

**RECONSTRUCTION OF GODFREY STREET,  
COMMISSIONER STREET, FOURTH AVENUE  
AND NINTH AVENUE**



**THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE**

**APRIL 2023**

**THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE**

**RECONSTRUCTION OF GODFREY STREET,  
COMMISSIONER STREET, FOURTH AVENUE  
AND NINTH AVENUE**

**PROJECT NO. NWL-21014892**

**APRIL 2023**

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**ENGINEERS:  
EXP SERVICES INC.  
P.O. BOX 1208  
310 WHITEWOOD AVENUE W.  
NEW LISKEARD, ONTARIO  
P0J 1P0**

**TEL: 705-647-4311  
FAX: 705-647-3111**

**OWNER:  
THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE  
69 FOURTH AVENUE, P.O. BOX 40  
LARDER LAKE, ONTARIO  
P0K 1L0**

**Tel: 705-643-2158  
Fax: 705-643-2311**

**THE CORPORATION OF THE TOWNSHIP OF LARDER LAKE**

**RECONSTRUCTION OF GODFREY STREET, COMMISSIONER STREET, FOURTH AVENUE, AND NINTH AVENUE  
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Sealed Tenders, properly marked, will be received by The Corporation of the Township of Larder Lake, 69 Fourth Avenue, P.O. Box 40, Larder Lake ON., P0K 1L0 until **2:00 P.M.** local time on:

**Wednesday, May 31, 2023**

The intent of this Tender is to obtain a formal offer to construct and complete the installation of Municipal Sanitary Sewer, Watermain and Culverts, complete with road reconstruction including asphalt pavement and granular base, on Godfrey Street, Commissioner Street, Fourth Avenue and Ninth Avenue as shown on the contract plans and described within the contract documents. This work includes, but is not limited to, the following:

- The supply and installation of approximately 1.3 km PVC sanitary sewer
- The supply and installation of approximately 1.8 km PVC watermain
- Approximately 2,300 tonnes of SP12.5 asphalt
- Approximately 8,300 tonnes of Granular 'A'
- Approximately 23,000 tonnes of Granular 'B Type I'

Tenders will be opened and read publicly at **2:05 P.M.** local time on the above date in the Council Chambers.

Plans, Specifications and Tender Documents may be obtained by downloading from Biddingo.com. For further information contact the Consulting Engineers.

A certified cheque, bid bond, bank draft or money order, not less than the amount specified in the Tendering Requirements, must accompany each tender.

The successful Tenderer will be required to provide a 100% Contract Bond upon execution of the Contract Agreement.

The lowest or any Tender will not necessarily be accepted.

It is the intent of the Owner to construct sanitary sewer and watermain within the limits shown on the Contract Drawings. Notwithstanding the above, the Owner reserves the right, because of limited funds available for the construction season, to reduce the extent of the work.

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**RECONSTRUCTION OF GODFREY STREET,  
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**PROJECT NO. NWL-21014892**

**INSTRUCTIONS TO TENDERERS**

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**ENGINEERS:  
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P.O. BOX 1208  
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Fax: 705-643-2311**

## **IT.1 Tender Call**

1.1 Sealed Tenders fully executed, dated and endorsed will be received by the Township of Larder Lake.

**Mailing Address:** Township of Larder Lake  
69 Fourth Avenue, P.O. Box 40  
Larder Lake, ON, P0K 1L0  
Attn: Municipal Clerk

**Courier Address:** Same

**No Later Than 2:00 P.M. Local Time, Wednesday May 31<sup>st</sup>, 2023**

for the Township of Larder Lake Reconstruction Project.

1.2 The intent of the Tender is to obtain a formal offer to construct a complete construction of sanitary sewer and watermain, specifically as follows;

- Road reconstruction including asphalt pavement and granular base
- Replacement of sanitary sewer and watermain on Godfrey, Commissioner, Fourth and Ninth as shown on the Contract Drawings. This work includes, but is not limited to, the following:
  - Approximately 1.3km PVC sanitary pipe
  - Approximately 1.8km PVC watermain
  - Approximately 2,300 tonnes of SP 12.5 Asphalt
  - Approximately 8,300 tonnes of Granular A
  - Approximately 23,000 tonnes of Granular B, Type I

herein referred to as the "Work".

**It is the intent of the Owner to construct sanitary sewer, storm sewer, and watermain within the limits shown on the Contract Drawings. Notwithstanding the above, the Owner reserves the right, because of limited funds available for the construction season, to reduce the extent of the work.**

1.3 Submit one copy of the tender on the forms provided, signed and sealed, together with the required securities, clearly identified with the word "Tender", and the Project name and the Tenderer's name on the outside.

1.4 Amendments to the submitted Tender will be permitted if received in writing in a sealed envelope prior to tender closing and if endorsed by the same party or parties who signed the Tender.

1.5 If an arithmetical error is identified by the Engineer in the submitted Tender between any Unit Price and the price extension (Unit Price x Quantity of Units), the Unit Price shall govern. The price extension and the Total Tender amount will be corrected accordingly.

1.6 Bidders are required to submit cost savings options to the Owner. These options will be considered during the tender evaluation period.

## **IT.2 Bid Security Deposit**

- 
- 2.1 Every Tender shall be accompanied by a security deposit as follows:  
— ~~Certified Cheque in an amount not less than 10% of the Total Tender amount;~~  
~~or a~~  
- Bid Bond in an amount not less than 10% of the Total Tender amount (mandatory for projects over \$500,000).
- 2.2 Bid Bonds ~~or Certified Cheques~~ shall be written in the name of The Corporation of the Township of Larder Lake.
- 2.3 All Bid Security deposits, except those of the Tenderers being considered for award, will be returned with reasonable promptness after the opening of Tenders.
- 2.4 The remaining Bid Security deposits will be returned after delivery to the Owner of the required Performance Bond and Labour and Material Payment Bond or applicable Contract Security by the successful Tenderer.
- 2.5 If no contract is awarded, all security deposits will be returned with reasonable promptness after such decision is made by the Owner.

**IT.3 Consent of Surety**

- 3.1 Tenderers must submit, with the Tender and Bid Bond, a “Consent of Surety”, stating that the Surety is willing to supply the Performance Bond and Labour and Material Payment Bond required.
- 3.2 A "Consent of Surety" form is attached to the Tender Form.

**IT.4 Performance Assurance**

- 4.1 The accepted Tenderer shall provide Contract Security as stated in the General Conditions.
- 4.2 The cost of all Contract Security shall be included in the Tender Price.

**IT.5 Acceptance of Tender**

- 5.1 The Township of Larder Lake reserves the right in its absolute discretion to accept the tender which it deems most advantageous to itself and the right to reject any or all tenders. The lowest quoted price may not necessarily be accepted by the Owner. In determining which tender provides the best value to the Owner, consideration may be given to the past performance of the Tenderer. The Owner reserves the right to verify the validity of information submitted in the tender and may reject any tender where the contents appear to be incorrect, inaccurate or inappropriate in the Owner’s estimation. The Owner reserves the right to assess the ability of the Tenderer to perform the contract and may reject any tender where the personnel and/or resources of the Tenderer appear insufficient in the owner’s estimation.

Tenders which are incomplete, conditional, unclear or which contain alterations of any kind or otherwise fail to conform to the instructions to Tenderers, may be rejected. The Owner reserves the right in its sole discretion to reject or retain for consideration tenders which are nonconforming because they do not contain the content or form required by the Instructions to Tenderers or fail to comply with the process for submission set out in the Instructions to Tenderers.

Changes will not be permitted after the tenders have been opened, unless negotiated by the Owner with the Tenderer. The Owner may modify or cancel the tender process prior to accepting any

proposal. Should the Owner not receive any tender which is, in its sole and absolute discretion, satisfactory, the Owner reserves the right to reissue a request for tenders or negotiate a contract for the whole or any part of the project with any person, including one or more of the Tenderers.

In submitting a tender, the Tenderer agrees that it will not claim damages against the Owner for matters relating to the project, the contract or the competitive process. In submitting a tender, the Tenderer waives any claim for loss or profits if no agreement is entered into with the Tenderer.

- 5.2 Following acceptance by the Owner, a written Notice of Award will be issued to the successful Tenderer by facsimile or email. The successful Tenderer shall be allowed ten (10) calendar days between the date of faxing or emailing the notification of acceptance of his Tender and the Articles of Agreement, and the date the executed contract must be returned to the Corporation.

**IT.6 Duration of Offer**

- 6.1 Tenders shall remain open for acceptance and shall be irrevocable for a period of sixty (60) days after the Tender closing date, irrespective of the acceptance of any Tender.

**IT.7 Tender Ineligibility**

- 7.1 Tenders that are unsigned, ~~submitted electronically~~, improperly executed, incomplete, conditional, illegible, obscure or contain arithmetical errors, additions not called for, reservations, erasures, alterations, or irregularities of any kind, may be rejected as informal.

**IT.8 Commencement and Completion of Work**

- 8.1 The Tenderer, in submitting the Tender, agrees that he can complete the Work by the date stated in the Tender Form.

**IT.9 Omissions/Discrepancies/Interpretations**

- 9.1 Tenderers finding discrepancies or omissions in the drawings or specifications or having doubt as to the meaning or intent thereof, shall at once notify the Engineer who will, if necessary, send written instructions or explanations to all Tenderers.
- 9.2 No oral interpretation shall be made to a Tenderer as to the meaning of any of the tender documents or be effective to modify any of the provisions of the contract documents. Every request for an interpretation shall be made in writing.
- 9.3 Questions arising during the Tender period should be directed by email to:

**EXP Services Inc.,  
310 Whitewood Avenue W., P.O. Box 1208,  
New Liskeard, ON, P0J 1P0  
[brad.gilbert@exp.com](mailto:brad.gilbert@exp.com)  
cc [calvin.caldwell@exp.com](mailto:calvin.caldwell@exp.com)**

- 9.4 During the tendering period, Tenderers may be advised by Addenda of any alterations to the Contract Documents. Addenda will be issued by Fax or by email. All such changes shall become part of the Contract and their effects shall be reflected in the Tender Price.
- 9.5 The Engineer will endeavour not to issue any Addenda less than two (2) calendar days prior to the Tender closing date.



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**IT.11 Sales Tax**

- 11.1 All unit prices are to exclude the Harmonized Sales Tax. Such tax will be shown as a separate entry on the Schedule of Items and Prices.

**IT.12 Site Examination**

- 12.1 Claims for additional costs will not be entertained with respect to conditions that would reasonably have been ascertained by an inspection of the site prior to the tender closing date. **If required by the successful contractor, additional geotechnical information is to be obtained by the Contractor. Costs associated with this work are to be included in the contract prices.**

**IT.13 Tender Signing**

- 13.1 The Tender must be executed under seal by the Tenderer. If the Tenderer is an individual or a partnership, the Tender shall be executed by the individual or a partner in the presence of a witness and the signatory must show the capacity in which he signs (e.g. "Partner" or "Proprietor"). If the Tenderer is a corporation, the Tender shall be executed under the seal of the company, affixed in the presence of the authorized officers or two directors. If the Tenderer is a joint venture, each party to the joint venture shall execute the Tender under seal in the manner appropriate to such party.
- 13.2 In signing the Tender, the Tenderer agrees that he has read and understands all of the contract documents.

**IT.14 Appendices to Tender Form**

- 14.1 Tenderers shall complete **all** appendices attached to the Tender Form and submit these with the Tender.

**IT.15 Company Registration**

- 15.1 The successful Tenderer will be required to be registered as a Company in the Province of Ontario.

**IT.16 Sub-Contractor's Capability**

- 16.1 The Owner considers the capability of a bidder to assure quality and timely completion of the Work to be of utmost importance. Accordingly, if a bidder intends to engage a subcontractor for any significant or critical portion of the Work, **such subcontractor shall be designated in the Tender.** As part of its evaluation of bids prior to award of the Contract, the Owner will take into consideration a subcontractor's past performance on Owner and other projects, both as to quality and schedule. At any time up to five (5) calendar days before bid closing, a bidder may request in writing from the Owner as to whether a particular proposed subcontractor has a favourable or unfavourable performance record with the Owner.

**IT.17 Performance Evaluation**

- 17.1 The Owner evaluates the performance of all its Contractors in the following areas:
- (1) head office administration
  - (2) adherence to specifications and special provisions
  - (3) public relations
  - (4) field supervision and layout
  - (5) condition and sufficiency of equipment
- 17.2 Performance may be classified as very good, good, average, below average or poor in each of

these areas. The evaluation will be made on the basis of every day performance on the work and Instruction Notices issued, quality assurance test results and Infraction Notices issued.

- 17.3 If the Contractor's performance on a contract is evaluated as below average in two or poor in one or more of these areas, the Manager of Environmental Services will notify the contractor of the deficiencies in writing and warn the contractor that if performance of work does not improve on subsequent contracts the Contractor may be disqualified from bidding on Owner contracts in the future.
- 17.4 If the Contractor's performance on a contract is classified as below average or poor in four of five areas, the Manager of Environmental Services will recommend that the contractor be disqualified from bidding on Owner contracts for a period of up to one year from the date the work under the contract, which resulted in the unsatisfactory performance report, was completed or abandoned.
- 17.5 Before the Manager of Environmental Services disqualifies the Contractor from bidding on Owner contracts, the Contractor will be required to provide a written explanation of below average or poor performance and any representations the Contractor may wish to make regarding the severity of the penalty to be imposed.
- 17.6 If the Contractor's performance is classified as below average or poor in two or more areas on a subsequent contract carried out within twelve months from the date of the first unsatisfactory performance report, the Manager of Environmental Services will disqualify the Contractor from bidding for a further period.
- 17.7 If the Contractor is disqualified from bidding on any Owner contract, this disqualification will extend to any sole proprietorship, partnership, or corporation in which the Contractor is an active member of the management team or for which the contractor would be actively involved in the ongoing supervision of work under any Owner contracts.

**IT.18 Commencement of Work**

Work shall not commence until the Environmental Compliance Approval (ECA) has been received.

No claims shall be made by the Contractor due to construction delays related the ECA.

**END OF INSTRUCTIONS TO TENDERERS**

**Tenderer's Check List**

Before submitting your tender, check the following points:

1. Has your tender been signed, sealed and witnessed?	<input type="checkbox"/>
2. Have you enclosed the Tender Deposit, i.e., Certified Cheque, Bank Draft or Money Order?	<input type="checkbox"/>
3. Have you enclosed the Agreement to Bond, signed and sealed by your proposed Surety?	<input type="checkbox"/>
4. Have you completed all schedules and prices in the Form of Tender?	<input type="checkbox"/>
5. Have you indicated the number of addenda included in the tender price?	<input type="checkbox"/>
6. Have you shown the time for completion of the work? (if applicable)	<input type="checkbox"/>
7. Have you listed the Sub-Contractors (if applicable)?	<input type="checkbox"/>
8. Have you listed your Experience in Similar Work?	<input type="checkbox"/>
9. Have you listed your Senior Staff?	<input type="checkbox"/>
10. Have you listed the Tenderer's plant?	<input type="checkbox"/>
11. Are your documents complete?	<input type="checkbox"/>
Your tender will be informal and may be disqualified if ANY of the foregoing points (if applicable) have not been complied with.	
<b>ENSURE THAT THE TENDER IS PROPERLY ADDRESSED AND IDENTIFIED ON THE E-MAIL SUBMISSION.</b>	

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**RECONSTRUCTION OF GODFREY STREET,  
COMMISSIONER STREET, FOURTH AVENUE  
AND NINTH AVENUE**

**PROJECT NO. NWL-21014892**

**FORM OF TENDER**

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**ENGINEERS:  
EXP SERVICES INC.  
P.O. BOX 1208  
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**ADDENDUM NO. 01**

**FORM OF TENDER**

**THE CORPORATION OF THE TOWNSHIP OF LARDER LAKE  
RECONSTRUCTION OF GODFREY STREET,  
COMMISSIONER STREET, FOURTH AVENUE AND NINTH AVENUE**

**PROJECT NO. NWL-21014892**

TENDER BY \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_ TEL/FAX NO. \_\_\_\_\_

PERSON SIGNING \_\_\_\_\_

A COMPANY DULY INCORPORATED UNDER THE LAWS OF \_\_\_\_\_

AND HAVING ITS HEAD OFFICE AT \_\_\_\_\_

HEREINAFTER CALLED "THE TENDERER".

NOTE: The Tenderer's name and residence must be inserted above and in the case of a firm, the name and residence of each and every member of the firm must be inserted.

TO: The Corporation of the Township of Larder Lake (**OWNER**)  
69 Fourth Avenue, P.O. Box 40  
Larder Lake, Ontario  
P0K 1L0

I/WE, \_\_\_\_\_  
having carefully examined the locality of the proposed work, and having read, understood and accepted the Provisions, Plans, Specifications and Conditions, Form of Agreement and Addendum/Addenda No. \_\_ to \_\_ inclusive, attached hereto, each and all of which forms part of this Tender, hereby offer to furnish all machinery, tools, labour, apparatus, plant and other means of construction, all material to complete the work in strict accordance with the Provisions, Plans, Specifications and Conditions attached hereto, for the sum of:

\_\_\_\_\_/100 (\$ \_\_\_\_\_), or such other sum as may be ascertained in accordance with the Contract. The aforesaid sum is derived from the Schedule of Items and Prices following.

\*The Tenderer shall insert here the number of Addenda received during the tendering period and taken into account in preparing this tender.

**ADDENDUM NO. 01**

The undersigned also agrees:

1. That the Owner is in no way obligated to accept this tender.
2. That the Owner may, at its sole discretion, accept any Tender or part thereof or waive any defect, irregularity, mistake or insufficiency and accept any Tender or alternative proposal, in whole or in part, which is deemed by the Owner to be most favourable to its interest.
3. That all applicable taxes and duties are included in the tender price.
4. That the estimate of quantities shown in Tender Form serves only to provide a basis for comparing tenders and that no representations have been made by either the Owner or the Engineer that the actual quantities will even approximately correspond therewith, and further, that the Owner has the right to increase or decrease the quantities in any or all items and to eliminate items entirely from the work.
5. That this tender is made without knowledge of the tender prices to be submitted for this work by any other company, firm or person.
6. That this tender is made without connection or arrangement with any company, firm or person submitting a tender for this work.
7. That this tender is made without any undisclosed connection or arrangement with any other company, firm, or person having an interest in this tender or in the proposed contract.
8. That this tender is irrevocable for sixty (60) days after the closing date for receipt of tenders and that the Owner may at any time within such period accept this tender whether any other tender has previously been awarded or not and whether acceptance of another tender has been given or not.
9. To execute the Articles of Agreement and to present to the Owner the required contract security within the time specified.
10. That payment for the work done will be made on the basis of the quantities and percentages measured by the Engineer and at the tender prices shown in the Tender Form which shall be compensation in full for the work done under the terms of the Contract.
11. That payment of the Contingency Allowance or portion thereof will only be made in the event that the Engineer authorizes the work, in which case the amount of payment will be determined as specified in the General Conditions. Any unused portion thereof will be retained by the Owner.
12. To commence and proceed actively with the work on site within seven (7) days of the date of the Tender Acceptance, and to complete all work under the Contract by the dates specified in the Construction Schedule within this Form of Tender, subject to the provisions of Section 6 of the General Conditions for extension of contract time.
13. That should he fail to complete the work in the time specified above, he shall compensate the Owner in accordance with Section 6 of the General Conditions.

**ADDENDUM NO. 01  
 SCHEDULE OF ITEMS AND PRICES**

**Commissioner, Ninth, Godfrey and Fourth from Commissioner to Godfrey**

**PART A: GENERAL WORKS**

<b>Item No.</b>	<b>Spec. No.</b>	<b>Description</b>	<b>Tender Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Amount</b>
1		Contract Bonds	100%	L.S.		
2	SP	Mobilization/Demobilization	100%	L.S.		
3	706 SP	Traffic Control & Temporary Signage	100%	L.S.		
4	805 SP	Straw Bale Flow Check Dams	6	ea.		
5	805 SP	Environmental Controls	100%	L.S.		
6	SP	Pre/Post Construction Survey	100%	L.S.		
7	SP	Vibration Monitoring	100%	L.S.		
8	517 SP	Dewatering	100%	L.S.		
9	SP	Utility Pole Holds & Relocation	100%	L.S.		
10	120 SP	Rock Excavation	417	m <sup>3</sup>		
11	510 SP	Asphalt Removal	14,237	m <sup>2</sup>		
12	510 SP	Removal of Interlocking Pavers	434	m <sup>2</sup>		
13	510 SP	Removal of Sidewalks	354	m <sup>2</sup>		
14	206 SP	Earth Excavation	12,258	m <sup>3</sup>		
15	SP	Earth Ditch	1168	m		
16	314 SP	Granular A	7,428	t		
17		Granular B, Type I	20,704	t		
18	310 SP	SuperPave 12.5 - (50mm Surface Lift)	2,080	t		
19		Hot Mix Miscellaneous	276	m <sup>2</sup>		
20	405 SP	150mm Dia. Perforated Pipe Subdrains	3,384	m		
21	351 SP	Concrete Sidewalk	695	m <sup>2</sup>		
22	SP	Tactile Plates	12	Ea.		
23	353 SP	Concrete Curb & Gutter	505	m		
24	SP	Salvage & Reinstall Road Signs	34	ea.		
25	802 SP	Topsoil, Imported 75mm	2,307	m <sup>3</sup>		
26	804 SP	Seed & Mulch	2,307	m <sup>2</sup>		
27	SP	Geotextile on Subgrade	16,497	m <sup>2</sup>		
28	SP	Geogrid on Subgrade	16,497	m <sup>2</sup>		
29	407 SP	1200mm Dia. Sanitary Maintenance Hole	19	ea.		
30		1500mm Dia. Sanitary Maintenance Hole	5	ea.		
31		1800mm Dia. Sanitary Maintenance Hole	2	ea.		
32		Break into Structure	2	ea.		
33		Connect to Existing Sanitary Sewer	7	ea.		

***SUB-TOTAL CARRIED FORWARD TO PAGE T-4..... \$ \_\_\_\_\_***

**ADDENDUM NO. 01**

<b><i>SUB-TOTAL CARRIED FORWARD FROM PAGE T-3..... \$ _____</i></b>						
34	410 SP	200mm Sanitary Pipe Sewer PVC SDR 35 Including, Excavation, Bedding and Backfill	1,027	m		
35		300mm Sanitary Pipe Sewer PVC SDR 35 Including, Excavation, Bedding and Backfill	97	m		
36		450mm Sanitary Pipe Sewer PVC SDR 35 Including, Excavation, Bedding and Backfill	27	m		
37		125mm Sanitary Service	90	ea.		
38	441 SP	50mm Dia. Watermain	94	m		
39		150mm Dia. DR 18 (CL 150) Watermain	1,141	m		
40		200mm Dia. DR 18 (CL 150) Watermain	384	m		
41		25mm HDPE Water Service c/w Curb Stops	104	ea.		
42		Hydrant Set Including Valve and Lead	9	ea.		
43		150mm dia. Gate Valve	24	ea.		
44		200mm dia. Gate Valve	8	ea.		
45		Connect to Existing Watermain	19	ea.		
46	50mm Watermain Connection	6	ea.			
47	SP	Adjust Manholes & Valves to Final Grade	25	ea.		
48	442 SP	Cathodic Protection – Sacrificial Anodes	100%	L.S.		
49	493 SP	Temporary Potable Water Supply	100%	L.S.		
50	441 SP	Air Release Valve	1	ea.		
51	510 SP	Removal of Pipe Culverts and Sewers	1843	m		
52		Removal of Manholes, Catch Basins, & Valve Chambers	27	ea.		
53		Removal of Hydrants	8	ea.		
54	SP	Drinking Water Sampling & Testing	100%	L.S.		
55	SP	Removal of Watermain	1725	m		
58	SP	Sewer/Watermain Pipe Insulation	92	m		
60		1200mm Dia. STM, CBMH, DI	6	ea.		
61		600x600mm Catch Basin	9	ea.		
62		300mm Dia. Pipe Storm Sewer	67	m		
63		450mm Dia. Pipe Storm Sewer	175	m		
64		600mm Dia. Pipe Storm Sewer	100	m		
65		900mm Dia. Pipe Storm Sewer	36	m		
<b><i>SUB-TOTAL CARRIED FORWARD TO PAGE T-5..... \$ _____</i></b>						



**ADDENDUM NO. 01**

<b><i>SUB-TOTAL CARRIED FORWARD FROM PAGE T-4..... \$ _____</i></b>						
68		600mm Culvert	3	ea.		
69		200mm Culvert	1	ea.		
70		450mm Culvert	2	ea.		
71		300mm Culvert	6	ea.		
<b><i>SUB-TOTAL "PART A" ..... \$ _____</i></b>						

**ADDENDUM NO. 01**  
**Fourth Avenue – Ontario St. to Commissioner St.**

<b>PART B: GENERAL WORKS</b>						
<b>Item No.</b>	<b>Spec. No.</b>	<b>Description</b>	<b>Tender Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Amount</b>
1		Contract Bonds	100%	L.S.		
2	SP	Mobilization/Demobilization	100%	L.S.		
3	706 SP	Traffic Control & Temporary Signage	100%	L.S.		
4	805 SP	Straw Bale Flow Check Dams	2	ea.		
5	SP	Environmental Controls	100%	L.S.		
6	SP	Pre/Post Construction Survey	100%	L.S.		
7	SP	Vibration Monitoring	100%	L.S.		
8	517 SP	Dewatering	100%	L.S.		
9	SP	Utility Pole Holds & Relocation	100%	L.S.		
10	120 SP	Rock Excavation	1056	m <sup>3</sup>		
11	510 SP	Asphalt Removal	1,340	m <sup>2</sup>		
12	510 SP	Removal of Interlocking Pavers	36	m <sup>2</sup>		
14	206 SP	Earth Excavation	1,307	m <sup>3</sup>		
15	SP	Earth Ditch	10	m		
16	314 SP	Granular A	838	t		
17		Granular B, Type I	2,312	t		
18	310 SP	SuperPave 12.5 – (50mm Surface Lift)	208	t		
20	405 SP	150mm Dia. Perforated Pipe Subdrains	372	m		
24	SP	Salvage & Reinstall Signs	1	ea.		
25	802 SP	Topsoil, Imported 75mm	295	m <sup>2</sup>		
26	804 SP	Seed & Mulch	295	m <sup>2</sup>		
27	SP	Geotextile on Subgrade	1622	m <sup>2</sup>		
28	SP	Geogrid on Subgrade	1622	m <sup>2</sup>		
29	407 SP	1200mm Diameter Sanitary Maintenance Hole	3	ea.		
32		Break into Structure	1	ea.		
34	410 SP	200mm Sanitary Pipe Sewer PVC SDR 35 Including, Excavation, Bedding and Backfill	155	m		
37		125mm Sanitary Service	13	ea.		
39	441 SP	150mm Dia. DR 18 (CL 150) Watermain	204	m		
41		25mm Dia. HDPE Water Service c/w Curb Stops	13	ea.		
42		Hydrant Set Including Lead & Valve	1	ea.		
43		150mm dia. Gate Valve	2	ea.		
45		Connect to Existing Watermain	1	ea.		
<p><b><i>SUB-TOTAL CARRIED FORWARD TO PAGE T-7..... \$ _____</i></b></p>						

**ADDENDUM NO. 01**

<b><i>SUB-TOTAL CARRIED FORWARD FROM PAGE T-6..... \$ _____</i></b>						
47	SP	Adjust Manholes & Rebuild	4	ea.		
48	442 SP	Cathodic Protection – Sacrificial Anodes	100%	L.S.		
49	493 SP	Temporary Potable Water Supply	100%	L.S.		
51	510 SP	Removal of Pipe Culverts and Sewers	370	m		
52		Removal of Manholes, Catch Basins, & Valve Chambers	2	ea.		
53		Removal of Hydrants	1	ea.		
54	SP	Drinking Water Sampling & Testing	100%	L.S.		
55	SP	Removal of Watermain	201	m		
57	421 SP	900mm Culvert	22	m		
58	SP	Sewer/Watermain Pipe Insulation	199.5	m		
70		450mm Culvert	1	ea.		
72		900mm Culvert	1	ea.		
<b><i>SUB-TOTAL "PART B" ..... \$ _____</i></b>						

**ADDENDUM NO. 01  
PROVISIONAL**

<b>Item No.</b>	<b>Spec. No.</b>	<b>Item</b>	<b>Tender Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Amount</b>
P1	SP	Extra depth Trench and Roadway Excavation	200	m <sup>3</sup>		
P2	1010 SP	Select Subgrade Material	300	t		
P3	1004 SP	19.0 mm Clear Stone	150	t		
P4	SP	Remove and Dispose of Structurally Unsuitable Materials	150	m <sup>3</sup>		
P5	SP	Remove & Replace 1000mm Culverts on Commissioner Street	1	L.S.		
P6	SP	Sodding	3,500	m <sup>2</sup>		
P7	SP	Geotextile on Subgrade	13,500	m <sup>2</sup>		
P8	SP	Geogrid on Subgrade	13,500	m <sup>2</sup>		

