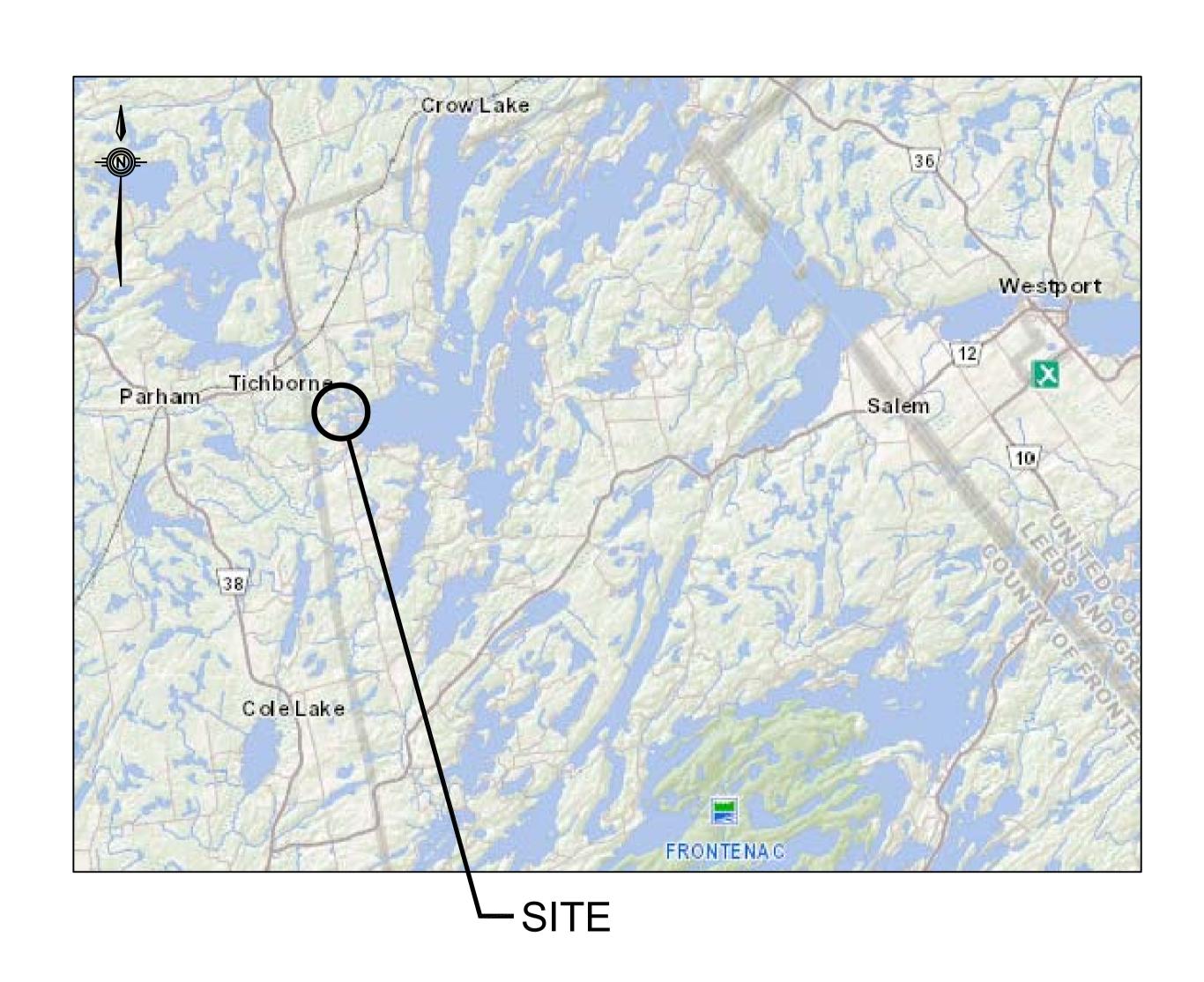
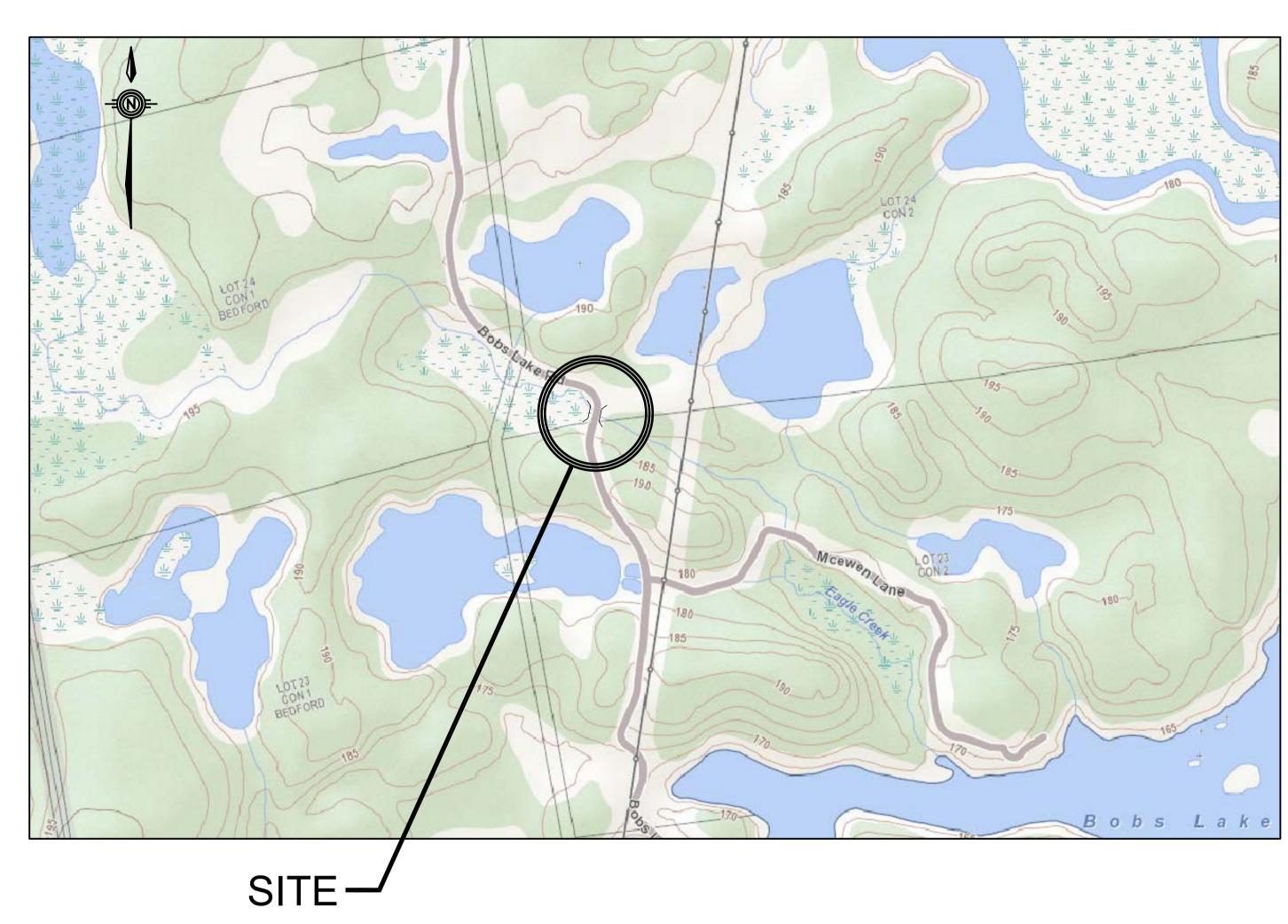


