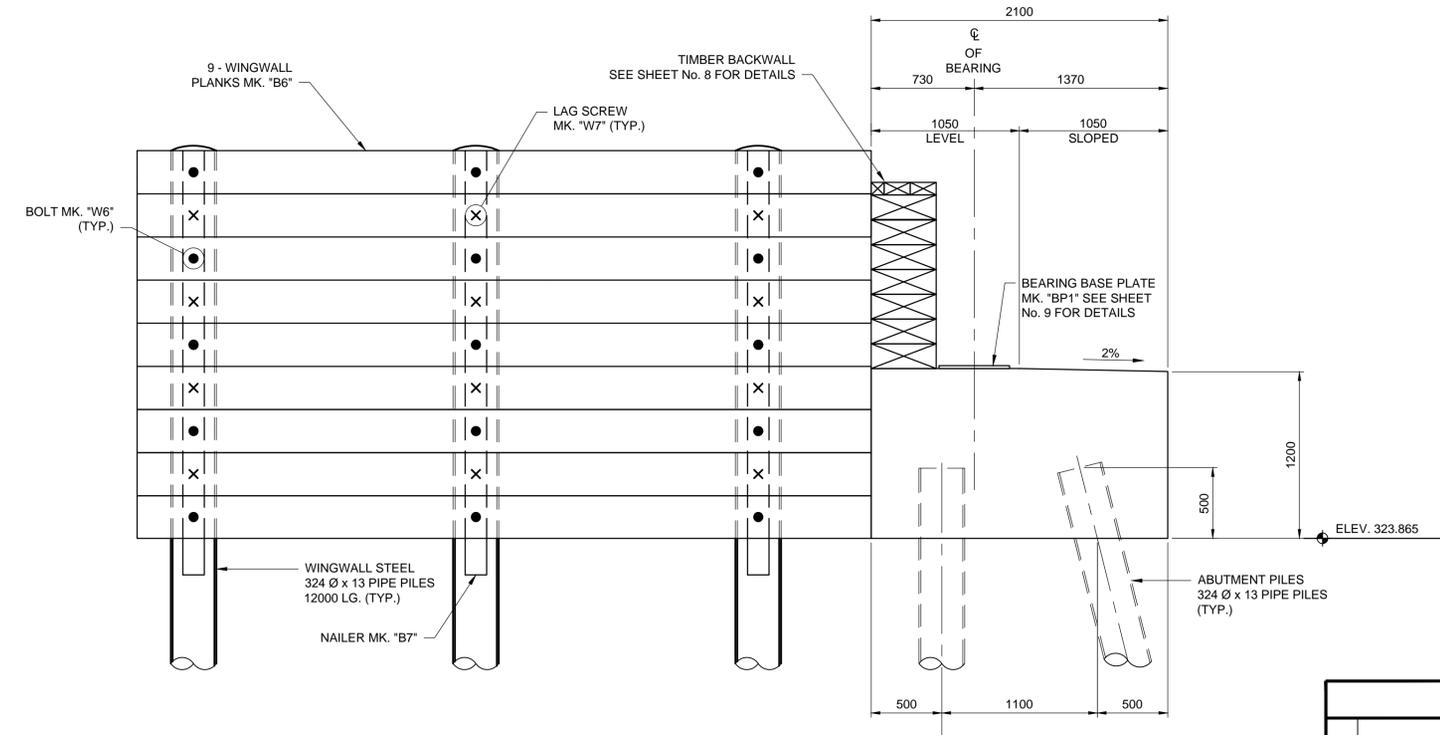
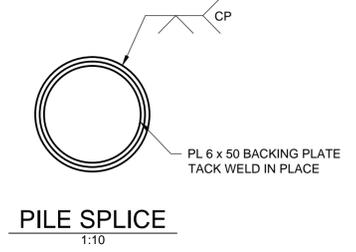


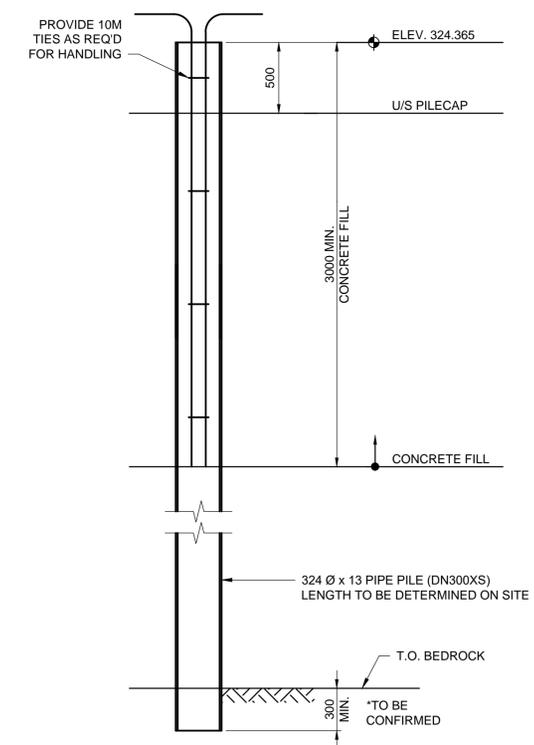
ABUTMENT PLAN
1:30
SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR



SECTION C
1:25
SOUTH ABUTMENT SHOWN
NORTH ABUTMENT SIMILAR



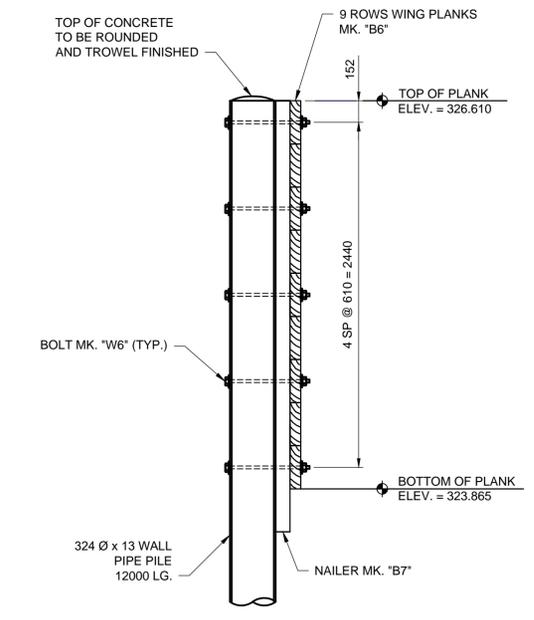
PILE SPlice
1:10



ABUTMENT PILES
1:25

NOTES:

- PILE SPACING SHALL BE MEASURED AT THE UNDERSIDE OF THE ABUTMENT SEAT.
- PILES SHALL BE INSTALLED BY DRILLING INTO PLACE USING CARBIDE CUTTING TEETH WELDED TO PILE TIP.
- AFTER INSTALLATION, PILES SHALL BE LOCATED WITHIN 75 mm OF THE LOCATIONS SHOWN ON THE DRAWINGS.
- STEEL PIPE PILES SHALL CONFORM TO CSA STANDARD G40.21, GRADE 350W AND SHALL BE HOT DIP GALVANIZED FOR AT LEAST THE UPPER 5.5 m.
- ABUTMENT PILE LOADS (FACTORED):
 - DEAD LOAD (DL) = 450 kN
 - LIVE LOAD (LL) = 200 kN
 - DL + LL = 650 kN
 - MAXIMUM (ULS COMB #1) = 650 kN
 - REQUIRED CAPACITY = 1000 kN
- ABUTMENT PILES SHALL BE INSTALLED TO BEDROCK AS END BEARING PILES. WINGWALL PILES SHALL BE INSTALLED TO THE ELEVATION SHOWN.
- ALL PILES SHALL BE CLEANED OUT AND FILLED WITH CONCRETE FOR AT LEAST THE UPPER 3 m.
- SUPPLY MAXIMUM LENGTHS OF PILES TO MINIMIZE FIELD SPlicing DURING INSTALLATION.
- IF FIELD SPlices ARE REQUIRED THEY SHALL BE AS SHOWN.
- FIELD SPlices SHALL BE LOCATED SUCH THAT NO MORE THAN 50% OF THE PILES ARE SPliced AT THE SAME ELEVATION.
- PILE ENDS TO BE SPliced SHALL BE FLAME CUT USING A STEEL GUIDE TO OBTAIN A SQUARE END AND EVEN CUT. BEVEL CUT SHALL BE MADE AT 45°. BACKING PLATE SHALL BE WELDED TO THE LOWER PILE BEFORE POSITIONING. THE UPPER PILE SHALL BE POSITIONED AND THE GROOVE WELD COMPLETED.
- ALL WELDING SHALL BE PERFORMED TO AWS D1.6 BY QUALIFIED WELDERS WITH VALID "S" CLASSIFICATION CLASS "H" CERTIFICATES ISSUED BY THE CANADIAN WELDING BUREAU.
- WHEN THE AIR TEMPERATURE IS BELOW 0°C ALL MATERIALS TO BE WELDED SHALL BE PREHEATED TO 100°C FOR A DISTANCE OF 80 mm BEYOND THE WELD AND SHALL BE SHELTERED FROM THE WIND.
- WHEN THE AIR TEMPERATURE IS BELOW -18°C WELDING WILL NOT BE PERMITTED UNLESS SUITABLE HOARDING APPROVED BY THE CONTRACT ADMINISTRATOR IS PROVIDED.



SECTION D
1:25

DESIGNED BY	KGW	CHECKED BY	NR/MLB	SHOAL LAKE AQUEDUCT CROSSING AND ASSOCIATED ROADWORKS		CITY DRAWING NUMBER 1-0701A-S0002-001	
DRAWN BY	RCB	APPROVED BY	GCL	CONSULTANT PROJECT NUMBER 16-4481		SHEET 6 OF 14	
HOR. SCALE	AS SHOWN	RELEASED FOR CONSTRUCTION		ABUTMENT AND PILE DETAILS		CONSULTANT DRAWING NUMBER CS - 05	
VERTICAL SCALE	AS SHOWN						
ISSUED FOR TENDER	18/01/10	RCB					
NO. REVISIONS	DATE	BY	DATE	2017.12.01			

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