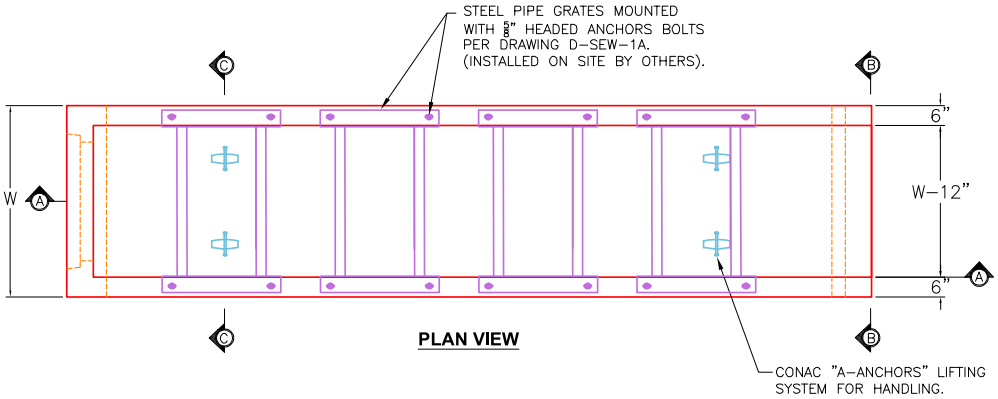
Job Name: 25-4566 - Government Center
Job Location: Henry Co, TN
Contractor: Parker Excavating, LLC.

Structure ID: HW 12 (10)

P1 HWTDOT3-1TU18

18" - HW TDOT 3:1 Type U Cross Drain Endwall F/F

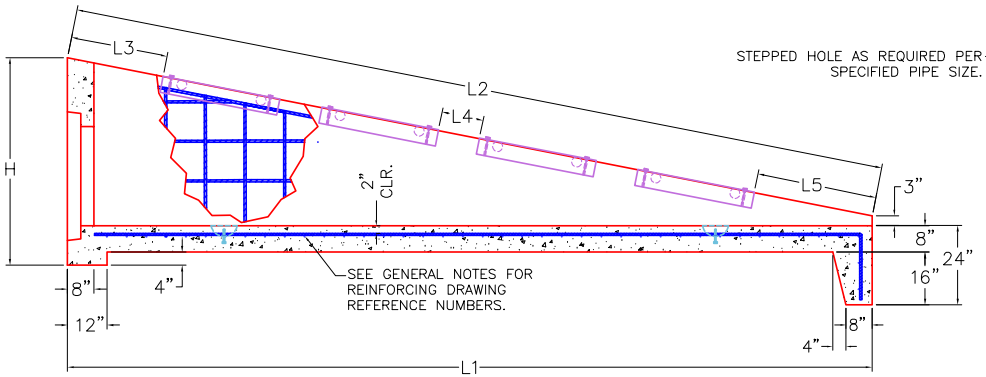
Plant: Beaver Dam | Tech: S. Felletter
4/3/2026 10:39:52 AM | PC: J. Jarvis



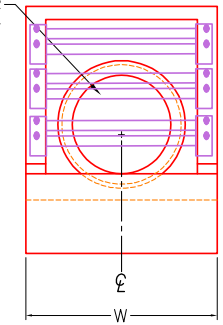
PLAN VIEW

GENERAL NOTES

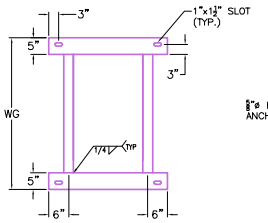
1. DRAWING TO BE USED FOR ALL 15" THROUGH 48" SIDE DRAIN CONCRETE ENDWALLS. MANUFACTURING, FOR CROSS DRAINS ONLY.
2. CONCRETE: Fc' = 4,500 PSI @ 28 DAYS.
3. REINFORCING STEEL: ASTM A615, Fy=60,000 PSI. SEE STD. DWGS. D-PE-15A, D-PE-18, D-PE-24A, D-PE-30A, D-PE-36A, D-PE-42A & D-PE-48A FOR BILL OF STEEL.
4. SPLICING OF REINFORMENT IS ACCEPTABLE PROVIDED THAT A MINIMUM 21" SPLICE LENGTH IS USED.
5. APPROPRIATE SIZING AND LOCATIONS OF THE LIFTING INSERTS WILL BE THE RESPONSIBILITY OF INFRASTRUCTURE PRECAST, INC.
6. LIFTING INSERT POCKETS SHALL BE GROUTED ON SITE BY THE CONTRACTOR AFTER THE ENDWALL IS SET AS PER TDOT REQUIREMENTS.
7. DIMENSIONAL AND REINFORCING TOLERANCES WILL BE AS SHOWN IN STANDARD OPERATING PROCEDURE (SOP) 5-3.
8. PIPE OPENINGS FOR HEADWALLS ARE BASED ON REINFORCED CONCRETE PIPE WITH TYPE "B" WALL AS PER AMERICAN CONCRETE PIPE ASSOCIATION (ACPA). OUTSIDE DIAMETER + 3"-4".
9. TOE WALL BACK SLOPE MAY BE CONSTRUCTED VARIABLE FROM VERTICAL UP TO 15°.



