Tender
T-MCC-1901
Issued: May 27, 2019

McGee Street Culvert Replacement – Springhill Community

Addressed to:

Ms. Kellie Seaman
Procurement Officer
Municipality of Cumberland
1395 Blair Lake Road
Upper Nappan, NS – B4H 3Y4

Will be received until **3:00pm Atlantic Time, June 13, 2019** for the above Tender as per the specifications and terms and conditions.

Before submitting your bid check for Addenda to the above Tender as posted on novascotia.ca/tenders or by contacting the Municipality of Cumberland directly. Addenda may be posted at any time up to three (3) days prior to Tender close. It is the sole responsibility of the bidder to acknowledge and account for all Addenda associated with the above Tender.

Bids received after Tender close as listed above will be rejected. Only paper copies of bids will be accepted, electronic or facsimile bids will not be accepted.

The Municipality of Cumberland reserves the right to waive technicalities, reject any or all bids, or any portion thereof, to advertise for new tenders, to proceed to do the work otherwise, or to abandon the work, if in the best interest of the Municipality.

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Tender Drawings

McGee Street Culvert Replacement, prepared by DesignPoint, Revision 5 dated May 27, 2019, Reissued for Tender

Sheet 1: McGee Street Plan & Profile 0+000 to 0+105

Sheet 2: Storm Drainage Plan & 1:1 Culvert Profile

END

Overview

This document is a Supplementary Specification to The Standard Specifications for Municipal Services as published by the Nova Scotia Road Builders Association - Consulting Engineers of Nova Scotia Joint Committee on Contract Documents.

The Municipality of the County of Cumberland (Municipality) has decided to use the Standard Specifications in an effort to regulate their specification practices, simplify the review and approval process, and standardize the specifications written by their consultants.

These project documents have been prepared for use with and require being read in conjunction with The Standard Specifications for Municipal Services as published by the Nova Scotia Road Builders Association - Consulting Engineers of Nova Scotia Joint Committee on Contract Documents. Copies of The Standard Specifications are available from the Joint Committee on Contract Documents, 18 Laurier Street, Dartmouth, NS, B3A 2G7; Telephone: (902) 430- 2534, (902) 233-9362 or e-mail at nsmunicipalservices@gmail.com.

End of Section 00 20 00

McGee Street Culvert Replacement

Springhill, NS

Owner:
Municipality of the County of Cumberland
1395 Blair Lake Road
Upper Nappan, NS – B4H 3Y4

1. Tender Submission

.1 Submit completed Tender Form for above project in sealed envelope marked as follows:

TENDER

McGee Street Culvert Replacement
Closing at 3:00 pm, local time
June 13, 2019

and addressed to:

Ms. Kellie Seaman, Procurement Officer
Municipality of Cumberland
1395 Blair Lake Road
Upper Nappan, NS – B4H 3Y4

2. Post Tender Submission

.1 Submit post-tender submission documents no later than two (2) working days after tender closing to be eligible to receive award of Contract. Failure to provide such documents will constitute grounds for forfeiture of Tender Security.

.2 Safety Certification:

.1 Submit copy of Tenderer's current and valid accreditation issued by Nova Scotia Workers' Compensation Board or Certificate of Recognition issued by the Nova Scotia Construction Safety Association.

.2 Out of province companies with a current and valid Certificate of Recognition from a Canadian Federation of Construction Safety Associations recognized safety association shall obtain and submit a Certificate of Recognition from the Nova Scotia Construction Safety Association.

.3 Workers' Compensation Board Clearance:

.1 Submit a copy of Tenderer's current valid clearance letter issued by the Workers' Compensation Board of Nova Scotia.

.2 Out of province Tenderers must register with the Nova Scotia Workers' Compensation Board prior to being awarded a Contract.

3. Tender Opening	.1	Tenders will be opened on Thursday, June 13, 2019 at Upper Nappan Service Centre, 1395 Blair Lake Road, Upper Nappan, NS immediately following closing. Opening will be public.
4. Document Fee	.1	No document fee will be applied. Documents will be provided electronically only.
5. Accuracy of Referencing	.1	Indexing and cross-referencing are for convenience only.
6. Conditions of Tendering	.1	Take full cognizance of content of all Contract Documents in preparation of Tender. Refer to Section 00 41 43 – Tender Form, Subsection 3.9 for a complete list of Contract Documents.
7. Tenderers to Investigate	.1	Tenderers will be deemed to have familiarized themselves with existing site and working conditions and all other conditions which may affect performance of the Contract. No plea of ignorance of such conditions as a result of failure to make all necessary examinations will be accepted as a basis for any claims for extra compensation or an extension of time.
8. Clarification and Addenda	.1	Notify Engineer not less than four (4) working days before Tender Closing of omissions, errors or ambiguities found in Contract Documents. If Engineer considers that correction, explanation or interpretation is necessary, a written addendum will be issued. All addenda will form part of Contract Documents.
	.2	Confirm in the Tender Form that all addenda have been received.
9. Preparation of Tender	.1	Legibly complete Tender Form provided with Project Documents. Tender all items and fill in all blanks. Have corrections initialed by person signing Tender.
	.2	Quotations will not be accepted unless properly signed and submitted on this form. Qualifying clauses or exceptions may result in rejection of the quotation.
10. Taxes	.1	Include all taxes except Harmonized Sales Tax (HST).
11. Tender Security	.1	Provide Tender Security in a minimum amount of ten percent (10%) with Tender in the form of a Certified Cheque or Money Order payable to the Owner, or a Bid Bond on CCDC Form 220, or other Owner

approved form. The Tenderer agrees this amount may be forfeited as liquidated damages in the event that the tender is withdrawn after closing or the Tenderer fails to comply with any other provisions of this Tender. The deposit shall be returned to the unsuccessful Tenderer(s) after a Contract has been signed with the successful Tenderer.

12. Contract Security

.1 Refer to Section 00 72 45 – General Conditions, subsection GC11.2 – Contract Security for form of Contract Security. Refer to Project Documents for amount of contract security and alternate type of contract security, if applicable.

13. Insurance

.1 Refer to Section 00 72 45, General Conditions, subsection GC11.1 - INSURANCE, for insurance required.

14. Form of Agreement

.1 Form of Agreement is attached for information purposes only.

15. Return of Tender Security

.1 Tender Security will be returned to:

- .1 All except the three lowest acceptable Tenderers within five (5) working days of Tender Opening.
- .2 Two (2) remaining unsuccessful Tenderers within ten (10) working days of date of Award.
- .3 Successful Tenderer following receipt by Owner of executed Agreement, specified Contract Security, and Insurance documents.

16. Amendment or Withdrawal of Tender

.1 Tenders may be amended or withdrawn only by signed letter.

.2 Amendment of individual unit prices is the only acceptable price amendment. Amendments shall not disclose either original or revised total price. Amendments may include specific directions as to the exclusion or inclusion of particular words

.3 Head amendment or withdrawal as follows: "[Amendment]/[Withdrawal] of Tender for McGee Street Culvert Replacement T-MCC-1901". Sign as required for Tender, and submit at address given for receipt of Tenders. In order to be considered, submissions shall be received prior to time of Tender Closing.

17. Offer, Acceptance, Rejection

.1 The Owner reserves the right to accept or reject any Tender and to cancel the tendering process and reject all tenders at any time prior to the award of Contract without incurring any liability to affected Tenderers.

.2 In evaluating the Tender, the Municipality may consider criteria,

including:

- the proposed price;
- the proposed completion date
- the Tenderer's ability to complete the work within the scheduled time;
- the Tenderer's ability to effectively manage and perform the work;
- the Tenderer's ability to cooperate and work effectively with the Municipality, its consultants and representatives;
- the Tenderer's ability to present cost saving opportunities which may be appropriate and acceptable to the Consultant and to the Corporation; and
- the financial strength and capability of the Tenderer.

.3 The Municipality of Cumberland reserves the right to request clarification of information submitted and to request additional information, if required. All costs associated with the presentation of the tender and any supplemental information shall be borne solely by the bidder, and shall not be passed on to the Municipality under any circumstances.

.4 The Municipality of Cumberland reserves the right to cancel the contract immediately upon written notice, if, in the opinion of Chief Administrative Officer, the successful Proponent is not fulfilling the terms, conditions and specifications of the contract. All fees will be paid up to the date the work terminates, based on the work plan submitted and actual work completed.

.5 The Work is contingent on approval from Municipal Council.

.6 The Work is contingent on acquiring an extension on the work in the watercourse from Nova Scotia Environment.

18. Completion, Delivery, Cancellation

.1 Time is of the essence and the specified completion/delivery dates should be carefully considered before bidders enter a promised date on this form. Failure to meet promised completion/delivery dates may result in cancellation of any subsequent order.

19. Errors

.1 Tender as received shall be considered final and no tender shall be altered, amended or withdrawn after the specified closing date.

20. Liability

.1 The Bidder acknowledges that he is an independent contractor and shall indemnify, protect and save harmless the Purchaser, its agents, employees, successors and assigns from any and all damages, liabilities and claims of whatsoever nature arising out of the furnishing by the Vendor, its agents or employees, of the materials covered by this order or incidental or ancillary thereto.

21. Tenderers to Investigate

.1 Tenderers will be deemed to have familiarized themselves with the

existing working conditions which may affect the performance of the contract. No claims for extra compensation resulting from failure to investigate will be paid.

22. Supervision and Communication

.1 The contractor MUST have a project manager on site at all times who is fully qualified to properly direct the project and is experienced with all aspects of the street paving project for complete and proper application.

23. Scheduling of Work/Site Inspector/Delivery Slips

.1 The contractor may arrange to do the work in sections or all at once, however, the Municipality must be contacted two full business days prior to the commencement of any portion of the job. All delivery slips for asphalt/gravel must be signed as received by the Municipality before invoices are submitted for payment.

.2 The Municipality also reserves the right to work with the contractor to schedule paving work to meet Municipality schedules to conduct preparation work on the identified paving locations prior to street paving operations.

24. Liquidated Damages

.1 The expected start date for this tender is July 2, 2019, however this may be subject to change and is therefore presented primarily for guidance.

.2 The Municipality of Cumberland and the successful proponent will agree that, in the event that the Work or portions of the Work, as identified in the Contract documents are not completed substantially as specified in the Contract that the Municipality will suffer damages, which are difficult to identify with precision because of the nature of the project.

.3 The successful proponent and the Municipality agree that a fair pre-estimate of the amount of set damages is two hundred and fifty dollars ($250.00) per calendar day. Therefore, the parties agree that the successful proponent shall pay to the Municipality for each and every calendar day after the identified Contract completion date, the sum of two hundred fifty ($250.00) determined by the parties hereto to be liquidated damages, not a penalty. These damages will be deducted from the contract amount. Delays caused by or the result of weather conditions will be deducted from the agreed schedule and will not be subject to liquidated damages.

25.Contact Information

All questions related to this project are to be directed to:
Kellie Seaman
Procurement Officer
Phone: 902-664-9243
kseaman@cumberlandcounty.ns.ca

26. Safety Certification

.1 Submit with Tender a copy of Tenderer's current and valid Letter of Good Standing issued jointly by the Nova Scotia Construction Safety Association, or a recognized safety certified company such as the Nova Scotia Construction Safety Association, and the Province of Nova Scotia Department of Labor.

.2 Out of province companies shall submit, with their Tender, a current and valid Letter of Good Standing from their province of origin or from a recognized Safety Association which utilizes an external audit element.

.3 Out of province companies may obtain a Letter of Good Standing from the Nova Scotia Construction Safety Association, or a recognized safety certified company, upon submission of documentation verifying training and compliance with the NS OH&S Act and Regulations

.4 In any event, out of province Tenderers will have to satisfy and provide proof from the Nova Scotia Construction Association in respect to their safety status prior to being awarded a contract.

