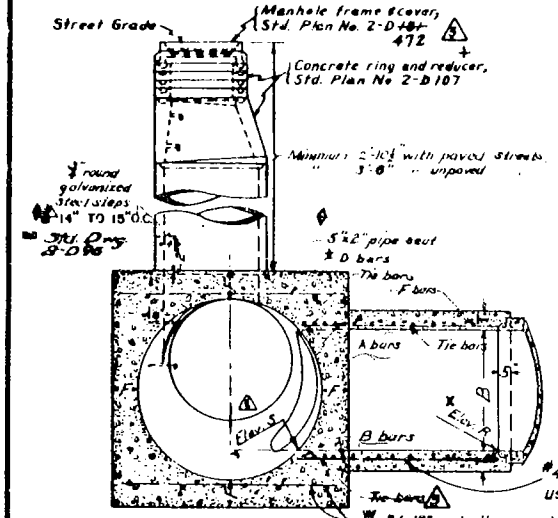
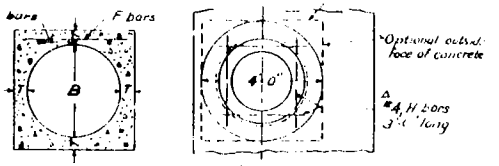
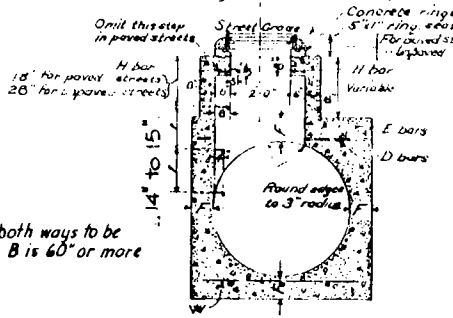


SECTION N-M-P-O



SECTION G-G PLAN

(Rings and cover not shown)



DETAIL M

(See note 5)

NOTES

1 - VALUES for A, B, C, D, D_2, Elevation R, and Elevation S are shown on the 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 Storm Drain when D_2 is 48" or less, in which case place 4 E bars symmetrically around shaft 45° with centerline.

◊ 4 - LENGTH of manhole may be increased at option to meet pipe ends, but any change in location of spur must be approved by the District Engineer.

5 - DETAIL M: When depth of manhole from street to top of box is less than 2'-10½" for paved streets or 3'-6" for unpaved streets, construct monolithic shaft as per Detail M. Construction of shaft as per Detail M for any depth of manhole is optional. When diameter D_2 is 48" or less, center of shaft shall be located as per Note 3.

△ 6 - REINFORCING STEEL shall be per 2-D 171 , straight bars, 1½" clear from face of concrete unless shown otherwise. Tie bars shall be #3, and spaced 18" on centers or closer. Steel schedule detailed on plan.

WW ◊ ★7 - EMBEDMENT, P, shall be 5" for D_2 96" or less and 8" for D_2 over 96"

◊ 8 - STEPS shall be ¾" round, galvanized steel and anchored not less than 6 inches in the walls of structure. Unless otherwise shown the spacing shall be 14" to 15" o.c. △ The lowest step shall be not more than 2 feet above the invert. 18" Dwg. 2-L 96.

9 - RINGS, REDUCER, AND PIPE for access shaft shall be seated in 1:2 mix mortar and neatly pointed or wiped inside shaft.

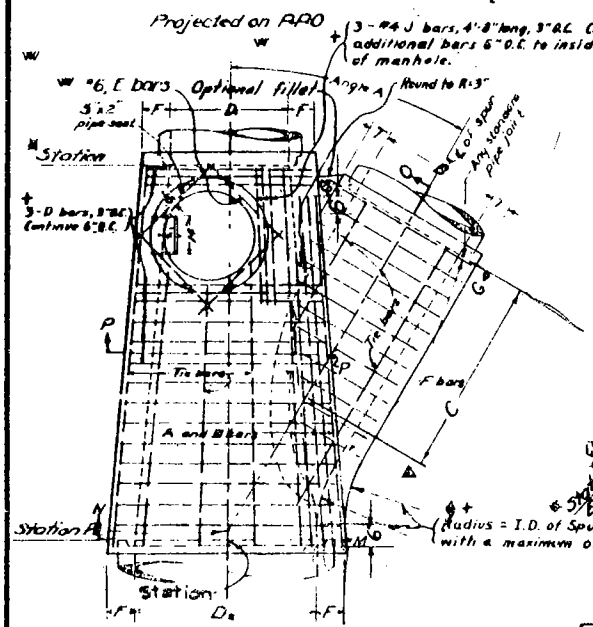
11 - FLOOR of manhole shall be steel troweled to springing line.

