

CITY OF NORTH ST. PAUL, MINNESOTA CONSTRUCTION PLANS

FOR

STORM SEWER, GRADING, GRAVEL BASE CONSTRUCTION, BITUMINOUS SURFACING,
CONCRETE PAVEMENT, CONCRETE CURB & GUTTER, STREETSCAPE CONSTRUCTION,
STREET LIGHTING, TRAFFIC & PEDESTRIAN CONTROL SIGNALS, AND MISCELLANEOUS
CONSTRUCTION ITEMS.

ON

7TH. AVENUE, FROM 1ST. STREET TO S.T.H. NO. 120 (C.S.A.H. 129)

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CONSULTANTS

CIVIL ENGINEERING-BANISTER-SHORT-ELLIOTT-HENDRICKSON AND ASSOC.
ELECTRICAL ENGINEERING-ERICKSON-ELLISON AND ASSOC.
TRAFFIC ENGINEER - JACK ANDERSON AND ASSOC.
PLANNER-DESIGN PLANNING ASSOC., INC.
LANDSCAPE ARCHITECTS-URBAN PLANNING AND DESIGN, INC.

LEGEND

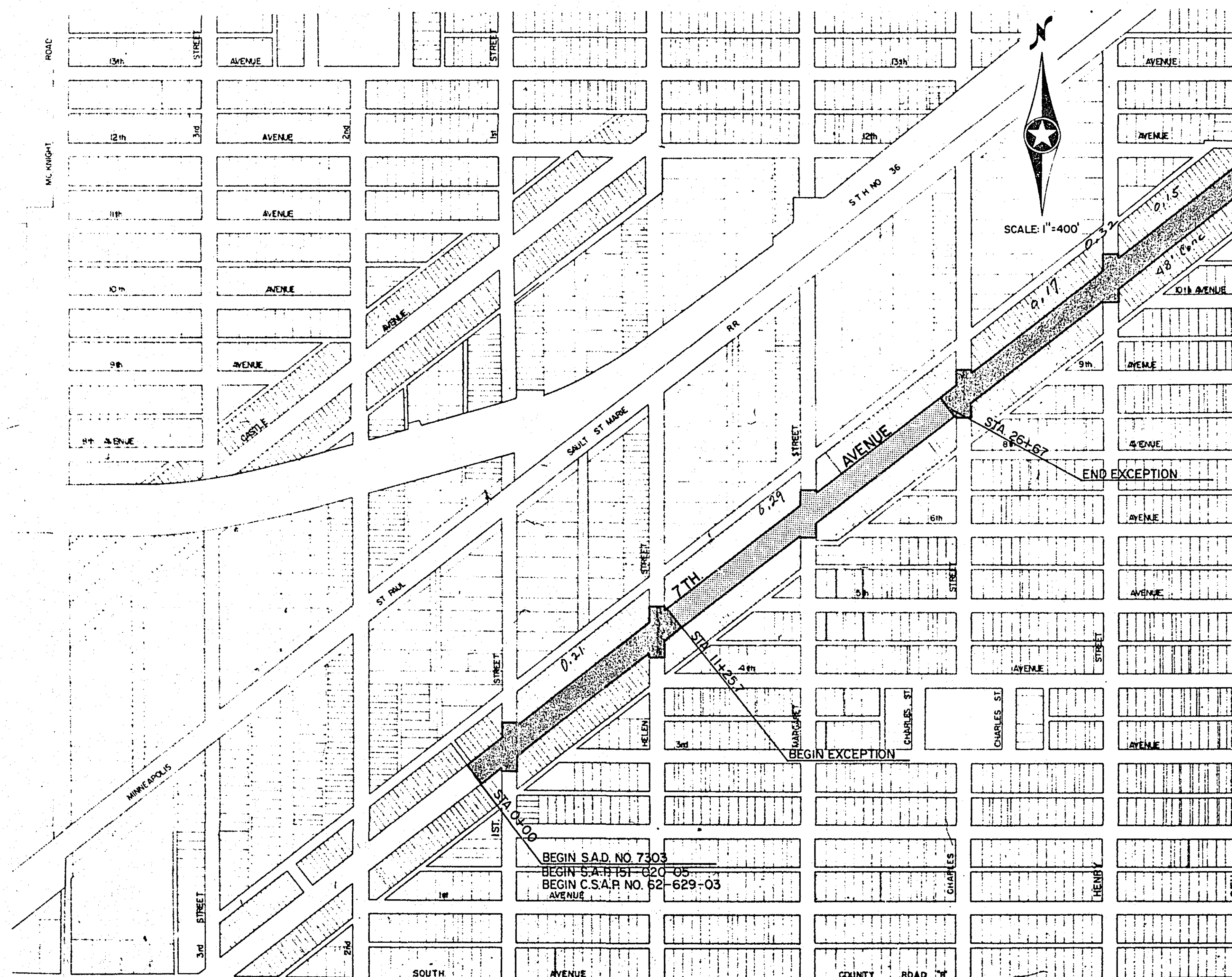
○	SANITARY OR STORM SEWER MANHOLE
⊗	WATER VALVE MANHOLE
⊕	TELEPHONE MANHOLE
— 8" —	SANITARY SEWER
— 24" —	STORM SEWER
— 6" —	WATERMAIN
⊙	HYDRANT
⊖	POWER POLE
⊔	ANCHOR
⊛	STEEL LIGHT POLE
— UGTC —	UNDERGROUND TELEPHONE CABLE
— UGEC —	UNDERGROUND ELECTRIC CABLE
===	CULVERT
— G —	GAS MAIN
⊞	CONCRETE PAVEMENT OR SIDEWALK
⊞	GAS VALVE
⊞	CURB STOP
□	CATCH BASIN
⊞	BUILDING
⊞	PEDESTAL (TELEPHONE)
⊞	TREE
—	PROPERTY LINE
⊞	BULKHEAD

S.A.P. 151-020-05
C.S.A.P. 62-629-03

GROSS LENGTH	435746 FEET	0.82 MILES
BRIDGES LENGTH	0 FEET	0 MILES
EXCEPTIONS LENGTH	1541.30 FEET	0.29 MILES
NET LENGTH	2816.16 FEET	0.53 MILES

THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"
DATED JANUARY 1, 1972 AND THE "SUPPLEMENTAL
SPECIFICATIONS FOR HIGHWAY CONSTRUCTION"
DATED JANUARY 1, 1974, SHALL GOVERN.

DESIGN	9 TON
PROJECT A.D.T.	7000
SOIL TYPE	A-6
DESIGN SPEED	30 M.P.H.
H.C. A.D.T.	150-300



I hereby certify that this plan was prepared by
me or under my direct supervision and that I
am a duly Registered Professional Engineer
under the laws of the State of Minnesota.
Date 4/26/74 Reg. No. 4571

SURVEY:	APPROVED:	NO.	DATE	REVISIONS	SCALE:	BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota	NORTH SAINT PAUL, MINNESOTA	TITLE SHEET	FILE NO.: 7378 DATE: APRIL 26, 1974	58
DESIGN:					AS SHOWN					
DRAWN:										

