

## STRUCTURAL SPECIFICATIONS:

- FLOODGATE MATERIAL TO BE ALUMINUM AS FOLLOWS:  
**LID EXTRUSION** - 6" x 4" x 1/8" ALUM EXTRUSIONS - GRADE 6005-T5 MIN.  $F_y=35$  KSI  
**LID WEAR PLATE** - 1/2" SMOOTH ALUM PLATE - GRADE 5052 MIN.  $F_y=25.8$  KSI  
**LID STIFFENER** - 4" x 6" x 1/2" ALUM TUBING - GRADE 6061 MIN.  $F_y=35$  KSI  
**PAN** - 1/2" SMOOTH ALUM PLATE - GRADE 5052 MIN.  $F_y=25.8$  KSI  
**PAN FRAME** - ALUMINUM 6" x 4.69# LADDER FRAME STRUCTURE, GRADE 6061 T6 MIN.  $F_y=35$  KSI  
**RETENTION ARMS** - 4" x 2" ALUM BAR - GRADE 6061 MIN.  $F_y=35$  KSI  
ALUM FLAT BARS, STRUCTURAL ANGLES, HINGES GRADE 6061-T6 MIN.  $F_y=35$  KSI
- HINGE BOLTS, PINS, AND MACHINE SCREWS TO BE STAINLESS STEEL - GRADE 304, MIN.  $F_y=90$  KSI.
- RETENTION ARM ANCHOR BOLTS SHALL BE STAINLESS STEEL STANDARD THREAD BOLTS SET IN VINYLESTER BASED ADHESIVE CONTAINED IN A GLASS CAPSULE, SPEC - POWERS DRIVE-IN GLASS HAMMER CAPSULES OR HILTI HY 200/500 INSTALLED PER SIMPSON STRONG TIE SPECIFICATIONS.
- ALUMINUM TO BE WELDED WITH ALUMINUM WIRE - PER 4043 AWS A5.10 3/64.
- GROUT TO BE COMMERCIAL GRADE NON-SHRINKING GROUT.
- ALL WELDS REQUIRED FOR STRUCTURAL STRENGTH OF THE LID OR PAN ARE CALLED OUT ON THESE DRAWINGS. ALL OTHER WELDING, NOT SHOWN OR CALLED OUT ON THESE DRAWINGS, ARE ESSENTIALLY NON-STRUCTURAL WELDS OR WELDS WITH NEGLIGIBLE LOADS AND RESULTING STRESSES. EXAMPLES OF SUCH WELDS ARE AT SEAMS, SIDES, PAN TROUGH, AND LID TRIM ANGLES. ALL WELDS TO BE CONCEALED OR GROUND SMOOTH IF EXPOSED TO VIEW OR SUSCEPTABLE TO TOUCH, TAKING INTO CONSIDERATION ASSEMBLY, TRANSPORT LIFT AND CONTINUITY REQUIREMENTS. THEY MUST BE APPROVED BY FLOODBREAK.
- ALL CONCRETE FOUNDATION POURS AND THEIR TIE-DOWNS TO EXISTING FOUNDATIONS SHOWN IN THESE DRAWINGS ARE FOR ILLUSTRATIVE PURPOSES ONLY. DESIGN OF THE CONCRETE FOUNDATION SLABS IS BY OTHERS. DESIGN AND SUPERVISION OF INSTALLATION OF RETENTION ARMS, ANCHOR BOLTS, AND GATE ANCHORS ARE BY FLOODBREAK. ALL CONCRETE TO BE 4000 PSI MINIMUM 28 DAY STRENGTH. REINFORCED IN EACH DIRECTION WITH ASTM - A615 MIN.  $F_y=60$  KSI. SPECIAL ATTENTION SHALL BE PAID TO PROPER SUPPORT OF RETENTION ARM ANCHOR BOLTS INTO THE SUPPORTING CONCRETE.
- ALL GASKET MATERIAL TO BE EPDM RUBBER.
- ALL DIMENSIONS IN FEET AND INCHES.
- THIS GATE IS EQUIPPED WITH A HYDRAULIC LIFTING ARM TO ALLOW FOR SECONDARY LIFTING CAPABILITIES.
- TOTAL WEIGHT: 25233.235 LBS