***SUB-TOTAL PROVISIONAL***..... \$ \_\_\_\_\_

***TOTAL: (Part A)***..... \$ \_\_\_\_\_

***TOTAL: (Part B)***..... \$ \_\_\_\_\_

***TOTAL PROVISIONAL:***..... \$ \_\_\_\_\_

***SUBTOTAL A + B + PROVISIONAL:*** ..... \$ \_\_\_\_\_

***CONTINGENCY (5%):***..... \$ \_\_\_\_\_

***TOTAL (EXCLUDING HST):***..... \$ \_\_\_\_\_



**ADDENDUM NO. 01**  
**EQUIPMENT LIST**

Herewith is the list of equipment that will be used on the project during the course of the work. **List ALL equipment that will be used and fill all information.**

<b>YR</b>	<b>Equipment</b>	<b>Size</b>	<b>Model</b>	<b>Make</b>	<b>Condition</b>
<u>Sample</u>	2001 Backhoe	1 cu. Yd.	330	John Deere	Overhauled 2006

**Labour and Equipment Rates**

Herewith is the list of Labour and Equipment Rates:

**To be determined in accordance with Section GC 7.2 of the General Conditions.**

**Labour & Equipment Rates**

Additional Labour Requirements:

Foreman	_____
Tradesman: Instrumentation Technician	_____
Skilled Labour	_____
Labourer	_____
Flag Persons	_____
Heavy Equipment Operators	_____

**Additional Equipment Requirements: (list all equipment available to project with hourly and daily rates)**

<u>Description</u>	<u>size</u>	<u>price/hr</u>	<u>price/day</u>
--------------------	-------------	-----------------	------------------

**ADDENDUM NO. 01**

**Ontario Municipal and Provincial Standard Specifications Common (OPSSs)**

- OPSS 100 Muni Nov. 2019 – General Conditions of Contract
- OPSS 102 Muni Nov. 2018 – Weighing of Materials
- OPSS 180 Muni Nov. 2016 – Management of Excess Materials
- OPSS 182 Muni Nov. 2021 – Environmental Protection for Construction in Waterbodies and on Waterbody Banks
- OPSS 201 Apr. 2019 – Clearing, Close Cut Clearing, Grubbing and Removal of Surface and Piled Boulders
- OPSS 206 Muni Nov. 2019 – Grading
- OPSS 310 Muni Nov. 2017 – Hot Mix Asphalt
- OPSS 314 Muni Nov. 2019 – Untreated Granular Subbase, Base, Surface, Shoulder, and Stockpiling
- OPSS 401 Muni Nov. 2021 – Trenching, Backfilling and Compacting
- OPSS 402 Muni Nov. 2016 – Excavating, Backfilling, and Compacting for Maintenance Holes, Catch Basins, Ditch Inlets, and Valve Chambers
- OPSS 404 Muni Nov. 2017 – Support Systems
- OPSS 405 Muni Nov. 2017 – Pipe Subdrains
- OPSS 407 Muni Nov. 2021 – Maintenance Holes, Catch Basins, Ditch Inlet, and Valve Chamber Installation
- OPSS 408 Muni Nov. 2021 – Adjusting or Rebuilding Maintenance Holes, Catch Basins, Ditch Inlets, and Valve chambers
- OPSS 409 Muni Nov. 2017 – Closed-Circuit Television Inspection of Pipelines
- OPSS 410 Muni Nov. 2018 – Pipe Sewer Installation in Open Cut
- OPSS 441 Muni Nov. 2021 – Watermain Installation in Open Cut
- OPSS 442 Muni Nov. 2020 – Corrosion Protection of New and Existing Watermains
- OPSS 490 Muni Nov. 2020 – Site Preparation for Pipelines, Utilities, and Associated Structures
- OPSS 491 Muni Nov. 2017 – Preservation, Protection, and Reconstruction of Existing Facilities
- OPSS 492 Muni Nov. 2020 – Site Restoration Following Installation of Pipelines, Utilities, and Associated Structures
- OPSS 493 Muni Nov. 2019 – Temporary Potable Water Supply Services
- OPSS 501 Muni Nov. 2017 – Compacting
- OPSS 506 Muni Nov. 2017 – Dust Suppressants
- OPSS 510 Muni Nov. 2018 – Removal
- OPSS 511 Muni Nov. 2019 – Rip Rap, Rock Protection, and Granular Sheeting
- OPSS 517 Muni Nov. 2021 – Dewatering
- OPSS 539 Muni Nov. 2021 – Temporary Protection Systems
- OPSS 706 Muni Apr. 2018 – Traffic Control Signing
- OPSS 710 Muni Nov. 2021 – Pavement Marking
- OPSS 802 Muni Nov. 2019 – Topsoil
- OPSS 803 Muni Apr. 2018 – Sodding
- OPSS 804 Muni Nov. 2014 – Seed and Cover

**ADDENDUM NO. 01**

- OPSS 805 Muni Nov. 2021 – Temporary Erosion and Sediment Control Measures
- OPSS 1004 Muni Nov. 2021 – Aggregates – Miscellaneous
- OPSS 1010 Muni Nov. 2013 – Aggregates – Base, Subbase, Select Subgrade and Backfill Material

Current OPSS – All material specification referenced in the above.

**Ontario Provincial Standard Drawings (OPSDs)**

- OPSD 100.010 Nov '10 Rev. 4
- OPSD 100.011 Nov '06 Rev. 1
- OPSD 100.012 Nov '09 Rev. 2
- OPSD 100.013 Nov '09 Rev.4
- OPSD 100.050 Nov '06 Rev.1
- OPSD 100.060 Nov '06 Rev.1
- OPSD 101.010 Nov '06 Rev.1
- OPSD 101.011 Nov '06 Rev.1
- OPSD 101.012 Nov '06 Rev.1
- OPSD 101.013 Nov '06 Rev.1
- OPSD 101.014 Nov '06 Rev.1
- OPSD 101.015 Nov '06 Rev.1
- OPSD 101.016 Nov '06 Rev.1
- OPSD 101.017 Nov '08 Rev.3
- OPSD 102.010 Nov '06 Rev.1
- OPSD 103.010 Nov '06 Rev.1
- OPSD 103.011 Apr '08 Rev.2
- OPSD 200.010 Nov '09 Rev.2
- OPSD 207.044 Nov '16 Rev. 5
- OPSD 206.010 Nov '18 Rev.2
- OPSD 206.050 Nov '18 Rev.2
- OPSD 210.010 Nov '18 Rev.2
- OPSD 210.020 Nov '18 Rev.2
- OPSD 216.021 Nov '17 Rev.3
- OPSD 219.110 Nov '21 Rev.3
- OPSD 219.180 Nov '21 Rev.3
- OPSD 219.240 Nov '15 Rev.2
- OPSD 219.260 Nov '22 Rev.3
- OPSD 219.261 Nov '22 Rev.3
- OPSD 310.020 Nov '29 Rev.3
- OPSD 310.050 Nov '19 Rev.3
- OPSD 350.010 Nov '18 Rev.2
- OPSD 400.010 Nov '18, Rev 3
- OPSD 401.010 Nov '18 Rev.4
- OPSD 405.010 Nov '18 Rev.4
- OPSD 600.040 Nov '12 Rev.2



**ADDENDUM NO. 01**

- OPSD 608.010 Nov '12 Rev.2
- OPSD 610.010 Nov '18 Rev.2
- OPSD 701.010 Nov '14 Rev.5
- OPSD 701.011 Nov '14 Rev 5
- OPSD 701.021 Nov '14 Rev.4
- OPSD 701.030 Nov '14 Rev.4
- OPSD 701.031 Nov '14 Rev.2
- OPSD 701.040 Nov '14 Rev.4
- OPSD 703.011 Nov '14 Rev 2
- OPSD 705.010 Nov '19 Rev 4
- OPSD 705.030 Nov '19 Rev 4
- OPSD 708.020 Nov '11 Rev.3
- OPSD 802.010 Nov '14 Rev.3
- OPSD 810.010 Nov '18 Rev.3
- OPSD 1103.010 Nov '18 Rev.3
- OPSD 1105.010 Nov '18 Rev.3

**ADDENDUM NO. 01**

Herewith is the Consent of Surety of the Tender submitted.

The Tenderer agrees that he will furnish to the Owner copies of all required subcontractor Performance Bonds and Labour and Material Payments Bonds forthwith upon execution of subcontracts with his Owner-Approved subcontractors.

The Tenderer agrees to have all the works Completed by the Time of completion as stated in the contract documents.

The "Agreement to Bond" of the \_\_\_\_\_  
(Company), a Company lawfully doing business in the Province of Ontario, to furnish a Performance Bond and a Labour and Material Payments Bond each in an amount equal to 50 percent of the Contract Price, or in such greater amount as may be required by the Contract Documents, if this Tender is accepted, is attached herewith.

A tender deposit in the amount of \$ \_\_\_\_\_ is attached hereto.

**CONSENT OF SURETY COMPANY (or submit executed form from Surety Company)**

Should they be required, the undersigned Surety Company hereby consents and agrees with the Owner to become bound as Surety in all Performance Assurance Bonds required by the Contract Documents, all for the fulfillment of the Contract for the Work covered by the annexed Tender, which may be awarded to the aforementioned contractor at prices set forth in the attached Tender. The said Surety is legally entitled to do business in the Province of Ontario.

\_\_\_\_\_  
Name of Company

\_\_\_\_\_  
Address

Per: \_\_\_\_\_  
(Executed under Seal)

Per: \_\_\_\_\_

**ADDENDUM NO. 01**

This Tender is executed under seal at \_\_\_\_\_ this \_\_\_\_\_ day  
of \_\_\_\_\_, 2023.

Name of  
CONTRACTOR: \_\_\_\_\_

Address: \_\_\_\_\_

**FOR INDIVIDUAL OR PARTNERSHIP:**

SIGNED, SEALED AND DELIVERED by:

\_\_\_\_\_ (Tenderer - please print)

\_\_\_\_\_ (Signature of Tenderer)

In the presence of:

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

Address: \_\_\_\_\_

Occupation: \_\_\_\_\_

**FOR LIMITED COMPANY**

The Corporate Seal of:

\_\_\_\_\_ (Seal)  
(Tenderer - please print)

was hereunto affixed in the presence of:

\_\_\_\_\_  
Authorized Signing Officer and Title

\_\_\_\_\_  
Authorized Signing Officer and Title

Note: If the Tender is by a joint venture, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above. If the Tender is submitted by or on behalf of a Corporation, it must be signed in the name of the Corporation by the duly authorized officers and the seal of the Corporation must be affixed. If the Tender is submitted by or on behalf of an individual or a partnership, a seal must be affixed opposite the signature of the individual or the partners.

**THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE**

**RECONSTRUCTION OF GODFREY STREET,  
COMMISSIONER STREET, FOURTH AVENUE  
AND NINTH AVENUE**

**PROJECT NO. NWL-21014892**

**ARTICLES OF AGREEMENT**

---

**ENGINEERS:  
EXP SERVICES INC.,  
P.O. BOX 1208,  
310 WHITEWOOD AVENUE W.,  
NEW LISKEARD, ONTARIO.  
P0J 1P0**

**TEL: 705-647-4311  
FAX: 705-647-3111**

**OWNER:  
THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE  
69 FOURTH AVENUE, P.O. BOX 40  
LARDER LAKE, ONTARIO  
P0K 1L0**

**Tel: 705-643-2158  
Fax: 705-643-2311**

THIS AGREEMENT MADE IN TRIPLICATE THIS \_\_\_\_\_ DAY OF MAY 2023.

BETWEEN:

**The Corporation of the Township of Larder Lake**  
(the "Owner")

- and -

---

(the "Contractor")

**PROJECT: RECONSTRUCTION OF ALBERT STREET**

***ARTICLES OF AGREEMENT***

**IN CONSIDERATION** of the mutual promises and obligations contained in the Contract Documents, the Owner and the Contractor agree as follows:

**A.1 CONTRACT DOCUMENTS**

**1.1** The documents forming the Contract between the Owner and the Contractor, referred herein as the Contract Documents, are:

- 1.1.1 These Articles of Agreement;
- 1.1.2 The document attached hereto entitled "Form of Tender";
- 1.1.3 The document attached hereto entitled "General Conditions";
- 1.1.4 The document attached hereto entitled "General Special Provisions";
- 1.1.5 The document attached hereto entitled "Item Special Provisions";
- 1.1.6 The document attached hereto entitled "Contract Drawings";
- 1.1.7 The related Sections of Ontario Provincial Standard Specifications listed within the Form of Tender, Breakdown Form, Product Supplier Form and the Exp Standard Specifications and Drawings as applicable and as referred to in the General Specifications;
- 1.1.8 Any amendment or variation of the Contract Documents that is made in accordance with the General Conditions.

**1.2** The Owner hereby designates EXP Services Inc. as the Contract Administrator (Engineer) for the purposes of the Contract.

**1.3** In the Contract:

- 1.3.1 "Fixed Price Arrangement" means that part of the Contract that prescribes a lump sum as payment for performance of the Work to which it relates, and
- 1.3.2 "Unit Price Arrangement" means that part of the Contract that prescribes the product of a price multiplied by a number of units of measurement of a class as payment for performance of the Work to which it relates.

1.3.3 Any of the provisions of the Contract that are expressly stipulated to be applicable only to a Unit Price Arrangement are not applicable to any part of the work to which a Fixed Price Arrangement is applicable.

1.3.4 Any of the provisions of the Contract that are expressly stipulated to be applicable only to a Fixed Price Arrangement are not applicable to any part of the work to which a Unit Price Arrangement is applicable.

## A.2 DATE OF COMPLETION OF WORK AND DESCRIPTION OF WORK

2.1 The Contractor shall between the date of these Articles of Agreement and 17<sup>th</sup> day of November 2024, in a careful and workmanlike manner, diligently perform and complete the following work:

### WATERMAIN, STORM, AND SANITARY REPLACEMENT

Which involves the reconstruction of approximately 600 m of paved municipal roadway as shown on the plans. This work includes, but is not limited to, the following:

- Road reconstruction including, but not limited to, full depth removal of bituminous pavement and hot mix paving for approximately 600 m of municipal roads on Albert Street.
- Construction of 1.3km m of sanitary sewers, maintenance holes and associated services.
- Construction of 380 m of storm sewers, installation of 15 storm structures.
- Construction of 1.8km of watermain and appurtenances, and associated services.

**Which is more particularly described in the Contract Documents.**

## A.3 CONTRACT PRICE

3.1 Subject to any increase, decrease, deduction or set-off that may be made under the Contract, the Owner shall pay the Contractor at the times and in the manner set out or referred to in the General Conditions:

~~3.1.1 The sum of \$ \_\_\_\_\_, in consideration for the performance of the Work or the part thereof that is subject to a Fixed Price Arrangement, and~~

3.1.2 a sum that is equal to the aggregate of the products of the number of units of measurement of each class of labour, plant and material, as certified by the Contract Administrator, multiplied in each case by the appropriate unit price that is set out in the Unit Price Table in consideration for the performance of the Work or the part thereof that is subject to a Unit Price Arrangement.

3.2 For the information and guidance of the Contractor and the persons administering the Contract on behalf of the Owner, but not so as to constitute a warranty, representation or undertaking of any nature by either party, it is estimated that the Total amount payable by the Owner to the Contractor for the part of the Work to which a Unit Price Arrangement is applicable will not exceed the sum of \_\_\_\_\_ **excluding HST.**

- 3.3 ~~A3.1.1 is applicable only to a Fixed Price Arrangement.~~
- 3.4 A3.1.2 and A3.2 are applicable only to a Unit Price Arrangement.
- 3.5 The Contract Price shall exclude all applicable sales taxes.

**A.4 ADDRESSES**

- 4.1 For the purpose of the Contract, the Contractor's address shall be deemed to be:

- 4.2 For the purpose of the Contract, the Owner's address shall be deemed to be:

The Corporation of the Township of Larder Lake  
69 Fourth Avenue,  
Larder Lake, ON  
P0K 1L0

SIGNED SEALED AND DELIVERED  
In the presence of:

CONTRACTOR:

Per:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Name and Position)

\_\_\_\_\_  
(Date)

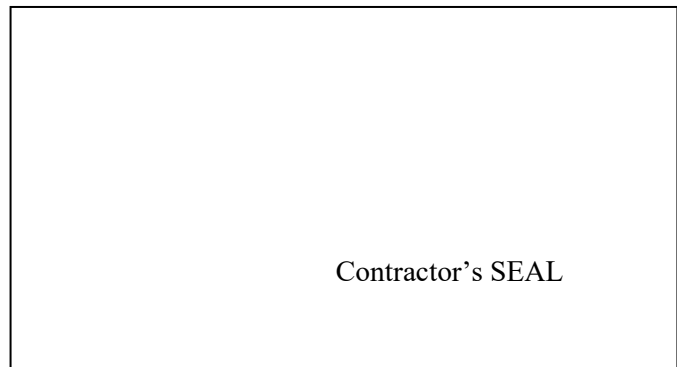
Per:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Name and Position)

\_\_\_\_\_  
(Date)



OWNER:

Per:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Name and Position)

\_\_\_\_\_  
(Date)

Per:

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Name and Position)

\_\_\_\_\_  
(Date)

**END OF ARTICLES OF AGREEMENT**



# **LARDER LAKE GENERAL CONDITIONS**



## **THE CORPORATION OF THE TOWNSHIP OF LARDER LAKE**

**OPSS.MUNI 100 – GENERAL CONDCTIONS OF CONTRACT  
NOV. 2019**

[HTTPS://WWW.LIBRARY.MTO.GOV.ON.CA/SYDNEYPLUS/TEHPUBS/PORTAL](https://www.library.mto.gov.on.ca/sydneyplus/techpubs/portal)

**THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE**

**RECONSTRUCTION OF GODFREY STREET,  
COMMISSIONER STREET, FOURTH AVENUE  
AND NINTH AVENUE**

**PROJECT NO. NWL-21014892**

**GENERAL SPECIAL PROVISIONS**

---

**ENGINEERS:  
EXP SERVICES INC.  
P.O. BOX 1208  
310 WHITEWOOD AVENUE W.  
NEW LISKEARD, ONTARIO  
P0J 1P0**

**TEL: 705-647-4311  
FAX: 705-647-3111**

**OWNER:  
THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE  
69 FOURTH AVENUE, P.O. BOX 40  
LARDER LAKE, ONTARIO  
P0K 1L0**

**Tel: 705-643-2158  
Fax: 705-643-2311**

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## **1. CONVENIENCES**

- (a) The Contractor must provide and properly maintain, in clean condition, suitable and convenient privy or water closet accommodation for his workers.

## **2. APPROVALS AND PERMITS**

- (a) The construction of the works and all operations connected thereto are subject to the approval, inspection, by-laws, and regulations of all municipal, provincial, and federal and other authorities having jurisdiction in respect to any matter embraced in this Contract.
- (b) Unless otherwise specifically stated in the tender document, the Contractor shall obtain and pay the fees for all approvals and permits required for or in respect of the works, except that the Owner will reimburse the Contractor for the fee, if any, paid to the Owner for a building permit.
- (c) The Contractor shall obtain all necessary permits, including but not limited to, Ministry of Natural Resources and Ministry of work permits.

## **3. NOTIFICATIONS**

- (a) The Contractor shall provide the following:
  - (i) When streets or roadways are to be closed, or traffic restricted, notify the Owner and the appropriate ambulance, fire and police departments and waste collection contractor, giving at least seven (7) days notice prior to the closing or restriction.
  - (ii) If bus routes are affected, notify the bus company, giving at least seven (7) days notice.
  - (iii) When streets or roadways are to be re-opened, or restrictions removed, immediately notify the Owner and the ambulance, fire, police, and bus authorities.
  - (iv) Give at least 48 hours notice, not including weekends or statutory holidays, to affected property owners where interruptions to access to properties adjoining the work or where garbage collection, sewer or water services interruptions is authorized by the Engineer. Arrange interruptions so as to create a minimum interference to those affected.
  - (v) Submit a schedule of expected interruptions for approval and adhere to approved schedule.
  - (vi) Give notification of unscheduled shutdowns of Municipal facilities by whatever means determined by the Engineer to all users of the facilities and pay cost of notification.

The Owner will provide public notifications.

#### **4. UTILITY AND MUNICIPAL INSTALLATIONS/CONNECTION/REMOVALS/ TESTING**

- (a) The approximate locations of utilities are shown on the Contract Drawings. It shall be the Contractor's responsibility to contact the Owner and the various utility companies, prior to construction, in order to verify infrastructure and utility locations on site. The Contractor shall ensure that these locations are brought to the attention of all subcontractors.

#### **5. ENVIRONMENTAL CONSTRAINTS**

##### **5.1 Areas Used For The Management Of Excess Materials**

- (a) It shall be the Contractor's responsibility to dispose of all excess materials in accordance with OPSS.MUNI 180 (Nov. 2021). Excess soil materials may be transported to disposal locations within the Municipality. No guarantee is provided as to the quantity that can be disposed at the Municipal site(s). When all fill locations are filled the Contractor must locate suitable disposal areas and obtain approval from the Owner and Engineer before use.
- (b) The areas worked by the Contractor shall be trimmed and graded to a neat and satisfactory condition.

**No separate payment will be made for any of the above work.**

##### **5.2 Erosion and Sediment Control: General**

- (a) The erosion and sedimentation control items detailed in the Contract address the requirements of regulatory authorities needed to obtain authorizations, permits and/or approvals in order to proceed to construction, and erosion and sedimentation controls not related to contractor construction methods and operations such as final slopes and final ditches.
- (b) The Contractor shall, as part of the Contract price, control erosion and sediment caused by their construction methods and operations including but not limited to incomplete earth slopes, ditches and designated disposal areas, stockpiles, access and service roads, storage and work areas, and non-designated disposal areas so as to meet all legislative requirements, to prevent entry of sediments into watercourses and environmentally sensitive areas and to prevent damage to property inside or outside of the right-of-way.

### **5.3 Erosion and Sediment Control**

- (a) The time interval between commencement and completion of any work that disturbs earth surfaces shall be a maximum of 20 calendar days. Commencement of such work shall be considered to have occurred when the original stabilizing ground cover has been removed, including grubbing, or has been covered with fill material. Completion of such work shall be considered to have occurred when the cover material (seed and mulch, seed and erosion control blanket, sod, rip-rap, etc.) has been applied.
- (b) Where the timing of the operation results in a conflict with the application requirements of the specified cover, the Contractor shall determine appropriate interim measures that afford temporary protection until such a time as final cover can be applied.
- (c) These timing constraints apply regardless of timing of Contract award.
- (d) Where interceptor ditches or subsurface drains are specified in the Contract, they shall be constructed before commencement of any related cut or fill.
- (e) Run-off from construction materials and any stockpiles shall be contained and discharged so as to prevent entry of sediment to watercourses.
- (f) Where dewatering is required, and where culverts are cleaned by hydraulic means, effluent shall be discharged to prevent entry of sediment to watercourses.
- (g) Erosion and sedimentation control measures shall not be placed in watercourses unless otherwise specified in the Contract or directed by the Contract Administrator.
- (h) A 200m stand-by supply of prefabricated light duty silt fence barrier, in addition to silt fence barrier which may be specified elsewhere in the Contract, shall be maintained at the Contract site prior to commencement of grading operations and throughout the duration of the Contract.

### **5.4 Migratory Bird Protection - General**

- (a) The Contractor shall not destroy active nests of protected migratory birds. When these nests are encountered, the Engineer's contract administrator must be contacted immediately.

### **5.5 Management of Excess Earth with Salt Impacts**

- (a) The Contractor shall note that excess earth from highway construction projects may contain elevated concentrations of chloride and sodium and may have elevated values for Electrical Conductivity and Sodium Adsorption Ratio. For the purpose of this Contract, excess earth with salt impacts is not considered to be "contaminated" within the meaning of Table 1 in OPSS 180.

- (b) Where the Contractor manages excess earth as disposable fill, the Contractor shall take into account the possibility of salt impacts and ensure that the material is managed responsibly and in an environmentally appropriate manner. Where the Contractor intends to manage the excess earth that may be salt impacted on private property, the Contractor shall make the Property Owner aware that it may be salt impacted.
- (c) The Contractor is responsible for conducting such sampling and testing as may be necessary to comply with any requirements imposed by the Property Owner as a condition of accepting the excess earth.

## **5.6 Species at Risk**

- (a) Subsection GC 3.07, Delays, of the General Conditions of Contract is amended by the addition of the following:
  - (i) The unexpected presence of Species at Risk protected under the federal *Species at Risk Act* or the provincial *Endangered Species Act* that was not specified in the Contract Documents.
- (b) If the Contractor encounters Species at Risk:
  - (i) The Contractor shall be aware of the requirements and prohibitions of the federal *Species at Risk Act, 2002* and the provincial *Endangered Species Act, 2007* for which information is available on the Environmental Canada website and the Ministry of Natural Resources website respectively.
  - (ii) The Contractor shall immediately notify the Engineer and suspend operations within the area identified by the Engineer.
  - (iii) Work shall remain suspended within that area until otherwise directed by the Engineer in writing.
  - (iv) 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.
  - (v) 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 GC 3.10.
  - (vi) 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 GC 3.10.

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## **6. PROVISION FOR TRAFFIC**

- (a) The Contractor shall be required to make provision for the safe passage and control of localized traffic within, entering, or leaving the construction zone. Only two (2) locations shall be restricted to one lane of traffic at any time for construction purposes. Operations shall be scheduled such that one lane of traffic in each direction is restored to its original location prior to the end of each day's work, except as detailed elsewhere in the contract documents. The Contractor shall submit to the Owner, for approval, details showing the specific locations of temporary detour routes and signs.
- (b) Access to all entrances shall be maintained at all times unless arrangements have been made with the property owner(s). The Contractor shall co-ordinate any and all entrance closures with the occupant requiring access to the property via the driveway. The Contractor must keep the Engineer's contract administrator aware of all arrangements made.
- (c) The Contractor shall supply and install all signs required for temporary traffic control during construction in accordance with the Ontario Traffic Manual.
- (d) The Contractor shall be responsible for the maintenance of granular driving surfaces, including non-working hours and weekend shutdowns. The contractor shall make provision for stand-by staff for grading and dust control during non-working hours. The Contractor shall provide contact names and telephone numbers of the stand-by staff to the Owner's Works Department. The Contractor is responsible for the maintenance of the detour route to the same extent detailed within this section.
- (e) All costs incurred by the Contractor to perform the work outlined above will be deemed to have been included in the total tender price and shall include full compensation for all labour, equipment and material to do the work.

## **7. PROTECTION OF PUBLIC TRAFFIC**

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Special Provision No. 100F08 (M)

March 2012

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### **7.1 Restrictions on Construction Operations**

The use of construction accesses, shoulder closures and the loading and unloading of materials and construction equipment onto and from the traveled portion of the highway shall not be carried out on days identified under the section entitled "Holiday Restrictions", or during the following periods:





<b>Location</b>	<b>Monday or a Day Following a Holiday</b>	<b>Tuesday to Thursday Except on Days Following and Preceding Holidays</b>	<b>Friday or a Day Preceding a Holiday</b>	<b>Saturday</b>	<b>Sunday</b>
Entire Contract	<u>Sunset to sunrise</u>	<u>Sunset to sunrise</u>	<u>Sunset to sunrise</u>	All Day	All Day

**7.2 Open Excavations**

- (a) The Contractor shall schedule the Work so that there will be no open excavation adjacent to a lane carrying traffic overnight and on non Working Days except where a traffic barrier designed to restrain errant vehicles is located between the traffic and the excavation. Excavations within 4 m of lanes carrying traffic shall be backfilled with the specified material up to profile grade and compacted prior to closing down operations each day.

**7.3 Location and Storage of Materials and Equipment**

- (a) Materials shall not be stored within 4 m of the traveled portion of any roadway except in the medians where the minimum clearance required is 2.5 m. Equipment shall not be stored within 4 m of the traveled portion of any roadway.
- (b) Notwithstanding the foregoing, the Contractor shall, at the Contractor's expense, remove any vehicle, equipment or material which, in the opinion of the Engineer's contract administrator, constitutes a traffic hazard or obstruction to maintenance operations.

**7.4 Delivery and Trucking**

- (a) The Contractor shall plan and schedule the routes of vehicles transporting all materials to, from or within the job, so that vehicular movements are accomplished with minimum interference and interruptions to traffic according to the sections entitled "Restrictions on Construction Operations" and "Permitted Times for Lane and Ramp Closures". This will necessitate vehicles to "slip-off" or "slip-on" in the direction of traffic, in order to merge with and thereby avoid crossing traffic lanes.
- (b) Access to and from the highway right-of-way will be restricted to ramps at the interchanges unless otherwise provided for in the Contract.
- (c) Median crossovers shall not be used except where single axle vehicles are entering a passing lane that is closed to traffic.



- (d) The Contractor shall obtain prior approval from the Engineer's contract administrator for the location of any "slip-off" or "slip-ons". The Engineer's contract administrator reserves the right to alter, reject or close same as considered necessary. The Contractor shall notify suppliers of materials and equipment of the above requirements.

