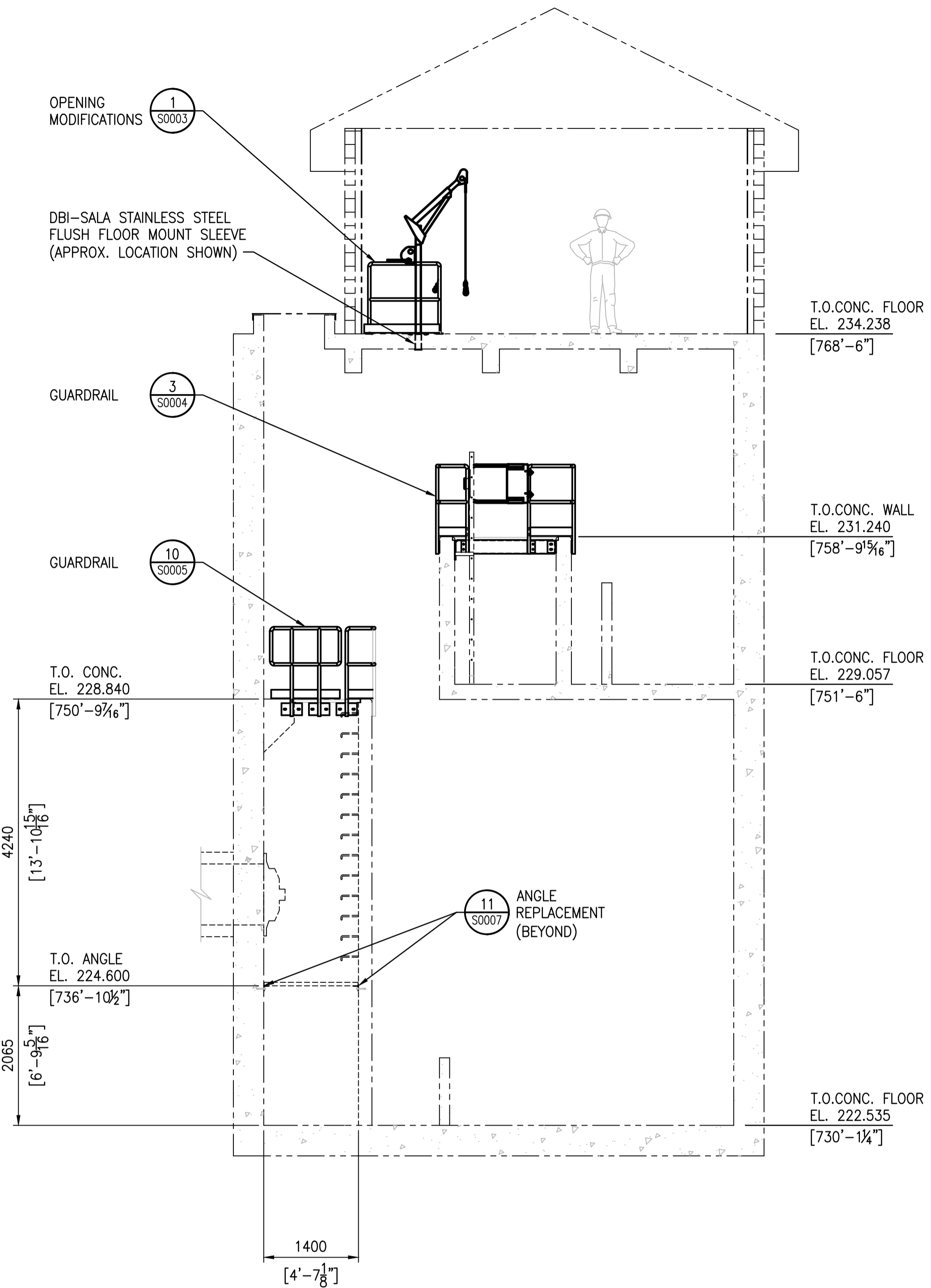


**A** ELEVATION - PUMPING STATION  
SCALE: 1 : 50



**B** ELEVATION - PUMPING STATION  
SCALE: 1 : 50

**NOTES:**

- SEE DRAWING 1-0310U-S0001 FOR GENERAL NOTES.

**STRUCTURAL STEEL:**

- ALL STRUCTURAL STEEL ANGLES AND PLATES TO BE IN ACCORDANCE WITH CSA G40.21 GRADE 300W, ALL OTHERS MEMBERS TO BE GRADE 350W UNLESS OTHERWISE NOTED.
- DETAILING, FABRICATION AND ERECTION TO BE IN ACCORDANCE WITH CSA-S16.
- ALL WELDING TO CONFORM TO CSA W47.1 & W59.
- INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURES INSTRUCTIONS.
- WELDING SHOPS TO BE CERTIFIED TO DIVISION 1 OR 2 OF CSA W47.1 BY THE CANADIAN WELDING BUREAU. ALL WELDING TO BE PERFORMED BY CWB CERTIFIED WELDERS.

**SHOP WELDED CONNECTIONS:**

- ALL SHOP WELDING SHALL CONFORM TO CSA W59. CONTRACTOR TO BE CERTIFIED IN ACCORDANCE WITH CSA W47.1, DIVISION 1 OR 2. ALL WELDERS TO BE CWB CERTIFIED FOR THE REQUIRED WELDS.
- ALL WELDS TO BE CONTINUOUS FILLET OR GROOVE SEAL WELDS. GROOVE WELDS TO BE DETAILED AS FULL PENETRATION WELDS WITH BACKER PLATE.

