



REQUEST FOR QUOTATIONS

Title: Sanitary Sewer Video Inspection

Reference No.: 1220-040-2021-068

MINOR WORKS PROJECTS (MMCD)

(Construction Services)

Issue Date: September 28th, 2021

**REQUEST FOR QUOTATIONS
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REQUEST FOR QUOTATIONS
(INSTRUCTIONS TO CONTRACTORS – PART 1)

(TO BE READ WITH “INSTRUCTIONS TO TENDERERS – PART II” CONTAINED IN THE EDITION OF THE PUBLICATION
“MASTER MUNICIPAL CONSTRUCTION DOCUMENTS” SPECIFIED IN SCHEDULE 1 BELOW)

1. INTRODUCTION

1.1 Purpose of the Request For Quotations

The City of Surrey (the “*Owner*”) invites *Contractors* to provide a quotation on the form attached as Schedule C (the “*Quotation*”) for the supply of the goods (if any) and services described in Schedule A (the “*Work*”). The description of the *Work* sets out the minimum requirements of the *Owner*. A person that submits a *Quotation* (the “*Contractor*”) should prepare a *Quotation* that meets the minimum requirements, and may as it may choose, in addition, to also include goods, services or terms that exceed the minimum requirements.

2. ADDRESS FOR DELIVERY

The *Contractor* should submit the Quotation **electronically** in a single pdf file which must be delivered to the *Owner* by email at: purchasing@surrey.ca

The *Owner* will confirm receipt of emails. Note that the maximum file size the *Owner* can receive is 10Mb. If sending large email attachments, *Contractors* should phone to confirm receipt. A *Contractor* bears all risk that the *Owner’s* equipment functions properly so that the *Owner* receives the Quotation in accordance with the RFQ.

3. DATE

The *Owner* would prefer to receive Quotations on or before **October 13th, 2021** (the “**Date**”).

4. INQUIRIES

All inquiries related to this RFQ should be directed in writing to the person named below (the “*Owner Representative*”). Information obtained from any person or source other than the *Owner Representative* may not be relied upon.

Name: Sunny Kaila, Manager, Procurement Services

Email: purchasing@surrey.ca

Reference: 1220-040-2021-068

Inquiries should be made no later than 7 business days before the date set out in Section 3. The *Owner* reserves the right not to respond to inquiries made within 7 business days of the date set out in Section 3. Inquiries and responses will be recorded and may be distributed to all *Contractors* at the discretion of the *Owner*.

Contractors finding discrepancies or omissions in the Agreement or RFQ, or having doubts as to the meaning or intent of any provision, should immediately notify the City Representative. If the *Owner* determines that an amendment is required to this RFQ, the *Owner Representative* will issue an addendum in accordance with Section 5. No oral

conversation will affect or modify the terms of this RFQ or may be relied upon by any Contractor.

5. ADDENDA

If the *Owner* determines that an amendment is required to this RFQ, the *Owner's* Representative will post a written addendum on the BC Bid Website at www.bcbid.gov.bc.ca (the "BC Bid Website") and on the *Owner Website* at www.surrey.ca (the "*Owner Website*") and upon posting will be deemed to form part of this RFQ. No amendment of any kind to the RFQ is effective unless it is posted in a formal written addendum on the *Owner Website*. Upon submitting a Quotation, *Contractors* will be deemed to have received notice of all addenda that are posted on the *Owner Website*.

6. NO CONTRACT

This RFQ is simply an invitation for Quotations (including prices and terms) for the convenience of all parties. It is not a tender and no obligations of any kind will arise from this RFQ or the submission of *Quotations*.

7. ACCEPTANCE

A Quotation will be an offer to the *Owner* which the *Owner* may accept at any time by signing the copy of the Quotation and delivering it to the *Contractor*. A *Quotation* is not accepted by the *Owner* unless and until both the authorized signatory of the *Contractor* and the authorized signatory of the *Owner* have signed. Delivery of the signed Quotation by the *Owner* may be by pdf email. In that event, the resulting *Contract* will be comprised of the documents included in the definition of *Contract* in Schedule B – Draft Contract.

8. CONTRACTOR'S EXPENSES

Contractors are solely responsible for their own expenses in preparing and submitting Quotations, and for any meetings, negotiations or discussions with the *Owner* or its representatives and consultants, relating to or arising from the RFQ. The *Owner* will not be liable to any *Contractor* for any claims, whether for costs, expenses, losses or damages, or loss of anticipated profits, incurred by the *Contractor* in preparing and submitting a Quotation, or participating in negotiations for a contract, or other activity related to or arising out of this RFQ.

9. CONTRACTOR'S QUALIFICATIONS

By submitting a Quotation, a *Contractor* represents that it has the expertise, qualifications, resources, and relevant experience with the requirements of the *Work*.

10. CONFLICT OF INTEREST

A *Contractor* should disclose in its Quotation any actual or potential conflicts of interest and existing business relationships it may have with the *Owner*, its elected or appointed officials or employees. The *Owner* may rely on such disclosure.

11. SOLICITATION OF COUNCIL MEMBERS, CITY STAFF AND CITY CONSULTANTS

Contractors and their agents will not contact any member of the City Council, City staff or City consultants with respect to this RFQ, other than the contact person named in Section 4, at any time prior to the award of a *Contract* or the cancellation of this RFQ.

12. CONFIDENTIALITY

All Quotations become the property of the *Owner* and will not be returned to the *Contractor*. All Quotations will be held in confidence by the *Owner* unless otherwise required by law. *Contractors* should be aware the *Owner* is a "public body" defined by and subject to the *Freedom of Information and Protection of Privacy Act* of British Columbia.

13. SIGNATURE

The legal name of the person or firm submitting the *Quotation* should be inserted in the Quotation. The *Quotation* should be signed by a person authorized to sign on behalf of the *Contractor* and include the following:

- (a) If the *Contractor* is a corporation then the full name of the corporation should be included, together with the names of authorized signatories. The Quotation should be executed by all of the authorized signatories or by one or more of them provided that a copy of the corporate resolution authorizing those persons to execute the Quotation on behalf of the corporation is submitted;
- (b) If the *Contractor* is a partnership or joint venture then the name of the partnership or joint venture and the name of each partner or joint venturer should be included, and each partner or joint venturer should sign personally (or, if one or more person(s) have signing authority for the partnership or joint venture, the partnership or joint venture should provide evidence to the satisfaction of the *Owner* that the person(s) signing have signing authority for the partnership or joint venture). If a partner or joint venturer is a corporation then such corporation should sign as indicated in subsection (a) above; or
- (c) If the *Contractor* is an individual, including a sole proprietorship, the name of the individual should be included.

14. DISCLAIMER

- (a) The information in this RFQ and any further supporting documentation is provided for reference purposes only. It is the responsibility of interested parties to confirm the accuracy and applicability of this information. All costs related to updating or acquiring additional information shall be born solely by the *Contractor*. The information contained in this RFQ has been prepared, in part, on information provided by others, and such information is believed to be accurate and reliable. Any party who intends to submit a response to this RFQ is specifically invited to independently verify the accuracy of the information contained herein;
- (b) The *Owner* shall not be obligated to review or accept any *Quotation* and may reject any or all *Quotations* without giving reasons therefore;
- (c) All negotiations and discussions with *Contractors* are on a "without prejudice" basis and cannot be construed as an agreement, and/or otherwise unless expressly approved by City Council and a written agreement is signed by the *Owner*;

- (d) The *Owner* may negotiate with any one or more of the *Contractors* without having any duty or obligation to advise or allow any other *Contractors* to vary their *Quotation* or otherwise negotiate with the *Owner*;
- (e) The *Owner* may enter into discussions to clarify issues related to any *Quotation*. If at any time the *Owner* reasonably forms the opinion that a mutually acceptable agreement is not likely to be reached, the *Owner* may give notice terminating discussions, but is under no obligation to do so;
- (f) The *Owner* does not authorize any other person or agency to represent the project on its behalf without the prior written approval of the *Owner*. The *Owner* has not engaged a real estate agent or broker in respect of the project. The *Owner* shall not be responsible for the payment of any fees, commissions or expenses claimed by any third party unless previously agreed to in writing;
- (g) By submitting an offer and participating in the process as outlined in this RFQ, Respondents expressly agree that no contract of any kind is formed under, or arises from, this RFQ process; and
- (h) By its receipt of this RFQ, each Respondent remises, releases, and forever discharges the *Owner* and its representatives (including staff and consultants and other professional advisors) from any and all claims, losses or damages of any kind, howsoever caused, which such person has, have, or may hereafter have arising out this RFQ.

15. RESERVATION OF RIGHTS

Notwithstanding any other provision in this RFQ:

- (a) The *Owner* need not necessarily consider the *Quotation* with the lowest *Quotation Price*, or any *Quotation*, and the *Owner* reserves the right to reject any and all *Quotations* at any time, or cancel the RFQ process, without further explanation, and to accept any *Quotation* the *Owner* considers to be in any way advantageous to it.
- (b) The *Owner's* acceptance of any *Quotation* is contingent on having sufficient funding for the purchase and achieving a mutually acceptable contract for the supply and delivery of the *Goods*.
- (c) Each *Contractor*, by submitting a *Quotation*, irrevocably:
 - i. agrees that it will not bring any claim, demand, action, cause of action, suit or proceeding, whether arising in contract, tort (including negligence) or otherwise (a "Claim") against the *Owner* or any of its employees, directors, officers, advisors or representatives, or any one of them, for any costs, damages or other compensation in excess of an amount equivalent to the actual and reasonable costs directly and demonstrably incurred by the *Contractor* in preparing its *Quotation* for any matter relating directly or indirectly to this RFQ (including in the event that the *Owner* rejects or disqualifies or for any other reason fails to accept a *Quotation*, accepts a non-compliant *Quotation* or

- otherwise breaches, or fundamentally breaches, the terms of this RFQ or any duties arising from this RFQ); and
- ii. waives any Claim against the Owner and its employees, directors, officers, advisors or representatives for any compensation of whatsoever nature or kind, including for loss of anticipated profits, loss of opportunity, indirect, incidental or consequential damages or losses if no contract between the Contractor and the Owner is entered into for the supply and delivery of the Goods for any reason whatsoever, including in the event that the Owner rejects or disqualifies or for any other reason fails to accept a Quotation, accepts a non-compliant Quotation or otherwise breaches, or fundamentally breaches, the terms of this RFQ or any duties arising from this RFQ.

(d) If the Owner considers that all Quotations are priced too high, it may reject them all.

16. LIMITATION OF LIABILITY

Notwithstanding anything to the contrary contained in the RFQ or any other document, material or communication made available to *Contractors* by the *Owner* or its representatives in connection with this RFQ, the *Owner* accepts no responsibility or liability for the accuracy or completeness of this RFQ (including any schedules or appendices to it) or any recorded or oral information communicated or made available for inspection by the *Owner* (including through the Owner Representative or any other individual) and no representation or warranty, either express or implied, is made or given by the *Owner* with respect to the reliability, accuracy, completeness or relevance of any of those things. The sole risk, responsibility and liability connected with reliance by any *Contractor* or any other person on this RFQ or any such information as is described in this paragraph is solely that of each *Contractor*.

SCHEDULE A – SCOPE OF WORK AND CONTRACT DRAWINGS

PROJECT TITLE: Sanitary Sewer Video Inspection Program

PROJECT No.: 1220-040-2021-068

1. DESCRIPTION OF SCOPE OF WORK

The Work covered under this project consists of the furnishing of all superintendence, overhead, labour, materials, tools, equipment, insurance, fuel, transportation and all things necessary for and incidental to the satisfactory completion of smoke testing and video inspecting of sanitary sewer mains and service connections as noted in the drawings.

Job site locations consist of various locations throughout the City of Surrey as detailed in the attached drawings.

The general components of the Work include:

- flushing mains and service connections,
- provision for traffic control
- smoke testing
- manhole inspections
- video inspection of the sanitary system
- other related works.

The detailed scope of Work is as described in the Supplementary General Conditions (Schedule B – Appendix 1), Supplementary Specifications (Project) (Schedule B- Appendix 4), and Contract Drawings (listed below) (Schedule B – Appendix 7).

The lack of and/or omission of detailed specifications does not minimize the acceptable levels of service and only the best commercial practices are acceptable.

Contractor to comply with all BC Plumbing Code, BC Fire Marshal, BC Workers' Compensation Board, National Building Code of Canada, BC Boiler Inspector, BC Electrical Inspector, National Fire Protection Association, and any other authorities having local jurisdiction. Failure to abide by these rules and regulations will result in being immediately escorted from the work site.

2. CONTRACT DRAWINGS (PROJECT)

The following *Contract Drawings (Project)* are included as part of this RFQ.

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Sanitary Sewer Mains - CCTV Contract 2021: Term 1	n/a	n/a	n/a
Sanitary Sewer Mains - CCTV Contract 2022: Term 2	n/a	n/a	n/a
Sanitary Sewer Mains - CCTV Contract 2023: Term 3	n/a	n/a	n/a



SCHEDULE B – DRAFT SAMPLE FORM OF AGREEMENT

- 1. Form of Agreement between *Owner* and *Contractor***
- 2. Schedule 1 – Schedule of *Contract Documents***
- 3. Schedule 2 – List of *Contract Drawings***

SCHEDULE B - SAMPLE FORM OF AGREEMENT

BETWEEN *OWNER* AND *CONTRACTOR*

This agreement (the "Agreement") made in duplicate this

_____ day of _____, 20_____.

Contract: **Sanitary Sewer Video Inspection Program**
(TITLE OF CONTRACT)

Reference No. **1220-040-2021-068**
(*OWNER'S CONTRACT REFERENCE NO.*)

BETWEEN:

City of Surrey
(NAME OF *OWNER*)

(the "*Owner*")

AND:

(NAME AND OFFICE ADDRESS OF *CONTRACTOR*)

(the "*Contractor*")

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

- | | | | |
|------------------|--|-----|--|
| Article 1 | The Work Start / Completion Dates | 1.1 | The <i>Contractor</i> will perform all <i>Work</i> and provide all labour, equipment and material and do all things strictly as required by the <u><i>Contract Documents</i></u> . |
| | | 1.2 | The <i>Contractor</i> will commence the <i>Work</i> in accordance with the <u><i>Notice to Proceed</i></u> . The <i>Contractor</i> will proceed with the <i>Work</i> diligently, will perform the <i>Work</i> generally in accordance with the construction schedules as required by the <u><i>Contract Documents</i></u> and will achieve <u><i>Substantial Performance</i></u> of the <i>Work</i> on or before <u><i>221 Days</i></u> from the <u><i>Notice to Proceed</i></u> date subject to the provisions of the <u><i>Contract Documents</i></u> for adjustments to the <u><i>Contract Time</i></u> . The <i>Contractor</i> will provide the <i>Work</i> for the period commencing on |

_____, 202_ and, terminating on _____, 202_ (the "Term").

1.3 Time shall be of the essence of the *Contract*.

Article 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.

Article 3 Contract Price

3.1 The price for the *Work* ("Contract Price") shall be the sum in Canadian dollars of the following

3.11 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

3.1.2 all lump sums, if any, as listed in the Schedule of Quantities and Prices, for items relating to or incorporated into the *Work*; plus

3.1.3 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*.

Article 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 At the substantial performance, a holdback will be made from the monthly progress payment to the *Contractor*. The holdback

shall be the lesser of \$30,000 or 5% of the total *Contract* value including any change orders.

This holdback shall be released upon the submission, by the *Contractor*, of sufficient field data, to the Contract Administrator, for the creation of as-constructed drawings. The sufficiency of data will solely be determined by the Contract Administrator before instructing the Owner, in writing, for the release of this holdback.

Article 5 Rights and Remedies

5.1 The duties and obligations imposed by the *Contract Documents* and the rights and remedies available thereunder 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*.

Article 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 hand, or by fax, or by pre-paid registered mail to the addresses as set out below:

The *Owner*:

City of Surrey, Surrey City Hall – Engineering Operations

13450-104th Avenue

Surrey, B.C.

V3T 1V8

Attention: Ronald Lim, Engineering Assistant

The *Contractor*:

<<insert information>>

Attention: <<insert name and title>>

The *Contract Administrator*:

Wedler Engineering

202-10216 128 St

Surrey V3T 2Z3

Attention: Tim Jorgensen P. Eng

- 6.2 A communication or notice that is addressed as above shall be considered to have been received
- 6.2.1 immediately upon delivery, if delivered by hand; or
- 6.2.2 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*.

Article 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 *Contract* shall enure to the benefit of and be binding upon the parties and their successors, executors, administrators and assigns.

Article 8 Term

- 8.1 The Contractor will provide the service for the period commencing on November 1, 2021 and, terminating on May 31, 2022 (the "Term").
- 8.2 The City shall have the option of renewing this Agreement for three (3) additional terms of six (6) months each commencing on October 1st (the "Renewal Term") by giving notice in writing to the Contractor at any time prior to thirty (30) days before the end of the then-current term. The provisions of the Agreement shall remain in force during the Renewal Term, except where

amended in writing by the parties. There shall be no additional rights of renewal after the third Renewal Term.

Article 9 Pandemic Restrictions

9.1 The parties acknowledge that this Agreement has been entered into during the on-going COVID-19 pandemic (the "Pandemic"). The Contractor advises that it is able to proceed with the Services under the Pandemic conditions and restrictions (collectively the "Pandemic Restrictions") as they exist as of the date of this Agreement. The parties acknowledge that Pandemic Conditions may change so as to cause unavoidable interruptions or interference to the Contractor's performance of the Services. The parties confirm:

- (a) notwithstanding the known existence of the Pandemic, Section 9.1 will apply to new Pandemic Restrictions, which arise after the date of this Agreement, whether anticipated or not, which reasonably interfere with the Contractor's performance of the Services, such that upon the Contractor giving required notice shall be entitled to an extension of the time to perform the Services, but shall not be entitled to reimbursement of any costs;
- (b) notwithstanding any such new Pandemic Restrictions, the Agreement will remain valid and in force, subject to the terms of the Agreement including, without limitation Supplementary General Condition 26 (WCB and Occupational Health and Safety); and
- (c) if new Pandemic Restrictions occur that cause or threaten interruption of the Services the Contractor will give the Owner immediate notice, and a written plan of the interim steps the Contractor will take, if any, during the interruption of the Services, and when Pandemic Restrictions permit, provide the Owner with a written plan for the resumption of the Services."