**7.5 Holiday Restrictions**

- (a) The use of construction accesses, shoulder closures, lane closures, and the loading and unloading of materials and construction equipment onto and from the traveled portion of the highway shall not be carried out on *all* Canadian Statutory or Civic Holidays or after 15:00 hours on days which precede holiday weekends.

**8. OCCUPATIONAL HEALTH AND SAFETY ACT COMPLIANCE**

**8.1 List of Designated Substances**

Special Provision No. 101F21 (M) November 2014

- (a) In accordance with the Occupational Health and Safety Act, R.S.O. 1990, c. 0.1, the Contractor is advised of the presence of the following Designated Substances.

<b>Substance (Ontario Regulation Number)</b>	<b>Location</b>
Asbestos on Construction Projects and in Buildings and Repair Operations (O. Reg. 278/05)	N/A
Benzene (R.R.O. 1990, Reg. 839)	N/A
Mercury (R.R.O. 1990, Reg. 844)	Existing Luminaires
Vinyl Chloride (R.R.O. 1990, Reg. 846) Coke Oven Emissions (R.R.O. 1990, Reg. 840) Ethylene Oxide (R.R.O. 1990, Reg. 841) Acrylonitrile (R.R.O. 1990, Reg. 835) Isocyanates (R.R.O. 1990, Reg. 842)	N/A
Silica (R.R.O. 1990, Reg. 845)	As Detailed Below
Arsenic (R.R.O. 1990, Reg. 836)	As Detailed Below
Lead (R.R.O. 1990, Reg. 843)	As Detailed Below

- (b) The Contractor is further advised that the Designated Substances silica (Ontario Regulation Number R.R.O. 1990, Reg. 845), lead (R.R.O. 1990, Reg. 843) and arsenic (R.R.O. 1990, Reg. 836) are generally present throughout the Working Area, occurring naturally or as a result of vehicle emissions. Exposure to these substances may occur as a result of activities by the Contractor such as sweeping, grinding, crushing, drilling, blasting, cutting, and abrasive blasting.



## 9. NIGHT WORK

- (a) No night work shall occur between sunset and sunrise for the entire duration of the Contract, except as detailed elsewhere in the contract.

## 10. MAINTENANCE OF HAUL ROUTES

- (a) When aggregate or borrow is being hauled from a source which is not a commercial source or is not licensed under the Aggregate Resources Act by MNR, and where the haul roads are damaged, or require upgrading (ie widening for safe two-way traffic), due to the hauling operations, the Contractor shall, when directed by the Engineer, place such material and perform such work on the haul road as is required to provide safe passage and control traffic; and shall on completion of the hauling operations, place such material and perform such work as ordered by the Engineer to restore the haul roads.
- (b) All cost related to the materials provided and the work performed, as herein required, will be deemed to have been included in the tender prices of the appropriate tender items and shall include full compensation for all labour, equipment and material to do the work.

## 11. TRAFFIC AND ROAD NAME SIGNS

- (a) The Contractor shall protect all traffic control and road name signs within the Construction Zone as well as on the detour route. Where signs have been damaged as a result of the Contractor's operations, they shall be replaced or repaired by the Owner and the cost shall be charged to the Contractor.

## 12. CONSTRUCTION STAGING

- (a) A Construction Staging Plan **MUST** be prepared by the Contractor **for submission a minimum of 5 business days prior to the Preconstruction Meeting, to be discussed at the Preconstruction Meeting.** A bar graph (Gantt chart) format is recommended.

## 13. VALUE ADDED TAXES

- (a) Unit prices shall not contain the Goods and Services Tax.



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## 14. AMENDMENTS TO THE GENERAL CONDITIONS

- (a) The General Conditions, November 2019, are modified as follows:

### 14.2 Section GC 1.0 Interpretation

#### GC 1.04 Definitions

The definition of "Subcontractor" in subsection GC 1.04 is deleted and replaced with the following:

**"Subcontractor"** means a person, firm or corporation undertaking the execution of a part of the Work by virtue of an agreement with the Contractor which has been approved by the Owner; and for the sole purpose of administering Part IV, Holdbacks, of the Construction Lien Act, means a person, firm or corporation undertaking the execution of one or more complete tender items identified in the Contract Documents by virtue of an agreement with the Contractor which has been approved by the Owner.

Subsection GC 1.04 is amended by the addition of the following:

**"Aggregate"** means gravel, sand, clay, earth, shale, stone, limestone, dolostone, sandstone, marble, granite or rock other than metallic ores; slag and clinkers.

**"Commercial Source"** means a place where Aggregate or a product containing Aggregate, is made available for sale.

**"Delineator"** means a TC-52 construction marker, or TC-54 flexible drum as described in the Ontario Traffic Manual.

### 14.1 Section GC 3.0 Administration of the Contract

#### GC 3.09 Subcontracting by the Contractor

Subsection GC 3.09 is amended by the addition of the following:

The Contractor may subcontract any portion of the Work, but the total of all sublets shall not exceed 60% of the total tender value without the written consent of the Owner, subject to these general conditions and any limitations established by the Owner.

#### GC 7.0 Contractor's Responsibilities and Control of the Work

Subsection GC 7.02, Layout, is amended by the addition of the following:

The Engineer will provide Grading Reports &/or Typical Sections to establish the grading cross-sections. These documents contain all necessary information relating to lateral distance and elevation for the construction of the Work. During the progress of the work the Contractor shall notify the Engineer forthwith of any errors, omissions or inconsistencies in the geometric information and the controls provided by the Owner.

The Contractor shall advise the Engineer of the intended layout schedule weekly by identifying the survey activities planned for the following week, including any miscellaneous surveying items.

For the grading layout, stakes 25 x 50 x 600 mm, minimum, shall be installed left and right of centerline at or near the right-of-way limits and in the areas where additional staking is required, such as intersections, bridges, and on horizontal and vertical curves. Staking intervals shall be as specified under the Layout Interval tables. The only data to be shown on these stakes shall consist of profile grade, off-set distance from centre-line, and the station location. The Contractor shall erect butterfly rods or batter boards at grade stake locations. The Contractor shall notify the Engineer when the Subgrade is completed. A Subgrade and granular base cross-section, three-point section minimum, will be obtained by the Engineer and the grade accepted if construction is within the allowable tolerances. No granular material shall be placed until the Subgrade is accepted.

Any digital files provided are for information purposes only. All data must be verified by the contractor.

**TABLE #1  
 LAYOUT INTERVALS AND MEASUREMENT ACCURACY  
 FOR CONSTRUCTION SURVEY - LAYOUT**

ACTIVITY	INTERVAL	MEASUREMENT ACCURACY	REMARKS
Layout			With the exception of plus sections, layout is normally at the same interval as the cross sections/grade calculations. This may be varied when extreme changes in horizontal and vertical alignment are encountered.
Rock	10 m		
Earth	25 m		
Maximum for setting structure footing grades	10 m		
Structure grades to be set to		1 mm	
Adjustment to slope stake distances to allow for grubbing losses		300 mm	
Set grades for earth grading to the nearest		10 mm	
Set grades for granular to the nearest		5 mm	
Layout stake offset for curb and gutter			2 m but may be varied to suit conditions
Stake layout for curb and gutter	10 m		May be necessary to reduce for very sharp curves
Set curb and gutter grades to the nearest		1 mm	
Staking maximum for layout of a radius (intersections)	3 m		
Layout stake offset for concrete pavement			2 m offset
Concrete pavement grades to be set to		1 mm	

**TABLE #2  
 LAYOUT INTERVALS AND MEASUREMENT ACCURACY  
 FOR CONSTRUCTION SURVEY - CROSS SECTIONS**

ACTIVITY	INTERVAL	MEASUREMENT ACCURACY	REMARKS
CROSS SECTIONS Backsight and foresight readings to be taken to the nearest		1 mm	
Maximum allowable error between adjacent Bench Marks		5 mm	
Intermediate road readings to be taken to the nearest earth cut rock cut rock cut with overburden muskeg excavation fills with stripping, sub-excavation, or ditching transition from cut to fill fills earth or rock fills borrow pits	25 m 10 m 10 m 25 m 25 m 25 m 25 m 25 m 25 m	10 mm	
Maximum transverse interval for cross-section elevations  earth  rock  borrow	25 m  10 m  25 m		
Offset distances to be measured to the closest		100 mm	

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**GC 6.0 Insurance, Protection, and Damage**

Subsection GC 6.01, Protection of Work, Persons, and Property is amended by the addition of the following:

Vehicles hauling materials for use in the Work shall be accompanied by a "Record of Allowable Gross Weight" certificate, Form SR-E-121. The legal limit will be the vehicle's registered gross weight or the allowable gross weight, whichever is less. The Contractor shall ensure that a copy of the "Record of Allowable Gross Weight" form is left with the weigh person for the Owner's use.

**15. WEIGHING OF MATERIALS**

AMENDMENT TO OPSS 102, OCTOBER 1992

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Special Provision No. 101S18

April 1994

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**15.1 Bar Coding on Material Delivery Invoices**

**102.02 REFERENCES**

Section 102.02 of OPSS 102 is amended by the addition of the following:

American National Standard for Materials Handling - Bar Code Symbols on Unit Loads and Transport Packages (ANSI MH10.8M-1983)

**102.06.02 Platform Scales**

Subsection 102.06.02 of OPSS 102 is amended by the addition of the following:

The platform scale shall be equipped with a direct cable connection to the computer for the purpose of sending mass measurements.

A printing device connected by direct cable connection to the computer shall be capable of electronically producing, in black print only, tickets conforming to the requirements specified in this special provision.

**102.07.01 Mass Measurements**

Subsection 102.07.01 of OPSS 102 is deleted and replaced by the following:



The Contractor shall provide personnel to conduct the mass measurements. The mass measurements shall be sent to the printing device using a print command on the computer. Any form of override of the printing process, except total transaction rejection, will not be allowed.

The system shall be capable of detecting vehicle overloads, and of automatically signalling overload occurrence to the system operator.

Tickets shall be supplied by the Contractor. Bar codes shall be printed directly onto the weigh ticket or onto labels. Bar coded labels shall be affixed to the Owner's copy of the ticket before it leaves the weigh scale building.

The following information shall be displayed as bar code groups printed in a column or left to right configuration:

- 1) Truck Number
- 2) Tare Weight
- 3) Net Weight
- 4) Ticket Number

The words "Truck", "Tare", "Net", and "Ticket" must appear beneath each appropriate bar code group.

Conventional alphanumeric shall be used elsewhere on the ticket to express the exact information contained in the bar codes.

Automated reading failure rates greater than one reading failure in twenty tickets scanned and attributable to the density or configuration of the bar codes are not acceptable. Where such rates of reading failure occur, the Contractor must take corrective action to enhance the bar code symbology to an acceptable level immediately following notification of the problem.

The bar code symbols shall conform to the American National Standard for Materials Handling - Bar Code Symbols on Unit Loads and Transport Packages (ANSI MH10.8M-1983) for 3 of 9 bar code (Code 39).

The minimum bar code height shall be 6.4 mm or 15 percent of the bar code length, whichever is greater.

In addition to the bar code group information, each weigh ticket shall contain the following:

- |                                    |                       |
|------------------------------------|-----------------------|
| a) licence plate number of unit(s) | f) source of material |
| b) time and date of transaction    | g) gross weight       |



- 
- |                     |                                    |
|---------------------|------------------------------------|
| c) Truck Owner      | h) overload notation               |
| d) contract number  | i) running total of each material  |
| e) type of material | j) a place for the checker to sign |

For each contract, the following reports shall be produced daily:

- truck register, including allowable gross weight for all vehicles;
- truck tare report for all vehicles, including old and new tares, and time recorded;
- summaries for each type of material;
- summaries for all cancelled loads.

The above reports shall be available for Owner pick-up at the end of daily operations or before start-up the following day.

A sample weigh ticket from each source must be supplied to the Owner two weeks prior to delivery of the material.

## **16. HORIZONTAL AND VERTICAL CONTROL DRAWINGS, AND GRADING CROSS SECTIONS**

### **16.1 Availability of Drawings and Digital Files for Viewing**

- (a) After award of the Contract, digital copies of the drawings and cross sections will be made available to the Contractor.

## **17. CONSTRUCTION NOISE CONSTRAINTS**

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Special Provision No. 199F33

January 2020

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### **17.1 Noise Sensitive Areas**

- (a) This special provision covers the requirements for control of construction noise produced by the Contractor's operations. With the exception of any exemptions from municipal noise control bylaws that may be indicated elsewhere in the Contract, these requirements do not relieve the Contractor of other obligations imposed by statute or by municipal bylaw.



(b) Noise constraints in noise sensitive areas are as follows:

Noise Sensitive Area # 1

Noise Sensitive Area Limits	
Area #1: Contract Limits	
Constraint	Constraint Details
Equipment Maintenance	Equipment shall be maintained in an operating condition that prevents unnecessary noise, including but not limited to non-defective muffler systems, properly secured components, and the lubrication of moving parts.
Equipment Operation	Idling of equipment shall be restricted to the minimum necessary to perform the specified work.
Equipment Type	Rock Removal Equipment
Hours of Work	Rock Removal activities are restricted to the hours of 07:00 to 12:00 hours as governed by the municipal noise by-law.

**18. IDENTIFICATION OF LOCAL REGULATORY AUTHORITIES**

Special Provision No. 199F34

July 2005

The following is provided for information only, to facilitate contact with and notification to regulatory authorities as specified in the Contract Documents:



<b>Regulatory Authority</b>	<b>Notification Requirement</b>
MOE: Spills Action Centre (SAC) 1-800-268-6060	For notification of a spill to the environment under the Environmental Protection Act
Owner: Corporation of the Township of Larder Lake, 325 Farr Drive, Haileybury, Ontario. P0J 1K0 (705) 672-3363	For notification of a spill to the environment under the Environmental Protection Act
MECP: North Bay Area Office, Unit 16 & 17, 191 Booth Road, North Bay, Ontario. P1A 4K3 (705) 497-6865 (1-800) 609-5553	For Waste Management Approval under the Environmental Protection Act
MNR: Kirkland Lake, Suite 201, 145 Government Road, Kirkland Lake, Ontario. (705) 568-3222	For notification of the release of a deleterious substance to a watercourse under the Fisheries Act
DFO: Sault Ste Marie District Office (705) 942-2848	For notification of the release of a deleterious substance to a watercourse under the Fisheries Act
Local Police: OPP - 911 1-888-310-1122	For notification of a Dangerous Occurrence involving dangerous goods under the Transportation of Dangerous Goods Act

## 19. PROTECTION OF UTILITY LINES

- (a) Where temporary rearranging and shielding of utility lines are detailed within the Contract Documents, such temporary rearranging and shielding is the minimum protection required. The Contractor shall remain responsible for any unauthorized disruptions of service and any damage to utilities arising out of the Contractor's work, notwithstanding such protection. The Utility authorities will carry out the temporary rearranging and shielding of lines as detailed within the Contract Documents and more extensive rearranging and shielding if requested to do so by the Contractor. The cost of all such 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 to the Contractor by the Utility authority.

- (b) Notwithstanding the preceding paragraph, the Utility authorities will, subject to the Contractor's obligation under the Contract to assume responsibility for disruption of services and damage, consider alternative measures that the Contractor may suggest. Such alternative measures, if approved by the Utility authorities in writing, will be provided at the Contractor's expense and billed to the Contractor by the Utility authority.

## **20. PARTICIPATION IN THE ANNUAL LABORATORY CORRELATION PROGRAM**

### **20.1 Annual Laboratory Correlation Program**

- (a) Laboratories performing testing for quality control purposes shall participate in the MTO's annual Ministry Laboratory Correlation Program for the appropriate material(s). There will be no compensation for this participation.

## **21. LIQUIDATED DAMAGES**

### **21.1 Progress of the Work and Time for Completion**

- (a) The Contractor shall complete and invoice the financial value of at least 90% of all underground infrastructure of this Contract prior to November 30, 2023. Fine grading, concrete curb and gutter and asphalt, as detailed in the Contract, shall be placed in the second year of the project (2024).
- (b) The Contractor shall complete grade, and install in its entirety, the watermain, sanitary sewer, storm sewer, curb, gutter, asphalt, and associated works, to be completed by October 31, 2024.
- (c) If this time limit above specified 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.

### **21.2 Liquidated Damages**

- (a) 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 aforementioned or as extended in accordance with Subsection GC3.06, Extension of Contract Time, of OPS General Conditions of Contract, November 2019, a loss, or damage will be sustained by the Owner. Since it is and will be impracticable and extremely difficult to ascertain and determine the actual loss or damage which the Owner will suffer in the event of and by reason of such delay, the parties hereto agree

that the Contractor will pay to the Owner the sum of **\$2,000.00** as liquidated damages for each and every calendar day's delay in finishing the work beyond the date of completion prescribed. It is agreed that this amount is an estimate of the actual loss or damage to the Owner that will accrue during the period in excess of the prescribed date of completion.

## **22. ONTARIO PROVINCIAL STANDARDS**

- (a) For all references to Ontario Provincial Standards in this contract, where both municipal and provincial versions exist, the municipal version shall apply.

## **23. OTHER CONTRACTORS WITHIN OR ADJACENT TO THE LIMITS OF THE CONTRACT**

- (a) Other work may not be in progress within or adjacent to the limits of this contract.
- (b) The Contractor shall coordinate the work with other Contractors within and/or adjacent to the project limits to ensure that they do not perform work in the same area at the same time, or adversely affect each others work. The Contractor shall ensure that a minimum separation of 100m is maintained between the operation included in this contract and work within and/or adjacent to this project done by others.
- (c) The Contractor shall provide a written submission to the Engineer explaining how the work with other Contractors will be coordinated.

## **24. CONSTRUCTION STORAGE AREA**

- (a) The Contractor is responsible to arrange for a designated area for the purposes of a site office, the storage of equipment and material during construction.
  - (i) This area is not to be used as a granular (topsoil, asphalt, etc) material stockpile location or for the stockpiling of excess soil.

## **25. MAINTENANCE SECURITY**

**(This Section is APPLICABLE to all Contracts EXCEPT for:**

- **Rental of Operated Equipment and Trade Services;**



The Contractor shall provide to the Owner for the duration of the period of maintenance a maintenance security the value of which shall be derived from the following table:

Contract Price		<i>Value of Maintenance Security</i>
From \$	To \$	
less than	0.5M	10% of final Contract Price
0.5M	2.0M	50,000 on first 0.5M + 3.1% on next 1.5M
2.0M	4.0M	96,500 on first 2.0M + 2.5% on next 2.0M
4.0M	6.0M	146,500 on first 4.0M + 2.0% on next 2.0M
6.0M	8.0M	186,500 on first 6.0M + 1.7% on next 2.0M
8.0M	10.0M	220,500 on first 8.0M + 1.5% on next 2.0M
Over 10.0M		250,500 on first 10M + 1.0% on balance

- (a) The period of maintenance shall be one year from the date of issuance of the **Certificate of Substantial Performance** of the Work.
- (b) The maintenance security, which is at no time a part of the statutory holdback, shall be retained by the Owner in increments from monies that would otherwise be payable to the Contractor, commencing during the latter part of the period of construction, so that by the date of substantial performance of the contract the full value of the required maintenance security has been retained.
- (c) Except as otherwise provided hereunder, the maintenance security, less any deductions made therefrom as provided for in the Contract, plus interest thereon over the period of maintenance and compounded annually at the applicable rate(s) of interest set from time to time by the Treasurer of Ontario, shall be paid to the Contractor following the Issuance by the Engineer of the **Final Payment Certificate** at the end of the period of maintenance.
- (d) The Contractor may apply in writing to the Engineer at the time of substantial performance to substitute for the monies retained as the maintenance security an alternative maintenance security of equivalent of greater value comprising:
  - (i) One irrevocable letter of credit, or
  - (ii) Another readily negotiable security.
- (e) Acceptance of any such alternative shall be at the discretion of the Engineer and the Solicitor for the Owner.
- (f) Following receipt and acceptance of any such alternative, the Engineer shall release to the Contractor the monies previously retained for the maintenance security purposes.
- (g) The Engineer may, in his discretion, allow the total maintenance security to be made up in part of monies retained under the Contract and in part of an alternative maintenance security as indicated in (a) and (b) above provided that the total value of such parts, as determined by the Engineer shall not be less than the required value as derived from the table set out above.

- (h) Such alternative maintenance security of the monies derived therefrom, less any deductions made as provided for in the Contract, shall be released to the Contractor following the issuance by the Engineer of the **Final Payment Certificate** at the end of the period of maintenance. Interest shall only be paid on monies, if any, derived from the said security and which remain unexpended in the maintenance security fund.
- (i) Following the **Substantial Performance** of the Contract, the Engineer may require the Contractor to consolidate all letters of credit provided pursuant to the foregoing into one or two letters of credit covering the Contract as a whole.
- (j) The Contractor shall allow his sub-contractor to provide letters of credit to the Contractor in conformity with the foregoing procedures. The Contractor shall provide the Engineer with copies of any or all such letters of credit on request.

## 26. QUALITY CONTROL

The Contractor shall be responsible to provide documentary evidence to the effect that the quality of the materials supplied, and workmanship would meet the specifications as follows:

1. Testing of Material (including granular) – Evidence must be in the form of a certified copy of a laboratory report from a recognized testing company acceptable to the Contract Administrator and in accordance with Section 20 PARTICIPATION IN THE ANNUAL LABORATORY CORRELATION PROGRAM.
2. Concrete – The Contractor shall arrange for all field sampling and testing of concrete in accordance with OPSS MUNI 904. Concrete testing shall include, but not be limited to, the following:
  - a. Records of concrete air content, slump, temperature, and delivery time.
  - b. Preparation, delivery to a recognized laboratory, and testing of concrete cylinders for compression strength. At least one set of concrete test cylinders (three cylinders) shall be taken and tested from each one-day pour. The result of the test shall be submitted to the Contract Administrator as soon as the cylinders are broken. Concrete testing shall be conducted by a recognized testing company with qualified personnel acceptable to the Contract Administrator.
  - c. Compaction tests – The Contractor shall provide compaction test results indicating that the materials are compacted to the specified density. At least one set (four holes) of test results shall be taken from each compaction operation. The Contract Administrator shall determine the location of the test holes. If the compaction does not meet the specification, the material shall be re-compacted, and a new set of compaction tests should be taken.



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All tests shall be taken by a recognized testing company acceptable to the Contractor Administrator.

The cost of quality control shall be borne by the successful Tenderer.

## **27. SEASONAL SHUTDOWN**

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Special Provision No. 199F45

August 2019

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### **27.1 Scope**

This Special Provision covers the requirements for the seasonal shutdown of construction operations prior to the transfer of the Roadway to the Owner.

### **27.2 General**

For the purposes of this Contract, seasonal shutdown shall be the period from:

November 10 to May 31

At the commencement of the seasonal shutdown period, all permanent highway lanes, shoulders, structures and interchange ramps which were in place prior to the start of construction, their reconstructed counterparts, or the lane configuration specified in the Contract Documents for the seasonal shutdown period, shall be open to traffic and shall remain unrestricted at all times to public traffic during the seasonal shutdown period.

The Contractor's Critical Path Schedule shall at all times reflect the seasonal shutdown Contract requirements as defined in this Special Provision.

The Contractor shall schedule and carry out operations in accordance with Seasonal Shutdown Requirements, including the construction and/or removal of any temporary transitions between the existing pavement structure and the new pavement structure.

All Work associated with the seasonal shutdown requirements specified below shall be deemed to be included in the Contract price for the appropriate tender items in the Contract Documents and no additional payment shall be made.

All hot mix paving work performed by the Contractor to meet seasonal shutdown requirements, that does not meet the full requirements of OPSS 313, shall be considered temporary paving and all costs associated with the placement and subsequent removal of the temporary pavement shall be at the Contractor's expense.

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### **27.3 Seasonal Shutdown Requirements**

The requirements in this Special Provision are additional to seasonal shutdown requirements specified elsewhere in the Contract Documents and shall not relieve the Contractor of any other requirements contained in the Contract, without the written approval of the Contract Administrator.

All operations shall be completed to the satisfaction of the Contract Administrator and as follows:

- (i) The minimum acceptable pavement structure for seasonal shutdown will be either the existing full depth pavement structure or the new proposed pavement structure up to and including the upper binder course.
- (ii) No vertical pavement drop-offs will be permitted except on closed portions of the Roadway(s) separated from public traffic by temporary construction barrier or other approved barrier system.
- (iii) All pavement marking obliteration that is required to remove temporary pavement markings on a surface other than the final pavement surface shall be completed by grinding using equipment as specified in the DSM listing for Line Removal Systems, Pavement Markings, or by abrasive blasting, using equipment and material as specified in the DSM listing for Line Removal Systems, Pavement Markings. If the temporary pavement markings are on the final pavement surface, all required pavement marking obliteration shall be completed by abrasive blasting, using equipment and material as specified in the DSM listing for Line Removal Systems, Pavement Markings.
- (iv) Pavement markings to be left in place during seasonal shutdown shall be painted markings only and shall have had a second application of paint according to the requirements specified elsewhere in the Contract Documents.
- (v) All guide rail systems that are to remain in place during seasonal shutdown shall be installed to the elevation requirements for the pavement surface that will be in place during seasonal shutdown. The shoulders shall be graded to reflect the required guide rail height. Sufficient room on the posts shall be left to allow for adjustment to final guide rail height.

### **~~28. PLACING HOT MIX ASPHALT BEFORE SEASONAL SHUTDOWN~~**

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~~Before seasonal shutdown or by November 30, 2023, whichever is earlier, the following work shall be completed on the above roadways on which construction operations have commenced and which are to remain open to public traffic:~~

- ~~(a) The roadbed shall be completed to the specified grade and cross section of the granular base;~~
- ~~(b) The roadbed shall be paved with at least the first layer of binder course mix as designed for the roadway shall be completed, including ramping at curb and gutter, manholes and catch basins. Surface course paving may proceed, in conformance with OPSS 313, as amended by this contract provided that the underlying work conforms to the contract requirements; and~~
- ~~(c) The shoulders shall be completed to the corresponding elevation of the top of the hot mix.~~

~~When, in order to comply with a) above, the Contractor does not comply with the restrictions on placing earth, rock or granular materials over frozen ground, ice or snow, the Contractor shall be responsible for the costs of removal and replacement of the pavement, granular and subgrade materials, subdrains, pavement markings, temporary traffic barriers, signs and other associated work and the provision of traffic control where removal and replacement is deemed necessary by the Contract Administrator.~~

~~When, in order to comply with b) above, the Contractor paves over a frozen roadbed or in violation of the temperature restrictions for paving, the Contractor shall be responsible for the costs of removal and replacement of the hot mix pavement, granular base and shouldering materials, pavement markings, temporary traffic barriers and the provision of traffic control.~~

~~The removal and replacement work shall conform to the Contract requirements and the Contractor shall comply with any other terms and conditions for carrying out the work as the Contract Administrator may declare in writing at that time.~~

~~When the Contractor has performed work which did not comply with the restrictions on placing earth, rock or granular materials over frozen ground, ice or snow, or paves over a frozen roadbed or in violation of the temperature restrictions for paving:~~

- ~~(a) The Contractor shall be responsible for the costs incurred by the Owner in maintaining the roadway in a condition satisfactory for the travelling public during seasonal shutdown, excluding the costs of applying de-icing salts, abrasives and snow plowing operations; and~~
- ~~(b) Payment at the contract prices for the work will be withheld until any necessary removal and replacement of the roadway has been completed after it has thawed in the spring.~~

## **29. WATERMAIN DISINFECTION**

New water mains must be disinfected using sodium hypochlorite conforming to ANSI/AWWA B300 before being placed in service.

All chemicals and materials used in the alteration or operation of the drinking water system that come into contact with water within the system shall meet all AWWA and ANSI applicable safety criteria standards NSF/60, NSF/61 and NSF/372. The most current NSF and/or ANSI certificate shall be available at all times for each chemical and material used in the operation of the drinking water system that comes into contact with water within the system.

The general contractor shall not shut down or charge any watermain or operate any valves or hydrants for any purpose without authorization from the distribution ORO. Operation of valves and hydrants are to be performed solely by the town's licensed operators. Advance notice of at least one full working day is required when valve or hydrant operation is necessary, except in emergencies.

### **29.1 Preventive Measures**

- (a) Keep pipes clean and dry to ensure the interiors of pipes, fittings, and valves are protected from contamination.
- (b) Ensure openings in the pipeline are closed with watertight plugs when pipe laying is stopped at the end of the day's work or for other reasons, such as rest breaks or meal periods. Rodent-proof plugs may be used when watertight plugs are not practicable and when thorough cleaning will be performed by flushing or other means.
- (c) Pipe delivered for construction shall be strung to minimize the entrance of foreign material. Delay in placement of delivered pipe invites contamination. The more closely the rate of delivery is correlated to the rate of pipe laying, the lower the risk of contamination.
- (d) Under no circumstances is the general contractor permitted to allow water to flood the trench when open piping is in place.
- (e) Yarning or packing material shall consist of molded or tubular rubber rings, rope of treated paper, or other approved materials. Materials such as jute or hemp shall not be used. Packing material shall be handled in a manner that avoids contamination.
- (f) No contaminated material or any material capable of supporting growth of microorganisms shall be used for sealing joints. Sealing material or gaskets shall be handled in a manner that avoids contamination. The lubricant used in the installation of sealing gaskets shall be suitable for use in potable water meeting the requirements of NSF/ANSI 61 and shall not contribute odors. It shall

be delivered to the job in closed containers and shall be kept clean and applied with dedicated clean applicators.

