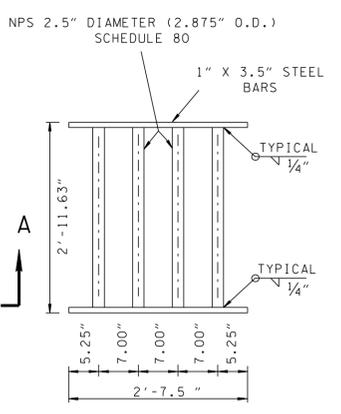


PLAN VIEW



GRATE UNIT NO. 38

GRATE UNIT IS STRUCTURALLY DESIGNED TO CARRY LOW SPEED MAINTENANCE VEHICLES ONLY.

NOTE: MATERIAL FOR GRATE SPECIFICATIONS FOR STEEL BARS SHALL CONFORM TO ASTM A36. FOR THE PIPE CROSS MEMBERS, ASTM A53 TYPE E OR S GRADE A OR B. THE GRATE UNIT SHALL BE PAINTED BLACK, FEDERAL SPEC. TT-E-489G.

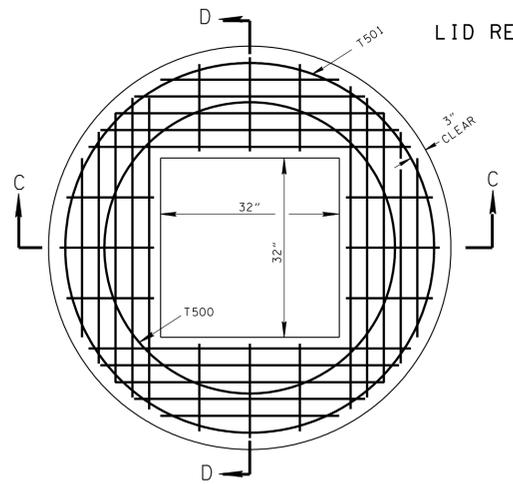
VARIABLE REINFORCING DIMENSIONS IN CONCRETE LID		
INSIDE DIA. OF CATCH BASIN (INCHES)	OUTSIDE DIA. OF LID (INCHES)	DIMENSION J (INCHES)
60	72	3.00
72	86	4.75
84	100	6.50
96	114	8.25

DIAMETER FOR T500 REINFORCING BARS EQUAL 52 INCHES.

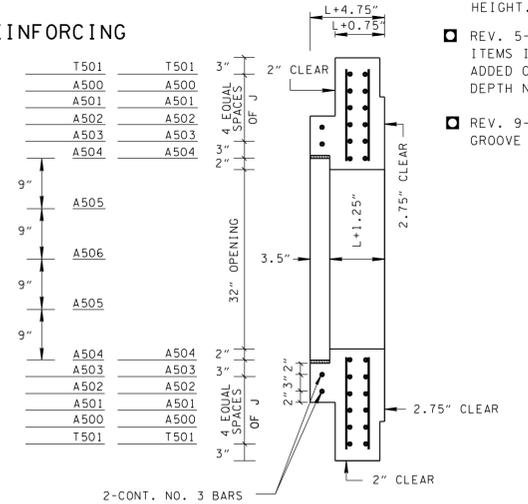
DIAMETER FOR T501 REINFORCING BARS EQUAL OUTSIDE DIAMETER OF LID MINUS 6 INCHES.

CATCH BASIN MAXIMUM DEPTH NOTE	
MAXIMUM DEPTH FOR PRECAST CONCRETE CIRCULAR CATCH BASINS IS 40.00'.	

WELDING: AWS SPECIFICATIONS D1.1-72 AS MODIFIED BY THE CURRENT AASHTO STD. SPECIFICATIONS FOR WELDING OF HIGHWAY BRIDGES.

