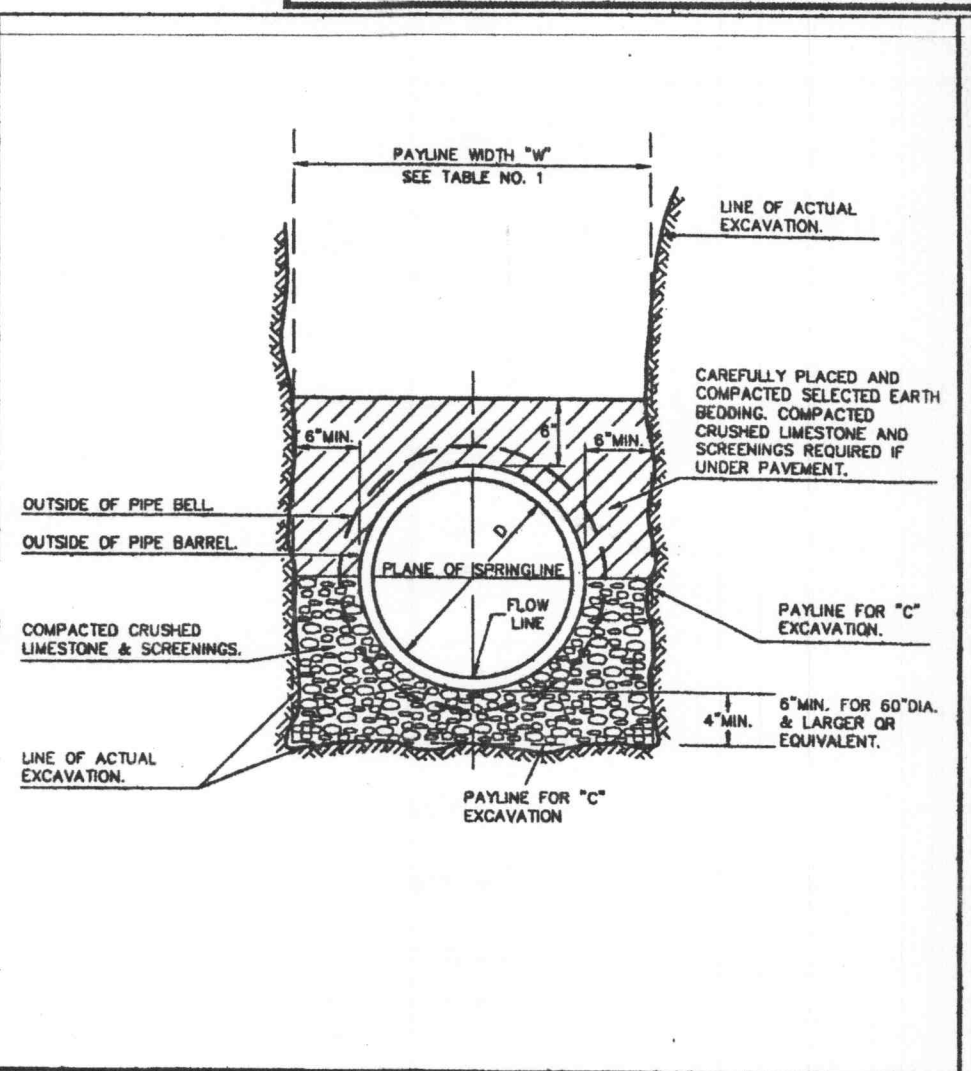
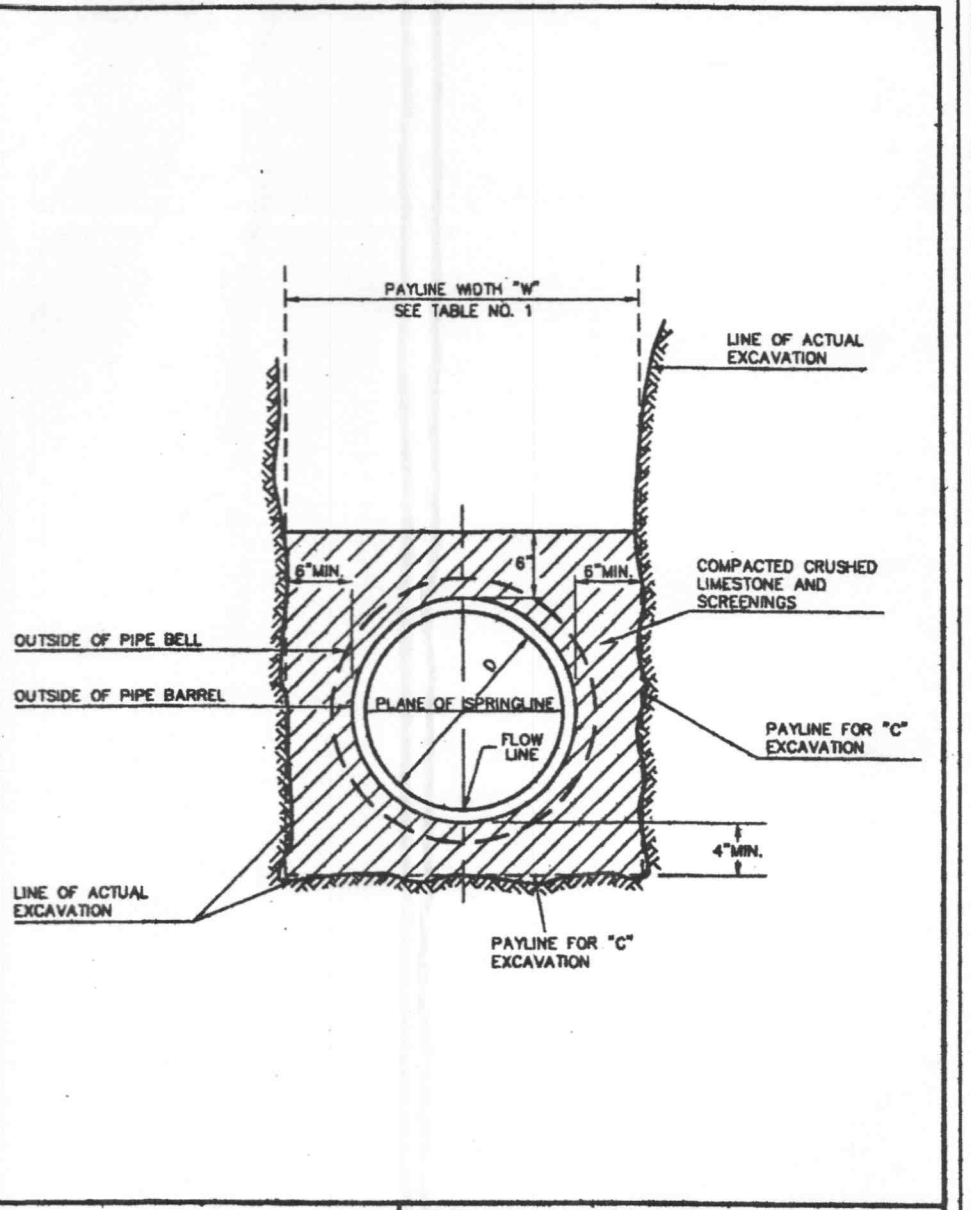