27. Workers' Compensation

.1 A certificate of good standing with the Workers' Compensation Board of Nova Scotia must be provided by the successful bidder prior to execution of the Articles of Agreement.

28. Insurance Certificate

.1 A valid certificate showing at least $5,000,000 liability, with the Municipality of Cumberland named under additional insured, must be provided by the successful bidder prior to the execution of the Articles of Agreement.

29. Contractor Experience

.1 Bidders must include a corporate overview outlining their experience in the contracting business. Contractor shall indicate the total number of employees required to do the work and the number of local employees to be hired.

ATTACHMENT "A"

NOTE: These Terms and Conditions and the Supplements for the Municipality of the County of Cumberland shall apply to those documents that reference them specifically. In the event of any conflict or disagreement between these Terms and Conditions and the Invitation documents, the Invitation documents have precedence and will be assumed to be correct.

These Terms and Conditions are intended to cover a wide range of procurements, including goods and services. As such, not all clauses will be applicable in all situations. If Bidders have questions regarding any of these Terms and Conditions, they must call the contact person named on the Invitation form. To satisfy special requirements, supplementary Terms and Conditions may also apply to some acquisitions. If this is the case, the Invitation documents will reference any such documents, in addition to these Terms and Conditions.

Failure to completely comply with these Terms and Conditions could cause the Bidder's Bid to be disqualified.

1. Definitions

Bid- Bidder's written offer to provide the required goods or services at a given price or rate, or any similar document issued in reply to an Invitation. May also be referred to as a Proposal, Tender, Quotation, Submission, Response or similar name.

Bidder- Any person, business or Consortium that submits a bid.

Broader Public Sector- Any governmental or government-funded entity within a Province, including the MASH sector (Municipal governments, Academic institutions such as universities and community colleges, School boards and Hospitals). This includes all government departments, agencies, boards, offices and commissions and Crown Corporations.

Consortium- Two or more Bidders having no formal corporate links, who submit a joint bid.

"Contract" -The legal agreement, if any, entered into between the Municipality of Cumberland and the successful bidder following approval of the Contract by the Municipality of Cumberland, and the settlement, execution and delivery of the same by each party to the Contract.

Fax Bid- A Bid submitted by means of facsimile transmission over telephone lines.

Invitation- A formal request for prices or responses, in printed form, with sealed Bids, faxed Bids or similar responses opened at a given time. May also be referred to as a Tender, Request for Quotations, Request for s, Request for Information, Pre-Qualification, Request for Expression of Interest or similar name. The Invitation incorporates any addenda that may be issued.

"Losses"- Means in respect of any matter all:

(a) direct or indirect, as well as

(b) consequential,

Claims, demands, proceedings, losses, damages, liabilities, deficiencies, costs and expenses (including without limitation all legal and other professional fees and disbursements, interest, penalties and amounts paid in settlement whether from a third person or otherwise).

Paper Bid- A Bid submitted in printed form, not through facsimile or other electronic medium.

Denotations: The words "may" "could" or "should" denote the permissive. The words "must", "shall" or "will" denote the imperative.

2. Date, Time and Place of Closing and Opening; Late Bids

Invitations will close at the time, date and location specified in the Invitation documents.

All Bids must be received in their entirety at or before the closing time specified; Bidders are responsible for ensuring that their Bid, however submitted, is received on time and at the location specified.

All times are local times (Atlantic Standard Time).

Bids received late, or not received completely by the closing time will not be considered; the Reception Area time clock (located at Upper Nappan Service Centre, 1395 Blair Lake Road, Upper Nappan, NS) will be assumed to be correct in the event of dispute. Late bids will be rejected and returned.

All Bids must be sent to the Municipality of Cumberland, Upper Nappan Service Centre (as identified in the Invitation documents), and will be opened there, in accordance with the Municipality of Cumberland's Procurement Policy rules for opening Bids.

Bids will be opened publicly at the time and date specified in the Invitation. The public is allowed to attend Bid openings for most publicly-advertised Invitations - the website Invitation Notice, advertisement and/or the Invitation document itself will specify if the Bid opening can be attended by the public.

3. Methods of Submission

General

Bids must be legible and complete, must include the Invitation number and identify the Bidder's full legal name and address and supply all information requested; incomplete or illegible Bids are subject to rejection.

All bids received must be signed and dated by the authorized signatory for the bidder, with name and title clear and legible, on signature page of Attachment A.

All questions or areas on the Invitation form must be answered, even if it is only to indicate that the referenced item is not available; blank items will be assumed to be unavailable, and may result in rejection of Bidder's Bid.

Where the price summaries of the Bid do not fully explain the cost implications of an item, additional pricing detail should be attached, and shall form part of the Bid.

Prices should be broken down as requested; if the cost of an item has been included in some other item, enter "Included in Item [nn]".

Paper Bids

Bids must be enclosed in a sealed, opaque envelope or package.

The Bidder's name, the Invitation number and the Invitation closing date should be clearly visible on the outside of the envelope or package.

The Bid must be signed by an appropriate authorized official of the firm submitting the Bid.

Fax Bids

No bids will be accepted by facsimile (fax).

4. Obtaining Documents

Bids are to be submitted on the official Invitation forms as issued through the Municipality of Cumberland office; failure to use the correct forms could result in the Bid being rejected.

It is the Bidder's responsibility to obtain Invitation documents at their cost.

Bidders must not alter any portion of the Invitation or associated documents, with the exception of adding the information requested by the Invitation. Bids containing clauses additional to the Invitation that are "qualified" or "conditional" may be rejected.

The Invitation, or any supplementary document or portion thereof is proprietary information, and must not be used by the Bidder for any purpose other than the submission of Bids without the permission of the Municipality of Cumberland.

Notices of tenders are viewed on the Municipality of Cumberland website at www.cumberlandcounty.ns.ca and the Nova Scotia Public Tenders website at www.gov.ns.ca/tenders.

The Invitation, or any supplementary document or portion thereof is proprietary information, and must not be used by the Bidder for any purpose other than the submission of Bids without the permission of the Municipality of Cumberland.

It is the responsibility of the proponent to ensure all addenda have been received. Addenda will be posted at the above noted locations.

5. Vendor Registration

Bidder Registration: There is no requirement for Bidders to register with the Municipality of Cumberland Supplier Registry to receive Invitation documents or submit Bids.

Corporate Registration: All Bidders must comply with the Nova Scotia Corporations Registration Act or the Partnerships and Business Names Registration Act. Bidders located outside Nova Scotia (which are not otherwise carrying on business in Nova Scotia) are expected to be registered in an equivalent manner in

their respective jurisdictions. Verification of registration and good standing may be required before an award is made to a successful Bidder.

All Bidders must maintain their tax status in good standing. Verification of tax status with the Department of Finance and/or Canada Customs and Revenue Agency (GST/HST) may be required before an award is made to a successful Bidder.

6. Liability for Costs

Bidders are responsible for their own expenses in preparing, delivering or presenting a Bid and for subsequent negotiations with the Municipality of Cumberland, if any. The Municipality of Cumberland will not defray any costs incurred by a Bidder in responding to an Invitation.

The Municipality of Cumberland will not be responsible for any costs, expenses, losses, damages or liability incurred by the Bidder as a result of, or arising out of, the submission of any Bid, or due to the MC not accepting or rejecting any Bid.

7. Supporting Documents

A brief supplementary statement may be included with the response to an item to give the evaluators a clear understanding of the products/ personnel proposed and their ability to perform the specified tasks.

In addition to the responses requested in the Invitation, Bidders may include specifications on some or all proposed items for evaluation purposes.

Supporting documents should be suitably cross-referenced to the Invitation.

8. Unit Prices and Extensions; Taxes excluded; Currency; Shipping Costs

All prices should be extended and totaled. The extended price is derived by multiplying the unit price by the quantity of units required.

In the event of an error in calculation of the extended price, the unit price will be taken as correct and will govern in the Bid evaluation and contract administration.

Do not include any Provincial or Federal sales taxes in the price.

All prices should be quoted in Canadian dollars unless other currencies are specifically requested.

Shipping, cartage, loading, insurance and handling charges must be included in the total price. If these charges have not been stated specifically, it will be assumed that they have been included in the Bid price, i.e. FOB to the destination(s) listed in the Invitation. The Municipality of Cumberland will not assume responsibility for any goods or services until they have been delivered to the destination(s) specified in the Invitation.

Unless stated otherwise in the Invitation, a firm, all-inclusive price is required, i.e. hourly rates or "Time and Materials" are not acceptable responses.

9. Duration of Bid/Award Prices

If the Bid is accepted, prices must remain firm for the duration of the contract unless otherwise specified.

Unless stated otherwise in the Invitation, Bids must remain open to acceptance and are irrevocable for a period of 90 days after the Invitation closing date.

10. Payment Terms and Discounts

If special payment terms or schedules are required, these must be specified in the Bid; otherwise, the Municipality of Cumberland payment terms (net 30 days) will apply.

Early payment discount terms (minimum period 10 days) may be considered in the evaluation of a Bid.

Payment of term discount invoices will be calculated from the date the invoice or goods/services have been received, whichever is later.

Discount terms must appear on the Bid, and on the invoice.

11. Delivery

Where the Invitation includes a mandatory delivery schedule, the Municipality will assume that the Bidder can meet the requested schedule and is satisfied that the goods or services required will be available for delivery on the requested date(s).

If Bidders wish to specify a delivery schedule different from that requested in the Invitation, they must provide specific delivery dates or a schedule in calendar days from the date a Purchase Order is issued. Bids that do not meet the delivery schedule as requested in the Invitation may be rejected.

Time is of the essence, and Bidder's delivery schedule is legally binding. The Municipality of Cumberland reserves the right to assess penalties or cancel awards to Bidders who fail to meet their stated delivery or completion dates.

12. Quality/Complete Product

Unless otherwise stated in the Invitation, all material included in the Bid must be new, first quality goods; used, refurbished, second, obsolete, discontinued or demonstrator items must only be proposed if the Invitation specifically requests or otherwise states that such goods will be allowed.

By submitting a Bid, Bidder guarantees that, unless the Invitation specifies otherwise, all components required to make the required equipment or system operable or to deliver the required services have been included in the Bid, or will be provided at no additional charge to the Municipality.

Where applicable, the end user must be provided with complete operation manuals, warranty registration forms, user licenses/ authentications and/or other associated documentation normally provided by the manufacturer, reseller, installer and/or consultant.

13. Substitutions and Equivalents, Discontinued Items

The specifications in the Invitation define the minimum acceptable goods and/or services required. Minor deviations from the specifications may or may not be permitted at the sole discretion of the Municipality.

The Invitation may specify items by brand name and/or model number to designate the design, type of construction, quality, functional capability and/or performance level of the product requested.

If an item has been discontinued during the Invitation process, or is otherwise unavailable, the Municipality of Cumberland will cancel the Invitation, or will issue an Addendum to update the specification. Bidders should notify the Municipality immediately when they become aware of any discontinuation of specified items.

If Bidders feel that they can provide items with equivalent or better functionality at the same or lower cost, they may be able to offer a substitute item. Substitutions offered must be of equal or better quality and clearly identified, and accompanied by brochures and technical information to permit evaluation of the item being offered. Substitution items must be identified by manufacturer's stock/part number and other descriptive information to establish equivalency. Substitutions offered without documentation sufficient to determine equivalency may be rejected as non-compliant.

The Municipality of Cumberland reserves the right to inspect or test any product bid to determine equivalency, and may require demonstrator or sample items in order to be able to evaluate the items proposed. The Municipality will be the sole judge of equivalency.

Specifications may, for technical or logistical reasons, require that the items specified be supplied without substitution.

