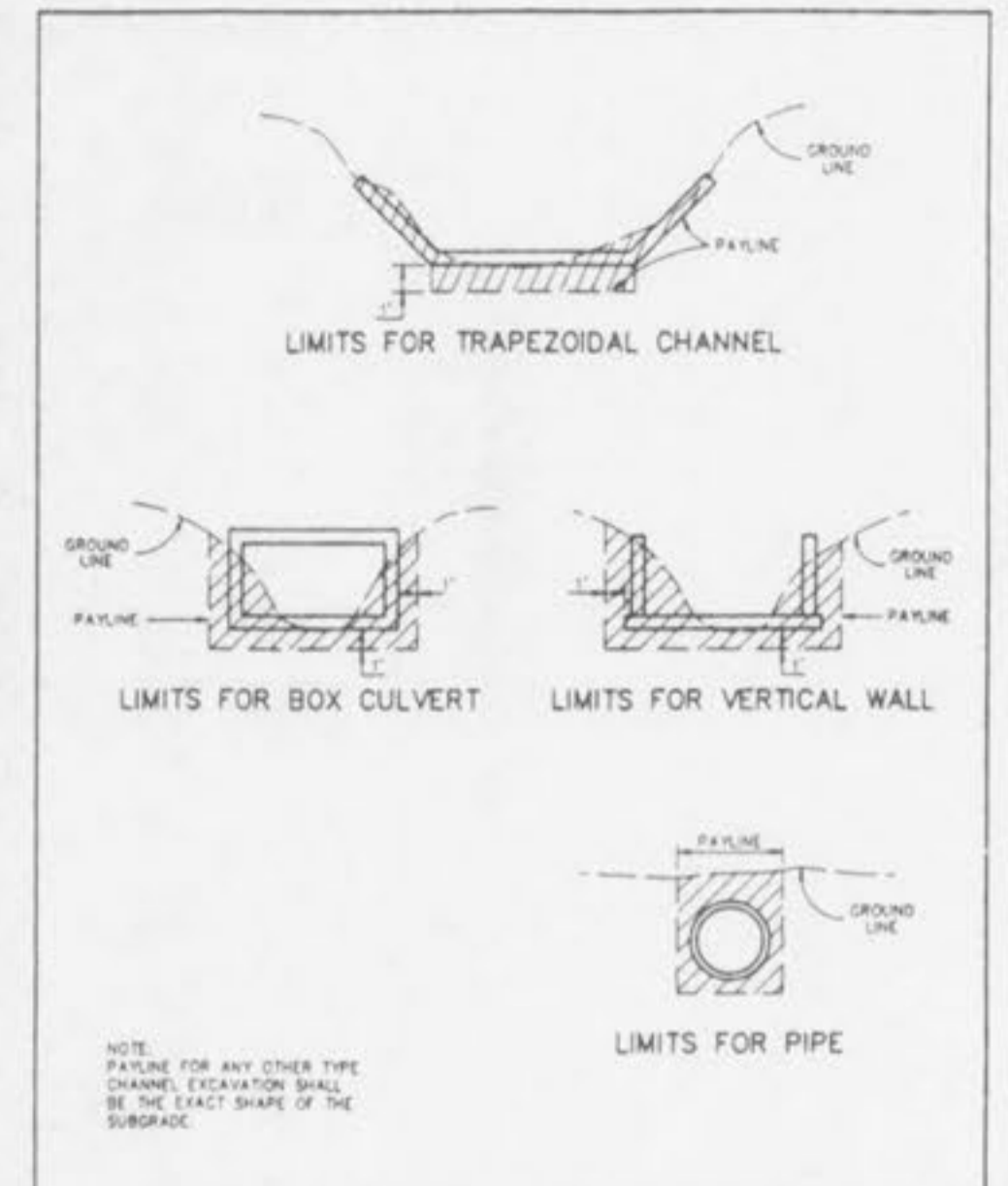
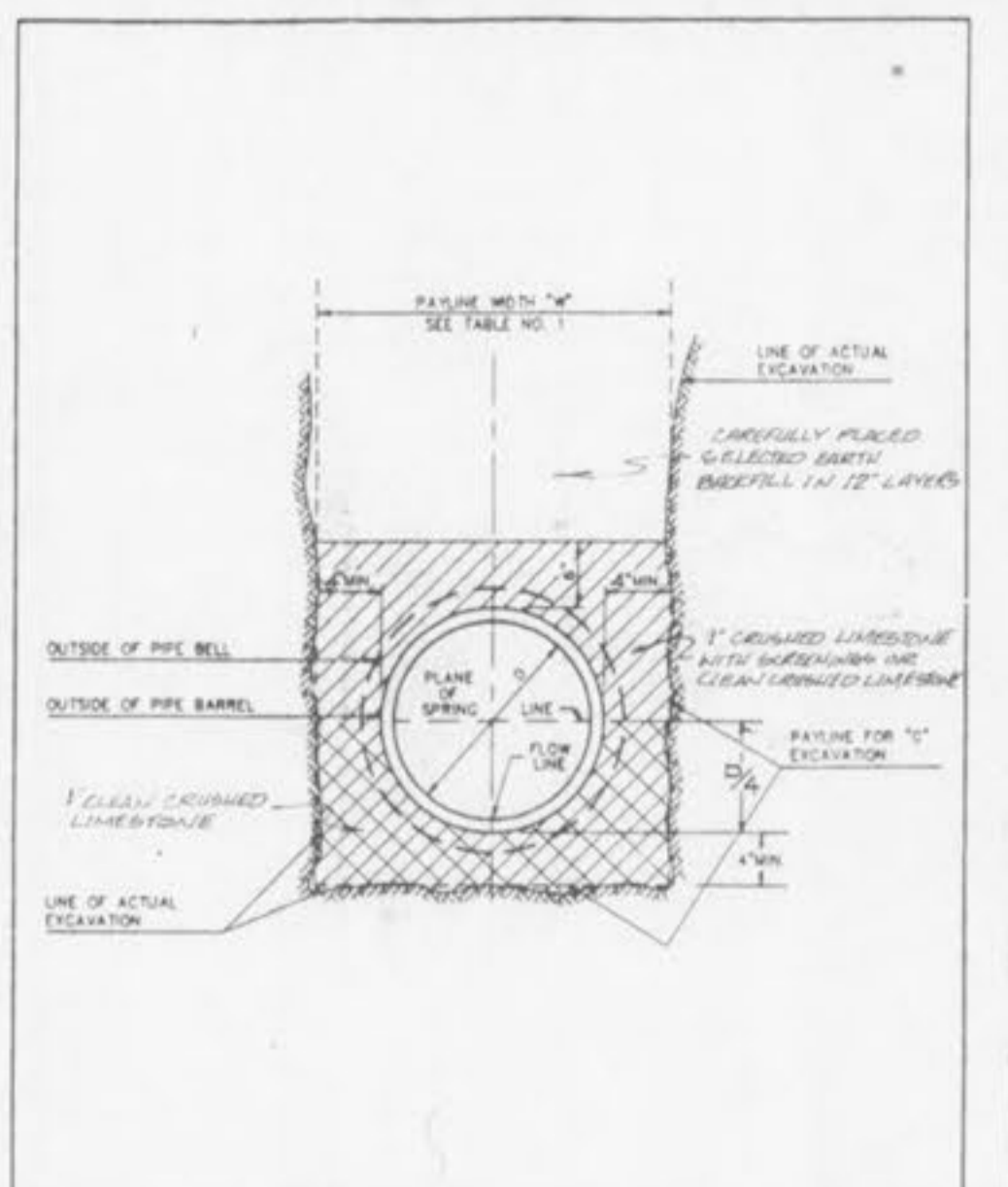


