



City of Coquitlam

**Contract Documents
77091 – 16A**

2016 Sidewalk Program



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Invitation to Tenderers



INVITATION TO TENDER

DATE OF ISSUE: **June 10, 2016**

Tender No. 77091-16A

2016 Sidewalk Program

The City of Coquitlam invites tenders for **Contract 77091-16A - 2016 Sidewalk Program**, generally consists of construction of sidewalks on the following streets/avenues:

Blue Mountain Street (east side)	Como Lake Avenue to Leland Avenue
Guilby Street (east side)	Edgar Avenue to Rochester Avenue
Smith Avenue (north side)	Blue Mountain Street to 60 metres west of Hailey Street
King Albert Avenue (south side)	Poirier Street to Laurentian Crescent
Linton Street (east side)	Regan Avenue to 50 metres south of Walnut Crescent
Robinson Street (west side)	Como Lake Avenue to Seaton Avenue
Robinson Street (east side)	Foster Avenue to Cottonwood Avenue

Other miscellaneous and incidental work as contained in the Contract Documents.

Tender Documents and Drawings are available for downloading from the City of Coquitlam website:

www.coquitlam.ca/BidOpportunities

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

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

On or before 2:00 pm local time

Friday, June 24, 2016

("Closing Date and Time*")

Instructions for Tender Submission

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

1. In the "Subject Field" enter: Tender Number and Name
2. Add files in .pdf format and Send
(ensure your web browser remains open until you receive 2 emails from Qfile to confirm upload is complete.)

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

Inquiries

All inquiries are to be submitted in writing by email, no later than 3 full business days prior to Tender Closing Time quoting the Tender Name and Number sent to:

Email: bid@coquitlam.ca

Addenda

Tenderers are required to check the City's website for any updated information and Addenda issued before the Closing Date at: www.coquitlam.ca/BidOpportunities

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

The City does not retain a bidder's list or bidder's registry. Tenderers are encouraged to register as plan takers and may view the Tender Documents and Drawings by contacting the Vancouver Regional Construction Association (VRCA), website: www.vrca.bc.ca, ph: 604-870-9293, or email vrca@vrca.bc.ca, quoting the Coquitlam Tender Reference Number.

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

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

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

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

D. Trudeau
Purchasing Manager

Instructions to Tenderers, Part 1

Tender 77091-16A

2016 Sidewalk Program

INSTRUCTIONS TO TENDERERS

PART I

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INSTRUCTIONS TO TENDERERS - PART I

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

(TO BE READ WITH "INSTRUCTIONS TO TENDERERS - PART II"
CONTAINED IN THE EDITION OF THE PUBLICATION
"MASTER MUNICIPAL CONSTRUCTION DOCUMENTS" SPECIFIED IN ARTICLE 2.2 BELOW)

The City of Coquitlam

Contract: 2016 Sidewalk Program

Reference No. 77091-16A

Introduction 1

- 1.1 These Instructions apply to and govern the preparation of tenders for this *Contract*. The *Contract* is generally for the sidewalk construction for the following streets/avenues:

Blue Mountain Street (east side)	Como Lake Avenue to Leland Avenue
Guilby Street (east side)	Edgar Avenue to Rochester Avenue
Smith Avenue (north side)	Blue Mountain Street to 60 metres west of Hailey Street
King Albert Avenue (south side)	Poirier Street to Laurentian Crescent
Linton Street (east side)	Regan Avenue to 50 metres south of Walnut Crescent
Robinson Street (west side)	Como Lake Avenue to Seaton Avenue
Robinson Street (east side)	Foster Avenue to Cottonwood Avenue

Other miscellaneous and incidental work as contained in the Contract Documents

- 1.2 All inquiries regarding this Tender are to be submitted in writing referencing the **Tender Name and Number** sent to:

E-mail bid@coquitlam.ca

All inquiries will be received a minimum of 3 full business days prior to Tender Closing Time.

Inquiries received after that time may not receive a response.

Tender Documents 2

- 2.1 The Tender Documents which a Tenderer should review to prepare a Tender consist of all of the *Contract Documents* listed in Schedule 1 entitled "Schedule of Contract Documents". Schedule 1 is attached to the Agreement which is included as part of the Tender Package. The *Contract Documents* include the drawings listed in Schedule 2 to the Agreement, entitled "**List of Contract Drawings**".

- 2.2 A portion of the Contract Documents are included by reference. Copies of these documents have not been included with the tender package. These

documents are the 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". Refer to Schedule 1 to the Agreement or, if not specified in Schedule 1, then the applicable edition shall be the most recent edition as of the date of the *Tender Closing Date*. All sections of this publication are by reference included in the *Contract Documents*.

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

Submission of Tenders

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

Tenders must be received on or before:

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

***Tender Closing Date:* June 24, 2016**

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

Instructions for Tender Submission

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

1. **In the "Subject Field" enter: Tender Number and Name**
2. **Add files in .pdf format and Send** (ensure your web browser remains open until you receive 2 emails from Qfile to confirm upload is complete)

Tenderers are responsible to allow for ample time to complete the submission process. For assistance, phone 604-927-3060 or Fax 604-927-3035.

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

- 3.3 The City reserves the right to accept late Tenders to allow for technological delays. The City also reserves the right to accept Tenders received by fax, email or hand delivered.
- 3.4 Tenders will not be opened in public. The unevaluated results will be forwarded to participants by email.
- 3.5 Tender submissions are subject to the Freedom of Information and Protection of Privacy Act and contents may be disclosed if required to do so, pursuant to the Act.

**Additional
Instructions to
Tenderers
Obtaining
Documents**

4 Additions and Deletions to Instructions to Tenderers, Part II

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

- Copies of the Master Municipal Construction Documents Volume II (*2009), Instructions to Tenderers - Part II, General Conditions, Specifications and Standard Detail Drawings from:

Support Services Unlimited
Suite 302
1107 Homer Street
Vancouver BC V6B 2Y1
Tel: 604-681-0295
Fax: 604-681-4545

- City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2009 Edition.

City of Coquitlam Engineering & Public Works Department
3000 Guildford Way
Coquitlam, BC V3B 7N2
Tel: 604-927-3500
Fax: 604-927-3525

Copies of the City of Coquitlam Supplementary Specifications and Detailed Drawings to the MMCD 2000 Edition are available for viewing and downloading off the City of Coquitlam web site:

[Supplementary Specifications and Detailed Drawings to MMCD](#)

**Tender
Requirements**

- 4.2 *Delete:*
Instructions to Tenderers, Part II, Section 5.2.2

**Amendment
of Tenders**

- 4.3 *Delete:*
Instructions to Tenderers Part II, Section 12 Amendments of Tenders.

Award

- 4.4 *Add to:* Instructions to Tenderers Part II, Section 15.1;

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

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

The City may, in its absolute discretion, reject a Tender submitted by the Tenderer if the Tenderer, or any officer or director of a corporate Tenderer, is or has been engaged, either directly or indirectly through another corporation or legal entity, in a legal action against the City and its elected and appointed officers and employees or any of them in relation to:

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

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

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

**Certificate of
Compliance
for Contract
Insurance**

- 4.5 Each Tender should be accompanied by a Certificate of Compliance for Contract (on the Insurance form provided in Appendix 7 of Form of Tender) to provide proof that the Tenderer can obtain the insurance specified herein.

A Certificate of Compliance is to be submitted for each insurer called upon.

**Proof of
Ability**

- 4.6 Tenderer shall be competent and capable of performing the various items of work. Tenderer shall complete the following statement sheets appended to the Form of Tender, which shall form a part of the Contract Documents:

Appendix 1 Schedule of Quantities and Unit Prices

Appendix 2 Preliminary Construction Schedule

Appendix 3 Experience of Superintendent

Appendix 4 Contractor's Comparable Work Experience

Appendix 5 Subcontractors

Appendix 6 Bid Bond

Appendix 7 Certificate of Compliance for Contract Insurance

Test Excavations	4.7	Prior to the excavation of test holes on road allowances or privately owned property the Tenderer shall obtain permission from the Municipality or Owner of the property and comply with their requirements for restoration of disturbed surfaces and utilities. Failure to comply with Municipal by-laws restricting this practice may result in prosecution of the offending party.
Business License	4.8	The successful Tenderer shall provide evidence of a City of Coquitlam Business License or Tri Cities Intermunicipal Business License prior to commencement of work or supply of materials. For more information, contact Business Licence Division Ph: 604-927-3085 or apply online at website: City of Coquitlam Business License
No Claim	4.9	Except as expressly and specifically permitted in these Instructions to Tenderers, no Tenderer shall have any claim for any compensation of any kind whatsoever, as a result of participating in this Tender, including accepting a non-compliant bid and by submitting a Tender, each Tenderer shall be deemed to have agreed that it has no claim.
No Cost	4.10	The City will not under any circumstances be responsible for any costs incurred by the Tenderer in preparing the Tender.
Right to Accept or Reject any Tender	4.11	The City reserves the right to accept or reject any or all Tenders and the lowest or any Tender may not necessarily be accepted. The City specifically reserves the right to reject all Tenders if none is considered to be satisfactory and, in that event, at its option, to call for additional Tenders.
Cancellation of Tender	4.12	The City reserves the right to cancel any request for Tender at any time without recourse by the Tenderer. The City has the right to not award this work for any reason including choosing to complete the work with the City's own forces.
Conflict of Interest	4.13	Tenderers shall disclose any actual or potential conflicts of interest and existing business relationships it may have with the City, their elected or appointed officials or employees.

Form of Tender



Form of Tender

Tender No. 77091-16A

2016 Sidewalk Program

Summary

Name of **Contractor** _____

Tender Price (exclude GST): \$ _____
(FROM APPENDIX 1 OF FORM OF TENDER)

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

On or before 2:00 pm (local time)
Friday, June 24, 2016

Instructions for Tender Submission

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

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

Tenderers are responsible to allow ample time to complete the Tender submission process. If assistance is required, phone 604-927-3060 or fax 604-927-3035.

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

Contract Name: 2016 Sidewalk Program
Reference No. 77091-16A

TO OWNER:

1 WE, THE UNDERSIGNED:

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

(ADDENDA, IF ANY)

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

- 1.3 have full knowledge of the *Place of the Work*, and the *Work* required; and

- 1.4 have complied with the Instructions to Tenderers; and

2 ACCORDINGLY WE HEREBY OFFER:

- 2.1 to perform and complete all of the *Work* and to provide all the labour, equipment and material all as set out in the *Contract Documents*, in strict compliance with the *Contract Documents*; and
- 2.2 to achieve *Substantial Performance* of the *Work* on or before **August 31, 2016**; and
- 2.3 to do the *Work* for the price, which is the sum of the products of the actual quantities incorporated into the *Work* and the appropriate unit prices set out in Appendix 1, the "*Schedule of Quantities and Prices*", plus any lump sums or specific prices and adjustment amounts as provided by the *Contract Documents*. For the purposes of tender comparison, our offer is to complete the *Work* for the "*Tender Price*" as set out on Appendix 1 of this Form of Tender. Our *Tender Price* is based on the estimated quantities listed in the *Schedule of Quantities and Prices*, and excludes *GST*.

3 WE CONFIRM:

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

4 WE CONFIRM:

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

5 WE AGREE:

- 5.1 that this tender will be irrevocable and open for acceptance by the *Owner* for a period of **60** calendar days from the day following the *Tender Closing Date and Time*, even if the tender of another Tenderer is accepted by the *Owner*. If within this period the *Owner* delivers a written notice ("*Notice of Award*") by which the *Owner* accepts our tender we will:
- 5.1.1 within **10 Days** of receipt of the written *Notice of Award* deliver to the *Owner*:
 - 5.1 a) a Performance Bond and a Labour and Material Payment Bond, each in the amount of 50% of the *Contract Price*, issued by a surety licensed to carry on the business of suretyship in the province of British Columbia, and in a form acceptable to the *Owner*;
 - 5.1 b) a "clearance letter" indicating that the Tenderer is in WCB compliance; and
 - 5.1 c) a copy of the insurance policies as specified in SGC 24 indicating that all such insurance coverage is in place and;
 - 5.1 d) a letter confirming the *Contractor* as "Prime Contractor" for the Contract as specified in SGC 4.2.2.
 - 5.1.2 within **2 Days** of receipt of written "*Notice to Proceed*", or such longer time as may be otherwise specified in the *Notice to Proceed*, commence the *Work*; and
 - 5.1.3 sign the Contract Documents as required by GC 2.1.

6 WE AGREE:

- 6.1 that, if we receive written *Notice of Award* of this *Contract* and, contrary to paragraph 5 of this Form of Tender, we:
- 6.1.1 fail or refuse to deliver the documents as specified by paragraph 5.1.1 of this Form of Tender; or
 - 6.1.2 fail or refuse to commence the *Work* as required by the *Notice to Proceed*, then such failure or refusal will be deemed to be a refusal by us to enter into the *Contract* and the *Owner* may, on written notice to us, award the *Contract* to another party. We further agree that, as full compensation on account of damages suffered by the *Owner* because of such failure or refusal, the *Bid Security* shall be forfeited to the *Owner*, in an amount equal to the lesser of:
 - 6.1.3 the face value of the *Bid Security*; and
 - 6.1.4 the amount by which our *Tender Price* is less than the amount for which the *Owner* contracts with another party to perform the *Work*.

7 OUR ADDRESS is as follows:

Phone: _____ - _____ - _____

Fax: _____ - _____ - _____

Email: _____

Attention: _____

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

Contractor:

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

8 WE CONFIRM:

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

8.1.1 for information purposes, our GST Registration Number is:

(GST REGISTRATION NUMBER)

or;

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

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY)

**Appendix 1
FORM OF TENDER
2016 SIDEWALK PROGRAM
Contract: 77091-16A**

SCHEDULE OF QUANTITIES AND PRICES

(see paragraph 5.3.1 of the Instruction to Tenderers – Part II)
(All prices and quotations including the Contract Prices shall Exclude GST)

Should there be any discrepancy in the information provided or submitted, the City's original file copy shall prevail

ITEM NO.	MMCD Ref./ (Supp. Specs)	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	EXTENDED AMOUNT
1.00	DIV 01	General Requirements				
1.01	01 33 01 (1.3.2)	Project Record Documents			Incidental	
1.02	01 55 00 (1.5.1)	Traffic Control, Vehicle Access and Parking			Incidental	
1.03	01 57 01 (1.6.1)	Environmental Protection			Incidental	
1.04	32 12 16 (1.5.7)	Saw Cut Asphalt			Incidental	
2.00	01 58 01	PROJECT IDENTIFICATION				
2.01	(1.3.1)	1.2m x 1.2m Static Construction Zone Information Sign (Provisional Qty)	each	20		
3.00	03 30 20	CONCRETE WALKS, CURBS AND GUTTERS				
3.01	(1.4.5)	Concrete Sidewalk - 100mm Thick - Broom Finished	sq.m.	1595		
3.02	(1.4.5)	Monolithic Curb Sidewalk-COQ-C8	sq.m.	55		
3.03	(1.4.6)	Driveway Crossings 190mm Thick Per COQ-C7	sq.m.	495		
3.04	(1.4.3)	Concrete Curb & Gutter - MMCD C5	lin.m	150		
3.05	(1.4.3)	Concrete Curb 150mm - COQ C6 (Provisional)	lin.m	25		
3.06	(1.4.5)	Concrete Driveway - 100mm Broom Finished	sq.m.	145		
3.07	(1.4.5)	Concrete Driveway - 100mm Exposed Aggregate	sq.m.	35		
3.08	(1.4.10)	Tactile Strip Placement - COQ-C9E (Optional Work)	each	4		
3.09	1.4.8	Adjust Rims of Existing Manholes	each	8		
3.10	1.4.8	Adjust Rims of Existing Cleanouts	each	21		
3.11	1.4.8	Adjust Elevation of Existing Gas Box Cover	each	1		
3.12	1.4.8	Adjust Elevation of Existing Junction Box	each	1		
3.13	1.4.8	Adjust Elevation of Existing Water Box Cover	each	26		
4.00	31 11 01	CLEARING AND GRUBBING				
4.01	(1.4.1)	Clearing and Grubbing	L.S.	1		
5.00	31 24 13	ROADWAY EXCAVATION, EMBANKMENT AND COMPACTION				
5.01	(1.8.5)	Common Excavation-Dispose Offsite	cu.m.	2585		
5.02	(1.8.7)	Embankment Fill (Pit Run Gravel)	tonne	440		
6.00	31 32 19	GEO SYNTHETICS				
6.01	1.6.1	NILEX TRIAX GEOGRID Over Stripped Surface and Over Tree Roots (Provisional)	sq.m.	100		

