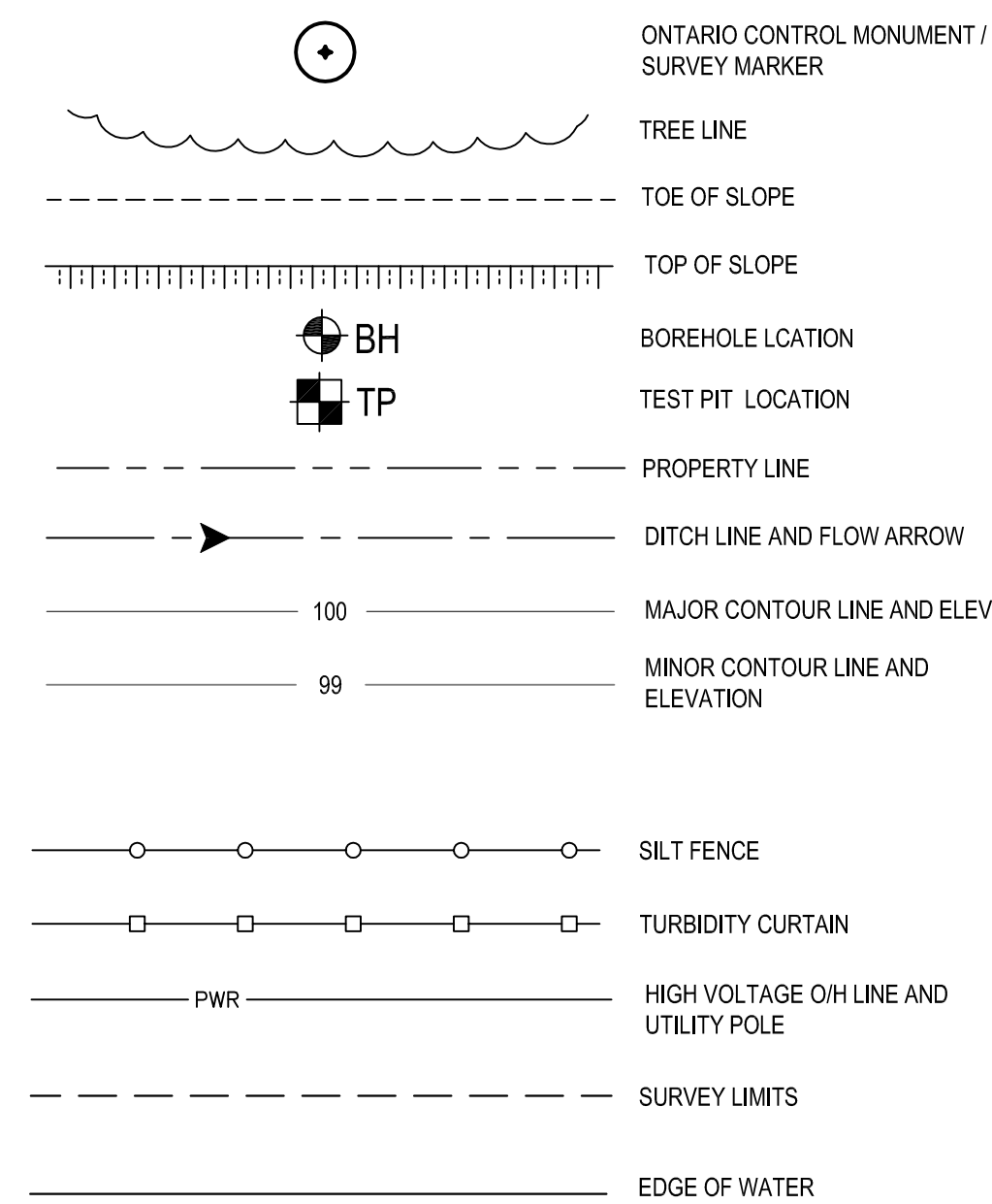


## SITE LOCATIONS & ARRANGEMENT



KEY PLAN: NTS

### LEGEND



### GENERAL CONSTRUCTION AND UTILITY NOTES:

- THE FOLLOWING NOTES APPLY UNLESS OTHERWISE INDICATED.
- ALL DIMENSIONS & ELEVATIONS IN METERS UNLESS NOTED OTHERWISE. ALL DETAIL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
- EXISTING INFORMATION DEPICTED WAS ASSEMBLED FROM THE FOLLOWING:
  - ANNIS, O'SULLIVAN VOLLEBEKK LTD. BETWEEN SEPTEMBER 1 AND SEPTEMBER 28, 2015.
  - BACKGROUND RECORD DRAWINGS AND OTHER HISTORICAL DATA PROVIDED BY PARKS CANADA AGENCY.
- SURVEY COORDINATES ARE REFERRED TO THE CENTRAL MERIDIAN OF MTM ZONE 9 NAD-83 (CSRS) (1997.0). ELEVATIONS SHOWN ARE GEODETIC AND REFERRED TO THE CGVD28 GEODETIC DATUM.
- EXISTING INFORMATION DEPICTED MAY NOT BE ACCURATE OR COMPLETE. CONTRACTOR SHALL CONFIRM INFORMATION PROVIDED AND NOTIFY DEPARTMENTAL REPRESENTATIVE IMMEDIATELY OF ANY AND ALL DISCREPANCIES. CONTRACTOR TO EXERCISE CAUTION DURING EXCAVATION PROCEDURES.
- ALL WORK AT THE UPPER NICHOLSONS MASONRY WALL AND ADJACENT BACKFILL SHALL BE COMPLETED DURING THE NON-NAVIGATION PERIOD AND DECREASED WATER LEVELS FOR THE CANAL SYSTEM. ALL MASONRY WALL WORK SHALL BE COMPLETED WITH THE CANAL IN A DRY STATE, MAINTAINED FOR THE DURATION OF THE WORK. THE NON-NAVIGATION PERIOD GENERALLY BEGINS IN LATE OCTOBER, AND SPECIFIC ACTIVITIES ARE TO BE COMPLETED BY FOLLOWING DATES:
  - CANAL MASONRY WALL RECONSTRUCTION: MARCH 1, 2017.
  - COFFERDAM AND OTHER "IN-WATER" MEASURES TO BE REMOVED: MARCH 7, 2017.
  - ALL WORK, INCLUDING SITE RESTORATION AND REMOVAL OF TEMPORARY FACILITIES: MAY 6, 2017.
- ACCESS TO THE UPPER NICHOLSONS MASONRY WALL BY HEAVY AND CONSTRUCTION VEHICLES SHALL BE LIMITED TO USE OF THE COFFERDAM AND ACCESS EMBANKMENT. CONTRACTOR TO MAINTAIN EXISTING TRAVELED WAY ACROSS TWO BRIDGES AT ALL TIMES
- CONTRACTOR TO ARRANGE FOR AND CONFIRM REQUIREMENTS OF SITE ACCESS THROUGH DEPARTMENTAL REPRESENTATIVE.
- ALL LOCATIONS AND ELEVATIONS OF EXISTING FEATURES ARE APPROXIMATE AND SHALL BE CONFIRMED ON SITE
- CONTRACTOR TO REINSTATE EXISTING ACCESS ROADS, PARKING LOTS ANY DISTURBED SURFACE TO ORIGINAL OR BETTER CONDITION AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE.
- ALL AREAS DISTURBED DURING CONSTRUCTION ARE TO BE REINSTATED WITH MINIMUM 150mm TOPSOIL AND HYDROSEED, UNLESS OTHERWISE INDICATED.
- MAINTAIN MINIMUM DISTURBANCE IN ALL AREA. CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED TO A CONDITION EQUAL OR BETTER THAN EXISTED BEFORE CONSTRUCTION
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND DRAWINGS (OPSS/OPS) AND THE SPECIFICATIONS. WHERE DISCREPANCIES OCCUR THE MORE STRINGENT SHALL APPLY.
- CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE ALL OVERHEAD AND UNDERGROUND SERVICES/UTILITIES PRIOR TO EXCAVATION THROUGH ALL APPLICABLE CHANNELS INCLUDING COMMERCIAL UTILITY COMPANIES
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING GROUND BY CONSTRUCTING TEMP CONSTRUCTION ACCESS ROAD AS INDICATED.
- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM WORK, AND SHALL COMPLY WITH THE PERMIT REQUIREMENTS AND CONDITIONS.
- DO NOT SUBSTITUTE MATERIALS UNLESS PRIOR APPROVAL IS OBTAINED FROM THE DEPARTMENTAL REPRESENTATIVE.
- CONTRACTOR TO MAINTAIN COMPLETE ACCESS TO THE SITE AT ALL TIMES DURING CONSTRUCTION.
- CONTRACTOR TO NOTIFY THE DEPARTMENTAL REPRESENTATIVE REGARDING THE CONSTRUCTION SCHEDULE PRIOR TO COMMENCING CONSTRUCTION.
- CONTRACTOR TO CARRY OUT ENVIRONMENTAL PROTECTION METHODS AS OUTLINED OR AS DIRECTED BY DEPARTMENTAL REPRESENTATIVE. EROSION AND SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO ANY SITE DISTURBANCE.
- THE CONTRACTOR SHALL PROTECT ALL DOWNSTREAM AREAS FROM ANY NEGATIVE IMPACT WHATSOEVER FROM THE CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL PROTECT ALL AREAS DOWNSTREAM FROM DAMAGE DUE TO SILTATION RUN-OFF AND DEWATERING PROCEDURES FROM THE CONSTRUCTION SITE.

### CLEARING, GRADING AND TRENCHING NOTES:

- PROTECT ALL VEGETATION THAT IS TO REMAIN INCLUDING ROOTS FROM DAMAGE OR DISTURBANCE WHENEVER POSSIBLE. NO TREES SHALL BE CUT WITHOUT PRIOR APPROVAL FROM DEPARTMENTAL REPRESENTATIVE.
- STRIP AND STOCKPILE TOPSOIL ON SITE FOR RE-USE. CONFIRM STOCKPILE LOCATIONS WITH DEPARTMENTAL REPRESENTATIVE.
- CLEAN, EXCAVATED MATERIAL WHICH IS SURPLUS TO THE PROJECT OR UNSUITABLE FOR USE IS TO BE REMOVED FROM THE SITE AND DISPOSED.
- DEBRIS AND SUSPECTED CONTAMINATED MATERIALS ARE TO BE REMOVED FROM SITE AND DISPOSED OF AT AN OFF-SITE LOCATION APPROVED FOR THE SPECIFIC WASTE TYPE.



No.	Date	Description	Drawn by / Dessiné par	Approved / Approuvé
C01	SEP 12 2016	ISSUED FOR TENDER	NP / DB	AB

Revision / Revision

A	Detail number	A Numéro de détail
B	Sheet number	B Numéro de la feuille

Linear dimensions in millimetres / Dimensions linéaires en millimètres

Consultant's Name / Nom de l'expert-conseil	Eng. Stamp / Scellé de l'ingénieur
<b>SNC-LAVALIN</b>	
SNC-LAVALIN Inc. Halifax, Nova Scotia, Canada	
Member of the SNC-LAVALIN Group	

