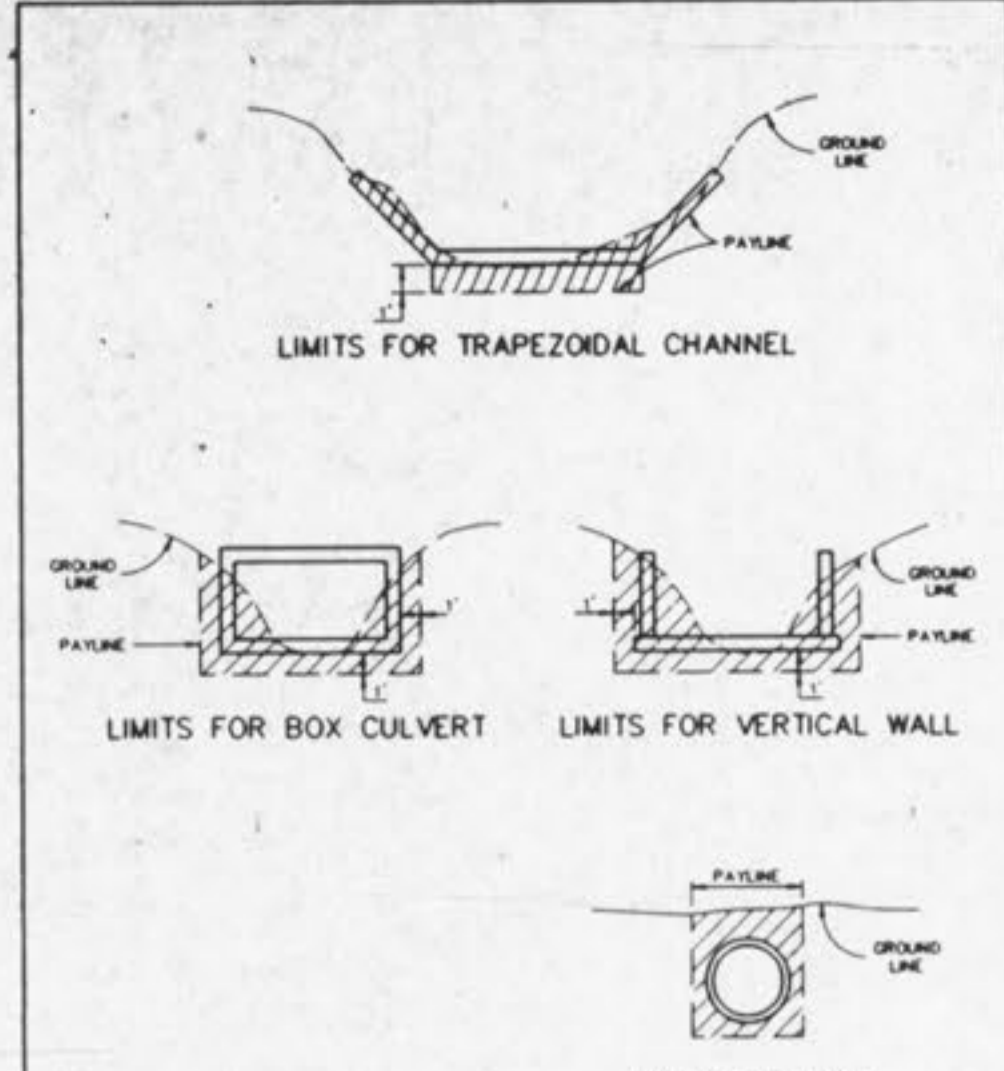
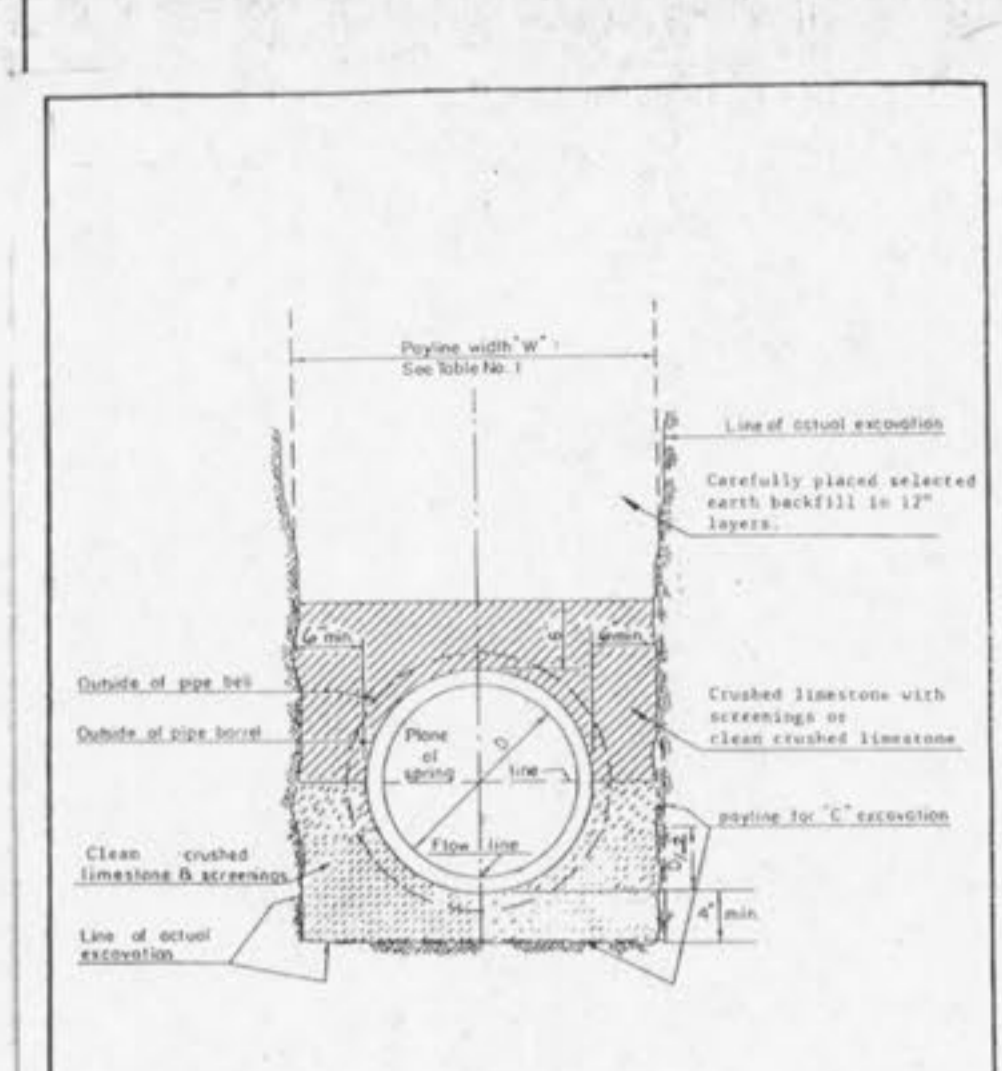


