East Bench Canal Company

Typical Drawings

Sheet Index

East Bench Canal Company

DESIGNER: Chad Brown
DRAFTSMAN: Matt Gunn
CHECKED: Checked
REVIEWED: Reviewed
PROJECT LEADER: Chad Brown
PRINT DATE: March 27, 2025

REVISIONS

NO.	DATE	INITS.	DESCRIPTION

East Bench Canal Company

Typical Drawings

Cover Sheet, Sheet Index

JOB NO. CU.0144

01- Cover Sheet.dwg
O:\00007 EAST BENCH\Reviews 2020\Drawings\Standard Drawings

LAYOUT: Cover

SHEET 1 OF 11

EAST BENCH CANAL COMPANY (EBCC) NOTES

NOTES TO BE ADDED TO THE DRAWING SET UNDER HEADING LABELED "EAST BENCH CANAL COMPANY (EBCC) NOTES"

- ☐ Applicant must notify Franson Civil Engineers (Franson Civil) and EBCC at least 24 hours before construction on EBCC facilities. Call Kyle DeVaney with Franson Civil Engineers at 801-756-0309 and J. Merrill Hallam with EBCC at 801-376-9790. Failure to do so may result in a $5,000 fine.
- ☐ All construction affecting irrigation facilities and within the EBCC right-of-way must be done to EBCC Standards.
- ☐ All backfill materials shall be compacted to a minimum of 95% standard Proctor density.
- ☐ Work cannot interfere with delivery of irrigation water. Construction activities that affect EBCC facilities must take place between October 31st and April 1st.
- ☐ It is the responsibility of the Contractor to protect work site. Any damage to the canal corridor caused by construction activities will be the responsibility of the Contractor and Applicant.
- ☐ Applicant is required to perform compaction testing at the Applicant's cost. If requested, compaction test results shall be submitted to Franson Civil Engineers. All failed material shall be removed and compacted to specifications. Testing must be performed by a licensed soils lab.
- ☐ All concrete used in construction shall have a minimum compressive strength of 4,000 psi. The concrete mix shall include between 5% and 7% air entrainment.
- ☐ Apply Waterstop RX, Swellstop, or EBCC Engineer-approved equivalent to all concrete cold joints.
- ☐ PVC water stop, or equivalent, is required in all joints of cast-in-place concrete to prevent seepage between the surfaces.
- ☐ Fences disturbed during construction activities must be replaced and returned to pre-construction conditions, or better.
- ☐ Neither EBCC nor Franson Civil can verify the locations of underground facilities. Blue Stakes should always be called before digging (1-800-662-4111).

PIPES

- ☐ Contractor must document all new pipes by video camera after installation and backfill. Any problems with joints, levels, slopes, etc. discovered by the video technicians must be repaired. A digital copy of the video must be submitted to Franson Civil Engineers.
- ☐ Prior to backfilling of pipes, the contractor must notify Kyle DeVaney of Franson Civil Engineers so a GPS survey of the location and elevation of the installed pipelines can be performed.
- ☐ Pipes crossing perpendicularly over or under the irrigation pipe(s) shall have a minimum one-foot vertical clearance.
- ☐ Pipes or other utilities running parallel to the irrigation pipe in a shared easement shall be placed a minimum of 5 feet horizontally distanced from the irrigation pipe.
- ☐ Pipes entering or exiting a cleanout box or manhole should be sealed and grouted.
- ☐ Pipes entering a cleanout box or manhole must be secured in place with a concrete collar.

IRRIGATION CLEANOUT BOXES AND MANHOLES

- ☐ Knock out boxes and manholes are not allowed. All boxes and manholes shall be pre-cast with cored openings for the pipes or shall be cast-in-place.
- ☐ Pipes entering boxes and manholes should be concreted on the outside and grouted on the inside.
- ☐ Irrigation boxes and manholes shall not be buried. They shall extend to the surface of the final grade. Any existing boxes and manholes that will not extend to the final grade surface shall be extended to match the final grade. If the box has gates, the box shall extend 6 inches above the ground surface.

INLET AND OUTLET STRUCTURES

- ☐ Canal floor and embankment material removed for excavation shall be replaced with 12_inch minimum thickness of 10^{-6} cm/sec permeability clay material, compacted to 95% standard Proctor density in 6-inch maximum lifts.
- ☐ Canal embankment shall be shaped to match the existing canal prism.

EASEMENTS

ADD THE FOLLOWING NOTES TO THE PLAT MAP

- ☐ No trees or shrubs in East Bench Canal Company easements.
- ☐ No telephone boxes or power boxes in East Bench Canal Company easements.
- ☐ Fences disturbed during construction activities must be replaced and returned to pre-construction condition, or better.
- ☐ Irrigation boxes may not be fenced in yards. Direct access (not through fences) must be provided to East Bench Canal Company from city streets.

DISCLAIMER:

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EAST BENCH CANAL COMPANY

DESIGNER: CHAD BROWN
DRAFTSMAN: MATT GUNN
CHECKED: CHAD BROWN
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PRINT DATE: MARCH 27, 2025

NO.	DATE	INITS.	REVISIONS DESCRIPTION

EAST BENCH CANAL COMPANY

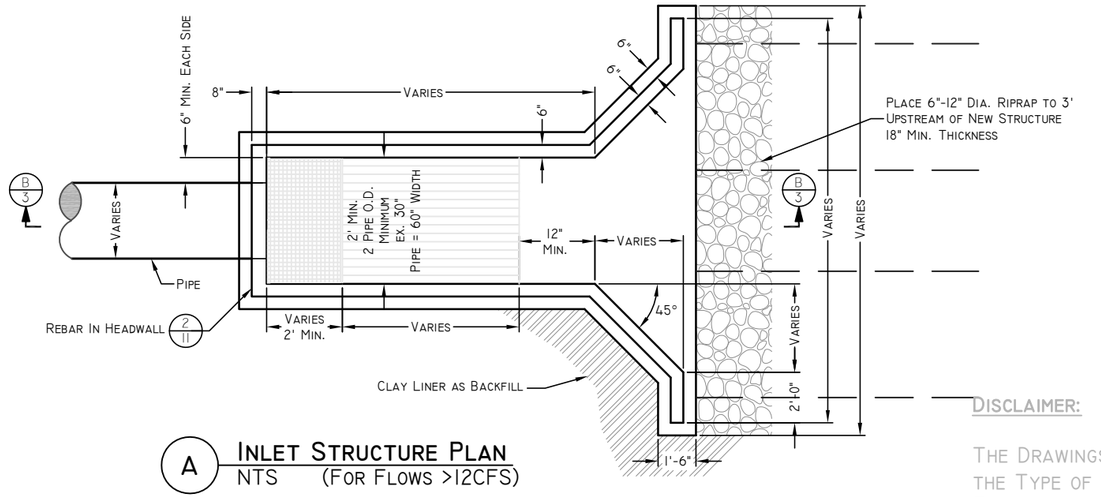
TYPICAL DRAWINGS
GENERAL NOTES

JOB NO. CU.0144

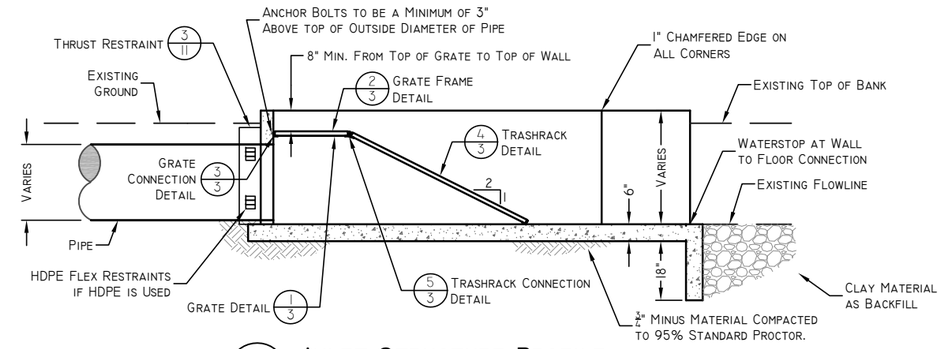
02- General Notes.dwg
O:\00007 EAST BENCH\Reviews 2020\Drawings\Standard Drawings

LAYOUT: Cover

SHEET 2 OF 11



A **INLET STRUCTURE PLAN**
NTS (FOR FLOWS >12CFS)



B **INLET STRUCTURE PROFILE**
NTS

DISCLAIMER:

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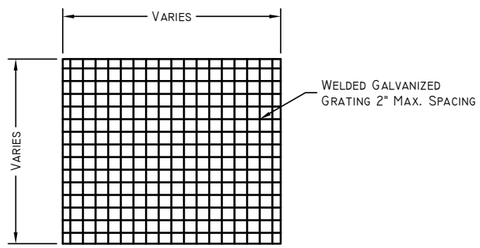
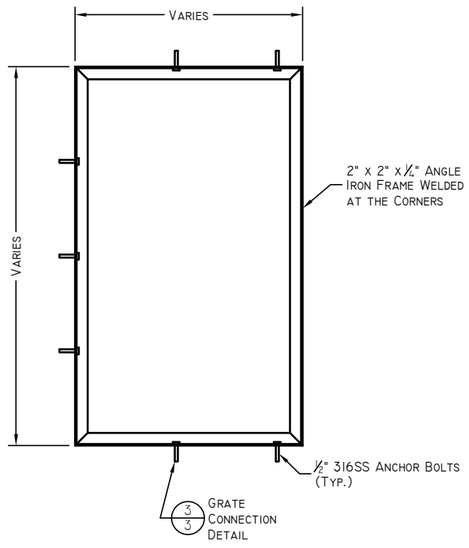
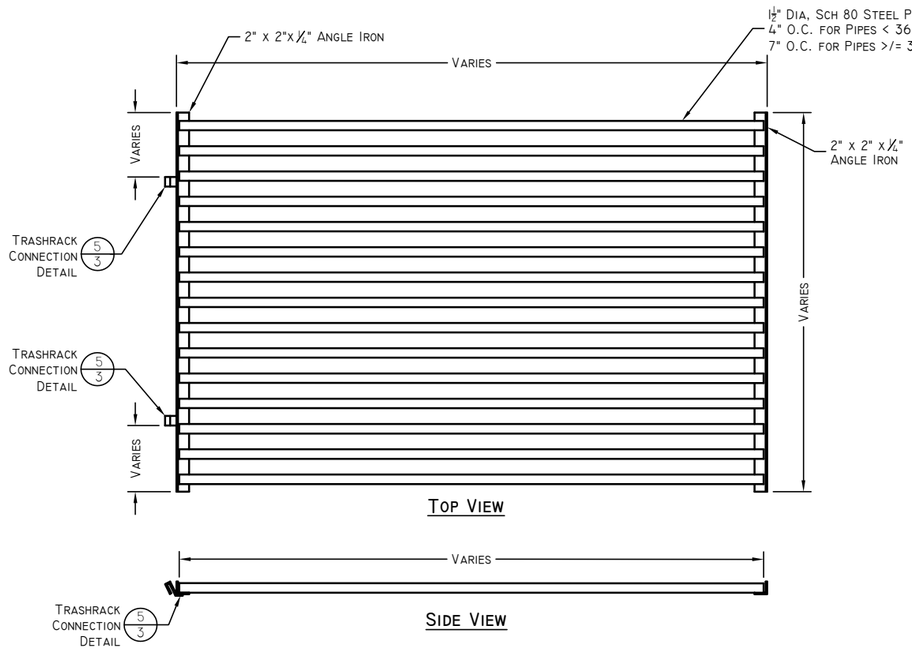


1 **GRATE DETAIL**
NTS



2 **GRATE FRAME DETAIL**
NTS



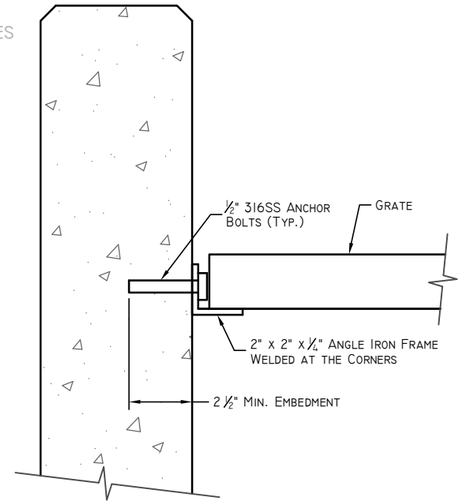
4 **TRASHRACK DETAIL**
NTS

NOTES:

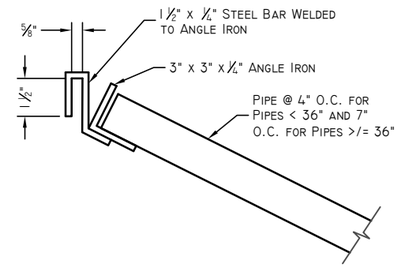
1. IF BOX IS CAST IN PLACE, REBAR TO BE PLACED AT 12 INCHES ON CENTER (O.C.) EACH WAY (E.W.) MINIMUM.
2. ALL PIPES INTO BOX SHALL BE GROUTED AND WATERTIGHT.
3. SUBMIT TO CANAL COMPANY ENGINEER FOR APPROVAL.
4. MINIMUM TWO GRATES TO BE INSTALLED. SUBMIT TO CANAL COMPANY ENGINEER FOR APPROVAL.
5. WATERSTOP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

TABLE 1 FOR DETAIL 5 3

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



3 **GRATE CONNECTION DETAIL**
NTS



5 **TRASHRACK CONNECTION DETAIL**
NTS

EAST BENCH CANAL COMPANY

DESIGNER: CHAD BROWN
DRAFTSMAN: MATT GUMM
CHECKED: CHECKED
REVIEWED: REVIEWED
PROJECT LEADER: CHAD BROWN
PRINT DATE: MARCH 27, 2025

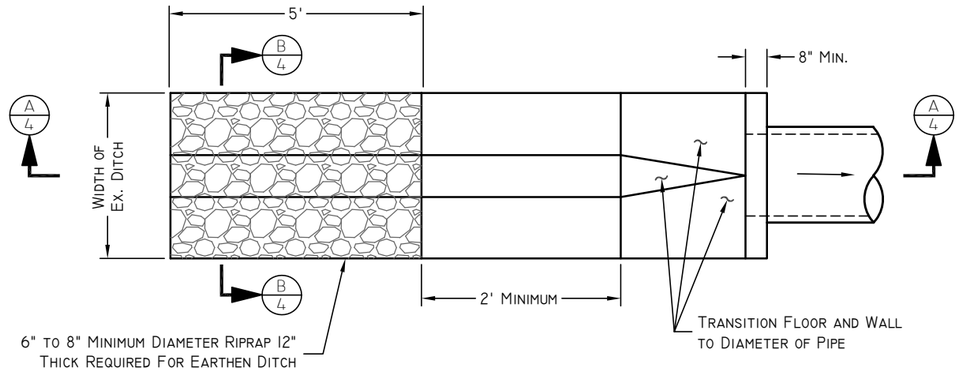
NO.	DATE	REVISIONS DESCRIPTION

EAST BENCH CANAL COMPANY

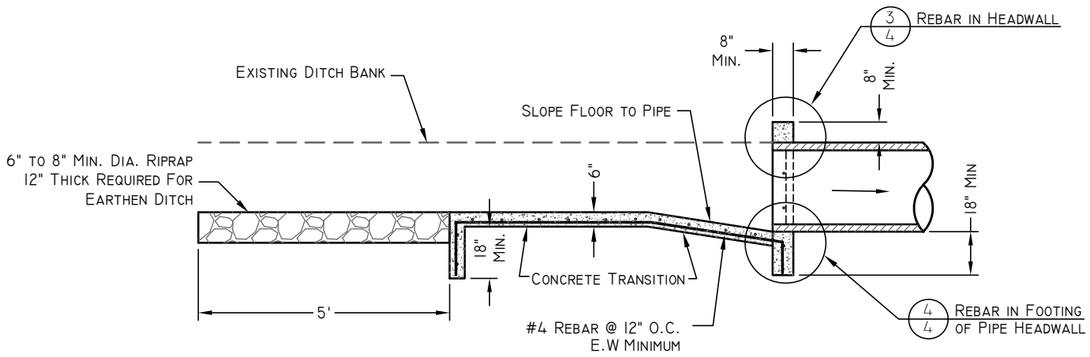
TYPICAL DRAWINGS
TRASHRACK AND INLET STRUCTURE

JOB NO. CU 0144

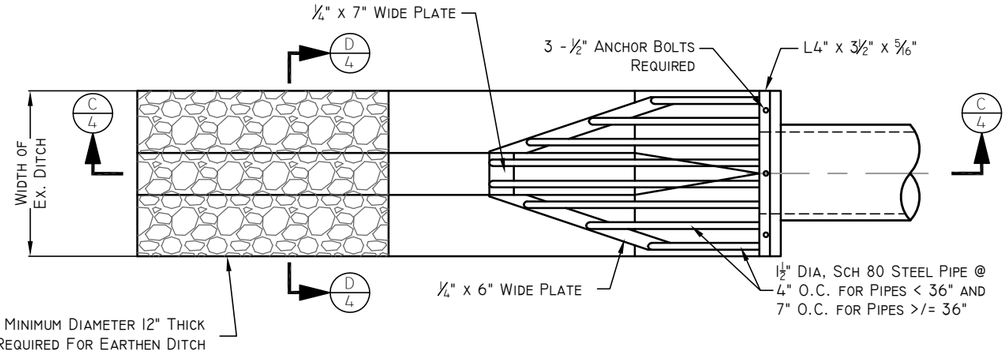
03-Trashrack and Inlet Structure.dwg
C:\2000\7 EAST BENCH\Reviews 2020\Drawings\Standard Drawings
LAYOUT: Details



