

East Bench Canal Company

Typical Drawings

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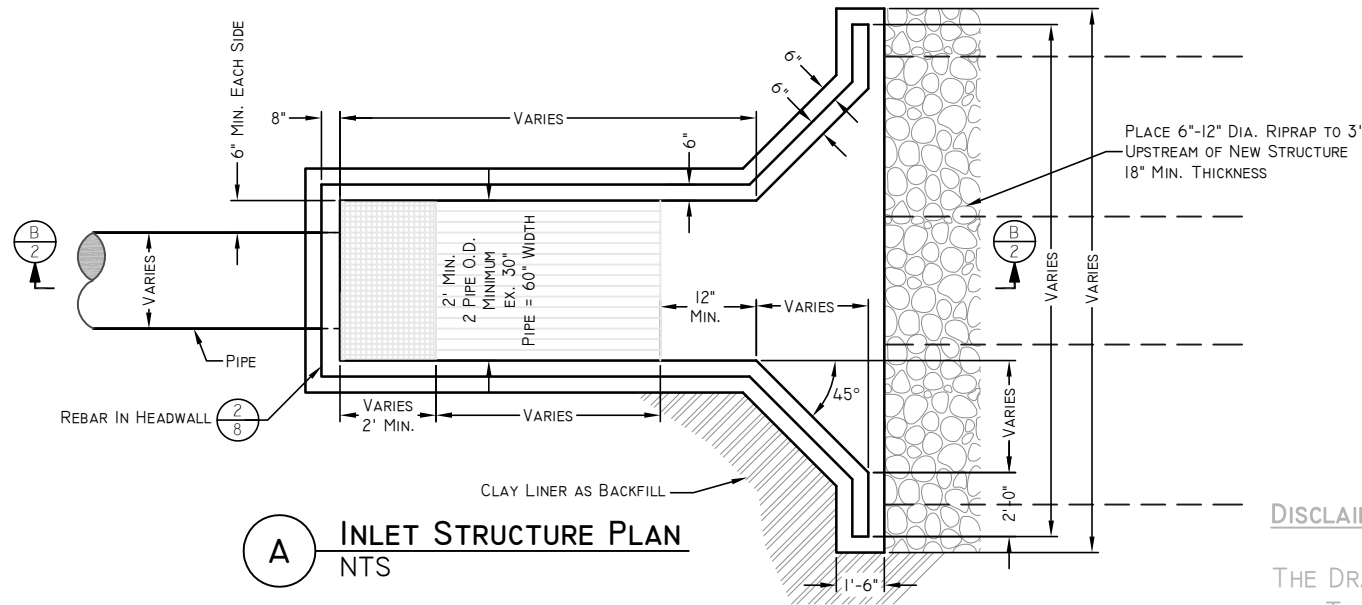
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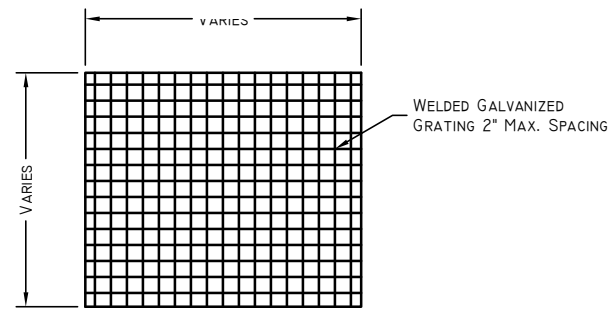
EAST BENCH
CANAL COMPANY

DESIGNER:		CHAD BROWN	PROJECT LEADER:		CHAD BROWN
DRAFTSMAN:		MATT GURR	PRINT DATE:		SEPTEMBER 1, 2021
NO.	DATE	INTS.	REVISIONS		
	DESCRIPTION				

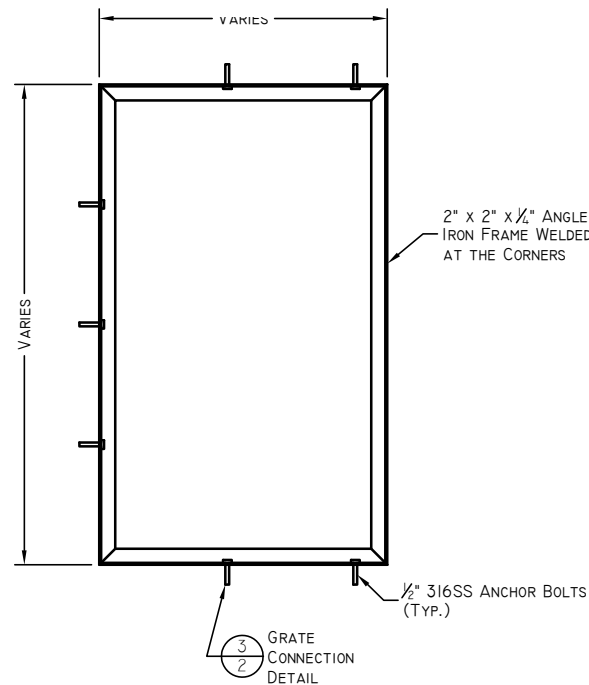
EAST BENCH CANAL COMPANY	
TYPICAL DRAWINGS	
COVER SHEET, SHEET INDEX	
JOB NO.	01 - Cover Sheet.dwg 03/2007 EAST BENCH Reviews 2020DrawingsStandard Drawings