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES Cu. Ft. PER FT. OF TRENCH ENCASUREMENT	INSIDE DIMENSIONS OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"W" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES Cu. Ft. PER FT. OF TRENCH ENCASUREMENT
4	30	2.50	3.28				
6	30	2.50	3.58				
8	30	2.50	3.87				
10	30	2.50	4.08				
12	30	2.50	4.25				
15	36	3.00	5.55				
18	36	3.00	5.77	14 x 23	41	3.42	5.94
21	36	3.25	6.81				
24	42	3.50	7.39	18 x 30	49	4.08	7.68
27	42	3.75	8.18	22 x 34	53	4.42	8.81
30	48	4.08	9.30	24 x 36	58	4.83	9.70
33	53	4.42	10.53	27 x 42	62	5.17	10.71
36	56	4.87	11.43	29 x 45	66	5.50	11.72
39	DISCONTINUED			32 x 49	71	5.92	13.14
42	63	5.25	13.38	34 x 53	73	6.25	14.05
48	70	5.83	15.87	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	21.59
66	91	7.58	23.45	53 x 83	109	9.08	24.20
72	98	8.17	26.37	58 x 91	118	9.83	27.48
78	105	8.75	29.38	63 x 98	126	10.50	30.20
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	40.69
102	133	11.08	42.98	82 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 136	168	14.00	47.79
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	118 x 180	218	18.17	73.59

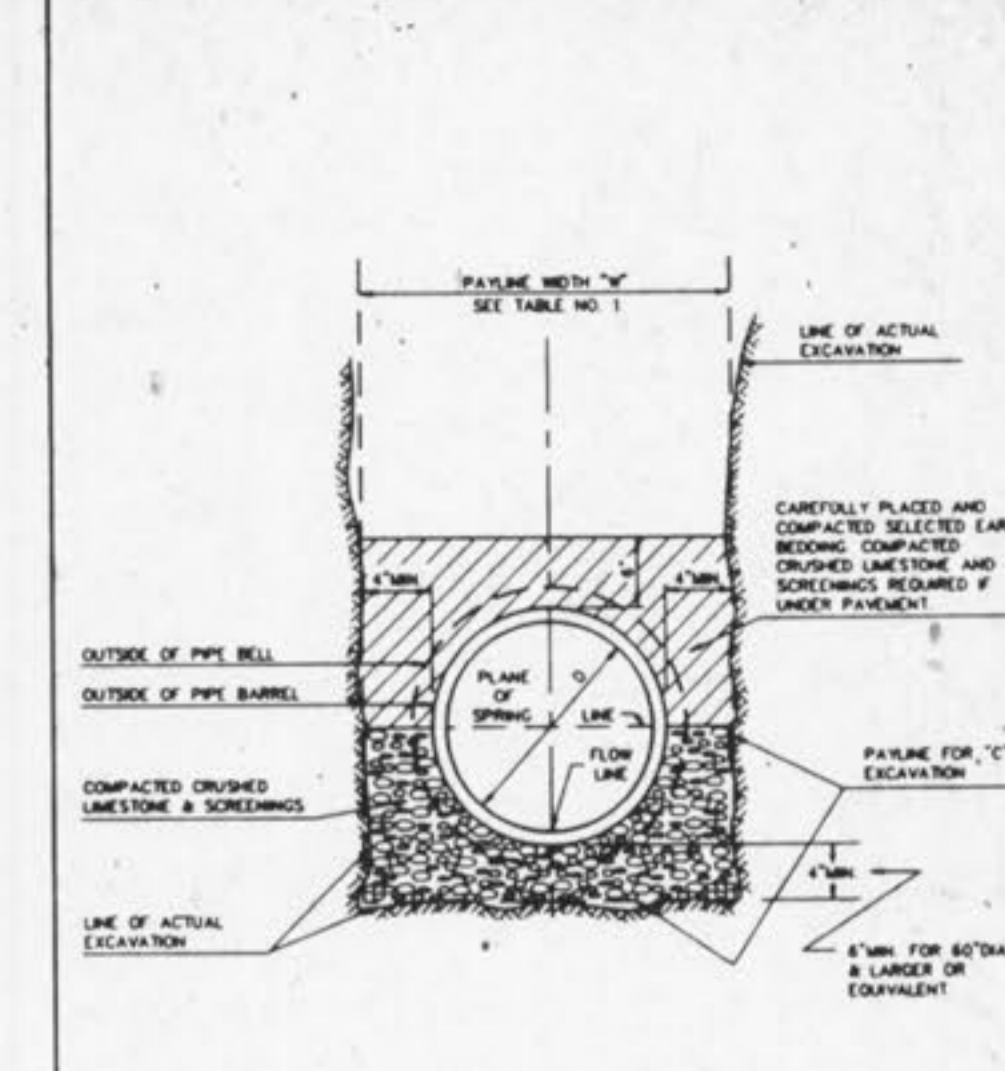
**TABLE 1
PAYLINE WIDTHS OF TRENCH
AND PAY-VOLUMES OF CONCRETE**
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. B.E.B.
Ch. J.C.K. 1992 SHEET 1



