Pursuant to paragraph 3.8 of the General Conditions, the following are the Subcontractors we propose to use for Divisions or Sections of Work listed hereunder:

TENDER ITEM	TRADE	SUBCONTRACTOR NAME	PHONE NUMBER

Preliminary Construction Schedule

Water Main Rehabilitation

(TITLE OF PROJECT)

Indicate the Construction Schedule utilizing a bar chart with all major item description in time

Preliminary Construction Schedule

(in weeks)

Activity

	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*	*12*	*13*

Appendix 2 Supplementary General Conditions and Specifications

Section 007300 Supplementary General Conditions

The Canadian Construction Documents Committee, Standard Construction Document CCDC 18 – Civil Works Contract, 2001, is hereby modified as follows:

GC DEFINITIONS

Add the following definitions:

28. Abnormally Adverse Weather

Abnormally Adverse Weather means temperature, precipitation, wind or other weather condition which, in a two-week period, differs from the statistical average for that condition in that period by more than one standard deviation, calculated based on relevant data available from Environment Canada.

29. Construction Schedule

Construction Schedule means a schedule of the Work prepared by the Contractor setting out the start and completion dates of the major elements of the Work including, but not limited to, mobilization, shop drawings, construction, installation, testing, commissioning, Substantial Performance of the Work, Owner occupancy and any other Milestone Dates, and may be amended from time to time

30. Notice to Proceed

“Notice to proceed” means the notice from the Owner to proceed with the *Work.*

31. Notice of Award

“Notice to Award” means the notice from the Owner for the award of the contract for the *Work.*

Modify the following definitions:

1. The definition of **"Consultant"** in definition 4 is deleted and replaced by the following:

"**Consultant**" - The Contract Administrator solely in charge of this Contract. The terms Consultant and Owner have the same meaning.

GC 3.5 CONSTRUCTION SCHEDULE

Section GC 3.5 is amended by modify the following paragraph:

3.5.1 In Paragraph 3.5.1 sub-paragraph .1

Delete: “prepare and submit to the Owner and the Consultant prior to the first application for payment, a construction schedule that indicates the timing of the major activities of the Work and provides sufficient detail of the critical events and their inter-relationship to demonstrate the Work will be performed in conformity with the Contract”

Replace with: “prepare and submit to the Owner within five (5) working days after Notice of Proceed, a construction schedule that indicates the timing of the major activities of the Work and provides sufficient detail of the critical events and their inter-relationship to demonstrate the Work will be performed in conformity with the Contract Time;”

Section CG 3.5 is amended by the addition of the following paragraphs 3.5.2 and 3.5.3:

3.5.2 If the Owner determines that, because of the Contractor’s own acts or omissions, the progress of the Work is behind the Construction Schedule, or the Contractor will not meet any particular Milestone Date then the Contractor shall, upon written notice from the Owner t and at the Contractor’s own cost, take all reasonable measures to accelerate the Work so as to conform to the Construction Schedule or meet the Milestone Date.

3.5.3 If, for any reason, the Contractor deems it necessary to accelerate the Work then the

Contractor shall provide written notice of its intention to accelerate the Work five (5) Working Days prior to doing so and shall accelerate the Work at its own expense.

GC 3.6 SUPERVISION

Section GC 3.6 is amended by adding the following paragraph:

3.6.3 If the competence or performance of the representative is not satisfactory to the Owner then, on written request from the Owner, the Contractor shall provide a replacement satisfactory to the Owner.

GC 3.11 SHOP DRAWINGS

Section GC 3.11 is amended by adding the following paragraph:

3.11.7 The Contractor shall submit all Shop Drawings, record drawings and any other drawings concerning the Work by providing one hardcopy and in one (1) electronic reproducible form.

GC 5.5 APPLICATIONS FOR PROGRESS PAYMENT

Section GC 5.5 is amended by adding the following paragraph:

5.5.7 As a condition to all payments, the Contractor shall submit to the Consultant a Statutory Declaration on the standard Canadian Construction Association (CCDC) 9A 2018 declared before a notary public or commissioner for oaths for the Province of British Columbia stating that:

.1 all wages for the various classes of labour, and all accounts for purchase of materials, equipment, or for the rental of equipment employed in or about the Work, and amounts due to Subcontractors have been paid;

.2 there are no outstanding claims or liens relating to labour or services provided in connection with the Work; and

.3 all levies, assessments and sums due under any applicable Workers' Compensation laws or similar laws in force at the place of the Work have been fully paid.

As a further condition of payment, there shall be no liens registered against the Place of the Work, arising from or connected with the Work. In the event that a claim of builders lien relating to the Work has been registered against title to the Place of the Work, the Contractor shall be obligated, at its expense, to take all steps necessary, including making court application, to have the claim of lien immediately discharged from title to the Place of the Work and to indemnify the Owner for all costs, including court costs on a solicitor and own client basis, incurred as a result.

GC 6.1 CHANGES

Section GC6.2 Subsection 6.2.1 is amended by the addition of the following paragraph:

6.2.1.1. Time for Submission and Acceptance of Quotation

The Contractor shall co-operate in the pricing of changes by submitting quotations within five (5) Working Days of the Owner’s request. Quotations shall remain open for acceptance for 30 days.

GC 6.5 DELAYS

Section GC6.5 is amended by the addition of the following:

6.5.6 It is agreed by the Parties to the *Contract* that in case all the Work called for under the Contract is not finished by the completion date specified in the *contract* or as amended by the *Owner*, damage will be sustained by the *Owner*, and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which the Owner will sustain in the event of and by reason of such delay. The Parties therefore agree that the *Owner* may deduct from monies owing to the Contractor the sum of $750 per day, or all direct out-of-pocket costs, such as safety, security, or

equipment rental, reasonably incurred by the Owner as a direct result of such delay, for Liquidated Damages for each and every calendar days delay in completing the Work beyond the date of completion prescribed and it is agreed that amount is an estimate of actual damage to the Owner which will accrue during the period in excess of the prescribed date of completion.

The Contractor shall not be assessed with Liquidated Damages for any delay caused by Acts of God, or of the Public Enemy, Act of the Owner, the Owner, or of any Foreign State, Fire, Epidemics, Quarantine Restrictions, Embargoes, or Delays of Sub-Contractors due to such causes. If the Contractor is delayed by reason of alterations or changes made under GENERAL CONDITIONS OF THE STIPULATED PRICE CONTRACT, PART 6, GC 6.1 CHANGES, the t i m e of completion shall be extended as determined by the Owner in his sole discretion.

GC 7.1 OWNER'S RIGHT TO PERFORM WORK OR STOP THE WORK OR TERMINATE CONTRACT

Section GC 7.1 is amended by the addition of the following paragraph:

7.1.7 If the Owner decides for any reason to cancel the Project, the Owner may terminate this Agreement by giving thirty (30) days prior written notice to the Contractor. Upon receipt of such written notice, the Contractor shall perform no further services other than those reasonably necessary to close out the project. In such event, the Contractor shall be paid by the Owner for all services performed and all disbursements incurred pursuant to this Agreement and remaining unpaid as of the effective date of such termination.

GC 10.2 LAWS, NOTICES, PERMITS, AND FEES

Subsection GC 10.2 is amended by the addition of the following paragraph:

10.2.8 The Contractor will notify, obtain inspections and approvals from, and co-operate with other organizations involved or affected by the Work, such as telephone, light and power, gas, railway companies, government agencies.

Subsection GC 10.2 Subsection 10.2.4 is replaced with the following paragraph:

10.2.4 The *Contractor* shall give the required notices and comply with the laws, orders, ordinances, rules, regulations, or codes which are or become in force during the performance of the *Work* and which relate to the *Work*, to the preservation of the public health, and to construction safety.

GC 11.1 INSURANCE

Section GC11.1 subsection 11.1.3 is amended by the following:

11.1.1.3 Aircraft and Watercraft Liability Insurance

Delete in its entirety.

GC 12.3 WARRANTY

Section GC12.3 is amended by the addition of the following paragraph:

12.3.7 Any defective item of equipment necessitating substantial repairs or replacement within the Warranty Period shall be subject to a further Warranty Period of 12 months from the time of repairing or replacement of same. The cost associated with the extended warranty shall be borne by the Contractor.

END OF SECTION

Section 010000 General Requirements

.1 DOCUMENTS

.1 This section forms part of the Contract Documents and is to be read, interpreted and coordinated with all other parts of the Contract Documents.

.2 The Specifications have been divided into approximate trade sections. However, the division of the Specifications into sections shall not operate to define or limit the responsibility of any Subcontractor.

.2 COORDINATION AND COOPERATION

.1 The Contractor shall coordinate the work of his Subcontractors with efficient and continuous supervision and be fully aware of the Work requirements including, without limitation, those of the Specifications and Drawings.

.2 The Contractor is responsible for determining which Subcontractor shall perform Work. Differences in interpretation of the Specifications or Drawings as to which Subcontractor shall perform certain Work shall not be grounds for claims for extras.

.3 The Contractor shall coordinate the use of Products and Construction Equipment, including cranes, hoists, ladders and scaffolds, and access to the Place of the Work, with the work of Subcontractors. The cost of use of Construction Equipment and Products by Subcontractors shall be governed by the agreements between the Contractor and the Subcontractors.

.3 DAILY RECORD

.1 From the day of commencement of the Work, the Contractor shall maintain a careful daily record of the progress of the Work on his standard record form, with applicable trades listed. This record shall be open to the Owner's inspections at all reasonable times. A copy of the record shall be turned over to the Owner at weekly intervals.

.2 Contractor's diary shall record all pertinent data such as:

.1 Daily weather conditions, including maximum and minimum temperatures.

.2 Commencement, progress and completion of various portions of the Work.

.3 Dates of visits or inspections by government authorities, inspectors, and any other visitors to the Site.

.4 Record of work force employed and work performed thereby.

.4 PERMITS AND FEES

.1 The Contractor shall obtain and pay for all other permits and licenses required for the Work.

.2 The Contractor shall conform to the codes, ordinances, regulations and orders of all authorities having jurisdiction over the performance of the Work. Should conflicts arise, the Contractor shall forthwith request clarification from the Owner.

.5 WORK AREA

.1 The Work and the operation of vehicles and machinery, storage of equipment, materials and/or supplies will be be contained within the Place of the Work.

.2 The Contractor shall take such steps as may be required to prevent dust nuisance resulting from its operations either within the limits of the work or elsewhere or by public traffic where it is the Contractor's responsibility to maintain a roadway through the Work

.6 CONSTRUCTION SCHEDULE

.1 To co-ordinate the work, the Contractor or person(s) authorised to act for the Contractor will attend regular meetings with the Owner or his representative during the period over which the work under the Contract is carried out, at a time and place to be decided by the Owner.

.2 The Contractor shall commence the Work within 5 days after receiving Notice to Proceed from the Owner.

.7 **PRECONSTRUCTION MEETING**

.3 The Contractor shall attend a meeting with the other consultants, Subcontractors, field inspectors, supervisors and the Owner to discuss and resolve administrative procedures and responsibilities, and scheduling prior to commencing the Work.

.4 Items to be discussed at such meeting shall include, but shall not necessarily be limited to the following:

.1 Confirmation of authorized representatives of the Owner, other consultants and the Contractor and the name of the Contractor's Construction Safety Officer.

.2 Schedule of Work.

.3 Site security.

.4 Takeover procedures, and acceptance.

.5 Monthly progress pay requests, administrative procedures and holdbacks.

.8 **PROGRESS MEETINGS**

.1 The Contractor shall hold progress meetings every week at the Owner’s office throughout the duration of the Work.

.2 The Contractor, and Subcontractors involved in the Work shall attend the weekly progress meetings.

.3 The Owner will record minutes of weekly progress meetings and circulate same to attending parties within three (3) days of meeting.

.9 **CONSTRUCTION SAFETY**

.1 The Contractor shall comply with the Workers' Compensation Prevention Regulations of British Columbia (latest edition) and provide all necessary safety requirements as prescribed by such regulations.

.10 **SECURITY**

.1 The Contractor shall be responsible for security of the Work and at the Place of the Work.

.2 The Contractor and his Subcontractors shall make their own arrangements to ensure the security of their own equipment and materials.

.3 The Owner, or other consultants and/or their respective representatives will not be liable for any loss or damage to materials, equipment or other property of the Contractor, unless caused by their negligence.

END OF SECTION

Section 12000 Measurement and Payment

1.0 GENERAL

1.1 Measurement and Payment

.1 The Work, including any Materials, equipment and services, will be paid for in accordance with the prices set out in Appendix 1 – Schedule of Prices. The Schedule of prices and any further breakdown do not limit the Work to the items listed therein. The Contractor has allowed for sufficient amounts to cover the cost of any Work or Materials not specifically listed in Appendix 1, but included in the Drawings and Specifications by either direct mention or implication (including manufacturer's instructions), by including all such amounts in the items to which they pertain most closely in the Schedule of Prices. Costs of a general nature that do not pertain to any one item have been distributed among all the items.

1.2 Applications for Payment

.1 Refer to Part 5 Payment – General Conditions (CCDC 18),

.2 The Contractor shall use standard forms for submission of progress claims in the format agreed prior to the end of each month of Work.

.3 Show previous amount claimed and the amount claimed for the period ending.

Show percentage of Work completed to date and holdback retained.

1.3 Changes in the Work

.1 Refer to Part 6 Changes in the Work – General Conditions (CCDC 18).

2.0 PRODUCTS

Not Applicable

3.0 EXECUTION

Not Applicable

END OF SECTION

Section 013216 Construction Progress Schedule

1.0 GENERAL

1.1 Description

.1 Prior to the Owner's approval for the Contractor to commence Work at the Site, the Contractor shall produce and submit a detailed Baseline Schedule, acceptable to the Owner, which demonstrates the conformance to the requirements agreed to above and elsewhere in this Section. Once finalized and agreed to by the Owner, this schedule will be deemed the Contract Schedule, to which the Contractor shall base all future updates and from which further detail will be developed.

.2 Specifically, the Contract Schedule shall include, but not be limited to, a level of detail conforming to the following:

.1 Identify the work of both the contractor and other contractors that access the Site.

