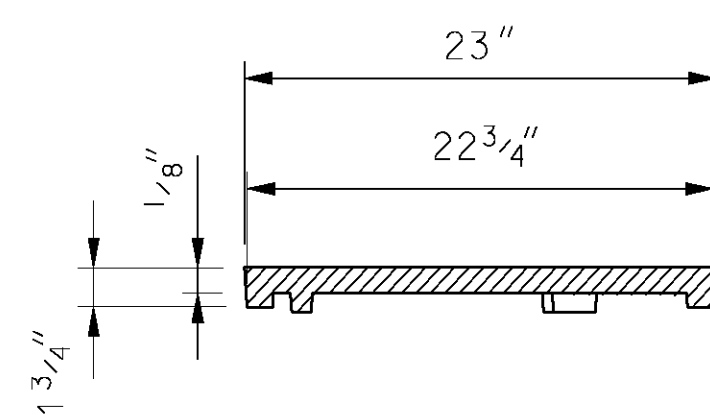
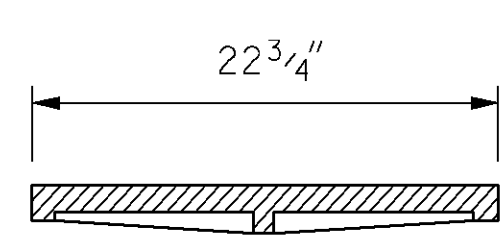


