



City of Coquitlam

Contract Documents 94722

Fawcett Sanitary and Brunette Storm Main Replacements



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Contract No. 94722

Fawcett Sanitary and Brunette Storm Main Replacements

Project Construction Documents

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- i) (available in the “MMCD – General Conditions, Specifications and Standard Detail Drawings”)
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Invitation to Tender



INVITATION TO TENDER

DATE OF ISSUE: **November 21, 2025**

We acknowledge with gratitude and respect that the name Coquitlam was derived from the hən̓q̓əmi̓n̓əm̓ word kʷikwə́łəm̓ (kwee-kwuh-tlum) meaning "Red Fish Up the River". The City is honoured to be located on the kʷikwə́łəm̓ (Kwikwetlem) traditional and ancestral lands, including those parts that were historically shared with the s̓q̓əcíyaʔ təməxʷ (Katzie), and other Coast Salish Peoples.

Tender No. 94722

Fawcett Sanitary and Brunette Storm Main Replacements

The City of Coquitlam invites tenders for **Contract 94722 - Fawcett Sanitary and Brunette Storm Main Replacements**, generally consisting of the following, but not limited to:

- 300mm sanitary main: 460 linear meters
- 250mm sanitary main: 160 linear meters
- 200mm sanitary service: 150 linear meters
- 100mm sanitary force main: 130 linear meters
- 450mm storm main: 21 linear meters
- 75mm sanitary forcemain services: 3 each
- 1050 manholes: 7 each
- 1050 overbuild manhole: 1 each
- 1200mm manhole: 1 each
- Catch basin: 1 each
- Other miscellaneous works contained in in the Contract Documents

Tender Documents and Drawings are available for downloading from the City of Coquitlam website: www.coquitlam.ca/BidOpportunities

Printing of Tender documents and drawings is the sole responsibility of the Tenderers.

Tenders submitted must be accompanied by a copy of the original specified 10% Bid Bond and will be received:

On or Before 2:00 pm local time
December 12th, 2025
 ("Closing Date and Time")

Addenda

Tenderers are required to check the City's website for any updated information, issued before the Closing Date at: www.coquitlam.ca/BidOpportunities. Where in its sole discretion it considers it to be necessary or desirable, the City may issue Addenda to amend any portion of the Contract Documents.

Any changes to the Tender documentation will be issued by means of written Addenda and posted on the City's website and will form part of the Tender. No amendment of any kind to the Tender is effective unless it is posted in a formal written Addendum on the City website. Upon submitting a Tender, Tenderers will be deemed to have received notice of all Addenda that are posted on the City's website and deemed to have considered the information for inclusion in the Tender submitted.

The City does not retain a bidder's list or bidder's registry. Tenderers are encouraged to register as plan takers and may view the Tender Documents and Drawings by contacting the Vancouver Regional Construction Association (VRCA), website: www.my.vrca.ca, ph: 604-294-3766, or email at vrca@vrca.ca, quoting the Coquitlam Tender Reference Number.

Should there be any discrepancy in the documentation provided, the City's original file copy shall prevail.

Tenders shall remain open for acceptance for 60 days following the submission Closing Date.

The City reserves the right to accept or reject any or all Tenders and the lowest or any Tender may not necessarily be accepted. The City also reserves the right to cancel any request for Tender at any time without recourse by the Tenderer.

The City, prior to award of any Tender, may negotiate with the Tenderer presenting the lowest price compliant Tender, for changes in the Work, materials, specifications or

conditions without having any duty or obligation to advise any other Tenderers or to allow them to modify their Tenders, and the City will have no liability to any Tenderer as a result of such negotiations or modifications.

The City will not be responsible for any costs incurred by the Tenderer in preparing the Tender.

Procurement of goods and services is conducted in accordance with Chapter 5 of the Canadian Free Trade Agreement (CFTA) and the New West Partnership Trade Agreement (NWPTA).

M. Pain
Manager Procurement

Instructions to Tenderers

Tender 94722

Fawcett Sanitary and Brunette Strom Main Replacements

INSTRUCTIONS TO TENDERERS

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INSTRUCTIONS TO TENDERERS

(FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.)

The City of Coquitlam

Contract: **Fawcett Sanitary and Brunette Storm Main Replacements**

Reference No. **94722**

- | | | |
|------------|-------------------------|---|
| 1.0 | Introduction | <p>1.1 These Instructions apply to and govern the preparation of tenders for this <i>Contract</i>. The <i>Contract</i> is generally for the following work:</p> <ul style="list-style-type: none">• 300mm sanitary main: 460 linear meters• 250mm sanitary main: 160 linear meters• 200mm sanitary service: 150 linear meters• 100mm sanitary force main: 130 linear meters• 450mm storm main: 21 linear meters• 75mm sanitary forcemain services: 3 each• 1050 manholes: 7 each• 1050 overbuild manhole: 1 each• 1200mm manhole: 1 each• Catch basin: 1 each• Other miscellaneous works contained in in the Contract Documents <p>1.2 All inquiries regarding this Tender are to be submitted in writing referencing the Tender Name and Number sent to:</p> <p>E-mail bid@coquitlam.ca</p> <p>The deadline for inquiries is 2:00 PM local time, Tuesday, December 9, 2025.</p> <p>INQUIRIES RECEIVED AFTER THIS DATE AND TIME MAY NOT RECEIVE A RESPONSE.</p> |
| 2.0 | Tender Documents | <p>2.1 The Tender Documents which a Tenderer should review to prepare a Tender consist of all of the <i>Contract Documents</i> listed in Schedule 1 entitled "Schedule of Contract Documents". Schedule 1 is attached to the Agreement which is included as part of the Tender Package. The <i>Contract Documents</i> include the drawings listed in Schedule 2 to the Agreement, entitled "List of Contract Drawings".</p> <p>2.2 <u>A portion of the Contract Documents are included by reference. Copies of these documents have not been included with the tender package.</u> These documents are the General Conditions, Specifications and Standard Detail Drawings. They are those</p> |

contained in the publication entitled "Master Municipal Construction Documents - General Conditions, Specifications and Standard Detail Drawings". Refer to Schedule 1 to the Agreement or, if not specified in Schedule 1, then the applicable edition shall be the most recent edition as of the date of the *Tender Closing Date*. All sections of this publication are by reference included in the Contract Documents.

- 2.3 Any additional information made available to Tenderers prior to the Tender Closing Time by the Owner or representative of the Owner, such as geotechnical reports or as-built plans, which is not expressly included in Schedule 1 or Schedule 2 to the Agreement, is not included in the Contract Documents. Such additional information is made available only for the assistance of Tenderers who must make their own judgments about its reliability, accuracy, completeness and relevance to the *Contract*, and neither the Owner nor any representative of the Owner gives any guarantee or representation that the additional information is reliable, accurate, complete or relevant.

**3.0 Submission of
Tenders**

- 3.1 Tenders must be submitted on the Tender Form provided, accompanied by a copy of the original 10% Bid Bond quoting the Tender Name and Number, and be uploaded to the City's file transfer website.

Tenders must be received on or before:

***Tender Closing Time:* 2:00 p.m. local time**

***Tender Closing Date:* December 12 2025**

For the purpose of the Tender submission, digital copies of original documents and signatures sent electronically are accepted. Original documents are required upon request by the City.

**Instructions
for Tender
Submission**

- 3.2 **Tender submissions are to be consolidated into one (1) PDF file and uploaded electronically through QFile, the City's file transfer service accessed at website:**

<http://qfile.coquitlam.ca/bid>

- 1. In the "Subject Field" enter: Tender Number and Name**
- 2. Add consolidated Tender file in PDF format and Appendix 1 in XLS format, and Send** (ensure your web browser remains open until you receive 2 emails from Qfile to confirm upload is complete and was sent to email: bid@coquitlam.ca)

Tenderers are responsible to allow for ample time to complete the submission process. For assistance, phone 604-927-3037.

3.3 Tenders submitted shall be deemed to be received when displayed as a new email in the in-box of the above email address. The City will not be responsible for any delay or for any Tenders not received for any reason, including technological delays or issues by either party's network or email program, and the City will not be liable for any damages associated with Tenders not received.

3.4 The City reserves the right to accept late Tenders to allow for technological delays. The City also reserves the right to accept Tenders by email: bid@coquitlam.ca.

BIDS RECEIVED IN-PERSON, BY COURIER, OR BY FAX WILL NOT BE ACCEPTED.

3.5 Tenders will not be opened in public. The unevaluated results will be forwarded to participants by email.

3.6 Tender submissions are subject to the Freedom of Information and Protection of Privacy Act and contents may be disclosed if required to do so, pursuant to the Act.

**4.0 Additional
Instructions to
Tenderers**

4.1 Additional Instructions to Tenderers

- Brunette storm drain must be constructed first.
- Businesses must be contacted directly by the contractor 1 week in advance of construction if their driveways or frontage parking access will be impacted by construction. Contract shall present to them TMPs and alternate access routes.
- Contractor will be working in close proximity to the Trans Mountain Pipeline and must follow their best practices. Proximity Permit has been applied for.
- The intersection of Fawcett and United is an interface between Coquitlam and Provincial MOTT jurisdiction. MOTT must be notified well in advance of construction and MOTT permits must applied for if any signage or lane closure is placed in their jurisdiction.

**Obtaining
Documents**

4.2 The following documents which are referred to and form part of the Contract Document package may be obtained as follows:

- Copies of the Master Municipal Construction Documents Volume II (2009), General Conditions, Specifications and Standard Detail Drawings are available separately from:

Support Services Unlimited
Suite 102
211 Columbia Street
Vancouver, B.C. V6A 2R5
Tel: 604-681-0295
Fax: 604-305-0424

- Copies of the City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2009 Edition are available for viewing and downloading off the City of Coquitlam website: [Supplementary Specifications and Detailed Drawings to MMCD](#)

Test Excavations	4.3	Prior to the excavation of test holes on road allowances or privately owned property the Tenderer shall obtain permission from the Municipality or Owner of the property and comply with their requirements for restoration of disturbed surfaces and utilities. Failure to comply with Municipal by-laws restricting this practice may result in prosecution of the offending party.
Business License	4.4	The successful Tenderer shall provide evidence of a City of Coquitlam Business License or Tri-Cities Inter-Municipal Business License prior to commencement of work or supply of materials. For more information, contact Business License Division Ph: 604-927-3085 or apply online at website: City of Coquitlam Business License
No Claim	4.5	Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, as a result of participating in this Tender, including accepting a non-compliant bid and by submitting a Tender, each Tenderer shall be deemed to have agreed that it has no claim.
No Cost	4.6	The City will not under any circumstances be responsible for any costs incurred by the Tenderer in preparing the Tender.
Right to Accept or Reject any Tender	4.7	The City reserves the right to accept or reject any or all Tenders and the lowest or any Tender may not necessarily be accepted. In its sole discretion, the City may reject or retain for its consideration, tenders which are nonconforming because they do not contain the content or form required by the instructions to tenderers or for failure to comply with the process for submission set out in these instructions to tenderers. The City specifically reserves the right to reject all Tenders if none is considered to be satisfactory and, in that event, at its option, to call for additional Tenders.
Negotiation	4.8	The City, prior to award of any Tender, may negotiate with the Tenderer presenting the lowest price compliant Tender, for changes in the Work, materials, specifications or conditions without having any duty or obligation to advise any other Tenderers or to allow them to modify their Tenders, and the City will have no liability to any Tenderer as a result of such negotiations or modifications.
Cancellation of Tender	4.9	The City reserves the right to cancel any request for Tender at any time without recourse by the Tenderer. The City has the right to not award this work for any reason including choosing to complete the work with the City's own forces.

5.0	Conflict of Interest	4.10	Tenderers shall disclose any actual or potential conflicts of interest and existing business relationships it may have with the City, their elected or appointed officials or employees.
	Collusion	4.11	Tenderers will not discuss or communicate with one another in regards to the preparation of their Tenders. Each Tenderer will ensure that its participation in the Tender process and that of its team members is conducted without collusion or fraud. Failure to comply with this requirement may lead to disqualification without further notice or warning.
	Instruction to Tenderers – Part II	4.12	Delete Instructions to Tenderers – Part II Contained in the Edition of the Publication “Master Municipal Construction Documents 2009” and replace with the following:
	Tender Requirements	5.1	A tender should be on the Form of Tender as provided and be signed by the authorized signatory(s) as follows: 5.1.1 if the tenderer is a partnership or joint venture then the name of the partnership or joint venturer should be included, and each partner or joint venturer should sign personally; if a partner of joint venture is a corporation then such corporation should sign as indicated in paragraph 5.1.3 below; and 5.1.2 if the tenderer is a corporation then the full name of the corporation should be included, together with the names and signatures of authorized signatories. 5.1.3 For the purpose of the Tender submission, digital copies of original documents and electronic signatures are accepted. Original documents are required upon request by the City.
		5.2	A tender must be accompanied by tender security (“ <i>Bid Security</i> ”) in the form of: 5.2.1 a copy (digital or Electronic copy is acceptable) of the original bid bond in an amount equal to 10% of the Tender Price, issued by a surety licensed to carry on the business of suretyship in British Columbia in a form reasonably satisfactory to the <i>Owner</i>;
		5.3	Tenderer should be competent and capable of performing the various items of work. Tenderer shall complete the following statement sheets appended to the Form of Tender: 5.3.1 Appendix 1 – the Schedule of Quantities and Prices; 5.3.2 Appendix 2 – a “<i>Preliminary Construction Schedule</i>”, generally in the form attached as Appendix 2 to the Form of Tender, and showing <i>Substantial</i>

Performance by the date or within the duration, shown in paragraph 2.2 of the Form of Tender.

- 5.3.3 Appendix 3 – name and brief description of the previous experience of the *Superintendent* the tenderer will use for the *Work*;
- 5.3.4 Appendix 4 – a list of previous comparable work, including a brief description of that work, approximate contract value, and references (with phone numbers);
- 5.3.5 Appendix 5 – a complete list of all subcontractors, if any, that the tenderer will use for the *Work* including full names.; and

Appendix 7 – is provided for information only, to indicate the Contract Insurance is to be submitted by the successful Tenderer upon Notice of Award.

**6.0 Qualifications,
Modifications,
Alternative
Tenders**

- 5.4 The successful tenderer will, within 15 *Days* of receipt of the written *Notice of Award*, be required to deliver to the *Owner* the items listed in FT 5.1.1, including a Performance Bond and a Labour and Material Payment Bond as described in FT 5.1.1(a), failing which the provisions of FT 6.1 will apply.
- 6.1 Tenders which contain qualifications, or omissions, so as to make comparison which other tenders difficult, may be rejected by the *Owner*.
- 6.2 A tenderer may, at the tenderer's election, submit an alternative tender ("*Alternative Tender*") which varies the materials, products, designs or equipment by the *Owner as Approved Equals* as the case may be, but an *Alternative Tender* must be in addition to, and not in substitution for a tender which conforms to the requirements of the *Contract Documents*.
- 6.3 The only *Alternative Tender* that the *Owner* may accept is an *Alternative Tender* submitted by that tenderer whose conforming tender, submitted as required by paragraph 6.2 of these Instructions to Tenderers, would have been accepted by the *Owners* in the preference to other conforming tenders, if no *Alternative Tenders* had been invited.

**7.0 Approved
Equals**

- 7.1 Prior to the *Tender Closing Time and Date*, a tenderer may request the *Owner* to approve materials, products, or equipment ("*Approved Equal*") to be included in a tender in substitution for items indicated in the Contract Documents.
- 7.2 Applications for an *Approved Equal* must be in writing, and supported by appropriate supporting information, data, specifications, and documentation.

- 7.3 If the *Owner* decides in its discretion to accept an *Approved Equal*, then the *Owner* will issue an addendum to all tenderers.
- 7.4 The *Owner* is not obligated to review or accept an application for an *Approved Equal*.
- 8.0 Inspection of the Place of the Work**
- 8.1 All tenderers, either personally or through a representative, are responsible to examine the *Place of the Work* before submitting a tender. A tenderer has full responsibility to be familiar with and make allowance in the tender for all conditions at the *Place of the Work* that might affect the tender, including any information regarding subsurface soil conditions made available by the *Owner*, the location of the *Work*, local conditions, topographical soil conditions, weather and access. Unless otherwise specified in the *Contract Documents*, a tenderer is not required to do subsurface investigations. By submitting a tender, a tenderer represents that the tenderer has examined the *Place of the Work*, or specifically elected not to. No additional payments or time extensions shall be claimable or due because of difficulties relating to conditions at the *Place of the Work* which were reasonably foreseeable by a contractor qualified to undertake the *Work*.
- 8.2 Tenderers are referred to GC 11.2.1 regarding **Concealed or Unknown Conditions**.
- 9.0 Interpretation of Contract Documents**
- 9.1 If a tenderer is in doubt as to the correct meaning of any provision of the *Contract Documents*, the tenderer may request clarification as instructed in paragraph 1.2 of the Instructions to Tenderers.
- 9.2 If a tenderer discovers any contradictions or inconsistencies in the *Contract Documents* or its provisions, or any discrepancies between a provision of the *Contract Documents* and conditions at the *Place of the Work as* observed in an examination under paragraph 8 of the person named in paragraph 1.2 of the Instructions to Tenderers.
- 9.3 If the *Owner* considers it necessary, the *Owner* may issue written addenda to provide clarification (s) of the *Contract Documents*.
- 9.4 No oral interpretation or representations from the *Owner* or any representative of the *Owner* will affect, alter, or amend any provision of the *Contract Documents*.
- 10.0 Prices**
- 10.1 The Tendered Price will represent the entire cost excluding *GST* to the *Owner* of the complete *Work* based on the estimated quantities in the *Schedule of Quantities and Prices* of the Form of Tender. Notwithstanding the generalities of the above, tenderers shall include in the tendered prices (including unit prices, lump sum prices, or other forms of pricing) sufficient amounts to cover:
- 10.1.1 the costs of all labour, equipment and material included in or required for the *Work*, including all items which, whole not specifically listed in the *Schedule of Quantities and Prices*, are included in the

Work specifically or by necessary inference from the *Contract Documents*;

10.1.2 all assessments payable with respect to labour as required by any statutory scheme such as unemployment insurance, holiday pay, insurance, CPP and all employee benefits and the Workers Compensation Act;

10.1.3 all overhead costs, including head office and on-site overhead costs, and all amounts for the *Contractor's* profit.

10.2 The tendered prices and all subcontracts must allow for compliance with all applicable laws regarding trade or other qualifications of employees performing the *Work*, and payment of appropriate wages for labour included in or required for the *Work*.

11.0 Taxes

11.1 The tendered prices shall cover all taxes and assessments of any kind payable with respect to the *Work*, but shall not include *GST*. *GST* shall be listed as a separate line item as required by GC 19.3.

12.0 Amendment of Tenders

12.1 A tenderer may amend or revoke a tender by giving written notice, delivered by Email, to the office referred to in paragraph 3.4 of the Instructions to Tenderers at any time up until the *Tender Closing Date and Time*. An amendment or revocation that is received after the *Tender Closing Date and Time* shall not be considered and shall not affect a tender as submitted.

12.2 An amendment or revocation must be signed by an authorized signatory of the tenderer in the same manner as provided by paragraph 5.1 of these Instructions to Tenderers.

12.3 Any amendment that expressly or by inference discloses the tenderer's *Tender Price* or other material element of the tender such that, in the opinion of the *Owner*, the confidentiality of the tender is breached, will invalidate the entire tender.

12.4 An acceptable form of a tender amendment which tenderers may, but are not required to, use is as follows:

"Contract:

(TITLE OF CONTRACT)

Reference No.

(OWNER'S CONTRACT REFERENCE NO.)

TO:

(NAME OF OWNER)

We the undersigned wish to amend our tender which we submitted for the above *Contract* by deleting the following tendered prices or items from our tender:

(TENDERED PRICES AND/OR TENDER ITEMS IN THE TENDER THAT ARE TO BE AMENDED)

and substituting the following revised tendered prices or items:

(REVISED TENDERED PRICES OR TENDER ITEMS)

The extensions in our tender should be adjusted accordingly, and our ***Tender Price*** as set out in Appendix 1 of our submitted **Form of Tender**, and on the ***Schedule of Quantities and Prices***, increased / decreased by \$_____, excluding GST. We have not included our revised ***Tender Price*** in order to preserve the confidentiality of our tender.

Signed and delivered the ___ day of _____, 20__."

**13.0 Duration of
 Tenders**

13.1 After the *Tender Closing Time*, a tender shall remain valid and irrevocable as set out in paragraph 5.1 of the Form of Tender.

**14.0 Qualifications
 of Tenderers**

14.1 By submitting a tender, a tenderer is representing that it has the competence, qualifications and relevant experience required to do the *Work*.

15.0 Award

15.1 In exercising its discretion, the *Owner* will have regard to the information provided in the Appendices to the Form of Tender as described under IT 5.3 including the proven experience of the tenderer, and any listed subcontractors, to do the *Work*.

Tenders received will be evaluated to provide the City with greatest value based on quality, service, price and experience. Evaluation Criteria will include but is not limited to:

1. Ability to meet specifications and required completion date
2. Contractor's past experience, references, reputation and compliance to specifications
3. Demonstrated successful experience on similar projects and specific equipment installation
4. Price: purchase price, maintenance costs, availability of parts and service, warranty and compatibility with existing equipment and/or conditions

5. Any other criteria, the City deems, at its sole discretion, necessary to evaluate Tenders;
6. Lowest price will not necessarily be accepted.

The City may, in its absolute discretion, not award to a Tenderer if the Tenderer, or any officer or director of a corporate Tenderer, is or has been engaged, either directly or indirectly through another corporation or legal entity, in a legal action against the City and its elected and appointed officers and employees or any of them in relation to:

- a) any other contract or services; or
- b) any matter arising from the City's exercise of its powers, duties or functions under the *Local Government Act*, the *Community Charter* or any other enactments; within five years of this Tender Offer.

For purposes of this section, the words "legal action" includes, without limitation, mediation, arbitration, hearing before an administrative tribunal or lawsuit filed in any court.

Without limiting the City's sole discretion, in determining whether or not to award to a Tenderer pursuant to this clause, the City will consider such factors as whether the legal action is likely to affect the Tenderer's ability to work with the City and its employees, agents, consultants and representatives or any of them and whether the City's past experience with the Tenderer in the matter that resulted in the legal action indicates that the City is likely to incur increased staff and legal costs or either of them in the administration of this contract if it is awarded to the Tenderer.

In the event that the lowest total Tender Price by two or more Tenderers is the same amount, the City will select a Tenderer with an overall satisfactory performance record in having completed work on previous relevant projects that are provided as references, and on City projects. Information obtained from references will not be disclosed or discussed with any Tenderer. If all references are equal, selection will be determined by a coin toss in a manner to be directed by the City.

Where only one Tender is received the City may reject such and re-tender on a selected basis.

- 15.2 The *Owner* will notify the successful tenderer in writing.
- 15.3 If there are any discrepancies in the *Schedule of Quantities and Prices* between the unit prices and the extended totals then the unit prices shall be deemed correct, and corresponding corrections shall be made to the extended totals. If a unit price or extended total has been omitted, the following shall apply:

- a) If a unit price is given but the corresponding extended total has been omitted, then the extended total shall be calculated from unit price and the estimated quantity, and inserted as the extended total;
- b) If an extended total is given but the corresponding unit price has been omitted, then the unit price shall be calculated from the extended total and estimated quantity, and inserted as the unit price;
- c) If both the unit price and the corresponding extended total for a tender item have been omitted, then the following test shall be applied to determine whether the tender shall be rejected as incomplete:
 - (i) the highest of the unit prices tendered by other tenderers for that tender item shall be used as the test unit price, and the corresponding test extended total shall be calculated from the test unit price and the estimated quantity;
 - (ii) if the test extended total for the tender item exceeds 1% of the revised total *Tender Price*, including the test extended total, or if the revised total *Tender Price*, including the test extended total, alters the ranking of the tenderers according to the lowest *Tender Price*, then the omitted unit price for that tender item is deemed to materially affect the *Tender Price* relative to other tenders and the tender shall be rejected;
 - (iii) if the tender is not rejected under subparagraph (ii) of this IT 15.3 (c), then the unit price and the extended total for that tender item shall both be deemed to be, and the costs for that tender item shall be zero deemed to be included in other tender items prices;
- d) In no event shall page totals in the *Schedule of Quantities and Prices* or the total *Tender Price* be used to calculate missing extended totals or unit prices.

16.0 Subcontractors

16.1

The *Owner* reserves the right to object to any of the subcontractors listed in a tender. If the *Owner* objects to any of the subcontractor(s) then the *Owner* will permit a tenderer to, within 5 days, propose a substitute subcontractor(s) acceptable to the *Owner* provided that there is not resulting adjustment in the *Tender Price* or the completion date set out in paragraph 2.2 of the Form of Tender. A tenderer will not be required to make such substitution and, if the *Owner* objects to a listed *Subcontractor(s)*, the tenderer may, rather than propose a substitute subcontractor(s), consider its

tender rejected by the *Owner* and by written notice withdraw it tender. The *Owner* shall, in the event, return the tenderer's bid security

17.0 Optional Work

- 17.1 If the *Schedule of Quantities and Prices* includes any tender prices for *Optional or Provisional Work*, as defined in GC 7.4.1, the tenderers must complete all the unit prices for such *Optional or Provisional Work*. Such tender prices shall not include any general overhead costs, or other costs, or profit, not directly related to the *Optional or Provisional Work*.
- 17.2 Notwithstanding that the *Owner* may elect not to proceed with the *Optional or Provisional Work*, the tender prices for any *Optional or Provisional Work*, including the extended totals for *Optional or Provisional Work* unit prices, shall be included in the *Tender Price* for the purpose of any price comparisons between tenders.

Form of Tender



Form of Tender

Tender No. 94722

Fawcett Sanitary and Brunette Storm Main Replacements

Summary

Name of **Contractor**:

Tender Price (exclude GST): \$

(FROM APPENDIX 1 OF FORM OF TENDER)

Tender submitted must be accompanied by a copy of the original 10% Bid Bond and will be received

**On or before 2:00 pm (local time)
Friday, December 12th, 2025**

Instructions for Tender Submission

Tender submissions are to be consolidated into one (1) .pdf file and uploaded electronically through QFile, the City's file transfer service accessed at website: qfile.coquitlam.ca/bid

- 1. In the "Subject Field" enter: Tender Number and Name**
- 2. Add consolidated Tender file in PDF format, and Appendix 1 in XLS format, and Send**
(ensure your web browser remains open until you receive 2 emails from Qfile to confirm upload is complete and was sent to the correct email address: bid@coquitlam.ca)

Tenderers are responsible to allow ample time to complete the Tender submission process. If assistance is required, phone 604-927-3037.

December 2025

THE CITY OF COQUITLAM
3000 Guildford Way
Coquitlam, B.C. V3B 7N2

(FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS
AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.)

Contract Name: Fawcett Sanitary and Brunette Storm Main Replacements

Reference No.: 94722

TO OWNER:

1 WE, THE UNDERSIGNED:

- 1.1 have received and carefully reviewed all of the *Contract Documents*, including the Instructions to Tenderers, the City of Coquitlam Supplementary General Conditions, the City of Coquitlam Supplementary Contract Specifications, the specified edition of the "Master Municipal Construction Documents – General Conditions, Specifications and Standard Detail Drawings" and the following Addenda:

_____;

(ADDENDA, IF ANY)

- 1.2 shall fully disclose any actual or potential conflicts of interest and existing business relationships we may have with the City, their elected or appointed officials or employees:

- 1.3 have full knowledge of the *Place of the Work*, and the *Work* required; and
1.4 have complied with the Instructions to Tenderers; and

2 ACCORDINGLY WE HEREBY OFFER:

- 2.1 to perform and complete all of the *Work* and to provide all the labour, equipment and material all as set out in the *Contract Documents*, in strict compliance with the *Contract Documents*; and
2.2 to achieve *Substantial Performance* of the *Work* on or before
Brunette Storm: **March 31, 2026**
Fawcett Sanitary: **June 30, 2026**
2.3 to do the *Work* for the price, which is the sum of the products of the actual quantities incorporated into the *Work* and the appropriate unit prices set out in Appendix 1, the "*Schedule of Quantities and Prices*", plus any lump sums or specific prices and adjustment amounts as provided by the *Contract Documents*. For the purposes of tender comparison, our offer is to complete the *Work* for the "*Tender Price*" as set out on Appendix 1 of this Form of Tender. Our *Tender Price* is based on the estimated quantities listed in the *Schedule of Quantities and Prices*, and excludes *GST*.

3 WE CONFIRM:

- 3.1 that we understand and agree that the quantities as listed in the *Schedule of Quantities and Prices* are estimated, and that the actual quantities will vary.
- 3.2 that we understand and agree that the owner is in no way obliged to accept this Tender.

4 WE CONFIRM:

- 4.1 that the following Appendices are attached to and form a part of this tender:
 - 4.1.1 the Appendices as required by paragraph 5.3 of the Instructions to Tenderers - Part II; and
 - 4.1.2 the *Bid Security* as required by paragraph 5.2 of the Instructions to Tenderers - Part II.
 - 4.1.3 the Certificate of Compliance on the form provided in Appendix 7 of this Form of Tender.

5 WE AGREE:

- 5.1 that this tender will be irrevocable and open for acceptance by the *Owner* for a period of **60** calendar days from the day following the *Tender Closing Date and Time*, even if the tender of another Tenderer is accepted by the *Owner*. If within this period the *Owner* delivers a written notice ("*Notice of Award*") by which the *Owner* accepts our tender we will:
 - 5.1.1 within **15 Days** of receipt of the written *Notice of Award* deliver to the *Owner*:
 - a) a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the *Contract Price*, issued by a surety licensed to carry on the business of suretyship in the province of British Columbia, and in a form acceptable to the *Owner*;
 - b) a "clearance letter" indicating that the Tenderer is in WCB compliance; and
 - c) a copy of the insurance policies as specified in SGC Section 24 indicating that all such insurance coverage is in place and;
 - d) a letter confirming the *Contractor* as "Prime Contractor" for the Contract as specified in SGC Section 21.2.1.
 - 5.1.2 within **2 Days** of receipt of written "*Notice to Proceed*", or such longer time as may be otherwise specified in the *Notice to Proceed*, commence the *Work*; and
 - 5.1.3 sign the Contract Documents as required by GC 2.1.

6 WE AGREE:

6.1 that, if we receive written *Notice of Award* of this *Contract* and, contrary to paragraph 5 of this Form of Tender, we:

6.1.1 fail or refuse to deliver the documents as specified by paragraph 5.1.1 of this Form of Tender; or

6.1.2 fail or refuse to commence the *Work* as required by the *Notice to Proceed*,

then such failure or refusal will be deemed to be a refusal by us to enter into the *Contract* and the *Owner* may, on written notice to us, award the *Contract* to another party. We further agree that, as full compensation on account of damages suffered by the *Owner* because of such failure or refusal, the *Bid Security* shall be forfeited to the *Owner*, in an amount equal to the lesser of:

6.1.3 the face value of the *Bid Security*; and

6.1.4 the amount by which our *Tender Price* is less than the amount for which the *Owner* contracts with another party to perform the *Work*.

7 OUR ADDRESS is as follows:

Phone: _____ - _____ - _____

Email: _____

Attention: _____

This Tender is executed this _____ day of _____, 20____.

Contractor:

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

8 WE CONFIRM:

8.1 our Goods and Services Tax (GST) registration status is as follows:

8.1.1 for information purposes, our GST Registration Number is:

(GST REGISTRATION NUMBER)

or;

8.1.2 by signature hereunder, we certify we are **not required** to provide a registration number:

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

APPENDIX 1 FORM OF TENDER Contract 94722 Fawcett Sanitary and Brunette Storm Main Replacements SCHEDULE OF QUANTITIES AND PRICES (see paragraph 5.3.1 of the Instruction to Tenderers) (All Tender and Contract Prices shall NOT include GST. GST will apply upon payment) (Should there be any discrepancy in the information provided, the City's original file copy shall prevail)						
ITEM NO.	MMCD REF. or (Supp. Specs)	DESCRIPTION	UNIT OF MEASURE	TOTAL QUANTITY	UNIT PRICE	AMOUNT
HARTLEY-FAWCETT SANITARY SEWER						
1.00	01 55 005	TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING				
1.01	(1.5.1)	Traffic Control and Management	Incidental to Contract			
2.00	01 57 015	ENVIRONMENTAL PROTECTION				
2.01	(1.6.1)	Environmental Protection	Incidental to Contract			
3.00	01 58 015	PROJECT IDENTIFICATION				
3.01	(1.3.1)	Construction Zone Information Signs	Each	4		
3.02	(1.3.2)	Changeable Message Sign (x2 United Blvd Only)	Month	1		
4.00	03 30 205	CONCRETE WALKS, CURBS AND GUTTERS				
4.01	(1.4.3)	Remove & Replace MMCD C5 Concrete Curb and Gutter	l.m.	16		
4.02	(1.4.5)	Remove & Replace Concrete Sidewalk - 100mm Thick – Broom Finish	sq.m	8		
4.03	(1.4.5)	Remove & Replace Concrete Driveway Crossings Including Flares - 190mm Thick	sq.m	9		
5.00	31 23 015	EXCAVATING, TRENCHING AND BACKFILLING				
5.01	(1.10.3)	Overexcavation - Includes replacement with 19mm minus crushed granular material and removal of unsuitable material including wood fill as identified on the Contract Drawings and in the geotech report (Provisional)	C.M.	425		
5.02	(1.10.9)	Imported Trench Backfill - 75mm Minus Pit Run Gravel (in Accordance to Clause 2.9 Pit Run Gravel in Section 31 05 17 – Aggregates and Granular Materials)	Tonne	2900		
5.03	(1.10.9)	Imported Trench Backfill - Vesicular Basalt (Red Pumice) Warpped in Nilex 4551 or approved Equivelent	Tonne	1300		
5.04	(1.10.12) / (1.10.13)	Pre-locate existing Trans Mountain oil pipeline by hydro excavation. (Provisional)	Allowance			\$5,000.00
5.05	(1.10.13)	Hydro excavate for service installation as directed by City paid Arborist (Provisional)	Allowance			\$5,000.00
6.00	32 01 16.75	COLD MILLING				
6.01	(1.5.1)	Surface Mill - 50mm	sq.m	2,330		
7.00	32 12 13.1	ASPHALT TACK COAT				
7.01	1.5.1	Asphalt Tack Coat - Emulsified Asphalt	sq.m	2,330		
8.00	32 12 165	HOT-MIX ASPHALT CONCRETE PAVING				
8.01	(1.5.1)	Hot Mix Asphalt - 50mm Surface Layer - MMCD Upper Course #1	tonne	300		

ITEM NO.	MMCD REF. or (Supp. Specs)	DESCRIPTION	UNIT OF MEASURE	TOTAL QUANTITY	UNIT PRICE	AMOUNT
9.00	32 17 235	PAINTED PAVEMENT MARKINGS				
9.01	(1.5.3)	Supply & Installation Thermoplastic Pavement Markings Where Removed.	Lump Sum	1		
10.00	33 30 015	SANITARY SEWERS				
10.01	(1.6.2)	300mm Diameter PVC SDR 35 Pipe includes Import Fill and Disposal of Native Material (0.00m to 2.99m deep, per trench detail-1)	Linear Meter	200		
10.02	(1.6.2)	300mm Diameter PVC SDR 35 Pipe includes Import Fill and Disposal of Native Material (3.00m to 6.00m deep, per trench detail-1)	Linear Meter	260		
10.03	(1.6.2)	250mm Diameter PVC SDR 35 Pipe includes Import Fill and Disposal of Native Material (0.00m to 3.5m deep, per trench detail-1)	Linear Meter	160		
10.04	(1.6.3)	200mm dia. PVC DR28 - Sanitary Service Connection per MMCD S7 (New) - Includes Long Radius Bends	Linear Meter	150		
10.05	(1.6.3)	Supply and Install MMCD S9 Inspection Chamber Inside Brooks Box and Tie-Into Private Side Service	Each	13		
10.06	(1.6.3)	Sanitary Service Tie-in at Main with factory Wye	Each	10		
10.07	(1.6.3)	Cap and Abandon Existing Sanitary Main 200mm Diameter Main	Each	2		
10.08	(1.6.7)	Sanitary Service Tie-in to manhole	Each	3		
11.00	33 34 015	SANITARY FORCE MAINS				
11.01	(1.8.2)	100mm diam PVC C900 at 0 to 3m depth - Sewage Forcemain (Petrolatum Tape on crossing - incidental)	Lin.m	130		
11.02	(1.8.2)	200mm diam PVC C900 at 0 to 3m depth - Sewage Forcemain (Petrolatum Tape on crossing - incidental)	Lin.m	5		
11.03	1.8.3	Sanitary Forcemain Flushout as per COQ-S19 including manhole, riser and gate valve - complete	Lump Sum	1		
11.04	1.8.3	Bend (45° Horizontal) - 200mm (includes joint restraints)	Each	2		
11.05	1.8.3	Bend (45° Vertical) - 100mm (includes joint restraints)	Each	2		
11.06	1.8.3	Bend (22.5° Horizontal) - 100mm (includes joint restraints)	Each	1		
11.07	1.8.5	Test points - complete (Provisional)	Lump Sum	1		
11.08	(1.8.10)	Forcemain Tie-in Proposed 200mm & Existing 200mm Forcemain	Each	1		
12.00	33 44 015	MANHOLES AND CATCHBASINS				
12.01	(1.5.1.1)	1050mm Manhole per Contract Drawings - complete	Each	7		
12.02	(1.5.1.1)	1050mm Overbuild Manhole per Contract Drawings - complete	Each	1		
12.03	(1.5.1.1)	1200mm Manhole per Contract Drawings - c/w Inside Drop - complete	Each	1		
12.04	1.5.1.2	1050mm Manhole Risers	Vertical Meter	20		
12.05	1.5.1.2	1200mm Manhole Risers	Vertical Meter	3		
12.06	(1.5.4)	Removal of existing sanitary manholes per Contract Drawings	Each	8		
13.00	34 41 13	TRAFFIC SIGNALS				

ITEM NO.	MMCD REF. or (Supp. Specs)	DESCRIPTION	UNIT OF MEASURE	TOTAL QUANTITY	UNIT PRICE	AMOUNT
13.01	1.9.2	Traffic Loops - Round - Remove and Re-instate per Coq SS-E8.2 & Coq SS-E8.4 (Provisional)	Each	2		
BRUNETTE AVE DRAINAGE MAIN REPLACEMENT						
14.00	01 55 00S	TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING				
14.01	(1.5.1)	Traffic Control and Management		Incidental to Contract		
15.00	01 57 01S	ENVIRONMENTAL PROTECTION				
15.01	(1.6.1)	ESC supply & installation, maintenance and removal		Incidental to Contract		
16.00	01 58 01S	PROJECT IDENTIFICATION				
16.01	(1.3.1)	1.2m x 1.2m Static Construction Zone Information Sign	each	2		
16.02	(1.3.2)	Changeable Message Sign (CMS) Board (x2 Boards)	Month	2		
17.00	03 30 20S	CONCRETE WALKS, CURBS AND GUTTERS				
17.01	(1.4.3)	Remove & Replace MMCD C5 Concrete Curb and Gutter	l.m.	2		
17.02	(1.4.3)	Remove & Replace Curb on Gravel Base (Coq-C6)	l.m.	8		
17.03	(1.4.5)	Remove & Replace Concrete Infill - 100mm - Broom Finish.	sq.m	3		
17.04	(1.4.5)	Remove & Replace Concrete Sidewalk - 100mm Thick – Saw Cut Finish	sq.m	5		
18.00	31 23 01S	EXCAVATING, TRENCHING AND BACKFILLING				
18.01	(1.10.3)	Overexcavation (Provisional)	cu.m	12		
18.02	(1.10.9)	Imported Trench Backfill (75mm Minus)	tonne	50		
18.03	(1.10.10)	Removal, Cleaning, and Reinstatement of Maillardville Village Bus Shelter & Bench	l.s.	1		
18.04	(1.10.11)	Removal and Replacement of Bollards and Cross Beams Behind Maillardville Bus Shelter.	l.s.	1		
19.00	32 14 01S	UNIT PAVING				
19.01	(1.6.1)	Remove, Retain, Restore Red Brick Shelter Pad	sq.m	10		
20.00	32 17 23S	PAINTED PAVEMENT MARKINGS				
20.01	(1.5.3)	Supply & Installation Thermoplastic Pavement Markings Where Removed.	Lump Sum	1		
21.00	33 40 01S	STORM SEWERS				
21.01	(1.6.2)	Storm Main PVC SDR35 - 450mm	l.m.	21		
21.02	(1.6.3)	Existing Service or Catchbasin Lead Tie-in / Transfer to New Storm Main	ea.	2		
21.03	(1.6.3)	New Storm Service Connection per MMCD S8	ea.	1		
21.04	(1.6.5)	Catch Basin Lead - 150mm DR35 PVC	l.m.	3		
21.05	(1.6.9)	Drainage Main Tie-in @ Ex. Manhole	ea.	2		
21.06	(1.6.12)	Asbestos Cement Concrete Cutting and Disposal of CB Lead at Tie-in (Provisional)	ea.	2		
22.00	33 44 01S	MANHOLES AND CATCHBASINS				
22.01	(1.5.1.1)	Remove and Replace Existing Manhole Frame and Cover	ea	2		
22.02	1.5.2	Top Inlet Catch Basin Installation - MMCD S11 - Complete	ea	1		
Project Totals = (Transfer the amount to Form of Tender Summary Page 1) Name of Contractor: _____						

APPENDIX 2

FORM OF TENDER

Contract 94722

Fawcett Sanitary and Brunette Storm Main Replacements

PRELIMINARY CONSTRUCTION SCHEDULE

(See paragraph 5.3.2 of the Instructions to Tenderers)

INDICATE SCHEDULE WITH BAR CHART WITH CONSTRUCTION DURATIONS

Construction Activity 2026	February				March				April				May				June			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Substantial Completion Date Brunette Storm: **March 31, 2026**

Substantial Completion Date Fawcett Sanitary: **June 30, 2026**

Proposed Disposal Site: _____

APPENDIX 3

FORM OF TENDER

Contract 94722

Fawcett Sanitary and Brunette Storm Main Replacements

EXPERIENCE OF SUPERINTENDENT

(See paragraph 5.3.3 of the Instructions to Tenderers)

Proposed Project Superintendent _____

List of Project Experience

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone No.:	

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone No.:	

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone No.:	

APPENDIX 4

FORM OF TENDER

Contract 94722

Fawcett Sanitary and Brunette Storm Main Replacements

CONTRACTOR'S COMPARABLE WORK EXPERIENCE

(See paragraph 5.3.4 of the Instructions to Tenderers)

PROJECT:		VALUE (\$):	
OWNER:		Phone No.:	
Work Description:			

PROJECT:		VALUE (\$):	
OWNER:		Phone No.:	
Work Description:			

PROJECT:		VALUE (\$):	
OWNER:		Phone No.:	
Work Description:			

PROJECT:		VALUE (\$):	
OWNER:		Phone No.:	
Work Description:			

APPENDIX 5

FORM OF TENDER

Contract 94722

Fawcett Sanitary and Brunette Storm Main Replacements

SUBCONTRACTORS

(See paragraph 5.3.5 of the Instructions to Tenderers)

Trade:		Tender Item:	
Work Description:			
Subcontractor:		Phone No.:	

Trade:		Tender Item:	
Work Description:			
Subcontractor:		Phone No.:	

Trade:		Tender Item:	
Work Description:			
Subcontractor:		Phone No.:	

Trade:		Tender Item:	
Work Description:			
Subcontractor:		Phone No.:	

Trade:		Tender Item:	
Work Description:			
Subcontractor:		Phone No.:	

APPENDIX 6
FORM OF TENDER
Contract 94722
Fawcett Sanitary and Brunette Storm Main Replacements
Bid Bond

NO. _____

\$ _____

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

As Surety, hereinafter called the Surety, are held and firmly bound unto

As Obligee, hereinafter called the Obligee, in the amount of

_____ Dollars (\$_____) lawful money of
Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind
themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these
presents.

WHEREAS, the Principal has submitted a written Tender to the Obligee, dated the _____ day of
_____, 2026, for Contract _____.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that if the aforesaid Principal shall have the
Tender accepted within sixty (60) days from the Closing Date of Tender and the said Principal will, within the
time required, enter into a formal contract and give good and sufficient bonds to secure the performance of
the terms and conditions of the Contract, then this obligation shall be null and void; otherwise the Principal
and Surety will pay unto the Obligee the difference in money between the amount of the bid of the said
Principal and the amount for which the Obligee legally contracts with another party to perform the work if the
latter amount be in excess of the former.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

Any suit under this Bond must be instituted before the expiration of six (6) months from the date of this Bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused
these presents to be sealed with its corporate seal duly attested by the signature of its Attorney-In-Fact,
this _____ day of _____, 2026.

