

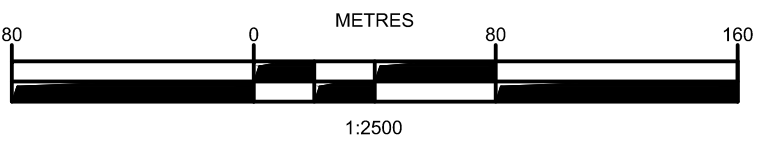
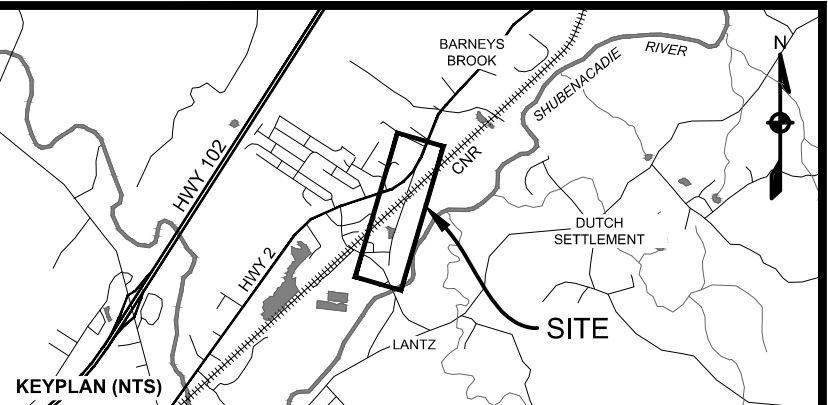
# LANTZ WASTEWATER INFRASTRUCTURE REPLACEMENT

LANTZ, NOVA SCOTIA

REV. 2: EXTENDED SEWER TO EXISTING PUMPING STATION  
MAR. 31, 2023

### LIST OF SHEETS

- |           |   |
|-----------|---|
| SHEET 1:  | COVER SHEET   |
| SHEET 2:  | PLAN & PROFILE, GREEN ROAD EXTENSION: STA. 0+000 TO 0+320   |
| SHEET 3:  | PLAN & PROFILE, GREEN ROAD EXTENSION: STA. 0+320 TO 0+640   |
| SHEET 4:  | PLAN & PROFILE, GREEN ROAD EXTENSION: STA. 0+640 TO 0+960   |
| SHEET 5:  | PLAN & PROFILE, MADER STREET: STA. 0+960 TO 1+290           |
| SHEET 6:  | PLAN & PROFILE, CN RAIL CROSSING: STA. 0+848 TO 0+914       |
| SHEET 7:  | CIVIL PLAN & DETAILS, EXISTING PUMP STATION HWY #2 (SLS-18) |
| SHEET 8:  | ELECTRICAL PLAN, EXISTING PUMP STATION SLS-18               |
| SHEET 9:  | ELECTRICAL DETAILS, EXISTING PUMP STATION SLS-18            |
| SHEET 10: | CONSTRUCTION NOTES & DETAILS                                |



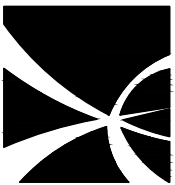
ISSUE	DATE	DESCRIPTION
4	MAY 3, 2023	REVISED
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**EAST HANTS**

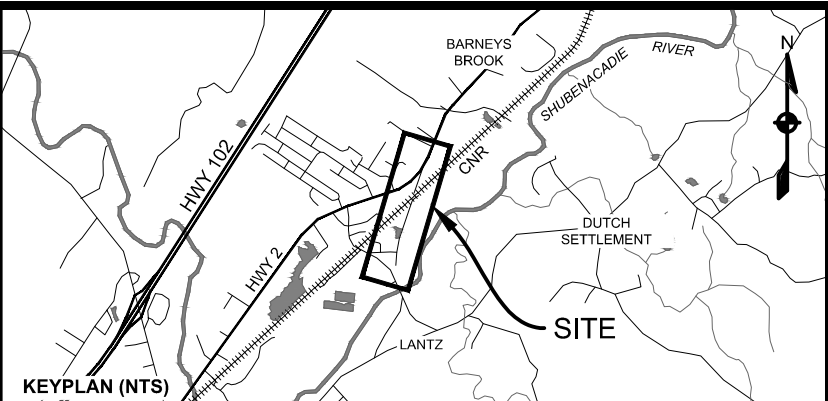
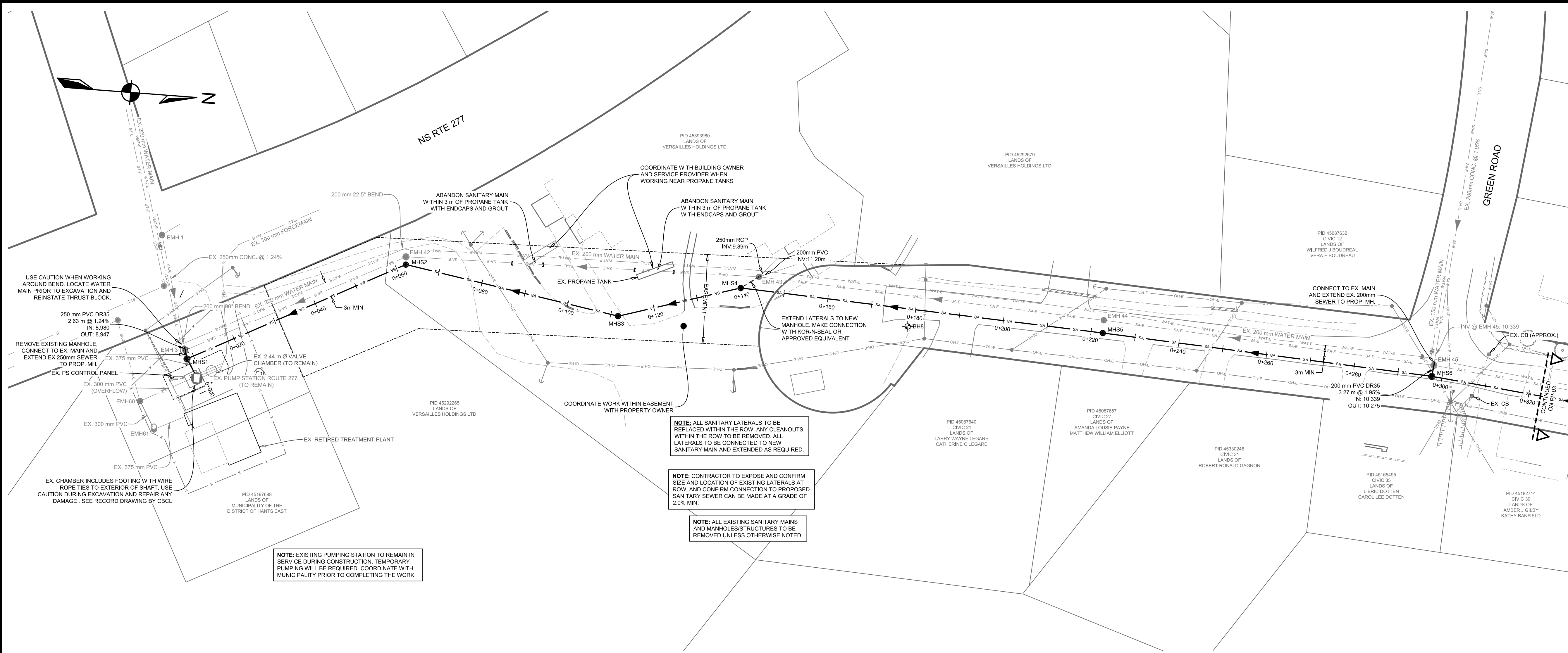
PROJECT DESCRIPTION

**LANTZ WASTEWATER  
INFRASTRUCTURE  
REPLACEMENT**  
LANTZ, NOVA SCOTIA

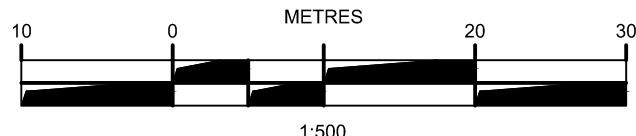
SHEET DESCRIPTION

COVER SHEET

Drawn S. HANNAM	Engineer A. SKETCHLEY	Project No. 20-284	Drawing No. <b>T-01</b>
Scale 1:2500	Filename 20-284-T01.dwg		1 of 10



LEGEND		
EXISTING		PROPOSED
-----	VERTICAL PROFILE	-----
-----	APPROXIMATE 1 IN 100 YEAR FLOOD LIMIT	-----
-----	EASEMENT	-----
-----	WATER PIPE	-----
-----	SANITARY PIPE	-----
-----	STORM PIPE	-----
-----	WATER LATERAL	-----
-----	SANITARY LATERAL	-----
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-----	UNDERGROUND POWER	-----
-----	UNDERGROUND COMM.	-----
-----	FENCELINE	-----
-----	CURB CUT/RAMP	-----
-----	CURBSTOP	-----
-----	REDUCER	-----
-----	PRECAST HEADWALL	-----
-----	STREET SIGN	-----
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REGISTERED PROFESSIONAL ENGINEER  
DATE 03/05/2023  
A. Sketchley  
11560  
PROVINCE OF NOVA SCOTIA

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**EAST HANTS**

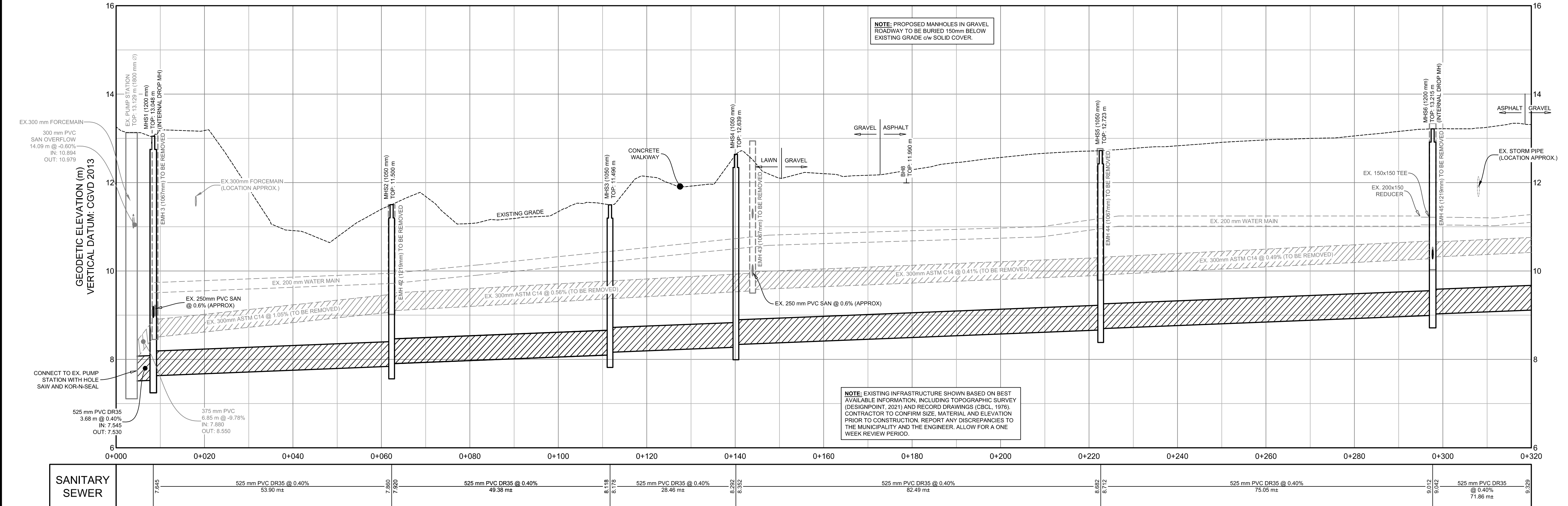
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INFRASTRUCTURE  
REPLACEMENT**  
LANTZ, NOVA SCOTIA