.2 Include submission, review and approval of critical shop drawings, product data, samples, etc. The Contractor shall manage the cycle(s) of all other Submittals using a compatible spreadsheet or database program. Refer to Section 013300 – Submittals.

.3 Include performance testing, verification, start-up, and demonstration procedures by the Contractor, allowing appropriate intervals for commissioning by third parties, and for integrated system certification.

.3 The Contractor shall base the scheduled duration of each activity on the Work being performed during the work week established and agreed upon as of the date of the Notice of Award with allowances made for legal holidays and normal weather conditions.

.4 The Contractor shall advise the Owner within two (2) days of any problems anticipated by any activity shown in the Contract Schedule.

.5 The Contractor shall revise the schedule to reflect changes in the actual sequence and the future sequence of Work, should the actual sequence of Work performed by the Contractor deviate from the planned sequence indicated in the accepted Contract Schedule.

1.2 Submissions

.1 The Contractor shall provide Submittals in accordance with Section 013300 – Submittals and with the requirements noted herein.

.2 The Owner's acceptance of any schedule submission does not relieve the Contractor from any of its contractual responsibilities.

.3 For the initial submission of project controls documents, the Contractor shall submit one electronic copy of the following:

.1 Critical Path Schedule in bar chart and time scaled logic diagram formats.

.5 The Contractor shall submit monthly schedule status reports with the monthly progress claim consisting of two hard copies and one (1) electronic copy of the following project control documents:

.1 Update of Critical Path Schedule in bar chart and time scaled logic diagram formats.

.6 The Contractor shall show the percentage of completion of each item or activity as projected for the last day of the month for which the schedule is issued. Modify the timing and duration of future activities to indicate current planning.

1.3 Project Milestone Dates

2.0 PRODUCTS

Not Applicable.

3.0 EXECUTION

Not Applicable.

END OF SECTION

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 will 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 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 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

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

2.0 PRODUCTS

Not Applicable.

3.0 EXECUTION

Not Applicable.

END OF SECTION

Section 0999100 Paint

1.0 GENERAL

1.1 SUMMARY

.1 Section includes:

.1 Field applied paints and coatings as specified in accordance with Manufacturer's Specifications.

.2 Painting Accessories.

.2 Related sections:

.1 The Contract Documents are complementary; what is called for by one (1) is as binding as if called for by all.

.2 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.

.3 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.

a. Section 013300 - Submittal Procedures.

1.2 SUBMITTALS

.1 General: Submit as specified in Section 013300.

.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: Submit Product Data sheet for every material used. 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 five (5) years experience.

.4 Regulatory requirements:

.1 Comply with by using paints that do not exceed governing agency's VOC limits or do not contain lead.

.2 Conform to applicable code for flame and smoke rating requirements for products and finishes.

.5 Field samples:

.1 Paint one (1) complete surface of each color scheme to show colors, finish texture, materials, and workmanship.

.2 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.

1. Carefully store, clean, and replace on completion of painting in each area.
2. Do not use solvent or degreasers to clean hardware that may remove permanent lacquer finish.

1.5 EXTRA MATERIALS

.1 Extra materials: Deliver minimum one (1) gallon of each type and color of coating applied:

.1 When manufacturer packages material in gallon cans, deliver unopened labeled cans as comes from factory.

.2 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.

.1 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:

.1 Tnemec: Tnemec Co., Kansas City, MO.

2.2 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-H_2O, H91-H_2O, 94- H_2O, 135, L140, L140F, N140, N140F, V140, V140F, 141, 161, 394, 530

.2 Galvanized metal surface pre-treatment materials:

.1 TNEMEC: Surface Cleaner.

.3 Galvanized metal surface primer:

.1 Tnemec: Series 66, L69, L69F, N69, N69F, V69, V69F, 161

.4 METAL SURFACES COATING SYSTEM

.1 Tnemec: Endura-Shield Series 73. Alpha Acrylic Polyurethane- Color to be Black.

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:

.1 Unprimed steel and iron: Remove grease, rust, scale, dirt and dust by use of a MBX Bristle blaster or approved equal equipped with a vacuum attachment to collect and mitigate dust generation. Prime bare steel and iron surfaces.

.2 Painted steel and iron: Remove grease, rust, scale, dirt and dust by use of a 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.

Appendix 3 Inspection Reports

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May 7, 2015

Dave Crosby
Manager of Utility Services
Sunshine Coast Regional District
1975 Field Road
Sechelt, BC VoN 3A1

D-028B3.00

Dear Mr. Crosby,

Sunshine Coast Regional District - Exposed Water Main Inspections

On the 16th and 17th of April 2015 Ben Sherriff of Opus DaytonKnight Consultants Ltd completed visual inspections of thirteen exposed sections of water mains within the Sunshine Coast Regional District's water distribution network.

In general, the inspections indicate that the exposed water main sections are in a good to fair condition, with minor maintenance works recommended over the next 12-36 months to limit further deterioration of these assets, as summarized in below.

Recommendations

Asset	Recommendation	Timeframe
Angus Creek Bridge	Clean and paint steel water main section.	12-24 months
Blackburn Road	Monitor condition during future inspections.	N/A
Burnett Creek	Clean and paint steel water main section.	24-36 months
Chapman Creek Bridge	Clean and paint steel water main section.	<12 months
Chapman Creek Crossing #1 Old Intake	Repair damage to water main protective jacket.	12-24 months
	Clean and paint isolated area of steel water main section approx. 600mm^2.	24-36 months
	Remove vegetation around joints in the protective jacket.	24-36 months

Asset	Recommendation	Timeframe
Chapman Creek Crossing #2 Sed. Box	Undertake detailed close quarters inspection using specialist access.	12-24 months
	Remove vegetation near water main joints	24-36 months
Chapman Creek Crossing #3 Intake	Undertake detailed close quarters inspection using specialist access.	12-24 months
Chapman Creek Trestle and Pipe #1	Repair split in water main protective jacket.	12-24 months
	Remove vegetation near protective jacket joints	24-36 months
Chapman Creek Trestle and Pipe #2	Clean and paint exposed section of water main near valve chamber interface approx. 600mm^2.	12-24 months
	Remove vegetation near protective jacket joints	24-36 months
Gray Creek Bridge	Clean and paint steel water main section.	12-24 months
Roberts Creek Bridge	Confirm service type and responsibility.	Immediate
	Clean and paint welds at elbow sections.	<12 months
Sans Souci Road Bridge	Clean and paint steel service main sections.	<12 months
Wescan Road HDPE Pipe	Remove vegetation to improve access for future inspections and maintenance.	24-36 months

Our scope of work from the SCRD included the Roberts Creek Bridge pipe but upon inspection we believe this to be a gas main, not a water main. We recommend that the SCRD confirm the ownership of this pipe. During our inspection we were unable to find an exposed water main within the area.

Detailed inspection reports for each asset are appended providing more detail on the condition of each inspected asset and recommendations for maintenance works.

Please feel free to contact us should you wish to discuss the inspection findings and recommendations in more detail.

Yours truly,

Opus DaytonKnight Consultants Ltd

Ben Sherriff
Infrastructure Asset Management Consultant

Walt Bayless, P.Eng.
Project Manager

MAY 0 8 2015

Asset Name: Angus Creek Bridge	
Inspection Date: 16 April 2015, 14:30pm	**Weather Conditions:** Fair
Asset Location: Sechelt Inlet Road, Porpoise Bay	**Co-ordinates:** 49.507980° lat. -123.748378° long.
Pipe Material: Steel or Ductile	**Pipe Size:** 200mm dia.
Length of exposed pipe: Approx. 18m	**Support Type:** Steel support brackets to bridge guardrail posts.
Object Crossed: Waterway – Angus Creek	**Other:**

General: Asset is generally in fair condition with widespread failure of the coating system, particularly to the underside of the water main leading to moderate surface corrosion and isolated minor loss of steel section depth. The support brackets are generally in a good condition.

Access to the site via Sechelt Inlet Road is good, with easy pedestrian access below the bridge.

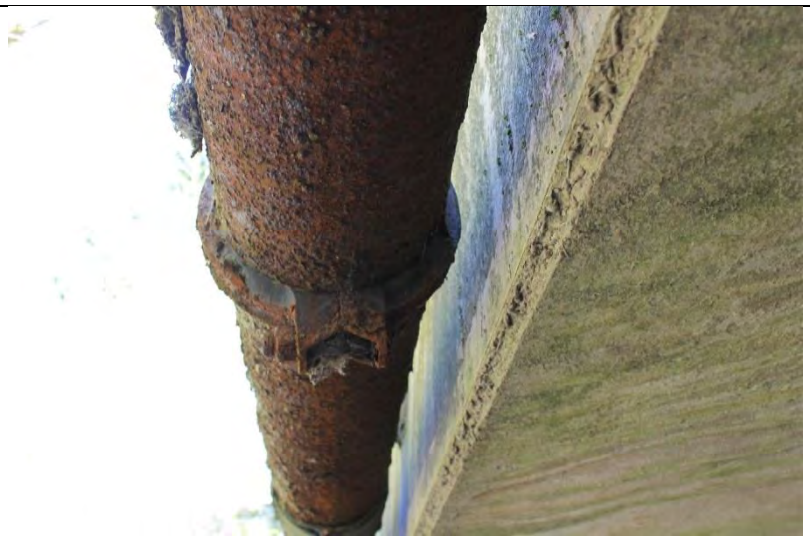
Recommend water main is cleaned and painted within 12-24 months to limit further deterioration and loss of steel section depth due to pitting.

General view of Angus Creek Bridge looking east.

View of the northern side of Angus Creek Bridge from the western stream embankment showing the water main with support brackets to the side of the bridge.

	Additional view from the western stream embankment showing widespread surface corrosion throughout the length of the water main. Note the support brackets and connections are in a good condition.
	Close up view showing wide spread failure of the paint system and surface corrosion to the water main looking east. Recommend that the water main is cleaned and painted throughout its length within 12-24 months to prevent further deterioration.

	View of the water main passing through the western bridge abutment showing typical failure of the paint system and surface corrosion.
	View of the underside of the water main at the western bridge abutment showing more advanced corrosion with minor pitting. Note this is typical throughout with corrosion more severe to the underside of the water main.

	View of the western-most support brackets and flange connection. The two water main flange connections are showing typical surface corrosion. Note the support brackets are in a good condition.
	Close up view of the western flange connection from the underside showing minor pitting to the underside of the water main and grooved coupling.
	View of the water main from the eastern stream embankment showing failure of the paint system and surface corrosion throughout, with the support brackets in good condition.

	Close up view of a support bracket where it connects to the bridge guardrail post showing it to be in a good condition.

	View of water main passing through the eastern bridge abutment with typical failure of the paint system and surface corrosion.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Blackburn Road	
Inspection Date: 16 April 2015, 10:30am	**Weather Conditions:** Fair
Asset Location: Blackburn Road, Roberts Creek	**Co-ordinates:** 49.422191° lat. -123.630661° long.
Pipe Material: Coated steel	**Pipe Size:** 200mm dia.
Length of exposed pipe: Approx. 8-10m	**Support Type:** Self supported
Object Crossed: Waterway	**Other:** Pipe approx. 4-5m above stream, difficult access.

General: The exposed section of water main appears in good condition, with minor surface corrosion to the pipe exterior surface in several locations (see photos below).

Access to the site is difficult, with limited vehicle access and an approximate 4-5m drop below the pipe to the stream.

No action required at this stage – monitor minor surface corrosion during future inspections.

Approach to exposed water main asset from Blackburn Road – note limited vehicle access.

Approach to exposed water main asset from Blackburn Road – pedestrian trail access only.

	Adjacent timber footbridge crossing a small waterway. View from the western approach.
	Additional view of the timber footbridge from the western approach. Exposed water main is located downstream of the bridge on the southern side (right hand side of this photograph).

	View of the self-supported steel water main crossing the waterway adjacent to the timber footbridge.
	View of the eastern approach to the timber footbridge.

	View of the exposed watermain to the south of the timber footbridge.
	View of the exposed water main from the eastern embankment showing a bolted flange connection to the east of mid span.

	Close up view of the bolted flange showing minor surface corrosion to the flange edges and bolts in good condition. No immediate action required. Pipe coating in good condition with very minor areas of breakdown.
	View of water main from the western end.

	View of small areas of coating deterioration to the west of mid span with minor surface corrosion. Monitor.
	View of area of coating inconsistency, possibly due to past strapping. No action required.
	View of water main from south-western embankment.

	View of western end of water main partially obscured by vegetation.
	General close up view of pipe from south western embankment.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Burnett Creek	
Inspection Date: 16 April 2015, 13:30pm	**Weather Conditions:** Fair
Asset Location: Sechelt Inlet Road, Davis Bay	**Co-ordinates:** 49.498393° lat. -123.744167° long.
Pipe Material: Steel or Ductile	**Pipe Size:** 200mm dia.
Length of exposed pipe: Approx. 13-14m	**Support Type:** Self-supported with concrete footings at each end.
Object Crossed: Waterway – Burnett Creek	**Other:**

General: Asset is generally in a good to fair condition with failure of the coating system, particularly to the underside of the water main leading to minor corrosion scaling. The concrete footings are generally in a good condition. See photos below.

Access to the site via Sechelt Inlet Road is good, with easy pedestrian access. Note there is the potential for errant vehicles to damage the water main and protection should be considered for this site.

Recommend corrosion is monitored during future inspections and corroding sections cleaned and painted within 24-36 months to limit further loss of steel section depth due to pitting.

General view of the water main to the western side of Sechelt Inlet Road, looking south.

View of the northern end of the water main showing all components to generally be in good condition, with minor surface corrosion present to the upper surface of the water main.

	Further view of surface corrosion to the upper surface of the water main at the northern end. Note the concrete footing and holding down bolts are in good condition.
	View of the northern quarter of the water main showing minor patches of surface corrosion where the paint system has failed.
	General view of the water main where it crosses Burnett Creek, with two small box culverts to the right hand side of the photograph passing beneath Sechelt Inlet Road.

