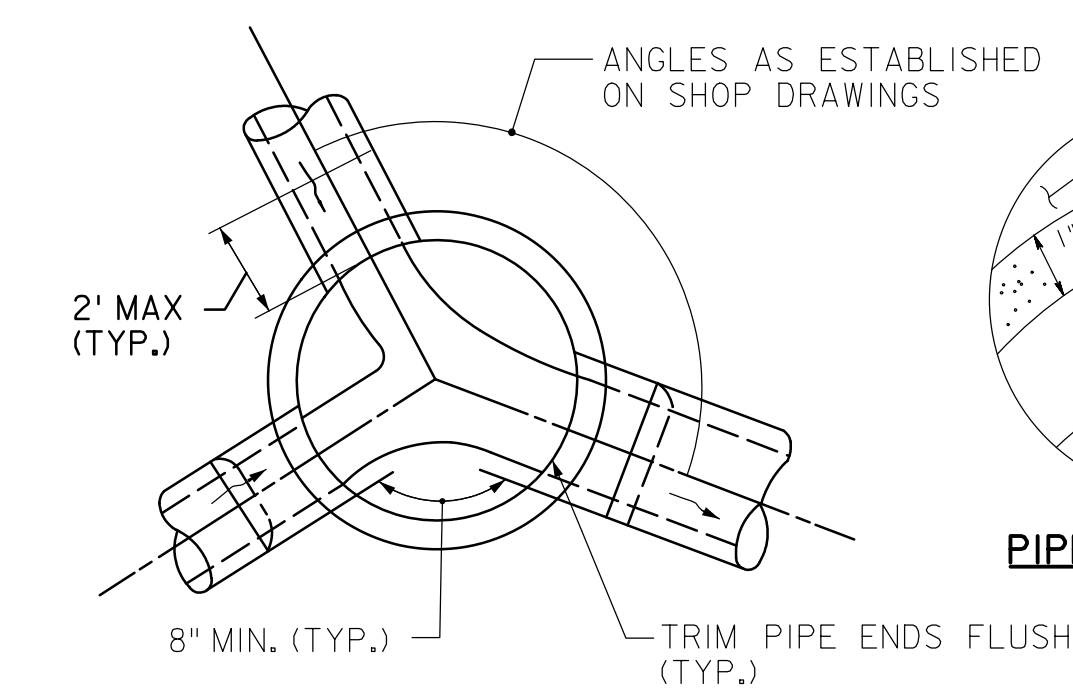
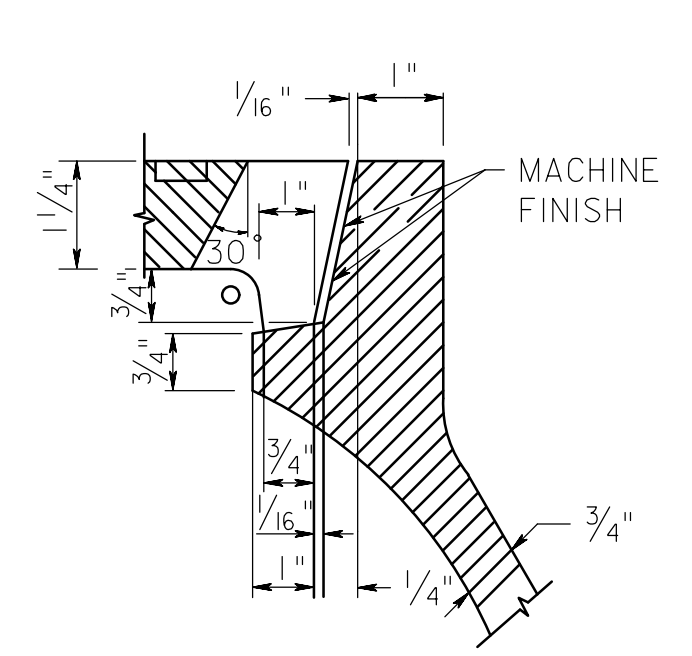