DEMO - ROADWAY GATE  
STANDARD LOCATION  
ROADWAY GATE  
35'-8" L x 9'-0" H

RG#0004

REV 0

SCALE: VARIES

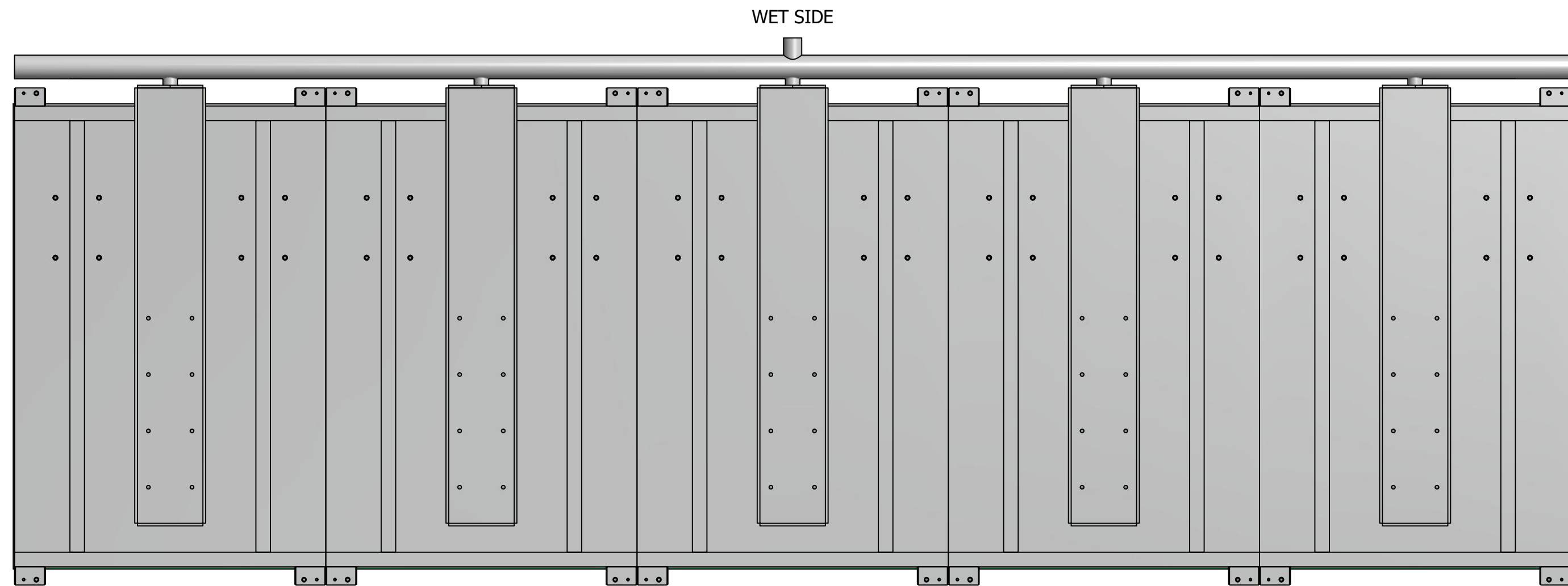
DRAWN: A. JOLLY 8/1/2018

CHECKED: N. EASTMAN 8/1/2018

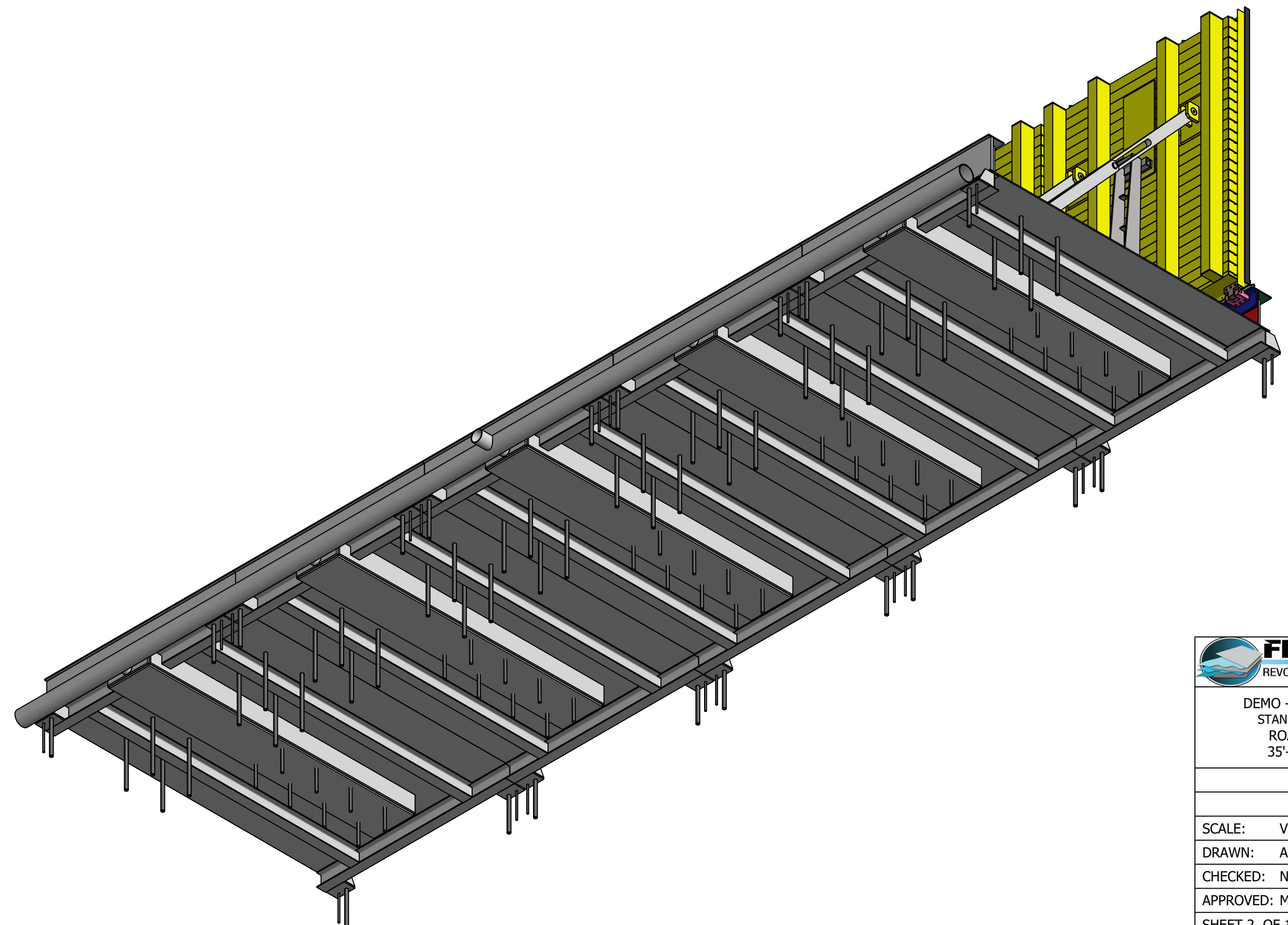
APPROVED: M. POSADA 8/1/2018

SHEET 1 OF 12

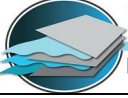




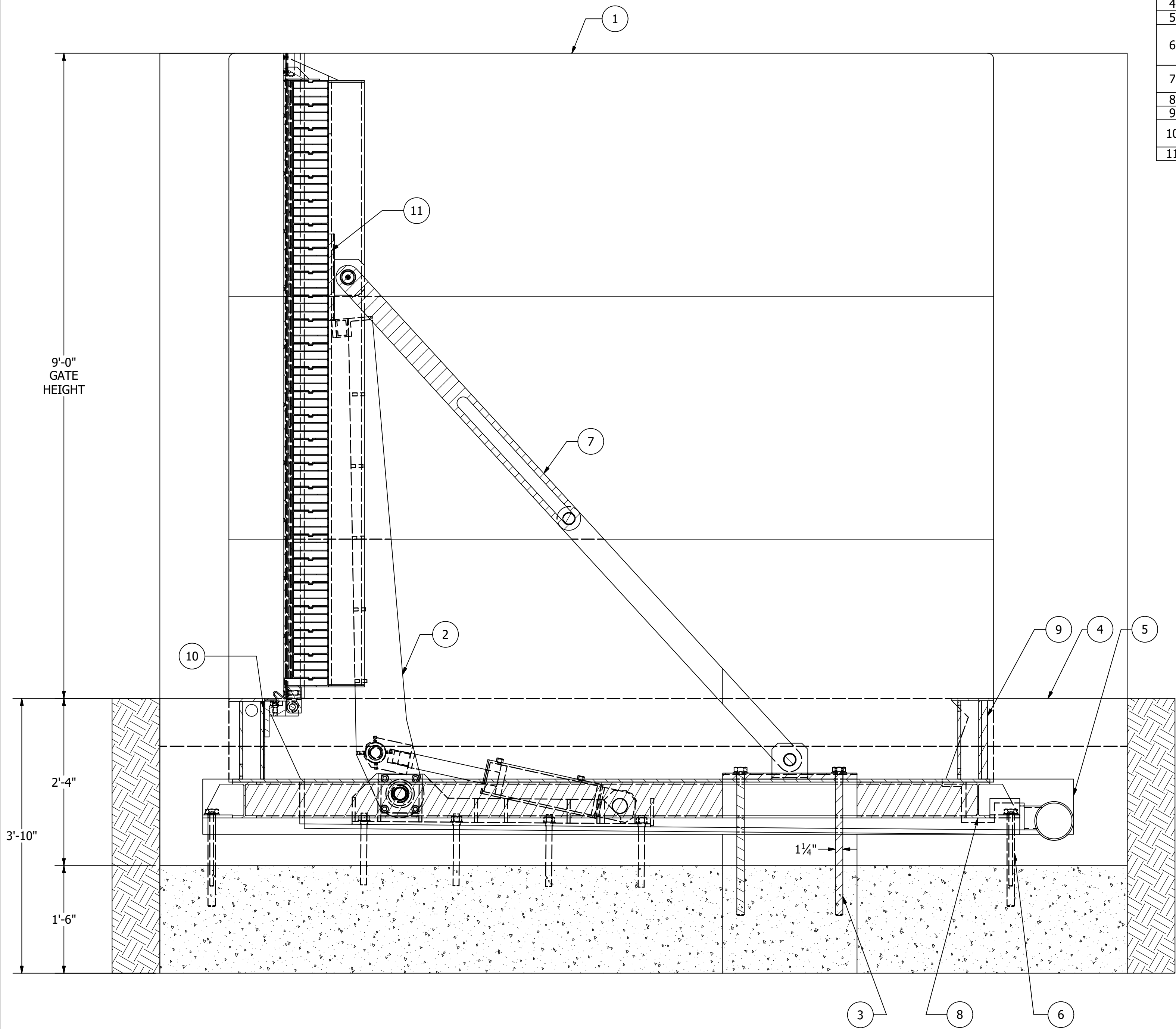
DRY SIDE




GATE UNDERSIDE  
WITH PVC PIPE ROUTING

 <b>FloodBreak</b> <small>REVOLUTIONARY FLOOD CONTROL</small>		
DEMO - ROADWAY GATE STANDARD LOCATION ROADWAY GATE 35'-8" L x 9'-0" H		
RG#0004		
REV 0		
SCALE:	VARIES	
DRAWN:	A. JOLLY	8/1/2018
CHECKED:	N. EASTMAN	8/1/2018
APPROVED:	M. POSADA	8/1/2018
SHEET 2 OF 12		

TYPICAL CROSS-SECTION OF GATE ASSEMBLY



PARTS LIST	
ITEM	DESCRIPTION
1	SMOOTH WIPER WALL SURFACE
2	LIFTING ARM ASSY
3	TYP 1 1/4" DIA SST ANCHOR BOLTS
4	EXISTING SURFACE
5	CONCRETE FILL-IN FOR I-BEAM
6	LEVELING AND MOUNTING FEET - SMALL HOLE FOR LEVELING, LARGE HOLE FOR ANCHORING (12" MIN/14" MAX ALL LOCATIONS)
7	RETENTION ARM: 4" x 2" FLAT BAR: 1 UPPER, 2 LOWER PER ANCHOR
8	PAN FRAM BEAM - 6" x 4.69 LB/FT ALUMINUM
9	1" ALUMINUM SIDE PLATE
10	3/16" HINGE MOUNT PLATE WELDED TO 4" x 6" ALUMINUM TBG
11	1/2" LIFTING ARM ALUMINUM WEAR PLATE

