



City of Coquitlam

Contract Documents 81460

2025 Grouting Program



Table of Contents

Contract No. 81460

2025 Grouting Program

Project Construction Documents

Table of Contents

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

1. Standard Documents – supplied	Page
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 25
▪ Appendices:	
▪ Appendix I Performance Bond	SGC 19 to SGC 20
▪ Appendix II labour and Material Payment Bond	SGC 21 to SGC 23
▪ Appendix III Certificate of Insurance	SGC 24
▪ Appendix IV Prime Contractor Designation	SGC 25

Table of Contents

Supplementary Contract Specifications	SS 1 to SS 17
Appendix A – Traffic Management Detail Specifications.....	TMP 1 to TMP 9
Appendix B – Location Maps	LM 1 to LM 22
Appendix C – CCTV Video & Inspection Reports File Links	CCTV 1
Appendix D – Hard Copy Inspection Reports	IR 1 to IR 76

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: **August 6, 2025**

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

Tender No. 81460

2025 Grouting Program

The City of Coquitlam invites tenders for **Contract 81460 - 2025 Grouting Program**, generally consisting of the following, but not limited to:

- Joint testing and grouting of various storm and sanitary mains; and,
- Other miscellaneous and incidental work 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

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

August 27, 2025

("Closing Date and Time")

Addenda

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

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

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

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

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

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

The City, prior to award of any Tender, may negotiate with the Tenderer presenting the lowest price compliant Tender, for changes in the Work, materials, specifications or conditions without having any duty or obligation to advise any other Tenderers or to allow them to modify their Tenders, and the City will have no liability to any Tenderer as a result of such negotiations or modifications.

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

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

M. Pain
Manager Procurement

Instructions to Tenderers

Tender 81460

2025 Grouting Program

INSTRUCTIONS TO TENDERERS

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

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: **2025 Grouting Program**

Reference No. **81460**

- | | | |
|------------|-------------------------|---|
| 1.0 | Introduction | <p>1.1 These Instructions apply to and govern the preparation of tenders for this <i>Contract</i>. The <i>Contract</i> is generally for the following work:</p> <ul style="list-style-type: none">• Joint testing and grouting of various storm and sanitary mains; and,• Other miscellaneous and incidental work as further described in the Contract Documents. <p>1.2 All inquiries regarding this Tender are to be submitted in writing referencing the Tender Name and Number sent to:</p> <p>E-mail bid@coquitlam.ca</p> <p>The deadline for inquiries is 2:00 PM local time, Friday, August 22, 2025.</p> <p>INQUIRIES RECEIVED AFTER THIS DATE AND TIME MAY NOT RECEIVE A RESPONSE.</p> |
| 2.0 | Tender Documents | <p>2.1 The Tender Documents which a Tenderer should review to prepare a Tender consist of all of the <i>Contract Documents</i> listed in Schedule 1 entitled "Schedule of Contract Documents". Schedule 1 is attached to the Agreement which is included as part of the Tender Package. The <i>Contract Documents</i> include the drawings listed in Schedule 2 to the Agreement, entitled "List of Contract Drawings".</p> <p>2.2 <u>A portion of the Contract Documents are included by reference. Copies of these documents have not been included with the tender package.</u> These documents are the General Conditions, Specifications and Standard Detail Drawings. They are those 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 <i>Tender Closing Date</i>. <u>All sections of this publication are by reference included in the Contract Documents.</u></p> <p>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</p> |

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: August 27, 2025

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

**Instructions
for Tender
Submission**

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

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

1. In the "Subject Field" enter: Tender Number and Name

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

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

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

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

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

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

		3.6	Tender submissions are subject to the Freedom of Information and Protection of Privacy Act and contents may be disclosed if required to do so, pursuant to the Act.
4.0	Additional Instructions to Tenderers	4.1	<u>Additional Instructions to Tenderers</u>
	Obtaining Documents	4.2	<p>The following documents which are referred to and form part of the Contract Document package may be obtained as follows:</p> <ul style="list-style-type: none">• Copies of the Master Municipal Construction Documents Volume II (2009), General Conditions, Specifications and Standard Detail Drawings are available separately from: Support Services Unlimited Suite 102 211 Columbia Street Vancouver, B.C. V6A 2R5 Tel: 604-681-0295 Fax: 604-305-0424• Copies of the City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2009 Edition are available for viewing and downloading off the City of Coquitlam website: Supplementary Specifications and Detailed Drawings to MMCD
	Test Excavations	4.3	Prior to the excavation of test holes on road allowances or privately owned property the Tenderer shall obtain permission from the Municipality or Owner of the property and comply with their requirements for restoration of disturbed surfaces and utilities. Failure to comply with Municipal by-laws restricting this practice may result in prosecution of the offending party.
	Business License	4.4	The successful Tenderer shall provide evidence of a City of Coquitlam Business License or Tri-Cities Inter-Municipal Business License prior to commencement of work or supply of materials. For more information, contact Business License Division Ph: 604-927-3085 or apply online at website: City of Coquitlam Business License
	No Claim	4.5	Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, as a result of participating in this Tender, including accepting a non-compliant bid and by submitting a Tender, each Tenderer shall be deemed to have agreed that it has no claim.
	No Cost	4.6	The City will not under any circumstances be responsible for any costs incurred by the Tenderer in preparing the Tender.

Right to Accept or Reject any Tender	4.7	<p>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.</p> <p>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.</p>
	4.8	<p>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.</p>
Cancellation of Tender	4.9	<p>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.</p>
Conflict of Interest	4.10	<p>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.</p>
Collusion	4.11	<p>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.</p>
Instruction to Tenderers – Part II	4.12	<p>Delete Instructions to Tenderers – Part II Contained in the Edition of the Publication “Master Municipal Construction Documents 2009” and replace with the following:</p>
5.0 Tender Requirements	5.1	<p>A tender should be on the Form of Tender as provided and be signed by the authorized signatory(s) as follows:</p> <p>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</p>

- 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 | <p>9.1 If a tenderer is in doubt as to the correct meaning of any provision of the <i>Contract Documents</i>, the tenderer may request clarification as instructed in paragraph 1.2 of the Instructions to Tenderers.</p> <p>9.2 If a tenderer discovers any contradictions or inconsistencies in the <i>Contract Documents</i> or its provisions, or any discrepancies between a provision of the <i>Contract Documents</i> and conditions at the <u>Place of the Work as</u> observed in an examination under paragraph 8 of the person named in paragraph 1.2 of the Instructions to Tenderers.</p> <p>9.3 If the <i>Owner</i> considers it necessary, the <i>Owner</i> may issue written addenda to provide clarification (s) of the <i>Contract Documents</i>.</p> <p>9.4 <u>No oral interpretation or representations from the <i>Owner</i> or any representative of the <i>Owner</i> will affect, alter, or amend any provision of the <i>Contract Documents</i>.</u></p> |
| 10.0 | Prices | <p>10.1 The Tendered Price will represent the entire cost excluding <i>GST</i> to the <i>Owner</i> of the complete <i>Work</i> based on the estimated quantities in the <i>Schedule of Quantities and Prices</i> 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:</p> <ul style="list-style-type: none">10.1.1 the costs of all labour, equipment and material included in or required for the <i>Work</i>, including all items which, whole not specifically listed in the <i>Schedule of Quantities and Prices</i>, are included in the <i>Work</i> specifically or by necessary inference from the <i>Contract Documents</i>;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 <i>Contractor's</i> profit. <p>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 <i>Work</i>, and payment of appropriate wages for labour included in or required for the <i>Work</i>.</p> |
| 11.0 | Taxes | <p>11.1 The tendered prices shall cover all taxes and assessments of any kind payable with respect to the <i>Work</i>, but shall not include <i>GST</i>. <i>GST</i> shall be listed as a separate line item as required by GC 19.3.</p> |

**12.0 Amendment of
Tenders**

- 12.1 A tenderer may amend or revoke a tender by giving written notice, delivered by Email, to the office referred to in paragraph 3.4 of the Instructions to Tenderers at any time up until the *Tender Closing Date and Time*. An amendment or revocation that is received after the *Tender Closing Date and Time* shall not be considered and shall not affect a tender as submitted.
- 12.2 An amendment or revocation must be signed by an authorized signatory of the tenderer in the same manner as provided by paragraph 5.1 of these Instructions to Tenderers.
- 12.3 Any amendment that expressly or by inference discloses the tenderer's *Tender Price* or other material element of the tender such that, in the opinion of the *Owner*, the confidentiality of the tender is breached, will invalidate the entire tender.
- 12.4 An acceptable form of a tender amendment which tenderers may, but are not required to, use is as follows:

"Contract:

(TITLE OF CONTRACT)

Reference No.

(OWNER'S CONTRACT REFERENCE NO.)

TO:

(NAME OF OWNER)

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

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

and substituting the following revised tendered prices or items:

(REVISED TENDERED PRICES OR TENDER ITEMS)

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

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

**13.0 Duration of
Tenders**

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

**14.0 Qualifications
of Tenderers**

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

15.0 Award

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

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

1. Ability to meet specifications and required completion date
2. Contractor's past experience, references, reputation and compliance to specifications
3. Demonstrated successful experience on similar projects and specific equipment installation
4. Price: purchase price, maintenance costs, availability of parts and service, warranty and compatibility with existing equipment and/or conditions
5. Any other criteria, the City deems, at its sole discretion, necessary to evaluate Tenders;
6. Lowest price will not necessarily be accepted.

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

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

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

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

incur increased staff and legal costs or either of them in the administration of this contract if it is awarded to the Tenderer.

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

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

15.2 The *Owner* will notify the successful tenderer in writing.

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

- a) If a unit price is given but the corresponding extended total has been omitted, then the extended total shall be calculated from unit price and the estimated quantity, and inserted as the extended total;
- b) If an extended total is given but the corresponding unit price has been omitted, then the unit price shall be calculated from the extended total and estimated quantity, and inserted as the unit price;
- c) If both the unit price and the corresponding extended total for a tender item have been omitted, then the following test shall be applied to determine whether the tender shall be rejected as incomplete:
 - (i) the highest of the unit prices tendered by other tenderers for that tender item shall be used as the test unit price, and the corresponding test extended total shall be calculated from the test unit price and the estimated quantity;
 - (ii) if the test extended total for the tender item exceeds 1% of the revised total *Tender Price*, including the test extended total, or if the revised total *Tender Price*, including the test extended total, alters the ranking of the tenderers according to the lowest *Tender Price*, then the omitted unit price for that tender item is deemed to materially affect the *Tender Price*

relative to other tenders and the tender shall be rejected;

- (iii) if the tender is not rejected under subparagraph (ii) of this IT 15.3 (c), then the unit price and the extended total for that tender item shall both be deemed to be, and the costs for that tender item shall be zero deemed to be included in other tender items prices;

- d) In no event shall page totals in the *Schedule of Quantities and Prices* or the total *Tender Price* be used to calculate missing extended totals or unit prices.

- | | | | |
|-------------|-----------------------|------|--|
| 16.0 | Subcontractors | 16.1 | The <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 it tender. The <i>Owner</i> shall, in the event, return the tenderer's bid security |
| 17.0 | Optional Work | 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. 81460

2025 Grouting Program

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)
Wednesday, August 27, 2025.**

Instructions for Tender Submission

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

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

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

August 2025

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

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

Contract Name: 2025 Grouting Program

Reference No.: 81460

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, 2025**; 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 81460
2025 Grouting Program

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
1.00	01 55 005	TRAFFIC CONTROL, VEHICLE ACCESS AND PARKING				
1.01	(1.5.1)	Traffic Control and Management			Incidental to Contract	
2.00	01 57 015	ENVIRONMENTAL PROTECTION				
2.01	(1.6.1)	Environmental Protection			Incidental to Contract	
3.00	33 01 30.15	CCTV INSPECTION OF PIPELINES				
3.01	(1.6.2)	Pre/Post Construction CCTV Inspection			Incidental to Contract	
4.00	33 01 30.25	CLEANING OF SEWERS				
4.01	1.5.2 / (1.5.4)	150mm dia. (as per Appendix B)	lin.m	274		
4.02	1.5.2 / (1.5.4)	200mm dia. (as per Appendix B)	lin.m	1,626		
4.03	1.5.2 / (1.5.4)	250mm dia. (as per Appendix B)	lin.m	252		
4.04	1.5.2 / (1.5.4)	300mm dia. (as per Appendix B)	lin.m	246		
4.05	1.5.2 / (1.5.4)	375mm dia. (as per Appendix B)	lin.m	262		
4.06	1.5.2 / (1.5.4)	450mm dia. (as per Appendix B)	lin.m	115		
4.07	1.5.2 / (1.5.4)	525mm dia. (as per Appendix B)	lin.m	137		
4.08	1.5.2 / (1.5.4)	600mm dia. (as per Appendix B)	lin.m	93		
4.09	1.5.2 / (1.5.4)	750mm dia. (as per Appendix B)	lin.m	128		
4.10	1.5.2 / (1.5.4)	900mm dia. (as per Appendix B)	lin.m	98		
4.11	(1.5.4)	Root Cutting - Provisional	hours	20		
4.12	(1.5.5)	Cut Intruding Connections - Provisional	each	5		
5.00	33 05 305	CHEMICAL GROUTING OF MAINLINE SEWER JOINTS - JOINT TESTING				
5.01	(1.8.1)	150mm dia. (as per Appendix B)	each	170		
5.02	(1.8.1)	200mm dia. (as per Appendix B)	each	1,039		
5.03	(1.8.1)	250mm dia. (as per Appendix B)	each	175		
5.04	(1.8.1)	300mm dia. (as per Appendix B)	each	143		
5.05	(1.8.1)	375mm dia. (as per Appendix B)	each	112		
5.06	(1.8.1)	450mm dia. (as per Appendix B)	each	55		
5.07	(1.8.1)	525mm dia. (as per Appendix B)	each	55		
5.08	(1.8.1)	600mm dia. (as per Appendix B)	each	37		
5.09	(1.8.1)	750mm dia. (as per Appendix B)	each	54		
5.10	(1.8.1)	900mm dia. (as per Appendix B)	each	39		
6.00	33 05 305	CHEMICAL GROUTING OF MAINLINE SEWER JOINTS - JOINT GROUTING				
6.01	(1.8.2)	150mm dia. (as per Appendix B)	each	85		
6.02	(1.8.2)	200mm dia. (as per Appendix B)	each	520		
6.03	(1.8.2)	250mm dia. (as per Appendix B)	each	88		
6.04	(1.8.2)	300mm dia. (as per Appendix B)	each	72		
6.05	(1.8.2)	375mm dia. (as per Appendix B)	each	56		
6.06	(1.8.2)	450mm dia. (as per Appendix B)	each	28		
6.07	(1.8.2)	525mm dia. (as per Appendix B)	each	28		
6.08	(1.8.2)	600mm dia. (as per Appendix B)	each	19		
6.09	(1.8.2)	750mm dia. (as per Appendix B)	each	27		
6.10	(1.8.2)	900mm dia. (as per Appendix B)	each	20		

Total Tendered Price (exclude GST): _____
(Transfer the amount to Form of Tender Summary Page 1)

Name of Contractor: _____

APPENDIX 2

FORM OF TENDER

**Contract 81460
2025 Grouting Program**

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

INDICATE SCHEDULE WITH BAR CHART WITH CONSTRUCTION DURATIONS

CONSTRUCTION ACTIVITY	SEPTEMBER			OCTOBER				NOVEMBER				DECEMBER				
	3	4	5	1	2	3	4	1	2	3	4	1	2	3	4	5

Substantial Completion Date: **December 31, 2025**

APPENDIX 3

FORM OF TENDER

**Contract 81460
2025 Grouting Program**

EXPERIENCE OF SUPERINTENDENT

(See paragraph 5.3.3 of the Instructions to Tenderers)

Proposed Project Superintendent _____

List of Project Experience

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

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

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

APPENDIX 4

FORM OF TENDER

**Contract 81460
2025 Grouting Program**

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

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

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

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

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

APPENDIX 5

FORM OF TENDER

Contract 81460 2025 Grouting Program

SUBCONTRACTORS

(See paragraph 5.3.5 of the Instructions to Tenderers)

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

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

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

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

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

APPENDIX 6

FORM OF TENDER

**Contract 81460
2025 Grouting Program**

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 Oblige, hereinafter called the Oblige, in the amount of

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

WHEREAS, the Principal has submitted a written Tender to the Oblige, dated the _____ day of
_____, 2025, 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 Oblige the difference in money between the amount of the bid of the said
Principal and the amount for which the Oblige 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 _____, 2025.

SIGNED, SEALED AND DELIVERED

In the presence of:

)

)

)

)

)

PRINCIPAL

SURETY

APPENDIX 7

FORM OF TENDER

**Contract 81460
2025 Grouting Program**

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: **81460**

Contract Name: **2025 Grouting Program**

Description of Work:

- Joint testing and grouting of various storm and sanitary mains; and,
- Other miscellaneous and incidental work as further described 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 _____ 2025.

Contract: **2025 Grouting Program**

Reference No. 81460

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, 2025**, subject to the provisions of the *Contract Documents* for adjustments to the *Contract Time*.
- 1.3 Time shall be the essence of the Contract.

2 CONTRACT DOCUMENTS

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

3 CONTRACT PRICE

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

4 PAYMENT

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

5 RIGHTS AND REMEDIES

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

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

6 NOTICES

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

The *Owner*:

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

Tel: 604-927-3500

The *Contractor*:

Tel:
Email:
Attention:

The *Contract Administrator*:

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

Tel:
Email:
Attention:

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

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

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

7 GENERAL

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

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

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

Contractor:

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY AND POSITION - PRINT)

Owner:

The City of Coquitlam

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

(SENIOR MANAGER, DESIGN AND CONSTRUCTION)

2025 Grouting Program

Reference No: 81460

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

2025 Grouting Program

Reference No: 81460

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 Video & Inspection Reports File Links

Appendix D: Hard Copy Inspection Reports

Supplementary General Conditions

SUPPLEMENTARY GENERAL CONDITIONS

TABLE OF CONTENTS

	Page
Supplementary General Conditions to MMCD Volume II, 2009 Issue	SGC 1 to SGC 17
Section 1: DEFINITIONS	SGC 3
1.1 Abnormal Weather	SGC 3
Section 2: DOCUMENTS	SGC 3
2.2 Interpretation.....	SGC 3
Section 4: CONTRACTOR	SGC 3 to 7
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
Section 7: CHANGES.....	SGC 7
7.1 Changes	SGC 7
7.4 Optional Work	SGC 7
Section 9: VALUATION OF CHANGES AND EXTRA WORK	SGC 8
9.2 Valuation Method	SGC 8
9.4 Quantity Variations.....	SGC 8
Section 10: FORCE ACCOUNTS	SGC 8
10.1 Force Account Costs	SGC 8
Section 12: HAZARDOUS MATERIALS	SGC 9
12.2 Discovery of Hazardous Materials	SGC 9
Section 13: DELAYS	SGC 9 to 10
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
Section 18: PAYMENT	SGC 10 to 11
18.1 Preparation of Payment Certificate	SGC 10

18.4	Holdbacks	SGC 10
18.6	Substantial Performance	SGC 10
Section 19: TAXES, DUTIES AND GST		SGC 11 to 12
19.4	Tariffs or Duties	SGC 11
Section 21: WORKERS COMPENSATION REGULATIONS		SGC 12
21.2	Contractor is "Prime Contractor"	SGC 12
Section 24: INSURANCE.....		SGC 12 to 17
24.1	General	SGC 12
24.2	Required Insurance	SGC 13
24.3	Physical Loss or Damage with Respect to New Buildings under Construction and/or Major Additions to Existing Structures	SGC 14
24.4	Additional Insured	SGC 17
Section 25: MAINTENANCE PERIOD		SGC 17
25.1	Correction of Defects	SGC 17
Section 27: CONTRACTOR PERFORMANCE EVALUATION		SGC 18
APPENDICES		SGC 19 to SGC 25
Appendix I	Performance Bond	SGC 19 to 20
Appendix II	Labour and Material Payment Bond	SGC 21 to 23
Appendix III	Certificate of Insurance	SGC 24
Appendix IV	Prime Contractor Designation Letter.....	SGC 25

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, unless otherwise described in the Contract Document.
- 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:

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

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

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

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

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

4.2 Safety

4.2.2

(Add new clause 4.2.2 as follows):

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

4.3 Protection of Work, Property and the Public

4.3.1

(Replace clause 4.3.1 as follows):

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

4.3.5.1

(Add clause 4.3.5.1 as follows):

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

4.3.7

(Add new clause 4.3.7 as follows):

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

4.6	Construction Schedule	4.6.1	<i>(Replace clause 4.6.1 as follows):</i> The Contractor shall within the time set out in the Form of Tender prepare and submit to the Contract Administrator for their approval a construction schedule (the Baseline Construction Schedule) indicating the planned start and completion dates of major activities of the Work. The Baseline Construction Schedule shall be in more detail than the Preliminary Construction Schedule and shall indicate completion of the Work in compliance with any specified Milestone Dates, including Substantial Performance.
		4.6.6	<i>(Replace clause 4.6.6 as follows):</i> The time for the performance of the Work shall commence on the date specified in the Notice to Proceed, or if not so specified, on the date the Notice to Proceed is issued. The Notice to Proceed will not be issued until the documentation required under paragraph 5.1.1 of the Form of Tender has been submitted and the construction schedule has been approved.
		4.6.8	<i>(Add new clause 4.6.8 as follows):</i> Any requests to lengthen the work schedule shall be made in writing by the Contractor within five working days of knowledge of the reason for the extension. The Contract Administrator will adjust the schedule at their discretion upon receipt of a written request.
4.7	Superintendent	4.7.4	<i>(Add new clause 4.7.4 as follows):</i> The key personnel named in the Contractor's Tender response, shall remain in these key positions throughout the project. In the event that key personnel leave the Contractor's firm, or for any unknown reason are unable to continue fulfilling their role, the Contractor must propose a suitable replacement, and obtain written consent from the Owner. Acceptance of the proposed replacement is at the sole discretion of the Contract Administrator and the Owner.
4.8	Workers	4.8.2	<i>(Add new clause 4.8.2 as follows):</i> The Contractor shall, upon the request of the Contract Administrator, remove any person employed by them for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted themselves improperly, and the Contractor shall not permit a person who has been removed to return to the Place of Work.
4.9	Materials	4.9.3	<i>(Add new clause 4.9.3 as follows):</i> 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

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

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

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

18.0 PAYMENT

18.1 Preparation of Payment Certificate

18.1.1

(Replace clause 18.1.1 as follows):

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

18.4 Holdbacks

18.4.2

(Add to clause 18.4.2 as follows):

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

18.6 Substantial Performance

18.6.5

(Replace clause 18.6.5 as follows):

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

18.6.6

(Replace clause 18.6.6 as follows):

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

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

deficiencies or defects in the *Subcontractor's Work* noted by the *Contract Administrator*. The *Contractor* will indemnify and save the *Owner* harmless from any and all liability the *Owner* may have to anyone arising out of the certification by the *Contractor* of *Substantial Performance* for that *Subcontractor*.

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

19.0 TAXES, DUTIES AND GST

19.4 Tariffs or Duties

19.4.1

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

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

19.4.2

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

19.4.3

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

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

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

**21.0 WORKERS
COMPENSATION
REGULATIONS**

**21.2 Contractor is
"Prime Contractor"**

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

24.0 INSURANCE

(Replace section 24.0 as follows):

24.1 General

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

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

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

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

24.2 Required Insurance

24.2.1 **General**

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

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

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

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

24.2.2 **Public Liability Insurance:**

(Other than Automobile Third Party Liability Insurance):

Evidence of Insurance:

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

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

Effective Dates and Terms:

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

Limits of Liability:

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

24.2.3 Public Liability Insurance (Automobile):

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

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

24.3.1 Responsibility for Placing Insurance:

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

24.3.2 Insurance Coverage Required:

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

24.3.3 Responsibility of Contractor – Limitations of cover and deductibles:

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

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

24.3.4 Responsibility of Contractor – Direct Damage Insurance:

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

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

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

24.3.6 Contractor's Waiver of Liability to Coquitlam:

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

24.3.7 Liability of Contractor:

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

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

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

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

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

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

24.3.10 **Further responsibility of Contractor:**

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

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

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

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

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

24.4 Additional Insured 24.4.1

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

- The City of Coquitlam

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

25.0 MAINTENANCE PERIOD

25.1 Correction of Defects 25.1.4

(Add new clause 25.1.4 as follows):

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

**27.0 CONTRACTOR
PERFORMANCE
EVALUATION**

27.1

(Add new clause 27.1 as follows):

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

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

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

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

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

APPENDIX I

PERFORMANCE BOND

NO. _____ \$ _____

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

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

As 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 Obligees to be, in default under the Contract, the Obligees having performed Obligees' obligations thereunder, the Surety may promptly remedy the default, or shall promptly:

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

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

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

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

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

SIGNED, SEALED and DELIVERED

In the presence of

)
)
)
)
)

PRINCIPAL

SURETY

APPENDIX II

LABOUR AND MATERIAL PAYMENT BOND

(Private Contracts – Trustee Form)

NO. _____

\$ _____

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

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

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

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

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

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

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

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

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

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

1. A Claimant for the purpose of this Bond, is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include the part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial rental value of equipment shall be determined, insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Canadian Construction Association entitled "Rental Rates on Contractors' Equipment" published prior to the period during which the equipment was used in the performance of the Contract.
2. The Principal and the Surety hereby jointly and severally agree with the 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: **City of Coquitlam**
3000 Guildford Way
Coquitlam, BC V3B 7N2
- Named Insured and Mailing Address:
- B. CONTRACT NUMBER AND/OR NAME
- Description of the Work:
- C. INSURANCE POLICY
- Name of Insurer:
Policy Number:
Effective Date:
- Liability Limit:
Expiry Date:
- D. INSURANCE COVERAGE
- COMMERCIAL GENERAL LIABILITY** coverage is required to insure against liability from the activities arising out of operations or work in connection with the above-described project, including liability arising out of the use of City property.
- D.1 The minimum limit shall be \$5,000,000.00 inclusive per occurrence against bodily injury, personal injury and property damage.
- D.2 The City of Coquitlam, its employees, officers, agents and volunteers are added as Additional Insureds, but only with respect to operations conducted by or on behalf of the Named Insured in connection with the above-described project, operations or work.
- D.3 This insurance shall be primary as regards the City of Coquitlam, its employees, officers, agents and volunteers as Additional Insureds.
- D.4 Any deductible or reimbursement clause contained in the policy shall not apply to the City of Coquitlam and shall be the sole responsibility of the Named Insured.
- D.5 The insurance shall include the following coverages:
- D.5.1 Cross Liability Clause
- D.5.2 Non-Owned Automobile Liability
- D.5.3 Unlicensed Automobile Liability
- D.5.4 Blanket Contractual Liability
- D.5.5 Broad Form Property Damage Liability
- D.5.6 Owner's & Contractor's Protective Liability
- D.5.7 Products & Completed Operations Liability
- D.6 Indicate provision of special coverage for this project as required by the City:
- | YES | NO | Special Coverage Description |
|-----|-----|---------------------------------|
| () | (X) | Shoring and Underpinning Hazard |
| () | (X) | Pile Driving and Vibrations |
| () | (X) | Excavation Hazard |
| () | (X) | Demolition |
| () | (X) | Blasting |

Authorized Signature and Stamp

Date

Name and Title

City' broker to return to City Representative

Department

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



APPENDIX IV

PRIME CONTRACTOR DESIGNATION

Owner: **CITY OF COQUITLAM**
Contractor: _____
Contract / Permit #: **81460**
Project / Workplace: **2025 Grouting Program** (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 #: 11-5330-20/81460/1 Doc #: 5680408.v1

Supplementary Contract Specifications

to the

MASTER MUNICIPAL SPECIFICATIONS

Volume II – Platinum Book

2025 Grouting Program

CONTRACT 81460

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
33 01 30.1S	CCTV Inspection of Pipelines	SS 10 to SS 11
33 01 30.2S	Cleaning of Sewers	SS 12
33 05 30S	Chemical Grouting of Mainline Sewer Joints.....	SS 13 to SS 17

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; 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

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

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 Gas Mains, Trans Mountain Pipeline, etc.) and service connections (water, storm, sanitary services at the mains and property lines) by hand digging or by Hydro-Vac in the presence of the Inspector.

Pre-locates must be completed as soon as possible after award of the Contract so changes can be completed by the Engineer prior to site construction. Contact BC One for location of outside agency utilities.

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

City of Coquitlam does not guarantee water, storm or sanitary services connections are perpendicular to the mains or property lines, the *Contractor* will not receive any compensation for the time to locate these connections or for exposing hidden services at the property lines.

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.

1.10 Service Disruptions

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

2.00 CONSTRUCTION ACTIVITY

2.01 Notice to Residents and Businesses

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

2.02 Site Clean-up During Construction and End of Construction

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

CONTRACT SPECIFIC NOTATIONS

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

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.

CONTRACT SPECIFIC NOTATIONS

**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 m³

2. Granular Base

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

2.2 Sieve: 1 test / placed material / 100 m³

3. Granular Subbase

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

3.2 Sieve: 1 test / placed material / 100 m³

4. Embankment (Subgrade)

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

4.2 Sieve: 1 test / placed material / 100 TONNES

5. Asphalt

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

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

5.3 Cores: 1 per 500 m²/lift

5.4 Continuous asphalt density testing during paving.

6. Subgrade Preparation

6.1 Compaction & Moisture: 1 test / 500 m²

7. Concrete Tests

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

8. Reclaimed Materials

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

**1.8 Measurement for
Payment**

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

END OF SECTION

1.0	GENERAL	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 https://www.coquitlam.ca. The Contractor must follow the approved TMP. Any changes to this TMP must be submitted to City's Traffic Operations for approval.</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) & all temporary traffic signs, devices as required for traffic & pedestrian safety; and all other items described in the Traffic Regulation Section, and all labor, material, equipment and work described under Appendix A: Traffic Management Detail Specifications shall be treated as incidental to payment for work described in other Sections unless shown otherwise in the Schedule of Quantities and Prices.</p>

END OF SECTION

ENVIRONMENTAL PROTECTION

1.0 GENERAL

1.0.3 Erosion and
Sediment Control
Supervisor

Add 1.0.3

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

1.2 Temporary Erosion
and Sediment
Controls

Delete 1.2.1 and
replace with the
following

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

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

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

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

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

Delete 1.2.2.2 and
replace with the
following

Do not operate construction equipment in watercourses.

Add 1.2.2.9

In any Watercourse, or In-Stream Works:

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

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

ENVIRONMENTAL PROTECTION

1.4	Environmental Protection	Add 1.4.3.5	Immediately contain and clean up any leaks and spills of prohibited materials at the <i>Place of Work</i> .
		Add 1.4.3.6	Ensure that a well-stocked spill kit is on-site at all times and that the <i>Contractor's</i> employees are familiar with appropriate spill response techniques.
		Add 1.4.3.7	Immediately notify the <i>Contract Administrator</i> and the City of any leaks or spills of prohibited materials that occur at the <i>Place of Work</i> .
		Add 1.4.3.8	Ensure that any fuel stored on-site is located at least 30 metres from the nearest stream, and is placed within a bermed and lined area, in order to prevent leaks or spills into the environment.
		Add 1.4.3.9	Ensure that no equipment fueling or servicing is conducted within 30 metres of a stream.
1.6	Measurement and Payment	Delete 1.6.1 and replace with the following	<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>
1.9	Archaeological / Historical Resources	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

1.0 GENERAL

1.2	References	Delete 1.2.2.1 and replace with the following	National Association of Sewer Service Companies' (NASSCO's) Pipeline Assessment and Certification Program, version 6.x including addendums, or latest version.
1.3	Submission of Certification	Delete 1.3.1 and replace with the following	Submit copy of the CCTV operator's current NAASCO certification certificate to the Contract Administrator at least one week prior to the start of the CCTV inspection operations.
1.4	Work Regulations	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.
1.5	Scheduling of Work	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.
1.6	Measurement for Payment	Delete 1.6.2	Payment for all work performed under this section will be incidental to payment for work described in Section 33 05 30S – Chemical Grouting of Mainline Sewers.
2.1	Equipment	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		
3.1	CCTV Inspection	Delete 3.1.1 and replace with the following Delete 3.1.2 and replace with the following Delete 3.1.4 and replace with the following Delete 3.1.11 and replace with the following Delete 3.1.14 and replace with the following	CCTV operator to be certified by NASSCO (PACP/MACP/LACP). 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. 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. 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. Stop camera at each defect, change of condition of pipe and service connection to record defect in accordance with PACP (MACP/LACP) codes.

		Delete 3.1.15 and replace with the following	Add PACP (MAC/LACP) code overlay to digital video at defects or connections in addition to continuously displayed data.
		Add 3.1.19	The inspection measurement and reporting units must be in metric system.
3.3	Site Coding Sheets	Delete 3.3.1 and replace with the following	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

1.4 Scheduling of Work

Delete 1.4.3 and
replace with the
following

Notify Contract Administrator of the location of cleaning 3 days
before start of work.

Add 1.4.5

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.

**1.5 Measurement for
Payment**

Delete 1.5.4 and
replace with the
following

Root cutting will be measured in hours. The Contractor is to inform
the Contract Administrator when root cutting is necessary and
provide back up on hours in use. Measurement will be determined
from the difference of the time between when the root cutting tool
is engaged at the face of the manhole to when it exits on completion
of the root removal process. Payment includes supply of all labour,
equipment and material necessary to complete the root cutting of
each mainline.

Add 1.5.5

Cutting of an existing intruding service connection will be made per
each as shown on the Schedule of Quantities. Payment includes
supply of all labour, equipment and all other work necessary to
complete the work.

3.0 EXECUTION

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.

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.

END OF SECTION

1.0	GENERAL	.1	Section 33 05 30S refers to those portions of the work that are unique to the requirements for grouting of manholes, cracks, joints and laterals in sanitary pipe. This section must be referenced and interpreted simultaneously with all other sections pertinent to the works described herein. These specifications are supplemental and do not appear in Platinum Edition of MMCD.
1.1	Related Work	.1	Traffic Control, Vehicle Access and Parking Section 01 55 00
		.2	CCTV Pipeline Inspection Section 33 01 30.1
		.3	Cleaning of Sewers Section 33 01 30.2
1.2	References	.1	Reference standards, specifications or publications.
		.1	ASTM F2304-10 Standard Practice for Rehabilitation of Sewers Using Chemical Grouting
		.2	Guide to Successful Chemical Grouting – North American Grout Marketing Association
		.3	ASTM F2454-05(2010) Standard Practice for Sealing Lateral and lines from the mainline Sewer Systems by Lateral Packer Method, Using Chemical Grouting
1.3	Material Certification	.1	All materials to conform to this specification, the latest edition of the appropriate specifications of the American Society for Testing and Materials (ASTM) or other standards expressly specified. All provisions in ASTM and other specified standards pertaining to materials, workmanship, finish, inspection and rejection form part of these specifications as far as they are applicable and providing that they are not inconsistent with this specification. This specifications takes precedence over the ASTM specifications in case of discrepancy or conflict. Materials incorporated into the Work but not specifically covered in the specifications are to be obtained from the Contract Administrator prior to installation.
1.4	Work Regulations	.1	Work to conform to all applicable regulations of Work Safe BC. Confirm training compliance in the following: <ul style="list-style-type: none"> .1 Confined space entry procedures .2 Confined space rescue .2 Atmospheric monitoring and ventilation methods .3 Personal protective equipment .4 Interpretation of Material Safety Data Sheets (MSDS)
		.2	Comply with MSDS for the particular chemicals used in the grouting process. In particular where dictated, personnel safety equipment shall be worn when mixing the chemical resins or when physical contact with the chemical material is a possibility.
1.5	Submissions	.1	The Contractor shall submit the following information at the pre-construction meeting: <ul style="list-style-type: none"> .1 Description of proposed Chemical Grouting technology, grouting material and additives together with relevant references to applicable ASTM procedures for product installation. .2 Copy of the relevant Material Safety Data Sheet for chemical grout and applicable additives.

