



REQUEST FOR TENDER RDS-2026-06

ARTHUR STREET RECONSTRUCTION PHASE II

David Armstrong, CRS-I
Manager of Public Works
Town of Gananoque
30 King Street E
Gananoque, ON

CONTRACT RDS-2026-06

1.0 INTRODUCTION

The Town of Gananoque is a historic waterfront community located along the St. Lawrence River in Eastern Ontario. With a population of more than 5,000 residents and over 2500 households, the Town provides a wide range of municipal services focused on maintaining infrastructure, supporting community well-being, and ensuring a high quality of life. Gananoque’s municipal government is committed to transparency, accountability and effective service delivery. The Town undertakes regular capital projects and operational initiatives to maintain and improve public assets and services. Through its procurement processes, the Town seeks qualified vendors, contractors, engineers and consultants capable of delivering reliable, high-quality work in accordance with municipal standards and applicable regulations.

The meaning of "Gananoque" is a debated term of Indigenous origin, with proposed interpretations including "rocks rising out of the water," "water rising over rocks," "Town on Two Rivers" and "place of health," reflecting its geography where the Gananoque River meets the St. Lawrence River. The name was given by First Nations peoples to the area where the river flows over rocks and was a recognized place for healing and harvesting for thousands of years.

Arthur Street is part of the Town’s roadway infrastructure and runs east to west and in total is 560 metres in length. This Phase II project will reconstruct 370 metres from Charles Street S to the dead end.

The Town of Gananoque, otherwise referred to as “the Town”, is seeking Tender submissions from qualified Respondents for roadway reconstruction on Arthur Street, from Charles Street S to the dead end, as part of Phase II of this major capital project.



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Tender Closing Date: June 4, 2026

Tender Closing Time: 1:00 p.m.

Tender Submissions: www.biddingo.com

2.0 INTERPRETATION / DEFINITIONS:

In this document,

Agreement means a legally enforceable promise between two or more parties that creates mutual obligations, meaning one party commits to performing specific actions or refraining from certain actions, and this commitment is backed by the law.

Bidder, Proponent, Respondent or Tenderer means any qualified contractor submitting a Bid for this Tender.

Bid means the tender proposal as submitted and the related price.

Contract means a maintenance contract/agreement that defines the undertaking by the Town and the Contractor to perform their respective duties, responsibilities and obligations.

Engineer means a qualified professional who utilizes scientific principles, mathematical methods, and practical experience to design, build, evaluate and improve structures, systems, or processes, ensuring functionality, safety, efficiency and sustainability.

Town means The Corporation of the Town of Gananoque and its successors, assigns and "Owner". In this document it may be referred to as the Town.

Owner means the party to the Contract whom the Work is being performed for.

Worker/Employee means a competent person who is trained, knowledgeable and capable of completing defined work at a productive rate deemed reasonable by the Public Works Manager.

Tender means a structured document that outlines the requirements, scope, timeline and expectations for delivering a particular service, inviting external teams to submit proposals on how they would execute it.

Specifications, Special Provisions means the instructions to Bidders, any other documents listed in the Tender and any Addenda thereto issued by the Town.

Scope of Work means the Work and services required by the Contract documents.

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The Tenderer is advised that the following **CHECK LIST** is provided to assist in the completion of an accurate and acceptable Tender Form. While every effort has been made to include all the information necessary, this **CHECK LIST** may not be complete, therefore the Tenderer is reminded to check all the tendering requirements outlined in Section A, General Special Provisions, prior to delivery of the completed Tender Form.

TENDERER'S CHECK LIST

- Tenderer's name and address (Tender Form page 7) completed
- Addenda numbers inserted on Tender Form page 9 (as applicable)
- All tender items bid
- Unit price(s) inserted
- Mathematical extension(s) complete with total(s)
- Mathematical summation complete with TOTAL TENDER AMOUNT
- TOTAL TENDER AMOUNT BID indicated on Tender Form page 11
- List of Sub-contractors provided
- Erasures, over-writing or strike-outs initialed by person signing on behalf of the Tenderer
- Tender Form dated, signed and witnessed on last page
- Tender Deposit included in the form of a certified cheque or Bid Bond
- Agreements to Bond included
- Submit all required documentation through Biddingo's Procurement System by time and date specified in Section A: Instructions to Bidders

Queries during preparation of tenders shall be submitted through Biddingo. All responses that are not part of the Contract Documents will be sent to all tender takers via Addendum.

All communications during the tendering period shall be completed through Biddingo.com, and only questions received via email during the tendering process will be answered via Addendum, which will be posted on Biddingo.com. It is the Tenderer's responsibility to ensure that all Addendum have been included in their bid submission.

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SECTION A: INSTRUCTIONS TO BIDDERS

A.01 TENDER REQUIREMENTS

Bids **MUST** be submitted through the Biddingo Electronic Bidding System www.Biddingo.com. Bids submitted in any other method will not be accepted. Bidders will be informed of the UNOFFICIAL results via email once the Tender closes. The contract will be awarded once the Bids have been reviewed by the Town of Gananoque.

Deadline for Submission: June 4, 2026 at 1:00pm Local Time

Deadline for Questions: May 26, 2026 at 1:00pm Local Time

Questions regarding the contents of this Tender must be submitted through Biddingo.com no later than the deadline above. Only questions received via Biddingo.com during this time and will be responded to via Addendum.

Respondents to this Tender are responsible for ensuring they have access to all documents pertaining to this Tender. Hard copies of this Tender will **not** be available or supplied by the Town. Respondents are responsible for all costs associated with, but not limited to, printing and compiling the Tender documents with associated attachments or appendices, drawings, and Addendum.

This Tender is advertised on Biddingo.com and the Town's website. Any Addenda will be advertised on Biddingo.com. Respondents to this Tender are responsible for ensuring they have obtained and reviewed any Addenda issued.

The entire work is to be awarded to (1) one Contractor and therefore ALL ITEMS on the Tender Form must be bid.

When so required by the Town, the Contractor shall produce evidence as to their qualifications and previous experience in the types of work contemplated by this Contract. The Town, at its sole discretion, reserves the right to reject any bid submission from any proponent, if upon request by the Town, that proponent cannot provide evidence of their experience, including but not limited to resumes of key personnel assigned to the works, list of previous projects completed, references, etc. If a proponent submitting a Tender has ever, past or present, exercised legal action against the Town or any of its agents, staff, or personnel, for any reason, their Tender may be rejected at the sole discretion of the Town.

All unit prices must be clearly indicated. Erasures, over-writing or strike-outs must be initialed by the person signing on behalf of the Contractor.

In the event of a discrepancy between the unit price submitted and the extension utilized in the calculation of the total for any item, then the unit price shall govern. Any errors will be corrected in red by the Town to recalculate a revised tender bid amount. The tenderer will be made aware of any errors prior to award of the contract.

The total bid must not be restricted by a statement added to the Tender Form, or a covering letter, or alterations to the Tender Form provided by the Town. Adjustments to a Tender

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already submitted will not be considered. A bidder desiring to make adjustments to a Tender must withdraw the Tender and/or supersede it with a later submission, on or before the closing date and time of this tender.

For an interpretation of the tendering requirements, the Municipal Tendering Procedures as published by the Ministry of Transportation, Ontario, shall govern.

The Tender Form must be signed and witnessed in the spaces provided on the form, with the signature of the bidder or of a responsible official of the organization bidding.

The Tender must be accompanied by a Tender Deposit in the form of a certified cheque made payable to "The Corporation of the Town of Gananoque" or a Bid Bond. The cheque or Bid Bond must meet the Bid Deposits criteria below.

BID DEPOSITS

1. Bid deposits are required for all construction projects with a value greater than \$50,000.
2. Electronic bid bonds are accepted and shall be submitted through the Municipality's approved bidding platform.
3. Minimum: 5% for <\$100,000; 10% for ≥\$100,000.
4. Bid deposits may serve as performance security where specified in the bid document.

PERFORMANCE SECURITY

1. Guarantees full and proper completion of work in accordance with the bid document.
2. Mandatory for construction, renovations, services on Town property and equipment installation valued over \$50,000.
3. Acceptable forms include: Performance Bond, Labour & Materials Bond, Irrevocable Letter of Credit, or Certified Cheque.
4. Original, signed security documents must be provided by the contractor.
5. A bid deposit may serve as performance security where appropriate and permitted.

RELEASE OF BID DEPOSIT

The Bid Deposits of all Bidders, except the low Bidder, shall be returned within 30 Days of the Tender closing. Where the low Bidder has not been notified within 30 Days after Tender opening that its Bid has been accepted, application may be made to the Town for

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the return of the Deposit. The successful Bidder's Deposit shall be returned after the executed Agreement and other applicable documents have been received by the Town. The Deposit may be forfeited if the successful Bidder fails to return the applicable documents to Town Staff within (7) seven days of receipt.

A.02 BONDING

Security/Bonding Requirements (Successful Bidder Only)

If the Total Award Price to a successful bidder is less than \$25,000, Performance and Payment Bonds are not required; however, the Contractor will be required to submit a Letter of Credit or a Certified Cheque in the amount of \$5,000.00.

If the Total Award Price to a successful bidder is greater than \$25,000, one of the following three (3) surety options shall be furnished by the Contractor prior to acceptance of the contract by the Town:

1. A Performance Bond for 25% of the amount of tender and a Payment Bond for 25% of the amount of Total Tender Price, issued by an approved guaranty company on bond forms supplied to such companies by the Town
2. Two (2) Letters of Credit each equivalent to 25% of the amount of the Total Tender Price
3. Two (2) Certified Cheques each equivalent to 25% of the amount of the Total Bid Price.

In the case of Option 1, the Payment Bond will be retained by the Town for 120 Days after Final Completion of the Work.

For Options 2 and 3, one Letter of Credit or one Certified Cheque will be retained by the Town for 120 Days after Final Completion of the work.

Each amount in the Tender shall be a reasonable price for each item. The Manager of Public Works shall be the sole judge of such matters, and should any Tender be considered to be unbalanced, it may be rejected or additional clarification may be requested prior to acceptance or rejection.

The Town has the sole discretion not to award the contract.

A.03 EXECUTION OF CONTRACT

Tenders shall be open for acceptance for a period of 120 calendar days after closing date. After this time, the Tender may only be accepted with the consent of the successful bidder.

Failure by the successful bidder to meet the Contract requirements will entitle the Town to

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rescind the acceptance of the Contract and to retain the Tender Deposit as compensation for damages sustained due to the successful bidder's default. The Town may then award the Contract to one of the other bidders or take such other action as the Town may choose.

A.04 LIABILITY INSURANCE

Sub-section GC6.03.02 of the General Conditions of Contract, is hereby amended by the following provisions:

- The Certificate of Insurance required under this Section shall be submitted to the Engineer as soon as is practical after notification of acceptance of the Tender. The liability insurance coverage shall specifically include coverage to the limit of not less than five (5) million dollars (\$5,000,000.00), exclusive of interest and cost, in respect of any one accident.
- The Certificate of Insurance shall name the following as additional insured:
 - The Corporation of the Town of Gananoque
 - Stantec Consulting Inc., 1331 Clyde Avenue, Ottawa, Ontario K2C 3G4
 - St. Lawrence Testing & Inspection Co. Ltd. - 814 Second St. West Cornwall, ON CANADA K6H 5V1

Sub-section GC6.03.03 of the General Conditions of Contract, is hereby amended by the following:

- The automobile liability insurance coverage shall include coverage of not less than two million dollars (\$2,000,000.00), inclusive per occurrence.

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SECTION B: TENDER FORM

Tender for the: **ARTHUR STREET RECONSTRUCTION – PHASE II**

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NAME OF TENDERER (Firm or Individual)

ADDRESS OF TENDERER

(Telephone Number)

NAME OF PERSON SIGNING FOR TENDERER

OFFICE OF PERSON SIGNING FOR TENDERER

EMAIL OF PERSON CONTACT

NOTE: If the Tender is submitted by or on behalf of any Corporation, it must be signed in the name of such Corporation by some duly authorized officer or agent thereof. The said officer or agent shall subscribe his own name and office and affix the seal of the Corporation thereto.

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Tender for the: **ARTHUR STREET RECONSTRUCTION - PHASE II**

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TENDERS TO BE SUBMITTED VIA: Biddingo.com

BEFORE: **1:00pm Local Time on June 4, 2026**

Deposit Required with Tender: **As specified in General Special Provisions**

Bond Required for Contract: **100% Performance Bond, 50% Labour and Materials Bond**

Completion of Work and Delivery of Materials under this Contract: **October 30, 2026 (Substantial Performance Date)**

The Corporation of the Town of Gananoque reserves the right to increase, decrease or delete an item in its entirety, or reject any or all Tenders if it is deemed advisable to do so. The lowest or any Tender will not necessarily be accepted.

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The Mayor and Council
Corporation of the Town of Gananoque

Sir / Ma'am:

The Tenderer has carefully examined and understands and accepts the Provisions, Specifications, Conditions and Drawings referred to in the Schedule of Provisions, Specifications, Conditions and Drawings and **Addenda Nos. __ to __*** attached hereto as part of this Tender, and has carefully examined the site, including the nature of the utilities and location of the work to be done under this Contract and, for the prices set forth in this Tender, hereby offers to furnish all labour, materials, machinery, tools, apparatus and other means of construction necessary to complete the work in strict accordance with the Provisions, Specifications, Conditions and Drawings referred to in the said Schedule.

Notification of acceptance and delivery of the Form of Agreement shall be made by the Town by courier, addressed to the Tenderer at the address contained in the Tender and, upon such notification of acceptance, the Tenderer shall complete the Form of Agreement between the parties and execute the Contract and furnish the Performance Bond, duly completed, and necessary proof of insurance, within 14 days of mailing of said notification to the Tenderer.

Attached to this Tender is a certified cheque or bid bond in the amount required by the General Special Provisions and made payable to: The Corporation of the Town of Gananoque. The proceeds of this cheque or bid bond shall, upon acceptance of the Tender, constitute a deposit which shall be forfeited to the Town if the Tenderer fails to file with the Town, the Form of Agreement duly executed, together with the Performance Bond and Labour and Materials Bond, proof of insurance and proof of Workplace Safety and Insurance Board, all as specified.

The Tenderer will note that the Contract will be accepted subject to the approval of the Ministry of the Environment, Conservation and Parks.

**** The Tenderer will insert the numbers of the Addenda received by him during the tendering period and taken into account by him in his Tender.***

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AGREEMENT TO BOND AND FORM OF BOND

We, the undersigned, hereby agree to become bound as Surety for

(Name of Tenderer)

an amount equal to One Hundred Per Cent (100%) of the Total Tender Amount including all applicable taxes, and conforming to the Instruments of the Contract attached hereto, for the full and due performance of the works shown as described herein, Contract RDS-2026-06, Corporation of the Town of Gananoque, such Performance Bond to provide a period of maintenance of One (1) years after the date of Substantial Performance of the work, and a 50% Labour and Materials Bond.

It is a condition of this Agreement that, if the above-mentioned Tender is accepted, application for a Performance Bond and Labour and Materials Bond must be made to the undersigned within ten (10) days of notice of Contract Acceptance. Otherwise, this Agreement shall be null and void.

Dated this _____ day of _____, 2026.

Name of Bonding Company

By: _____
Attorney-in-Fact

Note: In lieu of the above "Agreement to Bond and Form of Bond" form, the Town will accept a similar type of form issued by the Bonding Company provided all the conditions as outlined above are stipulated on the Bonding Company's form.

TENDER SUMMARY

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TOTAL TENDER AMOUNT BID FOR CONTRACT RDS-2026-06 \$ _____

(Amount transferred from Page 21, excluding HST)

SCHEDULE OF UNIT PRICES

In accordance with the first paragraph of the Tender, the Tenderer hereby offers to complete the work specified in the Contract for the following unit prices. The work is to be carried out in accordance with the specifications indicated within the Schedule of prices. Item units shown with (P) should be considered planned quantities.

ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
Section A - General						
A-0001	Traffic Control Plan	F.01, F.14	LS	1.0		
A-0002	Construction Site Pedestrian Control Plan	F.01, F.14	LS	1.0		
A-0003	Steel Interlocking Pedestrian Barriers	F.03	m	200.0		
A-0004	Erosion and Sediment Control Plan and Monitoring	805, F.04, F.14	LS	1.0		
A-0005	Construction Dewatering	517	LS	1.0		
A-0006	Barrier for Tree Protection	801	m	150.0		
A-0007	Pre-Construction Inspection	F.05	LS	1.0		
A-0008	Utility Coordination and Support	F.06,	LS	1.0		
A-0009	Remove and Dispose of Category 3 Soils	180, F.02	t	3,550.0		
A-0010	Site Trailer Rental for the Duration of the Project	F.30	wk	28		
A-0011	Maintaining Flow in Sewers and Sewer Services	F.18	LS	1.0		
A-0012	Contract Initiation (no more than 2% of Contract Value)	F.07	LS	1.0		
SECTION A SUB-TOTAL						

Section B - Road Reconstruction and Removals						
B-0001	Earth Excavation - Grading (Including All Removals)	206, F.08, F.22	m ³	3,200.0		
B-0002	Removal of Maintenance Holes, Catch Basins, Ditch Inlets, and Valve Chambers	510	ea	10.0		
B-0003	Removal of Lined Pipe Sewers	510	m	380.0		

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ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
B-0004	Removal of Pipe Sewers incl. Services	510	m	480.0		
B-0005	Removal of Hydrants	510	ea	1.0		
B-0006	Removal of watermain	510	m	225		
B-0007	Removal of Asphalt pavement (Full Depth)	510	m ²	3,350.0		
B-0008	Removal of Asphalt Pavement, Partial Depth (dry grinding)	510	m ²	100.0		
B-009	Remove and Reinstate Interlocking Concrete Pavers	355, 510, F.09, F.10	m ²	90.0		
B-0010	Removal of Concrete Curb and Gutter (Any Type)	510	m	50.0		
B-0011	Removal of Concrete Sidewalk	510	m ²	780.0		
B-0012	Removal, Salvage, and Reinstate of Existing Signs	510, F.10, F.14, F.22	LS	1.0		
B-0013	Well Abandonment	F.26	ea	3.0		
B-0014	Adjusting Catch Basins, any size, any type	408, F.23	ea	2.0		
B-0015	Adjusting Maintenance Holes, any size, any type	408, F.23	ea	3.0		
B-0016	Granular 'A'	314, F.08	t	1,700.0		
B-0017	Granular 'B' Type II	314, F.08	t	3,630.0		
B-0018	Supply and Install Type II Woven Geotextile	1860	m ²	4,800.0		
B-0019	Performance Graded HL4 (PG 58-34), 50mm lift	310	t	576.0		
B-0020	Performance Graded HL3 (PG 58-34), 40mm depth	310	t	384.0		
B-0021	Tack Coat	310, F.22	m ² (P)	3,900.0		
B-0022	HL3F mix with PGAC 58-34 for driveways and multi-use Pathways, 50mm depth	310, 311	m ²	250.0		
B-0023	Concrete Sidewalk (OPSD 310.010)	351, 904, F.11	m ²	1,000.0		
B-0024	Concrete Barrier Curb and Gutter (OPSD 600.400)	353, 904, F.12	m	800.0		
B-0025	Cast iron tactile walking surface indicator (OPSD 310.039)	351, F.13	m ²	10.4		

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ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
B-0026	Interlocking Concrete Paving (provisional)	550, F.22, F.29	m ²	28.8		
B-0027	100mm Perforated Subdrain c/w Knitted Sock Geotextile (OPSD 216.021)	405, F.24, F.22	m (P)	860.0		
B-0028	Pavement Markings	710	m (P)	50.0		
B-0029	Supply and Install New Sign - Ground mounted, Any type	F.14	ea	14.0		
SECTION B SUB-TOTAL						

Section C - Storm Sewers & Appurtenances						
C-0001	Maintenance Holes (1200mm Precast OPSD 701.010 c/w grate)	407, F.15	ea (P)	4.0		
C-0002	Maintenance Holes (1500mm Precast OPSD 701.010 c/w grate)	407, F.15	ea (P)	2.0		
C-0003	Catch Basin (600x600mm c/w grate OPSD 705.010)	407, F.15	ea (P)	15.0		
C-0004	Ditch Inlet Catch Basin (600x600mm c/w grate OPSD 705.030)	407, F.15	ea (P)	2.0		
C-0005	Twin Inlet Catch Basin (1200x600mm c/w grate OPSD 705.020)	407, F.15, F.17	ea (P)	3.0		
C-0006	200mm PVC DR-35 Pipe Sewer (Catch Basin Leads)	410, F.15, F.17	m (P)	100.0		
C-0007	250mm PVC DR-35 Pipe Sewer (Twin Inlet Catch Basin Leads)	410, F.15, F.17	m (P)	30.0		
C-0008	300mm PVC DR-35 Pipe Sewers	410, F.15, F.17, F.22	m (P)	220.0		
C-0009	375mm PVC DR-35 Pipe Sewers	410, F.15, F.17, F.22	m (P)	90.0		
C-0010	450mm PVC DR-35 Pipe Sewers	410, F.15, F.17, F.22	m (P)	80.0		
C-0011	450mm CSP Culvert	410, F.15, F.17, F.22	m (P)	50.0		
C-0012	Storm Sewer Service Connections, PVC Pipe- class SDR 28 or SDR 35 any size OPSD 1006.02	410, F.15, F.17	m	220.0		
C-0013	Additional excavation and backfill with Granular 'B' Type II	401, F.08, F.22	m ³	50.0		

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ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
C-0014	Select subgrade material for trench backfill	212, 314, F.08, F.22	m ³	850.0		
C-0015	Breaking into and connection to existing Storm Maintenance Holes, Catch Basins, Ditch Inlets, Pipe Culverts and Pipe Sewers	410, F.17	ea	2.0		
C-0016	Rock Excavation for Storm Sewers, Storm Services and Catch Basin Leads	120, 401, 403, F.16, F.22	m ³	655.2		
C-0017	CCTV Inspection (Storm Sewers)	409	m	520.0		
C-0018	Miscellaneous 20MPa concrete, unformed, where not otherwise provided	904, F.15, F.22	m ³	20.0		
C-0019	Clearing and Grubbing	201	m ²	60.0		
SECTION C SUB-TOTAL						

Section D - Sanitary Sewer & Appurtenances						
ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
D-0001	Maintenance Holes (1500mm Precast OPSD 701.010) c/w grate	407	ea	4.0		
D-0002	750 mm Concrete pipe sanitary sewer CSA A257.2 class 140D	410	m (P)	350.0		
D-0003	Sanitary Pipe Service Connections, PVC Pipe- class SDR 28 or SDR 35, any size, OPSD 1006.02	410, F.15, F.17	m	220.0		
D-0004	CCTV Inspection (Sanitary Sewers)	409	m	350.0		
D-0005	Additional excavation and backfill with Granular 'B' Type II	401, F.08, F.22	m ³	50.0		
D-0006	Select subgrade material for trench backfill	212, 314, F.15, F.22	m ³	1,260.0		
D-0007	Breaking into and connection to existing Sanitary Maintenance Holes and Pipe Sewers	410, F.17	ea	3.0		
D-0008	Rock Excavation for Sanitary Sewers and Sanitary Services	120, 401, 403, F.16, F.22	m ³	708.8		
D-0009	CCTV to investigate laterals for abandonment (Provisional)	409, , F.22	m	40.0		
SECTION D SUB-TOTAL						

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ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
Section E1 - Watermain & Appurtenances						
E-0001	Temporary Water Supply	493, F.19	LS	1.0		
E-0002	200mm Watermain, PVC, CL 150, DR-18 including all appurtenances	441, F.20, F.21	m	220.0		
E-0003	200mm Gate valve & valve box	441, F.20, F.21	ea	3.0		
E-0004	Hydrants	441, F.20, F.21	ea	1.0		
E-0005	150mm Hydrant lateral, PVC, CL 150, DR-18	441, F.20, F.21	m	10.0		
E-0006	Water Service Connection Pipe, all sizes, c/w excavation & backfill	441,	m	180.0		
E-0007	Additional excavation and backfill with Granular 'B' Type II	441, F.20, F.22	m ³	50.0		
E-0008	Select subgrade material for trench backfill	401, F.22	m ³	237.6		
E-0009	Insulation, 50mm thick HI-40,	F.21,	m ²	40.0		
E-0010	Blankings and connections to existing watermains including excavation and backfill	441, F.20, F.22	ea	4.0		
E-0011	Rock Excavation for Watermain	120, 401, 403, F.16, F.22	m ³	356.4		
SECTION E SUB-TOTAL						

Section E2 – Watermain East of William Street						
E-0012	300mm Watermain, PVC, CL 150, DR-18 including all appurtenances	441, F.20, F.21	m	150.0		
E-0013	300mm Gate valve & valve box	441, F.20, F.21	ea	1.0		
E-0014	Hydrants	441, F.20, F.21	ea	1.0		
E-0015	150mm Hydrant lateral, PVC, CL 150, DR-18	441, F.20, F.21	m	8.0		
E-0016	Water Service Connection Pipe, all sizes, c/w excavation & backfill	441, F.20, F.21	m	90.0		
E-0017	50mm Watermain, PVC, CL 150, DR-18 including all appurtenances	441, F.20, F.21, F.22	m	20.0		

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ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
E-0018	Select subgrade material for trench backfill	212, 314, F.22	m ³	162.0		
E-0019	Hydro-Guard HG-4 Sub-Surface Discharge Unit	441, F.20, F.21, F.31	ea	1.0		
E-0020	Rock Excavation for Watermain	120, 401, 403, F.16, F.22	m ³	324.0		
SECTION E SUB-TOTAL						

Section F - Electrical						
	Maintenance Holes					
F-0001	Electrical Handholes	602	ea	4.0		
	Traffic and Streetlight Foundations					
F-0002	Concrete Footing in Rock (Decorative Pedestrian Pole)	616	ea	12.0		
	Ducts					
F-0003	Rigid Duct, Direct Buried (1x50mm)	603	m	400.0		
	Traffic and Streetlighting Poles					
F-0004	Aluminum Poles, Base Mounted (6.1m Decorative Pedestrian Pole c/w receptacles)	615, F.28	ea	12.0		
	Cable					
F-0005	Ground Wires (8 AWG Insulated)	609	m	400.0		
F-0006	Low Voltage Cables, in Ducts (#6 AWG)	604	m	1,200.0		
F-0007	Low Voltage Cables, in Pole Risers (#12 AWG)	604	m	252.0		
F-0008	Ground Wires, in Pole Risers (#12 AWG Bare)	609	m	84.0		
	Lighting Fixtures					
F-0009	Decorative LED Pedestrian Lighting Luminaires c/w Bracket Assemblies	617, F.27	ea	12.0		
F-0010	LED Roadway Lighting Luminaires	617, F.27	ea	12.0		
	Miscellaneous					
F-0011	Removal of Electrical Equipment	610	LS	1.0		
F-0012	Ground Rod with #8 bare Ground Wire	609	ea	6.0		

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ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
F-0013	PVC rigid duct wooden pole riser with weatherhead	106,603	ea	1.0		
F-0014	Power Supply (Hydro One) Service Connections		ea	4.0		
F-0015	Miscellaneous Electrical Works		LS	1.0		
SECTION F SUB-TOTAL						

Section G - Landscape						
G-0001	Topsoil (Imported)	802	m ³	270.0		
G-0002	Sod	802	m ³	1800.0		
G-0003	Misc. Landscaping Restoration (Retaining Walls, Planters, Etc.)	802	LS	1.0		
SECTION G SUB-TOTAL						

Section H - Labour and Equipment						
H-0001	Unskilled labour (including supervision, where not otherwise provided)	127, F.25	hr	40.0	\$61.30	
H-0002	Skilled labour (including supervision where not otherwise provided)	127, F.25	hr	40.0	\$62.00	
H-0003	Dump Truck - tri axle, 32,000kg GVW min (operated)	127, F.25	hr	30.0	\$110.40	
H-0004	Front end loader backhoe, rubber tired 45 kW min (operated)	127, F.25	hr	30.0	\$106.00	
H-0005	Hydraulic rock breaker, boom mounted - 1400 joules (operated)	127, F.25	hr	30.0	\$468.00	
H-0006	Flusher Truck (Operated)	127, F.25	hr	10.0	\$141.00	
H-0007	Hydro Excavating /Vacuum Truck (Operated)	127, F.25	hr	40.0	\$190.45	
H-0008	Sweeper (Operated)	127, F.26	hr	40.0	\$140.00	
SECTION H SUB-TOTAL						

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SECTION	DESCRIPTION	TOTAL PRICE
A	General	
B	Road Reconstruction and Removals	
C	Storm Sewers & Appurtenances	
D	Sanitary Sewer & Appurtenances	
E	Watermain & Appurtenances	
F	Electrical	
G	Landscape	
H	Labour and Equipment	
SUB-TOTAL **		
H.S.T. (13.0%)		
TOTAL TENDER PRICE		

****enter this amount on page 13**

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The following list of Sub-contractors will be carrying out part of this Contract.

Name of Sub-contractor	Address	List of Work to be Completed by Sub-contractor

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SCHEDULE OF PROVISIONS, SPECIFICATIONS, CONDITIONS AND DRAWINGS

The work specified in the Contract will be performed in strict accordance with the following:

SECTION A	Instructions to Bidders
SECTION B	Form of Tender
SECTION C	Agreement Between Owner and Contractor
SECTION D	Special Provisions - General (OPS General Conditions of Contract)
SECTION E	Standard Drawings and Specifications
SECTION F	Special Provisions – Item Specific
SECTION G	Borehole and Geotechnical Report (attached)
SECTION H	Contract Drawings
SECTION H	Quantity Sheets

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FAIRNESS IS A TWO-WAY STREET

Italicized terms have the same meaning as in Section D.32 of the Tender.

I/we certify that neither the Bidder nor any proposed sub-contractor is a person who is resident in a *Designated Jurisdiction* in accordance with the criteria set out in Section D.32 of the Tender documents.

Authorized Signing Officer

The Tenderer, by this Tender, offers to complete this Contract in accordance with the terms and conditions contained herein.

Dated this _____ day _____, 2026.

Witness _____

Signature of Authorized Person
Signing for Tenderer

Position

This is the 22nd and last page of the Tender Form to be submitted.

SECTION C: AGREEMENT BETWEEN OWNER AND CONTRACTOR

C.01 AGREEMENT BETWEEN OWNER AND CONTRACTOR

This Agreement made on the _____ day of _____ in the year _____,

by and between

The Corporation of the Town of Gananoque

hereinafter called the "Owner",

AND

_____ hereinafter called the "Contractor".

The Owner and the Contractor agree as follows:

ARTICLE A-1 THE WORK

The Contractor shall:

- 1.1 Perform the work contained in the Contract Documents which are:

Contract No. RDS-2026-06 – Arthur Street Reconstruction - Phase II

Located on: Arthur Street, Gananoque, Ontario.

DESCRIPTION

Renewal of Arthur Street including the replacement of the watermain and water services, sanitary sewer and sewer services, storm sewer and water services, reconstruction of the roadway, installation of sidewalks, and replacement of streetlights.

- 1.2 Do and fulfill everything indicated by the Agreement.
- 1.3 The successful Tenderer shall **Substantially Perform** the Work as defined in GC8.02.04.04 by **October 3, 2026** and this shall be the first date used for the calculation of Liquidated Damages as per A-1.4.
- 1.4 The successful tenderer shall **Complete** the Work as defined in GC8.02.04.06 by **October 30, 2026** and this shall be the second date used for the calculation of Liquidated Damages as per A-1.4.

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- 1.5 Pursuant to Section GC8.02.09 of the General Conditions of Contract, the Liquidated Damages shall be in the amount of:

Five hundred DOLLARS (\$500.00) per calendar day beyond the dates specified for Substantial Performance and Completion.

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

- 2.1 The Contract supersedes all prior negotiations, representations, or agreements, either written or oral, relating in any manner to the work, including the bidding documents that are not expressly listed in Article A-3 of the Agreement — CONTRACT DOCUMENTS.
- 2.2 The Contract may be amended only as provided in the Contract Documents.

