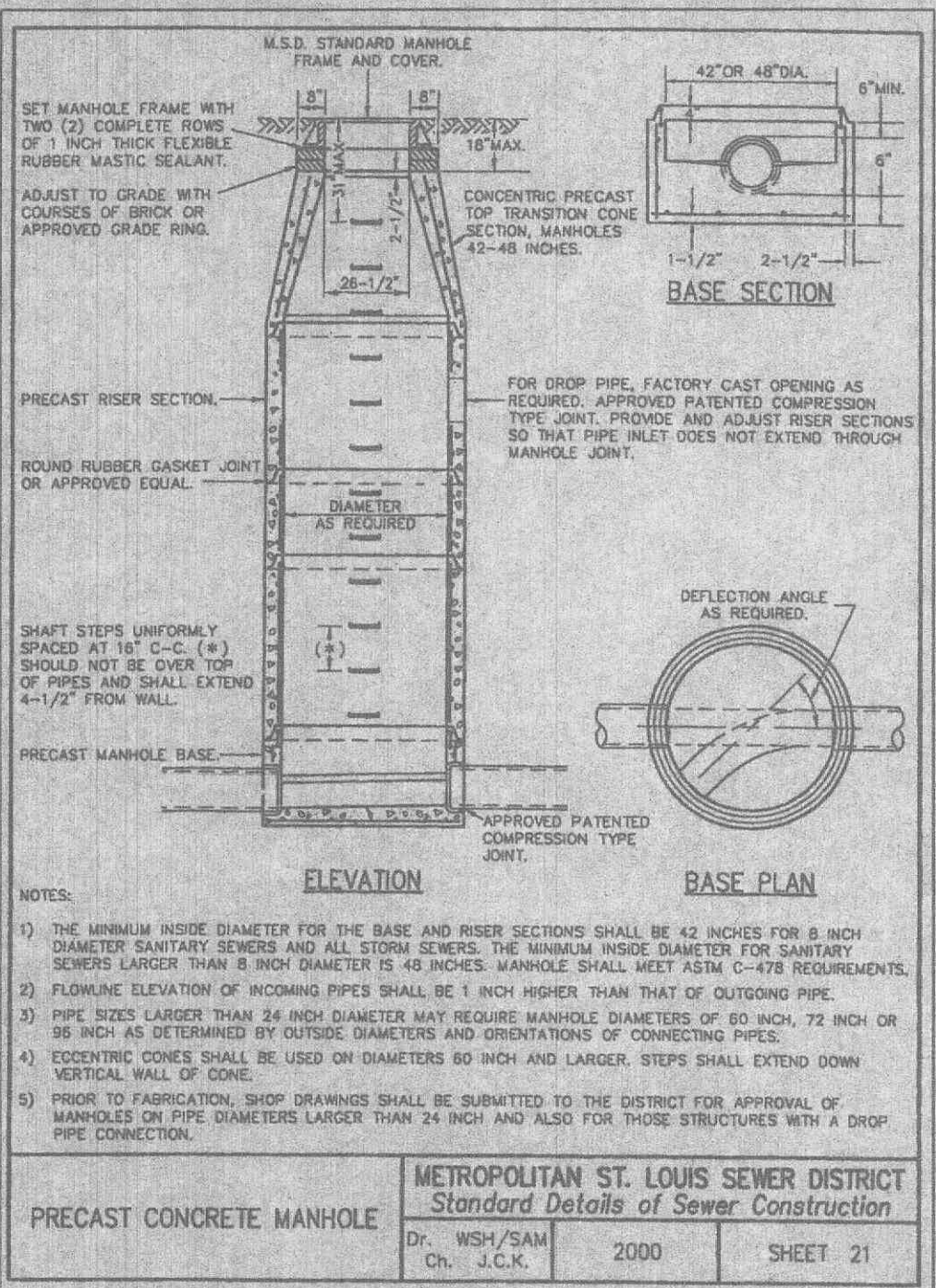


ROUND PIPE				HORIZONTAL ELLIPTICAL PIPE			
INSIDE DIAMETER OF PIPE (INCHES)	"4" PAYLINE WIDTH OF TRENCH (INCHES)	"6" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. OF TRENCH	INSIDE DIMENSIONS OF PIPE (INCHES)	"4" PAYLINE WIDTH OF TRENCH (INCHES)	"6" PAYLINE WIDTH OF TRENCH (FEET)	PAY-VOLUMES CU. FT. PER FT. OF TRENCH
4	30	2.50	3.28				
6	30	2.50	3.59				
8	30	2.50	3.87				
10	30	2.50	4.09				
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	3.30	6.01				
24	42	3.50	7.30	19 x 30	49	4.08	7.68
27	42	3.75	8.16	22 x 34	53	4.42	8.61
30	48	4.08	9.30	24 x 38	58	4.83	9.70
33	48	4.42	10.53	27 x 42	62	5.17	10.71
36	54	4.87	11.43	29 x 45	66	5.50	11.72
39	54	5.25	12.38	32 x 49	71	5.92	13.14
42	63	5.85	13.38	34 x 53	76	6.25	14.60
48	70	6.42	15.67	38 x 60	83	6.92	16.18
54	77	6.42	18.15	43 x 68	92	7.87	18.61
60	84	7.00	20.73	48 x 76	101	8.42	21.59
66	91	7.58	23.46	53 x 85	109	9.08	24.35
72	99	8.17	26.37	58 x 91	118	9.83	27.45
78	105	8.75	29.30	63 x 98	126	10.50	30.50
84	112	9.33	32.27	68 x 106	133	11.25	33.91
90	119	9.92	35.90	72 x 113	143	11.92	36.99
96	126	10.30	38.37	77 x 121	152	12.87	40.99
102	133	11.08	43.99	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	50.86	92 x 143	176	14.87	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	108 x 168	202	16.83	64.48
144	182	15.17	72.40	116 x 180	218	18.17	73.59

