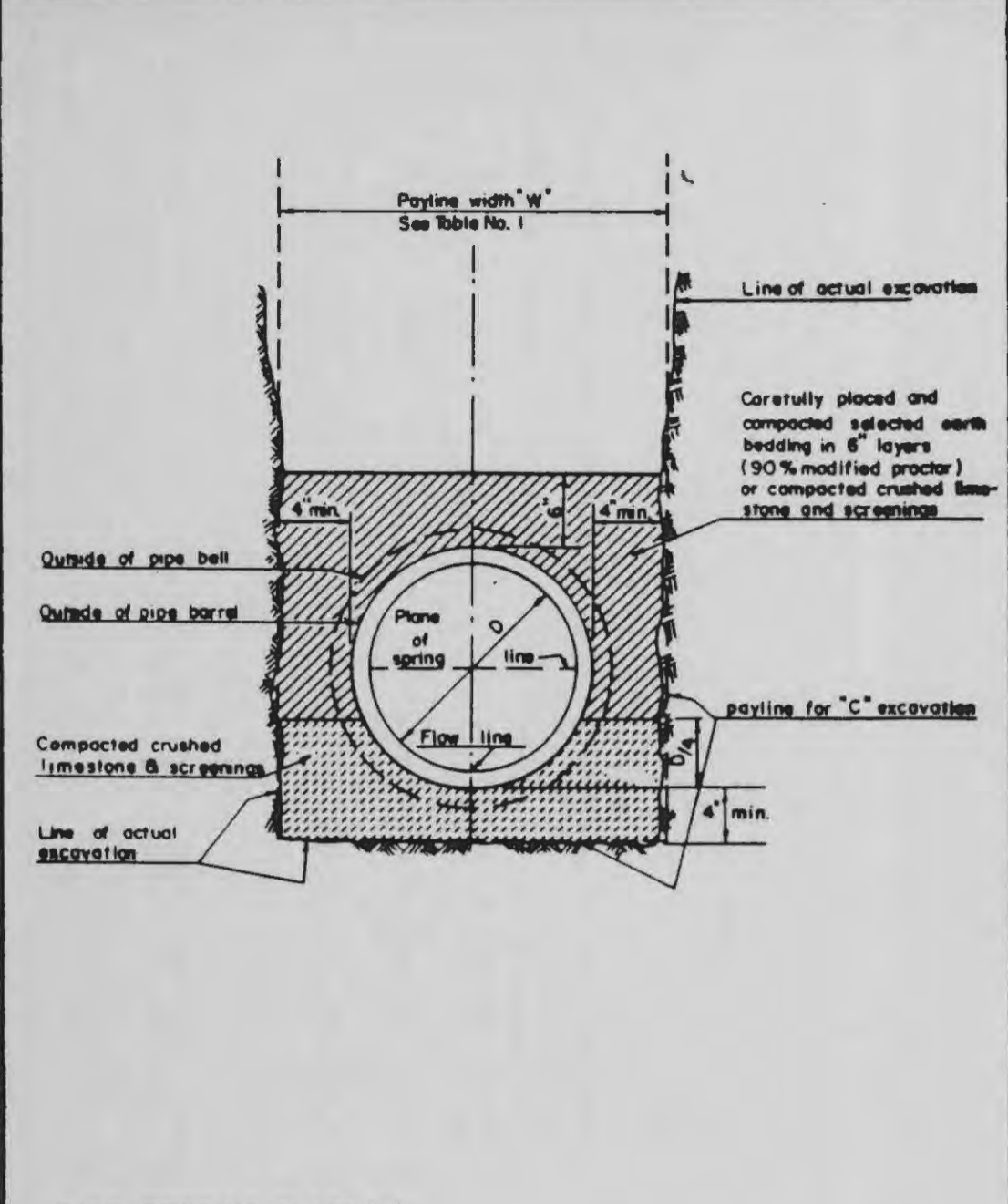
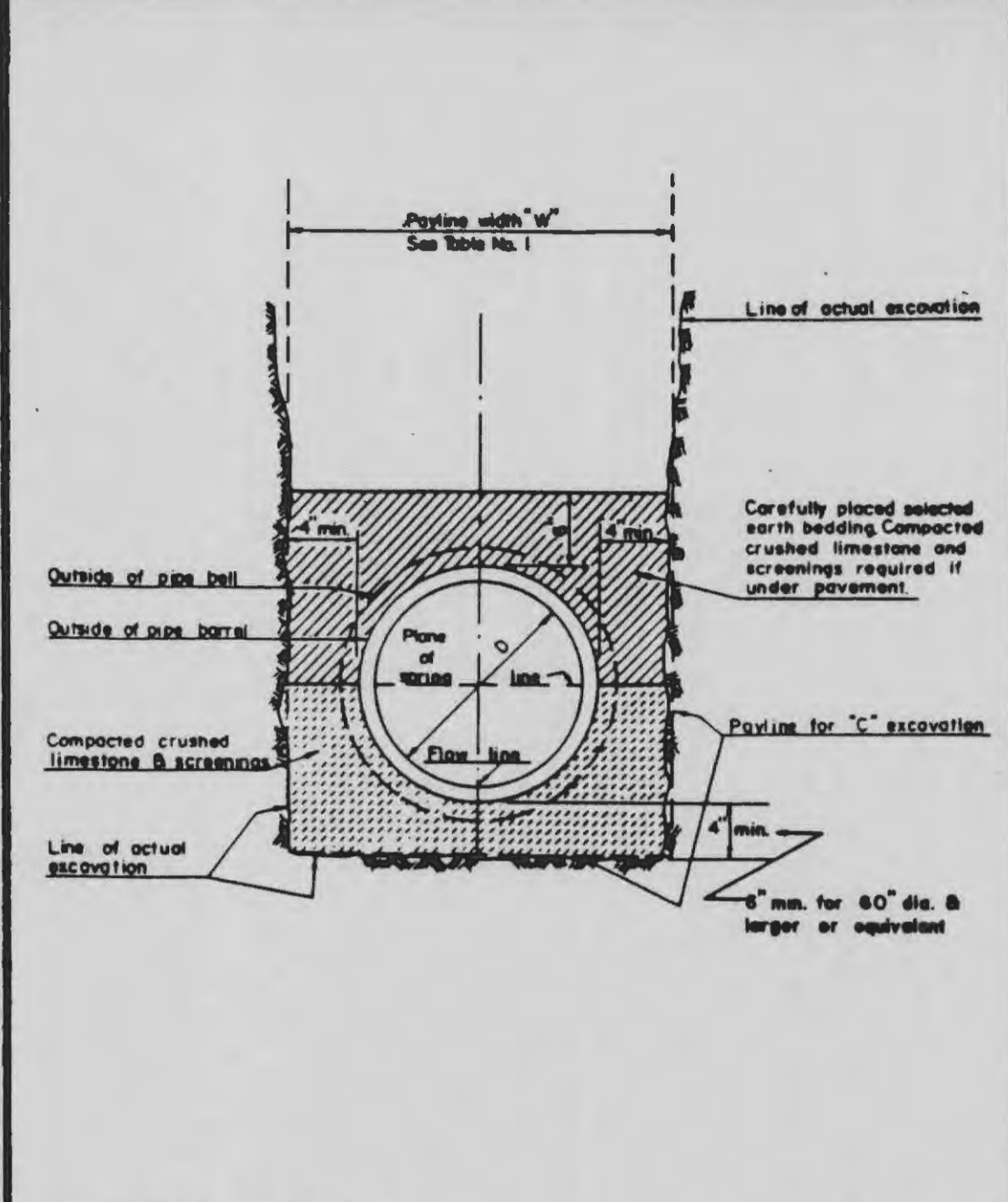