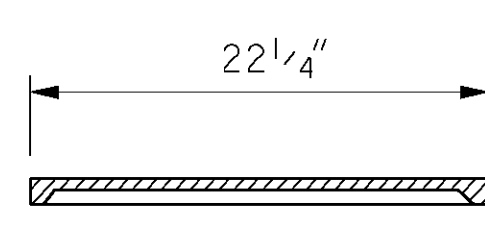
SECTION A-A



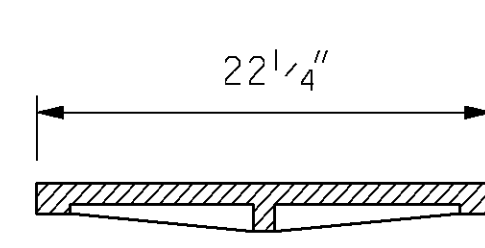
SECTION A-A



SECTION A-A



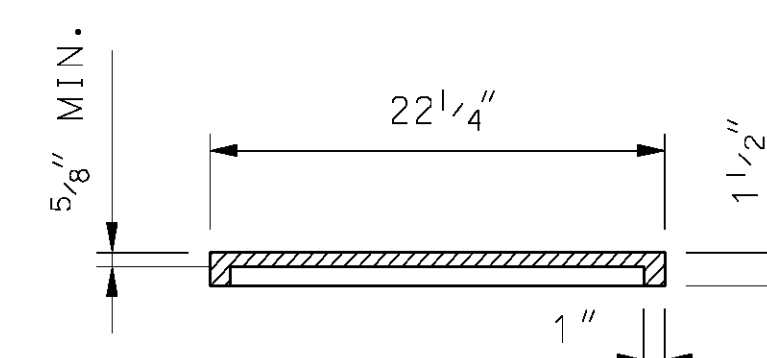
SECTION A-A



SECTION A-A



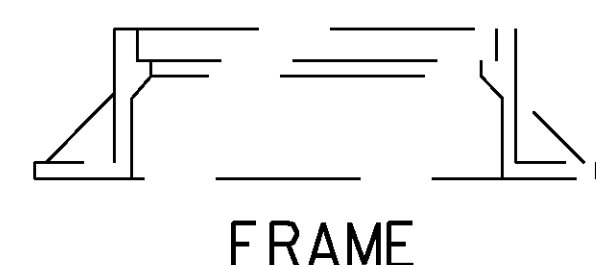
COVER



SECTION A-A

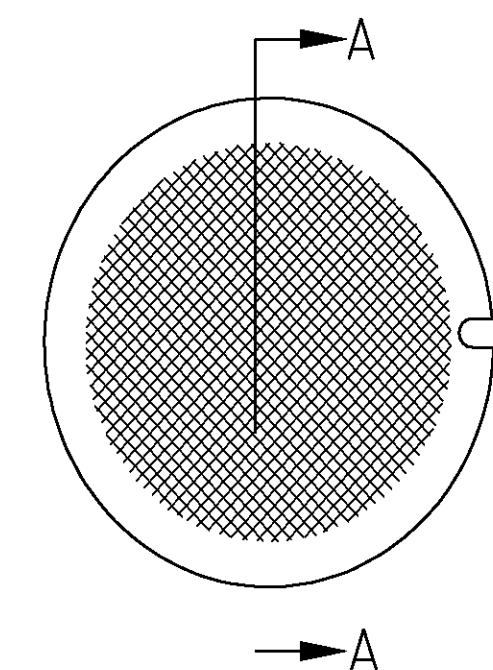


ADJUSTING RING



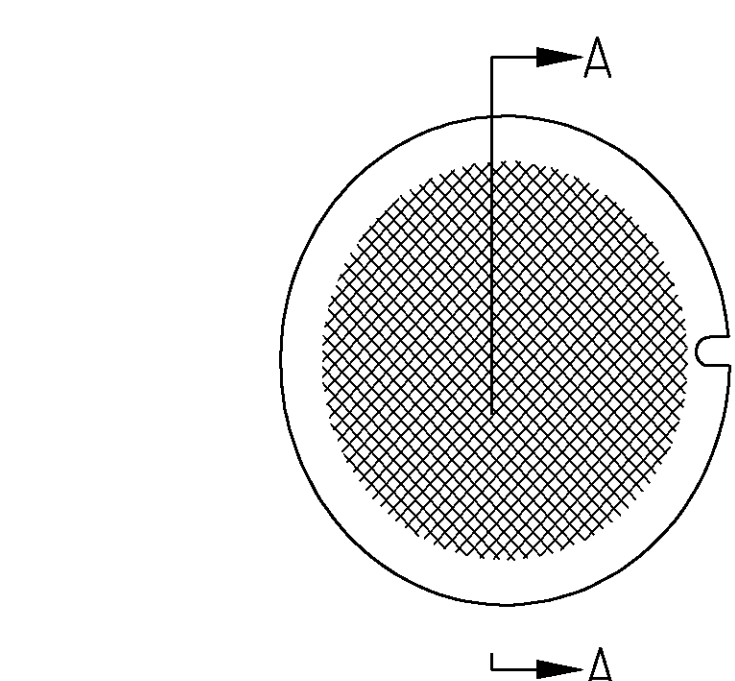
FRAME

INSTALLATION  
DETAILS

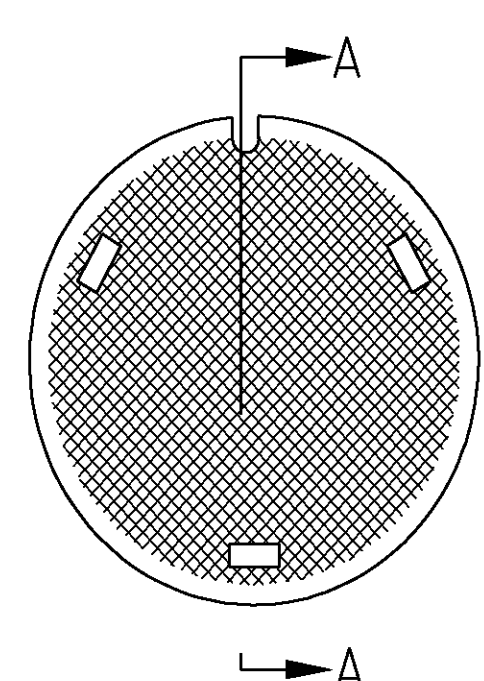


APPROXIMATE WEIGHT OF  
FRAME & COVER 150 LBS.