MANHOLE - TYPE M-1

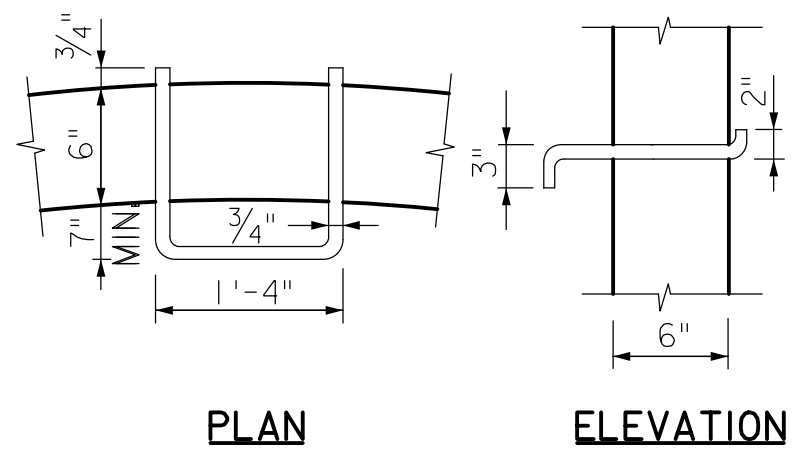


PIPE JOINT DETAIL

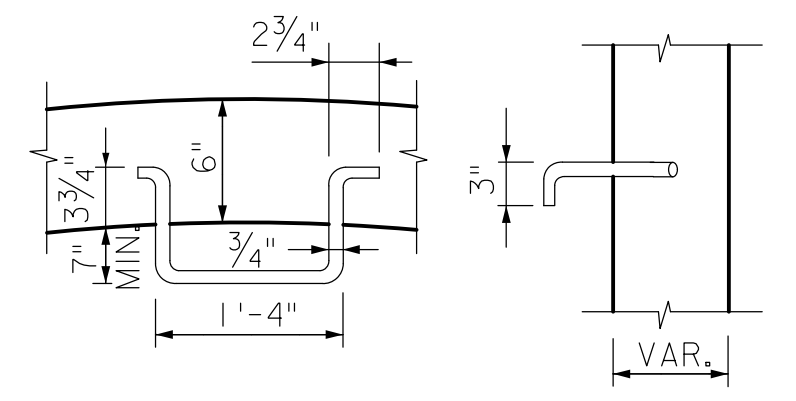
SECTION A-A



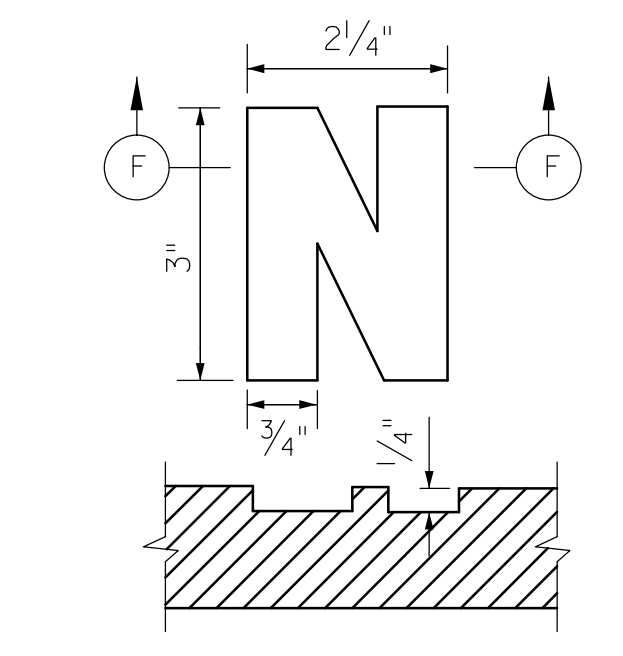
DETAIL "A"



