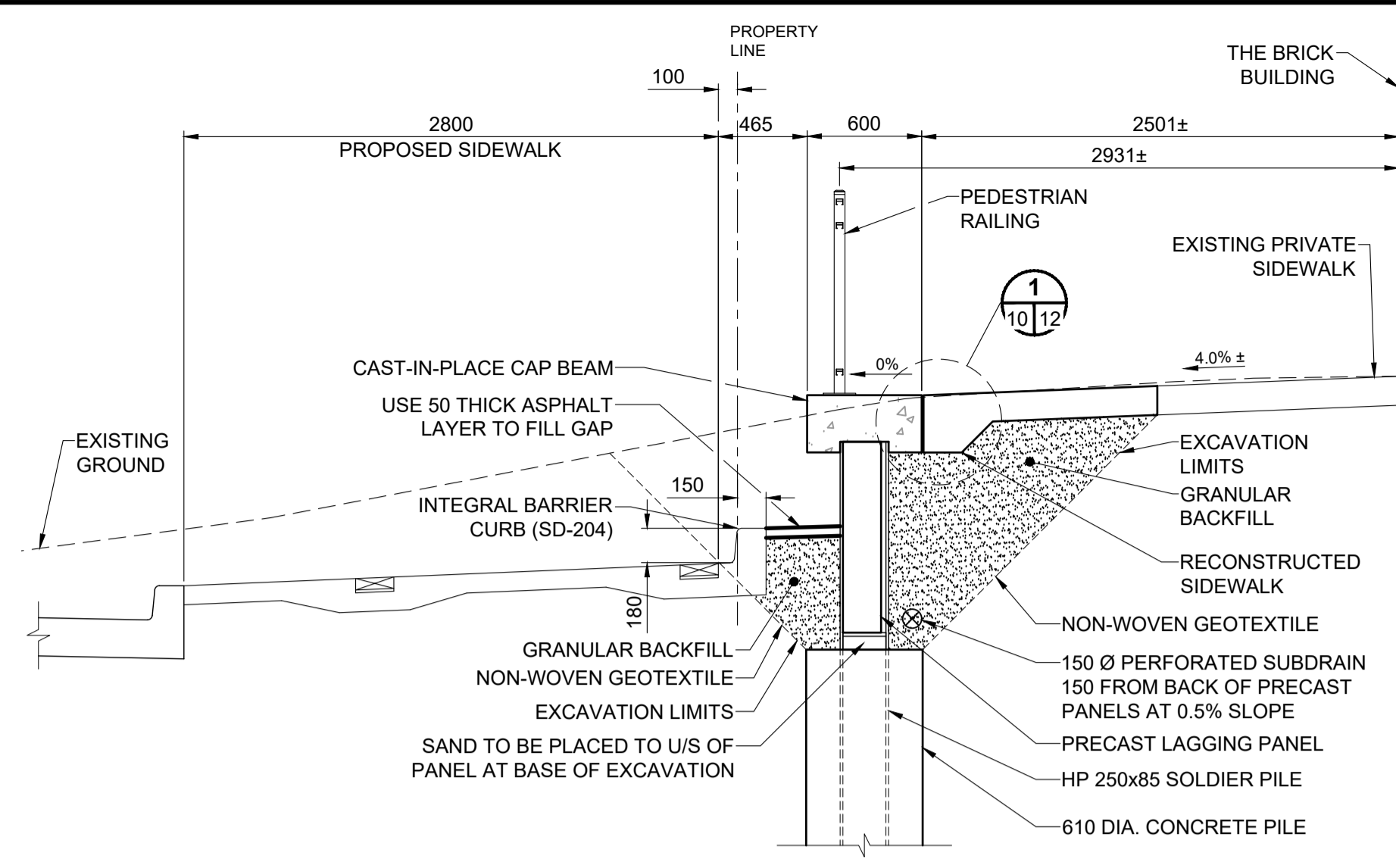