**FloodBreak**  
REVOLUTIONARY FLOOD CONTROL

DEMO - ROADWAY GATE  
STANDARD LOCATION  
ROADWAY GATE  
35'-8" L x 9'-0" H

RG#0004

REV 0

SCALE: VARIES

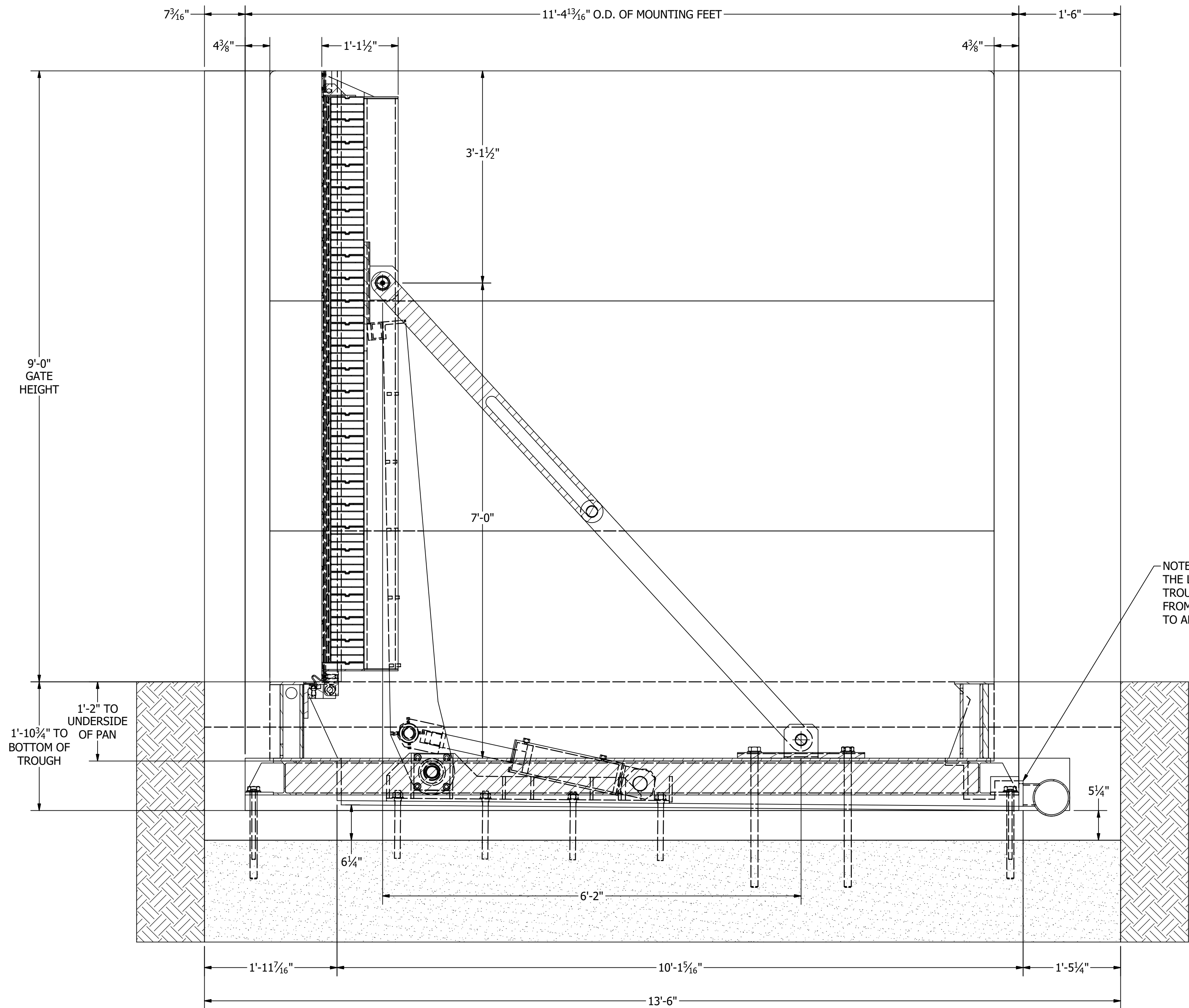
DRAWN: A. JOLLY 8/1/2018

CHECKED: N. EASTMAN 8/1/2018

APPROVED: M. POSADA 8/1/2018

SHEET 3 OF 12

# GATE INSTALLATION DIMENSIONS

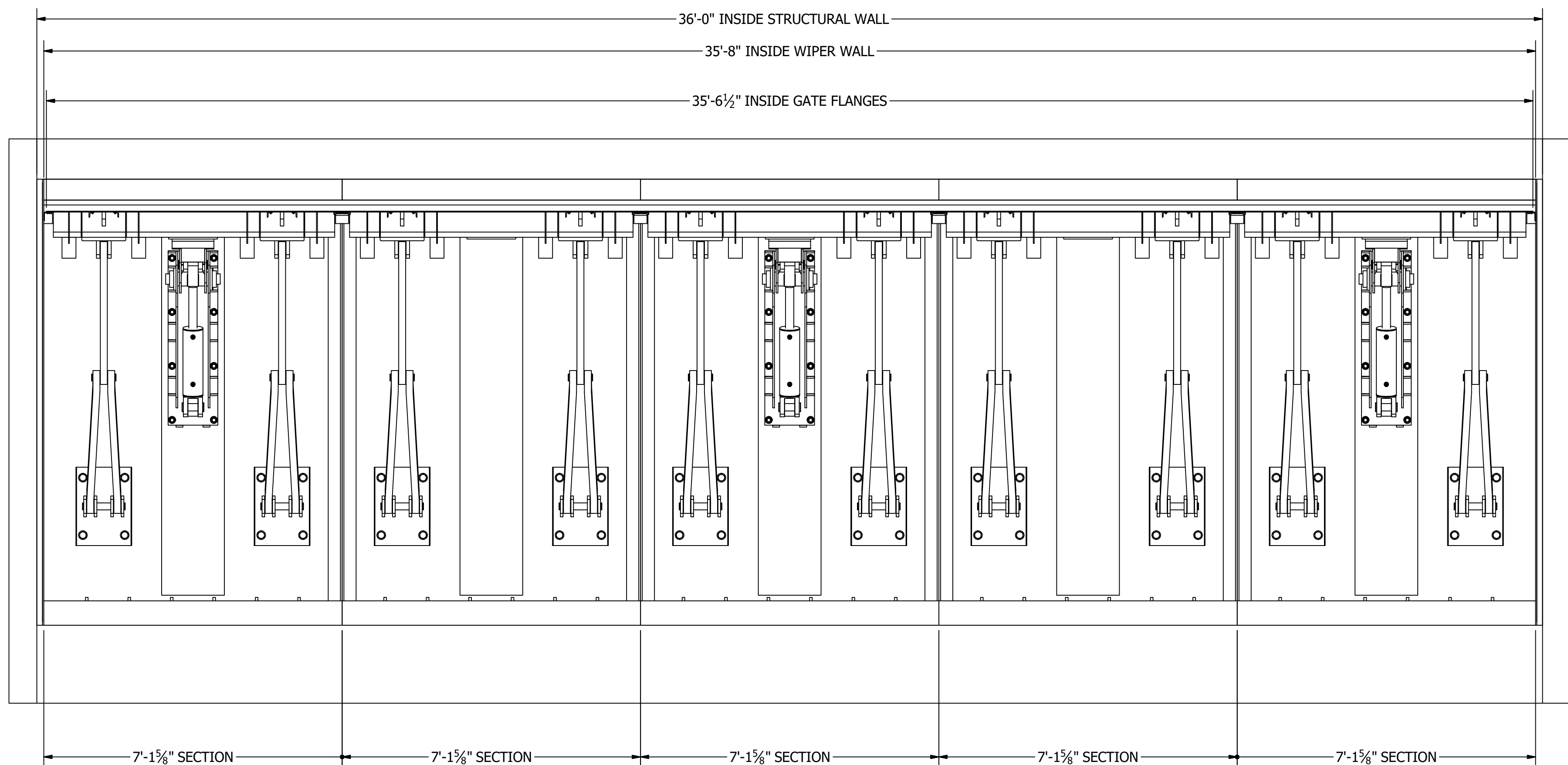


NOTE:  
THE LIFTING ARM ASSY  
TROUGHS HAVE A 1" SLOPE  
FROM HINGE SIDE TO DRAIN SIDE  
TO ALLOW FOR BETTER DRAINAGE.



DEMO - ROADWAY GATE STANDARD LOCATION ROADWAY GATE 35'-8" L x 9'-0" H		
RG#0004		
REV 0		
SCALE:	VARIES	
DRAWN:	A. JOLLY	8/1/2018
CHECKED:	N. EASTMAN	8/1/2018
APPROVED:	M. POSADA	8/1/2018
SHEET 4 OF 12		



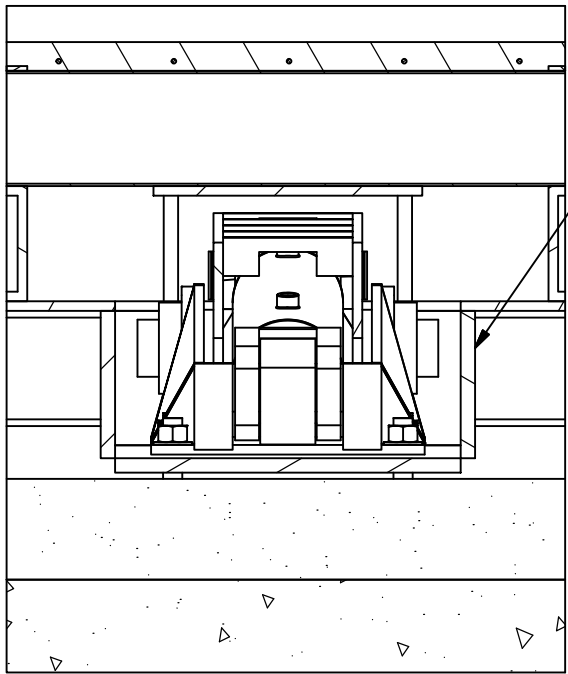
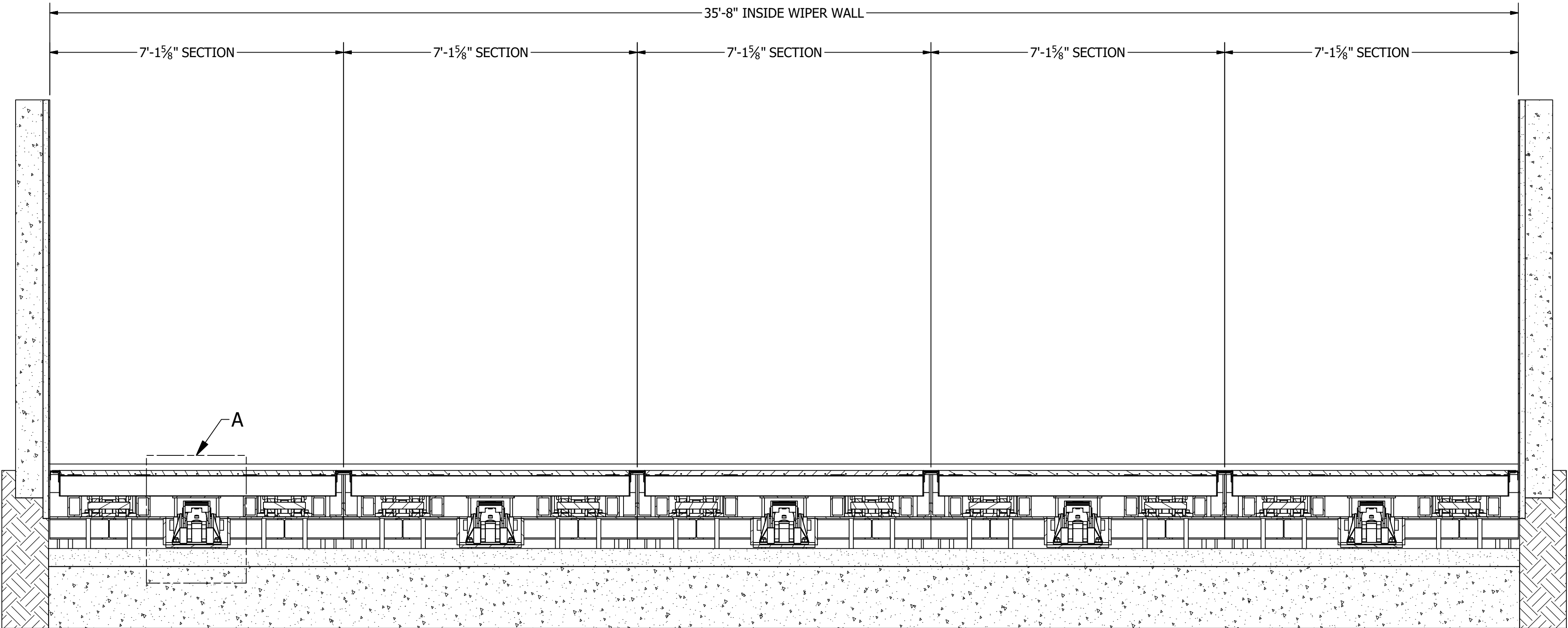