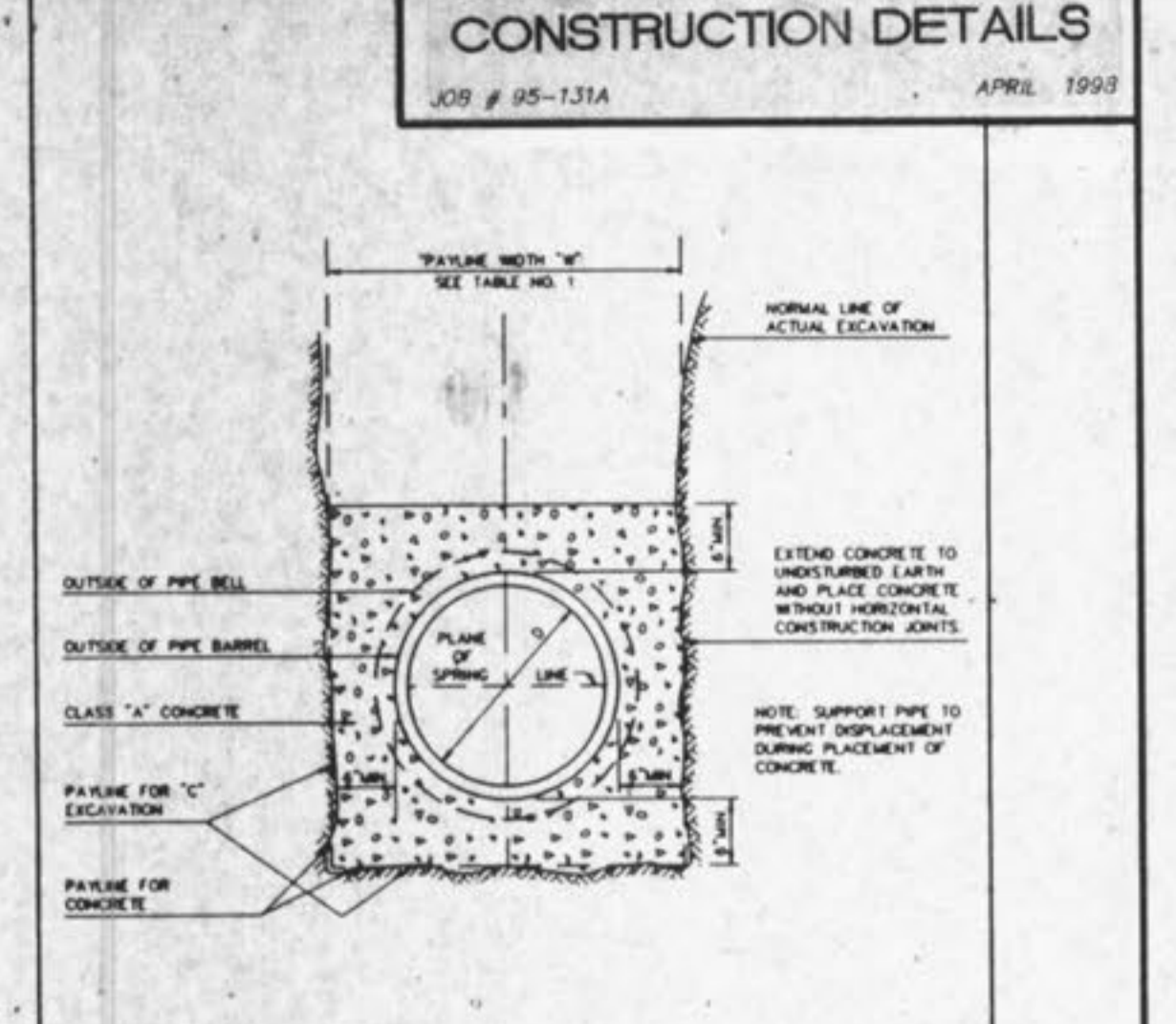
LIMITS FOR TRAPEZOIDAL CHANNEL
LIMITS FOR BOX CULVERT
LIMITS FOR VERTICAL WALL
LIMITS FOR PIPE
NOTE: PAYLINE FOR ANY OTHER TYPE CHANNEL EXCAVATION SHALL BE THE EXACT SHAPE OF THE SUBGRADE.
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 2



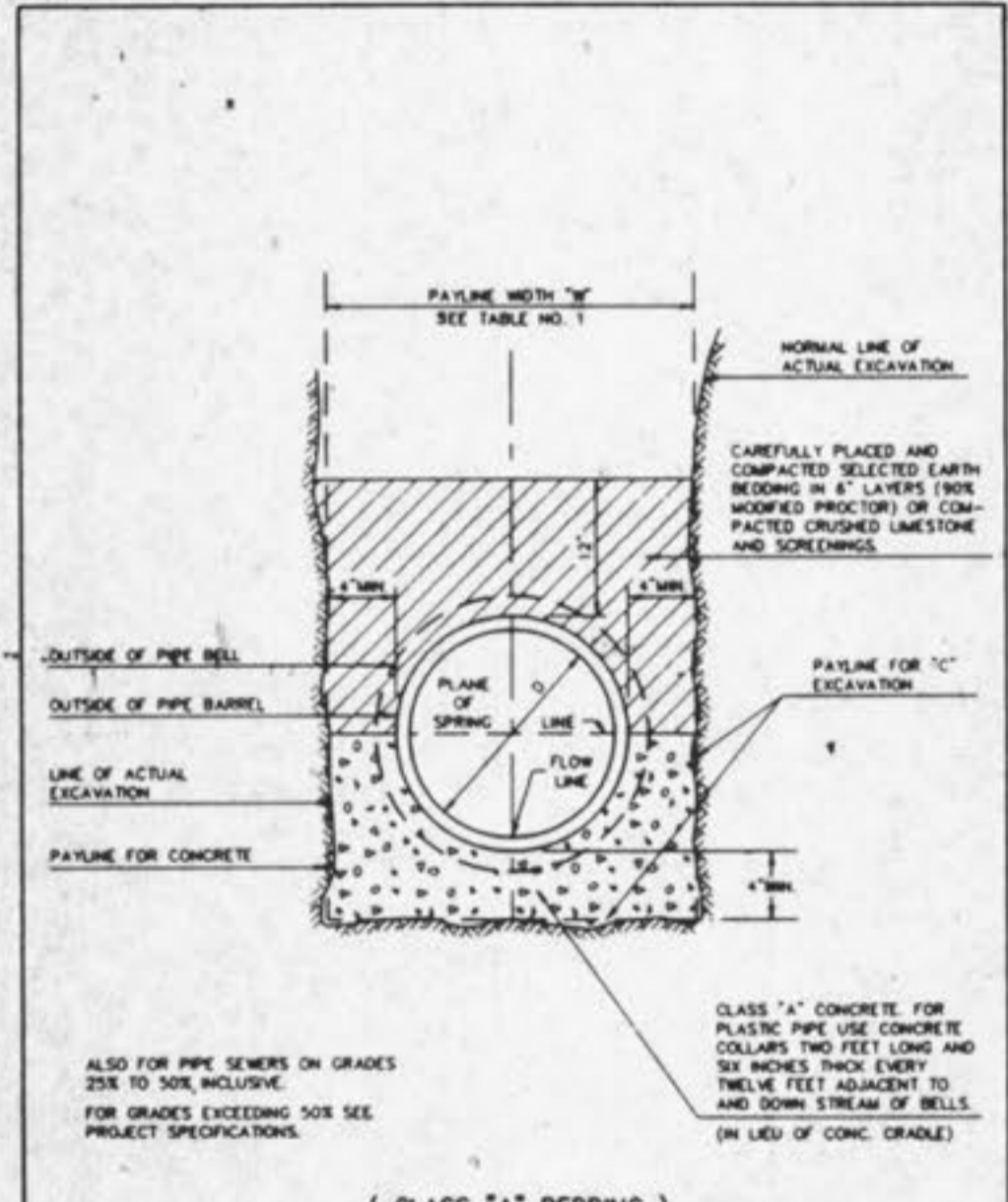
PIPE BEDDING CLASS "C"
(FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)
DUCKETT CREEK SEWER DISTRICT
Standard Construction Detail
DETAIL NO. JAN. 1989