	General view of the water main and box culverts looking west towards Sechelt Inlet Road.
	View of the flange connection approximately at mid-span of the exposed water main, showing minor surface corrosion to the flange plates.
	Close up view of the flange connection showing it to be generally in a condition with minor surface corrosion.

	View of failure of the paint system to the underside of the water main near the northern support and minor corrosion scaling.
	Close up view showing the worst case failure of the paint system and flaking corrosion to the underside of the water main. Recommend the water main is cleaned and painted within 24-36 months to limit further deterioration and possible loss of steel section depth.
	View of the southern support of the water main showing typical minor surface corrosion. Note the south-western holding down bolt has been impacted and bent – no action required.

		General view of the water main looking north showing it to generally be in a good condition.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Chapman Creek Bridge	
Inspection Date: 16 April 2015, 12:00pm	**Weather Conditions:** Fair
Asset Location: Sunshine Coast Highway, Davis Bay	**Co-ordinates:** 49.440655° lat. -123.722141° long.
Pipe Material: Steel or Ductile	**Pipe Size:** 200mm dia.
Length of exposed pipe: Approx. 30m	**Support Type:** Steel brackets to side of bridge.
Object Crossed: Waterway – Chapman Creek	**Other:**

General: Asset is generally in a fair condition with widespread corrosion to the water main throughout the exposed length with some loss of steel section depth near the bridge abutments which is more advanced near the eastern abutment. Support brackets are in a good condition.

Access to the site via Sunshine Coast Highway is good, with easy pedestrian access below the bridge.

Recommend the entire water main section, including flanges and bolts, is cleaned and painted within 12 months to limit further deterioration and loss of steel section depth.

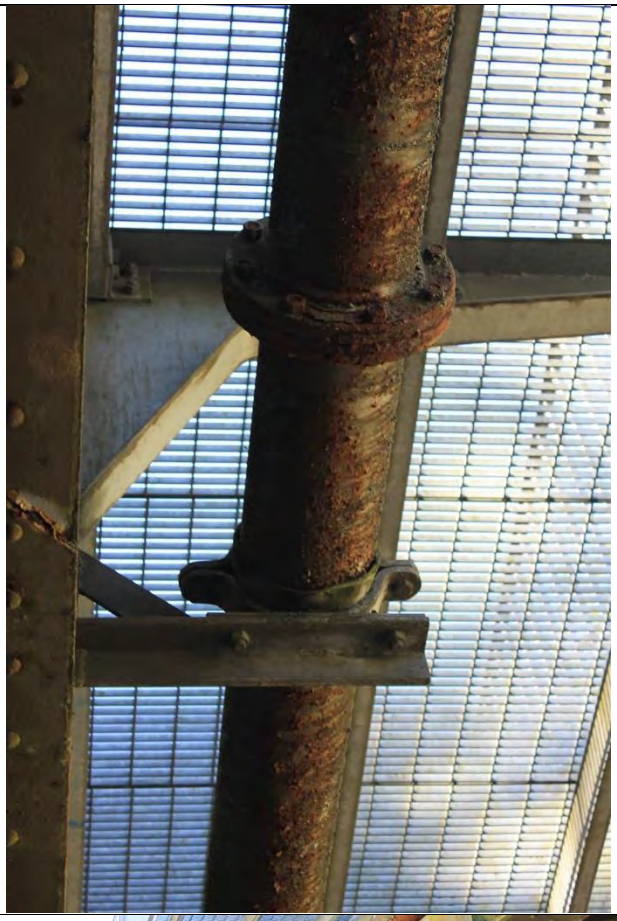
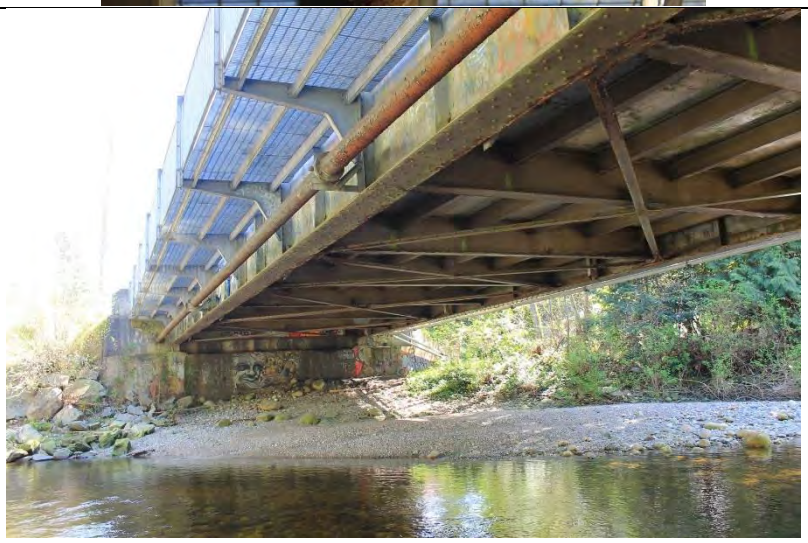
General view of the Chapman Creek Bridge looking east.

General view of Chapman Creek looking upstream of the bridge from the northern bridge sidewalk.

	General view of the Chapman Creek Bridge looking west.
	General view of the northern side of Chapman Creek Bridge from the eastern embankment, showing the water main supported by the outer girder below the bridge sidewalk.
	General view of the southern side of Chapman Creek Bridge from the eastern embankment, showing 2No. gas mains supported below the southern bridge sidewalk.

	General view of the water main from the eastern embankment, showing failure of the coating system and widespread surface corrosion to the underside of the water main.
	View of the underside of the water main where it passes through the eastern bridge abutment. Note moderate loss of steel section depth has occurred to the water main in this area due to corrosion. Recommend clean and paint within 12 months to prevent further loss of section depth.

	Additional view of the water main where it passes through the eastern bridge abutment showing moderate corrosion and loss of steel section depth at the abutment interface, with less severe surface corrosion the remainder of the water main.
	View of the eastern-most support bracket and flange water main flange connection showing widespread surface corrosion throughout. Note the support brackets are in a good condition.
	View of the topside of the eastern-most support bracket and flange connection through the sidewalk grating.

	Close up view of the eastern-most support bracket and flange connection showing widespread surface corrosion.
	General view of the water main from the western stream embankment showing widespread surface corrosion.

	Close up view of the western-most support bracket and flange connection showing widespread failure of the coating system and surface corrosion to the water main. Note the support brackets are in a good condition with no signs of corrosion.
	View of the topside of the western-most support bracket and flange connection through the sidewalk grating.
	View of the western end of the water main where is passes through the western bridge abutment showing surface corrosion to the underside of the water main throughout.

	Close up view of the interface between the water main and western bridge abutment. Note there is a small gap between the water main and cored hole through the abutment where the repair mortar has shrunk.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Chapman Creek Crossing #1 Old Intake	
Inspection Date: 17 April 2015, 10:30pm	**Weather Conditions:** Fair
Asset Location: Reservoir Road	**Co-ordinates:** 49.481803° lat. -123.713415° long.
Pipe Material: Steel	**Pipe Size:** 610mm dia.
Length of exposed pipe: Approx. 56m	**Support Type:** Steel pipe columns with clamp and plate type water main supports.
Object Crossed: Chapman Creek	**Other:**

General: Asset is generally in a good condition with minor surface corrosion present in isolated areas, typically at joint locations where the protective jacket is not continuous, and to support column plates. Further surface corrosion is present in areas where the protective jacket has torn but this is generally minor. See photos below.

Access to the site is possible via Reservoir Road and the approach walking/maintenance track.

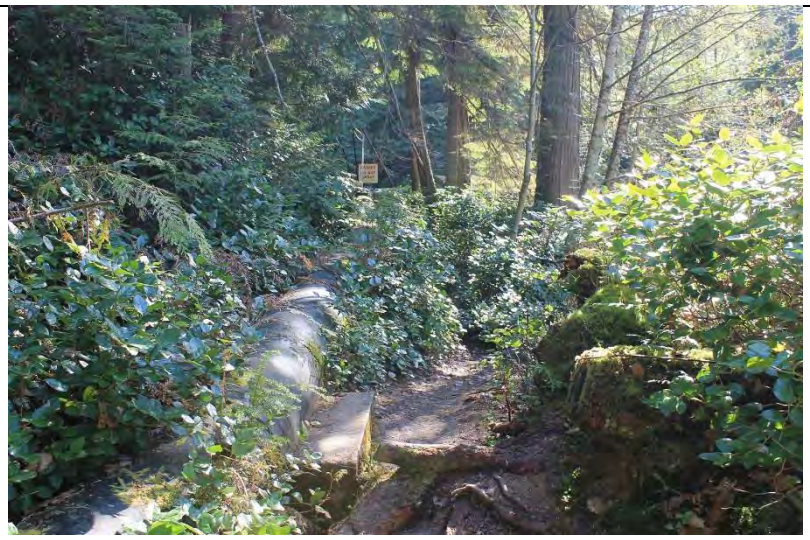
Recommend minor surface corrosion is monitored during future inspections and the corroded area to the water main at the western side of the first support column is cleaned and painted within 36 months to limit further deterioration. Damaged areas of the protective jacket should be repaired within 24 months to limit deterioration to underlying areas of water main. Vegetation should be removed from the main near the joints to prevent damage to the protective jacket.

General view of the water main looking east, where it becomes partially exposed to the east of the Trestle and Pipe #2 structure, before the existing Sed. Box (see right hand side of photo).

Note yellow section of main where the protective jacket has been abraded by pedestrian traffic on the trail – no action required.

	Close up view of the joints at the western end of this section of exposed water main. Note the partial protective jacket failure at the joint, no immediate action is required however this area should be monitored during future inspections for corrosion.
	Close up view of the elbow joint above the first ground mounted support at the western end of the exposed water main. Note minor surface corrosion to the main at the edges of the protective jacket – monitor.

	View of the partially buried water main to the north of the existing Sed. Box (right hand side of photograph). Note the water main is generally in good condition, with minor abrasion to the outside face of the protective jacket requiring no action.
	View of the shallow concrete footing supporting the water main directly adjacent to the Sed. Box with all components in good condition.

	View of the water main looking west where the trail crosses over it, with abrasion to the outer surface of the protective jacket due to pedestrian traffic. No action required.
	General view of the partially buried water main looking west. Note the water main is largely obscured by vegetation but is in a good condition where visible.
	General view of the water main on the approach to the Chapman Creek crossing. Note concrete footing support in foreground and barbed wire climbing protection on approach to crossing in the background.

	Close up view of the shallow concrete footing support. Note typical minor surface corrosion at the pipe joint between sections of protective jacket – no action required.
	View of the water main where it rises above ground level on approach to the creek crossing. Water main is in a good condition where visible.

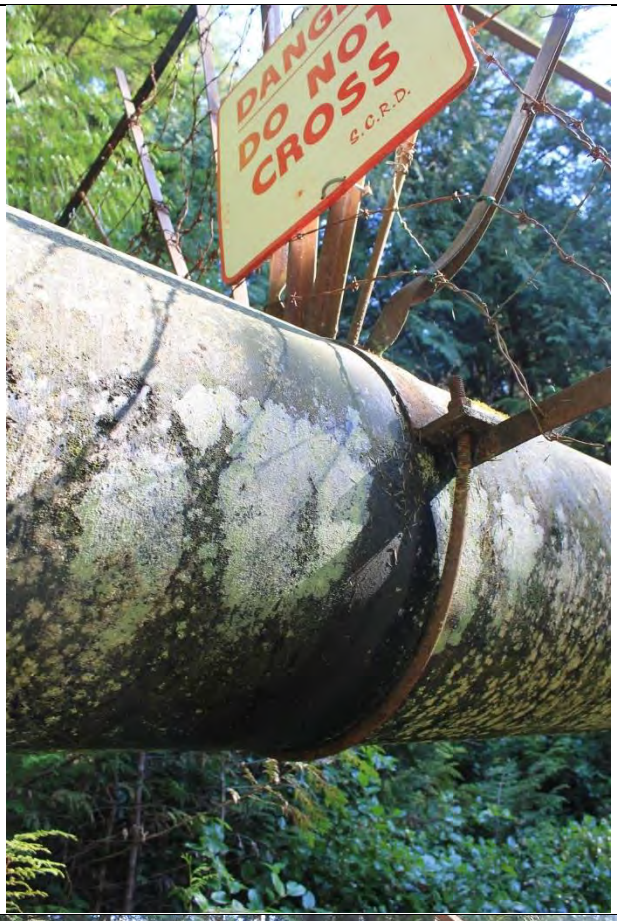
	View of the first water main support column on the western approach to the Chapman Creek crossing. Note the different support type to previous trestles with a pipe column, steel base plate, bearing plate and U-bolt connections. There is minor surface corrosion near the water main joint to the west of the support as seen in the following photograph.
	Close up view of surface corrosion to the water main joint, isolated to the underside of the water main. It is recommended that this area is cleaned and painted within 36 months to limit further deterioration of this section of the water main.

	Close up view of the southern side of the support structure showing the base plate and U-bolt connections to be generally in good condition, with very minor surface corrosion to the plate edge. Monitor.
	View of the northern side of the first water main support showing surface corrosion to the edge of the water main bearing plate. Monitor.

		View of the second water main support and barbed wire climbing protection on the western approach to the Chapman Creek crossing.
		View of the underside of the water main and second support showing the main to be in good condition with the protective jacket intact.

	Close up view of the water main support column and base plate of the second support. The western edge of the base plate has minor surface corrosion, staining the face of the column. Monitor during future inspections.
	View of the water main on the western approach to the Chapman Creek crossing. Note the inspection hatch to the east of the second support.
	Close up view of the inspection hatch. Note the water main protective jacket has been shaped to accommodate the inspection hatch and has peeled away from the bottom half of the water main.

	Close up view of the area where the protective jacket has peeled away from the water main resulting in minor surface corrosion. The corrosion is not severe however it is recommended that the protective jacket and underlying section of water main is repaired within 24 months to limit further deterioration.
	View of minor surface corrosion to the northern side of the water main below the inspection hatch. As per above recommendation for the southern side of the water main, repair protective jacket and underlying water main within 24 months to limit further deterioration.

