Junction Road, Springhill – Infrastructure Upgrades, Contract Documents

Contract No.: T-MCC-2302

March 13, 2023

Section		No. of Pages
00 20 00	Overview	1 Page
00 21 00	Information to Tenderers	4 Pages
00 41 43	Tender Form	8 Pages
00 53 43	Form of Agreement (For Information Only)	7 Pages
00 74 00	Supplementary Specifications	23 Pages

Tender Drawings

Junction Road, Springhill – Infrastructure Upgrades, Issued for Tender, dated Mar. 13, 2023.

.1 Cover Sheet
.2 Sheet 1: Junction Road – Site Layout - STA -0+020 to 0+420
.3 Sheet 2: Junction Road – Site Layout - STA 0+420 to 0+820
.4 Sheet 3: North Street – Plan and Profile - STA 0+000 to 0+110
.5 Sheet 4: Junction Road – Plan and Profile - STA -0+020 to 0+220
.6 Sheet 5: Junction Road – Plan and Profile - STA 0+220 to 0+520
.7 Sheet 6: Junction Road – Plan and Profile - STA 0+520 to 0+820
.8 Sheet 7: Junction Road – Cross Sections – STA 0+020 to 0+780
.9 Sheet 8: Pavement Marking and Signage Plan – STA 0+000 to 0+480
.10 Sheet 9: Pavement Marking and Signage Plan – STA 0+480 to 0+800
.11 Sheet 10: Construction Notes and Details I
.12 Sheet 11: Construction Notes and Details II
.13 Sheet 12: Construction Notes and Details III

OVERVIEW

This document is a Supplementary Specification to The Standard Specifications for Municipal Services 2022 as published by the Nova Scotia Road Builders Association - Consulting Engineers of Nova Scotia Joint Committee on Contract Documents.

The Municipality of Cumberland 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 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*******

Junction Road, Springhill – Infrastructure Upgrades
Springhill, NS

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

1. Tender Submission

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

Tender # T-MCC-2302
Junction Road, Springhill – Infrastructure Upgrades

Closing at 2:00 pm, local time, March 27, 2023
and addressed to:

Municipality of the County of Cumberland
1395 Blair Lake Road
Upper Nappan, Nova Scotia
B4H 3Y4

1.2 Alternatively, electronic (e-mail) submissions will only be accepted if all the following criteria are met:

a. The entire bid document is presented and issued in Adobe PDF format;
b. The PDF documents are emailed to Municipality of Cumberland Procurement (procurement@cumberlandcounty.ns.ca) by no later than 2:00 pm Atlantic Standard Time, of the stated closing date;
c. E-mails must contain both of the following:
   i. A subject line which reads:
   Electronic Tender #T-MCC-2302: Junction Road, Springhill – Infrastructure Upgrades;
   and
   ii. "Read Receipt" must be turned on, which will be acknowledged by staff upon opening of the e-mail submission.

All PDF documents received will remain unopened until 2:15 pm on the stated closing date. At which time, they will be opened by municipal staff along with any hard-copy bids received.

2. Post Tender Submission

2.1 Submit post-tender submission documents no later than two (2) working days after tender closing. Failure to provide such documents may constitute grounds for forfeiture of tender security.

2.2 Safety Certification:
a. Submit copy of tenderer's current and valid accreditation issued by Nova Scotia Workers' Compensation Board or Certificate of Recognition (COR) issued by Construction Safety Nova Scotia.
b. Out of province companies with a current and valid Certificate of Recognition (COR) from a Canadian Federation of Construction Safety Associations recognized safety association shall obtain and submit a Certificate of Recognition from Construction Safety Nova Scotia.

2.3 Workers' Compensation Board Clearance:
a. Submit a copy of Tenderer's current valid clearance letter issued by the Workers' Compensation Board of Nova Scotia.
b. Out of province Tenderers must register with the Nova Scotia Workers' Compensation Board prior to being awarded a Contract.

3. Tender Opening

3.1 Tenders will be opened at 2:15 pm local time on March 27, 2023, after Tender close at the offices of the Municipality of the County of Cumberland, 1395 Blair Lake Road, Upper Nappa. Opening will be public.

4. Document Fee

4.1 No document fee will be applied. Documents will be provided electronically only.

5. Accuracy of Referencing

5.1 Indexing and cross-referencing are for convenience only.

6. Conditions of Tendering

6.1 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

7.1 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

8.1 Notify Engineer not less than two (2) 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 or clarification will be issued. All addenda will form part of Contract Documents.

8.2 Confirm in the Tender Form that all addenda have been received.

8.3 Tenderers are solely responsible to obtain and acknowledge the receipt of addenda at time of tender closing.

9. Preparation of Tender

9.1 Legibly complete tender form provided with the Project Documents. Tender all items and fill in all blanks. Have corrections initialed by person signing Tender.

10. Taxes

10.1 Include all taxes except Harmonized Sales Tax (HST) in tender unit prices.

11. Tender Security

11.1 Provide Tender Security in a minimum amount of ten percent (10%) of Bid Price with Tender in the form of a certified cheque or money order payable to the Owner, a bid bond on CCDC Form 220, or other Owner approved form.

12. Contract Security

12.1 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

13.1 Refer to Section 00 72 45, General Conditions, subsection GC11.1 – INSURANCE and Section 00 74 00 – SUPPLEMENTARY SPECIFICATIONS, for insurance required.

14. Form of Agreement

14.1 Form of Agreement is attached for information purposes only at time of tender submission.

15. Return of Tender Security

15.1 Tender Security will be returned to:
a. All except the three lowest acceptable Tenderers within seven (7) days of Tender Opening.
b. Two (2) remaining unsuccessful Tenderers within fourteen (14) days of date of Award.
c. Successful Tenderer following receipt by Owner of executed Agreement, specified

Contract Security, and Insurance documents.

16. Amendment or Withdrawal of Tender

16.1 Tenders may be amended or withdrawn by post, facsimile, or email.

16.2 Amendment of individual unit prices is the only acceptable price amendment. Amendments shall not disclose either original or revised total price.

16.3 Head amendment or withdrawal as follows: "[Amendment]/[Withdrawal] of Tender # T-MCC-2302 – Junction Road, Springhill – Infrastructure Upgrades"; 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

17.1 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. Tender submissions will be evaluated based on overall cost, the ability of the tenderers to complete the work in a timely fashion, and feedback from Tenderer's references from previous projects. The bidder with the lowest price will not necessarily be awarded the work.

18. Scope of Work

18.1 The Work described in the Project Documents will be carried out in full or in part subject to available funding.

********End of Section 00 21 00*******

TENDER FORM

Section 00 41 43
March 13, 2023
Contract No. T-MCC-2302

thanks1. SALUTATION:

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

.2 For: Junction Road, Springhill – Infrastructure Upgrades
Tender No. T-MCC-2302

.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, materials 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 60 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 (Latest Edition)

.2 Nova Scotia Environment Regulations (Latest Edition)

.3 Project Documents

.1 Tender Form, Section 00 41 43
.2 Form of Agreement (for information only), Section 00 53 43
.3 Supplementary Specifications, Section 00 74 00
.4 Drawings:

Junction Road, Springhill – Infrastructure Upgrades, Issued for Tender, dated Mar. 13, 2023.

.1 Cover Sheet
.2 Sheet 1: Junction Road – Site Layout - STA -0+020 to 0+420
.3 Sheet 2: Junction Road – Site Layout - STA 0+420 to 0+820
.4 Sheet 3: North Street – Plan and Profile - STA 0+000 to 0+110
.5 Sheet 4: Junction Road – Plan and Profile - STA -0+020 to 0+220
.6 Sheet 5: Junction Road – Plan and Profile - STA 0+220 to 0+520
.7 Sheet 6: Junction Road – Plan and Profile - STA 0+520 to 0+820
.8 Sheet 7: Junction Road – Cross Sections – STA 0+020 to 0+780
.9 Sheet 8: Pavement Marking and Signage Plan – STA 0+000 to 0+480
.10 Sheet 9: Pavement Marking and Signage Plan – STA 0+480 to 0+800
.11 Sheet 10: Construction Notes and Details I
.12 Sheet 11: Construction Notes and Details II
.13 Sheet 12: Construction Notes and Details III

.4 Addenda as issued and as confirmed in subsection 2.4 of this section.

4. SCHEDULE OF QUANTITIES AND UNIT PRICES

Item No.	Description	Unit of Measurement	Estimated Quantity	Unit Price	$ Amount
3.1	**Earthworks -** Mass Excavation and Embankment - Common	m^3	5350		
11.1	**Water Main -** 300 mm DI - CL52	m	800		
12.1	**Water Main –** Installation of Fire Hydrants	ea.	5		
13.1	**Water Main -** PRV Chamber	l.s	1		
14.1	**Water Main -** Direct Buried Valves, 300mm dia. GV	ea.	10		
15.1	**Water Main -** 19mm dia. Type K Cooper incl. Curbstop	ea.	35		
16.1	**Water Main -** Connections to Existing Main	ea.	5		
18.1	**Water Main -** Temporary Water	l.s.	1		
19.1	**Water Main -** Water Line Removal	m	375		
21.1	**Sanitary Pipe -** 150 mm dia. PVC DR35 sanitary gravity pipe	m	8		
21.2	**Sanitary Pipe -** 200 mm dia. PVC DR35 sanitary gravity pipe	m	321		
21.3	**Sanitary Pipe -** 300 mm dia. PVC DR35 sanitary gravity pipe	m	360		
23.1	**Manholes -** 1050 mm dia. Precast Concrete	ea.	13		
25.1	**Sanitary -** Connection to Existing	ea.	5		

28.1	**Remove existing infrastructure -** 300 mm dia. sanitary pipe	m	620		
28.2	**Remove existing infrastructure -** Existing sanitary manholes	ea.	3		
31.1	**Storm pipe -** 375 mm dia. PVC DR35 storm pipe	m	25		
31.2	**Storm Pipe -** 350 mm dia. PVC DR18 storm pipe	m	71		
31.3	**Storm Pipe -** 400 mm dia. PVC DR18 storm pipe	m	4		
31.4	**Storm Pipe -** 525 mm dia. Concrete, 65D storm pipe	m	52		
31.5	**Storm Pipe -** 600 mm dia. Concrete, 65D storm pipe	m	419		
31.6	**Storm Pipe -** 750 mm dia. Concrete, 65D storm pipe	m	101		
32.1	**Manholes -** 2400 mm dia. Precast Concrete	ea.	1		
32.2	**Manholes -** 1500 mm dia. Precast Concrete	ea.	1		
32.3	**Manholes -** 1200 mm dia. Precast Concrete	ea.	5		
32.4	**Manholes -** 1050 mm dia. Precast Concrete	ea.	3		
32.5	**Manholes -** Access Shaft (North St. to Outfall)	ea.	3		
33.1	**Catchbasins -** 1050 mm dia. Double Precast Concrete c/w S361 frame and grate - storm	ea.	2		
33.2	**Catchbasins -** 1050 mm dia. Precast Concrete c/w S361 frame and grate - storm	ea.	19		
34.1.1	**Catchbasin leads -** 100 mm dia. PVC DR35 storm pipe	m	7		
34.1.2	**Catchbasin leads -** 200 mm dia. PVC DR35 storm pipe	m	33		
34.1.3	**Catchbasin leads -** 250 mm dia. PVC DR35 storm pipe	m	6		

34.1.4	**Catchbasin leads -** 300 mm dia. PVC DR35 storm pipe	m	34		
34.1.5	**Catchbasin leads -** 200 mm dia. PVC DR18 storm pipe (CB lead including reinstatement)	m	35		
34.1.6	**Catchbasin leads -** 250 mm dia. PVC DR18 storm pipe (CB lead including reinstatement)	m	5		
37.1	**Culvert -** 1250mm x 625mm Box Culvert (North Street) including reinstatement	m	103		
39.1	**Headwall -** 750 Wing Storm Headwall 1500 x 1500 (North Street)	ea.	1		
39.2	**Headwall -** 525 Wing Storm Headwall 1050 x 1383 (North Street)	ea.	1		
39.3	**Headwall -** 450 Wing Storm Headwall 1050 x 1383	ea.	2		
40.1	**Remove existing structures -** Catchbasin	ea.	7		
40.2	**Replace existing structures -** S361 frame and grate including grade adjustment	ea.	1		
41.1	**Gravels -** Type 1 (150mm)	m²	7115		
41.2	**Gravels -** Type 2 (600mm)	m²	7115		
43.1.1	**Asphaltic concrete -** Type C-HF (50mm)	m²	7115		
43.1.2	**Asphaltic concrete -** Type B-HF (75mm)	m²	7115		
43.1.3	**Asphaltic concrete -** Asphalt Surface Reinstatement (North St. to Outfall)	m²	1400		
43.2.1	**Asphaltic concrete -** Full Depth Asphalt Removal	m²	580		
43.2.2	**Asphaltic concrete -** Full Depth Asphalt Removal Above Concrete Base	m²	6535		

43.2.3	**Asphaltic concrete -** Full Depth Concrete Pavement	m²	6535		
44.1	**Curb -** Concrete Curb and Gutter	m	1575		
44.2	**Curb -** Mountable Curb	m	30		
45.1	**Sidewalk -** Concrete Sidewalk - 100 mm thick	m²	2884		
45.2	**Sidewalk -** Concrete Sidewalk - 150 mm thick with welded wire mesh	m²	76		
45.3	**Sidewalk -** Concrete Driveways	m²	250		
45.4	**Sidewalk -** Sidewalk Removal	m²	575		
46.1	**Tactile walking surface indicators -** Tactile Plates	ea.	60		
62.1	**Landscaping -** Topsoil and seed - 100mm	m²	1850		
76	**Traffic Control**	l.s.	1		
77	**Line painting and road signage**	l.s.	1		
78	**Provisional -** Connection of Private Storm Laterals (discovered in ditch)	ea.	1		
79	**Provisional -** Lead Water Lateral Replacement to Building Foundation (including reinstatement)	ea.	1		
80	**Provisional –** Abandonment of existing sanitary pipe	m	1		
90	**Environmental Protection -** Erosion and Sediment Control Plan	l.s.	1		

SUMMARY

Total Tendered Price (Excluding HST)	$
Add HST (15% of Total Tendered Price)	$
Estimated Contract Price	$

Tenderer's HST Registration No. _____

5. COMPLETION TIME

.1 Refer to Supplementary Specifications and the Tender Drawings for general requirements required to complete the work that shall be included in the Tenderer's total price (i.e., disposal of existing services, coordination with utility owners during construction, pavement markings, etc.).

6. COMPLETION TIME

.1 Construction must be substantially completed on October 31, 2023. Should the Contractor fail to meet this deadline, Liquidated Damages shall be applied as per GC 6.5 – Delays (refer to section 00 74 00 – Supplementary Specifications).

7. SIGNATURE*

DATED THIS _____ DAY OF _____ , 2023.

[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 of Section 00 41 43*******

FORM OF AGREEMENT

Section 00 53 43
March 13, 2023
Contract No. T-MCC-2302

This Agreement made on the _____ day of _____ in the year 2023.

BY AND BETWEEN

Municipality of the County of Cumberland

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

Junction Road, Springhill – Infrastructure Upgrades

located within the West Hants Regional Municipality

for which the Agreement has been signed by the parties, and for which

WSP Canada Inc.

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 ___.

ARTICLE A2 – AGREEMENTS AND AMENDMENTS

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

The Contractor also agrees to the following provisions:

.1 The Contractor will keep proper and accurate financial accounts and records, including but not limited to its contracts, invoices, statements, receipts, and vouchers, in respect of each Project it participates in for at least six (6) years after the Agreement End Date and that Canada and the Province has the contractual right to audit such accounts and records;

.2 All applicable labour, environmental, and human rights legislation is respected;

.3 The Province, Canada, the Auditor General of Canada, and their designated representatives, to the extent permitted by law, will at all times be permitted to inspect the terms and conditions of a Contract and any records and accounts respecting each Project and will have free access to each Project site and to any documentation relevant for the purpose of audit; and,

.4 The Contractor shall be solely responsible for and shall save harmless and indemnify Canada, the Province and their Ministers, officers, employees and agents from and against all claims, liabilities and demands of any kind with respect to any injury to persons (including, without limitation, death), damage to or loss or destruction of property, economic loss or infringement of rights caused by or arising directly or indirectly from (i) the Project; (ii) the performance of the contract or the breach of any term or condition of the contract by the Contractor or its officers, employees or agents. (iii) the on-going operation, maintenance and contract or the breach of any term of condition of the contract by the Contractor or its officers, employees or agents; and/or (iv) any omission or any willful or negligent act of the Contractor or its officers, employees or agents.

ARTICLE A3 – CONTRACT DOCUMENTS

The following is an exact list of the Contract Documents referred to in subsection 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, latest addition.

.2 Nova Scotia Transportation and Infrastructure Renewal Standard Specification Highway Construction and Maintenance, Standard Drawings, latest revision.

.3 Project Documents
- .1 Tender Form, Section 00 41 43
- .2 Form of Agreement (for information only), Section 00 53 43
- .3 Supplementary Specifications, Section 00 74 00
- .4 Drawings

Junction Road, Springhill – Infrastructure Upgrades, Issued for Tender, dated Mar. 13, 2023.

- .1 Cover Sheet
- .2 Sheet 1: Junction Road – Site Layout - STA -0+020 to 0+420
- .3 Sheet 2: Junction Road – Site Layout - STA 0+420 to 0+820
- .4 Sheet 3: North Street – Plan and Profile - STA 0+000 to 0+110
- .5 Sheet 4: Junction Road – Plan and Profile - STA -0+020 to 0+220
- .6 Sheet 5: Junction Road – Plan and Profile - STA 0+220 to 0+520
- .7 Sheet 6: Junction Road – Plan and Profile - STA 0+520 to 0+820
- .8 Sheet 7: Junction Road – Cross Sections – STA 0+020 to 0+780
- .9 Sheet 8: Pavement Marking and Signage Plan – STA 0+000 to 0+480
- .10 Sheet 9: Pavement Marking and Signage Plan – STA 0+480 to 0+800
- .11 Sheet 10: Construction Notes and Details I
- .12 Sheet 11: Construction Notes and Details II
- .13 Sheet 12: Construction Notes and Details III

.5 Addenda

ARTICLE A4 – CONTRACT PRICE

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

.2 The Estimated Contract Price is $ _____

.3 The amounts shall be in Canadian funds.

.4 Contractor agrees to complete the Work by **Oct. 31, 2023**.

.5 The amount shall be subject to adjustment as provided in the Contract Documents.

.6 The Contract Price shall be the sum of the products of the actual final quantities that are incorporated in, or made necessary by the Work, as confirmed by count and

measurement, multiplied by the appropriate Unit Prices from the Tender Form together with any adjustments that are made in accordance with the provisions of the Contract Documents plus the amount of Harmonized Sales Tax.

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 subsection 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 subsection 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 calendar day 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, 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, subject to the provisions of GC5.8 – PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK.

.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 payments to the Contractor as they become due under the terms of the Contract, interest shall be payable as follows:

.1 The annual interest rate applicable to the contract is **Prime + 2%** compounded semi-annually.

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

ARTICLE A6 – RECEIPT OF AND ADDRESSES FOR NOTICES

.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 hard copy or in a form of electronic communication shall be deemed to have been received on the date of its transmission provided that such day is 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 Municipality of the County of Cumberland,
1395 Blair Lake Road, Upper Nappan, NS B4H 3Y4

.2 The Contractor at _____

.3 The Engineer at 1 Spectacle Lake Drive
Dartmouth, Nova Scotia, B3B 1X7

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 of 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

Municipality of the County of Cumberland

WITNESS

Signature

Name and Title of Person Signing

Signature	Signature
Name and Title of Person Signing	Name and Title of Person Signing
	CONTRACTOR
	Name of Contractor
WITNESS	Signature
	Name and Title of Person Signing
Signature	Signature
Name and Title of Person Signing	Name and Title of Person Signing

(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 of Section 00 53 43*****

INTENT

.1 Construct the Work of this Contract in accordance with the latest edition of 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 These Supplementary Specifications take precedence over the specification to which they refer.

Delete Sections 00 21 00, Section 00 41 43 and Section 00 53 43 and replace with the sections included in the tender.

SECTION 00 71 00 – DEFINITIONS

Add new definitions as follows:

31. SPECIALIST CONTRACTOR
.1 Specialist Contractor means a firm or person with whom the Owner has or will enter into a Contract or has placed or will place a purchase order for items or plant and equipment for incorporation in the Work.

32. PROVISIONAL ITEM
.1 The Provisional Items are for work that may be required in the execution of the Contract but are not anticipated at the tendering stage. Provisional items, if applicable, are listed in Subsection 4 – Schedule of Quantities and Unit Prices – Tender Form. Provisional items shall mean that the unit price as tendered shall be included in the estimated contract price, and that the owner reserves the right to delete all or portions of the item from the estimated contract price.

SECTION 00 73 00 – Supplementary General Conditions

Delete Section 1. and replace with the following:

1. PROJECT DOCUMENTS
.1 Project Documents are those documents prepared to supplement the Standard Specifications for the Work on

a specific Project. Where applicable, they consist of the Information for Tenderers, Tender Form, , Form of Agreement, Supplementary Specifications, drawings and addenda.

SECTION 00 72 45 – GENERAL CONDITIONS

*****Where the term "Consultant" is used throughout the General Conditions, revise to read "Engineer"*****

GC 5.4 BASIS OF PAYMENT FOR COST PLUS WORK

Add the following section as GC 5.4.7:

5.4.7 The fee for Contractor's overhead and profit shall be 10% of the cost of the work

Add the following section as GC 5.4.8:

5.4.8 BASIS OF PAYMENT FOR OTHER THAN COST PLUS WORK

.1 Clause GC 5.4.7 does not preclude the option of the Contract Administrator and the Contractor negotiating a Lump Sum Item of unit price payment for the Change in the Work, Extra Work, and Additional Work.

.2 When the method of payment has been negotiated to be Lump Sum for a Change in the Work, Extra Work, or Additional Work the following mark-ups shall be used.

.1 Where the Contractor has received approval from the Owner prior to the commencement of the Work, the Owner shall pay the Contractor the approved lump sum cost, plus a 10% mark-up to the Contractor for all, but not limited to, administration, supervision, bonding premiums, record documentation, overheads, profits, and all other incidental costs.

.2 Where the Contractor arranges for the Work to be carried out by a Subcontractor, working directly under the Contractor, the Owner, through the Contractor, will provide the primary Subcontractor, an additional 10% mark-up on work paid for on a lump sum basis.

