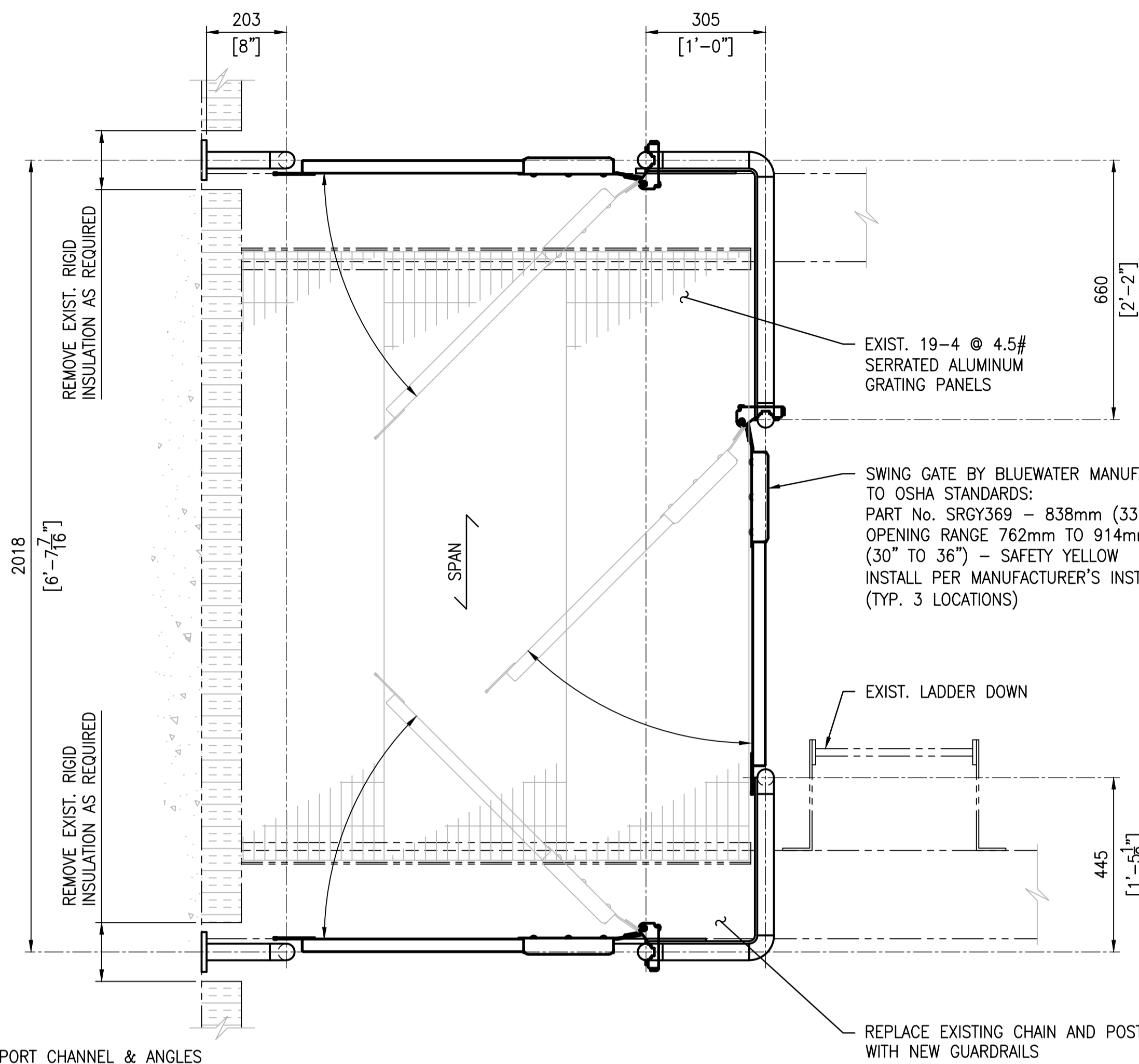
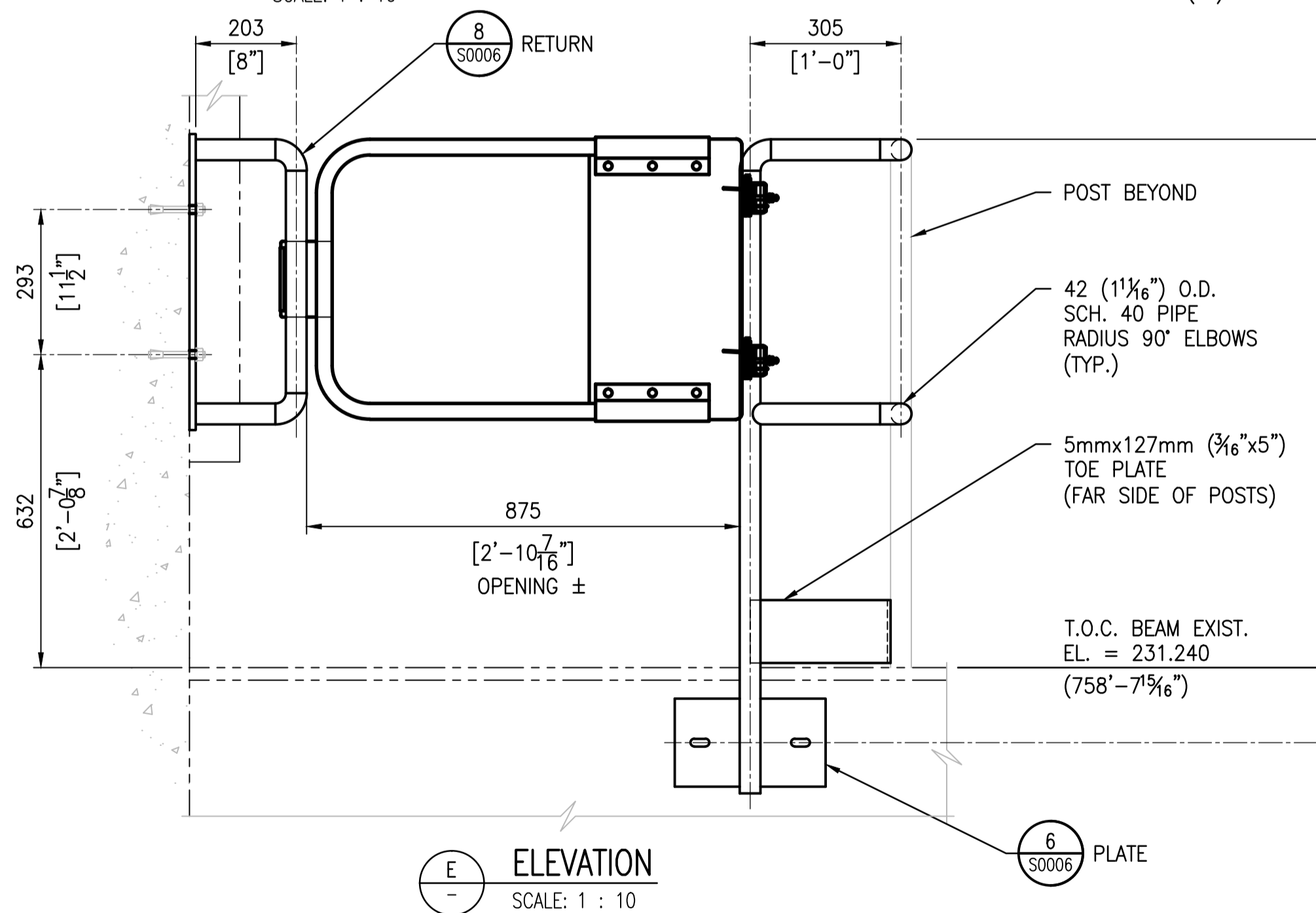