14. Standards and Certification

Where applicable, all equipment must be certified by the appropriate regulatory agencies (e.g. Canadian Standards Association, Communications Canada, Transport Canada, Canadian Gas Association, Health Canada, etc.), and/or must be approved by the appropriate Provincial agency (e.g. Office of the Fire Marshal).

15. Addenda, Corrections or Extensions of the Invitation

The Municipality of Cumberland reserves the right to modify the terms of the Invitation at any time prior to closing, at its sole discretion.

The Municipality of Cumberland will make information available to the public regarding any changes made to the Invitation, or any change in the closing date or time by posting the addenda on the Provincial website at www.gov.ns.ca/tenders . Bidders are responsible for ensuring that they are aware of and have complied with any Addenda. All addenda will form part of the Contract Documents.

When these changes occur within five business days of the closing date, the closing date may be extended to allow for a suitable Bid preparation time.

16. Environmental Considerations

The Municipality of Cumberland may seek to purchase recycled and/or environmentally sensitive products where practical and effective.

Where appropriate, the integration of environmental considerations into Invitations may be noted in the specifications; the specifications will identify these considerations to ensure that suppliers have a full understanding of the conditions to be met.

17. Warranty & Warranty of Title

The Bidder must describe the duration, type (e.g. on-site, depot, ship-in or carry-in) and terms of the manufacturer's warranty on all goods.

If the Bidder provides any additional/ supplementary warranty coverage, describe this as well.

If warranties can be upgraded or extended, identify the upgrade costs separately. Do not include warranty upgrade or extension costs in the Bid price unless the Invitation specifically states that the upgrade is a mandatory requirement.

If local service is a requirement of the Invitation, describe the means by which this will be accomplished, i.e. by "own forces" or through a contractual arrangement with a third party (which must be identified - see Section 20 "Subcontractors and Consortium Bids").

Title to all materials and equipment shall be furnished free and clear of all liens, charges or other encumbrances.

18. No Restriction on Fair Use

The Bidder warrants that there are no patents, trademarks or other rights restricting the use, repair or replacement of the goods or services furnished or any part thereof. The Bidder agrees to indemnify and save harmless the MC from and against all claims filed or prosecuted in any manner because of such use, repair or replacement of the goods or services being a violation of any patent, trademark, or other right.

19. Subcontractors and Consortium Bids

The use of a subcontractor is permitted, and encouraged where this will result in skills and technology transfer to the Municipality of Cumberland.

Names of all Subcontractors and/or Consortium members, and the services they will provide, must be listed on or attached to the Bid, if requested.

If a Consortium Bid is being submitted, one of the Bidders must be prepared to take overall responsibility for successful provision of the goods or services, and this must be defined in the Bid. Failure to do so may result in disqualification of the Bid.

"Own Forces" may only be named as Subcontractors when the Bidder is equipped to carry out and normally carries out the work noted.

If subcontractors (including "own forces") are named, work must be carried out by the named forces and substitution of others will not be allowed without prior approval of the Municipality.

20. Right to Reject; Financial Stability; Non-Compliance

Failure to comply with any of the mandatory terms or conditions contained or referenced in the Invitation documents may result in the rejection of the Bid.

All of the terms, conditions and/or specifications stated or referenced in the Invitation are assumed to be accepted by the Bidder and incorporated in the Bid.

Bidders may be required to demonstrate financial stability, authorization to provide the goods/services being acquired, and/or regulatory agency approval, licensing or registration as needed, or otherwise clarify Bidder's capability to satisfy the Invitation requirements. The Municipality of Cumberland reserves the right to reject Bids from any Bidder that it feels is incapable of providing the necessary labour, materials, equipment, financing or management resources to perform the work or supply the goods in a satisfactory and timely manner.

The Municipality of Cumberland reserves the right to waive minor non-compliance where such non-compliance is not of a material nature in its sole and absolute discretion, or to accept or reject in whole or in part any or all Bids, with or without giving notice. Such minor non-compliance will be deemed substantial compliance and capable of acceptance. The Municipality of Cumberland will be the sole judge of whether a Bid is accepted or rejected.

The Municipality of Cumberland reserves the right to split an award amongst Bidders as deemed in the best interests of the Municipality.

21. Cancellation; No Award

Issuing an Invitation implies no obligation on the Municipality of Cumberland to accept any Bid, or a portion of any Bid submitted. The lowest or any Bid may not necessarily be accepted.

Invitations may be cancelled in whole or in part without penalty, when a) the price Bid exceeds the funds allocated for the purchase; b) there has been a substantial change in the requirements after the Invitation has been issued; c) information has been received by the Municipality of Cumberland after the Invitation has been issued that the Municipality feels has substantially altered the procurement; or d) there was insufficient competition in order to provide the level of service, quality of goods or pricing required.

If no compliant Bids are received in response to an Invitation, the Municipality of Cumberland reserves the right to enter into negotiations with one or more vendors in order to complete the procurement.

The Municipality of Cumberland will be the sole judge of whether there is sufficient justification to cancel any Invitation.

No action or liability will lie or reside against the Municipality of Cumberland in its exercise of its rights under this section.

22. Governing Laws and Trade Agreements

Unless the Invitation documents specifically state otherwise, the Invitation, all Bids, and any subsequent contracts will be construed and interpreted in accordance with the laws of the Province in which the Invitation was issued.

Invitations subject to the Atlantic Procurement Agreement, the Agreement on Internal Trade, or any other inter-provincial agreement, will be specifically identified as such in the public notice and/or the Invitation documents.

Copies of any applicable trade or procurement agreements and/or legislation can be obtained by contacting the Municipality of Cumberland.

Bidders agree to comply with all applicable laws, regulations and standards, including all labour, occupational health & safety, and worker compensation requirements of the Province of Nova Scotia.

The Municipality of Cumberland may consider and evaluate any Bids from other jurisdictions on the same basis that the purchasing authorities in those jurisdictions would treat a similar Bid from a supplier located in this Province. The Municipality of Cumberland will be the sole judge of whether these conditions will be used and the extent to which they will be applied.

Vendors registered to do business in any Atlantic Province can bid on Invitations issued by any other Atlantic Province without having to satisfy any local registration or residency requirements.

Under Canadian law (and international agreements), your Bid must be arrived at separately and independently, without conspiracy, collusion or fraud; see http://www.competitionbureau.gc.ca/internet/index.cfm for further information.

23. Confidentiality and Freedom of Information

All Bids submitted become the property of the Municipality of Cumberland. By submitting a Bid, the Bidder hereby grants the Municipality a license to distribute, copy, print or translate the Bid for the purposes of the Invitation. Any attempt to limit the Municipality's right in this area may result in rejection of the Bid.

Bidder's Bid package may be subject to disclosure under the Province's "freedom of information" legislation. By submitting a Bid, the Bidder agrees to the appropriate disclosure of the information

supplied, subject to the provisions of the governing law. The Municipality cannot guarantee the confidentiality of the complete content of any Bid after the procurement has been awarded to the successful Bidder.

During the delivery and installation of goods and/or services, the Bidder or Bidder's staff may have access to confidential information belonging to the Municipality. Should this occur, the Bidder must ensure that such information is not released to any third parties or unauthorized individuals; failure to comply may result in criminal or civil charges and/or the Bidder's disqualification from any further Invitations issued by the Municipality of Cumberland.

The Municipality of Cumberland is required to comply with the Personal Information International Disclosure Protection Act (S.N.S 2006, c.3). This Act creates obligations for the Municipality of Cumberland and its service providers when personal information is collected, used or disclosed. Requirements include limiting storage, access and disclosure of personal information to Canada, except as necessary or otherwise required by law. For more information on this Act please click here. (http://www.gov.ns.ca/just/IAP/governing_law.asp)

24. Enquiries and Contacts

In case of any dispute over the completeness, accuracy and/or interpretation of any Invitation documents, the versions of such documents held by the Municipality of Cumberland will be considered correct.

Information, offers, commitments or instructions obtained from any source other than the Municipality of Cumberland will not be binding on the Municipality.

Enquiries regarding the Invitation must be made to the contact(s) named in the Invitation documents (or their designates); quote the Invitation number on any correspondence.

If an envelope was included with the Invitation documents, this envelope must not be used to submit an enquiry; these envelopes are not opened before the closing time for receipt of Bids.

Enquiries and the responses given may be recorded and may be distributed to all other Bidders as Addenda. No response shall be binding on the Municipality unless made in writing.

All enquiries regarding the interpretation of these Terms and Conditions, general procurement policy or procedures must be made to the Municipality of Cumberland.

25. Accuracy of the Invitation; Right to Clarify

While the Municipality of Cumberland has tried to ensure accuracy in the Invitation, it is not guaranteed or warranted by the Municipality to be accurate, nor is it necessarily comprehensive or exhaustive.

The Municipality will assume that all Bidders have resolved any questions they might have about the Invitation and have informed themselves as to existing conditions and limitations, site restrictions, etc. before submitting their Bids.

Nothing in the Invitation is intended to relieve Bidders from forming their own opinions and conclusions with respect to the matters addressed in the Invitation or its associated documents.

The Municipality of Cumberland reserves the right in its sole discretion to clarify any Bid after closing by seeking further information from that Bidder, without becoming obligated to clarify or seek further information from any or all other Bidders. However, Bidders are cautioned that any clarifications sought will not be an opportunity either to correct errors or change their Bids in any substantive manner.

The Municipality of Cumberland follows the Atlantic Standard Terms & Conditions for Goods and Services. Any discrepancy between this document and the Atlantic Standard Terms and Conditions; the Atlantic Standard Terms and Conditions shall prevail. Failure to comply with these Terms and Conditions could cause the Bidder's Bid to be disqualified.

26. Language

Unless specifically requested otherwise, all Bids, supporting materials, operation manuals and documentation must be in English, or both English and French.

27. Eligibility and Conflict of Interest

A Bid may not be eligible for acceptance if current or past corporate or other interests of the Bidder may, in the Municipality of Cumberland's opinion, give rise to a conflict of interest in connection with a project.

Bidders are cautioned that acceptance of their Bid may preclude them from bidding on subsequent phases where a conflict of interest may arise; Bidders should study the project implementation strategy to determine whether or not they plan to submit Bids on subsequent phases.

If the Bid covers the first phase of what may prove to be a multi-phased project, the successful Bidder on the initial phase may be permitted to bid on subsequent phases as long as, in the Municipality's opinion, no conflict of interest would be created in performance of the work by that Bidder.

Sub-contracting to any firm or individual whose current or past corporate or other interests may, in the Municipality's opinion, give rise to a conflict of interest in connection with this acquisition will not be permitted. This includes, but is not limited to, any firm or individual involved in the preparation of the Invitation documents.

28. PROTECTION OF MUNICIPALITY OF CUMBERLAND AGAINST LAWSUITS

.1 Release

Except only and to the extent that the Municipality of Cumberland is in breach of Section 24 – Confidentiality and Freedom of Information, the Bidder now releases the Municipality of Cumberland from all liability for any Losses in respect of:

.1 any alleged (or judicially imposed) breach by the Municipality of Cumberland of the Tender (it being acknowledged and agreed that to the best of the parties' knowledge, the

Municipality of Cumberland has no obligation or duty under the Tender which it could breach (other than wholly unanticipated obligations or duties merely alleged or actually imposed judicially));

.2 any unintentional tort of the Municipality of Cumberland occurring in the course of conducting this Tender process;

.3 the Bidder preparing and submitting its Tender;

.4 the Municipality of Cumberland accepting or rejecting its Tender or any other submission;

.5 the manner in which the Municipality of Cumberland:

(a) reviews, considers, evaluates or negotiates any Tender,

(b) deals with or fails to deal with any Tender or Tenders, or

(c) decides to enter into a Contract or not enter into any Contract; and

(d) the bidder(s), if any, with whom the Municipality of Cumberland enters a Contract.