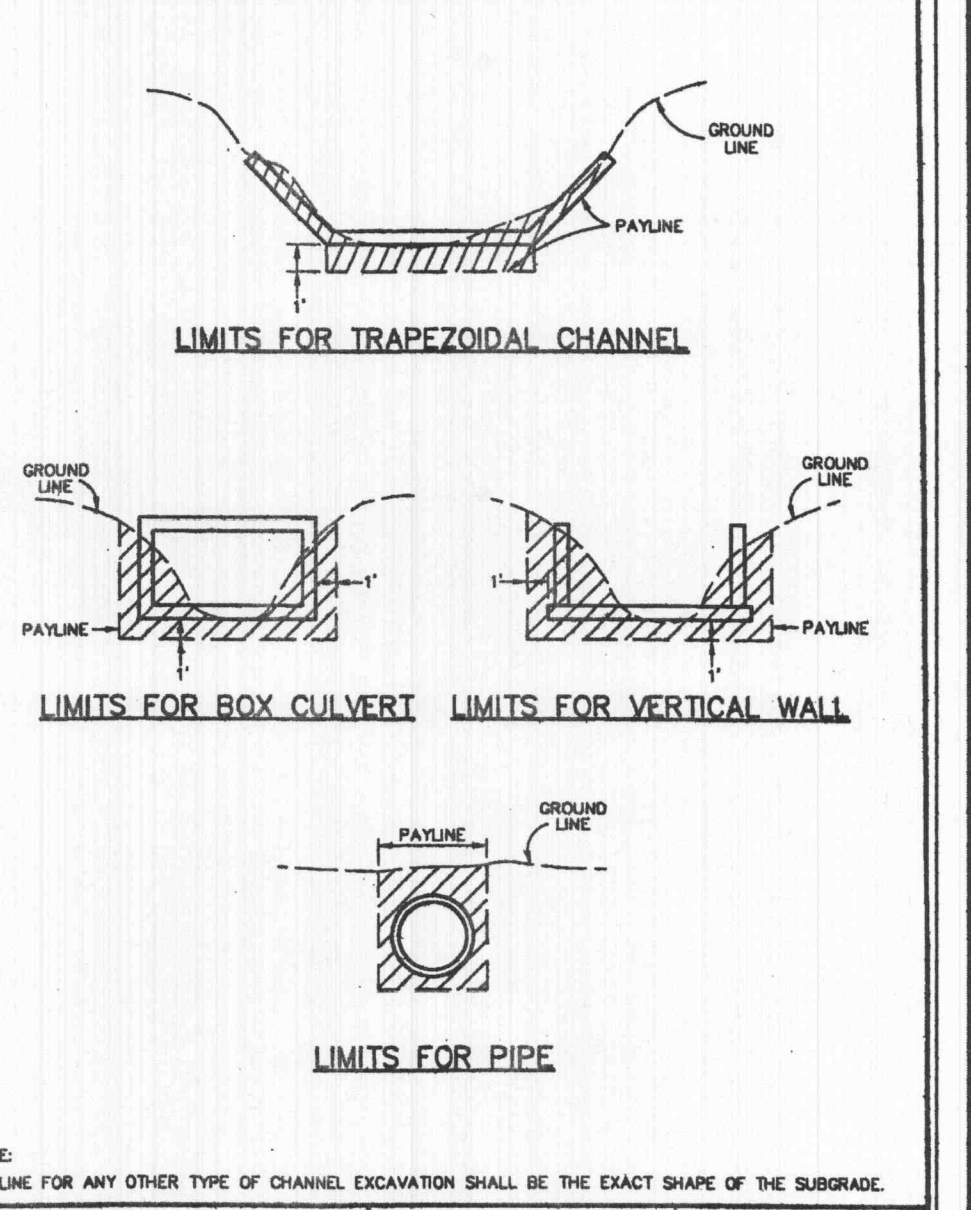
**CONSTRUCTION DETAILS**



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. 2000 SHEET 5



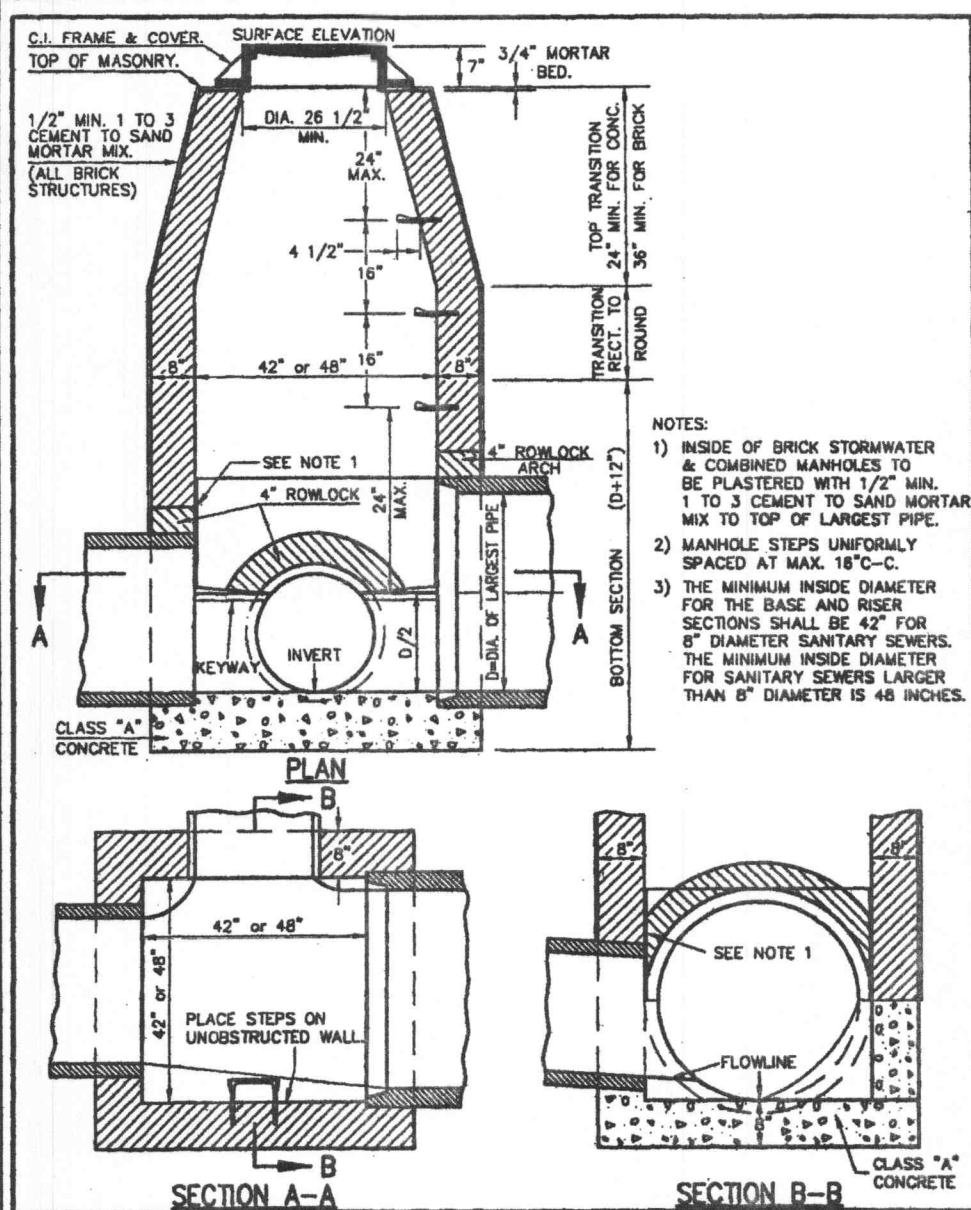
PIPE BEDDING CLASS "C" (FOR ALL PIPE EXCEPT REINFORCED CONCRETE PIPE)  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. W.S.H. Ch. J.C.K. 2000 SHEET 4



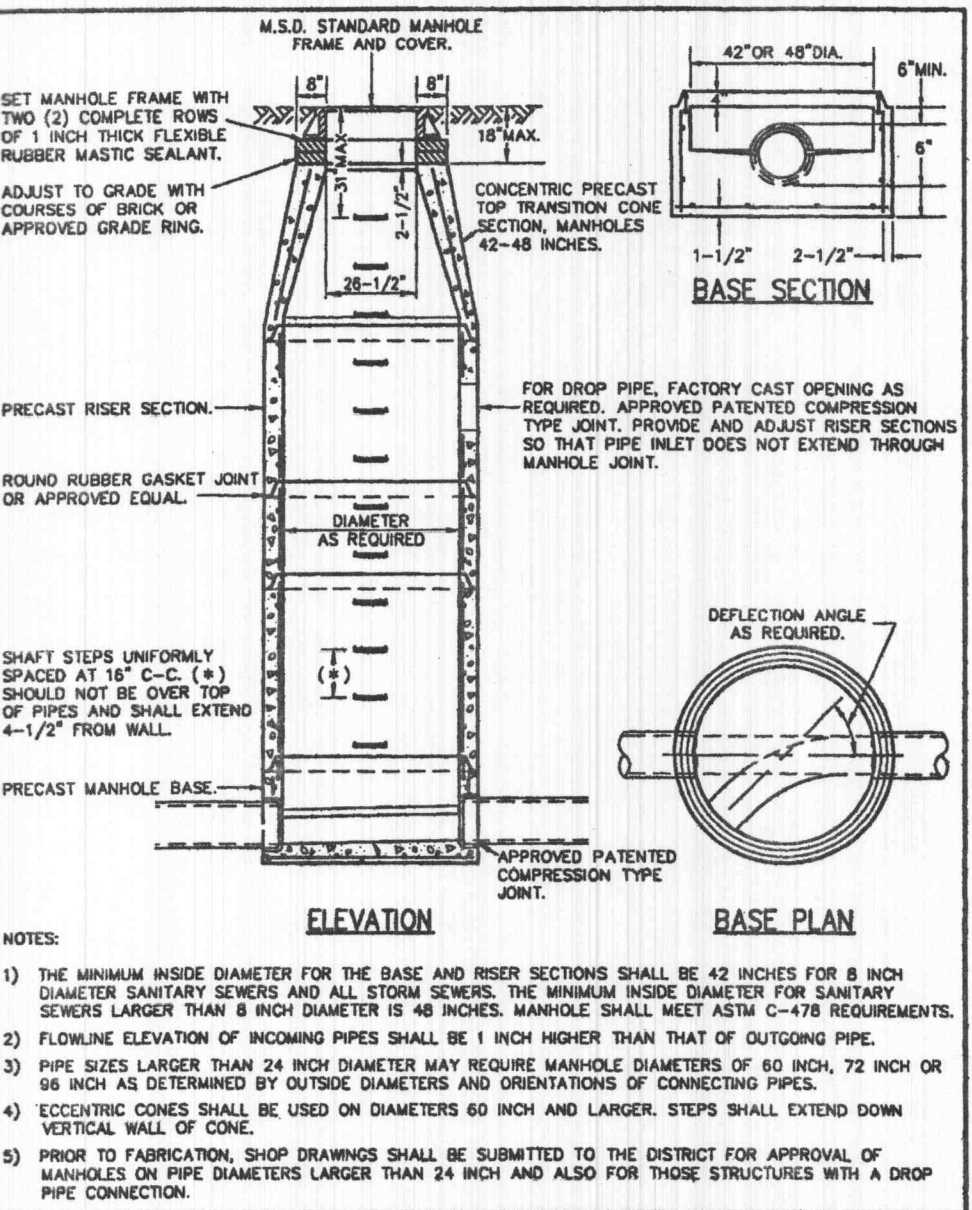
PAYLINE LIMITS FOR EXCAVATION  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. W.S.H. Ch. J.C.K. 2000 SHEET 2

ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"V" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. OF TRENCH (CONCRETE ENCASEMENT)	INSIDE DIAMETER OF PIPE (INCHES)	"W" PAYLINE WIDTH OF TRENCH (INCHES)	"V" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. OF TRENCH (CONCRETE ENCASEMENT)
4	30	2.90	3.28				
6	30	2.90	3.58				
8	30	2.90	3.87				
10	30	2.90	4.08				
12	30	2.90	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	45	3.75	8.18	22 x 34	53	4.42	8.61
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
CONTINUED							
39	63	5.25	13.38	32 x 48	71	6.02	13.14
42	63	5.25	13.38	34 x 53	75	6.25	14.05
48	70	5.83	15.67	36 x 60	83	6.92	16.18
54	77	6.42	18.16	45 x 68	92	7.67	18.81
60	84	7.00	20.73	48 x 78	101	8.42	21.59
66	91	7.58	23.45	53 x 83	108	9.08	24.25
72	98	8.17	26.37	58 x 91	116	9.83	27.45
78	105	8.75	29.39	63 x 98	128	10.50	30.50
84	112	9.33	32.57	68 x 108	135	11.25	33.91
90	119	9.92	35.80	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	42.99	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	50.66	92 x 143	178	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 168	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	18.17	73.58

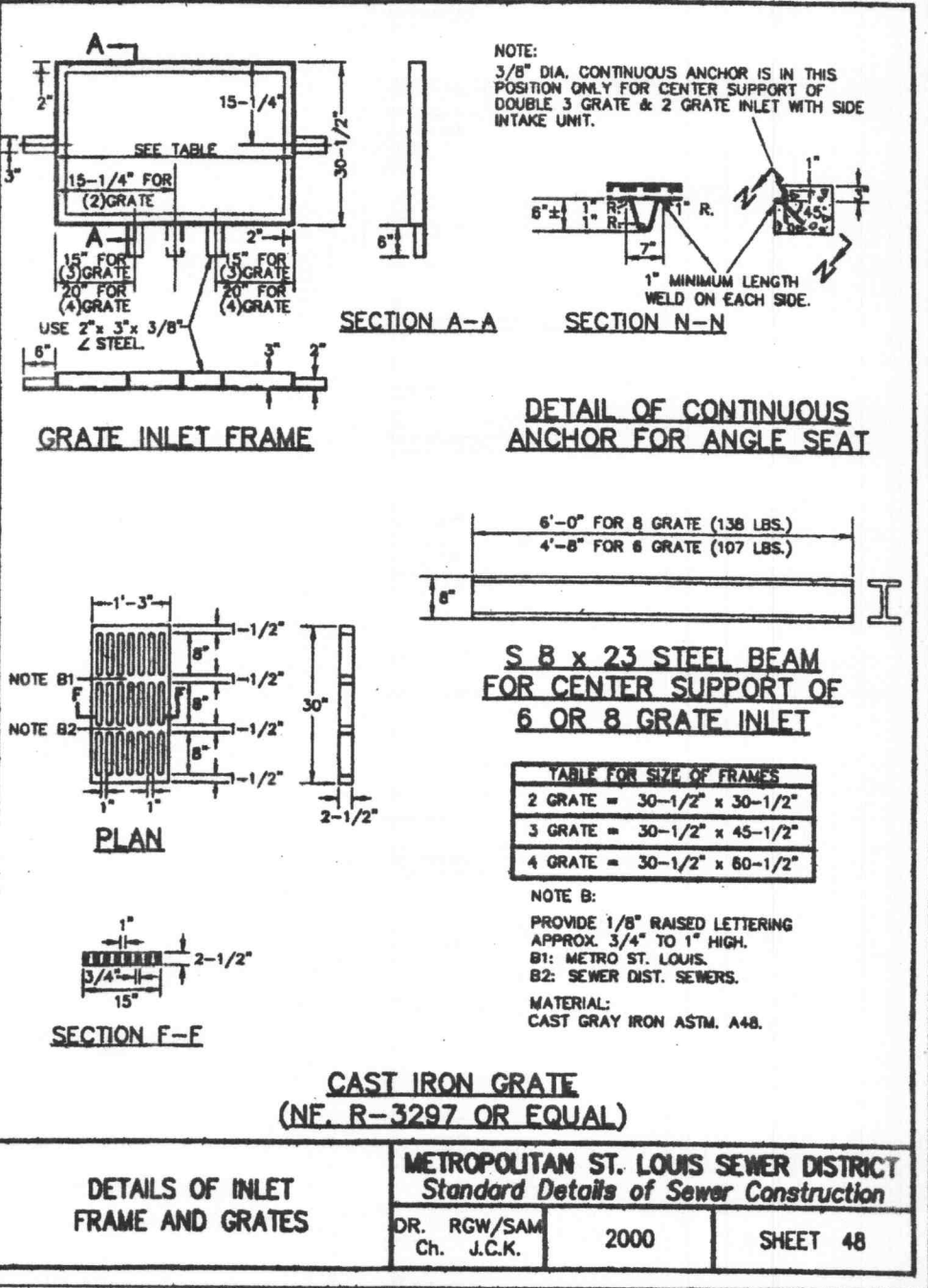
TABLE 1  
 PAYLINE WIDTHS OF TRENCH AND PAY-QUANTITIES OF CONCRETE  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. B.E.B. Ch. J.C.K. 2000 SHEET 1