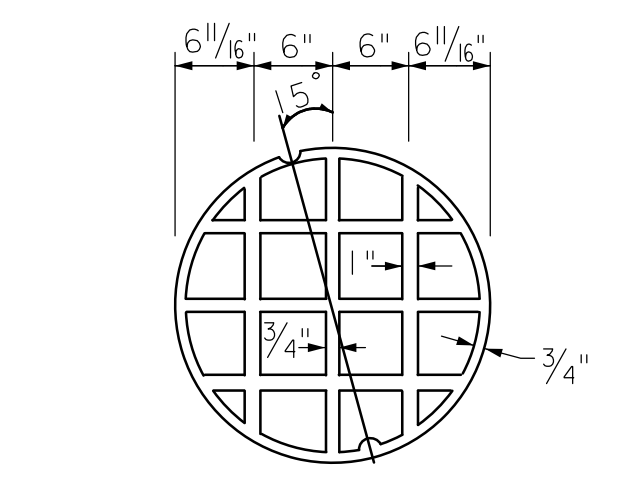
CONCRETE BLOCK WALLS



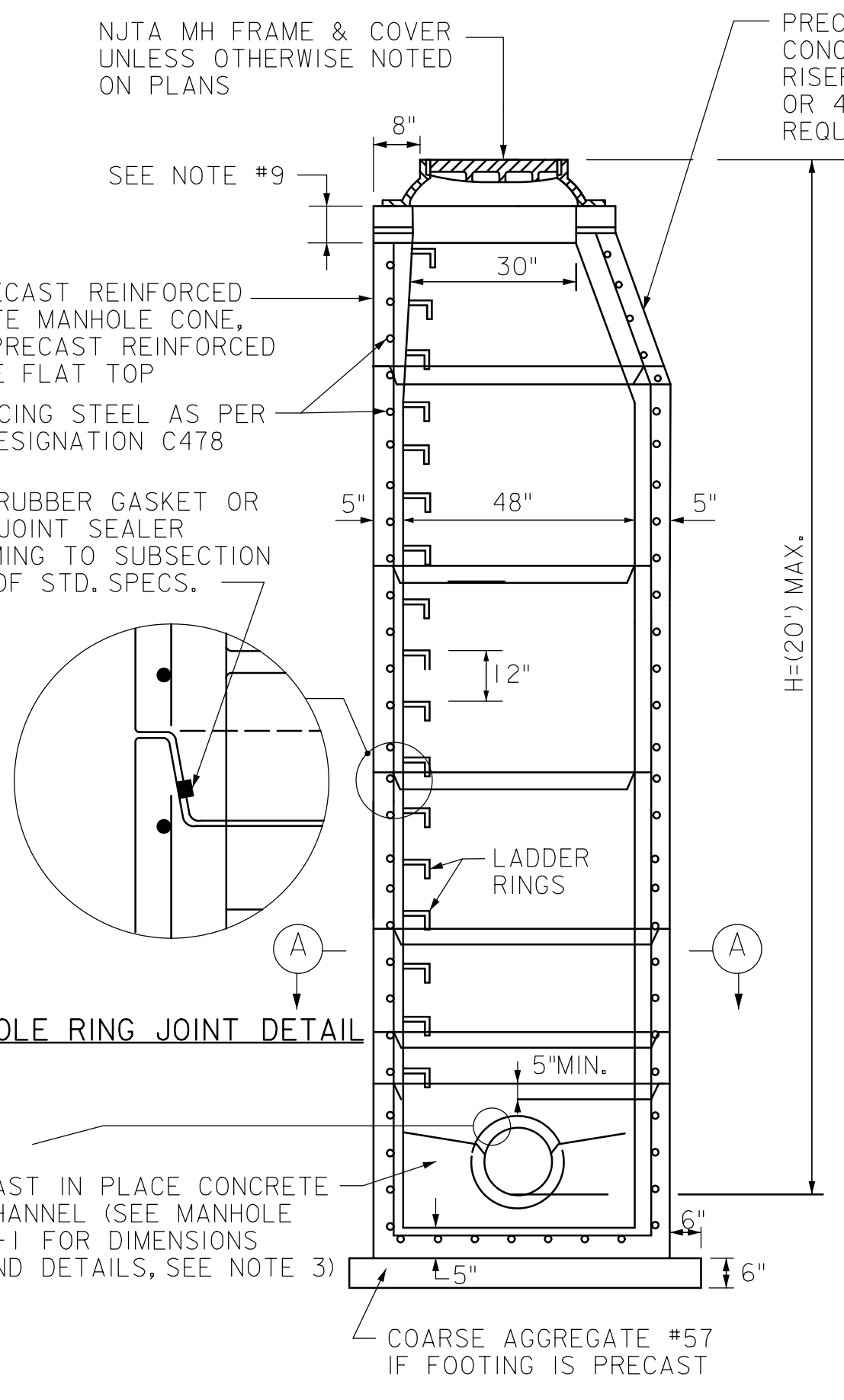
LADDER RUNG DETAILS



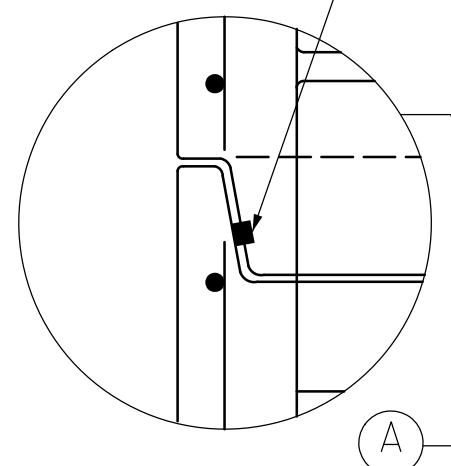
