

SPECIFICATIONS  
OF  
LABOUR AND MATERIALS  
FOR  
**CULVERT NO. 17**  
**SILVERCLAY LINE**  
FOR THE  
MUNICIPALITY OF DUTTON DUNWICH



SPRIET ASSOCIATES LONDON LIMITED  
CONSULTING ENGINEERS  
155 YORK STREET  
LONDON, ONTARIO  
N6A 1A8  
  
TEL:(519)672-4100

Job No. 223146

February 2024

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**A.1 LOCATION**

The project site is located on Silverclay Line, 1.9km west of Currie Road in the Municipality of Dutton Dunwich.

**A.2 OWNER**

Where the term "Owner" is used in these specifications and other contract documents, same refers to the Corporation of the Municipality of Dutton Dunwich or its authorized representatives.

**A.3 ENGINEER**

Where the term "Engineer" appears in these specifications, the same shall apply to Spriet Associates London Limited, Consulting Engineers.

**A.4 CONTRACTOR**

Where the term "Contractor" is used in these specifications, the term shall apply to the General Contractor who shall be responsible for his sub-contractors' compliance with the requirements of the contract drawings and the specifications.

Nothing contained in the Contract Documents shall create any contractual relation between any sub-contractor and the Owner.

The sub-contractor shall be bound to the Contractor by the terms of the General Conditions, drawings, and specifications insofar as they relate or may be applied to the work of the sub-contractor, all the obligations and responsibilities that the Contractor assumes toward the Owner. The Contractor agrees to be bound to the sub-contractor by all the obligations the Owner assumes to the Contractor under the General Conditions, drawings, and specifications.

**A.5 TENDER DOCUMENTS**

Tenders to be entitled for consideration must be made on the forms provided herein, and shall be enclosed in separate sealed opaque envelopes with the Tenderer's name on the outside of the envelope, which shall be addressed to:

Murray Wickerson  
Manager of Roads and Facilities  
Municipality of Dutton Dunwich  
199 Currie Road  
Dutton, Ontario  
N0L 1J0

and endorsed "Tender for Ash Line Culvert Replacement and Roadworks, Municipality of Dutton Dunwich", and shall arrive at the above address by:

**T.B.D 3:30 PM, LOCAL TIME, FEBRUARY 29, 2024**



**A.5 TENDER DOCUMENTS (cont'd)**

Tenders which are incomplete, conditional, or obscure, or which contain additions not called for, erasures, alterations, or irregularities of any kind, may be rejected as informal.

All blanks must be legibly and properly filled in on the printed forms supplied for that purpose, otherwise the tender may be declared informal. Should any uncertainty arise as to the proper manner of doing so, the requisite information will, upon request, be given by the Engineer.

The Owner reserves the right to reject any or all tenders or to accept any tender should it be deemed in the interest of the Owner to do so.

All tenders shall remain valid for 90 days after closing date of tender period. If after 90 days, no contract is signed between Owner and Contractor, the tender will no longer be valid.

**A.6 TENDER SECURITY**

The tender shall be accompanied by a certified cheque or bid bond for 10% of the Tender Price and an Agreement to Bond executed under its corporate seal by the Surety Company proposed to obtain the required Bonds.

Tender security shall guarantee that if awarded the contract the Contractor will execute and enter into a satisfactory contract with the Owner and submit a 50% Performance and Labour and Materials Bond.

Tender Security shall be made in name of the Owner. Tender Security of unsuccessful bidders will be returned upon award of the Contract.

**A.7 SURETY BONDS**

The Surety or Performance and Labour and Materials Bond shall be in an amount equal to 100 per cent of the contract sum and the cost thereof shall be included in the proposal.

The Bond shall be to the approval of the Solicitor for the Owner and shall guarantee faithful performance of the contract. The Bond shall remain in full force and effect for twenty-four (24) months after the completion and acceptance of the work.

**A.8 CONTRACT DOCUMENTS**

The Contract Documents consist of the following:

- (a) The General Conditions of the Standard Construction Document - CCD2 adopted by the Canadian Construction Association and the Engineering Institute of Canada.
- (b) Drawings as listed in Section D of this Specification.
- (c) Specifications for Labour and Materials and Addenda thereto if any.
- (d) Tender Form and Agreement.



**A.9 EXPLANATION TO BIDDERS**

No oral interpretation will be made. Any interpretation made to Bidders will be in the form of an Addendum to the Specifications, which will be forwarded to all Bidders.

Discrepancies, omissions or doubt as to the meaning of drawings and specifications should be communicated at once to the Engineers for interpretation. Bidders should act promptly to allow sufficient time for a reply to reach them before the submission of their bid and any such interpretation made by the Engineer prior to the receipt of bids shall be made a part of the contract.

**A.10 TESTS**

Testing of materials and construction will be carried out by the Engineer, the cost of which shall be borne by the Owner. In the event of test failures, the cost of re-testing shall be borne by the Contractor.

**A.11 CEMENT AND REINFORCING STEEL**

Cement will be supplied by the Contractor and will be included in the lump sum price quoted for reinforced concrete. Reinforcing steel will also be supplied by the Contractor and paid for as indicated in the Form of Tender.

**A.12 PROGRESS PAYMENTS**

The Contractor shall submit to the Engineer at the end of each calendar month a fully itemized statement showing the estimated value of the permanent work executed up to the end of the month and the value of major items of material and equipment on site for incorporation into the permanent structure.

The Owners will pay the Contractor at the end of each calendar month an amount equal to ninety percent (90%) of the value of all materials on site and all work completed to the satisfaction of the Engineer and in accordance with the Contract Documents.

Ten percent (10%) of all monies due to the Contractor shall be retained by the Owners as a holdback. The holdback will be released to the Contractor sixty (60) days after the date of completion and acceptance of the work. At this time, the Contractor must furnish to the Engineer the following:

- (a) A statutory declaration that all liabilities incurred by the Contractor in carrying out the Contract have been paid and that there are no liens, garnishees, attachments, or claims relating to the work.
- (b) A satisfactory clearance certificate from the Workplace Safety and Insurance Board.
- (c) A release by the Contractor, releasing the Owners from all further claims relating to the Contract.



**A.13 CURRENT OPSS STANDARDS**

Where the term "Ministry" is used in the specifications of the current O.P.S.S. Construction Specification Division 9, which are referred to in the following subsections of these specifications the term shall be replaced with the term Municipality. The current OPSS Specifications for Construction shall apply to the construction for all items on this project.

**A.14 FAIR WAGE POLICY**

The Ministry of Labour Roads and Structures Fair Wage Policy applies to this contract.

The Contractor must ensure that wages paid to workmen must be at least equal to the Fair Wage Schedule.

**A.15 STARTING TIME**

The Contractor shall commence work under this contract within seven (7) days notification from the Engineer. Construction shall fully complete the work thereunder within the length of time stipulated in the Contract. No instream work is allowed from March 15th to July 1st of any year.

**A.16 DATE OF COMPLETION**

The Total Contract shall be completed by March 14, 2025.

Requests for extension of time will not be granted except where in the opinion of the Engineer, unusual circumstances warrant such extension.

**A.17 LIQUIDATED DAMAGES (NOT APPLICABLE)**

In the event of delay in the completion of the entire contract beyond the period herein described or beyond the period to which such time may be extended by the Corporation, the Contractor shall pay to the corporation five hundred dollars (\$500.00) for each and every calendar day that the time consumed in said performance and completion extends beyond the final date herein prescribed and this sum will be considered Liquidated Damages that the Corporation will suffer by reason of said delay and default.

Said sum or sums, in view of the difficulty of ascertaining the losses which the Corporation will suffer by reason of delay in the performance of the said works, is hereby agreed upon fixed and determined by the parties hereto as the liquidated damages that the Corporation will suffer by reason of said delay and default and not as a penalty; and the Corporation may deduct and retain the amounts of such liquidated damages out of the monies which may be due or become due to the Contractor under the Contract.



A.18 LOWEST OR ANY TENDER not necessarily accepted.