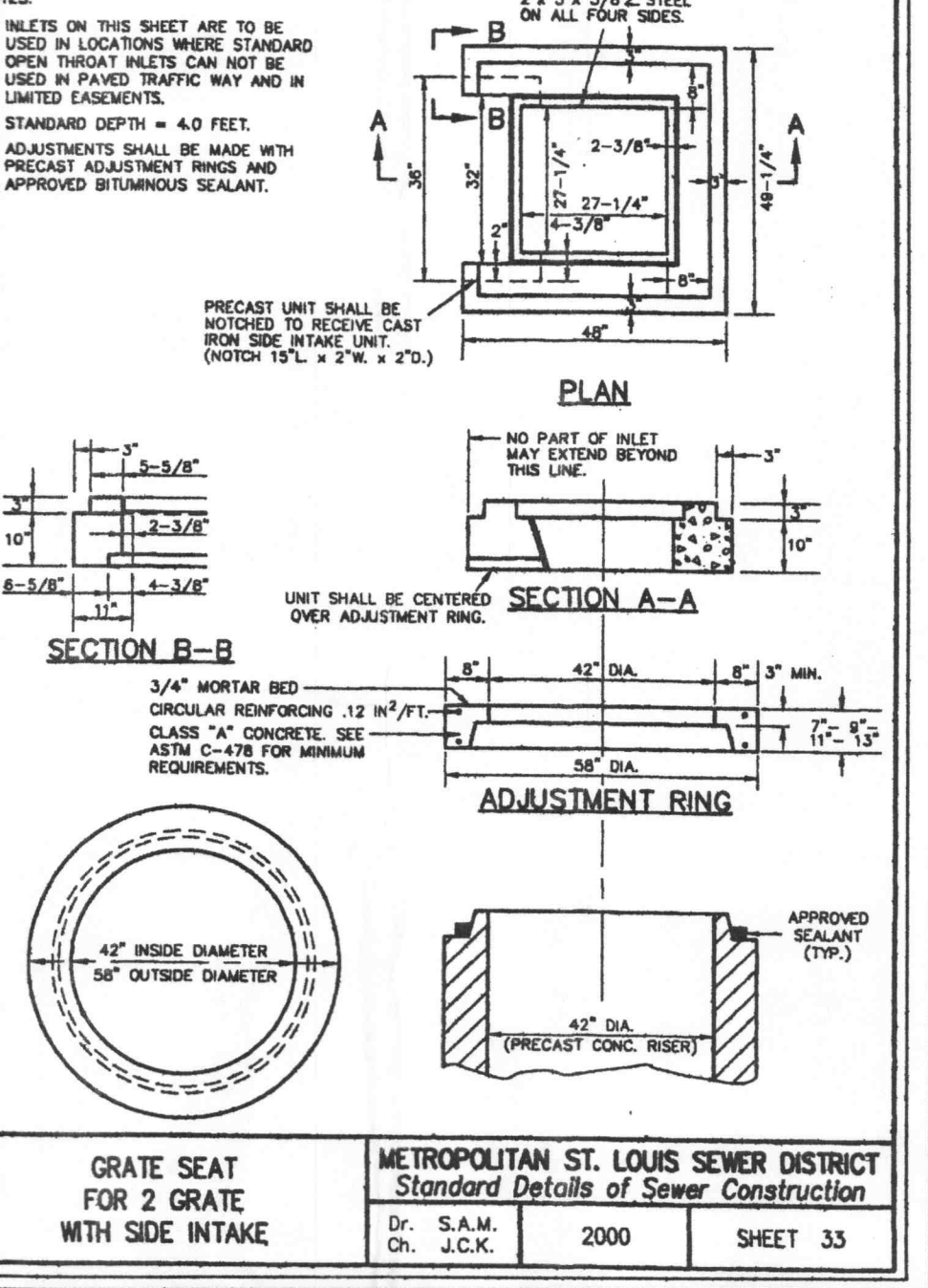
TYPICAL LINE MANHOLE ON PIPE SEWER 27 THRU 42" IN DIAMETER  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. W.S.H./SAM Ch. J.C.K. 2000 SHEET 11



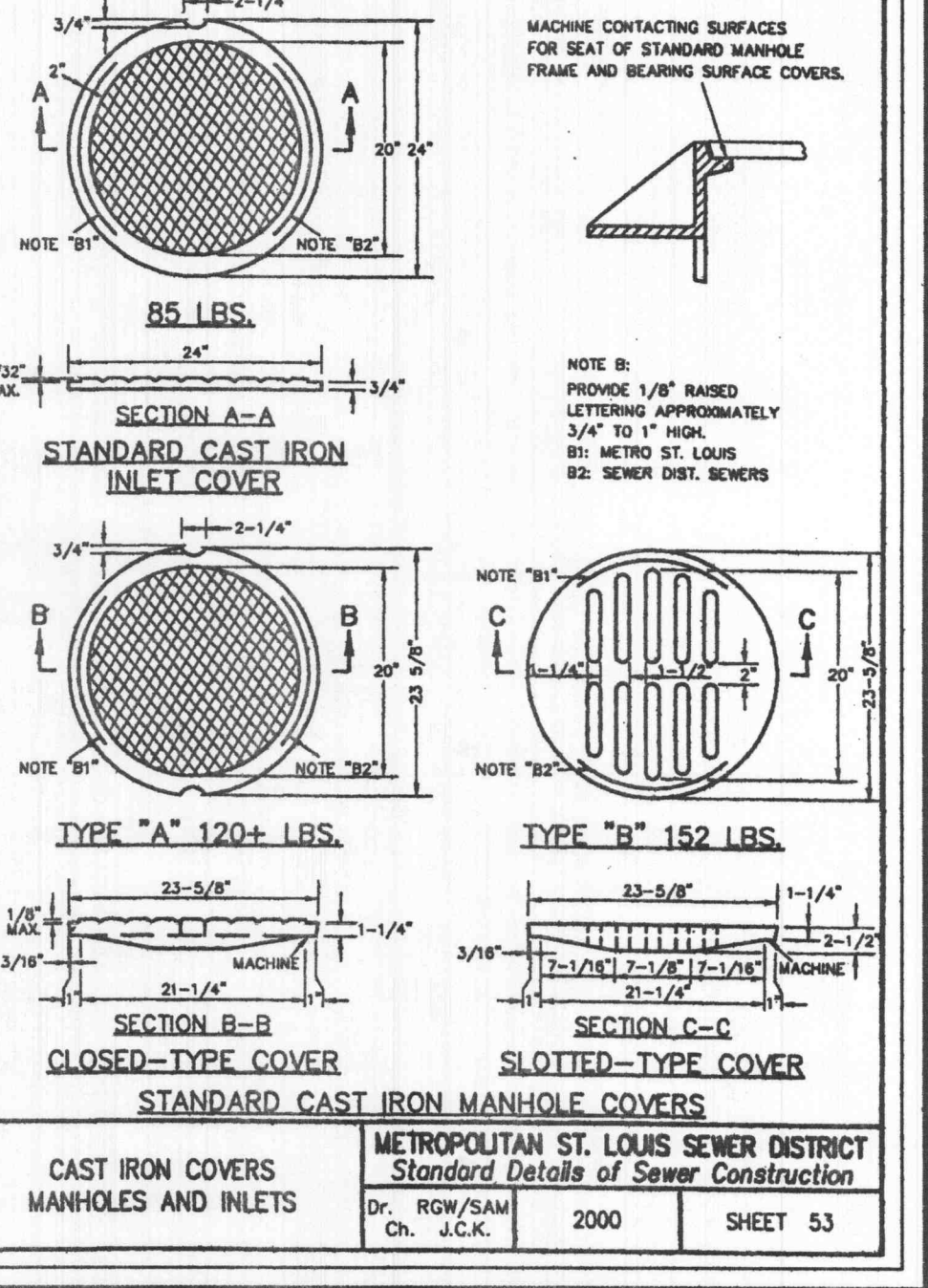
PRECAST CONCRETE MANHOLE  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. W.S.H./SAM Ch. J.C.K. 2000 SHEET 21



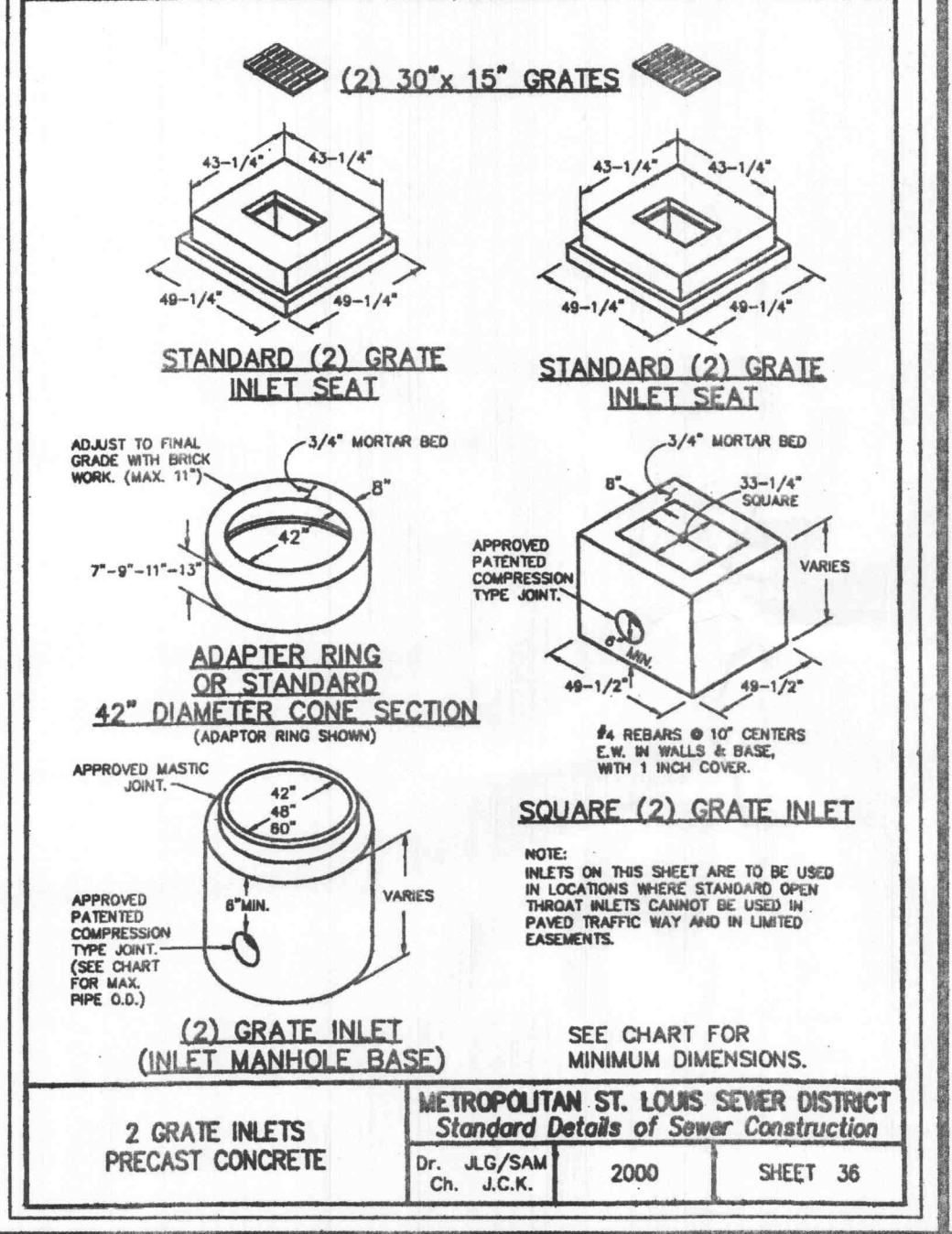
DETAILS OF INLET FRAME AND GRATES  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. R.W./SAM Ch. J.C.K. 2000 SHEET 48