.3 Where the primary Subcontractor arranges for the Work to be carried out by another Subcontractor, working under the primary Subcontractor, the Owner, through the Contractor, will provide for an additional 5% mark-up to each subsequent Subcontractor, working under the primary Subcontractor for work paid for on a lump sum basis.

.4 All mark-ups shall be applied to the original lump sum value, before any mark-ups have been applied. The maximum total mark-up for any Change Order or Change Directive shall not exceed an aggregate total of 35%, subject to the following limitation: clause (a) above may be applied only once, clause (b) above may be applied only once, and clause (c) above may be applied multiple times if applicable.

GC 5.8 – PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK

Delete Subsection GC 5.8.4 and replace with the following:

5.8.4.1 Within sixty (60) days after the issue by the Engineer of the Certificate of Substantial Performance of the Works, provided that the Contractor has by then signed the Final Measure, and has provided the Engineer with the following documents:

.1 A statutory declaration to the effect that all expenses incurred by him in carrying out the Contract have been paid and releasing the Owner from any and all further claims relating to the Contract.

.2 A certificate from a barrister stating that there are no Mechanics Liens filed relating to the Contract Works.

.3 A clearance certificate from the Worker's Compensation Board.

Then the Owner shall release to the Contractor one hundred percent (100%) of the Holdback. If, however, the Final Measure is not signed within the sixty (60) days following the issue of the Certificate of Substantial Performance or if the Contractor has failed to provide the required documents as listed above, then the Owner shall release one hundred percent (100%) of the Holdback within two (2) weeks following the date on which the Contractor meets these requirements.

GC 5.10 – FINAL PAYMENT

Delete Subsection GC 5.10.4 and replace with the following:

5.10.4 Subject to provisions of paragraph 10.4.1 of GC 10.4 – WORKERS' COMPENSATION, and any lien legislation applicable to the Place of the Work, the Owner shall, no later than 15 calendar days after the issuance of a final certificate for payment, pay the Contractor as provided in Article A-5 of the Agreement – Payment.

GC 6.2 – CHANGE ORDER

Add the following Subsection to GC 6.2 – CHANGE ORDERS.

6.2.4 After the Owner and Contractor have agreed to the value, additional time (if any) and the revised date of completion (if any) of a change order, no further application for reimbursement by the Contractor shall be made.

GC 6.5 – DELAYS

Add the following Subsection to GC 6.5 – DELAYS.

6.5.6 Notwithstanding the above subsections, time shall be construed as being of the essence for the Contract. The date of expiring of the time allowed in accordance with the Contract for substantial performance of the Work shall be termed the Date for Completion. Should the Contractor fail to substantially perform the Work by the Date of Completion, the period of time from the Date for Completion to the date of Substantial Performance of the Work as determined by the Engineer, shall be termed the Period of Delay.

GC 10.1 – TAXES AND DUTIES

Add the following Subsection to GC 10.1 – TAXES AND DUTIES

10.1.3 The contractor will indicate on each application for payment, as a separate amount, the appropriate Harmonized Sales Tax the Owner is legally obliged to pay. This amount will be paid to the Contractor in addition to the amount certified for payment under the Contract.

GC 11.2 – CONTRACT SECURITY

Delete Subsection GC 11.2 CONTRACT SECURITY and replace with the following:

.1 The Contractor shall provide to the Owner within fourteen (14) days of acceptance of his Tender a Performance Bond and a Labour and Material Payment Bond each in the amount of 50% of the Estimated Contract Price, or alternatively, provide an unconditional irrevocable letter of credit for 100% of the Estimated Contract Price.

.2 The bonds shall be issued by a duly licensed surety company authorized to transact a business of suretyship in the Province of Nova Scotia and shall be maintained in good standing until the fulfillment of the Contract. The form of the bonds shall be in accordance with the latest edition of the CCDC approved bond forms.

.3 The letter of credit shall be issued by a chartered Canadian Bank and shall be valid until the conditions of GC 5.8.4.1 are fulfilled.

GC 12.3 – WARRANTY

Add the following to Subsection GC 12.3 WARRANTY:

12.3.7 The Contract requires an operational combination of several components comprising the Work which are customarily guaranteed by their suppliers. Under the terms of this Contract, the Contractor shall provide a guarantee for the Works for a period of one (1) year following the date of continuous operation. The terms of the guarantee shall be as follows:

.1 Where failure or incipient failure of the material is apparent, the Contractor shall actively commence repair or other remedy not more than twenty-four (24) hours after receiving due notice of trouble.

.2 If the Contractor on being notified does not for any reason commence repairs within twenty-four (24) hours, the Owner shall have the right to have repairs made by others as necessary to restore or continue service. The cost of such repairs by others is to be borne by the Contractor. The Owner shall at all times inform or attempt to inform the Contractor before hiring others to effect any repairs and it shall be at all times the Contractor's right to be informed as soon as possible of difficulties and proposed remedial action by others and to make or where practical to complete such repairs at any other time of the guarantee period in preference to others.

.3 The employment of some other person or persons for reasons set out shall in no wise affect the Contractor's obligations or liability hereunder or relieve him of the performance and fulfillment of any or all of his covenants, undertakings, obligations, or duties under the Contract.

.4 In the event of damage, failure or incipient failure of any part or parts directly attributable to inadequate or improper maintenance, the Contractor shall be responsible for remedial action but the cost of all such repairs will be reimbursed by the Owner.

.5 If the Contractor arranges that the manufacturer of some component or some other party approved by the Engineer provide the guarantee on a sub-contract basis, he may designate the direct implementer of the guarantee as his agent under the Contract in which case due notice to the agent will be taken as due notice to the Contractor. This will be a matter for Contractor's convenience only, and shall in no wise affect the Contractor's obligations and liabilities hereunder or relieve him from

the performance and fulfillment of any or all of his covenants, undertakings, or duties under this Contract.

.6 In emergency situations, as determined by the Owner, the Owner reserves the right to make appropriate repairs at the Contractor's expense.

After Section 12, add the following new Section:

GC 13 – RIGHTS-OF-WAY AND EASEMENTS

13.1.1 The acquisition or obtaining of easements in respect of the lands comprising the Site will be affected by the Owner. If the Contractor deems it advisable to acquire the right or rights to use, enjoy or occupy any additional or adjacent land or lands in order to facilitate the execution of the Work, he shall obtain such right or rights at his own expense and shall, at all times, indemnify and save harmless the Owner from any and all claims arising from the acquisition of such right or rights or the use, enjoyment or occupancy of such lands or land.

SECTION 01 10 00 – GENERAL REQUIREMENTS

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

2. SUMMARY OF WORK

.1 The proposed street reconstruction includes new water, storm and sanitary sewer infrastructure, new road gravels, asphalt, curb and gutter and sidewalk including landscaping reinstatement.

.2 The Work to be performed under this Contract generally entails:

.1 Negotiations and coordination with the power utility for their services and obtaining all necessary permits

.2 Supply and installation of water distribution piping, storm and sanitary gravity piping, valves, chambers, manholes, culverts and service lateral connections to existing infrastructure complete with all testing as per the Standard Specifications for Municipal Services.

.3 Coordination with the Owner regarding connection procedures and methods associated with connecting the new distribution piping to the existing systems.

.4 The supply, placement, and compaction of granular base and pipe bedding, and selected excavated material for backfill of all piping and associated infrastructure.

.5 All mass excavation of embankment common, import of borrow and mass excavation and embankment and removal of unsuitable material which might be encountered for the construction of the indicated water distribution, sanitary and storm piping systems.

.6 Rebuilding the Junction Road structure, including full depth asphalt removal, removal of the existing concrete pavement sub-structure along much of Junction Road, removal of existing sidewalk, and the construction of the new roadway cross section to the extents indicated on the drawings, including reinstatement of culvert crossings, water, sanitary sewer piping and laterals, road shoulders, curb, sidewalk, driveways (as indicated), utility poles (as required), existing surface features, and revegetation of disturbed soils and all incidentals.

.7 The supply, installation and maintenance of all environmental protection measures required for work on this project. Including but not limited to dust control on the roads and areas affected by the proposed work.

.8 Collection of record information as specified herein and as directed by the Owner or Engineer.

.9 Commissioning, testing, and certification of all the Works including but not limited to pressure testing, flushing, pipe video, exfiltration testing, chlorination, disinfection repair of leaks and re-instatement.

.10 Once substantial performance has been issued, Contractor to complete all deficiencies within 14 calendar days of the Contractor being made aware of the deficiency by the Owner or Engineer. If the Contractor does not repair the deficiency with the 14 calendar day period, the Owner has the right to have outside forces complete the work and deduct the value of this work from the Contract Price.

.11 All related work, including traffic controls and incidentals associated with the above, obtaining street opening permits and bonding for connection to existing services.

Add the following Subsections to 3:

3. SCHEDULING AND COORDINATION

.5 The Contractor is to ensure that all required inspections by various approval authorities are performed and that documentation of these inspections is provided to the Engineer.

.6 The Contractor is to ensure access to Junction Road Elementary School, located at 19 Junction Road, is maintained. Major road works on Junction Road between Queen Street and Maple Street are to be completed during the school summer break (July 1 – September 1).

A**dd the following Subsections to 7.1:**

7.1 SHOP DRAWINGS

.8 This review will not mean that the Engineer approves the detailed design inherent in the shop drawings. Responsibility remains with the Contractor, and such review does not relieve the Contractor from his responsibility for meeting all requirements of the Contract Documents.

.9 If pre-ordered materials and equipment purchased and supplied by Owner form part of the Work, the Contractor is to make his own arrangements with suppliers for the provision of shop drawings and be responsible for obtaining further information required to facilitate and ensure correct installation of materials and equipment.

Delete Subsection 8 and replace with the following:

8. RECORD DRAWINGS

.1 The Owner or Engineer may direct the Contractor to capture the measurements of other affected infrastructure or features as required.

.2 In addition to Clause 8.1 above, maintain one separate set of drawings on site. These drawings shall be reserved exclusively as record drawings. Have these drawings marked up daily to record any alterations made during construction to the contract drawings. Transmit these drawings to the Engineer at Substantial Completion. The submission of an acceptable set of record drawings to the Engineer is a condition of issuance of Substantial Performances. The contractor will be supplied with a separate set of drawings specifically for the purpose of keeping records.

Add the following to Subsection 9 - QUALITY CONTROL:

9. QUALITY CONTROL

.1 Provide assistance, labour, and materials, as are normally required for examining, testing, and measuring the quality, weight, or quantity of any material used and supply samples of material requested before incorporation into the Work.

.2 Include in Contract Price the costs for providing assistance and samples for testing and for arranging tests.

.3 Provide the Engineer with assistance for tests and inspections.

Add the following to Subsection 12 – TRAFFIC CONTROL:

12. TRAFFIC CONTROL

.1 Maintain access to all adjacent properties.

.2 The Contractor shall be responsible for the determination and placement of all appropriate signage and for the management of safety on the site.

.3 A Construction Management Plan, including traffic control plans shall be submitted to the Onwer for approval prior to commencement of the work. A traffic control plan that does not include all of the required elements listed below will be found incomplete, and returned for revision and re-submittal. Proposed street closures will require approval from the Onwer and the Engineer.

.1 Traffic control plan shall indicate construction methods allowing work within rights-of-way to be completed efficiently and effectively, while maintaining a safe and organized movement of vehicles and pedestrians around and through temporary workplaces and, as well, to protect workers from errant vehicles. Traffic control plans to include details for controlling traffic at any signalized intersections and proposed lengths and estimated duration of each diversion. Traffic control plans to also indicate how vehicular access will be maintained for residents of the affected streets during construction.

.4 Provide and maintain signs, delineators, barricades, and miscellaneous warning devices to indicate construction activities or other temporary or unusual conditions.

.5 The following traffic related items must also be addressed in the Traffic Control Plan:

.1 Planned traffic diversions/lane closures will require advanced notifications as part of Public Service Announcements.

.2 Block by block street closures will be required during construction. Closure of more than one block at a time will not be accepted. During a closure, the Contractor must maintain access for local traffic.

.3 During street closures, the Construction Management Plan must include a proposed plan to ensure resident and business garbage pickups and business deliveries are not impeded.

.4 Coordinated closures may be considered for adjacent neighborhood streets if adequate justification can be provided as part of the Construction Management Plan.

.5 The contractor shall provide a temporary detour plan for each road closure, subject to approval in advance by the Onwer. Signage regarding diversions will be required at key area intersections.

.6 Truck traffic is to be detoured around the construction site via Lisgar Street to Main Street for the duration of the project.

.6 Maintain access to all adjacent properties

.7 All costs associated with traffic and pedestrian management, permitting and advertising will be borne by the Contractor.

Add the following Subsections:

17. PHOTOGRAPHS

.1 Prior to commencement of the Works, the Engineer may arrange for photographs to be taken of the site and those properties adjacent to the site.

.2 Accompany Engineer during the taking of photographs and document any comments on the conditions of the site or adjacent properties.

.3 Engineer will retain photographs, together with a written report, on the condition of existing roads, sidewalks, trees, lawns, and adjacent properties as determined by mutual agreement as a record of existing conditions prior to the start of Work.

18. NOISE

.1 Operate construction equipment, such that there is a minimum amount of noise and vibration.

19. FLOATATION AND

FLOODING

.1 Prevent floatation and flooding during construction of the Work. Make good any damage to pipes or structures caused by floatation and flooding at no extra cost to the Contract.

.2 De-water all excavations and remove accumulations of water prior to backfilling.

.3 Dispose of water drained or pumped in a manner acceptable to the Owner such that the Work and adjacent properties are not damaged.

20. UTILITIES

.1 Do not operate valves, electrical and telephone controls on existing utility systems.

.2 Apply to the utility having jurisdiction for permission to operate such systems if it becomes necessary, and only operate such systems in accordance with, and in the presence of a representative of the utility company affected.

.3 Include an amount in the contract price to cover the cost of having a utility company representative present when the Work passes under or in close proximity to underground cables, structures or utility poles.

.4 Provide, prior to substantial completion, a letter from the utility affected stating that any services damaged during construction have been repaired to the utility company's approval.

.5 Obtain Nova Scotia Power Services Safe Clearance report prior to commencement of construction.

21. DAMAGE AND INJURY

.1 Protect the Work and adjacent property from damage and injury in accordance with Section 00 72 45, General Conditions, Part 9 – GC 9.1 PROTECTION OF WORK AND PROPERTY.

.2 Immediately inform Engineer of any damage or injury to any persons, property, services or materials.

.3 Relocate survey markers, monuments, and survey pins disturbed during construction under the direction of a qualified provincial land surveyor. Include costs in Contract Price.

22. DUST CONTROL

.1 Provide Dust Control within the project area and any and all access points to the project area as necessary or as directed by the Owners and/or Engineers site representative.

SECTION 01 22 00 – MEASUREMENT AND PAYMENT

General

Delete subsection .2 and replace with the following:

.2 For each item include in the pay item all of the following as required where individual quantities are not provided in the Tender Form: environmental protection and controls, traffic control, dust control, protection of existing trees, mobilization, costs of surety, assistance to the Engineer, clearing and grubbing, common excavation, supply and placement of imported materials, removal or abandonment of existing infrastructure and re-instatement as indicated, shoring, control of water and dewatering, bedding, backfilling, compaction, disposal of surplus common, disposal of unsuitable material and replacement with structural imported material, reinstatement, marker stakes, marker tape, joint restraints and thrust blocks, thrust anchors, tracer wire, insulation, record drawing data collection activities, closed circuit television inspection, re-instatement of damaged sanitary laterals, installation of watermain sleeves complete with water tight ends, re-instatement of damaged culverts, re-instatement of damaged water laterals, re-instatement of damaged sanitary laterals and all reinstatement of surface features to original or better conditions and all incidentals.

Add the following:

.6 The Contractor is responsible to obtain and include in the individual quantities, the cost of all necessary permits and inspections required to perform the Work.

.7 Where required, each item to include all items necessary to maintain traffic control as per the Nova Scotia Temporary Workplace Traffic Control Manual, Current Edition and all other applicable local specifications.

.8 The unit and lump sum prices for all items in the form of tender "Schedule of Quantities and Unit Prices" shall be full compensation for the work of the Item and shall include the cost of furnishing all materials, labor, tools, and equipment necessary to complete the work in accordance with the Contract, the Drawings and Specifications, and shall cover all cost of surety, mobilization, assistance to the engineer and site offices. Each item shall include for all necessary supervision, labor, tools and equipment, materials, plant and services, Quality assurance and all operations and allowances customary and necessary to complete each item and the Contract as a whole notwithstanding the fact that not every such necessary operation is mentioned or included specifically for measurement.

.9 Payment to the contractor will be based on actual quantities for the work completed in accordance with the drawings and specifications.

.10 Where required, each item to include all items necessary for all work that affects removal, securing and reinstatement of utility poles, street lights, guard rail including coordination with infrastructure owner.

Earthwork

Delete Subsection 2 and replace with the following:

2 Mass Excavation and Embankment - Common

Unit of Measurement: cubic metre (m^3)

Method of Measurement: surface-to-surface volume method between topographical survey taken after grubbing and topsoil removal, asphalt pavement removal and/or concrete pavement removal, and the lines and elevations indicated.

This item includes: excavation, placement and compaction to lines and elevations indicated, and disposal of surplus or unsuitable material.

Water Main System

Delete Subsection 11 and replace with the following:

11 Pipe

.1 Pipe

Unit of Measurement: metre (m)

Method of Measurement: along center line of pipe through fittings, valves, and valve chambers.

This item includes: supply and installation of pipe complete with all fittings, removal, and disposal of existing pipe within the trench of the new pipe (unless otherwise indicated). Gaskets, mechanical thrust restraint, thrust blocks, jumper wires, wire bond straps, anodes, bedding, testing, and commissioning, and all incidentals. Includes backfilling up to and including Type 2 gravels.

Delete Subsection 12 and replace with the following:

12. Fire Hydrants

.1 Installation of Fire Hydrant

Unit of Measurement: each (ea.)

This item includes: hydrant complete with lead(s) as indicated, polyethylene encasement, anchor tee, valve and valve box, anodes, thrust blocks, reinstatement and stabilization of area around hydrant, permanent reflective marker, painting of hydrant, excavation, backfilling up to and including Type 2 gravels. Hydrants types as indicated on drawings.

Includes removal of existing hydrant to be returned to Owner.

Delete Subsection 15 and replace with the following:

15. Water Services

.1 Reconnect Existing Water Services

Unit of Measurement: each (ea.)

This item includes: saddle as required, tapping, corporation stop, service pipe (if required), couplings (if required), zinc anode (if required), magnesium anode cad welded (if required). For large services, greater than 50mm diameter this item shall include tee, valve, and fittings. Includes backfilling up to and including Type 2 gravels, coordination with homeowner, all incidentals and reinstatement as required to complete the work and as indicated on the Drawings. One coupling will be permitted to connect to existing lateral.

.2 Replace Existing Water Service (Lead Service) – Private (PROVISIONAL)

Unit of Measurement: each (ea.)

This item includes: supply and installation of service pipe (to any length) and fittings from the curb stop to the building foundation, removal and disposal of existing lead pipe within or partially within theoretical trench, saddle as required, tapping, corporation stop, curb stop, tee, gate valve as required, service box (c/w finish grade adjustment), anode, rigid insulation as required, coordination with homeowner, excavation, all incidentals and reinstatement as required to complete the work and as indicated on the Drawings. In paved areas, includes backfilling up to and including Type 2 gravels and reinstatement of disturbed surfaces to project standards (where not covered by separate pay items as part of the planned street recapitalization work). In areas outside of the paved roadway, item includes reinstatement to existing surface conditions or better. For large services, greater than 50mm diameter, this item shall include fittings and couplings.

Item includes solution for working around existing trees or infrastructure (such as hydro excavation, directional drilling, pipe bursting, etc.). Lateral locations shown on the drawings are approximate in nature and are to be reviewed and confirmed in the field during construction. Installation either open trench or directional drill. If directional drilling, this item also includes access pits and directional drilling.

Note: this item does not cover repair or replacement of services damaged during construction, which shall be at the expense of the contractor.

Delete Subsection 18 and replace with the following:

18. Temporary Water

Unit of Measurement: Lump Sum (LS)

This item includes: but is not limited to, the supply of all labour, material and equipment required for installing, maintaining and removing temporary main line (min 50mm) and service laterals complete with valves, pipe, backflow prevention device, meter (supplied by Owner), temporary pressure reducing valves (to match temporary main size), vacuum breakers at the connection to homes, road cuts and temporary asphalt if required, testing and disinfection, and reinstatement as required. All pipes must be disinfected to contract documents. Coordinate connection to homes with homeowners. Limits of temporary water service may extend outside the limits of construction. Larger temporary lines may be required to ensure that an adequate supply of water is provided to all customers. Submit a proposed plan 2 weeks prior to installation for review by Owner. This item also includes installation of approved vehicle and pedestrian crossing protective measures, frost

protection as required, producing and distributing notice to customers that will be placed on temporary water and/or affected by shutdowns to facilitate temporary connections to the main.

Delete Subsection 19 and replace with the following:

19. Water Line Removal

Unit of Measurement: metre (m)

This item includes: excavation, removal and disposal of the existing water main outside of the new water main trench, including backfill and reinstatement to underside of sub-base materials.

SANITARY SEWER SYSTEM

Delete subsection 21 and replace with the following

21 Gravity Pipe

Unit of Measurement: meter (m) measured along centerline of pipe in horizontal plane

This item includes: supply and installation of pipe, excavation, backfill and compaction to subgrade as shown on the Contract Drawings.

Delete subsection 23 and replace with the following

23 Manholes

Unit of Measurement: each (ea)

This item includes: manhole, frame, cover, grout, grade adjustment, backfill, gravel base, and compaction to top of subgrade as shown on the Contract Drawings.

Delete subsection 24 and replace with the following

24 Services

.1 Connection of Existing Service to new main

Unit of Measurement: each

This item includes: locating existing service and supply and installation of pipe, fittings and incidentals, including backfill and compaction to subgrade.

Delete subsection 26 and replace with the following:

26 CCTV Inspection

Unit of Measurement: meter (m)

Method of Measurement: along centerline of pipe in horizontal plane

This item includes: Conduction of a CCTV inspection of sanitary piping prior to and following construction as indicated, as well as at the end of the warranty period, determining locations of existing service laterals and report findings to the engineer or for final takeover or warrantee verification.