SECTION "F" DETAIL OF LETTERING



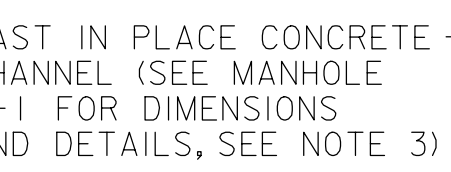
UNDERSIDE OF COVER



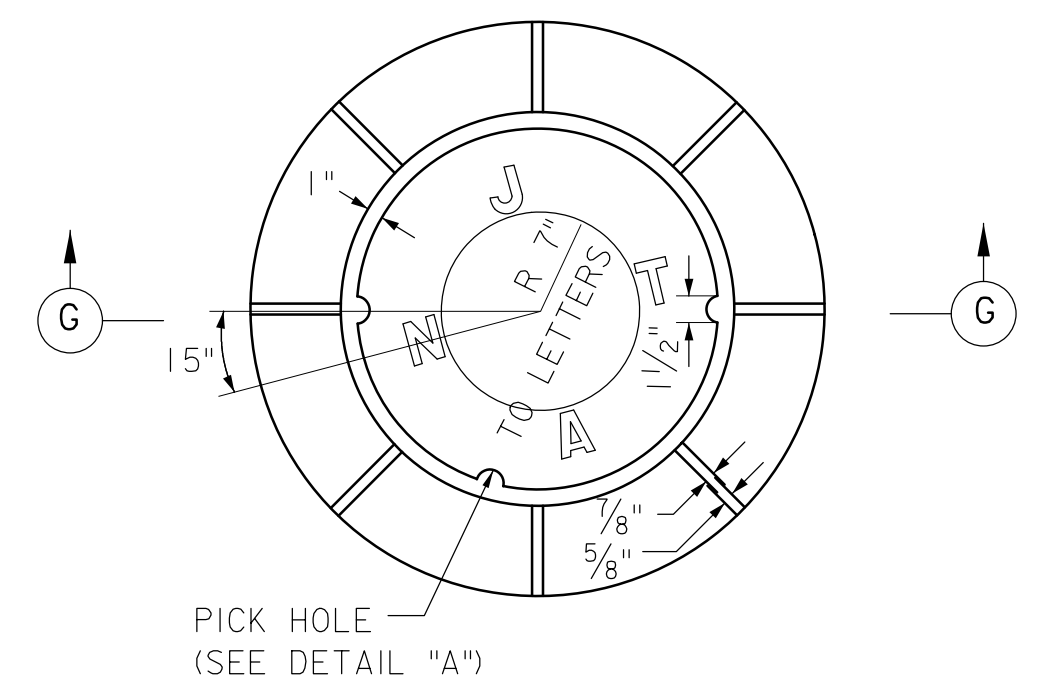
MANHOLES - TYPE P-1 FOR PIPES 36" DIAMETER OR LESS