.2 Indemnity

Except only and to the extent that the Municipality of Cumberland breaches Section 24 – Confidentiality and Freedom of Information, the Bidder now indemnifies and will protect and save the Municipality of Cumberland harmless from and against all Losses, in respect to any claim or threatened claim by the Bidder or any of its Sub-contractors or agents alleging or pleading.

.1 any alleged (or judicially imposed) breach by the Municipality of Cumberland or its officials or employees of the Tender (it being agreed to that, of the best of the parties' knowledge, the Municipality of Cumberland has no obligation or duty under the Tender which it could breach other than wholly unanticipated obligations or duties merely alleged or actually imposed judicially),

.2 any unintentional tort of the Municipality of Cumberland or its officials or employees occurring in the course of conducting this Tender process, or

.3 liability on any other basis related to this Tender or the Tender process.

.3 Limitation

In the event that, with respect to anything relating to the Request for Tenders or this Tender process (except only and to the extent that the Municipality of Cumberland breaches 29.3 – Limitation, Section 29.4 – Dispute Resolution, Section 24 –Confidentiality and Freedom of Information), the Municipality of Cumberland or its officials, officers, agents or employees are found to have breached (including fundamentally breached) any duty or obligation of any kind to the Bidder or its Sub-contractors or agents whether at law or in equity or in contract or in tort, or are found liable to the Bidder or its Sub-contractors or agents on any basis or legal principle of any kind, the Municipality of Cumberland liability is limited to a maximum of $100, despite any other term or agreement to the contrary.

.4 Dispute Resolution

Any dispute relating in any manner to this Request for Tenders or the Tender process (except only and to the extent that the Municipality of Cumberland breaches Section 29.3 – Limitation, Section29.4 – Dispute Resolution, Section 24 –Confidentiality and Freedom of information, and also excepting any disputes arising between the Municipality of Cumberland and any bidder with whom the Municipality of Cumberland has entered a Contract) will be resolved by arbitration in accordance with the CCDC 40.

29. Survival/Legal Effect of Tender Contract

All of the terms of this Attachment A to this Tender Form which by their nature require performance or fulfillment following the conclusion of the Tender process will survive such issuance and will remain legally enforceable by and against the Bidder and the Municipality of Cumberland.

AS EVIDENCE OF THE BIDDER'S INTENT TO BE LEGALLY BOUND BY THIS ATTACHEMENT A, THE BIDDER HAS EXECUTED AND DELIVERED THIS ATTACHMENT 'A', AS AN INTEGRAL PART OF ITS TENDER FORM IN THE MANNER AND SPACE SET OUT BELOW:

_____ _____

Authorized Signatory for the Bidder Date

_____

Print Name and Title

END

1. Salutation:

.1 To: The Municipality of the County of Cumberland
1395 Blair Lake Road, Upper Nappan, NS, B4H 3Y4

.2 For: McGee Street Culvert Replacement
Tender # T-MCC-1901

.3 From: _____

2. Tenderer Declares:

.1 That this tender was made without collusion or fraud.

.2 That the proposed work was carefully examined.

.3 That the Tenderer was familiar with local conditions.

.4 That Contract Documents and Addenda No. __ to ___ inclusive were carefully examined.

.5 That all the above were taken into consideration in preparation of this Tender.

3. Tenderer Agrees:

.1 To enter into a contract to supply all labour, material, and equipment and to do all work necessary to construct the Work as described and specified herein for the unit prices stated in Subsection 4 hereunder, Schedule of Quantities and Unit Prices.

.2 That the Estimated Contract Price shall be the sum of the products of the tendered unit prices times the estimated quantities in Subsection 4 hereunder.

.3 That this Tender is valid for acceptance for 90 days from Tender Closing.

.4 That measurement and payment for items listed in Subsection 4 hereunder shall be in accordance with corresponding items in Section 01 22 00 Measurement and Payment.

.5 To provide evidence of ability and experience within five (5) working days of request, including: experience in similar work, work currently under contract, senior supervisory staff available for the project, equipment available for use on the Work, and financial resources.

.6 To execute in triplicate the Agreement and forward same together with the specified contract security and insurance documents to the Owner within ten (10) working days of written notice of award.

.7 That failure to provide post-tender submission documents or failure to enter into a formal contract and provide specified insurance documents and contract security within time required will constitute grounds for forfeiture of tender security.

.8 That if tender security is forfeited, Owner will retain difference in money between amount of tender and amount for which Owner legally contracts with another party to perform the Work and will refund balance, if any, to tenderer.

.9 That the Contract Documents include:

.1 Standard Specifications for Municipal Services listed in Table of Contents Page Dated January, 2019.
.2 Tender Form
.3 Form of Agreement
.4 Attachment 'A'
.5 Supplementary Specifications
.1 Section 00 74 00 – Supplementary Specifications
.6 Drawings
McGee Street Culvert Replacement, prepared by DesignPoint, Revision 5 dated May 27, 2019, Reissued for Tender
Sheet 1: McGee Street Plan & Profile 0+000 to 0+105
Sheet 2: Storm Drainage Plan & 1:1 Culvert Profile
.7 Addenda as issued and as confirmed in subsection 2.4 of this section.

4. Schedule of Quantities and Unit Prices

ID	Description	Unit of Measurement	Estimated Quantity	Unit Price	Total Price
19	Field Data Collection and Record Information	LS	1	$	$
37	Culverts				
.1	2400mm x 1800mm Precast Concrete Box Culvert	m	25	$	$
48	Guardrail	m	62	$	$
64	Chain Link Fence	m	56	$	$
				Sub Total	$

SUB TOTAL	$_____
CONTINGENCY ALLOWANCE	$_____
ESTIMATED CONTRACT PRICE (EXCLUDING HST)	$_____
ADD HARMONIZED SALES TAX (15%)	$_____
TOTAL PRICE	$_____
TENDERER'S HST REGISTRATION NO.	_____

5. Completion Time

.1 Tenderer agrees to complete the Work within eight weeks of written notification of award. Work within the watercourse must comply with all rules and regulations set out by Nova Scotia Environment in the Watercourse Alteration Approval, including but not limited the allowable construction duration set out in any granted extensions to the approval.

6. Signatures*

DATED THIS _____ DAY OF_____ , 2019.

[Seal]

_____
Name of Firm Tendering

_____ _____
Witness Signature of Signing Officer

_____
Name and Title (Printed)

_____ _____
Witness Signature of Signing Officer

_____
Name and Title (Printed)

_____
Company Address

_____
Telephone No.

_____
Fax No.

*NOTE: Tenders submitted by or on behalf of any Corporation must be signed and sealed in the name of such Corporation by a duly authorized officer or agent.

END

This Agreement made on the ____ day of _____ in the year_____.

BY AND BETWEEN

The Municipality of the County of Cumberland, 1395 Blair Lake Road, Upper Nappan, NS, B4H 3Y4

hereinafter called the "Owner"

and

hereinafter called the "Contractor"

The Owner and the Contractor agree as follows:

ARTICLE A1 - THE WORK

The Contractor shall:

.1 Perform the Work required by the Contract Documents for

McGee Street Culvert Replacement

located at McGee Street, Springhill, NS

for which the Agreement has been signed by the parties, and for which
DesignPoint Engineering & Surveying Ltd.

is acting as and is hereinafter called the “Engineer”

and

.2 do and fulfill everything indicated by this Agreement, and

.3 commence the Work by the ___ day of _____in the year _____ and attain Substantial Performance of the work as certified by the Engineer by the __ day of _____in the Year 2019.

ARTICLE A2 – AGREEMENTS AND AMENDMENTS

This Contract supersedes all prior negotiations, representations or agreements, either written or oral, relating in any manner to the work, including the bidding documents that are not expressly listed in Article A3 of the Agreement.

ARTICLE A3 - CONTRACT DOCUMENTS

The following is an exact list of the Contract Documents referred to in Article A1.1 of this Agreement and as defined in subsection 6 of Section 00 71 00 DEFINITIONS. This list is subject to subsequent amendments in accordance with the provisions of the Contract Documents.

.1 Standard Specifications for Municipal Services listed in Table of Contents Page Dated January, 2019.
.2 Tender Form
.3 Form of Agreement
.4 Attachment 'A'
.5 Supplementary Specifications
  .1 Section 00 74 00 – Supplementary Specifications
.6 Drawings
  McGee Street Culvert Replacement, prepared by DesignPoint, Revision 5 dated May 27, 2019, Reissued for Tender
  Sheet 1: McGee Street Plan & Profile 0+000 to 0+105
  Sheet 2: Storm Drainage Plan & 1:1 Culvert Profile
.7 Addenda as issued and as confirmed in subsection 2.4 of this section.

ARTICLE A4 - CONTRACT PRICE

.1 The Contract Price is the sum of the products of the estimated quantities multiplied by the appropriate Unit Prices in the Tender Form excluding the amount of Harmonized Sales Tax.

.2 The Contract Price is $ _____

.3 All amounts shall be in Canadian funds.

.4 The amounts shall be subject to adjustment as provided in the Contract Documents.

ARTICLE A5 - PAYMENT

.1 The Owner shall pay the Contractor in Canadian funds for the performance of the Contract.

.2 The Owner shall make monthly payments on account to the Contractor for the Work performed, as certified by the Engineer, subject to a 10% holdback.

.3 The amount of the monthly payments shall be calculated as follows:
  .1 The quantity for each pay item on which actual work has been performed shall be measured.
  .2 For each Unit Price item this quantity shall be multiplied by the applicable Unit Price as provided in the Tender Form.
  .3 For each lump sum item, multiply the percent complete by the value of the lump sum item.
  .4 The total value of work completed for the payment period shall be calculated by adding the total of the products for all pay items from 3.2 and 3.3 of this Article.
  .5 The amount of the monthly payment shall be determined by deducting the 10% holdback and the total of all previous payments from the total value of such completed work as determined under 3.4 of this Article.

.6 To the amount calculated above, the Harmonized Tax will be added.

.4 The last day of the payment period shall be the last Friday of the month.

.5 Upon Substantial Performance of the Work as certified by the Engineer the Owner shall pay to the Contractor the holdback monies then due in accordance with the provisions of Section 00 72 45 - General Conditions, subsection GC5.8 – PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK.

.6 Upon the issuance of the final certificate for payment as certified by the Engineer, the Owner shall pay to the Contractor the balance of monies then due in accordance with the provision of Section 00 72 45 - General Conditions, subsection GC5.10 – FINAL PAYMENT.

.7 In the event of loss or damage occurring where payment becomes due under the property and boiler insurance policies, payment shall be made to the Contractor in accordance with the provisions of Section 00 72 45 - General Conditions, subsection GC11.1 - INSURANCE.

.8 If the Owner fails to make payment to the Contractor as it becomes due under the terms of the Contract, interest shall be payable as follows:

.1 The annual interest rate applicable to the contract is 5% compounded monthly.

.2 Interest shall be calculated on the overdue balance from the due date.

ARTICLE A6 - RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING

.1 Notices in writing will be addressed to the recipient at the address set out below.

.2 The delivery of a Notice in Writing will be by hand, by courier, by prepaid first class mail, or by facsimile or other form of electronic communication during the transmission of which no indication of failure of receipt is communicated to the sender.

.3 A Notice in Writing delivered by one party in accordance with this Contract will be deemed to have been received by the other party on the date of delivery if delivered by hand or courier, or if sent by mail it shall be deemed to have been received five (5) working days after the date on which it was mailed.

.4 A Notice in Writing sent by facsimile or other form of electronic communication shall be deemed to have been received on the date of its transmission provided that is such day is not a Working Day or if it is received after the end of normal business hours on the date of its transmission at the place of receipt, then it shall be deemed to have been received at the opening of business at the place of receipt on the first Working Day next following the transmission thereof.

