



City of Coquitlam

**Contract Documents  
85261**

**Broadview Court  
CIPP Repairs**



# ***Table of Contents***

**Contract No. 85261**  
**Broadview Court CIPP Repairs**  
**Project Construction Documents**

**Table of Contents**

The complete **Project Construction Documents** consist of the following parts:

<b>1. Standard Documents – supplied</b>	<b>Page</b>
Table of Contents .....	TC 1 to TC 2
Invitation to Tender .....	IN 1 to IN 3
Instruction to Tenderers	
▪ Table of Contents .....	IT 1
▪ Instructions to Tenderers .....	IT 2 to IT 12
Form of Tender, including	
▪ Form of Tender Summary .....	FT 1
▪ Form of Tender.....	FT 2 to FT 5
▪ Appendix 1 – Schedule of Quantities and Unit Prices.....	FT 6
▪ Appendix 2 – Preliminary Construction Schedule .....	FT 7
▪ Appendix 3 – Experience of Superintendent.....	FT 8
▪ Appendix 4 – Comparable Work Experience .....	FT 9
▪ Appendix 5 – Subcontractors .....	FT 10
▪ Appendix 6 – Bid Bond .....	FT 11
▪ Appendix 7 – Certificate of Compliance for Contract Insurance .....	FT 12
Agreement between Owner and Contractor .....	AGT 1 to AGT 5
Schedule 1 – Schedule of Contract Documents.....	AGT 6
Schedule 2 – List of Drawings.....	AGT 7
Supplementary General Conditions – Table of Contents .....	SGC 1 to SGC 2
▪ Supplementary General Conditions, including.....	SGC 3 to SGC 24
▪ Appendices:	
▪ Appendix I Performance Bond .....	SGC 18 to SGC 19
▪ Appendix II labour and Material Payment Bond .....	SGC 20 to SGC 22
▪ Appendix III Certificate of Insurance .....	SGC 23
▪ Appendix IV Prime Contractor Designation .....	SGC 24

**Table of Contents**

Supplementary Contract Specifications ..... SS 1 to SS 37

Appendix A – Traffic Management Detail Specifications..... TMP 1 to TMP 8

Appendix B – Location Maps ..... LM 1 to LM 30

Appendix C – CCTV Reports ..... CCTV 1 to CCTV 45

Contract Drawings ..... Under Separate Cover

**2. Standard Documents – not supplied**

- i) (available in the “MMCD – General Conditions, Specifications and Standard Detail Drawings”)
  - Instructions to Tenderers
  - General Conditions
    - Schedule 17.5.3 – Letter Agreement with Referee
    - Flow Chart – Changes and Extra Work
    - Flow Chart – Dispute Resolution
  - Specifications
  - Standard Detail Drawings
  
- ii) City of Coquitlam Supplementary Specifications for Contract Documents

# ***Invitation to Tender***



## INVITATION TO TENDER

DATE OF ISSUE: **July 5, 2024**

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

### **Tender No. 85261**

### **Broadview Court CIPP Repairs**

The City of Coquitlam invites tenders for **Contract 85261 – Broadview Court CIPP Repairs** generally consisting of the following, but not limited to:

- Approximately 186m of sanitary pipe lining on Broadview Court
- Approximately 181m of storm pipe lining on Broadview Court
- 7 sanitary trenchless point repairs in various locations
- 23 storm trenchless point repairs in various locations
- Other miscellaneous and incidental works as further described in the Contract Documents.

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

**Friday, July 26, 2024**

("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](http://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](http://www.my.vrca.ca), ph: 604-294-3766, or email at [vrca@vrca.ca](mailto: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  
Procurement Manager



# ***Instructions to Tenderers***

**Tender 85261**

**Broadview Court CIPP Repairs**

**INSTRUCTIONS TO TENDERERS**

<b>TABLE OF CONTENTS</b>		<b>Page</b>
<b>1</b>	<b>Introduction.....</b>	<b>IT 2</b>
<b>2</b>	<b>Tender Documents.....</b>	<b>IT 2</b>
<b>3</b>	<b>Submission of Tenders.....</b>	<b>IT 3</b>
<b>4</b>	<b>Additional Instructions to Tenderers.....</b>	<b>IT 4</b>
<b>5</b>	<b>Tender Requirements .....</b>	<b>IT 5</b>
<b>6</b>	<b>Qualifications, Modifications, Alternative Tender .....</b>	<b>IT 6</b>
<b>7</b>	<b>Approved Equals.....</b>	<b>IT 7</b>
<b>8</b>	<b>Inspection of the Place of the Work.....</b>	<b>IT 7</b>
<b>9</b>	<b>Interpretation of Contract Documents .....</b>	<b>IT 7</b>
<b>10</b>	<b>Prices .....</b>	<b>IT 8</b>
<b>11</b>	<b>Taxes.....</b>	<b>IT 8</b>
<b>12</b>	<b>Amendment of Tenders .....</b>	<b>IT 8</b>
<b>13</b>	<b>Duration of Tenders .....</b>	<b>IT 9</b>
<b>14</b>	<b>Qualifications of Tenders .....</b>	<b>IT 9</b>
<b>15</b>	<b>Award.....</b>	<b>IT 10</b>
<b>16</b>	<b>Subcontractors .....</b>	<b>IT 12</b>
<b>17</b>	<b>Optional Work.....</b>	<b>IT 12</b>

## 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: **Broadview Court CIPP Repairs**

Reference No. **85261**

- 1.0 Introduction**
- 1.1 These Instructions apply to and govern the preparation of tenders for this Contract. The Contract is generally for the following work:
- Approximately 186m of sanitary pipe lining on Broadview Court
  - Approximately 181m of storm pipe lining on Broadview Court
  - 7 sanitary trenchless point repairs in various locations
  - 23 storm trenchless point repairs in various locations
  - Other miscellaneous and incidental works as further described in the Contract Documents.
- 1.2 All inquiries regarding this Tender are to be submitted in writing referencing the **Tender Name and Number** sent to:
- E-mail** [bid@coquitlam.ca](mailto:bid@coquitlam.ca)
- The deadline for inquiries is **2:00 PM** local time, **Tuesday, July 23, 2024**  
**INQUIRIES RECEIVED AFTER THIS DATE AND TIME MAY NOT RECEIVE A RESPONSE.**
- 2.0 Tender Documents**
- 2.1 The Tender Documents which a Tenderer should review to prepare a Tender consist of all of the *Contract Documents* 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 *Contract Documents* include the drawings listed in Schedule 2 to the Agreement, entitled "**List of Contract Drawings**".
- 2.2 A portion of the Contract Documents are included by reference. Copies of these documents have not been included with the tender package. These documents are the General Conditions, Specifications and Standard Detail Drawings. They are those 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: July 26, 2024***

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](mailto: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](mailto: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**
- Obtaining Documents**
- 4.1** 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**
- 4.2** 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**
- 4.3** 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**
- 4.4** 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**
- 4.5** 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**
- 4.6 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**
- 4.7 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**
- 4.8 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.
- Conflict of Interest**
- 4.9 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**
- 4.10 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**
- Delete Instructions to Tenderers – Part II Contained in the Edition of the Publication “Master Municipal Construction Documents 2009” and replace with the following:
- 5.0 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 ("*Bid Security*") 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 *Owner*;
- 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 "*Preliminary Construction Schedule*", generally in the form attached as Appendix 2 to the Form of Tender, and showing *Substantial 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
  - 5.3.6 Appendix 7 – is provided for information only, to indicate the Contract Insurance is to be submitted by the successful Tenderer upon Notice of Award.
- 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.
- 6.0 **Qualifications, Modifications, Alternative Tenders**
  - 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.

- |             |                       |      |   |
|-------------|-----------------------|------|---|
| <b>16.0</b> | <b>Subcontractors</b> | 16.1 | The <i>Owner</i> reserves the right to object to any of the subcontractors listed in a tender. If the <i>Owner</i> objects to any of the subcontractor(s) then the <i>Owner</i> will permit a tenderer to, within 5 days, propose a substitute subcontractor(s) acceptable to the <i>Owner</i> provided that there is not resulting adjustment in the <i>Tender Price</i> 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 <i>Owner</i> objects to a listed <i>Subcontractor(s)</i> , the tenderer may, rather than propose a substitute subcontractor(s), consider its tender rejected by the <i>Owner</i> and by written notice withdraw its tender. The <i>Owner</i> shall, in the event, return the tenderer's bid security |
| <b>17.0</b> | <b>Optional Work</b>  | 17.1 | If the <i>Schedule of Quantities and Prices</i> includes any tender prices for <i>Optional or Provisional Work</i> , as defined in GC 7.4.1, the tenderers must complete all the unit prices for such <i>Optional or Provisional Work</i> . Such tender prices shall not include any general overhead costs, or other costs, or profit, not directly related to the <i>Optional or Provisional Work</i> .   |
|             |                       | 17.2 | Notwithstanding that the <i>Owner</i> may elect not to proceed with the <i>Optional or Provisional Work</i> , the tender prices for any <i>Optional or Provisional Work</i> , including the extended totals for <i>Optional or Provisional Work</i> unit prices, shall be included in the <i>Tender Price</i> for the purpose of any price comparisons between tenders.   |

# ***Form of Tender***



## Form of Tender

Tender No. 85261

### Broadview Court CIPP Repairs

#### 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, July 26, 2024**

#### 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](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 the correct email address: [bid@coquitlam.ca](mailto:bid@coquitlam.ca) )

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

July 2024

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: Broadview Court CIPP Repairs**

**Reference No.: 85261**

**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 **December 31, 2024**; and  
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 85261  
Broadview Court CIPP Repairs**

**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. / (Supp. Specs)	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
<b>1.00</b>	<b>01 55 005</b>	<b>TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING</b>				
1.01	(1.5.1)	Traffic Control and Management				Incidental to Contract
<b>2.00</b>	<b>01 57 015</b>	<b>ENVIRONMENTAL PROTECTION</b>				
2.01	(1.6.1)	Environmental Protection				Incidental to Contract
<b>3.00</b>	<b>01 58 015</b>	<b>PROJECT IDENTIFICATION</b>				
3.01	(1.3.1)	Construction Zone Information Signs (Broadview Court Only)	ea.	2		
<b>4.00</b>	<b>33 01 30.15</b>	<b>CCTV INSPECTION OF PIPELINES</b>				
4.01	(1.6.1)	Pre/Post Construction CCTV Inspection				Incidental
<b>5.00</b>	<b>33 01 30.25</b>	<b>CLEANING OF SEWERS</b>				
5.01	(1.5.1)	Cleaning of Sewers				Incidental
<b>6.00</b>	<b>33 05 245</b>	<b>CURED IN PLACE PIPE LINERS</b>				
		<b>Broadview Court</b>				
6.01	(1.9.1)	SNPI00658 / SNPI00659 / SNPI00660 - Supply and Installation of 189m Structural Liner (200mm dia.) - Sanitary	LS	1		
6.02	(1.9.1)	STPI09367 / STPI09368 / STPI09369 - Supply and Installation of 181m Structural Liner (200mm dia.) - Storm	LS	1		
6.03	(1.9.1)	Supply and Installation of Structural Liner for Lateral Services (100mm dia.) - Storm <b>(Provisional)</b>	each	4		
6.04	(1.9.1)	Supply and Installation of Structural Liner for Lateral Services (150mm dia.) - Storm <b>(Provisional)</b>	each	5		
6.05	(1.9.1)	Supply and Installation of Structural Liner for Lateral Services (100mm dia.) - Sanitary <b>(Provisional)</b>	each	5		
6.06	(1.9.1)	Supply and Installation of Structural Liner for Lateral Services (150mm dia.) - Sanitary <b>(Provisional)</b>	each	1		
		<b>Sanitary Trenchless Point Repairs</b>				
6.07	(1.9.1)	SNPI00049 - 1m Trenchless Point Repair (200mm dia.)	LS	1		
6.08	(1.9.1)	SNPI00274 - 1m Trenchless Point Repair (200mm dia.)	LS	1		
6.09	(1.9.1)	SNPI00386 - 1m Trenchless Point Repair (200mm dia.)	LS	1		
6.10	(1.9.1)	SNPI01977 - 1m Trenchless Point Repair (200mm dia.)	LS	1		
6.11	(1.9.1)	SNPI10943 - 1m Trenchless Point Repair (200mm dia.)	LS	1		
6.12	(1.9.1)	SNPI00088 - 3m Trenchless Point Repair (300mm dia.)	LS	1		
6.13	(1.9.1)	SNPI02194 - 3m Trenchless Point Repair (200mm dia.)	LS	1		
6.14	(1.9.1)	SNPI10680 - 5m Trenchless Point Repair (200mm dia.)	LS	1		
		<b>Storm Trenchless Point Repairs</b>				
6.15	(1.9.1)	STPI00945 - 8m Trenchless Point Repair (375mm dia.)	LS	1		
6.16	(1.9.1)	STPI02473 - 1m Trenchless Point Repair (900mm dia.)	LS	1		
6.17	(1.9.1)	STPI04757 - 6m Trenchless Point Repair (600mm dia.)	LS	1		
6.18	(1.9.1)	STPI06268 - 3m Trenchless Point Repair (200mm dia.)	LS	1		
6.19	(1.9.1)	STPI06532 - 3m Trenchless Point Repair (450mm dia.)	LS	1		
6.20	(1.9.1)	STPI08122 - 1m Trenchless Point Repair (250mm dia.)	LS	1		
6.21	(1.9.1)	STPI07693 - 1m Trenchless Point Repair (250mm dia.)	LS	1		
6.22	(1.9.1)	STPI15313 - 2m Trenchless Point Repair (300mm dia.)	LS	1		
6.23	(1.9.1)	STPI08126 - 6.5m Trenchless Point Repair (300mm dia.)	LS	1		
6.24	(1.9.1)	STPI08261 - 1.5m Trenchless Point Repair (200mm dia.)	LS	1		
6.25	(1.9.1)	STPI15273 - 1m Trenchless Point Repair (375mm dia.)	LS	1		
		<b>Root Abatement</b>				
6.26	(1.9.1)	STPI02438 - Supply and Installation of 17m of Structural Liner (200mm dia.)	LS	1		
6.27	(1.9.1)	STPI04385 - Supply and Installation of 2m of Structural Liner (375mm dia.)	LS	1		
6.28	(1.9.1)	STPI15313 - Supply and Installation of 2m of Structural Liner (300mm dia.)	LS	1		
6.29	(1.9.1)	STPI15282 - Supply and Installation of 4m of Structural Liner (500mm dia.)	LS	1		
6.30	(1.9.1)	STPI15311 - Supply and Installation of 2m of Structural Liner (300mm dia.)	LS	1		
6.31	(1.9.1)	STPI09077 - Supply and Installation of 2m of Structural Liner (200mm dia.)	LS	1		
6.32	(1.9.1)	STPI10252 - Supply and Installation of 2m of Structural Liner (200mm dia.)	LS	1		
6.33	(1.9.1)	STPI06901 - Supply and Installation of 3m of Structural Liner (450mm dia.)	LS	1		
6.34	(1.9.1)	STPI10293 - Supply and Installation of 8m of Structural Liner (200mm dia.)	LS	1		
6.35	(1.9.1)	STPI10257 - Supply and Installation of 4m of Structural Liner (375mm dia.)	LS	1		
6.36	(1.9.1)	STPI11033 - Supply and Installation of 2m of Structural Liner (250mm dia.)	LS	1		
6.37	(1.9.1)	STPI08153 - Supply and Installation of 2m of Structural Liner (450mm dia.)	LS	1		
<b>7.00</b>	<b>33 30 015</b>	<b>Sanitary Sewers</b>				
7.01	(1.6.3)	Sanitary Service Connection, 150mm PVC SDR28 <b>(Provisional)</b> - Broadview Court	each	2		
<b>8.00</b>	<b>33 40 015</b>	<b>Storm Sewers</b>				
8.01	(1.6.3)	Storm Service Connections, 150mm PVC SDR28 <b>(Provisional)</b> - Broadview Court	each	2		

**Total Tendered Price (exclude GST):**

(Transfer the amount to Form of Tender Summary Page 1)

**APPENDIX 2**

**FORM OF TENDER**

**Contract 85261  
 Broadview Court CIPP Repairs**

**PRELIMINARY CONSTRUCTION SCHEDULE**  
 (See paragraph 5.3.2 of the Instructions to Tenderers)

INDICATE SCHEDULE WITH BAR CHART WITH CONSTRUCTION DURATIONS

Construction Activity	August				September				October				November				December			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Substantial Completion Date: **December 31, 2024**

Proposed Disposal Site: \_\_\_\_\_

**APPENDIX 3**

**FORM OF TENDER**

**Contract 85261  
Broadview Court CIPP Repairs**

**EXPERIENCE OF SUPERINTENDENT**

(See paragraph 5.3.3 of the Instructions to Tenderers)

**Proposed Project Superintendent** \_\_\_\_\_

**List of Project Experience**

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

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

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

**APPENDIX 4**

**FORM OF TENDER**

**Contract 85261  
Broadview Court CIPP Repairs**

**CONTRACTOR'S COMPARABLE WORK EXPERIENCE**  
(See paragraph 5.3.4 of the Instructions to Tenderers)

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

<b>PROJECT:</b>		<b>VALUE (\$):</b>	
<b>OWNER:</b>		<b>Phone No.:</b>	
<b>Work Description:</b>			

**APPENDIX 5**

**FORM OF TENDER**

**Contract 85261  
Broadview Court CIPP Repairs**

**SUBCONTRACTORS**

(See paragraph 5.3.5 of the Instructions to Tenderers)

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	

<b>Trade:</b>		<b>Tender Item:</b>	
<b>Work Description:</b>			
<b>Subcontractor:</b>		<b>Phone No.:</b>	



**APPENDIX 6**

**FORM OF TENDER**

**Contract 85261  
Broadview Court CIPP Repairs**

**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  
\_\_\_\_\_, 2024, 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 \_\_\_\_\_, 2024.

SIGNED, SEALED AND DELIVERED

In the presence of:

_____ )	_____
_____ )	PRINCIPAL
_____ )	
_____ )	_____
_____ )	SURETY

---

**APPENDIX 7**

**FORM OF TENDER**

**Contract 85261  
Broadview Court CIPP Repairs**

**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:** 85261

**Contract Name:** Broadview Court CIPP Repairs

**Description of Work:**

- Approximately 186m of sanitary pipe lining on Broadview Court
- Approximately 181m of storm pipe lining on Broadview Court
- 7 sanitary trenchless point repairs in various locations
- 23 storm trenchless point repairs in various locations
- Other miscellaneous and incidental work as contained in the Contract Documents

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

**Special Coverage Required:**

<u>YES</u>	<u>NO</u>	<u>Special Coverage Description</u>
( )	( 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 \_\_\_\_\_ 2024.

**Contract:**        **Broadview Court CIPP Repairs**

**Reference No. 85261**

**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 **December 31, 2024** 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

\_\_\_\_\_  
(MANAGER, DESIGN AND CONSTRUCTION)

**Broadview Court CIPP Repairs**

**Reference No: 85261**

**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



**Broadview Court CIPP Repairs**

**Reference No: 85261**

**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: Location Maps**

**Appendix C: CCTV Reports**

**Bound Separately: Contract Drawings**

TITLE	SHEET NO.	REVISION NO.	DATE
COVER – BROADVIEW COURT R.O.W. STORM AND SANITARY MAINS RELINING	00	-	-
GENERAL NOTES – BROADVIEW CRT ROW – GRAVITY SEWERS RELINING	01	B	2024/07/04
STORM SEWER – BROADVIEW CRT ROW – GRAVITY SEWERS RELINING	02	B	2024/07/04
SANITARY SEWER – BROADVIEW CRT ROW – GRAVITY SEWERS RELINING	03	B	2024/07/04

# ***Supplementary General Conditions***

## SUPPLEMENTARY GENERAL CONDITIONS

### TABLE OF CONTENTS

	Page
Supplementary General Conditions to MMCD Volume II, 2009 Issue .....	SGC 1 to SGC 17
<b>Section 1: DEFINITIONS .....</b>	<b>SGC 3</b>
1.1 Abnormal Weather .....	SGC 3
<b>Section 2: DOCUMENTS .....</b>	<b>SGC 3</b>
2.2 Interpretation.....	SGC 3
<b>Section 4: CONTRACTOR .....</b>	<b>SGC 3 to 7</b>
4.1 Control of Work.....	SGC 3
4.2 Safety .....	SGC 4
4.3 Protection of Work, Property and the Public.....	SGC 4
4.6 Construction Schedule .....	SGC 5
4.7 Superintendent.....	SGC 5
4.8 Workers.....	SGC 5
4.9 Materials.....	SGC 5
4.11 Subcontractors.....	SGC 6
4.12 Tests and Inspections.....	SGC 6
4.14 Final Clean-up.....	SGC 7
4.16 Notice of Disruption .....	SGC 7
<b>Section 7: CHANGES.....</b>	<b>SGC 7</b>
7.1 Changes .....	SGC 7
7.4 Optional Work .....	SGC 7
<b>Section 9: VALUATION OF CHANGES AND EXTRA WORK .....</b>	<b>SGC 8</b>
9.2 Valuation Method .....	SGC 8
9.4 Quantity Variations.....	SGC 8
<b>Section 10: FORCE ACCOUNTS .....</b>	<b>SGC 8</b>
10.1 Force Account Costs .....	SGC 8
<b>Section 12: HAZARDOUS MATERIALS .....</b>	<b>SGC 9</b>
12.2 Discovery of Hazardous Materials .....	SGC 9
<b>Section 13: DELAYS .....</b>	<b>SGC 9 to 10</b>
13.1 Delay by Owner or Contract Administrator .....	SGC 9
13.3 Unavoidable Delay.....	SGC 9
13.8 Direction to Stop or Delay.....	SGC 9
13.9 Liquidated Damages for Late Completion.....	SGC 9
<b>Section 18: PAYMENT .....</b>	<b>SGC 10 to 11</b>
18.1 Preparation of Payment Certificate .....	SGC 10

18.4	Holdbacks .....	SGC 10
18.6	Substantial Performance .....	SGC 10
<b>Section 21: WORKERS COMPENSATION REGULATIONS .....</b>		<b>SGC 11</b>
21.2	Contractor is "Prime Contractor" .....	SGC 11
<b>Section 24: INSURANCE.....</b>		<b>SGC 11 to 16</b>
24.1	General .....	SGC 11
24.2	Required Insurance .....	SGC 12
24.3	Physical Loss or Damage with Respect to New Buildings under Construction and/or Major Additions to Existing Structures .....	SGC 13
24.4	Additional Insured .....	SGC 16
<b>Section 25: MAINTENANCE PERIOD .....</b>		<b>SGC 16 to 17</b>
25.1	Correction of Defects .....	SGC 16
<b>Section 27: CONTRACTOR PERFORMANCE EVALUATION .....</b>		<b>SGC 17</b>
<b>APPENDICES .....</b>		<b>SGC 18 to SGC 24</b>
<b>Appendix I</b>	Performance Bond .....	SGC 18 to 20
<b>Appendix II</b>	Labour and Material Payment Bond .....	SGC 21 to 22
<b>Appendix III</b>	Certificate of Insurance .....	SGC 23
<b>Appendix IV</b>	Prime Contractor Designation Letter.....	SGC 24

**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*.

- 
- |            |                                  |       |   |
|------------|----------------------------------|-------|---|
| <b>4.6</b> | <b>Construction<br/>Schedule</b> | 4.6.1 | <b><i>(Replace clause 4.6.1 as follows):</i></b><br>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 | <b><i>(Replace clause 4.6.6 as follows):</i></b><br>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 | <b><i>(Add new clause 4.6.8 as follows):</i></b><br>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.   |
| <b>4.7</b> | <b>Superintendent</b>            | 4.7.4 | <b><i>(Add new clause 4.7.4 as follows):</i></b><br>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.  |
| <b>4.8</b> | <b>Workers</b>                   | 4.8.2 | <b><i>(Add new clause 4.8.2 as follows):</i></b><br>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.   |
| <b>4.9</b> | <b>Materials</b>                 | 4.9.3 | <b><i>(Add new clause 4.9.3 as follows):</i></b><br>The Contractor shall, at their cost,  |
- 

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

- 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

---

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



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

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

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.

**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.

---

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

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 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 entered into a written contract with the Obligee, 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 Obligee to be, in default under the Contract, the Obligee having performed Obligee's 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 Obligee for completing the Contract in accordance with its terms and conditions, and upon determination by Obligee and Surety of the lowest responsible bidder, arrange for a contract between such bidder and Obligee 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 Obligee to Principal under the Contract less the amount properly paid by Obligee 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 Obligee named herein or the heirs, executors, administrators, or successors of Obligee.

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 Obligee 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 Obligee 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 Obligee or by joining the Obligee 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 Obligee against all costs, charges and expense or liabilities incurred thereon and any loss or damage resulting to the Obligee 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 Obligee 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 Obligee, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, Surety and Obligee 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: Named Insured and Mailing Address:

**City of Coquitlam**  
**3000 Guildford Way**  
Coquitlam, BC V3B 7N2

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
-----	----	------------------------------

- |                          |                                     |                                 |
|--------------------------|-------------------------------------|---------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Shoring and Underpinning Hazard |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Pile Driving and Vibrations     |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Excavation Hazard               |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Demolition                      |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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 #: **85261**  
Project / Workplace: **Broadview Court CIPP Repairs (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***

---

These Supplementary Contract Specifications must be read in conjunction with the Specifications contained in the Master Municipal Construction Documents, Volume II, Printed 2009 and the City of Coquitlam Supplementary Specifications and Detailed Drawings

File #: 11-5330-20/85261/1 Doc #: 5340617.v2

---

**Supplementary Contract Specifications**

to the  
MASTER MUNICIPAL SPECIFICATIONS  
**Volume II – Platinum Book**

**Broadview Court CIPP Repairs**  
CONTRACT 85261

**TABLE OF CONTENTS**

The following Supplementary Specifications are to be considered part of the Specifications. These Supplementary Specifications take precedence over the Master Municipal Specifications.

**SUPPLEMENTARY CONTRACT**

**SPECIFICATIONS INDEX .....Page i**

00 72 43S	Contract Specific Notations .....	SS 1 to SS 4
01 45 00S	Quality Control .....	SS 5 to SS 6
01 55 00S	Traffic Control, Vehicle Access and Parking.....	SS 7
01 57 01S	Environmental Protection .....	SS 8 to SS 9
01 58 01S	Project Identification .....	SS 10
33 05 17S	Aggregates and Granular Materials.....	SS 11
31 11 01S	Clearing and Grubbing .....	SS 12
31 11 41S	Shrub and Tree Preservation .....	SS 13
31 23 01S	Excavating, Trenching, and Backfilling .....	SS 14
32 91 21S	Topsoil and Finish Grading .....	SS 15 to SS 22
32 92 20S	Seeding .....	SS 23 to SS 27
31 23 01S	Excavating, Trenching, and Backfilling .....	SS 14
33 01 30.1S	CCTV Inspection of Pipelines .....	SS 28 to SS 29
33 01 30.2S	Cleaning of Sewers .....	SS 30
33 05 24S	Cured In Place Pipe Liners .....	SS 31 to SS 32
33 30 01S	Sanitary Sewers .....	SS 33 to SS 34
33 40 01S	Storm Sewers .....	SS 35 to SS 37

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, BC One Call, Metro Vancouver, School District, BC Hydro, Telus, Kinder Morgan, 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](mailto: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.**
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.

Questions: [wastereduction@coquitlam.ca](mailto:wastereduction@coquitlam.ca)

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
- Progressive Waste (garbage pick-up)
- City Utilities Maintenance (or representatives)

The Contractor shall ensure that garbage brought out by residents is picked up by garbage collection company.

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 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, Kinder Morgan 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.**

**CCTV video will be provided to the Contractor upon request.**

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 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.

CONTRACT SPECIFIC NOTATIONS

- 1.10 Service Disruptions** Contractor shall contact all residences and businesses regarding sewer disruptions for tie-ins. Contractor is responsible for ensuring that any sewer 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 Construction on Multiple Locations / Restoration Work** The Contractor must complete all Works on a particular street, including restoration, before proceeding on a different street unless approved by the Contract Administrator.
- 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
  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

CONTRACT SPECIFIC NOTATIONS

**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 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 m<sup>3</sup>

2. Granular Base

- 2.1 Compaction: 1 test / 500m<sup>2</sup> / 100mm depth of granular base  
2.2 Sieve: 1 test / placed material / 100 m<sup>3</sup>

3. Granular Subbase

- 3.1 Compaction: 1 test/500m<sup>2</sup> / 0.15m depth of granular subbase  
3.2 Sieve: 1 test / placed material / 100 m<sup>3</sup>

4. Embankment (Subgrade)

- 4.1 Compaction: 1 test/ 50m<sup>2</sup> / 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 m<sup>2</sup>/lift  
5.4 Continuous asphalt density testing during paving.

6. Subgrade Preparation

- 6.1 Compaction & Moisture: 1 test / 500 m<sup>2</sup>

7. Concrete Tests

- 7.1 Air, Slump & 1 Set Cylinders: 1 test / 10 m<sup>3</sup>, min. 1 set / day

8. Reclaimed Materials

- 8.1 Compaction: 1 test/500m<sup>2</sup> / 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	Add 1.0.6	<p>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.</p> <p>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.</p>
		Add 1.0.7	<p>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 <a href="https://www.coquitlam.ca">https://www.coquitlam.ca</a>. The Contractor must follow the approved TMP. Any changes to this TMP must be submitted to City's Traffic Operations for approval.</p>
		Add 1.08	<p>Refer to Appendix A – Traffic Management Detail Specifications</p>
1.4	Traffic Control	Add 1.4.9.3.1	<p>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.</p> <p>The <i>Contractor</i> is responsible for the removal of the signs at the completion of the work.</p>
		Delete 1.4.10.1.3 and replace with the following	<p>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.</p>
1.5	Measurement for Payment	Delete 1.5.1 and replace with the following	<p>Payment for all work performed under this section including submission of Traffic Management Plan (TMP), Traffic Control Persons (TCP) &amp; all temporary traffic signs, devices as required for traffic &amp; pedestrian safety; and all other items described in the Traffic Regulation Section, and all labor, material, equipment and work described under <b>Appendix A: Traffic Management Detail Specifications</b> shall be treated as incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.</p>

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.

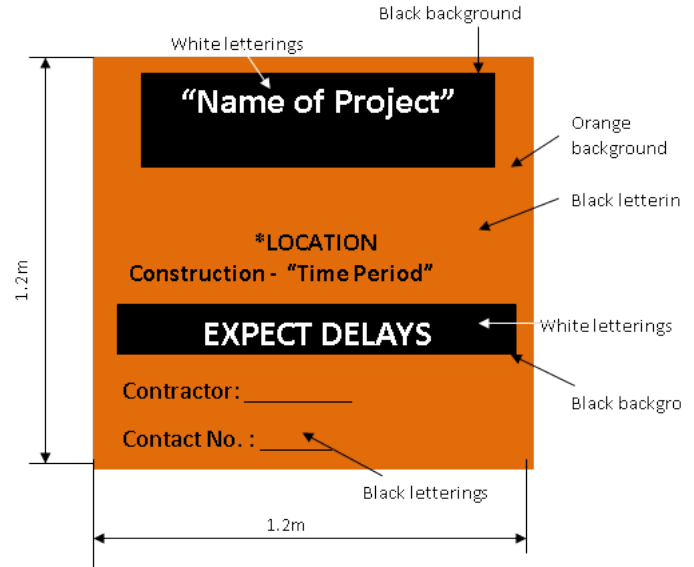
Failure of the Contractor to properly address concerns relating to this Section will result in shut-down of the work. No claim will be accepted by the Owner for costs associated with this work shut-down.

ENVIRONMENTAL PROTECTION

<b>1.4</b>	<b>Environmental Protection</b>	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.
<b>1.6</b>	<b>Measurement and Payment</b>	Delete 1.6.1 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 specified otherwise in the Schedule of Prices and Quantities, and includes supply, installation, maintenance and clean-up of all erosion and sediment control measures necessary to meet the City of Coquitlam Stream and Drainage System Protection Bylaw No. 4403, 2013 requirements, removal and disposal of deposited material, supply and installation of temporary water passages, pumps, hoses, bypass or other approved means of handling waterflow in any watercourse as approved by Contract Administrator, erosion control blankets, catch basin filter cloths, vacuum trucks when needed, sewer effluent handling, and removal of all said works following the completion of construction; and</p> <p>All labour, materials, and equipment required to supply and install the Work as specified in this Section, in Supplementary General Conditions – 20.4.2.</p>
<b>1.9</b>	<b>Archaeological / Historical Resources</b>	Add 1.9	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**

- |                                      |   |  |
|--------------------------------------|---|--|
| <b>1.1 Section 01 58 01 includes</b> | Add 1.1.3                                   | Work described in Appendix A – Traffic Management Detail Specifications.   |
| <b>1.3 Measurement and Payment</b>   | 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. |



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 for Collector / Arterial Roads:

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

- |            |                                |   |   |
|------------|--------------------------------|---|---|
| <b>1.2</b> | <b>Definitions</b>             | Add 1.2.5                                 | <p>Trimming of trees, hedges and shrubs, and snag cutting of trees, removal of hedges and shrubs is included with Clearing and Grubbing. Hedge and tree removal shall be minimized. Co-ordinate with property owners and use the services of a certified arborist when necessary.</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>   |
| <b>1.4</b> | <b>Measurement and Payment</b> | 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 &amp; 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 and topsoil stripping and disposal that are located within the work area(s).</p> |
| <b>3.5</b> | <b>Removal and Disposal</b>    | 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**



SHRUB AND TREE PRESERVATION

<b>1.3</b>	<b>Measurement and Payment</b>	Delete 1.3.1 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.
<b>2.0 PRODUCTS</b>			
<b>2.1</b>	<b>Materials</b>	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'.
<b>3.0 EXECUTION</b>			
<b>3.1</b>	<b>Existing Trees</b>	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 on the Contract Drawings. <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: <ul style="list-style-type: none"> <li>.1 Removal of isolated trees as directed by the <i>Contract Administrator</i> and the City.</li> <li>.2 Selective pruning and tree removal at edges to create tidy and well-shaped forest edge.</li> <li>.3 Placing planting soil and planting of trees.</li> </ul>
		Add 3.1.11	Do not park, service or fuel vehicles within the vegetation retention areas.
<b>3.4</b>	<b>Pruning</b>	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.

