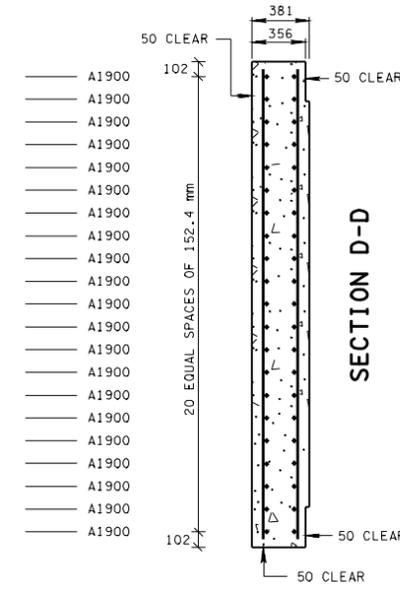
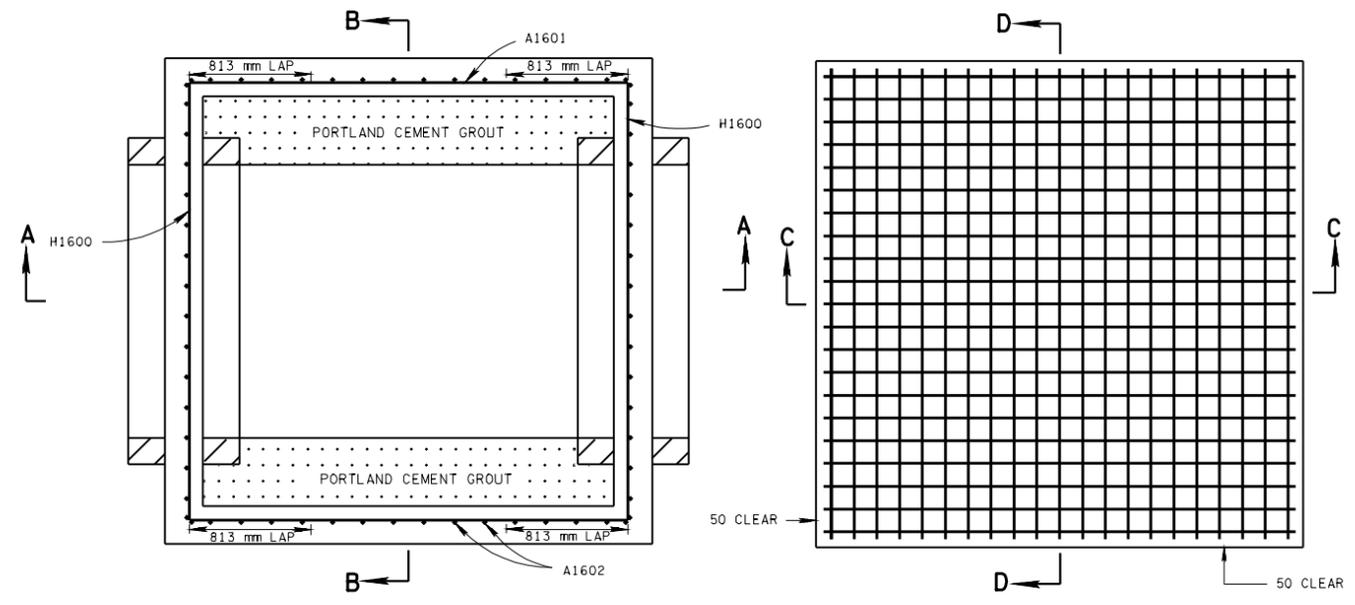
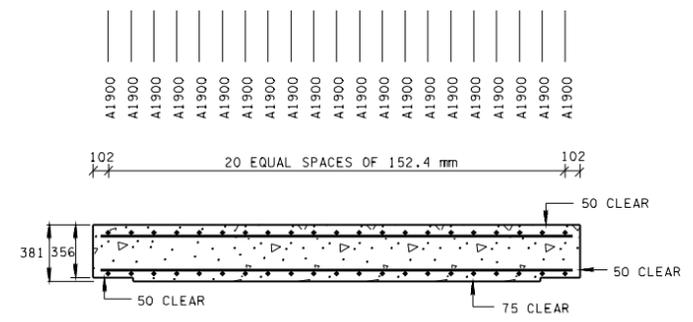


- REV. 6-10-01: CHANGED MAXIMUM EMBANKMENT DEPTH IN GENERAL NOTE (B) AND PAY ITEM IN GENERAL NOTE (J) TO 611-02.14.
- REV. 5-30-02: MODIFIED REINFORCING STEEL.
- REV. 7-29-02: CHANGED ASTM SPECIFICATION IN GENERAL NOTE (D).
- REV. 9-11-02: CHANGED REINFORCING STEEL IN BASE SECTION.