Project title / Titre du projet

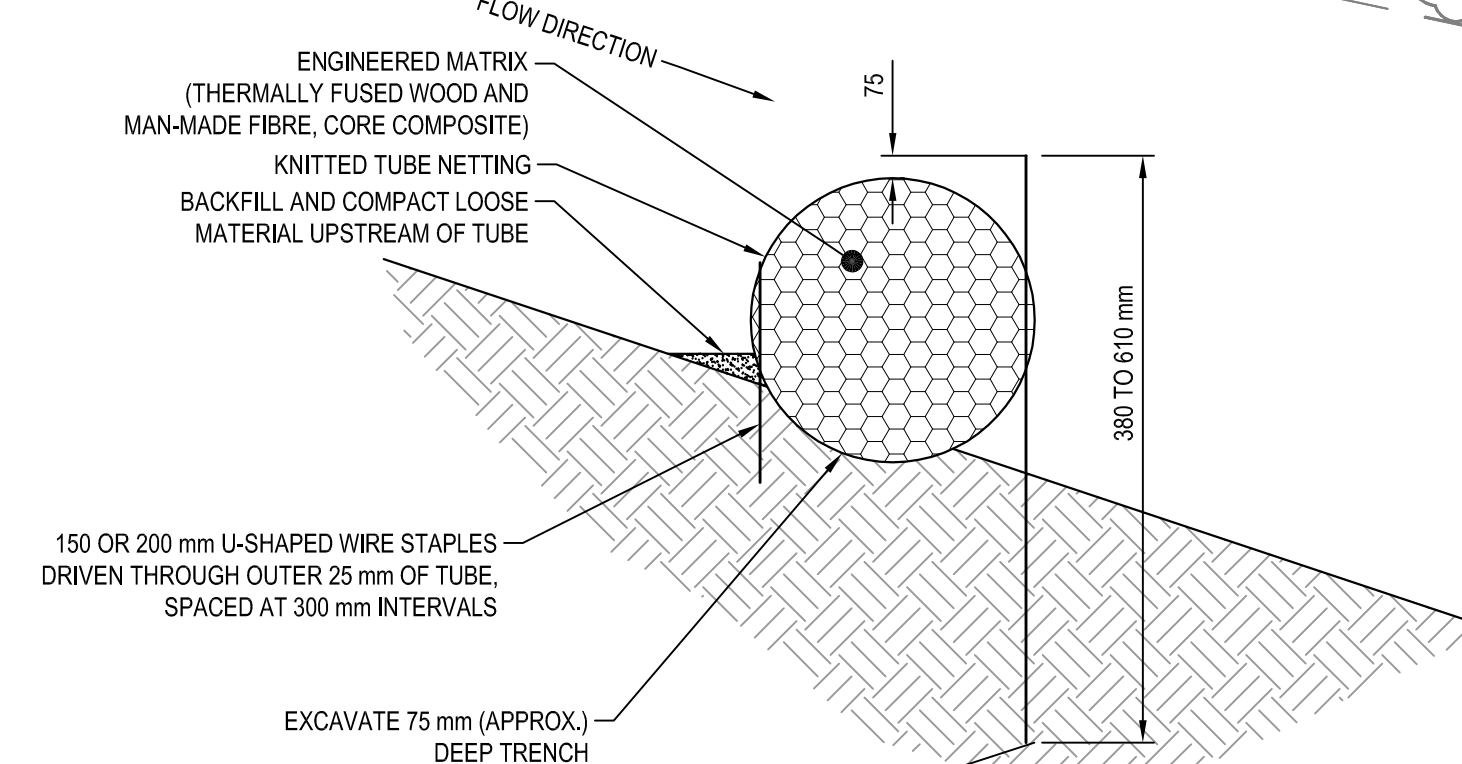
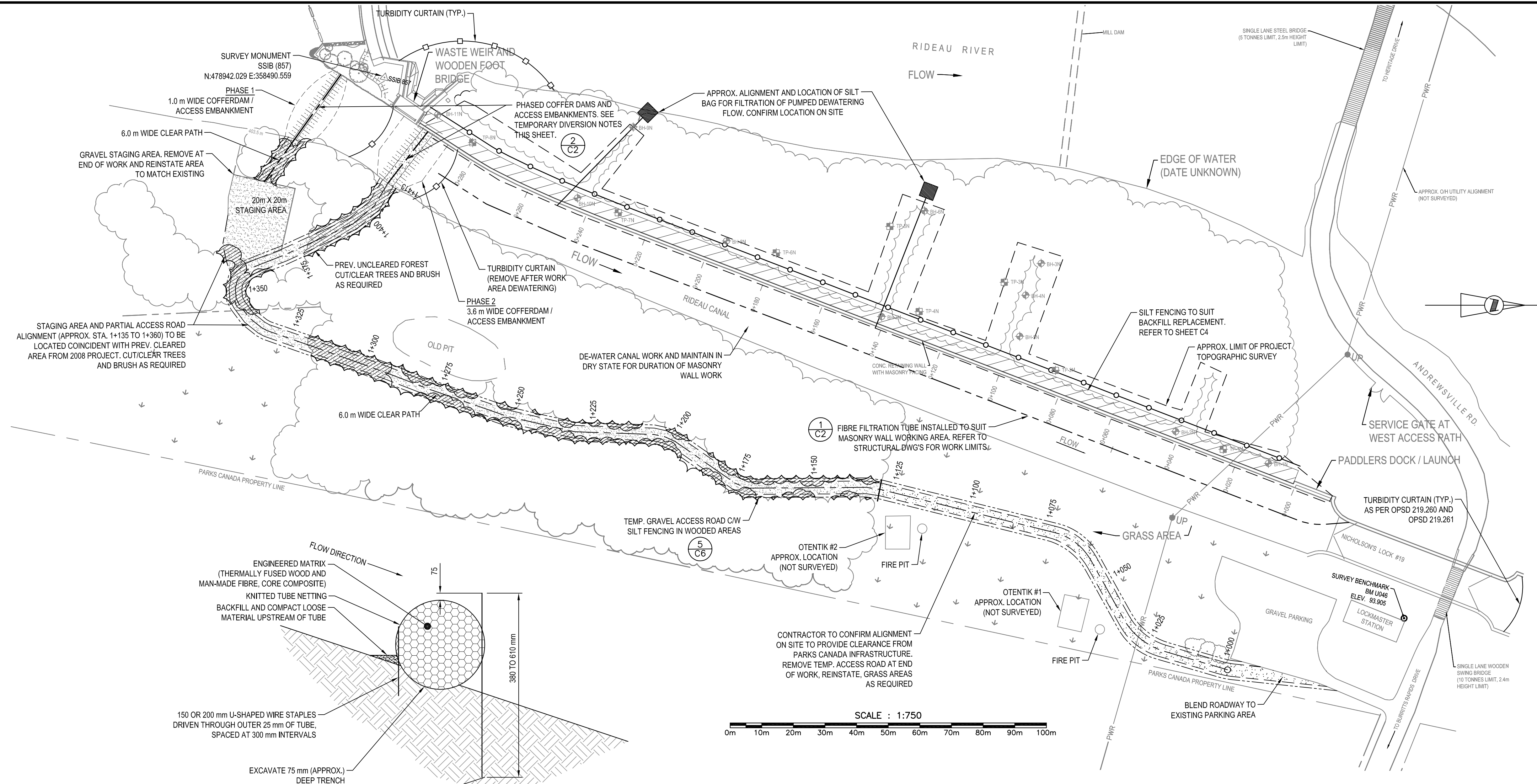
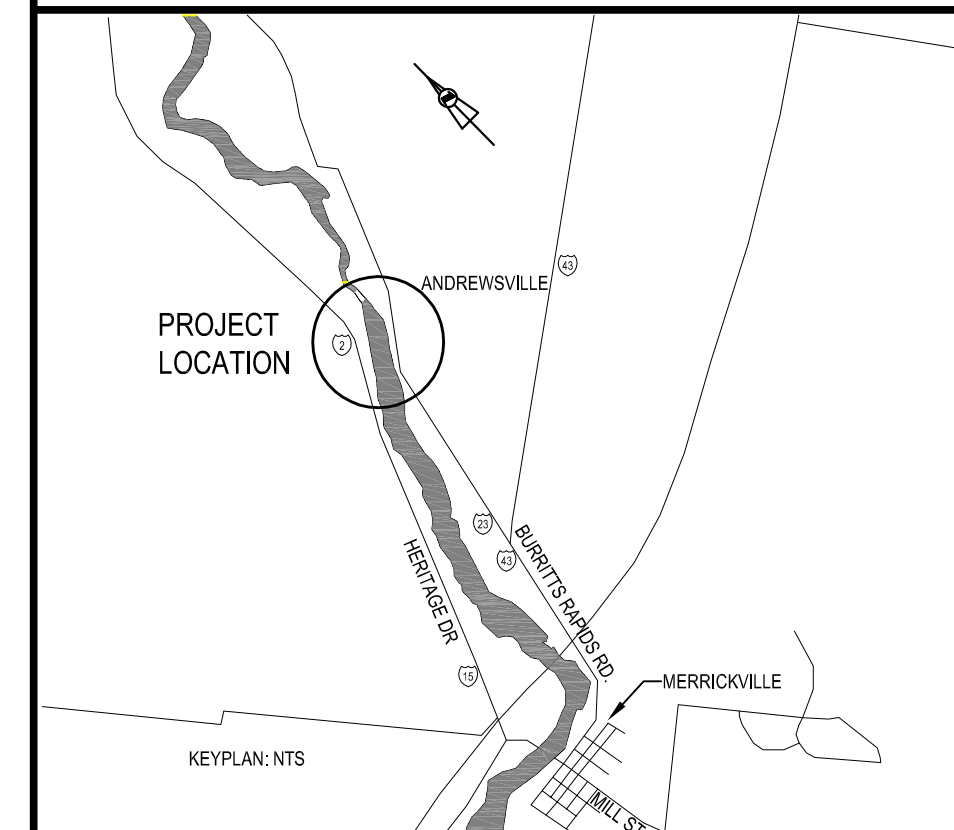
UPPER NICHOLSONS  
EARTH DAM REHABILITATION

Drawing title / Titre du dessin

LEGEND, SITE LOCATION AND  
GENERAL NOTES

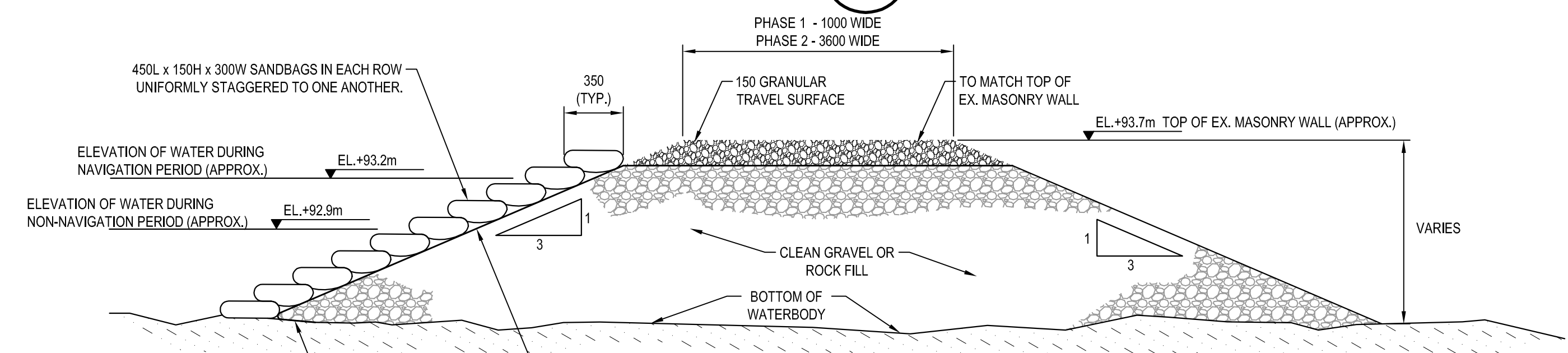
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Drawn by / Dessiné par NP	Date 2016/05/06
Checked by / Vérifié par ME	Date
Project No. / No. du projet 20034960	Scale / Echelle AS INDICATED
Drawing Set No. / No. de série du dessin	Sheet No. / N° de la feuille C1





- NOTES:**
- OVERLAP ADJACENT ROLL ENDS BY A MIN. OF 300 mm AND REDUCE STAKING INTERVAL TO 300 mm WITH OVERLAP SECTION.
  - FOR CHANNEL APPLICATIONS, BOTH UPSTREAM AND DOWNSTREAM ANCHORING SHOULD BE AT LEAST 300 mm.

**FIBRE FILTRATION TUBE INSTALLATION** (1 C2)  
SCALE: N.T.S.



- NOTES:**
- IN PHASE 1 COFFERDAM, OMIT REQUIREMENT FOR GRANULAR TRAVEL SURFACE MATERIAL.
  - COFFERDAM ARRANGEMENT IS FOR ILLUSTRATIVE PURPOSES ONLY. FINAL DESIGN TO BE PREPARED BY PROFESSIONAL ENGINEER, REGISTERED IN THE PROVINCE OF ONTARIO.
  - COFFERDAM SHALL BE COMPLETELY REMOVED FOLLOWING CONSTRUCTION AND WATERBODY REINSTATED TO EXISTING CONDITIONS.
  - ALL ELEVATIONS ARE APPROXIMATE ONLY.

**ACCESS EMBANKMENT / COFFERDAM (TYPICAL SECTION)** (2 C2)  
SCALE: N.T.S.

**TEMPORARY DIVERSION NOTES:**

- COFFERDAMS AND ACCESS EMBANKMENT TO BE CONSTRUCTED PRIOR TO ANY WORK OCCURRING AT THE UPPER NICHOLSONS MASONRY WALL (BACKFILL AND STONEMWORK).
- THE TEMPORARY DIVERSIONS INDICATED ARE FOR GENERAL ARRANGEMENT ONLY. ALL DIVERSIONS SHALL MAINTAIN RIVER/CANAL FLOW THROUGH THE DAM OR WASTE WEIR AS REQUIRED.
- PHASED COFFERDAM CONSTRUCTION IS REQUIRED TO ALLOW FOR FULL-LENGTH MASONRY WALL RECONSTRUCTION. PROPOSED SEQUENCE IS AS FOLLOWS:
  - INSTALL ALL TURBIDITY AND EROSION AND SEDIMENTATION CONTROLS.
  - CONSTRUCT PHASE 1 (1.0 M WIDE) COFFERDAM AT MOUTH OF CANAL CUT. MAINTAIN FLOW THROUGH DAM SECTION.
  - DEWATER CANAL CUT TO ALLOW FOR WORK TO BE DONE IN THE DRY.
  - COMPLETE MASONRY WALL RECONSTRUCTION IMMEDIATE DOWNSTREAM OF WASTE WEIR AREA. EXTENTS OF WORK TO ALLOW TO SUIT PHASE 2 COFFERDAM/ACCESS EMBANKMENT CONSTRUCTION. EQUIPMENT AND MATERIAL ACCESS TO BE PROVIDED ACROSS SINGLE LANE BRIDGES AND ALONG BACKSIDE OF WALL.
  - AT COMPLETION OF INITIAL MASONRY WORK, CONSTRUCT PHASE 2 (3.6 M WIDE) COFFERDAM/ACCESS EMBANKMENT IMMEDIATELY DOWNSTREAM OF WASTE WEIR.
  - FULLY REMOVE PHASE 1 COFFERDAM AND ALLOW FLOW THROUGH WASTE WEIR. REINSTATE BOTTOM OF WATERBODY TO EXISTING CONDITIONS. EQUIPMENT AND MATERIAL ACCESS TO BE PROVIDED ACROSS ACCESS EMBANKMENT TO BACKSIDE OF WALL.
  - COMPLETE REMAINDER OF MASONRY WALL RECONSTRUCTION.
  - COMPLETE WALL BACKFILL REPLACEMENT.
  - FULLY REMOVE PHASE 2 COFFERDAM/ACCESS EMBANKMENT. REINSTATE BOTTOM OF WATERBODY TO EXISTING CONDITIONS.
- INSPECT DIVERSION COMPONENTS EACH WORKDAY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. INSPECT COMPONENTS AS SOON AS POSSIBLE FOLLOWING MAJOR STORM FLOW AND PERFORM NECESSARY MAINTENANCE.
- WHERE DIVERSION COMPONENTS HAVE FAILED, REPAIR OR REPLACEMENT SHALL BE INITIATED IMMEDIATELY UPON DISCOVERY OF THE FAILURE.
- TEMPORARY DIVERSIONS ARE TO REMAIN IN PLACE UNTILL ALL WORK IN THE DOWN-GRADIENT AREA IS NO LONGER REQUIRED OR NEEDED.