.5 An address for a party may be changed by Notice in Writing setting out the new address delivered to the other party in accordance with this Article.

.1 The Owner at 1395 Blair Lake Road, Upper Nappan, NS, B4H 3Y4

.2 The Contractor at _____

.3 The Engineer at 222 Waterfront Drive, Suite 104, Bedford, NS, B4A 0H3

ARTICLE A7 - QUANTITIES AND MEASUREMENT

.1 The quantities shown in Section 00 41 43 Tender Form - Schedule of Quantities and Unit Prices are estimated.

.2 Measurement for the actual quantities used to determine payments and Contract Price shall be in accordance with Section 01 22 00 - Measurement and Payment.

ARTICLE A8 - SUCCESSION

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

ARTICLE A9 - RIGHTS AND REMEDIES

No action or failure to act by the Owner, Engineer, or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

ARTICLE A10 - TIME

Time shall be construed as being the essence of the Contract.

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

SIGNED AND DELIVERED
In the presence of:

OWNER

_____
Name of Owner

_____ _____
Witness *Signature*

_____
Name and Title of Person Signing

_____ _____
Witness *Signature*

_____
Name and Title of Person Signing

CONTRACTOR

_____
Name of Contractor

_____ _____
Witness *Signature*

_____
Name and Title of Person Signing

_____ _____
Witness *Signature*

_____
Name and Title of Person Signing

N.B. Where legal jurisdiction, local practice or Owner or Contractor requirements calls for (a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Agreement for and on behalf of the corporation or partnership; or (b) the affixing of a corporate seal, this Agreement should be properly sealed.

END

INTENT

.1 Construct the Work of this Contract in accordance with the Standard Specifications for Municipal Services as developed by the Nova Scotia Road Builders Association and the Consulting Engineers of Nova Scotia Joint Committee on Contract Documents, except as modified herein.

.2 These Supplementary Specifications modify the specification sections to which they refer.

.3 The Supplementary Specifications take precedence over the Standard Specification to which they refer.

Delete Subsection GC 11.2 – Contract Security and replace with the following

GC 11.2 CONTRACT SECURITY

. 1 The Contractor shall provide to the owner within fourteen (14) days of acceptance of the Tender a Performance Bond in the amount of the Estimated Contract Price or the owner will retain the tender deposit until the work has been substantially completed, as determined by the Director, Engineering and Operations.

SECTION 01 10 00: GENERAL REQUIREMENTS

Delete Subsection 2 – SUMMARY OF WORK and replace with the following

2. SUMMARY OF WORK

.1 McGee Street is a local street located in Springhill, NS. This project includes the supply and replacement of culverts that cross under this street.

.2 The Work includes obtaining all necessary approvals and permits from the appropriate regulatory bodies as well as any associated costs, and compliance with all approvals and permits.

.3 The Work includes all traffic control and detours as per the Municipality of Cumberland requirements and Nova Scotia Department of Transportation and Infrastructure Renewal (NSTIR) Temporary Workplace Traffic Control Manual.

.4 The Work includes erosion control, protection and reinstatement of all disturbed areas to pre-construction condition or better.

.5 The Work includes coordination with utilities for location of any existing infrastructure and alteration of this infrastructure.

.6 The Work includes coordination with the Public Works Department for the water main crossing the culvert. Public Works will turn off this section of watermain and disconnect it from the water main. The Contractor will complete replacement of the culverts and backfill to road subgrade. The Contractor shall allow Public Works sufficient time (two weeks minimum) to install a new section of water main, connect it, pressure test, disinfect and backfill to road subgrade.

.7 The Work includes provision of record information to include a coordinated record survey (to a geodetic datum) to include physical features, inverts of water main, pipes and culverts.

.8 The Work is subject to approval by Nova Scotia Environment.

Add the following to Subsection 12 – TRAFFIC CONTROL:

12. Traffic Control

.6 Provide access to all properties during work.
.7 Prior to any street closures, a Traffic Control Plan MUST be provided to the Municipality a minimum of one week before work commences. The traffic control plan must conform to the NSTIR Temporary Workplace Traffic Control Manual and show all street closures and detour routes and be signed off by the Paving Contractor and/or traffic control contractor.
.8 Collector and local streets may be blocked off during contract work provided any commercial business or emergency service vehicles have continual access from at least one direction.
.9 Provide and maintain all necessary street closure and detour signage. Failure to comply with these requirements will result in the Municipality shutting work down until the traffic control requirements are fully complied with.

Section 01 22 00: MEASUREMENT AND PAYMENT

Delete GENERAL and replace with the following:

GENERAL

1. Unit prices shall be full compensation for the work necessary to complete each item in the Contract and in combination for all work necessary to complete the Work as a whole.

2. For water, sanitary sewers, and storm sewer systems include all of the following as required where individual quantities are not provided in the Tender Form: environmental protection, protection of existing trees, clearing and grubbing, common and rock excavation, shoring, dewatering, protection and shoring of existing pipes and infrastructure, bedding, backfilling, compaction, disposal of surplus material, disposal of unsuitable material, importation of material, joint restraints and thrust blocks, thrust anchors, testing, flushing and disinfection, dechlorination, marker stakes, tracer wire, traffic control, reinstatement, shop drawings, manhole and catchbasin frames, covers, and grade adjustment rings, and all incidentals.

3. All measurement shall be along a horizontal plane unless otherwise indicated.

4. The numbers of the items described below correspond to the numbers of the items in Section 00 41 43, subsection 4 – Schedule of Quantities and Unit Prices.

Delete subsection 19 and replace with the following:

19. Field Data Collection and Record Information

Unit of Measurement: Lump Sum (LS)

This item includes: field collection of survey data of the constructed works, preparation of point files, red line markup of drawings, and provision of all record information to the Municipality.

Delete subsection 37 and replace with the following:

37. Culverts

Unit of Measurement: metre (m)

Method of Measurement: along centreline of pipe.

This item includes: removal and disposal of existing culverts, supply and installation of new precast concrete box culvert, headwalls, tapered ends, cut off walls, boulders, armour rock (surge rock), rip rap, plunge pools, reinstatement of all disturbed areas (including, but not limited to, gravels, asphalt, sidewalk, and landscaped areas), any required stream flow diversion around the work area using a pump, environmental protection, protection of existing trees, clearing and grubbing, common and rock excavation, shoring, dewatering, protection and shoring of existing pipes, utility poles, and infrastructure, bedding, backfilling, compaction, disposal of surplus material, disposal of unsuitable material, importation of material, traffic control, shop drawings, record survey, all other work as shown on the drawings, and all incidentals.

Delete subsection 64 and replace with the following:

64. Chain Link Fence

Unit of Measurement: metre (m)

Method of Measurement: along top of fence fabric, through posts.

This item includes: removal and disposal of existing fencing, rails, footings, and posts, as well as excavation and backfill, supply and installation of replacement concrete footings, posts, rails, gates, fabric, fittings and accessories, and surface reinstatement. The replacement fence shall be of the same height (approx.. 2.1 m) and otherwise comply with NSTIR Standard Specification for security fence HS-602.

END

PART 1 - GENERAL

1.1 Work Included

.1 This section specifies requirements for constructing precast concrete box culverts. Work includes supply and installation box sections.

1.2 Related Sections

.1	Concrete	Section 03 30 00
.2	Metal Fabrications	Section 05 50 00
.3	Earthwork	Section 31 20 00
.4	Reinstatement	Section 32 98 00
.5	Precast Manholes, Catch Basins and Structures	Section 33 39 00
.6	Standard Details	Section 39 00 00

1.3 Reference Standards

.1 ASTM C1433, Standard Specification for Precast Reinforced Box Sections for Culverts, Storm Drains, and Sewers.

.2 CAN/CSA-S6, Canadian Highway Bridge Design Code.

.3 ASTM C877, External Sealing Bonds for Concrete Pipe, Manholes, and Precast Box Sections.

.4 National Association of Sewer Service Companies (NASSCO) Specification Guidelines.

1.4 Certificates

.1 Upon request, submit manufacturer’s design criteria, design stamped by a professional engineer, test data and certification that products and materials meet requirements of this Section in accordance with Section 01 10 00 for items listed in Supplementary Specifications. Shop drawings stamped by a professional engineer to be submitted.

1.5 Handling and Storage

.1 Handle and store box sections in such a manner as to avoid shock and damage. Do not use chains or cables passed through box section. Box sections to be lifted and moved using lifting anchors and lifting eyes. Handling and storage to be conducted as per manufacturer's published recommendations.

.2 Store gaskets in accordance with the manufacturer's published instructions.

PART 2 - PRODUCTS

2.1 General

.1 Width, height, baffles, and inlet/outlet as per drawings. Box section to be structurally designed to be suitable for depth of fill and loading for depths shown on the drawings and vehicle loading corresponding to CL 625 at a minimum. Fish baffles to be pre-cast as part of each section as per requirements of the drawings where shown.

2.2 Concrete Pipe and Fittings

.1 Joints: to ASTM C877.

2.3 Grout

.1 Non-shrink: to Section 03 30 00.

PART 3 - EXECUTION

3.1 Preparation

.1 Inspect products for defects and remove defective products from site.

.2 Confirm that box sections are clean before installation.

3.2 Excavating Bedding and Backfilling

.1 Perform excavation, bedding and backfilling in accordance with Section 31 20 00.

3.3 Pipe Installation

.1 Lay and join box sections as specified herein and according to manufacturer's published instructions. Box sections to be lifted using lift anchors and lifting eyes as per manufacturers recommendations.

.2 Lay box sections on prepared bed, true to line and grade indicated within following tolerances:
.1 Horizontal Alignment: 50mm.
.2 Vertical Alignment: the lesser of 13mm or one half the rise per pipe length.

.3 Commence laying at outlet and proceed in upstream direction with groove ends facing upgrade.

.4 Prevent entry of bedding material, water or other foreign matter into pipe.

.5 Install gaskets and joint sealing bonds in accordance with manufacturer’s published instructions to achieve watertight joint.

.6 Align box sections before joining.

.7 Support box sections as required to achieve concentricity until joint is properly completed.

.8 Keep joints free from mud, silt, gravel or other foreign material.

.9 Avoid displacing gasket or contaminating with dirt, petroleum products, or other foreign material. Remove, clean, reinstall and lubricate gaskets so disturbed.

.10 Complete each joint before laying next length of box culvert.

.11 Where deflection at joints is permitted, deflect only after the joint is completed. Do not exceed maximum joint deflection recommended by manufacturer.

.12 Cut box sections as required for fittings or closure pieces, square to centerline, and as recommended by manufacturer.

3.4 Service Connections

.1 Pipe connections to box culvert to be made by coring a hole in the box section and connecting the pipe with a kor-n-tee or kor-n-seal fitting of the proper size.

3.5 Inspection

.1 Inspection of installed box culvert by television camera, photographic camera or by other visual method is required.

.2 Provide television camera inspection of box culvert.

.3 Representative from precast manufacturer to attend site at least once during installation and provide letter stating “installation is proceeding as per manufacturer recommendations”.

3.6 Closed Circuit Television Inspection

.1 Conduct closed circuit television inspection procedures to meet National Association of Sewer Service Companies (NASSCO) CCTV Inspection guidelines.

.2 Equipment:

.1 Provide equipment meeting following requirements:

.1 Self-contained, self-leveling monitoring unit and pan-tilt camera with remotely controlled lighting system capable of varying the illumination.

.2 Picture quality shall produce continuous 600-line resolution picture, showing entire periphery of pipe.

.3 A meter device with readings above ground or marking on cable to clearly identify exact location of camera.

