



- | REINFORCING STEEL LEGEND | | |
|--------------------------|------|--|
| 124" | A500 | |
| 114" | A501 | |
| VARIABLE | A502 | |

MANHOLE DIMENSIONS					
INSIDE WIDTH OF MANHOLE (INCHES)	WALL THICKNESS W (INCHES)	OUTSIDE WIDTH OF MANHOLE (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - STR. (INCHES)	MAX. INLET OR OUTLET CONC. PIPE SIZE - 90° (INCHES)	DIMENSION C (INCHES)
108	10	128	78	72	4.5

MANHOLE MINIMUM DEPTH TABLE			
INSIDE DIAMETER (X) OF PIPE (INCHES)	MINIMUM DEPTH - (FEET)		
	CONCRETE PIPE	CORRUGATED METAL PIPE	POLYETHYLENE PIPE
18	4.94	4.73	4.85
24	5.44	5.23	5.40
30	6.02	5.73	5.98
36	6.56	6.27	6.48
42	7.10	6.77	6.94
48	7.65	7.27	7.44
54	8.19	7.77	_____
60	8.73	8.27	_____
66	9.27	8.77	_____
72	9.81	9.27	_____
78	10.35	9.77	_____

- | CUT-OUT HOLES FOR INLET & OUTLET PIPES | | | |
|---|---|--------------------------|----------------------|
| INSIDE
DIAMETER
(X) OF PIPE
(INCHES) | DIAMETER OF CUT-OUT HOLES
F & G - (INCHES) | | |
| | CONCRETE
PIPE | CORRUGATED
METAL PIPE | POLYETHYLENE
PIPE |
| 18 | 26 | 21 | 24 |
| 24 | 32 | 27 | 31 |
| 30 | 40 | 33 | 39 |
| 36 | 47 | 40 | 45 |
| 42 | 54 | 46 | 50 |
| 48 | 61 | 52 | 56 |
| 54 | 68 | 58 | _____ |
| 60 | 75 | 64 | _____ |
| 66 | 82 | 70 | _____ |
| 72 | 89 | 76 | _____ |
| 78 | 96 | 82 | _____ |

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 UNCUT WILL NOT BE PERMITTED.

- (A) CAST-IN-PLACE CONCRETE MANHOLES SHALL BE CONSTRUCTED 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CATCH BASINS FOR CAST-IN-PLACE CATCH BASINS PROVIDED THAT ALL PRECAST ELEMENTS MEET ASTM M913 (CURRENT EDITION) UNLESS SUPERSEDED BY THIS DRAWING.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: $F_c = 4,000$ POUNDS PER SQUARE INCH AT 28 DAYS
REINFORCING STEEL: ASTM A615, $F_y = 60,000$ POUNDS PER SQUARE INCH
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 ONE(1) INCH 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 D-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 611-01.02 MANHOLES, > 4'-8' DEPTH THROUGH 611-01.07 MANHOLE, > 24'-28' DEPTH PER EACH.

STANDARD
9' X 9' SQUARE
CONCRETE NO. 3
MANHOLE

9-5-98

D - MH - 7