SIGNED, SEALED AND DELIVERED

In the presence of:

)

)

)

)

)

PRINCIPAL

SURETY

APPENDIX 7
FORM OF TENDER
Contract 94722
Fawcett Sanitary and Brunette Storm Main Replacements
CERTIFICATE OF COMPLIANCE for CONTRACT INSURANCE

This is provided for information to certify that the Tenderer does hereby undertake and agree to supply to the City of Coquitlam, upon award, contract insurance listed below for the project requirements indicated:

Contract Number: **94722**

Contract Name: **Fawcett Sanitary and Brunette Strom Main Replacements**

Description of Work:

- 300mm sanitary main: 460 linear meters
- 250mm sanitary main: 160 linear meters
- 200mm sanitary service: 150 linear meters
- 100mm sanitary force main: 130 linear meters
- 450mm storm main: 21 linear meters
- 75mm sanitary forcemain services: 3 each
- 1050 manholes: 7 each
- 1050 overbuild manhole: 1 each
- 1200mm manhole: 1 each
- Catch basin: 1 each
- Other miscellaneous works contained in in the Contract Documents

Commercial General Liability: **\$5,000,000 limit**

Special Coverage Required: **YES NO Special Coverage Description**
() (X) Shoring and Underpinning Hazard
() (X) Pile Driving and Vibrations
(X) () Excavation Hazard
() (X) Demolition
() (X) Blasting

We also certify that the insurance coverage will meet the requirements of the Supplementary General Conditions Section 24 – Insurance, included as part of the Contract Documents, and that the proof of insurance will be provided on the City of Coquitlam Certificate of Insurance form, without amendments, except for the exclusions noted above.

Name of Tenderer (printed)

Authorized Signature

Date

Agreement

AGREEMENT

Between Owner and Contractor

(FOR USE WHEN UNIT PRICES FORM THE BASIS OF PAYMENT - TO BE USED ONLY WITH THE GENERAL CONDITIONS AND OTHER STANDARD DOCUMENTS OF THE UNIT PRICE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS.)

THIS AGREEMENT made in duplicate this ____ day of _____ 2025.

Contract: Fawcett Sanitary and Brunette Storm Main Replacements

Reference No. 94722

BETWEEN:

The City of Coquitlam
3000 Guildford Way
Coquitlam, B.C. V3B 7N2

(the "Owner")

AND:

(the "Contractor")

The *Owner* and the *Contractor* agree as follows:

1 THE WORK - START/COMPLETION DATES

- 1.1 The *Contractor* will perform all *Work* and provide all labour, equipment and material and do all things strictly as required by the *Contract Documents*.
- 1.2 The *Contractor* will commence the *Work* in accordance with the *Notice to Proceed*. The *Contractor* will proceed with the *Work* diligently, will perform the *Work* generally in accordance with the construction schedules as required by the *Contract Documents* and will achieve *Substantial Performance* of the *Work* on or before **the dates noted in Appendix 2 of the Form of Tender**, subject to the provisions of the *Contract Documents* for adjustments to the *Contract Time*.
- 1.3 Time shall be the essence of the Contract.

2 CONTRACT DOCUMENTS

- 2.1 The "*Contract Documents*" consist of the documents listed or referred to in Schedule 1, entitled "*Schedule of Contract Documents*", which is attached and forms a part of this Agreement, and includes any and all additional and amending documents issued in accordance with the provisions of the *Contract Documents*. All of the *Contract Documents* shall constitute the entire *Contract* between the *Owner* and the *Contractor*.
- 2.2 The *Contract* supersedes all prior negotiations, representations or agreements, whether written or oral, and the *Contract* may be amended only in strict accordance with the provisions of the *Contract Documents*.

3 CONTRACT PRICE

- 3.1 The price for the *Work* ("*Contract Price*") shall be the sum in Canadian dollars of the following:
- a) the product of the actual quantities of the items of *Work* listed in the *Schedule of Quantities and Prices* which are incorporated into or made necessary by the *Work* and the unit prices listed in the *Schedule of Quantities and Prices*; plus
 - b) all lump sums, if any, as listed in the *Schedule of Quantities and Prices*, for items relating to or incorporated into the *Work*; plus
 - c) any adjustments, including any payments owing on account of *Changes* and agreed to *Extra Work*, approved in accordance with the provisions of the *Contract Documents*.
- 3.2 The *Contract Price* shall be the entire compensation owing to the *Contractor* for the *Work* and this compensation shall cover and include all profit and all costs of supervision, labour, material, equipment, overhead, financing, and all other costs and expenses whatsoever incurred in performing the *Work*.

4 PAYMENT

- 4.1 Subject to applicable legislation and the provisions of the *Contract Documents*, the *Owner* shall make payments to the *Contractor*.
- 4.2 If the *Owner* fails to make payments to the *Contractor* as they become due in accordance with the terms of the *Contract Documents* then interest calculated at 2% per annum over the prime commercial lending rate of the Royal Bank of Canada on such unpaid amounts shall also become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

5 RIGHTS AND REMEDIES

- 5.1 The duties and obligations imposed by the *Contract Documents* and the rights and remedies available hereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.

- 5.2 Except as specifically set out in the *Contract Documents*, no action or failure to act by the *Owner*, *Contract Administrator* or *Contractor* shall constitute a waiver of any of the parties' rights or duties afforded under the *Contract*, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach under the *Contract*.

6 NOTICES

- 6.1 Communications among the *Owner*, the *Contract Administrator* and the *Contractor*, including all written notices required by the *Contract Documents*, may be delivered by email, or by hand, or by pre-paid registered mail to the addresses as set out below:

The *Owner*:

The City of Coquitlam
3000 Guildford Way
Coquitlam, B.C. V3B 7N2

Tel: 604-927-3500

The *Contractor*:

Tel:
Email:
Attention:

The *Contract Administrator*:

The City of Coquitlam
3000 Guildford Way
Coquitlam, B.C. V3B 7N2

Tel:
Email:
Attention:

- 6.2 A communication or notice that is addressed as above shall be considered to have been received:

- a) immediately upon delivery, if delivered by hand; or
- b) immediately upon transmission if sent or received by email; or
- c) after 5 days from date of posting if sent by registered mail.

- 6.3 The *Owner* or the *Contractor* may, at any time, change its address for notice by giving written notice to the other at the address then applicable. Similarly if the *Contract Administrator* changes its address for notice then the *Owner* will give or cause to be given written notice to the *Contractor*.

7 GENERAL

- 7.1 This *Contract* shall be construed according to the laws of British Columbia.

- 7.2 The *Contractor* shall not, without the express written consent of the *Owner*, assign this *Contract*, or any portion of this *Contract*.
- 7.3 The headings included in the *Contract Documents* are for convenience only and do not form part of this *Contract* and will not be used to interpret, define or limit the scope or intent of this *Contract* or any of the provisions of the *Contract Documents*.
- 7.4 A word in the *Contract Documents* in the singular includes the plural and, in each case, vice versa.
- 7.5 This agreement shall enure to the benefit of and be binding upon the parties and their successors, executors, administrators and assigns

IN WITNESS WHEREOF the parties hereto have executed this Agreement the day and year first written above.

Contractor:

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY AND POSITION - PRINT)

Owner:

The City of Coquitlam

(MANAGER, CAPITAL PROJECTS AND INSPECTIONS)
Representative as Per G.C. 17

(SENIOR MANAGER, DESIGN AND CONSTRUCTION)

Fawcett Sanitary and Brunette Storm Main Replacements

Reference No: 94722

Schedule 1

Schedule of Contract Documents

(INCLUDE IN LIST ALL DOCUMENTS INCLUDING, IF ANY, SUPPLEMENTARY GENERAL CONDITIONS, SUPPLEMENTARY SPECIFICATIONS, SUPPLEMENTARY STANDARD DETAIL DRAWINGS)

The following is an exact and complete list of the *Contract Documents*, as referred to in Article 2.1 of the Agreement.

NOTE: The documents noted with “*” are contained in the “Master Municipal Construction Documents – General Conditions, Specifications and Standard Detail Drawings”, edition dated 2009. All sections of this publication are included in the *Contract Documents*.

1. Agreement, including all Schedules;
2. The following Addenda:
 - As issued
3. Supplementary General Conditions, if any;
4. General Conditions*;
5. Supplementary Specifications, if any;
6. Detail Specifications, if any;
7. Specifications*;
8. Supplementary Detail Drawings, if any;
9. Standard Detail Drawings*;
10. Executed Form of Tender, including all Appendices;
11. Drawings listed in Schedule 2 to the Agreement –“List of Drawings”, if any;
12. Instructions to Tenderers;
13. COQUITLAM “Supplementary Specifications Master Municipal Construction Documents”
March 2022

Fawcett Sanitary and Brunette Storm Main Replacements

Reference No: 94722

Schedule 2

LIST OF DRAWINGS

(Complete Listing of All Drawings, Plans and Sketches That Are Part of the Contract Documents)

Bound in this Document:

Appendix A: Traffic Management Detail Specifications

Appendix B: Appendix B - Archaeological Chance Find Procedure

Appendix C: Contract Drawings

TITLE	SHEET NO.	REVISION NO.	DATE
2025 Sanitary Design – Fawcett Road & Hartley Avenue			
Cover Sheet	00	-	-
Sanitary Works STA 1+180 to 1+420	01 of 04	5	11/19/2025
Sanitary Works STA 1+420 to 1+660	02 of 04	5	11/19/2025
Sanitary Works STA 2+360 to 2+560	03 of 04	5	11/19/2025
Manhole Details	04 of 04	5	11/19/2025
Coquitlam Drainage Main Replacements Brunette Ave			
Cover Sheet	00	-	-
Site Plan and General Notes	01 of 02	B	2025.03.28
Storm Sewer – Brunette Avenue – STA 1+997 to STA 2+018	02 of 02	B	2025.03.28

Appendix D: Geotechnical Exploration Report

Appendix E: Trans Mountain Pipeline Proximity Work Consent

Supplementary General Conditions

SUPPLEMENTARY GENERAL CONDITIONS

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1.0 DEFINITIONS

- 1.1 Abnormal Weather** 1.1.1 **(Replace clause 1.1.1 as follows):**
Abnormal Weather” means temperature, precipitation, wind or other weather conditions in which the monthly average, differs from the statistical average for that condition in that period by more than one standard deviation, calculated based on data available from Environment Canada. Coquitlam’s Burke Mountain Rain Gauge will be used to compare the rainfall summary versus the available data from Environment Canada.
[City of Coquitlam Rainfall](#)

2.0 DOCUMENTS

- 2.2 Interpretation** 2.2.4 (1) **(Replace clause 2.2.4 (1) as follows):**
The Contract Documents shall govern and take precedence in the following order as listed in Schedule 1 of the Agreement, taking precedence over all Contract Documents.

4.0 CONTRACTOR

- 4.1 Control of the Work**
- 4.1.1 **(Add to clause 4.1.1 as follows):**
The *Contractor* is responsible for all survey layout for the construction of the Work to the design specifications and/or elevations as shown on the contract drawings or as amended on site by the Contract Administrator.
- 4.1.2 **(Add to clause 4.1.2 as follows):**
The Contractor shall not deposit any material upon any street, sidewalk, boulevard or other property, without the Contract Administrator’s or the Owner’s permission, nor shall they allow the same to remain longer than necessary. All surplus spoil and rubbish and other waste material shall be removed from the site so that the area of work is cleaned up and restored to as clean a condition as it was before the Contract started, within four days of the Contract Administrator’s written request to do so, failing which the Owner may carry out the work or have the work carried out by others and recover the costs from the Contractor or may deduct the cost from any monies due or that may become due to the Contractor.
- 4.1.3 **(Add new clause 4.1.3 as follows):**
Work can be performed during the normal weekday working hours of 0700h to 1900h, unless specified otherwise in Supplementary Specifications - Appendix A: Traffic Management Detail Specifications. Written

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

permission from the Contract Administrator will be required for any works to be performed outside of the normal working days of Monday to Friday.

No Sunday work will be permitted, except in case of emergency and then only with the written permission of the Contract Administrator and to such extent as he deems necessary.

In case the Contractor decides to work on a day which is a Statutory Holiday, they shall provide the Contract Administrator in writing at least (4) days in advance of such holiday, stating those places where said work is to be conducted. In case the Contractor fails to give such notice in advance of any Statutory Holiday, no work within the terms of the contract shall be done on such holiday.

The cost of inspections on a Sunday or on a Statutory Holiday by City staff/s will be at Contractor's expense.

4.2 Safety

4.2.2

(Add new clause 4.2.2 as follows):

In an emergency, gas pipeline rupture or leak, Contact FortisBC's 24 Hour Emergency Line (1-800-663-9911) and Coquitlam Fire (911) immediately and then City of Coquitlam's Utility Control Centre (604-927-6287).

4.3 Protection of Work, Property and the Public

4.3.1

(Replace clause 4.3.1 as follows):

In performing the Work, the Contractor shall protect the Work and the Owner's property and other person's property from damage. The Contractor shall at the Contractor's own expense make good any such damage which arises as the result of the Contractor's operations. If the Contractor causes damage to private property, the Contractor must obtain a written release from the owner of the damaged property.

4.3.5.1

(Add clause 4.3.5.1 as follows):

The Contractor shall notify the Contract Administrator immediately if damage occurs to any City or third party utility or structure.

4.3.7

(Add new clause 4.3.7 as follows):

Any lands other than those upon which the work is to be performed, which may be required for temporary facilities, storage purposes or access to the work site, other than those provided by the *Owner*, shall be provided by the *Contractor* at their own cost, with no liability to the *Owner*.

- | | | |
|----------------------------------|-------|---|
| 4.6 Construction Schedule | 4.6.1 | <i>(Replace clause 4.6.1 as follows):</i>
The Contractor shall within the time set out in the Form of Tender prepare and submit to the Contract Administrator for their approval a construction schedule (the Baseline Construction Schedule) indicating the planned start and completion dates of major activities of the Work. The Baseline Construction Schedule shall be in more detail than the Preliminary Construction Schedule and shall indicate completion of the Work in compliance with any specified Milestone Dates, including Substantial Performance. |
| | 4.6.6 | <i>(Replace clause 4.6.6 as follows):</i>
The time for the performance of the Work shall commence on the date specified in the Notice to Proceed, or if not so specified, on the date the Notice to Proceed is issued. The Notice to Proceed will not be issued until the documentation required under paragraph 5.1.1 of the Form of Tender has been submitted and the construction schedule has been approved. |
| | 4.6.8 | <i>(Add new clause 4.6.8 as follows):</i>
Any requests to lengthen the work schedule shall be made in writing by the Contractor within five working days of knowledge of the reason for the extension. The Contract Administrator will adjust the schedule at their discretion upon receipt of a written request. |
| 4.7 Superintendent | 4.7.4 | <i>(Add new clause 4.7.4 as follows):</i>
The key personnel named in the Contractor's Tender response, shall remain in these key positions throughout the project. In the event that key personnel leave the Contractor's firm, or for any unknown reason are unable to continue fulfilling their role, the Contractor must propose a suitable replacement, and obtain written consent from the Owner. Acceptance of the proposed replacement is at the sole discretion of the Contract Administrator and the Owner. |
| 4.8 Workers | 4.8.2 | <i>(Add new clause 4.8.2 as follows):</i>
The Contractor shall, upon the request of the Contract Administrator, remove any person employed by them for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted themselves improperly, and the Contractor shall not permit a person who has been removed to return to the Place of Work. |

4.9 Materials

4.9.3

(Add new clause 4.9.3 as follows):

The Contractor shall, at their cost,

- a) Be responsible for storing all of the materials supplied for the Work either by themselves or the Owner, until it has been incorporated into the completed Work;
- b) Store all materials in a manner which will prevent damage from the weather, dirt, foreign matter, vandalism and theft;
- c) Arrange for and/or verify the time of delivery of all materials to be supplied by themselves or the Owner to ensure that delivery will coincide with their work schedules.
- d) Examine with the Contract Administrator the quantities and details of all materials supplied by the Owner at the time and place of delivery or those materials already at the Place of Work, and prepare and sign a Statement of Materials Acceptance, specifically noting and rejecting any defective material;
- e) Replace all materials supplied by themselves or the Owner which are found to be stolen, missing or damaged while under their care;
- f) Replace all materials found to be defective in manufacture which have been supplied by themselves.

4.11 Subcontractors

4.11.3

(Replace clause 4.11.3 as follows):

The Contractor shall, upon notice of the Contract Administrator, remove any Subcontractor employed by them for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted themselves improperly, and the Contractor shall not permit the Subcontractor who has been removed to return to the Place of Work. The removal of a Subcontractor under this clause shall not be considered a Change and the Contract Price and the Contract Time shall not be adjusted.

4.12 Test and Inspections

4.12.1

(Replace clause 4.12.1 as follows):

The Contractor shall perform or cause to be performed all tests, inspections and approvals of the Work as described in the Contract Documents or as required by the Contract Administrator as part of Quality Control. The Contractor shall complete all the necessary testing at the frequencies described in the Contract Document unless otherwise approved by the Contract Administrator.

Acceptable test and inspection results will not relieve the Contractor of its obligations under the Contract to correct defects or deficiencies in the Work.

4.12.11

(Add clause 4.12.11 as follows):

Failure to follow DFO/FLNRO BMPs and the approved permit for Instream Works or as instructed by Contract Administrator will result in shut-down of the work. The Contractor must take all steps to mitigate impacts to aquatic resources, environment and habitats before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.

4.14 Final Clean-up

4.14.1

(Replace clause 4.14.1 as follows):

Prior to applying for Substantial Performance, the Contractor shall remove all surplus products, tools, construction machinery and equipment relating to the Work that is not required for the performance of the remaining Work. The Contractor shall also remove waste, debris and waste products other than caused by the Owner or Other Contractors, and leave the Place of Work clean and suitable for occupancy by the Owner unless otherwise specified in the Contract Documents or directed by the Contract Administrator.

4.16 Notice of Disruption

4.16.2

(Add new clause 4.16.2 as follows):

Written notice must be provided to all properties which may be physically affected by the construction not less than one week and not more than two weeks prior to construction.

Notify occupants directly affected by the work 48 hours in advance of commencement of construction. Cost of notifying area occupants of ensuing construction and delivery of the notices is incidental to the Contract.

7.0 CHANGES

7.1 Changes

7.1.3

(Replace clause 7.1.3 as follows):

Additional work that the Owner may wished performed that does not satisfy the requirements of subparagraphs (a) and (b) of GC 7.1.1 is extra work (Extra Work) and is not a Change. Pursuant to GC 8, Extra Work may be declined by the Contractor or may, upon agreement between the parties, be undertaken as Extra Work.

7.4 Optional Work

7.4.2

(Add new clause 7.4.2 as follows):

If there are Optional items or Provisional items included in the *Schedule of Quantities and Prices*, those items shall be used only as directed and at the sole discretion of the Contract Administrator through the issue of a Change Order. These items will be paid at the contract unit price as part of regular progress payments. Only quantities used will be eligible for payment. No claim will be accepted for

unused Optional or Provisional quantities. Clause 9.4 Quantity Variations will not be applicable for these items.

**9.0 VALUATION OF
CHANGES AND
EXTRA WORK**

9.2 Valuation Method 9.2.4

(Replace clause 9.2.4 as follows):

Once a quotation is accepted by the Contract Administrator, or other agreement reached between the Contract Administrator and the Contractor regarding adjustments to the Contract Price or Contract Time on account of a Change or Extra Work, the Contractor shall not be entitled to claim or receive additional payment, or adjustment to the Contract Time on account of a Change or Extra Work.

9.4 Quantity Variation 9.4.1

(Replace clause 9.4.1 as follows):

If for any reason, including an addition or deletion under GC 7.1.1(1) or 7.1.1(2) respectively, the actual quantity of a unit price item varies by more than plus or minus the Variance Threshold Percentage from the estimated quantity for that unit price item listed in the Schedule of Quantities and Prices (the "Tender Quantity") or as otherwise agreed to pursuant to these Contract Documents, then either the Owner or the Contractor may by written notice request the other party to agree to a revised unit price, considering the change in quantities. A party shall make a request for a revised unit price as soon as reasonably possible after the party concerned becomes aware of the quantity variation.

9.4.2 *(Delete clause 9.4.2 (2))*

10.0 FORCE ACCOUNTS

10.1 Force Account Costs 10.1.1(1)

(Add to clause 10.1.1(1) as follows):

Costs for the Contractor's Superintendent, Project Managers, Health and Safety Personnel, and Office/Administration Staff are not eligible for labour costs as those costs are considered incidental to the mark up owing for overhead and labour.

10.1.1(4) *(Replace clause 10.1.1(4) as follows):*

Force Account Work performed by a subcontractor shall be paid for in the lesser of: (i) the amount provided by subparagraphs (1), (2) and (3) of this GC, plus a mark-up of 5%, or (ii) the actual amount the Contractor pays the subcontractor including a mark-up of 10% on such actual costs to cover all overhead and profit.

12.0 HAZARDOUS MATERIALS

12.2 Discovery of Hazardous Materials

12.2.2

(Replace clause 12.2.2 as follows):

If the Contract Administrator observes any materials at the Place of Work that the Contract Administrator knows or suspects may be Hazardous Materials, then the Contract Administrator shall immediately give written notice to the Contractor and the Contractor shall immediately stop the Work or portion of the Work as required by GC 12.2.1(1).

13.0 DELAYS

13.1 Delay by Owner or Contract Administrator

13.1.2

(Add new clause 13.1.2 as follows):

The Owner may at any time suspend the work or any portion thereof provided they give the Contractor five (5) days' written notice of delay. The Contractor shall resume work upon written notice from the Owner. The Contractor shall be entitled to:

- a) An extension of the Contract time equivalent to the length of suspension of work.
- b) Reimbursement by the Owner for directly related out-of-pocket additional costs, reasonably and necessarily incurred by the Contractor as a result of such suspension. No additional payment will be made to the Contractor for any loss of profits or overhead.

13.3 Unavoidable Delay

13.3.1

(Add to clause 13.3.1 as follows):

Beyond the reasonable control of the Contractor also includes pandemic or community outbreak

13.8 Direction to Stop or Delay

13.8.3

(Add new clause 13.8.3 as follows):

The Contract Administrator may order the Contractor to stop work if at any time the Contract Administrator is of the opinion that there exists a danger to life or property.

13.9 Liquidated Damages for Late Completion

13.9.1

(Replace clause 13.9.1 as follows):

If the Contractor fails to meet the Milestone Date for Substantial Performance as set out in the Form of Tender, paragraph 2.2 as may be adjusted pursuant to the provisions of the Contract Documents, then the Owner may deduct from any monies owing to the Contractor for the Work:

- (1) An amount of \$1,000.00 for each calendar day the actual *Substantial Performance* is achieved after the Substantial Performance Milestone Date; plus

- (2) All direct out of pocket costs, such as costs for safety, security or equipment rental, reasonably incurred by the Owner as a direct result of such delay.

If the monies owing to the Contractor are less than the total amount owing by the Contractor to the Owner under (1) and (2) then any shortfall shall immediately, upon written notice from the Owner, and upon Substantial Performance, be due and owing by the Contractor to the Owner.

18.0 PAYMENT

18.1 Preparation of Payment Certificate

18.1.1

(Replace clause 18.1.1 as follows):

The Contract Administrator shall prepare and issue a certificate for the period ending the last calendar day of the month.

18.4 Holdbacks

18.4.2

(Add to clause 18.4.2 as follows):

At the sole discretion of the Contract Administrator, an amount equivalent to 10% of the contract award value or 200% of a reasonable estimate, whichever is higher, may be held without interest until all deficiencies have been remedied and accepted by the Contract Administrator.

18.6 Substantial Performance

18.6.5

(Replace clause 18.6.5 as follows):

The Owner may release any builders lien holdback on the 56th day following the date of Substantial Performance, or other date as required by law, but the Owner may hold back the amounts for any deficiencies or filed builders liens as provided in GC 18.4.2, 18.4.3 and 18.4.4.

18.6.6

(Replace clause 18.6.6 as follows):

The *Contract Administrator*, as defined herein, shall be the *Payment Certifier* responsible under Section 7 of the *Builders Lien Act* for certifying *Substantial Performance* of the *Work* of the *Contractor*, but not the *Work* of *Subcontractors*. The *Contractor* shall cooperate with and assist the *Contract Administrator* by providing information and assistance in a timely manner as the *Contract Administrator* considers necessary to carry out the duties of the *Payment Certifier* for the *Contract*.

The *Contractor* shall be the *Payment Certifier* responsible under Section 7 of the *Builders Lien Act* for certifying *Substantial Performance* of the *Work* of each *Subcontractor*. Prior to certifying completion for a *Subcontractor*, the *Contractor* shall consult the *Contract Administrator* and obtain the *Contract Administrator's* comments on the status of completion by the *Subcontractor*, including any deficiencies or defects in the *Subcontractor's Work* noted by

the *Contract Administrator*. The *Contractor* will indemnify and save the *Owner* harmless from any and all liability the *Owner* may have to anyone arising out of the certification by the *Contractor* of *Substantial Performance* for that *Subcontractor*.

Notwithstanding any other provision of the *Contract*, no payments will be due or owing to the *Contractor* so long as a Lien filed by anyone claiming under or through the *Contractor* remains registered against the Project of any lands, or interest therein, on which *Work* for the project was performed. Failure of the *Contractor* to remove all Liens promptly will entitle the *Owner* to damages.

19.0 TAXES, DUTIES AND GST

19.4 Tariffs or Duties

19.4.1

Tariffs or Duties refer to taxes, levies, or charges imposed by any level of government (including foreign governments) on imported or domestic goods, materials, or equipment used in the performance of the Work. The Contract Price is based on the tariffs and duties in effect as of the date of the Tender Closing. If, after the Tender Closing Date, any new Tariffs or Duties are imposed, or existing rates are materially increased, and such changes directly and demonstrably affect the cost of materials or equipment required for the performance of the Work, the Contractor shall notify the Contract Administrator in writing within ten (10) Working Days of becoming aware of such change, providing supporting documentation, including but not limited to:

- (1) Affected materials
- (2) Quantity and cost impact
- (3) Evidence of original and new tariff rates
- (4) Reasonable efforts made to mitigate the cost impact (e.g., sourcing alternatives)

19.4.2

If the Contract Administrator is satisfied that the Contractor has incurred additional direct costs solely due to the change in Tariffs or Duties, the Owner will issue a Change Order to adjust the Contract Price accordingly. No adjustment shall be made for Tariffs or Duties that were publicly announced or reasonably foreseeable before the Tender Closing Date.

19.4.3

This clause does not apply to costs incurred due to delays caused by the Contractor's procurement or supply chain management. It also does not apply if the Contractor fails

to take reasonable steps to mitigate the impact of the change.

- 19.4.4 If the imposition of new Tariffs or Duties causes unavoidable delays in material delivery, the Contractor may request an extension of the Contract Time under GC 13.3, subject to approval by the Contract Administrator.

**21.0 WORKERS
COMPENSATION
REGULATIONS**

**21.2 Contractor is
"Prime Contractor"**

- 21.2.1 ***(Add to clause 21.2.1 as follows):***
Prior to the issuance of the "Notice to Proceed" the Contractor must provide a signed "Prime Contractor Designation" form as provided in Appendix IV of these Supplementary General Conditions.

24.0 INSURANCE

(Replace section 24.0 as follows):

24.1 General

- 24.1.1 **Importance of Prompt Attention to Insurance Requirements:**
The Contractor shall provide the Owner with satisfactory evidence that the insurance required to be provided under this GC is in full force and effect.
- 24.1.2 **Acceptable Insurance Carriers:**
The insurer issuing any policy, or other document which is evidence of insurance to the Contractor, shall be an insurer licensed by the Superintendent of Insurance in the Province of British Columbia and registered with the Department of Insurance for Canada in Ottawa, except the Insurance Corporation of British Columbia, which is not subject to this condition.
- 24.1.3 **Owner's Right to Change Terms:**
Notwithstanding anything contained in the Contract Documents, the Owner will have the right to request a change to the specified terms and conditions respecting insurance at the sole option of the Owner. The Contractor will be notified in writing of any changes required by the Owner and will provide a quotation for such work.
- 24.1.4 **Delivery of Insurance Documents:**
All insurance policies or other acceptable specified documents shall be delivered to, and accepted by, the Owner before the Contract Documents are signed. No work shall be commenced by the Contractor or by anyone acting

on the instructions of the Contractor, until the required Insurance Documents have been accepted by the Owner and the Contract Documents have been duly signed by the Owner and the Contractor.

24.1.5 **Owner's Right to Insure:**

Should the Contractor for any reason not comply with the specified requirements with respect to the insurance, the Owner will, at the Owner's option, have the right to purchase all or any part of such insurance which, in the opinion of the Owner, may be required to provide the specified insurance, and, in the event of so doing, the Owner will have the right to pay the premiums for such insurance and to withhold the amount of premiums so paid from any amount due and payable to the Contractor under the Contract.

24.2 Required Insurance

24.2.1 **General**

Damage to work (excluding Building Contracts where Section 24.3, Paragraph 24.3.1, Further Responsibilities of Contractor, applies).

The Contractor shall be responsible for any and all loss, or damage, whatsoever which may occur on or to the works, completed or otherwise, until such time as the entire works have been completed and the Notice of Acceptance has been issued by the Owner, except that loss or damage caused solely by an act of the Owner. In the event of any loss or damage occurring, the Contractor shall, on notice from the Contract Administrator, immediately put the works into the condition it was immediately prior to such loss or damage, all at the

Contractor's expense, except where such loss or damage was caused solely by an act of the Owner.

The Contractor shall be responsible for any and all loss or damage whatsoever which may occur on or to the works, completed or otherwise, arising out of the negligence of the Contractor, any subcontractors, and the employees or agents of any of them.

24.2.2 **Public Liability Insurance:**

(Other than Automobile Third Party Liability Insurance):

Evidence of Insurance:

The Contractor shall deposit with the Owner, before the work commences, a Certificate of Insurance, signed by an

authorized representative of the insurer, such certificate to be as shown in Appendix III.

Effective Dates and Terms:

The effective date of the Certificate of Insurance shall be the date of the execution of the Contract Agreement and the term of this policy shall be from such effective date until a date not less than twelve (12) months after the date of Substantial Performance completion of all work under the Contract.

Limits of Liability:

For bodily injury and for property damage shall be inclusive limits not less than \$5,000,000.

24.2.3 Public Liability Insurance (Automobile):

The Contractor shall deposit with the Owner before the work commences a Certificate of Insurance with respect to owned automobiles on ICBC Form No. APV 47 entitled "Confirmation of Insurance Coverage" and with respect to Non-Owned Automobiles including hired automobiles and Contractual Liability on ICBC non-owned automobile policy Form APV 29 (if non-owned automobile coverage is not included under the comprehensive general liability coverage) each signed by an authorized representative of the Insurance Corporation of British Columbia.

24.3 Physical Loss or Damage With Respect to New Buildings under Construction and/or Major Additions to Existing Structures

24.3.1 Responsibility for Placing Insurance:

The types of insurance required under this section will be provided and maintained at the expense of the City of Coquitlam during the term of the Contract and will be as follows unless otherwise changed by specific endorsement to these Insurance Specifications.

24.3.2 Insurance Coverage Required:

Builders Risk Completed Value "All Risks" Course of Construction Insurance. This policy will be written in the names of the City of Coquitlam and the Contractor with loss payable as their respective interests may appear.

24.3.3 Responsibility of Contractor - Limitations of cover and deductibles:

The insurance provided by the City of Coquitlam as described herein will not provide the Contractor with full protection against any and all kinds of loss or damage which may arise out of the Contract. It is, therefore, the

responsibility of the Contractor to fully understand the scope of the cover provided with particular attention to the exclusions, limitations of cover and deductible provisions contained in the Insuring Agreements of the policies and it is further the responsibility of the Contractor to take out at the Contractor's expense, whatever other additional insurance the Contractor may consider necessary or desirable for his protection subject as hereinafter provided. The Contractor shall act in the same manner on insurance made available through the City of Coquitlam as he would if he had arranged such insurance himself.

24.3.4 Responsibility of Contractor – Direct Damage Insurance:

If the Contractor fails to do all or anything that is required of them concerning insurance, the City of Coquitlam may do what is required and any monies expended by the City of Coquitlam for that purpose shall be repayable and recoverable from the Contractor. Should any action, failure or negligence of the Contractor result in higher insurance costs being incurred by the City of Coquitlam, such additional costs shall be payable or recoverable from the Contractor.

24.3.5 Responsibility of Contractor – Machinery and Equipment Belonging to Others:

Unless otherwise directed by the City of Coquitlam in writing, the Contractor shall carry insurance covering loss or damage to construction machinery, tools and equipment owned by and/or on bare rental from a third party or parties and used by the Contractor in performing the work, which insurance shall be in a form satisfactory to the City of Coquitlam and having coverage in accordance with the actual cash value of such construction machinery, tools and equipment. Such policies shall also provide for subrogation to be waived against the City of Coquitlam. A certified copy of the policy shall be delivered to the City of Coquitlam not later than thirty days after the commencement of work under the Contract.

24.3.6 Contractor's Waiver of Liability to Coquitlam:

The Contractor hereby releases the City of Coquitlam from any and all liability for damages to the extent that such damages are covered by the course of construction insurance referred to in Section 24.3 of these specifications.

24.3.7 Liability of Contractor:

Neither the providing of insurance by the Contractor or the City of Coquitlam in accordance with the requirements

hereof, nor the insolvency, bankruptcy, nor failure of any insurance company to pay any claim accruing shall be held to waive any of the provisions of this Contract with respect to the liability of the Contractor or otherwise.

24.3.8 **Responsibility of Contractor for protection of work, persons and property:**

The Contractor and all persons employed by the Contractor or under their control, and all employees and subcontractors, shall use due care that no person or property is injured, and that no rights are infringed in the prosecution of the work. Contractors shall take particular care to protect the work against loss or damage caused by riot, vandalism or malicious mischief and shall be at the expense of the Contractor provide all necessary safeguards in the form of watchmen and/or watch dog protection to prevent loss or damage of this type. The payment of deductibles is the responsibility of the Contractor and if not paid by the Contractor such amounts shall be deducted by the City of Coquitlam from payment due to the Contractor. These deductibles will normally be \$250.00 each claim.

24.3.9 **Action to be taken in the event of loss or damage to the work covered by the Contract:**

When any loss or damage occurs to the work or to any materials and supplies on the site of the work, the Contractor shall remove any and all damaged or destroyed property and shall rebuild or replace the damaged or destroyed work, materials, or supplies and complete the work to the satisfaction of the Owner. For such removal, rebuilding, or replacing, the Contractor shall be entitled to receive from the Owner the amount of insurance monies received by the Owner pursuant to the said adjustment which amount shall be paid to the Contractor as the work of rebuilding or replacing proceeds, and in accordance with the Agreement. Damage or destruction of the whole or any part of the work shall not affect the rights and obligations of either party under the Agreement, except that in such event the Contractor shall be entitled to such reasonable extension of time to complete the work as the Architect and/or Contract Administrator may decide.

24.3.10 **Further responsibility of Contractor:**

Other than with respect to loss or damage arising out of insured risks and herein before specified, the Contractor shall be responsible for all loss or damage whatsoever which may occur on or to the works completed or otherwise, until such time as the entire works have been completed and the Notice of Acceptance has been issued by

the Owner, except that loss or damage caused solely by an act of the Owner.

In the event of any loss or damage occurring, the Contractor shall on notice from the Owner immediately put the works into the condition it was immediately prior to such loss or damage, all at the Contractor's expense except as previously stated.

24.3.11 Owner Not Responsible for Loss or Damage or Loss of Use of Property of Contractors and their Employees:

The Owner will not be responsible for securing or paying for insurance of any kind other than as specified in Section 24.3 of these specifications nor will the Owner have any responsibility whatsoever for loss or damage from whatever cause occurring to property owned, leased, or otherwise in the possession of the Contractor, subcontractors or their employees including, without restricting the generality of the foregoing, machinery, equipment, tools, supplies, and clothing at the construction site or elsewhere including loss of use of same.

24.4 Additional Insured 24.4.1

The Contractor shall ensure the following are named as "additional insured" on the liability policy for this contract:

- The City of Coquitlam

The City may identify private properties that are directly affected by construction. If so, the Contractor shall include the legal owners of these properties named as "additional insured" on the liability policy for this contract.

25.0 MAINTENANCE PERIOD

25.1 Correction of Defects 25.1.4

(Add new clause 25.1.4 as follows):

The Owner is authorized to make repairs to defects or deficiencies if, ten days after giving written notice, the Contractor has failed to make or undertake with due diligence the required repairs. However, in the case of emergency where, in the opinion of the Owner, delay is not reasonable, repairs may be made without notice being sent to the Contractor. All expenses incurred by the Owner in connection with repairs made pursuant to GC 25 shall be paid by the Contractor or may be deducted from the Maintenance Security, or other holdbacks. The Contractor shall promptly pay any shortfall.

**27.0 CONTRACTOR
PERFORMANCE
EVALUATION**

27.1

(Add new clause 27.1 as follows):

After the completion of the Contract, the Contractor will be evaluated on their performance of the Work. The evaluation will provide percentage scores on the following categories:

1. *Contract Administration*
2. *Construction Management*
3. *Schedule Management*
4. *Communications*
5. *Resource Management and Contractor Performance*
6. *Quality Management*

An evaluation summary report may be issued to the Contractor with scores for each of these categories. Upon request, the Contractor may attend a meeting with the City to discuss the evaluation.

This internal evaluation may be reviewed for reference on subsequent tenders with the City. Evaluation scores can form part of the tender analysis and influence contract award decisions.

Evaluation Scores in categories that are below 50% may result in a suspension of tendering privileges with the City.

APPENDIX I

PERFORMANCE BOND

NO. _____ \$ _____

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

As Surety, hereinafter called the Surety, are held and firmly bound unto

As Oblige, hereinafter called the Oblige, in the amount of

_____ Dollars
(\$)

lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has entered into a written contract with the Oblige, dated the _____
day of _____, 20____, for

in accordance with the drawings and specifications submitted, therefore, which contract, drawings and specifications and addenda thereto, to the extent provided for, are by reference made part hereof and are hereinafter referred to as the Contract.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall promptly and faithfully perform said Contract (including any addenda thereto, provided such addenda do not collectively increase the amount to be paid to the Principal by more than twenty per cent (20%) of the amount of the Contract except with the written consent of the Surety) then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

Whenever the Principal shall be, and declared by Obligees to be, in default under the Contract, the Obligees having performed Obligees' obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

1. Complete the Contract in accordance with its terms and conditions, or
2. Obtain a bid or bids for submission to Obligees for completing the Contract in accordance with its terms and conditions, and upon determination by Obligees and Surety of the lowest responsible bidder, arrange for a contract between such bidder and Obligees and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term 'balance of the contract price', as used in this paragraph, shall mean the total amount payable by Obligees to Principal under the Contract less the amount properly paid by Obligees to Principal.

Any suit under this Bond must be instituted before the expiration of two (2) years from date on which the Notice of Acceptance under the Contract is issued.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

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

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its Attorney-in-fact, this ____ day of _____ 20 ____.

SIGNED, SEALED and DELIVERED

In the presence of

)
)
)
)
)

PRINCIPAL

SURETY

APPENDIX II

LABOUR AND MATERIAL PAYMENT BOND

(Private Contracts – Trustee Form)

NO. _____

\$ _____

Note: This Bond is issued simultaneously with another Bond in favour of the Obligee conditioned for the full and faithful performance of the Contract.

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

As Surety, hereinafter called the Surety, are, subject to the conditions hereinafter contained, held and firmly bound unto

As Trustee, hereinafter called the Obligee, for the use and benefit of the Claimants, their and each of their heirs, executors, administrators, successors and assigns in the amount of

_____ Dollars
(\$ _____) lawful money of Canada, for the payment of which sum well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

SIGNED AND SEALED this _____ day of _____, 20____.

WHEREAS, the Principal has entered into a written contract with the Obligee dated the _____ day of _____, 20____, for

which contract is by reference made a part hereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Principal shall make payment to all Claimants for all labour and material used or reasonably required for use in the performance of the Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009

1. A Claimant for the purpose of this Bond, is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include the part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial rental value of equipment shall be determined, insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Canadian Construction Association entitled "Rental Rates on Contractors' Equipment" published prior to the period during which the equipment was used in the performance of the Contract.
2. The Principal and the Surety hereby jointly and severally agree with the Oblige as Trustee that every Claimant who has not been paid as provided for under the terms of his contract with the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labour was done or performed or materials were furnished by such Claimant, may as a beneficiary of the trust herein provided for, sue on this Bond, prosecute the suite to final judgment for such sum or sums as may be justly due to such Claimant under the terms of his said contract with the Principal and have execution thereon. Provided that the Oblige is not obliged to do or take any act, action or proceeding against the Surety on behalf of the Claimants or any of them to enforce the provisions of this Bond. If any act, action or proceeding is taken either in the name of the Oblige or by joining the Oblige as a party to such proceedings then such act, action or proceeding shall be taken on the understanding and basis that the Claimants or any of them who take such act, action or proceeding shall indemnify and save harmless the Oblige against all costs, charges and expense or liabilities incurred thereon and any loss or damage resulting to the Oblige by reasons thereof. Provided still further that subject to the foregoing terms and conditions, the Claimants or any of them may use the name of the Oblige to sue on and enforce the provisions of this Bond.
3. No suit or action shall be commenced hereunder by any Claimant:
 - a) unless such Claimant shall have given written notice within the time limits hereinafter set forth to each of the Principal, Surety and Oblige, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, Surety and Oblige at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or other part of Canada in which the subject matter of the contract is located. Such notice shall be given (i) in respect of any claim for the amount or any portion thereof required to be held back from the Claimant by the Principal under either the terms of the Claimant's contract with the Principal or under the Mechanic's Liens Legislation applicable to the Claimant's contract with the Principal whichever is the greater within one hundred and twenty (120) days after such Claimant should have been paid in full under the Claimant's contract with the Principal; (ii) in respect of any claim other than for the holdback or portion thereof referred to above within one hundred and twenty (120) days after the date upon which such claimant did

or performed the last of the work or labour or furnished the last of the materials for which such claim is made under the Claimant's contract with the Principal.

- b) after the expiration of one (1) year following the date on which Principal ceased work on the Contract including work performed under guarantees provided in the Contract.
- c) Other than in a court of competent jurisdiction in the Province or District of Canada in which the subject matter of the Contract or any part thereof is situated and none elsewhere, and the parties hereto agree to submit to the jurisdiction of such court.

4. The amount of this Bond shall be reduced by and to the extent of any payments made in good further and in accordance with the provisions which may be filed of record against the subject matter of the Contract, whether or not claim for the amount of such lien be presented under and against this Bond.

5. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its Attorney-in-fact the day and year first above written.

SIGNED, SEALED and DELIVERED

In the presence of

)
)
)
)
)

PRINCIPAL

SURETY

APPENDIX III

CERTIFICATE OF INSURANCE

This Certificate issued to the City of Coquitlam is to certify that policies of insurance, as described below, have been issued to the Insured named below and are in force at this time. It is understood and agreed that thirty (30) days' prior written notice by registered mail of any material alterations, transfer, assignment or cancellation of any of the policies listed below, either in part or in whole, will be given to the holder of this Certificate.