1.7	Scheduling	.1	Schedule work to minimize interruptions to existing services and maintain existing flow during testing and grouting unless flow reduction measures are required.
1.8	Measurement and Payment	.1	Payment for air testing along the mainline will be paid per each joint tested at the specified pipe size as shown on the Schedule of Quantities and passed as per joint testing specifications indicated in this section. Payment includes supply of all labour, equipment, material, equipment tests, digital reports and all other work necessary to complete the pressure testing of each joint.
		.2	Payment for grouting joints along the mainline will be paid by each joint for each specified pipe size as shown on the Schedule of Quantities. Payment includes supply of all labour, equipment, materials, mixing, grouting, joint seal verification, all other work necessary to complete the pipeline grouting and all work described in Section 33 01 30.1S. No payment will be made until submission of the grouting report complete with the passed joint testing report.
1.9	Inspection, Testing and Record Keeping	.1	Contractor to provide Contract Administrator free access to inspect the materials, equipment and grouting procedure. All logs indicated below are to be maintained on a daily basis and made available for inspection by the Contract Administrator.
		.2	Contractor to provide the Contract Administrator 48 hours advance notice of grouting operations.
		.3	Grout Log: Contractor to maintain a written log for each batch of grout mixed including additives and their respective quantities for mainline joint grouting, as well as grout gel times.
2.0	PRODUCTS		
2.1	Equipment	.1	Joint grouting equipment to have a TV monitor, CCTV camera, pumps, air compressors and chemical feed system equipment capable of carrying out pressure tests and chemically sealing a pipeline joint.
		.2	Grouting equipment to have sufficient cables to test and grout the lengths of pipe as specified.
		.3	Joint grouting equipment to include a "packer" working in tandem with a CCTV camera. The packer to be a low void type and capable of performing a test-and-seal procedure.
		.4	Pressure gauge to be clearly visible by the CCTV camera or by pressure transducer and the information transmitted electronically to the control console. The grouting equipment is to be suitable for use with either acrylamide or urethane gels.
		.5	Each unit to carry sufficient numbers of guides and rollers such that, when testing and grouting, all cables are supported away from pipe and manhole edges. All CCTV cables and lines used to measure the camera's location within the pipeline shall be maintained in a taut manner and set at right angles, where possible, to run through or over the measuring equipment.

2.2	Materials	.1	<p>Chemical grout shall be Acrylamide gel, Avanti AV-100, Urethane gel or Approved Equal, specifically manufactured for the purpose of mainline joint sealing.</p> <p>Acrylamide base gel sealing material:</p> <p>A minimum of 10% acrylamide base material by weight shall be used in the total sealant mix. A higher concentration (%) of acrylamide base material may be requested by the Contract Administrator in order to increase strength or offset dilution during injection in areas of high infiltration.</p> <p>Urethane base gel sealing material:</p> <p>The mix ratio for urethane prepolymer shall be 1 part of urethane prepolymer to 8 parts of water (11% prepolymer). The liquid prepolymer shall have the following properties:</p> <ul style="list-style-type: none"> • A solids content of between 77% and 83% • Specific gravity of 1.04 (8.65 pounds per gallon US) • Viscosity of between 600 and 1200 centipoise at 21°C (70°F) • The water used to react the prepolymer must have a pH of between 5 and 9 <p>A cure time of 80 seconds at 4°C (40°F), 55 seconds at 16°C (60°F), and 30 seconds at 30°C (86°F) when 1 part prepolymer is reacted with 8 parts of water only.</p>
		.2	<p>A cure time that can be reduced to 10 seconds for water temperatures of between 4°C (40°F) and 30°C (80°F) when 1 part prepolymer is reacted with 8 parts water containing a sufficient amount of gel agent additive.</p>
3.0	EXECUTION		
3.1	Cleaning	.1	<p>Flush and Clean pipelines as per Section 33 01 30.2 – Cleaning of Sewers immediately prior to testing and grouting, unless otherwise specified in the Contract Documents. Cleaning of sewer laterals is not required.</p>
3.2	Root Cutting	.1	<p>Remove roots as per Section 33 01 30.2 – Cleaning of Sewers as required where for root masses or where roots protrude from a joint or crack that will interfere with the grouting.</p>
3.3	Bypass Pumping	.1	<p>Reduce flow in pipeline to approximately 1/3 pipe diameter to allow for grouting and CCTV inspection by combination of the following:</p> <ol style="list-style-type: none"> .1 Schedule work for off peak flow times. .2 Plug or block flow at upstream manhole. <ol style="list-style-type: none"> .1 Plug designed to either plug all flow or impede flow to the approximate 1/3 pipe diameter. .2 Obtain the Contract Administrator's approval prior to plugging or impeding any flow. .3 Remove plug or blocks to slowly return flow to normal without surge or surcharging downstream pipeline

		.3	Specifically relating to grouting works, temporary bypass pump flow around inspection section when required. Plug to be flow through with hoses and pump of sufficient capacity to continuously handle the peak flow. Hoses and couplings are to be leak free. Flow to be pumped to downstream manhole on same system or run as work is to take place. Obtain the Contract Administrator's approval prior to setting up temporary bypass pump system.																				
		.4	Use of vactor truck for flow reduction must be approved by the Contract Administrator and may be considered incidental to the work and not equivalent to a bypass as described in 3.3.4.																				
3.4	Pre - CCTV Inspection	.1	Perform full length, manhole to manhole, pre-repair CCTV inspection of each sewer main to be repaired in accordance with Section 33 01 30.1.																				
		.2	Present pre CCTV inspection reports as per Section 33 01 30.1.																				
3.5	Field Verification	.1	Verify all pipe diameters via physical check and confirmation in the field for each section of sewer main scheduled for repair.																				
		.2	At the beginning of each manhole section, the Contractor shall test the pipeline for suitability of joint testing and grout application. The packer shall be positioned in a sound section of pipe, between joints, and inflated to the joint test pressure. If the pipe does not meet the joint test requirements, the Contractor Administrator shall approve any modifications to the requirements or abort the joint testing and grouting.																				
3.6	Joint Testing	.1	Each pipe joint to be tested on an individual basis with an air pressure test to 40 KPa (approx. 6 psi) in excess of the external hydraulic pressure or to a maximum of 70 KPa (approx. 10 psi). Observe the pressure gauge for a period of 15 seconds, when the pressure in the void area drops 15 KPa (2 psi) in the 15 second period, the joint or crack will have been deemed to fail the test.																				
		.2	All joints that fail the air test or locations that are obvious joint leaks and/or circumferential cracks are to be sealed.																				
3.7	Grouting Application	.1	Each joint that fails the air test shall be sealed with chemical grout. The volume of chemical grout applied to each joint shall on average meet the following minimum requirements:																				
			<table> <tr> <td>Pipe Size</td><td>Volume of grout/joint</td><td>150mm</td><td>5.7 litres</td></tr> <tr> <td>200mm</td><td>7.6 litres</td><td></td><td></td></tr> <tr> <td>250mm</td><td>9.5 litres</td><td></td><td></td></tr> <tr> <td>300mm</td><td>11.4 litres</td><td></td><td></td></tr> <tr> <td>450mm</td><td>17.0 litres</td><td></td><td></td></tr> </table>	Pipe Size	Volume of grout/joint	150mm	5.7 litres	200mm	7.6 litres			250mm	9.5 litres			300mm	11.4 litres			450mm	17.0 litres		
Pipe Size	Volume of grout/joint	150mm	5.7 litres																				
200mm	7.6 litres																						
250mm	9.5 litres																						
300mm	11.4 litres																						
450mm	17.0 litres																						
			Sections of sewers not meeting the minimum grout volume requirements shall be investigated to determine the reason.																				
		.2	When requested by the Contract Administrator, the Contractor shall verify the accuracy of the volume measurement by pumping grout into a 5 litre pail and checking the gauge.																				
3.8	Joint Sealing	.1	After completing the sealing of each individual mainline joint or crack, deflate the packer until the pressure gauge reads zero pressure. If the pressure gauge fails to return to zero, clean the equipment of residual grout material or make the necessary																				

- | | | | |
|------|------------------------|----|--|
| | | | equipment repairs/adjustments to produce accurate pressure readings. Before re-testing, the grout ring shall be crushed using the packers end unit. Re-inflate and re-test the mainline joint as specified. |
| | | .2 | Reseal and retest joints that fail to meet the specified test criteria. |
| 3.10 | Grout Residual | .1 | Remove residual sealing materials from the joint. The sealed joints to be left smooth and flush with the existing pipe surface. |
| 3.11 | Post – CCTV Inspection | .1 | Inspect mainline by CCTV in accordance with Section 33 01 30.1 – Closed Circuit Television Pipeline Inspection upon completion of the mainline grouting and testing of mainline joints and cracks. Full PACP coding of observations and reports is required. |
| | | .2 | Present post CCTV inspection reports as per Section 33 01 30.1. |
| 3.12 | Grouting Reports | .1 | Submit interim reports to the Contract Administrator within ten (10) working days of completion of the field work on a continuous basis as the chemical grouting is completed in each section of pipe. Report must include the joint seal test report. |

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 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 Regulation MMCD Section 01 55 00S.
- 1.2 References .1 WorkSafe BC, Occupational Health and Safety (OHS) Regulation, Section 18 – Traffic Control.
- .2 B.C. Ministry of Transportation (MOT) Traffic Control Manual for Work on Roadways.
- 1.3 Project Requirements .1 A Road and Sidewalk Closure Permit is required by Coquitlam for all work affecting traffic flow related to construction. **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 an 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](#)
- .2 A Road and Sidewalk Closure Permit form application must be submitted to the City's Traffic Operation Division 10 working days prior to start of work.
- 1.4 Measurement and Payment .1 For this Contract, payment for all work performed under this section, unless included in the Schedule of Quantities and Prices shall be treated as incidental work, including a Traffic Management Plan (TMP), Traffic Control Persons (TMP), traffic markings & all temporary traffic signs, devices as required for traffic & pedestrian safety; and all other items described in the Section 01 55 00S.

2.0 PRODUCTS

- 2.1 Traffic Management Plan .1 The Contractor is required to assign a Traffic Manager for the Contract with the responsibility of preparing the Traffic Management Plan and the Traffic Control Plans, as well as the responsibility for continuing implementation of traffic control for the Work.

- .2 The Traffic Management Plan (TMP) will consist of the following components:
 - .1 Category identification through risks and project category assessment as per 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;
 - .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 shall give due notice to local police and fire departments prior to beginning construction and shall comply in all respects with their requirements.
- .7 The Contractor, during the progress of the work, shall make adequate provision to accommodate the normal traffic along streets and highways immediately adjacent to or crossing the work so as to cause the minimum of inconvenience to the general public.
- .8 The Contractor is required to maintain local traffic and driveway access during all stages of construction. This includes

maintaining a 1.5m width walkway or pathway through the construction site for pedestrians.

- .9 Where existing streets or roads are not available as detours, all traffic shall be permitted to pass through the work with as little inconvenience and delay as possible unless otherwise provided or authorized by the Contract Administrator. If half the street only is under improvement, the other half shall be conditioned and maintained as detour.

2.2 Incident Management and Reporting

- .1 The Contractor shall facilitate incident response vehicles and staff and move traffic safely and expeditiously through or around an incident on site and provide assistance to emergency response personnel as required. An incident includes, but is not limited to, motor vehicle accidents, emergency road repairs, disabled vehicles, and debris on the road. The immediate response to an emergency shall by necessity make use of available devices and equipment.
- .2 If an incident occurs on site, the Contractor will be required to submit a report to the Contract Administrator documenting details of the incident including event, location, date, time, action taken, duration and restoration of site.

2.3 Traffic Control Plans

- .1 The Contractor shall designate a qualified Traffic Control Supervisor for the works, per the requirements of WCB regulations Section 18.
- The designated Traffic Control Supervisor may be the same individual that is designated as the Traffic Manager, or may be a separate individual qualified for the responsibilities of this function.
- .2 The Contractor shall prepare weekly the anticipated traffic control activities, locations, and durations for the upcoming week.
- .3 Permissible delays shall only be considered outside Peak Hours. Permissible delays are categorized as follows:
- a) Minor Delays - Less than two (2) minutes in duration; for occasional interruption due to construction activities. These delays shall be coordinated with available breaks in the traffic flow.
 - b) Major Delays - Maximum five (5) minutes in duration; for occasional interruption of traffic for construction activities if traffic volumes permit. These delays shall be coordinated with available breaks in the traffic flow.

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

3.0 EXECUTION

- | | |
|---|---|
| 3.1 Traffic Control Plan | <ol style="list-style-type: none">.1 A copy of the approved <u>current</u> Traffic Plan must be held on site by both the Site Superintendent as well as the person/company responsible for the traffic control implementation..2 Failure to produce a valid approved Traffic Plan on site, or having work not follow the Traffic Control Plan will result in immediate shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The Contractor must take all steps to acquire an approved Traffic Control Plan before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down. |
| 3.2 Road and Sidewalk Closure Permits | <ol style="list-style-type: none">.1 The Contractor must have, on-site, a copy of an approved Road and Sidewalk Closure Permit valid for the work being done. Failure to produce a valid Road and Sidewalk Closure Permit on-site will result in shut-down of the work. Failure to comply on what is stated on the approved permit will result in shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The Contractor must take all steps to acquire a Road and Sidewalk Closure Permit before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down. |
| 3.3 Traffic Control Personnel & Equipment | <ol style="list-style-type: none">.1 The Contractor shall supply all necessary traffic control devices required to perform traffic control services for the project. Signs and traffic control devices not applying to existing conditions shall be removed. Where operations are carried out in stages, only those traffic control devices that apply to the current stage are to be left in place..2 There must be sufficient Traffic Control Persons (TCPs) on site to appropriately and safely direct traffic in all sections of the Work. |
| 3.4 Signage | <ol style="list-style-type: none">.1 Supply, installation, maintenance and removal of all works-related signs shall be the responsibility of the Contractor. The location and type of each sign shall be indicated on the approved Traffic Control Plan, for each stage of the works. |

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

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

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

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

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

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

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

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

4.0 TRAFFIC RESTRICTIONS

- 4.1 Road and Sidewalk Closure Permits .1 Minimum of Single Lane Traffic in each direction and all local traffic must be accommodated at all times.
- .2 A City of Coquitlam Road and Sidewalk Closure Permit is required for each instance of closure and will be valid for a maximum period of one (1) week and, if still necessary, re-submittal of a Road and Sidewalk Closure Request is required.

A copy of the approved Road and Sidewalk Closure and Lane Closure Permit must be held on site by both the Site

Superintendent and the person/company responsible for the traffic control implementation.

.3 Total Road Closure is Not Permitted

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

4.2 Lane Closure Restrictions

.1 For each of the road sections affected:

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

5.0 HOURS OF WORK

- .1 The hours of work shall be from 0700h to 1900h inclusive Monday to Friday and 0900h to 1800h inclusive Saturdays, unless noted otherwise.**

6.0 CONSTRUCTION OPERATIONS

6.1 Truck Routes

- .1 The Contractor is restricted to the City's designated Truck Routes. The current Truck Route Map is available on the City's website at www.coquitlam.ca and can be found under Residents, Transit & Transportation, Trucking Routes.

6.2 Road Specific Considerations

- .1 Ensure that Traffic Management Plan accommodates businesses and residences during construction activities.

.

6.3 Work Stoppage Due to Traffic

- .1 The City will not control or direct traffic control activities of the Contractor, but may require an immediate stop to any work where, in the sole opinion of the Contract Administrator, the provided traffic management plan is ineffective or creating unreasonable delays.

Traffic Management Detail

Specifications

Contract No. 81460

TRAFFIC MANAGEMENT

TMP 7

6.4 Construction Activity
and Signage

- .1 The Contractor will be responsible to place other construction information signs as required to inform the public of construction activities, and ensure safe travel through the work site.

APPENDIX 1



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

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

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

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

81460

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

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

Development Site Address (if applicable): _____

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

Contact Information

Applicant Company Name: _____

Applicant (person completing application form)

Name: _____ Title: _____

Phone: _____ Email: _____

Applicant's Signature: _____

Company Name (Prime Contractor): _____

Site Superintendent

Name: _____ Title: _____

Phone: _____ Mobile: _____ Email: _____

Permit Information

Start Date: _____ End Date: _____

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

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

Direction: ☐ Northbound ☐ Southbound ☐ Westbound ☐ Eastbound

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

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

City Contact (if applicable): _____

Office Use Only

Permit Conditions/Comments:

Approved by _____

Date _____

Application Checklist



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

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

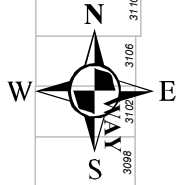
10. ☐ **Is the work on, or will it impact a road along our [Major Road Network](#)?**
☐ Yes ☐ No