Add subsection 28 as follows:

28 Removal of Existing Infrastructure

.1 Removal of Existing Sanitary Pipe

Unit of Measurement: metre (m)

This item includes: excavation, removal and disposal of the existing sanitary pipe as indicated on the drawings, including backfill and reinstatement to underside of sub-base materials.

.2 Removal of Existing Sanitary Manholes

Unit of Measurement: Each (ea)

This item includes: excavation, removal and disposal of the existing sanitary manholes as indicated on the drawings, including backfill and reinstatement to underside of sub-base materials.

STORM SEWER SYSTEM

Delete subsection 31 and replace with the following

31 Pipe

Unit of Measurement: meter (m) measured along centerline of pipe in horizontal plane

This item includes: supply and installation of pipe, excavation, backfill and compaction as shown on the Contract Drawings.

Delete subsection 33 and replace with the following

33 Catch Basins

Unit of Measurement: each (ea)

This item includes: catch basins, grate, grout, grade adjustment, backfill, gravel base, and compaction to subgrade as shown on the Contract Drawings.

Delete subsection 34 and replace with the following

34 Catch Basin Leads

Unit of Measurement: metre (m)

Method of Measurement: along centreline of pipe from centre of catch basin to centre of main sewer, centre of manhole, or termination point indicated.

This item includes: pipe complete with all fittings and connections to existing catch basins as shown on the Contract Drawings.

Delete subsection 38 and replace with the following

38 CCTV Inspection

Unit of Measurement: meter (m)

Method of Measurement: along centerline of pipe

This item includes: Conduction a CCTV inspection of storm piping following construction as indicated, as well as at the end of the warranty period, determining locations of existing service laterals and report findings to the engineer or for final takeover or warrantee verification.

Add subsection 40 as follows:

40 Remove Existing Structures: Catchbasin

Unit of Measurement: each

This item includes: excavation, and disposal of surplus material, Catchbasin structure and frame and grate, supply and install backfill and compaction to subgrade as indicated on contract drawings.

STREET CONSTRUCTION

Remove subsection 41 and replace with the following:

41 Gravels

Unit of Measurement: square metre (m^2)

Method of Measurement: slope measure of indicated area at mean depth.

This item includes: supply, placement and compaction of gravel as indicated, and supply and placement of geotextile as noted on the contract documents.

Remove subsection 43 and replace with the following:

43 Asphaltic Concrete

.1 Asphaltic Concrete

Unit of Measurement: square metre (m^2)

Method of measurement: slope measure of indicated area.

This item includes: cleaning, supply, placement and compaction of asphaltic concrete as indicated including dry sweeping milled surfaces prior to tacking, tack coat, temporary pavement markings and saw cutting as necessary. This item also includes supply, placement and compaction of asphalt concrete ramps installed at all limits including side streets and pedestrian ramps using hot mix asphalt (or approved equivalent) and a bond separator. Asphalt ramps are to be installed before work is completed for the day, and before the area is opened to live traffic. Asphalt ramps to be constructed to at least a 20 to 1 horizontal to vertical ratio.

.2 Asphalt Concrete Removals

.1 Full Depth Asphalt Removal

Unit of Measurement: square metre (m^2)

Method of measurement: slope measure of indicated area.

This item includes: the supply of all necessary materials, labour and equipment required for the full depth asphaltic concrete removal, including removal of base and sub-base gravels in the areas outside of the locations on Junction Road with the Concrete Pavement underlay (specifically from Main Street to Fir Street, and along the alignment of the new box culvert on North Street). Item also includes disposal of asphalt and gravel materials as specified in the contract documents. This item also includes cleaning of all milled surfaces, temporary pavement markings and all other work as designated by the Engineer. This item also includes supply, placement and compaction of asphalt concrete ramps installed between the planed surface and the existing asphalt at all limits including side streets and pedestrian ramps using hot mix asphalt (or approved equivalent) and a bond separator. Asphalt ramps are to be installed before work is completed for the day, and before the area is opened to live traffic. Asphalt ramps to be constructed to at least a 20 to 1 horizontal to vertical ratio.

.2 Full Depth Asphalt Removal Above Concrete Base

Unit of Measurement: square metre (m^2)

Method of measurement: slope measure of indicated area.

This item includes: the supply of all necessary materials, labour and equipment required for the full depth asphaltic concrete removal for asphalt concrete above the concrete pavement base (Junction Road from approximately Fir Street to North Street). Item also includes disposal of asphalt materials as specified in the contract documents.

.3 Full Depth Concrete Pavement Removal

Unit of Measurement: square metre (m^2)

Method of measurement: slope measure of indicated area.

This item includes: the supply of all necessary materials, labour and equipment required for the full depth concrete pavement where it exists below the current asphalt pavement surface of Junction Road (Junction Road from approximately Fir Street to North Street). Item also includes disposal of concrete materials as specified in the contract documents.

Add subsection 53 as follows:

45 Sidewalk

.4 Sidewalk Removal

Unit of Measurement: square metre (m^2)

Method of Measurement: slope measure of indicated area

This item includes: common excavation, removal and disposal of existing sidewalk as per tender Drawings.

ADDITIONAL ITEMS

Add subsection 77 as follows:

77 Line Painting

Unit of Measurement: lump sum (L.S.)

This item includes: accurate inventory of existing pavement markings, layout and pre-marking, the supply and application of paint in the colours, sizes, and configurations shown on the drawings and as specified by the Engineer. Also includes common excavation, backfill, supply and installation of concrete, reinforcing steel, iron pipe sleeve sign post and water tight cap, and supply and installation of road signs.

SECTION 03 30 00 – CONCRETE

Revise 2.2 Concrete Mix to read as follows:

.1 Proportion normal density concrete in accordance with CSA – A23.1. Alternative 1 to give following properties for all concrete:

.1 Cement: Type 10.
.2 Minimum compressive strength at 28 days: 30 MPa.
.3 Class of exposure: F-2.
.4 Nominal size of coarse aggregate: 20 mm.
.5 Slump at time and point of discharge: 80 mm +/- 30 mm.
.6 Air content: 5 to 8 %.
.7 Chemical admixtures: type as approved, and in accordance with ASTM C494.
.8 Maximum water cement ratio: 0.50.

SECTION 33 11 00 – WATER MAIN

Delete Section 2.3 and replace with the following:

2.3 Polyvinyl Chloride and Polyvinyl Chloride Biaxial Oriented Pipe and Fittings

.1 Pipe and Joints: to CAN/CSA B137.3, AWWA C900

.2 Fittings:

.1 PVC/PVCO: to CAN/CSA B137.

.2 Gray or ductile-iron: to AWWA C110 and C153 cement mortar lined to AWWA C104, minimum pressure rating 1035 kPa for cast, 1720 kPa for ductile iron

.3 Polyvinyl Chloride Biaxial Oriented Pipe Acceptable Product:

.1 IPEX Bionax.

Add the following as Subsection 2.7.9:

.9 Acceptable Products

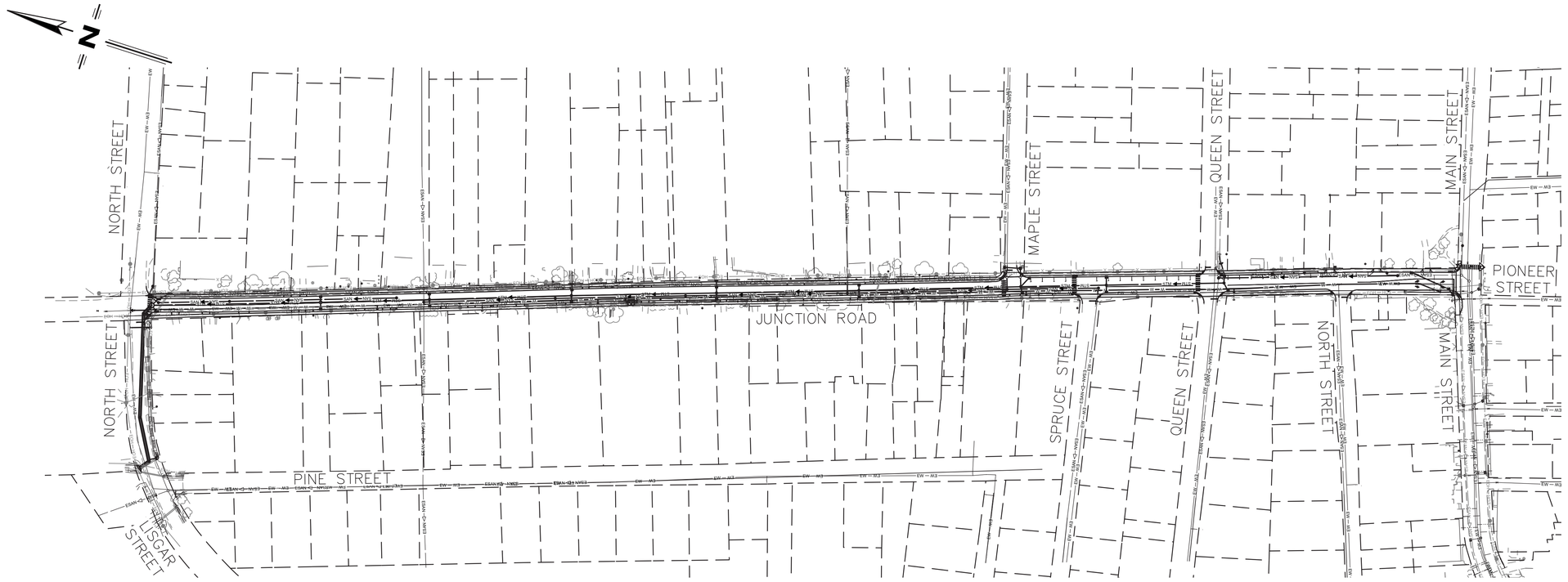
.1 Clow Brigadier “M67”
.2 Canada Valve “Century”
.3 Mueller “Super Centurion 250”
.4 AVK Series 2780 “Nostalgic”

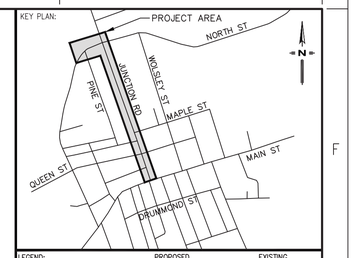
Add the following as Subsection 2.8.4:

.4 Acceptable products:

.1 Clow McAvity F-6100 Resilient Seat Valve
.2 Mueller A2360-23 resilient Wedge Valve
.3 AVK Series 25/20 resilient Seat Valve

*******End of Supplementary Specifications 00 74 00*******





LEGEND:	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W — W	EW — W3
SANITARY PIPE & MANHOLE	SAN — NYS	ESAN — NYS3
STORM PIPE & MANHOLE	STM — PLS	ESTM — PLS3
UTILITY LINES & POLE	OH — HO	EOH — HO3
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN	ENDCAP	CULVERT
FIRE HYDRANT	LIGHT STANDARD	HEADWALL
STREET TREE	PHONE PEDESTAL	SIDEWALK
ROAD SIGN	URD BOX	FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078
DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:1500 VERTICAL: N/A
IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT
DRAWN BY: J. ASKE
CHECKED BY: A. MILLIGAN
APPROVED BY: A. MILLIGAN

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:
SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE
SPRINGHILL, NS

TITLE:
COVER SHEET

SHEET NUMBER: 0
SHEET #: 0 OF 12

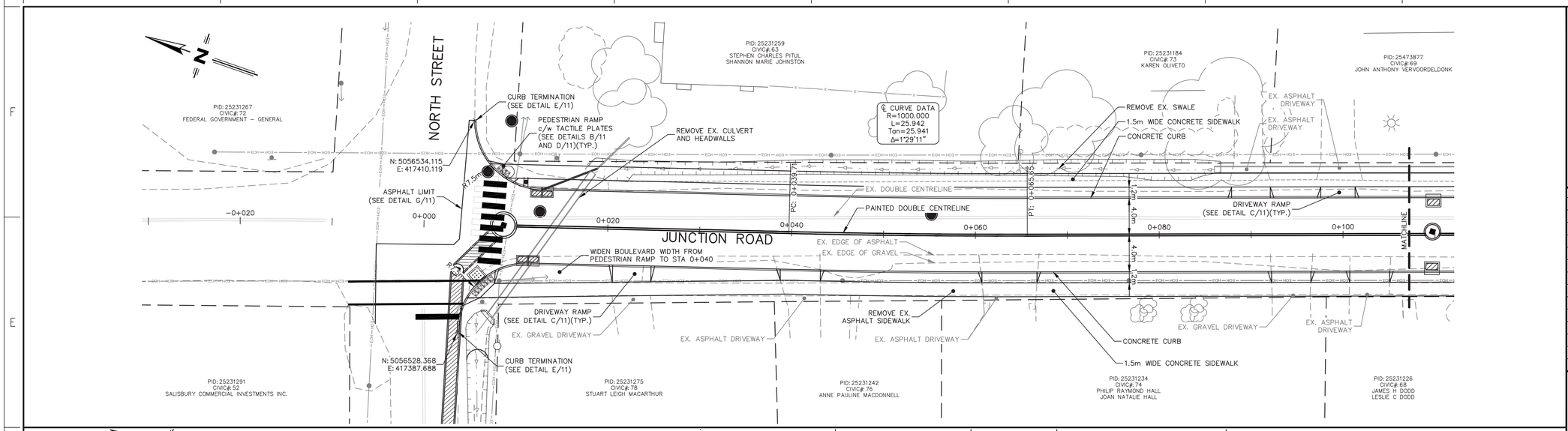
ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13
REV #: 0

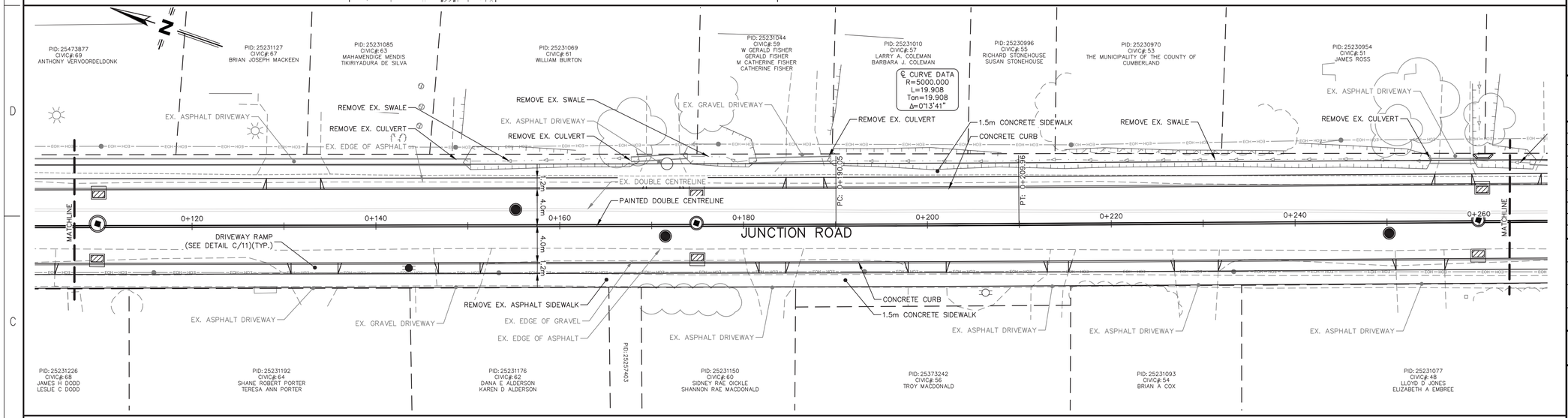
SPRINGHILL - JUNCTION ROAD INFRASTRUCTURE UPGRADE

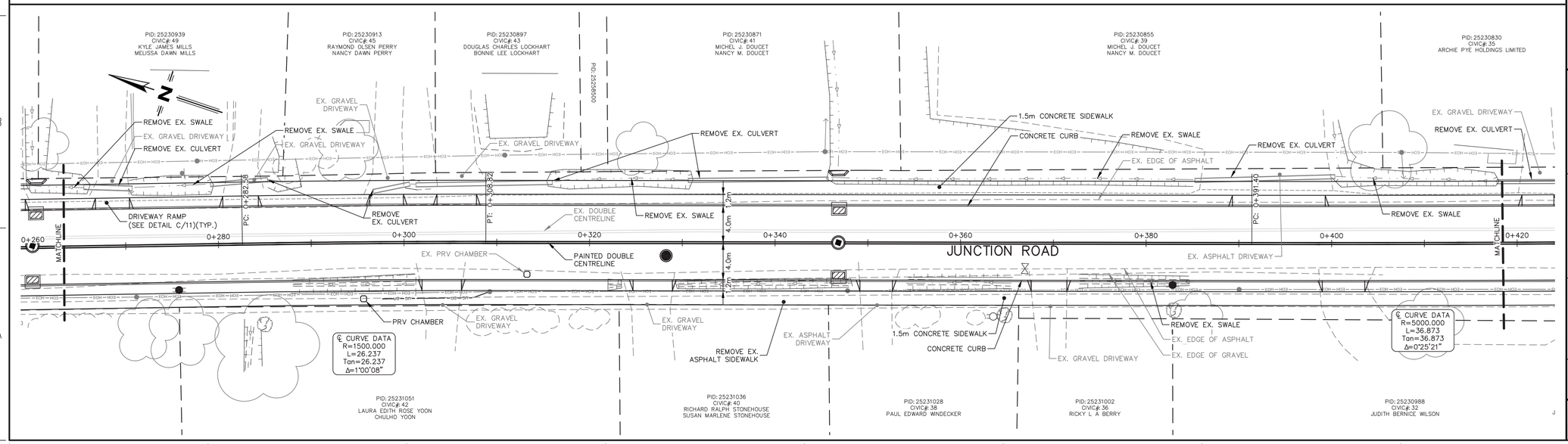
REV. 0 - ISSUED FOR TENDER - 2023/03/13

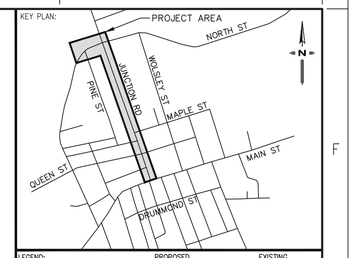
SHEET 1	JUNCTION ROAD - SITE LAYOUT - STA -0+020 TO 0+420
SHEET 2	JUNCTION ROAD - SITE LAYOUT - STA 0+420 TO 0+820
SHEET 3	NORTH STREET - PLAN AND PROFILE - STA 0+000 TO 0+110
SHEET 4	JUNCTION ROAD - PLAN AND PROFILE - STA -0+020 TO 0+220
SHEET 5	JUNCTION ROAD - PLAN AND PROFILE - STA 0+220 TO 0+520
SHEET 6	JUNCTION ROAD - PLAN AND PROFILE - STA 0+520 TO 0+820
SHEET 7	JUNCTION ROAD - CROSS SECTIONS - STA 0+020 TO 0+780
SHEET 8	PAVEMENT MARKING AND SIGNAGE PLAN - STA 0+000 TO 0+480
SHEET 9	PAVEMENT MARKING AND SIGNAGE PLAN - STA 0+480 TO 0+800
SHEET 10	CONSTRUCTION NOTES AND DETAILS I
SHEET 11	CONSTRUCTION NOTES AND DETAILS II
SHEET 12	CONSTRUCTION NOTES AND DETAILS III

XREFS: K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-DWL\1.4.1-XREFS\211-11078-00_TTBL_JR.DWG, ...\1.4.1-XREFS\211-11078-00_BASE.DWG
WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-DWL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_COVER SHEET_JR.DWG PRINTED: 2:31 PM 2023/03/13 BY: AARON.THIBAULT 001









LEGEND:

	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W — W	EW — W
SANITARY PIPE & MANHOLE	SAN — SAN	ESAN — ESAN
STORM PIPE & MANHOLE	STM — STM	ESTM — ESTM
UTILITY LINES & POLE	— OH — HO —	— EOH — HO —
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN		ENDCAP / CULVERT
FIRE HYDRANT		LIGHT STANDARD / HEADWALL
STREET TREE		PHONE PEDESTAL / SIDEWALK
ROAD SIGN		URD BOX / FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE: 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

COPYRIGHT:

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:250 VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT	DRAWN BY: J. ASKE
CHECKED BY: C. FOGARTY	APPROVED BY: A. MILLIGAN