A.19 SALES TAXES

The Tenderer shall include in the Total Tender Price, Federal and Ontario Harmonized Sales Tax on all materials, equipment, etc. purchased by him for use on this project.

Where a change in Canadian Federal or Provincial taxes occurs after the Tender Closing Date for this contract, and this change could not have been anticipated at the time of bidding, the municipality will increase or decrease contract payments to account for the exact amount of tax change involved.

Claims for compensation for additional tax cost shall be submitted by the Contractor to the Engineer. Such claims for additional tax costs shall be submitted not later than 30 days after the date of acceptance of the work.

Where the Contractor benefits from a change in Canadian Federal or Provincial Government taxes, the Contractor shall submit to the Engineer, a statement of such benefits. This statement shall be submitted not later than 30 days after the date of acceptance of the work.

The Engineer reserves the right to make deductions from regular progress payments to compensate for the estimated benefit from decreased tax costs. Such deductions will be set-off from contract payments pending receipt of the statement itemizing the benefits which have resulted from a decrease in tax costs at which time the final payment adjustment will be determined.

A.20 THE CONSTRUCTION LIEN ACT

The Construction Act, R.S.O. 1990 c.C.30 applies to this contract and to all sub-contracts arising from this contract and to all services and materials supplied under this contract.

A21 UTILITIES

The attention of the Contractor is drawn to the possible presence of utility pole lines and underground utilities within the right-of-way. The Contractor shall co-operate with all authorities to ensure that services and utilities are protected from damage during the performance of the work. The Contractor will be responsible for determining the location of all utilities and will be held liable for any damage to overhead and underground utilities caused by his operations. Arrangements have been made with the utility companies to relocate their plant where necessary. The cost of any necessary relocation work shall be borne by the Municipality. No allowance or claims of any nature will be allowed on account of delays or inconveniences due to utilities relocation.



**A.22 NOTIFICATION**

The Contractor, before starting construction shall give the following 48 hours notice:

Mgr. of Roads & Facilities: Murray Wickerson  
Phone No: (519) 762-2204  
Municipality of Dutton Dunwich

The Engineer: John M. Spriet, P. Eng.  
Phone No: (519)672-4100  
Spriet Associates London Limited

The Contractor shall notify all applicable authorities (Police, Fire, Ambulance, School Board, etc.) at least 72 hours prior to road closure.

**A.23 ROADWAY CLOSURE**

The roadway is to remain closed during the culvert and road construction. The Contractor is required to maintain all road closed signage adjacent to the structure, at intersections both sides of the construction site in accordance with the Ontario Traffic Manual Book 7.

**A.24 MUNICIPALITY SAFETY POLICY**

All work on Municipality of Dutton Dunwich property must be carried out in a manner that is in conformity with the Occupational Health and Safety Act and other legislation or requirements. (See attached policy.) The Contractor must fill out the Notice of Project and keep a copy on site to be available upon request. The Contractor must complete the form Registration of Constructors and Employers Engaged in Construction and it must be on site and available upon request.

**A.25 WORK PERMITS**

The Contractor is to engage the sediment and erosion control measures for construction as indicated on the drawings.

The successful Contractor will be given a copy of the local Conservation Authority Work Permit and/or D.F.O. approval. The Contractor is to keep a true copy of these Permits and conditions on site at all times.

Acceptance of Tenders is subject to these approvals being received. (N/A)





**A.26 CONTINGENCY ALLOWANCE**

This is an estimated allowance to cover expenditures required during the execution of the Contract which do not fall logically within any of the items listed in the tender. Work authorized by the Engineer and carried out under this item will be paid for at a price negotiated between the Engineer and the Contractor. If a satisfactory price cannot be negotiated, payment will be made on a Time and Material basis in accordance with the provisions of the General Conditions of the Contract.


**A.27 LIABILITY INSURANCE**

- (1) Contractor's Liability Insurance and Workmen's Compensation:  
The Contractor shall effect and maintain insurance to cover his obligations under all applicable worker's compensation laws.
- (2) Bodily Injury Liability: The Contractor shall effect and maintain a Comprehensive General Liability Policy or its equivalent covering claims for bodily injury, including death arising from and during operations under his Contract whether performed by himself, by a sub-contractor or by anyone directly or indirectly employed by either of them in the sum of \$5,000,000.00.
- (3) Property Damage: The Contractor shall effect and maintain Property Damage Liability Insurance to cover his and sub-contractor's operations in the sum of \$5,000,000.00.
- (4) The Insurance: Coverage shall include the Municipality of Dutton Dunwich, Spriet Associates London Limited and the Contractor. Proof of adequate insurance shall be provided prior to commencement of work.

If the said insurance is cancelled or changed during its term in such a manner as to affect this Certificate, written notice of such change or cancellation shall be immediately forwarded to the Municipality of Dutton Dunwich.

**A.28 DFO PERMIT**

See subsequent pages for copy of the permit.

<b>Human Resources</b>		Content Updated: <b>NEW</b>
<b>Section:</b> Health, Safety and Wellness		Supersedes Policy:
Policy No: HS&W 02-2014		Approved by Council: <b>May 28, 2014</b>
Pages: 1 of 3		Resolution: <b>2014.10.07</b>

**OCCUPATIONAL HEALTH AND SAFETY – CONTRACTORS, SUB CONTRACTORS, INDIVIDUAL OR GROUP POLICY**

<p><b>ROLES AND RESPONSIBILITIES</b>  <b>Contractors/</b>  <b>Sub-Contractors/</b>  <b>Individual or Group</b></p>	<ul style="list-style-type: none"> <li>• All Contractors/Sub-Contractors, Individual or Group are responsible for the Health and Safety of their workers when working on municipal property, right of ways or renting of facilities and are required to adhere to the Occupational Health and Safety Act and Regulations.</li> <li>• All Contractors/Sub-Contractors, Individual or Group must obtain and review the Municipality's Health and Safety Policies and Rules with their workers prior to commencement of work on Municipal property, right of ways or facility rentals to ensure that they conform with the same safe operating procedures as Municipal Employees.</li> <li>• The Contractor/Sub-Contractor, Individual or Group will be responsible for obtaining the Occupational Health and Safety Policy and an Acknowledgement Letter from the Municipal Office or Website prior to commencement of work/rental. (See Appendix 1 &amp; 2).</li> </ul>
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Municipality of  
**Dutton Dunwich**

**Appendix 1 - Letter of Safety and Compliance**

Dear Sir/Madam:

The Municipality of Dutton Dunwich is dedicated to operating at a standard which will establish our Municipality as a leader in promoting and protecting the health and safety of all employees.

In fulfilling this commitment, our goal is to promote attitudes amongst our employees that will ultimately lead to reduction and elimination of workplace hazards.

We require that Contractors/Sub-Contractors, Individuals or Groups review all Municipal Health and Safety Policies and Rules, relevant to the work to be performed, prior to commencement of work and that, procedures, worker training and enforcement conforms to legislated requirements.

Violations of Municipal Policies, Rules or Legislation by any Contractor, Sub-Contractor, Individual or Group or their employees may be considered a breach of contract.

Please complete the attached form and return it to the Municipality of Dutton Dunwich, and if applicable, with the requested Workplace Safety and Insurance Board information.

Yours truly,

for the Municipality of Dutton Dunwich



Municipality of  
**Dutton Dunwich**

**Appendix 2 - Acknowledgement of Health and Safety Compliance Letter**

COMPANY: \_\_\_\_\_

AUTHORIZED SIGNING OFFICER (SIGNATURE): \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

- The letter of Safety Compliance from the Municipality of Dutton Dunwich was received and understood.
- The Municipality's Health and Safety Policies have been reviewed and understood.
- A copy of Workplace Safety and Insurance Board "Letter of good standing" is attached (if applicable).

Please return this completed form to the sender prior to commencement of any contract work.