ITEM NO.	MMCD Ref./ (Supp. Specs)	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	EXTENDED AMOUNT
7.00	32 11 16.1	GRANULAR SUBBASE				
7.01	(1.4.1)	Granular Subbase - 75mm Minus	tonne	150		
8.00	32 11 23	GRANULAR BASE				
8.01	(1.4.1)	Granular Base - 19mm Minus Gravel	tonne	1210		
9.00	32 12 13.1	ASPHALT TACK COAT				
9.01	(1.5.1)	Asphalt Tack Coat	sq.m.	50		
10.00	32 12 16	HOT-MIX ASPHALT CONCRETE PAVING				
10.01	(1.5.3)	50mm Asphalt Driveways	sq.m.	740		
10.02	(1.5.3)	75mm UC#1 Asphaltic Concrete (Infill Strip)	sq.m.	175		
10.03	(1.5.3)	60mm Asphalt Sidewalk - Includes Asphalt Wheel Chair Ramps	sq.m.	700		
10.04	(1.5.4)	Asphalt Curb 50mm - (Provisonal)	lin.m	100		
11.00	32 14 01	UNIT PAVING				
11.01	(1.4.1)	Remove and Reinstall Concrete Paver Pathways	each	3		
11.02	(1.4.1)	Remove and Reinstall Brick Driveways	each	4		
12.00	32 17 23	PAINTED PAVEMENT MARKINGS				
12.01	(1.5.3)	Permanent Pavement Markings (Provisonal)	L.S.	1		
12.02	(1.5.4.1)	Supply & Install Sign Structure (37 kg Trapezoidal Sign Base, Pole & Cap) (Provisonal)	each	15		
12.03	(1.5.4.2)	Installation of each Traffic Sign on Lamp Standard Sign Mounting by Bolting (Provisonal)	each	5		
12.04	(1.5.4.3)	Installation of each Traffic Sign on a Sign Pole using Sign Mount Clamp (Provisonal)	each	5		
13.00	32 91 21	TOP SOIL AND FINISH GRADING				
13.01	(1.4.1)	Top Soil - 150mm Thick	sq.m.	3580		
14.00	32 92 23	SODDING				
14.01	(1.8.1)	Nursery Sod	sq.m.	3580		
15.00	32 93 01	PLANTING OF TREES, SHRUBS AND GROUND COVER				
15.01	1.9.1	Remove and Replant Ex. Trees with watering bags	each	7		
16.00	33 40 01	STORM SEWERS				
16.01	(1.6.5)	Supply and Install 150mm DR 28 PVC CB Leads	lin.m	29		
17.00	33 44 01	MANHOLES AND CATCHBASINS				
17.01	(1.5.3)	Relocate Existing Lawn Drain	each	1		
17.02	1.5.4	Remove and Dispose Existing Catch Basin	each	6		
17.03	(1.5.2)	Supply and Install Top Inlet CB - MMCD S11	each	5		
TOTAL TENDER PRICE, EXCLUDING GST						

**APPENDIX 2
FORM OF TENDER**

**Contract 77091-16A
2016 Sidewalk Program**

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

INDICATE SCHEDULE WITH BAR CHART WITH CONSTRUCTION DURATIONS

THIS IS A MANDATORY PART OF THE TENDER SUBMISSION

Construction Activity	JULY					AUGUST				
	27	4	11	18	26	1	8	15	22	29

Completion Date: **August 31, 2016**

Proposed Disposal Site: _____

**APPENDIX 3
FORM OF TENDER**

**Contract 77091-16A
2016 Sidewalk Program**

EXPERIENCE OF SUPERINTENDENT

**(Reference MMCD Instructions to Tenderers – Part II, Item 5.3.3, and
Supplementary Specifications, Section 1.0 - Contract Specific Instructions, Items 1.02 & 1.03)**

Proposed Project Superintendent _____

List of Project Experience

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone NO:	

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone NO:	

PROJECT:		Dates:	
Work Description:			
Responsibility:			
Owner/Reference:		Phone NO:	

**APPENDIX 4
FORM OF TENDER**

**Contract 77091-16A
2016 Sidewalk Program**

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

PROJECT:		VALUE (\$):	
OWNER:		Phone Number:	
Work Description:			

PROJECT:		VALUE (\$):	
OWNER:		Phone Number:	
Work Description:			

PROJECT:		VALUE (\$):	
OWNER:		Phone Number:	
Work Description:			

PROJECT:		VALUE (\$):	
OWNER:		Phone Number:	
Work Description:			

**APPENDIX 5
FORM OF TENDER**

**Contract 77091-16A
2016 Sidewalk Program**

SUBCONTRACTORS

(See paragraph 5.3.5 of the Instructions to Tenderers - Part II)

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

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

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

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

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

**APPENDIX 6
FORM OF TENDER**

**Contract 77091-16A
2016 Sidewalk Program**

BID BOND

NO. _____

\$ _____

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

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

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

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

WHEREAS, the Principal has submitted a written Tender to the Obligee, dated the _____ day of _____, 2016 for Contract _____.

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

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

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

IN TESTIMONY WHEREOF, the Principal has hereto set its hand and affixed its seal, and the Surety has caused these presents to be sealed with its corporate seal duly attested by the signature of its Attorney-In-Fact, this _____ day of _____, 2016.

SIGNED, SEALED AND DELIVERED

In the presence of:

_____)	_____
)	PRINCIPAL
)	
)	_____
)	SURETY

**APPENDIX 7
FORM OF TENDER**

CERTIFICATE OF COMPLIANCE for CONTRACT INSURANCE

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

Contract Number: 77091-16A

Contract Name: 2016 Sidewalk Program

Description of Work:

Sidewalk construction for the following streets/avenues:

Blue Mountain Street (east side)	Como Lake Avenue to Leland Avenue
Guilby Street (east side)	Edgar Avenue to Rochester Avenue
Smith Avenue (north side)	Blue Mountain Street to 60 metres west of Hailey Street
King Albert Avenue (south side)	Poirier Street to Laurentian Crescent
Linton Street (east side)	Regan Avenue to 50 metres south of Walnut Crescent
Robinson Street (west side)	Como Lake Avenue to Seaton Avenue
Robinson Street (east side)	Foster Avenue to Cottonwood Avenue

Other miscellaneous and incidental works as contained in the Contract Documents

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

- **The City of Coquitlam**

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

Special Coverage Required: YES NO Special Coverage Description

() (x) Shoring and Underpinning Hazard
() (x) Pile Driving and Vibrations
(x) () Excavation Hazard
() (x) Demolition
() (x) Blasting

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

Name of Tenderer (printed)

Authorized Signature

Date

Agreement

AGREEMENT

Between Owner and Contractor

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

THIS AGREEMENT made in duplicate this _____ day of _____, 2016.

Contract: **2016 Sidewalk Program**

Reference No. **77091-16A**

BETWEEN:

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

(the "*Owner*")

AND:

(the "*Contractor*")

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

1 THE WORK - START/COMPLETION DATES

- 1.1 The Contractor will perform all Work and provide all labour, equipment and material and do all things strictly as required by the Contract Documents.
- 1.2 The *Contractor* will commence the *Work* in accordance with the *Notice to Proceed*. The *Contractor* will proceed with the *Work* diligently, will perform the *Work* generally in accordance with the construction schedules as required by the *Contract Documents* and will achieve *Substantial Performance* of the *Work* on or before **August 31, 2016**, subject to the provisions of the *Contract Documents* for adjustments to the *Contract Time*.
- 1.3 Time shall be the essence of the Contract.

2 CONTRACT DOCUMENTS

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

3 CONTRACT PRICE

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

4 PAYMENT

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

5 RIGHTS AND REMEDIES

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

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

6 NOTICES

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

The *Owner*:

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

Tel: 604-927-3500
Fax: 604-927-3505

The *Contractor*:

Tel:
Fax:
Email:
Attention:

The *Contract Administrator*:

The City of Coquitlam
3000 Guildford Way
Coquitlam BC V3B 7N2

Tel:
Fax:
Email:
Attention:

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

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

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

6.4 The sender of a notice by email or fax assumes all risk that the fax will be received properly, and the provisions of paragraph 12.5 of the Instructions to Tenderers Part II apply to the sender.

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.

This agreement shall enure to the benefit of and be binding upon the parties and their successors, executors, administrators and assigns.

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

Contractor:

(FULL LEGAL NAME OF CORPORATION, PARTNERSHIP OR INDIVIDUAL)

(AUTHORIZED SIGNATORY)

(AUTHORIZED SIGNATORY AND POSITION - PRINT)

Owner:

The City of Coquitlam

(MAYOR)

(MUNICIPAL CLERK)

Schedule 1

Schedule of Contract Documents

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

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

NOTE: The documents noted with “*” are contained in the “Master Municipal Construction Documents – General Conditions, Specifications and Standard Detail Drawings”, edition dated 2000. All sections of this publication are included in the *Contract Documents*.

1. Agreement, including all Schedules;
2. Supplementary General Conditions, if any;
3. General Conditions*;
4. Supplementary Specifications, if any;
5. Detail Specifications, if any;
6. Specifications*;
7. Supplementary Detail Drawing, if any;
8. Standard Detail Drawings*;
9. Executed Form of Tender, including all Appendices;
10. Drawings listed in Schedule 2 to the Agreement – “List of Drawings”, if any;
11. Instructions to Tenderers – Part I;
12. Instructions to Tenderers – Part II*;
13. The following Addenda:
 - As issued
14. City of Coquitlam Supplementary Specifications for Contract Documents, March 2016

Schedule 2

LIST OF DRAWINGS

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

Bound in this Document:

Appendix A: Traffic Management Detail Specifications

Not Bound in this Document:

Welder Engineering: Design Drawings

TITLE	DRAWING NO.	DATE
2016 Capital Projects – Sidewalks Improvements	COVERPAGE	
Blue Mountain St - Como Lake Ave -Miller Ave- Sidewalk	SHEET 1 OF 21	JUNE 8, 2016
Blue Mountain St - Como Lake Ave -Miller Ave- Sidewalk	SHEET 2 OF 21	JUNE 8, 2016
Blue Mountain St - Como Lake Ave -Miller Ave- Sidewalk	SHEET 3 OF 21	JUNE 8, 2016
Blue Mountain St - Como Lake Ave -Miller Ave- Sidewalk	SHEET 4 OF 21	JUNE 8, 2016
Blue Mountain St - Como Lake Ave -Miller Ave- Driveway X-Sections	SHEET 5 OF 21	JUNE 8, 2016
Blue Mountain St - Como Lake Ave - Miller Ave- Driveway X-Sections	SHEET 6 OF 21	JUNE 8, 2016
Robinson St - Cottonwood Ave - Foster Ave - Sidewalk	SHEET 7 OF 21	JUNE 8, 2016
Robinson St - Cottonwood Ave - Foster Ave - Sidewalk	SHEET 8 OF 21	JUNE 8, 2016
Robinson St - Seaton Ave - Como Lake Ave - Sidewalk	SHEET 9 OF 21	JUNE 8, 2016
Robinson St - Seaton Ave - Como Lake Ave - Sidewalk	SHEET 10 OF 21	JUNE 8, 2016
Smith Ave - West of Hailey St - Blue Mountain St - Sidewalk	SHEET 11 OF 21	JUNE 8, 2016

Smith Ave - West of Hailey St - Blue Mountain St - Driveway X-Section	SHEET 12 OF 21	JUNE 8, 2016
Guilby St - Edgar Ave - Rochester Ave - Sidewalk	SHEET 13 OF 21	JUNE 8, 2016
Guilby St - Edgar Ave - Rochester Ave - Sidewalk	SHEET 14 OF 21	JUNE 8, 2016
Linton St - Cypress St- Regan Ave - Sidewalk	SHEET 15 OF 21	JUNE 8, 2016
Linton St - Cypress St- Regan Ave - Sidewalk	SHEET 16 OF 21	JUNE 8, 2016
Linton St - Cypress St- Regan Ave - Sidewalk	SHEET 17 OF 21	JUNE 8, 2016
Linton St - Cypress St- Regan Ave - Sidewalk	SHEET 18 OF 21	JUNE 8, 2016
Linton St - Cypress St- Regan Ave - Driveway X-Sections	SHEET 19 OF 21	JUNE 8, 2016
King Albert Ave - Poirier St - Laurentian Cres - Sidewalk	SHEET 20 OF 21	JUNE 8, 2016
King Albert Ave - Poirier St - Laurentian Cres - Driveway X-Sections	SHEET 21 OF 21	JUNE 8, 2016

Supplementary General Conditions

SUPPLEMENTARY GENERAL CONDITIONS

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1.0	DEFINITIONS	1.0	
	Abnormal Weather	1.1.1	(Replace clause 1.1.1 as follows): “Abnormal Weather” means temperature, precipitation, wind or other weather conditions which, in any two week period, differs from the statistical average for that condition in that period by more than one standard deviation, calculated based on relevant data available from Environment Canada.
3.0	CONTRACT ADMINISTRATOR		
3.1	Appointment	3.1.3	(Add new clause 3.1.3 as follows): The Contractor shall promptly and efficiently comply with any reasonable instruction issued by the Contract Administrator.
3.3	Contract Administration	3.3.10	(Add new clause 3.3.10 as follows): The Contractor is responsible for all survey layout for the construction of the Work to the design specifications and/or elevations as shown on the contract drawings or as amended on site by the Contract Administrator.
4.0	CONTRACTOR		
4.1	Control of the Work	4.1.2	(Add to clause 4.1.2 as follows): During all phases of the operation the Contractor shall take precautions to abate nuisance caused by mud or dust by clean-up, sweeping, sprinkling with water, or other means as necessary to accomplish results satisfactory to the Contract Administrator. The Contractor shall take care to prevent spillage on streets over which hauling is done and the Contractor shall immediately clean up any such spillage or debris deposited on streets due to his operations. The Contractor shall not deposit any material upon any street, sidewalk, boulevard or other property, without the Contract Administrator’s or the Owner’s permission, nor shall he allow the same to remain longer than necessary. All surplus spoil and rubbish and other waste material shall be removed from the site so that the area of work is cleaned up and restored to as clean a condition as it was before the Contract started, within four days of the Contract Administrator’s written request to do so, failing which the Owner may carry out the work or have the work carried out by others and recover the costs from the Contractor or may deduct the cost from any monies due or that may become due to the Contractor.
		4.1.3	(Add new clause 4.1.3 as follows): Work can be performed during the normal weekday working hours of 0700h to 1900h, unless specified otherwise in Appendix A – Traffic Management Detail Specifications. Written permission from the Contract Administrator will be required for any works to be performed outside of the normal working days of Monday to Friday.

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

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

The Contractor shall not schedule work that will require inspection beyond the Owner's normal office hours and working days without prior approval from the Contract Administrator. Any extra cost incurred by the Owner for work done outside of normal office hours and working days will be deducted from the Contractor's monthly payments unless pre-approved by the Contract Administrator. The cost of inspections on a Sunday or on a Statutory Holiday by City staff/s will be at Contractor's expense. No greater quantity of work shall be undertaken at any one time than can be properly conducted with due regard to the rights and interests of the public, as may be determined by the Contract Administrator.

The Contractor will be charged for the costs of inspection required during overtime hours, during weekends and during statutory holidays. Overtime hours will be determined in accordance with the Employment Standards as set by the Province of B.C.

If Road and Sidewalk Closure Permits are issued, the work will be restricted to the time limits indicated on the permit.

4.1.4 ***(Add new clause 4.1.4 as follows):***

The Contractor shall ensure safe passage of vehicles and pedestrian through the work zone and have a traffic management plan, approved by Contract Administrator, and an approved Road and Sidewalk Closure Permit in place prior to start of work. The Contractor shall follow City's Construction Traffic Management Requirements.

Refer to Contract's Supplementary Specifications - Appendix A: Construction and Traffic Management Requirements (CTMR).

4.2 **Safety**

4.2.2 ***(Add new clause 4.2.2 as follows):***

For the purposes of Occupational Health and Safety, the *Contractor* is the "Prime Contractor" as detailed in the Worker's Compensation Act, Section 118. The *Contractor* shall have and maintain an Occupational Health and Safety Program that meets the requirements of the WCB and the WCB OH&S Regulations.

- 4.2.3 **(Add new clause 4.2.3 as follows):**
In an emergency, gas pipeline rupture or leak, Contact FortisBC's 24 Hour Emergency Line (1-800-663-9911) and Coquitlam Fire (911) immediately and then City Coquitlam Utility Control Centre (604-927-6287).
- 4.3 **Protection of Work, Property and the Public**
- 4.3.4 **(Replace clause 4.3.4 as follows):**
Before commencing any *Work* at the *Place of the Work*, the *Contractor* shall be responsible to locate in three dimensions all underground utilities and structures indicated on the *Contract Documents* as being the *Place of the Work*. The *Contractor* shall also be responsible to consult with all the utility corporations that provide electricity, communications, gas or other utility services in the area of the *Place of Work*, to locate all underground utilities for which they have records. The *Contractor* shall also locate in three dimensions any other utilities or underground structures that are reasonably apparent in an inspection of the *Place of the Work*. Costs to do the locates will be incidental to the contract.
- 4.3.7 **(Add new clause 4.3.7 as follows):**
Any lands other than those upon which the work is to be performed, which may be required for temporary facilities, storage purposes or access to the work site, other than those provided by the *Owner*, shall be provided by the *Contractor* at his own cost, with no liability to the *Owner*.
- 4.3.8 **(Add new clause 4.3.8 as follows):**
The *Contractor* shall conduct his operations so as to cause the minimum obstruction and inconvenience to traffic and to places of business, schools and residences adjacent to the *Place of Work*. No greater quantity of work shall be undertaken at any one time than can be properly conducted with due regard to the rights and interests of the public as may be determined by the *Contract Administrator*.
- The *Contractor* is to provide at all times safe and convenient means of approach and entrance to adjoining lanes, driveways, buildings and property both for vehicles and pedestrians to the satisfaction of the *Contract Administrator*. For this purpose he shall construct and maintain suitable and safe platforms, approaches, structures, bridges, diversions or other works.
- Where traffic must cross open trenches, the *Contractor* shall provide suitable bridges. Where trenches have been backfilled or where road improvements are incomplete the *Contractor* shall take any steps necessary to prevent potholes or other traffic hazards. Where the *Contract Administrator* so instructs or where *Contract Specifications* so require, the *Contractor* shall provide temporary asphalt patching of such hazards.