SCALE: 1:250 METRIC
5 4 3 2 1 0 5 10 15

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

SITE LAYOUT

JUNCTION ROAD

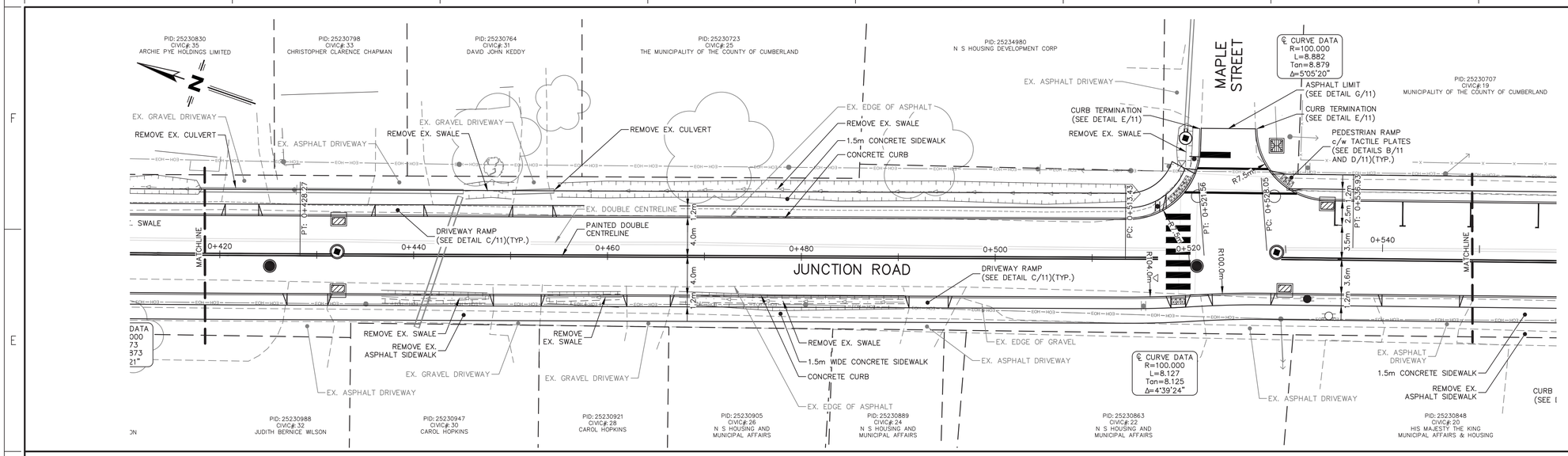
STA –0+020 to 0+420

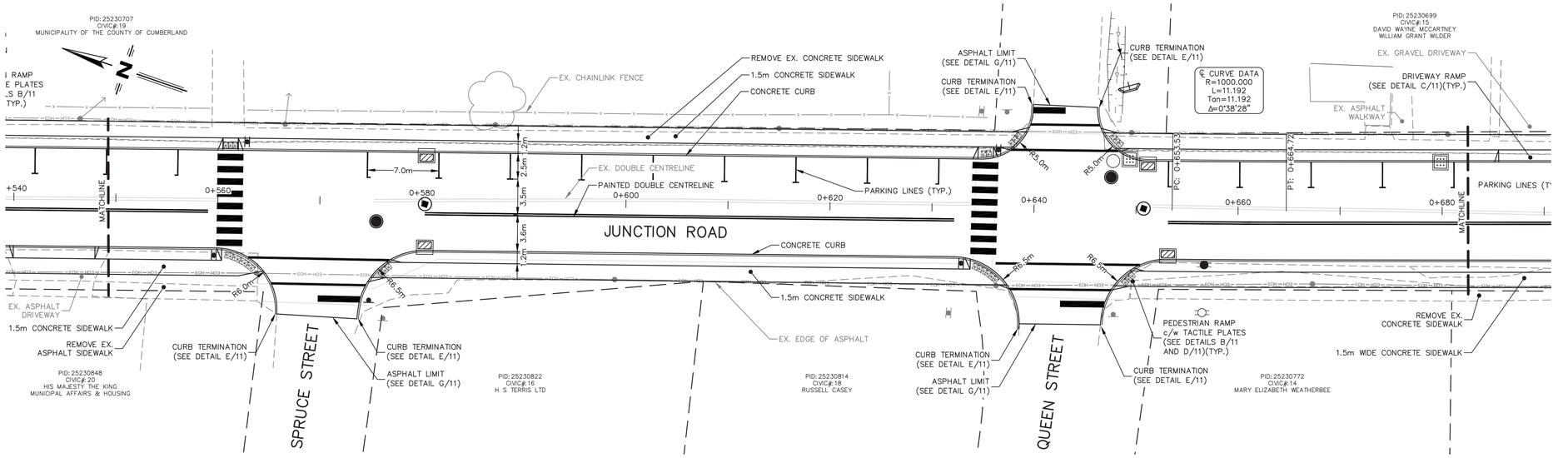
SHEET NUMBER: 1

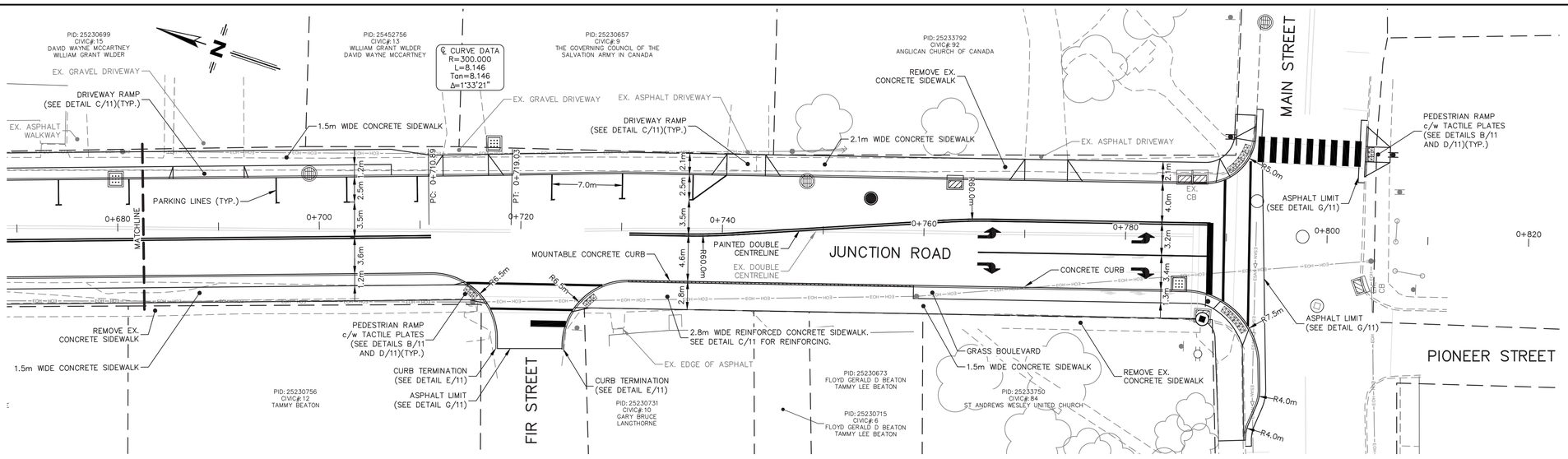
SHEET #: 1 OF 12

ISSUE:	REV #
ISSUED FOR TENDER	0
DATE OF: 2023/03/13	

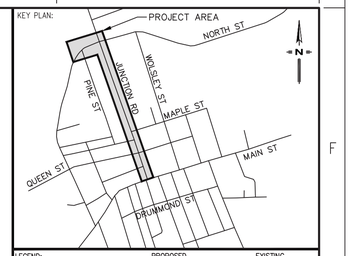
XREFS: ...\V1.4.1-XREFS\V211-11078-00_BASE.DWG ...\V1.4.1-XREFS\V211-11078-00_TBL_JR.DWG
WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-DWL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_SITE PLAN_JR.DWG 001 PRINTED: 2:33 PM 2023/03/13 BY: AARON.THIBAULT







KEY PLAN:



LEGEND:	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W — W	EW — W
SANITARY PIPE & MANHOLE	SAN — SAN	ESAN — ESAN
STORM PIPE & MANHOLE	STM — STM	ESTM — ESTM
UTILITY LINES & POLE	OH — HO	EOH — HO
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN		ENDCAP / CULVERT
FIRE HYDRANT		LIGHT STANDARD / HEADWALL
STREET TREE		PHONE PEDESTAL / SIDEWALK
ROAD SIGN		URD BOX / FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER — PROVINCE OF NOVA SCOTIA
DATE: 2023/03/13
A. G. MILLIGAN
9873

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:250 VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT	DRAWN BY: J. ASKE
CHECKED BY: C. FOGARTY	APPROVED BY: A. MILLIGAN

SCALE: 1:250 METRIC
5 4 3 2 1 0 5 10 15

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

SITE LAYOUT

JUNCTION ROAD

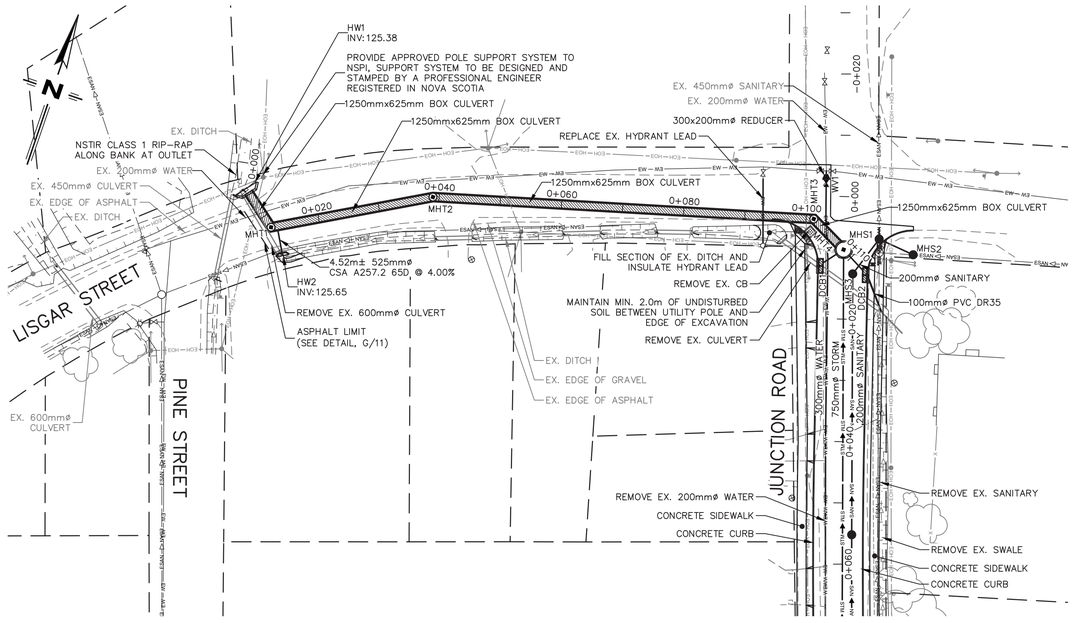
STA 0+420 to 0+820

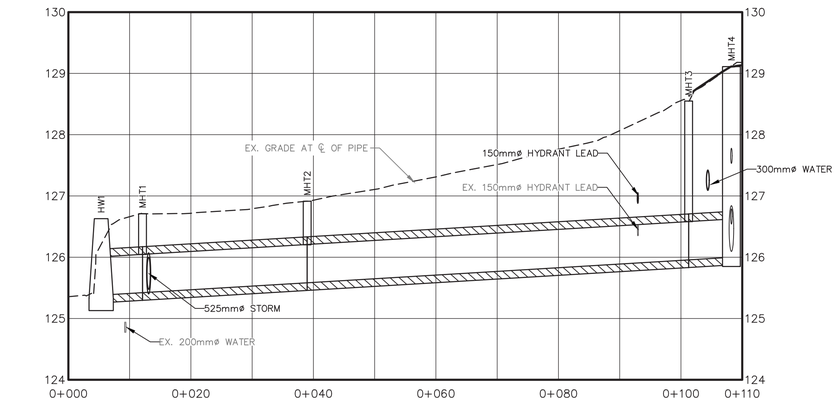
SHEET NUMBER: 2

SHEET # 2 OF 12

ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13
REV #: 0

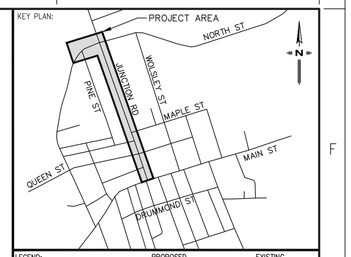
PRINTED: 2:33 PM 2023/03/13 BY: AARON.THIBAULT
WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_SITE PLAN_JR.DWG
XREFS: \\1.41-XREFS\211-11078-00_BASE.DWG; \\1.41-XREFS\211-11078-00_TTBL_JR.DWG





STORM INVERT	125.381	125.422	125.422	125.583	125.583	125.957	125.957	125.999
STORM GRADE	6.75m± 1250mmx625mmø CONCRETE BOX CULVERT @ 0.60%		26.88m± 1250mmx625mmø CONCRETE BOX CULVERT @ 0.60%		62.27m± 1250mmx625mmø CONCRETE BOX CULVERT @ 0.60%		6.98m± 1250mmx625mmø CONCRETE BOX CULVERT @ 0.60%	

KEY PLAN:



LEGEND:	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W — M —	EW — M3 —
SANITARY PIPE & MANHOLE	SAN — NYS	ESAN — NYS3
STORM PIPE & MANHOLE	STM — PLS	ESTM — PLS3
UTILITY LINES & POLE	— OH — HO —	— EOH — HO3 —
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN		ENDCAP / CULVERT
FIRE HYDRANT		LIGHT STANDARD / HEADWALL
STREET TREE		PHONE PEDESTAL / SIDEWALK
ROAD SIGN		URD BOX / FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078
DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:500 VERTICAL: 1:50
IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT
DRAWN BY: A. THIBAULT
CHECKED BY: A. MILLIGAN
APPROVED BY: A. MILLIGAN
SCALE: 1:500 METRIC 10 8 6 4 2 0 10 20 30

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

PLAN AND PROFILE

NORTH STREET

STA 0+000 to 0+110

SHEET NUMBER: 3
SHEET #: 3 OF 12

ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13
REV #: 0

XREFS: \\1f4.1-XREFS\V211-11078-00_BASE.DWG \\1f4.1-XREFS\V211-11078-00_TTBL_R.DWG
WSP REF. NO.: 211-11078 K:\DARTMOUTH\202\V211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_NORTH-P&P_R.DWG 001 PRINTED: 2:34 PM 2023/03/13 BY: AARON.THIBAULT

STORM MANHOLE SCHEDULE

MANHOLE	TOP ELE.	INVERTS IN:	INVERTS OUT
MHT4 (2400mmø)	129.11m	750mmø INV=126.09m (FROM MHT5) 250mmø INV=127.53m (FROM DCB2) 250mmø INV=126.54m (FROM DCB1)	1250mmø @ 0.6% INV=126.00m (TO HW1)
MHT5 (1500mmø)	135.00m	600mmø INV=131.70m (FROM MHT6) 200mmø INV=133.35m (FROM CB4) 200mmø INV=133.68m (FROM CB3)	750mmø @ 5.4% INV=131.55m (TO MHT4)
MHT6 (1200mmø)	140.32m	600mmø INV=137.26m (FROM MHT7) 200mmø INV=138.67m (FROM CB6) 200mmø INV=139.02m (FROM CB5)	600mmø @ 7.4% INV=136.52m (TO MHT5)

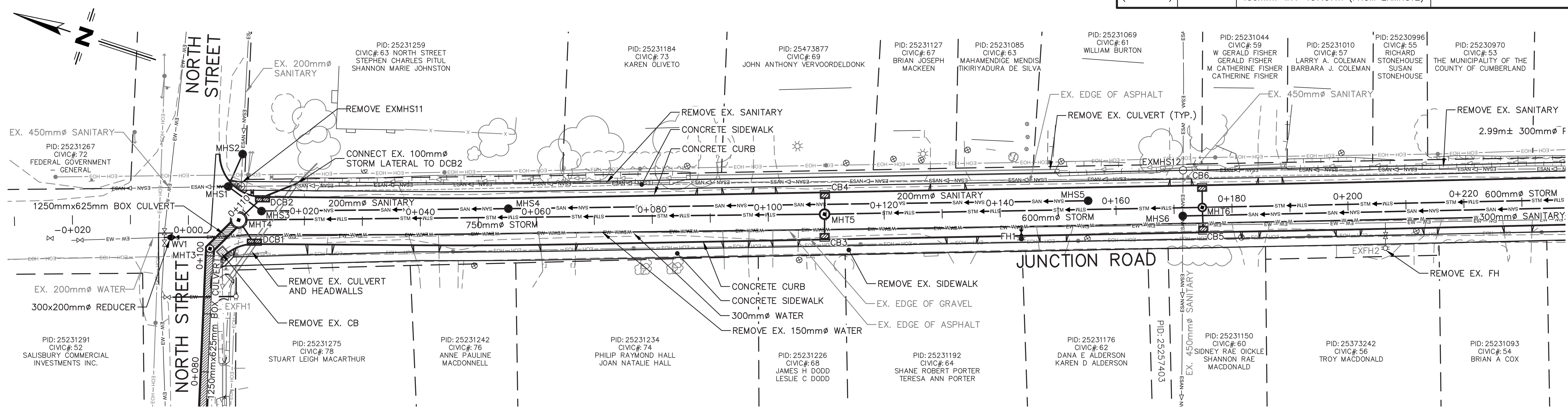
CATCHBASIN SCHEDULE

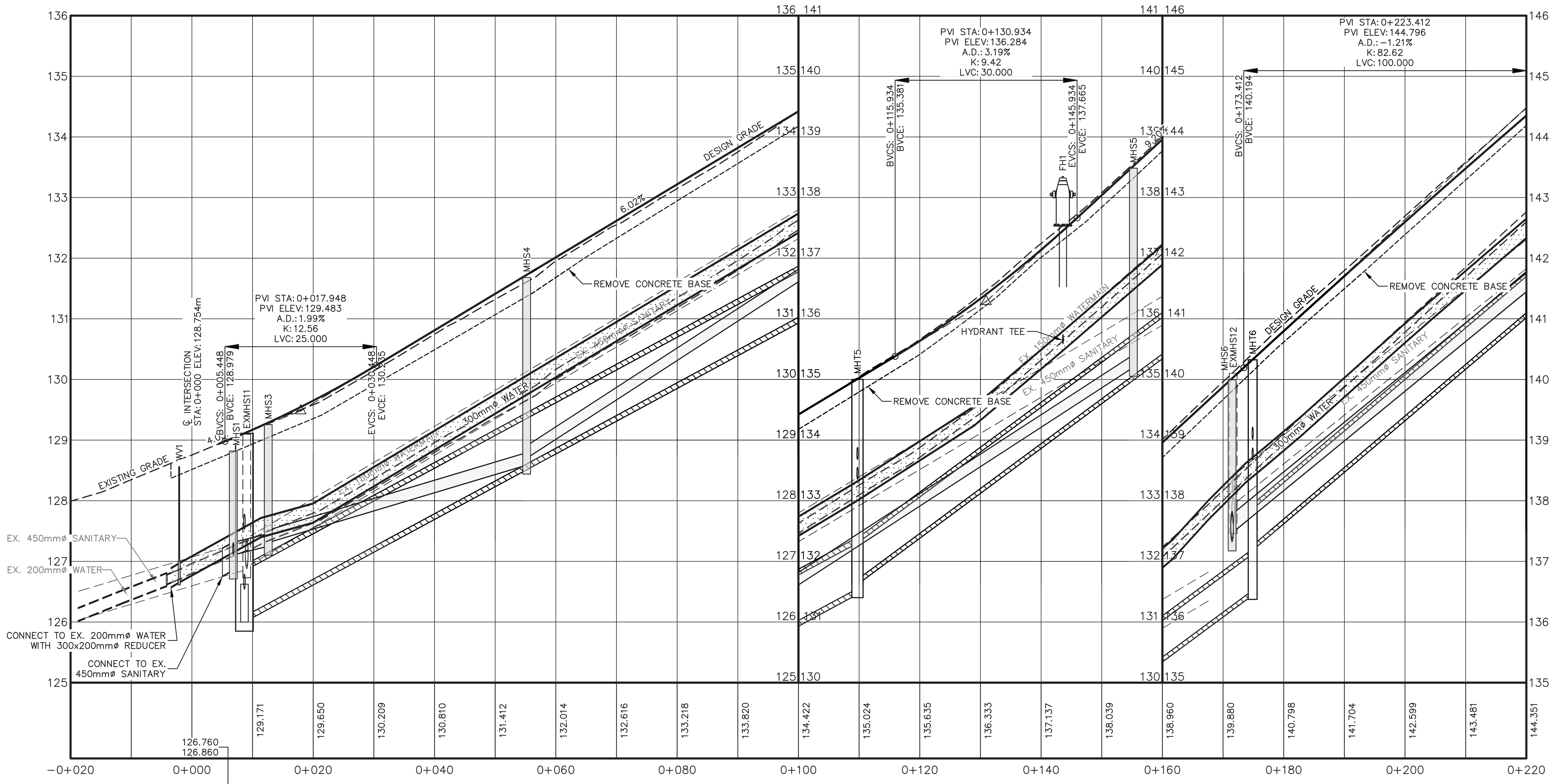
LABEL	TOP OF GRATE ELEV.	INV. OUT	INV. @ MH	PIPE OUT SIZE / TYPE
CB3	134.87	133.77	133.68 @ MHT5	4.3m – 200mm PVC DR18 @ 2.0%
CB4	134.88	133.43	133.35 @ MHT5	3.7m – 200mm PVC DR35 @ 2.0%
CB5	140.21	139.10	139.02 @ MHT6	4.2m – 200mm PVC DR18 @ 2.0%
CB6	140.20	138.74	138.67 @ MHT6	3.8m – 200mm PVC DR35 @ 2.0%
DCB1	129.08	126.64	126.54 @ MHT4	4.9m – 250mm PVC DR18 @ 2.0%
DCB2	129.16	127.70	127.53 @ MHT4	5.7m – 250mm PVC DR35 @ 3.0%

SANITARY MANHOLE SCHEDULE

MANHOLE	TOP ELE.	INVERTS IN:	INVERTS OUT
MHS1 (1050mmø)	128.82m	200mmø INV=127.11m (FROM MHS2) 200mmø INV=127.11m (FROM MHS3)	450mmø @ 5.6% INV=126.86m (TO 450 PIPE)
MHS2 (1050mmø)	127.58m	200mmø INV=127.23m (FROM 200 PIPE)	200mmø @ 1.0% INV=127.17m (TO MHS1)
MHS3 (1050mmø)	129.25m	200mmø INV=127.31m (FROM MHS4)	200mmø @ 2.0% INV=127.25m (TO MHS1)
MHS4 (1050mmø)	131.68m	200mmø INV=128.70m (FROM MHS5)	200mmø @ 3.0% INV=128.59m (TO MHS3)
MHS5 (1050mmø)	138.48m		200mmø @ 6.5% INV=135.20m (TO MHS4)
MHS6 (1050mmø)	139.99m	300mmø INV=137.47m (FROM MHS7) 450mmø INV=137.37m (FROM EXMHS12)	450mmø @ 3.0% INV=137.32m (TO 450 PIPE)

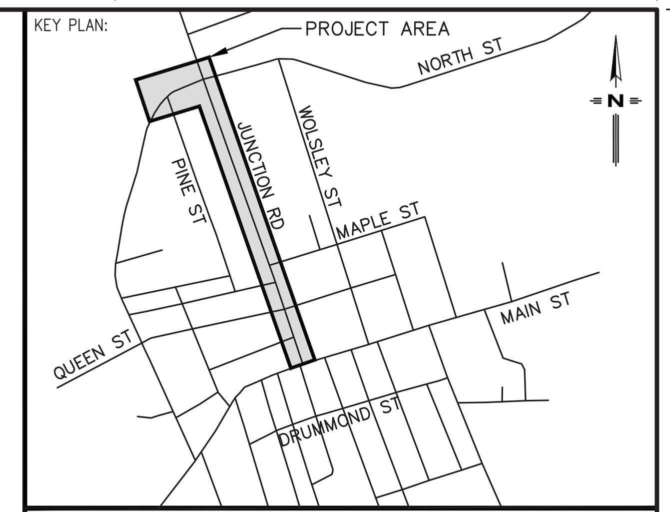
NOTES:
1. EXISTING INFRASTRUCTURE IS BASED ON A COMBINATION OF TOPOGRAPHICAL SURVEY BY WSP, DATED 2021 AND 2022, AND SPRINGHILL GIS.
2. PROPERTY BOUNDARIES ARE BASED ON PROVINCIAL MAPPING.
3. CONDUCT EXPLORATORY EXCAVATIONS FOR EXISTING SANITARY PIPES LOCATED AT MHS1 AND MHS2 AND REPORT PIPE SIZE AND DEPTH TO ENGINEER.