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"M" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES (CU. FT. PER FT.)	INSIDE DIMENSIONS (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"M" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES (CU. FT. PER FT.)
4	30	3.00	3.29				
6	30	3.00	3.59				
8	30	3.00	3.87				
10	30	3.00	4.08				
12	30	3.00	4.25				
15	36	3.00	5.55				
18	36	3.00	5.77	14 x 22	41	3.42	5.94
21	36	3.00	6.81				
24	42	3.50	7.28	18 x 30	49	4.08	7.68
27	42	3.50	8.19	22 x 34	53	4.42	8.81
30	48	4.08	9.30	24 x 38	58	4.83	9.70
33	48	4.08	10.52	27 x 42	62	5.17	10.71
36	54	4.67	11.43	28 x 43	66	5.50	11.72
39	DISCONTINUED						
42	63	5.25	13.38	34 x 53	75	6.25	14.05
48	70	5.87	15.87	36 x 60	83	6.92	16.18
54	77	6.42	18.15	42 x 68	92	7.67	18.81
60	84	7.06	21.73	48 x 78	101	8.43	21.59
66	91	7.58	23.45	52 x 82	109	9.09	24.25
72	98	8.17	25.37	58 x 91	118	9.82	27.43
78	105	8.75	29.39	63 x 98	128	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 112	143	11.92	36.99
96	126	10.50	38.27	77 x 121	152	12.67	40.69
102	133	11.08	42.99	82 x 128	160	13.33	44.45
108	140	11.67	46.75	87 x 138	168	14.00	47.79
114	147	12.25	50.89	92 x 142	176	14.67	51.70
120	154	12.83	54.73	97 x 151	185	15.42	56.01
126	161	13.42	58.82				
132	168	14.00	63.27	106 x 168	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	18.17	73.59

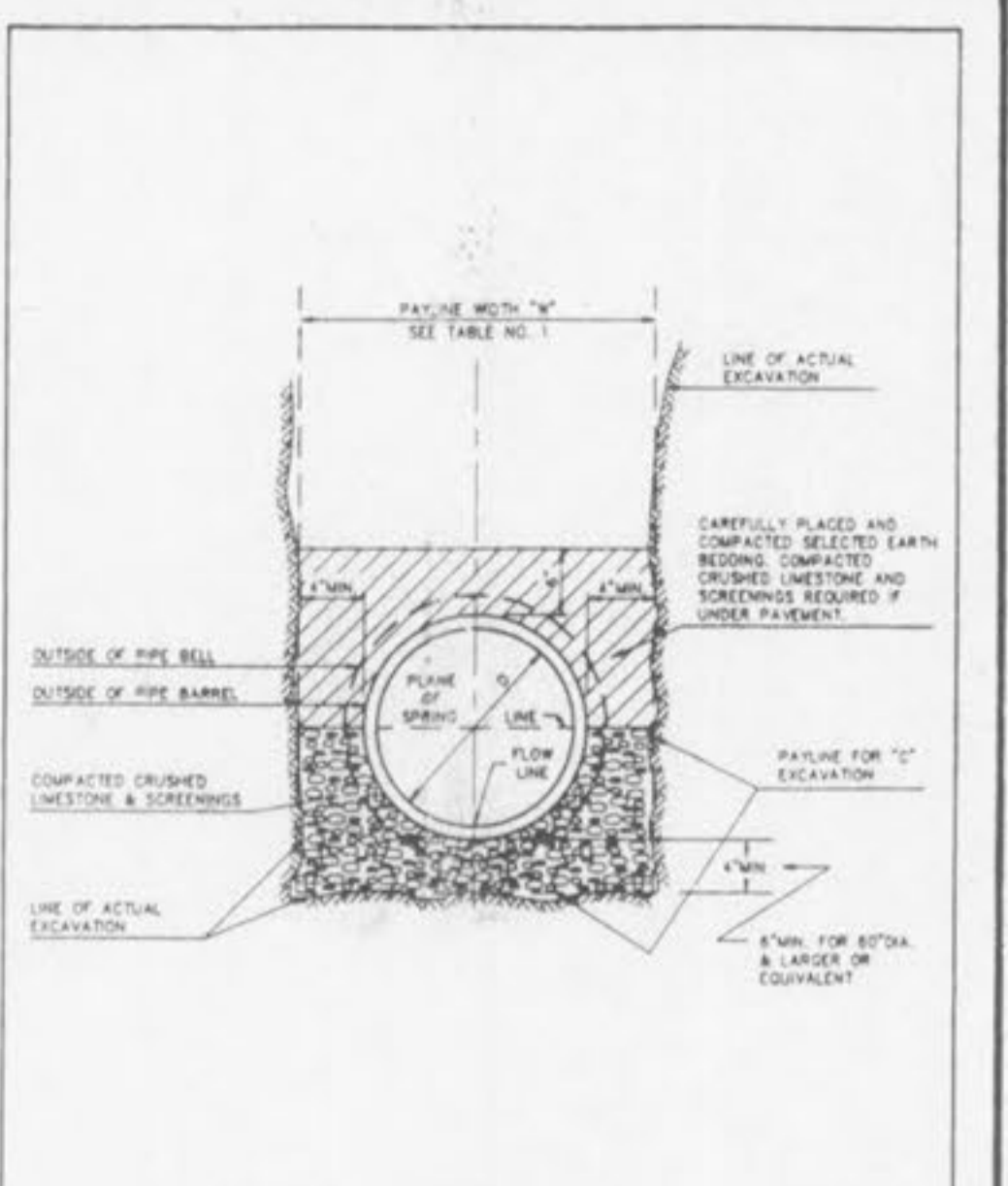
TABLE 1
PAYLINE WIDTHS OF TRENCH AND PAY-VOLUMES OF CONCRETE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. B.E.B. Ch. J.C.K. 1992 SHEET 1



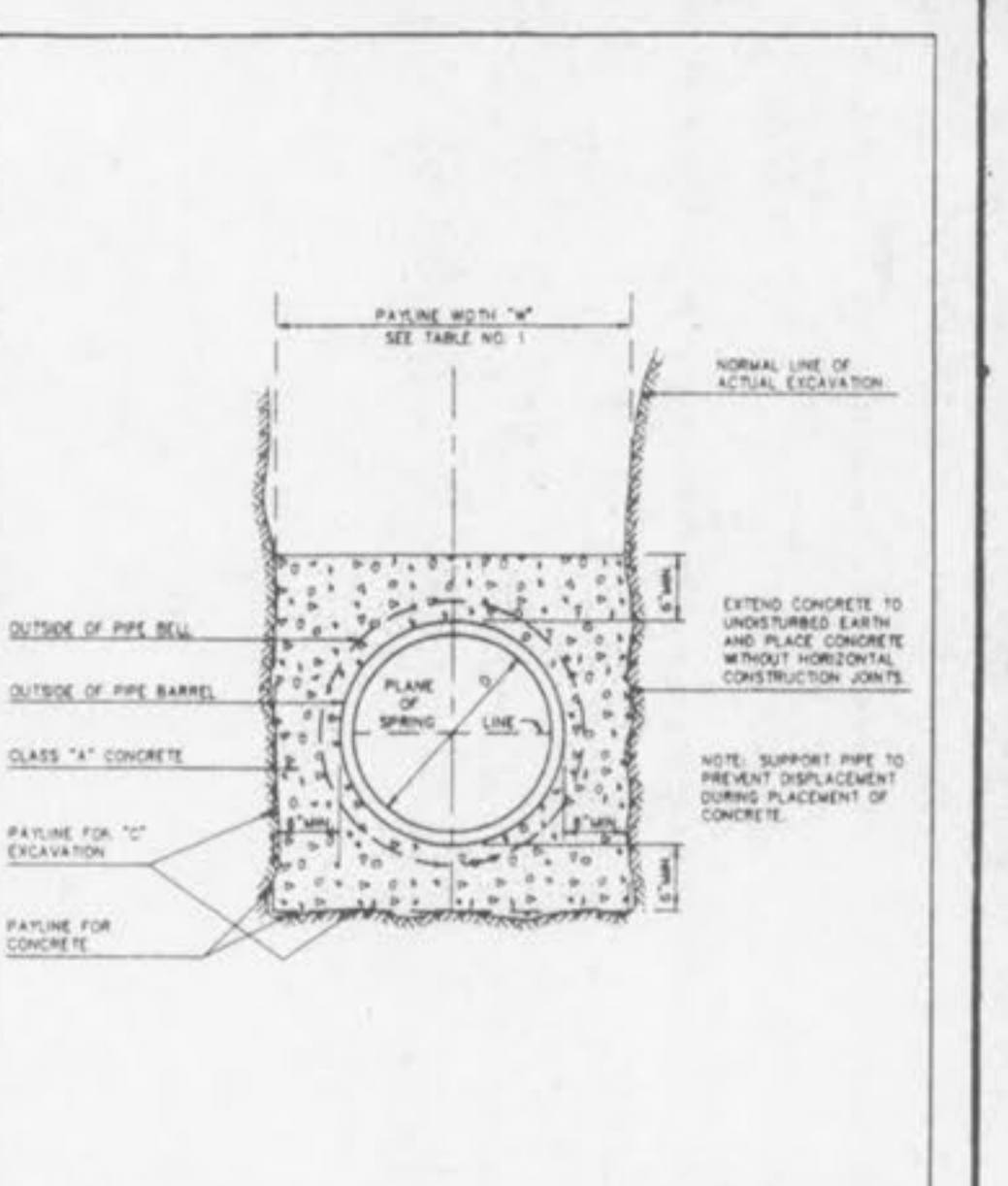
PAYLINE LIMITS FOR EXCAVATION
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 2