## GATE SECTION WIDTH DIMENSIONS




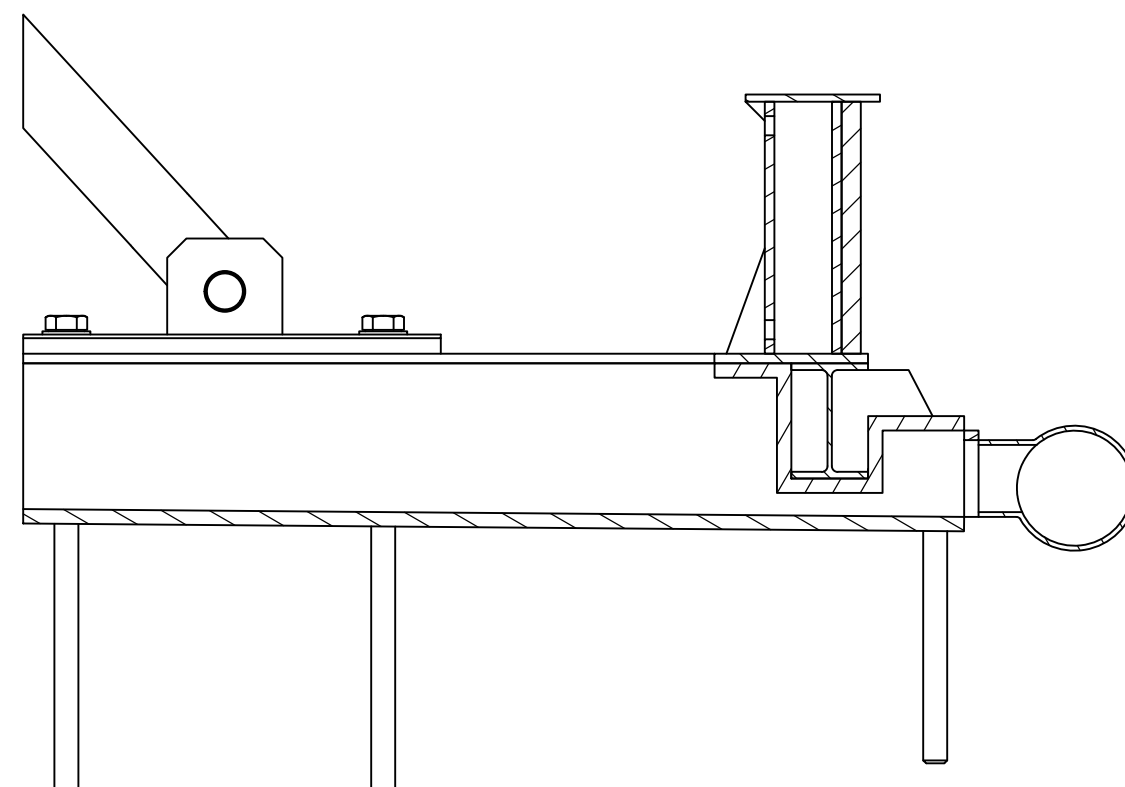
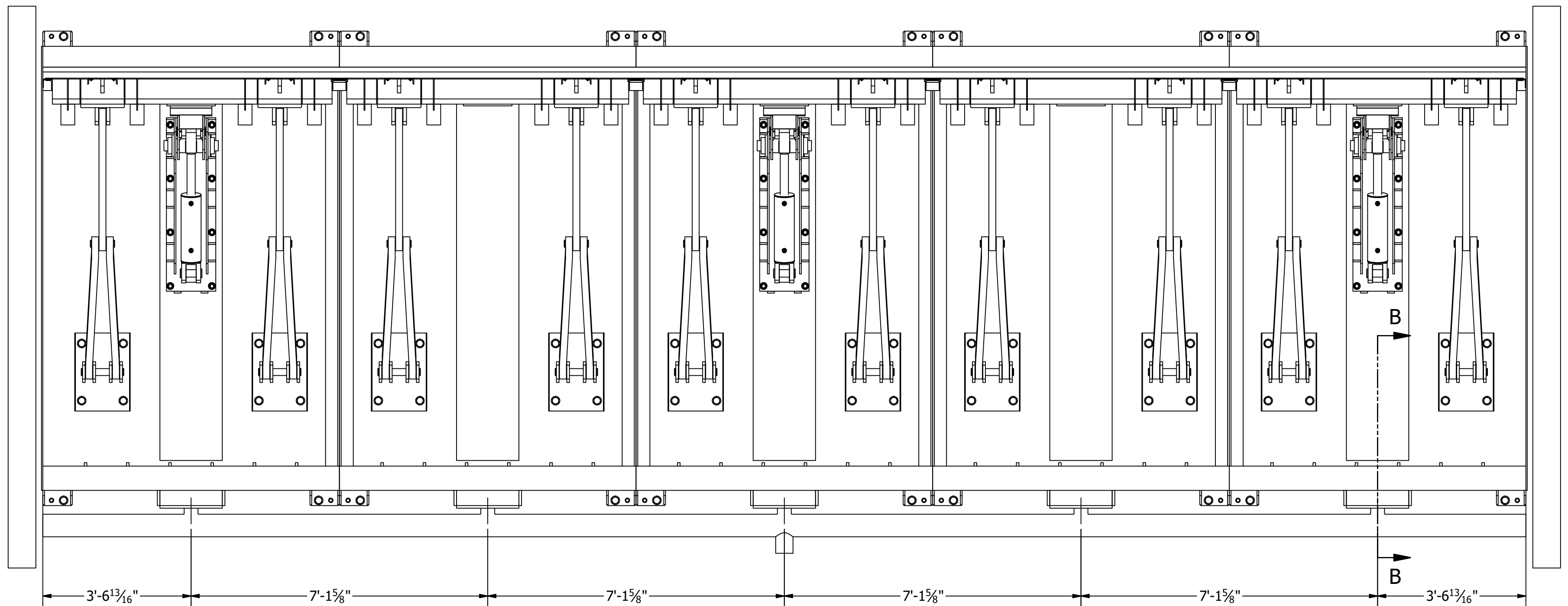
DEMO - ROADWAY GATE STANDARD LOCATION ROADWAY GATE 35'-8" L x 9'-0" H		
RG#0004		
REV 0		
SCALE:	VARIES	
DRAWN:	A. JOLLY	8/1/2018
CHECKED:	N. EASTMAN	8/1/2018
APPROVED:	M. POSADA	8/1/2018
SHEET 5 OF 12		

# GATE FRONT VIEW SECTION



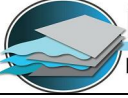
LIFTING ARM TROUGH  
AND ASSEMBLY

 <b>FloodBreak</b> REVOLUTIONARY FLOOD CONTROL		
DEMO - ROADWAY GATE STANDARD LOCATION ROADWAY GATE 35'-8" L x 9'-0" H		
RG#0004		
REV 0		
SCALE: VARIES		
DRAWN:	A. JOLLY	8/1/2018
CHECKED:	N. EASTMAN	8/1/2018
APPROVED:	M. POSADA	8/1/2018
SHEET 6 OF 12		