	View of the U-bolt and strap connection of the barbed wire climbing protection on approach to Chapman Creek. Note minor surface corrosion throughout however the barbed wire and posts remain sound and intact therefore no action required.
	View of the inside section of the elbow joint where the water main approaches Chapman Creek on the northern embankment. This section is in good condition.

	General view of the water main looking west where it approaches Chapman Creek on the northern embankment.
	View of the outer face of the elbow joint showing it to be in good condition.
	View of the upper section of the water main support on the northern stream embankment showing it to be in good condition. Note graffiti to support column due to people scratching through the upper surface of the protective jacket.

	View of the western side of the support column to the water main showing minor surface corrosion to the edge of the base plate, the upper band of the support column and the water main joint to the left of the support. Monitor.
	View of the base plate connection to column connection showing all components to be in a good condition.
	View of a tear in the protective jacket near the southern edge of the support. No corrosion was evident to the underlying water main however it is recommended that the jacket is repaired within 24 months to limit possible deterioration of the water main.

	General view of the Chapman Creek crossing portion of the water main. The southern portion of the structure was inaccessible but from available vantage points appeared to be in a similar condition to the remainder of the water main.
	General view of the underside of the water main where it crosses Chapman Creek showing it to be in a good condition.

	View of the water main and support above the southern stream embankment, as viewed from the northern embankment. Note surface corrosion is visible to the support base plate and climbing protection straps but this appears to be minor.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Chapman Creek Crossing #2 Sed. Box	
Inspection Date: 17 April 2015, 12:00pm	**Weather Conditions:** Fair
Asset Location: Access road via Dusty Road, Sechelt	**Co-ordinates:** 49.482470° lat. -123.708665° long.
Pipe Material: Steel	**Pipe Size:** 610mm dia.
Length of exposed pipe: Approx. 46m	**Support Type:** Raked pipe type supports to each stream embankment.
Object Crossed: Waterway – Chapman Creek	**Other:** Adjacent to Sed. Box structure

General: Access to this asset is difficult, limiting the ability to undertake a comprehensive visual inspection. The asset appears to be in a good to fair condition with isolated failure of the protective jacket to support columns and the water main leading to surface corrosion in these unprotected areas. See photos below.

Access to the site via Dusty Road is good, access for inspection and/or maintenance is difficult. As such it is recommended that a detailed close quarters inspection is undertaken using specialist access equipment e.g. rope access. Vegetation should be removed from the main near the joints to prevent damage to the protective jacket.

General view of the north-eastern approach to the structure which is partially blocked by fallen trees.

	General view of the north-eastern end of the water main where it meets the northern Chapman Creek embankment. Note access to this structure for inspection and maintenance of the water main and supports is extremely difficult therefore a detailed close quarters inspection using specialist access techniques is recommended to get a clearer understanding of the defects and risks to this structure.
	Close up view of the north-eastern end of the water main where it meets the embankment. Note the expansion joint and linkage bar are in a good condition.

	Further view of the expansion joint and linkage bar at the north-eastern end of the water main showing all components to be in a good condition.
	General view of the water main from the northern embankment showing it to be in a good condition where visible.

	View of the lower support/bracing member which is in a good condition where visible.
	View of the connection between the lower support/bracing member and the north-eastern support column showing it to be in a good condition with very minor surface corrosion to the support column.

	View of the top of the north-eastern support where it meets the water main, showing minor surface corrosion to the support structure. Monitor during future inspections.
	General view of the underside of the water main from the northern embankment showing it to be in a good condition where visible.

	View of the underside of the water main at the north-eastern end including the lower linkage bar. Note the minor surface corrosion to the plate to the underside of the water main and the shank of the linkage bar.
	Close up view of the surface corrosion to the linkage bar and plate to the underside of the water main at the north-eastern end. Monitor during future inspections.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Chapman Creek Crossing #3 Intake	
Inspection Date: 17 April 2015, 11:15am	**Weather Conditions:** Fair
Asset Location: Access road via Dusty Road, Sechelt	**Co-ordinates:** 49.483971° lat. -123.705125° long.
Pipe Material: Steel	**Pipe Size:** 610mm dia.
Length of exposed pipe: Approx. 30m	**Support Type:** Raked pipe type supports to each stream embankment.
Object Crossed: Waterway – Chapman Creek	**Other:** Adjacent to Intake structure

General: Access to this asset is difficult, limiting the ability to undertake a comprehensive visual inspection. The asset appears to be in a good to fair condition with isolated failure of the protective jacket to support columns and the water main leading to surface corrosion in these unprotected areas. See photos below.

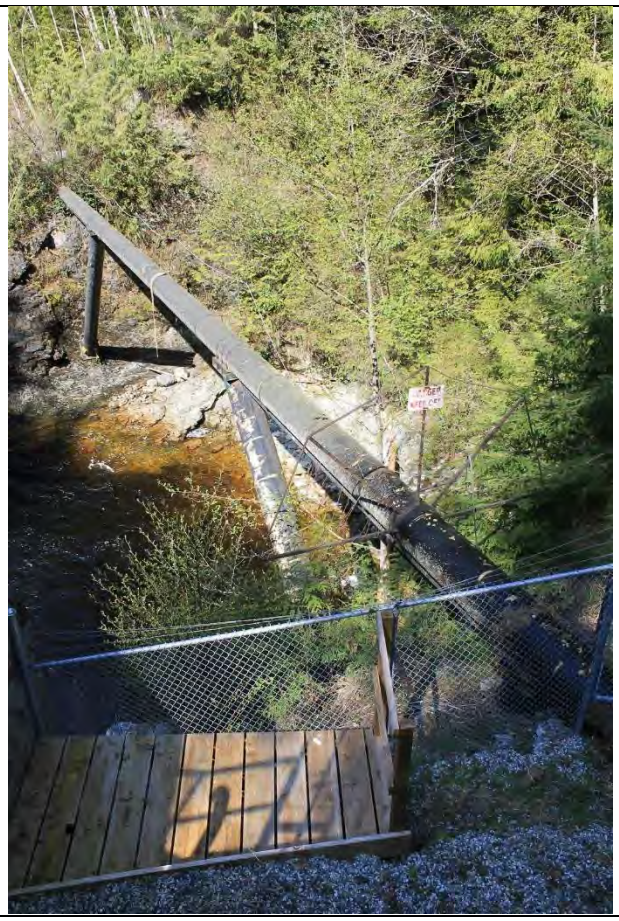
Access to the site via Dusty Road is good, access for inspection and/or maintenance is difficult. As such it is recommended that a detailed close quarters inspection is undertaken using specialist access equipment e.g. rope access.

General view of the approach to the inlet structure at the eastern end of the Chapman Creek water main crossing.

Note the very steep approach with no landing area or turning bay at the bottom.

View of the top of the intake structure protected by a gate and fences.

	General view of the approach to the eastern end of the water main crossing structure from above the intake, with access via ladder.
	View of the ladder access to the eastern end of the water main structure.

	General view of the water main structure from above the intake structure at the eastern end embankment. Note access for inspection and maintenance of the water main and supports is extremely difficult.
	General view of the water main from the intake structure at the top of the previously shown access ladder.

	General view of the eastern end of the exposed water main where it meets the stream embankment.
	Close up view of the expansion joint and linkage bar at the eastern end of the exposed water main. Note the majority of components are in a good condition, with minor surface corrosion to the bolted connection between the pipe sections at the joint. Monitor during future inspections.
	View of the connection between the eastern-most support and water main. Note the significant tear in the water main protective jacket and surface corrosion to the connection between the raked pile support and longitudinal support member. A detailed close quarters inspection is recommended to get a clearer understanding of the defects and risks to this structure.

	Further view of the eastern-most water main support showing the tear in the protective jacket and further peeling of the jacket to the western side of the support column.
	View of the original climbing protection to the water main which is in a serviceable condition. Note this combined with the more recent security fencing at each end provide an adequate barrier to the public.

	View of the eastern main support of the water main structure showing minor surface corrosion to the top of the raked support pile and base plate structure. Minor abrasion of the water main protective jacket is also visible in isolated areas.
	General view of the top connection of the western water main support showing inconsistencies in the protective jacket and minor surface corrosion.
	View of the base connection of the western raked support column showing tearing of the protective jacket and surface corrosion to the exposed areas. Note this support is potentially submerged in water during high flows.

	General view of the approach to the western end of the water main structure.
	View of security fencing protecting the western end of the water main structure and preventing public access.
	General view of the eastern end of the water main from the western embankment.

	View of the eastern raked support column and water main, showing minor abrasion to the outer face of the column protective jacket.
	View of the connection between the western support and water main showing corrosion to the upper portion of the raked column.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Chapman Creek Trestle and Pipe #1	
Inspection Date: 17 April 2015, 09:00pm	**Weather Conditions:** Fair
Asset Location: Reservoir Road	**Co-ordinates:** 49.482145° lat. -123.715476° long.
Pipe Material: Steel	**Pipe Size:** 610mm dia.
Length of exposed pipe: Approx. 42m	**Support Type:** Steel trestles with clamp type water main supports.
Object Crossed: Small tributary	**Other:**

General: Asset is generally in a good condition with very minor surface corrosion present in isolated areas, typically near water main supports. The water main protective jacket is in a good condition with one split to the outside face requiring attention. See photos below.

Access to the site is possible via Reservoir Road and the approach walking/maintenance track.

Recommend minor surface corrosion is monitored during future inspections and the split in the water main protective jacket is repaired within 24 months to prevent corrosion. Vegetation should be removed from the main near the joints to prevent damage to the protective jacket.

General view of the trail/maintenance track access from Reservoir Road, adjacent to the Chapman Creek Booster pump station.

View of the partially overgrown access trail to the trestle and water main. The trail is serviceable for pedestrian access in its current state, although may require vegetation removal for maintenance vehicles.

	View of the approach to the trestle and water main looking east. Note man hole covers in foreground to buried water main.
	Further view of the approach to the trestle and water main looking east. Note partially obscured signage requiring vegetation removal.
	View of water main access cover at the western end of the exposed section. Note all visible steel in good condition with very minor surface corrosion.

		View along the water main and trestle structure looking to the east. Note the floor grating and handrails are intact and in good condition.
		View of the western-most water main support which is ground mounted (i.e. not on the trestle structure). The water main and support are in a good condition with minor surface corrosion to isolated areas of the support – monitor during future inspections.

		View of the western end of the water main including the ground mounted support, handrail and warning sign post.
		View of the second water main support from the western end of the structure above the first trestle. Note protective jacket intact throughout with the water main in excellent condition.

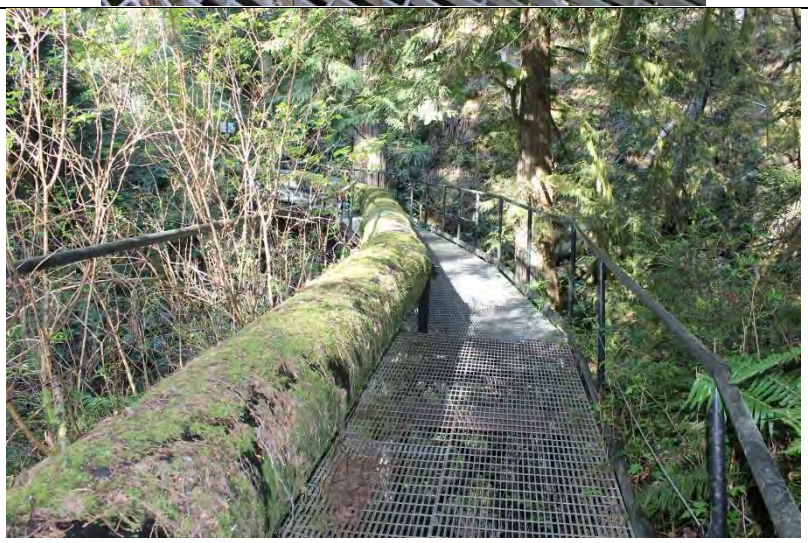
	View of minor surface corrosion to the transverse members at the second trestle from the western end. Monitor.
	View of the underside of the support showing very minor areas of surface corrosion to the support.

	View of a water main joint near the first trestles from the western end. Note minor surface corrosion to the water main surface where the protective jacket has been removed near the joint. Monitor corrosion during next inspection.
	View of minor surface corrosion the third trestle from the western end of the exposed water main.
	View of an elbow joint near the third trestle from the western end. Very minor surface corrosion is present where the protective jacket has been removed – no action required.

	View along the southern edge of the water main looking west showing the water main to be in a good condition.
	View of a split in the water main protective jacket between the third and fourth trestle from the western end. This split has allowed water to pool against water main surface, promoting corrosion. It is recommended that a small section of the jacket around this split is removed, the underlying water main surface cleaned of corrosion and repairs made with a suitable tape (e.g. Denso) within 24 months.

	View of the fourth trestle water main support looking west showing minor surface corrosion to the edge of the support band. Monitor.
	View of minor surface corrosion to the underside water main at the joint between the fourth and fifth trestle. Monitor.

	View of the fifth trestle water main support showing heavy vegetation coverage and minor surface corrosion to the support structure.
	General view from the sixth trestle to the eastern end of the exposed water main.

	View of the sixth trestle showing minor surface corrosion to the transverse support member below the water main.
	General view looking west from the eastern end of the exposed water main and trestle structure.

		View of the eastern end of the exposed water main showing it to be in a good condition.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Chapman Creek Trestle and Pipe #2	
Inspection Date: 17 April 2015, 09:45pm	**Weather Conditions:** Fair
Asset Location: Reservoir Road	**Co-ordinates:** 49.482164° lat. -123.714674° long.
Pipe Material: Steel	**Pipe Size:** 610mm dia.
Length of exposed pipe: Approx. 31m	**Support Type:** Steel trestles with clamp type water main supports.
Object Crossed: Small tributary	**Other:**

General: Asset is generally in a good condition with very minor surface corrosion present in isolated areas, typically to the trestle transverse support members. Breakdown of the protective coating system near the valve chamber at the eastern end of the structure has led to surface corrosion. See photos below.