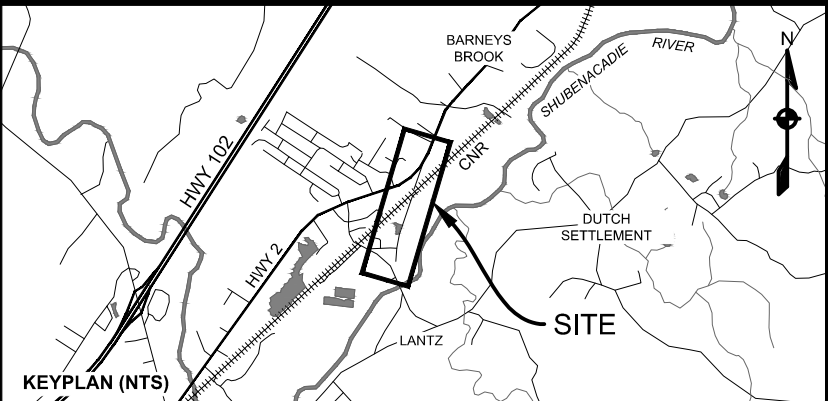
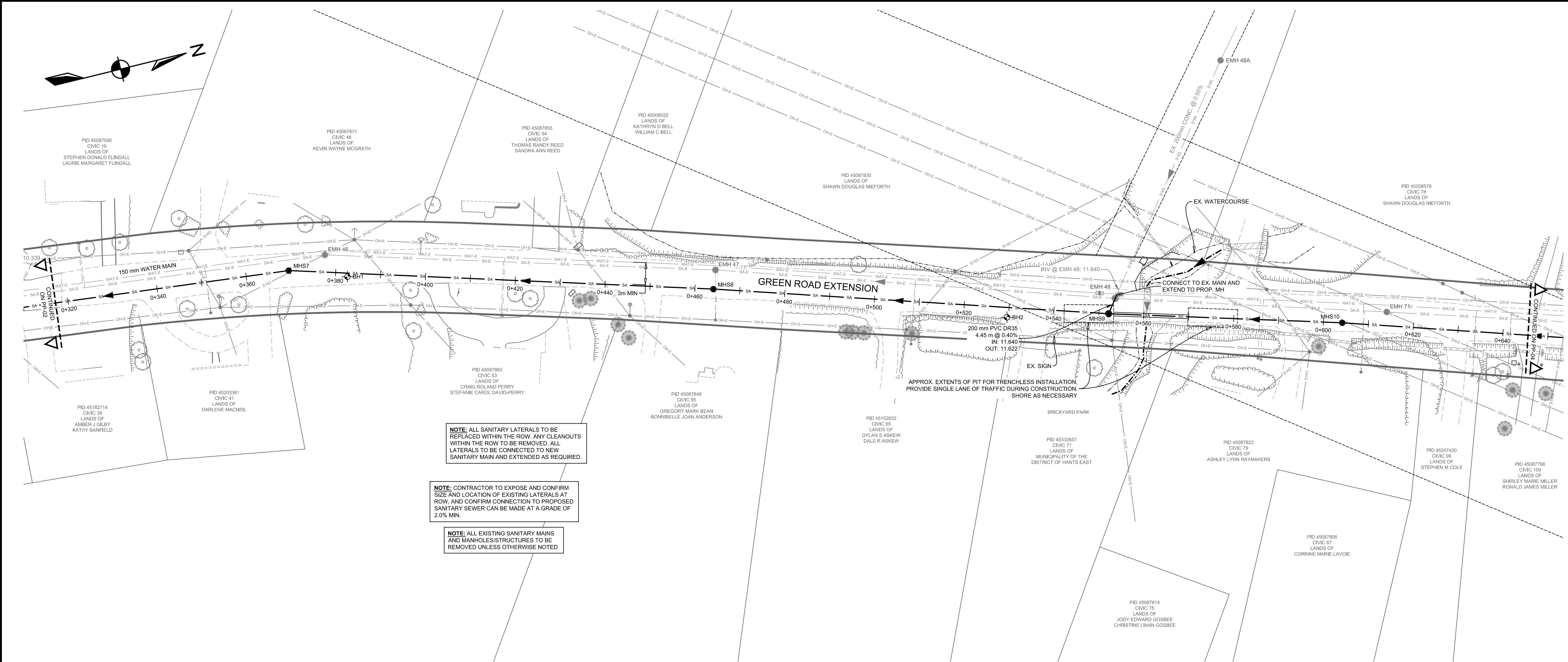
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**GREEN ROAD EXTENSION  
PLAN & PROFILE**  
STA. 0+000 TO 0+320

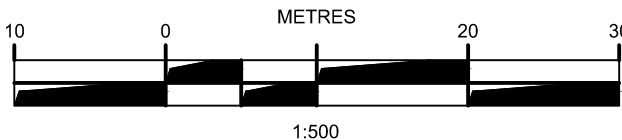
Drawn S. HANNAM	Engineer A. SKETCHLEY	Project No. 20-284	Drawing No. PP-02
Scale 1:500 H, 1:50 V	Filename 20-284-PP.dwg		2 of 10







LEGEND		
EXISTING		PROPOSED
-----	VERTICAL PROFILE	-----
-----	APPROXIMATE 1 IN 100 YEAR FLOOD LIMIT	-----
-----	EASEMENT	-----
-----	WATER PIPE	-----
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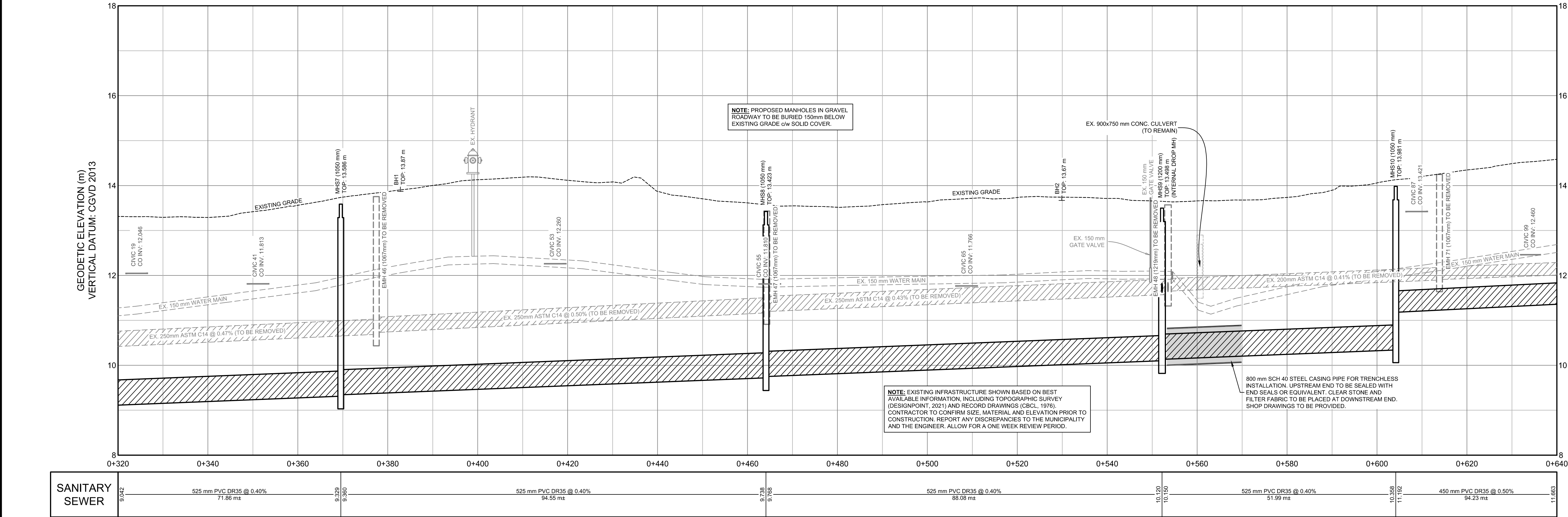
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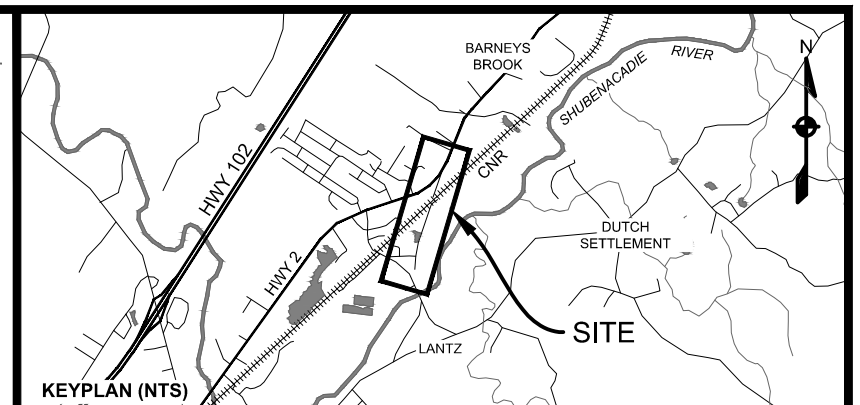
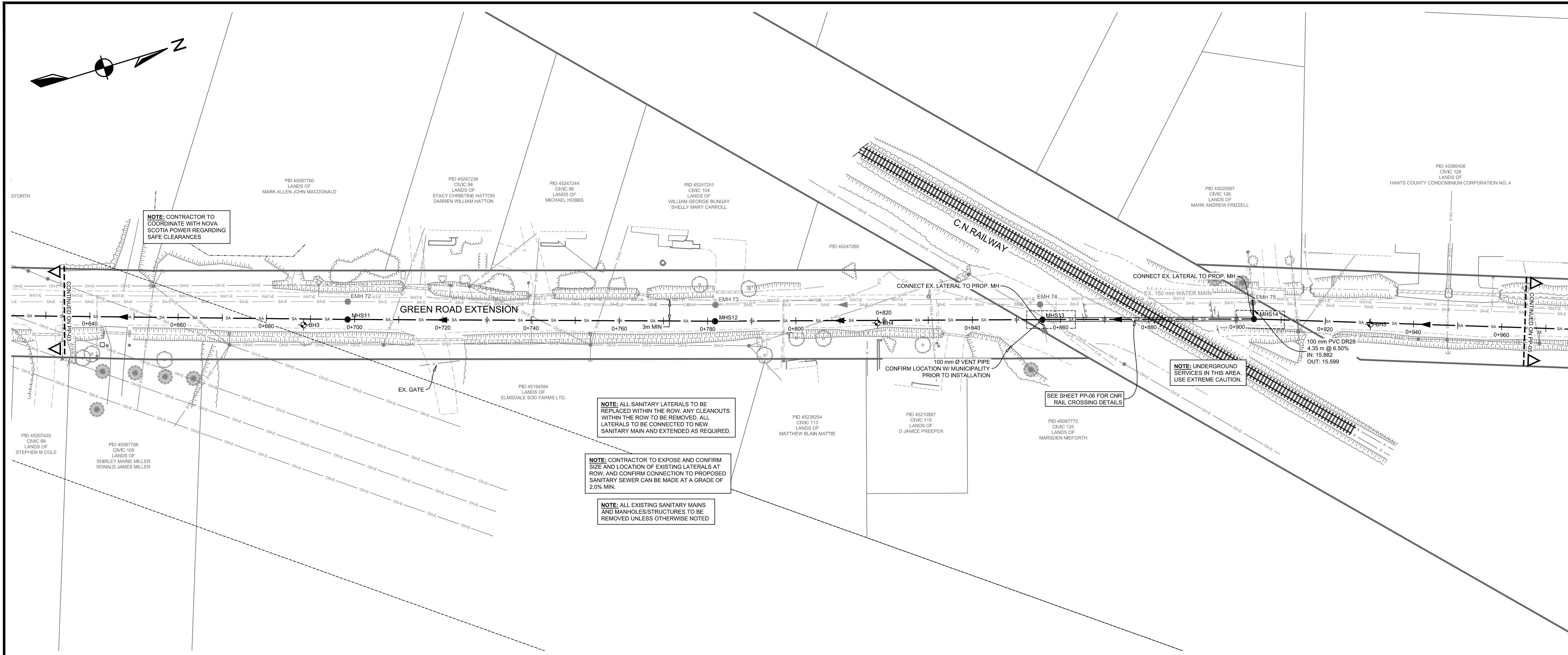
**LANTZ WASTEWATER  
INFRASTRUCTURE  
REPLACEMENT**  
LANTZ, NOVA SCOTIA