- A. This Certificate is issued to: **City of Coquitlam**
3000 Guildford Way
Coquitlam, BC V3B 7N2
- Named Insured and Mailing Address:
- B. CONTRACT NUMBER AND/OR NAME
- Description of the Work:
- C. INSURANCE POLICY
- Name of Insurer:
Policy Number:
Effective Date:
- Liability Limit:
Expiry Date:
- D. INSURANCE COVERAGE
- COMMERCIAL GENERAL LIABILITY** coverage is required to insure against liability from the activities arising out of operations or work in connection with the above-described project, including liability arising out of the use of City property.
- D.1 The minimum limit shall be \$5,000,000.00 inclusive per occurrence against bodily injury, personal injury and property damage.
- D.2 The City of Coquitlam, its employees, officers, agents and volunteers are added as Additional Insureds, but only with respect to operations conducted by or on behalf of the Named Insured in connection with the above-described project, operations or work.
- D.3 This insurance shall be primary as regards the City of Coquitlam, its employees, officers, agents and volunteers as Additional Insureds.
- D.4 Any deductible or reimbursement clause contained in the policy shall not apply to the City of Coquitlam and shall be the sole responsibility of the Named Insured.
- D.5 The insurance shall include the following coverages:
- D.5.1 Cross Liability Clause
- D.5.2 Non-Owned Automobile Liability
- D.5.3 Unlicensed Automobile Liability
- D.5.4 Blanket Contractual Liability
- D.5.5 Broad Form Property Damage Liability
- D.5.6 Owner's & Contractor's Protective Liability
- D.5.7 Products & Completed Operations Liability
- D.6 Indicate provision of special coverage for this project as required by the City:
- | YES | NO | Special Coverage Description |
|-----|-----|---------------------------------|
| () | (X) | Shoring and Underpinning Hazard |
| () | (X) | Pile Driving and Vibrations |
| (X) | () | Excavation Hazard |
| () | (X) | Demolition |
| () | (X) | Blasting |

Authorized Signature and Stamp

Date

Name and Title

City' broker to return to City Representative

Department

These Supplementary General Conditions must be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009



APPENDIX IV

PRIME CONTRACTOR DESIGNATION

Owner: **CITY OF COQUITLAM**
Contractor: _____
Contract / Permit #: **94722**
Project / Workplace: **Fawcett Sanitary and Brunette Storm Main Replacements** (the "Project")

By signing this Prime Contractor Designation form, the Contractor hereby:

1. agrees to be, and accepts designation as, the "prime contractor" for the purposes of the Workers Compensation Act, R.S.B.C. 2019, c. 1 (the "Act") and the Occupational Health and Safety Regulation, B.C. Reg. 223/2022 (the "Regulation") in respect of the Project and Workplace noted above;
2. represents and warrants that the Contractor is qualified and capable to perform the duties of prime contractor and that the undersigned signatory has the authority to accept designation as prime contractor and to bind the Contractor;
3. accepts the duty and responsibility for ensuring the activities of employers, workers and other persons at the Workplace relating to occupational health and safety are coordinated and agrees to do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with the Act and the Regulation in respect of the Workplace;
4. covenants and agrees to comply with the occupational health and safety provisions of the Act, the Regulation, any other applicable regulations under the Act, and any applicable orders;
5. acknowledges and agrees that the Owner has provided the Contractor the information known to the Owner that is necessary to identify and eliminate or control hazards to the health or safety of persons at the Workplace; and
6. agrees that the designation as prime contractor hereunder may not be assigned or revoked without the prior written consent of the Owner.

Prime Contractor Name: _____

Prime Contractor Address: _____

Prime Contractor Signature **Date**

Print Name

Please return a signed copy of this designation to the City of Coquitlam, 3000 Guildford Way, Coquitlam, BC, V3B 7N2. If you have any questions, please contact the City of Coquitlam Health & Safety Manager at 604-927-3070.

Supplementary Contract Specifications

Supplementary Contract Specifications

to the
MASTER MUNICIPAL SPECIFICATIONS
Volume II – Platinum Book

FAWCETT SANITARY AND BRUNETTE STORM MAIN REPLACEMENTS CONTRACT 94722

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CONTRACT SPECIFIC NOTATIONS

1.00 CONTRACT SPECIFIC
INSTRUCTIONS

1.01 Coordination of Work
with CMBC

Major Roads & Community Corridor Roads are bus routes; therefore the Contractor shall be responsible to consult with the Coast Mountain Bus Company (CMBC) regarding delays, detours, temporary bus stop closures and any other works affecting the transit service in the area.

1.02 Outside Agency Approval

In accordance with the Contract Documents, the Contractor at his own cost, is responsible to consult with and obtain any approval required to meet and comply with all the conditions required from outside agency such as, but not limited to, Trans Mountain, BC One Call, Metro Vancouver, School District, BC Hydro, Telus, and Fortis BC in the area of the place of Work.

1.03 Waste Collection
Coordination

1. Contractor is responsible to accommodate all waste collection vehicles and cart pick up schedules throughout construction. Collection schedule can be found in <https://www.coquitlam.ca/157/Collection-Calendar-Guidelines>.
2. If waste collection will be impacted the contractor is responsible to:
 - a. Provide advanced notification to:
 - i. The City's Solid Waste staff at 604-927-3500 or wastereduction@coquitlam.ca; and
 - ii. The City's Contract Administrator.
 - b. Provide access for collection trucks to closed streets due to road work; or
 - c. Move waste carts for collection:
 - i. The Contractor is required to ensure each cart is labelled with the property address and returned to the correct address after collection (each cart has its own individual cart identification code and is specifically assigned to each property). **Contractors will be responsible for the costs to replace missing carts.**
 - ii. The Contractor shall ensure that garbage brought out by residents is picked up by garbage collection company.
3. Contractor's Request for Change in Collection Time (e.g. PM to AM):
 - i. The Contractor must provide residents with as much notice as possible – minimum 5 working days.
 - ii. The contractor must follow all conditions of Clause 1.04 and is responsible to deal with any missed collections. For example, taking garbage to the United Boulevard Recycling and Waste Centre or covering the cost associated for any missed collection to be rescheduled.

1.04 Cooperation with
Emergency and
Maintenance
Activities

The Contractor will be responsible to cooperate with regular maintenance or emergency vehicles and staff for access to the site when required including:

- Fire, Police, and Ambulance
- Recycling and Garbage Collections
- City Utilities Maintenance (or representatives)

1.05 Site Safety

The Contractor is responsible to ensure the construction site is safe at all times for workers, pedestrians, and vehicle traffic. At all times, the Contractor must ensure that the site has all potentially hazardous areas appropriately identified and protected, all cables, piping, and equipment shall be secured from the public and also must provide appropriate signage, lighting, and markings for the direction of vehicle and pedestrian traffic, all to ensure the safety of the public. Supply and use of this equipment is considered incidental to the contract.

CONTRACT SPECIFIC NOTATIONS

Manhole lids, valve boxes and other appurtenances within the roadway that may present a traffic hazard during construction must be clearly marked for traffic.

1.06 Lane Closure Restrictions

Refer to: **Appendix A: Traffic Management Detail Specifications.**

A Road and Sidewalk Closure Permit is required for each instance of closure and will be valid for a maximum period of one (1) week and, if still necessary, re-submittal of a Road and Sidewalk Closure Request is required.

A copy of the approved Road and Sidewalk Closure Permit must be held on site by both the Site Superintendent and the person/company responsible for the traffic control implementation.

Costs to complete the works taking the above restrictions into consideration shall be incidental to work described in other sections unless otherwise shown in the Schedule of Quantities and Prices.

1.07 Location of Existing Utilities

Before commencing any Work at the Place of the Work, the Contractor shall be responsible to locate in three dimensions all underground utilities and structures indicated on the Contract Documents as being the Place of the Work. The Contractor shall also be responsible to consult with all the utility corporations that provide electricity, communications, gas or other utility services in the area of the Place of Work, to locate all underground utilities for which they have records. The Contractor shall also locate in three dimensions any other utilities or underground structures that are reasonably apparent in an inspection of the Place of the Work. Cost to do the pre locating of all the utilities will be incidental.

The contractor is responsible to verify the depth and location of all utilities (watermains, storm mains, sanitary mains & etc.), including outside agency utilities (i.e. Fortis BC Mains, Trans Mountain, Pipeline, BC Hydro & Metro Vancouver.) and service connections (water, storm & sanitary services at the mains & property lines) by hand digging or by Hydro-Vac in the presence of the Inspector. Contact BC One for location of outside agency utilities.

The Contractor is responsible to exert all effort to complete the pre-locates using the utility connection cards, BC One Call, as-built records, design drawings, site inspections, sonde, camera, dye testing, test/pot holing and use of utility locating company. If pre-locates is not successful in spite of the efforts using the above, compensation for each intended pre-locate location may be considered at the discretion of the Contract Administrator.

The contractor will not receive any compensation or allowance for delays if work is halted due to utilities & services connections not located prior to commencing construction.

City of Coquitlam does not guarantee water, sanitary and storm service connections are perpendicular to the mains or property lines. The City does not guarantee accuracy of the location and depth provided in the connection card.

Payment for this work will be treated as incidental to payment for work described in other Sections.

1.08 Manholes & Valves

Access to manholes and valves must be maintained at all time for city utilities crews and external utility companies. In case of an emergency the cost for exposing any buried manhole or valve covers during construction will be paid by the contractor.

1.09 Temporary Asphalt Pavement Restoration

The Contractor will be required to backfill all trenches (in paved areas) and place a temporary patch (minimum 100mm in 2 lifts 50/50mm thick on Hartley & Fawcett; and 125mm in 2 lifts 75/50mm across United), on the same day excavation is made, unless otherwise approved by the Contract Administrator. The Contractor is to provide

CONTRACT SPECIFIC NOTATIONS

temporary asphalt patches that must be a smooth rideable surface without deflections.

1.10 Precautions

Protect areas under construction from damage caused by excessive erosion, flooding, heavy rains, etc. Repair or replacement of unprotected damaged areas and as directed by the Contract Administrator will be at no cost to the Owner.

1.11 Service Disruptions

Contractor shall contact all residences and businesses regarding sewer and water disruptions for tie-ins. Contractor is responsible for ensuring that any service disruptions will not affect the business operation in the area or Contractor may provide temporary alternative to the businesses affected. Payment is incidental to work described in other sections.

2.00 CONSTRUCTION ACTIVITY

2.01 Notice to Residents and Businesses

Residents and businesses affected by the proposed construction must be notified by the Contractor at least 7 days prior to commencement of works and be provided with the construction schedule and Contractor's contact information.

2.02 Site Clean-up During Construction and End of Construction

The Contractor will be responsible for the complete clean-up of the work site during construction & at the end of construction prior to de-mobilization from the street and to the satisfaction of the Contract Administrator. This work is considered incidental to the Contract.

The work will include cleaning of all catch basins periodically or as directed by the Contract Administrator within the Work area, or nearby location as affected by the Work. All cleaning is to be performed by vacuum truck to the satisfaction of the Contract Administrator and will include off-site disposal of waste material.

Payment for this work will be treated as incidental to payment for work described in other Sections.

2.03 Construction Material in Sewer Manholes and Pipe

The Contractor is responsible to ensure that construction activities do not deposit construction materials (eg. gravels) into the storm sewer or sanitary sewer manholes or pipe. The City has a video record of the pipe before construction. Prior to Substantial Performance, the City may again video inspect the lines to ensure no problems exist due to construction activities under this contract. If problems are encountered, the Contractor will be responsible for the cost of the video and all costs associated with the cleaning of the pipe.

2.04 Order of Construction

The contractor will be required to conduct the work in the order listed below, unless otherwise approved by the Contract Administrator:

1. Brunette Avenue Drainage Main
2. Hartley & Fawcett Sanitary Main

3.00 MANDATORY MEETINGS AND CONTRACTOR REPRESENTATIVES AND SUBCONTRACTORS

3.01 Pre-Construction Meeting Requirements

After the Award of the Contract, the Contractor (Project Manager & Superintendent) will be required to attend a Pre-Construction Meeting with the Contract Administrator and provide all necessary information required by the Contract Administrator prior to provision of a Notice to Proceed. Items required to be provided at the meeting include:

1. A Detailed Construction Schedule showing the start date & completion date and the durations of major work components showing how all work will be completed within the Contract Duration.
2. Proof of insurance

CONTRACT SPECIFIC NOTATIONS

3. Performance Bond and Labour and Materials Payment Bond
4. WCB Clearance Letter and copy of Notice of Project
5. City of Coquitlam Business License
6. A copy of portions of your Health and Safety Plan including the Title Page, Table of Contents, and portion showing latest revision date.
7. Signed Prime Contractor Designation letter

**3.02 Contract Schedule,
Contract Duration, and
Charges**

A detailed, realistic construction schedule for this project will be required to be presented at the pre-construction meeting. The schedule must show major components and durations. All work under this project is to be completed within the designated Contract Duration as contained in the signed **Contract Agreement**, or as formally amended.

**3.03 Contract Superintendent
and Subcontractors**

In compliance with the **MMCD General Conditions, Section 4.7, Superintendent**, the Contractor shall have a competent senior representative, (the "Superintendent") in **FULL TIME attendance** at the Place of Work while work is being performed for the duration of the contract. **This (FULL TIME) attendance is also required when work is being performed by Subcontractors.**

Work done by Subcontractors is to be directed by the Superintendent and monitored on site ensuring conformance to the Contract Documents and other particular direction to the Superintendent by the Contract Administrator. The Owner is not responsible for the direction of Subcontractors.

**3.04 Changes of Contractor
Representatives &
Subcontractors**

The Superintendent and Subcontractors indicated in the Form of Tender shall not be changed unless:

1. The Owner requests a replacement
2. The Contractor submits an application for a change, in writing, to the Contract Administrator with the change being approved in writing.

**3.05 Mobilization and
Demobilization**

Payment for mobilization and demobilization of all equipment, labour and materials (both from the Contractor and all sub-contractors) shall be incidental.

END OF SECTION

1.0 GENERAL

1.3 Submission

Delete 1.3.2 and
replace with the
following

Submit one copy of an accurate project record document in final form prior to applying for Substantial Performance including any video report. Record documents to include changes in the Issued for Construction Drawings, new elevation & location of all utilities, utility crossings, manhole rim, catchbasin rim, vaults, valve boxes and inverts affected by the work. Legal Holdbacks will not be released until record drawings have been submitted and accepted by the Contract Administrator.

END OF SECTION

QUALITY CONTROL

1.0 QUALITY

The Contractor shall provide a final product conforming to the Contract Documents and the intent of the work. The work is to be accurate to the dimensional and tolerance requirements of the contract.

The intent of this project is to install inspection chambers, repair service connections as required, renew storm and sanitary service connections, and complete all surface restorations. All Work must be free from any defects, leaks and deformities.

Payment will be subject to adjustments based on quality assurance tests performed by the Contract Administrator.

1.1 Quality Control (QC) by Contractor

The MMCD (2009) definition of "Quality Control" is the process by which the Contractor checks specific materials, products, and workmanship to ensure strict conformance with the Contract Documents.

The Contractor is fully responsible for quality control of the materials, production, and construction processes. Quality control tests shall be performed by the Contractor, at their own expense, to ensure that products meet the contract specifications.

Failure by the Contractor to conduct adequate quality control testing during production and construction will negate the Contractor's ability to appeal the quality assurance tests used for acceptance/rejection of the work.

Under no circumstances will QC test results produced after completion of the Quality Assurance (QA) results be considered for appeal purposes

Any changes in the Work with respect to the location, grade, or line shall be approved in advance by the Contract Administrator. Failure to notify the Contract Administrator of changes in writing may result in rejection of Work.

1.2 Inspection of Work, Quality Assurance, and Material Testing, by the Owner

The MMCD (2009) definition of "Quality Assurance" means the process by which the Owner evaluates if the work is being constructed in accordance with the Contract Documents. This definition will be used for this contract

The *Contract Administrator* will provide construction review through spot inspections and spot materials testing for Quality Assurance.

Any materials testing results indicating a non-conformance to the Contract Documents will require construction corrective action by the Contractor. The Contractor shall have no claim for delays, interruptions, double-handling of materials, rejection of materials, or any other cause brought about by such tests, including awaiting the outcome of such tests.

Costs for all subsequent testing to corrective action to verify conformance to the Contract Documents will be the full responsibility of the Contractor. Inspection review by the Owner will not relieve the Contractor from providing a product that meets or exceeds the requirements of the Contract Documents.

1.3 Inspection

Materials testing shall be as described in MMCD General Conditions, Section 4.12 with the following change:

Delete Section 4.12.2(a) and insert the following:

Where the MMCD specification clauses for Inspection and Testing indicate the Contract Administrator will arrange for all testing for work described in this section will be amended to read The Contractor will arrange for and pay for all testing for work described in this section. The testing shall take place at the following prescribed rates and as directed by the contract administrator. The contract administrator has the authority to call for testing, up to the rates and frequencies specified, at the Contractors cost.

All testing covered under this item shall be performed by a CSA/CCIL certified laboratory and technicians with copies of all test results to be sent directly to the Contract Administrator. Re-testing resulting from failed first tests shall be at the Contractors expense.

1.4 Testing

Contractor shall carry out inspection and testing (QC) to ensure compliance with Contract Documents. Contractor shall submit test results within one week of testing to the Contract Administrator.

The Contractor shall provide test results prior to the preparation of the payment certificate.

**1.5 Contractors
Responsibilities**

Furnish labour and facilities to:

1. Provide access to work to be inspected
2. Facilitate inspections and tests
3. Make good work disturbed by inspection and tests

1.6 Access to Work

Allow inspection testing agencies access to Work.

1.7 Tests

Test rates and frequencies (excluding failed tests), when not defined in the MMCD, Contract Drawings or Detail Specifications Sections shall be at the following frequencies or as directed by Contract Administrator:

1. Trench Backfilling and Compaction

1.1 Compaction: 1 test / 10 lm / 300mm lift

1.2 Sieve: 1 test / placed material / 50 m³

2. Granular Base

2.1 Compaction: 1 test / 500m² / 100mm depth of granular base

2.2 Sieve: 1 test / placed material / 100 m³

3. Granular Subbase

3.1 Compaction: 1 test/500m² / 0.15m depth of granular subbase

3.2 Sieve: 1 test / placed material / 100 m³

4. Embankment (Subgrade)

4.1 Compaction: 1 test/ 50m² / 0.15m depth of fill

4.2 Sieve: 1 test / placed material / 100 TONNES

5. Asphalt

5.1 Marshall test: 1 test per 250 TONNES placed, min. 1 test / day
ASTM D1559, D3203, C117, C136

5.2 Superpave: 1 test per 250 TONNES placed, min. 1 test / day
CAI-SP2, ASTM D3203, C117, C136

5.3 Cores: 1 per 500 m²/lift

5.4 Continuous asphalt density testing during paving.

6. Subgrade Preparation

6.1 Compaction & Moisture: 1 test / 500 m²

7. Concrete Tests

7.1 Air, Slump & 1 Set Cylinders: 1 test / 10 m³, min. 1 set / day

8. Reclaimed Materials

8.1 Compaction: 1 test/500m² / 0.15m depth of reclaimed materials

**1.8 Measurement for
Payment**

Payment for all work performed under this section will be incidental to payment for work described in other Sections.

END OF SECTION

1.0 GENERAL

1.6 Payment

Delete 1.6.1 and
replace with the
following

Payment for all work described in this section will be incidental to
payment for work described in other Sections unless otherwise
shown in Schedule of Quantities and Prices.

END OF SECTION

1.0	GENERAL	Add 1.0.6	The <i>Contractor</i> is responsible for all temporary traffic control on the streets required for completion of the work. The <i>Contractor</i> will be responsible to provide a Traffic Management Plan (TMP) for approval (5) five working days prior to any lane closures taking place. TMP is to be prepared by a professional certified by the American Traffic Safety Services Association. The TMP shall outline the approach to traffic management, show recognition and minimization of risks indicates signing locations, identify Traffic Control Persons (TCP) stations, show lane shifting and proposed closures.
		Add 1.0.7	Road and Sidewalk Closure Permit is required from Coquitlam for all work affecting pedestrian and traffic flow related to construction. A permit is required for each specific construction interference with pedestrian and traffic flow. The road and sidewalk closure permit form can be obtained for use from the City's website at https://www.coquitlam.ca. The Contractor must follow the approved TMP. Any changes to this TMP must be submitted to City's Traffic Operations for approval.
		Add 1.0.8	Refer to Appendix A – Traffic Management Detail Specifications
1.4	Traffic Control	Delete 1.4.1 and replace with the following	The Contractor shall conduct their operations so as to cause the minimum obstruction and inconvenience to traffic and to places of business and residences adjacent to the Place of Work. No greater quantity of work shall be undertaken at any one time than can be properly conducted with due regard to the rights and interests of the public as may be determined by the Contract Administrator. The Contractor is to provide at all times safe and convenient means of approach and entrance to adjoining lanes, driveways, buildings and property both for vehicles and pedestrians to the satisfaction of the Contract Administrator. For this purpose, the Contractor shall construct and maintain suitable and safe platforms, approaches, structures, bridges, diversions or other works. Where traffic must cross open trenches, the Contractor shall provide suitable bridges. Where trenches have been backfilled or where road improvements are incomplete the Contractor shall take any steps necessary to prevent potholes or other traffic hazards. Where the Contract Administrator so instructs or where Contract Specifications so require, the Contractor shall provide temporary asphalt patching of such hazards.
		Add 1.4.9.3.1	The <i>Contractor</i>, as required by the <i>Contract Administrator</i> and the City, is to supply Construction Zone information signs (stationary), refer to MMCD 01 58 01 for the required identification signage. The <i>Contractor</i> is responsible for the removal of the signs at the completion of the work.
		Delete 1.4.10.1.3 and replace with the following	When workmen or equipment are employed over travelled way over brow of hills, around sharp curves or at other locations where oncoming traffic would not otherwise have adequate warning.
1.5	Measurement for Payment	Delete 1.5.1 and replace with the following	Payment for all work performed under this section including submission of Traffic Management Plan (TMP), Traffic Control Persons (TCP) & all temporary traffic signs, devices as required for

traffic & pedestrian safety; and all other items described in the Traffic Regulation Section, and all labor, material, equipment and work described under ***Appendix A: Traffic Management Detail Specifications*** shall be treated as incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.

END OF SECTION

1.0 GENERAL

**1.0.3 Erosion and
Sediment Control
Supervisor**

Add 1.0.3

The Erosion and Sediment Control (ESC) Supervisor is the Qualified Professional who is experienced in implementing ESC Plans and who is responsible for the inspection and monitoring of ESC Facilities to ensure these are installed and maintained in accordance with the ESC Plan, and if necessary, are modified during construction to ensure compliance with the Stream and Drainage System Protection Bylaw No. 4403, 2013.

**1.2 Temporary Erosion
and Sediment
Controls**

Delete 1.2.1 and
replace with the
following

Properly drain all portions of the site. Protect the site and the watercourses to which it drains, directly or indirectly, against erosion and siltation in accordance with a Sediment Control Plan under the City of Coquitlam Stream and Drainage System Protection Bylaw No. 4403, 2013 during construction and until the maintenance period is completed. Ensure no silt, gravel, debris or other deleterious substance resulting from construction activity discharges into existing drainage systems or watercourses or onto highways or adjacent property. The *Contractor* is responsible for all damage that may be caused by water backing up or flowing over, through, from or along any part of the work or otherwise resulting from his operations.

Keep existing culverts, drains, ditches and watercourses affected by the work clear of excavated material at all times. When it is necessary to remove or alter any existing drainage structure, provide suitable alternative measures for handling the drainage. Adequately support culverts and drainpipes across trenches to prevent displacement and interference with the proper flow of water due to trench settlement.

Provisions must be made to allow safe conveyance of flow during non-working hours. The Contractor is solely responsible for any repairs that may be required following such an event.

Sweep streets, and clean catch basins, manhole sumps, detention tanks, and maintain siltation controls as often as the *Contract Administrator* and the City deems necessary.

Follow all Federal and Provincial regulations and guidelines respecting protection of fish, fish habitat, and watercourses.

Delete 1.2.2.2 and
replace with the
following

Do not operate construction equipment in watercourses.

Add 1.2.2.9

In any Watercourse, or In-Stream Works:

- .1 Prior to any work, Erosion and Sediment control measures should be in place; and
- .2 Fish salvage completed by Environmental Monitor; and
- .3 Temporary water passages or other approved means of handling waterflow in creeks installed to prevent or minimize any impact to fish and aquatic habitat as approved by Contract Administrator.

Failure of the Contractor to properly address concerns relating to this Section will result in shut-down of the work. No claim will be accepted by the Owner for costs associated with this work shut-down.

ENVIRONMENTAL PROTECTION

1.4	Environmental Protection	Add 1.4.3.5	Immediately contain and clean up any leaks and spills of prohibited materials at the <i>Place of Work</i> .
		Add 1.4.3.6	Ensure that a well-stocked spill kit is on-site at all times and that the <i>Contractor's</i> employees are familiar with appropriate spill response techniques.
		Add 1.4.3.7	Immediately notify the <i>Contract Administrator</i> and the City of any leaks or spills of prohibited materials that occur at the <i>Place of Work</i> .
		Add 1.4.3.8	Ensure that any fuel stored on-site is located at least 30 metres from the nearest stream, and is placed within a bermed and lined area, in order to prevent leaks or spills into the environment.
		Add 1.4.3.9	Ensure that no equipment fueling or servicing is conducted within 30 metres of a stream.
1.6	Measurement and Payment	Delete 1.6.1 and replace with the following	Payment for all work, unless included in the Schedule of Quantities and Prices, performed under this section will be incidental to payment for work described in other Sections.
1.9	Archaeological / Historical Resources	Add 1.9	Refer to Appendix B – Archeological Chance Find Procedure . Immediately cease work and inform the <i>Contract Administrator</i> and the City, if any archaeological or historical resources are encountered during construction. Leave these resources in place and do not disturb them in any way.

END OF SECTION

1.1 Section 01 58 01 includes

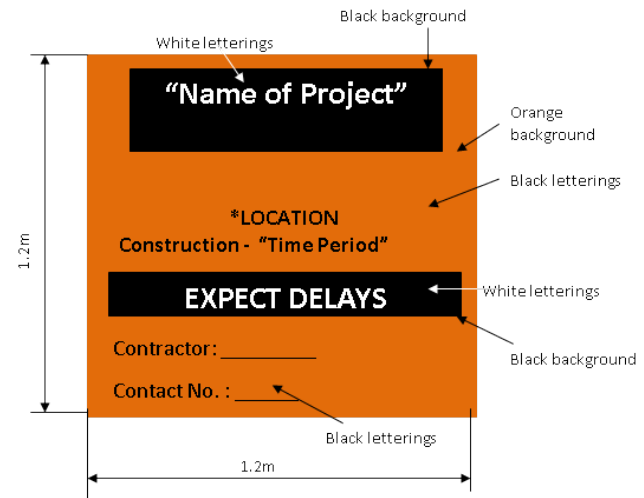
Add 1.1.3

Work described in Appendix A – Traffic Management Detail Specifications.

1.3 Measurement and Payment

Delete 1.3.1 and replace with the following

Payment for the installation of 1.2m x 1.2m static construction notification signs (shown below) with all the details as described in Appendix A – Traffic Management Detail Specifications, includes supply, placement & removal and will be incidental to payment for work described in other Sections, unless shown otherwise in the Schedule of Quantities and Prices.



Add 1.3.2

Payment for changeable message signs (CMS) includes supply, placement, daily communication updates, up to (1) re-positionings, and removal.

Payment will be prorated for number of days signs are in place and shall be removed within 24 hours of request by Contract Administrator.

END OF SECTION

1.4	Measurement and Payment	Delete 1.4.3 and replace with the following	Payment for machine or hand placed curb on gravel or concrete curb & gutter, includes forming, supply and placing of the concrete curb and gutter with all associated joints and finishing work, landscape restorations, and will cover all straight, curved, and letdown sections. Payment includes saw-cutting, removal, and off-site disposal of all existing materials necessary to complete the work as described in the Contract Documents. Payment for granular subbase and granular base under curb and gutter in this section will be incidental to curb installation.
		Delete 1.4.5 and replace with the following	Payment for concrete sidewalks, infills, and all concrete driveway crossings includes forming, supply and placing of the concrete in straight or curved sections. Payment will be made separately for each specified type. Payment includes saw-cutting, removal, off-site disposal, landscape restoration, and all existing materials necessary to complete the work as described in the Contract Documents. Payment for granular granular base under sidewalk and driveway letdowns in this section will be incidental to installation.
2.1	Materials	Delete 2.1.5.1 and replace with the following	Hand-formed and hand-placed concrete: Slump: 80 mm Air entrainment: 5 to 8%. Maximum aggregate size: 20 mm. Minimum cement content: 335 kg/m³. Minimum 28 day compressive strength: 32 MPa. Tactile warning surface tile shall be replaceable cast-in-place style. Truncated domes shall be in square grid pattern with a 5 mm nominal raised height, base diameter of 23 mm and top diameter of 11.5 mm. Dome spacing range shall be between 40 mm – 60 mm. Color of the panel shall be Federal Yellow (Y) per US Federal Standard 595B Table IV, Color No. 335. Minimum size of the panel shall be 600 mm by 1200 mm.
		Add 2.1.7	
3.0	EXECUTION		
3.5	Concrete Placement	Delete 3.5.9 and replace with the following	The <i>Contractor</i> is responsible for adjusting all utility manhole frames and valve boxes, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Riser rings will not be accepted. The <i>Contractor</i> should note that certain utility owners may decide to complete their own adjustments. The <i>Contractor</i> will be required to cooperate with any utility company providing their own adjustments. The <i>Contractor</i> shall be responsible to contact the appropriate utility company within a minimum of seventy two (72) hours of the work. No adjustment shall be made without the written approval of the utility company. <u>All manholes must be vertically adjusted a minimum of twenty four (24) hours prior to concrete placement.</u>

3.9 Expansion Joints

Delete 3.9.1 and
replace with the
following

Form transverse expansion joints at both ends of curb returns and at maximum spacing of 9.0 m for sidewalks, 30.0 m of curb and gutter, at each end of driveway crossing, at tangent point of circular work, and on either side of catch basins.

END OF SECTION

1.0 GENERAL

1.4 Measurement and Payment

Delete 1.4.1 and replace with the following

Payment for all work performed under this section will be incidental to payment for work described in other Sections.

2.0 PRODUCTS

2.7 Granular Pipe Bedding and Surround Material

Add to 2.7.1

All recycled or other extraneous materials shall be approved by *Contract Administrator* and the City prior to use.

2.10 Granular Base

Delete 2.10.2

Add 2.10.3

All 25 mm minus granular base is to conform to the following gradation specifications:

Sieve Designation (mm)	Percent Passing (%)
25	100
19	80-100
12.5	75-90
9.5	50-85
4.75	35-70
2.36	25-50
1.18	15-35
0.30	5-20
0.075	0-5

Add 2.10.4

The intention of the Gradation Chart is to identify the desired mix of size of aggregate in the granular base. The Target Percentage Passing is the middle of the shown Range.

Tests that show sieve values of Percent Passing that are consistently low or consistently high in two (2) or more consecutive tests will be considered to be non-conforming.

2.11 Recycled Aggregate Material

Delete 2.11.1 and replace with the following

Aggregates containing recycled material may be utilized if approved by the Contract Administrator and the City. In addition to meeting all other conditions of the specifications, recycled material should not reduce the quality of the construction achievable with quarried materials. Recycled material shall consist only of aggregates, crushed portland cement concrete, or asphalt that is free of impurities.

2.13 Low Permeability Mineral Soil

Add 2.13

Approved low permeability mineral soil shall consist of either high fines (15 to 30% passing 75µm sieve) silty sand or medium to low plasticity clay, free of organics and other deleterious materials and/or debris.

END OF SECTION

CLEARING AND GRUBBING

- | | | | |
|------------|--------------------------------|---|--|
| 1.2 | Definitions | Add 1.2.5 | <p>Trimming of trees, hedges and shrubs, and snag cutting of trees, removal of hedges, shrubs and tree stumps, is included with Clearing and Grubbing. Co-ordinate with property owners and use the services of a certified arborist when necessary. Generally trees, bushes and shrubs shall be cleared for the full width of the work, within the construction limits, with the extent of clearing minimized.</p> <p>Final height of the snag cut will be per approval of the Contract Administrator.</p> <p>It is the Contractor's responsibility to obtain permission from the property owners.</p> |
| | | Add 1.2.6 | <p>Clearing and grubbing does not include removal of grass, topsoil and ditch vegetation as these items are deemed part of trench excavation.</p> |
| 1.4 | Measurement and Payment | Delete 1.4 and replace with the following | <p>Payment for all work performed under this section will be incidental to payment for work described in other Sections, unless shown otherwise in the Schedule of Quantities and Prices; and</p> <p>Includes removal and disposal of all branches, stumps, trees, timbers and vegetation to complete the work as shown on the Contract Drawings or as directed by the Contract Administrator. Works include cutting of branches & trees as required to create the necessary clearance to accommodate the construction; and</p> <p>Includes removal and offsite disposal of all trees, roots, vegetation, organic matter, invasive species, stumps, including stumps for trees removed by others, and topsoil stripping and disposal that are located within the work area(s).</p> |
| 3.5 | Removal and Disposal | Add 3.5.6 | <p>The Contractor shall remove all invasive plant species at the work sites and dispose properly on an approved location.</p> |

END OF SECTION

1.3	Measurement and Payment	Add 1.3.2	Payment for Hydro Excavation around existing trees includes all labor, material, equipment, removal and disposal to complete the work as shown on the Contract Drawings or as directed by the <i>Contract Administrator</i>. Payment includes coordinating the work of all locations requiring hydro excavation to maximize the use of the hydro excavation machine and coordination with the Site Arborist that will be hired/paid by the City. Payment will be made under Section 31 23 01S, Clause 1.10.13
2.0	PRODUCTS		
2.1	Materials	Add 2.1.10	Protective Fencing: Posts - Pressure treated wood 100 mm dia.; Post to be 1.8 m to 2.0m in height at 2.0 m O.C. Snow fence as per Coquitlam Approved Products List; Flagging Tape - 4" Orange glow - 'Tree Retention Area'.
3.0	EXECUTION		
3.1	Existing Trees	Add 3.1.7	The <i>Contractor</i> is responsible to minimize damage to all trees which are to remain.
		Add 3.1.8	The <i>Contractor</i> will be responsible for all claims and costs including the cost of examination by an Arborist, repair, removal and replacement of trees, as required by the Arborist, the <i>Contract Administrator</i> and the City for tree damage where proper notification was not received from the <i>Contractor</i>. Damage will be assessed based on the International Society of Arboriculture Guidelines. The term shall be for a period of one year following the date of Substantial Performance of the <i>Work</i>.
		Add 3.1.9	Place protective fencing/barricades as detailed on Coquitlam Standard Detail Drawings COQ-R26 where specified by the <i>Contract Administrator</i>. <i>Contractor</i> shall maintain fence in good condition during construction.
		Add 3.1.10	When work is to be performed inside fenced areas, <i>Contractor</i> shall take care to avoid damage to existing vegetation. Work to be done inside areas of existing vegetation to be retained includes: .1 Removal of isolated trees as directed by the <i>Contract Administrator</i> and the City. .2 Selective pruning and tree removal at edges to create tidy and well-shaped forest edge. .3 Placing planting soil and planting of trees.
		Add 3.1.11	Do not park, service or fuel vehicles within the vegetation retention areas.
3.4	Pruning	Add 3.4.2	Do not cut roots or branches of retained trees without approval of the <i>Contract Administrator</i> and the City.

END OF SECTION

1.0 GENERAL

1.8 Limitations of Open Trench

1.8.1
Replace last sentence
with the following

If circumstances do not permit complete backfilling of all trenches, and where permitted by the *Contract Administrator* and the City, adequately protect all open trenches or excavations with approved fencing or barricades and, where required, with flashing lights.

Add 1.8.2

The use of road plates to cover excavations and restore travel lanes is not permitted in late Fall, Winter or if forecast indicates temperature equal or below 2 degrees Celsius, unless otherwise permitted by the Contract Administrator.

Where construction necessitates the use of road plates, the Contractor is responsible for properly securing them (either pinned or recessed into the pavement) and feathered a minimum of 300mm with existing road asphalt on all four sides. The Contractor is responsible for repairing any pavement damage related to the plate installation.

1.10 Measurement and Payment

Add to 1.10.3

Payment for over excavation and disposal of soft soils or wood fill includes supply, placement and compaction of a 0.3m layer of 19mm clear crushed backfill encapsulated in a non-woven geotextile (Nilex 4551 or approved equal) will be made on a volumetric basis at the unit rate tendered, and only for the volume authorized by the Contract Administrator. Payment to include removal and offsite disposal of the unsuitable excavated native material according to its contamination level and/or wood content.

Additional cost for disposing of contaminated soil will be made per GC 10.0 of the MMCD.

Add 1.10.9

Payment for imported trench backfill, includes supply, transport, placement, adjustment of moisture content and compaction to 95% modified proctor density.

Payment for imported backfill will be made by the tonne delivered to the Place of Work based on truck weigh slips and confirmed by volume calculation. Weigh slips must be submitted to the Contract Administrator on a daily basis. Weigh slips which are not submitted daily will not be accepted for payment.

Add 1.10.10

Payment for the removal, cleaning, and reinstatement of the Maillardville Village bus shelter will include all labour, machinery, and materials to facilitate the removal of footing bolts by wrench or cutting, disassembly as required, craning or otherwise lifting the structure without causing damage, transport to a secure location, storing, cleaning, replacing concrete footings removed or damaged during pipe installation, providing new stainless steel nuts & bolts as required, transporting shelter back to site, re-assembling as required, and bolting to footings.

Payment shall be made by lump sum upon the shelter being bolted back to its footings.

Add 1.10.11

Payment for the removal and replacement of the concrete filled bollards and cross beams behind the Maillardville bus shelter shall include all labour, machinery, and materials to remove 5 existing bollards (steel filled with concrete) & 4 metal cross beams and replace with new bollards and cross beams painted black.

Payment shall be made by lump sum when new painted bollards and cross beams have been installed.

Add 1.10.12

This item will be for prelocating the Trans Mountain Pipe by hydro excavation at intervals specified by Trans Mountain.

Includes hole cutting/coring, vector truck & operator, offsite dumping, backfilling, replacement of asphalt plug, tack coat.

Payment shall be made for the actual cost on a Force Account basis as defined in GC 10.

Add 1.10.13

This item will be for hydro excavating, as directed by arborist, where sanitary service (gravity and force) is in possible conflict with tree roots in the boulevard.

Includes vector truck & operator, offsite dumping, trench covering if service cannot be completed and backfilled the same day as hydroexcavation.

This item will be in addition to other items listed in the Schedule of Quantities and Prices.

Payment shall be made for the actual cost on a Force Account basis as defined in GC 10.0

2.0 PRODUCTS

2.2 Use of Specified Materials

Delete 2.2.1.2

Delete Pit Run Sand

Delete 2.2.3.3

Delete Pit Run Sand

3.0 EXECUTION

3.3 Excavation

Delete 3.3.1.2 and replace with the following

Connections to existing waterworks systems are to be made by the *Contractor* under the inspection / supervision of the *Contract Administrator* and the City.

3.6 Surface Restoration

Delete 3.6.2.4 and replace with the following

Restore lawns with approved topsoil and grass seed to match existing lawn.

Delete 3.6.3.1 and replace with the following

Restore surface with a minimum 100 mm of 19 mm granular road base material.

Delete 3.6.7.5 and replace with the following

Restore Pavement as detailed on Coquitlam Standard Detail Drawing COQ-G4. Temporary patch shall be a minimum thickness of 100 mm thickness.

END OF SECTION

COLD MILLING

- 1.5 Measurement and
 Payment**
- Delete 1.5.1 and
Replace with:

Payment for this item will be made for the depth specified in the Schedule of Quantities in the Form of Tender and is for the surface removal of existing/temporary asphalt to the depth specified, as detailed in the Contract Documents, in order to complete the permanent pavement restoration along trenches.

Payment will be made for each square metre of asphalt removed, to the depths indicated in the Form of Tender, and includes the off-site disposal of all milled material. Payment includes mobilization, demobilization, demonstration milling test section, the cost of transport & disposal off-site, saw cutting, milled key, street sweeping or cleaning to allow for the placement of required thickness of asphaltic concrete.

MILLING OF EXTENSIVE AREAS THAT CANNOT BE PAVED WITHIN 48 HOURS PERIOD (2 DAYS) WILL NOT BE PERMITTED.

UNITED BOULEVARD MUST HAVE ASPHALT PLACED AND ROLLED THE SAME DAY AS MILLING

No additional payment will be made for multiple passes or remobilization, as required, to mill to the depth(s) specified in the Schedule of Quantities in the Form of Tender.

END OF SECTION

- 1.4 Measurement and Payment** Delete Clause 1.4 and replace with

.1 Payment for all work performed under this section will be incidental to payment for work described in other Sections, unless shown otherwise in the Schedule of Quantities and Prices.
.2 Payment for Subsection 1 above includes supply, placement and compaction of granular subbase material, adjustment of moisture content, and boning to establish the road cross-section.
.3 Payment includes removal of unsuitable subgrade including disposal off-site prior to direct placement of granular.

Payment includes supply, placement and compaction of granular subbase material and adjustment of moisture content.

2.0 PRODUCTS

- 2.1 Specified Materials** Delete

2.1.1.1 Select Granular Subbase
2.1.1.2: 75 mm Pit Run Gravel
2.1.1.4: Pit Run Sand
2.1.1.5: Approved Native Material
2.1.1.7: River Sand

END OF SECTION

GRANULAR BASE

- | | | | |
|------------|--------------------------------|------------------------------------|---|
| 1.4 | Measurement and Payment | Delete Clause 1.4 and replace with | <p>.1 Payment for all work performed under this section will be incidental to payment for work described in other Sections, unless shown otherwise in the Schedule of Quantities and Prices.</p> <p>.2 Payment for Subsection 1 above includes supply, placement and compaction of granular base material, adjustment of moisture content, and boning to establish the road cross-section.</p> <p>.3 Payment includes removal of unsuitable subgrade including disposal off-site prior to direct placement of granular.</p> |
|------------|--------------------------------|------------------------------------|---|

2.0 PRODUCTS

- | | | | |
|------------|----------------------|-------------|--|
| 2.1 | Granular Base | Add 2.1.1.3 | <p>25 mm minus crushed gravel conforming to the gradation specifications under Section 31 05 17S – 2.10.3.</p> |
|------------|----------------------|-------------|--|

END OF SECTION

ASPHALT TACK COAT

**1.5 Measurement and
 Payment**

Delete 1.5.1 and
replace with the
following

Payment for all work performed under this Section will be incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.

Payment will only be made for horizontal areas; area of verticle faces will be incidental.

Delete 1.5.2 and
replace with the
following

Pavement surface cleaning, as per section 32 01 11, and all other work incidental to the application of tack coat is deemed to be incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.

1.4	Related Work	Add 1.1.8	Roadway Excavation, Embankment & Compaction...Section 31 24 13
		Add 1.1.9	Manholes and Catch Basins.....Section 33 44 01
1.5	Measurement and Payment	Delete Clause 1.5.1 and replace with	Payment for asphaltic concrete paving and asphalt concrete curb includes all construction joint preparation, supply and placing of the asphaltic concrete, compaction and cleaning frames, covers and lids of castings affected, all testing as described in Supplementary General Conditions – Clause 4.12.2(a), all surface restoration as specified under Section 31 23 01 – Sub-section 3.6, all temporary and permanent pavement markings restoration as specified in Section 32 17 23 and all other work and materials necessary to complete installation as shown on Contract Drawings and specified under this Section. Payment for asphaltic concrete paving is incidental to work described in other section unless otherwise specified in the Schedule of Quantities and Prices.
2.2	Mix Design	2.2.3.2	Change Marshall Stability for both lower and upper course to “10 kN min”
3.7	Joints	Delete Clause 3.7.5 and replace with	Construct butt joints as directed in the field by the Contract Administrator.

END OF SECTION

UNIT PAVING

1.0 GENERAL

1.1 Related Work

Add 1.1.7

Geosynthetics Section 31 32 19

1.6 Measurement and Payment

Delete 1.6.1 and replace with the following:

Payment includes the removal of bricks/pavers and temporarily and securely storing / stock piling on or off-site, granular base course, grading, base compaction, bedding sand, returning stock-piled pavers to site, placement of pavers, locking sand, and tamping.

2.0 PRODUCTS

2.1 Materials

Delete 2.1.4 and replace with the following

Bedding sand shall conform to the following gradation limits:

Sieve Size (mm)	Percent Passing (%)
9.52	100
4.75	95 – 100
2.35	80 – 100
1.18	50 - 85
0.60	25 - 60
0.30	10 - 30
0.15	5 – 15
0.075	0 - 10

Add 2.1.7

Concrete pavers shall conform to ASTM C939 to C982, specifications for solid concrete interlocking paving units.

Add 2.1.8

Paver type, size and colour, shall be as indicated on the *Contract Drawing*. Paver thickness shall vary. All pavers used in driveways shall be a minimum 80 mm thick. All pavers used for boulevard or sidewalk areas shall be a minimum 60 mm thick.

Add 2.1.9

Pigmentation of concrete pavers shall be a solid colour throughout the unit.

Add 2.1.10

Normal weight aggregate shall be used for the concrete mix.

Add 2.1.11

Jointing sand shall consist of at least 30% of 1 mm sand particles and shall otherwise meet the requirements for bedding sand.

Add 2.1.12

All concrete pavers shall be sealed.

3.0 EXECUTION

3.2 Granular Subbase and Base

Add 3.2.5

Sand, when stock piled onsite, shall be protected against the rain.

3.5 Unit Paving

Delete 3.5 and replace with the following

.1 Concrete pavers shall be delivered and stored on-site in metal strapping or shrink wrapped PVC.

.2 Prior to installation of concrete pavers all street signs shall be installed.

.3 Sand bedding shall have moisture content not less than 6% and not more than 8% prior to compaction.

.4 All pavers shall be sealed with a clear protective sealant after installation.

UNIT PAVING

.5 Sand bedding shall be spread evenly over an area not greater than required to receive concrete pavers in one day and shall be protected against accidental pre-compaction and rain. This bedding shall have a minimum compacted thickness of 20 mm and a maximum compacted thickness of 40 mm, and shall be graded to meet crossfalls in boulevards, sidewalks and driveways.