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) (SIGN & PRINT NAME)

(AUTHORIZED SIGNATORY) (SIGN & PRINT NAME)

Owner:

City of Surrey

(AUTHORIZED SIGNATORY) (SIGN & PRINT NAME)

(AUTHORIZED SIGNATORY) (SIGN & PRINT NAME)

SCHEDULE B – SCHEDULE 1: SCHEDULE OF CONTRACT DOCUMENTS

The following is an exact and complete list of 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”, Platinum edition dated 2009, and the documents noted with “**” are contained in the City of Surrey Supplementary Master Municipal Construction Documents, edition dated January, 2016 (updated July 11, 2016). All sections of this publication are included in the Contract Documents.

1. Agreement, including Appendices and Schedules;
2. Addenda, if any;
3. Supplementary General Conditions, Project;
4. Supplementary General Conditions**;
5. General Conditions*;
6. Supplementary Specifications, Project;
7. Supplementary Specifications**;
8. Specifications*;
9. Contract Drawings (Project);
10. Sample NAASCO Documents
11. Supplementary Standard Detail Drawings**;
12. Standard Detail Drawings*;
13. Instructions to Contractors – Part I; and
14. Instructions to Tenderers – Part II*.
15. Executed Form of Quotation, including all Appendices, and Form of Agreement;
16. Attachment 1 - Prime Contractor Designation Letter of Understanding
17. Attachment 2 - Contractor Health and Safety Expectations
18. Attachment 3 - Compliance to Safety Procedure Entry Procedure for Confined Space
19. Attachment 4 - Compliance to Safety Procedure Working in Confined Space
20. Attachment 5 - Builders Lien Act (Section 7 (4)) Notice of Certification of Completion
21. Attachment 6 - Builders Lien Act (Section 7 (10)) Certification of Completion

A portion of the Contract Documents are included by reference. Copies of these documents have not been included with the tender package. These documents are the Instructions to Tenderers - Part II, 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” and the latest edition (updated July 11, 2016) of “City of Surrey Supplementary Master Municipal Construction Documents- Supplementary General Conditions, Supplementary Specifications and Supplementary Standard Drawings. Refer to Schedule 1 to the Agreement or, if not specified in Schedule 1, then the applicable edition shall be the most recent edition as of the date of the *Tender Closing Date*. All sections of this publication are by reference included in the *Contract Documents*.

Any additional information made available to *Tenderers* prior to the *Tender Closing Time* by the *Owner* or representative of the *Owner*, such as geotechnical reports or as-built plans, which is not expressly included in Schedule 1 or Schedule 2 to the Agreement, is not included in the *Contract Documents*. Such additional information is made available only for the assistance of tenderers who must make their own judgment 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.



**SCHEDULE B – APPENDIX 1 SUPPLEMENTARY GENERAL CONDITIONS
(PROJECT)**

These Supplementary General Conditions (Project) should be read in conjunction with the General Conditions contained in the Master Municipal Construction Documents, Volume II, Printed 2009.

SCHEDULE B – APPENDIX 1

SUPPLEMENTARY GENERAL CONDITIONS (PROJECT)

SGC 1 **Scope of Work**

The *Contractor* will provide all labour, materials, equipment and plant and other related services to the completion of the Sanitary Sewer Video Inspection Program, located in various areas of Surrey, British Columbia.

The general components of the *Work* include, but not limited to, flushing and CCTV Video Inspecting approximately 69,010 lineal meters of sanitary sewer mainlines ranging from 100 to 450mm in diameter, launch and push inspections of 3,577 Laterals, the inspection of approximately 1,417 manholes, and smoke testing of 11,720m of sanitary mainline at various locations within the City as shown on the drawings in Section F.

The *Work* will be undertaken at the *Place of the Work*, as follows:

Various areas of the City of Surrey, B.C.

The *Contractor* is to furnish certificates confirming *Work* conforms to requirements of Authorities having jurisdiction.

The detailed scope of work is as described on the *Contract Drawings* (listed below), Supplementary General Conditions (Schedule B – Appendix 1), and Supplementary Specifications (Project) (Schedule B- Appendix 2).

The lack of and/or omission of detailed specifications does not minimize the acceptable levels of service and only the best commercial practices are acceptable.

Contractor to comply with all BC Plumbing Code, BC Fire Marshal, BC Workers' Compensation Board, National Building Code of Canada, BC Boiler Inspector, BC Electrical Inspector, National Fire Protection Association, and any other authorities having local jurisdiction. Failure to abide by these rules and regulations will result in being immediately escorted from the *Place of the Work*.

SGC 2 **Contract Time**

The *Work* under this Contract is to be completed not later than:

May 31, 2022.

Should the *Contractor* fail to complete the *Work* under the Contract with the individual milestone date/s indicated above, the *Owner* will be entitled to compensation from the *Contractor*, including but not limited to deductions from payments for the following:

- (a) As a genuine pre-estimate of the *Owner's* increased costs for the Consultant and the *Owner's* own staff caused by such delay an amount of \$250.00 per day or pro rata

portion for each calendar day that actual substantial performance is achieved after the substantial performance milestone date; plus

- (b) 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 monies owing to the *Contractor* are less than the total amount owing by the *Contractor* to the *Owner* under (a) and (b) above 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*.

SGC 3 Consultant

The *Consultant* Wedler Engineering, 202-10216 128 St. Surrey, B.C. V3T 2Z3. Telephone: 604-588-1919 Fax: 604-588-1910 E-mail: tjorgensen@wedler.com, represented by: Tim Jorgensen, P.Eng. will be the *Owner's* representative during the performance of the *Work* until the *Work* is complete. The *Consultant* will advise and consult with the *Owner*. The *Owner's* instruction(s) to the *Contractor* may be forwarded through the *Consultant*.

The *Consultant* may periodically visit the *Place of the Work* to become familiar with the progress of the *Work*, the quality of the *Work* being provided and to determine if the *Work* is proceeding in accordance with the *Contract Documents*.

SGC 4 Payment Certifier

The Payment Certifier is Wedler Engineering, 202-10216 128 St. Surrey, B.C. V3T 2Z3. Telephone: 604-588-1919 Fax: 604-588-1910 E-mail: tjorgensen@wedler.com, represented by: Tim Jorgensen, P.Eng.

SGC 5 Project Manager

The Project Manager is City of Surrey, 13450 104 Ave., Surrey BC, V3T 1V8 Telephone: 604-590-7209 Fax: 604-591-7836 E-mail: RLim@surrey.ca, represented by: Ronald Lim, Engineering Assistant.

SGC 6 Schedule of Prices

This Contract is a combination of unit prices and lump sums.

Any *Work* item that is not implicitly described, or inferred, as being included in any regular item or optional item in the Schedule of Prices shall be included in the lump sum price proposed for 'Miscellaneous Work'.

For unit price items, the number of units for each item (i.e., quantities) as listed in the Schedule of Prices has been estimated. Actual quantities will vary. Payment will be made based on the measurement of the actual quantity of *Work* incorporated into the Contract.

The unit prices for each item will be applicable regardless of the variation in the actual quantity as compared to the estimated quantity. No adjustment to the unit price will be considered as a result of such variation.

SGC 7 Coordination

The *Contractor* will be responsible for coordinating with other *Contractors* *Owner* forces, outside agencies and others as required throughout the Contract. While it is not an all-inclusive list of potential coordination requirements, the following list of know activities that the *Contractor* should be aware of when planning for coordination:

Other Contractors

The *Contractor* will be required to coordinate their schedule and work program with the following construction activities, which will be tendered to other *Contractors* by the *Owner* and will be construction concurrent with the Contract.

NONE

SGC 8 Availability of Place of Work

The Place of Work is available for the immediate commencement of the Work. The anticipated start date is **November 1, 2021**. The *Contractor* will schedule the Work accordingly.

SGC 9 Quality Assurance

Work covered shall be performed by a single firm experienced in CCTV inspection, manhole inspections and smoke testing of sanitary sewer mains and laterals or other work of similar nature and scope. Subject to approval of the *Owner*, the *Contractor* may subcontract any work to be performed under this Contract. However, the election to subcontract work shall not relieve the *Contractor* from responsibility or liability which it has assumed under this Contract and the *Contractor* shall remain liable to the same extent that its liability would attach, as if the Work had been performed by the *Contractor's* own employees.

All materials and hardware to be supplied by the *Contractor*, which are not specifically described herein, shall be of suitable construction, composition, and quality to achieve their intended function.

SGC 10 Job Conditions

The *Contractor* shall be familiar with the project location and how the existing conditions will affect their work. This is so that no misunderstanding may arise afterwards as to the character or as to the extent of the work to be done; likewise, in order to advise and acquaint themselves with all precautions to be taken in order to avoid injury to person or property of another. No additional compensation will be granted because of any unusual difficulties or *Owner's* special requests that may be encountered in the execution of any portion of the work.

SGC 11 Environmental Protection

The *Contractor* warrants that it will not produce or discharge in any manner or form, directly or indirectly, chemicals or toxic substances into the environment and that all equipment used will not pose a hazard to, or harm or adversely affect anyone coming into contact with it and covenants and agrees to provide the *Owner* with an environmental plan (where applicable),

acceptable to the *Owner*, which plan shall outline the procedures to be followed by the *Contractor* to prevent the production or discharge of chemicals or toxic substances into the environment and the actions to be taken should the discharge occur.

The *Contractor* will be responsible to take all necessary measures to comply with the requirements of the Federal and Provincial environmental protection agencies, *Owner* by-laws, the *Waste Management Act*, R.S.B.C. 1996, c. 482, as amended and any other applicable acts and regulations in respect to air, earth and water pollutants.

The *Contractor* will report to the *Owner* immediately if any hazardous or toxic materials are found or discovered. Such materials are to be left untouched and the area is to be marked and cordoned off to prevent any access to the workers and the public.

SGC 12 Safety

The *Contractor* will be responsible for site safety at the Place of Work as and to the extent required by applicable construction safety legislation, regulations and codes, including *Workers Compensation Act* and applicable regulations, and by good construction practice.

Safety – Fall Protection - The *Contractor* and any trade *Contractor* shall include for all fall protection equipment and requirements necessary to complete scope of Work in a safe manner and in compliance with the site safety plan, which includes: Fall protection must be worn when working at a height over 6 ft. or as the hazards present necessity.

Safety – On-Site Hazards and Utilities Present – Before commencing any Work at the Place of Work, the *Contractor* is to make themselves aware of any and all on-site hazards including but not limited to underground and overhead utilities near to the Work area and to take every precaution necessary to eliminate any risk that may exist. If an on-site hazard exists that is causing or may cause injury to any person(s), the *Contractor* is to take immediate action to mitigate risk and damage, and then notify the *Owner* and the *Owner's* consultant (if any).

SGC 13 Traffic Control

The *Contractor* shall at all times ensure that safety of the public (vehicular and pedestrian traffic) and its employees while carrying out CCTV inspections and smoke testing of sanitary sewer infrastructure in Surrey's catchments N01, 04 10, 14-20 & 22.

Whenever such works are carried out, the *Contractor*, at his expense, is to provide:

- all necessary signs, materials, barricades, and other warning devices;
- qualified and trained Traffic Control Personnel for traffic flagging services; and,
- in some cases, equipment such as flashing arrow boards, cones, etc.

These are specified in accordance with the Province of British Columbia, Ministry of Transportation & Highways' General Specifications for Highway Jurisdiction, Section 194 (Appendix A), and the Traffic control Manual for Work on Roadways, 1995 and the Traffic Control Manual for Work on Roadways, Field and Office Edition, (1999 Update). Please visit

http://www.th.gov.bc.ca/trafficcontrol/tc_guidelines1.htm for the latest updates.

Additional services to ensure safety may be required at the discretion of the *Owner*. The *Contractor* is to provide such additional services as directed at no extra cost.

SGC 14 Construction Access and Traffic Maintenance

The designated access to and from the construction site must be approved by the *Owner*. All construction traffic must use the designated access including heavy equipment, trucks and workers' personal vehicles.

Construction access to the Place of Work areas within existing building for workers and delivery of materials shall be designated by the *Owner*. No other existing exits or entrances shall be used by workers for access or for delivery of materials.

The *Contractor* shall conduct construction operations with minimum interference to adjacent roadways, sidewalks and access facilities in general and shall keep such areas free from materials, debris and equipment at all times. The *Contractor* shall not close or obstruct existing roadways, sidewalks, parking areas or delivery points and shall not place or store materials or park cars on same.

The *Contractor* shall cooperate in all ways with the *Owner* in all matters concerning necessary interference with normal operation of the Place of Work. Minimizing disruption of normal facility/site operation and vehicular movements at the Place of Work is an essential requirement of the Contract.

The *Contractor* shall:

- (a) Include project phasing strategies in the Construction Schedule to minimize traffic disruption on the Place of Work.
- (b) Should provide one (1) week minimum notice to the *Owner*, previous to any disruption or alteration of access to the Place of Work. The *Contractor* shall provide all signs, pylons and flag persons necessary to direct vehicular traffic around work in progress.
- (c) The *Contractor* shall maintain access to existing fire hydrants and Siamese connections and shall keep entrances and exits to existing and adjacent buildings clear at all times.

SGC 15 Proposed Substitutions

Acceptance of material specifications that are an equal or higher level of quality compared to the material specified will not be unreasonably withheld.

Quotations for equipment substitutions to be made as separate line items and as additive or deductive alternates to the base equipment bid.

Evaluation of the substitutions to be made solely by the *Owner* whose decision shall be final.

SGC 16 Manuals

Installation and Operator's manuals must accompany equipment delivered. Electrical, Mechanical, and Plumbing booklets shall be provided to the *Owner*, as per the Specifications.

All manual(s) must be furnished prior to payment and delivered to the *Owner*. Failure to deliver all manual(s) that are ordered may result in non-payment until all manual(s) are received.

SGC 17 Hours of Work

Refer to the City of Surrey applicable bylaws for acceptable work hours.

No work is to be performed outside of these acceptable work hours without written approval from the *Owner*, and with approval by obtaining a noise variance if required.

All work shall conform to local bylaws, including building and parking bylaws and municipal guidelines and regulations. This includes Building Bylaws and Noise Restrictions, which will apply to all work being completed. Where work or the work schedule does not permit compliance with the Bylaws, the *Contractor* shall request permission from the *Owner* for special exemptions from the bylaws. No extra compensation, in any form (e.g. overtime, etc.) will be given without prior written approval from the *Owner*.

SGC 18 Damage

The *Contractor* will be responsible for any and all damages to property or persons and for any losses or costs to repair or remedy the Works as a result of any negligent act or omission, or misconduct in the performance of the Works and its subcontractor's Work and shall indemnify and hold harmless the *Owner*, its officers, agents and employees from all suits, claims, actions or damages of any nature whatsoever resulting therefrom unless such loss, damage, injury or loss results from or arises out of the error, omission and/or negligent acts of the *Owner*, or its officers, for subsequent correction of any such error, omission and/or negligent acts or of its liability for loss or damage resulting therefrom. Except as to professional liability, these indemnities shall not be limited by the listing of any insurance coverage.

SGC 19 Worksite Conduct

All labourers and workers, while working in and around Catchments N01, 04 10, 14-20 & 22, Surrey, British Columbia, and the *Owner* facilities, shall act in a professional manner. The *Contractor* is to enforce proper discipline and decorum among all labourers and workers on the worksite and is to control, among other things: 1) noise, including music; 2) the use of offensive language; 3) smoking or drinking of alcoholic beverages on the worksite; 4) physical violence; 5) riding in the passenger elevators; 6) thievery; and 7) the transportation of articles or materials deemed hazardous. If the *Owner* determines, in its sole discretion, that any labourer need to be removed due to his or her failure to comply with the terms of this provision, the *Contractor* will remove such labourers from the worksite immediately.

Alcohol and drugs are not tolerated on this site at any time including anyone deemed to be under the influence shall be escorted off site.

SGC 20 Cleanliness and Disposal of Unwanted Materials

Continuous daily clean up of the work areas shall be performed by the *Contractor* and trade *Contractor* throughout the performance of the Work and will be undertaken in accordance with the *Contractor's* waste management plan. Clean up of waste products and debris

generated by the *Contractor* and any trade *Contractor* outside of the building and on the site shall be the responsibility of the *Contractor*. Should the *Owner* be required to clean up the work of the *Contractor* or trade *Contractor* the cost of such clean up will be recovered from the *Contractor*.

The *Contractor* shall dispose of all debris, trash and unsuitable materials collected under this Contract off site. The *Contractor* is solely responsible for any and all damages done or regulations violated in the disposal of waste materials and for any other actions, which the *Contractor* performs.

The *Contractor* warrants that it will produce or discharge in any manner or form, directly or indirectly, chemicals or toxic substances into the environment and that all equipment used will not pose a hazard to, or harm or adversely affect anyone coming into contact with it and covenants and agrees to provide the *Owner* with an environmental plan (where applicable), acceptance to the *Owner*, which plan shall outline the procedures to be followed by the *Contractor* to prevent the production or discharge of chemicals or toxic substances into the environment and the actions to be taken should the discharge occur.

The *Contractor* shall be responsible to take all necessary measures to comply with the requirements of the Federal and Provincial environmental protection agencies, *Owner* by-laws, the *Waste Management Act*, R.S.B.C. 1996, c. 482, as amended and any other applicable acts and regulations in respect to air, earth and water pollutants.

SGC 21 Accidents; Equipment Safety

Any and all accidents, regardless of how minor, involving another person, private property, or vehicle, shall be reported immediately to the Surrey R.C.M.P. and a report requested. The *Owner* shall also be contacted immediately and be provided a copy of any reports.

The *Contractor* shall assume all responsibility for damages to property or injuries to persons, including accidental death, attorneys fee and costs of defense which may be caused by *Contractor's* performance of this Contract, whether such performance be by itself, its subcontractor, or anyone directly or indirectly employed by *Contractor* or its subcontractors and whether such damage shall accrue or be discovered before or after termination of this Contract.

The *Contractor's* equipment operators shall maintain good safety and driving records, and use extreme caution during the performance of the Work.

SGC 22 Permits and Fees

The *Contractor* is to secure and pay for any additional permits, and governmental fees, licenses and inspection necessary for proper execution and completion of the Work which is customarily secured after execution of an agreement and which is legally required. The *Contractor* is to comply with and give notices required by laws applicable to performance of the Work.

SGC 23 Final Completion and Payment

When the Work is finally complete and the *Contractor* is ready for a final inspection, the *Contractor* is to notify the *Owner*, in writing. Thereupon, the *Owner* will perform a final

inspection of the Work. If the *Owner* confirms that the project is complete including all deficiencies, is in full accordance with this *Contract* and the *Contractor* has performed all of its obligations, is hereby entitled to submit for final payment, subject to the *Builders Lien Act*.