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
Inside Diameter of Pipe (Inches)	Payline Width of Trench (Feet)	Payline Width of Trench (Feet)	Pay-volume cu. ft. per ft. of Pipe (Feet)	Payline Width of Trench (Feet)	Payline Width of Trench (Feet)	Payline Width of Trench (Feet)	Pay-volume cu. ft. per ft. of Pipe (Feet)
4	28	2.33	3.20				
6	28	2.33	3.46				
8	28	2.33	3.70				
10	28	2.33	3.96				
12	28	2.33	3.98				
15	32	2.67	4.89				
18	35	2.92	5.63	14 x 23	41	3.42	5.94
21	39	3.25	6.61				
24	42	3.50	7.39	19 x 30	49	4.08	7.60
27	45	3.75	8.18	22 x 34	53	4.42	8.81
30	49	4.08	9.30	24 x 38	58	4.83	9.70
33	53	4.42	10.53	27 x 42	62	5.17	10.71
36	56	4.67	11.43	29 x 45	66	5.50	11.72
39				32 x 49	71	5.82	13.14
42	63	5.25	13.38	34 x 53	75	6.25	14.05
48	70	5.83	15.67	38 x 60	83	6.92	16.18
54	77	6.42	18.15	43 x 68	92	7.67	18.81
60	84	7.00	20.73	48 x 76	101	8.42	21.50
66	91	7.58	23.45	53 x 83	109	9.08	24.35
72	98	8.17	26.37	58 x 91	118	9.83	27.45
78	105	8.75	29.39	63 x 98	126	10.50	30.50
84	112	9.33	32.57	68 x 106	135	11.25	33.91
90	119	9.92	35.90	72 x 113	143	11.92	36.99
96	126	10.50	39.37	77 x 121	152	12.67	40.60
102	133	11.08	42.99	82 x 128	160	13.33	44.48
108	140	11.67	46.75	87 x 136	168	14.00	47.78
114	147	12.25	50.66	92 x 143	176	14.67	51.70
120	154	12.83	54.72	97 x 151	185	15.42	56.01
126	161	13.42	58.92				
132	168	14.00	63.27	106 x 166	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	18.17	73.59

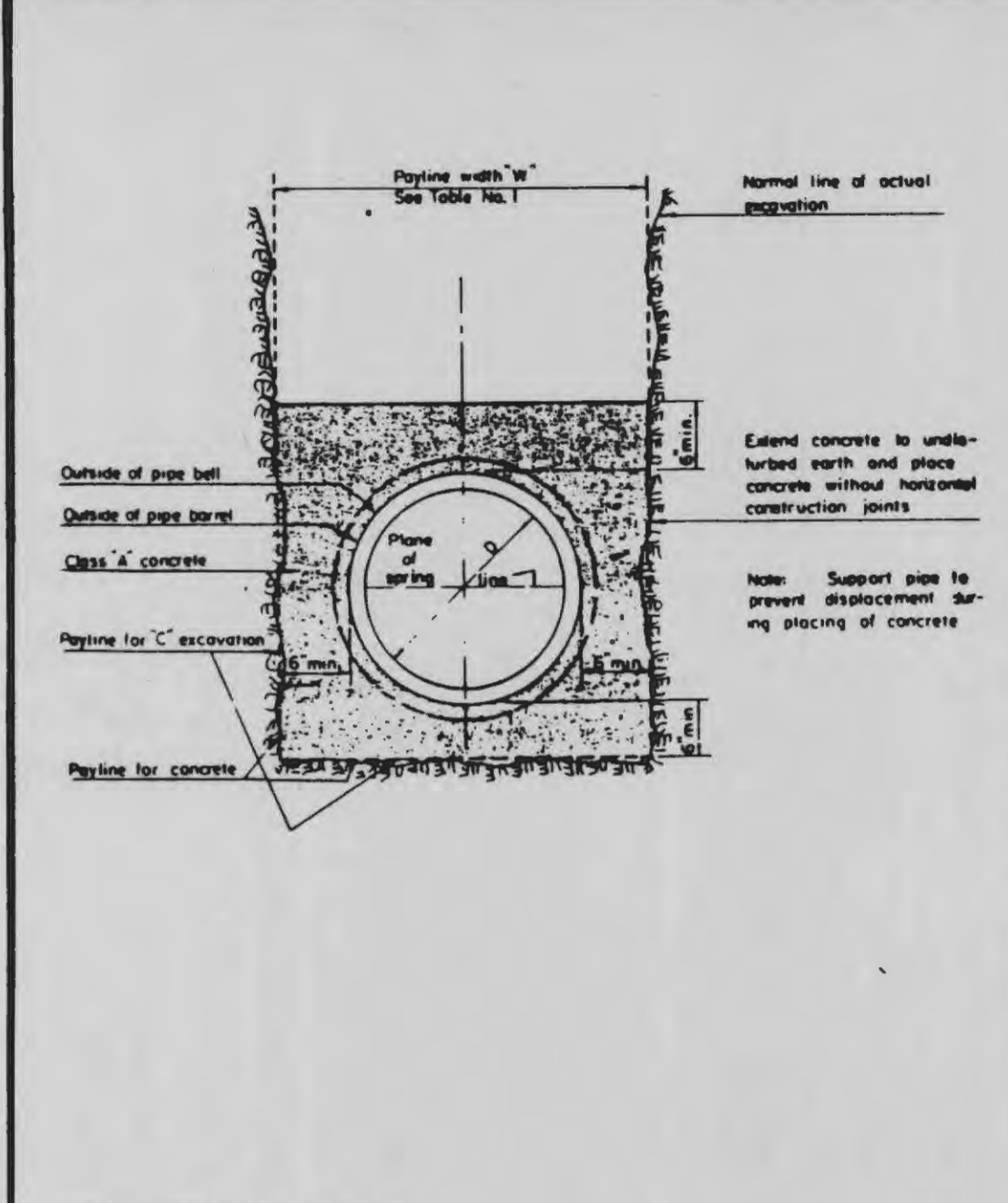
TABLE NO. 1
PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE



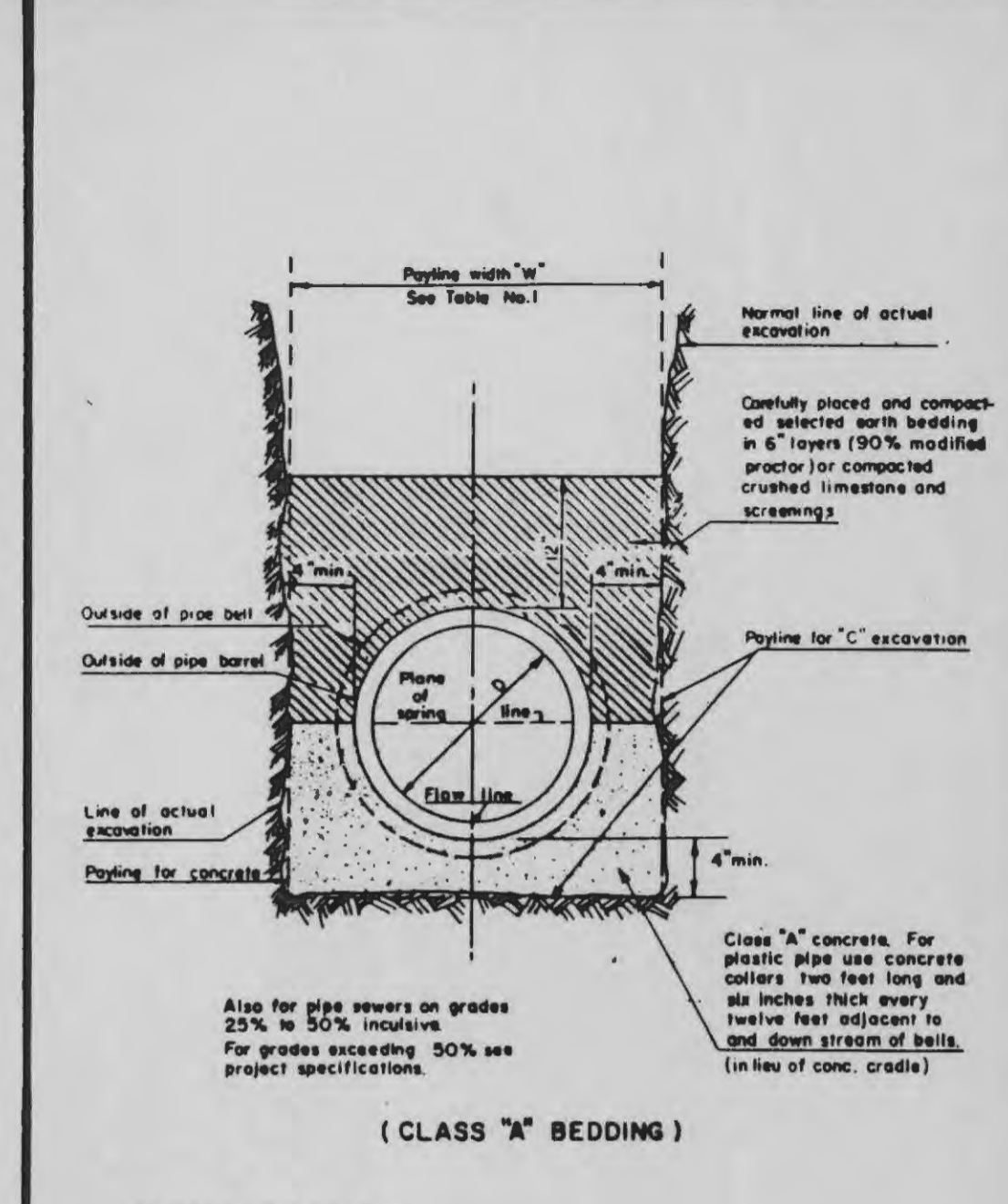
DETAIL 1
PIPE BEDDING CLASS "C"
(FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)