PIPE BEDDING CLASS "C"
(MODIFIED FOR REINFORCED CONCRETE PIPE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 4



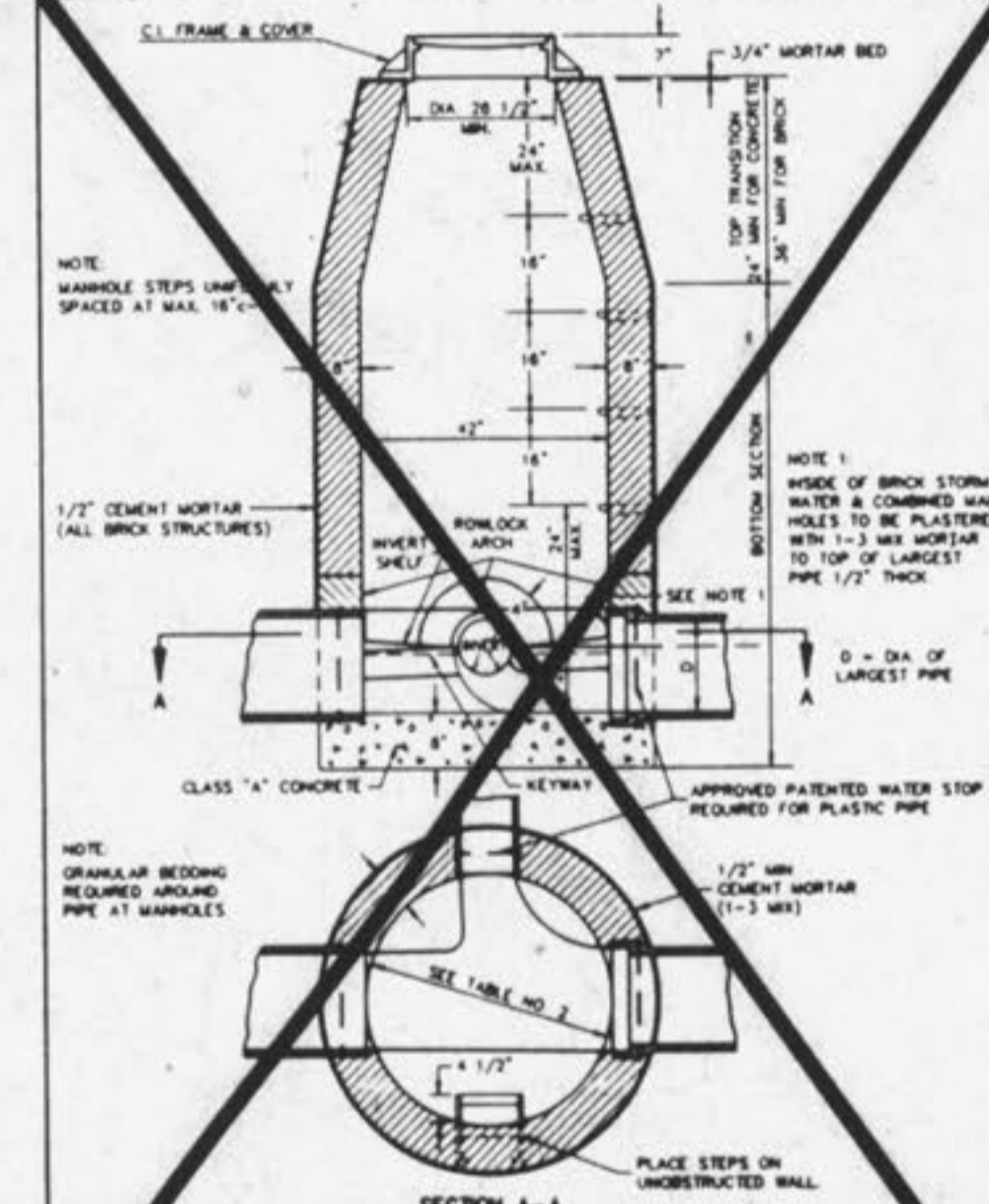
CONCRETE ENCASUREMENT
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 5