CONTRACT NO. PS-2025-05 EAGLE CREEK BRIDGE REPLACEMENT

SCHEDULE A - CONTRACT DRAWINGS

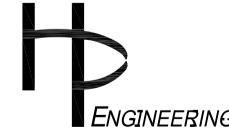
TOWNSHIP OF SOUTH FRONTENAC







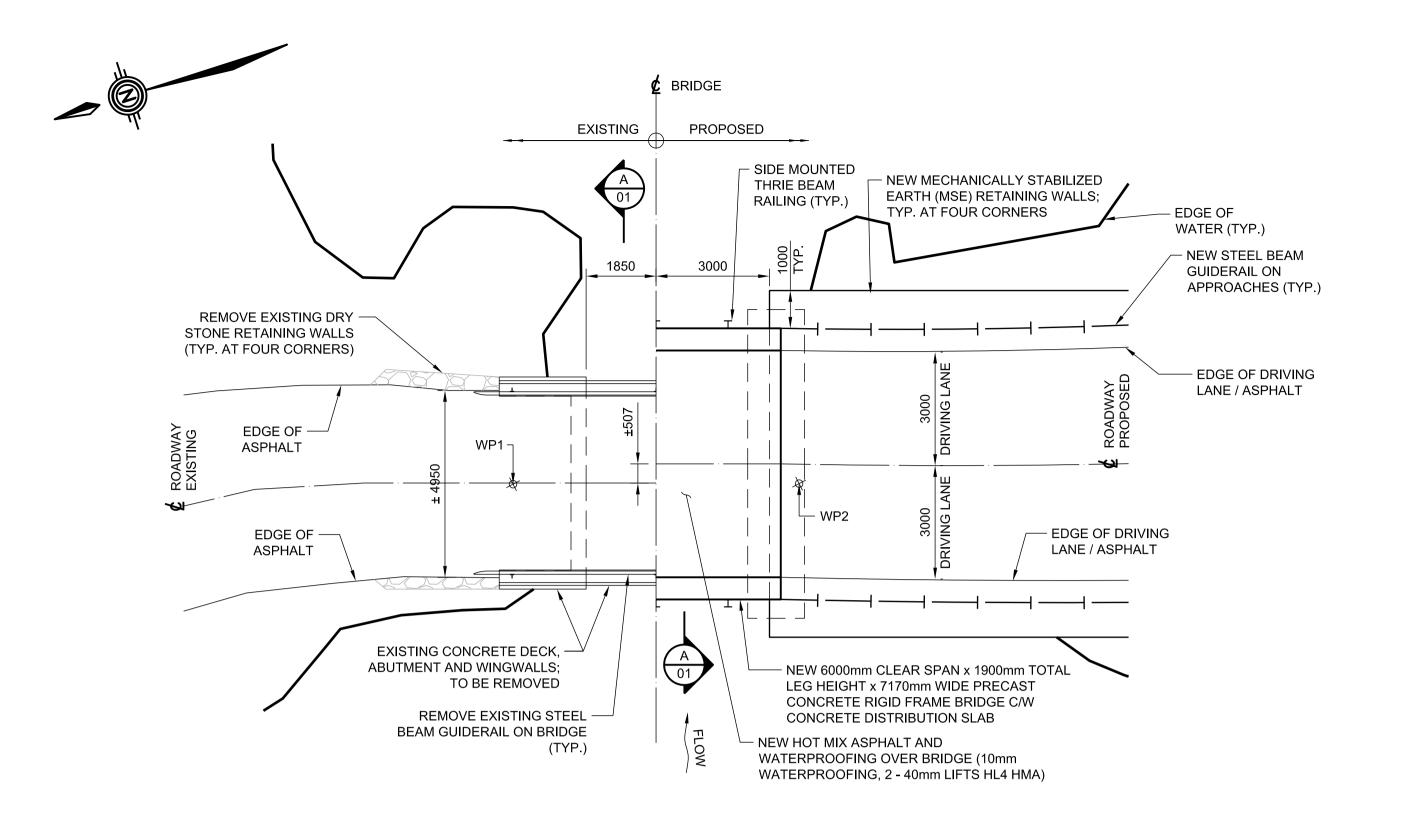
EAGLE CREEK BRIDGE REPLACEMENT
CONTRACT No. PS-2025-05



LIST OF DRAWINGS

COVER SHEET

- 1. GENERAL ARRANGEMENT
- 2. DETOUR ROUTE SIGNAGE
- 3. ROADWAY REMOVALS AND RECONSTRUCTION
- 4. STRUCTURE REMOVALS
- 5. STRUCTURE RECONSTRUCTION
- 6. DISTRIBUTION SLAB AND FOOTING DETAILS
- 7. RETAINING WALL DETAILS



STRUCTURE EXISTING PROPOSED SIDE MOUNTED THRIE **REMOVE EXISTING -**BEAM RAILING ON STEEL CONCRETE DECK POSTS (TYP.) AND CURBS NEW REINFORCED REMOVE EXISTING STEEL -CONCRETE DISTRIBUTION BEAM GUIDERAIL ON SLAB c/w EDGE DAMS BRIDGE (TYP.) ± 4160 ±3300 - NEW STEEL BEAM **GUIDERAIL WITH STEEL** POST ON APPROACHES TOP OF EXISTING -ROADWAY TOP OF NEW ROADWAY REMOVE EXISTING DRY NEW MECHANICALLY STABILIZED STONE RETAINING WALLS EARTH (MSE) RETAINING WALLS: - 300 (ASSUMED) (TYP. AT FOUR CORNERS) TYP. AT FOUR CORNERS 1850 NEW 6000mm CLEAR SPAN x 1900mm TOTAL ે300> LEG HEIGHT x 7170mm WIDE PRECAST APPROX. W.L. (ASSUMED) CONCRETE RIGID FRAME BRIDGE C/W SEPT. 2023 CONCRETE DISTRIBUTION SLAB REMOVE EXISTING CONCRETE ABUTMENT AND WINGWALLS INCLUDING FOOTING (TYP.) 1500mm WIDE x 1360mm HIGH x 8170mm APPROXIMATE -LONG CAST IN PLACE CONCRETE PROFILE OF FOOTING **EXISTING** 1500 ±2400 STREAMBED LINE STREAM IN FRONT OF ABUTMENT WITH MIN. 300mm THICK x 1000mm WIDE RIVERSTONE (TYP.) **ELEVATION** 1:50

SCOPE OF WORK: GENERA

MOBILIZE TO SITE AND SET UP TRAFFIC CONTROL

INSTALL ENVIRONMENTAL PROTECTION / EROSION & SEDIMENT CONTROL MEASURES

EXCAVATE ROADWAY EMBANKMENTS, CONSTRUCT TEMPORARY DEWATERING SYSTEM

REMOVE ASPHALT OVER STRUCTURE AND ON APPROACHES

REMOVE EXISTING CONCRETE DECK, CONCRETE ABUTMENT WALLS AND WINGWALLS INCLUDING FOOTINGS

EXCAVATE FOR NEW FOUNDATION

CONSTRUCT NEW CAST-IN PLACE REINFORCED CONCRETE FOOTINGS

INSTALL NEW PRECAST CONCRETE RIGID FRAME BRIDGE

CONSTRUCT CONCRETE DISTRIBUTION SLAB OVER RIGID FRAME UNITS

BACKFILL EXCAVATED AREAS TO FINAL FINISHED GRADE, INCLUDING ROADWAY BASE AND SUBBASE

CONSTRUCT MECHANICALLY STABILIZED EARTH RETAINING WALLS

PLACE ROCK PROTECTION ALONG EMBANKMENTS AND IN STREAM BED

REMOVE TEMPORARY CREEK DEWATERING SYSTEM AND REINSTATE FLOWS THROUGH NEW STRUCTURE

PLACE HOT RUBBERIZED ASPHALT AND PROTECTION BOARD

OVER DISTRIBUTION SLAB

O PLACE HOT-MIX ASPHALT OVER BRIDGE DECK AND ON APPROACHES
SUPPLY AND INSTALL THRIE BEAM RAILING POSTS AND THRIE BEAM
PAIR OVER BRIDGE DECK AND RETAINING WALLS INCLUDING TURIS