DETAIL 2
PIPE BEDDING CLASS "C"
(MODIFIED FOR REINFORCED CONCRETE PIPE)



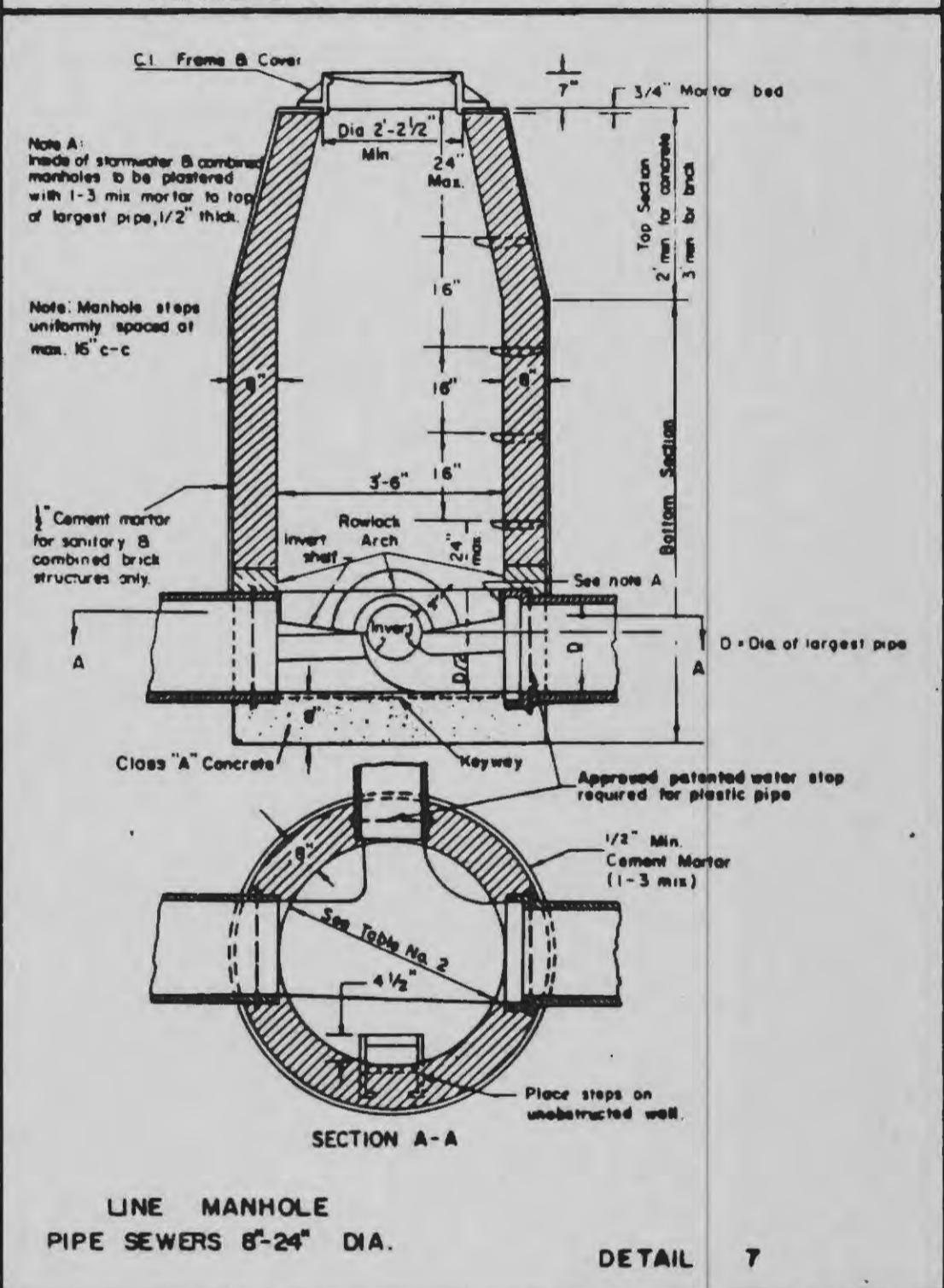
DETAIL 3
CONCRETE ENCASEMENT



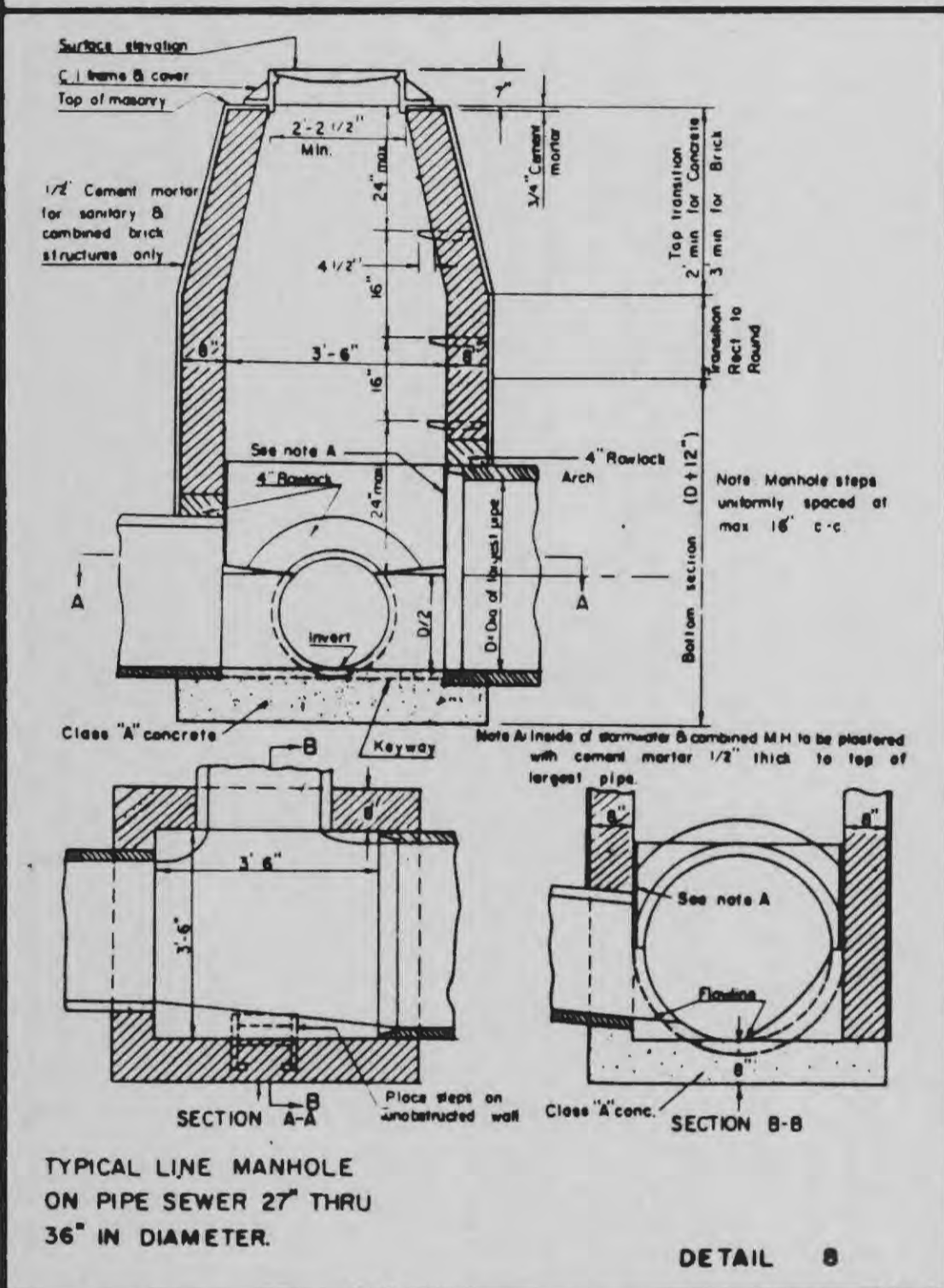
DETAIL 4
CONCRETE CRADLE

TABLE NO. 2
STANDARD MANHOLE DIMENSIONS

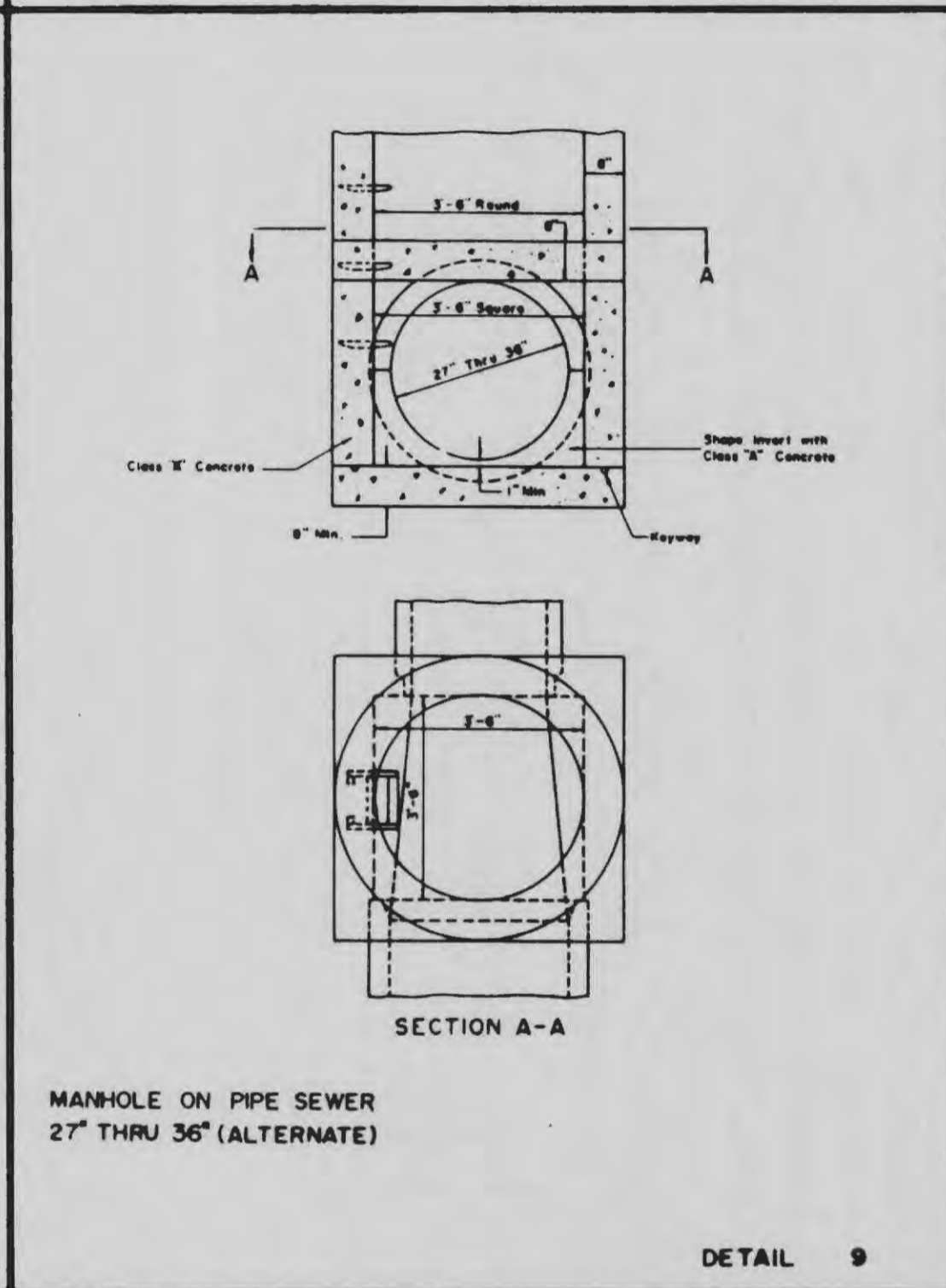