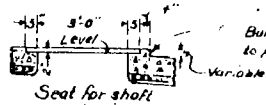
12 - BODY of manhole, including spur, shall be poured in one continuous operation, except that a construction joint at the springing line with a longitudinal keyway is permitted.

△ 13 - ELEVATION "S" applies at inside wall of structure.

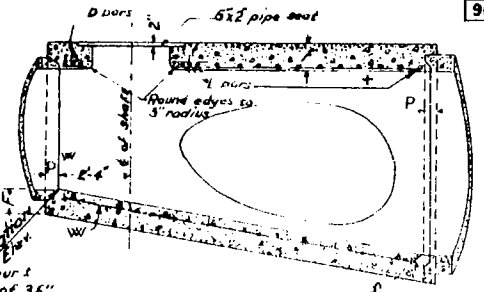
f'_c = 3000 psi at 28 days.

o 15. Where Pressure Manhole No. 4 is specified on plans see Std. Dwg. 2-D210 note 3.





Seat for shaft when top is not level



LONGITUDINAL SECTION

TABLE OF BAR SIZES		
D_2 or B	A & B Bars	D or F Bars
12"-39"	#5 @ 3"	#4 @ 6"
42"-84"	#6 @ 3"	#5 @ 6"
90"-144"	#7 @ 3"	#6 @ 6"

TABLE OF VALUES FOR F AND T

D_2	F	B	T	B	T
36"	6½"	12"	4"	102"	15½"
39"	7"	15"	4½"	108"	16"
42"	7½"	18"	4½"	114"	16½"
45"	7½"	21"	5"	120"	17"
48"	8"	24"	5½"	126"	17"
51"	8½"	27"	5½"	132"	17½"
54"	9"	30"	6"	138"	18"
57"	9½"	33"	6½"	144"	18"
60"	9½"	36"	6½"		
63"	10"	39"	7"		
66"	10½"	42"	7½"		
69"	10½"	45"	7½"		
72"	11"	48"	8"		
78"	11¾"	51"	8½"		
84"	12½"	54"	9"		
90"	13½"	57"	9½"		
96"	14"	60"	9½"		
102"	15½"	69"	10"		
108"	16"	66"	10½"		
114"	16½"	69"	10½"		
120"	17"	72"	11"		
126"	17"	78"	11¾"		
132"	17½"	84"	12½"		
138"	17½"	90"	13½"		
144"	18"	96"	14"		

REFERENCES
2-D 181 ◊ △
2-D 107
2-D 171 ◊
2-D 210
2-D 96 ■
2-D 472 △

REVISIONS		
MARK	DATE	DESCRIPTION
*	4-46	CHANGED MIX
△	7-52	REVISED NO.
◊	12-52	REVISED
◊	1-53	"
WW	6-53	"
∫	6-17-53	ADDED NOTE
+	7-29-53	REVISED
□	10-30-63	CHANGE DIMEN.
○	10-54	ALTER NOTES
★	12-7-64	REVISED
■	4-66	REVISED

REVISIONS		
MARK	DATE	DESCRIPTION
△	3-1-74	ADDED NOTE & STD.

REVISIONS		
MARK	DATE	DESCRIPTION
△	7-68	Rev. C length & ELEV. S.
△	11-9-70	Step Spacing

LOS ANGELES COUNTY FLOOD CONTROL DISTRICT

MANHOLE NO. 4
PLAN, SECTION, AND DETAIL

APPROVED BY H E Hedger CHIEF ENGINEER

RECOMMENDED BY W. L. Reams OFFICE ENGINEER

CHIEF DESIGN ENG'R

DATE 5-31-39

NO. 2-D113