**1.10 Measurement and Payment**

Delete 1.10.1 and replace with

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.

**2.0 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 sod 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 50 mm thickness. Permanent restoration to existing asphalt thickness (minimum of 75 mm) with a 35 mm key where existing thickness permits. A 50 mm key is required on Arterial and Collector Roadways. Dry if necessary and paint clean, dry edge with asphalt emulsion (tack coat).

**END OF SECTION**

1.0	<b>General Requirements</b>	Delete 1.0.1 and replace with the following	<p>.1 Section 32 91 21 refers to those portions of the <i>Works</i> that are unique to the supply, placement and finish grading of <i>Growing Medium</i>. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the <i>Works</i> described herein.</p> <p>For the purpose of this specification, the term "<i>Growing Medium</i>" shall mean a soil produced offsite by homogeneous blending of mineral particulates, micro-organisms and organic matter which provides suitable medium for supporting intended plant growth and the term "<i>Topsoil</i>" shall mean on-site native or surface soil material which may be used as <i>Growing Medium</i> provided it meets standards set for imported material <i>Growing Medium</i> and can be modified to meet the requirements set out for specified <i>Growing Medium</i>.</p>
		Add 1.0.3	<p>.3 For the purpose of this specification, the term '<i>Soil-Testing Laboratory</i>' shall mean an independent laboratory, recognized by the landscape nursery industry, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.</p>
1.4	<b>Measurement and Payment</b>	Delete 1.4.1 and replace with the following	<p>Payment includes supply and installation of top soil that is free from any noxious weeds, fungal growth, mushroom, and any contaminants, and will be considered incidental to all other work in the Contract Documents.</p>
1.5	<b>Inspection and Testing</b>	Delete 1.5 and replace with the following	<p>.1 The <i>Contractor</i> is responsible for testing imported <i>Growing Medium</i> and all related cost incurred. Testing shall be carried out by an approved <i>Soil Testing Laboratory</i>.</p> <p>.2 The sample analysis shall be of tests done on the proposed <i>Growing Medium</i> from samples taken at the supply source within a minimum of 14 days in advance of <i>Growing Medium</i> placement. Allow 7 days for soil testing by the laboratory for each sample. The sample shall be picked up by the <i>Soil Testing Laboratory</i> from the supply source. The <i>Growing Medium</i> sample shall be a composite of at least three (3) samplings for the proposed source and shall be at least one (1) litre in volume.</p> <p>.3 Forward a copy of all test results directly to the <i>Contract Administrator</i> and the City for review. The analysis shall outline the testing laboratory's required amendments such as sand, organic matter, fertilizers and lime to achieve adequate growing conditions.</p> <p>.4 The <i>Contractor</i> shall not deliver any <i>Growing Medium</i> to the site until the test results have been reviewed and approved by the <i>Contract Administrator</i> and the City.</p> <p>.5 All submitted soil analysis must be dated and include supplier name and phone number, project location and submitted to <i>Contract Administrator</i> and the City for approval prior to commencing work. Soil analysis shall include measurements of:</p> <ul style="list-style-type: none"> <li>.1 Percent sand, fines, silt and clay</li> <li>.2 Organic matter to 100%</li> <li>.3 pH, acidifying additive required to achieve noted herein</li> <li>.4 Water soluble salts</li> </ul>

- .5 Total carbon to nitrogen ration
- .6 Total nitrogen and available levels of phosphorus, potassium, calcium & magnesium
- .6 At the discretion of the *Contract Administrator* and the City submit up to two (2) additional samples, at intervals outlined by the *Contract Administrator* and the City, of *Growing Medium* taken from material delivered to the site. Samples shall be taken from a minimum of three (3) random locations and mixed to create a single uniform sample of testing. Results of these tests shall be forwarded to the *Contract Administrator* and the City for review.
- .7 The *Contractor* is responsible for soil analysis and requirements for amendments to supply *Growing Medium* as specified. Failure to satisfy these contractual requirements could result in the *Contractor* being required to remove unacceptable *Growing Medium* at their expense.
- .8 Notify the Contract Administrator at least forty-eight (48) hours prior to *Growing Medium* placement for inspection.
- .9 Refer to General Conditions, Clause 4.12 Tests and Inspections.
- 1.6 **Product Handling** Add 1.6
  - .1 All materials to be handled and adequately protected to prevent damage. Do not handle *Growing Medium* in an excessively wet, extremely dry, frozen condition or in any manner in which structure may be adversely affected. *Growing Medium* whose structure has been damaged by handling under these conditions shall be rejected and shall be replaced by the *Contractor* at their expense.
  - .2 Stockpile materials in bulk form in paved areas or in pre-approved areas of the site. Provide additional protection of storage under roof or tarpaulins.
  - .3 Take all precautions to prevent contamination of *Growing Medium* and amendments from windblown soil particles, weed seeds and from insects. Contamination of the *Growing Medium* and amendments may result in their rejection for use.
  - .4 Store fertilizer and chemical amendments in the manufacturer's original containers.
  - .5 All *Growing Medium* shall be delivered to site premixed from a recognized *Growing Medium* source ensuring consistency throughout the mix.
- 2.0 **PRODUCTS** Delete 2.0 and replace with the following
- 2.1 **Materials**
  - .1 *Growing Medium* Preparation
    - .1 Shall be prepared from Compost Material with Sand and other Soil Amendments as required to meet the specifications herein.
    - .2 Ensure commercial processing and mixing of *Growing Medium* components are done thoroughly by a mechanized screening process. Do not mix the components by hand. Ensure the resulting product is a homogeneous mixture having the required properties throughout free of stones 25 mm or larger in any dimension, woody plant parts, toxic materials, foreign object and other extraneous materials harmful to plant growth. Provide composted soil free from crabgrass, couch grass, equisetum, convolvulus, or other noxious weeds or seed or parts thereof.

.2 Inorganic Soil Amendments

- .1 Sand: Imported pit sand or river pump sand, free of impurities, chemicals, horsetails, and other noxious weeds. The saturation extract electrical conductivity of salinity shall not be greater than 3.0 millimhos/cm at 25 degrees C.

Sieve Size (mm)	Percent passing (%)
4.75	95-100
0.50	0-40
0.050	0-5

- .2 Fertilizers: Uniform in composition, free flowing and dry, granular, pill form, or pelleted commercial product with 50% of total nitrogen (if applicable) derived from natural organic material in a slowly available form delivered in unopened water proof containers with the manufacturer's guaranteed N-P-K analysis, type and trade name attached to each container. The planting soil test results will specify a formulation and application rate to achieve the levels of nitrogen, phosphorous and potassium required. Fertilizer to meet the requirements of the Canada Fertilizer Act.

- .1 Lime: ASTM C 602, agricultural limestone containing a minimum 80 percent calcium carbonate equivalent and as follows:

- .1 Class: Class T, with a minimum 99 percent passing through No. 8 (2.36 mm) sieve and a minimum 75 percent passing through No. 60 (0.25 mm) sieve.  
.2 Provide lime in form of dolomitic limestone.

- .3 Perlite: Horticultural perlite, soil amendment grade.

.3 Organic Soil Amendments

- .1 Compost: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 25 mm sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

- .1 Organic Matter Content: 50 to 60 percent of dry weight containing no cedar, redwood, wood or bark.  
.2 Colour: dark brown to black in colour.

.2 Peat:

- .1 Finely divided or granular texture, with a pH range of 6 to 7.5, containing partially decomposed moss peat, native peat, or reed-sedge peat and having a water-absorbing capacity of 1100 to 2000 percent.

.3 Wood Residual

- .1 Content of wood residuals such as Fir or Hemlock sawdust present in the *Growing Medium* shall not cause the total carbon to total Nitrogen ration to exceed 40:1.  
.2 Cedar or redwood sawdust shall not be present in *Growing Medium*.

- 2.2 Nutrient Requirements**

  - .4 Manure**

    - .1 Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth and free from salt or other harmful chemicals, such as any used to artificially hasten decomposition.
    - .2 All particles in manure to pass a 6.35 mmm sieve.
    - .3 Salt content shall give a reading of less than 0.5 millimhos/cm at 25 degrees C.
  - .1 Nutrient requirements shall meet the BCSLA/BCNTA Landscape Standard *Growing Medium* requirements for nitrogen, phosphorus, potassium, calcium, magnesium, boron, sodium cation exchange capacity, carbon to nitrogen ratio.

    - .1 Boron: not to exceed 1.0ppm
    - .2 Sodium: Sodium absorption ratio(SAR) not to exceed 8.0
    - .3 Total Nitrogen: to be 0.2-0.4% by weight
    - .4 Available Phosphorous: to be 50-100 ppm
    - .5 Available Potassium: to be 50-70 ppm
    - .6 Cation Exchange Capacity: to be 30 to 50 meq.
    - .7 Carbon to nitrogen ratio: Maximum 40:1.
- 2.3 Salinity**

  - .1 The electrical conductivity of the liquid taken from the soil pH evaluation shall not exceed 3.0 millimhos/cm at 25 degrees C before additions of fertilizers and/or liming agents.
- 2.4 Drainage Rate**

  - .1 Percolation shall be such that mixing, handling and placement to be done in such a manner that the minimum saturated hydraulic conductivity show on Table – '*Growing Medium Properties for Different Applications*' (found herein these specifications) is achieved and no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation.
- 2.5 Growing Medium Source**

  - .1 Import planting medium or manufactured planting medium from off-site sources. Do not obtain from agricultural land, bogs or marshes.
  - .2 Supplier of Growing Medium shall be as per the Coquitlam Approved Products List.
- 2.6 Bark Mulch**

  - .1 Mulch backfilled surfaces of planting beds and other areas indicated on drawings.

    - .1 Organic Mulch: Apply 50 mm average thickness of organic mulch, and finish level with adjacent *Finish Grades*. Do not place mulch against plant stems.
  - .2 Supplier of Bark Mulch shall be as per the Coquitlam Approved Products List.
  - .3 Dark brown in colour and free of all soil, stones, roots or other extraneous matter, and free of weeds, seeds and spores.

**2.7 Growing Medium Properties for Different Applications**

Properties	Low Traffic Lawn Areas, Trees and Large Shrubs	High Traffic Lawn Areas	Planting Areas, Planters Shrubs & Groundcover
<b>Texture:</b> <b>Particle size classes by Canadian System of Soil Classification</b>	Percent of Dry Weight Mineral Fraction (%)		
<b>Gravel</b> (greater than 2 mm less than 75 mm)	0-10	0	0
<b>Sand</b> (greater than 0.05 mm and less than 2 mm)	50-70	80-90	50-70
<b>Silt</b> (larger than 0.002 mm and less than 0.5 mm)	10-30	5-20	10-30
<b>Clay</b> (less than 0.002 mm)	7-20	2-5	7-20
<b>Organic Content</b> <b>Percent of Dry Weight</b>	5-10	3-5	25-30
<b>Drainage</b> Minimum saturated hydraulic conductivity (cm/hr) in place	2.0	7.0	2.0
<b>Acidity (pH)</b>	6.0-6.5	6.0-6.5	5.0-6.0

**2.8 Miscellaneous Products**

- .1 Root Barrier: 400x610 mm linear root barrier, copolymer polypropylene, 50% recycled plastic, black in colour. Supplier of Root Barrier shall be as per the Coquitlam Approved Products List.
- .2 Construction Adhesive shall be as per the Coquitlam Approved Products List.
- .3 Drain Mat: Light duty, uv stable, impermeable cusped core bonded to a layer of non-woven filter fabric with the following minimum properties:
  - .1 Compressive Strength -718 kN/m2 as per ASTM D-1621
  - .2 Flow Rate – 188 l/min/Metre as per ASTM D-4716
  - .3 Approximate profile thickness of 10 mm.
  - .4 Supplier of Drain Mat shall be as per the Coquitlam Approved Products List.
- .4 Filter Fabric: Install root barriers in accordance with manufacturer’s reviewed installation instructions where indicated on reviewed drawings with vertical root directing ribs facing inwards towards trees or plants; connect panels together as required.
  1. Supplier of Filter Fabric shall be as per the Coquitlam Approved Products List.
- .5 Drain Rock: Shall consist of clean round stone or crushed rock. Acceptable material includes 19 mm drain rock or torpedo gravel conforming to the following gradations.

Percent Passing		
Sieve Designation	Coarse	Fine (Torpedo gravel)
25 mm	100	
19 mm	0-100	
9.5 mm	0-5	100
4.75 mm	0	50-100
2.36 mm		10-35
1.18 mm		5-15
0.60 mm		0-8
0.30 mm		0-5
0.15 mm		0-2

**2.9 Structural Soil**

- .1 Soil stabilizer shall be friable, containing a minimum of 4% and maximum of 6% organic matter by dry weight, free from stones and debris over 30 mm. Acidity (ph.) shall be in the range 5.5-7.5. Carbon to nitrogen ratio shall not exceed 40:1, and salinity shall not exceed 3.0 milliohms at 25 deg C. Gravel greater than 2 mm shall not exceed 10% of total weight.
- .2 Supplier of Structural Soil shall be as per the Coquitlam Approved Products List.
- .3 *Growing Medium* to be a gap-graded mixture.
- .4 Texture of Growing Media Percentage of mixture

Gravel: greater than 2 mm-less than 75 mm	0%
Sand: greater than 0.0 5mm-less than 2 mm	max 60%
Silt: greater than 0.002-less than 0.0 5mm	max 35%
Clay: less than 0.002mm	max 15%
Clay and silt combined	max 40%
Acidity (pH)	6.0-7.0
Drainage: minimum saturated hydraulic Conductivity (cm/hr) in place	3.0
Salinity: saturated extract conductivity shall not exceed at 25 degC	3.0 milliohms/cm
Organic content: percent of dry weight	8-12%
- .5 Stone ballast: Clean inert stone of high angularity is preferred over washed gravel. Stone dimension aspect ratio should be 1:1:1 with a maximum 2:1:1 length: width: depth. Single size stone, 60 mm-75 mm clear sieve designation: Blasted Quarry Rock. Aggregate to be used for structural soil shall be free of any foreign elements or material.
- .6 Structural Geotextile
  - .1 Supplier of Geotextile shall be as per the Coquitlam Approved Products List.



- .7 Ground dolomite limestone containing no less than 85% of its total weight as calcium carbonate and magnesium carbonate shall be used to control ph level. The degree of grind for the limestone shall allow 100% of the total weight to pass a #10 (2 mm) sieve, 90% to pass a #18 (1 mm) sieve and 20% to pass a #40 (0.105 mm) sieve. Spread-easy fertilizer shall be used as a slow release fertilizer source of calcium and magnesium.
- .8 Mixing of structural soil:  
Blend as per following ratios:
  - .1 5 metric tones (MT) of aggregate
  - .2 1 cubic meter of growing media
  - .3 2 kg soil stabilizer
- .9 Moisten mixture with fine spray of clean potable water while mixing to activate soil stabilizer product. Do not over mix. Place mixture in 300 mm lifts through entire area of structural soil mixture. Compact each lift to 95% MPD prior to placement of next lift. Install filter fabric such to ensure a minimum of 60 cm overlap of all fabric seams and beyond edge of structural soil.

**3.0 EXECUTION**

**3.2 Preparation of Subgrade**

Delete 3.2.4 and replace with the following

Remove debris, roots, branches, stones in excess of 50 mm diameter and other deleterious materials, soil contaminated with calcium chloride, toxic materials and petroleum products, and debris which protrudes more than 25 mm above the surface. Dispose of all removed material off site to approved offsite disposal area at no additional cost to the *Owner*.

Delete 3.2.5 and replace with the following

Course cultivate entire area which is to receive *Growing Medium* to depth of 250mm. Cross cultivate those areas where equipment used for hauling and spreading has compacted soil.

Add 3.2.6

Grade transitions shall be smooth and even and shall blend into surrounding areas as determined by the *Contract Administrator* and the City.

Add 3.2.7

Provide erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

**3.3 Processing Growing Medium**

Add 3.3.4

*Growing Medium* shall be imported and stockpiled on site in a location approved by the *Contract Administrator* and the City.

- .1 Carry out stock piling operation such that the *Growing Medium* structure is not compromised through compaction, vibration or other actions.
- .2 Stock piled *Growing Medium* shall be protected from rain, drying and contaminants.
- .3 *Growing Medium* shall be free of subsoil, pests, roots, wood, construction debris, undesirable grasses including crabgrass or couch grass, noxious or weeds and weed seeds or parts thereof foreign objects and toxic materials. Presence of these contaminates shall be grounds for rejection of *Growing Medium* and replacement at no cost to the *Owner*.

**3.4 Placing Growing Medium**

Delete 3.4.2 and replace with the following

Place *Growing Medium* to the required finished grades with adequate moisture, in uniform lifts of 100 mm to 150 mm compacted to 80 MPD during dry weather, over dry, unfrozen *Sub Grade* where planting is indicated free of any standing water.

TOPSOIL AND FINISH GRADING

		Delete 3.4.5 and replace with the following	<p>Minimum depths after settlement and 80% compaction:</p> <ul style="list-style-type: none"> <li>.1 Trees pits: 900 mm</li> <li>.2 Shrub beds: 450 mm</li> <li>.3 Ground cover areas: 300 mm</li> <li>.4 Lawn areas: 300 mm</li> <li>.5 Blvd. areas: 150 mm</li> </ul>
		Add 3.4.6	<p>Increase sand content to 90% in the planting soil below lawns where heavy wear by pedestrians or maintenance equipment is anticipated. Increase sand content in a 1.5m wide strip at the bottom of swales, banks or other wet areas and as directed by the Landscape Architect. On steep south or west facing banks, reduce sand content in lawns and planting beds to 50 - 60% for better moisture retention.</p>
3.5	<b>Applying Fertilizers</b>	Delete 3.5 and replace with the following	<ul style="list-style-type: none"> <li>.1 Addition of amendment components shall be at the rates indicated in the <i>Growing Medium</i> analysis recommendations via the following methods: <ul style="list-style-type: none"> <li>.1 Lime: Applied with mechanical spreaders over entire planting areas and contained planters. <ul style="list-style-type: none"> <li>.1 Do not apply by hand.</li> <li>.2 Mix thoroughly into the top 100 mm of <i>Growing Medium</i>.</li> <li>.3 Do not allow lime to come into direct contact with nitrogen - phosphate - potash fertilizers.</li> </ul> </li> <li>.2 Fertilizer: Applied with mechanical spreaders over entire planting areas and contained planters. Do not apply by hand. Do not mix into <i>Growing Medium</i>.</li> </ul> </li> </ul>
3.6	<b>Finish Grading</b>	Delete 3.6.1 and replace with the following	<p>Manually fine grade <i>Growing Medium</i> installation to contours and elevations shown on drawings or as directed by <i>Contract Administrator</i> and the City. Eliminate rough spots and low areas to ensure positive drainage.</p>
		Add 3.6.3	<p><i>Finish Grade of Growing Medium</i> shall be 25 mm from finished elevation of adjacent curb or planter wall unless otherwise noted on drawings.</p>
3.9	<b>Clean-up</b>	Delete 3.9 and add the following	<ul style="list-style-type: none"> <li>.1 Ensure all paved areas, tops of planters, adjacent surfaces have been thoroughly cleaned. Ensure all discoloration of adjacent surfaces as a result of <i>Growing Medium</i> installation have been removed.</li> <li>.2 Dispose of materials not required and repair any damage to adjacent surfaces (as determined by the <i>Contract Administrator</i> and the City) off site at no additional cost to the <i>Owner</i>.</li> </ul>
3.10	<b>Weed Control</b>	Add 3.10	<ul style="list-style-type: none"> <li>.1 Ensure all weeds and weed roots that have germinated during the course of work of this section have been eliminated from <i>Growing Medium</i>.</li> <li>.2 Provide the City Representative and Consultant with a written outline of weed removal methodology seven (7) days prior to starting weed removal operations.</li> </ul>
3.11	<b>Structural Soil</b>	Add 3.11	<ul style="list-style-type: none"> <li>.1 Refer to 2.9 in this specification and as shown on the Contract Drawings.</li> </ul>

END OF SECTION

**1.0 GENERAL**

- |                                    |   |   |
|------------------------------------|---|---|
| <b>1.5 Drainage Control</b>        | Delete 1.5.1 and replace with the following | Provide for proper water management and drainage at <i>Place of Work</i> . Water management shall include silt traps, erosion control measures, temporary water collection ditches, as well as their adequate maintenance to ensure that storm water which may become laden with soil or growing medium is detained and cleaned prior to discharge from <i>Place of Work</i> .  |
| <b>1.7 Site Examination</b>        | Delete 1.7.1 and replace with the following | Examine <i>Place of Work</i> prior to the commencement of work to verify surface preparation is complete and has been accepted by the <i>Contract Administrator</i> and the City.   |
| <b>1.8 Measurement and Payment</b> | Delete 1.8.1 and replace with               | 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.  |
| <b>1.10 Quality Assurance</b>      | Add 1.10                                    | <ul style="list-style-type: none"> <li>.1 <i>Contractor</i> to provide seed analysis that will include but is not limited to:               <ul style="list-style-type: none"> <li>.1 Name and address of supplier</li> <li>.2 Analysis of seed mixture</li> <li>.3 Percentage of pure seed</li> <li>.4 Year of production</li> <li>.5 Date and location of bagging</li> <li>.6 Percentage germination</li> </ul> </li> <li>.2 The sample accepted by the review will form the standard by which the project will be supplied.</li> <li>.3 Should the <i>Contractor</i> require the source of seed supply to change during the construction a written request must be provided to the <i>Contract Administrator</i> and the City 48 hours in advance. The request shall be followed up by submission of proposed seed supplier and substitution seed analyses for <i>Contract Administrator</i> and the City review prior to the delivery.</li> <li>.4 All seed shall be delivered and stored in original containers in enclosed storage facility protected from the damage, weather, insects and rodents.</li> </ul> |

**2.0 PRODUCTS**

- |                       |   |   |
|-----------------------|---|---|
| <b>2.1 Grass Seed</b> | Delete 2.1 and replace with the following | <ul style="list-style-type: none"> <li>.1 Grass seed shall be Certified Canada No. 1 Grade to Government of Canada, Seeds Regulations and having minimum germination of 75% and minimum purity of 95%.</li> <li>.2 Seed mixtures shall be approved by the <i>Contract Administrator</i> and the City in the original packaging. The Seed mixture for boulevards and landscaped areas shall be made up from a minimum of three (3) varieties of Perennial Rye, one (1) of Kentucky Bluegrass and three (3) varieties of Fescue from the list of approved varieties shown below:               <ul style="list-style-type: none"> <li>.1 Seed Mix shall comprise of:                   <ul style="list-style-type: none"> <li>50% Perennial Rye: Elka II, Gator 3, Top Hat, Charismatic, All Star, Derby Supreme</li> </ul> </li> </ul> </li> </ul> |
|-----------------------|---|---|

SEEDING

35% Fescues: Cindy, Longfellow II, Cindy Lou, Quatro, Shademaster II

15% Kentucky Bluegrass: Shamrock, Broadway, Midnight, Julius, Allure

.3 Table Guideline of Approved Seed Mix Ratios

<u>% Seed Count</u>	<u>% Weight</u>	
15%	25%	All-Star Perennial Rye Grass
5%	15%	Elka II Perennial Rye Grass
20%	15%	Cindy Creeping Red Fescue
15%	15%	Shamrock Kentuck Bluegrass
20%	10%	Cindy Lou Creeping Red Fescue
15%	10%	Longfellow II Chewing Fescue
10%	10%	Gator 3 Perennial Rye Grass
<b>Seed Rate:</b> 50g per square metre		
Acceptable products shall be an all purpose sun / shade mix conforming to the above mix ratios		

**2.2 Water** Delete 2.2.1 and replace with the following

Water shall be potable, free of impurities that would inhibit sod growth. *Contractor* to ensure adequate water is available to maintain seeded areas during germination and in a vigorously growing, healthy state until *Total Performance* of work of this section.

**2.3 Fertilizer** Delete 2.3.1 and replace with the following

Fertilize shall be complete synthetic slow release fertilizer. Type and application shall be as required by the growing medium analysis report.

**2.4 Wooden Posts** Add 2.4

.1 Wooden Posts shall be 38 mm x38 mm x 1500 mm long No. 1 grade or better Hem/fir, untreated wood.

**2.5 Binder Twine** Add 2.5

.1 Binder Twine shall be hemp based multiple strand string.

**2.6 Flagging Tape** Add 2.6

.1 Flagging Tape shall be 30 mm wide, biodegradable ribbon tape made of non woven cellulosic material, and red color, or an approved equivalent.

**3.0 EXECUTION**

**3.1 Finish Grade Preparation** Delete 3.1.2 and replace with the following  
**Add 3.2.3.1**

Prior to the broadcast of seed *Contract Administrator* and the City to review fine grading of growing medium. Review includes grades, growing medium depth and condition of finished surface. Subsequent to the *Contract Administrator* and the City review the *Contractor* shall re-grade, add growing medium and make adjustments as directed by *Contract Administrator* and the City.

Delete 3.1.5 and replace with the following

Finish grade smooth to extent required for class of seeding carried out, firm against footprints, textured and free loose of all stones, roads, branches, etc. larger than 25 mm or required for removal for class of seeding to be carried out.

**3.2 Seeding - General** Delete 3.2.1 and replace with the following

Seeding operations shall be carried out in the following calendar seasons;

- .1 Spring (April 1st to June 15th)
- .2 Fall (August 15th to September 30th)
- .3 Seeding shall not take place during periods of rain, freezing and/or abnormally hot and dry weather.

SEEDING

	Delete 3.2.2 and replace with the following	Application Methods: Apply seed by Method A – Mechanical Dry Seeding or Method B – Hydraulic Seeding unless otherwise specified. Ensure Hydraulic Seeding in accordance with Section 32 92 19 – Hydraulic Seeding. Hand seeding is not recommended. Hand seed only when site conditions preclude above two methods. Do not use hand seed method unless approved by the <i>Contract Administrator</i> .
	Delete 3.2.3 and replace with the following	Seed Application: Seed rates as per seed manufacturers' recommendations and table 2.1.3. .1 Sow seed during calm weather with wind speeds less than 8 kph, using wheeled or hand held rotary broadcaster. .2 Sow half of required amount of seed in one direction and remainder at right angles. .3 Carefully incorporate seed into top of growing medium with light chain harrow or wire rakes to a minimum depth of 6 mm as seeding operation progresses or within one (1) hour after seeding. .4 Immediately after seed application roll seeded area with 90kg water ballast type lawn or agricultural roller. If seeded area becomes wet due to rain suspend rolling operations until area has dried to the point where growing medium will not adhere to the surface of the roller.
	Add 3.2.4	Watering Operation: Apply water with fine spray to avoid seed wash out. Watering procedure shall ensure penetration of minimum 50mm into growing medium and be at sufficient duration and intervals to keep growing medium evenly moist during germination and grow in period.
	Add 3.2.5	The <i>Contractor</i> shall carry out at no cost to the <i>Owner</i> , reseed operations at two (2) week intervals where germination has failed or wash outs have occurred.
	Add 3.2.6	Perimeter Protection: All seeded areas shall be surrounded by a 900 mm high barrier made up of the following components: .1 Wood posts placed at 1.8 metres on centre. .2 Wood Posts shall be driven to a depth of 300mm .3 String two (2) strands of hemp based binder twine (or equal product) between posts. Insure one full wrap of twine around each post. .4 Tie 300 mm strands of 'red' flagging tape at 450 mm intervals along the entire length of both strands of twine. .5 Maintain perimeter protection until issued <i>Total Performance</i> of seeded area by <i>Contract Administrator</i> . Upon acceptance remove perimeter fence and dispose of off site.
	Add 3.2.7	Seeded areas that have been damaged by construction operation, construction/ site personnel or construction traffic shall be replaced at no cost to the <i>Owners</i> . Replacement shall include removal of growing medium, regarding of sub grade, replacing growing medium and reseeded as required.
<b>3.6</b>	<b>Grass Maintenance</b> Delete 3.6 and replace with the following	.1 Maintenance of seeded areas shall begin immediately after seeding operation and shall continue until all deficiencies noted in the <i>Substantial Performance</i> review have been rectified to the satisfaction of the <i>Contract Administrator</i> and the City and conditions for <i>Total Performance</i> been achieved. The <i>Contractor</i> shall notify the <i>Contract Administrator</i> and the City in writing forty eight hours (48) prior to stopping maintenance operations. .2 Maintenance shall follow the BC Landscape Standard, current edition, Level 2 'Groomed'. Over and above this maintenance

protocol the *Contractor* shall monitor the application of water to the seeded areas and ensure that watering procedures are continuous.

- .1 Apply water with fine spray to avoid seed wash out. Watering procedure shall ensure penetration of minimum 50mm into growing medium and be at sufficient duration and intervals to keep growing medium evenly moist during germination and grow in period.
- .2 Monitor watering on a regular interval to ensure that watering operations are not causing wash out of seeded area. Should wash outs occur as a result of watering or rain fall related wash out, reseed and continue maintenance and watering procedures.
- .3 Grass Cutting: After the 'first' cut of seeded areas grass cutting operations shall be carried out on a weekly (seven day) basis until *Total Performance* by *Contract Administrator* and the City.
  - .1 First cut of seeded areas shall occur when a uniform grass height of 75 mm has been attained. First cut shall be to a height of 64 mm
  - .2 Continue regular weekly cutting at a height of 50 mm until *Total Performance*.
  - .3 Cutting operations shall be such that each cut is at right angles to the previous cut.
  - .4 *Contractor* to remove grass clippings after each cut and dispose of off site.
  - .5 Roll when required to remove any minor depressions or irregularities.
  - .6 Immediately repair seeded areas that show deterioration or bare spots. Top-dress all areas showing shrinkage due to lack of watering and seed with seed mix that matches the original seed mix.
- .4 Fertilizer analysis shall conform to recommendations provided with growing medium analysis. Application of fertilizer shall follow manufacturers' recommendations noting that after October 1 lawn areas shall not be fertilized until April 15th of the following spring.
- .5 Seeded lawn areas shall be kept free of invasive and/or noxious broadleaf weeds, grasses including but not limited to poa annua, disease, fungi, detrimental nematodes and detrimental insects.

**3.7 Conditions for Total Performance**

Delete 3.7 and replace with the following

- .1 Conditions for *Total Performance* of Seeded areas:
  - .1 Seeded areas are vigorously growing, well established with a thick, dense and healthy green appearance.
  - .2 Seeded areas shall not have any eroded or wash out areas, bare or dead spots and are free of invasive and/or noxious broadleaf weeds and grasses.
  - .3 No surface growing medium is visible when established seeded areas have been cut to height of 38 mm
  - .4 Seeded areas have been cut at least two (2) times, to a height of 38 mm a minimum of (7) days apart.
  - .5 Grass shall be free of grass varieties other than those specified.
  - .6 Grass shall be sufficiently established that its roots are growing into underlying growing medium.
  - .7 Specified maintenance procedures have been carried out.

SEEDING

---

- .8 Areas seeded after September 30<sup>th</sup> will be not be reviewed for *Total Performance* until April 30<sup>th</sup> the following year.

**END OF SECTION**

**1.0 GENERAL**

<b>1.2</b>	<b>References</b>	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.
<b>1.3</b>	<b>Submission of Certification</b>	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.
<b>1.4</b>	<b>Work Regulations</b>	Add 1.4.3	The Contractor shall provide the City with a written confined space entry procedure and a written confined space rescue procedure before commencement of any work at any of the construction project sites.
<b>1.5</b>	<b>Scheduling of Work</b>	Add 1.5.3	The Contractor shall contact the <i>Contract Administrator</i> at the end of each day, stating the location of work and type of work to be undertaken the following day.
		Add 1.5.4	The Contractor shall be responsible for notifying residents prior to accessing easements and rights of way adjacent to private property. All permission to access private property shall be obtained from the resident(s) prior to accessing private property at no cost to the City.
<b>1.6</b>	<b>Measurement for Payment</b>	Delete 1.6 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 Prices and Quantities.

**2.0 PRODUCTS**

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

**3.0 EXECUTION**

<b>3.1</b>	<b>CCTV Inspection</b>	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 3.1.4 and replace with the following	Flow in the pipeline not to exceed approximately ¼ of the pipe diameter. Notify Contract Administrator of excessive flows, video using flow reduction method per 3.11 of this Section.
		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.
<b>3.3</b>	<b>Site Coding Sheets</b>	Delete 3.3.1 and replace with the following	Each pipeline length to be recorded according to the PACP. Any variation from the manual to be noted in the survey report.

**END OF SECTION**

CLEANING OF SEWERS

1.0 GENERAL

- |            |                                |  |   |
|------------|--------------------------------|--|---|
| <b>1.3</b> | <b>Work Regulations</b>        | Add 1.3.2  | Provide written confirmation to the Contract Administrator that workers have knowledge of confined space entry practices and of equipment required for confined space entry.  |
| <b>1.4</b> | <b>Scheduling of Work</b>      | Delete 1.4.3 and replace with the following<br><br>Add 1.4.5 | Notify Contract Administrator of the location of cleaning 3 days before start of work.<br><br>The Contractor shall be responsible for notifying residents prior to accessing easements and rights of way adjacent to private property. All permission to access private property shall be obtained from the resident(s) prior to accessing private property at no cost to the City. |
| <b>1.5</b> | <b>Measurement for Payment</b> | Delete 1.5 and replace with the following                    | 1.5.1 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 Prices and Quantities.   |

3.0 EXECUTION

- |            |                       |              |   |
|------------|-----------------------|--------------|---|
| <b>3.1</b> | <b>Sewer Cleaning</b> | Add 3.1.6    | Where an intruding service connection precludes passing of the camera during CCTV inspection, the Contractor shall notify the Contract Administrator who may require the intruding portion to be removed without damage to the system.  |
| <b>3.2</b> | <b>Water Supply</b>   | Add to 3.2.1 | Arrangement for hydrant use is to be made by the Contractor. City may require supervision of the first hydrant set-up. The Contractor shall supply the appropriate backflow prevention devices and hose. The Contractor shall be responsible in providing the hydrant number, location and duration of usage to the Contract Administrator, 3 days prior to obtaining the Hydrant Use Permit. |

END OF SECTION

1.0 GENERAL

1.4	<b>Work Regulations</b>	Add 1.4.2	Provide written confirmation to the Contract Administrator that workers have knowledge of confined space entry practices and of equipment required for confined space entry.
		Add 1.4.3	Comply with the MSDS for the particular chemicals used in the preparation of the CIPP liner material.
1.8	<b>Scheduling of Work</b>	Add 1.8.4	The Contractor shall be responsible for notifying residents prior to accessing easements and rights of way adjacent to private property. All permission to access private property shall be obtained from the resident(s) prior to accessing private property at no cost to the City.  The Contractor shall be responsible in notifying resident(s) of dates and periods when service will be interrupted.
		Add 1.8.5	Notify Contract Administrator of the location for lining 3 days before start of work.
1.9	<b>Measurement and Payment</b>	Delete 1.9.1 and replace with the following	Payment is to include supply and installation of the CIPP structural liner at each location as described in Schedule of Quantities and Prices and shown in the Contract Drawings. The tendered price is to include all labour, materials and all such other items that may be required to complete the work including resident notification, <b>bypass pumping</b> , pre-construction CCTV to allow for confirmation of defect location removal of any obstruction, flushing and root cutting to properly install the CIPP liner, and post construction CCTV inspection. Payment includes all works specified in Sections 33 01 30.1S and 33 01 30.2S.