Fisheries and Oceans  
Canada

Pêches et Océans  
Canada

Ontario and Prairie Region  
Fish and Fish Habitat Protection Program  
867 Lakeshore Rd.  
Burlington, ON  
L7S 1A1

Région de l'Ontario et des Prairies  
Programme de protection du poisson et de son habitat  
867 chemin Lakeshore  
Burlington, ON  
L7S 1A1

March 8, 2023

*Our file*      *Notre référence*  
**23-HCAA-000387**

Brent Clutterbuck  
199 Currie Road  
Dutton, ON N0L 1J0

**Subject: [Culvert Replacement, Bennet Drain, Class C, Municipality of Dutton Dunwich] (23-HCAA-000387) – Implementation of Measures to Avoid and Mitigate the Potential for Prohibited Effects to Fish and Fish Habitat**

Dear Brent Clutterbuck:

The Fish and Fish Habitat Protection Program (the Program) of Fisheries and Oceans Canada (DFO) received your proposal on February 24, 2023. We understand that you propose to:

- Replacement of 4.4m wide x 9.4m long x 2.5m high concrete box culvert with a new 4.9m span x 2.5m concrete culvert over Silver Clay Line; and
- Work in isolation of flow to avoid sedimentation of the watercourse.

Our review considered the following information:

- Request for Review form and associated documents.

Your proposal has been reviewed to determine whether it is likely to result in:

- the death of fish by means other than fishing and the harmful alteration, disruption or destruction of fish habitat which are prohibited under subsections 34.4(1) and 35(1) of the *Fisheries Act*;
- effects to listed aquatic species at risk, any part of their critical habitat or the residences of their individuals in a manner which is prohibited under sections 32, 33 and subsection 58(1) of the *Species at Risk Act*; and

The aforementioned impacts are prohibited unless authorized under their respective legislation and regulations.

To avoid and mitigate the potential for prohibited effects to fish and fish habitat (as listed above), we recommend implementing the measures listed below:

- Plan in-water works, undertakings and activities to respect [timing windows](#) to protect fish, including their eggs, juveniles, spawning adults
  - No in-water work [March 15 – July 15]
- Capture, relocate and monitor for fish trapped within isolated, enclosed, or dewatered areas;
  - Dewater gradually to reduce the potential for stranding fish
- Conduct in-water undertakings and activities during periods of low water levels
- Screen intake pipes to prevent entrainment or impingement of fish;
  - Use the [code of practice](#) for water intake screens
- Maintain an appropriate depth and flow (i.e., base flow and seasonal flow of water) for the protection of fish and fish habitat;
- Limit impacts on riparian vegetation to those approved for the work, undertaking or activity;
  - Limit access to banks or areas adjacent to waterbodies
  - Construct access points and approaches perpendicular to the watercourse or waterbody
  - Re-vegetate the disturbed area with native species suitable for the site
- Restore stream geomorphology (i.e., restore the bed and banks, gradient and contour of the waterbody) to its initial state;
- Avoid introducing sediments (e.g., silts, clays and sand) in the water
- Develop and implement an erosion and sediment control plan to avoid or minimize the introduction of sediment into any waterbody during all phases of the work, undertaking or activity; and
  - Conduct all in-water works, undertakings or activities in isolation of open or flowing water to reduce the introduction of sediment into the watercourse
  - Monitor the watercourse to observe signs of sedimentation during all phases of the work, undertaking or activity and take corrective action
- Develop and implement a response plan to avoid a spill of deleterious substances.

Provided that you incorporate these measures into your plans, the Program is of the view that your proposal will not require an authorization under the *Fisheries Act*, or the *Species at Risk Act*.

Should your plans change or if you have omitted some information in your proposal, further review by the Program may be required. Consult our website (<http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html>) or consult with a qualified environmental consultant to determine if further review may be necessary. It remains your responsibility to remain in compliance with the *Fisheries Act*, or the *Species at Risk Act*.

It is also your *Duty to Notify* DFO if you have caused, or are about to cause, the death of fish by means other than fishing and/or the harmful alteration, disruption or destruction of fish habitat. Such notifications should be directed to (<http://www.dfo-mpo.gc.ca/pnw-ppe/CONTACT-eng.html>).

We recommend that you notify this office at least 10 days before starting your project and that a copy of this letter be kept on site while the work is in progress. It remains your responsibility to meet all other federal, territorial, provincial and municipal requirements that apply to your proposal.

If you have any questions with the content of this letter, please contact Lucas Coletti at our Burlington office at 905-317-1541 or by email at [Lucas.Coletti@dfo-mpo.gc.ca](mailto:Lucas.Coletti@dfo-mpo.gc.ca). Please refer to the file number referenced above when corresponding with the Program.

Yours sincerely,

A handwritten signature in black ink, appearing to be 'LC', written in a cursive style.

Lucas Coletti  
Biologist, Triage and Planning

**B.1 GENERAL CONDITIONS**

The General Conditions governing these specifications and Contract shall be those published by the Canadian Construction Documents Committee and approved by the Engineering Institute of Canada which accompany the Canadian Standard Construction Document -CCDC2-2008. An index of the above general conditions are as follows:

**PART 1 GENERAL PROVISIONS**

- GC 1.1 Contract Documents
- GC 1.2 Law of the Contract
- GC 1.3 Rights and Remedies
- GC 1.4 Assignment

**PART 2 ADMINISTRATION OF THE CONTRACT**

- GC 2.1 Authority of the Consultant
- GC 2.2 Role of the Consultant
- GC 2.3 Review and Inspection of the Work
- GC 2.4 Defective Work

**PART 3 EXECUTION OF THE WORK**

- GC 3.1 Control of the Work
- GC 3.2 Construction by Owner or Other Contractors
- GC 3.3 Temporary Work
- GC 3.4 Document Review
- GC 3.5 Construction Schedule
- GC 3.6 Supervision
- GC 3.7 Subcontractors and Suppliers
- GC 3.8 Labour and Products
- GC 3.9 Documents at the Site
- GC 3.10 Shop Drawings
- GC 3.11 Use of the Work
- GC 3.12 Cutting and Remedial Work
- GC 3.13 Cleanup

**PART 4 ALLOWANCES**

- GC 4.1 Cash Allowances
- GC 4.2 Contingency Allowance

**PART 5 PAYMENT**

- GC 5.1 Financing Information Required of the Owner
- GC 5.2 Applications for Progress Payment
- GC 5.3 Progress Payment
- GC 5.4 Substantial Performance of the Work
- GC 5.5 Payment of Holdback upon Substantial Performance of the Work
- GC 5.6 Progressive Release of Holdback
- GC 5.7 Final Payment
- GC 5.8 Withholding of Payment
- GC 5.9 Non-conforming Work

**PART 6 CHANGES IN THE WORK**

- GC 6.1 Owners Right to Make Changes
- GC 6.2 Change Order
- GC 6.3 Change Directive
- GC 6.4 Concealed or Unknown Condition
- GC 6.5 Delays
- GC 6.6 Claims for a Change in Contract Price

**PART 7 DEFAULT NOTICE**

- GC 7.1 Owner's Right to Perform the Work, Terminate the Contractor's Right to Continue the Work or Terminate the Contract
- GC 7.2 Contractor's Right to Suspend the Work or Terminate the Contract

**PART 8 DISPUTE RESOLUTION**

- GC 8.1 Authority of the Consultant
- GC 8.2 Negotiation, Mediation, and Arbitration
- GC 8.3 Retention of Rights

**PART 9 PROTECTION OF PERSONS AND PROPERTY**

- GC 9.1 Protection of Work and Property
- GC 9.2 Toxic and Hazardous Substances and Materials
- GC 9.3 Artifacts and Fossils
- GC 9.4 Construction Safety
- GC 9.5 Mould

**PART 10 GOVERNING REGULATIONS**

- GC 10.1 Taxes and Duties
- GC 10.2 Laws, Notices, Permits, and Fees
- GC 10.3 Patent Fees
- GC 10.4 Workers' Compensation

**PART 11 INSURANCE-BONDS**

- GC 11.1 Insurance
- GC 11.2 Contract Security

**PART 12 INDEMNIFICATION-WAIVER-WARRANTY**

- GC 12.1 Indemnification
- GC 12.2 Waiver of Claims
- GC 12.3 Warranty





**B.2 WORK INCLUDED**

Provide all labour, materials and equipment and supervision necessary to complete the work of all trades as shown or described on or reasonably inferable from the drawings including the following:

- (a) Co-ordination of the work of all trades
- (b) Preliminary examination of the site
- (c) Clearing the site
- (d) General protection
- (e) Sequence of construction
- (f) Maintain lines and grades
- (g) Temporary structures
- (h) Enforcement of regulations
- (i) Keeping drawings and specifications on the job
- (j) Shop drawings
- (k) Control of debris
- (l) Final cleanup

**WORK NOT INCLUDED (N/A)**

- (a) When the Contract is with a Town, Township or County, the following will be supplied:

**B.3 ADDITIONS TO THE CONTRACT (N/A)**

- (a) The additional cost to supply and install 300mm size quarry stone rip-rap with filter cloth lining in the stream by-pass channel if erosive soils are encountered.
- (b) The additional cost for restoration or stream work as requested by the Conservation Authority above and beyond that indicated on the drawings or in these specifications.