SHEET DESCRIPTION

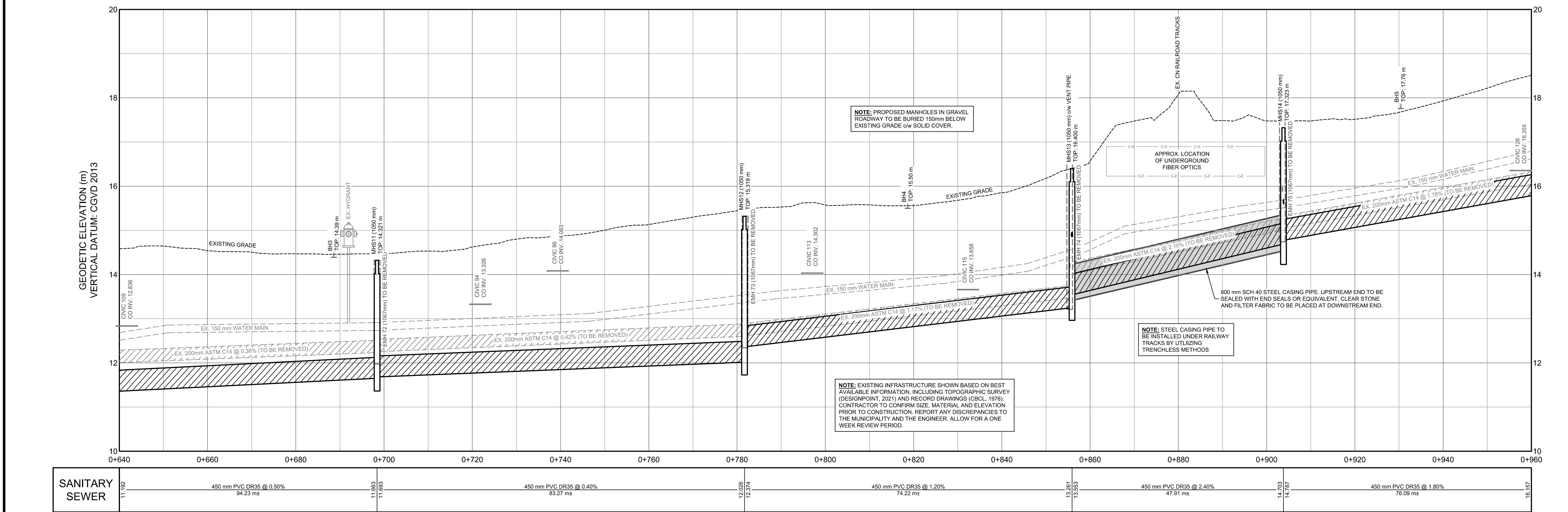
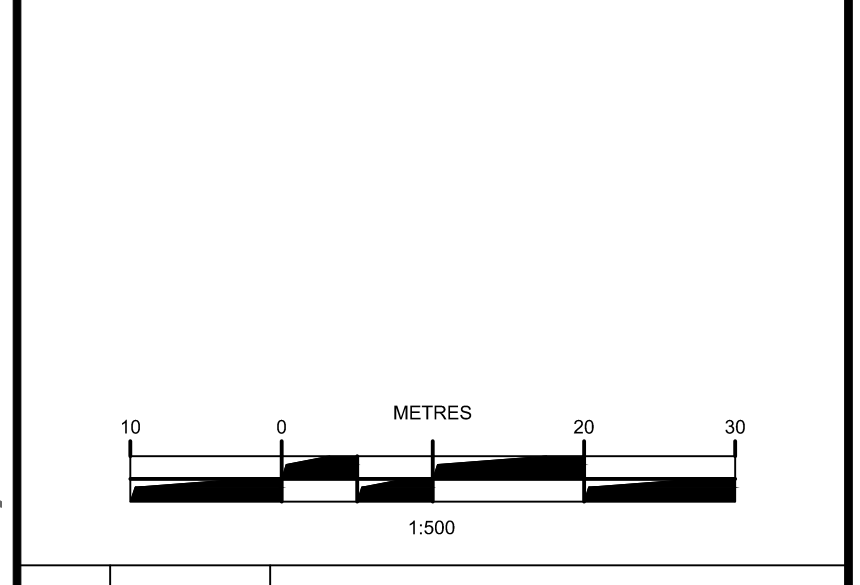
**GREEN ROAD EXTENSION  
PLAN & PROFILE**  
STA. 0+320 TO 0+640

Drawn S. HANNAM	Engineer A. SKETCHLEY	Project No. 20-284	Drawing No. PP-03
Scale 1:500 H, 1:50 V	Filename 20-284-PP.dwg		3 of 10





LEGEND		
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-----	APPROXIMATE 1 IN 100 YEAR FLOOD LIMIT	-----
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REGISTERED PROFESSIONAL ENGINEER  
DATE 03/05/2023  
A. SKETCHLEY  
11560  
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**EAST HANTS**  
PROJECT DESCRIPTION

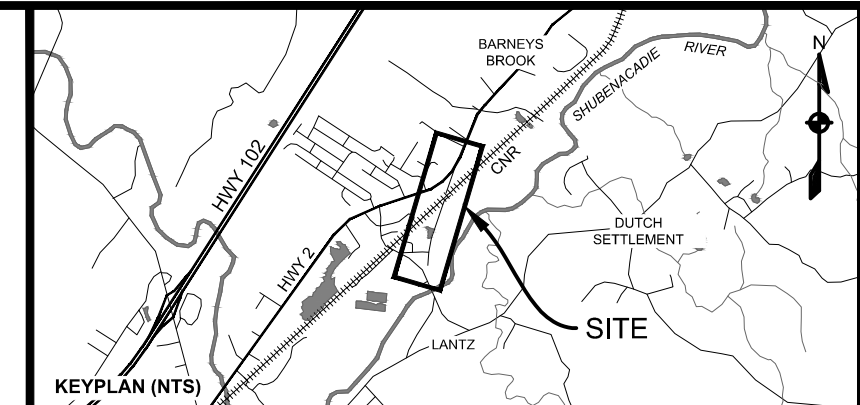
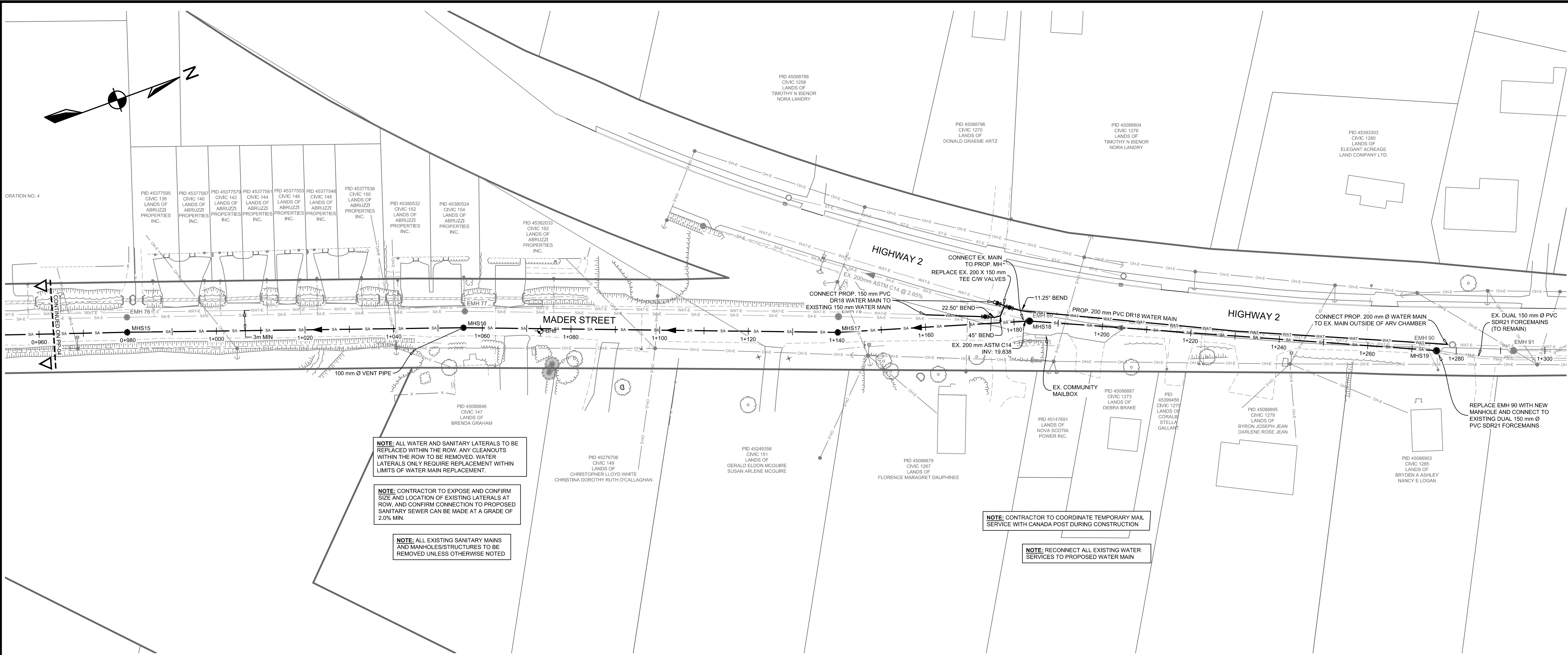
**LANTZ WASTEWATER  
INFRASTRUCTURE  
REPLACEMENT**  
LANTZ, NOVA SCOTIA

SHEET DESCRIPTION

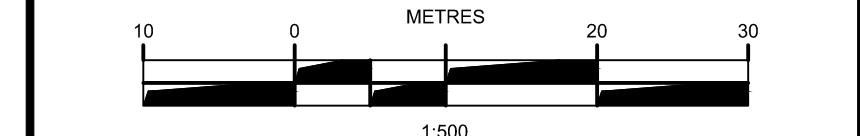
**GREEN ROAD EXTENSION  
PLAN & PROFILE  
STA. 0+640 TO 0+960**

Drawn S. HANNAM	Engineer A. SKETCHLEY	Project No. 20-284	Drawing No. PP-04
Scale 1:500 H, 1:50 V	Filename 20-284-PP.dwg		4 of 10





LEGEND		
EXISTING		PROPOSED
-----	VERTICAL PROFILE	-----
-----	APPROXIMATE 1 IN 100 YEAR FLOOD LIMIT	-----
-----	EASEMENT	-----
-----	WATER PIPE	-----
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**EAST HANTS**