2.0 PRODUCTS

2.1	<b>Liner Material</b>	Add 2.1.3	Calculations of pipe flow before and after liner installation shall be submitted to the Contract Administrator for approval. The Contractor shall field measure the internal circumference of the sewers to determine the exact size of liner that is required so that the liner is tight to the wall of the existing pipe.
		Add 2.1.4	The length of the liner shall be that deemed necessary by the Contractor to effectively carry out the insertion and sealing of the liner at the inlet and outlet points. The Contractor shall verify the lengths in the field before cutting the liner to length.

3.0 EXECUTION

3.3	<b>Sewer Flow Management</b>	Add 3.3.4	The Contractor shall maintain existing sewage flows during construction. The Contractor will be responsible for installation, maintenance and providing of all sewer flow management system.
3.5	<b>Preparation</b>	Add 3.5.1.1	Contractor to ensure that all roots are removed and treated prior to lining to prevent any damage or any future damage by roots to liner.  The Contractor will be responsible for correction of defects as per General Condition 25.1
		Add 3.5.4.1	Pre-measure and document the location of all defects to be repaired by Point Repair.

		Add 3.5.6	Notify effected property owners 3 days in advance of disruption of service. Information notice to be pre-approved by <i>Contract Administrator</i> .
<b>3.6</b>	<b>Liner Installation</b>	Add 3.6.5	The finish lining shall be continuous over the entire length of the inversion run and shall be free from visual defects such as, but not limited to, foreign inclusions, dry spots, root intrusions, pin holes, cracks, folds, lifts, creases and delamination. The Contractor will be responsible for all the cost and repair of such defects.
		Add 3.6.6	The exposed surface of the liner shall be free of dimples, exposed fibers and any protrusions that may interfere with future maintenance requirements such as CCTV inspections, root cutting equipment, and grouting packers.
		Add 3.6.7	Liner fabric shall be fully and evenly impregnated with resin.
<b>3.7</b>	<b>Field Cured Samples</b>	Add 3.7.4	Samples shall be submitted for testing immediately after the preparation of test sample, evaluated and tested for thickness and flexural strength and modulus strength in accordance with appropriate ASTM standards.
<b>3.9</b>	<b>Termination at Manholes</b>	Add 3.9.3	The liner ends in the manhole shall be tight fitting and shall require the application of a watertight sealing product at the terminal points. The sealing product shall be compatible with the liner. Liner end works shall not commence until the liner has fully stabilized. Any lip or obstruction created by the liner shall be gently tapered. The liner ends shall not obstruct any flow.
<b>3.10</b>	<b>Post Installation CCTV Inspection</b>	Delete 3.10.2 and replace with the following	After installation and reconnecting services, the Contractor shall video inspect the sewer and submit the USB (2 copies) with log report as per Contract Specifications to Contract Administrator for review.
		Add 3.10.3	The quality of the liner and service interface will be assessed in part by the Contract Administrator when reviewing the post installation CCTV video recordings provided by the Contractor. Liners that do not conform to this document will be rejected by the Contract Administrator and remedial work shall be undertaken by the Contractor in order to receive payment.
		Add 3.10.4	USB (2 copies) and flexidata reports completed after lining and interface sealing shall be submitted to the Contract Administrator before final invoice. Should any portion of the inspection recordings be of inadequate quality or coverage, as determined by Contract Administrator, the Contractor shall have the portion reinspected and recorded at no additional expense to the Owner.
		Add 3.10.5	Defects that may affect the integrity or strength of the pipe in the opinion of the Engineer shall be repaired or the pipe replaced at the Contractor's expense. The completed replaced sewer main must have acceptable grade and alignment and be satisfactory to the Contract Administrator.

**END OF SECTION**

1.0 GENERAL

1.6	<b>Measurement and Payment</b>	Delete 1.6.1 and replace	<p>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.</p>
		Delete 1.6.2 and replace with	<p>Payment for sanitary sewers includes trench excavation, shoring, offsite disposal of native excavated material and surplus/displaced excavated material, clearing and grubbing as required, removal and disposal of existing pipes regardless of material, dewatering, supply and installation of all pipe, fittings and related materials, tie-ins, bedding and all import backfill material, supply, placement and compaction of granular base &amp; sub-base, cleaning and flushing, testing (if applicable), grass restoration using seed, and all other work and materials necessary to complete installation as shown on Contract Drawings and specified under this Section.</p> <p>Payment includes by-pass pumping to include all pumps, labour and materials required to facilitate the work. Payment for the by-pass pumping will be incidental.</p> <p>Measurement for sanitary sewer will be made horizontally from manhole centreline to manhole centreline over surface after work has been completed.</p> <p><b>NOTE: PAYMENT FOR ANY SANITARY SEWER WORKS WILL NOT BE MADE UNTIL RESTORATION WORK IS COMPLETE TO CITY'S SATISFACTION.</b></p>
		Delete 1.6.3 and replace with	<p>Payment for new service connections includes 150mm SDR28 SDR35 PVC pipe, shear band couplers, bends, increaser, pvc wye, stubs, caps, Le-Ron inspection chamber as per MMCD S7 and S9 c/w locking collar and red lid, bedding and all import backfill material 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.</p> <p>Brooks Boxes with a steel lid are to be provided for all inspection chambers within driveways. Payment for the Brooks Boxes will be incidental.</p> <p>Payment includes support of poles if necessary and manhole barrel preparation to accommodate the service connection.</p> <p>Payment will be made per the unit price bid for each sanitary service connection.</p>
		Add to Clause 1.6.7	<p>Payment includes all applicable works, labour, material and equipment as described in Clause 1.6.2</p>
2.0 PRODUCTS			
2.5	<b>Granular Pipe Bedding and Surround Material</b>	Add 2.5.3	<p>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.</p>
3.0 EXECUTION			
3.8	<b>Connections to Existing Mainline Pipes</b>	Delete 3.8.1 and replace with	<p>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</p>

---

**SANITARY SEWERS**

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**

STORM SEWERS

1.0 GENERAL

1.6 Measurement and Payment

Delete 1.6.1 and replace

Payment for storm sewer will be made separately for various sections of storm 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 storm sewers includes trench excavation, disposal of surplus excavated material, removal and disposal of existing pipes, supply and installation of all pipe, fittings and related materials, tie-ins other than noted in Clause 1.6.9, bedding and all import backfill material, granular base, granular subbase, cleaning and flushing, testing (if applicable), grass restoration using seed, 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 to include all pumps, labour and materials required to facilitate the work. Payment for the by-pass pumping will be incidental. Payment includes all applicable materials and work described in 1.6.4.1.

Measurement for storm sewer will be made along the ground from the start of new pvc pipe to the terminus of the new pvc pipe.

**NOTE: PAYMENT FOR ANY STORM SEWER WORKS WILL NOT BE MADE UNTIL RESTORATION WORK IS COMPLETE TO CITY'S SATISFACTION.**

Delete 1.6.3 and replace with

Payment for new service connections includes 150mm SDR28 PVC pipe, shear band couplers, bends, increaser, pvc wye, stubs, caps, Le-Ron molded inspection chamber c/w locking collar and green lid as per MMCD S8 and S9, 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 unless specified otherwise in the Schedule of Quantities and Prices.

Brooks Boxes with a steel lid are to be provided for inspection chambers located in driveways as necessary. Payment for the Brooks Boxes will be incidental.

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

Delete 1.6.4 and replace with  
Add 1.6.4.1

Remove and dispose of all trees, roots, vegetation, organic matter and stumps that are located in the right of way and which fall within the work area (including stripping of ditches). Trim small branches from trees or hedges as required and where necessary use an approved tree paint to repair damage to surviving vegetation where branches have been removed. Obtain the Contract Administrator's approval before trees are removed. Replace shrubs and trees that are located on private properties that are damaged during construction.

Materials removed from within the right of way are the property of the private property owner. Materials removed within private property remain the property of the private property owner.

STORM SEWERS

Discard materials obtained from within the right of way and from adjacent private properties that are not suitable for reuse or not wanted by private owners at an approved dump site.

Where possible and as agreed with the *Contract Administrator*, reuse topsoil obtained from within the right of way.

Lump sum to include for all labour, materials, and equipment required to supply and install the work as specified and restore surface to its original conditions.

Add 1.6.4.2

The unit price is an additional payment for depth in excess of the depth stated plus 0.6m as indicated on the service connection card. The payment is to accommodate installation of Le-Ron molded storm inspection chambers as per MMCD S7, S8 and S9 at a lower elevation. The tendered price is to include all labour, materials and all related fittings and components specified and/or shown on Standard Detail Drawings, use of shoring, shoring cage and all such other items that may be required to complete the work as specified. Payment does not include all other items already included in this section, Clause 1.6.4. and Section 02223.

**Example:**

Depth on Connection Card, 0.3m

Actual depth of service connection measured from the ground, 1.8m

Portion to be paid as additional:  $1.8m - (0.3m + 0.6m) = 0.9m$

0.9m will be paid as additional:  $0.9m \times \text{unit price}$

Add 1.6.9

Payment includes all applicable works in Clause 1.6.2.

**2.0 PRODUCTS**

**2.1 Concrete Pipe**

Delete 2.1.6 and replace with

Pre-Test in accordance with Section 33 30 01 Clause 2.1.4.

**2.6 Service Connections**

2.6.1

Replace 100 mm minimum diameter with PVC SDR 28 **150 mm** minimum diameter.

Delete 2.6.8.1 and replace with

Connections to HDPE main pipe to be made with a fusion machine.

Delete 2.6.8.2 and replace with

Connections to ribbed PVC pipe to be made with a manufactured wye fitting where wye locations are known in advance. For connections to ribbed PVC mainline pipe larger than 450 mm an insertable tee for ribbed PVC pipe is permitted for connections more than two sizes smaller than mainline pipe. When an insertable tee is used, hole cut into mainline pipe to cut as few ribs as possible.

Add 2.6.11

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

**2.9 Granular Pipe Bedding and Surround Material**

Add 2.9.3

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**

**3.6 Pipe Installation**

Add 3.6.14

Test pipe in accordance with Section 33 30 01 Clause 3.12.

These Supplementary Contract Specifications must be read in conjunction with the Specifications contained in the Master Municipal Construction Documents, Volume II, Printed 2009 and the City of Coquitlam Supplementary Specifications and Detailed Drawings



**3.8 Connections to Existing Mainline Pipes**

Add 3.8.5

Connections to existing mainlines 450 mm and smaller 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.

Connections to existing concrete mainline and mainlines larger than 450 mm shall be made in accordance with this section and will be made using a core cutter.

The contractor shall video inspect all connections to existing mains following completion of installation

**END OF SECTION**

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

---

These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

- 
- 1.0 GENERAL**
- 1.1 This Traffic Management detail specification refers to the Contractor's specific plans to identify project traffic risks affecting the *Work*, 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 Control, Vehicle Access and Parking 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 and Infrastructure (MOTI) Traffic Management 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. **An individual permit is required for each specific construction interference with traffic flow on all Arterial and Collector Roads. Area based general road closure permits will be approved for all single lane alternating work occurring on local roads with accompanying detailed schedule.** The Road and Sidewalk Closure Permit Request form is attached as **Appendix 1** to this document. 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 [Road & Sidewalk Closure Permit Application](#)
- A Road and Sidewalk Closure Permit form application must be submitted to City's Traffic Operation Division 5 working days prior to start of work.
- 1.4 Measurement and Payment .1 For this Contract, all work associated with Traffic Management Plan (TMP) and Traffic Control will be as shown in the Schedule of Quantities and Prices.
- 2.0 PRODUCTS**
- 2.1 Traffic Management Plan (TMP) .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 MOTI 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;

---

These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

- .4 Category 3 TMP must be signed and sealed by a qualified Professional Engineer.
- .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, 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.
- .7 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.
- .8 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.
  - .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 and Road and Sidewalk Closure Permit 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 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.

- 3.3 Signage
- 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.
- 3.4 Detours
- 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.
- 3.5 Abrupt Changes in Surface Elevations
- 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.
- 3.6 Cyclist and Pedestrian Access
- 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.
- 3.7 Temporary Pavement Markings
- 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 One lane of traffic must be maintained at all times during any allowed lane closure times.
- .2 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. The \$50 permit fee is waived on this project.
- 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.
- .3 Total Road Closure Is Not Permitted
- 

These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

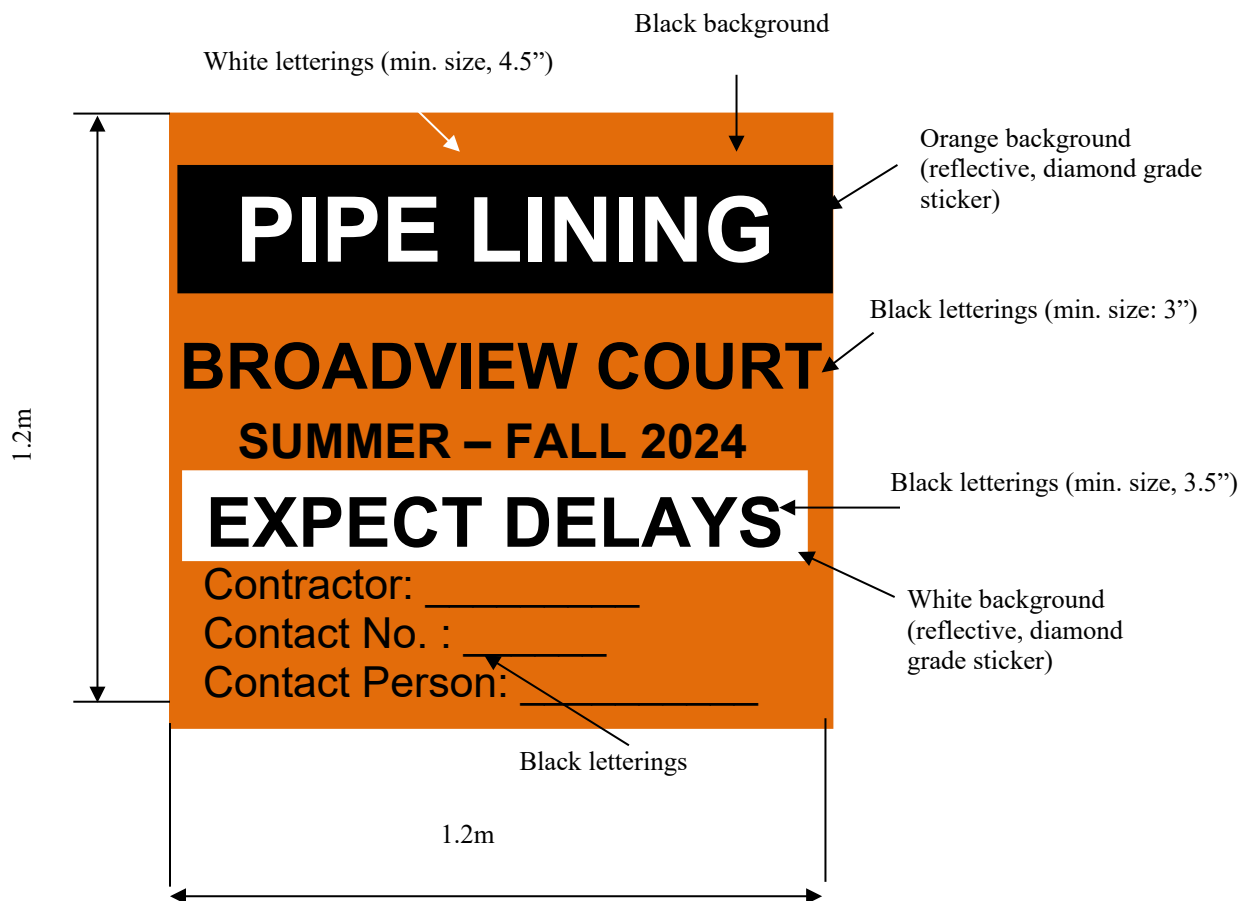
- .4 Detours will only be permitted as approved by the Contract Administrator and must have a complete Traffic Control Plan indicating detour route, signing, and duration. Detours will not be allowed without sufficient lead time for commercial and retail operation to react appropriately to detour information 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.
  - Minimum single lane traffic is required at all times
  - 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
- 4.3 Hours of Work
- The hours of work shall be from **0700 h to 1900 h** inclusive Monday to Friday and **0900 h to 1800 h** inclusive Saturdays. The Contractor must schedule his work within these hours or obtain written authorization from the Contract Administrator to vary said hours.
- 5.0 CONSTRUCTION OPERATIONS**
- 5.1 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](http://www.coquitlam.ca) and can be found under **Residents, Transit & Transportation, Trucking Routes**.
- 5.2 Road Specific Considerations
- .1 Ensure that Traffic Management Plan accommodates businesses and residences during construction activities.
- 5.3 Work stoppage due to traffic
- 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.
- 5.4 Construction Activity and Signage
- 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.
- 5.5 Construction Zone Information Signs
- The Contractor is required to provide, one week prior to start of work, stationary signs to inform traffic of existing and anticipated conditions.
- Ensure that signs and locations are addressed in the Traffic Management Plan. Signs are to be located at least 3m away from any

travelled roadway edge and 0.6m away from sidewalk or travelled shoulder edge with minimum head clearance of 2m. All signs are to be removed at the end of the construction period on each location.

Exact locations to be determined on site by Contract Administrator.

- Eastbound and Westbound near Maine Crescent and Harbour Drive

**Construction Zone Information Signs to follow specifications below:**



These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.



APPENDIX 1



# City of Coquitlam Road and Sidewalk Closure Permit Request

**Traffic Operations Division**  
3000 Guildford Way, Coquitlam BC V3B 7N2  
Phone: 604-927-6250 Fax: 604-927-6255  
Email: [trafficoperations@coquitlam.ca](mailto:trafficoperations@coquitlam.ca)

Submit to the Traffic Operations Division a minimum of 5 business days prior to the intended closure date.

Permit Fee - ~~575.00~~ (Effective February 1, 2019)

**Payment Methods** – After review, and if approved, payment options will be emailed to the applicant.

Application Date: \_\_\_\_\_

City Project Number (if applicable): **85261** \_\_\_\_\_

### Contact Information

Company Name: \_\_\_\_\_

Applicant Name: \_\_\_\_\_

Name of Contractor doing work for Company/Applicant: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

24 Hour Emergency Phone: \_\_\_\_\_ Email: \_\_\_\_\_

### Location, date and time, and traffic control plan information

I request approval to close (check all that apply): Direction:  Northbound  Southbound  Eastbound  Westbound

Curb/Outside Lane  Centre/Inside Lane  Right Turn Lane  Left Turn Lane  Cycling Lane  Sidewalk

Single Lane Alternating Traffic  Full Closure

Road/Street Name: \_\_\_\_\_

Location Description: \_\_\_\_\_

Date & Time Information: Dates: \_\_\_\_\_ Starting \_\_\_\_\_ Ending \_\_\_\_\_

Hours: \_\_\_\_\_ Starting \_\_\_\_\_ Ending \_\_\_\_\_

Purpose: \_\_\_\_\_

**Will this closure disrupt:** Bus Routes or Stops?  Yes  No If yes, the Applicant will need to contact Coast Mountain Bus Company regarding disruptions.

**Will this closure disrupt:** Garbage/Recycling Routes or Pick Up?  Yes  No If yes, the Applicant will need to assist the contractor and/or contact the City's Environmental Services Group. [www.coquitlam.ca/trashtalk](http://www.coquitlam.ca/trashtalk)

These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

**Traffic Control Plan\*:**

- (a) Traffic Management Manual for Work on Roadways Figure Number \_\_\_\_\_, or  
(b) A Traffic Control Plan (*attach separately*) indicating signage, taper lengths, direction of traffic, work area, and north arrow

**Traffic control persons (flag persons) on duty?**  Yes  No If yes, specify how many: \_\_\_\_\_

**\* Important Notice:** All operations within the road right-of-way must comply with Worksafe BC regulations and BC Ministry of Transportation standards for work on roadways.

**Application Checklist**

- Permit Fee
- Prime Contractor Designation Letter
- City of Coquitlam Certificate of Insurance
- Traffic Control Plan or Traffic Management Manual for Work on Roadways Figure Number
- Coast Mountain Bus Company (Phone: 778-593-5774 | Email: [special.events@coastmountainbus.com](mailto:special.events@coastmountainbus.com)) contacted regarding impact to bus routes and bus stops
- City of Coquitlam Environmental Services Group (Phone: 604-927-3500 | Email: [wastereduction@coquitlam.ca](mailto:wastereduction@coquitlam.ca)) contacted regarding impact to garbage/recycling routes and pick up

I **HEREBY AGREE** to the terms stipulated herein and further agree to indemnify and save harmless the City against any and all claims, actions, or expenses whatsoever or by whomsoever brought against the City by the reason of the City granting us this Road and Sidewalk Closure Permit. I further agree to accept responsibility to ensure proper situation control and street sweeping for the duration of the road or sidewalk obstruction.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Applicant Signature

**Office Use Only PERMIT STATUS**

- Permit Fee  Prime Contractor Letter  Certificate of Insurance
- Traffic Control Plan  Impact to bus service  Impact garbage and recycling collection

Request is denied for the following reason(s): \_\_\_\_\_  
\_\_\_\_\_

Request is approved with the following change(s): \_\_\_\_\_  
\_\_\_\_\_

Request is approved as submitted

\_\_\_\_\_  
Date

\_\_\_\_\_  
Traffic Technologist or Designate

These supplementary Specifications must be read in conjunction with the Master Municipal Specifications contained in the Master Municipal Construction Documents (Platinum), Volume II, 2009.

# ***Appendix B - Location Maps***



<b>Pipe ID</b>	STPI08261
<b>Street / Road Classification</b>	ROW at 1790 Harbour Dr
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH08253
<b>Downstream Manhole</b>	N/A
<b>Existing Pipe Diameter and Material</b>	200 CONC
<b>Total Pipe Length</b>	27.74
<b>Condition</b>	Deteriorated

Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

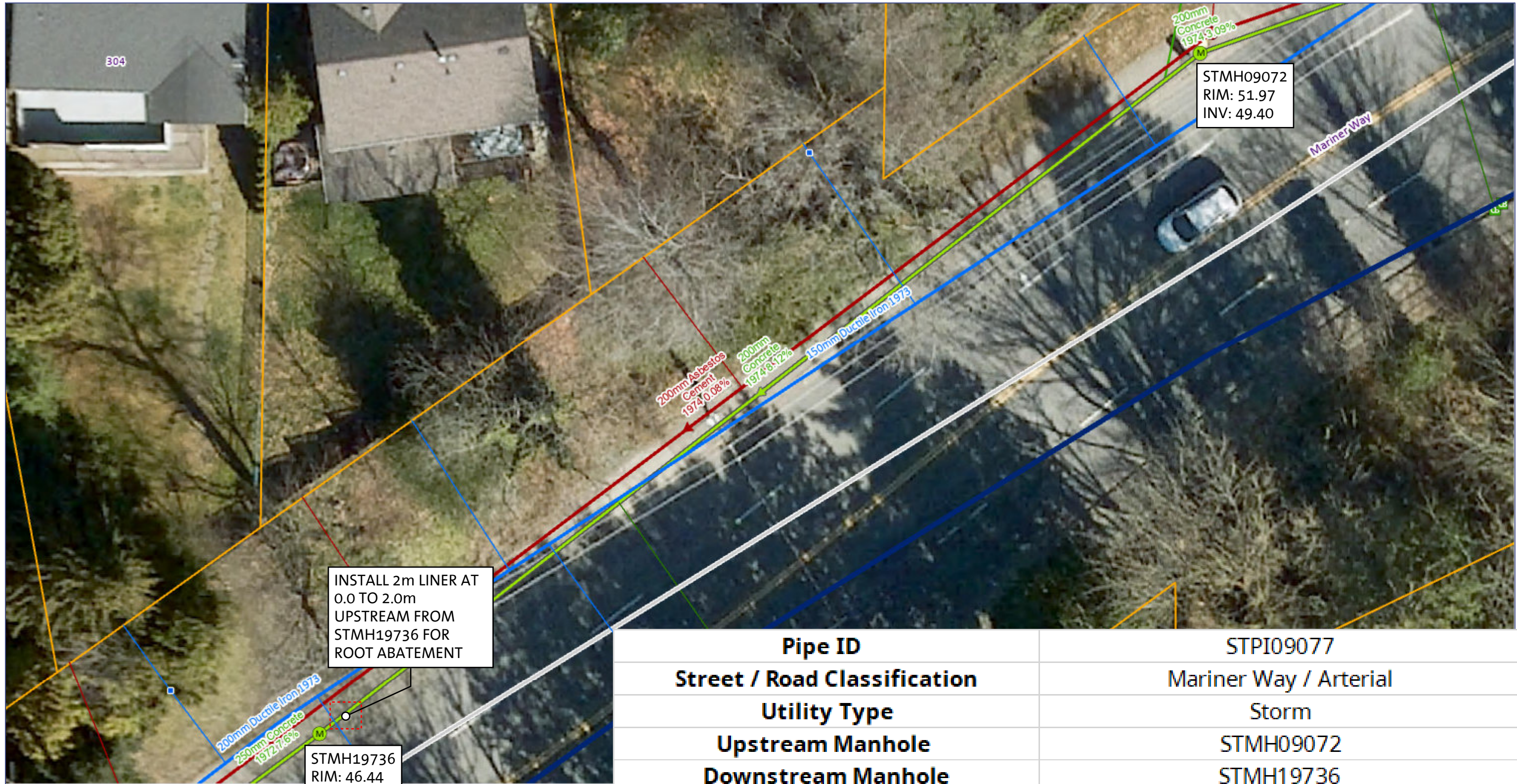


North

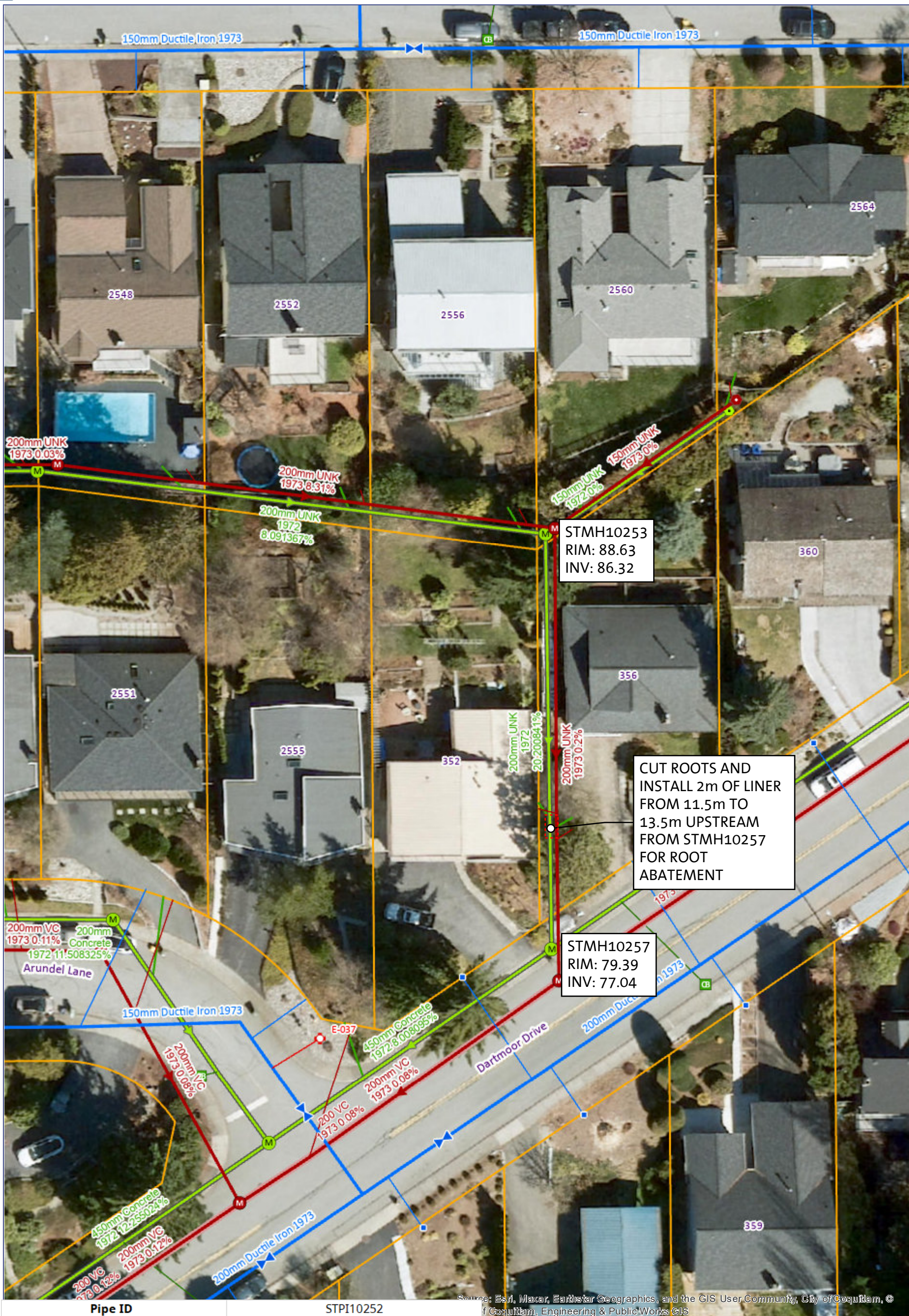


STPI09077

Coquitlam



<b>Pipe ID</b>	STPI09077
<b>Street / Road Classification</b>	Mariner Way / Arterial
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH09072
<b>Downstream Manhole</b>	STMH19736
<b>Existing Pipe Diameter and Material</b>	200 CONC
<b>Total Pipe Length</b>	54.6
<b>Condition</b>	Deteriorated



CUT ROOTS AND  
INSTALL 2m OF LINER  
FROM 11.5m TO  
13.5m UPSTREAM  
FROM STMH10257  
FOR ROOT  
ABATEMENT

STMH10253  
RIM: 88.63  
INV: 86.32

STMH10257  
RIM: 79.39  
INV: 77.04

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

<b>Pipe ID</b>	STPI10252
<b>Street / Road Classification</b>	356 Dartmoor Drive
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH10253
<b>Downstream Manhole</b>	STMH10257
<b>Existing Pipe Diameter and Material</b>	200 REINFORCED CONC
<b>Total Pipe Length</b>	42.82
<b>Condition</b>	Deteriorated

0.025 km



North

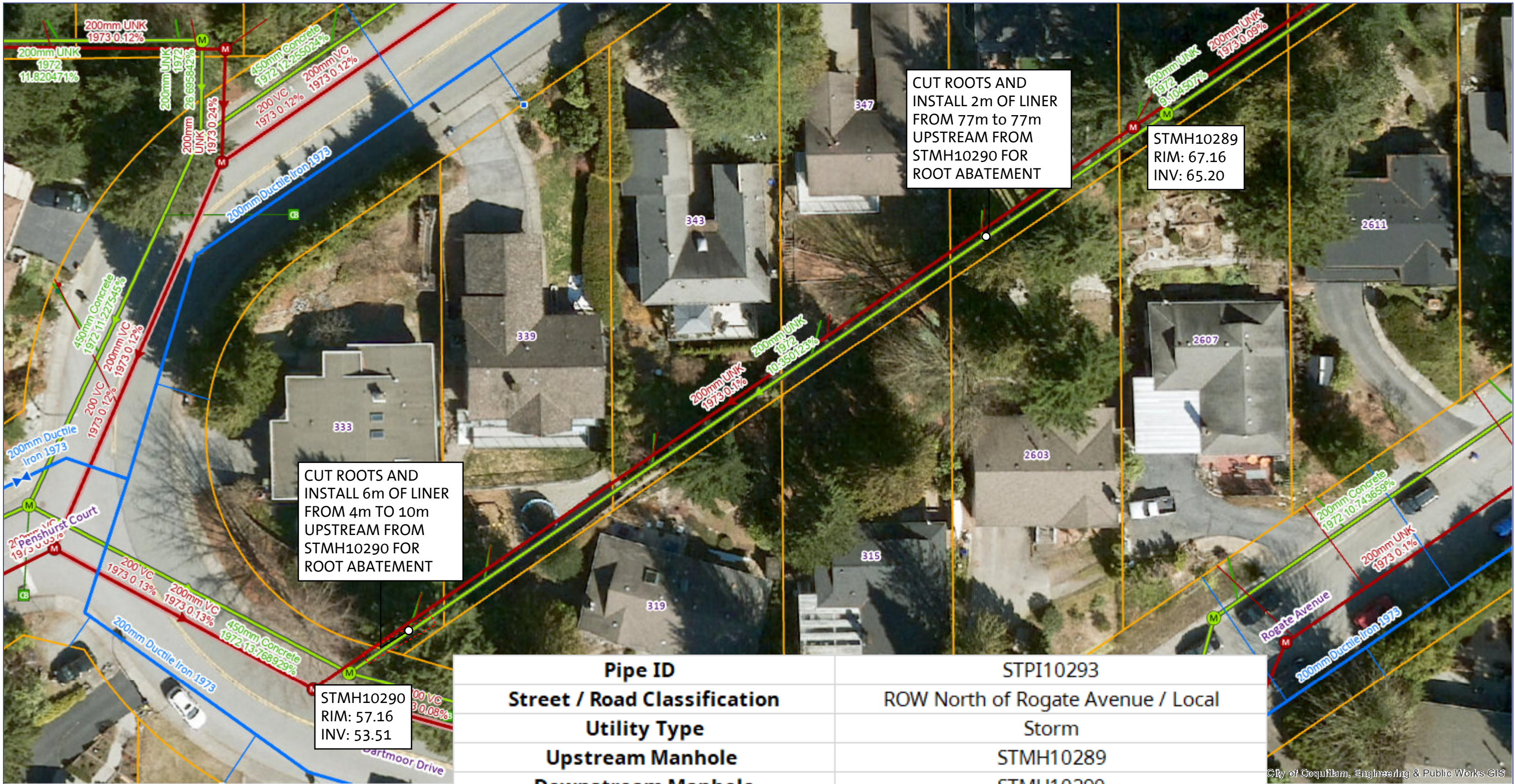


<b>Pipe ID</b>	STPI10257
<b>Street / Road Classification</b>	390 Dartmoor Drive
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH10325
<b>Downstream Manhole</b>	STMH10324
<b>Existing Pipe Diameter and Material</b>	375 CONC.
<b>Total Pipe Length</b>	42.37
<b>Condition</b>	Deteriorated