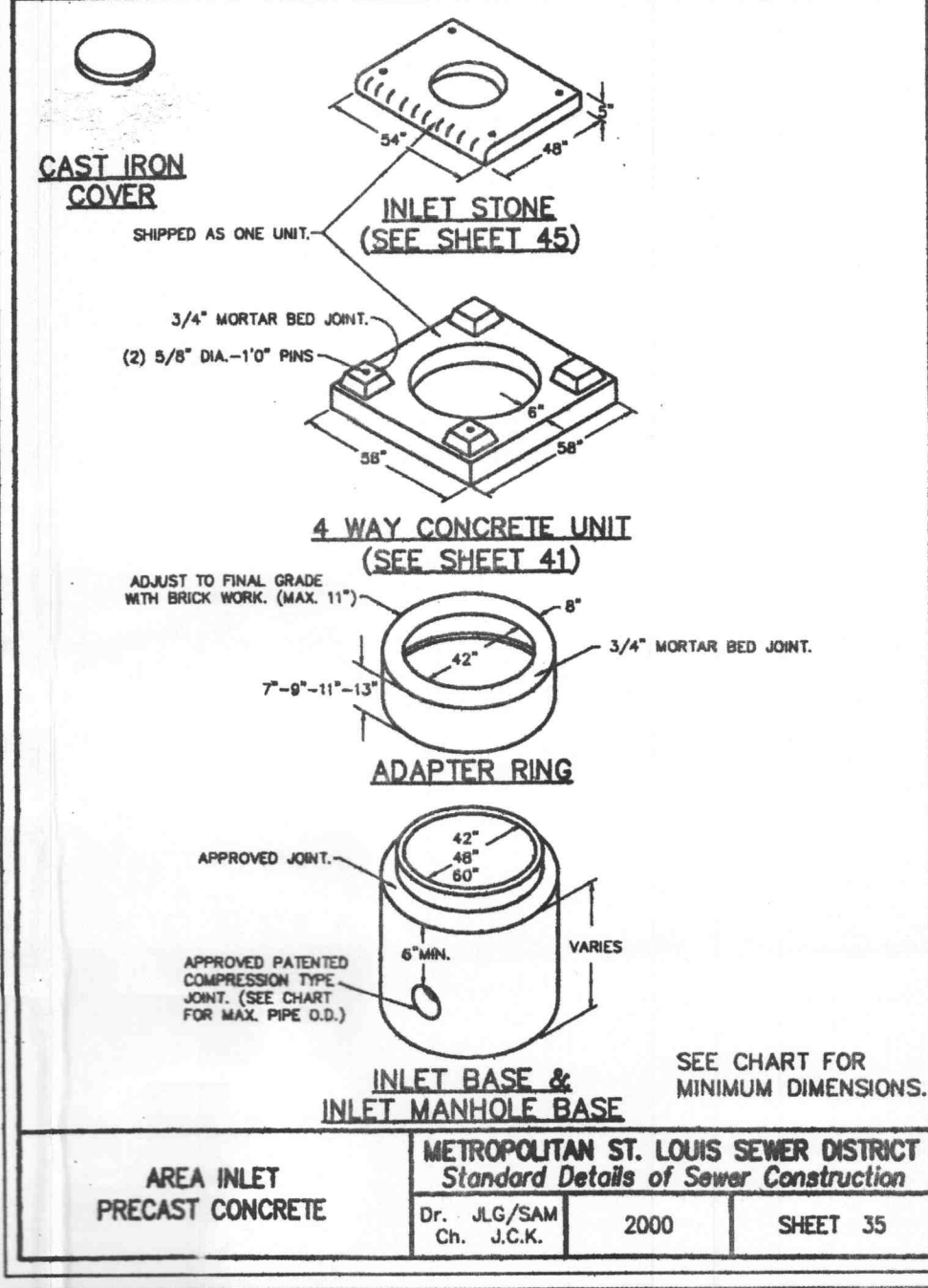
GRATE SEAT FOR 2 GRATE WITH SIDE INTAKE  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. S.A.M. Ch. J.C.K. 2000 SHEET 35



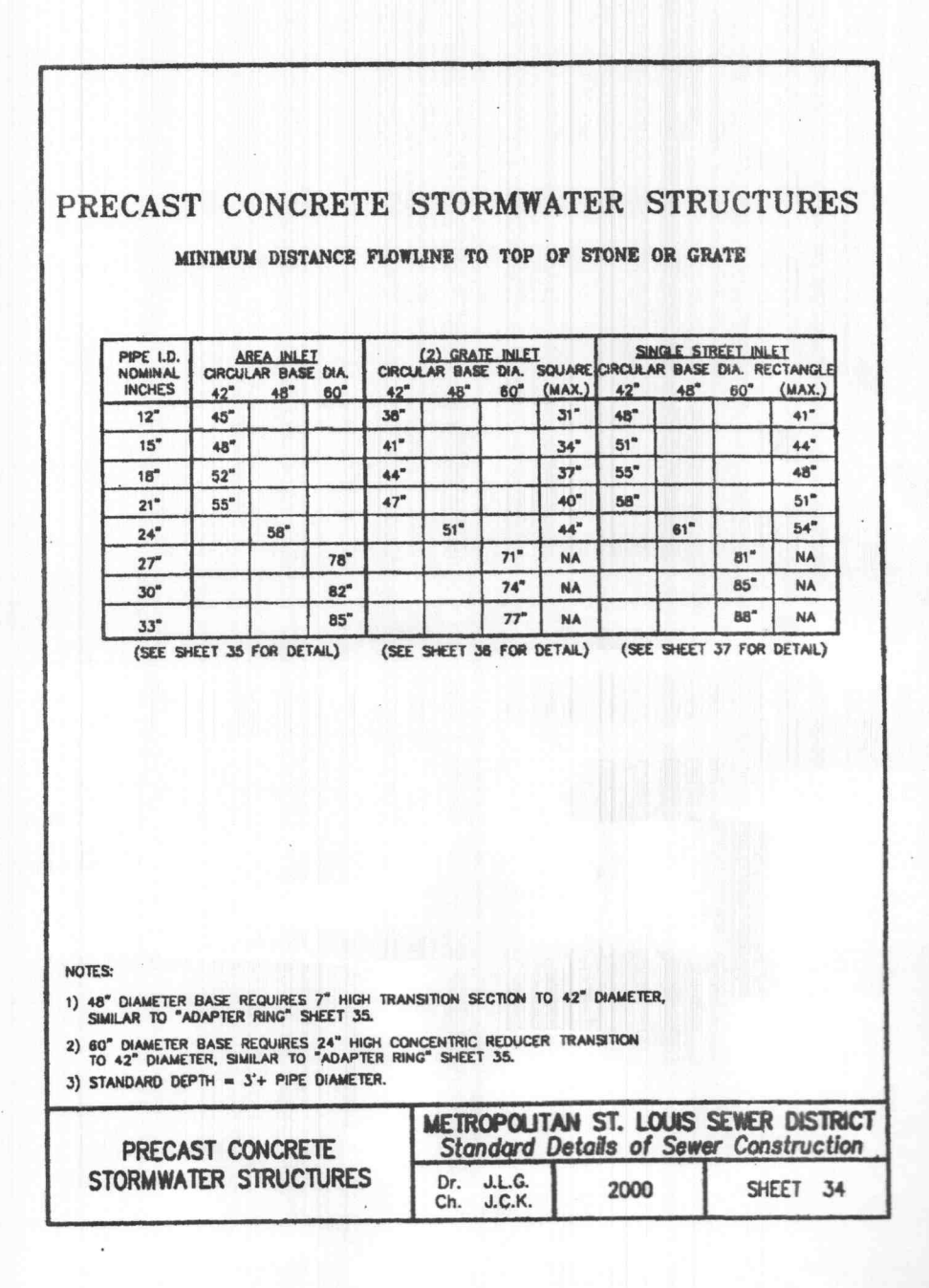
CAST IRON COVERS MANHOLES AND INLETS  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. R.W./SAM Ch. J.C.K. 2000 SHEET 53