SGC 24 Workmanship

- (a) General: Workmanship shall be of best quality, executed by workers experienced and skilled in respective duties for which they are employed. Do not employ any unfit person or anyone unskilled in their respective duties. The *Owner* reserves the right to dismiss for site, workers deemed incompetent, careless, insubordinate or otherwise objectionable. Decisions as to quality of fitness of workmanship in cases of dispute rest solely with the *Owner*, whose decision shall be final.
- (b) Coordination: Ensure cooperation of workers in laying out work. Maintain efficient and continuous supervision.
- (c) Protection of Work in progress: The *Contractor* is to adequately protect Work completed or in progress. Work damaged or defaced due to failure in providing such protection is to be removed and replaced, or repaired, as directed by the *Owner* at no cost to the *Owner*.

Should any dispute arise regarding the quality of the workmanship, materials or products used in the performance of the Work, the final decision regarding the acceptable quality of the workmanship, and fitness of the materials and products rests strictly with the *Owner*.

Additionally, all Works required hereunder will be performed as promptly as possible, and in any event within the time stated by the *Owner*, and such Work will be subject to approval and acceptance of the *Owner*, but such approval and acceptance will not relieve the *Contractor* from the obligation to correct any incomplete, inaccurate or defective work, all of which shall be promptly remedied by the *Contractor* on demand, without cost to the *Owner*.

SGC 25 Vehicles/Equipment

The *Contractor* should have a sufficient number of service vehicles together with sufficient operating personnel to perform the Work. If, in the opinion of the *Owner*, whose opinion shall be final and binding, the numbers of service vehicles that the *Contractor* has in service are inadequate to meet the Work response times stated herein, the *Contractor* may be given thirty (30) calendar days' notice, after which time the *Contractor* must provide additional vehicles to perform the Work, as directed by the *Owner*.

Contractors Vehicles/Equipment used in the performance of the Work are to be properly equipped for CCTV inspections and smoke testing. Off-road (e.g. ATV's) type of equipment may be utilized within the parks provided that they conform to Worksafe BC standards. The units should be sealed to prevent loss of waste materials while collecting & transporting garbage.

All vehicles/equipment will be kept clean, in good mechanical condition, painted to present a neat appearance, show evidence of annual safety inspections and display proper registration and license.

All *Contractor's* vehicles/equipment should be equipped with approved back-up alarms, multiple lite revolving/strobe lights, or other necessary warning systems, which should be maintained and in proper operating condition at all times. In the event of a breakdown, the

Contractor should arrange for reserve equipment, with always the intent to maintain the schedule frequency.

Vehicles/Equipment used in the performance of the Work is to be identified on both sides with the company name and telephone number. This should be fully legible and displayed in a professional manner. The *Contractor* may also be required to display magnetic signs as supplied by the *Owner*, identifying the *Contractor* as a 'City *Contractor*'. This will not replace the company identification.

SGC 26 WCB and Occupational Health And Safety

The *Contractor* agrees that it shall, at its own expense, procure and carry, or cause to be procured, carried and paid for, full Workers' Compensation Board coverage for itself and all workers, employees, servants and others engaged in or upon any work or service which is the subject of this Agreement. The *Contractor* agrees that the *Owner* has the unfettered right to set off the amount of the unpaid premiums and assessments for the Workers' Compensation Board coverage against any monies owing by the *Owner* to the *Contractor*. The *Owner* shall have the right to withhold payment under this *Contract* until the Workers' Compensation Board premiums, assessments or penalties in respect of the work done or service performed in fulfilling this *Contract* have been paid in full.

The *Contractor* shall provide the *Owner* with the *Contractor's* Workers' Compensation Board registration number and a letter from the Workers' Compensation Board confirming that the *Contractor* is registered in good standing with the Workers' Compensation Board and that all assessments have been paid to the date thereof prior to the *Owner* having any obligations to pay monies under this Agreement.

Without limiting the generality of any other indemnities granted by the *Contractor* in this Agreement, the *Contractor* shall indemnify and hold harmless the *Owner*, its elected and appointed officials, employees and agents, from all manner of claims, demands, costs, losses, penalties and proceedings (including all actual legal costs) arising out of or in any way related to unpaid Workers' Compensation Board assessments owing from any person or corporation engaged in the performance of this Agreement or arising out of or in any way related to the failure to observe safety rules, regulations and practices of the Workers' Compensation Board, including penalties levied by the Workers' Compensation Board.

The *Contractor* agrees that it is the prime contractor for the *Work* as defined in the *Workers' Compensation Act*, R.S.B.C. 1996, c. 492 as amended and will ensure compliance with the *Workers Compensation Act* and Regulations in respect of the workplace. Without limiting its responsibilities under the legislation, the *Contractor* will coordinate the activities of employers, workers and other persons at the workplace relating to occupational health and safety. The *Contractor* shall have a safety program acceptable to the Workers' Compensation Board, shall provide first aid services, and shall ensure that all Workers' Compensation Board safety rules and regulations are observed during the performance of this Agreement, not only by the *Contractor*, but by all sub-contractors, workers, material personnel and others engaged by the *Contractor* in the performance of this Agreement. The prime contractor shall appoint a qualified coordinator for the purpose of ensuring the coordination of health and safety activities for the workplace. Prior to commencement of Construction, the *Contractor* shall complete and file a "Construction Notice of Project" with the Workers' Compensation Board and shall provide a copy of the same to the *Owner* confirming that the *Contractor* shall be the prime contractor responsible for coordination of

safety and health under Part 3 of the *Workers' Compensation Act* and Part 20 of the WCB Occupational Health and Safety Regulations. That person will be the person so identified in this Agreement, and the *Contractor* will advise the *Owner* immediately in writing if the name or contact number of the qualified coordinator changes.

The *Contractor* will ensure compliance with and conform to all health and safety laws, by-laws or regulations of the Province of British Columbia, including without limitation any regulations requiring installation or adoption of safety devices or appliances.

The *Contractor* shall fulfill all its duties, obligations, and responsibilities in such a manner that it ensures the safety of the public and in accordance with the safety regulations of the Workers' Compensation Board and shall install signs and barriers as required to ensure the safety of the public and of its employees in the use of the *Owner* facilities.

The *Contractor* understands and undertakes to comply with all the WCB Occupational Health and Safety Regulations for hazardous materials and substances, and in particular with the "Workplace Hazardous Materials Information System (WHMIS)" Regulations. All "Material Safety Data Sheets (MSDS)" shall be shipped along with the Goods, materials, products and any future MSDS updates will be forwarded.

SGC 27 Confined Space Safety Procedure

Entry procedure for Confined Space

This procedure shall be used as a guideline only. The Contractor shall be responsible for familiarization with this and all WCB requirements.

Refer to Attachment 3 – COMPLIANCE TO SAFETY PROCEDURE - ENTRY PROCEDURE FOR CONFINED SPACE

*****END OF PAGE*****



SCHEDULE B – APPENDIX 2 SUPPLEMENTARY GENERAL CONDITIONS

REFER TO THE CITY OF SURREY SUPPLEMENTARY MASTER MUNICIPAL CONSTRUCTION DOCUMENTS, EDITION DATED JANUARY, 2016 (UPDATED JULY 11, 2016. ALL SECTIONS OF THIS PUBLICATION ARE INCLUDED IN THE CONTRACT DOCUMENTS.)

INCLUDED BY REFERENCE



SCHEDULE B – APPENDIX 3 GENERAL CONDITIONS

**REFER TO THE “MASTER MUNICIPAL CONSTRUCTION DOCUMENTS –
GENERAL CONDITIONS, SPECIFICATIONS AND STANDARD DETAIL
DRAWINGS”, PLATINUM EDITION DATED 2009**

INCLUDED BY REFERENCE



SCHEDULE B – APPENDIX 4 SUPPLEMENTARY SPECIFICATIONS (PROJECT)

These Supplementary Specifications (Project) should be read in conjunction with the Specifications contained in the Master Municipal Construction Documents, Volume II, Printed 2009 and the City of Surrey Supplementary Specifications and Detailed Drawings.

SCHEDULE B - APPENDIX 3

SUPPLEMENTARY SPECIFICATIONS – (PROJECT)

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SUPPLEMENTARY SPECIFICATIONS (PROJECT)

The *Contractor* is required but is not limited to, as part of his obligation under the Quotation, to perform the various services and activities described in the General Conditions and the Supplementary Specifications (Project) SSP 1 to SSP 25 hereunder.

SSP 1 General

This section outlines all special provisions (SSP's) related to sewer rehabilitation including flushing, video, repair, inspections, pipe relines, manhole repairs, etc. Only those items related to the Scope of Work outlined in SSP 2 will be applicable to this contract.

SSP 2 Scope of Work

As part of the scope of Services, the Contractor is to furnish and assume full responsibility for everything required for the orderly progress and proper execution and completion of the Services, whether temporary or permanent and whether or not incorporated into the Services including, but not limited to, materials, equipment, labour, transportation, construction equipment and machinery, tools, appliances, temporary facilities and utilities, and all other facilities and incidentals.

The Services in this agreement involve smoke testing, flushing and CCTV inspecting approximately 193,180 lineal meters of Sanitary Sewer Mainlines and Laterals ranging from 100 mm to 450 mm in diameter to examine the sewer condition and the inspection of approximately 1999 manholes, at various locations within the City as shown on the drawings in Section F.

Study Area's will include smoke testing, flush and video inspection of Sanitary Sewer Mainlines and Laterals and manhole inspections. Lamp camera CCTV inspections will be conducted on Laterals with material type other than PVC. This will reduce the chance of damage occurring to the Inspection Chamber Lids.

This quotation consists of 3 Terms. Term 1 shall commence on **November 1, 2021** and be completed by **May 31, 2022**. Terms 2 and 3 shall commence on **November 1st** and be completed no later **May 31st** of the following year. The work per Term is listed below;

TERM 1: Northwest Surrey

TERM 2: South and East Surrey

TERM 3: North Surrey

Please reference the contract drawings for the exact location of each of the Terms.

SSP 3 Description of Work

The Services carried out may be described generally as the smoke testing and video inspection of sewers mains, laterals (service connections) and manholes, complete with digital still photos and interpretive reports utilizing National Association of Sewer Service Companies (NASSCO) coding standard, including:

- Smoke testing and deficiency reporting on all Sanitary Sewers sections in Study Areas as described in SSP 17.
- Closed Circuit Television (CCTV) inspection and deficiency reporting for Sanitary Sewer Mainlines in Study Areas as described in SSP 18.
- Closed Circuit Television (CCTV) inspection and deficiency reporting for all service laterals between the main and the Inspection Chamber for Study Areas as shown on the contract maps.
- Manhole Inspection and Reporting.
- Provision for traffic control and traffic diversion in accordance with the General Conditions.
- Restrict and divert the sewage flow from the sewer section or service lateral being inspected, tested or rehabilitated, as required;
- Flushing all Sanitary Sewer Mainlines and Sanitary Sewer Laterals accessed through the Inspection Chamber before video inspecting.
- Flushing Sanitary Sewer Laterals through a Mainline on an as needed basis with prior approval from the City Representative.
- Removal of Operational & Maintenance defects prior to a video inspection, (i.e. grease, roots).

The City requires CCTV Video Inspection reports, databases, videos, and photographs to be uploaded directly to the City's servers; DVD's are no longer accepted. The detail of the methods of uploading data and exchanging GIS information is outlined in SSP 18. The Contractor should conform to these standards. A failure to meet these requirements may result in the City terminating the contract.

SSP 4 Limits of Site

The *Site* is limited to public spaces, City right-of-ways and the private property covered by property impact statements, or consented to by owners.

SSP 5 Completion Date

The Contractor will provide the goods and services for the period commencing on **November 1, 2021** and terminating on **May 31, 2022** (the "Term").

SSP 6 Access

Overview maps are included in the Contract to assist Contractors with reviewing access to the different manholes and inspection chambers on the highlighted sewer sections. City crews will locate as many manholes and inspection chambers as possible.

It is the responsibility of the Contractor to ensure vehicles are not parked over the manholes and other sanitary appurtenances. The Contractor shall schedule work by posting no parking signs along the street on the day before the scheduled operation. Traffic signs are available from the Engineering Operations Yard, 6549 148th Street, Surrey, BC, for collection and must be returned before final payment can be made. Any loss or damage to the sign shall be borne by the Contractor.

The City has located the inspection chambers for conducting the reline of the service laterals. The Contractor shall be responsible for any damage done to private property during the course of accessing the inspection chambers to conduct the video inspection.

The Contractor shall notify residents prior to accessing easements and rights-of-way adjacent to private property. Permission to access private property shall be obtained from the resident(s) prior to accessing the property. When required, work shall be rescheduled so as not to disturb residents.

The Contractor shall notify the Contract Administrator of any sewer sections that cannot be video inspected due to un-located manholes or property access problems.

SSP 7 Traffic Control

Work shall not be performed on arterial and collector roadways between 6:00 a.m. and 9:00 a.m. or between 3:30 p.m. and 7:00 p.m., unless otherwise approved by the Contract Administrator.

SSP 8 Supply of Water

The Contractor may obtain water from the City as detailed below (with 48 hours' notice) by contacting the City's Representative. Supply of Water must be coordinated through the Water Operations section, as permits may be required for water use.

- a) Designated Fill Stations or standpipes
- b) Fire hydrants

SSP 9 Requirements of Work & Personnel

The following units of work defined pertain to sewer inspection and rehabilitation. Only those applicable to this contract will be considered.

SSP 9.1 Work Defined

SEWER LINE CLEANING shall be performed with hydraulically propelled, high-velocity jet, or mechanically powered equipment. Selection of equipment shall be based on field conditions such as access to manholes, quantity of debris, size of sewer, depth of flow, etc.

LATERAL SEWER SEALING shall be accomplished using special techniques and equipment working from the main sewer or an access point.

LATERAL SEWER LINING shall be accomplished from a clean out, from a manhole, or remotely from the mainline.

SEWER LINE SECTION SEALING including lateral connections and manholes shall be accomplished using the flooding method with a net hydrostatic exfiltration head of at least 1.2 m.

SEWER PIPE AND LINING INSERTION shall be performed in mainline sewers. Processes include Cured-in-Place Pipe (CIPP), Fold and Form (Deformed/Reformed), Slipline Pipe, Pipe Sections Insertion, Spiral Wound Liner, and Pipe Bursting.

SEWER MANHOLE SEALING shall be accomplished by structure sealing with chemical grout, cementitious materials, resin-soaked oakum, and manufactured seals; by frame sealing with applied materials or manufactured seals; and by cover sealing.

SEWER MANHOLE REHABILITATION shall be accomplished by application of sealing, plugging, patching, coating, and lining processes and materials that will seal, protect or structurally rehabilitate the manhole. Methods include lining and structural enhancement of the manhole using cast-in-place concrete, spray applied cementitious material, cured-in-place thermoset pipe, profiled PVC (grouted) liners, and prefabricated fiberglass (grouted). Work may include repair of manhole chimney and corbel; by step removal or replacement; and by frame & cover reinstallation or replacement.

SEWER FLOW CONTROL shall be performed as required to comply with these specifications.

TELEVISION INSPECTION shall be required to reveal and document sewer line conditions and/or performed in advance of or in conjunction with pipe testing/sealing, pipe repair, and pipe lining activities.

NOTICE OF CLIENT/OWNER REQUIREMENTS which are relevant to and within the scope of work to be performed under the contract.

MUNICIPAL AND OTHER LICENSES AND PERMITS and assistance in obtaining approvals or consent from utilities or carriers such as the telephone company or other persons or organizations upon whose property or authority performance of work under the contract might impinge; or a written release from responsibility for the performance of work under the contract if and to the extent such work is precluded by the inability to obtain approvals or consent.

CLEARANCE OF BLOCKAGES OR OBSTRUCTIONS in the sewer system, if any, if such clearance is required for performance of work under the contract and if such clearance is not otherwise provided for within the contract.

LOCATION AND EXPOSURE OF ALL MANHOLES, unless otherwise provided for in the Technical Specifications of the contract. The city will locate and designate all manhole access points open and accessible for the work, and provide rights of access to these points.

A MANHOLE-NUMBERING SYSTEM referenced to a map for all areas of the project and accurate manhole invert elevations when required for performance of the work will be supplied by the city.

THE SHUTDOWN OR MANUAL OPERATION OF PUMP STATIONS if such becomes necessary for performance of the work shall be by the City.

NOTICE TO THIRD PARTIES (such as public utilities and the telephone company) of the Contractor's intent to perform work in an area where such parties may have rights to underground property or facilities, and request for maps or other descriptive information as to the nature and location of such underground facilities or property and assurance of the Contractor's ability to enter upon any public or private lands to which access is required for performance of the work under the contract.

INFORMATION PERTINENT TO THE SITE of the project including reports prepared under previously accomplished studies or surveys and other data relative to the project, including, maps, drawings, construction specifications, sewer system records, etc.

SSP 9.2 Risk, Health & Safety

Refer to the attached Risk, Health and Safety Responsibility of Contractor requirements (Attachment 2) that outline the responsibility for all contractors working for the City of Surrey.

SSP 9.3 Occupational Health and Safety

The Contractor and its employees and the Contractor's sub-contractors and their employees shall conform to all health and safety laws, by-laws, or regulations of the Province of British Columbia including any regulations requiring installation or adoption of safety devices or appliances. The City of Surrey may, on twenty-four (24) hours written notice to the Contractor, suspend the work hereunder as a result of failure to install such devices or because the conditions of immediate danger exist that would be likely to result in injury to any person. Such suspension will continue until the default or failure is corrected.

Without limiting the generality of any other indemnities granted by the Contractor herein, the Contractor shall indemnify and save harmless the City of Surrey against any loss or expense or penalty suffered or incurred by the City of Surrey by reason of failure of the Contractor, its agents or employees, or any sub-contractors of the Contractor, its agents or employees to comply or ensure compliance with the health and safety laws, by-laws and regulations mentioned above.

Further, the Contractor warrants that it will not produce or discharge in any manner or form, directly or indirectly, chemicals or toxic substances and that all vehicles and equipment used will not pose a hazard to, or harm or adversely affect anyone coming into contact with them and covenants and agrees to provide the City of Surrey with an environmental plan (where applicable), acceptable to the City of Surrey, which plan shall outline the procedures to be followed by the Contractor to prevent the production or discharge of chemicals or toxic substances into the environment.

(a) The Contractor shall provide all his work in such a manner that it ensures safety, of the public and in accordance with the safety regulations of the Workers' Compensation Board.