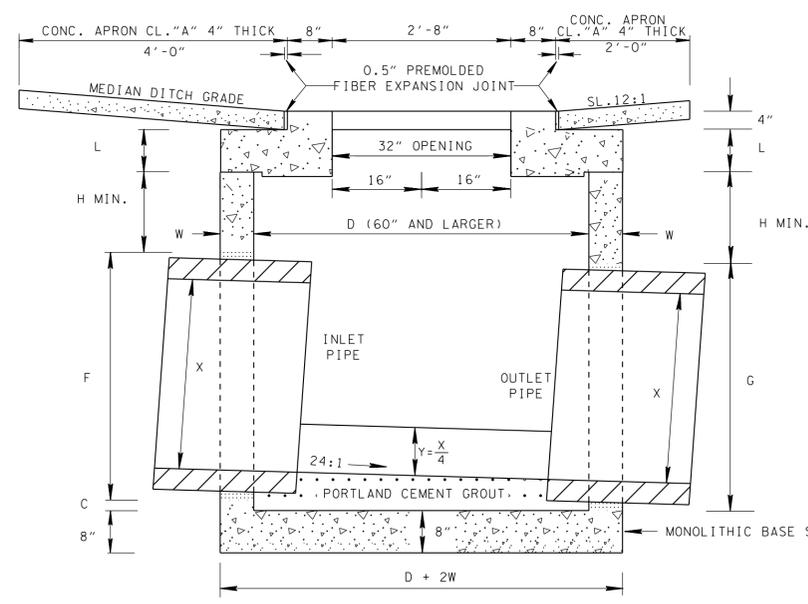


LID REINFORCING

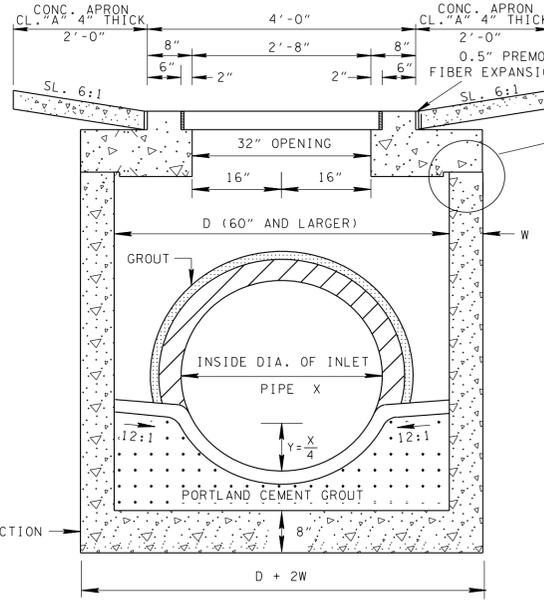


SECTION D-D (BAR T500 NOT INCLUDED)

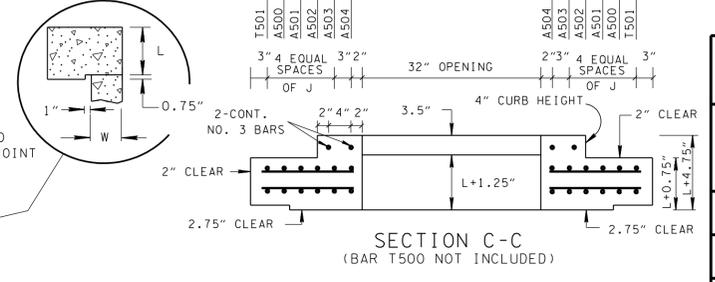
- REV. 1-19-99: ADDED CURB HEIGHT.
- REV. 5-27-01: CHANGED PAY ITEMS IN GENERAL NOTE (H). ADDED CATCH BASIN MAXIMUM DEPTH NOTE.
- REV. 9-5-04: CHANGED GROOVE DEPTH IN LID.



SECTION A-A



SECTION B-B



SECTION C-C (BAR T500 NOT INCLUDED)

INSIDE DIAMETER (X) OF PIPE (INCHES)	MINIMUM DEPTH - (FEET)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	3.71	3.50	3.63
24	4.21	4.00	4.17
30	4.79	4.50	4.75
36	5.33	5.04	5.25
42	5.88	5.54	5.71
48	6.42	6.04	6.21
54	6.96	6.54	—
60	7.50	7.04	—
66	8.04	7.54	—

