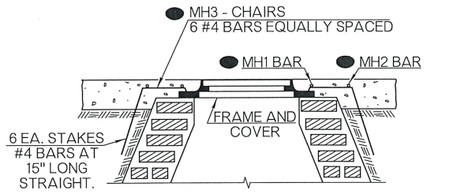
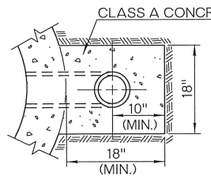


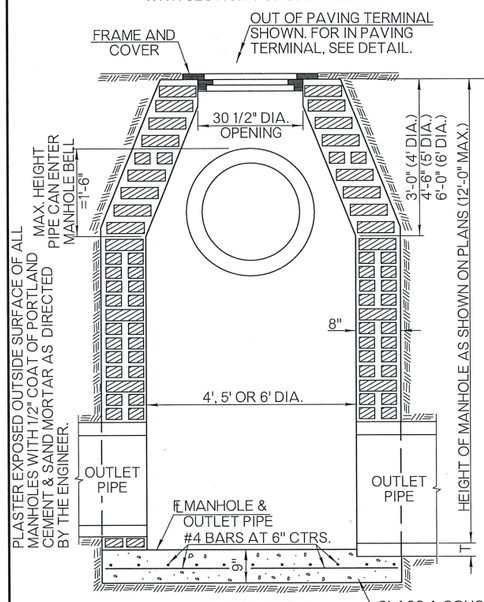
IN PAVING MANHOLE TERMINAL



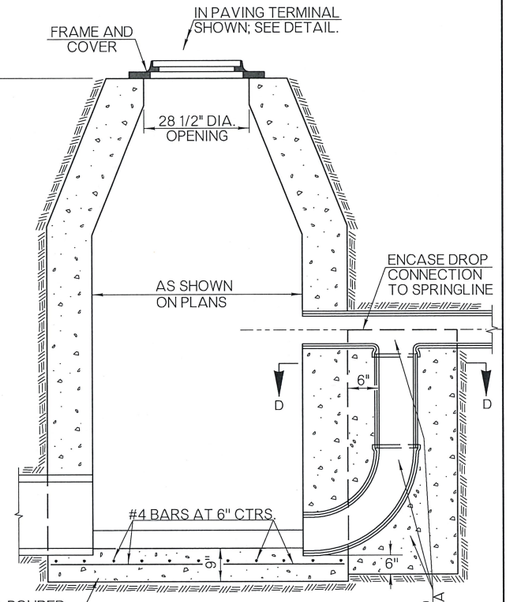
SECTION D-D

NOTE: ALL SANITARY SEWER MANHOLES SHALL BE CONSTRUCTED ONLY OF CLASS A CONCRETE OR PRECAST CONCRETE UNITS. TYPICAL BRICK MASONRY CONSTRUCTION MAY BE USED FOR STORM SEWER MANHOLES, CURB INLETS AND JUNCTION BOXES.

SEE 'BAR BENDING DIAGRAMS' AND 'PLAN WITH SECTION' FOR BAR DETAILS

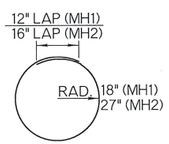


ELEVATION

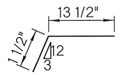


DROP INLET FOR SANITARY SEWER
WHERE DIFFERENCE IN FLOW LINES IS 4' AND OVER

COST OF "T" JOINT, 90° BEND, CLASS A CONCRETE & EXTRA PIPE TO BE INCLUDED IN PRICE BID FOR MANHOLE.

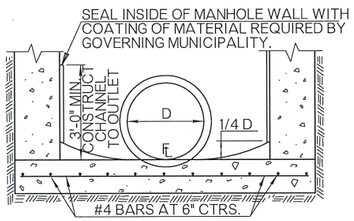


MH1 AND MH2 #4 BAR
FOR MANHOLE & JUNCTION BOX RISERS IN PAVING.

