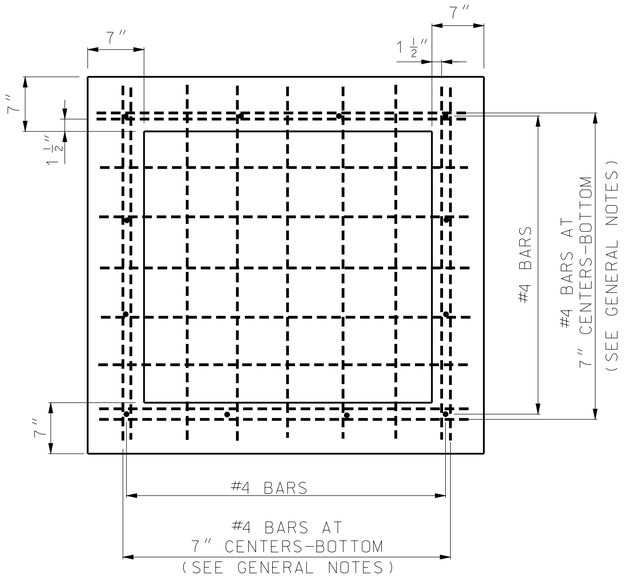
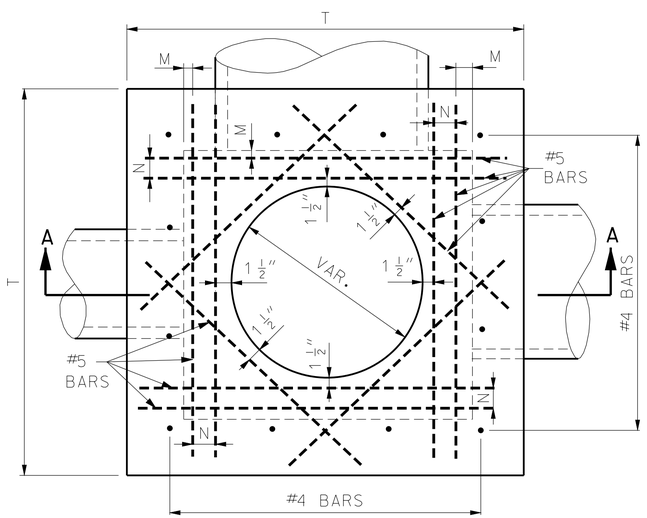
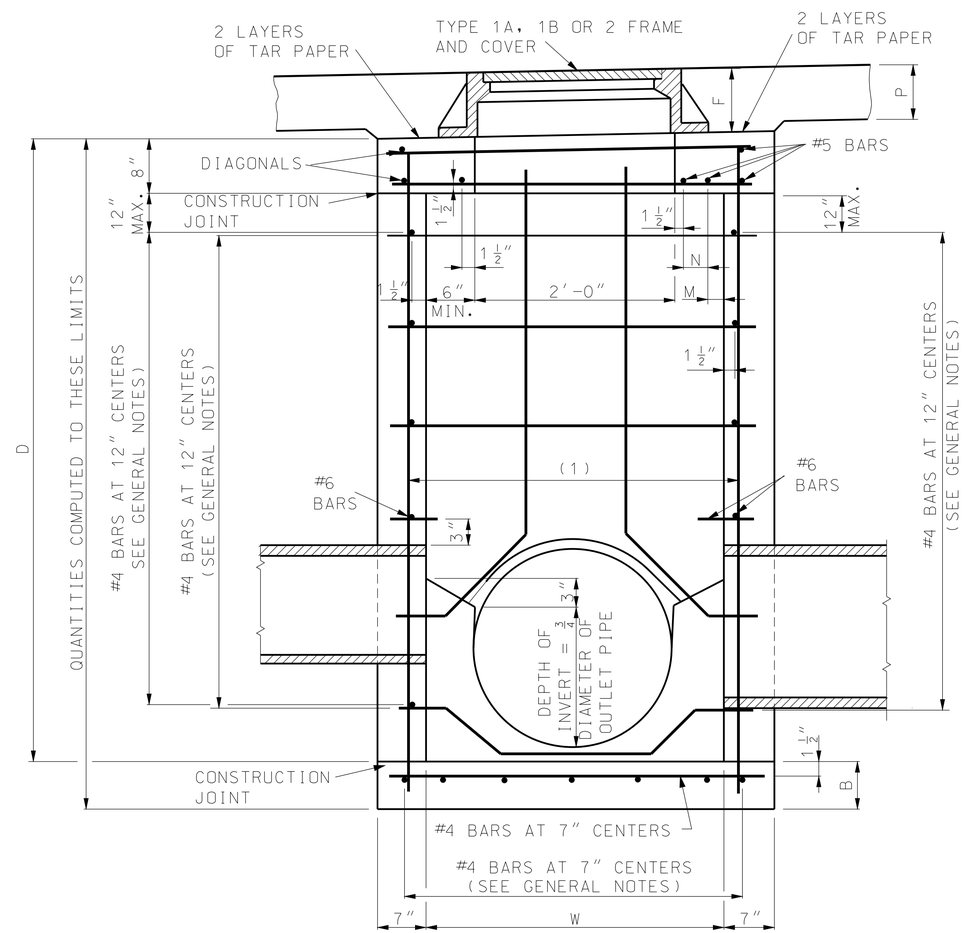