.3 Inspection:

.1 Perform inspection of pipe from manhole to manhole by passing TV camera through sewer in direction of flow.

.2 Classify results in accordance with NASSCO Guidelines.

.4 Records:

.1 Maintain inspection record in log form, during television inspection.

.2 Log to include location of each fault and service lateral distance measured from centreline of reference manhole and position referenced to axis of pipe.

.3 Photograph fault from the television

screen. All photographs to be clear and precise with distinct definition of fault.

.4 Include detailed technical description with photographs as supporting data for each fault.

.5 Provide minimum of two (2) photographs for each sewer main section televised, detailing typical joint, and typical building service lateral.

.6 All photos and videos to be in colour.

.5 Reports:

.1 Provide a composite report of TV inspection. Enclose report in binder on letter size paper. Include following pages and information.

.1 Title page identifying project, camera operator and dates of inspection.

.2 Index page identifying street name, section from manhole to manhole, page number or numbers where information for section is contained.

.2 Organize inspection records in sequence from upstream manhole to downstream manhole.

.3 Report on each culvert to contain:

.1 Heading:

.1 Street name.

.2 Reference drawing number, if applicable.

.3 Weather on the day of inspection.

.4 Statement of soil condition in area of inspection, i.e., dry, damp, wet, frozen.

.5 Date of inspection.

.2 Key Plan, showing corresponding culvert location, magnetic north, horizontal distance, from inlet or outlet, and direction of flow.

.3 Inspection findings for each sewer main section to include:

.1 Location of all faults.

.2 Photographs of all faults.

.3 Location of all service laterals.

.4 One (1) photograph each of typical joint and typical when service laterals faults are not found.

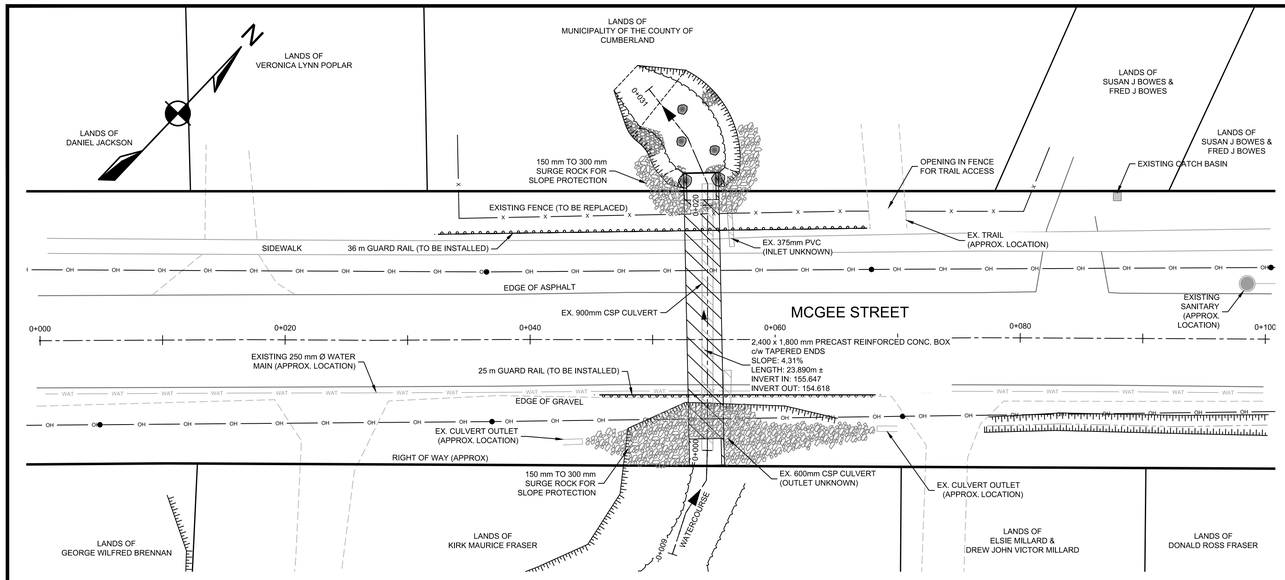
.4 Mount photographs on left-hand page and place corresponding description on right-hand page. Number all photographs in order. Number beside photograph to correspond with description number.

.5 Enclose all pages of report in transparent sheet protector.

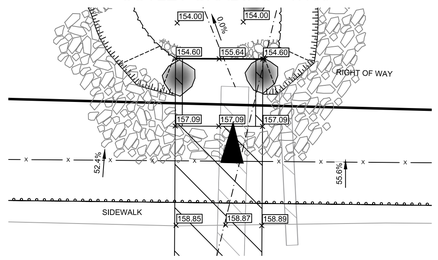
.6 Video Record:
.1 Supply a complete record of all inspections in digital format.
.2 Index all files, listing sections of inspections.
.3 Submit electronically on a thumb drive or CD/DVDs with written reports to Engineer.

.7 Repeat Inspection:
.1 Repair faults detected during television inspection. Repeat television inspection at no cost to Owner.

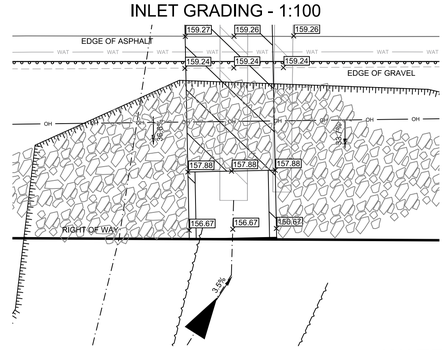
END



OUTLET GRADING - 1:100



INLET GRADING - 1:100

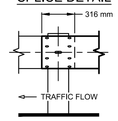


GUIDE RAIL INSTALLATION DETAIL

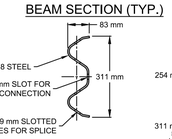
N.T.S.

A 1

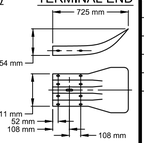
SPLICE DETAIL



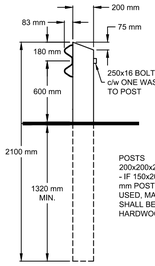
BEAM SECTION (TYP.)



TERMINAL END

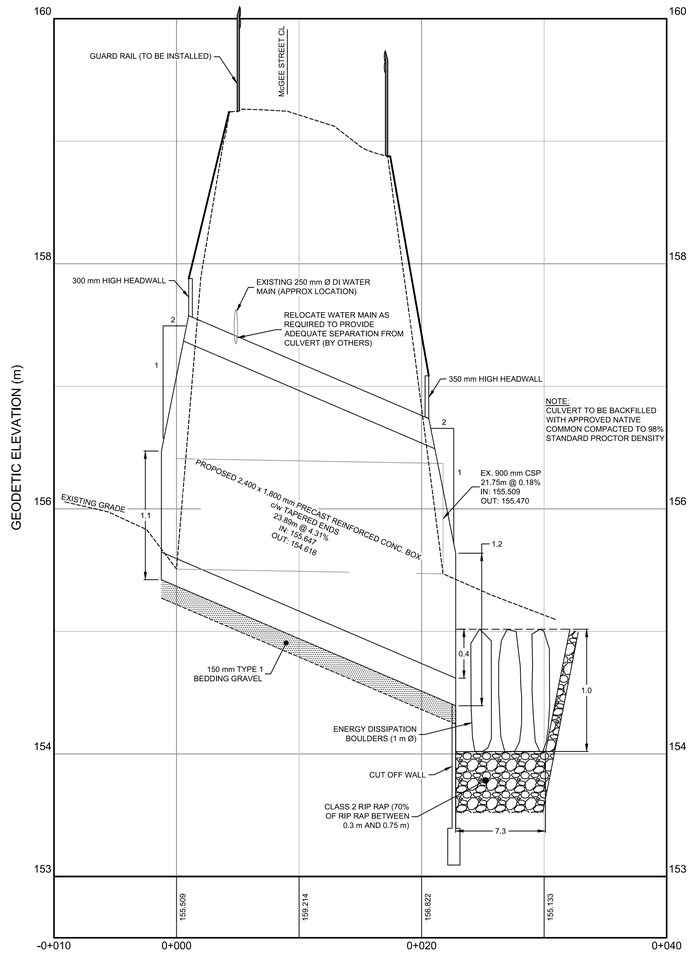


ELEVATION

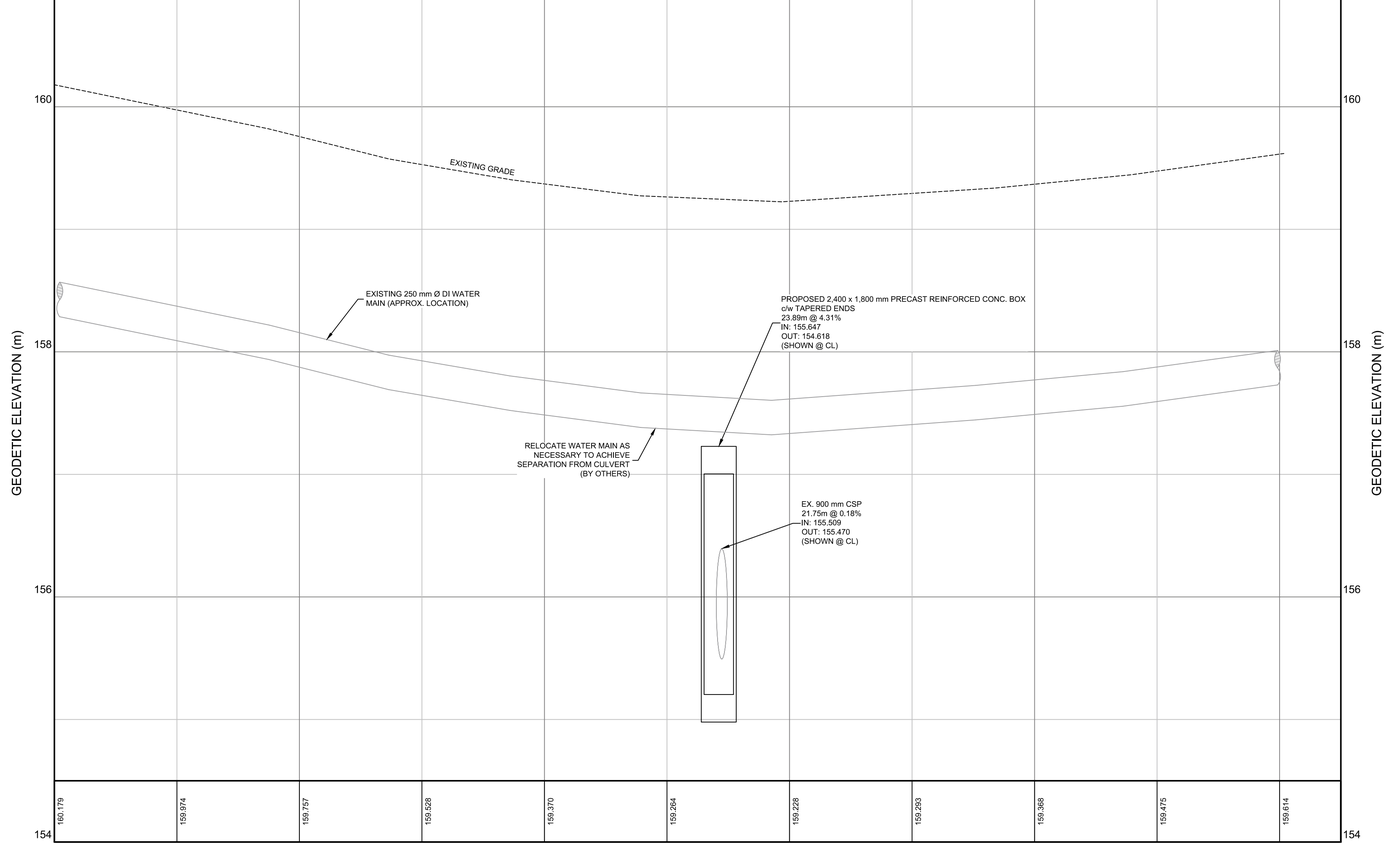


NOTES:
1. TWO 50x75 DELINEATORS ARE REQUIRED FOR EACH POST.
2. A WHITE DELINEATOR SHALL BE PLACED ON THE SIDE OF THE POST FACING TRAFFIC
3. A YELLOW DELINEATOR SHALL BE PLACED ON THE OPPOSITE SIDE
4. THE DELINEATOR SHALL BE LOCATED AT THE EDGE OF THE POST NEAREST THE ROAD, VERTICAL, WITH THE TOP 75 BELOW THE LOWEST POINT OF THE GUARDRAIL PANEL.
5. THE DELINEATOR SHALL BE ATTACHED WITH GALVANIZED NAILS.