Additional information

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

Appendix B - Location Maps

2025 Grouting Program



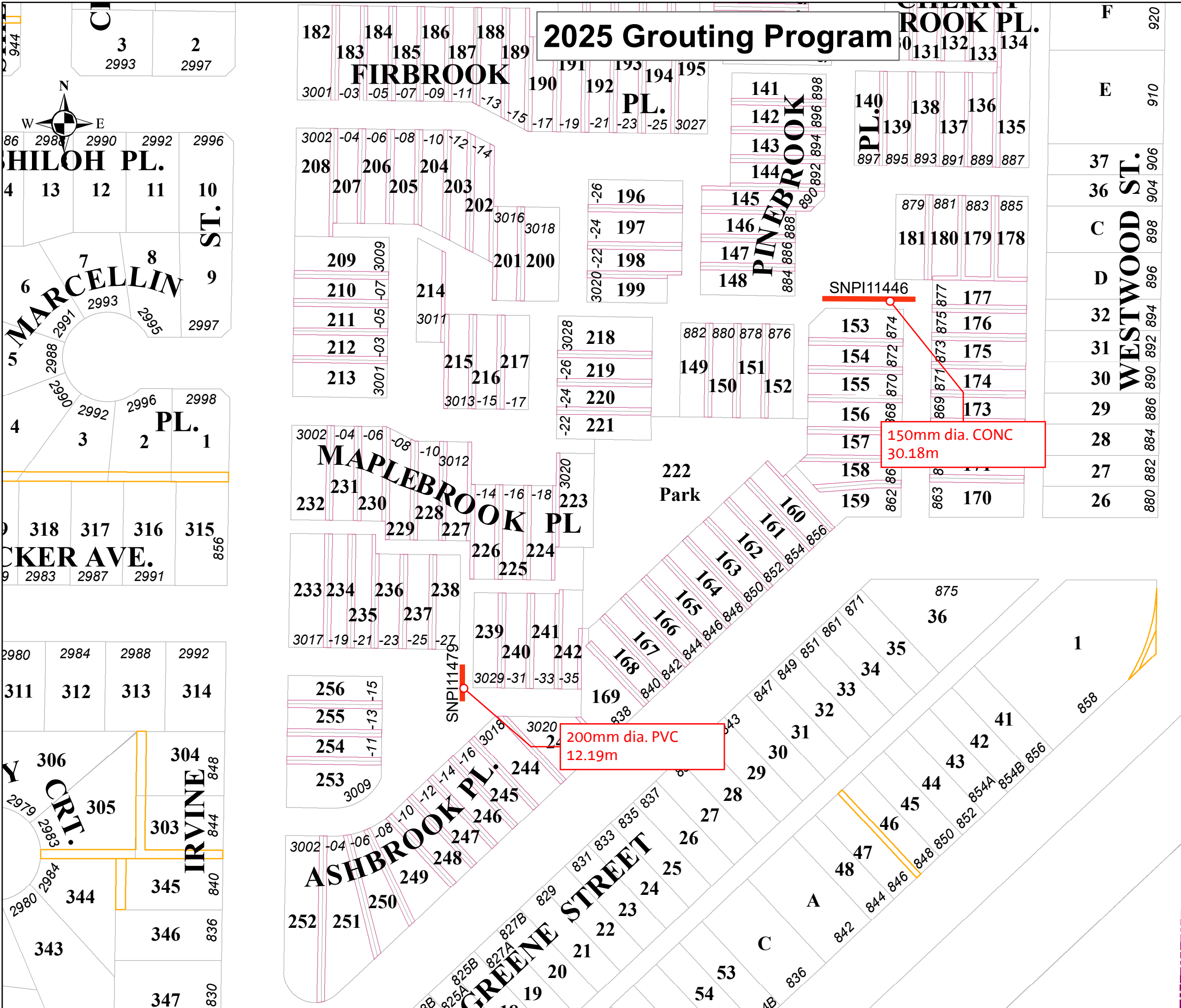
150mm dia. CONC
75.59m

150mm dia. CONC
108.25m

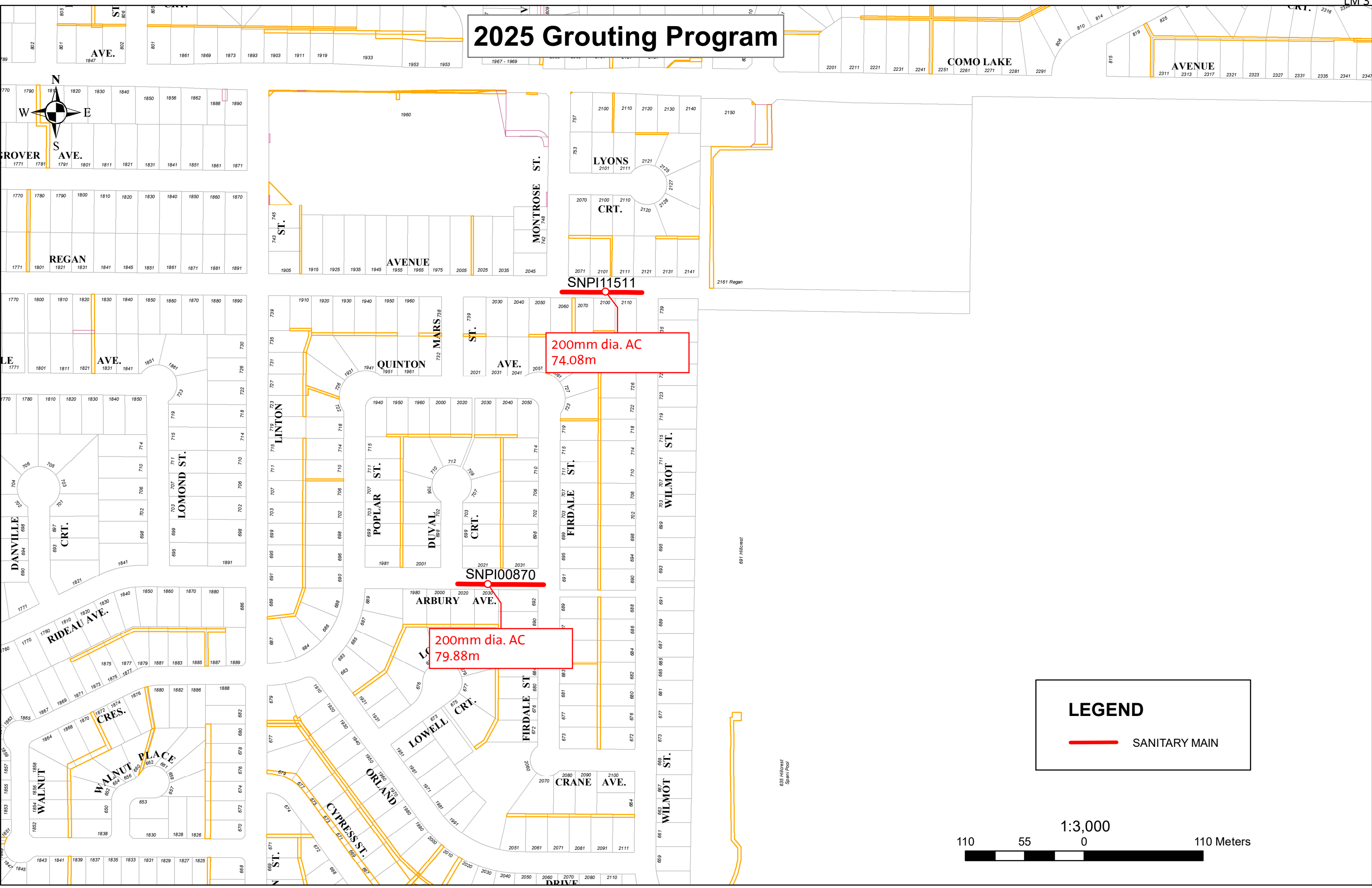
LEGEND

SANITARY MAIN





2025 Grouting Program



SNPI11511

200mm dia. AC
74.08m

SNPI00870

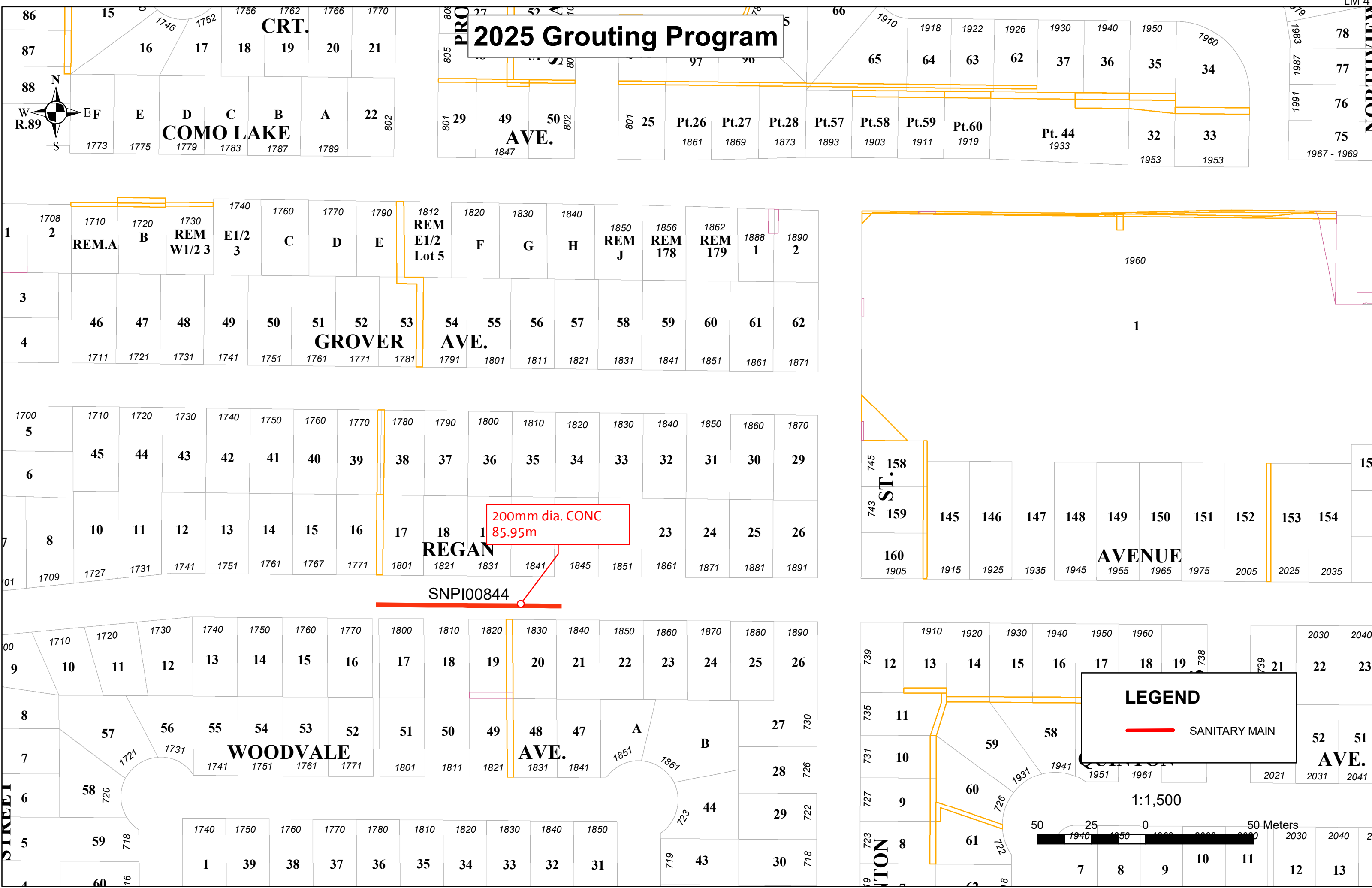
200mm dia. AC
79.88m

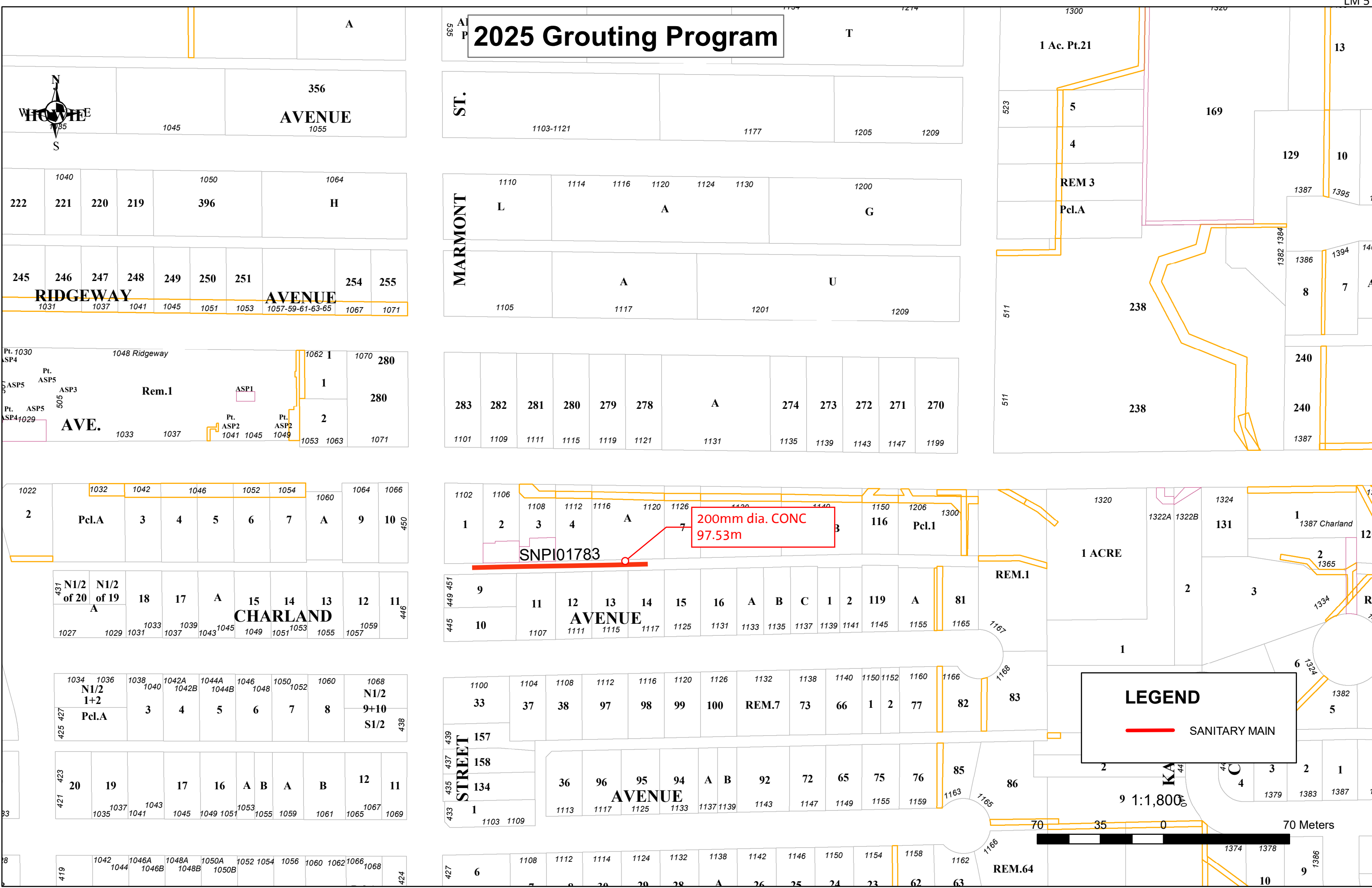
LEGEND

 SANITARY MAIN

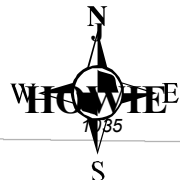
1:3,000







2025 Grouting Program



LEGEND

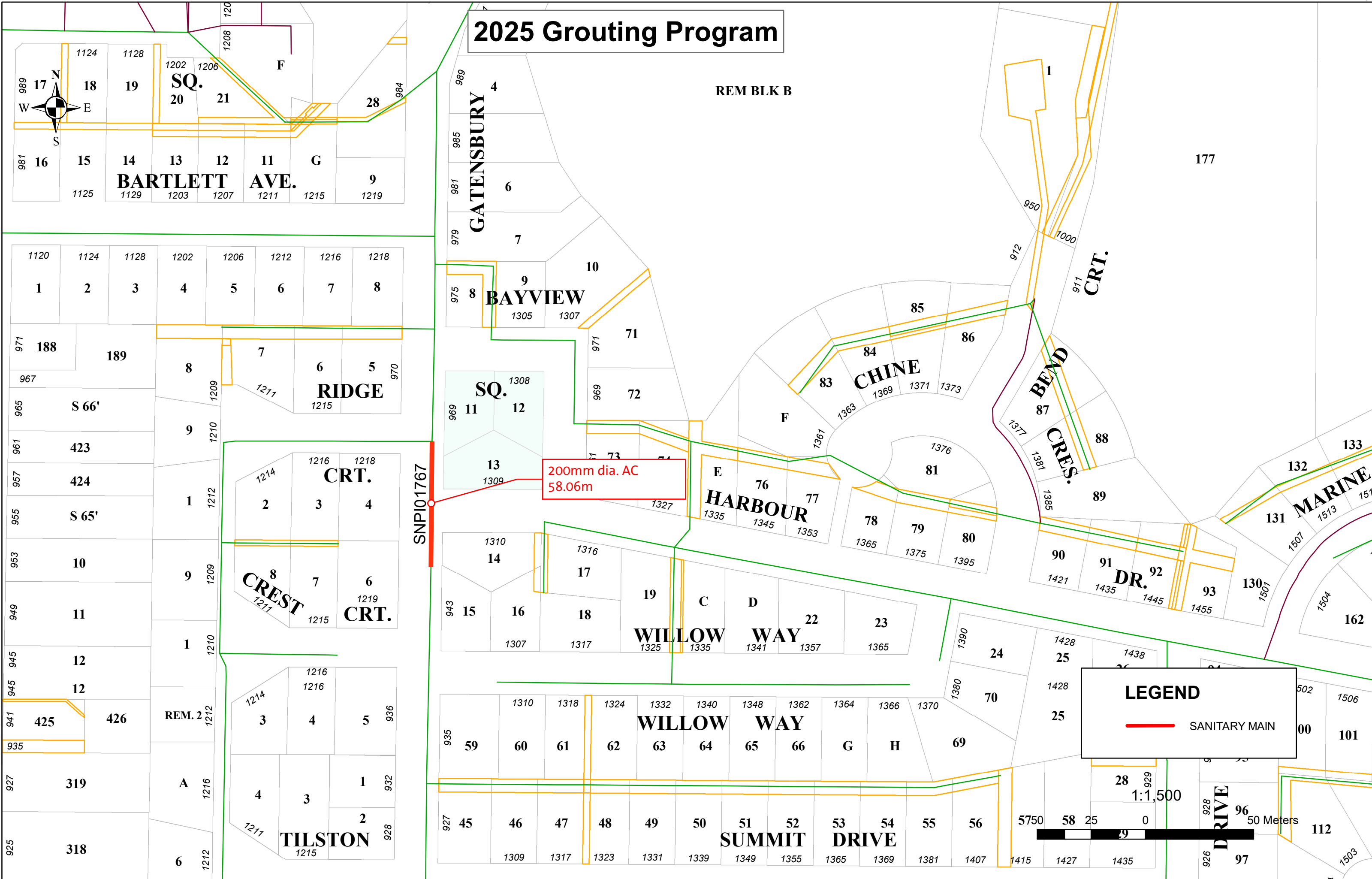
SANITARY MAIN

200mm dia. CONC
97.53m

SNPI01783



2025 Grouting Program

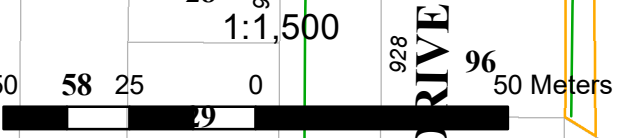


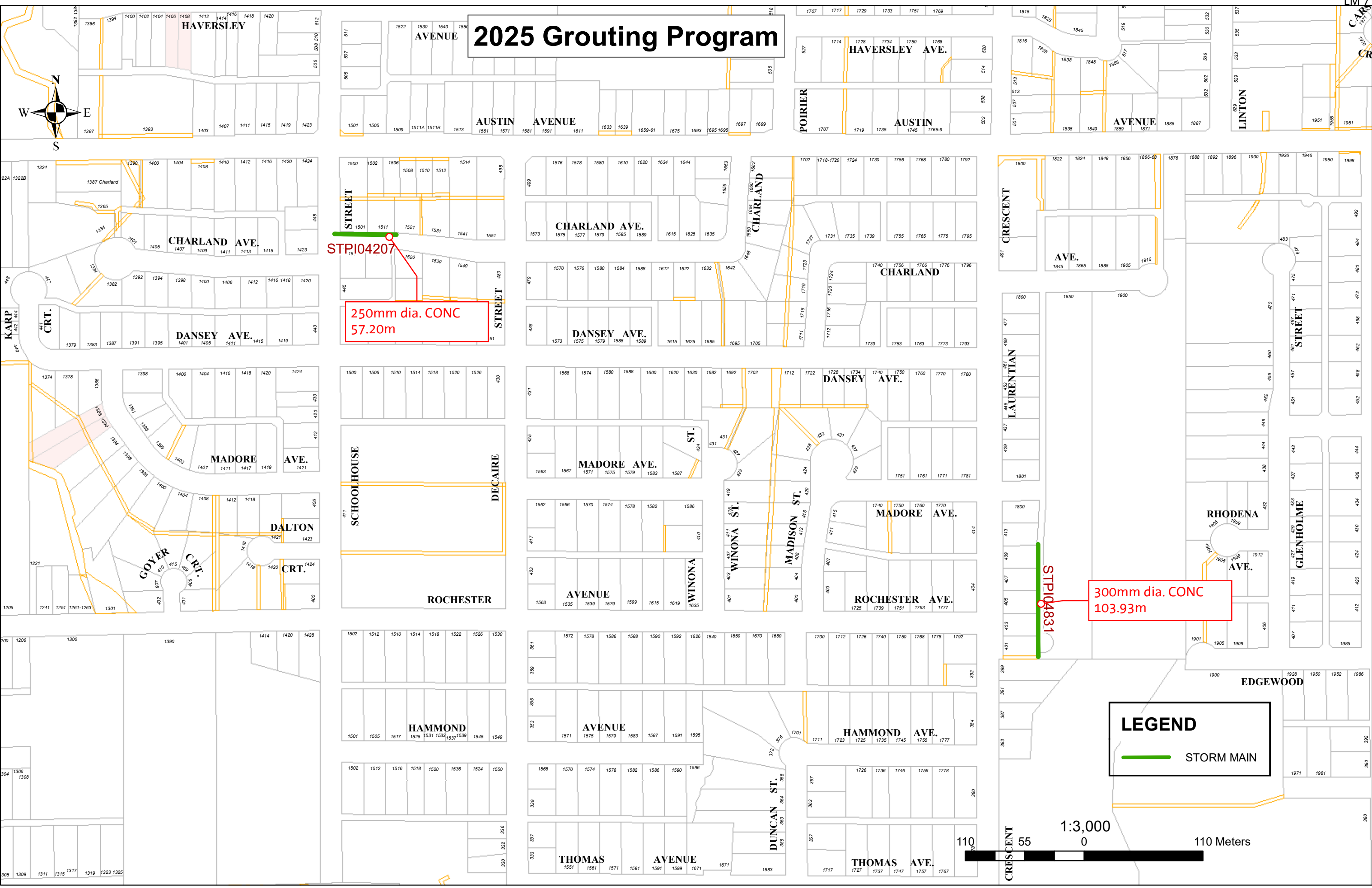
SNPI01767

200mm dia. AC
58.06m

LEGEND

SANITARY MAIN





2025 Grouting Program

STPI04207

250mm dia. CONC
57.20m

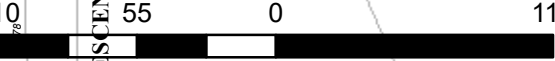
STPI04831

300mm dia. CONC
103.93m

LEGEND

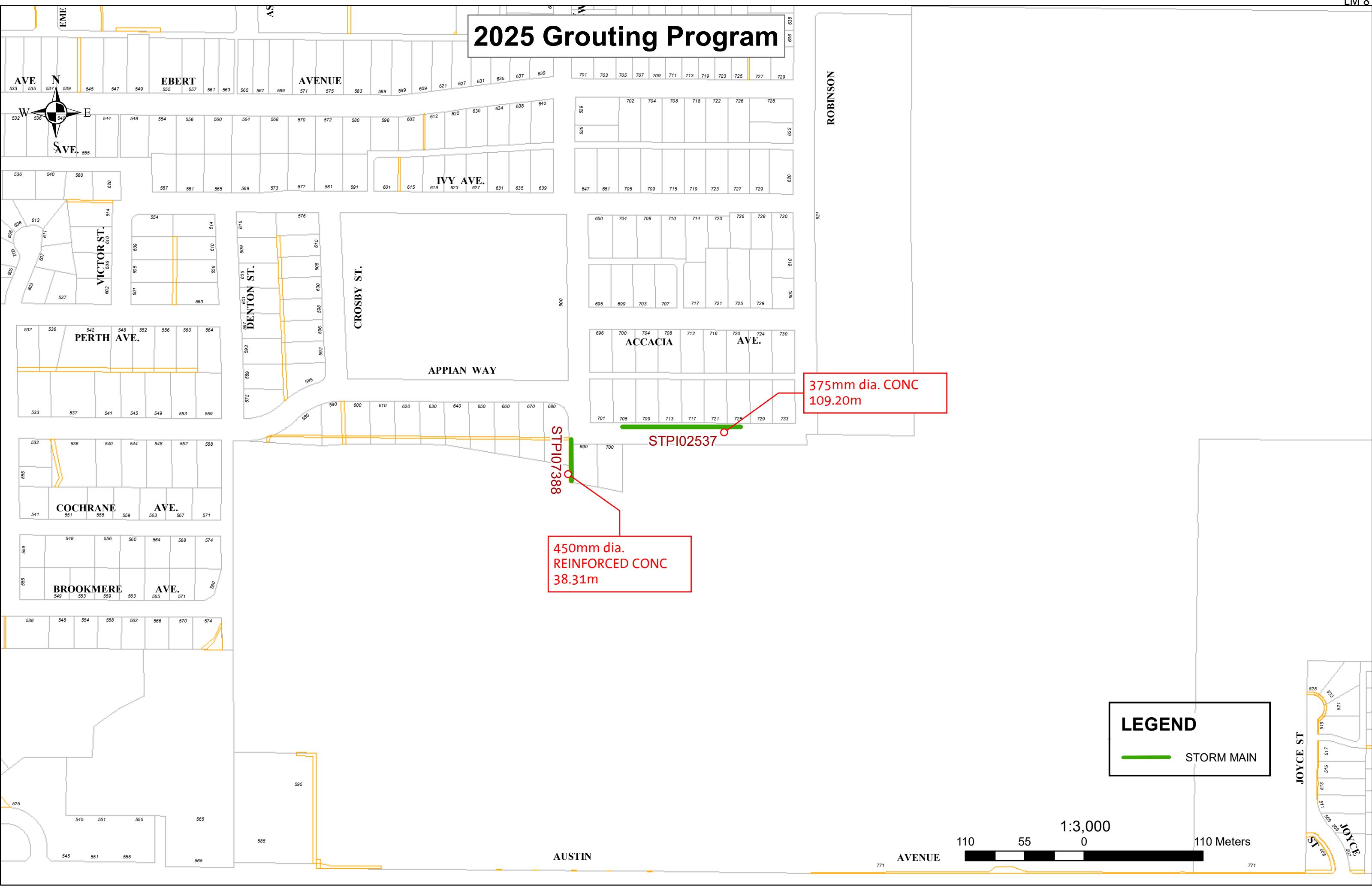
STORM MAIN

1:3,000



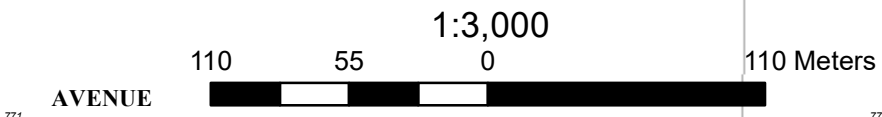
110 Meters

2025 Grouting Program

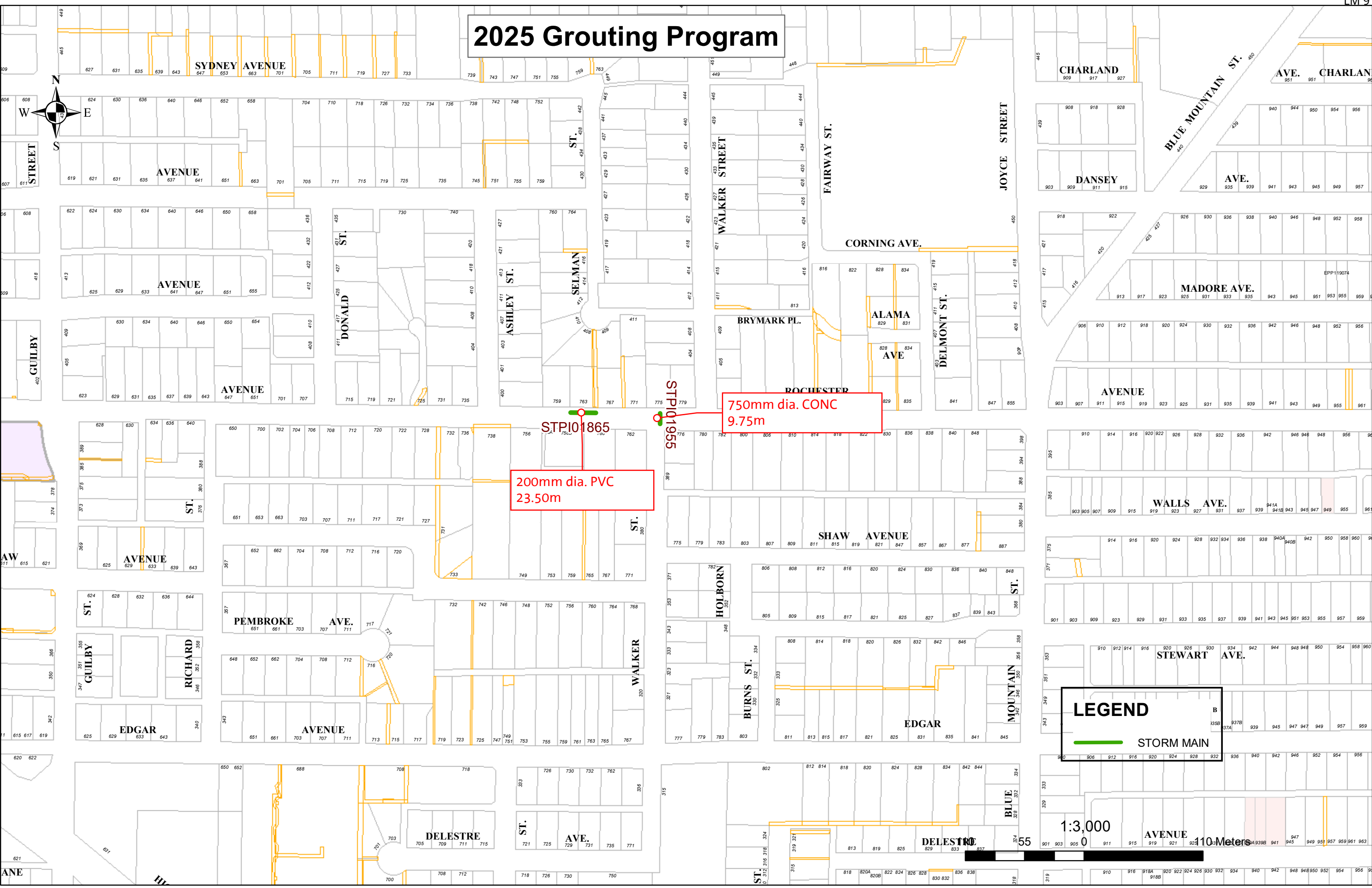


LEGEND

 STORM MAIN



2025 Grouting Program



STPI01865
200mm dia. PVC
23.50m

STPI01955
750mm dia. CONC
9.75m

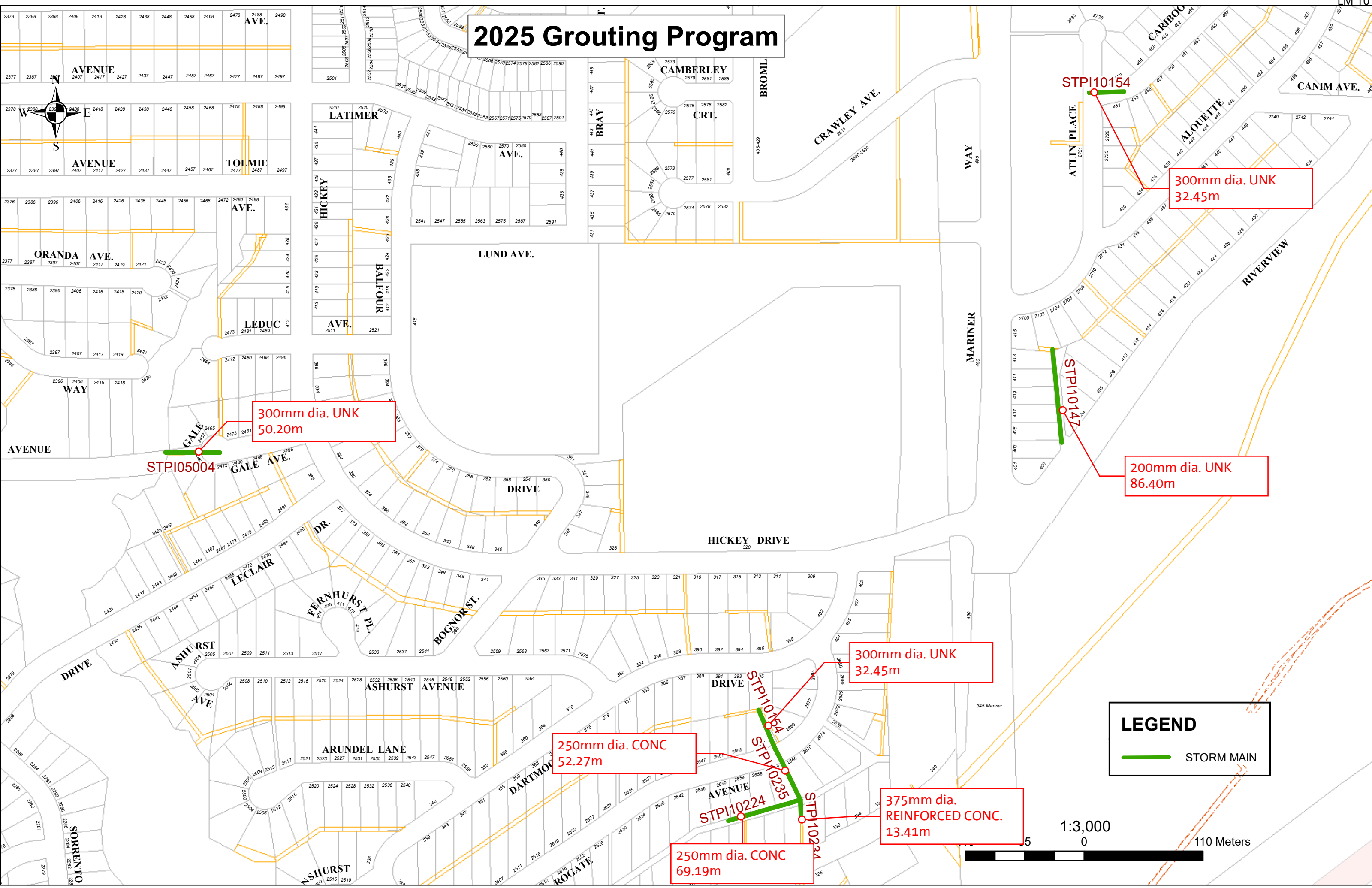
LEGEND

STORM MAIN


1:3,000

110 Meters

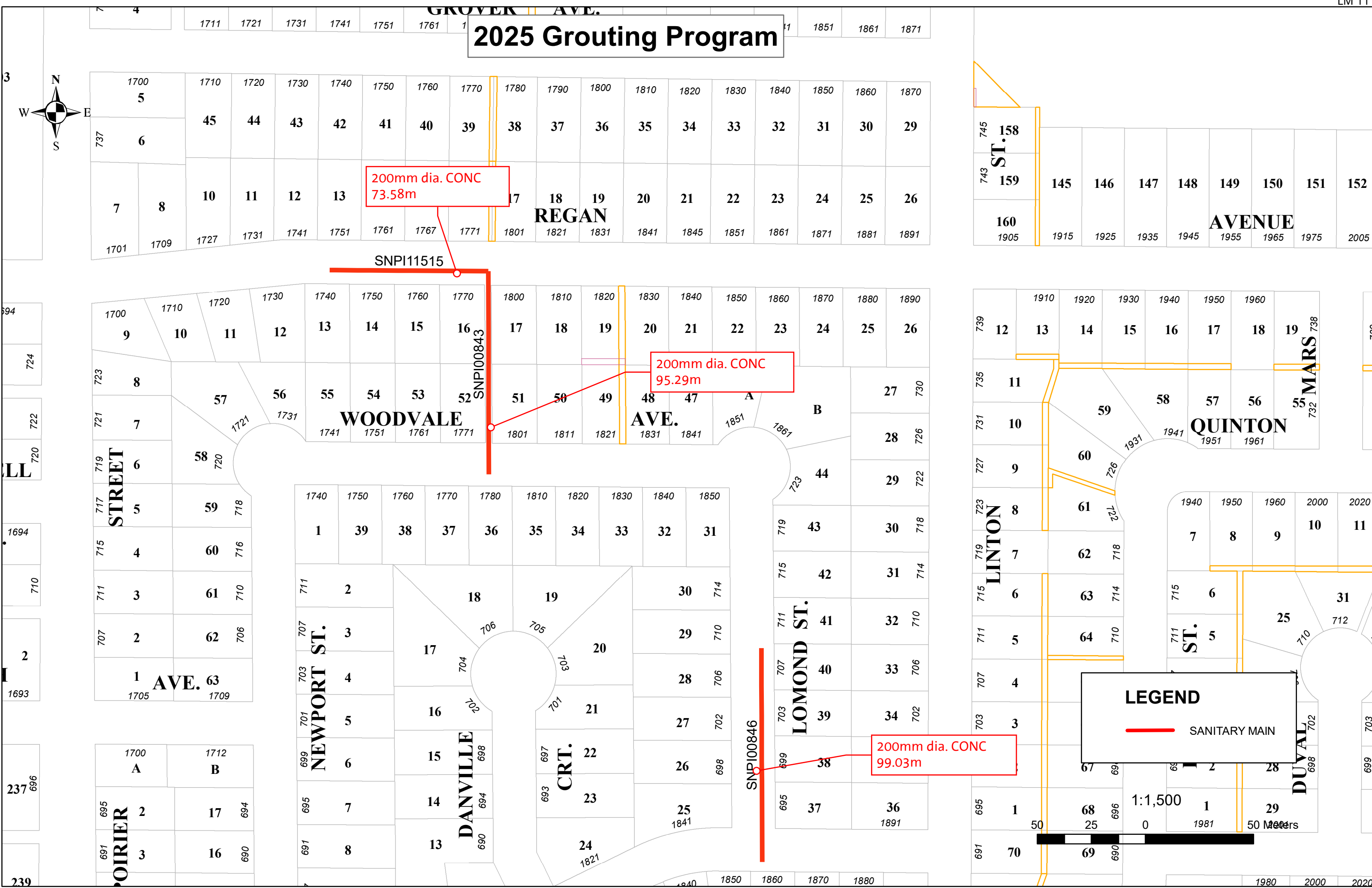
2025 Grouting Program



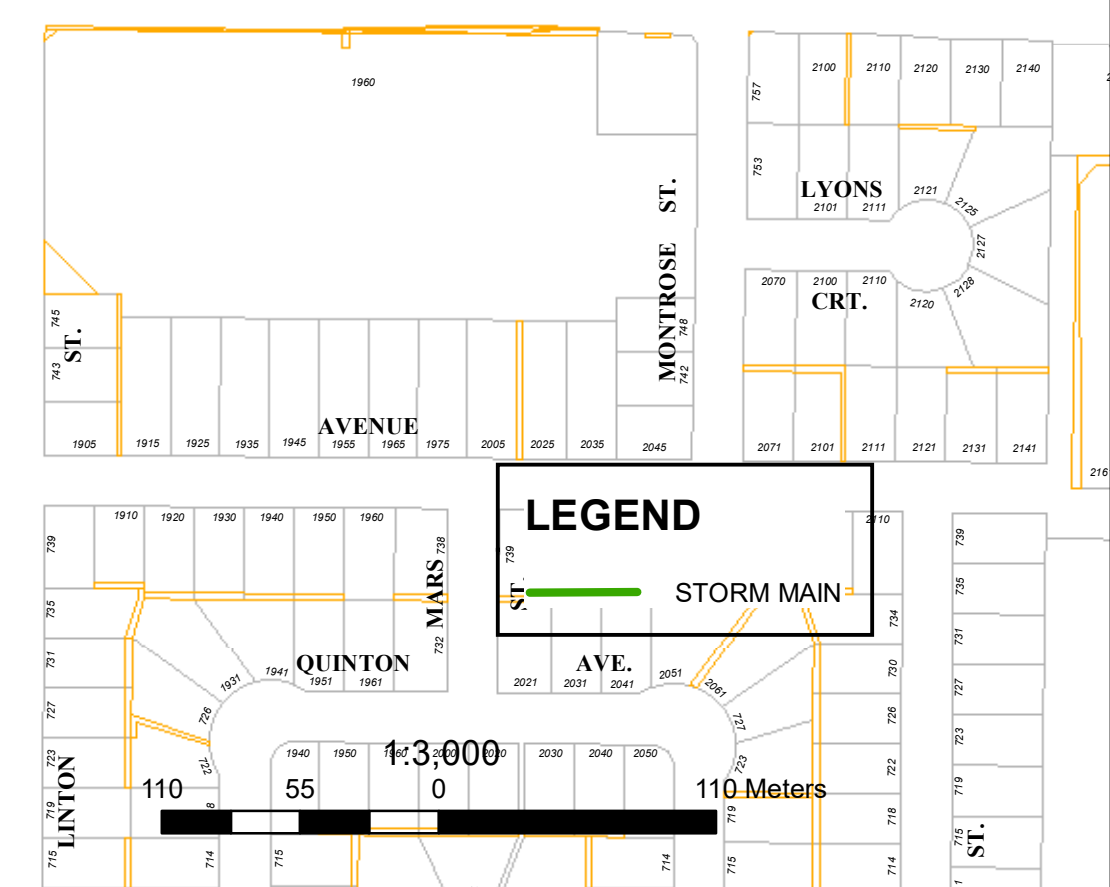
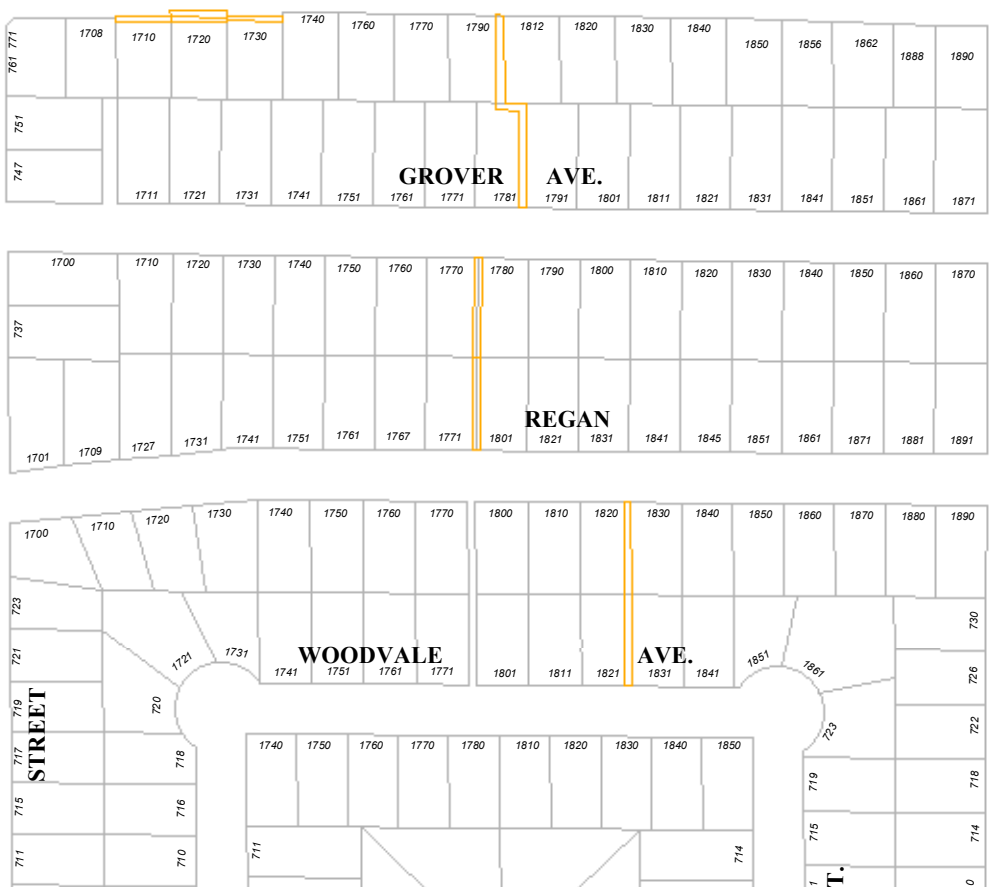
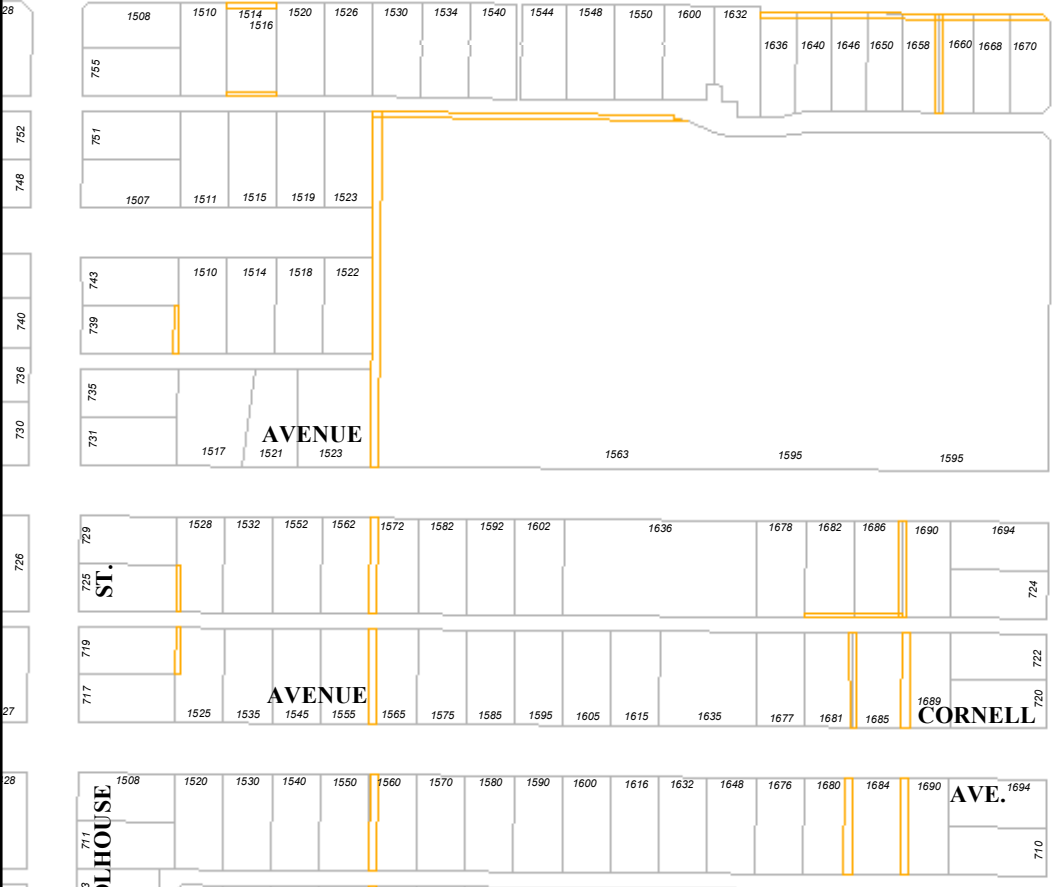
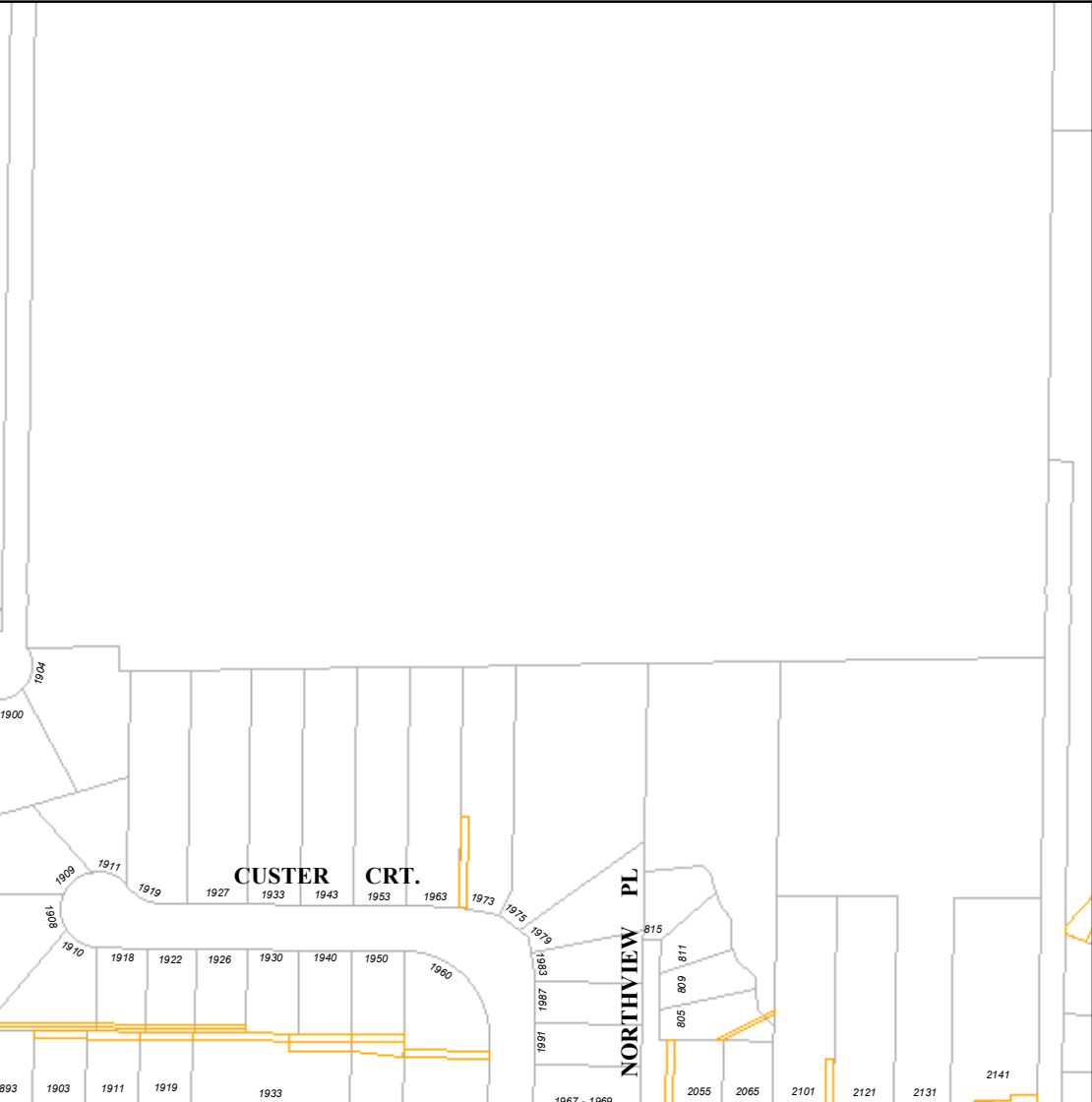
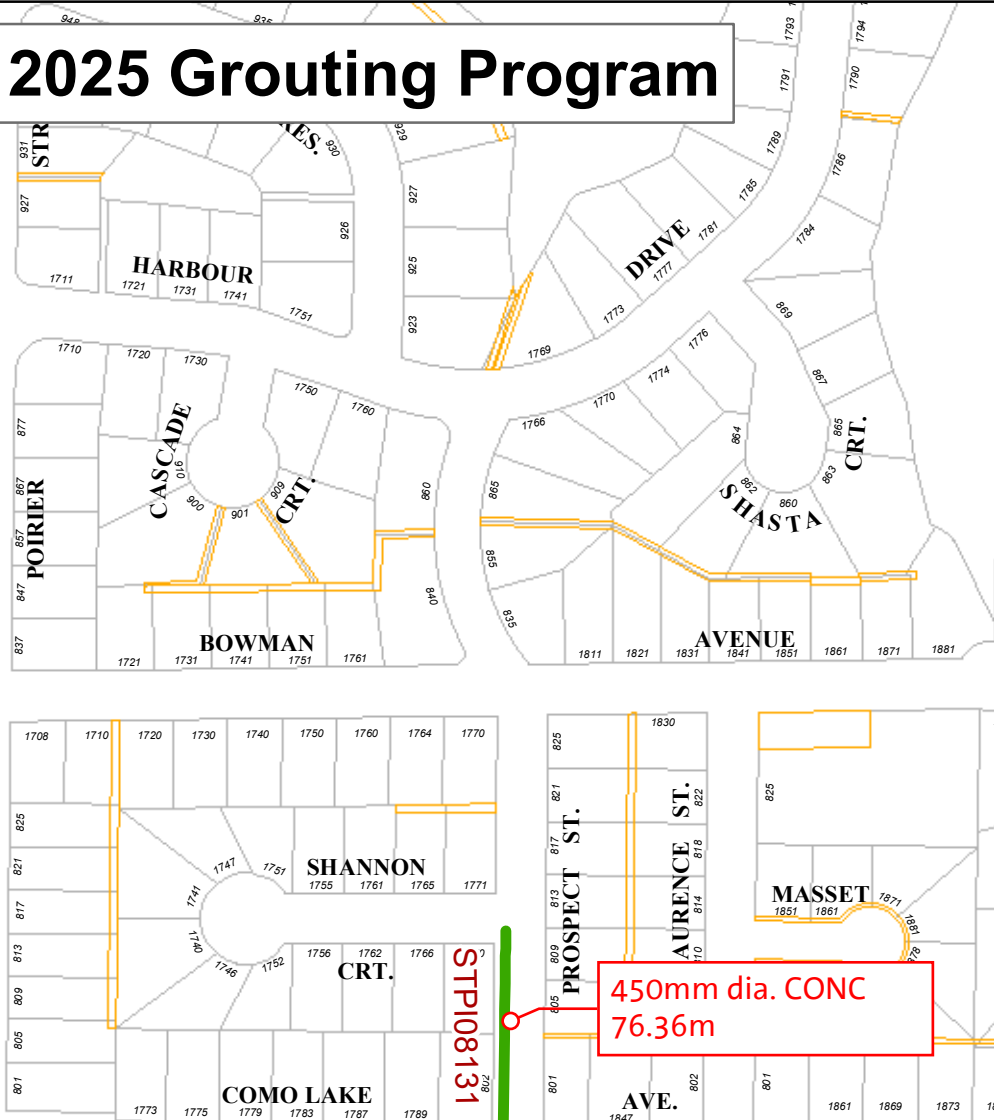
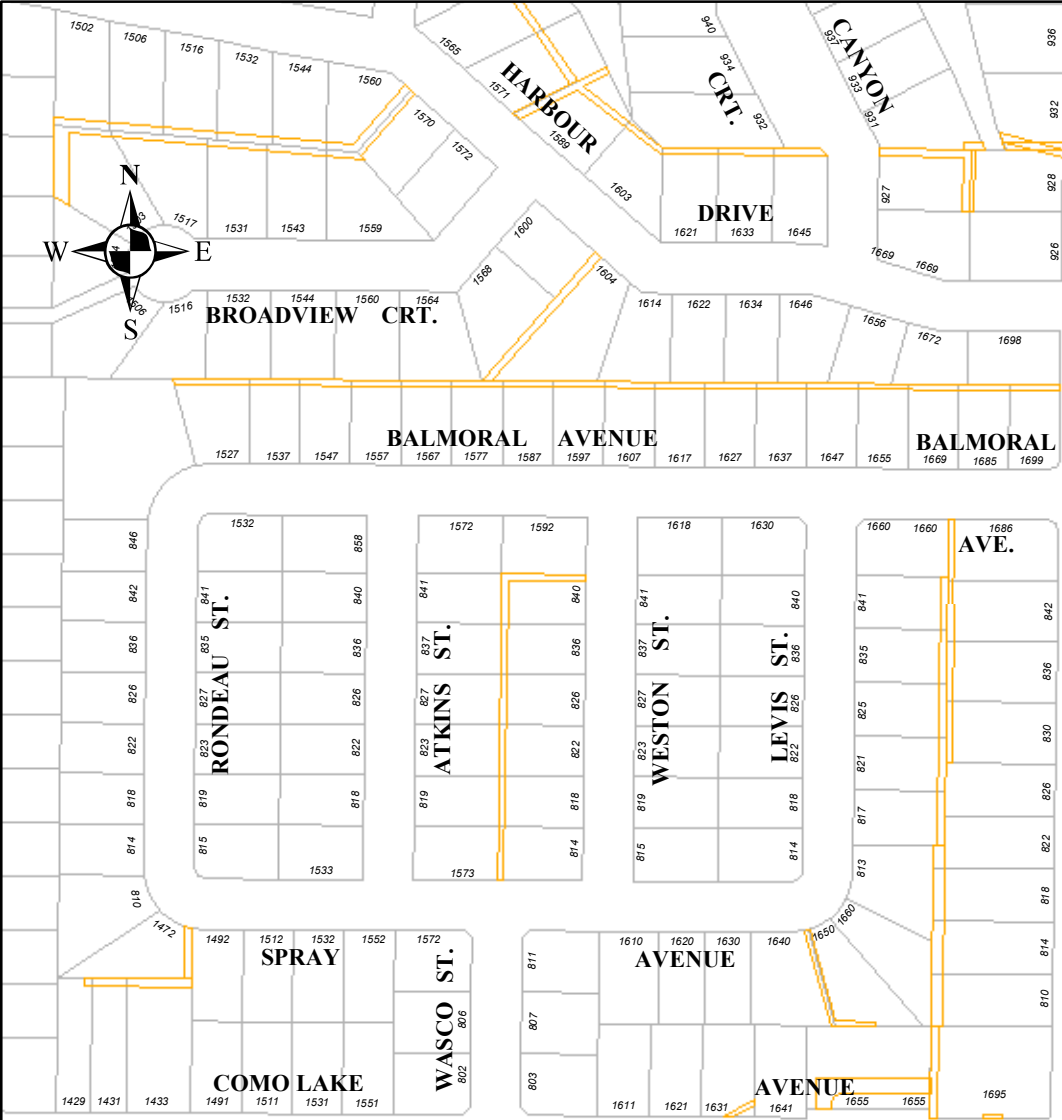
LEGEND

