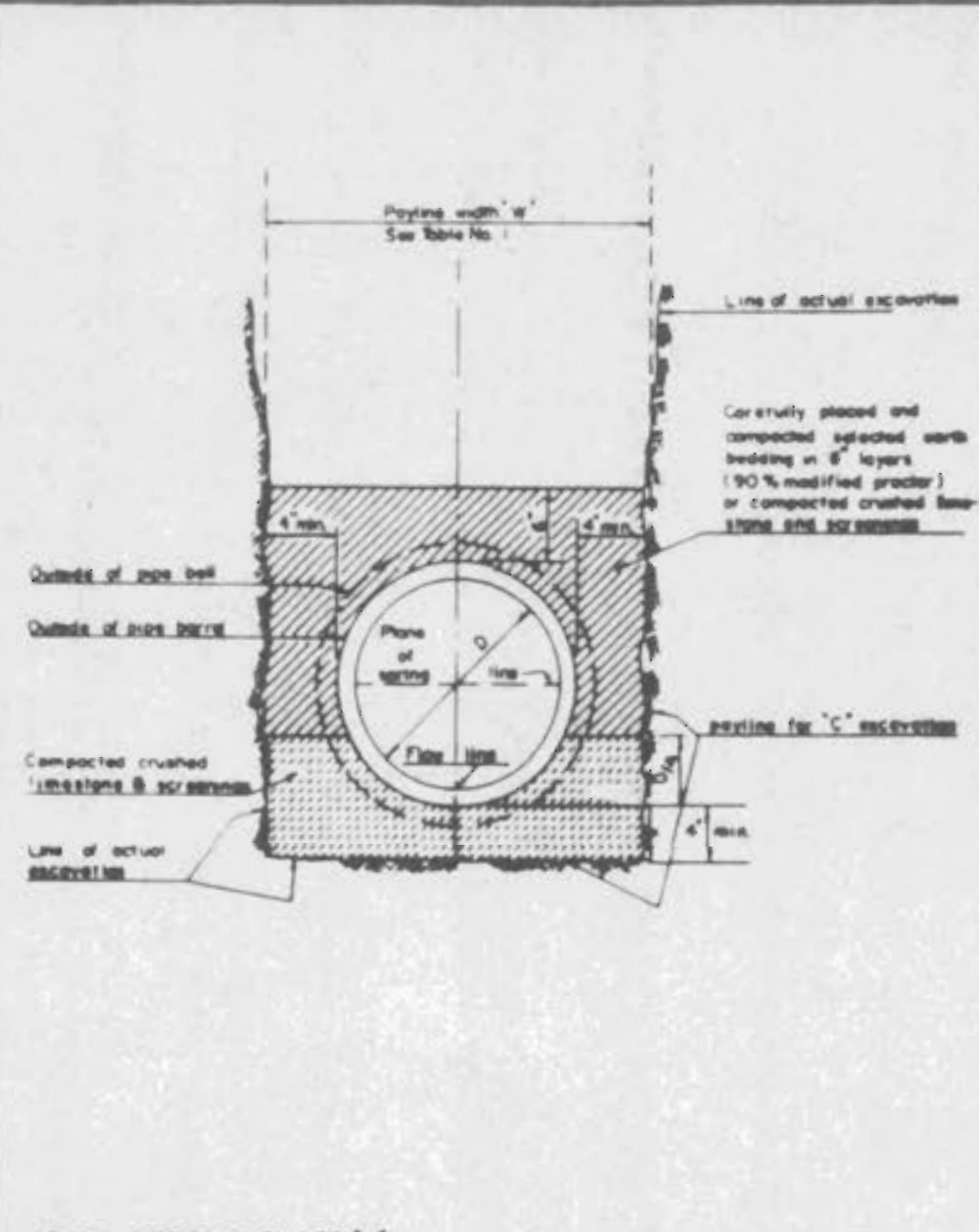
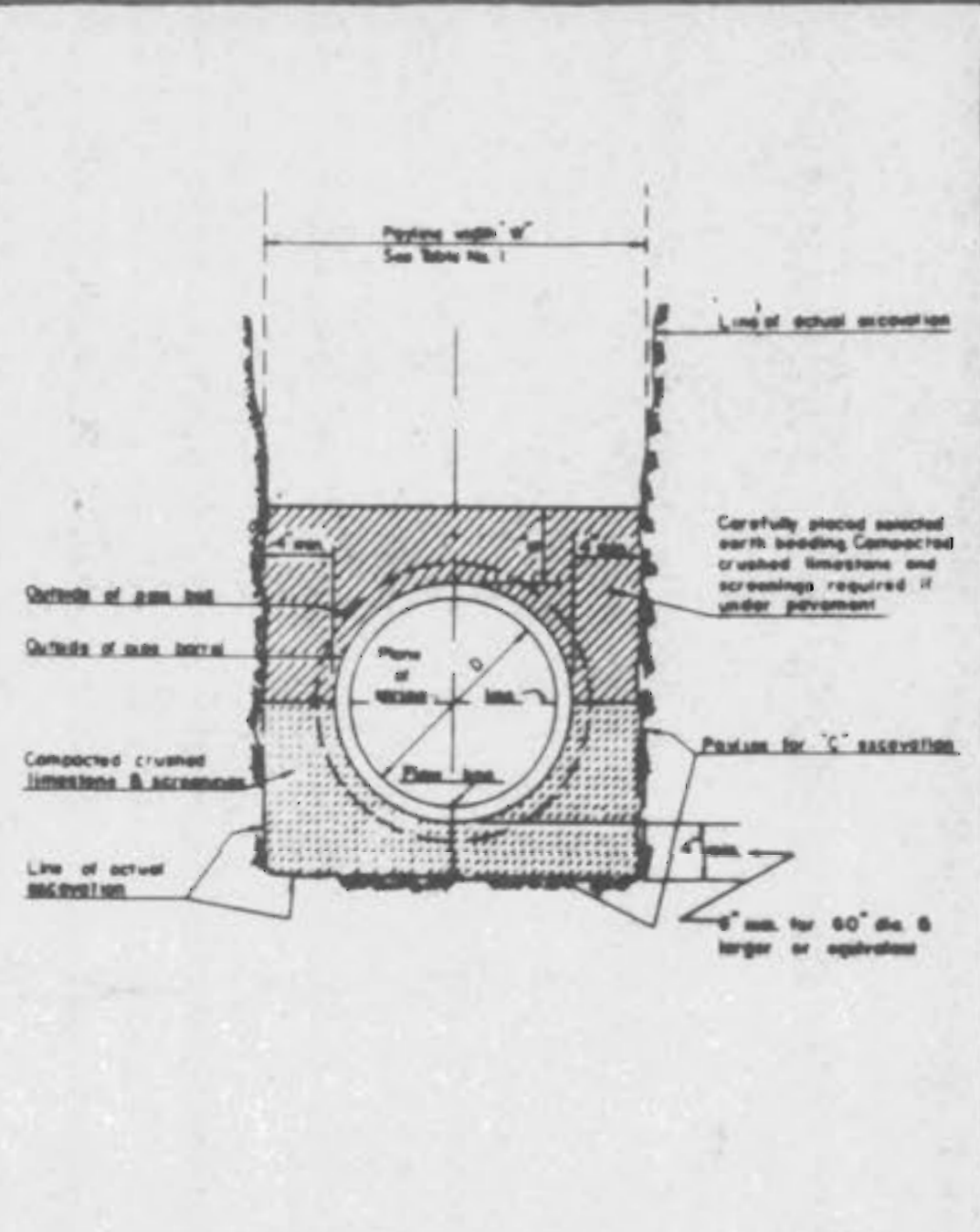