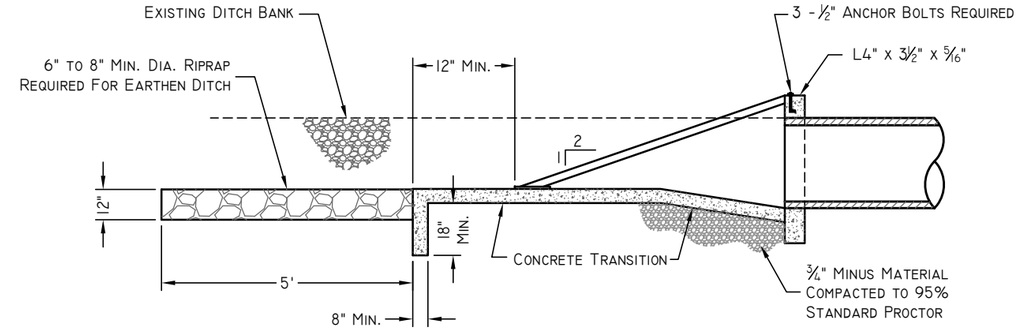
1 Ditch Pipe Connection
NTS (For Flows 12 CFS or Less)



A Ditch Pipe Connection Section
NTS



2 Trash Rack Plan
NTS



C Trash Rack Section
NTS

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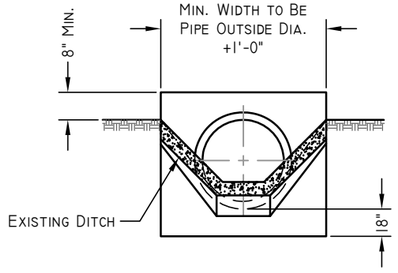
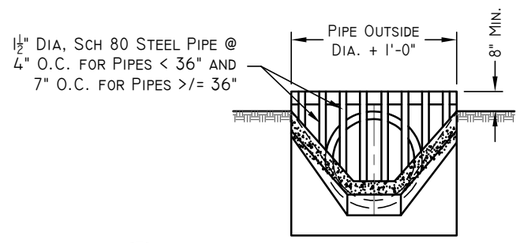
Notes:

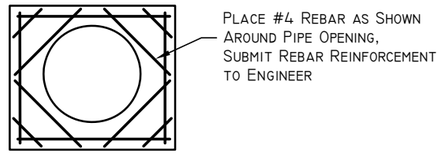
1. If Box is Cast in Place, Rebar to Be Placed at 12 Inches O.C. E.W. Minimum.
2. All Pipes into Box Shall Be Grouted and Watertight.
3. Submit to Canal Company Engineer For Approval of Final Dimensions on Rebar Reinforcement and Concrete Components.



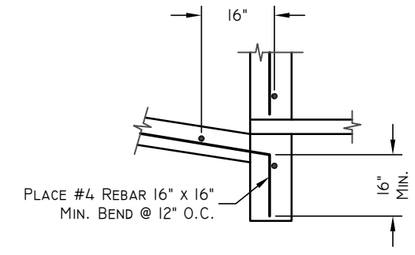
B Ditch Pipe Connection Section
NTS



D Trash Rack Front Section
NTS



3 Rebar in Headwall
NTS



4 Rebar in Footing of Pipe Headwall
NTS

East Bench Canal Company

DESIGNED:	CHAD BROWN
DRAFTSMAN:	MATT GUNN

NO.	DATE:	INITS.

REVISIONS
DESCRIPTION

CHECKED:	CHECKED
REVIEWED:	REVIEWED

PROJECT LEADER:	CHAD BROWN
PRINT DATE:	MARCH 27, 2025

East Bench Canal Company

Typical Drawings
Open Ditch to Pipe Transition and Structure

JOB NO. CU.0144

04-Open Ditch to Pipe Transition.dwg
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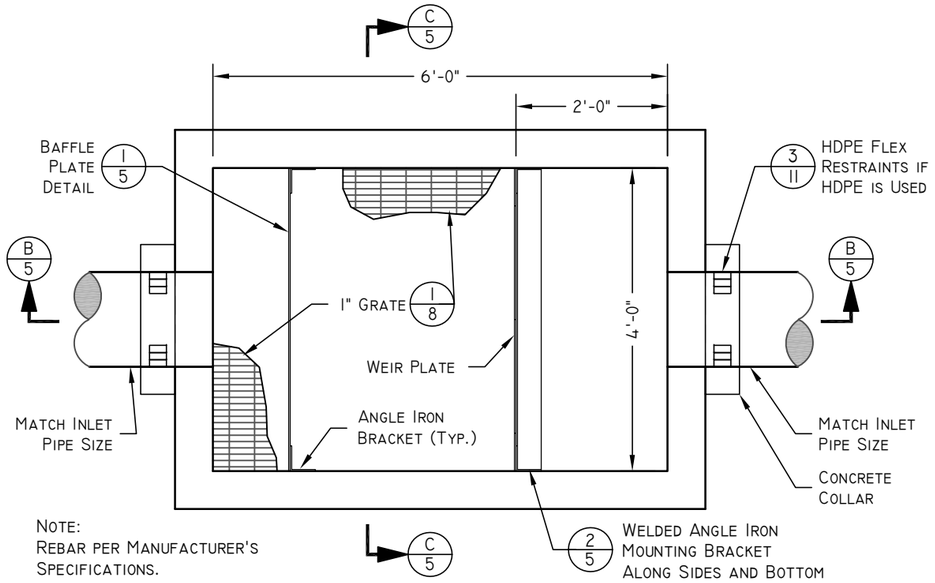
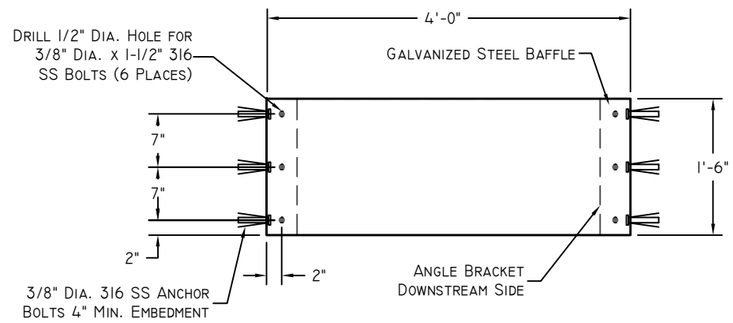
LAYOUT: Details



NOTE:
REBAR PER MANUFACTURER'S SPECIFICATIONS.