P RAIL OVER BRIDGE DECK AND RETAINING WALLS, INCLUDING THRIE BEAM TO STEEL BEAM TRANSITION RAILS (AT END OF STRUCTURE)

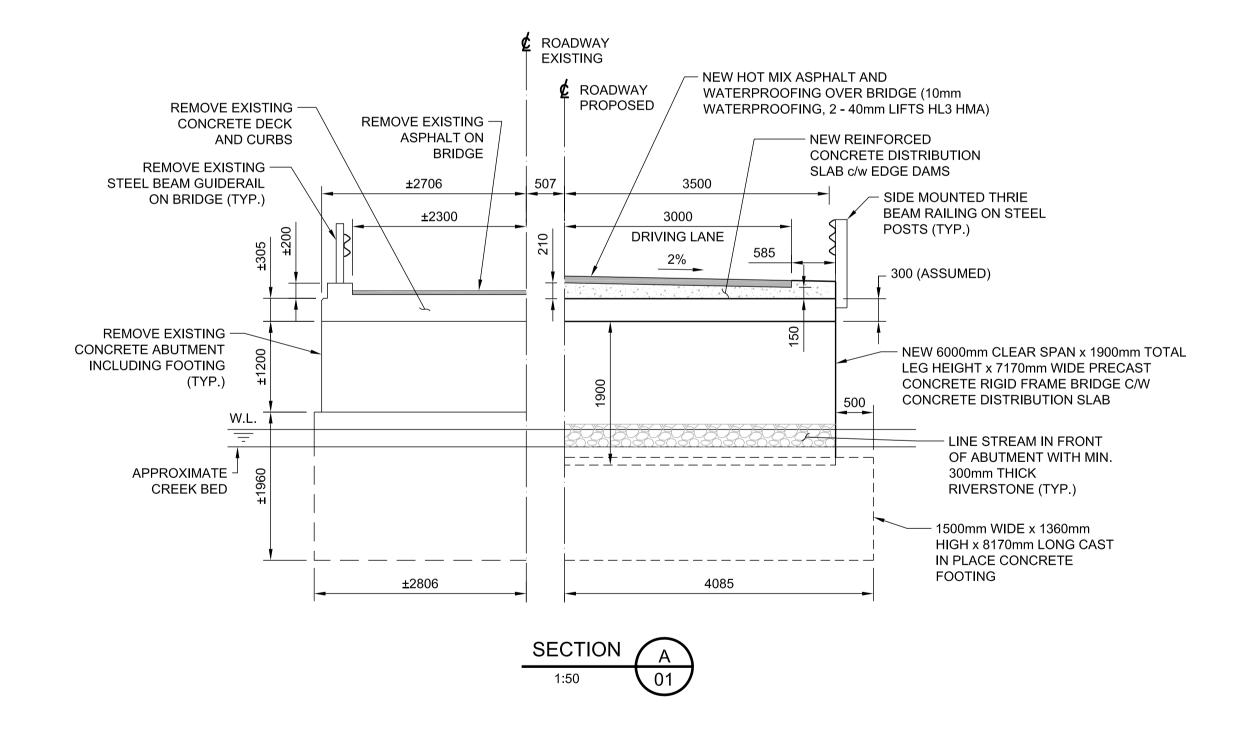
RESTORE SITE TO PRE-CONSTRUCTION CONDITIONS, INCLUDING

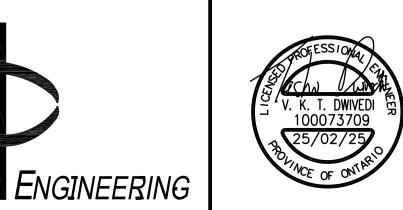
PLACEMENT OF TOPSOIL, SEED AND MULCH AS REQUIRED
REMOVE ENVIRONMENTAL PROTECTION AND EROSION & SEDIMENT
CONTROL MEASURES

REMOVE TRAFFIC CONTROL, RE-OPEN ROADWAY TO TRAFFIC, AND DE-MOBILIZE FROM SITE

GENERAL NOTES:

- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER APPLICABLE CONTRACT DRAWINGS.
- 2. CLASS OF CONCRETE: EXPOSURE CLASS C-1 (35MPa) TO CSA A23.1.
- 3. DESIGN LOADING: CHBDC, CAN/CSA S6-19.
- CLEAR COVER TO REINFORCING STEEL SHALL BE 70mm ± 20 UNLESS NOTED OTHERWISE.
 REINFORCING STEEL SHALL BE GRADE 400W AND SHALL BE HOT DIPPED GALVANIZED TO CSA G-164.
- 6. ALL EXPOSED CONCRETE EDGES SHALL BE CHAMFERED 20mm x 20mm.
- 7. THE CONTRACTOR SHALL DESIGN THE MECHANICALLY STABILIZED EARTH RETAINING WALLS AND THE PRE-CAST CONCRETE RIGID FRAME. THE RETAINING WALLS AND RIGID FRAME SHALL BE DESIGNED IN ACCORDANCE WITH CHBDC, CAN/CSA S6-19. THE DESIGNS SHALL BE STAMPED BY 2 PROFESSIONAL ENGINEERS LICENSED IN ONTARIO (DESIGN AND CHECK ENGINEER), BOTH OF WHICH POSSESS A MINIMUM OF \$2,000,000.00 OF PROFESSIONAL LIABILITY INSURANCE. THE CONTRACTOR SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS (FOR ALL CONTRACTOR DESIGN ITEMS) SHOWING ALL DETAILS REQUIRED FOR CONSTRUCTION TO BE REVIEWED AND APPROVED BY CONTRACT ADMINISTRATOR PRIOR TO ORDERING MATERIALS. SHOP DRAWINGS SHALL INCLUDE MAXIMUM AND MINIMUM REACTIONS (HORIZONTAL AND VERTICAL) AT THE BASE OF THE RIGID FRAME FOR BOTH SLS AND ULS CASES.
- 8. TEMPORARY DEWATERING/CREEK BYPASS SHOP DRAWINGS SHALL BE SUBMITTED TO CONTRACT ADMINISTRATOR FOR REVIEW AND APPROVAL PRIOR TO IMPLEMENTATION. TEMPORARY BYPASS CHANNEL / TRENCH SHALL BE REINSTATED WITH NATIVE MATERIAL; REFER TO CONTRACT SPECIFICATIONS
- 9. ALL CONSTRUCTION PROCEDURES AND MATERIALS SHALL BE IN ACCORDANCE WITH CURRENT ONTARIO PROVINCIAL STANDARDS. ALL MATERIAL SUPPLIED SHALL BE FROM MTO DESIGNATED SOURCES, WHERE APPLICABLE.
- 10. ALL EXISTING CONDITIONS SHOWN ON THE EXISTING CONTRACT DRAWINGS ARE TAKEN FROM FIELD MEASUREMENTS AND AVAILABLE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING WORK.
- 11. THE CONTRACTOR SHALL OBTAIN APPROVAL FOR HIS ENVIRONMENTAL PROTECTION PLAN AND EROSION AND SEDIMENT CONTROL PLAN FROM ALL AUTHORITIES HAVING JURISDICTION. THE EXISTING STREAMBED AND SURROUNDING AREAS SHALL BE FULLY PROTECTED AT ALL TIMES FOR THE DURATION OF THE WORK.
- 12. ALL DIMENSIONS ARE IN MILLIMETRES AND ALL ELEVATIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- 13. THE CONTRACTOR'S PRICE FOR THE WORK SHALL INCLUDE ALL LABOUR, EQUIPMENT, MATERIAL AND TRANSPORTATION NECESSARY TO COMPLETE THE WORK, INCLUDING ANY AND ALL INCIDENTAL WORK WHETHER OR NOT EXPLICITLY DETAILED ON THE CONTRACT DRAWINGS BUT REQUIRED FOR PROPER PERFORMANCE AND COMPLETION OF THE WORKS AS PER THE DRAWINGS AND SPECIFICATIONS.
- 14. ALL TRAFFIC CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AS PER BOOK 7 OF ONTARIO TRAFFIC MANUAL. THE CONTRACTOR IS FULLY AND SOLELY RESPONSIBLE FOR THE SAFETY OF PEDESTRIANS AND VEHICULAR TRAFFIC, HIS WORKERS AND THE GENERAL PUBLIC AT ALL TIMES DURING CONSTRUCTION.
- 15. THE FINAL LOCATION AND OVERALL EXTENT OF ALL WORK UNDER THIS CONTRACT WILL BE AS DIRECTED / DELINEATED ON SITE BY THE ENGINEER.
- 16. THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWER AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
- 17. THE SCOPE OF WORK OUTLINED ON THIS DRAWING IS PROVIDED FOR GENERAL INFORMATION ONLY AND SHALL NOT BE CONSTRUED AS EXHAUSTIVE.