C01	SEP 12 2016	ISSUED FOR TENDER	NP / DB	
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Revision / Revision				
A		Detail number	A Numéro de détail	
B		Sheet number	B Numéro de la feuille	

Consultant's Name / Nom de l'expert-conseil: **SNC-LAVALIN**

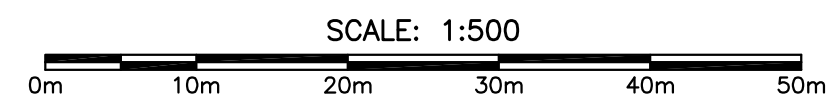
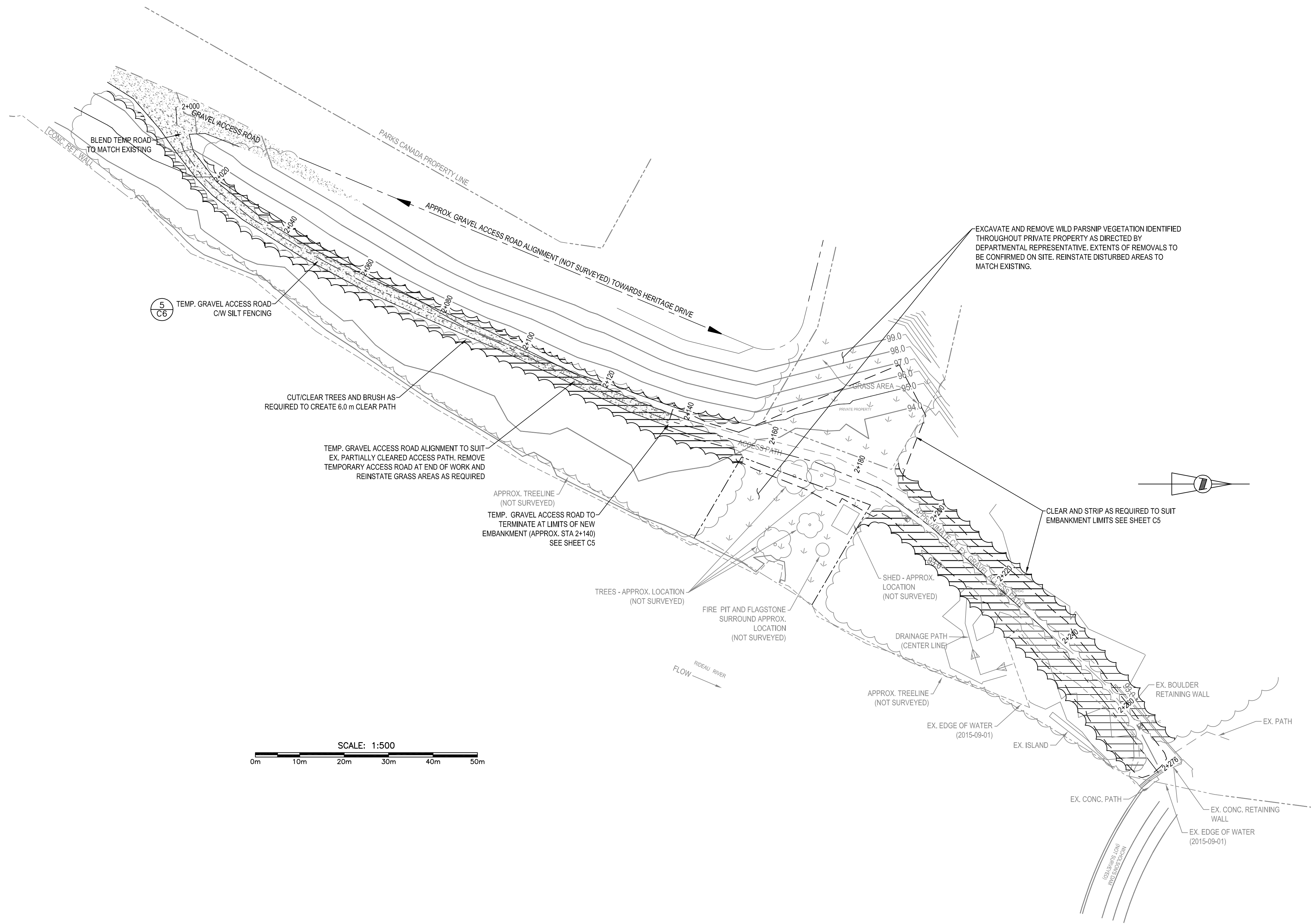
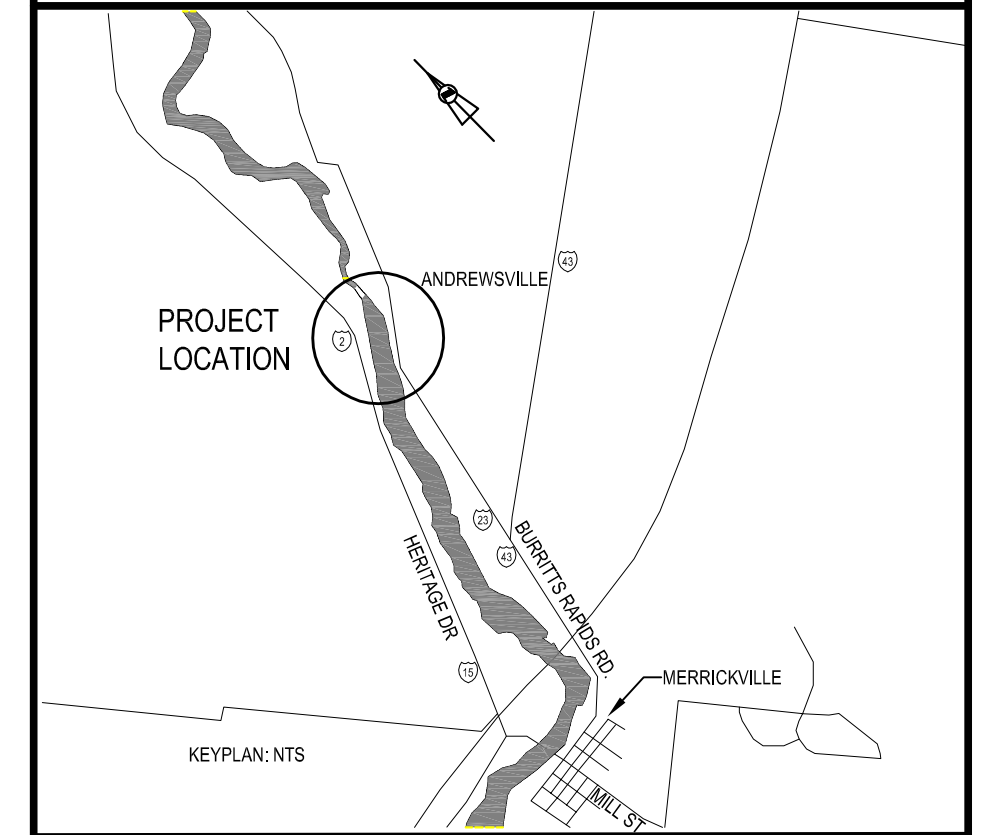
Eng. Stamp / Sceau de l'ingénieur: **SNC-LAVALIN Inc.**, Halifax, Nova Scotia, Canada

Project title/Titre du projet: **UPPER NICHOLSONS EARTH DAM REHABILITATION**

Drawing title/Titre du dessin: **UPPER NICHOLSONS EXISTING CONDITIONS, SITE ACCESS AND REMOVALS**

Designed by/Concept par: ME	Date: 2016/05/06
Drawn by/Designé par: NP	Date: 2016/05/06
Checked by/Vérifié par: ME	Date:
Project No./No. du projet: 20034960	Scale/Echelle: AS INDICATED
Drawing Set No./No. de série du dessin:	Sheet No./N° de la feuille: C2





C01	SEP 12 2016	ISSUED FOR TENDER	NP / DB	AB
No.	Date	Description	Drawn by / Dessiné par	Approved / Approuvé

Revision / Revision	
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B	Sheet number / B Numéro de la feuille
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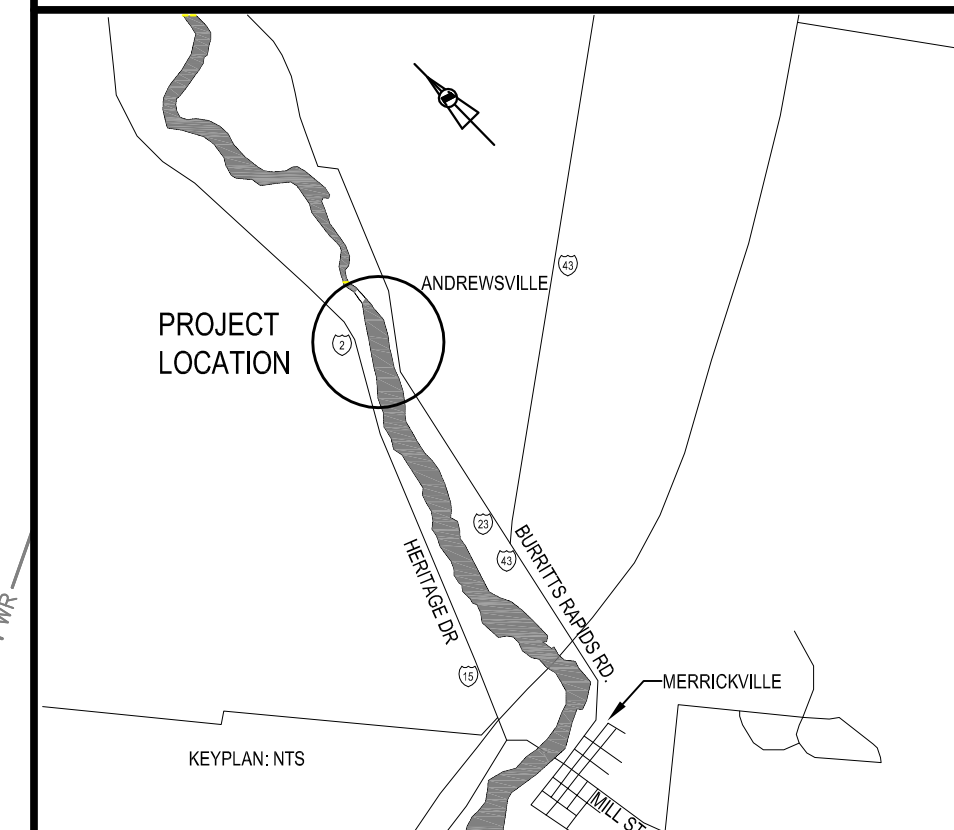
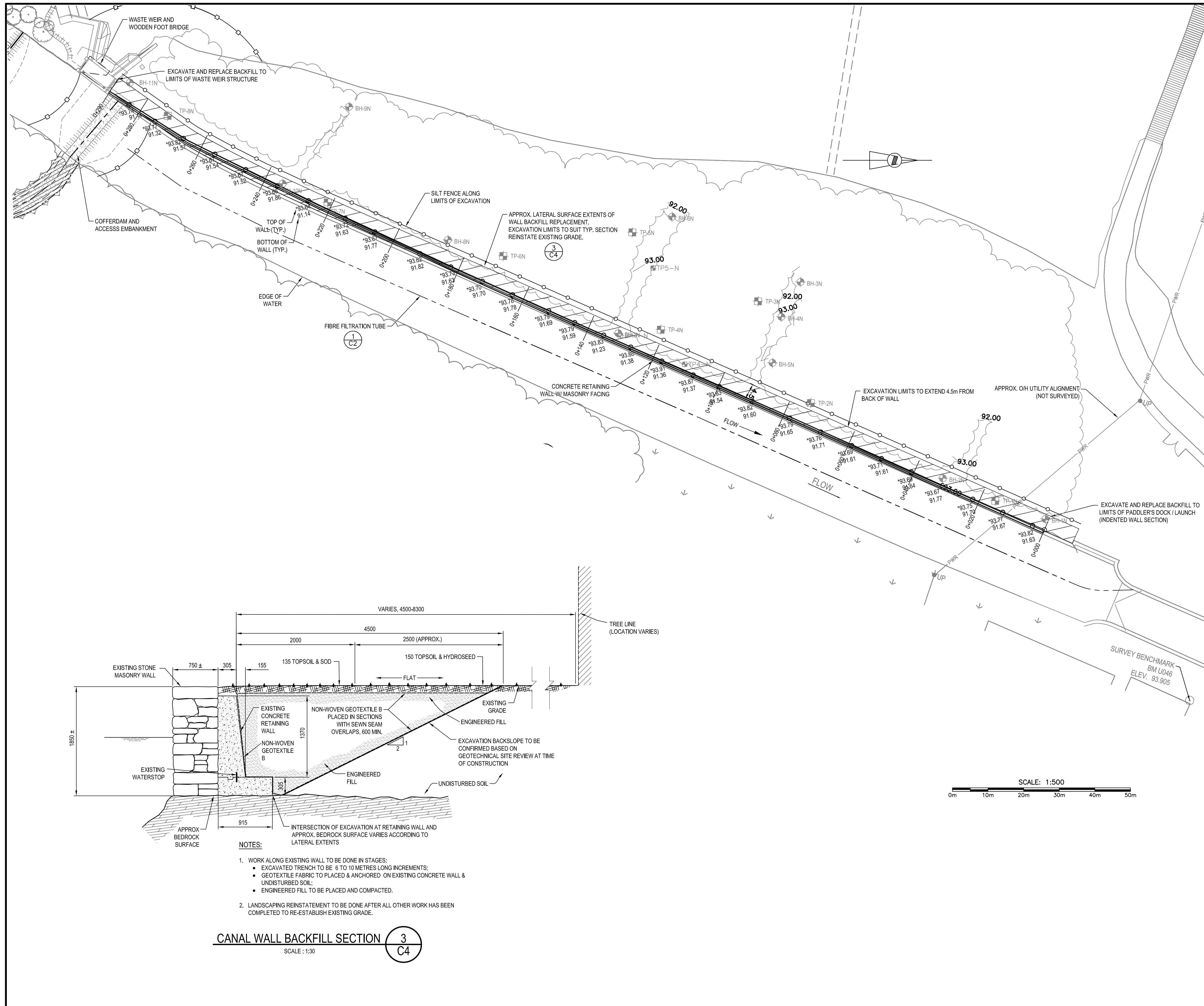
Consultant's Name / Nom de l'expert-conseil: **SNC-LAVALIN**  
 Eng. Stamp / Scellé de l'ingénieur: SNC-LAVALIN Inc., Halifax, Nova Scotia, Canada, Member of the SNC-LAVALIN Group