Access to the site is possible via Reservoir Road and the approach walking/maintenance track.

Recommend minor surface corrosion is monitored during future inspections and the corroded area to the eastern end of the water main at the interface with the valve chamber is cleaned and painted within 24 months to prevent further deterioration.

It is recommended that vegetation is removed from the main near the joints to prevent damage to the protective jacket.

General view of the water main and trestle structure from the western end looking east.

	View of the steel grating ramp to the western approach supported on a shallow concrete footing, all of which are in a good condition. Note the partially buried western end of the water main to the left hand side of the photograph.
	View of the first ground mounted support at the western end of the structure. Note staining is apparent to the face of the concrete footing due to surface corrosion to the steel base plate. Monitor during future inspections.
	Further view of the ground mounted support showing the fixtures and support post to be in good condition, with minor surface corrosion to the bolted connection.

	View from the first trestle looking west showing minor surface corrosion to the transverse support members. This level of surface corrosion is present to all transverse support members throughout the structure. Monitor during future inspections.
	View of the first trestle water main support looking east. The support and visible areas of the trestle are in a good condition with minor surface corrosion to isolated areas. Monitor.
	General view from the first trestle looking east. Note the top rail of the northern handrail has been damaged, likely due to a fallen tree.

	View of the elbow joint between the first and second trestle which is in good condition with minor surface corrosion at the edges of the protective jacket sections. Monitor.
	View of the second trestle looing east.

	View of the water main support at the second trestle showing it to be in a good condition with minor surface corrosion to the transverse support member.
	View of the ground mounted support at the eastern end of the structure. All components are in a good condition where visible.

	View of the eastern end of the exposed water main where it meets the valve chamber structure.
	General view of the exposed water main and trestle structure from the eastern end looking west.

	View of the water main where it enters the valve chamber beyond the eastern end of the trestle structure.
	View of the water main where it enters the valve chamber looking north (opposite side to trail). Note the blue coloured protective coating system has broken down on the lower portion of the water main leading to surface corrosion over an area approximately 600mm in length. Recommend clean and paint within 24 months to prevent further deterioration.
	General view of the valve chamber with the trestle structure in the background to the left hand side of the photograph. The exterior of the valve chamber structure appears in good condition.

	View of the remaining exposed water main to the east of the valve chamber. This partially buried portion of the water main is in good condition.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Gray Creek Bridge	
Inspection Date: 16 April 2015, 15:30pm	**Weather Conditions:** Fair
Asset Location: Sechelt Inlet Road, near Lamb Bay	**Co-ordinates:** 49.507980° lat. -123.748378° long.
Pipe Material: Steel or Ductile	**Pipe Size:** 200mm dia.
Length of exposed pipe: Approx. 18m	**Support Type:** Steel support brackets to bridge guardrail posts.
Object Crossed: Waterway – Gray Creek	**Other:**

General: Asset is generally in a fair condition with widespread failure of the coating system, particularly to the underside of the water main leading to moderate surface corrosion and isolated minor loss of steel section depth. The support brackets are generally in a good condition. See photos below.

Access to the site via Sechelt Inlet Road is good, with easy pedestrian access.

Recommend water main is cleaned and painted within 12-24 months to limit further deterioration and loss of steel section depth due to pitting corrosion.

General view of Gray Creek Bridge looking north, with the water main supported from the eastern side of the bridge (right hand side of photograph).

General view of Gray Creek Bridge looking south.

	View of the eastern side of Gray Creek Bridge from the southern stream embankment showing the water main with support brackets to the side of the bridge. Note widespread failure of the paint system with surface corrosion throughout the length of the water main.
	View of the southern end of the water main where it passes through the bridge abutment. Note failure of paint system and surface corrosion throughout.

	View of the underside of the water main from the southern stream embankment showing wide spread failure of the paint system and subsequent loss of steel section depth due to corrosion flaking to underside of the water main. Recommend that the water main is cleaned and painted throughout its length within 12-24 months to prevent further deterioration.
	View of the southern-most support bracket and flange connection. Note the support brackets are in a good condition throughout.

	View of the southern-most grooved coupling from the underside showing widespread corrosion.
	View of the southern-most support brackets and grooved coupling from above showing widespread corrosion to the water main with the support brackets in a good condition.

	View of the northern-most support brackets and grooved coupling from above.
	View of the northern-most support brackets and grooved coupling from below.

	View of the northern end of the water main where it passes through the bridge abutment. Note failure of paint system and surface corrosion throughout, although not as severe as to the underside of the water main.
	View of corrosion to the underside of the water main where it passes through the northern bridge abutment.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Roberts Creek Bridge	
Inspection Date: 16 April 2015, 11:15am	**Weather Conditions:** Fair
Asset Location: Lower Road, Roberts Creek	**Co-ordinates:** 49.420853° lat. -123.640121° long.
Pipe Material: Coated steel	**Pipe Size:** 150mm dia.
Length of exposed pipe: Approx. 14-16m	**Support Type:** Steel brackets to side of bridge, with rollers top and bottom.
Object Crossed: Waterway – Roberts Creek	**Other:**

General: Asset is generally in a good condition with minor corrosion of welds at elbows. Brackets and rollers are in good condition. See photos below. **Note, this appears to be a gas main rather than a water main, therefore it is recommended responsibility for this asset is clarified.**

Access to the site via Lower Road is good, with easy pedestrian access below the bridge.

Recommend existing corrosion is removed from welds and other locations and touch-up painting undertaken within 12 months to limit deterioration and loss of weld section depth through corrosion.

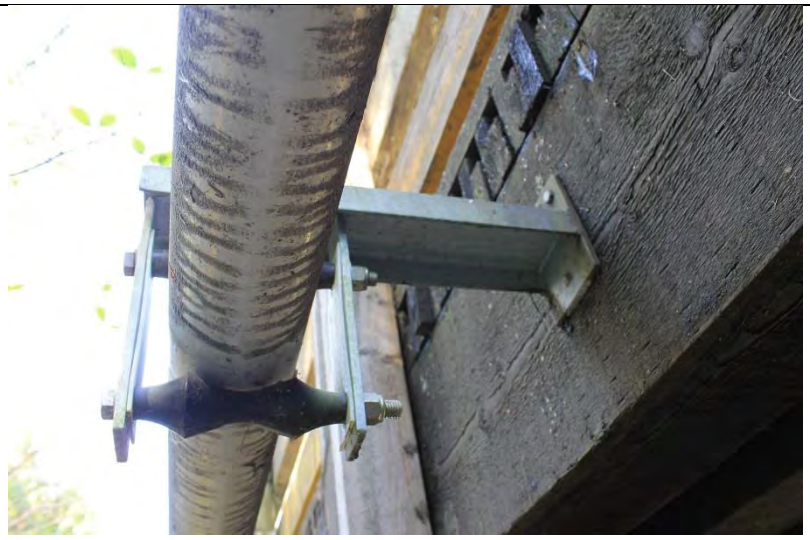
General view of Roberts Creek Bridge looking west from Lower Road towards Roberts Creek Road.

View of the south western bridge wing wall. Note yellow gas main warning signage above the assets approximate location.

	General view of the southern side of the bridge looking west showing the gas main supported from the side of the bridge and a water survey station to the western stream embankment.
	Additional general view of the southern side of the bridge from the eastern stream embankment showing the gas main profile.

	General view of the northern side of the bridge showing it to be in a good condition.
	View of the eastern end of the gas main showing a newer paint system to the vertical section and bottom elbow to the point where the main passes into the embankment. Note minor corrosion spots to the outside face of the top vertical elbow.

	Close up view of paint breakdown and minor surface corrosion to the outside face of the top vertical elbow at the eastern end of the bridge.
	View of graffiti to the vertical section of main at the eastern end of the bridge.

	View of the eastern-most support bracket showing it to be in a good condition. This is typical of the support brackets throughout the bridge.
	Additional view of the eastern-most support bracket showing the connections and rollers to be in a good condition.
	Underside view of the eastern-most support bracket showing all components to be in a good condition.

	View of the central support bracket and main to the east of the water survey station. Note corrosion to the weld to the west of the bracket. The main includes a series of horizontal and vertical elbows to navigate around the water survey station to the right hand side of this photograph.
	Close up view of paint breakdown and subsequent corrosion to the weld and main near the central support.
	View of the main to the western side of the water survey station. Note surface corrosion to the weld between the water survey station and the support bracket.

	View of the underside of the main to the west of the water survey station. Note several areas of surface corrosion are visible to the underside of the welds at the mains elbow section. It is recommended that these areas are cleaned and painted within 12 months to limit further loss of weld section depth.
	Close up view of weld corrosion to the western side of the water survey station. The same defect is present to the underside of the main on the eastern side of the water survey station.

	View of the western end of the main showing it to generally be in a good condition.
	View of the western end of the main where it passes into the western embankment. Note the wrapped vertical elbow which is in good condition.

	View of a support bracket connection on the inside face of the outer timber bridge beam. These connections are in a good condition.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Asset Name: Sans Souci Road Bridge	
Inspection Date: 17 April 2015, 15:15pm	**Weather Conditions:** Fair
Asset Location: Sans Souci Road, Secret Cove	**Co-ordinates:** 49.531646° lat. -123.953385° long.
Pipe Material: Steel or Ductile	**Pipe Size:** 200mm dia. (3 mains)
Length of exposed pipe: Approx. 3m	**Support Type:** Supported beneath the bridge.
Object Crossed: Tidal inlet below bridge.	**Other:** 3 service mains in this location.

General: The Sans Souci Road Bridge carries Sans Souci Road across an inlet of Secret Cove, with a small opening below the bridge deck allowing tidal flow. Three service mains are supported below the bridge deck spanning self-supported from abutment to abutment. The service mains are in a moderate to good condition, with surface corrosion throughout the length of the outer two mains, while the central main has been wrapped and appears in good condition.

Access to this asset is via Sans Souci Road, although access to the service mains below the bridge deck is difficult. See photos below.

Given the location of the assets and tidal flow beneath the bridge the service mains are in a salt and moisture-rich environment which typically results in high corrosion rates. As such it is recommended that the two outer service mains are cleaned and painted throughout their length within 12 months to limit deterioration. It is also recommended that minor areas of corrosion to the central service main are repaired during these works.

General view of the approach to the bridge from Sans Souci Road looking south-west.

	Further view of the approach to Sans Souci Road Bridge looking south-west.
	View of the tidal inlet to the south-east of Sans Souci Road Bridge.
	View to the north-west of Sans Souci Road Bridge showing the Secret Cove marina access road in the background.

	View of the north-western elevation of the Sans Souci Road Bridge showing the water mains spanning between abutments below the bridge deck.
	View of the water mains spanning between the bridge abutments.
	View of the three service mains at the interface with the south-western abutment of Sans Souci Road Bridge. Note the outer service mains are steel or ductile with bolted flange connections to the abutment. The central service main appears to be wrapped steel and passes directly through each bridge abutment.

	Further view of the second and third service mains where they pass through the south-western bridge abutment. Note surface corrosion to the outer service main and flange plate. Note damage to the south-western bridge abutment near the second service main. Recommend this is discussed with the department responsible for bridge maintenance.
	View of surface corrosion to the underside of the first service main approx. 200mm^2 with minor loss of steel section depth. Recommend main is cleaned and painted within 12 months to limit further section loss. Note due to the location of the mains and regular contact with salt water there is likely high corrosion rates.
	View of the north-eastern abutment and service main interface showing corrosion to the flange plate of the outer service main.

	Close up view of corrosion to the flange plate of the outer service main. Note there appears to be no loss of steel section depth in this area however it is recommended that the entire main is cleaned and painted within 12 months due to the likely high corrosion rates in this location.
	View of the north-eastern end of the second and third service mains. Note the visible defects in the second service main wrap leading to corrosion of the underlying steel. Recommend repairs are completed to this area within 12 months to limit loss of steel section depth.
	Further view of the north-eastern end of the second and third service mains. Note consistent surface corrosion to the third service main. Recommend the entire main is cleaned and painted within 12 months to limit loss of steel section depth due to corrosion.

	View of the south-eastern elevation of the Sans Souci Road Bridge with timber staging to the edge of the bridge.
	View below the bridge deck looking north-west. Note the service mains visible in the background.
	Close up view of the south-western end of the third service main. The main is in a good to moderate condition with pitting corrosion visible in areas where the existing coating has broken down. Recommend the entire main is cleaned and painted within 12 months to limit further deterioration.

	Close up view of the north-eastern end of the third service main showing surface corrosion and some pitting to the section. As previous it is recommended that the main is cleaned and painted within 12 months to limit further deterioration and loss of steel section depth.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

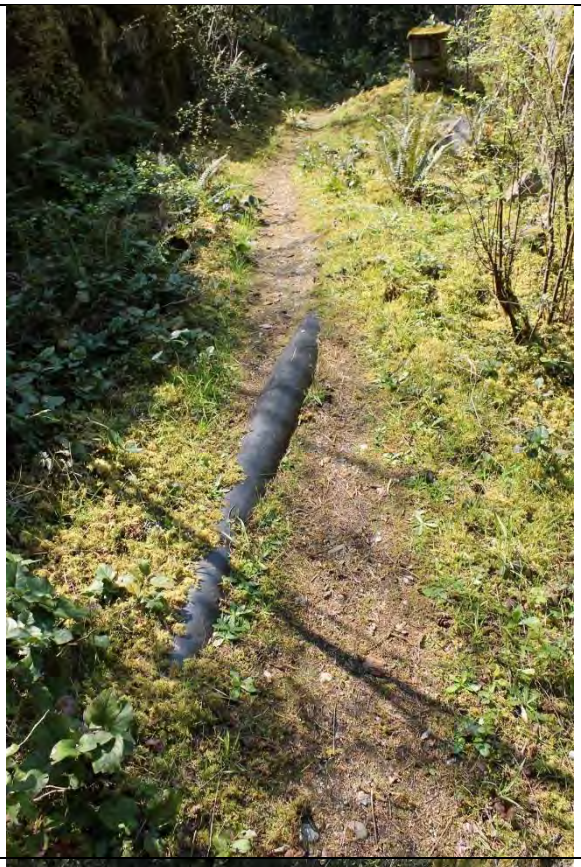
Asset Name: Wescan Road Sclere Pipe	
Inspection Date: 17 April 2015, 14:00pm	**Weather Conditions:** Fair
Asset Location: Between Wescan Road and Secret Road, Halfmoon Bay	**Co-ordinates:** 49.523404° lat. -123.946543° long.
Pipe Material: HDPE	**Pipe Size:** 200mm dia.
Length of exposed pipe: Approx. 67m	**Support Type:** Overground and partially buried sclera pipe.
Object Crossed: N/A	**Other:**

General: Access to this asset is via a moderate-steep pedestrian trail making possible future maintenance works difficult. The asset is largely obscured by vegetation throughout its length but is in a good condition where visible. See photos below.