	NO.	REVISION	BY	DATE	CLIENT TOWNSHIP OF		EB 2025	
	1	ISSUED FOR TENDER	T.D.	25/02/25	TOWNSHIP OF SOUTH FRONTENAC	Dwn. M.P.	Chk. T.[
						Scale: AS	SHOWN	
					PROJECT TITLE	Des. M.P.	Chk.	
					EAGLE CREEK BRIDGE REPLACEMENT	CONTRACT NO.		
					ive. Exociment	PS-20	25-05	
					DRAWING TITLE	SHEET 2	OF 8	
					GENERAL ARRANGEMENT	DWG.	NO.	
l)1	
			1					



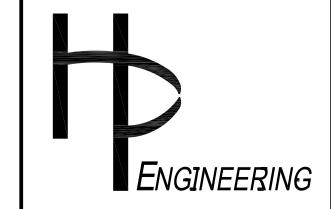
NOTES:

- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER APPLICABLE CONTRACT DRAWINGS
- ALL TRAFFIC CONTROL OPERATIONS SHALL BE CARRIED OUT TO AT LEAST THE MINIMUM STANDARDS AS SET FORTH IN BOOK 7 (ONTARIO TRAFFIC MANUAL).
- 3. LOCATION, OFFSET, HEIGHT, ETC. OF ALL SIGNAGE SHALL BE IN ACCORDANCE WITH BOOK 7.
- 4. ALL SIGNAGE AND BARRICADES WILL BE REQUIRED FOR THE ENTIRE DURATION OF
- CONSTRUCTION.
- 5. THE FINAL LOCATION AND OVERALL NUMBER OF SIGNS MAY BE ADJUSTED BASED ON FIELD REQUIREMENTS. THE SIGNAGE LAYOUT AS SHOWN ON THIS DRAWING SHALL BE USED FOR BIDDING PURPOSES.
- 6. ROADWAY CLOSURE AND DETOUR ROUTE SIGNING SHOWN ON THIS DRAWING APPLIES TO ROAD CLOSURE/ TRAFFIC DETOUR AND IS NOT TO BE CONSTRUED AS A COMPLETE OR EXHAUSTIVE DEPICTION OF ALL TRAFFIC CONTROL REQUIRED DURING CONSTRUCTION. ALL OTHER REQUIRED TRAFFIC CONTROL AS PER BOOK 7 (i.e. CONSTRUCTION ZONE SIGNING, FLAG PERSONS FOR LOADING / UNLOADING OF MATERIALS, ETC.) TO PROTECT AND MAINTAIN THE SAFETY OF THE GENERAL PUBLIC AND INDIVIDUAL WORKERS REMAINS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN THE CONTRACTOR'S SUBMITTED TRAFFIC CONTROL/ TRAFFIC MANAGEMENT PLAN.
- 7. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION AND DETOUR SIGNAGE FOR THIS CONTRACT. THE CONTRACTOR SHALL SUBMIT A TRAFFIC MANAGEMENT PLAN INCLUDING DRAWINGS SHOWING ALL CONSTRUCTION AND DETOUR SIGNS AND DEVICES TO THE CONTRACT ADMINISTRATOR TWO (2) WEEKS PRIOR TO STARTING WORK.
- 8. THE CONTRACTOR SHALL INSPECT ALL TRAFFIC CONTROL AND DETOUR SCHEMES AND ENSURE PROPER INSTALLATIONS ARE MAINTAINED FOR THE DURATION OF THE CONTRACT. INSPECTIONS SHALL BE PERFORMED PER BOOK 7 BUT NO LESS THAN ONCE PER DAY. THE CONTRACTOR SHALL MAINTAIN A DAILY LOG OF INSPECTIONS AND MAKE THE LOG AVAILABLE TO THE CONTRACT ADMINISTRATOR.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH DAILY RELOCATION OF TEMPORARY BARRIERS OR OTHER TRAFFIC APPURTENANCES TO ALLOW CONSTRUCTION ACCESS AS REQUIRED.
- 10. TC-67 SIGN TEMPLATE TO READ AS FOLLOWS:

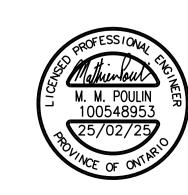
"BOBS LAKE RD. CLOSED AT McEWEN LN."

PRIOR TO THE FABRICATION OF THE SIGNS, THE CONTRACTOR SHALL SUBMIT A SIGN TEMPLATE TO THE CONTRACT ADMINISTRATOR FOR REVIEW.