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

0.025 km

North



CUT ROOTS AND  
INSTALL 6m OF LINER  
FROM 4m TO 10m  
UPSTREAM FROM  
STMH10290 FOR  
ROOT ABATEMENT

CUT ROOTS AND  
INSTALL 2m OF LINER  
FROM 77m TO 77m  
UPSTREAM FROM  
STMH10290 FOR  
ROOT ABATEMENT

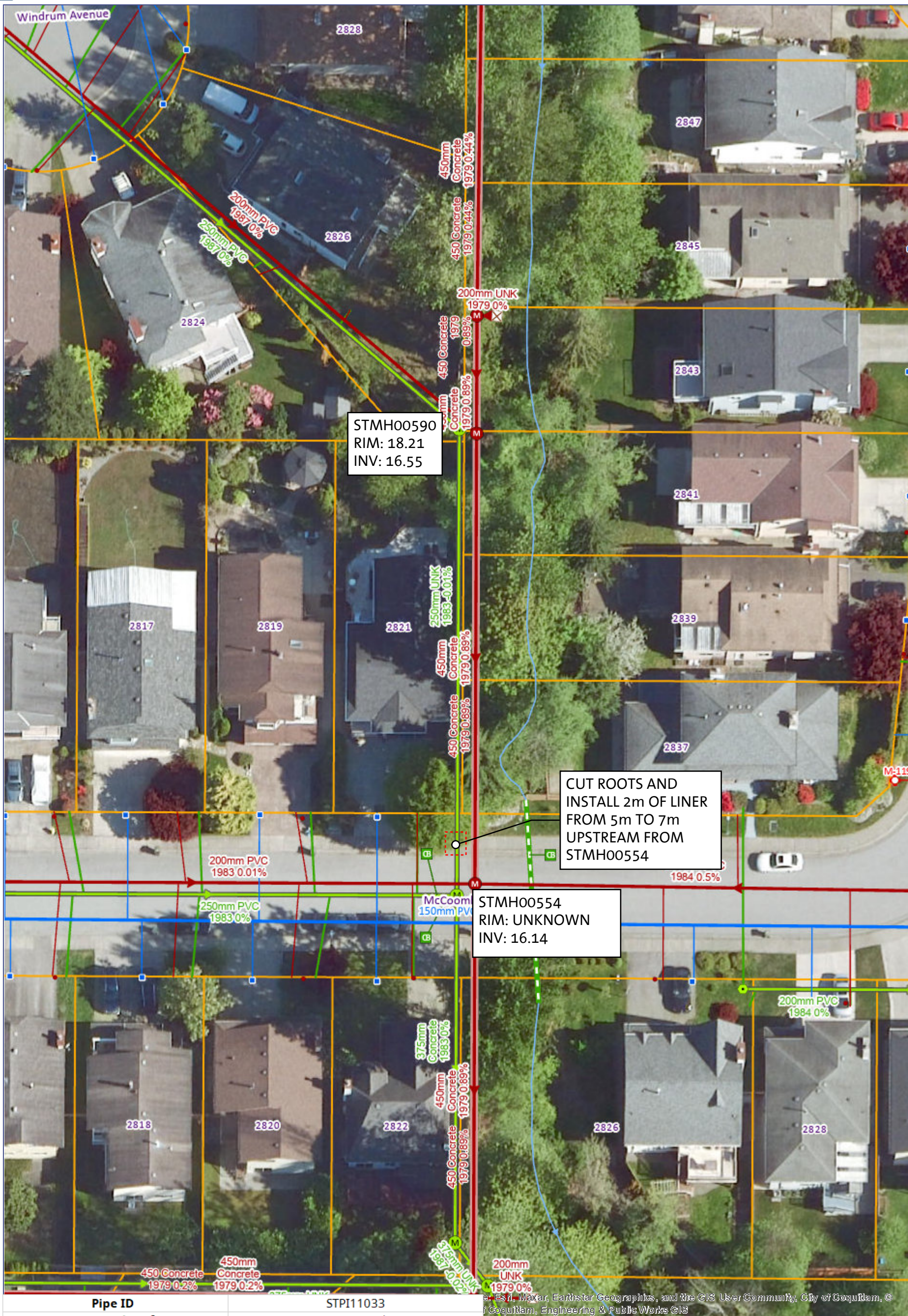
STMH10289  
RIM: 67.16  
INV: 65.20

STMH10290  
RIM: 57.16  
INV: 53.51

<b>Pipe ID</b>	STPI10293
<b>Street / Road Classification</b>	ROW North of Rogate Avenue / Local
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH10289
<b>Downstream Manhole</b>	STMH10290
<b>Existing Pipe Diameter and Material</b>	200 CONC
<b>Total Pipe Length</b>	97.68
<b>Condition</b>	Deteriorated







STMH00590  
RIM: 18.21  
INV: 16.55

CUT ROOTS AND  
INSTALL 2m OF LINER  
FROM 5m TO 7m  
UPSTREAM FROM  
STMH00554

STMH00554  
RIM: UNKNOWN  
INV: 16.14

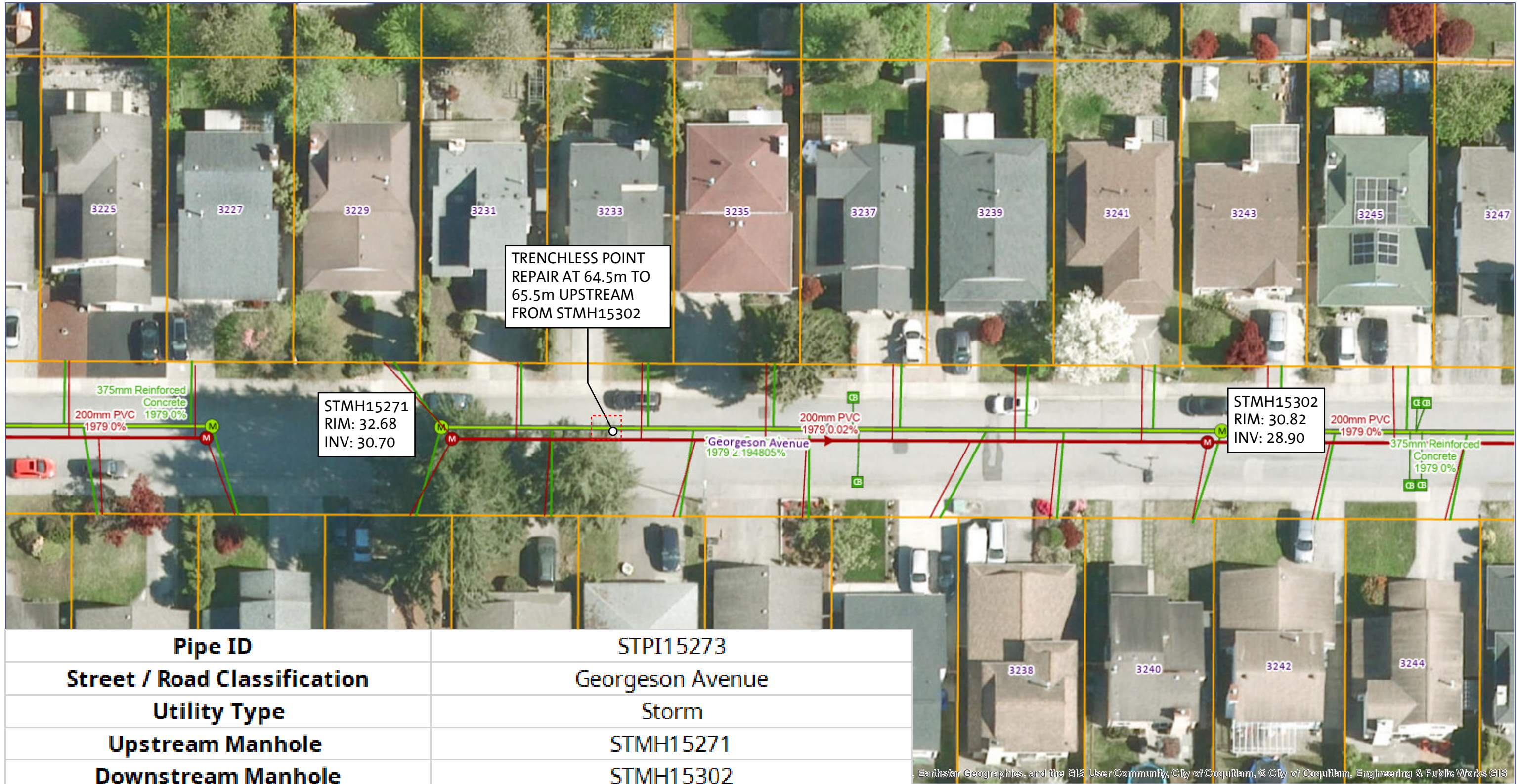
<b>Pipe ID</b>	STPI11033
<b>Street / Road Classification</b>	2821 McCoomb Dr
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH00590
<b>Downstream Manhole</b>	STMH00554
<b>Existing Pipe Diameter and Material</b>	250 Reinforced Conc.
<b>Total Pipe Length</b>	47
<b>Condition</b>	Deteriorated

© 2018 Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © Coquitlam, Engineering & Public Works GIS

0.025 km



North

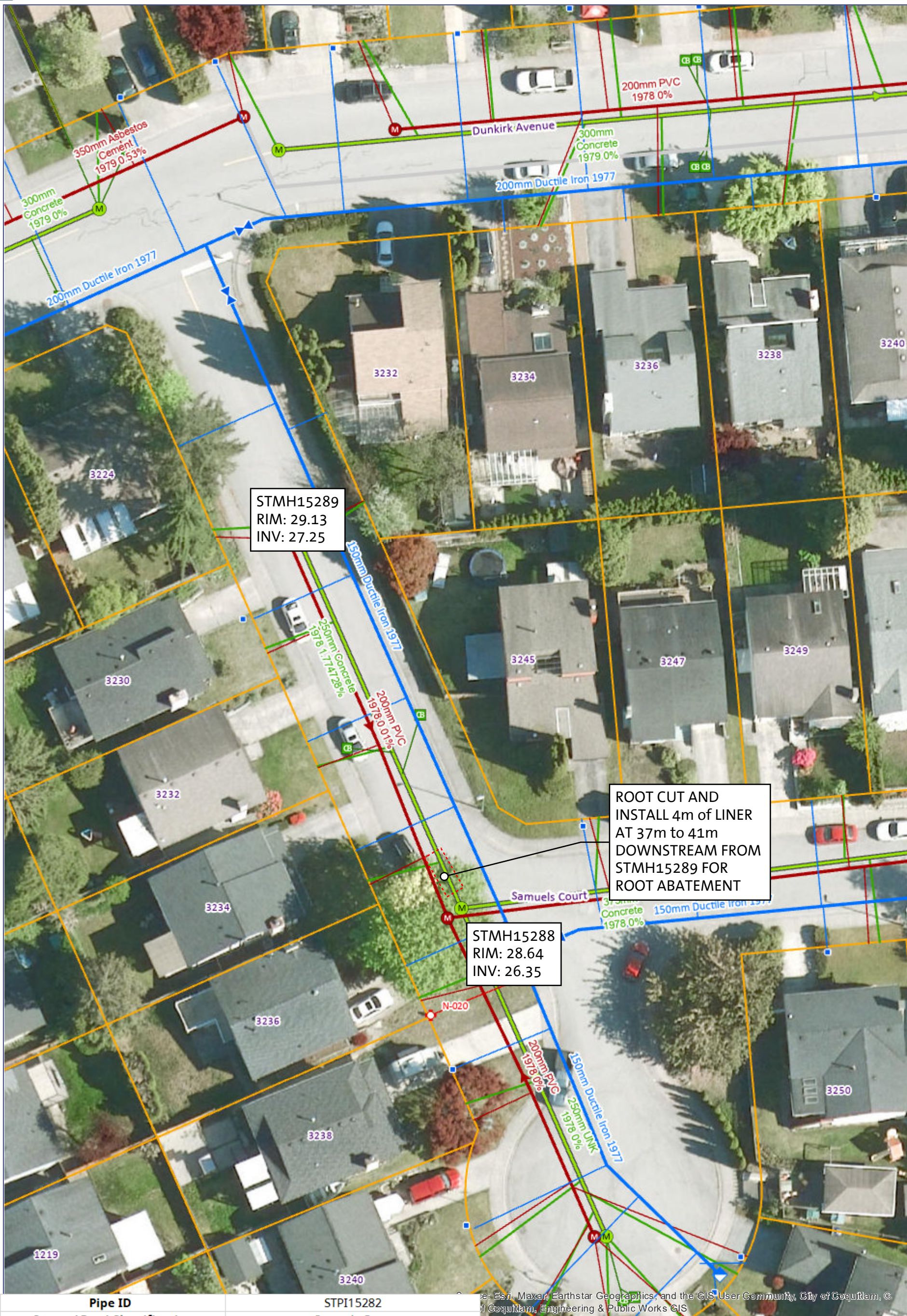


<b>Pipe ID</b>	STPI15273
<b>Street / Road Classification</b>	Georgeson Avenue
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH15271
<b>Downstream Manhole</b>	STMH15302
<b>Existing Pipe Diameter and Material</b>	250 CONC
<b>Total Pipe Length</b>	77m
<b>Condition</b>	Deteriorated

Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS



North



ROOT CUT AND  
INSTALL 4m of LINER  
AT 37m to 41m  
DOWNSTREAM FROM  
STMH15289 FOR  
ROOT ABATEMENT

STMH15289  
RIM: 29.13  
INV: 27.25

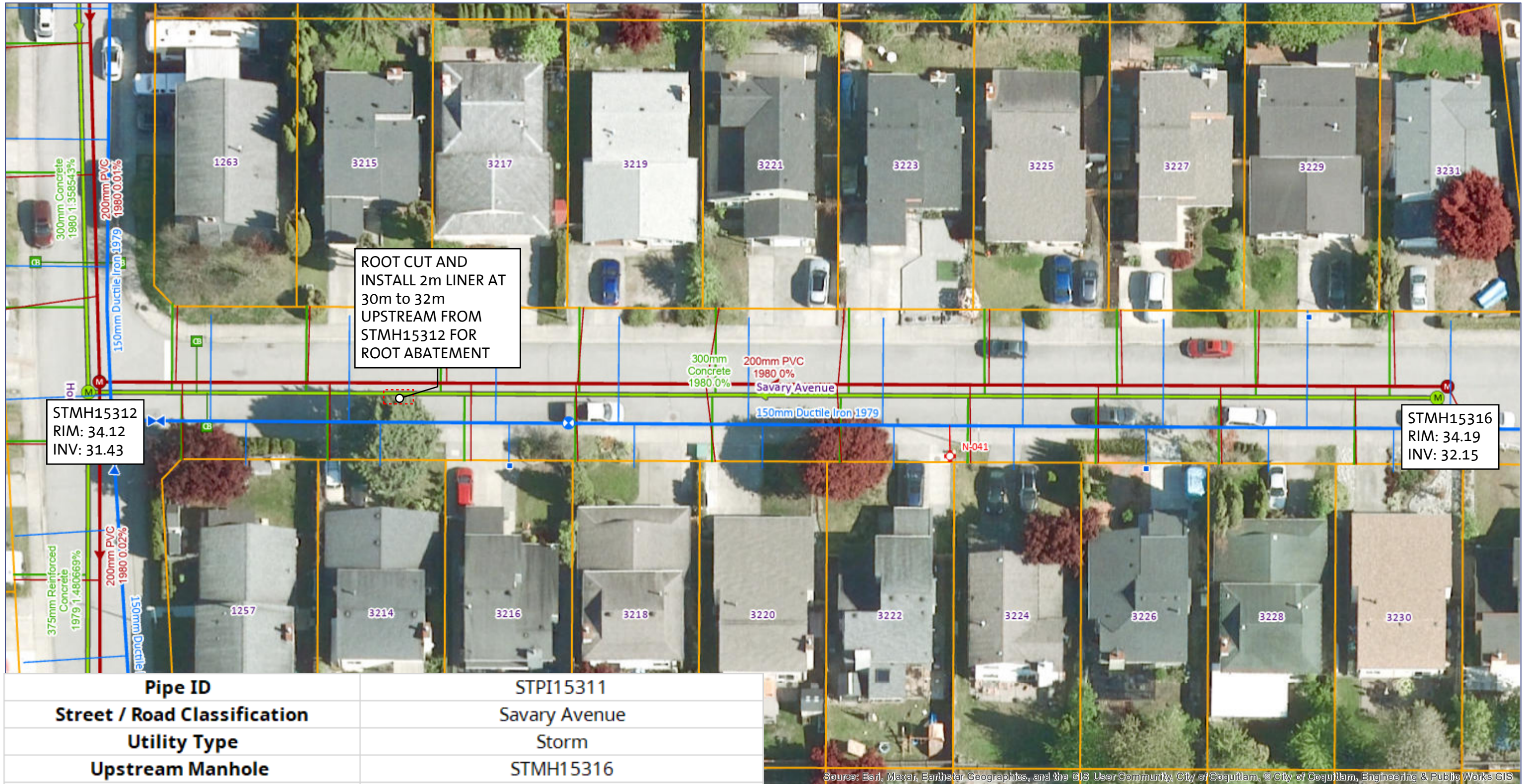
STMH15288  
RIM: 28.64  
INV: 26.35

<b>Pipe ID</b>	STPI15282
<b>Street / Road Classification</b>	Samuels Court
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH15288
<b>Downstream Manhole</b>	STMH15289
<b>Existing Pipe Diameter and Material</b>	250 CONC
<b>Total Pipe Length</b>	42.26m
<b>Condition</b>	Deteriorated

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

0.025 km

North

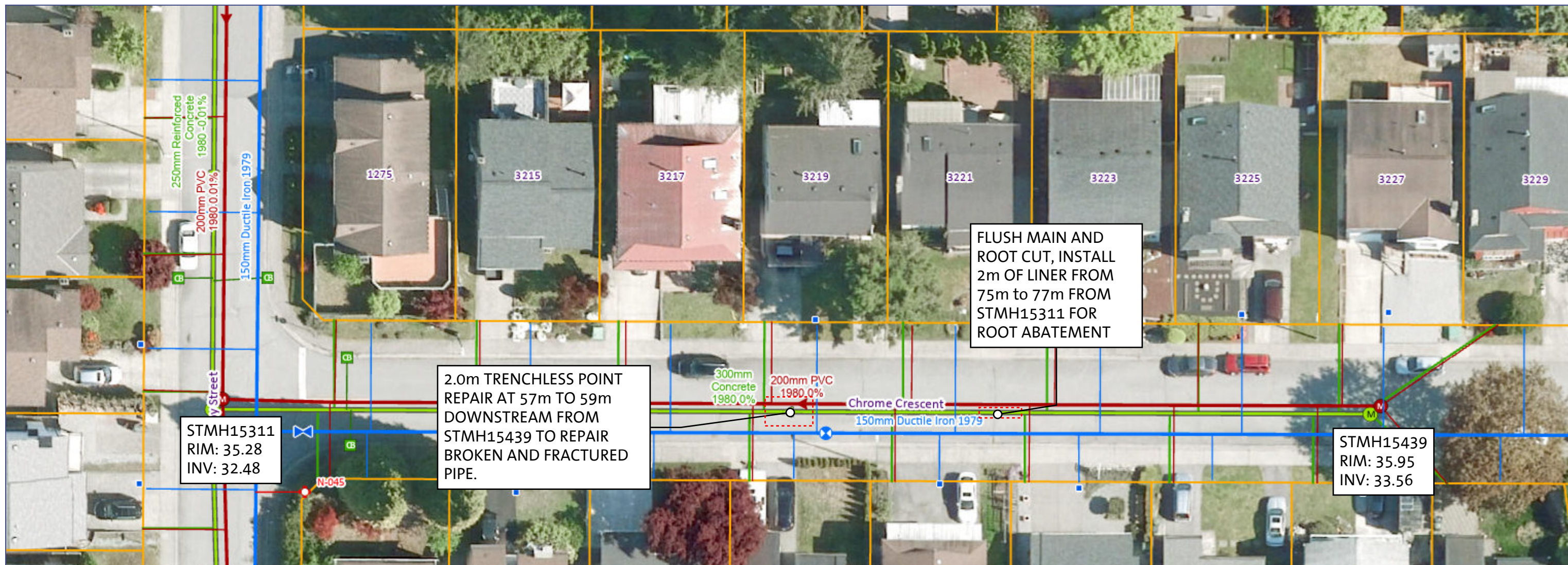


Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

<b>Pipe ID</b>	STPI15311
<b>Street / Road Classification</b>	Savary Avenue
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH15316
<b>Downstream Manhole</b>	STMH15312
<b>Existing Pipe Diameter and Material</b>	300 CONC
<b>Total Pipe Length</b>	132.50m
<b>Condition</b>	Deteriorated

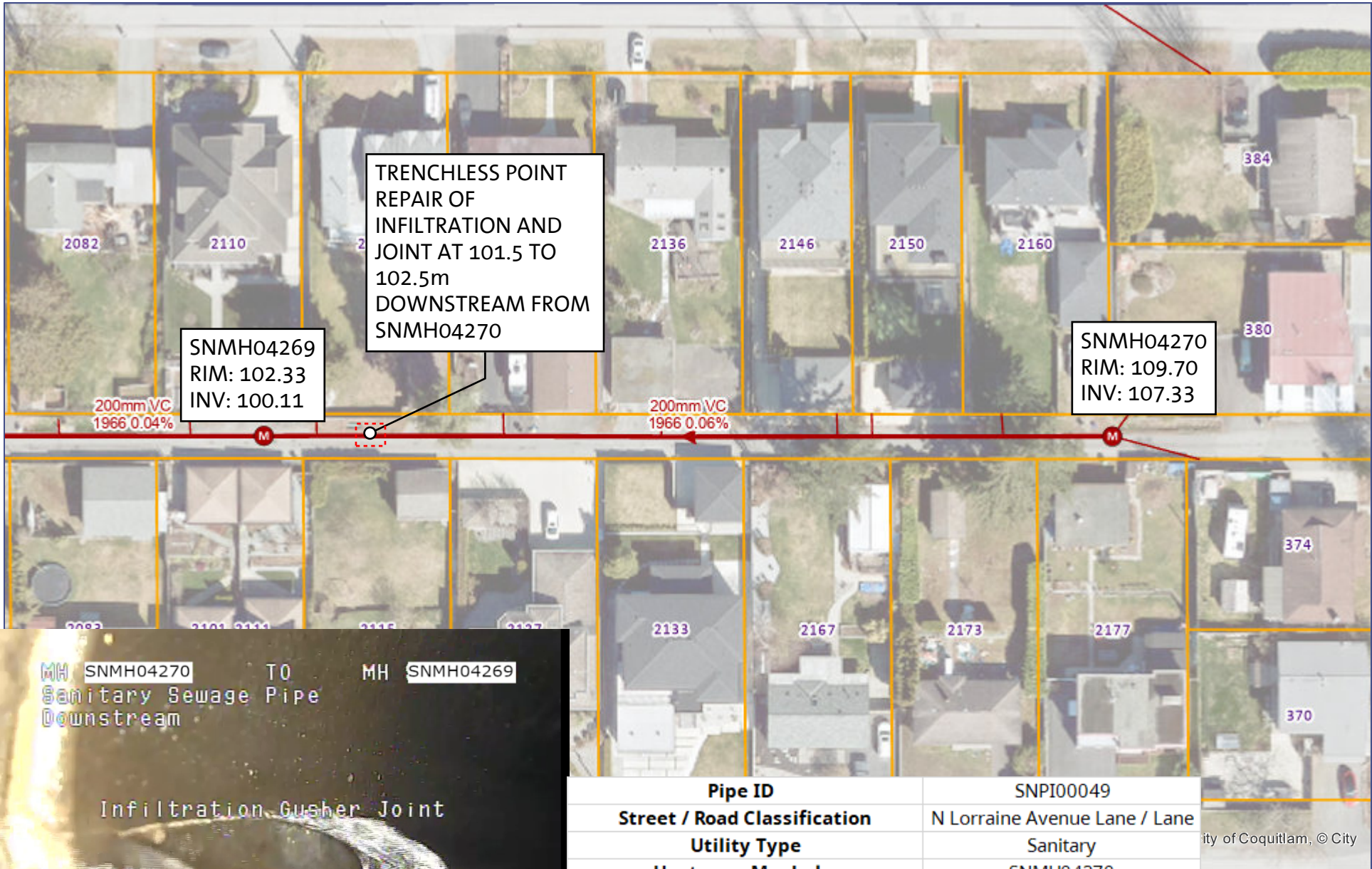


North



STMH15439 TO STMH15311  
Stormwater Pipe  
Downstream

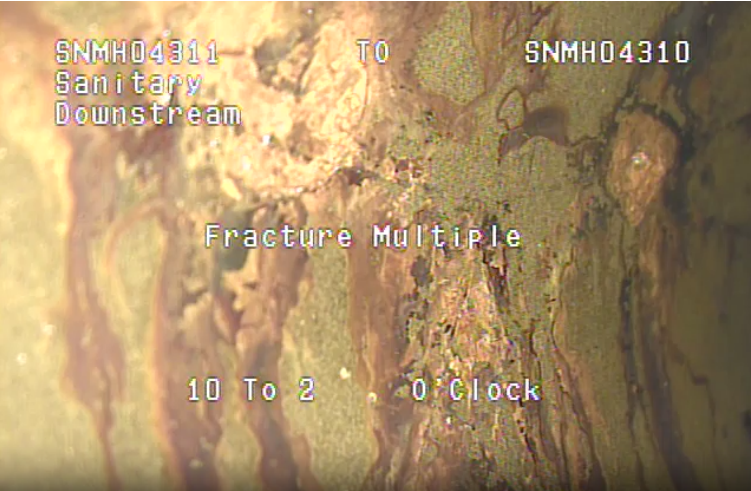
<b>Pipe ID</b>	STPI15313
<b>Street / Road Classification</b>	Chrome Crescent
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH15439
<b>Downstream Manhole</b>	STMH15311
<b>Existing Pipe Diameter and Material</b>	300 CONC
<b>Total Pipe Length</b>	109.7
<b>Condition</b>	Deteriorated



<b>Pipe ID</b>	SNPI00049
<b>Street / Road Classification</b>	N Lorraine Avenue Lane / Lane
<b>Utility Type</b>	Sanitary
<b>Upstream Manhole</b>	SNMH04270
<b>Downstream Manhole</b>	SNMH04269
<b>Existing Pipe Diameter and Material</b>	200 VC
<b>Total Pipe Length</b>	115.82
<b>Condition</b>	Deteriorated

City of Coquitlam, © City





SNMH04311  
RIM: 132.46  
INV: 130.31

200mm VC  
1966 0.03%

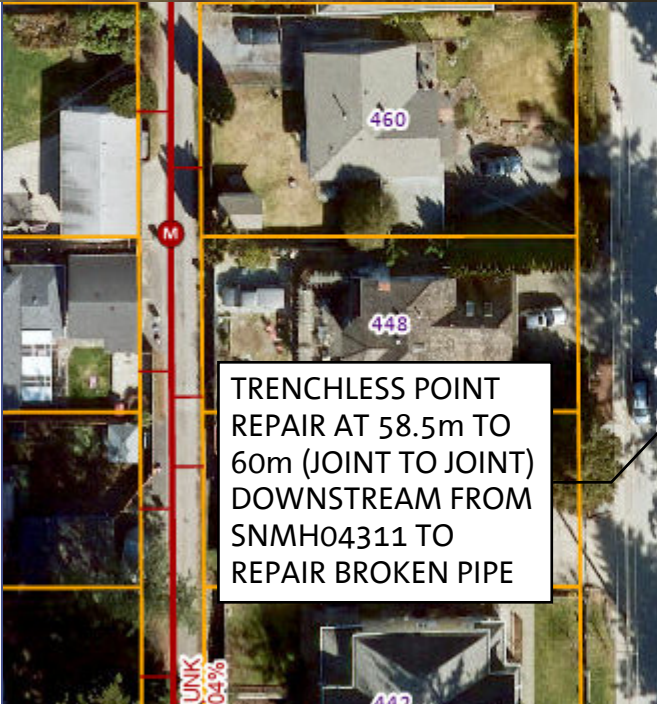
200mm VC  
1966 0.03%

200mm VC  
966

SNMH04310  
RIM: 128.32  
INV: 125.76

TRENCHLESS POINT REPAIR AT 51m TO 52.5m (JOINT TO JOINT) DOWNSTREAM FROM SNMH04311 TO REPAIR FRACTURED PIPE

TRENCHLESS POINT REPAIR AT 58.5m TO 60m (JOINT TO JOINT) DOWNSTREAM FROM SNMH04311 TO REPAIR BROKEN PIPE



Pipe ID	SNPI00088
Street / Road Classification	Mundy Street / Collector
Utility Type	Sanitary
Upstream Manhole	SNMH04311
Downstream Manhole	SNMH04310
Existing Pipe Diameter and Material	200 VC
Total Pipe Length	121.92
Condition	Deteriorated

Map Printed 6/5/2024

The City of Coquitlam assumes no responsibility with respect to the accuracy, completeness or appropriateness of information shown.