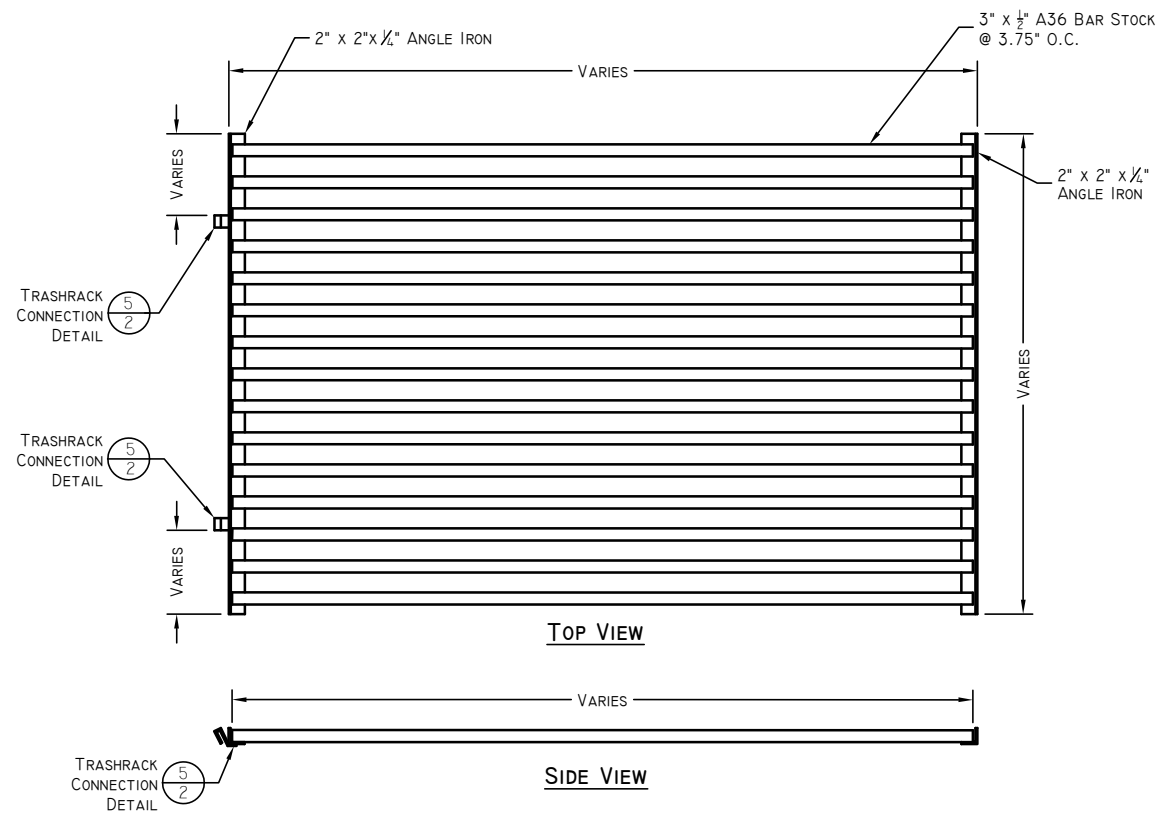
A INLET STRUCTURE PLAN
NTS



1 GRATE DETAIL
NTS



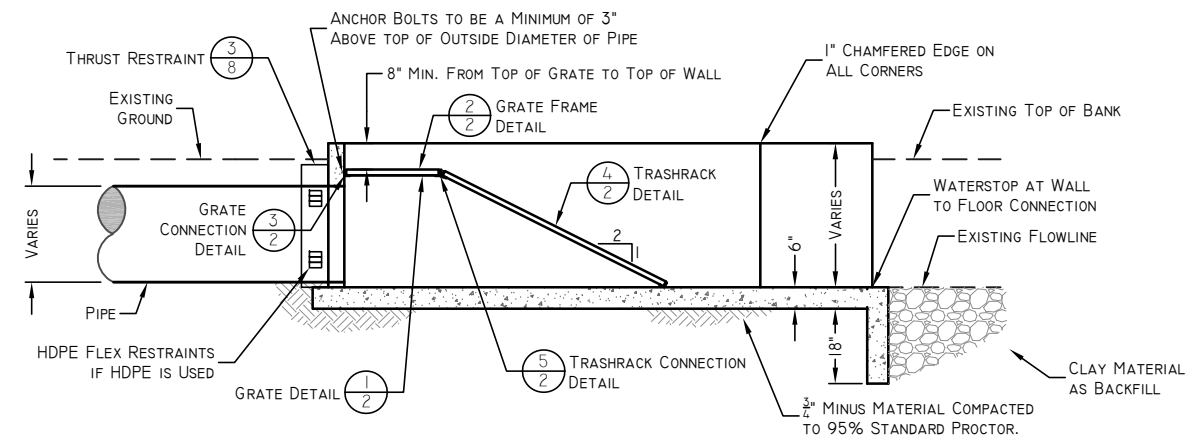
2 GRATE FRAME DETAIL
NTS



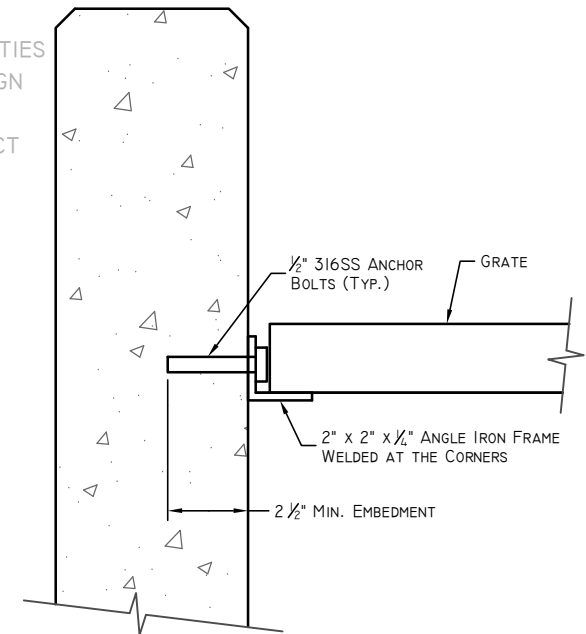
4 TRASHRACK DETAIL
NTS

NOTES:

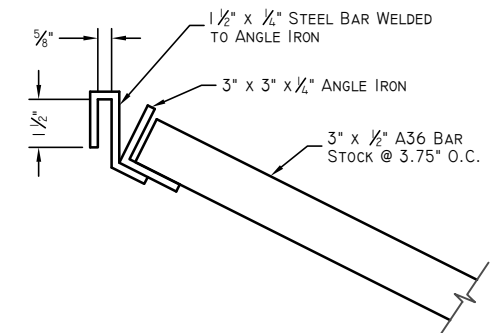
1. IF BOX IS CAST IN PLACE, REBAR TO BE PLACED AT 12 INCHES ON CENTER (O.C.) EACH WAY (E.W.) MINIMUM.
2. ALL PIPES INTO BOX SHALL BE GROUTED AND WATERTIGHT.
3. SUBMIT TO CANAL COMPANY ENGINEER FOR APPROVAL.
4. MINIMUM TWO GRATES TO BE INSTALLED. SUBMIT TO CANAL COMPANY ENGINEER FOR APPROVAL.
5. WATERSTOP REQUIRED AT ALL COLD JOINTS.



B INLET STRUCTURE PROFILE
NTS



3 GRATE CONNECTION DETAIL
NTS



5 TRASHRACK CONNECTION DETAIL
NTS

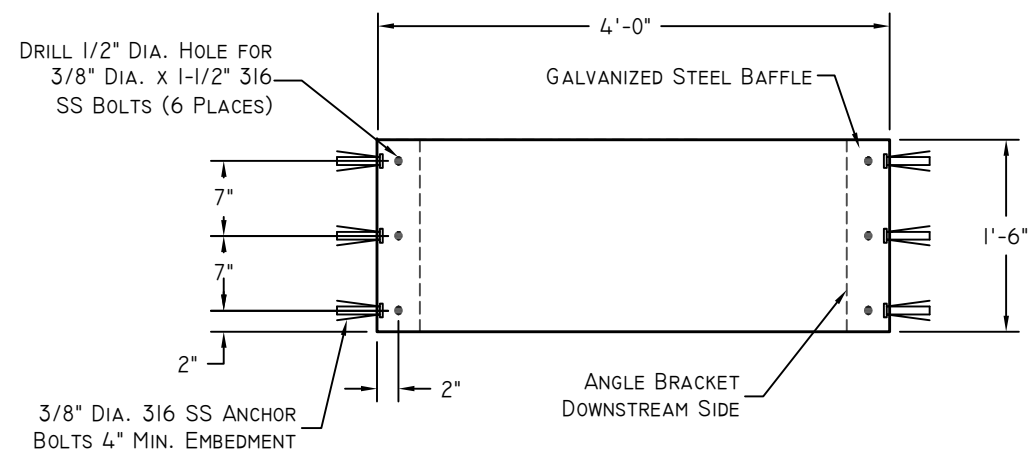
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TABLE I FOR DETAIL **5**

TRASHRACK CONNECTIONS REQUIRED	
PIPE SIZE	NUMBER OF CONNECTIONS REQUIRED
24" AND SMALLER	4
> 30"	5

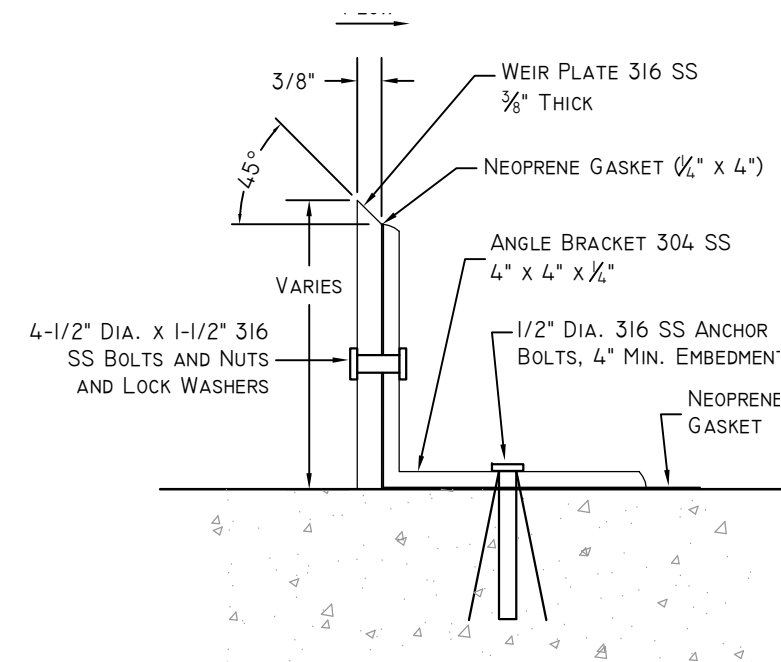
DESIGNER:	CHAD BROWN	CHECKED:	REVIEWED:	PROJECT LEADER:	CHAD BROWN
DRAFTSMAN:	MATT GURR	CHECKED:	REVIEWED:	PRINT DATE:	SEPTEMBER 1, 2021
NO.	DATE	NTS	REVISIONS	DESCRIPTION	