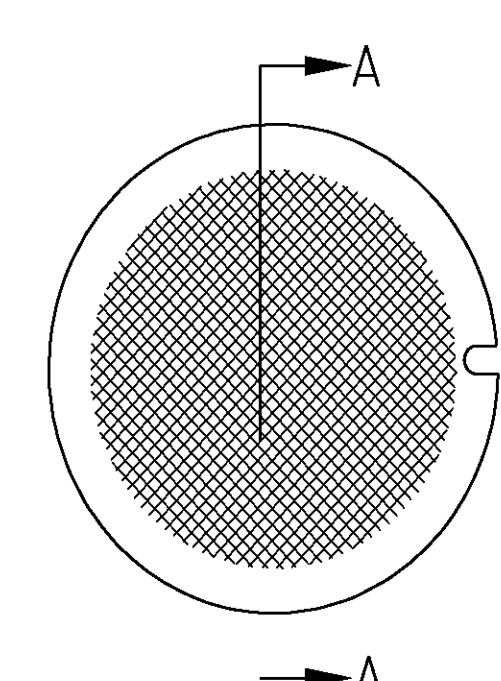
ALTERNATE  
TYPE 4 COVER



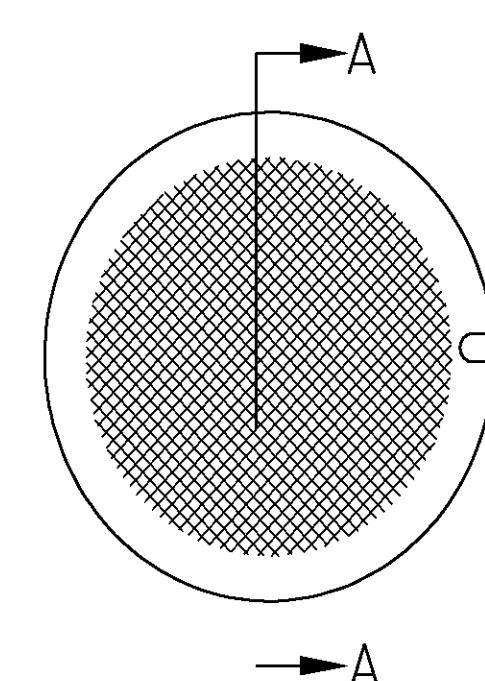
PLAN



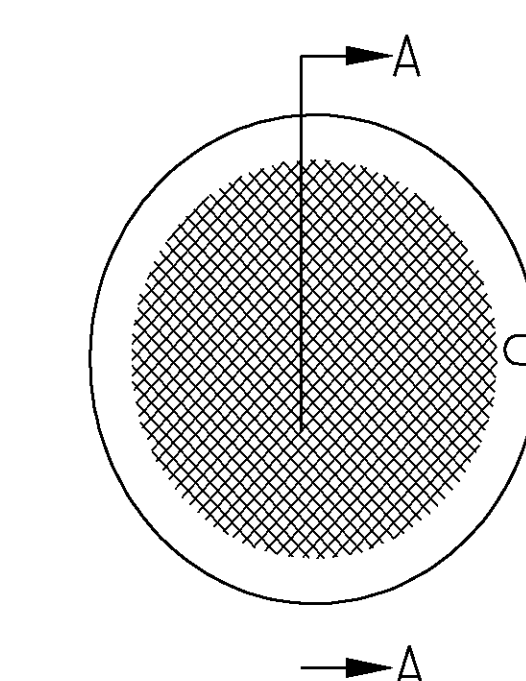
PLAN



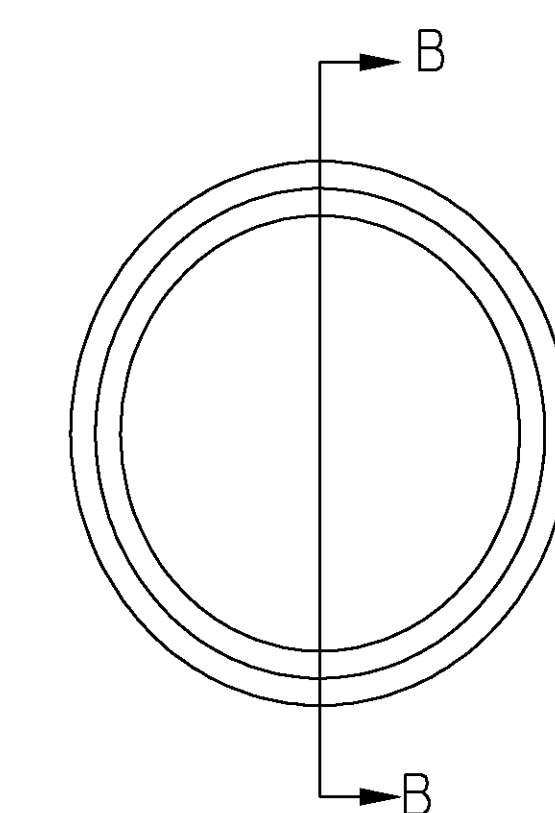