Project title / Titre du projet: **UPPER NICHOLSONS EARTH DAM REHABILITATION**

Drawing title / Titre du dessin: **WEST EMBANKMENT EXISTING CONDITIONS, SITE ACCESS AND REMOVALS**

Designed by / Concept par: ME	Date: 2016/05/06
Drawn by / Dessiné par: NP	Date: 2016/05/06
Checked by / Vérifié par: ME	Date:
Project No. / No. du projet: 20034960	Scale / Echelle: AS INDICATED
Drawing Set No. / No. de série du dessin:	Sheet No. / Node la feuille: C3





C01	SEP 12 2016	ISSUED FOR TENDER	NP / DB	AB
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No.	Date	Description	Drawn by / Dessiné par	Approved / Approuvé
Revision / Revision				

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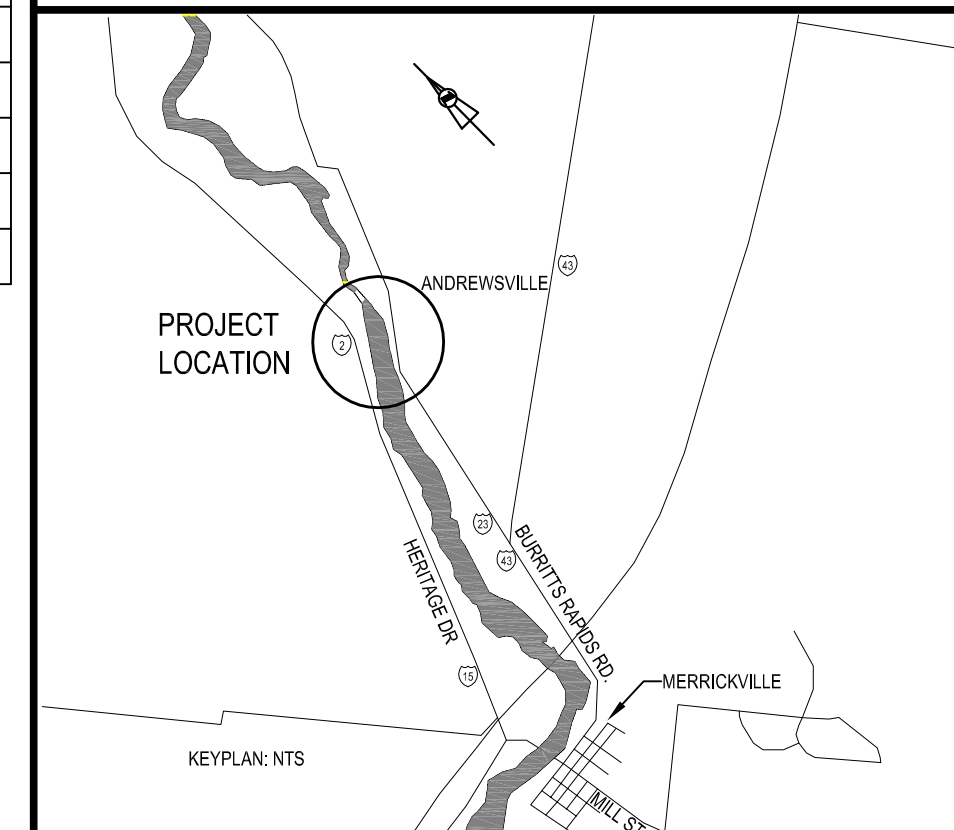
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 Eng. Stamp / Sceau de l'ingénieur: **SNC-LAVALIN Inc.**  
 Halifax, Nova Scotia, Canada  
 Member of the SNC-LAVALIN Group

Project title / Titre du projet: **UPPER NICHOLSONS EARTH DAM REHABILITATION**

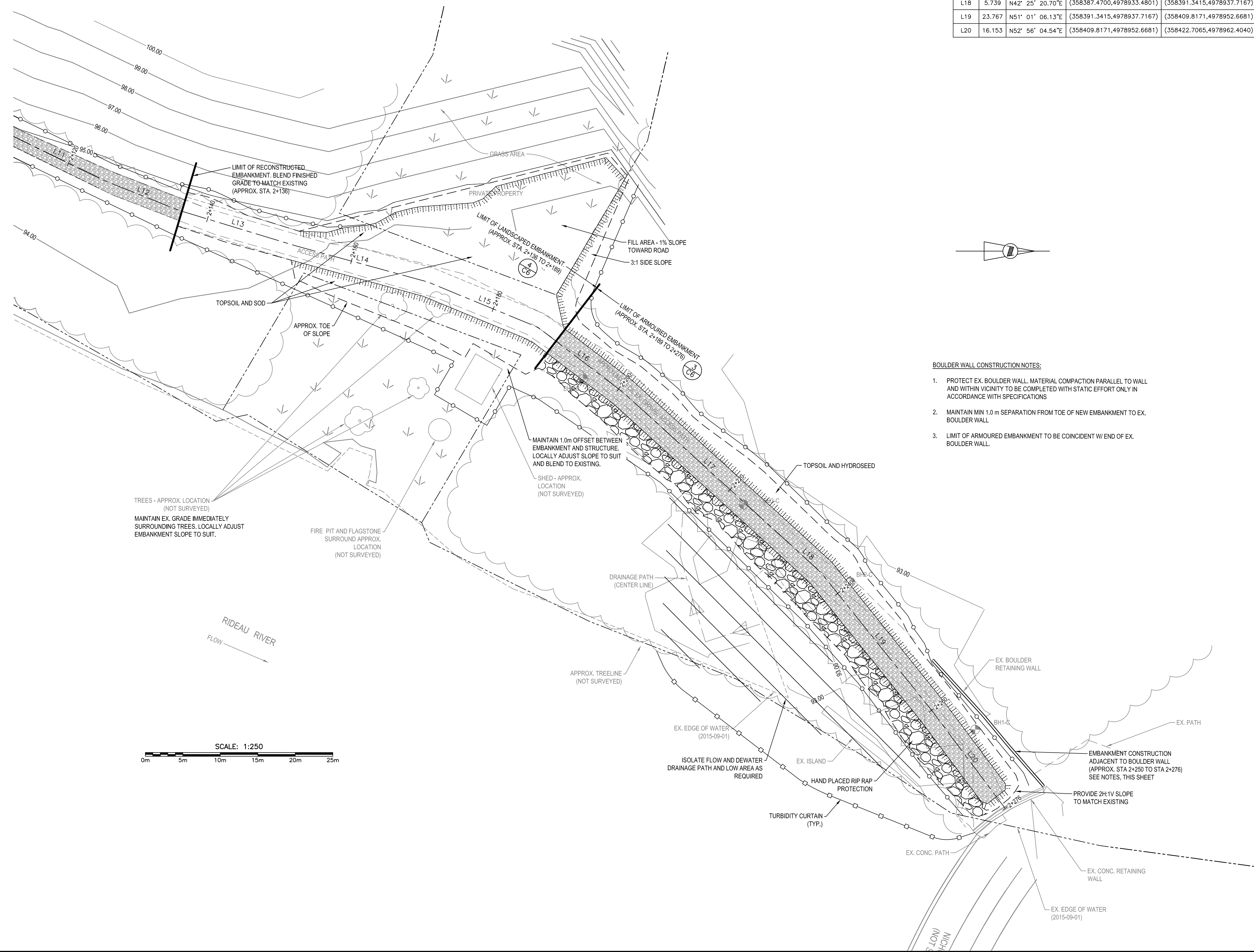
Drawing title / Titre du dessin: **UPPER NICHOLSONS WALL BACKFILL REPLACEMENT SITE PLAN**

Designed by / Concept par: NP	Date: 2016/05/06
Drawn by / Dessiné par: NP	Date: 2016/05/06
Checked by / Vérifié par: NP	Date:
Project No. / No. du projet: 20034960	Scale / Echelle: AS INDICATED
Drawing Set No. / No. de série du dessin:	Sheet No. / Node la feuille: C4





Line #	Length	Direction	Start Point	End Point
L13	16.251	N16° 40' 49.90"E	(358343.3256,4978851.8199)	(358347.9904,4978867.3874)
L14	18.412	N15° 06' 25.20"E	(358347.9904,4978867.3874)	(358352.7889,4978885.1630)
L15	15.877	N22° 11' 15.06"E	(358352.7889,4978885.1630)	(358358.7847,4978899.8644)
L16	14.264	N37° 09' 14.96"E	(358358.7847,4978899.8644)	(358367.3994,4978911.2327)
L17	29.963	N42° 03' 19.25"E	(358367.3994,4978911.2327)	(358387.4700,4978933.4801)
L18	5.739	N42° 25' 20.70"E	(358387.4700,4978933.4801)	(358391.3415,4978937.7167)
L19	23.767	N51° 01' 06.13"E	(358391.3415,4978937.7167)	(358409.8171,4978952.6681)
L20	16.153	N52° 56' 04.54"E	(358409.8171,4978952.6681)	(358422.7065,4978962.4040)



- BOULDER WALL CONSTRUCTION NOTES:**
- PROTECT EX. BOULDER WALL. MATERIAL COMPACTION PARALLEL TO WALL AND WITHIN VICINITY TO BE COMPLETED WITH STATIC EFFORT ONLY IN ACCORDANCE WITH SPECIFICATIONS
  - MAINTAIN MIN 1.0 m SEPARATION FROM TOE OF NEW EMBANKMENT TO EX. BOULDER WALL
  - LIMIT OF ARMoured EMBANKMENT TO BE COINCIDENT W/ END OF EX. BOULDER WALL.