ARTICLE A-3 CONTRACT DOCUMENTS

- 3.1 The following are the Contract Documents referred to in Article A-1 of the Agreement — THE WORK:
- Agreement Between Owner and Contractor
 - The General Conditions of Contract
 - Information for Tenderers
 - Form of Tender
 - Special Provisions for Items
 - Ontario Provincial Standard Specifications
 - Addenda
 - Contract drawings

ARTICLE A-4 CONTRACT PRICE

- 4.1 The quantities shown in the Schedule of Contract Unit Prices are estimated. The Contract Price shall be the final sum of the products of the actual quantities that are incorporated in, OR made necessary by the Work, as confirmed by count and measurement, AND the appropriate Contract Unit Prices, together with any adjustments that are made in accordance with the provisions of the Contract Documents.
- 4.2 The Estimated Contract Price shall be the sum of the products of the estimated quantities and the appropriate Contract Unit Prices in the Schedule.
- 4.3 Schedule of Contract Unit Prices are in the Form of Tender.
- 4.4 Estimated Contract Price, excluding Harmonized Sales Tax is:

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- \$ _____ dollars and _____ cents. (\$ _____).
- 4.5 Contingency including such additional amounts or sums for such extra or additional Work at the unit rates or the amounts, as the case may be stipulated in written orders of the Contract Administrator/Town Representative or Owner, authorizing the extra or additional Work.
- 4.6 Harmonized Sales Tax (13%) payable by the Owner to the Contractor is:
\$ _____ dollars and _____ cents. (\$ _____).
- 4.7 Total amount payable by the Owner to the Contractor for the construction of the Work is:
\$ _____ dollars and _____ cents. (\$ _____).
- 4.8 All amounts are in Canadian Funds.
- 4.9 These amounts shall be subject to adjustments as provided in the Contract Documents.

ARTICLE A-5 PAYMENT

- 5.1 The Owner shall pay the Contractor in Canadian funds for the performance of the Contract, the amount being determined by actual measured quantities of the individual Work items contained in the Schedule of Contract Unit Prices, in the Form of Tender of this Agreement, and measured in accordance with the methods of measurement given in the Specifications.
- 5.2 Subject to the provisions of the Contract Documents, and in accordance with legislation and statutory regulations respecting holdback of Ten percent (10%), the Owner shall, in Canadian funds:
1. Make progress payments to the Contractor on account of the Work performed when due in the amount certified by the Owner including Harmonized Sales Tax, and
 2. Upon Substantial Performance of the Work, pay to the Contractor the unpaid balance of the holdback amount when due, including Harmonized Sales Tax, and
 3. Upon the issuance of the final certificate for payment, pay to the Contractor the unpaid balance when due, including Harmonized Sales Tax.
- 5.3 In the event of loss or damage occurring where payment becomes due under the property and boiler insurance policies, payments shall be made to the Contractor in accordance with the provisions of GC 6.03.
- 5.4 Interest
- 5.4.1 Should either party fail to make payments as they become due under the terms of the Contract or in an award by arbitration or court, interest at one percent (1 %) per annum above the bank rate on such unpaid amounts shall also become

due and payable until payment. Such interest shall be compounded on a monthly basis. The bank rate shall be the rate established by the Bank of Canada as the minimum rate at which the Bank of Canada makes short term advances to the chartered banks.

5.4.2 Interest shall apply at the rate and in the manner prescribed by GC

8.02.03.09 for late payments or GC 8.02.03.10 on the amount of any claim settled pursuant to GC 3.14.

ARTICLE A-6 RIGHTS AND REMEDIES

- 6.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available there under shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.
- 6.2 No action or failure to act by the Owner or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such actions or failure to act constitute an approval of or acquiescence in any breach there under, except as may be specifically agreed in writing.

ARTICLE A-7 LAW OF THE CONTRACT

- 7.1 The law of the place of Work shall govern the interpretation of the Contract.

ARTICLE A-8 RECEIPT OF AND ADDRESSES FOR NOTICES

8.1 Notices in writing between the parties or between them and the Town Representative shall be considered to have been received by the addressee on the date of delivery if delivered to the individual, or to a member of the firm, or to an officer of the corporation for whom they are intended by hand or by registered post; or if sent by regular post, to have been delivered within five (5) Working Days of the date of mailing when addressed as follows:

The Owner at: **30 King Street East**

Name of Owner, Street, Postal Box Number (if applicable)

Gananoque, ON K7G 1E9

ity, Province, Postal Code

The Contractor at:

Name of Contractor, Street, Postal Box Number (if applicable)

City, Province, Postal Code

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ARTICLE A-9 LANGUAGE OF THE CONTRACT

- 9.1 When the Contract Documents are prepared in the English and French languages, it is agreed that in the event of any apparent discrepancy between the English and French versions, the English language shall prevail.
- 9.2 This Agreement is drawn in English at the request of the parties hereto. (La convention présente est rédigée en Anglais à la demande des parties.)

ARTICLE A-10 SUCCESSION

The Contract Documents are to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties, and subject to the law and the provisions of the Contract Documents shall inure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representative, successors, and assigns.

In witness whereof, the parties hereto have executed this Agreement and by the hands of their duly authorized representatives.

SIGNED AND DELIVERED

In the presence of:

OWNER

THE CORPORATION OF THE TOWN OF GANANOQUE

Mayor

Signature

Clerk

Signature

CONTRACTOR

Name of Contractor

Signature

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Name and title of person signing

Signature

Name and title of person signing

Signature

N.B.

- i. If the Contractor is a corporation, an authorized officer of the corporation shall sign the Agreement and shall affix the corporate seal.
- ii. If the Contractor is a partnership, a minimum of two partners shall sign the Agreement and the signatures shall be witnessed.
- iii. If the Contractor is a sole proprietorship; the sole proprietorship shall sign the Agreement and the signature shall be witnessed.

SECTION D: SPECIAL PROVISIONS – GENERAL

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Special Provisions – General, Table of Contents

Section No.	Special Provision - General
D.01	Scope of Work
D.02	General Conditions of the Contract
D.03	Ontario Provincial Standard
D.04	Occupational Health and Safety
D.05	Interpretation
D.06	Clarification
D.07	Contractor's Schedule of Work
D.08	Progress and Time for Completion
D.09	Limitations of Operations
D.10	Liquidated Damages
D.11	Basis for Certificate Payments
D.12	Variations in Tender Quantities
D.13	Sales Tax
D.14	Employment
D.15	Contractor's Representative
D.16	Use of Sub-Contractors
D.17	Notification of Residents
D.18	Cooperation with Local Businesses
D.19	Utilities
D.20	Storage Areas
D.21	Fencing of the Construction Area
D.22	Co-ordination Meetings
D.23	Control of Vehicular and Pedestrian Traffic
D.24	Dust and Noise Control
D.25	Night Work
D.26	Emergency Measures
D.27	Sewage Pumping
D.28	Spills Reporting
D.29	Protection, Removal and Stockpiling

D.30	Survey Markers
D.31	Restoration
D.32	Sewer Type Options
D.33	Tree Protection and Preservation
D.34	Fairness is a Two-Way Street
D.35	Accessibility for Ontarians with Disabilities
D.36	Recycling and Refuse Collection
D.37	Clean Up
D.38	Prevention of Damage
D.39	Contractor Quality Control Obligations
D.40	Government Requirements
D.41	Layout
D.42	Rock Excavation
D.43	Management And disposal Of Excavated Soils, Excess Material and Contaminated Soil
D.44	Pit Areas and Waste Disposal Areas on Privately Owned Lands Used by the Contractor
D.45	Qualifications and Experience – General Contractor
D.46	Geotechnical Investigation
D.47	Geoenvironmental Investigation
D.48	Compliance with Regulations/Bylaw for Erosion and Sediment Control
D.49	Work In confined Spaces
D.50	Protection of Species at Risk and Wildlife Protocol
D.51	Operational Constraints

D.01 SCOPE OF WORK

The work to be completed under this contract is located on Arthur Street, from Charles Street South to 348 Arthur Street and generally consists of:

- New water main, hydrants and services
- New sanitary sewers, sanitary manholes and services
- New storm sewer, storm manholes, catch basins and services
- Road, concrete curb & gutter, concrete sidewalks and hot mix asphalt pavement
- Grading and landscaping
- New streetlight infrastructure

The Contractor will be required to stage their work so access and egress is maintained for area residents, and Emergency Services, at all times during this contract.

The Contractor will be required to stage their work in order that sewer and water services to residents/businesses are maintained with minimum interruption and inconvenience.

D.02 GENERAL CONDITIONS OF THE CONTRACT

The requirements of Ontario Provincial Standards for Roads and Public Works – General Conditions of Contract (OPSS.MUNI 100 – November 2024) shall apply to this contract.

In addition to the standard as-built requirements the contractor shall submit as-builts in the following digital formats:

- Redlines in .pdf format
- Drawing files in .dwg or .dxf formats
- Shape files in standard GIS format

D.03 ONTARIO PROVINCIAL STANDARDS

Ontario Provincial Standard Specifications (OPS) and Ontario Provincial Standard Drawings (OPSD) form part of this contract.

D.04 OCCUPATIONAL HEALTH AND SAFETY

The Contractor's attention is drawn to Sub-section GC7.01 of the General Conditions of Contract.

In order to avoid any misunderstanding as to the nature of the work to be performed herein, the Contractor, by executing this Contract, acknowledges that he is the Constructor within the meaning of the Occupational Health and Safety Act and Regulations.

D.05 INTERPRETATION

In this document all reference to the "Owner" as defined in Sub-section GC1.04 of the General Conditions of Contract, will be superseded by the word "Town" which means "The Corporation of the Town of Gananoque."

In this document, all reference to the "MTO" or the "Ministry" shall be interpreted to mean the Ministry of Transportation, Ontario.

D.06 CLARIFICATION

It will be the Contractor's responsibility to clarify with the Town, any questions or concerns relating to details contained within the contract documents, plans and accompanying reports before advancing with construction of the works. All questions raised will be promptly investigated by the Contract Administrator and reported back to the Contractor prior to advancement of the work.

D.07 CONTRACTOR'S SCHEDULE OF WORK

Forthwith upon acceptance of this Contract, the Contractor shall provide a Detailed Work Schedule to the Engineer. The Contractor must prepare and submit their Schedule to the Engineer within ten (10) calendar days of Contract acceptance and prior to start of construction.

The Contractor shall prepare the Detailed Work Schedule in bar chart form. The Detailed Work Schedule shall display the following items against a weekly time scale representing the total time period for the completion of the Work.

- all major construction activities included in the Work including their respective start and completion dates and the number of days allocated to each activity;
- Commence Work Order date, operational constraints, interim completion dates, important milestone dates, and other significant scheduling requirements specified in the Contract. No on-site work shall be shown prior to the Commence Work Order date.
- the controlling operations as per the definition in the OPS General Conditions;

The Contractor shall update the Detailed Work Schedule on a monthly basis or, if directed to do so by the Contract Administrator, at more frequent intervals. The Contractor shall notify the Contract Administrator 48 hours prior to any changes to construction activities including schedule, location, and type of activities.

The submission and updating of the Detailed Work Schedule form an integral part of the Work. Should the Contractor fail to meet its obligations to submit and update the Detailed Work Schedule, the Owner, in its sole discretion, may withhold monthly progress payments under the Contract until the obligations are met.

The Contractor shall not make any claim for extra compensation for the cost of fulfilling the obligations set out in this Special Provision.

D.08 PROGRESSION OF WORK AND COMPLETION TIME

Time shall be of the essence of this agreement.

The Contractor shall diligently prosecute the work on this Contract to completion.

The Contractor shall schedule the work for progression of same in a continuous and orderly manner to prevent the least amount of delay in completing the total works.

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The Contractor shall start work on this Contract within ten (10) days from receipt of written notice from the Town to commence and shall work continuously to the completion of the Contract.

All schedules are based on the assumption that a Notice of Award will be issued June 18, 2026.

The successful Tenderer shall **Substantially Perform the Work by October 3, 2026.**

The successful Tenderer shall **Complete the Work by October 30, 2026.**

The following works shall be excluded from the calculation of Substantial Performance, but shall be required to be complete for Completion:

- Landscaping

If the time limit specified above is not sufficient to permit completion of the work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight and night shifts will be required throughout the life of the Contract to the extent deemed necessary by the Contractor to ensure that the work will be completed within the time limit specified. Any additional costs occasioned by compliance with these provisions will be considered to be included in the prices bid for the various items of work and no additional compensation will be allowed therefore.

Working time shall be charged until the date of acceptance of the work by the Town, at which time all work required in the Contract, including all final clean-up and trimming, shall be completed.

D.09 LIMITATIONS OF OPERATIONS

Sub-section GC7.14 of Section D. General Conditions of Contract, is hereby amended by the addition of the following provisions:

- The Contractor's construction operations and working hours shall satisfy the requirements of the Town of Gananoque's Noise By-law.

D.10 LIQUIDATED DAMAGES

It is agreed by the parties to the Contract that in case all the work called for under the Contract is not finished or completed within the date of completion specified or as extended in accordance with Sub-section GC3.06 of The General Conditions of Contract, a loss or damage will be sustained by the Town. Since it is and will be impracticable and extremely difficult to ascertain and determine the actual damages which the Town will suffer in the event of any such delay, the parties hereto agree that the Contractor will pay to the Town the sum of **\$500.00** for liquidated damages for each and every calendar day's delay in finishing the work, in excess of the specified completion date. It is agreed that this amount is an estimate of the actual loss or damage to the Town which will accrue during the period in excess of the specified completion date.

The Town may deduct any amount due from any monies that may be due or payable to the Contractor on any account whatsoever. The liquidated damages payable is in addition to and without prejudice to any other remedy, action or other alternative that may be available to the Town.

D.11 BASIS FOR CERTIFICATE PAYMENTS

Except as herein provided, payments under this contract will be made in accordance with Section G.C.8.0.2 of the OPSS General Conditions.

The Contractor shall submit an Application for Progress Payment monthly after starting the work on this Contract. This Application for Progress Payment must be for work completed at the agreed monthly cut-off date. The format of the application must be approved by the Contract Administrator.

Progress Payment Certificate

(Addendum to the General Conditions of Contract, Sub-section GC8.02.03.01)

- Two copies of each estimate of work done will be delivered to the Contractor by the Engineer.
- Clause (04) is hereby amended to read as follows: Payment will be made within 30 days after the issuance of a Progress Payment Certificate

Substantial Performance Certificate

(Addendum to the General Conditions of Contract, Sub-section GC8.02.03.04)

- The Engineer will not certify the Substantial Performance Certificate until all sewer mains have been subjected to an initial closed circuit television inspection and remedial works as identified by said CCTV inspection have been completed to the Engineer's satisfaction. Also, all water mains must have been disinfected, pressure tested and bacteriologically tested and passed.

Final Acceptance Certificate

(Addendum to the General Conditions of Contract, Sub-section GC8.02.05)

- The Engineer will not certify the Final Acceptance Certificate of the work until all sewer mains have been subjected to a second CCTV inspection and remedial works as identified by said CCTV inspection have been completed to the Engineer's satisfaction.
- The second CCTV inspection will be arranged for and paid for by the Town in conjunction with the contractor. The inspection may be scheduled to coincide as closely as possible with the expiration of the warranty period. (i.e. nearly 12 months following the date of Substantial Performance.)

D.12 VARIATIONS IN TENDER QUANTITIES

(Addendum to the General Conditions of Contract, Sub-section GC8.01.02.01), Variations in Tender Quantities, paragraph (a) and (b) are to be deleted and replaced by the following:

There shall be no renegotiation of any Tender items (major or minor) due to variations in Tender quantities. Regardless of whether a Tender item over or under runs from the original total Tender quantity. The unit price bid shall be applied to the final quantity measured in the field.

D.13 SALES TAX

Harmonized Sales Tax (HST)

- The Harmonized Sales Tax (HST) is not to be considered an applicable tax for the purposes of this Contract. The Tenderer shall not include any amount in their bid prices for the said HST. The Town is subject to payment of the Harmonized Sales Tax, therefore the HST will be shown on each payment certificate and will be paid to the Contractor in addition to the amount certified for payment and will therefore not affect the Contract prices.

Changes to Government Taxes

- Where a change in Canadian federal or provincial taxes occurs after the Tender closing date for this Contract, and this change could not have been anticipated at the time of bidding, the Town will increase or decrease contract payments to account for the exact amount of tax change involved.
- Claims for compensation for additional tax cost shall be submitted by the Contractor to the Engineer. Such claims for additional tax costs shall be submitted no later than 30 days after the date of acceptance of the work.
- Where the Contractor benefits from a change in Canadian federal or provincial taxes, the Contractor shall submit to the Engineer a statement of such benefits. This statement shall be submitted no later than 30 days after the date of acceptance of the work.
- The Engineer reserves the right to make deductions from regular progress payments to compensate for the estimated benefit from decreased tax costs. Such deductions will be set-off from Contract payments pending receipt of the statement itemizing the benefits which have resulted from a decrease in tax costs, at which time the final payment adjustment will be determined.

D.14 EMPLOYMENT

The Contractor and any Sub-contractor of the Contractor will, irrespective of the construction to be carried out under this Contract:

- Employ only residents of Canada, and
- In employing persons, refrain from discrimination against any person by reason of gender, race, color, religious views or political affiliations.
- Give preference to local truckers if more trucks are required than they have available of their own fleet on site.
- Give preference to local labour if it is necessary to augment their regular forces.

D.15 CONTRACTOR'S REPRESENTATIVE

The Contractor's site representative shall be a competent, English speaking Superintendent or Foreman, fully authorized to act for the Contractor and capable of coordinating the operation in an orderly and progressive manner. The Contractor's representative's primary role/responsibility

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will be coordinating and supervising the work. At no time shall the Contractor's representative operate equipment or perform labour work to install the works. The Supervisor or Supervisor Designate will be in attendance at all times at the core work activity site during core work activities. Failure to comply WILL result in a "Stop Work" order.

The Contractor's site representative shall maintain on the construction site at all times at least one complete set of Contract Drawings and Contract Documents including copies of all referenced OPSS and OPSD documents.

The site representative shall be capable of reading and interpreting the documentation and shall ensure that all work is in conformance with the Contract Documents and the Contract Drawings.

D.16 USE OF SUB-CONTRACTORS

Sub-section GC3.09 of the General Conditions of Contract, paragraphs 02) and 03) are deleted and replaced by the following:

- The Contractor must submit with the Tender a list of any sub-contractors who will be carrying out any part of this Contract. This list shall show the names of the proposed sub-contractors and for what work each sub-contractor will be responsible. Any sub-contractor's names not submitted with the Tender must be applied for in writing. Sub-contractors will be approved in writing by the Engineer prior to being allowed on site. The approved use of a Sub-contractor shall be at the sole discretion of the Manager of Public Works. The rejection of any sub-contractor does not constitute any additional costs to the contract.
- Should the Contractor cease operations, under no circumstances shall Sub-contractors be allowed to continue the work on the site unless an authorized representative of the Contractor is present on the site. The Contractor shall notify the Engineer, in writing, of the names and positions of the person or persons so representing the Contractor. Any sub-contractor that is not meeting the requirements of the contract may be removed from the contract at any time at the request of the Engineer in writing to the general contractor, no additional costs will be incurred by the Town for the replacement on any sub-contractor.

D.17 NOTIFICATION OF RESIDENTS

The Contractor must provide each household and/or business on every street covered by the Contract with a copy of a letter as shown below. This letter, complete in every detail and written on letterhead paper, shall be delivered by the Contractor to each home and/or business prior to commencement of work and the Municipality must be informed by letter when such notification has been served. The letter shall be reviewed by the Contractor Administrator prior to delivery to households and /or businesses.

(Example Letter)

Name of Contractor Date:

Attention: Resident/Occupant

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The firm of __Construction Company has been engaged by the Town of Smiths Falls to construct__(list of works) on your street. It is proposed that this construction will commence on or after

_____(estimated start date).

Should you require any information or assistance because of our construction, please call our office at____. As part of our contract, our company is assuming all responsibility for the construction work until it is completed in entirety. It would be appreciated if you can direct any calls or concerns to our office in order that we can address the concern as quickly as possible.

Yours truly.

Signed by Contractor

Additionally, where construction will inconvenience the residents in the area of the work, the Contractor will be responsible for contacting the affected residents, either by verbal or written communication.

- Example: If the Contractor is to block off a street or entrance to private property, the Contractor will advise the residents of when the blockage will occur and for how long.

The Contractor shall not make any claim for extra compensation for the cost of fulfilling the obligations set out in this Special Provision.

D.18 COOPERATION WITH LOCAL BUSINESSES

The Contractor shall be required to proceed in such a manner as to minimize interruption to local businesses. It may be possible that work may have to be undertaken at night or on holidays in order to ease congestion.

D.19 UTILITIES

The Contractor shall be required to cooperate and to co-ordinate with Bell Canada, Eastern Ontario Power, Union Gas or Enbridge Gas and any utility company whose plant may be affected, to permit these agencies to maintain service and to rearrange plant during construction. It is the Contractor's responsibility to assist in maintaining water services to homes and businesses in this area during construction, as directed by the Engineer.

Whenever, in the opinion of the utility companies, standby crews are necessary during the Contractor's operations, the Contractor shall make the necessary arrangements with the utility companies, and the cost of such crews and equipment shall be billed and paid by the Contractor by the utility company.

The utility companies may require access to existing house service connections and mains to effect repairs or replacement of plant as the work progresses.

The location, depth, type and configuration of underground utilities and services shown on the Contract Drawings are based on the investigations made by the Engineer. The Contractor shall contact the utility companies to confirm the exact location, type and configuration of these utilities. The Contractor shall exercise the necessary care in construction operations and to

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take such other precautions as are necessary to safeguard the utilities from damage.

No responsibility will be assumed by the Town for the accuracy of the Drawings with respect to the location and number of existing utilities or services, overhead or underground, which may be encountered during the course of this Contract. The Contractor must self-verify locations of all such services and items on public and private property which may be disturbed by their work, and the cost of locating, protecting and temporarily supporting such facilities shall be included in the unit prices Tendered. There shall be no extra payment to the Contractor for this work.

No heavy construction equipment will be allowed to operate over existing gas mains during excavation operations and no additional payment shall be made as a result of work necessary to satisfy this requirement. Please refer to the Enbridge Gas Third Party Requirements in the Vicinity of Natural Gas Facilities Standard for more detail. The specifications are solely for reference and additional consultation with Union Gas will be required on-site for any additional scope of work.

The Contractor shall be responsible for any unauthorized disruptions of service and any damage to utilities arising out of the work performed. The cost of protective measures, together with the cost of restoring the lines to their original state and location, will be at the expense of the Contractor and will be billed directly by the utility company.

The Contractor shall be responsible for supporting existing watermains, gas mains and telephone ducts and concrete conduit structures where they are encountered crossing or adjacent to underground service trenches. The method of support shall be as detailed in the Drawings or as stipulated by the utility companies and payment for support measures shall be deemed to be included in the Contract prices for the underground services being installed.

D.20 STORAGE AREAS

The Contractor shall obtain the approval of the Engineer prior to designating areas within the road allowance for storage of equipment and materials and the erection of offices and sheds.

If additional property outside the site is required for such purposes, the Contractor shall make their own arrangements at no additional cost to the Town.

D.21 FENCING OF THE CONSTRUCTION AREA

Sub-section GC7.03 of Section D, General Conditions of Contract, is amended by the addition of the following:

- In order to restrict access by and to protect the public; excavated working areas for construction purposes shall be fenced. The Contractor shall erect and maintain self-supporting construction fence with a minimum height 1.5 meters. The cost of supply, erection, maintenance, removal and disposal of temporary fence shall be borne by the Contractor.
- All fence shall be in conformance with the "The Occupational Health and Safety Act and Regulations for Construction Projects", as amended.

D.22 CO-ORDINATION MEETINGS

The Contractor shall attend such meetings with the Town and utility company authorities as may be required by the Engineer to co-ordinate services affected by the Contract.

D.23 CONTROL OF VEHICULAR AND PEDESTRIAN TRAFFIC

The Contractor shall provide the appropriate traffic control signage and/or appropriately attired flag persons, as required during the course of construction to comply with the safety requirements of latest edition of the M.T.O. publication “Book 7 – Ontario Traffic Manual Temporary Conditions”.

When in accordance with Section G.C.7.0.6 of the OPSS General Conditions, it is the Contractor’s responsibility to maintain a road throughout the work, the Contractor shall supply at his expense, all labour, equipment and material to maintain the road in a satisfactory condition.

The Contractor shall be fully and solely responsible to ensure the development and implementation of a submitted/reviewed Traffic Control Plan (TCP) and Construction Site Pedestrian Control Plan (CSPCP) as required in S.P. F.01.

D.23.1 Open Lanes

For the locations specified below, “minor interruptions” to traffic flow in open lanes will be permitted to facilitate construction activities. Where “minor interruptions” are permitted, the resulting traffic delay must be under 30 seconds per incident and frequency no greater than ten times per hour with an accumulated delay of 5 min/hr or less. Any flagging should be coordinated with gaps in adjacent traffic.

D.23.1.1 Arthur Street (Charles Street to William Street)

Minor interruptions of open lanes are permitted.

The Contractor will be permitted to close Arthur Street within the limits of the Contract during the construction period.

One traffic lane with a minimum width of 3.0 m, for local traffic only shall be provided whenever possible. The site shall be left in a condition at the end of each work day to assist with the access of emergency vehicles.

D.23.1.2 Arthur Street (East of William Street)

Minor interruptions of open lanes are permitted.

The contractor shall accommodate two-way traffic at all times (with flagging during work hours, and outside work hours either with two open lanes (min 3.0m each) or with “yield to oncoming” signage used strictly in accordance with OTM Book 7 and with a minimum open lane of 4.0m width in the single lane section and two min. 3.0m lanes elsewhere.

D.23.1.3 William Street and Charles Street

Minor interruptions of open lanes are permitted

Working hours – Maintain a minimum of one lane of traffic at all times (3.5m minimum width), with traffic control to accommodate 2 way traffic in one lane.

Non-Working Hours - One lane shall be open in each direction (3.5m minimum width per lane)

D.23.2 Vehicle Access to Entrances and Side Roads

The Contractor shall maintain through, or around, the working area a satisfactory condition for traffic, shall provide vehicle access for all existing entrances, private approaches, and side roads, and ensure that all driving surfaces are maintained and are operational, all to the satisfaction of the Contract Administrator. All vehicle access to existing entrances, private approaches, and side roads must be fully operational once the construction for the day is completed, unless the owner of the property has provided consent to allow the access to remain closed. All the costs associated with this work shall be borne by the Contractor.

Any temporary loss of access/egress necessary to complete the works must be identified in the Contractor's TCP and requires a minimum 24-hour prior notification to the business or resident(s). Such notification regarding the loss of access/egress is the sole responsibility of the Contractor.

D.23.3 Site Pedestrian Control

Pedestrian control within the work zone is the responsibility of the Contractor and shall be provided in accordance with the requirements of any applicable Special Provisions and the Contractor's Construction Site Pedestrian Control Plan.

The Construction Site Pedestrian Control Plan shall ensure the provision of a safe and accessible path of travel for all pedestrians through and/or around the construction site. The plan shall ensure that pedestrians with disabilities, as well as those with increased mobility needs (parents with strollers and/or young children, elderly pedestrians using canes, walkers, or wheelchairs, etc.), shall be accommodated either through or around the construction site at all times.

In addition to the provision of a safe and accessible path of travel for all pedestrians through and/or around the construction site, a safe and accessible path of travel shall be provided to gain pedestrian access to all buildings, properties, and other destinations within or immediately adjacent to the Contract limits. The Contractor shall install and maintain business directional signage on construction fencing at all street corners. All business signs shall be supplied by the Town.

The Contractor shall make every effort to keep the existing sidewalks as long as possible until they are removed. All temporary sidewalks shall have a firm and stable surface at all times and shall have a minimum width of 1.2m. Granular surfaces will not be accepted. Asphalt and or rubber mats may be used as temporary surfaces. The cost of fulfilling this obligation shall be deemed to be included in the item for Construction Site pedestrian Control Plan.

D.23.4 Pedestrian Barriers

Erection of temporary barriers or fencing is required to separate pedestrians from construction operations or related hazards to the satisfaction of the Contract Administrator. The temporary barrier type shall be steel interlocking with a cane detectable boundary protection.

The barrier shall be constructed in a rigid and secure manner, thus providing a physical limitation through which a pedestrian would not normally pass.

All work zones shall be completely fenced at all times. The cost of fulfilling this obligation shall

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be as per the Tender item for steel interlocking pedestrian barriers.

D.23.5 Signalized Intersections

The Contractor is notified of the following signalized intersection within the contract limits.

- None

where the Contractor intends to modify an approach to a signalized intersection, 15 working days notification to the Contract Administrator is required.

Police may be required to direct traffic at signalized intersections, when those intersections are adversely affected by construction operations. At a minimum, Police are required in the following scenarios:

1. Police are required if there is a need to direct traffic within 30 m of a signalized intersection. Traffic Control Persons are not permitted to direct traffic within 30m of a signalized intersection.
2. Police are required if any traffic signal display is visually obstructed by equipment or materials.
3. Police may be required where a lane re-alignment or lane use requires traffic to travel contrary to the existing pavement markings and/or signage.

The Traffic Control Plan must identify those locations for which Police will be required.

The cost of fulfilling this obligation shall be as per the Tender item for Police assistance at intersections.

D.23.6 Parking

Contractor may prohibit on street parking only for the areas under construction. Other areas not under construction shall remain open for on-street parking until constructions begins.

The Contractor's employees must be advised that parking regulations on Town streets in the vicinity of the construction zone will be enforced and will be subject to the Town's Traffic and Parking By-Law.

A designated safe parking area shall be specified in the Traffic Control Plan for the Contract Administrator for the duration of the contract. This parking area shall accommodate a minimum of 2 vehicles reserved for contract administration staff.

The Contractor shall make no claim for any parking tickets issued to its employees.

D.23.7 Pavement Markings

All temporary line painting treatments must be specified and detailed in the Traffic Control Plan.

All signalized intersections must have temporary pavement markings for stop bars at all times; when construction operations do not accommodate the use of pavement markings, the Contractor shall supply and install appropriate signage (e.g. Rb-78 "Stop Line").

D.23.8 Detours

The Contractor shall be responsible to supply, install, maintain and remove all necessary signage for any proposed detour routes. The Contractor shall submit plans and notify the Town

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a minimum of two weeks in advance of the requirement for the detour.

D.23.9 Signage

Any road closures are the responsibility of the Contractor and any associated temporary signage, temporary line painting, and other traffic control devices are the responsibility of the Contractor, including those which may be required outside of the construction zone (for example, TC-54 flexible drums and signs required to close auxiliary lanes).

Where required, the Contractor shall be responsible to supply and install:

RB-25 “Keep Right”

RB-41 through RB 48, “Lane Designation”

RB-90A “Construction Zone Begins”

RB-90B “Construction Zone Ends”

RB-91 “Yield to Oncoming”

Wa-33 “Object Marker”

The Contractor shall remove the street name signs and install on temporary post for the duration of construction. The signs shall be made visible at all times and follow the approved traffic control plan. The cost of fulfilling this task shall be deemed to be included in the item Traffic Control plan.

New street name signs shall be installed on new posts upon project completion. The cost of fulfilling this task shall be paid for under the appropriate Tender item.

D.24 DUST AND NOISE CONTROL

The Contractor shall take such steps as may be required to prevent dust nuisance resulting from the Contractor's operations either within the right-of-way or elsewhere or by public traffic where it is the Contractor's responsibility to maintain a roadway or access to properties within or through the work site.

Where the work requires the sawing of asphalt or the sawing or grinding of concrete, blades and grinders of the wet type shall be used together with sufficient water to prevent the incidence of dust, wherever dust would affect traffic or wherever dust would be a nuisance to residents of the area where the work is being carried out.

To control construction noise, the Contractor shall ensure that construction equipment is maintained in good operating condition so as to prevent unnecessary noise. This shall include, but not be restricted to, effective muffler systems, properly secured components and lubrication of moving parts.

Idling of equipment shall be restricted to the minimum necessary to perform the specified work.

The cost of all such preventative measures shall be borne by the Contractor including reshaping the roadway and water for dust suppression.

The cost of such quantities of calcium chloride as authorized by the Contract Administrator to restrict dust to acceptable levels within the Contract limits, shall be paid for by the Owner at the

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contract price for the appropriate Tender item for Calcium Chloride Solid, conforming to OPSS 506 Construction Specifications for Dust Suppressants.

If there is no item for calcium chloride in the Tender Form, calcium chloride shall be applied as directed by the Contract Administrator with the cost also borne by the Contractor.

Should the Contractor refuse or neglect to carry out proper dust control, the Engineer may authorize the work to be carried out by other persons, and the cost of such work shall be deducted from any payments to the Contractor.

D.25 NIGHT WORK

During night work, the site of the work shall be adequately flood-lit to the Engineer's satisfaction for work operations, inspections and advance warning to traffic.