WATERCOURSE PROFILE



McGEE STREET PROFILE



LEGEND

EXISTING GRADE	
CENTERLINE	
CULVERT	
WATERCOURSE	
GUARD RAIL	
TOP OF SLOPE	
BOTTOM OF SLOPE	
OVERHEAD LINE	OH OH OH OH OH
FENCELINE	x x x x x
UTILITY POLE	TEST PIT

GENERAL CONSTRUCTION NOTES:

1. **SAFETY IS PARAMOUNT AND THE CONTRACTOR MUST USE SAFE WORK PRACTICES IN ACCORDANCE WITH THE NOVA SCOTIA OCCUPATIONAL HEALTH AND SAFETY ACT.**
2. PROPERTY LINES AND ROAD RIGHT OF WAY ARE APPROXIMATE ONLY AND SUBJECT TO SURVEY.
3. ALL WORKS TO BE IN ACCORDANCE WITH MUNICIPALITY OF CUMBERLAND SPECIFICATIONS.
4. ALL WORKS TO BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATION FOR MUNICIPAL SERVICES" PREPARED JOINTLY BY THE NOVA SCOTIA ROADBUILDERS ASSOCIATION AND THE CONSULTING ENGINEERS OF NOVA SCOTIA (CURRENT EDITION).
5. ALL WORKS TO BE IN ACCORDANCE WITH REQUIREMENTS OF ALL PERMITS AND REGULATIONS AS ISSUED BY THE NOVA SCOTIA DEPARTMENT OF ENVIRONMENT.
6. CONTRACTOR TO NOTIFY DESIGNPOINT AND THE MUNICIPALITY OF CUMBERLAND REGARDING CONSTRUCTION SCHEDULING PRIOR TO COMMENCING CONSTRUCTION.
7. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF NATURAL WATERCOURSES FROM DAMAGE DUE TO SILT LADEN RUNOFF FROM THE CONSTRUCTION SITE. ACCEPTABLE CONSTRUCTION PROCEDURES MAY BE OBTAINED FROM "EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION SITES" (CURRENT EDITION), BY THE NOVA SCOTIA DEPARTMENT OF ENVIRONMENT.
8. ALL DISTURBED AREAS NOT STABILIZED BY GRAVEL, ASPHALT, CONCRETE, OR SOD ARE TO BE STABILIZED WITH 100mm TOPSOIL AND HYDROSEEDED. HYDROSEEDED AREAS THAT DO NOT SHOW ACTIVE GROWTH WITHIN THE FIRST GROWING SEASON TO BE RE-STABILIZED.
9. MATERIALS SHALL NOT BE SUBSTITUTED UNLESS PRIOR APPROVAL IS PROVIDED BY THE ENGINEER.
10. SHOP DRAWINGS TO BE PROVIDED FOR REVIEW AND APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION.
11. CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM WORKS AND TO COMPLY WITH ALL PERMIT REQUIREMENTS AND CONDITIONS.
12. LOCATIONS OF EXISTING INFRASTRUCTURE IS BASED ON BEST AVAILABLE INFORMATION, INCLUDING RECORD INFORMATION. CONTRACTOR TO CONFIRM LOCATIONS OF EXISTING INFRASTRUCTURE AND NOTIFY ENGINEER OF ANY DISCREPANCIES IMMEDIATELY.
13. CONTRACTOR TO ALLOW A 1 WEEK REVIEW PERIOD BY THE ENGINEER. CONTRACTOR TO VERIFY ALL EXISTING UTILITY LOCATIONS, SUCH AS HERITAGE GAS, NOVA SCOTIA POWER, BELL ALIANT, EASTLINK, AND THE MUNICIPALITY OF CUMBERLAND. CONTRACTOR TO COORDINATE ALL WORK WITH THE NECESSARY UTILITIES.
14. PERMISSION FROM LANDOWNER(S) REQUIRED TO WORK ON PRIVATE PROPERTY.
15. ALL ELEVATIONS ARE METRIC AND GEODETIC. TOPOGRAPHICAL SURVEY COMPLETED BY DESIGNPOINT ON AUGUST 12, 2016. CONTRACTOR TO CONTACT DESIGNPOINT FOR CONSTRUCTION LAYOUT CONTROL INFORMATION 2 WEEKS PRIOR TO CONSTRUCTION.
16. ALL EARTHWORK (INCLUDING SUBGRADE), TRENCH WORK, PIPE BEDDING, AND SURFACE TREATMENT (INCLUDING GRAVELS, ASPHALT, AND CONCRETE) TO BE REVIEWED AND CERTIFIED BY PROJECT GEOTECHNICAL ENGINEER.
17. DRAWINGS SUBJECT TO CONSTRUCTION APPROVAL BY THE APPLICABLE APPROVAL AGENCIES (i.e; MUNICIPALITY OF CUMBERLAND, NOVA SCOTIA DEPARTMENT OF ENVIRONMENT, ETC.) PRIOR TO CONSTRUCTION.
18. CONTRACTOR RESPONSIBLE FOR ALL TRAFFIC CONTROL MEASURES REQUIRED FOR THE PROJECT.
19. INSULATION TO BE 50mm THICK HI40 RIGID STYROFOAM (ROAD AND TRAFFIC RATED).
20. CONTRACTOR MAY REQUEST GRADE ADJUSTMENTS SUBJECT TO REVIEW AND APPROVAL BY ENGINEER AND APPLICABLE APPROVAL AGENCIES. CONTRACTOR RESPONSIBLE FOR COSTS ASSOCIATED WITH DRAWING REVISIONS AND APPROVALS.
21. ALL TEMPORARY TRAFFIC CONTROL MEASURES TO BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NOVA SCOTIA TRANSPORTATION AND INFRASTRUCTURE RENEWAL TEMPORARY WORKPLACE TRAFFIC CONTROL MANUAL AND THE LATEST EDITION OF THE TRANSPORTATION ASSOCIATION OF CANADA MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CANADA.
22. ALL TEMPORARY ROAD CLOSURES WILL REQUIRE A ROAD CLOSURES PERMIT.
23. ALL TESTING OF SEWERS TO BE IN ACCORDANCE WITH MUNICIPALITY OF CUMBERLAND SPECIFICATIONS, INCLUDING MANHOLE VACUUM TEST.
24. ALL TESTING OF WATER MAINS TO BE IN ACCORDANCE WITH MUNICIPALITY OF CUMBERLAND SPECIFICATIONS, INCLUDING PRESSURE TEST AND CHLORINATION FOR ALL SERVICE LATERALS 100 mm Ø AND LARGER.
25. ALL WORK WITHIN THE WATERCOURSE OR ALONG ITS BANKS TO BE COMPLETED IN DRY CONDITIONS BETWEEN JUNE 1 AND SEPTEMBER 30. NO WORK IS TO TAKE PLACE PRIOR TO NSE APPROVAL. ALL CONDITIONS OF WATER COURSE APPROVAL ARE TO BE MET BY THE CONTRACTOR.

ISSUED FOR TENDER, NOT FOR CONSTRUCTION

ISSUE	DATE	DESCRIPTION
5	MAY 27, 2019	REISSUED FOR TENDER
4	AUG. 17, 2017	REISSUED FOR TENDER
3	JULY 14, 2017	ISSUED FOR TENDER
2	SEPT. 7, 2016	ISSUED FOR APPROVAL
1	AUG. 24, 2016	ISSUED FOR REVIEW

CONSULTANT

DESIGN POINT ENGINEERING & SURVEYING

REGISTERED PROFESSIONAL ENGINEER — DATE 27 MAY 2019 — G.S. WOODFORD 6078 — PROVINCE OF NOVA SCOTIA

CLIENT

municipality of cumberland

PROJECT DESCRIPTION

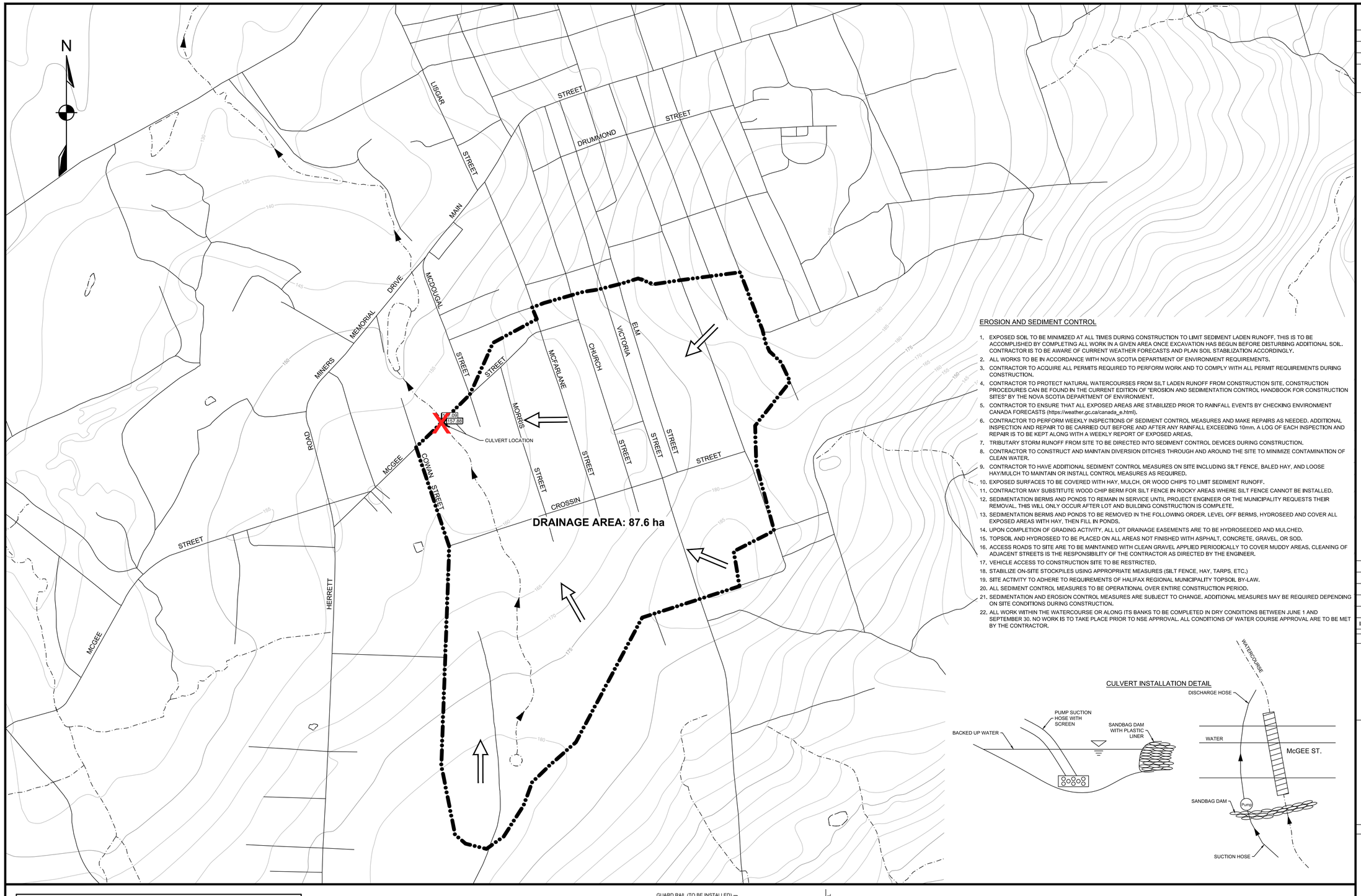
McGEE STREET CULVERT REPLACEMENT

SPRINGHILL, NOVA SCOTIA

SHEET DESCRIPTION

McGEE STREET
PLAN & PROFILE
0+000 TO 0+105

Drawn	Engineer	Project No.	Drawing No.
A. SKETCHLEY	G. WOODFORD	16-078	1 of 2
Date of 1st Issue	Scale	Filename	
AUG. 24, 2016	1:250 H, 1:25 V	16-078CBase.dwg	