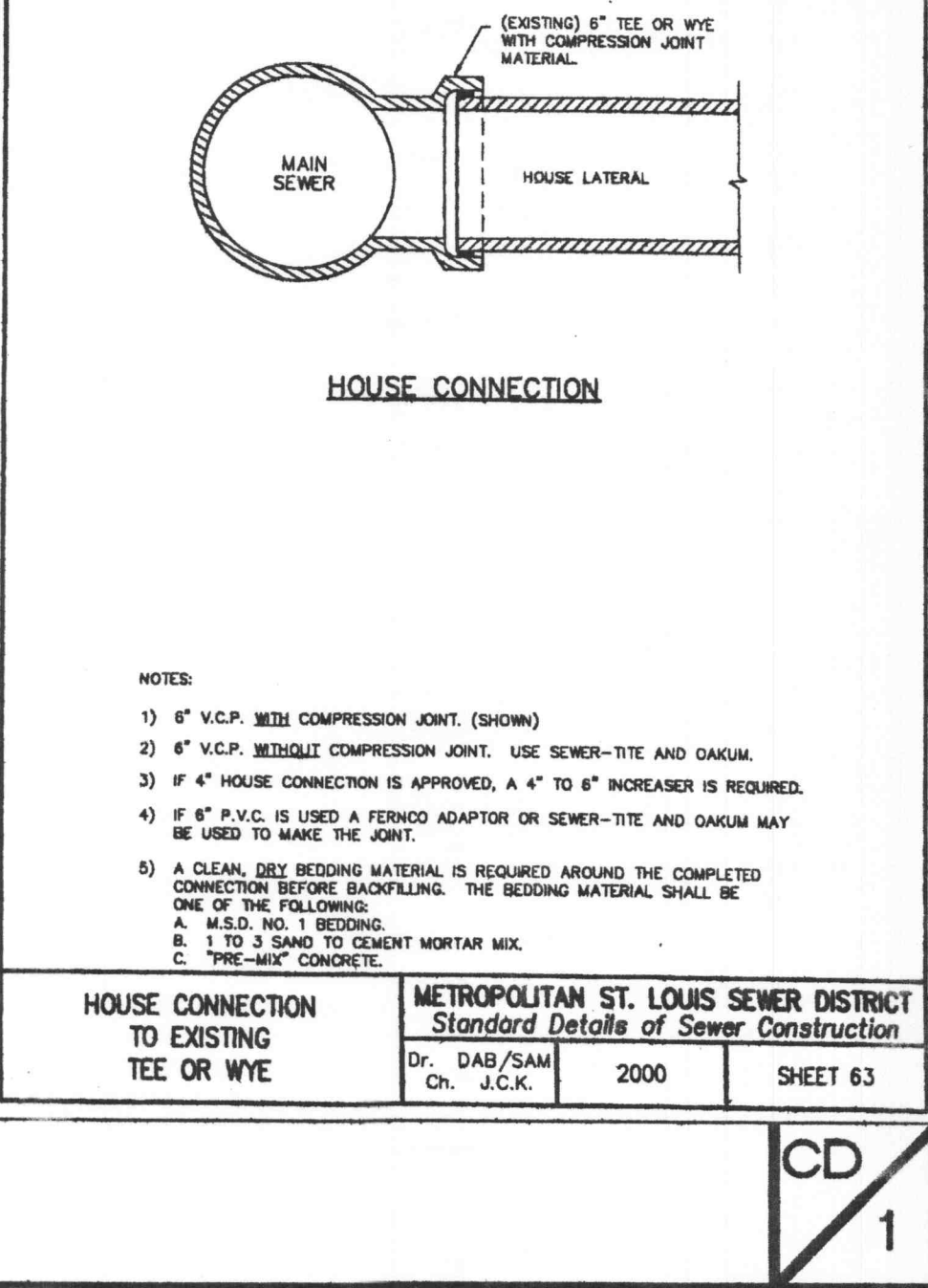
2 GRATE INLETS PRECAST CONCRETE  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. J.G./SAM Ch. J.C.K. 2000 SHEET 36



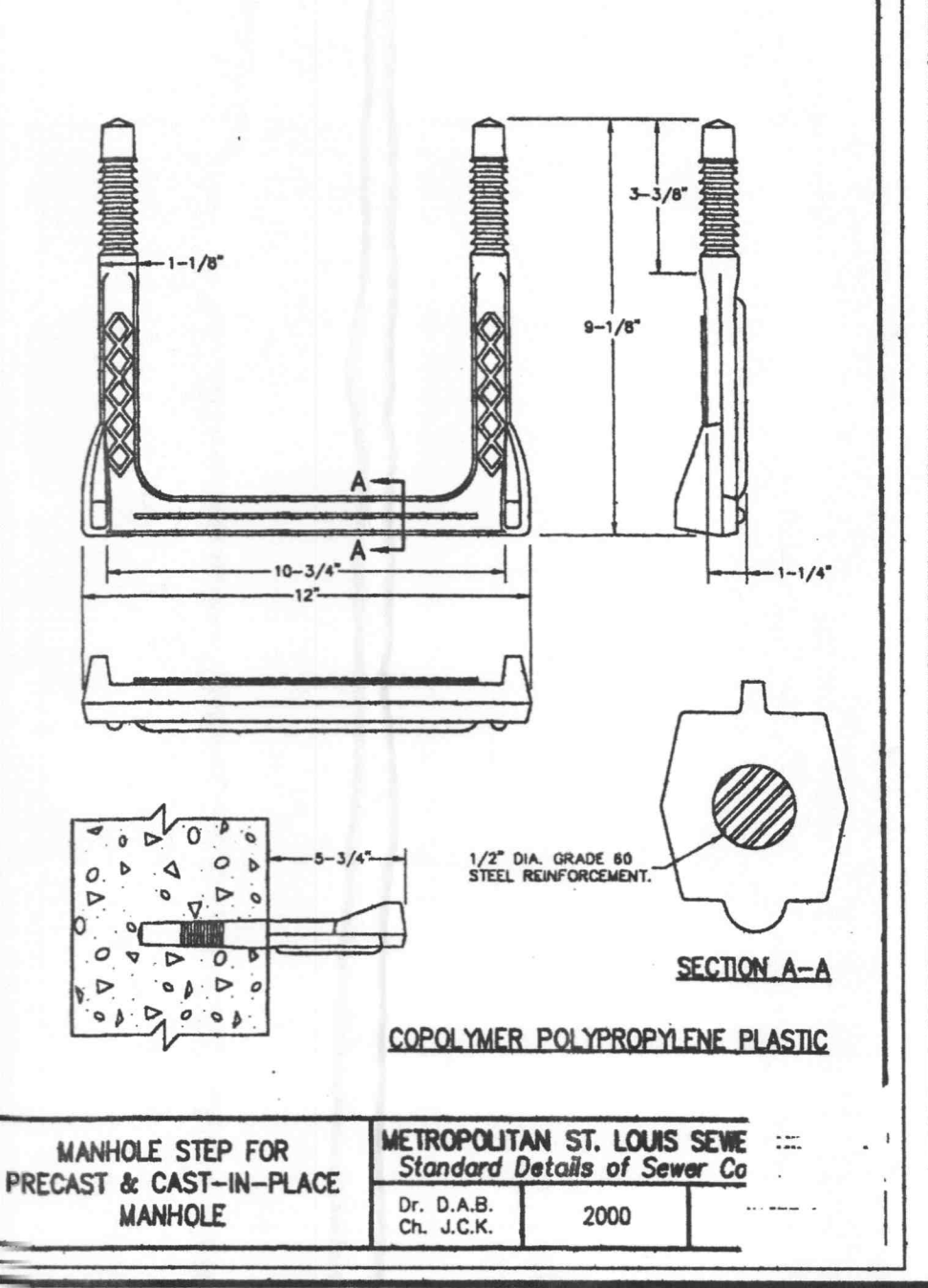
CAST IRON COVER  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. J.G./SAM Ch. J.C.K. 2000 SHEET 35