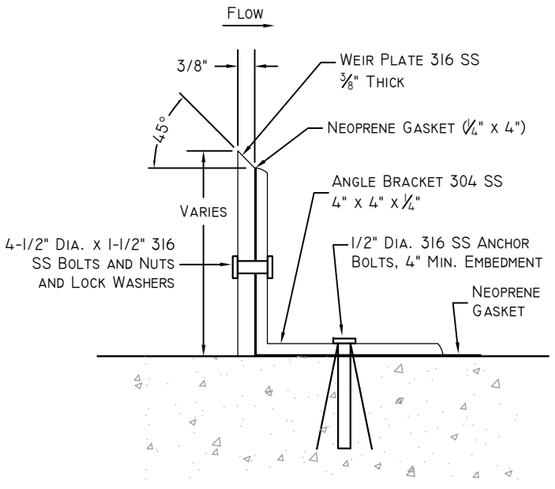
A PLAN VIEW
NTS



I BAFFLE PLATE DETAIL
NTS

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

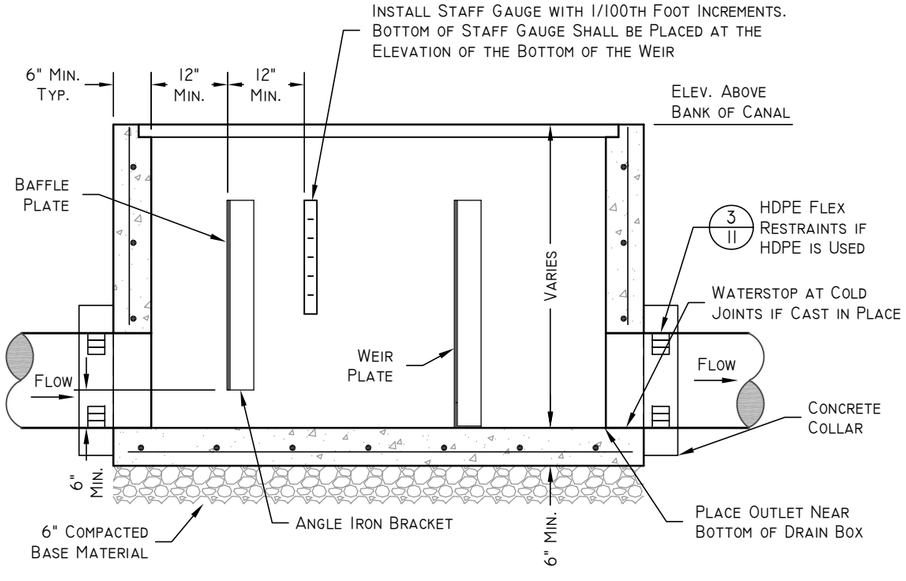
H (FT.)	Q (CFS)
0.2	0.90
0.3	1.66
0.4	2.56
0.5	3.57
0.6	4.69
0.66	5.42



2 ANGLE IRON DETAIL
NTS

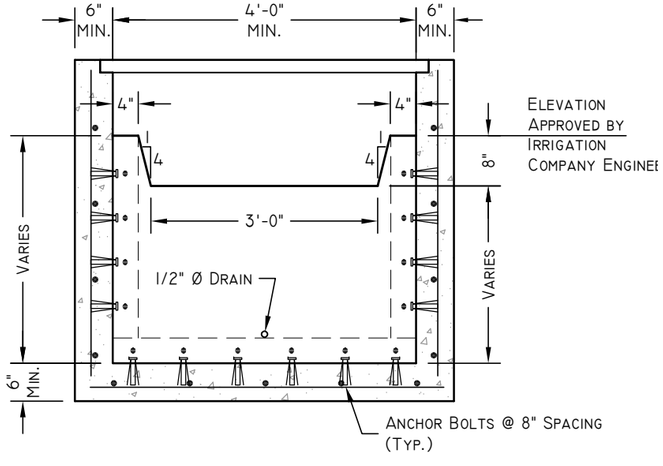
NOTES:

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 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.



B SECTION
NTS

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



C SECTION
NTS

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EAST BENCH CANAL COMPANY

DESCRIPTION: REVISIONS
DATE:
INITS:
NO.

DESIGNER: CHAD BROWN
DRAFTSMAN: MATT GUHR
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CHECKED:
REVIEWED:
PROJECT LEADER: CHAD BROWN
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EAST BENCH CANAL COMPANY

TYPICAL DRAWINGS
3-FOOT CIPOLLETTI WEIR

JOB NO. CU.0144

05-3 Foot Cipoletti Weir.dwg
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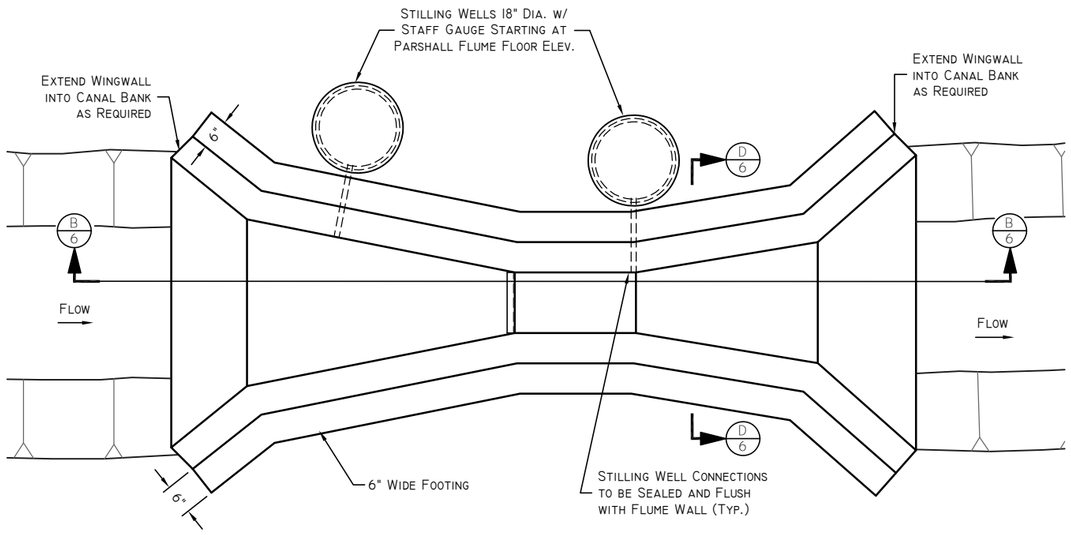
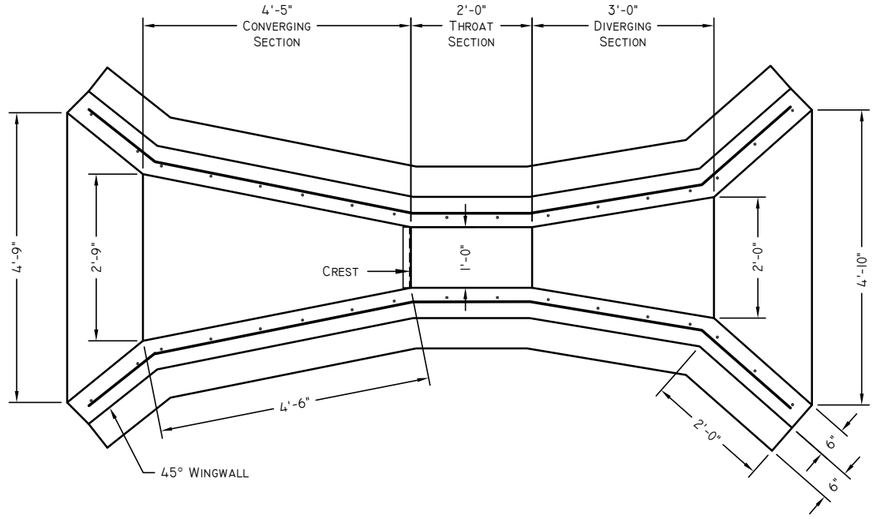
LAYOUT: Details (11x17)



A Plan



C Rebar Plan

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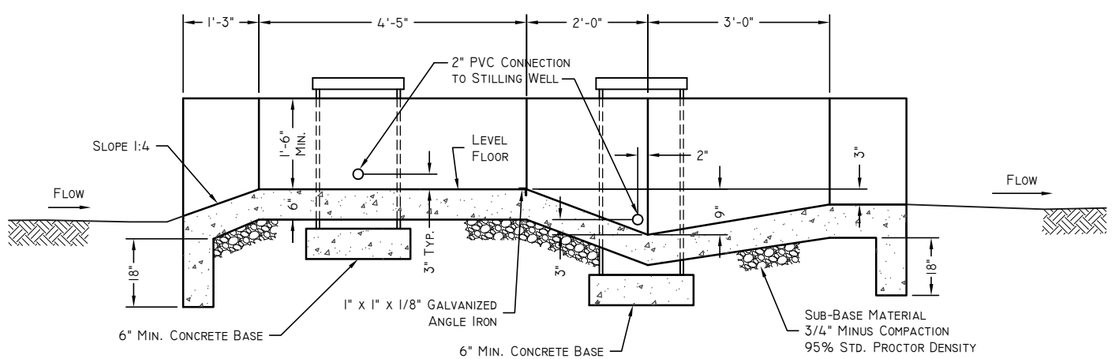
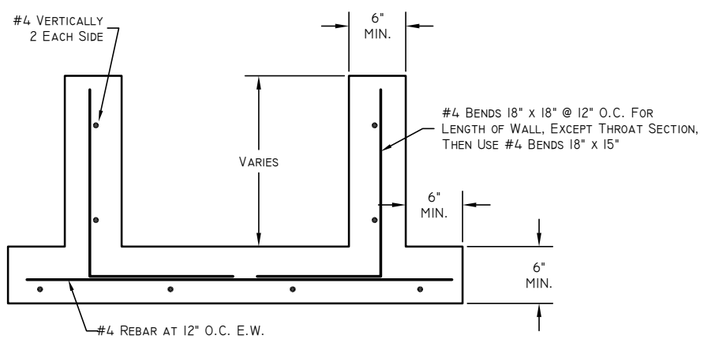
Notes:

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

Table 1
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		

East Bench Canal Company

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DRAFTSMAN: Matt Gunn
DESIGNER:
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REVIEWED:
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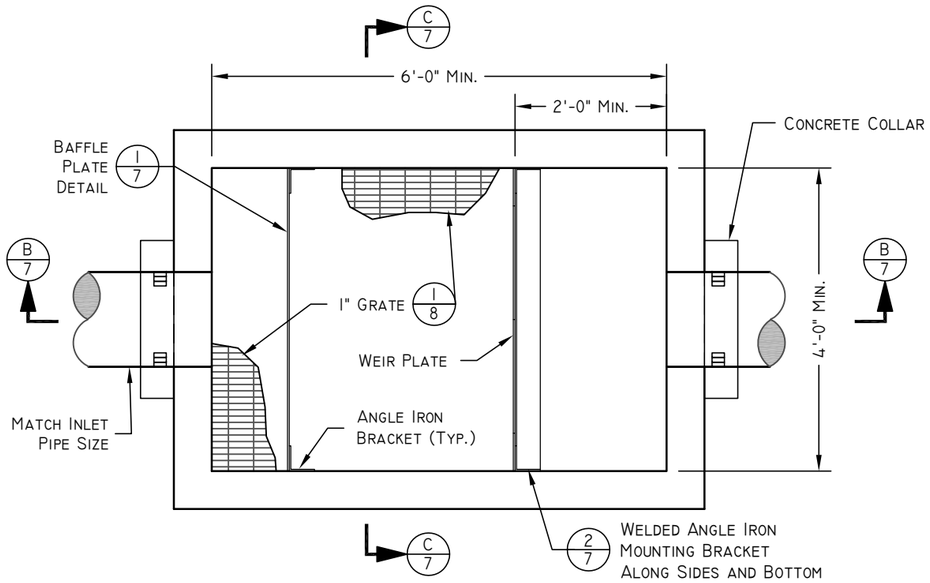
Typical Drawings
1-Foot Parshall Flume

JOB NO. CU.0144

06-1 foot Parshall Flume.dwg
O:\2000's\ EAST BENCH\ Reviews 2020\Drawings\Standard Drawings

LAYOUT: 11 x 17

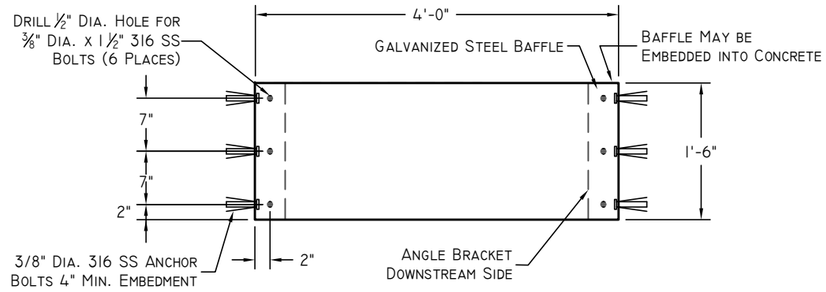
SHEET 6 OF 11



A PLAN VIEW
NTS

FLOW TABLE
Q=CW x H^2.5

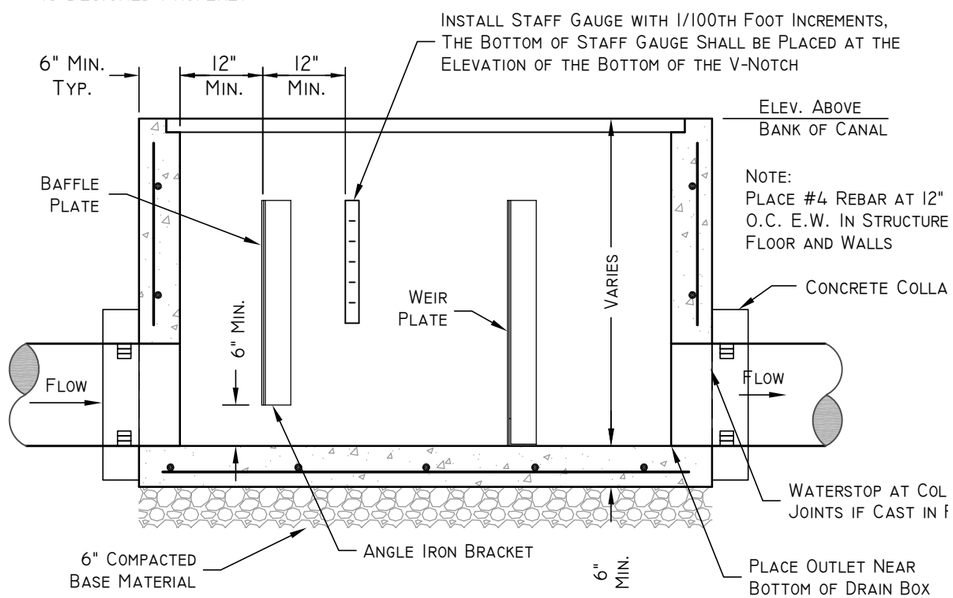
CW	2.5
H (FT.)	Q (CFS)
0.20	0.04
0.30	0.12
0.40	0.25
0.50	0.44
0.60	0.70
0.70	1.02
0.80	1.43
0.90	1.92
1.00	2.50
1.10	3.17
1.20	3.94
1.30	4.82
1.40	5.80
1.50	6.89



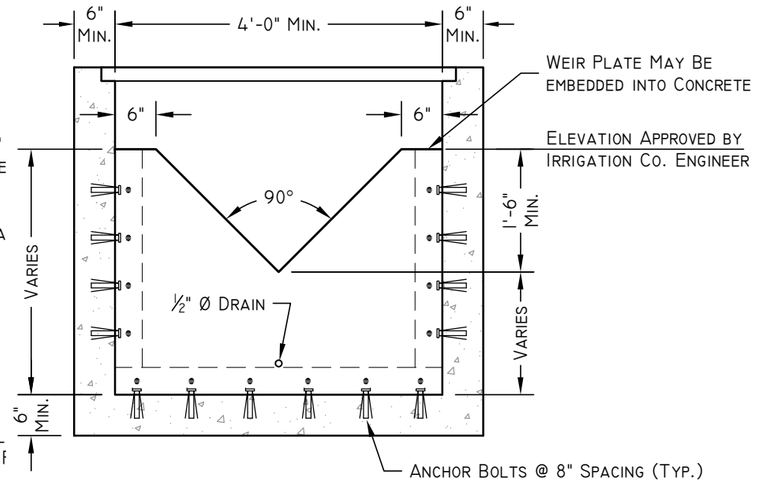
I BAFFLE PLATE DETAIL
NTS

NOTES:

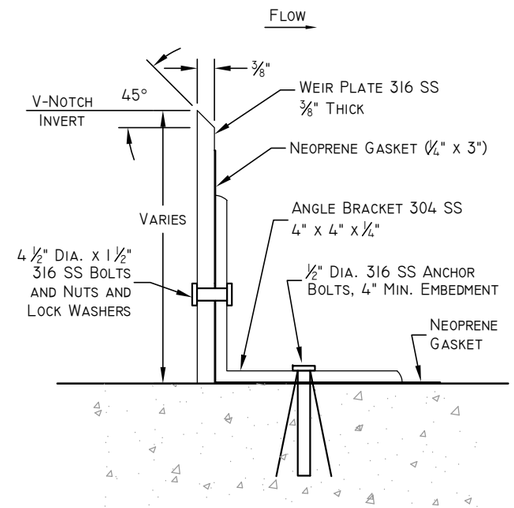
1. IF BOX IS CAST IN PLACE, PUT #4 REBAR PLACED AT 12" O.C. E.W. IN STRUCTURE FLOOR AND WALLS MINIMUM.
2. ALL PIPES INTO BOX SHALL BE GROUTED AND WATERTIGHT.
3. SUBMIT TO IRRIGATION COMPANY ENGINEER FOR FINAL DIMENSIONS ON REBAR REINFORCEMENT AND CONCRETE COMPONENTS.
4. PLACE STRUCTURE ON 6-INCHES OF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



B SECTION
NTS



C SECTION
NTS



2 ANGLE IRON DETAIL
NTS

EAST BENCH CANAL COMPANY

DESIGNER: CHAD BROWN
DRAFTSMAN: MATT GUMR
CHECKED: CHECKED
REVIEWED: REVIEWED
PROJECT LEADER: CHAD BROWN
PRINT DATE: MARCH 27, 2025