**B.4 EXAMINATION OF SITE**

All Contractors shall, before presenting Tender, inspect the site and be familiar with its conditions and the circumstances under which he will be forced to operate.

No extra amount will be allowed the Contractor for any work necessitated by unfamiliarity with existing conditions, which conditions could be ascertained before presenting the proposal.

**B.5 CLEARING THE SITE**

Remove brush and trees over the site of the structure except such as the Engineer may decide to retain. Brush and trees to be chipped or removed from site and disposed of.



**B.6 GENERAL PROTECTION**

- (a) Provide adequate protection at all times against possible accidents to workmen or other persons by means of fences, railings, lights, warning signs and other suitable precautions.
- (b) Trees and shrubs that are to be retained shall be protected by substantial wood casing or railing.
- (c) Provide adequate protection against damage to the work by weather and frost.
- (d) The Contractor shall be responsible for the protection of all work completed and any material on the site.

Cost of a watchman shall be borne by the Contractor.

**B.7 REJECTED WORK OF MATERIAL**

The Contractor shall, within twenty-four hours after receiving written notice from the Engineer to the effect, proceed to remove from the grounds or structures all materials condemned by the Engineer, whether worked or unworked, and to take down all portions of the work which the Engineer shall by written notice condemn as unsound or improper or as in any way failing to conform to the drawings and specifications and shall make good all work in other lines damaged by such removal.

The Contractor shall not permit any part of the structures to be loaded with a weight that will endanger its safety.

**B.8 MATERIALS AND WORKMANSHIP**

The Contractor shall proceed in a workmanlike manner and unless otherwise specified, furnish materials of the best quality of respective kinds. All workmanship and materials shall be stored to the approval of the Engineer.

All materials not specifically named on the drawings or specified shall be subject to approval before delivery to the job unless such approval is not required by the Engineer.

**B.9 PROGRAMME OF WORK**

A programme of work, including all trades, shall be prepared by the Contractor and submitted to the Engineer in triplicate within 7 days of the awarding of the contract. This programme shall have been checked and agreed to by all sub-contractors and shown completion by the date determined from the Form of Tender.

Delays due to failure of sub-contractors to carry out their work will be entirely the responsibility of the General Contractor.

**B.10 TEMPORARY SERVICES****(a) Telephone (N/A)**

The Contractor shall provide temporary local and long-distance telephone for his own use and available to sub-trades and the Engineer.

**(b) Heating**

The Contractor shall supply and maintain all temporary heating required during construction.

**(c) Electric Power**

The Contractor shall make all arrangements with the proper authorities for the supply of electrical energy required for construction purposes. The Contractor shall provide, install and maintain all wiring and equipment and shall pay for the energy used during construction.

**(d) Water**

The Contractor shall make arrangements for the supply of water for all purposes, including the mixing of concrete, washing of forms, curing of concrete, etc.

**(e) Sanitary Facilities**

The Contractor shall provide temporary sanitary facilities for the use of all workers in conformation with local and provincial regulations.

**B.11 TEMPORARY STRUCTURES**

(a) Provide adequate watertight storage as required for the materials of all trades.

(b) The Contractor shall provide on the site a weathertight office for the Contractor's use and that of the Engineer's Inspector, the cost of which shall be included in the total contract price. (NOT APPLICABLE)

**B.12 INSURANCE (Read in conjunction with Section A.27)**

(1) Contractor's Liability Insurance and Workmen's Compensation:

The Contractor shall effect and maintain insurance to cover his obligations under all applicable worker's compensation laws.

(2) Bodily Injury Liability: The Contractor shall effect and maintain a Comprehensive General Liability Policy or its equivalent covering claims for bodily injury, including death arising from and during operations under his Contract whether performed by himself, by a sub-contractor or by anyone directly or indirectly employed by either of them in the sum of \$5,000,000.00.



**B.12 INSURANCE** (cont'd)

- (3) Property Damage: The Contractor shall effect and maintain Property Damage Liability Insurance to cover his and sub-contractor's operations in the sum of \$5,000,000.00.
- (4) The insurance: Coverage shall include the Municipality of Dunwich Dutton, Spriet Associates London Limited and the Contract. Proof of adequate insurance shall be provided prior to commencement of work.

**B.13 PLANS**

The successful Bidder will be issued with six sets of plans for building purposes, permits, etc. Any sets required beyond this number will be charged actual cost of printing.

**B.14 DRAWINGS, SPECIFICATIONS AND SHOP DRAWINGS**

Drawings and specifications are instruments of service and as such shall remain the property of the Engineer and shall be returned by the Contractor on completion of estimating and/or construction of the work.

Drawings and specifications shall form a part of the contract.

The drawings and specifications are for the construction of the designated project only and shall not be used for any other structure without the written consent of both the Owner and Engineer.

The Contractor shall be responsible for keeping complete sets of working drawings, shop drawings, details, sketches and specifications available on the job.

Should any drawing be amended, the Contractor shall make sure that all originals are destroyed and replaced with amended sheets.

A complete set of all such documents should be available conveniently mounted in the construction office.

**B.15 QUALIFICATION AND SUPERINTENDENT**

Persons or firms submitting tenders shall actually be engaged in the lines of work required by the specifications and shall be able to refer to work of a similar character performed by them. A list of projects constructed in the last 5 years along with Owner references must be submitted for review, if so requested by the Owner or Engineer. Failure to confirm adequate experience may result in rejection of the Tender.

The Contractor shall employ a competent Superintendent to supervise the work. The Engineer reserves the right to require that a Superintendent, not properly qualified in his opinion, be removed and replaced with a fully competent and satisfactory Superintendent.

**B.16 EXISTING STRUCTURE**

- (a) Unless otherwise indicated on the drawings, the removal of the existing structure is to be included as part of the contract and shall be paid for as indicated in other sections of the specifications.
- (b) Any materials suitable for salvage shall, unless otherwise noted, become the property of the Contractor.
- (c) All broken concrete, asphalt, steel, etc. and other trash shall be removed from the site and disposed of by the Contractor. A letter of permission from the Owner of the site will be required, as well as evidence that any disposal site has MOE clearance.

**B.17 MAINTENANCE OF LINES AND GRADES**

- (a) The Engineer will set centre line for the structure and establish a benchmark for construction. The Contractor is responsible for all layout required for construction.
- (b) The Contractor shall establish and maintain all lines and grades for construction. Substantial batter boards, lines and secondary benchmarks shall be constructed and maintained.
- (c) The Engineer will check all grades and levels; however, this in no way relieves the Contractor of his responsibility for construction to correct elevation.

**B.18 TEMPORARY ACCESS**

The Contractor will construct and maintain all temporary access required to facilitate construction. The access roads shall be approved by the landowner and/or the Municipality or his authorized representative.

This access will be removed and the site restored to its original condition as part of the final cleanup and a clearance letter is required upon completion.