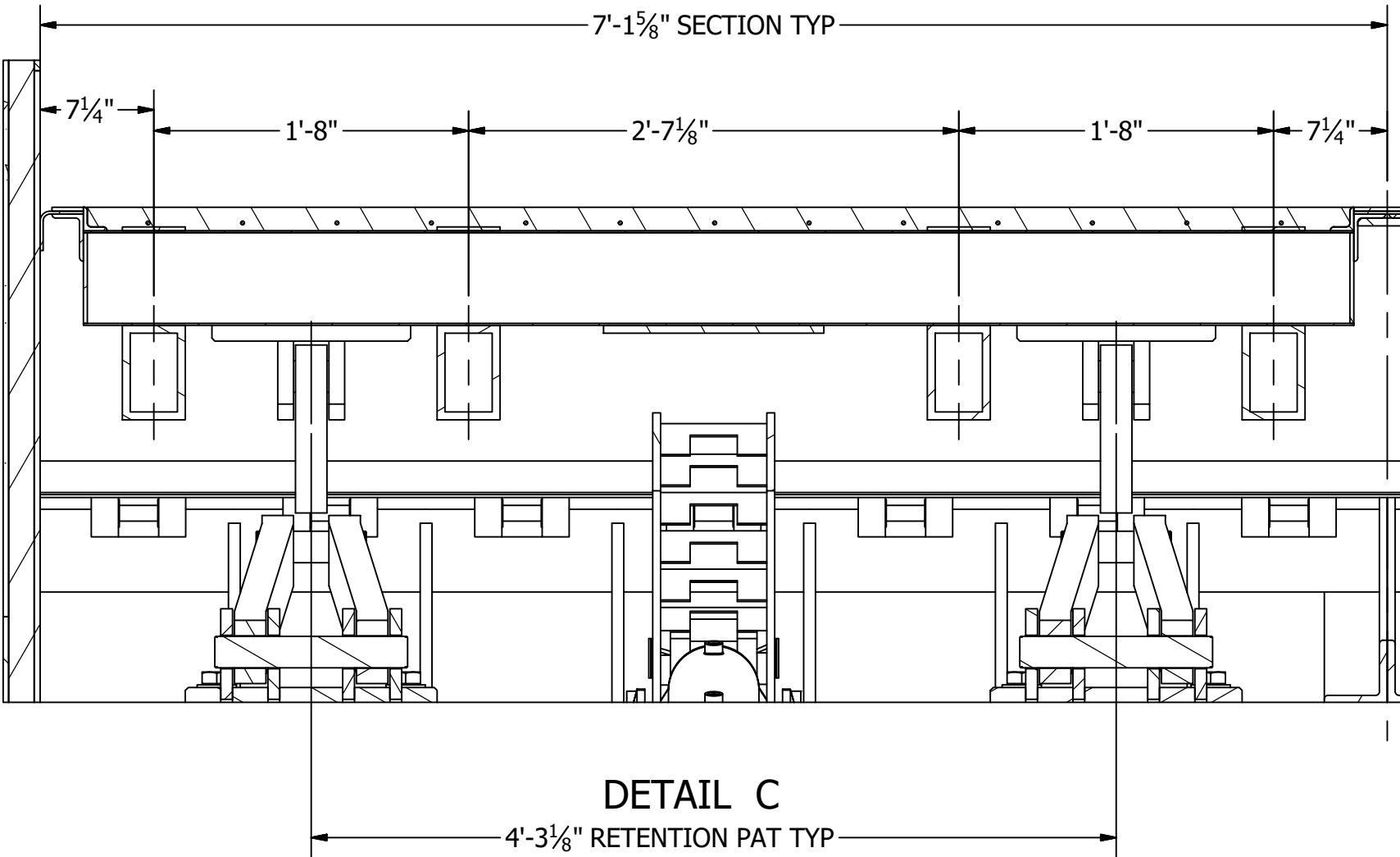
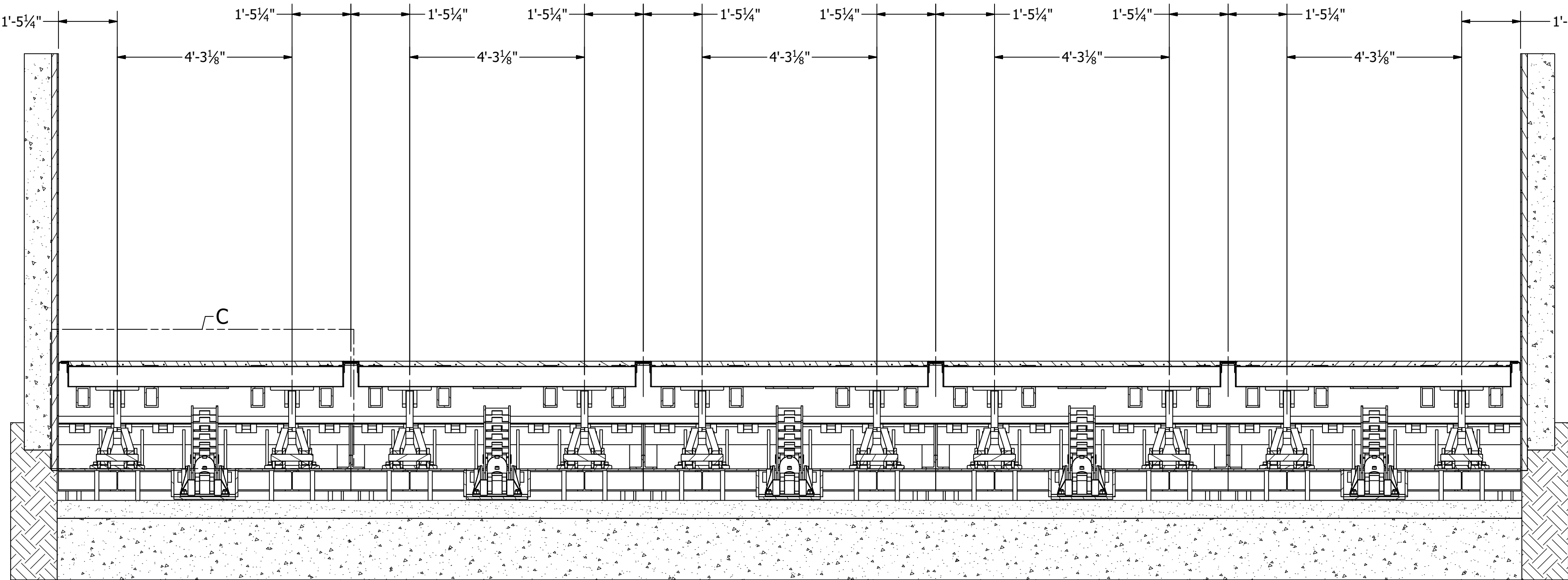



SECTION B-B

# DRAIN INSTALLATION LAYOUT

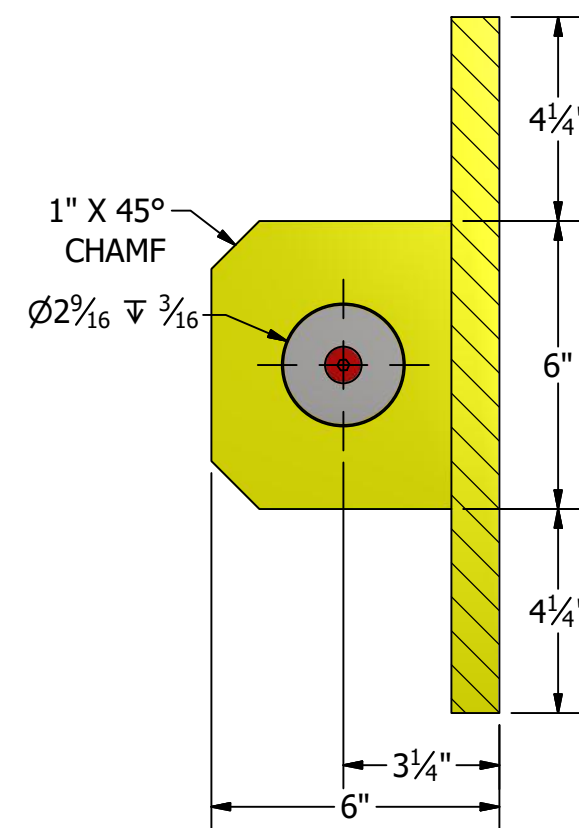
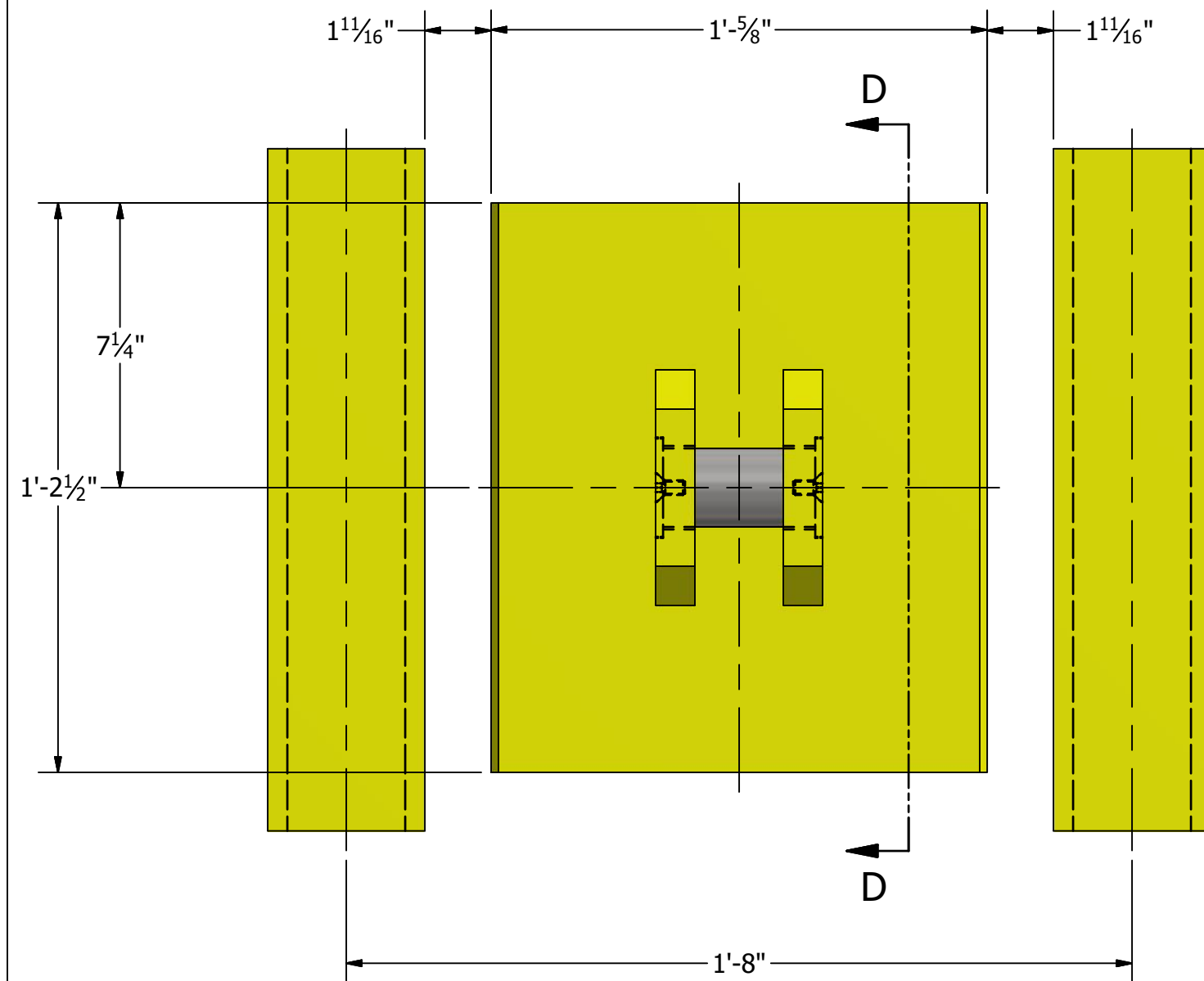
 <b>FloodBreak</b> <small>REVOLUTIONARY FLOOD CONTROL</small>		
DEMO - ROADWAY GATE STANDARD LOCATION ROADWAY GATE 35'-8" L x 9'-0" H		
RG#0004		
REV 0		
SCALE:	VARIES	
DRAWN:	A. JOLLY	8/1/2018
CHECKED:	N. EASTMAN	8/1/2018
APPROVED:	M. POSADA	8/1/2018
SHEET 7 OF 12		