MANHOLE RING JOINT DETAIL

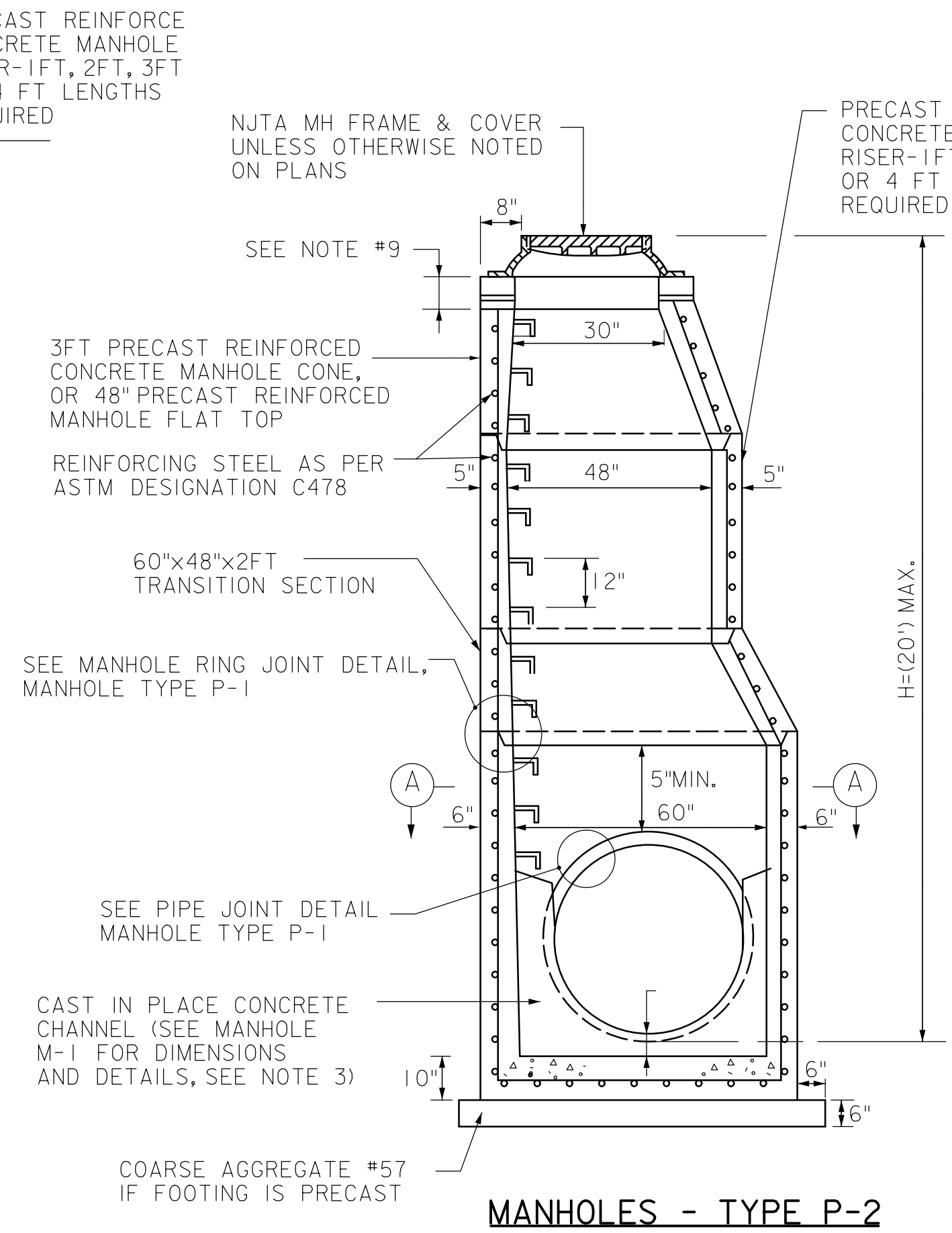


CAST IN PLACE CONCRETE CHANNEL (SEE MANHOLE M-1 FOR DIMENSIONS AND DETAILS, SEE NOTE 3)