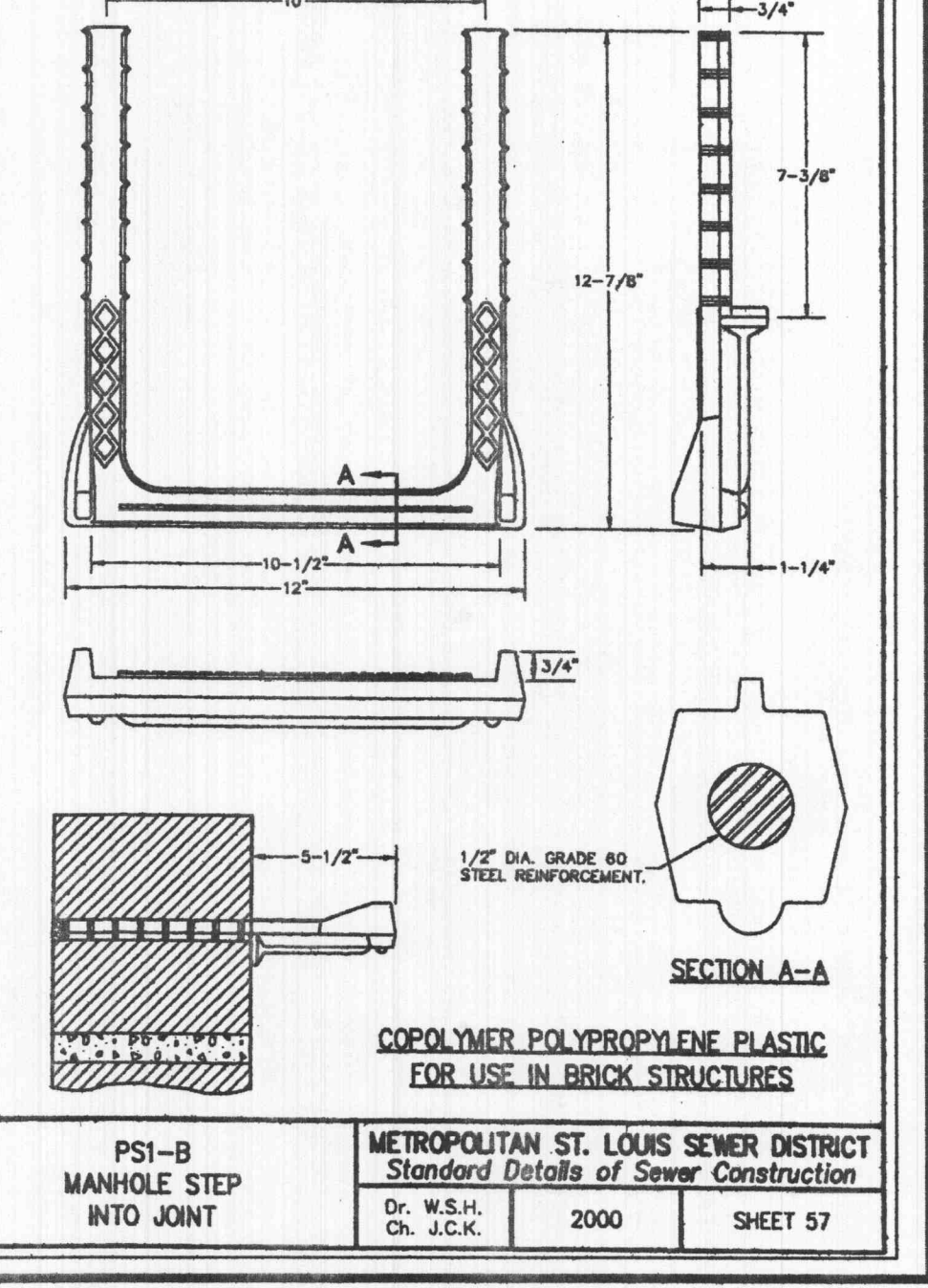
PRECAST CONCRETE STORMWATER STRUCTURES  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. J.G. Ch. J.C.K. 2000 SHEET 34



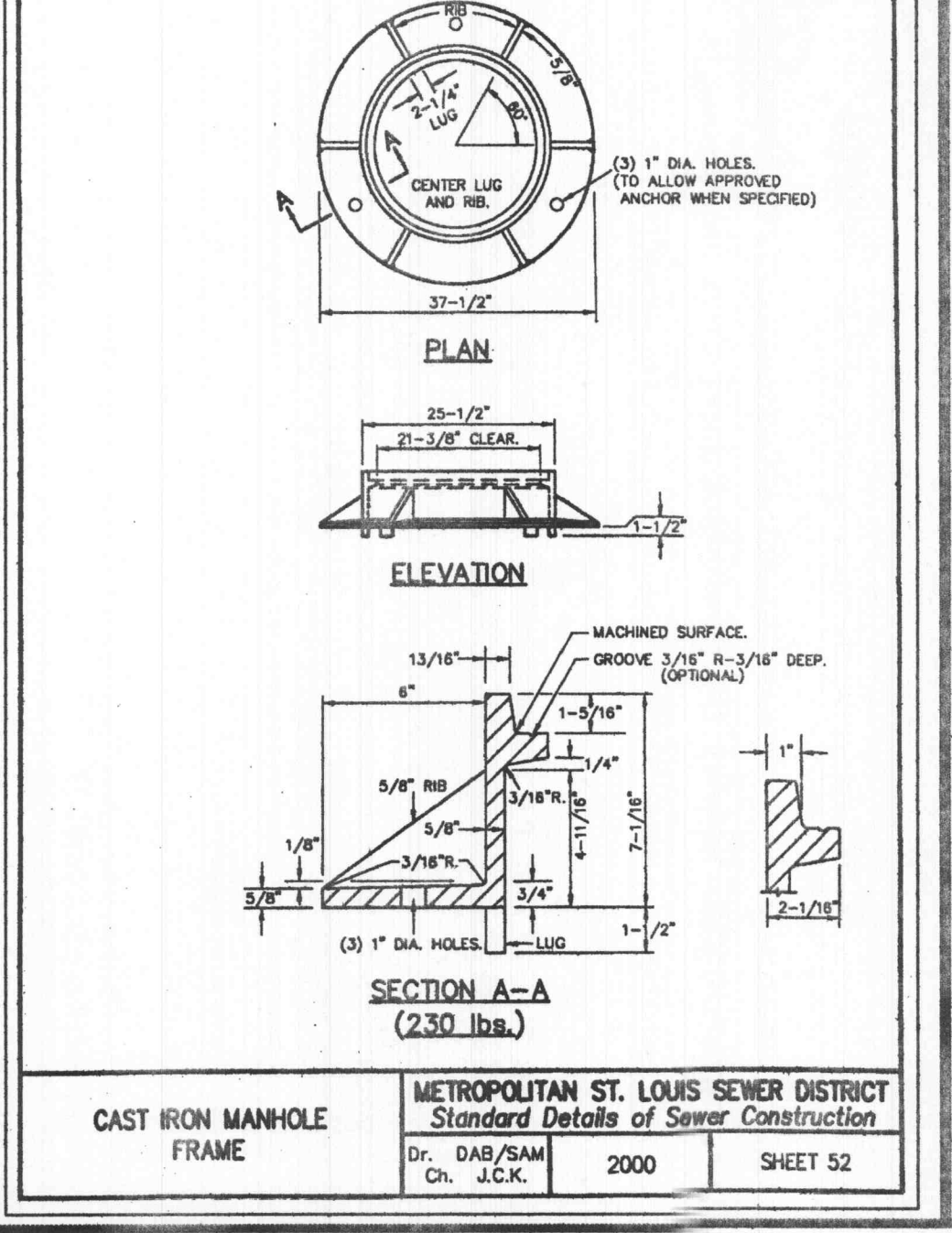
HOUSE CONNECTION TO EXISTING TEE OR WYE  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. D.A.B./SAM Ch. J.C.K. 2000 SHEET 63



