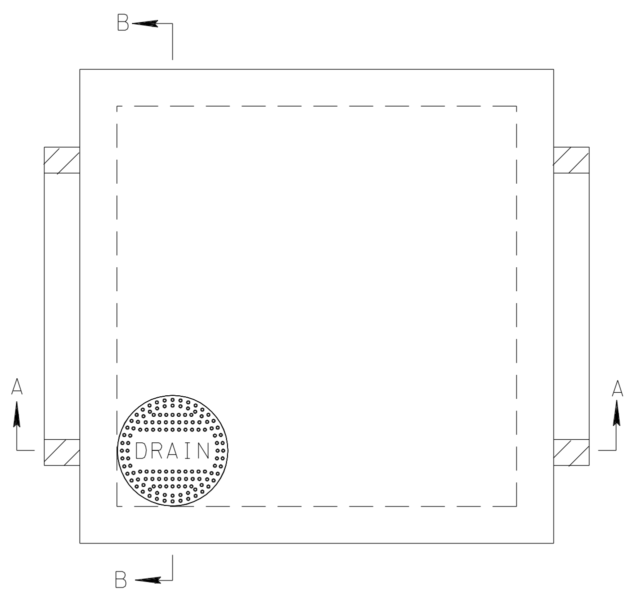
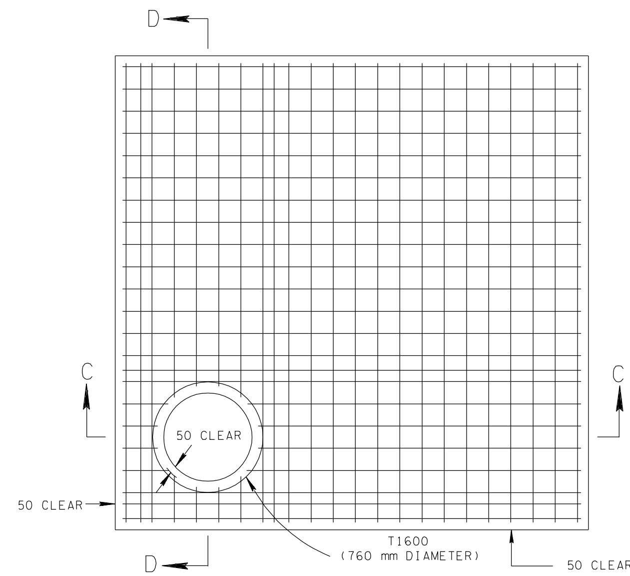
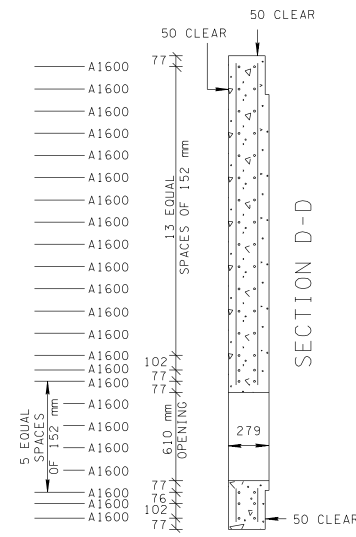
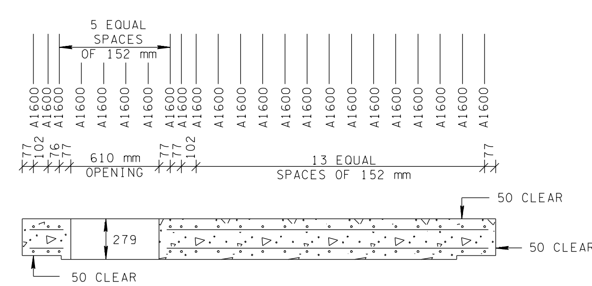