SANITARY INVERT	127.110 / 127.253 / 127.313 / 128.590 / 128.703 / 135.203 / 137.473 / 143.929
SANITARY GRADE	42.57m± 200mmø PVC DR35 @ 3.00% / 100.00m± 200mmø PVC DR35 @ 6.50% / 78.75m± 300mmø PVC DR35 @ 8.20%
STORM INVERT	1.80m± 450mmø PVC DR35 @ 5.60% / 126.093 / 7.13m± 200mmø PVC DR35 @ 2.00% / 131.551 / 131.701 / 136.523 / 137.264 / 144.494
STORM GRADE	101.05m± 750mmø CSA A257.2 65D @ 5.40% / 65.15m± 600mmø CSA A257.2 65D @ 7.40% / 85.06m± 600mmø CSA A257.2 65D @ 8.50%

KEY PLAN:



LEGEND:

	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W	EW
SANITARY PIPE & MANHOLE	SAN	ESAN
STORM PIPE & MANHOLE	STM	ESTM
UTILITY LINES & POLE	OH	EOH
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN	ENDCAP	CULVERT
FIRE HYDRANT	LIGHT STANDARD	HEADWALL
STREET TREE	PHONE PEDESTAL	SIDEWALK
ROAD SIGN	URD BOX	FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:

DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078
DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:500 VERTICAL: 1:50
IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT
DRAWN BY: A. THIBAULT
CHECKED BY: C. FOGARTY
APPROVED BY: A. MILLIGAN
SCALE: 1:500 METRIC 10 8 6 4 2 0 10 20 30

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

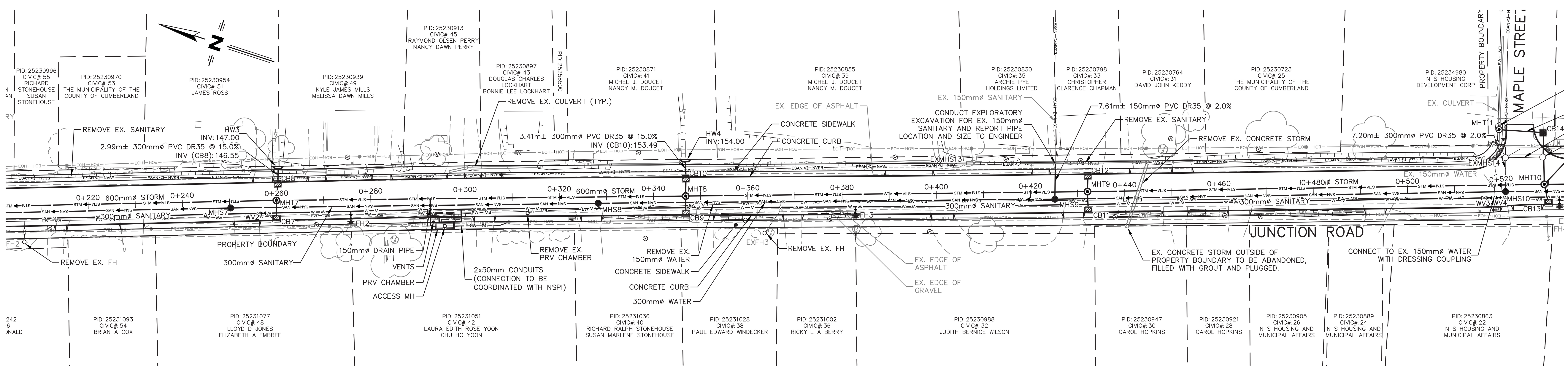
TITLE:

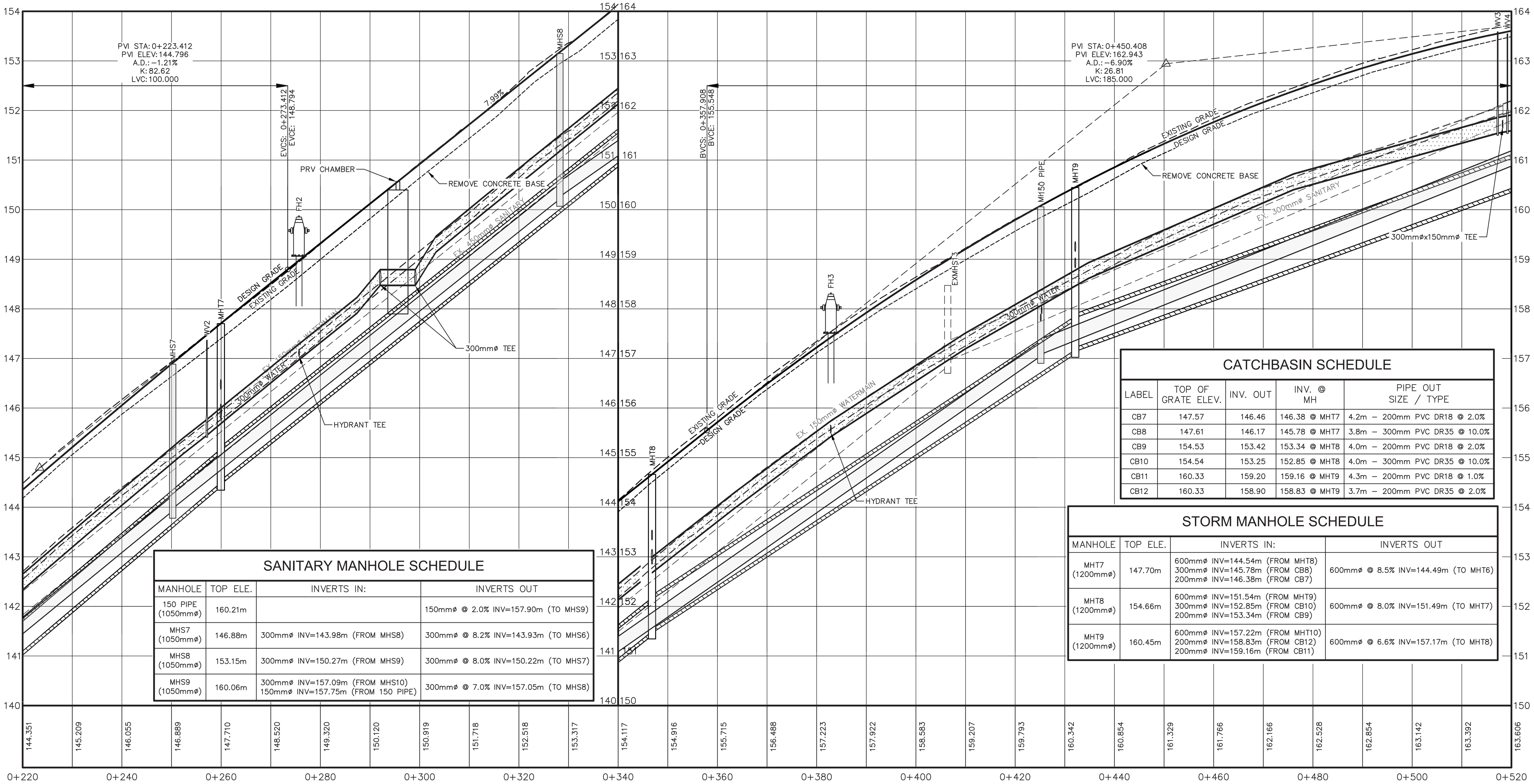
PLAN AND PROFILE
JUNCTION ROAD
STA −0+020 to 0+220

SHEET NUMBER: 4
SHEET #: 4 OF 12

ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13
REV #: 0

WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_JUNCTION-P&P_JR.DWG 001 PRINTED: 2:36 PM 2023/03/13 BY: AARON.THIBAULT
XREFS: ..\..\1.4.1-XREFS\X211-11078-00_BASE.DWG; ..\..\1.4.1-XREFS\X211-11078-00_TTBL_JR.DWG





SANITARY MANHOLE SCHEDULE

MANHOLE	TOP ELE.	INVERTS IN:	INVERTS OUT
150 PIPE (1050mmø)	160.21m		150mmø @ 2.0% INV=157.90m (TO MHS9)
MHS7 (1050mmø)	146.88m	300mmø INV=143.98m (FROM MHS8)	300mmø @ 8.2% INV=143.93m (TO MHS6)
MHS8 (1050mmø)	153.15m	300mmø INV=150.27m (FROM MHS9)	300mmø @ 8.0% INV=150.22m (TO MHS7)
MHS9 (1050mmø)	160.06m	300mmø INV=157.09m (FROM MHS10) 150mmø INV=157.75m (FROM 150 PIPE)	300mmø @ 7.0% INV=157.05m (TO MHS8)

CATCHBASIN SCHEDULE

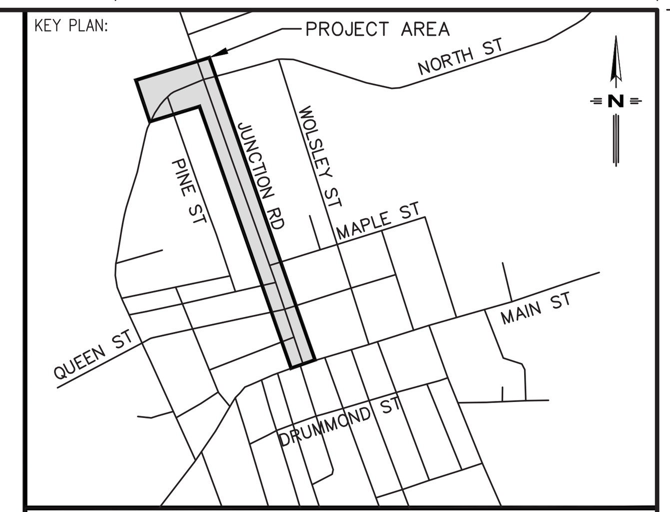
LABEL	TOP OF GRATE ELEV.	INV. OUT	INV. @ MH	PIPE OUT SIZE / TYPE
CB7	147.57	146.46	146.38 @ MHT7	4.2m – 200mm PVC DR18 @ 2.0%
CB8	147.61	146.17	145.78 @ MHT7	3.8m – 300mm PVC DR35 @ 10.0%
CB9	154.53	153.42	153.34 @ MHT8	4.0m – 200mm PVC DR18 @ 2.0%
CB10	154.54	153.25	152.85 @ MHT8	4.0m – 300mm PVC DR35 @ 10.0%
CB11	160.33	159.20	159.16 @ MHT9	4.3m – 200mm PVC DR18 @ 1.0%
CB12	160.33	158.90	158.83 @ MHT9	3.7m – 200mm PVC DR35 @ 2.0%

STORM MANHOLE SCHEDULE

MANHOLE	TOP ELE.	INVERTS IN:	INVERTS OUT
MHT7 (1200mmø)	147.70m	600mmø INV=144.54m (FROM MHT8) 300mmø INV=145.78m (FROM CB8) 200mmø INV=146.38m (FROM CB7)	600mmø @ 8.5% INV=144.49m (TO MHT6)
MHT8 (1200mmø)	154.66m	600mmø INV=151.54m (FROM MHT9) 300mmø INV=152.85m (FROM CB10) 200mmø INV=153.34m (FROM CB9)	600mmø @ 8.0% INV=151.49m (TO MHT7)
MHT9 (1200mmø)	160.45m	600mmø INV=157.22m (FROM MHT10) 200mmø INV=158.83m (FROM CB12) 200mmø INV=159.16m (FROM CB11)	600mmø @ 6.6% INV=157.17m (TO MHT8)

SANITARY INVERT	137.473	143.929 / 143.979	150.219 / 150.269	157.053 / 157.087	160.913
SANITARY GRADE	78.75m± 300mmø PVC DR35 @ 8.20%	78.00m± 300mmø PVC DR35 @ 8.00%	96.91m± 300mmø PVC DR35 @ 7.00%	95.65m± 300mmø PVC DR35 @ 4.00%	
STORM INVERT	137.264	144.494 / 144.544	151.494 / 151.544	157.172 / 157.222	160.760
STORM GRADE	85.06m± 600mmø CSA A257.2 65D @ 8.50%	86.88m± 600mmø CSA A257.2 65D @ 8.00%	85.28m± 600mmø CSA A257.2 65D @ 6.60%	96.93m± 600mmø CSA A257.2 65D @ 3.65%	

KEY PLAN:



LEGEND:

	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W — W	EW — EW
SANITARY PIPE & MANHOLE	SAN — SAN	ESAN — ESAN
STORM PIPE & MANHOLE	STM — STM	ESTM — ESTM
UTILITY LINES & POLE	OH — OH	EOH — EOH
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN	ENDCAP	CULVERT
FIRE HYDRANT	LIGHT STANDARD	HEADWALL
STREET TREE	PHONE PEDESTAL	SIDEWALK
ROAD SIGN	URD BOX	FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078
DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:500 VERTICAL: 1:50
IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT
DRAWN BY: A. THIBAULT
CHECKED BY: C. FOGARTY
APPROVED BY: A. MILLIGAN
SCALE: 1:500 METRIC 10 8 6 4 2 0 10 20 30

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

PLAN AND PROFILE
JUNCTION ROAD
STA 0+220 to 0+520

SHEET NUMBER: 5
SHEET #: 5 OF 12

ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13
REV #: 0

PRINTED: 2:36 PM 2023/03/13 BY: AARON.THIBAULT
002
K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_JUNCTION-P&P_JR.DWG
WSP REF. NO.: 211-11078
XREFS: ..\..\1.4.1-XREFS\X211-11078-00_BASE.DWG; ..\..\1.4.1-XREFS\X211-11078-00_TTBL_JR.DWG

STORM MANHOLE SCHEDULE

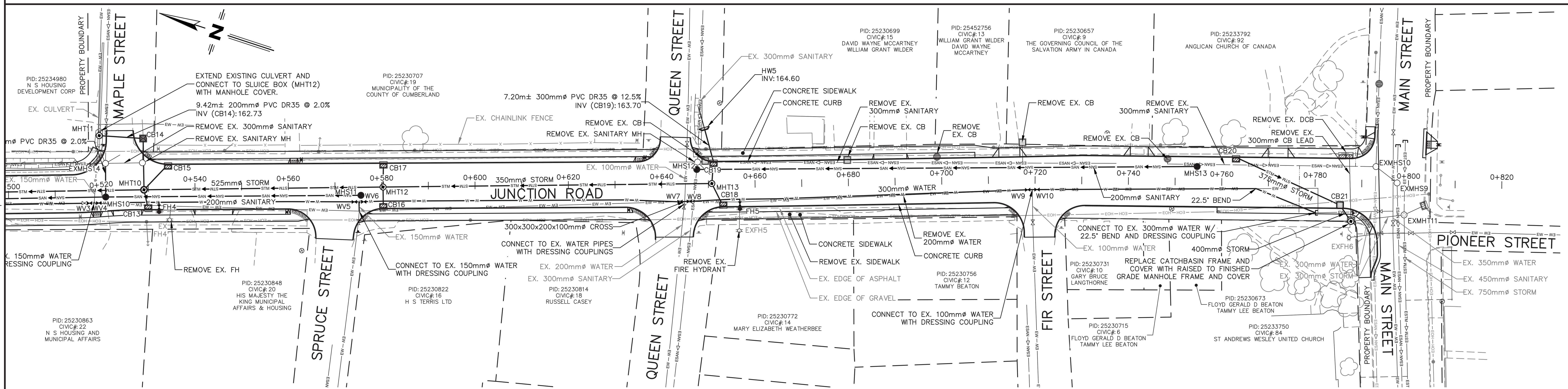
MANHOLE	TOP ELE.	INVERTS IN:	INVERTS OUT
MHT10 (1200mmø)	163.76m	525mmø INV=160.84m (FROM MHT12) 300mmø INV=161.41m (FROM CB14) 200mmø INV=162.28m (FROM CB15) 200mmø INV=162.44m (FROM CB13)	600mmø @ 3.7% INV=160.76m (TO MHT9)
MHT11 (1050mmø)	164.10m	300mmø INV=163.51m (FROM 300 CULV)	200mmø @ 2.0% INV=162.92m (TO CB14)
MHT12 (1050mmø)	164.36m	350mmø INV=161.50m (FROM MHT13) 200mmø INV=163.02m (FROM CB16) 200mmø INV=162.65m (FROM CB17)	525mmø @ 1.0% INV=161.35m (TO MHT10)
MHT13 (1050mmø)	165.04m	200mmø INV=163.70m (FROM CB18) 300mmø INV=163.25m (FROM CB19)	350mmø @ 1.7% INV=162.69m (TO MHT12)

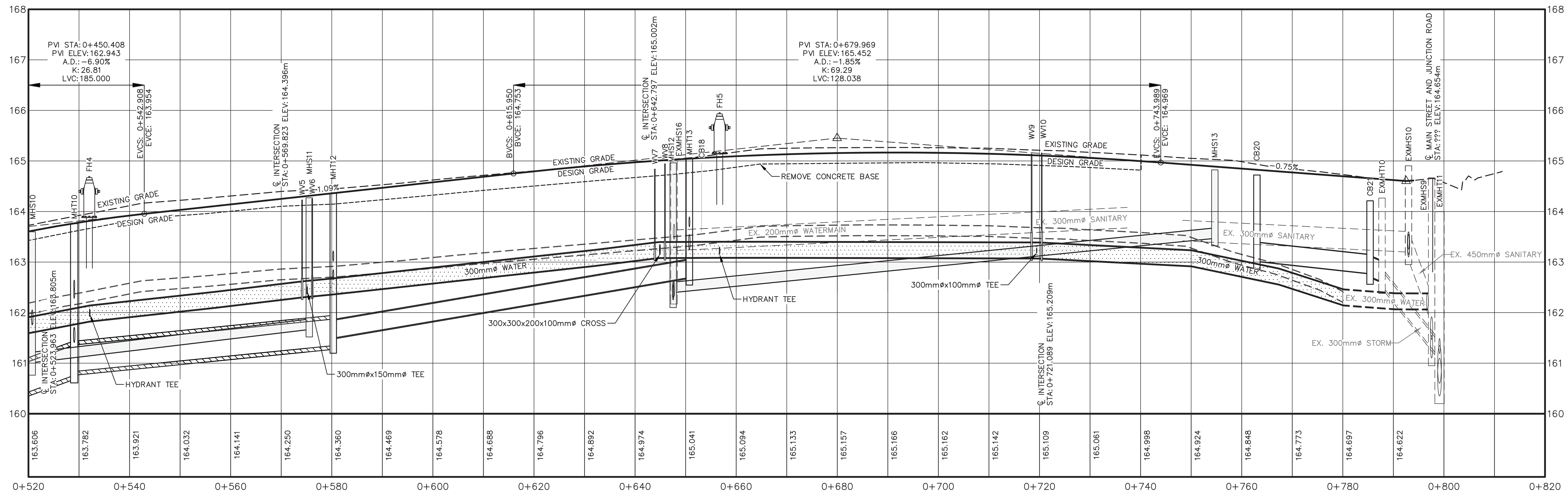
CATCHBASIN SCHEDULE

LABEL	TOP OF GRATE ELEV.	INV. OUT	INV. @ MH	PIPE OUT SIZE / TYPE
CB13	163.70	162.53	162.44 @ MHT10	4.3m – 200mm PVC DR18 @ 2.0%
CB14	161.84	161.74	161.41 @ MHT10	11.0m – 300mm PVC DR35 @ 3.0%
CB15	163.74	162.43	162.28 @ MHT10	7.5m – 200mm PVC DR35 @ 2.0%
CB16	164.22	163.11	163.02 @ MHT12	4.5m – 200mm PVC DR18 @ 2.0%
CB17	164.22	162.75	162.65 @ MHT12	5.1m – 200mm PVC DR35 @ 2.0%
CB18	164.91	163.75	163.70 @ MHT13	5.5m – 200mm PVC DR18 @ 1.0%
CB19	164.90	163.34	163.25 @ MHT13	4.7m – 300mm PVC DR35 @ 2.0%
CB20	164.67	163.02	162.77 @ CB21	24.5m – 375mm PVC DR35 @ 1.0%
CB21	164.16	162.71	162.61 @ EXMHT10	4.2m – 400mm PVC DR18 @ 2.4%

SANITARY MANHOLE SCHEDULE

MANHOLE	TOP ELE.	INVERTS IN:	INVERTS OUT
MHS10 (1050mmø)	163.60m	200mmø INV=161.01m (FROM MHS11) 300mmø INV=161.76m (FROM EXMHS14)	300mmø @ 4.0% INV=160.91m (TO MHS9)
MHS11 (1050mmø)	164.27m		200mmø @ 1.2% INV=161.67m (TO MHS10)
MHS12 (1050mmø)	164.96m	200mmø INV=162.40m (FROM MHS13) 300mmø INV=162.30m (FROM EXMHS16)	300mmø @ 1.0% INV=162.25m (TO 300 PIPE)
MHS13 (1050mmø)	164.82m		200mmø @ 1.0% INV=163.47m (TO MHS12)



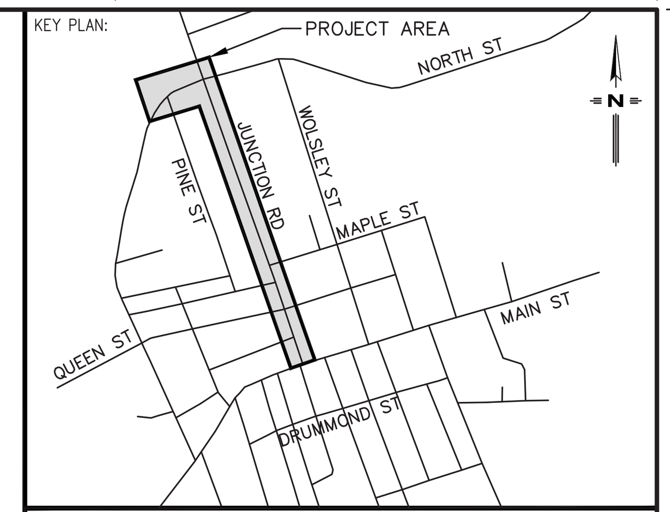


SANITARY INVERT	161.013; 161.669; 162.400; 163.472
SANITARY GRADE	54.68m± 200mmø PVC DR35 @ 1.20%; 107.20m± 200mmø PVC DR35 @ 1.00%
STORM INVERT	157.222; 160.760 / 160.835; 161.347 / 161.497; 162.695; 163.015; 162.770; 162.710 / 162.610
STORM GRADE	51.22m± 525mmø CSA A257.2 65D @ 1.00%; 70.45m± 350mmø PVC DR18 @ 1.70%; 24.51m± 375mmø PVC DR35 @ 1.00%