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
Inside Diameter of Pipe (Inches)	"w" Payline Width of Trench (Feet)	"w" Payline Width of Trench (Feet)	Pay-volume (cu ft per ft)	Inside Dimension of Pipe (Inches)	"w" Payline Width of Trench (Feet)	"w" Payline Width of Trench (Feet)	Pay-volume (cu ft per ft)
4	2.8	2.33	3.20				
6	2.8	2.33	3.44				
8	2.8	2.33	3.70				
10	2.8	2.33	3.86				
12	2.8	2.33	3.98				
15	3.2	2.67	4.89				
18	3.5	2.92	5.63	14 x 23	41	3.42	5.94
21	3.9	3.25	6.61				
24	4.2	3.50	7.39	19 x 30	49	4.06	7.66
27	4.5	3.75	8.18	22 x 34	53	4.42	8.61
30	4.9	4.08	9.30	24 x 38	58	4.83	9.70
33	5.3	4.42	10.53	27 x 42	62	5.17	10.71
36	5.8	4.67	11.43	29 x 45	66	5.50	11.72
39	DISCONTINUED						
42	6.3	5.25	13.58	34 x 53	75	6.25	14.06
48	7.0	5.83	15.87	38 x 60	83	6.92	16.16
54	7.7	6.42	18.15	43 x 68	92	7.67	18.81
60	8.4	7.00	20.73	48 x 78	101	8.42	21.99
66	9.1	7.58	23.45	53 x 83	109	9.08	24.38
72	9.8	8.17	26.37	58 x 91	118	9.83	27.46
78	10.5	8.75	29.39	63 x 98	126	10.50	30.50
84	11.2	9.33	32.57	68 x 106	136	11.25	33.91
90	11.9	9.92	35.90	72 x 115	143	11.92	36.99
96	12.6	10.50	39.37	77 x 121	152	12.67	40.69
102	13.3	11.06	42.99	82 x 128	160	13.33	44.49
108	14.0	11.67	46.75	87 x 136	168	14.00	47.79
114	14.7	12.25	50.66	92 x 143	176	14.67	51.70
120	15.4	12.83	54.72	97 x 151	185	15.42	56.01
126	16.1	13.42	58.92				
132	16.8	14.00	63.27	108 x 166	202	16.83	64.48
144	18.2	15.17	72.40	118 x 180	218	18.17	73.58

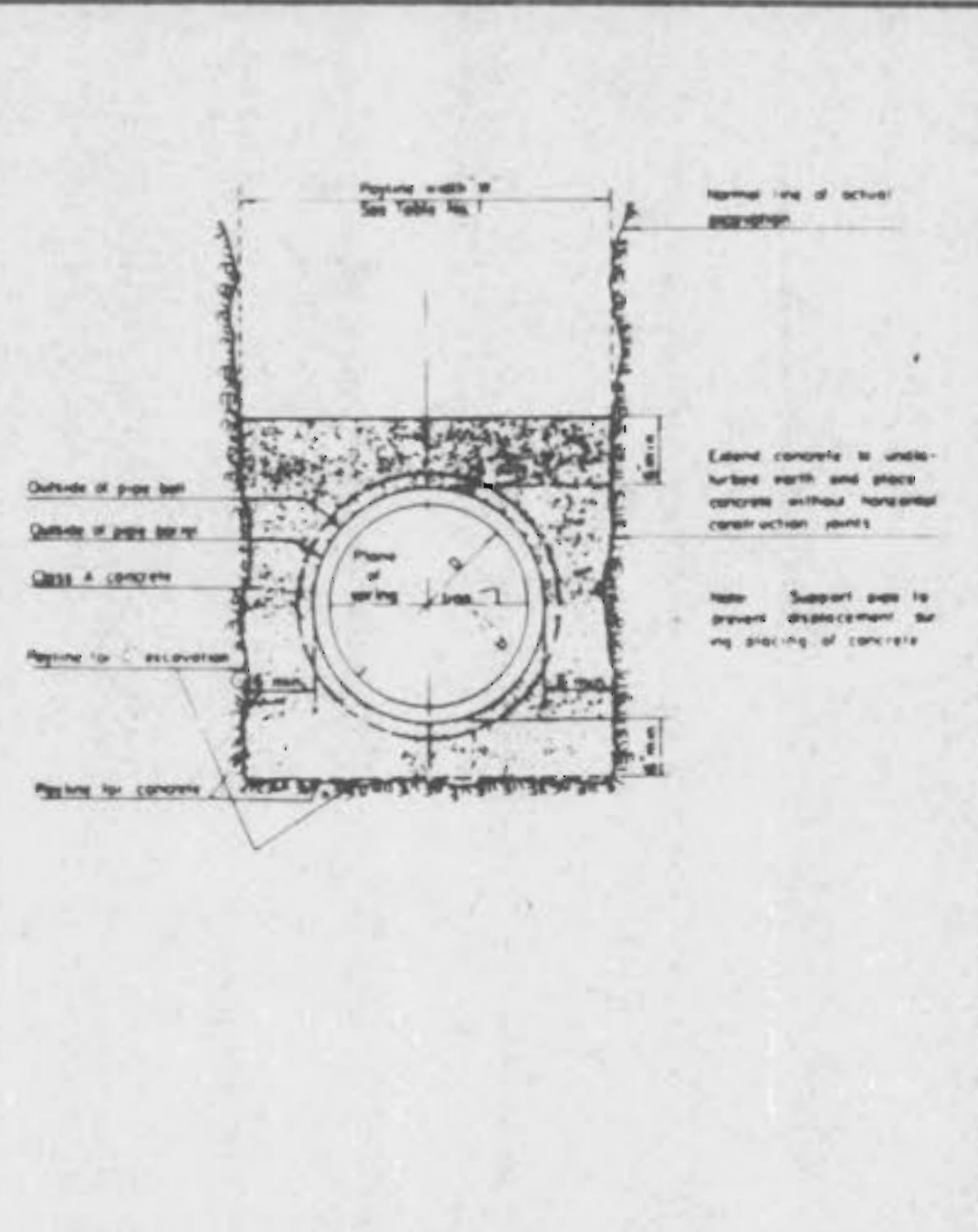
TABLE NO. 1
 PAYLINE WIDTHS OF TRENCH AND QUANTITIES OF CONCRETE
 DETAIL 1



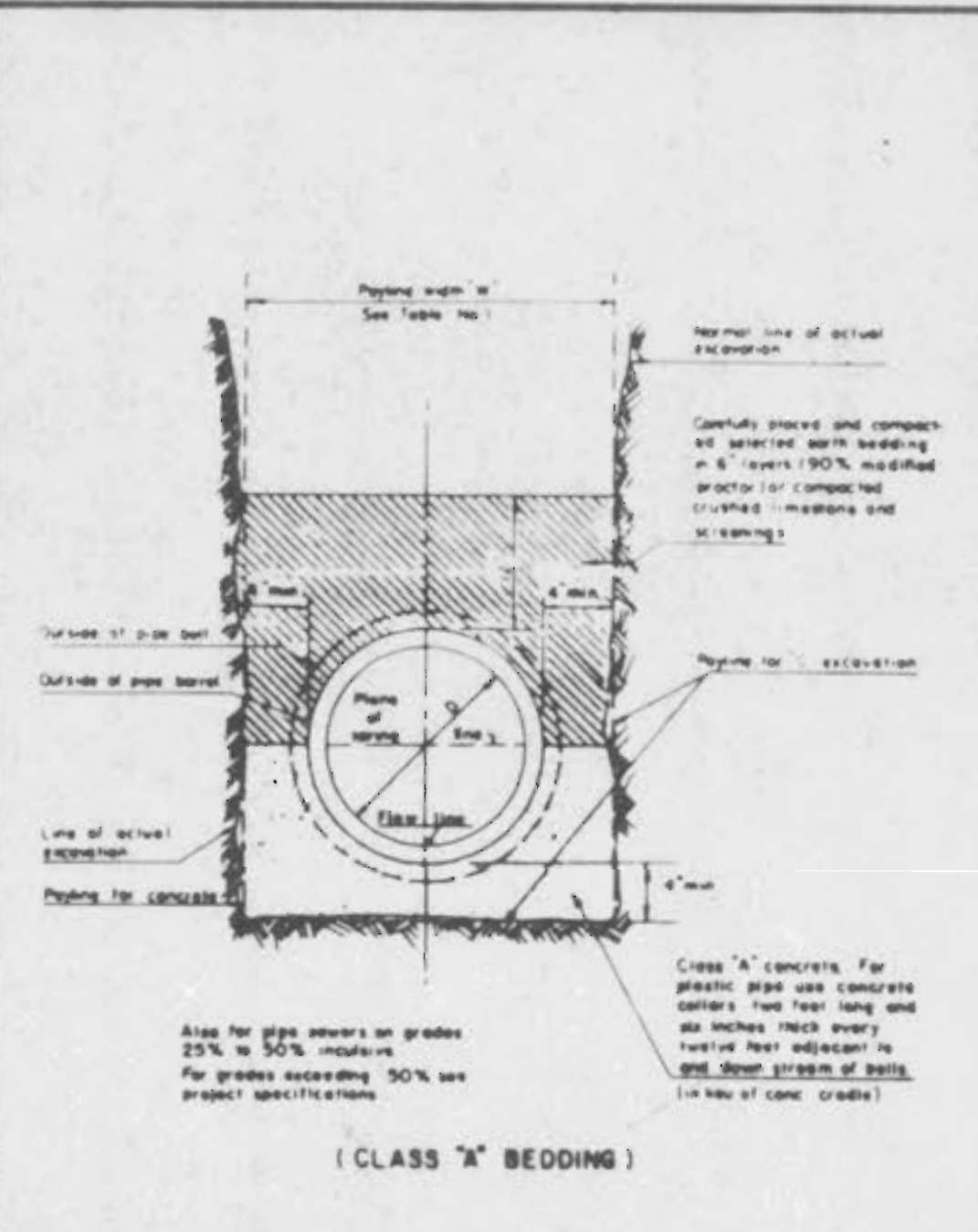
PIPE BEDDING CLASS "C"
 (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)
 DETAIL 2