PLAN



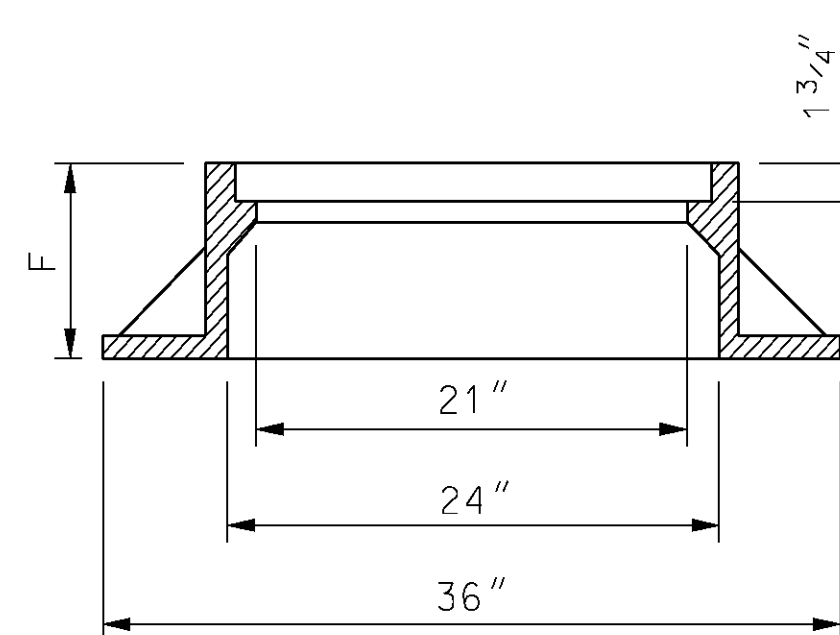
PLAN



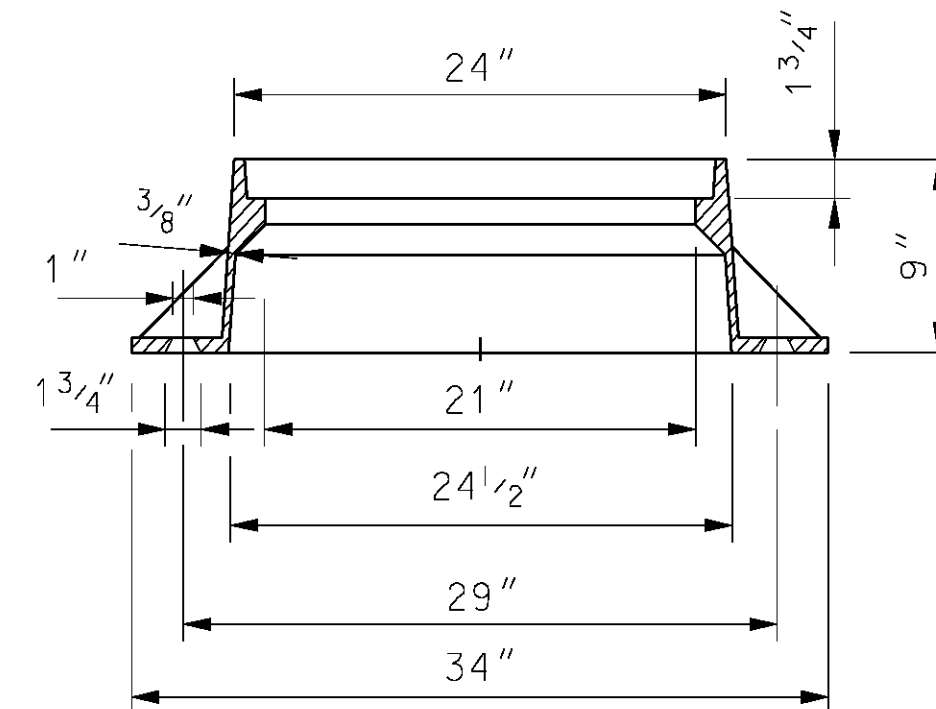
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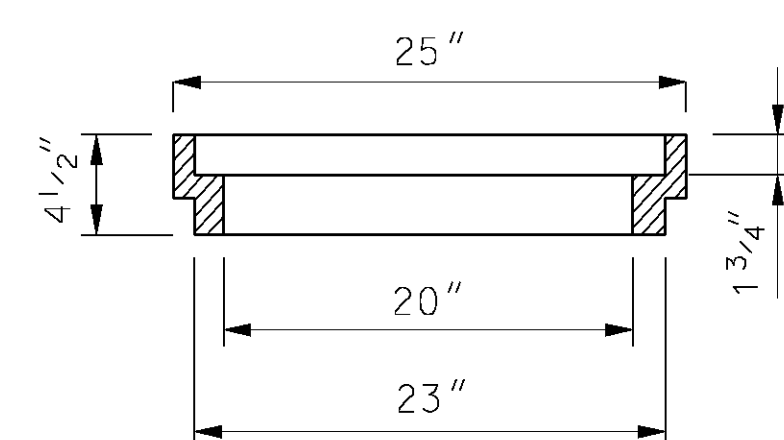
PLAN