It is recommended that vegetation is cleared from the water main vicinity to improve access for future inspections and maintenance.

General view of the approach to the exposed water main from Secret Road. Note pedestrian access only.

View of a short section of partially buried water main running across the pedestrian trail near the top of the hill between Secret Road and Wescan Road, looking west.

		Close up view of the exposed section of HDPE water main running across the pedestrian trail showing it to be in a good condition.
		View of the exposed HDPE water main to the north side of the pedestrian trail with concrete weights in the background. Note visible sections of the water main are in a good condition and appear stable.

		View of the concrete block weights securing the HDPE water main at the top of the hill between Secret Road and Wescan Road, showing them to be in a good condition.
		General view of the pedestrian trail travelling downhill towards Wescan Road with the HDPE water main obscured by vegetation to the north of the trail (right hand side of photograph).

	View of an exposed section of HDPE water main showing it to be in a good condition where visible.
	Further view of an exposed section of HDPE water main showing it to be in a good condition.

	View of the HDPE water main looking west approximately halfway down the hill between Secret Road and Wescan Road where a large fallen tree stump covers the water main. There was no visible damage to the water main in this area.
	View of the HDPE water main passing below the fallen tree stump looking east (uphill).

	View of a welded joint in the HDPE water main which is in a good condition.
	View of the western end of the exposed water main where it becomes submerged near Wescan Road which is visible in the background.

	View of the Wescan Road entrance to the pedestrian trail. Note the submerged water main signage to the north of the trail entrance.

Inspection and Report:	Ben Sherriff	**Review:**	(the Original is sealed) Walt Bayless
Date	7th May 2015	**Date:**	

Appendix 4 Location Drawings

EXPOSED WATER MAINS REHABILITATION

INFRASTRUCTURE SERVICES SUNSHINE COAST REGIONAL DISTRICT (SCRD)

VOLUME 02 OF 02

SHEET INDEX

GENERAL

CIVIL

CONTACT INFORMATION

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Trevor Rutley
Sunshine Coast Regional District (SCRD)
1975 Field Road Sechelt, BC V0N 3A1
TEL: 604-885-6800 EXT.6494

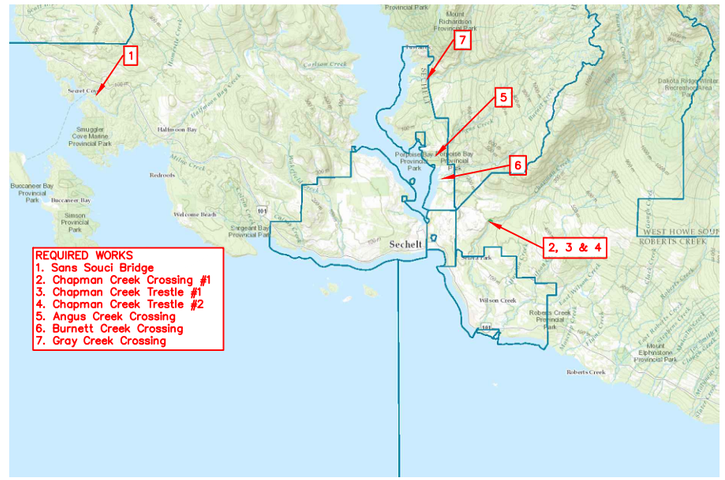
WATER
Codi Abbott
Sunshine Coast Regional District (SCRD)
Works Division
5920 Mason Rd, Sechelt, BC V0N 3A8
TEL: 604-885-6800EXT.6311

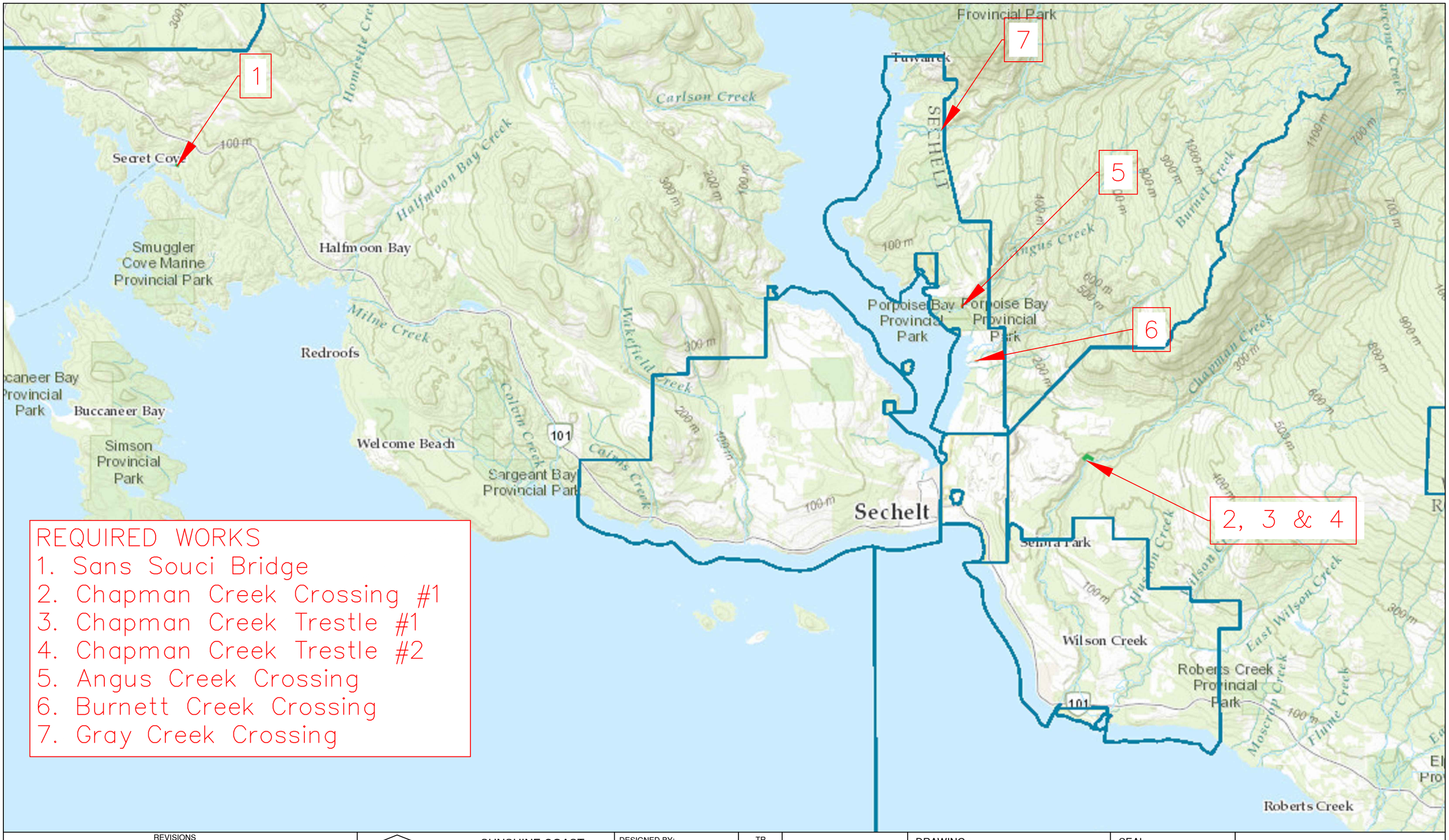
NATURAL GAS
FortisBC Energy Inc.
16705 Fraser Highway
Surrey, BC V4N 0E8

POWER
BC Hydro
333 Dunsmuir St.
Vancouver, B.C. V6B 5R3

TELECOMMUNICATIONS
TELUS Communications
3777 Kingsway, Burnaby, BC V5H 3Z7

LOCATION MAP





REQUIRED WORKS
1. Sans Souci Bridge
2. Chapman Creek Crossing #1
3. Chapman Creek Trestle #1
4. Chapman Creek Trestle #2
5. Angus Creek Crossing
6. Burnett Creek Crossing
7. Gray Creek Crossing

REVISIONS	
REVISION : 0 (AT INITIAL TENDER STAGE)	2020-09-02
REVISION : 1 (APPROVED FOR CONSTRUCTION)	2021-04-13

SUNSHINE COAST REGIONAL DISTRICT
PUBLIC WATER WORKS
1975 Field Road
Sechelt, BC V0N 3A1
Ph: 604-885-6800 1-800-687-5753 Fax: 604-885-7909

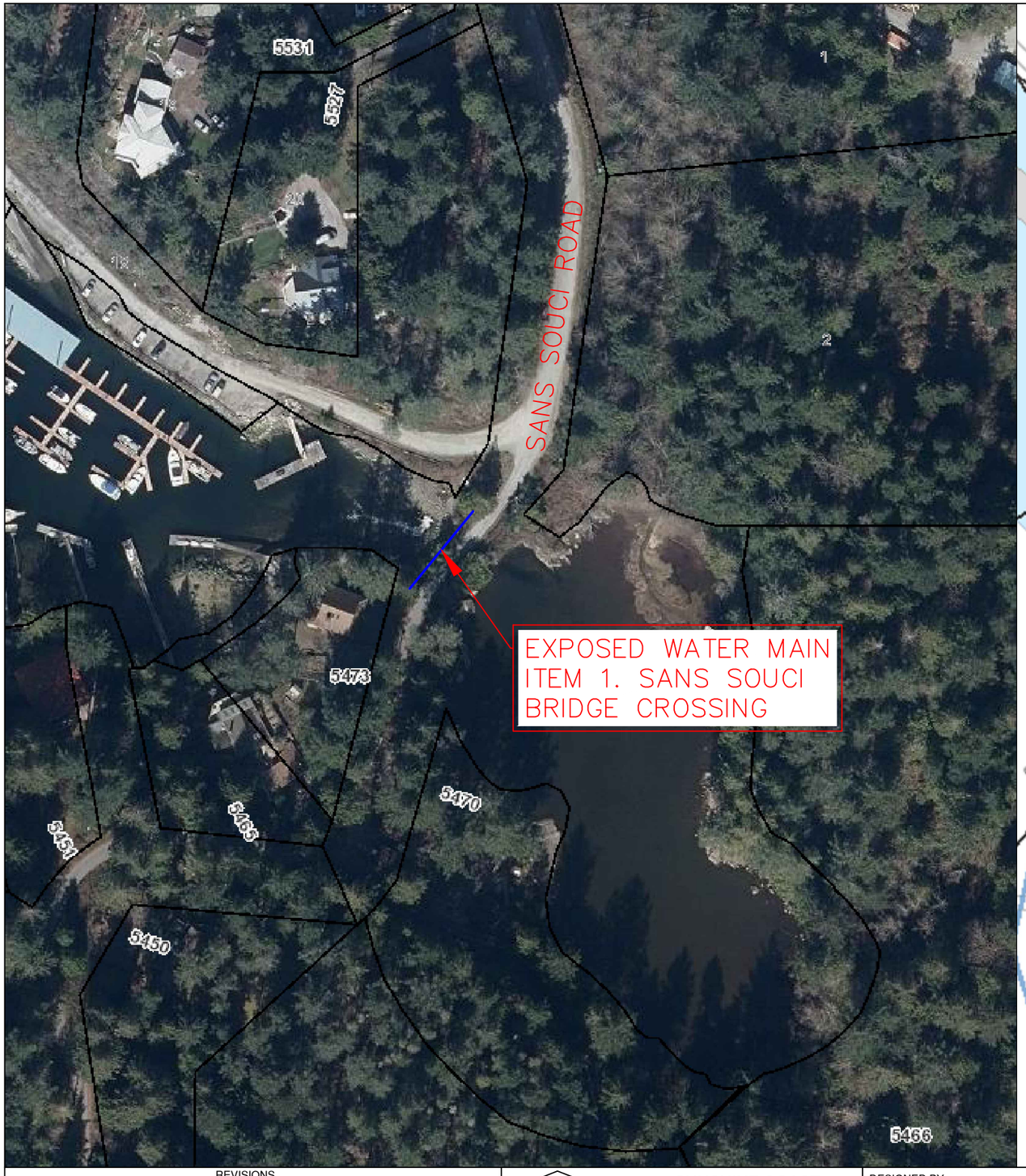
DESIGNED BY:	TR
DRAWN BY:	SW
CHECKED BY:	SM
APPROVED BY:	SM
SCALE	AS SHOWN
PLOT DATE:	2021-04-13