RETENTION ARM LAYOUT

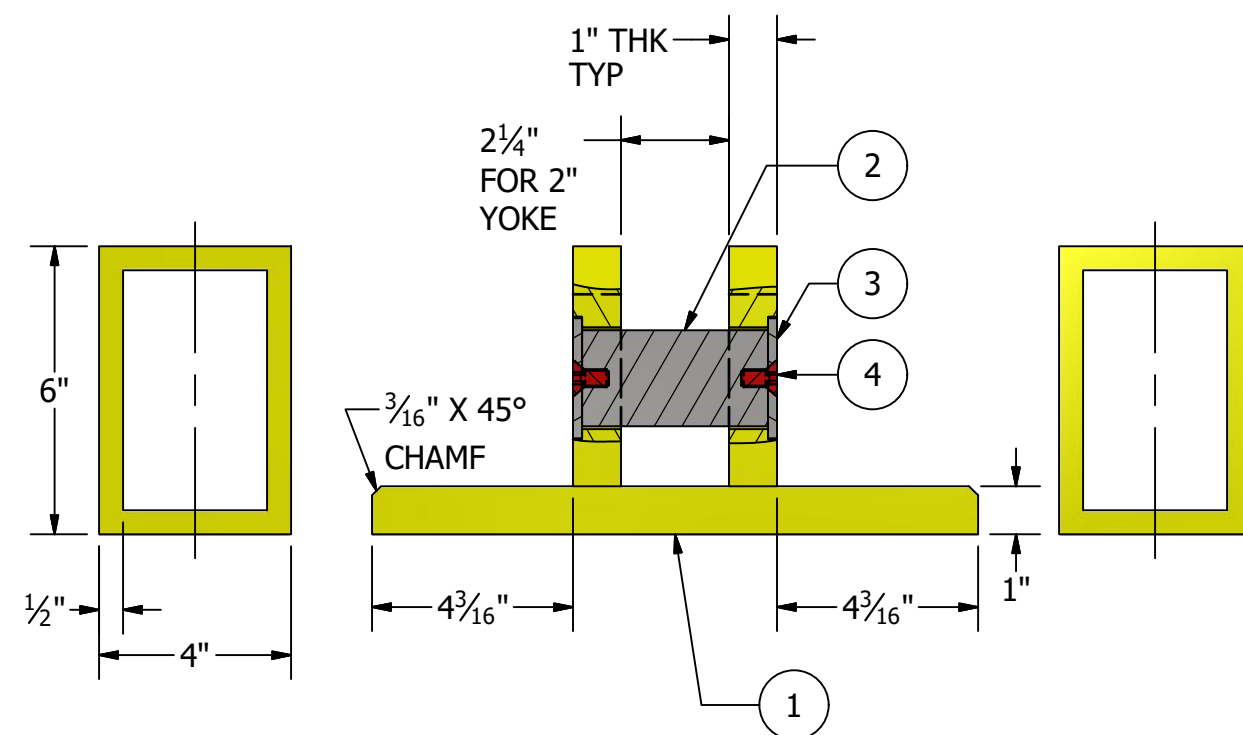


 <b>FloodBreak</b> REVOLUTIONARY FLOOD CONTROL		
DEMO - ROADWAY GATE STANDARD LOCATION ROADWAY GATE 35'-8" L x 9'-0" H		
RG#0004		
REV 0		
SCALE: VARIES		
DRAWN:	A. JOLLY	8/1/2018
CHECKED:	N. EASTMAN	8/1/2018
APPROVED:	M. POSADA	8/1/2018
SHEET 8 OF 12		



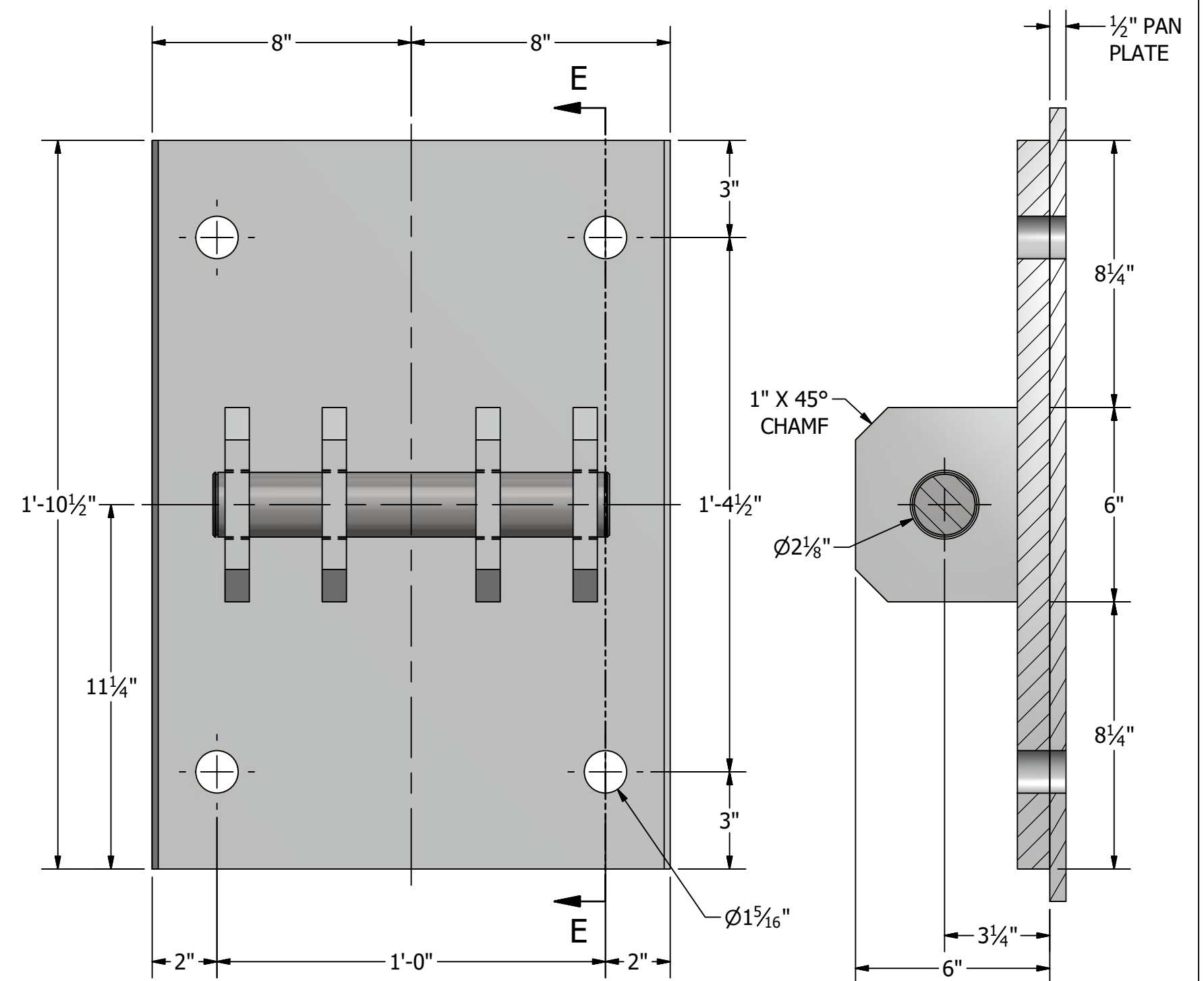


SECTION D-D

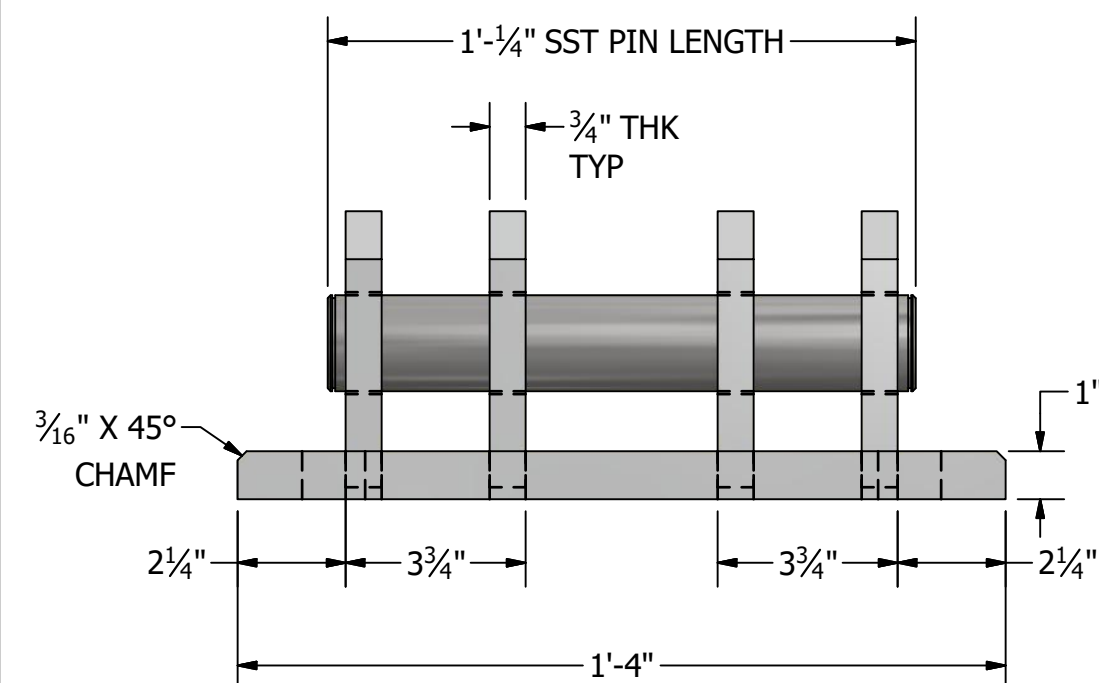


LID ANCHOR PLATE


PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	1	ANCHOR PLATE LID ASSY	A/R
2	1	ANCHOR PLATE PIN 2" DIA	SST
3	2	CUSTOM 2 1/2" WASHER	SST
4	2	FHCS 3/8" UNC x 3/4"	SST