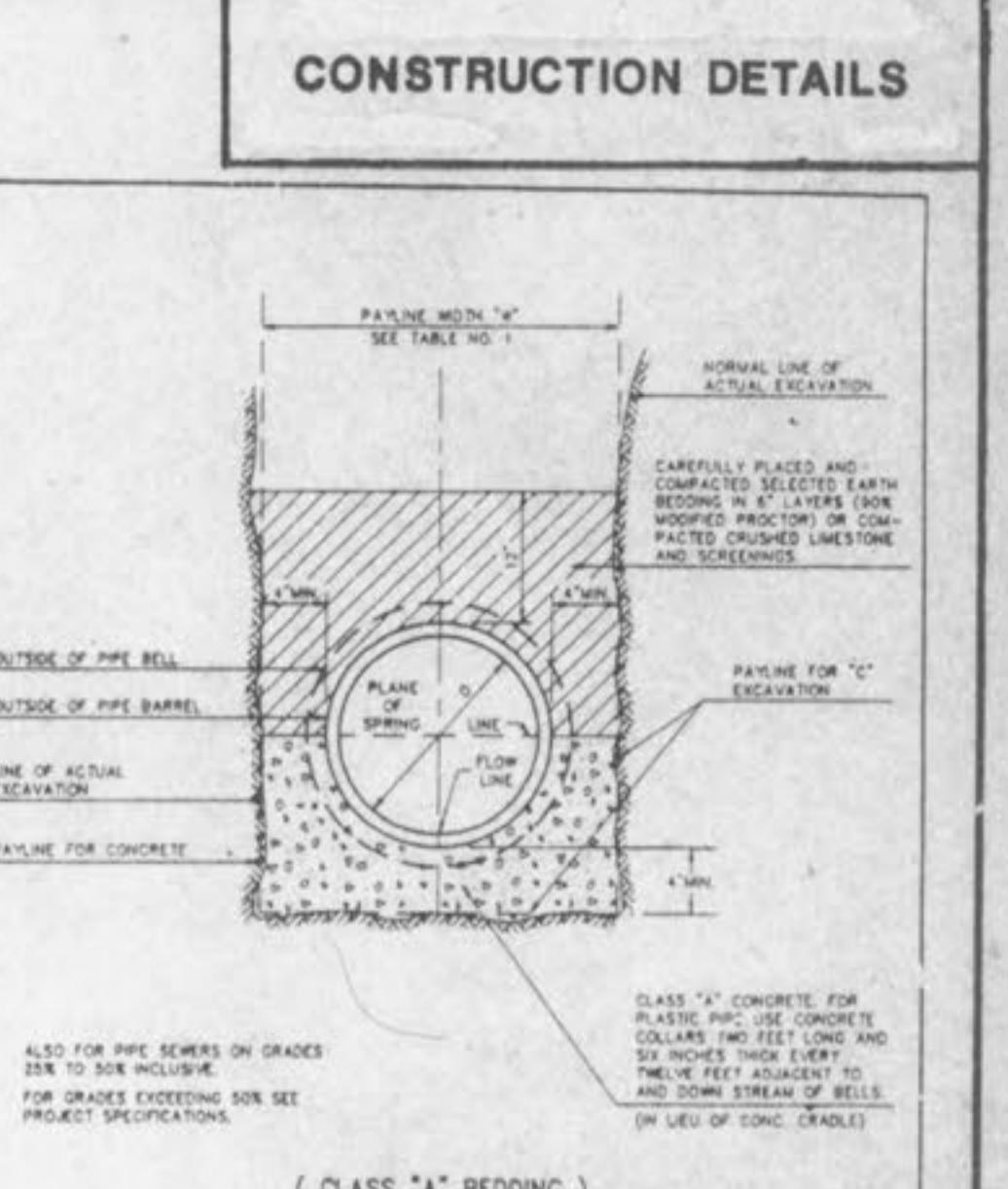
PIPE BEDDING CLASS "C"
(FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 4