Section of Manhole	Dimension
Top	Upper 2'-2 1/2" Dia.
Transition	Lower 3'-6" Dia.
Bottom Section	8" thru 24" Dia. Pipe 3'-6" Dia.
Bottom Section	27" thru 36" Dia. Pipe 3'-6" Square



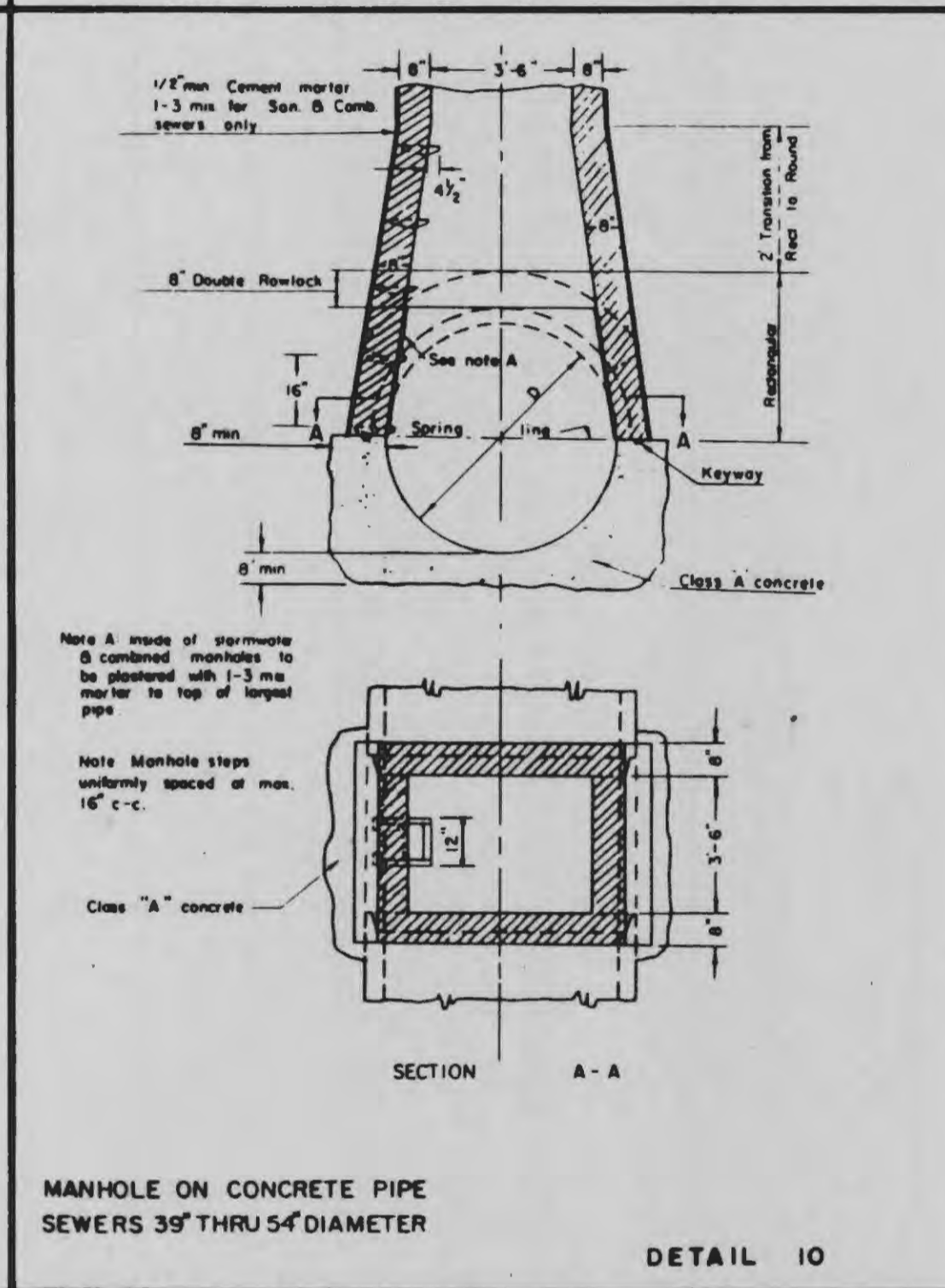
DETAIL 7
LINE MANHOLE
PIPE SEWERS 8"-24" DIA.