(b) It is required that the Contractor understands and undertakes to comply with all the W.C.B. Industrial Health and Safety Regulations for hazardous materials and

substances namely, the new "Workplace Hazardous Materials Information Systems (WHMIS)" Regulations.

If you are unfamiliar with the Industrial Health and Safety Regulations covering hazardous materials and substances, in particular the WHMIS regulations, or if you are uncertain as to how they relate to the work you are performing for the City of Surrey on its premises/work site, we suggest you call the W.C.B. Head Office in Richmond during normal business hours – (8:30 a.m. – 4:30 p.m., Monday to Friday).

WHMIS INFORMATION
RESEARCH AND STANDARDS DEPARTMENT
W.C.B. Occupational Safety and Health Division
6951 Westminster Highway
Richmond, B.C., V7C 1C6

SSP 10 Safety Procedures and Health Regulations

SSP 10.1 General

In addition to the City of Surrey's General Safety requirements described in SSP 10, the following details additional safety procedures and requirements associated with the special nature of this project.

The Contractor shall at all times employ safety procedures required by the Workers' Compensation Board, BC. Electrical Inspection and City of Surrey's Confined Space Entry Safety Procedure.

The Contractor shall be solely and completely responsible for the conditions of the work site including safety of all persons and property during performance of the work. The Contractor shall maintain the work site and perform the work in a manner, which meets the "Industrial Health and Safety Regulations" especially those pertaining to Confined Space Entry, the "Industrial First Aid Regulations" of the Worker's Compensation Board of British Columbia, and the City of Surrey's Confined Space Entry Procedure in Attachment 4. These requirements shall apply continuously and not be limited to normal working hours. The Contractor shall provide his own lighting, ventilation equipment, breathing apparatus, harnesses, man lift device and lifelines, free standing tripod point, gas detector, as well as any other safety equipment required to carry out the work in accordance with the above procedures.

SSP 10.2 Safety Training

The Contractor will be responsible for ensuring that all workers have completed training, prior to the start of work, in all applicable disciplines in accordance with WorkSafeBC requirements. All training costs and the equipment required to undertake this training are the sole responsibility of the Contractor. The City will have the right to request proof of training and any specific information regarding the content of that training.

Training will be required in, but not limited to, the following areas for this project:

- Confined Space Rescue

- Confined Space Entry
- Ventilation
- Atmospheric Monitoring
- Self-Contained Breathing Apparatus
- Personal Protective Equipment

The Contractor must be able to demonstrate to the City that their workers have an understanding, working knowledge of confined space entry practices, and a working knowledge of all equipment required to carry out the work.

In the event that work involving untrained individuals is being undertaken, the City will have the right to stop the work until properly trained individuals are assigned. Any costs incurred as a result will be borne by the Contractor.

SSP 10.3 Documentation to be Available on Site

The Contractor shall keep on-site, during the duration of the project, the following documentation:

- i) Contractor's confined space entry program, including, but not limited to: confined space entry procedures, lockout procedures, emergency response procedure, etc.
- ii) Written confirmation of confined space training received by employees.
- iii) Documentation verifying that equipment being used meets applicable WorkSafeBC requirements.

SSP 10.4 Site Inspections and Audit

The Contractor shall allow the City the right of inspection and audit of site safety conditions and all pertinent health and safety performance records to measure adherence to safety and health objectives. Such inspection and/or audit may take place without prior warning or notice of intent.

SSP 11 Unit Price

The following items relate to payment for all items related to sewer rehabilitation, **ONLY** those applicable to the work of this contract shall apply. All measurements shall be as specified or made by conventional means with accuracies consistent with field conditions and common practice. Should a discrepancy in measurement exist which is greater than 10%, the item in question shall be re-measured by both the Contractor and the Owner's Representative for verification.

Measurements for payments shall be based on the following schedule:

General Conditions MMCD 2009 Section 9.4 is replaced by:

"The respective amounts of work and service to be done and carried out and materials to be furnished in the Schedule of Quantity and Prices are an estimate for purpose of comparing tenders only. The City does not expressly nor by implication agree that the actual amounts of work or material of any class will correspond even approximately to

this estimate, but reserves the right to increase or decrease the amounts of any class or portion of the Work, or to omit portions of the Work that may be deemed necessary or expedient by the City. The Contractor shall make no claim for anticipated profits, for loss of profit, for damages, or for any extra payment whatsoever, except as provided for herein, because of any difference between the amount of actual work done and material actually furnished and the quantities stated in Appendix 1.

SSP 12 Notification/Schedule of Work and Contract Meetings

The Contractor shall provide a weekly e-mail status report to the Contract Administrator and the City's Representative containing:

- The anticipated schedule of activities and locations for the upcoming workweek
- A brief summary of the work completed in the previous week (smoke tested areas, length of sewer inspected/tested, # of service interfaces tested, # of manholes inspected/grouted)
- Any problems or unusual finding encountered the previous week
- Any other issues related to the work progress

E-mail contact information will be provided at the pre-construction meeting.

Failure of the Contractor to provide notification may result in the application of liquidated damages.

The hours of work will be from 7:00 a.m. to 5:00 p.m. or as approved by the City.

The Contract Administrator and the City's Representative shall be informed one week in advance of any stoppage or restart of work.

Operation for each of the items may be separate and may involve several mobilizations, setting ups and demobilization. Payment for these services and works is deemed to be included in the Unit Rates bid in the Schedule of Quantities & Prices.

The Contractor shall conduct video inspections, manhole inspections, and rehabilitation work in the fall, when wet weather and higher groundwater levels will make it easier to identify infiltration sources. Smoke testing shall be conducted in drier weather conditions, typically outside the wet weather periods, where practical.

Mandatory bi-weekly meetings (to be held at the discretion of the City's Representative) will be held between the Contract Administrator, the City's Representative and the Contractor to discuss the progress of work and any issues that have arisen.

SSP 13 Quality of Work Performance

All sanitary sewers in the designated line to be CCTV video inspected shall be cleaned completely of all foreign materials.

Manhole covers shall be reinstated in a firm non-movable position.

The performance demonstration by the Contractor and what is required by the City in addition to this performance demonstration shall be the minimum standard for the level of services to be provided in this Contract.

The Contractor shall follow flushing procedures as outlined in SSP 16. All damage resulting from the non-compliance of this procedure will be the responsibility of the Contractor. The value of unresolved claims against the Contractor will be deducted from progress payment and held until the claim has been resolved to the satisfaction of the City or his delegate.

SSP 14 Dump Sites

All waste that is removed from the Wastewater sewer system under this contract shall be disposed of by the Contractor at their cost at an approved off-site disposal area. The cost of the removal of the waste material shall be included in the Unit Rates bid in the Schedule of Quantities and Prices

SSP 15 Sewer Flow Control

When the depth of flow in the sewer section exceeds the allowable 1/3 of the pipe diameter, one or more of the following methods shall be used:

- a) Work to be scheduled during off-peak times subject to the approval of the City (Noise By-law shall be complied with during this Contract work. Specifically, 7:00 p.m. - 9:00 a.m., Monday to Saturday). When working during off-peak times, the Contractor will be responsible for notifying neighbouring residents of the intended work schedule a minimum of 48 hours before commencing the work.
- b) **Plugging or Blocking**
A sewer line plug may be inserted into the sewer section at a manhole upstream from the section to be inspected. The plug shall be designed such that either all or a portion of the impeded sewage flow can be released. During the inspection, testing and rehabilitation work, flow shall be either shut-off or substantially reduced in order to inspect the pipe at the invert.
- c) All or a portion of the flow shall be diverted from the sewer section by diverting flow from the upstream to the downstream of the sewer section concerned, including all the flow of the service connections to the sewer section concerned if necessary or if diverted.

All temporary work shall be removed upon completion of the work or at the end of each shift as directed by the City.

The Contractor shall take the necessary precaution to prevent any damage to the public and private property.

No separate payment will be made for this work, which shall be deemed to be included in the unit prices bid in the Schedule of Quantities & Prices.

SSP 16 Sewer Cleaning

Delete MMCD Section 33 01 30.2 and replace with:

SSP 16.1 Intent

The intent of sewer line cleaning is to remove foreign materials from the lines and restore the sewer to a minimum of 95% of the original carrying capacity or as required for proper seating of internal pipe joint sealing packers. Since the success of the other phases of work depends a great deal on the cleanliness of the lines, the importance of this phase of the operation is emphasized. It is recognized that there are some conditions such as broken pipe and major blockages that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, the Contractor will not be required to clean those specific manhole sections. If in the course of normal cleaning operations, damage does result from pre-existing and unforeseen conditions such as broken pipe, the Contractor will not be held responsible.

SSP 16.2 General

1. Prior to all CCTV video inspection, all sewer sections shall be cleaned using hydraulically propelled or high velocity hydro cleaning equipment or any acceptable method of cleaning according to the City's Sanitary Sewer Flushing Procedure in Section E.
2. High velocity hydro cleaning equipment shall be capable of delivering 4.0 l/sec (60 gpm) at a working pressure of 8274 kPa (1200 PSI) with nozzle capable of producing a scouring action from 15° to 45° in all size sewers designated to be cleaned.
3. All dirt, grit, grease, rocks, and all other foreign materials shall be collected, removed and disposed of from the designated sewers and manholes.
4. Precaution shall be taken to protect the sewers from damage from the cleaning operation. Precaution shall also be taken to prevent any damage or flooding to public or private property served by the sewers section involved.
5. When flushing a sanitary sewer main line, it will be necessary to remove the I.C. lids (where possible) to reduce the chance of pressure fluctuations (back or low pressure) in the house plumbing. If a pressure fluctuation situation does occur, the City shall be notified immediately. The contractor is fully responsible for any damage caused by pressure fluctuations, and shall be responsible to mitigate the situation with the property owner.

In the event the operator is requested, by the City to clear a sanitary sewer I.C. blockage, it is to be pumped out in order to remove debris, and then flushed after plugging the private side of the sanitary I.C. This is also to eliminate pressure fluctuations.

In the process of flushing, debris such as gravel, etc., when present, must be collected and removed at the down-stream manhole.

The following conditions shall be reported to the City, with pertinent information such as asset type and identifying numbers, address or location, type of problem discovered or encountered, and severity of problem, if known:

- Grease in a main line;
- Roots in a main line;
- Structural damage to a main line;
- Infiltration at a manhole;
- Structural damage in a manhole;
- Inability to locate or access an existing manhole because it is buried or obstructed.

Unless otherwise specified, the contractor is responsible for and shall adhere to all WorkSafe BC regulations and Health and Safety regulations, including, but not limited to:

- Traffic control;
- Safety apparel and apparatus;
- Confined space entry;
- Overhead electrical safety;
- Contaminated waste transport and disposal;

6. Payment for this work will be made under Appendix # - Schedule of Quantities and Prices. No additional payment will be made for additional flushing or cleaning required when performing service interface testing and grouting on lines that have already been cleaned under the contract.

SSP 16.3 Cleaning Equipment

SSP 16.3.1 Hydraulically Propelled Equipment

The equipment used shall be of a movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleaned and shall provide a flexible scraper around the outer periphery to insure removal of grease. If sewer cleaning balls or other equipment, which cannot be collapsed, is used, special precautions to prevent flooding of the sewers and public or private property shall be taken.

SSP 16.3.2 High-Velocity Jet (Hydro cleaning) Equipment

All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of delivering 4.0 l/sec (60 gpm) at a working pressure of 8274 kPa (1200 PSI), and capable of producing a scouring action from 15 to 45 degrees, in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The

equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.

SSP 16.3.3 Mechanically Powered Equipment

Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. A power rodding machine shall be either a sectional or continuous rod type capable of holding a minimum of 228 meters of rod. The rod shall be specifically heat-treated steel. To ensure safe operation, the machine shall be fully enclosed and have an automatic safety clutch or relief valve. (This method is not used on this contract)

SSP 16.3.5 Cleaning Precautions

During sewer cleaning operations, satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line are used, precautions shall be taken to ensure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. When possible, the flow of sewage in the sewer shall be utilized to provide the necessary pressure for hydraulic cleaning devices. When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant.

SSP 17 CCTV Video Inspections

Delete MMCD Section 33 01 30.1 and replace with:

SSP 17.1 General

1. The Contractor shall use a pan and tilt type camera, and record in colour, in MPEG 2 format. Each entrance and exit manhole shall also be visually inspected, digitally video recorded and digitally photographed.
2. The designated sanitary sewer shall be flushed and completely cleaned prior to inspection. Digital Video inspection shall be performed only after sewers have been thoroughly cleaned so that a clear picture of the interior of the sewer can be obtained. Particular emphasis is made to the removal of accumulated grease where standard flushing practices will loosen the material so that cracks and breaks can be observed during digital video inspection. Where the camera is impeded, the contractor shall immediately notify the City of Surrey who will make arrangements to clear the line. Dewatering the main segment shall not be considered an acceptable line cleaning practice for the purpose of digital video inspections.
3. The Contractor shall be equipped with a blower fan capable of de-misting sewers when required.

4. Reports, Summaries, digital images and videos for each sewer section shall be uploaded to the City within a week of video inspection of that sewer section, as per SSP 18.
5. Depth of flow in the sewer shall not exceed one-third the pipe diameter during the digital video inspection.
6. Digital Video inspections with submerged or unclear sections longer than 3 meters in total length between consecutive manholes will not be accepted. Videos containing sections of mains or laterals where the camera is not centred in the pipe (not providing a 360° view) for longer than 1 meter will not be accepted.
7. The travelling speed of the camera in the pipeline shall be limited to:
 - a. 0.1 m/s for pipeline of diameter less than 200 mm.
 - b. 0.15 m/s for diameters exceeding 200 mm but not exceeding 310 mm.
 - c. 0.20 m/s for diameters exceeding 310 mm.
8. If the inspection is abandoned due to an obstruction, manhole access constraints, collapse or water depth, contact the City Representative and inform them of the issue, than an attempt must be made from downstream manhole to complete the inspection.
9. If, during the inspection, a defect that is rated as a 4 or a 5 by the PACP coding system is found, then the City Representative must be contacted immediately. The Contractor must stay on site until the Representative or a Wastewater Operations Supervisor dispatched by the Representative is on site and has verified the video of the defect. Failure to follow this procedure may result in the Contractor being held liable for any damages the City or a Home Owner incurs due to the failure of the sewer system at the point of the unreported defect.
10. If attempting to LAMP camera and there is an issue with access at the upstream manhole location then the inspection should be attempted from the downstream access point. If access at both locations is unsuitable to perform the inspection then inform the City Representative immediately and an agreeable solution to conduct the inspections will be determined.
11. Scheduling of all digital video inspections shall be closely coordinated with the City Representative to ensure that the inspections are conducted during low flow periods. The Contractor shall proceed with the requested digital video inspection of a section within 48 hours of receiving notice from the City. The City reserves the right to cancel or alter scheduled inspections without notice. If determined by the City that the flow conditions would impair the quality of the inspection results (due to surcharged conditions) night time inspections may also be required subject to the approval of the City.
12. Weekly totals of sewer lengths digitally video recorded and hours spent within the previous week shall be submitted to the Contract Administrator and the City's Representative every Monday morning.

SSP 17.2 Process

1. A sample of inspection report(s), digital video, and corresponding WMV data file shall be submitted for review by the Consultant to the Wastewater Operations Section, and Contract Administrator accordingly. This submission must satisfy all of the specifications contained herein, and the submitted report submission will be used as a benchmark for subsequent inspection submissions.

No Video Inspection surveys are to be carried out until an acceptable sample inspection report has been approved by the Consultant or by the City's Representative.

CCTV operator to have received and carefully reviewed all of the Contract Documents, including the Instructions for Quote and Specifications and Standard Detail Drawings prior to Contract starting.

2. A copy of the CCTV operator's current NASSCO certification certificate shall be submitted to the Consultant or the Contract Administrator at least one week prior to the start of the CCTV Inspection operations.

A copy of the CCTV operator's certification must be submitted for each CCTV operator working on the contract.

A copy of the CCTV reviewer's certification must be submitted for each reviewer/inspector working on the contract.

3. Coding accuracy is to be a function of the number of defects or construction features not recorded (omissions), and the correctness of the coding and classification recorded. Coding accuracy must satisfy the following requirements:

Header accuracy 95%

Detail accuracy 90%

The contractor is to implement a formal coding accuracy verification system, at the onset of the work that is reviewed and approved by the Contract Administrator or the City Representative. The coding accuracy is to be verified by the Contractor on a random basis, on a minimum of 10% of the inspection reports. The Contract Administrator or the City Representative shall be entitled to review the accuracy verification results, and be present when the assessments are being conducted.

A minimum of two accuracy verifications are to be performed and recorded each working week. Coding that does not satisfy the accuracy requirements, are to be recoded, and the accuracy of the inspection report immediately preceding and following the non-compliant inspection are to be verified. This process is to be repeated until the inspections meet the accuracy requirements.

The Contract Administrator or the City Representative reserves the right to request an independent certified reviewer to assess the accuracy of the reports submitted, at the Contractor's expense.

An operator failing to meet the accuracy requirements on two occasions will not be permitted to code on the remainder of the contract until they have successfully re-attended an Operator's Certification course and re-written the NASSCO Pipeline Assessment Certification Program.

4. As per CSA 6.5.3 Camera Speed:

"The camera must maintain a speed that will allow for the defects to be observed clearly. If the pipe is inspected too fast the picture can appear pixelated and defects can be missed. The speed can vary depending on the pipe diameter smaller than 200mm, 9m/min for pipes with a diameter between 200mm and 300mm, and 12m/min for pipes with a diameter larger than 300mm, or as agreed to by the owner. The camera should stop and pan special features within the pipe, such as maintenance hole interfaces, taps, and major defects."

Non-uniform or jerky movement will not be acceptable. The camera shall pause at each defect as listed in Section F and at each service connection.

Clear, well-defined pictures of the defects shall be taken, utilizing 360 degree rotating heads and full pausing capabilities, and the lighting system.

5. Digital video recording shall commence as close as practical to the face of the manhole. The chainage measurement shall reflect the distance from the center of the manhole. All reports and digital video shall consider the length of the main segment being inspected as commencing at the center of the start manhole, and terminating at the center of the end (finish) manhole. A main segment shall be defined as the distance from center to center of successive manholes.

SSP 17.3 Recording Equipment

- a) Digital Video Images and sound shall be recorded in MPEG 2 format at standard speed.

Digital still images shall be recorded in JPG format.

Each digital image shall be stored with a unique filename to match the image reference number in the PACP form and PACP data exchange file. The naming convention shall reflect the contract, and the sequence number of the photograph recorded on the data sheet. The exact format requires approval from the Contract Administrator and the City's Representative, prior to commencement of a contract.