PIPE BEDDING CLASS "C"
 (MODIFIED FOR REINFORCED CONCRETE PIPE)
 DETAIL 3



CONCRETE ENCASUREMENT
 DETAIL 4

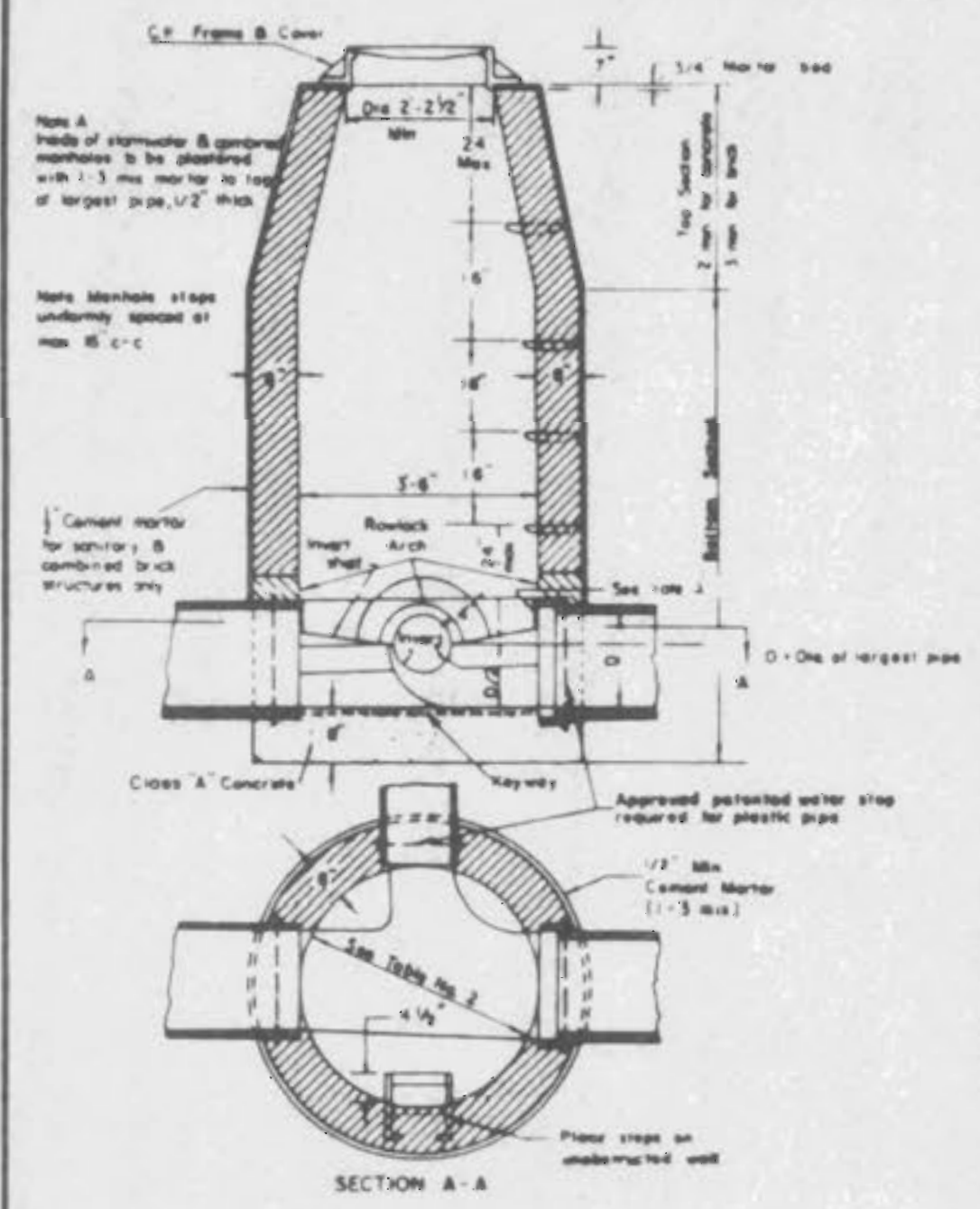


CONCRETE CRADLE
 DETAIL 5

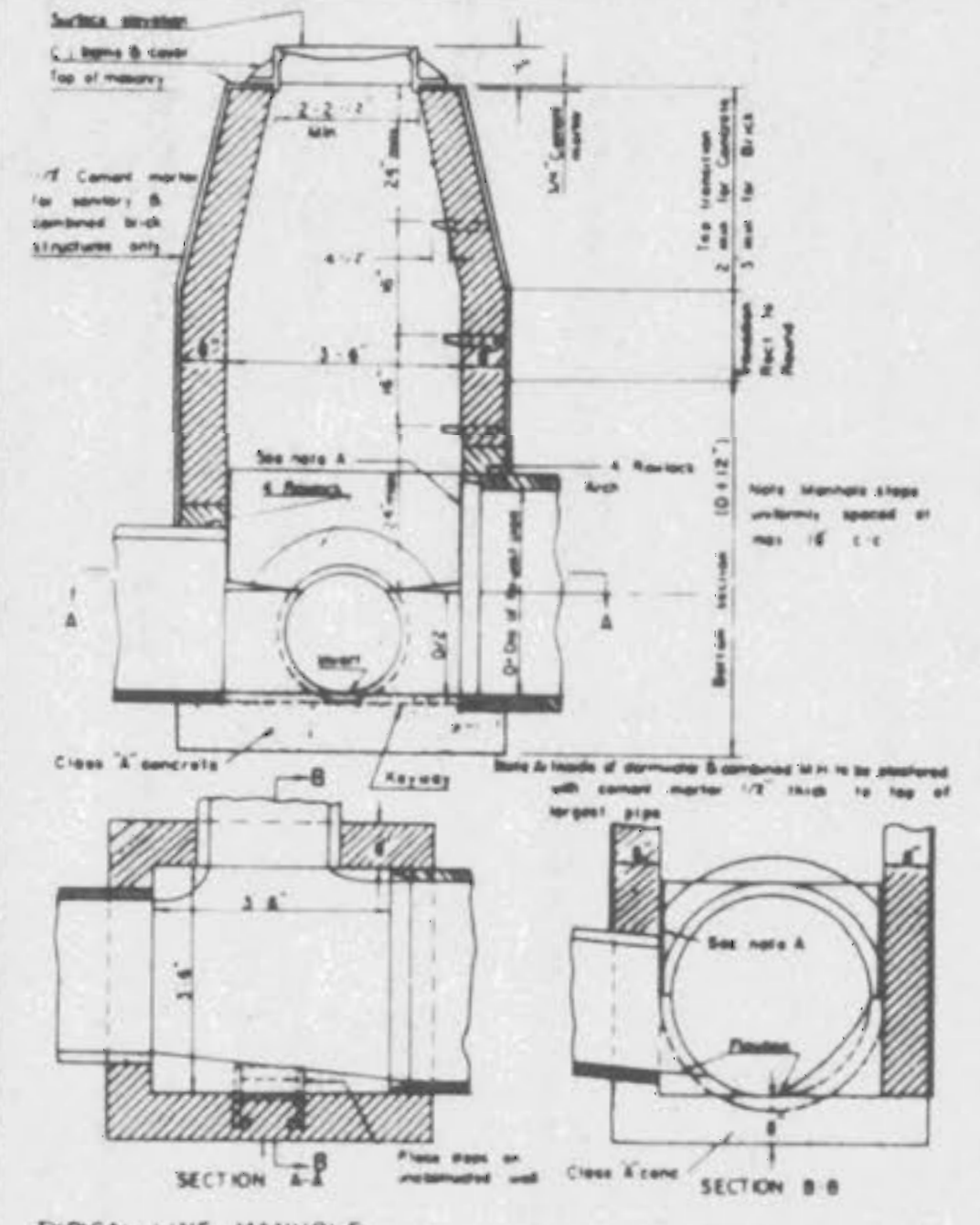
TABLE NO. 2