D.26 EMERGENCY MEASURES

Sub-section GC3.04 of The General Conditions of Contract, is amended by the addition of the following:

- Whenever the construction site is unattended by the general superintendent, the name, address and telephone number of a responsible official of the Contractor shall be given to the Engineer. This official shall be available at all times and have the necessary authority to mobilize workers and machinery and to take any action as directed by the Engineer in case emergency measures are required.

D.27 SEWAGE PUMPING

When it is necessary to pump sewage to permit construction, no pumping will be permitted during the period between 7:00 p.m. in the evening and 7:00 a.m. the next morning, unless such pumping is done through the use of an electric pump or pumps energized by a remote power supply, monitored by on-site personnel or a remote monitoring system, and meeting the noise by-law for the Town.

The pumping, diversion or backup of sewage is the sole responsibility of the Contractor who shall accept all liability for damages to private or public lands or buildings which may be incurred there from.

D.28 SPILLS REPORTING

Spills or discharges of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations, that cause or are likely to cause adverse effects shall forthwith be reported to the Engineer and to the Ministry of the Environment Spills Action Centre at 1-800-268-6060. Such spills or discharges and their adverse effects shall be as defined in the Environmental Protection Act.

All spills or discharges of liquid, other than accumulated rain water, from luminaires, internally illuminated signs, lamps and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations, shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall forthwith be reported to the Engineer.

This reporting will not relieve the Contractor of their legislated responsibilities regarding such spills or discharges.

D.29 PROTECTION, REMOVAL AND STOCKPILING OF SIGNS

The Contractor shall be required to cooperate with the Town's Public Works to protect all street signs in the area of construction.

Traffic signs will be removed by the Contractor at the direction of the Engineer and shall be delivered and stockpiled at the Town's Public Works yard located on Charles Street North. No additional compensation will be made for the Contractor's work in removing and stockpiling signs. The Engineer will record the location and type of signs prior to removal in order that the signs may be replaced by the Town in corresponding locations after completion of construction. The Engineer will also prepare an inventory indicating the condition of all signs prior to removal by the Contractor. The Contractor will be invoiced for any signs which, in the opinion of the Engineer, are damaged as a result of their operations.

D.30 SURVEY MARKERS

The Contractor shall be held responsible for ascertaining the location of and preserving land survey markers. Where Control Point Monuments have been removed or disturbed they shall be replaced by an Ontario Land Surveyor at the expense of the Contractor. Survey bars which have been removed or disturbed shall be placed on completion of the work by an Ontario Land Surveyor at the expense of the Contractor.

D.31 RESTORATION

Where any private or commercial entrance, parking area, boulevard or lawn is disturbed due to the work under this Contract, it shall be restored to its original condition as directed by the Engineer and as indicated on the typical road cross-section, regardless of whether or not such restoration is shown on the Drawings.

- Gravel driveways and other parking areas shall be restored with Granular "A" and compacted to a depth of 150 mm minimum and will be paid for under the Contract item, Granular "A", unless specified otherwise.
- Asphalt surface driveways and parking areas shall be repaired with compacted Granular "A" base to a depth of 300 mm and 50 mm of Hot Mix Driveway Mix (HL3) shall be paid for under the applicable Contract items.
- Concrete walks and steps shall be repaired with compacted Granular "A" base to a depth of 150 mm and 125 mm of 30 MPa concrete ($7.0 \pm 1.5\%$ air entrainment).
- Payment for Granular "A" for concrete sidewalks shall be made at the applicable Contract unit prices.
- Payment for concrete steps will be made under concrete sidewalk based on the following equivalency:

$$1 \text{ m}^2 \text{ of concrete step (plan view)} = 2 \text{ m}^2 \text{ concrete sidewalk}$$

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- Concrete curbs shall be restored to their original state and the curb so constructed, regardless of type, shall be paid for under the item, Concrete Curb and Gutter.
- Grassed areas disturbed shall be restored with sod over a minimum of 100 mm of topsoil and will be paid for under the Contract item for topsoil and sod.
- Restoration of areas unnecessarily damaged by the Contractor's operations shall be at the Contractor's expense.
- Prior to restoration of asphalt or concrete entrances, all loose, broken or disturbed material along the edges shall be removed, and all edges of the existing entrances shall be sawed or otherwise cut in straight lines as directed by the Engineer. No additional payment shall be made for this work.

D.32 SEWER TYPE OPTIONS

When sewer pipe is specified, the Contractor may choose to supply:

- Storm Sewer: concrete or polyvinyl chloride (PVC), DR 35
- Sanitary Sewer: concrete or polyvinyl chloride (PVC), DR 35
- Storm and Sanitary Sewer Laterals: polyvinyl chloride (PVC), DR 28

The class of concrete and the polyvinyl chloride (PVC) pipe shall be selected from the appropriate standards in the Contract based on the size of the pipe required and the depth of fill above the pipe specified.

D.33 TREE PROTECTION AND PRESERVATION SPECIFICATIONS

The following specifications are intended to prevent unnecessary damage and destruction to Town trees.

Authorization must be given by the Town's Engineer before any of the following activities are undertaken, save and except in an emergency:

- Attaching or installing any metal material, signs, cables, nails, wire or other things foreign to the natural structure of the tree.
- Excavating into the root zone within the drip line (or minimum 3m) of any tree.
- Treating the soil within the root zone of any tree with a soil sterilant.

All trees on any street or other publicly owned property near any excavation or construction site of any building, structure or street work, shall be guarded with a good substantial fence, not less than 1.2 m high and 2.5 m square and all building material, dirt or other debris shall be kept outside this barrier.

No person shall deposit, place, store or maintain upon any public place of the municipality any stone, brick, sand, concrete or other materials which may impede the free passage of water and air to the roots of any tree growing therein except by written approval of the Engineer.

All site or landscaping plans involving public property shall show all existing trees. Trees to be saved and removed should be indicated. Every effort shall be made to preserve desirable trees.

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All trees to be saved shall be identified on site with a yellow ribbon and protected during construction by snow fencing to the drip line of the tree or a block of trees, and no building materials, dirt or debris shall be permitted inside this barrier.

Heavy equipment shall not be allowed to compact the soil over the root zone of existing trees. Restricted equipment access routes shall be established.

No excavation, ditches, tunnel or trenches shall be made within a 3 metre radius of any tree to be saved, without first obtaining written approval from the Engineer, save and except in an emergency.

Curb cuts should not be closer than 1.5 metres from the trunk of a tree. Paving or asphaltting should not be done closer than 750 mm from any tree trunk.

New sidewalks, paving or asphaltting must allow breathing space for tree roots. The following should be used as a guideline. For trees up to 130 mm in trunk caliper, 2.0 m² of porous area is required. For each additional 50 mm of tree caliper, an additional 1.0 m² is needed.

Where grade change is required, the same area (2.0 m² for 100 mm caliper and 1.0 m² for each additional 50 mm of trunk caliper) must be provided either by construction of a dry well where the level is to be raised or by building a retaining wall where the level is to be lowered.

Avoid cutting surface roots wherever possible. Sidewalks and paving levels should be contoured sufficiently to avoid such cutting.

Excavation involving root cuts should be done rapidly. Make smooth, flush cuts on tree roots. Backfill before the roots have a chance to dry out and water the tree immediately.

Where many roots have to be removed, prune branches out of the top of the tree to restore proper top to root balance.

If trees are in full leaf during the construction phase, supply supplemental irrigation.

D.34 FAIRNESS IS A TWO-WAY STREET

In this Article;

“Construction” includes all work in or about:

- Constructing, altering, decorating, repairing, demolishing, erecting or remodeling the whole or any part of a building or structure;
- Laying pipe and conduit above or below ground level;
- Excavating, tunneling, fencing, grading, paving, land clearing and bridging;
- Building a highway, as defined in section 1 of the *Highway Traffic Act*.
- Carrying out other activities prescribed by the Minister of Labour under the *Fairness is a Two-Way Street Act (Construction Labour Mobility)*, 1999 for inclusion in the definition of Construction; and
- Providing consulting services, including architectural or engineering services, with respect to the matters set out in the five clauses above.
- “Contractor” means a person that enters into a contract for Construction and

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includes any sub-contractor;

- “Controlled” has the same meaning as in subsection 1 (5) of the *Business Corporations Act*;
- “Designated Jurisdiction” means a province or territory of Canada prescribed by the Lieutenant Governor in Council as a designated jurisdiction under the *Fairness is a Two-Way Street Act (Construction Labour Mobility), 1999*.
- “Person who is resident in a Designated Jurisdiction” means:
 - In the case of an individual or a sole proprietor, a person who is ordinarily resident in that jurisdiction;
 - In the case of a corporation,
 - 9.1 A person whose head office or registered office is located in that jurisdiction; or
 - 10 A person controlled directly or indirectly by a person described in sub clause (i);
 - In the case of a partnership, a partnership that includes at least one partner who is resident in that jurisdiction under clause (a) or (b).

No ministries, municipalities, agencies / boards or commissions prescribed by the Minister of Labour under the *Fairness is a Two-Way Street Act (Construction Labour Mobility), 1999* or other bodies as set out in the Schedule to the Pay Equity Act, shall award a Construction contract to a Contractor who is a person resident in a Designated Jurisdiction. Such a person is not eligible and will be disqualified from this Quotation.

All Bidders are required to provide the following information in respect of themselves and any sub-contractors:

- In the case of an individual or sole proprietor, whether he / she is ordinarily resident within a Designated Jurisdiction;
- In the case of a corporation, whether the corporation’s head office or registered office(s) is / are in a Designated Jurisdiction or whether any person who controls the corporation, either directly or indirectly, is a person who is ordinarily resident in a Designated Jurisdiction;
- In the case of a partnership, whether the partnership includes one partner who is resident in a Designated Jurisdiction under clause (a) or (b) above, and
- Whether any exemptions prescribed under the Act are applicable.

In any Construction contract awarded under this Quotation, if any, the Contractor will be required to:

- Represent and warrant that neither the Contractor nor any sub-contractors are persons who are resident in a Designated Jurisdiction;
- Acknowledge that any sub-contracts not identified in the bid following the award of the contract will be subject to the approval of the Town of Gananoque.

- Acknowledge that any material misrepresentation or breach of the representation and warranty in clause (a) will be grounds for termination of the contract.

D.35 ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES

Pursuant to the Accessibility for Ontarians With Disabilities Act, 2005, Regulation 191/11 (the Act), the Contractor shall ensure that all of their employees, agents, volunteers, or others who will be involved in providing service on behalf of the Town, receive training about the provision of goods and services provided to people with disabilities.

The Contractor shall submit to the Town, documentations describing their accessible training policies, practices and procedures, and a summary of the contents of training, together with a record of the dates on which training was provided and the attendees.

The City reserves the right to require the Contractor, at the Contractor's expense, to amend their training policies, practices and procedures, if the City deems them not to be in compliance with the requirements of the Regulation.

The Contractor shall only assign those employees who have successfully completed training, in accordance with Section 5 of the Integrated Accessibility Standards (IASR), to provide services on behalf of the Town.

D.36 RECYCLING AND REFUSE COLLECTION

The contractor shall be responsible to collect and return recycling and refuse containers from the curb of each dwelling and move them to a location convenient for pickup arranged through the Town. The contractor shall clearly mark addresses on any containers that are not marked in order to return them to the appropriate owners. Any containers lost or damaged during construction shall be replaced by the contractor at their expense. Waste collection may be on a Saturday whenever a statutory holiday falls within the work week; the contractor at their cost shall supply all labor and equipment to collect and return containers for recycling and refuse when the collection date is on a Saturday.

All recycling and refuse generated on site by the contractor shall be disposed of by the contractor off-site at their cost, no refuse or recycling of any type shall be buried within the excavation.

All recycling and refuse collection arrangements shall be coordinated through the Town representative on-site.

D.37 CLEAN UP

The Contractor shall thoroughly remove all asphaltic and other discarded materials which may have been placed along the roadway during the performance of the work. Clean up will be done to the satisfaction of the Works Inspector.

D.38 PREVENTION OF DAMAGE

The failure of the Municipality to order necessary precautionary measures, protective works or

any other requirements shall not relieve the Contractor of the responsibility for the prevention of damage to the project, buildings, or other surface or sub-surface structures, or for accidents to persons, whether employed on the project or not, which might result from such failure to install, place or use such precautionary measures, protective works or other precautionary measures, protective requirements shall not relieve the Contractor from any of his responsibilities under this Contract.

D.39 CONTRACTOR QUALITY CONTROL OBLIGATIONS

All mix designs, testing and sampling of granular asphalt and concrete materials required on this project will be the responsibility of the Contractor and all results will be forwarded to the Town. Independent testing laboratories will be the Contractor's choice but must be a Certified Member of the Canadian Council of Independent Laboratories.

D.39.1 SCOPE

This Specification describes the Contractor's quality control obligations under this Contract. The Contractor is responsible for all quality control activities required to ensure the level of quality for all aspects of the Work specified elsewhere in this contract. The Contractor shall provide the individuals, the management of such individuals and resources necessary to implement a quality control process which meets the requirements detailed in the Contract Documents.

D.39.2 REFERENCES

D.39.2.1 Ontario Provincial Standard Specifications, Material

OPSS 1001 Aggregates – General OPSS 1002 Aggregates – Concrete

OPSS 1003 Aggregates – Hot Mix Asphalt

OPSS 1010 Aggregates – Base, Sub-base, Select Subgrade, and Backfill Material

OPSS 1101 Performance Grade Asphalt Cement OPSS 1301 Cementing Materials

OPSS 1350 Concrete – Materials and Production

Section 1101.02 of OPSS 1101 is amended by the addition of the following under Ontario Ministry of Transportation Publications:

LS-100 Method for Rounding-Off of Test Data and Other Numbers

Section 1101.02 of OPSS 1101 is amended by the deletion of the following under American Association of State Highway and Transportation Officials (AASHTO):

TP 70 Multiple Stress Creep and Recovery (MSCR) of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)

Section 1101.02 of OPSS 1101 is further amended by the addition of the following under American Association of State Highway and Transportation Officials (AASHTO):

T 350-14 Standard Method of Test for Multiple Stress Creep Recovery (MSCR) Test of Asphalt Binder Using a Dynamic Shear Rheometer (DSR)

D.39.2.2 Ontario Provincial Standard Specifications, General

OPSS 206 Grading

OPSS 314 Untreated Granular, Subbase, Base, Surface, Shoulder and Stockpiling

OPSS 401 Trenching, Backfilling and Compacting OPSS 501 Compacting

D.39.3 DEFINITIONS

Acceptance Test Results: means the test results that are used for the final assessment of compliance with the specification for the material. Depending on the specification for the material, the final assessment of compliance is based on one of the following: quality control, quality assurance, owner acceptance, or referee test results.

Deficient Materials: means, for quality control purposes, materials which have an attribute, property or characteristic that does not meet the requirements of the Contract Documents

Deficient Workmanship: means, for quality control purposes, the final product does not meet the requirements of the Contract Documents due to the Contractor's construction activities including but not limited to incorrect elevations, dimensions, alignment, appearance and/or crossfall of individual elements, products and finished construction (for example: incorrect pavement crossfall, segregation of asphalt pavement or honeycombing of concrete).

Quality Control (QC): means a system or series of activities carried out by the Contractor to ensure that the final product and materials supplied to the Owner meet the specified requirements.

Quality Control Administrator (QC Administrator): means the Contractor's representative responsible for monitoring and ensuring quality control compliance and submission of QC documentation.

Notification of Non-Conformance: means a formal notification by the Contract Administrator to the Contractor identifying aspects of the work which do not conform to the Contract requirements and which have not been adequately identified by the Contractor to the Contract Administrator.

Non-Conformance Report: means a report issued by the Contractor to the Contract Administrator which identifies the Quality Control Performance Measure that was not met, will not be met, or may not be met. This report will include a proposal for corrective or mitigating action and must be approved by the Contract Administrator.

D.39.4 DECLARATIONS OF QUALIFICATIONS

D.39.4.1 Submissions

The Contractor shall submit a Declaration of Qualifications, identifying the Quality Control Administrator, other quality control personnel and/or firms to the Contract Administrator prior to commencing work on the project. If, for any reason, the Contractor decides to substitute the named quality control individual(s) or firm(s) a Declaration of Qualifications accompanied by proof of experience shall be submitted to the Contract Administrator five days prior to the changed quality control personnel and/or firms providing services to the Contractor.

The Contract Administrator will respond in writing with an acknowledgement of receipt. Submissions that are incomplete or otherwise do not meet the requirements of this Special Provision will be returned for re-submission at no additional cost to the Owner.

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D.39.5 QUALITY CONTROL PERFORMANCE MEASURES

D.39.5.1 General

The Contractor is responsible for all quality control activities on the Contract and shall provide the staff and resources necessary to implement quality control processes that result in compliance to the quality control performance measures.

D.39.5.2 Applicability of the Quality Control Performance Measures

The Contract Administrator will assess the Contractor's compliance to the performance measures related to:

1. The production and supply of Engineering Materials,
2. The removal, rehabilitation, modification or construction of temporary or permanent elements of work that are comprised of Engineering Materials, and;
3. Inspection, sampling, testing and QC records associated with a) and b) above.

For the purposes of this special provision, Engineering Materials includes, but not limited to:

- Granular Base & Sub-Base Materials
- Bituminous Materials
- Concrete Materials
- Electrical Materials
- Grading, Drainage and Backfill Materials
- Structures and Foundations Materials
- Pavement Markings Materials
- Water Plant Materials
- Sewer Infrastructure Materials

D.39.5.3 Quality Control Personnel/Firms

The Contractor shall ensure that:

- a) The name of the QC Administrator is identified to the Contract Administrator, in writing when specified, before they carry out the positions' responsibilities,

If the Contractor divides the QC Administrator's responsibilities between more than one person, the Contract Administrator is provided with their names and a written explanation of the responsibilities of each person before any of them carries out the position's responsibilities,

The QC Administrator shall attend all contract meetings.

The QC Administrator shall only undertake quality related responsibilities as described within this Special Provision.

Submissions of declarations for firms and personnel performing QC functions are accurate, complete and submitted in accordance with the timeframes as detailed in Section 4.1 Submissions,

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Personnel and firms meet the qualifications as specified in the Contract Documents and maintain these qualifications for the duration of their participation in the work.

D.39.5.4 Sampling, Testing and Submission of Results

The Contractor shall ensure that QC test results are recorded on the day on which the tests were performed and are submitted to the Contract Administrator under the signature of the QC Administrator, and that each of the following is performed in accordance with the Contract Documents:

- a) quality control and quality assurance material sampling, preparation, handling, delivery and storage,

quality control testing and the timing for the testing, and

timing for the submission of results for all quality control testing

D.39.6 PGAC Requirements

Subsection 1101.08.03 of OPSS 1101 is amended by deleting the last paragraph in its entirety and replacing it with the following:

Sampling frequency, minimum quantities and additional labelling shall be as shown in Table 2.

D.39.71101.08.06 Referee Testing

Subsection 1101.08.06 of OPSS 1101 is amended by deleting the first paragraph in its entirety and replacing it with the following:

Referee testing by an independent laboratory may be invoked by the Contractor for any lot of PGAC within 5 Days of receiving all the QA test results for the lot.

Table 1 is deleted in its entirety and replaced with the following:

Table 1: Additional Testing Requirements and Acceptance Criteria for All PGAC Grades (Notes 1 and 2)

PGAC Grade	Property and Attributes (Unit)	Test Method	Results Reported Rounded to Nearest	Acceptance Criteria	Major Borderline	Rejectable
All PGAC Grades except PG58-28	Ash Content, % by mass of residue (%)	LS-227	0.01	≤ 0.60	> 0.60 and ≤ 0.80	> 0.80
PG58-28				≤ 0.40	> 0.40 and ≤ 0.60	> 0.60
All PGAC Grades Except PG58-28 and PG52-34	Non-recoverable creep compliance at 3.2 kPa (J _{nr-3.2}) (kPa ⁻¹)	AASHTO T 350 testing conducted at * °C	0.01	< 4.50	N/A	≥ 4.50
	Average percent recovery at 3.2 kPa (R _{3.2}) (%)		0.1	> the lesser of 55.0 or [(29.371) (J _{nr-3.2}) ⁻	N/A	≤ the lesser of 45.0 or [(29.371) (J _{nr-3.2}) ^{-0.2633}]-10]
	Percent difference in non-recoverable creep compliance between 0.1 kPa and 3.2 kPa, J _{nr} diff (%)		0.1	Testing carried out for information purposes only		
PG70-28, PG64-28	CTOD, δ _t (mm)	LS-299	0.1	≥ 10.0	< 6.0 and ≥ 4.0	< 4.0
	Low temperature limiting grade (LTLG) (°C)	LS-308	0.1	≤ -28.0	> -25.0 and ≤ -22.0	> -22.0
	Grade Loss (°C)	LS-308	0.1	≤ 6.0	> 6.0 and ≤ 8.0	> 8.0
PG58-28	CTOD, δ _t (mm)	LS-299	0.1	≥ 6.0	N/A	< 4.0
	Low temperature limiting grade (LTLG) (°C)	LS-308	0.1	≤ -25	> -25 and ≤ -22.0	> -22.0
	Grade Loss (°C)	LS-308	0.1	≤ 4	N/A	> 6.0
PG70-34, PG64-34, PG58-34, PG52-34	CTOD, δ _t (mm)	LS-299	0.1	≥ 14.0	< 10.0 and ≥ 8.0	< 8.0
	Low temperature limiting grade (LTLG) (°C)	LS-308	0.1	≤ -34.0	> -31.0 and ≤ -28.0	> -28.0
	Grade Loss (°C)	LS-308	0.1	≤ 6.0	> 6.0 and ≤ 8.0	> 8.0
PG58-40, PG52-40	CTOD, δ _t (mm)	LS-299 (Note 3)	0.1	≥ 18.0	< 14.0 and ≥ 12.0	< 12.0
	Low temperature limiting grade (LTLG) (°C)	LS-308	0.1	≤ -37.0	> -37.0 and ≤ -34.0	> -34.0
	Grade Loss (°C)	LS-308	0.1	≤ 6.0	> 6.0 and ≤ 8.0	> 8.0

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Notes:

1. PGAC grades are as specified in the Contract Documents.
2. The rounding-off procedure, for all values, shall be according to LS-100.
3. Sections 6.1 and 6.3 of LS-299 (Rev 31 dated 2017 09 01) are deleted and replaced with the following:
 - 6.1 After trimming, condition the samples on their base plates at $15 \pm 0.5^{\circ}\text{C}$ for $3 \text{ h} \pm 5 \text{ min}$ in their molds in a temperature-controlled bath under a minimum of 25 mm of water.
 - 6.3 Run the test according to AASHTO T 300 at a displacement rate of $50 \pm 2.5 \text{ mm/min}$ in a bath maintained at $15 \pm 0.5^{\circ}\text{C}$, until ductile failure is reached, or a stroke length of 1000 mm is reached.

Table 2 is deleted in its entirety and replaced with the following:

Table 2: Sampling Requirements

Samples	Frequency	Minimum Sample Quantity	Labelling
QA	Each Lot	2 litres (Note 1)	Label shall include: - Grade - Supplier
Referee	Each Lot	2 litres (Note 1)	
Samples for possible Owner testing (Note 2)	First Lot for each grade and source of asphalt cement used on the Contract and for any subsequent Lot requested by the Contract Administrator.	2 litres (Note 1)	Label shall include: - Grade - Supplier - MERO Sample

Notes:

1. Two litres shall be provided in 2 suitable one litre containers or a container able to hold a minimum of 2 litres.
2. Samples for possible Owner testing shall be delivered to:
 Materials Engineering and Research Office (MERO)
 Bituminous Laboratory, Room 15
 145 Sir William Hearst Avenue
 Downsview, Ontario M3M 0B6

D.39.8 Construction Materials and Mix Designs

D.39.8.1 Concrete Mix Data Submission

At least two weeks prior to the delivery of concrete, the Contractor shall submit the following concrete mix information to the Contract Administrator for review and approval.

- 1) Purchaser's name
- 2) Contract number
- 3) Concrete supplier name
- 4) Supplier mix design number. The mix number shall be unique to the design submitted.
- 5) Primary and secondary plant locations
- 6) Cement Type
- 7) Cement content of the mix
- 8) Maximum water-to-cementing materials ratio (W/C)

- 9) Maximum content of each supplementary cementing material
- 10) Material source information including inventory number
- 11) General admixtures usage including manufacturer and brand name.
- 12) Air and slump requirements
- 13) All relevant information pertaining to mix use. Where multiple mixes are to be used on a project, the contractor is to supply a concrete placement plan detailing the location where each mix is to be placed.

Sampling, testing and preparing test cylinders shall be done as per CSA A23.1-14/A23.2- 14.

Field concrete testing and sampling shall be conducted by qualified individuals with valid ACI or CCIL certification.

D.39.8.2 Asphalt Mix Design Submission

Subsection 1101.04.01 of OPSS 1101 is amended by the addition of the following clause:

D.39.91101.04.01.02 PGAC Documentation

For each grade of PGAC specified in the Contract Documents, the Contractor shall supply the following items to the Contract Administrator 2 weeks prior to the commencement of HMA production:

- a) PGAC documentation from the asphalt cement supplier in the form of bill of lading and certificate of analysis, confirming the grade of PGAC. The bill of lading and certificate of analysis shall also be supplied for each subsequent delivery of PGAC that will be used for the HMA production.

Documentation identifying the PGAC storage tank that the PGAC will be supplied from for the HMA production. The Contractor shall notify the Contract Administrator and provide updated documentation prior to changing the storage tank that is being used to supply PGAC for the HMA production.

D.39.10 QC Compaction Plan Submission

The Contractor shall, at least ten (10) business days prior to commencing work, provide the CA with a QC Compaction plan that shall include the following information:

- Contract Number
- Contract Name
- General Contractor Name
- Quality Control Administrator Name
- Subcontractor conducting the compaction, if different than general Contractor
- Name of the person conducting the QC Testing using nuclear gauge
- Make and Model of the Nuclear Density/Moisture Gauge
- Calibration Date of the Nuclear Density/Moisture Gauge

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- Name of the lab conducting the QC testing.
- Section/Lot/Sublot Structure including a) the Tender item number that the lot corresponds to b) material type and c) method of determining target density.
- Identification of any perceived areas with potential difficulties (i.e. around existing utilities, constrained spaces) and the compaction methodology that will be followed for these areas.

The Contractor shall ensure:

- a) Each of the following complies with and is supplied in accordance with the Contract Documents:
 - i. materials from approved/designated sources,
 - ii. mix design submission, including all supporting documentation, and
 - iii. submission of certification for all materials that require certification.
- b) Each of the following is performed in accordance with the Contract Documents:
 - i. mix designs,
 - ii. materials testing and/or inspection prior to incorporation into the work, and checking that materials meet the applicable specifications,
 - iii. materials handling and/or storage, and

That no materials are used that are identified as deficient prior to incorporation into the work. The Contractor shall ensure that no materials are used that would have been identified as deficient prior to incorporation into the work if QC test results had been available when specified.

D.39.11 Other Quality Control Responsibilities

The Contractor shall ensure that all QC inspection activities and associated records are completed in accordance with the quality control requirements of the Contract Documents and that each of the following is in accordance with the Contract Documents:

- a) submission of materials-related documentation prior to proceeding with construction of particular elements of work,
- b) the existing condition of substrate, formwork or other locations against which material is to be placed,
- c) environmental conditions for material placement, including but not limited to temperature and weather constraints and placement restrictions,
- d) equipment,
- e) construction methods for material placement and/or removal, and
- f) provision of environmental protection of materials and elements of work and/or maintenance of environmental conditions after material placement (for example; curing of concrete, cold weather protection).

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D.39.12 Disposition of Deficient Materials and Workmanship

For each occurrence of deficient materials and/or workmanship the Contractor shall:

- a) Immediately identify and notify the Contract Administrator of the deficiency prior to the Contract Administrator bringing it to the Contractor's attention,
- b) Implement preventative measures prior to continuing with the operation and shall not proceed with subsequent operations that would prevent or impede corrective work on the deficiency,
- c) Record a brief description of the deficiency in a daily diary immediately after identifying the deficiency and the complete details within one business day of each occurrence,
- d) Within 3 business days, unless otherwise mutually agreed in writing, submit a Deficiency Report to the Contract Administrator containing the following:
 - i. the cause and extent of the identified deficiency,
 - ii. a proposal for corrective work
 - iii. for information purposes, a description of preventative measures to be undertaken that will effectively prevent reoccurrence of the event, and
 - iv. a testing and/or inspection proposal for the written approval of the Contract Administrator and undertake the approved testing and/or inspection to demonstrate that the corrective action has been effective, and the resulting material or elements of work are acceptable, and
- e) Implement the corrective work, testing and/or inspection in accordance with the approved proposals.

D.39.13 COMPLIANCE WITH QUALITY CONTROL PERFORMANCE MEASURES

D.39.13.1 Assessment of Compliance

During the course of construction and within 30 calendar days after the date of certification of Completion of the Work, the Contract Administrator will assess compliance to the quality control performance measures.

The Contract Administrator's assessment of compliance may consist of random or milestone inspections, continuous inspection, sampling and testing for audit purposes, audits of the quality control documentation specified in the Contract Documents or any combination of the preceding actions, at the discretion of the Owner.

For workmanship, if the Contract Documents do not specify a test method or tolerance for a specified property or measurement of a final product and the Contract Administrator identifies deficient workmanship in the final product that the Contractor did not identify, the Contract Administrator will provide the Contractor with a description of the deficiency in writing within three business days of its identification. The Contractor shall use the Contract Administrator's assessment of compliance of that particular aspect of workmanship for inspection of work

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already completed and for future work.

D.39.13.2 Non-Conformances to Quality Control Performance Measures Identified by the Contractor

A non-conformance to a quality control performance measure occurs when the Contractor does not comply with that quality control performance measure.

When a non-conformance occurs, the Contractor shall:

- a) immediately notify the Contract Administrator verbally or in writing.

within 24 hours of the non-conformance, submit a Non-Conformance Report containing a description of the quality control performance measure that was not met together with a proposal for corrective or mitigating action to the Contract Administrator for approval, and carry out corrective or mitigating action in accordance with the approved proposal.

D.39.13.3 Non-Conformances to Quality Control Performance Measures Identified by the Contract Administrator

A non-conformance to a quality control performance measure occurs when the Contractor does not comply with that quality control performance measure.

When a Notification of Non-Conformance is issued to the Contractor, the Contractor shall:

- a) Within 24 hours of the non-conformance, submit a Non-Conformance Report containing a description of the quality control performance measure that was not met together with a proposal for corrective or mitigating action to the Contract Administrator for approval, and
- b) Carry out corrective or mitigating action in accordance with the approved proposal
- c) Within 24 hours after a non-conformance has been assessed, the Contractor shall comply with the requirements of the Contract Documents that were the subject of the non-conformance. The non-conformance will not be waived regardless of the Contractor's subsequent compliance.

D.39.13.4 Financial Penalties

For each non-conformance report issued to the Contractor by the Contract Administrator, or for each failure of the contractor to follow the requirements of clause 6.2 a \$500.00 deduction shall be made from the Contractor's final progress payment. The final decision on the application of a penalty shall be at the sole discretion of the Owner.

D.39.14 PAYMENT

D.39.14.1 Quality Control Activities

Full compensation for carrying out quality control activities and for meeting the requirements of this Special Provision shall be included in the contract prices of the Work.

D.40 GOVERNMENT REQUIREMENTS

The Contractor shall obey all Federal, Provincial and Municipal Laws, Acts, Ordinances, Regulations, Orders-In-Council and By-Laws which could in any way pertain to the work

outlined in the Contract or the Employees of the Contractor, or Sub-Contractor.

D.41 LAYOUT

Section G.C. 7.0.2 of the OPSS General Conditions shall apply to this Contract. The Contractor shall provide at their expense all material, equipment and labor for all layout on this Contract.

Established alignment and grade control points within the contract limits will be reset by the Contractor if they are in danger of being destroyed. They will be reset to a location where they will be protected against damage. New data for the reset points will be given to the Contract Administrator.

The Contractor acknowledges that the survey layout and grading information listed herein will be provided, if requested by the Contractor, within five (5) working days following the issuance of the Commence Work Order, provided that the Contractor confirms in writing the acceptance of the following conditions:

- a) The electronic files and hardcopy formats are provided as “information only” and do not form part of the Contract.
- b) The electronic files will be provided in .dwg/.dgn format, unless otherwise indicated below.
- c) Any discrepancies shall be immediately disclosed to Contract Administrator for interpretation.
- d) The information provided on the electronic files will not form a basis for a claim.
- e) The use of the electronic files will not supersede the requirements of the Contract Documents regarding survey layout (stakes).
- f) The files will not be released to other parties without the written consent from the Owner.
- g) The digital copy of the contract drawings, with the latest revision date, shall be considered the official document unless superseded by other digital drawings issued by the Contract Administrator.