REINFORCING STEEL LEGEND			
3150	A1900	813	H1600
2900	A1601	813	H1600
VARIABLE	A1602	2870	H1600

JUNCTION BOX PIPE SIZE TABLE	
MAX INLET OR OUTLET CONC. PIPE SIZE-STR. (mm)	MAX INLET OR OUTLET CONC. PIPE SIZE-90° (mm)
1950	1800

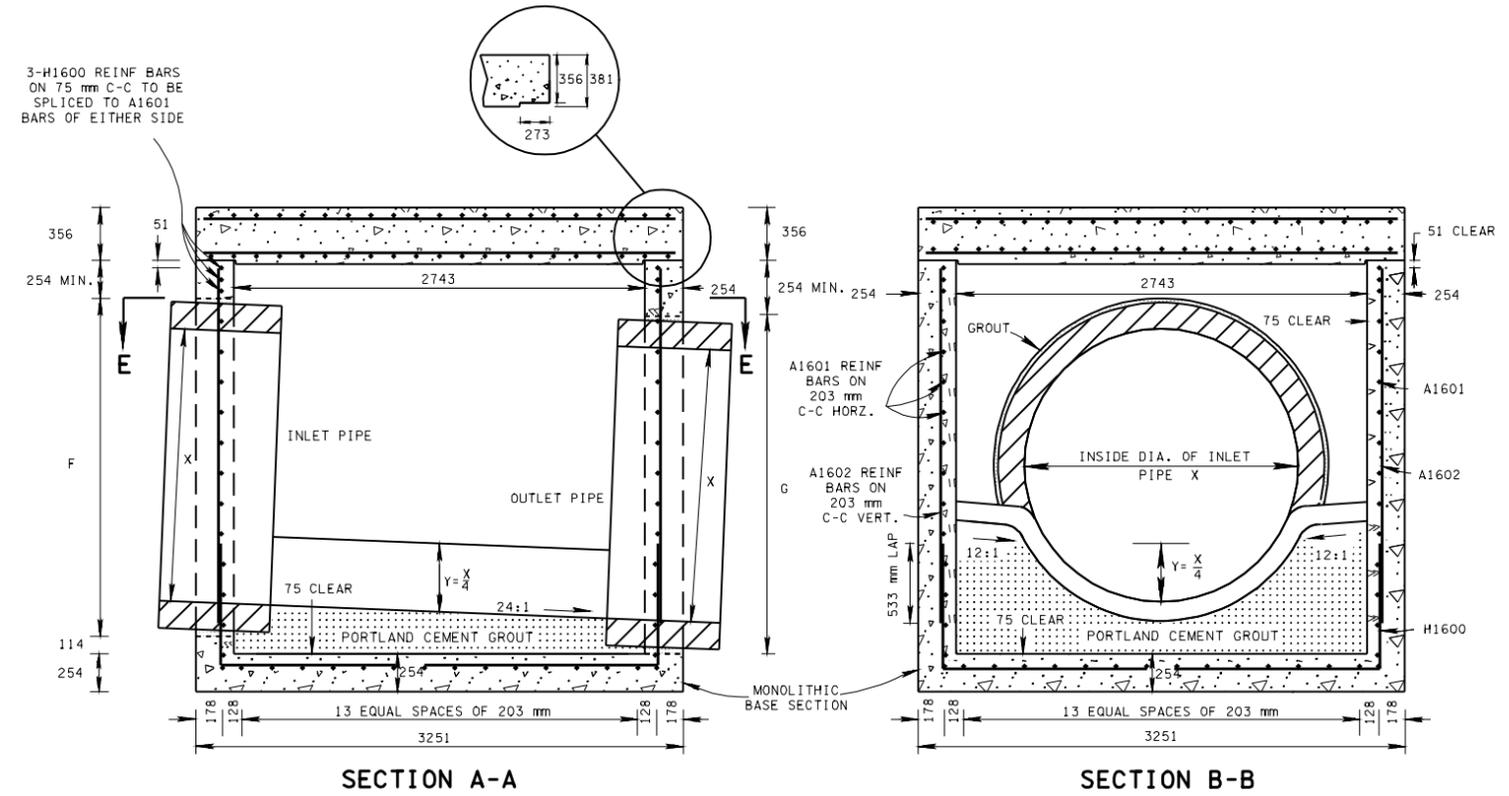


INSIDE DIAMETER (X) OF PIPE (mm)	DIAMETER OF CUT-OUT HOLES F & G - (mm)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
450	660	535	610
600	815	685	785
750	1015	840	990
900	1195	1015	1145
1050	1370	1170	1270
1200	1550	1320	1420
1350	1730	1475	—
1500	1905	1625	—
1650	2085	1780	—
1800	2260	1930	—
1950	2440	2085	—

INSIDE DIAMETER (X) OF PIPE (mm)	MINIMUM DEPTH - ( m )		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
450	1.28	1.22	1.26
600	1.44	1.37	1.42
750	1.61	1.52	1.60
900	1.78	1.69	1.75
1050	1.94	1.84	1.89
1200	2.11	1.99	2.05
1350	2.27	2.15	—
1500	2.44	2.30	—
1650	2.60	2.45	—
1800	2.77	2.60	—
1950	2.94	2.76	—

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.

- 1 DEPTH MEASUREMENT MADE FROM TOP OF SLAB 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 TO DETERMINE FLOOR OF JUNCTION BOX ELEVATION, WHEN INLET AND OUTLET PIPES ARE THE SAME SIZE, ADD PIPE WALL THICKNESS PLUS 40 mm TO THE ABOVE HEIGHT TABLE.



**GENERAL NOTES**

- (A) DRAWING TO BE USED FOR ALL CAST-IN-PLACE NO. 5 CONCRETE JUNCTION BOXES AND ALL PRECAST NO. 5 CONCRETE JUNCTION BOXES.
- (B) EMBANKMENT OVER THIS STRUCTURE MAY BE PLACED AT A DEPTH UP TO 9 METERS.