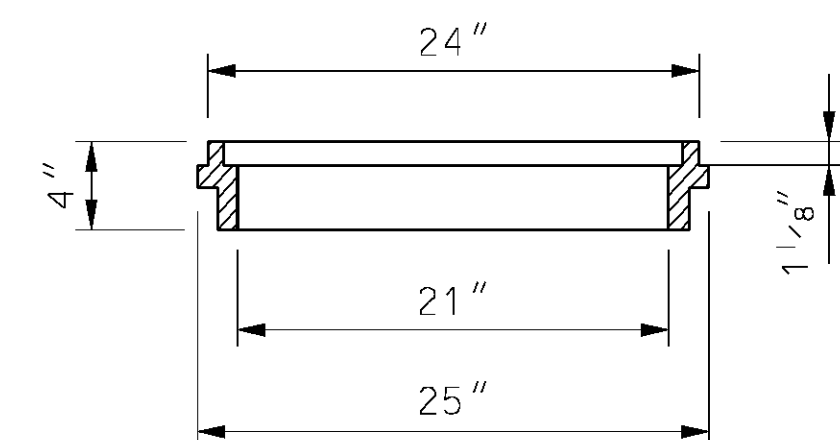
SECTION B-B



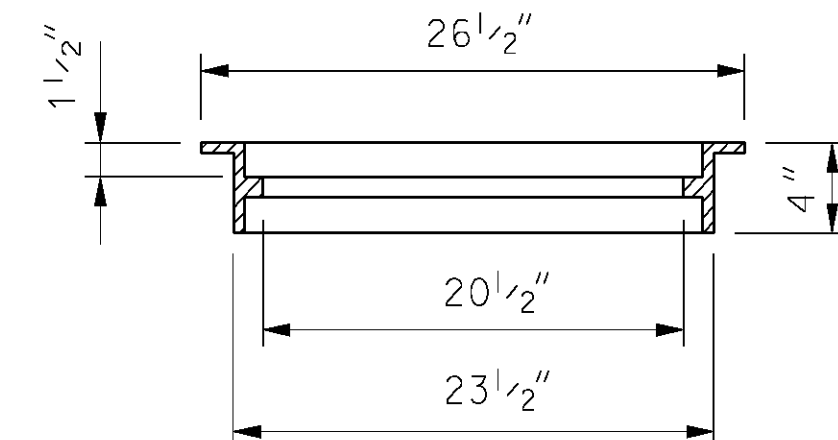
SECTION B-B



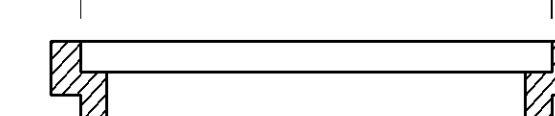
SECTION B-B



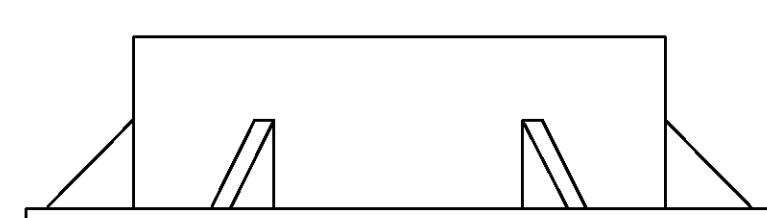
SECTION B-B



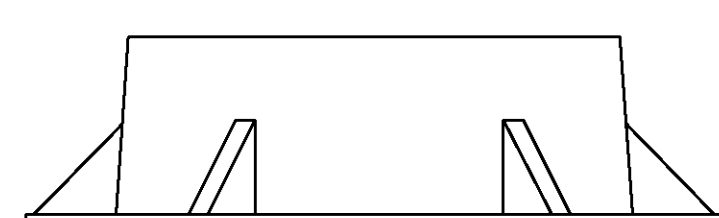
SECTION B-B



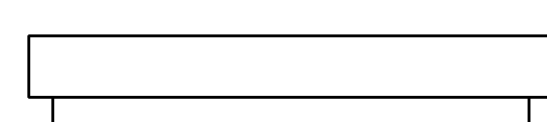
SECTION B-B



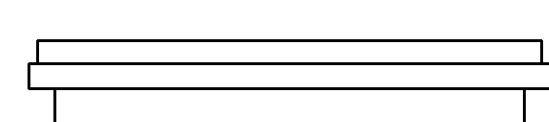
ELEVATION



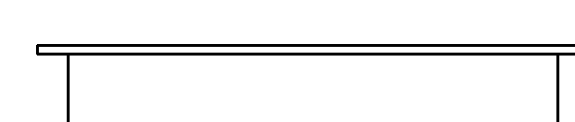
ELEVATION



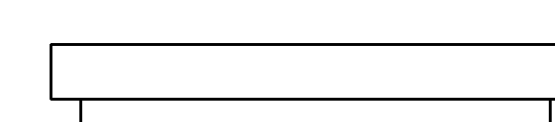
ELEVATION



ELEVATION



ELEVATION



ELEVATION

TYPE 1A & 1B

APPROXIMATE WEIGHT OF  
FRAME & COVER  
TYPE 1A 540 LBS.  
TYPE 1B 570 LBS.

TYPE 1C

APPROXIMATE WEIGHT OF  
FRAME & COVER 290 LBS.

TYPE 2

APPROXIMATE WEIGHT OF  
FRAME & COVER 280 LBS.

TYPE 3

APPROXIMATE WEIGHT OF  
FRAME & COVER 115 LBS.

TYPE 4

APPROXIMATE WEIGHT OF  
FRAME & COVER 160 LBS.  
(SEE ALTERNATE COVER)

ADJUSTING RING  
SOLID OR ADJUSTABLE

GENERAL NOTES:

TYPE 1A:  
WHEN "P" (PAVEMENT THICKNESS) IS 8" USE MANHOLE FRAME WITH 9" HEIGHT (F)  
APPROXIMATE WEIGHT OF FRAME & COVER, 540 LBS., CLASS 35 CASTING.