PROJECT DESCRIPTION

**LANTZ WASTEWATER INFRASTRUCTURE REPLACEMENT**

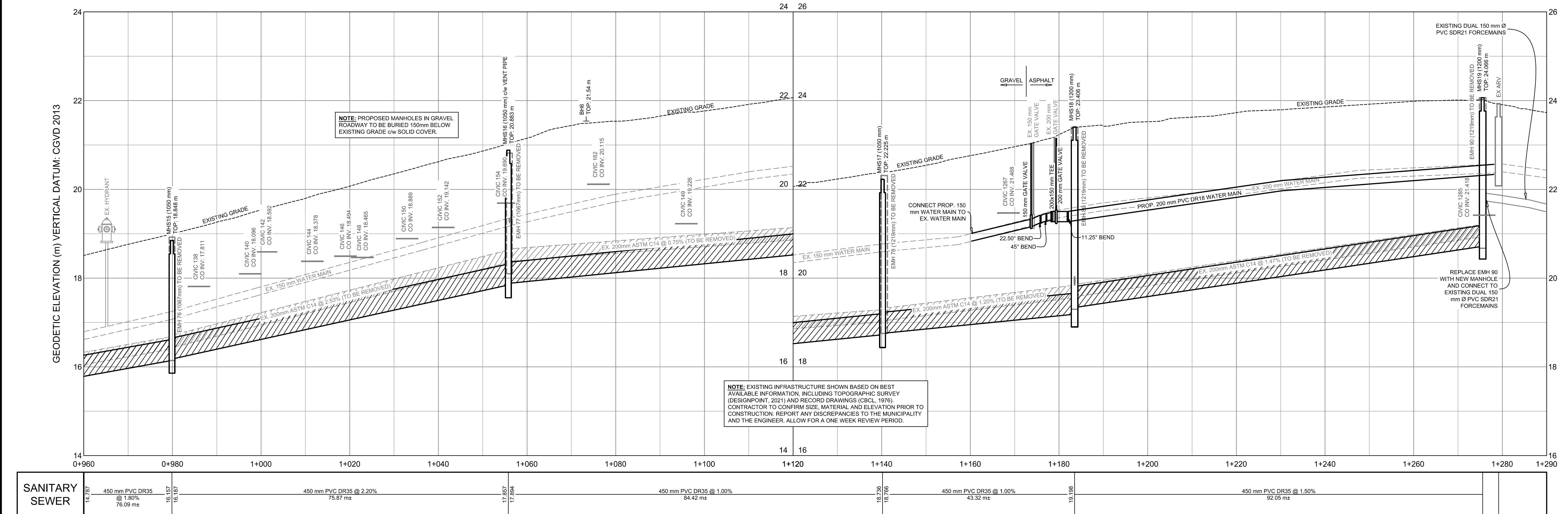
LANTZ, NOVA SCOTIA

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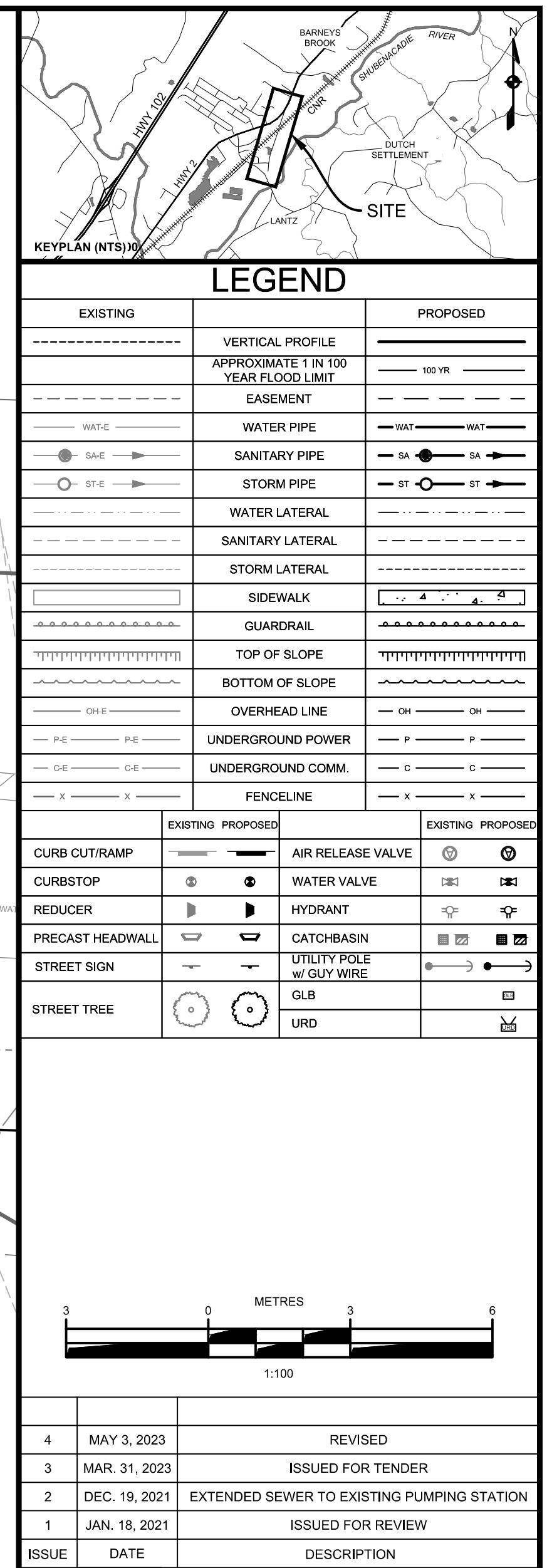
**MADER STREET PLAN & PROFILE**

STA. 0+960 TO 1+290

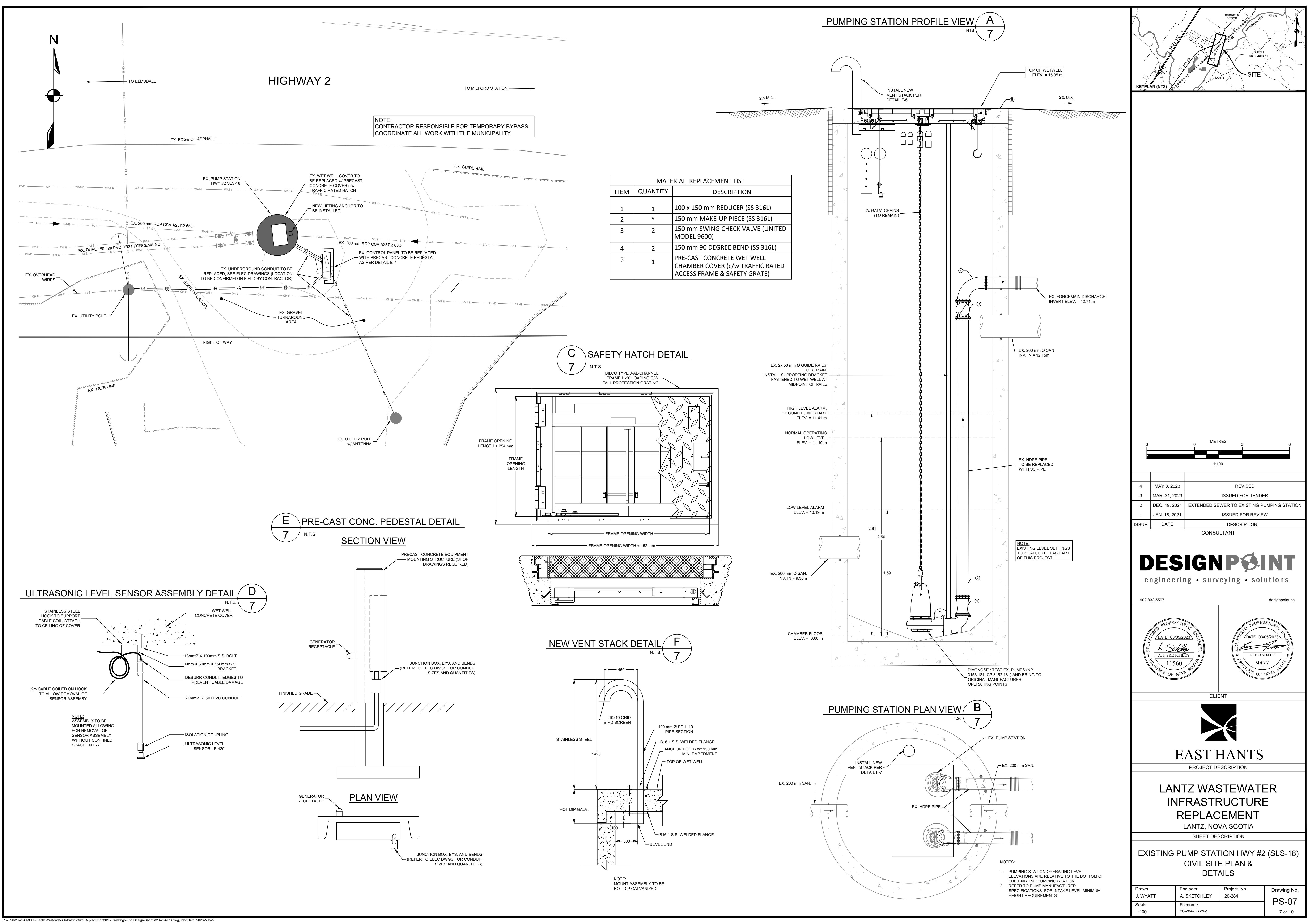
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Scale 1:500 H, 1:50 V	Filename 20-284-PP.dwg		5 of 10



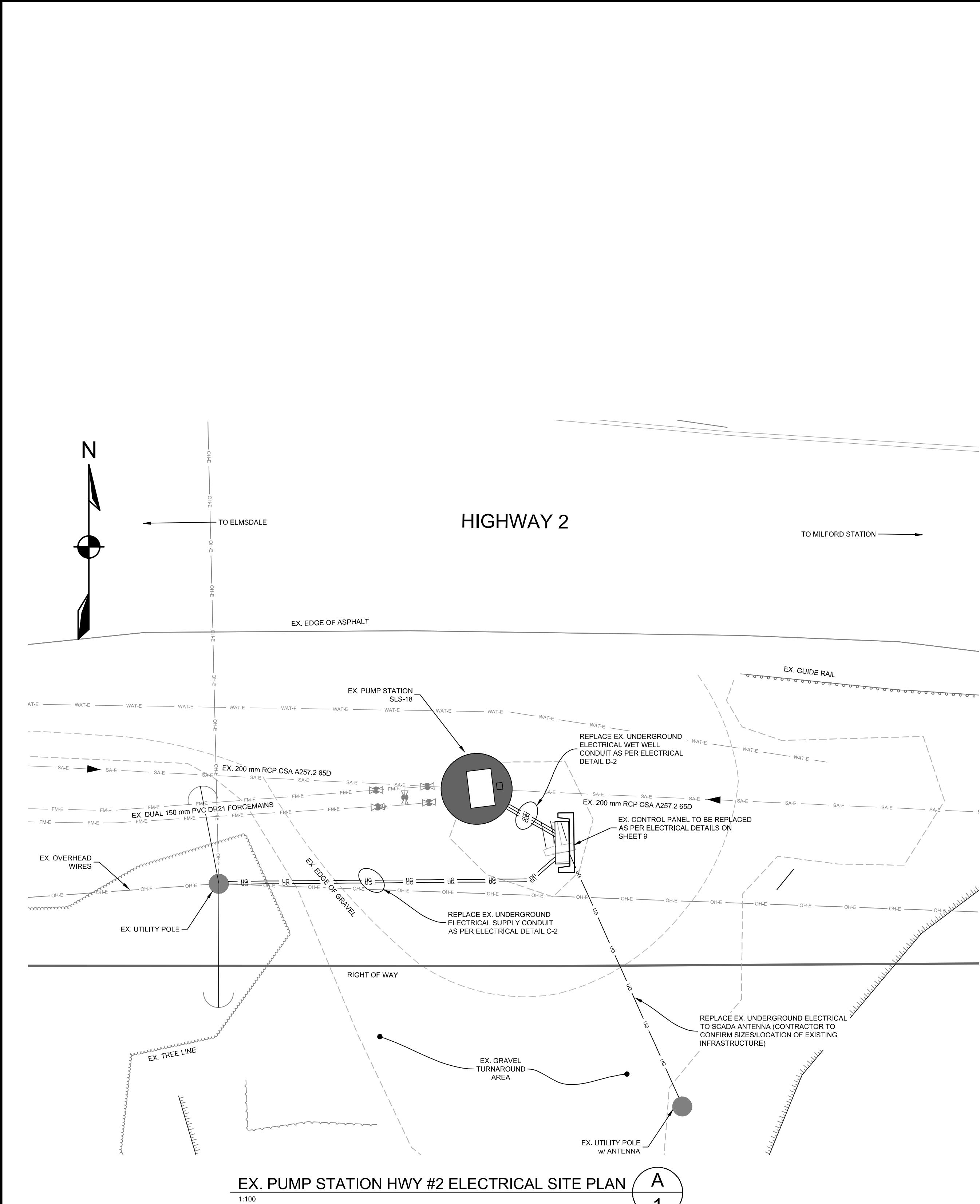
SANITARY SEWER	4+767	46.157	17.857	18.736	19.168
	450 mm PVC DR35 @ 1.80% 76.08 m	450 mm PVC DR35 @ 2.20% 75.87 m	450 mm PVC DR35 @ 1.00% 84.42 m	450 mm PVC DR35 @ 1.00% 43.32 m	450 mm PVC DR35 @ 1.50% 92.05 m