-
- | | | | |
|------------|------------------------------|-------|---|
| 4.6 | Construction Schedule | 4.6.1 | <p><i>(Replace clause 4.6.1 as follows):</i>
The Contractor shall within the time set out in the Form of Tender prepare and submit to the Contract Administrator for his approval a construction schedule (the Baseline Construction Schedule) indicating the planned start and completion dates of major activities of the Work. The Baseline Construction Schedule shall be in more detail than the Preliminary Construction Schedule and shall indicate completion of the Work in compliance with any specified Milestone Dates, including Substantial Performance.</p> |
| | | 4.6.6 | <p><i>(Replace clause 4.6.6 as follows):</i>
The time for the performance of the Work shall commence on the date specified in the Notice to Proceed, or if not so specified, on the date the Notice to Proceed is issued. The Notice to Proceed will not be issued until the documentation required under paragraph 5.1.1 of the Form of Tender has been submitted and the construction schedule has been approved.</p> |
| | | 4.6.8 | <p><i>(Add new clause 4.6.8 as follows):</i>
Any requests to lengthen the work schedule shall be made in writing by the Contractor within five working days of knowledge of the reason for the extension. The Contract Administrator will adjust the schedule at his discretion upon receipt of a written request.</p> |
| 4.7 | Superintendent | 4.7.2 | <p><i>(Add new clause 4.7.2 as follows):</i>
The Superintendent shall be in attendance at all times at the Place(s) of the Work unless permitted otherwise by the Contract Administrator.</p> |
| | | 4.7.3 | <p><i>(Add new clause 4.7.3 as follows):</i>
The Superintendent shall represent the Contractor at the Place of Work and instructions given to the Superintendent by the Contract Administrator shall be considered to be given to the Contractor.</p> |
| 4.8 | Workers | 4.8.2 | <p><i>(Add new clause 4.8.2 as follows):</i>
The Contractor shall, upon the request of the Contract Administrator, remove any person employed by him for the purposes of the Contract who, in the opinion of the Contract Administrator, is incompetent or has conducted himself improperly, and the Contractor shall not permit a person who has been removed to return to the Place of Work.</p> |
| 4.9 | Materials | 4.9.3 | <p><i>(Add new clause 4.9.3 as follows):</i>
The Contractor shall, at his cost,</p> <ul style="list-style-type: none">a) Be responsible for storing all of the materials supplied for the Work either by himself or the Owner, until it has been incorporated into the completed Work;b) Store all materials in a manner which will prevent damage from the weather, dirt, foreign matter, vandalism and |
-

theft;

- c) Arrange for and/or verify the time of delivery of all materials to be supplied by himself or the Owner to ensure that delivery will coincide with his work schedules.
- d) Examine with the Contract Administrator the quantities and details of all materials supplied by the Owner at the time and place of delivery or those materials already at the Place of Work, and prepare and sign a Statement of Materials Acceptance, specifically noting and rejecting any defective material;
- e) Replace all materials supplied by himself or the Owner which are found to be stolen, missing or damaged while under his care;
- f) Assume responsibility, upon signing of the Contract, for all materials supplied by the Owner and already at the Place of Work.
- g) Replace all materials found to be defective in manufacture which have been supplied by himself.

4.11 Subcontractors

4.11.3

(Delete clause 4.11.3 and replace with):

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

4.12 Test and Inspections

4.12.1

(Delete clause 4.12.1 and replace with):

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

(Delete clause 4.12.5(1) and replace with):

The Owner is to perform or arrange for all the tests, inspections and approvals of the Work as part of Quality Assurance. If test results indicate a non-conformance to the Contract, all testing subsequent to initial testing, will be performed by the Owner, at the expense of the Contractor, and those costs will be deducted from payments to the Contractor.

4.12.11

(Add clause 4.12.11 as follows):

The Contractor shall give the Contract Administrator two (2) full working days' notice to arrange and witness any testing required by the Contract.

		4.12.12	<p><i>(Add clause 4.12.12 as follows):</i> Failure to follow DFO/MOE BMPs for Instream Works or as instructed by Contract Administrator will result in shut-down of the work. Failure to comply on what is stated on the approved permit will result in shut-down of the work. The Contractor must take all steps to mitigate impacts to aquatic resources, environment and habitats before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.</p>
4.14	Final Clean-up	4.14.3	<p><i>(Add new clause 4.14.3 as follows):</i> The Contractor will be responsible for the complete clean-up of the work site at the end of construction and prior to the Substantial Performance review. The clean-up is considered incidental to the Contract.</p> <p>The work will include cleaning of all catch basins within the work area, or nearby location as affected by the Work, regardless of the condition of the catch basins prior to starting the Work and all manholes and/or sewers affected by work done under this contract. All cleaning is to be performed by <u>vacuum truck to the satisfaction of the Contract Administrator</u> and will include off-site disposal of waste material.</p>
4.16	Notice of Disruption	4.16.2	<p><i>(Add new clause 4.16.2 as follows):</i> Written notice must be provided to all properties which may be physically affected by the construction not less than one week and not more than two weeks prior to construction.</p> <p>Notify occupants directly affected by the work 48 hours in advance of commencement of construction.</p> <p>Cost of notifying area occupants of ensuing construction and delivery of the notices is incidental to the Contract. Cost of obtaining releases from area occupants affected by construction is incidental to the Contract.</p>
6.0	OTHER CONTRACTORS		
6.2	Coordination and Connection	6.2.1	<p><i>(Delete clause 6.2.1 and replace with):</i> <i>The Contractor shall, in accordance with usual construction practice, coordinate the Work with the Other Work and connect to Other Work as specified or shown in the Contract Documents. The Contractor shall not be entitled to additional payment or an extension of contract time for delays where connections to works were specified in the Contract.</i></p>
7.0	CHANGES		
7.4	Optional Work	7.4.2	<p><i>(Add new clause 7.4.2 as follows):</i> If there are Optional items or Provisional items included in the <i>Schedule of Quantities and Prices</i>, those items shall be used only as directed and at the sole discretion of the Contract Administrator through the issue of a Change Order. These items</p>

will be paid at the contract unit price as part of regular progress payments. Only quantities used will be eligible for payment. No claim will be accepted for unused Optional or Provisional quantities. Clause 9.4 Quantity Variations will not be applicable for these items.

9.0 VALUATION OF CHANGES AND EXTRA WORK

9.2 Valuation Method 9.2.4

(Replace clause 9.2.4 as follows):

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

10.0 FORCE ACCOUNTS

10.1 Force Account Costs 10.1.1(1)

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

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

13.0 DELAYS

13.1 Delay by Owner or Contract Administrator 13.1.2

(Add new clause 13.1.2 as follows):

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

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

13.8 Direction to Stop or Delay 13.8.3

(Add new clause 13.8.3 as follows):

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

13.9 Liquidated Damages for Late Completion 13.9.1

(Delete clause 13.9.1 (1) and replace as follows):

An amount of \$1000.00 per calendar day for each day, or portion, that *Substantial Performance* is achieved after the date established for *Substantial Performance* in the *Contract*.

(Add clause 13.9.1 (3) and replace as follows):

Any loss to the Owner of third party funding which the Owner was to receive if the Work, or a particular portion thereof, was

not completed before a Milestone Date.

18.0 PAYMENT

**18.1 Preparation of
Payment Certificate**

18.1.1

(Delete clause 18.1.1 and replace as follows):

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

**18.6 Substantial
Performance**

18.6.5

(Delete clause 18.6.5 and replace as follows):

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

18.6.6

(Replace clause 18.6.6 as follows):

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

The *Contractor* shall be the *Payment Certifier* responsible under Section 7 of the *Builders Lien Act* for certifying *Substantial Performance* of the *Work* of each *Subcontractor*. Prior to certifying completion for a *Subcontractor*, the *Contractor* shall consult the *Contract Administrator* and obtain the *Contract Administrator's* comments on the status of completion by the *Subcontractor*, including any deficiencies or defects in the *Subcontractor's Work* noted by the *Contract Administrator*. The *Contractor* will indemnify and save the *Owner* harmless from any and all liability the *Owner* may have to anyone arising out of the certification by the *Contractor* of *Substantial Performance* for that *Subcontractor*.

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

**20.0 LAWS, NOTICES,
PERMITS AND FEES**

20.4 Environmental Laws

20.4.2

(Add new clause 20.4.2 as follows):

The successful tenderer will be required to observe and achieve all terms and conditions required under the Fisheries Act. The following is a partial list of conditions that the Contractor shall allow for in its tendered prices:

All work must be undertaken and completed in such a manner as to prevent the release of silt, sediment or sediment-laden water, raw concrete, concrete leachate, or other deleterious substance into any water courses;

Silt fences must be erected and maintained around all construction areas;

All work must be undertaken and completed in isolation of all flowing water to maintain downstream water quality, and unrestricted flows;

The guidelines for sediment and erosion control outlined in the jointly published BC Environment/Fisheries and Oceans Canada document "Land Development Guidelines For the Protection of Aquatic Habitat" must be adhered to;

All work must be carried out during favorable and low water conditions;

All equipment and machinery must be in good working condition (power washed), free of leaks or excess oil and grease. No equipment refueling or servicing shall be undertaken within a minimum of 30 metres of any water course or surface water drainage;

A spill containment kit must be readily accessible on site. Any spill of reportable quantities must be immediately reported to the Provincial Emergency Program's 24 hour phone line at 1-800-663-3456;

Machinery must not enter the watercourses without approval of the Contract Administrator;

Any fill used on this project shall be certified inert and from a source which is confirmed to be free of contaminants.

**21.0 WORKERS
COMPENSATION
REGULATIONS**

**21.4 Workers
Compensation OHS
Regulation**

21.4.1

(Add new clause 21.4.1 as follows):

All works shall be in strict compliance with WorkSafe BC OHS Regulation Part 19 when working near or under any overhead power lines.

The Contractor must be fully aware of the danger to workers and shall take all necessary safety precautions when working near to existing utilities, such as high pressure gas, water line and BC Hydro lines.

21.4.2 ***(Add new clause 21.4.2 as follows):***

All works shall be in strict compliance with WorkSafe BC OHS Regulations.

24.0 INSURANCE

24.1 Introduction

(Delete clause 24.0 and replace as follows):

24.1.1 **Importance of Prompt Attention to Insurance and Bond Requirements:**

The City Council has directed that the apparently successful Contractor, after being so informed, shall complete the "Supplementary General Conditions Regarding Contract Insurance and Bond Specifications". Contractors are advised, however, to make themselves familiar with the Specifications as undue delay may result if advance investigations are not carried out.

24.1.2 **Format of the Supplementary General Conditions:**

Section 24 deals generally with insurance and bonding with respect to the Contract. Certain documents must be provided at the time of tendering. These requirements are set out in Section 24.3.

Before any work may commence, and no exceptions will be allowed to this rule, certain other documentation will be required and this is set out in Sections 24.4 and 24.5.

24.2 General

24.2.1 **Supplementary General Conditions Forming Part of the Contract:**

The Supplementary General Conditions regarding Contract insurance and bond specifications set out herein shall be attached to and form part of the Contract Documents.

24.2.2 **Acceptable Insurance Carriers:**

The insurer issuing any policy, or other document which is evidence of insurance to the Contractor, shall be an insurer licensed by the Superintendent of Insurance in the Province of British Columbia and registered with the Department of Insurance for Canada in Ottawa, except the Insurance Corporation of British Columbia, which is not subject to this condition.

24.2.3 **Owner's Right to Change Terms:**

Notwithstanding anything contained in the Contract Documents, the Owner will have the right to request a change to the specified terms and conditions respecting insurance at the sole option of the Owner. The Contractor will be notified in writing of any changes required by the Owner and will provide a quotation for such work.

- 24.2.4 **Delivery of Insurance Documents:**
All insurance policies or other acceptable specified documents shall be delivered to, and accepted by, the Owner before the Contract Documents are signed. No work shall be commenced by the Contractor or by anyone acting on the instructions of the Contractor, until the required Insurance Documents have been accepted by the Owner and the Contract Documents have been duly signed by the Owner and the Contractor.
- 24.2.5 **Owner's Right to Insure:**
Should the Contractor for any reason not comply with the specified requirements with respect to the insurance, the Owner will, at the Owner's option, have the right to purchase all or any part of such insurance which, in the opinion of the Owner, may be required to provide the specified insurance, and, in the event of so doing, the Owner will have the right to pay the premiums for such insurance and to withhold the amount of premiums so paid from any amount due and payable to the Contractor under the Contract.
- 24.3 Procedure Respecting Tendering**
- 24.3.1 **Security Deposit:**
Each tender must be accompanied by a Bid Bond on the form included as Appendix 6 in the Form of Tender, said Bid Bond to be issued by a surety company licensed to conduct business in the Province of British Columbia and shall be in the amount of ten percent (10%) of the Tender Price
- 24.3.2 **Certificate of Compliance:**
The Contractor shall submit the Certificate(s) of Compliance for Contract Insurance included as Appendix 7 of the Form of Tender with respect to the insurance required to be provided by the successful Tenderer.
- 24.4 Procedure Respecting Contract Insurance and Bonding**
- 24.4.1 **General Conditions:**
Damage to work (excluding Building Contracts where Section 24.5, Paragraph 24.5.1, Further Responsibilities of Contractor, applies).

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

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

Indemnity:

The Contractor shall indemnify and save harmless the Owner from and against any and all losses, claims, demands, payments, suits, actions, recoveries, and judgements of every nature and description brought or recovered against him, and/or the Owner, by reason of any act or omission of the said Contractor, his agents, or employees in the execution of the work.

24.4.2

Bonds:

To ensure the faithful execution and proper fulfilment of the Contract, the Contractor shall provide the Owner with the following bonds at the time of his execution of the Contract Agreement:

A Performance Bond in the amount of fifty percent (50%) of the total Contract amount covering the faithful performance of the Contract; and A Labour and Material Payment Bond in the amount of fifty percent (50%) of the total Contract Price.

The above bonds must be issued by a surety company licensed to carry on business in the Province of British Columbia and shall be provided on the forms included as Appendix I and Appendix II respectively.

24.4.3

Public Liability Insurance:

(Other than Automobile Third Party Liability Insurance):

Evidence of Insurance:

The Contractor shall deposit with the Owner, before the work commences, a Certificate of Insurance, signed by an authorized representative of the insurer, such certificate to be as shown in Appendix III.

Effective Dates and Terms:

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

Limits of Liability:

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

- 24.4.4 **Public Liability Insurance (Automobile):**
The Contractor shall deposit with the Owner before the work commences a Certificate of Insurance with respect to owned automobiles on ICBC Form No. APV 47 entitled "Confirmation of Insurance Coverage" and with respect to Non-Owned Automobiles including hired automobiles and Contractual Liability on ICBC non-owned automobile policy Form APV 29 (if non-owned automobile coverage is not included under the comprehensive general liability coverage) each signed by an authorized representative of the Insurance Corporation of British Columbia.
- 24.5 **Physical Loss or Damage With Respect to New Buildings under Construction and/or Major Additions to Existing Structures**
- 24.5.1 **Responsibility for Placing Insurance:**
The types of insurance required under this section will be provided and maintained at the expense of the City of Coquitlam during the term of the Contract and will be as follows unless otherwise changed by specific endorsement to these Insurance Specifications.
- 24.5.2 **Insurance Coverage Required:**
Builders Risk Completed Value "All Risks" Course of Construction Insurance. This policy will be written in the names of the City of Coquitlam and the Contractor with loss payable as their respective interests may appear.
- 24.5.3 **Responsibility of Contractor – Limitations of cover and deductibles:**
The insurance provided by the City of Coquitlam as described herein will not provide the Contractor with full protection against any and all kinds of loss or damage which may arise out of the Contract. It is, therefore, the responsibility of the Contractor to fully understand the scope of the cover provided with particular attention to the exclusions, limitations of cover and deductible provisions contained in the Insuring Agreements of the policies and it is further the responsibility of the Contractor to take out at the Contractor's expense, whatever other additional insurance the Contractor may consider necessary or desirable for his protection subject as hereinafter provided. The Contractor shall act in the same manner on insurance made available through the City of Coquitlam as he would if he had arranged such insurance himself.
- 24.5.4 **Responsibility of Contractor – Direct Damage Insurance:**
If the Contractor fails to do all or anything that is required of him concerning insurance, the City of Coquitlam may do what is required and any monies expended by the City of Coquitlam for that purpose shall be repayable and recoverable from the Contractor. Should any action failure, or negligence of the Contractor result in higher insurance costs being incurred by the City of Coquitlam, such additional costs shall be payable or recoverable from the Contractor.