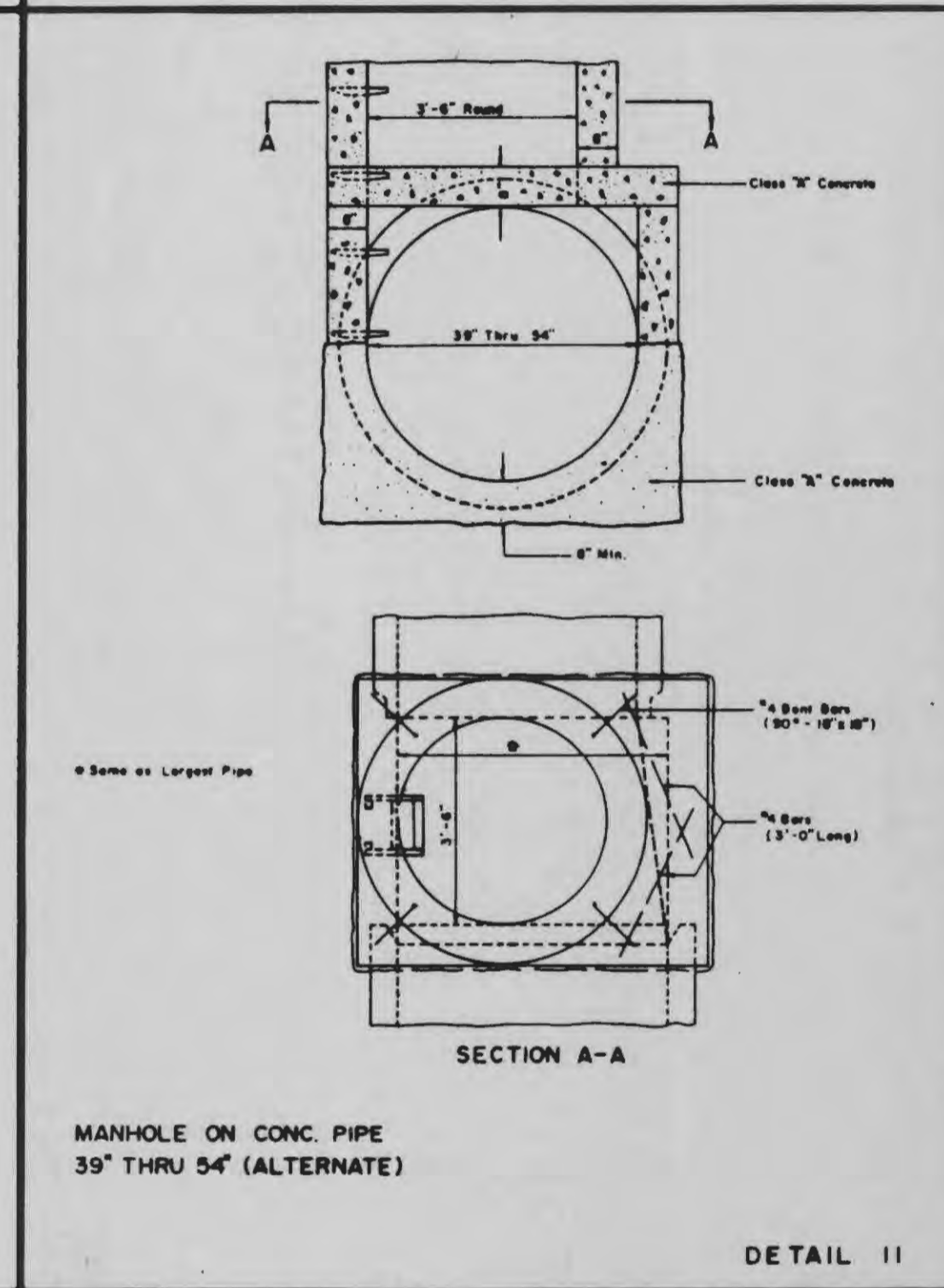
DETAIL 8
TYPICAL LINE MANHOLE
ON PIPE SEWER 27" THRU
36" IN DIAMETER



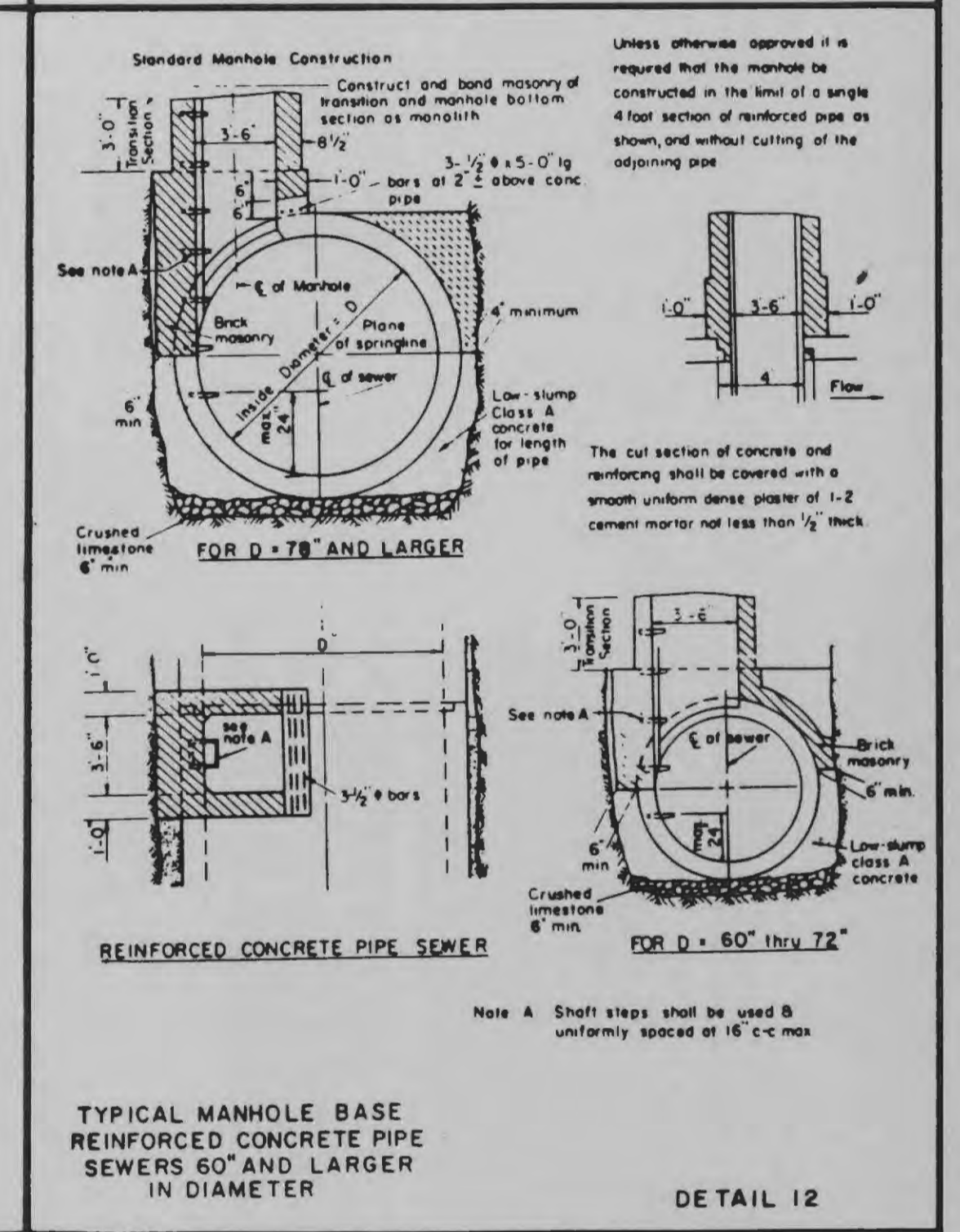
DETAIL 9
MANHOLE ON PIPE SEWER
27" THRU 36" (ALTERNATE)