96.93m± 600mmø
CSA A257.2 65D @ 3.65%

4.18m± 400mmø
PVC DR18 @ 2.40%

KEY PLAN:



LEGEND:

	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE		
SANITARY PIPE & MANHOLE		
STORM PIPE & MANHOLE		
UTILITY LINES & POLE		
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN	ENDCAP	CULVERT
FIRE HYDRANT	LIGHT STANDARD	HEADWALL
STREET TREE	PHONE PEDESTAL	SIDEWALK
ROAD SIGN	URD BOX	FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:500 VERTICAL: 1:50	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT	DRAWN BY: A. THIBAULT
CHECKED BY: C. FOGARTY	APPROVED BY: A. MILLIGAN

SCALE: 1:500 METRIC
10 8 6 4 2 0 10 20 30

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

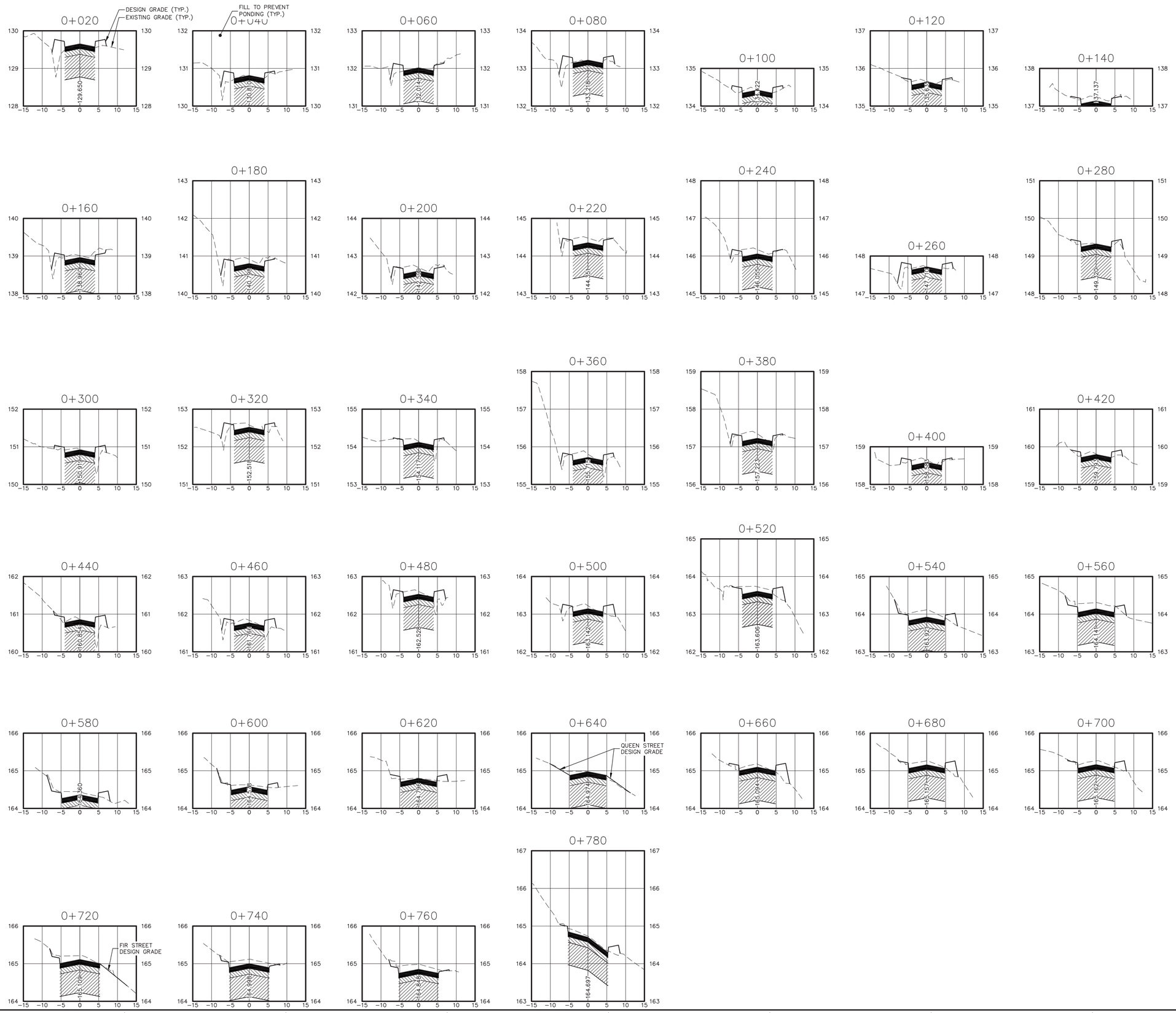
TITLE:

PLAN AND PROFILE
JUNCTION ROAD
STA 0+520 to 0+820

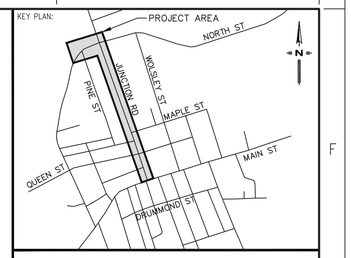
SHEET NUMBER: 6
SHEET #: 6 OF 12

ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13
REV #: 0

WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_JUNCTION-P&P_JR.DWG 003 PRINTED: 2:36 PM 2023/03/13 BY: AARON.THIBAULT
XREFS: ..\..\1.4.1-XREFS\X211-11078-00_BASE.DWG; ..\..\1.4.1-XREFS\X211-11078-00_TTBL_JR.DWG



KEY PLAN:



SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/02/22
ORIGINAL SCALE: HORIZONTAL: 1:500 VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT	DRAWN BY: J. ASKE
CHECKED BY: A. MILLIGAN	APPROVED BY: A. MILLIGAN

SCALE: 1:500 METRIC
10 8 6 4 2 0 10 20 30

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT:
municipality of cumberland

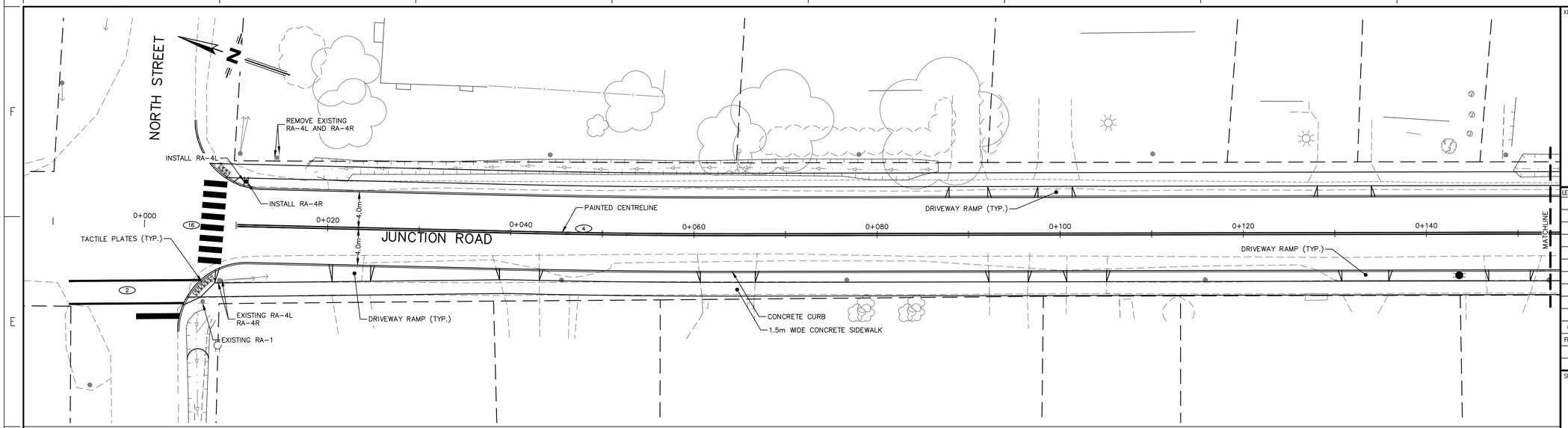
PROJECT:
SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE
SPRINGHILL, NS

TITLE:
CROSS SECTIONS
JUNCTION ROAD
STA 0+020 to 0+780

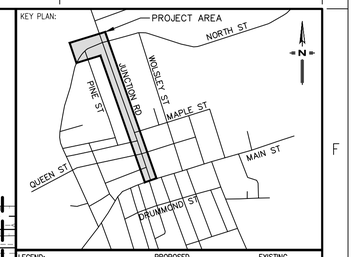
SHEET NUMBER: 7
SHEET # 7 OF 12

ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13
REV # 0

XREFS: \\1.4-XREFS\211-11078-00_TTBL_R.DWG \\\\\\ SHORTCUTS\AUGMENTS\211-11078_ALIGN.DWG; \\1.41-XREFS\211-11078-00_BASE.DWG
WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_XSECT_R.DWG
PRINTED: 2:37 PM 2023/03/13 BY: AARON.THIBAULT 001



KEY PLAN:



LEGEND:	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W W	EW W
SANITARY PIPE & MANHOLE	SAN NYS	ESAN NYSS
STORM PIPE & MANHOLE	STM PLS	ESTM PLSS
UTILITY LINES & POLE	OH HO	EOH HOS
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN		ENDCAP / CULVERT
FIRE HYDRANT		LIGHT STANDARD / HEADWALL
STREET TREE		PHONE PEDESTAL / SIDEWALK
ROAD SIGN		URD BOX / FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER • PROVINCE OF NOVA SCOTIA •
DATE 2023/03/13
J. A. GRAY
11649

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:250 VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: S. HAY	DRAWN BY: S. HAY
CHECKED BY: J. GRAY	APPROVED BY: J. GRAY

SCALE: 1:250 METRIC
5 4 3 2 1 0 5 10 15

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

PAVEMENT MARKING AND SIGNAGE PLAN

STA 0+000 to 0+480

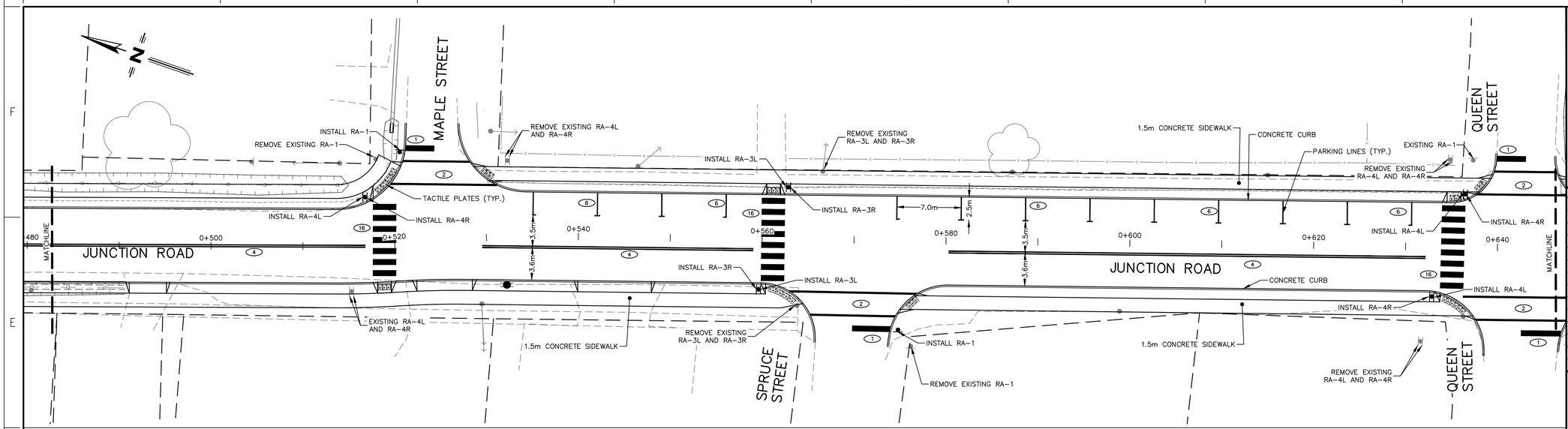
SHEET NUMBER: 8

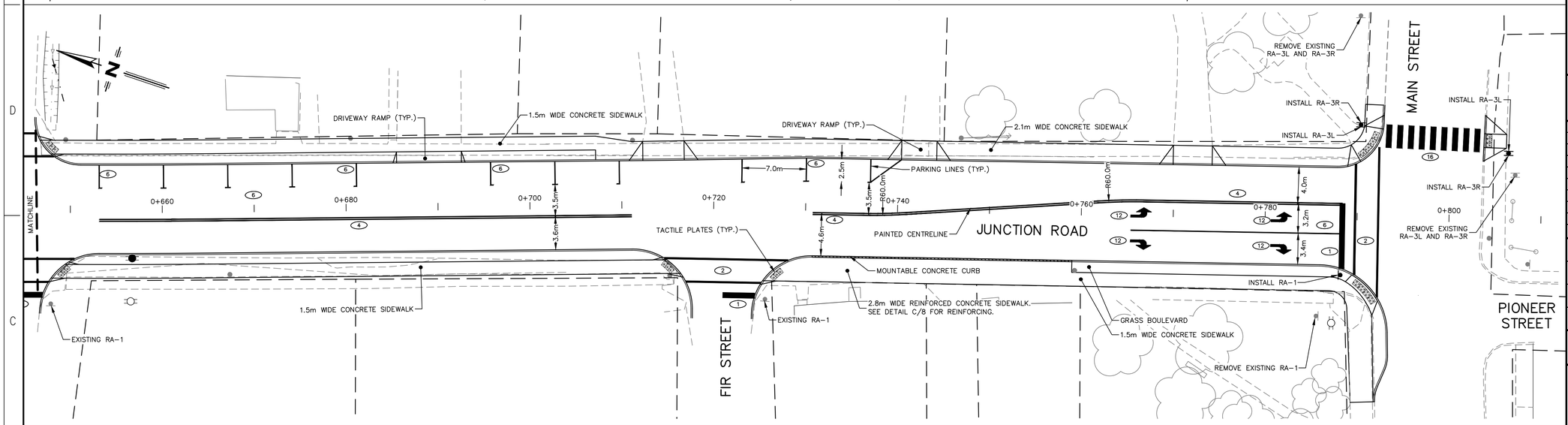
SHEET #: 8 OF 12

ISSUE:	REV #
ISSUED FOR TENDER	0
DATE OF: 2023/03/13	

XREFS: \\1.4.1-XREFS\V211-11078-00_BASE.DWG \\1.4.1-XREFS\V211-11078-00_TBL_JR.DWG

WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_PAVEMENT MARKING & SIGNAGE_JR.DWG 001 PRINTED: 2:39 PM 2023/03/13 BY: AARON.THIBAULT





PAVEMENT MARKINGS

IDENTIFICATION	TYPE	WIDTH	COLOUR	QUANTITY
①	STOP BAR	600 mm	WHITE	30 m
②	CROSSWALK LINE	200 mm x 2	WHITE	80 m
④	DOUBLE CENTRELINE	100 mm x 2 WITH 100mm GAP NOT TO BE PAINTED THROUGH INTERSECTIONS	YELLOW	705 m
⑥	LANE & BIKE LINES	100 mm	WHITE	100 m
⑫	ARROW	3/4 TAC SIZE	WHITE	4 EA
⑯	ZEBRA CROSSWALK	2.5m LONG x 600mm WIDE , 600mm SPACING	WHITE	50 m

PAVEMENT MARKING NOTES

1. ALL LANE MARKINGS SHALL BE ACCORDING TO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR CANADA (MUTCDC).
2. LANE LINES ARE TO BE 0.1m WIDE EXCEPT WHERE OTHERWISE INDICATED. CROSSWALK LINES ARE TO BE 0.2m WIDE, STOP BARS ARE TO BE 0.6m WIDE.
3. CENTERLINES TO BE YELLOW, ALL OTHER PAVEMENT MARKINGS TO BE WHITE.
4. REMOVE ALL EXISTING PAVEMENT MARKINGS AT INTERSECTION AND APPROACHES AND RE-PAINT AS SHOWN.
5. ALL MARKINGS DIMENSIONS TO CENTER OF LINES.
6. ALL LANE WIDTHS ARE MEASURED FROM CENTER OF PAVEMENT MARKING TO CENTER OF PAVEMENT MARKING OR FACE OF CURB.

ACCESSIBILITY NOTES

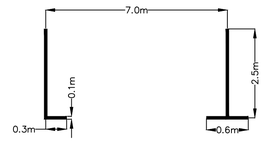
1. PEDESTRIAN RAMPS TO BE IN ACCORDANCE WITH NSPW HIGHWAY CONSTRUCTION SPECIFICATIONS AND THE NOVA SCOTIA ROADBUILDERS 'STANDARD SPECIFICATION FOR MUNICIPAL SERVICES'.
2. PEDESTRIAN CURB CUTS AND RAMPS TO BE PROVIDED AT BOTH ENDS OF ALL CROSSWALKS.
3. TWSI (TACTILE WALKING SURFACE INDICATORS) TO BE INSTALLED AT ALL PEDESTRIAN CROSSING LOCATIONS, WHERE NOTED.

SIGNAGE SCHEDULE (NOT TO SCALE)

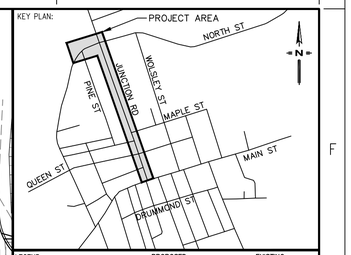
RA-1	RA-3L	RA-3R	RA-4L	RA-4R
60cmx60cm	60cmx75cm	60cmx75cm	60cmx75cm	60cmx75cm

SIGNAGE NOTES

1. MUNICIPALITY OF CUMBERLAND TO INDICATE EXACT LOCATION OF NEW SIGN INSTALLATIONS ON SITE.
2. ALL TRAFFIC SIGNS TO BE INSTALLED TO NSPW & TAC SPECIFICATIONS AND FACE OF SIGN TO BE COVERED UNTIL APPROVED BY THE MUNICIPALITY OF CUMBERLAND.
3. REMOVED SIGNS AND POSTS TO BE RETURNED TO THE MUNICIPALITY OF CUMBERLAND.
4. ALL REMOVED STREET NAME SIGNS TO BE RE-INSTALLED.



PARKING PAVEMENT MARKING DETAILS
(NOT TO SCALE)



LEGEND:

	PROPOSED	EXISTING
EDGE OF PAVEMENT		
LOTLINE		
WATERMAIN & GATE VALVE	W — W	EW — W
SANITARY PIPE & MANHOLE	SAN — SAN	ESAN — ESAN
STORM PIPE & MANHOLE	STM — PLUS	ESTM — PLUS
UTILITY LINES & POLE	— OH — HO —	— EOH — HO —
STREET BOUNDARY		SANITARY LATERAL
PROPERTY BOUNDARY		STORM LATERAL
EASEMENT		WATER LATERAL
CURB & DRIVEWAY CUT		CATCH BASIN LEAD
CATCH BASIN		ENDCAP / CULVERT
FIRE HYDRANT		LIGHT STANDARD / HEADWALL
STREET TREE		PHONE PEDESTAL / SIDEWALK
ROAD SIGN		URD BOX / FENCE

SEAL:

REGISTERED PROFESSIONAL ENGINEER
PROVINCE OF NOVA SCOTIA
DATE 2023/03/13
J. A. GRAY
11649

DISCLAIMER:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

COPYRIGHT:

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: 1:250 VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: S. HAY	DRAWN BY: S. HAY
CHECKED BY: J. GRAY	APPROVED BY: J. GRAY

SCALE: 1:250 METRIC
5 4 3 2 1 0 5 10 15

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

PAVEMENT MARKING AND SIGNAGE PLAN

STA 0+480 to 0+800

SHEET NUMBER: 9

SHEET #: 9 OF 12

ISSUE: ISSUED FOR TENDER — REV #: 0

DATE OF: 2023/03/13

XREFS: ...\\1.4-XREFS\V211-11078-00_BASE.DWG, ...\\1.4-XREFS\V211-11078-00_TBL_R.DWG
WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\V211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_PAVEMENT MARKING & SIGNAGE_R.DWG
PRINTED: 3:25 PM 2023/03/13 BY: AARON.THIBAULT 002

A 10 CONSTRUCTION NOTES

GENERAL CONSTRUCTION NOTES:

1. ALL WORKS TO BE IN ACCORDANCE WITH THE "STANDARD SPECIFICATION FOR MUNICIPAL SERVICES" PREPARED JOINTLY BY THE NOVA SCOTIA ROAD BUILDERS ASSOCIATION AND THE CONSULTING ENGINEERS OF NOVA SCOTIA, CURRENT EDITION, NOVA SCOTIA TRANSPORTATION AND PUBLIC WORKS STANDARD SPECIFICATION, THE MUNICIPALITY OF CUMBERLAND STANDARDS, AND THE PROJECT SPECIFICATIONS.
2. PERFORM ALL WORKS IN ACCORDANCE WITH REQUIREMENTS OF THE NOVA SCOTIA DEPARTMENT OF ENVIRONMENT.
3. OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM WORKS. COMPLY WITH ALL PERMIT REQUIREMENTS AND CONDITIONS.
4. VERIFY EXISTING SERVICE LOCATIONS IN FIELD PRIOR TO CONSTRUCTION. DISCREPANCIES TO BE REPORTED IMMEDIATELY TO PROJECT ENGINEER.
5. NOTIFY THE MUNICIPALITY OF CUMBERLAND REGARDING CONSTRUCTION SCHEDULE PRIOR TO COMMENCING CONSTRUCTION.
6. VERIFY EXISTING SERVICE LOCATIONS SUCH AS NATURAL GAS SERVICE (IF APPLICABLE), ALIANT SERVICES, AND NSPI SERVICES. COORDINATION TO BE COMPLETED WITH THE APPROPRIATE UTILITIES PRIOR TO CONSTRUCTION.
7. VERIFY EXISTING GRADES, INCLUDING SURROUNDING GRADES, PRIOR TO LOT GRADING WORK. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER IMMEDIATELY. MAXIMUM SLOPE FOR LANDSCAPED AREAS 3H:1V.
8. DRAWINGS SUBJECT TO APPROVAL BY MUNICIPALITY OF CUMBERLAND PRIOR TO CONSTRUCTION.
9. GEOTECHNICAL WORKS TO BE CERTIFIED BY PROJECT GEOTECHNICAL ENGINEER.
10. ALL ELEVATIONS ARE METRIC AND GEODETIC. CONTACT WSP FOR LAYOUT CONTROL INFORMATION PRIOR TO CONSTRUCTION.
11. PROTECT NATURAL WATERCOURSES FROM DAMAGE DUE TO SILTATION RUNOFF FROM THE CONSTRUCTION SITE. ACCEPTABLE CONSTRUCTION PROCEDURE MAY BE OBTAINED FROM "EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION SITES", CURRENT EDITION BY THE NOVA SCOTIA DEPARTMENT OF THE ENVIRONMENT. MAKE NECESSARY REPAIRS TO SEDIMENTATION AND EROSION CONTROL DEVICES AS DIRECTED BY DEVELOPERS ON SITE REPRESENTATIVE.
12. POWER POLES TO BE COORDINATED AND BLASTED (IF REQUIRED) BY CONTRACTOR. INSTALL POLES PRIOR TO TAKEOVER BY MUNICIPALITY OF CUMBERLAND.
13. INSTALL CONCRETE CURBS (STANDARD, DRIVEWAY, AND PEDESTRIAN RAMP) TO STANDARD SPECIFICATIONS FOR MUNICIPAL SERVICES DETAIL NO. 32 16 00-01.
14. INSTALL MOUNTABLE CONCRETE CURBS TO STANDARD SPECIFICATIONS FOR MUNICIPAL SERVICES DETAIL NO. 32 16 00-03.
15. APPROVAL FROM PROJECT ENGINEER AT EACH STAGE TO BE RECEIVED IN WRITING PRIOR TO START OF WORK ON NEXT STAGE.
16. DO NOT SUBSTITUTE MATERIALS UNLESS PRIOR WRITTEN APPROVAL IS GIVEN BY THE PROJECT ENGINEER.
17. PERFORM LOT GRADING TO ENSURE RUNOFF IS DIRECTED INTO SWALES OR DISCHARGES AT CURB.
18. PROVIDE FILL ON LOTS TO PREVENT PONDING AS DIRECTED BY ENGINEER.
19. HYDROSEED AREAS BETWEEN BACK OF CURB TO SIDEWALK AND DISTURBED AREA BEHIND BACK OF SIDEWALK.
20. ALL DISTURBED AREAS NOT STABILIZED BY GRAVEL, CONCRETE, OR ASPHALT TO BE HYDROSEEDED. RE-HYDROSEED AREAS WHICH DO NOT SHOW SIGNS OF ACTIVE GROWTH IN THE FIRST GROWING SEASON.
21. REMOVE EXISTING ROAD STRUCTURE INCLUDING BUT NOT LIMITED TO ASPHALTIC CONCRETE LAYER AND CONCRETE LAYER (SEE GEOTECHNICAL REPORT).