Items that are not checked off in the following list are not anticipated to be provided to the Contractor with this Contract.

- Survey Control Points
- CAD Files (Components to be provided in CAD are listed below):

Alignment, Roadway Geometry, Grading and Drainage, Pavement Elevations and Pavement Markings

D.42 ROCK EXCAVATION

Bedrock removal should be carried out, if required, using large hydraulic excavation equipment in combination with hoe ramming and or line drilling. Given the proximity to existing services and structures, blasting techniques are not an acceptable method of excavation for this contract.

D.43 MANAGEMENT AND DISPOSAL OF EXCAVATED SOILS, EXCESS MATERIAL AND CONTAMINATED SOIL

Unless otherwise stated in the Contract Documents, the Management of Excess Materials shall be as per OPSS 180.

All excavated materials will become the sole ownership and responsibility of the General Contractor. The Town currently does not have designated facilities or locations for the disposal of clean fill materials.

D.43.1 Amendment to OPSS 180

OPSS 180, shall apply except as amended and extended herein.

All references to Regulation 347 of the Environmental Protection act shall be replaced with Regulation 347/558.

Clause OPSS 180.07.05 is amended and extended herein:

180.07.05 Conditions on Management as Non-hazardous Solid Industrial or Commercial Waste

Subsection 180.07.05 of OPSS180 is amended by the addition of the following:

Areas of Contamination

The Contractor shall notify the Contract Administrator a minimum of 72 hours prior to conducting any excavation work in areas of known contamination. Additionally, the Contractor shall notify the Contract Administrator immediately if Contaminated Materials are encountered or suspected during construction.

D.43.2 Geo-Environmental Studies/Reports

The Contractor is hereby informed of the following Geo-Environmental Studies/Reports:

- Assessment of Past Uses (APU) - Rehabilitation of Arthur Street, Morrison Hershfield Ltd., September 2023
- Contamination Overview Study (COS) - Rehabilitation of Arthur Street, Morrison Hershfield Ltd., September 2023
- Sampling and Analysis Plan (SAP) - Rehabilitation of Arthur Street, Morrison Hershfield Ltd., September 2023
- Soil Characterization Report (SCR) - Rehabilitation of Arthur Street, Morrison Hershfield Ltd., September 2023
- Soil Management Plan (SMP) - Rehabilitation of Arthur Street, Morrison Hershfield Ltd., September 2023

which are included in Section G for the review of bidders prior to submitting a Tender for the work.

These reports are specifically excluded from the warranty stated in Subsection GC2.01 of the OPS General Conditions.

D.43.3 Definitions

- *Contaminated Material* – Soils that exceed the MECP Table 1 SCSs.
- *Designated Sites* - area designated by the Owner for the deposition or disposal of excess materials from the project in accordance with this Special Provision.
- *General Disposal Sites* - area for the deposition or disposal of materials by the Contractor at the Contractor's expense.
- *Inert Material* – Soils that meet the MECP Table 1 SCSs.
- *MECP* – Ministry of the Environment, Conservation and Parks
- *MECP Landfill Facility* – a designated site which is licensed by the MECP to receive Non-Hazardous Solid Industrial or Commercial Waste.
- *QP* - (Contractor's) Qualified Person as defined in Ontario Regulation 153/04,
- *SCS* – Site Condition Standards
- *Soil/Material* - earth as defined in OPSS 206.

D.43.4 General

This Special Provision covers the requirements for the management and deposition of all excess soil generated from the Contract. Where the item specifications for work generating excess soils does not include OPSS.MUNI 180, OPSS 180.MUNI and this specification shall be deemed to apply and are in addition to any requirements provided in the item specific special provisions.

The Contractor is advised to comply with Ontario Regulation (O. Reg.) 406/19 On-Site and Excess Soil Management, as amended, the Waste Regulation (O.Reg. 347/90), associated regulations and all other documents applicable to O. Reg. 406/19 including, but not limited to, the Rules for Soil Management and Excess Soil Quality Standards (Soil Rules). Any reference throughout the document to O. Reg. 406/19 also refers to the Soil Rules, as applicable.

The Town is the Project Leader for this Project. A Section 8 Notice will not be filed on the Registry for this project, as this project is deemed to be exempt under O. Reg 406/19.

The Contractor is the Operator of the Project Area and shall be responsible for the management of all soil, aggregates and excavated rock associated with this Project, including but not limited to excavation, handling, temporary storage, sampling and analysis, transportation, placement and disposal, whether it is reused on-site, removed off-site or imported to the Project Area for use as fill.

Unless otherwise specified in the contract documents, the Contractor shall be responsible for designating Receiver Sites (i.e., soil reuse sites and/or disposal sites) for the management of excess soil generated from the project.

The Contractor shall retain the services of a Qualified Person (QP-C) and fulfill all the requirements of a Qualified Person with respect to on-site soil management and placement of excess soils on Contractor designated Receiver Sites in accordance with O. Reg 406/19 and all applicable laws. The Contractor's QP-C shall be familiar with the MECP's document entitled "Management of Excess Soil – A Guide for Best Management Practices" (BMP), as amended,

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and the objectives of O. Reg. 406/19 which encourage the beneficial reuse of excess soil in a manner promoting sustainability and the protection of the environment. The QP-C shall be aware of their professional and ethical responsibilities as outlined in the PEO’s Environmental Site Assessment, Remediation and Management Guideline and shall meet the following minimum requirements:

1. 10 years or more of demonstrated work-related experience as a Qualified Person (QP_{ESA}) for projects of similar size, scope and complexity to the current project.
2. A current license to practice within Ontario such as Professional Engineers of Ontario or Professional Geoscientists of Ontario.
3. Demonstrated knowledge of relevant federal and Ontario environmental policies, procedures and legislations/regulations, including O.Reg. 406/19 and O.Reg. 153/04.
4. Not in a conflict of interest, as defined in O.Reg. 406/19, Section 26.

The Town has retained a Qualified Person (QP-PL) to prepare design studies and to support the review of applicable Contractor submissions and deliverables by the Contract Administrator.

Types of Excess Soil

For the purpose of this specification, excess soil has been categorized as follows:

Excess Soil Type	Description	Material Use Recommendation
1	Material that: <ul style="list-style-type: none"> • Meets MECP Table 1 RPI/ICCSCS • Meets MECP Table 3 ICC SCS • Meets MECP Table 3.1 RPI ESQS • Meets MECP Table 3.1 ICC ESQS • Provided the material is free of deleterious substances, odour and • discolouration(i), (ii) 	<ul style="list-style-type: none"> • Re-use on site as clean / inert fill; • Re-use on-site; • Dispose of at MECP Licensed Landfill
2	Material that: <ul style="list-style-type: none"> • Exceeds MECP Table 1 RPI/ICC SCS • Meets MECP Table 3 ICC SCS for all parameters or meets for all except EC and SAR • Meets MECP Table 3.1 RPI ESQS for all parameters or meets for all except EC and SAR • Meets MECP Table 3.1 ICC ESQS for all parameters or meets for all except EC and SAR • Provided the material is free of deleterious substances, odour and discolouration(i), (ii) 	<ul style="list-style-type: none"> • Re-use on-site; • Re-use off site at a location designated by the Contractor • Dispose of at an MECP Licensed Landfill
3	Material that: <ul style="list-style-type: none"> • Exceeds MECP Table 1 RPI/ICC SCS 	<ul style="list-style-type: none"> • Dispose of at an MECP Licensed Landfill

	<ul style="list-style-type: none"> • Exceeds MECP Table 3 ICC SCS • Exceeds MECP Table 3.1 RPI ESQS • Exceeds MECP Table 3.1 ICC ESQS • Provided the material is free of deleterious substances, odour and discolouration(i), (ii) 	
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Note: Tables above refer to those presented in the MECP [Rules for Soil Management and Excess Soil Quality Standards \(ESQS\)](#)

Notes:

- i. If deleterious material, odours, or discolouration is identified, the material should be separated from the bulk soil to be sampled to confirm waste class and, pending confirmation, disposed of at an approved licensed landfill.
- ii. Landfill disposal dependant on confirmation of acceptance by chosen landfill.

Town infrastructure projects are expected to generate excess soil with high salt impacts. The Contractor shall select Receiving Sites which permit the deposition of salt impacted soils in accordance with MECP guidelines.

Excess Soil Receiving Sites Designated by the Owner

Owner Designated Reuse Sites

- N/A

Owner Designated Class 1 Soil Management Site or MECP Landfill

- No sites are identified by the Owner for the management and disposal of Category 3 excess soils generated from the project.

Owner Designated Stockpile Sites

- No sites have been designated by the owner for the temporary stockpiling of soils within the Project Area.

Excess Soil Receiving Sites Designated by the Contractor

Contractor Designated Reuse Sites

- The Contractor shall provide Designated Reuse Sites for soils meeting the definitions of excess soil types 1 or 2.

Contractor Designated Class 1 Soil Management Site and/or MECP Landfills

- **Contractor designated Class 1 SMS and/or MECP landfill(s) shall be identified as a requirement of this contract.**

Contractor Designated Stockpile Sites

- The Contractor shall be responsible for the temporary stockpiling of soils for the purpose of reuse within the project. The contractor shall not stockpile soils for future reuse outside of the current contract requirements.

The Contractor shall provide a list of proposed Receiving Sites within 15 days after contract award for review by the Contract Administrator. The Town reserves the right to contact the owner/operator to request and review any applicable Environmental Compliance Approvals, Reuse Site Fill Management Plans, or any other pertinent information about the proposed Receiving Site(s) as may be required to confirm the suitability of the proposed Receiving Site

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for deposition of excess soils prior to approval. All excess soil sent to a Reuse Site must be finally placed for a beneficial purpose in accordance with the Soil Rules within 2 years of being deposited.

The Contractor shall not utilize any alternate Receiving Sites other than those identified by the Town or Contractor and approved by the Contract Administrator without expressed written consent by the Town.

The Contractor is responsible for all coordination with the Receiving Sites, including the costs of undertaking any additional soil sampling and analysis necessary to comply with all Contractor-designated Receiver Site requirements. All costs related to delays in sourcing a Contractor-designated Receiving Site meeting the requirements of the Excess Soil Regulation shall be the sole responsibility of the Contractor.

The Town reserves the right to direct excess soil to an alternative Town controlled location at their sole discretion. Any additional haul costs associated with directing soil to an alternative site shall be negotiated with the Contractor based on an assessment of additional haul distance and other demonstrated cost factors attributed to aggregate back hauls. Site tipping fees will not be measured for payment for the quantity of soil directed to an alternative Town controlled location.

D.43.5 Management of Excavated Materials

The Contractor shall preferentially re-use soil as backfill and grading fills within the Project Area in a manner that is consistent with Best Management Practices for the Management of Excess Soil, O.Reg. 406/19, and the Ontario Environmental Protection Act.

The Contractor shall not mix or blend materials of differing excess soil quality standards. Specifically, the Contractor shall ensure that soils of lower category are not mixed with soils of higher category.

All asphalt pavement, and concrete shall be disposed of at a licensed pit or quarry for subsequent reuse as engineered materials. Where excavated road granulars or other recyclable aggregates have been identified for recycling at a pit/quarry, at a City stockpile location or for reuse within the work area, these materials shall not be mixed with other excavated site soils.

Hydro-excavated materials shall be disposed of at an MECP licensed facility capable of accepting liquid soils based on the identified soil quality.

The disposal of non-soil materials such as excavated bedrock, removed pipes and other scrap material shall be the sole responsibility of the Contractor.

Management of excavated soils will require scheduling and staging of the work such that excavated soils can be beneficially re-used on-site as backfill, subject to geotechnical and environmental suitability. Soil shall be stored in accordance with Soil Storage Rules as outlined in Section C of the Soil Rules.

The Contractor shall, to the extent practicable, minimize the quantity of excess soil leaving the site by minimizing excavation sizes to no greater than what is required to accomplish the Work and shall re-use suitable excavated site soils to address backfill and grading needs within the project.

Where insufficient quantities of excavated soil remain available from the current work area to meet immediate backfill requirements, the Contractor shall organize the work such that backfill materials can be sourced from other portions of the work or from stockpiles of previously excavated materials from the Project Area. The use of Select Subgrade Materials or other imported fill materials to meet immediate backfill quantity requirements shall be at the sole discretion of the Contract Administrator.

Where excess soils are generated from the project, the Contractor shall preferentially remove from site lower category soils prior to removing higher category excess soils subject to higher disposal costs.

The OPSS 180.MUNI Excess Soil Reuse Plan shall be replaced with a Soil Management Plan. The Soil Management Plan shall be prepared by the Contractor's QP-C in compliance with the contract requirements as outlined in the applicable Special Provision. Implementation of the Soil Management Plan shall be overseen by the Contractor's QP-C.

D.43.6 Excess Soil Quality and Characterization

The Contractor is hereby informed that information provided in **Section G** for the Contractor's consideration in determining the excess soil management and disposal requirements for the project including selection of Contractor Designed Receiving sites, where required.

The Contractor shall review the soil reports presented above for more complete understanding of the expected soil quality at the site.

Excess soil has been classified as either Category 1, 2 or 3. Refer to Appendix A of this Special Provision for restrictions for onsite reuse and offsite receiving site category within the project limits and, where applicable, by soil type.

No hazardous waste has been identified within the project limits. Subsurface workers should wear personal protective equipment (e.g., gloves, long pants) when in direct contact with soil to mitigate exposure to contaminants in soil. In addition, dust mitigation measures should be used to minimize dust levels. If there are visible levels of dust, dust masks should be worn.

If the Contractor or their sub-contractor or employees working in the Project Area makes an observation during excavation within the Project Area, including any visual or olfactory observation, that suggests that the material being excavated may be affected by the discharge of a contaminant not identified in the design studies, the Contract Administrator shall be notified immediately and the suspect soil shall be segregated from other excavated soil in the Project Area until the Contractor is otherwise notified by the Contract Administrator.

D.43.7 Soil Testing and Classification

If the owner or operator of the Receiving Site(s) require additional soil sampling and analysis, beyond what has been provided in the Contract Documents, the Contractor's QP-C shall carry out all additional sampling, analyses and reporting as required. All costs associated with additional testing to satisfy receiving site requirements shall be the sole responsibility of the Contractor. This includes any waste classification or leachate testing of excess soil required to meet MECP licensed landfill entry requirements and additional testing required to meet volumetric sampling and analysis requirements in accordance with the Soil Rules for reuse of soils at a non-instrument site.

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The Contractor shall provide the results of any additional sampling and analysis carried out by the Contractor's QP-C to meet the Receiving Site(s) requirements to the Contract Administrator within 5 days of receiving the results.

D.43.8 Hauling, Transportation, and Excess Soil Tracking

The Contractor shall ensure that all excess soil and excess soil designated as waste is collected and transported by retained haulers in vehicles satisfying the requirements of O. Reg. 406/19.

The Contractor shall ensure that vehicle operators have available at all times during the transportation of excess soil a complete and accurate written or digital haul record that document excess soil movement for every load leaving the project in accordance with O. Reg. 406/19 Sections 18(1). The Contractor shall further ensure that all haul records are completed with the receiver information and that the receiver site representative signs the declaration on the hauling records in accordance with Section 18(2). Use of proprietary soil tracking software in lieu of haul records is acceptable, provided it meets the requirements of O. Reg 406/19 Sections 18(1) and 18(2). Documentation related to hauling and tracking of excess soils shall be prepared in compliance with the contract requirements as outlined in the applicable Special Provision.

Additionally, the Contractor shall retain all excess soil related information for a period of two years after substantial performance of the Contract and provide this information to the City upon request at any time during this retention period.

D.43.9 Basis of Payment

Payment for all plans, reports, documentation, and record-keeping to support excess soils management and deposition shall be under the Soil Management Plan and Documentation Contract Item.

All costs associated with management of soils for immediate or subsequent re-use on site of excavated soil shall be deemed to be included in the associated Tender item requiring the excavation of soil.

All costs associated with the haulage and disposal of Category 1 or 2 excess soil shall be deemed to be included in the associated Tender item requiring the excavation.

All costs associated with the haulage and disposal of Category 3 excess soil shall be deemed to be included in the Tender items for haulage and disposal of Category 3 excess soils.

No additional payment will be made for increased handling, scheduling, delays, construction staging or stockpiling of materials for reuse on-site or off-site.

APPENDIX A – SOIL CLASSIFICATION

Considering the soil quality sampling results obtained, the proposed material categories for the borehole sampling locations within the project area are provided below. The recommended material categorizations presented are based on discrete sampling locations within the boreholes and may not be representative of the soil quality conditions between sampling locations. Should any indication of contamination be identified during construction, additional sampling to confirm soil quality is recommended.

Location	Material Categorization
Vicinity of BH2, BH3, BH6, BH7, BH8, BH9, BH10	2
Vicinity of BH5, BH7	3

D.44 PIT AREAS AND WASTE DISPOSAL AREAS ON PRIVATELY OWNED LANDS USED BY THE CONTRACTOR

Sub-section GC4.03 of The General Conditions of Contract, is amended by the addition of the following:

- Excavated materials which are unsuitable for, or which are surplus to, the requirements for backfill shall be disposed of at sites provided by the Contractor and approved by the Engineer.
- No separate payment will be made if suitable excess material has been removed from the site and is later required for the Contractor's operations.
- The Town requires that the necessary release form as appended to this Section be signed and provided to the Engineer where the Contractor uses privately owned lands for waste disposal. The Town may, without further notice, withhold payment of monies due to the Contractor until the Contractor has provided the Engineer with two copies of said release.
- No materials shall be disposed of within the Town or elsewhere without the written consent of the Engineer.
- The bid price for the Contract items requiring such work shall be complete compensation for loading, hauling, placing and leveling the excavated material as directed and providing the disposal site as necessary.

**PROPERTY OWNER'S RELEASE
OF PIT AREAS**

Date _____

To _____
Corporation

Address

Re: Property Owner's Release of Pit Areas and/or Waste Disposal Areas on Privately-Owned Lands or Municipally-Owned Lands used by the Contractor.

Contract No. _____

I hereby certify that _____

has fulfilled the terms of our agreement and I am satisfied that the work was carried out in an environmentally acceptable manner.

I release _____

and the Corporation of the Town of Gananoque from further obligation.

(Signature of Property Owner)

(Print Name)

(Address)

D.45 QUALIFICATIONS AND EXPERIENCE – GENERAL CONTRACTOR

The Town reserves the right to request the General Contractor to demonstrate satisfactory performance in the construction of works that are similar in magnitude and complexity to this project.

If requested, the General Contractor will have to provide the mandatory experience indicated below within 24 hours of the request. The General Contractor shall satisfactorily prove that the mandatory requirements have been met. Failure to meet the mandatory requirements listed herein will result in the Tender being deemed non-responsive and will not be considered for contract award.

The Town reserves the right to request additional information from Tenderers and shall be the sole judge to whether a bidder meets the requirements of this Special Provision.

Key staff members shall have a minimum of 10 years' experience in works of similar nature. Contractor shall not be permitted to change proposed staffing unless approved by Contract Administrator.

The following is to be completed and submitted upon request.

D.45.1 Experience of the General Contractor

The General Contractor must have successfully completed a minimum of three (3) projects of similar magnitude and complexity within the last five (5) years in the capacity of the General Contractor. Failure to meet the requirements will result in the Tender being deemed non-responsive and will not be considered for contract award.

D.45.2 Experience of the Project Manager

The General Contractor shall confirm the name and experience of the Project Manager who will have the responsibility of the overall management of the project. The Project Manager must have the authority to enter into binding agreements on matters concerning this Tender on behalf of the company. The Project Manager's experience shall demonstrate at least three (3) successful construction projects of similar magnitude and complexity managed. Failure to meet the experience requirements will result in the Tender being deemed non-responsive and will not be considered for contract award.

D.45.3 Experience of the Project Site Superintendent

The General Contractor shall confirm the name and experience of the Site Superintendent to be supervising all operations and activities on site on a full-time basis. The Superintendent's experience shall demonstrate at least three (3) successful construction projects of similar magnitude and complexity supervised, with proven experience in dealing with strict construction schedule and high public scrutiny. Failure to meet the experience requirements will result in the Tender being deemed non-responsive and will not be considered for contract award.

D.45.4 Sub-contractors and Suppliers

The General Contractor shall confirm the name(s) and experience of the sub-contractors and suppliers to be used on the project. Sub-contractors shall have proven experience in the supervision of the scope of work they are required to complete under this contract.

D.46 GEOTECHNICAL INVESTIGATION

The Contractor is hereby informed of a Geotechnical Investigation Report prepared by St Laurence Testing & Inspection Co. Ltd, dated August 31, 2023, which is available for review in the Section 0 of these Tender documents. The Contractor declares that in Tendering for the work and entering into the contract, he did not and does not rely upon the accuracy of any geotechnical information provided by the Owner. The Tenderer acknowledges that all geotechnical information provided by the Owner is for information only and the Owner makes no representation or warranty as to the accuracy of the information.

The Geotechnical Investigation Report is specifically excluded from the warranty stated in Subsection GC2.01 of the OPS General Conditions.

D.47 GEOENVIRONMENTAL REPORTS

D.47.1 Assessment of Past Uses (APU)

The Contractor is hereby informed of an Assessment of Past Uses report prepared by Morrison Hershfield, dated September 18, 2023, which is available for review in the Section 0 of these Tender documents. The Contractor declares that in Tendering for the work and entering the contract, he did not and does not rely upon the accuracy of any geoenvironmental information provided by the Owner. The Tenderer acknowledges that all geoenvironmental information provided by the Owner is for information only and the Owner makes no representation or warranty as to the accuracy of the information.

The Geoenvironmental Investigation Report is specifically excluded from the warranty stated in Subsection GC2.01 of the OPS General Conditions.

D.47.2 Sampling And Analysis Plan

The Contractor is hereby informed of a Sampling and Analysis plan prepared by Morrison Hershfield, dated September 27, 2023, which is available for review in the Section 0 of these Tender documents. The Contractor declares that in tendering for the work and entering the contract, he did not and does not rely upon the accuracy of any geoenvironmental information provided by the Owner. The Tenderer acknowledges that all geoenvironmental information provided by the Owner is for information only and the Owner makes no representation or warranty as to the accuracy of the information.

The Geoenvironmental Investigation Report is specifically excluded from the warranty stated in Subsection GC2.01 of the OPS General Conditions.

D.47.3 Soil Characterization Report

The Contractor is hereby informed of a Soil Characterization Report prepared by Morrison Hershfield, dated September 27, 2023, which is available for review in the Section 0 of these Tender documents. The Contractor declares that in tendering for the work and entering the contract, he did not and does not rely upon the accuracy of any geoenvironmental information provided by the Owner. The Tenderer acknowledges that all geoenvironmental information provided by the Owner is for information only and the Owner makes no representation or warranty as to the accuracy of the information.

The Geoenvironmental Investigation Report is specifically excluded from the warranty stated in

Subsection GC2.01 of the OPS General Conditions.

D.47.4 Soil Management Plan

The Contractor is hereby informed of a Soil Management Plan prepared by Morrison Hershfield, dated September 27, 2023, which is available for review in the Section 0 of these Tender documents. The Contractor declares that in tendering for the work and entering the contract, he did not and does not rely upon the accuracy of any geoenvironmental information provided by the Owner. The Tenderer acknowledges that all geoenvironmental information provided by the Owner is for information only and the Owner makes no representation or warranty as to the accuracy of the information.

The Geoenvironmental Investigation Report is specifically excluded from the warranty stated in Subsection GC2.01 of the OPS General Conditions.

D.48 COMPLIANCE WITH REGULATIONS/BYLAWS FOR EROSION AND SEDIMENT CONTROL

The Contractor acknowledges that surface erosion and sediment runoff resulting from his construction operations may have a detrimental impact on any downstream watercourse or sewer, and that all construction operations that may impact upon water quality shall be carried out in a manner that strictly meets the requirements of all applicable legislation and regulations on Application of Erosion and Sediment Control on Construction Projects.

The Contractor shall consider control measures such as limiting the amount of exposed soils, using filter cloths in catch basins or other open structures, sedimentation traps or other such methods they deem appropriate in order to minimize the negative impacts their construction activities will have on the area drainage systems and ultimately the receiving water course.

Whatever system of controls the Contractor utilizes on the project, it is necessary for them to monitor the effectiveness of the measures regularly and maintain, clean, repair, replace or undertake any additional measures in order to achieve the desired results.

The contractors acknowledges that failure to implement appropriate erosion and sediment control measures may be subject to penalties imposed by any applicable Regulatory Agency.

The cost of fulfilling this work shall be paid for under the appropriate Tender item.

D.49 WORK IN CONFINED SPACES

Subsection GC7.01, General, of the OPS General Conditions shall be supplemented by the following provisions:

The Contractor shall provide their detailed written Confined Space Entry Policy and site-specific procedures, for each confined space at the work site. All work associated with these confined spaces shall be conducted in accordance with the site-specific procedures and the requirements of the Occupational Health and Safety Act and any regulations that may affect the performance of the work.

Site-specific procedures shall contain a hazard assessment and hazard control method for all work performed within or around the confined space. The assessment will include, but is not necessarily limited to, the proposed work within, material use, and equipment use. They shall

also include the rescue procedures from the confined space(s) to be followed in the event of worker injury or if evacuation of all personnel from an unsafe condition is required. This rescue procedure will be included as an appendix to the Contractors/Constructors Emergency Procedures developed for the site.

The Contractor shall have personnel trained in Confined Space Entry and rescue procedure readily available on site and shall take all other precautions necessary to meet its obligations under the Occupational Health and Safety Act.

The Confined Space Policy and site-specific procedures shall be kept on site and made available to all workers, on request. Submittal of the Policy and site-specific procedure shall be made to the Contract Administrator, prior to the commencement of the work.

D.50 PROTECTION OF SPECIES AT RISK AND WILDLIFE PROTOCOL

Subsection GC 3.07, Delays, of the Modified OPS General Conditions of Contract is amended by the addition of the following to clause GC 3.07.01:

f) The presence of Species at Risk, defined as endangered or threatened species protected under the provincial Endangered Species Act, 2007 and/or the federal Species at Risk Act, 2002, where that Act has jurisdiction (i.e. on federal lands, or with respect to federally regulated migratory birds and aquatic species) not otherwise identified in the Contract Documents,

Subsection GC 3.07 is further amended by the addition of the following clause:

- .4 If the Contractor encounters Species at Risk as defined in clause GC 3.07 not otherwise identified in the Contract Documents within the Contract limits that are likely to be impacted by the Contractor's operations:
 - a) The Contractor shall immediately notify the Contract Administrator and suspend operations within the area identified by the Contract Administrator.
 - b) Work shall remain suspended within that area until otherwise directed by the Contract Administrator in writing, according to subsection GC 7.10, Suspension of Work.
 - c) Any delay in the completion date of the Contract that is caused by such a cessation of construction operations shall be considered to be beyond the Contractor's control according to clause GC 3.07.01.
 - d) Any increases in the cost of the work to be done that are caused by such a cessation of construction operations shall be considered as a Change in the Work according to clause GC 3.10.01.
 - e) Any work directed or authorized in connection with the unexpected presence of Species at Risk shall be considered as Changes in the Work according to clause GC 3.10.01, Changes in the Work.

D.50.1 Wildlife Protocol for Road Construction/Rehabilitation Projects

General Provisions:

Use caution when driving to and from the work site – watch out for turtles and other small animals on the road surface and shoulder. Avoid hitting them, provided that it is safe to do so.

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Ensure sediment and erosion control measures (i.e., silt fencing) are in place prior to beginning work. Inspect them regularly, and particularly after storm events, to ensure their effectiveness.

Silt fencing may also be used to prevent turtles and other small animals from entering the work area. Lightweight silt fencing is preferred for this purpose (nylon netting on heavy duty silt fencing may entrap some species of wildlife). Make sure it is securely embedded at the bottom.

Prior to beginning work each day, check for wildlife by conducting a thorough visual inspection of the work area and immediate surroundings.

Restrict all activities, vehicles and materials to the designated work area.

Litter and other waste materials must be appropriately contained and disposed of.

Do not feed any wildlife or leave food out where it could attract them.

Avoid or minimize disturbances to any natural features adjacent to the work area to the extent possible. DO NOT cut or damage any trees (of any size) unless the absence of Butternut (which is protected under the Endangered Species Act, 2007) has been confirmed by an expert.

Wildlife Encounters:

Do not harass or harm any wildlife.

Turtles are among the most likely animals to occur on or adjacent to roads, especially during the spring. See attached Turtle Identification sheets for more information.

Eastern Musk, Painted, Map and Snapping Turtles are protected under the Fish and Wildlife Conservation Act, 1997. If one is encountered within the work area, it should be gently removed and placed in the roadside ditch at a safe distance from the work site. Wear gloves or use a broom to steer the turtle into a bucket or other container. Handle with care to avoid injury to the turtle or yourself, particularly when dealing with Snapping Turtles, which may bite or scratch. Turtles may also wet themselves when handled. Inspect the silt fencing to determine whether repairs or extensions are needed.

Blanding's, Spiny Softshell, and Spotted Turtles are protected under the *Endangered Species Act, 2007*. If one is seen near the work site, all work must **stop immediately**. Take a photograph of the animal if possible, to confirm the sighting, and contact the following people:

Ontario Ministry of Natural Resources and Forestry – Kemptville District, (613)258-8204.

Bank Swallows, Barn Swallows and some bats are also protected under the *Endangered Species Act, 2007*. Bank Swallows nest in colonial groups in burrows in sandy banks and slopes. If any Bank Swallow colonies are seen nearby, or if Barn Swallow nests or roosting bats are found in or on a culvert or bridge, **stop work**, take a photo and contact the OMNRF.

Where work has stopped due to *Endangered Species Act* issues, it must remain stopped until authorized to resume by the OMNRF. Additional mitigation measures may be required by the Ministry.

Snakes may also be found on or adjacent to roads. Most local snakes are protected under the *Fish and Wildlife Conservation Act, 1997*. None of our local species are venomous, so their bites are not dangerous. Some snakes will produce a foul-smelling musk when handled, instead of biting. Snakes will usually try to escape or hide when disturbed, and only defend

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themselves when trapped. If a snake is found in the work area, it should be gently removed or herded out to a safe location.

D.50.2 Turtle Identification

Turtles are usually found in or near water. During the spring and summer, however, turtles may travel overland to find new homes, search for food, or lay their eggs. Many turtles use the soft shoulders of roads for nesting, burying their eggs in the gravel. Eggs are usually laid in June and hatch in September, although some turtles may overwinter in the nest.

The following turtles are not protected under the *Endangered Species Act, 2007*. They can be carefully removed from the work area if found.

Eastern Musk Turtle

Small turtle up to 13 cm (5 in) long, with yellow stripes on its head and neck. Dark shell may be smooth or ridged, often covered in algae. Tail is short, unlike that of young Snapping Turtles which it may otherwise resemble. May bite or release foul-smelling musk when disturbed.



Eggs hard-shelled, oval, off-white with a white band. Nests under rotting stumps or in muskrat lodges. Usually only 2-5 eggs per nest.

Midland Painted Turtle

Smooth, low-domed shell up to 18 cm (7.5 in) long with reddish- orange patterns around margins. Head, tail and legs colourfully marked with yellow or reddish-orange stripes. Markings are brightest on young animals, fading with age.



Eggs hard-shelled, oval and white. Usually 2-14 eggs per nest. Hatchlings often stay in the nest until spring.

Northern Map Turtle

Medium to large turtle with a keeled shell (i.e., single ridge along spine) up to 28 cm (11 in) long with squiggly yellow markings and a jagged rear edge. Head, tail and legs are marked with yellow stripes. Markings are brightest on young animals, fading with age. Usually occurs only in large rivers such as the Rideau or Ottawa River.



Eggs hard-shelled, oval and white. Usually 10- 16 eggs per nest.

Snapping Turtle

Large, bulky turtle with rough, ridged shell up to 45 cm (18 in) long. Uniform muddy greyish-brown to black in colour. Massive head, tail and legs cannot be fully withdrawn into



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shell. May bite if disturbed on land.

Eggs are rubbery and round, unlike other turtle eggs. Usually 20-40 eggs per nest.

D.50.3 Turtle Handling

Painted Turtles and Map Turtles can be picked up with one hand on each side of their bodies, between the front and rear legs. Eastern Musk Turtles should be picked up as shown in the photo above.

Snapping Turtles are likely to bite and scratch in self-defence and require different handling. Grip them firmly by the shell above each hind leg or use a push broom to steer them into a garbage pail or other large container for transport.