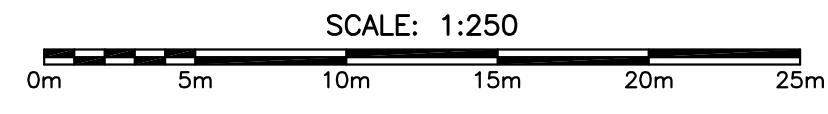


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No.	Date	Description	Drawn by / Dessiné par	Approved / Approuvé
Revision / Revision				
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B		Sheet number	B Numéro de la feuille	
		Linear dimensions in millimetres	Dimensions linéaires en millimètres	
Consultant's Name / Nom de l'expert-conseil		Eng. Stamp / Scellé de l'ingénieur		
SNC • LAVALIN		SNC • LAVALIN Inc. Halifax, Nova Scotia, Canada Member of the SNC • LAVALIN Group		

Project title/Titre du projet  
**UPPER NICHOLSONS EARTH DAM REHABILITATION**

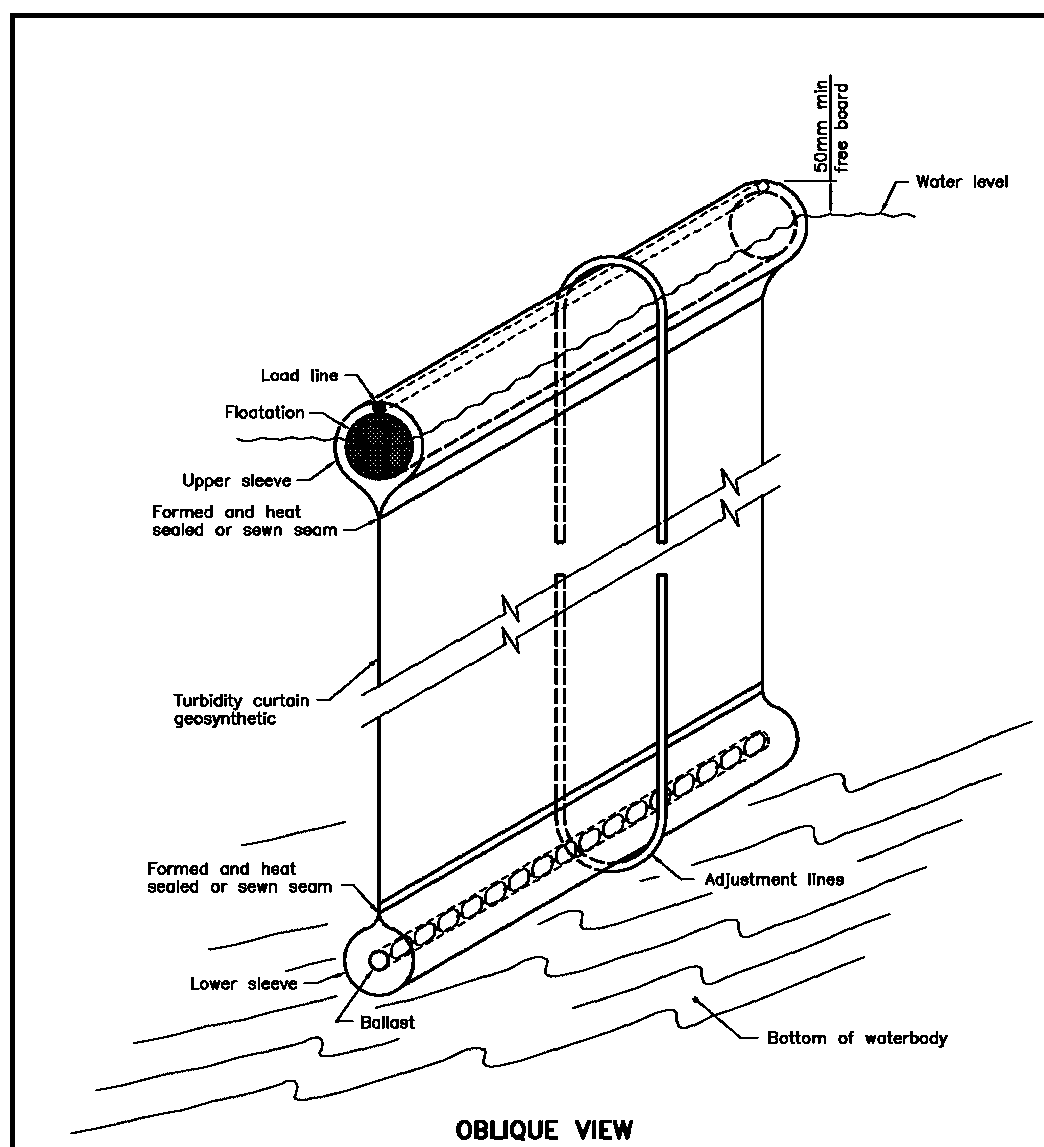
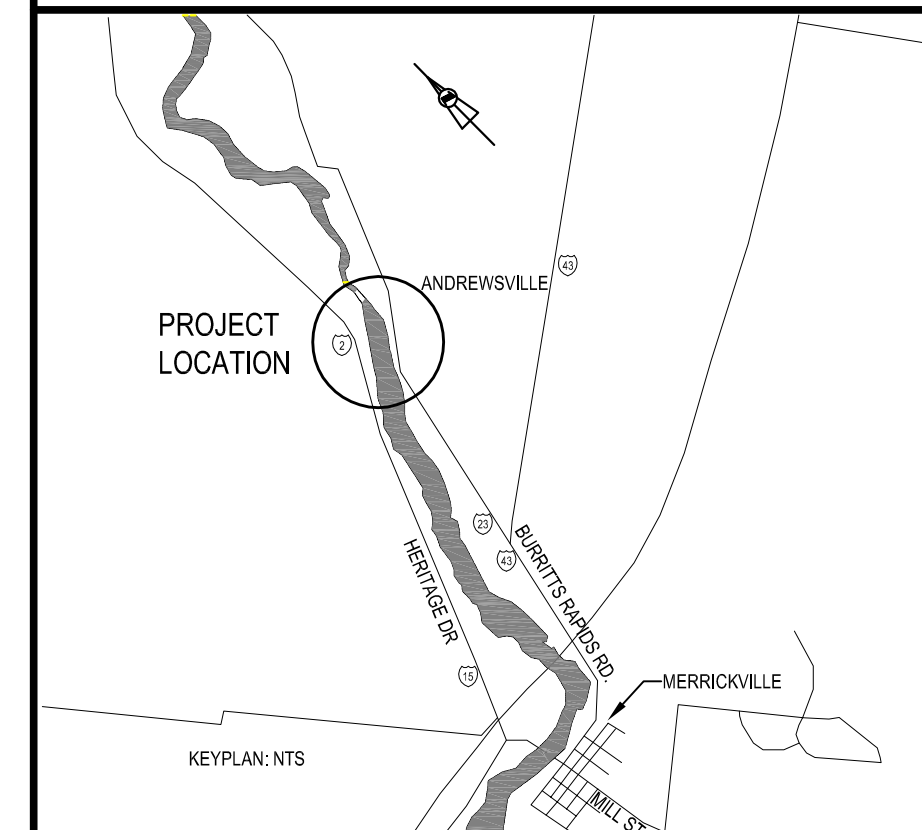
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**WEST EMBANKMENT SITE PLAN**

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Drawn by/Dessiné par NP	Date 2016/05/06
Checked by/Véifié par ME	Date
Project No./No. du projet 20034980	Scale/Echelle AS INDICATED
Drawing Set No./No. de série du dessin	Sheet No./N° de la feuille C5



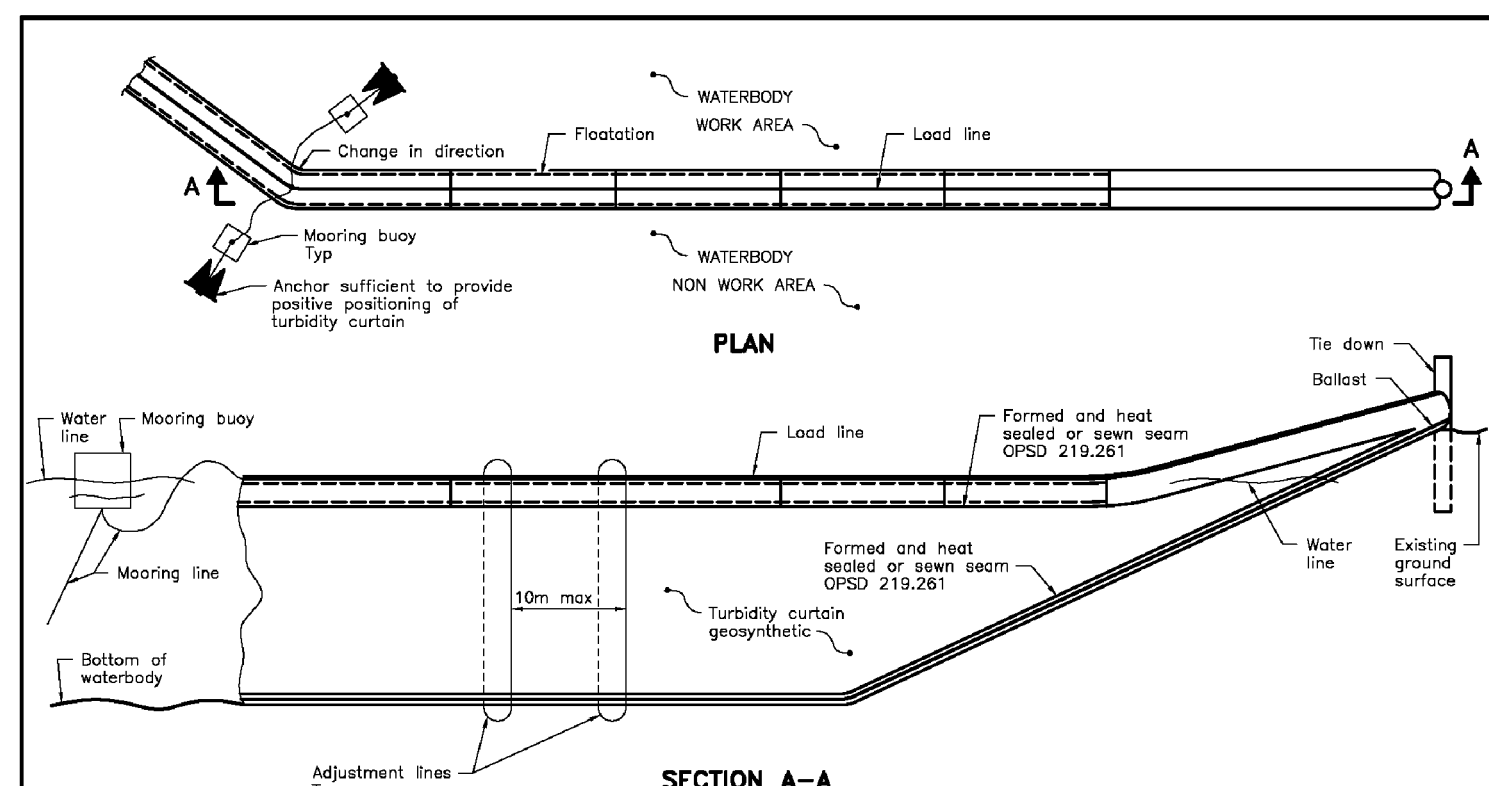
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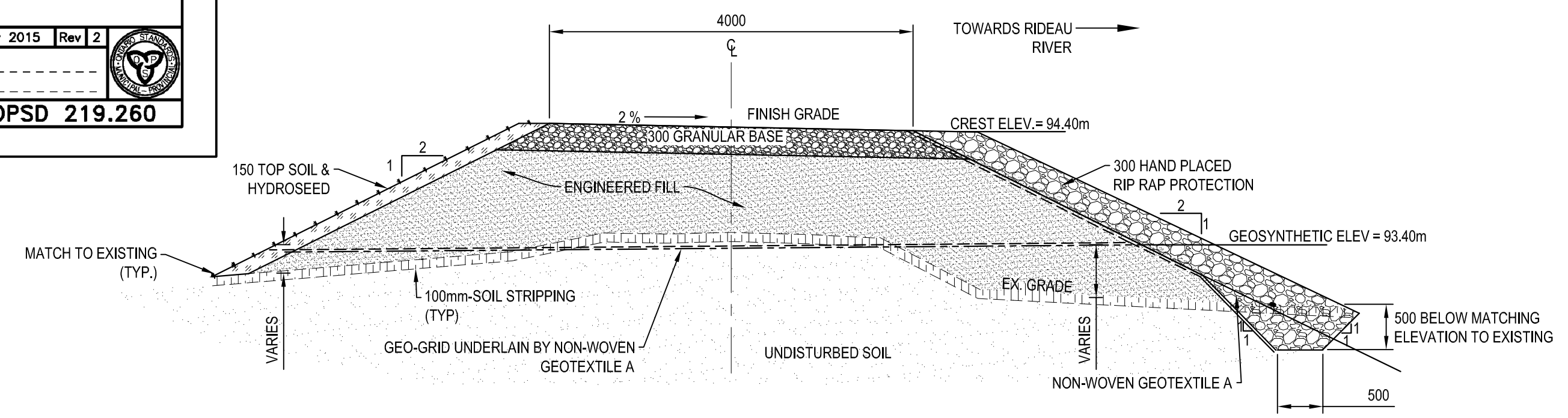
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A All dimensions are in millimeters.

ONTARIO PROVINCIAL STANDARD DRAWING Nov 2015 Rev 2  
**TURBIDITY CURTAIN SEAM DETAIL**  
OPSD 219.261

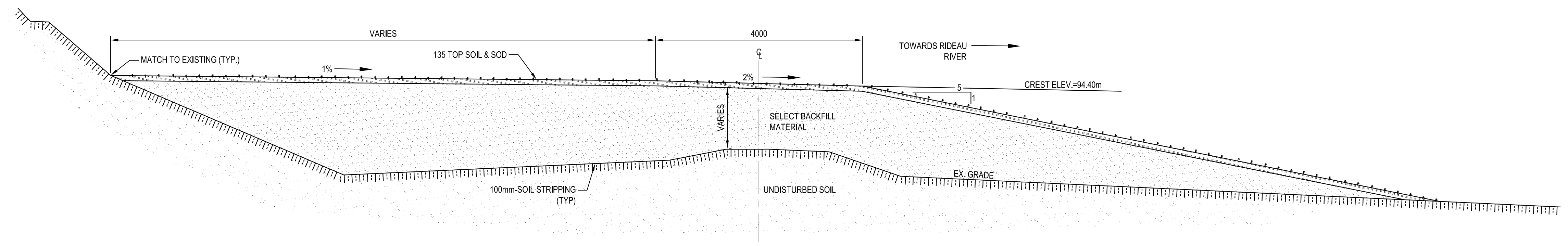


NOTES:  
A All dimensions are in millimeters unless otherwise shown.