GENERAL SERVICING NOTES:

1. LOCATIONS OF EXISTING UNDERGROUND WATER MAINS, SEWERS, GAS MAINS, ELECTRICAL AND COMMUNICATIONS INFRASTRUCTURE, AND SERVICE CONNECTIONS ARE BASED ON BEST AVAILABLE INFORMATION (RECORD DRAWINGS, TOPOGRAPHIC SURVEYS, VERBAL INFORMATION, ETC.) AND ARE NOT NECESSARILY ACCURATE OR COMPLETE. LOCATIONS ARE APPROXIMATE AND SOME LOCATIONS ARE UNKNOWN. ARRANGE FOR ON-SITE LOCATES WITH ALL UTILITIES AND TO VERIFY EXISTING SERVICE LOCATIONS AND ELEVATIONS IN THE FIELD 2 WEEKS PRIOR TO SCHEDULED CONSTRUCTION IN THE AREA OF THE UNDERGROUND SERVICES IN QUESTION. DISCREPANCIES TO BE REPORTED IMMEDIATELY TO PROJECT ENGINEER. COORDINATION TO BE COMPLETED WITH THE APPROPRIATE UTILITIES (HERTIAGE GAS, NSPI, BELL ALIANT, EASTLINK, ETC.) PRIOR TO CONSTRUCTION.
2. TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE. DAMAGE TO UTILITIES TO BE REPAIRED OR REPLACED IN FULL TO THE SATISFACTION OF THE ENGINEER AT THE CONTRACTOR'S EXPENSE.
3. TESTING OF SITE SERVICES TO BE TO DESIGN SPECIFICATIONS.
4. ALL REMOVED HYDRANTS AND SEWER STRUCTURE FRAMES AND COVERS ARE PROPERTY OF THE MUNICIPALITY OF CUMBERLAND. RETURN TO THE MUNICIPALITY OF CUMBERLAND REPRESENTATIVE.
5. NOTIFY AND COORDINATE WITH RESIDENTS AND BUSINESSES POTENTIALLY AFFECTED BY DISRUPTIONS TO WATER SERVICE, SEWER SERVICE, NATURAL GAS SERVICE, POWER SERVICE AND/OR TELECOMM SERVICE. ENSURE DISRUPTIONS ARE MINIMAL AND RECTIFIED AS SOON AS POSSIBLE. OUTAGES TO BE COORDINATED WITH THE APPROPRIATE UTILITIES.
6. WHERE TRENCH ROCK IS ENCOUNTERED AT THE END OF A PIPE RUN, ROCK IS TO BE OVERBLASTED 5m BEYOND END OF PIPE.
7. IF/WHEN DIGGING IN CLOSE PROXIMITY TO UTILITY POLES, ENSURE 2.0m OF UNDISTURBED AND RETAINED SOIL IS MAINTAINED AT ALL TIMES AND 3.0m OF UNDISTURBED AND RETAINED SOIL AROUND ANCHORS AS MEASURED FROM WHERE THE ROD BREAKS THE GROUND. IF THESE CONDITIONS CANNOT BE MET, POLES MUST BE HELD WITH AN ENGINEERED NON-DESTRUCTIVE POLE SUPPORT MECHANISM (NO BOLTING THROUGH POLE). STAMPED DRAWING MUST BE FORWARDED TO POLE OWNER (BELL ALIANT OR NSPI) FOR APPROVAL. IF NECESSARY, ARRANGEMENTS TO REMOVE/REINSTATE ALL POLES, ANCHORS AND GUYS WILL HAVE TO BE MADE WITH THE POLE OWNER. ALLOW 4-6 WEEKS LEAD TIME. GUYS CANNOT BE RELEASED UNTIL THE APPROVED POLE SUPPORT MECHANISM IS IN PLACE.
8. ALL UNDERGROUND SERVICES TO BE REMOVED MAY EITHER BE REMOVED OR ABANDONED AND FILLED WITH A HIGH SLUMP LOW STRENGTH FLOWABLE GROUT. INSTALL VENT PIPING AND SUPPLY PUMPING AS NECESSARY TO COMPLETELY FILL THE PIPE. BOTH ENDS TO BE PLUGGED. ABANDON EXISTING PIPES THAT ARE WITHIN AN EXISTING TREES DRIPLINE.

WATER SYSTEM NOTES:

1. OBTAIN ALL EXISTING WATER UTILITY LOCATES PRIOR TO EXCAVATION.
2. COORDINATE ANY TEMPORARY WATER SHUT DOWNS WITH THE MUNICIPALITY OF CUMBERLAND WITH 10 DAYS NOTICE PRIOR TO PROPOSED SHUT DOWN. SHUT DOWNS CAN ONLY BE INITIATED UPON WRITTEN APPROVAL FROM THE MUNICIPALITY OF CUMBERLAND. COORDINATE ANY SHUT DOWNS WITH ALL BUSINESSES AND RESIDENTS (5 DAYS NOTICE FOR BUSINESSES, 48 HOURS NOTICE FOR RESIDENTS) PRIOR TO PLANNED SHUT DOWN.
3. PREPARE A TEMPORARY WATER PLAN PRIOR TO CONSTRUCTION AND SUBMIT FOR REVIEW BY THE ENGINEER, 2 WEEKS PRIOR TO ANY PLANNED SHUT DOWN. THE PLAN SHALL PROVIDE DETAILS OF MEASURES THAT SHALL BE TAKEN TO SUPPLY POTABLE WATER TO AFFECTED RESIDENTS AND BUSINESSES AS STIPULATED BY THE MUNICIPALITY OF CUMBERLAND.
4. ALL WATER PIPES TO BE INSTALLED WITH A MINIMUM COVER OF 1.6m AND A MAXIMUM COVER OF 2.0m UNLESS OTHERWISE NOTED ON PLANS. IF COVER IS LESS THAN 1.6m, INSULATE AS PER DETAIL.
5. ALL GATE VALVES TO CLOSE RIGHT HAND (CLOCKWISE).
6. WATER SERVICE CONNECTIONS SHALL MAINTAIN A MINIMUM HORIZONTAL SEPARATION OF 1.5m FROM UNDERGROUND ELECTRICAL/TELECOMM CONDUIT, TRANSFORMER PADS, UTILITY POLES AND OTHER UTILITIES.
7. ALL WATER SERVICE CONNECTIONS TO BE CONSTRUCTED AS PER DETAIL NO. 33 11 00-03.
8. ALL EXISTING SERVICE AND VALVE BOXES TO REMAIN ARE TO BE ADJUSTED TO MATCH THE NEW FINISHED GRADE.
9. REPLACE WATER LATERALS TO THE CURB STOP AND REPLACE LEAD WATER LATERALS TO THE BUILDING FOUNDATION.
10. ANY TRENCHLESS TECHNOLOGIES MUST BE APPROVED BY THE ENGINEER.
11. CONFIRM EXISTING CONDITIONS AND REINSTATEMENT PLAN WITH THE PROPERTY OWNER PRIOR TO COMMENCING WORK ON PRIVATE PROPERTY.
12. COORDINATE WITH THE HOMEOWNER FOR BUILDING ACCESS AND SCHEDULING FOR INTERNAL BUILDING CONNECTION WORK.

WASTEWATER/STORMWATER SEWER NOTES:

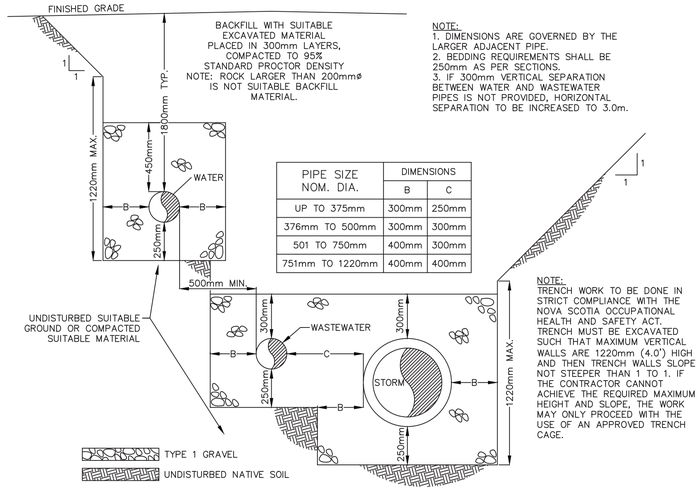
1. OBTAIN ALL EXISTING WATER UTILITY LOCATES PRIOR TO EXCAVATION.
2. ALL EXISTING CATCH BASINS AND LEADS BEING DECOMMISSIONED ARE TO BE REMOVED AND DISCONNECTED AT THE MAINS OR MANHOLES WHERE APPLICABLE AND REPAIRED TO THE SATISFACTION OF THE MUNICIPALITY OF CUMBERLAND.
3. ALL EXISTING CATCH BASINS AND MANHOLES TO REMAIN ARE TO BE ADJUSTED TO MATCH THE NEW FINISHED GRADE.
4. SUPPLY TO THE MUNICIPALITY OF CUMBERLAND A VIDEO INSPECTION REPORT AND MANDREL TEST FOR ALL SANITARY AND STORM PIPEWORK INCLUDING CATCHBASIN LEADS.
5. ALL PIPING TO BE VIDEOED AND PRESSURE TESTED AS PRESCRIBED IN SPECIFICATIONS.
6. INSTALL FILTER BAGS/SILT SACS IN ALL CATCH BASINS COLLECTING WATER FROM CONSTRUCTION SITE RUNOFF DURING EACH PHASE OF CONSTRUCTION.
7. TRIBUTARY STORMWATER FROM CONSTRUCTION TO BE DIRECTED TO FUNCTIONAL CATCH BASINS WITH FILTER BAGS/SILT SACS AT ALL TIMES.
8. UNLESS INDICATED OTHERWISE, STORMWATER AND WASTEWATER LATERALS TO BE INSTALLED AT MINIMUM 2.0% SLOPE AND MAXIMUM 8.0% SLOPE TO STREET BOUNDARY WITH MINIMUM 1.2m COVER.
9. WHERE SERVICE CONNECTIONS CONNECT TO MANHOLES, PROPER BENCHING TO BE CONSTRUCTED TO DIRECT FLOW INTO OUTLET PIPE.
10. ALL MANHOLES IN ASPHALT SURFACES TO HAVE AN R10 ADJUSTABLE FRAME (C56) AND COVER.
11. MANHOLES LOCATED OFF TRAVELED WAY TO HAVE IMP R12 BOLT DOWN COVERS.
12. SANITARY MANHOLES TO BE WATERPROOFED WITH BLUESKIN MEMBRANE AND AIR TEST AS PER SPECIFICATIONS.
13. UNLESS INDICATED OTHERWISE, NEW WASTEWATER OR COMBINED SEWER MANHOLES TO BE PRECAST CONCRETE. COVERS TO BE ADJUSTABLE IMP R10 WITH ONE 20mmø HOLE AND NO SIDE NOTCHES. COVER TO HAVE NEOPRENE GASKET BETWEEN COVER AND FRAME. ALL MANHOLES TO BE WATERPROOFED WITH BLUESKIN ON SIDES AND BOTTOM.
14. ALL STORMWATER MANHOLES AND CATCH BASINS TO BE PRECAST WITH A-LOK GASKETS FOR ALL PIPE CONNECTIONS.
15. ALL NEW MANHOLES INSTALLED OVER AN EXISTING SEWER MAIN SHALL HAVE CAST-IN-PLACE BASES AS PER DETAIL NO. 33 39 00-04.
16. UNLESS INDICATED OTHERWISE, ALL CATCH BASINS TO BE 1050mmø PRECAST CONCRETE WITH FRAME AND GRATE AS FOLLOWS:
    IMP S361 FOR STANDARD CURB & GUTTER APPLICATIONS OR CPC 175D FOR DOUBLE TOP APPLICATIONS.
    IMP S441 FOR MOUNTABLE CURB APPLICATIONS, DRIVEWAY CUTS OR AS INDICATED.
17. ALL CATCH BASINS AND MANHOLES TO REMAIN WHICH ARE OBSTRUCTED WITH DEBRIS, GRAVEL OR SEDIMENT SHALL BE CLEANED TO THE MUNICIPALITY OF CUMBERLAND'S SATISFACTION TO REMOVE ALL OBSTRUCTIONS AND ALLOW PROPER FLOW THROUGH MANHOLES AND PIPES.
18. INSULATE CATCH BASINS LEADS WHERE COVER IS LESS THAN 1.3m AND STORM PIPE WHERE COVER IS LESS THAN 1.6m AS PER INSULATION DETAIL.
19. CONNECT EXISTING DITCH STORM LATERALS TO STORM SYSTEM.
20. CCTV OF EXISTING SYSTEM WILL BE PROVIDED TO WINNING BIDDER.
21. DUMP SURPLUS CLEAN FILL AT LISGAR STREET GARAGE (62 LISGAR STREET), WASTE MATERIALS AT PID 25374349, DIRECTLY ACROSS FROM 136 McGEE STREET.

EROSION AND SEDIMENTATION CONTROL NOTES:

1. CONSTRUCTION ACTIVITY TO BE CARRIED OUT BASED ON THE PRINCIPLE THAT PREVENTION OF SEDIMENT LADEN RUN-OFF IS THE FOCUS RATHER THAN RELYING ON TREATMENT AT OUTFALL. THIS IS TO BE ACCOMPLISHED BY MINIMIZING EXPOSED SOIL. ONCE EXCAVATION HAS BEGUN IN A PARTICULAR AREA, THE WORK IS TO BE COMPLETED IN THAT AREA, INCLUDING FINAL GRADING AND STABILIZATION. ON THIS PROJECT IT WILL BE UNACCEPTABLE TO CONSTRUCT THE ENTIRE PROJECT AND THEN DO ALL STABILIZATION WORK. SOIL STABILIZATION WORK ON THIS PROJECT WILL BE AN ONGOING PROCESS HEAVILY INFLUENCED BY WEATHER FORECASTS. RECOMMENDED MAXIMUM AREA OF EXPOSED SOIL TO BE NO MORE THAN 15% OF THE TOTAL PROPOSED WORKING AREA OR 1 HECTARE WHICHEVER IS GREATER.
2. ALL WORKS TO BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF NOVA SCOTIA ENVIRONMENT.
3. SEDIMENTATION AND EROSION CONTROL DEVICES TO BE INSTALLED IN ACCORDANCE WITH THE "EROSION AND SEDIMENTATION CONTROL HANDBOOK FOR CONSTRUCTION SITES", CURRENT EDITION BY THE NOVA SCOTIA DEPARTMENT OF THE ENVIRONMENT.
4. REVIEW, UPGRADE, AND MAINTAIN THE EROSION AND SEDIMENTATION CONTROL MEASURES FOR THE DURATION OF THE CONSTRUCTION UNTIL THE COMPLETE SITE IS STABILIZED. MAKE NECESSARY REPAIRS TO SEDIMENTATION AND EROSION CONTROL DEVICES AS DIRECTED BY DEVELOPER'S ON SITE REPRESENTATIVE.
5. MONITOR ENVIRONMENT CANADA'S 5 DAY FORECAST ON A DAILY BASIS. WHEN RAIN IS FORECAST, ENSURE THAT ALL EXPOSED AREAS ARE STABILIZED PRIOR TO RAINFALL EVENT. ENVIRONMENT CANADA'S WEATHER LINE 426-9090.
6. INSPECT SEDIMENT CONTROL STRUCTURES AND MAKE NECESSARY REPAIRS ON A WEEKLY BASIS AND BEFORE AND AFTER EACH RAINFALL EXCEEDING 10mm. KEEP A LOG DOCUMENTING INSPECTIONS, REMEDIATION ACTION AND WEEKLY REPORT OF EXPOSED AREAS.
7. MAINTAIN CONSTRUCTION RUMBLE STRIPS AT ALL CONSTRUCTION ENTRANCES AND EXITS FOR THE DURATION OF THE PROJECT. NO SEDIMENT IS TO BE TRACKED THROUGH OPERATIONAL STREETS.
8. TRIBUTARY STORMWATER FROM SITE TO BE DIRECTED TO SEDIMENTATION CONTROL DEVICES AT ALL TIMES DURING CONSTRUCTION.
9. INSTALL AND MAINTAIN DIVERSION DITCHES AROUND AND THROUGH THE SITE AS NECESSARY TO KEEP CLEAN WATER CLEAN.
10. HAVE ADDITIONAL SILT FENCE, BALED HAY AND LOOSE HAY AND/OR MULCH ON SITE FOR MAINTENANCE AND INSTALLATION OF ADDITIONAL MEASURES AS REQUIRED.
11. COVER EXPOSED SURFACES WITH HAY, MULCH OR WOOD CHIPS AS REQUIRED TO PREVENT SEDIMENT RUN-OFF. MAINTAIN COVERAGE THROUGHOUT CONSTRUCTION PERIOD.
12. ALL EXPOSED AREAS NOT FINISHED WITH ASPHALT, CONCRETE, OR GRAVEL TO HAVE TOP SOIL AND HYDROSEED.
13. STOCKPILED MATERIALS ON-SITE MUST BE STABILIZED USING APPROPRIATE MEASURES INCLUDING SILT FENCE, HAY AND TARPS.
14. ALL SEDIMENT CONTROL MEASURES TO BE FUNCTIONAL AT ALL TIMES DURING CONSTRUCTION.
15. LEAVE SEDIMENTATION CONTROL MEASURES IS SERVICE UNTIL ENGINEER OR THE MUNICIPALITY REQUESTS THAT THEY BE TAKEN OUT OF SERVICE.
16. THE SEDIMENTATION AND EROSION CONTROL MEASURES OUTLINED ON THIS PLAN ARE MINIMUM RECOMMENDATIONS ONLY. DEPENDING ON SITE CONDITIONS DURING CONSTRUCTION AND CONTRACTOR'S OPERATIONS, ADDITIONAL MEASURES MAY BE REQUIRED.

B 10 TYPICAL TRENCH DETAIL

NTS



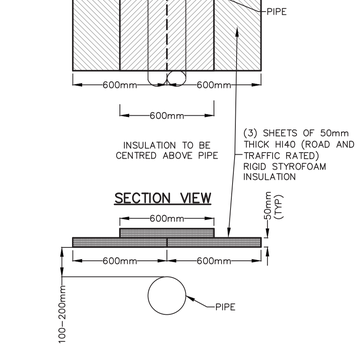
PIPE SIZE NOM. DIA.	DIMENSIONS	
	B	C
UP TO 375mm	300mm	250mm
376mm TO 500mm	300mm	300mm
501 TO 750mm	400mm	300mm
751mm TO 1220mm	400mm	400mm

NOTE:
1. DIMENSIONS ARE GOVERNED BY THE LARGER ADJACENT PIPE.
2. BEDDING REQUIREMENTS SHALL BE 250mm AS PER SECTIONS.
3. IF 300mm VERTICAL SEPARATION BETWEEN WATER AND WASTEWATER PIPES IS NOT PROVIDED, HORIZONTAL SEPARATION TO BE INCREASED TO 3.0m.

NOTE:
TRENCH WORK TO BE DONE IN STRICT COMPLIANCE WITH THE NOVA SCOTIA OCCUPATIONAL HEALTH AND SAFETY ACT. TRENCH MUST BE EXCAVATED SUCH THAT MAXIMUM VERTICAL WALLS ARE 1220mm (4.0') HIGH AND THEN TRENCH WALLS SLOPE NOT STEEPER THAN 1 TO 1. IF THE CONTRACTOR CANNOT ACHIEVE THE REQUIRED MAXIMUM HEIGHT AND SLOPE, THE WORK MAY ONLY PROCEED WITH THE USE OF AN APPROVED TRENCH CAGE.