 STORM MAIN





2025 Grouting Program

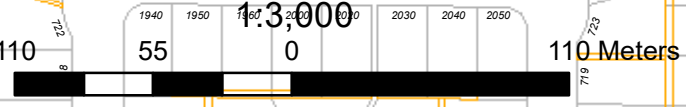


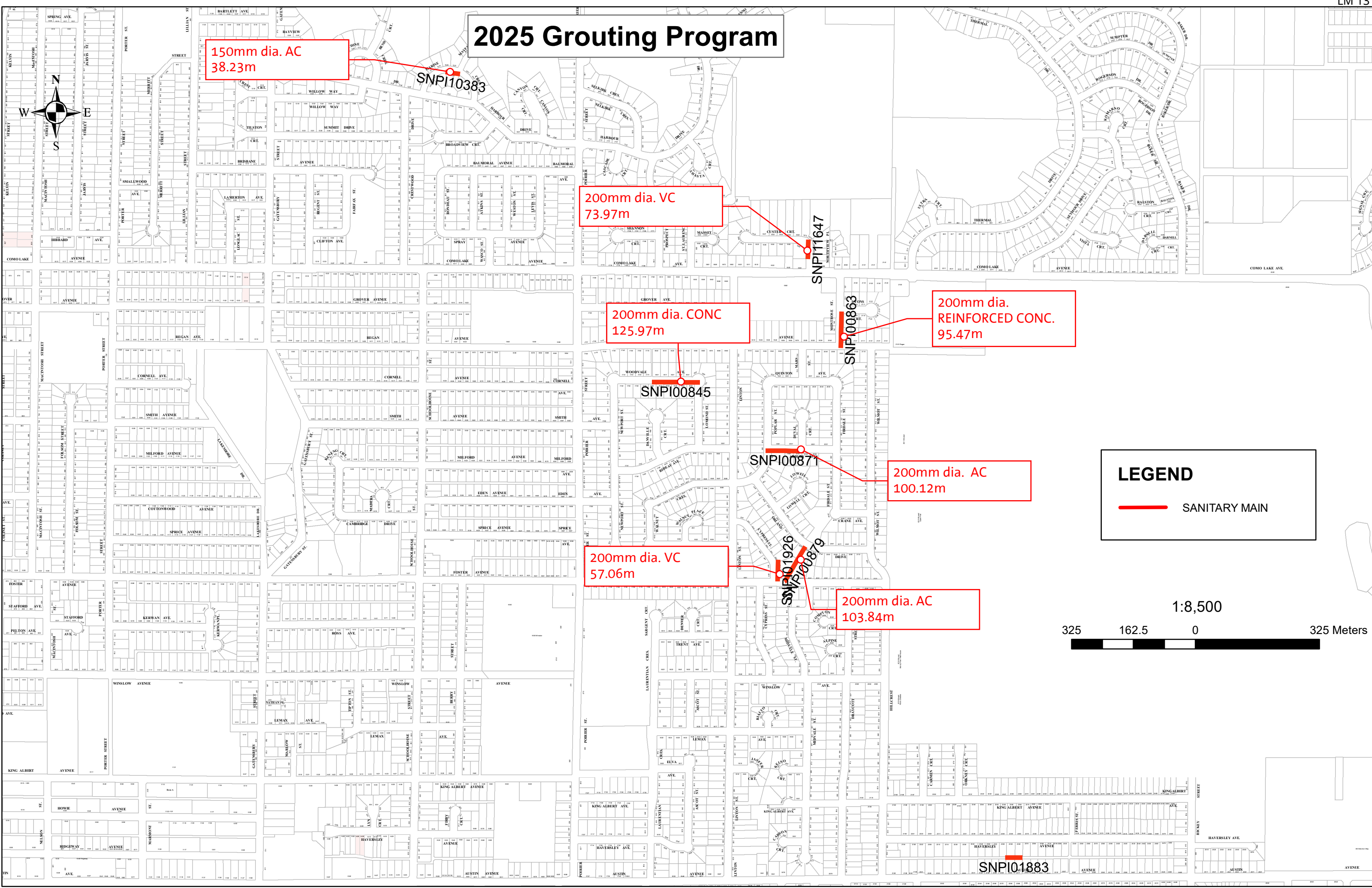
450mm dia. CONC
76.36m

STP108131

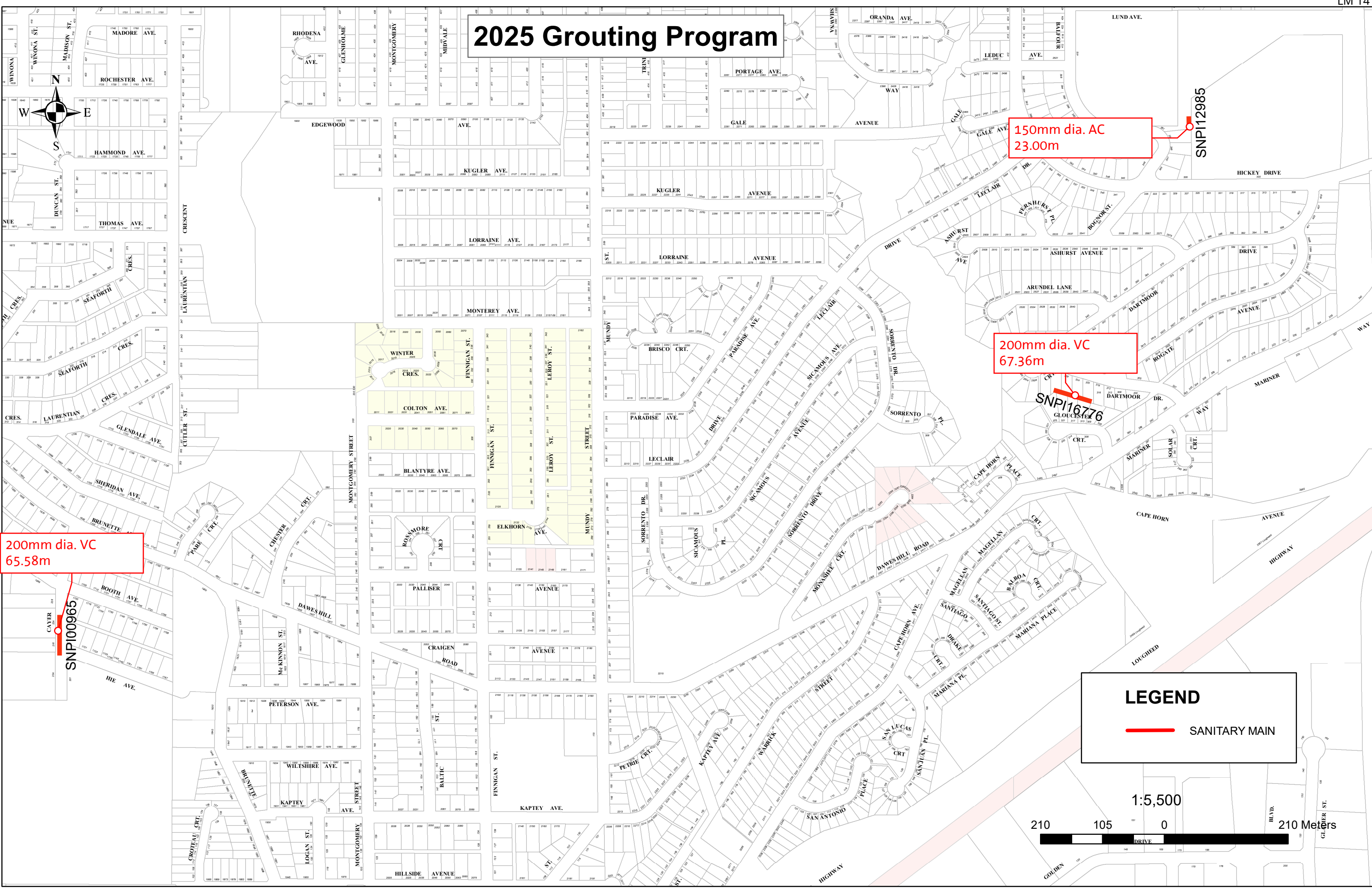
LEGEND

 STORM MAIN





2025 Grouting Program



200mm dia. VC
65.58m

SNPI00965

200mm dia. VC
67.36m

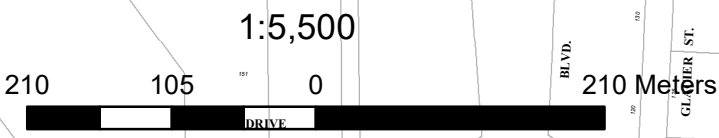
SNPI16776

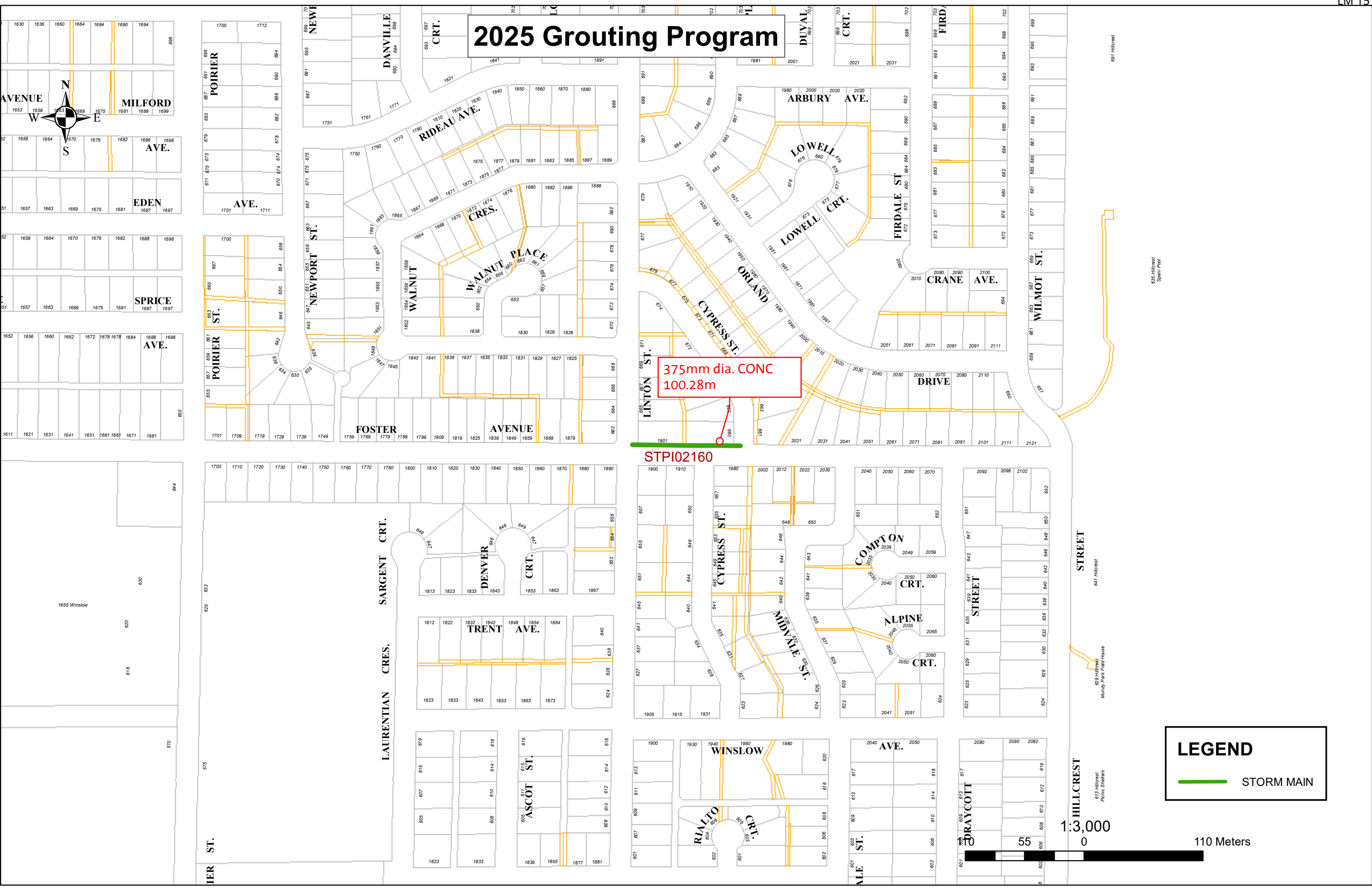
150mm dia. AC
23.00m

SNPI12985

LEGEND

SANITARY MAIN





2025 Grouting Program

375mm dia. CONC
100.28m

STPI02160

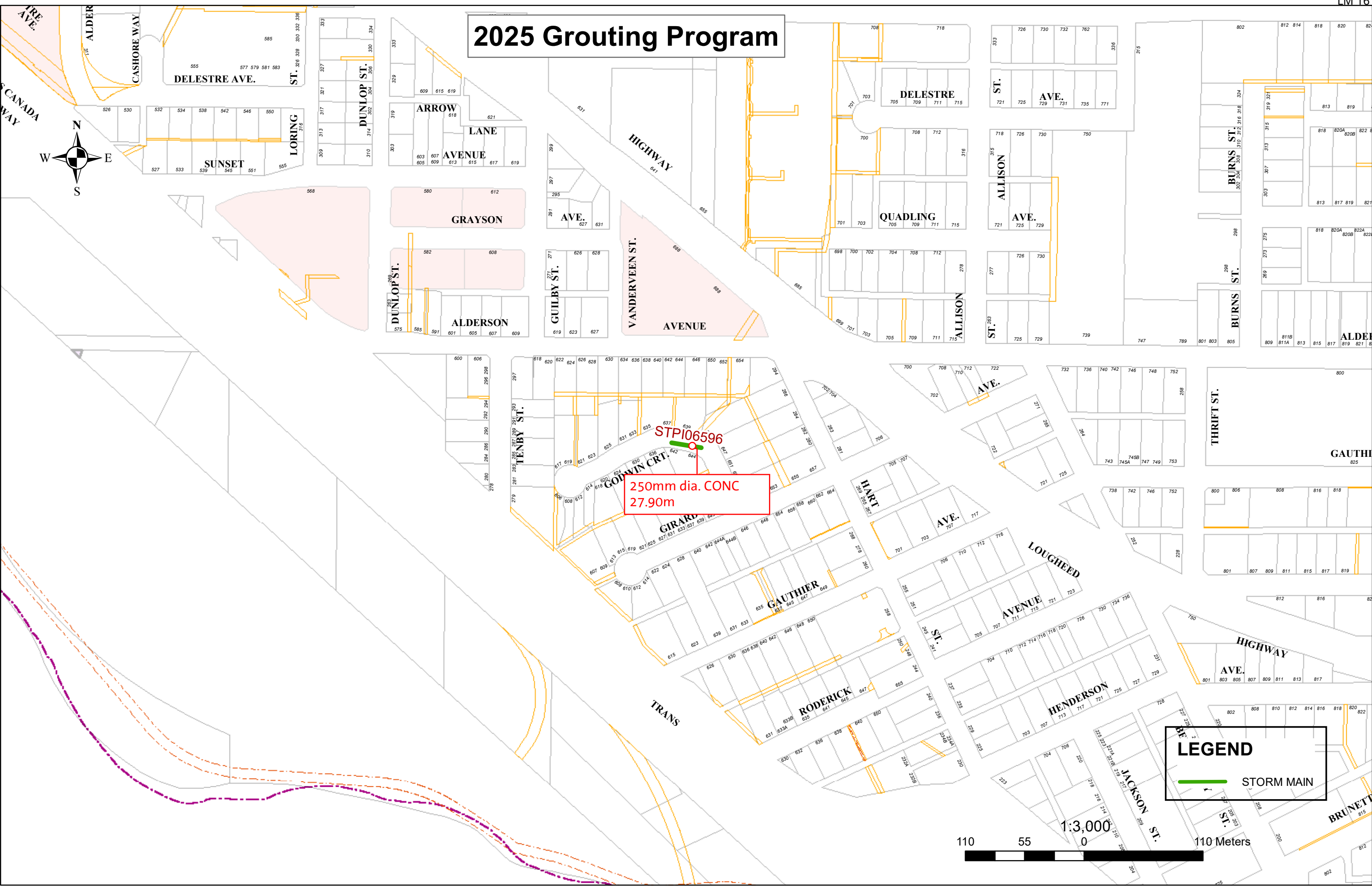
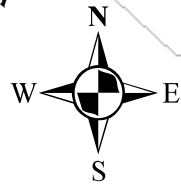
LEGEND

STORM MAIN

1:3,000


110 Meters

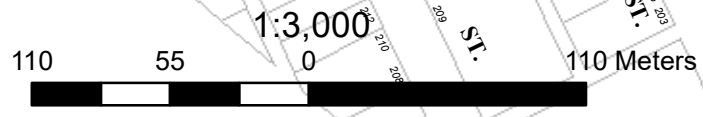
2025 Grouting Program



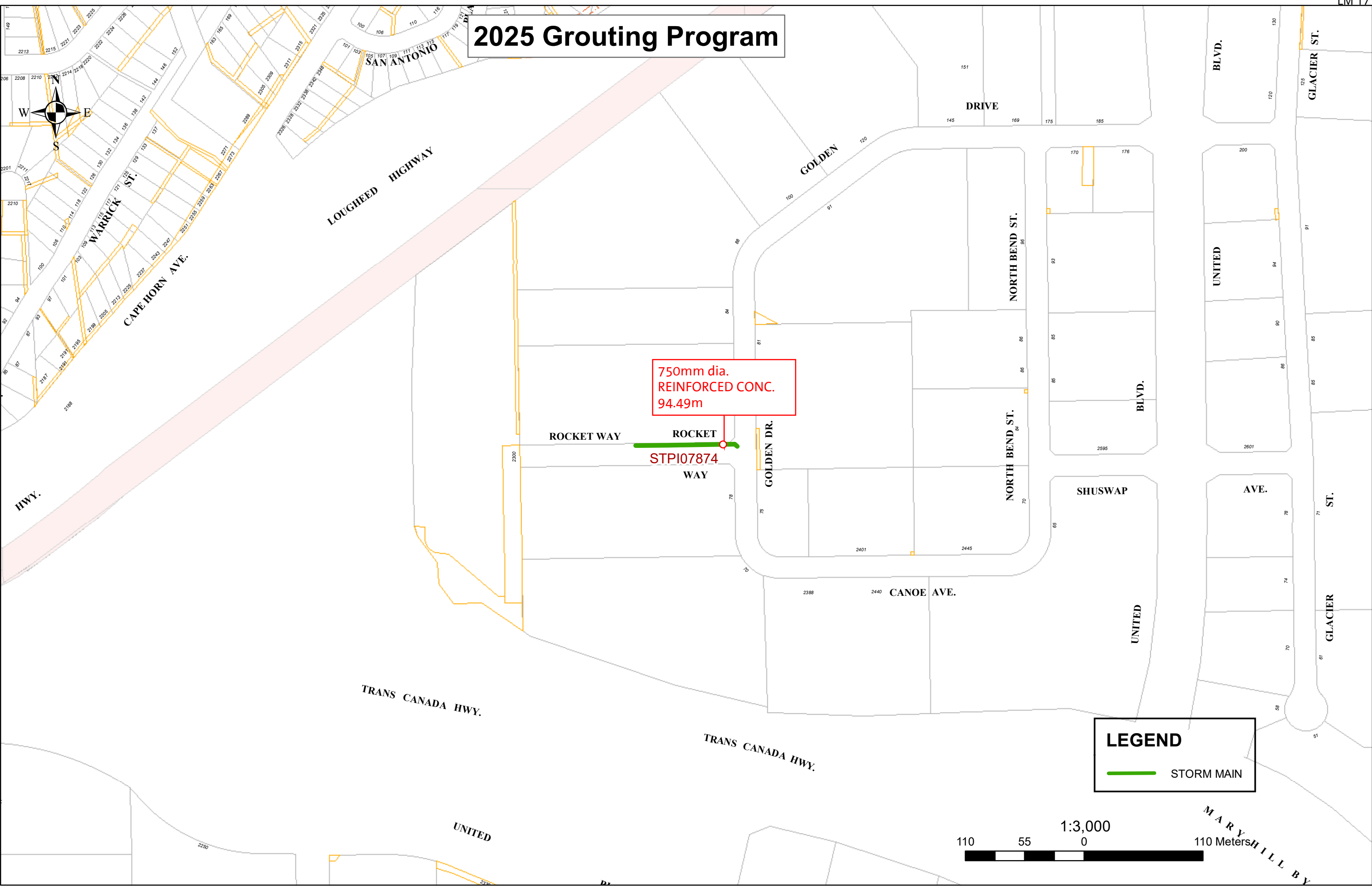
STPI06596
250mm dia. CONC
27.90m

LEGEND

 STORM MAIN

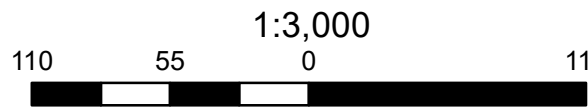


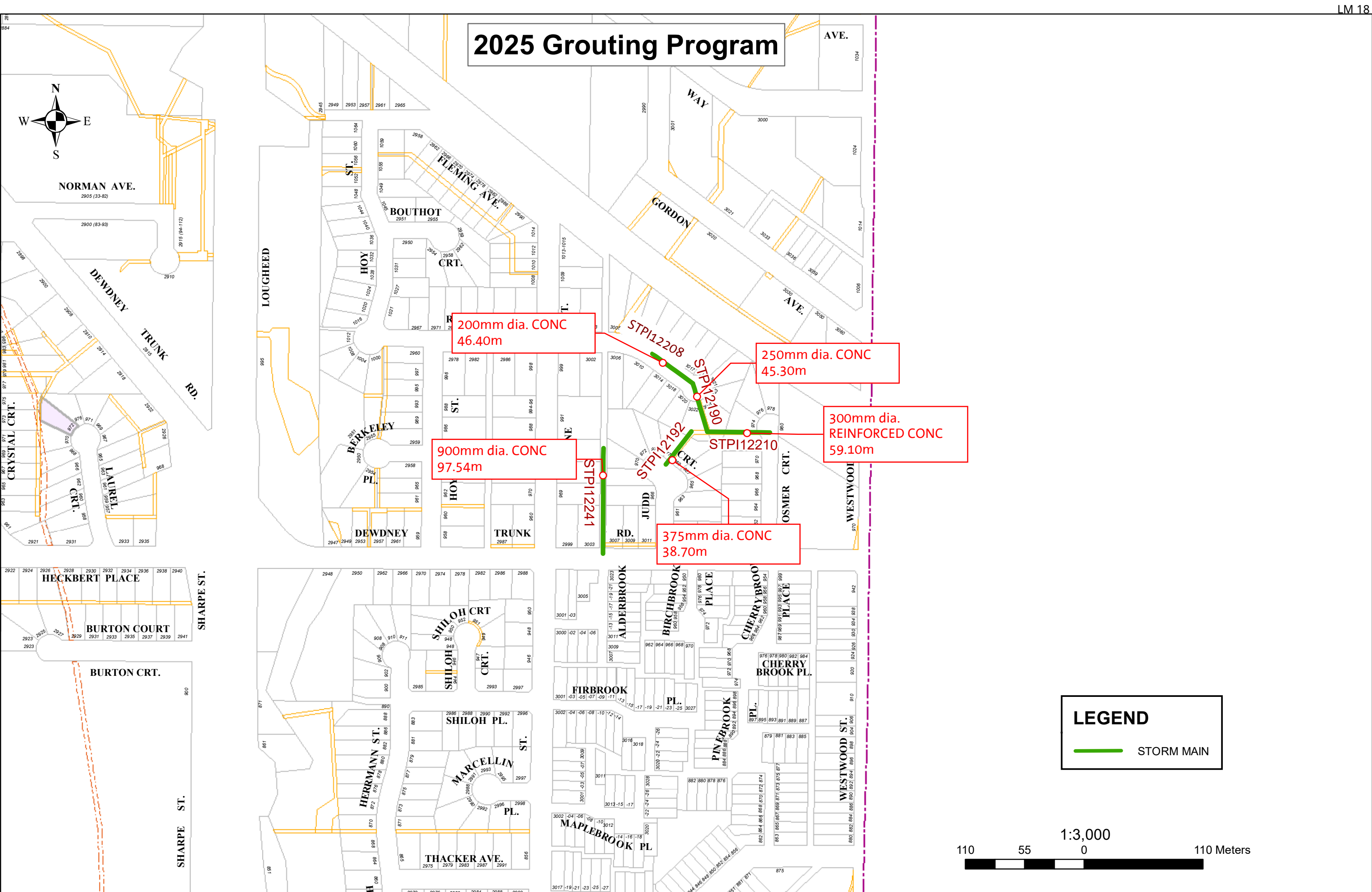
2025 Grouting Program



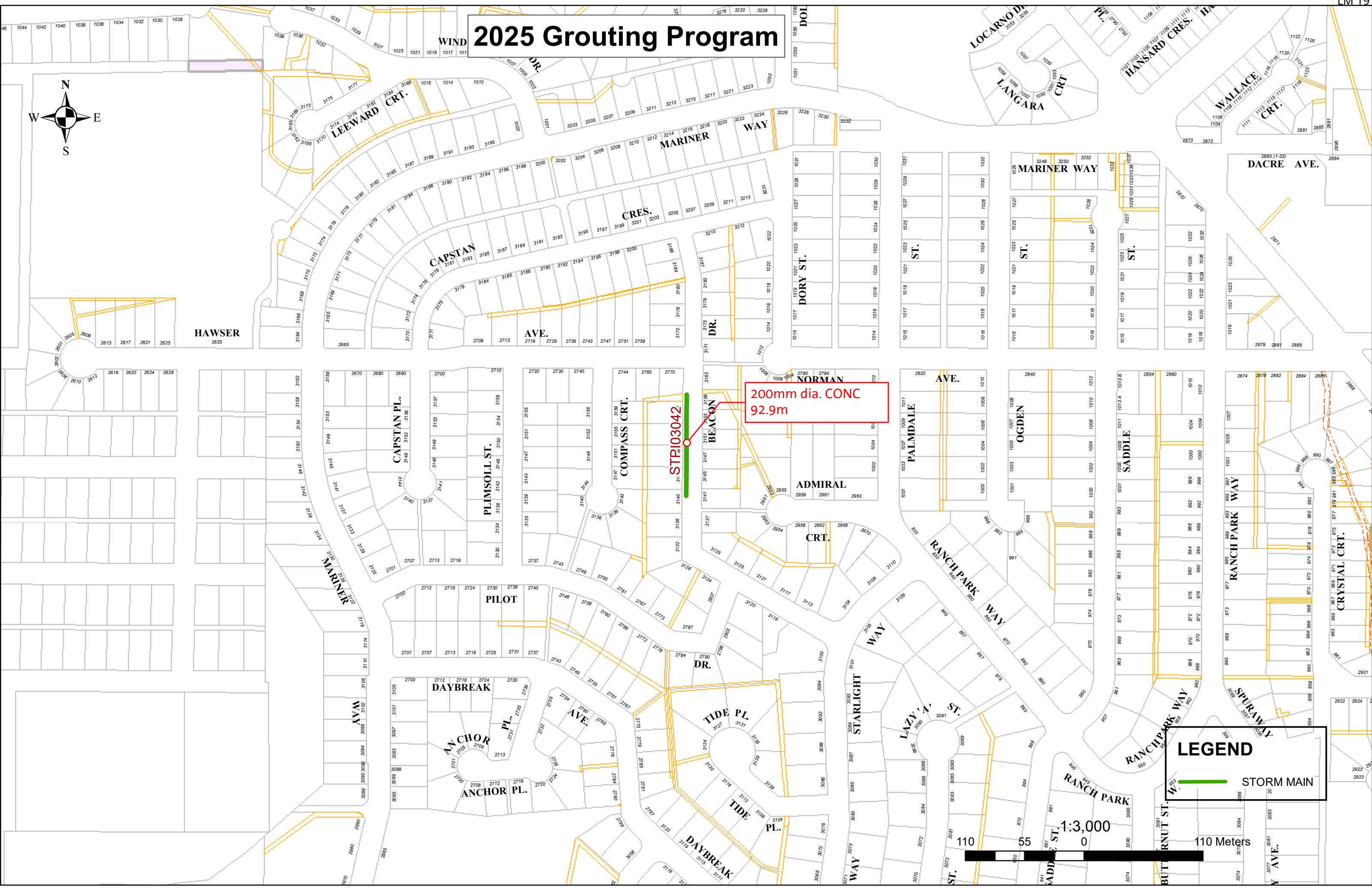
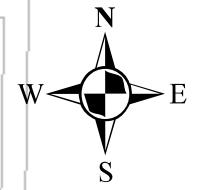
LEGEND