PIPE BEDDING CLASS "D"
(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 5



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

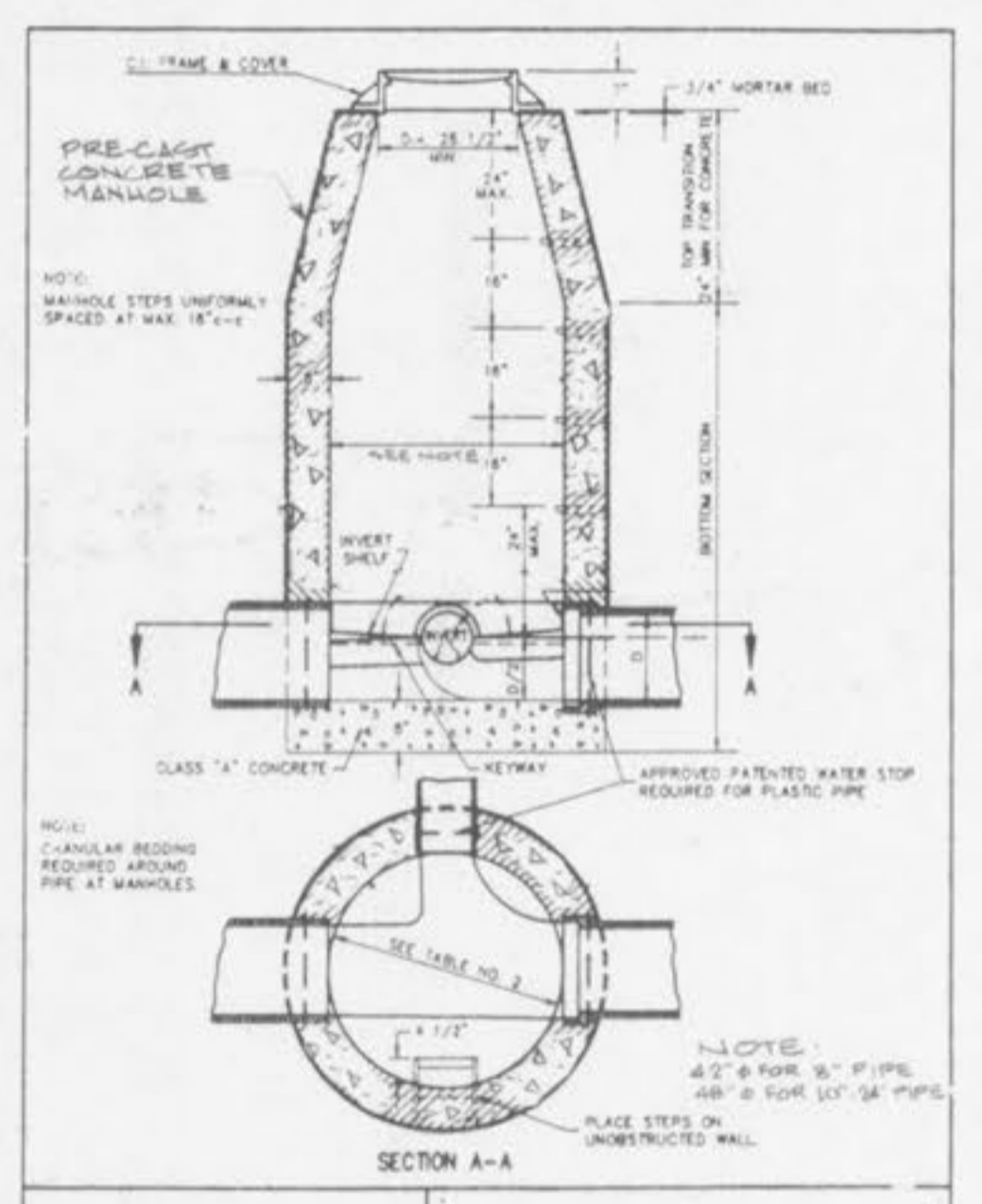


CONCRETE CRADLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 7

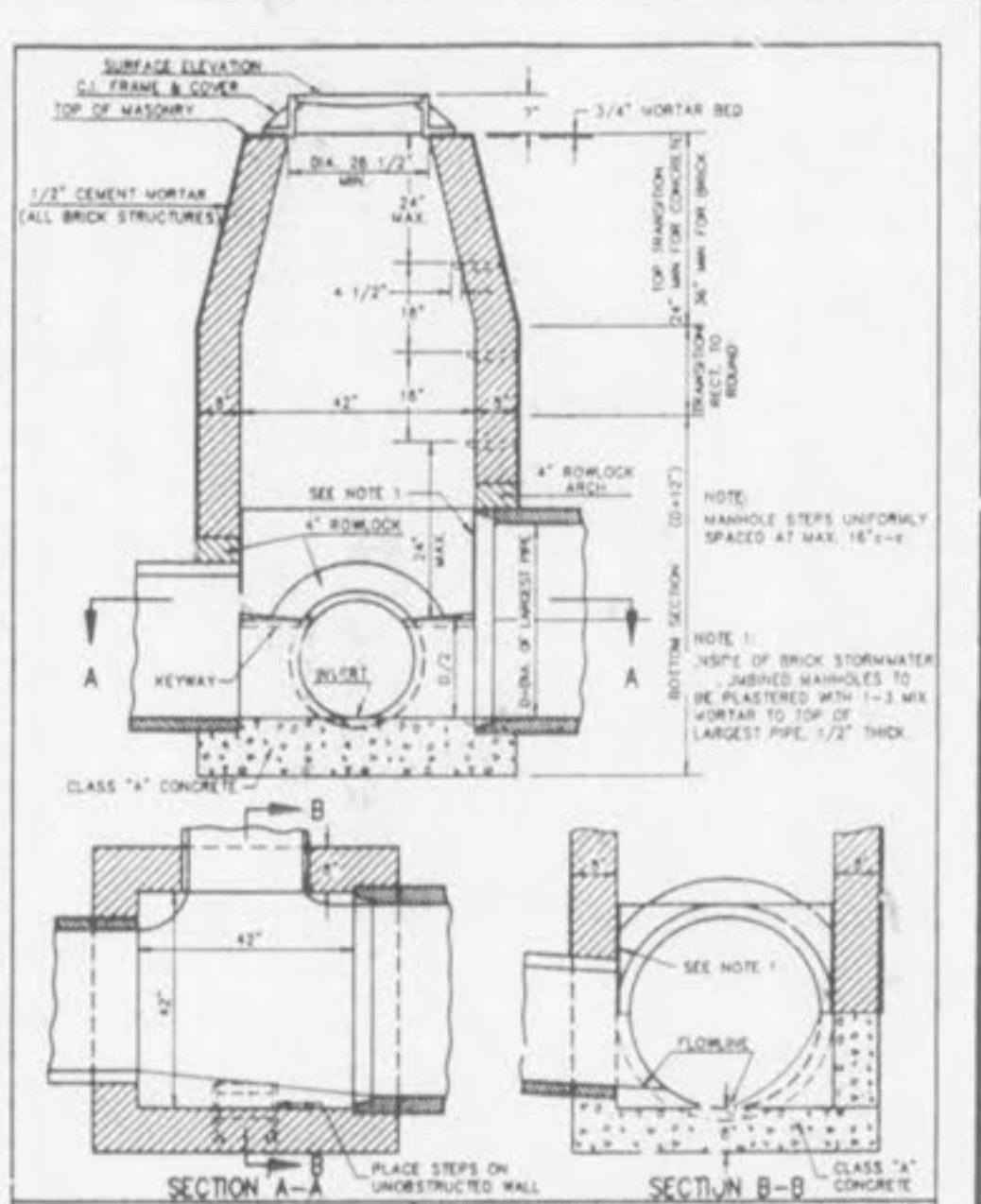
CONSTRUCTION DETAILS

SECTION OF MANHOLE	DIMENSION
TOP	26 1/2" DIA.
TRANSITION	42" DIA.
BOTTOM SECTION	8" THRU 24" DIA. PIPE
BOTTOM SECTION	27" THRU 36" DIA. PIPE

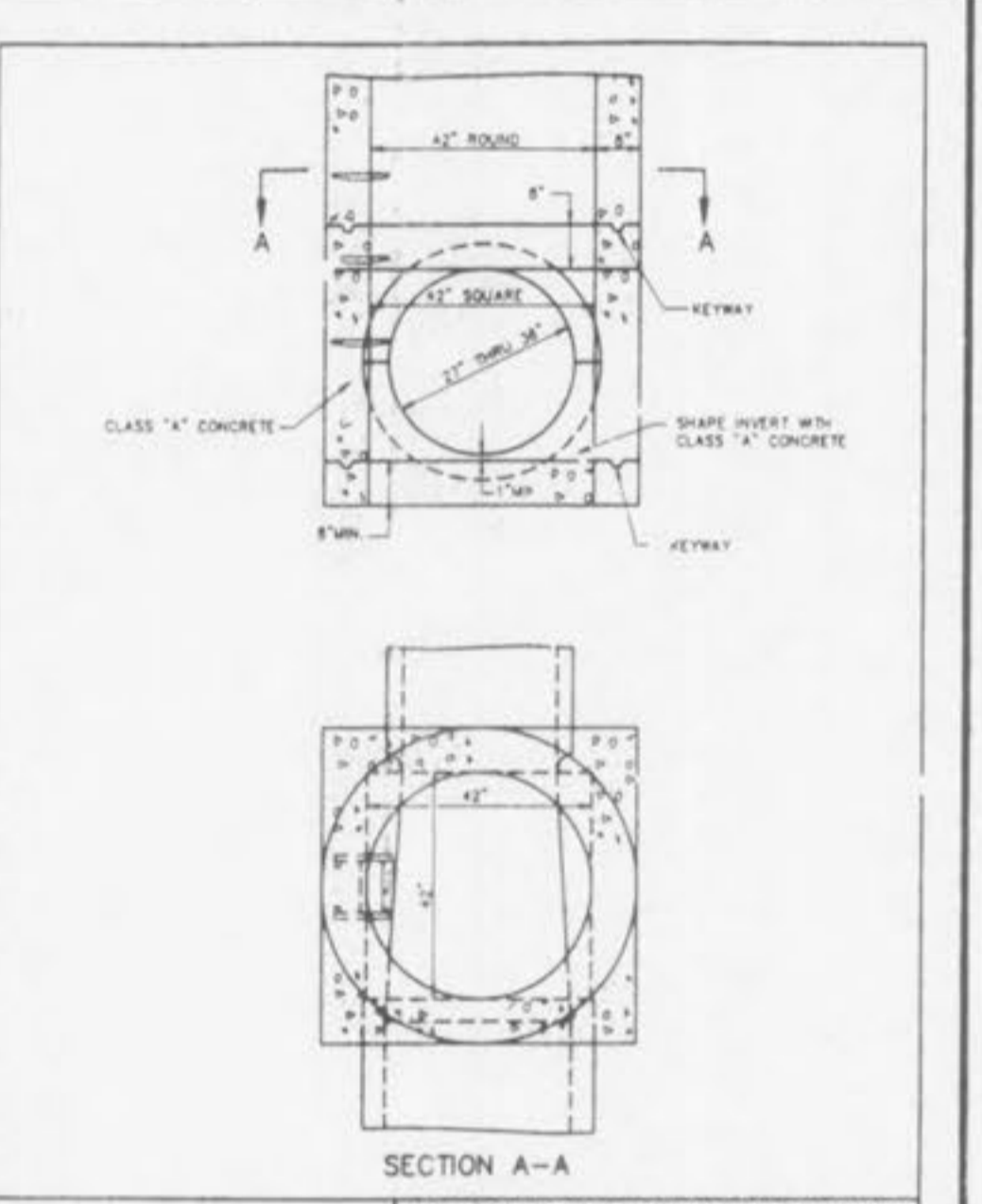
TABLE NO. 2
STANDARD MANHOLE DIMENSIONS
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. 1992 SHEET 7