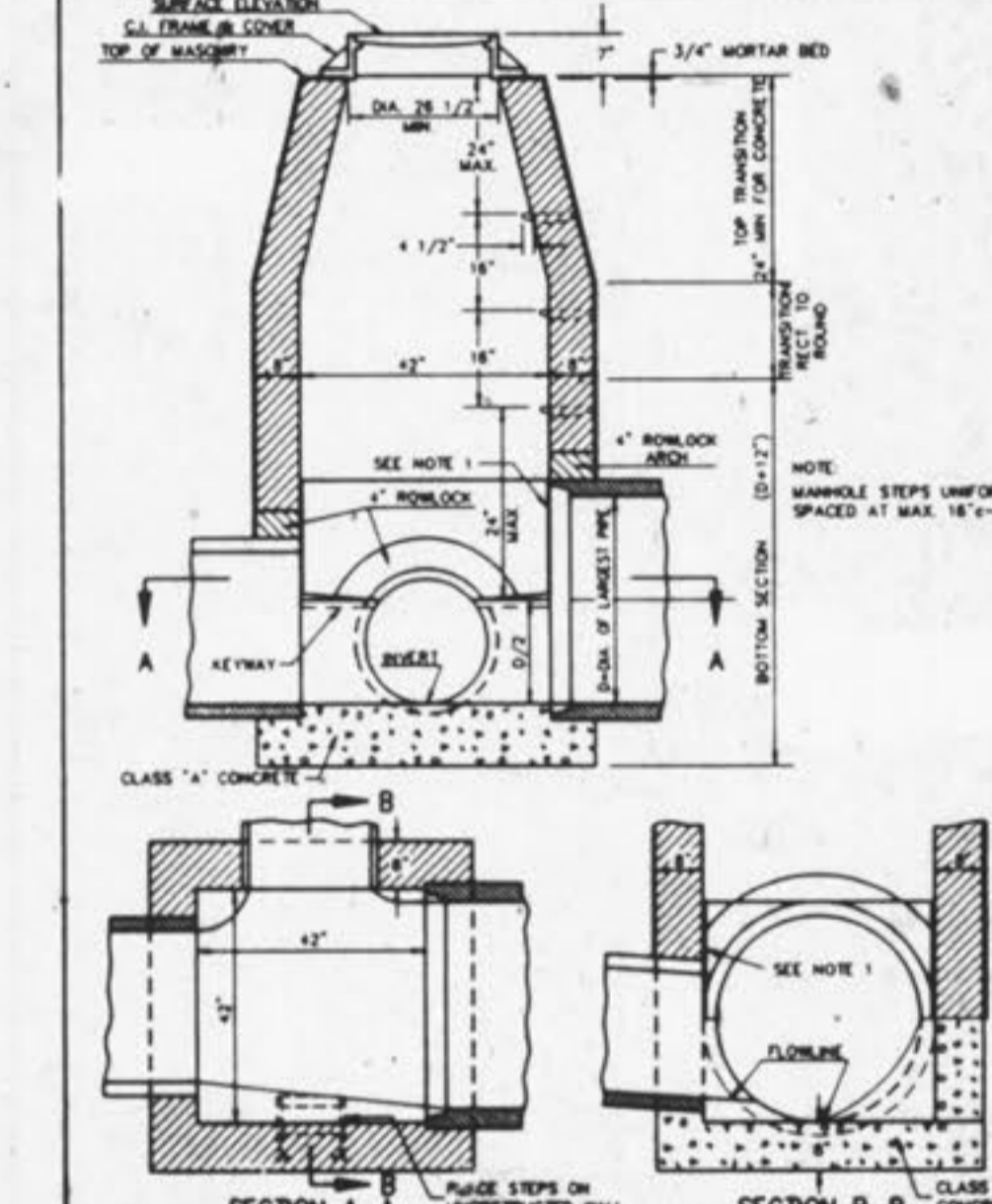
CONCRETE CRADLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 6

SECTION	MANHOLE	DIMENSION
TOP	UPPER	26 1/2" DIA.
	LOWER	42" DIA.
BOTTOM SECTION	8" THRU 24" DIA. PIPE	42" DIA.
BOTTOM SECTION	27" THRU 36" DIA. PIPE	42" SQUARE

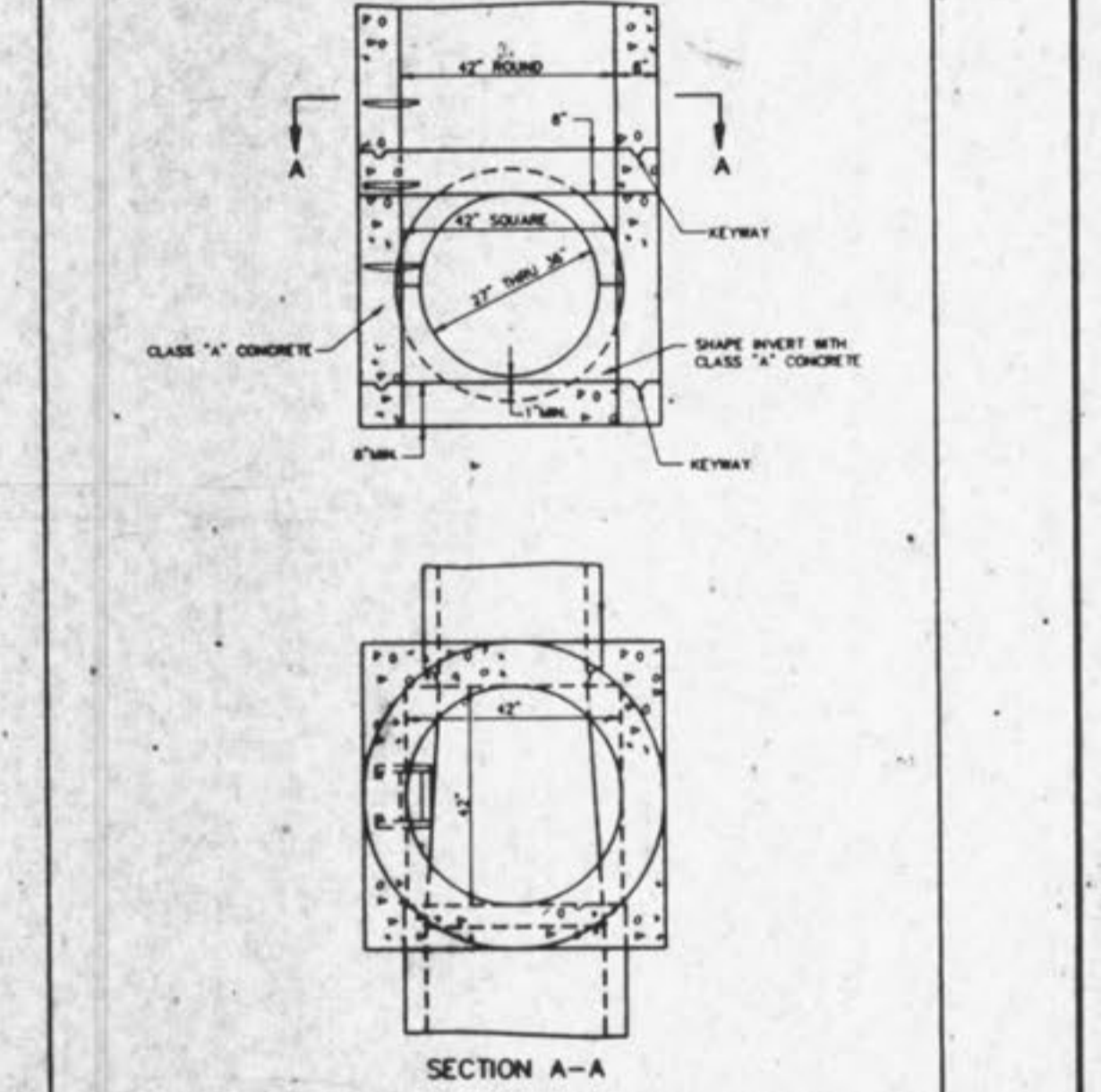
**TABLE NO. 2
STANDARD MANHOLE DIMENSIONS**
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W.
Ch. J.C.K. 1992 SHEET 7