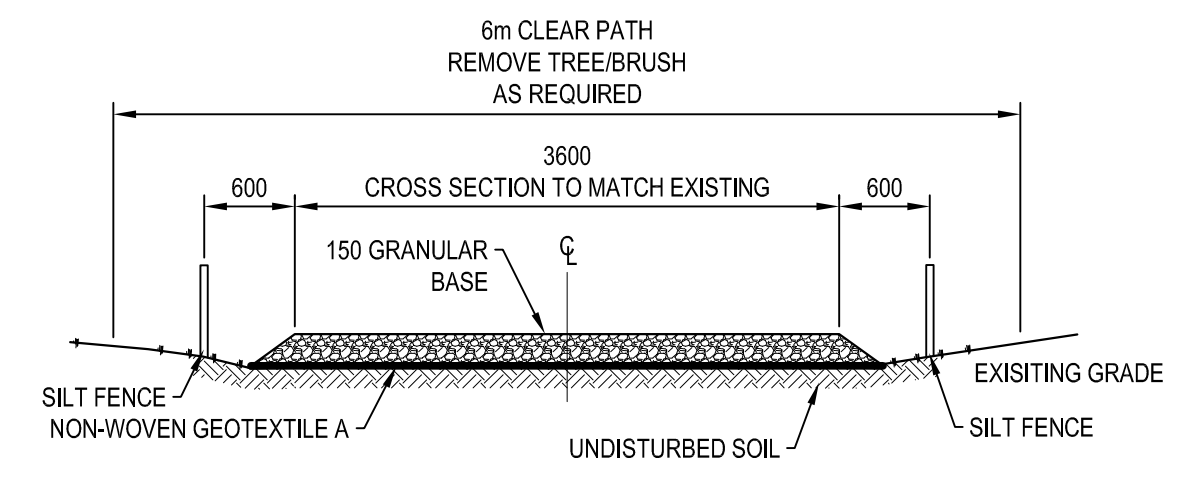
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OPSD 219.260



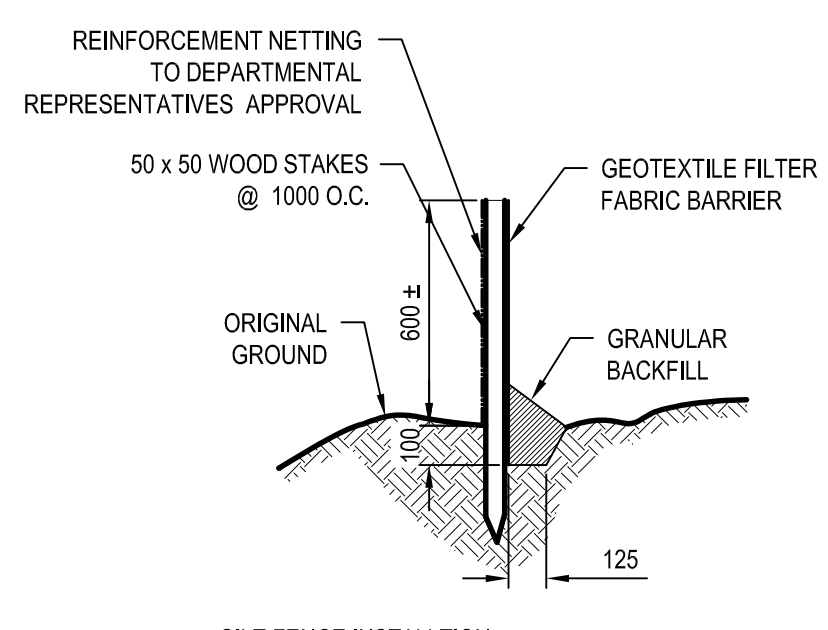
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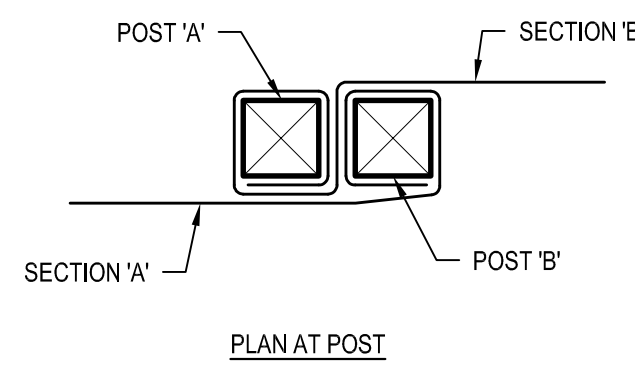
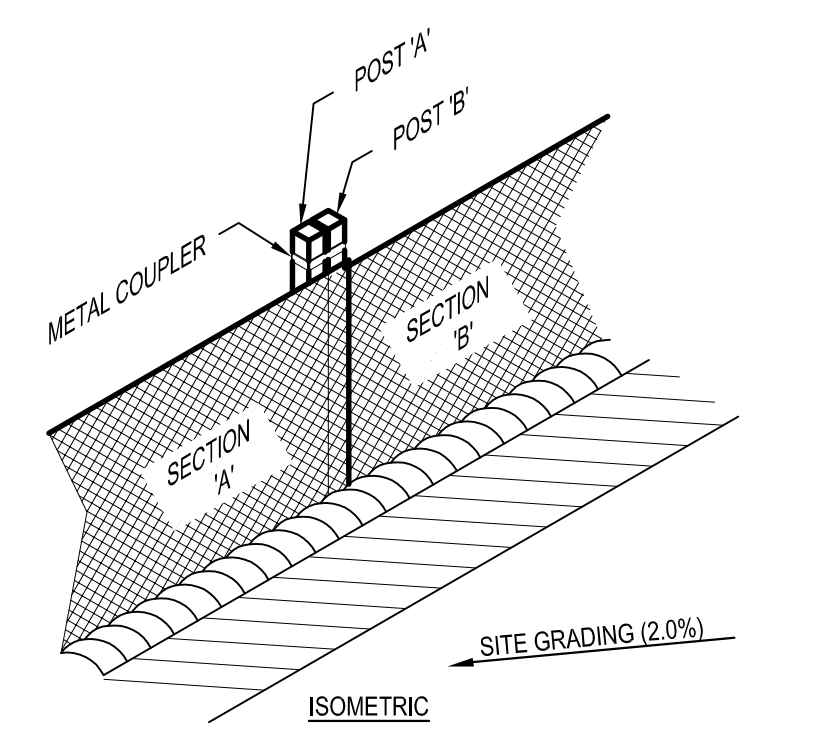
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C6



**TEMPORARY ACCESS ROAD SECTION (TYP.)** 5  
SCALE: 1:50  
C6



- SILT FENCE INSTALLATION**
- EXCAVATE 150 x 150 TRENCH WHERE INDICATED.
  - UNROLL SILT FENCE ONE SECTION AT A TIME AND POSITION POSTS AGAINST THE DOWNSTREAM WALL OF THE TRENCH. REINFORCEMENT NETTING MUST BE ON THE DOWNSTREAM SIDE OF FLOE DIRECTION.
  - DRIVE POST INTO THE GROUND UNTIL THE REINFORCEMENT NETTING IS APPROXIMATELY 50mm FROM THE TRENCH BOTTOM.
  - LAY THE TOE-IN FLAP OF THER FABRIC IN THE BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL.
  - JOIN SILT FENCE SECTIONS AS SHOWN ABOVE.



**SILT FENCE DETAIL** 6  
SCALE: NTS  
C6



C01	SEP 12 2016	ISSUED FOR TENDER	NP / DB	AB
No.	Date	Description	Drawn by Dessiné par	Approved Approuvé
Revision / Revision				

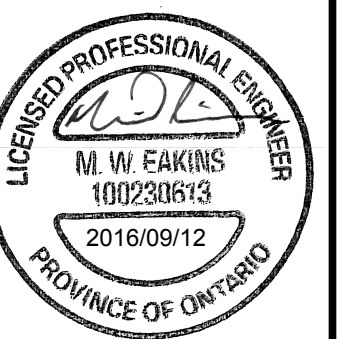
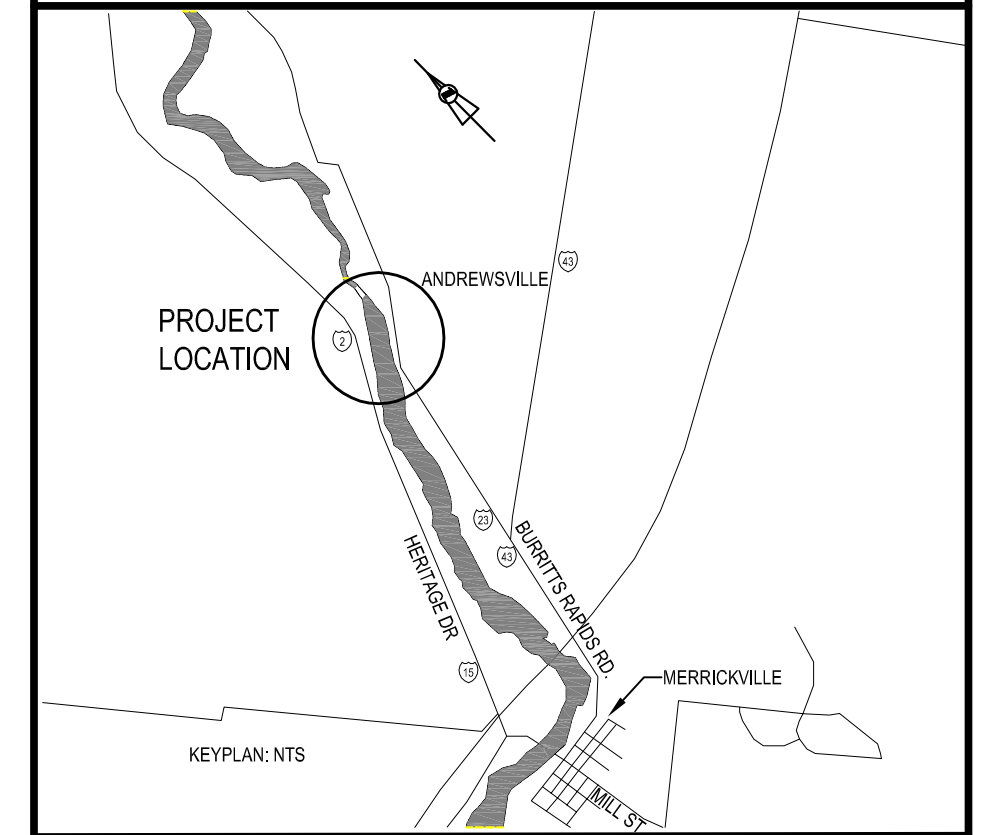
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Consultant's Name / Nom de l'expert-conseil		Eng. Stamp / Sceau de l'ingénieur
<b>SNC-LAVALIN</b> SNC-LAVALIN Inc. Halifax, Nova Scotia, Canada Member of the SNC-LAVALIN Group		

Project title/Titre du projet  
**UPPER NICHOLSONS EARTH DAM REHABILITATION**

Drawing title/Titre du dessin  
**CONSTRUCTION DETAILS**

Designed by/Concept par ME	Date 2016/05/06
Drawn by/Dessiné par NP	Date 2016/05/06
Checked by/Vérifié par ME	Date
Project No./No. du projet 20034960	Scale/Echelle AS INDICATED
Drawing Set No./No. de série du dessin	
Sheet No./N° de la feuille <b>C6</b>	





C01	SEP 12 2016	ISSUED FOR TENDER	NP	<i>ME</i>
No.	Date	Description	Drawn by / Dessiné par	Approved / Approuvé