- b) All events and defects encountered in the sewer, including manholes, locations, and direction changes, shall be audibly voice labeled in a clear and concise presentation.
- c) Each section of sewer shall be identified verbally and graphically on the video indicating the upstream and downstream manholes, and the date and time of the digital video inspection at the beginning of each main segment being inspected. Only the distance measurement is to be displayed on the digital video during the main segment recording process.

- d) The Contractor shall utilize NASSCO's PACP and LACP to record pipe defects and observations.
- Continuous forward distance readout from the reference manhole and audible notation shall be made at all pipe defects including:
 - The defect description, as described by the NASSCO PACP codes.
 - The forward distance from the center of the reference manhole.

The contractor shall provide the inspection data in the standard NASSCO PACP and LACP data exchange format. A sample of the data file, complete with pictures (JPEG), and video files (MPEG 2) shall be submitted to Contract Administrator and the City's Representative prior to commencement of the work, for approval.

SSP 17.4 Safety Equipment

The Contractor shall be fully equipped for traffic control and manhole (confined space) entry, and employ safety procedures required by the Workers' Compensation Board.

The Contractor will keep on-site, during the duration of the work, all documentation relating to:

- a) Confined Space Entry, including entry and emergency procedures;
- b) Written confirmation of confined space training received by employees; and
- c) Documentation verifying that equipment being used meets applicable Worksafe BC requirements.

SSP 17.5 Inspection Reports

The City of Surrey Utilizes **NASSCO's (<http://www.nassco.org/>) Pipeline Assessment Certification Program (PACP)** and **Lateral Assessment Certification Program (LACP)** to code for C.C.T.V.

- a) The required video inspection information shall be recorded on NASSCO'S C.C.T.V. Inspection Forms. See Schedule B, Appendix 4 for an example of the forms. Only one sewer section (manhole to manhole) or lateral Inspection (Inspection Chamber to main or main to Inspection chamber) shall be recorded in each data sheet unless otherwise approved.
- b) Each pipe defect record shall be in accordance with NASSCO's PACP or LACP coding.
- c) All field measurements shall be made using the SI unit system.
- d) The City will provide GIS files to upload work order and facility ID information into PACP and LACP databases. An ESRI license will be provided by The City upon request.
- e) The PACP and LACP Inspection table, Media Inspection Table, Media Conditions Table and Custom Fields Table will be populated as per SSP 18.

- f) Digital images (still photographs) with a minimum 1024 x 768 pixel resolution (in addition to the digital video record) shall be taken of all manholes and pipe defects and observations as defined in NASSCO's PACP.

Photograph pictures shall clearly indicate the sewer section identification (upstream and downstream manholes), distance from reference manhole (chainage) and picture number, without encroaching or obstructing the subject of the Photograph (defects, etc.).

SSP 17.6 PACP Data Exchange Process

A PACP database shall not contain multiple asset types (e.g. mainlines and laterals) and assets from multiple work orders.

The Pipe Segment Facility ID will consist of a 10-digit number and will serve as the unique identifier for each of the Sanitary Mainlines and Laterals. This ID will be available on each of the maps that the City of Surrey provides and will, also, be exported by the GIS file into the Inspection table of the PACP and LACP database(s).

The Contractor must ensure that the Pipe Segment Facility ID corresponds with the pipe that is being video inspected by referring to the maps provided by the City before commencing a CCTV inspection. For Laterals the contractor must also ensure that the property address corresponds to the Pipe Segment Facility ID. Non-compliance will result in a failure to import all observations acquired from the inspection into the City Works Management System.

If a Pipe Segment Facility ID is not provided by the City the contractor shall attempt to contact the City to obtain the Pipe Segment Facility ID. The asset will not be videoed without the Pipe Segment Facility ID.

If an Asset's Facility ID does not have a work order attached to it by the City, than work cannot be performed on the asset until the work order is attached to it by the City and the proper GIS file has been sent to the contractor.

SSP 17.7 Measurements for Payments

Payment for the digital video inspection of the sanitary sewer lines, mains and laterals, shall be made under Appendix 1, and shall include all necessary recording and reporting as per SSP18.

SSP 18 Digital Submissions

The City requires CCTV reports, databases, videos, and photographs to be submitted digitally on a USB storage device or portable hard drive; DVD's are no longer accepted. The Contractor shall conform to these standards. A failure to meet these requirements may result in the City voiding the contract.

Contractor Requirements

No manual data entry of WO# and FacilityIDs into your PACP databases. Instead, the City will provide extracted GIS files with work order and FacilityID data for you to upload into your PACP databases

to help eliminate human error on data entry. The City will provide an ESRI license upon request.

The GIS file will be a file geodatabase (ESRI product), named by contractor and contained within a parent folder or zip file named by work order number. Your system (Contractor's) should be set up to handle this process.

SSP 19 Launch Camera Inspections

Lateral Launch camera inspections are to be performed on sanitary service connections that are not made from PVC, PE and Cast in Place Pipe (CIPP). The intent of this strategy is not to damage the inspection chamber (IC) when trying to gain access to the lateral. Material types for sanitary service connections will be provided by the City. The Contractor must ensure that all non-PVC, PE and CIPP service connections are accessed through the mainline and not through the IC.

If a launch camera inspection is abandoned due to accessibility within the first meter of the pipe, no payment will be made for the inspection and the Contractor will need to access the lateral through the inspection chamber to complete the inspection.

SSP 19.1 Payment

1. Measurement for payment for CCTV inspection/reporting of sewer mainline and sewer service connections shall be made separately per each payment item. All work performed under each section will be by linear meter basis. The length paid will be the total number of linear meters acceptably inspected. Measurement will be made above ground from the center of the start manhole to the center of the finish manhole, as confirmed by steel tape measurement.
2. For sections of Pipe where a blockage or obstruction occurs, measurements will be from center of start manhole to the point of abandonment of survey.
3. For sections of pipe with NASSCO PACP condition code MCU (camera underwater) for a continuous distance greater than three (3) meters, the measurement above will be reduced by the distance in excess of three meters.
4. Separate payment will not be made for flow control, with the exception of bypass pumping. Payment for bypass pumping as required, and where approved by the contract administrator, will be made on a per occurrence basis.
5. Separate payment will not be made for inspection reports, digital recordings or photographs. Payment is to be included in the price bid for the CCTV inspection.
6. Separate payment will not be made for reverse set-up or traffic control. Payment is to be included in the process bid for the CCTV inspection.
7. Payment for service connection inspection setup through IC shall be made for each setup and per meter of pipe that is inspected.
8. Payment for mainline inspection shall be made per meter and correspond to the pipe diameter provided in Appendix 3 Fees and Payments.

SSP 20 Grease Removal

The removal of normal amounts of grease is included in the payment for Appendix 1 - Schedule of Quantities & Prices. If excessive grease that cannot be removed using hydro cleaning equipment is encountered, the Contractor shall notify the Contract Administrator, and request permission to remove the grease by alternate means. The Contractor shall provide the Contract Administrator with an hourly rate for excessive grease removal, including equipment, labour, disposal and all other costs for excess grease removal. If the quoted hourly rate is accepted by the Contract Administrator, the Excessive Grease Removal will be paid for under a change order. After receiving the Contract Administrator's approval, the Contractor shall proceed with the grease removal. The Contractor will be responsible for submitting records noting the location and time spent on excess grease removal within 48 hours of the completion of the excessive grease removal work.

No payment will be made for excessive grease removal work without the prior approval of the Contract Administrator, or if the records are submitted later than 48 hours after the completion of the work.

SSP 21 Smoke Testing

The Contractor shall provide all labor, materials, equipment and supervision; and perform all work necessary to smoke test and document all identifiable and significant sources of inflow within the designated sewer system, include all sewer mains (manhole to manhole) and sewer services.

The area of work to be performed is shown on the contract drawing.

The Contractor shall provide all equipment and supplies necessary to perform the work described in this section.

The Contractor is responsible for notifying residents that are within the smoke testing catchment. The notification shall include a date that the smoke testing will start and end, as well as, a contact number to answer questions and/or concerns that the residents may have.

SSP 21.1 Payment

Measurement for Payment for Smoke Testing sanitary sewers and laterals, regardless of diameter, shall be made horizontally from manhole to manhole and paid by lineal meter and will include service laterals.

Payment shall include all labour, equipment, sewer flow management or diversion, supplies and materials to perform smoke test on sanitary sewers and laterals, prepare smoke test data reports, submission of field photos, and production and distribution of notification letters.

SSP 21.2 Pretest Procedures

In cooperation with the owner, the Contractor will create a test site schedule taking into consideration unique sections of the collection system such as cross connected storm/sanitary; heavy flow sections; and traffic patterns.

SSP 21.3 Products

Smoke machines or canisters/bombs shall be used to generate the smoke required for testing. Smoke shall be non-toxic, odorless, and non-staining. Smoke canisters/bombs shall be a minimum of 3-minute duration. The City must approve all equipment proposed to complete the Work.

Air blowers should have a minimum capacity of 42 m³/min.

SSP 21.4 Test Site Set-Up

A smoke testing crew requires a minimum of two persons.

Equipment required includes: Smoke test blower and smoke materials; sewer line stoppers; documentation equipment and supplies; manhole safety equipment.

A test site will consist of one or more manhole sections.

SSP 21.5 Execution

SSP 21.5.1 General

Intensified smoke testing techniques shall be employed. Intensified techniques include two blowers (minimum 42 m³/min each) and a minimum of two 3-minute smoke bombs or canisters or approved smoke machine. Smoke blowers shall be placed at the manholes on the perimeter of the area being tested. Up to three reaches but no more than 228 meters of sewer pipeline may be tested at one time. Line sections shall be adequately isolated using sandbags, baffles, or other approved methods. The Contractor shall be solely responsible for his operations and for preventing sewer backups into the area homes and causing sewage overflows.

Smoke testing shall not be allowed on rainy days, on cloudy days following rain, or when saturated soil conditions exist. Testing shall be closely monitored on windy days. If smoke coming out of the ground is blown away so quickly as to escape accurate detection and/or photo documentation, testing shall cease until such time that conditions permit.

Smoke testing shall be completed manhole to manhole, and shall include all services within the test section.

The perimeter of each residence or commercial building shall be completely inspected, front and back, for sources of smoke. The roofs of each building shall be visually inspected for evidence of roof drains connected to sanitary sewer system.

SSP 21.5.2 Record Keeping

The Contractor shall document their observations regarding all smoke tests from manhole to manhole (including services, catch basins, roof leaders, etc.) on a Sewer Smoke Testing Report. The report shall include such items as report number, observations and leak description when a leak is detected, the Contractor shall document the leak on a separate smoke test problem report. As a minimum, the following information shall be included on the smoke test problem report:

Description of leak including address (or house number on sketch) and Surrey manhole numbers. Photograph identifying source of leak with reference number. Area and type of surface drained by the leak.

The Contractor shall document by photograph each smoke leak or series of leaks. The photograph shall be taken close enough to show the exact source of smoke. The photograph shall include the location of the smoke with reference to some recognizable topographic feature (e.g. house). In the foreground of the photo, a whiteboard, or approved means, shall be used to indicate the date, report reference, location and address of each leak. Digital copies of all photographs shall be submitted to the City along with the smoke testing reports and records.

The Contractor shall keep a daily log of their contact with all affected agencies and institutions and submit copies of his log in an Appendix to the Report.

SSP 21.5.3 Notification, Approval and Authority to Proceed

Notify the Contract Administrator daily as to test area, start time, and ending time. Calls received by staff from residents affected by the smoke testing will be forwarded to the Contractor for response.

Deliver resident notifications to affected residents at least 2 days prior, but no sooner than five days before planned smoke testing. Authority to proceed within a test area shall not be granted until evidence of resident notice delivery, and fire department notification has been confirmed. City will provide the Contractor with a copy of resident information letter.

SSP 21.5.4 Safety

Adequate safety procedures and traffic controls by uniformed officers when the safety of workers or the public requires such protection, or as may be specified are the responsibility of the Contractor when performing smoke tests near or in roadways to protect workers and equipment. Where a safe environment cannot be maintained, the Contractor shall schedule his work during low traffic times.

The Contractor shall notify the fire department of their smoke testing operations and schedule, and liaison with the fire department and emergency response agencies during testing.

SSP 21.5.5 Deliverables

Electronic copies (data files) of the field forms along with two paper copies of each smoke test sketch and report, each with photographs attached, shall be submitted to the Contract Administrator and the City Representative every 2 weeks.

The Contractor shall submit to the City Representative four sample photographs of a representative smoke test showing leaks as evidenced by smoke within five working days of commencing the work. The City Representative shall review the photographs to establish a standard photographic representation.

The Contractor shall prepare and submit a list of defects, which appear to require immediate corrective action, based on their size and/or type.

SSP 22 Manhole Inspection

SSP 22.1 General

Manhole Inspections refers to that portion of the work that is unique to the requirements for non-person-entry inspection of existing sanitary sewer manholes. The City of Surrey Utilizes **NASSCO's (<http://www.nassco.org/>) Manhole Assessment Certification Program (MACP)** level 2 inspections.

A) The required inspection information shall be recorded and printed on NASSCO'S manhole Inspection Forms. See Appendix 4 for an example of the form. Only one manhole shall be recorded in each data sheet unless otherwise approved.

SSP 22.2 Payment

Measurement for payment for Manhole Inspections will be for each completed inspection acceptably performed. Payment shall include mobilization / demobilization, traffic control, flow control, all supplies, equipment, materials, machinery and labor to complete work as per Contract Documents.

SSP 22.3 Working Regulations

Work is to conform to all applicable regulation of Workers Compensation Board (WorkSafe BC). Provide written confirmation of the Contract Administrator that workers have knowledge of confined space entry practices and of equipment required to confined space entry. Work is to conform to all applicable bylaws and regulations.

SSP 22.4 Inspection Process

Report on and record the condition of all features of the inside of the manhole together with ground level conditions within a two (2) meter radius of the cover.

Each manhole is to be observed and assessed according to the Manhole Inspection Report Form, field check sheets, and associated codes. The City of Surrey does not require a manned, confined space entry into the manholes to perform MACP Level 2

Inspections. The Inspection will be performed from surface level and the Contractor will enter all level 2 information to the best of their ability with entering the manhole. The City is aware some information, such as measurements will not be as accurate.

The City suggests that technology such as a pole cam, the equivalent or technology more advanced be deployed to aid in the inspection of the manholes. The intent is to obtain detailed imagery of the interior of the manhole that improves upon photos taken from surface level.

SSP 22.5 Digital Images

Photograph the interior of each manhole perpendicular to the Digital Images base with an approved digital camera. Digital images (still photographs) must have a minimum resolution of 1024 x 768 pixels

Overlay on each photograph the following data in alphanumeric form such that it will not interfere with the image of the defect condition reported:

1. Inspection number
2. Manhole number (Facility ID)

Capture the photograph and alphanumeric data as a digital image in Joint Photographic Experts Group (JPEG) format (.jpg). Identify each image file by manhole number and alphabetic suffix. E.g.: SMH0001234-A

SSP 22.6 Inspection Reports

Inspection reports are to consist of digital data output files, digital photographs, a pdf summary report all manholes completed and a detailed pdf report. Submissions are to be made weekly on a continuous basis as the manhole inspection proceeds.

Digital data output files are to be presented on USB flash drives in the manhole inspection table configuration in Microsoft Access database (.mdb) file format. The naming requirements for DB fields should follow that same protocol used for the PACP file transfer requirements. See SSP 18.

The digital database file is to contain survey report information identical to the printed report, exclusive of photographs.

Digital photographs are to be stored on USB flash drive in JPEG (.jpg) format, and hyper-linked to the Manhole Inspection Report MS Access database.

All dimensions and chainages in the reports are to be in metric units.

SSP 23 APPROXIMATE QUANTITIES

The City does not expressly nor by implication agree that the actual amounts of work will correspond even approximately to the quantities proposed, but reserves the right to increase or decrease the amounts of any class or portion of the work, or to omit portions of the work that may be deemed necessary, or expedient by the City Representative. The Contractor shall make no claim for anticipated profits, for loss of profit, for damages, or for any extra payment whatsoever, except as provided for

herein, because of any difference between the amounts of actual work and material actually stated. Payment will be made only for the actual measured quantities of work performed.

SSP 24 METHOD OF MEASUREMENT AND PAYMENT

The methods of measurement and payment as described in the individual sections of the MMCD will not apply to the work in this Contract. This section replaces any MMCD paragraph entitled Measurement and Payment.

- 1) All payment for work within this Contract is included in the lump sum(s) and unit prices listed in the Executed Form of Quotation. No separate or extra payment will be made for the work described as part of the work in the contract documents.
- 2) The work includes all materials, labour, equipment, plant, cut and waste, specified testing, other incidentals, and miscellaneous materials necessary to complete the work in conformance with the Contract Drawings and Specifications.
- 3) The determination of the percentage of the work complete for the purposes of a progress payment will be made by the Contract Administrator and will be determined to an accuracy of plus or minus 5%

SSP 25 Definitions

In these Supplementary Specifications (Project), unless the context otherwise requires,

“Section” means section of the Specifications or the Conditions of Contract.

“Item” means item of the Schedule of Quantities and Prices.

ASTM STANDARD: There are basically two types of ASTM Standards, which apply to pipeline rehabilitation products: “D” standards, which are for testing procedures and material, compound classifications, and “F” standards which are basically product specific. Within the “F” standards there are two types of documents; material specifications and installation practices.

CHANGE ORDER: A written order to the Contractor authorizing an addition, deletion, or revision in the work within the general scope of work of the agreement, or authorizing an adjustment in the agreement price or agreement time.

CONTRACTOR: Any individual, firm, partnership, corporation, or combination of any or all jointly submitting a proposal to whom the Contract is awarded by the Owner or its executors, administrators, successors or assigns.

CONTRACT ADMINISTRATOR: means the person, firm or corporation appointed by the Owner and identified by the Owner in writing to the Contractor. The Contract Administrator may be the Owner’s Engineer, other employee or officer, or may be and outside consultant.

CREW: The number of persons required for the performance of work at a site as determined by the Contractor in response to task difficulty and safety considerations at the time or location of the work.

DEBRIS: Soil, rocks, sand, grease, roots, etc., in a sewer line excluding items mechanically attached to the line such as intruding service connections, intruding pipe, joint, materials, and the like.

EASEMENT: A liberty, privilege, or advantage without profit, which the owner of one parcel of land may have in the land of another. In this agreement, all land, other than public streets, in which the Owner has sewer system lines or installations and right of access to such lines or installations.