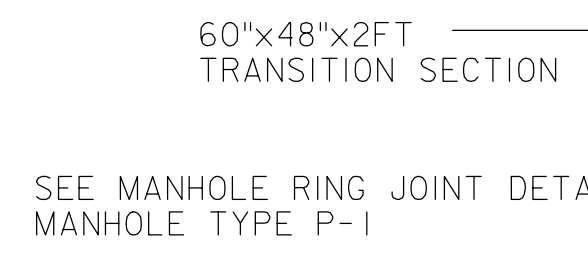


SECTION G-G MANHOLE FRAME & COVER

WEIGHT OF FRAME 150 LBS
WEIGHT OF COVER 140 LBS



MANHOLES - TYPE P-2 FOR PIPES 42" & 48" DIAMETER



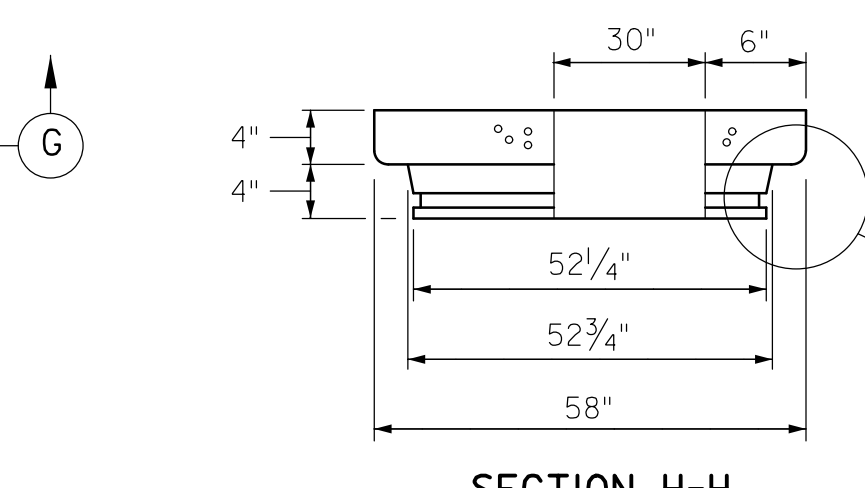
60"x48"x2FT TRANSITION SECTION

SEE MANHOLE RING JOINT DETAIL, MANHOLE TYPE P-1

SEE PIPE JOINT DETAIL MANHOLE TYPE P-1

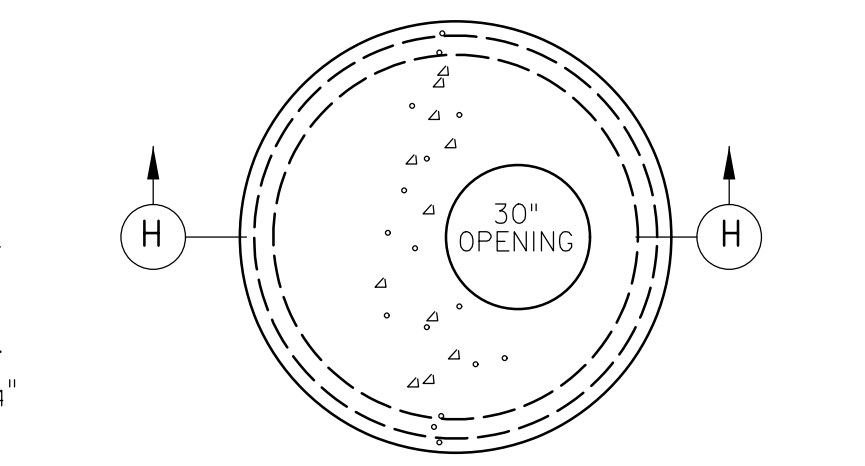
CAST IN PLACE CONCRETE CHANNEL (SEE MANHOLE M-1 FOR DIMENSIONS AND DETAILS, SEE NOTE 3)