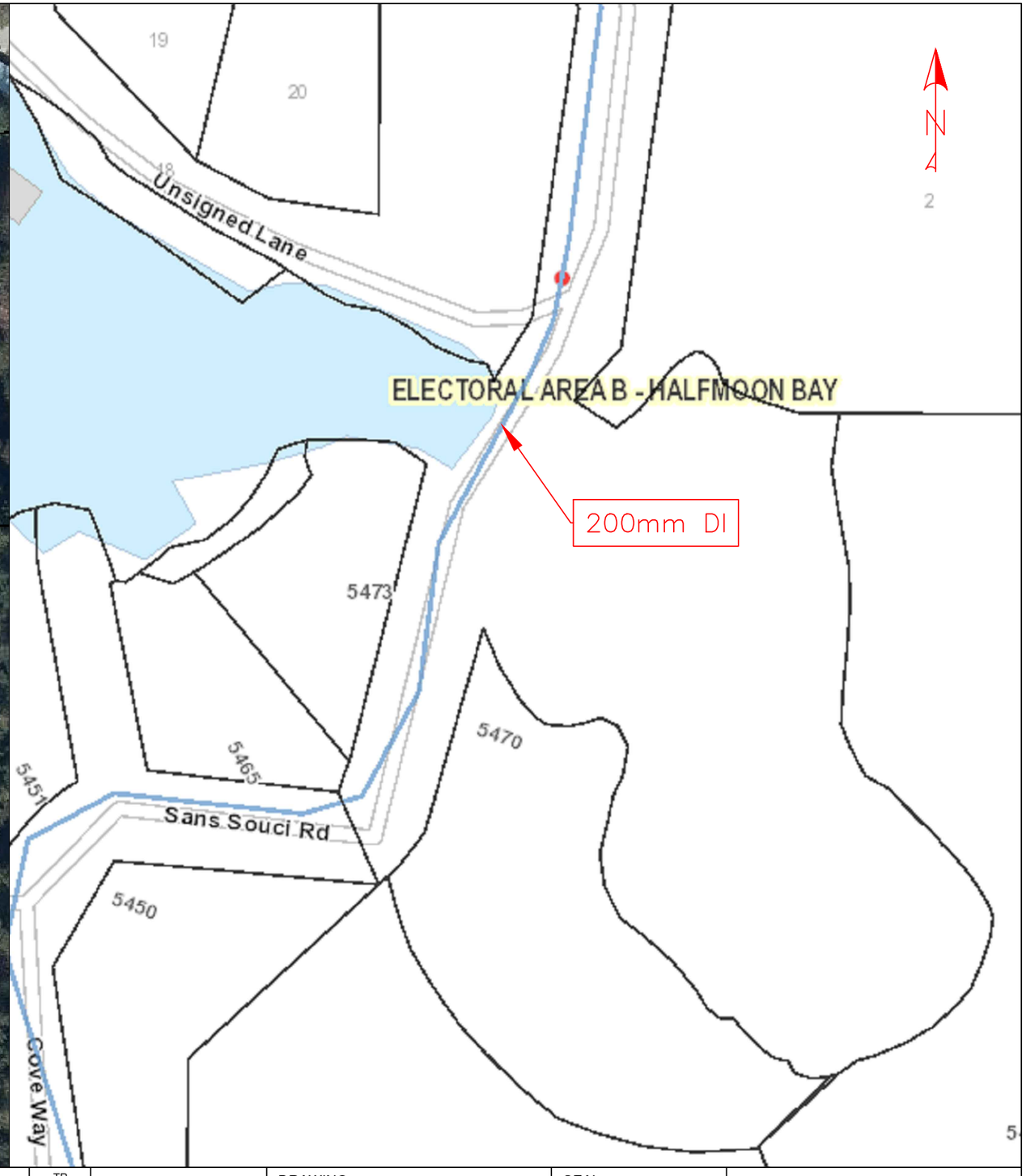
EXPOSED WATER MAINS REHABILITATION

DRAWING :
LOCATION MAP

SEAL
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
S. T. MISIURAK
50703
2021-04-13

WORK ORDER NO.	WO106424
DRAWING NO:	G-02
SHEET NO :	02 OF 07





REVISIONS	
REVISION : 0 (AT INITIAL TENDER STAGE)	2020-09-02
REVISION : 1 (APPROVED FOR CONSTRUCTION)	2021-04-13

SUNSHINE COAST REGIONAL DISTRICT
PUBLIC WATER WORKS

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Ph: 604-885-6800 1-800-687-5753 Fax: 604-885-7909

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DRAWN BY:	SW
CHECKED BY:	SM
APPROVED BY:	SM
SCALE	AS SHOWN
PLOT DATE:	2021-04-13

EXPOSED WATER MAINS REHABILITATION

DRAWING :

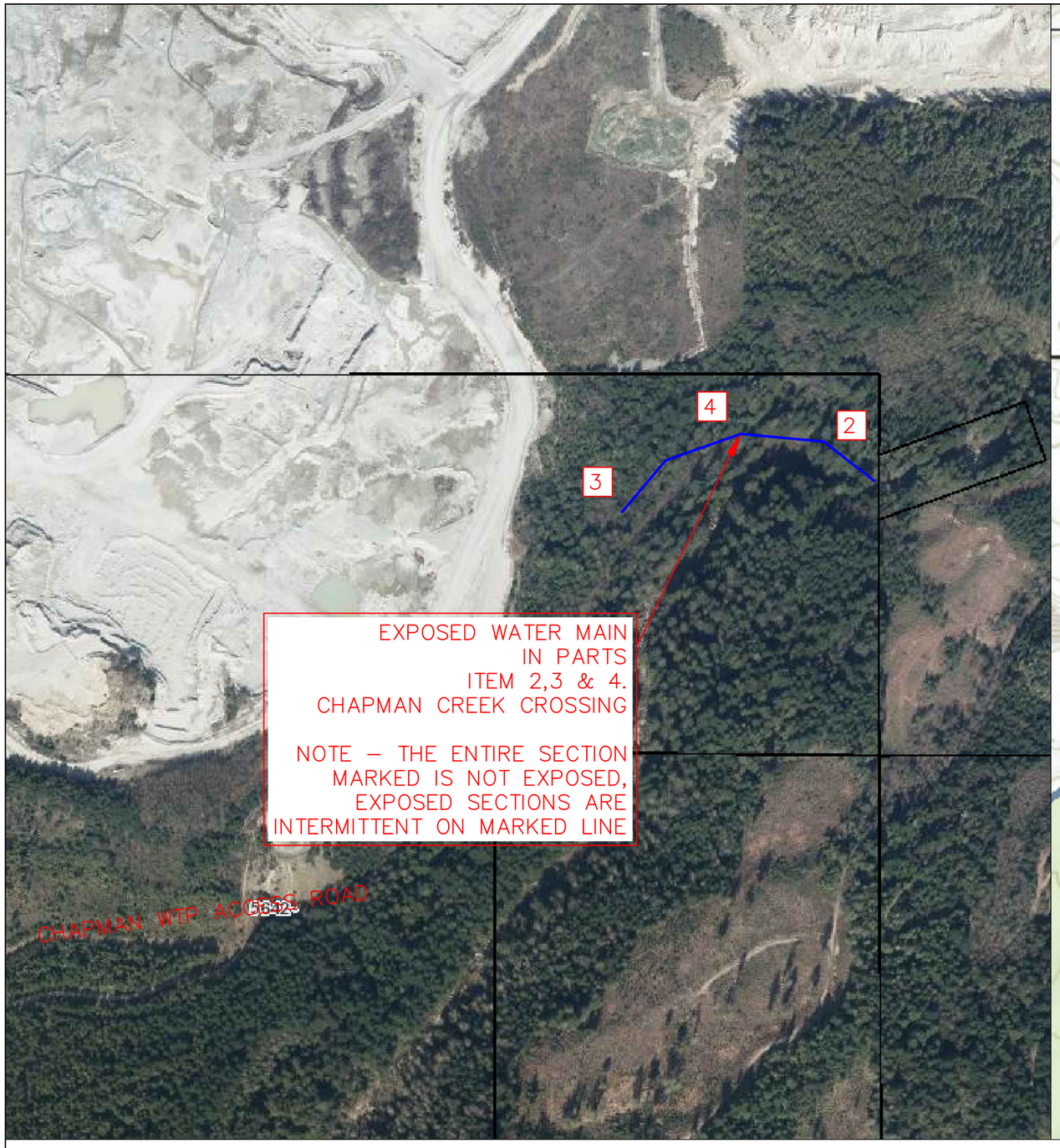
REQUIRED WORK ITEM 1.
SANS SOUCI BRIDGE
CROSSING APPROX. 3 m
200 STEEL PIPE WRAPPED

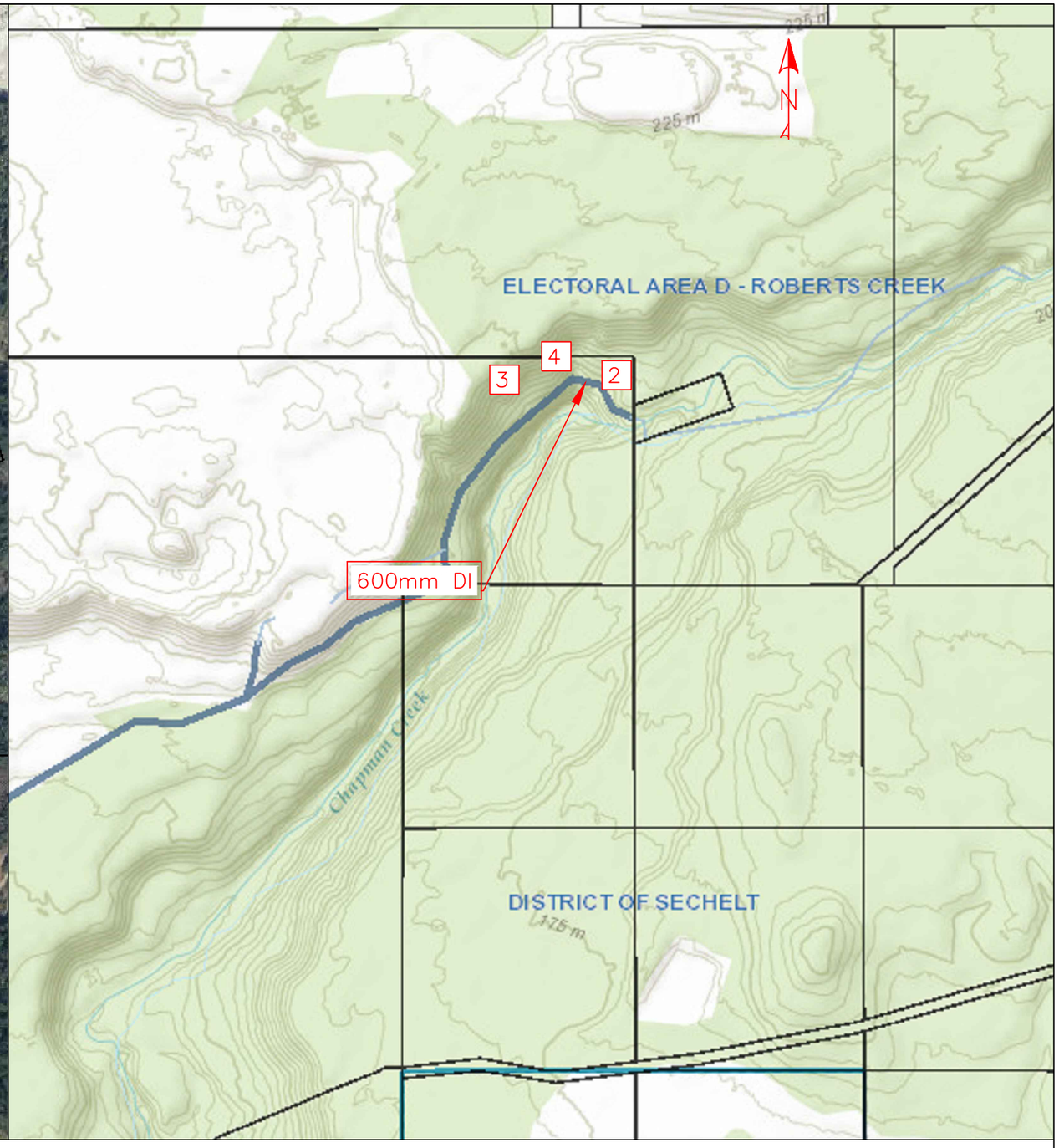
SEAL

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
S. T. MISIURAK
50703

2021-04-13

WORK ORDER NO.	WO106424
DRAWING NO:	C-01
SHEET NO :	03 OF 07





REQUIRED WORK ITEM 2. CHAPMAN CREEK CROSSING #1
APPROX. 56 m 600 STEEL PIPE WRAPPED

REQUIRED WORK ITEM 3. CHAPMAN CREEK TRESTLE #1
APPROX. 42 m 600 STEEL PIPE WRAPPED

REQUIRED WORK ITEM 4. CHAPMAN CREEK TRESTLE #2
APPROX. 31 m 600 STEEL PIPE WRAPPED

REVISIONS	
REVISION : 0 (AT INITIAL TENDER STAGE)	2020-09-02
REVISION : 1 (APPROVED FOR CONSTRUCTION)	2021-04-13

SUNSHINE COAST REGIONAL DISTRICT
PUBLIC WATER WORKS
1975 Field Road
Sechelt, BC V0N 3A1
Ph: 604-885-6800 1-800-687-5753 Fax: 604-885-7909