ENGINEER: The City Engineer, Commissioner of Public Works, Superintendent of Public Works, or an Engineer of a municipality including such assistants as are authorized to represent him, or the consulting engineer acting through his authorized agents, who represents the Owner during the construction phase activities.

FLOW CONTROL: A method whereby normal sewer flows or a portion of normal sewer flows are blocked, retarded, or diverted (bypassed) within certain areas of the sewer collection system.

HYDRAULIC CLEANING: Techniques and methods used to clean sewer lines with water, e.g.: water pumped in the form of a high-velocity spray and water flowing by gravity or head pressure. Devices include high-velocity jet cleaners, cleaning balls, and hinged-disc cleaners.

INFILTRATION: The water entering a sewer system, including building sewers, from the ground, through such means as defective pipes, pipes joints, connections, or manhole walls. Infiltration does not include, and is distinguished from, inflow.

INFILTRATION/INFLOW: A combination of infiltration and inflow wastewater volumes in sewer lines, with no way to distinguish either of the basic sources, and with the same effect of usurping the capacities of sewer systems and facilities.

INFLOW: The water discharged into a sewer system, including service connections, from such sources as roof leaders; cellar, yard, and area drains; foundation drains; cooling water discharges; drains from springs and swampy areas; manhole covers; cross connection from storm drain, combined sewers, catch basins; storm waters; surface runoff, street wash waters; or drainage. Inflow does not include, and is distinguished from, Infiltration.

INSPECTOR: The Owner's on-site representative responsible for inspection and acceptance, approval, or rejection of work performed as set forth in these specifications.

INTERNAL PIPE INSPECTION: The television inspection of a sewer line section. A TV camera is moved through the line at a slow rate and a continuous picture is transmitted to an aboveground monitor.

INVERT: The floor, bottom or lowest point of a conduit.

JOINTS: The means of connection sectional lengths of sewer pipe into a continuous sewer line using various types of jointing materials. The number of joints depends on the lengths of the pipe sections used in the specific sewer construction work.

LINEAR METER: Being one meter. In these specifications used to denote the unit of measurement relating to the length of a sewer line.

MAJOR BLOCKAGE: A blockage (structural defect, collapse, protruding service connection, debris), which prohibits manhole-to-manhole cleaning, TV inspection or rehabilitation procedures.

MANHOLE SECTION: The length of sewer pipe connecting two manholes.

MILESTONE DATE: Means any date specified in the contract documents for completion of the work, or portion of the work, including the date of substantial performance.

OVERFLOW: (1) The excess water that flows over the ordinary limits of a sewer, manhole, or containment structure. (2) An outlet, pipe, or receptacle for the excess water.

OWNER: The City, sanitary district or other municipality, corporation, partnership or individual initiating the project, acting through its legally constituted officials, officers or employees.

SANITARY SEWER: A sewer intended to carry only sanitary or sanitary and industrial wastewaters from residences, commercial buildings, industrial parks, and institutions.

SEWER CLEANING: The utilization of mechanical or hydraulic equipment to dislodge, transport, and remove debris from sewer lines.

SEWER PIPE: A length of conduit, manufactured from various materials and in various lengths, that when joined together can be used to transport wastewaters from the points of origin to a treatment facility. Types of pipe: Acrylonitrile-butadiene-styrene (ABS); Asbestos-Cement (AC); Brick Pipe (BP); Concrete Pipe (CP); Cast Iron Pipe (CIP); Polyethylene (PE); Polyvinylchloride (PVC); Reinforced Concrete (RC); Reinforced Plastic Mortar (RPM); Steel Pipe (SP); Vitrified Clay (VC).

SITE: Any location where work has been or will be done.

SITE ACCESS: An adequately clear zone of a size sufficient to accommodate personnel and equipment required at the location where work is to be performed, including roadway or surface sufficiently unobstructed to permit conveyance of vehicles from the nearest paved roadway to the work location.

SUBCONTRACTOR: An individual, firm, or corporation having a direct contract with the Contractor or with a lower-tier Subcontractor for performance of part of the work.

SUBSTANTIAL PERFORMANCE: means the stage of completion when:

- 1) all work, as certified by the Contract Administrator, is capable of completion or correction at a cost of not more than
 - (i) 3% of the first \$500,000 of the contract price
 - (ii) 2% of the next \$500,000 of the contract price; and
 - (iii) 1% of the balance of the contract price; and
- 2) the work, or a substantial part of it, is ready for the use or is being used for the purpose intended.

SURCHARGE: When the sewer flow exceeds the hydraulic carrying capacity of the sewer line.

SWALE (DIP, SAG, BELLY): A significant deviation in pipe grade such as to cause entrapment of solids, semisolids, and liquids, thereby impeding the accuracy and/or effectiveness of flow measurements, cleaning, and internal inspection.



SCHEDULE B – APPENDIX 5 SUPPLEMENTARY SPECIFICATIONS

REFER TO THE CITY OF SURREY SUPPLEMENTARY MASTER MUNICIPAL CONSTRUCTION DOCUMENTS, EDITION DATED JANUARY, 2016 (UPDATED JULY 11, 2016. ALL SECTIONS OF THIS PUBLICATION ARE INCLUDED IN THE CONTRACT DOCUMENTS.)

INCLUDED BY REFERENCE



SCHEDULE B – APPENDIX 6 SPECIFICATIONS

**REFER TO THE “MASTER MUNICIPAL CONSTRUCTION DOCUMENTS –
GENERAL CONDITIONS, SPECIFICATIONS AND STANDARD DETAIL
DRAWINGS”, PLATINUM EDITION DATED 2009**

INCLUDED BY REFERENCE



SCHEDULE B – APPENDIX 7 CONTRACT DRAWINGS (PROJECT)

SCHEDULE B - APPENDIX 4

List of Contract Drawings (Project)

The following *Contract Drawings* (Project) are included in the RFQ documents:

DRAWING NUMBER SPECIFICATION	DATE	REVISION NO.	REVISION DATE
Sanitary Sewer Mains - CCTV Contract 2021: Term 1	n/a	n/a	n/a
Sanitary Sewer Mains - CCTV Contract 2022: Term 2	n/a	n/a	n/a
Sanitary Sewer Mains - CCTV Contract 2023: Term 3	n/a	n/a	n/a

Contract Drawings may be viewed and/or obtained at the Managed File Transfer Service (MFT) link noted below. Printing will be the sole responsibility of the Contractor.

In the URL, or address field at the top, enter the following address: <https://mft.surrey.ca/> and hit "enter".

Enter "surreybid" as the Username, "Welcome" as the password and then click "Login"

<https://mft.surrey.ca/>

Login ID: surreybid
Password: Welcome
Folder: 1220-040-2021-068



SCHEDULE B – APPENDIX 8 SAMPLE NAASCO DOCUMENTS

NASSCO PACP REQUIREMENTS

NASSCO'S PIPELINE ASSESSMENT & CERTIFICATION PROGRAM (PACP)©

Section 4—Continuous Defect Coding

"TRULY" 4-1

"Truly" continuous defects run along the sewer without any interruption for more than three feet (1 meter).

Examples:

- Longitudinal Fractures
- Longitudinal Cracks

"REPEATED" 4-1

"Repeated" continuous defects occur at regular intervals along the sewer. These occur at pipe joints and include:

- Encrustation
- Open Joints
- Circumferential Fractures

Code Changes in Version 6.0.1

Added:
Buckling Wall (KW), Buckling Dimpling (KD), and Buckling Inverse Curvature (KI)

Section 5—Structural Defect Coding (Module 6A)

<p>C CRACK 5-1</p> <p>CL Longitudinal 5-2 CC Circumferential 5-2 CM Multiple 5-2 CS Spiral 5-2 CH Hinge 5-2</p>	<p>F FRACTURE 5-7</p> <p>FL Longitudinal 5-7 FC Circumferential 5-7 FM Multiple 5-7 FS Spiral 5-7 FH Hinge 5-7</p>	<p>B BROKEN 5-15</p> <p>BSV -Soil Visible 5-15 Beyond Defect</p> <p>BV V -Void Visible 5-15 Beyond Defect</p>	<p>H HOLE 5-17</p> <p>HSV -Soil Visible 5-17 Beyond Defect</p> <p>HV V -Void Visible 5-17 Beyond Defect</p>	<p>D DEFORMED 5-19</p> <p>DV Deformed 5-19 Vertically (brick)</p> <p>DH Deformed 5-19 Horizontally (brick)</p>	<p>X COLLAPSE 5-23</p> <p>XP Pipe Collapse 5-23 XB Brick Collapse 5-23</p>	<p>J JOINT 5-26</p> <p>JO Joint Offset 5-26 (Displaced)</p> <p>JS Joint Separated 5-26 (Open)</p> <p>JA Joint Angular 5-26</p>
<p>S SURFACE DAMAGE 5-31</p> <p>SRI Roughness Increased 5-31</p> <p>SRI - M - Mechanical SRI - C - Chemical SRI - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SAV Aggregate Visible 5-31</p> <p>SAV - M - Mechanical SAV - C - Chemical SAV - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SAP Aggregate Projecting 5-31</p> <p>SAP - M - Mechanical SAP - C - Chemical SAP - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SAM Aggregate Missing 5-31</p> <p>SAM - M - Mechanical SAM - C - Chemical Attack SAM - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SRV Reinforcement Yagble 5-31</p> <p>SRV - M - Mechanical SRV - C - Chemical Attack SRV - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SRP Reinforcement Projecting 5-31</p> <p>SRP - M - Mechanical SRP - C - Chemical Attack SRP - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SRC Reinforcement Corroded 5-31</p> <p>SRC - M - Mechanical SRC - C - Chemical Attack SRC - Z - Not Evident</p>
<p>S SURFACE DAMAGE 5-31</p> <p>SMW Missing Wall 5-32</p> <p>SMW - M - Mechanical SMW - C - Chemical Attack SMW - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SSS Surface Spalling 5-32</p> <p>SSS - M - Mechanical SSS - C - Chemical Attack SSS - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SZ Other 5-32</p> <p>ISZ - M - Mechanical ISZ - C - Chemical Attack ISZ - Z - Not Evident</p>	<p>S SURFACE DAMAGE 5-31</p> <p>SCP Corrosion (metal pipe) *no modifiers used</p>	<p>K BUCKLING 5-45</p> <p>KW Wall 5-45 KD Dimpling 5-45 KI Inverse Curvature 5-45</p>	<p>LF LINING FAILURE 5-49</p> <p>LFD Detached Lining 5-49 LFDE Defective End 5-49 LFB Bilateral Lining 5-49 LFCS Service Cut Shifted 5-49 LFAC Abandoned Connection 5-49</p>	<p>LF LINING FAILURE 5-49</p> <p>(continued)</p> <p>LFOC Overcut Service 5-49 LFUC Undercut Service 5-49 LFBK Buckled Lining 5-49 LPW Wrinkled Lining 5-49 LFAS Annular Space 5-49</p>
<p>LF LINING FAILURE 5-50</p> <p>LFBU Bulges 5-50 LFDC Discoloration 5-50 LFDL Delamination 5-50 LFRS Resin Slug 5-50 LFPH Pinholes 5-50 LFZ Other 5-50</p>	<p>WF WELD FAILURE 5-67</p> <p>WFL Longitudinal 5-67 WFC Circumferential 5-67 WFM Multiple 5-67 WFS Spiral 5-67 WFZ Unidentified 5-67</p>	<p>RP POINT REPAIR 5-71</p> <p>RPR Pipe Replaced 5-69 RPR - D - Defective 5-69</p> <p>RPP Patch Repair 5-69 RPP - D - Defective 5-69</p>	<p>RP POINT REPAIR 5-71</p> <p>RPL Localized Pipeliner 5-69 RPL - D - Defective 5-69</p> <p>RPZ Other 5-69 RPZ - D - Defective 5-69</p>	<p>BRICKWORK 5-77</p> <p>DB Displaced 5-75 MB Missing 5-75 DI Dropped Invert 5-75</p>	<p>BRICKWORK 5-77</p> <p>MM Missing Mortar 5-75 S - Small 5-75 M - Medium 5-75 L - Large 5-75</p>	<p>Updated November 2010</p>

NASSCO'S PIPELINE ASSESSMENT & CERTIFICATION PROGRAM (PACP)©

Section 6—Operational and Maintenance (Module 6B)

D DEPOSITS 6-1 DA Attached 6-1 DAE -Encrustation 6-2 DAGS Grease 6-2 DAR -Ragging 6-2 DAZ -Other 6-2	D DEPOSITS 6-1 DS Settled 6-1 DSF -Fine 6-2 DSGV -Gravel 6-2 DSC Hard/Compacted 6-2 DSZ Other 6-2	D DEPOSITS 6-1 (continued) DN Ingress 6-1 DNF -Fine 6-3 (silt & sand) DNGV -Gravel 6-3 DNZ -Other 6-3	R ROOTS 6-7 RF Fine 6-7 RFB Barrel 6-7 RFL Lateral 6-7 RFC -Connection 6-8	R ROOTS 6-7 RT Tap 6-7 RTB Barrel 6-7 RTL Lateral 6-7 RTC -Connections 6-8	R ROOTS 6-7 RM Medium 6-7 RMB -Barrel 6-7 RML Lateral 6-7 RMC -Connection 6-8	R ROOTS 6-7 RB Ball 6-7 RBB -Barrel 6-7 RBL -Lateral 6-7 RBC Connection 6-8
I INFILTRATION 6-13 IS Stain 6-13 IW Weeper 6-13 ID Dripper 6-13 IR Runner 6-13 IG Gusher 6-13	OB OBSTACLES/ OBSTRUCTIONS 6-19 OBB Brick or Masonry 6-19 OBM Pipe Material In Invert 6-19 OBI Object protruding through wall 6-19	OB OBSTACLES/ OBSTRUCTIONS 6-19 OBJ Object wedged In joint 6-19 OBC Object through connection/junction 6-19 OBP External Pipe Cable 6-19	OB OBSTACLES/ OBSTRUCTIONS 6-19 OBS Built Into structure 6-20 OBN Construction Debris 6-20 OBR Rocks 6-20 OBZ Other 6-20	V VERMIN 6-31 VR Rat 6-31 VC Cockroach 6-31 VZ Other 6-31	G GROUT TEST & SEAL 6-33 GTP Grout Test Passed 6-33 GTP -J -Joint 6-33 GTP -L -Lateral 6-33 GTF Grout Test Failed 6-33	G GROUT TEST & SEAL 6-33 GTU Grout Test Unable 6-33 GTU -J -Joint 6-33 GTU -L -Lateral 6-33 GRT Grout Test Location 6-33

Section 7—Construction Features Coding (Module 6C)

T TAP 7-1 TF Factory Made 7-1 TFI -Intruding 7-2 TFA -Active 7-2 TFC -Capped 7-2 TFB -Abandoned 7-2 TFD -Defective 7-2	T TAP 7-1 TB Break In/Hammer 7-2 TBI -Intruding 7-2 TBA -Active 7-2 TBC -Capped 7-2 TBB -Abandoned 7-2 TBD -Defective 7-2	T TAP 7-1 TS Saddle 7-2 TSI -Intruding 7-2 TSA -Active 7-2 TSC -Capped 7-2 TSB -Abandoned 7-2 TSD -Defective 7-2	T TAP 7-1 TR Rehabilitated 7-2 TRI -Intruding 7-2 TRA -Active 7-2 TRC -Capped 7-2 TRB -Abandoned 7-2 TRD -Defective 7-2	IS INTRUDING SEALING MATERIAL 7-9 ISSR Sealing Ring 7-9 ISSRH -Hanging 7-9 ISSRB -Broken 7-9 ISSRL -Loose 7-9	IS INTRUDING SEALING MATERIAL 7-9 ISGT Grout 7-9 ISZ Other 7-9
L LINE (of sewer) 7-11 LL Left 7-11 LLU Left Up 7-11 LLD Left Down 7-11 LR Right 7-11	L LINE (of sewer) 7-11 LRU Right Up 7-11 LRD Right Down 7-11 LU Up 7-11 LD Down 7-11	A ACCESS POINT 7-13 AMH Manhole 7-13 AWA Wastewater Access 7-13 ADP Discharge Point 7-13 ATC Tee Connection 7-13	A ACCESS POINT 7-13 AOC Other Special Chamber 7-13 AM Meter 7-13 AWW Wet Well 7-14 AJB Junction Box 7-14	A ACCESS POINT 7-13 ACO Clean Out 7-14 ACCM -Mainline 7-14 ACCP -Property 7-14 ACOH -House 7-14	A ACCESS POINT 7-13 ACB Catch Basin 7-14 AEP End of Pipe 7-14

Section 8—Miscellaneous Features Coding (Module 6D)

M MISCELLANEOUS FEATURES 8-1 MCU Camera Underwater 8-1 MGO General Observation 8-1 MGP General Photograph 8-1 MSC Shape/Size Change 8-1 (Sewer Dimension/Vertical/ Horizontal) MJL Joint Length Change 8-1	M MISCELLANEOUS FEATURES 8-1 MLC Lining Change 8-2 MMC Material Change 8-2 MSA Survey Abandoned 8-2 MWL Water Level 8-2 MWLS -Sag 8-2	M MISCELLANEOUS FEATURES 8-1 MWM Water Mark 8-2 MY Dye Test 8-2 MYV -Dye Visible 8-3 MYN -Not Visible 8-3
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Updated November 2010



PACP Inspection Form Header Section

General Information

Red font fields = Mandatory, Black font fields = Optional

1. Surveyed by	2. Certificate No.	3. Reviewed by	4. Reviewer Certificate No.
5. Owner	6. Customer	7. P/O Number	8. Work Order Number
9. Media Label	10. Project	11. Date <small>YYYYMMDD</small>	12. Time <small>HH:MM</small>
14. Weather	15. Pre-Cleaning	16. Date Cleaned <small>YYYYMMDD</small>	18. Purpose of Survey
19. Direction of Survey	20. Inspection Technology Used	21. Inspection Status	
22. Consequence of Failure		23. Pressure Value	

Location

24. Drainage Area	25. Pipe Segment Reference	26. Street (Name & Number)
27. City	28. Location Code	29. Location Details

Pipe

30. Pipe Use	31. Height (Diameter)	32. Width	33. Shape
34. Material	35. Lining Method	36. Coating Method	37. Pipe Joint Length
38. Total Length	39. Length Surveyed	40. Year Constructed <small>YYYY</small>	41. Year Renewed <small>YYYY</small>

Measurements

42. Upstream MH No.	43. Upstrm MH Rim to Invert	44. Upstrm MH Rim to Grade	45. Upstrm MH Grade to Invert
46. Upstream MH Northing*	47. Upstream MH Easting*	48. Upstream MH Elevation**	
49. Downstream MH No.	50. Downstream MH Rim to Invert	51. Downstream MH Rim to Grade	
52. Downstream MH Grade to Invert	53. Downstream MH Northing*	54. Downstream MH Easting*	
55. Downstream MH Elevation**	56. MH Coordinate System*	57. MH Vertical Datum**	58. GPS Accuracy

59. Additional Information

*Entry required if Northing, Easting or Coordinate System data is recorded. **Entry required if Elevation or Vertical Datum data is recorded.