COARSE AGGREGATE #57 IF FOOTING IS PRECAST



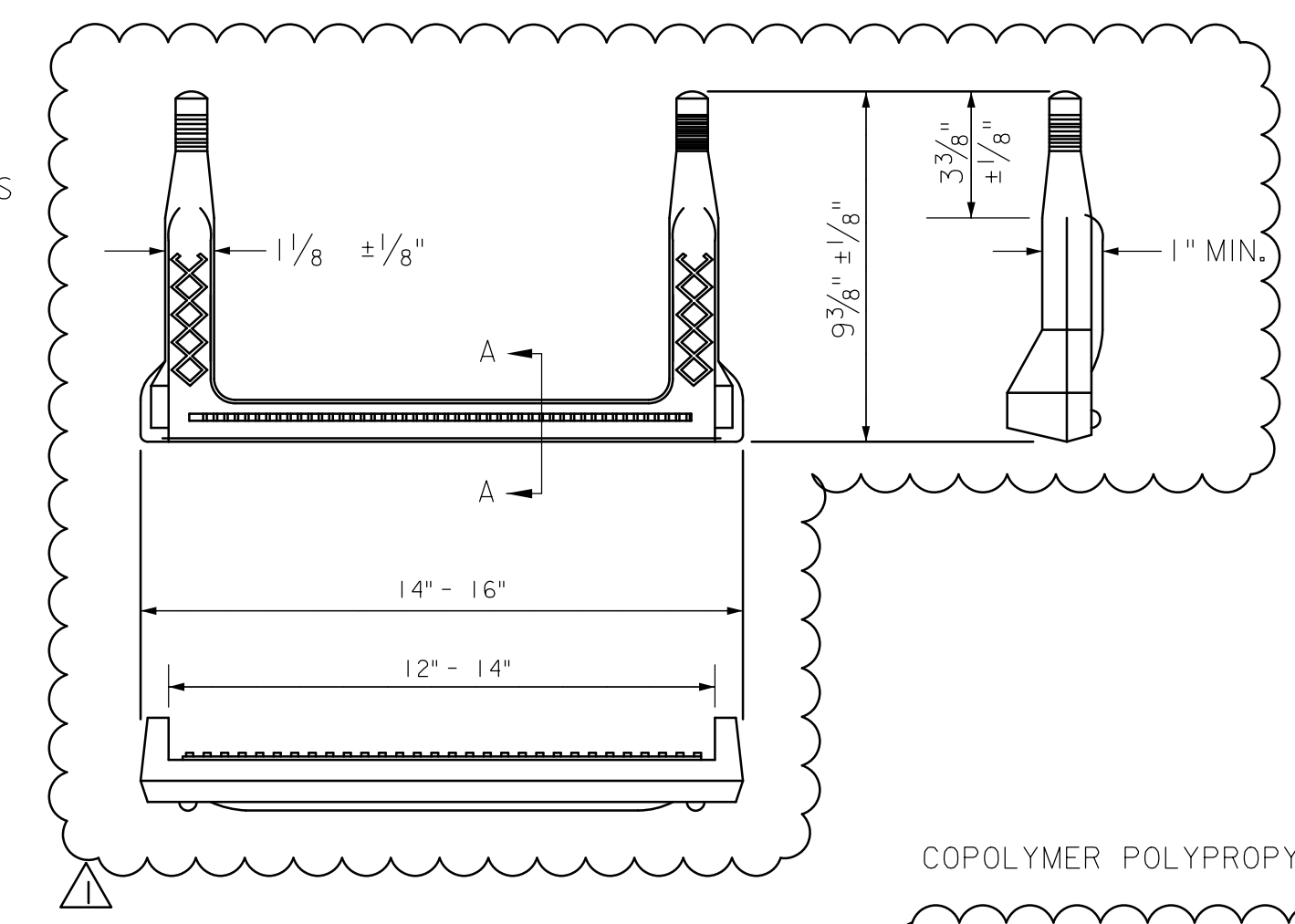
SECTION H-H

GROOVE FOR "O" RING RUBBER GASKET

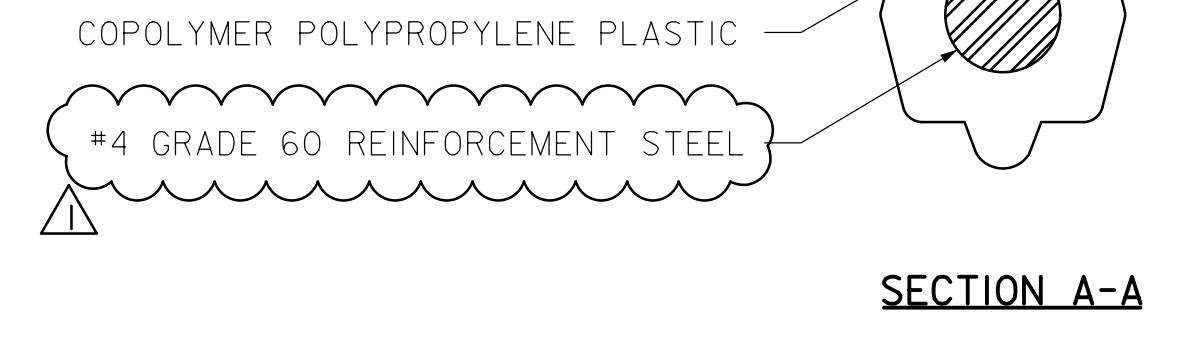


48" PRECAST REINFORCED CONCRETE MANHOLE FLAT TOP

USE IN LIEU OF CONE SECTION ETC.