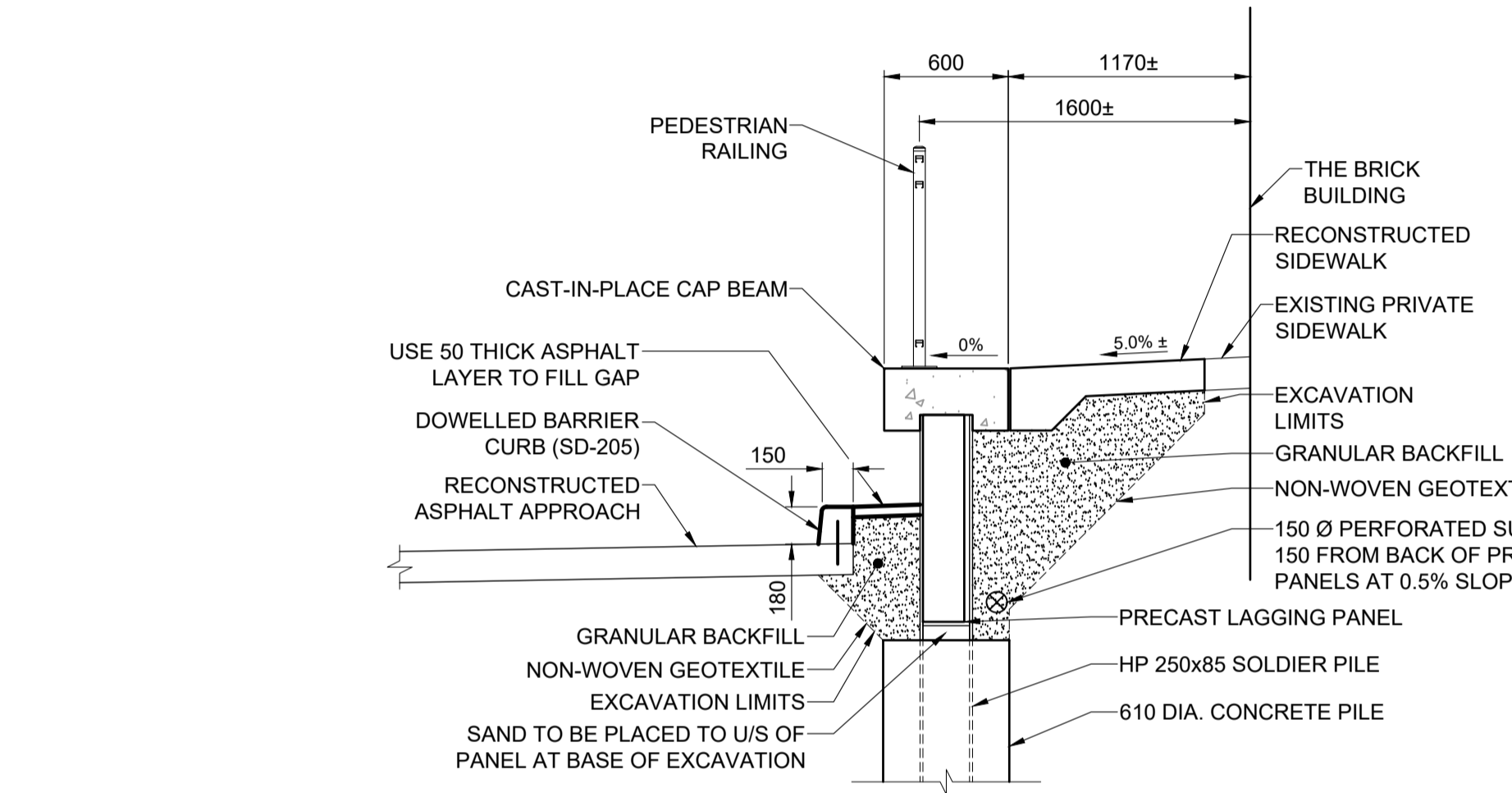