USMH

DSMH



Details Section

Distance (feet) (meters)	Video Ref.	Code Group/ Descriptor/ Modifier	Continuous Defect	Value			Joint	Circumferential Location		Image Ref.	Remarks
				Dimension		%		At/From	To		
				1st	2nd						

NASSCO-PACP-V7-0-0-IF



PACP Inspection Form Details Continuation Section

1. Surveyed by	5. Owner	11. Date	13. Sheet No.	42. Upstream MH No.	49. Downstream MH No.
----------------	----------	----------	---------------	---------------------	-----------------------

Distance (feet) (meters)	Video Ref.	Code Group/ Descriptor/ Modifier	Continuous Defect	Value			Joint	Circumferential Location		Image Ref.	Remarks
				Dimension		%		At/ From	To		
				1st	2nd						

Red font fields = Mandatory, Black font fields = Optional



LACP Inspection Form Header Section

General Information

1. Surveyed By	2. Certificate No.	3. Reviewed By	4. Reviewer Certificate No.
5. Owner	6. Customer	7. P/O Number	8. Work Order Number
9. Media Label	10. Project	11. Date YYYYMMDD	12. Time
13. Sheet Number	14. Weather	15. Pre-Cleaning	16. Date Cleaned YYYYMMDD
17. Purpose of Survey	18. Direction of Survey	19. Inspection Technology Used	20. Inspection Status
21. Consequence of Failure		22. Pressure Value	

Location

23. Drainage Area	24. Pipe Segment Reference	25. Lateral Segment Reference	
26. Street (Number & Name)	27. City	28. Location Code	29. Location Details

Lateral

30. Pipe Use	31. Size'	32. Material	33. Lining Method	34. Total Length
35. Length Surveyed	36. Year Constructed	37. Year Renewed	38. Property Line	

Measurements

39. Access Point ID No.	40. Tap Location	41. Rim to Invert	42. Access Pt. Northing*	43. Access Pt. Easting*
44. Access Pt. Elevation**	45. Coordinate System*	46. Vertical Datum**	47. GPS Accuracy	
48. Downstream Manhole ID No.	49. Upstream Manhole ID No.	50. Start Manhole		

51. Additional Information

- * Information required, if Northing, Easting or Coordinate System data is recorded.
- ** Information required, if Elevation or Vertical Datum data is recorded.



LACP Inspection Form Details Continuation Section

1. Surveyed By	5. Owner	11. Date	13. Sheet	25. Lateral Segment Reference
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Distance (feet) (meters)	Video Ref	Code Group/ Descriptor/ Modifier	Continuous Defect	Value			Joint	Circumferential Location		Img. Ref	Remarks
				Dimension		%		At/ From	To		
				1st	2nd						



MACP Inspection Form Header Section

General Information

1. Surveyed By (1,2)	2. Certificate Number (1,2)	3. Reviewed By	4. Reviewer Certificate No.
5. Owner	6. Customer	7. P/O Number	8. Work Order
9. Media Label	10. Project	11. Date (1,2) YYYYMMDD	12. Time
13. Sheet Number (1,2)	14. Weather	15. Pre-Cleaning (2)	16. Date Cleaned YYYYMMDD
17. Purpose of Survey (1,2)	18. Inspection Level (1,2)	19. Inspection Status (1,2)	20. Consequence of Failure

Location

21. Drainage Area	22. MH/Access Point No. (1,2)	23. Street (1,2)	24. City (1,2)
25. Location Code (2)	26. Surface Type (2)	27. Inflow Potential from Runoff	
28. Location Details			

Manhole

29. MH Use (2)	30. Access Type (1,2)	31. Year Constructed YYYY
32. Year Renewed YYYY		33. Evidence of Surcharge (2)

Measurements

34. Rim to Invert (2)	35. Rim to Grade (2)	36. Grade to Invert (2)	37. Rim to Grade Exposed
38. Northing*	39. Easting*	40. Elevation**	41. Coordinate System*
42. Vertical Datum**		43. GPS Accuracy	

44. Additional Information

- * Information required if Northing, Easting or Coordinate System data is recorded.
- ** Information required if Elevation or Vertical Datum data is recorded.



MACP Inspection Form Manhole Component Defect Section

1. Surveyed By (1,2)	5. Owner	11. Date (1,2) YYYYMMDD	13. Sheet Number (1,2)	22. MH/Access Point No. (1,2)
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Depth (feet) (meter)	Video Ref	Component	Code		Continuous Defect	Value			Joint	Step	Circumferential Location		Img Ref	Remarks
			Group Descriptor Modifier			Dimension					At/ From	To		
						1st	2nd							



MACP Inspection Form Manhole Component Observation Section

Cover

45. Type (2)	46. Shape (2)	47. Size (2)	48. Center Cover Size	49. Size Width (2)
50. Cover Material (2)	51. Hole Diameter (Vent) (2)	52. Hole Number (2)	53. Bearing Surface Diameter (2)	
54. Bearing Surface Width (2)	55. Cover/Frame Fit (2)		56. Cover Condition (1,2)	

Cover Insert

57. Insert Type (2)	58. Cover Insert Condition (2)
---------------------	--------------------------------

Cover Adjustment Ring

59. Ring Type (2)	60. Ring Material (2)	61. Ring Condition (1,2)	62. Ring Height
-------------------	-----------------------	--------------------------	-----------------

Frame

63. Frame Material (2)	64. Bearing Surface Width (2)	65. Bearing Surface Depth (2)	66. Clear Opening Diam (2)
67. Clear Opening Width (2)	68. Frame Condition (1,2)	69. Seal Condition (2)	70. Offset Distance (2)
71. Seal Inflow (2)	72. Frame Depth		

Chimney

73. Chimney Present (2)	74. First Material (2)	75. Second Material	76. Chimney I/I	77. Clear Opening
78. Chimney Depth (2)	79. Lining Interior	80. Lining Exterior	81. Chimney Condition (1)	

Cone

82. Type (2)	83. Material (2)	84. Depth (2)	85. Lining Interior	86. Lining Exterior	87. Cone Condition (1)
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Wall

88. Wall Diameter (Length)	89. Wall by Size (Width)	90. Material (2)	91. Depth (2)
92. Wall Lining Interior	93. Wall Lining Exterior	94. Wall Condition (1)	

Bench

95. Bench Present (2)	96. Bench Material (2)	97. Bench Lining	98. Bench Condition (1)
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Channel

99. Channel Installed (2)	100. Channel Material (2)	101. Type (2)	102. Exposure (2)	103. Channel Condition (1)
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Steps

104. Number (2)	105. Material (2)
-----------------	-------------------

Additional Component Information

106. Additional Component Information

Pipe Connections

107. Pipe No. (2)	108. Clock Pos (2)	109. Rim to Invert (2)	110. Direction (2)	111. Material (2)	112. Shape (2)	113. Height (Diam) (2)	114. Width (2)	115. Cond (2)	116. Seal Cond (2)	117. Pipe Type (2)	118. Struct ID	119. Comment

1 = Mandatory Level 1 Inspection Required, 2 = Mandatory Level 2 Inspection Required



SCHEDULE B – APPENDIX 9 SUPPLEMENTARY STANDARD DETAIL DRAWINGS

REFER TO THE CITY OF SURREY SUPPLEMENTARY MASTER MUNICIPAL CONSTRUCTION DOCUMENTS, EDITION DATED JANUARY, 2016 (UPDATED JULY 11, 2016. ALL SECTIONS OF THIS PUBLICATION ARE INCLUDED IN THE CONTRACT DOCUMENTS.)

INCLUDED BY REFERENCE



SCHEDULE B – APPENDIX 10 SUPPLEMENTARY DETAIL DRAWINGS

**REFER TO THE “MASTER MUNICIPAL CONSTRUCTION DOCUMENTS –
GENERAL CONDITIONS, SPECIFICATIONS AND STANDARD DETAIL
DRAWINGS”, PLATINUM EDITION DATED 2009**

INCLUDED BY REFERENCE



SCHEDULE B – APPENDIX 11 INSTRUCTIONS TO TENDERERS – PART 2

**REFER TO THE “MASTER MUNICIPAL CONSTRUCTION DOCUMENTS –
GENERAL CONDITIONS, SPECIFICATIONS AND STANDARD DETAIL
DRAWINGS”, PLATINUM EDITION DATED 2009**

INCLUDED BY REFERENCE



SCHEDULE C – FORM OF QUOTATION

RFQ Title: Sanitary Sewer Video Inspection Program

RFQ No: 1220-040-2021-068

CONTRACTOR

Legal Name of Contractor: _____

Contact Person and Title: _____

Business Address: _____

Business Telephone: _____

Business Fax: _____

Business E-Mail Address: _____

TO:

CITY OF SURREY

City Representative: Sunny Kaila, Acting Manager, Procurement Services

Email for PDF Files: purchasing@surrey.ca

1. If this Quotation is accepted by the City, a contract will be created as described in:
 - (a) the Contract;
 - (b) the RFQ; and
 - (c) other terms, if any, that are agreed to by the parties in writing.

2. Capitalized terms used and not defined in this Quotation will have the meanings given to them in the Contract and RFQ. Except as specifically modified by this Quotation, all terms, conditions, representations, warranties and covenants as set out in the Contract and RFQ will remain in full force and effect.

3. I/We have reviewed the sample Contract (Schedule B). If requested by the City, I/we would be prepared to enter into the sample Contract, amended by the following departures (list, if any):

Section	Requested Departure(s) / Alternative(s)
_____	_____
_____	_____

4. The City requires that the successful Contractor have the following in place **before providing the Work**:

- (a) Workers' Compensation Board coverage in good standing and further, if an "Owner Operator" is involved, personal operator protection (P.O.P.) will be provided, Workers' Compensation Registration Number _____;
- (b) Prime Contractor qualified coordinator is Name: _____ and Contact Number: _____;
- (c) Insurance coverage for the amounts required in the proposed Contract as a minimum, naming the City as additional insured and generally in compliance with the City's sample insurance certificate form available on the City's Website at www.surrey.ca. search [Standard Certificate of Insurance](#);
- (d) City of Surrey or Intermunicipal Business License: Number _____;
- (e) If the Contractor's goods and services are subject to GST, the Contractor's GST Number is _____; and
- (f) If the Contractor is a company, the company name indicated above is registered with the Registrar of Companies in the Province of British Columbia, Canada, Incorporation Number _____.

As of the date of this Quotation, we advise that we have the ability to meet all of the above requirements **except as follows** (list, if any):

Section	Requested Departure(s) / Alternative(s)

5. The Contractor acknowledges that the departures it has requested in Sections 3 and 4 of this Quotation will not form part of the Contract unless and until the City agrees to them in writing by initialing or otherwise specifically consenting in writing to be bound by any of them.

Changes and Additions to Specifications and Scope:

6. In addition to the warranties provided in the Contract, this Quotation includes the

7. I/We have reviewed the RFQ, Schedule A – Scope of Work and Contract Drawings. If requested by the City, I/we would be prepared to meet those requirements, amended by the following departures and additions (list, if any):

Requested Departure(s) / Alternative(s) / Addition(s)

SCHEDULE OF QUANTITIES AND PRICES

8. The Contractor offers to supply to the City of Surrey the Goods and Services for the prices plus applicable taxes as follows:

Schedule of Quantities and Prices – Summary Sheet	
Payment Terms: A cash discount of ____% will be allowed if invoices are paid within ____ days, or the ____ day of the month following, or net 30 days, on a best effort basis.	Ship Via:
TITLE	AMOUNT
Item A – Term 1	\$
Item B – Term 2 (Renewal Term)	\$
Item C – Term 3 (Renewal Term)	\$
Subtotal:	\$
GST:	\$
TOTAL QUOTATION PRICE INCLUDING GST:	\$

SANITARY SEWER CCTV PROGRAM: ITEM A – TERM 1					
DESCRIPTION		UNIT	Quantity	UNIT PRICE	AMOUNT
1.0 SMOKE TESTING AND PREPARE REPORTS					
a.	Manhole to Manhole (including laterals)	lin.m	4438	\$	\$
1.0 Subtotal					\$
2.0 FLUSH, VIDEO INSPECT SANITARY MAINLINES AND PREPARE REPORTS					
a.	100 mm diameter Mainline	lin.m	34.9	\$	\$
b.	150 mm diameter Mainline	lin.m	745.2	\$	\$
c.	200 mm diameter Mainline	lin.m	20212.5	\$	\$
d.	250 mm diameter Mainline	lin.m	877	\$	\$
e.	300 mm diameter Mainline	lin.m	1148.2	\$	\$
f.	350 mm diameter Mainline	lin.m	541.9	\$	\$
g.	375 mm diameter Mainline	lin.m	45.7	\$	\$
h.	400 mm diameter Mainline	lin.m	182.2	\$	\$
i.	450 mm diameter Mainline	lin.m	1163.4	\$	\$
2.0 Subtotal					\$
3.0 VIDEO INSPECT SANITARY LATERALS AND PREPARE REPORTS					
a.	Lateral Inspection Setup through IC	each	190	\$	\$
b.	Flush through Inspection Chamber	lin.m	2566.1	\$	\$
c.	Launch Camera through Mainline	each	1215	\$	\$
3.0 Subtotal					\$
4.0 INSPECT MANHOLE AND PREPARE REPORTS					
a.	Manholes	each	503	\$	\$
4.0 Subtotal					\$
SUBTOTAL: 1.0, 2.0, 3.0, and 4.0 (excluding GST): (Carry this forward to Item A – Term 1 on the Price Summary Sheet)					\$

SANITARY SEWER CCTV PROGRAM: ITEM B – TERM 2					
DESCRIPTION		UNIT	Quantity	UNIT PRICE	AMOUNT
1.0 SMOKE TESTING AND PREPARE REPORTS					
a.	Manhole to Manhole (including laterals)	lin.m	7282.5	\$	\$
1.0 Subtotal					\$
2.0 FLUSH, VIDEO INSPECT SANITARY MAINLINES AND PREPARE REPORTS					
a.	100 mm diameter Mainline	lin.m	156.3	\$	\$
b.	150 mm diameter Mainline	lin.m	881.1	\$	\$
c.	200 mm diameter Mainline	lin.m	22827.7	\$	\$
d.	250 mm diameter Mainline	lin.m	1174.7	\$	\$
e.	300 mm diameter Mainline	lin.m	811.7	\$	\$
f.	350 mm diameter Mainline	lin.m	404.9	\$	\$
g.	375 mm diameter Mainline	lin.m	195.6	\$	\$
h.	400 mm diameter Mainline	lin.m	118.7	\$	\$
i.	450 mm diameter Mainline	lin.m	N/A	N/A	N/A
2.0 Subtotal					\$
3.0 VIDEO INSPECT SANITARY LATERALS AND PREPARE REPORTS					
a.	Lateral Inspection Setup through IC	each	190	\$	\$
b.	Flush through Inspection Chamber	lin.m	2463.5	\$	\$
c.	Launch Camera through Mainline	each	1181	\$	\$
3.0 Subtotal					\$
4.0 INSPECT MANHOLE AND PREPARE REPORTS					
a.	Manholes	each	518	\$	\$
4.0 Subtotal					\$
SUBTOTAL: 1.0, 2.0, 3.0, and 4.0 (excluding GST): (Carry this forward to Item B – Term 2 on the Price Summary Sheet)					\$

SANITARY SEWER CCTV PROGRAM: ITEM C – TERM 3					
DESCRIPTION		UNIT	Quantity	UNIT PRICE	AMOUNT
1.0 SMOKE TESTING AND PREPARE REPORTS					
a.	Manhole to Manhole (including laterals)	lin.m	N/A	N/A	N/A
1.0 Subtotal					\$
2.0 FLUSH, VIDEO INSPECT SANITARY MAINLINES AND PREPARE REPORTS					
a.	100 mm diameter Mainline	lin.m	N/A	\$	\$
b.	150 mm diameter Mainline	lin.m	4133.1	\$	\$
c.	200 mm diameter Mainline	lin.m	11264.1	\$	\$
d.	250 mm diameter Mainline	lin.m	1423.3	\$	\$
e.	300 mm diameter Mainline	lin.m	44.4	\$	\$
f.	350 mm diameter Mainline	lin.m	618.1	\$	\$
g.	375 mm diameter Mainline	lin.m	N/A	N/A	N/A
h.	400 mm diameter Mainline	lin.m	5.4	\$	\$
i.	450 mm diameter Mainline	lin.m	N/A	N/A	N/A
2.0 Subtotal					\$
3.0 VIDEO INSPECT SANITARY LATERALS AND PREPARE REPORTS					
a.	Lateral Inspection Setup through IC	each	192	\$	\$
b.	Flush through Inspection Chamber	lin.m	2445	\$	\$
c.	Launch Camera through Mainline	each	609	\$	\$
3.0 Subtotal					\$
4.0 INSPECT MANHOLE AND PREPARE REPORTS					
a.	Manholes	each	396	\$	\$
4.0 Subtotal					\$
SUBTOTAL: 1.0, 2.0, 3.0, and 4.0 (excluding GST): (Carry this forward to Item C – Term 3 on the Price Summary Sheet)					\$

Force Account Labour and Equipment Rates:

9. Contractors should complete the following tables setting out the all-inclusive hourly labour rates including Overhead and profit for approved extras/credits for all applicable categories of labour (use the spaces provided and/or attach additional pages, if necessary):

Table 1 – Hourly Labour Rate Schedule for Services:

Labour Category	Straight Time/hr (Plus GST)	Overtime Rate/hr (Plus GST)
.1 Superintendent	\$	\$
.2 Foreman	\$	\$
.3 Journeyman	\$	\$
.4 Apprentice	\$	\$
.5 Skilled Labourer	\$	\$
.6 Grease Cutting	\$	\$
.7 Root Cutting	\$	\$
8 Flushings		
9 Hub Cutting		
10 Grouting		
11		

Table 2 – Hourly Equipment Rate Schedule:

No.	Equipment Description (<i>State</i>)	Hourly Equipment Rate
		\$
		\$

Key Personnel & Subcontractors:

10. Contractors should provide information on the background and experience of all key personnel proposed for the performance of the Work (use the spaces provided and/or attach additional pages, if necessary):

Name: _____

Experience: _____

Dates: _____

Project Name: _____

Responsibility: _____

Responsibility: _____

11. Contractors should identify subcontractors, if any, the Contractor intends to use for the performance of the Work, describe the portion of the Work proposed to be subcontracted and a description of the relevant experience of the subcontractor, using a format similar to the following:

<i>Subcontractor Services</i>	<i>Subcontractor Name</i>	<i>Years of Working with Contractor</i>	<i>Business Telephone Number and Business Email Address</i>

The City reserves the right of approval for each of the subcontractors and material suppliers. The Contractor will be given the opportunity to substitute an acceptable subcontractor and material supplier, if necessary.