- (g) If dirt enters the pipe, it shall be removed, and the interior pipe surface swabbed with a minimum 1 percent free chlorine disinfecting solution. If, the dirt remaining in the pipe cannot be removed using the flushing operation, the interior of the pipe shall be cleaned using mechanical means, such as a hydraulically propelled foam pig or other suitable device in conjunction with the application of a minimum 1 percent free chlorine disinfecting solution. The cleaning method used shall not force mud or debris into the interior pipe-joint spaces.
- (h) If it is not possible to keep the pipe and fittings dry during installation, a scour flush at 3.0 ft/sec (0.91 m/sec) or greater for a minimum of three pipe volumes followed by slug or continuous-feed chlorination and bacteria testing before release is required. For larger mains, pigging is an option in place of high-velocity flushing.
- (i) In exceptional circumstances, if the main is flooded during construction, the distribution ORO will be informed immediately. The main will be cleared of the floodwater by draining and flushing with potable water until the main is clean. The section exposed to the floodwater shall then be filled with a chlorinated potable water that, at the end of a 24-hr holding period, will have a free chlorine residual of not less than 25 mg/L. The chlorinated water may then be drained or flushed from the main. If chemical contamination occurs, such as a hydraulic oil leak or petroleum product spill, the pipe sections exposed to the contamination shall be replaced and not reused for potable water applications.
- (j) Joints of pipe in the trench shall be completed before work is stopped. If water accumulates in the trench, the plugs shall remain in place until the trench is free of standing water and mud that may enter the pipe.
- (k) Water required to fill the new main for hydrostatic pressure testing, disinfection, and flushing shall be supplied through a temporary connection between the active distribution system and the new main. The temporary connection shall include an appropriate cross-connection control device (a double check valve assembly or a reduced pressure zone assembly) and shall be disconnected (physically separated) from the new main during the hydrostatic pressure test. It will be necessary to reestablish the temporary connection after completion of the hydrostatic pressure test to flush out the disinfectant water prior to final connection of the new main to the distribution system.
- (l) The new water main shall be kept isolated from the active distribution system using a physical separation (air gap) until the disinfection water is flushed out and satisfactory bacteriological testing has been completed. Once a written confirmation that the test results are clean has been issued by the Water Treatment Plant ORO, the final connection can be made onto the existing main.

## **29.2 Service Pipes**

- (a) Service pipes of 4 inches (100 mm) diameter and greater shall be considered as watermains for the purposes of this procedure. For Service pipes of diameter less than 100 mm, sanitary conditions shall be maintained during installation and/or repairs and shall be cleaned and flushed prior to placing in service. The town is responsible for the main up to the property line while mains on private property are the responsibility of the owner.

## **29.3 Preliminary Flushing**

- (a) An appropriate cross-connection control device is to be installed on all hydrants used prior to commencing flushing and once installed, must be approved by a license operator. The main shall be completely filled with potable water measured at a constant rate to eliminate air pockets and then flushed to remove dirt and debris. Preliminary flushing shall be accomplished at a rate of at least 3 ft/sec (0.91 m/sec). Table 3 of ANSI/AWWA C651-14 “Standard for Disinfecting Water Mains” shows the rates of flow required to produce a velocity of 3.0 ft/sec (0.91m/sec) in common used sizes of pipes.
- (b) In the absence of a meter, the rate may be approximated using a Pitot gauge in the discharge, measuring the time to fill a container of a known volume, or measuring the trajectory of the discharge and using the formula shown in figure 2 of ANSI/AWWA C651-14 “Standard for Disinfecting Water Mains”
- (c) It is important to note that flushing is not a substitute for preventive measures during construction. Certain contaminants, such as cake deposits, resist flushing at any feasible velocity.
- (d) After the preliminary flushing, a hydrostatic test shall be conducted followed by disinfection. Joints, fittings, and valves should be thoroughly cleaned before applying chlorine to a main.

## **29.4 Hydrostatic Testing**

The contractor shall conduct hydrostatic pressure and leakage test under the supervision of the distribution ORO or his designate.

As per Section 7.3.7.2 of the 2012 building code, 2 scenarios are available for pressure testing.

### **Option 1**

The water is to be pressurized to a minimum of 145 psi (1000kPa) for at least 1 hour without leakage.

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## **Option 2**

The water is to be pressurized to a minimum of 102 psi (700 kPa) for at least 2 hours without leakage.

The pressure is to be recorded at the beginning and end of the pressure test on the Hydrostatic Testing Form. If there is a drop in pressure, all leaks will be located and repaired and the test repeated until satisfactory results are obtained.

Once the pressure test is completed, the main shall be disinfected using the continuous-feed or slug method.

### **29.5 Chlorination of Mains**

The chlorine used for disinfection must conform to ANSI/AWWA B300.

Two scenarios are available for disinfection with sodium hypochlorite.

*Continuous Feed Method: 25-50 mg/L of free available chlorine for a 24-hour contact time*

The main shall be filled at a constant rate with potable water that has been chlorinated to a minimum of 25 mg/L and a maximum of 50 mg/L. After a 24-hr holding period in the main there shall be a drop of not more than 40% of the initial chlorine concentration.

Valves and hydrants connected to a new water main section shall be operated to ensure disinfection of the appurtenances and all pipe branches. The chlorinated water must be maintained in the main for at least 24 hours and the concentration parameters met or the disinfection process will have to be redone.

*Slug method: 100-200 mg/L of free available chlorine for a 3-hour contact time*

Water with a free chlorine residual of not less than 100 mg/L and not more than 200 mg/L must flow through the main at a slow enough rate so that all parts of the main and its appurtenances will be exposed to the highly chlorinated water for a period of at least 3 hours. To insure this is achieved, the free chlorine residual shall be measured before it is injected into the main and at regular time intervals in the slug as it moves through the main. If the concentration drops more than 25 mg/L, the flow shall be stopped, and chlorination shall resume ahead of the slug. Chlorine shall then be applied to restore the free chlorine to not less than 100 mg/L.

Should multiple batches of chlorine be necessary, the first batch will be used to measure free chlorine residuals. All chlorine batches are to be mixed in the same concentration as the first batch when injected into the main.

As the slug moves through the main, all valves and hydrants must be operated to ensure complete disinfection of appurtenances and pipe branches.

Regardless of the chlorination method used, the minimum contact times, initial chlorine

concentrations, and maximum allowable decreases in chlorine concentration as listed in Table 1 below shall be followed.

**Table 1: Chlorine Concentrations and Contact Times for New Watermains**

<b>Disinfection Method</b>	<b>Minimum Contact Time</b>	<b>Initial Chlorine Concentration (minimum)</b>	<b>Initial Chlorine Concentration (maximum)</b>	<b>Maximum Allowable Decrease in Chlorine Concentration</b>
Continuous Feed	24 hours	25 mg/L	50 mg/L	40% of the initial chlorine concentration
Slug	3 hours	100 mg/L	200 mg/L	25 mg/L

Where copper pipe is used for smaller diameter watermains, Table 1 does not apply. Copper watermains shall be disinfected using the Continuous Feed method, with an Initial Chlorine Concentration of  $\geq 50$  mg/L. Due to the chlorine demand exerted by the copper, no minimum chlorine concentration is required following the 24-hour contact time, and the effectiveness of the disinfection process shall be demonstrated by the Microbiological sampling.

Chlorine residuals are to be logged and submitted to the Owner.

### **29.6 Final Flushing**

- (a) Once the disinfection process has been completed, the water is to be flushed from the main fittings, valves, and branches until the residual is representative of the distribution chlorine residual.
- (b) If there is any possibility that the chlorinated discharge will cause damage to the environment (to fish life, plant life, physical installations, or any type of other downstream water uses), the water is to be de-chlorinated as it is being flushed from the system so as not to adversely impact the environment (refer to ANSI/AWWA C655 for neutralizing chemicals).
- (c) In order to prevent damage to the pipe lining or to prevent corrosion damage to the pipe itself, heavily chlorinated water should not remain in prolonged contact with pipe after the applicable retention period.

### **29.7 Bacteriological Testing of new watermains**

- (a) After final flushing, before the new water main is connected to the distribution system, the new mains have to be sampled and tested for e-coli, total coliform and HPC.



- (b) There are two options available for bacteriological testing.

**Option A:**

An initial set of samples is collected from the new main then resampled again after a minimum of 16 hours. Both sets of samples must pass for the main to be approved for connection.

**Option B:**

Let the water sit for a minimum of 16 hours without any water use. Collect two sets of samples from the new main a minimum of 15 minutes apart while the sampling taps are left running. Both sets of samples must pass for the main to be connected.

- (c) A set of samples includes all samples collected along the length of the pipe. At least one set of samples shall be collected from every 1200 ft. (370 m) of new main plus one set at the end of the line and one set from each branch greater than one pipe length.
- (d) If trench water has entered the new main during construction or if excessive amounts of dirt or debris have entered the new main, bacteriological samples shall be taken every 200 ft (61 m).
- (e) The samples are tested for the presence of e. coli, total coliform, and heterotrophic plate count (HPC). Sampling for HPC is not mandatory however, the results will be used to determine good housekeeping practices and may become best practice if they are regularly found in high numbers.
- (f) If sampling results regularly contain HPC greater than 200 CFU/ml, the results will be mandatory before releasing the main for final connection in any future installations.
- (g) If HPC results become mandatory and contain HPC greater than 500 CFU/ml flushing will resume and another set of HPC and coliform samples collected until no coliform are present and the HPC is less than 500 CFU/ML as per ANSI/AWWA C651-14 “Standard for Disinfecting Water Mains”.
- (h) If e. coli or total coliform are found, the new main must be reflushed and resampled. If re-samples also fail to produce acceptable results, the main shall be rechlorinated until satisfactory results are obtained.

**Sampling Procedure**

A suggested combination blowoff and sampling tap can be found in Figure 2 of the ANSI/AWWA C651-99 Standard for Disinfecting Water Mains. There should be no water in the trench up to the connection for sampling. The sampling pipe must be dedicated, clean, disinfected and flushed prior to sampling. A corporation cock may be installed in the main with a copper-tube gooseneck assembly. Once samples have been collected, the gooseneck assembly may be removed and retained for future use. The corporation cock should be capped or taped for future reuse.

No hose or fire hydrants are to be used for the collection of bacteriological samples.

### **29.8 Final Connection**

- (a) The general contractor shall notify the distribution ORO, 24 hours in advance of his intent to connect to the existing watermain. The final connection shall be done under the supervision of the distribution ORO or his designate.
- (b) Before it can be permanently connected to the active distribution system, the watermains and appurtenances must be completely installed, flushed, and disinfected, pressure tested and the results indicating that the water is safe for consumption received. Good housekeeping practices must be followed during the final connections so that there is no contamination of the new or existing water main with foreign material or groundwater.
- (c) The new water main is to be kept separated from the town's water supply until the lab report has been received by the Overall Responsible Operator and written notification has been provided to the general contractor.

*Connections equal to or less than one pipe length (generally  $\leq 6m$  [20 ft]).*

The new pipe, fittings, and/or valve(s) required to make the final connection shall be spray disinfected or swabbed with a minimum 1 percent solution of chlorine just before being installed.

*Connections greater than one pipe length (generally  $>6m$  [20 ft]).*

The pipe required for the final connection must be set up aboveground, disinfected, and bacteriological samples taken if the total length is greater than 20 ft (6 m). Once satisfactory bacteriological sample results have been received, the pipe can be used in connecting the new main to the active distribution system. The ends of the piping must be sealed with plastic wraps, watertight plugs, or caps until satisfactory bacteriological sample results are received and the connection piping is installed.

### **29.9 Final Sampling**

- (a) A bacteriological sample will be collected and tested for e-coli, total coliform and HPC once the new main has been connected to the town's distribution system. Based on direction of flow, the sample will be collected on the town's existing main at a location closest to the new connection and will be representative of the water running through the new main.

### **29.10 Record Keeping**

- (a) The Water Operators and/or the ORO will log in the appropriate logbook or forms, all pertinent information. When appropriate, a *Form 1- Record of Watermains Authorized as a Future*

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*Alteration* is to be filled, filed, and retained for a minimum of 10 years. The information will also be recorded on the *Water Distribution Maintenance Record* and filed.

### **29.11 Associated Documents**

- (a) ANSI/AWWA C651-99 Disinfecting Water Mains
- (b) MOECC Watermain Disinfection Procedure
- (c) The Township of Larder Lake Municipal Drinking Water License
- (d) ANSI/AWWA C655 Field Dechlorination
- (e) Building Code, plumbing section 7.3.7.2
- (f) Form 1- Record of Watermains
- (g) Water Distribution Maintenance Record

## **30. ENVIRONMENTAL COMPLIANCE APPROVAL**

Work shall not commence until the Environmental Compliance Approval (ECA) has been received. No claims shall be made by the Contractor due to construction start up delays related to the ECA.

<b>END OF GENERAL SPECIAL PROVISIONS</b>
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**THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE**

**RECONSTRUCTION OF GODFREY STREET,  
COMMISSIONER STREET, FOURTH AVENUE  
AND NINTH AVENUE**

**PROJECT NO. NWL-21014892**

**ITEM SPECIAL PROVISIONS**

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**ADDENDUM NO. 01**

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**ADDENDUM NO. 01**

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**ITEM 14 EARTH EXCAVATION**

**OPSS.MUNI 180, November 2021 - Construction Specification for Management of Excess Materials is amended by the following:**

**180.07 CONSTRUCTION**

Section 180.07 is amended by the addition of the following:

The Owner will be responsible for any testing that may be required related to excess soils.

**180.07.06 Conditions on Management by Stockpiling**

Subsection 180.07.06 is amended by the addition of the following:

Locations for the stockpiling of excess soils must be arranged for by the Contractor and approved by the MCEP and the Township.

**ITEM 18 SUPERPAVE 12.5 – 50mm LIFT THICKNESS**

**OPSS.MUNI 310, November 2017 - Construction Specification for Hot Mix Asphalt is amended by the following:**

**310.05 MATERIALS**

**310.05.01 Hot Mix Asphalt**

Subsection 310.05.01 of OPSS.MUNI 310, is amended by deleting the first paragraph and replacing it with the following:

The materials used in the production of the HMA shall be according to OPSS 1150 for Marshall mixes.

Performance Graded Asphalt Cement (PGAC) Grade

Asphaltic concrete shall conform to OPSS 1101, except that clause 1151.05.01 Asphalt Cement of OPSS 1151 is amended by the addition of the following:

<u>Hot Mix Type</u>	<u>PGAC</u>
Superpave 12.5	52-34

The traffic category for the Marshall mix design is Category 'B'.

Reclaimed asphalt pavement shall not be used in Hot Mix Asphalt for this contract.

**ADDENDUM NO. 01**

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**310.07 CONSTRUCTION**

**310.07.01 Quality Control**

Subsection 310.07.01 of OPSS.MUNI 310, is amended by the addition of the following:

**Laboratory Testing**

**Laboratory Requirements**

The laboratory carrying out the testing shall participate in the MTO's correlation programs for gyratory compactors which occur just prior to and during paving operations.

**Submission of Test Data**

The Contractor shall provide test results from a laboratory meeting the requirements noted above. Test results, either individual or mean values, shall demonstrate conformance of the aggregates with the requirements of this special provision.

- i) All individual test results shall be submitted to the Engineer using MTO Form PH-CC-449, at the time of submission of the mix design. All test data forms must be legible. Faxed copies are acceptable provided that the original form is submitted to the Engineer within 7 days following receipt of the fax.

**310.07.05 Sampling**

**310.07.05.01 Asphalt Cement**

**310.07.05.01.01 General**

Subsection 310.07.05.01.01 of OPSS.MUNI 310, is amended by the addition of the following:

**Amendments to OPSS.MUNI 1101, November 2016**

Appendix 1101-B shall apply to this contract.

**310.07.05.01.02 Frequency and Location**

Subsection 310.07.05.01.02 of OPSS.MUNI 310 is amended by the addition of the following:

One sample of asphalt cement shall be taken and given to the contract administrator on site.

**310.07.05.01.04 Delivery**

Subsection 310.07.05.01.04 of OPSS.MUNI 310 is amended by the addition of the following:

**ADDENDUM NO. 01**

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The Contractor shall deliver all samples designated for QA and Referee testing to a laboratory designated by the Owner, within a 500 km radius of the contract limits, within 24 hours of sampling.

**310.07.05.02 Hot Mix Asphalt**

Sampling of Mix for Acceptance Testing

Random samples of the mix shall be obtained, packaged appropriately, labeled, and delivered by the Contractor as specified. The Contractor shall advise the Engineer or his representative when each sample will be taken. The samples shall not be split prior to delivery.

The Contractor shall obtain a set of three mix samples from each random location designated by the Contract Administrator. One of these samples shall be for the Contractor's QC testing and the other two will be designated for QA and Referee testing. Each of the three samples shall be taken from the same truckload and at the same transverse offset. The minimum mass of each sample shall be in accordance with Table 6 of OPSS 310.

**310.07.05.02.01 General**

Subsection 310.07.05.02.01 of OPSS.MUNI 310 is amended by the addition of the following:

One set of three samples (QA, QC and REF) shall be taken.

**310.07.05.02.04 Cores**

Subsection 310.07.05.02.04 of OPSS.MUNI 310 is amended by the addition of the following:

Pavement core samples shall be obtained adjacent to each HMA sample location by the Contractor. Each core shall have a nominal diameter of 200 mm and shall consist of the full layer being sampled and at least one underlying layer if one is present. Cores shall not be taken within 250 mm of a longitudinal or transverse joint, or the edge of pavement. Care shall be taken to ensure that cores are not damaged during coring operations, or in transit. If a core is damaged, a replacement core shall be extracted at a location adjacent to the original core.

The Contractor shall deliver all samples designated for QA and Referee testing to a laboratory designated by the Owner, within a 500 km radius of the contract limits, within 24 hours of sampling.

**310.07.05.02.05 Delivery**

The Contractor shall deliver all samples designated for QA and Referee testing to a laboratory designated by the Owner, within a 500 km radius of the contract limits, within 24 hours of sampling.

**310.07.11.03 Transverse Joints**



**ADDENDUM NO. 01**

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Subsection 310.07.11.03 of OPSS.MUNI 310, is amended by the addition of the following:

The length of the stepped joints shall be as shown on the contract drawings.

**310.08                   QUALITY ASSURANCE**

**310.08.01            General**

Subsection 310.08.01 of OPSS.MUNI 310, is amended by the addition of the following:

Use of Contractor's QC Results for Acceptance of Hot Mix

The Contractor's QC results will be used for assessing the acceptability of hot mix, unless either party requests referee testing.

Table 10 of OPSS.MUNI 310 is replaced with the following Table 10:

<b>TABLE 10 Pavement Compaction Requirements Based on Maximum Relative Density</b>			
<b>Mix</b>	<b>Acceptable %</b>	<b>Borderline %</b>	<b>Rejectable %</b>
HDBC, Superpave 19.0, 25.0 and 37.5	91.0 to 96.5	96.6 to 97.5	< 91.0 or > 97.5
DFC and Superpave 12.5 FC2	92.0 to 97.5	97.6 to 98.5	< 92.0 or > 98.5
All Other Mixes	92.0 to 96.5	96.6 to 97.5	< 92.0 or > 97.5

**310.08.06            Compaction Requirements**

**310.08.06.01       General**

Subsection 310.08.06.01 of OPSS.MUNI 310, is amended by deleting the second paragraph in its entirety and replacing it with the following:

Core density testing (in accordance with subsection 310.08.06.03) shall be used to assess compaction.

**ADDENDUM NO. 01**

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**310.10 BASIS OF PAYMENT**

**310.10.04 Payment Adjustment for Changes in the Ministry of Transportation's Performance Graded Asphalt Cement Price Index.**

Subsection 310.10.04 of OPSS.MUNI 310, is amended by the addition of the following:

Appendix 310-B of OPSS.MUNI 310 shall apply.

The mass of asphalt cement for payment adjustment shall be determined by calculating the volume of hot mix placed based upon area and lift thickness as determined by coring multiples by the bulk relative density and % asphalt cement in accordance with the job mix formula.

**ITEM 16 GRANULAR 'A'**  
**ITEM 17 GRANULAR 'B' TYPE I**

**OPSS.MUNI 1010, November 2013 – Aggregates – Base Subbase, Select Subgrade, and Backfill Material, is amended by the following:**

**1010.05 MATERIALS**

**1010.05.01 General**

Subsection 1010.05.01 of OPSS.MUNI 1010, is amended by the addition of the following:

The use of air-cooled blast furnace slag, nickel slag or steel slag is prohibited.

**1010.05.03 Granular B**

Subsection 1010.05.03 of OPSS.MUNI 1010 is deleting the first sentence and by addition the following:

Granular B shall be Type I, unless otherwise specified in the Contract Documents.

**1010.08 QUALITY ASSURANCE**

**1010.08.01 General**

Subsection 1010.08.01 of OPSS.MUNI 1010, is amended by the addition of the following:

QA testing shall be carried out by the Owner for purposes of ensuring that materials used in the work conform to the physical and production requirements of this special provision. Where materials contain blended or reclaimed aggregates or both, QA samples for testing shall be performed on the final product.

**ADDENDUM NO. 01**

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**1010.08.03                      Sampling**

Subsection 1010.08.03 of OPSS.MUNI 1010, is amended by the addition of the following:

QA sampling and testing shall be based on lots established for each aggregate type: Granular A, O, B, M, and SSM. Where more than one aggregate source is used, separate lots shall also be established for each source. Where aggregates are produced with blended or reclaimed materials or both, QA testing shall be performed on the final product.

Notwithstanding the requirements for QA sampling as indicated in this specification, the Owner reserves the right to obtain a QA sample at any time without notice.

Either QA test results or referee test results, where applicable will be used for the acceptance of physical and production property requirements of this specification. QA testing for physical properties may be waived by the Engineer where the delivered quantity of Granular A, O, B, M, or SSM is less than 5,000 tonnes.

Aggregates may be rejected based on the visual identification of unacceptable materials.

QA samples shall be taken in accordance with LS-625 and shall be road samples or delivery samples obtained from the Work at a location determined by the Contract Administrator. Where required, the Contractor shall provide a front-end loader to obtain material for QA samples.

Where it is not possible to take road or delivery samples, samples of compacted material taken with the permission of the Owner will be used for QA purposes.

In the event that the Contractor is unavailable to take a sample, no further materials shall be placed in the Work until the required QA samples have been taken.

The Contractor shall provide new or clean sample bags or containers that are constructed to prevent the loss of any part of the material or contamination or damage to the contents during shipment. Metal or cardboard containers are unacceptable. QA samples shall be identified both inside and outside of the sample container. Data to be included with QA samples shall conform to the requirements of MTO Form PH-D-10 (Sample Data Sheet).

All QA samples shall have a duplicate sample taken at the same time and location as the QA sample. One of the samples shall be randomly selected for testing by the QA laboratory and the remaining sample shall be retained by the QA laboratory for possible referee testing.

**1010.08.05                      Acceptance**

Subsection 1010.08.05 of OPSS.MUNI 1010, is amended by the addition of the following:

The QA laboratory shall carry out testing for each physical property requirement given in Table 1, as applicable for each QA sample.

**ADDENDUM NO. 01**

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QA for production properties shall consist of sampling and testing of lots selected from material delivered to the Work. The Engineer shall identify each lot according to the following schedule:

- i. One lot consisting of the first 5,000 tonnes of material delivered to the Work;
- ii. 5,000 tonne lots selected from within the next 15,000 tonnes of delivered material; and
- iii. 10,000 tonne lots thereafter.

Each lot shall be divided into four equal sublots and one QA sample shall be obtained from each subplot. Sublots from different sources or processes shall not be combined within the same lot.

Where changes in source, production or delivery may result in an incomplete lot, the Engineer shall be given prior notification in order to adjust subplot size. If no notification is given, payment adjustments or rejection shall be based on the number of sublots available for that lot. All lots shall be deemed to be complete at the end of each calendar year.

In the event of an incomplete lot and for sources supplying quantities less than 5,000 tonnes, the lot size will apply to the total quantity of material available. Should the size of the lot exceed the indicated quantities for any reason, any adjusted payment or removal shall apply to the entire quantity of the lot.

Where it is necessary to designate the quantity of material in a lot, or part of a lot for the purposes of rejection, the Contract Administrator's estimate of this quantity shall be used.

**1010.08.05.01 Testing of Production Properties**

The QA laboratory shall conduct sieve analysis (LS-602) and determine test results for each sieve designated in Table 2. The QA laboratory shall also carry out testing for percent crushed particles (LS-607), particles with two or more crushed faces (LS-617), and amount of asphalt coated particles (LS-621) as applicable.

**1010.08.05.02 Acceptance of Production Properties**

Test results from each subplot within a lot shall be combined to determine the mean and the range of the Lot for each test. All lot means and ranges for LS-602 and LS-607 (as applicable) will be computed to one decimal place.

A lot will be deemed to meet the applicable requirements of this specification for LS-602 and LS-607 if the mean of the lot is within the limits specified in Table 2. Where the lot does not meet the requirements of this specification, the material is rejectable.

A lot will be deemed to meet the applicable requirements of this specification for LS-617 or LS-621 if the mean value of the lot is within the limits specified in Table 2. Where the lot does not meet these requirements, the Contractor shall ensure all necessary changes required to rectify the deficiency are made. No further materials from the source will be accepted until new QC test results demonstrate that materials conform to the requirements of Table 2 for LS-617 or LS-621 have been provided to the Engineer.

**ADDENDUM NO. 01**

The forms contained in Appendices 1010-D and 1010-E are to be used for the recording and reporting of aggregate test results.

Table 1 of OPSS.MUNI 1010, is deleted and replaced with the following Table 1.

**Table 1. Physical Property Requirements**

Laboratory Test	MTO Test Number	Granular O	Granular A	Granular B		Granular M	Select Subgrade Material
				Type I, Type II	Type III		
Freeze-Thaw Loss, % Maximum	LS-614	15	-	-	-	-	-
Determination of Permeability	LS-709	(Note 1)					
Micro-Deval Abrasion Coarse Aggregate loss, % maximum	LS-618	21	25	30 (Note 2)	30	25	30 (Note 2)
Micro-Deval Abrasion Fine Aggregate loss, % maximum	LS-619	25	30	35	35	30	-
Amount of Contamination	LS-630	(Note 3)					
Plastic Fines	LS-631	NP					

Note 1: For materials north of the French/Mattawa Rivers only, the coefficient of permeability,  $k$  shall be greater than  $1.0 \times 10^{-4}$  cm/s or alternatively, when past field experience has demonstrated satisfactory performance. Prior data demonstrating compliance with this requirement for  $k$  shall be acceptable provided that such

testing has been done within 5 years of the material being used and field performance has continually been shown to be satisfactory.

Note 2: The coarse aggregate micro-Deval abrasion loss test requirement will be waived if the material has more than 80% passing the 4.75 mm sieve.

Note 3: Granular A, B Type I, B Type III, or M may contain up to 15 percent by mass crushed glass and/or ceramic material. Granular A, O, B Type I, B Type III, and M shall not contain more than 1.0 percent by mass of wood, clay brick and /or gypsum and /or gypsum wall board or plaster. Granular B Type II and SSM shall not contain more than 0.1 percent by mass of wood.

**ADDENDUM NO. 01**

Table 2 of OPSS.MUNI 1010, is deleted and replace with the following Table 2.

**Table 2. Production Requirements**

Lab Test	MTO Test Number	Granular					SSM	
		O	A	B (Note 1)				M
Sieve Analysis, % passing	LS-602 (sieve)			Type I (Note 2)	Type II	Type III (Note 2)		
	150 mm	-	-	100	-	100	-	100
	106 mm	-	-	-	100	-	-	-
	37.5 mm	100	-	-	-	-	-	-
	26.5 mm	95.0-100	100	50.0-100	50.0-100	50.0-100	-	50.0-100
	19.0 mm	80.0-95.0	85.0-100 (87.0-100) Note 3	-	-		100	-
	13.2 mm	60.0-80.0	65.0-90.0 (75.0-95.0) Note 3	-	-		75.0-95.0	-
	9.5 mm	50.0-70.0	50.0-73.0 (60.0-83.0) Note 3	-	-	32.0-100	55.0-80.0	-
	4.75 mm	20.0-45.0	35.0-55.0 (40.0-60.0) Note 3	20.0-100	20.0-55.0	20.0-90.0	35.0-55.0	20.0-100
	1.18 mm	0-15.0	15.0-40.0	10.0-100	10.0-40.0	10.0-60.0	15.0-40.0	10.0-100
	300 µm	-	5.0-22.0	2.0-65.0	5.0-22.0	2.0-35.0	5.0-22.0	5.0-95.0
	150 µm	-	-	-	-	-	-	2.0-65.0
	75 µm	0-5.0	2.0-8.0 (2.0-10.0) Note 4	0-8.0 (0-10.0) Note 4	0-10.0	0-8.0 (0-10.0) Note 4	2.0-8.0 (2.0-10.0) Note 4	0-25.0
Percent Crushed, minimum	LS-607	100	60	-	100	-	60	-
2 or more crushed faces, minimum, %	LS-617	85	-	-	-	-	-	-
% Asphalt Coated Particles, Coarse Agg, max.	LS-621	0	30	30	0	30	30	0

Note 1: Where Granular B is used for granular backfill for pipe subdrains, 100 percent of the material shall pass the 37.5 mm sieve.