**B.19 SUB-CONTRACTORS**

Each Bidder shall submit with the bulk tender a complete list of all the persons or firms to which he proposed to sublet any part of the work and the trades or diversion of the work which are sublet to each. The Owner reserves the right to approve the sub-contractor. Failure to comply with this Clause may result in rejection of the bid.

**B.20 SHOP DRAWINGS**

Where necessary, the Contractor shall take accurate dimensions at the job and shall submit samples, catalogues, shop drawings and schedules to the Engineer for approval before commencing the various items of work.

The approval of the Engineer must be obtained on shop drawings, etc. before the work is put in hand, but this approval shall not relieve the Contractor of his responsibility for the adequacy and accuracy of the data submitted or of furnishing adequate, sufficient, or properly integrated work or material as drawn or specified.



**B.21 HOIST**

Where hoists are required by the General Contractor, same shall be maintained in first class condition, properly constructed to meeting inspection requirements.

**B.22 CO-OPERATION**

The various Contractors employed on the work shall be expected to co-operate in the prosecution of the work to the extent that the entire project shall move along as a co-ordinated unit and each Contractor is expected to provide other Contractors affected with such information as will expedite the progress of the work in all its phases.

Before proceeding with his work, each sub-contractor shall examine the site and the complete work of other trades to insure that he has a firm, accurate and workable base for his own work. Any unsatisfactory conditions or errors shall be immediately reported to the Contractor and all work affected shall be suspended until conditions are made satisfactory. If an imperfect base condition or error is not reported, the sub-contractor will be held responsible to the Contractor for any defect in the finished work of his trade.

**B.23 SPECIFICATION SECTIONS**

The Division of the Specifications into Sections is not intended to control the Contractor in dividing the work among sub-contractors or to limit the scope of work performed by any trade under a given section. The Engineer will not undertake to settle any differences between the Contractor and his sub-contractors as to the inclusion or exclusion of work or material items.

The reference in the Specifications regarding the division or separation of the work among types of trades or occupations are only for the suggested purposes of co-ordinating the work of the different trades, etc., but it shall be the contractor's responsibility for the proper co-ordination and completions whether performed by the Contractor or sub-contractors, if any.

**B.24 CLEAN UP**

The Contractor shall be expected to keep the premises reasonably free from accumulation of debris, trash, etc., in connection with his work during progress of the construction and on completion of the construction, all debris shall be removed from the site. It shall be the responsibility of the General Contractor to see that all his sub-contractors comply with this condition and to act in event of their non-compliance before the premises can be accepted as complete.

**B.25 MAINTENANCE**

The Contractor shall repair and make good any damages or fault in the structure that may appear within one year after its completion (as evidenced by the final payment certificate) as the result of imperfect or defective work done or materials furnished certified by the Engineer as being due to one or both of these causes, but nothing herein contained shall be construed as in any way restricting or limiting the liability of the Contractor under the laws of the country, province or locality in which the work is being done.



To the Mayor and Members of the Council  
of the Corporation of the Municipality of Dutton Dunwich

Re: Silver Clay Culvert  
Municipality of Dutton Dunwich  
Our Job No. 223146

Having carefully examined the drawings and specifications for the construction of

Silver Clay Culvert

as well as the premises and conditions affecting the work, the undersigned offers to furnish all Labour, Equipment, and Materials required to complete the whole of the work in accordance with said documents for the following unit prices:

ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL
1	Traffic control, road closure, "Bridge Out" signage in accordance with specifications - MTO Book 7	L.S.			
2	Demolition, removal, and disposal of existing structure including concrete abutments, foundations, and breaking existing structure into approved bank protection	L.S.			
3	Standard excavation for proposed structure	L.S.			
4	Clearing and grubbing of what existing vegetation and trees are in the area	L.S.			
5	Install temporary coffer dam on upstream and downstream, and construction of by-pass channel including supply and installation of 12 - 1800mm diameter pipe, complete.	L.S.			
6	Supply and install silt fence along any spoil piles and straw bales for roadway ditch runoff incl. redirecting ditches away from construction	L.S.			
7	Unwatering	L.S.			
8	Reinforced Concrete (Approx. 165 cu.m)	m <sup>3</sup>	165		
9	Supply and delivery of reinforcing, Black Steel	tonnes	16		
10	Supply and installation of quarry stone and broken concrete rip-rap erosion protection incl. filter blanket at both sides of culvert, along footings, and on ditch banks as shown (Approx. 40m <sup>3</sup> )	m <sup>3</sup>	40		
11	Stream channelization at ends of culvert including restoration of bypass channel to original condition and removal and disposal of excess material. Complete.	L.S.			
12	Roadway construction including all cuts, roadside ditching, shoulders, etc.	L.S.			
Carried Forward					\$0.00



ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL
Brought Forward					
13	Strip topsoil, stockpile, and redistribute on any disturbed area	L.S.			
14	Supply and install Granular 'B' as culvert backfill and road subgrade (est. 1,500 tonnes)	tonnes	1,500		
15	Supply and install Granular 'A' road surface and shoulders on roadway approaches (est. 290 tonnes)	tonnes	260		
16	Supply and install precast blocks as retaining walls at all four corners of culvert (32 total)	L.S.			
17	Supply and install steel beam guardrail, including anchorage to culvert top, mash subsequential terminals, etc. complete.	L.S.			
18	Disposal of excess material along the roadside of each side of structure	L.S.			
19	Supply and install hydro seeding	m <sup>2</sup>	1,500		
20	Cost of 50% Performance Bond and 50% Labour and Materials Bond	L.S.			
21	Overhead, administrative, and miscellaneous costs not included in all other Form of Tender items	L.S.			
22	Contingency				\$30,000.00
Sub-Total					
H.S.T. (13%)					
TOTAL					

\_\_\_\_\_ /100 Dollars  
 (Total Written in Full)

The above total amount includes all applicable Harmonized Sales Tax (HST).

We also agree that extra work done on the written order of the Engineer and not covered by any of the unit prices shall be paid for in accordance with Part 5 and 6 in the General Conditions of the Contract Document.

We also agree that if our tender is accepted, we will furnish a Performance Bond for 50% and a Labour and Materials Bond for 50% of the Contract amount, such bonds shall be acceptable in every way to the Owner. We agree to maintain all of the work for a period of one year from the date of acceptance of same by the Engineer.

If awarded the Contract, we agree to complete the work no later than March 1, 2025.

We enclose herewith a bid bond or certified cheque for \$\_\_\_\_\_ as tender security.



OFFERED ON BEHALF OF THE CONTRACTOR

Name \_\_\_\_\_

Date \_\_\_\_\_

Address \_\_\_\_\_

Witness \_\_\_\_\_

\_\_\_\_\_  
Signature

Signature \_\_\_\_\_

Phone No. \_\_\_\_\_

Corporate Seal

ACCEPTED ON BEHALF OF THE MUNICIPALITY OF DUTTON DUNWICH

Mayor \_\_\_\_\_

Clerk-Administrator \_\_\_\_\_

Date \_\_\_\_\_

Seal

This Proposal or Tender form, when signed and offered by the Contractor, shall constitute a formal and binding contract when accepted by and signed on behalf of the Municipality of Dutton Dunwich.



OFFERED ON BEHALF OF THE CONTRACTOR

Name \_\_\_\_\_

Date \_\_\_\_\_

Address \_\_\_\_\_

Witness \_\_\_\_\_

\_\_\_\_\_

Signature \_\_\_\_\_

Phone No. \_\_\_\_\_

Corporate Seal

ACCEPTED ON BEHALF OF THE MUNICIPALITY OF DUTTON DUNWICH

Mayor \_\_\_\_\_

Clerk-Administrator \_\_\_\_\_

Date \_\_\_\_\_

Seal

This Proposal or Tender form, when signed and offered by the Contractor, shall constitute a formal and binding contract when accepted by and signed on behalf of the Municipality of Dutton Dunwich.