TYPE 1B:  
WHEN "P" (PAVEMENT THICKNESS) IS 9" OR 10", USE MANHOLE FRAME WITH 10" HEIGHT  
(F) APPROXIMATE WEIGHT OF FRAME & COVER, 570 LBS., CLASS 35 CASTING.

TYPE 1C:  
TYPE 1C MANHOLE FRAME AND COVER WILL BE ACCEPTED AS AN ALTERNATE TO TYPE 1A  
OR TYPE 1B. APPROXIMATE WEIGHT OF FRAME AND COVER, 290 LBS..

FOR "P" GREATER THAN 10" ADJUSTING RINGS COMBINED WITH MANHOLE FRAMES WITH "F"  
EQUAL TO 9" OR 10" SHALL BE USED TO MATCH THE PAVEMENT THICKNESS.

THE PRICE BID FOR MANHOLE FRAME AND COVER SHALL INCLUDE THE NUMBER OF ADJUST-  
ING RINGS REQUIRED TO MATCH PAVEMENT THICKNESS.

WHEN SPECIFIED, USE A LOCK TYPE FRAME & COVER WITH A MINIMUM OF 3 LOCK BLOCKS  
AND BOLTS.

MANHOLE ADJUSTING RINGS SHALL BE SECURED TO EITHER THE FRAME OR PAVEMENT TO  
PREVENT MOVEMENT UNDER TRAFFIC.

A CHECKERED DESIGN TOP SHALL BE FURNISHED.

MISSOURI HIGHWAY AND TRANSPORTATION  
COMMISSION

MANHOLE  
FRAMES AND COVERS

DATE: \_\_\_\_\_

EFFECTIVE: 03-01-1996

614.30E

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