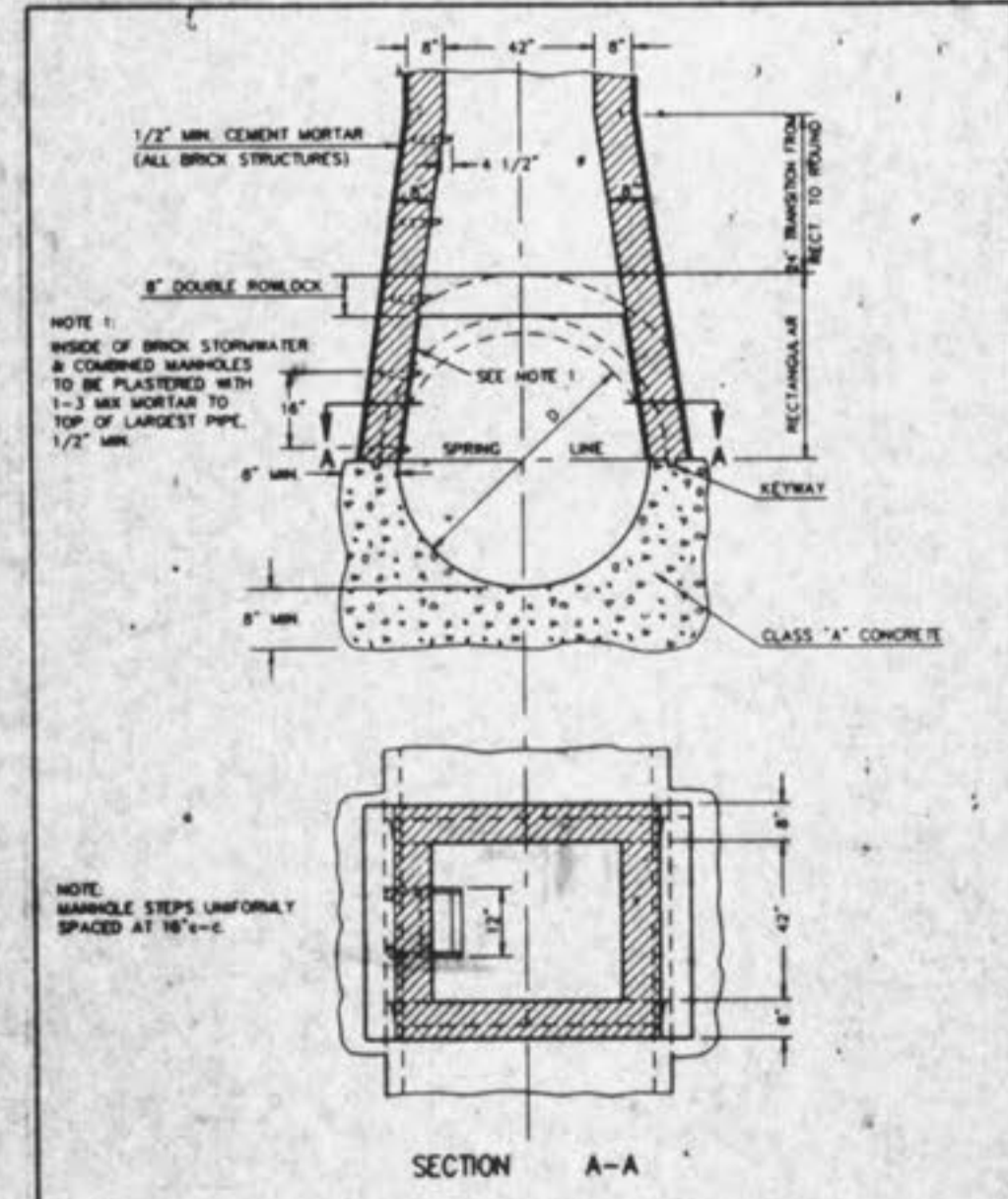
**LINE MANHOLE
PIPE SEWERS 8"-24" DIA.**
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 8