PLAN VIEW

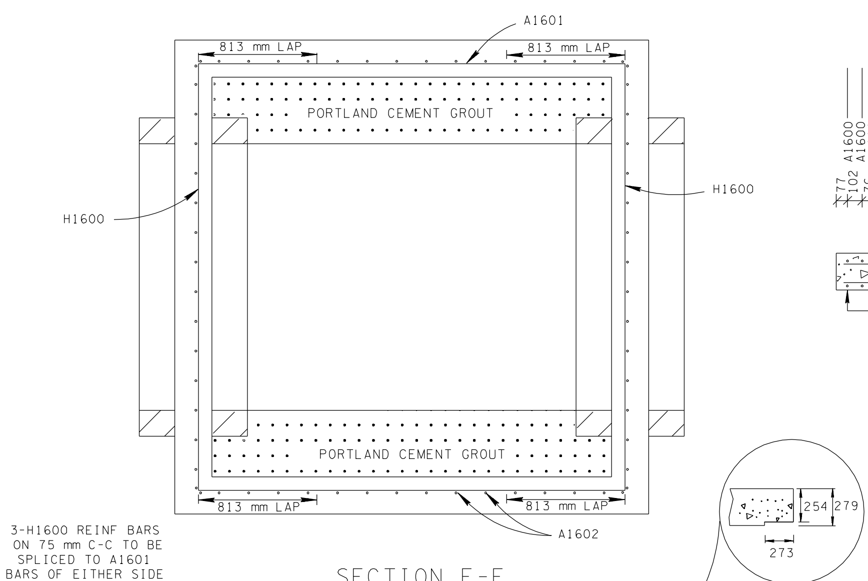




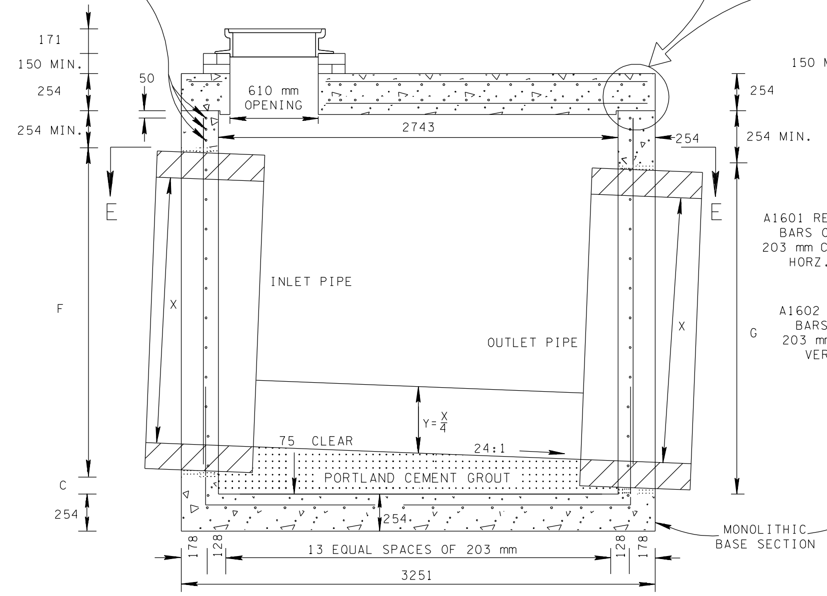
SECTION D-D



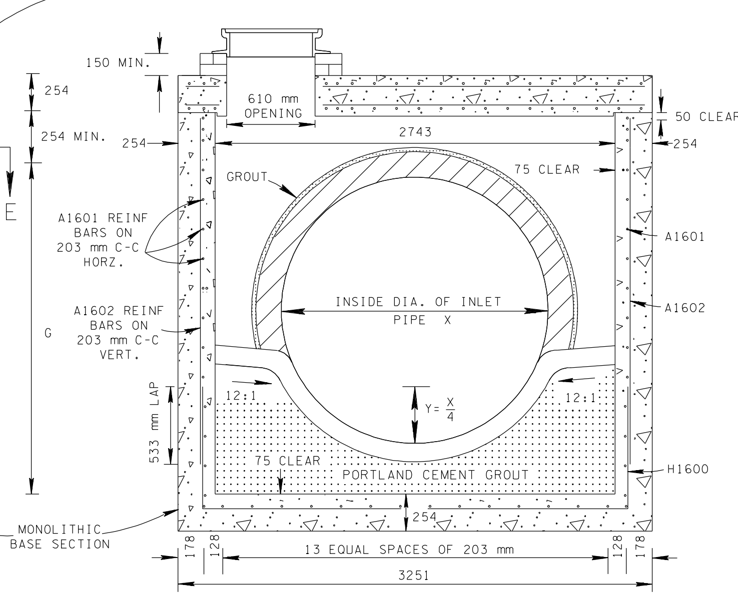
SECTION C-C



SECTION E-E



SECTION A-A



SECTION B-B

MANHOLE MAXIMUM DEPTH NOTE

MAXIMUM DEPTH FOR THIS STRUCTURE IS 8.5 m. WHEN DEPTH REQUIREMENTS EXCEED THIS DEPTH THE CONTRACTOR IS TO USE OTHER VERSIONS OF THE NO. 3 MANHOLE.

- REV. 5-30-02: MODIFIED REINFORCING STEEL.
- REV. 7-29-02: CHANGED ASTM SPECIFICATION IN GENERAL NOTE (B).
- REV. 9-11-02: CHANGED REINFORCING STEEL IN BASE SECTION.

REINFORCING STEEL LEGEND

Bar	Dimensions
A1600	3150
A1601	2900
A1602	VARIABLE
H1600	813 – 2870 – 813

MANHOLE DIMENSIONS

INSIDE WIDTH OF MANHOLE (mm)	WALL THICKNESS W (mm)	OUTSIDE WIDTH OF MANHOLE (mm)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (mm)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90° (mm)	DIMENSION C (mm)
2743	254	3251	1950	1800	114

CUT-OUT HOLES FOR INLET & OUTLET PIPES

INSIDE DIAMETER (X) OF PIPE (mm)	DIAMETER OF CUT-OUT HOLES F & G - (MILLIMETERS)		
	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	____

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

MANHOLE MINIMUM DEPTH TABLE

INSIDE DIAMETER (X) OF PIPE (mm)	MINIMUM DEPTH - (m)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
450	1.51	1.44	1.48
600	1.66	1.59	1.65
750	1.83	1.75	1.82
900	2.00	1.91	1.98
1050	2.16	2.06	2.12
1200	2.33	2.22	2.27
1350	2.50	2.37	____
1500	2.66	2.52	____
1650	2.83	2.67	____