Release turtles in a safe location, within 125 m of the capture site if possible. Do not move turtles more than 250 m. Release sites should be near water, with vegetation cover for shelter. Place turtle gently on the ground (or slowly tilt the container over to allow the turtle to escape on its own).

The following turtles are protected under the *Endangered Species Act, 2007*. STOP WORK immediately if one is seen in or near the work area. CALL OMNRF.

Blanding's Turtle

Bright yellow chin and throat. Highly domed, speckled shell up to 28 cm (11 in) in length.

Eggs small, oval and white. Usually less than 12 eggs per nest.



Spiny Softshell

Flat, rubbery greenish-grey shell is unique among Ontario turtles. Can be up to 54 cm (21 in) long, with a very long neck and a pointed snout. Found in large rivers.

Eggs hard-shelled and round. May be up to 36 eggs per nest (usually 20).



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Spotted Turtle

Small turtle up to 13 cm (5 in) long, with bright yellow-orange markings on its dark head and limbs. Named for the bright yellow spots on its smooth, black shell, although these spots are not present on hatchlings and may fade with age.

Eggs rubbery, oval and few in number (usually 3-5 per nest).



Barn Swallow

Dark metallic blue above, buff to orange below. Long, deeply forked tail and pointed wings. Very quick and agile in flight. Cup-shaped nests built of mud and plant fibres on buildings and other structures, including bridge supports and culverts.



Male Female Nest

Bank Swallows are similar in shape to Barn Swallows, but do not have such long, deeply forked tails. They are dull brown above and white underneath, with a brownish band across the chest.



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Butternut (White Walnut)

Each leaf has several pairs of leaflets on either side of the main stalk, and one leaflet at the tip. Leaves and twigs grow in an alternating pattern along the branches. The nuts resemble limes or lemons in shape, and have greenish-yellow fuzzy rinds covering a hard, brown ridged shell.



Opened shell of butternut

The closely related Black Walnut, which is not a species at risk, has round nuts like tennis balls. Its leaves are very similar to Butternut's leaves, but the terminal leaflet at the tip of each leaf is often much smaller than the other leaflets, or missing entirely. Ash trees may also appear similar to Butternut at first, with very similar leaves, but ash leaves and twigs grow in opposite pairs rather than alternating.

For more information on species at risk, contact the OMNRF in Kemptville.

D.51 OPERATIONAL CONSTRAINTS

Subsection GC7.01, General, of the OPS General Conditions is supplemented by the following provisions:

Surface Requirements:

Construction operations shall be scheduled to ensure minimal duration of time required that traffic to be subjected to a driving surface other than a smooth asphalt surface.

For the purpose of this Contract, granular surfaces are restricted to 60 calendar days after asphalt removal. \$500/day shall be deducted to monies owed to the Contractor for every calendar day beyond this allotment.

Asphalt shall not be mixed into subgrade soils and/or used as trench backfill.

Under no circumstances will any travelled portion open to traffic be left without a hard asphalt surface during seasonal shutdown.

SECTION E: STANDARD SPECIFICATIONS AND STANDARD DRAWINGS

E.01 Standard Detail Drawings

The Contractor acknowledges that certain standard detail drawings, which are provisions of this Contract, have not been reproduced for inclusion in the Contract Documents. These standard drawings are listed in subsection E.01.1 and/or referenced by the Contract Documents. Some of the standard detail drawings may be shown on the Contract Drawings.

The Contractor acknowledges that the standard drawings referred to in subsections SS 1.3 are the Ontario Provincial Standard Drawings (OPSD).

Only the municipal and provincial common standards on OPS Volumes 1 to 4 and the municipal-oriented specifications in OPS Volumes 7 and 8 apply to this Contract, unless specified otherwise in the Contract Documents.

The Contractor shall obtain its own copy of the standard detail drawings from the Standard Tender Documents Vol. #2: Material Specifications and Standard Detail Drawings. Drawing revision date shall be the most recent up to and including April 2026.

E.01.1 Ontario Provincial Standard Drawings (OPSD)

The Ontario Provincial Standard Drawings (OPSD) which are provisions of this Contract include, but are not limited to:

DRAWING No.	DESCRIPTION	DRAWING No.	DESCRIPTION
OPSD 310.039	TWSI	OPSD 802.010	Flexible Pipe – Embedment and Backfill Earth
OPSD 310.033	Curb Ramp	OPSD 802.013	Flexible Pipe – Embedment and Backfill Rock
OPSD 400.010	Catch Basin Frame and Grate	OPSD 802.031	Rigid Pipe – Bedding, Cover and Backfill Earth
OPSD 400.070	Catch Basin Frame and Grate	OPSD 802.033	Rigid Pipe – Bedding, Cover and Backfill Rock
OPSD 401.020	MH Cover	OPSD 1006.010	Services Connections
OPSD 405.010	Maintenance Holes Steps, Hollow	OPSD 1103.010	Restraints
OPSD 404.020	MH Safety Platform	OPSD 1103.020	Restraints
OPSD 406.010	MH Ladder	OPSD 1103.021	Restraints
OPSD 551.010	Concrete and Composite Pavement Joint Spacing	OPSD 1104.010	Water Services
OPSD 552.010	Concrete Pavement Joint Details	OPSD 1104.020	Water Services
OPSD 552.051	Load Transfer Device for Right angle Contraction Joint	OPSD 1105.010	Hydrant
OPSD 600.100	Gutter	OPSD 1109.011	Cathodic Protection
OPSD 600.110	Barrier Curb	OPSD 1109.012	Cathodic Protection
OPSD 701.010	MH Structure	OPSD 1109.025	Cathodic Protection

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OPSD 701.011	MH Structure	OPSD 1109.030	WM Insulation
OPSD 705.010	Catch Basin	OPSD 1100.010	WM Valve

E.02 Standard Specifications

The Contractor acknowledges that certain standard specifications, which are provisions of this Contract, have not been reproduced for inclusion in the Contract Documents. These standard specifications are listed in subsection E.02.1 and Section F – Special Provisions and in the Schedule of Prices.

The Contractor acknowledges that the standard specifications referred to in subsection E.02.1 and Section F – Special Provisions and in the Schedule of Prices are the Ontario Provincial Standard Specifications (OPSS) as produced and amended by the government of the Province of Ontario

Only the municipal and provincial common standards on OPS Volumes 1 to 4 and the municipal-oriented specifications in OPS volumes 7 and 8 apply to this Contract, unless specified otherwise in the Contract Documents.

E.02.1 Ontario Provincial Standard Specifications (OPSS)

The Ontario Provincial Standard Specifications (OPSS) which are provisions of this Contract include, but not limited to:

OPSS	Vol.	Rev. Date	Description
106	7	Apr. 17	Electrical Work
127	5	Apr. 22	Schedule of Rental Rates for Construction Equipment, Including Model and Specification Reference
180	7	Nov. 21	Management of Excess Material
206	7	Apr. 19	Grading
212	7	Nov. 13	Earth Borrow
310	7	Nov. 17	Hot Mix Asphalt
314	7	Nov. 19	Untreated Granular Subbase, Base, Surface, Shoulder and Stockpiling
350	1	Nov. 21	Concrete Pavement and Concrete Base
351	1	Nov. 21	Concrete Sidewalk
353	7	Nov. 21	Concrete Curb and Gutter Systems
355	5	Nov. 20	Installation of Interlocking Concrete Pavers
401	7	Nov. 21	Trenching Backfilling and Compacting
403	7	Nov. 16	Rock Excavation for Pipelines, Utilities, and Associated Structures in Open Cut
405	7	Nov. 17	Pipe Subdrains
407	1	Nov. 21	Maintenance Holes, Catch basin installation
408	1	Nov. 21	Adjusting or Rebuilding Maintenance Holes, Catch Basins, Ditch Inlets and Valve Chambers

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409	7	Nov. 17	Close-Circuit television (CCTV) Inspection of Pipelines
410	7	Nov. 18	Pipe Sewer Installation in Open Cut
441	7	Nov. 21	Water Main Installation in Open Cut
442	7	Nov. 20	Construction Specification for Watermain installation in Open Cut
493	7	Nov. 19	Temporary Potable Water Supply Services
501	5	Nov. 17	Compacting
510	7	Nov. 18	Removal
511	7	Nov. 19	Rip Rap, Rock Protection and Granular Sheeting
516	7	Nov. 05	Excavating, Backfilling and Compacting for Maintenance Holes, Catch Basins
602	7	Nov. 17	Installation of Electrical Chambers
603	7	Nov. 17	Installation of Ducts
604	7	Nov, 17	Installation of Cables
609	1	Nov. 19	Grounding
610	1	Nov. 22	Removal of Electrical Equipment and Materials
615	7	Nov. 22	Installation of Poles
616	7	Apr. 18	Footings and Pads for Electrical Equipment
617	1	Nov. 19	Installation of Roadway Luminaires
710	1	Nov. 21	Pavement Marking
805	7	Nov. 21	Temporary Erosion and Sediment Control Measures
902	1	Nov. 21	Excavating and Backfilling, Structures
904	7	Nov. 12	Concrete Structures

SECTION F: SPECIAL PROVISIONS – ITEMS SPECIFIC

SPECIAL PROVISIONS – ITEM SPECIFIC

If this project requires any contract Item Specific General Special Provisions, they shall form part of this contract document and shall be set out hereafter:

Clause No.	Description
F.01	Traffic and Pedestrian Control
F.02	Management of Excavated Soils, Excess Material and Contaminated Soil
F.03	Steel Interlocking Pedestrian Barriers
F.04	Erosion and Sediment Control Plan, Monitoring and Measures
F.05	Pre-Construction Inspection
F.06	Utility Protection and Support
F.07	Contract Initiation
F.08	Earth Excavation – Grading (Including All Removals)
F.09	Remove and Reinstall Interlocking Concrete Pavers
F.10	Removal, Salvage and Reinstallation
F.11	Concrete Sidewalk, Medians, Boulevards and Islands
F.12	Concrete Curb and Gutter
F.13	Tactile Walking Surface Indicators
F.14	Signage
F.15	Precast Concrete Maintenance Holes and Catch Basins
F.16	Rock Excavation for Sewers and Watermains
F.17	Connecting to Existing Maintenance Holes, Catch Basins, Ditch Inlets, Culverts and Sewers
F.18	Maintaining Flow in Sewers and Sewer Services
F.19	Temporary Water Supply
F.20	Watermain Construction Standards and Procedures
F.21	Insulation for Watermains
F.22	Provisional Items
F.23	Cleaning of Catch Basins and Sewers
F.24	Connect to Existing Subdrain
F.25	Labour and Equipment
F.26	Well Abandonment
F.27	Luminaires
F.28	Aluminium Poles
F.29	Interlocking Concrete and Decorative Stone Paving

F.01 TRAFFIC AND PEDESTRIAN CONTROL

F.01.1 SCOPE

The Scope of the work addressed in this specification “Traffic and Pedestrian Control Plan” shall include the preparation and submission of a Traffic Control Plan (TCP) and a Construction Site Pedestrian Control Plan (CSPCP) as outlined in this specification and in Special Provision – General D.21. The TCP and the CSPCP may either be combined or submitted separately.

F.01.2 REFERENCES

Ontario Traffic Manual latest edition.

F.01.3 DESIGN AND SUBMISSION REQUIREMENTS

F.01.3.1 Traffic Control

Where construction pursuant to this Contract is being carried out on or adjacent to a roadway, the supply, placement, monitoring, and disassembly of all traffic control devices shall be performed under the direction of the Contractor in accordance with the Ontario Traffic Manual latest edition.

The Contractor shall be responsible for construction means, methods, techniques, sequences, and procedures and for coordinating the various parts of the traffic control. The Contractor shall prepare and submit a Traffic Control Plan that details the specific traffic control layout(s), necessary for the completion of the works. The Traffic Control Plan shall be in the form of drawing(s) and written description(s) of how the Contractor intends to control traffic through and around the work zone. The TCP shall include, and not necessarily be limited to:

- a) Monitoring and Repair (24-hour contact number if not acquired)

Reference to Applicable OTM Book 7 Typical Layouts

Traffic control signs (regulatory, warning and temporary);

Contract-specific operational requirements;

Traffic staging and scheduling;

Construction vehicle access/egress;

Public access/egress for all existing entrances and side roads

Pedestrian safety; barriers and barricades;

Emergency Vehicle access

Parking for Contract Administrator

Any other traffic control measures.

The Contractor shall refer to Special Provision-General 12.0 for general and contract specific requirements of traffic operations, and definition of terms.

Two (2) week prior to commencing construction, the Contractor shall submit the Traffic Control Plan to the Contract Administrator. The Contractor acknowledges that revisions to the Traffic Control Plan may be necessary, where it concerns public safety and mobility.

The Contractor shall ensure that all workers, including sub-contractors, in the Working Area are aware of the importance of the Traffic Control Plan measures.

The Contractor shall be required to review and modify the TCP for errors, omissions, deficiencies, or because of any new hazards are identified and not previously addressed within the document.

The condition of all traffic control devices shall be maintained for the duration of the contract, in accordance with the OTM.

The Contractor shall immediately repair, replace or otherwise make good the practice deemed unsafe or non-compliant when the owner makes the Contractor aware of any violation of the TCP.

Should the Contractor disagree, the Ministry of Labour will be consulted to provide clarification of the observed deficiency.

It is the responsibility of the Contractor to ensure that all necessary training has been provided prior to commencement of the work.

The acceptance and review of the TCP by the Consultant will make no representation and/or warranty that the document is accurate, complete, or compliant with all applicable legislation. Any errors, omissions or deficiencies within the TCP will remain the sole responsibility of the Contractor. The contract shall not commence, until the Consultant has reviewed the TCP and the Contractor has addressed all comments.

The Contract Administrator reserves the right to ask for revisions to the Traffic Control Plan at submission time or reject it if the Plan does not meet the Contract language. In addition, the Contract Administrator reserves the right to instruct the Contractor to revise it at any time during the Contractor's execution of the plan, when the Contract Administrator finds that the Contractor is not providing the commitments shown in the original Traffic Control Plan submission, or the Contractor's Traffic Control Plan proves to be insufficient to address the field conditions.

F.01.3.2 Pedestrian Control

The Construction Site Pedestrian Control Plan shall ensure the provision of a safe and accessible path of travel for all pedestrians through and/or around the construction site. The plan shall ensure that pedestrians with disabilities, as well as those with increased mobility needs (parents with strollers and/or young children, elderly pedestrians using canes, walkers, or wheelchairs, etc.), shall be accommodated either through or around the construction site. The scope of the work addressed in CSPCP will include temporary pedestrian signing; directional signing; maintenance of sidewalk; relocation, maintenance, and removal of pedestrian barriers; and all necessary delineation or any other measures to provide a safe environment for pedestrians.

Two (2) weeks prior to commencing construction, the Contractor shall submit the Construction Site Pedestrian Control Plan to the Contract Administrator. The Contractor acknowledges that revisions to the CSPCP may be necessary, in consultation with the Owner, where it concerns accessibility, public safety and mobility.

The Contractor shall ensure that all workers, including sub-contractors, in the Working Area are aware of the importance of the CSPCP measures.

The Contractor shall be required to review and modify the CSPCP for errors, omissions, deficiencies, or because of any new obstacles to accessibility are identified and not previously addressed within the document.

The condition of all pedestrian control materials and/or devices shall be maintained for the duration of the contract.

The Contractor shall immediately repair, replace or otherwise make good the practice deemed unsafe or non-compliant when the owner makes the Contractor aware of any violation of the CSPCP.

It is the responsibility of the Contractor to ensure that all necessary training has been provided prior to commencement of the work.

The acceptance and review of the CSPCP by the Consultant will make no representation and/or warranty that the document is accurate, complete, or compliant with all applicable legislation. Any errors, omissions or deficiencies within the CSPCP will remain the sole responsibility of the Contractor. The contract shall not commence, until the Consultant has reviewed the CSPC and the Contractor has addressed all comments.

The Contract Administrator reserves the right to ask for revisions to the CSPCP at submission time or reject it if the Plan does not meet the Contract language. In addition, the Contract Administrator reserves the right to instruct the Contractor to revise it at any time during the Contractor's execution of the plan, when the Contract Administrator finds that the Contractor is not providing the commitments shown in the original CSPCP submission, or the Contractor's CSPCP proves to be insufficient to address the field conditions.

F.01.4 MEASUREMENT FOR PAYMENT

Measurement shall be by Lump Sum.

F.01.5 BASIS OF PAYMENT

Payment at the contract Lump Sum Price for the items "Traffic Control Plan" and "Construction Site Pedestrian Control Plan" shall be full compensation for the research, preparation and implementation of the TCP and CSPCP, and shall include all labour, equipment and material to supply, and maintain all traffic and pedestrian control measures detailed therein. This payment includes supply, installation, monitoring, operation, maintenance and removal of all required traffic control devices and pedestrian control devices in exception of Steel Interlocking Pedestrian Barriers which shall be paid under its respective Tender item.

Payment shall be full compensation for all labour, equipment, and material required to do the work.

F.02 MANAGEMENT OF EXCAVATED SOILS, EXCESS MATERIAL AND CONTAMINATED SOIL

OPSS 180 shall apply except as amended and extended herein.

F.02.1 SOIL MANAGEMENT PLAN AND EXCESS SOIL DOCUMENTATION

This specification covers the requirements for submission of all plans, reports, documentation, and record-keeping to support the management of excess soils.

Refer to Special Provision D.43 for additional information and requirements.

Site Selection Notifications and Property Owner Consent

Where Receiving Sites are not designated by the Owner, the Contractor shall provide a list of proposed Receiving Sites within 15 days after contact award for review by the Contract Administrator.

The list shall include the following information for each Receiving Site:

- the municipal address of the Receiving Site;
- the name and contact information of Receiving Site owner and operator;
- the type of instrument under which the Receiving Site is operating, where applicable (in the absence of another instrument, the municipal site-alteration by-law would apply);
- the name and qualifications of the QP overseeing the Receiver Site activities;
- the quantity and quality of Excess Soil planned to be deposited at the Receiving Site;
- if the material is being sent to a Reuse site:
 - the contact information of the person that will be overseeing placement (in accordance with the site's Fill Management Plan) and acknowledging receipt of loads on behalf of the Receiving Site;
 - the zoning and land use of the proposed reuse site;
 - the beneficial purpose for which the excess soil will be re-used; and,
 - Reuse Notice ID on Excess Soil Registry (RPRA) for sites importing greater than 10,000 cu.m.

The Town shall require a minimum of 10 business days to review any subsequent revision to the original receiving site(s) including all requested documentation.

For receiving sites governed by an instrument, the Contractor shall provide the Contract Administrator, for record purposes at least 10 Business Days prior to removing excess soil from the Project Area, with a signed copy of the latest revision of OPSF 180-2 form "SITE SELECTION NOTIFICATION FOR MATERIAL MANAGED AS DISPOSABLE FILL".

For receiving sites not governed by an instrument, a signed property owner consent and release acknowledging informed consent and QP signoff for excess soils will be required.

The Contractor will need to select and identify the MECP licensed disposal facility that will receive the liquid soil as waste from the Project Area.

Excess Soil Destination Assessment Report (ESDAR) and Registration

An ESDAR is NOT required to be prepared by the Contractor's QP for this project, which is exempt from Registration.

Soil Management Plan

The OPSS 180.MUNI Excess Soil Reuse Plan shall be replaced with a Soil Management Plan. The Soil Management Plan shall be prepared by the Contractor's QP-C. Implementation of the Soil Management Plan shall be overseen by the Contractor's QP-C.

The plan shall be submitted a minimum of 20 business days prior to the start of excavation.

The Soil Management Plan shall provide the following information to support on and off-soil management, reuse and disposal in compliance with BMP, O. Reg. 406/19, all applicable laws, and shall include:

- An estimated volume of Excess Soil and proposed methods for minimizing these quantities, including methods to maximize the reuse of excavated material within the Project Area.
- Protocols for any further characterization of soil and excavated material quality to determine management, including re-use and/or disposal requirements, as required.
- Outline of how excavated materials will be temporarily staged or stored at the Project Area for re-use or subsequent transfer to disposal in accordance with the requirements of the Soil Rules.
- Identify measures to minimize soil and wind erosion, leaching and runoff when excavating material or stockpiling it prior to offsite disposal or reuse on site.
- Procedures for verifying truck loads and soil volumes deposited at Receiving Sites without weigh-scales, in compliance specific Contract Measurement for Payment clauses.
- Haul Record documentation procedures to be utilized by the Contractor that meet the requirements of Section 18 of O.Reg. 406/19 (provide project-specific sample).
- All pertinent information listed in OPSS.MUNI.180 Section 180.04.01.08 (Excess Soil Reuse Plan) for each identified receiving site.
- Identification of source site(s) proposed for imported fill (aggregate and soils) to be used in the Project Area.
- Contingency plans for any excess soil which may be rejected by Contractor-designated Receiving Site(s).
- Risk management measures (RMM) to mitigate potential exposure to contaminants during construction activities should they be encountered.
- Contingency plan to be followed if hazardous material, as it pertains to O. Reg 347, is encountered on site.

Soil Tracking System

The Contractor is not required to maintain a soil tracking system, in accordance with O.Reg. 406/19 Section 16, for this project.

Hauling Records

The Contractor shall ensure that vehicle operators have available at all times during the transportation of excess soil and liquid soil a complete and accurate written or digital haul record that document excess soil and liquid soil movement for every load leaving the project in accordance with O. Reg, 406/19 Sections 18(1). The Contractor shall further ensure that all haul records are completed with the receiver information and that the receiver site representative signs the declaration on the hauling records in accordance with Section 18(2).

Use of proprietary soil tracking software in lieu of haul records is acceptable, provided it meets

the requirements of O. Reg 406/19 Sections 18(1) and 18(2). Where a digital soil tracking system is used, the Contractor shall provide equivalent .pdf haul records to the Contract Administrator.

Prior to commencement of excavation, the Town shall provide the Contractor with an excel file template which will be used to summarize the haul information obtained under Section 18 of the Regulation. The Contractor shall submit the updated Excel summary form and copies of all completed Hauling Records to the Contract Administrator on a weekly basis and no later than Wednesday of the following week.

The Contractor, including the hauler of excess soil and liquid soil, shall retain all documents, including hauling records, tracking files and documentation related to excess soil management including bills of lading and other records associated with the Project for a period of at two years after substantial performance of the Contract, and provide these documents and records to the Contract Administrator or their authorized representative, as part of the Submittals requirements for issuance of Final Completion, or as requested at any time during this retention period.

Other Documentation

Upon completion of the excess soil movements, the Contractor shall provide the Contract Administrator with written notice of final placement summarizing the total amount of excess soil removed from the Project Area, the amount deposited at each Receiving Site, the date on which the last load of excess soil was removed from the Project Area, and any other pertinent information requested by the Contract Administrator.

The Contractor shall also submit to the Contract Administrator signed copies of the OPSF-180(3) "PROPERTY OWNER'S RELEASE" from each Receiving Site (except for Town-owned Receiving Sites) within sixty (60) days after the date of final excess soil placement.

The Contractor shall submit to the Contract Administrator all documents, including hauling records, tracking files and documentation related to excess soil management including bills of lading and other records associated with the Project prior to issuance of Final Completion.

The Contractor shall retain all excess soil related information for a period of two years after substantial performance of the Contract and provide this information to the Town upon request at any time during this retention period.

MEASUREMENT FOR PAYMENT

Payment shall be on a Lump Sum basis.

Payment shall be based upon the following schedule:

1. 50% upon satisfactory submission and acceptance of the Soil Management Plan and Property Owner Consent; and,
2. 50% upon satisfactory submission of all related hauling records and other documentation.

BASIS OF PAYMENT

Payment at the Contract price for Tender item Soil Management Plan and Excess Soil Documentation shall be full compensation for all Labour, Equipment and Material for the preparation and implementation of the Contractor's Soil Management Plan as well as the preparation, record-keeping and submission of all related plans, reports, and documentation listed herein.

F.02.2 DISPOSAL AND HAULING OF CATEGORY 3 EXCESS SOIL

This specification covers the requirement for the disposal/deposition and haulage of Category 3 Excess Soil from the Site.

Refer to General Special Provision D.43 for additional information and requirements.

Excess Soil Quality and Characterization

Refer to D.43 for any specific soil quality information and supporting soil reports.

The Contractor shall expect to generate excess soil with impacts exceeding Table 3.1 ICC including but not limited to those indicated in the Soil Quality Screening Characterization Report, which will require management as waste at a Class 1 Soil Management Facility, Landfill or Dump.

MEASUREMENT FOR PAYMENT

Measurement of the following items shall be by mass in tonnes.

The Contractor may request an alternative measurement for payment using surveyed cross section or Truck Box Method and converted to tonnes based on an appropriate soil density calculation.

The Contract Administrator shall have sole discretion in allowing the use of alternative measurements for payment including determining the appropriate soil density calculation and any calibration requirements such as directing periodic loads to a weight scale for verification.

All costs associated with determining payment quantity that does not involve the use of certified weight scales shall be the responsibility of the Contractor.

BASIS OF PAYMENT

Payment at the Contract price for the following Tender item shall be full compensation for all Labour, Equipment and Material, to do the work.

Remove and Dispose of Category 3 Contaminated Material to Licensed MECP Landfill

All costs associated with management of soils for immediate or subsequent re-use on site shall be deemed to be included in the associated Tender item requiring the excavation of soil.

No additional payment will be made for increased handling, scheduling, delays, construction staging or stockpiling of materials for reuse on-site or off-site.

F.03 STEEL INTERLOCKING PEDESTRIAN BARRIERS

F.03.1 MATERIALS

The interlocking pedestrian barriers shall be approximately 2.4 m in length and minimum 1.8m in height manufactured of steel and galvanized. The foundation shall be the flat foot configuration. The barriers must be capable of being interlocked with attachments integral to the barrier (i.e. tying the barriers together will not be acceptable).

F.03.2 CONSTRUCTION

All work zones shall be completely fenced. As the work zone progresses, barriers shall be relocated accordingly. A minimum 1.8m wide sidewalk shall be provided at all times and the barriers are to be placed a minimum 9 m from the start and end of the work zone.

The total amount and location of the barriers is to be approved by the Contract Administrator prior to their installation.

Once the barriers are on site, they shall not be removed off-site until such a time that the Contract Administrator approves their removal.

If the contractor removes the barriers off-site without the Contract Administrator's approval, the contractor shall not be paid under this item to return onto the site the length of barrier that was removed off-site.

F.03.3 MEASUREMENT FOR PAYMENT

Measurement shall be by meter of fence installed.

F.03.4 BASIS OF PAYMENT

Payment at the contract unit price per meter of steel interlocking pedestrian barrier shall be full compensation for all labour, equipment, and material required to do the work. The contractor shall not be paid separately for the maintenance and relocation of steel interlocking pedestrian barrier. The maintenance and relocation of the barriers shall be paid under the item "Construction Site Pedestrian Control".

F.04 EROSION AND SEDIMENT CONTROL PLAN, MONITORING, AND MEASURES

F.04.1 Scope of Work

The work under the applicable items includes the preparation, implementation and monitoring of an Erosion and Sediment Control Plan to prevent sediment-laden runoff resulting from the Contractor's construction operations from entering all sewers and watercourses both within and downstream from the Working Area. The plan shall include management and monitoring of water discharged from dewatering operations. The specification is limited to the management of sediment laden water and the management of contaminants such as hydrocarbons and volatile organic compounds present within groundwater at the site shall be managed as described elsewhere in the contract documents.

F.04.2 General

The Contractor acknowledges that surface erosion and sediment runoff resulting from construction operations has potential to cause a detrimental impact to any downstream watercourse, and that all construction operations that may impact upon water quality shall be carried out in a manner that strictly meets the requirements of all applicable legislation and regulations.

Accordingly, the Contractor shall be responsible for determining and conforming to the requirements of the Ontario Ministry of the Environment (MOE), the Ontario Ministry of Natural Resources, the Town, applicable Conservation Authorities and any other Governmental Regulatory Agencies (collectively "Regulatory Agencies") having jurisdiction in the Working Area or over any potentially affected watercourses.

F.04.3 Erosion and Sediment Control Plan

Before commencing the Work, the Contractor shall submit to the Contract Administrator six copies of a detailed Erosion and Sediment Control Plan. The ESC Plan will consist of a written description and detailed drawings indicating the on-site activities and measures to be used to control erosion and sediment movement for each step of the Work. The written description shall be signed by, and the drawings shall bear the stamp and signature of a qualified Professional Engineer licensed in Ontario, herein designated as the Engineer of Record (EOR).

The Contractor acknowledges that the scheduling of the implementation of erosion and sediment controls is the key component for successful sediment control. Accordingly, the ESC Plan will contain a detailed schedule which identifies the following:

Phasing of the steps for the installation of all control measures.

Inspection, monitoring and maintenance of all control measures during construction.

Phasing of the removal and disposal of the control measures.

The Contractor acknowledges that no one measure is likely to be 100% effective for erosion protection and controlling sediment runoff and water discharges from the site. Therefore, where necessary the ESC Plan will implement sequential measures arranged in such a manner so as to mitigate sediment release from construction operations and achieve specific maximum permitted criteria where applicable. Suggested on-site measures may include, but shall not be limited to, the following methods: sediment ponds, filter bags, pump filters, settling tanks, silt fences, straw bales, filter cloths, check dams and/or berms, or other recognized technologies

and methods available at the time of construction. Specific measures shall be installed in accordance with the requirements of OPSS 805 where appropriate, or in accordance with manufacturer's recommendations.

F.04.4 Inspection and Monitoring of Mitigation Measures

The Contractor shall be solely responsible for inspecting, monitoring and maintaining the effectiveness of the ESC Plan upon implementation. The Contractor shall submit to the Contract Administrator weekly inspection reports demonstrating the performance of the installed measures, identifying deficiencies and indentifying required maintenance issues. These reports shall be prepared, signed by the EOR and provided to the Contract Administrator within 48 hours of the inspection.

Maintenance issues are defined as any measure which is not functioning to the satisfaction of the EOR and in the opinion of the EOR may be repaired by the contractor with subsequent re-inspection at the next scheduled EOR site inspection.

Deficiencies are defined as any measure or lack of measure which has potential to cause an adverse environmental impact at the site given the current/forecasted conditions and schedule of the work.

Maintenance issues which have previously been identified but not adequately corrected shall be considered deficiencies.

Deficiencies shall be immediately corrected. Corrective actions shall be re-inspected and documented by the EOR. Re-inspection reports shall be specific to the deficiency observed and may be written field reports.

EOR monitoring reports submitted shall include:

The date and time of the inspection and monitoring.

General description of the mitigating measures being utilized at the site.

Confirmation as to the effectiveness of the measures inspected.

Description of any maintenance issue which requires minor repair, improvement or maintenance.

Description of any deficiency observed including timeline for correction and re- inspection.

Deficiency re-inspection reports outstanding for the site.

The Contractor shall notify the Contract Administrator in all situations where a regulatory agency has identified deficiencies in erosion/sediment control measures, quality of runoff or quality of water quality discharged from dewatering operation.

Where in the opinion of the Contract Administrator either the proof of performance submitted is or the measures implemented are considered inadequate, the Contractor shall have the EOR review measures in the presence of the Contract Administrator within 24 hours of being notified in writing.

The Contractor shall monitor all weather forecasts and schedule the Work in order to minimize the risk of sediment-laden water from entering any watercourse or sewer system. The ESC Plan shall contain a Contingency Plan to include the provision of additional labour, equipment or materials to install additional control measures, and detail an emergency response plan in case of an accidental event. As such, the Contractor shall have additional control materials on

site at all times which are easily accessible and may be implemented at a moment's notice.

F.04.5 Contractor's Responsibilities

The Contractor shall ensure that all workers, including sub-contractors, in the Working Area are aware of the importance of the erosion and sediment control measures and informed of the consequences of the failure to comply with the requirements of all Regulatory Agencies and the specifications detailed herein.

The Contractor shall periodically, and when requested by the Contract Administrator or EOR, clean out accumulated sediment deposits as required at the sediment control devices, including those deposits that may originate from outside the construction area. Accumulated sediment shall be removed in such a manner that prevents the deposition of this material into any sewer or watercourse and avoids damage to the control measure. The sediment shall be removed from the site at the Contractor's expense and managed in compliance with the requirements for excess earth material, as specified elsewhere in the Contract.

The Contractor shall immediately report to applicable regulatory agencies and the Contract Administrator any accidental discharges of sediment material into either the watercourse or the storm sewer system. Failure to report will be constitute a breach of this specification and the Contractor may also be subject to the penalties imposed by any applicable Regulatory Agency. Appropriate response measures, including any repairs to existing control measures or the implementation of additional control measures, shall be carried out by the Contractor without delay.