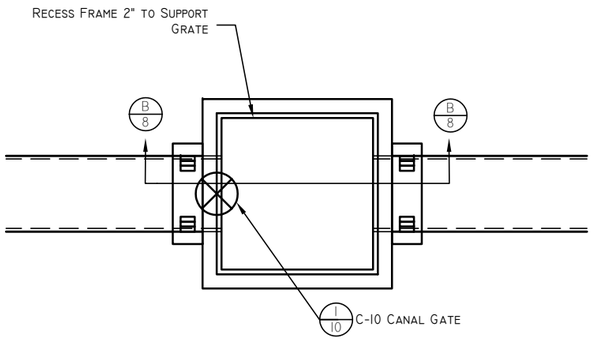
NO.	DATE	REVISIONS DESCRIPTION

EAST BENCH CANAL COMPANY

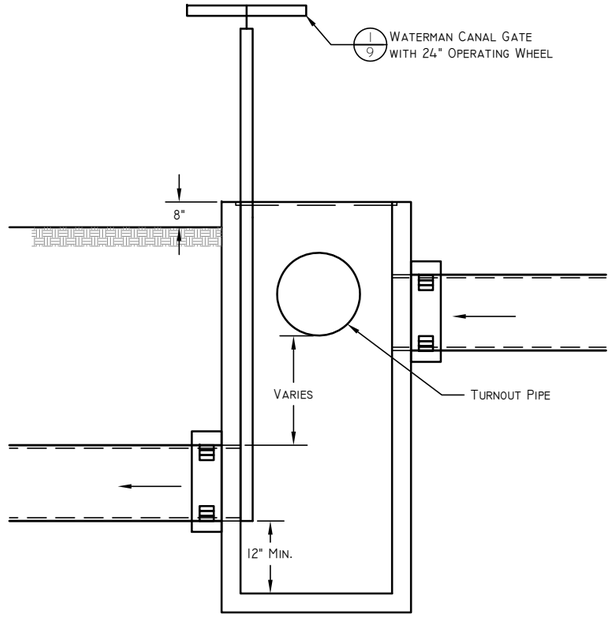
TYPICAL DRAWINGS
90° V-NOTCH WEIR

JOB NO. CU.0144

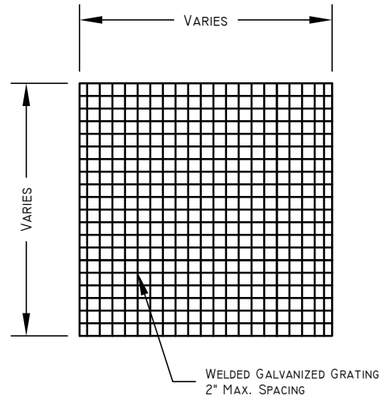
07-90° V-Notch Weir.dwg
O:\2007 EAST BENCH\Reviews 2020\Drawings\Standard Drawings
LAYOUT: Details (11x17)



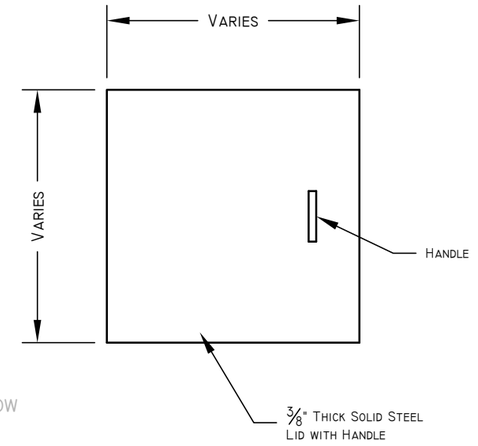
A 4' x 4' Irrigation Box Plan
NTS



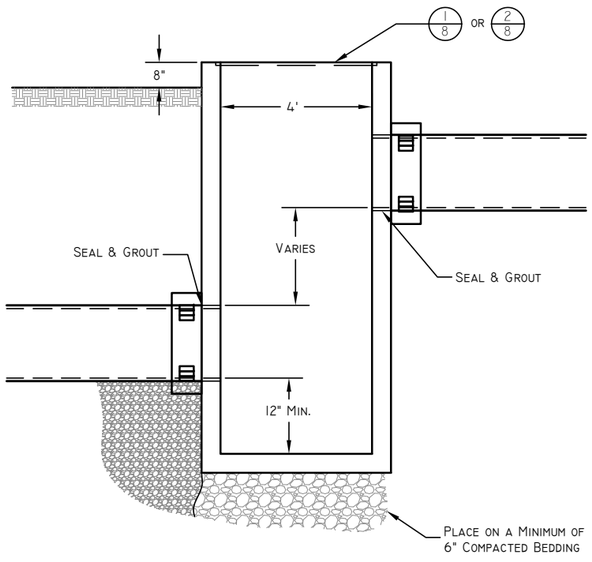
3 Bubble Up Turnout Box Section
NTS



1 Grate Detail
NTS



2 Solid Lid
NTS



B 4' x 4' Irrigation Box Profile
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 Table 1 (This Sheet).
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 Boxed Must Have Waterstop Installed at Each Cold Joint.
10. Grates to be Notched out Around Headgates, Support Grates once Cut.

Table 1

Minimum Pipe Slopes		
Pipe Drain Size	Min. Slope, ft/ft	Min. Slope, %
12"	0.002	.2%
15"	0.0015	.15%
18"	0.0012	.12%
24"	0.0008	.08%
30"	0.00058	.058%

East Bench Canal Company

DESIGNED: Chad Brown
DRAFTSMAN: Matt Gurr
CHECKED: Reviewed
REVIEWED:
PROJECT LEADER: Chad Brown
PRINT DATE: March 27, 2025

NO.	DATE	DESCRIPTION
		REVISIONS

East Bench Canal Company

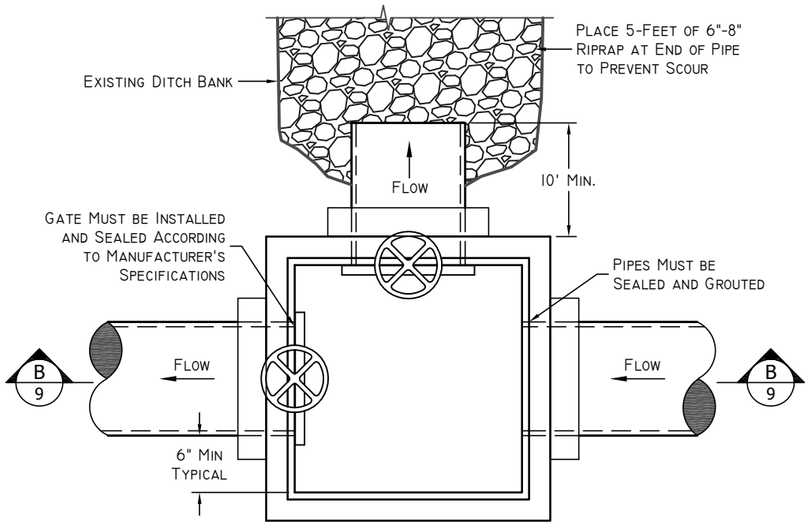
Typical Drawings
Irrigation, Bubble Up Box, and Lid Details

JOB NO. CU.0144

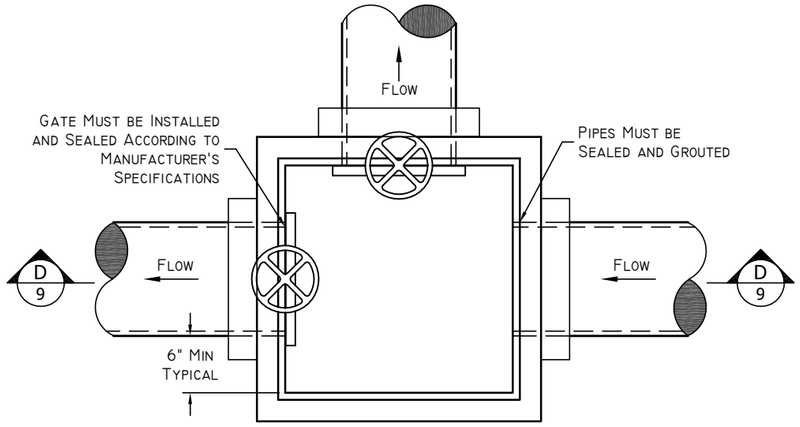
08- Irrigation Bubble up Box.dwg
O:\2007 EAST BENCH\Reviews 2020\Drawings\Standard Drawings