- 24.5.5 **Responsibility of Contractor – Machinery and Equipment Belonging to Others:**
Unless otherwise directed by the City of Coquitlam in writing, the Contractor shall carry insurance covering loss or damage to construction machinery, tools and equipment owned by and/or on bare rental from a third party or parties and used by the Contractor in performing the work, which insurance shall be in a form satisfactory to the City of Coquitlam and having coverage in accordance with the actual cash value of such construction machinery, tools and equipment. Such policies shall also provide for subrogation to be waived against the City of Coquitlam. A certified copy of the policy shall be delivered to the City of Coquitlam not later than thirty days after the commencement of work under the Contract.
- 24.5.6 **Contractor’s Waiver of Liability to Coquitlam:**
The Contractor hereby releases the City of Coquitlam from any and all liability for damages to the extent that such damages are covered by the course of construction insurance referred to in Section 24.5 of these specifications.
- 24.5.7 **Liability of Contractor:**
Neither the providing of insurance by the Contractor or the City of Coquitlam in accordance with the requirements hereof, nor the insolvency, bankruptcy, nor failure of any insurance company to pay any claim accruing shall be held to waive any of the provisions of this Contract with respect to the liability of the Contractor or otherwise.
- 24.5.8 **Responsibility of Contractor for protection of work, persons and property:**
The Contractor and all persons employed by the Contractor or under his control, and all employees and subcontractors, shall use due care that no person or property is injured, and that no rights are infringed in the prosecution of the work. Contractors shall take particular care to protect the work against loss or damage caused by riot, vandalism or malicious mischief and shall be at the expense of the Contractor provide all necessary safeguards in the form of watchmen and/or watch dog protection to prevent loss or damage of this type. The payment of deductibles is the responsibility of the Contractor and if not paid by the Contractor such amounts shall be deducted by the City of Coquitlam from payment due to the Contractor. These deductibles will normally be \$250.00 each claim.
- 24.5.9 **Action to be taken in the event of loss or damage to the work covered by the Contract:**
When any loss or damage occurs to the work or to any materials and supplies on the site of the work, the Contractor shall remove any and all damaged or destroyed property and shall rebuild or replace the damaged or destroyed work, materials, or supplies and complete the work to the satisfaction of the

Owner. For such removal, rebuilding, or replacing, the Contractor shall be entitled to receive from the Owner the amount of insurance monies received by the Owner pursuant to the said adjustment which amount shall be paid to the Contractor as the work of rebuilding or replacing proceeds, and in accordance with the Agreement. Damage or destruction of the whole or any part of the work shall not affect the rights and obligations of either party under the Agreement, except that in such event the Contractor shall be entitled to such reasonable extension of time to complete the work as the Architect and/or Contract Administrator may decide.

24.5.10 **Further responsibility of Contractor:**

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

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

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

The Owner will not be responsible for securing or paying for insurance of any kind other than as specified in Section 24.5 of these specifications nor will the Owner have any responsibility whatsoever for loss or damage from whatever cause occurring to property owned, leased, or otherwise in the possession of the Contractor, subcontractors or their employees including, without restricting the generality of the foregoing, machinery, equipment, tools, supplies, and clothing at the construction site or elsewhere including loss of use of same.

24.6 Additional Insured

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

- The City of Coquitlam

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

25.0 MAINTENANCE PERIOD

25.1 Correction of Defects 25.1.4

(Add new clause 25.1.4 as follows):

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

27.0 CONTRACTOR PERFORMANCE EVALUATION 27.1

(Add new clause 27.1 as follows):

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

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

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

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

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

APPENDIX I

PERFORMANCE BOND

NO. _____ \$ _____

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

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

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

_____ Dollars

(\$)

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

WHEREAS, the Principal has entered into a written contract with the Oblige, dated the _____

day of _____ 20____, for

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

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

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

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

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

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

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

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

SIGNED, SEALED and DELIVERED

In the presence of

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)
)
)
)

PRINCIPAL

SURETY

APPENDIX II

LABOUR AND MATERIAL PAYMENT BOND

(Private Contracts – Trustee Form)

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

KNOW ALL MEN BY THESE PRESENTS THAT

As Principal, hereinafter called the Principal, and

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

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

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

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

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

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

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

1. A Claimant for the purpose of this Bond, is defined as one having a direct contract with the Principal for labour, material, or both, used or reasonably required for use in the performance of the Contract, labour and material being construed to include the part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment directly applicable to the Contract provided that a person, firm or corporation who rents equipment to the Principal to be used in the performance of the Contract under a contract which provides that all or any part of the rent is to be applied towards the purchase price thereof shall only be a Claimant to the extent of the prevailing industrial rental value of such equipment for the period during which the equipment was used in the performance of the Contract. The prevailing industrial rental value of equipment shall be determined, insofar as it is practical to do so, in accordance with and in the manner

provided for in the latest revised edition of the publication of the Canadian Construction Association entitled "Rental Rates on Contractors' Equipment" published prior to the period during which the equipment was used in the performance of the Contract.

2. The Principal and the Surety hereby jointly and severally agree with the Oblige as Trustee that every Claimant who has not been paid as provided for under the terms of his contract with the Principal before the expiration of a period of ninety (90) days after the date on which the last of such Claimant's work or labour was done or performed or materials were furnished by such Claimant, may as a beneficiary of the trust herein provided for, sue on this Bond, prosecute the suite to final judgment for such sum or sums as may be justly due to such Claimant under the terms of his said contract with the Principal and have execution thereon. Provided that the Oblige is not obliged to do or take any act, action or proceeding against the Surety on behalf of the Claimants or any of them to enforce the provisions of this Bond. If any act, action or proceeding is taken either in the name of the Oblige or by joining the Oblige as a party to such proceedings then such act, action or proceeding shall be taken on the understanding and basis that the Claimants or any of them who take such act, action or proceeding shall indemnify and save harmless the Oblige against all costs, charges and expense or liabilities incurred thereon and any loss or damage resulting to the Oblige by reasons thereof. Provided still further that subject to the foregoing terms and conditions, the Claimants or any of them may use the name of the Oblige to sue on and enforce the provisions of this Bond.
3. No suit or action shall be commenced hereunder by any Claimant:
 - a) unless such Claimant shall have given written notice within the time limits hereinafter set forth to each of the Principal, Surety and Oblige, stating with substantial accuracy the amount claimed. Such notice shall be served by mailing the same by registered mail to the Principal, Surety and Oblige at any place where an office is regularly maintained for the transaction of business by such persons or served in any manner in which legal process may be served in the Province or other part of Canada in which the subject matter of the contract is located. Such notice shall be given (i) in respect of any claim for the amount or any portion thereof required to be held back from the Claimant by the Principal under either the terms of the Claimant's contract with the Principal or under the Mechanic's Liens Legislation applicable to the Claimant's contract with the Principal whichever is the greater within one hundred and twenty (120) days after such Claimant should have been paid in full under the Claimant's contract with the Principal; (ii) in respect of any claim other than for the holdback or portion thereof referred to above within one hundred and twenty (120) days after the date upon which such claimant did or performed the last of the work or labour or furnished the last of the materials for which such claim is made under the Claimant's contract with the Principal.
 - b) after the expiration of one (1) year following the date on which Principal ceased work on the Contract including work performed under guarantees provided in the Contract.
 - c) Other than in a court of competent jurisdiction in the Province or District of Canada in which the subject matter of the Contract or any part thereof is situated and none elsewhere, and the parties hereto agree to submit to the jurisdiction of such court.
4. The amount of this Bond shall be reduced by and to the extent of any payments made in good further and in accordance with the provisions which may be filed of record against the subject matter of the Contract, whether or not claim for the amount of such lien be presented under and against this Bond.
5. The Surety shall not be liable for a greater sum than the specified penalty of this Bond.

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

SIGNED, SEALED and DELIVERED

In the presence of

)
)
)
)
)

PRINCIPAL

SURETY

APPENDIX III

CERTIFICATE OF INSURANCE

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

A. This Certificate is issued to: Named Insured and Mailing Address:

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

B. CONTRACT NUMBER AND/OR NAME Description of the Work:

C. INSURANCE POLICY

Name of Insurer:
Policy Number:
Effective Date:

Liability Limit:
Expiry Date:

D. INSURANCE COVERAGE

COMMERCIAL GENERAL LIABILITY coverage is required to insure against liability from the activities arising out of operations or work in connection with the above-described project, including liability arising out of the use of City property.

D.1 The minimum limit shall be \$5,000,000.00 inclusive per occurrence against bodily injury, personal injury and property damage.

D.2 The City of Coquitlam, its employees, officers, agents and volunteers are added as Additional Insureds, but only with respect to operations conducted by or on behalf of the Named Insured in connection with the above-described project, operations or work.

D.3 This insurance shall be primary as regards the City of Coquitlam, its employees, officers, agents and volunteers as Additional Insureds.

D.4 Any deductible or reimbursement clause contained in the policy shall not apply to the City of Coquitlam and shall be the sole responsibility of the Named Insured.

D.5 The insurance shall include the following coverages:

- D.5.1 Cross Liability Clause
- D.5.2 Non-Owned Automobile Liability
- D.5.3 Unlicensed Automobile Liability
- D.5.4 Blanket Contractual Liability
- D.5.5 Broad Form Property Damage Liability
- D.5.6 Owner's & Contractor's Protective Liability
- D.5.7 Products & Completed Operations Liability

D.6 Indicate provision of special coverage for this project as required by the City:

YES	NO	Special Coverage Description
-----	----	------------------------------

- | | | |
|-------------------------------------|-------------------------------------|---------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Shoring and Underpinning Hazard |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Pile Driving and Vibrations |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Excavation Hazard |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Demolition |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Blasting |

D.7 **PROFESSIONAL LIABILITY INSURANCE for Consultant Service Agreements**

The *Consultant* shall obtain and maintain for the duration of the *Services* as described in the Agreement, at its own cost, Professional Liability Insurance on terms and from an insurer satisfactory to the City of Coquitlam.

The Professional Liability Insurance policy shall insure the *Consultant's* legal liability for errors, omissions and negligent acts, to the extent of no less than \$500,000.00 per Claim and \$1,000,000.00 Aggregate.

Authorized Signature and Stamp

Date Name and Title

City' broker to return to City Representative Department



APPENDIX IV

PRIME CONTRACTOR DESIGNATION

Subject: **Prime Contractor Designation**
Contract #: **77091-16A**
Contract Name: **2016 Sidewalk Program** (the "Project")

_____ (the "Contractor") represents, acknowledges and agrees that:

1. in accordance with section 118 of the Workers Compensation Act, R.S.B.C. 1996, c. 492 (the "Workers Compensation Act"), the Contractor shall be the "Prime Contractor" and is qualified to act as the "Prime Contractor" in respect of the Project ;
2. the Contractor accepts the duties and responsibilities for coordination of health and safety in accordance with the Workers Compensation Act and further agrees that it will do everything necessary to establish and maintain a system or process that will insure compliance with the Workers Compensation Act and the Regulations thereto;
3. the Contractor shall fulfill all the obligations of an "Owner" under section 119 of the Workers Compensation Act in respect of the Project site; and
4. that the City of Coquitlam has fulfilled its obligations as an "Owner" under section 119 of the Workers Compensation Act, in respect of the Project site.

Prime Contractor Name & Address:

Prime Contractor Signature

Date

Print Name

Please return a signed copy of this memo to the City of Coquitlam. If you have any questions, please contact the City's Health and Safety Advisor at 604-927-3068.

Supplementary Contract Specifications

Supplementary Contract Specifications

to the
MASTER MUNICIPAL SPECIFICATIONS
Volume II – Platinum Book

2016 Sidewalk Program
CONTRACT 77091-16A

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CONTRACT SPECIFIC NOTATIONS

1.00	CONTRACT SPECIFIC INSTRUCTIONS	
1.01	Coordination of Work	Linton Street is a bus routes; therefore the Contractor shall be responsible to consult with the Coast Mountain Bus Company (CMBC) regarding delays, detours, temporary bus stop closures and any other works affecting the transit service in the area.
1.02	Outside Agency Approval	In accordance with the Contract Documents, the Contractor is responsible to consult with and obtain any approval required to meet and comply with all the conditions required from outside agency such as, but not limited to, BC Hydro, FORTIS BC GAS, Kinder Morgan, Telus, in the area of the place of Work.
1.03	Cooperation with Emergency and Maintenance Activities	The Contractor will be responsible to cooperate with regular maintenance or emergency vehicles and staff for access to the site when required including: <ul style="list-style-type: none"> • Fire, Police, and Ambulance • Waste Management (garbage pick-up) • City Utilities Maintenance (or representatives)
1.04	FORTIS BC Emergency Protocol	In an emergency, gas pipeline rupture or leak, Contact Fortis BC 24 Hour Emergency Line (1-800-663-9911) & Fire Department (911) immediately and then City Coquitlam Utility Control Centre (604-927-6287)
1.05	Lane Closure Restrictions	The contractor shall refer to Contract's Supplementary Specifications 01 55 00S.
1.06	Hours of Work	The contractor shall refer to Contract's Supplementary Specifications 01 55 00S.
1.07	Schedule of Work	All work under this Contract is to be completed within the designated Contract Duration. The Contractor must provide sufficient resources in a <u>continuous effort and site presence</u> to complete all the work within the allotted time. As set out in the MMCD the Contractor must provide updates to the construction schedule monthly, preferably biweekly.
1.08	Order of Construction	The Contractor will be required to conduct the work in the following order or as approved by the Contract Administrator: <ol style="list-style-type: none"> 1) Robinson Street (Foster to Cottonwood Ave) 2) Robinson Street (Como Lake to Seaton Ave) 3) King Albert Ave (Poirier to Laurentian Cr) 4) Smith Ave (Blue Mountain to Hailey St) 5) Blue Mountain St (Como Lake to Leland Ave) 6) Guilby Street (Edgar Ave to Rochester Ave) 7) Linton Street (Regan to Walnut Cr)
1.09	Survey Layout	Construction layout will be the responsibility of the Contractor. The Contract Adnminsitrator will provide AUTOCAD Drawings to the Contractor.
1.10	Location of Existing Utilities	The contractor is responsible to verify the depth and location of all utilities (watermains, storm mains, sanitary mains & etc.), including outside agency utilities (i.e. Terasen Gas Mains & etc.) and service connections (water, storm & sanitary services at the mains & property lines) by hand digging or by Hydro-Vac in the presence of the Inspector. Pre-locates must be completed as soon as possible after award of the contract so changes can be completed by the Engineer prior to site construction. Contact BC One for location of outside agency utilities. The contactor will not receive any compensation or allowance for delays if work is halted due to utilities & services connections not located prior to commencing construction. City of Coquitlam does not guarantee water, storm or sanitary services connections

CONTRACT SPECIFIC NOTATIONS

are perpendicular to the mains or property lines, the contractor will not receive any compensation for the time to locate these connections or for exposing hidden services at the property lines.

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

1.11 Manholes & Valves

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

**1.12 Utility Adjustments -
City Infrastructure and/or
Other Agency
Infrastructure**

The Contractor is responsible for adjusting all utilities, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Utility adjustment will be considered incidental to the contract unless otherwise noted in the Contract Documents.

The Contractor should note that certain utility owners may decide to complete their own adjustments. The Contractor will be required to cooperate with any utility company providing their own adjustments.

The Contractor shall be responsible to contact the appropriate utility company with in minimum of seventy two (72) hours of the work. No adjustment shall be made without the written approval of the utility company.

All manholes must be vertically adjusted a minimum of twenty four (24) hours prior to paving

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

**1.13 Temporary Asphalt
Pavement Restoration**

The Contractor will be required to backfill all trenches (in paved areas) and place a temporary patch (50mm of hot mix asphalt), as per Coquitlam Standard Drawing COQ-G4, the same day excavation is made, unless otherwise approved by the Contract Administrator.

1.14 Accesses

The Contractor is responsible to maintain all business/residential vehicles and pedestrian accesses open at all times, the contractor may provide temporary accesses if the affected owner agrees. All costs associated with temporary accesses will be at the contractor's expense.

**1.15 Verification of
Dimensions and
Quantities**

Before proceeding with work visit site and check and verify dimensions and quantities. Report variations between drawings and site conditions to the Contract Administrator before proceeding with work.

1.16 Precautions

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

2.00 CONSTRUCTION ACTIVITY

2.01 Pavement Markings

The Contractor will be responsible for temporary traffic markings necessary for traffic direction and safety until permanent markings are installed.

The Contractor is responsible for the permanent pavement markings after paving is complete.

**2.02 Asphalt Milling
Operations**

Asphalt milling activities shall be done in such manner so as to cause the least disruption and inconvenience to traffic and area residents.

The Contractor will be required to provide a plan and schedule for milling sections and the subsequent paving activities and have that approved by the Contract Administrator. This schedule is to be updated as required and take into consideration weather conditions and weather forecasts to ensure work subsequent to milling can be completed in appropriate weather.

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

2.03 Construction Materials in Sewer Manholes and Pipe

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

2.04 Site Clean-up During Construction and End of Construction

The Contractor will be responsible for the complete clean-up of the work site during construction & at the end of construction and prior to the Substantial Performance review. This work is considered incidental to the Contract.

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

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

3.00 PERFORMANCE EVALUATION

3.01 Contractor Performance Evaluation

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

- Contract Administration
- Construction Management
- Schedule Management
- Communications
- Resource Management & Contractor Performance
- Quality Management

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

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

4.00 MANDATORY MEETINGS AND CONTRACTOR REPRESENTATIVES AND SUBCONTRACTORS

4.01 Pre-Construction Meeting Requirements

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

CONTRACT SPECIFIC NOTATIONS

1. A Detailed Construction Schedule showing the start date & completion date and the durations of major work components showing how all work will be completed within the Contract Duration.
2. Construction Staging Plan providing information & details on the number of stages being proposed by the contractor. This plan will be reviewed and must be approved prior to commencing construction.
3. Proof of insurance
4. Performance Bond and Labour and Materials Payment Bond
5. WCB Clearance Letter and copy of Notice of Project
6. City of Coquitlam Business License
7. A copy of portions of your Health and Safety Plan including the Title Page, Table of Contents, and portion showing latest revision date.
8. ESC (Erosion and Sediment Control) Plan

4.02 Contract Schedule, Contract Duration, and Charges

A detailed, realistic construction schedule for this project will be required to be presented at the pre-construction meeting. The schedule must show major components and durations.

All work under this project is to be completed within the designated Contract Duration as contained in the signed **Contract Agreement**, or as formally amended.

4.03 Pre-Paving Site Meeting

The Contractor will be required to have a pre-paving meeting with their paving staff, on-site, just prior to paving to provide instruction regarding the existing grading and requirements for the paving process and the end product.