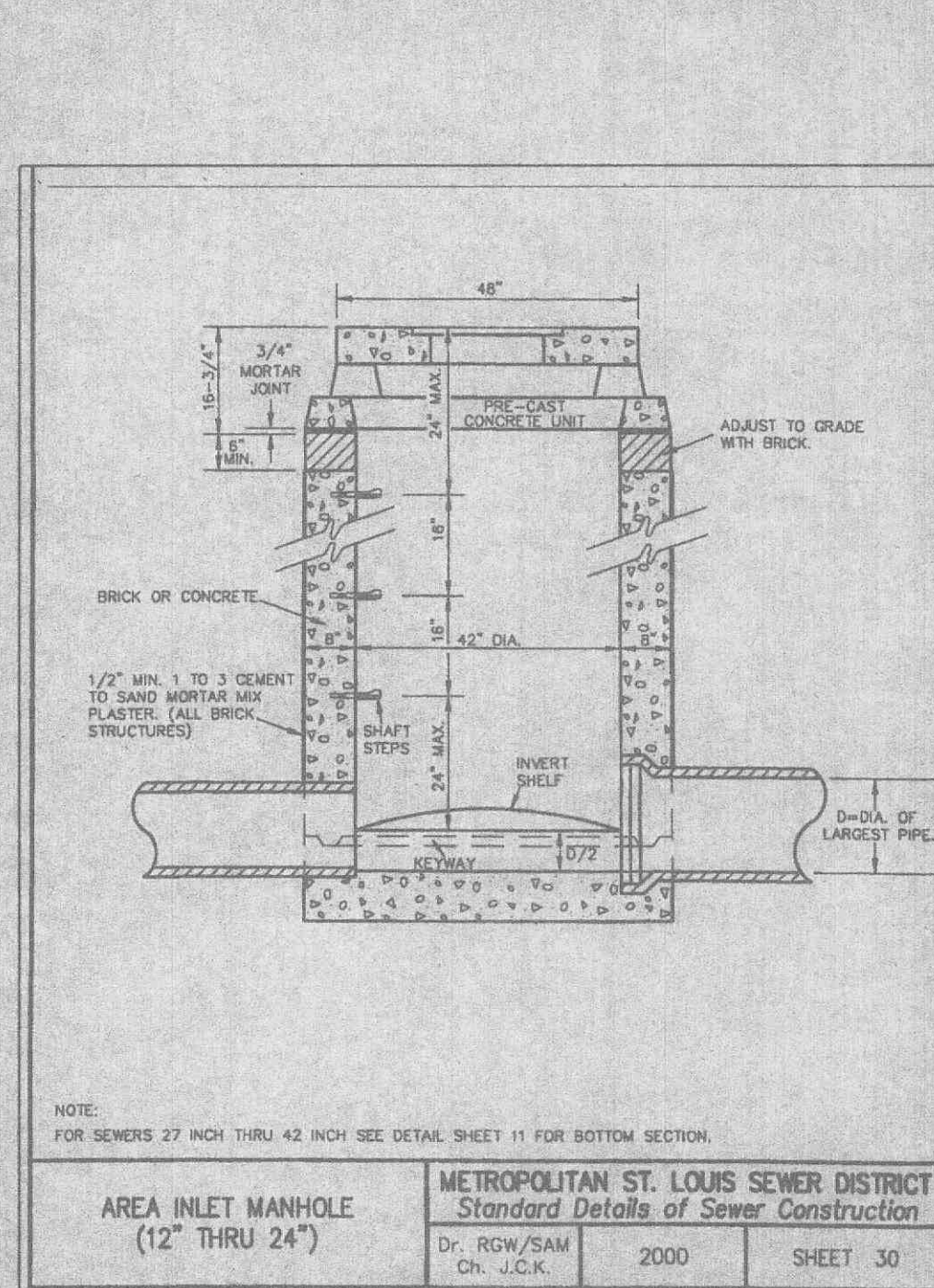
TABLE 1
PAYLINE WIDTHS OF TRENCH AND PAY-VOLUMES OF CONCRETE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. B.E.B./SAM
Ch. J.C.K. 2000 SHEET 1



PRECAST CONCRETE MANHOLE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/SAM
Ch. J.C.K. 2000 SHEET 21



AREA INLET MANHOLE (12" THRU 24")

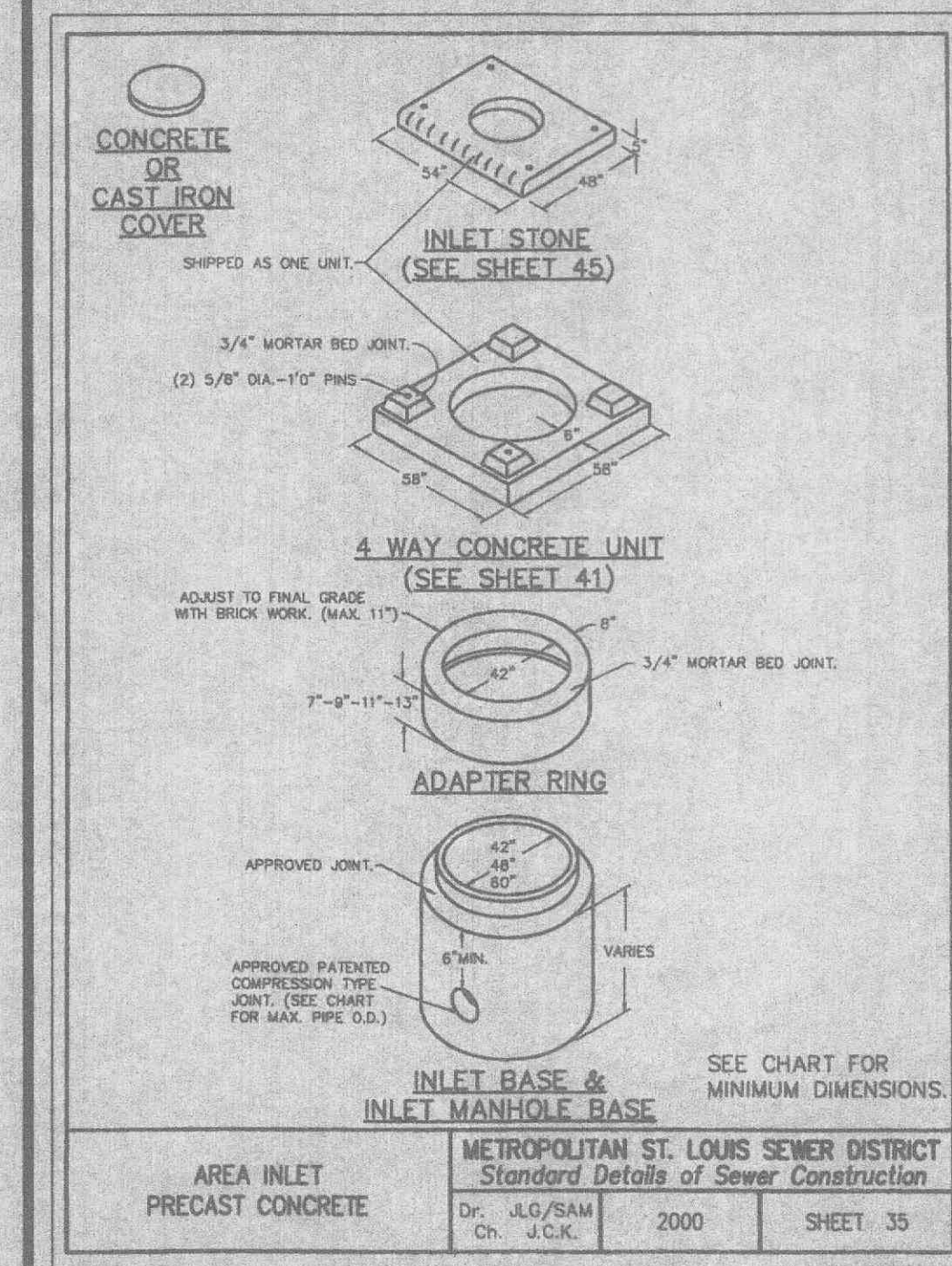
METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. ROW/SAM
Ch. J.C.K. 2000 SHEET 30