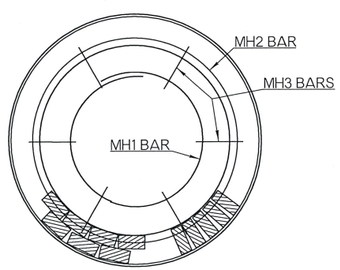


MH3 #4 BAR (CHAIR)

BAR BENDING DIAGRAMS



SECTION AT BOTTOM OF SANITARY SEWER MANHOLE

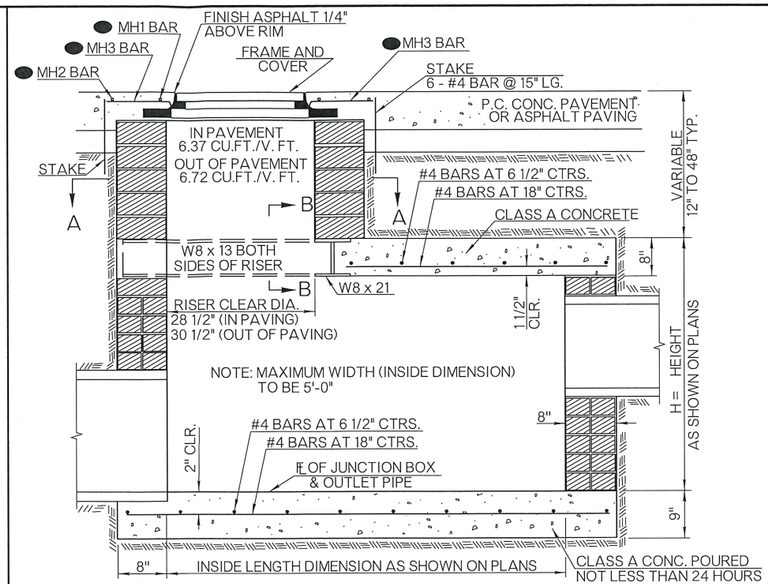


PLAN WITH SECTION
(FRAME REINFORCING SHOWN)

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
611 (A)	MANHOLE (▼DIA.)	EA
611 (B)	ADDITIONAL DEPTH IN MANHOLE (▼DIA.)	VF

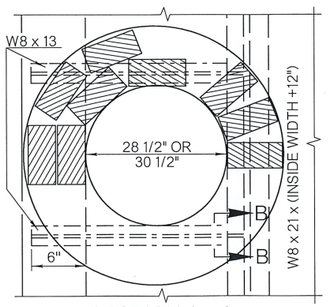
▼DIAMETER SHALL BE SPECIFIED (SEE PAY ITEM LIST)

STANDARD MANHOLES

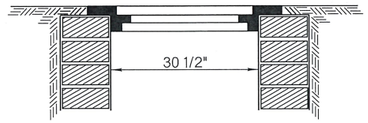


SECTION THRU JUNCTION BOX
(SHOWN IN PAVING WITH RISER)

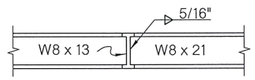
SEE 'BAR BENDING DIAGRAMS' AND 'PLAN WITH SECTION' FOR BAR DETAILS



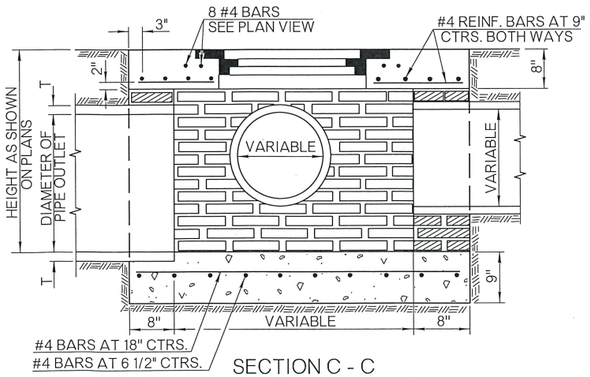
SECTION A - A



JUNCTION BOX RISER
OUT OF PAVING



SECTION B - B

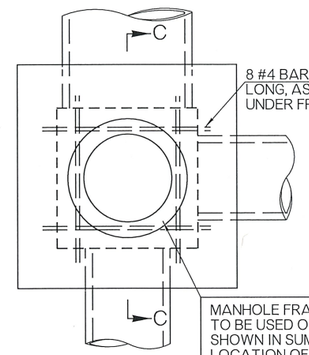


SECTION C - C
DETAIL OF JUNCTION BOX
(SHOWN OUTSIDE OF PAVING AND NO RISER)