 STANDARD MANHOLE DIMENSIONS

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

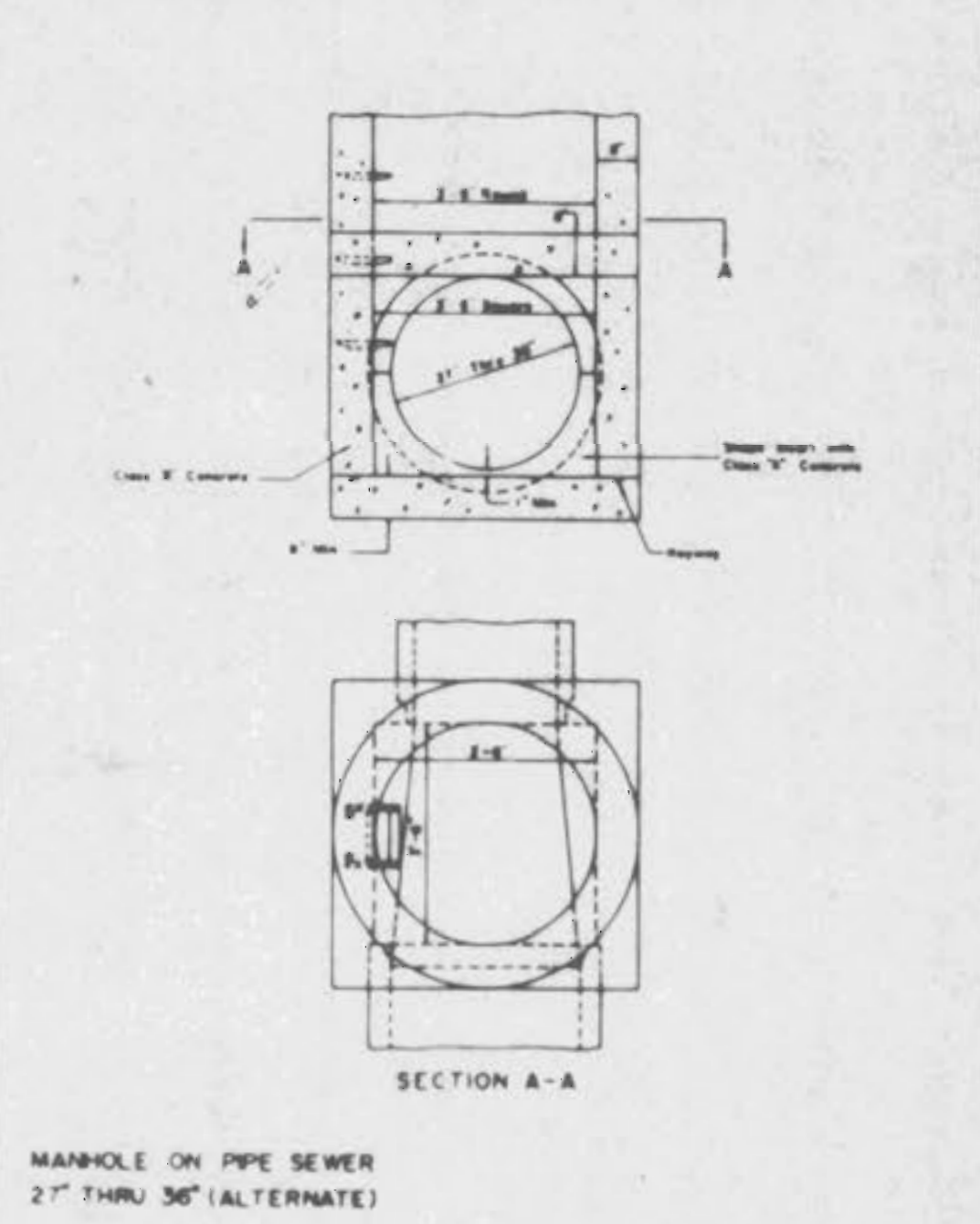
TABLE NO. 2
 STANDARD MANHOLE DIMENSIONS
 DETAIL 6



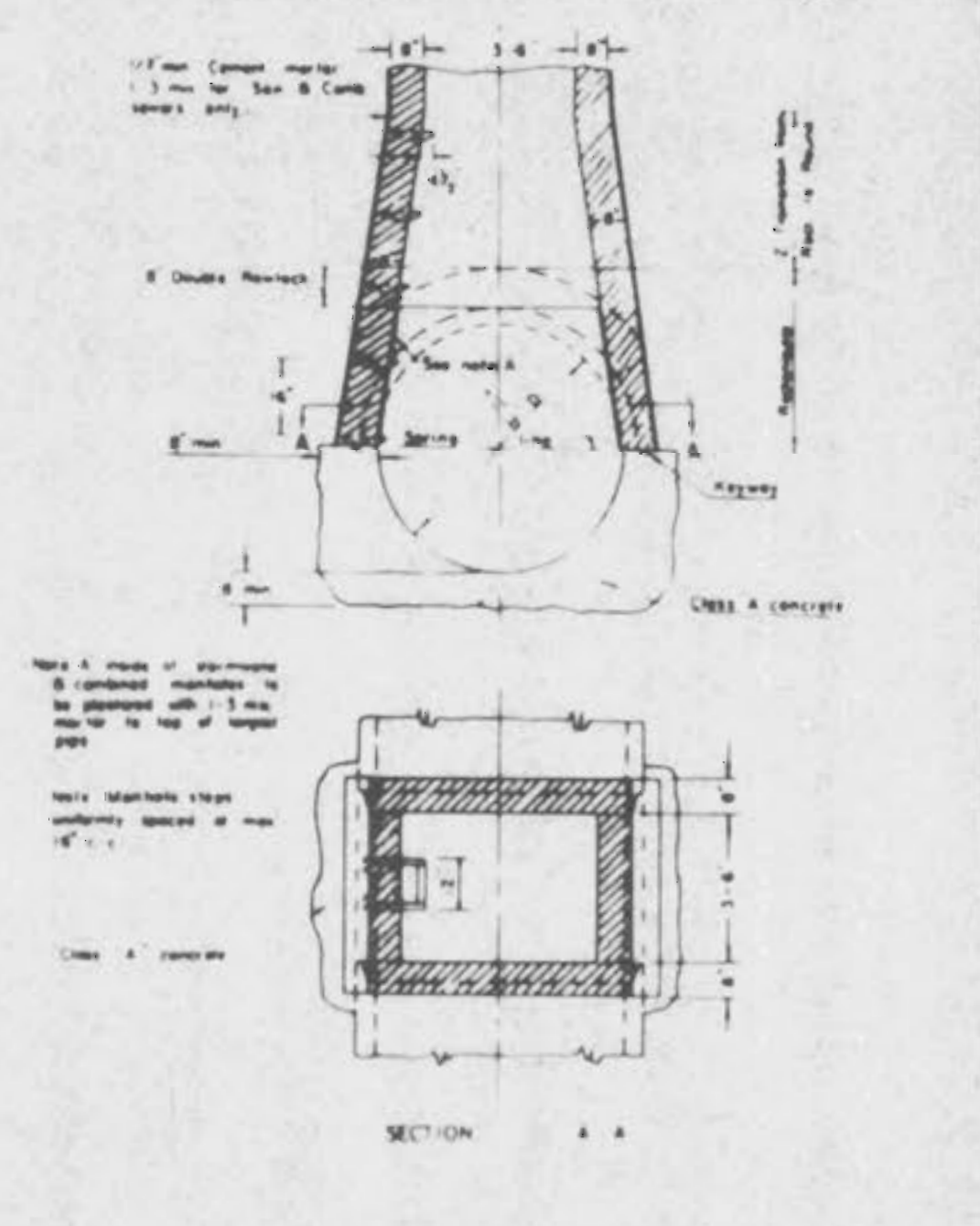
TYPICAL LINE MANHOLE ON PIPE SEWER 27" THRU 36" IN DIAMETER