PRECAST CONCRETE STORMWATER STRUCTURES
MINIMUM DISTANCE FLOWLINE TO TOP OF STONE OR GRATE

PIPE I.D. NOMINAL INCHES	AREA INLET CIRCULAR BASE DIA. 42" 48" 60"	42" GRATE DIA. CIRCULAR BASE DIA. 42" 48" 60" (MAX.)	60" STREET INLET CIRCULAR BASE DIA. RECTANGULAR BASE DIA. 48" 48" 60" (MAX.)
12"	42"	42"	36"
15"	48"	48"	36"
18"	48"	48"	36"
21"	54"	48"	36"
24"	54"	48"	36"
27"	60"	48"	36"
30"	60"	48"	36"
33"	66"	48"	36"

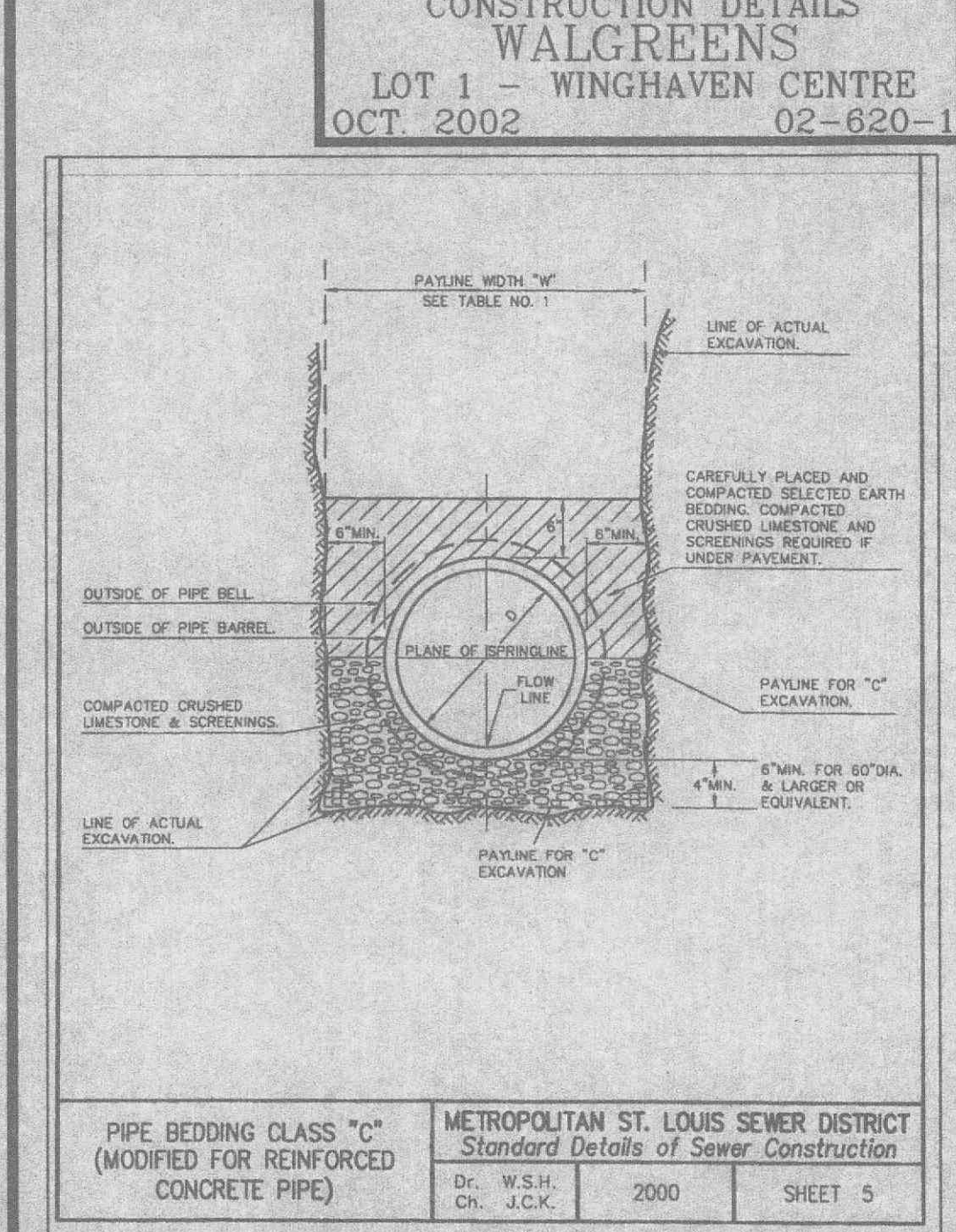
NOTES:
1) 42" DIAMETER BASE REQUIRES 7" HIGH TRANSITION SECTION TO 42" DIAMETER. SIMILAR TO ADAPTER RING SHEET 35.
2) 60" DIAMETER BASE REQUIRES 24" HIGH CONCENTRIC REDUCER TRANSITION TO 42" DIAMETER. SIMILAR TO TRANSITION RING SHEET 33.
3) STANDARD DEPTH = 3/4" PIPE DIAMETER.