1 Baffle Plate Detail
NTS

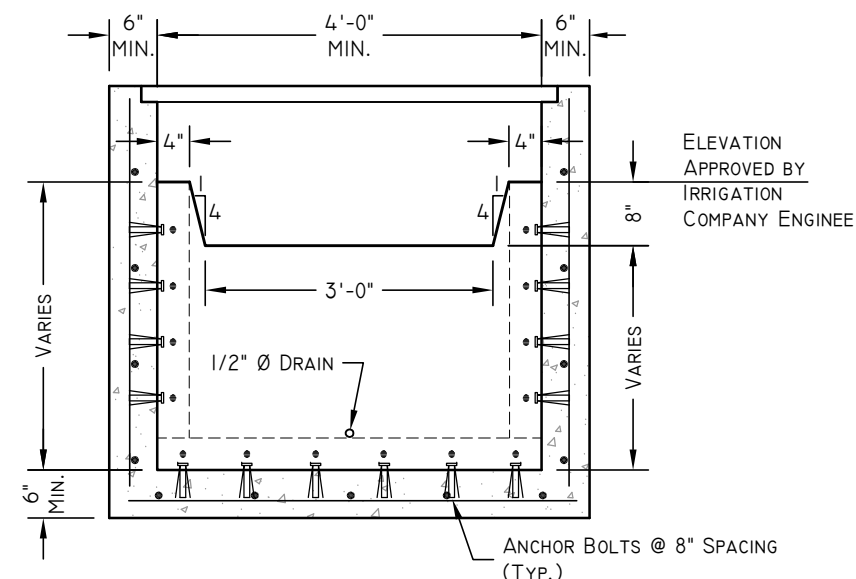
TABLE I
Q=3.367 $LH^{3/2}$ @ L=3

H (F.T.)	Q (CFS)
0.2	0.90
0.3	1.66
0.4	2.56
0.5	3.57
0.6	4.69
0.66	5.42



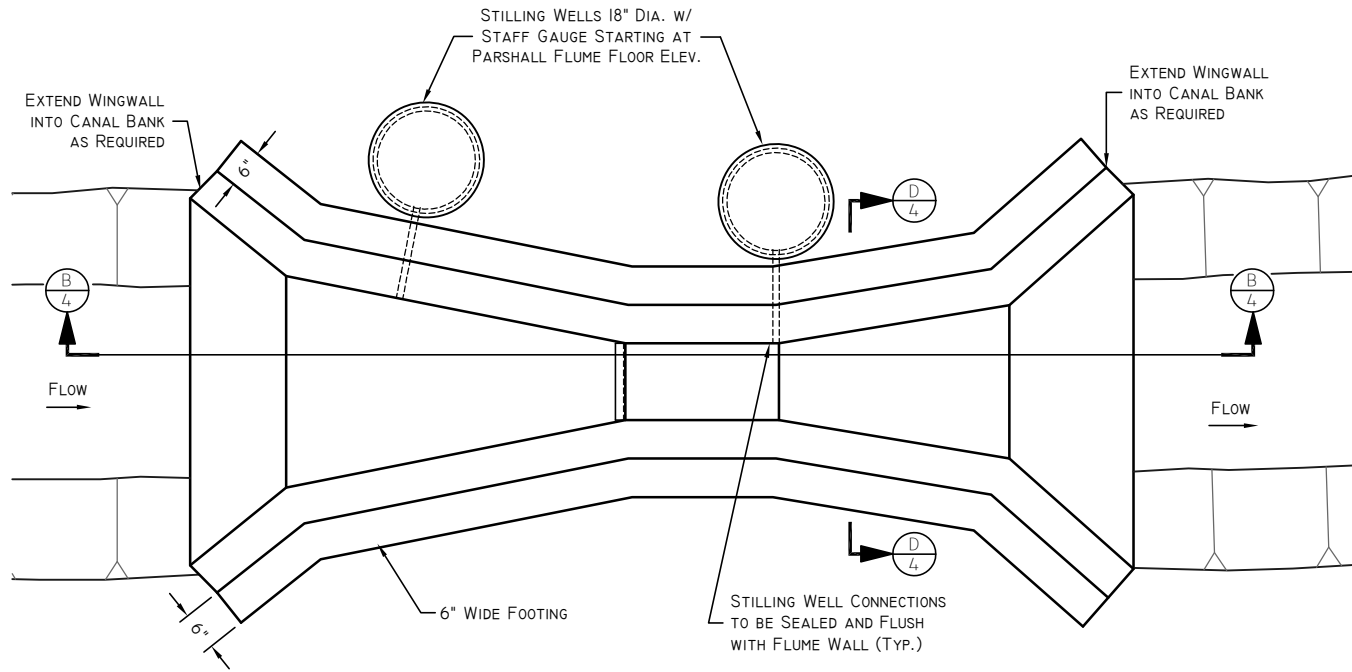
2 ANGLE IRON DETAIL
NTS

1. IF BOX IS CAST IN PLACE REBAR TO BE PLACED AT 12" O.C. E.W. MINIMUM.
2. ALL PIPES INTO BOX SHALL BE GROUTED AND WATERTIGHT.
3. SUBMIT TO IRRIGATION COMPANY ENGINEER FOR APPROVAL ON FINAL DIMENSIONS ON REBAR REINFORCEMENT AND CONCRETE COMPONENTS.
4. PLACE STRUCTURE ON 6-INCHES OF IRRIGATION COMPANY ENGINEER APPROVED COMPACTED BEDDING.