The Contractor must provide information to the Contract Administrator, for review, regarding proposed paving elevation control method, mat thickness control method, and rolling patterns.

The Contractor Administrator must be in attendance at this meeting.

It will be the responsibility of the Contractor's Contract Superintendent to ensure continuity between the base preparation and the paving process.

4.04 Contract Superintendent and Subcontractors

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

This (FULL TIME) attendance is also required when work is being performed by Subcontractors.

Work done by Subcontractors is to be directed by the Superintendent and monitored on site ensuring conformance to the Contract Documents and other particular direction to the Superintendent by the Contract Administrator.

The Owner is not responsible for the direction of Subcontractors.

4.05 Changes of Contractor Representatives & Subcontractors

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

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

END OF SECTION

1.0 GENERAL

1.3 Submission

Delete 1.3.2 and
replace with the
following

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

END OF SECTION

1.0	QUALITY	<p>The Contractor shall provide a final product conforming to the Contract Documents and the intent of the work.</p> <p>The work is to be accurate to the dimensional and tolerance requirements of the contract.</p> <p>Payment will be subject to adjustments based on quality assurance tests performed by the Contract Administrator.</p>
1.01	Quality Control (QC) by Contractor	<p>The MMCD (2009) definition of “Quality Control” is the process by which the Contractor checks specific materials, products, and workmanship to ensure strict conformance with the Contract Documents.</p> <p>The Contractor is fully responsible for quality control of the materials, production, and construction processes.</p> <p>Quality control tests shall be performed by the Contractor, at their own expense, to ensure that products meet the contract specifications.</p> <p>Failure by the Contractor to conduct adequate quality control testing during production and construction will negate the Contractor’s ability to appeal the quality assurance tests used for acceptance/rejection of the work.</p> <p>Under no circumstances will QC test results produced after completion of the Quality Assurance (QA) results be considered for appeal purposes</p> <p>Any changes in the Work with respect to the location, grade, or line shall be approved in advance by the Contract Administrator. Failure to notify the Contract Administrator of changes in writing may result in rejection of Work.</p>
1.02	Inspection of Work, Quality Assurance, and Material Testing, by the Owner	<p>The MMCD (2009) definition of “Quality Assurance” means the process by which the Owner evaluates if the work is being constructed in accordance with the Contract Documents. This definition will be used for this contract</p> <p>The <i>Contract Administrator</i> will provide construction review through spot inspections and spot materials testing for Quality Assurance.</p> <p>Any materials testing results indicating a non-conformance to the Contract Documents will require construction corrective action by the Contractor.</p> <p><u>All subsequent testing to corrective action to verify conformance to the Contract Documents will be the full responsibility of the Contractor.</u></p> <p>Inspection review by the Owner will not relieve the Contractor from providing a product that meets or exceeds the requirements of the Contract Documents.</p>
1.1	Inspection	<p>Materials testing shall be as described in MMCD General Conditions, Section 4.12 with the following change:</p> <p>Delete Section 4.12.2(a) and insert the following:</p> <p>Where the MMCD specification clauses for Inspection and Testing indicate the Contract Administrator will arrange for all testing for work described in this section will be amended to read The Contractor will arrange for and pay for all testing for work described in this section. The testing shall take place at the following prescribed rates and as directed by the contract administrator. The contract administrator has the authority to call for testing, up to the rates and frequencies specified, at the Contractors cost.</p> <p>All testing covered under this item shall be performed by a CSA certified laboratory and technicians with copies of all test results to be sent directly to the Contract Administrator. Re-testing resulting from failed first tests shall be at the Contractors expense.</p>

- 1.2 Survey Layout** All Survey Layout will be completed by the Contractor in accordance with the Contract Drawings and Coordinate System set out within them. The Contractor will be provided digital AutoCAD files but shall be responsible to confirm elevations and tie in locations and report any discrepancies prior to construction.
- 1.3 Testing** Contractor shall carry out inspection and testing (QC) to ensure compliance with Contract Documents. Contractor shall submit test results within one week of testing to the Contract Administrator.
- The Contractor shall provide test results prior to the preparation of the payment certificate.
- 1.4 Contractors Responsibilities** Furnish labour and facilities to:
1. Provide access to work to be inspected
 2. Facilitate inspections and tests
 3. Make good work disturbed by inspection and tests
- 1.5 Access to Work** Allow inspection testing agencies access to Work.
- 1.6 Tests** Test rates and frequencies (excluding failed tests), when not defined in the MMCD or Detail Specifications Sections shall be at the following frequencies:
1. Trench Backfilling and Compaction
 - 1.1 Compaction: 1 test / 10 lm / 300mm lift
 - 1.2 Sieve: 1 test / placed material / 50 m³
 2. Granular Base
 - 2.1 Compaction: 1 test / 500m² / 0.15m depth of granular base
 - 2.2 Sieve: 1 test / placed material / 250 TONNES
 3. Granular Subbase
 - 3.1 Compaction: 1 test/500m² / 0.15m depth of granular subbase
 - 3.2 Sieve: 1 test / placed material / 250 TONNES
 4. Embankment (Subgrade)
 - 4.1 Compaction: 1 test/ 50m² / 0.15m depth of fill
 - 4.2 Sieve: 1 test / placed material / 100 TONNES
 5. Asphalt
 - 5.1 Marshall test: test per 250 TONNES placed, min. 1 / day
ASTM D1559, D3203, C117, C136
 - 5.2 Superpave: test per 250 TONNES placed, min. 1 / day
CAI-SP2, ASTM D3203, C117, C136
 - 5.3 Cores: 1 per 500 m²/lift
 - 5.4 Continuous asphalt density testing during paving.
 6. Subgrade Preparation
 - 6.1 Compaction & Moisture: 1 test / 500 m²
 7. Concrete Tests
 - 7.1 Air, Slump & 1 Set Cylinders: 1 test / 10 m³, min. 1 set / day
- 1.7 Measurement for Payment** Payment for all work performed under this section will be incidental to payment for work described in other Sections

END OF SECTION

1.0	GENERAL	Add 1.0.6	<p>The <i>Contractor</i> is responsible for all temporary traffic control on the streets required for completion of the work. The <i>Contractor</i> will be responsible to provide a Traffic Management Plan (TMP) for approval (5) five working days prior to any lane closures taking place. TMP is to be prepared by a professional certified by the American Traffic Safety Services Association.</p> <p>The TMP shall outline the approach to traffic management, show recognition and minimization of risks indicates signing locations, identify Traffic Control Persons (TCP) stations, show lane shifting and proposed closures.</p>
		Add 1.0.7	<p>A Road and Sidewalk Closure Permit is required from Coquitlam for all work affecting pedestrian and traffic flow related to construction. A permit is required for each specific construction interference with pedestrian and traffic flow. The road and sidewalk closure permit form can be obtained for use from the City's website at http://www.coquitlam.ca. The Contractor must follow the approved TMP. Any changes to this TMP must be submitted to City's Traffic Operations for approval.</p>
		Add 1.08	<p>Refer to Appendix A – Traffic Management Detail Specifications</p>
1.4	Traffic Control	Add 1.4.9.3.1	<p>The <i>Contractor</i>, as required by the <i>Contract Administrator</i> and the City, is to supply Construction Zone information signs (stationary), refer to MMCD 01 58 01 for the required identification signage.</p> <p>The <i>Contractor</i> is responsible for the removal of the signs at the completion of the work.</p>
		Delete 1.4.10.1.3 and replace with the following	<p>When workmen or equipment are employed over travelled way over brow of hills, around sharp curves or at other locations where oncoming traffic would not otherwise have adequate warning.</p>
1.5	Measurement for Payment	Delete 1.5.1 and replace with the following	<p>Payment for all work, unless included in the Schedule of Quantities and Prices, performed under this section will be incidental to payment for work described in other Sections.</p>

END OF SECTION

1.0 GENERAL

1.0.3 Erosion and Sediment Control Supervisor

Add 1.03

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

1.2 Temporary Erosion and Sediment Controls

Delete 1.2.1 and replace with the following

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

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

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

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

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

Delete 1.2.2.2 and replace with the following

Do not operate construction equipment in watercourses.

1.4 Environmental Protection

Add 1.4.3.5

Immediately contain and clean up any leaks and spills of prohibited materials at the *Place of Work*.

Add 1.4.3.6

Ensure that a well-stocked spill kit is on-site at all times and that the *Contractor's* employees are familiar with appropriate spill response techniques.

Add 1.4.3.7

Immediately notify the *Contract Administrator* and the City of any leaks or spills of prohibited materials that occur at the *Place of Work*.

Add 1.4.3.8

Ensure that any fuel stored on-site is located at least 15 metres from the nearest stream, and is placed within a bermed and lined area, in order to prevent leaks or spills into the environment.

Add 1.4.3.9

Ensure that no equipment fueling or servicing is conducted within 15 metres of a stream.

ENVIRONMENTAL PROTECTION

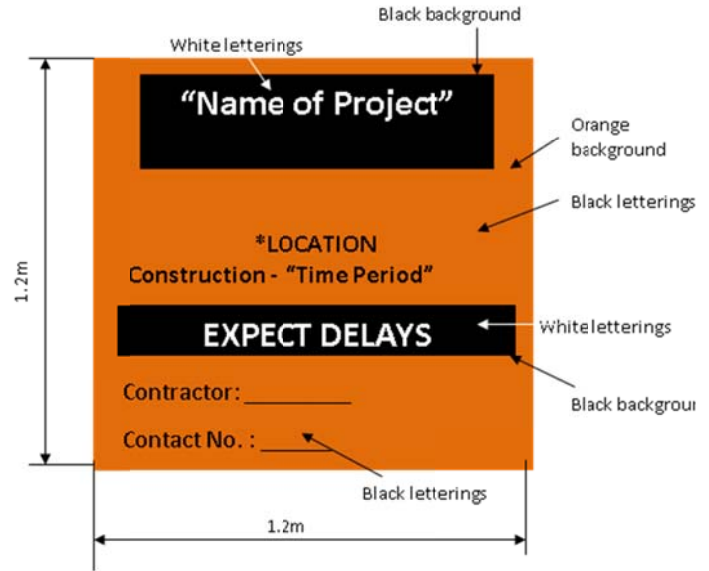
- | | | | |
|------------|--|---|---|
| 1.6 | Measurement and Payment | Delete 1.6.1 and replace with the following | Payment for all work, unless included in the Schedule of Quantities and Prices, performed under this section will be incidental to payment for work described in other Sections. |
| 1.9 | Archaeological / Historical Resources | Add 1.9 | Immediately cease work and inform the <i>Contract Administrator</i> and the City, if any archaeological or historical resources are encountered during construction. Leave these resources in place and do not disturb them in any way. |

END OF SECTION

1.3 Measurement and Payment

Delete 1.3.1 and replace with the following

Payment for the installation of 1.2m x 1.2m static construction notification signs (shown below) includes supply, placement & removal and will be paid for each sign placed as identified on the Schedule of Quantities and Prices and in the Contract Documents.



Add 1.3.2

Payment for changeable message signs (CMS) includes supply, placement, communication management & removal as required for traffic & pedestrian safety.

END OF SECTION

1.4	Measurement and Payment	Delete 1.4.3 and replace with the following	Payment for machine placed or hand formed C5 wide base concrete curb & gutter and C6 extruded concrete curb, excluding granular base, includes supply and placing of the concrete curb and gutter and will cover all straight and curve sections and will be made separately for each specified type. Extruded Concrete curb shall be keyed in to existing asphalt. Payment for granular base under curb and gutter will be made under payment items in Section 32 11 23S, Granular Base.
		Delete 1.4.5 and replace with the following	Payment for concrete sidewalks, driveways, walkways, infills and all concrete ramps, excluding granular base, includes supply and placing of the concrete, subgrade preparation under the concrete sidewalks, in-fills, driveways and walkways and will be made separately for each specified thickness and type of finish. Payment for granular base will be made under payment items in Section 32 11 23S, Granular Base.
		Delete 1.4.6 and replace with the following	Payment for driveway crossings excluding gravel base will be made on square meter basis as shown on Coquitlam Standar drawing COQ-C7. Payment for granular base will be made under payment items in Section 32 11 23S, Granular Base.
		Add 1.4.10	Payment for Detectable/Tactile Warning Surface Tile includes supply and placing of Access Tile Model # ACC-R-2x4 (or approved equal) Truncated Dome Detectable Warning Tactile Surface 2'x4' replaceable cast in place - Yellow Color and installation as per the Manufacture's Specifications.
2.1	Materials	Delete 2.1.5.1 and replace with the following	Hand-formed and hand-placed concrete: Slump: 80 mm Air entrainment: 5 to 8%. Maximum aggregate size: 20 mm. Minimum cement content: 335 kg/m ³ . Minimum 28 day compressive strength: 32 MPa.
		Add 2.1.7	Tactile warning surface tile shall be replaceable cast-in-place style. Truncated domes shall be in square grid pattern with a 5 mm nominal raised height, base diameter of 23 mm and top diameter of 11.5 mm. Dome spacing range shall be between 40 mm – 60 mm. Color of the panel shall be Federal Yellow (Y) per US Federal Standard 595B Table IV, Color No. 335. Minimum size of the panel shall be 600 mm by 1200 mm.
3.0	EXECUTION		
3.5	Concrete Placement	Delete 3.5.9 and replace with the following	The <i>Contractor</i> is responsible for adjusting all utility manhole frames and valve boxes, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Riser rings will not be accepted. The <i>Contractor</i> should note that certain utility owners may decide to complete their own adjustments. The <i>Contractor</i> will be required to cooperate with any utility company providing their own adjustments.

3.9 Expansion Joints

Delete 3.9.1 and
replace with the
following

The *Contractor* shall be responsible to contact the appropriate utility company within a minimum of seventy two (72) hours of the work. No adjustment shall be made without the written approval of the utility company. All manholes must be vertically adjusted a minimum of twenty four (24) hours prior to concrete placement.

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

END OF SECTION

2.0 PRODUCTS

2.3 Pit Run Gravel Add to 2.3.2 The use of recycled concrete shall be approved by the *Contract Administrator* and the City prior to use.

Add 2.3.3 Asphalt millings free from contaminated and other extraneous material, conforming to the specified gradations may be used as pit run gravel. The use of asphalt millings shall be approved by the *Contract Administrator* and the City prior to use.

2.7 Granular Pipe Bedding and Surround Material Add to 2.7.1 All recycled or other extraneous materials shall be approved by *Contract Administrator* and the City prior to use.

2.10 Granular Base Delete 2.10.2

Add 2.10.3 All 25 mm minus granular base is to conform to the following gradation specifications for Collector / Arterial Roads:

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

Add 2.10.4 The intention of the Gradation Chart is to identify the desired mix of size of aggregate in the granular base. The Target Percentage Passing is the middle of the shown Range.
Tests that show sieve values of Percent Passing that are consistently low or consistently high in two (2) or more consecutive tests will be considered to be non-conforming.

2.11 Recycled Aggregate Material Delete 2.11.1 and replace with the following
Aggregates containing recycled material may be utilized if approved by the *Contract Administrator* and the City. In addition to meeting all other conditions of the specifications, recycled material should not reduce the quality of the construction achievable with quarried materials. Recycled material shall consist only of aggregates, crushed portland cement concrete, or asphalt that is free of impurities.

END OF SECTION

CLEARING AND GRUBBING

- | | | | |
|------------|--------------------------------|---|--|
| 1.2 | Definitions | Add 1.2.5 | Trimming of trees, hedges and shrubs, including along construction access route(s) as identified in the approved Construction Access Plan, is included with Clearing and Grubbing. Co-ordinate with property owners and use the services of a certified arborist when necessary. Generally trees, bushes and shrubs shall be cleared for the full width of the work, within the construction limits, with the extent of clearing minimized. |
| 1.4 | Measurement and Payment | Delete 1.4.1 and replace with the following | <p>Payment for all clearing and grubbing will be made at lump sum price and include removal and disposal of all branches, stumps, trees, timbers and vegetation to complete the work as shown on the Contract Drawings or as directed by the Contract Administrator. Works include cutting of branches & trees as required to create the necessary clearance to accommodate the construction</p> <p>Payment includes removal and offsite disposal of all trees, roots, vegetation, organic matter, invasive species, stumps and topsoil stripping and disposal that are located within the work area(s).</p> <p>Payment includes trimming of small branches from trees or hedges as required, branch cutting/pruning to have a clean cut flush to branch collar and use of an approved tree paint to repair damage to surviving vegetation where branches have been removed.</p> <p>Payment for this item includes minimum 0.5m of grubbing below existing ground surface.</p> |
| 3.5 | Removal and Disposal | Add 3.5.6 | The Contractor shall remove all invasive plant species at the work sites and dispose properly on an approved location. |

END OF SECTION

SHRUB AND TREE PRESERVATION

1.3	Measurement and Payment	Delete 1.3.1 and replace with the following	Payment for all work, unless included in the Schedule of Quantities and Prices, performed under this section will be incidental to payment for work described in other Sections.
2.0	PRODUCTS		
2.1	Materials	Add 2.1.10	Protective Fencing: Posts - Pressure treated wood 100 mm dia.; Post to be 1.8 m to 2.0m in height at 2.0 m O.C. Snow fence as per Coquitlam Approved Products List; Flagging Tape - 4" Orange glow - 'Tree Retention Area'.
3.0	EXECUTION		
3.1	Existing Trees	Add 3.1.7	The <i>Contractor</i> is responsible to minimize damage to all trees which are to remain.
		Add 3.1.8	The <i>Contractor</i> will be responsible for all claims and costs including the cost of examination by an Arborist, repair, removal and replacement of trees, as required by the Arborist, the <i>Contract Administrator</i> and the City for tree damage where proper notification was not received from the <i>Contractor</i> . Damage will be assessed based on the International Society of Arboriculture Guidelines. The term shall be for a period of one year following the date of Substantial Performance of the <i>Work</i> .
		Add 3.1.9	Place protective fencing/barricades as detailed on Coquitlam Standard Detail Drawings COQ-R26. <i>Contractor</i> shall maintain fence in good condition during construction.
		Add 3.1.10	When work is to be performed inside fenced areas, <i>Contractor</i> shall take care to avoid damage to existing vegetation. Work to be done inside areas of existing vegetation to be retained includes: <ul style="list-style-type: none"> .1 Removal of isolated trees as directed by the <i>Contract Administrator</i> and the City. .2 Selective pruning and tree removal at edges to create tidy and well-shaped forest edge. .3 Placing planting soil and planting of trees.
		Add 3.1.11	Do not park, service or fuel vehicles within the vegetation retention areas.
3.4	Pruning	Add 3.4.2	Do not cut roots or branches of retained trees without approval of the <i>Contract Administrator</i> and the City.