 DETAIL 7



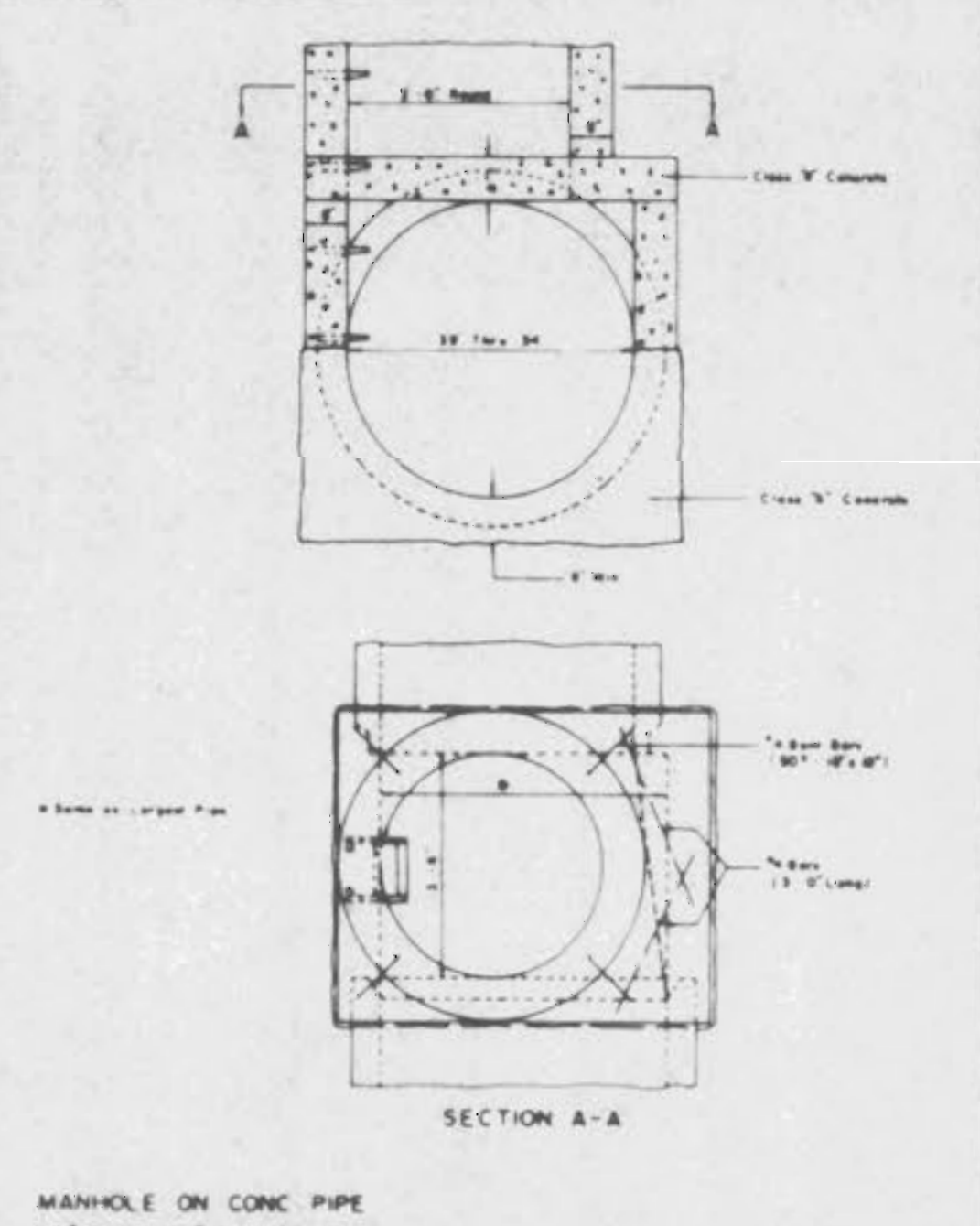
MANHOLE ON CONCRETE PIPE SEWERS 39" THRU 54" DIAMETER
 DETAIL 8



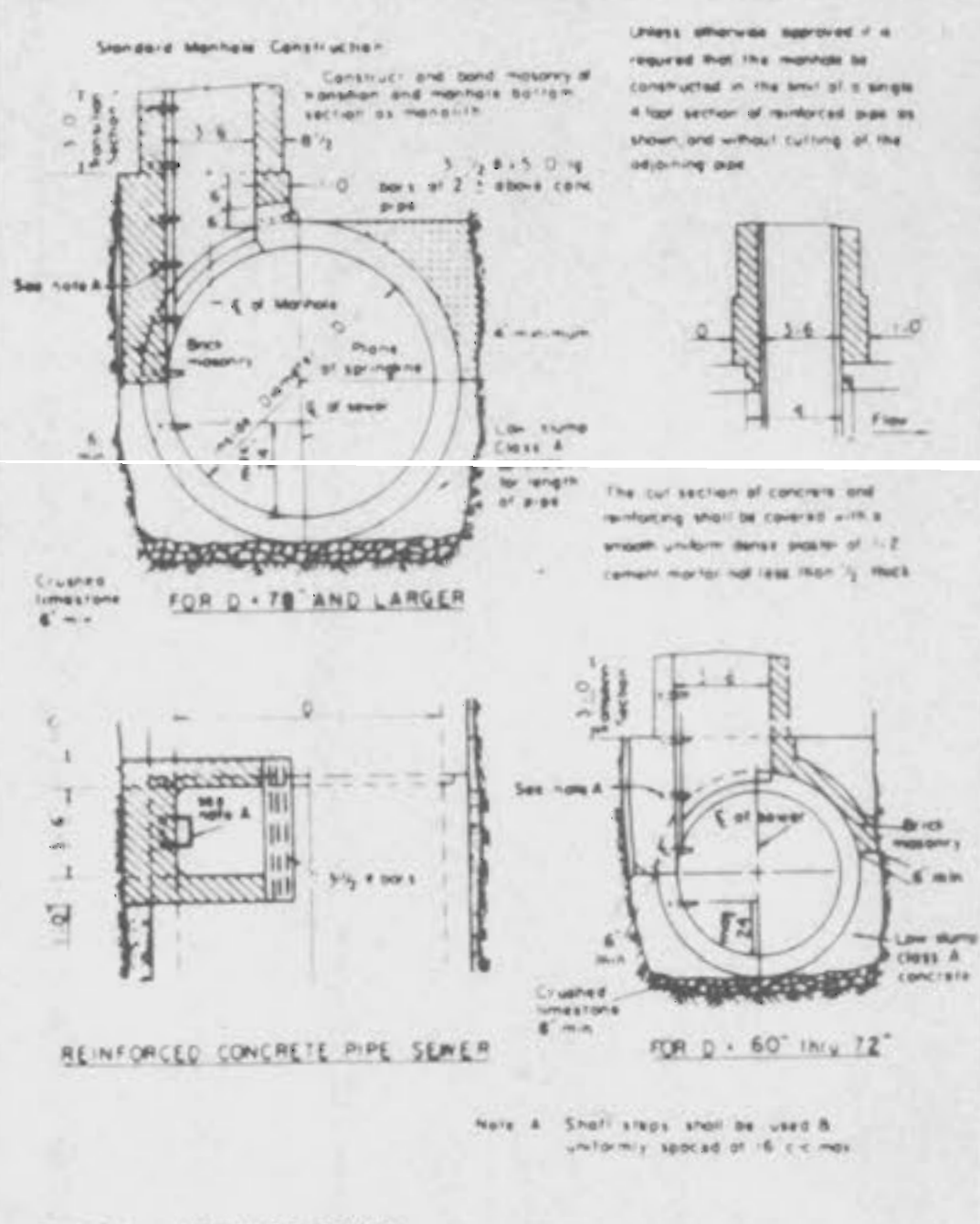
MANHOLE ON PIPE SEWER 27" THRU 36" (ALTERNATE)
 DETAIL 9