Note 2: Where RAP is blended with Granular B Type I or Type III, 100 percent of the RAP shall pass the 75mm sieve. Conditions in Note 1 supersede this requirement.

Note 3: Where the aggregate is obtained from an iron blast furnace slag source.

Note 4: Where the aggregate is obtained from a quarry or blast furnace slag or nickel slag source.

**ADDENDUM NO. 01**

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**OPSS.MUNI 314, November 2019 – Untreated Granular Subbase, Base, Surface, Shoulder, and Stockpiling, is amended by the following:**

**314.03 DEFINITIONS**

Subsection 314.03 of OPSS.MUNI 314, is amended by the addition of the following:

**Tolerance – Minus:** a construction working tolerance only which:

- a) Means narrower than the contract standard pertaining to horizontal dimensions as measured from centerline; and
- b) Means lower in elevation than the contract standard pertaining to vertical dimensions.

**Tolerance – Plus:** a construction working tolerance only which:

- a) Means wider than the contract standard pertaining to horizontal dimensions as measured from centerline; and
- b) Means higher in elevation than the contract standard pertaining to vertical dimensions.

**314.07 CONSTRUCTION**

**314.07.07 Stockpiling of Granular Material**

Subsection 314.07.07 of OPSS.MUNI 314, is amended by the addition of the following:

The Contractor must first receive written approval from the Owner before stockpiling material at site(s) not identified in the contract documents.

**ITEM 21 CONCRETE SIDEWALK**

**OPSS 351, Concrete Sidewalk, November 2021, is amended by the following.**

**351.07 CONSTRUCTION**

**351.07.05 Materials**

Subsection 351.07.05 of OPSS 351 is deleted in its entirety and replaced with the following.

Forms shall be set so the sidewalk matches the width of the existing sidewalk with a 125mm thickness and a minimum 2% to maximum 4% slope towards the road, and a 200mm thickness at driveways. Forms shall be in direct contact with the subgrade or granular base.

**ADDENDUM NO. 01**

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**351.07.011                    Joints**

Subsection 351.07.11.01 of OPSS 351 is amended with the addition of the following:

All sidewalk joints shall be constructed as per OPSD 310.010 November 2019 Rev 3 and OPSD 310.020 November 2019 Rev 3.

**ITEM 23        CONCRETE CURB AND GUTTER, ALL TYPES**

**OPSS 353, November 2021, Concrete Curb and Gutter Systems, is amended by the following:**

**353.07                        CONSTRUCTION**

**353.07.01                  General**

The curb type shall be drop curb section where shown on the contract drawings.

The curb type shall be barrier type with standard gutter.

**ITEM 20        PIPE SUBDRAINS**

**OPSS.MUNI 405, November 2017, Pipe Subdrains, is amended by the following:**

**405.05                        MATERIALS**

Sections 405.05.01 to 405.05.06 of OPSS.MUNI 405, are deleted and replaced with the following:

Subdrains shall be 150 mm diameter, smooth wall perforated Plastic Pipe, with bell and spigot joints.

Acrylonitrile-butadiene-styrene (ABS) piping and fittings shall conform to ASTM D2751, with maximum SDR of 35, Joints shall be bell-and-spigot.

Polyvinyl chloride (PVC) pipe and fittings shall conform to ASTM D3034, ASTM F949, ASTM F758, Type PS 46. Joints shall be bell-and-spigot.

Corrugated Polyethylene (PE) and Fittings ASTM F405 and joints shall be bell-and-spigot.



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**Pipe Perforations**

Circular Perforations in Plastic Pipe: Circular holes shall be cleanly cut not more than 9.5 mm or less than 4.8 mm in diameter and arranged in rows parallel to the longitudinal axis of the pipe. The spigot or tongue end of the pipe shall not be perforated for a length equal to the depth of the socket, and perforations shall continue at uniform spacing over the entire length of the pipe.

Slotted Perforations in Plastic Pipe: Circumferential slots shall be cleanly cut so as not to restrict the inflow of water and uniformly spaced along the length and circumference of the tubing. Width of slots shall not exceed 3.2 mm nor be less than 0.8 mm. The length of individual slots shall not exceed 10 percent of the inside nominal circumference on 100 to 200 mm diameter tubing.

**405.07 CONSTRUCTION**

**405.07.02 Excavation**

Subsection 405.07.02 of OPSS.MUNI 405, is amended by the addition of the following:

The dimensions of the subdrain excavation shall be according to OPSD 216.021 Nov. 2017 Rev.3, unless otherwise indicated on the contract drawings or sections.

**405.07.04 Geotextile**

Subsection 405.07.04 of OPSS.MUNI 405, is amended by the addition of the following:

Knitted sock geotextile shall meet the physical property requirements shown in Table 1.

Table 1

<b>Physical Requirements for Knitted Sock Geotextiles Laboratory Test</b>	<b>Test Method</b>	<b>Acceptance Requirements</b>
Mullen Diaphragm Burst Strength, minimum, kPa	CAN/CGSB 4.2, Method No. 11.1	600
FOS, maximum, $\mu\text{m}$	CAN/CGSB 148.1, Method No. 10	500
Permittivity, minimum, $\text{s}^{-1}$	CAN/CGSB 148.1, Method No. 4	2.75

The subdrain trench shall be wrapped in geotextile according to OPSD 216.021 Nov. 2017 Rev.3.

The embedment and backfill material shall be 19 mm clear stone.

**405.07.05 Bedding**

Subsection 405.07.05 of OPSS.MUNI 405, is amended by the addition of the following:

The depth of the subdrain bedding shall be according to OPSD 216.021 Nov. 2017 Rev.3.

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**405.07 CONSTRUCTION**

**405.07.08 Closed-Circuit Television Inspection**

Subsection 405.07.08 of OPSS 405 is amended by the addition of the following:

Subdrains shall be inspected by CCTV.

Pipe shall be inspected by CCTV in accordance with OPSS.MUNI 409, November 2017. Media storage shall be DVD (OPSS 409.05.01). Reports storage media shall be CD or DVD (409.07.05.01).

**ITEM 29 1200 mm DIA. MAINTENANCE HOLE**

**ITEM 30 1500 mm DIA. MAINTENANCE HOLE**

**ITEM 31 1800 mm DIA. MAINTENANCE HOLE**

**OPSS 407, November 2021, Maintenance Hole, Catch Basin Ditch Inlet, and Valve Chamber Installation, is amended by the following:**

**407.07 CONSTRUCTION**

**407.07.01 General**

Subsection 407.07.01 of OPSS 407, is amended as follows:

All maintenance holes and catch basin structures on this contract shall be supplied with monolithic bases and frost straps, as shown on the Contract Drawings. All structures shall have a minimum depth of 2.6m. The depth of the sump shall be increased, where required, to maintain the minimum depth. Where the sump depth exceeds the standard depth by more than 0.3m, the sump shall be filled with concrete to the standard depth. For sanitary maintenance holes, the structure shall be filled with concrete to the benching.

**407.05.03 Precast Concrete Components for Maintenance Holes, Catch Basins, Ditch Inlets and Valve Chambers**

Subsection 407.05.03 of OPSS 407 is amended by the addition of the following:

Maintenance holes shall be monolithic with frost straps, and of the size specified in the contract drawings.

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**407.07.12                    Benching and Channeling**

Subsection 407.07.12 of OPSS 407 is amended as follows:

The inside, concrete bottom of all sanitary structures shall be benched to appropriately direct flows.

<b><u>ITEM 33</u></b>	<b><u>CONNECT TO EXISTING SANITARY SEWER</u></b>
<b><u>ITEM 37</u></b>	<b><u>125mm SANITARY SERVICE, RESIDENTIAL</u></b>
<b><u>ITEM 34</u></b>	<b><u>200mm SANITARY PIPE SEWER</u></b>
<b><u>ITEM 35</u></b>	<b><u>300mm DIA. STORM PIPE SEWER</u></b>
<b><u>ITEM 36</u></b>	<b><u>450mm DIA. STORM PIPE SEWER</u></b>

**OPSS.MUNI 410, November 2018, Pipe Sewer Installation in Open Cut, is amended by the following:**

**410.05                    MATERIALS**

**410.05.01                Pipe Materials**

Subsection 410.05.01 of OPSS.MUNI 410, is amended by the following:  
Pipe materials shall be smooth inside wall plastic pipe with bell and spigot joints and elastomeric gaskets. Minimum pipe stiffness shall be 320 kPa.

**410.05.01.01    General**

Subsection 410.05.01.01 of OPSS 410 is amended by the addition of the following:

Pipe sewer shall be class SDR 35 and of the type and size shown on the contract drawings.

**410.07                    CONSTRUCTION**

Section 410.07 of OPSS.MUNI 410, is amended by the following:

Insulation to be installed as per contract documents, 300 mm above the top of the pipe and to be 2.4 m wide. Refer to contract documents for thickness requirements.

**410.07.12                Pipe Installation**

**410.07.12.01            General**

Subsection 410.07.12.01 of OPSS.MUNI 410, is amended by the addition of the following;

Pipes shall be laid straight and true to grade:

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- Horizontal Tolerance 0.020m ±
- Vertical Tolerance 0.006m ±

Pipe shall be inspected by CCTV in accordance with OPSS.MUNI 409, November 2017. Media storage shall be DVD (OPSS 409.05.01). Reports storage media shall be CD or DVD (409.07.05.01).

A support system shall be used during installation to minimize the extent of excavation.

**Interruption of Utility Services**

No Utility Control shall be operated without approval of the Engineer and the Utility. All consumers affected by such operations shall be notified by the Contractor as directed by the Engineer or the Utility before the operation and advised of the probable time when service will be restored. The Contractor shall advise the City of Temiskaming Shores a minimum of 48 hours prior to interruption. All operation of existing watermain valves shall be by Municipal Works personnel.

**410.07.20 Site Restoration**

Subsection 410.07.20 is amended by the addition of the following:

Pipes with less than 2.6 m of cover shall have insulation as per the detail in the contract drawings.

**410.10 BASIS OF PAYMENT**

- 410.10.01 “size, type class” Pipe Sewers – Item  
Service Connections – Item  
Breaking into Maintenance Holes, Catch Basis, Ditch Inlets, Culverts,  
and Sewers - Item  
Concrete Appurtenances – Item  
Clay Seal – Item**

Subsection 410.10.01 of OPSS.MUNI 410, is amended by the addition of the following:

Payment at the contract price for the above tender items shall be full compensation for all labour, equipment, and material to do the work, including support system, and insulation as required where pipes are above frost depth.

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<b>ITEM 38</b>	<b>150mm DIA. WATERMAIN</b>
<b>ITEM 39</b>	<b>150mm DIA. DR 18 (CL 150) WATERMAIN</b>
<b>ITEM 40</b>	<b>200mm DIA. DR 18 (CL 150) WATERMAIN</b>
<b>ITEM 43</b>	<b>150mm DIA. GATE VALVE</b>
<b>ITEM 44</b>	<b>200mm DIA. GATE VALVE</b>
<b>ITEM 42</b>	<b>HYDRANT SET</b>
<b>ITEM 45</b>	<b>CONNECT TO EXISTING WATERMAIN</b>
<b>ITEM 46</b>	<b>50mm WATERMAIN CONNECTION</b>
<b>ITEM 41</b>	<b>25mm DIA. HDPE WATER SERVICE</b>

**Interruption of Utility Services**

No Utility Control shall be operated without approval of the Engineer and the Utility. All consumers affected by such operations shall be notified by the Contractor as directed by the Engineer or the Utility before the operation and advised of the probable time when service will be restored. The Contractor shall advise the Township of Larder Lake a minimum of 48 hours prior to interruption. All operation of existing watermain valves shall be by Municipal Works personnel.

**OPSS.MUNI 441, November 2021, Watermain Installation in Open Cut, is amended by the following:**

**441.05 MATERIALS**

Section 441.05 of OPSS.MUNI 441 is amended by the addition of the following:

*Fittings* – Fittings shall be ductile iron, cement lined to AWWA C110/A.21.10 and AWWA C104/A21.4.

*Valves* – Valves shall be Clow resilient type gate valves to AWWA C509-87 with mechanical joint ends and guide plate. Valves will open left (counter-clockwise).

*Valve boxes* – Valve boxes shall be slide-type, Mueller MVB composite valve boxes.

*Pipe* – Pipe shall be Polyvinyl Chloride (PVC) Pipe, AWWA C900 Class 150 (DR 18).

*Services* – Services shall be 19 mm diameter PEX polyethylene in accordance with OPSS 441.05.05, pressure rated at 160 PSI. Fittings shall be Mueller (or equal) Compression Type. Stainless steel pipe stiffeners shall be used at all connections. Service box assemblies shall be Mueller Model A-726 (or equal) c/w extension rod and cap. Service rods shall be stainless steel. A non-draining main stop and curb stop is required for each service.

**441.05.05.01 Colour Coding**

The pipe shall be manufactured to be blue or with blue coloured stripes indicating potable water.

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**441.05.10 Hydrants**

Hydrants shall be Canada Valve “Century” Type (or Clow M67 Brigadier), non-draining, with two hose, and one pumper connection and breakaway flange.

**441.05.16 Corrosion Protection**

The following sections are added to OPSS 441.05:

**441.05.16 Tracer Wire**

Tracer wire shall be plastic coated AWG 14.

**441.05.18 Mechanical Restrainers**

Mechanical restrainers shall be used on all tee’s elbows and hydrant sets, shop drawings shall be provided to the Contract Administrator for review.

**441.07 CONSTRUCTION**

**441.07.01 General**

Subsection 441.07.01 of OPSS.MUNI 441, is amended by the addition of the following:

The Contractor shall comply with all written recommendations of the manufacturer regarding applications of the specified system.

Each valve, hydrant boot and metallic fitting shall be entirely wrapped in TC Mastic Tapecoat.

Watermain to be installed with 75 mm wide blue “CAUTION WATER LINE BELOW” tape installed in the trench backfill, 1.0 m below finished grade.

**441.07.13 Backfilling and Compacting**

Subsection 441.07.13 of OPSS.MUNI 441, is amended by the addition of the following:

Pipe bedding shall consist of Granular ‘A’ compacted to 95% standard proctor.

Cover material shall consist of Granular ‘A’, to a depth of at least 300 mm above the pipe thoroughly rammed and compacted around and above the pipe. Maximum particle size shall be in accordance with OPSS.MUNI. 401, November 2021, Subsection 401.05.03.

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The trench shall be backfilled with select native material, and shall contain no rock, stones, or boulders larger than 200 mm in its greatest diameter and shall be free from all perishable or objectionable material which would prevent proper consolidation, or which might cause future settlement. The native material shall be placed in 300 mm layers, mechanically compacted to 95% of the maximum density.

**441.07.14 Installation of Pipe**

Subsection 441.07.14 of OPSS.MUNI 441, is amended by the addition of the following:

Tracer wire, AWG 14, plastic coated, shall be installed on all PVC pipe with a half hitch at each bell joint. Terminals for the tracer wire shall be installed at each valve or hydrant valve (refer to EXP Standard 5003).

Pipes shall be laid straight and true to grade:

- Horizontal Tolerance 0.020m ±
- Vertical Tolerance 0.006m ±

Following installation, the Contractor shall be required to complete a conductivity test on all tracer wire. All such tests must be completed successfully and to the satisfaction of the Engineer before the system is accepted.

**441.07.18 Installation of Valves and Fittings**

**441.07.18.01 General**

Subsection 441.07.18.01 of OPSS.MUNI 441, is amended by the addition of the following:

Valve boxes shall be double wrapped with 6 mil polyethylene. Valve bonnets shall be wrapped with class II Non-woven Geotextile FOS 150-210.

**441.07.22 Connection to Existing Watermains**

Subsection 441.07.22 of OPSS 441, is amended by the addition of the following:

Work performed up to the connection to existing watermains shall have cathodic protection on all metallic fittings by sealing with T.C. Mastic Tapecoat (or approved equal).

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**441.07.23 Thrust Restraints**

Subsection 441.07.23 of OPSS.MUNI 441, is amended by the addition of the following:

Thrust restraints shall be poured-in-place concrete thrust blocks.

**441.07.24 Hydrostatic Testing**

**441.07.24.01 General**

Subsection 441.07.24.01 of OPSS.MUNI 441, is amended by the addition of the following:

The test pressure shall be 1035 kPa (150 psi) gauge based upon the elevation of the lowest point of the line or section under test and corrected to the elevation under gauge.

The pressure shall be applied by means of a pump connected to the line through a test connection.

**441.07.25 Flushing and Disinfecting Watermains**

Subsection 441.07.25 of OPSS.MUNI 441, is amended by the addition of the following:

All sampling, testing and associated fees, shall be the responsibility of the contractor.

Materials

Denso paste. Denso Profiling Mastic and Denso Tape.

Moisture Sealing Mastic Compound: The compound shall be self-supporting, moisture sealing media. The compound shall be saturated petroleum hydrocarbons, fibrous filler and thermal extender, which shall be permanently plastic, non-cracking and resistance to moisture, mineral acids and salts. The compound shall not oxidise and shall contain no evaporating solvents.

Tape Vinyl Mastic: Self-fusing rubber based insulating compound laminated to a flexible, all weather grade vinyl (PVC) backing.

The tapes shall conform in all-weather applications. The tapes shall also be color fade resistant, resistant to UV rays, abrasion, corrosion, alkalis & acids. They should be suitable for outdoor and general use.

Contractor shall comply with all written recommendations of the manufacturer regarding applications of the specified system.



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**441.09 MEASUREMENT FOR PAYMENT**

**441.09.01 Actual Measurement**

**441.09.01.04 Service Connection Pipe**

Subsection 441.09.01.04 of OPSS.MUNI 441, is deleted in its entirety and replaced with the following:

For measurement purposes, account shall be made of the number of services installed, including all appurtenances.

**441.09.01.05 Service Connection Appurtenance Sets**

Subsection 441.09.01.05 of OPSS.MUNI 441, is deleted in its entirety.

**ITEM 49 TEMPORARY POTABLE WATER SUPPLY**

**OPSS Muni 493, November 2019, Temporary Potable Water Supply Services, is amended by the addition of the following:**

**493.05 MATERIALS**

**493.05.01 General**

Section 493.05.01 of OPSS 493, is amended by the addition of the following:

Pipe shall be of sufficient diameter to supply existing flows and be PVC or PE with a minimum pressure rating of 690 Kpa (100psi).

The Contractor may connect existing fire hydrants to the temporary system or supply temporary hydrants in accordance with OPSS 441 at or near existing locations.

**493.07 CONSTRUCTION**

**493.07.01 General**

Subsection 493.07.01 of OPSS Muni 493, is amended by the addition of the following:

- .1 If the temporary potable water supply fails, it shall be restored within 2 hours.
- .2 No Utility Control shall be operated without approval of the Engineer and the Utility. All consumers affected by such operations shall be notified by the Contractor as directed by the Engineer or the Utility before the operation and advised of the probable time when service will be restored. The Contractor shall advise the Township of Larder Lake a

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minimum of 48 hours prior to interruption. All operation of existing watermain valves shall be by Municipal Works personnel.

**493.07.03 Temporary Potable Water Supply Services**

Section 493.07.03 of OPSS 493, is amended by the addition of the following:

Temporary water services to commercial or multi-unit residential buildings shall be of the same size as the existing service line.

**ITEM 27 GEOTEXTILE ON SUBGRADE**  
**ITEM 28 GEOGRID ON SUBGRADE**

**OPSS MUNI 511, November 2019, Rip-Rap, Rock Protection, and Granular Sheeting, is amended by the following:**

**511.01 SCOPE**

Section 511.01 of OPSS 511, is amended by the addition of the following:

The Contractor shall supply, and place Geotextile and Geogrid on the subgrade and as detailed otherwise in the Contract Drawings.

**511.05 MATERIALS**

Section 511.05 of OPSS 511, is amended by the addition of the following:

*Geogrid* – Geogrid shall be Terrafix BX 1500, or equal.

**511.05.01 Rip-Rap, Rock Protection, and Granular Sheeting**

Subsection 511.05.01 of OPSS 511 is amended by the addition of the following:

Rip-Rap shall be R-10 unless otherwise shown on the contract drawings.

**511.05.02 Geotextile**

Subsection 511.05.05 of OPSS 511 is amended by the addition of the following:

*Geotextile* – Geotextile shall be Terrafix 270R, or equal.

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**511.07 CONSTRUCTION**

Section 511.07 of OPSS 511, is amended by the addition of the following:

1. The placement operations shall be such that the geotextile is not exposed to daylight for more than 72 hours.
2. Adjacent sections of the geotextile shall be overlapped a minimum of 1.0m or shall be sewn together according to 4. (Below).
3. Seams of the geotextile shall be sewn with thread meeting the material requirements for the geotextile or shall be bonded by thermal or chemical means.
4. When sections of geotextile are joined by sewing, the seam strength shall be at least 90% of the minimum Grab tensile strength requirement for the class of geotextile specified in the contract documents.
5. Should the Geotextile be damaged, it shall be repaired by placing a piece of geotextile large enough to cover the damaged section meeting the above requirements for overlapping.
6. Geogrid is placed over the previously placed non-woven geotextile.
7. Overlap edges and ends shall be 0.3 – 0.9m.
8. Initial backfilling lift shall be 300mm minimum.
9. Compaction of initial lift shall be by static rolling (non-vibratory).

**511.09 MEASUREMENT FOR PAYMENT**

Section 511.09 of OPSS 511, is amended by the addition of the following:

Measurement of each of the above tender items shall be by area in square metres following the contours of the ground with no allowances made for overlaps.

**511.10 BASIS OF PAYMENT**

Section 511.10 of OPSS 511 is amended by the addition of the following:

Payment at the contract price(s) for each of the above tender items shall be full compensation for all labour, equipment, and material to do the work.

**ITEM 3 TRAFFIC CONTROL DEVICES**

**OPSS.MUNI 706, April 2018, Temporary Traffic Control Devices, is amended by the addition of the following:**

**706.02 REFERENCES**

Section 706.02 of OPSS.MUNI 706 is amended by the addition of the following under:

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**ASTM International**

D4956-01a – Standard Specification for Retroreflective Sheeting for Traffic Control

**706.03 DEFINITIONS**

Section 706.03 of OPSS.MUNI 706 is deleted in its entirety and replaced with:

**Construction Signs** means all traffic control signs, and associated devices identified in the Ontario Traffic Manual (OTM) including vehicles and sign trailers, required to support signs and equipment to supply sign lighting.

**Manual** means the “Ontario Traffic Manual, Book 7 & - Temporary Conditions (Field Edition)” and “Ontario Traffic Manual, Book 7 – Temporary Conditions (Office Edition)”.

**706.07.03 Automated Flagger Assistance Devices**

Subsection 706.07.03 is deleted in its entirety and replaced by the following:

The use of Automated Flagger Assistance Devices is not permitted on this contract.

**ITEM 25 TOPSOIL, IMPORTED**

**OPSS 802, November 2019, Topsoil, is amended by the addition of the following:**

**802.07 CONSTRUCTION**

**802.07.01 Stockpiling Topsoil**

Subsection 802.07.01 of OPSS 802 is amended by the addition of the following:

The Contractor must first receive written approval from the Owner before stockpiling material at site(s) not identified in the contract documents.

**802.07.03 Placement of Topsoil**

Subsection 802.07.03 is amended by deleting the second paragraph in its entirety and replacing it with the following:

Topsoil shall be placed to a uniform depth of 75mm or as specified in the Contract documents.

**802.09 PAYMENT**

**802.09.01 Actual Measurement**

**802.09.01.02 Topsoil, Imported**

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Subsection 802.09.01.02 of OPSS 802 is deleted in its entirety and replaced with the following:

Measurement shall be by square metres of topsoil imported and placed.

**ITEM 26 SEED AND MULCH**

**OPSS.MUNI 804, November 2014, Seed and Cover, is amended by the addition of the following:**

**804.05 MATERIALS**

**804.05.01 Seed**

**804.05.01.04 Permanent Seed Mixes**

Subsection 804.05.01.04 of OPSS 804, is amended by the addition of the following:

Seed mix shall be Kentucky Blue Grass.

**804.05.04 Cover**

Subsection 804.05.04 of OPSS 804 is amended by the addition of the following:

Cover shall be Hydraulic Mulch.

**ITEM 9 UTILITY POLE HOLDING AND RELOCATION**

The Contractor is responsible for coordinating, with the utility owner, the required utility pole stabilization and / or relocation of the utility poles identified in the Contract Drawings.

**Payment**

Payment for Utility Pole Stabilization and Relocation shall be lump sum. Payment at the Contract price shall be full compensation for all Labor, Equipment and Material to do the work.

**ITEM 54 DRINKING WATER SAMPLING AND TESTING**

The Contractor shall be responsible for all labour, equipment, and materials to perform the work, including coordinating with the Township of Larder Lake, for the following:

- Disinfection of all watermains and associated appurtenances
- Sampling and testing of the drinking water, including bacteriological testing
- Hydrostatic testing
- Flushing, and;

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- Associated documents and record keeping and all other requirements as further detailed in the Contract Documents, such as General Special Provision 29 Watermain Disinfection.

Payment at the Contract price for this item shall be full compensation for all labour, equipment, and material to do the work.

**ITEM 6 PRE/POST CONSTRUCTION SURVEY & VIBRATION MONITORING**

**Pre-Construction survey**

The contractor shall retain the services of an independent contractor that is qualified, and who is designated by, and is a member of, the Association of Professional Engineers of Ontario (PEO) with a minimum of 10 years of experience in blasting and vibration control, to carry out a preconstruction survey. They must also be used to establish construction procedures in consultation with the contractor. The contractor shall pay the cost of the services provided by this consultant. The name, and qualifications of the consultant, as well as a proposal outlining the scope of work shall be submitted to the contract administrator for approval.

A copy of the preconstruction survey shall be submitted to the engineer. It shall include all structures, buildings, utilities, structures and facilities within 100 m of the location where the construction is to be carried out. Confirmation of survey completion shall be provided to the contract administrator prior to the commencement of construction. The preconstruction survey report shall include photographs or video recording.

Prior to commencing work, the contractor shall prepare and submit in writing to the contract administrator, a construction proposal including an overall plan of the proposed methods and sequences of excavation, backfilling, and compacting.

**Post Construction Survey**

Following the completion of construction, a post construction survey shall be carried out to verify the condition of the building inspected as part of the road construction survey, where home owners have filed complaints or claims. All complaints or claims received by the Township will be forwards to the contractor. The contractor shall deal with all complaints and claims in a timely manner.

**Qualifications**

Notwithstanding any guidelines or suggestions for procedure and the review of the contractor's proposed materials and methods which will be made by the contract administrator, it shall be the sole responsibility of the contractor to plan and implement work in this contract. Planning and execution of the work shall satisfy the requirements for the finished work as specified in the contract documents.

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Note: The requirement for the contractor to provide a pre and post construction survey for this project in no way reduces the contractor's responsibility to protect the work, public, and property from damage or injury.

**Vibration Monitoring**

The contractor shall retain the services of an independent contractor that is qualified, and who is designated by, and is a member of, the Association of Professional Engineers of Ontario (PEO) with a minimum of 10 years of experience in blasting and vibration control, to carry out vibration monitoring. They must also be used to establish construction procedures in consultation with the contractor. The contractor shall pay the cost of the services provided by this consultant. The name, and qualifications of the consultant, as well as a proposal outlining the scope of work shall be submitted to the contract administrator for approval.

**Monitoring**

Vibration levels shall not exceed 50 mm/s peak particle velocity (PPV) at the closest hours or third-party building.

Particular attention shall be paid to sensitive instrumentation and other equipment prone to de-calibration due to excessive vibration levels.

The vibration consultant or his representative shall monitor all trenching and compacting of backfill operations for vibrations, with at least 2 seismographs. Locations of seismographs shall be determined by the monitoring consultant. Seismographs shall be calibrated within one year and calibration certificates shall be submitted to the contract administrator.

The monitoring consultant, or his representative, shall be onsite full time during trenching, backfilling, and compacting operations.

During construction, seismic recordings shall be provided to the contract administrator at the end of each day. The contract administrator reserves the right to direct the contractor to carry out seismic monitoring at any location and at any time.

The contractor shall indemnify the contract administrator and the monitoring consultant against any claims for injury or damage to persons or property due to construction operations and repair any damaged resulting from said operations.