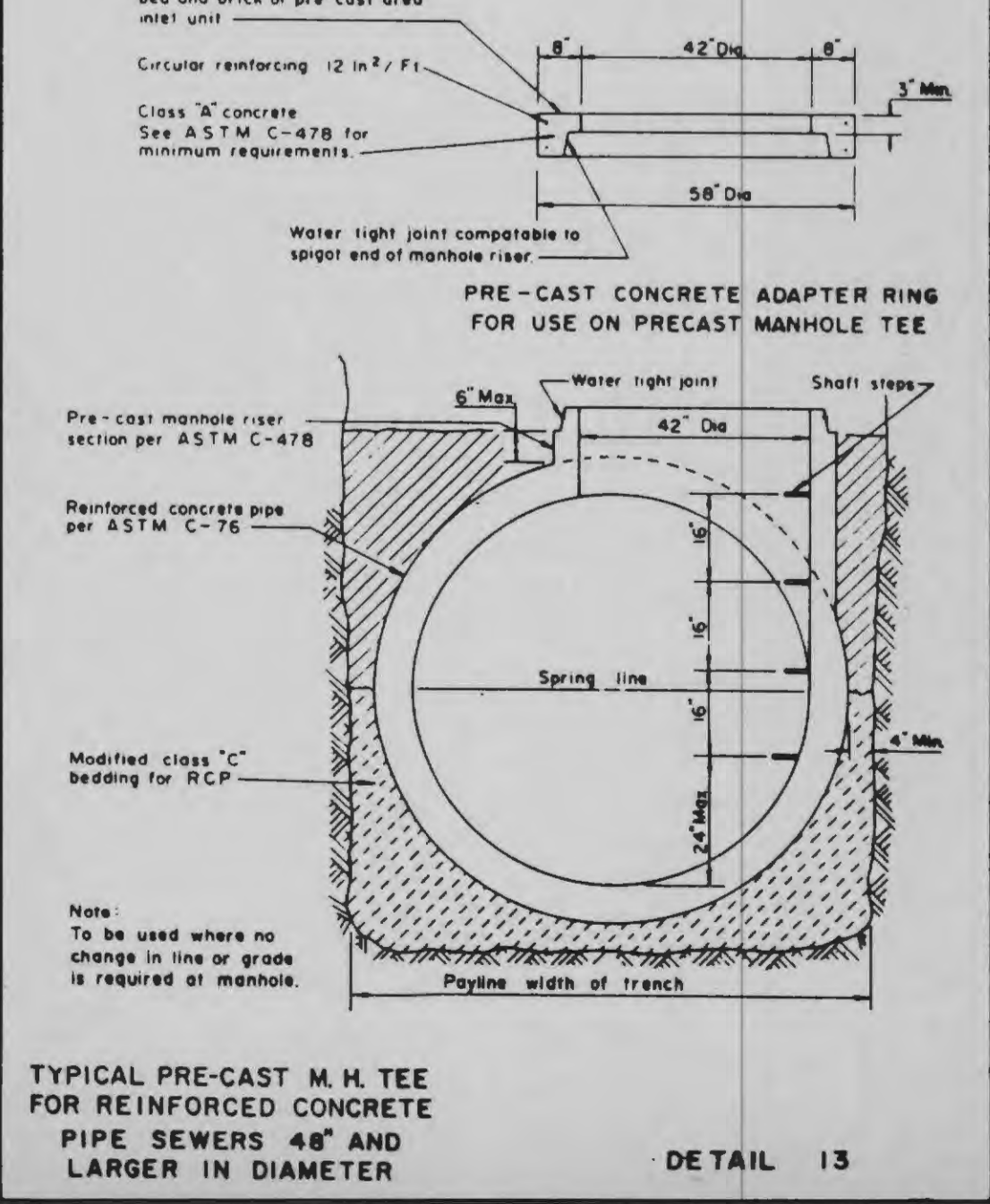
DETAIL 10
MANHOLE ON CONCRETE PIPE
SEWERS 39" THRU 54" DIAMETER



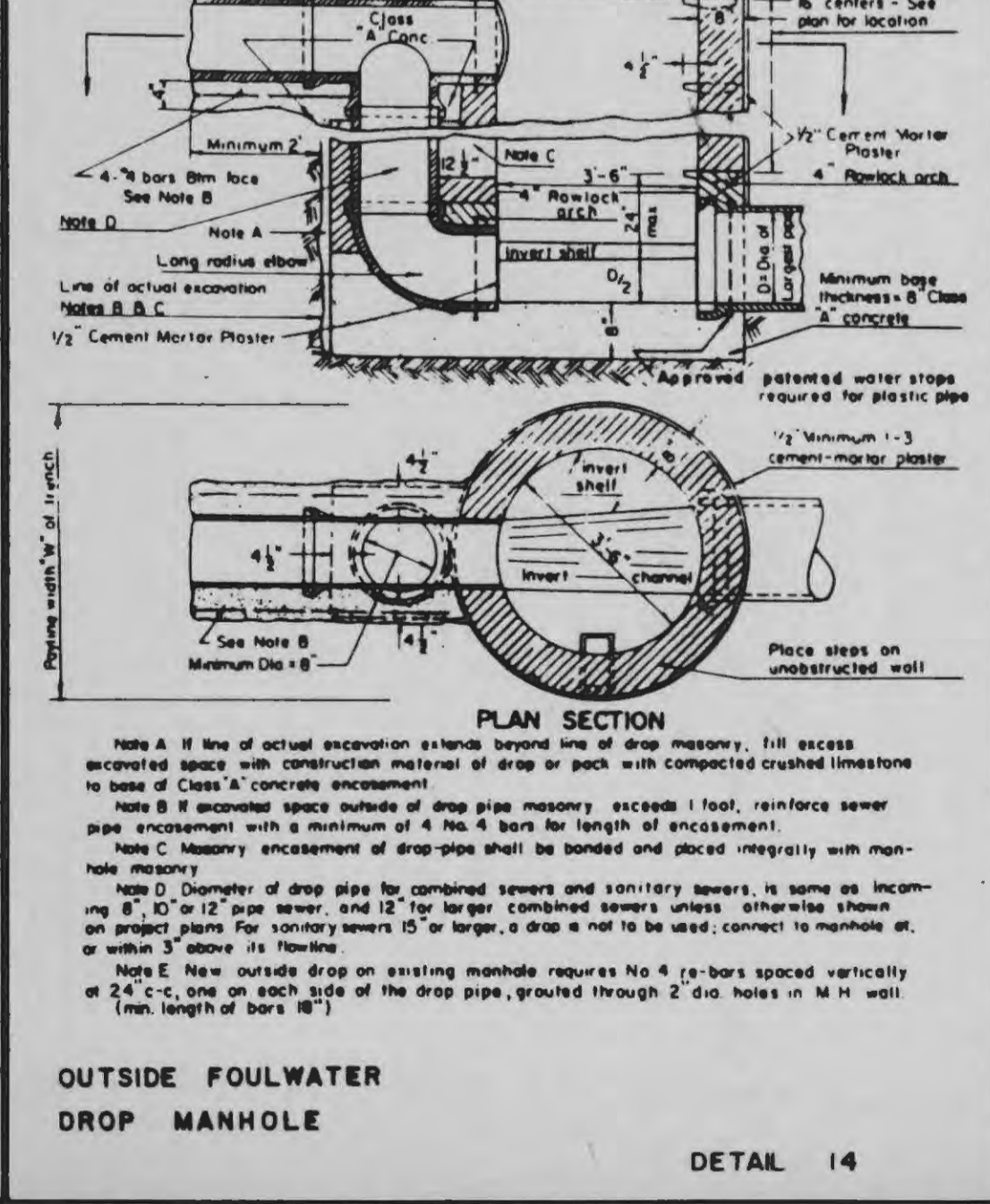
DETAIL 11
MANHOLE ON CONC. PIPE
39" THRU 54" (ALTERNATE)