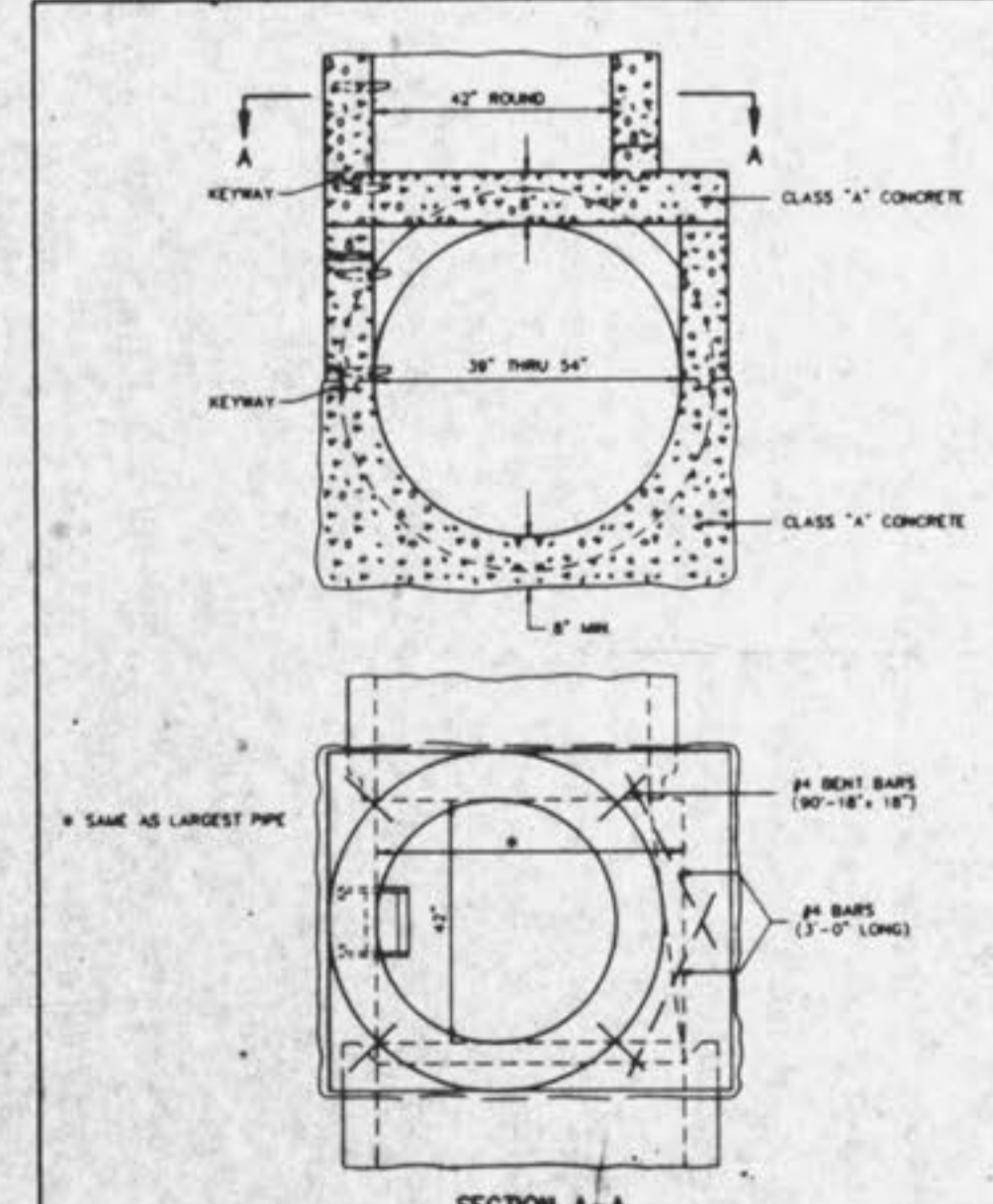
**TYPICAL LINE MANHOLE
ON PIPE SEWER 27" THRU
36" IN DIAMETER**
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 9



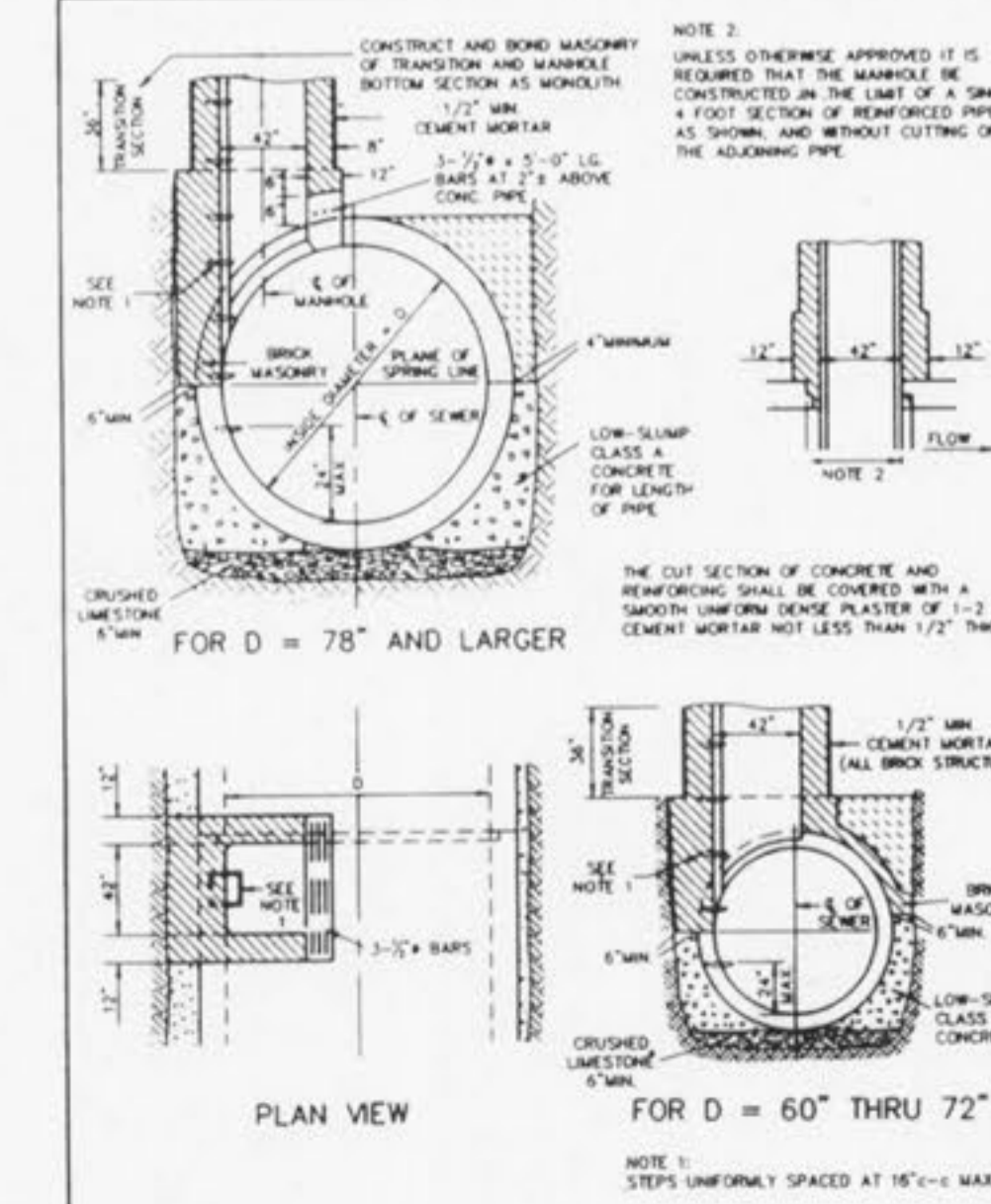
**MANHOLE ON PIPE SEWER
27" THRU 36" (ALTERNATE)**
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. D.A.B.
Ch. J.C.K. 1992 SHEET 10