END OF SECTION

SITE GRADING

**1.4 Measurement and
Payment**

Delete 1.4 in its
entirety and
replace with the
following

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

END OF SECTION

1.0 GENERAL

1.8 Limitations of Open Trench 1.8.1
Replace last sentence with the following If circumstances do not permit complete backfilling of all trenches, and where permitted by the *Contract Administrator* and the City, adequately protect all open trenches or excavations with approved fencing or barricades and, where required, with flashing lights.

1.10 Measurement and Payment Add 1.10.9
Payment for import trench backfill will be made by the tonne delivered to the Place of Work based on truck weigh slips. Weigh slips must be submitted to the Contract Administrator on a daily basis. Weigh slips which are not submitted daily will not be accepted for payment.

Payment to include rough grading and shaping of excavated sediment trap slopes, creek bank and slopes to design elevations.

2.0 PRODUCTS

2.2 Use of Specified Materials Delete 2.2.1.2 Delete Pit Run Sand

Delete 2.2.3.3 Delete Pit Run Sand

3.0 EXECUTION

3.3 Excavation Delete 3.3.1.2 and replace with the following Connections to existing waterworks systems are to be made by the *Contractor* under the inspection / supervision of the *Contract Administrator* and the City.

3.6 Surface Restoration Delete 3.6.2.4 and replace with the following Restore lawns with approved topsoil and sod to match existing lawn.

Delete 3.6.3.1 and replace with the following Restore surface with a minimum 100 mm of 19 mm granular road base material.

Delete 3.6.7.5 and replace with the following Restore Pavement as detailed on Coquitlam Standard Detail Drawing COQ-G4. Temporary patch shall be a minimum thickness of 50 mm thickness. Permanent restoration to existing asphalt thickness (minimum of 75 mm) with a 35 mm key where existing thickness permits. A 50 mm key is required on Arterial and Collector Roadways. Dry if necessary and paint clean, dry edge with asphalt emulsion (tack coat).

END OF SECTION

1.8 Measurement and Payment

Delete 1.8.4 and replace with the following

Payment under this item will only apply to removal of the components included in this item under a separate operation as shown on the Contract Drawings or as directed by the Contractor Administrator. No payment will be made under this item for removal of these components as part of the operation for common excavation, and such removal will be treated as common excavation.

Payment for this work will be included in the rates tendered for each item as described in the Schedule of Quantities and Prices.

Saw cutting will be treated as incidental work.

Payment will be made at the respective unit prices bid in the Schedule of Quantities and Prices and will include all labour, and equipment required to complete the work, including offsite disposal. It is the responsibility of the contractor to locate and verify all utilities.

Delete 1.8.5 and replace with the following

Payment for Common Excavation includes:

1. Unless noted in the Schedule of Quantities and Prices as removal in square meters, common excavation will be measured in cubic metres calculated from measurements taken by the Contract Administrator in the areas of excavation for road widening areas.
2. Cross-sections will be taken after clearing and grubbing and after stripping of existing topsoil immediately prior to excavation of material to be incorporated into work.
3. Where determined by the Contract Administrator that truck box volume will be used to determine excavation quantities the volume per load shall be determined using 75% of the truck load quantity.
4. Contractor to provide truck slips detailing location type of common excavation, time loaded and location of dump site. The slips are to be given to Contract Administrator by the end of shift or Contract Administrator can desny quantities subsequently submitted.
5. Payment for on-site reuse includes grading, adjustment of moisture content and compaction of the reused material

Payment will be made at the respective unit prices bid in the Schedule of Quantities and Prices and will include all labour, and equipment required to complete the work, including offsite disposal. It is the responsibility of the contractor to locate and verify all utilities.

Delete 1.8.7 and replace with the following

Payment for imported embankment fill includes compaction, transport, placement, boning, adjustment of moisture content, spreading and grading of material anywhere on site as needed

Measurement will be for actual quantity placed based on weigh tickets provided to Contract Administrator as loads are delivered.

2.0 PRODUCTS

2.2 Specified Materials

Delete 2.2.1.3

Pit Run Sand

Delete 2.2.1.4

River Sand

Delete 2.2.2

END OF SECTION

GRANULAR SUBBASE

1.4	Measurement and Payment	<p>Delete 1.4.1 and replace with the following</p> <p>Delete 1.4.2 and replace with the following</p> <p>Delete 1.4.3 and replace with the following</p> <p>Delete 1.4.4 and replace with the following</p>	<p>Measurement for granular subbase of variable thickness will be for actual quantity placed based on weigh tickets provided to Contract Administrator as loads are delivered.</p> <p>Measurement for granular subbase for each specified thickness will be for the actual area placed.</p> <p>Payment for Subsection 1.4.1 & 1.4.2 above includes supply, placement and compaction of granular subbase material, adjustment of moisture content, and boning to establish the road cross-section, shall be included in the unit price bid in the Schedule of Quantities and Prices.</p> <p>Payment for removal of unsuitable subgrade including disposal off-site prior to direct placement of granular subbase will be made under Section 31 24 13 – 1.8.5 Common Excavation.</p>
2.0	PRODUCTS		
2.1	Specified Materials	Delete	<p>2.1.1.1: Select Granular Subbase</p> <p>2.1.1.2: 75 mm Pit Run Gravel</p> <p>2.1.1.4: Pit Run Sand</p> <p>2.1.1.5: Approved Native Material</p> <p>2.1.1.7: River Sand</p>

END OF SECTION

GRANULAR BASE

1.4	Measurement and Payment	Delete 1.4.1 and replace with the following	Measurement for granular base of variable thickness will be for actual quantity placed based on weigh tickets provided to Contract Administrator as loads are delivered.
		Delete 1.4.2 and replace with the following	Measurement for granular base for each specified thickness will be for the actual area placed.
		Delete 1.4.3 and replace with the following	Payment for Subsection 1.4.1 & 1.4.2 above includes supply, placement and compaction of granular base material, adjustment of moisture content, and boning to establish the road cross-section, shall be included in the unit price bid in the Schedule of Quantities and Prices.
		Delete 1.4.4 and replace with the following	Payment for removal of unsuitable subgrade including disposal off-site prior to direct placement of granular base will be made under Section 31 24 13 – 1.8.5 Common Excavation.
2.0	PRODUCTS		
2.1	Granular Base	Add 2.1.1.3	25 mm minus crushed gravel conforming to the gradation specifications for Collector/Arterial Roads under Section 31 05 17S – 2.10.3.
3.0	EXECUTION		
3.5	Proof Rolling	Delete 3.5.1 and replace with the following	For proof rolling, use fully loaded single axle, to 80 KN (18, 000 lb) minimum, dump truck.
		Add 3.5.7	Prior to paving with asphalt concrete, the base surface shall be checked by the <i>Contract Administrator</i> and the City, for deflections utilizing a Benkelman Beam, in order to insure that the final rebound requirements can be obtained with the asphalt pavement. In the event that such deflection are in excess of those required to produce the final standards, than the base shall be adequately strengthened by additional gravel or asphalt concrete to insure that final deflections as follows are not exceeded. The Benkelman spring rebound value of the completed pavement surface shall not at any point exceed 0.75 mm for arterial industrial roads and lanes, 1.15 mm for collector roads, and 1.5 mm for local roads and lanes as determined in the procedures outlined in the Transportation Association of Canada publication “Pavement Management Guide.”

END OF SECTION

ASPLALT TACK COAT

- | | | | |
|------------|--------------------------------|---|---|
| 1.4 | Measurement and Payment | Delete 1.5.1 and replace with the following | Payment for asphalt tack coat will be for surface area of all portions of existing pavement to be tack coated in preparation for placement of hot mix asphaltic concrete

Pavement surface cleaning, as per section 32 01 11, and all other work incidental to the application of tack coat is deemed to be included in the unit price bid for tack coat. |
| 3.0 | EXECUTION | | |
| 3.2 | Application | Add to 3.2.3 | Asphalt tack coat to be applied using a truck mounted spray bar unless otherwise approved by the <i>Contract Administrator</i> and the City. Contractor shall demonstrate, to the <i>Contract Administrator</i> and the City, prior to application that all spray nozzles are operational and providing a consistent application. |

END OF SECTION

1.0 GENERAL

1.5 Measurement and
Payment

Delete 1.5.1 and
replace with the
following

Payment for asphaltic concrete paving includes all construction joint preparation, asphaltic surface milling to tie into existing asphalt, saw cutting, supply and placing of the asphaltic concrete, compaction and cleaning frames, covers and lids of castings affected and taped temporary pavement markings.

Measurement for asphaltic concrete paving for the specified design mixes will be made at the respective unit prices bid in the Schedule of Quantities and Prices and incorporated into Work will be asphalt concrete actually based on weigh tickets provided to the Contract Administrator as loads are delivered.

The contractor will not receive any additional compensation above the respective unit prices bid in the Schedule of Quantities and Prices for Hand Work, Special Equipment & Machinery to complete the Hot Mix Asphaltic Paving Work as shown on the Contract Drawings or as directed by the Contract Administrator.

For measurement and payment purposes, Contract Administrator may calculate payment on actual area paved to the thickness specified in in the Schedule of Quantities and Prices and as shown on the Contract Drawings.

Delete 1.5.3 and
replace with the
following

Payment for asphaltic concrete sidewalks, pathways, driveways, and infill strips paving includes all construction joint preparation, saw cutting, supply and placing of the asphaltic concrete, compaction and cleaning frames, covers and lids of castings affected.

Measurement for asphaltic concrete paving for the specified design mixes for will be made at the respective unit prices bid in the Schedule of Quantities and Prices and incorporated into Work will be asphalt concrete actually based on weigh tickets provided to the Contract Administrator as loads are delivered.

Payment for this item includes all applicable materials and work described in 1.5.1.

Delete 1.5.4 and
replace with the
following

Payment for extruded 50mm or 150mm asphalt concrete curb, 25mm depth at driveway crossings, will include asphaltic concrete, all preparatory & construction preparation, pavement cleaning, tack coat and placing by extrusion.

The Contractor is responsible for the protection of the new placed curb until it can accept vehicle traffic, the contractor will not receive any compensation for protecting the curb and the Contract Administrator may reject any curb that is not protected and damaged.

Delete 1.5.7 and
replace with the
following

Payment for saw cutting asphaltic concrete or Portland cement concrete pavement, sidewalks, etc. will be incidental to works described in other sections.

1.6 Inspection and
Testing

Add 1.6.3

Test cores will be taken by the *Contract Administrator* in the areas of new paving and will include cores along construction joints to ensure compliance with the required design and compaction.

HOT-MIX ASPHALT CONCRETE PAVING

2.0 PRODUCTS

2.1 Materials

Add 2.1.2.1

Usage of recycled asphalt shingles will not be permitted.

Add 2.1.2.2

Usage of softening agents, rejuvenators, or recycling agents will not be permitted.

2.2 Mix Design

Delete 2.2.2 and replace with the following

Mix may contain up to a maximum of 15 % by mass of RAP for Upper Course Asphalt and 20 % by mass of RAP for Lower Course Asphalt without a special mix design. The *Contract Administrator* and the City may approve higher proportion of RAP if *Contractor* demonstrates ability to produce mix meeting requirements of the specification.

Delete 2.2.3.2 Marshall Stability and replace with the following

Marshall Stability at 60°C for both lower and upper courses to be 10 KN min.

3.0 EXECUTION

3.3 Preparation

Delete 3.3.3 and replace with the following

The *Contractor* is responsible for adjusting all utility manhole frames and valve boxes, belonging to Coquitlam and/or other agencies that are affected by the road works. All adjustments to utilities must be completed to the satisfaction of the utility owner. Utility adjustment within the paved surface will be considered incidental to the *Work* unless otherwise noted in the *Contract Documents*.

The *Contractor* should note that certain utility owners may decide to complete their own adjustments. The *Contractor* will be required to cooperate with any utility company providing their own adjustments.

The *Contractor* shall be responsible to contact the appropriate utility company with in minimum of seventy two (72) hours of the work. No adjustment shall be made without the written approval of the utility company.

All manholes must be vertically adjusted a minimum of twenty four (24) hours prior to paving. The use of riser rings for adjusting manhole frames and value boxes will not be permitted.

3.7 Joints

Delete 3.7.5 and replace with the following

Construct butt joints at locations as shown on the *Contract Drawing* and as directed in the field by the *Contract Administrator* and the City.

END OF SECTION

UNIT PAVING

1.4 Measurement and Payment Delete 1.4.1 and replace with the following

Payment will include removal, excavation, subgrade fill, bedding sand and preparation and restoring all paving stones to match the existing pattern and finish.

END OF SECTION

PAINTED PAVEMENT MARKINGS

1.0 GENERAL

1.2 Scope

Delete 1.2.1 and replace with the following

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

1.5 Measurement and Payment

Delete 1.5.2 and replace with the following

All permanent markings shall be marked with thermoplastic manufactured by LAFRENTZ ROAD MARKINGS, unless shown otherwise in the Schedule of Quantities and Prices.

Delete 1.5.3 and replace with the following

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

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

Delete 1.5.4 and replace with the following

Payment for signage is on a lump sum basis and includes all sign poles, bases, sleeves, sign relocations and sign installations (complete). The City will supply signs to supplement existing signs as required.

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

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

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

Add 1.5.5

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

Add 1.5.6

Payment for the installation of Snowplowable Raised Pavement Markers (RPM) will include all labour, equipment, and materials required to install RPMs to manufacturer's specifications.

Add 1.5.7

The lump sum payment for the installation of Davidson FG300 posts & bases will include all labour, equipment, and materials required to install the posts & bases to the manufacturer's specifications as shown on the Contract Drawing.

PAINTED PAVEMENT MARKINGS

2.0 PRODUCTS

2.1 Materials

Delete 2.1.1 and replace with the following

All permanent paint markings shall be marked with thermoplastic manufactured by LAFRENTZ Road Markings.

Delete 2.1.6 and replace with the following

Pavement Markings:

Delete 2.1.7 and replace with the following

Thermoplastic material

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

3.0 EXECUTION

3.3 Application

Add to 3.3.1.3

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

Delete 3.3.3.3 and replace with the following

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

END OF SECTION

1.0 GENERAL

1.0 General Requirements

Delete 1.0.1 and replace with the following

.1 Section 32 91 21 refers to those portions of the *Works* that are unique to the supply, placement and finish grading of *Growing Medium*. This section must be referenced to and interpreted simultaneously with all other sections pertinent to the *Works* described herein.

For the purpose of this specification, the term "*Growing Medium*" shall mean a soil produced offsite by homogeneous blending of mineral particulates, micro organisms and organic matter which provides suitable medium for supporting intended plant growth and the term "*Topsoil*" shall mean on-site native or surface soil material which may be used as *Growing Medium* provided it meets standards set for imported material *Growing Medium* and can be modified to meet the requirements set out for specified *Growing Medium*.

Add 1.0.3

.3 For the purpose of this specification, the term '*Soil-Testing Laboratory*' shall mean an independent laboratory, recognized by the landscape nursery industry, with the experience and capability to conduct the testing indicated and that specializes in types of tests to be performed.

1.4 Measurement and Payment

Delete 1.4.1 and replace with the following

Payment for growing medium and top soil will be made separately and includes supply of material, on-site handling, preparing the landscape area subgrade, placing, grading, raking, compacting top soil and application of fertilizers. Payment for growing medium will be for actual volume placed onsite.

1.5 Inspection and Testing

Delete 1.5 and replace with the following

.1 The *Contractor* is responsible for testing imported *Growing Medium* and all related cost incurred. Testing shall be carried out by an approved *Soil Testing Laboratory*.

.2 The sample analysis shall be of tests done on the proposed *Growing Medium* from samples taken at the supply source within a minimum of 14 days in advance of *Growing Medium* placement. Allow 7 days for soil testing by the laboratory for each sample. The sample shall be picked up by the *Soil Testing Laboratory* from the supply source. The *Growing Medium* sample shall be a composite of at least three (3) samplings for the proposed source and shall be at least one (1) litre in volume.

.3 Forward a copy of all test results directly to the *Contract Administrator* and the City for review. The analysis shall outline the testing laboratory's required amendments such as sand, organic matter, fertilizers and lime to achieve adequate growing conditions.

.4 The *Contractor* shall not deliver any *Growing Medium* to the site until the test results have been reviewed and approved by the *Contract Administrator* and the City.