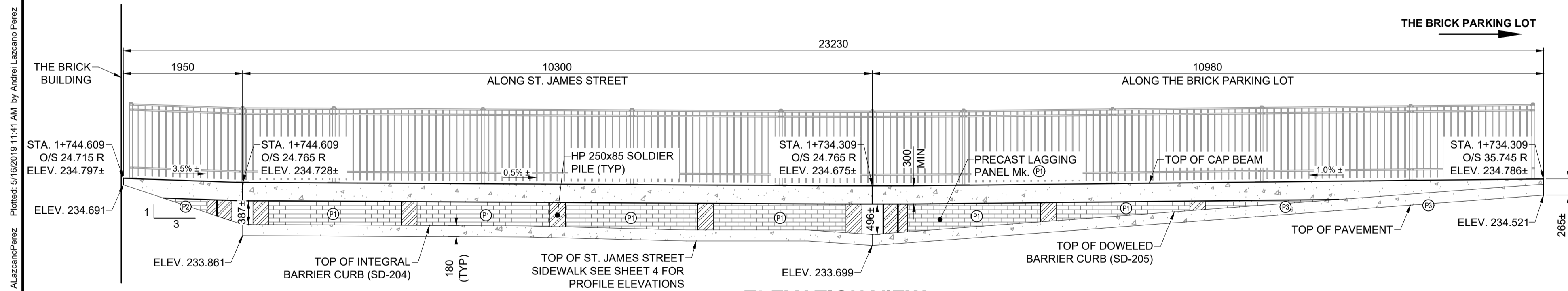
PLAN VIEW
SCALE: 1:50



SECTION A-A
RETAINING WALL ALONG SIDEWALK
SCALE: 1:30

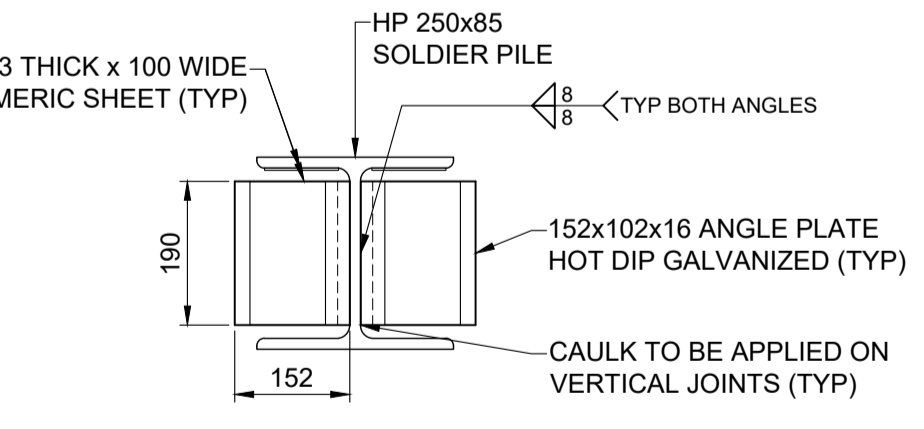


SECTION B-B
RETAINING WALL ALONG PARKING LOT
SCALE: 1:30



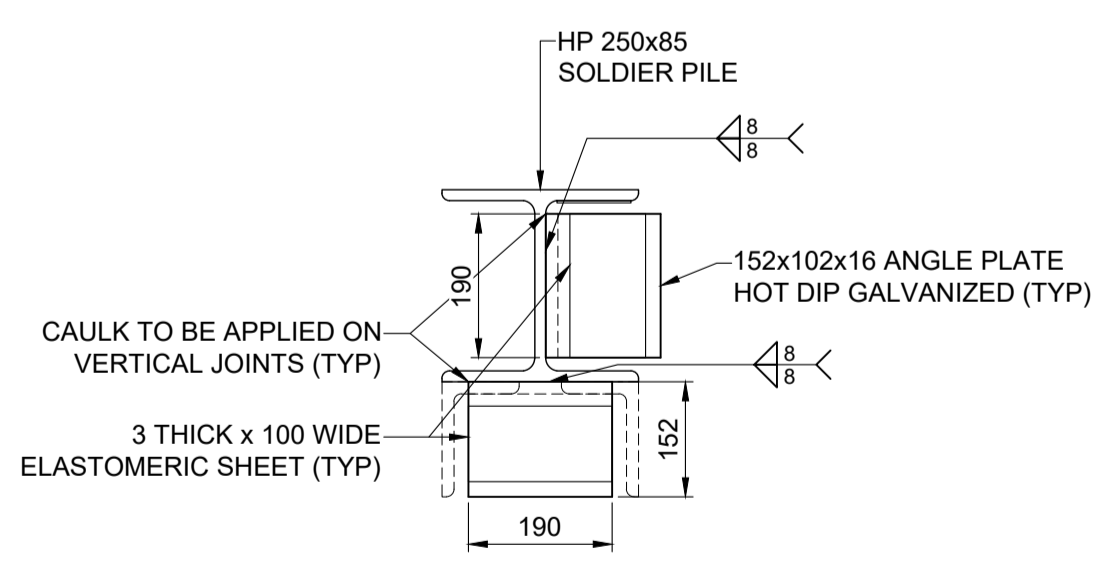
ELEVATION VIEW
SCALE: 1:50

- DESIGN NOTES:**
- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE CONTRACT SPECIFICATIONS.
 - CONTRACTOR TO REFER TO REFERENCE DRAWINGS FOR DETAILS OF EXISTING CONSTRUCTION.
 - WHOLE DIMENSIONS SHOWN IN THESE DRAWINGS ARE IN MILLIMETRES. DECIMAL DIMENSIONS ARE IN METRES. THE ORIGINAL BUILDING WAS CONSTRUCTED WITH IMPERIAL UNITS OF MEASUREMENT (HARD UNIT CONVERSION WHERE APPLICABLE).
 - THE SCALES SHOWN ON THESE DRAWINGS ARE CORRECT FOR A1 SIZED DRAWINGS SHEETS. DO NOT DETERMINE DIMENSIONS BY SCALING OFF DRAWINGS.
 - THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE EXACT LOCATIONS OF ALL EXISTING ABOVE GROUND AND BELOW GROUND UTILITIES AND REPORTING ANY DISCREPANCIES TO THE CONSULTANT PRIOR TO CONSTRUCTION.
 - EXCEPT WHERE INDICATED OTHERWISE THESE DRAWINGS SHOW DETAILS FOR THE COMPLETED STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE SAFETY OF WORKERS AND THE DESIGN AND STABILITY OF ANY TEMPORARY WORKS DURING CONSTRUCTION. CONSTRUCTION METHODS REQUIRING THE TEMPORARY INSTALLATION OF SHORING, SCAFFOLDING, BRACING, ETC. SHALL BE SUBMITTED TO THE CONTRACT ADMINISTRATOR FOR REVIEW AND ACCEPTANCE PRIOR TO PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL RETAIN A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF MANITOBA TO PERFORM AND TAKE RESPONSIBILITY FOR ANY SUCH DESIGNS NECESSARY TO COMPLETE THE CONSTRUCTION AND AS REQUIRED BY THE CONTRACT DOCUMENTS.