STATEMENT OF ESTIMATED QUANTITIES

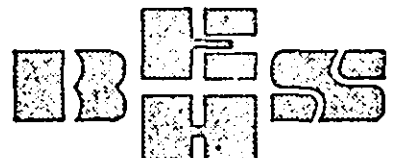
ITEM NO.	M.H.D. ITEM NO.	ITEM	UNIT	C.S.A.P. 62-629-03		S.A.P. 151-020-05		NON - PART.		TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES
				EST.	FINAL	EST.	FINAL	EST.	FINAL		
1		INSTALL HYDRANT ON INPLACE LEAD	EACH					6		6	
2		INSTALL GATE VALVE AND BOX ON HYDRANT LEAD	EACH					5		5	
3		3/4" COPPER SERVICE LINE INPLACE	LINEAR FOOT					2,600		2,600	
4		1" COPPER SERVICE LINE INPLACE	LINEAR FOOT					1,890		1,890	
5		CONNECT TO INPLACE SERVICE LINE	EACH					60		60	
6		3/4" CORPORATION COCK INPLACE	EACH					50		50	
7		1" CORPORATION COCK INPLACE	EACH					33		33	
8		3/4" CURB STOP AND BOX INPLACE	EACH					50		50	
9		1" CURB STOP AND BOX INPLACE	EACH					33		33	
10		CUT-IN 6" GATE VALVE AND MANHOLE ON INPLACE WATERMAIN	EACH					1		1	
11		INSTALL MANHOLE ON INPLACE 12" GATE VALVE INCLUDING CASTING	EACH					1		1	
12		WATERMAIN INSULATION	BOARD FOOT	9,936		29,808		50,256		90,000	
13		12" RC PIPE SEWER CLASS IV	LINEAR FOOT	173		446		388		1,007	
14		15" RC PIPE SEWER CLASS II	LINEAR FOOT					116		116	
15		15" RC PIPE SEWER CLASS IV	LINEAR FOOT	28		81		15		124	
16		18" RC PIPE SEWER CLASS II	LINEAR FOOT					938		938	
17		21" RC PIPE SEWER CLASS II	LINEAR FOOT					210		210	
18		21" RC PIPE SEWER CLASS IV	LINEAR FOOT					30		30	
19		24" RC PIPE SEWER CLASS II	LINEAR FOOT					104		104	
20		27" RC PIPE SEWER CLASS II	LINEAR FOOT					656		656	
21		30" RC PIPE SEWER CLASS II	LINEAR FOOT					153		153	
22		30" RC-CM PIPE SEWER DESIGN SPECIAL CLASS II & 16 GAGE	LINEAR FOOT					14		14	
23		12" CM PIPE SEWER - 16 GAGE	LINEAR FOOT	13		37				50	
24		REMOVE AND RELOCATE 12" RC PIPE CULVERT	LINEAR FOOT			34				34	
25		12" CM APRON	EACH			1				1	
26		CONSTRUCT MANHOLES, DESIGN A	LINEAR FOOT					31		31	
27		CONSTRUCT MANHOLES, DESIGN B	LINEAR FOOT	2		5		78		85	
28		CONSTRUCT CATCH BASINS, DESIGN X	LINEAR FOOT	6		13		37		56	
29		CONSTRUCT CATCH BASINS, DESIGN Y	LINEAR FOOT	4		9		12		25	
30		CONSTRUCT CATCH BASINS, DESIGN Z	LINEAR FOOT					42		42	
31		CASTING ASSEMBLIES	EACH	4		8		44		56	
32	2021.501	MOBILIZATION	LUMP SUM	0.5		0.5				1	
33	2031.501	FIELD OFFICE, TYPE D	EACH	0.5		0.5				1	
34	2101.502	CLEARING	TREE			2				2	
35	2101.507	GRUBBING	TREE			2				2	
36	2104.501	REMOVE CURB	LINEAR FOOT	471		1277		2752		4,500	
37	2104.501	REMOVE CURB AND GUTTER	LINEAR FOOT	305		883		292		1480	
38	2104.501	REMOVE SEWER PIPE	LINEAR FOOT	22		198				220	
39	2104.503	REMOVE SIDEWALK	SQUARE FOOT			23664		54,336		78,000	
40	2104.505	REMOVE PAVEMENT	SQUARE YARD	4832		7405		8,362		20,600	
41	2104.507	REMOVE STEPS	CUBIC YARD			1		7		8	
42	2104.509	REMOVE CATCH BASINS	EACH	3		7		5		15	
43	2104.509	REMOVE LIGHT BASES	EACH					32		32	
44	2104.523	SALVAGE TRAFFIC SIGNALS	EACH			2		2		4	
45	2104.523	SALVAGE CASTINGS	EACH	4		6		5		15	
46	2104.523	SALVAGE LIGHT STANDARDS	EACH					32		32	
47	2105.501	COMMON EXCAVATION	CUBIC YARD	11,156		9,454		14,366		34,976 ①	
48	2105.507	SUBGRADE EXCAVATION	CUBIC YARD	200		400		200		800	
49	105.637	ONE LANE BYPASS, 12' LANE	LUMP SUM			1				1	
50	2123.507	1 C.Y. SHOVEL	HOURL	10		20		20		50	
51	2123.509	DOZER	HOURL	10		20		20		50	
52	2131.502	CALCIUM CHLORIDE SOLUTION	GALLON	3,019		1,745		3,236		8,000	
53	2211.501	AGGREGATE BASE CLASS 5	TON	3,749		3,477		4,184		11,410 ②	
54	2301.502	CONCRETE PAVEMENT, STANDARD WIDTH	SQUARE YARD	6,834				4,366		11,200	
55	2301.503	CONCRETE PAVEMENT, IRREGULAR WIDTH	SQUARE YARD	2,074		2,580		2,538		7,200	
56	2301.511	STRUCTURAL CONCRETE	CUBIC YARD	1,943		605		1,502		4,050 ③	
57	2301.529	REINFORCEMENT BARS	POUND			240				240	
58	2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	19		34		49		102 ④	
59	2331.514	BASE COURSE MIXTURE	TON	421		747		1,087		2,255 ⑤	
60	2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	12		21		33		66 ⑥	
61	2341.508	WEARING COURSE MIXTURE	TON	172		303		465		940 ⑦	
62	2341.518	BITUMINOUS MIXTURE FOR PATCHING	TON	8		34		38		80	
63	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	69		191		70		430 ⑧	
64	2411.503	STRUCTURAL CONCRETE	CUBIC YARD			1		9		10	
65	2506.522	ADJUST FRAME AND RING CASTINGS	EACH	3		10		12		25	

- ① INCLUDES 10 CUBIC YARDS MISCELLANEOUS STRUCTURE EXCAVATION.
② INCLUDES: 1300 TONS FOR STORM SEWER TRENCH RESTORATION
110 TONS FOR ONE LANE BYPASS.
③ INCLUDES 1560 CUBIC YARDS HIGH EARLY STRENGTH CONCRETE.
④ INCLUDES 13 TONS FOR STORM SEWER TRENCH RESTORATION.
⑤ INCLUDES 255 TONS FOR STORM SEWER TRENCH RESTORATION.
⑥ INCLUDES 7 TONS FOR STORM SEWER TRENCH RESTORATION AND
5 TONS FOR PATCHING MIX.
⑦ INCLUDES 110 TONS FOR STORM SEWER TRENCH RESTORATION.
⑧ INCLUDES 40 GALLONS FOR STORM SEWER TRENCH RESTORATION.

I hereby certify that this plan was prepared by
me or under my direct supervision and that I
am a duly Registered Professional Engineer
under the laws of the State of Minnesota.

Date _____ Reg. No. _____ MICROFILMED
RAMSEY CO. ENGR.

S.A.D. 7303

SURVEY:	APPROVED:	NO.	DATE	REVISIONS	SCALE:		BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota
DESIGN:							
DRAWN:							

NORTH SAINT PAUL, MINNESOTA

ESTIMATE SHEET

FILE NO.:

7378

DATE:

APRIL 26, 1974

2

58

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	M.H.D. ITEM NO.	ITEM	UNIT	CSAP 62-629-03		S.A.P. 151-020-05		NON. PART.		TOTAL ESTIMATED QUANTITIES	TOTAL FINAL QUANTITIES
				QUANTITIES		QUANTITIES		QUANTITIES			
				EST.	FINAL	EST.	FINAL	EST.	FINAL		
66	2521.501	5" CONCRETE WALK	SQUARE FOOT			39,100		43,900		83,000	
67	2531.501	CONCRETE CURB AND GUTTER DESIGN B-624	LINEAR FOOT	1,438		4,238				5,676	
68	2531.501	CONCRETE CURB AND GUTTER DESIGN V-624	LINEAR FOOT					3,724		3,724	
69	2531.507	8" CONCRETE DRIVEWAY PAVEMENT	SQUARE YARD			1,362		938		2,300	
70	2535.501	BITUMINOUS CURB	LINEAR FOOT			300				300	
71	2575.505	SODDING	SQUARE YARD			6,558		442		7,000	
72	2575.535	WATER	(M) GALLONS			58		2		56	
73	2575.551	TOPSOIL BORROW	CUBIC YARD			1,833		87		1,920	
74		LIGHTING FIXTURE, TYPE A	EACH					11		11	
75		LIGHTING FIXTURE, TYPE A-1	EACH					9		9	
76		LIGHTING FIXTURE, TYPE B	EACH					27		27	
77		LIGHTING FIXTURE, TYPE B-1	EACH					1		1	
78		LIGHTING FIXTURE, TYPE B-2	EACH					2		2	
79		LIGHTING FIXTURE, TYPE B-3	EACH					2		2	
80		LIGHTING FIXTURE, TYPE C	EACH					9		9	
81		LIGHTING FIXTURE, TYPE C-1	EACH					2		2	
82		LIGHTING FIXTURE, TYPE D	EACH					3		3	
83		LIGHTING FIXTURE, TYPE E	EACH					4		4	
84		LIGHTING FIXTURE, TYPE E-1	EACH					1		1	
85		LIGHTING FIXTURE, TYPE E-2	EACH					2		2	
86		LIGHTING FIXTURE, TYPE E-3	EACH					2		2	
87		EXISTING STREET LIGHT CONNECTION	EACH					2		2	
88		CAST WEATHERPROOF JUNCTION BOX	EACH					3		3	
89		BUS SHELTER CONNECTION	EACH					2		2	
90		KIOSK ELECTRICAL	EACH					3		3	
91		SOUND CABLE	LINEAR FOOT					3,794		3,794	
92		NUMBER 2 AWG COPPER CONDUCTOR	LINEAR FOOT					29,321		29,321	
93		NUMBER 4 AWG COPPER CONDUCTOR	LINEAR FOOT					2,605		2,605	
94		2" RIGID CONDUIT	LINEAR FOOT					8,123		8,123	
95		1-1/4" RIGID CONDUIT	LINEAR FOOT					850		850	
96		3/4" RIGID CONDUIT	LINEAR FOOT					2,256		2,256	
97		FEED POINT NUMBER 1	EACH					1		1	
98		FEED POINT NUMBER 2	EACH					1		1	
99		FEED POINT NUMBER 3	EACH					1		1	
100		FEED POINT NUMBER 4	EACH					1		1	
101		SOUND AMPLIFIER	UNIT					1		1	
102		TRAFFIC SIGNAL SYSTEM	UNIT	0.5		0.5				1	
103		LITTER RECEPTICALS	EACH					7		7	
104		TOBOGGAN BENCH AND BACK	EACH					20		20	
105		NO. 3 BENCH	EACH					9		9	
106		NO. 7 BENCH	EACH					9		9	
107		OLD TIME BENCH, 6 FT.	EACH					4		4	
108		OLD TIME LOFFER BENCH	EACH					1		1	
109		PHONE BOOTH/KIOSKS	EACH					3		3	
110		BUS SHELTER WITH MODIFICATION	EACH					2		2	
111		ROUND PLANTER, 5' DIAMETER	EACH					4		4	
112		RECTANGULAR WOOD PLANTER	LINEAR FOOT					656		656	
113		BIKE RACK, 10'	EACH					8		8	
114		WOOD EDGE	LINEAR FOOT					216		216	
115		WOOD WALL, 24"	LINEAR FOOT					97		97	
116		DRINKING FOUNTAIN	EACH					2		2	
117		TENT SLEEVES	EACH					162		162	
118		FLAGS AND POLES	EACH					9		9	
119		PLAY SURFACE	SQUARE FOOT					700		700	
120		PLAY ARC II	EACH					2		2	
121		SNOW BALLS (5-SET)	EACH					1		1	
122		SPRING BOARD	EACH					3		3	
122 A		SPECIAL SIDEWALK (COLORED AND PATTERNED)	SQUARE FOOT					18,000		18,000	
122 B		SPECIAL PAVEMENT (COLORED AND PATTERNED)	SQUARE FOOT					6,200		6,200	

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Walter J. Ramsey
Date 4/16/74 Reg. No. 4511

MICROFILMED
RAMSEY CO. ENGR.

MICROFILMED
RAMSEY CO. ENGR.

SAD. 7303

SURVEY:	APPROVED:	NO.	DATE	REVISIONS	SCALE:	BANISTER SHORT ELLIOTT HENDRICKS AND ASSOCIATES Saint Paul, Minnesota	NORTH SAINT PAUL, MINNESOTA	ESTIMATE SHEET	FILE NO.: 7378 DATE: APRIL 26, 1974	3 58
DESIGN:										
DRAWN:										

MICROFILMED
RAMSEY CO. ENGR.

S.A.D. 7303

STORM SEWER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
LINE	STRUCTURE NO.	STATION	LOCATION	CONSTRUCTION				TOP OF CASTING OR INLET	OUTLET	F. & I. CASTING ASSEMBLY TYPE	W	L	FURNISH AND INSTALL PIPE SEWER												CLASS	LINE	APRONS		DRAINS TO			REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
				DESIGN		PAY HEIGHT							12" RCP	15" RCP	18" RCP	21" RCP	24" RCP	27" RCP	30" RCP	12" CMP 16 GA.									S. C.	C. M.	NO.					GRADE%	INL. EL.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

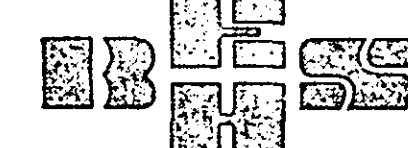
Date 4/26/74 Reg. No. 4571

S.A.D. NO. 7303

MICROFILMED
RANSEY CO. ENGR.

SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				

SCALE:



BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

NORTH SAINT PAUL, MINNESOTA

STRUCTURE SCHEDULE

FILE NO.:
7378

DATE:
APRIL 26, 1974

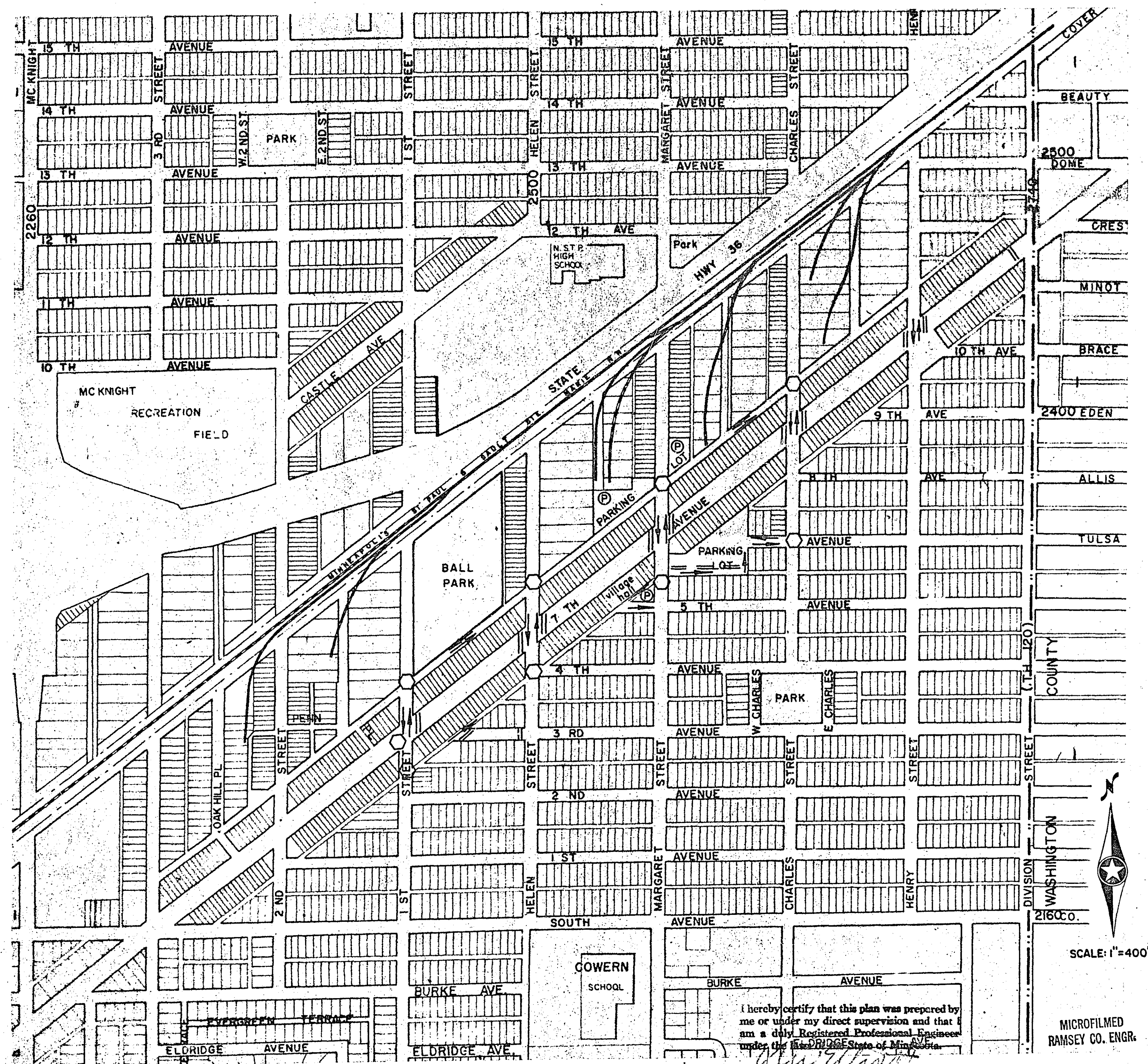
58

LINE	STRUCTURE NO.	STATION	LOCATION	INPLACE STRUCTURES			TOP OF CASTING OR INLET ELEV.	REMARKS	REMOVE	ADJUST	RECON-STRUCT L.F.
				DESIGN		FBI CASTING ASSEMBLY TYPE					
				M.H.	C.B.						
1	100	SEVENTH	1 + 58	15' LT.	X			REMOVE BY OTHERS			
2	101	SEVENTH	1 + 71	21' LT.	X		960.3	GATE VALVE MANHOLE		X	
3	102	SEVENTH	1 + 61	29' LT.			958.24	INLET OF INPLACE 12" C.M.P.			
4	103	SEVENTH	2 + 56	54' LT.	X		958.50	INSTALL NEW MANHOLE ON INPLACE 12" GATE VALVE			
5	104	SEVENTH	2 + 76	32' LT.		X		CUT IN NEW 6" GATE VALVE AND MANHOLE ON WATERMAIN	X		
6	105	SEVENTH	2 + 63	20' LT.	X		958.73				
7	106	FIRST	0 + 41	13' RT.	X		959.50	GATE VALVE MANHOLE		X	
8	107	FIRST	0 + 35	16' RT.		X	959.10			X	
9	108	FIRST	0 + 20	CENTERLINE	X		960.54			X	
10	109	FIRST	0 + 20	18' LT.		X			X		
11	110	SEVENTH	1 + 28	34' RT.				SALVAGE 12" APRON BULKHEAD PIPE	X		
12	111	SEVENTH	2 + 15	32' RT.		X		REMOVE 15' - 12" V.C.P. LEAD	X		
13	112	SEVENTH	5 + 39	8' LT.				REMOVE BY OTHERS			
14	113	SEVENTH	9 + 71	32' RT.		X			X		
15	114	HELEN	0 + 22	15' LT.		X			X		
16	115	HELEN	0 + 42	15' RT.		X	A 960.50				
17	116	SEVENTH	10 + 77	37' LT.	X		960.81			X	
18	117	SEVENTH	10 + 87	58' LT.	X		960.70			X	
19	118	SEVENTH	11 + 12	36' LT.	X		961.30	REPAIR INVERT		X	
20	119	SEVENTH	11 + 12	32' LT.		X			X		
21	120	SEVENTH	10 + 38	8' LT.	X			REMOVE BY OTHERS			
22	121	SEVENTH	10 + 58	32' RT.		X			X		
23	122	SEVENTH	13 + 29	39' LT.	X		964.00			X	
24	123	SEVENTH	14 + 11	8' LT.	X			REMOVE BY OTHERS			
25	124	SEVENTH	15 + 46	38' LT.	X		967.05	PLUG LEAD FROM SOUTH		X	
26	125	SEVENTH	15 + 46	32' LT.		X			X		
27	126	SEVENTH	15 + 48	32' RT.		X			X		
28	127	SEVENTH	17 + 18	20' LT.	X			REMOVE BY OTHERS			
29	128	SEVENTH	17 + 18	39' RT.	X			REMOVE BY OTHERS			
30	129	SEVENTH	18 + 25	37' LT.	X		971.19			X	
31	130	SEVENTH	18 + 44	15' LT.	X		971.01			X	
32	131	SEVENTH	18 + 67	21' LT.	X		971.10			X	
33	132	SEVENTH	18 + 74	19' LT.	X			REMOVE BY OTHERS			
34	133	MARGARET	0 + 06	14' LT.	X			ADJUST BY OTHERS			
35	134	MARGARET	0 + 39	10' RT.	X		971.59			X	
36	135	MARGARET	0 + 47	20' RT.		X	A 970.70				
37	136	SEVENTH	18 + 83	32' RT.	X		971.12			X	
38	137	SEVENTH	19 + 06	32' RT.		X			X		
39	138	MARGARET	1 + 52	9' LT.	X		972.20			X	
40	139	MARGARET	1 + 55	22' LT.		X	A 971.90				
41	140	MARGARET	1 + 76	12' RT.	X		973.30	GATE VALVE MANHOLE		X	
42	141	SEVENTH	19 + 52	20' LT.	X		971.30	GATE VALVE MANHOLE		X	
43	142	SEVENTH	19 + 79	32' LT.		X			X		
44	143	MARGARET	1 + 83	27' RT.		X			X		
45	144	SEVENTH	23 + 00	8' LT.	X			REMOVE BY OTHERS			
46	145	SEVENTH	27 + 74	20' LT.	X		983.41			X	
47	146	SEVENTH	28 + 11	19' LT.	X		983.76			X	
48	147	SEVENTH	28 + 29	13' LT.	X			REMOVE BY OTHERS			
49	148	SEVENTH	27 + 72	26' RT.	X			ADJUST BY OTHERS			
50	149	SEVENTH	28 + 70	25' LT.	X			ADJUST BY OTHERS			
51	150	SEVENTH	34 + 96	14' RT.		X			X		
52	151	SEVENTH	35 + 21	33' RT.	X			ADJUST BY OTHERS			
53	152	HENRY	0 + 15	9' LT.	X		983.60			X	
54	153	HENRY	0 + 44	15' RT.		X	983.50	USE INPLACE CASTING		X	
55	154	SEVENTH	35 + 80	29' RT.	X			ADJUST BY OTHERS			
56	155	SEVENTH	36 + 02	24' RT.		X	983.80	USE INPLACE CASTING		X	
57	156	SEVENTH	35 + 38	12.5' LT.	X			REMOVE BY OTHERS			
58	157	SEVENTH	35 + 56	24' LT.		X			X		
59	158	SEVENTH	35 + 67	21' LT.	X		984.50	G.V. M.H.		X	
60	159	SEVENTH	35 + 67	3' LT.	X		984.57			X	
61	160	FIRST	1 + 41	27' LT.	X			CUT IN AND CONNECT NEW CATCH BASIN LEAD			
62	161	HENRY	1 + 62	10' RT.	X		983.9	GATE VALVE MANHOLE		X	
63											
64											

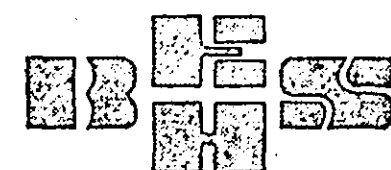
CATCH BASIN AND MANHOLE CASTINGS				
TYPE	M.H.D. CASTING NO.			NEENAH CAT. NO.
	FRAME	GRATE	BOX	
A	801	810	St. Paul-M	R-3250-1
B				R-3205
C				R-1760-D
D	R-1760	R-2405C	Non-Rock (Hegnah No. Only)	