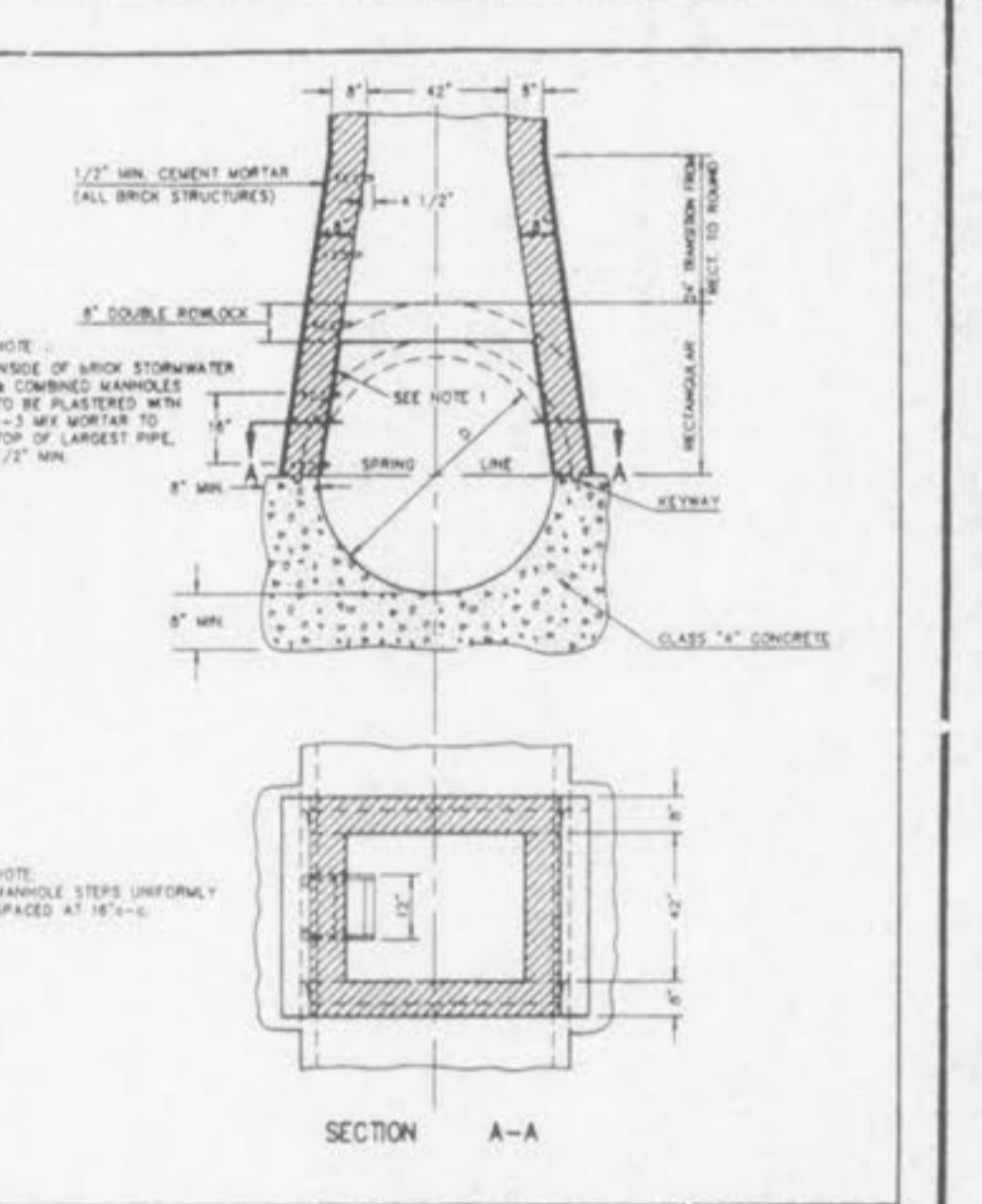
LINE MANHOLE
PIPE SEWERS 8"-24" DIA.
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 9



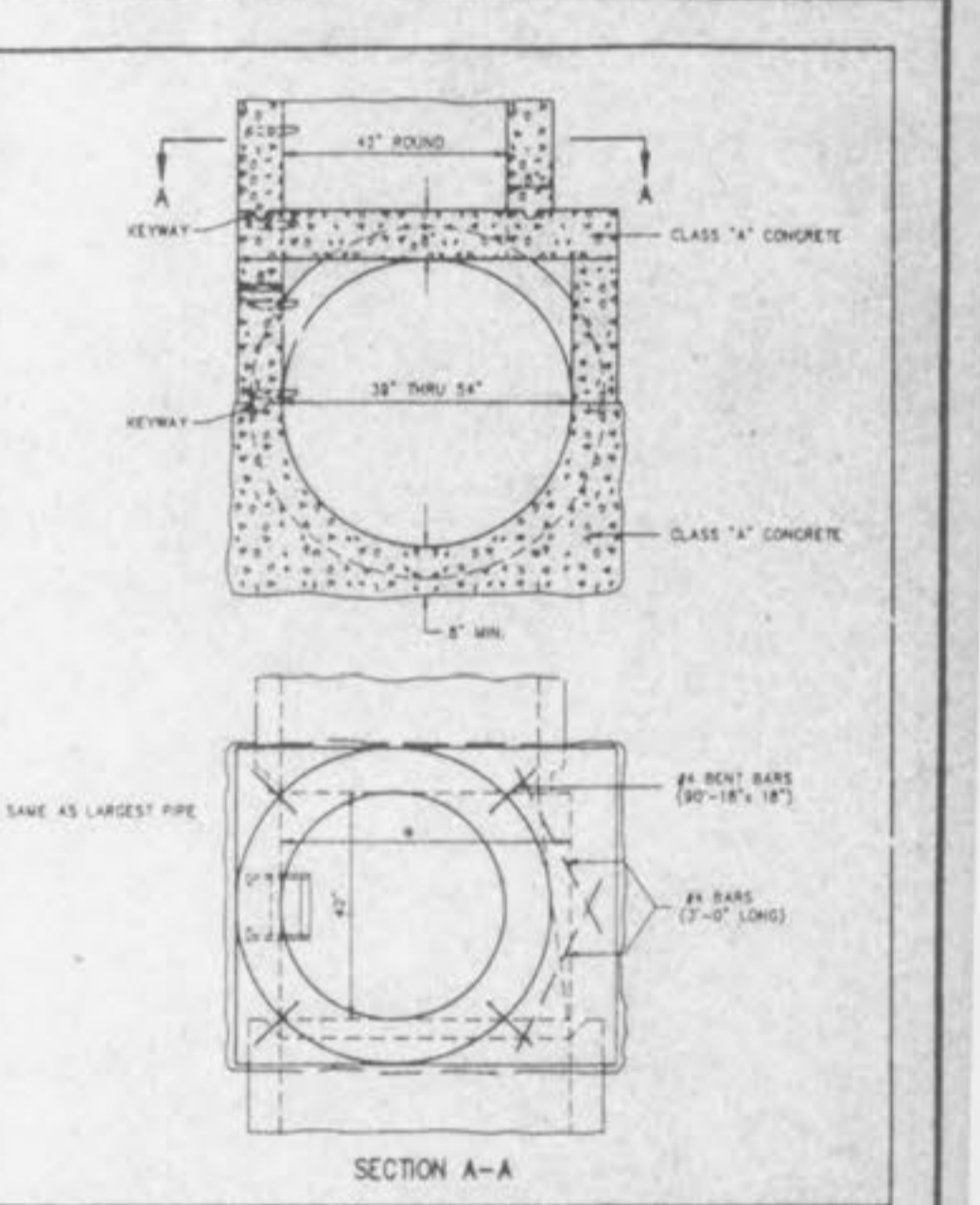
TYPICAL LINE MANHOLE
ON PIPE SEWER 27" THRU 36" IN DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 9