 - DESIGN IS IN ACCORDANCE WITH CSA A23.3-14 AND/OR CSA S16-14, AS APPLICABLE.
 - FOUNDATION CONCRETE SHALL BE SELF CONSOLIDATING CONCRETE AND CONSIST OF THE FOLLOWING:
 - NOMINAL COMPRESSIVE STRENGTH OF 35 MPa AT 28 DAYS.
 - EXPOSURE CLASS F-1, S-1 TYPE HS, Hsb, OR Hse CEMENT.
 - SOLDIER PILES SHALL BE HP 250x85, CSA G40.21, GRADE 350W OR ASTM A572 GRADE 50, GALVANIZED.
 - ALL ANGLE PLATES SHALL BE L152x102x16, CSA G40.21, GRADE 350W OR ASTM A572 GRADE 50, GALVANIZED.
 - ALL STRUCTURAL STEEL ELEMENTS WITHIN THE TOP 1125 mm OF THE WALL STRUCTURE SHALL BE HOT DIP GALVANIZED TO A MINIMUM RETENTION OF 610 g/m² AFTER FABRICATION.
 - LAGGING PANELS AND CAP BEAM CONCRETE SHALL CONSIST OF THE FOLLOWING:
 - NOMINAL COMPRESSIVE STRENGTH OF 35 MPa AT 28 DAYS.
 - EXPOSURE CLASS C-1 TYPE GU CEMENT.
 - ALL REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF CAN/CSA G30.18 "CARBON STEEL BARS FOR CONCRETE REINFORCEMENT" GRADE 400W, UNLESS OTHERWISE NOTED.
 - MINIMUM LAP SPLICE LENGTH FOR 10M BARS IS 400 mm UNLESS OTHERWISE NOTED.
 - ALUMINUM RAILING PANELS SHALL BE AMERISTAR FENCE ECHELON II MAJESTIC STYLE AT A HEIGHT OF 1220 mm TALL, OR APPROVED EQUAL.
 - REFERENCE DOCUMENTS:
 - THE BRICK, ENTRANCE TOWER, DRAWING No. 88014 SHEET E1
 - THE BRICK, SECTION DETAILS, DRAWING No. 87081 C21 SHEET A-8
 - TITAN INDUSTRIES WAREHOUSE, FOUNDATION & MAIN FLOOR FRAMING PLAN SECTIONS, DRAWING No. S-1
 - TITAN INDUSTRIES WAREHOUSE, PARTIAL FLOOR PLAN & MISC. DETAILS, DRAWING No. AA1
 - TITAN INDUSTRIES WAREHOUSE, BUILDING SECTIONS & WALL SECTIONS, DRAWING No. 8703 SHEET A-6