**PROOF OF ABILITY**

If the Contractor has not completed similar work for the Municipality of Dutton Dunwich during the preceding two years, this page must be completed. This information will be used by the Municipality of Dutton Dunwich to determine if the Contractor is, in the opinion of the Municipality of Dutton Dunwich, qualified to adequately perform the work.

1. DATE, NAME AND LOCATION OF PROJECT: \_\_\_\_\_

\_\_\_\_\_  
DESCRIBE WORK COMPLETED BY YOUR COMPANY: \_\_\_\_\_

\_\_\_\_\_  
TOTAL VALUE OF THE PROJECT: \$ \_\_\_\_\_

\$ VALUE OF YOUR PORTION OF THE PROJECT: \$ \_\_\_\_\_

NAME, TITLE AND PHONE NUMBER OF REFERENCE TO CONTACT: \_\_\_\_\_  
\_\_\_\_\_

2. DATE, NAME AND LOCATION OF PROJECT: \_\_\_\_\_

\_\_\_\_\_  
DESCRIBE WORK COMPLETED BY YOUR COMPANY: \_\_\_\_\_

\_\_\_\_\_  
TOTAL VALUE OF THE PROJECT: \$ \_\_\_\_\_

\$ VALUE OF YOUR PORTION OF THE PROJECT: \$ \_\_\_\_\_

NAME, TITLE AND PHONE NUMBER OF REFERENCE TO CONTACT: \_\_\_\_\_  
\_\_\_\_\_

3. DATE, NAME AND LOCATION OF PROJECT: \_\_\_\_\_

\_\_\_\_\_  
DESCRIBE WORK COMPLETED BY YOUR COMPANY: \_\_\_\_\_

\_\_\_\_\_  
TOTAL VALUE OF THE PROJECT: \$ \_\_\_\_\_

\$ VALUE OF YOUR PORTION OF THE PROJECT: \$ \_\_\_\_\_

NAME, TITLE AND PHONE NUMBER OF REFERENCE TO CONTACT: \_\_\_\_\_  
\_\_\_\_\_

4. DATE, NAME AND LOCATION OF PROJECT: \_\_\_\_\_

\_\_\_\_\_  
DESCRIBE WORK COMPLETED BY YOUR COMPANY: \_\_\_\_\_

\_\_\_\_\_  
TOTAL VALUE OF THE PROJECT: \$ \_\_\_\_\_

\$ VALUE OF YOUR PORTION OF THE PROJECT: \$ \_\_\_\_\_

NAME, TITLE AND PHONE NUMBER OF REFERENCE TO CONTACT: \_\_\_\_\_  
\_\_\_\_\_

**LIST OF SUB-CONTRACTORS**

**Description of Work**

**Contractor**

\_\_\_\_\_

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

\_\_\_\_\_

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

\_\_\_\_\_

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

\_\_\_\_\_

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

\_\_\_\_\_

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_



**SUB CONTRACTOR(S) PROOF OF ABILITY**

If the Contractor has not completed similar work for the Municipality of Dutton Dunwich during the preceding two years, this page must be completed. This information will be used by the Municipality of Dutton Dunwich to determine if the Contractor is, in the opinion of the Municipality of Dutton Dunwich, qualified to adequately perform the work.

1. DATE, NAME AND LOCATION OF PROJECT: \_\_\_\_\_

\_\_\_\_\_  
DESCRIBE WORK COMPLETED BY YOUR COMPANY: \_\_\_\_\_

\_\_\_\_\_  
TOTAL VALUE OF THE PROJECT: \$ \_\_\_\_\_

\$ VALUE OF YOUR PORTION OF THE PROJECT: \$ \_\_\_\_\_

NAME, TITLE AND PHONE NUMBER OF REFERENCE TO CONTACT: \_\_\_\_\_  
\_\_\_\_\_

2. DATE, NAME AND LOCATION OF PROJECT: \_\_\_\_\_

\_\_\_\_\_  
DESCRIBE WORK COMPLETED BY YOUR COMPANY: \_\_\_\_\_

\_\_\_\_\_  
TOTAL VALUE OF THE PROJECT: \$ \_\_\_\_\_

\$ VALUE OF YOUR PORTION OF THE PROJECT: \$ \_\_\_\_\_

NAME, TITLE AND PHONE NUMBER OF REFERENCE TO CONTACT: \_\_\_\_\_  
\_\_\_\_\_

3. DATE, NAME AND LOCATION OF PROJECT: \_\_\_\_\_

\_\_\_\_\_  
DESCRIBE WORK COMPLETED BY YOUR COMPANY: \_\_\_\_\_

\_\_\_\_\_  
TOTAL VALUE OF THE PROJECT: \$ \_\_\_\_\_

\$ VALUE OF YOUR PORTION OF THE PROJECT: \$ \_\_\_\_\_

NAME, TITLE AND PHONE NUMBER OF REFERENCE TO CONTACT: \_\_\_\_\_  
\_\_\_\_\_

4. DATE, NAME AND LOCATION OF PROJECT: \_\_\_\_\_

\_\_\_\_\_  
DESCRIBE WORK COMPLETED BY YOUR COMPANY: \_\_\_\_\_

\_\_\_\_\_  
TOTAL VALUE OF THE PROJECT: \$ \_\_\_\_\_

\$ VALUE OF YOUR PORTION OF THE PROJECT: \$ \_\_\_\_\_

NAME, TITLE AND PHONE NUMBER OF REFERENCE TO CONTACT: \_\_\_\_\_  
\_\_\_\_\_

## CONDITIONS

### CONTRACTOR'S LIABILITY AND WORKPLACE SAFETY AND INSURANCE BOARD

#### 1. CONTRACTOR'S LIABILITY

Any work performed by the Contractor upon the lands of the Municipality of Dutton Dunwich and its agencies or otherwise in connection with the Proposed work, shall be solely at the Contractor's own risk and the Municipality of Dutton Dunwich and its agencies shall not be liable to the Contractor or the Contractor's employees, agents or invitees for any damage, injury or loss sustained by them, including death, or to their property as a result of working or operating hereupon.

The Contractor shall be responsible for any damage, injury (including death) or loss sustained by the Contractor or any other person, or to its or any other person's property as a result of working or operating upon the lands of the Municipality of Dutton Dunwich and its agencies and providing the goods and services of this Proposal and shall obtain public liability insurance, property damage insurance and automobile insurance all to the satisfaction of the Municipality of Dutton Dunwich and its agencies in every respect including without limitation, amount of coverage and deductible amounts. **Such insurance shall name each agency as an additional insured**, provide for cross liability, severability of interest, provide that it is primary insurance that does not call into contribution any other insurance available to the Municipality of Dutton Dunwich and its agencies and provide for 30 days' notice of cancellation to the Municipality of Dutton Dunwich and its agencies. The Contractor shall provide a certificate of insurance evidencing the foregoing requirements to the satisfaction of the Municipality of Dutton Dunwich and its agencies prior to issuance of the Purchase Order and Commencement of work.

In addition to and notwithstanding the foregoing:

**The Contractor shall release, indemnify, defend and save the Municipality of Dutton Dunwich and its agencies harmless from any and all damages, loss, injuries (including death), claims, demands, costs (including legal costs on a solicitor-client basis) and expenses howsoever caused arising directly or indirectly out of the award of this Proposal to the Contractor.**

#### 2. WORKPLACE SAFETY AND INSURANCE BOARD

The Contractor shall at all times pay, or cause to be paid, any assessment or compensation required to be paid pursuant to the Workplace Safety and Insurance Act and upon failure to do so, the Municipality of Dutton Dunwich and its agencies may pay such assessment or compensation to the Workplace Safety and Insurance Board, and the Contractor shall forthwith reimburse the Municipality of Dutton Dunwich. The Municipality of Dutton Dunwich may at its option deduct such expenses from any monies owed to the Contractor. The Contractor shall, prior to issuance of a purchase order by the Municipality of Dutton Dunwich provide a certificate of good standing from the Workplace Safety and Insurance Board, and the Municipality of Dutton Dunwich may, at any time during the performance or upon completion of such contract, require a further certificate.

