

REV. 10-26-98: MODIFIED DRAWING BY CHANGING SIZE STRUCTURE FROM 2134 mm X 2134 mm TO 1575 mm X 1575 mm.

- REV. 5-27-01: CHANGED ITEM NUMBERS IN GENERAL NOTE ①. ADDED MAXIMUM DEPTH NOTE.
- REV. 7-29-02: CHANGED ASTM SPECIFICATION IN GENERAL NOTE ②.
- REV. 9-11-02: CHANGED REINFORCING STEEL IN BASE SECTION.

**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.

**REINFORCING STEEL LEGEND**

1880	A1601	813	1780	813	H1601	1300	1300	H1602
VARIABLE	A1602						1780	

**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)
1575	203	1980	1200	1050	65

**MANHOLE MINIMUM DEPTH TABLE**

INSIDE DIAMETER (X) OF PIPE (mm)	MINIMUM DEPTH - (mm)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
450	1.43	1.37	1.41
600	1.58	1.52	1.57
750	1.76	1.67	1.75
900	1.93	1.84	1.90
1050	2.09	1.99	2.04
1200	2.26	2.14	2.19

**CUT-OUT HOLES FOR INLET & OUTLET PIPES**

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

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 UN CUT WILL NOT BE PERMITTED.

**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CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM M913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.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:  $f'_c = 28 \text{ MPa}$  AT 28 DAYS  
 REINFORCING STEEL: ASTM A615M,  $f_y = 415 \text{ MPa}$   
 ALL REINFORCING IS TO BE INSTALLED AS DETAILED ON THIS DRAWING.
- (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.