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



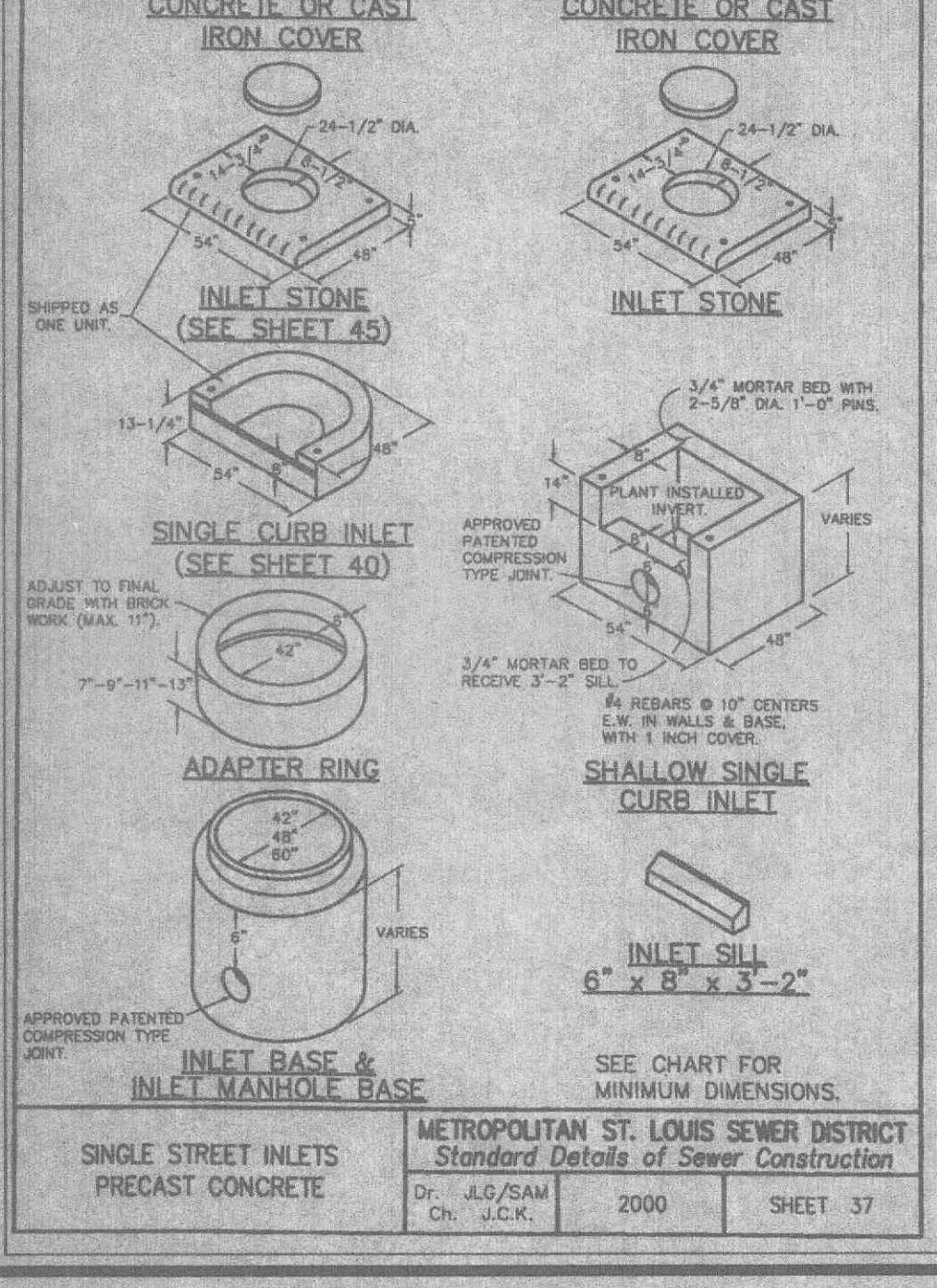
AREA INLET PRECAST CONCRETE

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



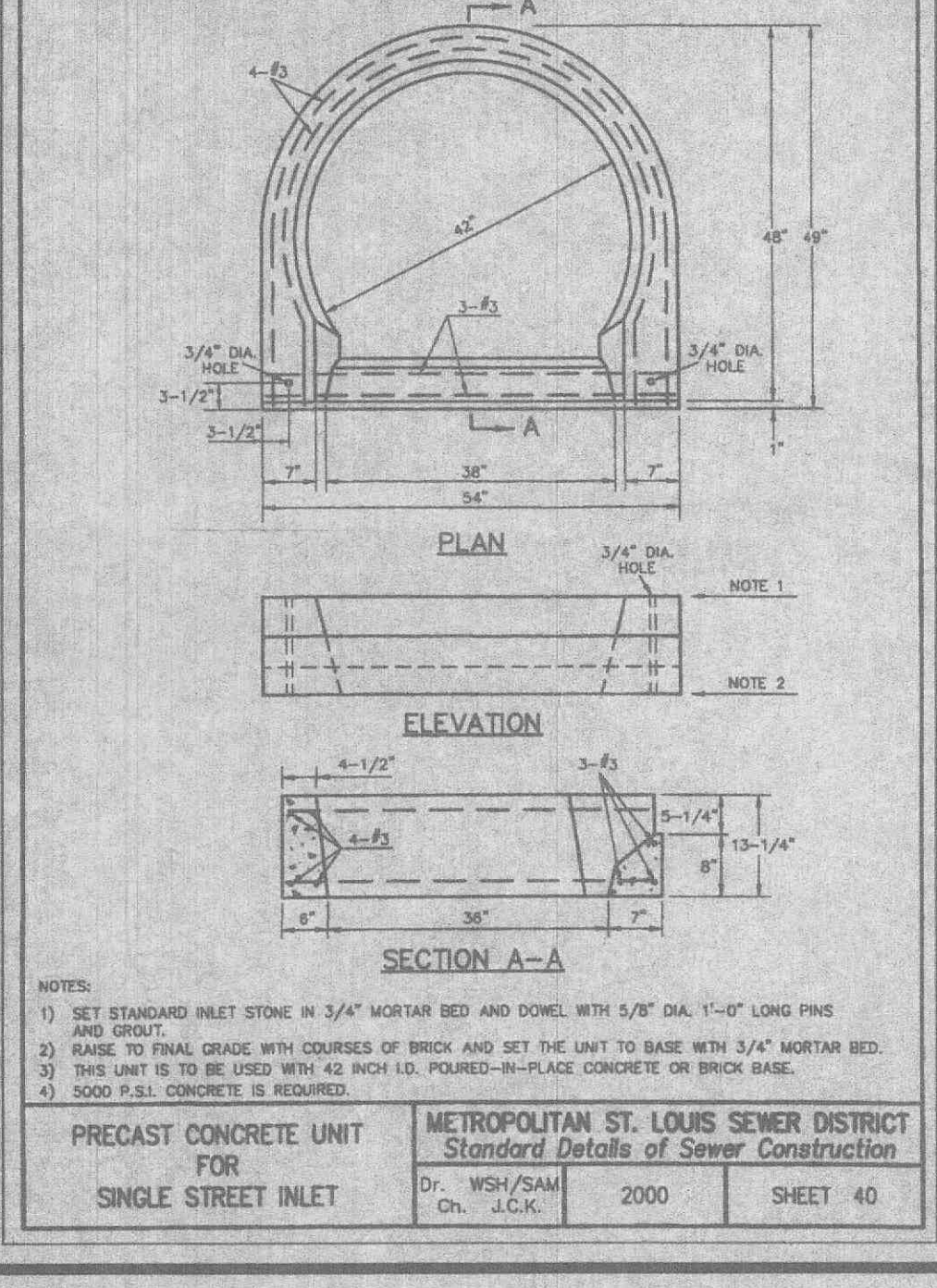
PIPE BEDDING CLASS "C" (MODIFIED FOR REINFORCED CONCRETE PIPE)

