

NOTES

- 1 - VALUES for A, B, C, D₁, D₂, Elevation R, and Elevation S are shown on the improvement plan TABLE of values for F and T hereon
- 2 - LATERALS: If laterals enter on both sides of manhole, access shaft shall be located on side receiving the smaller lateral
- 3 - CENTER OF MANHOLE SHAFT shall be located over center line of main storm drain when D₁ is 48" or less, in which case place 8 E bars symmetrically around shaft at 45° with center line
- 4 - LENGTH L may be increased at option of Contractor to meet pipe ends, but any change in location of spur must be approved by the Engineer
- 5 - DETAIL M : When depth of manhole from street grade to top of box is less than 2'-10 1/2" for paved streets or 3'-6" for unpaved streets, construct monolithic shaft as per Detail M
The Contractor shall have the option of constructing shaft as per Detail M for any depth of manhole
When diameter D₁ is 48" or less, center of shaft shall be located as per Note 3
- 6 - REINFORCING STEEL shall be round, deformed, straight bars, 1 1/2" clear from inside face unless otherwise shown.
The bars shall be No. 4 and spaced 18" on centers or closer.
- 7 - CONCRETE shall be class A
- 8 - STEPS shall be 3/4" round, galvanized steel and anchored not less than 6 inches in the walls of structure Unless otherwise shown the spacing shall be 16" on centers The lowest step shall be not more than 2 feet above the invert
- 9 - RINGS, REDUCER, AND PIPE for access shaft shall be seated in cement mortar and neatly pointed or wiped inside shaft
- 10 - FLOOR of manhole shall be steel troweled to springing line
- 11 - BODY of manhole, including spur, shall be poured in one continuous operation, except that the Contractor shall have the option of placing at the springing line a construction joint with longitudinal keyway.

* Use D₂ or D₁, whichever is greater, or B.

** If D₂, D₁ or B falls between tabulated values then use the next highest value to determine F or T.

** TABLE OF VALUES FOR F AND T					
*D ₂ , D ₁	F	B	T	B	T
12"	4"	12"	4"	78"	11 3/4"
15"	4 1/4"	15"	4 1/4"	84"	12 1/2"
18"	4 1/2"	18"	4 1/2"	90"	13 1/4"
21"	5"	21"	5"	96"	14"
24"	5 1/4"	24"	5 1/4"	102"	15 1/2"
27"	5 1/2"	27"	5 1/2"	108"	16"
30"	6"	30"	6"	114"	16 1/2"
33"	6 1/4"	33"	6 1/4"	120"	17"
36"	6 1/2"	36"	6 1/2"	126"	17 1/2"
39"	7"	39"	7"	132"	17 1/2"
42"	7 1/2"	42"	7 1/2"	138"	17 1/2"
45"	7 3/4"	45"	7 3/4"	144"	18"
48"	8"	48"	8"		
51"	8 1/2"	51"	8 1/2"		
54"	9"	54"	9"		
57"	9 1/4"	57"	9 1/4"		
60"	9 1/2"	60"	9 1/2"		
63"	10"	63"	10"		
66"	10 1/4"	66"	10 1/4"		
69"	10 3/4"	69"	10 3/4"		
72"	11"	72"	11"		
78"	11 3/4"				
84"	12 1/2"				
90"	13 1/4"				
96"	14"				
102"	15 1/2"				
108"	16"				
114"	16 1/2"				
120"	17"				
126"	17"				
132"	17 1/2"				
138"	17 1/2"				
144"	18"				

NOTE

- 12 - The maximum cover above this structure shall be 25'. If the cover exceeds 25' a special structure shall be designed for the cover and detailed on the project drawing.

CITY OF RIV. STD. NO. 432
CITY OF L.A. STD. NO. B-1528



RIVERSIDE COUNTY FLOOD CONTROL
AND
WATER CONSERVATION DISTRICT

APPROVED BY: *Warren D. Williams*
CHIEF ENGINEER

DATE: April 5, 2004

MANHOLE NO. 4

STANDARD DRAWING NUMBER MH254
SHEET 2 OF 2

R.C.E. NO. 32336