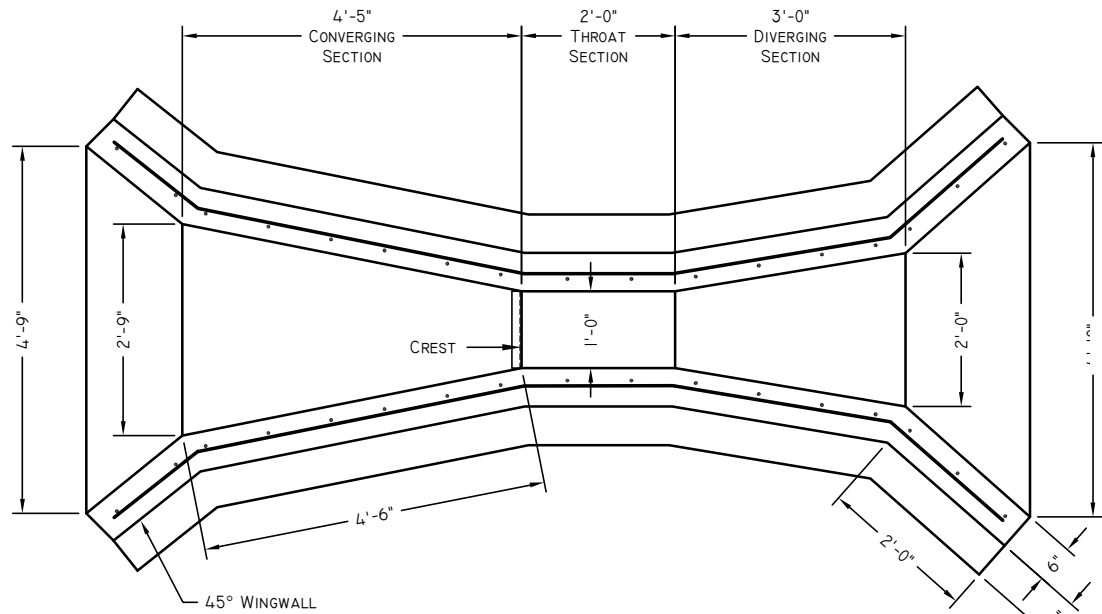


C **SECTION**
NTS

NOTE: PLACE #4 REBAR AT 12"
O.C. E.W. IN STRUCTURE FLOOR
AND WALLS



A PLAN



C REBAR PLAN

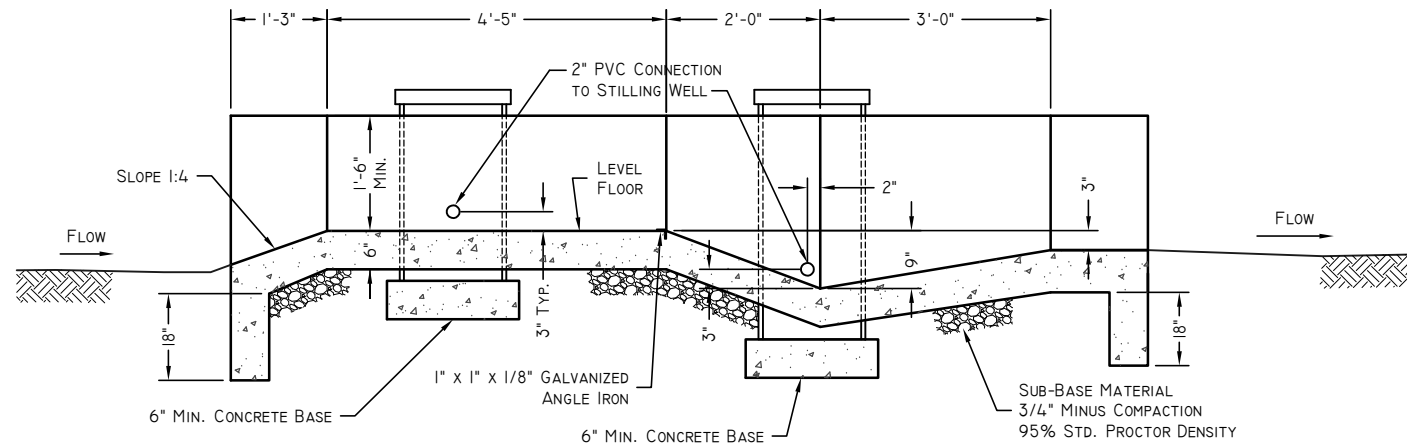
TABLE I HEAD-FLOW RELATIONSHIP FOR CONCRETE FLUME			
HEAD H _a (FEET)	FLOW Q (CFS)	HEAD H _a (FEET)	FLOW Q (CFS)
0.20	0.35	0.86	3.18
0.21	0.37	0.87	3.24
0.22	0.40	0.88	3.29
0.23	0.43	0.89	3.35
0.24	0.46	0.90	3.41
0.25	0.49	0.91	3.46
0.26	0.51	0.92	3.52
0.27	0.54	0.93	3.58
0.28	0.58	0.94	3.64
0.29	0.61	0.95	3.70
0.30	0.64	0.96	3.76
0.31	0.68	0.97	3.82
0.32	0.71	0.98	3.88
0.33	0.74	0.99	3.94
0.34	0.77	1.00	4.00
0.35	0.80	1.01	4.06
0.36	0.84	1.02	4.12
0.37	0.88	1.03	4.18
0.38	0.92	1.04	4.25
0.39	0.95	1.05	4.31
0.40	0.99	1.06	4.37
0.41	1.03	1.07	4.43
0.42	1.07	1.08	4.50
0.43	1.11	1.09	4.56
0.44	1.15	1.10	4.62
0.45	1.19	1.11	4.68
0.46	1.23	1.12	4.75
0.47	1.27	1.13	4.82
0.48	1.31	1.14	4.88
0.49	1.35	1.15	4.94
0.50	1.39	1.16	5.01
0.51	1.44	1.17	5.08
0.52	1.48	1.18	5.15
0.53	1.52	1.19	5.21
0.54	1.57	1.20	5.28
0.55	1.62	1.21	5.34
0.56	1.66	1.22	5.41
0.57	1.70	1.23	5.48
0.58	1.75	1.24	5.55
0.59	1.80	1.25	5.62
0.60	1.84	1.26	5.69
0.61	1.88	1.27	5.76
0.62	1.93	1.28	5.82
0.63	1.98	1.29	5.89
0.64	2.03	1.30	5.96
0.65	2.08	1.31	6.03
0.66	2.13	1.32	6.10
0.67	2.18	1.33	6.18
0.68	2.23	1.34	6.25
0.69	2.28	1.35	6.32
0.70	2.33	1.36	6.39
0.71	2.38	1.37	6.46
0.72	2.43	1.38	6.53
0.73	2.48	1.39	6.60
0.74	2.53	1.40	6.68
0.75	2.58	1.41	6.75
0.76	2.63	1.42	6.82
0.77	2.68	1.43	6.89
0.78	2.74	1.44	6.97
0.79	2.80	1.45	7.04
0.80	2.85	1.46	7.12
0.81	2.90	1.47	7.19
0.82	2.96	1.48	7.26
0.83	3.02	1.49	7.34
0.80	3.07	1.50	7.41
0.85	3.12		

DISCLAIMER:

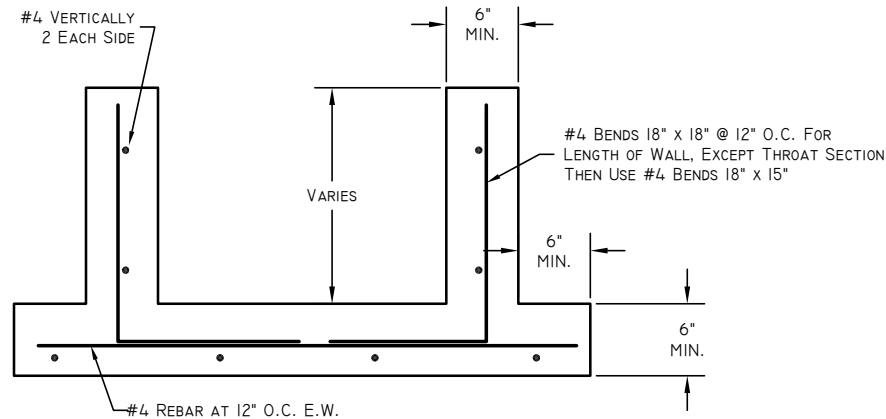
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NOTES:

1. REINFORCING TO BE #4 REBAR @ 12-INCHES O.C. E.W. WITH 20-INCH MINIMUM SPLICE LENGTH.
2. REBAR TO BE BENT AT ANGLES OF STRUCTURES. OVERLAP TO BE IN STRAIGHT LENGTHS ONLY.
3. APPLICANT TO SUBMIT ACTUAL PLANS AND MATERIAL OF FLUME PRIOR TO CONSTRUCTION.
4. PREMANUFACTURED FLUMES ARE ALSO ACCEPTABLE. PROVIDE MANUFACTURERS PRODUCT INFORMATION AND FLOW CHART FOR EBCC REVIEW.
5. RAMP FLUMES ARE ALSO ACCEPTABLE. PROVIDE DETAILED PLANS OF RAMP FLUME AND FLOW CHART FOR EBCC REVIEW.



B PROFILE



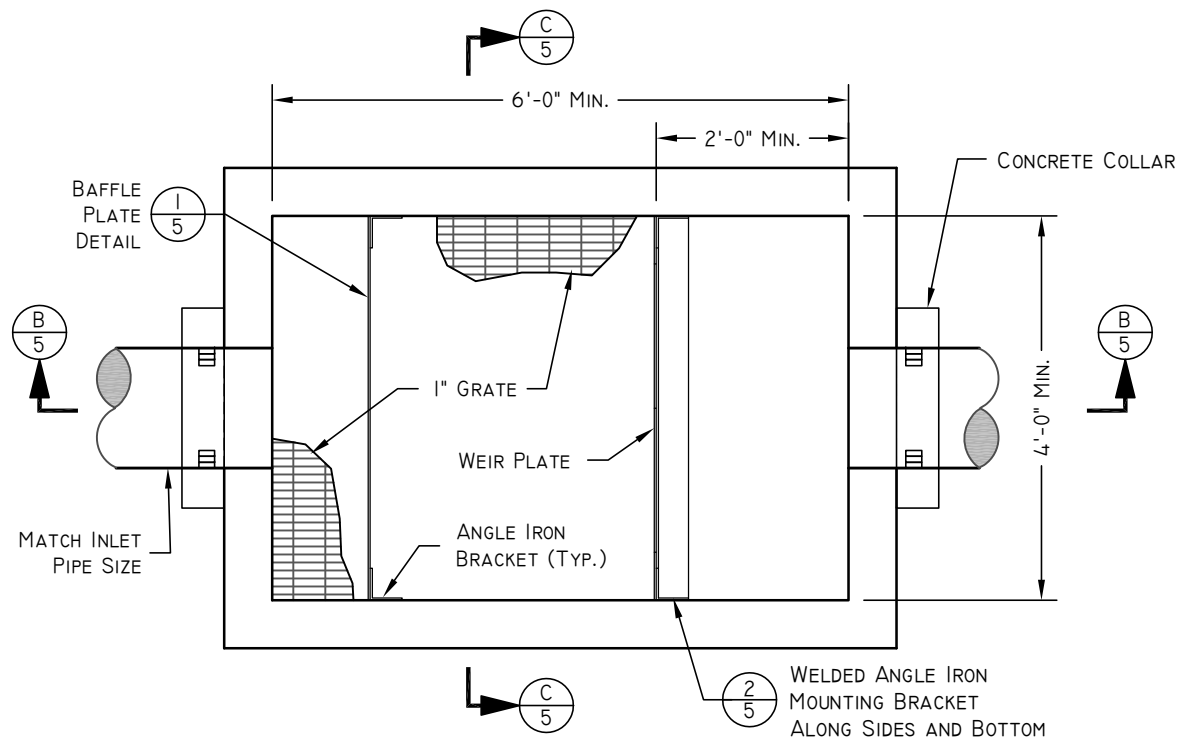
D CROSS SECTION
NTS

TYPICAL DRAWINGS
I-FOOT PARSHALL FLUME

EAST BENCH
CANAL COMPANY

DESIGNER		CHECKED		PROJECT LEADER	
CHAD BROWN		MATT GUR		CHAD BROWN	
DRAFTSMAN		REVIEWED		PRINT DATE	
NO.		DATE		REVISIONS	
				DESCRIPTION	