Revision / Revision	
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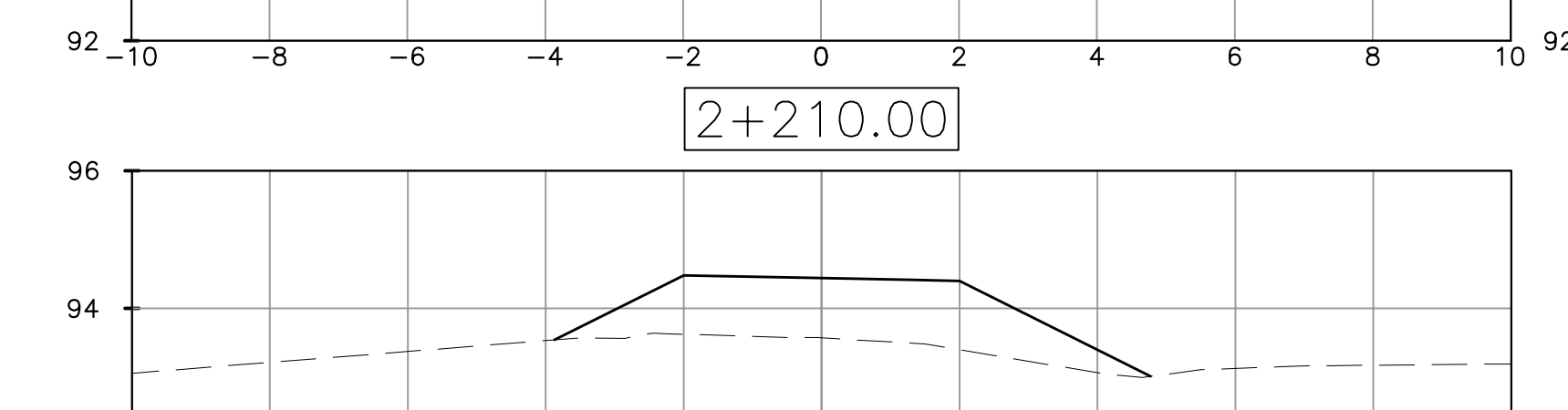
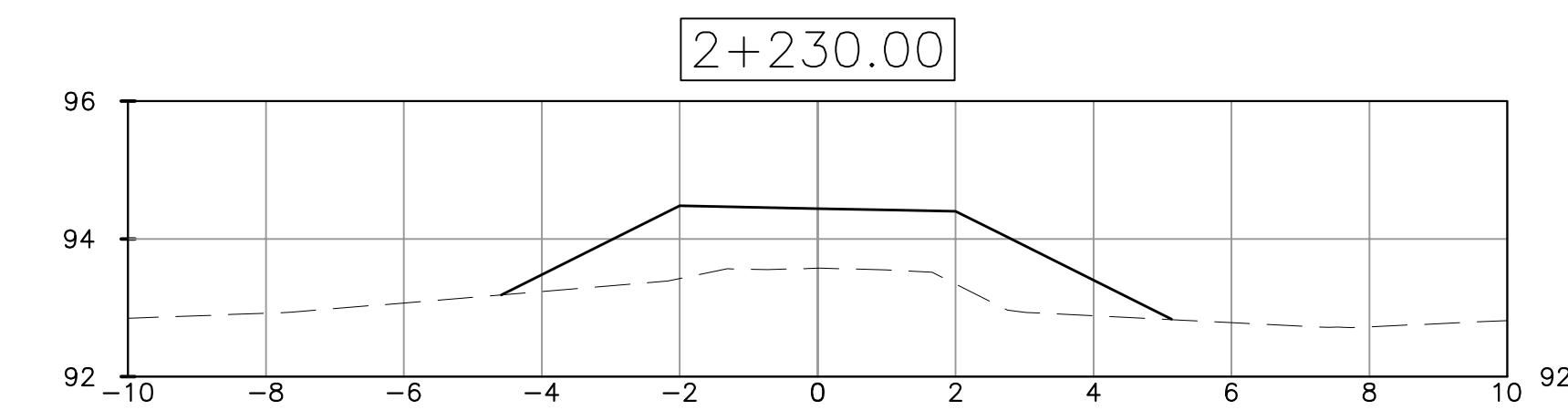
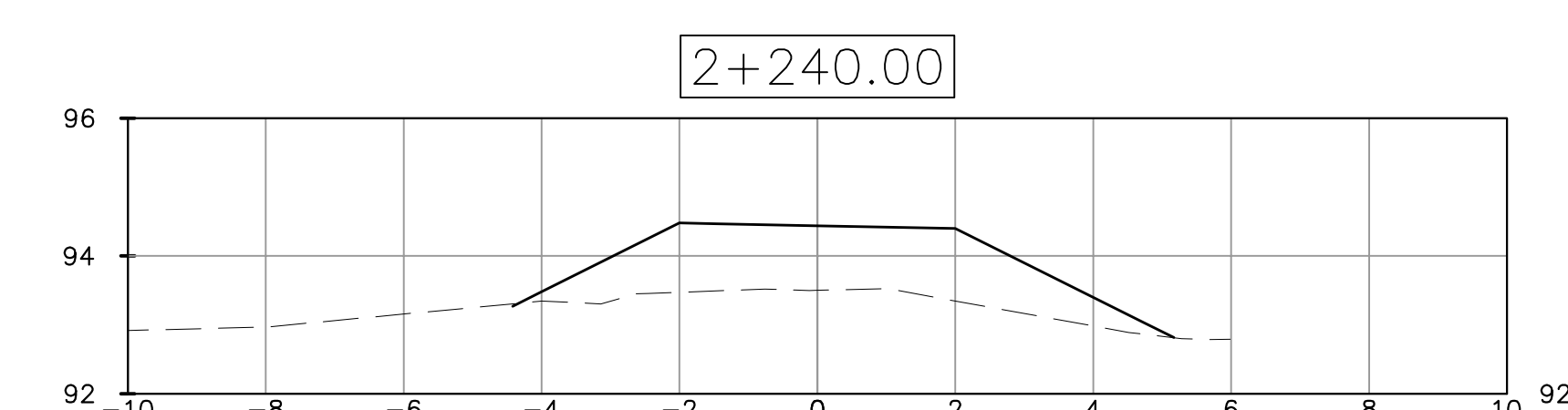
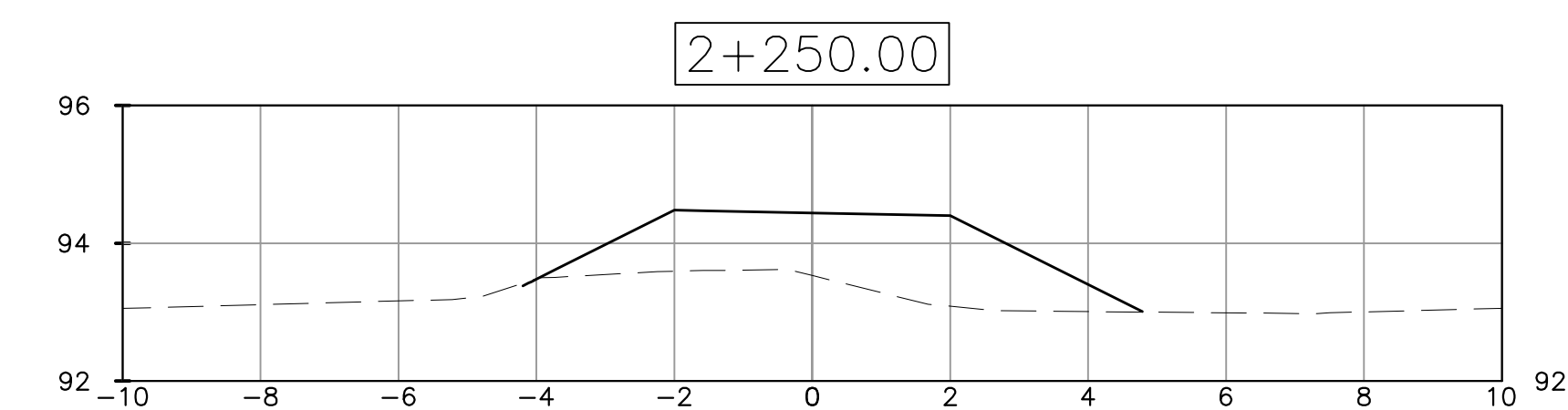
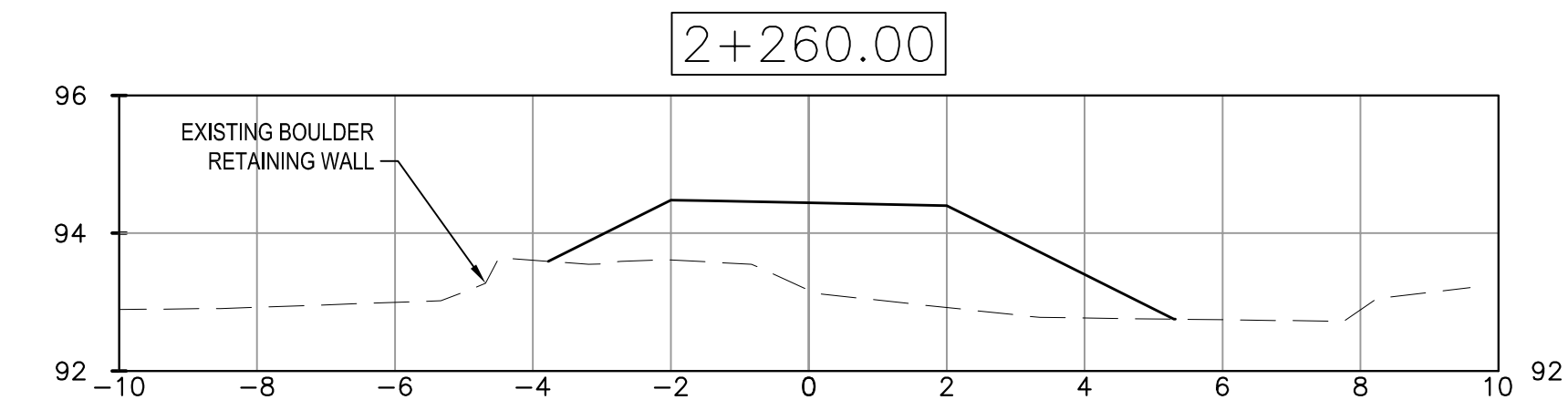
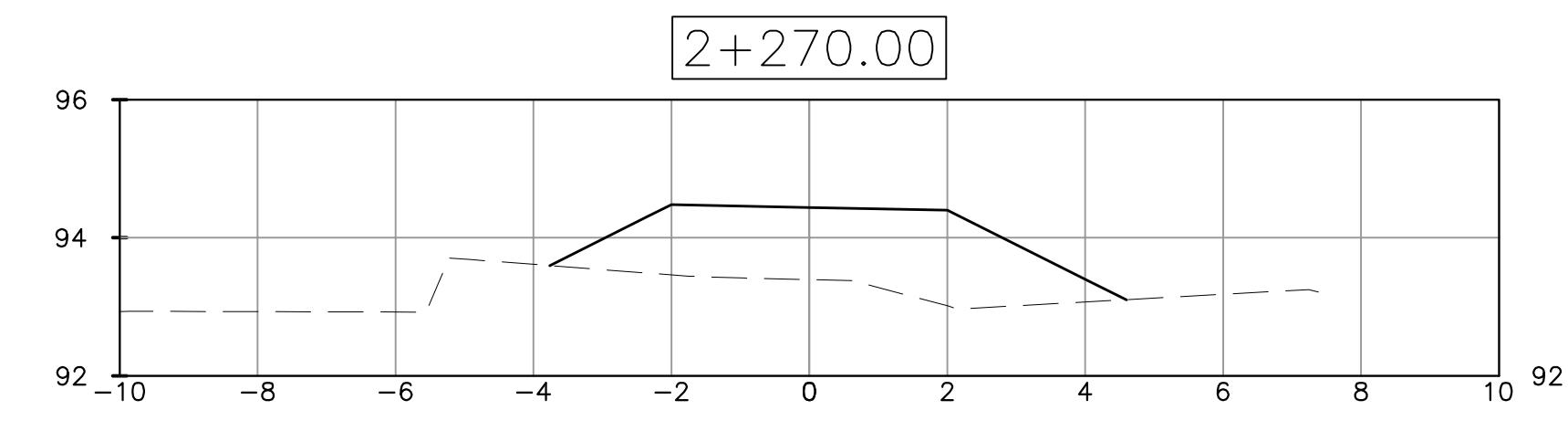
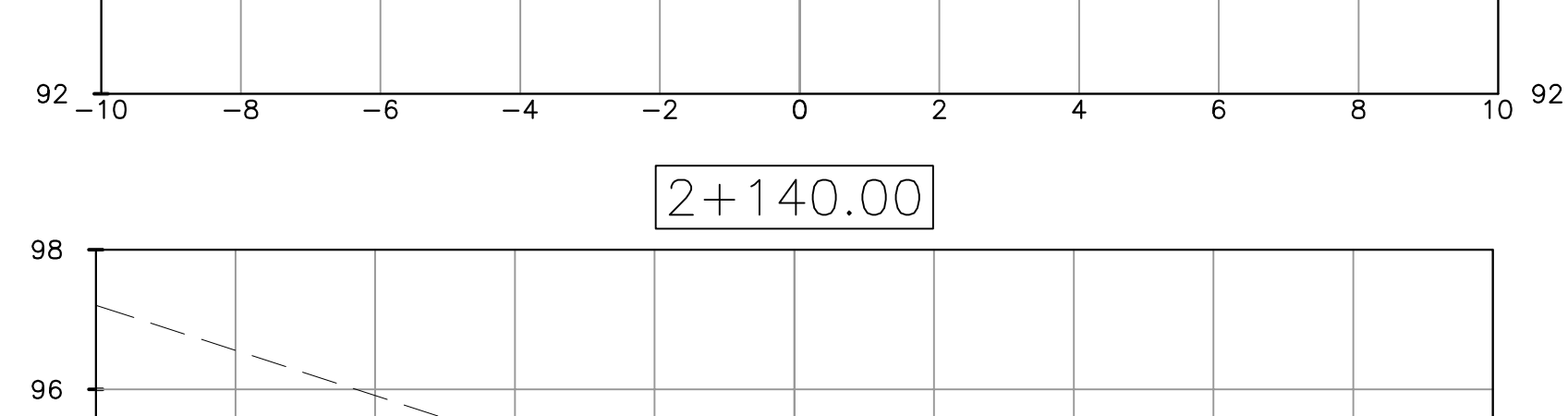
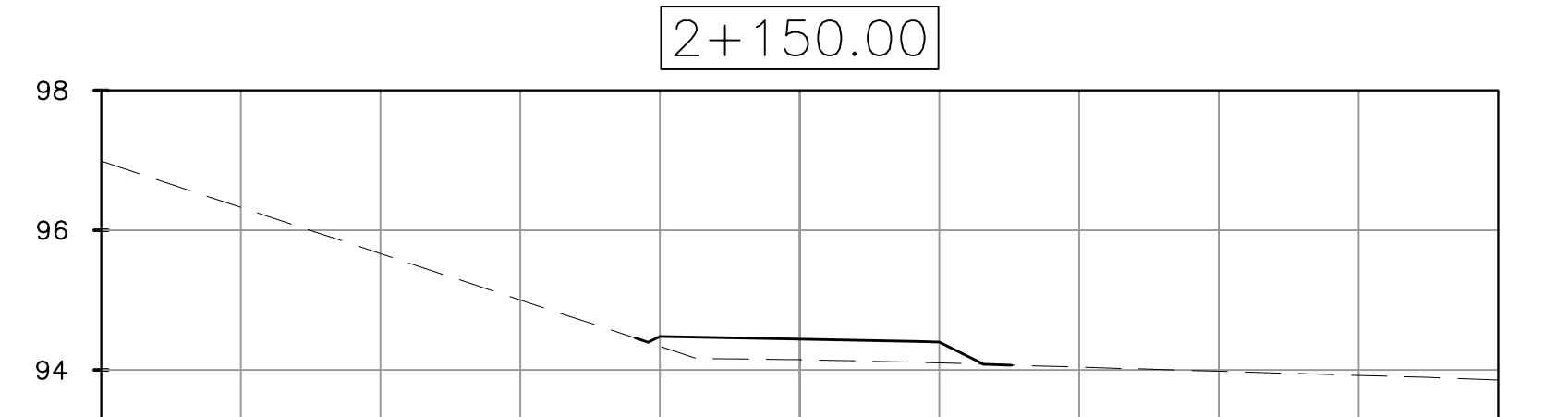
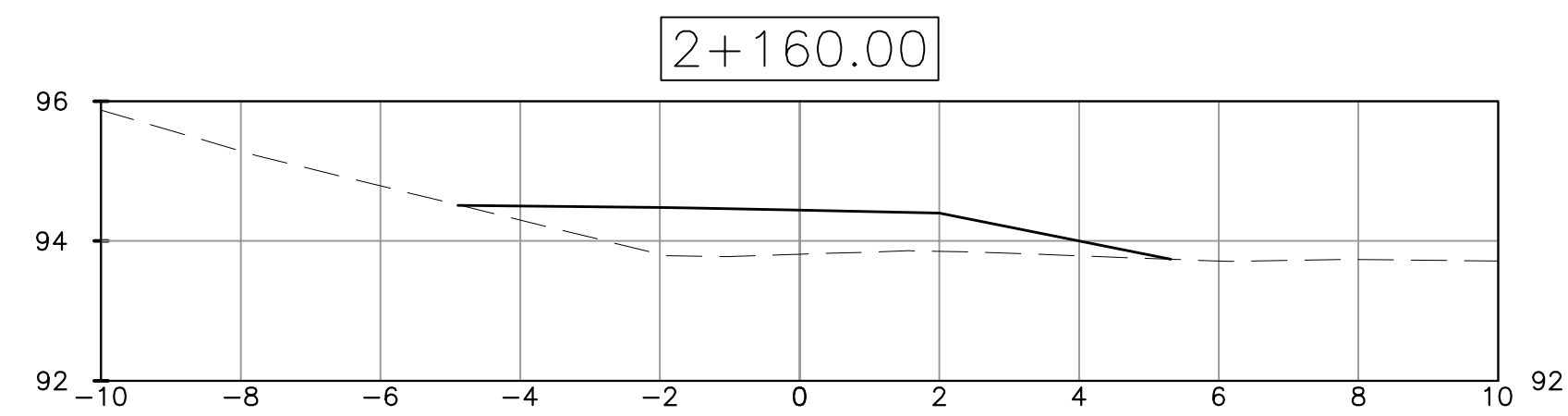
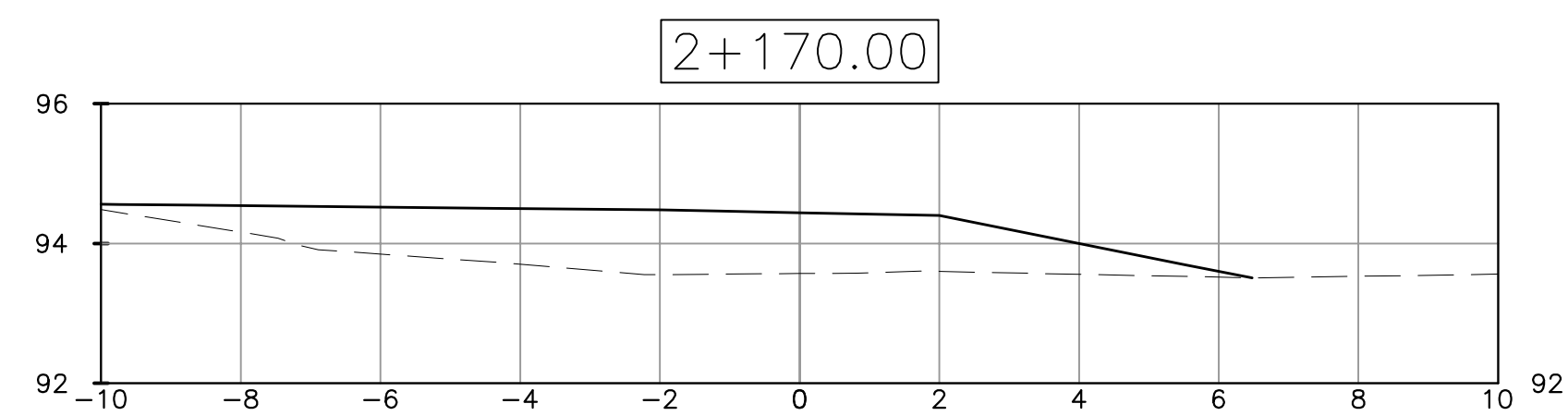
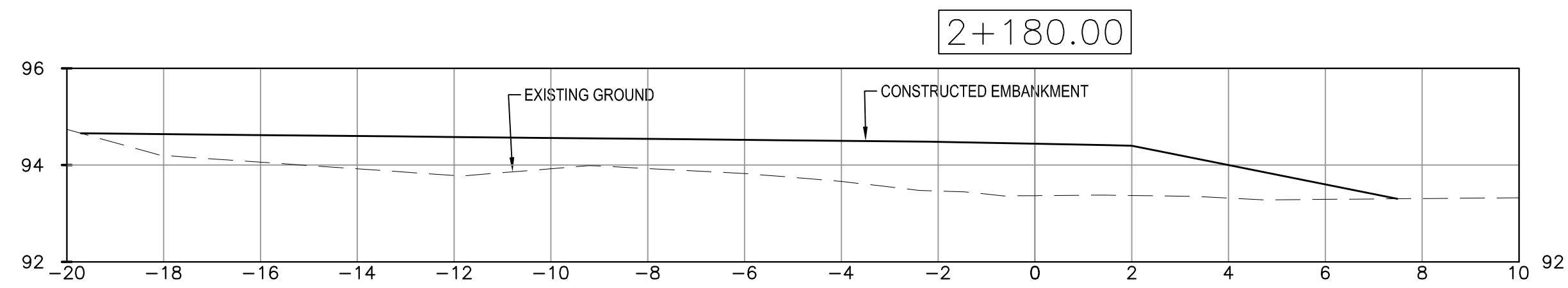
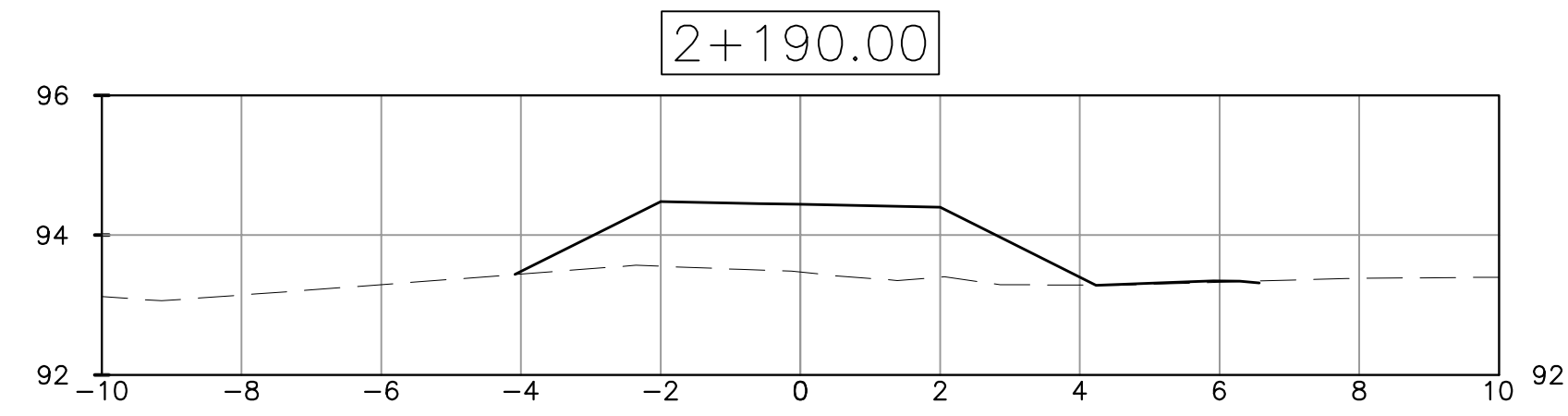
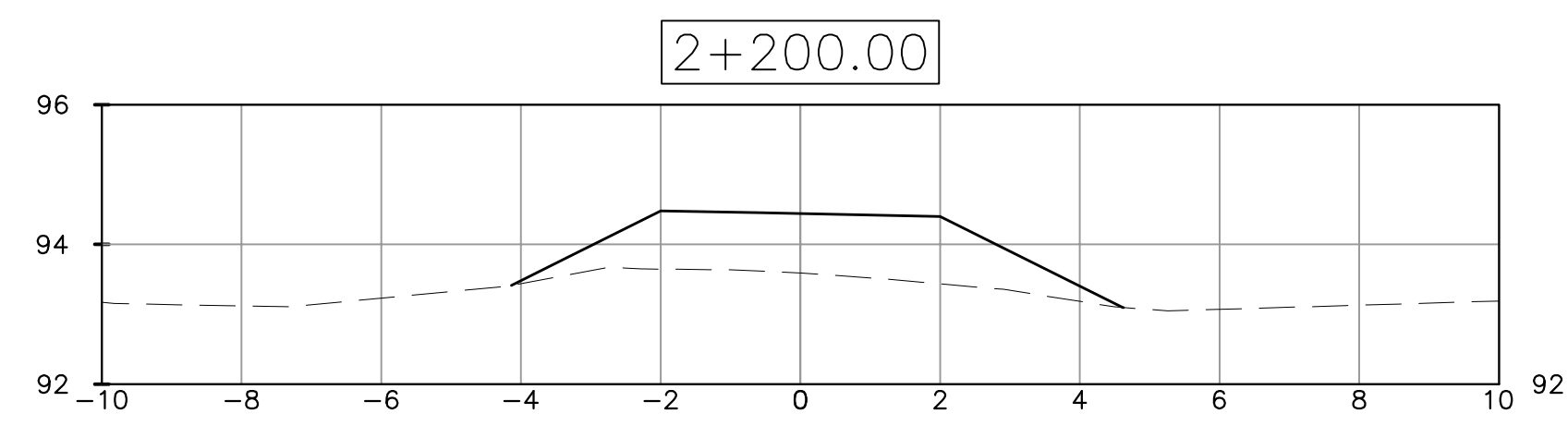
Linear dimensions in millimetres / Dimensions linéaires en millimètres

Consultant's Name / Nom de l'expert-conseil: **SNC-LAVALIN**  
 Eng. Stamp / Sceau de l'ingénieur: **SNC-LAVALIN Inc.**, Halifax, Nova Scotia, Canada  
 Member of the SNC-LAVALIN Group

Project title/Titre du projet: **UPPER NICHOLSONS EARTH DAM REHABILITATION**

Drawing title/Titre du dessin: **WEST EMBANKMENT SECTIONS**

Designed by/Concept par: ME	Date: 2016/04/01
Drawn by/Dessiné par: NP	Date: YYYY/MM/DD
Checked by/Véifié par: ME <i>ME</i>	Date:
Project No./No. du projet: 20034960	Scale/Echelle: AS INDICATED
Drawing Set No./No. de série du dessin:	Sheet No./N° de la feuille: C7



**NOTES:**  
 1. DESIGN SECTIONS ARE REFERENCE ONLY TO ILLUSTRATE APPROXIMATE GRADING OF THE EMBANKMENT. CONSTRUCTION SHALL BE IN ACCORDANCE WITH TYPICAL SECTIONS.