LAYOUT: Details

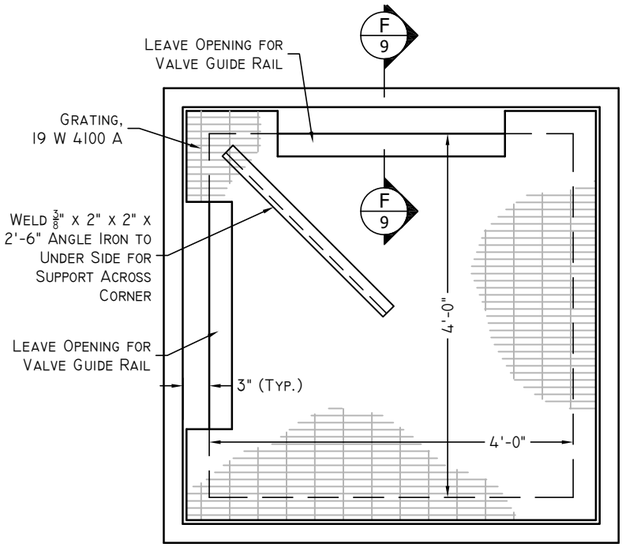
SHEET 8 OF 11



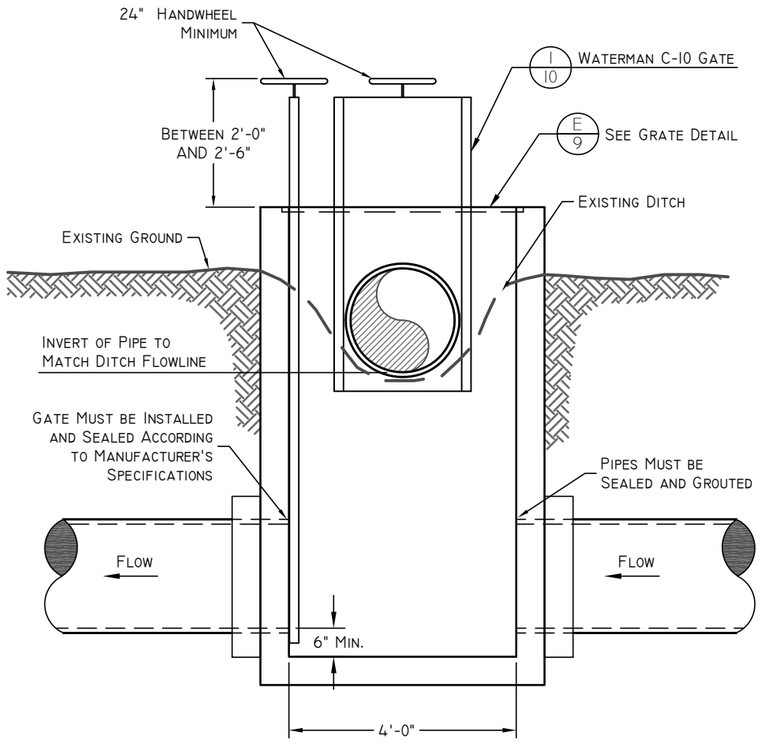
A **Turnout Box Plan**
NTS



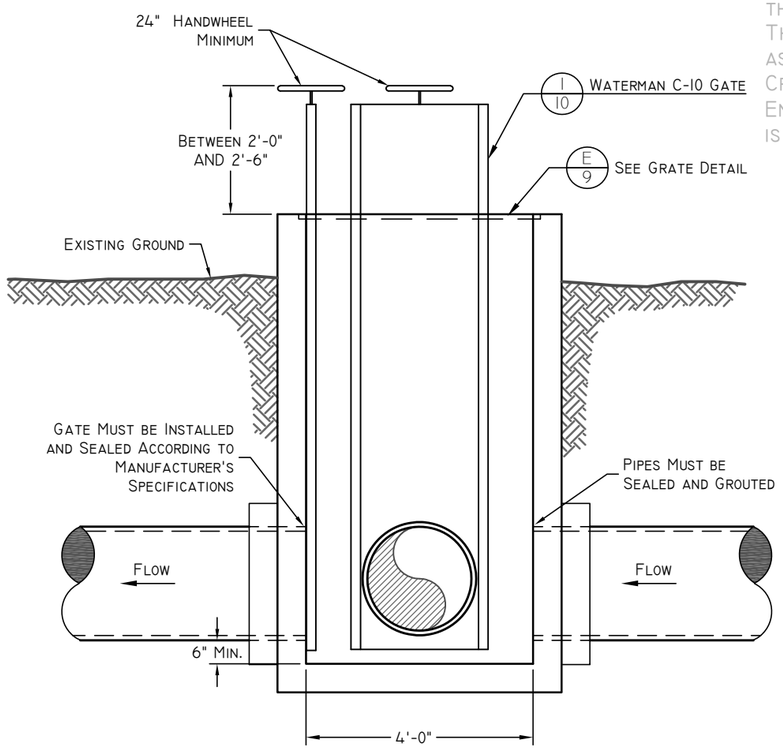
C **Diversion Box**
NTS



E **Grate Detail - Top View**
NTS



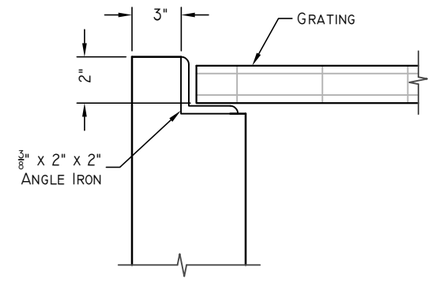
B **Turnout Box Section**
NTS



D **Diversion Box Section**
NTS

Disclaimer:

The Drawings Provided in These Standards are Only Intended to Show the Type of Facility(ies) That Will be Acceptable to the EBCC. These Are Not Intended to be Used Directly in the Design of Facilities as Each Project Has its Own Unique Circumstance, Dimensions, Design Criteria, etc. It is the Responsibility of the Applicant's Design Engineer, Who Will Stamp the Drawing, to Ensure that Each Project is Designed Properly.



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.

East Bench Canal Company

DESIGNED: Chad Brown
DRAFTSMAN: Matt Gunn
CHECKED:
REVIEWED:
PROJECT LEADER: Chad Brown
PRINT DATE: March 27, 2025

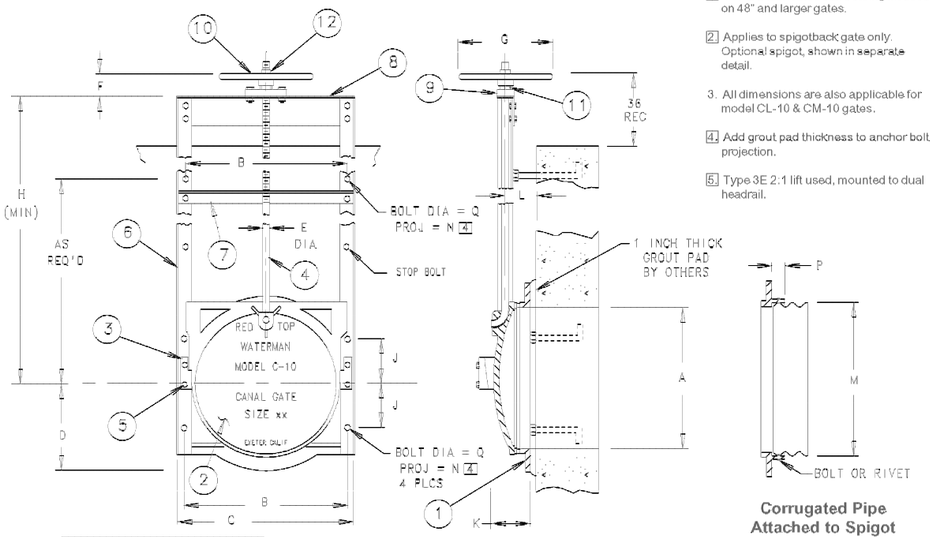
NO.	DATE	REVISIONS DESCRIPTION

East Bench Canal Company

Typical Drawings
Irrigation Turnout and Diversion Boxes

JOB NO. CU 0144

09- Irrigation Turnout Diversion Box.dwg
C:\2007 EAST BENCH Reviews 2020\Drawings\Standard Drawings
LAYOUT: Details

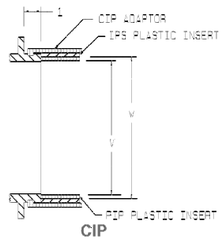


NOTES

1. TYPE 2 lubricated ball bearing lift used on 48" and larger gates.
2. Applies to spigotback gate only. Optional spigot, shown in separate detail.
3. All dimensions are also applicable for model CL-10 & CM-10 gates.
4. Add grout pad thickness to anchor bolt projection.
5. Type 3E 2:1 lift used, mounted to dual headrail.