.6 Concrete pavers shall be laid in a pattern as indicated on the *Contract Drawing*.

.1 Joints between units shall not exceed 3 mm.

.2 Full units shall be installed first and edge pieces fitted subsequently.

.7 Edge restraint shall be as indicated on the *Contract Drawing*.

.8 Gaps at junctions between concrete pavers and edge restraints shall be filled with purpose made or cut edge pieces. Paver shall be cut to fit other conditions. All pavers shall be cut with an approved paver guillotine or masonry cut-off saw to neatly, and accurately fit without damaged edges.

.9 Pavers shall be vibrated to their final level by having not less than 3 passes of a vibrating plate compactor.

.10 The compactor shall be a high frequency, low amplitude unit with plate size sufficient to cover a minimum 12 pavers.

.11 After placement, jointing sand shall be spread over the paver surface and vibrated to completely fill all joints. Jointing sand shall be reinstalled after the first heavy rainstorm.

3.6 Acceptance

Add 3.6.2

All pavers must drain freely with no ponding of water.

Add 3.6.3

Defective, chipped or poorly cut pavers shall be replaced.

Add 3.6.4

Surfaces shall abut flush with adjacent materials. Surface of finished pavement shall be free from depressions exceeding 3 mm as measured with 3m straight edge.

END OF SECTION

1.0 GENERAL

1.2 Scope

Delete 1.2.1 and replace with the following

Pavement Markings: Miscellaneous taped temporary and permanent pavement paint markings including pedestrian crosswalk, merge and diverge markings, stop lines, solid and broken line road lane markings including edge lines of merge and diverge markings, bike symbols, etc. to be provided as shown on the *Contract Drawing*.

1.5 Measurement and Payment

Delete 1.5.2 and replace with the following

All permanent markings shall be marked with extruded thermoplastic road markings as specified under Section 32 17 23S, 2.1 Materials, unless shown otherwise in the Schedule of Quantities and Prices.

Delete 1.5.3 and replace with the following

The lump sum payment for permanent thermoplastic pavement markings covers removal of existing markings, supplying all materials and completing all the permanent thermoplastic pavement markings necessary to provide markings as shown on the Contract Drawings.

NOTE: PAYMENT FOR PERMANENT THERMOPLASTIC PAVEMENT MARKINGS WILL NOT BE MADE UNTIL ALL TEMPORARY PAVEMENT MARKINGS AND REFLECTIVE DEVICES HAVE BEEN REMOVED.

Delete 1.5.4 and replace with the following

Payment for signage includes all sign poles, bases, sleeves, sign relocations, temporary removal, cleaning and re-installation of existing, and sign installations (complete). The City will supply signs to supplement existing signs as required. Payment includes all labor, materials and incidentals to complete the work.

1. Installation of each new sign pole, cap, sleeve and trapezoidal base includes all costs to supply all materials, labour and equipment and incidentals, as shown on Standard Detail Drawings SS-E11.1 & SS-E11.2, necessary to the install sign structure as shown on the Contract Drawings and as directed by the Contract Administrator.

2. Installation of each new sign pole, cap, sleeve, galvanized steel bracket for no post barrier, as per MOT Drawing # SP635-3.8.3, includes all costs to supply all materials, labour and equipment and incidentals necessary to the sign structure as shown on the Contract Drawings and as directed by the Contract Administrator.

3. The unit price payment is for each city supplied aluminum sign installed on a sign pole includes sign mount clamps & all costs to supply all materials, labour and equipment and incidentals necessary to install each sign as directed by the Contract Administrator.

4. Installation of each aluminum sign on a lamp standard pole or sign pole includes sign mount clamps and all costs to supply all materials, labour and equipment and incidentals necessary to install each sign as directed by the Contract Administrator.

Add 1.5.5

Payment for the supply and installation of Recessed Pavement Markers (RPM) will be on a lump sum basis and shall include all labour, equipment, and materials required to install recessed RPMs as described in the BC MOT Manual of Standard Traffic Signs and Pavement Markings, Chapter 7.5.1. and Contract drawings.

2.0 PRODUCTS

2.1 Materials

Delete 2.1.1 and
replace with the
following

All permanent paint markings shall be marked with thermoplastic manufactured by LAFRENTZ Road Markings or HITEX North America (Hibrite extrude thermoplastic).

Delete 2.1.7 and
replace with the
following

Thermoplastic material

- .1 Material composition shall be at the discretion of the manufacturer subject to the approval of the Contract Administrator and the City. Each formulation shall be identified by a code number.
- .2 No retained water when tested by ASTM D-570.
- .3 Specific gravity of the supplied product shall be within 3 % of that specified for the selected formulation.
- .4 Material shall not deteriorate upon contact with deicing chemicals, gasoline, diesel fuel or grease dropped by traffic.
- .5 Material shall not break down, deteriorate, scorch or discolour, if held within the application temperature range specified by the manufacturer for a period of four hours and it must be able to be reheated from room temperature to the application temperature four (4) times without showing any of these detrimental effects.
- .6 When applied at the temperature recommended by the manufacturer and at a film thickness of 2 to 4 mm, the material shall set solid and show no tracking under traffic after elapsed times as follows:
 - .1 Two (2) minutes at an air temperature of 10° C, relative humidity less than 75 %, and road surface temperature from 10° C to 20° C.
 - .2 Five (5) minutes at an air temperature of 32° C, relative humidity less than 75 %, and road surface temperature from 35° C to 50° C.
 - .3 The drying time under conditions intermediate between the two air temperatures shall be interpolated using a straight line model.
- .7 The quantity, type, and gradation of the component reflecting glass spheres premixed in the thermoplastic material shall be at the discretion of the manufacturer, but shall provide retroreflection levels specified below.

3.0 EXECUTION

3.3 Application

Add to 3.3.1.3

Temporary raised pavement markings (TRPMs) are to be provided on all multi-lane roadways as directed by the *Contract Administrator* and the City.

Delete 3.3.3.3 and
replace with the
following

Thermoplastic material shall be heated in the melter to a temperature of 382 °F.

END OF SECTION

TOPSOIL AND FINISH GRADING

1.0 GENERAL

1.1 Related Work Add 1.1.6 Shrubs & Tree PreservationSection 31 11 41

1.4 Measurement and Payment Delete 1.4.1 and replace with Payment for growing medium and imported topsoil is incidental to work described in other sections. Payment shall include supply of materials, on-site handling, and placement to 150mm of compacted top soil for sod, bark mulch, watering, application of fertilizers, finish grading and swales.

3.0 EXECUTION

3.4 Placing Growing Medium Add 3.4.6 Scarify soil, feather grades and remove noxious weeds from the edge of tree preservation areas.

END OF SECTION

1.0 GENERAL

**1.8 Measurement and
Payment**

Delete 1.8.1 and
replace with

Payment for seeding includes supply and mechanical or hand application of grass seed (lawn grass #1, sun and shade mix) and maintenance to meet Conditions of Total Performance per 3.7 of this Section.

Payment is incidental to work described in other sections.

END OF SECTION

1.0 GENERAL

**1.9 Measurement and
Payment**

Add to 1.9.1

Payment includes planting, labour, material and equipment required to complete the work including the costs of all trees, live stakes, shrubs, seeds and ground cover.

Payment for all work performed under this Section will be incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.

END OF SECTION

1.0 GENERAL

- | | | |
|--|---|---|
| 1.2 References | Delete 1.2.2.1 and replace with the following | National Association of Sewer Service Companies' (NASSCO's) Pipeline Assessment and Certification Program, version 6.x including addendums, or latest version. |
| 1.3 Submission of Certification | Delete 1.3.1 and replace with the following | Submit copy of the CCTV operator's current NAASCO certification certificate to the Contract Administrator at least one week prior to the start of the CCTV inspection operations. |
| 1.6 Measurement of Payment | Delete 1.6 and replace with the following | Payment for all work performed under this Section will be incidental to work described in other sections unless shown otherwise in the Schedule of Quantities and Prices. |

2.0 PRODUCTS

- | | | |
|----------------------|---|--|
| 2.1 Equipment | Delete 2.1.4 and replace with the following | The individual digital video playback files to be of MPEG file format. |
| | Add 2.1.5 | The digital data file delivered to the City to be in PACP standard database file format version 6.x or latest. |

3.0 EXECUTION

- | | | |
|----------------------------|--|---|
| 3.1 CCTV Inspection | Delete 3.1.1 and replace with the following | CCTV operator to be certified by NASSCO (PACP/MACP/LACP). |
| | Delete 3.1.2 and replace with the following | NASSCO certified software must be used to produce inspection report and the data will be submitted in the PACP standardized database format. The review of this statement will be part of the evaluation of the tender. Submission to satisfy all of the specifications and report submissions per NASSCO's PACP (MACP/LACP) will be used as a benchmark for subsequent inspection report submission. |
| | Delete 3.1.11 and replace with the following | Note condition of pipe joints at manhole walls at the beginning and end of each pipeline; At the beginning of each pipeline or where surface wear of the pipe changes, pan to the invert and any direction as needed to report and record surface wear condition of the pipe using PACP (MACP/LACP) codes; Fill under remarks the observations if no surface wear observed due to good condition of pipe or unable to determine stating reason. |
| | Delete 3.1.14 and replace with the following | Stop camera at each defect, change of condition of pipe and service connection to record defect in accordance with PACP (MACP/LACP) codes. |

		Delete 3.1.15 and replace with the following	Add PACP (MAC/LACP) code overlay to digital video at defects or connections in addition to continuously displayed data.
		Add 3.1.19	The inspection measurement and reporting units must be in metric system.
3.3	Site Coding Sheets	Delete 3.3.1 and replace with the following Delete 3.3.2 and replace with the following Delete 3.3.2.1 Delete 3.3.2.2	Each pipeline length to be recorded according to the PACP. Any variation from the manual to be noted in the survey report. Use standard coding form and standards of PACP:
3.7	Photographs and /or Digital Images	Delete 3.3.2.3 and replace with the following Delete 3.7.1 and replace with the following Delete 3.7.2.5 and replace with the following	Note observations as to condition of service connections beyond mainline in remarks column using standards codes as per PACP. Photograph all major defects as defined by condition codes in PACP: B, CC, CL, CM, TFD, TBD, TSD, TRD, D, FC, FL, FM, H, IR, IG, JO, OB, JS, RM, RB, RT, and X. PACP/MACP/LACP Condition Defect Code.
3.8	Inspection Reporting Hard Copies & Digital Format	Delete 3.8.2 and replace with the following	Present machine printed (hardcopy) and computer generated data base reports according to the PACP format.
		Delete 3.8.2.2 and replace with the following	Hardcopy reports to be presented in PACP standard format.
3.10	Root cutting & Removal	Delete 3.10.1 and replace with the following	Remove roots for condition codes RT, RM, and RB.
3.11	Flow Reduction	Add 3.11.5	For new sewer pipes, video inspection in a particular section, should be carried out before sewage flow in allowed in that particular section. If this is not possible than Contractor is responsible to arrange for temporary by-pass pumping around inspection section.
3.12	Coding Accuracy	Delete 3.12.1.2 and replace with the following Delete 3.12.4 and replace with the following	Detail accuracy 90% An operator failing to meet the accuracy requirements on two occasions will not be permitted to code on the remainder of the project until they have successfully re-attended an Operator's Certification course, re-write and pass the NASSCO Pipeline Assessment Certification Program.

END OF SECTION

1.0 GENERAL

**1.6 Measurement and
Payment**

Delete 1.6.1 and
replace

Payment for sanitary sewer will be made separately for various sections of sanitary sewer consistent with pipe materials, diameters and backfill requirements shown on the Contract Drawings and described under individual payment items in the Schedule of Quantities.

Delete 1.6.2 and
replace with

Payment for sanitary sewers includes asphalt & concrete saw cutting, disposal of pavement, trench excavation, shoring, offsite disposal of native excavated material, removal and disposal of existing pipes regardless of material, capping existing main, dewatering, supply and installation of all pipe, fittings and related materials, tie-ins other than noted in Clause 1.6.7, bedding, Seachelt Sand over third-party utility crossings, supply placement and compaction of granular base, cleaning and flushing, air testing, weekly temporary asphalt patch (Daily on United Blvd), all surface restoration under Section 31 23 01 – Sub-section 3.6, grass restoration using sod, temporary utility pole and streetlight supports, CCTV Inspection, confirmation of existing service and all other work and materials necessary to complete installation as shown on Contract Drawings and specified under this Section.

Payment includes by-pass pumping complete with all pumps, labour and materials required to facilitate the work. Payment for the by-pass pumping will be incidental.

Measurement for sanitary sewer will be made horizontally from manhole centreline to manhole centreline over surface after work has been completed.

The Hartley Ave, Fawcett Rd, and United Blvd are considered industrial land use and the contractor should select there disposal site accordingly. The Contractor should expect to find deicing compounds in the excavated material and no additional compensation will be made for this type of contamination. Additional cost for disposing of soil with specific contamination (excluding deicing compounds) will be made per GC 10.0 of the MMCD. No additional payment will be made for general designation as soil from an industrial land use.

NOTE: PAYMENT FOR ANY SANITARY SEWER WORKS WILL NOT BE MADE UNTIL TEMPORARY ASPHALT PATCH IS COMPLETE.

Delete 1.6.3 and
replace with

Payment for new service connections includes the pipe material, couplers, bends, pvc wye, stubs, caps, plugs, Le-Ron inspection chamber as per MMCD S7 and S9 c/w locking collar and red lid, bedding and all import road base and all related fittings and components specified and/or shown on Standard Detail Drawings. Payment includes all applicable service pipes, materials and work described in 1.6.2.

Brooks Boxes with a steel lid are to be provided for all inspection chambers. Payment for the Brooks Boxes will be incidental.

Payment includes support of poles if necessary and manhole barrel preparation to accommodate the service connection.

Payment will be made per the unit price bid for each sanitary service connection.

SANITARY SEWERS

		Add to Clause 1.6.7	Payment includes coring, and all applicable works, labor, material and equipment as described in Clause 1.6.2. Payment includes complete channel installation.
2.0	PRODUCTS		
2.5	Granular Pipe Bedding and Surround Material	Add 2.5.3	Pipe bedding shall be 19 mm clear crushed rock or as approved by the Contract Administrator. Surround material above the springline within the pipe zone may be Type 2.
3.0	EXECUTION		
3.8	Connections to Existing Mainline Pipes	Delete 3.8.1 and replace with	Connections with two sizes smaller or less to existing mainlines shall be made by removal of the section of the main and replacement with a manufactured PVC wye complete with stubs and double hub PVC couplings for PVC mains and approved shear band couplings for other mainline materials. The contractor shall video inspect all connections to existing mains following completion of installation.

END OF SECTION

1.0 GENERAL

**1.8 Measurement and
Payment**

Delete 1.8.1 and
replace with the
following

Payment for sanitary sewer will be made separately for various sections of sanitary sewer consistent with pipe materials, diameters and backfill requirements shown on the Contract Drawings, and all applicable works as described in 1.8.2 and as described under individual payment items in the Schedule of Quantities.

Delete 1.8.2 and
replace with the
following

Payment for sanitary sewer forcemain includes saw cutting pavement, trench excavation, offsite disposal of native excavated material according to contamination level, supply and installation of all specified piping, fittings and related materials, mechanical restraints, concrete thrust blocks, bedding, pressure test and leakage testing, cleaning/flushing, landscape restoration, weekly temporary asphalt patch, asphalt curb, and all other work and materials necessary to complete installation as shown on Contract Drawings and specified under this Section unless otherwise specified in the Schedule of prices and Quantities; and

Measurement for sanitary force main will be made horizontally from manhole centreline to manhole centreline over surface after work has been completed.

Add to 1.8.3

Payment includes supply and installation of 150mm SDR28 pvc riser and Terminal City NT valve box and all related works as shown on contract drawing.

Add 1.8.3.1

Payment includes supply and installation of epoxy coated blind flange, gaskets, 316 stainless steel nuts and bolts, denso tape and as per manufacturer's specifications and as shown on Contract Drawing and all applicable works as described in 1.8.2.

Add to 1.8.10

Payment includes all labour, equipment and material to complete the tie-in as shown on Contract Drawing and all applicable works as described in 1.8.2; and

Payment includes supply and installation of lined and coated steel plate and spool pipe, hilti bolts, flange, 316 stainless steel nuts and bolts, gasket and as shown on the Contract Drawing.

Add 1.8.11

Payment includes all labour, equipment and material to complete the work as shown on Contract Drawing and all applicable works as described in 1.8.2 and as described in Contract Documents.

Add 1.8.12

Payment includes all labour, tools, material and equipment for flow management/by-pass pumping required facilitating the work without any sanitary service disruption on the pump station and property/business owners. Payment includes all labour, equipment and material to complete the work in accordance to WorkSafe BC Regulations and Guidelines, submission of Emergency Operation Plan as described in Appendix C, all applicable works as described in 1.8.2 and as shown on Contract Drawing.

END OF SECTION

1.6	Measurement and Payment	Delete 1.6.1 and replace with the following	Payment for storm sewer will be made at the unit price bid for storm sewer (regardless of depth) consistent with pipe materials, diameters and backfill requirements shown on the Contract Drawings and described under individual payment items in the Schedule of Quantities.
		Delete 1.6.2 and replace with the following	Payment for storm sewer main, services and CB leads includes trench excavation, removal and disposal of native material, shoring, removal and disposal of existing pipes, bypassing and dewatering, supply and installation of all pipe, fittings, couplings, gaskets and related materials, construction joints, grout, granular bedding, 400mm select granular road subbase, 150mm of 25mm granular road base, cleaning and flushing, testing (if applicable), video inspection of mains, 75mm temporary asphalt patch, tack coat, CCTV inspection, and all other work and materials necessary to complete installation as shown on Contract Drawings and specified under this Section. Measurement for storm sewer will be made horizontally from manhole centerline to manhole centerline over surface for work that has been completed. Payment for imported trench backfill will be made under Section 31 23 01S. Payment includes support of poles if necessary.
		Delete 1.6.3 and replace with	Payment for storm service or CB lead transfers to new main shall be for each completed service or lead, covering all work and materials including excavation, bends, factory wye connections at new main, shear band couplings, pvc couplers, spool pieces and all other work listed in 1.6.2 of this section.
		Delete 1.6.5 and replace with the following	Payment for catchbasin or lawn basin leads include all applicable materials and work described in 1.6.2 Measurement for catchbasin leads or lawn basin leads will be made horizontally from mainline pipe to centreline of catchbasin or lawn basin for each pipe size installed with no regards to depth range
		Delete 1.6.9 and replace with	Payment for tie-ins to existing or new manholes includes all the material, work, and components to remove existing pipe, re-bench, fill gaps between new pipe and existing manhole with sealeant approved by the Contract Administrator, and tie-in to an existing manhole. Payment includes all applicable materials and work described in 1.6.2.
		Add 1.6.12	This item is an additional payment to be added to other items specified in the Schedule of Quantities & Prices with the intention of covering additional cost to the Contractor to have a qualified person to cut, bag, and dispose of asbestos cement (AC) concrete or Transite in accordance with WorkSafe BC health and safety regulations.

2.0 PRODUCTS

STORM SEWERS

2.2	PVC Pipe, Mainline Smooth Wall	Delete 2.2.1 pipe size ranges and replace with the following	200 mm dia. – 375 mm dia. to ASTM D3034 450 mm dia. – 1,200 mm dia. to ASTM F679
2.3	PVC Pipe, Mainline Profile	Delete 2.3	
2.6	Service Connections	Delete 2.6.1 and replace with the following Delete 2.6.8.1 Delete 2.6.8.2 and replace with the following Add 2.6.8.3	Storm service connections to be PVC DR 28 150 mm diameter minimum or as specified on <i>Contract Drawings</i> . Connections to PVC pipe to be made with a preformed wye fitting where mainline pipe is 300 mm diameter or smaller. For connections to PVC mainline pipe larger than 300 mm diameter an insertable tee for PVC pipe is permitted. Insertable tee fitting shall have a rubber collar which inserts into the mainline pipe to form a tight seal and shall have stainless steel band to secure the tee insert. The tee insert shall be a standard bell end with depth control lugs. The joint shall provide a minimum seal of 90 kPa on concrete and polyethylene pipe, and 190 kPa on PVC pipe.
2.9	Granular Pipe Bedding and Surround Material	Delete 2.9.3	Pipe bedding shall be 19 mm clear crushed rock or as approved by the <i>Contract Administrator</i> and the City.
3.0	EXECUTION		
3.8	Connections to Existing Mainline Pipe	Delete 3.8.3 and replace with the following	For new connections to existing, smooth wall or profile, mainline sewers 300 mm and smaller, shall be made by removal of the section of the main and replacement with a preformed PVC wye fitting complete with stubs and double hub PVC couplings for PVC mains and approved shear band couplings for other mainline materials. For new connections to existing mainline greater than 300 mm, use of insertable tee will be permitted.
3.10	Service Connection Installation	Delete 3.10.3 replace with the following	Inspection chambers shall be provided on all storm service connections as per Standard Detail Drawing S7. If inspection chamber is located in driveway, lane, or paved surface, Series 37 Brooks concrete box with lid shall be installed as per Standard Detail Drawing S9.
3.12	Inspection and Testing		The contractor shall video inspect completed storm sewers under 900 mm in diameter and all service connections following completion of the installation. The video inspection report shall be in a form specified by the Contract Administrator and the City. Copies of the video DVD and written report shall be forwarded to the Contract Administrator and the City. Refer to Section 33 01 30.1 and 33 01 30.1S CCTV Inspection of Pipelines.
3.16	Permanent Capping of Service Connections	Add 3.16.1 Add 3.16.2	Permanent capping of existing storm sewer connections to be completed as per Coquitlam Standard Detail Drawing COQ-S18. A trenchless method of permanently capping a service may be required on an arterial road or on a road which has been paved within 5 years, as directed by the Manager.

The trenchless technology used to cap the service must be approved by the Manager.

END OF SECTION

1.0 GENERAL

1.1 Related Work

Add 1.1.6

Hot Mix Asphalt Concrete
Pavement

Section 32 12 16

Add 1.1.7

Portland Cement Concrete
Paving

Section 32 13 13

**1.5 Measurement and
Payment**

Delete 1.5.1.1 and
replace with the
following

Payment for all manholes or catch basin will be on a unit rate basis per manhole, and includes saw-cutting, jack-hammering, excavation, offsite disposal of native excavated material according to contamination level, granular road base supply, preparation and compaction, manhole base, benching, slab, frame & cover, ladders & setting frame & lid to the finished grade, and grouting joints.

Delete 1.5.4 and
replace with the
following

Payment for removal and/or abandon of existing manhole includes excavation, offsite disposal of native excavated material according to contamination level, offsite disposal of all components including cast-in-place spill over, plugs, caps, stubs, compaction, and all necessary work as shown on Contract Drawings and as specified in the Schedule of Quantities and Prices.

2.0 PRODUCTS

2.1 Materials

Add 2.1.7.3

Any frame and cover assembly creating a point load on the concrete riser rings will not be permitted.

Delete 2.1.12 and
replace with the
following

Catchbasin lids manufactured to ASTM C478M

Delete 2.1.16.2

Delete 2.1.17

3.0 EXECUTION

**3.1 Excavation and
Backfill**

Add 3.1.2

For manholes, when base gravels are complete, excavate for grade rings and manhole frame assembly. Do not disturb the compacted road base beyond the excavation requirement.

3.3 Manhole Installation

Delete 3.3.12.2 and
replace with the
following

Allowable products are precast concrete risers and cast-in-place form system. Individual riser heights shall be 50mm, 75mm, or 100mm.

Delete 3.3.12.5 and
replace with the
following

Proper layer of grout between the spacers, covering the entire surface of the rings, should be utilized.

Delete 3.3.15 and
replace with the
following

Install drop structures as shown on the contract drawings to Coquitlam Standard Detail Drawing COQ-S4 and Standard Detail Drawing S3. Maximum allowable inside ramp shall be 250 mm invert to invert.

Delete 3.3.17 and
replace with the
following

Ensure frames conform to design contour of pavement or existing surface. Manhole lids left raised in preparation for overlay paving shall have a rubberized protector ring or asphalt ramp. The use of riser rings for adjusting manhole frames will not be permitted.

**3.5 Catchbasin
Installation**

Delete 3.5.1 and
replace with the
following

Install catchbasins as shown on Coquitlam Standard Detail Drawings COQ-S11A, COQ-S11B and Standard Detail Drawing S11, to general standards and installation procedures described under 3.3 of this Section.

END OF SECTION

***Appendix A -
Traffic Management Detail
Specifications***

1.0 GENERAL

- | | |
|-----|--|
| .1 | This Traffic Management detail specification refers to the Contractor's specific plans to identify project traffic risks affecting the <i>Work</i> , provide Traffic Control Plans, and to implement the traffic control for the safe passage of vehicles and pedestrian through the work zone. |
| 1.1 | Related Works |
| .1 | Traffic Regulation MMCD Section 01 55 00S. |
| 1.2 | References |
| .1 | WorkSafe BC, Occupational Health and Safety (OHS) Regulation, Section 18 – Traffic Control. |
| .2 | B.C. Ministry of Transportation (MOT) Traffic Control Manual for Work on Roadways. |
| 1.3 | Project Requirements |
| .1 | A Road and Sidewalk Closure Permit is required by Coquitlam for all work affecting traffic flow related to construction. A permit is required for each specific construction interference with traffic flow. A digital copy of the Road and Sidewalk Closure Permit form can be obtained for use during the contract from the City's website at www.coquitlam.ca/closure . |
| .2 | A Road and Sidewalk Closure Permit form application must be submitted to the City's Traffic Operation Division 5 working days prior to start of work. |
| 1.4 | Measurement and Payment |
| .1 | For this Contract, payment for all work performed under this section, unless included in the Schedule of Quantities and Prices shall be treated as incidental work, including a Traffic Management Plan (TMP), Traffic Control Persons (TMP), traffic markings & all temporary traffic signs, devices as required for traffic & pedestrian safety; and all other items described in the Section 01 55 00S. |

2.0 PRODUCTS

- | | |
|-----|--|
| 2.1 | Traffic Management Plan |
| .1 | The Contractor is required to assign a Traffic Manager for the Contract with the responsibility of preparing the Traffic Management Plan and the Traffic Control Plans, as well as the responsibility for continuing implementation of traffic control for the Work. |
| .2 | The Traffic Management Plan (TMP) will consist of the following components: |

- .1 Category identification through risks and project category assessment as per MOTT Traffic Management Manual for Work on Roadways;
- .2 Traffic Control Plans for individual stages of the construction;
- .3 Incident Management Plan for the response to an unplanned event and recording of incident information;
- .4 Category 3 TMP must be signed and sealed by a qualified Professional Engineer.
- .5 Contractor and the Professional Engineer preparing the TMP must meet with the *Contract Administrator* and the City's Traffic Operations department after Notice to Proceed.
- .3 Submission of the TMP is to be made to the *Contract Administrator* within five (5) days of the *Notice of Award* of the *Contract*, and must be approved by the *Contract Administrator* prior to start of the *Work*.
- .4 Review of the TMP will be performed by the Contract Administrator. Comments for revisions to the TMP will be returned to the *Traffic Manager* for implementations.
- .5 The Contractor shall comply with all the requirements of applicable laws, rules, regulations, codes and orders of the municipal and other appropriate authorities concerned with work on streets or highways and shall post proper notices and/or signals, and provide necessary barriers, guards, lights, flagmen or watchmen as may be necessary for proper maintenance of traffic and protection of persons and property from injury or damage. All costs involved in respect to the above requirements will be deemed to be included in the Contract Price.
- .6 The Contractor shall give due notice to local police and fire departments prior to beginning construction and shall comply in all respects with their requirements.
- .7 The Contractor, during the progress of the work, shall make adequate provision to accommodate the normal traffic along streets and highways immediately adjacent to or crossing the work so as to cause the minimum of inconvenience to the general public.

- .8 The Contractor is required to maintain local traffic and driveway access during all stages of construction. This includes maintaining a 1.5m width walkway or pathway through the construction site for pedestrians.
 - .9 Where existing streets or roads are not available as detours, all traffic shall be permitted to pass through the work with as little inconvenience and delay as possible unless otherwise provided or authorized by the Contract Administrator. If half the street only is under improvement, the other half shall be conditioned and maintained as detour.
- 2.2 Incident Management and Reporting
- .1 The Contractor shall facilitate incident response vehicles and staff and move traffic safely and expeditiously through or around an incident on site and provide assistance to emergency response personnel as required. An incident includes, but is not limited to, motor vehicle accidents, emergency road repairs, disabled vehicles, and debris on the road. The immediate response to an emergency shall by necessity make use of available devices and equipment.
 - .2 If an incident occurs on site, the Contractor will be required to submit a report to the Contract Administrator documenting details of the incident including event, location, date, time, action taken, duration and restoration of site.
- 2.3 Traffic Control Plans
- .1 The Contractor shall designate a qualified Traffic Control Supervisor for the works, per the requirements of WCB regulations Section 18.

The designated Traffic Control Supervisor may be the same individual that is designated as the Traffic Manager, or may be a separate individual qualified for the responsibilities of this function.
 - .2 The Contractor shall prepare weekly the anticipated traffic control activities, locations, and durations for the upcoming week.
 - .3 Permissible delays shall only be considered outside Peak Hours. Permissible delays are categorized as follows:
 - a) Minor Delays - Less than two (2) minutes in duration; for occasional interruption due to construction activities. These delays shall be coordinated with available breaks in the traffic flow.

b) Major Delays - Maximum five (5) minutes in duration; for occasional interruption of traffic for construction activities if traffic volumes permit. These delays shall be coordinated with available breaks in the traffic flow.

.4 The Contractor is responsible for ensuring that the flow of traffic is unimpeded by construction-related activities.

3.0 EXECUTION

3.1 Traffic Control Plan

.1 A copy of the approved current Traffic Plan must be held on site by both the Site Superintendent as well as the person/company responsible for the traffic control implementation.

.2 Failure to produce a valid approved Traffic Plan on site, or having work not follow the Traffic Control Plan will result in immediate shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The Contractor must take all steps to acquire an approved Traffic Control Plan before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.

3.2 Road and Sidewalk Closure Permits

.1 The Contractor must have, on-site, a copy of an approved Road and Sidewalk Closure Permit valid for the work being done. Failure to produce a valid Road and Sidewalk Closure Permit on-site will result in shut-down of the work. Failure to comply on what is stated on the approved permit will result in shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The Contractor must take all steps to acquire a Road and Sidewalk Closure Permit before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.

3.3 Traffic Control Personnel & Equipment

.1 The Contractor shall supply all necessary traffic control devices required to perform traffic control services for the project. Signs and traffic control devices not applying to existing conditions shall be removed. Where operations are carried out in stages, only those traffic control devices that apply to the current stage are to be left in place.

.2 There must be sufficient Traffic Control Persons (TCPs) on site to appropriately and safely direct traffic in all sections of the Work.

3.4 Signage

.1 Supply, installation, maintenance and removal of all works-related signs shall be the responsibility of the Contractor. The

location and type of each sign shall be indicated on the approved Traffic Control Plan, for each stage of the works.

Traffic control signs and devices must be positioned and used as specified in the Traffic Control Plan and signs and devices must be located so as to allow traffic to move by or through the work area in a controlled manner and, if necessary, to come to a controlled stop with due regard for the prevailing weather and road conditions.

Signs shall be checked daily for legibility, damage, suitability and location. Signs and delineators shall be cleaned as frequently as necessary to ensure full legibility and reflectance.

- 3.5 Detours .1 Any proposed detours must be approved by the Contract Administrator and conducted in accordance with the approved Traffic Plan and the Traffic Control Manual for Work on Roadways.

- 3.6 Abrupt Changes in Surface Elevations .1 The Contractor shall minimize any abrupt changes in roadway elevation left exposed to traffic during both working and non-working hours.

A wedge of asphalt must be used as a transition to vertical differences in travelled areas and have a slope of 4:1 or less.

- 3.7 Cyclist and Pedestrian Access .1 The Contractor shall make provision for pedestrians, wheel chairs and bicycles to have safe access across the work zone at all times. If this cannot be readily accommodated, then acceptable detours and appropriate signs shall be provided.

- 3.8 Temporary Pavement Markings .1 The Contractor shall be responsible for the application and removal of all temporary pavement markings and reflective devices.

All temporary markings must be removed after installation of permanent markings.

4.0 TRAFFIC RESTRICTIONS

- 4.1 Road and Sidewalk Closure Permits .1 Detours and full road closure (with Local Traffic Only) will only be allowed during placement of asphalt paving.
- .2 A City of Coquitlam Road and Sidewalk Closure Permit is required for each instance of closure and will be valid for a

maximum period of one (1) week and, if still necessary, re-submittal of a Road and Sidewalk Closure Request is required

A copy of the approved Road and Sidewalk Closure and Lane Closure Permit must be held on site by both the Site Superintendent and the person/company responsible for the traffic control implementation.

.3 Total Road Closure is Not Permitted

.4 Detours will only be permitted as approved by the Contract Administrator and must have a complete Traffic Control Plan indicating detour route, signing, and duration. Detours will not be allowed without sufficient lead time for commercial and retail operation to react appropriately to detour information provided to them.

4.2 Lane Closure Restrictions

.1 For each of the road sections affected:

- Road and Sidewalk Closures will be reviewed for appropriateness during the allowable hours of work.
- Access to properties to be maintained
- Sufficient Traffic Control Persons are required for each Road and Sidewalk Closure (or any work activities), including side street intersections, to safely guide traffic through the work site.

5.0 HOURS OF WORK

.1 The hours of work shall be from 0700h to 1900h inclusive Monday to Friday and 0900h to 1800h inclusive Saturdays, unless noted otherwise in 6.2 Road Specific Considerations.

.2 Some allowances may be made for paving operations, depending on a proposal acceptable to the Contract Administrator.

.3 Line Marking work may be performed at night, (21:00 to 05:00).

No work is allowed on Sundays without specific written permission from Contract Administrator.

6.0 CONSTRUCTION OPERATIONS

6.1 Truck Routes

.1 The Contractor is restricted to the City's designated Truck Routes. The current Truck Route Map is available on the City's

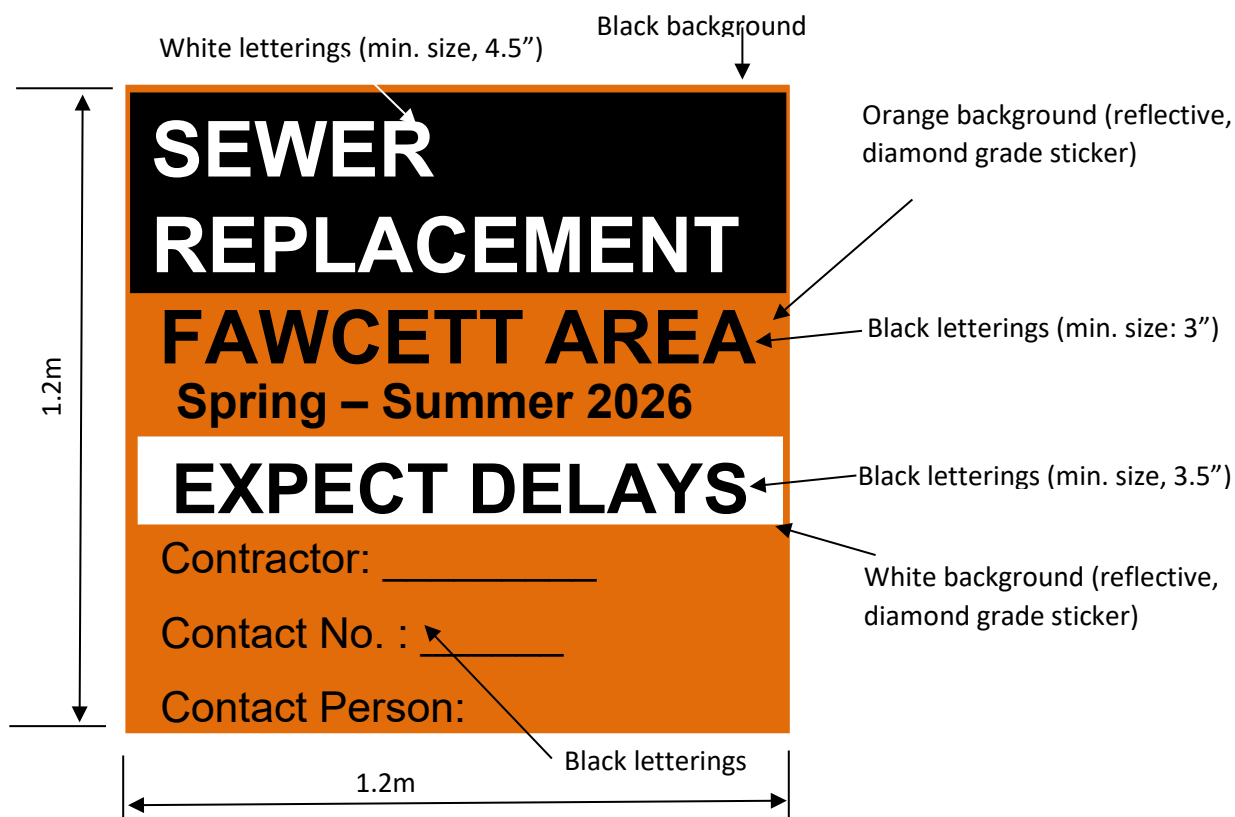
website at www.coquitlam.ca and can be found under Residents, Transit & Transportation, Trucking Routes.

6.2 Road Specific
Considerations

- .1 Ensure that Traffic Management Plan accommodates businesses and residences during construction activities.
- .2 Contractor shall not schedule paving during garbage pick up day.

LOCATION	ALLOWABLE TIME (includes set-up and take down)		COMMENTS
<u>Brunette Ave</u>	Monday to Friday	9:00pm to 5:00am E&WB	-One lane in each direction must be open plus turning movements w/ storage during construction. -Part of the parking lot on the south side of Brunette Avenue behind the Maillardville heritage bus stop is privately owned including the and access shall be maintained to the 3 parking spaces (2 of which are handicapped) from Brunette or Adair Avenue.
<u>Fawcett Street</u>	Monday to Friday	7:00am – 7:00pm E&WB Night work optional	-SLAT -Must maintain business access, Max access closure 20 minutes.
<u>Hartley Ave</u>	Monday to Friday	7:00am – 7:00pm E&WB Night work optional	-SLAT -Must maintain business access, Max access closure 20 minutes.
<u>United Boulevard</u>	Monday to Friday	7:00am – 7:00pm EB 9:00am to 7:00pm WB	-Night Work optional in both directions. -Must maintain business access, Max access closure 20 minutes. -2 Lanes at a time may be closed -One lane in each direction must be open plus turning movements w/ storage during construction.
	Saturday	9:00am to 6:00pm E&WB Night work optional	-The intersection of Fawcett and United is an interface between Coquitlam and Provincial MOTT jurisdiction. MOTT must be notified well in advance of construction and MOTT permits must applied for if any signage or lane closure are to be placed in their jurisdiction.

6.3 Work Stoppage Due to Traffic	.1	The City will not control or direct traffic control activities of the Contractor, but may require an immediate stop to any work where, in the sole opinion of the Contract Administrator, the provided traffic management plan is ineffective or creating unreasonable delays.
6.4 Construction Activity and Signage	.1	The Contractor will be responsible to place other construction information signs as required to inform the public of construction activities, and ensure safe travel through the work site.
6.5 Construction Zone Information Signs	.1	The Contractor is required to provide, one week prior to start of work, stationary signs at intersections, one in each direction, to inform traffic of existing and anticipated conditions at entry points of the lane to be worked on, locations for these signs will be provided by the Contract Administrator. Signs to be re-used and transferred to the next location once lane is completed.
		Ensure that signs and locations are addressed in the Traffic Management Plan. All signs are to be removed at the end of the construction period.
		Exact locations to be determined on site by Contract Administrator.



APPENDIX 1



City of Coquitlam
**Road and Sidewalk
Closure Permit Request**

Traffic and Street Use Management Section
3000 Guildford Way, Coquitlam BC V3B 7N2

Phone: [604-927-6250](tel:604-927-6250) Email: StreetPermits@coquitlam.ca

~~Initial Permit: \$150~~ ~~Renewal Permit: \$75~~

Application Date: _____ City Project or Film Permit Number (if applicable): 94722

- An Initial Permit is required for all new applications and when the location, type of work, or the type of traffic controls change from what was approved for the Initial Permit. The application needs to be received a minimum of 10 business days prior to the intended closure date.
- A Renewal Permit extends the rights and privileges of the approved Initial Permit and is required when the timeline needs to be extended. The application must be received a minimum of 5 business days prior to the intended extension date.

Development Site Address (if applicable): _____

Work location (street name, block number, to/from, at, etc.) _____

Contact Information

Applicant Company Name: _____

Applicant (person completing application form)

Name: _____ Title: _____

Phone: _____ Email: _____

Applicant's Signature: _____

Company Name (Prime Contractor): _____

Site Superintendent

Name: _____ Title: _____

Phone: _____ Mobile: _____ Email: _____

Permit Information

Start Date: _____ End Date: _____

Day(s) and Time(s): ☐ Monday ☐ Tuesday ☐ Wednesday ☐ Thursday ☐ Friday From: 00:00 To: 00:00
☐ Saturday From: 00:00 To: 00:00 ☐ Sunday From: 00:00 To: 00:00

Specific Lanes: ☐ Curb ☐ Inside/Centre Lane ☐ Left Turn Lane ☐ Right Turn Lane ☐ Parking Lane
☐ All Lanes ☐ Sidewalk/MUP ☐ Bicycle Lane

Direction: ☐ Northbound ☐ Southbound ☐ Westbound ☐ Eastbound

Purpose of Work: ☐ Concrete Pour ☐ Utility Installation ☐ Curb Installation ☐ Other _____

This permit is related to: ☐ City Design and Construction ☐ City Parks ☐ External Environmental
☐ Development ☐ External/Utilities

City Contact (if applicable): _____

Office Use Only

Permit Conditions/Comments:

Approved by _____

Date _____

Application Checklist



The following information must be provided. Incomplete applications will not be reviewed.

1. ☐ Traffic Management Plan (TMP); **OR**
☐ Traffic Management Manual for Work on Roadways Figure Number: _____
2. ☐ **Project Category Determination** (per [2020 Traffic Manual for Work on Roadways](#)).
☐ Initial Project Category Assessment
☐ Project Risk Analysis
☐ Category 1 ☐ Category 2 ☐ Category 3
3. ☐ **Prime Contractor Designation Letter**
4. ☐ **City of Coquitlam Certificate of Insurance**
5. ☐ **Notification Letter and Map** (required for all full road closures). A Notification Letter must be provided to all affected residents and businesses.
☐ Yes ☐ No ☐ Not Applicable
6. ☐ **Traffic Control Persons** (flag persons) **required?** All operations within the road right-of-way must comply with WorkSafe BC regulations and BC Ministry of Transportation standards for work on roadways.
☐ Yes ☐ No If yes, how many? _____
7. ☐ **Bus routes/stops impacted?** Applicant is to contact Coast Mountain Bus Company (with a minimum of 3 days' notice) [Temporary Transit Changes Request Form](#). General information can be found by visiting [Temporary Transit Changes](#).
8. ☐ **City of Coquitlam Solid Waste has been contacted?** Coquitlam Environmental Services contacted regarding impact to garbage/recycling routes and pick up Phone: [604-927-4300](tel:604-927-4300) Email: wastereduction@coquitlam.ca
☐ Yes ☐ No
Are operations impacted? ☐ Yes ☐ No
If Yes:
 - a plan to ensure continuous collection has been provided: ☐ Yes ☐ No
 - Day(s) of the week impacted: _____
 - Time(s) of the day impacted: ☐ a.m. ☐ p.m.
9. ☐ **Pedestrian / Bike Lanes impacted?** Please describe sidewalks and/or bicycle facilities that will be impacted by the proposed work.

10. ☐ **Is the work on, or will it impact a road along our [Major Road Network](#)?**
☐ Yes ☐ No

Additional information

- Only vehicles actively engaged in the performance of cleaning, clearing, maintenance, repair, construction or other work are permitted within work zones. Vehicles being used by Superintendents, Traffic Control Persons, and other construction personnel that are not actively engaged in work described above are not permitted within the work zone and are not permitted parking /stopping prohibitions.
- Closures of sidewalks, cycling facilities, lanes, and full road closures are only permitted during the time periods indicated on the approved permit. Traffic controls are not permitted outside of these approved permit hours.

***Appendix B -
Archaeological Chance Find
Procedures***

Archaeological Chance Find Procedures City of Coquitlam

DRAFT 2

November 2021 (version 2)



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Introduction

This document is presented as an accompaniment to Kwikwetlem Cultural Heritage and Archaeology Chance Find Procedures training provided by Brown & Oakes Archaeology to City of Coquitlam (or the “City”) staff and contractors.