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/SAM
Ch. J.C.K. 2000 SHEET 5



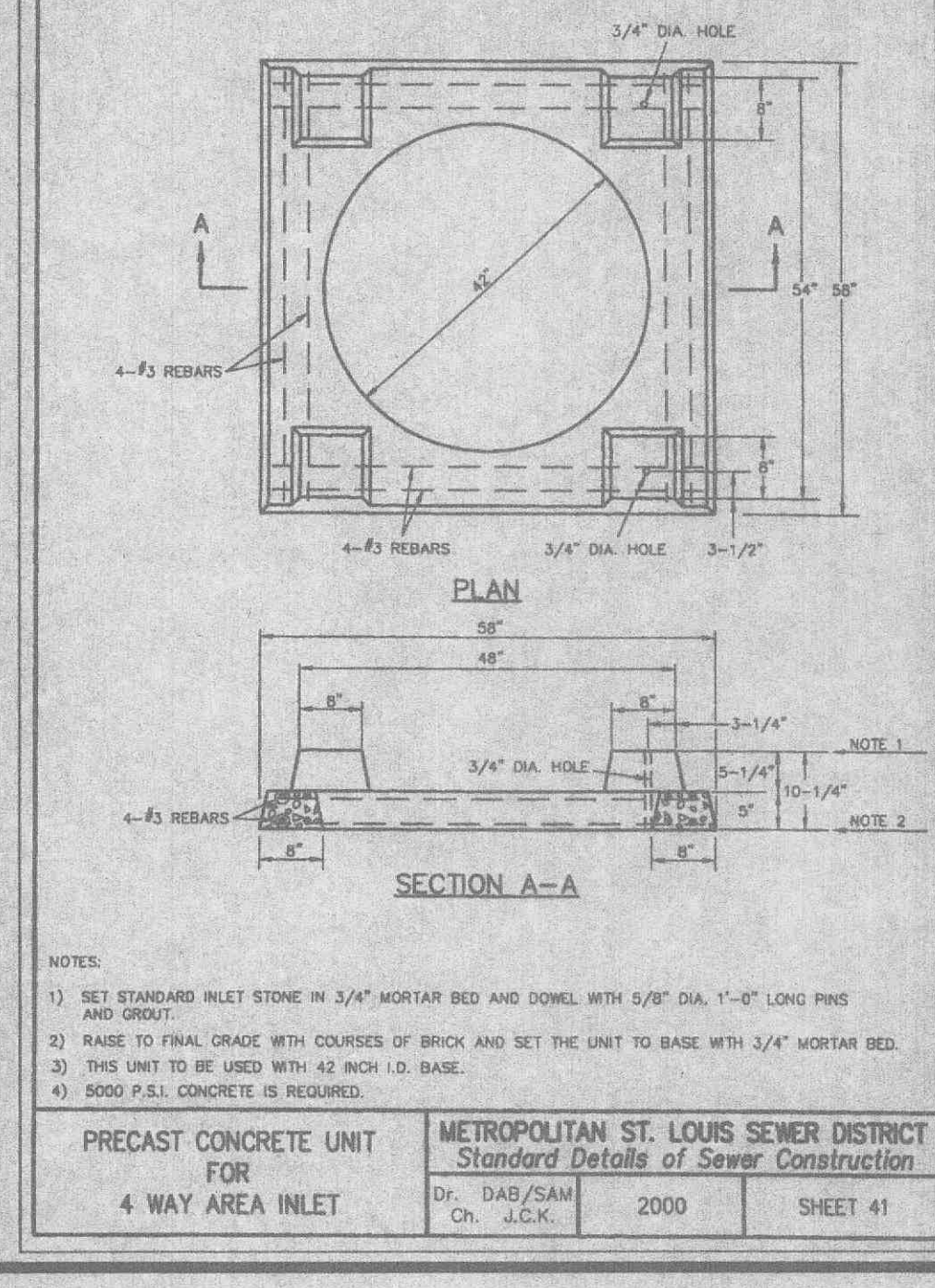
SINGLE STREET INLETS PRECAST CONCRETE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. J.G.C./SAM
Ch. J.C.K. 2000 SHEET 37