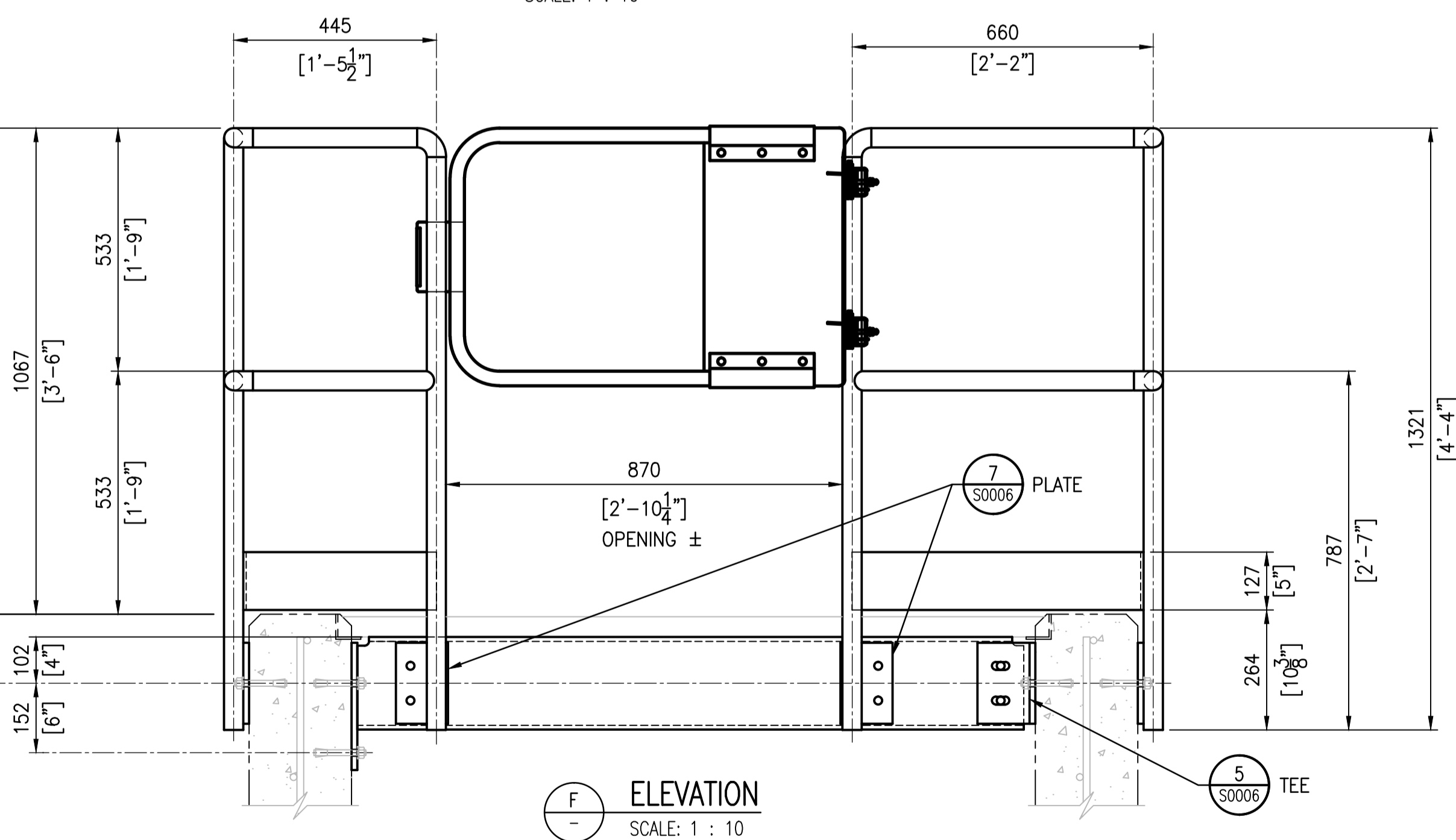
PLAN - ANCHOR BOLT LOCATIONS
SCALE: 1 : 10