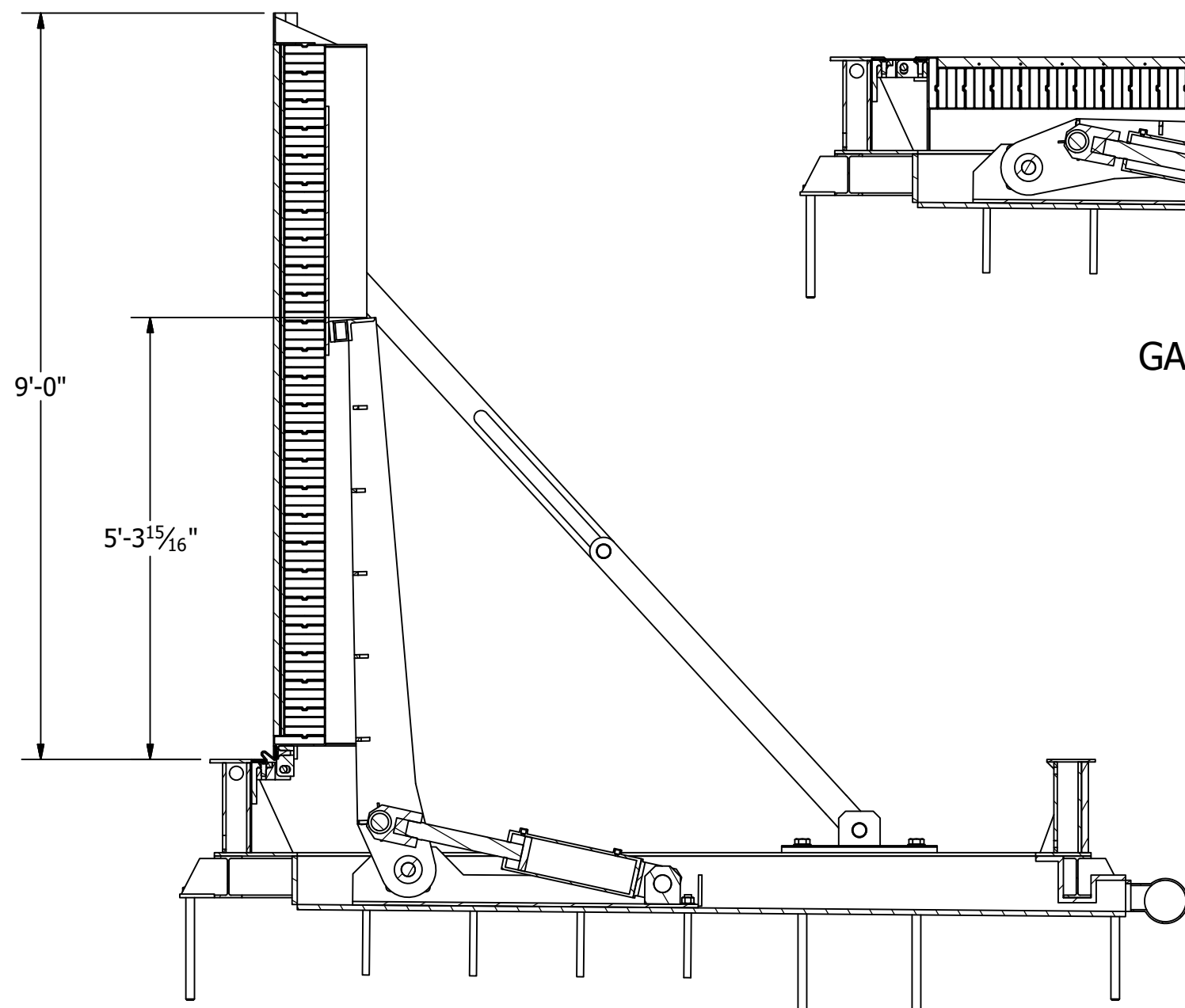
SECTION E-E



PAN ANCHOR PLATE

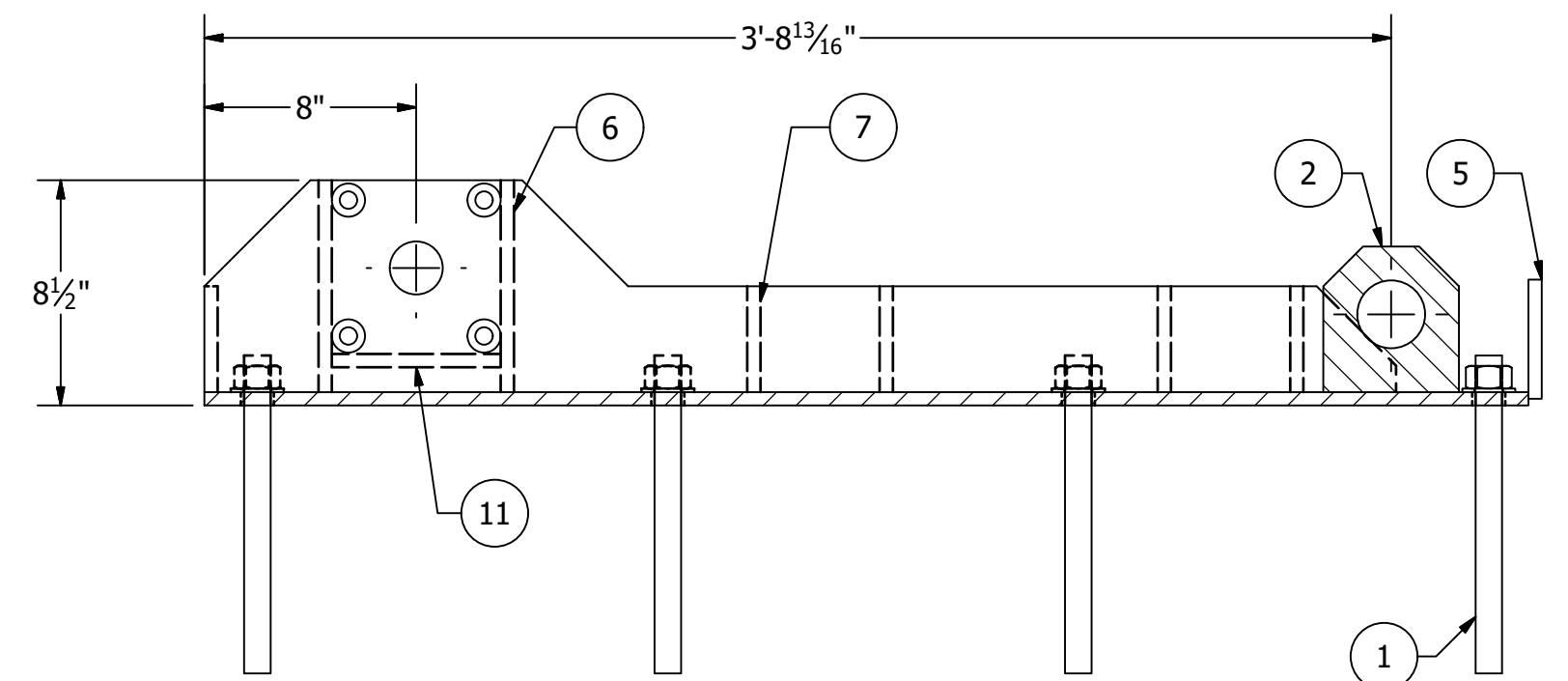
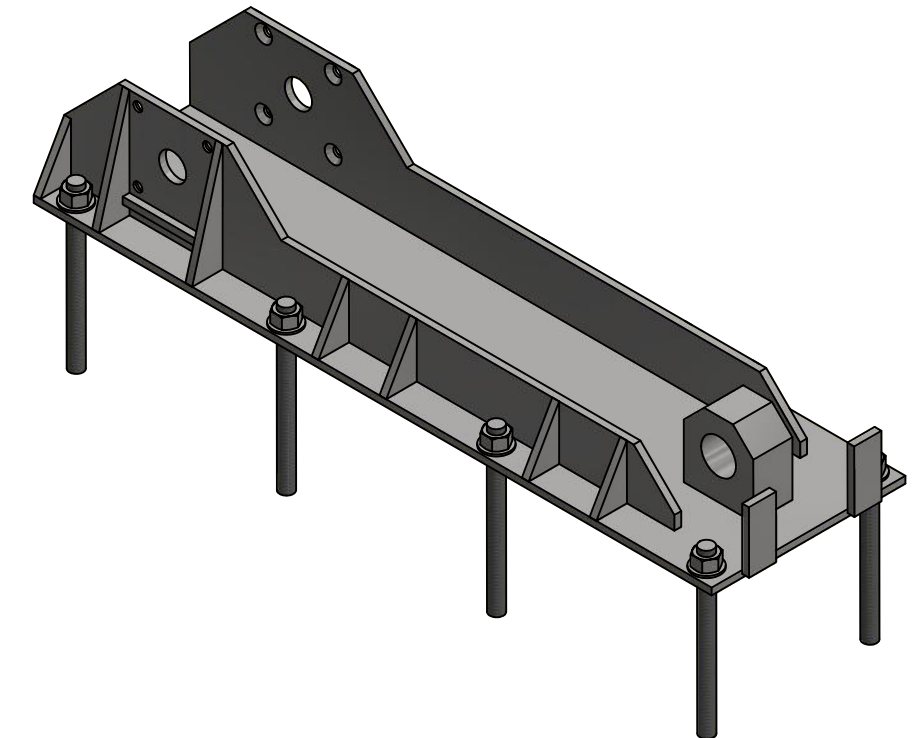
 <b>FloodBreak</b> <small>REVOLUTIONARY FLOOD CONTROL</small>	
DEMO - ROADWAY GATE STANDARD LOCATION ROADWAY GATE 35'-8" L x 9'-0" H	
RG#0004	
REV 0	
SCALE: VARIES	
DRAWN:	A. JOLLY 8/1/2018
CHECKED:	N. EASTMAN 8/1/2018
APPROVED:	M. POSADA 8/1/2018
SHEET 9 OF 12	