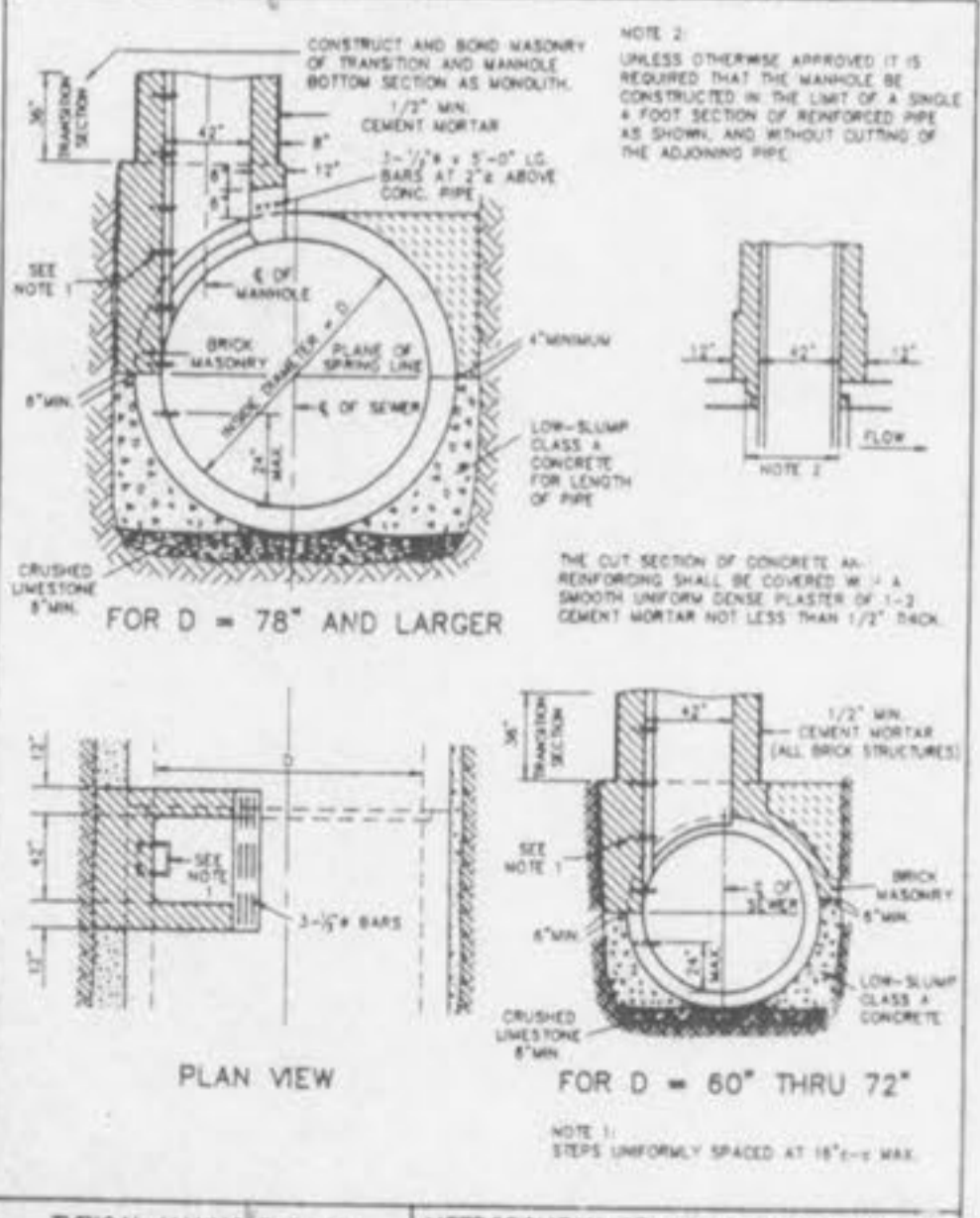
MANHOLE ON PIPE SEWER
27" THRU 36" (ALTERNATE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. D.L.A. Ch. J.C.K. 1992 SHEET 10



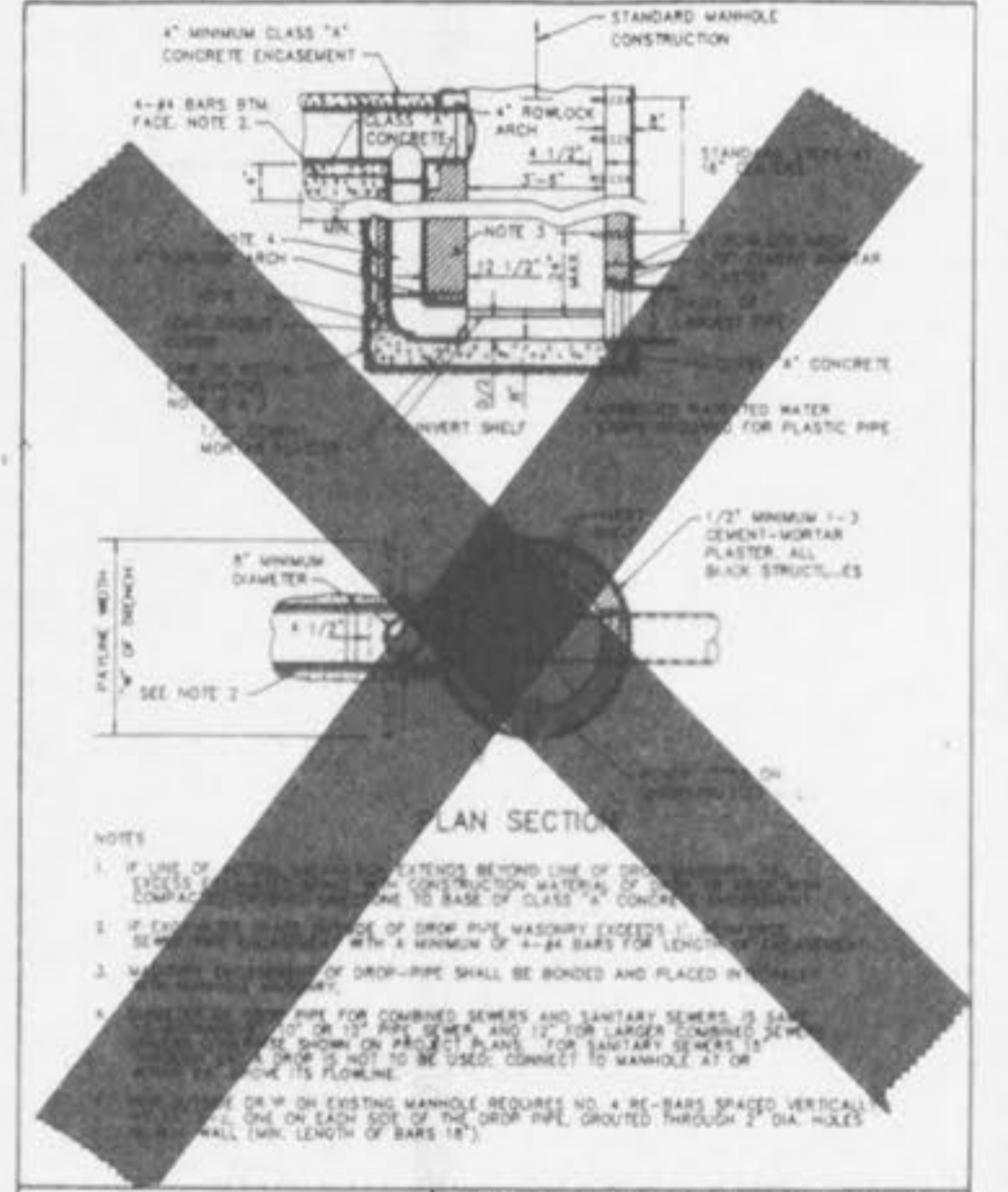
MANHOLE ON CONCRETE PIPE
SEWERS 39" THRU 54" DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 11