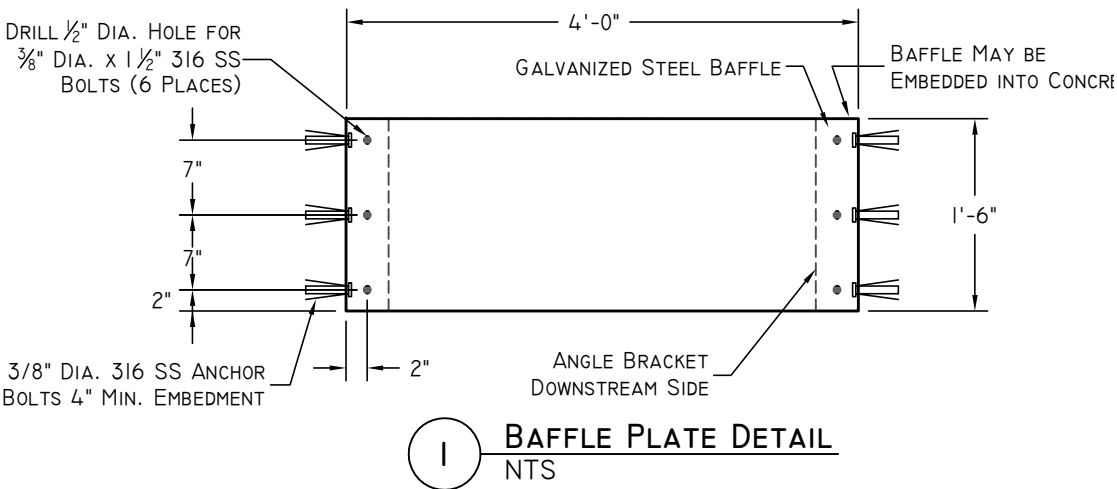
06- 1 foot Parshall Flume.dwg
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A PLAN VIEW
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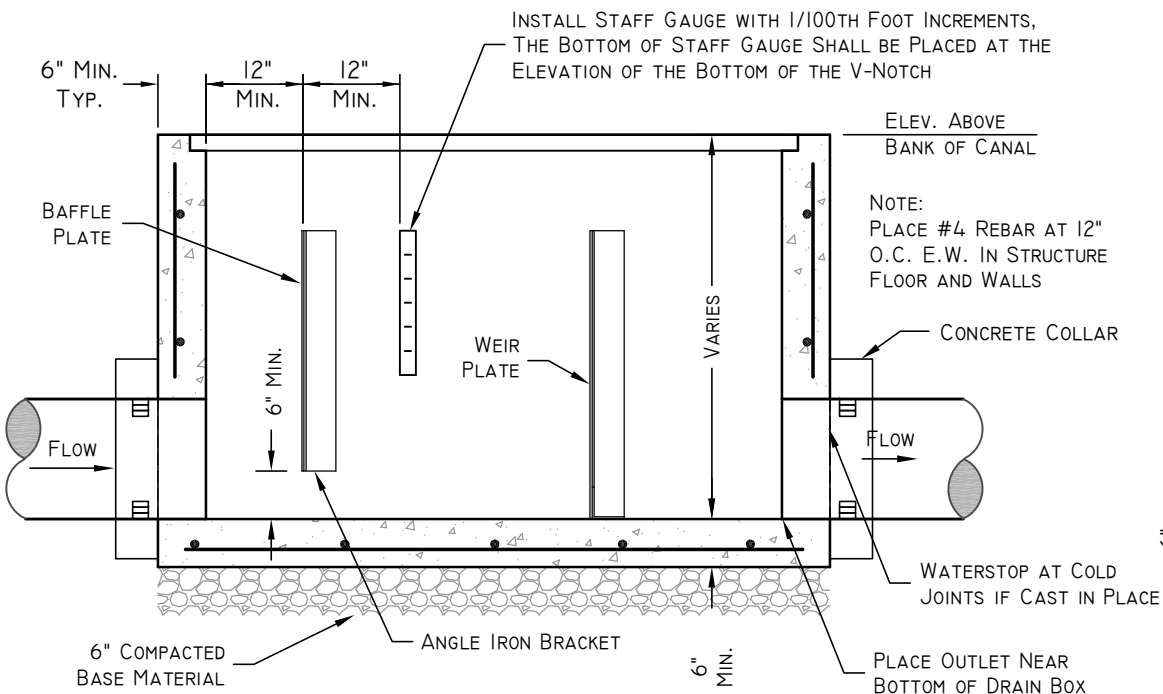
FLOW TABLE
 $Q = CW \times H^{2.5}$

CW	2.5
H (FT.)	Q (CFS)
0.20	0.04
0.30	0.12
0.40	0.25
0.50	0.44
0.60	0.70
0.70	1.02
0.80	1.43
0.90	1.92
1.00	2.50
1.10	3.17
1.20	3.94
1.30	4.82
1.40	5.80
1.50	6.89