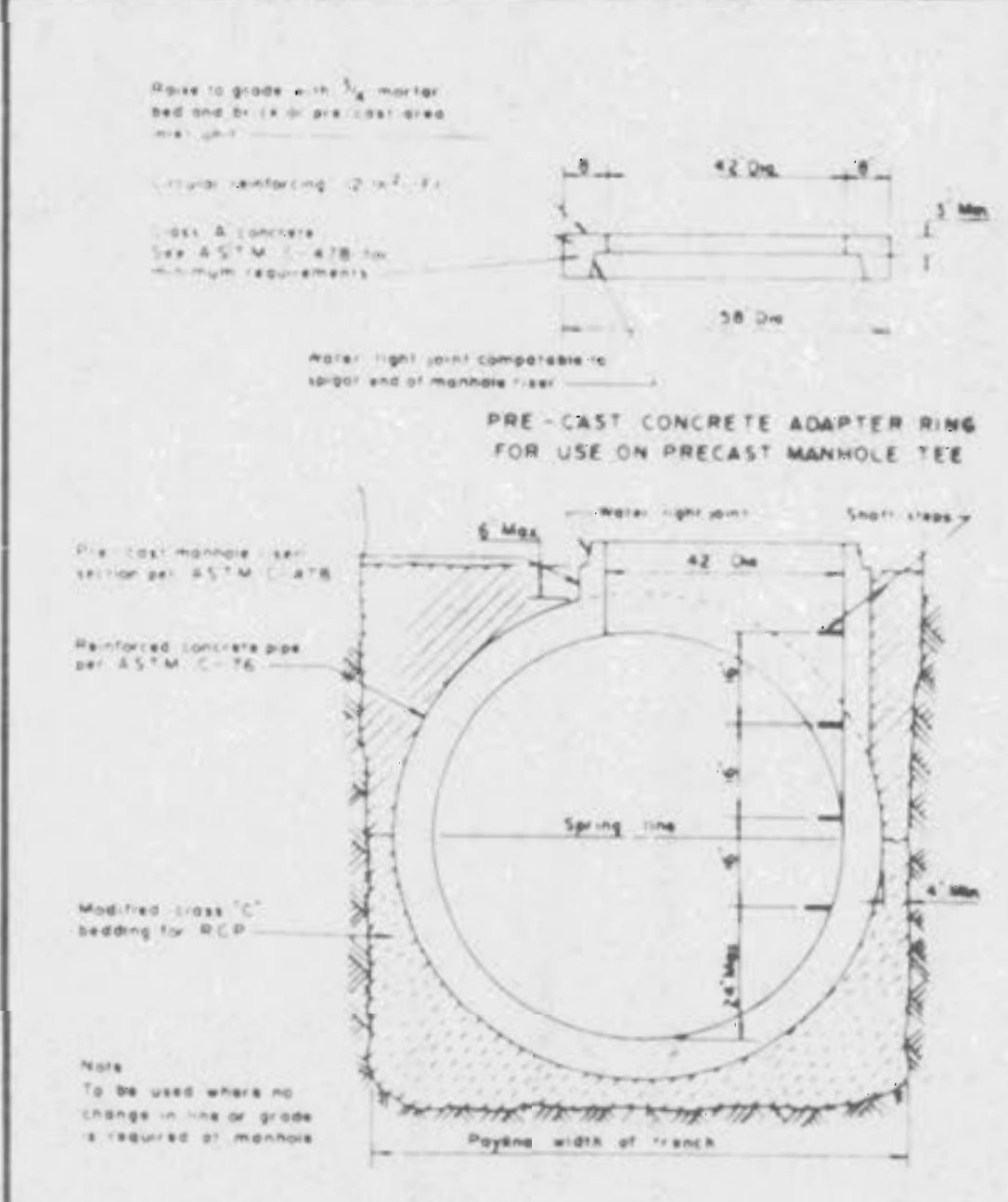
MANHOLE ON CONCRETE PIPE SEWERS 39" THRU 54" DIAMETER (ALTERNATE)
 DETAIL 10



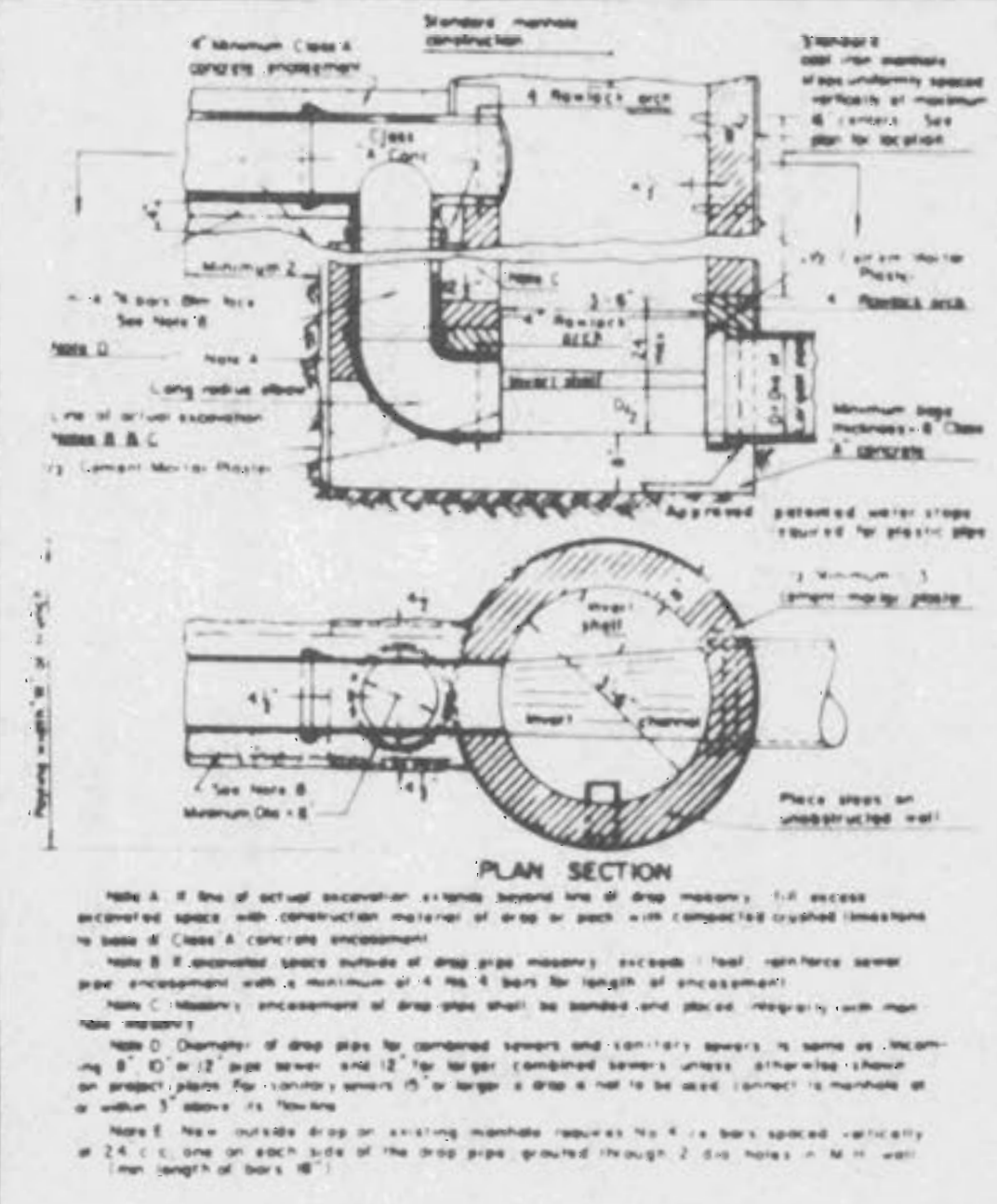
TYPICAL MANHOLE BASE REINFORCED CONCRETE PIPE SEWERS 60" AND LARGER IN DIAMETER
 DETAIL 11



