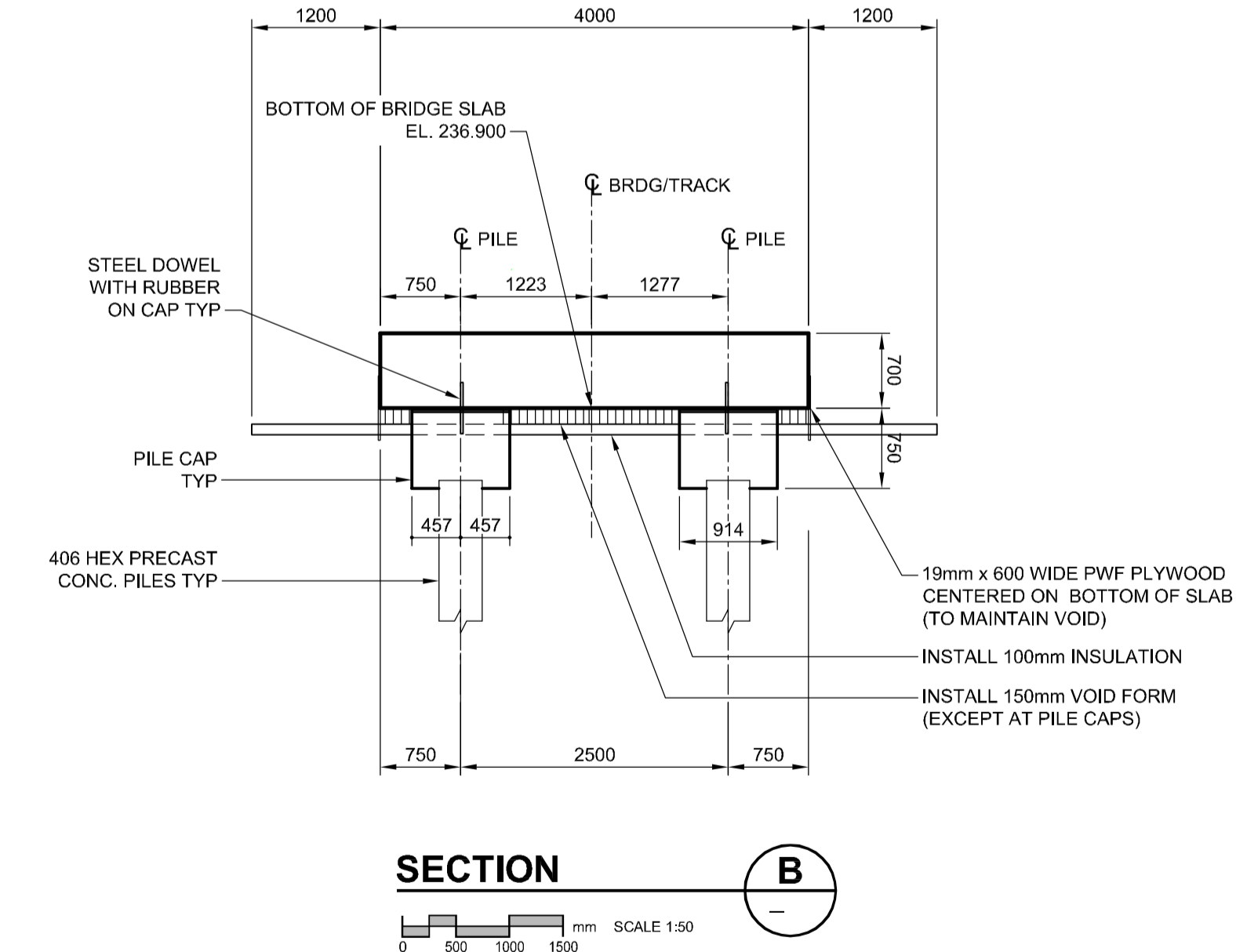