The sediment control measures shall be removed when, in the opinion of the EOR, the measure(s) is no longer required. No control measure may be permanently removed without prior written authorization from the EOR. All sediment and erosion control measures shall be removed in a manner that avoids the entry of sediment or debris into any sewer or watercourse within or downstream of the Working Area. All accumulated sediment shall be removed from the Working Area at the Contractor's expense and managed in compliance with the requirements for excess earth material, as specified elsewhere in the Contract. Any seeding and mulching, temporary cover, sodding or original turf cover that is disturbed by the removal of the control measures and accumulated sediment, shall be brought to final grade and restored. Payment for the supply and placing of ground cover at these locations shall be made under the applicable items listed elsewhere in the Contract.

Where, in the opinion of either the Contract Administrator or a Regulatory Agency, any of the terms specified herein have either not been complied with or not performed in a suitable manner, the Contract Administrator or Regulatory Agency has the right to immediately withdraw its permission to continue the work but may renew its permission upon being satisfied that the defaults and/or deficiencies in the performance of this specification by the Contractor have been remedied. No compensation will be made to the Contractor for the withdrawal of permission to do the work resulting from non-compliance with the requirements of this specification and the Regulatory Agencies.

In addition to any other remedy and/or penalty provided by law, where there has been default or non-compliance with any of the terms specified herein and the Contractor refuses to perform or rectify same within forty-eight (48) hours of the receipt of the written demand of the Contract Administrator to do so, the Owner is hereby entitled to enter upon the Working Area and either complete the work in conformity with the Contract or have the work done that it considers necessary to complete the Work to its intended condition, whichever, in the Owner's sole

opinion, is the most reasonable course of action. The Contractor and the Owner further agree that the costs incurred for any such work shall be retained by the Owner from monies otherwise due to the Contractor.

F.04.6 Monitoring of Water Quality Impacts and Point Source Discharges

The Contractor shall monitor runoff quality and quantity of water discharged from dewatering operations. The work shall include turbidity monitoring of impacts to watercourses (upstream vs downstream conditions), total suspended solids (TSS) monitoring of point sources such as those from dewatering operations. Discharge shall be in accordance with site specific constraints, regulatory requirements and sewer use bylaw requirements. Where no specific criteria has otherwise been identified, the contractor shall meet the following discharge objective.

Source	Objective	Monitoring Frequency (min)
Watercourse Impacts	Downstream turbidity not to exceed upstream levels by greater than 25%	Minimum of daily for first three days of operation Minimum of twice weekly on an ongoing basis Daily for situations where the work is being conducted within 20 metres of a watercourse.
Discharge from Dewatering Operations	TSS maximum level of 25 mg/L	Minimum of daily for first three days of operation Minimum of twice weekly on an ongoing basis

Monitoring frequency to increase where scheduled construction operations have potential to impair water quality.

F.04.6.1 Mitigation and Action by Contractor Where Monitoring Indicates Water Impacts or Discharges Over Criteria or Objectives

Where site specific criteria or objectives are not attained, the Contractor and/or EOR shall immediately notify applicable regulatory agency of the monitoring results and possible impacts to sewers and watercourses. The Contractor shall implement an Action/Mitigation Plan acceptable to the EOR and applicable regulatory agency prior to continuing or resuming construction activities.

F.04.7 Measurement and Basis of Payment

F.04.7.1 Item – Erosion and Sediment Control Plan and Monitoring

Payment at the Contract price for the item “Erosion and Sediment Control Plan and Monitoring” shall be full compensation for the preparation and monitoring of the Erosion and Sediment

Control Plan.

Payment shall be based upon the following schedule:

- a) 25% upon satisfactory submission and implementation of the ESC Plan; and,
- b) 75% pro-rated into equal payments over the term of the contract.

This payment schedule may only be modified as agreed upon in writing between the Contractor and the Contract Administrator.

F.04.7.2 Item – Erosion and Sediment Control Measures

Payment at the Contract price for the item “Erosion and Sediment Control Measures” shall be full compensation for the implementation and maintenance of erosion and sediment control measures required for the site, and shall include all labour, equipment and materials to supply, construct, monitor and maintain all erosion and sediment control measures detailed therein.

Payment shall be based upon the following schedule:

- a) 20% upon satisfactory installation of the control measures;
- b) 70% pro-rated into equal payments over the term of the contract; and,
- c) 10% upon successful completion and removal of the ESC Plan protection measures.

This payment schedule may only be modified as agreed upon in writing between the Contractor and the Contract Administrator.

F.05 PRE-CONSTRUCTION INSPECTION

The Contractor acknowledges that there are existing buildings and structures in the vicinity of the work area, which may be affected by the construction works. This special provision details the pre- construction inspection requirements of buildings and structures, for both interior and exterior conditions.

All inspections shall be performed in accordance with applicable Federal and Provincial Privacy legislation including the Canadian Personal Information Protection and Electronic Documents Act (PIPEDA). Documentation confirming compliance with this legislation shall be made available to the homeowner and submitted with the pre- construction inspection report.

F.05.1 SCOPE

Under this work the Contractor will be required to supply the services of a reputable firm experienced in pre-construction inspections of existing buildings and structures prior to commencement of any construction work.

The pre-construction inspection shall include whatever inspection work is deemed necessary to satisfactorily document the state of a building or structure prior to construction for the purpose of resolving possible claims by residents or building owners. The Contractor shall ensure that the extent and degree of the pre- construction inspection include the following, as minimum criteria:

- a) As a minimum, the pre-construction survey will be done on all structures within 30m of the work zone.

A letter of introduction shall be provided to the property owner, after it has been reviewed and approved by the Contract Administrator. If the Contractor receives no response from the property owner, a second letter shall be provided.

Where a second letter has been sent and still no response is received, the property owner is deemed to have been notified, and no further action is required by the Contractor with respect to documenting the state of the property.

The pre-construction inspection shall be carried out in the presence of the affected property owners. The Contractor acknowledges that property owners are not required by the Town to grant access to their property, and that access is at the discretion of the individual property owner.

F.05.2 PRE-CONSTRUCTION INSPECTION

The pre-construction inspection shall indicate if signs of building or structure settlement are present, include photographs of all sides of the building exterior, a representative sampling (description and photographs) of visible cracks or settlement from both the interior and exterior of the building, and a representative sampling (description and photographs) of staining or repairs visible at the time of inspection;

The pre-construction inspection shall identify any concerns regarding sensitive equipment contained within the buildings which should be taken into account during potential rock removal and/or excavation operations.

F.05.3 DESIGN AND SUBMISSION REQUIREMENTS

The Contractor shall submit a pre-Construction Inspection Report with the following: The Project

Pre-Construction Inspection Report shall include:

- a) Overview of the inspection process and the equipment used;
- b) PIPEDA compliance confirmation;
- c) Copies of the letter of introduction distributed including the distribution dates;
- d) A map showing the locations where the letters were distributed;
- e) Listing of properties for which inspections were performed including the dates of the inspections;
- f) Listing of properties for which inspections were not performed and the reason (example: property owner refused by phone or in writing).

This report shall not include specific results of the inspections performed. Two (2) copies of the Project Pre-Construction Inspection Report shall be submitted to the Contract Administrator prior to the commencement of any other site work.

For each property inspected, a separate Building/Structure Pre-Construction Report shall be prepared, dated and signed by the firm undertaking the inspection. These reports are confidential and shall not be shared with the Contractor, Contract Administrator or others. Each Building/Structure Report shall be detailed and shall include specific results of the inspection. In the event of a request by the property owner at any time, a copy of the Building/Structure Pre-Construction Report shall be sent directly to the property owner and the Contract Administrator at no additional cost to the Town or the property owner.

F.05.4 MEASUREMENT FOR PAYMENT

Measurement for payment shall be by lump sum.

F.05.5 BASIS OF PAYMENT

Payment at the Contract price for the lump sum item "Pre-Construction Inspection" shall be full compensation for the preparation and submission of the pre-construction inspection and reports, and shall include all labour, equipment and materials to prepare and submit the pre-construction inspection and reports.

F.06 UTILITY PROTECTION AND SUPPORT

F.06.1 Scope

The work under this item shall include all labour, materials and equipment necessary for coordination with the Town and utility companies regarding protection and/or relocation of their plant. This item shall also include payment by the Contractor of all fees charged by utility companies regarding protection and/or relocation of their plant.

F.06.2 Contractor as Constructor

The Contractor shall coordinate all works within the Contract limits during the construction period. If at any time the Contractor believes that it is no longer able to act as the Constructor as defined by the Occupational Health and Safety Act, the Contractor shall immediately advise the Contract Administrator of this situation. The Contract Administrator may require the Contractor to stop work until the situation is resolved.

F.06.3 Utility Coordination

There is existing utility plant within the project area. The Contract Drawings indicate the approximate extent and locations of utilities within the project area. The Contractor is responsible for verification of this information.

Wherever work is required above, below or in the vicinity of existing utility plant (including hydro poles) the Contractor shall support and protect, or arrange for the utility to support and protect, such plant to the satisfaction of the utility. The Contractor shall be responsible for all costs associated with support and protection of existing utility plant.

The Contractor shall schedule sufficient time for utility coordination, in accordance with the advance notice requirements of each utility. No claims for delays or related costs will be considered where the Contractor failed to provide a utility with all necessary information in a timely manner and in accordance with the utility's specified requirements.

F.06.4 ENBRIDGE GAS

Enbridge gas mains shall be protected in accordance with Enbridge's Third-Party Requirements including but not necessarily limited to, hydro excavation to locate and confirm depth of gas mains, supporting the gas mains in open excavations, and back filling with clean sand to provide proper warning.

The Contractor acknowledges that the Enbridge Third Party Requirements, which form part of the Contract, have *not* been reproduced for inclusion in the Contract Documents. It is the responsibility of the Contractor to obtain a copy of the document and ensure that it has the most up-to-date version. One location from which the document is available is online at:

<https://www.enbridgegas.com/assets/docs/Third%20Party%20Requirements%20in%20the%20Vicinity%20of%20Natural%20Gas%20Facilities%20Oct2015.pdf>

The Contractor shall not make any claims for extra compensation for the cost of supporting the gas main during construction and or repairs/replace pipes in the case of damage.

F.06.5 UNDERGROUND COMMUNICATION UTILITIES

F.06.5.1 Bell

Bell does not maintain any buried facilities within the project area. In the event of any Bell or

suspected Bell Infrastructure being encountered, or to obtain additional information, please contact Robyn Elliot @ 613-3453763 robyn.elliott@bell.ca.

Call for locates required prior to starting construction to avoid damaging Bell structure. Within 1m of Bell, hand dig. Hand dig when crossing Bell plant.

F.06.5.2 Rogers

Rogers does not maintain any buried facilities within the project area. In the event of any Rogers or suspected Rogers Infrastructure being encountered, please contact Graham Winn at 613-216-4452 graham.winn@rogers.com. .

F.06.5.3 Cogeco

Cogeco does not maintain any buried facilities within the project area. In the event of any Cogeco or suspected Cogeco Infrastructure being encountered If there are any conflicts, or to obtain additional information, please contact Dale Myers at 613-361-2883 dale.myers@cogeco.com.

F.06.5.4 Street Lighting

Street Lighting plant and underground cabling is present within the project area.

Protection and/or temporary relocation and reinstallation of existing street light plant within the project area shall be carried out by the Contractor.

Where required excavation undermines existing underground streetlight plant, protect and support plant with a steel I-beam. Steel I-beam length shall be as required for both ends to be supported by undisturbed soil. Provide ratchet straps as required to secure plant until backfill is complete. I-beam to be removed during reinstatement process.

F.06.5.5 Traffic Signals

Traffic signals and underground cabling are not present within the project area.

Protection and/or temporary relocation and reinstallation of existing traffic signal plant within the project area, including traffic detection loops, shall be by the Contractor

All costs associated with the requirements set out in this special provision shall be assumed to be included in the overall price of the contract.

The Contractor shall not make any claims for extra compensation for the cost of supporting ducts or duct banks during construction and/repair/replace ducts, ducts banks or cables in the case of damage.

F.06.6 HYDRO ONE

Hydro One does not maintain overhead and buried infrastructure on Arthur Street between Charles and William Street, but does maintain overhead and buried infrastructure at the William Street intersection as well as east of William Street on Arthur street and on adjacent streets which may be encountered close to the project limits.

Protection and temporary support of Hydro One infrastructure shall be by the Contractor.

In the event of any need to excavate in close proximity to, or support Hydro One infrastructure, or to obtain additional information, please contact Courtney Frank (Courtney.Frank@hydroone.com).

F.06.7 Measurement and Basis of Payment

Payments made to the Contractor under this item shall include all labour, materials, and equipment for the work described by this specification.

Payment shall be made in accordance with the following schedule:

- a) 25% upon satisfactory completion of utility locates;
- b) 50% pro-rated into equal payments over the term of the contract; and,
- c) 25% upon substantial completion.

F.07 CONTRACT INITIATION

F.07.1 Scope

This item is intended to provide the Contractor with funds at the onset of the project. The Contractor is permitted to include project costs in the "Contract Initiation" item which should be no more than 2% of the total Tender cost as submitted in the Form of Tender.

Contract initiation shall include all required submissions prior to commencement of work including, but not limited to:

- a) Detailed Construction Schedule
- b) Survey Process and Procedures
- c) Quality Control Obligations
- d) Traffic and Pedestrian Control Plans
- e) Pre-construction Health and Safety Submissions

F.07.2 Measurement for Payment

The Tender item "Contract Initiation (no more than 2% of Contract Value)" will be paid as a lump sum item.

F.07.3 Basis of Payment

Payment for the item "Contract Initiation" shall be compensation for the Contractor's contract initiation costs for this project. The item will be paid in full on the first payment certificate.

F.08 EARTH EXCAVATION – GRADING (INCLUDING ALL REMOVALS)

F.08.1 SCOPE

OPSS 206 and OPSS 510 shall apply except as amended and extended by the addition of the following:

F.08.2 Removals

Any information on removals given herein or shown on the drawings is approximate only and the Contractor shall base his bid on the findings of his investigation of the site.

Where existing features or underground utilities, known or unknown, are located within the limits of construction and are not identified to be removed, the Contractor shall undertake all appropriate measures and actions to protect the features or utilities. In scenarios where implementation of these actions is determined not to be feasible, the Contractor may remove and re-instate the feature to existing or better condition, in accordance with all applicable specifications and regulations.

Where existing features or abandoned underground Utilities conflict with the line of construction, the Contractor shall remove these items and dispose of them in waste areas, provided by the Contractor at his own expense outside the Contract limits in accordance with OPSS 180. Where the Contract Administrator determines that the Contractor's methods are responsible for damage to adjacent features and materials not specified for removal, the Contractor shall carry out remedial measures at his own expense to the satisfaction of the Contract Administrator. The Contractor shall correct damage and/or replace materials with a product of equal or better quality and to the satisfaction of the Contract Administrator.

There shall be no extra payment for the work associated with protection, reinstatement or removal of existing features or utilities; this work is deemed to be included in the Contract price for the item "Earth Excavation – Grading Including all Removals", or incidental to other items in the Contract.

Saw-cutting of existing concrete curbs is required to produce neat lines at removal limits and will be considered as incidental to the works required. The existing Pavement shall be cut full depth to produce neat lines to accommodate asphalt transitions at the limits of full road reconstruction. No additional payment will be allowed for saw-cutting, as the cost of such work is deemed to be included in the Contract price for the item "Earth Excavation – Grading Including all Removals", or incidental to other items in the Contract.

F.08.3 Designated Construction Work Areas

The Contract Drawings indicate the right-of-way limits and designated Work Area limits where required to allow grading and Pavement tie-ins. The Contractor shall strictly confine his operations to within the right-of-way limits or designated construction Work Area limits, as well as to the grading limits and Pavement match lines specified on the Contract Drawings unless otherwise authorized by the Contract Administrator. The Contractor shall clearly identify onsite the edge of designated Work Areas, grading limits and Pavement match lines and ensure all workers are aware of these limits. Unless specified elsewhere in the Contract or directed by the Contract Administrator, any disturbance outside specified construction or grading limits shall be reinstated by the Contractor at his expense to original conditions to the Contract Administrator's satisfaction.

No additional payment will be allowed for this requirement as the cost of such work is deemed

to be included in the unit price bid for this item.

In specific areas where the Contract Administrator directs the Contractor to install temporary fencing (Modu-Loc or similar construction fencing) during construction on or adjacent to private properties measurement for payment will be included under a separate Contract item.

F.08.4 Salvaged Materials

Where specified in the Contract, materials designated to be salvaged shall be stored for re-use prior to general removals and grading operations. Any material deemed by the Contract Administrator to be unsuitable for reinstallation and any salvaged material in excess of Contract requirements shall be removed by the Contractor and disposed of in waste areas, provided by the Contractor at his own expense outside the Contract limits in accordance with OPSS 180.

Where the Contract Administrator deems that materials to be salvaged have been damaged by the Contractor's operations, the Contractor shall replace the material with a product of equal or better quality at his expense to the satisfaction of the Contract Administrator.

F.08.5 Removal of Existing Miscellaneous Debris, Refuse, Piles, etc.

Where existing miscellaneous deleterious material such as debris, refuse, piles, fallen trees, branches, etc. is encountered within the Contract limits the Contractor shall dispose of them in waste areas, provided by the Contractor at his own expense outside the Contract limits in accordance with OPSS 180.

Unless otherwise allotted for under a separate Contract item, no additional payment will be allowed for removal of existing miscellaneous debris, refuse, piles, etc, as the cost of such work is deemed to be included in the Contract price for the item "Earth Excavation – Grading Including all Removals".

F.08.6 Disposal

No additional payment shall be allowed for disposal of surplus excavated material and unsuitable and waste material by the Contractor OUTSIDE of the contract limits in waste areas, provided by the Contractor at his own expense, in accordance with OPSS 180. Where existing items are designated to be removed, the Contractor shall remove these items and dispose of them in waste areas, provided by the Contractor at his own expense outside the Contract limits in accordance with OPSS 180.

F.08.7 Approved Native Fill / Backfill Requirements

The Contractor shall be solely responsible to stage excavation operations or alternatively stockpile suitable excavated material at an approved location, offsite if necessary, to ensure Contract requirements for approved native materials for fill (for grading) and backfill (for trenches). No additional payment will be allowed for this work as the cost of such work is deemed to be included in the unit price bid for this item.

F.08.8 Underground and Overhead Utilities

Existing underground Utilities are located within the specified grading limits. Overhead wiring and poles are located within the contract limits. The Contractor will be required to work around these Utilities, and when construction operations are liable to damage Utilities, the Contractor will be required to alter his method of construction as directed by the Contract Administrator or Utility Company in order to avoid any damage.

No additional payment will be allowed for this requirement as the cost of such work is deemed

to be included in the Contract price for the item "Earth Excavation - Grading including All Removals".

F.08.9 Road Subgrade

The Contractor shall be fully responsible to take necessary measures and schedule construction activities to ensure that the road Subgrade remains undisturbed and stable. Where the Contract Administrator determines that the Contractor's methods are responsible for Subgrade instability, the remedial measures will be carried out by the Contractor at his own expense to the satisfaction of the Contract Administrator. Measures proposed by the Contractor to correct defective Subgrade will be subject to the Contract Administrator's approval.

No additional payment will be allowed for removal of subgrade, as the cost of such work is deemed to be included in the Contract price for the item "Earth Excavation – Grading Including all Removals".

F.08.10 Proof Rolling Subgrade

A large rubber tired smooth drum roller shall be used to proof roll the Subgrade prior to placing Roadway granulars. The Contract Administrator may authorize use of other proof rolling equipment.

Make sufficient passes with the proof rolling equipment to subject every point on the surface to three separate passes of the full load of the roller.

Where proof rolling reveals areas of defective Subgrade:

- a) Remove Subgrade material to a depth and extent as directed by the Contract Administrator.

Backfill excavated Subgrade with approved native material and compact in accordance with this section.

No additional payment will be allowed for this requirement as the cost of such work is deemed to be included in the Contract price for the item "Earth Excavation - Grading Including All Removals" unless specified elsewhere in the Contract.

Payment for removal of Subgrade material where directed will be included under "Earth Excavation - Grading Including All Removals". However, where the defective subgrade is deemed by the Contract Administrator to be caused by the Contractor's construction methods or due to the Contractor's other construction activities, all measures associated with correction of the defective Subgrade shall be at the Contractor's expense.

F.08.11 Measurement for Payment and Basis of Payment

Sub-section 206.09.02 of OPPS 206 is deleted and replace by the following:

Earth Excavation – Grading, Including all Removals – ITEM

Measurement shall be by Plan Quantity, as may be revised by Adjusted Plan Quantity, of the volume in cubic metres computed from field measurements of existing cross sections taken during the pre-construction stage and shall be based on the theoretical limits designed in the Contract. If portions of the work that entail earth excavation are not required or installed, the excavation volume associated with the work that has been omitted shall be subtracted from the total estimated quantity in the Contract. If the excavation for portions of the work do not meet

the lines and grades specified, the Contract Administrator may subtract the volume associated with the difference in what should have been excavated (based on proposed lines/grades) compared to what was actually excavated (based on actual lines/grades) from the total estimated quantity in the Contract.

Sub-section 206.09.01.02 of OPSS 206 is deleted in its entirety; Section 206.10.02 of OPSS 206 is deleted in its entirety.

Section 510.09, of OPSS 510 is amended in that no separate payment will be made for the removal of items listed and specified herein except where specified elsewhere in the Contract and the costs shall be deemed to be included in the contract price for the item "Earth Excavation - Grading including All Removals", and will be full compensation for all labour, equipment and materials necessary to complete the work herein described and specified in the Contract drawings.

Section 510.09, Measurement for Payment, and Section 510.10, Basis for Payment, of OPSS 510 are amended and extended by the deletion of the following items:

Removal of Asphalt Curb and Gutter

Abandonment of Maintenance Holes, Catch Basins, Ditch Inlets, and Valve Chambers Partial-Depth

Capping of Maintenance Holes, Catch Basins, Ditch Inlets, and Valve Chambers Abandonment of Pipes and Culverts

Removal of Fence and Noise Barrier

Removal of Delineator Posts

Removal of Cable Guide Rail

Removal of Concrete Barrier

Removal of Steel Beam Guide Rail

Removal of Steel Box Beam Barrier

Removal of Anchor Blocks

Removal of Energy Attenuators

Removal of Ramp Closure Gates

Cutting Existing Pavement

Removal of Sundry Driveways and Sidewalks

Removal of Asphalt-Treated Base

Removal of Concrete Base

Removal of Asphalt Pavement, Partial-Depth

Removal of Concrete Pavement, Partial-Depth

Removal of Asphalt Pavement from Concrete Surfaces on Structures

Removal of Concrete

Removal of Driveways, Sidewalks, and Sundry Asphalt Pavements

Removal of Interlocking Brick Driveways and Walkways
Removal of Concrete Sidewalk
Removal of Gabions
Removal of Sign Support Structure
Removal of Sign Support Structure Footings
Removal of Flagstone Walkways
Removal of Patio Stones
Removal of Gardens
Removal of Wood curb
Removal of Stone, Concrete and Interlocking Brick Retaining Walls
Removal of Cedar Hedges and Trees
Removal of Fence
Removal of Miscellaneous Landscaping Features
Milling for Asphalt Key-Ins
Removal of Concrete Sidewalks
Removal of Rip Rap

Section 510.10, Basis of Payment, of OPSS 510 is amended and extended in that where work of the type listed above is designated to be carried out, no separate payment will be made for this work and the Contract Price for the Tender item "Earth Excavation, Grading (Including Removals)" shall include full compensation for all labour, equipment and material required to do the work.

F.09 REMOVE AND REINSTATE INTERLOCKING CONCRETE PAVERS

F.09.1 Scope

This Special Provision covers the removal and reinstallation of interlocking concrete pavers. This applies to driveways, sidewalks and other areas within the boulevard.

F.09.2 General

The existing interlocking concrete pavers shall be salvaged in accordance with OPSS.MUNI 510.

OPSS.MUNI 550 shall apply to reinstallation, except as follows:

Interlocking concrete pavers salvaged under this Contract shall be used in place of new interlocking concrete pavers. Broken or damaged interlocking concrete pavers shall not be reused and shall be disposed off-site in accordance with OPSS 180. The Contractor shall supply and use all new bedding and joint sand materials. Existing granular base materials shall be left in place and supplemented as necessary, provided that adequate depth and compaction can be confirmed to the satisfaction of the Contract Administrator.

Where insufficient salvaged interlocking concrete pavers are available, the work shall be completed in accordance with OPSS.MUNI 550 using new materials. The Contractor shall use commercially reasonable methods to obtain pavers that are similar in appearance and quality to those removed.

F.09.3 Measurement for Payment

Reinstallation of Salvaged Interlocking Concrete Pavers shall be measured in square metres (m²).

F.09.4 Basis of Payment

Payment at the Contract price for the Tender item "Remove and Reinstall Interlocking Concrete Pavers" shall be full compensation for all labour, equipment and material required to do the work, including excavation, stone dust levelling course and mortar sand.

The Granular 'A' shall be paid under the Granular 'A' item.

Work requiring new interlocking concrete pavers due to insufficient salvaged pavers being available shall be paid under the "Interlocking Concrete Paving" item.

F.10 REMOVAL, SALVAGE AND REINSTALLATION

F.10.1 Scope

This Special Provision covers the removal, salvage and reinstallation of specified items including but not limited to signs.

F.10.2 General

The specified items shall be removed and salvaged in accordance with OPSS.MUNI 510. These items shall be safely and securely stored until required for reinstallation.

Reinstallation shall be carried out in accordance with applicable OPSS specifications and standard details. New footings shall be installed where required.

Following reinstallation the items shall be cleaned.

Items lost, stolen or damaged shall be replaced by the Contractor at no additional cost to the Town.

F.10.3 Measurement for Payment

Measurement shall be per item removed, salvaged and reinstalled.

F.10.4 Basis of Payment

Payment at the Contract price for the Tender item "Removed, Salvage and Reinstall....." shall be full compensation for all labour, equipment and material required to do the work.

F.11 CONCRETE SIDEWALK, MEDIANS, BOULEVARDS AND ISLANDS

Amendments to OPSS 351

OPSS 351, shall apply except as amended and extended herein.

F.11.1 Scope

Section 351.01 of OPSS 351 is extended to include construction of concrete medians, boulevards and islands.

F.11.2 Materials

F.11.2.1 Concrete

Section 351.05.01 of OPSS 351 shall be amended in that the Class of Concrete shall be CSA 32 MPa, Class C-2, the air entrainment shall be 5% to 8% prior to placement and the slump shall be less than 60mm for extruded concrete curbs and less than 90mm for placed concrete curbs and sidewalk.

F.11.2.2 Granular

Subsection 351.05.04 of OPSS 351 shall be amended in that bedding material for sidewalks shall be Granular 'A' conforming to OPSS 1010, unless specified otherwise in the Contract.

F.11.3 Construction

Subsection 351.07 of OPSS 351 is amended by the addition of the following:

Where specified on the contract drawings, approved Tactile Walking Surface Indicators (TWSI's) shall be supplied and installed in accordance with S.P. F.13.

When monolithic construction has been specified, the Contractor shall obtain written approval from the Contract Administrator prior to proceeding with non-monolithic construction.

F.11.3.1 Concrete Curing

Subsection 351.07.13 of OPSS 351 is amended by the addition of the following:

The membrane curing compound shall be applied to the concrete surface by means of approved spraying equipment that includes provision for agitation of the material so that it shall be homogeneous at the time of application.

When applicable for use, membrane curing compound shall be applied 2 metres behind finishing operations or upon dissipation of any bleed water, whichever comes later. A second coat of curing compound shall be applied within 30 to 60 minutes of the first application.

Where concrete curing has not been provided in accordance with specification requirements (such as the absence of curing procedures or delays in application of curing compounds), the contractor shall submit a remedial action plan for consideration by the owner which includes but not limited to the prolonged wet curing of the concrete. Concrete which does not conform to the contract requirements shall not be accepted into the work.

Where coverings are used as part of the curing process in areas accessible to pedestrians, the coverings shall be maintained in such a manner as to prevent trip and slip hazards.

F.11.4 Measurement for Payment

F.11.4.1 Actual Measurement

Subsection 351.09.01.01 of OPSS 351 is deleted and replaced with the following:

Measurement will be of the area of concrete in sidewalk, medians, boulevards and islands, measured in square metres.

F.11.4.2 Plan Quantity Measurement

Clause 351.09.02 of OPSS 351 is deleted and replaced by the following:

When measurement is by Plan Quantity, it may be revised by Adjusted Plan Quantity, of the horizontal area in square metres without separation into types of construction whether sidewalk, median, boulevard or island.

F.11.5 Basis of Payment

Subsection 351.10.01 of OPSS 351 is amended by the addition of the following:

No additional payment will be made for the work in connection with providing depressed access crossings as the cost of such work is deemed to be included in the Contract price for the applicable item.

The granular "A" used as sidewalk bedding shall be paid for under the "Granular A" item in this contract.

Subsection 351.10.02 of OPSS 351 is amended by the addition of the following: TWSI's shall be paid for under S.P. F.13.

F.12 CONCRETE CURB AND GUTTER

Amendments to OPSS 353

OPSS 353, shall apply except as amended and extended herein.

F.12.1 Material

F.12.1.1 Concrete

Section 353.05.01 of the OPSS 353 shall be amended in that the Class of Concrete shall be CSA 32 MPa, Class C-2 and the slump shall be less than 60mm for extruded concrete curbs.

F.12.2 Construction

F.12.2.1 Depressed Curbs at Access Crossings

Section 353.07 of OPSS 353 is amended by the addition of the following:

Depressed curbs at access crossings shall be constructed where shown on the Contract drawings or as directed by the Contract Administrator.

F.12.2.2 OPSD Type Curb and Gutter Systems

Section 353.07 of OPSS 353 is amended by the addition of the following:

Where OPSD type curb and gutter systems are designated to be constructed, the OPSD detail drawings are amended in that the additional thickness specified for the curb where adjacent to sidewalk or median shall not apply.

F.12.2.3 Extrusion Methods

Subsection 353.07.07 of OPSS is amended by the addition of the following:

Two No. 15 reinforcing bars shall be added to the curb or curb and gutter section for the full length of the depress accesses if the full section depth of 400mm is not maintained.

Two dowels, 300mm long, made of No. 15 reinforcing bars shall be installed at the end of an extruded pour in preparation for the continuation of the extruded pour the next day.

F.12.2.4 Addition of Material on Site:

Section 1350.07.07.02 of OPSS 1350 is deleted in its entirety and replaced with the following:

Normal field quality assurance testing such as slump and air content will be made on site. If the test results are out of the specified range, a re-test will be done if requested by the Contractor. This will allow the Supplier to make the necessary adjustments. If the re-test is within the specification limits, the load will be accepted only if it can be placed within (2) two hours, and no water has been added after the first hour.

If the re-test is out of the specified limits the concrete will be rejected regardless of the time limits.

F.12.3 Basis for Payment

Subsection 353.10.01 of OPSS 353 is amended by the addition of the following:

No additional payment will be made for the work in the connection with providing depressed curbs as the cost of such work is deemed to be included in the Contract price for this Tender item.

F.13 TACTILE WALKING SURFACE INDICATORS

Amendment to OPSS 351

OPSS 351, shall apply to this work except as amended and extended herein.

F.13.1 Scope

Subsection 351.01 of OPSS 351 is amended by the addition of the following:

This Special Provision covers the supply and installation of Tactile Walking Surface Indicator plates (TWSI's) for sidewalk, walkway and pathway ramps to warn visually impaired pedestrians that they are entering the roadway.

F.13.2 Design and Submission Requirements

Subsection 351.04.01 of OPSS 351 is deleted in its entirety and replaced with the following:

TWSI's shall be a black-coated and 610 to 650mm in depth and extend along the bottom portion of the depressed curb that is flush with the roadway, to the width as shown on the Contract Drawings.

For curb ramps, TWSI's shall extend the full width of the curb ramp/area.

Plates shall be parallel with the curb radius (i.e. not necessarily perpendicular to the direction of pedestrian travel). This will require the use of radius TWSI plates in some instances.

Radius TWSI's are available in various radii. Careful consideration of radius design is required as the TWSI radius shall follow as close as possible the back of curb radius. When using different radius TWSI's to match the back of a single curb radius, plates with varying radii should be alternated.