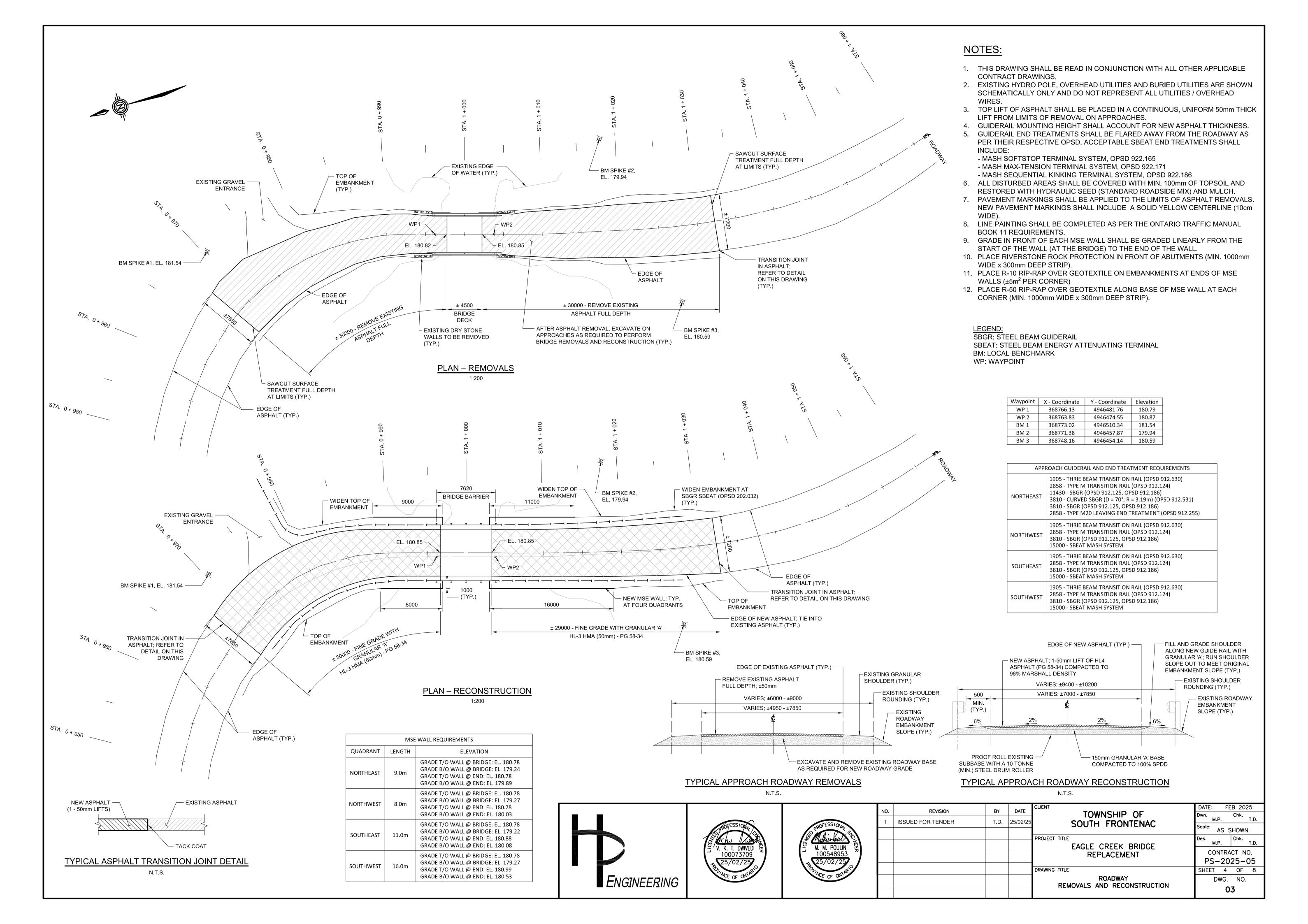
SIGN ID	SIGN TYPE	TOTAL NUMBER REQUIRED			
1	TC-67, TC-10	3			
2	TC-10D w / DETOUR TAB	2			
3	TC-10C w / DETOUR TAB	8			
4	TC-10AL w / DETOUR TAB	4			
5	TC-10AR w / DETOUR TAB	3			
6	TC-10BL w / DETOUR TAB	4			
7	TC-10BR w / DETOUR TAB	3			
8	RB-92 c/w FLASHER	2			
9	TC-7, TC-7tA, TC-7tB c/w FLASHER	2			
10	TC-53A BARRICADE	2			
(11)	TC-5	3			