**Payment**

Payment for pre/post construction survey and vibration monitoring shall be lump sum and include all labor, materials and equipment to perform the work.

**ADDENDUM NO. 01**

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**END OF ITEM SPECIAL PROVISIONS**



**THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE**

**RECONSTRUCTION OF GODFREY STREET,  
COMMISSIONER STREET, FOURTH AVENUE  
AND NINTH AVENUE**

**PROJECT NO. NWL-21014892**

**SPECIMEN FORMS**

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**ENGINEERS:  
EXP SERVICES INC.  
P.O. BOX 1208  
310 WHITEWOOD AVENUE W.  
NEW LISKEARD, ONTARIO  
P0J 1P0**

**TEL: 705-647-4311  
FAX: 705-647-3111**

**OWNER:  
THE CORPORATION OF THE  
TOWNSHIP OF LARDER LAKE  
69 FOURTH AVENUE, P.O. BOX 40  
LARDER LAKE, ONTARIO  
P0K 1L0**

**Tel: 705-643-2158  
Fax: 705-643-2311**

**I N D E X**

<b><u>Description</u></b>	<b><u>Page No.</u></b>
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## SITE SELECTION NOTIFICATION FOR STOCKPILING MATERIALS MANAGED THROUGH RE-USE

### Contract Information

Contract No: \_\_\_\_\_ Owner: \_\_\_\_\_

The following describes the notification process between the Owner of the Contract and the Contractor, wherein the Contractor formally notifies the Owner that agreement has been reached with a third party property owner for the stockpiling of Contract generated excess material. Such excess material, stockpiled for re-use or disposal, may be one or a combination of: earth; aggregate; swamp material; rock; concrete; masonry; bituminous pavement; natural wood; metal, plastic, and polystyrene; wood which has been treated, coated, or glued; and debris from open fires, provided the conditions on management are satisfied.

### Site Information

Registered Property Owner(s) for the subject property: \_\_\_\_\_

The subject property use description: \_\_\_\_\_

Lot \_\_\_\_\_, Concession \_\_\_\_\_, Township of \_\_\_\_\_

County/Region/District of \_\_\_\_\_

Quantity (tonnes/cubic metres) and Type of Excess Material stockpiled: \_\_\_\_\_

This is to notify you, as Owner, that permission has been obtained from the property owner(s) named herein for the management of excess materials through re-use from this Contract. The property owner has signed and been provided with a copy of this form and has been advised that the Site Selection Notification for Material Managed as Disposable Fill Form, OPSF 180-2 (for excess soil management), and a Property Owner's Release Form, OPSF 180-3, will also be required. The use of this management site will comply with the following:

### Conditions on Management

It is understood that materials are stockpiled to be re-used or held for disposal at a certified waste disposal site. Stockpiles of natural wood, manufactured wood, debris from open fires, and swamp material may only be located:

- a) A minimum of 2 m above the level of ground water.
- b) A minimum of 30 m from waterbodies.
- c) A minimum of 100 m from any water wells.
- d) A minimum of 100 m from residences.

Stockpiles of bituminous pavement, concrete, and masonry may only be located:

- a) A minimum of 30 m from waterbodies; and
- b) A minimum of 100 m from residences unless
  1. on property with a boundary common to a right-of-way, within the contract limits for a period not exceeding 120 calendar days, or
  2. such stockpiles are located within a provincial or municipal works yard or in a commercially licensed pit or quarry.

This form to be used with Ontario Provincial Standard Specification 180

I/We state that I/we are the registered owner(s) of the property identified above and I/we agree to sign the Property Owner's Release after the Contractor has placed the excess material on the above-noted property in accordance with the terms of this form.

These conditions do not supersede any constraints imposed on this property by Federal, Provincial or Municipal, including Conservation Authority, statute or regulations and bylaws made thereto.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_  
Print Contractor's Name & Field Representative's Name

\_\_\_\_\_  
Contractor's Field Representative Signature

\_\_\_\_\_  
Print Registered Property Owner's Name (s)

\_\_\_\_\_  
Registered Property Owner's Signature(s)

cc: Contract Administrator, Property Owner(s), Contractor

**SITE SELECTION NOTIFICATION FOR MATERIAL MANAGED AS DISPOSABLE FILL**

**Contract Information**

Contract No: \_\_\_\_\_ Owner: \_\_\_\_\_

The following describes the notification process between the Owner of the Contract and the Contractor, wherein the Contractor formally notifies the Owner that agreement has been reached with a third-party property owner for the disposition of Contract generated excess material. Such excess material, managed as disposable fill, shall be limited to one or a combination of: earth, aggregate, swamp material, rock, natural wood, and debris from open fires, provided the conditions on management are satisfied.

**Site Information**

Registered Property Owner(s) for the subject property: \_\_\_\_\_

The subject property use description: \_\_\_\_\_

Lot \_\_\_\_\_, Concession \_\_\_\_\_, Township of \_\_\_\_\_

County/Region/District of \_\_\_\_\_

Quantity (tonnes/cubic metres) and Type of Excess Material stockpiled: \_\_\_\_\_

**For Excess Soil Management**

A description of the beneficial purpose for which the Excess Soil is to be reused at this site:

\_\_\_\_\_

The Excess Soil Quality Standards that apply to this site:

\_\_\_\_\_

Confirmation that Excess Soil Quality Standards applicable to this site align with the quality of excess soil to be brought to this site:

\_\_\_\_\_

This is to notify you, as Owner, that permission has been obtained from the property owner(s) named herein for the management of excess materials from this Contract. The property owner has signed and been provided with a copy of this form and has been advised that a Property Owner's Release Form, OPSF 180-3, will also be required. The use of this management site will comply with the following:

**Conditions on Management**

Swamp material, natural wood, and debris from open fires managed as disposable fill will be top covered by a minimum of 300 mm of earth or topsoil. Swamp material, natural wood, and debris from open fires managed as disposable fill may only be placed:

- a) A minimum of 2 m above the level of ground water.
- b) A minimum of 30 m from waterbodies
- c) A minimum of 100 m from any water wells
- d) A minimum of 100 m from residences.

**Salt-Impacted Excess Soil may only be placed:**

- a) Where it is reasonable to expect that the soil will be affected by the same chemicals as a result of continued application of a substance for the safety of vehicular or pedestrian traffic under conditions of snow or ice; or
- b) With an industrial or commercial property use and to which non-potable water standards would be applicable; or
- c) That is at least 1.5 m below the surface of the soil.

**Salt-Impacted Excess Soil shall not be finally placed:**

- a) Within 30 m of a waterbody;
- b) Within 100 m of a potable water well or area with an intended property use that may require a potable water well; or
- c) In lands that will be used for growing crops or pasturing livestock unless the excess soil is placed 1.5 m or greater below the soil surface.

I/We state that I/we are the registered owner(s) of the property identified above and I/we agree to sign the attached form of Property Owner's Release after the Contractor has placed the excess material on the above-noted property in accordance with the terms of this form.

These conditions do not supersede any constraints imposed on this property by Federal, Provincial, or Municipal, including Conservation Authority, statute or regulations and bylaws made thereto.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_  
Print Contractor's Name & Field Representative's Name

\_\_\_\_\_  
Contractor's Field Representative Signature

\_\_\_\_\_  
Print Property Owner's Name(s)

\_\_\_\_\_  
Registered Property Owner's Signature(s)

cc: Contract Administrator, Property Owner(s), Contractor

**PROPERTY OWNER'S RELEASE**

Contract No: \_\_\_\_\_

Work Description: \_\_\_\_\_

I/We \_\_\_\_\_ being the owner(s) of Lot, \_\_\_\_\_

Concession \_\_\_\_\_, Township of \_\_\_\_\_, and County/Region/District of \_\_\_\_\_, verify that the Contractor for the above noted work has placed excess material from the above noted Contract on my/our property with my/our permission. I/We have signed together with the Contractor forms OPSF 180-1, Site Selection Notification for Stockpiling Materials Managed Through Re-Use, or OPSF 180-2, Site Selection Notification for Material Managed as Disposable Fill, or both, that describe Conditions on Management, and have been assured by the Contractor that these conditions have been met.

Quantity (tonnes/cubic metres) and Type of Excess Material used as fill:

Where materials are managed as disposable fill, I/we agree to be responsible for any subsequent relocation and management of the material so placed.

Quantity (tonnes/cubic metres) and Type of Excess Material stockpiled:

Where materials are to be stockpiled, I/We agree that the stockpile(s) will be removed by the date(s) herein noted:

For materials managed as Excess Soil, the Quantity (tonnes/cubic metres) and the Identified Beneficial Purpose for which the Excess Soil was reused:

For Salt-Impacted Excess Soil, the Quantity (tonnes/cubic metres) and the Identified Beneficial Purpose for which the Excess Soil was reused:

I/We state that I/we are the registered owner(s) of the property identified above and I/we hereby release the Owner and the Contractor in respect of the activities of the Contractor carried out in accordance with this release.

Dated this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_

\_\_\_\_\_  
Print Registered Property Owner's Name (s)

\_\_\_\_\_  
Registered Property Owner's Signature(s)

\_\_\_\_\_  
Print Contractor's Name & Field Representative's Name

\_\_\_\_\_  
Contractor's Field Representative Signature

cc: Contract Administrator, Property Owner(s), Contractor

Workplace Safety Insurance Board, Ontario,  
200 Front Street West,  
TORONTO, Ontario,  
M5V 3J1

Dear Sirs:

**RE: Clearance Letter**

We have presently substantially completed the following Contract:

Contract No.            NWL-21014892  
                                 Reconstruction of Godfrey St., Commissioner St., Fourth Ave., and  
                                 Ninth Ave.  
Owner:                    The Corporation of the Township of Larder Lake  
  
Contractor:                \_\_\_\_\_  
  
Worker's Compensation Firm No. \_\_\_\_\_  
  
Amount:                    \_\_\_\_\_  
  
Date:                        \_\_\_\_\_  
  
Consulting Engineers:    EXP Services Inc.,  
                                 P.O. Box 1208,  
                                 310 Whitewood Ave. West,  
                                 New Liskeard, Ontario,  
                                 P0J 1P0

As a Contract condition, we request that a Clearance Certificate be sent to the above-mentioned Consulting Engineer.

Yours very truly,

\_\_\_\_\_  
Contractor



**STATUTORY DECLARATION**

**RE PAYMENT OF ACCOUNTS**

DOMINION OF CANADA  
PROVINCE OF ONTARIO

IN THE MATTER of a Contract, known as  
Reconstruction of Godfrey St, Commissioner St, Fourth  
Ave, and Ninth Ave  
Project No. NWL-21014892

entered into between

\_\_\_\_\_

AND

THE CORPORATION OF THE CITY OF  
TEMISKAMING SHORES

on \_\_\_\_\_, 202\_\_, for the

construction of \_\_\_\_\_

\_\_\_\_\_

in \_\_\_\_\_, Ontario.

TO WIT:

I, \_\_\_\_\_ of \_\_\_\_\_

in the Province of \_\_\_\_\_, do solemnly declare:

1. That I am \_\_\_\_\_  
(President, Secretary, Treasurer, Partner, etc.)

of the Contractor named in the Contract above-mentioned and as such have personal knowledge of the facts hereunder declared.

2. That all workmen employed by the said Contractor in the performance of the said Contract have been paid in full not less frequently than semi-monthly and up to and including the pay-day immediately preceding the date of this declaration.

3. That the said Contractor has complied with the terms of the Construction Lien Act, with the requirements of Statutes and Regulation of the Province of Ontario relating to the payment of fair wages and with the requirements of the said Contract relating to the payment of wages.

4. That with the exception of the disputed accounts set forth in paragraph 5 hereof and amounts held back and payments deferred by written agreement, all liabilities\* incurred by the said Contractor arising out of work performed up to \_\_\_\_\_, 202\_\_, as set forth in the Final Estimate relating to Payment Certificate No. \_\_\_\_\_, have been discharged.

5. That the following is a complete list of disputed accounts: (NOTE: This Table is not intended for listing unpaid accounts that are not in dispute.)

NAME OF CREDITOR	SERVICE RENDERED	TOTAL CLAIM \$	AMOUNT IN DISPUTE \$	AMOUNT PAID \$
------------------	------------------	----------------	----------------------	----------------

(If there are no disputed accounts, enter "NONE" above)

AND I MAKE THIS SOLEMN DECLARATION conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and by virtues of "The Canada Evidence Act".

DECLARED before me at the \_\_\_\_\_ )  
of \_\_\_\_\_ )  
in the District of \_\_\_\_\_ )  
this \_\_\_\_\_ day of \_\_\_\_\_ )  
A.D. 20\_\_\_\_. )  
\_\_\_\_\_  
A Commissioner, etc., or )  
Notary Public )

NOTE: \*Including payments due to all staff, subcontractors, suppliers, insurance companies and the Workplace Safety Insurance Board.

**ACCEPTANCE OF THE WORK**  
THE CORPORATION OF THE CITY OF TEMISKAMING SHORES

District of Cochrane  
TO THE CONTRACTOR:

Dated: \_\_\_\_\_

RE: The Corporation of the Township of Larder Lake  
Reconstruction of Godfrey St., Commissioner St., Fourth Ave., and Ninth  
Ave.  
Project No. NWL-21014892

The Corporation of the City of Temiskaming Shores accepts the work on the  
above mentioned Contract, as completed to our satisfaction as of the \_\_\_\_\_ day of  
\_\_\_\_\_, 20\_\_.

This Contract contains a "Liquidated Damages" clause in the Special Provisions  
for the Contract; the above acceptance date \_\_\_\_\_ occurs \_\_\_\_\_ days  
before the completion date specified in the Contract Documents.

THE CORPORATION OF THE TOWNSHIP OF  
LARDER LAKE:

\_\_\_\_\_

c.c. – EXP Services Inc.

**CONTRACT BOND**  
**THE CORPORATION OF THE CITY OF TEMISKAMING SHORES**

BOND NO. \_\_\_\_\_ AMOUNT: \$ \_\_\_\_\_

KNOW ALL MEN BY THESE PRESENTS that we \_\_\_\_\_

hereinafter called "the Principal", and

\_\_\_\_\_ hereinafter called "the Surety", are jointly and severally held and firmly bound unto the Corporation of the Township of Larder Lake, hereinafter called "the Obligee", its successors, and assigns, in the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) of lawful money of Canada, to be paid unto the Obligee, for which payment well and truly to be made, we the Principal and Surety jointly and severally bind ourselves, our and each of our respective heirs, executors, administrators, successors, and assigns by these presents.

SIGNED AND SEALED with our respective seals and dated this \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

WHEREAS by an agreement in writing dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, the Principal has entered into a contract with the Obligee, hereinafter called "the Contract" for the construction and maintenance of a works namely:

***The Corporation of the Township of Larder Lake  
Reconstruction of Godfrey St., Commissioner St., Fourth Ave., and Ninth Ave.  
Project No. NWL-21014892***

as in the Contract provided, which Contract is by reference herein made a part hereof as fully to all intents and purposes as though recited in full herein.

NOW THEREFORE THE CONDITION OF THIS OBLIGATION IS SUCH that if the Principal shall at all times duly perform and observe the Contract or as the same be changed, altered or varied as hereinafter provided, to the satisfaction of the Obligee and shall at all times fully indemnify and keep indemnified the Obligee from and against all and any manner of loss, damage, expense, suits, actions, claims, liens, proceedings, demands, awards, payments and liabilities arising out of or in any manner based upon or attributable to the Contract and shall fully reimburse and repay the Obligee for all outlay, expense, liabilities, or payments incurred or undertaken to be made by the Obligee pursuant to the Contract, then this obligation shall be void, but otherwise it shall be and remain in full force and effect.

**CONTRACT BOND (CONTINUED)**

Provided always and it is hereby agreed and declared that the Obligeo and the Principal have the right to change, alter or vary the terms of the Contract and that the Obligeo may, in its discretion, at any time or times take and receive from the Principal any security whatsoever and grant any extension of time thereon or any liability of the Principal to the Obligeo.

Provided further and it is hereby agreed and declared that the Principal and the Surety shall not be discharged or released from liability hereunder and that such liability shall not be in any way affected by any such changes, alterations, or variations, taking or receiving of security, or extension of time, as aforesaid, or by the exercise by the Obligeo of any of the rights or powers reserved to it under the Contract by its forbearance to exercise any such rights or powers including (but without restricting the generality of the foregoing) any changes in the extent or nature of the works to be constructed and maintained under the Contract, or by any dealing, transaction, forbearance or forgiveness which may take place between the Principal and the Obligeo.

Provided further and it is hereby agreed and declared that the Surety shall not be liable for a greater sum than that specified in this Bond.

IN WITNESS WHEREOF THE PRINCIPAL AND THE SURETY HAVE EXECUTED THESE PRESENTS.

SIGNED AND SEALED BY THE )  
PRINCIPAL IN THE PRESENCE OF: )

\_\_\_\_\_)  
Witness )

\_\_\_\_\_)  
Occupation )

\_\_\_\_\_)  
Address )

\_\_\_\_\_)  
Principal )

\_\_\_\_\_)  
Surety )  
)  
)

**Certificate of Substantial Performance of the Contract  
(Under Section 32 of the Construction Lien Act, 1983)**

\_\_\_\_\_  
(County/District or Regional Municipality/City of; in which premises are situated)

\_\_\_\_\_  
(Street address and City, Town etc...or if there is no street address the location of the premises)

This is to certify that the contract for the following improvement:

\_\_\_\_\_  
to the above premises was substantial performed on \_\_\_\_\_

Date Certificate signed:

(Payment Certifier where there is one)

(Owner & Contractor where there is no Payment Certifier)

Name of Owner: \_\_\_\_\_

Address for Service: \_\_\_\_\_

Name of Contractor: \_\_\_\_\_

Address for Service: \_\_\_\_\_

Name of Payment Certifier: \_\_\_\_\_

Address: \_\_\_\_\_

(Use A or B, whichever is applicable)

A. Identification of premises for preservation of liens:

\_\_\_\_\_  
(where liens attach to premises, reference to lot & plan or instrument registration number)

B. Office to which claim for lien and affidavit must be given to preserve lien:

\_\_\_\_\_  
(where liens of not attach to premises)

<b>Removals Part 'A'</b>							
Location	Removal of Roadway Asphalt	Removal of Interlocking Pavers	Removal of Sidewalk & Curbs	Removal of Pipe Culverts and Sewers	Removal of MH's, CB's & VC's	Removal of Hydrants	Removal of WM
<b>Main Road Removal</b>							
<b>Ninth Avenue</b>							
50+072.98 to 50+284.1	1,324						
<b>Commissioner Street</b>							
10+000 to 10+638	4233.0						
<b>Godfrey Street</b>							
19+901.99 to 20+329.99	5603.3						
<b>Fourth Avenue (Commissioner to Godfrey)</b>							
30+224.076 to 30+414.94	1,202						
<b>Fourth Avenue (Godfrey to Limit of Const)</b>							
30+430.5 to 30+439.989	85						
<b>Entrance Removal</b>							
<b>Ninth Avenue &amp; Lakeshore Road</b>							
50+221.57 (RT)	209						
<b>Commissioner Street &amp; Eighth Avenue</b>							
10+047.7 (LT)							
<b>Commissioner Street &amp; Seventh Avenue</b>							
10+134.12 (RT)	70.7						
10+134.12 (LT)	94.2						
<b>Commissioner Street &amp; Sixth Avenue</b>							
10+219.23 (Lt)	85.5						
10+219.213 (RT)	144.0						
<b>Commissioner Street &amp; Fifth Avenue</b>							
10+304.18 (RT)	66.2						
10+304.13 (LT)	71						
<b>Commissioner Street &amp; Third Avenue</b>							
10+475.41 (RT)	83.5						
10+474.15 (LT)	70						
<b>Commissioner Street &amp; Second Avenue</b>							
10+558.73 (Lt)	85						
10+560.24 (Rt)	68						
<b>Godfrey Street &amp; Fifth Avenue</b>							
20+055.8 (LT)	49.6						
<b>Godfrey Street &amp; Third Avenue</b>							
20+227.32 (LT)	70						
20+228.82 (RT)	83						
<b>Page-Totals</b>	<b>13697.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Totals</b>	<b>13697.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Units</b>	<b>m<sup>2</sup></b>	<b>m<sup>2</sup></b>	<b>m<sup>2</sup></b>	<b>m</b>	<b>ea.</b>	<b>ea.</b>	<b>m</b>
<b>Item Number</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>51</b>	<b>52</b>	<b>53</b>	<b>55</b>

Location	Removals Part 'A'						Removal of Hydrants	Removal of WM
	Removal of Roadway Asphalt	Removal of Interlocking Pavers	Removal of Sidewalk & Curbs	Removal of Pipe Culverts and Sewers	Removal of MH's, CB's & VC's	Removal of WM		
Subtotal Carried Over=	13697.7							
<b>Godfrey Street &amp; Second Ave</b>								
20+312.663 (RT)	52.6							
20+310.132 (LT)	131.1							
<b>Driveways Removal</b>								
50+113.59 (LT)	11.8							
50+124.553 (RT)	26.8							
10+108.5 (RT)	35.9							
10+273.03 (RT)	34.6							
10+503.56 (LT)	4.7							
10+519.4 (LT)	8.9							
10+604.58 (Lt)	21							
19+950.88 (RT)	212.4							
<b>Interlocking Brick Removal</b>								
20+062.233 to 20+112.135 (LT)		73.0						
20+149.79 to 20+184.3 (LT)		55.0						
20+216.596 to 20+221.484 (LT)		8.1						
20+277.95 to 20+303.14 (LT)		43.2						
20+069.1 to 20+136.23 (RT)		110.6						
20+234.396 to 20+241.395 (RT)		11.0						
20+256.124 to 20+305.75 (RT)		94.2						
20+316.64 to 20+324.59 (RT)		14.7						
<b>Commissioner Street</b>								
10+357.45 to 10+372.23		24.7						
<b>Sidewalk Removal</b>								
<b>Godfrey Street</b>								
20+112.23 to 20+137.041 (LT)			39.6					
20+184.469 to 20+216.536 (LT)			62.1					
20+233.94 to 20+277.952 (LT)			78.5					
20+148.4 to 20+223.8 (RT)			146.9					
20+241.4 to 20+256.123 (RT)			26.4					
<b>Watermain Removal</b>								
50+073.5 to 50+238.010								163.064
50+238.010 to 10+023.157								66.1
<b>Lakeshore Road</b>								
13+035.175 to 13+067.481								32.3
<b>Page-Totals</b>	<b>539.3</b>	<b>434.4</b>	<b>353.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>261.5</b>
<b>Totals</b>	<b>14237</b>	<b>434</b>	<b>354</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>262</b>
<b>Units</b>	<b>m<sup>2</sup></b>	<b>m<sup>2</sup></b>	<b>m<sup>2</sup></b>	<b>m</b>	<b>ea.</b>	<b>ea.</b>	<b>ea.</b>	<b>m</b>
<b>Item Number</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>54</b>	<b>56</b>





Removals Part 'A'							
Location	Removal of Roadway Asphalt	Removal of Interlocking Pavers	Removal of Sidewalk & Curbs	Removal of Pipe Culverts and Sewers	Removal of MH's, CB's & VC's	Removal of Hydrants	Removal of WM
<b>Subtotal Carried Over=</b>	14237.0	434.4	353.5	0.0	0.0	0.0	1725.1
<b>Culvert Removal</b>							
<b>Ninth Avenue</b>							
50+108.478 to 50+119.043				10.6			
50+120.222 to 50+128.275				8.1			
50+144.217 to 50+150.887				6.7			
50+158.246 to 50+168.235				10.0			
50+164.510 to 50+172.794				8.3			
50+173.839 to 50+178.893				12.1			
<b>Commissioner Street</b>							
10+011.909 to 10+009.281				12.4			
10+013.082 to 10+010.187				12.4			
10+014.159 to 10+011.078				12.5			
10+113.111 to 10+103.082				10.0			
10+172.525 to 10+163.869				8.7			
10+184.637 to 10+178.953				5.7			
10+200.276 to 10+195.296				5.0			
10+228.145 to 10+209.905				18.2			
10+309.962 to 10+297.858				12.1			
10+297 to 10+297.819				9.3			
10+345.585 to 10+348.998				11.0			
10+395.659 to 10+396.581				12.8			
10+490.994 to 10+491.006				10.3			
10+565.399 to 10+553.016				11.7			
<b>Godfrey Street</b>							
19+964.879 to 19+966.489				14.1			
20+222.826 to 20+224.134				22.7			
20+231.530 to 20+23.532				9.6			
<b>Fourth Avenue</b>							
30+027.970 to 30+029.910				21.3			
<b>Storm Structures Removal</b>							
<b>Godfrey Street</b>							
20+222.72 O/S= 10.958 (LT) CB1				9.6	1.0		
20+232.4 O/S= 11.783 (LT) CB2					1.0		
<b>Page-Totals</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>285.1</b>	<b>2.0</b>	<b>0.0</b>	<b>0.0</b>
<b>Totals</b>	<b>14237</b>	<b>434</b>	<b>354</b>	<b>285</b>	<b>2</b>	<b>0</b>	<b>1725</b>
<b>Units</b>	<b>m<sup>2</sup></b>	<b>m<sup>2</sup></b>	<b>m<sup>2</sup></b>	<b>m</b>	<b>ea.</b>	<b>ea.</b>	<b>m</b>
<b>Item Number</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>56</b>

Location	Removals Part 'A'						
	Removal of Roadway Asphalt	Removal of Interlocking Pavers	Removal of Sidewalk & Curbs	Removal of Pipe Culverts and Sewers	Removal of MH's, CB's & VC's	Removal of Hydrants	Removal of WM
<b>Subtotal Carried Over=</b>	14237.0	434.4	353.5	285.1	2.0	0.0	1725.1
<b>Hydrant Removal</b>							
<b>Ninth Avenue</b>							
50+239.562 O/S=7.661 (LT)						1.0	
<b>Commissioner Street</b>							
10+235.917 O/S=8.250 (LT)						1.0	
10+494.678 O/S=7.849 (LT)						1.0	
10+629.515 O/S=6.109 (RT)						1.0	
<b>Godfrey Street</b>							
20+049.959 O/S=6.109 (RT)						1.0	
20+150.963 O/S=7.565 (RT)						1.0	
20+222.67 O/S=10.696 (RT)						1.0	
20+320.634 O/S=10.355 (RT)						1.0	
<b>Removal of Sanitary Structure</b>							
<b>Ninth Avenue</b>							
50+075.59 (MHQQ) to 50+168.72 (MHPP)				93.2			
50+168.72 (MHPP) to 50+237.81 (MHNN)				69.0	1.0		
50+237.81 (MHNN) to 13+032.76 (MHOO)				34.3	1.0		
50+237.81 (MHNN) to 50+244.78 (MHMM)				11.5	1.0		
50+244.78 (MHMM) to 50+259.3 (MHLL)				15.7	1.0		
50+259.3 (MHMM) to 10+007.56 (MHA)				33.2	1.0		
<b>Commissioner Street</b>							
10+007.56 (MHA) to 10+042.28 (MHB)				32.0	1.0		
10+042.28 (MHB) to 10+134.11 (MHC)				91.9	1.0		
10+134.11 (MHC) to 10+219.22 (MHE)				85.1	1.0		
10+219.22 (MHE) to 10+304.01 (MHH)				84.8	1.0		
10+304.01 (MHH) to 10+388.78 (MHJ)				84.8	1.0		
10+388.78 (MHJ) to 10+429.27 (MHP)				40.5	1.0		
10+429.27 (MHP) to 10+480.6 (MHQ)				51.3	1.0		
10+480.6 (MHQ) to 10+515.73 (MHS)				35.1	1.0		
10+515.73 (MHS) to 10+558.49 (MHT)				42.9	1.0		
10+558.49 (MHT) to 635.14 (Ex. MH97)				77.2	1.0		
10+480.59 (MHQ) to 3+044.93 EX. Pipe				3.0			
<b>Page-Totals</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>885.5</b>	<b>15.0</b>	<b>8.0</b>	<b>0.0</b>
<b>Totals</b>	<b>14237</b>	<b>434</b>	<b>354</b>	<b>1171</b>	<b>17</b>	<b>8</b>	<b>1725</b>
<b>Units</b>	<b>m<sup>2</sup></b>	<b>m<sup>2</sup></b>	<b>m<sup>2</sup></b>	<b>m</b>	<b>ea.</b>	<b>ea.</b>	<b>m</b>
<b>Item Number</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>52</b>	<b>53</b>	<b>54</b>	<b>56</b>