PLAN - GUARDRAIL
SCALE: 1 : 10



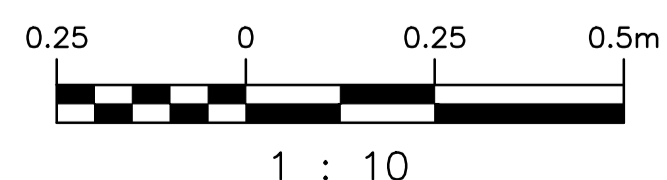
ELEVATION
SCALE: 1 : 10



ELEVATION
SCALE: 1 : 10

DETAIL - GUARDRAIL
SCALE: 1 : 10

ALL 42mm (1 1/8") O.D. SCH. 40 PIPE GUARDRAIL AND POST ASSEMBLY SECTION ARROWS SHOWN TYPICAL BOTH PLANS



- NOTES:**
- SEE DRAWING 1-0310U-S0001 FOR GENERAL NOTES.
 - SEE DRAWING 1-0310U-S0002 FOR STRUCTURAL NOTES.

NOTE: TAKE CARE NOT TO DAMAGE EXIST. CONCRETE REINF. WHEN INSTALLING GUARDRAIL SUPPORTS. REFER TO NOTES ON DRAWING 1-0310U-S0002 FOR INSTALLATION PROCEEDURE.

ALL GUARDRAILS, RETURNS, SUPPORT CHANNEL & ANGLES TO BE FASTENED TO EXISTING CONCRETE USING HILTI KWIK BOLT 3 S.S. 13mmx114mm (1/2"x4 1/2") ANCHORS MIN. 76mm (3") EMBEDMENT - TYP.

EXIST. 19-4 @ 4.5# SERRATED ALUMINUM GRATING PANELS

SWING GATE BY BLUEWATER MANUFACTURING TO OSHA STANDARDS: PART No. SRGY369 - 838mm (33") NOM. OPENING RANGE 762mm TO 914mm (30" TO 36") - SAFETY YELLOW INSTALL PER MANUFACTURER'S INSTRUCTIONS (TYP. 3 LOCATIONS)

EXIST. LADDER DOWN

REPLACE EXISTING CHAIN AND POSTS WITH NEW GUARDRAILS

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

<p>SNC-LAVALIN INC. 148 Nature Park Way Winnipeg, MB, Canada R3P 0X7 204-786-8080</p>		ENGINEER'S SEAL ORIGINAL DRAWING SEALED BY: K. KOTYK SNC-LAVALIN INC. MEMBER # 21950 2016/08/24 REV. 00
DESIGNED BY: K. KOTYK DRAWN BY: B. DICKSON SCALE: 1 : 10 DATE: 2016/08/03	CHECKED BY: D. COATES APPROVED BY: I. PARKINSON ISSUED FOR CONSTRUCTION BY: K. ZUREK DATE: 2016/08/24	CONSULTANT NO.:

<p>THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT</p>	
ROUTE 90 UNDERPASS PUMPING STATION 2016 UPGRADES DETAILS GUARDRAIL MODIFICATIONS AT ELEV. 231.240	
CITY DRAWING NUMBER	SHEET REV. SIZE
1-0310U-S0004	001 00 A1