DETOUR MAP LEGEND

- PUBLIC PARKING LOTS
- 4 WAY STOP
- BARRICADES
- TRAFFIC DIRECTION



SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				



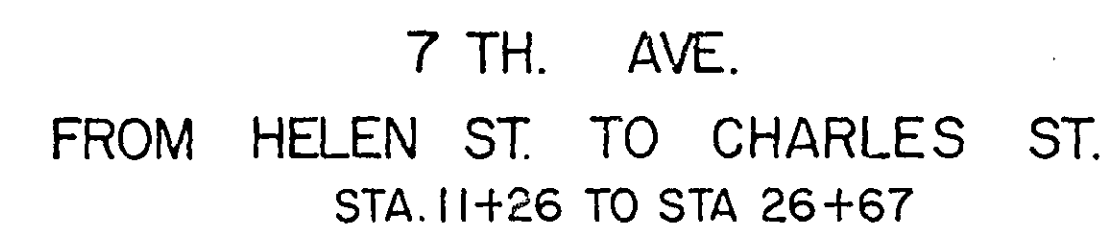
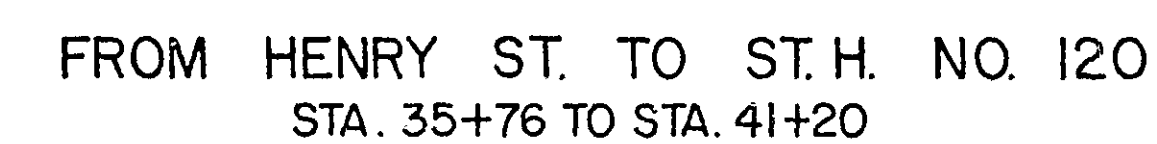
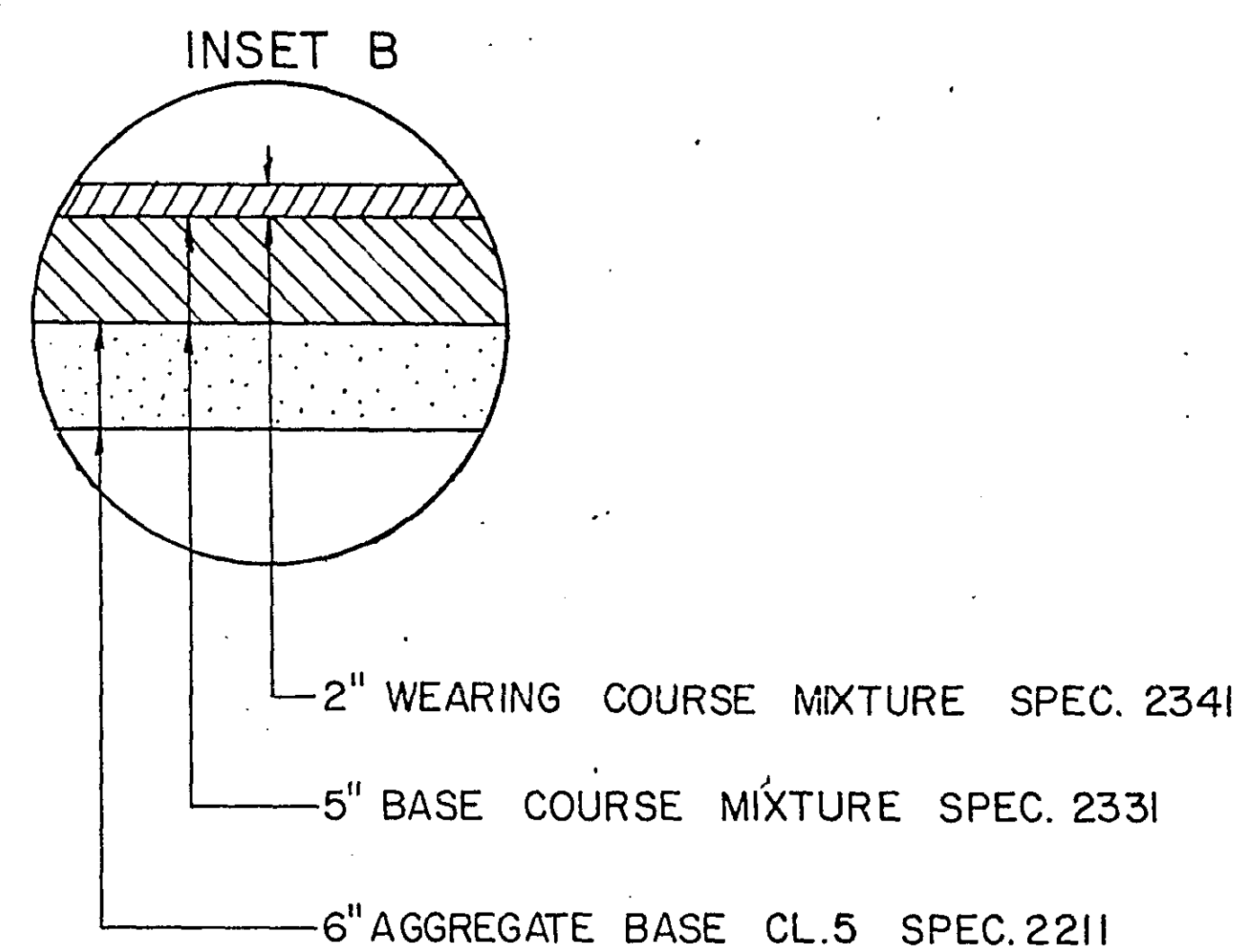
BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

NORTH SAINT PAUL, MINNESOTA

INPLACE STRUCTURE SCHEDULE
AND
DETOUR MAP

C.S.A.P. NO. 62-628-03 S.A.P. NO. 151-020-05

FILE NO.: 7378	6
DATE: APRIL 26, 1974	58



NOTE: TYPICAL DRIVEWAY RADIUS SHALL BE 5'
UNLESS OTHERWISE INDICATED.

FROM FIRST ST. TO HELEN &
FROM CHARLES ST. TO HENRY ST.
STA. 1+11 TO STA. 11+25
STA. 26+67 TO STA 35+76

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

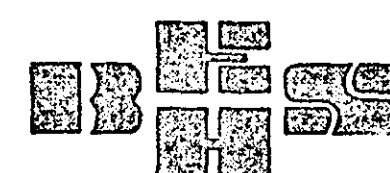
John E. Galt
Date 4/16/74 Reg. No. 4571

- ① MINIMUM 0.02'/FT.
- ② INCREASE THICKNESS OF CONCRETE SLAB BY 1" TO MATCH CONCRETE GUTTER
- ③ GUTTER SLOPE SHALL MATCH ADJACENT PAVEMENT
- ④ SIDEWALK SHALL BE 12' WIDE FROM 7+50 TO 10+40

MICROFILMED
RAMSEY CO. ENGR.

SURVEY: DESIGN: DRAWN:	APPROVED:	NO.	DATE	REVISIONS

SCALE:
NONE



BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

NORTH SAINT PAUL, MINNESOTA

TYPICAL SECTIONS

S.A.D. 7303

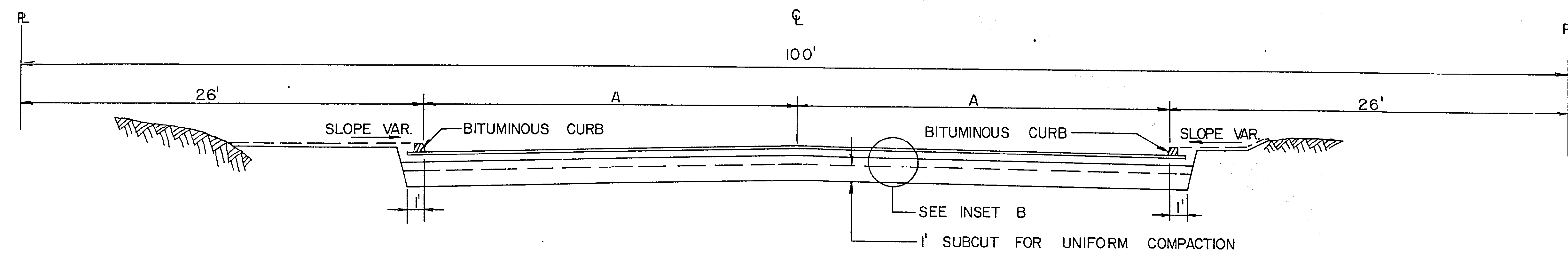
FILE NO.:

7378

DATE:

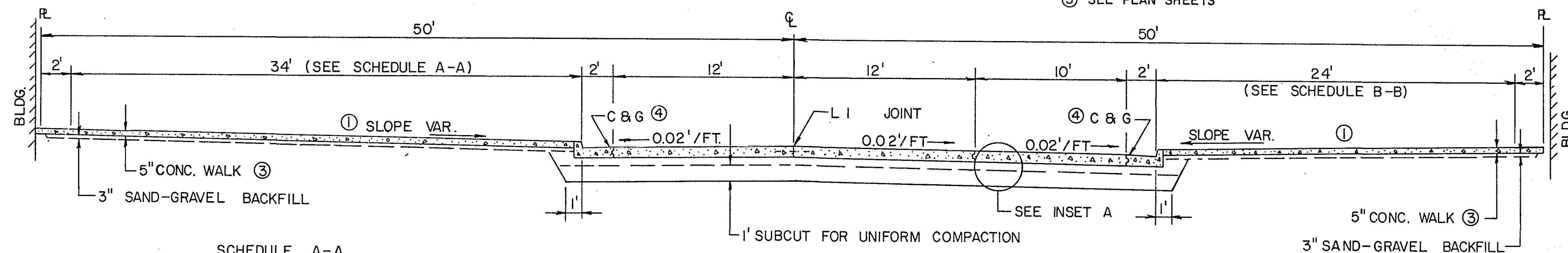
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5