- (C) CAST-IN-PLACE CONCRETE JUNCTION BOXES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS.
- (D) THE CONTRACTOR MAY WITH PERMISSION FROM THE ENGINEER SUBSTITUTE PRECAST CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM M913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.  
CONCRETE:  $f'_c = 28 \text{ MPa}$  AT 28 DAYS  
REINFORCING STEEL: ASTM A615M,  $f_y = 415 \text{ MPa}$   
ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.
- (E) PRECAST JUNCTION BOX UNITS WHICH ARE DAMAGED DURING SHIPMENT OR INSTALLATION WILL BE REJECTED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPLACE DAMAGED JUNCTION BOX UNITS AT HIS OWN EXPENSE.
- (F) 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.
- (G) APPROPRIATE SIZING AND LOCATION OF LIFTING DEVICES SHALL BE THE RESPONSIBILITY OF THE FABRICATOR TO ASSURE BALANCED HANDLING DURING INSTALLATION OF THE JUNCTION BOX.
- (H) THE CONTRACTOR IS TO PATCH ALL LIFTING DEVICE HOLES AND PLACE A MINIMUM OF 25 mm OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.
- (I) INVERT ELEVATIONS ARE TO BE ADJUSTED AS DIRECTED BY THE ENGINEER IN ORDER TO ACCOMMODATE INLET AND OUTLET PIPES.
- (J) PAYMENT FOR JUNCTION BOX WILL BE MADE UNDER ITEM NUMBER 611M02.14 JUNCTION BOX, TYPE 5 PER EACH.



ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

□ MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE  
DEPARTMENT OF TRANSPORTATION

STANDARD  
2743 mm X 2743 mm  
SQUARE  
CONCRETE NO. 5  
JUNCTION BOX

5-27-01 DM-JBS-5