— STORM MAIN





2025 Grouting Program



200mm dia. CONC
92.9m

STR03042

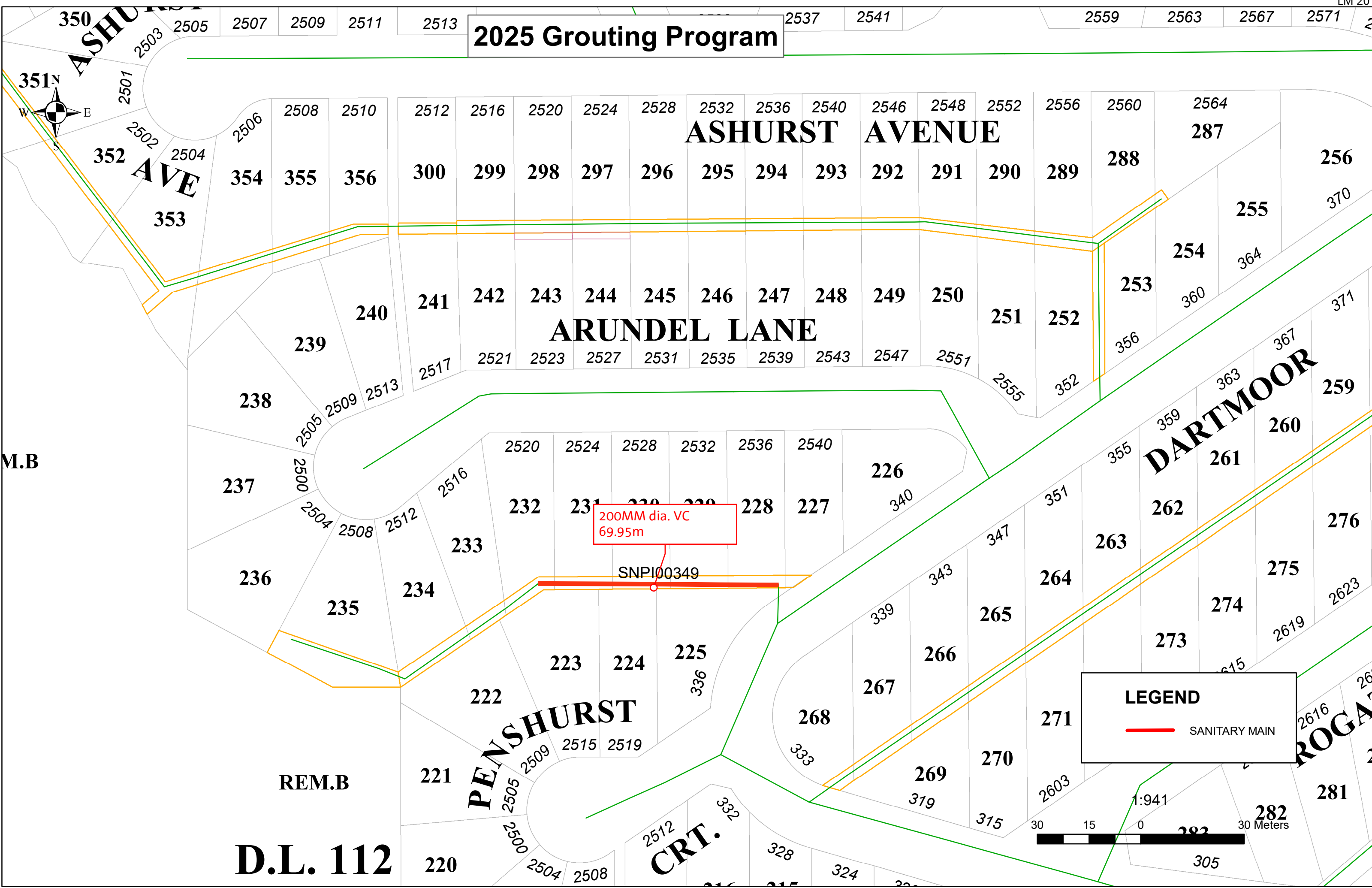
LEGEND

STORM MAIN

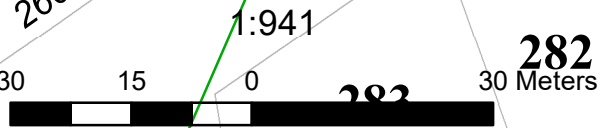
1:3,000

110 Meters

2025 Grouting Program



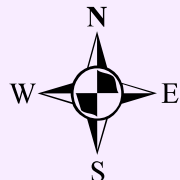
LEGEND
 SANITARY MAIN



200MM dia. VC
69.95m

SNPI00349

2025 Grouting Program



525mm dia. CONC
45.00m

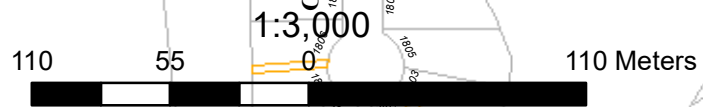
525mm dia. CONC
91.70m

STPI14622

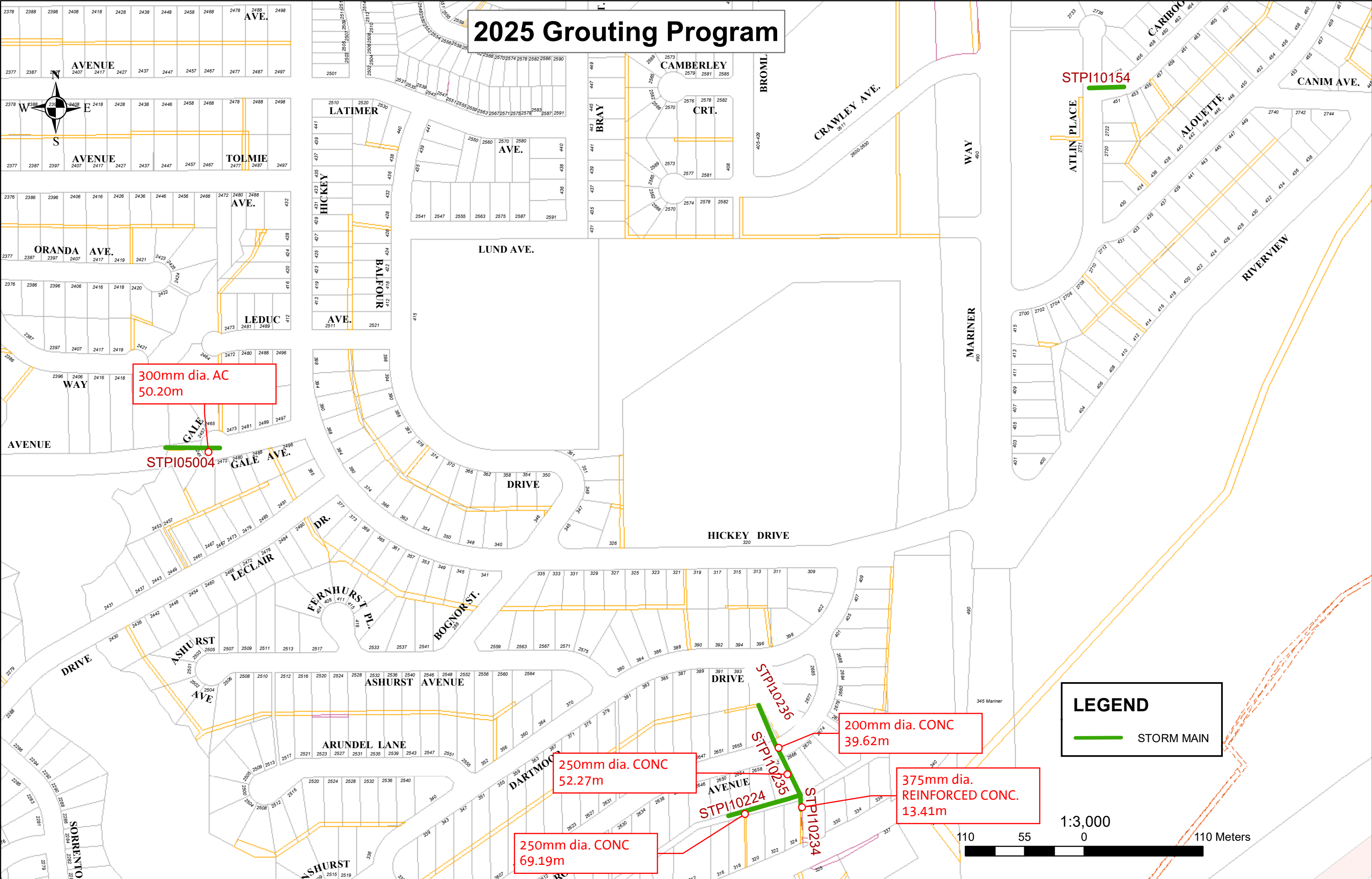
STPI14623

LEGEND

 STORM MAIN



2025 Grouting Program



300mm dia. AC
50.20m

STPI05004

200mm dia. CONC
39.62m

375mm dia.
REINFORCED CONC.
13.41m

250mm dia. CONC
52.27m

250mm dia. CONC
69.19m

LEGEND

— STORM MAIN

1:3,000



***Appendix C -
CCTV Video & Inspection Reports
File Links***

[Link 1](#)

[Link 2](#)

[Link 3](#)

[Link 4](#)

[Link 5](#)

[Link 6](#)

[Link 7](#)

[Link 8](#)

[Link 9](#)

[Link 10](#)

[Link 11](#)

[Link 12](#)

[Link 13](#)

Appendix D - Hard Copy Inspection Reports



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 35988

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00349		City COQUITLAM		Date / Time Apr 19, 2024 12:36:00 PM		Upstream MH No. SNMH04684		Downstream MH No. SNMH04683	
Street DARTMOOR DR				City COQUITLAM				Upstream MH No. SNMH04684			
Location Details				City COQUITLAM				Downstream MH No. SNMH04683			
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		Flow Control		Height		Width		Shape	
Material		Upstream		N		200		C		C	
VCP		Lining Method		Pipe Joint Length		Total Length		Length Surveyed		Sewer Cat	
Year Laid		Year Renewed		Media Label		Purpose		Sewer Cat		Pressure V	
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		04/19/2024		1		B		B		B	
Project 24-021				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	22.0	AMH					N			SNMH04683	35988-1.jpg	Manhole
2	0.00	31.0	MWL				5	N				35988-2.jpg	Water Level
3	3.80	147.0	TF		100			N	3			35988-3.jpg	Tap Factory
4	9.90	210.0	RFJ					Y	2	8		35988-4.jpg	Roots Fine Joint
5	18.30	290.0	TFA		100			N	3			35988-5.jpg	Tap Factory Active
6	33.10	433.0	RFJ					Y	12	12		35988-6.jpg	Roots Fine Joint
7	35.20	453.0	TF		100			N	3			35988-7.jpg	Tap Factory
8	42.20	527.0	RFJ					Y	4	6		35988-8.jpg	Roots Fine Joint
9	44.30	568.0	RFJ	S01				Y	6	10		35988-9.jpg	Roots Fine Joint
10	45.90	601.0	RMJ				10	Y	5	7		35988-10.jpg	Roots Medium Joint
11	51.10	658.0	TF		100			N	3			35988-11.jpg	Tap Factory
12	55.00	716.0	RMJ				5	Y	4	8		35988-12.jpg	Roots Medium Joint
13	59.10	776.0	RTJ				5	Y	7	11		35988-13.jpg	Roots Tap Joint
14	64.60	837.0	RFJ	F01				Y	6	10		35988-14.jpg	Roots Fine Joint
15	69.20	884.0	TF		100			N	3			35988-15.jpg	Tap Factory
16	70.40	910.0	AMH					N			SNMH04684	35988-16.jpg	Manhole

Standard: PACP
Inspection ID: 5188

Surveyed By		Certificate No.		Owner		Customer		Drainage Area		Sheet No.	
				City of Coquitlam							
P/O No.				PSR				Date / Time			
		SNPI00692						Oct 28, 2004 11:45:00 AM			
Street				City				Upstream MH No.			
3000 BLK LAZY "A" ST								SNMH01284			
Location Details						Downstream MH No.					
						SNMH01285					
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		Flow Control		Height		Width		Shape	
Foul		Downstream				150				Circular	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
Concrete										106.40	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				SNPI00692-5188.WMV		Sample survey to determine asset condition					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
Not Known				55		Dry		Main road - suburban/rural (al			
Project				Additional Info				Reverse Setup			
				GRADE=0.0139							

[illegible]



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30858

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00843		Date / Time Feb 15, 2023 10:30:00 AM		Upstream MH No. SNMH01650		Downstream MH No. SNMH01649			
Street REGAN AVE				City COQUITLAM							
Location Details											
USMH Rim to Invert 3.14				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.98				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 97.20			
Year Laid		Year Renewed		Media Label SNPI00843-30858.MP4		Purpose F		Sewer Cat			
Pre-Cleaning ?		Date Cleaned 02/15/2023		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	15.0	AMH					N			SNMH01650	30858-1.jpg	Manhole
2	0.00	25.0	MWL				5	N				30858-2.jpg	Water Level
3	1.30	45.0	SRI	S01				Y	6			30858-3.jpg	Surface Roughness Increased
4	3.20	65.0	MWLS				5	N				30858-4.jpg	Water Level Sag
5	12.30	112.0	ISSRB				10	N	9	3		30858-5.jpg	Intruding Sealing Ring Broken
6	12.70	133.0	ISJ					Y	12	12	AT SEALING RING	30858-6.jpg	Infiltration Stain Joint
7	15.60	183.0	ISSRH				10	N	9	2		30858-7.jpg	Intruding Sealing Ring Hanging
8	15.70	224.0	ISJ					Y	12	12	AT SEALING RING	30858-8.jpg	Infiltration Stain Joint
9	25.10	294.0	ISSRB				5	N	12	12		30858-9.jpg	Intruding Sealing Ring Broken
10	28.80	322.0	TFA		100			N	2			30858-10.jpg	Tap Factory Active
11	31.40	350.0	ISJ					Y	10	2		30858-11.jpg	Infiltration Stain Joint
12	33.50	372.0	TF		100			N	10			30858-12.jpg	Tap Factory
13	33.50	396.0	SRI					N	3	9	ACROSS FROM SERVICE	30858-13.jpg	Surface Roughness Increased
14	36.00	417.0	ISJ					Y	10			30858-14.jpg	Infiltration Stain Joint
15	53.60	506.0	MWLS				5	N				30858-15.jpg	Water Level Sag
16	62.70	550.0	MWLS				5	N				30858-16.jpg	Water Level Sag



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30858

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00843		Date / Time Feb 15, 2023 10:30:00 AM		Upstream MH No. SNMH01650		Downstream MH No. SNMH01649			
Street REGAN AVE				City COQUITLAM				Location Details			
USMH Rim to Invert 3.14				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.98				DSMH Grade to Invert				DSMH Rim to Grade			
Sewer Use CP		Direction Downstream		Flow Control N		Height 200		Width		Shape Circular	
Material		Lining Method		Pipe Joint Length		Total Length		Length Surveyed 97.20		Sewer Cat	
Year Laid		Year Renewed		Media Label SNPI00843-30858.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/15/2023		W/O #		Weather 1		Reverse Setup			
Project 23-005				Additional Info							

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	64.80	568.0	TF		100			N	2			30858-17.jpg	Tap Factory
18	64.80	577.0	SRI					N	3	9	ACROSS FROM SERVICE	30858-18.jpg	Surface Roughness Increased
19	72.40	612.0	MWLS				5	N				30858-19.jpg	Water Level Sag
20	78.20	648.0	DAGS				5	N	5			30858-20.jpg	Deposits Attached Grease
21	82.90	679.0	ISSRH				10	N	9	2		30858-21.jpg	Intruding Sealing Ring Hanging
22	82.90	697.0	ISJ					Y	10	2	AT SEALING RING	30858-22.jpg	Infiltration Stain Joint
23	93.90	752.0	MMC					N			PVC	30858-23.jpg	Material Change
24	95.70	766.0	MMC					N			CONCRETE	30858-24.jpg	Material Change
25	96.60	777.0	SRI	F01				Y	6			30858-25.jpg	Surface Roughness Increased
26	97.20	787.0	AMH					N			SNMH01649	30858-26.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30873

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI00844		PSR 				Date / Time Feb 15, 2023 1:03:00 PM			
Street REGAN AVE				City COQUITLAM				Upstream MH No. SNMH01657			
Location Details 				SNMH01650				Downstream MH No. 			
USMH Rim to Invert 2.64				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 3.14				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 87.60	
Year Laid 		Year Renewed 		Media Label SNPI00844-30873.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 02/15/2023		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	9.0	AMH					N			SNMH01657	30873-1.jpg	Manhole
2	0.00	21.0	MWL				5	N				30873-2.jpg	Water Level
3	1.30	46.0	IDJ					Y	12		AT SEALING RING	30873-3.jpg	Infiltration Dripper Joint
4	1.30	62.0	ISSRL				5	N	10	2		30873-4.jpg	Intruding Sealing Ring Loose/Poorly Fitting
5	1.70	76.0	SRI	S01				Y	5	7		30873-5.jpg	Surface Roughness Increased
6	3.40	109.0	TB		100			N	3			30873-6.jpg	Tap Break-in
7	3.80	117.0	TB		100			N	3			30873-7.jpg	Tap Break-in
8	5.60	135.0	MWLS				5	N				30873-8.jpg	Water Level Sag
9	10.70	169.0	MMC					N			PVC	30873-9.jpg	Material Change
10	12.00	183.0	TF		100			N	10			30873-10.jpg	Tap Factory
11	12.60	196.0	MMC					N			CONCRETE	30873-11.jpg	Material Change
12	20.80	287.0	DAE				100	N	10		INSIDE SERVICE	30873-12.jpg	Deposits Attached Encrustation
13	20.80	309.0	TFD		100			N	10		BLOCKED BY ENCRUSTATION	30873-13.jpg	Tap Factory Defective
14	21.30	327.0	ISB					N	2	3		30873-14.jpg	Infiltration Stain Barrel
15	27.90	374.0	MWLS				5	N				30873-15.jpg	Water Level Sag
16	33.60	414.0	MWLS				5	N				30873-16.jpg	Water Level Sag



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30873

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00844		PSR		CITY		Date / Time Feb 15, 2023 1:03:00 PM		Upstream MH No. SNMH01657	
Street REGAN AVE		City COQUITLAM		City COQUITLAM		City COQUITLAM		Downstream MH No. SNMH01650		Downstream MH No. SNMH01650	
USMH Rim to Invert 2.64		USMH Grade to Invert		USMH Rim to Grade		USMH Rim to Grade		USMH Rim to Grade		USMH Rim to Grade	
DSMH Rim to Invert 3.14		DSMH Grade to Invert		DSMH Rim to Grade		DSMH Rim to Grade		DSMH Rim to Grade		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 87.60		Length Surveyed 87.60	
Year Laid		Year Renewed		Media Label SNPI00844-30873.MP4		Purpose F		Sewer Cat		Sewer Cat	
Pre-Cleaning ?		Date Cleaned 02/15/2023		W/O #		Weather 1		Location A		Pressure V	
Project 23-005		Additional Info		Additional Info		Additional Info		Reverse Setup		Reverse Setup	

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	41.70	476.0	ISJ					Y	10	2		30873-17.jpg	Infiltration Stain Joint
18	42.80	492.0	TF		100			N	9			30873-18.jpg	Tap Factory
19	44.20	512.0	TBA		100			N	3			30873-19.jpg	Tap Break-in Active
20	44.70	521.0	TBA		100			N	3			30873-20.jpg	Tap Break-in Active
21	49.70	577.0	ISB					N	9	10		30873-21.jpg	Infiltration Stain Barrel
22	51.20	591.0	MWLS				5	N				30873-22.jpg	Water Level Sag
23	87.60	1,045.0	AMH					N			SNMH01650	30873-23.jpg	Manhole
24	57.90	649.0	ISSRL				5	N	12	3		30873-24.jpg	Intruding Sealing Ring Loose/Poorly Fitting
25	57.90	670.0	ISJ					Y	12	12	AT SEALING RING	30873-25.jpg	Infiltration Stain Joint
26	61.00	701.0	ISSRH				5	N	10	1		30873-26.jpg	Intruding Sealing Ring Hanging
27	61.00	713.0	ISJ					Y	12	12	AT SEALING RING	30873-27.jpg	Infiltration Stain Joint
28	63.20	738.0	TF		100			N	10			30873-28.jpg	Tap Factory
29	72.00	840.0	ISSRH				5	N	12	3		30873-29.jpg	Intruding Sealing Ring Hanging
30	72.00	851.0	ISJ					Y	12	12	AT SEALING RING	30873-30.jpg	Infiltration Stain Joint
31	76.20	886.0	MWLS				20	N				30873-31.jpg	Water Level Sag
32	79.10	916.0	MWLS				50	N				30873-32.jpg	Water Level Sag
33	82.50	961.0	MCU					N				30873-33.jpg	Camera Underwater



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30873

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI00844		PSR 				Date / Time Feb 15, 2023 1:03:00 PM			
Street REGAN AVE				City COQUITLAM				Upstream MH No. SNMH01657			
Location Details 				SNMH01650				Downstream MH No. 			
USMH Rim to Invert 2.64				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 3.14				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 87.60	
Year Laid 		Year Renewed 		Media Label SNPI00844-30873.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 02/15/2023		W/O # 		Weather 1		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
34	86.90	1,019.0	SRI	FO1				Y	5	7		30873-34.jpg	Surface Roughness Increased
35	87.00	1,034.0	DAE				5	Y	12	5		30873-35.jpg	Deposits Attached Encrustation



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30821

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00845		City COQUITLAM		Date / Time Feb 13, 2023 9:46:00 AM		Upstream MH No. SNMH01649		Downstream MH No. SNMH01648	
Street WOODVALE AVE				City COQUITLAM				Location Details			
USMH Rim to Invert 2.98				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 3.79				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 127.90		Sewer Cat	
Year Laid		Year Renewed		Media Label SNPI00845-30821.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/10/2023		W/O #		Weather 1		Reverse Setup		Additional Info	
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			SNMH01649	30821-1.jpg	Manhole
2	0.00	21.0	MWL				5	N				30821-2.jpg	Water Level
3	0.40	44.0	SRI	S01				Y	5	7		30821-3.jpg	Surface Roughness Increased
4	0.80	109.0	ISSRL				5	N	11	1		30821-4.jpg	Intruding Sealing Ring Loose/Poorly Fitting
5	0.80	132.0	IS					Y	10		AT SEALING RING	30821-5.jpg	Infil Stain
6	2.10	166.0	DAE				5	Y	7	12		30821-6.jpg	Deposits Attached Encrustation
7	3.90	216.0	IS					Y	2	4		30821-7.jpg	Infil Stain
8	5.70	286.0	SAV					N	12	12	AROUND SERVICE	30821-8.jpg	Surface Aggregate Visible
9	6.00	302.0	TF		100			N	1			30821-9.jpg	Tap Factory
10	7.90	320.0	MWLS				5	N				30821-10.jpg	Water Level Sag
11	15.20	379.0	SRI					N	12	12	AROUND SERVICE	30821-11.jpg	Surface Roughness Increased
12	15.40	393.0	TF		100			N	11			30821-12.jpg	Tap Factory
13	26.40	469.0	TF		100			N	2			30821-13.jpg	Tap Factory
14	31.20	511.0	TF		100			N	11			30821-14.jpg	Tap Factory
15	37.30	568.0	SAV					N	2	10	AROUND SERVICE	30821-15.jpg	Surface Aggregate Visible
16	37.40	581.0	TF		100			N	2			30821-16.jpg	Tap Factory



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30821

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00845		City COQUITLAM		Date / Time Feb 13, 2023 9:46:00 AM		Upstream MH No. SNMH01649		Downstream MH No. SNMH01648	
Street WOODVALE AVE				City COQUITLAM				Location Details			
USMH Rim to Invert 2.98				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 3.79				DSMH Grade to Invert				DSMH Rim to Grade			
Sewer Use CP		Direction Downstream		Flow Control N		Height 200		Width		Shape Circular	
Material		Lining Method		Pipe Joint Length		Total Length		Length Surveyed 127.90		Sewer Cat	
Year Laid		Year Renewed		Media Label SNPI00845-30821.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/10/2023		W/O #		Weather 1		Reverse Setup		Additional Info	
Project 23-005				Additional Info				Reverse Setup			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	54.30	710.0	IS					Y	7	5		30821-17.jpg	Infil Stain
18	56.20	736.0	SRI					N	2	10	AROUND SERVICE	30821-18.jpg	Surface Roughness Increased
19	56.30	747.0	TF		100			N	2			30821-19.jpg	Tap Factory
20	57.60	790.0	SRI					N	5	10	AROUND SERVICE	30821-20.jpg	Surface Roughness Increased
21	57.90	807.0	TFA		100			N	10			30821-21.jpg	Tap Factory Active
22	62.10	844.0	MWLS				5	N				30821-22.jpg	Water Level Sag
23	72.10	917.0	TF		100			N	10			30821-23.jpg	Tap Factory
24	76.90	957.0	MWLS				5	N				30821-24.jpg	Water Level Sag
25	83.50	1,007.0	MMC					N			PVC	30821-25.jpg	Material Change
26	84.20	1,025.0	TF		100			N	12			30821-26.jpg	Tap Factory
27	84.80	1,091.0	MMC					N			CONCRETE	30821-27.jpg	Material Change
28	90.80	1,137.0	MWLS				5	N				30821-28.jpg	Water Level Sag
29	102.10	1,212.0	TFA		100			N	10			30821-29.jpg	Tap Factory Active
30	102.10	1,225.0	SRI					N	3	10	AROUND SERVICE	30821-30.jpg	Surface Roughness Increased
31	111.60	1,286.0	MWLS				5	N				30821-31.jpg	Water Level Sag
32	112.70	1,306.0	IS					Y	10			30821-32.jpg	Infil Stain
33	117.80	1,351.0	TF		100			N	10			30821-33.jpg	Tap Factory



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30821

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI00845		PSR 				Date / Time Feb 13, 2023 9:46:00 AM			
Street WOODVALE AVE				City COQUITLAM				Upstream MH No. SNMH01649			
Location Details 				SNMH01648				Downstream MH No. 			
USMH Rim to Invert 2.98				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 3.79				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 127.90	
Year Laid 		Year Renewed 		Media Label SNPI00845-30821.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 02/10/2023		W/O # 		Weather 1		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
34	117.80	1,429.0	SRI					N	5	10	AROUND SERVICE	30821-34.jpg	Surface Roughness Increased
35	127.40	1,523.0	IS					Y	12			30821-35.jpg	Infil Stain
36	127.90	1,543.0	AMH					N			SNMH01648	30821-36.jpg	Manhole
37	127.80	1,563.0	SRI	F01				Y	5	7		30821-37.jpg	Surface Roughness Increased



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30842

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00846		Date / Time Feb 14, 2023 11:54:00 AM		Upstream MH No. SNMH01647		Downstream MH No. SNMH01646			
Street LOMOND ST				City COQUITLAM							
Location Details											
USMH Rim to Invert 2.50				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.56				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 102.90			
Year Laid		Year Renewed		Media Label SNPI00846-30842.MP4		Purpose F		Sewer Cat			
Pre-Cleaning ?		Date Cleaned 02/10/2023		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	17.0	AMH					N			SNMH01647	30842-1.jpg	Manhole
2	0.00	31.0	MWL				5	N				30842-2.jpg	Water Level
3	13.90	117.0	SRI					N	2	9	ACROSS FROM SERVICE	30842-3.jpg	Surface Roughness Increased
4	13.90	130.0	TF		100			N	10			30842-4.jpg	Tap Factory
5	20.30	237.0	TFA		100			N	2			30842-5.jpg	Tap Factory Active
6	20.30	256.0	SRI					N	3	7	ACROSS FROM SERVICE	30842-6.jpg	Surface Roughness Increased
7	26.00	317.0	ISSRH				10	N	11	2		30842-7.jpg	Intruding Sealing Ring Hanging
8	27.40	357.0	ISSRL				5	N	11	1		30842-8.jpg	Intruding Sealing Ring Loose/Poorly Fitting
9	30.60	413.0	ISSRL				5	N	11	2		30842-9.jpg	Intruding Sealing Ring Loose/Poorly Fitting
10	32.40	429.0	ISSRL				5	N	1	3		30842-10.jpg	Intruding Sealing Ring Loose/Poorly Fitting
11	32.90	442.0	TF		100			N	3			30842-11.jpg	Tap Factory
12	33.70	458.0	ISSRH				10	N	10	2		30842-12.jpg	Intruding Sealing Ring Hanging
13	33.80	478.0	IS					Y	10	2	AT SEALING RING	30842-13.jpg	Infil Stain
14	35.50	530.0	ISSRL				5	N	12	3		30842-14.jpg	Intruding Sealing Ring Loose/Poorly Fitting
15	36.10	547.0	TFA		100			N	10			30842-15.jpg	Tap Factory Active
16	36.10	559.0	SRI					N	2	9	ACROSS FROM SERVICE	30842-16.jpg	Surface Roughness Increased



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30842

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI00846		PSR 				Date / Time Feb 14, 2023 11:54:00 AM			
Street LOMOND ST				City COQUITLAM				Upstream MH No. SNMH01647			
Location Details 				SNMH01646				Downstream MH No. 			
USMH Rim to Invert 2.50				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 2.56				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 102.90	
Year Laid 		Year Renewed 		Media Label SNPI00846-30842.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 02/10/2023		W/O # 		Weather 1		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	38.60	594.0	ISSRB				5	N	9	3		30842-17.jpg	Intruding Sealing Ring Broken
18	38.60	617.0	IS					Y	9	3	AT BROKEN SEALING RING	30842-18.jpg	Infil Stain
19	54.80	68.0	TF		100			N	2			30842-19.jpg	Tap Factory
20	64.30	113.0	SRI					N	2	9	ACROSS FROM SERVICE	30842-20.jpg	Surface Roughness Increased
21	64.40	127.0	TF		100			N	9			30842-21.jpg	Tap Factory
22	68.60	159.0	IS					Y	10	2		30842-22.jpg	Infil Stain
23	74.90	191.0	IS					Y	10	2		30842-23.jpg	Infil Stain
24	77.90	219.0	ISSRL				5	N	9	12		30842-24.jpg	Intruding Sealing Ring Loose/Poorly Fitting
25	84.10	278.0	ISSRH				10	N	10	2		30842-25.jpg	Intruding Sealing Ring Hanging
26	87.40	306.0	ISSRL				5	N	9	3		30842-26.jpg	Intruding Sealing Ring Loose/Poorly Fitting
27	87.40	321.0	IDJ					Y	12			30842-27.jpg	Infiltration Dropper Joint
28	90.40	346.0	ISSRL				5	N	3	6		30842-28.jpg	Intruding Sealing Ring Loose/Poorly Fitting
29	100.00	414.0	DAE				5	Y	7	10		30842-29.jpg	Deposits Attached Encrustation
30	102.10	444.0	FC					N	12	12		30842-30.jpg	Fracture Circumferential
31	102.90	464.0	AMH					N			SNMH01646	30842-31.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31463

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI00863		PSR 				Date / Time Mar 29, 2023 10:18:00 AM			
Street MONTROSE ST				City COQUITLAM				Upstream MH No. SNMH01683			
Location Details 				SNMH01687				Downstream MH No. 			
USMH Rim to Invert 2.45				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 2.31				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use 		Direction Downstream		Flow Control N		Height 200		Width 		Shape Circular	
Material Reinforced Concrete Pipe				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 98.20	
Year Laid 		Year Renewed 		Media Label SNPI00863-31463.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 03/29/2023		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	10.0	AMH					N			SNMH01683	31463-1.jpg	Manhole
2	0.00	20.0	MWL				5	N				31463-2.jpg	Water Level
3	0.50	37.0	H					N	1			31463-3.jpg	Hole
4	5.30	69.0	MWLS				5	N				31463-4.jpg	Water Level Sag
5	28.80	191.0	TBA		100			N	2			31463-5.jpg	Tap Break-in Active
6	28.80	210.0	SRI					N	6	10	ACROSS FROM SERVICE	31463-6.jpg	Surface Roughness Increased
7	31.20	235.0	TF		100			N	10			31463-7.jpg	Tap Factory
8	34.40	278.0	DAGS	S01			5	Y	5	7		31463-8.jpg	Deposits Attached Grease
9	36.90	311.0	MMC					N			PVC	31463-9.jpg	Material Change
10	38.60	388.0	MMC					N			CONCRETE	31463-10.jpg	Material Change
11	42.30	451.0	IDJ					Y	12			31463-11.jpg	Infiltration Dripper Joint
12	62.40	596.0	TB		100			N	2			31463-12.jpg	Tap Break-in
13	75.10	678.0	TF		100			N	10			31463-13.jpg	Tap Factory
14	83.50	731.0	MWLS				5	N				31463-14.jpg	Water Level Sag
15	97.70	825.0	DAGS	F01			5	Y	5	7		31463-15.jpg	Deposits Attached Grease
16	98.20	835.0	AMH					N			SNMH01687	31463-16.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30917

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00870		Date / Time Feb 17, 2023 9:55:00 AM		Upstream MH No. SNMH01693		Downstream MH No. SNMH01692			
Street ARBURY AVE				City COQUITLAM							
Location Details											
USMH Rim to Invert 2.46				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.20				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 81.90			
Year Laid		Year Renewed		Media Label SNPI00870-30917.MP4		Purpose F		Sewer Cat			
Pre-Cleaning ?		Date Cleaned 02/15/2023		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	9.0	AMH					N			SNMH01693	30917-1.jpg	Manhole
2	0.00	19.0	MWL				5	N				30917-2.jpg	Water Level
3	0.00	33.0	SRI	S01				Y	5	7	MINOR	30917-3.jpg	Surface Roughness Increased
4	2.70	58.0	ISJ					Y	12	12		30917-4.jpg	Infiltration Stain Joint
5	14.40	128.0	TF		100			N	2			30917-5.jpg	Tap Factory
6	14.40	146.0	SRI					N	3	8	ACROSS FROM SERVICE	30917-6.jpg	Surface Roughness Increased
7	20.70	190.0	TF		100			N	10			30917-7.jpg	Tap Factory
8	20.70	200.0	SRI					N	2	8	ACROSS FROM SERVICE	30917-8.jpg	Surface Roughness Increased
9	26.30	238.0	ISJ					Y	10			30917-9.jpg	Infiltration Stain Joint
10	27.40	248.0	MWLS				5	N				30917-10.jpg	Water Level Sag
11	36.30	302.0	TF		100			N	2			30917-11.jpg	Tap Factory
12	36.30	313.0	SRI					N	3	8	ACROSS FROM SERVICE	30917-12.jpg	Surface Roughness Increased
13	37.10	324.0	MWLS				5	N				30917-13.jpg	Water Level Sag
14	53.60	418.0	TF		100			N	10			30917-14.jpg	Tap Factory
15	53.60	428.0	SRI					N	3	8	ACROSS FROM SERVICE	30917-15.jpg	Surface Roughness Increased
16	60.60	468.0	MWLS				5	N				30917-16.jpg	Water Level Sag



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30917

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00870		Date / Time Feb 17, 2023 9:55:00 AM		Upstream MH No. SNMH01693		Downstream MH No. SNMH01692			
Street ARBURY AVE				City COQUITLAM							
Location Details											
USMH Rim to Invert 2.46				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.20				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 81.90			
Year Laid		Year Renewed		Media Label SNPI00870-30917.MP4		Purpose F		Sewer Cat			
Pre-Cleaning ?		Date Cleaned 02/15/2023		W/O #		Weather 1		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	63.40	484.0	MWLS				10	N				30917-17.jpg	Water Level Sag
18	70.20	526.0	ISJ					Y	2			30917-18.jpg	Infiltration Stain Joint
19	71.80	540.0	ISJ					Y	12	12		30917-19.jpg	Infiltration Stain Joint
20	73.30	558.0	ISJ					Y	10			30917-20.jpg	Infiltration Stain Joint
21	81.00	610.0	ISJ					Y	12	2		30917-21.jpg	Infiltration Stain Joint
22	81.70	623.0	SRI	F01				Y	5	7	MINOR	30917-22.jpg	Surface Roughness Increased
23	81.90	634.0	AMH					N			SNMH01692	30917-23.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30838