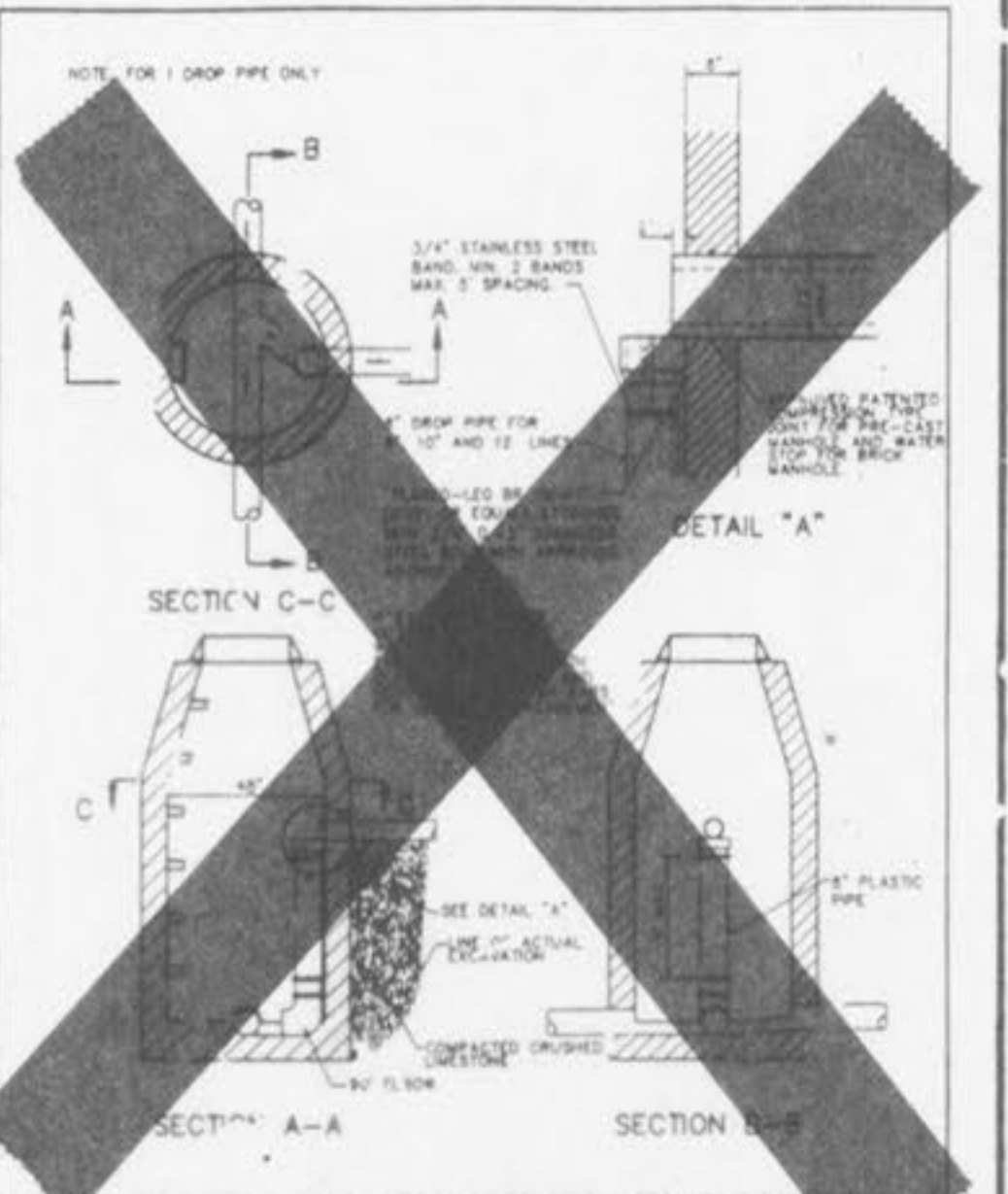
MANHOLE ON CONG. PIPE
39" THRU 54" (ALTERNATE)
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 12



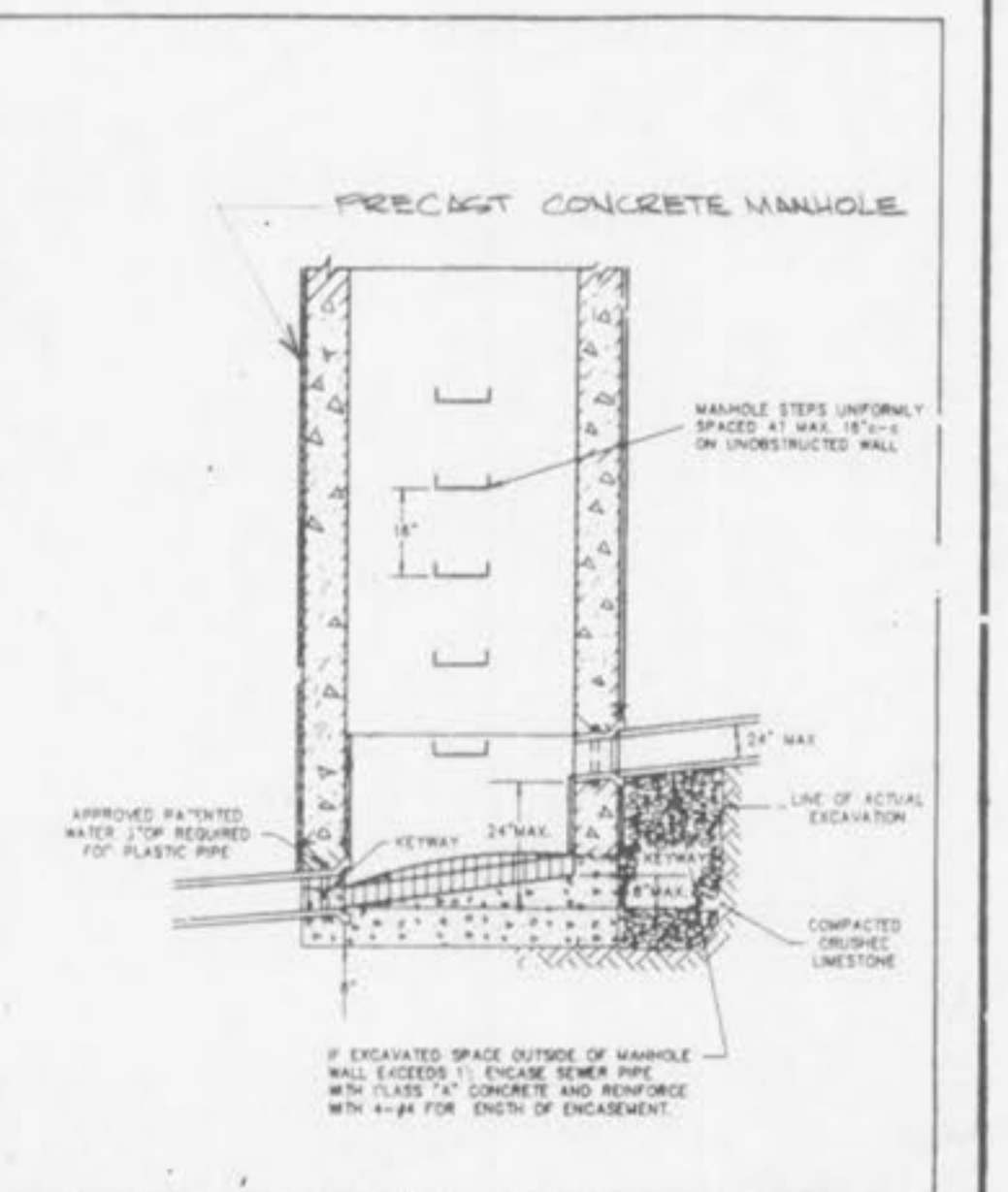
TYPICAL MANHOLE BASE
REINFORCED CONCRETE PIPE
SEWERS 60" AND LARGER
IN DIAMETER
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. 1992 SHEET 13