**FINISHES:**

- ALL LADDER COMPONENTS, SUPPORT CHANNELS AND ANGLES ARE TO BE HOT DIPPED GALVANIZED FINISHES TO MATCH EXISTING (EXCEPT ITEMS NOTED.)
- ALL GUARDRAILS AND RETURNS ARE TO BE SSPC-SP6 BLAST CLEANED THEN COATED WITH 'FORMULA 2' PER SPECIFICATION 099123. COLOUR: SAFETY YELLOW.
- MAIN FLOOR WALLS AND CEILING ARE TO BE CLEANED AND REPAINTED WITH 'FORMULA 1' PER SPECIFICATION 099123. COLOUR: GREY TO MATCH ELECTRICAL CABINETS.

**DESIGN OF BOLTED CONNECTIONS:**

- DESIGN ALL BOLTED CONNECTIONS IN ACCORDANCE WITH CSA-S16 AND THE CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL.
- ALL CONNECTIONS SHALL BE DESIGNED AND DETAILED BY THE STEEL FABRICATOR. CONNECTION CONFIGURATIONS SHALL (IN GENERAL) CONFORM WITH THE DETAILS PROVIDED. THE STEEL FABRICATOR SHALL ADVISE THE ENGINEER IN WRITING WHEN DEVIATION FROM THE APPROVED CONNECTION CONFIGURATION DETAILS IS REQUIRED.
- OVERSIZED HEAVY DUTY 60mm DIA. x 5mm THICK HARDENED PLATE WASHERS REQUIRED AT ALL SLOTTED/BOLTED CONNECTION LOCATIONS.

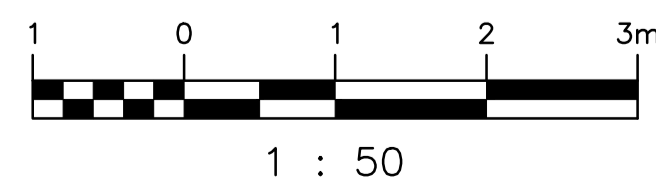
**FIELD ANCHORING:**

- LOCATE EXISTING REINFORCING IN THE CONCRETE ELEMENTS TO RECEIVE POST-FACTO ANCHORAGE AND POSITION HOLES FOR THE NEW ANCHORS CLEAR OF THE EXISTING REINFORCING.
- DRILL HOLES INTO THE EXISTING CONCRETE ADVANCING THE DRILL BIT TO FULL DEPTH OF REQUIRED ANCHORAGE. IF REINFORCEMENT IS ENCOUNTERED, TERMINATE DRILLING THE HOLE AND RELOCATE THE ANCHORAGE CLEAR OF THE REINFORCING. USE A STANDARD HARDENED CARBIDE TIPPED CONCRETE BIT, DO NOT USE A CORE DRILL THAT CAN INTERCEPT AND CUT THE EXISTING REINFORCING.
- ADVISE THE CONTRACT ADMINISTRATOR IMMEDIATELY IF THE REQUIRED ANCHORAGE HOLE LOCATIONS CANNOT BE FIELD ADJUSTED TO CLEAR THE EXISTING REINFORCING AND AWAIT FURTHER INSTRUCTIONS. THE SITE ENGINEER WILL REVIEW THE SITUATION AND MAKE A DETERMINATION REGARDING HOW BEST TO INSTALL THE ANCHORS, GIVEN THE ACTUAL POSITIONS OF THE REINFORCING ENCOUNTERED.
- ALL ANCHORS MUST BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

**LOADING:** PER MBC/NBCC

GUARDS: 51 PLF HORIZONTAL TOP RAIL OR  
225 LB ANY DIRECTION ALL RAIL VERTICAL  
LADDER: 200 LB EACH RUNG VERTICAL  
1000 LB MAIN RAIL VERTICAL

B-5515-11	PUMP STATION MISCELLANEOUS METAL
B-5515-7	PUMP STATION SECTIONS
B-5515-6	PUMP STATION FLOOR PLANS
B-5515-5	PUMP STATION SUPERSTRUCTURE
DRAWING NUMBER	REFERENCE DRAWINGS



00	ISSUED FOR TENDER, BID OPP. 767-2016	2016/08/23	KK	DC
NO.	REVISIONS	DATE	DESIGN	CHECK

**SNC-LAVALIN INC.**  
148 Nature Park Way  
Winnipeg, MB, Canada R3P 0X7  
204-786-8080

DESIGNED BY: K. KOTYK  
CHECKED BY: D. COATES  
DRAWN BY: B. DICKSON  
APPROVED BY: I. PARKINSON  
SCALE: 1:50  
ISSUED FOR CONSTRUCTION BY: K. ZUREK  
DATE: 2016/05/25  
DATE: 2016/08/24  
CONSULTANT NO.:

ENGINEER'S SEAL  
ORIGINAL DRAWING SEALED BY: K. KOTYK  
SNC-LAVALIN INC. MEMBER # 21950  
2016/08/24 REV. 00

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT

ROUTE 90 UNDERPASS PUMPING STATION  
2016 UPGRADES  
ELEVATIONS  
STRUCTURAL MODIFICATIONS

CITY DRAWING NUMBER: 1-0310U-S0002  
SHEET: 001  
REV.: 00  
SIZE: A1