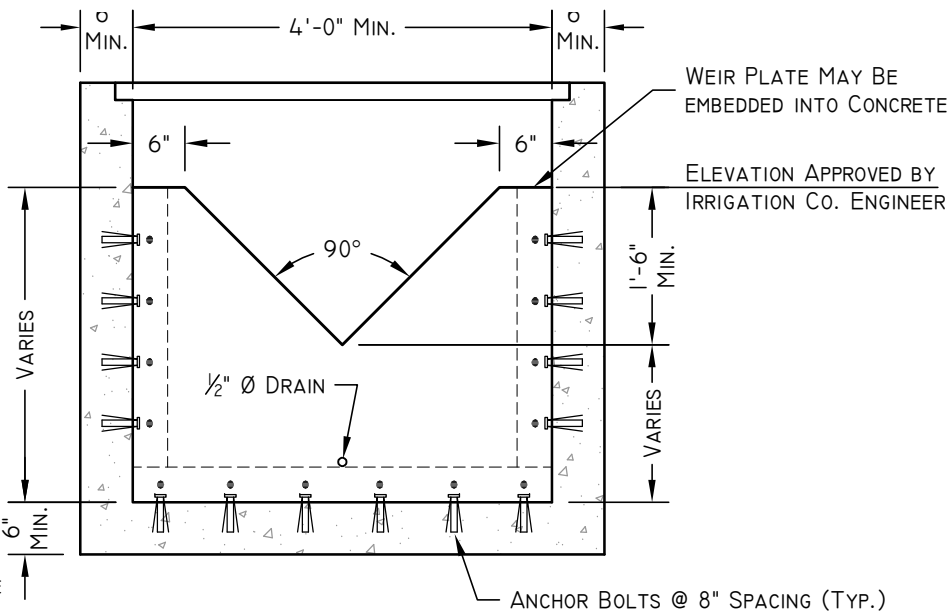


1 BAFFLE PLATE DETAIL
NTS

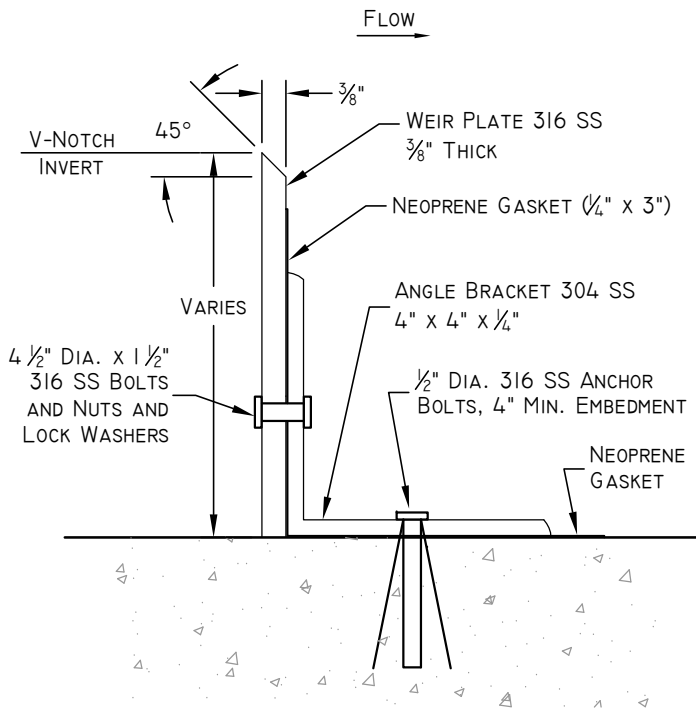
- NOTES:
- IF BOX IS CAST IN PLACE, PUT #4 REBAR PLACED AT 12" O.C. E.W. IN STRUCTURE FLOOR AND WALLS MINIMUM.
 - ALL PIPES INTO BOX SHALL BE GROUTED AND WATERTIGHT.
 - SUBMIT TO IRRIGATION COMPANY ENGINEER FOR FINAL DIMENSIONS ON REBAR REINFORCEMENT AND CONCRETE COMPONENTS.
 - PLACE STRUCTURE ON 6-INCHES OF IRRIGATION COMPANY ENGINEER APPROVED COMPACTED BEDDING



B SECTION
NTS



C SECTION
NTS



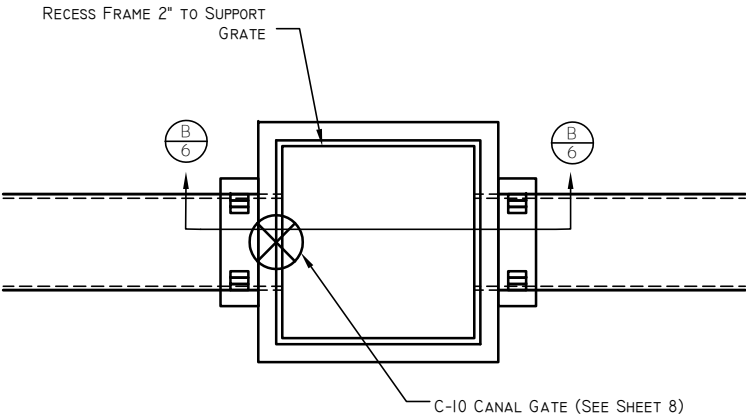
2 ANGLE IRON DETAIL
NTS

DISCLAIMER:

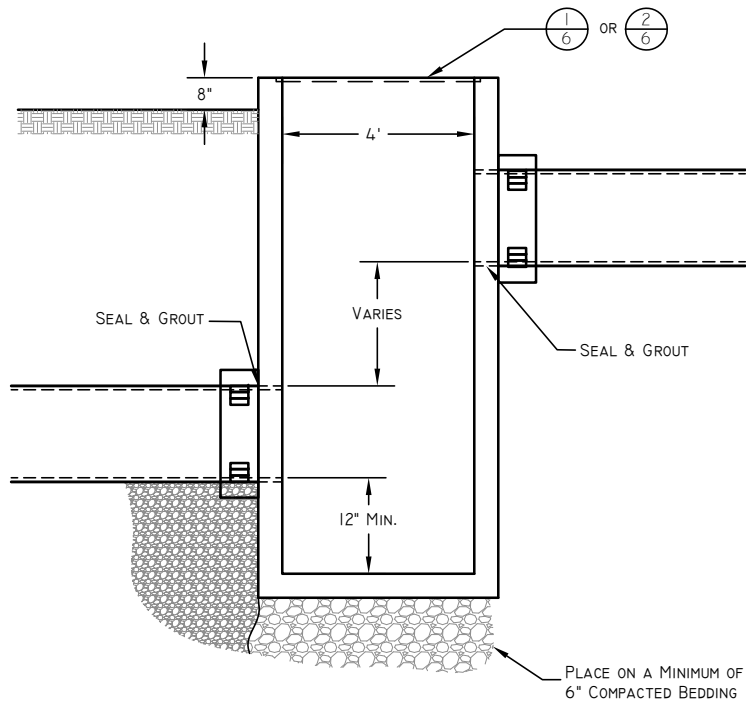
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EAST BENCH
CANAL COMPANY

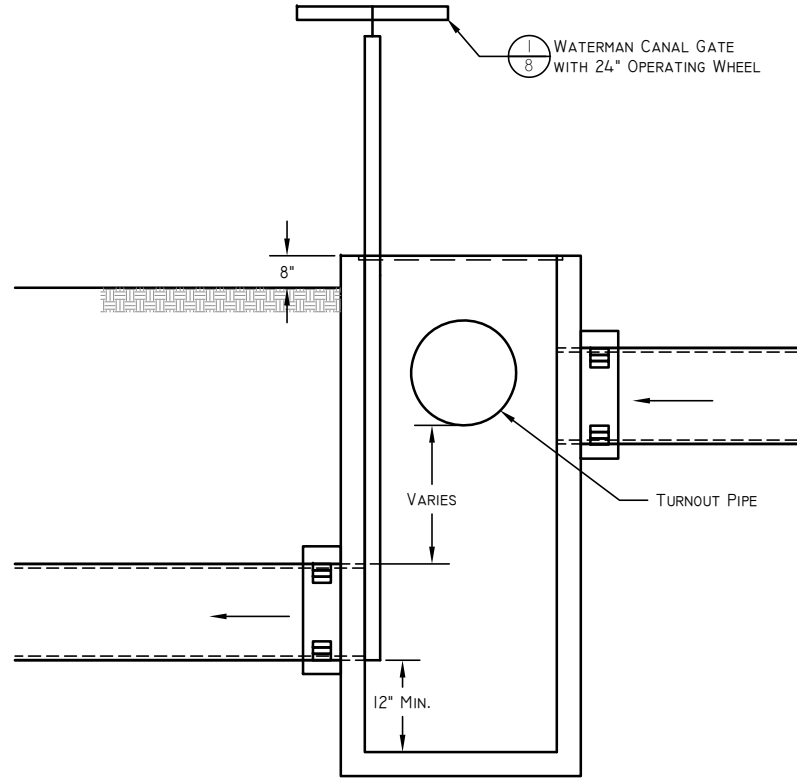
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CHAD BROWN	MATT GUR			CHAD BROWN	SEPTEMBER 1, 2021
NO.	DATE	INTS	DESCRIPTION	REVISIONS	