The Chance Find Procedure (CFP) is intended to provide City planners and onsite project personnel guidelines for the appropriate response to an unanticipated discovery of known or suspected archaeological or cultural heritage materials during City operations. A CFP is NOT a substitute for professional archaeological assessment of project areas considered to hold archaeological potential. Thorough archaeological assessment will always reduce project risk of harms to protected archaeological sites and minimize the potential for encountering unanticipated material. This CFP training is intended to promote the preservation and proper management of heritage resources that are unexpectedly encountered during City activities.

The document presents a summary of archaeology site protection legislation, steps to follow in the case of suspected or observed archaeological materials, a list of appropriate authorities to contact in the case of archaeological site encounters, and a guide to archaeological site and materials recognition. Information on Kwikwetlem culture history and connections to traditional lands is not presented in this document and this information is best shared via virtual or in-person presentations.

Purpose

The purpose of CFP documentation is to aid in the protection and proper management of archaeological materials encountered during City of Coquitlam activities. Many land-altering activities have the potential to expose and/or negatively impact undocumented archaeological materials.

The purpose of this document is to:

- Ensure project personnel are aware that undocumented archaeological sites are likely to be present in the City of Coquitlam.
- Promote awareness of activities that may lead to the exposure of archaeological materials, including excavations, vegetation clearing, field survey and inspections, and more.
- Provide personnel the appropriate steps to follow if suspected or observed archaeological resources are encountered during work or personal activities.
- Provide education and resources to assist recognition of archaeological site types and materials in the lower Fraser River region.

Archaeological Sites in British Columbia

Archaeological sites are places that exhibit physical evidence of past human activity. Archaeological sites in British Columbia are automatically protected under the *Heritage Conservation Act* (HCA) when located on provincial, crown, municipal, or private land¹. The vast majority of archaeological sites in BC include places and belongings of Indigenous peoples. Some post-1846 sites related to newcomer history may also be registered and protected under the HCA if of significance to a place, industry, or region, for example. HCA protection is extended to ship and plane wrecks more than 2 years old.

Many First Nations consider the widely accepted definition of an archaeological site as a place featuring only the material remains of human activity too restrictive and instead advocate for the recognition and protection of a wider range of “cultural heritage” site types, including places of spiritual significance, named locales, known travel routes, and other places of cultural value.

The majority of the City of Coquitlam has not been surveyed for archaeological sites and it is reasonable to expect that many archaeological sites are buried and/or undetected. These sites are collectively referred to as undocumented archaeological sites.

HCA Legislation and Policies

Archaeological sites are automatically protected under the terms of the *Heritage Conservation Act* whether known or undocumented. Sites are protected whether previously disturbed by historic activities or intact. The HCA prohibits the alteration or disturbance of archaeological sites in whole or in part, on provincial public and private lands, whether impacts are intentional or inadvertent, and irrespective of previous land disturbance.

The HCA provides substantial penalties for the destruction or unauthorized disturbance of archaeological sites including imprisonment for up to two years and fines of up to \$1,000,000.

Alterations to archaeological sites may proceed under appropriate HCA permits held by professional archaeologists following provincial assessment guidelines². Work plans and methodologies related to archaeological site investigations must meet provincial regulatory standards and are expected to conform to participating First Nation cultural heritage policies and best-practice standards.

Archaeological materials on federally managed lands may be protected by other legislation and policies. Many federal agencies will adhere to the requirements outlined in the *HCA* when managing archaeological sites.

¹ <http://www.for.gov.bc.ca/archaeology/index.htm>.

² The HCA is administered by the Archaeology Branch, Ministry of Forests, Lands, Natural Resources and Rural Development.

First Nation Cultural Heritage Management

Many BC First Nations maintain cultural heritage policies and/or heritage permitting systems to assert oversight over Indigenous cultural heritage management and to ensure a high standard of archaeological practice. Contact should be made with locally affected Nations prior to any heritage study or project work with the potential to encounter cultural heritage materials to ensure adherence to Nation-preferred heritage protections, permits, and policy.

Potential to Encounter Archaeological Sites

Any project involving ground alterations has the potential to expose undocumented archaeological sites. Common forms of ground disturbances that have led to site discoveries include land grading, vegetation clearing/grubbing, excavation, asphalt/concrete removal, geotechnical drilling, access road or trail building, foundation demolition, heavy equipment movement, habitat planting, stream and pond channeling or dredging.

Other kinds of work activities where teams may encounter undocumented archaeological sites include field teams working in proximity to natural, undeveloped or minimally disturbed terrain. Teams involved in field surveys, field inspections, or inventories of natural ground and waterways, riparian areas, municipal parks and trails, forested areas, cut bank or erosion area, and so on may encounter exposed archaeological materials.

City workers or contractors engaged in any activity that may result in archaeological materials identification should be made aware of HCA site protection legislation and field supervisors properly versed CFP procedures.

Types of Archaeological Sites

The following site types are well-known across the lower Fraser River region and may be encountered in the City of Coquitlam. The following site types may contain a range of artifact types and sediment signatures.

- **Stone tool sites** containing isolated artifacts or accumulations of stone tool working debris.
- **Habitation sites** show accumulations of food remains, tools, and evidence such as hearths indicating short term and seasonal camps and settlements used for travel and resource procurement as well as large and permanent villages.
- **Surface features** such as cultural depressions created by former habitations, earthen fortifications, burial mounds, and rock cairns.
- **Wet sites** contain preserved organic materials like woven basketry or wood tools in addition to other cultural material; these sites form under special preservation conditions typically anaerobic water saturated sediments along waterways and floodplains.
- **Culturally Modified Trees (CMTs)** include bark stripped trees, planks, and territory markers.
- **Rock art** including pictographs (painted rock images) and petroglyphs (images carved or pecked into rockfaces or boulders).

Archaeological Chance Find Procedure

In the event of found or suspected archaeological material, follow the procedures outlined below.

STEP 1: WATCH for potential archaeological materials

- ⇒ Know that undocumented archaeological sites are expected throughout Coquitlam.
- ⇒ Know that archaeological materials are protected by law and must be reported.
- ⇒ If you believe you may have encountered archaeological materials (either intact or disturbed) follow the steps outlined below.

STEP 2: STOP work in proximity to the material

- ⇒ If known or suspected archaeological materials are encountered, STOP work in the immediate vicinity.
- ⇒ Do not disturb, move, relocate, or collect the material.

STEP 3: REPORT observed materials

- ⇒ Alert the site supervisor that suspected archaeological materials have been observed.
- ⇒ The site supervisor will ensure appropriate contact is made with City managers who will in turn reach out to archaeological professionals.

STEP 4: CONTACT archaeological professionals

- ⇒ Seek immediate advice from an archaeological professional.
- ⇒ Teams may be advised to protect the area with flagging or cones until the area can be assessed by the appropriate representative.
- ⇒ Teams may be requested to provide locational details or photographs of the material.

STEP 5: AWAIT advisement

- ⇒ Wait for instructions from the appropriate representative; do not begin ground disturbing work until cleared to do so.
- ⇒ Prepare and submit an incident report to ensure compliance with appropriate regulators and interest groups.

Archaeological Chance Find Procedure - Suspected Ancestral (Human) Remains

In the event of found or suspected human remains, follow the procedures outlined below*.

STEP 1: STOP all activity at the job site immediately, including the removal of backfill. Do not rebury the remains.

STEP 2: REPORT to the City Project Manager. The Project Manager will contact an archaeological professional and determine the appropriate course of action. In most cases, the archaeology professional will visit the site to determine if the materials are reasonably expected to be human and archaeological. If warranted, the consultant will notify the Archaeology Branch and the RCMP, the Office of the Coroner, and affected First Nations. The Coroner will affirm whether the remains are archaeological and not of forensic concern. The archaeologist will inform the Archaeology Branch and First Nations will be consulted to determine culturally appropriate handling protocols and subsequent project management options.

STEP 3: PROTECT the affected location with flagging or cones to prevent additional disturbance and for privacy. Do not photograph the material.

STEP 4: TREAT the remains with dignity and respect. Do not allow bystanders to take photographs or video.

STEP 5: AWAIT advisement.

* If it is reasonable to think the human remains are not archaeological but forensic in nature, an immediate call to the RCMP is required.

Management Options

If determined that an archaeological or cultural heritage site (intact or disturbed) is present, an archaeologist will coordinate communications with the City, local affected First Nations, and the Archaeology Branch to evaluate management options. Archaeology Branch and First Nations approval and additional permitting may be required prior to the implementation of management options.

Examples of potential management options are provided below. Options will vary based on site characteristics, proponent needs, and Archaeology Branch and First Nation requirements.

Option A: Site avoidance through project redesign or relocation. Site avoidance is always preferred. Avoidance minimizes impacts to irreplaceable archaeological sites and reduces cost and schedule impacts.

Option B: Systematic data recovery through controlled archaeological excavation or other method. Data recovery is destructive to archaeological sites and will entail consideration of costs and schedule coordination.

Option C: Monitoring of construction activities by a professional archaeological team. Monitoring is appropriate where project impacts cannot be evaluated before construction (due to impenetrable surfaces or underground facilities, for example) or where potential to encounter archaeological materials is present following impact assessment or systematic data recovery.

Best Practices for CFP Implementation

- A Chance Find Procedure is best applied as an outcome stemming from archaeological assessment – as a last step verification that archaeological materials have not been overlooked in project area assessments, or where there is a professional assessment that documents a low expectation for encountering archaeological materials in a work area.
- A Chance Find Procedure is not an acceptable replacement for a professional archaeological overview (AOA) or archaeological impact assessment (AIA) or a well-designed and implemented archaeological construction monitoring plan for many areas. Engagement with professional archaeological teams, affected First Nations, or the Archaeology Branch will assist in appropriate heritage study approaches.
- Chance Find Procedure training must be delivered by professional archaeologists and local area First Nations who wish to contribute to CFP presentations.
- Chance Find Procedures should be summarized regularly as part of job or project requirements, and CFP training repeated by the archaeological and First Nation team for new employees, project teams, and subcontractors.
- Chance Find Procedures do not supersede any requirements or policies pertaining to cultural heritage management by First Nations with interests in the area. Proponents are encouraged to seek input from interested First Nations on area-specific CFPs as part of any project engagement process.

Contact List

Archaeology Branch

Paula Thorogood	Planning and Assessment Manager	250-953-3300	Paula.Thorogood@gov.bc.ca
Nathan Friesen	Planning and Assessment Supervisor	250-953-3306	Nathan.P.Friesen@gov.bc.ca

City of Coquitlam

Main Reception	604-927-3000
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Police and Coroner

RCMP (Non-emergency)	Coquitlam	604-945-1550
BC Coroners Service	Lower Mainland Region	604-660-7708

Area First Nations

Kwikwetlem First Nation	604-540-0680
Katzie First Nation	604-465-8961

Kwantlen Nation	604-888-2488
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Musqueam Indian Band	604-263-3261
Stó:lō Nation	604-824-2420
Tsleil Waututh Nation	604-929-3454

Archaeological Site and Materials Identification

The following archaeological sites and artifacts are common to the lower Fraser River region. This guide is to assist in the recognition and protection of archaeological materials found by chance. If you identify any archaeological material, stop work immediately and contact a professional archaeologist.

Artifacts

Artifacts are objects made or modified by humans and may be formed of stone, bone, antler or wood. Bone, antler and wood tools were produced in abundance, but stone artifacts are the most common artifacts found in the lower Fraser region because of the preservation durability of stone. Bone and antler were fashioned into a variety of items, including needles, knives, points, jewelry, awls and scrapers. Wood was used to make implements like spoons and bowls, handles, ceremonial objects, canoes, houses, and much more.



Photo Credit: RBCM, Archaeology Collection. Antler and wood tools (<https://learning.royalbcmuseum.bc.ca>)

Stone tools common to this region include projectile points, knives, adzes (axes), scrapers, mauls (hammers), net weights, beads, and more. Archaeologists distinguish chipped stone from ground stone artifacts, each distinguished by the mode of manufacture, either flaking scars or grinding and polishing marks. Stone flakes or 'debitage' is produced during the process of making stone tools. These flakes were sometimes used as tools themselves or were left behind at the stone tool working site. Culturally produced debitage shows features distinctive from naturally broken rock, gravel or crush, but these signatures can be difficult to identify to an untrained eye. Stone artifacts were produced from dacite, quartzite, slate and nephrite as well as obsidian, chert, and other materials. Stone was acquired locally or transported or traded over long distances; high-quality materials like obsidian has been traced to locations from Prince Rupert to Oregon and beyond.

Artifacts may be found as isolated finds or in association with other cultural materials.

Archaeological Chance Find Procedure



Photo Credit: B&OA, Chipped stone artifacts from Coquitlam Lake.



Photo Credit (left): B&OA, Nephrite ground stone adze from Port Coquitlam. Photo Credit (right): RBCM, Archaeology Collection. Ground stone hand mauls (<https://learning.royalbcmuseum.bc.ca>)

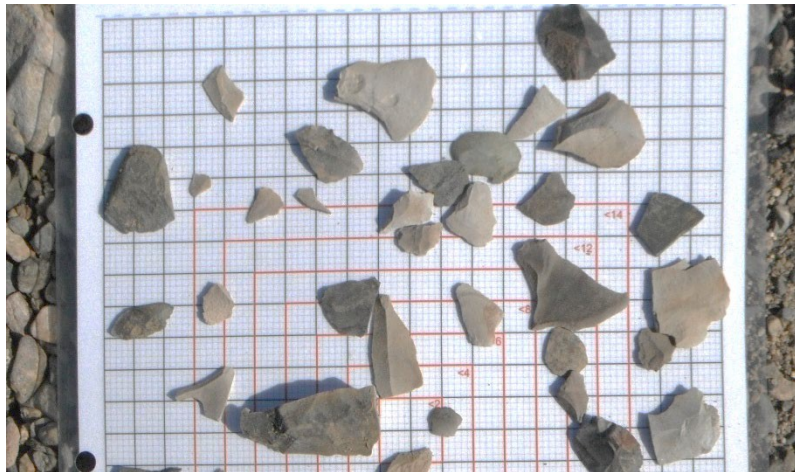


Photo Credit: B&OA, Stone tool debitage from BC Interior.

Beads

Beads were made from a variety of materials including stone, shell, bone and glass (in more recent times). Shell and stone disc beads were used in jewelry, regalia and in mortuary practices across the Northwest Coast. On the Lower Fraser it is most common to find stone beads at archaeological sites fashioned from mud or silt stone, slate, or other softer stone. At some burial sites, individuals of rank were laid to rest with thousands of stone and shell beads.



Photo Credit: B&OA, Ground stone beads from near Agassiz.

Indigenous Historical Artifacts

Indigenous use of European materials in the years following contact are often found in early historic sites. Ceramics, glass, and metal were valued for their strength, durability, ease of access, or aesthetic properties. Glass was worked using traditional stone tool techniques in the same way as obsidian (a natural volcanic glass). Clay pipes were adopted by Indigenous peoples who several centuries earlier had introduced the practice of tobacco smoking to European traders. Glass beads were used by European fur traders to trade with Indigenous peoples; trade beads were initially valued for their vibrant colour and the expectation of beads as a wealth item.

Photo Credit (left): B&OA, Worked glass and clay stone pipe, Coquitlam.



Photo Credit (middle): <https://www.canadashistory.ca/explore/fur-trade/tobacco-pipes>. Photo Credit: Oregon Museum of Natural and Cultural History, Glass trade beads (<https://mnch.uoregon.edu/index.php/collections-galleries>).

Hearths

Hearths are the remnants of fires identifiable by dense black charcoal, ash and heat oxidized sediments. While natural forest fires may also leave traces of burning, hearths tend to be more defined and frequently show concave bases, evidence of repeated use, and contain or are in proximity to burned bone, fire-altered rock, and artifacts.

Fire-Altered Rock

Fire-altered rock (FAR) is rock modified by repeated heating and cooling. Heating small, rounded river cobbles and immersing the hot stones in water filled baskets or boxes was a frequently used cooking technique called 'stone boiling'. Heated stones were also used to warm clothing and bedding. The repeated heating and cooling of FAR created distinctive fracture and colour patterns that are easily distinguished from naturally broken rock. FAR shows irregular breakage patterns, is frequently deeply pitted, is often deep rust or black in colour, and may be found mixed in charcoal and ash laden sediments. As FAR is often found in abundance around settlement areas or near cooking features and hearths, it is a frequent first indicator of the presence of archaeological sites. Often mixed in FAR deposits are boiling stones—small, rounded pebbles that have not yet been fractured by thermal processes



Photo Credit: B&OA, Fire altered rock, Coquitlam.



Shell and Non-Shell Midden

Midden deposits are generally indicative of camp or village sites. Middens accumulate through the repeated, ongoing use of an area where food remnants or the debris of daily living build up in layers at a site over time. In coastal areas, shellfish provided an abundant food source and, middens contain abundant fragmented or whole shell typically embedded in dark, greasy, sediments rich in charcoal, ash, fire cracked rock, burnt materials, and artifacts. Because shell neutralizes the acidity in soil, shell middens enhance preservation of organic food remains and tools, and fish and mammal bone, wood, antler, and botanical remains are often well-preserved in shell midden sites.

Non-shell middens are accumulations of living materials formed at camps and settlements away from marine waterways. Non-shell midden shows layered deposits of dark sediments, ash, and sometimes sand and clay in sediments with little to no shell. These deposits rarely contain bone, antler, or wood remains due to poorer preservation environments.

In Coquitlam, non-shell middens are the more common site type but there are a few examples of inland shell midden sites associated with camps or settlements where shellfish was transported to locations by travel or trade.



Photo Credit (left): B&OA, Non-shell stratified midden Port Coquitlam. Photo Credit (right): Shell midden, Vancouver Island (<https://learning.royalbcmuseum.bc.ca/pathways/can->)

Surface Features

Surface features are non-portable cultural formations visible on the landscape. Features may include pits or depressions, earthen mounds or rock cairns, petroforms (rock arrangements) or trails. Cultural depressions may indicate the location of semi-subterranean winter dwellings, plank houses where midden accumulated around the outside of structures, cache pits used for tool or food storage, or pits and trenches used for food cooking or processing. Cultural depressions are identifiable by their uniform shape (usually round or rectangular), a berm may be present around the edge of features, the presence of associated artifacts, or concentrations of charcoal, ash, and fire altered rock.

Cultural mounds or rock cairns are other familiar surface features. Earthen burial mounds and rock cairns are part of a mortuary tradition found throughout the lower Fraser region over the past 1,500 years. Cultural mounds and cairns range in size from around a meter in diameter to more than 12 meters across. Individual occurrences or clusters of well-formed oval or circular mounds of earth and rock should trigger archaeological assessment.



Photo Credit: SFU Museum, Winter pit house village, Lillooet.

Rock Shelters and Caves

Rock shelters were used, among other purposes, as camps, spiritual or burial locations, and storage caches. Shelters can be found associated with overhangs of large boulders, indentations in rock bluffs or in caves. Shelters often associate with artifacts, rock art, and hearth features.

Ancestral (Human) Remains

Human remains are especially sensitive and significant finds. Any potential human bone requires immediate implementation of the CFP. Ancestral remains are frequently present at archaeological locations and may be found articulated in a burial context or as scattered fragments.

Petroglyphs and Pictographs (Rock Art)

Northwest Coast rock art includes images depicted on boulders, rock overhangs, rock faces, or other exposed rock surfaces. Pictographs are drawings or designs painted on rock using pigments like ochre or charcoal mixed with grease. Petroglyphs are images incised or pecked into stone. Designs vary widely and often depict animals, humans, or an extensive variety of geometric shapes.



Photo Credit: B&OA, Portion of petroglyph panel at Petroglyph Provincial Park, Nanaimo.



Photo Credit: B&OA, Portion of pictograph panel at Pitt Lake.

Fish Weirs and Traps

Fish weirs are structures constructed to funnel and trap fish for harvesting. Traps were built in intertidal areas along marine and river shorelines and near stream mouths. Weirs vary in form and structure depending on water and shoreline conditions, fish species targeted for harvest, intended volume of harvest, and community preferences. Fish weir sites are identifiable by linear or patterned arrangements of wooden stakes protruding from beach or bank edges or boulder alignments along waterways.



Photo Credit: Washington State Archives, Yelm Jim Fish Trap 1885

(<http://www.digitalarchives.wa.gov/Record/View/DAA73FC7A57E989D65B6DBEA419FC89E>)

Wet Sites

Wet sites are special preservation environments that form in low oxygen water saturated environments along waterways, in bogs and on floodplains. These locations permit enhanced preservation of organic artifacts like wood, bark, and botanicals. Artifacts found in wet sites have included basketry, twine and rope, wooden tools and weapons, architectural structures, and ceremonial implements made of wood and bone.



Photo Credit (left): Mike Blake. Ground slate knife with wooden handle, Agassiz. Photo Credit (right): Katherine Bernick, Waterlogged and preserved basket, Coquitlam.

Culturally Modified Trees (CMTs)

Culturally Modified Trees are trees that have been utilized by Indigenous Peoples for a broad range of cultural uses. Wood was used to build houses, canoes, tools, and weapons. Branches, boughs, and leaves were used to fashion tools, for medicine and in cultural ceremony. Harvesting cedar bark and roots was undertaken regularly to make clothing, cordage, basketry, and sleeping mats, ceremonial regalia, and much more.

Triangular bark stripped cedars are the most common form of CMT; a long, linear triangular bark scar will show where bark was removed from the trunk of a living tree. The exposed scar will heal over time creating a seam on the outer tree bark. This form of sustainable harvesting allowed the same tree to be used multiple times for bark harvesting. CMTs can also show evidence of wood removal where wedges were used to pry rectangular planks of wood from standing, living trees.

Logging and clearing throughout much of Coquitlam municipality reduces the chance that archaeological CMTs remain in most forested areas today, but more recent CMTs where bark or wood was harvested from second-growth forest by Kwikwetlem for cultural uses may be present.



Photo Credit: B&OA, Bark stripped cedars, Coquitlam.

Additional Resources

Learning Portal, Royal BC Museum - <https://learning.royalbcmuseum.bc.ca>

SFU Museum of Archaeology & Ethnology - <https://www.sfu.ca/archaeology/museum.html>

References Cited

Archaeology Branch (1999). Found Human Remains. On file with the Archaeology Branch, Victoria, BC. From http://www.tca.gov.bc.ca/archaeology/policies/found_human_remains.htm

Archaeology Branch (2010). Heritage Conservation Act (RSBC 1996). On file with the Ministry of Tourism, Culture, and the Arts, Victoria, BC. From

***Appendix C -
Contract Drawings***

Coquitlam

CLIENT: **CITY OF COQUITLAM**
3000 GUILDFORD WAY, COQUITLAM, BC, V3B7N2
TEL. 604-927-3000

PROJECT: **2025 SANITARY DESIGN - FAWCETT ROAD & HARTLEY AVENUE**
FILE No. TBD

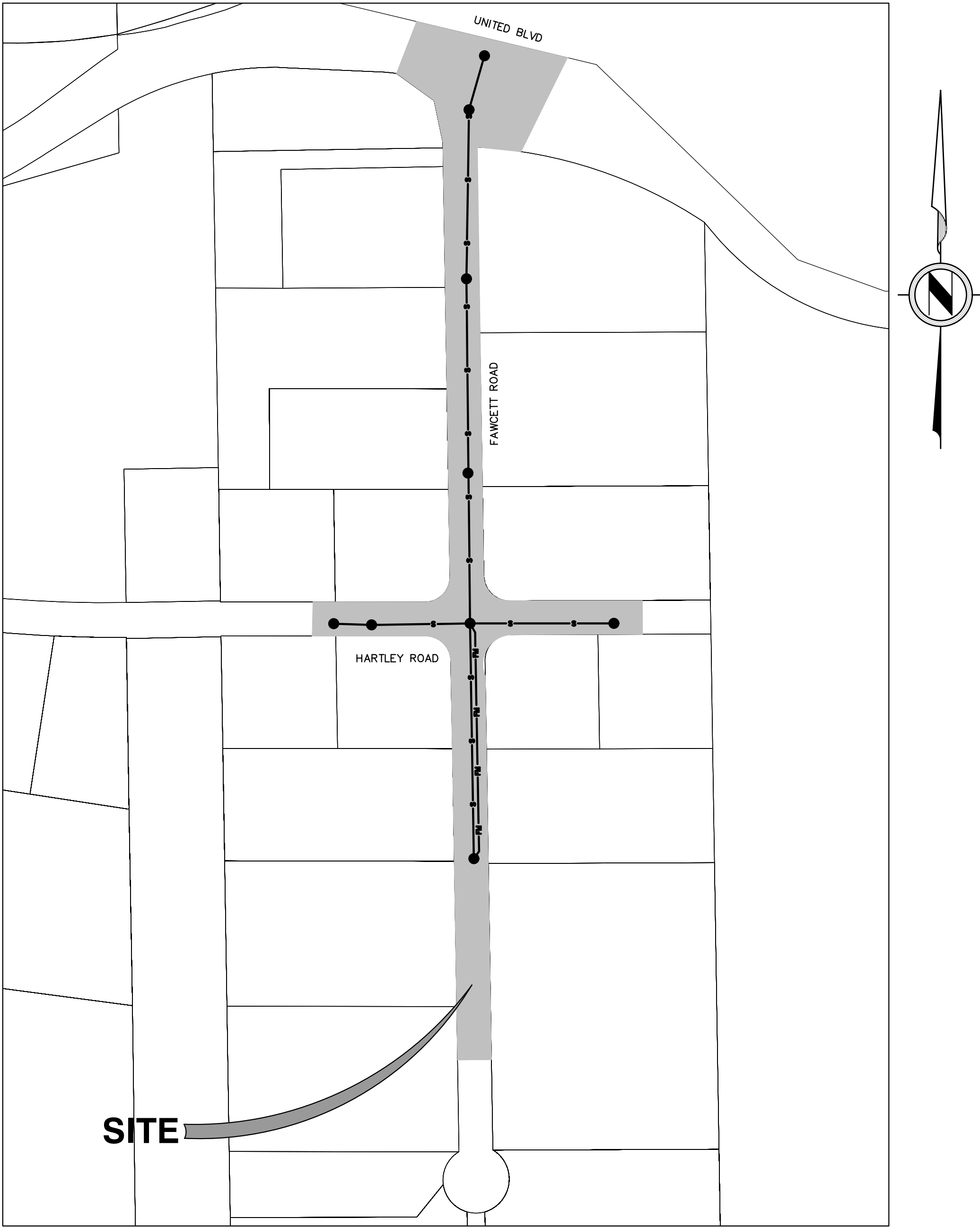


APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

EGBC Permit to Practice Number #1001018
Aplin & Martin Consultants Ltd.
#201 - 12448 82 Avenue, Surrey, BC, Canada V3W 3E9
Tel: (604) 597-9058, Fax: (604) 597-9061, Email: general@aplinmartin.com

APLIN & MARTIN PROJECT No. 15-001

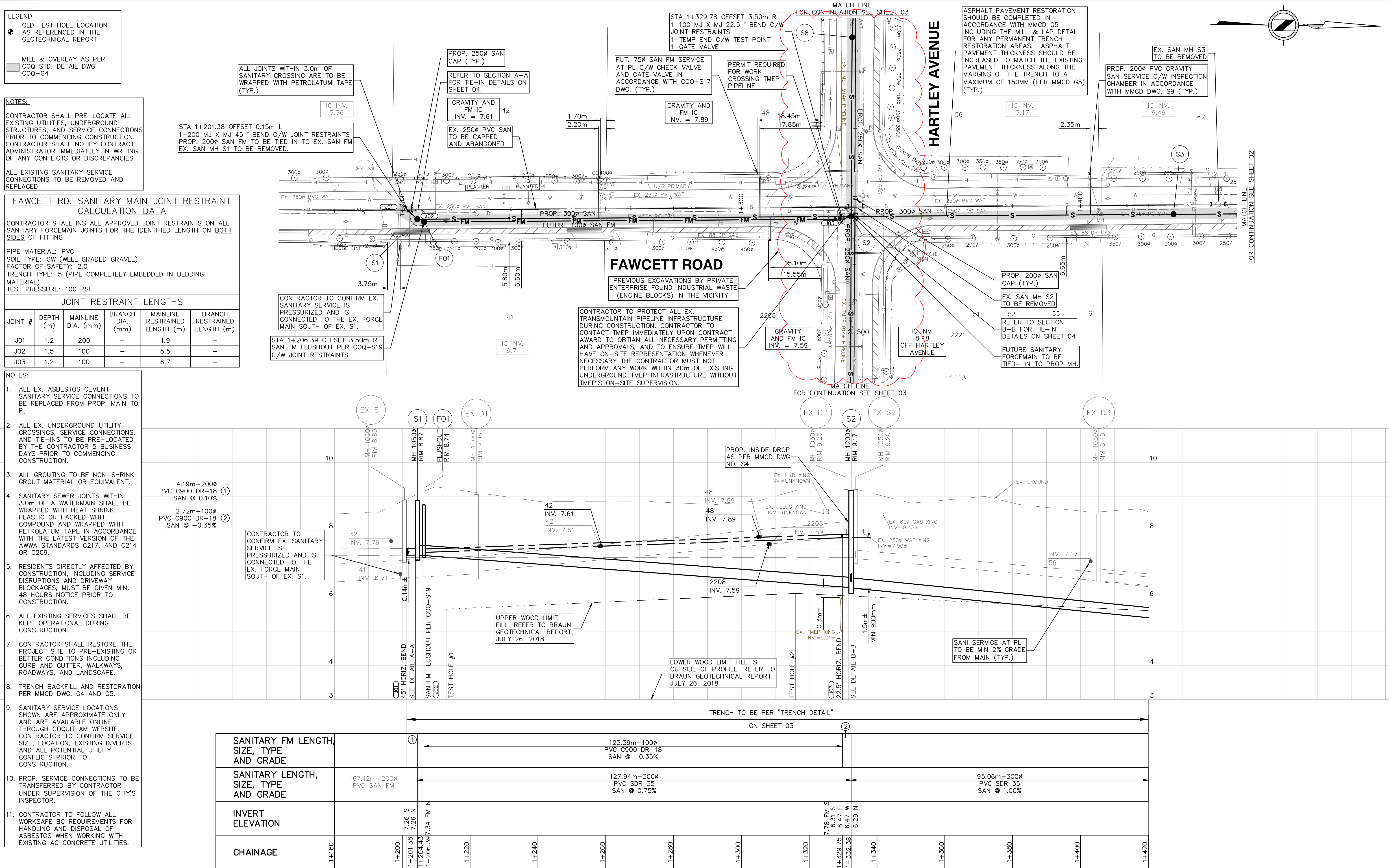
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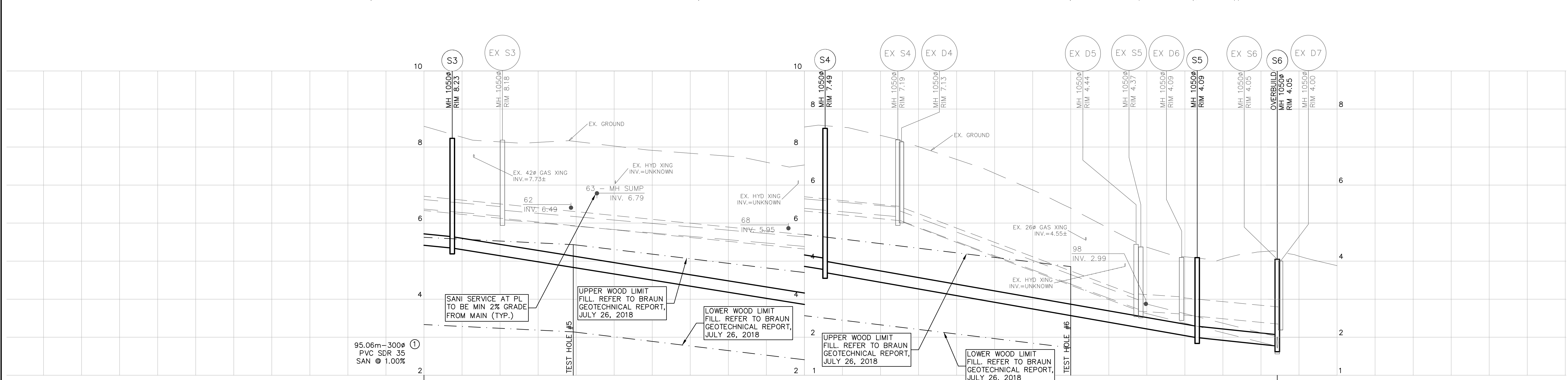
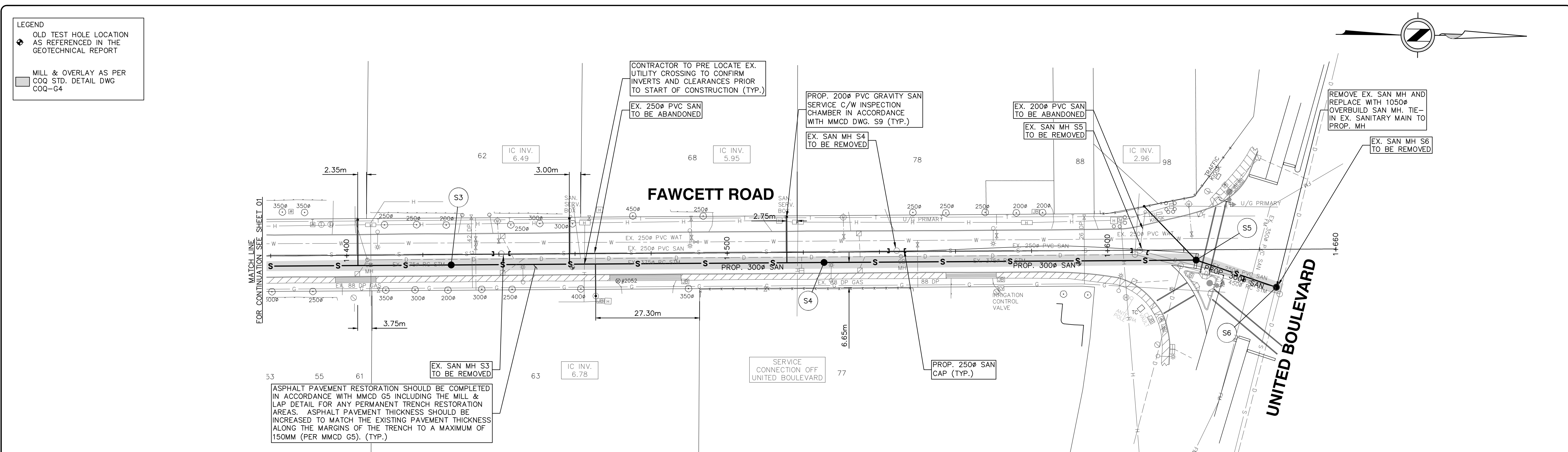


SITE LOCATION PLAN
N.T.S.

DRAWING INDEX

Sheet Number	Sheet Category	Sheet Title
15-001-00	COVER SHEET	-
15-001-01	SANITARY WORKS	STA 1+180 TO 1+420
15-001-02	SANITARY WORKS	STA 1+420 TO 1+660
15-001-03	SANITARY WORKS	STA 2+360 TO 2+560
15-001-04	SANITARY WORKS	MANHOLE DETAILS

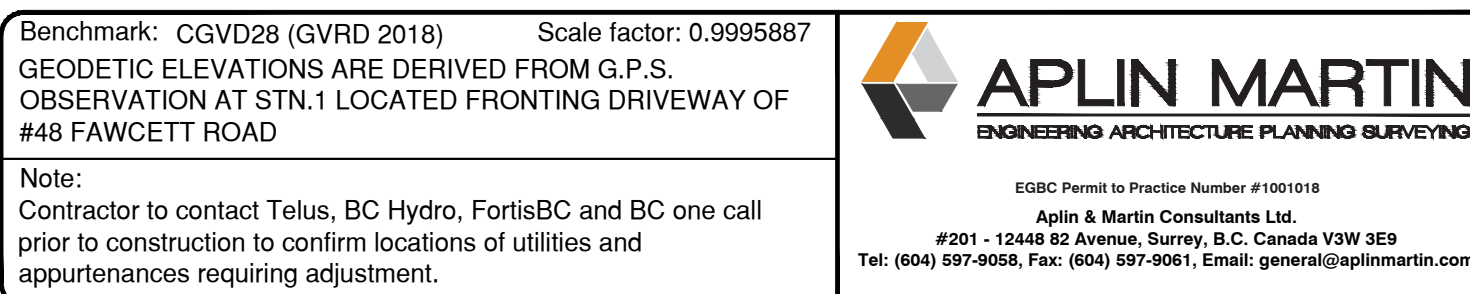




	TRENCH TO BE PER "TRENCH DETAIL"																													
	ON SHEET 03																													
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INVERT ELEVATION		5.34 S 5.34 N						3.78 S 3.70 N						1.99 S 1.99 N			1.77 S 1.71 E													
CHAINAGE		1+420	1+427.43		1+440		1+460		1+480		1+500		1+520	1+525.43		1+540		1+560		1+580		1+600		1+620	1+623.24		1+640	1+644.28		1+660

Benchmark: CGVD28 (GVRD 2018) Scale factor: 0.999588
 GEODETIC ELEVATIONS ARE DERIVED FROM G.P.S.
 OBSERVATION AT STN.1 LOCATED FRONTING DRIVEWAY OF
 #48 FAWCETT ROAD

Note:
Contractor to contact Telus, BC Hydro, FortisBC and BC one call prior to construction to confirm locations of utilities and appurtenances requiring adjustment.



5	11/19/2025	TAT	ISSUED FOR TENDER
4	06/06/2025	JKA	REVISED 100% DESIGN
3	4/17/2025	JKA	100% DESIGN
2	3/27/2025	JKA	DETAILED DESIGN
1	1/09/2025	JKA	PRELIMINARY DESIGN
No.	Date	By	Revisions

ACCEPTED FOR
CONSTRUCTION
Date:

Manager of
Development Servicing

Coquitlam

Engineering & Public Works
3000 Guildford Way, Coquitlam, B.C. V3B 7N2

PERMIT TO PRACTICE

Signature: _____

Date: _____

PERMIT NUMBER: 1001018
The Association of Professional Engineers
and Geoscientists of British Columbia

Seal:

Design by JKA	Date DECEMBER 2024
Drawn by JKA	Date DECEMBER 2024
Checked by BDC	Date DECEMBER 2024
Approved by BDC	Date DECEMBER 2024

Scale
1:500 HOR, 1:50 VERT.