0



North



MH SNMH06078 TO MH SNMH06795  
Sanitary Sewage Pipe  
Downstream



SNMH06078  
RIM: 40.00  
INV: UNKNOWN

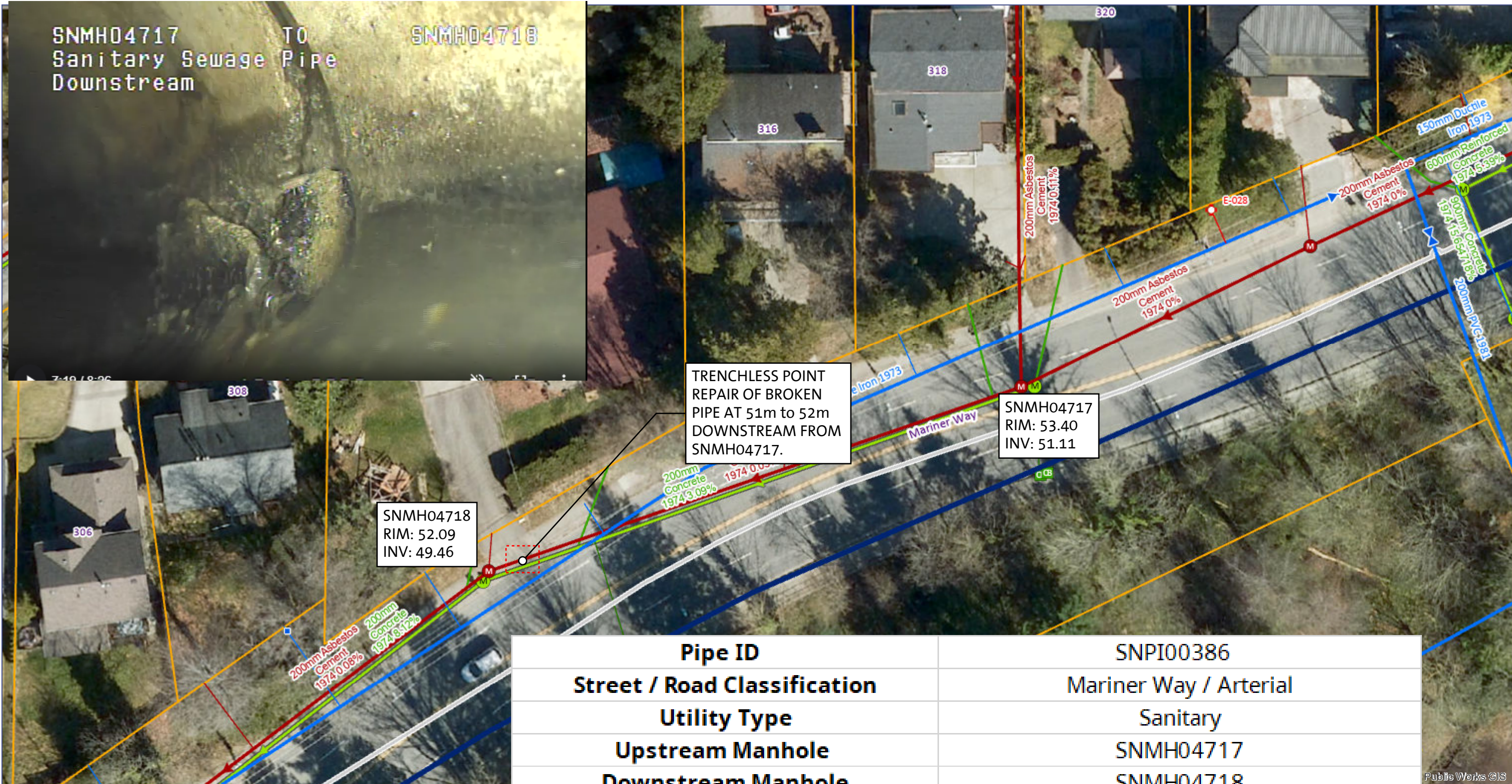
TRENCHLESS POINT REPAIR OF  
BROKEN PIPE BETWEEN 29m to  
30m DOWNSTREAM FROM  
SNMH06078

SNMH06795  
RIM: 34.36  
INV: 31.58

Pipe ID	SNPI00274
Street / Road Classification	ROW between 1967 and 1977 Cape Horn Ave
Utility Type	Sanitary
Upstream Manhole	SNMH06078
Downstream Manhole	SNMH06795
Existing Pipe Diameter and Material	200 CONC
Total Pipe Length	39.01
Condition	Deteriorated

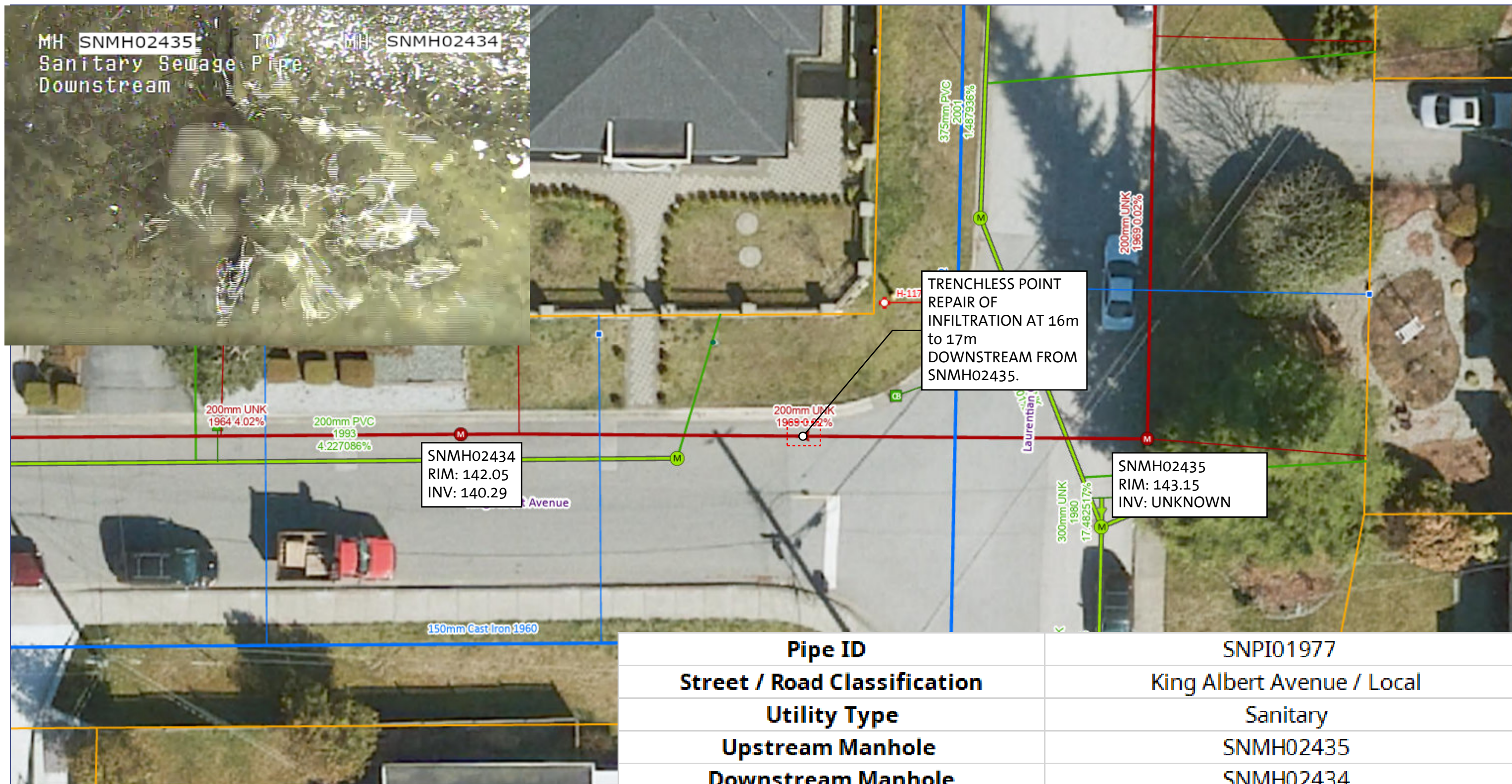




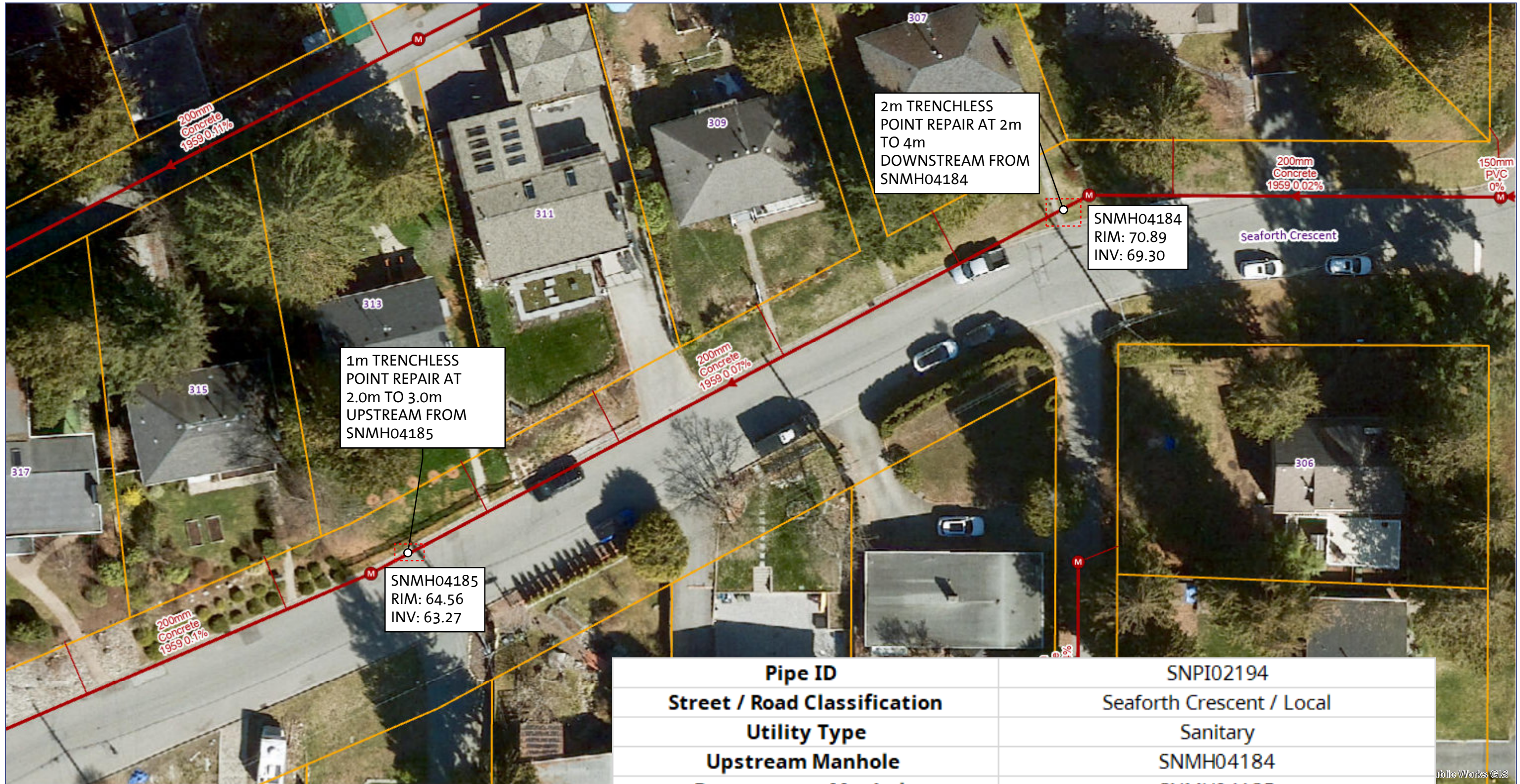


<b>Pipe ID</b>	SNPI00386
<b>Street / Road Classification</b>	Mariner Way / Arterial
<b>Utility Type</b>	Sanitary
<b>Upstream Manhole</b>	SNMH04717
<b>Downstream Manhole</b>	SNMH04718
<b>Existing Pipe Diameter and Material</b>	200 AC
<b>Total Pipe Length</b>	55.13
<b>Condition</b>	Deteriorated



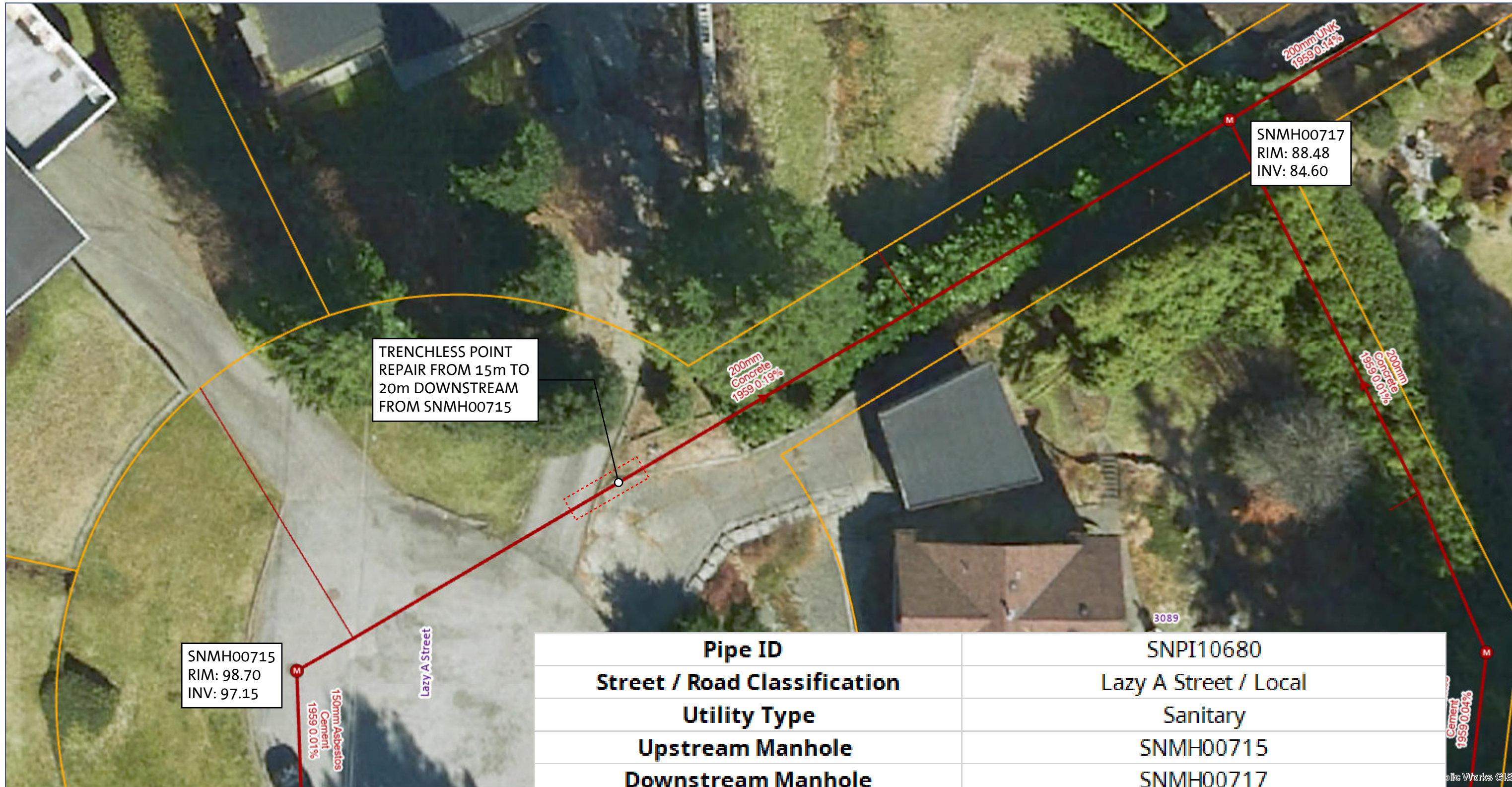


<b>Pipe ID</b>	SNPI01977
<b>Street / Road Classification</b>	King Albert Avenue / Local
<b>Utility Type</b>	Sanitary
<b>Upstream Manhole</b>	SNMH02435
<b>Downstream Manhole</b>	SNMH02434
<b>Existing Pipe Diameter and Material</b>	200 CONC
<b>Total Pipe Length</b>	33.83
<b>Condition</b>	Deteriorated



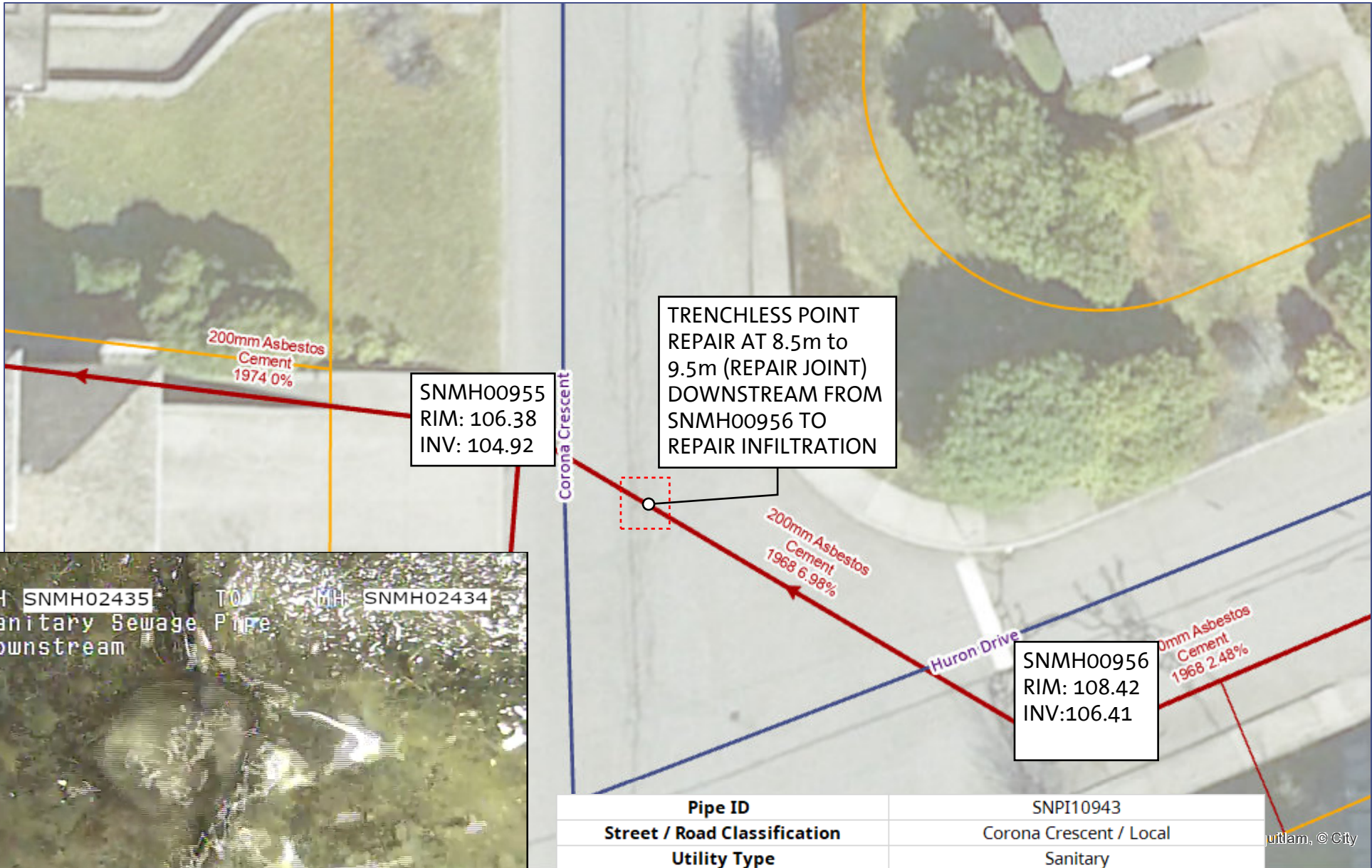
<b>Pipe ID</b>	SNPI02194
<b>Street / Road Classification</b>	Seaforth Crescent / Local
<b>Utility Type</b>	Sanitary
<b>Upstream Manhole</b>	SNMH04184
<b>Downstream Manhole</b>	SNMH04185
<b>Existing Pipe Diameter and Material</b>	200 CONC
<b>Total Pipe Length</b>	79.93
<b>Condition</b>	Deteriorated





<b>Pipe ID</b>	SNPI10680
<b>Street / Road Classification</b>	Lazy A Street / Local
<b>Utility Type</b>	Sanitary
<b>Upstream Manhole</b>	SNMH00715
<b>Downstream Manhole</b>	SNMH00717
<b>Existing Pipe Diameter and Material</b>	200 CONC
<b>Total Pipe Length</b>	53.64
<b>Condition</b>	Deteriorated





<b>Pipe ID</b>	SNPI10943
<b>Street / Road Classification</b>	Corona Crescent / Local
<b>Utility Type</b>	Sanitary
<b>Upstream Manhole</b>	SNMH00956
<b>Downstream Manhole</b>	SNMH00955
<b>Existing Pipe Diameter and Material</b>	200 AC
<b>Total Pipe Length</b>	21.45
<b>Condition</b>	Deteriorated



The City of Coquitlam assumes no responsibility with respect to the accuracy, completeness or appropriateness of information shown.

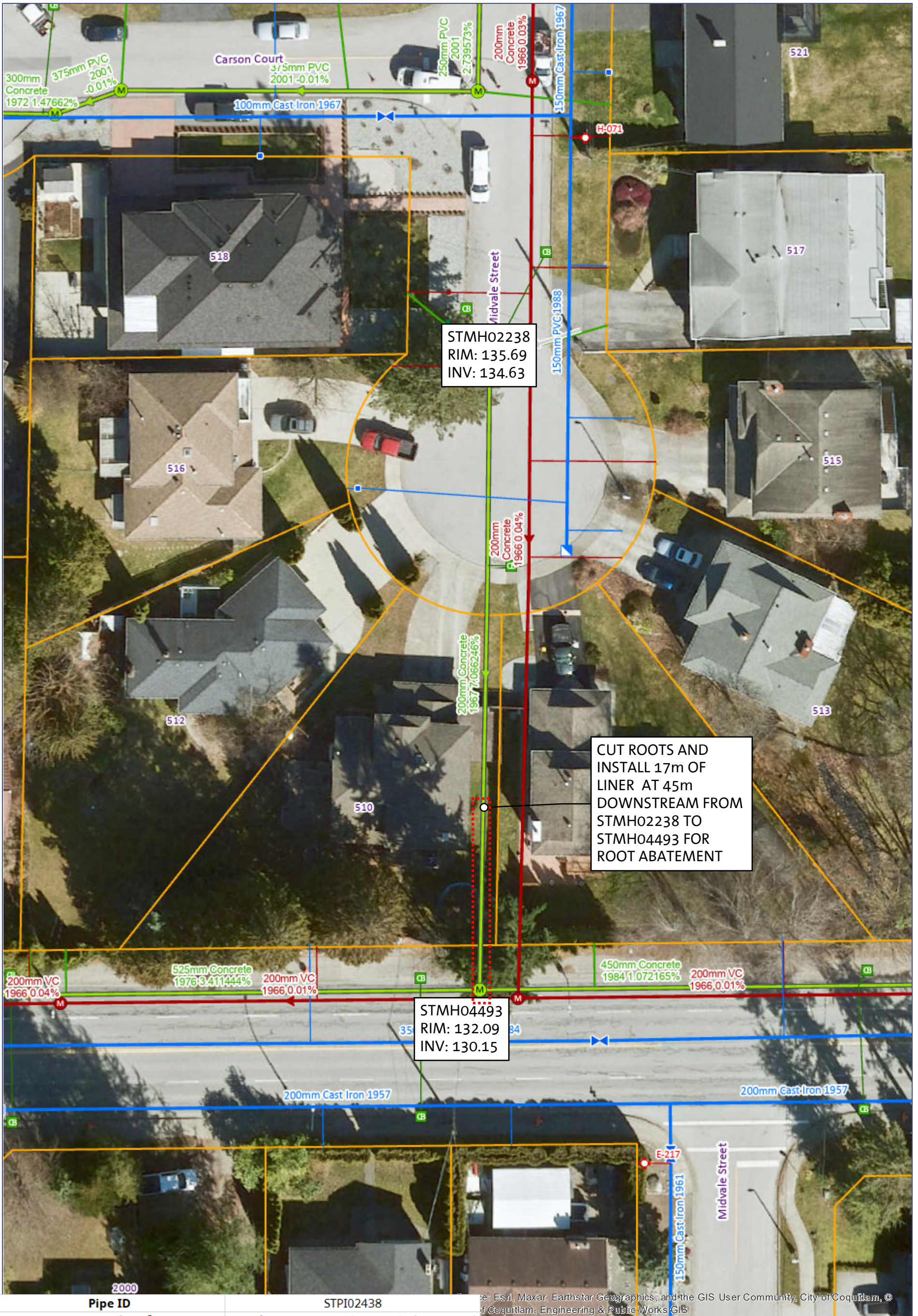
Coquitlam, © City





<b>Pipe ID</b>	STPI00945
<b>Street / Road Classification</b>	ROW between 2812 and 2814 McComb Dr
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH00658
<b>Downstream Manhole</b>	STMH00552
<b>Existing Pipe Diameter and Material</b>	375 CONC
<b>Total Pipe Length</b>	41.52
<b>Condition</b>	Deteriorated





CUT ROOTS AND  
INSTALL 17m OF  
LINER AT 45m  
DOWNSTREAM FROM  
STMH02238 TO  
STMH04493 FOR  
ROOT ABATEMENT

STMH04493  
RIM: 132.09  
INV: 130.15

STMH02238  
RIM: 135.69  
INV: 134.63

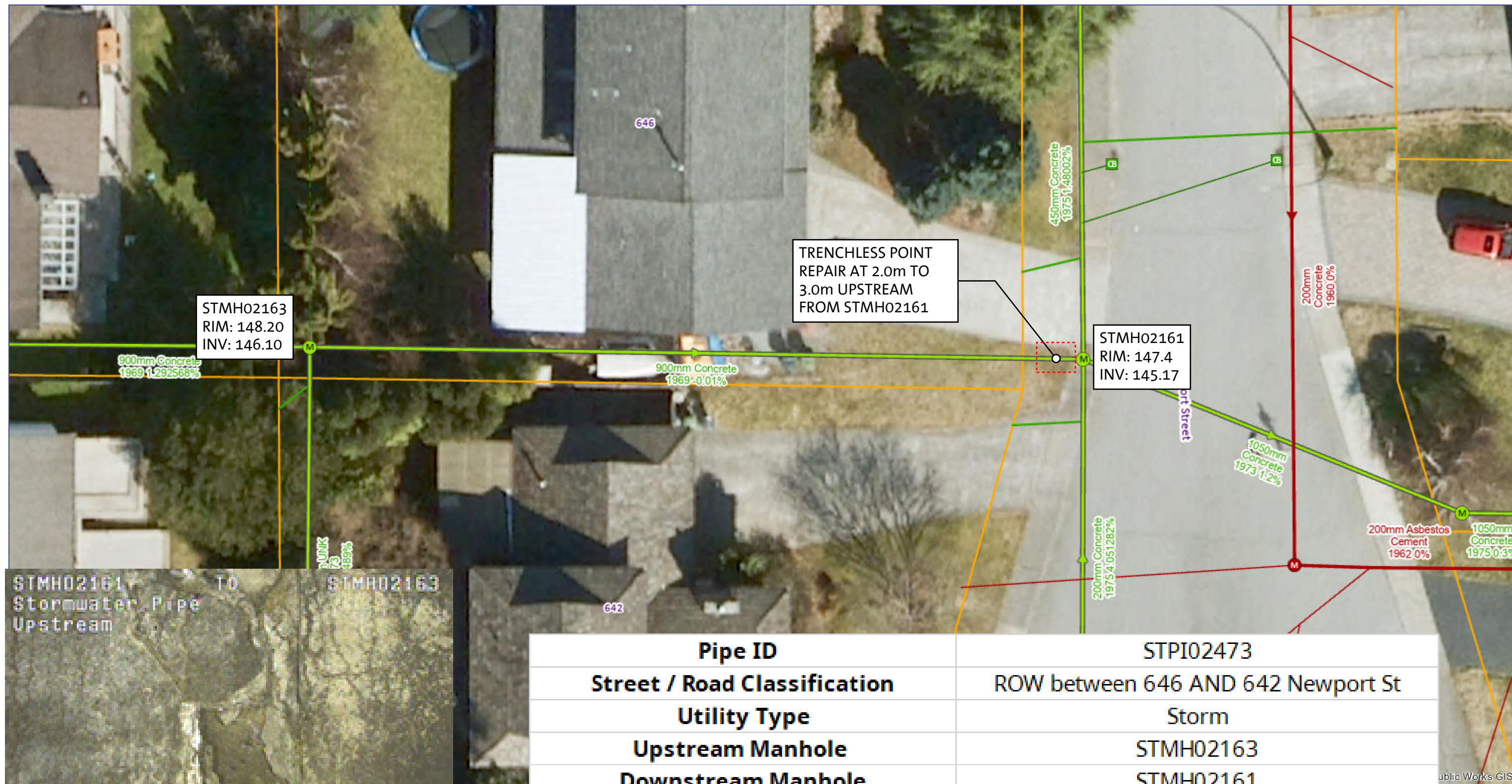
<b>Pipe ID</b>	STPI02438
<b>Street / Road Classification</b>	ROW between 510 and 511 Midvale St / Local
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH02238
<b>Downstream Manhole</b>	STMH04493
<b>Existing Pipe Diameter and Material</b>	200 CONC
<b>Total Pipe Length</b>	63.4
<b>Condition</b>	Deteriorated

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © 2023, City of Coquitlam, Engineering & Public Works GIS

0.025 km



North



<b>Pipe ID</b>	STPI02473
<b>Street / Road Classification</b>	ROW between 646 AND 642 Newport St
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH02163
<b>Downstream Manhole</b>	STMH02161
<b>Existing Pipe Diameter and Material</b>	900 CONC
<b>Total Pipe Length</b>	38.1
<b>Condition</b>	Deteriorated

Public Works GIS





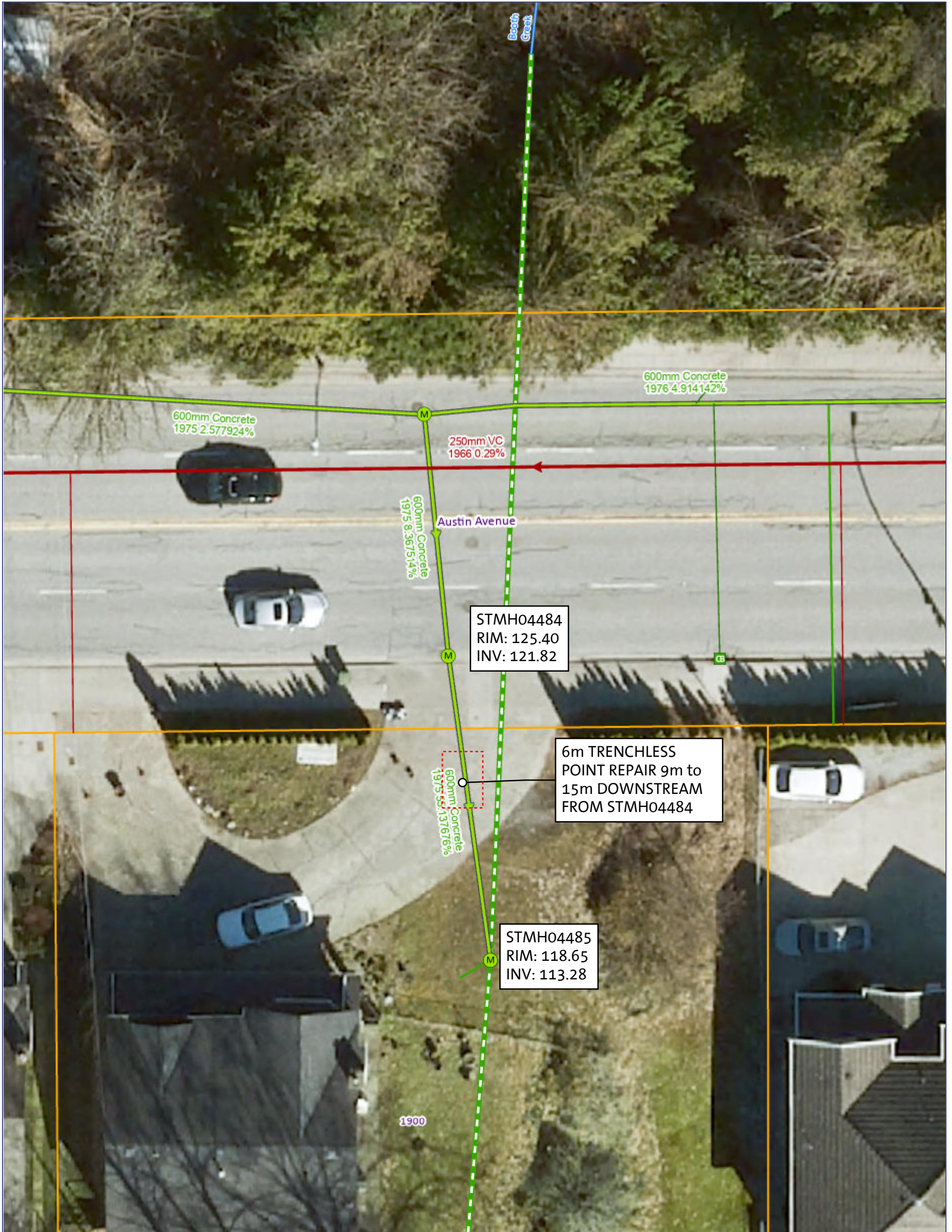


Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

<b>Pipe ID</b>	STPI04385
<b>Street / Road Classification</b>	Mundy Street / Collector
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH04345
<b>Downstream Manhole</b>	STMH04344
<b>Existing Pipe Diameter and Material</b>	375 PVC
<b>Total Pipe Length</b>	124.7
<b>Condition</b>	Deteriorated

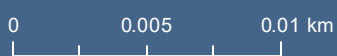
0.055 km

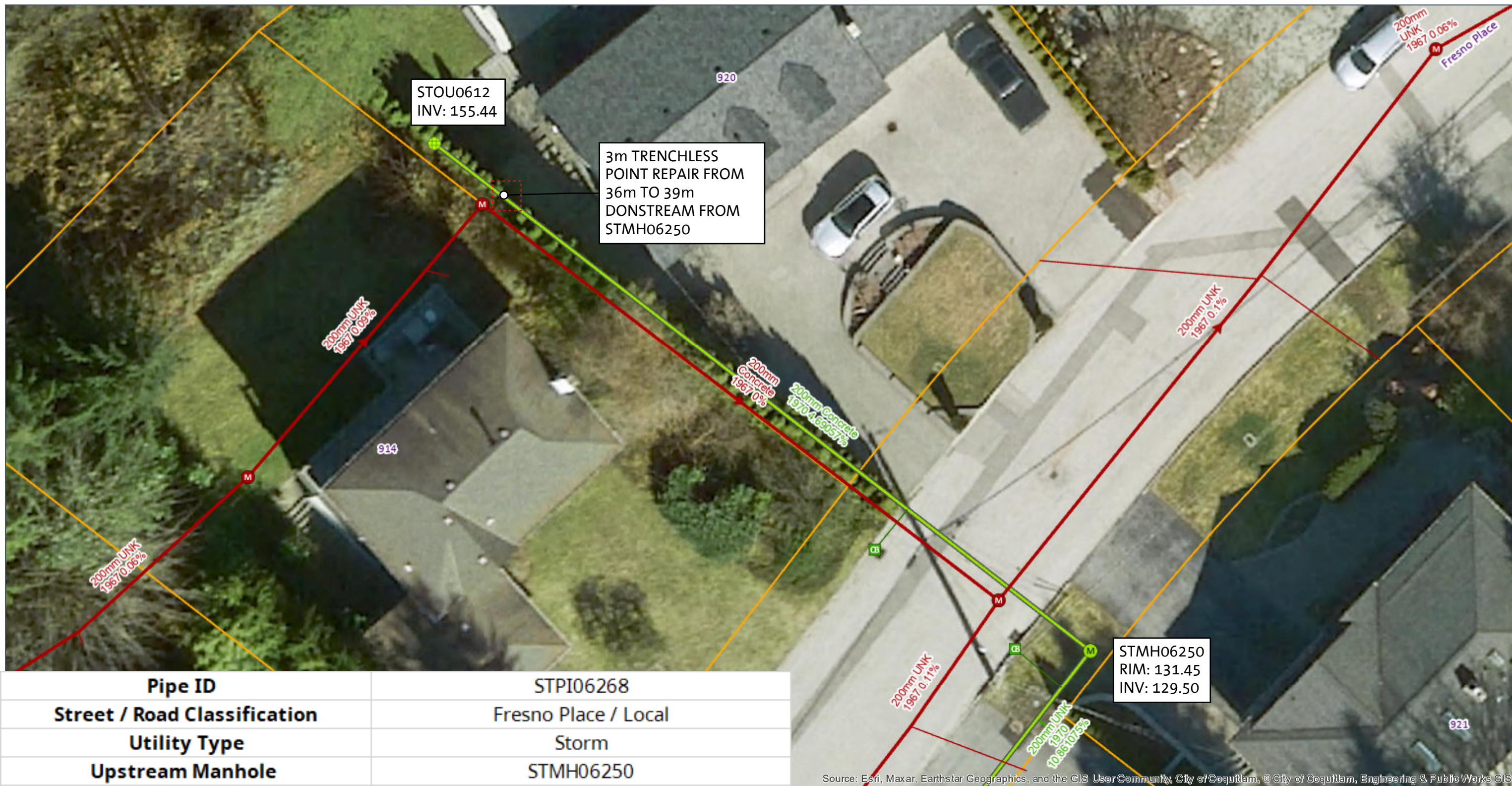
North



<b>Pipe ID</b>	STPI04757
<b>Street / Road Classification</b>	Austin Avenue / Arterial
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH04484
<b>Downstream Manhole</b>	STMH04485
<b>Existing Pipe Diameter and Material</b>	600 CONC
<b>Total Pipe Length</b>	14.89
<b>Condition</b>	Deteriorated