---

 DATE

COMPANY

SIGNATURE

**I/We certify that I/we have the authority to bind the company.**



**SPRIET ASSOCIATES**  
engineers & architects

Amount of Public Liability Insurance maintained: \$ \_\_\_\_\_

Amount of Property Damage Insurance maintained: \$ \_\_\_\_\_

Name and Address of Insurance Company: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Policy Number: # \_\_\_\_\_

COMMENTS:  
\_\_\_\_\_  
\_\_\_\_\_

WORKERS= COMPENSATION NUMBER: YES=NUMBER \_\_\_\_\_

NO = WHY? \_\_\_\_\_

COMMENTS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**I/We certify that I/we have the authority to bind the company.**

\_\_\_\_\_  
COMPANY NAME

\_\_\_\_\_  
AUTHORIZED SIGNATURE

\_\_\_\_\_  
ADDRESS

\_\_\_\_\_  
NAME (PRINT OR TYPE)

\_\_\_\_\_  
CITY AND POSTAL CODE

\_\_\_\_\_  
TITLE

\_\_\_\_\_  
TELEPHONE NUMBER

\_\_\_\_\_  
FAX NUMBER

\_\_\_\_\_  
E-MAIL ADDRESS

\_\_\_\_\_  
DATE

**NOTE: Failure to sign this page will result in non-acceptance of this Quotation.**



## CULVERT NO. 17 SILVERCLAY LINE

Municipality of Dutton Dunwich

Drawing No.	Description
	Cover Page
1.	Plan and Sections
2.	Culvert Reinforcing and Details
3.	Environmental Notes





### 1.1 GENERAL CONDITIONS

The Instructions to Bidders and General Requirements (Sections A & B) are part of this specification and shall govern the work of this section.

### 1.2 EXCAVATION AND BACKFILL

All excavation and backfill necessary for the execution of the project shall be in accordance with the specifications of the current OPSS Division 9, Section 902 – “Excavation and Backfill” as outlined under the following sub-sections:

902.01	Scope
902.02	Reference
902.03	Definitions
902.05	Materials
902.07	Construction
902.07.03	Unwatering Structure Excavation
902.07.04	Backfilling

### 1.3 LINES AND LEVELS

The Engineer will set the centre line for the new bridge, establish a benchmark and a reference datum for all dimensions.

From this data, the Contractor will establish all lines and grades, and be responsible for the maintenance of the whole of the setting out.

### 1.4 PAYMENT

Payment for excavation shall be included in the lump sum price as indicated in the Form of Tender for “Standard excavation for proposed structure”. Granular ‘B’ backfill material shall be supplied at the price quoted in the Form of Tender.

### 1.5 STREAM CHANNELIZATION

Stream channelization is required at the structure as shown on the drawings. Payment for this item shall be included in the lump sum payment for stream channelization.



## 2.1 GENERAL CONDITIONS

The Instructions to Bidders and General Requirements (Sections A & B), are part of this specification and shall govern the work of this Section.

## 2.2 CONCRETE STRUCTURES

All concrete work necessary to complete the work as described by the drawings and specifications shall be in accordance with the specifications of the current OPSS Division 9, Section 904 (Metric) 'Concrete Structures' as outlined under the following subsections:

904.01	Scope
904.02	Reference
904.03	Definitions
904.05	Materials
904.06	Equipment
904.07	Construction
904.07.02	Curing
904.07.03	Cold Weather Concreting
904.07.04	Hot Weather Concreting
904.07.05	Forming Joints
904.07.06	Surface Finish - Formed Surfaces
904.07.07	Surface Finish - Open Surfaces
904.07.08	Removal of Formwork and Falsework
904.08	Quality Assurance
904.09	Measurement of Payment
904.10	Basis of Payment

## 2.3 MATERIALS FOR CONCRETE

### Cement

All cement shall be supplied by the Contractor.

### Aggregates

The requirements of OPSS Division 10, Section 1001 Material Specification for Aggregates - General, and OPSS Section 1002, Material Specification for Aggregates - Concrete, and OPSS 1350 material specification for concrete (materials and production) shall apply to this contract. Fine and coarse aggregates for structural concrete must be supplied from the aggregate sources list of the M.T.O. Section 2 Page 2

## 2.4 FORMWORK AND FALSEWORK

The erection of formwork and falsework shall comply with OPSS Section 919. The Contractor shall submit to the Engineer 3 copies of detailed working drawings of all falsework certified by a Professional Engineer who is licensed by the Association of Professional Engineers of Ontario.



## 2.5 MISCELLANEOUS MATERIALS

All miscellaneous materials shown on the drawing, such as pvc. waterstop, copper waterstop, drains, handrails as shown, jointing materials, etc., with the exception of reinforcing steel and which are not specifically mentioned in the Form of Tender, shall be supplied and installed by the Contractor as part of the contract and shall be assumed to be included in the unit price bid for 'Concrete' in the Form of Tender.

## 2.6 DECK CURING

The concrete deck shall be covered for curing for a minimum of 4 days with a double layer of burlap wetted down thoroughly and covered with an opaque plastic cover. The burlap must be pre-soaked for a period of 24 hours before application. Hot or cold weather protection will be as specified in OPSS Section 904. No extra payment will be made for the above.

## 2.7 MEASUREMENT AND PAYMENT

Concrete for bridge and culvert construction will be paid for at the Contract Lump Sum Price for the class of concrete specified. Unless otherwise provided for in the Contract, this shall be payment in full for furnishing all materials, except the reinforcing steel and for all labour and equipment necessary for the complete structure, as shown on the plans and described in the specifications.

There will be no measurement for above items as per OPSS 904.09.04.

There will be no extra payment for cold or hot weather concreting.



### 3.1 GENERAL CONDITIONS

The Instructions to Bidders and General Requirements (Sections A & B) are part of this specification and shall govern the work of this Section.

### 3.2 REINFORCING STEEL

The supply and placing of reinforcing steel shall be in accordance with the specifications of the current OPSS Division 9, Section 905 (Metric) – ‘Steel Reinforcement for Concrete’ as outlined under the following subsections:

- 905.01 Scope
- 905.02 References
- 905.03 Definitions
- 905.05 Materials
- 905.07 Construction
- 905.08 Quality Assurance
- 905.09 Measurement for Payment
- 905.10 Basis of Payment

### 3.3 MATERIAL

Reinforcing steel shall be supplied and delivered by the Contractor at the contract site. The Contractor is responsible for checking reinforcing as to quantities received and bending details. No claim for delay due to incorrectly bent or deficient steel will be allowed.

### 3.4 EPOXY COATED REBAR (N/A)

The Contractor shall ensure that epoxy coated reinforcing steel bars are not exposed to sunlight for a period longer than 30 days. Adequate covering for storage must be provided for coated rebar.

### 3.5 PLACING

The Contractor shall inform the Engineer at least two days before the concrete is to be poured so as to allow time for adequate checking of the reinforcing prior to pouring concrete. No concrete shall be ordered or poured until the Engineer is satisfied that the steel is correctly placed and the forms are in clean condition.

### 3.6 PAYMENT

Payment for the placing of reinforcing steel shall be included in the price bid for ‘Reinforced Concrete’ on the Form of Tender and Agreement.

Payment for the supply and delivery of reinforcing steel shall be according to type and prices quoted in the Form of Tender and Agreement.



**4.1**    DESCRIPTION

All excess excavated material and concrete from bridge or excavated or fill material from roadway or construction to be hauled away and disposed of by Contractor.

**4.2**    PAYMENT

Payment shall be deemed to be included in the various items of the Form of Tender.



### 5.1 GENERAL CONDITIONS

The Instructions to Bidders and General Requirements (Sections A & B) are part of this specification and shall govern the work of this Section.

### 5.2 REMOVAL OF EXISTING STRUCTURES

Existing steel beams, deck, curbs, asphalt, pipes, railings, cut down ballast walls etc. shall be demolished and removed from the site and disposed of at sites which have a certificate of approval from the Ministry of the Environment.