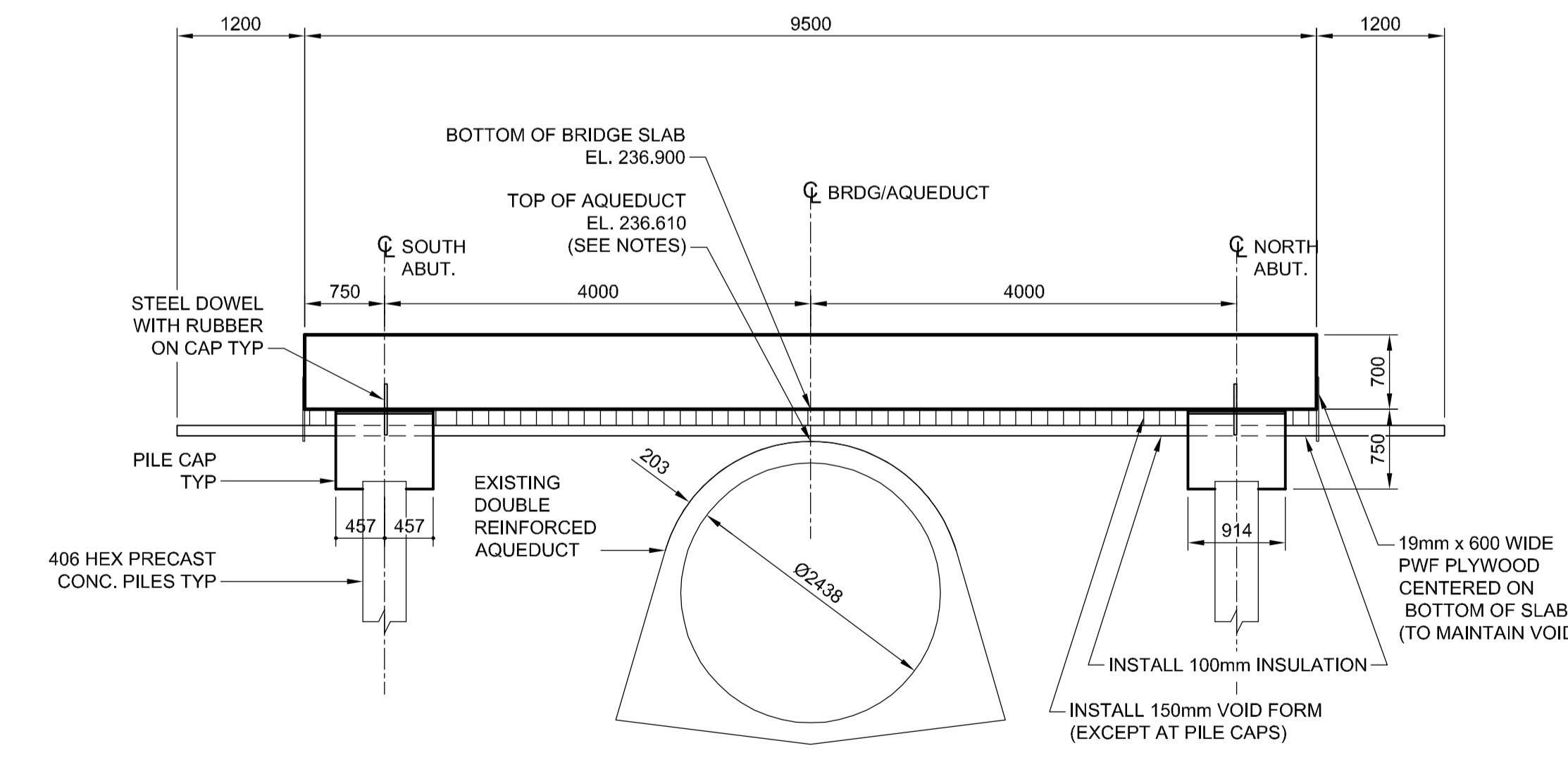