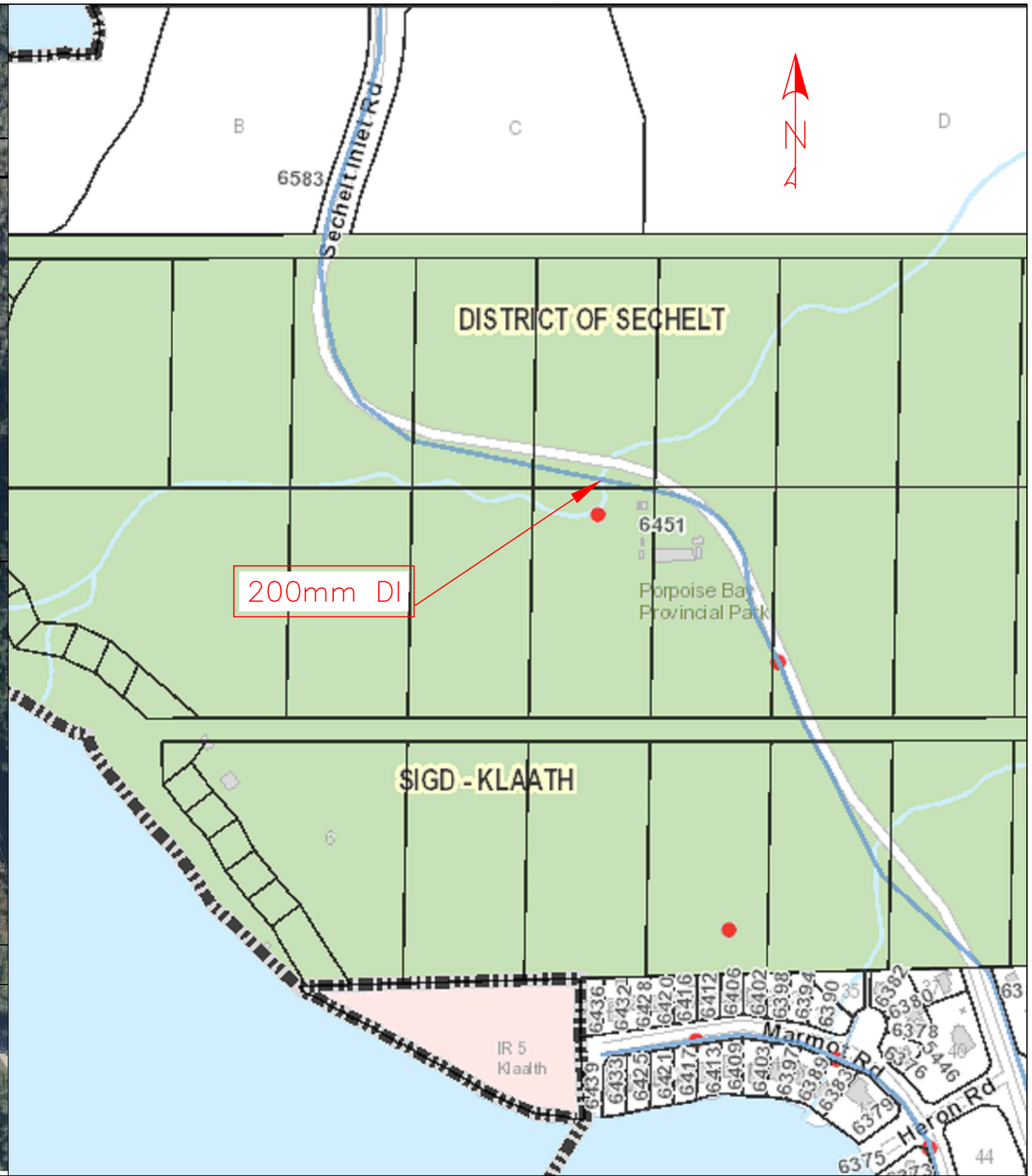
DESIGNED BY:	TR
DRAWN BY:	SW
CHECKED BY:	SM
APPROVED BY:	SM
SCALE	AS SHOWN
PLOT DATE:	2021-04-13

EXPOSED WATER MAINS REHABILITATION

DRAWING :
REQUIRED WORK ITEM 2,3 & 4. CHAPMAN CREEK CROSSING

SEAL
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
S. T. MISIURAK
50703
2021-04-13

WORK ORDER NO.	WO106424
DRAWING NO:	C-02
SHEET NO :	04 OF 07



REVISIONS	
REVISION : 0 (AT INITIAL TENDER STAGE)	2020-09-02
REVISION : 1 (APPROVED FOR CONSTRUCTION)	2021-04-13

SUNSHINE COAST REGIONAL DISTRICT
PUBLIC WATER WORKS

1975 Field Road
Sechelt, BC V0N 3A1
Ph: 604-885-6800 1-800-687-5753 Fax: 604-885-7909

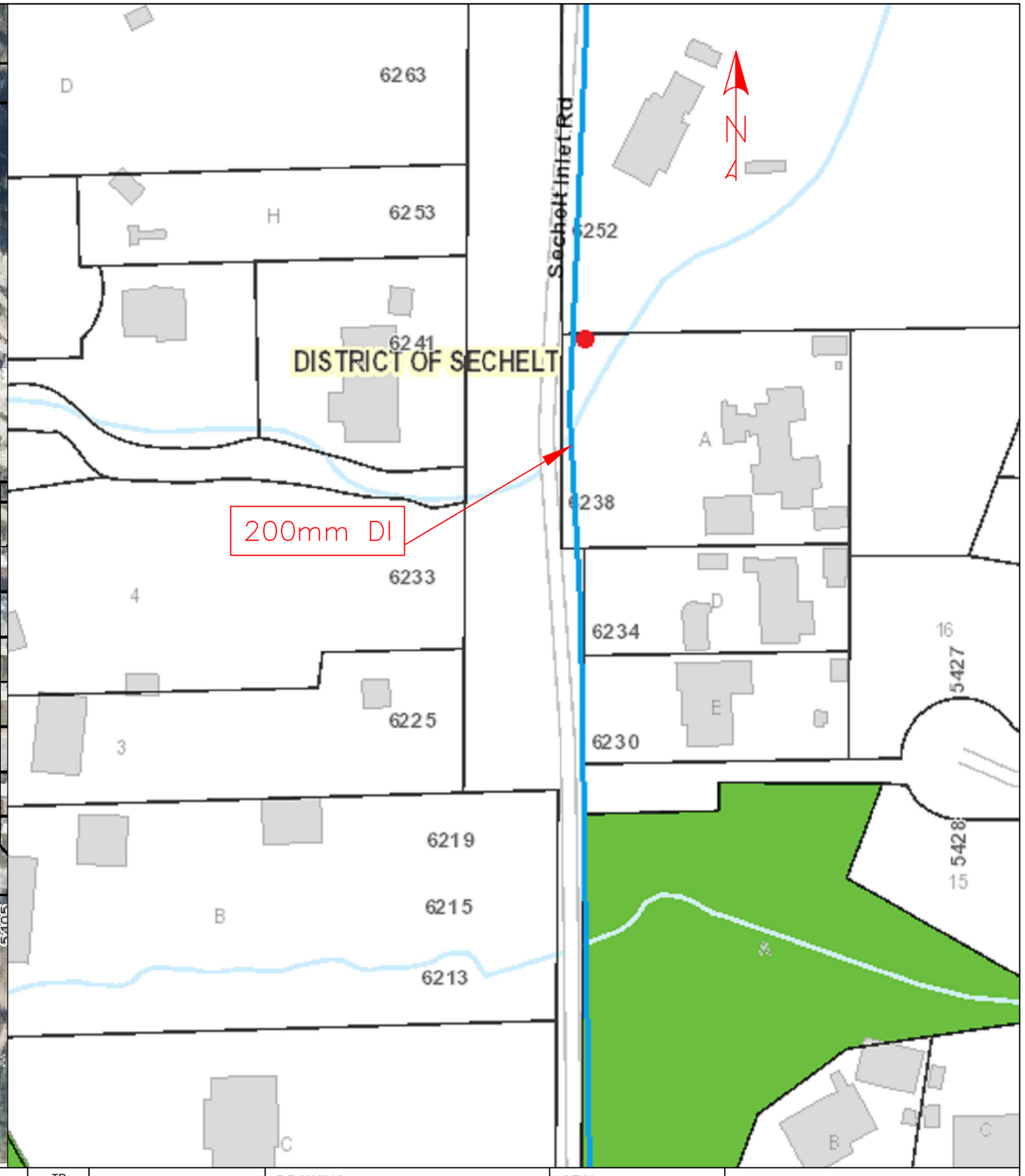
DESIGNED BY:	TR
DRAWN BY:	SW
CHECKED BY:	SM
APPROVED BY:	SM
SCALE	AS SHOWN
PLOT DATE:	2021-04-13

EXPOSED WATER MAINS REHABILITATION

DRAWING :
REQUIRED WORK ITEM 5.
ANGUS CREEK BRIDGE
CROSSING APPROX. 18 m
200 STEEL PIPE

SEAL
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
S. T. MISIURAK
50703
2021-04-13

WORK ORDER NO.	WO106424
DRAWING NO:	C-03
SHEET NO :	05 OF 07



REVISIONS	
REVISION : 0 (AT INITIAL TENDER STAGE)	2020-09-02
REVISION : 1 (APPROVED FOR CONSTRUCTION)	2021-04-13

SUNSHINE COAST REGIONAL DISTRICT
PUBLIC WATER WORKS

1975 Field Road
Sechelt, BC V0N 3A1
Ph: 604-885-6800 1-800-687-5753 Fax: 604-885-7909

DESIGNED BY:	TR
DRAWN BY:	SW
CHECKED BY:	SM
APPROVED BY:	SM
SCALE	AS SHOWN
PLOT DATE:	2021-04-13

EXPOSED WATER MAINS REHABILITATION

DRAWING :

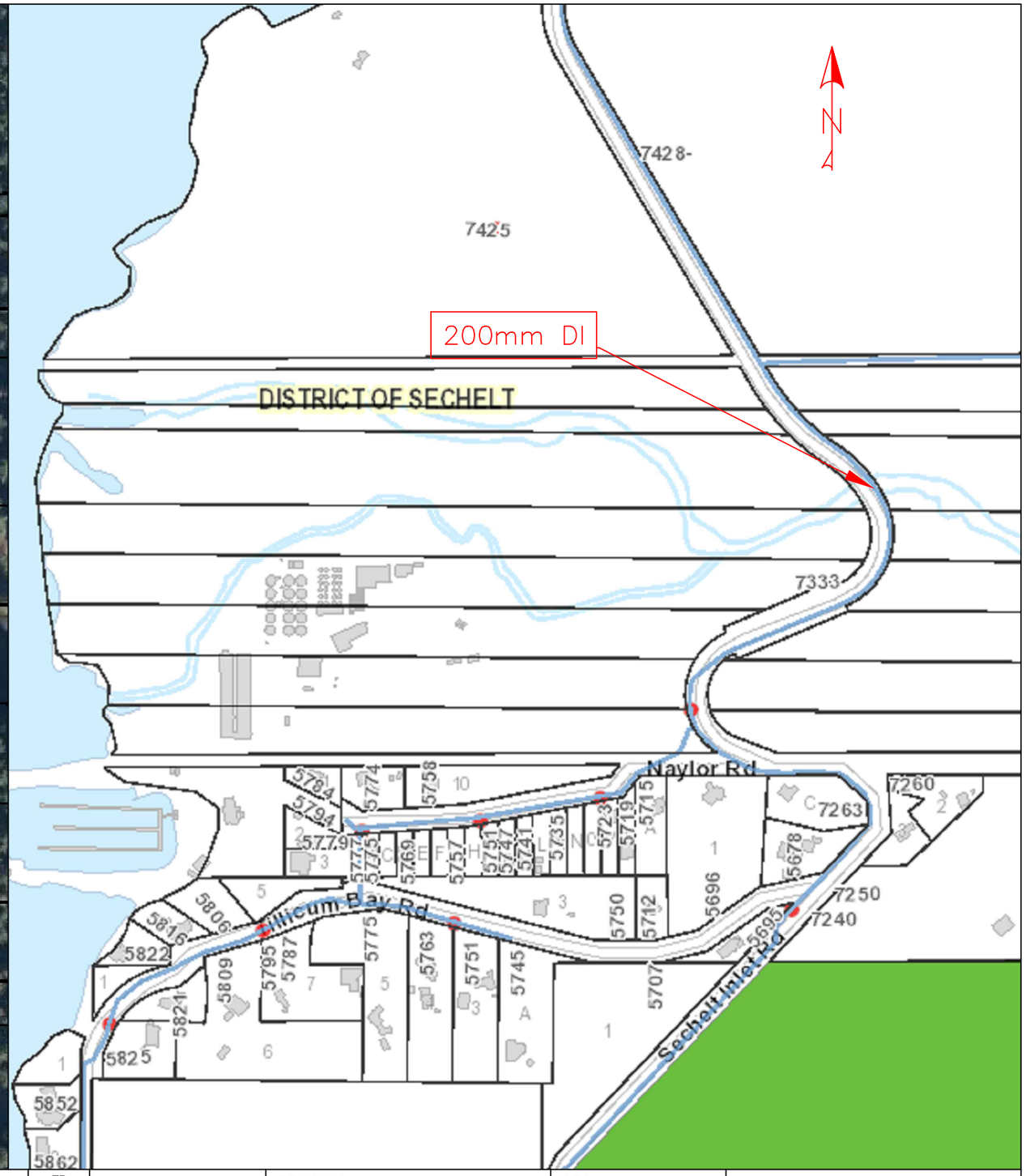
REQUIRED WORK ITEM 6.
BURNETT CREEK
CROSSING APPROX. 13 m
200 STEEL PIPE

SEAL

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
S. T. MISIURAK
50703

2021-04-13

WORK ORDER NO.	WO106424
DRAWING NO:	C-04
SHEET NO :	06 OF 07



REVISIONS	
REVISION : 0 (AT INITIAL TENDER STAGE)	2020-09-02
REVISION : 1 (APPROVED FOR CONSTRUCTION)	2021-04-13

SUNSHINE COAST REGIONAL DISTRICT
PUBLIC WATER WORKS

1975 Field Road
Sechelt, BC V0N 3A1
Ph: 604-885-6800 1-800-687-5753 Fax: 604-885-7909

DESIGNED BY:	TR
DRAWN BY:	SW
CHECKED BY:	SM
APPROVED BY:	SM
SCALE	AS SHOWN
PLOT DATE:	2021-04-13

EXPOSED WATER MAINS REHABILITATION

DRAWING :

OPTIONAL WORK ITEM 7.
GRAY CREEK BRIDGE
CROSSING APPROX. 18 m
200 STEEL PIPE

SEAL

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
S. T. MISIURAK
50703

2021-04-13

WORK ORDER NO.	WO106424
DRAWING NO:	C-05
SHEET NO :	07 OF 07

Appendix 5 2023 Drone Survey Pictures

Location #3 (reference to Location Maps) : Chapman Creek Trestle #1

Location #2 (reference to Location Maps) : Chapman Creek Trestle #1

Location #4 (reference to Location Maps) : Chapman Creek Trestle #2, also known as the Intake

Appendix 6 CCDC 18 Sample Contract

(Attached as a separate document)