7TH AVE.		A ⑤
STA. 0+00	TO STA. 1+11.9	VARIES
STA. 41+20	TO STA. 3+00	24'
STA. 43+00	TO STA. 43+15	VARIES

⑤ SEE PLAN SHEETS



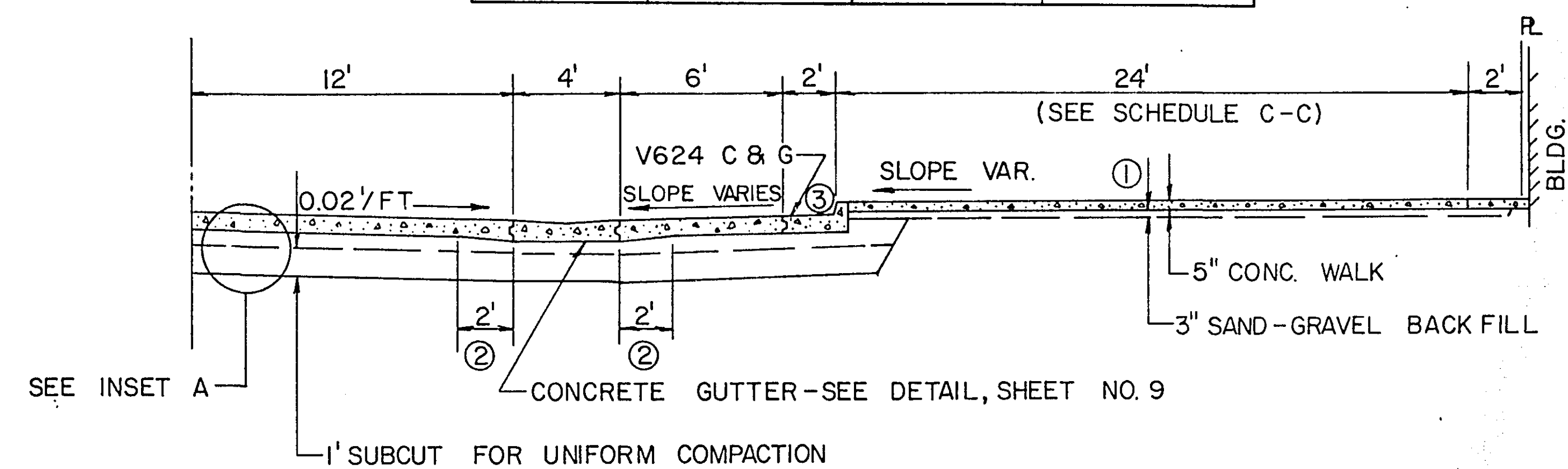
SCHEDULE A-A
WIDE BOULEVARD AT PEDESTRIAN CROSSWALKS

NORTH SIDE OF 7TH AVE.		SOUTH SIDE OF 7TH AVE.	
RET. STA.	T.O. RET. STA.	RET. STA.	T.O. RET. STA.
1+11.9	1+62.9	2+37.1	2+38.9
9+62.1	9+98.8	10+73	11+41.1
16+20.4	16+42.4	14+53	16+28
17+87.7	18+41.6	19+31.1	19+77
20+45.8	20+49.5	22+96	23+27.1
22+46.7	23+44.8	24+29.8	24+60
26+62	27+10.4	28+00.2	28+22.9
35+22.1	35+39.2		

NORTH SIDE OF 7TH AVE.		SOUTH SIDE OF 7TH AVE.	
RET. STA.	T.O. RET. STA.	RET. STA.	T.O. RET. STA.
13+80.1	14+95.4	21+85.1	22+81.9
23+56.9	24+64.2		

SCHEDULE B-B
WIDE RT. LANE FOR TURN OR BUS STOP

NORTH SIDE OF 7TH AVE.		SOUTH SIDE OF 7TH AVE.	
RET. STA.	T.O. RET. STA.	RET. STA.	T.O. RET. STA.
2+89.6	3+55	8+79.6	9+46.2
11+25.7	11+57.3	16+69.6	17+97.7
19+80	20+142	26+26.5	26+67



7 TH AVE.
MID. BLOCK BUS STOPS

- ① MINIMUM 0.02' / FT
- ② INCREASE THICKNESS OF CONCRETE SLAB BY 1" TO MATCH CONCRETE GUTTER.
- ③ GUTTER SLOPE SHALL MATCH ADJACENT PAVEMENT
- ④ SEE TYPICAL SECTIONS, SHEET NO.7

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date April 26, 1974 Reg. No. 9571

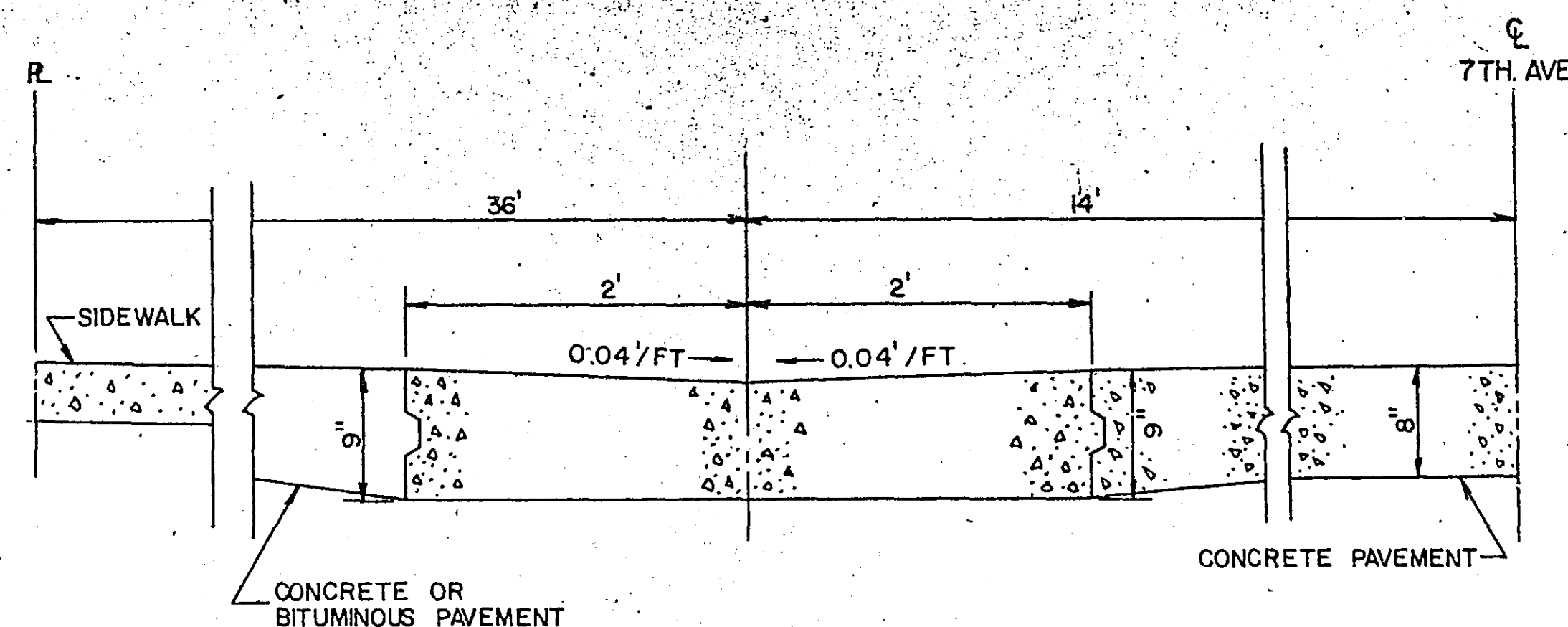
MICROFILMED
RAMSEY CO. ENGR.