1800	2.99	2.83	____
1950	3.15	2.98	____

(1) DEPTH MEASUREMENT MADE FROM TOP OF THE MANHOLE COVER 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 MANHOLE ELEVATION, WHEN INLET AND OUTLET PIPES ARE THE SAME SIZE, ADD PIPE WALL THICKNESS PLUS 40 mm TO THE ABOVE MINIMUM DEPTHS.

GENERAL NOTES

(A) CAST-IN-PLACE CONCRETE MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTION 611 AND/OR SPECIAL PROVISIONS.

(B) 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 MPa AT 28 DAYS
REINFORCING STEEL: ASTM A615M, f_Y = 415 MPa
ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.

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

(D) 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.

(E) APPROPRIATE SIZING AND LOCATION OF LIFTING INSERTS SHALL BE THE RESPONSIBILITY OF THE FABRICATOR TO ASSURE BALANCED HANDLING DURING INSTALLATION OF THE MANHOLE.

(F) THE CONTRACTOR IS TO PATCH ALL LIFTING INSERT HOLES AND PLACE A MINIMUM OF 25 mm OF COVER OVER THE HARDWARE OF THESE DEVICES ON BOTH TOP AND BOTTOM SURFACES.

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

(H) SEE STANDARD DRAWING DM-MH-4 FOR DETAILS REGARDING CAST IRON COVERS AND FRAMES, AND DETAILS FOR VARIOUS STEPS.

(I) PAYMENT FOR MANHOLE WILL BE MADE UNDER ITEM NUMBERS 611M01.02 MANHOLES, > 1m-2m DEPTH THROUGH 611M01.09 MANHOLE, > 8m-9m DEPTH PER EACH.

TENNESSEE METRIC D.O.T.

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. 3 MANHOLE

9-5-98 | DM-MH-7