- 1 DEPTH MEASUREMENT MADE FROM TOP OF CURB TO OUTLET FLOW ELEVATION BASED ON INLET AND OUTLET PIPES BEING THE SAME DIAMETER, IF OUTLET PIPE IS GREATER ADJUSTMENT IN DEPTHS MUST BE MADE TO ACCOMMODATE THIS SITUATION.
- 2 MINIMUM DEPTH TO BE REDUCED BY DIMENSION "C" WHERE ONLY OUTLET PIPE EXISTS.
- 3 TO DETERMINE FLOOR OF CATCH BASIN ELEVATION, WHEN INLET AND OUTLET PIPES ARE THE SAME SIZE, ADD PIPE WALL THICKNESS PLUS 1.5" TO THE ABOVE MINIMUM DEPTHS.
- 4 IF 72" INSIDE DIAMETER CATCH BASIN IS USED, ADD 0.13' TO ALL THE ABOVE MINIMUM DEPTHS. IF 84" INSIDE DIAMETER CATCH BASIN IS USED, ADD 0.50' TO ALL THE ABOVE MINIMUM DEPTHS. IF 96" INSIDE DIAMETER CATCH BASIN IS USED, ADD 0.63' TO ALL THE ABOVE MINIMUM DEPTHS.

INSIDE DIAMETER (X) OF PIPE (INCHES)	DIAMETER OF CUT-OUT HOLES F & G - (INCHES)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	26	21	24
24	32	27	31
30	40	33	39
36	47	40	45
42	54	46	50
48	61	52	56
54	68	58	—
60	75	64	—
66	82	70	—

CUT-OUT HOLES FOR PRECAST STRUCTURES TO BE CORED OR FORMED IN ORDER TO OBTAIN A SMOOTH EGED HOLE. SCORED OR ETCHED HOLES WITH REINFORCING STEEL LEFT UN CUT WILL NOT BE PERMITTED.

GENERAL NOTES

(A) ALL PRECAST ELEMENTS TO MEET ASTM C478 (CURRENT EDITION) AND AASHTO M199 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.
 CONCRETE: $F_c = 4,000$ POUNDS PER SQUARE INCH AT 28 DAYS
 REINFORCING STEEL: ASTM A615, $F_y = 60,000$ POUNDS PER SQUARE INCH
 ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

(B) PRECAST CATCH BASIN UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED CATCH BASIN UNITS AT HIS OWN EXPENSE.

(C) ADDITIONAL REINFORCING STEEL NECESSARY ABOVE THE CORED OR FORMED CUT-OUT HOLES TO MAINTAIN THE INTEGRITY OF THE STRUCTURE DURING HANDLING AND PLACEMENT SHALL BE THE RESPONSIBILITY OF THE FABRICATOR.

(D) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR TO ASSURE BALANCED HANDLING DURING INSTALLATION OF THE PRECAST CATCH BASIN.

(E) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES AND PLACE A MINIMUM OF ONE (1) INCH OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.

(F) INVERT ELEVATIONS ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.

(G) CONCRETE JOINT MATERIAL TO BE 0.5" PREMOLDED FIBER IN ACCORDANCE WITH SECTION 905 OF STANDARD SPECIFICATIONS.

(H) PAYMENT FOR CATCH BASIN WILL BE MADE UNDER ITEM NUMBERS 611-38.02 CATCH BASINS, TYPE 38, > 4'-8' DEPTH THROUGH 611-38.07, CATCH BASINS, TYPE 38, > 24'-28' DEPTH PER EACH. PAYMENT FOR CATCH BASINS DEEPER THAN 28' WILL BE MADE UNDER ITEM NUMBER 611-38.08, CATCH BASINS, TYPE 38, > 28'-32' DEPTH PER EACH. WHEN CLASS "A" CONCRETE APRON IS USED, IT IS TO BE INCLUDED IN THE PRICE BID PER CATCH BASIN.

CATCH BASIN DIMENSIONS							
INSIDE DIA. OF CATCH BASIN D (INCHES)	WALL THICKNESS W (INCHES)	LID THICKNESS L (INCHES)	OUTSIDE DIA. OF CATCH BASIN D + 2W (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90° (INCHES)	DIMENSION	
						C (INCHES)	H (INCHES)
60	6	8	72	36	24	2.5	8
72	7	9	86	48	30	3.0	8
84	8	9	100	60	36	3.5	12
96	9	10	114	66	42	4.0	12

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION

STANDARD PRECAST
CIRCULAR
NO. 38
CATCH BASIN