EX. PUMP STATION HWY #2 ELECTRICAL SITE PLAN

1:100

A  
1

#### 26 05 00 - COMMON WORK RESULTS ELECTRICAL

##### EXAMINATION OF SITE AND CONDITIONS

- 1) EXAMINE THE SITE AND LOCAL CONDITIONS AFFECTING THE WORK WITH ALL TENDER DOCUMENTS, TO ENSURE THE WORK CAN BE SATISFACTORILY PERFORMED AS SHOWN, PRIOR TO COMMENCING WORK. EXAMINE THE WORK OF OTHER DIVISIONS AND REPORT AT ONCE ANY DEFECT OR INTERFERENCE AFFECTING THE WORK OF THIS CONTRACTOR. NO ALLOWANCE WILL BE MADE LATER FOR ANY EXPENSES INCURRED THROUGH FAILURE TO MAKE THIS EXAMINATION OR TO REPORT ANY DISCREPANCIES IN WRITING.
- 2) THIS CONTRACTOR IS TO ATTEND ALL SITE MEETINGS PRIOR TO CLOSE OF TENDER TO CONFIRM SCOPE OF WORK.

##### BY-LAW AND REGULATIONS

- 1) CONFORM WITH LATEST RULES, REGULATIONS AND DEFINITIONS OF THE CANADIAN ELECTRICAL CODE, APPLICABLE MUNICIPAL AND PROVINCIAL CODES AND REGULATIONS AND WITH REQUIREMENTS OF OTHER AUTHORITIES HAVING JURISDICTION IN THE AREA WHERE WORK IS TO BE PERFORMED.
- 2) STANDARDS ESTABLISHED BY DRAWINGS AND SPECIFICATIONS SHALL NOT BE REDUCED BY ANY CODES REFERRED TO ABOVE AND MINOR CHANGES REQUIRED BY AN AUTHORITY HAVING JURISDICTION SHALL BE PERFORMED WITHOUT CHANGE TO THE CONTRACT AMOUNT.

##### SAFETY REQUIREMENTS

- 1) CLEAN SITE AT REGULARLY SCHEDULED TIMES. LEAVE WORK CLEAN BEFORE INSPECTION PROCESS COMMENCES.
- 2) DO NOT LEAVE THE SITE IN DANGEROUS CONDITIONS, UNDER ANY CIRCUMSTANCES, DURING THE PROGRESS OF WORK.

##### CO-OPERATION AND RESPONSIBILITY

- 1) INCLUDE FULL RESPONSIBILITY FOR LAYOUT OF ELECTRICAL WORK, FOR DAMAGE CAUSED TO OTHER DIVISIONS OF WORK BY REASON OF IMPROPER LOCATION OR INSTALLATION OF WORK IN ADVANCE OF CONCRETE POURING OR SIMILAR WORK, FOR CONDITIONS OF ALL MATERIAL AND EQUIPMENT SUPPLIED UNDER THIS DIVISION AND FOR PROTECTION AND MAINTENANCE OF WORK COMPLETED AND ACCEPTED UNTIL TERMINATION OF CONTRACT.
- 2) CO-OPERATE WITH OTHER DIVISIONS TO ENSURE THAT ITEMS INSTALLED UNDER THIS DIVISION ARE LOCATED IN PROPER RELATION WITH BUILDING CONSTRUCTION, ARCHITECTURAL FINISHES AND WITH OTHER EQUIPMENT OR APPARATUS.

##### GUARANTEE

- 1) GUARANTEE MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY ENGINEER, EXCEPT FOR INCANDESCENT LAMPS WHICH SHALL BE GUARANTEED FOR A PERIOD OF 90 DAYS FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS SHALL BE CORRECTED AND MADE GOOD DURING THIS PERIOD EXCEPT DEFECTS OCCURRING FROM MISUSE BY OWNER.

##### PERMITS FEES AND CERTIFICATES

- 1) FILE CONTRACT DRAWINGS WITH PROPER AUTHORITIES AND OBTAIN APPROVAL OF INSTALLATION AND PERMITS FOR THE WORK. PREPARE AND SUBMIT NECESSARY DETAIL SHOP DRAWINGS AS REQUIRED BY AUTHORITIES.
- 2) PAY ALL FEES IN CONNECTION WITH EXAMINATION OF DRAWINGS, FOR PERMITS, INSPECTIONS AND FINAL CERTIFICATES OF APPROVAL.
- 3) SUPPLY NECESSARY CERTIFICATES AS EVIDENCE THAT WORK AS INSTALLED CONFORMS WITH LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.

##### EQUIPMENT SHOP DRAWINGS

- 1) PREPARE AND SUBMIT A MINIMUM OF SIX SHOP DRAWINGS OF ALL MAJOR ITEMS OF EQUIPMENT PRIOR TO EQUIPMENT FABRICATION, DELIVERY OR INSTALLATION. SHOP DRAWINGS SHALL INDICATE MANUFACTURER, CATALOGUE NUMBER, DIMENSIONS, SPECIAL FEATURES OR FINISHES.
- 2) SUBMIT SHOP DRAWING WITHIN (7) DAYS OF AWARD OF CONTRACT.
- 3) THE OWNER RESERVES THE RIGHT TO WAIVE APPROVAL DRAWINGS AND ACCEPT RECORD DRAWINGS, THIS IN NO WAY RELIEVES THE CONTRACTOR FROM SUPPLYING THE SPECIFIC EQUIPMENT.
- 4) THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL SHOP DRAWINGS FOR ERRORS OR OMISSIONS TO CONFORM WITH ACCURACY REQUIREMENTS OF DIMENSIONS TO CONFORM WITH SITE CONDITIONS AND FOR INFORMATION THAT PERTAINS SOLELY TO EQUIPMENT FABRICATION PROCESSES.

##### AS BUILT DRAWINGS

- 1) THE CONTRACTOR SHALL MAINTAIN ON SITE ONE SET OF UP TO DATE AS BUILT DRAWINGS FOR REVIEW AT ALL TIMES. AT THE END OF THIS CONTRACT THE CONTRACTOR SHALL SUPPLY THE OWNER A COMPLETE SET OF AS BUILT DRAWINGS FOR HIS REVIEW AND ACCEPTANCE.
- 2) PROVIDE THREE (3) OPERATIONS AND MAINTENANCE MANUALS IN 3 POST BACK BINDER AT COMPLETION OF THE PROJECT. MANUALS SHALL CONTAIN A LIST OF SUPPLIERS INCLUDING TELEPHONE NUMBERS, SHOP DRAWINGS, FINAL ELECTRICAL INSPECTION CERTIFICATE, FIRE ALARM VERIFICATION, RECORD DRAWINGS, AND TEST REPORTS. EACH SECTION SHALL BE SEPARATELY TABBED, EACH PIECE OF EQUIPMENT REQUIRING ADJUSTMENT OR REGULAR MAINTENANCE SHALL HAVE CLEAR INSTRUCTIONS TO HOSE REQUIREMENTS.

##### COMPLETION

- 1) LEAVE ALL NEW AND RELOCATED EQUIPMENT CLEAN, FREE OF CONSTRUCTION DEBRIS AND OTHER FOREIGN MATTER. REMOVE ANY TEMPORARY OR PROTECTIVE COATINGS.
- 2) UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL PROVIDE IN A TIMELY FASHION "AS BUILT" DRAWINGS, LETTER OF WARRANTY, OWNERS MANUAL AND WORKERS COMPENSATION CLEARANCE CERTIFICATE.

##### EQUIPMENT LOCATIONS

- 1) THE RIGHT IS RESERVED TO ALTER THE LOCATION OF EQUIPMENT AND OUTLETS AT DISTANCE OF UP TO TEN FEET (3 METERS) WITHOUT INVOLVING A CHANGE TO THE CONTRACT AMOUNT, PROVIDED NOTICE IS GIVEN PRIOR TO INSTALLATION OF SAME.

##### CONTRACT DRAWINGS

- 1) THESE DRAWINGS ARE INTENDED TO SERVE AS A GUIDE SHOWING QUANTITIES AND GENERAL ARRANGEMENTS AND ARE NOT NECESSARILY WORKING DRAWINGS FROM WHICH MEASUREMENTS CAN BE TAKEN, EXCEPT WHERE DIMENSION FIGURES ARE SPECIFICALLY SHOWN. INFORMATION INVOLVING ACCURATE MEASUREMENTS OF BUILDING SHALL BE TAKEN FROM BUILDING DRAWING OR FROM THE SITE.

##### MATERIAL

- 1) MATERIALS SUPPLIED BY THIS CONTRACTOR SHALL BE NEW, OF CANADIAN MANUFACTURE WHERE AVAILABLE AND OF FIRST QUALITY AND UNIFORM THROUGHOUT.
- 2) ALL ELECTRICAL MATERIALS SHALL BE CSA APPROVED AND LABELED AND ALL MATERIALS NOT APPROVED SHALL RECEIVE ACCEPTANCE FOR INSTALLATION BY SPECIAL APPLICATION TO CSA. MATERIAL SHALL NOT BE INSTALLED OR CONNECTED TO A SOURCE OF ELECTRICAL POWER UNTIL APPROVAL IS OBTAINED.

##### RETURN OF DRAWINGS

- 1) AT THE COMPLETION OF THE JOB, ALL DRAWINGS SHALL BE RETURNED, REGARDLESS OF THEIR CONDITION.

##### PLANS FOR RECORDING CHANGES

- 1) OBTAIN ONE SET OF WHITE PRINTS AND RECORD ON ANY ALTERATIONS OF THE ROUTING OF CONDUIT, WIRING AND ETC., OR SHOW ON THE CONTRACT DRAWINGS. THESE DRAWINGS TO BE KEPT UP TO DATE AND TURNED OVER AT THE COMPLETION OF THE PROJECT.

##### CLEANING UP

- 1) ALL REFUSE AND DEBRIS CAUSED BY THIS CONTRACTOR SHALL BE REMOVED FROM THE SITE AT FREQUENT INTERVALS. BEFORE THE WORK IS FINALLY ACCEPTED BY THE OWNER, THIS CONTRACTOR SHALL THOROUGHLY CLEAN ALL EQUIPMENT, APPARATUS AND FIXTURES AND LEAVE THEM IN PERFECT NEW CONDITION.