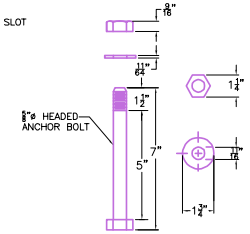
SECTION A-A



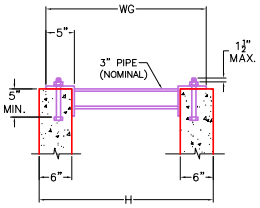
ELEVATION B-B



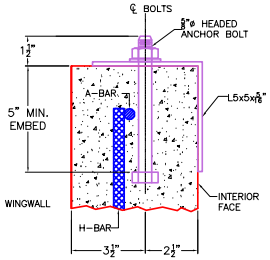
STEEL PIPE GRATE



ANCHOR BOLT DETAIL



GRATE SECTION C-C



ANCHOR BOLT ASSY.

DIMENSIONS AND QUANTITIES FOR ONE ENDWALL 6:1										
SIDE DRAIN DIA. (D)	CONCRETE ENDWALL DIMENSIONS				GRATE DISPLACEMENT DIMENSIONS			STRUCTURAL STEEL GRATE DIMENSIONS AND QUANTITY		STRUCT. STEEL	WEIGHT
	H	W	L1	L2	L3	L4	L5	WG	NO. REQ'D.	LBS.	LBS.
15"	2'-11"	2'-8"	11'-2"	11'-3 7/8"	2'-2"	1'-0"	2'-1 7/8"	2'-5"	2	172	4,737
18"	3'-2"	2'-11"	12'-8"	12'-10 1/8"	10 1/8"	1'-0"	1'-0"	2'-8"	3	269	5,833
24"	3'-9"	3'-6"	16'-2"	16'-4 5/8"	2'-2"	1'-0"	3'-2 5/8"	3'-3"	3	296	8,848
30"	4'-5"	4'-1"	20'-2"	20'-5 3/8"	2'-2"	1'-0"	3'-3 3/8"	3'-10"	4	694	12,880
36"	5'-0"	4'-8"	23'-8"	23'-11 7/8"	2'-2"	1'-0"	2'-9 7/8"	4'-5"	5	975	17,186
42"	5'-6"	5'-3"	26'-8"	27'-0 3/8"	2'-2"	1'-0"	1'-10 3/8"	5'-0"	6	1,300	21,532
48"	6'-1"	5'-10"	30'-2"	30'-7"	2'-2"	1'-0"	1'-5"	5'-7"	7	1,669	27,092

DIMENSIONS AND QUANTITIES FOR ONE ENDWALL 12:1											
PIPE CULV. DIA.	CONCRETE ENDWALL DIMENSIONS						STRUCTURAL STEEL GRATE DIMENSIONS AND QUANTITY		STRUCT. STEEL	STEEL BAR RENFORC.	WEIGHT
	H	W	L1	L2	L3	L4	WG	NO. REQ'D.	LBS.	LBS.	LBS.
18"	3'-1 1/4"	3'-1"	26'-0"	24'-1"	2'-1"	3'-0"	2'-10"	5	480	256	11,119

INFRASTRUCTURE PRECAST, INC.
981 WEST 7TH ST., BEAVER DAM, KY. 42320
PHONE: (270) 363-2238, FAX: (270) 298-7424

TDOT TYPE "SAFETY" SIDE DRAIN ENDWALL WITH STEEL PIPE GRATES FOR 15" THROUGH 48" PIPES (6:1 & 12:1 SLOPES)

DRAWING NO.: ET-TDOT-200	DATE: 10-02-25
REVIEWED BY: J.H. ROSS, PE	DRAWN BY: N. RICHARDS
WEB: WWW.ICASTINC.COM	SCALE: NTS

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