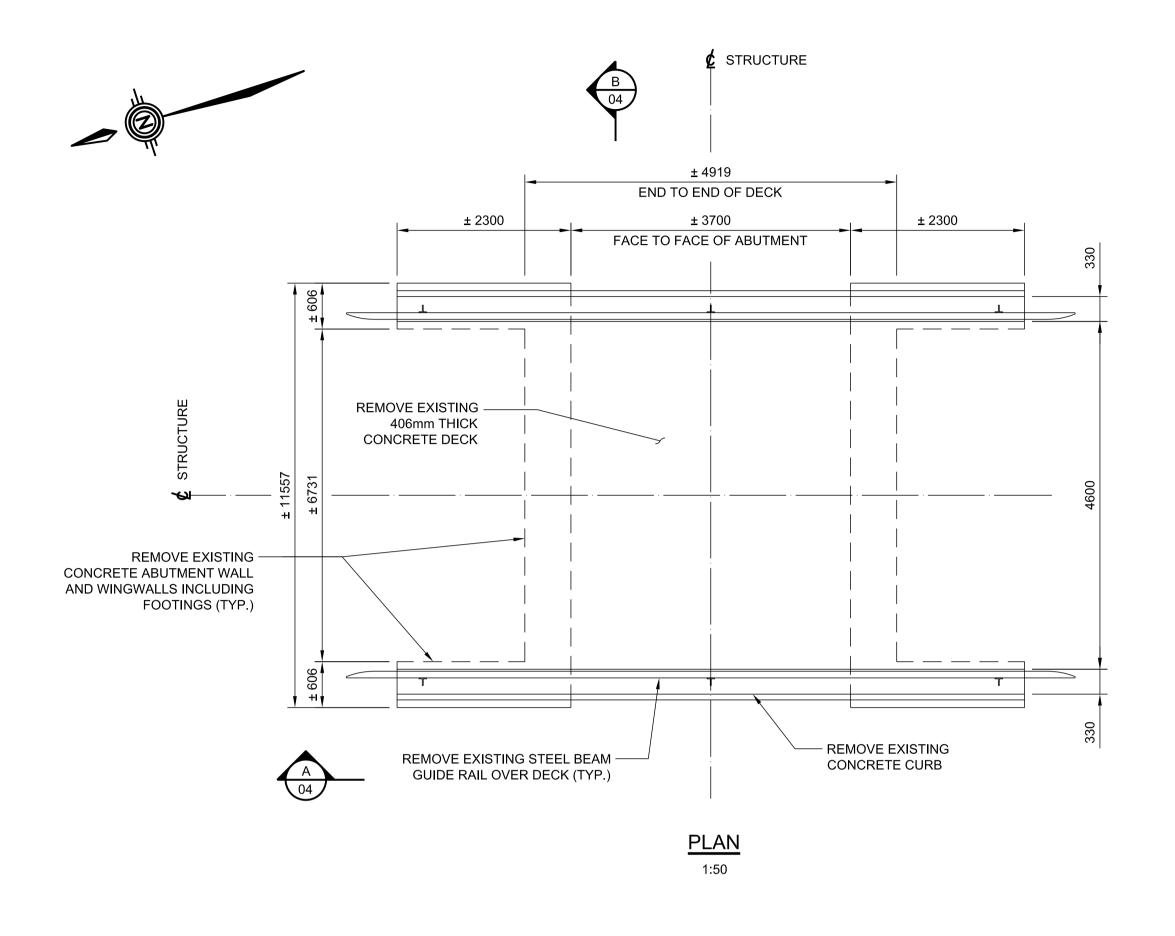


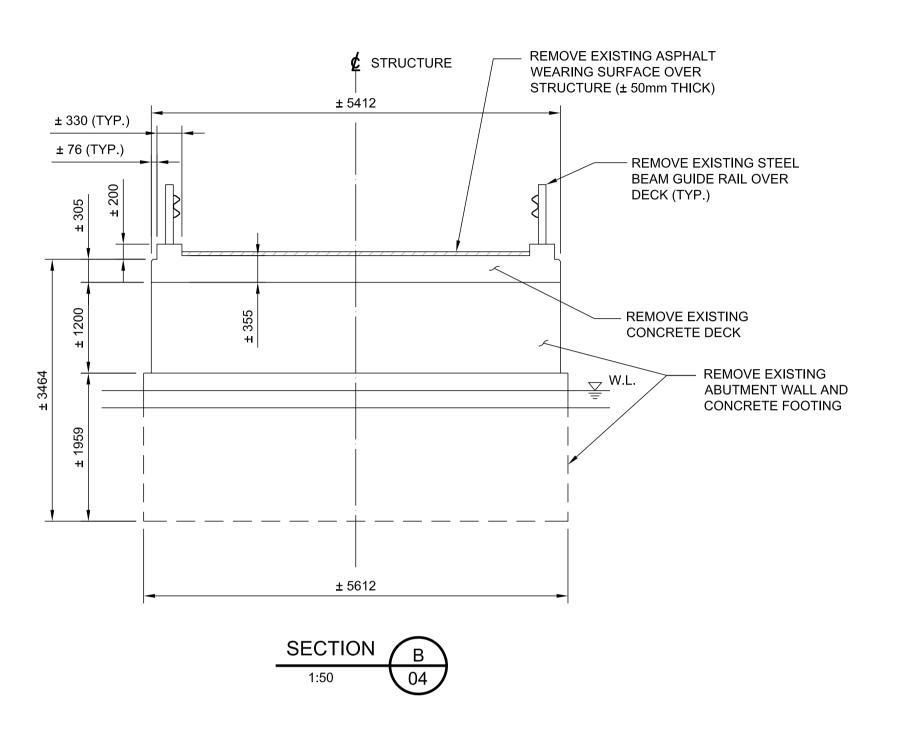
	REVISION	BY	DATE	CLIENT	DATE:	FEI	3 20	25
	ICEAISION	01	DAIL	TOWNSHIP PF	Dwn.		Chk.	T.D
	ISSUED FOR TENDER	T.D.	25/02/25	SOUTH FRONTENAC	M. Scale:			1.0
					AS SHOWN			
_				PROJECT TITLE	Des.		Chk.	т.
				EAGLE CREEK BRIDGE	М.	<u>P. </u>		T.D
				REPLACEMENT CONTRA			CT N	0.
				NEI ENGEMENT	PS-	-202	25-	05
				DRAWING TITLE	SHEET	3	OF	8
				DETOUR ROUTE SIGNAGE	D	WG.	NO.	
				52.55		02	2	

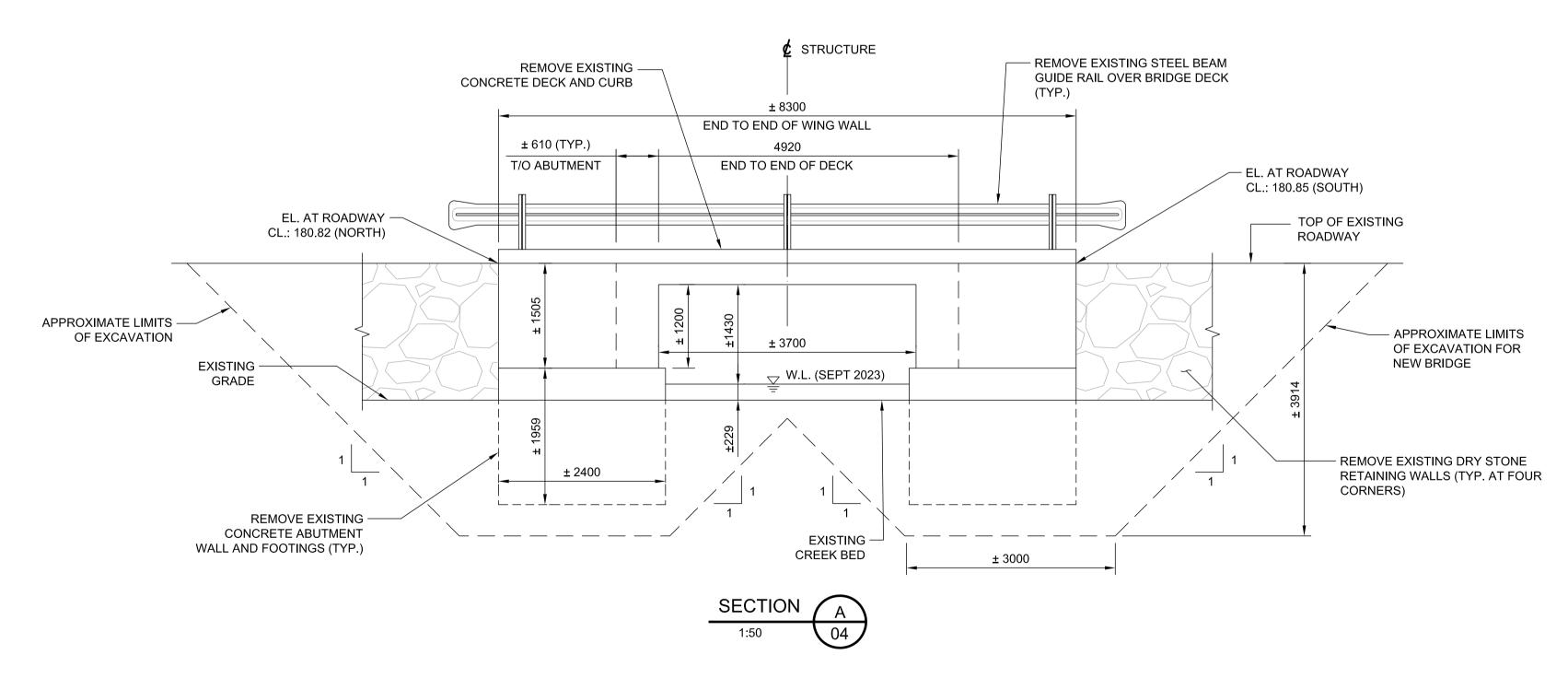


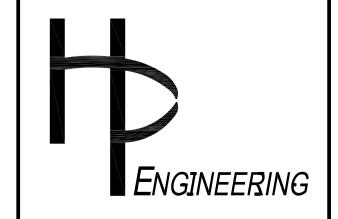
NOTES:

- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS.
- 2. REFER TO DRAWING 01 FOR GENERAL NOTES AND SCOPE OF WORK.
- 3. ALL EXISTING CONDITIONS SHOWN ON THE CONTRACT DRAWINGS ARE TAKEN FROM FIELD MEASUREMENTS AND AVAILABLE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR PRIOR TO COMMENCING WORK.
- 4. EXCAVATED ROADWAY MATERIAL SHALL BE SALVAGED AND STORED ON SITE FOR REUSE AS BACKFILL MATERIAL.