##### INSTRUCTIONS TO OPERATORS

- 1) INSTRUCT THE OWNERS OPERATOR IN THE CARE AND MAINTENANCE AND OPERATION OF ALL ELECTRICAL SYSTEMS AND EQUIPMENT INSTALLED UNDER THE SPECIFICATION.
- 2) PREPARE THREE COPIES OF OPERATIONS AND MAINTENANCE INSTRUCTIONS, SHOP DRAWINGS, WIRING DIAGRAMS, DESCRIPTIVE LITERATURE FOR EACH ITEM OF EQUIPMENT SUPPLIED. COMBINE THESE TOGETHER IN LOOSE LEAF BINDERS.
- 3) THESE LOOSE LEAF BINDERS SHALL BE PRESENTED UPON COMPLETION OF THE PROJECT.

##### NAMEPLATES

- 1) ALL APPARATUS SHALL HAVE PROPER NAME PLATES AFFIXED THERETO, SHOWING SERIAL NUMBER, SIZE, NAME OF EQUIPMENT AND ALL INFORMATION USUALLY SUPPLIED, INCLUDING VOLTAGE, PHASE, HERTZ AND HORSEPOWER OF MOTORS AND THE NAME OF THE MANUFACTURER AND THEIR ADDRESS.

##### INSPECTIONS AND TESTING

- 1) ALL WORK SHALL BE LEFT OPEN FOR INSPECTION SO THAT INSPECTION MAY BE MADE BEFORE THE WORK IS COVERED.

##### UTILITY SERVICES

- 1) THIS CONTRACTOR IS FINANCIALLY RESPONSIBLE TO PROVIDE COMPLETE ELECTRICAL, TELEPHONE AND COMPUTER SYSTEMS. THIS CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH AND PAY FOR ALL UTILITY FEES.

#### 26 05 34 - CONDUITS, CONDUIT FASTENINGS, AND CONDUIT FITTINGS

##### PRODUCTS

1. CONDUITS
  - 1.1. ELECTRICAL METALLIC TUBING (EMT); TO CSA C22.2 NO. 83, WITH COUPLINGS.
  - 1.2. RIGID PVC CONDUIT; TO CSA C22.2 NO. 211.2.
  - 1.3. FLEXIBLE METAL CONDUIT; TO CSA C22.2 NO. 56, ALUMINUM LIQUID-TIGHT FLEXIBLE METAL.
2. CONDUIT FASTENINGS
  - 2.1. ONE HOLE STEEL STRAPS TO SECURE SURFACE CONDUITS 50 MM AND SMALLER, TWO HOLE STEEL STRAPS FOR CONDUITS LARGER THAN 50 MM.
  - 2.2. BEAM CLAMPS TO SECURE CONDUITS TO EXPOSED STEEL WORK.
  - 2.3. CHANNEL TYPE SUPPORTS FOR TWO OR MORE CONDUITS AT 1.5 M OC.
  - 2.4. THREADED RODS, 6 MM DIA., TO SUPPORT SUSPENDED CHANNELS.
3. CONDUIT FITTINGS
  - 3.1. FITTINGS MANUFACTURED FOR USE WITH CONDUIT SPECIFIED. COATING: SAME AS CONDUIT.
  - 3.2. FACTORY "ELLS" WHERE 90, 45 OR 22.5 DEGREE BENDS ARE REQUIRED FOR 25 MM AND LARGER CONDUITS.
  - 3.3. ENSURE CONDUIT BENDS OTHER THAN FACTORY "ELLS" ARE MADE WITH AN APPROVED BENDER. MAKING OFFSETS AND OTHER BENDS BY CUTTING AND REJOINING 90 DEGREE BENDS ARE NOT PERMITTED.
  - 3.4. CONNECTORS AND COUPLINGS FOR EMT. STEEL SET-SCREW TYPE. SIZE AS REQUIRED.
4. EXPANSION FITTINGS FOR RIGID CONDUIT
  - 4.1. WEATHERPROOF EXPANSION FITTINGS WITH INTERNAL BONDING ASSEMBLY SUITABLE FOR 100 MM LINEAR EXPANSION.
  - 4.2. WATERTIGHT EXPANSION FITTINGS WITH INTEGRAL BONDING JUMPER SUITABLE FOR LINEAR EXPANSION AND 19 MM DEFLECTION IN ALL DIRECTIONS.
  - 4.3. WEATHERPROOF EXPANSION FITTINGS FOR LINEAR EXPANSION AT ENTRY TO PANEL.
5. FISH CORD
  - 5.1. POLYPROPYLENE

##### EXECUTION

6. MANUFACTURERS INSTRUCTIONS
  - 6.1. COMPLIANCE, COMPLY WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS OR SPECIFICATIONS, INCLUDING PRODUCT TECHNICAL BULLETINS, HANDLING, STORAGE AND INSTALLATION INSTRUCTIONS, AND DATASHEETS.
7. INSTALLATION
  - 7.1. INSTALL ALL CONDUIT, CONDUIT FITTINGS AND ACCESSORIES IN ACCORDANCE WITH THE LATEST EDITION OF THE CANADIAN ELECTRICAL CODE IN A MANNER THAT DOES NOT ALTER, CHANGE OR VIOLATE ANY PART OF THE INSTALLED SYSTEM COMPONENTS OR THE CSAUL CERTIFICATION OF THESE COMPONENTS.
  - 7.2. INSTALL CONDUITS TO CONSERVE HEADROOM IN EXPOSED LOCATIONS AND CAUSE MINIMUM INTERFERENCE IN SPACES THROUGH WHICH THEY PASS.
  - 7.3. CONCEAL CONDUITS EXCEPT IN MECHANICAL AND ELECTRICAL SERVICE ROOMS AND IN UNFINISHED AREAS.
  - 7.4. SURFACE MOUNT CONDUITS EXCEPT IN FINISHED AREAS OR AS INDICATED.
  - 7.5. USE RIGID HOT DIPPED GALVANIZED STEEL THREADED CONDUIT FOR EXPOSED WORK BELOW 2.4 M ABOVE FINISHED FLOOR.
  - 7.6. USE EPOXY COATED CONDUIT UNDERGROUND IN CORROSIVE AREAS AND WHERE EXPOSED TO EXTERIOR ELEMENTS. (IE: POLE MOUNTED SERVICE ENTRANCE CONDUITS)
  - 7.7. USE ELECTRICAL METALLIC TUBING (EMT) EXCEPT IN CAST CONCRETE AND ABOVE 2.4 M NOT SUBJECT TO MECHANICAL INJURY, AS WELL AS CONCEALED WORK IN MASONRY CONSTRUCTION.
  - 7.8. USE RIGID PVC CONDUIT UNDERGROUND AND BURIED IN OR UNDER CONCRETE SLAB ON GRADE.
  - 7.9. USE PRE CONDUIT FOR ENCASMENT IN CONCRETE DUCT BANK FOR SERVICE ENTRANCE FEEDERS.
  - 7.10. USE FLEXIBLE METAL CONDUIT FOR CONNECTION TO MOTORS IN DRY AREAS CONNECTION TO RECESSED INCANDESCENT FIXTURES WITHOUT A PREWIRED OUTLET BOX CONNECTION TO SURFACE OR RECESSED FLUORESCENT FIXTURES WORK IN MOVABLE METAL PARTITIONS.
  - 7.11. USE LIQUID TIGHT FLEXIBLE METAL CONDUIT FOR CONNECTION TO MOTORS OR VIBRATING EQUIPMENT IN DAMP, WET OR CORROSIVE LOCATIONS.
  - 7.12. USE AC-90 FOR VERTICAL POWER SUPPLY DROPS TO LIGHT FIXTURES.
  - 7.13. USE EXPLOSION PROOF FLEXIBLE CONNECTION FOR CONNECTION TO EXPLOSION PROOF MOTORS.
  - 7.14. INSTALL CONDUIT SEALING FITTINGS IN HAZARDOUS AREAS. FILL WITH COMPOUND.
  - 7.15. MINIMUM CONDUIT SIZE FOR LIGHTING AND POWER CIRCUITS: 19 MM: 12 MM CONDUIT IS ACCEPTABLE FOR SWITCH LEG DROPS ONLY WHERE ONE TWO-WIRE CIRCUIT AND GROUND IS REQUIRED.
  - 7.16. INSTALL EMT CONDUIT FROM COMPUTER ROOM BRANCH CIRCUIT PANEL TO OUTLET BOXES LOCATED IN SUB FLOOR.
  - 7.17. INSTALL EMT CONDUIT FROM COMPUTER ROOM BRANCH CIRCUIT PANEL TO JUNCTION BOX IN SUB-FLOOR IMMEDIATELY BELOW PANEL. RUN FLEXIBLE CONDUIT FROM JUNCTION BOX TO OUTLET BOXES FOR EACH COMPUTER IN SUB-FLOOR.
  - 7.18. BEND CONDUIT COLD. REPLACE CONDUIT IF KINKED OR FLATTENED MORE THAN 1/10TH OF ITS ORIGINAL DIAMETER.
  - 7.19. MECHANICALLY BEND STEEL CONDUIT OVER 19 MM DIA.
  - 7.20. FIELD THREADS ON RIGID CONDUIT MUST BE OF SUFFICIENT LENGTH TO DRAW CONDUITS UP TIGHT.
  - 7.21. INSTALL FISH CORD IN EMPTY CONDUITS.
  - 7.22. RUN 2 - 25 MM SPARE CONDUITS UP TO CEILING SPACE AND 2 - 25 MM SPARE CONDUITS DOWN TO CEILING SPACE FROM EACH FLUSH PANEL. TERMINATE THESE CONDUITS IN 152 X 152 X 102 MM JUNCTION BOXES IN CEILING SPACE OR IN CASE OF AN EXPOSED CONCRETE SLAB, TERMINATE EACH CONDUIT IN FLUSH CONCRETE TYPE BOX.
  - 7.23. REMOVE AND REPLACE BLOCKED CONDUIT SECTIONS. DO NOT USE LIQUIDS TO CLEAN OUT CONDUITS.
  - 7.24. DRY CONDUITS OUT BEFORE INSTALLING WIRE.

##### 8. SURFACE CONDUIT

- 8.1. RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
- 8.2. LOCATE CONDUITS BEHIND INFRARED OR GAS FIRED HEATERS WITH 1.5 M CLEARANCE.
- 8.3. RUN CONDUITS IN FLANGED PORTION OF STRUCTURAL STEEL.
- 8.4. GROUP CONDUITS WHEREVER POSSIBLE ON SUSPENDED CHANNELS.
- 8.5. DO NOT PASS CONDUITS THROUGH STRUCTURAL MEMBERS EXCEPT AS INDICATED.
- 8.6. DO NOT LOCATE CONDUITS LESS THAN 75 MM PARALLEL TO STEAM OR HOT WATER LINES WITH MINIMUM OF 25 MM AT CROSSEOVERS.

##### 9. CONCEALED CONDUITS

- 9.1. RUN PARALLEL OR PERPENDICULAR TO BUILDING LINES.
- 9.2. DO NOT INSTALL HORIZONTAL RUNS IN MASONRY WALLS.
- 9.3. DO NOT INSTALL CONDUITS IN TERRAZZO OR CONCRETE TOPPING.