The work included under this Section shall be further described by the following specifications:

#### Current OPSS Division 5 Section 510 - Demolition and Removal of Structures

##### Subsections

510.01	Scope
510.07	Construction, except that the use of explosives will not be allowed
510.07.03	Disposal of Debris
510.07.06	Backfilling and Trimming

### 5.3 SPECIAL

Removal to include demolition and removal of the concrete deck, steel beams, curbs, railings, cut down ballast walls and asphalt, complete.

### 5.4 PAYMENT

The cost of the above work shall be included in the price bid as a lump sum Item in the Form of Tender and Agreement and shall be full compensation for all labour, equipment and materials required to do the work.



### 6.1 GENERAL CONDITIONS

The Instructions to Bidders and General Requirements (Sections A & B) are part of this specification and shall govern the work of this section.

### 6.2 CONSTRUCTION OF ROADWAY APPROACHES

The roadway shall be constructed to conform to the typical roadway sections shown on the plans. The Contractor shall use the methods and standards of construction outlined in OPSS Division 2, Section 206 "Construction Specifications for Grading".

Unless otherwise specified or approved by the Engineer, all earth embankments shall be built using the 150mm Layer Compaction Method.

Granular materials shall conform to OPSS 1010 and be constructed in accordance with OPSS Muni. Section 314 "Untreated Granular Sub-base, Base, Surface, Shoulder and Stockpiling".

### 6.3 PAYMENT

Payment for the construction of roadway approaches shall be on the basis as outlined in the Form of Tender and Agreement and shall be compensation in full for all items as specified, including compensation for compaction.

Payment for the construction of roadway approaches shall also include the payment for raising or lowering driveways or field entrances including the supply, placing, raising, lowering, etc., of any entrance culverts.



**7.1 DESCRIPTION**

This work shall consist of supply and installation of steel beam guiderail. Guiderail shall be installed along culvert and both sides of the locations shown on plans.

**7.2 STEEL BEAM GUIDE RAIL**

Work to be done in accordance with O.P.S.S. 552.

Supply and installation to be in accordance with O.P.S.D. 912.125, 912.127,912.130, 912.135, 912.136.

**7.3 STRUCTURE CONNECTION (N/A)**

Supply and installation to be in accordance with O.P.S.D. 3419.100. Channel connection for future use only.

**7.4 EXTRUDER END TREATMENT**

Work to be done in accordance with O.P.S.S. 552.

Supply and installation to be in accordance with O.P.S.D. 922.531, 984.201, and 984.202.

**7.5 PAYMENT**

The cost of the above work shall be included in the price bid as a lump sum Item in the Form of Tender and Agreement and shall be full compensation for all labour, equipment and materials required to do the work.





### 8.1 GENERAL CONDITIONS

The Instructions to Bidders and General Requirements (Sections A & B), are part of this specification and shall govern the work of this Section.

### 8.2 SEEDING AND MULCHING

The Contractor shall supply and install materials on the new cut/fill slopes, road ditches and other disturbed areas.

All areas shall be hydro seeded and mulched in accordance with OPSS 572 and with the following application rates:

Primary seed (120 kg/ha):

10% White Clover  
15% Fiesta Perennial Ryegrass  
25% Tall Fescue  
15% Creeping Red Fescue  
10% Chewings Fescue  
15% Timothy  
10% Dornie Kentucky Bluegrass

Nurse crop (40 kg/ha)

Fertilizer (300 kg/ha)

Hydraulic Mulch (2000 dry kg/ha)

Italian (Annual Ryegrass)

8-32-16

Type "B"

Seeding to be completed immediately after construction.

Seeding shall NOT be completed after October 14th.

### 8.3 PAYMENT

Payment for seeding and mulching or seeding shall be on a unit basis as outlined in the Form of Tender and Agreement and shall be compensation in full for supply of all labour, equipment and materials to do the work.



**9.1 DESCRIPTION**

This work shall consist of the supply and placing of all traffic signage for road closure either side of the bridge, at intersections both sides of construction site and signage for Detour Route.

**9.2 TRAFFIC CONTROL**

The road is to remain closed for the duration of the bridge construction. Contractor to supply, install, and/or maintain all traffic signs, barricades, etc. for road closure and detour route in accordance with the Ontario Traffic Manual Book 7 Temporary Conditions. Local traffic to existing entrance ways to be permitted at all times.

**9.3 DETOUR**

The detour is to be from the intersection of Silverclay Line and Currie Road, north to Thomson Line, then east on Thomson Line to Currie Road, turning south along Currie Road to the intersection of Thomson Line and Currie Road.

**9.4 INFRASTRUCTURE SIGNAGE**

Payment shall be made on the lump sum basis for the item as quoted on the Form of Tender for 'Traffic Control'.



### 10.1 GENERAL CONDITIONS

The Instructions to Bidders and General Requirements (Sections A & B) are part of this specification and shall govern the work of this Section.

### 10.2 MANHOLES (N/A)

The Contractor shall supply and install precast concrete catchbasin manhole (1200mm dia.) at the location shown on the drawings. The manhole shall have a 150mm sump and the frame and grate shall conform to OPSD 400.100.

### 10.3 CATCHBASIN (N/A)

The Contractor shall supply and install precast concrete catchbasins (600mm x 600mm) in accordance with OPSD 705.03 at the locations shown on the drawings. The catchbasins shall have a 0.6m sump and the frame and grate shall conform to OPSD 400.020 or precast concrete flat cap where indicated.

### 10.4 SEWER PIPE

The Contractor shall supply and install HDPE sewer pipe, for drainage from the catchbasins at the locations shown on the plans. The pipes shall be bedded as detailed with full depth granular backfill to the edge of the road shoulder, compacted to 95% Standard Proctor Density. Backfill beyond road shoulders shall be on-site native material compacted to 95% Standard Proctor Density. Restoration of trenches to be done with topsoil and hydroseeding.

### 10.5 PAYMENT

Payment for the above items shall be in accordance with the appropriate items on the Form of Tender and Agreement and shall be full compensation for all labour, equipment, and materials required to do the work.



**11.1 DESCRIPTION**

This work shall consist of constructing a protective covering of approved stone as indicated on the drawings or as directed by the Engineer and shall include the required excavating, trimming and consolidating of foundations as directed and will include the supply of all materials, the hauling and delivery of all rock and other materials and all labour and equipment incidental to the handling and placing.

**11.2 ROCK**

Stone for rip-rap shall consist of 300mm to 450mm size rough unhewn quarry stone and shall be approved by the Engineer. The stone shall be dense, resistant to the action of air and water and suitable in all other respects for the purpose intended. The largest rocks procurable shall be supplied and in no case shall any fragment measure less than one cubic foot in volume. Spalls shall be supplied to fill open joints.

**11.3 PLACING**

The rip-rap shall commence in a trench below the toe of the slope. Stones shall be placed by derrick or by hand to the required length, thickness and depth conforming to the lines given by the Engineer and shall be firmly bedded into the slopes. Stones shall be set normal to the slope and placed so that the largest dimension is perpendicular to the face of the wall, unless such dimension is greater than the specified thickness of the wall. The rip-rap shall be thoroughly compacted as construction progresses. The largest stones shall be placed in the bottom courses and for use as headers through subsequent courses. No shaping of stones will be required, but the contractor shall build to reasonable semblance of courses with stones laid closely and voids chinked with spalls. Stones shall be assorted in the wall so that each rear stone will be embedded into the slope of the embankment.

**11.4 PAYMENT**

Payment shall be made on the basis as shown on the Form of Tender for Item Quarry Stone Rip-Rap.

**11.5 SPECIAL PROVISION**

The existing concrete structure may be used for rip-rap if the concrete is broken down into 450mm maximum size. All rebar is to be cut flush and removed from the concrete pieces. Mix with other stone if there is insufficient broken concrete in order to provide a uniform appearance. No concrete rip-rap is to be used in or adjacent to the waters edge.