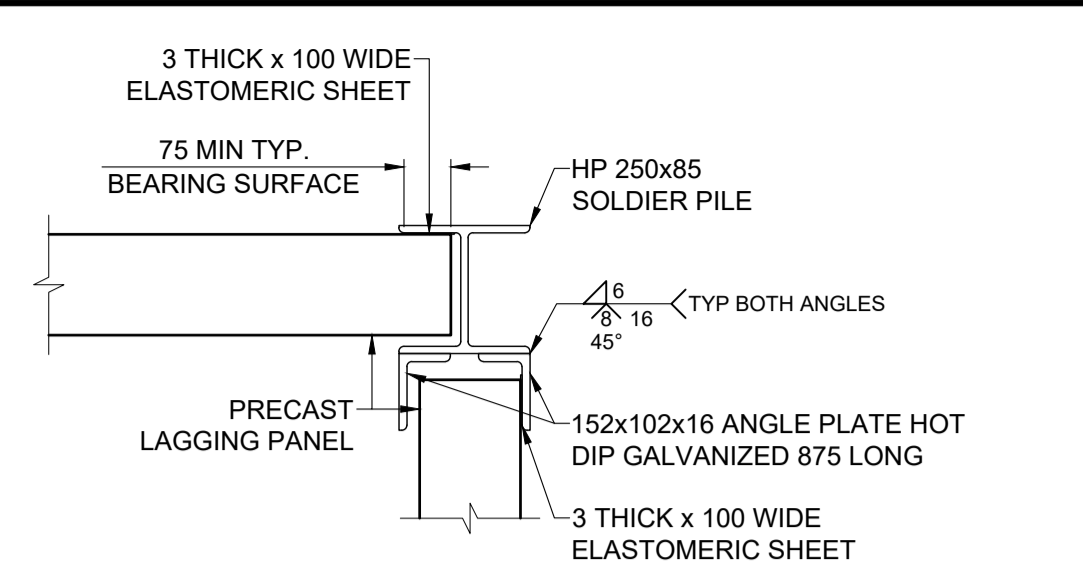
SECTION D-D
INTERMEDIATE SOLDIER PILES
SCALE: 1:10

- NOTES:**
- T/O ANGLE PLATE ELEVATION = 233.475 FOR Mk. (D) & (E) PANELS.
 - T/O ANGLE PLATE ELEVATION = 233.875 FOR Mk. (C) PANELS.
 - CONTRACTOR TO FILL ALL GAPS BETWEEN THE BACK OF THE PRECAST PANELS AND SOLDIER PILE FLANGE WITH SAND.