STANDARD JUNCTION BOXES

OKLAHOMA DEPARTMENT OF TRANSPORTATION

STANDARD REVISIONS	
DESCRIPTION	DATE



PLAN

DEDUCTIONS FOR PIPE OPENING	
PIPE DIA.	VOLUME (CU. FT.)
18"	1.92
24"	3.24
30"	4.93
36"	6.97
42"	9.36
48"	12.11
54"	15.21
60"	18.66
66"	22.47
72"	26.62
78"	31.45
84"	36.36
90"	41.63

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
2. ALL MANHOLES SHALL BE 4 FOOT DIAMETER UNLESS A LARGER DIAMETER IS REQUIRED.
3. CAST-IN-PLACE CONCRETE WALLS WITH THE SAME DIMENSIONS SHOWN ON THIS STANDARD, MAY BE USED IN LIEU OF THE BRICK MASONRY. CAST-IN-PLACE WALLS EXCEEDING 5 FEET IN DEPTH (GUTTERLINE TO FLOWLINE), WILL REQUIRE NO. 4 REINFORCING BARS SPACED AT 30 INCH CTRS. VERTICALLY AND 12 INCH CTRS. HORIZONTALLY.
4. WHERE A MORTAR COAT IS REQUIRED IT SHALL BE 1/2" THICK AND SHALL BE APPLIED WHILE BRICK MASONRY IS CLEAN AND DAMP.
5. MANHOLES UP TO 6 FEET IN HEIGHT SHALL BE PAID FOR AS 'MANHOLE' (EA.). ANY ADDITIONAL HEIGHT OF MANHOLE SHALL BE PAID FOR AS 'ADDITIONAL DEPTH IN MANHOLE' (VF).
6. JUNCTION BOXES SHALL HAVE INSIDE DIMENSIONS AND HEIGHT AS SHOWN ON THE PLANS, AND CONSTRUCTION SHALL BE MEASURED BY CF. OF WALL MATERIAL AND TO BE PAID FOR AS 'JUNCTION BOXES' (CF). DEDUCTIONS IN VOLUME WILL BE MADE FOR ALL PIPE OPENINGS 18 INCHES IN DIAMETER AND LARGER (SEE TABLE).
7. REINFORCING STEEL AND STRUCTURAL STEEL WILL BE INCLUDED AS PART OF THE COST OF THE STRUCTURE COMPLETE, AND WILL NOT BE MEASURED AS A PAY ITEM.
8. MANHOLE FRAMES, COVERS AND COVER GRATES INSTALLED DURING ORIGINAL CONSTRUCTION SHALL BE INCLUDED IN CONTRACT UNIT PRICE OF ORIGINAL MANHOLE AND JUNCTION BOX. FOR DETAILS OF FRAME AND COVER, SEE THE CURRENT VERSION OF ROADWAY STANDARD MFC-4.

OPTIONAL PRECAST MANHOLES

9. PRECAST STORM SEWER MANHOLE STRUCTURES CAN BE SUBSTITUTED FOR BRICK MASONRY OR CAST-IN-PLACE MANHOLE STRUCTURES. SEE ROADWAY STANDARDS PRM-0, PSM-0, AND PMD-0 FOR THEIR DESIGN, DETAILS AND BASIS OF PAYMENT.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
▲ 509 (C)	CLASS A CONCRETE, SMALL STRUCTURES	CY
611 (L)	JUNCTION BOXES	CF

▲ FOR QUANTITIES OF CLASS A CONCRETE LESS THAN 20.0 CY

APPROVED BY ROADWAY ENGINEER: _____ DATE 01/23/19

ROADWAY DESIGN DIVISION STANDARD

MANHOLES AND JUNCTION BOXES

OKLAHOMA DEPARTMENT OF TRANSPORTATION
2009 SPECIFICATIONS

MJB-3 | 2

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