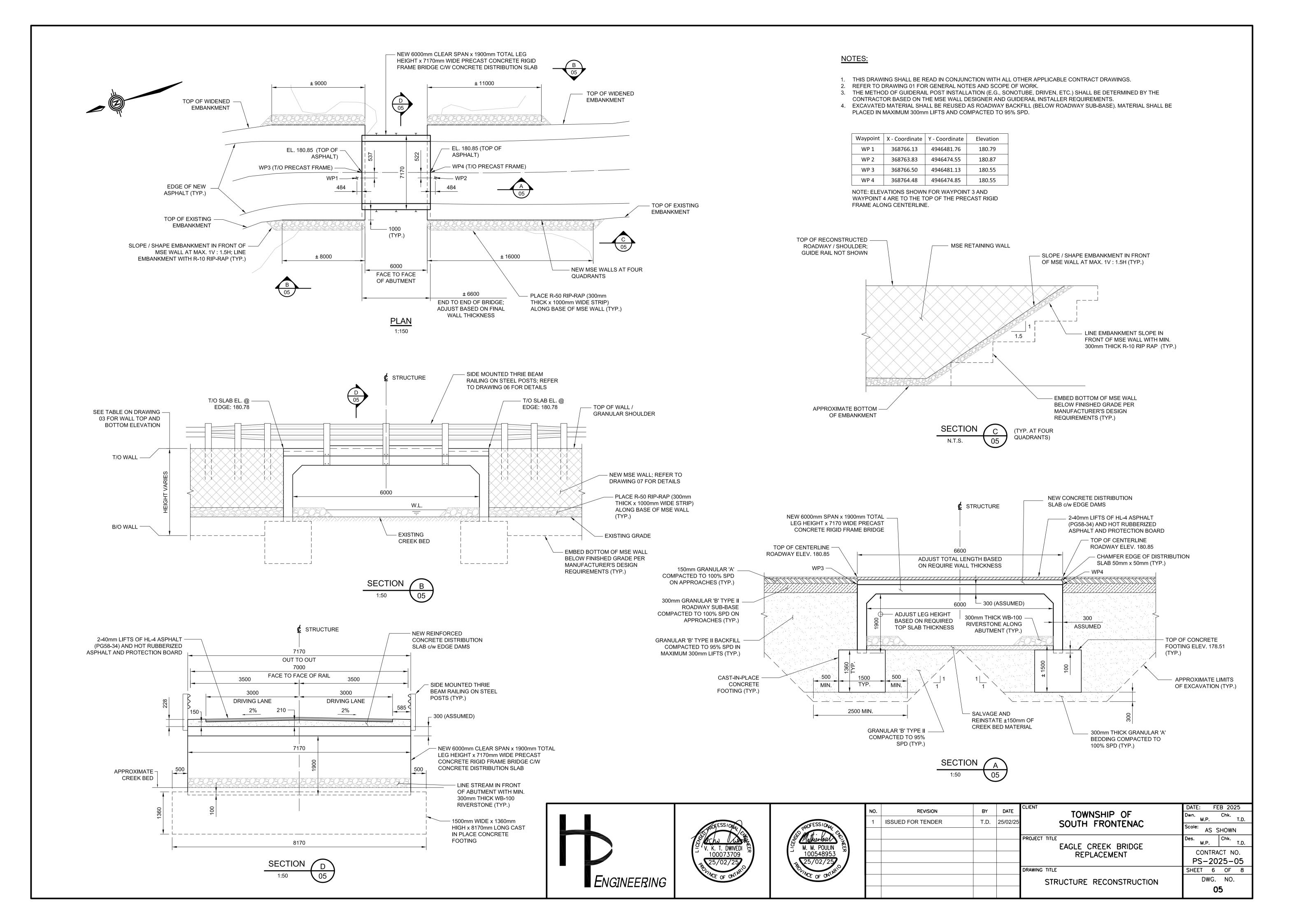


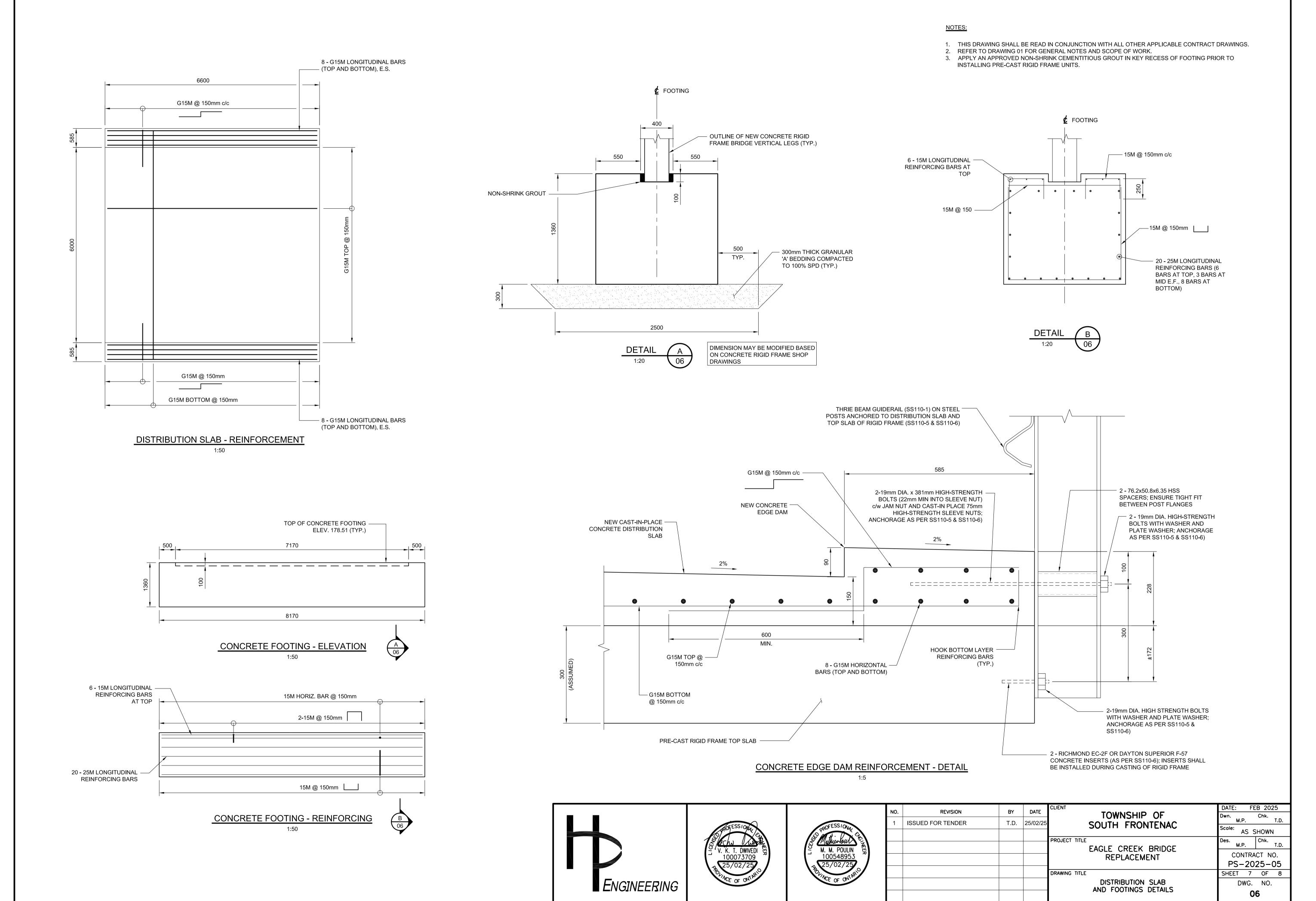


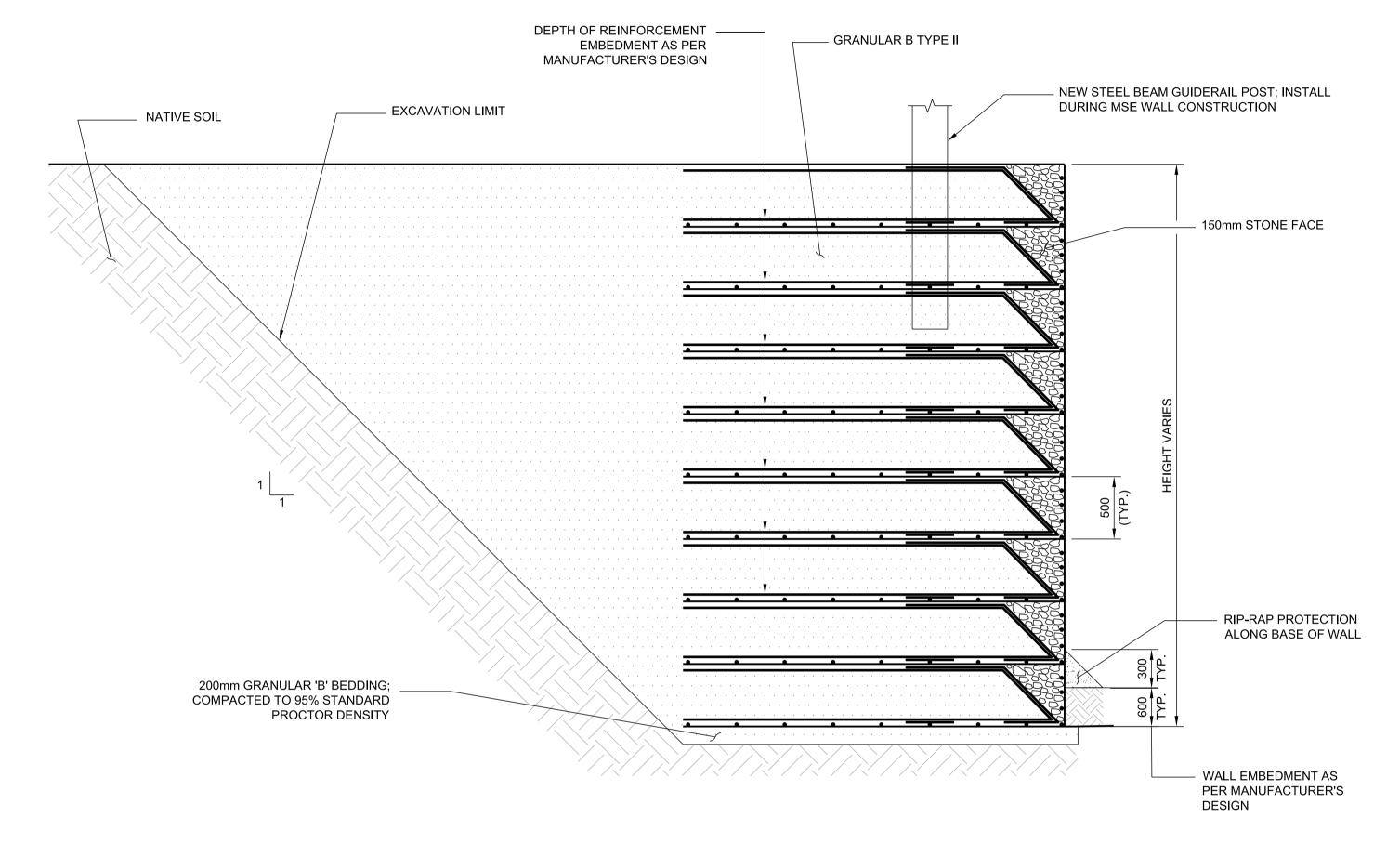




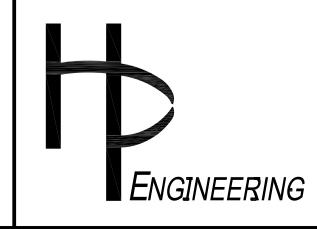
NO.	REVISION	BY	DATE	CLIENT	DATE: FE	B 2025	
1				TOWNSHIP_OF	Dwn. M.P.	Chk. T.D.	
1	ISSUED FOR TENDER	T.D.	25/02/25	SOUTH FRONTENAC	Scale	SHOWN	
				PROJECT TITLE	Des. M.P.	Chk.	
				EAGLE CREEK BRIDGE REPLACEMENT	CONTRACT NO. PS-2025-05		
				DRAWING TITLE	SHEET 5	OF 8	
				STRUCTURE REMOVALS	DWG.	NO.	
					0	4	







WELDED WIRE RETAINING WALL - TYPICAL ELEVATION







REVISION ISSUED FOR TENDER

BY DATE TOWNSHIP OF T.D. 25/02/25 SOUTH FRONTENAC PROJECT TITLE

Scale: AS SHOWN EAGLE CREEK BRIDGE REPLACEMENT

CONTRACT NO. PS-2025-05 SHEET 8 OF 8

DATE: FEB 2025

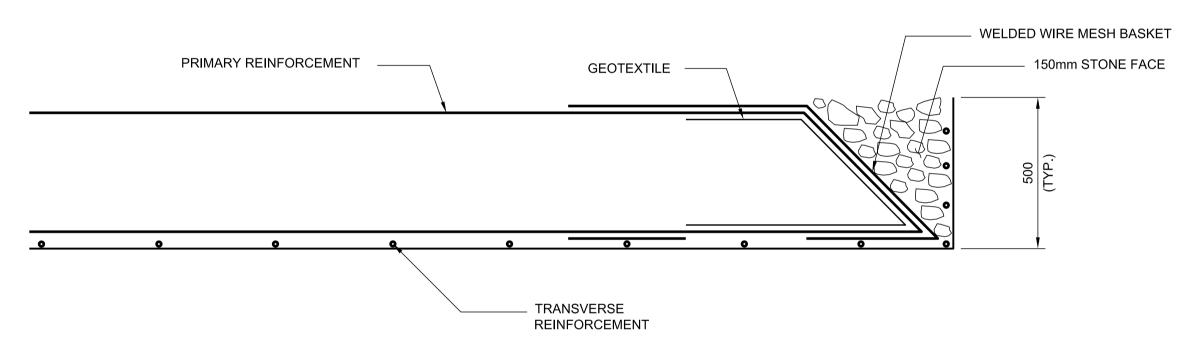
DRAWING TITLE RETAINING WALL DETAILS DWG. NO. 07

NOTES:

- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER APPLICABLE CONTRACT DRAWINGS.
- 2. REFER TO DRAWING 01 FOR GENERAL NOTES AND SCOPE OF WORK.