Contractor shall submit shop drawings at least two weeks before TWSI installation showing the proposed plate arrangement at each TWSI location, the width and radius as shown on the Contract Drawings, and the width and radius achieved by the proposed plates, for review by the Contract Administrator. When requested by the Contract Administrator, Contractor shall provide written confirmation that selected TWSI product meets applicable material specifications.

F.13.3 Material

Subsection 351.05.06 of OPSS 351 is deleted in its entirety and replaced with the following:

Contractor shall select products from the following list of approved suppliers and products to meet the width and radius of TWSI required at each specific location as shown on the Contract Drawings:

- a) Neenah

East Jordan - Duralast

Advantage Cast Iron

Ironped

ADA Solutions – Irondome

Bibby-Ste-Croix – Safety Detection System

Star

F.13.4 Construction

Subsection 351.07.09 of OPSS 351 is deleted in its entirety and replaced with the following: All installations shall be completed in accordance with: Contract Drawings, supplemented by the applicable detail drawings as referenced within the Contract;

Manufacturer's installation procedures; and

The following additional requirements:

TWSI's shall be set back 150 to 200mm from the back of curb. Where TWSI's are installed in monolithic sidewalk, plates shall be set back 300 to 350mm from the front face of curb.

Unless indicated otherwise on the contract drawings, for depressed corner areas serving two crossing directions provide 300mm +/- 50mm gap between the TWSI sets.

All TWSI's shall have 6mm wide x 6mm deep drain grooves at corners between the TWSI and the curb. Panel joints may be adapted for use if touching.

TWSI sets shall be bolted together with Stainless Steel bolts and nuts.

Tops of TWSI's shall be aligned and level with the adjacent concrete surface and installation in wet concrete shall be effective in permanently securing the TWSI in place once dry.

F.13.5 Measurement for Payment

No change to OPSS 351.

F.13.6 Basis of Payment

Subsection 351.10.02 of OPSS 351 is deleted in its entirety and replaced with the following:

Payment at the Contract price for the Tender item shall include full compensation for all labour, equipment and material required to do the work, including the supply, hauling, preparation, bolting, setting/placing, and finishing of the TWSI's.

No additional payment will be made for the work in connection with providing shop drawings, depressed access crossings, flared sides, curb transitions or blended transitions as the cost of such work is deemed to be included in the Contract price for the applicable item.

Where the TWSI is set in a 150-200mm concrete border to suit non-concrete sidewalks, walkways and pathways, the concrete border and base shall be paid under the applicable concrete item, separate from and in addition to the TWSI Tender item.

F.14 SIGNAGE

This Specification describes the requirements for the removal, salvage, supply and installation of signs.

F.14.1 REFERENCES

All work under these items shall be carried out in accordance with OPSS 510 and 703 except as extended or amended herein:

F.14.2 CONSTRUCTION

F.14.2.1 Removal, Salvage and Reinstallation of Existing Signs

The contractor shall remove and salvage existing sign boards on existing street lighting or traffic poles for later re-use.

The contractor shall remove and salvage existing sign boards on existing steel posts for re-use upon project completion. Existing steel posts and existing accessible parking signs shall be disposed of offsite.

The Contractor shall install salvaged signs on new street side pole at locations specified in the Contract Drawings. Installation shall be as shown in the Contract Drawings and in accordance with the requirements of latest edition of the applicable books of the Ontario Traffic Manual.

F.14.2.2 Supply and Install New Signs – Ground Mounted, Any type

The Contractor shall supply and install new signboards assembly on new posts at locations specified in the Contract Drawings. Installation shall be as shown in the Contract Drawings and in accordance with the requirements of latest edition of the applicable books of the Ontario Traffic Manual.

F.14.3 MEASUREMENT FOR PAYMENT

Measurement for payment for the item “Removal, Salvage and Reinstallation of Existing Signs” shall be by each board or board and steel post assembly removed, salvaged and reinstalled.

Measurement for payment for the item “Supply and Install New Signs – Ground Mounted, Any type” shall be by each board and post assembly installed regardless of the number of boards on a given post.

F.14.4 BASIS OF PAYMENT

Payment at the Contract price for the above item shall be full compensation for all Labour, Equipment, and Material to do the work, including the supply and installation of new poles for reinstallation of new and salvaged signs.

F.15 PRECAST CONCRETE MAINTENANCE HOLES AND CATCH BASINS

This Specification describes the requirements for the supply and installation of concrete maintenance holes and catch basins.

F.15.1 REFERENCES

All work under these items shall be carried out in accordance with OPSS 407 except as extended or amended herein:

F.15.2 CONSTRUCTION

A minimum of 300 mm of granular material shall be placed and compacted in the bottom of the excavation for bedding prior to placing the unit.

After the precast unit has been placed plumb and true to alignment and grade, and the pipe sewer connections placed and neatly grouted into the openings provided, the excavation shall be filled with Granular "A" material to a minimum thickness of 300 mm around all sides of the precast concrete unit to the full depth of the structure. The granular material shall be deposited in layers so that when compacted, each layer shall not exceed 150 mm in depth and in such manner as to not disturb the structure.

Approved hand compaction equipment shall be used to consolidate the material. Granular material for bedding and backfill purposes shall meet the requirements of OPSS 1010 and shall be compacted to 100% of the maximum dry density.

All manhole and catch basin frames and covers shall be placed to top of base course asphalt grade. Prior to placing the final lift of roadway asphalt, the Contractor shall adjust all frames and covers using precast concrete adjusters and place to final top of asphalt grade and no additional compensation will be made. All manhole and catch basin frames shall have a minimum of 1 (50 mm) concrete adjustment rings. There shall be no insert-a-ring type adjustment grates used to adjust manhole covers to final asphalt grade.

All precast catch basin and manhole joint sections shall have proper manufactured water tight seals between sections. Catch basin weep hole parging shall be decided in the field on an individual structure basis. All catch basins shall have 150 mm of perforated sub-drain with geotextile installed for a length of 3 meters in each direction, and at an elevation below the roadbed granular. The ends of the sub-drain shall be capped. All costs associated with the sub-drain shall be included in the unit cost of the catch basin.

All manhole frames must be adjusted to final grade with shims then set in concrete prior to the final lift of asphalt. The gap between the frame and adjustment ring shall be no less than 50mm to allow concrete to fill the gap. All cost associated with this shall be borne to the Contractor and included in the unit price.

The Contractor is required to submit shop drawing for review and approval prior to ordering any materials.

F.15.3 MEASUREMENT FOR PAYMENT

Measurement shall be by each structure installed.

F.15.4 BASIS OF PAYMENT

Payment at the Contract price for manholes and catch basins, as described herein shall be full compensation for all Labour, Equipment, and Material to do the work including but not limited to shoring; 'build-in' all connecting sewer pipes where shown on the Drawings, placing and compacting of Granular "A" backfill; supply and installation of frames and covers; and for all other items of work and materials incidental to the satisfactory completion of the work.

F.16

ROCK EXCAVATION FOR SEWERS AND WATERMAINS

Amendments to OPSS.MUNI 403

OPSS.MUNI 403, shall apply to rock excavation for sewers and watermains except as amended and extended.

F.16.1 Definitions

The third heading, "Rock", of Section 403.03, Definitions, of OPSS.MUNI 403 is deleted and replaced by the following:

Rock: will be considered as unfrozen material that cannot be removed using conventional excavating machinery. Rock excavation will be considered if blasting or hoe ramming is required to break the unfrozen material prior to excavation. Also, boulders larger than one-half cubic metre will be paid as rock.

F.16.2 General

Rock removal shall be conducted using mechanical methods only. Rock blasting shall NOT be permitted within the Contract Limits. All references in OPSS 403 to rock removal using blasting techniques shall be deleted.

F.16.3 Submittals

The contractor should be required to submit a detailed excavation and monitoring proposal prepared by a licensed engineer specializing in vibrations monitoring with at least 5 years of experience prior to commencing construction. The plan should provide details on the following:

- a) Qualifications of the Vibration Monitoring Specialist Engineer.
- b) Proposed vibration monitoring equipment/instrumentation and calibrations.
- c) The means and methodology for construction activities, including equipment movement, excavation of earth and rock, backfilling, and compaction.
- d) If existing pipes will be undermined, drawings and detailed installation instructions for a temporary support system that will support and protect the pipes from being damaged or displaced while work occurs below, including details on the removal of the temporary support system.
- e) An estimate of the vibration levels that the selected excavation and compaction methods/equipment will produce.
- f) Proposed locations for vibration monitoring equipment/instrumentation.
- g) Proposed method of installation.
- h) Proposed vibration monitoring recording and warning systems.
- i) Proposed monitoring triggers, precautionary actions and measures required to adjust construction methods if readings show vibrations approaching the maximum allowable levels.
- j) Proposed adjustments to construction methods if readings show vibrations exceeding maximum levels.

The Contractor shall maintain complete and accurate records of rock excavation operations. Submit records to Contract Administrator at end of each shift.

F.16.4 Survey and Vibration Monitoring

The Contractor shall retain a vibration-monitoring Consultant to carry out monitoring for ground vibration, peak sound pressure level and water over pressure. Ground vibration and peak sound pressure level shall be monitored at the nearest residence / structure or 100m from the area of mechanical rock removal. The monitoring equipment shall be repositioned as required.

All instrumentation shall have been calibrated annually and be capable of measuring and recording frequencies in three mutually perpendicular directions. A calibration certificate shall be made available up request.

The Contractor shall conduct pre-construction surveys of surrounding buildings on the areas adjacent to the construction zone per F.05 (paid under separate item). Selected existing interior and exterior cracks in the adjacent structures should be identified during the survey and should be monitored during construction for lateral or shear movements by means of pins, glass plate telltales and/or movement telltales.

The closest residence/building and/or nearest service pipe to be protected should be monitored for vibrations during construction. The monitoring equipment should be relocated, as required, such that vibrations are being monitored closest to where construction activity is occurring.

The Contractor or Contractor's Engineer shall visit property holders of adjacent buildings and structures to determine existing conditions and describe construction vibration monitoring and seismic recording operations and obtain their permission for setting up seismographs, where necessary. Adjacent building structures to the excavation works will require vibration monitoring.

The cost of vibration monitoring during construction is the responsibility of the Contractor. All construction damage claims from the neighbouring properties are the responsibility of the Contractor for resolution to the satisfaction of the building owners.

F.16.5 Vibration Control

Construction equipment shall be selected and controlled to limit the peak particle velocities at all adjacent structures and services such that vibration induced damage will be avoided, including to the remaining rock mass.

The frequency dependent peak vibration limits from OPSS.MUNI 120, as specified in the table below, should be specified in the contract for all construction activities (including hoe-ramming, vibratory compaction, etc.) for less sensitive structures. For heritage stone-masonry structures, or any other structures that are deemed sensitive to damage caused by construction-induced vibrations, the vibration limits should be reduced as shown in the third column.

Frequency (Hz)	Maximum Peak Particle Velocity, PPV (mm/s)	
	Less Sensitive Structures and Utilities	Heritage or Sensitive Structures (e.g. Churches)
≤40	20	5
>40	50	10

F.16.6 Protection

Damage to surroundings and injury to persons shall be prevented at all times.

F.16.7 Execution – General

The Contract Administrator shall be notified at least 48 hours in advance of starting work.

The Contractor shall coordinate the sequencing of rock excavation operations.

The Contractor shall comply with all municipal and other regulatory requirements.

F.16.8 Execution - Rock Excavation

Rock excavation and removal shall be performed to alignments, profiles, and cross section as indicated on the drawings using mechanical equipment (e.g. hoe ramming, mechanical shovel, line drilling in conjunction with hoe ramming, mechanical splitters, etc.).

The Contractor shall use appropriate rock removal procedures to produce uniform and stable excavation surfaces. Overbreak shall be minimized and damage to adjacent rockmass and structures shall be avoided. Contractor shall put construction control measures in place to avoid any disturbance to the bedrock vertical face outside the limits of excavation. In the event that disturbances to the rock face has occurred beyond the excavation limits, the Contractor will be responsible for full restoration of the rock face in accordance with requirements of the drawing and the satisfaction of the Contract Administrator.

Rock surfaces, which are to be bonded to concrete, shall be scaled and broom cleaned.

Loose boulders and fragments, which may slide or roll downhill, shall be removed immediately.

Unauthorized rock removal outside the limits of excavation is not permitted.

Disturbance to the adjacent rock face including the rock mass below the trench invert shall be avoided through excavation methods.

The Contractor shall maintain complete and accurate records of rock excavation operations. Submit records to Contract Administrator or Town's Site Inspector at end of each shift.

F.16.9 Tolerances

The Contractor shall employ such construction methods, necessary shoring, procedures and precautions that will ensure that excavations and adjacent rockmass are stable, free from disturbance.

The excavation shall be maintained in a drained condition (dewatered). The dewatering system shall be maintained, and surrounding areas monitored for impacts to items such as, but not limited to, settlement and groundwater usage. Any impacts shall be immediately reported to the Contract Administrator and Project Engineer.

F.16.10 Preservation and Protection of Existing Facilities

Damage to surroundings and injury to persons shall be prevented at all times. Erect fencing, post guards, and display signs when rock excavation operations are to take place.

All utilities, structures and property in the vicinity of the work, whether above or below ground, shall be sustained in place and protected from damage.

If any utility is broken or damaged, the Contract Administrator and the utility company shall be immediately notified. All sewers and drains that are broken or damaged shall be repaired immediately.

Access to fire hydrants, water and gas valves shall be maintained at all times to the satisfaction

of the local authority.

F.16.11 Measurement for Payment

Section 403.09, Measurement for Payment, of OPSS.MUNI 403 is deleted and replaced by the following:

F.16.11.1 Actual Measurement

Rock Excavation for Sewers and Watermains:

Measurement of rock excavation for sewers and watermains will be made in cubic metres. The volume of rock excavation shall be determined by the product of the following dimensions measured in place:

Width: The actual width of trench measured horizontally limited by the maximum allowable trench width specified in the Contract as the minimum width of bedding required for the pipe. No additional width will be allowed for excavation required for the construction of maintenance holes, catch basins, ditch inlets, headwall structures, valve chambers or meter chambers.

Depth: The vertical distance from the upper limit of the rock surface to the lower limits of the Designated trench. No additional depth will be allowed for excavation required for the construction of maintenance holes, catch basins, ditch inlets, headwall structures, valve chambers or meter chambers.

The upper limit is the existing rock surface as measured after removal of overburden but before rock excavation or the top of shatter, whichever is lower.

Alternatively, the Contractor will be permitted to drill through the overburden and establish the upper limit of the rock surface after excavation, from the rock surface elevations on both sides of the trench.

The lower limit will be the elevation at the bottom of the trench or at the bedding grade, whichever is the higher, except that, where the Contract Administrator directs that the excavation be carried below the specified grade, the lower limit will be such lower elevation.

Length: The length will be measured horizontally along the centreline of the trench from centre to centre of end maintenance holes, catch basins, ditch inlets, headwall structures, valve chambers, meter chamber or end of pipe not terminating in a structure, with no deductions in length for intermediate maintenance holes, catch basins, ditch inlets, valve chambers or meter chambers.

If sewers or watermains are placed in existing excavations, or part thereof, the quantity of rock previously removed shall be deducted to determine the actual quantity of rock excavation for the new trench.

Refer to the OPSD's as required for detail drawings covering excavation dimensional requirements.

F.16.12 Basis of Payment

Subsection 403.10.01, Rock Excavation for Trenches and Associated Structures - Item, of OPSS.MUNI 403 is deleted and replaced by the following:

Rock Excavation for Storm Sewers, Storm Services and Catch Basin Leads - Item

Rock Excavation for Sanitary Sewers and Sanitary Services - Item

Rock Excavation for Watermains - Item

Payment at the Contract price(s) for these Tender items shall be full compensation for all labour, equipment and material required to excavate the rock and no alterations shall be made to the payment of the associated Tender items affected. There shall be no additional payment for breaking rock once it is excavated from a trench, as this is deemed to be included in the rock excavation item. Excess material management shall be as per OPSS.MUNI 180.

The Contract price for rock excavation shall be deemed to include a credit for non-excavation of materials classified as earth.

Where the excavation for sewers and watermains overlap excavation required for other work under the Contract, then the overlapping excavation shall be paid for in accordance with the specification for such other work.

The Contractor shall not be entitled to any additional compensation for delays nor shall the Contractor be entitled to any additional compensation to alter their construction methods and/or operations, as required, to maintain vibrations at the existing buildings.

The Contractor shall remove all materials and equipment required for vibration monitoring upon completion of construction.

F.17 CONNECTING TO EXISTING MAINTENANCE HOLES, CATCH BASINS, DITCH INLETS, CULVERTS AND SEWERS

Amendments to OPSS 410

OPSS 410, shall apply except as may be amended or extended herein.

F.17.1 Definition of Existing Structures and Sewers

Section 410.09, Measurement for Payment, of OPSS 410 is amended by the addition of the following:

For purposes of measurement for payment for connecting to, or, breaking into and connecting to, existing maintenance holes, catch basins, ditch inlets, culverts and sewers, "existing" shall mean those structures and sewers that are not part of the new construction under this Contract but existed prior to the commencement of work or were subsequently constructed by others or under separate contract during the course of this Contract.

Consequently, connecting to maintenance holes, catch basins, ditch inlets, culverts and/or sewers constructed under this Contract will not be measured for payment under this Tender item, except when such connections are brought about by changes in the work as may be ordered in writing by the Contract Administrator.

Breaking into and connecting to a structure or sewer is defined as any work required to create a new opening in an "existing" structure or sewer and connecting a new sewer into the new opening, or any work required to connect to an existing" structure, sewer opening, including modifications to existing openings or sewer pipe with the exception of sewer laterals at the property line.

Connections shall be in accordance with F-4100.

F.17.2 Measurement for Payment

F.17.2.1 Actual Measurement

Subsection 410.09.01.03 of OPSS 410 is amended by the addition of the following:

For the items “Breaking into and connection to existing Storm Maintenance Holes, Catch Basins, Ditch Inlets, Pipe Culverts and Pipe Sewers” and “Breaking into and connection to existing Sanitary Maintenance Holes and Pipe Sewers”, measurement will be made of the number of new connections/openings into “existing” structures, culverts and sewers, required for the connection of the new sewer pipe, or construction of a new structure.

F.17.2.2 Plan Quantity Measurement

Subsection 410.09.02, Plan Quantity Measurement, of OPSS 410 is amended by the addition of the following:

For the items “Breaking into and connection to existing Storm Maintenance Holes, Catch Basins, Ditch Inlets, Pipe Culverts and Pipe Sewers” and “Breaking into and connection to existing Sanitary Maintenance Holes and Pipe Sewers”, measurement is by Plan Quantity, as may be revised by Adjusted Plan Quantity, of the of the number of new connections/openings into “existing” structures, culverts and sewers, required for the connection of the new sewer pipe, or construction of a new structure.

F.17.3 Basis of Payment

Subsection 410.09.02, Basis of Payment, of OPSS 410 is amended by the addition of the following

Payment for the items “Breaking into and connection to existing Storm Maintenance Holes, Catch Basins, Ditch Inlets, Pipe Culverts and Pipe Sewers” and “Breaking into and connection to existing Sanitary Maintenance Holes and Pipe Sewers” at the contract price shall be full compensation for all labour, equipment and material to do the work.

No separate payment will be made for connections of subdrains or service laterals, as this cost shall be considered incidental to the per metre cost of the subdrain or service laterals, themselves, under the appropriate item.

F.18 MAINTAINING FLOW IN SEWERS AND SEWER SERVICES

F.18.1 SCOPE

The Contractor is required to maintain the combined, storm and sanitary flows during sewer installation in accordance with OPSS 491

F.18.2 REFERENCES

OPSS 491 except as amended or extended herein:

F.18.3 DESIGN AND SUBMISSION REQUIREMENTS

The Contractor shall submit for review a detailed sewer flow management plan (SWMP) that shall be coordinated with the detailed abandonment plan. A separate SFMP shall be submitted for each sewer flow management operation. The SFMP shall consist of a written description and any necessary drawings to clearly identify how the Contractor intends to manage the sewer

flow through and/or around the work zone. The contractor is responsible for the validity of the data used to complete the SFMP.

By submitting the SFMP, the contractor confirms that field verification of the sewer and maintenance hole configuration has taken place, and that the proposed pumping plan is feasible. Additionally, the Contractor shall ensure the following:

- That the MH's identified can accept the proposed pumps and/or suction/discharge piping;
- That a suitable location for above ground equipment and discharge piping is identified, and that any traffic implications are identified;
- That opportunities to manage flows through in-pipe diversions or other lower impact methods have been considered;
- That all discharges, including concurrent discharges do not exceed maximum permissible rates;
- That the flow in all sewers and sewer services can be maintained at all times with no interruptions in service;
- That all equipment is rated for any applicable hazardous location rating;
- That sanitary wastewater is not diverted, under any circumstance, to the storm system, and that stormwater is not diverted to the sanitary system.

At minimum, the SFMP shall include the following:

- Project description and contract number;
- Description of the flow management setup (*gravity downstream by-pass, pumped downstream bypass, in-line works, etc.*);
- Structural considerations (*are modifications to the existing infrastructure required to enable bypass operation?*);
- Bypass routing drawing;
- Capacity assessment (*are selected pumps adequate for wet weather flows?*);
- Pump curve(s);
- Duration of the flow management operation (dates and times);
- Equipment monitoring plan;
- Equipment maintenance plan (*required for long duration pumping*);
- Equipment freeze protection measures (*required for cold weather pumping*);
- Measures taken to protect the public;
- Noise mitigation measures;
- Remote monitoring system (*ex: is there a need for monitoring upstream – either visually or with flow monitoring equipment?*);
- Emergency procedures, including a spill response procedure;

- Wet weather operations plan;

Three weeks prior to commencing the sewer bypass, the Contractor shall submit an electronic copy of each SFMP to the Contract Administrator.

The Contractor acknowledges that further revisions to the SFMP may be necessary before Town approval. Even once approved, the Town makes no representation and/or warranty that the SFMP is accurate, complete, or compliant with all applicable legislation. Any errors, omissions, or deficiencies within the SFMP remain the sole responsibility of the Contractor.

F.18.4 CONSTRUCTION

OPSS 491.07.03, Scope, is extended to state that flow in all sewers shall be maintained at all times with no interruption in services to properties.

The Contractor shall ensure that the flow through all storm and sanitary sewer service connections is maintained at all times.

The Contractor is deemed to have included within this item all costs associated with bypass pumping required for diversion of service connection flows and diversion of flows from the existing sewer to the new sewers as and when required.

The Contractor is deemed to have included within this item for all costs associated with bypass pumping as and when required, to divert flows in the existing sewer systems.

On no account shall the Contractor be permitted to temporarily divert any sanitary water into the storm system.

The Contractor shall be solely responsible for any back-ups, basement flooding incidents or environmental spills associated with the work. All clean up and restoration in the event of such occurrences shall be at the Contractor's cost.

The Contractor is hereby made aware of the following:.

- Water Street and Main Street Pumping Stations, located southwest of the project location, discharge via a 300mm ductile iron forcemain to a maintenance hole approximately 110m upstream of MH 706 (approximately 50m south of the Arthur Street and Stone Street intersection) at a peak flow rate of 232 L/s. The upstream pumping stations provide a dynamic head of 23.4m.
- Stone Street Pumping station, located northwest of the project location, discharges to a maintenance hole approximately 350m upstream of MH 706 at a peak flow rate of 57 L/s. The upstream pumping station provides a dynamic head of 14.5m.
- The peak sanitary flow rate, including the upstream pumping stations, is 313 L/s. This flow includes sanitary peak flow of 25 L/s from the local area.
- The sanitary sewer is known to surcharge during major rainfall events.

The Contractor shall notify the Contract Administrator two business days prior to the completion of the flow management equipment installation, to allow for pre-inspection. Pre-inspection shall be performed by a licensed operator and is complete once the Contractor signs off on the pre-inspection checklist. Pumping operations may not begin before this inspection is complete.

The Contractor shall ensure that all workers, including sub-contractors, in the working area are

familiar with the SFMP and that any necessary training to operate the equipment has been provided.

Standby pumps of equivalent capacity to the primary pumps are required at all times during the pumping operation. Such standby pumps shall be installed, connected, commissioned and in all respects ready for immediate operation prior to and throughout all bypass operations.

The Contractor shall have staff on site at all times during bypass operations, including any overnight pumping. It is assumed that overnight pumping operations will only be required under extenuating circumstances.

Temporary piping shall be buried or ramped at driveway accesses. Temporary piping shall be buried at roadway crossings and public intersections.

The Contractor shall inform the MECF and the Contract Administrator of any spills that occur during flow management operations. Spills that occur in an open excavation shall be considered reportable spills. The Contractor shall be responsible for any back-ups, basement flooding, and spills. The Contractor shall complete all clean-up and restoration work at no additional cost to the Town.

The Contractor shall immediately repair, replace, or otherwise make good any practice deemed unsafe or non-compliant to the SFMP or applicable regulations by the Contract Administrator or a licensed operator. The Contractor shall notify the Contract Administrator two business days in advance of cessation of flow management operations. Post-inspection will be performed by a licensed operator and is complete once the Contractor signs off on the post-inspection checklist.

F.18.5 MEASUREMENT FOR PAYMENT

The Tender item "Maintaining Flow in Sewers and Sewer Services" shall be paid as a lump sum item.

F.18.6 BASIS OF PAYMENT

Payment for the contract lump sum price for the item "Maintaining Flow in Sewers and Sewer Services" shall be full compensation for the plan preparation and implementation of the Sewer Flow Management and bypass and shall include all labour, equipment and materials to supply, construct, monitor and maintain all sewer flow and bypass measures. Payment shall be based upon the following schedule:

- a) 25% upon satisfactory submission of the first Sewer Flow Management Plan.
- b) 75% pro-rated into equal payments over the term of the contract.

No additional payment will be made for required revisions to the submitted plans as per comments provided by the Contract Administrator.

This payment schedule may only be modified as agreed upon in writing between the Contractor and the Contract Administrator.

F.19 TEMPORARY WATER

Temporary overland water distribution on Arthur Street (Charles Street to Stone Street) will be required and is to be supplied, installed, commissioned, maintained, decommissioned, and disassembled by the Contractor. The contractor will be required to plan their work so as to not interfere with the conveyance of water to residents via the temporary overland water distribution, during this contract. This temporary overland water distribution system may cross streets to ensure the adequate supply of water to residents in the area affected by construction. The contractor will ensure that, in locations where the temporary overland water distribution pipes cross the roadway, that they are adequately supported when excavating and installing pipes underneath, to the satisfaction of the Town.

F.19.1 SCOPE

This Specification describes the requirements for the installation of temporary water mains, service connections and associated appurtenances prior to disconnecting service of an existing watermain on a temporary basis.

F.19.2 REFERENCES

The provisions of OPSS 493 shall apply except as modified herein.

F.19.3 MATERIALS

All temporary water pipe shall be NSF 61 compliant.

Material shall be capable of having the pipe contents freeze and thaw without breaking the pipe or fittings.

Embedment material shall be Granular A. Bedding material shall be Granular A. Cover material shall be Granular A.

Backfill material shall be acceptable Native Material and/or Granular A.

F.19.4 CONSTRUCTION

The Contractor must provide temporary potable water supply to residents under the approval of the Owner. Water shall be supplied by approved temporary by-pass line and service connections complete with valves and backflow prevention devices as required. All supply points for temporary water systems must be obtained from a watermain, connections to fire hydrants will not be permitted.

Temporary water supply shall maintain existing flows and pressures. Temporary fire hydrants shall not be required.

Connections to the private plumbing system of a residential unit shall be by one of the following methods:

Dig the water service at the property line and connect directly to the existing service at or near the curb stop. All safety procedures must be met to protect the open trench, and the property owner must be notified of the need for a temporary shutdown to allow the temporary condition.

For individual property connections, the pipe, hose and all other materials which are to be furnished by the Contractor for use in conjunction with the temporary service pipe and temporary connections to property services and branches shall be approved by the Owner, and shall be fully adequate to withstand the pressures and all other conditions of use and shall be of material which does not impart any taste or odour to the water.

The pipe and fittings shall be able to withstand the design pressure without visual leakage. Care shall be exercised throughout the installation of any temporary pipe and service fittings to avoid any possible contamination of any watermain or property service or contamination of the temporary service pipe proper.

The by-pass line and private service connections shall be chlorinated prior to their use. The temporary service connections shall include a valve near the point of connection to the by-pass line and at the connection to the private plumbing system so that both the by-pass and private services may be chlorinated except for the final connection.

The Contractor shall be responsible for all flushing and disinfection operations. The Contractor shall also be responsible for all sampling and testing, including chlorine residual and bacteriological testing. All flushing, disinfecting and testing shall be completed in the presence of the Contract Administrator.

After the project work is completed and/or municipal water service connections restored and excavations backfilled, the main will be returned to service and the temporary water supply lines shall be removed.

The Contractor shall be responsible for all work and costs associated with supplying, maintaining and removing the temporary water.

F.19.5 DESIGN AND SUBMISSION REQUIREMENTS

The Contractor shall submit a detailed plan of his proposed temporary supply scheme to the Contract Administrator for review, at least 5 business days prior to implementation.

F.19.6 MEASUREMENT FOR PAYMENT

Measurement of Temporary Water shall be by Lump Sum.

F.19.7 BASIS OF PAYMENT

Payment at the contract price for the above Tender item shall be full compensation for all labour, equipment and material required to do the work.

Payment for this item shall be made as follows:

50% for installation of measures outlined above;

50% for maintenance prorated over construction period.

F.20 WATERMAIN CONSTRUCTION STANDARDS AND PROCEDURES

F.20.1 GENERAL

- a. Compliance; The owner and operating authority shall ensure that any person authorized to carry out work on or to operate any aspect of the drinking water system has been informed of the SDWA, all applicable regulations made in accordance with that act, the drinking water works permit and licence and shall take all reasonable measures to ensure any such person complies with the same. (see attached Town of Gananoque Drinking Water System Legislative Overview)
- b. All water main materials required to complete the work shall be supplied by the contractor. The following is a list of typical materials to be supplied by the Contractor and shall meet Table 1 Section E – Town of Gananoque’s Approved Materials; pipe, valves, reducers, curb stops, service boxes, bends, tees, solid sleeves, restraining systems, anodes, tracer wire, saddles, ducts and all necessary fittings.
- c. The Contractor shall provide all necessary labor and equipment to complete the installation and removal of all water main and appurtenances. The work shall consist of but not be limited to the following items; all removals, earth excavation, bedding, backfilling, installation of pipe, tees, crosses, reducers, bends, valves, sleeves, anodes, tracer wire and the preparation for cleaning, disinfecting and pressure testing water mains.
- d. It will be the Contractor’s responsibility to provide granular bedding and cover material as specified.
- e. The Contractor shall supply and install insulation to protect water main and appurtenances as required and at the discretion of the Engineer.
- f. Tie-ins of the new water main to existing mains shall be performed by the Contractor under the supervision of a Town of Gananoque’s licensed Water Distribution Operator and the cost of such tie-in shall be included in the unit price for the installation of the water main. The Contractor shall install (2) 50mm saddles at tie-ins for filling the mains, chlorine testing and flushing. The lines from the saddles shall be removed from the main stop once all water main testing has passed. The Contract Drawings indicate the general location of tie-in points. The Contractor will be responsible for locating and carefully uncovering the existing mains and services that are to be tied into, sufficiently in advance of the actual tie-in, in order for the alignment or grade of the new pipe being laid to be altered if necessary and/or appropriate fittings can be installed for the tie-ins.
- g. All existing underground plant encountered by the Contractor whether shown on the drawings or not is the Contractor’s responsibility to maintain and or repair if damaged by the Contractor at the discretion of the Engineer in some cases the Contractor may be required to install fittings on the water main in order to avoid an obstruction; all such costs shall be the responsibility of the Contractor.

- h. Concrete thrust blocking is not allowed on water main construction except for special circumstances. Concrete thrust block application must be approved by the Engineer. In special instances, thrust blocks may need to be designed and stamped by a Consulting Engineer.
- i. All fittings supplied will be ductile iron and will be mechanically restrained with Romac restraining glands.
- j. All residential services will be 19 mm Type "K" copper, unless otherwise noted on the Contract Drawings.
- k. Flushing of the new water main system to remove all dirt and debris
- l. The Contractor may be required to install the water main in stages as approved by the Town. The Contractor will be responsible for any temporary back feed system to residents. The Contractor maybe required to schedule their activities to preserve the temporary back feed system. The temporary back feed system may have to be excavated after the project is complete by the Contractor.
- m. The Contractor will be responsible for providing utility support, including pole support where deemed necessary by the utility company, at no additional cost to the Town.
- n. All water main fittings and appurtenances shall meet regulations (NSF-372).