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00871		City COQUITLAM		Date / Time Feb 14, 2023 11:09:00 AM		Upstream MH No. SNMH01693		Downstream MH No. SNMH01695	
Street ARBURY AVE				City COQUITLAM				Location Details			
USMH Rim to Invert 2.46				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.57				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 102.30		Sewer Cat	
Year Laid		Year Renewed		Media Label SNPI00871-30838.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/10/2023		W/O #		Weather 1		Reverse Setup		Additional Info	
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			SNMH01693	30838-1.jpg	Manhole
2	0.00	21.0	MWL				0	N				30838-2.jpg	Water Level
3	12.10	108.0	MWLS				5	N				30838-3.jpg	Water Level Sag
4	23.70	184.0	MWLS				5	N				30838-4.jpg	Water Level Sag
5	25.20	204.0	SRI					N	2	9	ACROSS FROM SERVICE	30838-5.jpg	Surface Roughness Increased
6	25.30	218.0	TF		100			N	10			30838-6.jpg	Tap Factory
7	28.70	259.0	MWLS				5	N				30838-7.jpg	Water Level Sag
8	31.60	299.0	TF		100			N	2			30838-8.jpg	Tap Factory
9	31.60	312.0	SRI					N	3	9	ACROSS FROM SERVICE	30838-9.jpg	Surface Roughness Increased
10	34.00	347.0	MWLS				5	N				30838-10.jpg	Water Level Sag
11	35.60	392.0	ISSRL				5	N	9	3		30838-11.jpg	Intruding Sealing Ring Loose/Poorly Fitting
12	35.70	414.0	IS					Y	9	3	AT SEALING RING	30838-12.jpg	Infil Stain
13	43.70	471.0	MWLS				5	N				30838-13.jpg	Water Level Sag
14	48.90	507.0	TFA		100			N	10			30838-14.jpg	Tap Factory Active
15	48.90	521.0	SRI					N	2	9	ACROSS FROM SERVICE	30838-15.jpg	Surface Roughness Increased
16	50.50	558.0	MWLS				5	N				30838-16.jpg	Water Level Sag



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30838

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI00871		Date / Time Feb 14, 2023 11:09:00 AM		Upstream MH No. SNMH01693		Downstream MH No. SNMH01695			
Street ARBURY AVE				City COQUITLAM				Location Details			
USMH Rim to Invert 2.46				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.57				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 102.30		Sewer Cat	
Year Laid		Year Renewed		Media Label SNPI00871-30838.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/10/2023		W/O #		Weather 1		Reverse Setup			
Project 23-005				Additional Info							

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	66.90	677.0	ISSRL				5	N	11	1		30838-17.jpg	Intruding Sealing Ring Loose/Poorly Fitting
18	66.90	691.0	IS					Y	12		AT SEALING RING	30838-18.jpg	Infil Stain
19	69.40	717.0	MWLS				5	N				30838-19.jpg	Water Level Sag
20	77.90	773.0	MWLS				5	N				30838-20.jpg	Water Level Sag
21	92.00	852.0	MWLS				5	N				30838-21.jpg	Water Level Sag
22	102.30	940.0	AMH					N			SNMH01695	30838-22.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31938

Surveyed By T SCOLLON		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 23-005		SNPI00879		PSR 		Date / Time Apr 14, 2023 11:24:00 AM					
Street CRANE DR				City COQUITLAM				Upstream MH No. SNMH02543			
Location Details 				SNMH27108				Downstream MH No. 			
USMH Rim to Invert 2.65				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 2.56				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use 		Direction Downstream		Flow Control N		Height 200		Width 		Shape Circular	
Material Asbestos Cement				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 105.30	
Year Laid 		Year Renewed 		Media Label SNPI00879-31938.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 03/08/2023		W/O # 		Weather 1		Location B		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	92.70	764.0	TF		100			N	9			31938-1.jpg	Tap Factory
2	102.60	871.0	ID					Y	9	3		31938-2.jpg	Infil Dripper
3	103.30	900.0	MMC					N			PVC	31938-3.jpg	Material Change
4	105.30	945.0	AMH					N			SNMH27108	31938-4.jpg	Manhole
5	0.00	16.0	AMH					N			SNMH02543	31938-5.jpg	Manhole
6	0.00	28.0	MWL				10	N				31938-6.jpg	Water Level
7	3.20	57.0	MWLS				5	N				31938-7.jpg	Water Level Sag
8	17.70	151.0	TF		100			N	9			31938-8.jpg	Tap Factory
9	18.10	175.0	TF		100			N	3			31938-9.jpg	Tap Factory
10	19.30	211.0	TB		100			N	12			31938-10.jpg	Tap Break-in
11	19.30	260.0	IDC					Y	10	2		31938-11.jpg	Infiltration Dripper Connection
12	74.70	641.0	TF		100			N	3			31938-12.jpg	Tap Factory



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36043

Surveyed By LINTON S		Certificate No. U-0317-07006319		Owner PSR		Customer CoC		Drainage Area		Sheet No.	
P/O No. 30-6025		SNPI00965		City COQUITLAM		Date / Time Apr 15, 2024 1:12:00 PM		Upstream MH No. SNMH05713		Downstream MH No. SNMH05712	
Street CAYER ST		Location Details		Flow Control N		Height 200		Width C		Shape C	
USMH Rim to Invert 2.55		USMH Grade to Invert		DSMH Rim to Invert 3.88		DSMH Grade to Invert		DSMH Rim to Grade		DSMH Rim to Grade	
Sewer Use VCP		Direction Upstream		Lining Method		Pipe Joint Length 1.00		Total Length		Length Surveyed 70.80	
Material		Year Laid		Year Renewed		Media Label SNPI00965-36043.MP4		Purpose F		Sewer Cat	
Pre-Cleaning ?		Date Cleaned 04/15/2024		W/O #		Weather 5		Location A		Pressure V	
Project 24-021		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	32.0	AMH					N			SNMH05712	36043-1.jpg	Manhole
2	0.00	80.0	MWL				5	N				36043-2.jpg	Water Level
3	5.10	135.0	TF		100			N	2			36043-3.jpg	Tap Factory
4	12.50	181.0	MWLS				5	N				36043-4.jpg	Water Level Sag
5	24.70	264.0	TFA		150			N	2			36043-5.jpg	Tap Factory Active
6	34.40	324.0	MWLS				5	N				36043-6.jpg	Water Level Sag
7	39.50	354.0	MWLS				15	N				36043-7.jpg	Water Level Sag
8	42.50	381.0	TF		100			N	2			36043-8.jpg	Tap Factory
9	46.40	413.0	MWLS				10	N				36043-9.jpg	Water Level Sag
10	50.70	439.0	MWLS				5	N				36043-10.jpg	Water Level Sag
11	52.00	475.0	IGJ					Y	6			36043-11.jpg	Infiltration Gusher Joint
12	53.40	490.0	MMC					N			PVC	36043-12.jpg	Material Change
13	54.40	503.0	MMC					N			VC	36043-13.jpg	Material Change
14	57.50	526.0	MWLS				5	N				36043-14.jpg	Water Level Sag
15	70.80	620.0	AMH					N			SNMH05713	36043-15.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 32597

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI01767		PSR 				Date / Time Apr 27, 2023 2:02:00 PM			
Street GATENSbury ST				City COQUITLAM				Upstream MH No. SNMH00477			
Location Details 				SNMH00476				Downstream MH No. 			
USMH Rim to Invert 1.61				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 Asbestos Cement				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 59.60	
Year Laid 		Year Renewed 		Media Label SNPI01767-32597.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/12/2023		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	9.0	AMH					N			SNMH00477		Manhole
2	0.00	21.0	MWL				5	N					Water Level
3	2.90	57.0	RFJ					Y	12	5			Roots Fine Joint
4	9.80	104.0	RMJ				10	Y	2	7			Roots Medium Joint
5	12.50	129.0	RFJ					Y	12	12			Roots Fine Joint
6	13.50	145.0	RFJ					Y	12	12			Roots Fine Joint
7	13.60	162.0	IRJ					Y	12				Infiltration Runner Joint
8	15.40	190.0	RFJ					Y	12	12			Roots Fine Joint
9	16.40	204.0	RFJ					Y	12	12			Roots Fine Joint
10	17.40	219.0	RFJ					Y	12				Roots Fine Joint
11	32.60	305.0	ISJ					Y	7	5			Infiltration Stain Joint
12	48.30	400.0	MMC					N			UNKNOWN		Material Change
13	49.60	445.0	MMC					N			CONCRETE		Material Change
14	52.80	479.0	IRJ					Y	10				Infiltration Runner Joint
15	52.80	496.0	ISSRL				0	N	9	10			Intruding Sealing Ring Loose/Poorly Fitting
16	57.80	548.0	ISSRL				0	N	1	3			Intruding Sealing Ring Loose/Poorly Fitting



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 32597

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area SNMH00476		Sheet No. SNMH00477	
P/O No. SNPI01767		Date / Time Apr 27, 2023 2:02:00 PM		City COQUITLAM		Upstream MH No. SNMH00477		Downstream MH No. SNMH00476			
Street GATENSBURY ST				Location Details COQUITLAM							
USMH Rim to Invert 1.61		USMH Grade to Invert 1.61		USMH Rim to Grade 1.61		DSMH Rim to Invert 1.61		DSMH Grade to Invert 1.61		DSMH Rim to Grade 1.61	
Sewer Use Asbestos Cement		Direction Downstream		Flow Control N		Height 200		Width Circular		Shape Circular	
Material Asbestos Cement		Lining Method SNPI01767-32597.MP4		Pipe Joint Length 59.60		Total Length 59.60		Length Surveyed 59.60		Sewer Cat F	
Year Laid ?		Year Renewed 04/12/2023		Media Label SNPI01767-32597.MP4		Purpose F		Location A		Pressure V A	
Pre-Cleaning ?		Date Cleaned 04/12/2023		W/O # 1		Weather 1		Reverse Setup A			
Project 23-005				Additional Info 23-005							

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	59.60	568.0	AMH					N			SNMH00476		Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36937

Surveyed By LINTON S		Certificate No. U-0317-07006319		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 24-021		SNPI01783		PSR 				Date / Time Nov 1, 2024 9:43:00 AM			
Street LANE N OF CHARLAND AVE				City COQUITLAM				Upstream MH No. SNMH05392			
Location Details 				SNMH05391				Downstream MH No. 			
USMH Rim to Invert 1.59				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 1.66				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 1.00		Total Length 		Length Surveyed 100.70	
Year Laid 		Year Renewed 		Media Label SNPI01783-36937.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 11/01/2024		W/O # 		Weather 5		Location A		Pressure V 	
Project 24-021				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	29.0	AMH					N			SNMH05391	36937-1.jpg	Manhole
2	0.00	38.0	MWL				5	N				36937-2.jpg	Water Level
3	1.30	70.0	SRI	S01				N	6			36937-3.jpg	Surface Roughness Increased
4	18.10	173.0	TF		100			N	2			36937-4.jpg	Tap Factory
5	19.50	200.0	RMJ				10	Y	10	2		36937-5.jpg	Roots Medium Joint
6	21.10	216.0	RMJ				10	Y	10	2		36937-6.jpg	Roots Medium Joint
7	22.50	230.0	RMJ				10	Y	10	2		36937-7.jpg	Roots Medium Joint
8	29.30	283.0	RMJ				10	Y	12	2		36937-8.jpg	Roots Medium Joint
9	30.60	298.0	RMJ				10	Y	12	2		36937-9.jpg	Roots Medium Joint
10	43.40	398.0	TFA		100			N	2			36937-10.jpg	Tap Factory Active
11	64.00	534.0	TFA		100			N	2			36937-11.jpg	Tap Factory Active
12	81.40	655.0	TFA		100			N	2			36937-12.jpg	Tap Factory Active
13	100.00	778.0	SRI	F01				N	6			36937-13.jpg	Surface Roughness Increased
14	100.70	791.0	AMH					N			SNMH05392	36937-14.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 35090

Surveyed By Linton S		Certificate No. U-0317-07006319		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 23-005		SNPI01883		PSR 				Date / Time Nov 16, 2023 9:43:00 AM			
Street LANE N OF AUSTIN AVE				City COQUITLAM				Upstream MH No. SNMH02582			
Location Details 				SNMH02581				Downstream MH No. 			
USMH Rim to Invert 1.38				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 3.63				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use 		Direction Downstream		Flow Control N		Height 200		Width 		Shape C	
Material VCP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 44.80	
Year Laid 		Year Renewed 		Media Label SNPI01883-35090.MP4		Purpose 				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 11/16/2023		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	32.0	AMH					N			SNMH02582		Manhole
2	0.00	64.0	MWL				10	N					Water Level
3	1.70	103.0	IRJ					Y	2	5			Infiltration Runner Joint
4	8.40	168.0	TFA		100			N	10				Tap Factory Active
5	18.60	241.0	MWLS				5	N					Water Level Sag
6	34.80	353.0	TFA		100			N	2				Tap Factory Active
7	44.80	436.0	AMH					N			SNMH02581		Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31993

Surveyed By T SCOLLON		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 23-005		SNPI01926		PSR 		Date / Time Apr 20, 2023 7:34:00 AM					
Street CYPRESS ST				City COQUITLAM				Upstream MH No. SNMH02540			
Location Details 				SNMH27106				Downstream MH No. 			
USMH Rim to Invert 2.80				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 Vitrified Clay Pipe				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 55.60	
Year Laid 		Year Renewed 		Media Label SNPI01926-31993.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 03/08/2023		W/O # 		Weather 3		Location B		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	12.0	AMH					N			SNMH02540	31993-1.jpg	Manhole
2	0.00	31.0	MWL				5	N				31993-2.jpg	Water Level
3	7.20	110.0	MWLS				5	N				31993-3.jpg	Water Level Sag
4	13.00	175.0	ID					Y	11	1		31993-4.jpg	Infil Dripper
5	24.40	249.0	TF		100			N	9			31993-5.jpg	Tap Factory
6	29.00	338.0	ID					N	2	4		31993-6.jpg	Infil Dripper
7	36.60	418.0	MWLS				5	N				31993-7.jpg	Water Level Sag
8	37.70	509.0	DAE				5	N	3	9		31993-8.jpg	Deposits Attached Encrustation
9	47.30	578.0	TF		100			N	9			31993-9.jpg	Tap Factory
10	51.30	615.0	MMC					N			PVC	31993-10.jpg	Material Change
11	52.90	657.0	LD				45	N			DROP STRUCTURE	31993-11.jpg	Alignment Down
12	55.60	698.0	AMH					N			SNMH27106	31993-12.jpg	Manhole



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 32581

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI10383		PSR 				Date / Time Apr 26, 2023 10:55:00 AM			
Street MAYFAIR CRT				City COQUITLAM				Upstream MH No. SNMH00509			
Location Details 						Downstream MH No. SNMH00508					
USMH Rim to Invert 1.98				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 2.00				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use 		Direction Upstream		Flow Control N		Height 150		Width 		Shape Circular	
Material Asbestos Cement				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 38.30	
Year Laid 		Year Renewed 		Media Label SNPI10383-32581.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/05/2023		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	13.0	AMH					N			SNMH00508		Manhole
2	0.00	23.0	MWL				5	N					Water Level
3	21.00	167.0	MMC					N			PVC		Material Change
4	21.40	177.0	TF		100			N	9				Tap Factory
5	21.90	189.0	MMC					N			AC		Material Change
6	35.20	304.0	MWLS				5	N					Water Level Sag
7	37.20	317.0	MMC					N			PVC		Material Change
8	37.80	336.0	RMJ				20	Y	6	10			Roots Medium Joint
9	38.30	349.0	AMH					N			SNMH00509		Manhole
10	36.80	387.0	MGO					N			POST INSPECTION WHEEL DAMAGE MINIMAL		General Observation



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31507

Surveyed By Linton S		Certificate No. U-0317-07006319		Owner PSR		Customer CofC		Drainage Area		Sheet No.	
P/O No.		SNPI11215		PSR		CofC		Date / Time Mar 31, 2023 8:27:00 AM			
Street LAZY A ST				City COQUITLAM				Upstream MH No. SNMH01283			
Location Details				Downstream MH No. SNMH01284							
USMH Rim to Invert				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert				DSMH Grade to Invert				DSMH Rim to Grade			
4.59											
Sewer Use		Direction		Flow Control		Height		Width		Shape	
		Upstream		N		150				Circular	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
CP						2.50				34.10	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				SNPI11215-31507.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		03/31/2023				5		A			
Project				Additional Info				Reverse Setup			
23-005				REVERSAL NOT POSSIBLR DUE TO UPSTREAM MH NOT FOUND							

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			SNMH01284	31507-1.jpg	Manhole
2	0.00	42.0	MWL				5	N				31507-2.jpg	Water Level
3	12.30	150.0	TBA		100			N	12			31507-3.jpg	Tap Break-in Active
4	28.10	322.0	TFA		100			N	10			31507-4.jpg	Tap Factory Active
5	31.60	379.0	IDJ					Y	12			31507-5.jpg	Infiltration Dripper Joint
6	32.90	420.0	ISSRH				5	N	11	1		31507-6.jpg	Intruding Sealing Ring Hanging
7	32.90	443.0	IRJ					Y	12			31507-7.jpg	Infiltration Runner Joint
8	34.10	533.0	MSA					N			DUE TO INTRUDING SEALING RING	31507-8.jpg	Abandoned Survey



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 31419

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI11446		PSR				Date / Time Mar 27, 2023 1:21:00 PM			
Street PINEBROOK PL				City COQUITLAM				Upstream MH No. SNMH01513			
Location Details				SNMH01512				Downstream MH No.			
USMH Rim to Invert 2.44				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.48				DSMH Grade to Invert				DSMH Rim to Grade			
Sewer Use		Direction Downstream		Flow Control N		Height 150		Width		Shape Circular	
Material CP				Lining Method		Pipe Joint Length		Total Length		Length Surveyed 30.20	
Year Laid		Year Renewed		Media Label SNPI11446-31419.MP4		Purpose F				Sewer Cat	
Pre-Cleaning ?		Date Cleaned 03/15/2023		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	10.0	AMH					N			SNMH01513	31419-1.jpg	Manhole
2	0.00	20.0	MWL				5	N				31419-2.jpg	Water Level
3	28.60	208.0	IRJ					Y	12	1		31419-3.jpg	Infiltration Runner Joint
4	30.20	226.0	AMH					N			SNMH01512	31419-4.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31431

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI11479		PSR 				Date / Time Mar 28, 2023 9:26:00 AM			
Street ASHBROOK PL				City COQUITLAM				Upstream MH No. SNMH01523			
Location Details 				SNMH01523				Downstream MH No. 			
USMH Rim to Invert 2.54				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 2.46				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use 		Direction Upstream		Flow Control N		Height 150		Width 		Shape Circular	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 11.60	
Year Laid 		Year Renewed 		Media Label SNPI11479-31431.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 03/27/2023		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			SNMH01523	31431-1.jpg	Manhole
2	0.00	19.0	MWL				5	N				31431-2.jpg	Water Level
3	1.30	69.0	SRI	S01				Y	5	7		31431-3.jpg	Surface Roughness Increased
4	3.50	125.0	IRJ					Y	5			31431-4.jpg	Infiltration Runner Joint
5	11.10	176.0	SRI	F01				Y	5	7		31431-5.jpg	Surface Roughness Increased
6	11.60	185.0	AMH					N			SNMH01523	31431-6.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 32001

Surveyed By T SCOLLON		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 23-005		SNPI11511		PSR 		Date / Time Apr 20, 2023 11:11:00 AM					
Street REGAN AVE				City COQUITLAM				Upstream MH No. SNMH01687			
Location Details 				Downstream MH No. SNMH01688							
USMH Rim to Invert 2.50				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 2.70				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use 		Direction Downstream		Flow Control N		Height 200		Width 		Shape Circular	
Material Asbestos Cement		Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 73.60			
Year Laid 		Year Renewed 		Media Label SNPI11511-32001.MP4		Purpose F		Sewer Cat 			
Pre-Cleaning ?		Date Cleaned 02/16/2023		W/O # 		Weather 1		Location B		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	16.0	AMH					N			SNMH01687	32001-1.jpg	Manhole
2	0.00	26.0	MWL				5	N				32001-2.jpg	Water Level
3	4.20	51.0	SRI	S01				N	5	7		32001-3.jpg	Surface Roughness Increased
4	6.10	68.0	TF		100			N	3			32001-4.jpg	Tap Factory
5	26.10	182.0	TF		100			N	3			32001-5.jpg	Tap Factory
6	34.00	256.0	TF		100			N	3		ENCrustATIONS IN SERVICE	32001-6.jpg	Tap Factory
7	37.80	305.0	ID					Y	10	2		32001-7.jpg	Infil Dripper
8	41.10	367.0	MMC					N			PVC	32001-8.jpg	Material Change
9	42.50	405.0	TF		100			N	9			32001-9.jpg	Tap Factory
10	43.10	439.0	TFC		100			N	9			32001-10.jpg	Tap Factory Capped
11	43.30	457.0	MMC					N			AC	32001-11.jpg	Material Change
12	58.40	551.0	TF		100			N	3			32001-12.jpg	Tap Factory
13	59.50	592.0	ISJ					Y	12	12		32001-13.jpg	Infiltration Stain Joint
14	60.00	613.0	TF		100			N	9			32001-14.jpg	Tap Factory
15	72.30	704.0	TF		100			N	9			32001-15.jpg	Tap Factory
16	73.60	739.0	AMH					N			SNMH01688	32001-16.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 32001

Surveyed By T SCOLLON		Certificate No. U-0121-70400907		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No. 23-005		SNPI11511		PSR		CITY OF COQUITLAM		Date / Time Apr 20, 2023 11:11:00 AM			
Street REGAN AVE				City COQUITLAM				Upstream MH No. SNMH01687			
Location Details				Downstream MH No. SNMH01688							
USMH Rim to Invert 2.50				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.70				DSMH Grade to Invert				DSMH Rim to Grade			
Sewer Use		Direction Downstream		Flow Control N		Height 200		Width		Shape Circular	
Material Asbestos Cement				Lining Method		Pipe Joint Length		Total Length		Length Surveyed 73.60	
Year Laid		Year Renewed		Media Label SNPI11511-32001.MP4		Purpose F				Sewer Cat	
Pre-Cleaning ?		Date Cleaned 02/16/2023		W/O #		Weather 1		Location B		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	72.90	770.0	SRI	F01				N	5	7		32001-17.jpg	Surface Roughness Increased



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30864

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI11515		City COQUITLAM		Date / Time Feb 15, 2023 11:37:00 AM		Upstream MH No. SNMH01795		Downstream MH No. SNMH01650	
Street REGAN AVE				Location Details							
USMH Rim to Invert 2.26				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 3.14				DSMH Grade to Invert				DSMH Rim to Grade			
Sewer Use		Direction Downstream		Flow Control N		Height 150		Width		Shape Circular	
Material CP		Lining Method		Pipe Joint Length		Total Length		Length Surveyed 90.40		Sewer Cat	
Year Laid		Year Renewed		Media Label SNPI11515-30864.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/15/2023		W/O #		Weather 1		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	10.0	AMH					N			SNMH01795	30864-1.jpg	Manhole
2	0.00	23.0	MWL				5	N				30864-2.jpg	Water Level
3	1.30	38.0	SRI	S01				Y	6			30864-3.jpg	Surface Roughness Increased
4	1.50	51.0	ISJ					Y	12	12		30864-4.jpg	Infiltration Stain Joint
5	7.80	123.0	ISJ					Y	9			30864-5.jpg	Infiltration Stain Joint
6	9.50	148.0	TB		100			N	9			30864-6.jpg	Tap Break-in
7	9.70	180.0	SAV					N	3	8	ACROSS FOM SERVICE	30864-7.jpg	Surface Aggregate Visible
8	9.80	193.0	TB		100			N	9			30864-8.jpg	Tap Break-in
9	11.60	226.0	ISSRL				5	N	10	2		30864-9.jpg	Intruding Sealing Ring Loose/Poorly Fitting
10	11.60	248.0	ISJ					Y	12	12	AT SEALING RING	30864-10.jpg	Infiltration Stain Joint
11	13.60	289.0	SAV					N	12	12	ACROSS FOM SERVICE	30864-11.jpg	Surface Aggregate Visible
12	13.80	312.0	TB		100			N	2			30864-12.jpg	Tap Break-in
13	14.20	325.0	ISJ					Y	12	12		30864-13.jpg	Infiltration Stain Joint
14	20.40	399.0	ISJ					Y	12	3		30864-14.jpg	Infiltration Stain Joint
15	30.50	485.0	CC					N	4	6		30864-15.jpg	Crack Circumferential
16	30.50	501.0	ISB					N	4		FROM CRACK	30864-16.jpg	Infiltration Stain Barrel



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 30864

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		SNPI11515		City COQUITLAM		Date / Time Feb 15, 2023 11:37:00 AM		Upstream MH No. SNMH01795		Downstream MH No. SNMH01650	
Street REGAN AVE				Location Details							
USMH Rim to Invert 2.26				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 3.14				DSMH Grade to Invert				DSMH Rim to Grade			
Sewer Use		Direction Downstream		Flow Control N		Height 150		Width		Shape Circular	
Material CP		Lining Method		Pipe Joint Length		Total Length		Length Surveyed 90.40		Sewer Cat	
Year Laid		Year Renewed		Media Label SNPI11515-30864.MP4		Purpose F		Location A		Pressure V	
Pre-Cleaning ?		Date Cleaned 02/15/2023		W/O #		Weather 1		Reverse Setup			
Project 23-005				Additional Info							

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	35.10	559.0	TB		100			N	2			30864-17.jpg	Tap Break-in
18	35.10	581.0	SRI					N	12	12	ACROSS FROM SERVICE	30864-18.jpg	Surface Roughness Increased
19	50.70	739.0	SRI					N	3	9	ACROSS FROM SERVICE	30864-19.jpg	Surface Roughness Increased
20	50.90	756.0	TF		100			N	9			30864-20.jpg	Tap Factory
21	51.50	789.0	SRI					N	3	9	ACROSS FROM SERVICE	30864-21.jpg	Surface Roughness Increased
22	51.60	801.0	TF		100			N	9			30864-22.jpg	Tap Factory
23	53.70	857.0	RFL					N	2			30864-23.jpg	Roots Fine Lateral
24	53.90	875.0	TBA		100			N	2			30864-24.jpg	Tap Break-in Active
25	53.90	890.0	SRI					N	12	12	ACROSS FROM SERVICE	30864-25.jpg	Surface Roughness Increased
26	88.40	1,202.0	MWLS				5	N				30864-26.jpg	Water Level Sag
27	90.40	1,226.0	SRI	F01				Y	6			30864-27.jpg	Surface Roughness Increased
28	90.40	1,234.0	AMH					N			SNMH01650	30864-28.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31456

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		SNPI11647		PSR 				Date / Time Mar 29, 2023 9:30:00 AM			
Street CUSTER ST				City COQUITLAM				Upstream MH No. SNMH01672			
Location Details 				SNMH01676				Downstream MH No. 			
USMH Rim to Invert 				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 Upstream		Flow Control N		Height 200		Width 		Shape Circular	
Material Vitrified Clay Pipe				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 50.20	
Year Laid 		Year Renewed 		Media Label SNPI11647-31456.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 03/29/2023		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	14.0	AMH					N			SNMH01676	31456-1.jpg	Manhole
2	0.00	34.0	MWL				5	N				31456-2.jpg	Water Level
3	10.70	111.0	TB		100			N	3			31456-3.jpg	Tap Break-in
4	24.30	194.0	DAE				5	Y	12	12		31456-4.jpg	Deposits Attached Encrustation
5	26.90	222.0	TB		100			N	3		ENCRUSTED	31456-5.jpg	Tap Break-in
6	34.10	269.0	DAE				5	Y	12	12		31456-6.jpg	Deposits Attached Encrustation
7	34.10	286.0	ID					Y	11	2		31456-7.jpg	Infil Dripper
8	45.80	357.0	TB		100			N	3			31456-8.jpg	Tap Break-in
9	49.30	388.0	MWLS				5	N				31456-9.jpg	Water Level Sag
10	50.20	398.0	AMH					N			SNMH01672	31456-10.jpg	Manhole



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 36357

Surveyed By		Certificate No.		Owner		Customer		Drainage Area		Sheet No.	
LINTON S		U-0317-07006319				CoC					
P/O No.				PSR				Date / Time			
30-6025		SNPI12985						May 2, 2024 9:07:00 AM			
Street				City				Upstream MH No.			
BELFOUR DR				COQUITLAM				SNCE00603			
Location Details				Downstream MH No.							
				SNMH04645							
USMH Rim to Invert				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert				DSMH Grade to Invert				DSMH Rim to Grade			
1.75											
Sewer Use		Direction		Flow Control		Height		Width		Shape	
		Upstream		N		150				C	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
AC						1.50				6.70	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				SNPI12985-36357.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		05/02/2024				5		A			
Project				Additional Info				Reverse Setup			
24-021											

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			SNMH04645	36357-1.jpg	Manhole
2	0.00	49.0	MWL				5	N				36357-2.jpg	Water Level
3	6.60	155.0	HSV					N	7	10		36357-3.jpg	Hole Soil Visible
4	6.70	187.0	AEP					N			CAP	36357-4.jpg	End of Pipe



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 35956

Surveyed By		Certificate No.		Owner		Customer		Drainage Area		Sheet No.	
TREVOR S		U-0121-70400907				CoC					
P/O No.				PSR				Date / Time			
30-6025		SNPI16776						Apr 25, 2024 1:26:00 PM			
Street				City				Upstream MH No.			
DARTMOOR DR				COQUITLAM				SNMH06198			
Location Details								Downstream MH No.			
				SNMH06197							
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		Flow Control		Height		Width		Shape	
		Upstream		N		200				C	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
VCP						4.00				30.80	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				SNPI16776-35956.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		04/25/2024				5		A			
Project				Additional Info				Reverse Setup			
24-021											

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	49.0	AMH					N			SNMH06197	35956-1.jpg	Manhole
2	0.00	60.0	MWL				5	N				35956-2.jpg	Water Level
3	2.70	111.0	IDJ					Y	12	5		35956-3.jpg	Infiltration Dripper Joint
4	8.00	197.0	ISZ				5	N	12	4	GASKET ?	35956-4.jpg	Intruding Sealing Other
5	8.00	210.0	TF		100			N	2			35956-5.jpg	Tap Factory
6	11.40	261.0	ISJ					Y	12	12		35956-6.jpg	Infiltration Stain Joint
7	19.30	359.0	IRJ					Y	12	12		35956-7.jpg	Infiltration Runner Joint
8	28.80	491.0	TF		100			N	2			35956-8.jpg	Tap Factory
9	29.00	557.0	IWJ					Y	9	3		35956-9.jpg	Infiltration Weeper Joint
10	30.80	719.0	MSA					N			LIMIT OF CABLE WILL ATTEMPT REVERSAL	35956-10.jpg	Abandoned Survey



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 35953

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner PSR		Customer CoC		Drainage Area SNMH06198		Sheet No.	
P/O No. 30-6025		SNPI16776		City COQUITLAM		Date / Time Apr 25, 2024 2:34:00 PM		Upstream MH No.		Downstream MH No.	
Street DARTMOOR DR		Location Details		City COQUITLAM		SNMH06197		Upstream MH No.		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		Flow Control		Height		Width		Shape	
Material		Downstream		N		200		C		C	
VCP		Lining Method		Pipe Joint Length		Total Length		Length Surveyed		Sewer Cat	
Year Laid		Year Renewed		Media Label		Purpose		Location		Pressure V	
Pre-Cleaning		Date Cleaned		W/O #		Weather		A		Reverse Setup	
Project		24-021		Additional Info		REVERSAL		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	30.0	AMH					N			SNMH06198	35953-1.jpg	Manhole
2	0.00	42.0	MWL				5	N				35953-2.jpg	Water Level
3	3.70	82.0	ID					Y	6	12		35953-3.jpg	Infil Dripper
4	6.90	124.0	TF		100			N	10			35953-4.jpg	Tap Factory
5	11.50	185.0	ID					Y	7	12		35953-5.jpg	Infil Dripper
6	19.10	251.0	IWJ					Y	12	12		35953-6.jpg	Infiltration Weeper Joint
7	24.10	282.0	TF		100			N	10			35953-7.jpg	Tap Factory
8	39.80	404.0	IW					Y	3	9		35953-8.jpg	Infil Weeper
9	40.00	495.0	MSA					N			REVERSAL MET	35953-9.jpg	Abandoned Survey



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 35142

Surveyed By T SCOLLON		Certificate No. U-0121-70400907		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		STPI01865		City COQUITLAM		Date / Time Nov 21, 2023 12:17:00 PM		Upstream MH No. STMH01661		Downstream MH No. STOU01502	
Street ROCHESTER		Location Details		City COQUITLAM		City COQUITLAM		City COQUITLAM		City COQUITLAM	
USMH Rim to Invert 2.18		USMH Grade to Invert		USMH Rim to Grade		USMH Rim to Grade		USMH Rim to Grade		USMH Rim to Grade	
DSMH Rim to Invert		DSMH Grade to Invert		DSMH Rim to Grade		DSMH Rim to Grade		DSMH Rim to Grade		DSMH Rim to Grade	
Sewer Use		Direction Downstream		Flow Control N		Height 750		Width		Shape C	
Material RCP		Lining Method		Pipe Joint Length 2.00		Total Length		Length Surveyed 15.70		Length Surveyed	
Year Laid		Year Renewed		Media Label STPI01865-35142.MP4		Purpose F		Sewer Cat		Sewer Cat	
Pre-Cleaning ?		Date Cleaned 11/16/2023		W/O #		Weather 1		Location A		Pressure V	
Project 23-005		Additional Info		Additional Info		Additional Info		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	13.0	AMH					N			STMH01661		Manhole
2	0.00	24.0	MWL				5	N					Water Level
3	10.20	99.0	TF		150			N	12				Tap Factory
4	13.40	162.0	JSM					N					Joint Separated Medium
5	14.70	203.0	B					Y	4	5			Broken
6	15.70	227.0	AEP					N			STOU01502		End of Pipe



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 35427

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area STPI01956		Sheet No. Dec 7, 2023 1:42:00 PM	
P/O No. STPI01955		City COQUITLAM		Upstream MH No. STMH01692		Downstream MH No. STPI01956		Street ROCHESTER AVE		Location Details USMH Rim to Invert DSMH Rim to Invert Sewer Use Direction Downstream Material RCP Year Laid Year Renewed Pre-Cleaning ? Project 23-005	
Flow Control N		Height 750		Width C		Shape C		Lining Method STPI01955-35427.MP4		Pipe Joint Length 2.50	
Purpose F		Weather 1		Location A		Pressure V A		Additional Info 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	16.0	AMH					N			STMH01692		Manhole
2	0.00	38.0	MWL				0	N					Water Level
3	2.70	106.0	B					Y	10	2			Broken
4	10.70	144.0	AEP					N			STPI01956		End of Pipe