A 4' x 4' IRRIGATION BOX PLAN
NTS



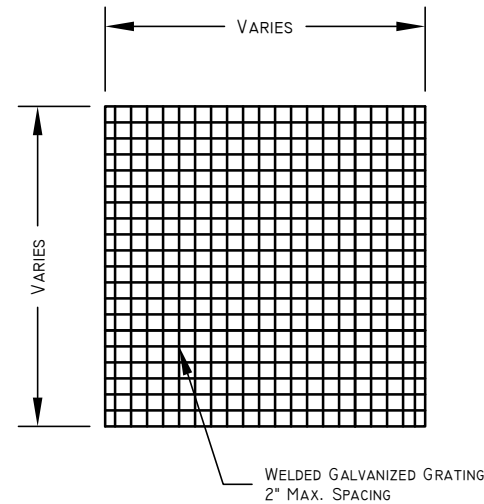
B 4' x 4' IRRIGATION BOX PROFILE
NTS



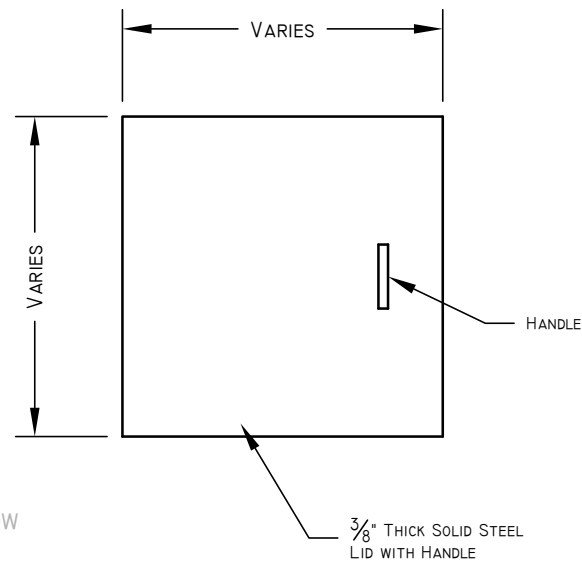
3 BUBBLE UP TURNOUT BOX SECTION
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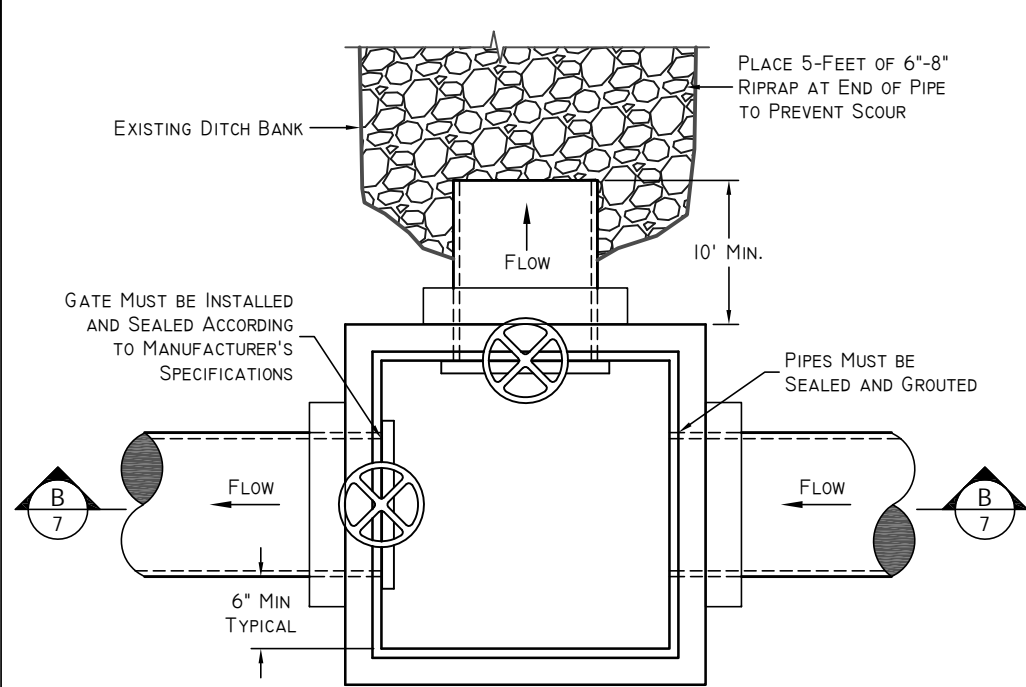
1 GRATE DETAIL
NTS



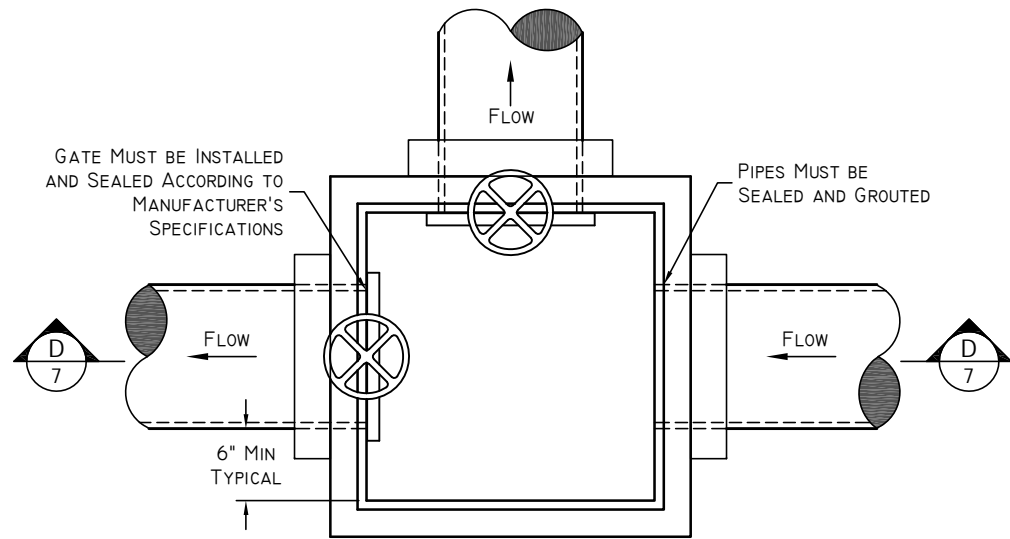
2 SOLID LID
NTS

- NOTES
1. IF BOX IS CAST IN PLACE, REBAR TO BE PLACED AT 12" O.C. E.W. MINIMUM.
 2. ALL PIPES INTO BOX SHALL BE GROUTED AND WATERTIGHT.
 3. SUBMIT TO ENGINEER FINAL DIMENSIONS ON REBAR REINFORCEMENT AND CONCRETE COMPONENTS.
 4. MINIMUM PIPE SLOPES FOR PIPE UNDER ROADWAY SEE SHEET 4.
 5. BOXES MAY BE PRECAST OR CAST IN PLACE. BOXES SHALL HAVE A MINIMUM INTERIOR WIDTH AND LENGTH OF 4' WITH #4 REBAR @ 12" O.C. BOXES MUST BE SUBMITTED FOR REVIEW.
 6. IRRIGATION BOXES SHALL NOT BE PLACED IN ROADWAY.
 7. ALL PIPE PLACED IN ROADWAY MUST BE CLASS III RCP.
 8. REMOVAL AND REPLACEMENT OF CANAL BANKS WILL REQUIRE TESTING AND PROCTORS BY A LICENSED SOILS LAB.
 9. CAST IN PLACE BOXES MUST HAVE WATERSTOP INSTALLED AT EACH COLD JOINT.
 10. GRATES TO BE NOTCHED OUT AROUND HEADGATES, SUPPORT GRATES ONCE CUT.

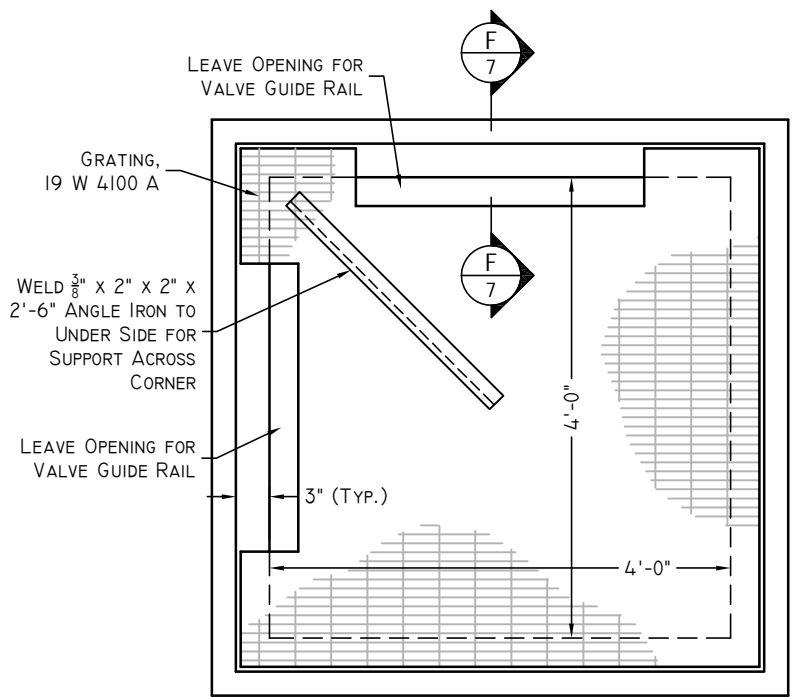
EAST BENCH CANAL COMPANY		EAST BENCH CANAL COMPANY	
TYPICAL DRAWINGS		CANAL COMPANY	
IRRIGATION BUBBLE UP BOX			
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JOB NO.			
SHEET			
6		OF 8	