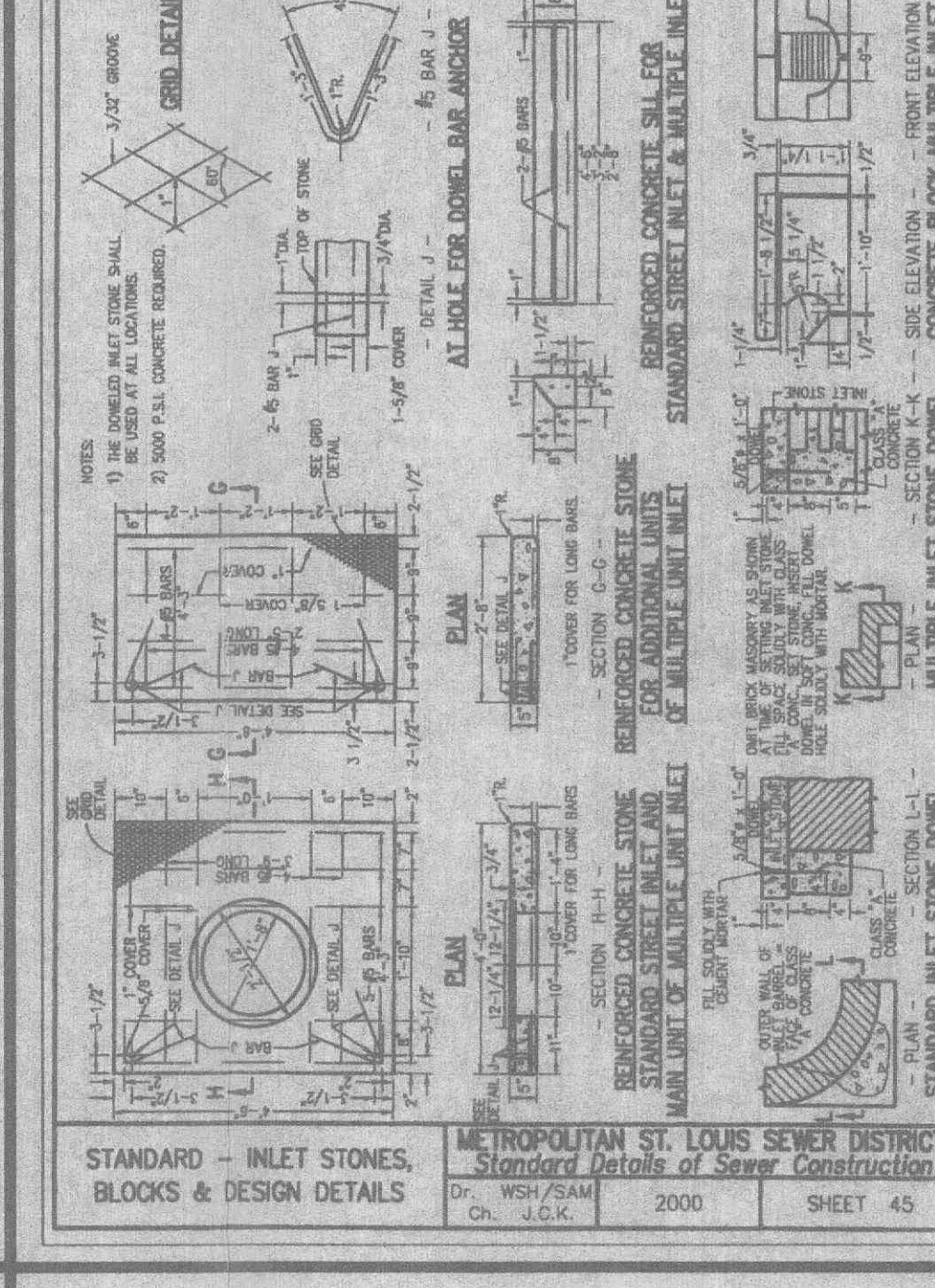
PRECAST CONCRETE UNIT FOR SINGLE STREET INLET

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/SAM
Ch. J.C.K. 2000 SHEET 40



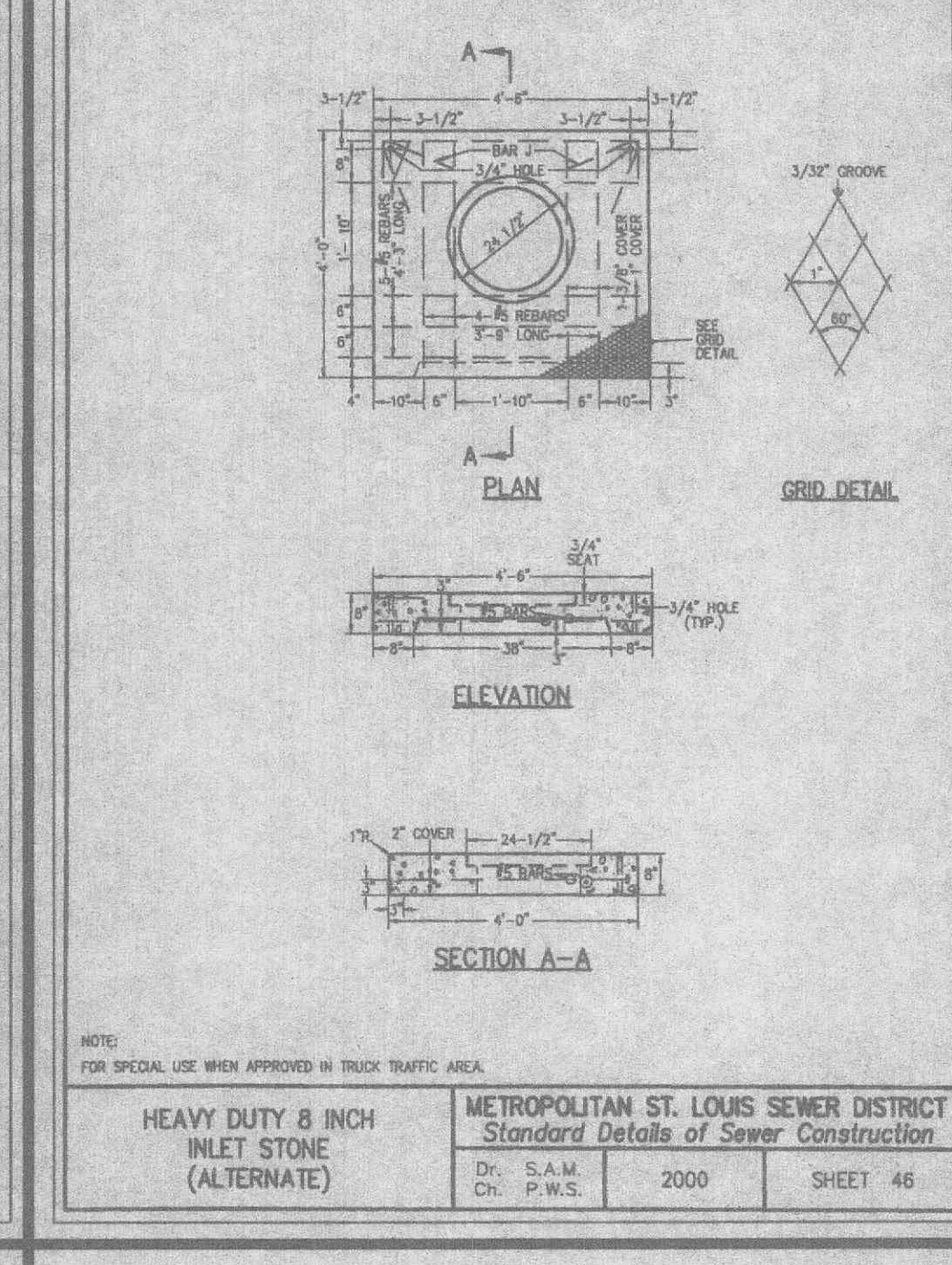
PRECAST CONCRETE UNIT FOR 4 WAY AREA INLET

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. DAB/SAM
Ch. J.C.K. 2000 SHEET 41