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © Coquitlam, Engineering & Public Works GIS





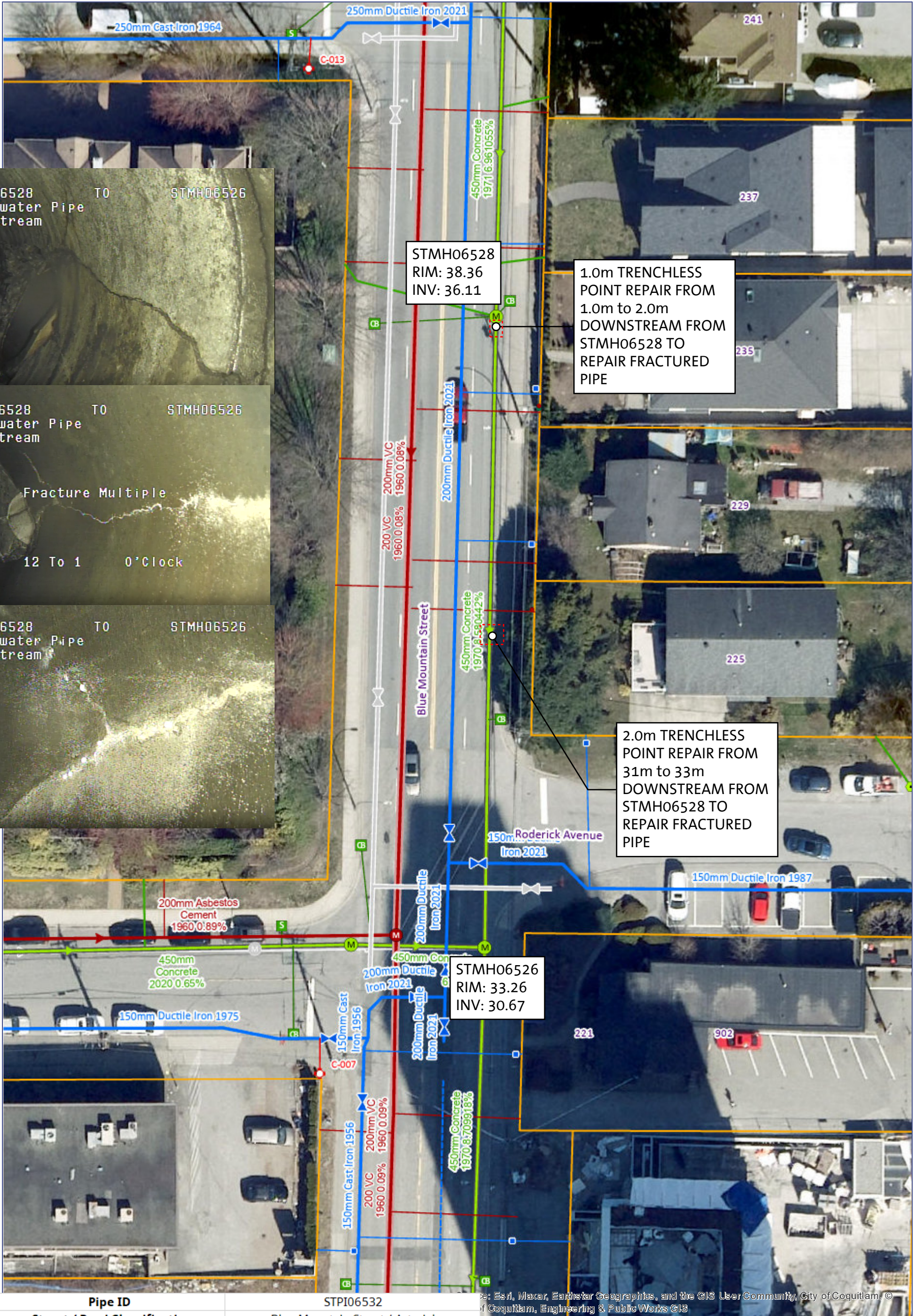
<b>Pipe ID</b>	STPI06268
<b>Street / Road Classification</b>	Fresno Place / Local
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH06250
<b>Downstream Manhole</b>	STOU06122
<b>Existing Pipe Diameter and Material</b>	200 CONC
<b>Total Pipe Length</b>	40.72
<b>Condition</b>	Deteriorated

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

0.01 km



North



STMH06528 TO STMH06526  
Stormwater Pipe  
Downstream

STMH06528 TO STMH06526  
Stormwater Pipe  
Downstream

Fracture Multiple  
12 To 1 0 Clock

STMH06528 TO STMH06526  
Stormwater Pipe  
Downstream

1.0m TRENCHLESS  
POINT REPAIR FROM  
1.0m to 2.0m  
DOWNSTREAM FROM  
STMH06528 TO  
REPAIR FRACTURED  
PIPE

2.0m TRENCHLESS  
POINT REPAIR FROM  
31m to 33m  
DOWNSTREAM FROM  
STMH06528 TO  
REPAIR FRACTURED  
PIPE

STMH06528  
RIM: 38.36  
INV: 36.11

STMH06526  
RIM: 33.26  
INV: 30.67

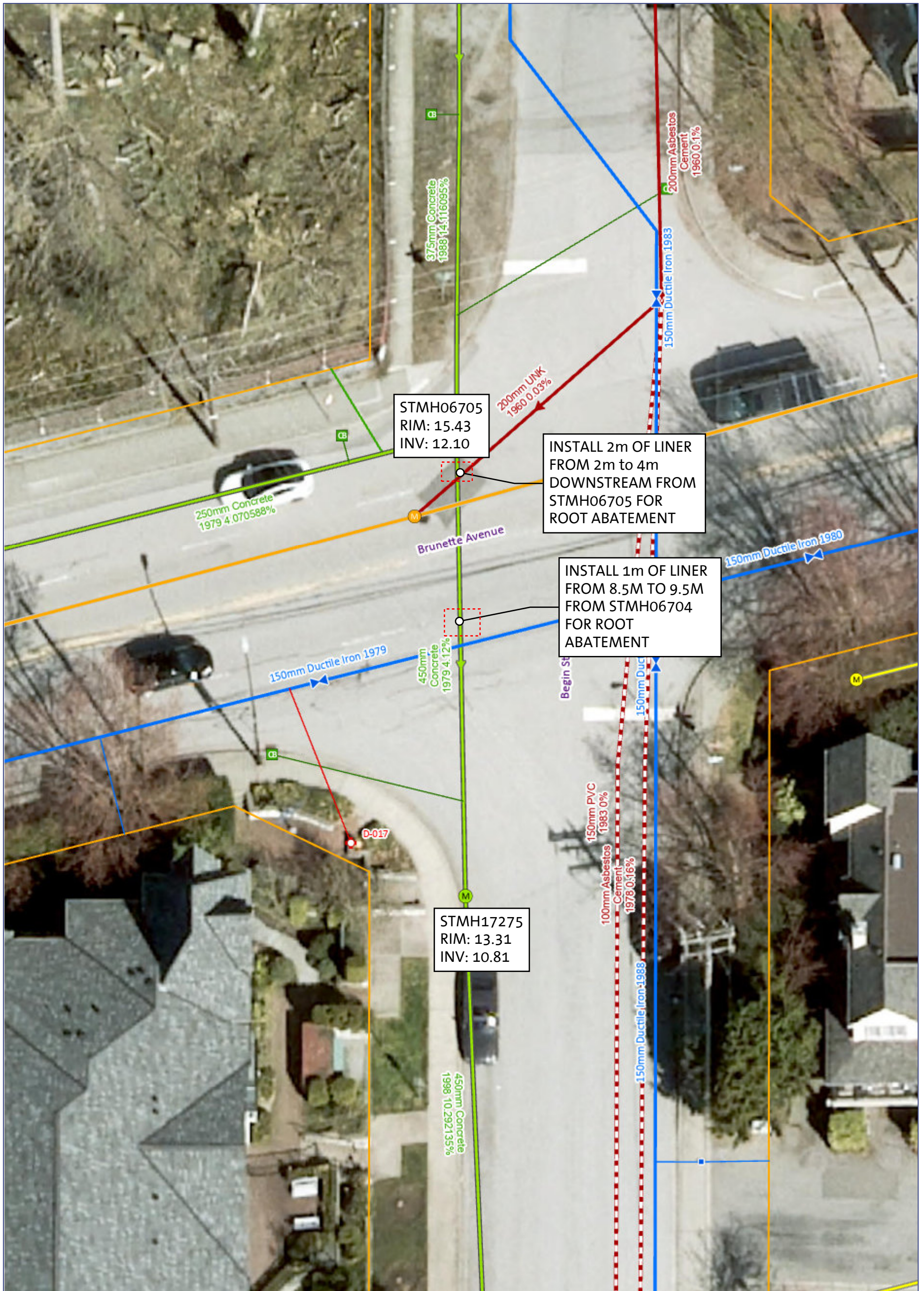
<b>Pipe ID</b>	STPI06532
<b>Street / Road Classification</b>	Blue Mountain Street / Arterial
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH06528
<b>Downstream Manhole</b>	STMH06526
<b>Existing Pipe Diameter and Material</b>	450 CONC.
<b>Total Pipe Length</b>	63.4
<b>Condition</b>	Deteriorated

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

0.025 km



North



<b>Pipe ID</b>	STPI06901
<b>Street / Road Classification</b>	Brunette Avenue / Arterial
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH06705
<b>Downstream Manhole</b>	STMH17275
<b>Existing Pipe Diameter and Material</b>	450 CONC.
<b>Total Pipe Length</b>	25
<b>Condition</b>	Deteriorated

Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © Coquitlam, Engineering & Public Works GIS





STPI07693

Coquitlam



TRENCHLESS POINT REPAIR AT 48.5m to 49.5m UPSTREAM FROM STMH17305

STMH07720  
RIM: 79.59  
INV: 77.47

STMH17305  
RIM: 77.27  
INV: 76.09

200mm UNK  
1972.0.04%

250mm Concrete  
1973.1.536868%

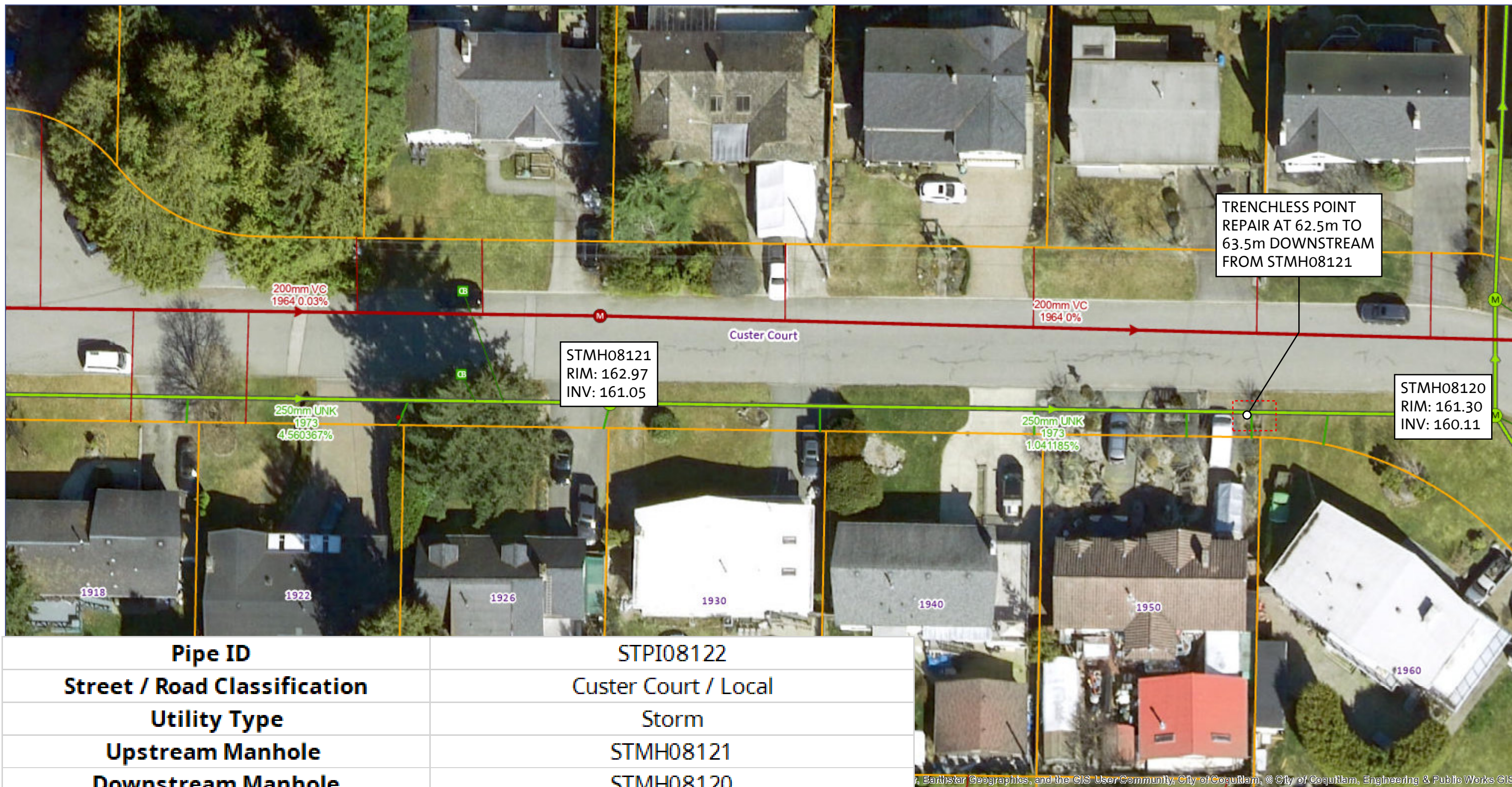
200mm PVC  
2000  
10.351124%

<b>Pipe ID</b>	STPI07693
<b>Street / Road Classification</b>	2170 to 2190 Dawes Hill Rd
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH07720
<b>Downstream Manhole</b>	STOU07408
<b>Existing Pipe Diameter and Material</b>	250 CONC.
<b>Total Pipe Length</b>	57.91
<b>Condition</b>	Deteriorated

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS



North



TRENCHLESS POINT REPAIR AT 62.5m TO 63.5m DOWNSTREAM FROM STMH08121

STMH08121  
RIM: 162.97  
INV: 161.05

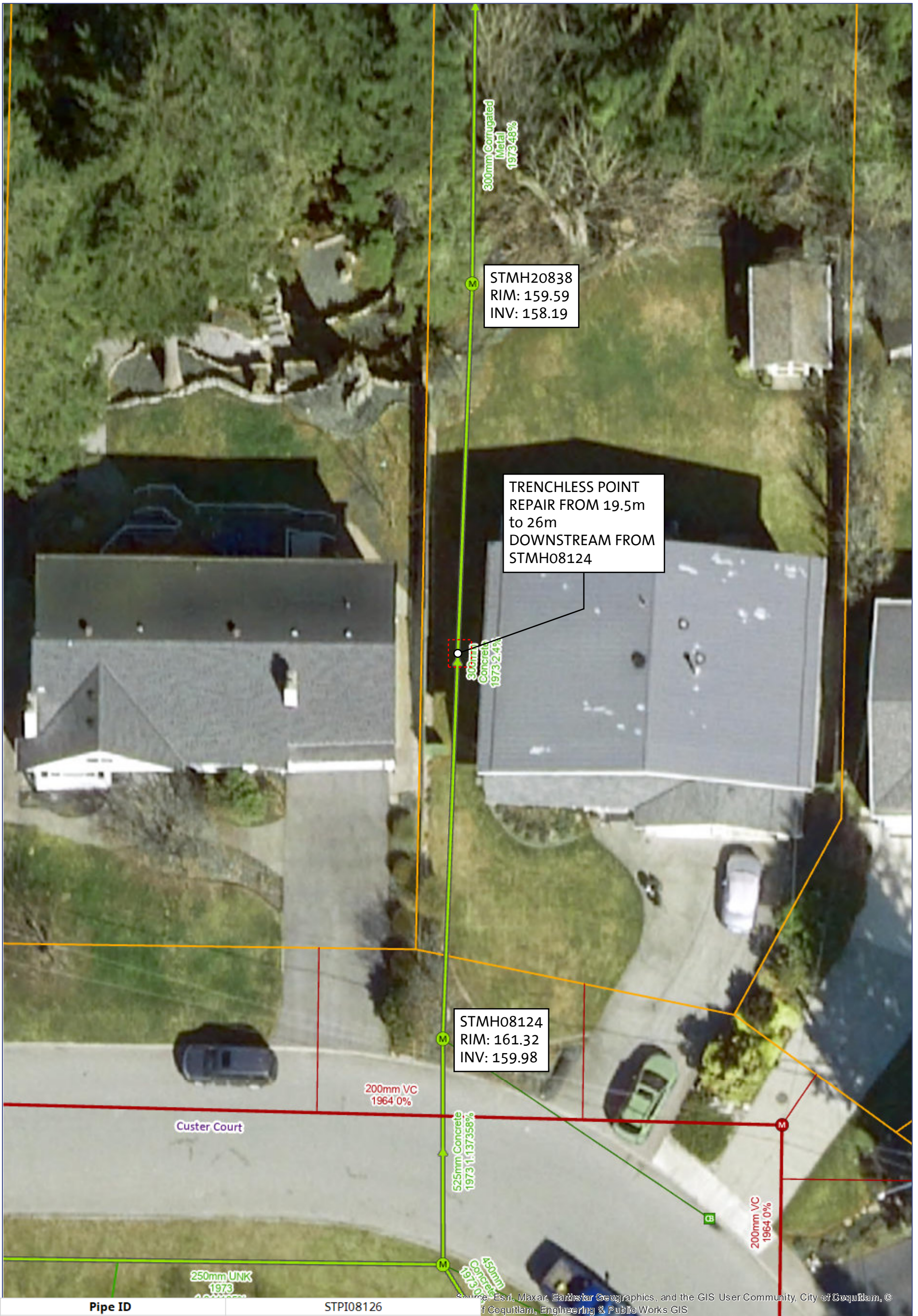
STMH08120  
RIM: 161.30  
INV: 160.11

<b>Pipe ID</b>	STPI08122
<b>Street / Road Classification</b>	Custer Court / Local
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH08121
<b>Downstream Manhole</b>	STMH08120
<b>Existing Pipe Diameter and Material</b>	250 VC
<b>Total Pipe Length</b>	86.44
<b>Condition</b>	Deteriorated

Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS



North



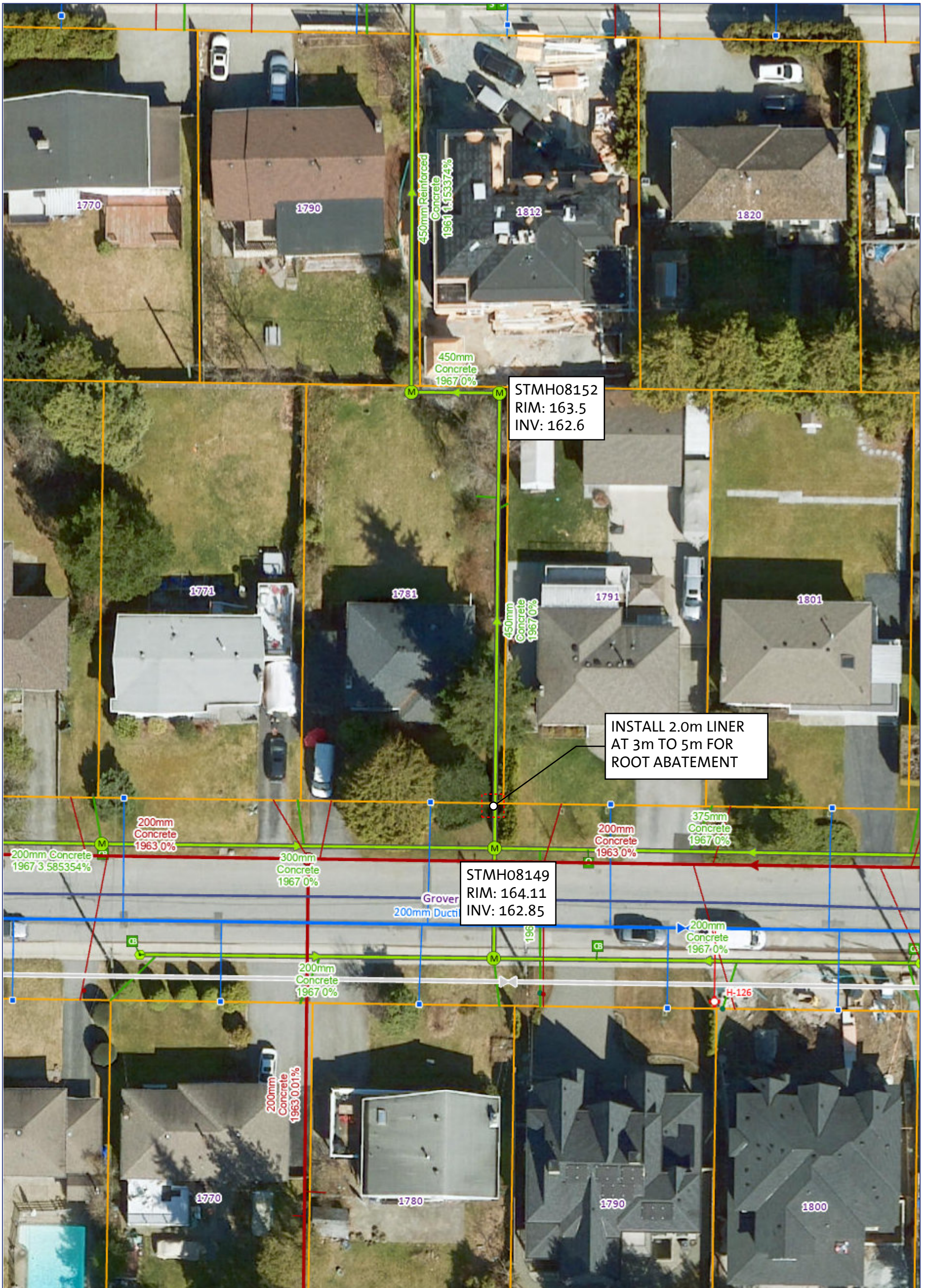
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community, City of Coquitlam, © City of Coquitlam, Engineering & Public Works GIS

<b>Pipe ID</b>	STPI08126
<b>Street / Road Classification</b>	ROW at 1973 Custer Court
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH08124
<b>Downstream Manhole</b>	STMH20838
<b>Existing Pipe Diameter and Material</b>	300 CONC.
<b>Total Pipe Length</b>	38.02
<b>Condition</b>	Deteriorated



North





<b>Pipe ID</b>	STPI08153
<b>Street / Road Classification</b>	ROW at 1791 Grover Avenue
<b>Utility Type</b>	Storm
<b>Upstream Manhole</b>	STMH08149
<b>Downstream Manhole</b>	STMH08152
<b>Existing Pipe Diameter and Material</b>	450 CONC.
<b>Total Pipe Length</b>	45.42
<b>Condition</b>	Deteriorated

Earthstar Geographics, and the GIS User Community, City of Coquitlam, © Engineering & Public Works GIS



North

# ***Appendix C - CCTV Reports***

<b>Surveyed By</b> Linton S		<b>Certificate No.</b> U-0317-07006319		<b>Owner</b> PSR		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b>		<b>Sheet No.</b>	
<b>P/O No.</b> 23-005		<b>STPI</b> STPI15282		<b>City</b> COQUITLAM		<b>Date / Time</b> Oct 30, 2023 2:59:00 PM		<b>Upstream MH No.</b> STMH15289		<b>Downstream MH No.</b> STMH15288	
<b>Street</b> SAMUELS COURT				<b>Location Details</b>							
<b>USMH Rim to Invert</b> 2.08		<b>USMH Grade to Invert</b>		<b>USMH Rim to Grade</b>		<b>DSMH Rim to Invert</b> 1.16		<b>DSMH Grade to Invert</b>		<b>DSMH Rim to Grade</b>	
<b>Sewer Use</b> CP		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 250		<b>Width</b>		<b>Shape</b> C	
<b>Material</b>		<b>Lining Method</b>		<b>Pipe Joint Length</b> 2.50		<b>Total Length</b>		<b>Length Surveyed</b> 42.80			
<b>Year Laid</b>		<b>Year Renewed</b>		<b>Media Label</b> STPI15282-34946.MP4		<b>Purpose</b>		<b>Sewer Cat</b>			
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 10/30/2023		<b>W/O #</b>		<b>Weather</b> 5		<b>Location</b> A		<b>Pressure V</b>	
<b>Project</b> 23-005				<b>Additional Info</b>				<b>Reverse Setup</b>			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	29.0	AMH					N			STMH15289		Manhole
2	0.00	39.0	MWL				0	N					Water Level
3	2.80	122.0	TBD		100			N	10				Tap Break-in Defective
4	4.30	158.0	TF		100			N	10				Tap Factory
5	10.60	197.0	TF		100			N	2				Tap Factory
6	24.80	268.0	TB		100			N	2				Tap Break-in
7	26.40	287.0	TB		150			N	2				Tap Break-in
8	28.00	307.0	TB		150			N	10				Tap Break-in
9	35.80	353.0	TB		150			N	2				Tap Break-in
10	38.20	395.0	RMJ				5	Y	6				Roots Medium Joint
11	39.70	424.0	RMJ				5	Y	5	7			Roots Medium Joint
12	40.40	441.0	TB		100			N	2				Tap Break-in
13	40.40	461.0	RMJ				20	Y	4	8			Roots Medium Joint
14	42.80	487.0	AMH					N			STMH15288		Manhole

Surveyed By T SCOLLON		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI15311		PSR 				Date / Time Oct 31, 2023 12:17:00 PM			
Street SAVARY AVE				City COQUITLAM				Upstream MH No. STMH15316			
Location Details 				STMH15312				Downstream MH No. 			
USMH Rim to Invert 1.53			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 2.38			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Downstream		Flow Control N		Height 300		Width 		Shape C	
Material RCP				Lining Method 		Pipe Joint Length 2.50		Total Length 		Length Surveyed 102.10	
Year Laid 		Year Renewed 		Media Label STPI15311-34948.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 10/19/2023		W/O # 		Weather 5		Location A		Pressure V 	
Project 23-005				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	10.0	AMH					N			STMH15316		Manhole
2	0.00	42.0	MWL				0	N					Water Level
3	1.30	71.0	SRI	S01				Y	6				Surface Roughness Increased
4	4.90	117.0	TF		150			N	2				Tap Factory
5	8.60	142.0	TF		150			N	10				Tap Factory
6	19.90	203.0	TF		150			N	2				Tap Factory
7	23.70	243.0	TF		150			N	9				Tap Factory
8	33.10	297.0	TF		150			N	2				Tap Factory
9	35.00	316.0	TF		150			N	9				Tap Factory
10	46.30	389.0	TF		150			N	2				Tap Factory
11	48.10	406.0	TF		150			N	10				Tap Factory
12	59.50	468.0	TF		150			N	2				Tap Factory
13	61.40	483.0	TF		150			N	9				Tap Factory
14	72.70	540.0	TF		150			N	2				Tap Factory
15	74.60	555.0	TF		150			N	9				Tap Factory
16	87.80	624.0	TF		150			N	2				Tap Factory

<b>Surveyed By</b> T SCOLLON		<b>Certificate No.</b> U-0121-70400907		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 		<b>STPI15311</b>		<b>PSR</b> 				<b>Date / Time</b> Oct 31, 2023 12:17:00 PM			
<b>Street</b> SAVARY AVE				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH15316			
<b>Location Details</b> 								<b>Downstream MH No.</b> STMH15312			
<b>USMH Rim to Invert</b> 1.53			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 2.38			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 300		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> RCP				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 2.50		<b>Total Length</b> 		<b>Length Surveyed</b> 102.10	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI15311-34948.MP4		<b>Purpose</b> F				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 10/19/2023		<b>W/O #</b> 		<b>Weather</b> 5		<b>Location</b> A		<b>Pressure V</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> 				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	89.70	640.0	TF		150			N	9				Tap Factory
18	99.10	709.0	TF		150			N	10		FULL OF DEBRIS		Tap Factory
19	101.10	751.0	TF		150			N	2				Tap Factory
20	102.10	784.0	RMJ				35	Y	3	9			Roots Medium Joint
21	102.10	802.0	MSA					N			DUE TO ROOTS		Abandoned Survey
22	101.90	813.0	SRI	F01				Y	6				Surface Roughness Increased

<b>Surveyed By</b> T SCOLLON		<b>Certificate No.</b> U-0121-70400907		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 		<b>STPI No.</b> STPI15311		<b>PSR</b> 		<b>Date / Time</b> Oct 31, 2023 1:26:00 PM		<b>Upstream MH No.</b> STMH15316		<b>Downstream MH No.</b> STMH15312	
<b>Street</b> SAVARY AVE				<b>City</b> COQUITLAM				<b>Location Details</b> 			
<b>USMH Rim to Invert</b> 1.53		<b>USMH Grade to Invert</b> 		<b>USMH Rim to Grade</b> 		<b>DSMH Rim to Invert</b> 2.38		<b>DSMH Grade to Invert</b> 		<b>DSMH Rim to Grade</b> 	
<b>Sewer Use</b> 		<b>Direction</b> Upstream		<b>Flow Control</b> N		<b>Height</b> 300		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> RCP		<b>Lining Method</b> 		<b>Pipe Joint Length</b> 2.50		<b>Total Length</b> 		<b>Length Surveyed</b> 31.90		<b>Sewer Cat</b> 	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI15311-34953.MP4		<b>Purpose</b> F		<b>Location</b> A		<b>Pressure V</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 10/19/2023		<b>W/O #</b> 		<b>Weather</b> 5		<b>Reverse Setup</b> 		<b>Additional Info</b> REVERSAL OF PREVIOUS INSPECTION	
<b>Project</b> 23-005		<b>Reverse Setup</b> 									

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	28.40	311.0	MGO					N			DEBRIS REMAINING		General Observation
2	31.70	384.0	RMJ				30	Y	3	7			Roots Medium Joint
3	31.90	404.0	MGO					N			ROOTS IN DISTANCE		General Observation
4	31.90	417.0	MSA					N			DUE TO ROOTS		Abandoned Survey
5	0.00	10.0	AMH					N			STMH15312		Manhole
6	0.00	27.0	MWL				0	N					Water Level
7	1.60	78.0	FM					Y	8	4			Fracture Multiple
8	1.70	108.0	CL					Y	10				Crack Longitudinal
9	4.90	132.0	TF		150			N	10				Tap Factory
10	6.80	148.0	TF		150			N	2				Tap Factory
11	8.70	170.0	TF		200			N	10				Tap Factory
12	10.50	185.0	TF		200			N	2				Tap Factory
13	12.20	202.0	CM					N	9	10			Crack Multiple
14	20.00	251.0	TF		150			N	10				Tap Factory
15	21.80	267.0	TF		150			N	2				Tap Factory



# City of Coquitlam CCTV Inspection Report

Standard: PACP  
Inspection ID: 34893

CCTV 5

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 		<b>STPI15313</b>		<b>PSR</b> 				<b>Date / Time</b> Oct 19, 2023 12:46:00 PM			
<b>Street</b> CHROME CR				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH15439			
<b>Location Details</b>						<b>Downstream MH No.</b> STMH15311					
<b>USMH Rim to Invert</b> 1.65			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 2.52			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 300		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> RCP				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 2.50		<b>Total Length</b> 		<b>Length Surveyed</b> 76.40	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI15313-34893.MP4		<b>Purpose</b> F				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 10/19/2023		<b>W/O #</b> 		<b>Weather</b> 2		<b>Location</b> A		<b>Pressure V</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> REVERSAL OF PREVIOUS INSPECTION				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	12.0	AMH				N			STMH15439		Manhole	
2	0.00	23.0	MWL			0	N					Water Level	
3	1.30	33.0	RFJ				Y	6				Roots Fine Joint	
4	4.30	51.0	TF		100		N	2				Tap Factory	
5	6.20	81.0	TFA		100		N	10				Tap Factory Active	
6	17.40	174.0	TFA		100		N	2				Tap Factory Active	
7	19.30	193.0	TFA		100		N	10				Tap Factory Active	
8	32.50	269.0	TF		100		N	2				Tap Factory	
9	34.40	287.0	TFA		100		N	10				Tap Factory Active	
10	45.70	352.0	TF		100		N	2				Tap Factory	
11	47.60	370.0	TF		100		N	9				Tap Factory	
12	51.80	427.0	MWLS			5	N					Water Level Sag	
13	58.00	474.0	B				Y	10	2			Broken	
14	58.40	497.0	FC				Y	6	12			Fracture Circumferential	
15	58.50	519.0	FC				Y	12	6			Fracture Circumferential	
16	58.90	530.0	TF		100		N	2				Tap Factory	

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI15313		PSR 				Date / Time Oct 19, 2023 12:46:00 PM			
Street CHROME CR				City COQUITLAM				Upstream MH No. STMH15439			
Location Details 				STMH15311				Downstream MH No. 			
USMH Rim to Invert 1.65			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 2.52			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Downstream		Flow Control N		Height 300		Width 		Shape C	
Material RCP				Lining Method 		Pipe Joint Length 2.50		Total Length 		Length Surveyed 76.40	
Year Laid 		Year Renewed 		Media Label STPI15313-34893.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 10/19/2023		W/O # 		Weather 2		Location A		Pressure V 	
Project 23-005				Additional Info REVERSAL OF PREVIOUS INSPECTION				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	60.90	554.0	TF		100			N	10				Tap Factory
18	74.10	636.0	TF		100			N	2				Tap Factory
19	76.00	656.0	TFA		100			N	10				Tap Factory Active
20	76.00	676.0	OBR				10	N	6				Obstacle Rocks
21	76.40	703.0	RMJ				20	Y	4	8			Roots Medium Joint
22	76.40	724.0	MSA					N			STUCK ON ROOTS/OVERLAP WITH PREVIOUS INSPECTION		Abandoned Survey
23	76.30	749.0	MGO					N			MORE SEVERE ROOTS IN DISTANCE		General Observation



Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		STPI15313		City COQUITLAM		Date / Time Oct 19, 2023 11:50:00 AM		Upstream MH No. STMH15439		Downstream MH No. STMH15311	
Street CHROME CR		Location Details		City COQUITLAM		Flow Control N		Height 300		Width C	
USMH Rim to Invert 1.65		DSMH Rim to Invert 2.52		USMH Grade to Invert		DSMH Grade to Invert		Total Length 26.10		Length Surveyed 26.10	
Sewer Use RCP		Direction Upstream		Lining Method STPI15313-34890.MP4		Pipe Joint Length 2.50		Purpose F		Sewer Cat	
Year Laid		Year Renewed		Media Label STPI15313-34890.MP4		W/O # 2		Weather A		Location A	
Pre-Cleaning ?		Date Cleaned 10/19/2023		W/O # 2		Weather A		Location A		Pressure V	
Project 23-005		Additional Info LOOK FOR REVERSAL		Reverse Setup							

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	13.0	AMH					N			STMH15311		Manhole
2	0.00	33.0	MWL				5	N					Water Level
3	2.90	54.0	RFJ					Y	7				Roots Fine Joint
4	4.40	130.0	TF		100			N	10				Tap Factory
5	8.10	225.0	TBA		150			N	10				Tap Break-in Active
6	6.30	258.0	TBA		100			N	3				Tap Break-in Active
7	8.30	288.0	RFJ					Y	5	7			Roots Fine Joint
8	10.10	305.0	TBA		150			N	2				Tap Break-in Active
9	11.70	322.0	RFJ					Y	6				Roots Fine Joint
10	13.60	336.0	RFJ					Y	6				Roots Fine Joint
11	21.30	382.0	TF		100			N	10				Tap Factory
12	21.50	399.0	RFJ					Y	6				Roots Fine Joint
13	23.30	420.0	TF		100			N	2				Tap Factory
14	25.50	449.0	RMJ				10	Y	5	7			Roots Medium Joint
15	26.10	482.0	MGO					N			MORE SEVERE ROOTS IN DISTANCE		General Observation
16	26.10	499.0	MSA					N			STUCK ON ROOTS		Abandoned Survey

<b>Surveyed By</b> Linton S		<b>Certificate No.</b> U-0317-07006319		<b>Owner</b> PSR		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> SNMH04270		<b>Sheet No.</b> 	
<b>P/O No.</b> 23-005		<b>SNPI00049</b>		<b>City</b> COQUITLAM		<b>Date / Time</b> Nov 16, 2023 12:13:00 PM		<b>Upstream MH No.</b> SNMH04270		<b>Downstream MH No.</b> SNMH04269	
<b>Street</b> LANE N OF LORRAINE AVE				<b>Location Details</b> 				<b>Location Details</b> 			
<b>USMH Rim to Invert</b> 2.48		<b>USMH Grade to Invert</b> 		<b>USMH Rim to Grade</b> 		<b>DSMH Rim to Invert</b> 2.33		<b>DSMH Grade to Invert</b> 		<b>DSMH Rim to Grade</b> 	
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> VCP		<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 119.30		<b>Sewer Cat</b> 	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> SNPI00049-35101.MP4		<b>Purpose</b> 		<b>Location</b> A		<b>Pressure V</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 11/16/2023		<b>W/O #</b> 		<b>Weather</b> 5		<b>Reverse Setup</b> 		<b>Additional Info</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> 				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	59.0	AMH					N			SNMH04270		Manhole
2	0.00	74.0	MWL				5	N					Water Level
3	14.40	199.0	TF		100			N	2				Tap Factory
4	33.10	324.0	MMC					N			PVC		Material Change
5	33.70	345.0	TF		100			N	2				Tap Factory
6	33.90	359.0	MMC					N			VC		Material Change
7	38.70	398.0	TF		100			N	2				Tap Factory
8	63.70	568.0	TFA		100			N	2				Tap Factory Active
9	85.50	715.0	TF		100			N	2				Tap Factory
10	102.00	876.0	CL					Y	7				Crack Longitudinal
11	102.00	894.0	IGJ					Y	7				Infiltration Gusher Joint
12	112.10	976.0	TF		100			N	2				Tap Factory
13	119.30	1,034.0	AMH					N			SNMH04269		Manhole

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 0	
<b>P/O No.</b> 22-014		<b>SNPI00088</b>		<b>PSR</b> 				<b>Date / Time</b> Apr 25, 2022 12:00:00 AM			
<b>Street</b> MUNDY				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> SNMH04311			
<b>Location Details</b>				<b>Downstream MH No.</b> SNMH04310							
<b>USMH Rim to Invert</b> 2.41			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 2.54			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> Sanitary		<b>Direction</b> Downstream		<b>Flow Control</b> Not Controlled		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> Vitrified Clay Pipe				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 124.50	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> SNPI00088-29603.MP4		<b>Purpose</b> Routine Assessment				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> Jetting		<b>Date Cleaned</b> 04/22/2022		<b>W/O #</b> 		<b>Weather</b> Dry		<b>Location</b> Main Highway - Suburban/Rural		<b>Pressure V</b> 0.00	
<b>Project</b> 22-014				<b>Additional Info</b> 				<b>Reverse Setup</b> 0			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	124.50	834.0	AMH					N			SNMH04310		Manhole
2	0.00	0.0	AMH					N			SNMH04311		Manhole
3	0.00	18.0	MWL			5		N					Water Level
4	52.40	288.0	FM					N	10	2			Fracture Multiple
5	60.10	358.0	MGP					N			HOLE VOID		General Photo
6	60.10	375.0	IR					N	8		FROM HOLE		Infil Runner
7	60.10	392.0	HVV					N	8	10			Hole Void Visible
8	64.20	421.0	TF		100			N	10				Tap Factory
9	95.10	694.0	TF		100			N	10				Tap Factory
10	113.60	782.0	TF		100			N	10				Tap Factory

<b>Surveyed By</b> Linton S		<b>Certificate No.</b> U-0317-07006319		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 23-005		<b>SNPI00274</b>		<b>PSR</b> 				<b>Date / Time</b> Nov 17, 2023 1:37:00 PM			
<b>Street</b> LANE OFF CONCORD AVE				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> SNMH06078			
<b>Location Details</b>				<b>Downstream MH No.</b> SNMH06795							
<b>USMH Rim to Invert</b> 1.84			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> AC		<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 40.30		<b>Sewer Cat</b> 	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> SNPI00274-35131.MP4		<b>Purpose</b> 		<b>Location</b> A		<b>Pressure V</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 11/17/2023		<b>W/O #</b> 		<b>Weather</b> 5		<b>Reverse Setup</b> 			
<b>Project</b> 23-005				<b>Additional Info</b> 							

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	30.0	AMH					N			SNMH06078		Manhole
2	0.00	40.0	MWL				5	N					Water Level
3	29.60	257.0	HSV					N	1				Hole Soil Visible
4	38.90	376.0	DAR				5	Y	10				Deposits Attached Ragging
5	38.90	396.0	TBA		100			N	10				Tap Break-in Active
6	40.30	417.0	AMH					N			SNMH06795		Manhole

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI00386		PSR 				Date / Time Dec 1, 2023 12:41:00 PM			
Street MARINER WAY				City COQUITLAM				Upstream MH No. SNMH04717			
Location Details 				Downstream MH No. SNMH04718							
USMH Rim to Invert 2.27			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 2.24			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use AC		Direction Downstream		Flow Control N		Height 200		Width 		Shape C	
Material 		Lining Method 		Pipe Joint Length 2.50		Total Length 		Length Surveyed 57.00			
Year Laid 		Year Renewed 		Media Label SNPI00386-35368.MP4		Purpose F		Sewer Cat 			
Pre-Cleaning ?		Date Cleaned 12/01/2023		W/O # 		Weather 1		Location A		Pressure V 	
Project 23-005				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	8.0	AMH				N			SNMH04717		Manhole	
2	0.00	18.0	MWL				N					Water Level	
3	2.90	79.0	OBZ				N	5		UNKNOWN		Obstacle Other	
4	4.00	105.0	SSS				N	12				Surface Spalling	
5	22.60	222.0	TF		100		N	2				Tap Factory	
6	42.10	346.0	TF		100		N	2				Tap Factory	
7	42.10	367.0	SRI				Y	6	9	ACROSS FROM SERVICE		Surface Roughness Increased	
8	51.70	448.0	B				Y	5				Broken	
9	57.00	489.0	AMH				N			SNMH04718		Manhole	

<b>Surveyed By</b> Linton S		<b>Certificate No.</b> U-0317-07006319		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 23-005		<b>SNPI01977</b>		<b>PSR</b> 				<b>Date / Time</b> Nov 7, 2023 10:26:00 AM			
<b>Street</b> KING ALBERT AVE				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> SNMH02435			
<b>Location Details</b>				<b>Downstream MH No.</b> SNMH02434							
<b>USMH Rim to Invert</b> 2.09			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 1.79			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> CP		<b>Lining Method</b> 		<b>Pipe Joint Length</b> 2.50		<b>Total Length</b> 		<b>Length Surveyed</b> 34.70			
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> SNPI01977-35050.MP4		<b>Purpose</b> 		<b>Sewer Cat</b> 			
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 11/07/2023		<b>W/O #</b> 		<b>Weather</b> 5		<b>Location</b> A		<b>Pressure V</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> 				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	37.0	AMH					N			SNMH02435		Manhole
2	0.00	47.0	MWL				5	N					Water Level
3	16.30	150.0	IGJ					Y	6				Infiltration Gusher Joint
4	34.70	246.0	AMH					N			SNMH02434		Manhole

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 30-6011		SNPIO2194		PSR 				Date / Time Jul 25, 2022 1:00:00 AM			
Street SEAFORTH CRES				City COQUITLAM				Upstream MH No. SNMH04184			
Location Details 				SNMH04185				Downstream MH No. 			
USMH Rim to Invert 				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use 		Direction Downstream		Flow Control N		Height 200		Width 		Shape Circular	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 3.50	
Year Laid 		Year Renewed 		Media Label SNPIO2194-30253.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 07/25/2022		W/O # 		Weather 1		Location A		Pressure V 	
Project 22-014				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	31.0	AMH					N			SNMH04184		Manhole
2	0.00	42.0	MWL				0	N					Water Level
3	2.00	81.0	SRI	S01				N	5	7			Surface Roughness Increased
4	3.50	175.0	HVV					N	6	7			Hole Void Visible
5	3.50	236.0	SRI	F01				N	5	7			Surface Roughness Increased
6	3.50	269.0	MSA					N			DUE TO HOLE, WILL ATTEMPT REVERSAL		Abandoned Survey

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 30-6011		SNPIO2194		PSR 				Date / Time Jul 25, 2022 12:00:00 AM			
Street SEAFORTH CRES				City COQUITLAM				Upstream MH No. SNMH04184			
Location Details 						Downstream MH No. SNMH04185					
USMH Rim to Invert 			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Upstream		Flow Control N		Height 200		Width 		Shape Circular	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 2.40	
Year Laid 		Year Renewed 		Media Label SNPIO2194-30252.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 07/25/2022		W/O # 		Weather 1		Location A		Pressure V 	
Project 22-014				Additional Info REVERSAL				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	31.0	AMH					N			SNMH04185		Manhole
2	0.00	42.0	MWL				0	N					Water Level
3	2.40	152.0	HVV					N	5	7	REVERSAL NOT MET DUE TO HOLE		Hole Void Visible
4	2.40	218.0	MSA					N			DUE TO HOLES AT 6 OCLOCK IN PIPE		Abandoned Survey



<b>Surveyed By</b> T SCOLLON		<b>Certificate No.</b> U-0121-70400907		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 23-005		<b>SNPI</b> SNPI10680		<b>PSR</b> 		<b>Date / Time</b> Apr 18, 2023 7:19:00 AM		<b>Upstream MH No.</b> SNMH00715		<b>Downstream MH No.</b> SNMH00717	
<b>Street</b> LAZY A ST				<b>City</b> COQUITLAM				<b>Location Details</b> 			
<b>USMH Rim to Invert</b> 2.60		<b>USMH Grade to Invert</b> 		<b>USMH Rim to Grade</b> 		<b>DSMH Rim to Invert</b> 2.90		<b>DSMH Grade to Invert</b> 		<b>DSMH Rim to Grade</b> 	
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> CP		<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 48.50		<b>Sewer Cat</b> 	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> SNPI10680-31969.MP4		<b>Purpose</b> F		<b>Location</b> B		<b>Pressure V</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 03/20/2023		<b>W/O #</b> 		<b>Weather</b> 1		<b>Reverse Setup</b> 		<b>Additional Info</b> 	
<b>Project</b> 23-005											

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	13.0	AMH				N			SNMH00715	31969-1.jpg	Manhole	
2	0.00	28.0	MWL			5	N				31969-2.jpg	Water Level	
3	2.30	56.0	SRI	S01			N	5	7		31969-3.jpg	Surface Roughness Increased	
4	4.60	149.0	ISJ				Y	12	12		31969-4.jpg	Infiltration Stain Joint	
5	12.30	260.0	ISSR			5	N	11	1	WEEPER INFILTRATION	31969-5.jpg	Intruding Sealing Ring	
6	15.50	338.0	IWJ	S02			Y	12	12		31969-6.jpg	Infiltration Weeper Joint	
7	18.40	431.0	FC				N	2	5	INFILTRATION	31969-7.jpg	Fracture Circumferential	
8	28.90	509.0	TFA		100		N	9			31969-8.jpg	Tap Factory Active	
9	30.80	565.0	RFJ				Y	3	7		31969-9.jpg	Roots Fine Joint	
10	33.90	635.0	RFJ	S03			Y	12	9		31969-10.jpg	Roots Fine Joint	
11	45.70	730.0	RFJ	F03			Y	12	9		31969-11.jpg	Roots Fine Joint	
12	45.70	742.0	SRI	F01			N	5	7		31969-12.jpg	Surface Roughness Increased	
13	45.70	756.0	IWJ	F02			Y	12	12		31969-13.jpg	Infiltration Weeper Joint	
14	46.20	808.0	LD			45	N			DROP STRUCTURE	31969-14.jpg	Alignment Down	
15	48.50	850.0	AMH				N			SNMH00717	31969-15.jpg	Manhole	

<b>Surveyed By</b> Linton S		<b>Certificate No.</b> U-0317-07006319		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 23-005		<b>SNPI01977</b>		<b>PSR</b> 				<b>Date / Time</b> Nov 7, 2023 10:26:00 AM			
<b>Street</b> KING ALBERT AVE				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> SNMH02435			
<b>Location Details</b>								<b>Downstream MH No.</b> SNMH02434			
<b>USMH Rim to Invert</b> 2.09			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 1.79			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> CP				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 2.50		<b>Total Length</b> 		<b>Length Surveyed</b> 34.70	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> SNPI01977-35050.MP4				<b>Purpose</b> 		<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 11/07/2023		<b>W/O #</b> 		<b>Weather</b> 5		<b>Location</b> A		<b>Pressure V</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> 				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	37.0	AMH					N			SNMH02435		Manhole
2	0.00	47.0	MWL				5	N					Water Level
3	16.30	150.0	IGJ					Y	6				Infiltration Gusher Joint
4	34.70	246.0	AMH					N			SNMH02434		Manhole

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 0		
<b>P/O No.</b> 22-014		<b>STPI00945</b>		<b>PSR</b> 				<b>Date / Time</b> Apr 13, 2022 12:00:00 AM				
<b>Street</b> MCOOMB				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH00658		<b>Downstream MH No.</b> STMH00552		
<b>USMH Rim to Invert</b> 1.10			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 						
<b>DSMH Rim to Invert</b> 			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 						
<b>Sewer Use</b> Stormwater		<b>Direction</b> Downstream		<b>Flow Control</b> Not Controlled		<b>Height</b> 375		<b>Width</b> 		<b>Shape</b> Circular		
<b>Material</b> Reinforced Concrete Pipe				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 42.40		
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI00945-29475.MP4		<b>Purpose</b> Routine Assessment				<b>Sewer Cat</b> 		
<b>Pre-Cleaning</b> Jetting		<b>Date Cleaned</b> 04/07/2022		<b>W/O #</b> 		<b>Weather</b> Dry		<b>Location</b> Main Highway - Suburban/Rural		<b>Pressure V</b> 0.00		
<b>Project</b> 22-014E				<b>Additional Info</b> 				<b>Reverse Setup</b> 0				

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	75.0	AMH					N			STMH00658		Manhole
2	0.00	85.0	MWL				5	N					Water Level
3	1.60	125.0	SRI	S01				Y	6				Surface Roughness Increased
4	2.90	195.0	FC					N	12	12			Fracture Circumferential
5	24.40	311.0	SRI					Y	3		PIECE CHIPPED FROM JOINT		Surface Roughness Increased
6	26.80	353.0	HSV					N	2				Hole Soil Visible
7	26.80	421.0	FC					N	1	2			Fracture Circumferential
8	29.30	665.0	RFJ					Y	3				Roots Fine Joint
9	31.90	734.0	HSV					N	2				Hole Soil Visible
10	31.90	782.0	CL					N	2		STEMMING FROM HOLE		Crack Longitudinal
11	31.90	808.0	FC					N	2	6	STEMMING FROM HOLE		Fracture Circumferential
12	31.90	842.0	FM					Y	12	4	STEMMING FROM HOLE		Fracture Multiple
13	34.50	907.0	RFC					N	3				Roots Fine Connection
14	34.90	928.0	TBA		150			N	3				Tap Break-in Active
15	41.90	963.0	SRI	F01				Y	6				Surface Roughness Increased

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 0	
<b>P/O No.</b> 22-014		<b>STPI00945</b>		<b>PSR</b> 				<b>Date / Time</b> Apr 13, 2022 12:00:00 AM			
<b>Street</b> MCOOMB				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH00658			
<b>Location Details</b>						<b>Downstream MH No.</b> STMH00552					
<b>USMH Rim to Invert</b> 1.10			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> Stormwater		<b>Direction</b> Downstream		<b>Flow Control</b> Not Controlled		<b>Height</b> 375		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> Reinforced Concrete Pipe				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 42.40	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI00945-29475.MP4		<b>Purpose</b> Routine Assessment				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> Jetting		<b>Date Cleaned</b> 04/07/2022		<b>W/O #</b> 		<b>Weather</b> Dry		<b>Location</b> Main Highway - Suburban/Rural		<b>Pressure V</b> 0.00	
<b>Project</b> 22-014E				<b>Additional Info</b> 				<b>Reverse Setup</b> 0			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
16	42.40	979.0	AMH					N			STMH00552		Manhole
17	0.90	16.0	CL					Y	3				Crack Longitudinal
18	0.90	41.0	FM					Y	10	3			Fracture Multiple

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 		<b>STPI02438</b>		<b>PSR</b> 				<b>Date / Time</b> Mar 13, 2023 7:42:00 AM			
<b>Street</b> AUSTIN AVE				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH02238			
<b>Location Details</b> 				<b>STMH04493</b>				<b>Downstream MH No.</b> 			
<b>USMH Rim to Invert</b> 1.20			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 2.10			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> Reinforced Concrete Pipe		<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 54.10			
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI02438-31213.MPG		<b>Purpose</b> F		<b>Sewer Cat</b> 			
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 03/10/2023		<b>W/O #</b> 		<b>Weather</b> 1		<b>Location</b> A		<b>Pressure V</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> 				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	12.0	AMH					N			STMH02238	31213-1.jpg	Manhole
2	0.00	22.0	MWL				5	N				31213-2.jpg	Water Level
3	10.60	89.0	CL					Y	12			31213-3.jpg	Crack Longitudinal
4	14.10	112.0	MWLS				5	N				31213-4.jpg	Water Level Sag
5	19.90	163.0	TB		150			N	10			31213-5.jpg	Tap Break-in
6	39.30	280.0	MMC					N			PVC	31213-6.jpg	Material Change
7	41.90	312.0	MMC					N			CONCRETE	31213-7.jpg	Material Change
8	46.80	353.0	RFJ					Y	7			31213-8.jpg	Roots Fine Joint
9	48.00	370.0	RFJ	S01				Y	5	7		31213-9.jpg	Roots Fine Joint
10	52.70	418.0	RMJ				20	Y	3	9		31213-10.jpg	Roots Medium Joint
11	54.10	549.0	MSA					N			STUCK ON ROOTS	31213-11.jpg	Abandoned Survey
12	54.00	558.0	RFJ	F01				Y	5	7		31213-12.jpg	Roots Fine Joint

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 		<b>STPI02438</b>		<b>PSR</b> 				<b>Date / Time</b> Mar 10, 2023 2:16:00 PM			
<b>Street</b> AUSTIN AVE				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH02238			
<b>Location Details</b> 				<b>STMH04493</b>				<b>Downstream MH No.</b> 			
<b>USMH Rim to Invert</b> 2.11			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 2.10			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Upstream		<b>Flow Control</b> N		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> Polyvinyl Chloride				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 3.50	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI02438-31208.MPG		<b>Purpose</b> F				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 03/10/2023		<b>W/O #</b> 		<b>Weather</b> 1		<b>Location</b> A		<b>Pressure V</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> 				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	9.0	AMH					N			STMH04493	31208-1.jpg	Manhole
2	0.00	23.0	MWL				5	N				31208-2.jpg	Water Level
3	3.50	102.0	TBI		100	100		N	2			31208-3.jpg	Tap Break-in Intruding
4	3.50	142.0	BSV					N	12	12		31208-4.jpg	Broken Soil Visible
5	3.50	178.0	MSA					N			DUE TO INTRUDING SERVICE	31208-5.jpg	Abandoned Survey



# City of Coquitlam CCTV Inspection Report

Standard: PACP  
Inspection ID: 35170

<b>Surveyed By</b> T SCOLLON		<b>Certificate No.</b> U-0121-70400907		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 		<b>STPI02473</b>		<b>PSR</b> 				<b>Date / Time</b> Nov 24, 2023 9:17:00 AM			
<b>Street</b> NEWPORT ST				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH02163			
<b>Location Details</b> 				<b>STMH02161</b>				<b>Downstream MH No.</b> 			
<b>USMH Rim to Invert</b> 				<b>USMH Grade to Invert</b> 				<b>USMH Rim to Grade</b> 			
<b>DSMH Rim to Invert</b> 2.37				<b>DSMH Grade to Invert</b> 				<b>DSMH Rim to Grade</b> 			
<b>Sewer Use</b> 		<b>Direction</b> Upstream		<b>Flow Control</b> N		<b>Height</b> 900		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> RCP				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 2.00		<b>Total Length</b> 		<b>Length Surveyed</b> 37.70	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI02473-35170.MP4		<b>Purpose</b> F				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 11/16/2023		<b>W/O #</b> 		<b>Weather</b> 1		<b>Location</b> A		<b>Pressure V</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> 				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	20.0	AMH										Manhole
2	0.00	31.0	MWL				5	N					Water Level
3	2.30	95.0	HSV					Y	1	2			Hole Soil Visible
4	37.70	327.0	TFD		150			N	3				Tap Factory Defective
5	37.70	359.0	AMH					N					Manhole

Surveyed By	Certificate No.	Owner	Customer	Drainage Area	Sheet No.
Linton S	U-0317-07006319		CofC		
P/O No.	STPI04385	PSR		Date / Time	
				Mar 9, 2023 7:41:00 AM	
Street	City	Upstream MH No.	Downstream MH No.		
MUNDY ST	COQUITLAM	STMH04345	STMH04344		
Location Details					
USMH Rim to Invert		USMH Grade to Invert		USMH Rim to Grade	
2.13					
DSMH Rim to Invert		DSMH Grade to Invert		DSMH Rim to Grade	
1.91					
Sewer Use	Direction	Flow Control	Height	Width	Shape
	Upstream	N	375		Circular
Material		Lining Method	Pipe Joint Length	Total Length	Length Surveyed
Polyvinyl Chloride			4.00		127.20
Year Laid	Year Renewed	Media Label	Purpose	Sewer Cat	
		STPI04385-31111.MP4	F		
Pre-Cleaning	Date Cleaned	W/O #	Weather	Location	Pressure V
?	03/09/2023		5	A	
Project	Additional Info		Reverse Setup		
23-005					

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	38.40	407.0	TF		150			N	2			31111-1.jpg	Tap Factory
2	41.30	450.0	TF		150			N	10			31111-2.jpg	Tap Factory
3	52.80	515.0	TF		150			N	2			31111-3.jpg	Tap Factory
4	58.80	557.0	TFC		150			N	1			31111-4.jpg	Tap Factory Capped
5	67.80	626.0	TF		150			N	1			31111-5.jpg	Tap Factory
6	80.40	691.0	TF		150			N	1			31111-6.jpg	Tap Factory
7	85.70	722.0	TF		150			N	10			31111-7.jpg	Tap Factory
8	96.40	797.0	HSV					N	2			31111-8.jpg	Hole Soil Visible
9	100.10	829.0	TF		150			N	1			31111-9.jpg	Tap Factory
10	117.70	924.0	TF		150			N	1			31111-10.jpg	Tap Factory
11	122.20	954.0	TF		150			N	11			31111-11.jpg	Tap Factory
12	127.20	993.0	AMH					N			STMH04345	31111-12.jpg	Manhole
13	0.00	31.0	AMH					N			STMH04344	31111-13.jpg	Manhole
14	0.00	42.0	MWL				5	N				31111-14.jpg	Water Level
15	11.10	99.0	TF		150			N	11			31111-15.jpg	Tap Factory
16	12.70	121.0	TF		150			N	1			31111-16.jpg	Tap Factory



<b>Surveyed By</b> Linton S		<b>Certificate No.</b> U-0317-07006319		<b>Owner</b> 		<b>Customer</b> CofC		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 		<b>STPI04385</b>		<b>PSR</b> 				<b>Date / Time</b> Mar 9, 2023 7:41:00 AM			
<b>Street</b> MUNDY ST				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH04345			
<b>Location Details</b> 				<b>Downstream MH No.</b> STMH04344							
<b>USMH Rim to Invert</b> 2.13			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 1.91			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Upstream		<b>Flow Control</b> N		<b>Height</b> 375		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> Polyvinyl Chloride				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 4.00		<b>Total Length</b> 		<b>Length Surveyed</b> 127.20	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI04385-31111.MP4		<b>Purpose</b> F		<b>Sewer Cat</b> 			
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 03/09/2023		<b>W/O #</b> 		<b>Weather</b> 5		<b>Location</b> A		<b>Pressure V</b> 	
<b>Project</b> 23-005				<b>Additional Info</b> 				<b>Reverse Setup</b> 			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	12.80	188.0	ISZ				5	N	1	6	SPRAY FOAM	31111-17.jpg	Intruding Sealing Other
18	21.20	264.0	RTJ				5	Y	7			31111-18.jpg	Roots Tap Joint
19	25.90	311.0	TFA		150			N	2			31111-19.jpg	Tap Factory Active

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI04757		PSR 				Date / Time Mar 13, 2023 12:13:00 PM			
Street AUSTIN AVE				City COQUITLAM				Upstream MH No. STMH04484			
Location Details 								Downstream MH No. STMH04485			
USMH Rim to Invert 3.00			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 3.00			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Downstream		Flow Control N		Height 600		Width 		Shape Circular	
Material Reinforced Concrete Pipe				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 16.70	
Year Laid 		Year Renewed 		Media Label STPI04757-31234.MPG		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 03/13/2023		W/O # 		Weather 1		Location A		Pressure V 	
Project 23-005				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	8.0	AMH				N			STMH04484	31234-1.jpg	Manhole	
2	0.00	18.0	MWL				N				31234-2.jpg	Water Level	
3	9.50	136.0	CL				Y	10			31234-3.jpg	Crack Longitudinal	
4	13.40	188.0	FM				N	12	12		31234-4.jpg	Fracture Multiple	
5	14.00	220.0	FM				Y	10	2		31234-5.jpg	Fracture Multiple	
6	14.90	250.0	FM				Y	12	12		31234-6.jpg	Fracture Multiple	
7	16.70	294.0	FL				Y	1			31234-7.jpg	Fracture Longitudinal	
8	16.70	305.0	AMH				N			STMH04485	31234-8.jpg	Manhole	



# City of Coquitlam CCTV Inspection Report

Standard: PACP  
Inspection ID: 29790

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 0	
<b>P/O No.</b> 22-014		<b>STPI06268</b>		<b>PSR</b> 				<b>Date / Time</b> May 9, 2022 12:00:00 AM			
<b>Street</b> FRESNO				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH06250			
<b>Location Details</b>						<b>Downstream MH No.</b> STOU0612					
<b>USMH Rim to Invert</b> 				<b>USMH Grade to Invert</b> 				<b>USMH Rim to Grade</b> 			
<b>DSMH Rim to Invert</b> 				<b>DSMH Grade to Invert</b> 				<b>DSMH Rim to Grade</b> 			
<b>Sewer Use</b> Stormwater		<b>Direction</b> Downstream		<b>Flow Control</b> Not Controlled		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> Reinforced Concrete Pipe				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 47.00	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI06268-29790.MP4		<b>Purpose</b> Routine Assessment				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> Jetting		<b>Date Cleaned</b> 05/04/2022		<b>W/O #</b> 		<b>Weather</b> Light Rain		<b>Location</b> Main Highway - Suburban/Rural		<b>Pressure V</b> 0.00	
<b>Project</b> 22-014E				<b>Additional Info</b> 				<b>Reverse Setup</b> 0			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	11.0	AMH					N			STMH06250		Manhole
2	0.00	21.0	MWL				5	N					Water Level
3	2.60	37.0	TF		200			N	10				Tap Factory
4	8.80	72.0	TF		200			N	10				Tap Factory
5	22.70	186.0	LR				20	N					Alignment Right
6	36.80	259.0	FC					Y	12	12			Fracture Circumferential
7	36.80	293.0	FL					Y	12				Fracture Longitudinal
8	36.80	308.0	RFJ					Y	6				Roots Fine Joint
9	38.30	329.0	FL					Y	7				Fracture Longitudinal
10	43.00	362.0	RMJ				5	Y	6				Roots Medium Joint
11	44.20	383.0	FC					N	12	12			Fracture Circumferential
12	44.20	419.0	RFB					N	6		FROM FRACTURE		Roots Fine Barrel
13	46.20	444.0	MMC					N			PVC		Material Change
14	47.00	458.0	AEP					N			STOU0612		End of Pipe

Surveyed By	Certificate No.	Owner	Customer	Drainage Area	Sheet No.
N FOLSOM	U-0319-70303779		CITY OF COQUITLAM		
P/O No.	STPI06532	PSR		Date / Time	
				Dec 6, 2023 9:58:00 AM	
Street	City	Upstream MH No.	Downstream MH No.		
BLUE MOUNTAIN	COQUITLAM	STMH06528	STMH06526		
Location Details					
USMH Rim to Invert		USMH Grade to Invert		USMH Rim to Grade	
3.07					
DSMH Rim to Invert		DSMH Grade to Invert		DSMH Rim to Grade	
3.12					
Sewer Use	Direction	Flow Control	Height	Width	Shape
	Downstream	N	450		C
Material	Lining Method	Pipe Joint Length	Total Length	Length Surveyed	
RCP		2.50		65.10	
Year Laid	Year Renewed	Media Label	Purpose	Sewer Cat	
		STPI06532-35414.MP4	F		
Pre-Cleaning	Date Cleaned	W/O #	Weather	Location	Pressure V
?	12/06/2023		1	A	
Project	Additional Info	Reverse Setup			
23-005					

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	8.0	AMH					N			STMH06528		Manhole
2	0.00	18.0	MWL				5	N					Water Level
3	1.10	69.0	FM					Y	12	3			Fracture Multiple
4	1.90	90.0	TB		200			N	2				Tap Break-in
5	9.20	162.0	TBA		150			N	10				Tap Break-in Active
6	32.00	323.0	FM					Y	12	1			Fracture Multiple
7	32.60	340.0	TBA		100			N	1				Tap Break-in Active
8	33.10	352.0	FM					Y	12	1			Fracture Multiple
9	40.80	396.0	CL					N	10				Crack Longitudinal
10	41.10	414.0	TB		200			N	10				Tap Break-in
11	41.10	429.0	CL					Y	10				Crack Longitudinal
12	42.90	448.0	CL					Y	1				Crack Longitudinal
13	44.50	470.0	CM					N	9	12			Crack Multiple
14	65.10	587.0	AMH					N			STMH06526		Manhole

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		STPI06901		City COQUITLAM		Date / Time Dec 6, 2023 11:28:00 AM		Upstream MH No. STMH06705		Downstream MH No. STMH17275	
Street BRUNETTE		Location Details		City COQUITLAM		Date / Time Dec 6, 2023 11:28:00 AM		Upstream MH No. STMH06705		Downstream MH No. STMH17275	
USMH Rim to Invert 2.15		USMH Grade to Invert		USMH Rim to Grade		DSMH Rim to Invert 1.97		DSMH Grade to Invert		DSMH Rim to Grade	
Sewer Use		Direction Downstream		Flow Control N		Height 450		Width		Shape C	
Material RCP		Lining Method		Pipe Joint Length 2.50		Total Length		Length Surveyed 23.20		Sewer Cat	
Year Laid		Year Renewed		Media Label STPI06901-35416.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 12/06/2023		W/O #		Weather 1		Reverse Setup		Additional Info	
Project 23-005											

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	9.0	AMH					N			STMH06705		Manhole
2	0.00	25.0	MWL				5	N					Water Level
3	1.30	56.0	RTJ				10	Y	7				Roots Tap Joint
4	3.40	82.0	RTJ				10	Y	7				Roots Tap Joint
5	5.00	104.0	RFJ	S01				Y	7				Roots Fine Joint
6	9.00	140.0	RTJ				10	Y	7				Roots Tap Joint
7	10.70	174.0	RTJ				10	Y	4	7			Roots Tap Joint
8	13.80	200.0	TB		150			N	2				Tap Break-in
9	14.80	210.0	RFJ	F01				Y	7				Roots Fine Joint
10	23.20	242.0	AMH					N			STMH17275		Manhole