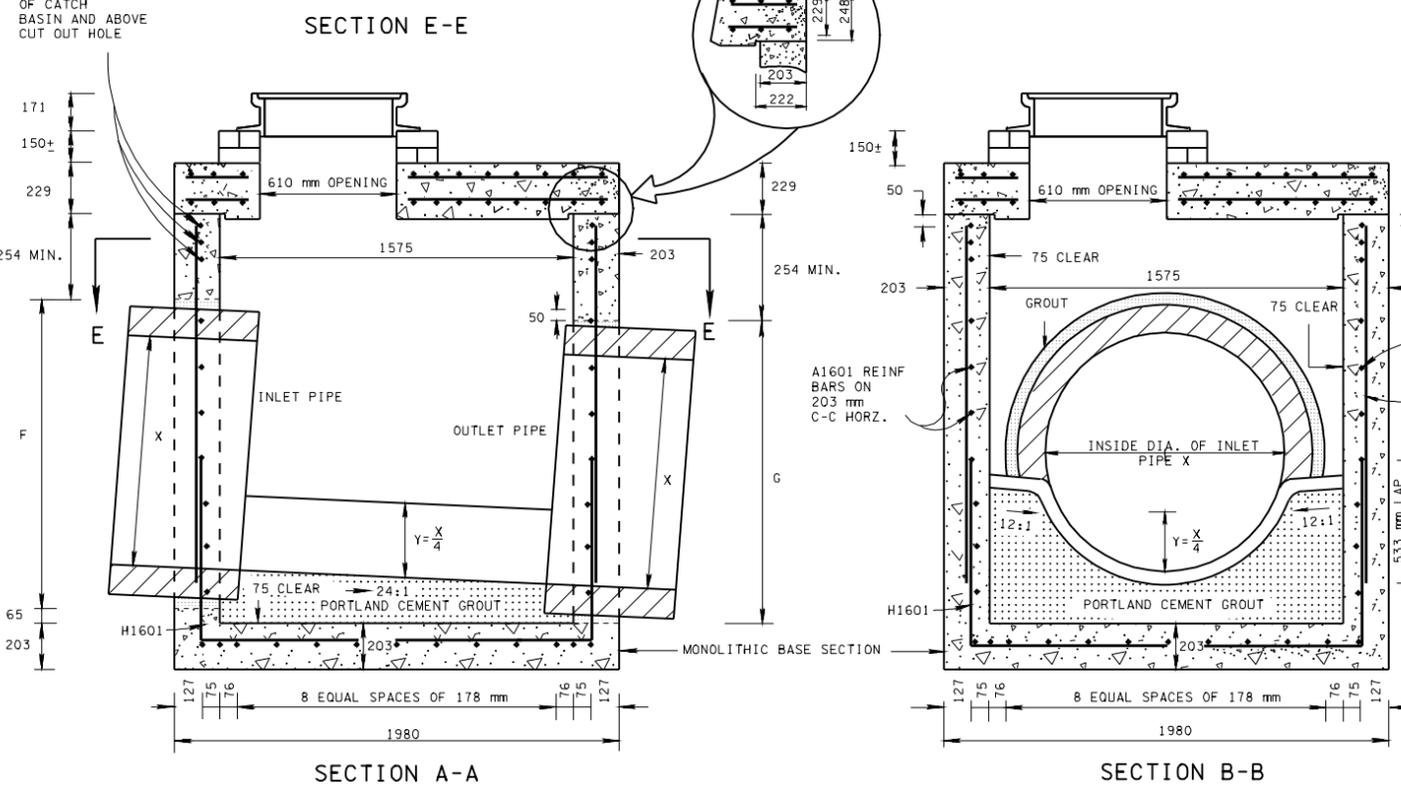
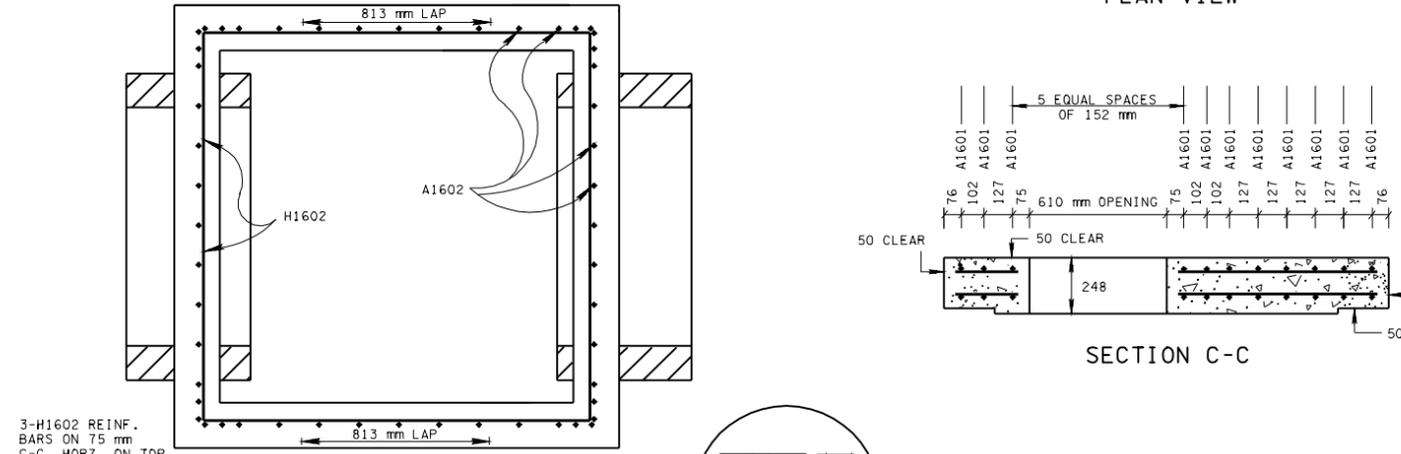
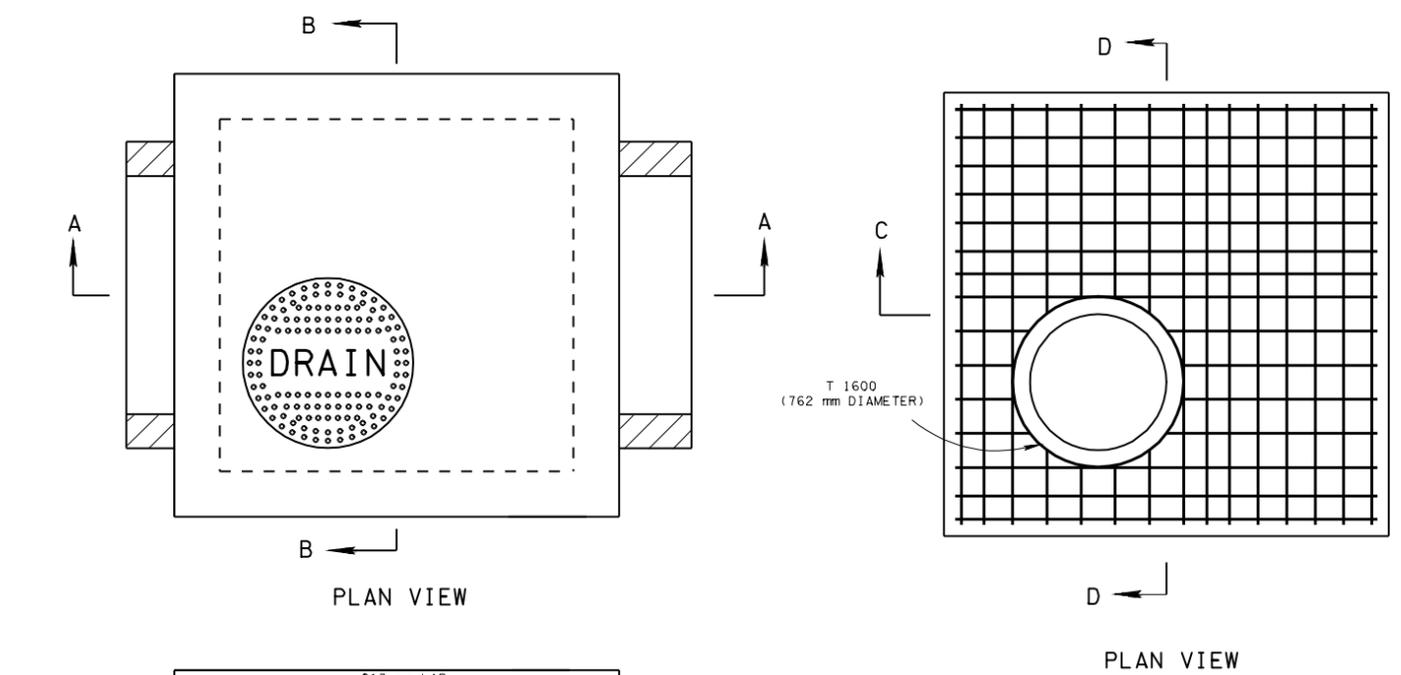
ALL UNITS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.

MINOR REVISION -- FHWA APPROVAL NOT REQUIRED.

STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

**STANDARD**  
 1575 mm X 1575 mm  
 SQUARE CONCRETE  
 NO. 3 MANHOLE

10-26-98 DM-MH-5



3-H1602 REINF. BARS ON 75 mm C-C. HORIZ. ON TOP OF CATCH BASIN AND ABOVE CUT OUT HOLE

A1601 REINF BARS ON 203 mm C-C HORIZ.  
 A1602 REINF BARS ON 203 mm C-C VERT.