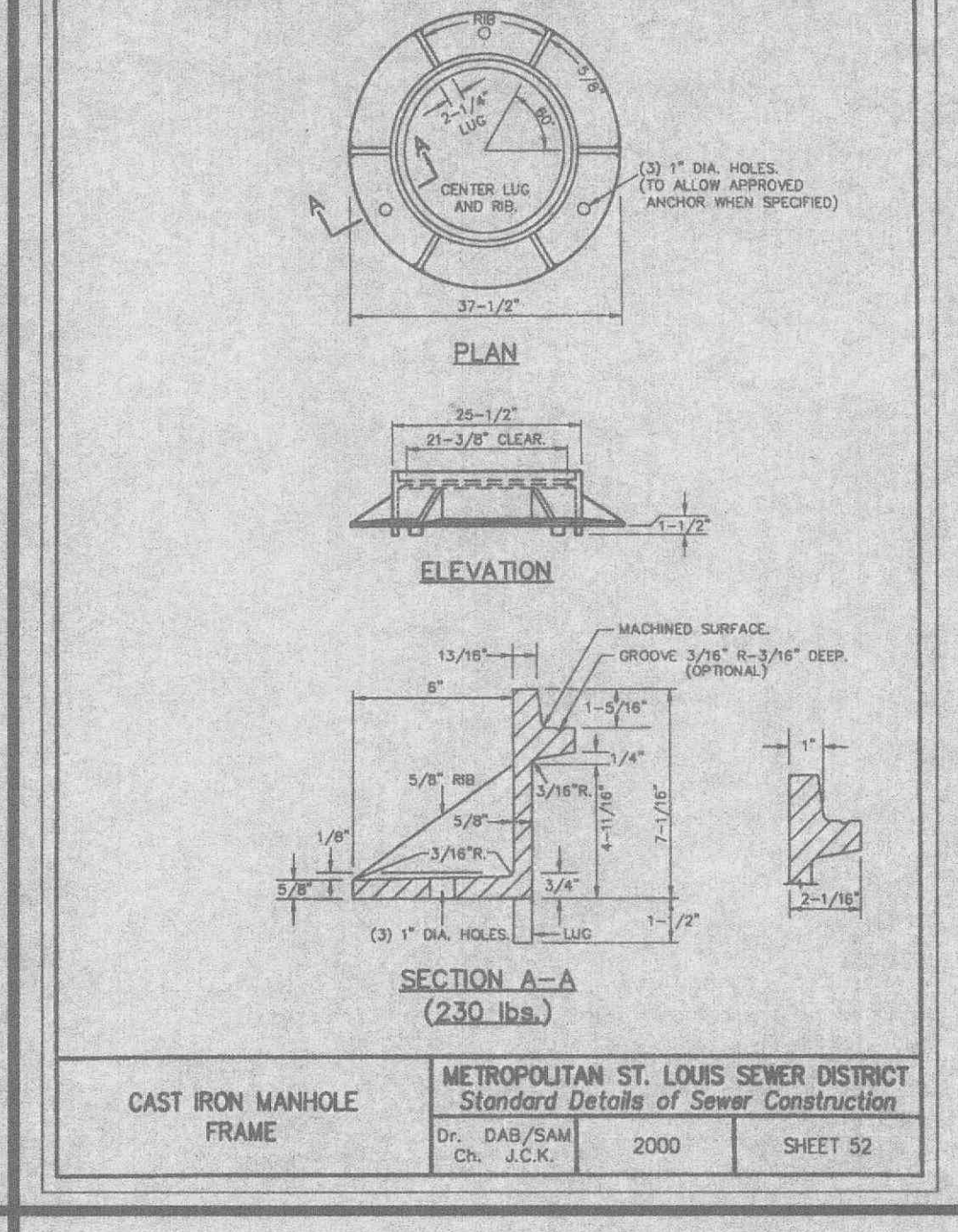
STANDARD - INLET STONES, BLOCKS & DESIGN DETAILS

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. WSH/SAM
Ch. J.C.K. 2000 SHEET 45



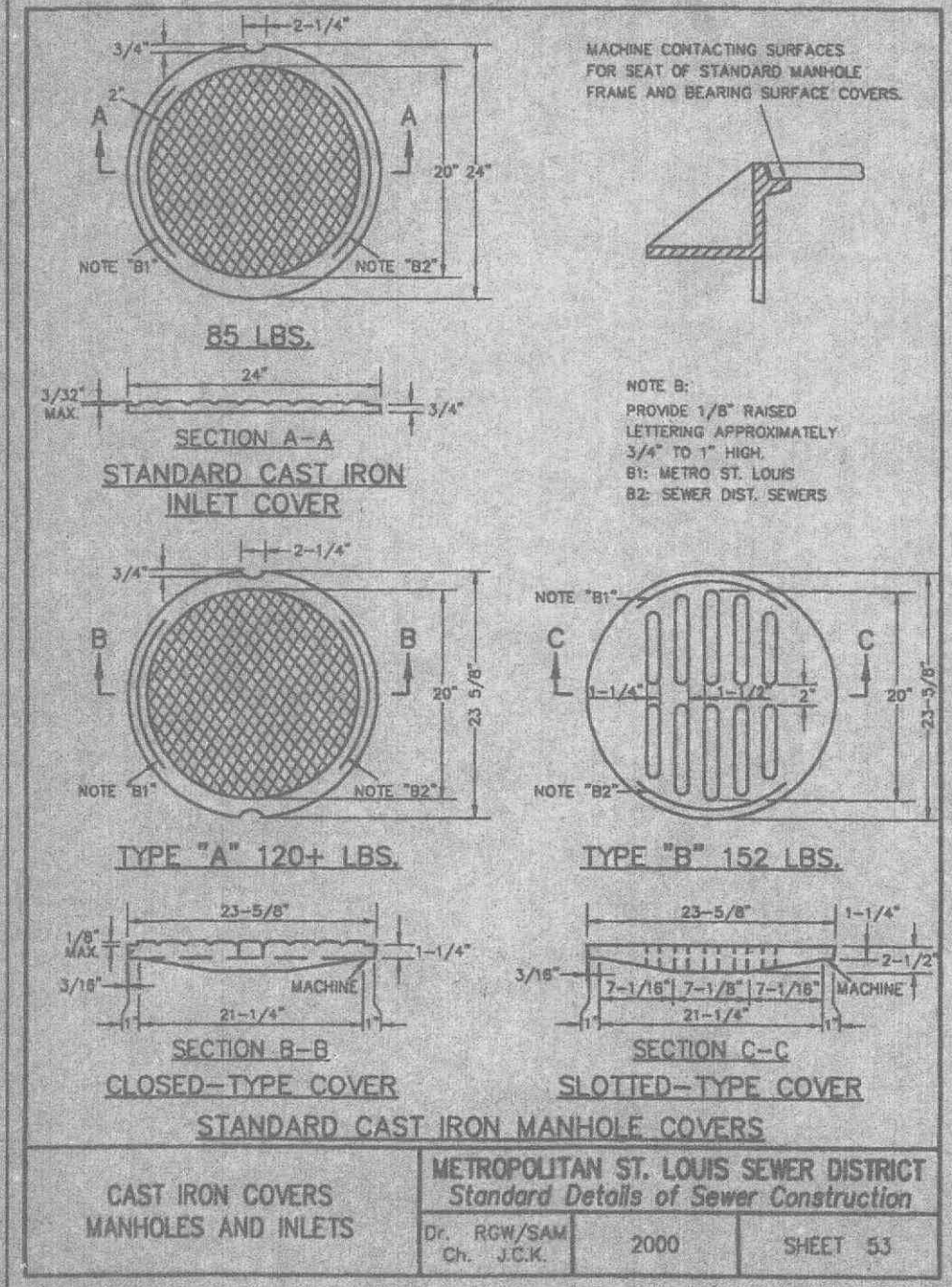
HEAVY DUTY 8 INCH INLET STONE (ALTERNATE)