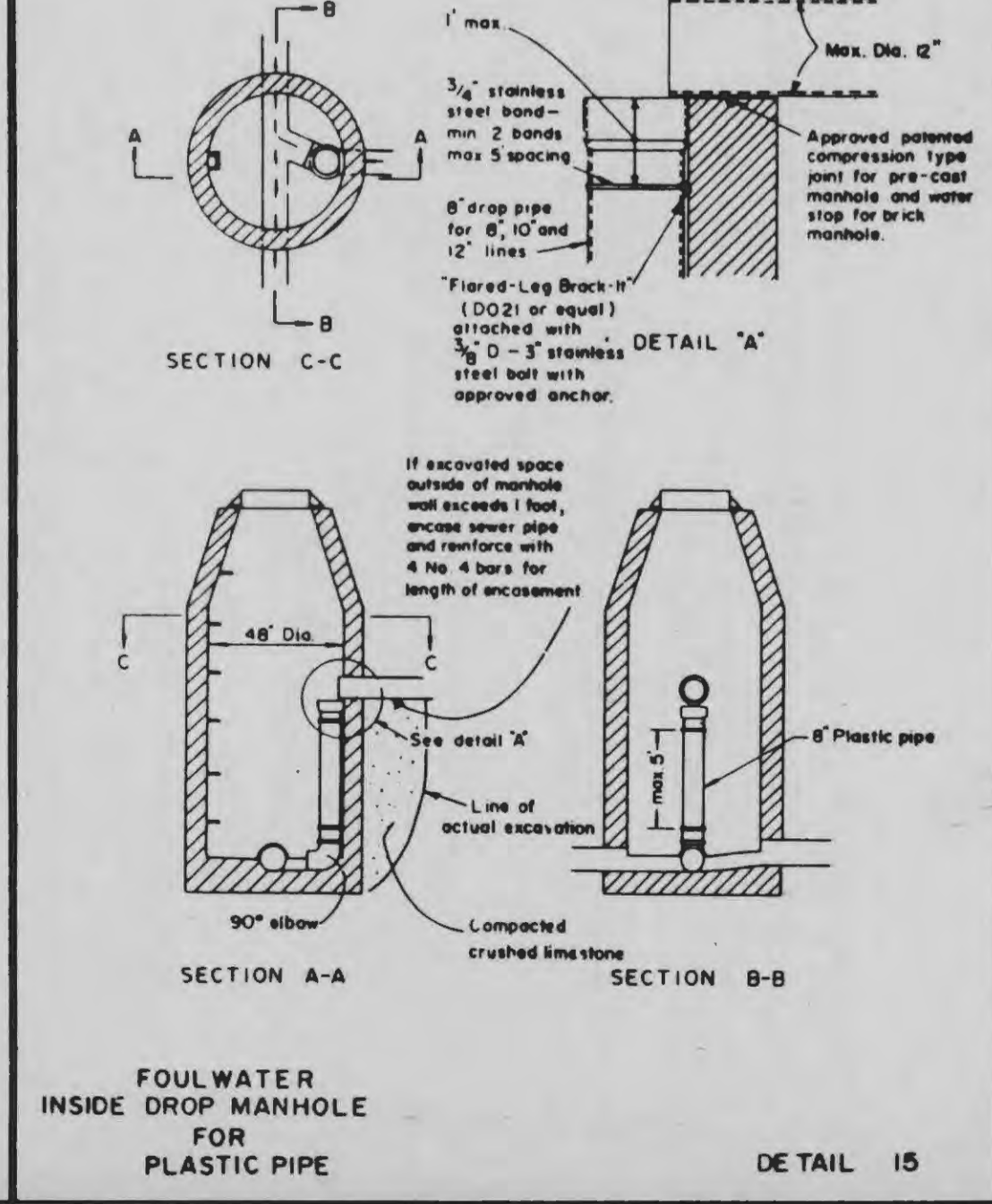
DETAIL 12
TYPICAL MANHOLE BASE
REINFORCED CONCRETE PIPE
SEWERS 60" AND LARGER
IN DIAMETER



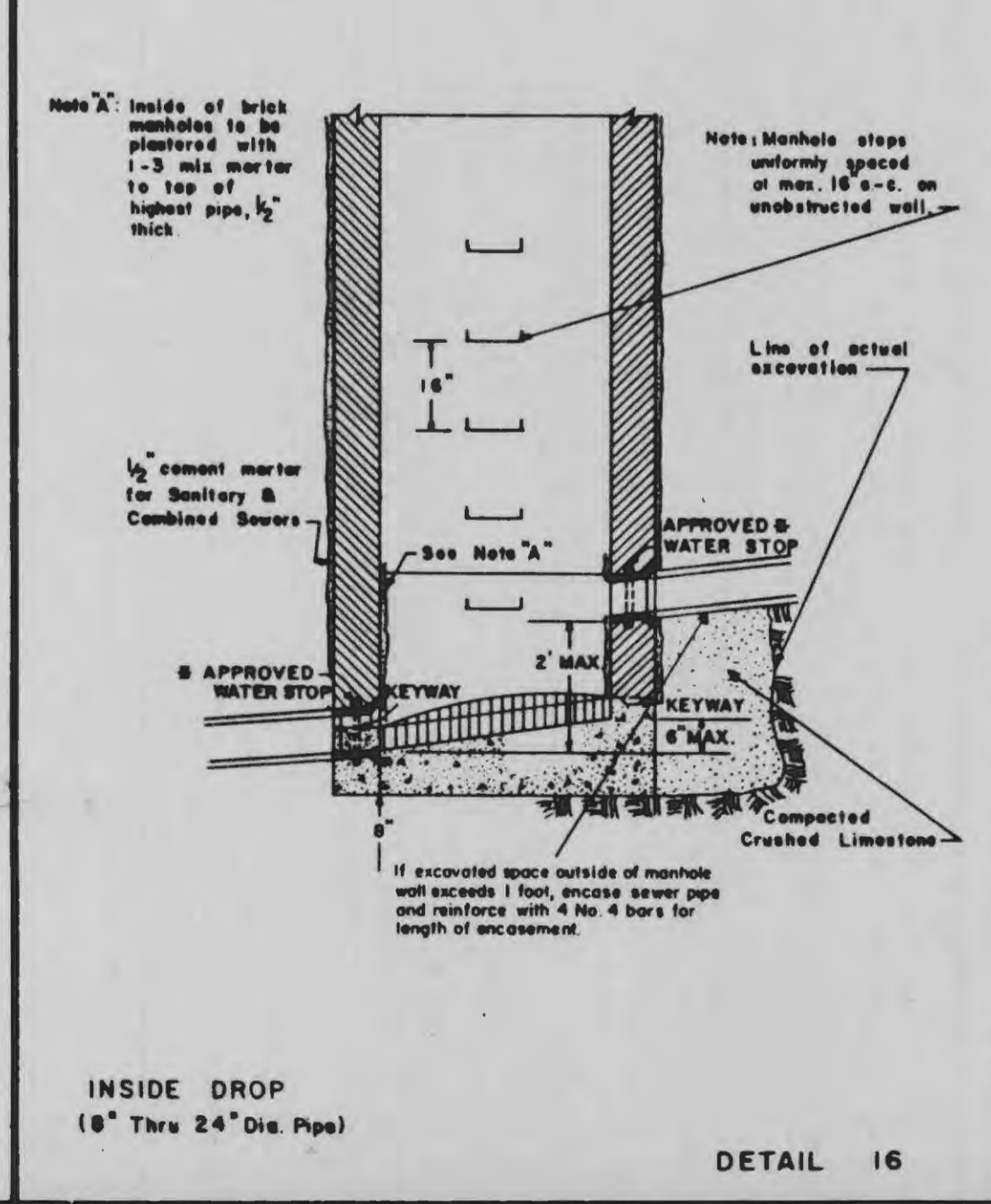
DETAIL 13
TYPICAL PRE-CAST M.H. TEE
FOR REINFORCED CONCRETE
PIPE SEWERS 48" AND
LARGER IN DIAMETER