Sheet of
02 OF 04

Eng. Project No.
XXX

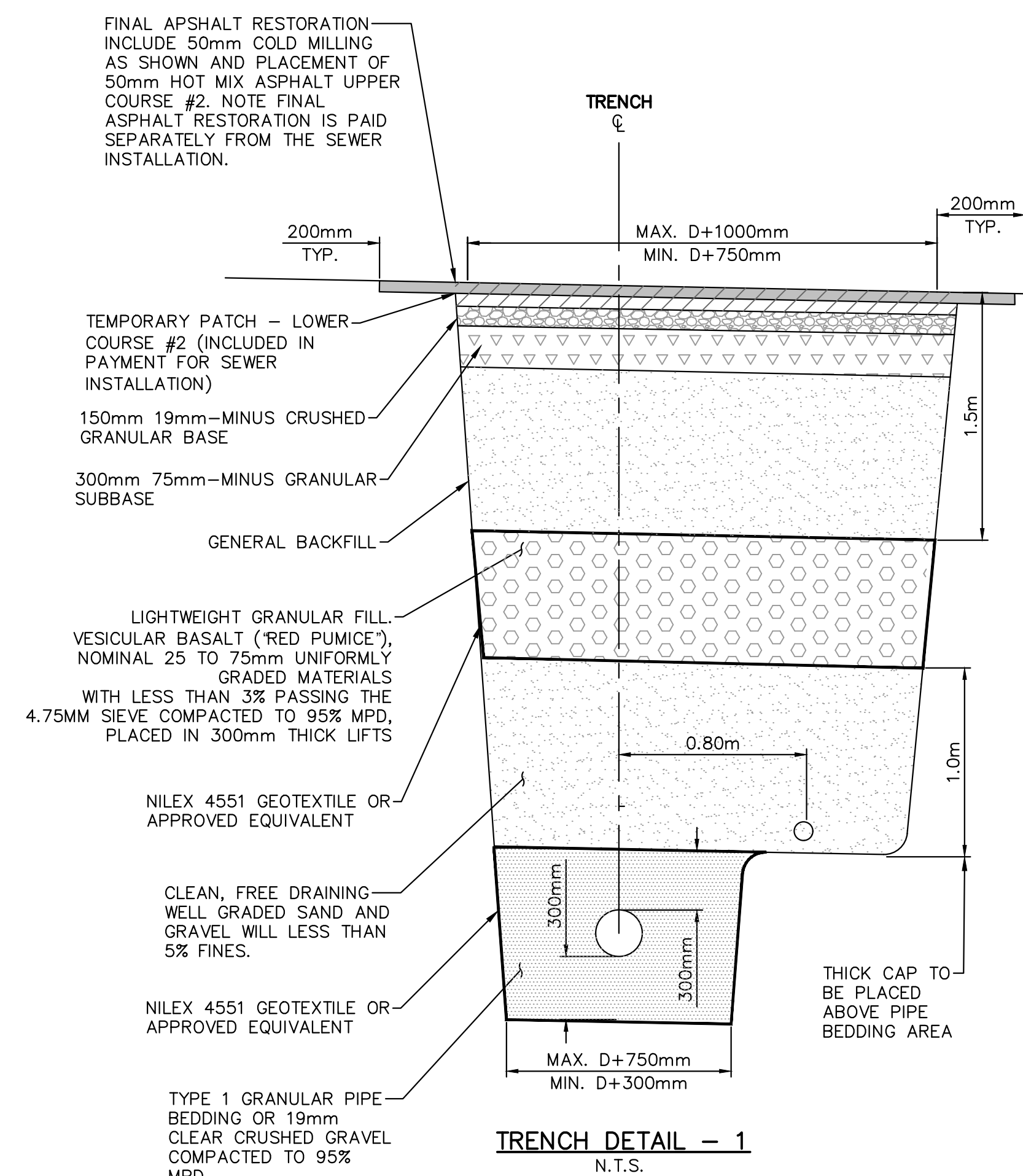
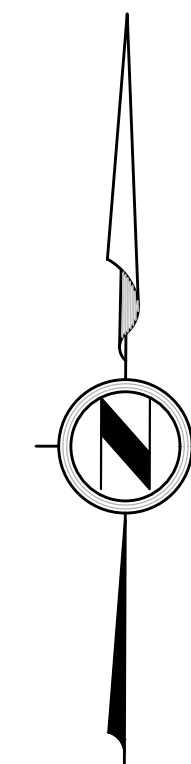
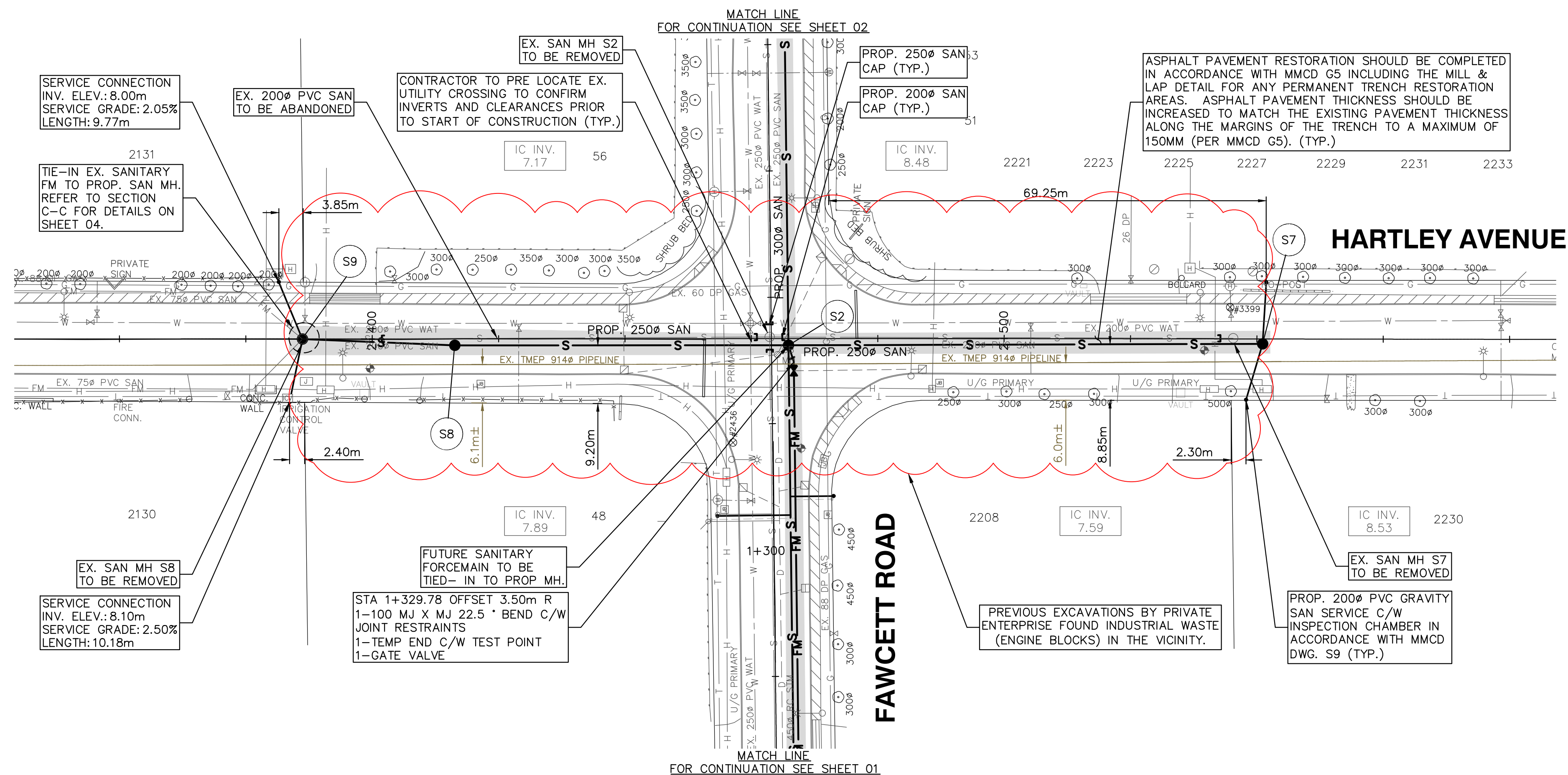
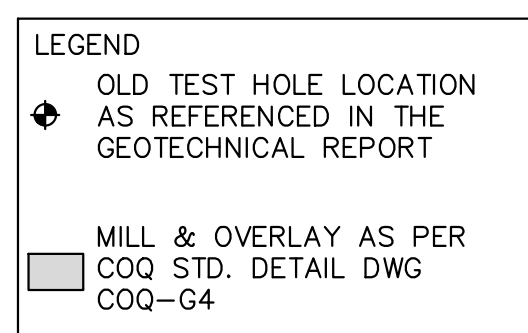
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Project

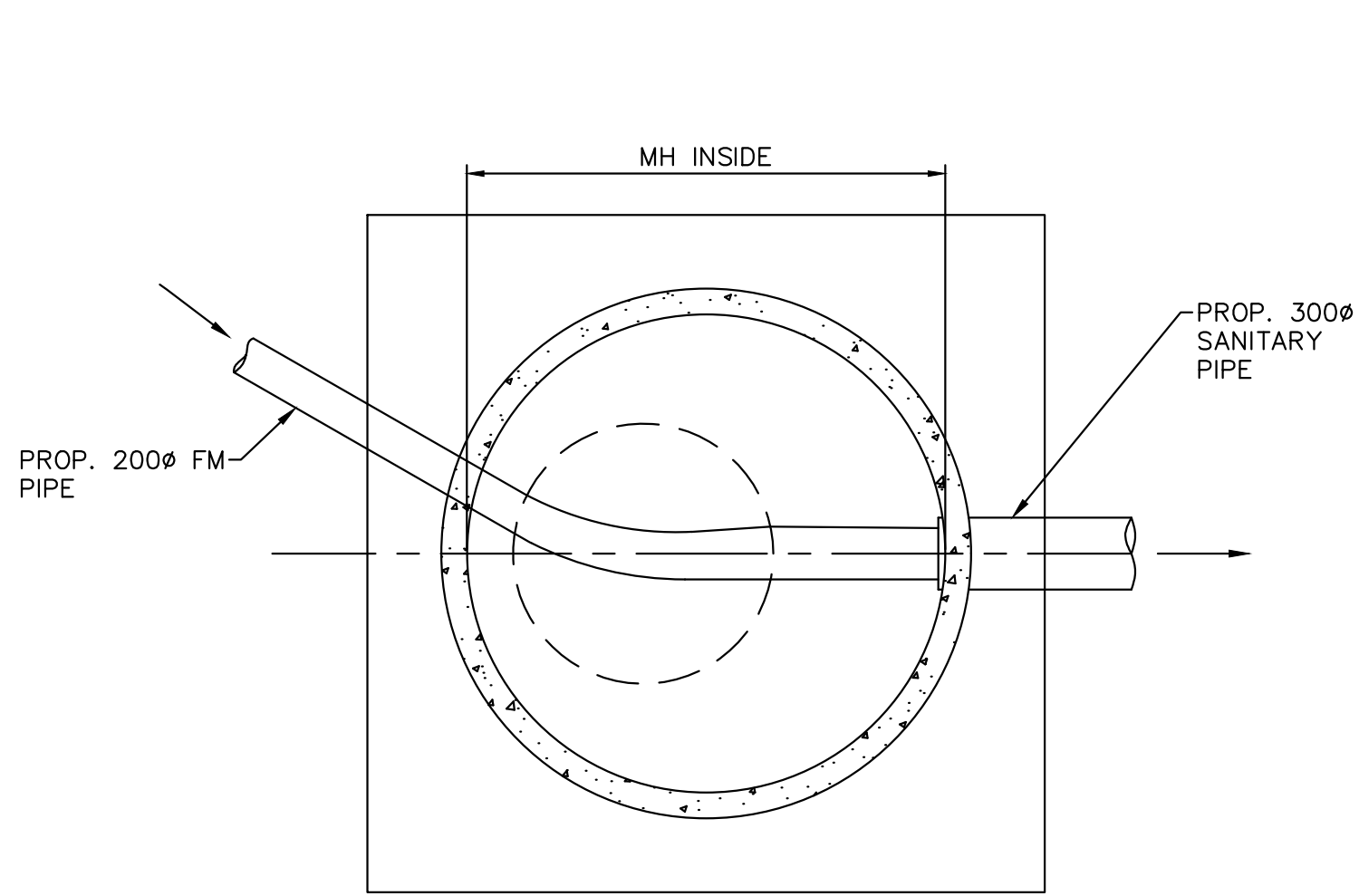
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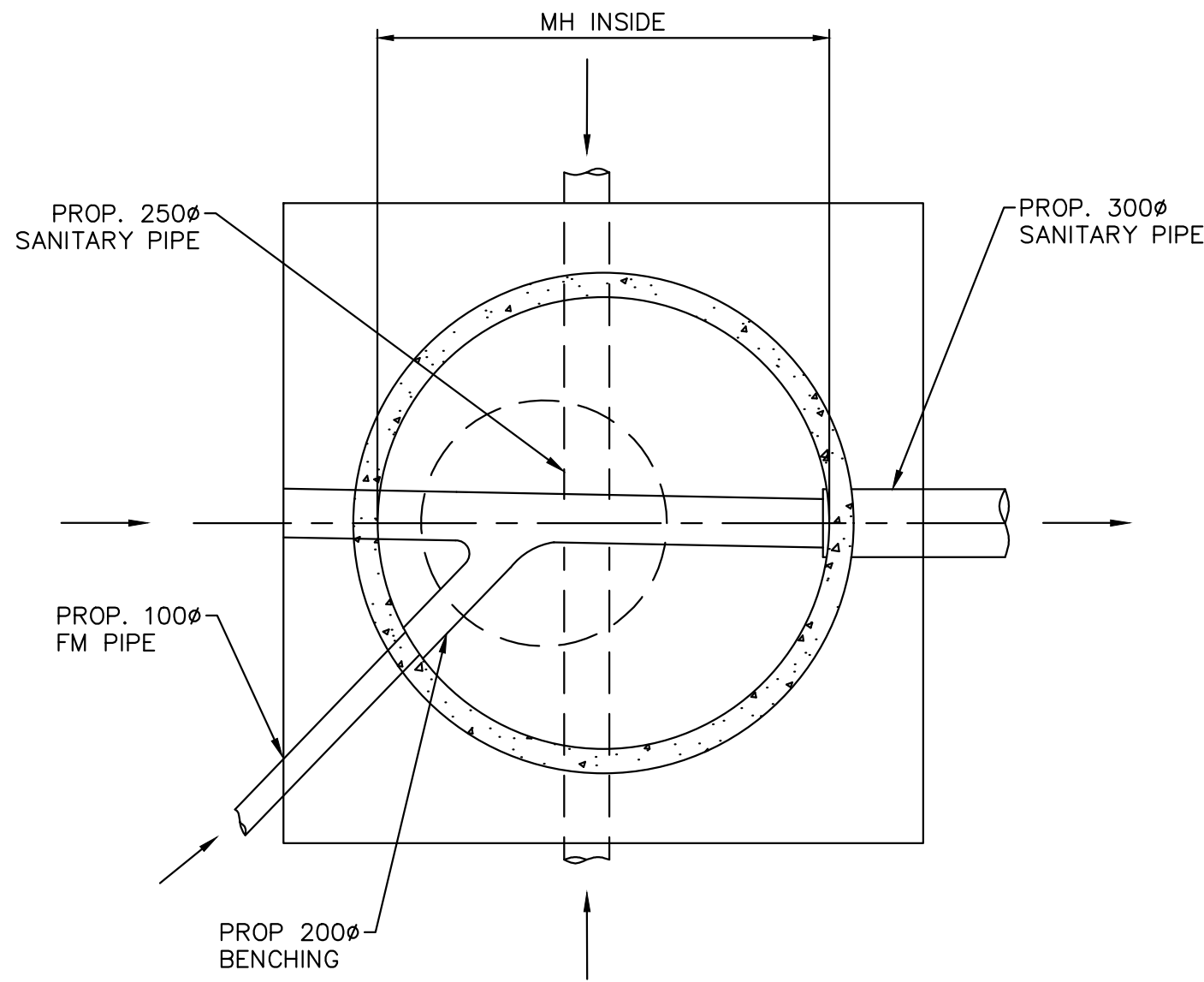
FAWCETT ROAD &
HARTLEY AVENUE
STA 2+360 TO 2+560



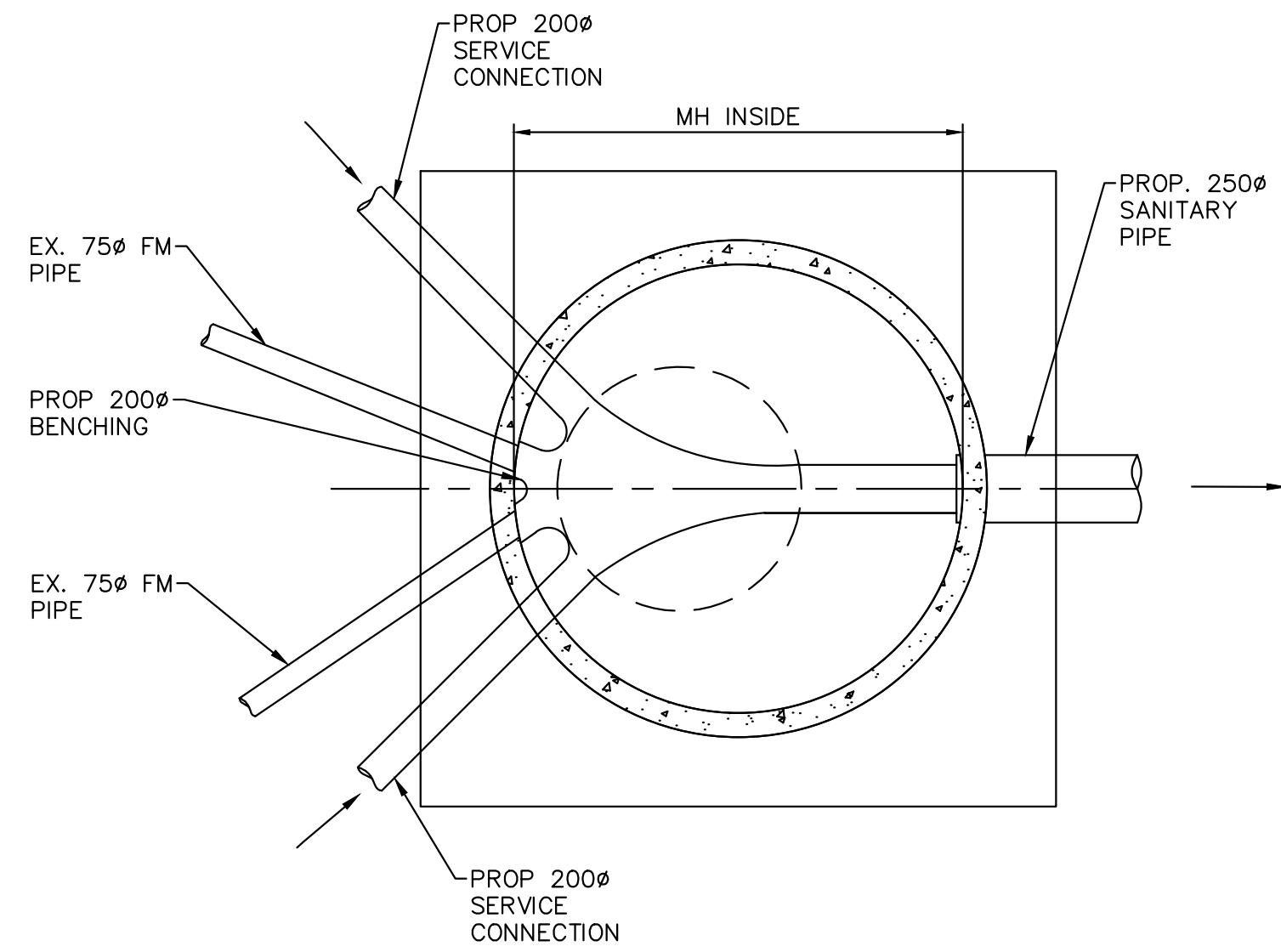
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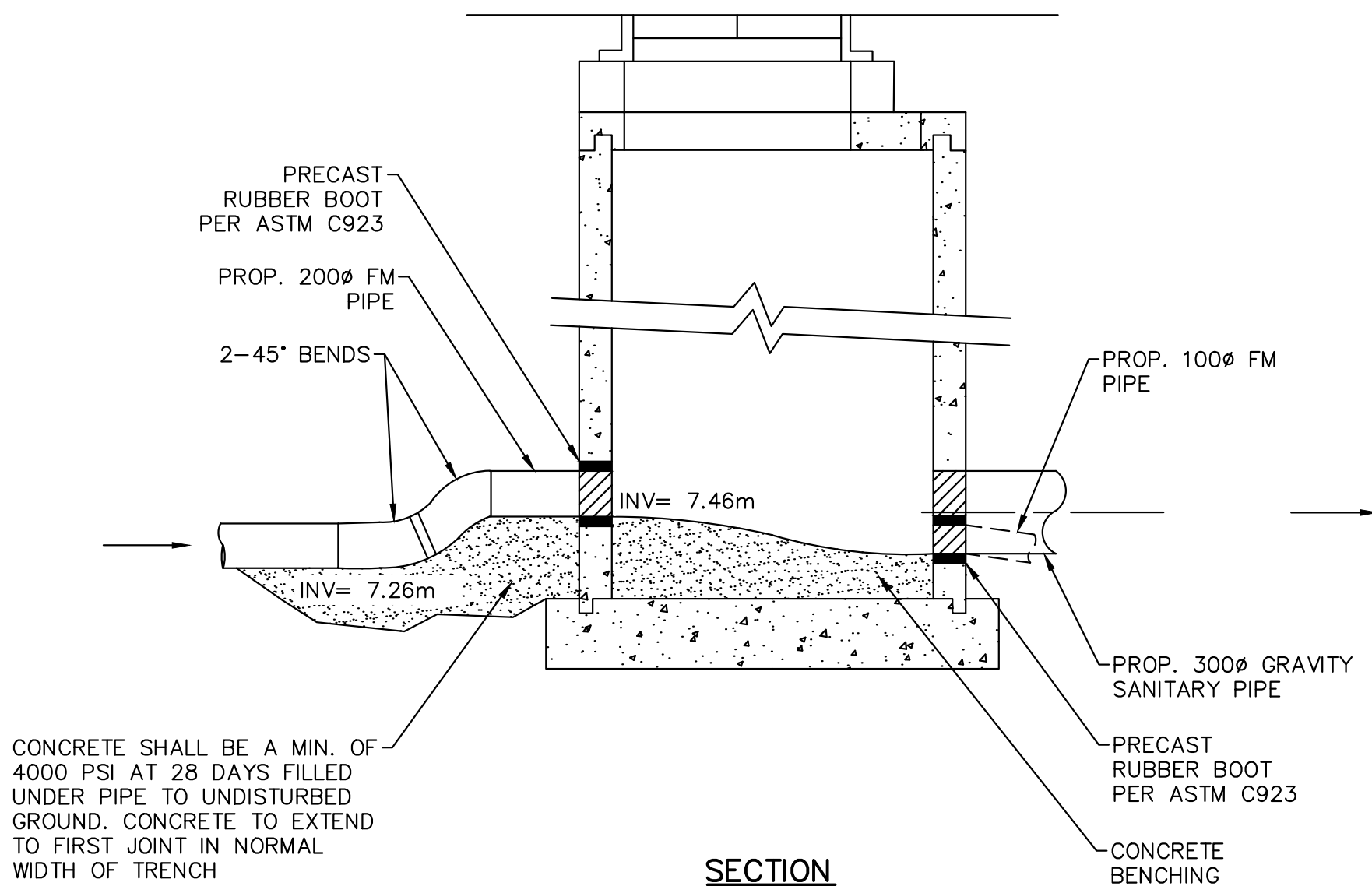
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N.T.S.



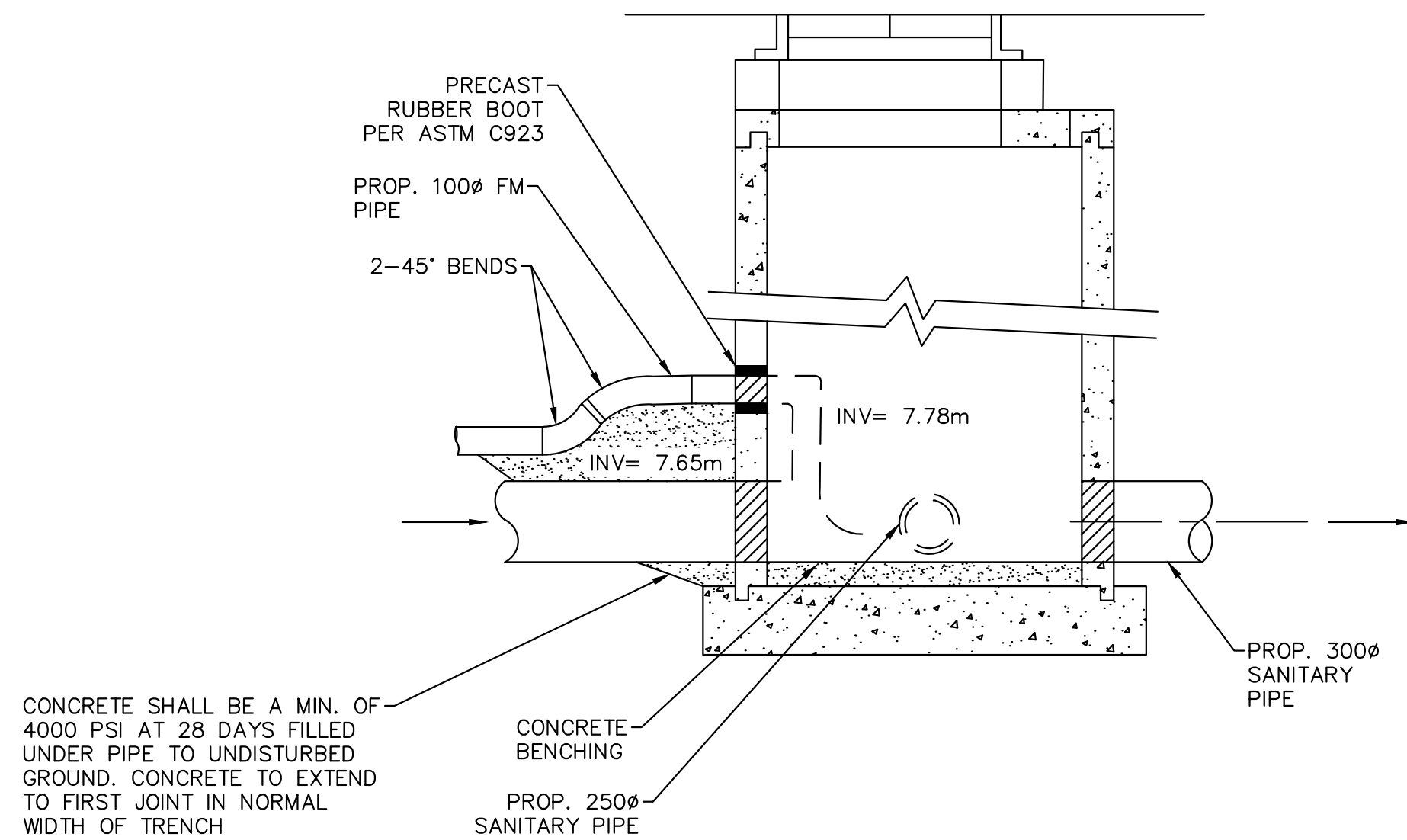
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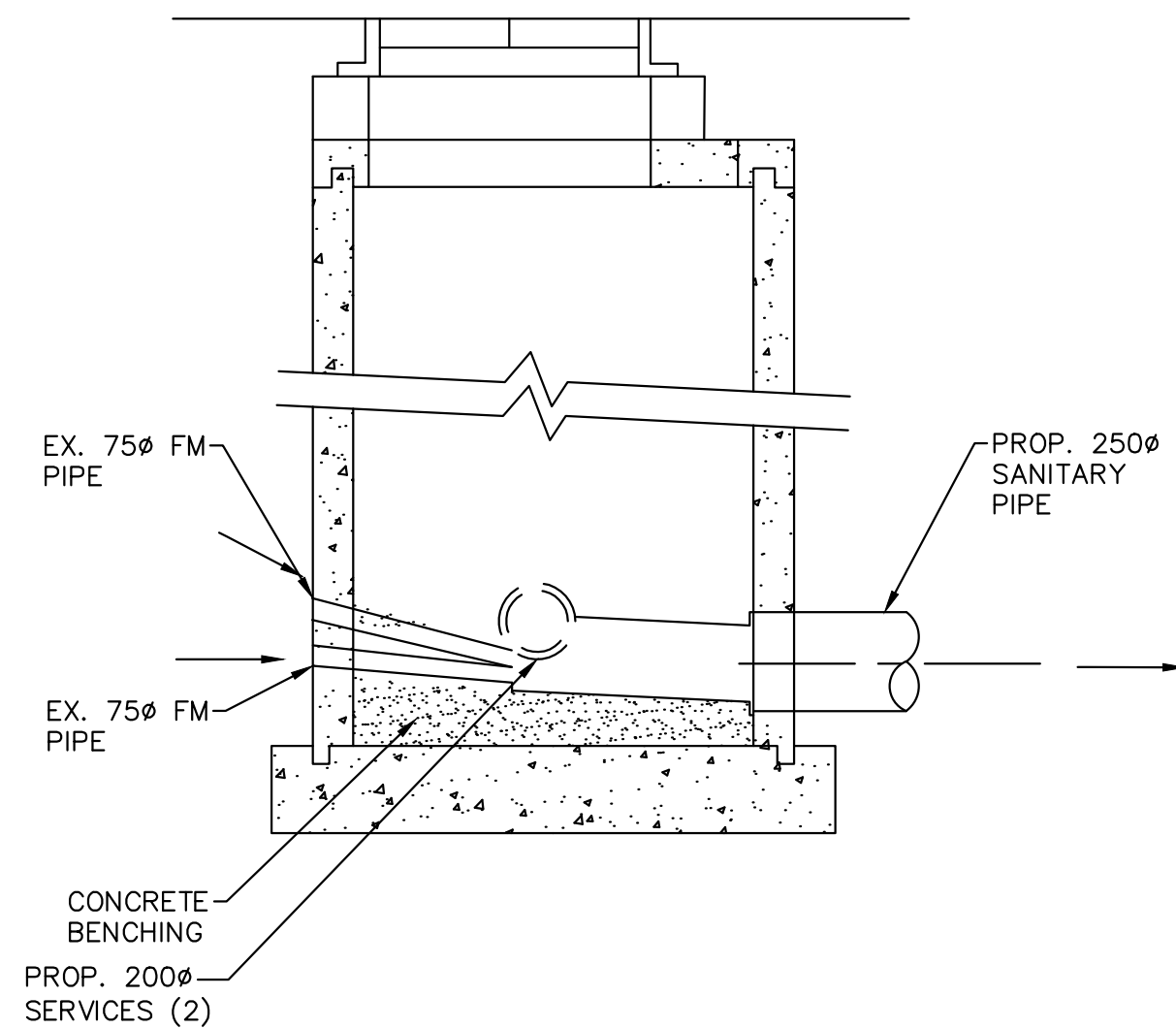
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SECTION
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N.T.S.



SECTION
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N.T.S.



SECTION
MH S9 TIE-IN DETAIL C-C
N.T.S.

Benchmark: CGVD28 (GVRD 2018) Scale factor: 0.9995887
GEODETIC ELEVATIONS ARE DERIVED FROM G.P.S.
OBSERVATION AT STN.1 LOCATED FRONTING DRIVEWAY OF
#48 FAWCETT ROAD

Note:
Contractor to contact Telus, BC Hydro, FortisBC and BC one call
prior to construction to confirm locations of utilities and
appurtenances requiring adjustment.

APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING
EGBC Permit to Practice Number #1001018
Aplin & Martin Consultants Ltd.
#201 - 12448 82 Avenue, Surrey, B.C. Canada V3W 3E9
Tel: (604) 597-9068, Fax: (604) 597-9061, Email: general@aplinmartin.com

No.	Date	By	Revisions
5	11/19/2025	TAT	ISSUED FOR TENDER
4	06/06/2025	JKA	REVISED 100% DESIGN
3	04/17/2025	JKA	100% DESIGN
2	3/27/2025	JKA	DETAILED DESIGN
1	1/09/2025	JKA	PRELIMINARY DESIGN

ACCEPTED FOR
CONSTRUCTION
Date: _____
Manager of
Development Servicing

Coquitlam

Engineering & Public Works
3000 Guildford Way, Coquitlam, B.C. V3B 7N2

PERMIT TO PRACTICE

Signature: _____

Date: _____

PERMIT NUMBER: 1001018

The Association of Professional Engineers
and Geoscientists of British Columbia

Seal:

Design by
JKA
Date
DECEMBER 2024
Drawn by
JKA
Date
DECEMBER 2024
Checked by
BDC
Date
DECEMBER 2024
Approved by
BDC
Date
DECEMBER 2024

Scale
1:500 HOR. 1:50 VERT.
Sheet of
04 OF 04
Eng. Project No.
XXX
A&M Project No.
15-001

Project
**FAWCETT ROAD &
HARTLEY AVENUE**
Description
STA 2+360 TO 2+560

File: 15-001 - SANITARY WORKS

McElhanney Cover A1 - 2024-02-05
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CLIENT

CITY OF COQUITLAM

ADDRESS / CONTACT INFO.

3000 GUILDFORD WAY, COQUITLAM

PROJECT NAME

COQUITLAM DRAINAGE MAIN REPLACEMENTS

DESCRIPTION

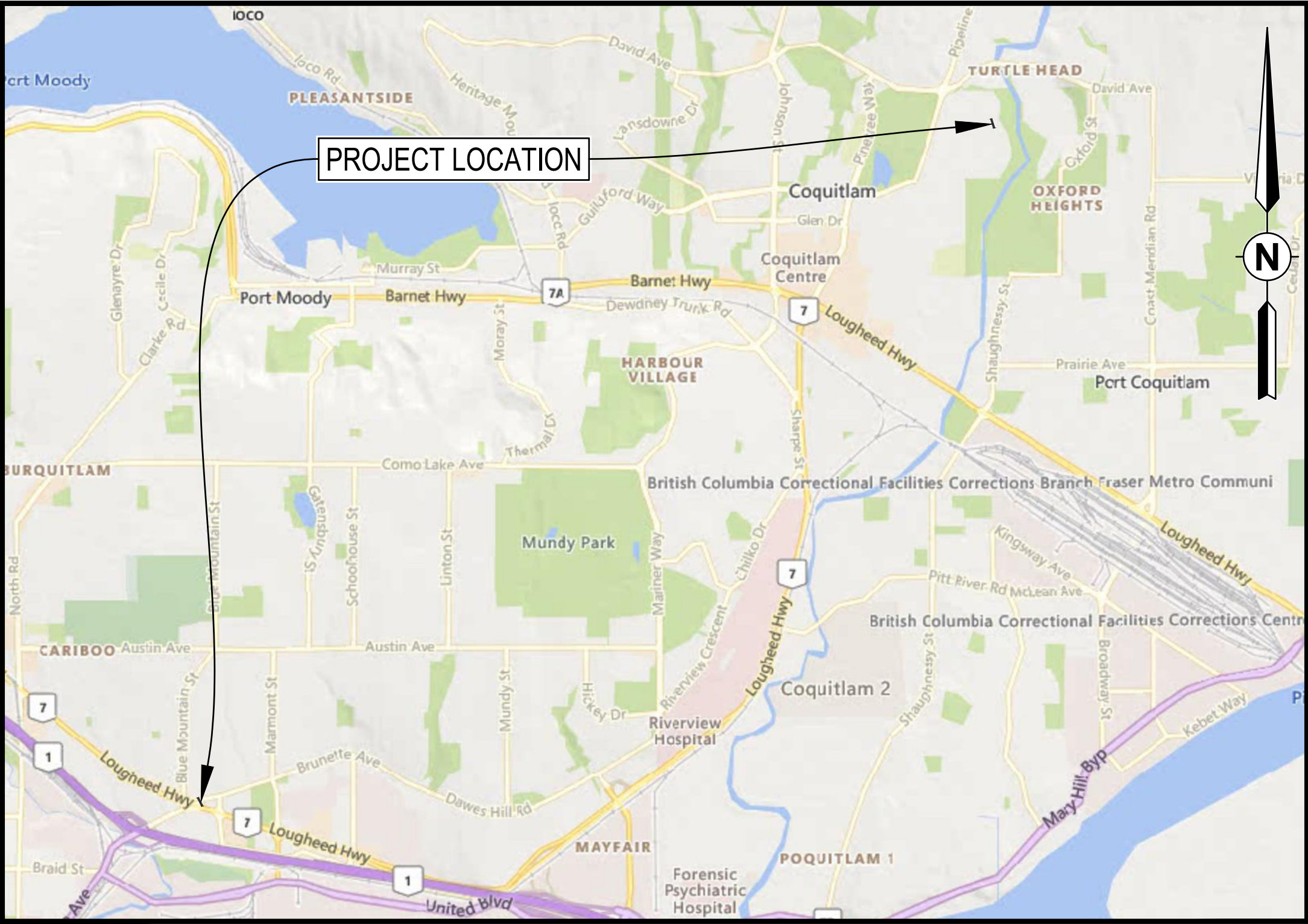
CHROME CRESCENT AND BRUNETTE AVENUE

McELHANNEY PROJECT

2111-06565-00

STATUS

ISSUED FOR TENDER



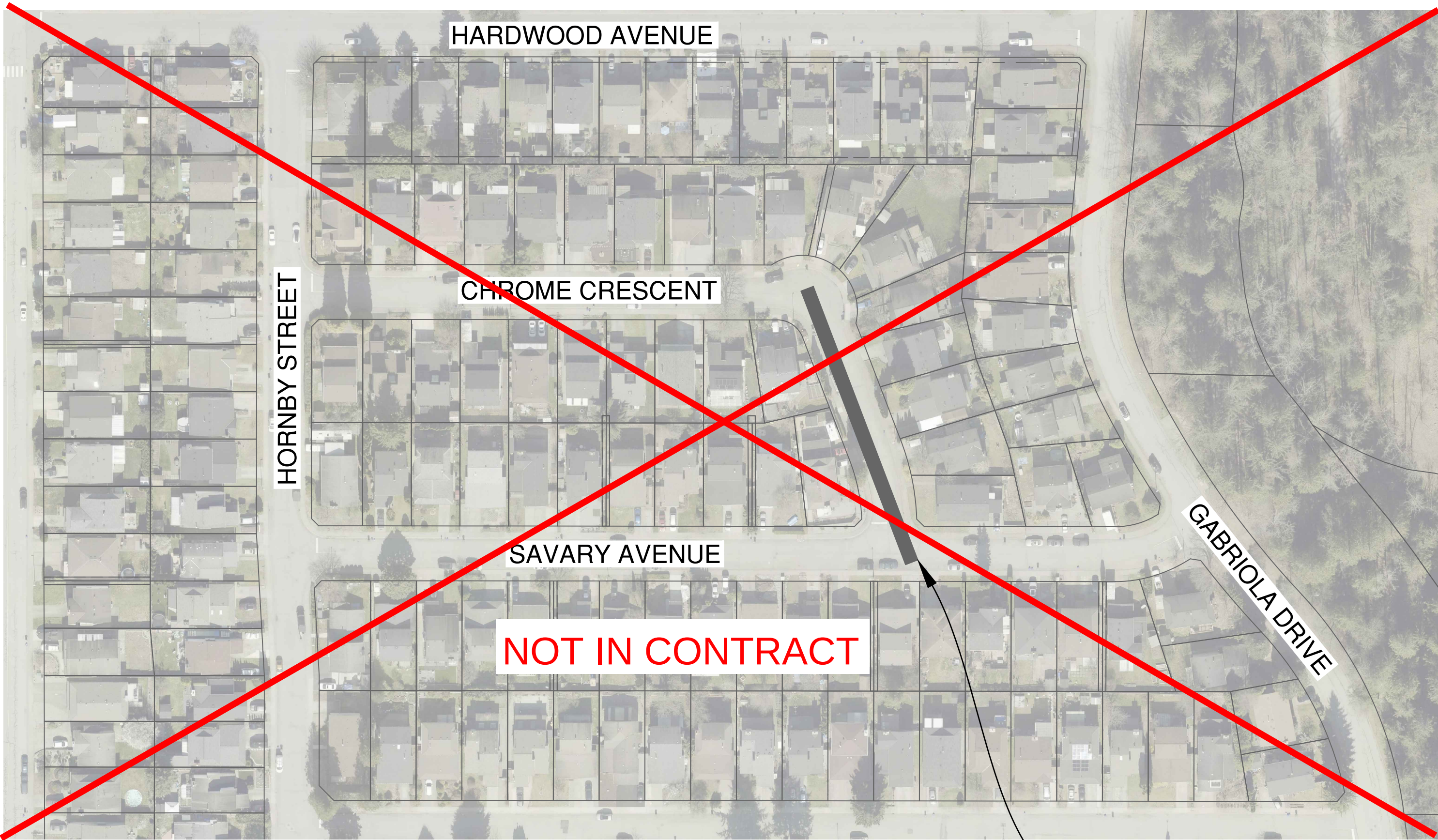
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McElhanney

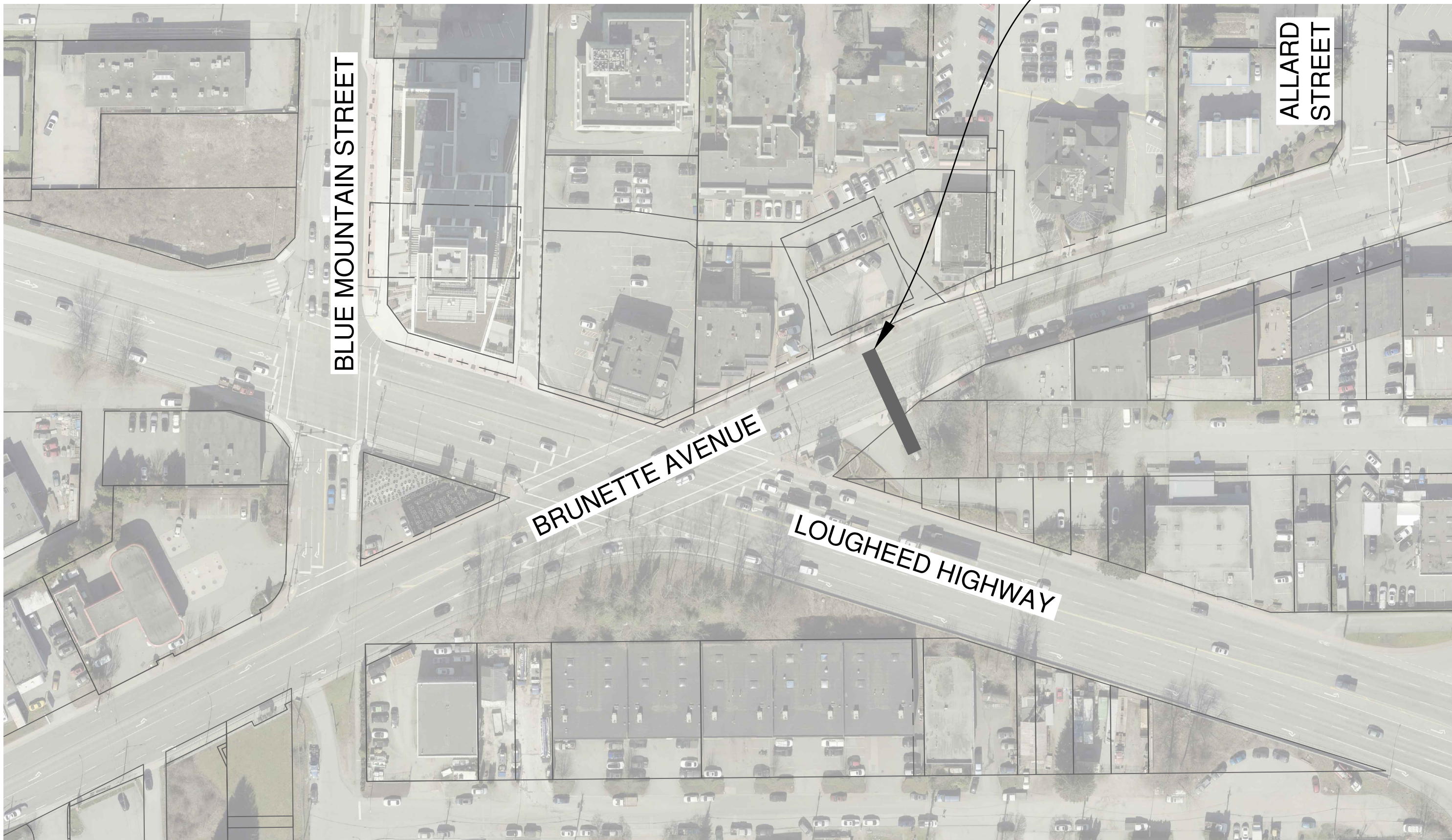
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13450 102nd Avenue,
Surrey BC V3T 5X3
Tel. 604 596 0391

DRAWING LIST								
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		A	B	C	0	1	2	3
00	COVER	X	X					
01	SITE PLAN AND GENERAL NOTES	X	X					
02	STORM SEWER - BRUNETTE AVENUE - STA. 1+997 TO STA. 2+018	X	X					
03	STORM SEWER - CHROME CRESCENT - STA. 0+990 TO STA. 1+069	X	X					



CHROME CRESCENT
SCALE: 1:1000

PROJECT LOCATION



BRUNETTE AVENUE
SCALE: 1:1000

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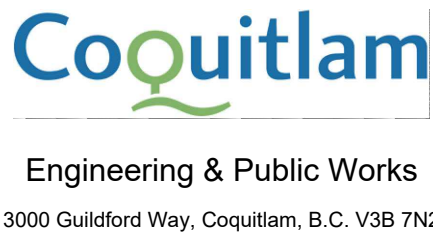
Edge of pavement	Hydrant	Sanitary service	Hydro Guy Wire
Watermain and valve	Water air valve	Sanitary cleanout	Hydro Kiosk
Drainage sewer, MH	Water blowoff	Utility pole(joint pole)	Vegetation Conifer
Drainage ditch	Water service	Utility pole with light	Vegetation Deciduous
Sanitary sewer, MH	Catch basin, top inlet	Streetlight, davit	Vegetation Shrub
SFM	Catch basin, side inlet	Streetlight, post top	Survey Traverse Hub
Gasmain and valve	Catch basin, round	Comb signal pole	Survey Iron Pin
Hydro duct, MH	Drainage service	Traffic signal pole	Survey Lead Plug
Telephone duct, MH	Drainage cleanout	Junction box	Survey Monument

No.	Date	By	Revisions	Eng.
B	2025.03.28	JN	ISSUED FOR TENDER	MH
A	2025.02.28	JN	ISSUED FOR DETAILED DESIGN	AG

Design by	Date
JN	2025.02.21
Drawn by	Date
VP	2025.02.21
Checked by	Date
AG	2025.02.21
Approved by	Date
AG	2025.02.21



Approved Sealed



Scale 1:1000
Sheet 01 of 03
Eng. Project No. 2111-06565-00

Project	COQUITLAM DRAINAGE MAIN REPLACEMENTS CHROME CRESCENT AND BRUNETTE AVENUE
Description	SITE PLAN AND GENERAL NOTES
File	06565-C0-001

GENERAL CONSTRUCTION NOTES:

- CONTACT & NOTIFY ALL HOMEOWNERS AFFECTED BY WORKS 4 WEEKS PRIOR TO CONSTRUCTION.
- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO MUNICIPALITY STANDARD SPECIFICATIONS AND DRAWINGS UNLESS OTHERWISE NOTED ON THIS DRAWING.
- REPAIR AND/OR REPLACE ALL INFRASTRUCTURE/PRIVATE PROPERTY DAMAGED OR REMOVED DURING CONSTRUCTION, TO BETTER THAN, OaR EQUAL TO PRE-CONSTRUCTION CONDITION.
- REINSTATE ALL PRIVATE PROPERTY AND BOULEVARDS TO PRE-CONSTRUCTION CONDITIONS.
- CONTACT MUNICIPALITY PARKS DEPARTMENT PRIOR TO WORKING IN AND AROUND TREES.
- ENSURE THE CURRENT MUNICIPAL O.H.&S. GROUND DISTURBANCE PRACTICE AND PROCEDURES ARE FOLLOWED. CONTACT BC1 AT 1-800-474-6886 FOR EXTERNAL UTILITY LOCATIONS AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- NOTIFY THOSE HOMEOWNERS WHO WILL BE AFFECTED BY CONSTRUCTION 48HRS BEFORE BEGINNING WORKS.
- CONFIRM LOCATION AND ELEVATION OF EXISTING UTILITIES AT ALL CROSSINGS AND CONNECTIONS PRIOR TO CONSTRUCTION.
- ENSURE ALL EXISTING SERVICES STAY IN OPERATIONAL CONDITION DURING CONSTRUCTION.
- SIGNS ARE TO BE CONSTRUCTED AS PER CoC STANDARD DRAWING SS-E11.1

ENVIRONMENTAL NOTES:

USE BEST MANAGEMENT PRACTICES DURING CONSTRUCTION. ADJUST WORK ACTIVITIES DURING PERIODS OF HEAVY RAIN TO MINIMIZE SEDIMENTS ENTERING THE STORM DRAINAGE SYSTEM. SOME BMP'S TO CONSIDER:

- CHECK ALL EQUIPMENT FOR FLUID LEAKS PRIOR TO ENTERING THE WORK AREA.
- NO EQUIPMENT RE-FUELING TO OCCUR IN THE WORK AREA UNLESS SPILL PROTECTION MEASURES ARE IN PLACE.
- A SPILL KIT IS TO BE MAINTAINED ON SITE THROUGHOUT THE CONSTRUCTION PERIOD.
- COVER EXPOSED SOILS IN INCLEMENT WEATHER ie TARP, HYDRO SEED OR ORGANIC LEAF MULCH.
- STOCKPILE SOILS AWAY FROM CULVERT INLETS AND ENSURE THEY ARE COVERED IF LEFT FOR MORE THAN 48 HOURS.
- SURROUND PROTECTED TREES WITH SNOW FENCING AT DRIP LINE OR CRITICAL ROOT ZONE OF TREE DURING CONSTRUCTION. CONTACT MUNICIPAL ARBORIST PRIOR TO BEGINNING CONSTRUCTION.