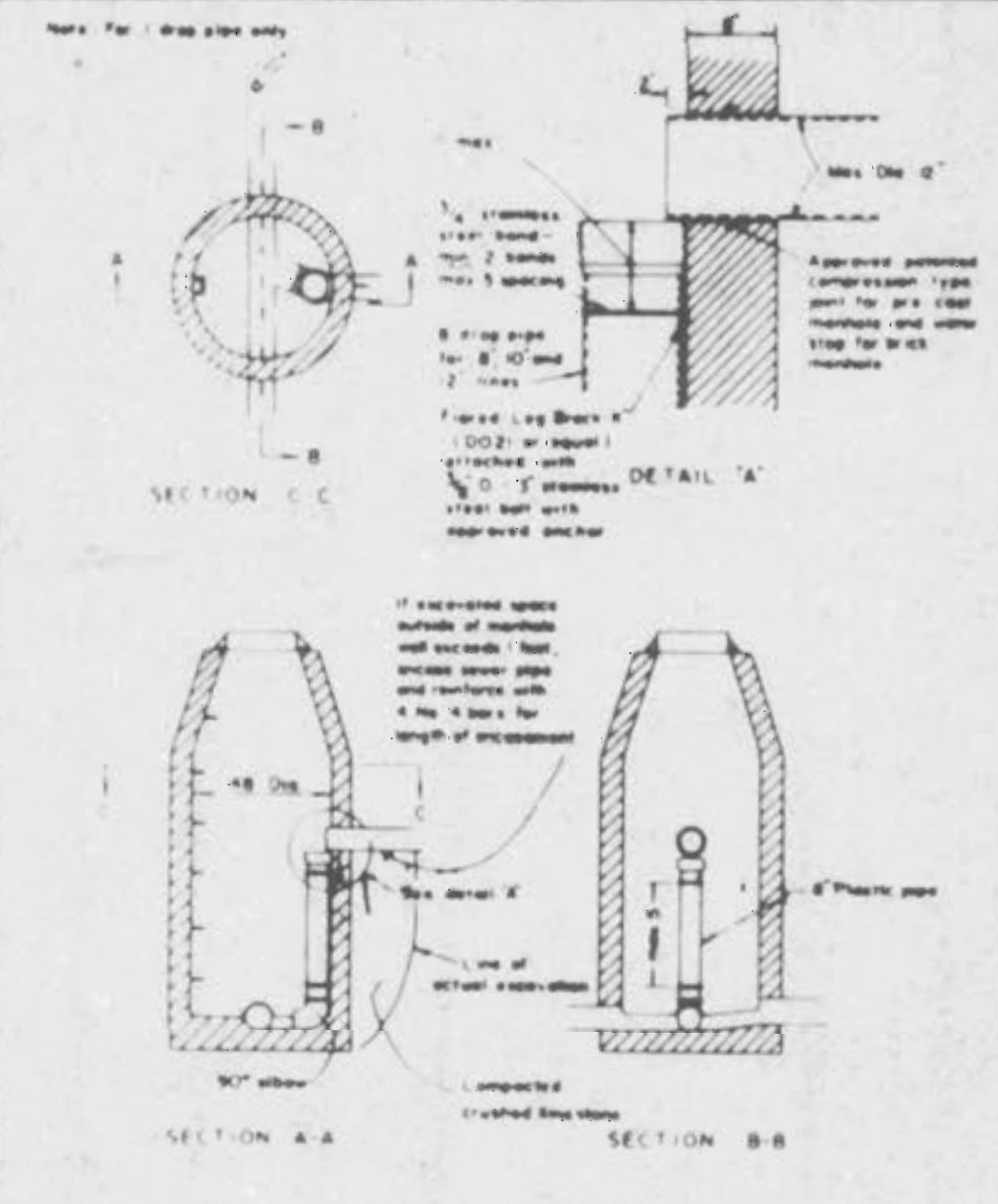
PRE-CAST CONCRETE MANHOLE FOR SEWERS 6" THROUGH 12" IN DIAMETER
 DETAIL 12



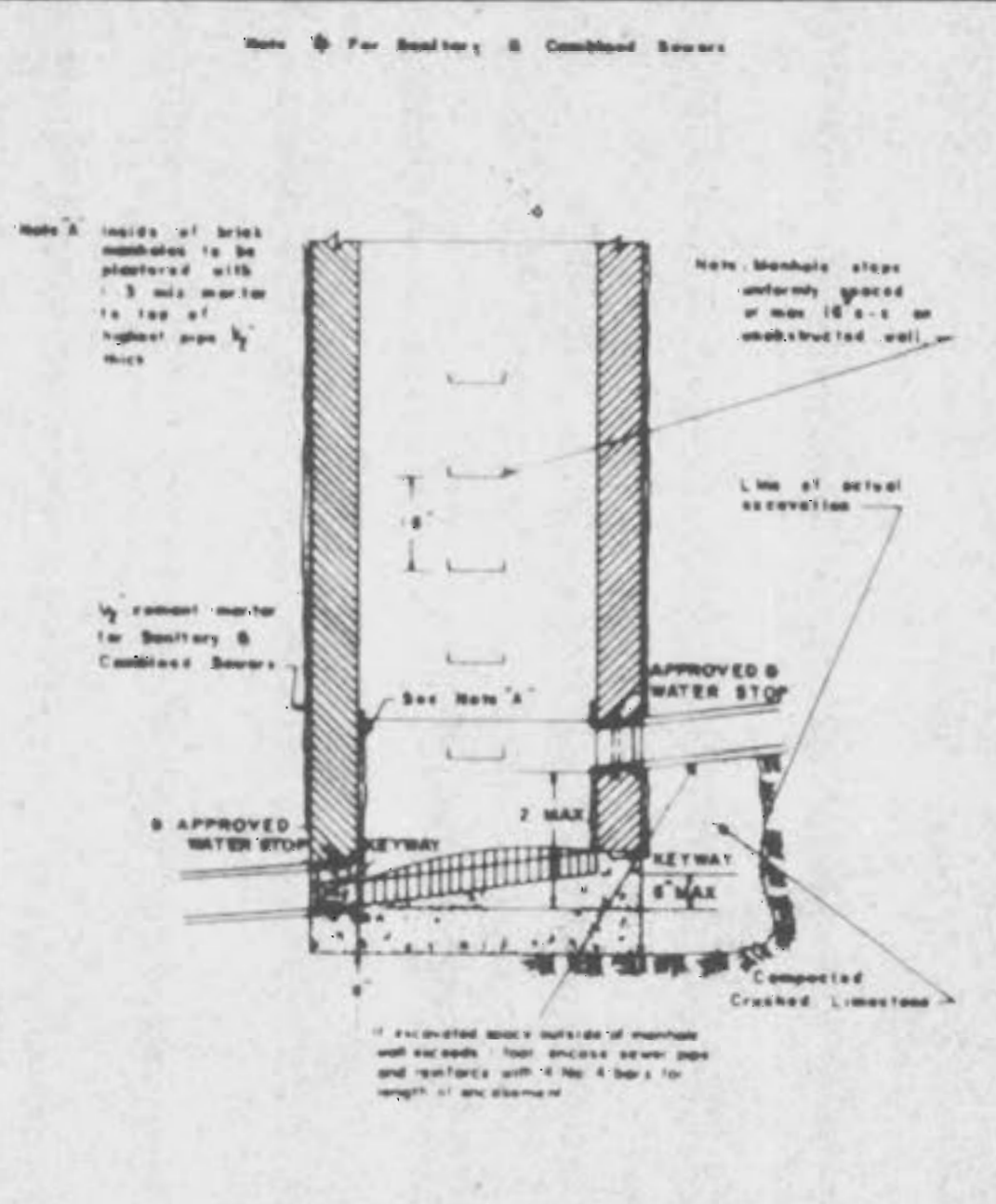
TYPICAL PRE-CAST M.H. TEE FOR REINFORCED CONCRETE PIPE SEWERS 48" AND LARGER IN DIAMETER
 DETAIL 13