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 29302

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 19	
P/O No. 30-6007		STPIO2160		PSR 				Date / Time Jan 12, 2022 12:00:00 AM			
Street FOSTER AVE				City COQUITLAM				Upstream MH No. STMH02129			
Location Details 				STMH02124				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 Stormwater		Direction Downstream		Flow Control Not Controlled		Height 375		Width 		Shape Circular	
Material Reinforced Concrete Pipe				Lining Method 		Pipe Joint Length 2.50		Total Length 		Length Surveyed 94.00	
Year Laid 		Year Renewed 		Media Label STPIO2160-29302.MPG		Purpose Routine Assessment				Sewer Cat 	
Pre-Cleaning Jetting		Date Cleaned 01/12/2022		W/O # 		Weather Dry		Location Main Highway - Suburban/Rural		Pressure V 0.00	
Project 21-052				Additional Info 				Reverse Setup 0			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	252,060.0	AMH					N			STMH02129		Manhole
2	0.00	295,514.0	MWL				20	N					Water Level
3	2.80	288,213.0	MWLS				10	N					Water Level Sag
4	10.00	83,592.0	ID					Y	12				Infil Dripper
5	13.40	92,317.0	FL					N	2				Fracture Longitudinal
6	42.80	137,288.0	TBA		150			N	9				Tap Break-in Active
7	56.90	168,223.0	IR					Y	10				Infil Runner
8	60.10	181,220.0	MWLS				20	N					Water Level Sag
9	68.70	207,212.0	CL					N	4				Crack Longitudinal
10	73.80	213,315.0	IR					Y	10				Infil Runner
11	79.60	229,362.0	TBA		150			N	2				Tap Break-in Active
12	87.80	256,881.0	MGO					N			WATER LEVEL POTENTIALLY DUE TO FLOW IN DOWNSTREAM MH		General Observation
13	90.00	271,098.0	ID					Y	12				Infil Dripper
14	91.40	281,897.0	MCU					N					Camera Underwater
15	94.00	306,243.0	MSA					N			CAMERA UNDERWATER		Abandoned Survey



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 29404

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 0	
P/O No. 22-014		STPI02537		PSR 				Date / Time Apr 6, 2022 12:00:00 AM			
Street APPIAN				City COQUITLAM				Upstream MH No. STMH02519			
Location Details 				STMH02520				Downstream MH No. 			
USMH Rim to Invert 2.52				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 1.52				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use Stormwater		Direction Downstream		Flow Control Not Controlled		Height 375		Width 		Shape Circular	
Material Concrete Pipe (non-reinforced)				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 110.10	
Year Laid 		Year Renewed 		Media Label STPI02537-29404.MP4		Purpose Routine Assessment				Sewer Cat 	
Pre-Cleaning Jetting		Date Cleaned 04/01/2022		W/O # 		Weather Dry		Location Main Highway - Suburban/Rural		Pressure V 0.00	
Project 22-014				Additional Info 				Reverse Setup 0			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	21.0	AMH					N			STMH02519		Manhole
2	0.00	30.0	MWL				5	N					Water Level
3	1.30	48.0	SRI	S01				Y	6				Surface Roughness Increased
4	7.50	105.0	IR					Y	4				Infil Runner
5	13.10	147.0	TFA		150			N	2				Tap Factory Active
6	20.90	217.0	TF		150			N	11				Tap Factory
7	22.70	255.0	IR					Y	12				Infil Runner
8	33.60	332.0	TF		150			N	2				Tap Factory
9	46.40	415.0	TFA		150			N	2		REDUCER		Tap Factory Active
10	54.10	458.0	TF		150			N	2				Tap Factory
11	62.40	510.0	CC					N	11	2			Crack Circumferential
12	64.90	537.0	MGO					N			SURFACE ROUGHNESS CONSISTENT		General Observation
13	77.20	636.0	IR					Y	3	7	AROUND SERVICE		Infil Runner
14	77.20	658.0	TFA		150			N	3		INFILTRATIONS		Tap Factory Active
15	89.90	729.0	TF		150			N	10				Tap Factory



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 29404

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 0	
P/O No. 22-014		STPI02537		PSR 				Date / Time Apr 6, 2022 12:00:00 AM			
Street APPIAN				City COQUITLAM				Upstream MH No. STMH02519			
Location Details 				STMH02520				Downstream MH No. 			
USMH Rim to Invert 2.52				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 1.52				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use Stormwater		Direction Downstream		Flow Control Not Controlled		Height 375		Width 		Shape Circular	
Material Concrete Pipe (non-reinforced)				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 110.10	
Year Laid 		Year Renewed 		Media Label STPI02537-29404.MP4		Purpose Routine Assessment				Sewer Cat 	
Pre-Cleaning Jetting		Date Cleaned 04/01/2022		W/O # 		Weather Dry		Location Main Highway - Suburban/Rural		Pressure V 0.00	
Project 22-014				Additional Info 				Reverse Setup 0			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
16	92.60	751.0	TF		150			N	9				Tap Factory
17	100.20	797.0	TFA		150			N	3				Tap Factory Active
18	107.30	859.0	ISSR				5	N	8	9	EXPOSED		Intruding Sealing Ring
19	107.80	906.0	TBA		200			N	9				Tap Break-in Active
20	109.60	920.0	SRI	F01				Y	6				Surface Roughness Increased
21	110.10	944.0	AMH					N			STMH02520		Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 35107

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI03042		PSR 				Date / Time Nov 16, 2023 2:29:00 PM			
Street BEACON ST				City COQUITLAM				Upstream MH No. STMH02025			
Location Details 				STMH02024				Downstream MH No. 			
USMH Rim to Invert 2.11				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 2.32				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use 		Direction Downstream		Flow Control N		Height 600		Width 		Shape C	
Material RCP				Lining Method 		Pipe Joint Length 2.50		Total Length 		Length Surveyed 95.30	
Year Laid 		Year Renewed 		Media Label STPI03042-35107.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 11/06/2023		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			STMH02025		Manhole
2	0.00	18.0	MWL				5	N					Water Level
3	0.40	32.0	IRJ					Y	10				Infiltration Runner Joint
4	4.80	76.0	ISJ					Y	10				Infiltration Stain Joint
5	7.40	99.0	ISJ	S01				Y	2	10			Infiltration Stain Joint
6	10.80	114.0	ISJ	F01				Y	2	10			Infiltration Stain Joint
7	26.30	215.0	TB		100			N	10				Tap Break-in
8	36.60	273.0	TF		200			N	3				Tap Factory
9	45.70	328.0	ISJ					Y	9				Infiltration Stain Joint
10	48.60	350.0	ISJ					Y	10				Infiltration Stain Joint
11	49.20	366.0	TF		100			N	10				Tap Factory
12	69.60	485.0	TFD		100			N	10		ENCRUSTATION		Tap Factory Defective
13	69.60	503.0	DAE				80	N	10		INSIDE SERVICE		Deposits Attached Encrustation
14	79.90	550.0	TF		200			N	3				Tap Factory
15	80.80	568.0	TB		150			N	12				Tap Break-in
16	86.60	600.0	IRJ					Y	2				Infiltration Runner Joint



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 35107

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		STPI03042		PSR		CITY OF COQUITLAM		Date / Time Nov 16, 2023 2:29:00 PM			
Street BEACON ST				City COQUITLAM				Upstream MH No. STMH02025			
Location Details				STMH02024				Downstream MH No.			
USMH Rim to Invert 2.11				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.32				DSMH Grade to Invert				DSMH Rim to Grade			
Sewer Use		Direction Downstream		Flow Control N		Height 600		Width		Shape C	
Material RCP				Lining Method		Pipe Joint Length 2.50		Total Length		Length Surveyed 95.30	
Year Laid		Year Renewed		Media Label STPI03042-35107.MP4		Purpose F				Sewer Cat	
Pre-Cleaning ?		Date Cleaned 11/06/2023		W/O #		Weather 1		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	87.60	616.0	TF		100			N	10				Tap Factory
18	91.70	644.0	RFJ					Y	2				Roots Fine Joint
19	95.30	669.0	AMH					N			STMH02024		Manhole



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 36936

Surveyed By		Certificate No.		Owner		Customer		Drainage Area		Sheet No.	
LINTON S		U-0317-07006319				CITY OF COQUITLAM					
P/O No.				PSR				Date / Time			
24-021		STPI04207						Nov 1, 2024 9:16:00 AM			
Street				City				Upstream MH No.			
CHARLAND AVE				COQUITLAM				STMH03686			
Location Details						Downstream MH No.					
						STMH03593					
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		Flow Control		Height		Width		Shape	
		Upstream		N		250				C	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
CP						1.00				7.00	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				STPI04207-36936.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		11/01/2024				5		A			
Project				Additional Info				Reverse Setup			
24-021				REVERSAL							

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	38.0	AMH					N			STMH03593	36936-1.jpg	Manhole
2	0.00	48.0	MWL				5	N				36936-2.jpg	Water Level
3	1.30	55.0	MWLS				10	N				36936-3.jpg	Water Level Sag
4	4.80	94.0	TF		150			N	12			36936-4.jpg	Tap Factory
5	6.90	127.0	LU				45	N				36936-5.jpg	Alignment Up
6	7.00	144.0	MSA					N			REVERSAL MET	36936-6.jpg	Abandoned Survey



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 35941

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		STPI04831		City COQUITLAM		Date / Time Apr 29, 2024 10:42:00 AM		Upstream MH No. STMH04519		Downstream MH No. STMH04516	
Street LAURENTIAN ALLEY				City COQUITLAM				Location Details			
USMH Rim to Invert 2.12				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 300		Width		Shape C	
Material RCP		Lining Method		Pipe Joint Length 1.50		Total Length		Length Surveyed 104.30		Sewer Cat	
Year Laid		Year Renewed		Media Label STPI04831-35941.MP4		Purpose F		Location B		Pressure V	
Pre-Cleaning ?		Date Cleaned 04/29/2024		W/O #		Weather 1		Reverse Setup		Additional Info	
Project 24-021				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	16.0	AMH					N			STMH04519	35941-1.jpg	Manhole
2	0.00	27.0	MWL				5	N				35941-2.jpg	Water Level
3	1.60	72.0	DSC	S01			5	N	5	7	SILT AND DEBRIS AFTER MULTIPLE FLUSHES	35941-3.jpg	Deposits Settled Compacted
4	2.20	110.0	RTJ	S02			5	Y	12	12		35941-4.jpg	Roots Tap Joint
5	4.40	144.0	ID					Y	1	2		35941-5.jpg	Infil Dripper
6	6.20	180.0	RFJ					Y	12	3		35941-6.jpg	Roots Fine Joint
7	6.20	203.0	ID					Y	1	3		35941-7.jpg	Infil Dripper
8	8.10	239.0	ISJ					Y	12	12		35941-8.jpg	Infiltration Stain Joint
9	9.90	273.0	ISJ	S03				Y	12	12		35941-9.jpg	Infiltration Stain Joint
10	19.40	308.0	RTJ	F02			5	Y	12	12		35941-10.jpg	Roots Tap Joint
11	21.60	344.0	TFA		150			N	3			35941-11.jpg	Tap Factory Active
12	33.40	391.0	ISJ	F03				Y	12	12		35941-12.jpg	Infiltration Stain Joint
13	42.20	434.0	TFA		150			N	3			35941-13.jpg	Tap Factory Active
14	60.00	516.0	RMJ				20	Y	3	9		35941-14.jpg	Roots Medium Joint
15	60.70	535.0	TFA		150			N	3			35941-15.jpg	Tap Factory Active
16	62.20	570.0	RFJ					Y	4	8		35941-16.jpg	Roots Fine Joint



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 35941

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI04831		PSR 				Date / Time Apr 29, 2024 10:42:00 AM			
Street LAURENTIAN ALLEY				City COQUITLAM				Upstream MH No. STMH04519			
Location Details 						Downstream MH No. STMH04516					
USMH Rim to Invert 2.12				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 300		Width 		Shape C	
Material RCP				Lining Method 		Pipe Joint Length 1.50		Total Length 		Length Surveyed 104.30	
Year Laid 		Year Renewed 		Media Label STPI04831-35941.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/29/2024		W/O # 		Weather 1		Location B		Pressure V 	
Project 24-021				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	84.90	660.0	TF		150			N	3			35941-17.jpg	Tap Factory
18	94.20	708.0	TF		200			N	9			35941-18.jpg	Tap Factory
19	94.60	720.0	DSC	F01			5	N	5	7	SILT AND DEBRIS AFTER MULTIPLE FLUSHES	35941-19.jpg	Deposits Settled Compacted
20	104.30	765.0	AMH					N			STMH04516	35941-20.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36130

Surveyed By TREVOR S	Certificate No. U-0121-70400907	Owner 	Customer CITY OF COQUITLAM	Drainage Area 	Sheet No.
P/O No. 	STPI05004	PSR 	Date / Time Apr 5, 2024 11:26:00 AM		
Street GALE AVE		City COQUITLAM		Upstream MH No. STMH04581	
Location Details 		STMH04614		Downstream MH No. 	
USMH Rim to Invert 3.02		USMH Grade to Invert 		USMH Rim to Grade 	
DSMH Rim to Invert 3.02		DSMH Grade to Invert 		DSMH Rim to Grade 	
Sewer Use 	Direction Downstream	Flow Control N	Height 300	Width 	Shape C
Material AC		Lining Method 	Pipe Joint Length 1.50	Total Length 	Length Surveyed 49.70
Year Laid 	Year Renewed 	Media Label STPI05004-36130.MP4	Purpose F	Sewer Cat 	
Pre-Cleaning ?	Date Cleaned 04/02/2024	W/O # 	Weather 1	Location B	Pressure V
Project 24-021		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			STMH04581	36130-1.jpg	Manhole
2	0.00	22.0	MWL				5	N				36130-2.jpg	Water Level
3	2.70	54.0	RFJ					Y	7	8		36130-3.jpg	Roots Fine Joint
4	9.30	128.0	TBI		150	50		N	10			36130-4.jpg	Tap Break-in Intruding
5	24.20	257.0	ISJ					Y	12	12		36130-5.jpg	Infiltration Stain Joint
6	25.70	284.0	ISJ					Y	12	12		36130-6.jpg	Infiltration Stain Joint
7	30.40	347.0	B					Y	7	9		36130-7.jpg	Broken
8	36.30	409.0	TBI		150	25		N	1			36130-8.jpg	Tap Break-in Intruding
9	38.60	452.0	CL					N	12		INFILTRATION STAIN	36130-9.jpg	Crack Longitudinal
10	42.70	497.0	ISJ					Y	7	5		36130-10.jpg	Infiltration Stain Joint
11	47.30	547.0	RFJ					Y	6	7		36130-11.jpg	Roots Fine Joint
12	48.90	576.0	ISJ					Y	3	9		36130-12.jpg	Infiltration Stain Joint
13	49.70	592.0	AMH					N			STMH04614	36130-13.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36049

Surveyed By LINTON S	Certificate No. U-0317-07006319	Owner 	Customer CoC	Drainage Area 	Sheet No.
P/O No. 30-6025	STPI06596	PSR 	Date / Time Apr 15, 2024 11:48:00 AM		
Street GODWIN CRT	City COQUITLAM	Upstream MH No. STMH06482	Downstream MH No. 		
Location Details 		STPI06508			
USMH Rim to Invert 2.46		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 250	Width 	Shape C
Material CP	Lining Method 	Pipe Joint Length 4.00	Total Length 	Length Surveyed 29.60	
Year Laid 	Year Renewed 	Media Label STPI06596-36049.MP4	Purpose F	Sewer Cat 	
Pre-Cleaning ?	Date Cleaned 04/15/2024	W/O # 	Weather 5	Location A	Pressure V
Project 24-021		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	73.0	AMH					N			STMH06482	36049-1.jpg	Manhole
2	0.00	85.0	MWL				0	N				36049-2.jpg	Water Level
3	3.00	100.0	TF		150			N	10			36049-3.jpg	Tap Factory
4	10.20	241.0	IRJ					Y	7			36049-4.jpg	Infiltration Runner Joint
5	20.70	336.0	DAE				5	Y	8	4		36049-5.jpg	Deposits Attached Encrustation
6	21.80	378.0	DAE				5	N	4	5		36049-6.jpg	Deposits Attached Encrustation
7	22.40	401.0	DAE				5	Y	6	12		36049-7.jpg	Deposits Attached Encrustation
8	23.50	425.0	DAE				5	N	4	5		36049-8.jpg	Deposits Attached Encrustation
9	24.10	461.0	IDJ					Y	11	12		36049-9.jpg	Infiltration Dripper Joint
10	25.40	486.0	DAE				5	N	7	1		36049-10.jpg	Deposits Attached Encrustation
11	25.90	520.0	IDJ					Y	10			36049-11.jpg	Infiltration Dripper Joint
12	28.50	556.0	DAE				10	Y	6	2		36049-12.jpg	Deposits Attached Encrustation
13	29.60	589.0	AEP					N			STPI06508	36049-13.jpg	End of Pipe



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 29473

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 0	
P/O No. 22-014		STPI07388		PSR 				Date / Time Apr 6, 2022 12:00:00 AM			
Street APPIAN				City COQUITLAM				Upstream MH No. STMH02522			
Location Details 				STMH02522z				Downstream MH No. 			
USMH Rim to Invert 1.70				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use Stormwater		Direction Downstream		Flow Control Not Controlled		Height 450		Width 		Shape Circular	
Material Concrete Pipe (non-reinforced)				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 50.50	
Year Laid 		Year Renewed 		Media Label STPI07388-29473.MP4		Purpose Routine Assessment				Sewer Cat 	
Pre-Cleaning Jetting		Date Cleaned 04/01/2022		W/O # 		Weather Dry		Location Main Highway - Suburban/Rural		Pressure V 0.00	
Project 22-014E				Additional Info 				Reverse Setup 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			STMH02522		Manhole
2	0.00	17.0	MWL				5	N					Water Level
3	1.30	36.0	SRI	S01				Y	5	7			Surface Roughness Increased
4	7.60	75.0	CL					N	12				Crack Longitudinal
5	10.70	102.0	IS					Y	8				Infil Stain
6	15.60	143.0	IS					Y	8				Infil Stain
7	18.10	163.0	IS					Y	9				Infil Stain
8	20.40	188.0	IS					Y	5	8			Infil Stain
9	22.30	221.0	TB		150			N	10		POSSIBLY 100mm		Tap Break-in
10	23.10	235.0	IS					Y	5	7			Infil Stain
11	24.90	263.0	TBA		150			N	9		POSSIBLY 100mm		Tap Break-in Active
12	25.50	291.0	IS					Y	4	9			Infil Stain
13	26.60	10.0	CL					Y	10				Crack Longitudinal
14	27.90	356.0	IS					Y	5	8			Infil Stain
15	30.40	373.0	IS					Y	5	8			Infil Stain



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 29473

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 0	
P/O No. 22-014		STPI07388		PSR 				Date / Time Apr 6, 2022 12:00:00 AM			
Street APPIAN				City COQUITLAM				Upstream MH No. STMH02522			
Location Details 				Downstream MH No. STMH02522z							
USMH Rim to Invert 1.70				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 				DSMH Grade to Invert 				DSMH Rim to Grade 			
Sewer Use Stormwater		Direction Downstream		Flow Control Not Controlled		Height 450		Width 		Shape Circular	
Material Concrete Pipe (non-reinforced)				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 50.50	
Year Laid 		Year Renewed 		Media Label STPI07388-29473.MP4		Purpose Routine Assessment		Sewer Cat 			
Pre-Cleaning Jetting		Date Cleaned 04/01/2022		W/O # 		Weather Dry		Location Main Highway - Suburban/Rural		Pressure V 0.00	
Project 22-014E				Additional Info 				Reverse Setup 0			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
16	32.90	395.0	IS	S02				Y	4	9			Infil Stain
17	34.40	407.0	CL					N	2				Crack Longitudinal
18	40.50	465.0	RFJ					Y	10				Roots Fine Joint
19	40.90	492.0	TBD		100			N	9		roots/debris		Tap Break-in Defective
20	42.60	569.0	FC					N	8	12			Fracture Circumferential
21	42.60	589.0	H					N	12		POSSIBLE BREAK IN DEFECTIVE		Hole
22	42.60	607.0	RFB					N	12				Roots Fine Barrel
23	42.90	626.0	CL					Y	12				Crack Longitudinal
24	47.80	665.0	RFJ					Y	7				Roots Fine Joint
25	49.60	686.0	RFJ					Y	9				Roots Fine Joint
26	50.50	713.0	MGO					N			ACTIVE CONNECTION		General Observation
27	50.50	727.0	LR				40	N					Alignment Right
28	50.50	742.0	SRI	F01				Y	5	7			Surface Roughness Increased
29	50.50	760.0	MGO					N			UNKNOWN MANHOLE		General Observation
30	50.50	778.0	AMH					N			STMH02522z		Manhole
31	50.40	803.0	IS	F02				Y	4	9			Infil Stain



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 35967

Surveyed By		Certificate No.		Owner		Customer		Drainage Area		Sheet No.	
ROSS S		U-052070309443				CITY OF COQUITLAM					
P/O No.				PSR				Date / Time			
		STPI07874						Apr 25, 2024 8:24:00 AM			
Street				City				Upstream MH No.			
ROCKET WAY				COQUITLAM				STMH07874			
Location Details				STMH07875				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		Flow Control		Height		Width		Shape	
		Downstream		N		750				C	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
RCP										91.80	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				STPI07874-35967.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		04/25/2024				2		C			
Project				Additional Info				Reverse Setup			
24-021											

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00	22.0	AMH					N			STMH07874	35967-1.jpg	Manhole
2	0.00	36.0	MWL				10	N				35967-2.jpg	Water Level
3	8.30	129.0	IDJ					Y	9	12		35967-3.jpg	Infiltration Dripper Joint
4	25.90	672.0	TB		150			N	3			35967-4.jpg	Tap Break-in
5	53.70	840.0	TF		150			N	3		DEPOSITS IN CONNECTION	35967-5.jpg	Tap Factory
6	56.00	883.0	TF		150			N	3			35967-6.jpg	Tap Factory
7	88.60	1,211.0	IDJ					Y	7	12		35967-7.jpg	Infiltration Dripper Joint
8	91.80	1,283.0	AMH					N			STMH07875	35967-8.jpg	Manhole



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 36277

Surveyed By

CMAC

Certificate No.

P0035802-012022

Owner

CITY OF COQUITLAM

Customer

CITY OF COQUITLAM

Drainage Area

Sheet No.

18

P/O No.

STPI08131

Date / Time

May 23, 2024 9:34:12 AM

Street

PROSPECT STREET

City

COQUITLAM

Upstream MH No.

STMH08138

Location Details

Downstream MH No.

STMH08131

USMH Rim to Invert

1.90

USMH Grade to Invert

USMH Rim to Grade

DSMH Rim to Invert

2.80

DSMH Grade to Invert

DSMH Rim to Grade

Sewer Use

Direction

Upstream

Flow Control

Height

450

Width

Shape

C

Material

RCP

Lining Method

Pipe Joint Length

1.90

Total Length

Length Surveyed

71.10

Year Laid

Year Renewed

Media Label

STPI08131-36277.MP4

Purpose

F

Sewer Cat

Pre-Cleaning

?

Date Cleaned

05/22/2024

W/O #

Weather

1

Location

B

Pressure V

Project

COQUITLAM STORM 2024

Additional Info

MSA ISSRH

Reverse Setup

19

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			STMH08131	36277-1.jpg	Manhole
2	0.00	0.0	MWL				10	N				36277-2.jpg	Water Level
3	0.00	24.0	SRI	S01				N	5	7		36277-3.jpg	Surface Roughness Increased
4	1.00	45.0	ISJ					Y	7	5		36277-4.jpg	Infiltration Stain Joint
5	4.60	94.0	DAE				10	Y	10	11		36277-5.jpg	Deposits Attached Encrustation
6	4.60	83.0	ISJ					Y	7	5		36277-6.jpg	Infiltration Stain Joint
7	4.60	104.0	LR				5	N				36277-7.jpg	Alignment Right
8	6.10	177.0	ISC					N	7	3		36277-8.jpg	Infiltration Stain Connection
9	6.10	135.0	TBA		200			N	11			36277-9.jpg	Tap Break-in Active
10	7.70	226.0	ISL					N	3			36277-10.jpg	Infiltration Stain Lateral
11	7.70	213.0	TBD		150			N	2		DAE 100%, ACTIVE	36277-11.jpg	Tap Break-in Defective
12	10.10	245.0	LU				5	N				36277-12.jpg	Alignment Up
13	12.00	262.0	LD				5	N				36277-13.jpg	Alignment Down
14	13.80	282.0	ISJ					Y	7	5		36277-14.jpg	Infiltration Stain Joint
15	13.80	291.0	LD				5	N				36277-15.jpg	Alignment Down
16	15.30	330.0	ISL					N	10			36277-16.jpg	Infiltration Stain Lateral



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 36277

Surveyed By

CMAC

Certificate No.

P0035802-012022

Owner

CITY OF COQUITLAM

Customer

CITY OF COQUITLAM

Drainage Area

Sheet No.

18

P/O No.

STPI08131

Date / Time

May 23, 2024 9:34:12 AM

Street

PROSPECT STREET

City

COQUITLAM

Upstream MH No.

STMH08138

Location Details

Downstream MH No.

STMH08131

USMH Rim to Invert

1.90

USMH Grade to Invert

USMH Rim to Grade

DSMH Rim to Invert

2.80

DSMH Grade to Invert

DSMH Rim to Grade

Sewer Use

Direction

Upstream

Flow Control

Height

450

Width

Shape

C

Material

RCP

Lining Method

Pipe Joint Length

1.90

Total Length

Length Surveyed

71.10

Year Laid

Year Renewed

Media Label

STPI08131-36277.MP4

Purpose

F

Sewer Cat

Pre-Cleaning

?

Date Cleaned

05/22/2024

W/O #

Weather

1

Location

B

Pressure V

Project

COQUITLAM STORM 2024

Additional Info

MSA ISSRH

Reverse Setup

19

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	15.30	339.0	OBN				5	N	7			36277-17.jpg	Obstacle Construction Debris
18	15.30	325.0	TBA		200			N	11			36277-18.jpg	Tap Break-in Active
19	17.50	364.0	ISJ					Y	7	5		36277-19.jpg	Infiltration Stain Joint
20	18.90	409.0	OBZ				35	N	3	6	SANDBAG	36277-20.jpg	Obstacle Other
21	19.40	455.0	ISJ	S02				Y	7	5		36277-21.jpg	Infiltration Stain Joint
22	23.00	473.0	IRJ					Y	12			36277-22.jpg	Infiltration Runner Joint
23	25.00	494.0	ISB					N	10			36277-23.jpg	Infiltration Stain Barrel
24	28.00	552.0	ISL					N	3			36277-24.jpg	Infiltration Stain Lateral
25	28.00	542.0	SRV					N	1			36277-25.jpg	Surface Reinforcement Visible
26	28.00	526.0	TBD		150			N	2		DAE 100%, ACTIVE	36277-26.jpg	Tap Break-in Defective
27	30.40	586.0	LD				5	N				36277-27.jpg	Alignment Down
28	37.70	630.0	ISJ	F02				Y	7	5		36277-28.jpg	Infiltration Stain Joint
29	37.70	620.0	LD				5	N				36277-29.jpg	Alignment Down
30	40.00	691.0	ISC					N	9			36277-30.jpg	Infiltration Stain Connection
31	40.00	698.0	ISL					N	3			36277-31.jpg	Infiltration Stain Lateral
32	40.00	661.0	TBA		150			N	2			36277-32.jpg	Tap Break-in Active
33	40.00	679.0	TBI		150	100		N	10			36277-33.jpg	Tap Break-in Intruding



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 36277

Surveyed By		Certificate No.		Owner		Customer		Drainage Area		Sheet No.	
CMAC		P0035802-012022		CITY OF COQUITLAM		CITY OF COQUITLAM				18	
P/O No.		STPI08131		PSR				Date / Time			
								May 23, 2024 9:34:12 AM			
Street				City				Upstream MH No.			
PROSPECT STREET				COQUITLAM				STMH08138			
Location Details				Downstream MH No.							
				STMH08131							
USMH Rim to Invert				USMH Grade to Invert				USMH Rim to Grade			
1.90											
DSMH Rim to Invert				DSMH Grade to Invert				DSMH Rim to Grade			
2.80											
Sewer Use		Direction		Flow Control		Height		Width		Shape	
		Upstream				450				C	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
RCP						1.90				71.10	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				STPI08131-36277.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		05/22/2024				1		B			
Project				Additional Info				Reverse Setup			
COQUITLAM STORM 2024				MSA ISSRH				19			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
34	41.50	742.0	IRJ					Y	2			36277-34.jpg	Infiltration Runner Joint
35	41.50	735.0	ISJ	S03				Y	7	5		36277-35.jpg	Infiltration Stain Joint
36	43.30	784.0	IRJ					Y	11			36277-36.jpg	Infiltration Runner Joint
37	43.30	770.0	SSS					Y	9	10		36277-37.jpg	Surface Spalling
38	46.90	813.0	LD				5	N				36277-38.jpg	Alignment Down
39	51.00	852.0	DAE	S04			10	N	5	7		36277-39.jpg	Deposits Attached Encrustation
40	54.30	887.0	DAE				30	Y	8	11		36277-40.jpg	Deposits Attached Encrustation
41	58.10	915.0	DAE				5	Y	8	9		36277-41.jpg	Deposits Attached Encrustation
42	65.40	967.0	DAE				40	Y	7	5		36277-42.jpg	Deposits Attached Encrustation
43	65.40	976.0	IDJ					Y	12			36277-43.jpg	Infiltration Dripper Joint
44	66.80	1,017.0	ISC					N	3			36277-44.jpg	Infiltration Stain Connection
45	66.80	1,007.0	TBI		150	50		N	10		ACTIVE	36277-45.jpg	Tap Break-in Intruding
46	70.90	1,101.0	DAE				25	Y	3	6		36277-46.jpg	Deposits Attached Encrustation
47	70.90	1,112.0	IRJ					Y	10			36277-47.jpg	Infiltration Runner Joint
48	70.90	1,081.0	ISSRH				35	N	10	3		36277-48.jpg	Intruding Sealing Ring Hanging
49	71.10	1,198.0	DAE	F04			10	N	5	7		36277-49.jpg	Deposits Attached Encrustation
50	71.10	1,198.0	ISJ	F03				Y	7	5		36277-50.jpg	Infiltration Stain Joint



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 36277

Surveyed By		Certificate No.		Owner		Customer		Drainage Area		Sheet No.	
CMAC		P0035802-012022		CITY OF COQUITLAM		CITY OF COQUITLAM				18	
P/O No.				PSR				Date / Time			
		STPI08131						May 23, 2024 9:34:12 AM			
Street				City				Upstream MH No.			
PROSPECT STREET				COQUITLAM				STMH08138			
Location Details						Downstream MH No.					
						STMH08131					
USMH Rim to Invert				USMH Grade to Invert				USMH Rim to Grade			
1.90											
DSMH Rim to Invert				DSMH Grade to Invert				DSMH Rim to Grade			
2.80											
Sewer Use		Direction		Flow Control		Height		Width		Shape	
		Upstream				450				C	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
RCP						1.90				71.10	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				STPI08131-36277.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		05/22/2024				1		B			
Project				Additional Info				Reverse Setup			
COQUITLAM STORM 2024				MSA ISSRH				19			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
51	71.10	1,198.0	SRI	F01				N	5	7		36277-51.jpg	Surface Roughness Increased
52	71.10	1,198.0	MSA					N			MSA ISSRH	36277-52.jpg	Abandoned Survey



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 36278

Surveyed By		Certificate No.		Owner		Customer		Drainage Area		Sheet No.	
CMAC		P0035802-012022		CITY OF COQUITLAM		CITY OF COQUITLAM				20	
P/O No.		STPI08131		PSR				Date / Time			
								May 23, 2024 10:43:04 AM			
Street				City				Upstream MH No.			
PROSPECT STREET				COQUITLAM				STMH08138			
Location Details						Downstream MH No.					
						STMH08131					
USMH Rim to Invert				USMH Grade to Invert				USMH Rim to Grade			
1.90											
DSMH Rim to Invert				DSMH Grade to Invert				DSMH Rim to Grade			
2.80											
Sewer Use		Direction		Flow Control		Height		Width		Shape	
		Downstream				450				C	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
RCP						1.90				4.70	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				STPI08131-36278.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		05/22/2024				1		B			
Project				Additional Info				Reverse Setup			
COQUITLAM STORM 2024				Reverse Setup for Sheet 18, MSA IRRSH, PREVIOUS MSA POINT REACHED				18			

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			STMH08138	36278-1.jpg	Manhole
2	0.00	0.0	MWL				10	N				36278-2.jpg	Water Level
3	1.90	7.0	DAE	S01			15	N	5	7		36278-3.jpg	Deposits Attached Encrustation
4	2.80	50.0	IRJ					Y	1			36278-4.jpg	Infiltration Runner Joint
5	2.80	42.0	IRJ					Y	11			36278-5.jpg	Infiltration Runner Joint
6	4.50	94.0	ISSRH				40	N	10	2	MSA	36278-6.jpg	Intruding Sealing Ring Hanging
7	4.70	117.0	DAE	F01			15	N	5	7		36278-7.jpg	Deposits Attached Encrustation
8	4.70	117.0	MSA					N			MSA IRRSH	36278-8.jpg	Abandoned Survey



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36915

Surveyed By CMAC		Certificate No. P0035802-012022		Owner CITY OF COQUITLAM		Customer CITY OF COQUITLAM		Drainage Area 190		Sheet No.	
P/O No.		STPI10147		PSR				Date / Time Oct 22, 2024 12:12:43 PM			
Street ALLEY OFF RIVERVIEW CRESCENT				City COQUITLAM				Upstream MH No. STMH10151			
Location Details				Downstream MH No. STMH10150							
USMH Rim to Invert 3.30				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		Height 200		Width		Shape C	
Material PVC		Lining Method		Pipe Joint Length 4.00		Total Length 85.80		Length Surveyed 85.80			
Year Laid		Year Renewed		Media Label STPI10147-36915.MP4		Purpose F		Sewer Cat			
Pre-Cleaning ?		Date Cleaned 10/02/2024		W/O #		Weather 3		Location H		Pressure V	
Project COQUITLAM STORM 2024				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	0.0	AMH					N			STMH10151	36915-1.jpg	Manhole
2	0.00	0.0	MWL				5	N				36915-2.jpg	Water Level
3	2.40	(170.0)	ISB	S01				N	5	7		36915-3.jpg	Infiltration Stain Barrel
4	2.50	(150.0)	IRJ					Y	3			36915-4.jpg	Infiltration Runner Joint
5	2.50	(143.0)	IRJ					Y	9			36915-5.jpg	Infiltration Runner Joint
6	6.50	(106.0)	IRJ					Y	8			36915-6.jpg	Infiltration Runner Joint
7	10.40	(63.0)	IRJ	S02				Y	9			36915-7.jpg	Infiltration Runner Joint
8	14.60	7.0	ISC					N	1	3		36915-8.jpg	Infiltration Stain Connection
9	14.60	(8.0)	TFD		100			N	2		DAE 20% @ 5 TO 7. ACTIVE	36915-9.jpg	Tap Factory Defective
10	14.80	33.0	ISJ	S03				Y	7	5		36915-10.jpg	Infiltration Stain Joint
11	15.60	59.0	IRJ					Y	12			36915-11.jpg	Infiltration Runner Joint
12	15.60	67.0	IWJ					Y	3			36915-12.jpg	Infiltration Weeper Joint
13	15.60	77.0	LL				5	N				36915-13.jpg	Alignment Left
14	19.60	120.0	IRJ	S04				Y	1			36915-14.jpg	Infiltration Runner Joint
15	24.20	181.0	ISC					N	9			36915-15.jpg	Infiltration Stain Connection
16	24.20	166.0	TFA		100			N	10			36915-16.jpg	Tap Factory Active



