



Structure ID: 2 HW-2

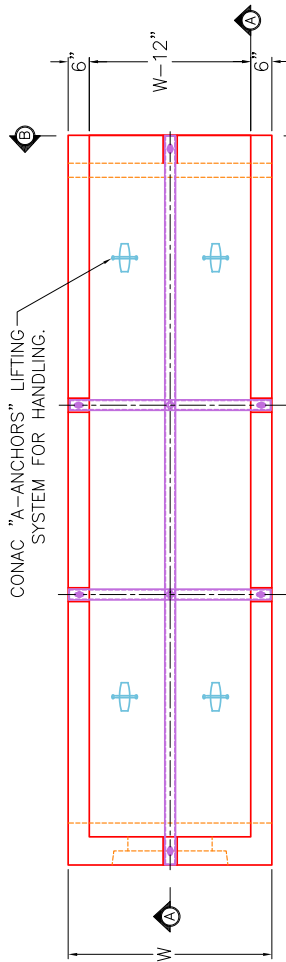
P1 HWTDOT3-1TU42

42" - HW TDOT 3:1 Type U Cross Drain Endwall

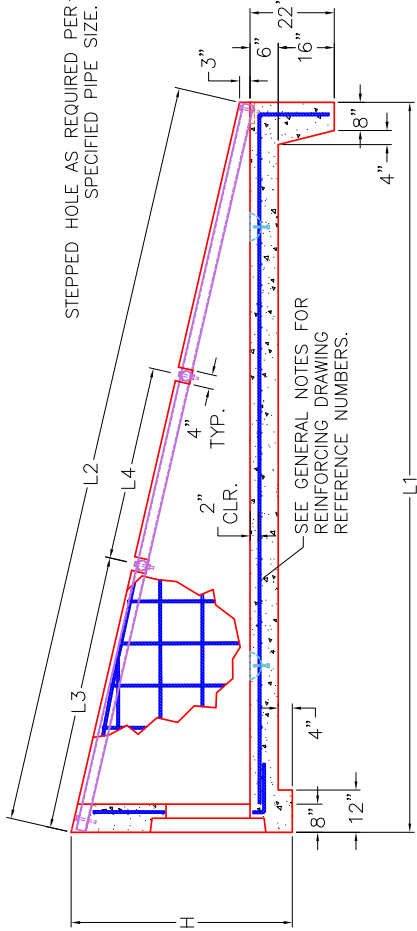
GENERAL NOTES

- DRAWING TO BE USED FOR ALL 12" THROUGH 48" SIDE DRAIN CONCRETE ENDWALLS.
- MANUFACTURING, FOR CROSS DRAINS ONLY.
- CONCRETE: $F'_c = 4,500$ PSI @ 28 DAYS.
- REINFORCING STEEL: ASTM A615, $F_y = 60,000$ 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.
- SPLICING OF REINFORCEMENT IS ACCEPTABLE PROVIDED THAT A MINIMUM 21" SPLICE LENGTH IS USED.
- APPROPRIATE SIZING AND LOCATIONS OF THE LIFTING INSERTS WILL BE THE RESPONSIBILITY OF INFRASTRUCTURE PRECAST, INC.
- LIFTING INSERT POCKETS SHALL BE GROUTED ON SITE BY THE CONTRACTOR AFTER THE ENDWALL IS SET AS PER TDOT REQUIREMENTS.
- DIMENSIONAL AND REINFORCING TOLERANCES WILL BE AS SHOWN IN STANDARD OPERATING PROCEDURE (SOP) 5-3.
- 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".
- TOE WALL BACK SLOPE MAY BE CONSTRUCTED VARIABLE FROM VERTICAL UP TO 15°.

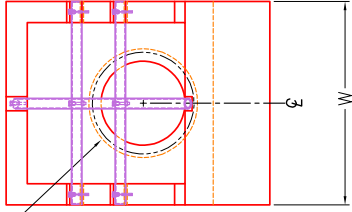
NOTE:
JBS 42" TDOT 3:1 "U"
Cross Drain EW Grate
supplied by ICAST



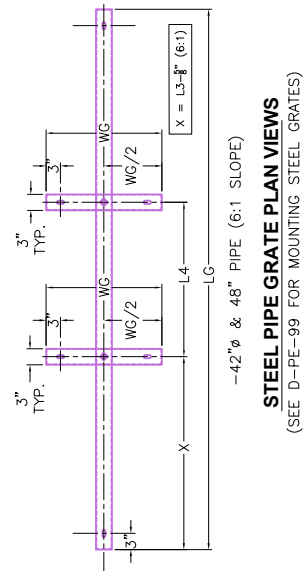
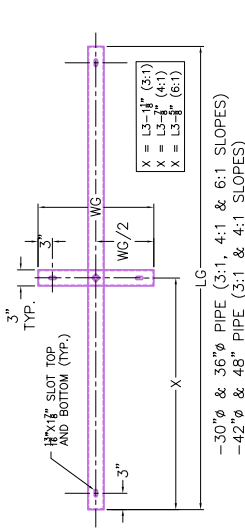
PLAN VIEW