Earth Excavation Part 'A'										
Location	Rock Excavation		Earth Excavation		Earth Ditch					
<b>Main Road</b>										
<b>Ninth Avenue</b>										
50+073 to 50+284			1027.7							
<b>Commissioner Street</b>										
10+000 to 10+100			488.5							
10+100 to 10+200			487.6							
10+200 to 10+300			487.6							
10+300 to 10+400			487.6							
10+400 to 10+500			487.6							
10+500 to 10+600			487.6							
10+600 to 10+638			215							
<b>Godfrey Street</b>										
19+900 to 20+200			484.5							
20+000 to 20+100			929.8							
20+100 to 20+200			1012.5							
20+200 to 20+300			1012.5							
20+300 to 20+330			426.2							
<b>Fourth Ave</b>										
30+224.4 to 30+300			386.6							
30+300 to 30+400			487.5							
30+400 to 30+414.7			76.5							
30+429.7 to 30+440			57.5							
<b>Sideroad Entrances</b>										
<b>Ninth Avenue</b>										
50+221.6 O/S=3.25m (RT)			164							
<b>Commissioner Street</b>										
10+134.11 O/S=4.01m (RT)			69.7							
10+219.23 O/S=4.013m (RT)			71.2							
10+304.19 O/S= 3.458m (RT)			61							
10+474.2 O/S= 3.536m (RT)			70.4							
10+559.7 O/S=2.796m (RT)			98							
10+049.0 O/S=4.381m (LT)			64							
10+134.11 O/S=4.332m (LT)			62.2							
10+219.23 O/S=3.803m (LT)			66.4							
10+304.19 O/S= 3.584m (LT)			71.1							
10+474.2 O/S= 3.685m (LT)			76.6							
10+559.7 O/S=3.282m (LT)			54.7							
<b>Page Totals</b>	0		9,972		0					
<b>Totals</b>	0		9,972		0					
<b>Units</b>	m <sup>3</sup>		m <sup>3</sup>		m					
<b>Item Number</b>	10		14		15					

Earth Excavation Part 'A'										
Location	Rock Excavation		Earth Excavation		Earth Ditch					
<b>Subtotal Carried Over=</b>			9972.1							
<b>Sideroad Entrances</b>										
<b>Godfrey Street</b>										
20+064.1 O/S=7.422m (RT)			42.8							
20+228.82m O/S=7.467m (RT)			43.8							
20+312.66m O/S=7.838m (RT)			42.1							
20+056.7m O/S=7.834m (LT)			64							
20+228.82m O/S=7.513m (LT)			91.4							
20+311.2m O/S=6.751m (LT)			41.4							
<b>Asphalt Driveways</b>										
<b>Ninth Avenue</b>										
50+113.6 O/S=3.250m (LT)			20.025							
50+124.6 O/S=3.25m (RT)			13.2183							
<b>Commissioner Street</b>										
10+109.22 O/S=3.320m (RT)			16.929							
10+273.1 O/S=3.250m (RT)			4.041							
10+176.08 O/S=3.250m (LT)			14.3865							
10+503.31 O/S=3.250m (LT)			2.97							
10+519.11 O/S=3.250m (LT)			5.265							
10+604.29 O/S=3.250m (LT)			13.6485							
10+261.384 to 10+369.313	417									
19+953.2 O/S=2.345 (RT)			109.503							
<b>Asphalt Boulevard</b>										
20+324.6 to 20+317.2 (RT)			81.915							
20+307.85 to 20+233.8 (RT)			85.9875							
20+223.8 to 20+149.1 (RT)			85.1775							
20+138.77 to 20+067.6 (RT)			9.975							
20+306 to 20+233.97 (LT)			88.395							
20+223.7 to 20+148.9 (LT)			86.18925							
20+138.6 to 20+061.7 (LT)			83.47275							
<b>Gravel Driveways</b>										
<b>Ninth Avenue</b>										
50+147.9 O/S=3.250m LT			11.03445							
50+188.34 O/S=3.250m LT			11.9025							
50+201.15 O/S= 3.250m LT			14.3145							
50+264.76 O/S=3.260m LT			24.4683							
50+163.82 O/S=3.250m RT			31.59							
50+169.33 O/S=3.250m LT			30.06							
<b>Page Totals</b>	417		11,142		0					
<b>Totals</b>	417		11,142		0					
<b>Units</b>	m <sup>3</sup>		m <sup>3</sup>		m					
<b>Item Number</b>	10		15		16					

Earth Excavation Part 'A'										
Location	Rock Excavation		Earth Excavation		Earth Ditch					
<b>Subtotal Carried Over=</b>	417		11142.06805							
<b>Commissioner Street</b>										
10+168.29 O/S=3.250m RT			38.6955							
10+182.22 O/S=3.250m RT			16.74							
10+197.48 O/S=3.250m RT			8.883							
10+260.98 O/S=3.250m RT			15.6645							
10+345.89 O/S=3.520m RT			23.085							
10+415.46 O/S=3.250m RT			11.313							
10+432.86 O/S=3.250m RT			8.091							
10+507.58 O/S=3.250m RT			15.0345							
<b>Gravel Driveways</b>										
<b>Commissioner Street</b>										
10+607.91 O/S=3.250m RT			12.465							
10+096.06 O/S=3.250m LT			15.85305							
10+243.33 O/S=3.250m LT			15.039							
10+262.29 O/S=3.250m LT			62.748							
10+531.2 O/S=3.250m LT			43.965							
<b>Godfrey Street</b>										
19+932.8 O/S=3.210 LT			10.1646							
19+952.5 O/S=4.626 LT			6.12							
<b>Fourth Avenue</b>										
30+286.13 O/S=3.250m RT			15.7275							
30+310.45 O/S=3.250m RT			13.7025							
30+333.72 O/S=3.250m RT			12.5775							
30+350.56 O/S=3.250m RT			29.07							
30+366.81 O/S=3.250m RT			13.66425							
30+380.63 O/S=3.250m RT			11.1195							
30+251.74 O/S=3.250m LT			16.695							
30+278.84 O/S=3.250m LT			45.36							
30+317.7 O/S=3.250m LT			21.96							
30+349.46 O/S=3.275m LT			96.21							
30+380.4 O/S=3.250m LT			16.9335							
<b>Page Totals</b>	0		597		0					
<b>Totals</b>	<b>417</b>		<b>11,739</b>		<b>0</b>					
<b>Units</b>	<b>m<sup>3</sup></b>		<b>m<sup>3</sup></b>		<b>m</b>					
<b>Item Number</b>	<b>10</b>		<b>15</b>		<b>16</b>					

Earth Excavation Part 'A'										
Location	Rock Excavation		Earth Excavation		Earth Ditch					
<b>Subtotal Carries Over=</b>	417		11738.94895							
<b>Gravel Shoulder</b>										
<b>Ninth Avenue</b>										
50+073 to 50+284.1 (RT)			28.017							
50+073 to 50+284.1 (LT)			45.7848							
<b>Commissioner Street</b>										
10+000 to 10+638 (RT)			103.014							
10+000 to 10+638 (LT)			166.48065							
<b>Godfrey Street</b>										
19+900 to 20+330 (RT)			39.78							
19+900 to 20+330 (LT)			43.614							
<b>Fourth Avenue</b>										
30+224.1 to 30+439.992 (RT)			68.355							
30+224.1 to 30+439.992 (LT)			24.021							
<b>Commissioner Street</b>					1168					
<b>Page Totals</b>	0		519		1,168					
<b>Totals</b>	<b>417</b>		<b>12,258</b>		<b>1,168</b>					
<b>Units</b>	<b>m<sup>3</sup></b>		<b>m<sup>3</sup></b>		<b>m</b>					
<b>Item Number</b>	<b>10</b>		<b>14</b>		<b>16</b>					





		Grading, Hot Mix, Granulars, Driveways			Part 'A'			
Location		Granular A	Granular B, Type I	SP 12.5 Roadway (50mm Surface Lift)		Hot Mix Miscellaneous		
<b>Subtotal Carried Over=</b>		5,744	18,348	1,914				
<b>Sideroad Entrances</b>								
<b>Godfrey Street</b>								
20+064.1 O/S=7.422m (RT)		25.2	80.6	8.4				
20+228.82m O/S=7.467m (RT)		36.9	117.8	12.3				
20+312.66m O/S=7.838m (RT)		23.9	76.2	7.95				
20+056.7m O/S=7.834m (LT)		24.7	78.8	8.2				
20+228.82m O/S=7.513m (LT)		24.2	77.4	8.1				
20+311.2m O/S=6.751m (LT)		52.7	168.2	17.5				
<b>Asphalt Driveways</b>								
<b>Ninth Avenue</b>								
50+113.6 O/S=3.250m (LT)		19.2	61.4	6.4				
50+124.6 O/S=3.25m (RT)		12.7	40.5	4.2				
<b>Commissioner Street</b>								
10+109.22 O/S=3.320m (RT)		16.3	51.9	5.4				
10+273.1 O/S=3.250m (RT)		13.8	44.1	4.6				
10+176.08 O/S=3.250m (LT)		3.9	12.4	1.3				
10+503.31 O/S=3.250m (LT)		2.9	9.1	1				
10+519.11 O/S=3.250m (LT)		5.1	16.1	1.7				
10+604.29 O/S=3.250m (LT)		13.1	41.9	4.4				
<b>Godfrey Street</b>								
19+953.2 O/S=2.345 (RT)		105.1	335.8	35				
<b>Asphalt Boulevard</b>								
20+324.6 to 20+317.2 (RT)		6.4	20.3	2.12		14.7		
20+307.85 to 20+233.8 (RT)		20.4	65.3	6.8		47.3		
20+223.8 to 20+149.1 (RT)		20.6	65.9	6.9		47.72		
20+138.77 to 20+067.6 (RT)		19.5	62.4	6.5		45.2		
20+306 to 20+233.97 (LT)		16.7	53.4	5.6		38.72		
20+223.7 to 20+148.9 (LT)		17.5	55.8	5.8		40.44		
20+138.6 to 20+061.7 (LT)		18.3	58.4	6.1		42.319		
<b>Gravel Driveways</b>								
<b>Ninth Avenue</b>								
50+147.9 O/S=3.250m LT		10.6						
50+188.34 O/S=3.250m LT		13.7						
50+201.15 O/S= 3.250m LT		23.5						
50+264.76 O/S=3.260m LT		30.3						
50+163.82 O/S=3.250m RT		24.1						
50+169.33 O/S=3.250m LT		11.4						
<b>Page Totals</b>								
<b>Totals</b>		<b>613</b>	<b>1,594</b>	<b>166</b>		<b>276</b>		
<b>Units</b>		<b>t</b>	<b>t</b>	<b>t</b>		<b>m<sup>2</sup></b>		
<b>Item Number</b>		<b>16</b>	<b>17</b>	<b>18</b>		<b>19</b>		

		Grading, Hot Mix, Granulars, Driveways			Part 'A'			
Location		Granular A	Granular B, Type I	SP 12.5 Roadway (50mm Surface Lift)		Hot Mix Miscellaneous		
<b>Subtotal Carried Over=</b>		6,357	19,942	2,080	0	276		
<b>Commissioner Street</b>								
10+168.29 O/S=3.250m RT		22.2						
10+182.22 O/S=3.250m RT		10.9						
10+197.48 O/S=3.250m RT		7.8						
10+260.98 O/S=3.250m RT		14.4						
10+345.89 O/S=3.520m RT		11.97						
10+415.46 O/S=3.250m RT		15.2						
10+432.86 O/S=3.250m RT		14.4						
10+507.58 O/S=3.250m RT		60.2						
<b>Gravel Driveways</b>								
<b>Commissioner Street</b>								
10+607.91 O/S=3.250m RT		42.2						
10+096.06 O/S=3.250m LT		37.2						
10+243.33 O/S=3.250m LT		16.1						
10+262.29 O/S=3.250m LT		8.5						
10+531.2 O/S=3.250m LT		15						
<b>Godfrey Street</b>								
19+932.8 O/S=3.210 LT		9.8						
19+952.5 O/S=4.626 LT		5.9						
<b>Fourth Avenue</b>								
30+286.13 O/S=3.250m RT		15.1						
30+310.45 O/S=3.250m RT		13.2						
30+333.72 O/S=3.250m RT		12.1						
30+350.56 O/S=3.250m RT		27.9						
30+366.81 O/S=3.250m RT		13.1						
30+380.63 O/S=3.250m RT		10.7						
30+251.74 O/S=3.250m LT		16						
30+278.84 O/S=3.250m LT		43.6						
30+317.7 O/S=3.250m LT		21.1						
30+349.46 O/S=3.275m LT		92.4						
30+380.4 O/S=3.250m LT		16.3						
<b>Page Totals</b>		573	0	0		0		
<b>Totals</b>		<b>6,930</b>	<b>19,942</b>	<b>2,080</b>		<b>276</b>		
<b>Units</b>		t	t	t		m <sup>2</sup>		
<b>Item Number</b>		<b>16</b>	<b>17</b>	<b>18</b>		<b>19</b>		



Curbs, and Subdrains Part 'A'									
Location	150mm Dia. Perforated Subdrains		Concrete Sidewalk		Tactile Plates		Concrete Curb & Gutter		
<b>Ninth Avenue</b>									
<b>Left Side</b>									
50+081.65 to 50+284.1	28.8								
<b>Right Side</b>									
50+088.03 to 50+284.1	33.2								
<b>Commissioner Street</b>									
<b>Left Side</b>									
10+000 to 10+045.99	51.82								
10+050.9 to 10+131.3	94.54								
10+136.6 to 10+216.6	94.44								
10+221.87 to 10+301.86	93.62								
10+306 to 10+386.54	90.83								
10+391.7 to 10+471.3	90.69								
10+476.75 to 10+557.6	94.73								
10+562.1 to 10+630.97	76.8								
<b>Right Side</b>									
10+000 to 10+131.6	139.4								
10+135.95 to 10+216.03	97.697								
10+221.37 to 10+301.98	97.71								
10+306.5 to 10+386.5	90.4								
10+391.7 to 10+472.7	91.9								
10+478.1 to 10+557.3	91.6								
10+562.9 to 10+631.75	75.6								
<b>Godfrey Street</b>									
<b>Left Side</b>									
19.910.6 to 20+052.9	143.9								
20+058 to 20+141.2	89.3								
20+146.4 to 20+226.2	87.5								
20+231.7 to 20+309.8	98.4								
<b>Right Side</b>									
19+910.6 to 20+060.7	160.3								
20+065.2 to 20+141.2	89.64								
20+146.8 to 20+226.3	98.12								
20+231.1 to 20+310.1	94.5								
<b>Fourth Avenue</b>									
<b>Right Side</b>									
30+030.8 to 30+210.4	184.2								
30+231.9 to 30+411.2	179.3								
<b>Page Totals</b>	2,659		0		0		0		
<b>Totals</b>	<b>2658.9</b>		<b>0.0</b>		<b>0.0</b>		<b>0.0</b>		
<b>Units</b>	m		m <sup>2</sup>		ea.		m		
<b>Item Number</b>	20		21		22		23		

Curbs, and Subdrains Part 'A'									
Location	150mm Dia. Perforated Subdrains		Concrete Sidewalk		Tactile Plates		Concrete Curb & Gutter		
<b>Subtotal Carried Over=</b>	2658.9								
<b>Fourth Avenue</b>									
<b>Left Side</b>									
30+032.7 to 30+210.4	181.6								
30+231.9 to 30+411.2	179.3								
<b>Second Avenue West</b>									
<b>Left Side</b>									
7+068.77 to 7+050.98	17.6								
8+008.1 to 8+014.4	6.27								
<b>Subdrain Outlets</b>									
<b>Ninth Avenue</b>									
50+178.9 RT	1.7								
<b>Commissioner Street</b>									
10+008.1 (RT)	9.4								
10+568 (RT)	9.7								
<b>Godfrey Street</b>									
19+936.6 (LT)	33.12								
19+971.8 (RT)	22.7								
<b>Fourth Avenue</b>									
30+032.65 (RT)	6.221								
<b>Subdrain Intersections</b>									
<b>Commissioner &amp; Eighth</b>									
10+043.5 to 10+055.1 (LT)	11.65								
<b>Commissioner &amp; Seventh</b>									
10+128.55 to 10+140.0 (LT)	11.46								
10+128.2 to 140.2 (RT)	11.97								
<b>Commissioner &amp; Sixth Avenue</b>									
10+212.96 to 10+225.97 (LT)	13								
10+212.4 to 10+225.5 (RT)	13.2								
<b>Commissioner &amp; Fifth Avenue</b>									
10+297.3 to 10+311.2 (LT)	13.9								
10+297.1 to 10+311.5 (RT)	14.4								
<b>Commissioner Street &amp; Fourth Avenue</b>									
10+381.97 to 10+396.2 (LT)	14.3								
10+382.5 to 10+395.9 (RT)	13.4								
<b>Commissioner &amp; Third Avenue</b>									
10+467.7 to 10+481.13 (LT)	13.4								
10+467.4 to 10+481.4 (RT)	14.1								
<b>Page Totals</b>	612		0		0		0		
<b>Totals</b>	3271.3		0.0		0.0		0.0		
<b>Units</b>	m		m <sup>2</sup>		ea.		m		
<b>Item Number</b>	20		21		22		23		

Curbs, and Subdrains Part 'A'									
Location	150mm Dia. Perforated Subdrains		Concrete Sidewalk		Tactile Plates		Concrete Curb & Gutter		
<b>Subtotal Carried Over=</b>	3271.3								
<b>Subdrain Intersections</b>									
<b>Commissioner &amp; Second Avenue</b>									
10+551.8 to 10+566.5 (LT)	15.2								
10+550.3 to 10+567.5 (RT)	16.84								
<b>Godfrey &amp; Fifth Avenue</b>									
20+051.24 to 20+061.2 (LT)	8.99								
20+057.8 to 20+067.8 (RT)	10.24								
<b>Godfrey and Fourth Avenue</b>									
20+137.52 to 20+149.5 (RT)	11.63								
20+138.2 to 20+149.5 (LT)	11.4								
<b>Godfrey &amp; Third Avenue</b>									
20+223.8 to 20+234.1 (LT)	10.4								
20+223.3 to 20+233.99 (RT)	10.7								
<b>Godfrey &amp; Second Avenue</b>									
20+306.13 to 20+314.4 (LT)	8.4								
20+306.98 to 20+315.9 (RT)	8.9								
<b>Sidewalk</b>									
<b>Godfrey Street</b>									
<b>Right Side</b>									
20+066.33 to 20+140.02			109.22						
20+147.87 to 20+225.28			114.65						
20+232.57 to 20+308.99			113.57						
20+316.7 to 20+324.6			13.3						
<b>Left Side</b>									
20+060.3 to 20+139.98			117.86						
20+147.58 to 20+225			114.919						
20+232.42 to 20+307.38			111.297						
<b>Sidewalk Tactical Plates</b>									
<b>Right Side</b>									
20+067.38 O/S=9.140					1				
20+138.99 O/S=9.129					1				
20+148.91 O/S=9.137					1				
20+224.29 O/S=9.206					1				
20+233.71 O/S=9.173					1				
20+308.28 O/S=9.143					1				
<b>Left Side</b>									
20+061.58 O/S= 9.040					1				
20+138.97 O/S=9.070					1				
20+148.95 O/S= 9.054					1				
20+224.11 O/S= 9.060					1				
20+233.58 O/S= 9.005					1				
20+306.56 O/S= 9.038					1				
<b>Page Totals</b>	113		695		12		0		
<b>Totals</b>	<b>3384.0</b>		<b>694.8</b>		<b>12.0</b>		<b>0.0</b>		
<b>Units</b>	<b>m</b>		<b>m<sup>2</sup></b>		<b>ea.</b>		<b>m</b>		
<b>Item Number</b>	<b>20</b>		<b>21</b>		<b>22</b>		<b>23</b>		

Curbs, and Subdrains Part 'A'									
Location	150mm Dia. Perforated Subdrains		Concrete Sidewalk		Tactile Plates		Concrete Curb & Gutter		
<b>Subtotal Carried Over=</b>	3384		694.8		12				
<b>Godfrey Street</b>									
<b>Curb</b>									
<b>Right Side</b>							78.5		
20+065.8 to 20+140.5							82.15		
20+147.4 to 20+225.6							81.2		
20+232.1 to 20+309.4							16.5		
20+316.44 to 20+330.2									
<b>Left Side</b>							84.45		
20+059.66 to 20+104.5							82.3		
20+147 to 20+225.6							79.55		
20+232.27 to 20+307.4									
<b>Page Totals</b>	0		0		0		505		
<b>Totals</b>	<b>3384.0</b>		<b>694.8</b>		<b>12.0</b>		<b>504.7</b>		
<b>Units</b>	<b>m</b>		<b>m<sup>2</sup></b>		<b>ea.</b>		<b>m</b>		
<b>Item Number</b>	<b>20</b>		<b>21</b>		<b>22</b>		<b>23</b>		







Miscellaneous Part 'A'										
Location	Straw Bale Flow Check Dams		Salvage & Reinstate Road Signs		Geotextile		Geogrid		Sewer/Watermain Pipe Insulation	Sewer/Watermain Pipe Insulation
<b>Subtotal Carried Over=</b>	6		34							
<b>Geogrid, Geotextile</b>										
<b>Ninth Avenue</b>										
50+073 to 50+284.1					1569.0		1569.0			
<b>Commissioner Street</b>										
10+000 to 10+638.01					5879.8		5879.8			
<b>Godfrey Street</b>										
19+900.41 to 20+330.0					6966.9		6966.9			
<b>Fourth Avenue</b>										
30+249.9 to 30+412.5					1621.8		1621.8			
<b>Sideroad Entrances</b>										
50+221.7 (Lakeshore Road)					234.0		234.0			
19+949.1 (Parking B 2-2)					225.6		225.6			
<b>Commissioner Street</b>										
10+460 to 10+500								40		
<b>Godfrey Street</b>										
20+021.609 to 20+072.679								52		
<b>Totals</b>	<b>6.0</b>		<b>34.0</b>		<b>16,497.1</b>		<b>16,497.1</b>		<b>92</b>	
<b>Unit</b>	<b>ea</b>		<b>ea.</b>		<b>m<sup>2</sup></b>		<b>m<sup>2</sup></b>		<b>m</b>	
<b>Item Number</b>	<b>4</b>		<b>24</b>		<b>27</b>		<b>28</b>		<b>58</b>	

Sanitary Structures Part 'A'											
Location	Structure No.	OPSD Structure	OPSD Cover/Grate	Offset to CL of Grate/Cover	Top of Grate Elevation	Low Invert Elevation	1200mm Dia. Sanitary MH	1500mm Dia. Sanitary MH	1800mm Dia. Sanitary MH	Break Into Structure	Adjust MH's & Rebuild MH's
<b>Commissioner Street</b>											
10+558.68	F			0.00	291.471	289.402	1				1
10+515.73	G1			0.00	291.563	289.257	1				1
10+481.47	G			0.00	291.791	289.127	1				1
10+304.18	H			0.00	290.917	288.013	1				1
10+134.11	J			0.00	286.516	284.180	1				1
10+045.65	K			0.00	284.099	281.521		1			1
10+007.56	L			-10.60	283.697	281.050		1			1
10+219.22	I			0.00	290.141	287.403	1				1
10+635.14	97			-3.45	292.038	289.661				1	1
<b>Godfrey Street</b>											
20+322.80	U			0.36	293.090	290.040	1				1
20+224.94	T			0.00	291.043	288.428	1				1
19+911.98	P			0.00	287.235	283.700	1				1
19+952.32	Q			8.90	284.350	282.048		1			1
20+016.15	R			5.80	284.541	282.382	1				1
20+143.78	E			0.00	289.101	286.455	1				1
20+322.80	V			3.59	291.690	290.183	1				1
<b>Fourth Avenue</b>											
30+305.64	D1			0.60	298.022	296.554	1				1
30+343.66	D			-0.10	296.307	294.45	1				1
30+422.24	E			0.00	289.101	286.455	1				1
30+404.85	D2			0.000	289.884		1				1
<b>Fifth Avenue</b>											
12+053.41	S			4.40	285.623	282.833		1			1
<b>Ninth Avenue</b>											
50+242.00	M			1.90	283.811	280.952			1		1
50+168.72	N			-2.80	284.971	281.61	1				1
50+244.78	MM			-8.80	283.707	280.93			1		1
50+259.30	LL			0.50	283.716	281.000		1			1
50+075.59	QQ			-3.128	286.678	283.833				1	1
<b>Lakeshore Road</b>											
13+032.80	O			-2.30	283.855	281.600	1				1
<b>Sub-Totals</b>							19	5	2	2	25
<b>Totals</b>							19	5	2	2	25
<b>Units</b>							ea.	ea.	ea.	ea.	ea.
<b>Item Number</b>							29	30	31	32	47

Sanitary Sewers Part 'A'									
Location	Structure to Structure	Invert Elev. Upstream	Invert Elev. Downstream	Embedment/ Bedding Cover	Connect to Ex. Sanitary Sewer	200mm Dia. Pipe San. Sewer	300mm Dia. Pipe San. Sewer	450mm Dia. Pipe San. Sewer	125mm Sanitary Service
Ninth Avenue	MH N to MH M	281.610	281.200			73.20			
Ninth Avenue	MH M to MH MM	280.952	280.930					11.03	
Ninth Avenue	MH MM to MH LL	281.000	280.930					16.00	
Fourth Avenue	MH C to MH D1	296.554	289.313			84.50			
Fourth Avenue	MH D1 to MH D	296.566	294.480			38.00			
Fourth Avenue	MH D to MH E	294.450	286.754			78.60			
Godfrey Street	MH E to MH T	288.428	286.485			81.20			
Godfrey Street	MH T to MH U	290.040	288.451			97.90			
Godfrey Street	MH P to MH Q	283.700	282.141			43.10			
Godfrey Street	MH Q to MH R	282.382	282.078			67.70			
Godfrey Street	MH R to MH S	282.833	282.382				40.50		
Commissioner Street	MH G1 to MH F	289.402	289.287			43.00			
Commissioner Street	MH H to MH C	288.634	288.051			85.00			
Commissioner Street	MH C to MH G	289.127	288.676			92.30			
Commissioner Street	MH L to MH K	281.521	281.200				36.30		
Commissioner Street	MH K to MH J	284.180	281.575			88.50			
Commissioner Street	MH J to MH I	287.403	284.184			85.10			
Commissioner Street	MH O to MH M	281.630	281.444			38.71			
Ninth Avenue 50+099.31									1.00
Ninth Avenue 50+137.68									1.00
Ninth Avenue 50+145.16									1.00
Ninth Avenue 50+163.44									1.00
Ninth Avenue 50+192.39									1.00
Ninth Avenue 50+211.68									1.00
Commissioner Street 10+081.49									1.00
Commissioner Street 10+102.55									1.00
Commissioner Street 10+118.43									1.00
Commissioner Street 10+119.61									1.00
Commissioner Street 10+162.07									1.00
Commissioner Street 10+168.19									1.00
Commissioner Street 10+171.47									1.00
Commissioner Street 10+192.82									1.00
Commissioner Street 10+202.66									1.00
Commissioner Street 10+237.16									1.00
Commissioner Street 10+255.30									1.00
Commissioner Street 10+255.87									1.00
Commissioner Street 10+269.53									1.00
Commissioner Street 10+272.45									1.00
Commissioner Street 10+286.27									1.00
Page-Totals						996.81	76.80	27.03	22.00
Sub Totals						996.81	76.80	27.03	22.00
Units						m	m	m	ea.
Item Number					33	34	35	36	37





Watermains Part 'A'										
Station to Station	50mm Dia. Watermain	150mm Dia. CL150 (DR18)	200mm Dia. CL150 (DR18)	25mm Dia. Water Service c/w Curb Stops	Hydrant Sets	150mm Dia. Gate Valves	200mm Dia. Gate Valves	Connect to Existing WM	50mm Watermain Connection	Air Release Valve
<b>Commissioner Street</b>										
10+011.17 (bend) to 10+033.21 (bend)		20.9								
10+033.21 (bend) to 10+560.00 (bend)		526.7								
10+261.93 (50x150m Commissioner St tee) to 10+262.03 O/S 6.058 Rt (Ex WM)	50.0									
10+560 (bend) to 10+580 (bend)		20.6								
10+580 (bend) to 10+620 (bend)		40.1								
10+620 (bend) to 10+637.05 (150x150 HWY 66 tee)		17.1								
10+037.93						1				
10+127.92						1				
10+138.86						1				
10+208.48						1				
10+225.16						1				
10+300						1				
10+311.02						1				
10+384.51						1				
10+397.21						1				
10+467.59						1				
10+479.19						1				
10+560						1				
10+565.53						1				
10+633.29						1				
10+120.54 O/S 6.236m Lt					1					
10+235.97 O/S 8.231 Lt					1					
10+494.68 O/S 7.849 Lt					1					
10+262.03								1		
10+637.049								1		
10+078.38 Lt				1						
10+079.68 Lt				1						
10+103.66 Rt				1						
10+116.62 Lt				1						
10+120.67 Rt				1						
10+160.97 Lt				1						
10+165.77 Lt				1						
10+169.92 Rt				1						
10+194.08 Rt				1						
10+200.24 Lt				1						
10+236.35 Rt				1						
10+244.34 Rt				1						
<b>Sub Totals</b>	<b>50.00</b>	<b>625.47</b>	<b>0.00</b>	<b>12.00</b>	<b>3.00</b>	<b>14.00</b>	<b>0.00</b>	<b>2.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Units</b>	<b>m</b>	<b>m</b>	<b>m</b>	<b>ea.</b>	<b>ea.</b>	<b>ea.</b>	<b>ea.</b>	<b>ea.</b>	<b>ea.</b>	<b>ea.</b>
<b>Item Number</b>	<b>38</b>	<b>39</b>	<b>40</b>	<b>41</b>	<b>42</b>	<b>43</b>	<b>44</b>	<b>45</b>	<b>46</b>	<b>50</b>