.5 All submitted soil analysis must be dated and include supplier name and phone number, project location and submitted to *Contract Administrator* and the City for approval prior to commencing work. Soil analysis shall include measurements of:

			.1	Percent sand, fines, silt and clay
			.2	Organic matter to 100%
			.3	pH, acidifying additive required to achieve noted herein
			.4	Water soluble salts
			.5	Total carbon to nitrogen ration
			.6	Total nitrogen and available levels of phosphorus, potassium, calcium & magnesium
			.6	At the discretion of the <i>Contract Administrator</i> and the City submit up to two (2) additional samples, at intervals outlined by the <i>Contract Administrator</i> and the City, of <i>Growing Medium</i> taken from material delivered to the site. Samples shall be taken from a minimum of three (3) random locations and mixed to create a single uniform sample of testing. Results of these tests shall be forwarded to the <i>Contract Administrator</i> and the City for review.
			.7	The <i>Contractor</i> is responsible for soil analysis and requirements for amendments to supply <i>Growing Medium</i> as specified. Failure to satisfy these contractual requirements could result in the <i>Contractor</i> being required to remove unacceptable <i>Growing Medium</i> at their expense.
			.8	Notify the Contract Administrator at least forty-eight (48) hours prior to <i>Growing Medium</i> placement for inspection.
			.9	Refer to General Conditions, Clause 4.12 Tests and Inspections.
1.6	Product Handling	Add 1.6	.1	All materials to be handled and adequately protected to prevent damage. Do not handle <i>Growing Medium</i> in an excessively wet, extremely dry, frozen condition or in any manner in which structure may be adversely affected. <i>Growing Medium</i> whose structure has been damaged by handling under these conditions shall be rejected and shall be replaced by the <i>Contractor</i> at their expense.
			.2	Stockpile materials in bulk form in paved areas or in pre-approved areas of the site. Provide additional protection of storage under roof or tarpaulins.
			.3	Take all precautions to prevent contamination of <i>Growing Medium</i> and amendments from wind blown soil particles, weed seeds and from insects. Contamination of the <i>Growing Medium</i> and amendments may result in their rejection for use.
			.4	Store fertilizer and chemical amendments in the manufacturer's original containers.
			.5	All <i>Growing Medium</i> shall be delivered to site <u>premixed</u> from a recognized <i>Growing Medium</i> source ensuring consistency throughout the mix.
2.0	PRODUCTS	Delete 2.0 and replace with the following		
2.1	Materials		.1	<i>Growing Medium</i> Preparation
			.1	Shall be prepared from Compost Material with Sand and other Soil Amendments as required to meet the specifications herein.
			.2	Ensure commercial processing and mixing of <i>Growing Medium</i> components are done thoroughly by a mechanized screening process. Do not mix the components by hand. Ensure the resulting product is a homogeneous mixture having the required properties throughout free of stones 25 mm or larger in any dimension, woody plant parts, toxic materials, foreign object and other extraneous materials harmful to plant

growth. Provide composted soil free from crabgrass, couch grass, equisetum, convolvulus, or other noxious weeds or seed or parts thereof.

.2 Inorganic Soil Amendments

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

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

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

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

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

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

.3 Organic Soil Amendments

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

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

.2 Peat:

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

.3 Wood Residual

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

- .4 Manure
- .1 Well-rotted, unleached, stable or cattle manure containing not more than 25 percent by volume of straw, sawdust, or other bedding materials; free of toxic substances, stones, sticks, soil, weed seed, and material harmful to plant growth and free from salt or other harmful chemicals, such as any used to artificially hasten decomposition.
 - .2 All particles in manure to pass a 6.35 mmm sieve.
 - .3 Salt content shall give a reading of less than 0.5 millimhos/cm at 25 degrees C.
- 2.2 **Nutrient Requirements**
- .1 Nutrient requirements shall meet the BCSLA/BCNTA Landscape Standard *Growing Medium* requirements for nitrogen, phosphorus, potassium, calcium, magnesium, boron, sodium cation exchange capacity, carbon to nitrogen ratio.
 - .1 Boron: not to exceed 1.0ppm
 - .2 Sodium: Sodium absorption ratio(SAR) not to exceed 8.0
 - .3 Total Nitrogen: to be 0.2-0.4% by weight
 - .4 Available Phosphorous: to be 50-100 ppm
 - .5 Available Potassium: to be 50-70 ppm
 - .6 Cation Exchange Capacity: to be 30 to 50 meq.
 - .7 Carbon to nitrogen ratio: Maximum 40:1.
- 2.3 **Salinity**
- .1 The electrical conductivity of the liquid taken from the soil pH evaluation shall not exceed 3.0 millimhos/cm at 25 degrees C before additions of fertilizers and/or liming agents.
- 2.4 **Drainage Rate**
- .1 Percolation shall be such that mixing, handling and placement to be done in such a manner that the minimum saturated hydraulic conductivity show on Table – '*Growing Medium Properties for Different Applications*' (found herein these specifications) is achieved and no standing water is visible 60 minutes after at least 10 minutes of moderate to heavy rain or irrigation.
- 2.5 **Growing Medium Source**
- .1 Import planting medium or manufactured planting medium from off-site sources. Do not obtain from agricultural land, bogs or marshes.
 - .2 Supplier of Growing Medium shall be as per the Coquitlam Approved Products List.
- 2.6 **Bark Mulch**
- .1 Mulch backfilled surfaces of planting beds and other areas indicated on drawings.
 - .1 Organic Mulch: Apply 50 mm average thickness of organic mulch, and finish level with adjacent *Finish Grades*. Do not place mulch against plant stems.
 - .2 Supplier of Bark Mulch shall be as per the Coquitlam Approved Products List.
 - .3 Dark brown in colour and free of all soil, stones, roots or other extraneous matter, and free of weeds, seeds and spores.

2.7 Growing Medium Properties for Different Applications

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

2.8 Miscellaneous Products

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

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

2.9 Structural Soil

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

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

Shall be installed as a structural filter layer directly above the compacted structural soil mixture. Do not install fabric until adequate compaction of the structural soil mixture has been confirmed. Filter fabric shall be selected and deigned to withstand wear and tear during construction without deterioration of its strength and filtering properties.

 - .1 Supplier of Geotextile shall be as per the Coquitlam Approved Products List.
- .7 Ground dolomite limestone containing no less than 85% of its total weight as calcium carbonate and magnesium carbonate shall be used to control ph level. The degree of grind for the

limestone shall allow 100% of the total weight to pass a #10 (2 mm) sieve, 90% to pass a #18 (1 mm) sieve and 20% to pass a #40 (0.105 mm) sieve. Spread-easy fertilizer shall be used as a slow release fertilizer source of calcium and magnesium.

- .8 Mixing of structural soil:
Blend as per following ratios:
 - .1 5 metric tones (MT) of aggregate
 - .2 1 cubic meter of growing media
 - .3 2 kg soil stabilizer
- .9 Moisten mixture with fine spray of clean potable water while mixing to activate soil stabilizer product. Do not over mix. Place mixture in 300 mm lifts through entire area of structural soil mixture. Compact each lift to 95% MPD prior to placement of next lift. Install filter fabric such to ensure a minimum of 60 cm overlap of all fabric seams and beyond edge of structural soil.

3.0 EXECUTION

3.2 Preparation of Subgrade

Delete 3.2.4 and replace with the following

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

Delete 3.2.5 and replace with the following

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

Add 3.2.6

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

Add 3.2.7

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

3.3 Processing Growing Medium

Add 3.3.4

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

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

3.4 Placing Growing Medium

Delete 3.4.2 and replace with the following

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

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

END OF SECTION

SODDING

1.0	GENERAL	Delete 1.0.2 and replace with the following	This section is based on the "British Columbia Landscape Standards and the B.C. Nursery Trades Association. This standard is intended to set a level of quality which is equaled or bettered in the construction documents.
1.4	Handling and Storage	Delete 1.4.3 and replace with the following	Schedule sod deliveries such that sod installation occurs within twenty-four (24) hours of being lifted from the source sod farm.
		Delete 1.4.4 and replace with the following	Sod shall be neatly stacked or rolled at the source sod farm, delivered and unloaded on sturdy pallets which are no more than 3 pallets high.
1.5	Drainage Control	Delete 1.5.1 and replace with the following	Provide for proper water management and drainage of site during work of this section. Water management shall include silt traps, erosion control measures, temporary water collection ditches, as well as their adequate maintenance to ensure that storm water which may become laden with soil, growing medium or hydraulic seed is detained and cleaned prior to discharge from <i>Place of Work</i> .
1.6	Samples	Add 1.6.2	Submit one (1) square metre of sod to the <i>Contract Administrator</i> and the City for review. Ensure sample is complete with name of sod farm, base soil type, seed mix percentage.
		Add 1.6.3	<i>Contract Administrator</i> and the City shall review sod sample for approval prior to installation. The sample accepted by the review will form the standard by which the project will be supplied.
		Add 1.6.4	Should the <i>Contractor</i> require the source of sod supply to change during the construction a written request must be provided to the <i>Contract Administrator</i> and the City 48 hours in advance. The request shall be followed up by submission of proposed sod substitution sample and include the name of sod farm, base soil type, seed mix percentage for <i>Contract Administrator</i> and the City review prior to the delivery.
1.8	Measurement and Payment	Delete 1.8.1 and replace with the following	Payment for nursery sod includes supply and placing of sod as shown on the Contract Drawings or as directed by the Contract Administrator and grass maintenance to meet Conditions of Total Performance.
2.0	PRODUCTS		
2.1	Sod	Delete 2.1.1 and replace with the following	Sod to be approved by the <i>Contract Administrator</i> and the City and to be nursery grown, true to type, conforming to standards of nursery Sod Growers' Association and their Nursery Sod Specifications. Sod to be quality, cultured turf grass grown from seed approved by Canada Department of Agriculture, free of disease, clovers, stones, pests and debris.
		Add 2.1.1.1	Nursery sod: .1 Shall be No. 1 Premium grade and contain only species of grass indicated on the supplier's certificate. .2 Sod shall be 'non-netted'

SODDING

Add 2.1.1.2

Table Guideline of Approved Sod Mix Ratios

Supreme Soil Base Sod	
(Elka II) Perennial Ryegrass	40%
(Shamrock) Kentucky Bluegrass	30%
(Cindy) Chewing Red Fescue	30%
Seed Rate: 50g per square metre	

Add 2.1.8

All sod shall be completely free of invasive and/or noxious broadleaf weeds, grasses including but not limited to poa annua, disease, fungi, detrimental nematodes and detrimental insects.

2.2 Water

Delete 2.2.1 and replace with the following

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

2.3 Fertilizer

Add 2.3.2

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

2.4 Wooden Pegs

Add 2.4

.1 Wooden Pegs shall be 19 mm x 19 mm x 150 mm long No. 1 grade or better Hem/fir.

2.5 Binder Twine

Add 2.5

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

2.6 Flagging Tape

Add 2.6

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

3.0 EXECUTION

3.1 Finish Grade Preparation

Delete 3.1.2 and replace with the following

Prior to the placement of sod *Contract Administrator* and the City to review and direct minor adjustments and refinements of finish grades prior to the *Contractor* proceeding. Review includes grades, growing medium depth and condition of finished surface. Subsequent to the *Contract Administrator* and the City review the *Contractor* shall re-grade, add growing medium and make adjustments as directed by *Contract Administrator* and the City.

Delete 3.1.5 and replace with the following

Fine grade growing medium to lines and levels shown on Contract Drawings. Ensure that all low spots, humps and irregularities are eliminated prior to review by *Contract Administrator* and the City.

3.2 Sodding

Delete 3.2 and replace with the following

- .1 Sod shall not be placed during hot dry summer periods, at freezing temperatures, or over frozen growing medium.
- .2 Allow sod to dry sufficiently during wet weather to prevent tearing during lifting and handling.
- .3 Handle sod carefully to minimize tearing and dropping of soil.
- .4 Placement of Sod:
 - .1 Lay sod in rows smooth and flush to adjoining grass areas and paving and top surfaces of curbs unless shown otherwise on *Contract Drawing*. Ensure there is a full roll width between the new sod and any adjoining surfaces. Small cut pieces from a full roll will not be accepted.
 - .2 Stagger joints and ensure that sod sections are butted closely together without overlapping or leaving gaps

SODDING

- between sections.
- .3 Cut out irregular or thin sections with a sharp knife.
 - .4 Cut sod to fit tight around landscape elements.
 - .5 Cut sod to create clean, smooth lines along all plant beds.
- .5 Placement of Sod on Slopes:
- .1 Lay sod with the length of each sod section parallel to slope taking extra care to ensure that sod sections are butt tight and each sod section is set in a staggered formation.
 - .2 On slopes exceeding 3:1 gradient ensure sod is secured with wooden pegs at intervals of not more than 450 mm along the center of each section. Ensure wooden pegs are driven flush with the sod.
 - .3 Prior to acceptance of sod areas that have been secured with wooden pegs either remove the wooden pegs or drive each wooden peg at least 50 mm below finished grade.
 - .4 Where required, place erosion control mesh or netting and secure with stakes or staples sunk firmly into ground to a minimum depth of 150 mm at maximum intervals of 4 meters along pitch of slope. Place stakes or staples horizontally across slope at intervals equal to width of mesh or netting minus 150 mm and drive flush with top of sod.
- .6 Use a light roller to ensure that there is full, close contact between sod and growing medium. Use of a heavy roller to correct irregularities in grade is not permitted.
- .7 Ensure all sodded areas are watered immediately after installation. Verify that water applied to has penetrated through sod into top 100 mm of growing medium. Continue watering operations as needed to ensure that adequate moisture content is maintained to encourage deep root growth and healthy, vigorous leaf growth.
- .8 Protect newly placed sod from heavy foot traffic during installation and until acceptance by the *Contract Administrator* and the City. Protection shall include but is not limited to placement of wood planks or plywood of sufficient thickness to bear the imposed weight and prevent damage to sod or displacement and/or compaction of sod/growing medium.
- .9 Sod that has been damaged by construction operation, construction / site personnel or construction traffic shall be replaced at no cost to the *Owner*. Replacement shall include removal of growing medium, regrading of sub grade, replacing growing medium and sod as required.
- .10 Water sod area immediately with sufficient amounts to saturate sod and upper 100 mm of growing medium. Do not allow the sod to dry out so that the joints become visible.
- 3.4 **Grass Maintenance** Delete 3.4 and replace with the following
- .1 Maintenance of sodded areas shall begin immediately after sodded operation and shall continue until all deficiencies noted in the *Substantial Performance* review have been rectified to the satisfaction of the *Contract Administrator* and the City and conditions for *Total Performance* have been achieved. The *Contractor* is to notify the *Contract Administrator* and the City in writing forty eight hours (48) prior to stopping maintenance operations.
 - .2 Sod Cutting: After the 'first' cut of sodded lawn areas cutting operations shall be carried out on a weekly (seven day) basis until *Total Performance* by *Contract Administrator* and the City:

SODDING

- .1 First cut of sodded lawn areas shall occur when a uniform grass height of 75 mm has been attained. First cut shall be to a height of 65 mm.
- .2 Continue regular weekly cutting at a height of 65 mm until *Total Performance*.
- .3 Cutting operations shall be such that each cut is at right angles to the previous cut.
- .4 *Contractor* to remove grass clippings after each cut and dispose of off site.
- .5 Roll when required to remove any minor depressions or irregularities.
- .6 Immediately repair seeded areas that show deterioration or bare spots. Top-dress all areas showing shrinkage due to lack of watering and seed with seed mix that matches the original seed mix.
- .3 Fertilizer analysis shall conform to recommendations provided with growing medium analysis. Application of fertilizer shall follow manufacturers' recommendations noting that after October 1 lawn areas shall not be fertilized until April 15th of the following spring.
- .4 Sodded lawn areas shall be kept free of invasive and/or noxious broadleaf weeds, grasses including but not limited to poa annua, disease, fungi, detrimental nematodes and detrimental insects.
- .5 All maintenance equipment and practices are to conform to the BC Landscape Standard Level 2 'Groomed'.
- .6 Protect all sodded areas against trespassing and from damage at all times clearly marked, staked, string and flagging tape.
 - .1 Perimeter Protection: Where directed by the *Contract Administrator* and the City, sodded areas shall be surrounded by a 900 mm high barrier made up of the following components:
 - .1 Wood posts placed at 1.8 metres on centre.
 - .2 Wood Posts to be driven to a depth of 300mm.
 - .3 String two (2) strands of hemp based binder twine (or equal product) between posts. Insure one full wrap of twine around each post.
 - .4 Tie 300 mm strands of 'red' flagging tape at 450 mm intervals along the entire length of both strands of twine.
 - .5 Maintain perimeter protection until *Total Performance* issued. Upon acceptance by *Contract Administrator* and the City, remove perimeter fence and dispose of off site.

3.5 Condition for Total Performance

Delete 3.5.1 and replace with the following

Conditions for *Total Performance* of Sodded areas:

- .1 Sodded areas exhibit fully established root systems.
- .2 No seams are visible between sod sections.
- .3 Sod areas are smooth and evenly graded. No depressions, foot marks or vehicle tracks.
- .4 Sod is free of bare and dead spots and does not have any broadleaf weeds, noxious grasses including but not limited to poa annua.
- .5 No surface growing medium is visible when grass has been cut to height of 65 mm.
- .6 Sodded areas have been cut a minimum of two (2) times, at seven (7) day intervals.

SODDING

- .7 Sodded areas are a uniform green colour with no discoloured sections or patches.
- .8 Sodded areas exhibit a thick, dense, uniform and healthy appearance.

Add 3.5.2

Lawns sodded after September 30th will be not be reviewed for *Total Performance* until April 30th the next year.