EROSION AND SEDIMENT CONTROL

1. EXPOSED SOIL TO BE MINIMIZED AT ALL TIMES DURING CONSTRUCTION TO LIMIT SEDIMENT LADEN RUNOFF. THIS IS TO BE ACCOMPLISHED BY COMPLETING ALL WORK IN A GIVEN AREA ONCE EXCAVATION HAS BEGUN BEFORE DISTURBING ADDITIONAL SOIL. CONTRACTOR IS TO BE AWARE OF CURRENT WEATHER FORECASTS AND PLAN SOIL STABILIZATION ACCORDINGLY.
2. ALL WORKS TO BE IN ACCORDANCE WITH NOVA SCOTIA DEPARTMENT OF ENVIRONMENT REQUIREMENTS.
3. CONTRACTOR TO ACQUIRE ALL PERMITS REQUIRED TO PERFORM WORK AND TO COMPLY WITH ALL PERMIT REQUIREMENTS DURING CONSTRUCTION.
4. CONTRACTOR TO PROTECT NATURAL WATERCOURSES FROM SILT LADEN RUNOFF FROM CONSTRUCTION SITE, CONSTRUCTION PROCEDURES CAN BE FOUND IN THE CURRENT EDITION OF "EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION SITES" BY THE NOVA SCOTIA DEPARTMENT OF ENVIRONMENT.
5. CONTRACTOR TO ENSURE THAT ALL EXPOSED AREAS ARE STABILIZED PRIOR TO RAINFALL EVENTS BY CHECKING ENVIRONMENT CANADA FORECASTS (https://weather.gc.ca/canada_e.html).
6. CONTRACTOR TO PERFORM WEEKLY INSPECTIONS OF SEDIMENT CONTROL MEASURES AND MAKE REPAIRS AS NEEDED. ADDITIONAL INSPECTION AND REPAIR TO BE CARRIED OUT BEFORE AND AFTER ANY RAINFALL EXCEEDING 10mm. A LOG OF EACH INSPECTION AND REPAIR IS TO BE KEPT ALONG WITH A WEEKLY REPORT OF EXPOSED AREAS.
7. TRIBUTARY STORM RUNOFF FROM SITE TO BE DIRECTED INTO SEDIMENT CONTROL DEVICES DURING CONSTRUCTION.
8. CONTRACTOR TO CONSTRUCT AND MAINTAIN DIVERSION DITCHES THROUGH AND AROUND THE SITE TO MINIMIZE CONTAMINATION OF CLEAN WATER.
9. CONTRACTOR TO HAVE ADDITIONAL SEDIMENT CONTROL MEASURES ON SITE INCLUDING SILT FENCE, BALED HAY, AND LOOSE HAY/MULCH TO MAINTAIN OR INSTALL CONTROL MEASURES AS REQUIRED.
10. EXPOSED SURFACES TO BE COVERED WITH HAY, MULCH, OR WOOD CHIPS TO LIMIT SEDIMENT RUNOFF.
11. CONTRACTOR MAY SUBSTITUTE WOOD CHIP BERM FOR SILT FENCE IN ROCKY AREAS WHERE SILT FENCE CANNOT BE INSTALLED.
12. SEDIMENTATION BERMS AND PONDS TO REMAIN IN SERVICE UNTIL PROJECT ENGINEER OR THE MUNICIPALITY REQUESTS THEIR REMOVAL. THIS WILL ONLY OCCUR AFTER LOT AND BUILDING CONSTRUCTION IS COMPLETE.
13. SEDIMENTATION BERMS AND PONDS TO BE REMOVED IN THE FOLLOWING ORDER. LEVEL OFF BERMS, HYDROSEED AND COVER ALL EXPOSED AREAS WITH HAY, THEN FILL IN PONDS.
14. UPON COMPLETION OF GRADING ACTIVITY, ALL LOT DRAINAGE EASEMENTS ARE TO BE HYDROSEEDED AND MULCHED.
15. TOPSOIL AND HYDROSEED TO BE PLACED ON ALL AREAS NOT FINISHED WITH ASPHALT, CONCRETE, GRAVEL, OR SOD.
16. ACCESS ROADS TO SITE ARE TO BE MAINTAINED WITH CLEAN GRAVEL APPLIED PERIODICALLY TO COVER MUDDY AREAS. CLEANING OF ADJACENT STREETS IS THE RESPONSIBILITY OF THE CONTRACTOR AS DIRECTED BY THE ENGINEER.
17. VEHICLE ACCESS TO CONSTRUCTION SITE TO BE RESTRICTED.
18. STABILIZE ON-SITE STOCKPILES USING APPROPRIATE MEASURES (SILT FENCE, HAY, TARPS, ETC.)
19. SITE ACTIVITY TO ADHERE TO REQUIREMENTS OF HALIFAX REGIONAL MUNICIPALITY TOPSOIL BY-LAW.
20. ALL SEDIMENT CONTROL MEASURES TO BE OPERATIONAL OVER ENTIRE CONSTRUCTION PERIOD.
21. SEDIMENTATION AND EROSION CONTROL MEASURES ARE SUBJECT TO CHANGE. ADDITIONAL MEASURES MAY BE REQUIRED DEPENDING ON SITE CONDITIONS DURING CONSTRUCTION.
22. ALL WORK WITHIN THE WATERCOURSE OR ALONG ITS BANKS TO BE COMPLETED IN DRY CONDITIONS BETWEEN JUNE 1 AND SEPTEMBER 30. NO WORK IS TO TAKE PLACE PRIOR TO NSE APPROVAL. ALL CONDITIONS OF WATER COURSE APPROVAL ARE TO BE MET BY THE CONTRACTOR.

CULVERT INSTALLATION DETAIL

CULVERT TABLE

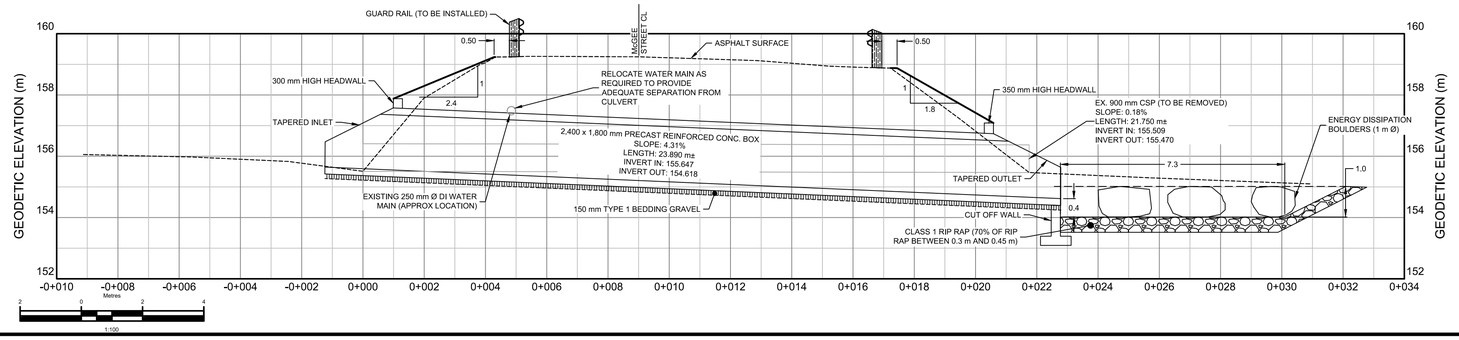
TRIBUTARY AREA (ha)	SIZE (mm)	STORM	DESIGN FLOW (m^3/s)	CAPACITY @ HW/D = 1 (m^3/s)	HW/D @ DESIGN FLOW
87.6	2400 x 1800 mm CONCRETE BOX	100 YEAR	6.8	8.0	0.76
		100 YEAR w/ CLIMATE CHANGE*	8.0		0.84

*CLIMATE CHANGE ESTIMATED AS 13% INCREASE IN RAINFALL.

CALCULATIONS BASED ON 100 YEAR RETURN 24 HOUR STORM (133 mm BASED IN MONCTON ENVIRONMENT CANADA DATA).

MANNING 'n' FOR CULVERT CAPACITY = 0.013

Metres
200 0 200 400
1:5000



LEGEND

EX. CONTOUR (MAJOR)	
EX. CONTOUR (MINOR)	
SUBCATCHMENT AREA	
SURFACE RUNOFF	

NOTES:
1. DESIGN BASED ON 100 YEAR FLOW WITH 13% INCREASE IN RAINFALL DUE TO CLIMATE CHANGE OF 8.0 m³/s. VELOCITY OF 3.4 m/s FOR RIP RAP SIZING BASED ON MANNING'S 'n' OF 0.03.
2. ALL WORKS TO BE IN ACCORDANCE WITH NOVA SCOTIA WATERCOURSE ALTERATION STANDARD, LATEST EDITION.
3. STABILIZE ALL DISTURBED AREAS WITH 100 mm TOPSOIL AND HYDROSEED UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
4. CULVERT SUBJECT TO NSE REVIEW AND APPROVAL PRIOR TO INSTALLATION.
5. JOINTS TO BE WATER TIGHT.
6. WORK TO BE CARRIED OUT BETWEEN JUNE 1 AND OCTOBER 31 WHEN FLOW IN BROOK IS AT A MINIMUM AND WITH LITTLE TO NO RAIN IN THE 5 DAY FORECAST.
7. CHANNEL WIDTH = 3.8 m ±, CHANNEL DEPTH = 0.2 m ±
8. EXISTING CHANNEL IS A MIXTURE OF 50% ± 25 - 100 mm STONES, 25% ± 100 - 250 mm COBBLES, AND 25% ± SILT/MUCK/VEGETATION

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4	AUG. 17, 2017	REISSUED FOR TENDER
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CONSULTANT

DESIGN POINT ENGINEERING & SURVEYING

REGISTERED PROFESSIONAL ENGINEER
DATE 27 MAY 2019
G.S. WOODFORD
6078
PROVINCE OF NOVA SCOTIA

CLIENT

municipality of cumberland

PROJECT DESCRIPTION

McGEE STREET CULVERT REPLACEMENT

SPRINGHILL, NOVA SCOTIA

SHEET DESCRIPTION

STORM DRAINAGE PLAN & 1:1 CULVERT PROFILE

Drawn	Engineer	Project No.	Drawing No.
A. SKETCHLEY	G. WOODFORD	16-078	2 of 2
Date of 1st Issue: AUG. 24, 2016	Scale: AS NOTED	Filename: 16-078CBase.dwg	