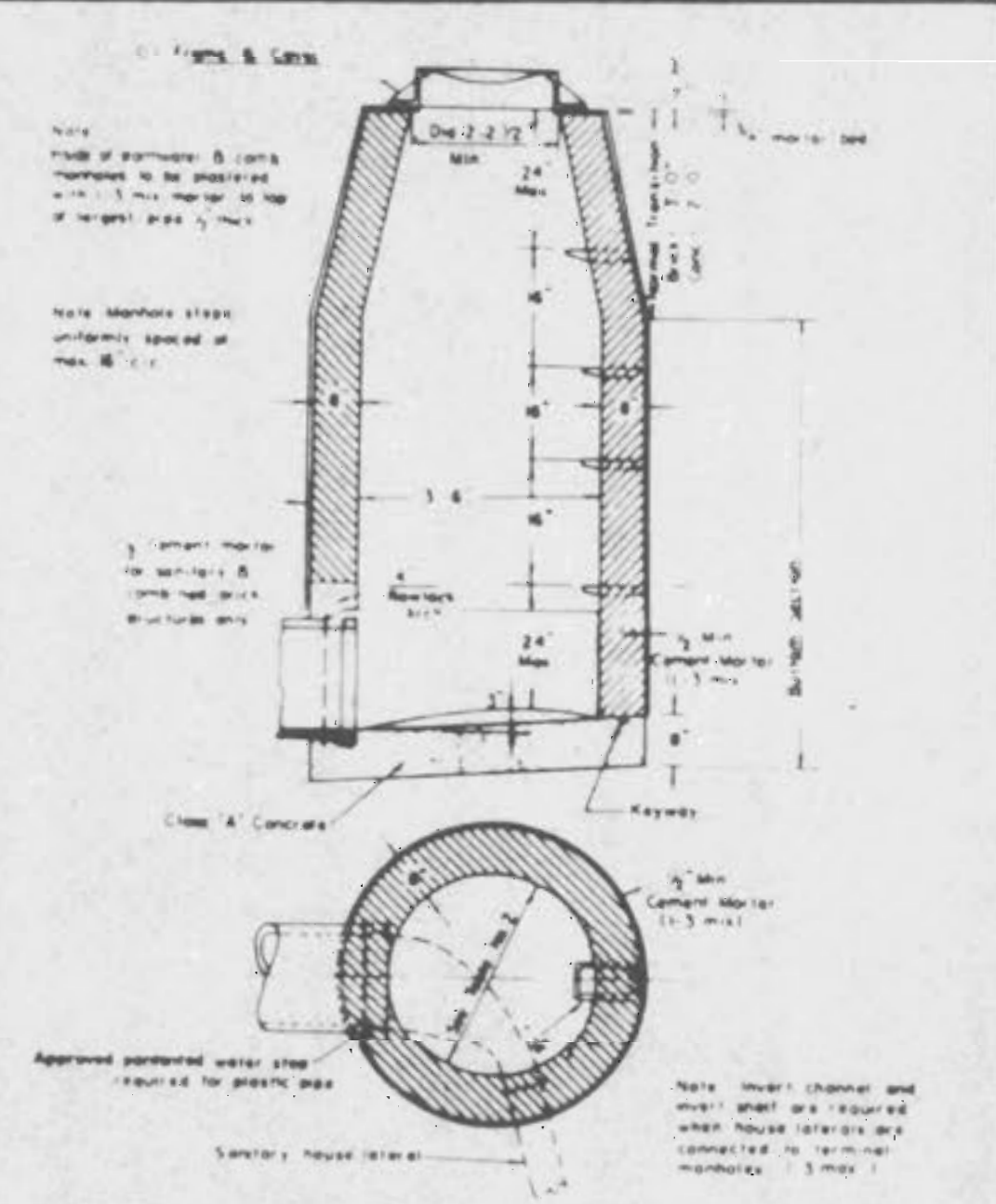
OUTSIDE FOULWATER DROP MANHOLE
 DETAIL 14



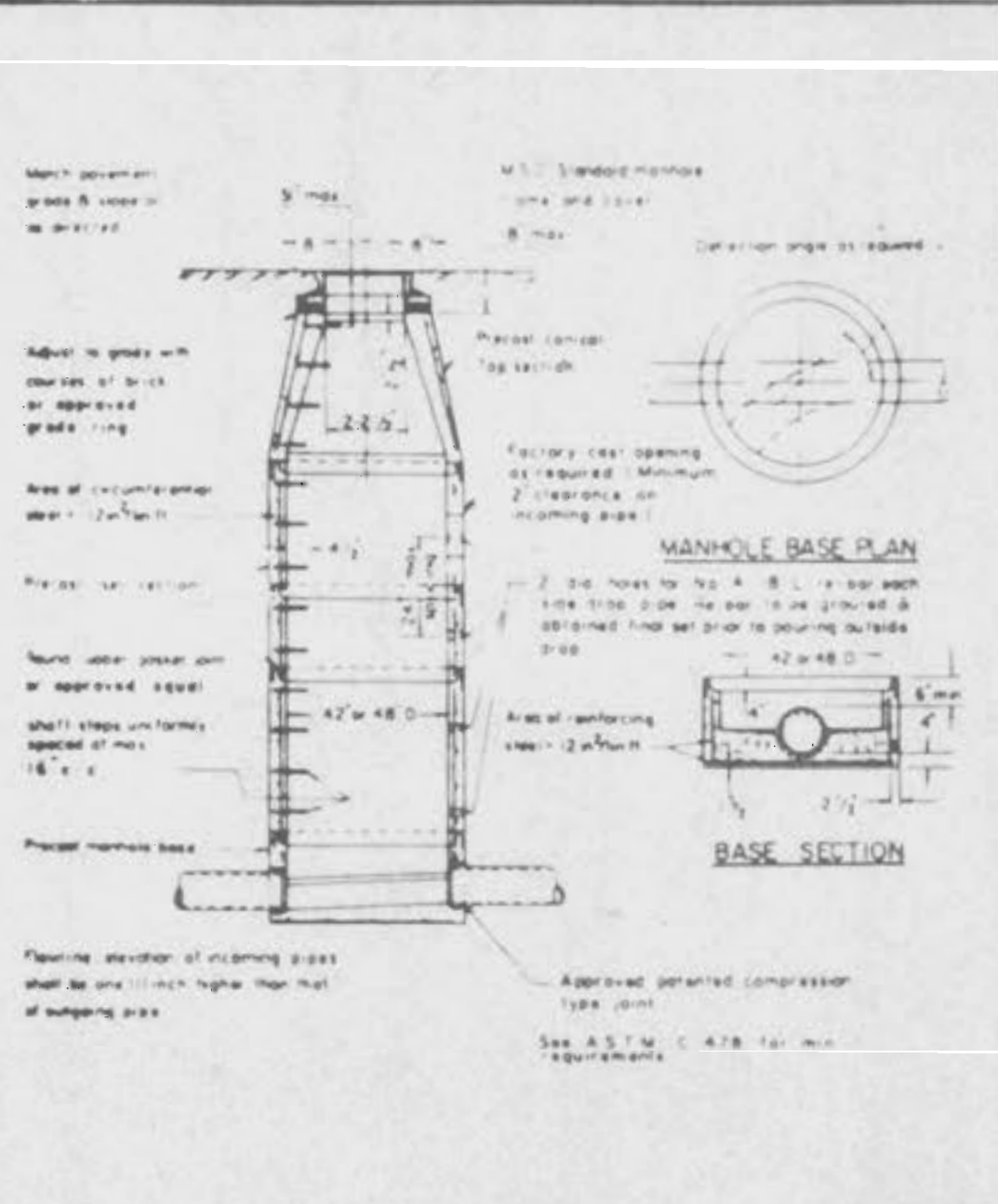
FOULWATER INSIDE DROP MANHOLE FOR PLASTIC PIPE
 DETAIL 15



TERMINAL MANHOLE
 DETAIL 16



PRE-CAST CONCRETE MANHOLE FOR SEWERS 8" THROUGH 12" IN DIAMETER
 DETAIL 17



PRE-CAST CONCRETE MANHOLE FOR SEWERS 8" THROUGH 12" IN DIAMETER
 DETAIL 18