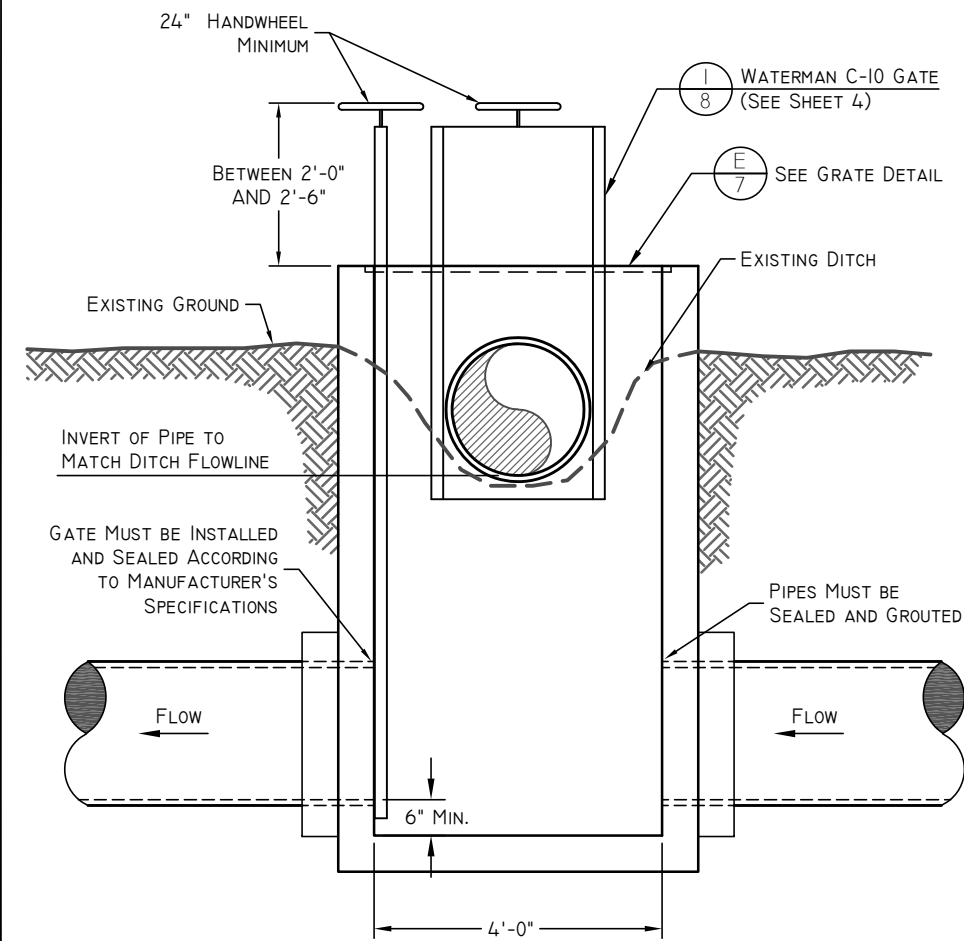
A TURNOUT BOX PLAN
NTS



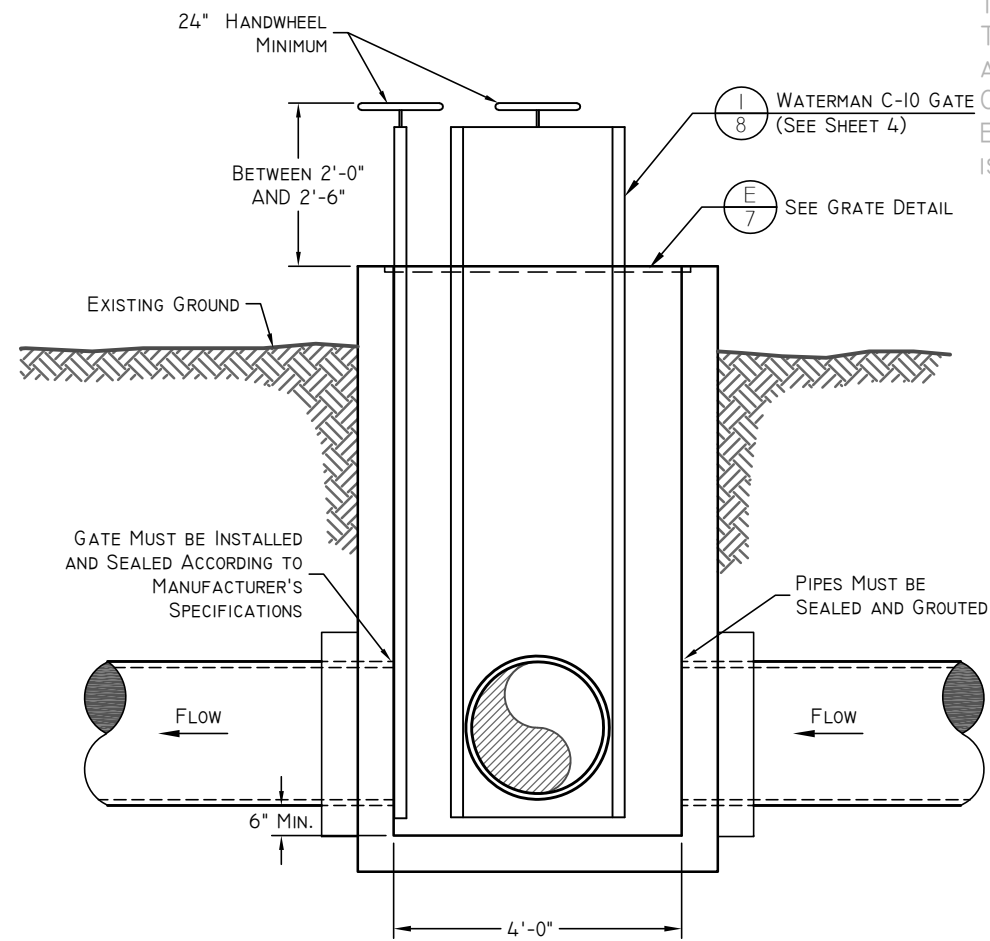
C DIVERSION BOX
NTS



E GRATE DETAIL - TOP VIEW
NTS



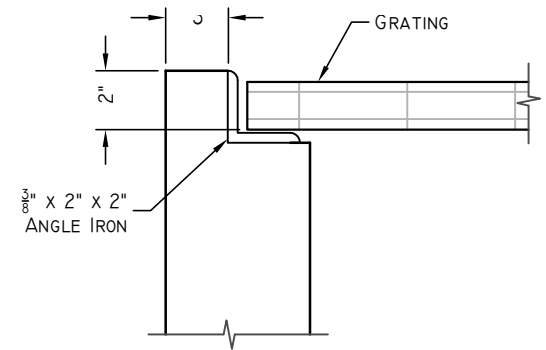
B TURNOUT BOX SECTION
NTS



D DIVERSION BOX SECTION
NTS

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F WALL SECTION
NTS

NOTES:

1. ALL PIPES INTO BOX SHALL BE GROUTED AND WATERTIGHT.
2. BOXES MAY BE PRECAST OR CAST IN PLACE. BOXES SHALL HAVE A MINIMUM INTERIOR WIDTH AND LENGTH OF 4 FEET WITH #4 REBAR @ 12 INCHES O.C. BOXES MUST BE SUBMITTED FOR REVIEW.
3. TURNOUT AND DIVERSION BOXES SHALL NOT BE PLACED IN ROADWAY.
4. ALL EXPOSED METAL SHALL BE GALVANIZED.

TYPICAL DRAWINGS
IRRIGATION TURNOUT DIVERSION BOX

09_Irrigation Turnout Diversion Box.dwg
03/2007 EAST BENCH REVIEWS 2020 Drawings Standard Drawings

JOB NO.

EAST BENCH CANAL COMPANY

DESIGNER: CHAD BROWN

DRAFTSMAN: MATT GURR

CHECKED: CHAD BROWN

PROJECT LEADER: CHAD BROWN

PRINT DATE: SEPTEMBER 1, 2021

DESCRIPTION

REVISIONS

NO.

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INTS

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DESIGNER: CHAD BROWN

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PRINT DATE: SEPTEMBER 1, 2021

DESCRIPTION

REVISIONS

NO.

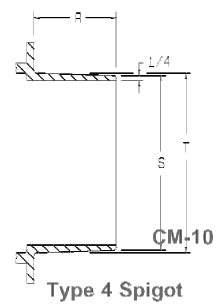
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DATE

GATE DIMENSIONS IN INCHES

2 REBAR IN HEADWALL

3 THRUST RESTRAINTS

PIPE DIA. (IN.)	# OF RESTRAINTS
≤ 24	3
≤ 36	4
≤ 42	5
>42	1 RESTRAINT FOR EVERY 20 INCHES IF PIPE CIRCUMFERENCE
* THRUST RESTRAINTS SHOULD BE SPACED EQUIDISTANT AROUND THE PIPE PERIMETER.	

1 WATERMAN C-10 CANAL GATE
NTS

EAST BENCH
CANAL COMPANY

	8
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EAST BENCH CANAL COMPANY
TYPICAL DRAWINGS
WATERMAN C-10 CANAL GATE

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JOB NO.

SHEET
OF 8