BASE PLAN



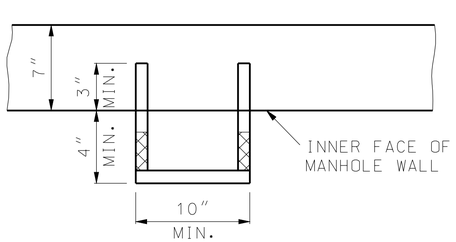
PLAN VIEW



SECTION A-A

MANHOLE FRAME AND COVER IN PAVED AREAS USE TYPE 1. IN UNPAVED AREAS USED TYPE 1A OR 1B. NO CHANGE IN QUANTITIES REQUIRED FOR FRAME AND COVER DETAILS. SEE OTHER DRAWINGS.

(1) 4-#4 FOR 3'-0" OPENING
5-#4 FOR 3'-6" & 4'-0"
6-#4 FOR 4'-6" & 5'-0"



STEP INSTALLATION

STEPS SHALL BE PLACED AT VERTICAL INTERVALS OF 16" MAXIMUM IN ALL MANHOLES HAVING A DEPTH OF MORE THAN 4'-0". STEPS SHALL BEGIN AT AN ELEVATION 6" ABOVE THE TOP OF THE OUTLET PIPE.

STEPS SHALL BE SET LEVEL AND IN VERTICAL ALIGNMENT.

NO DIRECT PAYMENT WILL BE MADE FOR MANHOLE STEPS.

VARIABLE DIMENSIONS					
SIZE OF PIPE	W	T	B	M	N
≤ 24"	3'-0"	4'-2"	7"	VARIABLE	2 1/2"
30"	3'-6"	4'-8"	7"		5 1/2"
36"	4'-0"	5'-2"	7"		8"
42"	4'-6"	5'-8"	8"		5 1/2"✳
48"	5'-0"	6'-2"	8"		7"✳
✳ 4-#5 BARS ADDED					

NOTES:
MINIMUM "D "SHALL BE THE OUTSIDE DIAMETER OF LARGEST PIPE ENTERING MANHOLE PLUS 16" CARRIED TO THE NEAREST 3".

HORIZONTAL AND VERTICAL BARS HORIZONTAL AND VERTICAL BARS AROUND PIPES.

GENERAL NOTES:

THE MAXIMUM DEPTH OF MANHOLE USING #4 HORIZONTAL BARS AT 12" CENTERS IS 20'.

OVER 20' DEPTH, HORIZONTAL BARS SHALL BE INCREASED TO A #5 BAR AT 10" CENTERS TO A MAXIMUM DEPTH OF 30'.

OVER 30' DEPTH WILL REQUIRE A SPECIAL DESIGN.

BOTTOM STEEL AT MORE THAN 20' DEPTH TO A MAXIMUM DEPTH OF 30' IS INCREASED TO #6 BARS AT 7" CENTERS.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI
KATHRYN PHILLIPS HARVEY
NUMBER PE-23751
PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED, SEALED AND DATED ELECTRONICALLY.

CONCRETE MANHOLES

DATE EFFECTIVE: 04/01/1983
DATE PREPARED: 8/26/2009

604.30F

SHEET NO. 1 OF 2

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.