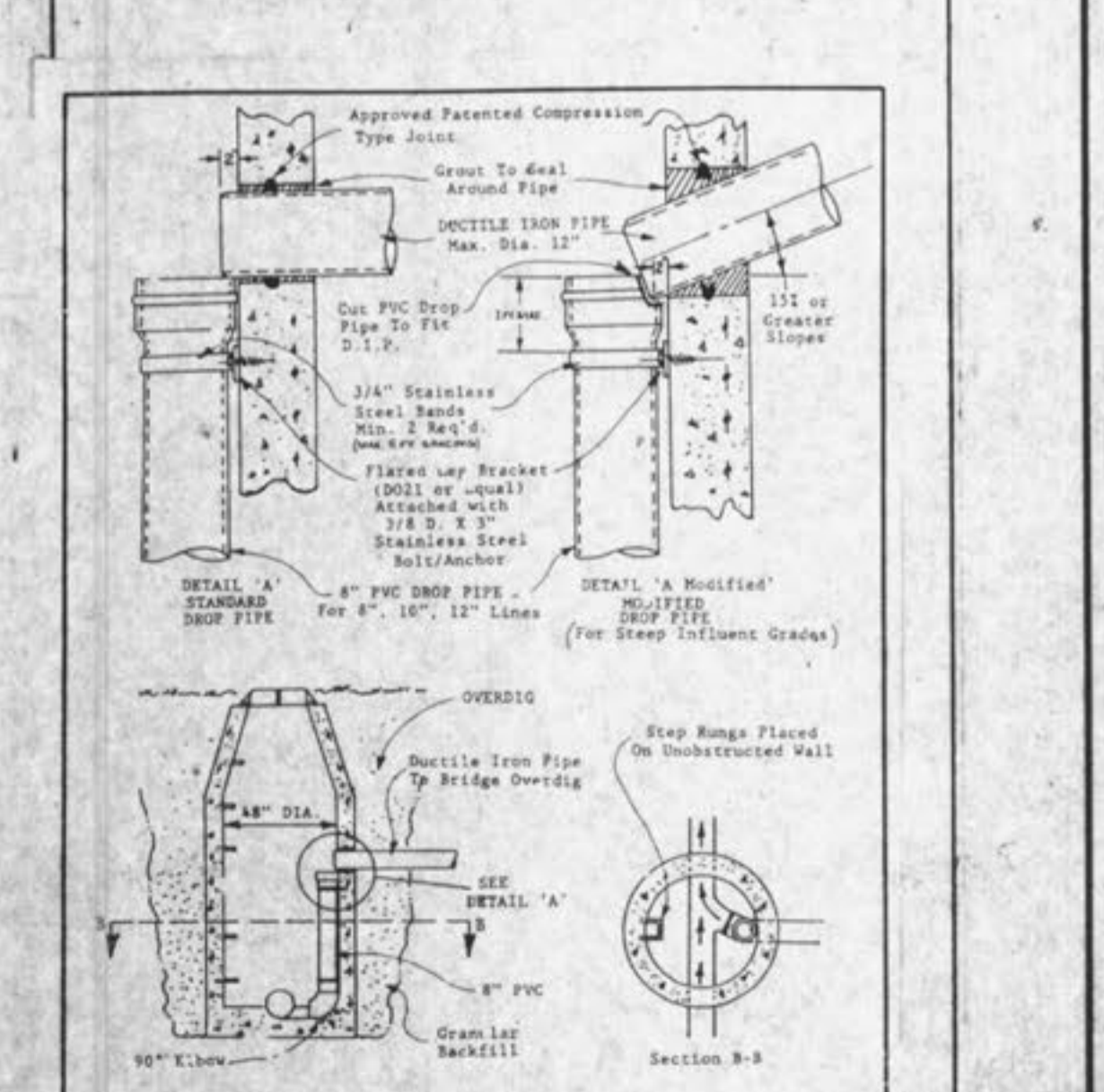
**MANHOLE ON CONCRETE PIPE
SEWERS 39" THRU 54" DIAMETER**
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 11



**MANHOLE ON CONC. PIPE
39" THRU 54" (ALTERNATE)**
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 12



**TYPICAL MANHOLE BASE
REINFORCED CONCRETE PIPE
SEWERS 60" AND LARGER
IN DIAMETER**
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H.
Ch. J.C.K. 1992 SHEET 13



INSIDE DROP MANHOLE
DUCKETT CREEK SEWER DISTRICT
Standard Construction Detail
DETAIL NO. JAN. 1989