F.20.2 LAYING AND JOINTING

- a. Bedding shall be as shown on the Standard Drawings or in accordance with OPSD 802.013 and 802.014 for flexible pipe and OPSD 802.030, 802.031, 802.032 and 802.034 for rigid pipe.
- b. No defective pipe or fitting shall be installed. The Contractor shall inspect all material for defects prior to installation. All pipes shall be new and free of any discoloration.
- c. The Contractor shall maintain all pipe and fittings free of dirt, oil, grease and other contaminants.
- d. All pipes and fitting shall be laid to the lines and grades established by the Engineer and as shown on the Drawings. Laying of pipe shall be in accordance with AWWA Specification C-605-05. All caps, bends and all fittings shall be securely mechanically restrained using a gland restraining system to the satisfaction of the Engineer and without additional compensation to the Contractor. The Contractor shall be liable for any damage caused by the failure of all field installed joints or connections.

- e. Water main bedding compaction shall be in accordance with the pipe manufacturer's recommendations or OPSS 514.07.10.03 as a minimum.

F.20.3 VALVE INSTALLATION

- Valves shall be mechanically restrained and placed with the stem vertical at the points indicated by the Engineer and as shown on the Contact Drawings. Valve boxes shall be set vertical well centered over the valve, with the top at grade if in a boulevard, lawn or driveway. All valve boxes placed in the roadway shall be adjusted to suite each lift of asphalt and no additional compensation will be made to the Contractor for these adjustments. All valve boxes shall be supplied by Bibby and shall be cast iron material.

F.20.4 TRENCH BACKFILL

- Trenches shall be backfilled with approved native material that must be capable of passing through a 150 mm screen sieve or imported Granular "B" backfill maybe used as directed by the Engineer. Backfill shall be placed in evenly distributed layers capable of being mechanically compacted. The Contractor shall provide mechanical compaction equipment capable of obtaining 95% Standard Proctor Density for all backfilled trench material.

F.20.5 WATER MAINS

- Water main material will be Polyvinyl Chloride pipe (PVC) Class 235 (DR 18) AWWA C900-07 Tyton Joint or IPEX Biaxially Oriented (Bionax) Class 235 PVC pipe to AWWA 909-09 specifications.

F.20.6 VALVES AND HYDRANTS

- Water main and hydrant control valves in the 100 – 250 mm range will be **Mueller** resilient seating gate valves (AWWA C509-09) with mechanical joint connections. Valves will operate clockwise to close with a non-rising stem. Valves will be complete with the standard AWWA 50 mm operating nut.
- Water main control valves greater than 250 mm will be **Mueller** butterfly valves in accordance with AWWA C504-00, Class 150B designed for direct burial. Actuator will be rack and pinion type clockwise to close, and be complete with the standard AWWA 50 mm operating nut. Valves will be complete with mechanical joint connections.
- Hydrants will comply with AWWA C502-94 and must be mechanically restrained at each joint. Any hydrants with a horizontal distance less than 1.5 meters from the water main shall also be rodded to the tee on the water main. The following hydrant is approved for use by the Town on this project: **Canada Valve Century**.

- The following specifications shall be conformed to:
 - Size 150 mm; depth of bury 2 m; counter clockwise opening; (2) -65 mm Canadian Underwriters Association approved hose connections and one 100 mm Stortz pumper fitting; two-piece barrels with breakaway flange; drain ring; painted yellow.
- Pipe fittings (bends, tees, crosses, reducers, etc.) will be mechanical joint type and have cement mortar lining (AWWA C-111/A21.11.07) for use with PVC pipe.
- Valve boxes shall be complete (fully metallic) three (3) piece cast iron sliding type with guide-plates.

F.20.7 SERVICE MATERIAL

- Service Saddles
 - Service saddles shall be broad band stainless steel, Cambridge Brass Model 302.
- Service Pipe
 - Water service pipes up to 37.5 mm dia. shall be Type 'K' soft copper with a minimum pressure rating of 1035 kPa.
 - Water service pipes over 37.5 mm dia. shall be PVC DR18 pipe, meeting the specifications required for water main pipe and fittings.
- Corporation Stops
 - Corporation main stops shall meet AWWA Spec. C-800-05.
 - Corporation main stops shall be inverted key type with compression connections and shall open counter clockwise. Corporation stops shall be Mueller H-15008 or Cambridge Brass 302-A3H3 or Ford 1000-3.
- Curb Stops
 - Curb stops shall meet AWWA Spec. C-800-05
 - Curb stops shall have compression type connections, O-ring seals, and shall open counter clockwise. Curb stops shall be Mueller Oriseal H-15209 or Cambridge Brass 202-A3H3 or Ford B44-333.

- No self-draining curb stops are allowed to be used for services; they may be used for flushing points only.
- Service Boxes
 - Service boxes shall be Bibby Multi Service Boxes code 7266 with Stainless Steel rods code – 7261 c/w SS cotter keys.
- Couplers
 - Couplers shall be compression type with minimum pressure rating of 1035 kPa. Couplers shall be supplied by Mueller, Cambridge Brass or Ford.

F.20.8 FLUSHING, DISINFECTION, LEAKAGE AND PRESSURE TESTING

- The Contractor shall follow the Ontario MECP Water Main Disinfection Procedure and shall submit a disinfection plan/procedure to the Town for approval.
- Mains shall be thoroughly flushed and swabbed to remove all dirt and debris previous to the disinfection process.
- Swabbing:
 - Unless otherwise approved by the Contract Administrator, all new watermain sections up to and including 300 mm diameter, which are 5.5 m or longer shall be cleaned by swabbing prior to disinfection. The Contractor shall obtain permission to proceed from the Contract Administrator before flushing and swabbing. Permission to proceed shall not relieve the Contractor of total responsibility for the swabbing operation. All swabbing must be done in the presence of the Contract Administrator.
 - The watermain shall be swabbed with a minimum of three swabs put through the entire system and each hydrant. Swabs shall be of one piece construction with a cone shaped leading edge and a density ranging from 32 kg/m³ to 128 kg/m³, sized a minimum of 50 mm larger than the nominal pipe diameter and with a minimum length of one and one half (1.5) times its diameter. Swab may have a rotating patterned surface. The swabs shall be clearly identified as per the proposed methodology. Only new clean swabs are to be used
 - Swabs shall be launched into the new watermain at hydrants, or at special entry sections installed by the Contractor utilizing an appropriate swab launcher facility. Swabbing is to continue until the discharge water runs clear.
 - The Contractor shall control and dispose off-site all discharge water from the swabbing operation meeting requirements of all applicable acts, legislation and regulations.

- The Contractor shall not rely on the Municipality's water supply to achieve the required flow rate. The Contractor shall consider additional storage, pumps or shorter swabbing lengths instead.
 - Where possible, the swab shall travel from a low elevation launch location to a high elevation discharge location to provide better control over the swab speed.
 - The Contractor shall provide all piping complete with a valve at the discharge point to provide controlled discharge of the water used in the swabbing operation. Additional outlet connections will be at the Contractors expense. Swabs shall be retrieved from the watermain utilizing swab catcher outlet connections.
 - The swabs shall be marked (numbered) as per the approved procedure and must be inspected by the Contract Administrator after the swabbing operation is complete.
 - The Contractor shall repeat the swabbing procedure as often as required to achieve the required result, at no additional cost to the Town.
 - The watermain shall be flushed until the water is clear of swab material and all pieces of the swab are to be accounted for.
-
- The disinfection procedure which follows initial flushing and cleaning consists of chlorination, final flushing and bacteriological testing. Disinfection shall be performed by the Contractor in accordance with Ministry of Environment and AWWA guidelines (including MECP Watermain Disinfection Procedure, August 2020) under supervision of Town Staff. Disinfectant shall be ANSI approved dosages and can be calculated using AWWA C-651-14. Chemicals used for the disinfection process are to be 12% Sodium Hypochlorite as per AWWA-B300-10 and certified in accordance with ANSI/NSF60. Testing and test results must be completed by Town Staff.
 - All disinfectant water is to be removed and replaced with distribution system water by the Contractor prior to pressure testing of the water main.
 - Pressure testing of all water mains and appurtenances installed by the Contractor shall be performed by Contractor under supervision of Town Staff.
 - Mains and services shall be pressure tested at 825 kPa (125 psi) in accordance with AWWA C-605-05 (minimum requirement).
 - Leakage tests to maintain the test pressure shall be conducted as per AWWA C-605-05 (minimum requirement).
 - When the disinfection and pressure testing has been approved, the water main shall be flushed down to street level chlorine residual and bacteriological testing completed. All flushing and bacteriological testing will be completed by Town Staff.

- Bacteriological testing shall consist of two samplings twenty-four hours apart. If both bacteriological samples are satisfactory, the water main may be connected to the existing water main under the supervision of Town staff and following the Ontario MECP Disinfection Procedure for maintenance work.
- Blow-offs shall be installed in the field as determined by the Engineer to provide for pressure testing and chlorination of the water lines. Blow-offs may need to be removed after all testing is completed.
- The costs associated with labour, equipment and material associated with the above work shall be deemed to be included in the unit price bid for water main installation.

F.20.8.1 WORK TO BE COMPLETED BY CONTRACTOR

- All costs shall be paid by the Town for the Contractor to perform the following tasks:
 - Pressure testing
 - Flushing
 - Swabbing
 - Bacteriological testing comprising of two tests, 24 hours apart.

The contractor shall submit the following:

- Disinfection watermain pressure testing records, where this testing is completed or witnessed by Town staff;
 - Bacteriological test results, where this testing is completed or coordinated through Town staff;
 - Hydrant lead locations and valve location ties;
 - Valve box and curb stop measurements;
 - Service connection cards or a tabulated service connection record; and
 - Tracer wire continuity testing for non-metallic watermain and services.
- All water mains shall be installed with a gap from the existing water system and shall meet AWWA 651-14; All materials to make connection for testing shall be supplied, installed and removed by the Contractor; all costs shall be paid under the unit price for water main.

F.20.9 ITEMS SUPPLIED BY THE TOWN

- The Town shall supply the following:
 - Hypochlorite

F.20.10 CATHODIC PROTECTION

- Anode Material
 - Anode Material shall be made of High Purity Zinc, 99.99% pure, conforming to STMS-B-418-73, Type II for use in soil.
 - Metallic core
 - Anode must have a metallic core or fusion bonded sleeve for providing solid metallic contact. The zinc itself should not be used to make contact.
 - Gypsum Backfill
 - The zinc anode shall be complete with a depolarizing gypsum base material surrounding the zinc anode. Anodes shall be supplied in packaged form for this purpose.
 - Anode Sizes Required
- Fittings
 - DZP-230-6 100mm
 - DZP-230-6 150mm
 - DZP-230-6 200mm
 - DZP-550-12 250mm
 - DZP-550-12 300mm
- Hydrants & Valves
 - DZP-1100-24 1 HYDRANT AND 1 VALVE
 - DZP-550-24 OPTIONAL 1 PER HYDRANT, 1 PER VALVE
- Copper Services
 - DZP-550-12 SERVICES OVER 12 METERS
 - DZP-230-6 SERVICES UNDER 12 METERS LONG
- Contact

- Contact of anodes to fittings, hydrants and valves shall be made using the double nut method on mechanical joints and/or the Cadweld method using CA-15 Cartridge.
- Placement of Anodes
 - Anodes shall be placed in a horizontal position at the same depth as the fitting/service being protected. Anodes shall have a minimum 600 mm separation from protected fittings/services. Backfill shall be performed as normal using similar material to that being used for the protected fitting/service.

Note: Do not lower anodes into place using the lead wire.

- The cathodic protection system shall be implemented as per National Association of Corrosion Engineers guidelines and the work shall be completed by the Contractor. The Contractor shall assume that protection will be required at all fittings and will be bolt-on type connections. Anodes shall be supplied by the Contractor.
- The Contractor's labour and equipment costs associated with the installation of the cathodic protection system shall be deemed to be included in the unit price bid for the water main installation.

F.20.11 INSTALLATION OF WATER MAINS

- The Contractor shall make arrangements with, and give a minimum of **48 hours'** notice to the Town for the closing off of necessary valves in the water distribution system. The Town will operate valves at the time of tie-ins, etc. at no cost to the contractor during normal working hours 7:00 am to 3:30 pm. The contractor will be responsible to pay for all costs for city staff outside of normal working hours and for emergency calls when less than 48 hours' notice is given.
- Measurement for payment shall be the length in meters of pipe installed. No deduction shall be made for the length occupied by valves and fittings.
- The Tendered price shall include the cost of excavation, complete installation, and backfilling the water main including installation of all sleeves, bends, tees, reducers, anodes, tracer wire, reaction blocking, and any special fittings required to complete the installation, as well as removal and disposal of the old water main. Any asbestos water main shall be removed as per Section B, Removal of Existing Asbestos-Cement Pipe and Disposal Off-Site.
- Tracer wire shall be installed on all plastic pipes, including non-metallic services and on all hydrant leads. Tracer wire is not to be taped to the pipe with Duct tape. The tracer wire is to be laid along with the pipe in the trench. The wire shall be brought to the surface at all hydrants, incorporating a 25mm PVC

conduit taped to the hydrant barrel. Termination or looping of the wire will be via a cathodic test station (Finklet or equivalent). Any wire joints will be enclosed in "KLIK-IT" wire splice closures. Upon completion of the water main and water services, the tracer wire shall be tested for continuity by the Town and any breaks shall be repaired at the Contractor's expense.

- For the unit price per meter for this item, the Contractor shall excavate, haul and dispose of all pavement, concrete sidewalk, concrete curb, granulars, and earth in order to facilitate placement of the water main. The Contractor shall make every effort to separate asphalt and earth, which is suitable for backfill, to ensure sufficient suitable material is available for backfilling.
- The cost for removal and disposal of bituminous pavement shall be deemed to be included in the Tendered price for the above item.

F.20.12 INSTALLATION OF WATER VALVES AND BOXES

- The Tendered price shall be full compensation for all labour and equipment to make the connection to the new water mains and services, including sleeves, couplings, reaction blocking and any special fittings required to make the proper connection. The cost of excavation, bedding and backfilling shall also be included in the Tendered price.

F.20.13 INSTALLATION OF WATER SERVICES

- The Tendered price shall include the cost of the supply of labour and equipment for excavation, complete installation and backfilling the water services as shown on the Drawings and as directed by the Town.
- New services shall be installed to the property line or to the existing curb stop as directed by the Town. New curb stops are to be placed 300 mm from property line, within the Town road allowance. It will be necessary to replace all existing curb stop and service boxes. It is the Contractor's responsibility to ensure that each new service and curb stop is properly connected to the existing service with approved couplers.

F.20.14 REMOVAL OF EXISTING FITTINGS, WATER MAIN AND SERVICES

- All existing valves, hydrants, sleeves and fittings removed shall remain the property of the Town and shall be carefully removed and delivered to the Town of Gananoque Public Works Office.
- Payment at the unit price for water main items shall also be complete compensation for the removal and disposal of all old water mains and services. Where it is impractical to remove existing water mains and such water mains

are not within the excavation for a proposed main or service excavation, in lieu of removal, all exposed ends are to be capped with concrete and wrapped with polyethylene plastic.

F.20.15 INSTALLATION OF HYDRANT SET

- For the purposes of this item, a hydrant set shall consist of the hydrant, the valve and all fittings and pipe required for connection of the fire hydrant to the water main.
- The Unit Price shall include the cost of all labour and equipment required for the installation of the hydrant set. Installation shall include connection to the new water main and all excavation, backfilling, restraining and/or blocking required, as shown on the Contract Drawing and as directed by the Engineer.

F.20.16 MEASUREMENT FOR PAYMENT

The requirements described herein shall be considered incidental to the scope of work which the Contractor shall be responsible to fulfill as part of the overall Contract requirements related to the water plant installation.

F.20.17 BASIS OF PAYMENT

Payment at the Contract price for the applicable Tender item(s) specified for the water plant shall be full compensation for all labour, equipment and materials required to do the work.

F.21 INSULATION FOR WATERMAINS

F.21.1 SCOPE

This Specification describes the requirements for the supply and installation of insulation. Insulation is required for watermains and water services with less than 2.4m of cover and with less than 2.4m of separation from a catchbasin or manhole. Insulation shall be installed in accordance with the details shown on the Contract Drawings.

F.21.2 MATERIALS

Extruded polystyrene insulation boards to be Grade A (minimum 275 kPa compressive strength).

F.21.3 MEASUREMENT FOR PAYMENT

Measurement shall be by square meters of 50mm thick board insulation.

F.21.4 BASIS OF PAYMENT

Payment at the Contract price for the above item shall be full compensation for all Labour, Equipment, and Material to do the work.

F.22 PROVISIONAL ITEMS

Where this Special Provision is referenced, or where the notation "Provisional Item" or "Provisional" occurs in the Contract, it shall be understood to mean that the inclusion in the contract of items so described, shall be at the sole discretion of the Contract Administrator. No claims for extra payment due to the exclusion of any or all of these items will be accepted by the Contract Administrator.

These Tender items will not be considered a Major Item in accordance with GC1.04 and so the provisions of GC8.01.02.01) a) and b) will not apply to these items.

F.23 CLEANING OF CATCH BASINS AND SEWER STRUCTURES

The Contractor shall clean all structures in which the iron has been adjusted.

- a) "Cleaning" shall be defined as the removal, by machine, and disposal of all soil, asphalt, concrete, sticks, stone, litter, etc., to the satisfaction of the of the Contract Administrator or authorized delegate. Any materials not removed by machine shall be removed by hand.

Disposal of all materials shall be the sole responsibility of the successful Contractor. There will be no additional reimbursement for the removal and disposal of materials.

It shall be the responsibility of the Contractor to be aware of, and to possess, all applicable licenses and certificates which may be required by the Ministry of the Environment and Climate Change, or by other provincial or federal authorities, in order to comply with the collection, transportation, and disposal of cleaning residue.

F.23.1 Basis of Payment

Payment for this provision shall be included in the applicable Contract items, i.e. "Adjusting or Rebuilding Catch Basins, any size, any type including twin", "Adjusting or Rebuilding Maintenance holes and valve Chambers, any size, any type", "Adjust or Rebuild Electrical Hand Hole or Maintenance Hole", "Adjust or Rebuild Electrical Hand Hole or Maintenance Hole", "Adjust or rebuild electrical maintenance hole for streetlighting"

F.24 CONNECT TO EXISTING SUBDRAIN

F.24.1 Scope

This Special Provision covers connections of subdrain to existing subdrain.

F.24.2 General

OPSS 405 shall apply, except as amended and extended herein:

Under "Construction", add section "Connect to Existing Subdrain", as follows:

"Where specified, new subdrain shall be connected to existing subdrain using a suitable coupler. Prior to laying new subdrain, the Contractor shall be responsible for confirming the depth of the existing subdrain and shall lay the new subdrain at an appropriate depth to allow positive drainage. The Contractor shall advise the Contract Administrator if an existing subdrain cannot be found, or is not in suitable condition for connection."

F.24.3 Basis of Payment

All work described by this special provision is considered to be incidental to the item "100mm Perforated subdrain". No separate or additional payment will be made.

F.25 LABOUR AND EQUIPMENT

F.25.1 SCOPE

During the course of this Contract the Contract Administrator may require the Contractor to perform certain work which the Contract Administrator does not consider included in other Tender items listed in the Schedule of Prices.

The Contractor must obtain written permission from the Contract Administrator prior to commencing with this work and no payment will be made for any work performed without the Contract Administrator's authorization.

F.25.2 MEASUREMENT FOR PAYMENT

Measurement shall be by hours for all items listed in Section H of Schedule of Prices.

F.25.3 BASIS OF PAYMENT

The Contract unit price per hour for labour shall include the cost of any supervisory staff that may be required and the supply of all tools necessary for hand labour work.

The Contract unit price per hour for equipment shall include the operator's wages and the cost of all fuel, lubricant, repairs, etc.

All costs associated with the management and disposal of materials resulting from the work performed by the labour force or operation of the equipment shall be deemed to be included in the Contract unit price for the workers. Management of material shall conform to OPSS 180.

Payment shall be made only for the time in which the labour force is effectively employed on the work or the time in which the equipment is in effective operation.

F.26 WELL ABANDONMENT

F.26.1 General Requirements

A monitoring well is located in the work area and shall be properly decommissioned prior to any construction activities being undertaken. The well is located at **Borehole 9**. The construction details of this well are provided on the corresponding Record of Borehole Sheets provided in the Geotechnical Report for this project.

The well abandonment method must satisfy the minimum requirements of Ontario Regulation 903. Approval of the proposed abandonment methodology, including plugging material used, depth of plugging material and limit of the casing removal, must be obtained from the Contract Administrator before proceeding. In addition, the Contractor shall provide a copy of the well record (for the abandonment) to the Contract Administrator.

Without superseding the full scope of Ontario Regulation 903, the abandonment of the well should at least include plugging the wells using an abandonment barrier, starting from the bottom, up to approximately two metres from the ground surface.

F.26.2 Basis of Payment

Payment at the Contract price for the Tender item "Well Abandonment" shall be on a per well basis, the price of which shall include full compensation for all labour, equipment and materials required to properly abandon each monitoring well including reporting and documentation.

F.27 LUMINAIRES

This Specification describes the requirements for the supply and installation of roadway and pedestrian lighting luminaires.

Amendments to OPSS 617

OPSS 617 shall apply except as amended and extended herein.

Decorative LED Lighting Luminaires and accessories shall be according to the Luminaire Schedule provided in the Contract Documents.

All luminaires shall be colour black.

F.28 ALUMINIUM POLES

This Specification describes the requirements for the supply and installation of aluminum poles for streetlighting.

Amendments to OPSS 604

OPSS 604 shall apply except as amended and extended herein.

Poles shall be according to the Pole Schedule provided in the Contract Documents.

All poles shall be coloured black.

F.29 INTERLOCKING CONCRETE AND DECORATIVE STONE PAVING

Amendment to OPSS 355

OPSS 355 shall apply to this work except as amended herein.

F.29.1 MATERIALS

Subsection 355.05.04 of OPSS 355 is amended by the addition of the following:

Concrete Pavers:

Model: Villagio or approved equal.

Size: 150mm x 300mm X 100mm thick

Colour: Merlot

Finish: Granitex

Laying Pattern: Herringbone

Manufacturer: Techo-Bloc

Decorative Stone Pavers:

Model: Maya or approved equal.

Colour: Rivera

Manufacturer: Techo-Bloc

Joint Sand:

Techniseal HP polymeric sand or approved equal.

Bedding Sand:

Bedding sand per OPSS 355.

Supplier information and a sample of the concrete pavers and Joint Sand shall be provided for approval by the Owner's Representative prior to ordering material. The pattern of the pavers shall be as specified in the Contract Documents.

F.29.2 CONSTRUCTION

Subsection 355.07.04.01 of OPSS 355 is deleted and replaced with the following:

The levelling course (bedding sand) shall be placed loose, in a uniform layer at a maximum depth of 25mm to achieve the final compacted thickness and grade as specified.

The pavers are then placed on top of the leveling course and polymeric sand shall be swept between the pavers.

The pavers are then vibrated into place with a vibra-plate and water is added to harden the polymeric sand.

F.29.3 MEASUREMENT FOR PAYMENT

Measurement for payment shall be made for the area of concrete pavers placed in square metres without deduction for maintenance hole covers, utility poles, and other appurtenances.

F.29.4 BASIS OF PAYMENT

Payment at the Contract price for the above item shall be full compensation for all labour, Equipment, and Material to do the work including excavation, stone dust levelling course and mortar sand.

Removal and reinstallation of loose concrete pavers or concrete pavers not meeting surface tolerances shall be at no extra cost to the Owner.

Removal and replacement of damaged concrete pavers shall be at no additional cost to the Owner.

The Granular 'A' shall be paid for under the Granular 'A' item.

F.30 FIELD OFFICE FOR CONTRACT ADMINISTRATOR

F.30.1 SCOPE

Under this Tender item, the Contractor shall supply and maintain a field office and its associated items for the sole use of the Contract Administrator and staff.

DESIGN AND SUBMISSION REQUIREMENTS

F.30.2 1001.04.01 Location

Prior to the commencement of work on this Tender item, the Contractor shall receive approval from the Contract Administrator for the location of the field office and shall have the field office installed and operational.

Where a suitable location for the field office cannot be secured within the Town's road allowance, the Contractor shall arrange for a site office with all amenities to be located in a local office building within the construction limits to the satisfaction of the Contract Administrator.

F.30.3 Field Office Dimensions and Condition

The field office shall have a floor area between 35 and 75 square metres. It shall have an inside minimum clearance of two (2) metres.

All doors shall be solid and capable of being locked with a 25 mm throw dead bolt lock, and two sets of keys will be supplied to the Contract Administrator.

The inside of the field office shall be moisture tight and capable of being lit to a level that is satisfactory to the Contract Administrator. Security screening shall be provided for doors and windows. It shall have adequate windows, exterior door lights and heating and ventilating equipment capable of maintaining the working area at 21°C during both summer and winter weather conditions.

EQUIPMENT

F.30.4 Field Office Equipment

The Contractor shall supply for the sole use of the Contract Administrator the following furnishings for the appropriate trailer size:

Floor Area 20-34 m ²	Floor Area 35-70 m ²
1 desk and office desk chair	2 desks and 2 office desk chairs
1 drafting tables (2 m ²)	2 drafting tables (2 m ² ea.)
1 lockable filing cabinet (3 drawer)	1 lockable filing cabinet (4 drawers)
3 chairs	4 chairs
Table to accommodate site meeting	Table to accommodate site meeting
Garbage cans	Garbage cans
Cleaning supplies for field office	Cleaning supplies for field office

The Contractor shall supply or arrange to supply a water cooler capable of maintaining a water supply at 7°C. Water shall be potable and supplied at a rate as dictated by the Contract Administrator.

The Contractor shall provide a properly calibrated level with a graduated metric rod for the sole use of the Contract Administrator to check the accuracy of the work. The Contractor shall supply and maintain the following field office equipment for the exclusive use of Contract Administration staff:

- a. **High Speed Internet** – Supply of one (1) “Air Card” for High Speed Internet Access (compatible with Contract Administrator supplied laptop computer) including all fees related to activation and monthly subscription.
- b. **Printer** – One (1) Four-in-One Inkjet printer with Printer, Copier, Scanner and Fax capability (legal size minimum). The Contractor shall be responsible for maintaining an adequate supply of ‘Letter’ and ‘Legal’ size paper, and ink cartridges.
- c. **Meeting Tables and Chairs** – One (1) Collapsible Table (96” x 30” minimum size) and a minimum of ten (10) foldable chairs for meeting attendees. The supplied site office must be sized adequately for the set-up of the required meeting tables and chairs, and provide clearance space enough for meeting attendees to come-and-go as required.
- d. **Dry Erase White Board** – One (1) Dry Erase White Board (48” x 36” minimum size)

F.30.5 1001.06.02 Utilities and Sanitary Facilities

The Contractor shall provide within the floor area of the field office hydro facilities for the sole use of the Contract Administrator. If unable to secure a connection with hydro, the Contractor shall provide a whisper generator large enough to power all trailer requirements.

It is the Contractor’s responsibility to provide and maintain adequate sanitary facilities for the exclusive use by Owner’s staff and its Consultants in accordance with the *Occupational Health and Safety Act* and its regulations, as amended.

CONSTRUCTION

F.30.6 Cleaning Service

The Contractor shall make provisions for weekly cleaning of the trailer. Weekly cleaning shall include the following:

Area to be cleaned	Detail
Floor Area	<p><u>Hard floors:</u> All floors shall be swept and mopped with a disinfectant solution. This includes corners and reachable areas (behind and under if applicable trash bins, fixtures and other equipment where a mop and broom are reachable).</p> <p><u>Carpet:</u> All carpeted areas shall be vacuumed. This includes under tables, around fixtures. Carpets shall be spot cleaned when soiled.</p>
General	All wastepaper, trash and recycle bin containers shall be emptied, returned to original locations. Remove trash from all areas to outside garbage, container/bins. Wipe residue from any containers.
General	Spot clean all shelves, wall doors, desktops, chairs and work surfaces.
General	Damp wipe mirrors and clean glass/window surfaces to ensure removal of all dirt, dust and streaks.
Dusting	Dust all furniture including desks, chairs, tables, filing cabinets, bookcases, partitions, office equipment, ledges, baseboards, open shelves, screens and light fixtures.
Dusting	Dust venetian blinds.
Dusting	Dust and clean all HVAC intake and outtake vents, light switches and other mounted items.

F.30.7 Recycling and Composting of Worker Waste on Construction Sites

The Contractor shall make provisions for the complete recycling and composting of all blue, black, and green bin non-construction waste items on the Construction site when the Contract duration is greater than or equal to 3 months. The Contractor shall actively promote the use of the recycling and composting bins with all workers.

The Contractor shall initiate the recycling and composting process by contacting the appropriate town representative.

The Contractor shall purchase and supply the various bins (Blue Box(es), Black Box(es) and Green Bin(s)) and shall ensure delivery to the Construction site at the beginning of the job. The Contractor will not levy an additional fee for this under the overall bid price of the contract.

The Contractor shall place the bins in an easily accessible and secure area for Construction worker use. The Contractor shall display the promotional material provided by the town in a prominent location on site.

The Contractor shall place the bins in the designated pickup spot by 7 AM on the pickup day. The Contractor shall promptly retrieve the bins on the pickup day once emptied and place them back in their designated area.

The Contractor shall supply bin liners for the green bin.

F.30.8 Measurement for Payment

Measurement for the supply of a field office, its utilities, services and associated equipment shall be by the week. The Contractor shall also be paid for any portion of a week as one week. Measurement for payment will be made when all utilities and services have been provided and are usable by town staff.

F.30.9 Basis of Payment

Payment at the Contract price for the Tender item "Field Office for Contract Administrator" shall be full compensation for all labour, equipment and materials required to supply and maintain a field office.

The Contractor shall bear all expenses in connection with the above facilities, including but not limited to:

- a. Service and connection charges for utilities and services.
- b. Heating and ventilating costs.
- c. The supply of bottled water or small fridge with bottled water
- d. All land and rental costs for the field office.
- e. Supply of steps or stairs so as to provide proper access to field office complete with exterior light.
- f. The provision of at least three (3) parking spaces adjacent to field office, with at least a gravel surface.
- g. Winter maintenance (snow removal, sanding).
- h. Removal of the field office, clean-up and reinstatement of the area occupied by the field office.
- i. Heated washrooms in the winter.

F.31 HYDRO-GUARD HG-4 SUB-SURFACE DISCHARGE UNIT

F.31.1 SCOPE

Under this Tender item, the Contractor shall supply and install a Hydro-Guard HG-4 Sub-Surface Discharge Unit. The scope shall include the preparation and submission of shop drawings that meet all requirements outlined in this specification. This applies to design, fabrication and installation of the discharge unit.

REFERENCES

F.31.2 General

This specification shall be read in conjunction with the Contract Drawings.

DESIGN AND SUBMISSION REQUIREMENTS

F.31.3 Submission Requirements

A shop drawing, manufacturer's literature, manufacturer's installation instructions, and O&M manual shall be submitted for review a minimum of two weeks prior to commencing fabrication.

An O&M manual shall be provided for each type of unit.

F.31.4 Suppliers

The unit shall be procured from a manufacturer who can demonstrate experience in the supply of similar products to municipal clients. The Contractor shall submit a reference list for the proposed supplier for approval by the Contract Administrator. The following supplier is pre-approved:

Mueller Co.

CONSTRUCTION AND INSTALLATION

F.31.5 Materials

The supply and discharge piping shall meet the supplier's requirements.

Backfill and compaction requirements shall meet the same requirements of all other geotechnical recommendations provided for other watermain infrastructure.

F.31.6 INSTALLATION

Installation shall be in accordance with the shop drawings and manufacturer's installation instructions. Installation to meet OPSS 407 and 441 or geotechnical requirements where more stringent.

F.31.7 ACCEPTANCE TEST

The Contractor shall demonstrate operation of the unit, in the presence of the Contract Administrator and Town staff.

MEASUREMENT FOR PAYMENT

Measurement shall be by each unit purchased and installed.

BASIS OF PAYMENT

Payment at the contract price for the Tender item shall be full compensation for all Labour,

Equipment and Material required to do the work, including excavation, bedding, surround, backfill, and pipe connections.

SECTION G: GEOTECHNICAL INVESTIGATION, GEOENVIRONMENTAL REPORTS

(UNDER SEPARATE COVER)

SECTION H: CONTRACT DRAWINGS

(UNDER SEPARATE COVER)