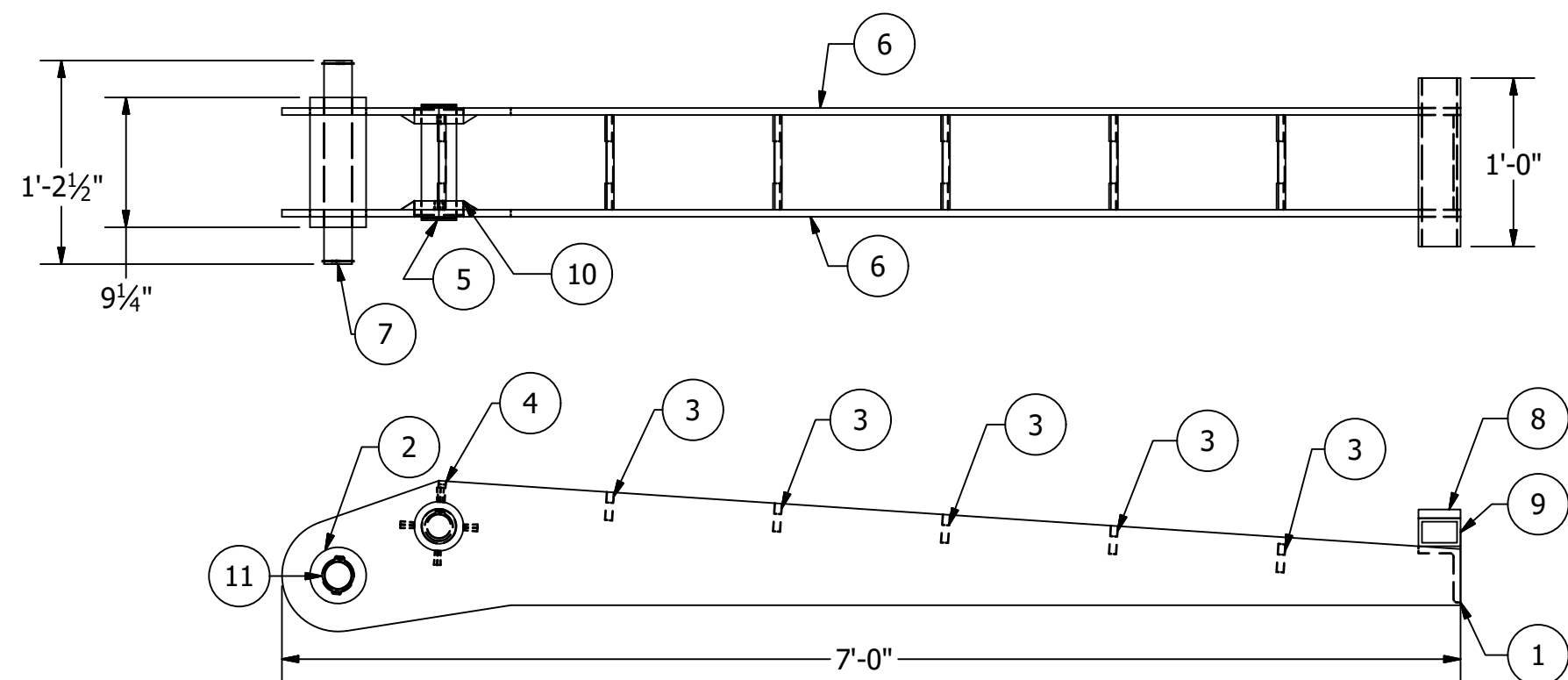


GATE CLOSED

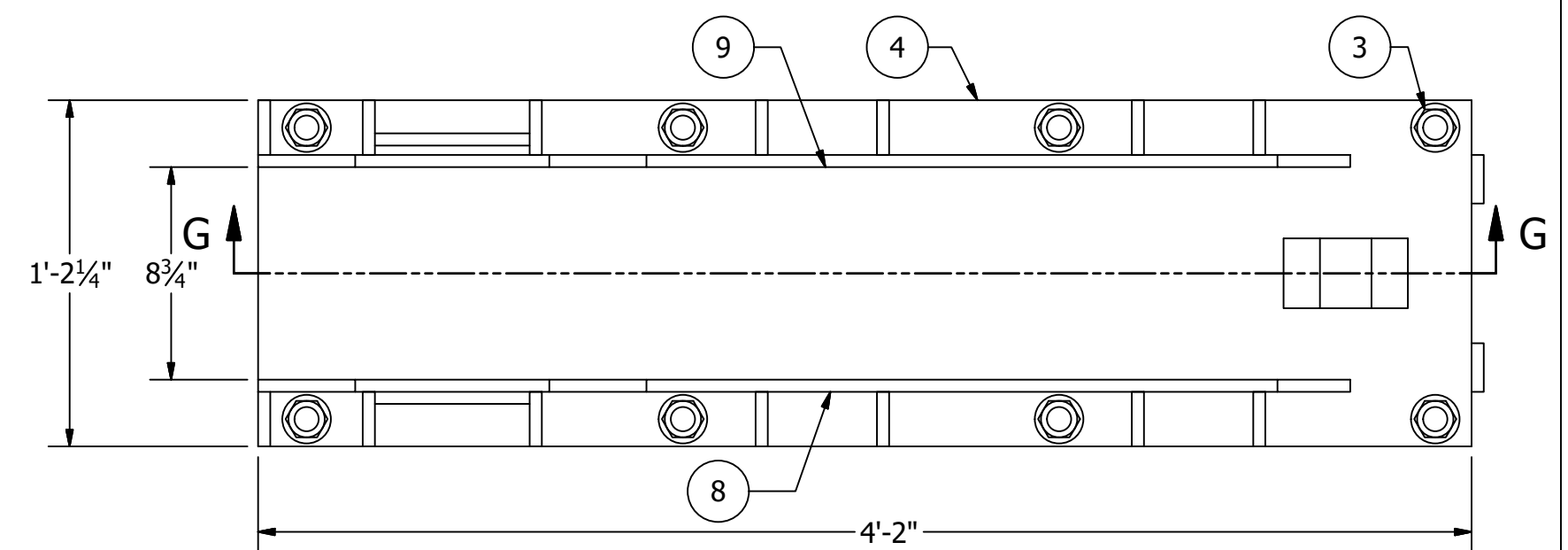
GATE OPEN



SECTION G-G



LIFTING ARM DETAILS



LIFTING ARM BASE DETAILS

PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	1	LIFTING ARM ATTACH ANGLE	3"x4" SST
2	1	LIFTING ARM LARGE TBG	4" OD, 2" ID SST
3	5	LIFTING ARM MID PLATE	1/2" SST
4	1	LIFTING ARM MID PLATE-PUSH	1/2" SST
5	1	LIFTING ARM ROD PIN	1 3/4"x9 1/2" SST
6	2	LIFTING ARM SIDE PLATE	1/2" SST
7	1	LIFTING ARM TOP PIN	2" SST
8	1	LIFTING ARM FRAME PAD	NYLON
9	1	LIFTING ARM PUSH TBG	2"x3" SST TBG
10	2	SHAFT COLLAR MOUNT	SST
11	4	EXTERNAL SNAP RING	SST

PARTS LIST			
ITEM	QTY	PART NUMBER	MATERIAL
1	8	ALL-THREAD 1" ANCHOR	SST
2	1	CYL DOUBLE MOUNT	SST
3	8	HEX NUT 1" UNC SST	SST
4	1	LIFTING ARM FAB BASE	SST
5	2	LIFTING ARM FAB FRONT PLATE	SST
6	4	LIFTING ARM FAB LARGE GUSSET	SST
7	10	LIFTING ARM FAB SMALL GUSSET	SST
8	1	LIFTING ARM VERT PLATE LEFT	SST
9	1	LIFTING ARM VERT PLATE RIGHT	SST
10	2	LIFTING ARM BEARING SHOE	SST
11	8	WASHER FLAT 1" SST	SST



DEMO - ROADWAY GATE	
STANDARD LOCATION	
ROADWAY GATE	
35'-8" L x 9'-0" H	
RG#0004	
REV 0	
SCALE: VARIES	
DRAWN: A. JOLLY	8/1/2018
CHECKED: N. EASTMAN	8/1/2018
APPROVED: M. POSADA	8/1/2018
SHEET 11 OF 12	