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. S.A.M./P.W.S.
Ch. J.C.K. 2000 SHEET 46



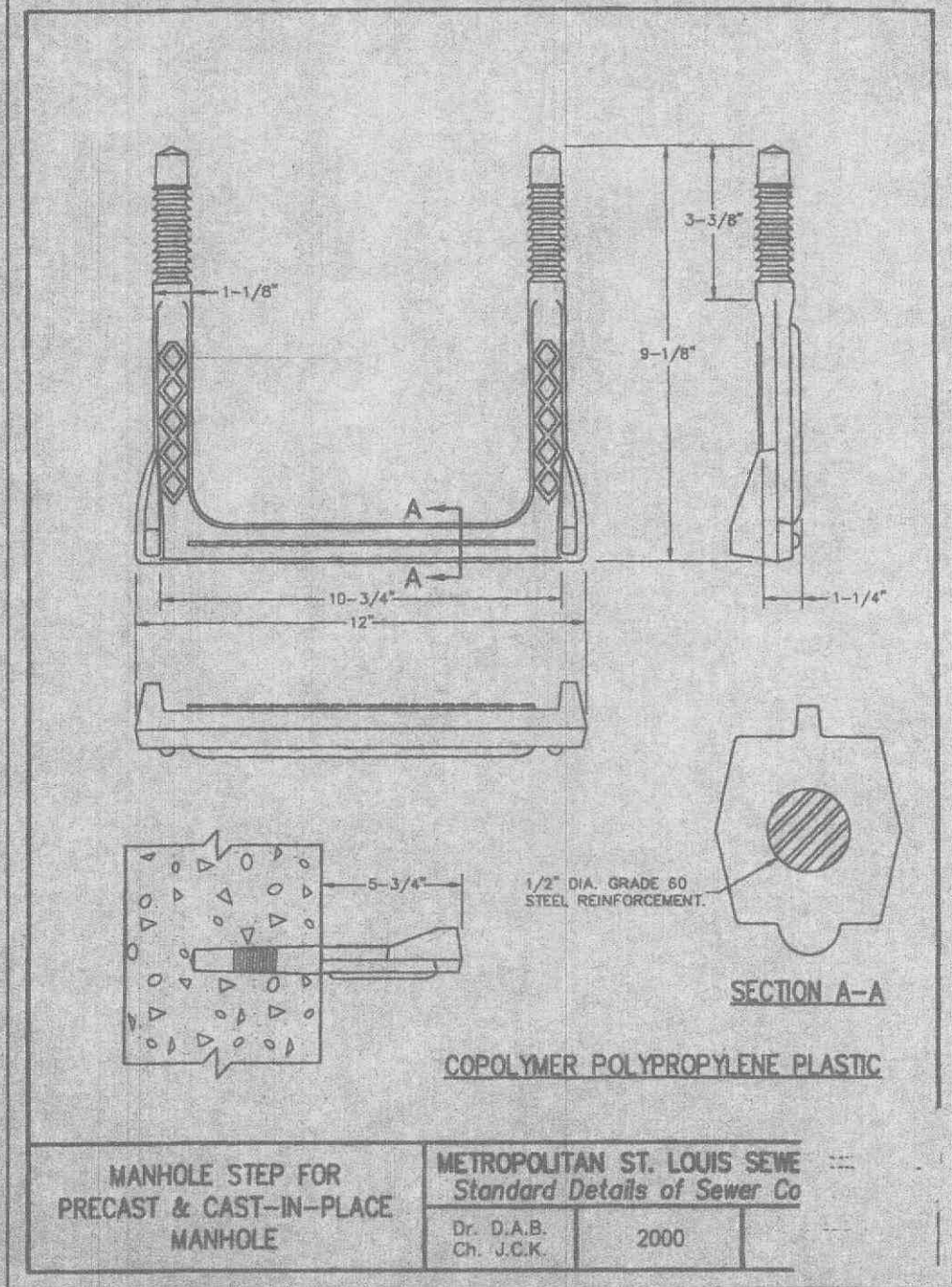
CAST IRON MANHOLE FRAME

METROPOLITAN ST. LOUIS SEWER DISTRICT
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CAST IRON COVERS MANHOLES AND INLETS

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. ROW/SAM
Ch. J.C.K. 2000 SHEET 53



MANHOLE STEP FOR PRECAST & CAST-IN-PLACE MANHOLE

METROPOLITAN ST. LOUIS SEWER DISTRICT
Standard Details of Sewer Construction
Dr. G.A.B./SAM
Ch. J.C.K. 2000 SHEET 54