##### 10. CONDUITS IN CAST IN PLACE CONCRETE

- 10.1. LOCATE TO SUIT REINFORCING STEEL. INSTALL IN CENTRE ONE THIRD OF SLAB. USE RIGID PVC CONDUIT.
- 10.2. PROTECT CONDUITS FROM DAMAGE WHERE THEY STUB OUT OF CONCRETE. USE RIGID STEEL CONDUIT FOR STUB-UP AND ADAPT TO FLOOR RIGID PVC CONDUIT.
- 10.3. INSTALL SLEEVES WHERE CONDUITS PASS THROUGH SLAB OR WALL.
- 10.4. PROVIDE OVERSIZED SLEEVE FOR CONDUITS PASSING THROUGH WATERPROOF MEMBRANE, BEFORE MEMBRANE IS INSTALLED. USE COLD MASTIC BETWEEN SLEEVE AND CONDUIT.
- 10.5. DO NOT PLACE CONDUITS IN SLABS IN WHICH SLAB THICKNESS IS LESS THAN 4 TIMES CONDUIT DIAMETER.
- 10.6. ENCASE CONDUITS COMPLETELY IN CONCRETE WITH MINIMUM 25 MM CONCRETE COVER.
- 10.7. ORGANIZE CONDUITS IN SLAB TO MINIMIZE CROSS-OVERS.

##### 11. CONDUITS IN CAST IN PLACE SLAB ON GRADE

- 11.1. RUN CONDUITS 25 MM AND LARGER BELOW SLAB AND ENCASED IN 75 MM CONCRETE ENVELOPE. PROVIDE 50 MM OF SAND OVER CONCRETE ENVELOPE BELOW FLOOR SLAB.

##### 12. CONDUITS UNDERGROUND

- 12.1. SLOPE CONDUITS TO PROVIDE DRAINAGE.
- 12.2. WATERPROOF JOINTS (PVC EXCEPTED) WITH HEAVY COAT OF BITUMINOUS PAINT

##### 13. CLEANING

- 13.1. PROCEED IN ACCORDANCE WITH SECTION 01 74 11 - CLEANING.
- 13.2. ON COMPLETION AND VERIFICATION OF PERFORMANCE OF INSTALLATION, REMOVE SURPLUS MATERIALS, EXCESS MATERIALS RUBBISH, TOOLS AND EQUIPMENT.

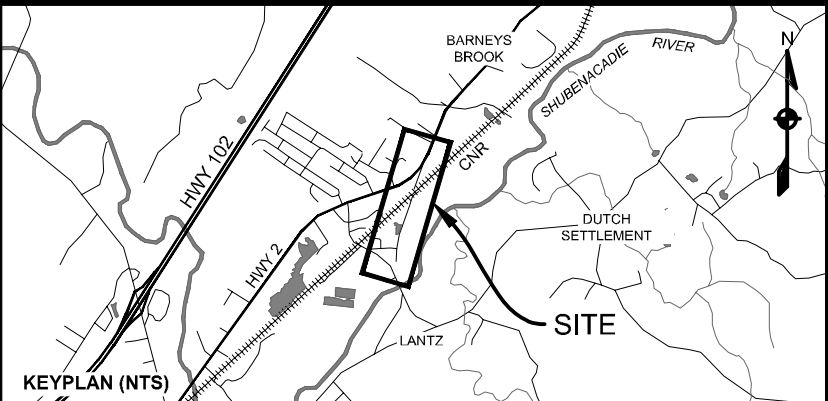
#### 26 05 44 - DIRECT BURIED UNDERGROUND CABLES

##### PRODUCTS

1. PVC DUCTS
  - 1.1. RIGID PVC CONDUITS: SIZE AS INDICATED, NOMINAL LENGTH OF 3 METRES.
  - 1.2. RIGID PVC COUPLINGS, REDUCERS, BELL END FITTINGS, PLUGS, CAPS, ADAPTORS AS REQUIRED TO MAKE COMPLETE INSTALLATION.
  - 1.3. RIGID PVC 90 AND 45 BENDS AS REQUIRED.
  - 1.4. RIGID PVC S ANGLE COUPLINGS AS REQUIRED.
  - 1.5. EXPANSION JOINTS AS REQUIRED.
2. SOLVENT
  - 2.1. SOLVENT WELD COMPOUND FOR PVC DUCT JOINTS
3. CABLE PULLING EQUIPMENT
  - 3.1. 6.5mm STRANDED NYLON PULL ROPE TENSILE 5kN.
4. MARKING TAPE
  - 4.1. 150mm WIDE, RED, POLYETHYLENE MARKED "BURIED ELECTRIC LINE"
  - 4.1.1. STANDARD OF ACCEPTANCE: THOMAS AND BETTS NA TYPE.
5. MANUFACTURERS
  - 5.1. STANDARD OF ACCEPTANCE: SCEPTER
  - 5.2. OTHER APPROVED MANUFACTURER: CANON

##### EXECUTION

6. INSTALLATION
  - 6.1. INSTALL PVC DUCT AS INDICATED AND IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
  - 6.2. EXCAVATION, TUNNELING, AND BACKFILLING TO THE REQUIREMENTS OF SECTION 02223.
  - 6.3. CLEAN INSIDE OF DUCTS BEFORE LAYING.
  - 6.4. ENSURE FULL, EVEN SUPPORT EVERY 1500MM THROUGHOUT DUCT LENGTH.
  - 6.5. SLOPE DUCTS AWAY FROM BUILDING AND POLE WITH 1 TO 400 MINIMUM SLOPE. PUNCH A SMALL HOLE IN BOTTOM OF DUCTS AT LOW POINT.
  - 6.6. PROVIDE SLEEVE FOR DUCTS PASSING THROUGH FOOTINGS.
  - 6.7. DURING CONSTRUCTION, CAP ENDS OF DUCTS TO PREVENT ENTRANCE OF FOREIGN MATERIALS.
  - 6.8. PULL THROUGH EACH DUCT A STEEL MANDREL NOT LESS THAN 300MM LONG AND OF A DIAMETER 65MM LESS THAN INTERNAL DIAMETER OF DUCT, FOLLOWED BY STIFF BRISTLE BRUSH TO REMOVE SAND, EARTH AND OTHER FOREIGN MATTER. PULL STIFF BRISTLE BRUSH THROUGH EACH DUCT IMMEDIATELY BEFORE PULLING IN CABLES.
  - 6.9. IN EACH DUCT INSTALL PULL ROPE CONTINUOUS THROUGHOUT EACH DUCT RUN WITH 3 METRES OF SPARE ROPE AT EACH END.
  - 6.10. INSTALL MARKING TAPE 150MM BELOW FINISHED GRADE ALONG THE COMPLETE LENGTH OF BURIED DUCT AS INDICATED.



ISSUE	DATE	DESCRIPTION
4	MAY 3, 2023	REVISED
3	MAR. 31, 2023	ISSUED FOR TENDER
2	DEC. 19, 2021	EXTENDED SEWER TO EXISTING PUMPING STATION
1	JAN. 18, 2021	ISSUED FOR REVIEW

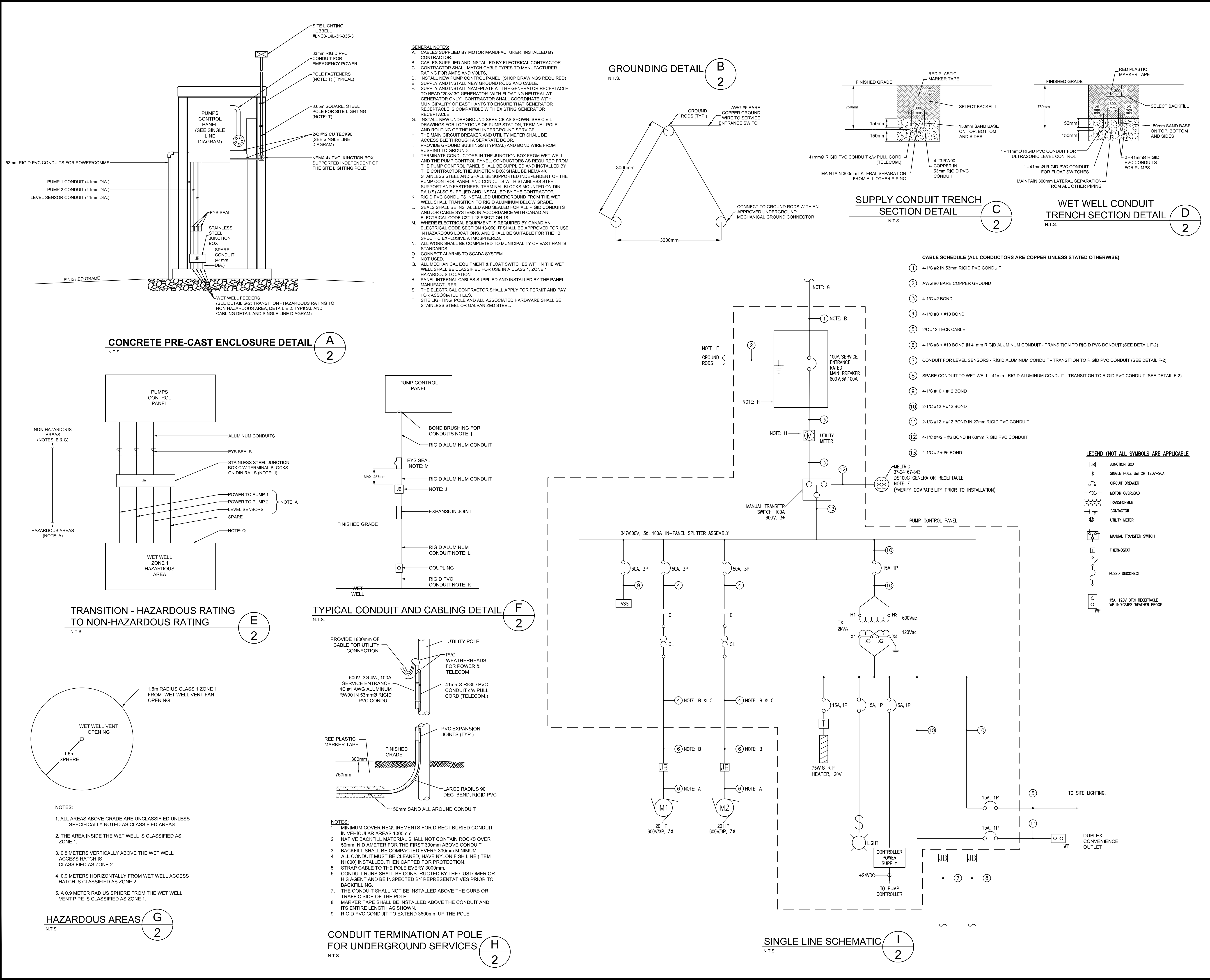
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REGISTERED PROFESSIONAL ENGINEER  
DATE 03/05/2023  
R. C. MacIntyre  
10090  
PROVINCE OF NOVA SCOTIA

CLIENT			
PROJECT DESCRIPTION			
LANTZ WASTEWATER INFRASTRUCTURE REPLACEMENT LANTZ, NOVA SCOTIA			
SHEET DESCRIPTION			
EXISTING PUMP STATION SLS-18 ELECTRICAL SITE PLAN & SPECIFICATIONS			
Drawn J.WYATT	Engineer C.MACINTYRE	Project No. 20-284	Drawing No. E-01
Scale AS NOTED	Filename 20-284-E.dwg	8 of 10	