STORM SEWER NOTES:

- ALL STORM, SANITARY AND BEDDING MATERIALS TO MEET MASTER MUNICIPAL CONTRACT DOCUMENTS (MMCD) AND BRITISH COLUMBIA BUILDING CODE REQUIREMENTS.
- ALL MANHOLES TO BE 1050mm Ø PRECAST REINFORCED CONCRETE TO ASTM C478 OR AS NOTED ON DRAWING.
- CATCH BASINS ARE TO CONFORM TO MMCD S11.
- CATCH BASIN LEADS ARE TO BE A MINIMUM 150mm Ø (200mm Ø FOR DOUBLE C.B.'S), UNLESS OTHERWISE NOTED, @ MIN. 1.0%.
- CONTRACTOR TO CAP ALL SERVICE CONNECTIONS AS SHOWN.
- CONTRACTOR TO CONFIRM LOCATION AND INVERTS OF EXISTING STORM AND SANITARY SEWER CONNECTIONS AT TIE-INS PRIOR TO CONSTRUCTION .
- SANITARY AND STORM SEWER PIPES TO BE PVC SDR35.
- SANITARY SERVICE CONNECTIONS TO BE 100mm Ø PVC PIPE SDR28 FOR EACH BUILDING CLUSTER @ MIN. 1.0%.
- STORM SERVICE CONNECTIONS TO BE 150mm Ø PVC SDR28 PIPE FOR EACH BUILDING CLUSTER @ MIN. 1.0%, UNLESS OTHERWISE NOTED.
- ALL STORM BUILDING SUMPS TO BE 750mmØ AS PER DWG. 92.P.1, UNLESS NOTED ON THE DRAWINGS.

PERMIT TO PRACTICE

McElhanney Ltd.

PERMIT NUMBER: 1003299

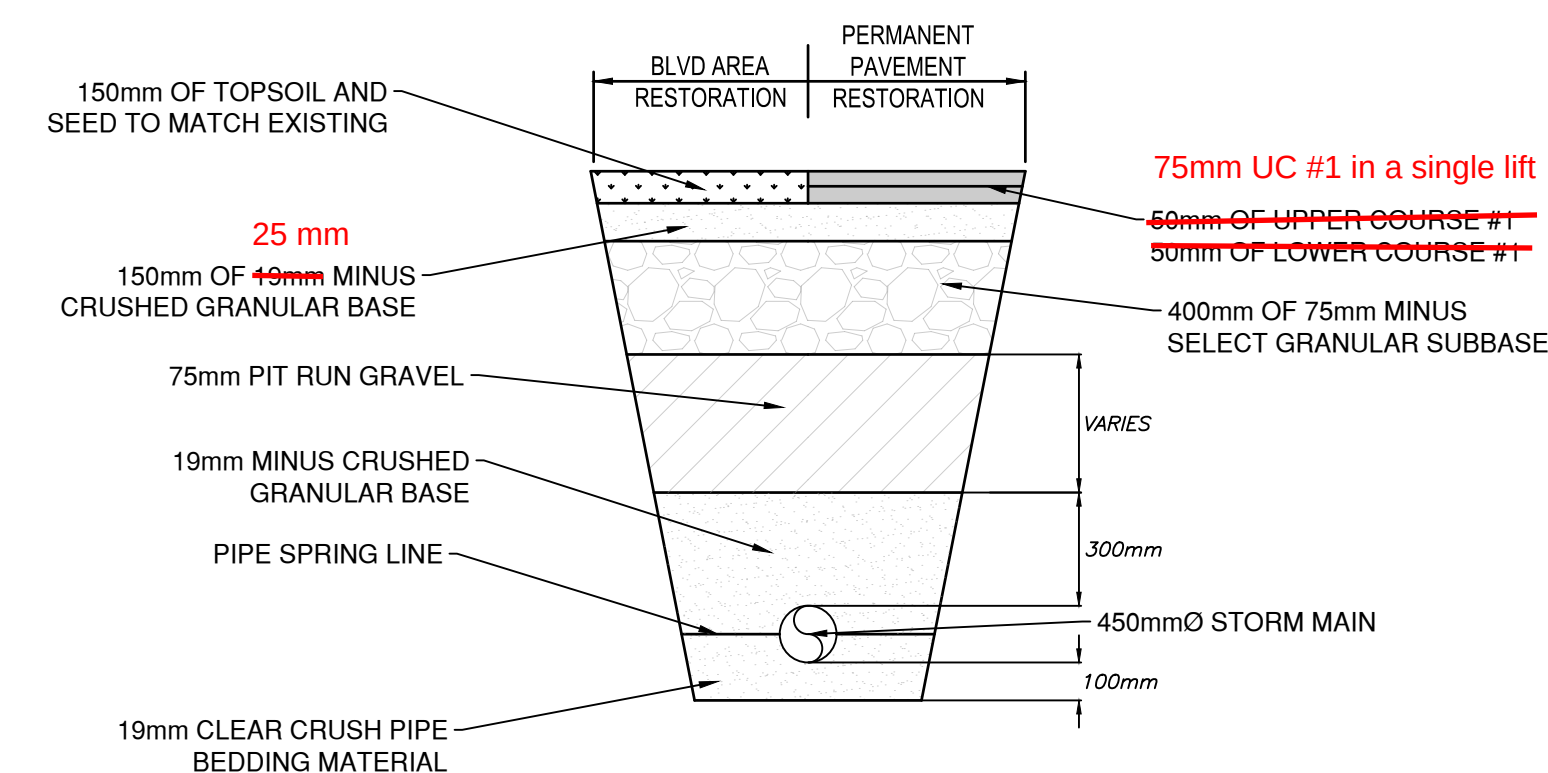
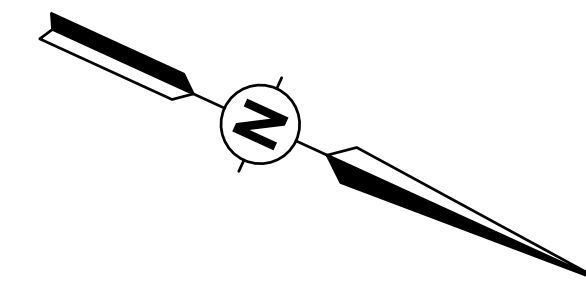
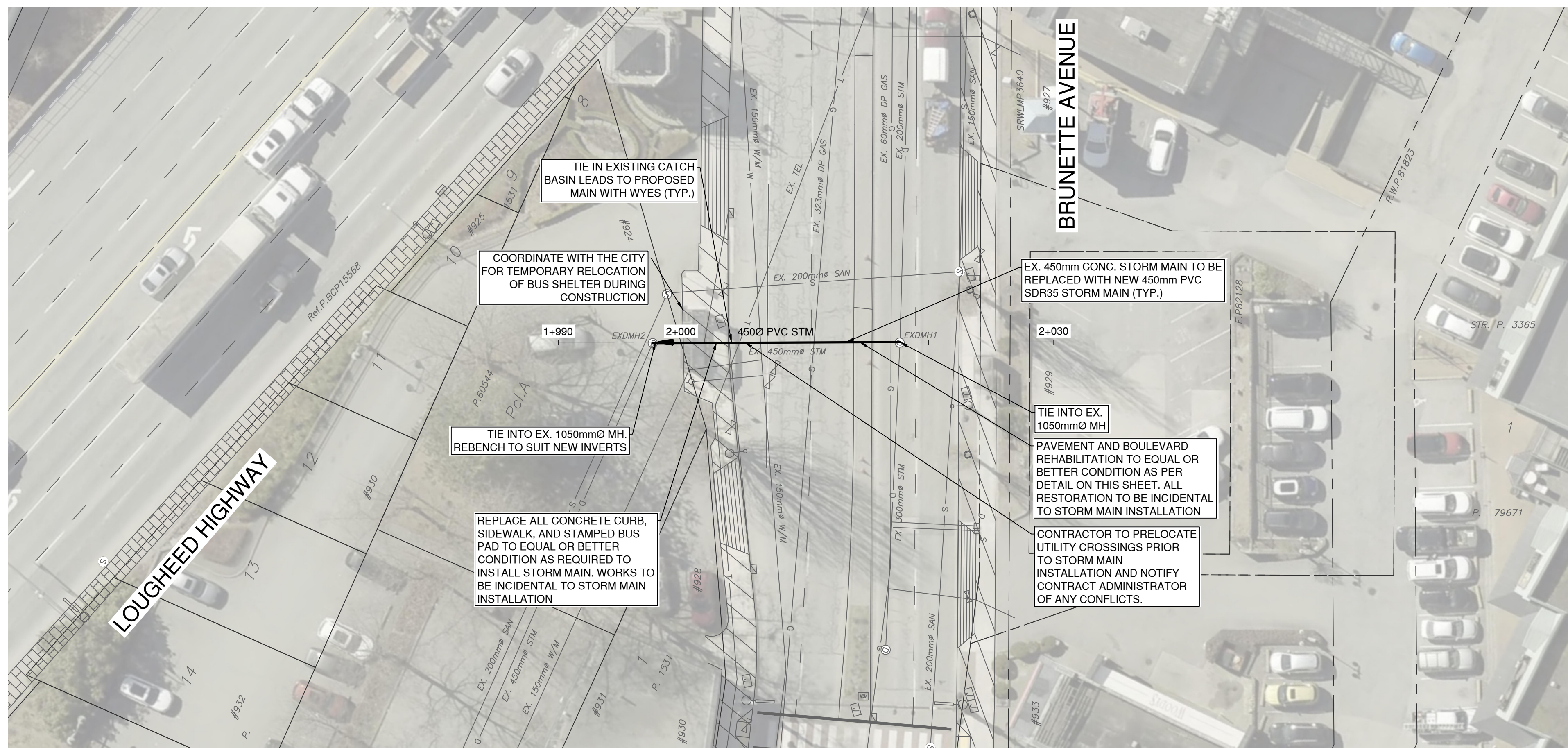
Engineers and Geoscientists of
British Columbia

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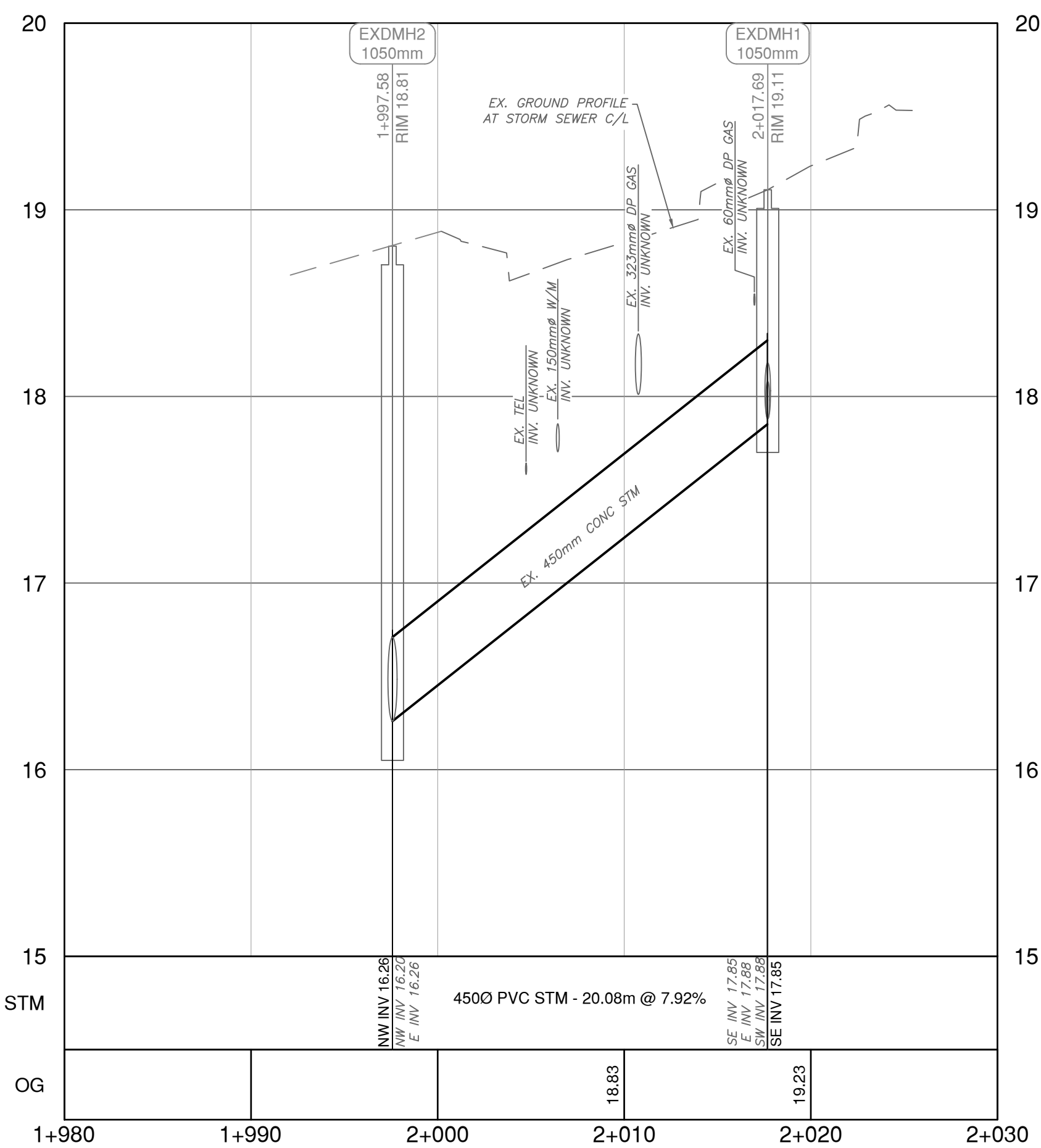
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TRENCH AND PAVEMENT STRUCTURE DETAIL
BRUNETTE AVENUE



SURVEY CONTROL:

1. THE SURVEY IS ON A LOCAL GROUND COORDINATE SYSTEM.
2. TO CONVERT TO NAD83 U.T.M. COORDINATES, MULTIPLY BY THE COMBINED SCALE FACTOR OF 0.99995887 ABOUT POINT 0,0,0
3. GEODETIC ELEVATIONS ARE DERIVED FROM G.P.S. OBSERVATION AT COQ019 LOCATED AT INTERSECTION OF LOUGHEED HWY. AND BRUNETTE AVENUE, ELEVATION=18.387m, DATUM IS CGVD28 (GVRD 2018)

PERMIT TO PRACTICE

McElhanney Ltd

PERMIT NUMBER: 1003299

Engineers and Geoscientists of
British Columbia

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Edge of pavement		Hydrant		Sanitary sewer		Hydro Gyo Wire	
Watermain and valve		Water air valve		Sanitary cleanout		Hydro Kiosk	
Drainage sewer, MH		Water blowoff		Utility pole(joint pole)		Vegetation Conifer	
Drainage ditch		Water service		Utility pole with light		Vegetation Deciduous	
Sanitary sewer, MH		Catch basin, top inlet		Streetlight, top		Vegetation Shrub	
Sanitary forcemain		Catch basin, side inlet		Streetlight, post top		Survey Traverse Hub	
Sanitary voice		Catch basin, round		Comb		Survey Iot	
Hydro duct, MH		Drainage sewer		Traffic signal pole		Survey Lead Plug	
Telephone duct, MH		Drainage cleanout		Junction box		Survey Monument	

B	2025.03.28	JN	ISSUED FOR TENDER		MH
A	2025.02.28	JN	ISSUED FOR DETAILED DESIGN		AG
No.	Date	By	Revisions		Eng.

Design by JN	Date 2025.02.21
Drawn by VP	Date 2025.02.21
Checked by AG	Date 2025.02.21
Approved by AG	Date 2025.02.21



Approved Sealed



Scale 1:250 Scale 1:25
horiz. vert.
Sheet 02 of 03
Eng.
Project No. 2111-06565-00

Project	COQUITLAM DRAINAGE MAIN REPLACEMENT CHROME CRESCENT AND BRUNETTE AVENUE
Description	STORM SEWER BRUNETTE AVENUE - STA. 1+997 TO STA. 2+018
File:	06565-C1-300

***Appendix D -
Geotechnical Exploration
Report***



**Foundations,
Excavation &
Shoring
Specialists**

Braun Geotechnical
102 - 19049 95A Ave.
Surrey, BC
V4N 3S3
Tel: 604-513-4190
Fax: 604-513-4195
info@braungeo.com

www.braungeo.com

Foundations

**Excavation &
Shoring**

Slope Stability

Natural Hazards

**Pavement Design
and Management**

**Reinforced Soil
Walls and Slopes**



Rev. Sept 15, 2006

July 26, 2018 (R1 - August 14, 2018)

Reference: 18-7719

Via email: nphilip@aplinmartin.com

Aplin & Martin Consultants Ltd.

201 - 12448 82 Avenue
Surrey, BC V3W 3E9

Attn: Nicole Philip, EIT.

**Re: Geotechnical Exploration Report
Proposed Sanitary & Storm Sewer Replacement
Fawcett Road & Hartley Avenue, Coquitlam, BC**

1.0 INTRODUCTION

As requested, Braun Geotechnical Ltd. has carried out a geotechnical exploration for the above-referenced project. The geotechnical work has been performed in general accordance with our proposal dated April 23, 2018 (Braun Ref. P18-5883). The scope of work included completion of a geotechnical subsurface exploration, and provision of this geotechnical report.

The scope of services was limited to the evaluation of geotechnical characteristics of the sites and no consideration has been given to any environmental aspects. Should any changes be made to the project, Braun Geotechnical should be notified to review and modify the recommendations to reflect those changes, as appropriate.

2.0 PROPOSED PROJECT

It is understood that a sanitary and storm sewer replacement program is proposed along Fawcett Road and Hartley Avenue in Coquitlam, BC. Details of the proposed utilities were provided in the Aplin Martin preliminary drawings dated April 5, 2018. Trench excavations to a maximum depth of 4.5m are anticipated.

Fawcett Road and Hartley Avenue within the limits of the utility service works are classified by City of Coquitlam as Local roads.

3.0 EXPLORATION PROGRAM

Subsurface exploration included six Test Holes designated as (TH18-01 to -06), drilled on July 11, 2018. Test holes were advanced to depths of 6.1 to 9.1m using a truck mounted solid stem auger drill under subcontract to Braun Geotechnical. Test holes were advanced within the existing pavement area to coincide with the proposed utility alignments. Two standpipe piezometers were installed at TH18-02 & -06 to allow for ongoing groundwater level monitoring.

Subsurface conditions were logged in the field by Braun Geotechnical and representative soil samples were returned for further visual classification and laboratory moisture content testing.

Approximate test hole locations are shown on the enclosed location plans designated as (Dwg. 18-7719-01 to -03).

4.0 DESK STUDY INFORMATION

The desk study was non-intrusive in nature, and involved update and review of available geological and geotechnical information, and update and review of available aerial photographs.

Review of available published and in-house geological information indicated that the study site area is generally underlain by Fraser River Sediments comprised of deltaic and distributary channel fill sediments including overbank silty to silt clay loam overlying sandy to silt loam.

Historical aerial photographs available for most decades dating back to 1938 were reviewed. The following comments have been provided from the air photo review.

- Construction work of Fawcett Road and Hartley Avenue was first observed on the 1989 airphoto.
- Completed roadways were observed on the 1994 airphoto.
- Landfill activity was observed in the general area of Fawcett Road on the 1974, 1979 and 1984 airphotos. Figures 1 and 2 show the 1974 and 1979 airphotos with the approximate current alignment of Fawcett Road and Hartley Avenue (red lines).

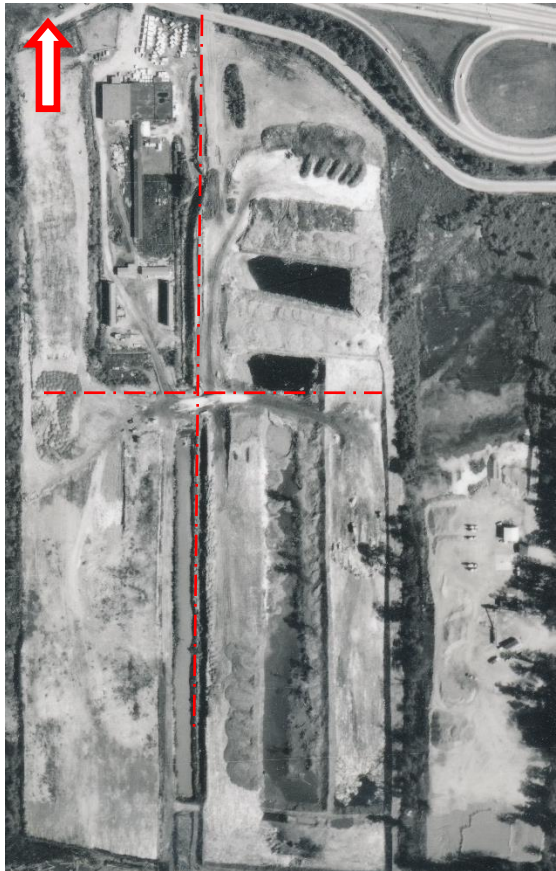


Figure 1 – 1974 Airphoto

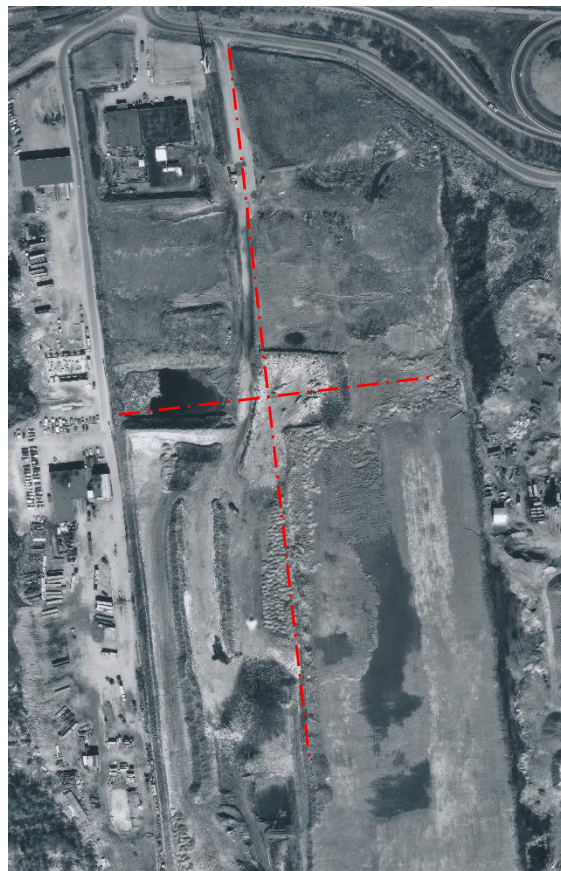


Figure 2 – 1979 Airphoto

5.0 SOIL AND GROUNDWATER CONDITIONS

The findings of the test hole exploration are provided on the attached test hole logs and should be referred to for detailed description of subsurface conditions at test locations. A generalized subsurface profile based on test holes is provided below.

ASPHALT & PAVEMENT SECTION FILLS

Asphalt pavement thickness at test holes varied from 95 to 125mm.

Existing granular pavement section fills encountered below asphalt pavement varied in thickness from 635 to 815mm.

FILLS

Test holes generally encountered silty SAND/ sandy SILT fill below asphalt pavement section in dense/ stiff condition extending to depths of 1.5 to 3.0m.

Miscellaneous fills including loose organic rich silty sand with debris and wood fill was encountered below to depths of 3.7 to 9.1m. Debris encountered during drilling include plastic, metal, paper, glass and EPS.

TH18-01, -03 & -04 were terminated within this fill layer.

NATURAL SOILS

Grey to grey-brown, damp to moist, firm/ stiff SILT/ sandy SILT was encountered below fills within TH18-02, -05 & -06 to depths of 5.5 to 9.1m. TH18-02 & -05 were terminated within this soil layer.

Grey, moist, compact, silty fine SAND was encountered below within TH18-06 and extending to the depth of test hole exploration at 7.6m.

GROUNDWATER

At the time of drilling, groundwater seepage was encountered within TH18-01, -02 & -06 at depths of 3.7 to 6.7m. Piezometer monitoring carried out on July 17, 2018 encountered groundwater within TH18-06 piezometer at 3.0m depth. TH18-02 piezometer was dry at the time of monitoring. Groundwater levels and near-surface run-off flows are expected to fluctuate seasonally, with drainage conditions and likely with river and tidal influences.

The subsurface conditions described above were encountered at the test hole locations only. Subsurface conditions at other locations could vary.

6.0 GEOTECHNICAL RECOMMENDATIONS

6.1 General

Test holes generally encountered existing pavement structure over extensive thickness of mixed fills comprised of upper mineral fills and base mixed fills resulting from landfill activity observed on the historical aerial photographs. The fill encountered was generally mineral and in dense/ stiff condition to depths of 1.5 to 3.0m.

The following sections provide specific geotechnical discussion and recommendations for the project.

6.2 Temporary Excavation

It is expected that temporary excavations would be completed using shored trench box methods. In accordance with Worksafe BC requirements temporary excavation slopes and/or trench shoring

should be completed under field review by a qualified Geotechnical Engineer retained by the excavation contractor prior to any worker entry. It is expected the utility excavation could be dewatered using pumping sumps. Specialized pumps and/or well points may be required for construction during the Fraser River freshet.

It is noted that landfill materials and wood fills have potential to generate methane gas which would need to be considered by the excavation contractor during temporary excavation for the proposed works. Methane gas has potential to cause fires, explosion and worker asphyxiation. Site safety procedures including gas detection equipment and appropriate mitigative measures should be provided by the contractor and/or designated safety office.

6.3 Subgrades

It is anticipated that pipe trench and manhole subgrades within Hartley Avenue and Fawcett Road approximately south of Hartley Avenue would comprise loose organic rich silty sand with debris and wood fill that are considered sensitive to construction disturbance. Where loose/ soft soils are encountered, it is recommended that a minimum 0.3m thick zone of clear crushed gravel encapsulated in a non-woven geotextile (Nilex 4551 or approved equivalent) be provided below the sanitary/ storm sewer and manhole structures.

Trench subgrades should be trimmed to design levels with an excavator equipped with a smooth edged bucket. Actual subgrade as well as extent of excavation and replacement should be confirmed under field review by a qualified geotechnical engineer at the time of construction.

6.4 Pipe Bedding

Pipe bedding should comprise gravel meeting the Master Municipal Construction Documents MMCD gradation for Type 1 Granular Pipe Bedding and Surround Material. The use of clear crushed bedding would also be satisfactory for geotechnical consideration. Clear crushed gravel should be separated from adjacent materials using an approved geotextile separator such as Nilex 4551 or approved equivalent. Bedding should be placed and compacted to the equivalent of 95% Modified Proctor Density (MPD).

6.5 Trench Backfills

General backfill within loose/ soft subgrade areas should include a zone of Light Weight Granular fill (LWG) to limit any increase of vertical stress on the underlying loose subgrade that may occur from full depth granular backfills. This would include LWG placement above the completed pipe to a depth of 1.5m below roadway grades. Service areas with invert less than 2.0m depth do not warrant LWG.

Remaining granular backfills should consist of clean, free draining well graded sand and gravel with less than 5% fines (percent passing the #200 sieve). Trench backfill should be placed and compacted to at least 95% MPD. Import fill for general backfill is anticipated to be required based on soils encountered within the test holes. If encountered, excavated free draining sand and gravel may be appropriate for onsite reuse and should be reviewed by a qualified Geotechnical Engineer prior to reuse. Reducing the vertical stress through the use of LWG is expected to reduce post construction settlement of the works to within tolerable limits.

6.6 Lightweight Granular Fill (LWG)

Lightweight granular fill for general backfills within the identified depth range should be comprised of vesicular basalt ("Red Pumice"), nominal 25 to 75mm uniformly graded materials with less than 3% passing the 4.75mm sieve. The LWG should be wrapped with a M288 Class 2 Survivability non-woven geotextile (Nilex 4551 or approved equivalent).

The lightweight fill should be placed in maximum 300mm thick lifts, with each lift compacted using three passes with a 500lb plate compactor. Compactive effort that results in material breakdown with oversized equipment (e.g. heavy drum roller) should be avoided.

6.7 Pavement Restoration

The recommended design pavement structure for trench restoration is provided below.

Fawcett Road/ Harley Avenue (Local)	Materials
100mm ¹	Hot Mix Asphalt Surface
150mm	19mm minus Crushed Granular Base
300mm	75mm minus Granular Subbase (SGSB)

Notes: ¹Asphalt surfacing should be placed in two lifts of 50mm and 50mm for the base course and surface course layers respectively and may comprise MMCD compliant Lower Course #2 and Upper Course #2.

The recommended pavement section is thicker than the City of Coquitlam minimum pavement structure for a Local Road classification. Fawcett Road & Hartley Avenue are high-volume truck traffic routes and an increased pavement structure is recommended.

Asphalt pavement restoration should be completed in accordance with MMCD G5 including the mill & lap detail for any permanent trench restoration areas. Asphalt pavement thickness should be increased to match the existing pavement thickness along the margins of the trench to a maximum of 150mm (per MMCD G5).

7.0 GEOTECHNICAL FIELD REVIEW

Geotechnical field reviews should be arranged during construction to address the following:

- Soil and groundwater conditions;
- Temporary excavation cut slopes and trench shoring;
- Suitability of pipe bedding and backfill soils, compaction, and exposed trench subgrades;
- Placement and compaction of pavement section fills;
- Asphalt hot mix field sampling and Mix Design testing;
- Retrieval of asphalt cores for thickness and density.

8.0 CLOSURE

This report is prepared for the exclusive use of Aplin & Martin Consultants Ltd., the City of Coquitlam, and their designated representatives and may not be used by other parties without the written permission of Braun Geotechnical Ltd.

If the project plans change, or if during construction soil conditions are noted to be different from those described in this report, Braun Geotechnical must be notified immediately in order that the geotechnical recommendations can be confirmed or modified, if required.

The site contractor should make their own assessment of subsurface conditions and select the construction means and methods most appropriate to the site conditions.

This report should not be included in the specifications without suitable qualifications approved by the geotechnical engineer.

The use of this report is subject to the Report Interpretation and Limitations, which is included with the report. The reader's attention is drawn specifically to those conditions, as it is considered essential that they be followed for proper use and interpretation of this report.

We hope the above meets with your requirements. Should any questions arise, please do not hesitate to contact the undersigned.

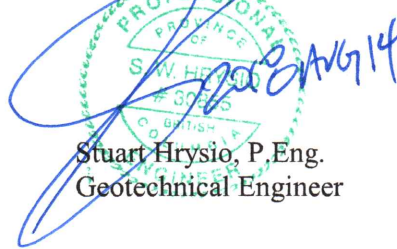
Yours truly,

Braun Geotechnical Ltd.



Euraj N Vivekanandan, EIT.
Geotechnical Engineer

Braun Geotechnical Ltd.



Stuart Hrysiw, P.Eng.
Geotechnical Engineer

Encl: Report Interpretation and Limitations
Test Hole Location Plans
Test Hole Logs

x:\2018 projects\18-7719 sanitary & storm mains fawcett rd and hartley ave, coquitlam, bc\report\geotechnical report 18-7719 2018-07-26 (r1 - 2018-08-14).docx

REPORT INTERPRETATION AND LIMITATIONS

1. STANDARD OF CARE

Braun Geotechnical Ltd. (Braun) has prepared this report in a manner consistent with generally accepted engineering consulting practices in this area, subject to the time and physical constraints applicable. No other warranty, expressed or implied, is made.

2. COMPLETENESS OF THIS REPORT

This Report represents a summary of paper, electronic and other documents, records, data and files and is not intended to stand alone without reference to the instructions given to Braun by the Client, communications between Braun and the Client, and/or to any other reports, writings, proposals or documents prepared by Braun for the Client relating to the specific site described herein.

This report is intended to be used and quoted in its entirety. Any references to this report must include the whole of the report and any appendices or supporting material. Braun cannot be responsible for use by any party of portions of this report without reference to the entire report.

3. BASIS OF THIS REPORT

This report has been prepared for the specific site, development, design objective, and purpose described to Braun by the Client or the Client's Representatives or Consultants. The applicability and reliability of any of the factual data, findings, recommendations or opinions expressed in this document pertain to a specific project as described in this report and are not applicable to any other project or site, and are valid only to the extent that there has been no material alteration to or variation from any of the descriptions provided to Braun. Braun cannot be responsible for use of this report, or portions thereof, unless we were specifically requested by the Client to review and revise the Report in light of any alterations or variations to the project description provided by the Client.

If the project does not commence within 18 months of the report date, the report may become invalid and further review may be required.

The recommendations of this report should only be used for design. The extent of exploration including number of test pits or test holes necessary to thoroughly investigate the site for conditions that may affect construction costs will generally be greater than that required for design purposes. Contractors should rely upon their own explorations and interpretation of the factual data provided for costing purposes, equipment requirements, construction techniques, or to establish project schedule.

The information provided in this report is based on limited exploration, for a specific project scope. Braun cannot accept responsibility for independent conclusions, interpretations, interpolations or decisions by the Client or others based on information contained in this Report. This restriction of liability includes decisions made to purchase or sell land.

4. USE OF THIS REPORT

The contents of this report, including plans, data, drawings and all other documents including electronic and hard copies remain the copyright property of Braun Geotechnical Ltd. However, we will consider any reasonable request by the Client to approve the use of this report by other parties as "Approved Users." With regard to the duplication and distribution of this Report or its contents, we authorize only the Client and Approved Users to make copies of the Report only in such quantities as are reasonably necessary for the use of this Report by those parties. The Client and "Approved Users" may not give, lend, sell or otherwise make this Report or any portion thereof available to any other party without express written permission from Braun. Any use which a third party makes of this Report – in its entirety or portions thereof – is the sole responsibility of such third parties. BRAUN GEOTECHNICAL LTD. ACCEPTS NO RESPONSIBILITY FOR DAMAGES SUFFERED BY ANY PARTY RESULTING FROM THE UNAUTHORIZED USE OF THIS REPORT.

Electronic media is susceptible to unauthorized modification or unintended alteration, and the Client should not rely on electronic versions of reports or other documents. All documents should be obtained directly from Braun.

5. INTERPRETATION OF THIS REPORT

Classification and identification of soils and rock and other geological units, including groundwater conditions have been based on exploration(s) performed in accordance with the standards set out in Paragraph 1. These tasks are judgemental in nature; despite comprehensive sampling and testing programs properly performed by experienced personnel with the appropriate equipment, some conditions may elude detection. As such, all explorations involve an inherent risk that some conditions will not be detected.

Further, all documents or records summarizing such exploration will be based on assumptions of what exists between the actual points sampled at the time of the site exploration. Actual conditions may vary

significantly between the points investigated and all persons making use of such documents or records should be aware of and accept this risk.

The Client and "Approved Users" accept that subsurface conditions may change with time and this report only represents the soil conditions encountered at the time of exploration and/or review. Soil and ground water conditions may change due to construction activity on the site or on adjacent sites, and also from other causes, including climactic conditions.

The exploration and review provided in this report were for geotechnical purposes only. Environmental aspects of soil and groundwater have not been included in the exploration or review, or addressed in any other way.

The exploration and Report is based on information provided by the Client or the Client's Consultants, and conditions observed at the time of our site reconnaissance or exploration. Braun has relied in good faith upon all information provided. Accordingly, Braun cannot accept responsibility for inaccuracies, misstatements, omissions, or deficiencies in this Report resulting from misstatements, omissions, misrepresentations or fraudulent acts of persons or sources providing this information.

6. DESIGN AND CONSTRUCTION REVIEW

It is the Client's or the Client's Contractor's responsibility to retain a qualified geotechnical consultant to provide field reviews during construction and signoff.

7. SAMPLE DISPOSAL

Braun will dispose of all samples 3 months after issuance of this report, or after a longer period of time at the Client's expense if requested by the Client. All contaminated samples remain the property of the Client and it will be the Client's responsibility to dispose of them properly.

8. SUBCONSULTANTS AND CONTRACTORS

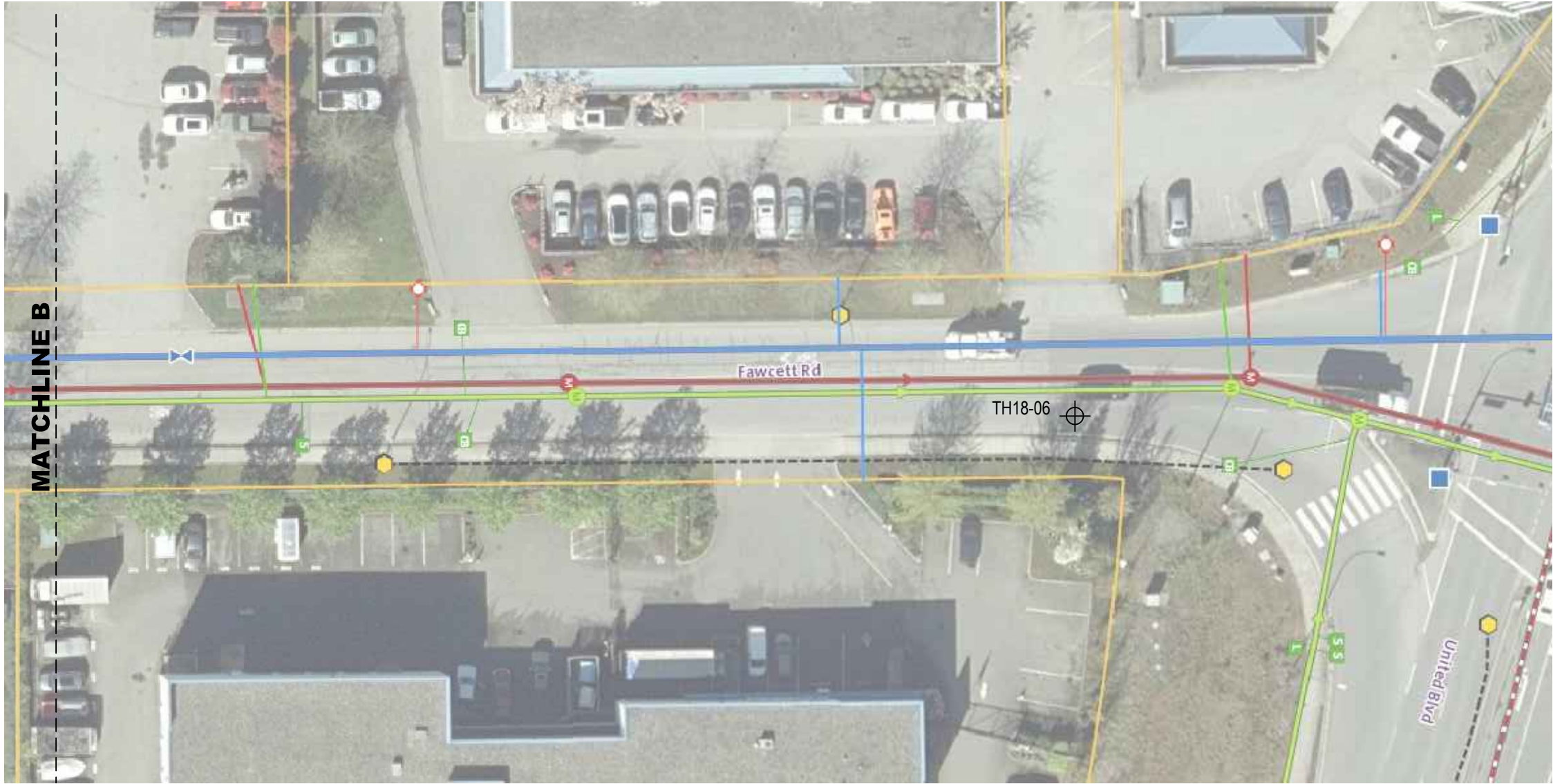
Engineering studies frequently requires hiring the services of individuals and companies with special expertise and/or services which Braun Geotechnical Ltd. does not provide. These services are arranged as a convenience to our Clients, for the Client's benefit. Accordingly, the Client agrees to hold the Company harmless and to indemnify and defend Braun Geotechnical Ltd. from and against all claims arising through such Subconsultants or Contractors as though the Client had retained those services directly. This includes responsibility for payment of services rendered and the pursuit of damages for errors, omissions or negligence by those parties in carrying out their work. These conditions apply to specialized subconsultants and the use of drilling, excavation and laboratory testing services, and any other Subconsultant or Contractor.

9. SITE SAFETY

Braun Geotechnical Ltd. assumes responsibility for site safety solely for the activities of our employees on the jobsite. The Client or any Contractors on the site will be responsible for their own personnel. The Client or his representatives, Contractors or others retain control of the site. It is the Client's or the Client's Contractors responsibility to inform Braun of conditions pertaining to the safety and security of the site – hazardous or otherwise – of which the Client or Contractor is aware.

Exploration or construction activities could uncover previously unknown hazardous conditions, materials, or substances that may result in the necessity to undertake emergency procedures to protect workers, the public or the environment. Additional work may be required that is outside of any previously established budget(s). The Client agrees to reimburse Braun for fees and expenses resulting from such discoveries. The Client acknowledges that some discoveries require that certain regulatory bodies be informed. The Client agrees that notification to such bodies by Braun Geotechnical Ltd. will not be a cause for either action or dispute.

	Rev.	Description	Date	Client Aplin & Martin Consultants Ltd.				Title LOCATION PLAN		
				Project Proposed Sanitary & Storm Mains Fawcett Road and Hartley Avenue, Coquitlam, BC						
				Project no.	Drawn	Design	Checked	Date	Scale	Drawing no.
				18-7719	DD	EV	SH	June 6, 2018	1:750	18-7719-01



LEGEND

- TH18-01 [crosshair symbol] 2018 TEST HOLE APPROXIMATE LOCATION
- TH18-01 [crosshair with circle symbol] 2018 TEST HOLE + PIEZOMETER APPROXIMATE LOCATION

REFERENCE AIR PHOTO FROM CITY OF COQUITLAM Q THE MAP

	Rev.	Description	Date	Client Aplin & Martin Consultants Ltd.				Title LOCATION PLAN		
				Project Proposed Sanitary & Storm Mains Fawcett Road and Hartley Avenue, Coquitlam, BC						
				Project no.	Drawn	Design	Checked	Date	Scale	Drawing no.
				18-7719	DD	EV	SH	June 6, 2018	1:750	18-7719-03

Test Hole Log: TH18-01

File: 18-7719

Project: Proposed Sanitary & Storm Mains

Client: Aplin & Martin Consultants Ltd.

Location: Fawcett Road and Hartley Avenue, Coquitlam, BC



Depth ft m	Thickness (mm)	Sample	Soil Description	Sample #	Water cont.	Remarks
0	0		115mm ASPHALT over grey, damp, dense SAND & GRAVEL, trace to some silt, occasional cobbles (FILL)			
1	915					
5	1220	○	grey-brown, damp, dense SAND, some silt, trace to some gravel (FILL)	S1		
2		○		S2		
10	915	○	grey to dark grey, damp, dense, silty SAND, trace gravel, trace wood (FILL)	S3		
3		○				
10			brown to dark-brown, moist, loose to compact, silty SAND, some organics, some wood, some debris (FILL)	S4		
4		○				
15						
5						
20	6095					- seepage at 6.1m
6						
7						
25						
8		○		S5		
30						
9			End of Test Hole @ 9.1m			
10						
35						
11						

Equipment: Truck Mounted Auger Rig
Sampling method: Grab Off Auger Flight

Datum: Ground Surface
Water Depth: Seepage at 6.1m
(at time of drilling)

Logged By: EV
Exploration Date: July 11, 2018
Dwg No.: 18-7719-TH01
Page: 1 of 1

Test Hole Log: TH18-02

File: 18-7719

Project: Proposed Sanitary & Storm Mains

Client: Aplin & Martin Consultants Ltd.

Location: Fawcett Road and Hartley Avenue, Coquitlam, BC



Depth ft m	Thickness (mm)	Sample	Soil Description	Sample #	Water cont.	Remarks	
0	0						
0	760	○	115mm ASPHALT over grey, damp, dense SAND & GRAVEL, trace to some silt (FILL)	S1			Piezometer with flush mount cover, 6" concrete over 6" filter sand
1	305	○	grey, damp, dense SAND, some silt, trace gravel (FILL)	S2			
5	455	○	grey, damp, stiff SILT, some fine sand (FILL)	S3			8' Bentonite Seal
2	1525	○	grey, damp, compact to dense, silty SAND, occasional fine sandy silt interlayers (FILL)	S4			
3		○		S5			
10			brown to dark-brown, damp, loose to compact, silty SAND, some organics, some debris, some wood (FILL)	S6			10' solid over 10' slotted pipe with 11' filter sand
4		○					
15	4265	○		S7			
5							
20							
6							
7						- seepage at 6.7m	Piezometer Readings: July 17, 2018: dry
25		○	grey-brown, moist, stiff SILT, trace SAND	S8	37%		
8		○	grey, moist, stiff, sandy SILT	S9	30%		
9			End of Test Hole @ 9.1m				
30							
10							
35							
11							

Equipment: Truck Mounted Auger Rig
Sampling method: Grab Off Auger Flight

Datum: Ground Surface
Water Depth: Seepage at 6.7m
(at time of drilling)

Logged By: EV
Exploration Date: July 11, 2018
Dwg No.: 18-7719-TH02
Page: 1 of 1

Test Hole Log: TH18-03

File: 18-7719

Project: Proposed Sanitary & Storm Mains

Client: Aplin & Martin Consultants Ltd.