Watermains Part 'A'										
Station to Station	50mm Dia. Watermain	150mm Dia. CL150 (DR18)	200mm Dia. CL150 (DR18)	25mm Dia. Water Service c/w Curb Stops	Hydrant Sets	150mm Dia. Gate Valves	200mm Dia. Gate Valves	Connect to Existing WM	50mm Watermain Connection	Air Release Valve
<b>Subtotals Carry Over:</b>	50	625	0	12	3	14	0	2	0	0
<b>Commissioner St Continued</b>										
10+254.64 Rt				1						
10+256.30 Lt				1						
10+270.87 Lt				1						
10+273.43 Rt				1						
10+287.49 O/S 10.074 Lt				1						
10+314.39 O/S 29.299 Rt				1						
10+336.67 O/S 10.085 Lt				1						
10+336.46 O/S 10.026 Rt				1						
10+354.90 O/S 10.022 Rt				1						
10+370.56 O/S 10.018 Rt				1						
10+410.61 O/S 10.101 Lt				1						
10+414.29 O/S 9.972 Rt				1						
10+422.40 O/S 10.104 Lt				1						
10+425.06 O/S 9.979 Rt				1						
10+441.05 O/S 9.989 Rt				1						
10+449.03 O/S 9.994 Rt				1						
10+461.95 O/S 10.113 Lt				1						
10+484.41 O/S 9.74 Lt				1						
10+495.18 O/S 9.971 Lt				1						
10+525.70 O/S 10.073 Lt				1						
10+540.73 O/S 9.575 Lt				1						
10+542.77 O/S 9.825 Rt				1						
10+581.79 O/S 10.028 Rt				1						
10+581.71 O/S 10.226 Lt				1						
10+603.71 O/S 10.058 Lt				1						
<b>Fourth Ave East of Commissioner</b>										
30+217.9 (150x150mm Commissioner St tee) to 30+319.88 (bend)		102.0								
30+319.88 (bend) to 30+343.53 (bend)		23.8								
30+343.53 (bend) to 30+426.22 (150x200mm Godfrey St tee)		82.7								
30+426.22 (150x200mm Godfrey St tee) to 30+433.81 (Ex WM)		7.6								
30+433.81								1		
30+417.57						1				
30+312.83 O/S 1.085 Lt										1
<b>Page-Totals</b>	0.0	216.1	0.0	25.0	0.0	1.0	0.0	1.0	0.0	1.0
<b>Sub Totals</b>	50	842	0	37	3	15	0	3	0	1
<b>Units</b>	m	m	m	ea.	ea.	ea.	ea.	ea.	ea.	ea.
<b>Item Number</b>	38	39	40	41	42	43	44	45	46	50

Watermains Part 'A'										
Station to Station	50mm Dia. Watermain	150mm Dia. CL150 (DR18)	200mm Dia. CL150 (DR18)	25mm Dia. Water Service c/w Curb Stops	Hydrant Sets	150mm Dia. Gate Valves	200mm Dia. Gate Valves	Connect to Existing WM	50mm Watermain Connection	Air Release Valve
<b>Subtotal Carry Over:</b>	50	842	0	37	3	15	0	3	0	1
<b>Fourth Ave East of Commissioner Continued</b>										
30+282.50 O/S 10.066 Lt				1						
30+295.44 O/S 11.329 Rt				1						
30+304.30 O/S 10.052 Rt				1						
30+312.50 O/S 4.83 Lt				1						
30+317.87 O/S 10.053 Rt				1						
30+331.83 O/S 10.228 Lt				1						
30+341.36 O/S 10.8 Lt				1						
30+341.84 O/S 10.054 Rt				1						
30+359.87 O/S 10.332 Lt				1						
30+370.60 O/S 9.504 Rt				1						
<b>Ninth Ave</b>										
50+073.50 (Ex WM) to 50+080.83 (bend)		7.3								
50+080.83 (bend) to 50+088.55 (bend)		11.0								
50+088.55 (bend) to 50+231.36 (bend)		143.1								
50+231.36 (bend) to 50+270.00 (bend)		38.2								
50+270.00 (bend) to 10+011.17 (bend)		25.4								
50+076.84						1				
50+220.62						1				
50+226.08						1				
50+073.50								1		
50+090.74 O/S 6.899 Rt					1					
50+239.56 O/S 7.661 Lt					1					
50+097.58 Lt				1						
50+139.04 Lt				1						
50+161.50 Lt				1						
50+191.33 Lt				1						
50+209.24 Lt				1						
<b>Lakeshore Road</b>										
13+035.18 (Ex WM) to 13+051.83 (bend)	16.7									
13+051.83 (bend) to 13+054.30 (150x50mm Ninth Ave tee)	3.9									
13+035.18								1		
<b>Page-Totals</b>	20.6	224.9	0.0	15.0	2.0	3.0	0.0	2.0	0.0	0.0
<b>Sub Totals</b>	71	1067	0	52	5	18	0	5	0	1
<b>Units</b>	m	m	m	ea.	ea.	ea.	ea.	ea.	ea.	ea.
<b>Item Number</b>	38	39	40	41	42	43	44	45	46	50

Watermains Part 'A'										
Station to Station	50mm Dia. Watermain	150mm Dia. CL150 (DR18)	200mm Dia. CL150 (DR18)	25mm Dia. Water Service c/w Curb Stops	Hydrant Sets	150mm Dia. Gate Valves	200mm Dia. Gate Valves	Connect to Existing WM	50mm Watermain Connection	Air Release Valve
<b>Subtotals Carry Over:</b>	71	1067	0	52	5	18	0	5	0	1
<b>Eighth Ave</b>										
6+046.75 (200x150mm Commissioner St tee) to 6+039.98 (Ex WM)			6.8							
6+041.19							1			
6+039.98								1		
<b>Seventh Ave</b>										
5+046.75 (150x150mm Commissioner St tee) to 5+040.00 (Ex WM)		6.8								
5+046.75 (150x150mm Commissioner St tee) to 5+060.00 (Ex WM)		13.2								
5+043.21						1				
5+040.00								1		
5+060.00								1		
<b>Sixth Ave</b>										
40+056.75 (150x150mm Commissioner St tee) to 40+048.09 (Ex WM)		8.7								
40+056.75 (150x150mm Commissioner St tee) to 40+069.83 (Ex WM)		13.1								
40+048.09						1				
40+048.09								1		
40+069.83								1		
<b>Fifth Ave</b>										
4+046.75 (150x50mm Commissioner St tee) to 4+038.40 (Ex WM)	8.3									
12+046.61 (200x100mm Godfrey St tee) to 12+038.57 (Ex WM)		8.3								
12+040.71						1				
4+038.40								1		
12+038.57								1		
<b>Lane BTW 2nd and 3rd</b>										
14+006.75 (150x25mm Commissioner St tee) to 14+020.04(Ex WM)				13.3						
<b>Page-Totals</b>	8.3	50.0	6.8	13.3	0.0	3.0	1.0	7.0	0.0	0.0
<b>Sub Totals</b>	79	1117	7	65	5	21	1	12	0	1
<b>Units</b>	m	m	m	ea.	ea.	ea.	ea.	ea.	ea.	ea.
<b>Item Number</b>	38	39	40	41	42	43	44	45	46	50

Watermains Part 'A'										
Station to Station	50mm Dia. Watermain	150mm Dia. CL150 (DR18)	200mm Dia. CL150 (DR18)	25mm Dia. Water Service c/w Curb Stops	Hydrant Sets	150mm Dia. Gate Valves	200mm Dia. Gate Valves	Connect to Existing WM	50mm Watermain Connection	Air Release Valve
<b>Subtotals Carry Over:</b>	79	1117	7	65	5	21	1	12	0	1
<b>Third Ave</b>										
3+046.75 (150x50mm Commissioner St tee) to 3+040 (Ex WM)	6.8									
9+054.00 (200x150mm Godfrey St tee) to 9+039.80 (Ex WM)		14.2								
9+054.00 (200x150mm Godfrey St tee) to 9+060.31 (Ex WM)		6.3								
9+039.80						1				
9+060.31						1				
3+040								1		
9+039.80								1		
9+060.31								1		
<b>Second Ave</b>										
1+055.01 (150x50mm Commissioner St tee) to 1+046.31 (Ex WM)	8.7									
8+006.51 (200x150mm Godfrey St tee) to 8+010.51 (Ex WM)		4.0								
8+010.51						1				
1+046.31								1		
8+010.51								1		
<b>Godfrey St</b>										
19+952.18 (Ex WM) to 20+021.89 (bend)			73.5							
20+021.89 (bend) to 20+080.00 (bend)			57.8							
20+080.00 (bend) to 20+323.57 (bend)			243.6							
20+323.57 (bend) to 203+25.00			2.4							
19+953.66							1			
20+046.12							1			
20+136.29							1			
20+150.13							1			
20+227.02							1			
20+239.75							1			
20+32.03							1			
20+050.97 O/S 8.240 Rt					1					
20+150.91 O/S 10.113 Rt					1					
20+220.32 O/S 10.795 Rt					1					
20+322.96 O/S 10.244 Rt					1					
<b>Page-Totals</b>	15.4	24.5	377.4	0.0	4.0	3.0	7.0	5.0	0.0	0.0
<b>Sub Totals</b>	94	1141	384	65	9	24	8	17	0	1
<b>Units</b>	m	m	m	ea.	ea.	ea.	ea.	ea.	ea.	ea.
<b>Item Number</b>	38	39	40	41	42	43	44	45	46	50

Watermains Part 'A'										
Station to Station	50mm Dia. Watermain	150mm Dia. CL150 (DR18)	200mm Dia. CL150 (DR18)	25mm Dia. Water Service c/w Curb Stops	Hydrant Sets	150mm Dia. Gate Valves	200mm Dia. Gate Valves	Connect to Existing WM	50mm Watermain Connection	Air Release Valve
<b>Subtotals Carry Over:</b>	94	1141	384	65	9	24	8	17	0	1
<b>Godfrey St Continued</b>										
19+952.18								1		
20+325.00								1		
19+926.05 O/S 10.055 Lt				1						
19+937.20 O/S 9.798 Lt				1						
20+069.60 O/S 10.040 Rt				1						
20+072.51 O/S 42.37 Rt				1						
20+073.00 O/S 10.029 Lt				1						
20+079.93 O/S 10.067 Rt				1						
20+084.97 O/S 10.038 Lt				1						
20+093.96 O/S 10.029 Rt				1						
20+096.90 O/S 10.047 Lt				1						
20+103.97 O/S 10.052 Lt				1						
20+104.29 O/S 10.030 Rt				1						
20+114.13 O/S 10.031 Rt				1						
20+116.8 O/S 10.062 Lt				1						
20+125.67 O/S 10.068 Lt				1						
20+128.31 O/S 10.033 Rt				1						
20+160.34 O/S 10.080 Lt				1						
20+165.79 O/S 9.916 Lt				1						
20+173.26 O/S 10.053 Rt				1						
20+179.69 O/S 10.039 Rt				1						
20+185.64 O/S 9.897 Lt				1						
20+187.25 O/S 10.192 Rt				1						
20+191.9 O/S 10.076 Lt				1						
20+199.85 O/S 10.075 Lt				1						
20+207.66 O/S 9.624 Rt				1						
20+208.66 O/S 10.074 Lt				1						
20+212.3 O/S 10.043 Rt				1						
20+249.16 O/S 9.793 Lt				1						
20+249.52 O/S 10.174 Rt				1						
20+253.33 O/S 10.069 Lt				1						
20+256.77 O/S 10.049 Rt				1						
20+260.58 O/S 10.459 Rt				1						
20+264.58 O/S 10.067 Lt				1						
20+275.65 O/S 10.066 Lt				1						
20+280.46 O/S 9.847 Rt				1						
20+285.95 O/S 10.052 Rt				1						
<b>Page-Totals</b>	0.0	0.0	0.0	35.0	0.0	0.0	0.0	2.0	0.0	0.0
<b>Sub Totals</b>	94	1141	384	100	9	24	8	19	0	1
<b>Units</b>	m	m	m	ea.	ea.	ea.	ea.	ea.	ea.	ea.
<b>Item Number</b>	38	39	40	41	42	43	44	45	46	50



Cathodic Protection Part 'A'											
Location/Description				Z-12-24		Z-24-48					
Hydrant Bases (As Per Item No.)						9					
150mm Hydrant Valves (As Per Item No.)				9							
150mm Valve & Box (As Per Item No.)				24							
200mm Valve & Box (As Per Item No.)				8							
25mm Watermain Services (As Per Item No.)				91							
<b>Ninth Ave</b>											
150x150mm Hydrant Tee @ 50+090.74 O/S 6.899 Rt											
150x50mm Tee @ 50+223.99 O/S 0.025 Rt											
Bend @ 50+080.83 O/S 7.480 Lt											
Bend @ 50+088.55 O/S 0.290 Rt											
Bend @ 50+231.36 O/S 1.325 Rt											
Bend @ 50+270.00 O/S 0.144 Lt											
<b>Commissioner St</b>											
200x150mm Eighth Ave Tee @ 10+041.14 O/S 3.233 Lt				1							
150x150mm Seventh Ave Tee @ 10+136.16 O/S 3.250 Lt				1							
150x150mm Seventh Ave Tee @ 10+136.69 O/S 3.250 Lt				1							
150x150mm Sixth Ave Tee @ 10+214.32 O/S 3.250 Lt				1							
150x150mm Hydrant Tee @ 10+214.32 O/S 3.250 Lt				1							
150x50mm Tee @ 10+261.93 O/S 3.250 Lt				1							
150x50mm Fifth Ave Tee @ 10+306.73 O/S 3.250 Lt				1							
150x150mm Fourth Ave Tee @ 10+392.39 O/S 3.250 Lt				1							
150x50mm Third Ave Tee @ 10+468.88 O/S 3.250 Lt				1							
150x25mm Tee @ 10+518.23 O/S 3.250 Lt				1							
150x50mm Second Ave Tee @ 10+562.98 O/S 3.322				1							
Bend @ 10+033.21 O/S 2.626 Lt											
Bend @ 10+560.00 O/S 3.618 Lt											
<b>Godfrey St</b>											
200x150mm Fifth Ave Tee @ 20+051.19 2.836 Lt				1							
200x150mm Fourth Ave Tee @ 20+140.64 O/S 3.984 Rt				1							
200x150mm Fourth Ave Tee @ 20+147.03 O/S 3.979 Rt				1							
200x150mm Third Ave Tee @ 20+232.47 O/S 4.001 Rt				1							
200x150mm Third Ave Tee @ 20+233.00 O/S 4.001 Rt				1							
200x150mm Second Ave Tee @ 20+318.05 O/S 6.511 Rt				1							
200x150mm Hydrant Tee @ 20+318.05 O/S 6.511 RT				1							
200x150mm Hydrant Tee @ 20+202.32 O/S 10.795 Rt				1							
200x150mm Hydrant Tee @ 20+150.88 O/S 10.119 Rt				1							
200x150mm Hydrant Tee @ 20+050.99 O/S 8.239				1							
<b>Godfrey St Continued</b>											
Bend @ 19+952.01 O/S 10.839 Rt				1							
Bend @ 20+021.89 O/S 0.887 Lt				1							
Bend @ 20+080.00 O/S 4.000 Rt				1							
Bend @ 20+325.00 O/S 4.564 Rt				1							
<b>Page-Totals</b>											
				N/A							
<b>Sub Totals</b>											
				100%							
<b>Units</b>											
				L.S.							
<b>Item Number</b>											
				48							

Cathodic Protection Part 'A'										
Location/Description				Z-12-24		Z-24-48				
<b>Totals</b>						100%				
<b>Unit</b>						L.S.				
<b>Item Number</b>						48				



Storm Structures Part 'A'										
Location	Structure No.	OPSD Structure	OPSD COVER / GRATE	OFFSET TO CL OF GRATE/COVER	Top of Grate Elevation	Low Invert Elevation	1200mm Dia. Storm MH	600x600m CB		
<b>Godfrey Street</b>										
20+051.48	<b>1</b>	701.010	401.010	4.49m RT	285.434m	283.072m	1			
20+065.08	<b>2A</b>	705.020	400.010	7m LT	284.506m	283.875m		1		
20+069.89	<b>2</b>	701.010	401.010	3.8m RT	286.180m	283.451m	1			
20+071.32	<b>2B</b>	705.020	400.010	7m RT	284.462m	283.831m		1		
20+152.09	<b>3</b>	701.010	401.010	1m RT	288.629m	286.500m	1			
20+152.03	<b>3A</b>	705.020	400.010	7m LT	286.890m	286.260m		1		
20+152.03	<b>3B</b>	705.020	400.010	7m RT	286.910m	286.280m		1		
20+238.07	<b>4</b>	701.010	401.010	1m LT	290.726m	288.282m	1			
20+238.07	<b>4A</b>	705.020	400.010	7m LT	289.006m	288.267m		1		
20+238.00	<b>4B</b>	705.020	400.010	7m RT	290.980m	288.267m		1		
20+302.95	<b>5</b>	701.010	401.010	1m LT	291.651m	289.315m	1			
20+302.95	<b>5A</b>	705.020	400.010	7m LT	289.930m	289.300m		1		
20+302.95	<b>5B</b>	705.020	400.010	7m RT	292.330m	289.320m		1		
<b>Third Avenue</b>										
9+037.88	<b>2</b>	701.010	401.010	4.87m RT	291.294m	290.000m	1			
9+037.99	<b>1</b>	705.010	400.010	4.68m LT	291.362m	290.112m		1		
<b>Sub-Totals</b>							<b>6</b>	<b>9</b>	<b>0</b>	<b>0</b>
<b>Totals</b>							<b>6</b>	<b>9</b>	<b>0</b>	<b>0</b>
<b>Units</b>							<b>ea.</b>	<b>ea.</b>	<b>ea.</b>	<b>ea.</b>
<b>Item Number</b>							<b>60</b>	<b>61</b>		

<b>Storm Sewers Part 'A'</b>									
<b>Location</b>	<b>Structure to Structure</b>	<b>Invert Elev. Upstream</b>	<b>Invert Elev. Downstream</b>	<b>Embedment/ Bedding Cover</b>		<b>300mm Dia. Pipe Stm. Sewer</b>	<b>450mm Dia. Pipe Stm. Sewer</b>	<b>600mm Dia. Pipe Stm. Sewer</b>	<b>900mm Dia. Pipe Stm. Sewer</b>
<b>Godfrey Street</b>									
20+022.23 to 20+051.48	Outlet to 1	283.072m	283.000m						36.20
20+051.48 to 20+069.89	1 to 2	283.451m	283.377m					18.40	
20+065.08 to 20+069.89	2A to 2	283.875m	283.751m			11.80			
20+069.89 to 20+071.32	2 to 2B	283.831m	283.751m			3.50			
20+069.89 to 20+152.09	2 to 3	285.900m	283.451m					82.30	
20+152.03 to 20+152.09	3A to 3	286.260m	286.200m			8.00			
20+152.09 to 20+152.03	3 to 3B	286.280m	286.200m			6.00			
20+152.09 to 20+238.07	3 to 4	288.057m	286.050m				86.00		
20+238.07 to 20+238.07	4A to 4	288.267m	288.207m			6.00			
20+238.07 to 20+238.00	4 to 4B	288.287m	288.207m			8.00			
20+238.07 to 20+302.95	4 to 5	289.090m	288.057m				64.90		
20+302.95 to 20+302.95	5A to 5	289.300m	289.240m			6.00			
20+302.95 to 20+302.95	5 to 5B	289.320m	289.240m			8.00			
<b>Third Avenue</b>									
9+037.88 to 9+037.99	1 to 2	290.112m	290+016m			9.50			
9+037.88 to 9+061.45	2 to Outlet	290.000m	289.764m				23.60		
<b>Totals</b>						<b>66.80</b>	<b>174.50</b>	<b>100.70</b>	<b>36.20</b>
<b>Units</b>						<b>m</b>	<b>m</b>	<b>m</b>	<b>m</b>
<b>Item Number</b>						<b>62</b>	<b>63</b>	<b>64</b>	<b>65</b>

Grading, Hot Mix, Granulars, Driveways

Part 'B' Fourth Avenue (Ontario Street to Commissioner Street)

Location	Rock Excavation	Earth Excavation		Earth Ditch		Granular A		Granular B, Type I		SP 12.5 Roadway (50mm Surface Lift)
<b>Main Road</b>										
30+015.4 to 30+100		491.0				282.8		903.3		94.2
30+100 to 30+200		487.5				280.8		897.0		93.5
30+200 to 30+217		105.4				60.7		193.9		20.2
<b>Driveways</b>										
<b>Left Side</b>										
30+073.24		10.9				10.4		16.6		
30+102.34		36.9				35.4		56.6		
30+126.6		26.9				25.8		41.3		
30+154.9		12.3				11.8		18.8		
30+190.6		20.4				19.5		31.2		
<b>Right Side</b>										
30+078.8		20.8				20.0		31.9		
30+098.8		14.1				13.5		21.6		
30+113.7		22.3				21.4		34.2		
30+140.7		10.6				10.0		8.3		
30+152.1		20.2				19.4		26.2		
30+175		27.9				26.8		31.0		
30+215 to 30+225	1056									
<b>Totals</b>										
	1,056	1,306.94				838.30		2,311.88		207.94
<b>Units</b>	m <sup>3</sup>	m <sup>3</sup>		m		t		t		t
<b>Item Number</b>	10	14		15		16		17		18

Curbs, and Subdrains Part 'B' Fourth Avenue (Ontario Street to Commissioner Street)									
Location				150mm Dia. Perforated Subdrains					
30+030.8 to 30+210.4				184.2					
30+032.7 to 30+210.4				181.6					
30+032.65 (Outlet)				6.2					
<b>Totals</b>				<b>372.0</b>					
<b>Units</b>				<b>m</b>					
<b>Item Number</b>				<b>20</b>					

<b>Miscellaneous Part 'B' Fourth Avenue (Ontario Street to Commissioner Street)</b>											
<b>Location</b>		<b>Salvage &amp; Reinstate Road Signs</b>			<b>Straw Bale Flow Check Dams</b>			<b>Sewer/Watermain Pipe Insulation</b>		<b>Geotextile</b>	<b>Geogrid</b>
<b>Fourth Avenue</b>					2.0						
30+030.905 O/S 6.200 LT		1.0									
30+018 to 10+389.137										1622.2	1622.2
30+221.842 to 30+403.892								199.5			
<b>Totals</b>		1.0			2.0			199.5		1622.2	1622.2
<b>Unit</b>		ea.			ea			m		m <sup>2</sup>	m <sup>2</sup>
<b>Item Number</b>		24			4			58		27	28



<b>Sanitary Structures Part 'B' Fourth Avenue (Ontario Street to Commissioner Street)</b>											
Location	Structure No.	OPSD Structure	OPSD COVER / GRATE	OFFSET TO CL OF GRATE/COVER	Top of Grate Elevation	Low Invert Elevation	1200mm Dia. Sanitary MH	1500mm Dia. Sanitary MH	1800mm Dia. Sanitary MH	Break Into Structure	Adjust MH's & Rebuild
Fourth Avenue											
30+033.79	<b>A</b>			0.000	285.647	282.726	1				1
30+133.79	<b>B</b>			0.000	287.740	284.488	1				1
30+139.13	<b>BB</b>			0.000	289.920	285.910	1				1
30+020.1	<b>36</b>			0.584	285.772	282.455				1	1
<b>Totals</b>							<b>3</b>			<b>1</b>	<b>4</b>
<b>Units</b>							<b>ea.</b>			<b>ea.</b>	<b>ea.</b>
<b>Item Number</b>							<b>29</b>			<b>32</b>	<b>47</b>

Sanitary Sewers Part 'B' Fourth Avenue (Ontario Street to Commissioner Street)									
Location	Structure to Structure		Invert Elev. Upstream	Invert Elev. Downstream	Embedment/ Bedding Cover	200mm Dia. Pipe San. Sewer	300mm Dia. Pipe San. Sewer	450mm Dia. Pipe San. Sewer	125mm Sanitary Service
Fourth Avenue West 30+067.92									1.00
Fourth Avenue West 30+081.73									1.00
Fourth Avenue West 30+090.46									1.00
Fourth Avenue West 30+092.86									1.00
Fourth Avenue West 30+101.63									1.00
Fourth Avenue West 30+106.95									1.00
Fourth Avenue West 30+132.94									1.00
Fourth Avenue West 30+135.45									1.00
Fourth Avenue West 30+150.69									1.00
Fourth Avenue West 30+155.63									1.00
Fourth Avenue West 30+164.38									1.00
Fourth Avenue West 30+166.82									1.00
Fourth Avenue West 30+189.16									1.00
Fourth Avenue West	MH A to MH B		284.488	282.775		100.00			
Fourth Avenue West	MH B to MH BB		285.910	284.510		55.30			
<b>Totals</b>						<b>155.30</b>			<b>13.00</b>
<b>Units</b>						<b>m</b>			<b>ea.</b>
<b>Item Number</b>						<b>34</b>			<b>37</b>



Watermains Part 'B' Fourth Avenue (Ontario Street to Commissioner Street)								
Station to Station	150mm Dia. CL150 (DR18)		25mm Dia. Water Service c/w Curb Stops	Hydrant Sets	150mm Dia. Gate Valves		Connect to Existing WM	
30+016.07 (Ex WM) to 30+018.2 (bend)	2.1							
30+018.2 (bend) to 30+022.02 (bend)	5.5							
30+022.02 (bend) to 30+042.5 (bend)	20.5							
30+042.5 (bend) to 30+044.53 (bend)	2.9							
30+044.53 (bend) to 30+217.9 (150x150mm Commissioner St tee)	173.4							
30+070.13 O/S 10.041 Rt			1					
30+083.42 O/S 9.928 Lt			1					
30+089.12 O/S 10.042 Rt			1					
30+091.59 O/S 10.069 Lt			1					
30+103.81 O/S 10.068 Lt			1					
30+108.08 O/S 10.413 Rt			1					
30+134.34 O/S 9.662 Lt			1					
30+136.22 O/S 11.832 Rt			1					
30+152.15 O/S 10.129 Lt			1					
30+156.39 O/S 9.65 Rt			1					
30+165.07 O/S 10.045 Rt			1					
30+168.10 O/S 9.199 Lt			1					
30+191.25 O/S 10.047 Rt			1					
30+038.25 O/S 9.221 Lt				1				
30+017.48					1			
30+214.65					1			
30+016.07							1	
<b>Totals</b>	<b>204.36</b>		<b>13</b>	<b>1</b>	<b>2</b>		<b>1</b>	
<b>Units</b>	<b>m</b>		<b>ea.</b>	<b>ea.</b>	<b>ea.</b>		<b>ea.</b>	
<b>Item Number</b>	<b>39</b>		<b>41</b>	<b>42</b>	<b>43</b>		<b>45</b>	

Removals Part 'B' Fourth Avenue (Ontario Street to Commissioner Street)									
Location	Asphalt Removal		Removal of Watermain			Removal Pipes, Culverts & Sewers	Removal of MH's, CB's & VC's	Removal of Hydrants	
30+015.433 to 30+211.5	1339.87								
30+016.097 to 30+216.977			200.884						
30+020.14 (MHM) to 30+112.995 (MHL)						92.900			
30+112.995 (MHL) to 30+174.021 (MHK)						61.038			
30+174.021 (MHK) to 30+189.25 (End of Proposed Pipe)						15.237			
30+174.021 MH K O/S 0.306 RT							1.0		
30+112.995 MH L O/S 0.226 RT							1.0		
30+038.255 o/s LT 9.228								1.0	
<b>Totals</b>	<b>1339.9</b>		<b>200.884</b>			<b>370.1</b>	<b>2.0</b>	<b>1.0</b>	
<b>Units</b>	<b>m<sup>2</sup></b>		<b>m</b>			<b>m</b>	<b>ea.</b>	<b>ea.</b>	
<b>Item Number</b>	<b>11</b>		<b>55</b>			<b>51</b>	<b>52</b>	<b>53</b>	

Cathodic Protection		Part 'B' Fourth Avenue (Ontario Street to Commissioner Street)									
Location					Z-12-24		Z-24-48				
Hydrant Bases (As Per Item No. )							1.0				
150mm Hydrant Valves (As Per Item No. )					1.0						
150mm Valve & Box (As Per Item No. )					2.0						
25mm Watermain Services (As Per Item No. )					13.0						
150x150mm Hydrant Tee @ 30+038.25 O/S LT 9.221					1.0						
<b>Totals</b>					<b>100%</b>		<b>100%</b>				
<b>Unit</b>					<b>L.S.</b>		<b>L.S.</b>				
<b>Item Number</b>					<b>48</b>		<b>48</b>				