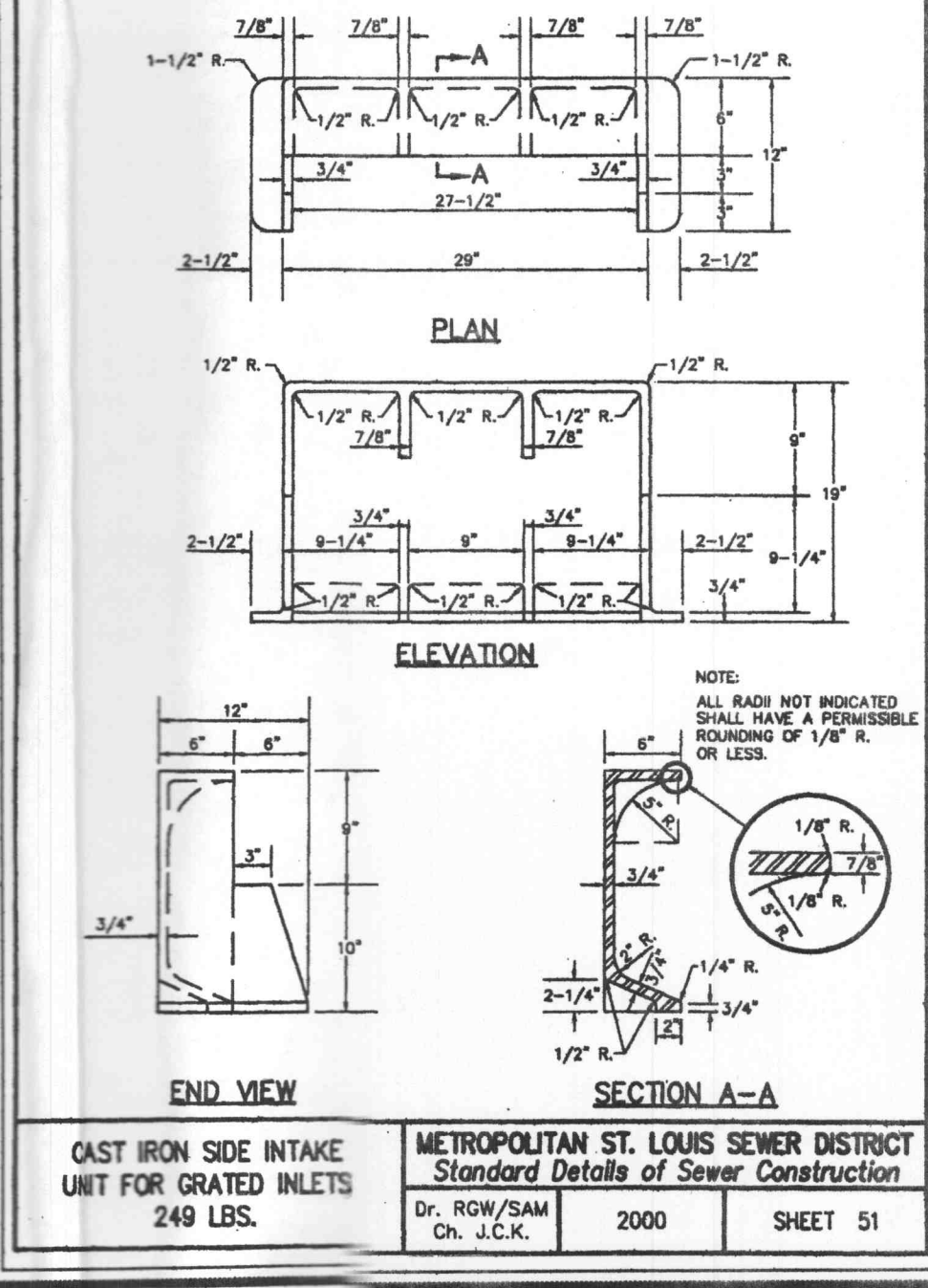
MANHOLE STEP FOR PRECAST & CAST-IN-PLACE MANHOLE  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. W.S.H. Ch. J.C.K. 2000 SHEET 57



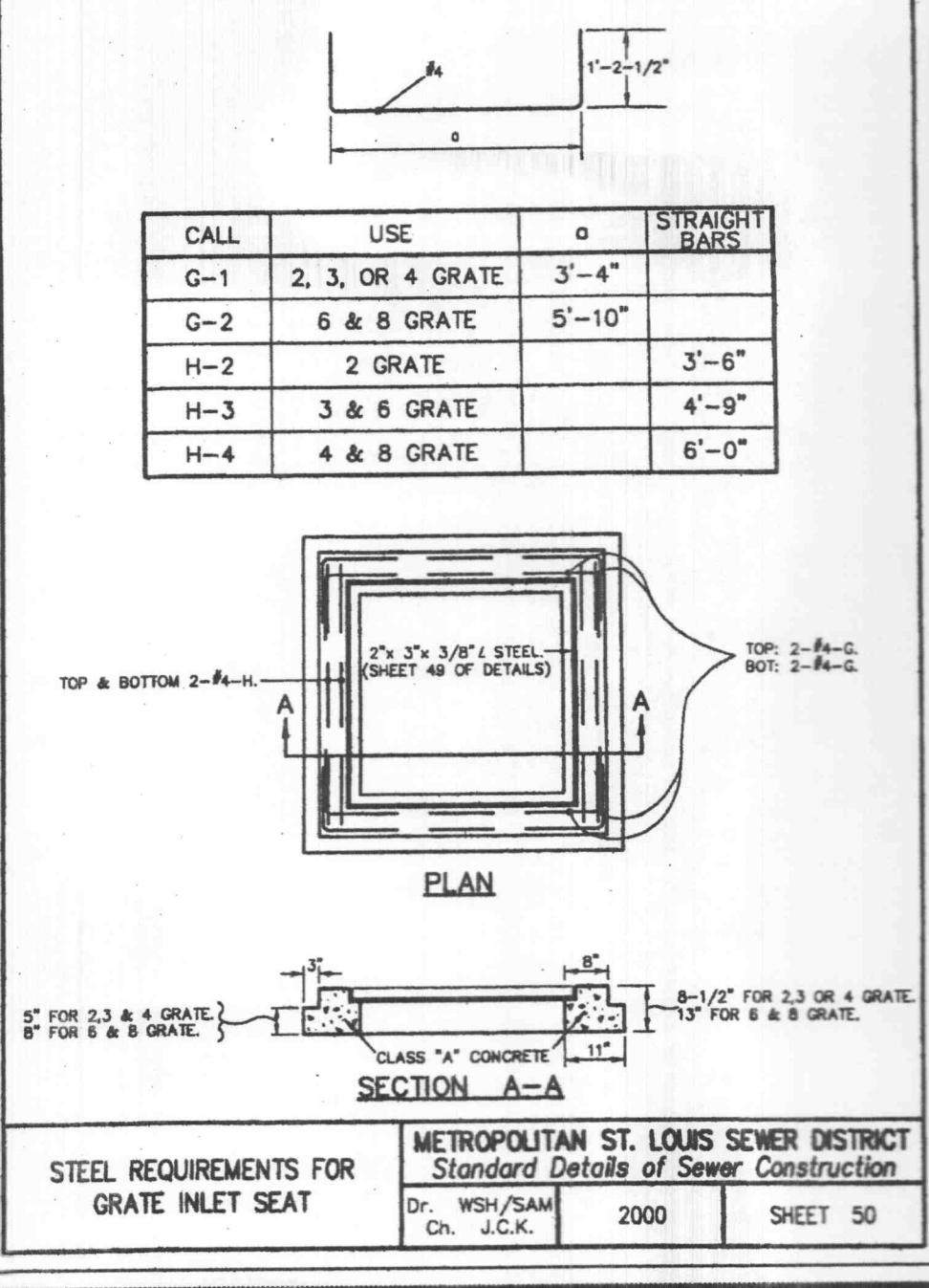
PSI-B MANHOLE STEP INTO JOINT  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. W.S.H. Ch. J.C.K. 2000 SHEET 57



CAST IRON MANHOLE FRAME  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
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CAST IRON SIDE INTAKE UNIT FOR GRATED INLETS 249 LBS.  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. R.W./SAM Ch. J.C.K. 2000 SHEET 51



STEEL REQUIREMENTS FOR GRATE INLET SEAT  
 METROPOLITAN ST. LOUIS SEWER DISTRICT  
 Standard Details of Sewer Construction  
 Dr. W.S.H./SAM Ch. J.C.K. 2000 SHEET 50