**3.6 Guarantee /
Maintenance**

Delete 3.6.1 and
replace with the
following

The *Contractor* hereby guarantees that the sod will remain free of weeds and defects for a period of one (1) year from the date of *Substantial Performance*. The *Contractor* shall make all corrections, adjustments and replacements required as a result of failure of all products in this section. During the *Maintenance Period*, the *Contractor* will replace sodded areas, determined by *Contract Administrator* and the City, to be dead or failing at the end of the *Maintenance Period*. Replacements to be made at next appropriate season and, conditions of guarantee will apply to all replacement seeding for one full growing season.

Delete 3.6.2 and
replace with the
following

The Owner reserves the right to extend the *Contractor's Maintenance Period* and responsibilities for one (1) additional year if, at end of the initial guarantee period, the development and growth of the sod is not sufficient to ensure future survival.

END OF SECTION

STORM SEWERS

1.6	Measurement and Payment	Delete 1.6.1 and replace with the following	Payment for storm sewer will be made at the unit price bid for storm sewer (regardless of depth) consistent with pipe materials, diameters and backfill requirements shown on the Contract Drawings and described under individual payment items in the Schedule of Quantities.
		Delete 1.6.2 and replace with the following	Payment for storm sewers includes location and exposure of existing utilities, saw cutting pavement, trench excavation, dewatering, bypass pumping, disposal of all surplus excavated material, disposal of existing storm pipe, support of adjacent piping, supply and installation of all pipe, fittings and related materials, tie-ins to existing storm pipe, re-benching existing manholes as necessary, ramping, existing catchbasin or lawnbasin lead tie-ins to new storm, construction joints, bedding, temporary asphalt patching, temporary surface restorations, import backfill (19mm Crushed Gravel in accordance to Clause 2.10 Granular Base in Section in Section 31 05 17 – Aggregates and Granular Materials), cleaning and flushing, testing (if applicable), videoing and all other work and materials necessary to complete installation as shown on Contract Drawings and specified under this Section.
		Delete 1.6.4 and replace with the following	Measurement for storm sewer will be made horizontally from manhole centerline to manhole centerline over surface work has been completed.
		Delete 1.6.5 and replace with the following	Payment for cleanout for the perforated pipe includes all applicable materials and work and components specified and/or shown on Standard Detail Drawing S6. Payment includes all applicable work described in 1.6.2.
		Delete 1.6.6 and replace with the following	Payment for catchbasin leads include all applicable materials and work described in 1.6.2 Measurement for catchbasin leads, lawn basin or communication box will be made horizontally from mainline pipe to centreline of catchbasin, lawn basin or communication box for each pipe size installed with no regards to depth range.
		Delete 1.6.6 and replace with the following	Payment for perforated drain pipe will be made separately for each size of pipe and will include excavation, removal and disposal of excavated material, drain pipes, tying into catch basins and/ or storm sewer, 19mm clear crush drain rock, filter fabric surround, surface restoration of all disturbed areas and all other work incidental to the installation of perforated drain pipe as shown on the Contract Drawing.
2.0	PRODUCTS		
2.2	PVC Pipe, Mainline Smooth Wall	Delete 2.2.1 pipe size ranges and replace with the following	200 mm dia. – 375 mm dia. to ASTM D3034 450 mm dia. – 1,200 mm dia. to ASTM F679
2.3	PVC Pipe, Mainline Profile	Delete 2.3	
2.6	Service Connections	Delete 2.6.1 and replace with the following Delete 2.6.8.1	Storm service connectons to be PVC DR 28 150 mm diameter minimum or as specified on <i>Contract Drawings</i> .

STORM SEWERS

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

END OF SECTION

1.0 GENERAL

1.1 Related Work

Add 1.1.6

Hot Mix Asphalt Concrete
Pavement

Section 32 12 16

Add 1.1.7

Portland Cement Concrete
Paving

Section 32 13 13

**1.5 Measurement and
Payment**

Delete 1.5.2 and
replace with the
following

Catchbasin and lawn basin Installation will be defined as supplying and installing a new catch basin or lawn basin for each type specified and setting to the finished grade. Payment includes excavation, disposal of surplus excavated material, supply of all units, cast-in-place concrete, pipes, fittings and related materials together with all labour, materials and equipment required. Catch basin lead work is considered to be incidental to payment for catch basin lead work described in other sections.

Delete 1.5.3 and
replace with the
following

Adjustment & Replacements of tops of existing units will be measured in units adjusted as defined below and paid for under their respective Items in the Schedule of Quantities.

No payment will be made under these items for cleaning Valve Boxes, Monument Boxes, Frames, Covers and Lids of Castings as part of the operation for asphaltic concrete paving.

No Payment will be made for Monument Boxes, Lawn Drains, Cleanouts and Inspection Chambers, these adjustments will be treated as incidental work.

All manholes & valve boxes must be vertically adjusted a minimum of twenty four (24) hours prior to paving.

The use of Steel/Metal Casting Risers Rings will not be accepted to adjust manholes or water valves to the final elevation (finish grade).

.1 Manhole frames and lids replacement & adjustment will be defined as supplying and installing a new manhole frame and lid and setting to the finished grade. Replacements shall include jackhammering, removal and disposal of the existing frame and lid, replacement, removal or addition of concrete brick (maximum of 3 or minimum of 1) or precast concrete riser rings, cement mortar, supply and installation of new manhole frame and lid set to finish grade, temporary asphalt ramping or patching and all other incidental work.

Unit Price for adjustments to each manhole includes adjusting manholes to the asphalt base lift and then to the asphalt final lift (finish grade) – No additional payment will be made for adjusting manholes.

.2 Water Valve Box replacements will be defined as supplying and installing a new Nelson Style Water Valve Box frame & lid and setting to the finished grade, temporary asphalt ramping or patching. Replacements shall include jackhammering, removal and disposal of the existing frame and lid and all other incidental work.

2.0 PRODUCTS

- | | | |
|----------------------|--|---|
| 2.1 Materials | Add 2.1.7.3 | Any frame and cover assembly creating a point load on the concrete riser rings will not be permitted. |
| | Delete 2.1.12 and replace with the following | Catchbasin lids manufactured to ASTM C478M |
| | Delete 2.1.16.2 | |
| | Delete 2.1.17 | |

3.0 EXECUTION

- | | | |
|------------------------------------|--|--|
| 3.1 Excavation and Backfill | Add 3.1.2 | For manholes, when base gravels are complete, excavate for grade rings and manhole frame assembly. Do not disturb the compacted road base beyond the excavation requirement. |
| 3.3 Manhole Installation | Delete 3.3.12.2 and replace with the following | Allowable products are precast concrete risers and cast-in-place form system. Individual riser heights shall be 50mm, 75mm, or 100mm. |
| | Delete 3.3.12.5 and replace with the following | Proper layer of grout between the spacers, covering the entire surface of the rings, should be utilized. |
| | Delete 3.3.15 and replace with the following | Install drop structures as shown on the contract drawings to Coquitlam Standard Detail Drawing COQ-S4 and Standard Detail Drawing S3. Maximum allowable inside ramp shall be 250 mm invert to invert. |
| | Delete 3.3.17 and replace with the following | Ensure frames conform to design contour of pavement or existing surface. Manhole lids left raised in preparation for overlay paving shall have a rubberized protector ring or asphalt ramp. The use of riser rings for adjusting manhole frames will not be permitted. |
| 3.5 Catchbasin Installation | Delete 3.5.1 and replace with the following | Install catchbasins as shown on Coquitlam Standard Detail Drawings COQ-S11A, COQ-S11B and Standard Detail Drawing S11, to general standards and installation procedures described under 3.3 of this Section. |

END OF SECTION

Appendix A

Traffic Management

Detail Specifications

- 1.0 GENERAL**
- 1.1 Related Works .1 Traffic Control, Vehicle Access and Parking MMCD Section 01 55 00S.
- 1.2 References .1 WorkSafe BC, Occupational Health and Safety (OHS) Regulation, Section 18 – Traffic Control.
- .2 B.C. Ministry of Transportation (MOT) Traffic Control Manual for Work on Roadways
- 1.3 Project Requirements .1 A Road and Sidewalk Closure Permit is required by Coquitlam for all work affecting traffic flow related to construction. A permit is required for each specific construction interference with traffic flow. The Road and Sidewalk Closure Permit Request form is attached as **Appendix 1** to this document. A digital copy of the Road and Sidewalk Closure Permit form can be obtained for use during the contract from the City’s website at <http://www.coquitlam.ca/city-services/licenses-and-permits/road-and-sidewalk-closure-permit.aspx>.
- .2 Hours of Work and Traffic Restrictions for this project are identified in **Appendix 2** of this document. A Road and Sidewalk Closure Permit form application must be submitted to City’s Traffic Operation Division 5 working days prior to start of work.
- 1.4 Measurement and Payment .1 For this Contract, payment for all work performed under this section, unless included in the Schedule of Quantities and Prices shall be treated as incidental work, including a Traffic Management Plan (TMP), Traffic Control Persons (TMP), traffic markings & all temporary traffic signs, devices as required for traffic & pedestrian safety; and all other items described in the Section 01 55 00S.
- 2.0 PRODUCTS**
- 2.1 Traffic Management Plan .1 The Contractor is required to assign a Traffic Manager for the Contract with the responsibility of preparing the Traffic Management Plan and the Traffic Control Plans, as well as the responsibility for continuing implementation of traffic control for the Work.

- .2 The Traffic Management Plan (TMP) will consist of the following components:
 - .1 Identification of risks to traffic during the Work
 - .2 Traffic Control Plans for individual stages of the construction
 - .3 Incident Management Plan for the response to an unplanned event and recording of incident information.
- .3 Submission of the TMP is to be made to the *Contract Administrator* within five (5) days of the *Notice of Award* of the *Contract*, and must be approved by the *Contract Administrator* prior to start of the *Work*.
- .4 Review of the TMP will be performed by the Contract Administrator. Comments for revisions to the TMP will be returned to the *Traffic Manager* for implementations.
- .5 The Contractor shall comply with all the requirements of applicable laws, rules, regulations, codes and orders of the municipal and other appropriate authorities concerned with work on streets or highways and shall post proper notices and/or signals, and provide necessary barriers, guards, lights, flagmen or watchmen as may be necessary for proper maintenance of traffic and protection of persons and property from injury or damage. All costs involved in respect to the above requirements will be deemed to be included in the Contract Price.
- .6 The Contractor shall give due notice to local police and fire departments prior to beginning construction and shall comply in all respects with their requirements.
- .7 The Contractor, during the progress of the work, shall make adequate provision to accommodate the normal traffic along streets and highways immediately adjacent to or crossing the work so as to cause the minimum of inconvenience to the general public.
- .8 The Contractor is required to maintain local traffic and driveway access during all stages of construction. This includes maintaining a 1.5m width walkway or pathway through the construction site for pedestrians.
- .9 Where existing streets or roads are not available as detours, all traffic shall be permitted to pass through the work with as little inconvenience and delay as possible unless otherwise provided or authorized by the Contract Administrator. If half the street only is under improvement, the other half shall be conditioned and maintained as detour.

- 2.2 Incident Management and Reporting
- .1 The Contractor shall facilitate incident response vehicles and staff and move traffic safely and expeditiously through or around an incident on site and provide assistance to emergency response personnel as required. An incident includes, but is not limited to, motor vehicle accidents, emergency road repairs, disabled vehicles, and debris on the road. The immediate response to an emergency shall by necessity make use of available devices and equipment.
 - .2 If an incident occurs on site, the Contractor will be required to submit a report to the Contract Administrator documenting details of the incident including event, location, date, time, action taken, duration and restoration of site.
- 2.3 Traffic Control Plans
- .1 The Contractor shall designate a qualified Traffic Control Supervisor for the works, per the requirements of WCB regulations Section 18.

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

3.0 EXECUTION

- 3.1 Traffic Control Plan
- .1 A copy of the approved current Traffic Plan must be held on site by both the Site Superintendent as well as the person/company responsible for the traffic control implementation.
 - .2 Failure to produce a valid approved Traffic Plan on site, or having work not follow the Traffic Control Plan will result in immediate shut-down of the work. The Contractor will be required to safely restore facility conditions to allow traffic flow at their expense. The

Contractor must take all steps to acquire an approved Traffic control Plan before work can re-start on site. No claim will be accepted by the Owner for costs associated with this work shut-down.

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

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

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

- 3.4 Signage
- .1 Supply, installation, maintenance and removal of all works-related signs shall be the responsibility of the Contractor. The location and type of each sign shall be indicated on the approved Traffic Control Plan, for each stage of the works.

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

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

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

- 3.6 Abrupt Changes in Surface Elevations .1 The Contractor shall minimize any abrupt changes in roadway elevation left exposed to traffic during both working and non-working hours.
- A wedge of asphalt must be used as a transition to vertical differences in travelled areas and have a slope of 4:1 or less.
- 3.7 Cyclist and Pedestrian Access .1 The Contractor shall make provision for pedestrians, wheel chairs and bicycles to have safe access across the work zone at all times. If this cannot be readily accommodated then acceptable detours and appropriate signs shall be provided.
- 3.8 Temporary Pavement Markings .1 The Contractor shall be responsible for the application and removal of all temporary pavement markings and reflective devices.
- All temporary markings must be removed after installation of permanent markings.
- 4.0 TRAFFIC RESTRICTIONS**
- 4.1 Road and Sidewalk Closure Permits .1 Minimum of Single Lane Traffic in each direction must be accommodated at all times.
- .2 A City of Coquitlam Road and Sidewalk Closure Permit is required for each instance of closure and will be valid for a maximum period of one (1) week and, if still necessary, re-submittal of a Road and Sidewalk Closure Request is required.
- A copy of the approved Road and Sidewalk Closure and Lane Closure Permit must be held on site by both the Site Superintendent and the person/company responsible for the traffic control implementation.
- .3 **Total Road Closure Is Not Permitted**
- .4 Detours will only be permitted as approved by the Contract Administrator and must have a complete Traffic Control Plan indicating detour route, signing, and duration. Detours will not be allowed without sufficient lead time for commercial and retail operation to react appropriately to detour information provided to them.

5.0 CONSTRUCTION OPERATIONS

- 5.1 Truck Routes .1 The Contractor is restricted to the City's designated Truck Routes. The current Truck Route Map is available on the City's website at www.coquitlam.ca and can be found under **Residents, Transit & Transportation, Trucking Routes**.
- 5.2 Road Specific Considerations .1 Ensure that Traffic Management Plan accommodates businesses and residences during construction activities.
- 5.3 Work stoppage due to traffic .1 The City will not control or direct traffic control activities of the Contractor, but may require an immediate stop to any work where, in the sole opinion of the Contract Administrator, the provided traffic management plan is ineffective or creating unreasonable delays
- 5.4 Construction Activity and Signage .1 The Contractor will be responsible to place other construction information signs as required to inform the public of construction activities, and ensure safe travel through the work site.
- 5.5 Changeable Message Sign (CMS) Locations .1 The Contractor is required to supply, locate and maintain Changeable Message Signs (CMS); locations for these signs will be provided by the Contract Administrator.
- These signs are required to be in service at least **5 normal work days prior to construction start** to provide advance warning to motorists.
- 5.6 Construction Zone Information Signs .1 The Contractor is required to provide, one week prior to start of work, stationary signs at intersections, one in each direction, to inform traffic of existing and anticipated conditions at entry points of the street to be worked on, locations for these signs will be provided by the Contract Administrator.
- Ensure that signs and locations are addressed in the Traffic Management Plan. All signs are to be removed at the end of the construction period.

APPENDIX 1



City of Coquitlam
Road and Sidewalk Closure Permit Request

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

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

Permit Fee - Under Review Payment Methods - Under Review

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

Contact Information

Company Name: _____

Applicant Name: _____

Name of Contractor doing work for Company/Applicant: _____

Phone: _____ Fax: _____

24 Hour Emergency Phone: _____ Email: _____

Location, date and time, and traffic control plan information

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

Specific Lanes: Sidewalk Curb/Cycling Lane Right Turn Lane Centre Lane Left Turn Lane All Lanes

Road/Street Name: _____

Location Description: _____

Date & Time Information: Dates: _____ Starting _____ Ending

Hours: _____ Starting _____ Ending

Purpose: _____

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

Traffic Control Plan*:

(a) Traffic Control Manual for Work on Roadways Figure Number _____, or

(b) A sketch (attach separately) indicating signage, taper lengths, direction of traffic, work area, and north arrow

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

* Important Notice: All operations within the road right-of-way must comply with Worksafe BC regulations and BC Ministry of Transportation standards for work on roadways. Permits must be renewed every 2 weeks (no additional fee).

File #: 11-5210-01/000/2013-1 Doc #: 1555880.v1

Application Checklist

- Permit Fee
- Prime Contractor Designation Letter
- City of Coquitlam Certificate of Insurance
- Sketch for Traffic Control Plan or Traffic Control Manual for Work on Roadways Figure Number
- Coast Mountain Bus Company (Phone: 778-593-5774 | Email: special.events@coastmountainbus.com) contacted regarding impact to bus routes and bus stops

Should the City grant approval of the Road and Sidewalk Closure Permit, the Applicant will contact Engineering & Public Works Customer Service (604-927-3500 and staffed 24 hours, 7 days a week):

- 24 hours prior to the road closure, and
- upon removal of the closure.

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

_____ *Date*

_____ *Applicant Signature*

Office Use Only - PERMIT STATUS

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

Request is denied for the following reason(s): _____

Request is approved with the following change(s): _____

Request is approved as submitted

_____ *Date*

_____ *Traffic Technologist or Designate*