Corrugated Pipe Attached to Spigot Back Frame

PARTS LIST		
No.	Name	Qty.
1	Frame	1
2	Cover	1
3	Wedge (Right & Left)	1 ea.
4	Stem	1
5	Wedge Bolts	4
6	Guide Rail	2
7	Stem Support	A/R
8	Head Rail	1
9	Lift Collar	1
10	Handwheel	1
11	Lift Nut	1
12	Limit Nut	1



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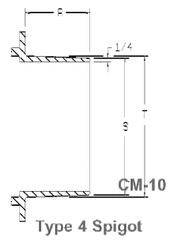


Type 4 Spigot

A	B	C	D	E	F	G	H	J	K	L	M [2]	N	P [2]	Q	R	S	T	V	W
6	8	9⅞	4	⅛	2⅞	10	24	3	3½	2⅝	7	3½	2¼	½	-	-	-	6.160	6.645
8	10	12	4⅞	⅛	2⅞	10	24	3	3¾	2½	9	3½	2¼	½	4	7 13/16	8	8.180	8.645
10	12	13⅞	6	⅛	2⅞	10	24	3½	3¾	2½	11	3½	2¼	½	3⅛	9⅞	10	10.220	10.770
12	14	15⅞	7	⅛	2⅞	10	24	4	3½	3	13	4	2¼	½	4	11⅞	12	12.270	12.780
14	16	17⅞	8	⅛	2⅞	10	27	4¾	3¾	3¼	15	4	2¼	½	-	-	-	-	-
15	17	18⅞	8⅞	⅛	2⅞	10	30	5	4½	3½	16	4	2⅛	½	4	14⅞	15	-	-
16	18¾	20⅝	9⅞	⅛	2⅞	10	32	5½	4½	3½	17	4½	2¼	⅝	-	-	-	-	-
18	21	22⅞	10½	1	3⅛	12	34	6	4½	4¼	19	4½	2¼	⅝	4	17 13/16	18	-	-
20	23¼	25⅛	11¾	1	3⅛	12	38	7	4¾	4	21	4½	2¼	⅝	-	-	-	-	-
21	24	25⅞	12 5/16	1	3⅛	12	40	7	4¾	4	22	4½	2¼	⅝	-	-	-	-	-
24	27¼	29⅛	13⅞	1	3⅛	12	44	8	5¾	4⅛	25	4½	2¼	⅝	-	-	-	-	-
30	33¾	36⅛	17⅜	1⅛	4	15	54	10	6	4½	31	6	2¼	¾	-	-	-	-	-
36	39¾	42⅛	20½	1⅛	4	15	62	12	6¼	5⅜	37	6	2⅛	¾	-	-	-	-	-
42	45¾	48⅜	23⅝	1½	5	18	84	14	7	6	43	6	2½	¾	-	-	-	-	-
48	51¾	54⅜	26¾	1½	6	24 [1]	90	16	7⅜	6⅛	49⅛	6	2½	¾	-	-	-	-	-
54	58½	61½	30	2	6	30 [1]	100	18	7⅞	6½	55⅛	7	3	1	-	-	-	-	-
60	65	68	34	2	6	30 [1]	102	20	8⅛	7⅛	61⅛	8	3¼	1	-	-	-	-	-
72	77½	80¼	41	2	13	[5]	121	25½	10⅝	8¾	73¼	8	3⅜	1	-	-	-	-	-

GATE DIMENSIONS IN INCHES

1 WATERMAN C-10 CANAL GATE
NTS

SEE WWW.WATERMANUSA.COM/PDF/C-10.PDF

DISCLAIMER:

THE DRAWINGS PROVIDED IN THESE STANDARDS ARE ONLY INTENDED TO SHOW THE TYPE OF FACILITY(IES) THAT WILL BE ACCEPTABLE TO THE EBCC. THESE ARE NOT INTENDED TO BE USED DIRECTLY IN THE DESIGN OF FACILITIES AS EACH PROJECT HAS ITS OWN UNIQUE CIRCUMSTANCE, DIMENSIONS, DESIGN CRITERIA, ETC. IT IS THE RESPONSIBILITY OF THE APPLICANT'S DESIGN ENGINEER, WHO WILL STAMP THE DRAWING, TO ENSURE THAT EACH PROJECT IS DESIGNED PROPERLY.

EAST BENCH
CANAL COMPANY

DESIGNED: CHAD BROWN
DRAFTSMAN: MATT GUHR
CHECKED: CHAD BROWN
REVIEWED: MATT GUHR
PROJECT LEADER: CHAD BROWN
PRINT DATE: MARCH 27, 2025

NO.	DATE	DESCRIPTION
		INITS.
		REVISIONS

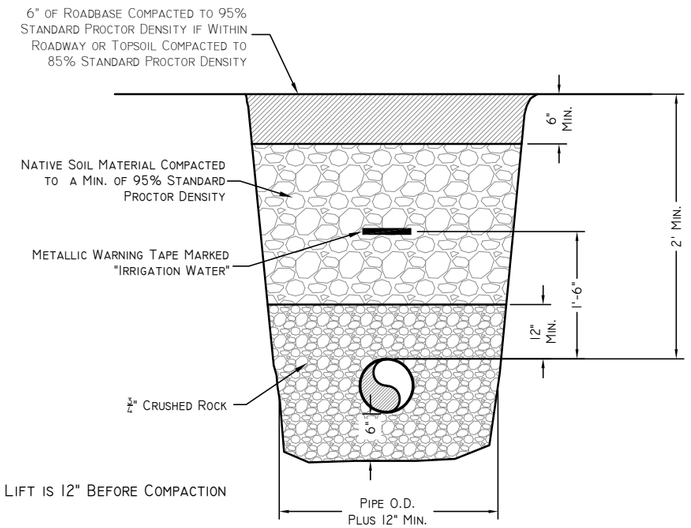
EAST BENCH CANAL COMPANY

TYPICAL DRAWINGS
WATERMAN C-10 CANAL GATE

JOB NO. CU 0144

10 - Waterman Canal Gate.dwg
O:\2007 EAST BENCH Reviews 2020\Drawings\Standard Drawings
LAYOUT: Details

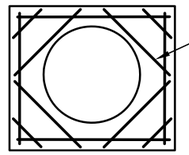
SHEET
10 OF 11



Notes:

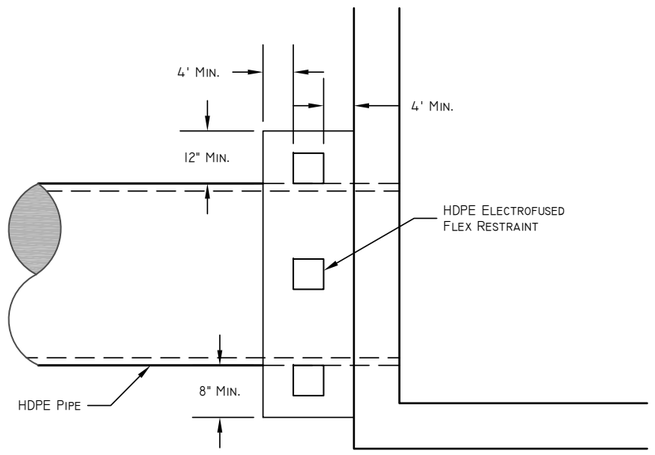
1. Maximum Lift is 12" Before Compaction

1 Pipe Bedding Trench Section
NTS



Place #4 Rebar as Shown Around Pipe Opening, Submit Rebar Reinforcement to Engineer

2 Rebar in Headwall
NTS



3 Thrust Resraint
NTS

Pipe Dia. (In.)	# of Restraints
≤ 24	3
≤ 36	4
≤ 42	5
>42	1 Restraint for Every 20 Inches of Pipe Circumference

* Thrust Restraints Should be Spaced Equidistant Around the Pipe Perimeter.

East Bench
Canal Company

DESIGNED:	Chad Brown	CHECKED:	Checked
DRAFTSMAN:	Matt Gurr	REVIEWED:	Reviewed

NO.	DATE	INITS.	REVISIONS DESCRIPTION

PROJECT LEADER: Chad Brown
PRINT DATE: March 27, 2025

East Bench Canal Company

Typical Drawings

Trench Detail, Thrust Restraint, & Rebar in Headwall Detail

JOB NO. CU 0144

11- Pipe Bedding Detail.dwg
O:\2007 EAST BENCH Reviews 2020\Drawings\Standard Drawings

LAYOUT: Details

SHEET
11 OF 11