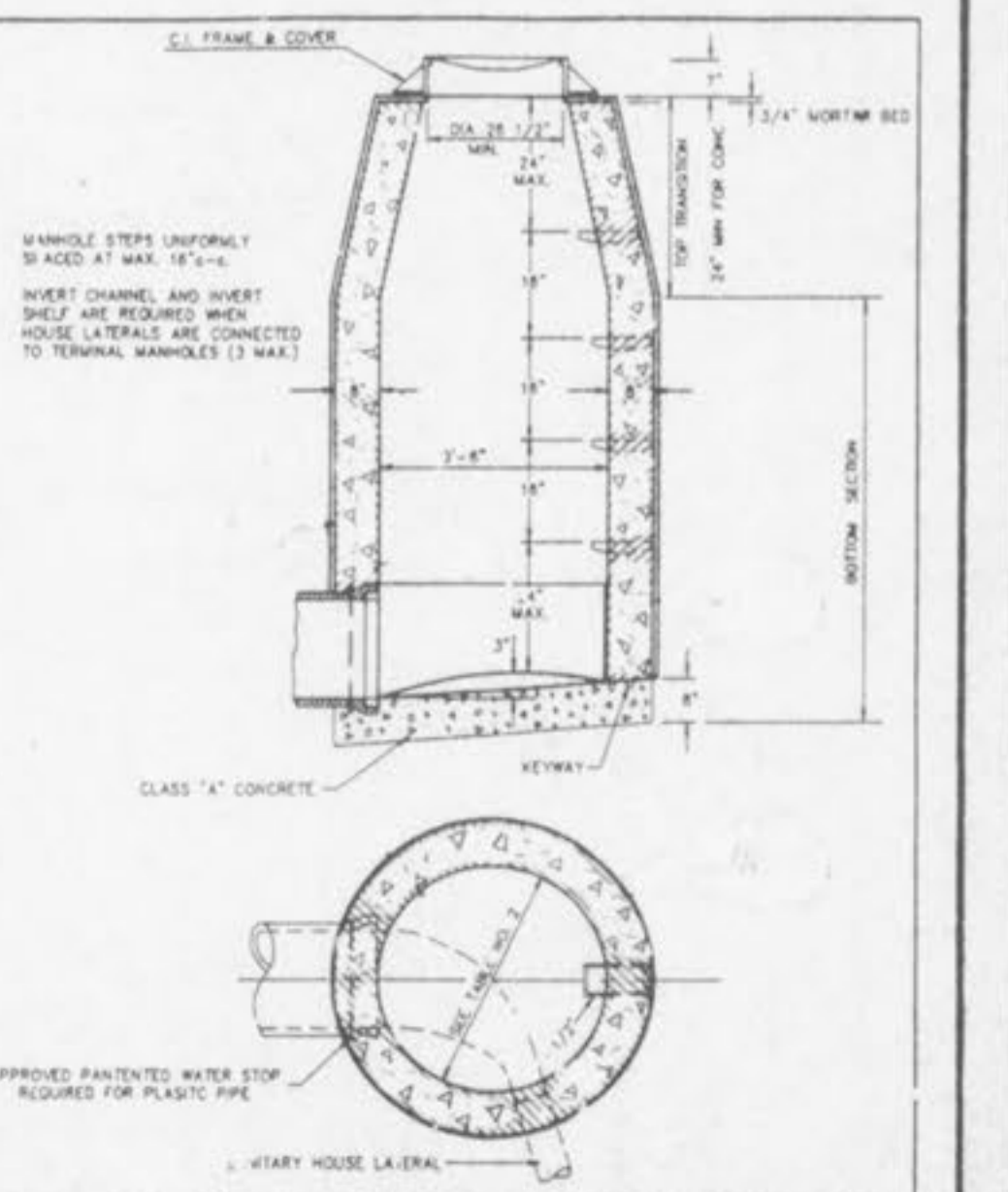
OUTSIDE FOULWATER
DROP MANHOLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. 1992 SHEET 14



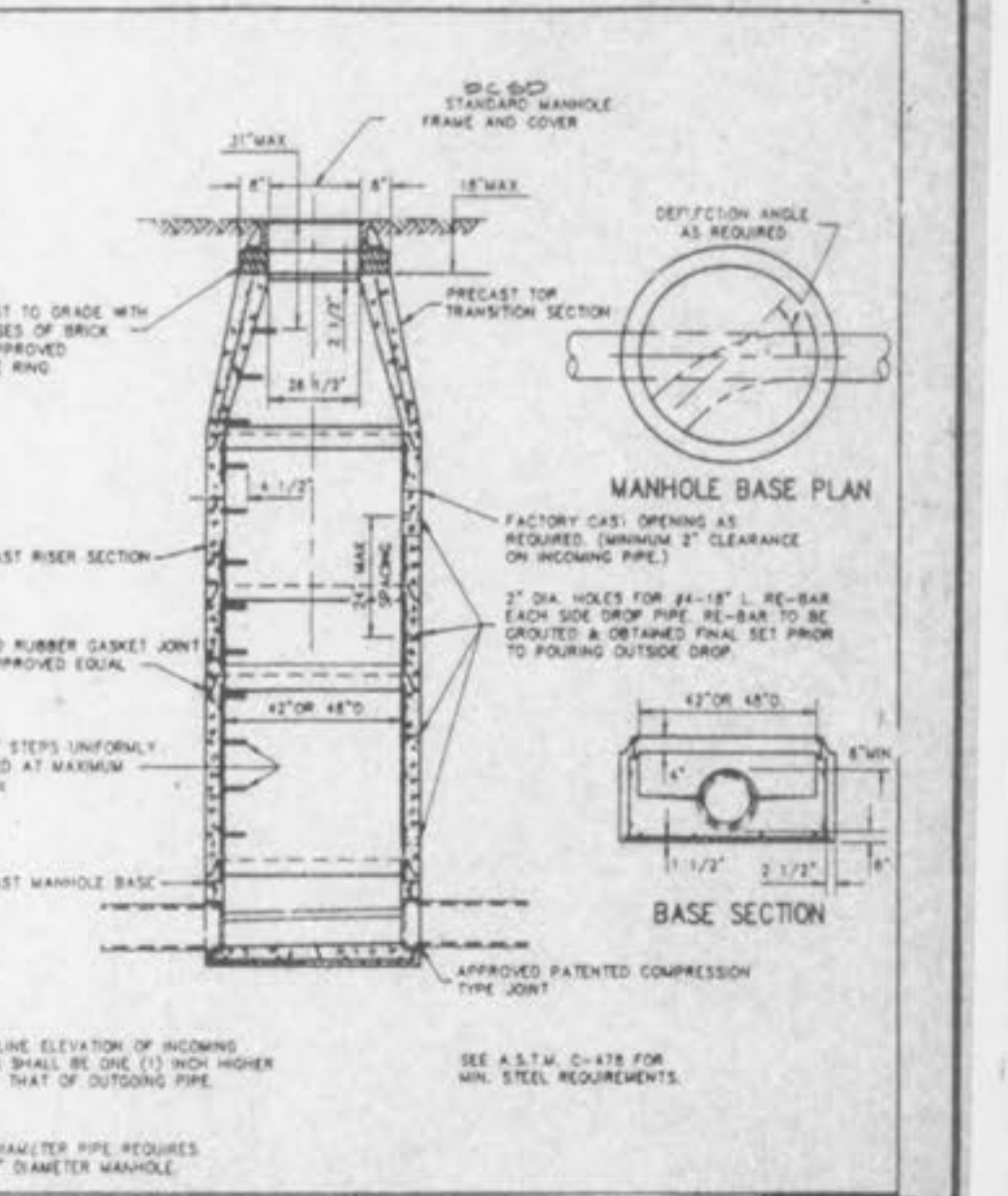
INSIDE FOULWATER
DROP MANHOLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. 1992 SHEET 15



INSIDE FOULWATER
DROP MANHOLE
SWEEP INVERT
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. R.G.W. Ch. J.C.K. 1992 SHEET 15



TERMINAL MANHOLE
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 16



PRE-CAST CONCRETE MANHOLE
FOR SEWERS
8" THROUGH 18"
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. W.S.H. Ch. J.C.K. 1992 SHEET 17

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