SECTION A-A



ELEVATION B-B



PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS						GRATE DISPLACEMENT DIMENSIONS		STRUCT. STEEL		WEIGHT LBS.
	H	W	L1	L2	L3	L4	L3	L4	LBS.	LBS.	
15"	2'-11"	2'-8"	8'-0"	8'-3"	N/A	N/A	N/A	N/A	N/A	N/A	3,484
18"	3'-2"	2'-11"	8'-8"	8'-11"	N/A	N/A	N/A	N/A	N/A	N/A	4,228
24"	3'-9"	3'-6"	11'-0"	11'-4"	N/A	N/A	N/A	N/A	N/A	N/A	6,303
30"	4'-5"	4'-1"	13'-8"	14'-1"	N/A	N/A	N/A	N/A	N/A	N/A	9,083
36"	5'-0"	4'-8"	16'-0"	16'-3"	N/A	N/A	N/A	N/A	N/A	N/A	12,058
42"	5'-6"	5'-3"	18'-0"	18'-3"	N/A	N/A	N/A	N/A	N/A	N/A	15,073
48"	6'-1"	5'-10"	20'-4"	20'-11"	N/A	N/A	N/A	N/A	N/A	N/A	18,910

PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS						GRATE DISPLACEMENT DIMENSIONS		STRUCT. STEEL		WEIGHT LBS.
	H	W	L1	L2	L3	L4	L3	L4	LBS.	LBS.	
15"	2'-11"	2'-8"	6'-0"	6'-3"	N/A	N/A	N/A	N/A	N/A	N/A	2,819
18"	3'-2"	2'-11"	6'-8"	7'-0"	N/A	N/A	N/A	N/A	N/A	N/A	3,406
24"	3'-9"	3'-6"	8'-5"	8'-10"	N/A	N/A	N/A	N/A	N/A	N/A	5,011
30"	4'-5"	4'-1"	10'-5"	10'-11"	N/A	N/A	N/A	N/A	N/A	N/A	7,204
36"	5'-0"	4'-8"	12'-2"	12'-5"	N/A	N/A	N/A	N/A	N/A	N/A	9,513
42"	5'-6"	5'-3"	13'-8"	14'-1"	N/A	N/A	N/A	N/A	N/A	N/A	11,862
48"	6'-1"	5'-10"	15'-5"	16'-3"	N/A	N/A	N/A	N/A	N/A	N/A	14,838



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

TDOT TYPE "U" CROSS DRAIN ENDWALL WITH STEEL PIPE GRATE FOR 15" THROUGH 48" PIPES
DRAWING NO.: ET-TDOT-202
DATE: 03-12-26
REVIEWED BY: J.H. ROSS, PE
DRAWN BY: N. RICHARDS
SCALE: NTS

STEEL PIPE GRATE DIMENSIONS					
PIPE DIA.	ALL SLOPES	3:1	4:1	6:1	
15"	WG	LG	LG	LG	
30"	4'-1"	10'-10 3/4"	14'-0 3/4"	20'-4 3/4"	
36"	4'-8"	12'-8 3/4"	16'-5"	23'-11 1/2"	
42"	5'-3"	14'-3 3/4"	18'-5 3/4"	26'-11 1/2"	
48"	5'-10"	16'-1 1/2"	20'-10 3/4"	30'-0 3/4"	

PIPE DIA. (D)	CONCRETE ENDWALL DIMENSIONS						GRATE DISPLACEMENT DIMENSIONS		STRUCT. STEEL		WEIGHT LBS.
	H	W	L1	L2	L3	L4	L3	L4	LBS.	LBS.	
15"	2'-11"	2'-8"	11'-2"	11'-3"	N/A	N/A	N/A	N/A	N/A	N/A	4,737
18"	3'-2"	2'-11"	12'-8"	12'-10"	N/A	N/A	N/A	N/A	N/A	N/A	5,833
24"	3'-9"	3'-6"	16'-2"	16'-4"	N/A	N/A	N/A	N/A	N/A	N/A	8,848
30"	4'-5"	4'-1"	20'-2"	20'-3"	N/A	N/A	N/A	N/A	N/A	N/A	12,880
36"	5'-0"	4'-8"	23'-8"	23'-11"	N/A	N/A	N/A	N/A	N/A	N/A	17,186
42"	5'-6"	5'-3"	26'-8"	27'-0"	N/A	N/A	N/A	N/A	N/A	N/A	21,532
48"	6'-1"	5'-10"	30'-2"	30'-7"	N/A	N/A	N/A	N/A	N/A	N/A	27,092