Experience, Reputation and Resources

12. Contractors should provide information on their relevant experience and qualifications for the performance of the Work similar to those required by the Contract (use the spaces provided and/or attach additional pages, if necessary):

13. Contractors should provide references for work performed by your firm of a similar nature and value (name and telephone number). The City's preference is to have a minimum of three references. Previous clients of the Contractor may be contacted at the City's discretion (use the spaces provided and/or attach additional pages, if necessary)

14. I/We the undersigned duly authorized representatives of the Contractor, having received and carefully reviewed the RFQ and the Contract, submit this Quotation in response to the RFQ.

This Quotation is executed by the Contractor this _____ day of _____, 202__.

CONTRACTOR

I/We have the authority to bind the Contractor.

(Legal Name of Contractor)

(Signature of Authorized Signatory)

(Signature of Authorized Signatory)

(Print Name and Position of Authorized Signatory)

(Print Name and Position of Authorized Signatory)

ATTACHMENT 1 - PRIME CONTRACTOR DESIGNATION LETTER OF UNDERSTANDING

As per the requirements of the *Workers' Compensation Act* Part 3, Division 3, Section 118 (1-3), which states:

Coordination of multiple-employer workplaces

118 (1) In this section:

"multiple-employer workplace" means a workplace where workers of 2 or more employers are working at the same time:

"prime contractor" means, in relation to a multiple-employer workplace,

- (a) the directing contractor, employer or other person who enters into a written agreement with the owner of that workplace to be the prime contractor for the purposes of this Part, or
 - (b) if there is no agreement referred to in paragraph (a), the owner of the workplace.
- (2) The prime contractor of a multiple-employer workplace must
- (a) ensure that the activities of employers, workers and other persons at the workplace relating to occupational health and safety are coordinated, and
 - (b) do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with this Part and the regulation in respect to the workplace.
- (3) Each employer of workers at a multiple-employer workplace must give to the prime contractor the name of the person the employer has designated to supervise the employer's workers at that workplace.

By signing this Contract, the Contractor accepts all responsibilities of a prime contractor as outlined in the Workers' Compensation Act, and WorksafeBC OH&S Regulation.

As a Contractor signing this Prime Contractor Designation form with the City of Surrey (the "owner"), you are agreeing that your company, management staff, supervisory staff and workers will comply with the Workers' Compensation Board (WCB) Occupational Health and Safety Regulation and the *Workers' Compensation (WC) Act*.

Any WorksafeBC OH&S violation by the prime contractor may be considered a breach of contract resulting in possible termination or suspension of the Contract and/or any other actions deemed appropriate at the discretion of the City.

Any penalties, sanctions or additional costs levied against the City, as a result of the actions of the prime contractor are the responsibility of the prime contractor.

The Contractor acknowledges having read and understood the information above.

By signing this Prime Contractor Designation form, the Contractor agrees as a representative of the firm noted below, to accept all responsibilities of the prime contractor for this project.

The Contractor understands and accepts the responsibilities of the prime contractor designation in accordance with the *Workers' Compensation Act* while contracted by the City of Surrey for project and will abide by all Workers' Compensation Board Regulation requirements.

Project File No.: 1220-040-2021-068

Project Title and Site Location: _____

Prime Contractor Name: _____

Prime Contractor Address: _____

Telephone/Fax Numbers: Phone: _____ Fax: _____

Name of Person in Charge of Project: _____

Name of Person Responsible for Coordinating Health & Safety Activities: _____

Phone: _____

Prime Contractor Signature: _____ Date: _____

Please return a signed copy of this memo to the City of Surrey, Finance Department, Procurement Services, 13450 – 104 Avenue, Surrey, British Columbia, V3T 1V8

If you have any questions, please contact the City of Surrey, Manager Occupational Health & Safety at 604-591-4658.

ATTACHMENT 2 - CONTRACTOR HEALTH & SAFETY EXPECTATIONS

RESPONSIBILITY OF *CONTRACTOR(S)*

The City of Surrey strives to maintain a safe work environment for employees and *Contractors* and insists upon the enforcement of safe practices and procedures in all premises and in all work activities. It is essential that all *Contractors* and their employees and sub-*contractor(s)* perform in the same manner. It is every employers and *Contractors* responsibility to ensure that staff and public are protected from workplace hazards.

As a *Contractor* to the City of Surrey, you are expected to conform to the requirements of the Workers' Compensation Act, the WCB Occupational Health and Safety Regulation and to all federal, provincial and local laws and regulations. The City of Surrey Building *Owner*, Project Manager, and the Manager, Occupational Health & Safety or designate have the authority to order an unsafe act to cease or to have an unsafe piece of equipment removed from the premises or, in extreme situations, to shut down a job entirely. Any City of Surrey Employee that observes a safety infraction by a *Contractor* performing work for the City of Surrey should bring it to the attention of a manager immediately or Occupational Health & Safety (604-591-4131).

The following information is provided as typical City of Surrey requirements, but does not relieve the *Contractor* from complying with all applicable local, provincial and federal laws, regulations and bylaws.

PERSONNEL

1. You are expected to inform your employees of any potential hazard in the workplace and advise of appropriate action to be taken should a hazard be found or a fire or accident occur.
2. *Contractors* will restrict persons invited on the premises to employees only. No families or friends are permitted.
3. The *Contractor* will advise the City of any on-site accidents involving the *Contractor's* employees, or injuries to others caused by the *Contractor's* business.

SAFETY MANAGEMENT SYSTEM

1. *Contractors* will ensure their employees utilize proper safety equipment and clothing as required for job site activities.
2. *Contractors* must follow and have on site proper written safe work procedures for hazardous work, e.g. Fall protection, confined space entry, hotwork, lockout, excavations and shoring, traffic management, etc.
3. *Contractor* must Identify workplace risk and implement suitable controls.
4. *Contractor* must provide safety training and education to staff and have training records available for review.
5. *Contractor* must have a health & safety program for its workers and sub-*contractors*
6. *Contractor* will provide appropriate First-Aid coverage for their workers and sub*contractors*.
7. *Contractor* must forward a weekly work task list prior to work commencement.
8. The qualified safety coordinator must participate in the City of Surrey OHS Orientation or attend the Prime *Contractor's* Orientation.

WORK AREAS –City Facilities

No work by *Contractors* shall occur in any area without prior consent of the City of Surrey Manager, Civic Facilities or his designated representative. Work during normal business hours of the City shall not create undue noise, smells or otherwise unduly disturb the work of City of Surrey staff or the public. If an activity requires that a disturbance is likely, the *Contractor* shall whenever possible only do that work outside normal business hours.

All activities that create a hazard (i.e. work from a ladder, removal of a floor tile, emission of VOC's, etc.) to persons outside the *Contractor's* supervision shall have warning devices, delineation or barriers, sealed spaces, etc. as would normally be required to protect any person from that hazard.

SAFETY ATTITUDE

Your safety record and attitude are important criteria used to judge your qualification for future bidding on solicitations with the City of Surrey.

You can help ensure employee safety and your eligibility for future business with the City if you exhibit and practice a "Safe Work - Safe City" attitude.

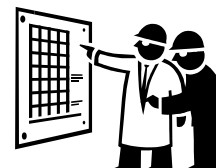
The City of Surrey is concerned about the health, safety and wellbeing of all employees and *Contractors*. It is essential we maintain a healthy, safe and productive work environment.

All Employees & Contractors:

It is everyone responsibility to:

- ❖ know and comply with WCB regulations and
- ❖ follow established safe work procedures
- ❖ immediately report any work related injury to his/her supervisor; and to the city representative
- ❖ not remain on the work site while his/her ability to work is in any way impaired
- ❖ report unsafe acts and conditions to their supervisor
- ❖ correct unsafe conditions immediately whenever it is possible to do so
- ❖ take reasonable care to protect your health & safety and the health and safety of other persons who may be affected by your act's or omissions at work

An employee must refuse to work if continuing to do so would endanger the health and safety of the employee, fellow employees or others. The worker must immediately report the circumstances of the unsafe condition to his or her supervisor or manager. If the unsafe condition is not remedied or the issue is not resolved the Manager, Occupational Health & Safety must be contacted.



A common sense approach usually resolves the issue.

GENERAL RULES

1. For all secured worksites, contracted workers are required to sign in and sign out each day
2. (Access cards may be issued – a worker may need to provide an Identification document (i.e. Driver's License) in exchange).
3. Personal protective equipment, as determined by the City, through consultation with the *Contractors* Health and Safety Representatives must be worn when and where required. (Hard Hats, Safety Footwear, Safety Vests and Safety Glasses must be worn on active construction sites. Hearing Protection must be worn when noise levels are above 85dBA.)
4. Horseplay, gambling and the use of alcohol or narcotics will not be tolerated.
5. No Smoking within 7.5M of a City owned buildings door exits, windows and vents.

6. Report **ALL** injuries to your supervisor immediately and notify the City's site representative.
7. Report any unsafe conditions, including someone under the influence or hazards, which may allow an injury to occur to you, a fellow worker, or others on the worksite.
8. Report any property damage, regardless of how minor.
9. Restricted and controlled products will be labeled, used and stored in accordance with the associated regulations, e.g. WHMIS. Follow all procedural instructions when using or handling hazardous materials/controlled products and ensure that all containers of hazardous/controlled product materials are properly labelled and stored in designated areas.
10. Obey all posted signs and notices. Do not venture into areas that you are not authorized to enter.
11. Always use the correct posture when lifting and get assistance if the weight is excessive.
12. Do not work within the limits of approach to high voltage equipment.
13. If working at heights greater than 10 feet a Fall Protection system must be in place. The appropriate Fall Protection equipment must be worn at all times.
14. **Housekeeping** (Orderliness and good housekeeping are basic requirements and must be maintained at all times):
 - a) Aisles are to be kept clear at all times.
 - b) Individual work areas are to be kept clean and tidy.
 - c) All materials, tools, products and equipment are to be kept in their designated areas.
 - d) Liquid spills are to be cleaned up immediately to prevent slips and falls.
 - e) Accumulation of oily rags, combustible refuse or similar fire hazards will not be tolerated.
15. **Fire Prevention:**
 - a) Become familiar with Surroundings and emergency exit.
 - b) Ensure aisles and exits are not blocked at any time.
 - c) Anytime a fire extinguisher is used, report it immediately to your supervisor, so that it can be recharged.
16. **Equipment Operation** (Any equipment, which could create a hazard, must be maintained in good condition):
 - a) Equipment must not be repaired, adjusted or operated unless by a "competent person" who understand the safe operating procedures.
 - b) Always be aware of the use and location of the "EMERGENCY STOP" button, if equipment is so equipped, before using the equipment.
 - c) Loose clothing, jewelry and long hair must be secured to prevent becoming entangled with equipment.
 - d) The Operator must check all safety devices on equipment before operation.
 - e) All equipment must be turned off and the appropriate "lock-out" procedure followed, prior to repairs, cleaning, adjustment or lubrication.
 - f) Radio/Walkman/I-pod Head phones are not allowed to be worn during regular work operations.
 - g) All ladders must be of an approved type and length. Unacceptable ladders must be removed immediately from the premises.
 - h) All vehicles and equipment on City property must be kept in safe mechanical condition at all times, and be operated only by persons with a valid driver's license and/or proper training and qualifications.
 - i) *Contractors* will not operate any equipment, valves, switches, etc., which are part of the City's operation, unless specific permission is received from the Department Representative.

17. **Ground Disturbance** –Every time you dig in the ground, with a shovel or mechanized equipment, you run the risk of loss of life or damage to property if you hit any of the many buried cables, conduits, gas or oil pipelines and/or other underground facilities that serve our city, **BC One Call Must be called and a ticket obtained prior to commencing any ground disturbance activities.**

Issued By:	Occupational Health & Safety Section - <i>Contractor</i> Coordination Program
Date:	Revised: January 14, 2015 Original: August 15, 2014
Distributed:	Via Email & Posted on Intranet: January 16, 2015 :<u>August 15, 2014</u>

This document does not replace the Workers' Compensation Act or WorkSafeBC OH&S regulation. Each individual *Contractor* must have specific health and safety safe work rules and procedures that apply to their work tasks. Each *Contractor* must comply with the Workers' Compensation Act and WorkSafeBC Occupational Health & Safety Regulation and to all federal, provincial and local laws and regulations. If a *Contractor* is unable to comply they must bring this to the attention of their qualified safety representative and to the Prime *Contractor* safety representative immediately.

Authorized Signature: _____

Name: _____

(Please Print)

Date: _____



ATTACHMENT 3 - COMPLIANCE TO SAFETY PROCEDURE ENTRY PROCEDURE FOR CONFINED SPACE

This procedure shall be used as a guideline only. The Contractor shall be responsible for familiarization with this and all WCB requirements.

- THERE MUST BE A MINIMUM OF TWO MEN
 - ONE MAN ALWAYS ON THE SURFACE, AND
 - ONE MAN IN THE WELL
- MAN LIFT/RETRIEVAL DEVICES MUST BE USED

1. a) Open manhole lids, turn on blower/fan to ventilate wet well for approximately two to three minutes.
 - b) Leave fan running until job is completed.
 - c) Manhole must be circulated by a blower fan to allow fresh air into the confined space. Check levels on gas detector by lowering into well. If levels are not safe, portable fans MUST be used.
2. Turn gas detector "ON":
 - Oxygen levels should read between 20.0 to 21.0
 - H2S levels should read 000
 - LEL levels should read 000

NOTE: - Readings shall be taken before entering well.
 - Record gas levels on "Confined Entry Space" forms and hand in daily.

3. a) Lower gas detector by rope/cord into lower portion of wet well where work shall be performed.
 - b) Pull detector to surface and check gas levels. If levels are safe, entry into well is permitted.
4. Gas detector MUST be left "ON" and brought down into well with person(s) entering.
5. Check levels on gas detector when in well. Proceed with washing/repairing of station.
6. If at any time the gas detector goes "OFF" (ringing), EXIT WET WELL IMMEDIATELY and check levels.

Where work is to be carried out, in any confined space where harmful atmosphere may develop, the following procedures must be followed:

- a) The space must be ventilated continuously.
- b) Gas detection equipment must be calibrated in an atmosphere that is known to be safe.

Tests for harmful or explosive substances and oxygen deficiency shall be made and recorded immediately prior to entry, after any interruptions in the work procedure and at intervals to ensure the continuing safety of the worker in the confined space.

If a harmful atmosphere develops, the worker will immediately evacuate the space and will not re-enter until it has been tested and found to be safe to do so.

- c) A safety belt or harness of a type which will keep the worker in a position to permit rescue, will be worn.
- d) A life line will be attached to the belt or harness which is tended at all times by another person stationed outside the entrance to the confined space, who shall be equipped for and capable of effecting rescue.

I, the undersigned, acknowledge having read and understand the information above.

By signing this Agreement, I/We agree as a representative of the firm noted below, to accept all responsibilities and compliant to all the Workers' Compensation Board regulation requirements.

Project File No.: 1220-040-2021-068 Company: <<insert company name>>

Project Title: Sanitary Sewer Video Inspection Program

Signed: _____ Date: _____
(Company Owner)

Witness: _____ Date: _____



ATTACHMENT 4 - COMPLIANCE TO SAFETY PROCEDURE WORKING IN CONFINED SPACE

Where work is to be carried out, in any confined space where harmful atmosphere may develop, the following procedures must be followed:

- a) The space must be ventilated continuously.
- b) Gas detection equipment must be calibrated in an atmosphere that is known to be safe.

Tests for harmful or explosive substances and oxygen deficiency shall be made and recorded immediately prior to entry, after any interruptions in the work procedure and at intervals to ensure the continuing safety of the worker in the confined space.

If a harmful atmosphere develops, the worker will immediately evacuate the space and will not re-enter until it has been tested and found to be safe to do so.

- c) A safety belt or harness of a type which will keep the worker in a position to permit rescue, will be worn.
- d) A life line will be attached to the belt or harness which is tended at all times by another person stationed outside the entrance to the confined space, who shall be equipped for and capable of effecting rescue.

I, the undersigned, acknowledge having read and understand the information above.

By signing this Agreement, I agree as a representative of the firm noted below, to accept all responsibilities and compliant to all the Workers' Compensation Board regulation requirements.

Project File No.: **1220-040-2021-068**

Company: _____.

Project Title: **Sanitary Sewer Video Inspection Program**

Signed: _____
(Company Owner)

Date: _____

Witness: _____

Date: _____

ATTACHMENT 5 - BUILDERS LIEN ACT (SECTION 7 (4)) NOTICE OF CERTIFICATION OF COMPLETION

Notice: City of Surrey, Contract 1220-040-2021-068

Take notice that on _____ [date] a certificate of completion, or court order to that effect, was issued with respect to a contract (or subcontract) between:

CITY OF SURREY
13450 – 104 Avenue
Surrey, B.C., CANADA, V3T 1V8

(the "**OWNER**")

and

(the "**CONTRACTOR**")

in connection with an improvement on land described as follows:

CCTV SANITARY SEWER INSPECTION PROGRAM

All persons entitled to claim a lien under the *Builders Lien Act* and who performed work or supplied material in connection with or under the contract are warned that the time to file a claim of lien may be abridged and section 20 of the Act should be consulted.

ATTACHMENT 6 - BUILDERS LIEN ACT (SECTION 7 (10)) CERTIFICATION OF COMPLETION

I _____ [name of payment certifier], of _____
[address], British Columbia, certify that, for the purposes of the *Builders' Lien Act*, the following
contract or subcontract was completed on _____ [month, day,
year]:

Street address or other description of the land affected by the improvement:

Brief description of the improvement: _____

Brief description of the contract or subcontract, including the date of the contract and the names
of the parties to it:

Signed: _____ [signature of payment certifier]

Dated: _____ [month, day, year]