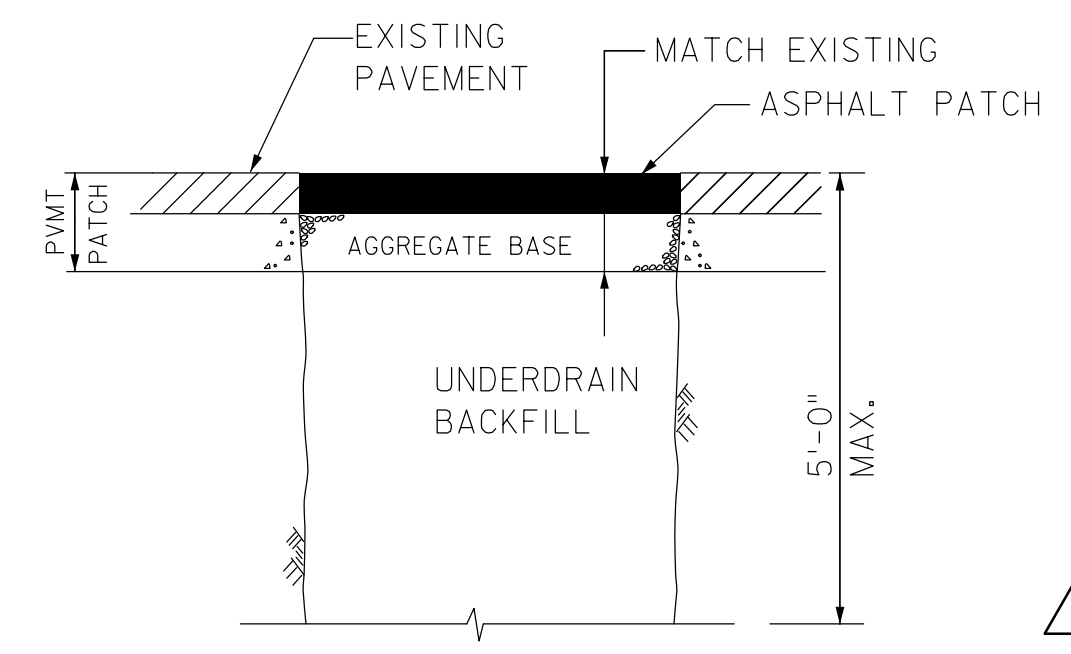


COPOLYMER POLYPROPYLENE PLASTIC LADDER RUNG



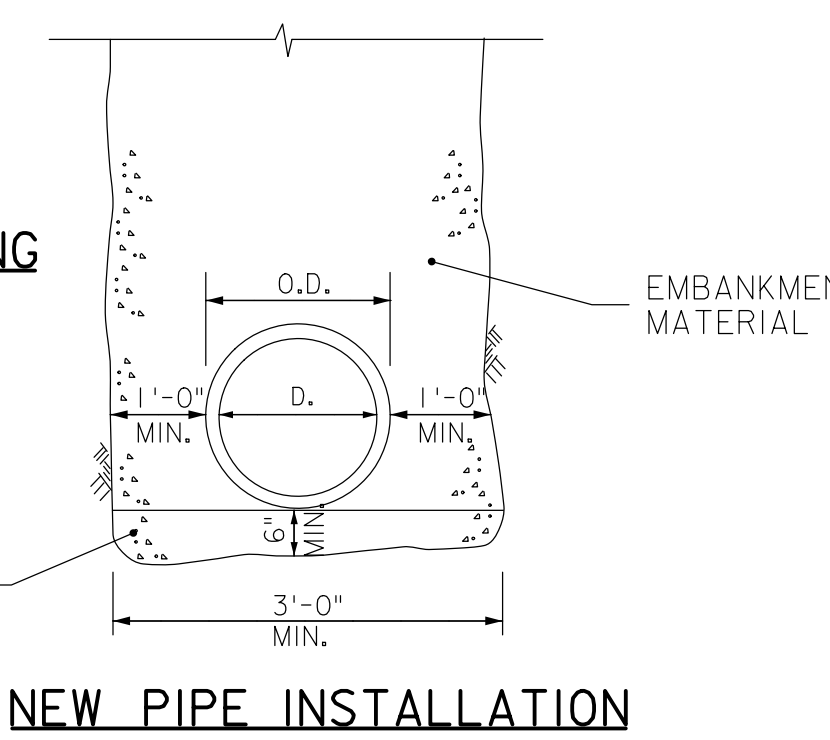
SECTION A-A

NOTE:
LADDER RUNGS FACING TRAFFIC 12" C TO C.



PAVEMENT PATCH

NOTE:
ELIMINATE PAVEMENT PATCH WHERE FINISHED GRADE IS MORE THAN 8" ABOVE EXISTING PAVEMENT OR WHERE EXISTING PAVEMENT IS BEING REMOVED.



NEW PIPE INSTALLATION

NOTES:

- WALL OF M-1 MANHOLES SHALL BE 6" THICK & BE CONSTRUCTED OF EITHER (A) CLASS "A" CONCRETE WITH AIR ENTRAINMENT - CAST IN PLACE PRECAST (B) CONCRETE BLOCK.
- BASES OF MANHOLES TO BE CONSTRUCTED OF CLASS "D" CONCRETE.
- MANHOLE CHANNEL CAN BE FORMED CONCRETE OR A COMPOSITE OF POURED CONCRETE & CONCRETE BLOCK.
- LADDER RINGS TO BE PROVIDED IN ALL MANHOLES OVER 4' DEEP, SEE SUBSECTION 916.05 OF THE STANDARD SPECIFICATIONS.
- PIPES MAY ENTER OR EXIST MANHOLES IN ANY DIRECTION, INDICATED ON THE PLANS.
- ALL INTERIOR JOINTS TO BE POINTED FULL AND FLUSH.
- WHERE DEPTH OF M-1 MANHOLES EXCEED 10 FEET, WALL THICKNESS BELOW THE 8 FOOT DEPTH SHALL BE 1'-0" MAXIMUM DEPTH TO BE 13 FEET.
- FRAMES TO BE SET IN FULL BED OF STIFF MORTAR (SEE STD. DWG. DR-2).
- ADJUST TO GRADE WITH BRICK, AS REQUIRED (12" MAX).
- WHERE MANHOLE, TYPE P-1 OR P-2 MANHOLE, TYPE P-2 ARE USED THE STRAIGHT SIDE OF EACH SECTION WILL BE SET PLUMB.
- STEEL REINFORCEMENT FOR PRECAST REINFORCED CONCRETE MANHOLE FLAT TOP SHALL BE AS PER ASTM DESIGNATION C478.
- AS AN ALTERNATE TO THE STANDARD MANHOLE FRAME AND COVER, A 39 INCH DIAMETER FRAME WITH 4 INCH FLANGE MAY BE FURNISHED WITH ALL OTHER DIMENSIONS AND WEIGHTS REMAINING THE SAME.



ORIGINAL SIZE IN INCHES

NEW JERSEY TURNPIKE AUTHORITY

MANHOLE AND PIPE PLACEMENT DETAILS

OFFICE OF THE CHIEF ENGINEER 2009 STANDARD DRAWING

App.	No.	DATE	REVISION
	I	03-22	REVISED CASTING WEIGHTS, NOTES AND RUNG DETAIL
	O	04-09	ORIGINAL DRAWING

DR-3