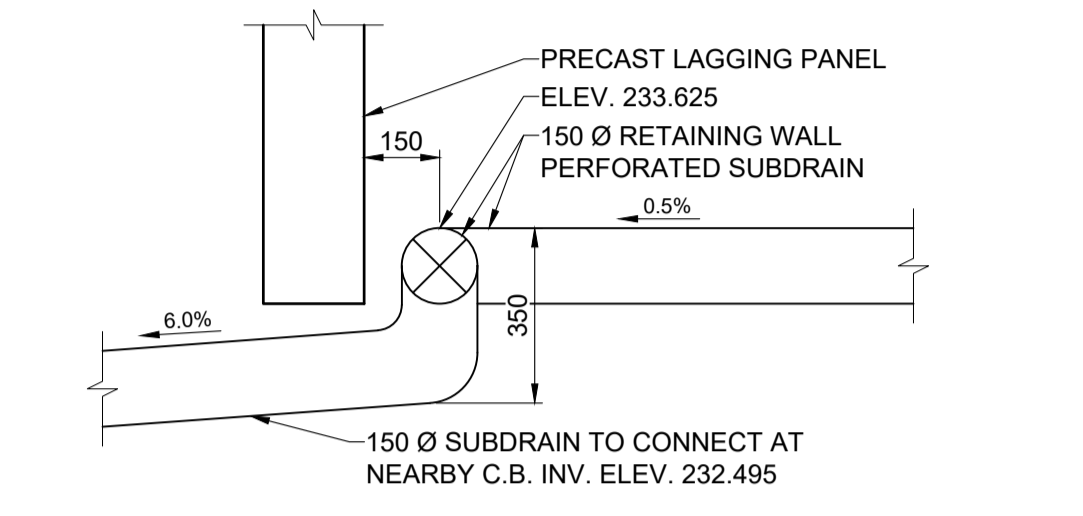


SECTION E-E
CORNER SOLDIER PILES
SCALE: 1:10

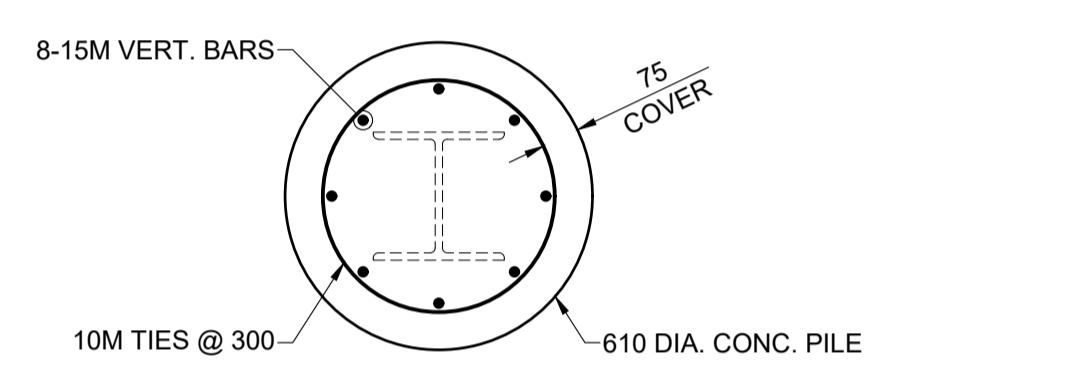
- NOTES:**
- T/O ANGLE PLATE ELEVATION = 233.475 FOR Mk. (D) & (E) PANELS
 - CONTRACTOR TO FILL ALL GAPS BETWEEN THE BACK OF THE PRECAST PANELS AND SOLDIER PILE FLANGE WITH SAND.