S.A.D. NO. 7303

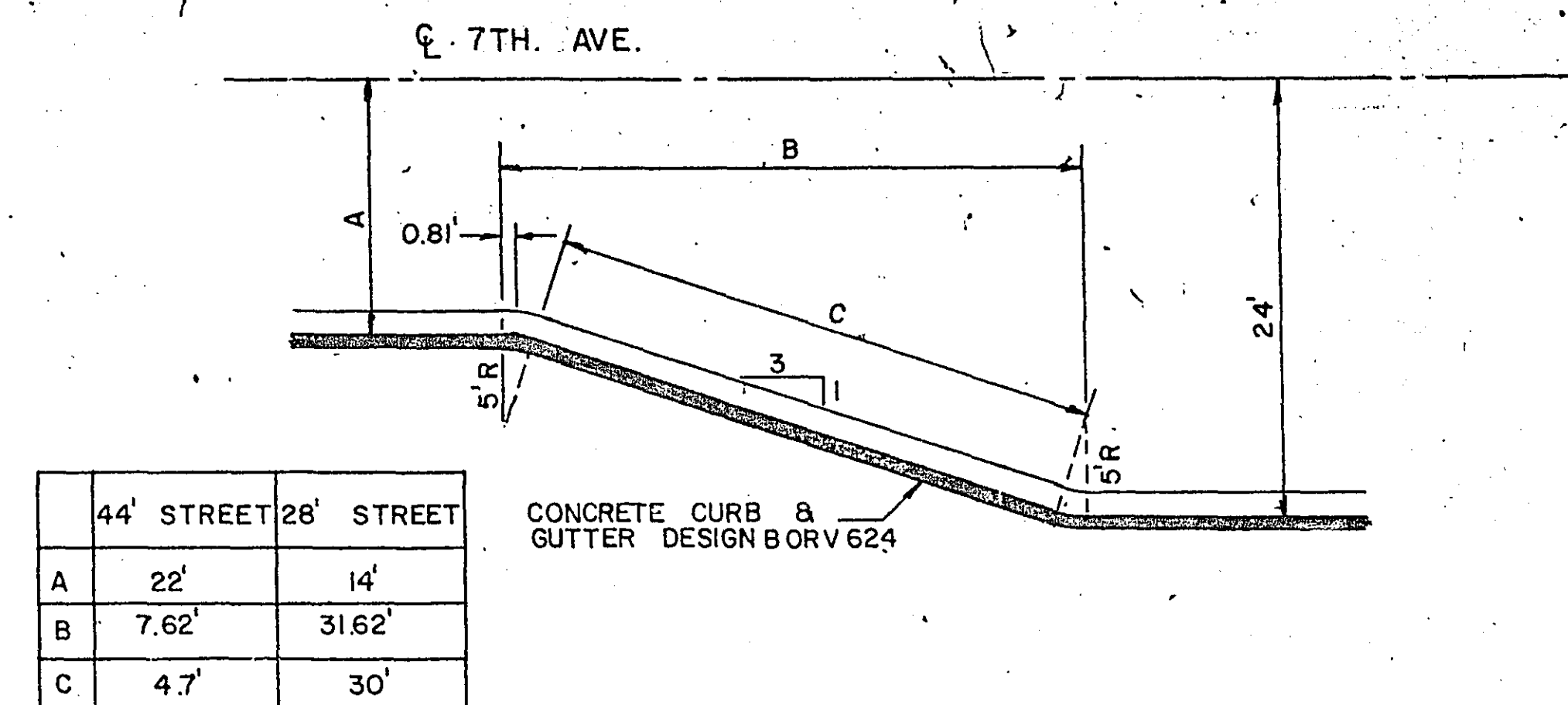
SURVEY:	APPROVED:	NO.	DATE	REVISIONS	SCALE:		BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota	NORTH SAINT PAUL, MINNESOTA	TYPICAL SECTIONS	FILE NO.:	8 58
DESIGN:					NONE					7378	
DRAWN:										DATE:	
										APRIL 26, 1974	

The following Standard Plates, approved by the Bureau of Public Roads, shall apply on this project.

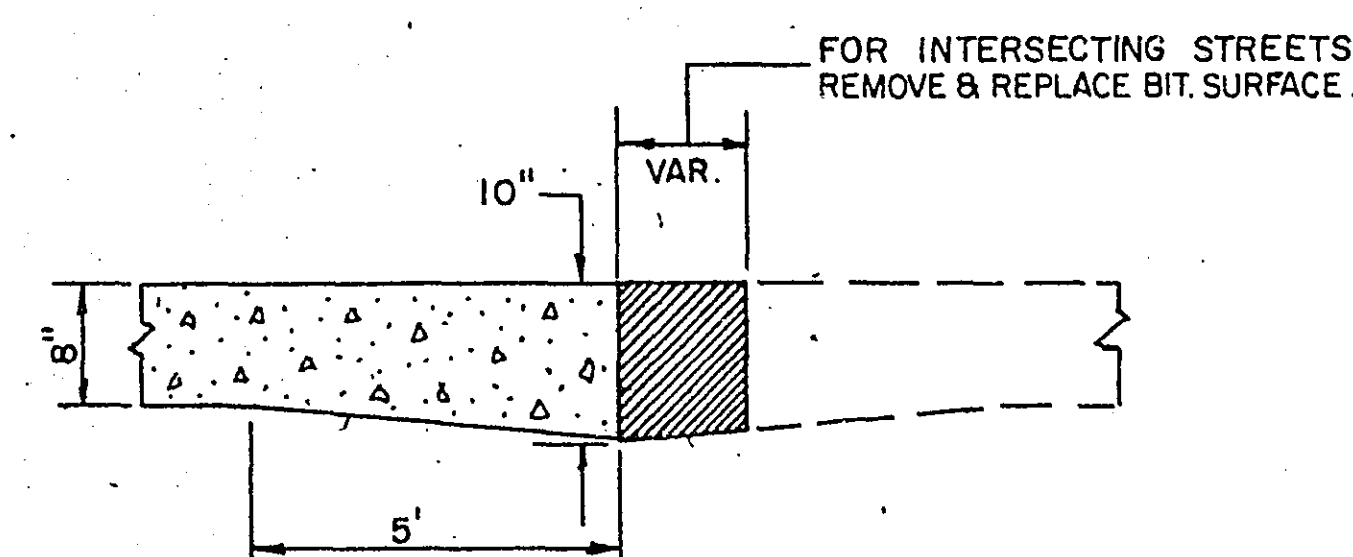
PLATE NO.	DESCRIPTION
1016 D	CONCRETE PAVEMENTS NON-REINFORCED
1100 I	EXPANSION JOINTS
1120 M	CONTRACTION JOINT
1140 M	LONGITUDINAL JOINTS
1141 B	PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTIONS
1150 M	CONSTRUCTION OF HEADER JOINTS
3000 F	REINFORCED CONCRETE PIPE
3006 A	GASKET JOINT FOR R.C. PIPE
3040 C	CORRUGATED METAL PIPE
3123 F	METAL APRON FOR C.M. PIPE
3124 A	METAL APRON CONNECTION
4010 D	CONC. SHORT EONE AND ADJUSTING RING
4126 D	CATCH BASIN FRAME CASTING
4149 C	GRATE CASTING FOR CATCH BASIN
4181 A	ALUMINUM MANHOLE STEP
7035 G	CONCRETE WALK AND CURB RETURNS AT ENTRANCE
7036 A	PEDESTRIAN CURB RAMP
7100 D	CONCRETE CURB AND GUTTERS (DESIGN V)
7110 E	CURB AND GUTTER CONSTRUCTION AT CATCH BASIN
7111 D	INSTALLATION OF CATCH BASIN CASTINGS
8000 F	STANDARD BARRICADES