Location: Fawcett Road and Hartley Avenue, Coquitlam, BC



Depth	Thickness (mm)	Sample	Soil Description	Sample #	Water cont.	Remarks
0 ft 0 m	915	○	100mm ASPHALT over grey, damp, dense SAND & GRAVEL, trace to some silt, occasional cobbles (FILL)	S1		
1		○	grey, moist, compact SAND, some silt (FILL)	S2		
5	2135	○		S3		
2		○		S4		
10	1220	○	grey, damp, stiff SILT, trace fine sand (FILL)	S5	31%	
4	610	○	brown, damp, compact, silty SAND, some wood (FILL)	S6	33%	
15	1220	○	WOOD FILL	S7	161%	
5						
20			End of Test Hole @ 6.1m			
6						
7						
25						
8						
30						
9						
10						
35						
11						

Equipment: Truck Mounted Auger Rig
Sampling method: Grab Off Auger Flight

Datum: Ground Surface
Water Depth: Not Encountered
(at time of drilling)

Logged By: EV
Exploration Date: July 11, 2018
Dwg No.: 18-7719-TH03
Page: 1 of 1

Test Hole Log: TH18-04

File: 18-7719

Project: Proposed Sanitary & Storm Mains

Client: Aplin & Martin Consultants Ltd.

Location: Fawcett Road and Hartley Avenue, Coquitlam, BC



Depth ft m	Thickness (mm)	Sample	Soil Description	Sample #	Water cont.	Remarks
0	0					
0	760	○	100mm ASPHALT over grey, damp, dense SAND & GRAVEL, trace to some silt, occasional cobbles (FILL)	S1		
1						
5	1370	○	grey, damp, dense SAND, some silt, trace gravel (FILL)	S2		
2						
10	915	○	WOOD FILL	S3		
3						
15	3050	○	brown to dark-brown, damp, compact, silty SAND, some organics, some debris, some wood (FILL)	S4		
4						
20			End of Test Hole @ 6.1m			
6						
25						
7						
30						
8						
35						
9						
10						
11						

Equipment: Truck Mounted Auger Rig
Sampling method: Grab Off Auger Flight

Datum: Ground Surface
Water Depth: Not encountered
(at time of drilling)

Logged By: EV
Exploration Date: July 11, 2018
Dwg No.: 18-7719-TH04
Page: 1 of 1

Test Hole Log: TH18-05

File: 18-7719

Project: Proposed Sanitary & Storm Mains

Client: Aplin & Martin Consultants Ltd.

Location: Fawcett Road and Hartley Avenue, Coquitlam, BC



Depth ft m	Thickness (mm)	Sample	Soil Description	Sample #	Water cont.	Remarks
0	0					
0	760	○	95mm ASPHALT over grey, damp, dense SAND & GRAVEL, trace to some silt, occasional cobbles (FILL)	S1		
1	760	○	grey, damp, dense SAND, some silt, trace gravel (FILL)	S2		
5	1220	○	grey, damp, stiff, sandy SILT (FILL) - trace wood at 2.1m	S3		
10	2285	○	brown to dark-brown, compact, silty SAND, some organics, some debris, some wood (FILL)	S4		
15		○	grey, damp, stiff SILT, trace fibers	S5	29%	
20			End of Test Hole @ 6.1m			
25						
30						
35						

Equipment: Truck Mounted Auger Rig
Sampling method: Grab Off Auger Flight

Datum: Ground Surface
Water Depth: Not encountered
(at time of drilling)

Logged By: EV
Exploration Date: July 11, 2018
Dwg No.: 18-7719-TH05
Page: 1 of 1

Test Hole Log: TH18-06

File: 18-7719

Project: Proposed Sanitary & Storm Mains

Client: Aplin & Martin Consultants Ltd.

Location: Fawcett Road and Hartley Avenue, Coquitlam, BC



Depth ft m	Thickness (mm)	Sample	Soil Description	Sample #	Water cont.	Remarks	
0	0						
0	760	○	125mm ASPHALT over grey, damp, dense SAND & GRAVEL, trace silt, occasional cobbles (FILL)	S1			Piezometer with flush mount cover, 6" concrete over 6" filter sand
1	760	○	grey to brown, damp, stiff SILT, trace to some fine sand (FILL)	S2			8' Bentonite Seal
5			WOOD FILL				
2		○		S3			
3	2135						
4		○	grey, moist, firm SILT, some fine sand	S4	37%	- seepage at 3.7m	10' solid over 10' slotted pipe with 11' filter sand
5		○		S5	32%		
6		○	grey, moist, compact, silty fine SAND	S6	34%		
7		○		S7	27%		Piezometer Readings: July 17, 2018: 3.0m
8			End of Test Hole @ 7.6m				
9							
10							
11							

Equipment: Truck Mounted Auger Rig
Sampling method: Grab Off Auger Flight

Datum: Ground Surface
Water Depth: Seepage at 3.7m
(at time of drilling)

Logged By: EV
Exploration Date: July 11, 2018
Dwg No.: 18-7719-TH06
Page: 1 of 1

***Appendix E -
Trans Mountain Pipeline
Proximity Work Consent***



PIPELINE PROXIMITY WORK CONSENT IN MUNICIPAL HIGHWAYS

914-1174.831X	300mm PVC SDR35 Sanitary Main 100mm PVC C900 Sanitary Forcemain 1200mm Manhole (Proximity)
914-1174.751X to 914-1174.901X	250mm PVC SDR35 Sanitary Forecemain (Proximity) 1200mm Manhole (Proximity) 3-1050mm Manholes (Proximity) 200mm PVC Sanitary Main Abandonment (Proximity)

This Pipeline Proximity Work Consent in Municipal Roadways (this “**Consent**”), made with effect as of APRIL 30th, 2025 (the “**Effective Date**”)

GRANTED BY: TRANS MOUNTAIN PIPELINE L.P. BY ITS GENERAL PARTNER, TRANS MOUNTAIN PIPELINE ULC (the “**Grantor**”)

GRANTED TO: City of Coquitlam (the “**Proponent**”)

WITNESSES THAT WHEREAS:

- A. The Grantor owns the Trans Mountain Pipeline System which transports petroleum products from Edmonton, Alberta to Burnaby, British Columbia and Puget Sound, Washington (the “**Pipeline**”);
- B. For the Canadian portion of the Pipeline, the Grantor is regulated by the *Canadian Energy Regulator Act*, as may be amended or replaced from time to time (the “**Act**”), and the regulations thereunder including the *Canadian Energy Regulator Pipeline Damage Prevention Regulations – Authorizations* (SOR/2016-124), as may be amended or replaced from time to time (the “**DPR – Authorizations**”) and the *Canadian Energy Regulator Pipeline Damage Prevention Regulations – Obligations of Pipeline Companies* (SOR/2016 -133), as may be amended or replaced from time to time (the “**DPR – Pipelines**”); and the DPR – Authorizations and the DPR – Pipelines are, together, the “**Regulations**”);
- C. The Proponent wishes to install or carry out the works and operations listed or described in Schedule A (the “**Works**”) within a municipal highway located in the City/District/Municipality of Surrey, within which municipal highway a portion of the Pipeline is located; and

- D. Pursuant to Section 7(1)(a)/ Section 10(1)(a) of the DPR-Authorizations, the Proponent is seeking consent from the Grantor to construct, carry out and complete the Works within the portion of the municipal highway that constitutes “**prescribed area**” from the “**pipe**” (as such terms are defined in the DPR – Authorizations),

NOW THEREFORE:

1. Pursuant to Section 3(1) and Section 3(2) of the DPR – Pipelines, the Grantor hereby grants consent to the Proponent to construct and/or carry out the Works within the portion of the prescribed area shown in Schedule B, subject to compliance by the Proponent with those necessary “**Conditions**” listed in Schedule C that are contemplated in Section 3(2) of the DPR-Pipelines.
2. The Proponent acknowledges that the Works are subject to the DPR-Authorizations and the DPR-Pipelines, which impose responsibilities on the Proponent and the Grantor. For convenience only, Schedule D contains a summary of key regulatory responsibilities of the Proponent and the Grantor.
3. Contact information for the respective designated representatives of the Grantor and the Proponent is listed in Schedule E.
4. The Proponent acknowledges that pursuant to Section 7(3)(b) / Section 10(3)(b) of the DPR-Authorizations, the Works must be completed within **two (2)** years following the Effective Date.
5. This Consent does not oust, limit or supersede the jurisdiction of the Canada Energy Regulator in any way.

SCHEDULE A

WORKS DRAWINGS/DESIGN PLANS OF PROPOSED WORKS

Number	Sheet	Revision	Date
STA 1+180 to 1+420	1 of 4	3	04/17/2025
STA 2+360 to 2+560	3 of 4	3	04/17/2025
Manhole Details	4 of 4	3	04/17/2025

6. The following schedules are attached to and form part of this Consent:

- (a) Schedule A – Drawings/Design Plans of Proposed Works
- (b) Schedule B – Contact Information
- (c) Schedule C – Conditions of Proposed Works
- (d) Schedule D – Summary of Regulatory Responsibilities

**TRANS MOUNTAIN PIPELINE L.P.,
BY ITS GENERAL PARTNER
TRANS MOUNTAIN PIPELINE ULC**

Signature: _____

Name:

Marty Shredwick

Title:

Pipeline Protection Supervisor

Apr-30-2025



SCHEDULE B
Contact Information

One-Call:

You must notify your local One-Call centre a minimum of 3 working days BEFORE any of the Works commence.

In British Columbia:	1-800-474-6886
In Alberta:	1-800-242-3447
In Washington:	811

TMCI Inspector:

You must arrange for a meeting with a local TMCI inspector a minimum of 3 working days BEFORE any of the works commence.

In British Columbia and Washington:	
Toll Free:	1-888-767-0304
In Alberta:	
Trans Mountain:	1-888-767-0304

PROPONENT CONTACT:

Name: Travis Hughes
Title: ASCT
Phone: 604-927-3519
E-mail: thughes@coquitlam.ca

Name: Ben Carlson
Title: Project Engineer
Phone: 604-639-3456
Email: bcarlson@aplinmartin.com

SCHEDULE C CONDITIONS

Parallel Works

All parallel Works, including all intrusions (such as sanitary mains, manholes) must maintain a minimum offset of 1.5 metres (5 feet) from the Pipeline

Non-Metallic Works

All Underground utility infrastructures, including non-metallic works, shall be constructed to be locatable across the entire width of the right-of-way or within 7.5 metres (25 feet) of the pipeline (whichever is greater)

Open Cut Construction Trench

If at any time the ground conditions are not suitable to provide adequate support of the Grantor's Pipeline across the open cut trench, the Grantee shall immediately cease all Works and submit a plan to support the Grantor's Pipeline to the Grantor for review.

Road Reconstruction

The Grantee shall maintain a minimum cover over the Pipeline of 1.2 metres (4 feet) from the final road grade.

The maximum axle weights permitted for any portions of the Works shall be in accordance with legal highway loads.

Work Plan

Prior to construction, the Grantee must submit a detailed work plan and dewatering plan for the subject works to the Grantor for review

Hydrovac/Air-vac Procedures

The Inspector shall review and approve the Grantee's hydrovac and/or air-vac operations procedures prior to start work. This approval shall be documented on the Safety Meeting for Ground Disturbance/Proximity Installation Form.

Storage

No storage of any items is permitted within 3.0 metres (10 feet) of the Pipeline.

All items stored outside of 3 metres (10 feet) of the Pipeline, but within the right-of-way or within 7.5 metres (25 feet) of the Pipeline (whichever is greater) must be easily and quickly removable by an individual working without the aid of mechanical equipment.

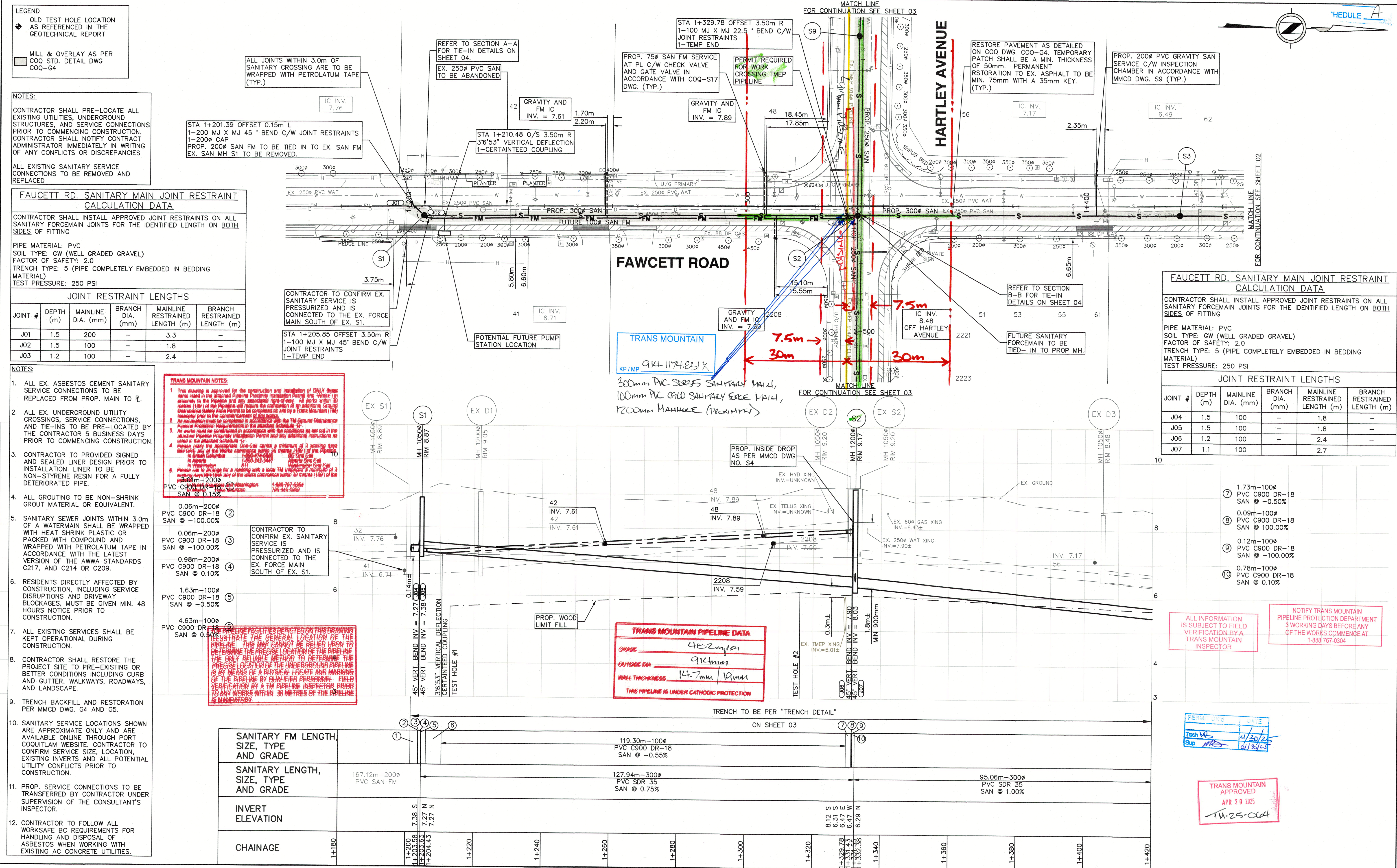
Pipeline Protection Supervisor

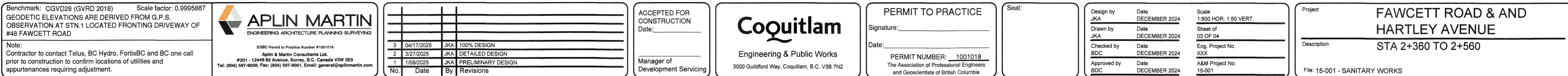
Permit Technician

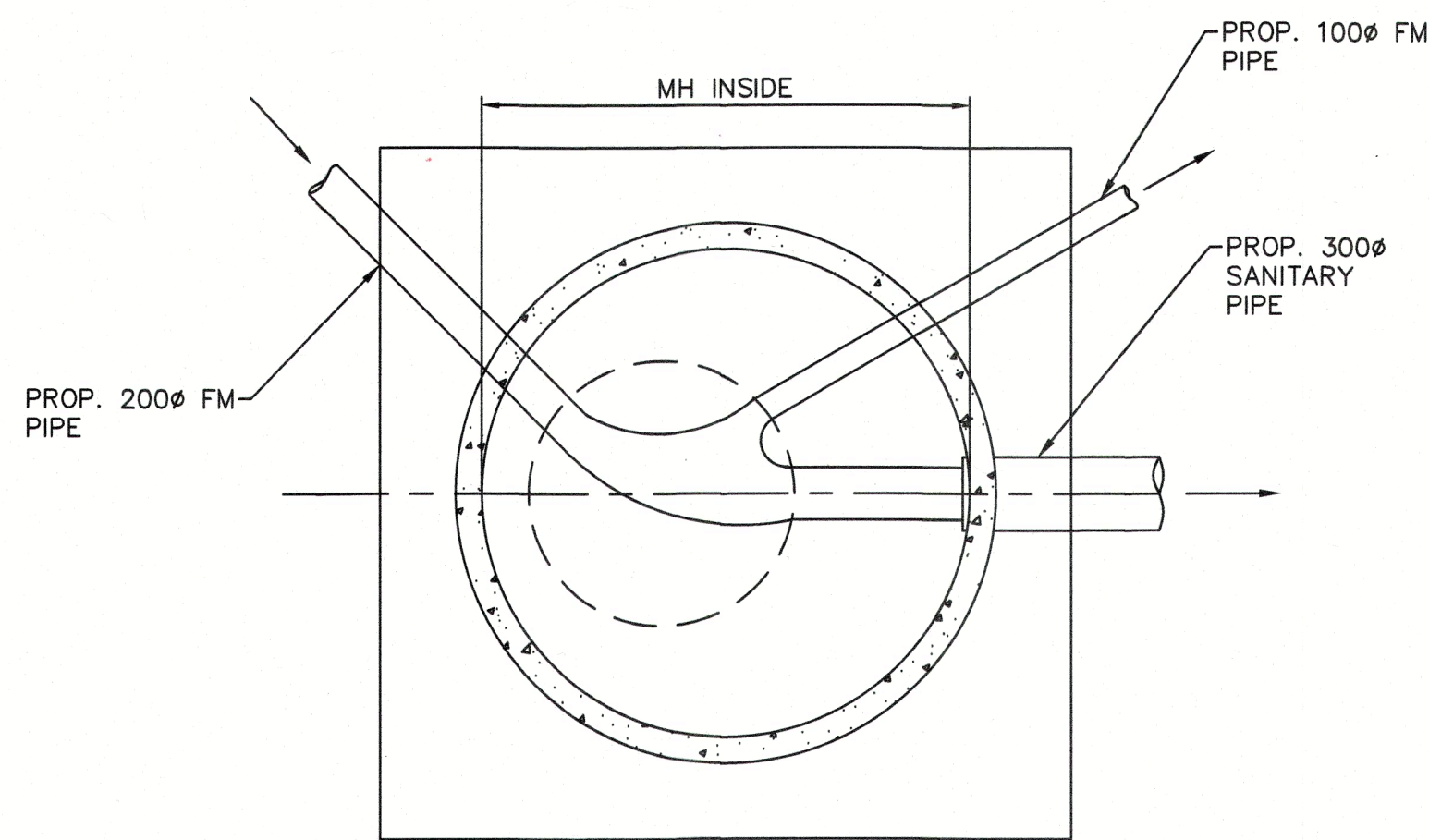
Name: Marty Shredwick
 Date: Apr 30-2025

Name: Manbir Bhullar
 Date: APRIL 30th 2025



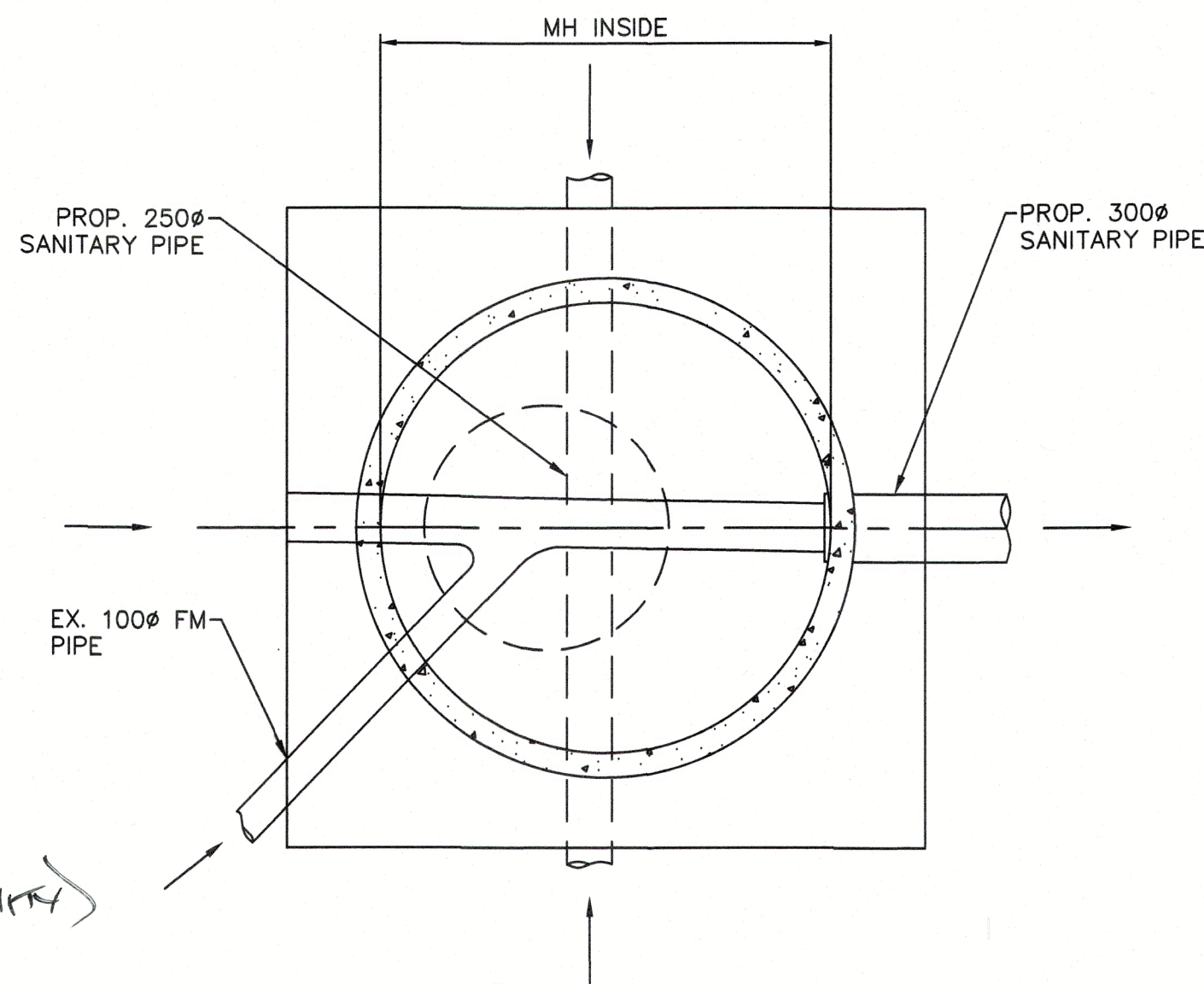




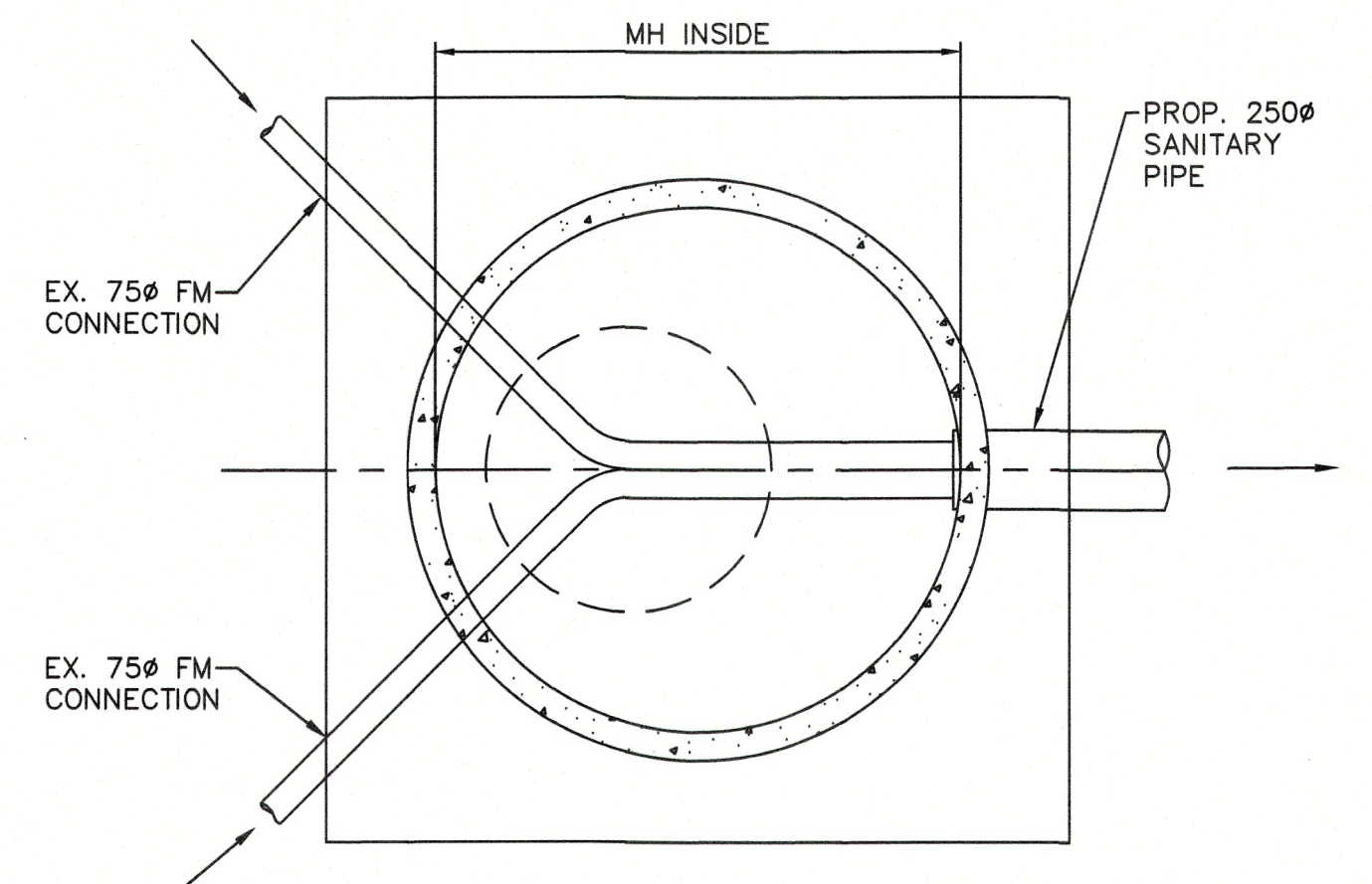


PLAN
MH S1 TIE-IN DETAIL A-A
N.T.S.

TRANS MOUNTAIN
KP/MP 914-1174.851X
1200mm MANHOLE (PROXIMITY)



PLAN
MH S2 TIE-IN DETAIL B-B
N.T.S.



PLAN
MH S10 TIE-IN DETAIL C-C
N.T.S.

- TRANS MOUNTAIN NOTES**
- This drawing is approved for the construction and installation of ONLY those items listed in the attached Pipeline Proximity Installation Permit (the "Works") in proximity to the Pipeline and any associated right-of-way. All works within 30 metres (100') of the Pipeline will require the completion of an additional Ground Disturbance Safety Zone Permit to be completed on site by a Trans Mountain (TM) Inspector prior to the commencement of any works.
 - All excavation must be completed in accordance with the TM Ground Disturbance Pipeline Protection Requirements in the attached Schedule "D".
 - All works must be constructed in accordance with the conditions as set out in the attached Pipeline Proximity Installation Permit and any additional instructions as listed in the attached Schedule "C".
 - Please notify the appropriate One-Call centre a minimum of 3 working days BEFORE any of the Works commence within 30 metres (100') of the Pipeline. In British Columbia 1-800-474-6886 BC One-Call In Alberta 1-800-242-3447 Alberta One-Call In Washington 811 Washington One-Call
 - Please call to arrange for a meeting with a local TM Inspector a minimum of 3 working days BEFORE any of the works commence within 30 metres (100') of the pipeline. In British Columbia and Washington 1-888-767-0304 In Alberta Trans Mountain 780-449-5960

THE PIPELINE FACILITIES DEPICTED ON THIS DRAWING ILLUSTRATE THE GENERAL LOCATION OF THE PIPELINE. THIS MAP CANNOT BE RELIED UPON TO DETERMINE THE PRECISE LOCATION OF THE PIPELINE. THE ONLY RELIABLE METHOD TO DETERMINE THE PRECISE LOCATION OF THE UNDERGROUND PIPELINE IS BY MEANS OF A PHYSICAL LOCATE AND MARKING OF THE PIPELINE BY QUALIFIED PERSONNEL. FIELD VERIFICATION BY A TM PIPELINE INSPECTOR PRIOR TO ANY WORKS WITHIN 30 METRES OF THE PIPELINE IS MANDATORY.

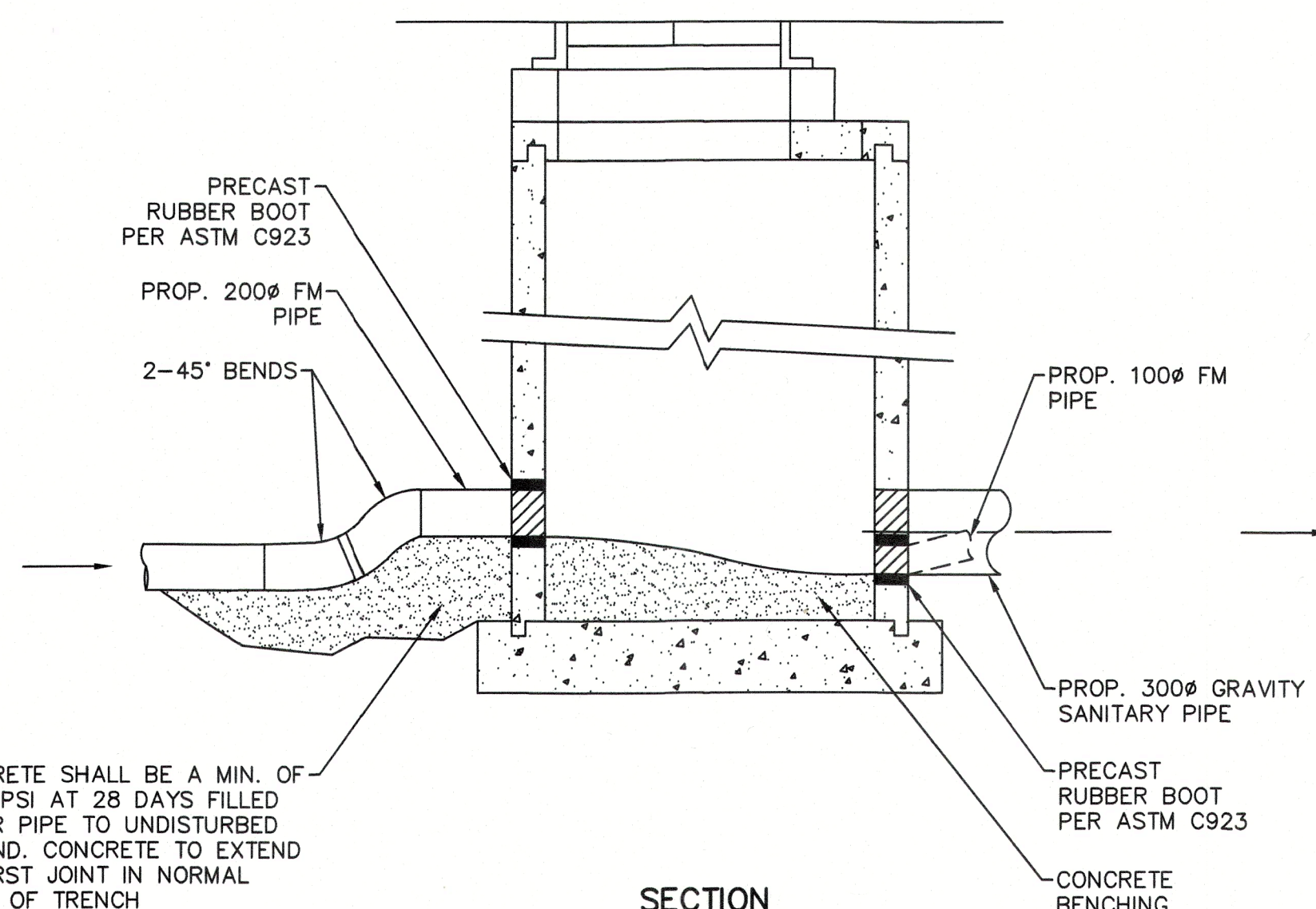
TRANS MOUNTAIN PIPELINE DATA	
GRADE	4162 mpa
OUTSIDE DIA	914mm
WALL THICKNESS	14.7mm / 19mm
THIS PIPELINE IS UNDER CATHODIC PROTECTION	

NOTIFY TRANS MOUNTAIN PIPELINE PROTECTION DEPARTMENT 3 WORKING DAYS BEFORE ANY OF THE WORKS COMMENCE AT 1-888-767-0304

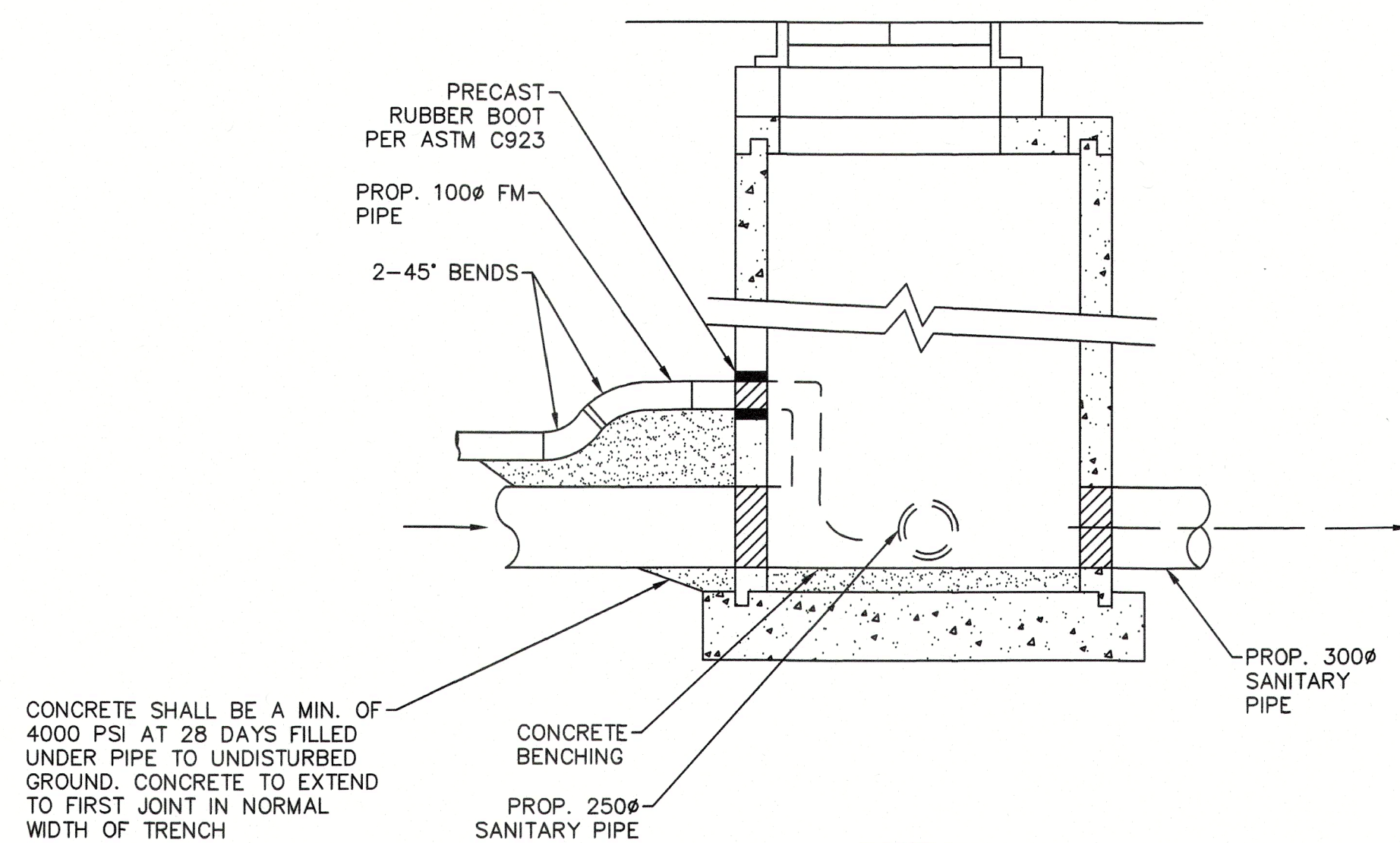
ALL INFORMATION IS SUBJECT TO FIELD VERIFICATION BY A TRANS MOUNTAIN INSPECTOR

PERMIT OK'd	DATE
Tech M2	4/30/25
Sup M2	4/30/25

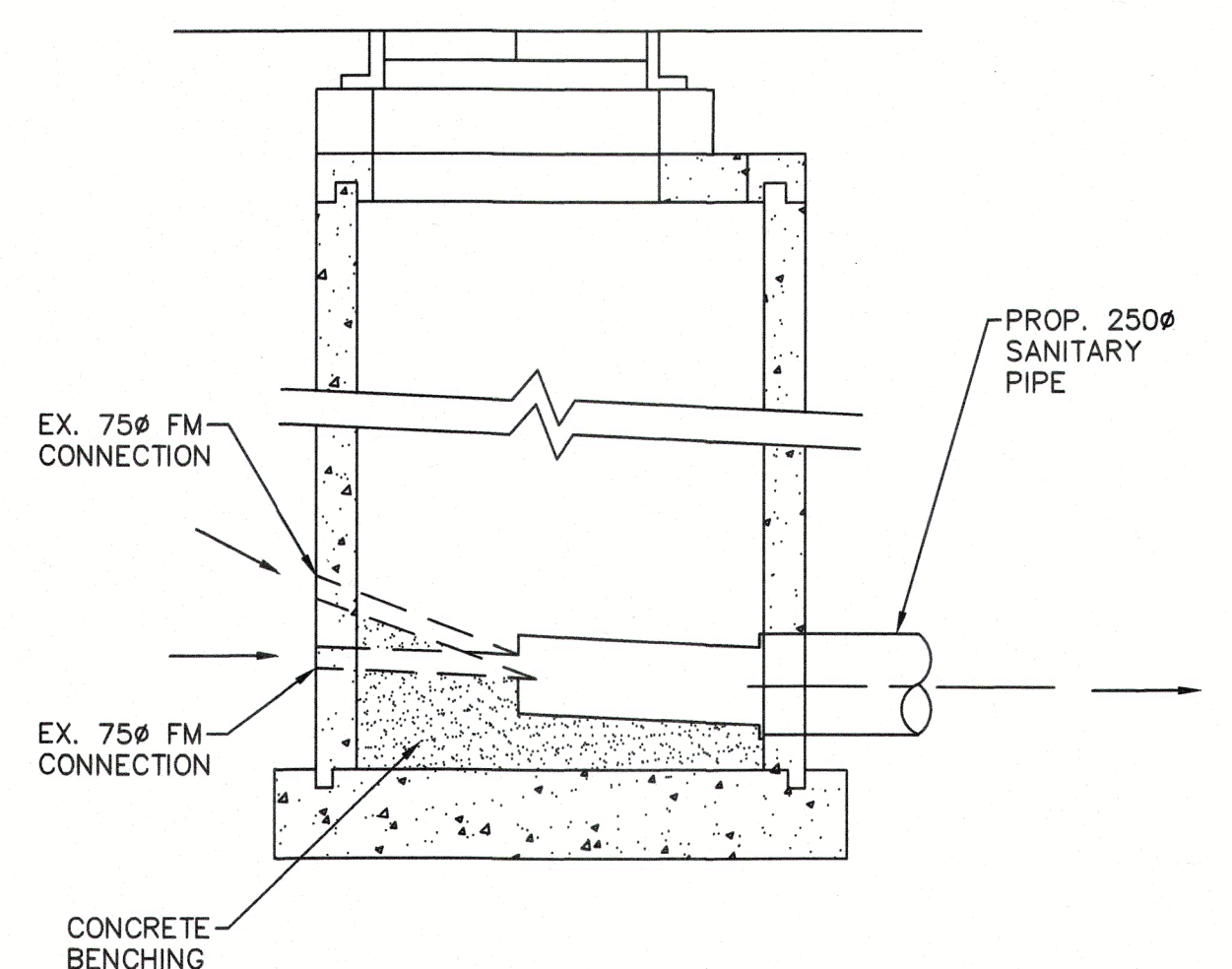
TRANS MOUNTAIN APPROVED
APR 30 2025
TM-25-0604



SECTION
MH S1 TIE-IN DETAIL A-A
N.T.S.



SECTION
MH S2 TIE-IN DETAIL B-B
N.T.S.



SECTION
MH S10 TIE-IN DETAIL C-C
N.T.S.

Benchmark: CGVD28 (GVRD 2018) Scale factor: 0.9955887
GEODEIC ELEVATIONS ARE DERIVED FROM G.P.S. OBSERVATION AT STN.1 LOCATED FRONTING DRIVEWAY OF #48 FAWCETT ROAD

Note:
Contractor to contact Telus, BC Hydro, FortisBC and BC one call prior to construction to confirm locations of utilities and appurtenances requiring adjustment.

APLIN MARTIN
ENGINEERING ARCHITECTURE PLANNING SURVEYING

EGBC Permit to Practice Number #101018
Aplin & Martin Consultants Ltd.
#201 - 12448 82 Avenue, Surrey, B.C. Canada V3W 3E9
Tel: (604) 597-9058, Fax: (604) 597-9061, Email: general@aplinmartin.com

No.	Date	By	Revisions
3	04/17/2025	JKA	100% DESIGN
2	3/27/2025	JKA	DETAILED DESIGN
1	1/09/2025	JKA	PRELIMINARY DESIGN

ACCEPTED FOR CONSTRUCTION
Date: _____
Manager of Development Servicing

Coquitlam
Engineering & Public Works
3000 Guildford Way, Coquitlam, B.C. V3B 7N2

PERMIT TO PRACTICE
Signature: _____
Date: _____
PERMIT NUMBER: 1001018
The Association of Professional Engineers and Geoscientists of British Columbia

Seal:

Design by JKA Date DECEMBER 2024
Drawn by JKA Date DECEMBER 2024
Checked by BDC Date DECEMBER 2024
Approved by BDC Date DECEMBER 2024

Scale NTS
Sheet of 04 OF 04
Eng. Project No. XXX
A&M Project No. 15-001

Project **FAWCETT ROAD & HARTLEY AVENUE**
Description **MANHOLE DETAILS**
File: 15-001 - SANITARY WORKS

SCHEDULE D SUMMARY OF REGULATORY RESPONSIBILITIES

Proponent Responsibilities	Trans Mountain Responsibilities
Contact the local One Call centre at least three (3) business days prior to commencing any ground disturbance activity.	Once One Call ticket is received, contact the proponent within three (3) business days to confirm scope of work.
Arrange a site meeting at a mutually agreed upon time.	
Complete a Trans Mountain 30 Metre Ground Disturbance Safety Checklist, <i>in the form attached as Appendix 1 to this Schedule D.</i>	Surface locate and mark the pipeline.
Notify Trans Mountain of any planned changes to the original scope of the work plan.	Explain the significance of the markings to the person performing the work.
Use hand digging or hydrovac excavation techniques within 0.6 metres (2 feet) from the edge of the pipeline.	Confirm if the work requires a Proximity Installation Consent.
Notify Trans Mountain at least two business days prior to commencing backfilling activities.	Always provide an inspector on-site for work within 7.5 metres (25 feet) of the centre of the pipeline.

One Call Centre Contact Information:

Location	One Call Centre
Alberta	1-800-242-3447 clickbeforeyoudig.com
British Columbia	1-800-474-6886 clickbeforeyoudig.com
Washington State	811 clickbeforeyoudig.com

For more information, contact:

Trans Mountain Pipeline Protection	
1-888-767-0304	permits_ab@transmountain.com (Alberta) permits_bc@transmountain.com (BC and Washington state)