**KEYPLAN (N.T.S.)**

**SCALE**  
1:100

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PROVINCE OF NOVA SCOTIA

**CLIENT**

**EAST HANTS**

**PROJECT DESCRIPTION**

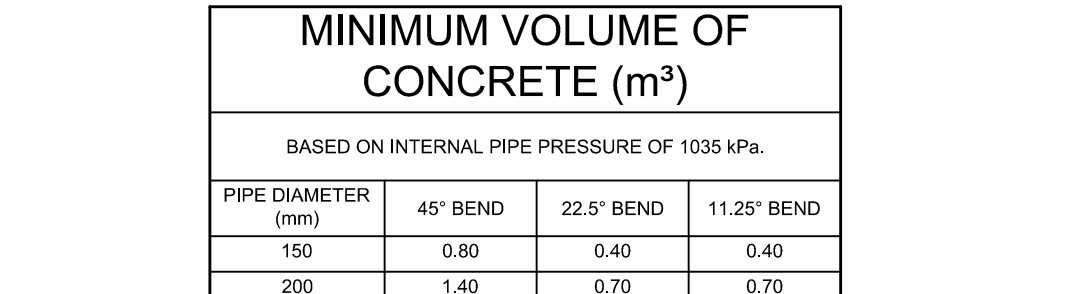
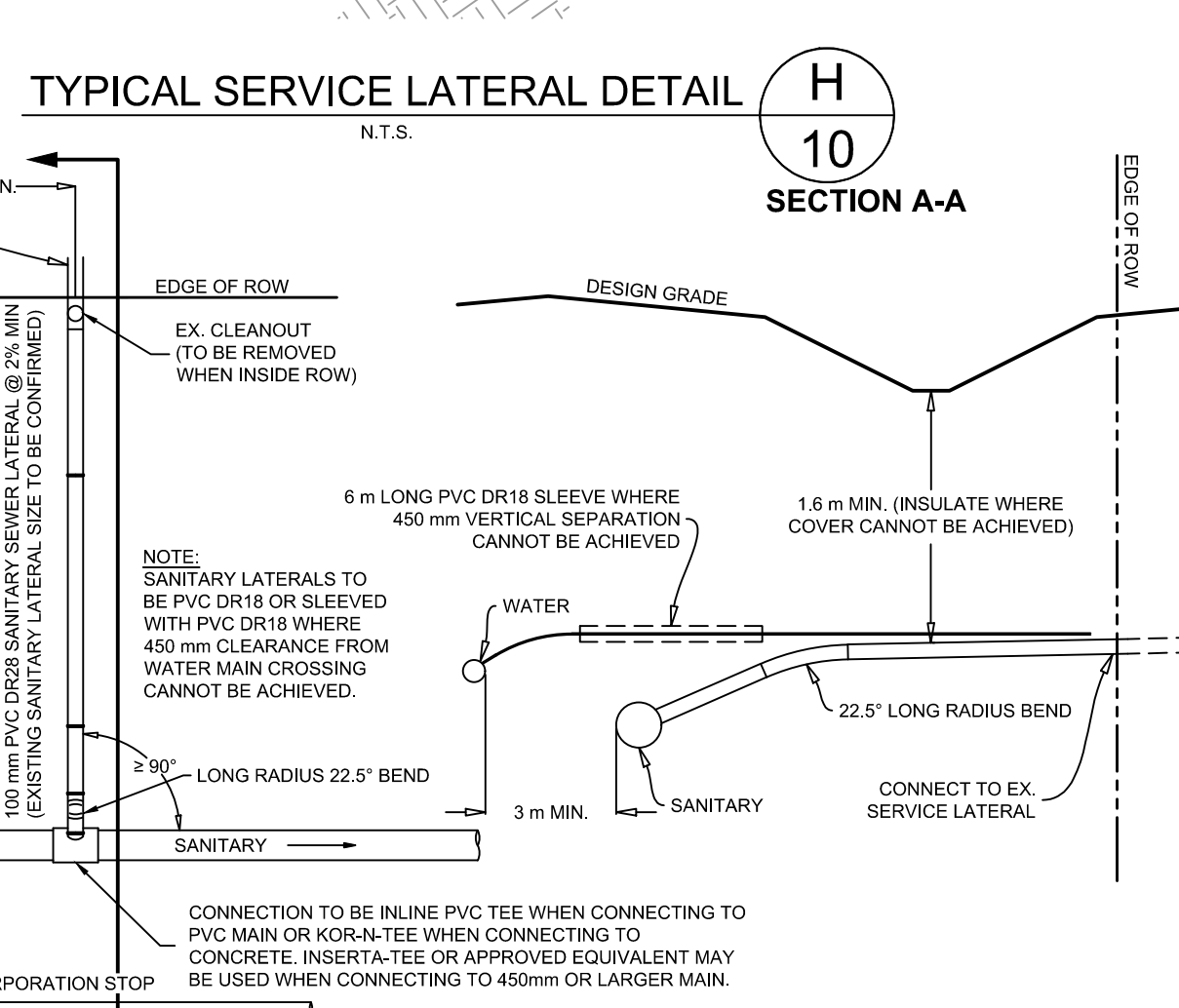
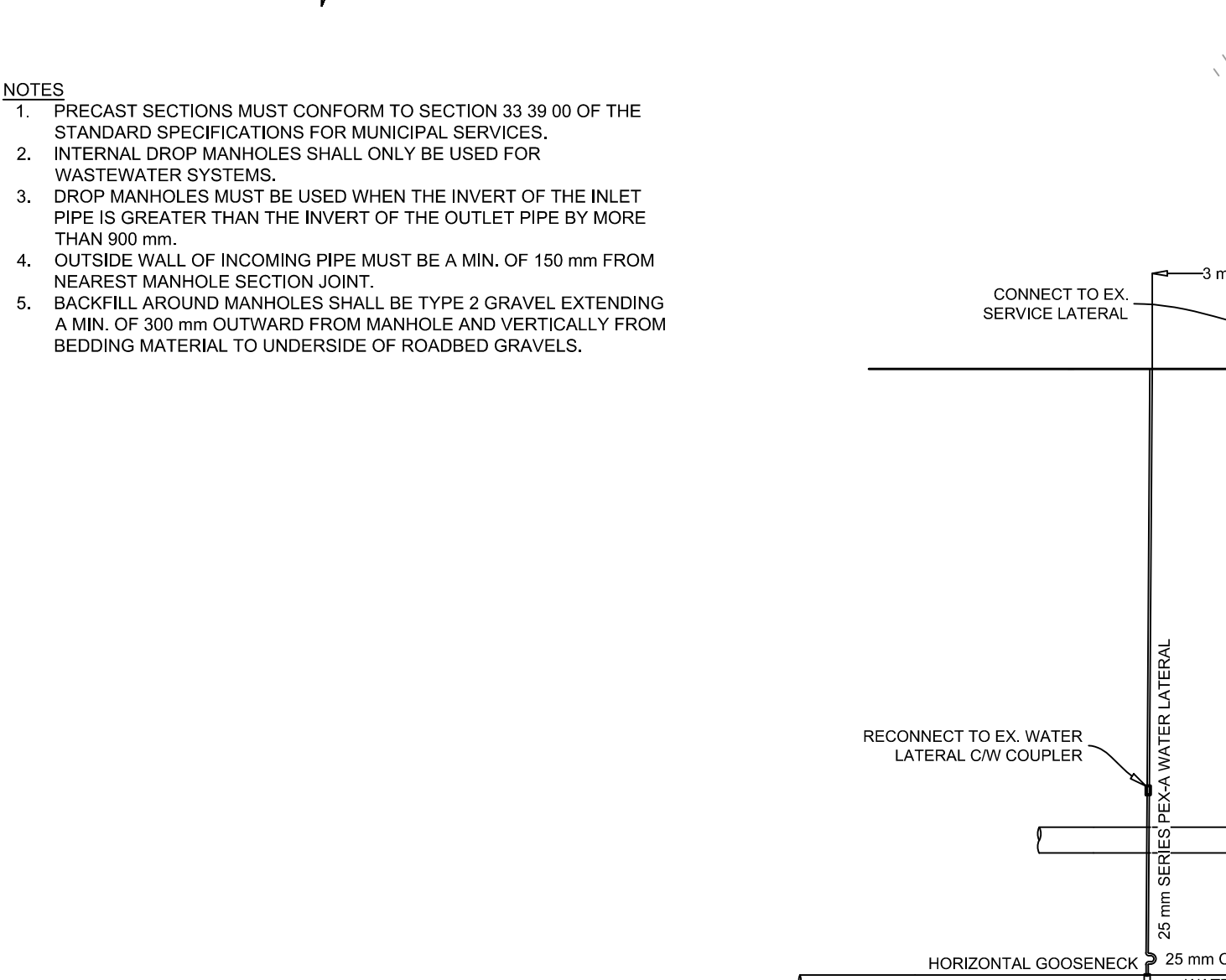
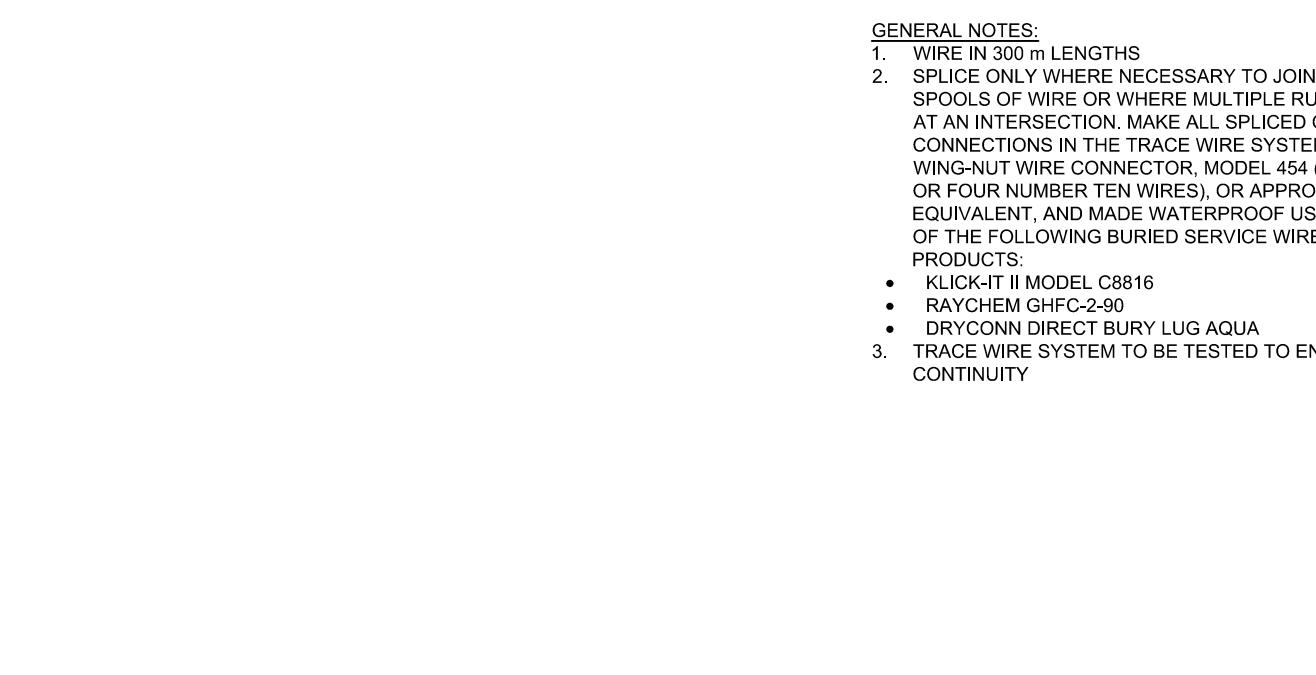
**LANTZ WASTEWATER INFRASTRUCTURE REPLACEMENT**  
LANTZ, NOVA SCOTIA

**SHEET DESCRIPTION**

**EXISTING PUMP STATION SLS-18 ELECTRICAL DETAILS**

Drawn	Engineer	Project No.	Drawing No.
J.WYATT	C.MACINTYRE	20-284	E-02
Scale	Filename		
N.T.S.	20-284-E.dwg		9 of 10





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|--------------------|---------------------------|-----------------------|--|
| Drawn<br>S. HANNAM | Engineer<br>A. SKETCHLEY  | Project No.<br>20-284 | Drawing No.<br><br><b>D-10</b><br><br>10 OF 10 |
| Scale<br>AS NOTED  | Filename<br>20-284-PP.dwg |                       |  |