Surveyed By Linton S		Certificate No. U-0317-07006319		Owner PSR		Customer CofC		Drainage Area		Sheet No.	
P/O No.		STPI07693		PSR		CofC		Date / Time Mar 13, 2023 11:18:00 AM			
Street MUNDY ST				City COQUITLAM				Upstream MH No. STMH07720			
Location Details				STOU07408				Downstream MH No.			
USMH Rim to Invert 1.12			USMH Grade to Invert			USMH Rim to Grade					
DSMH Rim to Invert 1.40			DSMH Grade to Invert			DSMH Rim to Grade					
Sewer Use		Direction Upstream		Flow Control N		Height 250		Width		Shape Circular	
Material Polyvinyl Chloride		Lining Method		Pipe Joint Length 4.00		Total Length		Length Surveyed 60.80			
Year Laid		Year Renewed		Media Label STPI07693-31228.MPG		Purpose F		Sewer Cat			
Pre-Cleaning ?		Date Cleaned 03/13/2023		W/O #		Weather 5		Location A		Pressure V	
Project 23-005				Additional Info				Reverse Setup			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	31.0	AMH					N			STOU07408	31228-1.jpg	Manhole
2	0.00	42.0	MWL				5	N				31228-2.jpg	Water Level
3	3.90	104.0	MMC					N			CP	31228-3.jpg	Material Change
4	8.90	148.0	TF		150			N	2			31228-4.jpg	Tap Factory
5	22.50	226.0	RTJ				5	Y	2			31228-5.jpg	Roots Tap Joint
6	27.70	290.0	TF		150			N	2		TAP ROOT IN SERVICE CONN	31228-6.jpg	Tap Factory
7	43.00	397.0	RFJ					Y	9	3		31228-7.jpg	Roots Fine Joint
8	46.30	439.0	TF		150			N	2		ROOT IN SERVICE CONN	31228-8.jpg	Tap Factory
9	48.70	473.0	FM					Y	12	12		31228-9.jpg	Fracture Multiple
10	52.30	509.0	RFJ					Y	5	7		31228-10.jpg	Roots Fine Joint
11	54.00	543.0	RMJ				5	Y	12	12		31228-11.jpg	Roots Medium Joint
12	56.00	566.0	RFJ					Y	5	7		31228-12.jpg	Roots Fine Joint
13	57.90	591.0	RFJ					Y	12	12		31228-13.jpg	Roots Fine Joint
14	59.60	617.0	RMJ				5	Y	6	6		31228-14.jpg	Roots Medium Joint
15	60.80	657.0	AMH					N			STMH07720	31228-15.jpg	Manhole

Surveyed By Linton S		Certificate No. U-0317-07006319		Owner PSR		Customer CofC		Drainage Area		Sheet No.	
P/O No.		STPI08122		City COQUITLAM		Date / Time Feb 22, 2023 8:11:00 AM		Upstream MH No. STMH08121		Downstream MH No. STMH08120	
Street CUSTER CRT		Location Details		City COQUITLAM		Date / Time Feb 22, 2023 8:11:00 AM		Upstream MH No. STMH08121		Downstream MH No. STMH08120	
USMH Rim to Invert 2.04		DSMH Rim to Invert 1.33		USMH Grade to Invert		DSMH Grade to Invert		USMH Rim to Grade		DSMH Rim to Grade	
Sewer Use		Direction Downstream		Flow Control N		Height 250		Width		Shape Circular	
Material Asbestos Cement		Lining Method		Pipe Joint Length 2.50		Total Length		Length Surveyed 88.00		Sewer Cat	
Year Laid		Year Renewed		Media Label STPI08122-30960.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/22/2023		W/O #		Weather 5		Reverse Setup		Additional Info	
Project 23-005											

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	29.0	AMH					N			STMH08121	30960-1.jpg	Manhole
2	0.00	39.0	MWL					5				30960-2.jpg	Water Level
3	11.00	102.0	MWLS					5				30960-3.jpg	Water Level Sag
4	20.80	162.0	TB		150			N	2			30960-4.jpg	Tap Break-in
5	24.00	183.0	MWLS					5				30960-5.jpg	Water Level Sag
6	42.60	295.0	TB		150			N	2			30960-6.jpg	Tap Break-in
7	49.30	339.0	TB		150			N	2			30960-7.jpg	Tap Break-in
8	57.70	396.0	TB		150			N	1			30960-8.jpg	Tap Break-in
9	59.20	424.0	TB		150			N	2			30960-9.jpg	Tap Break-in
10	63.10	477.0	HSV					N	3			30960-10.jpg	Hole Soil Visible
11	64.10	507.0	TB		150			N	2			30960-11.jpg	Tap Break-in
12	71.80	562.0	TB		150			N	2			30960-12.jpg	Tap Break-in
13	88.00	690.0	AMH					N			STMH08120	30960-13.jpg	Manhole

Surveyed By Linton S		Certificate No. U-0317-07006319		Owner PSR		Customer CofC		Drainage Area		Sheet No.	
P/O No.		STPI08126		City COQUITLAM		Date / Time Feb 22, 2023 8:43:00 AM		Upstream MH No. STMH08124		Downstream MH No. STMH20838	
Street CUSTER CRT				Location Details							
USMH Rim to Invert 1.58		USMH Grade to Invert		USMH Rim to Grade		DSMH Rim to Invert 1.46		DSMH Grade to Invert		DSMH Rim to Grade	
Sewer Use		Direction Downstream		Flow Control N		Height 300		Width		Shape Circular	
Material CP		Lining Method		Pipe Joint Length 2.50		Total Length		Length Surveyed 39.20		Sewer Cat	
Year Laid		Year Renewed		Media Label STPI08126-30962.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/22/2023		W/O #		Weather 5		Reverse Setup			
Project 23-005				Additional Info							

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	29.0	AMH					N			STMH08124	30962-1.jpg	Manhole
2	0.00	39.0	MWL				5	N				30962-2.jpg	Water Level
3	20.50	162.0	FL					Y	10			30962-3.jpg	Fracture Longitudinal
4	24.00	212.0	CL					Y	12			30962-4.jpg	Crack Longitudinal
5	26.10	241.0	TB		150			N	12			30962-5.jpg	Tap Break-in
6	36.60	312.0	MMC					N			PVC	30962-6.jpg	Material Change
7	37.80	334.0	MMC					N			CP	30962-7.jpg	Material Change
8	39.20	365.0	AMH					N			STMH20838	30962-8.jpg	Manhole



<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 0	
<b>P/O No.</b> 22-014		<b>STPI08153</b>		<b>PSR</b> 				<b>Date / Time</b> Apr 8, 2022 12:00:00 AM			
<b>Street</b> GROVER				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH08149			
<b>Location Details</b>				<b>Downstream MH No.</b> STMH08152							
<b>USMH Rim to Invert</b>			<b>USMH Grade to Invert</b>			<b>USMH Rim to Grade</b>					
<b>DSMH Rim to Invert</b>			<b>DSMH Grade to Invert</b>			<b>DSMH Rim to Grade</b>					
<b>Sewer Use</b> Stormwater		<b>Direction</b> Downstream		<b>Flow Control</b> Not Controlled		<b>Height</b> 450		<b>Width</b>		<b>Shape</b> Circular	
<b>Material</b> Reinforced Concrete Pipe				<b>Lining Method</b>		<b>Pipe Joint Length</b>		<b>Total Length</b>		<b>Length Surveyed</b> 45.30	
<b>Year Laid</b>		<b>Year Renewed</b>		<b>Media Label</b> STPI08153-29474.MP4		<b>Purpose</b> Routine Assessment				<b>Sewer Cat</b>	
<b>Pre-Cleaning</b> Jetting		<b>Date Cleaned</b> 04/07/2022		<b>W/O #</b>		<b>Weather</b> Dry		<b>Location</b> Main Highway - Suburban/Rural		<b>Pressure V</b> 0.00	
<b>Project</b> 22-014E				<b>Additional Info</b>				<b>Reverse Setup</b> 0			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	0.0	AMH					N			STMH08149		Manhole
2	0.00	35.0	MWL					5					Water Level
3	1.40	10.0	SRI	S01				Y	6				Surface Roughness Increased
4	2.10	99.0	RFJ					Y	3		beneath break in		Roots Fine Joint
5	2.10	110.0	TB		150			N	2				Tap Break-in
6	2.10	138.0	MGO					N			REMAINING DEBRIS AFTER 6 FLUSHES		General Observation
7	2.70	155.0	IS					Y	3	9			Infil Stain
8	4.00	180.0	RTJ					Y	1				Roots Tap Joint
9	4.00	192.0	MGP					N			ROOTS		General Photo
10	6.10	245.0	RFJ					Y	5	8			Roots Fine Joint
11	7.70	261.0	RFJ					Y	8				Roots Fine Joint
12	8.10	276.0	RFJ					Y	8	5			Roots Fine Joint
13	9.40	334.0	RFJ					Y	7	5			Roots Fine Joint
14	15.50	380.0	IS	S03				Y	3	9			Infil Stain
15	20.50	412.0	CL					N	3		STEMMING FROM BREAK IN		Crack Longitudinal

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 0	
<b>P/O No.</b> 22-014		<b>STPI08153</b>		<b>PSR</b> 				<b>Date / Time</b> Apr 8, 2022 12:00:00 AM			
<b>Street</b> GROVER				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH08149			
<b>Location Details</b>				<b>Downstream MH No.</b> STMH08152							
<b>USMH Rim to Invert</b>			<b>USMH Grade to Invert</b>			<b>USMH Rim to Grade</b>					
<b>DSMH Rim to Invert</b>			<b>DSMH Grade to Invert</b>			<b>DSMH Rim to Grade</b>					
<b>Sewer Use</b> Stormwater		<b>Direction</b> Downstream		<b>Flow Control</b> Not Controlled		<b>Height</b> 450		<b>Width</b>		<b>Shape</b> Circular	
<b>Material</b> Reinforced Concrete Pipe				<b>Lining Method</b>		<b>Pipe Joint Length</b>		<b>Total Length</b>		<b>Length Surveyed</b> 45.30	
<b>Year Laid</b>		<b>Year Renewed</b>		<b>Media Label</b> STPI08153-29474.MP4		<b>Purpose</b> Routine Assessment				<b>Sewer Cat</b>	
<b>Pre-Cleaning</b> Jetting		<b>Date Cleaned</b> 04/07/2022		<b>W/O #</b>		<b>Weather</b> Dry		<b>Location</b> Main Highway - Suburban/Rural		<b>Pressure V</b> 0.00	
<b>Project</b> 22-014E				<b>Additional Info</b>				<b>Reverse Setup</b> 0			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
16	20.80	453.0	FC					N	7	3	STEMMING FROM BREAK IN		Fracture Circumferential
17	20.80	466.0	TB		150			N	3				Tap Break-in
18	27.80	520.0	RTC				10	N	9				Roots Tap Connection
19	28.30	536.0	TBA		150			N	3				Tap Break-in Active
20	28.80	577.0	TBA		150			N	9				Tap Break-in Active
21	37.70	618.0	RFJ					Y	9				Roots Fine Joint
22	38.60	637.0	FL					Y	9				Fracture Longitudinal
23	38.80	656.0	TBA		150			N	9				Tap Break-in Active
24	39.60	672.0	RTJ				5	Y	9				Roots Tap Joint
25	43.40	695.0	RTJ				10	Y	9				Roots Tap Joint
26	45.20	709.0	SRI	F01				Y	6				Surface Roughness Increased
27	45.30	728.0	AMH					N			STMH08152		Manhole
28	45.20	744.0	IS	F03				Y	3	9			Infil Stain

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 0		<b>Sheet No.</b> 	
<b>P/O No.</b> 22-014		<b>STPI08261</b>		<b>PSR</b> 				<b>Date / Time</b> May 9, 2022 12:00:00 AM			
<b>Street</b> HARBOUR				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH08253			
<b>Location Details</b>				<b>STPI17316</b>				<b>Downstream MH No.</b> 			
<b>USMH Rim to Invert</b> 1.23			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> Stormwater		<b>Direction</b> Downstream		<b>Flow Control</b> Not Controlled		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> Reinforced Concrete Pipe				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 33.70	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI08261-29789.MP4		<b>Purpose</b> Routine Assessment				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> Jetting		<b>Date Cleaned</b> 05/04/2022		<b>W/O #</b> 		<b>Weather</b> Light Rain		<b>Location</b> Main Highway - Suburban/Rural		<b>Pressure V</b> 0.00	
<b>Project</b> 22-014E				<b>Additional Info</b> 				<b>Reverse Setup</b> 0			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	14.0	AMH					N			STMH08253		Manhole
2	0.00	23.0	MWL				10	N					Water Level
3	4.60	59.0	IS					N	1				Infil Stain
4	19.60	132.0	RFJ					Y	11	3			Roots Fine Joint
5	20.90	145.0	RFJ					Y	7	10			Roots Fine Joint
6	27.30	184.0	FM					Y	6	12			Fracture Multiple
7	29.70	201.0	JOM					N					Joint Offset Medium
8	29.80	212.0	RFJ					Y	3				Roots Fine Joint
9	30.90	226.0	RFJ					Y	3	9			Roots Fine Joint
10	31.80	254.0	MMC					N			PVC		Material Change
11	32.70	267.0	TFA		150			N	2				Tap Factory Active
12	33.70	279.0	AEP					N			STPI17316		End of Pipe

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI09077		PSR 				Date / Time Dec 1, 2023 1:40:00 PM			
Street MARINER WAY				City COQUITLAM				Upstream MH No. STMH09072			
Location Details 				STMH19736				Downstream MH No. 			
USMH Rim to Invert 3.11			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 3.07			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Downstream		Flow Control N		Height 200		Width 		Shape C	
Material RCP				Lining Method 		Pipe Joint Length 2.50		Total Length 		Length Surveyed 51.60	
Year Laid 		Year Renewed 		Media Label STPI09077-35372.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 12/01/2023		W/O # 		Weather 1		Location A		Pressure V 	
Project 23-005				Additional Info LOOK FOR REVERSAL				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	52.0	AMH					N			STMH09072		Manhole
2	0.00	64.0	MWL				5	N					Water Level
3	0.60	120.0	TBA		100			N	2				Tap Break-in Active
4	0.60	136.0	IWC					N	2				Infiltration Weeper Connection
5	1.80	175.0	FL					N	4				Fracture Longitudinal
6	2.60	220.0	FC					N	12	12			Fracture Circumferential
7	2.60	239.0	B					N	12		ROUGH CONNECTION		Broken
8	2.70	265.0	TB		150			N	12				Tap Break-in
9	2.80	285.0	FL					Y	12				Fracture Longitudinal
10	27.10	459.0	IDC					N	2				Infiltration Dripper Connection
11	27.30	481.0	TB		150			N	2				Tap Break-in
12	29.50	527.0	OBZ				5	N	6		UNKNOWN		Obstacle Other
13	29.50	556.0	RFJ					Y	7				Roots Fine Joint
14	42.20	640.0	MMC					N			PVC		Material Change
15	47.80	676.0	TF		150			N	2				Tap Factory
16	49.00	747.0	TF		150			N	10				Tap Factory

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 	
<b>P/O No.</b> 		<b>STPI09077</b>		<b>PSR</b> 				<b>Date / Time</b> Dec 1, 2023 1:40:00 PM			
<b>Street</b> MARINER WAY				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH09072			
<b>Location Details</b> 								<b>Downstream MH No.</b> STMH19736			
<b>USMH Rim to Invert</b> 3.11			<b>USMH Grade to Invert</b> 			<b>USMH Rim to Grade</b> 					
<b>DSMH Rim to Invert</b> 3.07			<b>DSMH Grade to Invert</b> 			<b>DSMH Rim to Grade</b> 					
<b>Sewer Use</b> 		<b>Direction</b> Downstream		<b>Flow Control</b> N		<b>Height</b> 200		<b>Width</b> 		<b>Shape</b> C	
<b>Material</b> RCP		<b>Lining Method</b> 		<b>Pipe Joint Length</b> 2.50		<b>Total Length</b> 		<b>Length Surveyed</b> 51.60		<b>Sewer Cat</b> 	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI09077-35372.MP4		<b>Purpose</b> F		<b>Location</b> A		<b>Pressure V</b> 	
<b>Pre-Cleaning</b> ?		<b>Date Cleaned</b> 12/01/2023		<b>W/O #</b> 		<b>Weather</b> 1		<b>Reverse Setup</b> 			
<b>Project</b> 23-005				<b>Additional Info</b> LOOK FOR REVERSAL							

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	50.40	762.0	MMC					N			RCP		Material Change
18	51.60	812.0	MSA					N			DUE TO DEBRIS, REFLUSH		Abandoned Survey

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		STPI09077		PSR				Date / Time Dec 4, 2023 9:19:00 AM			
Street MARINER WAY				City COQUITLAM				Upstream MH No. STMH09072			
Location Details				STMH19736				Downstream MH No.			
USMH Rim to Invert 3.11			USMH Grade to Invert			USMH Rim to Grade					
DSMH Rim to Invert 3.07			DSMH Grade to Invert			DSMH Rim to Grade					
Sewer Use		Direction Upstream		Flow Control N		Height 200		Width		Shape C	
Material RCP				Lining Method		Pipe Joint Length 2.50		Total Length		Length Surveyed 2.40	
Year Laid		Year Renewed		Media Label STPI09077-35378.MP4		Purpose F				Sewer Cat	
Pre-Cleaning ?		Date Cleaned 12/04/2023		W/O #		Weather 1		Location A		Pressure V	
Project 23-005				Additional Info REVERSAL OF PREVIOUS INSPECTION				Reverse Setup			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	8.0	AMH				N			STMH19736		Manhole	
2	0.00	21.0	MWL			5	N					Water Level	
3	1.70	55.0	RBJ			55	Y	3	9			Roots Ball Joint	
4	2.40	112.0	MSA				N			STUCK ON ROOTS/OVERLAP		Abandoned Survey	

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI10252		PSR 				Date / Time Dec 5, 2023 9:00:00 AM			
Street DARTMOOR				City COQUITLAM				Upstream MH No. STMH10253			
Location Details 				STMH10257				Downstream MH No. 			
USMH Rim to Invert 			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 2.58			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Upstream		Flow Control N		Height 200		Width 		Shape C	
Material RCP				Lining Method 		Pipe Joint Length 2.50		Total Length 		Length Surveyed 12.50	
Year Laid 		Year Renewed 		Media Label STPI10252-35394.MP4		Purpose F		Sewer Cat 			
Pre-Cleaning ?		Date Cleaned 12/04/2023		W/O # 		Weather 1		Location A		Pressure V 	
Project 23-005				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	30.0	AMH					N			STMH10257		Manhole
2	0.00	43.0	MWL				5	N					Water Level
3	4.00	93.0	RFJ					Y	7				Roots Fine Joint
4	8.40	150.0	RFJ					Y	5	7			Roots Fine Joint
5	9.80	163.0	RFJ					Y	5	7			Roots Fine Joint
6	11.90	192.0	RBJ				70	Y	12	12			Roots Ball Joint
7	12.20	204.0	TFA		100			N	2				Tap Factory Active
8	12.50	221.0	MSA					N			STUCK ON ROOTS		Abandoned Survey

<b>Surveyed By</b> Linton S		<b>Certificate No.</b> U-0317-07006319		<b>Owner</b> PSR		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> STMH10324		<b>Sheet No.</b> STMH10325	
<b>P/O No.</b> 23-005		<b>STPI</b> STPI10257		<b>City</b> COQUITLAM		<b>Date / Time</b> Nov 28, 2023 3:12:00 PM		<b>Upstream MH No.</b> STMH10325		<b>Downstream MH No.</b> STMH10324	
<b>Street</b> DARTMOOR DR				<b>Location Details</b> DARTMOOR DR				<b>City</b> COQUITLAM		<b>Project</b> 23-005	
<b>USMH Rim to Invert</b>		<b>USMH Grade to Invert</b>		<b>USMH Rim to Grade</b>		<b>DSMH Rim to Invert</b>		<b>DSMH Grade to Invert</b>		<b>DSMH Rim to Grade</b>	
<b>Sewer Use</b>		<b>Direction</b>		<b>Flow Control</b>		<b>Height</b>		<b>Width</b>		<b>Shape</b>	
CP		Upstream		N		375		C		C	
<b>Material</b>		<b>Lining Method</b>		<b>Pipe Joint Length</b>		<b>Total Length</b>		<b>Length Surveyed</b>		<b>Sewer Cat</b>	
CP		STPI10257-35230.MP4		2.50		26.60		26.60		A	
<b>Year Laid</b>		<b>Year Renewed</b>		<b>Media Label</b>		<b>Purpose</b>		<b>Location</b>		<b>Pressure V</b>	
?		11/28/2023		STPI10257-35230.MP4		5		A		A	
<b>Pre-Cleaning</b>				<b>W/O #</b>				<b>Weather</b>			
?				11/28/2023				5			
<b>Project</b>				<b>Additional Info</b>				<b>Reverse Setup</b>			
23-005				REVERSAL				A			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	30.0	AMH					N			STMH10324		Manhole
2	0.00	40.0	MWL				5	N					Water Level
3	4.20	78.0	RFJ					Y	5	7			Roots Fine Joint
4	6.30	98.0	RFJ					Y	8	10			Roots Fine Joint
5	9.90	122.0	RFJ					Y	8	11			Roots Fine Joint
6	11.90	142.0	RFJ					Y	8	4			Roots Fine Joint
7	15.30	220.0	FM					Y	10	1			Fracture Multiple
8	26.60	307.0	RBJ				80	Y	2	11			Roots Ball Joint
9	26.60	341.0	MSA					N			MET REVERSAL		Abandoned Survey



Surveyed By LUCAS A		Certificate No. P0039911-112022		Owner 		Customer City of Coquitlam		Drainage Area 		Sheet No. 	
P/O No. 		STPI10257		PSR 				Date / Time Nov 20, 2023 10:32:00 AM			
Street ROGATE AVE				City COQUITLAM				Upstream MH No. STMH10325			
Location Details 				STMH10324				Downstream MH No. 			
USMH Rim to Invert 			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 1.82			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Upstream		Flow Control N		Height 200		Width 		Shape C	
Material RCP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 14.30	
Year Laid 		Year Renewed 		Media Label STPI10257-35354.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 11/20/2023		W/O # 		Weather 5		Location C		Pressure V 	
Project 30-6015				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	13.0	AMH				N			STMH10324		Manhole	
2	0.00	24.0	MWL			5	N					Water Level	
3	3.40	78.0	TF	150			N	2		ROOTS		Tap Factory	
4	9.10	153.0	TB	200			N	10				Tap Break-in	
5	9.90	182.0	TFC	100			N	3				Tap Factory Capped	
6	10.20	221.0	DSC			5	N	5	6	ROOTS AND DIRT		Deposits Settled Compacted	
7	14.30	664.0	OBS			75	N	2	10	DAM OR ROCK WALL		Obstacle Built Into Structure	
8	14.30	721.0	MSA				N			DEBRIS AND ROCK WALL		Abandoned Survey	

Surveyed By Linton S		Certificate No. U-0317-07006319		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No. 23-005		STPI10257		City COQUITLAM		Date / Time Nov 28, 2023 2:44:00 PM		Upstream MH No. STMH10325		Downstream MH No. STMH10324	
Street DARTMOOR DR		Location Details		City COQUITLAM		Date / Time Nov 28, 2023 2:44:00 PM		Upstream MH No. STMH10325		Downstream MH No. STMH10324	
USMH Rim to Invert		USMH Grade to Invert		USMH Rim to Grade		DSMH Rim to Invert		DSMH Grade to Invert		DSMH Rim to Grade	
Sewer Use		Direction Upstream		Flow Control N		Height 375		Width		Shape C	
Material CP		Lining Method		Pipe Joint Length 2.50		Total Length		Length Surveyed 14.10		Sewer Cat	
Year Laid		Year Renewed		Media Label STPI10257-35225.MP4		Purpose		Location		Pressure V	
Pre-Cleaning ?		Date Cleaned 11/28/2023		W/O #		Weather 5		Location A		Reverse Setup	
Project 23-005		Additional Info		Reverse Setup		Reverse Setup		Reverse Setup		Reverse Setup	

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	32.0	AMH				N			STMH10324		Manhole	
2	0.00	43.0	MWL			5	N					Water Level	
3	2.60	65.0	RTJ			5	Y	8				Roots Tap Joint	
4	3.30	96.0	TBA		100		N	2		ROOTS IN SERVICE CONN		Tap Break-in Active	
5	9.10	139.0	TB		100		N	10				Tap Break-in	
6	9.60	159.0	TBC		100		N	2				Tap Break-in Capped	
7	11.80	200.0	RMJ			5	Y	6				Roots Medium Joint	
8	14.00	329.0	RBB			90	N	2	11			Roots Ball Barrel	
9	14.10	366.0	MSA				N			DUE TO ROOT BALL		Abandoned Survey	

Surveyed By LUCAS A		Certificate No. P0039911-112022		Owner PSR		Customer City of Coquitlam		Drainage Area		Sheet No.	
P/O No.		STPI10293		City COQUITLAM		Date / Time Nov 20, 2023 9:29:00 AM		Upstream MH No. STMH10289		Downstream MH No. STMH10290	
Street ROGATE AVE		Location Details		City COQUITLAM		Date / Time Nov 20, 2023 9:29:00 AM		Upstream MH No. STMH10289		Downstream MH No. STMH10290	
USMH Rim to Invert		DSMH Rim to Invert		USMH Grade to Invert		DSMH Grade to Invert		USMH Rim to Grade		DSMH Rim to Grade	
2.97											
Sewer Use		Direction		Flow Control		Height		Width		Shape	
		Upstream		N		200				C	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
CP										99.90	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				STPI10293-35353.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		11/17/2023				5		C			
Project		Additional Info						Reverse Setup			
30-6015											

Line#	Distance	Video Ref	Code	Continuous Defect	Value				Circumferential Location		Remarks	Photo	Description
					1st	2nd	%	Joint	At/From	To			
1	0.00	9.0	AMH					N			STMH10290		Manhole
2	0.00	20.0	MWL				0	N					Water Level
3	1.30	80.0	DSZ				5	N	5	7	DIRT		Deposits Settled Other
4	3.70	129.0	DSZ	S01			5	N	5	7	DIRT		Deposits Settled Other
5	5.50	180.0	RTJ				5	Y	3	4			Roots Tap Joint
6	7.10	216.0	TB		150			N	10				Tap Break-in
7	7.10	258.0	RTJ				5	Y	2	3			Roots Tap Joint
8	7.10	291.0	RFJ	S02				Y	6	12			Roots Fine Joint
9	16.30	356.0	TB		150			N	10				Tap Break-in
10	36.60	477.0	TB		150			N	10				Tap Break-in
11	45.00	566.0	RFJ	F02				Y	6	12			Roots Fine Joint
12	47.30	580.0	DSZ	F01			5	N	5	7	DIRT		Deposits Settled Other
13	57.10	658.0	TB		150			N	10				Tap Break-in

Surveyed By LUCAS A		Certificate No. P0039911-112022		Owner 		Customer City of Coquitlam		Drainage Area 		Sheet No. 	
P/O No. 		STPI10293		PSR 				Date / Time Nov 20, 2023 9:29:00 AM			
Street ROGATE AVE				City COQUITLAM				Upstream MH No. STMH10289			
Location Details 								Downstream MH No. STMH10290			
USMH Rim to Invert 			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 2.97			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Upstream		Flow Control N		Height 200		Width 		Shape C	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 99.90	
Year Laid 		Year Renewed 		Media Label STPI10293-35353.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 11/17/2023		W/O # 		Weather 5		Location C		Pressure V 	
Project 30-6015				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
14	60.50	714.0	RFJ					Y	2	3			Roots Fine Joint
15	71.00	803.0	RFJ	S03				Y	6	9			Roots Fine Joint
16	75.80	855.0	RTJ				25	Y	2	10			Roots Tap Joint
17	77.30	878.0	TB		150			N	10				Tap Break-in
18	96.30	1,234.0	TB		150			N	10				Tap Break-in
19	97.90	1,327.0	RFJ	F03				Y	6	9			Roots Fine Joint
20	97.90	1,385.0	MGO					N			UNABLE TO MAKE IT TO MANHOLE DUE TO DEBRIS AND NO ACCESS TO TOP MANHOLE		General Observation
21	99.90	1,418.0	AMH					N			STMH10289		Manhole

<b>Surveyed By</b> N FOLSOM		<b>Certificate No.</b> U-0319-70303779		<b>Owner</b> 		<b>Customer</b> CITY OF COQUITLAM		<b>Drainage Area</b> 		<b>Sheet No.</b> 0	
<b>P/O No.</b> 22-014		<b>STPI11033</b>		<b>PSR</b> 				<b>Date / Time</b> Apr 14, 2022 12:00:00 AM			
<b>Street</b> MCCOOMB				<b>City</b> COQUITLAM				<b>Upstream MH No.</b> STMH00590			
<b>Location Details</b>				<b>Downstream MH No.</b> STMH00554							
<b>USMH Rim to Invert</b>			<b>USMH Grade to Invert</b>			<b>USMH Rim to Grade</b>					
<b>DSMH Rim to Invert</b>			<b>DSMH Grade to Invert</b>			<b>DSMH Rim to Grade</b>					
<b>Sewer Use</b> Stormwater		<b>Direction</b> Upstream		<b>Flow Control</b> Not Controlled		<b>Height</b> 250		<b>Width</b> 		<b>Shape</b> Circular	
<b>Material</b> Reinforced Concrete Pipe				<b>Lining Method</b> 		<b>Pipe Joint Length</b> 		<b>Total Length</b> 		<b>Length Surveyed</b> 5.50	
<b>Year Laid</b> 		<b>Year Renewed</b> 		<b>Media Label</b> STPI11033-29481.MP4		<b>Purpose</b> Routine Assessment				<b>Sewer Cat</b> 	
<b>Pre-Cleaning</b> Jetting		<b>Date Cleaned</b> 04/07/2022		<b>W/O #</b> 		<b>Weather</b> Dry		<b>Location</b> Main Highway - Suburban/Rural		<b>Pressure V</b> 0.00	
<b>Project</b> 22-014E				<b>Additional Info</b> 				<b>Reverse Setup</b> 0			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	11.0	AMH					N			STMH00554		Manhole
2	0.00	23.0	MWL				5	N					Water Level
3	1.30	60.0	DAE				5	Y	5	7			Deposits Attached Encrustation
4	4.90	114.0	MGP					N			ROOT BALL		General Photo
5	5.50	164.0	RBJ				95	Y	12	12			Roots Ball Joint
6	5.50	189.0	RTJ				25	Y	12	4			Roots Tap Joint
7	5.50	207.0	MSA					N			ROOT BALL		Abandoned Survey

Surveyed By T SCOLLON		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI15273		PSR 				Date / Time Oct 23, 2023 1:31:00 PM			
Street GEORGESON AVE				City COQUITLAM				Upstream MH No. STMH15271			
Location Details 								Downstream MH No. STMH15302			
USMH Rim to Invert 			USMH Grade to Invert 			USMH Rim to Grade 					
DSMH Rim to Invert 1.91			DSMH Grade to Invert 			DSMH Rim to Grade 					
Sewer Use 		Direction Upstream		Flow Control N		Height 250		Width 		Shape C	
Material RCP				Lining Method 		Pipe Joint Length 2.50		Total Length 		Length Surveyed 78.30	
Year Laid 		Year Renewed 		Media Label STPI15273-34906.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 10/19/2023		W/O # 		Weather 5		Location A		Pressure V 	
Project 23-005				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	13.0	AMH					N			STMH15302		Manhole
2	0.00	23.0	MWL				0	N					Water Level
3	1.30	41.0	SRI					N	5	7			Surface Roughness Increased
4	5.60	136.0	TB		150			N	3				Tap Break-in
5	5.40	193.0	H					N	2	3	SCREW HOLE CHIP IN CONC		Hole
6	6.00	221.0	SRI	S01				N	5	7			Surface Roughness Increased
7	12.00	285.0	JOM					N					Joint Offset Medium
8	14.60	337.0	TF		150			N	9				Tap Factory
9	18.70	376.0	TB		150			N	3				Tap Break-in
10	19.20	417.0	TF		200			N	3		250?		Tap Factory
11	22.60	466.0	TF		150			N	9				Tap Factory
12	31.40	533.0	TB		150			N	3				Tap Break-in
13	33.40	571.0	TF		200			N	9				Tap Factory
14	36.00	607.0	TB		150			N	3				Tap Break-in
15	39.90	668.0	TF		150			N	9				Tap Factory
16	44.20	708.0	TB		150			N	3				Tap Break-in



# City of Coquitlam CCTV Inspection Report

CCTV 45

Standard: PACP  
Inspection ID: 34906

Surveyed By T SCOLLON	Certificate No. U-0121-70400907	Owner	Customer CITY OF COQUITLAM	Drainage Area	Sheet No.
P/O No.	STPI15273	PSR		Date / Time Oct 23, 2023 1:31:00 PM	
Street GEORGESON AVE		City COQUITLAM		Upstream MH No. STMH15271	Downstream MH No. STMH15302
USMH Rim to Invert		USMH Grade to Invert		USMH Rim to Grade	
DSMH Rim to Invert 1.91		DSMH Grade to Invert		DSMH Rim to Grade	
Sewer Use	Direction Upstream	Flow Control N	Height 250	Width	Shape C
Material RCP		Lining Method	Pipe Joint Length 2.50	Total Length	Length Surveyed 78.30
Year Laid	Year Renewed	Media Label STPI15273-34906.MP4	Purpose F		Sewer Cat
Pre-Cleaning ?	Date Cleaned 10/19/2023	W/O #	Weather 5	Location A	Pressure V
Project 23-005		Additional Info		Reverse Setup	

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	52.30	771.0	TF		150			N	9				Tap Factory
18	56.80	814.0	TB		150			N	3				Tap Break-in
19	65.40	905.0	CC					N	7	10			Crack Circumferential
20	65.40	927.0	B					N	5	7			Broken
21	66.50	948.0	TF		150			N	9				Tap Factory
22	70.00	984.0	TB		150			N	3				Tap Break-in
23	70.90	1,014.0	SAV	S02				N	5	7			Surface Aggregate Visible
24	76.20	1,082.0	TB		150			N	3		GASKET HANGING		Tap Break-in
25	76.50	1,112.0	RFJ					Y	1	2			Roots Fine Joint
26	77.50	1,127.0	SAV	F02				N	5	7			Surface Aggregate Visible
27	77.50	1,138.0	SRI	F01				N	5	7			Surface Roughness Increased
28	78.30	1,153.0	AMH					N			STMH15271		Manhole