ERECT TEMPORARY SNOW FENCING ALONG BOTH SIDES OF AQUEDUCT TO LIMIT ACCESS TO AQUEDUCT TYP. LOCATION TO BE AS DIRECTED BY THE CONTRACT ADMINISTRATOR.

- NOTES:**
- THE CONTRACTOR TO CONFIRM LOCATION OF AQUEDUCT PIPE BY HAND EXCAVATION OR SOFT DIG METHODS PRIOR TO CONSTRUCTION.
 - THE CONTRACTOR IS TO EXERCISE EXTREME CARE TO PREVENT DAMAGE TO THE GWWD AQUEDUCT. ANY DAMAGE TO THE GWWD AQUEDUCT SHALL BE REPORTED TO THE CITY OF WINNIPEG WATER & WASTE DEPARTMENT 24 HOUR EMERGENCY LINE (204) 986-5000.
 - READ SPECIFICATION "CONDITION, PROTECTION OF AND ACCESS TO THE AQUEDUCT" PRIOR TO PROCEEDING. STRICTLY FOLLOW SPECIFICATIONS.
 - INSTALL SNOW FENCING TO LIMIT AND CONTROL ACCESS TO THE AQUEDUCT AT THE LOCATIONS AND EXTENT AS INSTRUCTED BY THE CONTRACT ADMINISTRATOR.
 - HIGH DENSITY INSULATION SHALL BE PLACED BY THE CONTRACTOR AS SHOWN. INSULATION SHALL BE 100 mm THICK EXTRUDED POLYSTYRENE CONFORMING TO CAN/ULC-S701 TYPE 4 WITH A MINIMUM COMPRESSIVE STRENGTH OF 275 kPa.
 - WORKING BASE (IF REQUIRED) SHALL BE 50mm-75mm THICK LEAN MIX CONCRETE.
 - CELLULAR CORRUGATED PAPER VOID FORM FOR DECK SLAB CONSTRUCTION SHALL BE VOIDFORM AS MANUFACTURED BY TECHNICOAT LTD., OR EQUIVALENT, AS APPROVED BY THE CONTRACT ADMINISTRATOR. THE VOID FORM SHALL HAVE SUFFICIENT LOAD CAPACITY TO WITHSTAND ALL CONSTRUCTION LOADS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE VOID FORM SHALL BE PROTECTED WITH 3mm HARDBOARD OR AS OTHERWISE SPECIFIED BY THE MANUFACTURER.
 - ALIGNMENT AND PROFILE GRADE OF THE TRACK & RAILS TO BE FIELD VERIFIED WITH THE EXISTING. BOTTOM OF BRIDGE SLAB ELEVATION AND ADJUSTED TRACK PROFILE WILL BE PROVIDED AFTER EXPOSING THE TOP OF THE AQUEDUCT.

- DESIGN DATA:**
- SPECIFICATIONS:**
AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION (AREMA 2010)
- DESIGN LIVE LOAD:**
COOPER E-60 (SINGLE TRACK)
- STRUCTURAL CONCRETE:**
- STRUCTURAL SLAB**
f_c = 35 MPa
WATER/CEMENTING MATERIALS RATIO: 0.40 MAXIMUM
CAN/CSA-A23.1-09 SULPHATE RESISTANT
- SUBSTRUCTURE:**
f_c = 35 MPa
WATER/CEMENTING MATERIALS RATIO: 0.40 MAXIMUM
CAN/CSA-A23.1-09 SULPHATE RESISTANT
- REINFORCING STEEL:**
DEFORMED REINFORCEMENT: CAN/CSA-G30.18-M92 GRADE 400W
- FOUNDATION DATA:**
- PILE LOADING ABUTMENTS:**
4060 HEX PRECAST CONCRETE PILE
ALLOWABLE SERVICE LOAD = 800 kN
MAXIMUM PILE LOAD (SERVICE LIMIT - NO IMPACT) = 740 kN



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

BM 00-000 ELEV 200.000m	This drawing has been prepared for the use of AECOM's client and may not be used, reproduced or relied upon by third parties, except as agreed by AECOM and its client, as required by law or for use by governmental reviewing agencies. AECOM accepts no responsibility, and denies any liability whatsoever, to any party that modifies this drawing without AECOM's express written consent. Do not scale this document. All measurements must be obtained from stated dimensions.		PROFESSIONAL'S SEAL PROVINCE OF MANITOBA P. A. POCHANART Member 90017 2013-06-04 REGISTERED PROFESSIONAL
DESIGNED BY AP	CHECKED BY SBB	CONSULTANT DRAWING NO. 60196984-01-S-101-ROX.dwg	
DRAWN BY EDM	APPROVED BY EBL	CITY DRAWING NUMBER D-12473	
C ISSUED FOR TENDER 13/06/04 KC	HOR. SCALE AS SHOWN	SHEET 2 OF 7	
B ISSUED FOR TENDER 11/07/04 EDM	VERT. SCALE AS SHOWN	DRAWING No. REV 02 C	
A ISSUED FOR REVIEW 11/05/07 EDM	RELEASED FOR CONSTRUCTION		
NO. REVISIONS YYMMDD BY	DATE 11/04/26		

BID OPPORTUNITY NO. 498-2013

THE CITY OF WINNIPEG
WATER & WASTE DEPARTMENT
ENGINEERING DIVISION

GWWD AQUEDUCT BRIDGING STRUCTURE AT MILE 13.19
GENERAL ARRANGEMENT