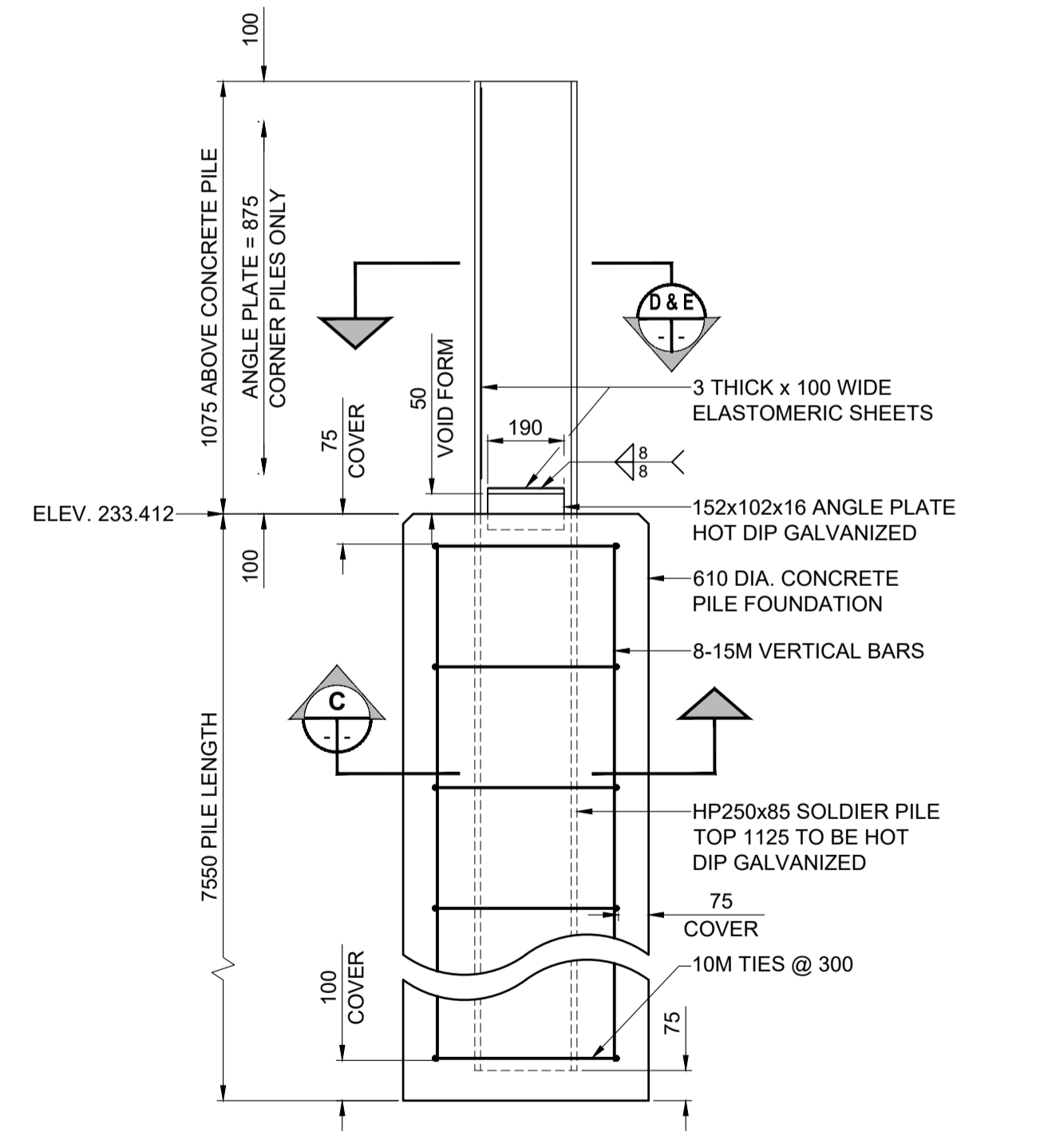
DETAIL 2
LOCATED AT BOTH WALL CORNERS
SCALE: 1:15



DETAIL 3
SUBDRAIN CONNECTION AT LOW POINT
SCALE: 1:15



SECTION C-C
SCALE: 1:15



TYPICAL CONCRETE PILE FOUNDATION
SCALE: 1:15

NOTE: PRECAST PANELS NOT SHOWN FOR CLARITY



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

LOCATION APPROVED UNDERGROUND STRUCTURES	
SUPR. U/G STRUCTURES	DATE
COMMITTEE	
NOTE: LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.	

ISSUED FOR TENDER	19/05/17	BAP	DATE
REVISIONS	YY/MM/DD	BY	DATE

MORRISON HERSHFIELD			
DESIGNED BY	ALP	CHECKED BY	BAP
DRAWN BY	ALP	APPROVED BY	BE
HOR SCALE	AS SHOWN	RELEASED FOR CONSTRUCTION	N/A
VERT SCALE			



THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

2018 REGIONAL STREET RENEWAL PROGRAM
ST. JAMES STREET RECONSTRUCTION
50 m N OF ELLICE AVE TO 150 m N OF SARGENT AVE

RETAINING WALL AT THE BRICK
GENERAL LAYOUT & FOUNDATION DETAILS

CITY DRAWING NUMBER: P-3508-10
SHEET 10 OF 16
DRAWING No. 10

TENDER 266-2019