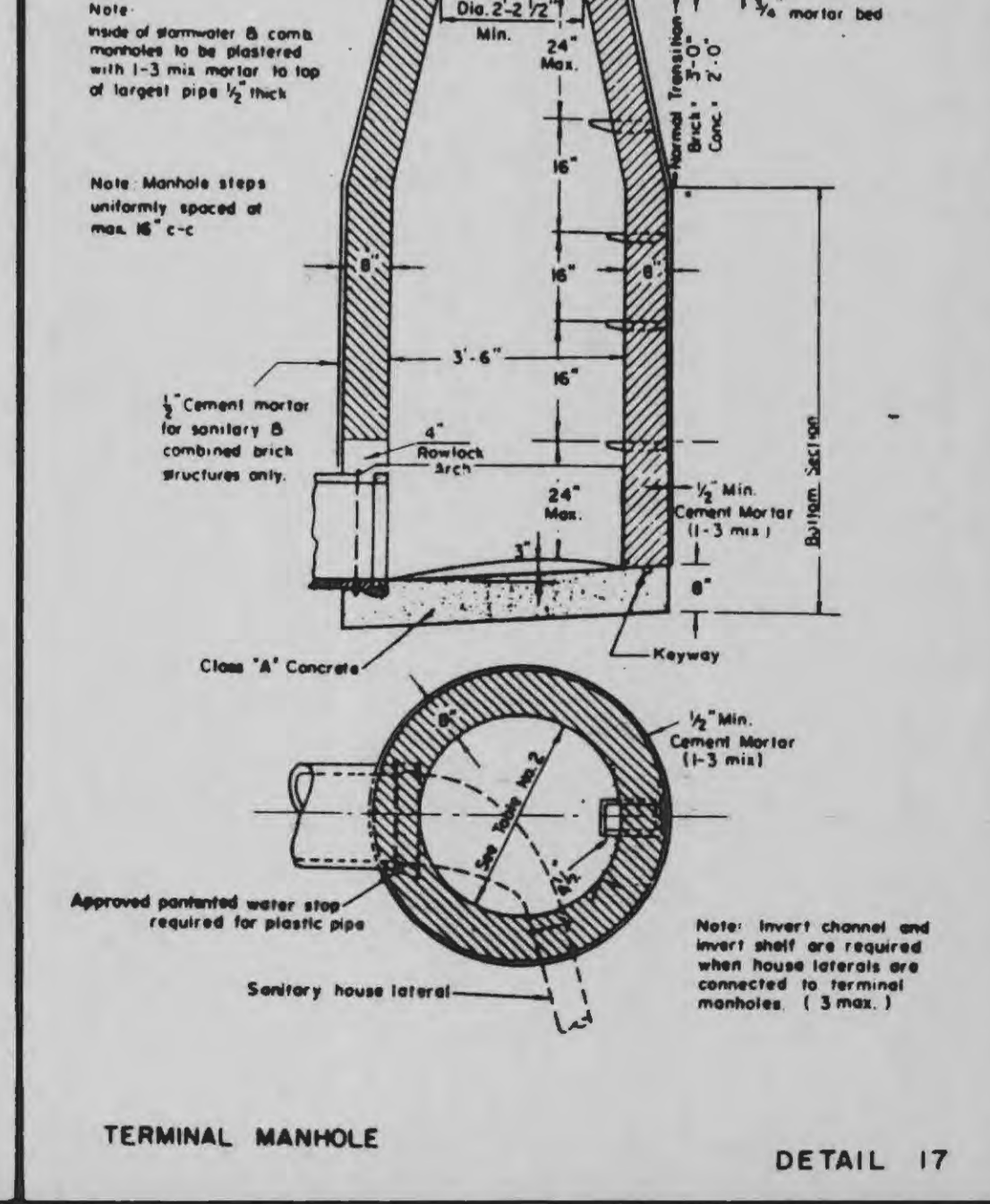
DETAIL 14
OUTSIDE FOULWATER
DROP MANHOLE



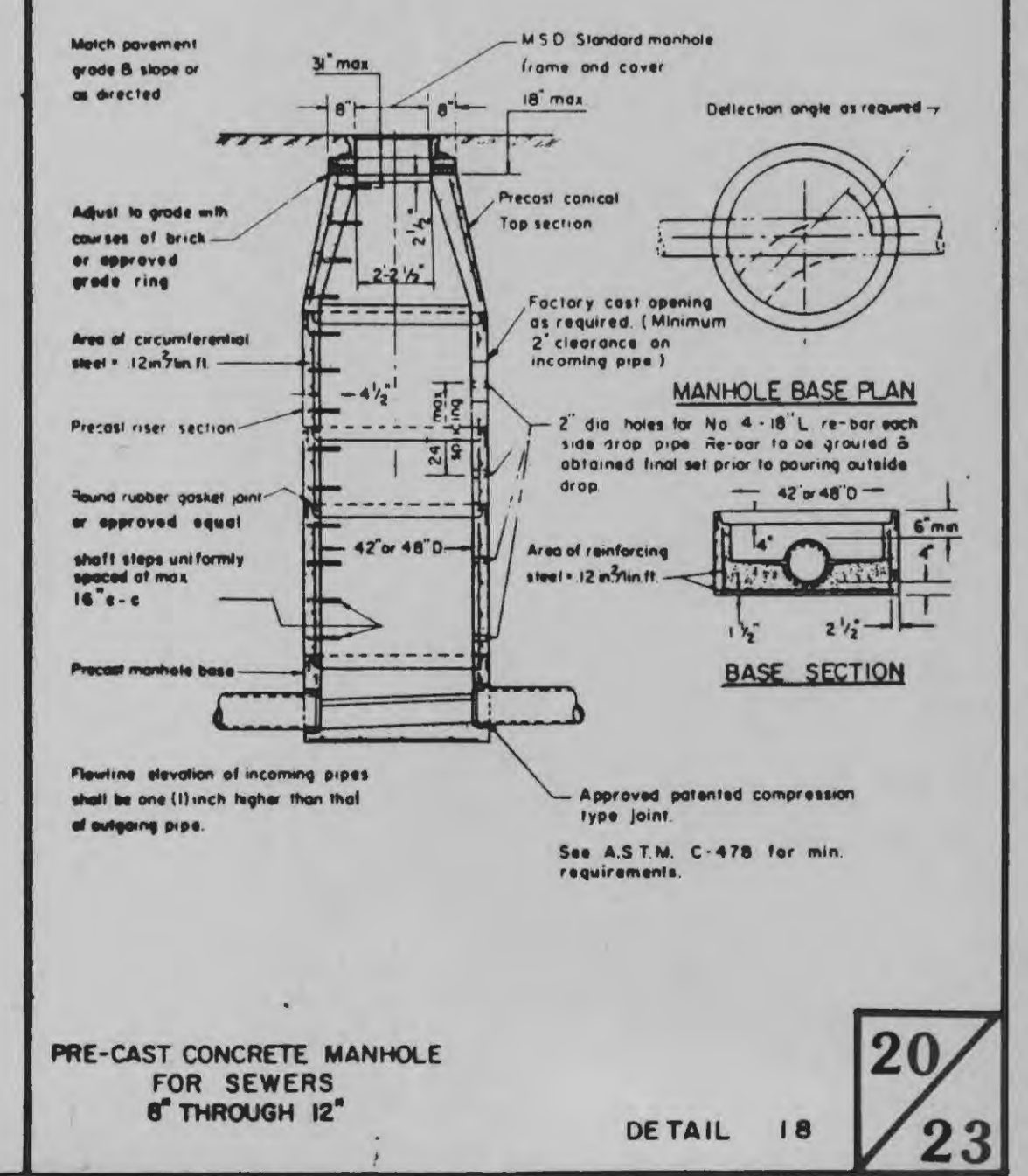
DETAIL 15
FOULWATER INSIDE DROP
MANHOLE FOR
PLASTIC PIPE



DETAIL 16
INSIDE DROP
(8" THRU 24" DIA. PIPE)



DETAIL 17
TERMINAL MANHOLE



DETAIL 18
PRE-CAST CONCRETE MANHOLE
FOR SEWERS 6" THROUGH 12"