C 10 INSULATION DETAIL

NTS



NOTES:
1. INSULATE WATERMAIN WHERE COVER IS LESS THAN 1.6m.
2. INSULATE STORM WHERE COVER IS LESS THAN 1.5m.
3. INSULATE CATCHBASIN LEADS WHERE COVER IS LESS THAN 1.3m.

D 10 TEMPORARY WATER NOTES

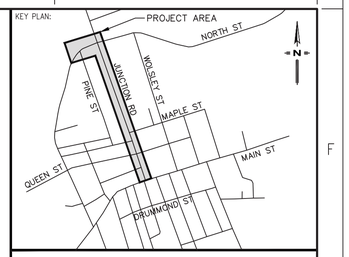
CIVIC# REQUIRING TEMPORARY SERVICE	NORTH STREET:63 JUNCTION ROAD: 78, 76, 74, 73, 69, 68, 67, 64, 63, 62, 61, 60, 59, 57, 56, 55, 54, 53, 51, 49, 48, 45, 43, 42, 41, 40, 39, 38, 36, 35, 33, 32, 31, 30, 28, 26, 25, 24, 20, 18, 16, 14, 13, 10, 9, AND 6	
AVAILABLE HYDRANTS	EXFH1	NEAREST CIVIC #:78 JUNCTION ROAD
	EXFH2	NEAREST CIVIC #:56 JUNCTION ROAD
	EXFH3	NEAREST CIVIC #:38 JUNCTION ROAD
	EXFH4	NEAREST CIVIC #:20 JUNCTION ROAD
	EXFH5	NEAREST CIVIC #:14 JUNCTION ROAD
	EXFH6	NEAREST CIVIC #:84 MAIN STREET
SIZE REQUIREMENTS	MINIMUM 100mm	
MINIMUM FEEDS	1	

1. SUBMIT TEMPORARY WATER PLAN TWO (2) WEEKS PRIOR TO START FOR APPROVAL BY THE MUNICIPALITY OF CUMBERLAND.
2. DELIVER NOTICES TO AREA RESIDENTS ONE (1) WEEK IN ADVANCE OF START OF TEMPORARY WATER.
3. THE TEMPORARY WATER PLAN IS TO SHOW TEMPORARY WATERMAIN SIZES AND MATERIALS, PIPELINE LOCATIONS, VALVE LOCATIONS, HYDRANT LOCATIONS AND MAY PROPOSE ALTERNATE ROUTING FOR CONSIDERATION BY THE MUNICIPALITY OF CUMBERLAND.
4. PROVIDE CONTINUOUS WATER SUPPLY TO RESIDENTS AND BUSINESSES.
5. WHERE THE TEMPORARY PIPE CROSSES DRIVEWAYS, SUITABLE RAMPING OR BURY MUST BE PROVIDED AND MAINTAINED. BURY TEMPORARY CROSSINGS ON JUNCTION ROAD BELOW EXISTING GRADE.
6. PROVIDE RAMPING TO MAINTAIN PEDESTRIAN TRAVEL AND ACCESS TO HOMES AND BUSINESSES.
7. PERMISSION MUST BE RECEIVED FROM THE PROPERTY OWNER TO WORK OR INSTALL TEMPORARY WATERMAIN ON PRIVATE PROPERTY, INCLUDING BUILDING ACCESS IF REQUIRED.

E 10 PIPE SPECIFICATIONS

SANITARY MAIN	PVC DR35 UNLESS OTHERWISE NOTED, DIAMETER AS INDICATED.
STORM MAIN	CSA A257.2 65D OR PVC DR35 UNLESS OTHERWISE NOTED, DIAMETER AS INDICATED.
CATCHBASIN LEADS*	PVC DR35 UNLESS OTHERWISE NOTED, DIAMETER AS INDICATED. * PVC DR18 WHEN 450mm VERTICAL SEPARATION CANNOT BE ACHIEVED AT WATERMAIN CROSSINGS OR WHEN LEAD CROSSES ABOVE WATERMAIN. INSTALL CATCHBASINS IN 50mm LOCAL DEPRESSION.
WATERMAIN	PVC DR14 OR DUCTILE IRON CLASS 52 MORTAR LINED, ASPHALTIC SEAL COATED, POLYWRAPPED, DIAMETER AS INDICATED.
SANITARY LATERAL	WHITE PVC DR28 125mmø, RED END.
WATER LATERAL	TYPE "K" COPPER 19mmø c/w INSULATION FROM MAIN TO HOUSE UNLESS OTHERWISE NOTED.
FIRE HYDRANTS	MUELLER SUPER CENTURION 250 c/w 2 - 2.5"NSZ1 HOSE PORTS AND 1 - 4"STORZ PUMP PORT CLOW M67B BRIGADIER (MCAVITY) c/w 2 - 2.5"NSZ1 HOSE PORTS AND 1 - 4" STORZ PUMP PORT PAINT HYDRANTS RED c/w BLACK TOPS (TO MATCH EXISTING)

KEY PLAN:



SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: N.T.S. VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT	DRAWN BY: A. THIBAULT
CHECKED BY: A. MILLIGAN	APPROVED BY: A. MILLIGAN

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

CONSTRUCTION NOTES AND DETAILS I

SHEET NUMBER: 10

SHEET #: 10 OF 12

ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13

REV #: 0

XREFS: ...\41-XREFS\211-11078-00_TTBL_R.DWG

WSP REF NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_DETAILS_R.DWG BY: AARON.THIBAULT PRINTED: 2:39 PM 2023/03/13

A/11 SURFACE REINSTATEMENT DETAILS

NTS

NOTES:

1. PRIOR TO PLACEMENT OF THE PAVEMENT AND SUB-BASE GRAVELS, THE ENTIRE SUBGRADE SHOULD BE PROOF-ROLLED UNDER THE SUPERVISION OF GEOTECHNICAL PERSONNEL. ANY AREAS SHOWING EXCESSIVE DEFLECTION SHOULD BE EXCAVATED AND REPLACED WITH COMPACTED GRANULAR MATERIAL.
2. PAVEMENT STRUCTURE TO BE VERIFIED WITH FINAL GEOTECHNICAL REPORT. SHOULD ANY DISCREPANCIES OCCUR, THE GEOTECHNICAL REPORT SHALL BE TAKEN AS CORRECT.

ASPHALT PAVEMENT

50mm – ASPHALTIC CONCRETE, TYPE C-HF
75mm – ASPHALTIC CONCRETE, TYPE B-HF
150mm – BASE GRAVEL, TYPE 1

600mm – SUBBASE GRAVEL, TYPE 2

SUBGRADE COMPACTED AS PER GEOTECHNICAL REQUIREMENTS



CONCRETE SIDEWALK

100mm – CONCRETE

150mm – BASE GRAVEL, TYPE 1

SUBGRADE COMPACTED AS PER GEOTECHNICAL REQUIREMENTS



TOPSOIL AND HYDROSEED

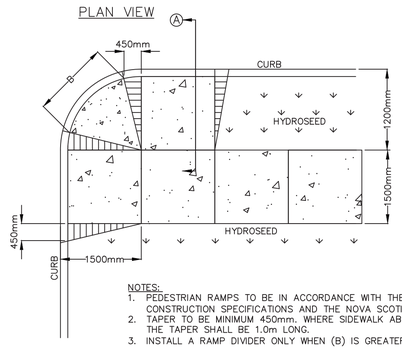
APPROVED HYDROSEED
150mm – TOPSOIL



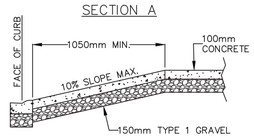
B/11 PEDESTRIAN RAMP DETAIL

NTS

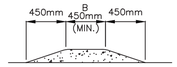
PLAN VIEW



SECTION A



PEDESTRIAN RAMP DIVIDER VIEW



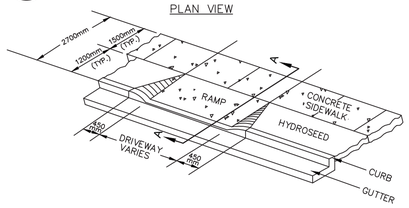
NOTES:

1. PEDESTRIAN RAMPS TO BE IN ACCORDANCE WITH THE NSTIR HIGHWAY CONSTRUCTION SPECIFICATIONS AND THE NOVA SCOTIA 'BLUE BOOK'.
2. TAPER TO BE MINIMUM 450mm. WHERE SIDEWALK ABUTS THE CURB THE TAPER SHALL BE 1.0m LONG.
3. INSTALL A RAMP DIVIDER ONLY WHEN (B) IS GREATER THAN 450mm.

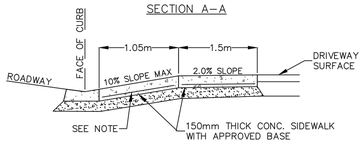
C/11 DRIVEWAY RAMP DETAIL

NTS

PLAN VIEW



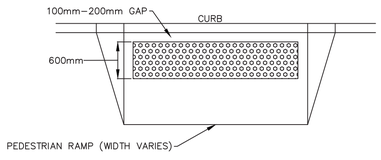
SECTION A-A



NOTE:
FOR COMMERCIAL AND INDUSTRIAL DRIVEWAYS PLACE 150 X 150 – M.W. 18.7 X M.W. 18.7 50mm FROM BOTTOM OF CONCRETE RAMP AND SIDEWALK.

D/11 TACTILE PLATE DETAIL

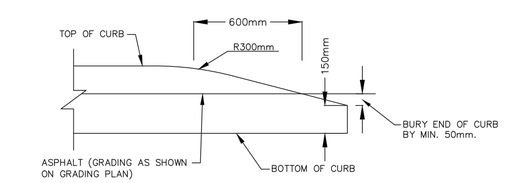
NTS



TACTILE SURFACE NOTES:
1. NATURAL CAST IRON ATTENTION TWSI (TACTILE WALKING SURFACE INDICATOR) PLATES TO CSA B651.
1. INSTALLATION TO BE DONE IN ACCORDANCE TO MANUFACTURER'S INSTALLATION PROCEDURES.
2. ALL CONCRETE TO BE MINIMUM 35 MPa.
3. SIZE AND SHAPE OF PLATES TO MANUFACTURER'S SPECIFICATIONS.
4. MAXIMUM GAP BETWEEN PLATES AND START OF TAPER TO BE 100mm.
5. INSTALL TOP OF BASE PLATES (BOTTOM OF DOMES) LEVEL WITH CONCRETE RAMP.
6. INSTALL RADIUS PLATES WHERE CURB HAS A RADIUS.

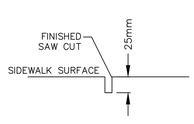
E/11 CURB TERMINATION DETAIL

NTS

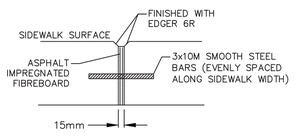


F/11 CONCRETE SIDEWALK JOINT DETAILS

NTS



CONTROL JOINT

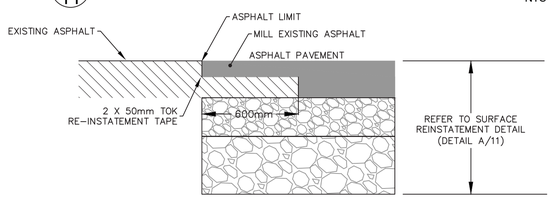


EXPANSION JOINT

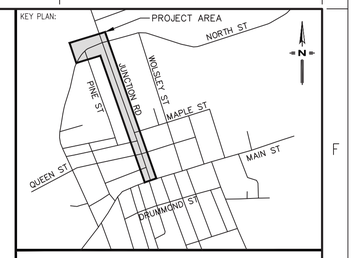
NOTES:
1. EXPANSION JOINTS TO BE SPACED EVERY 50m.
2. CONTROL JOINTS TO BE SPACED EVERY 1.5m.
3. GRAVEL BASE TO EXTEND 150mm BEYOND EDGE OF SIDEWALK CONCRETE.
4. CONTROL JOINTS TO BE SAW CUT.
5. EXPANSION JOINT BARS ARE TO BE GREASED ON ONE SIDE OF THE JOINT.
6. DURING CONSECUTIVE POURS, THE END OF EACH POUR IS TO OCCUR AT AN EXPANSION JOINT.

G/11 ASPHALT REINSTATEMENT DETAIL

NTS



KEY PLAN:



SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: N.T.S. VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT / DRAWN BY: A. THIBAULT	
CHECKED BY: A. MILLIGAN / APPROVED BY: A. MILLIGAN	

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

CONSTRUCTION NOTES AND DETAILS II

SHEET NUMBER: 11

SHEET # 11 OF 12

ISSUE: ISSUED FOR TENDER — REV # 0

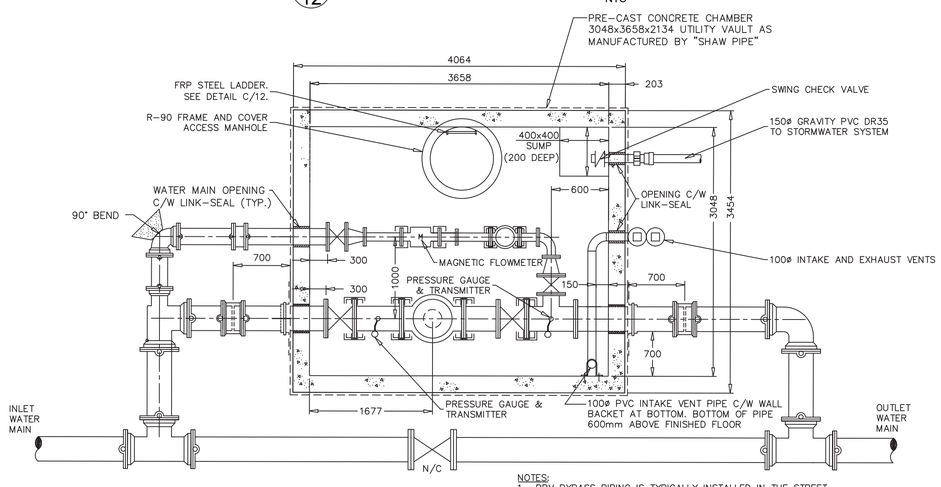
DATE OF: 2023/03/13

XREFS: ..\14-XREFS\211-11078-00_TBL.dwg

WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\14-CIVIL\14.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_DETAILS_R.DWG PRINTED: 2:39 PM 2023/03/13 BY: AARON.THIBAULT

A 12 PRV CHAMBER - PLAN

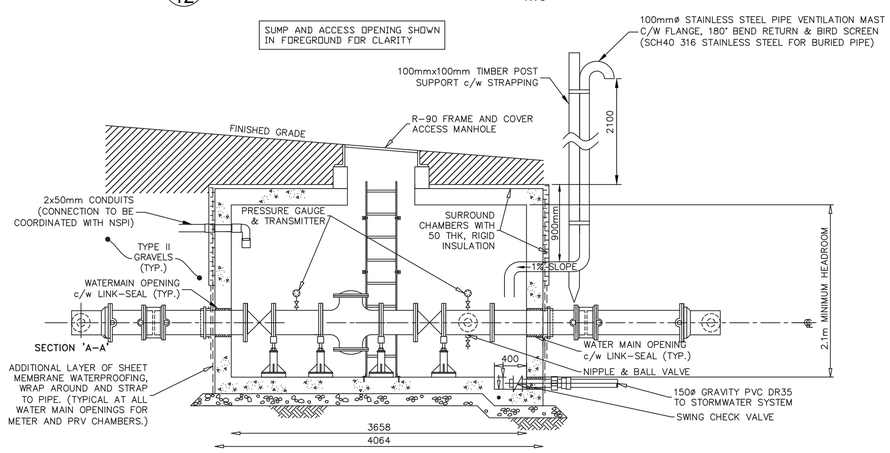
NTS



NOTES:
1. PRV BYPASS PIPING IS TYPICALLY INSTALLED IN THE STREET.
2. ALL INTERNAL PIPING WITHIN THE CHAMBER SHALL BE STAINLESS STEEL.
3. DETAILED DESIGN OF PRV TO BE SUBMITTED FOR REVIEW.
4. N/C: NORMALLY CLOSED.

B 12 PRV CHAMBER - SECTION

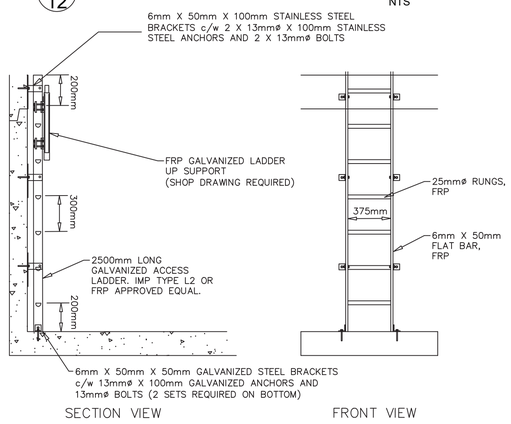
NTS



NOTES:
1. ALL INTERNAL PIPING WITHIN THE CHAMBER SHALL BE STAINLESS STEEL.
2. 2% SLOPE ON FLOOR TO SUMP.
3. DETAILED DESIGN OF PRV TO BE SUBMITTED FOR REVIEW.

C 12 ACCESS LADDER DETAIL

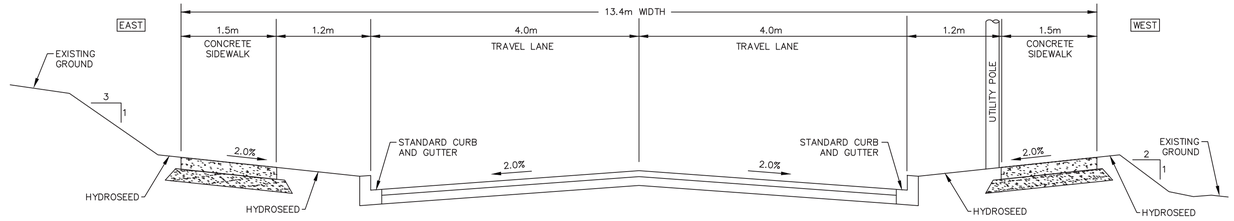
NTS



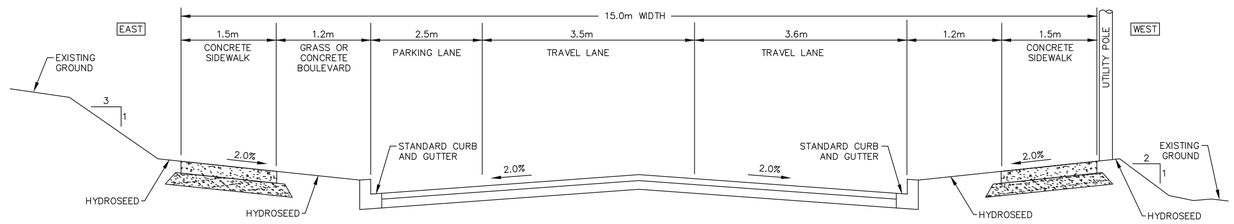
D 12 TYPICAL ROAD CROSS SECTIONS

NTS

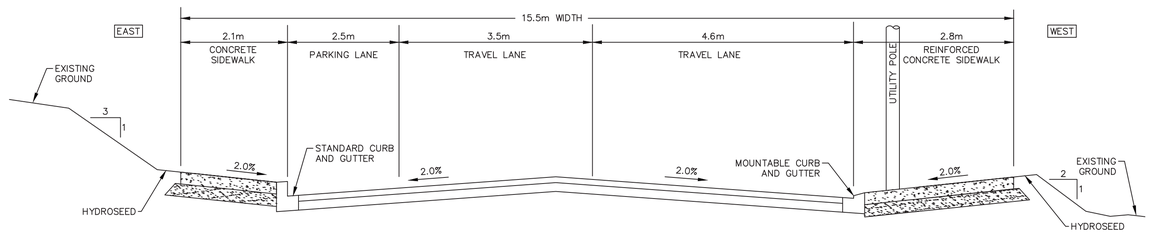
NORTH STREET TO MAPLE STREET



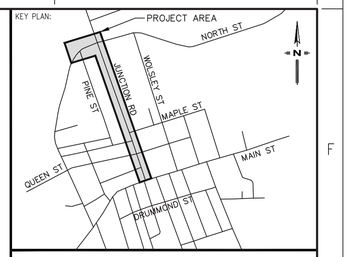
MAPLE STREET TO FIR STREET



FIR STREET TO MAIN STREET



KEY PLAN:



SEAL:

REGISTERED PROFESSIONAL ENGINEER
DATE 2023/03/13
A. G. MILLIGAN
9873
PROVINCE OF NOVA SCOTIA

DISCLAIMER: COPYRIGHT:
DRAWINGS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION. THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK. SEE SHEETS 10, 11, AND 12 FOR CONSTRUCTION NOTES AND DETAILS.

REVISION:

NO.	DATE YYYY/MM/DD	DESCRIPTION
0	2023/03/13	ISSUED FOR TENDER

PROJECT NUMBER: 211-11078	DATE: (YYYY/MM/DD) 2023/03/13
ORIGINAL SCALE: HORIZONTAL: N.T.S. VERTICAL: N/A	IF THIS BAR IS NOT 25mm LONG, ADJUST YOUR PLOTTING SCALE. 25mm
DESIGNED BY: A. THIBAULT	DRAWN BY: A. THIBAULT
CHECKED BY: A. MILLIGAN	APPROVED BY: A. MILLIGAN

WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

CLIENT: municipality of cumberland

PROJECT:

SPRINGHILL – JUNCTION ROAD INFRASTRUCTURE UPGRADE

SPRINGHILL, NS

TITLE:

CONSTRUCTION NOTES AND DETAILS III

SHEET NUMBER: 12

SHEET #: 12 OF 12

ISSUE: ISSUED FOR TENDER
DATE OF: 2023/03/13

REV #: 0

XREFS: ...\1.4.1-XREFS\211-11078-00_TITBL_JR.DWG

WSP REF. NO.: 211-11078 K:\DARTMOUTH\2021\211-11078-00_SPRINGHILL_INFRASTRUCTURE_UPGRADES\1-CAD\1.4-CIVIL\1.4.2-PRODUCTION_DWG\JUNCTION_ROAD\211-11078_DETAILS_JR.DWG 003 PRINTED: 2:39 PM 2023/03/13 BY: AARON.THIBAULT