- 3. THE METHOD OF GUIDERAIL POST INSTALLATION (SONOTUBE, DRIVEN, ETC.) SHALL BE DETERMINED BY THE CONTRACTOR BASED ON THE MSE WALL DESIGNER AND GUIDERAIL INSTALLER REQUIREMENTS.
- 4. THE MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALLS SHALL BE AN APPROVED SYSTEM LISTED IN THE ONTARIO MINISTRY OF TRANSPORTATION'S (MTO) DESIGNATED SOURCES OF MATERIALS LIST (DSM 9.70.56) AND SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING ATTRIBUTES: PERFORMANCE: LOW

APPEARANCE: LOW GEOMETRY: VERTICAL (90°)

5. MSE WALL DETAILS ON THIS DRAWING ARE SHOWN SCHEMATICALLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN THE MSE RETAINING WALLS. THE RETAINING WALLS SHALL BE DESIGNED AS PER THE CHBDC CSA S6-19. THE DESIGNS SHALL BE STAMPED BY TWO (2) PROFESSIONAL ENGINEERS LICENSED IN ONTARIO (DESIGN AND CHECK ENGINEER). THE CONTRACTOR SHALL SUBMIT SIGNED AND SEALED SHOP DRAWINGS (FOR ALL CONTRACTOR DESIGNED ITEMS) SHOWING ALL DETAILS REQUIRED FOR CONSTRUCTION TO BE REVIEWED AND APPROVED BY THE CONTRACT ADMINISTRATOR PRIOR TO ORDERING MATERIALS.



WELDED WIRE RETAINING WALL - TYPICAL SECTON