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36915

Surveyed By CMAC		Certificate No. P0035802-012022		Owner CITY OF COQUITLAM		Customer CITY OF COQUITLAM		Drainage Area 190		Sheet No.	
P/O No.		STPI10147		PSR				Date / Time Oct 22, 2024 12:12:43 PM			
Street ALLEY OFF RIVERVIEW CRESCENT				City COQUITLAM				Upstream MH No. STMH10151			
Location Details				STMH10150				Downstream MH No.			
USMH Rim to Invert 3.30				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		Height 200		Width		Shape C	
Material PVC		Lining Method		Pipe Joint Length 4.00		Total Length 85.80		Length Surveyed 85.80			
Year Laid		Year Renewed		Media Label STPI10147-36915.MP4		Purpose F		Sewer Cat			
Pre-Cleaning ?		Date Cleaned 10/02/2024		W/O #		Weather 3		Location H		Pressure V	
Project COQUITLAM STORM 2024				Additional Info				Reverse Setup			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	31.90	248.0	TFA		100			N	2			36915-17.jpg	Tap Factory Active
18	47.80	360.0	ISC					N	1			36915-18.jpg	Infiltration Stain Connection
19	47.80	347.0	TBA		100			N	1			36915-19.jpg	Tap Break-in Active
20	65.10	484.0	TFA		100			N	2			36915-20.jpg	Tap Factory Active
21	81.70	605.0	TFD		100			N	2		RMB 15% @ 7 TO 8. ACTIVE	36915-21.jpg	Tap Factory Defective
22	81.80	626.0	RFL					N	3			36915-22.jpg	Roots Fine Lateral
23	83.70	665.0	IRJ	F04				Y	1			36915-23.jpg	Infiltration Runner Joint
24	83.70	652.0	IRJ	F02				Y	9			36915-24.jpg	Infiltration Runner Joint
25	83.70	658.0	ISJ	F03				Y	7	5		36915-25.jpg	Infiltration Stain Joint
26	85.80	689.0	ISB	F01				N	5	7		36915-26.jpg	Infiltration Stain Barrel
27	85.80	689.0	AMH					N			STMH10150	36915-27.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36898

Surveyed By	Certificate No.	Owner	Customer	Drainage Area	Sheet No.
CMAC	P0035802-012022	CITY OF COQUITLAM	CITY OF COQUITLAM		173
P/O No.	STPI10154	PSR		Date / Time	
				Oct 15, 2024 11:48:55 AM	
Street	City	Upstream MH No.			
ATLIN PLACE	COQUITLAM	STMH10159			
Location Details	Downstream MH No.				
	STMH10160				
USMH Rim to Invert	USMH Grade to Invert	USMH Rim to Grade			
2.30					
DSMH Rim to Invert	DSMH Grade to Invert	DSMH Rim to Grade			
2.00					
Sewer Use	Direction	Flow Control	Height	Width	Shape
	Downstream		250		C
Material	Lining Method	Pipe Joint Length	Total Length	Length Surveyed	
PVC		300.00	32.30	32.30	
Year Laid	Year Renewed	Media Label	Purpose	Sewer Cat	
		STPI10154-36898.MP4	F		
Pre-Cleaning	Date Cleaned	W/O #	Weather	Location	Pressure V
?	10/02/2024		1	C	
Project	Additional Info	Reverse Setup			
COQUITLAM STORM 2024					

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			STMH10159	36898-1.jpg	Manhole
2	0.00	0.0	MWL				25	N				36898-2.jpg	Water Level
3	1.90	20.0	ISB	S01				N	3	9		36898-3.jpg	Infiltration Stain Barrel
4	3.00	80.0	H					N	10		PINHOLE DAMAGE	36898-4.jpg	Hole
5	3.00	50.0	ISB					N	10			36898-5.jpg	Infiltration Stain Barrel
6	3.20	105.0	ISJ	S02				Y	8	4		36898-6.jpg	Infiltration Stain Joint
7	3.20	122.0	LU				5	N				36898-7.jpg	Alignment Up
8	8.70	161.0	ISB					N	10			36898-8.jpg	Infiltration Stain Barrel
9	27.20	272.0	DAE				10	Y	2	3		36898-9.jpg	Deposits Attached Encrustation
10	32.30	320.0	ISB	F01				N	3	9		36898-10.jpg	Infiltration Stain Barrel
11	32.30	320.0	ISJ	F02				Y	8	4		36898-11.jpg	Infiltration Stain Joint
12	32.30	320.0	AMH					N			STMH10160	36898-12.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36078

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		STPI10224		City COQUITLAM		Date / Time Apr 10, 2024 8:49:00 AM		Upstream MH No. STMH10226		Downstream MH No. STMH10227	
Street ROGATE AVE ALLEY				City COQUITLAM				Location Details			
USMH Rim to Invert 1.70				USMH Grade to Invert				USMH Rim to Grade			
DSMH Rim to Invert 2.00				DSMH Grade to Invert				DSMH Rim to Grade			
Sewer Use RCP		Direction Upstream		Flow Control N		Height 250		Width C		Shape C	
Material RCP		Lining Method		Pipe Joint Length 1.50		Total Length		Length Surveyed 67.90		Sewer Cat	
Year Laid		Year Renewed		Media Label STPI10224-36078.MP4		Purpose F		Location B		Pressure V	
Pre-Cleaning ?		Date Cleaned 04/08/2024		W/O #		Weather 1		Reverse Setup		Additional Info	
Project 24-021				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	11.0	AMH					N			STMH10227	36078-1.jpg	Manhole
2	0.00	20.0	MWL				10	N				36078-2.jpg	Water Level
3	3.60	54.0	SRI	S01				N	5	7		36078-3.jpg	Surface Roughness Increased
4	4.30	79.0	ISJ	S02				Y	12	12		36078-4.jpg	Infiltration Stain Joint
5	10.90	151.0	TF		150			N	3			36078-5.jpg	Tap Factory
6	28.60	255.0	TFA		150			N	3			36078-6.jpg	Tap Factory Active
7	32.80	286.0	MWLS				10	N				36078-7.jpg	Water Level Sag
8	33.80	335.0	B					N	9	10	BROKEN INTRUDING SERVICE	36078-8.jpg	Broken
9	34.20	369.0	TBD		200			N	9			36078-9.jpg	Tap Break-in Defective
10	50.90	521.0	TF		100			N	3		20% DEBRIS IN SERVICE	36078-10.jpg	Tap Factory
11	60.60	603.0	IWJ					Y	12	12		36078-11.jpg	Infiltration Weeper Joint
12	60.60	620.0	JSM					N				36078-12.jpg	Joint Separated Medium
13	62.20	649.0	JSM					N				36078-13.jpg	Joint Separated Medium
14	65.70	678.0	SRI	F01				N	5	7		36078-14.jpg	Surface Roughness Increased
15	65.70	695.0	ISJ	F02				Y	12	12		36078-15.jpg	Infiltration Stain Joint
16	67.90	723.0	AMH					N			STMH10226	36078-16.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36076

Surveyed By TREVOR S	Certificate No. U-0121-70400907	Owner 	Customer CITY OF COQUITLAM	Drainage Area 	Sheet No.
P/O No. 	STPI10234	PSR 	Date / Time Apr 10, 2024 10:26:00 AM	Upstream MH No. STMH10227	Downstream MH No. STMH10235
Street ROGATE AVE ALLEY	City COQUITLAM	Location Details 			
USMH Rim to Invert 2.00	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 375	Width 	Shape C
Material RCP	Lining Method 	Pipe Joint Length 1.50	Total Length 	Length Surveyed 12.70	
Year Laid 	Year Renewed 	Media Label STPI10234-36076.MP4	Purpose F	Sewer Cat 	
Pre-Cleaning ?	Date Cleaned 04/08/2024	W/O # 	Weather 1	Location B	Pressure V
Project 24-021	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	11.0	AMH					N			STMH10227	36076-1.jpg	Manhole
2	0.00	20.0	MWL				5	N				36076-2.jpg	Water Level
3	2.20	50.0	ISJ	S01				Y	12	12		36076-3.jpg	Infiltration Stain Joint
4	6.30	95.0	IDJ	S02				Y	12	12		36076-4.jpg	Infiltration Dripper Joint
5	7.30	105.0	ISJ	F01				Y	12	12		36076-5.jpg	Infiltration Stain Joint
6	11.10	157.0	IDJ	F02				Y	12	12		36076-6.jpg	Infiltration Dripper Joint
7	12.70	178.0	AMH					N			STMH10235	36076-7.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 36077

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner PSR		Customer CITY OF COQUITLAM		Drainage Area		Sheet No.	
P/O No.		STPI10235		City COQUITLAM		Date / Time Apr 10, 2024 9:49:00 AM		Upstream MH No. STMH10236		Downstream MH No. STMH10227	
Street ROGATE AVE ALLEY				Location Details							
USMH Rim to Invert		USMH Grade to Invert		USMH Rim to Grade		DSMH Rim to Invert		DSMH Grade to Invert		DSMH Rim to Grade	
2.00											
Sewer Use		Direction		Flow Control		Height		Width		Shape	
		Upstream		N		250				C	
Material		Lining Method		Pipe Joint Length		Total Length		Length Surveyed			
RCP				1.50				55.90			
Year Laid		Year Renewed		Media Label		Purpose		Sewer Cat			
				STPI10235-36077.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		04/08/2024				1		B			
Project 24-021				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	11.0	AMH					N			STMH10227	36077-1.jpg	Manhole
2	0.00	20.0	MWL				5	N				36077-2.jpg	Water Level
3	2.30	99.0	TF		150			N	3		ENCRUSTATIONS IN SERVICE	36077-3.jpg	Tap Factory
4	2.50	148.0	IWJ					Y	12	12		36077-4.jpg	Infiltration Weeper Joint
5	4.30	203.0	IWJ					Y	6	9		36077-5.jpg	Infiltration Weeper Joint
6	5.60	248.0	ISJ	S01				Y	12	12		36077-6.jpg	Infiltration Stain Joint
7	18.00	377.0	RFJ					Y	2	3		36077-7.jpg	Roots Fine Joint
8	54.30	1,180.0	JOM					N				36077-8.jpg	Joint Offset Medium
9	55.90	1,297.0	ISJ	F01				Y	12	12		36077-9.jpg	Infiltration Stain Joint
10	55.90	1,312.0	AMH					N			STMH10236	36077-10.jpg	Manhole



City of Coquitlam
CCTV Inspection Report

Standard: PACP
Inspection ID: 36098

Surveyed By TREVOR S		Certificate No. U-0121-70400907		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 	
P/O No. 		STPI10236		PSR 				Date / Time Apr 9, 2024 7:34:00 AM			
Street ROGATE AVE				City COQUITLAM				Upstream MH No. STMH10237			
Location Details 				STMH10236				Downstream MH No. 			
USMH Rim to Invert 				USMH Grade to Invert 				USMH Rim to Grade 			
DSMH Rim to Invert 1.61				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 1.50		Total Length 		Length Surveyed 39.20	
Year Laid 		Year Renewed 		Media Label STPI10236-36098.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/08/2024		W/O # 		Weather 2		Location B		Pressure V 	
Project 24-021				Additional Info 				Reverse Setup 			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.90	116.0	TBI		150	20		N	1			36098-1.jpg	Tap Break-in Intruding
2	1.50	139.0	SRI	S01				N	5	7		36098-2.jpg	Surface Roughness Increased
3	2.60	167.0	ISJ	S02				Y	12	12		36098-3.jpg	Infiltration Stain Joint
4	6.90	248.0	TB		150			N	9		ENCRUSTATIONS	36098-4.jpg	Tap Break-in
5	13.60	289.0	ISJ	F02				Y	12	12		36098-5.jpg	Infiltration Stain Joint
6	37.70	422.0	SRI	F01				N	5	7		36098-6.jpg	Surface Roughness Increased
7	39.20	442.0	AMH					N			STMH10237	36098-7.jpg	Manhole
8	0.00	22.0	AMH					N			STMH10236	36098-8.jpg	Manhole
9	0.00	32.0	MWL				5	N				36098-9.jpg	Water Level



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31987

Surveyed By	Certificate No.	Owner	Customer	Drainage Area	Sheet No.
Quinn	U-0121-70400908		City of Coquitlam		
P/O No.	STPI12190	PSR		Date / Time	
				Apr 19, 2023 1:46:00 PM	
Street	City	Upstream MH No.			
Reece Ave	Coquitlam	STMH12191			
Location Details	STMH12192	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	Flow Control	Height	Width	Shape
	Downstream	N	250		Circular
Material	Lining Method	Pipe Joint Length	Total Length	Length Surveyed	
CP				45.70	
Year Laid	Year Renewed	Media Label	Purpose	Sewer Cat	
		STPI12190-31987.MP4	F		
Pre-Cleaning	Date Cleaned	W/O #	Weather	Location	Pressure V
?	04/19/2023		3	H	
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	10.0	AMH					N			STMH12191	31987-1.jpg	Manhole
2	0.00	22.0	MWL				5	N				31987-2.jpg	Water Level
3	0.00	38.0	SRI	S01				N	6			31987-3.jpg	Surface Roughness Increased
4	2.90	73.0	IWJ					Y	1			31987-4.jpg	Infiltration Weeper Joint
5	4.30	91.0	IGJ					Y	5			31987-5.jpg	Infiltration Gusher Joint
6	5.90	122.0	ISJ					Y	1	12		31987-6.jpg	Infiltration Stain Joint
7	6.70	140.0	TFA		150			N	10			31987-7.jpg	Tap Factory Active
8	7.50	155.0	ISJ					Y	1	12		31987-8.jpg	Infiltration Stain Joint
9	8.20	172.0	TF		150			N	10			31987-9.jpg	Tap Factory
10	9.10	188.0	ISJ					Y	1	12		31987-10.jpg	Infiltration Stain Joint
11	9.80	199.0	TFA		150			N	10			31987-11.jpg	Tap Factory Active
12	10.60	219.0	DAE				5	N	1	6		31987-12.jpg	Deposits Attached Encrustation
13	11.30	233.0	TFA		150			N	2			31987-13.jpg	Tap Factory Active
14	12.20	246.0	ISJ					Y	1	12		31987-14.jpg	Infiltration Stain Joint
15	12.20	270.0	IDJ					Y	3			31987-15.jpg	Infiltration Dripper Joint
16	13.70	284.0	MWLS				5	N				31987-16.jpg	Water Level Sag



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31987

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner PSR		Customer City of Coquitlam		Drainage Area		Sheet No.	
P/O No.		STPI12190		City		Date / Time Apr 19, 2023 1:46:00 PM		Upstream MH No. STMH12191		Downstream MH No. STMH12192	
Street Reece Ave		Location Details		City Coquitlam		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	
Material CP		Year Laid		Year Renewed		Media Label STPI12190-31987.MP4		Height 250		Width	
Pre-Cleaning ?		Date Cleaned 04/19/2023		W/O #		Weather 3		Pipe Joint Length		Shape Circular	
Project 23-005		Additional Info		Purpose F		Total Length		Length Surveyed 45.70		Sewer Cat	
Reverse Setup		Location H		Pressure V							

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	13.70	296.0	ISJ					Y	1	12		31987-17.jpg	Infiltration Stain Joint
18	14.40	310.0	TF		150			N	10			31987-18.jpg	Tap Factory
19	18.60	333.0	MWLS				5	N				31987-19.jpg	Water Level Sag
20	28.90	374.0	MWLS				5	N				31987-20.jpg	Water Level Sag
21	41.10	450.0	TF		200			N	10		200-150mm reducer	31987-21.jpg	Tap Factory
22	45.20	481.0	RFJ					Y	12			31987-22.jpg	Roots Fine Joint
23	45.70	499.0	AMH					N			STMH12192	31987-23.jpg	Manhole
24	45.60	526.0	SRI	F01				N	6			31987-24.jpg	Surface Roughness Increased



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31985

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner 		Customer City of Coquitlam		Drainage Area 		Sheet No. 	
P/O No. 		STPI12192		PSR 				Date / Time Apr 19, 2023 1:20:00 PM			
Street Judd Ct				City Coquitlam				Upstream MH No. STMH12193			
Location Details 				STMH12194				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 Upstream		Flow Control N		Height 375		Width 		Shape Circular	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 39.50	
Year Laid 		Year Renewed 		Media Label STPI12192-31985.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/19/2023		W/O # 		Weather 3		Location H		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			STMH12194	31985-1.jpg	Manhole
2	0.00	31.0	MWL				20	N				31985-2.jpg	Water Level
3	3.20	68.0	ISJ					Y	1	12		31985-3.jpg	Infiltration Stain Joint
4	6.60	153.0	TB		150			N	2			31985-4.jpg	Tap Break-in
5	8.40	170.0	TF		150			N	10			31985-5.jpg	Tap Factory
6	14.60	229.0	H					N	4			31985-6.jpg	Hole
7	23.20	281.0	MWLS				5	N				31985-7.jpg	Water Level Sag
8	27.80	332.0	IRJ					Y	3			31985-8.jpg	Infiltration Runner Joint
9	29.80	369.0	IDJ					Y	1			31985-9.jpg	Infiltration Dripper Joint
10	31.60	402.0	IWJ					Y	12			31985-10.jpg	Infiltration Weeper Joint
11	33.40	431.0	DAE				5	N	1	6		31985-11.jpg	Deposits Attached Encrustation
12	33.40	446.0	ISJ					Y	1	12		31985-12.jpg	Infiltration Stain Joint
13	35.30	466.0	ISJ					Y	1	12		31985-13.jpg	Infiltration Stain Joint
14	39.50	490.0	AMH					N			STMH12193	31985-14.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31988

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner PSR		Customer City of Coquitlam		Drainage Area		Sheet No.	
P/O No.		STPI12208						Date / Time Apr 19, 2023 1:58:00 PM			
Street Reece Ave				City Coquitlam				Upstream MH No. STMH12212			
Location Details				STMH12191				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		Flow Control		Height		Width		Shape	
		Upstream		N		200				Circular	
Material				Lining Method		Pipe Joint Length		Total Length		Length Surveyed	
Polyvinyl Chloride										47.90	
Year Laid		Year Renewed		Media Label		Purpose				Sewer Cat	
				STPI12208-31988.MP4		F					
Pre-Cleaning		Date Cleaned		W/O #		Weather		Location		Pressure V	
?		04/19/2023				3		H			
Project 23-005				Additional Info QMap says cp but actually pvc				Reverse Setup			

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			STMH12191	31988-1.jpg	Manhole
2	0.00	23.0	MWL				5	N				31988-2.jpg	Water Level
3	1.90	33.0	MWLS				5	N				31988-3.jpg	Water Level Sag
4	4.80	57.0	ISJ					Y	1	12		31988-4.jpg	Infiltration Stain Joint
5	9.10	94.0	TFA		150			N	2			31988-5.jpg	Tap Factory Active
6	9.80	111.0	TFA		150			N	10			31988-6.jpg	Tap Factory Active
7	12.90	128.0	MWLS				5	N				31988-7.jpg	Water Level Sag
8	13.80	139.0	ISJ					Y	1	12		31988-8.jpg	Infiltration Stain Joint
9	17.90	173.0	IWJ					Y	2			31988-9.jpg	Infiltration Weeper Joint
10	21.90	200.0	ISJ					Y	1	12		31988-10.jpg	Infiltration Stain Joint
11	22.00	213.0	TFA		150			N	2			31988-11.jpg	Tap Factory Active
12	24.30	228.0	ISJ					Y	1	12		31988-12.jpg	Infiltration Stain Joint
13	24.50	239.0	TFA		150			N	10			31988-13.jpg	Tap Factory Active
14	28.60	259.0	ISJ					Y	1	12		31988-14.jpg	Infiltration Stain Joint
15	32.80	288.0	ISJ					Y	6	9		31988-15.jpg	Infiltration Stain Joint
16	36.70	312.0	TF		150			N	2			31988-16.jpg	Tap Factory



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31988

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner PSR		Customer City of Coquitlam		Drainage Area		Sheet No.	
P/O No.		STPI12208		City		Date / Time Apr 19, 2023 1:58:00 PM		Upstream MH No. STMH12212		Downstream MH No. STMH12191	
Street Reece Ave		Location Details		City Coquitlam		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	
Material Polyvinyl Chloride		Year Laid		Year Renewed		Media Label STPI12208-31988.MP4		Purpose F		Sewer Cat	
Pre-Cleaning ?		Date Cleaned 04/19/2023		W/O #		Weather 3		Location H		Pressure V	
Project 23-005		Additional Info QMap says cp but actually pvc		Reverse Setup		Height 200		Width		Shape Circular	
Pipe Joint Length		Total Length		Length Surveyed 47.90		Lining Method		Total Length		Length Surveyed	

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	41.00	334.0	TFA		150			N	10			31988-17.jpg	Tap Factory Active
18	45.00	351.0	ISJ					Y	1	12		31988-18.jpg	Infiltration Stain Joint
19	47.90	374.0	AMH					N			STMH12212	31988-19.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31984

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner 		Customer City of Coquitlam		Drainage Area 		Sheet No. 	
P/O No. 		STPI12210		PSR 				Date / Time Apr 19, 2023 12:53:00 PM			
Street Hosmer Ct				City Coquitlam				Upstream MH No. STMH12210			
Location Details 				STMH12192				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 300		Width 		Shape Circular	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 60.00	
Year Laid 		Year Renewed 		Media Label STPI12210-31984.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/19/2023		W/O # 		Weather 3		Location H		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			STMH12210	31984-1.jpg	Manhole
2	0.00	28.0	MWL				5	N				31984-2.jpg	Water Level
3	1.30	51.0	TFA		150			N	2			31984-3.jpg	Tap Factory Active
4	2.50	66.0	MWLS				5	N				31984-4.jpg	Water Level Sag
5	2.50	89.0	IRJ					Y	2			31984-5.jpg	Infiltration Runner Joint
6	4.70	122.0	IRJ					Y	2	5		31984-6.jpg	Infiltration Runner Joint
7	6.70	153.0	ISJ					Y	1	12		31984-7.jpg	Infiltration Stain Joint
8	9.50	187.0	TFA		150			N	2			31984-8.jpg	Tap Factory Active
9	11.00	211.0	RFJ					Y	9			31984-9.jpg	Roots Fine Joint
10	15.00	262.0	IRJ					Y	8			31984-10.jpg	Infiltration Runner Joint
11	16.90	275.0	MWLS				5	N				31984-11.jpg	Water Level Sag
12	17.90	291.0	TF		150			N	10			31984-12.jpg	Tap Factory
13	19.20	317.0	IRJ					Y	10			31984-13.jpg	Infiltration Runner Joint
14	21.90	342.0	TF		150			N	2			31984-14.jpg	Tap Factory
15	24.00	360.0	MWLS				5	N				31984-15.jpg	Water Level Sag
16	28.20	380.0	MWLS	S01			10	N				31984-16.jpg	Water Level Sag



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31984

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner 		Customer City of Coquitlam		Drainage Area 		Sheet No. 	
P/O No. 		STPI12210		PSR 				Date / Time Apr 19, 2023 12:53:00 PM			
Street Hosmer Ct				City Coquitlam				Upstream MH No. STMH12210			
Location Details 				STMH12192				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 300		Width 		Shape Circular	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 60.00	
Year Laid 		Year Renewed 		Media Label STPI12210-31984.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/19/2023		W/O # 		Weather 3		Location H		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	34.70	420.0	MWLS	F01			10	N				31984-17.jpg	Water Level Sag
18	37.80	444.0	MWLS				5	N				31984-18.jpg	Water Level Sag
19	39.60	468.0	ISJ					Y	1	12		31984-19.jpg	Infiltration Stain Joint
20	41.80	492.0	IRJ					Y	2			31984-20.jpg	Infiltration Runner Joint
21	43.80	517.0	IGJ					Y	1			31984-21.jpg	Infiltration Gusher Joint
22	45.90	539.0	ISJ					Y	1	12		31984-22.jpg	Infiltration Stain Joint
23	48.00	571.0	ISJ					Y	1	12		31984-23.jpg	Infiltration Stain Joint
24	49.90	594.0	DAE				5	N	1	12		31984-24.jpg	Deposits Attached Encrustation
25	52.00	624.0	IGJ					Y	11	1		31984-25.jpg	Infiltration Gusher Joint
26	54.40	640.0	MWLS				5	N				31984-26.jpg	Water Level Sag
27	56.00	656.0	IRJ					Y	1			31984-28.jpg	Infiltration Runner Joint
28	56.00	669.0	IRJ					Y	8				Infiltration Runner Joint
29	56.00	680.0	DAE				5	N	1	12		31984-29.jpg	Deposits Attached Encrustation
30	60.00	705.0	AMH					N			STMH12192	31984-30.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31991

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner PSR		Customer City of Coquitlam		Drainage Area		Sheet No.	
P/O No.		STPI12241		City		Date / Time Apr 19, 2023 3:06:00 PM		Upstream MH No. STMH12196		Downstream MH No. STMH12107	
Street Reece Ave		Location Details		City Coquitlam		City		Upstream MH No.		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 900		Width		Shape Circular	
Material CP		Lining Method		Pipe Joint Length		Total Length		Length Surveyed 8.00		Sewer Cat	
Year Laid		Year Renewed		Media Label STPI12241-31991.MP4		Purpose F		Location		Pressure V	
Pre-Cleaning ?		Date Cleaned 04/19/2023		W/O #		Weather 3		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	11.0	AMH					N			STMH12196	31991-1.jpg	Manhole
2	0.00	23.0	MWL				5	N				31991-2.jpg	Water Level
3	2.40	64.0	TB		150			N	10			31991-3.jpg	Tap Break-in
4	4.60	77.0	MWLS				5	N				31991-4.jpg	Water Level Sag
5	8.00	91.0	AMH					N			STMH12107	31991-5.jpg	Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31990

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner 		Customer City of Coquitlam		Drainage Area 		Sheet No. 	
P/O No. 		STPI12241		PSR 				Date / Time Apr 19, 2023 2:49:00 PM			
Street Reece Ave				City Coquitlam				Upstream MH No. STMH12228			
Location Details 				STMH12196				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 Upstream		Flow Control N		Height 900		Width 		Shape Circular	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 89.20	
Year Laid 		Year Renewed 		Media Label STPI12241-31990.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/19/2023		W/O # 		Weather 3		Location H		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	14.0	AMH					N			STMH12196	31990-1.jpg	Manhole
2	0.00	26.0	MWL				5	N				31990-2.jpg	Water Level
3	2.90	79.0	H					N	12			31990-3.jpg	Hole
4	2.90	95.0	ID					N	12			31990-4.jpg	Infil Dropper
5	6.30	122.0	IGJ					Y	12			31990-5.jpg	Infiltration Gusher Joint
6	12.80	159.0	MGO					N			unknown core	31990-6.jpg	General Observation
7	15.00	196.0	ISB					N	12		from unknown core in	31990-7.jpg	Infiltration Stain Barrel
8	77.20	584.0	TBD		150			N	10		infill	31990-8.jpg	Tap Break-in Defective
9	80.40	600.0	MWLS				5	N				31990-9.jpg	Water Level Sag
10	81.50	619.0	RML				10	N	10			31990-10.jpg	Roots Medium Lateral
11	82.10	636.0	TBA		150			N	10			31990-11.jpg	Tap Break-in Active
12	82.10	656.0	IRL					N	10			31990-12.jpg	Infiltration Runner Lateral
13	82.10	685.0	ID					N	1		from unknown core	31990-13.jpg	Infil Dropper
14	86.20	709.0	TBD		150			N	10		encrusation	31990-14.jpg	Tap Break-in Defective
15	89.20	731.0	AMH					N			STMH12228	31990-15.jpg	Manhole
16	22.00	238.0	ISB					N	12		from unknown core in	31990-16.jpg	Infiltration Stain Barrel



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 31990

Surveyed By Quinn		Certificate No. U-0121-70400908		Owner 		Customer City of Coquitlam		Drainage Area 		Sheet No. 	
P/O No. 		STPI12241		PSR 				Date / Time Apr 19, 2023 2:49:00 PM			
Street Reece Ave				City Coquitlam				Upstream MH No. STMH12228			
Location Details 				STMH12196				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 Upstream		Flow Control N		Height 900		Width 		Shape Circular	
Material CP				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 89.20	
Year Laid 		Year Renewed 		Media Label STPI12241-31990.MP4		Purpose F				Sewer Cat 	
Pre-Cleaning ?		Date Cleaned 04/19/2023		W/O # 		Weather 3		Location H		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	24.30	256.0	ID					N	12			31990-17.jpg	Infil Dripper
18	26.80	276.0	ISB					N	12		from unknown core in	31990-18.jpg	Infiltration Stain Barrel
19	30.10	304.0	ISJ					Y	2	6		31990-19.jpg	Infiltration Stain Joint
20	32.10	338.0	TBD		150			N	2		roots & encrustation	31990-20.jpg	Tap Break-in Defective
21	42.90	380.0	MWLS				5	N				31990-21.jpg	Water Level Sag
22	49.80	402.0	MWLS				5	N				31990-22.jpg	Water Level Sag
23	51.10	420.0	TBA		150			N	10			31990-23.jpg	Tap Break-in Active
24	51.10	438.0	DAE				5	N	6	10		31990-24.jpg	Deposits Attached Encrustation
25	64.50	492.0	ISB					N	12		from unknown core in	31990-25.jpg	Infiltration Stain Barrel
26	66.10	521.0	TBD		150			N	10		encrusation	31990-26.jpg	Tap Break-in Defective
27	71.30	550.0	TBD		150			N	2		infill	31990-27.jpg	Tap Break-in Defective



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 32666

Surveyed By C. McDonald		Certificate No. U-614-06018252		Owner 		Customer Coquitlam, City of		Drainage Area 		Sheet No. 	
P/O No. 143615, REV.0		STPI14622		PSR 				Date / Time May 9, 2023 12:03:31 PM			
Street 2020 Parkway Boulevard				City Coquitlam				Upstream MH No. STMH14657			
Location Details In the road				STMH14656				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 Stormwater		Direction Downstream		Flow Control Not Controlled		Height 525		Width 		Shape Circular	
Material Concrete Pipe (non-reinforced)				Lining Method 		Pipe Joint Length 2.50		Total Length 93.40		Length Surveyed 93.40	
Year Laid 		Year Renewed 		Media Label STPI14622-32666.MPG		Purpose Post Rehabilitation Survey				Sewer Cat Z	
Pre-Cleaning Jetting		Date Cleaned 		W/O # 143615, REV.0		Weather Dry		Location Light Highway		Pressure V 	
Project 23216PRG - CITY OF COQUITLAM				Additional Info USMH on OSD Incorrect - Corrected for Reports				Reverse Setup 0			

Line#	Distance	Video Ref	Code	Continuous Defect	Value			Joint	Circumferential Location		Remarks	Photo	Description
					1st	2nd	%		At/From	To			
1	0.00		AMH					N			STMH14657		Manhole
2	0.00	6.0	MGO					N			Focal length correction		General Observation
3	0.00	4.0	MGO					N			Interface in fair condition		General Observation
4	0.00		MWL				5	N					Water Level
5	9.60	74.0	TF		150			N	11				Tap Factory
6	11.80	97.0	TF		150			N	9				Tap Factory
7	12.10	116.0	TF		150			N	3				Tap Factory
8	21.90	192.0	TF		150			N	2				Tap Factory
9	31.80	258.0	TF		150			N	11				Tap Factory
10	44.50	352.0	TF		150			N	2				Tap Factory
11	45.90	384.0	IS					N	2		Around the service interface		Infil Stain
12	57.00	533.0	MGO					N			Fixed leak in joint		General Observation
13	57.60	557.0	TF		15			N	10				Tap Factory
14	67.40	622.0	IS					N	7	12			Infil Stain
15	69.40	652.0	IS					Y	1	5			Infil Stain
16	70.30	678.0	TFA		150			N	2				Tap Factory Active



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 32666

Surveyed By C. McDonald		Certificate No. U-614-06018252		Owner 		Customer Coquitlam, City of		Drainage Area 		Sheet No. 	
P/O No. 143615, REV.0		STPI 14622		PSR 				Date / Time May 9, 2023 12:03:31 PM			
Street 2020 Parkway Boulevard				City Coquitlam				Upstream MH No. STMH14657			
Location Details In the road				STMH 14656				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 Stormwater		Direction Downstream		Flow Control Not Controlled		Height 525		Width 		Shape Circular	
Material Concrete Pipe (non-reinforced)				Lining Method 		Pipe Joint Length 2.50		Total Length 93.40		Length Surveyed 93.40	
Year Laid 		Year Renewed 		Media Label STPI14622-32666.MPG		Purpose Post Rehabilitation Survey				Sewer Cat Z	
Pre-Cleaning Jetting		Date Cleaned 		W/O # 143615, REV.0		Weather Dry		Location Light Highway		Pressure V 	
Project 23216PRG - CITY OF COQUITLAM				Additional Info USMH on OSD Incorrect - Corrected for Reports				Reverse Setup 0			

Line#	Distance	Video Ref	Code	Continuous Defect	1st	2nd	%	Joint	At/From	To	Remarks	Photo	Description
17	70.30	693.0	IS					N	2		Around the service interface		Infil Stain
18	73.50	760.0	TF		150			N	10				Tap Factory
19	80.10	808.0	TF		150			N	10				Tap Factory
20	82.80	836.0	TF		150			N	10				Tap Factory
21	82.80	850.0	TF		150			N	3				Tap Factory
22	84.70	883.0	IS					Y	12	12			Infil Stain
23	84.80	893.0	DAE				5	Y	1	5			Deposits Attached Encrustation
24	88.00	947.0	TF		300			N	3				Tap Factory
25	89.70	973.0	IS					Y	12	12			Infil Stain
26	92.30	1,010.0	IS					N	12	12			Infil Stain
27	93.40	1,054.0	MGO					N			Interface in fair condition		General Observation
28	93.40	1,055.0	AMH					N			STMH14656		Manhole



City of Coquitlam CCTV Inspection Report

Standard: PACP
Inspection ID: 29814

Surveyed By N FOLSOM		Certificate No. U-0319-70303779		Owner 		Customer CITY OF COQUITLAM		Drainage Area 		Sheet No. 0	
P/O No. 22-014		STPI14623		PSR 				Date / Time May 16, 2022 12:00:00 AM			
Street PARKWAY				City COQUITLAM				Upstream MH No. STMH14656			
Location Details 				STMH14655				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 Stormwater		Direction Downstream		Flow Control Not Controlled		Height 525		Width 		Shape Circular	
Material Reinforced Concrete Pipe				Lining Method 		Pipe Joint Length 		Total Length 		Length Surveyed 45.30	
Year Laid 		Year Renewed 		Media Label STPI14623-29814.MPG		Purpose Routine Assessment				Sewer Cat 	
Pre-Cleaning Jetting		Date Cleaned 05/13/2022		W/O # 		Weather Light Rain		Location Main Highway - Suburban/Rural		Pressure V 0.00	
Project 22-014				Additional Info 				Reverse Setup 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			STMH14656		Manhole
2	0.00	23.0	MWL				10	N					Water Level
3	1.70	39.0	TF		150			N	2				Tap Factory
4	3.50	60.0	TBA		150			N	10				Tap Break-in Active
5	15.90	139.0	DAE				10	N	7	10	from service		Deposits Attached Encrustation
6	17.00	166.0	TFD		150			N	10		ACTIVE/ENCRUSTED		Tap Factory Defective
7	28.80	224.0	FL					Y	10				Fracture Longitudinal
8	28.80	238.0	IS					Y	9	10			Infil Stain
9	31.10	278.0	ID					Y	9				Infil Dropper
10	33.80	297.0	ID					Y	10	2			Infil Dropper
11	38.80	330.0	TBA		150			N	9				Tap Break-in Active
12	38.90	344.0	FL					Y	9				Fracture Longitudinal
13	45.30	381.0	AMH					N			STMH14655		Manhole