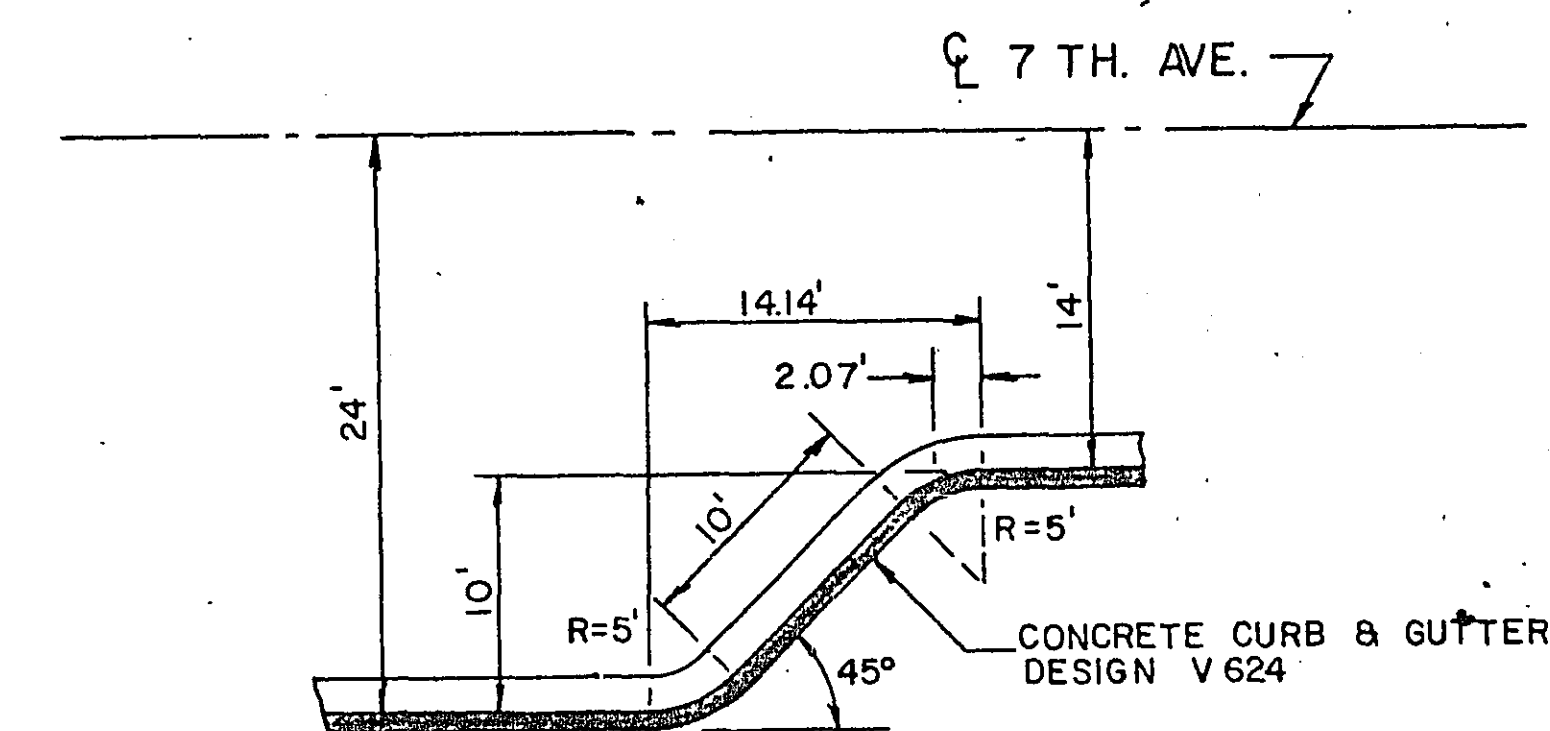
CONCRETE GUTTER



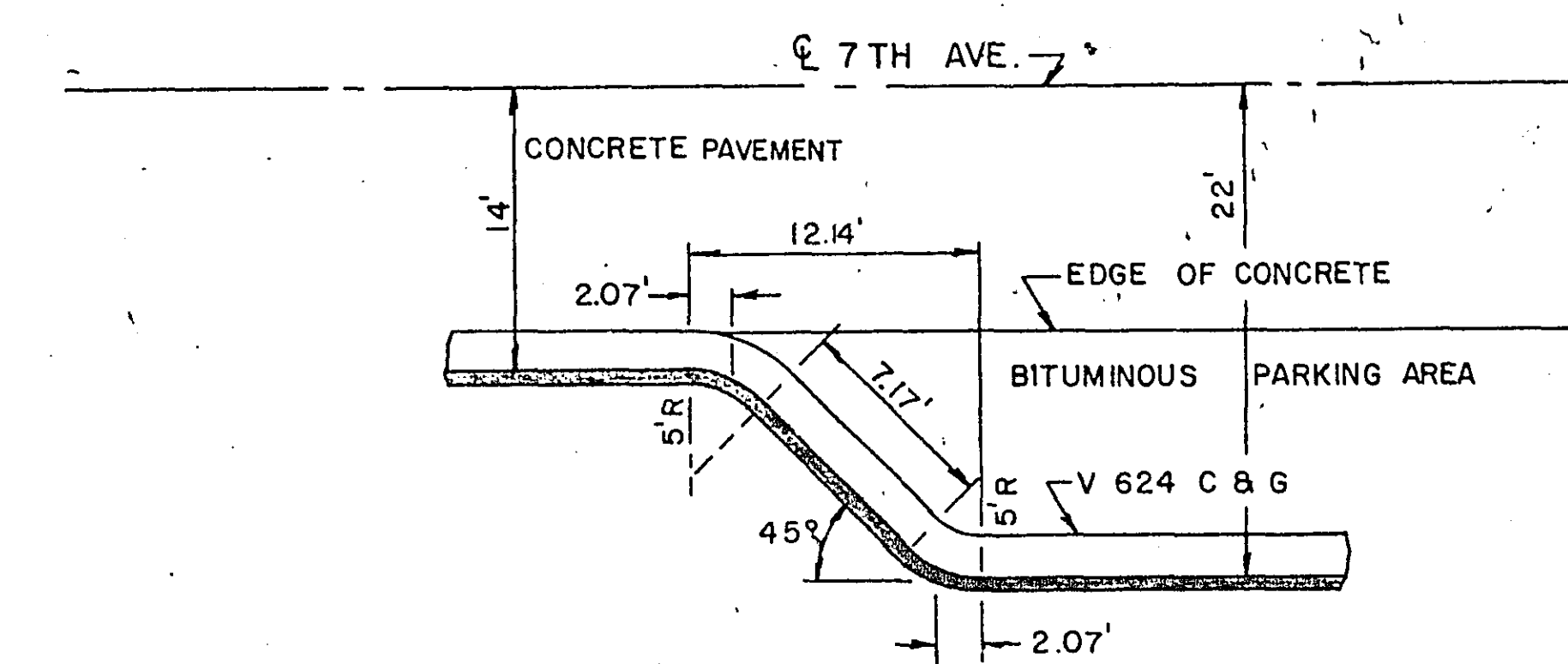
TYPICAL CURB DETAIL @ ENTER BUS AND ENTER RIGHT TURN LANE



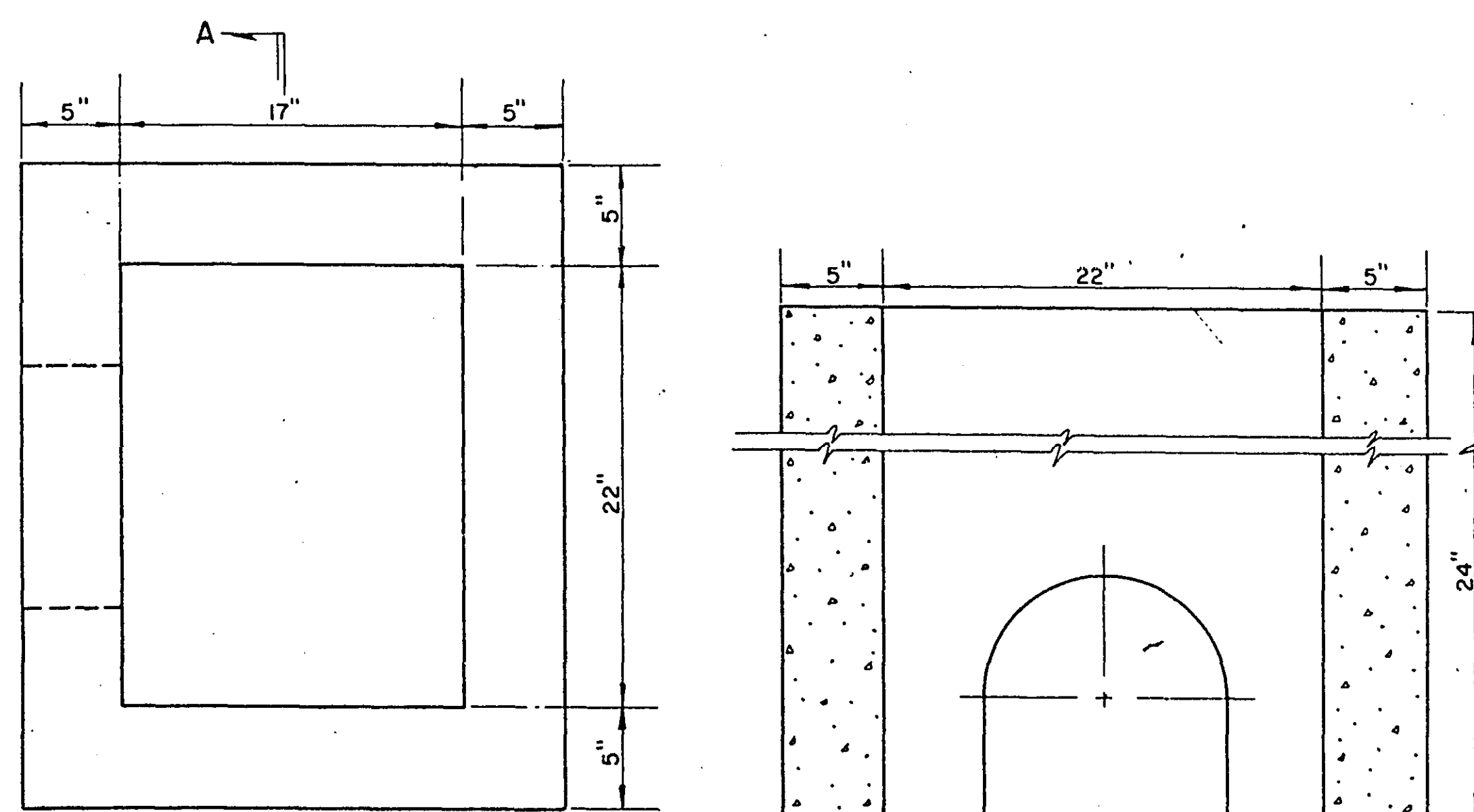
TYPE A JOINT



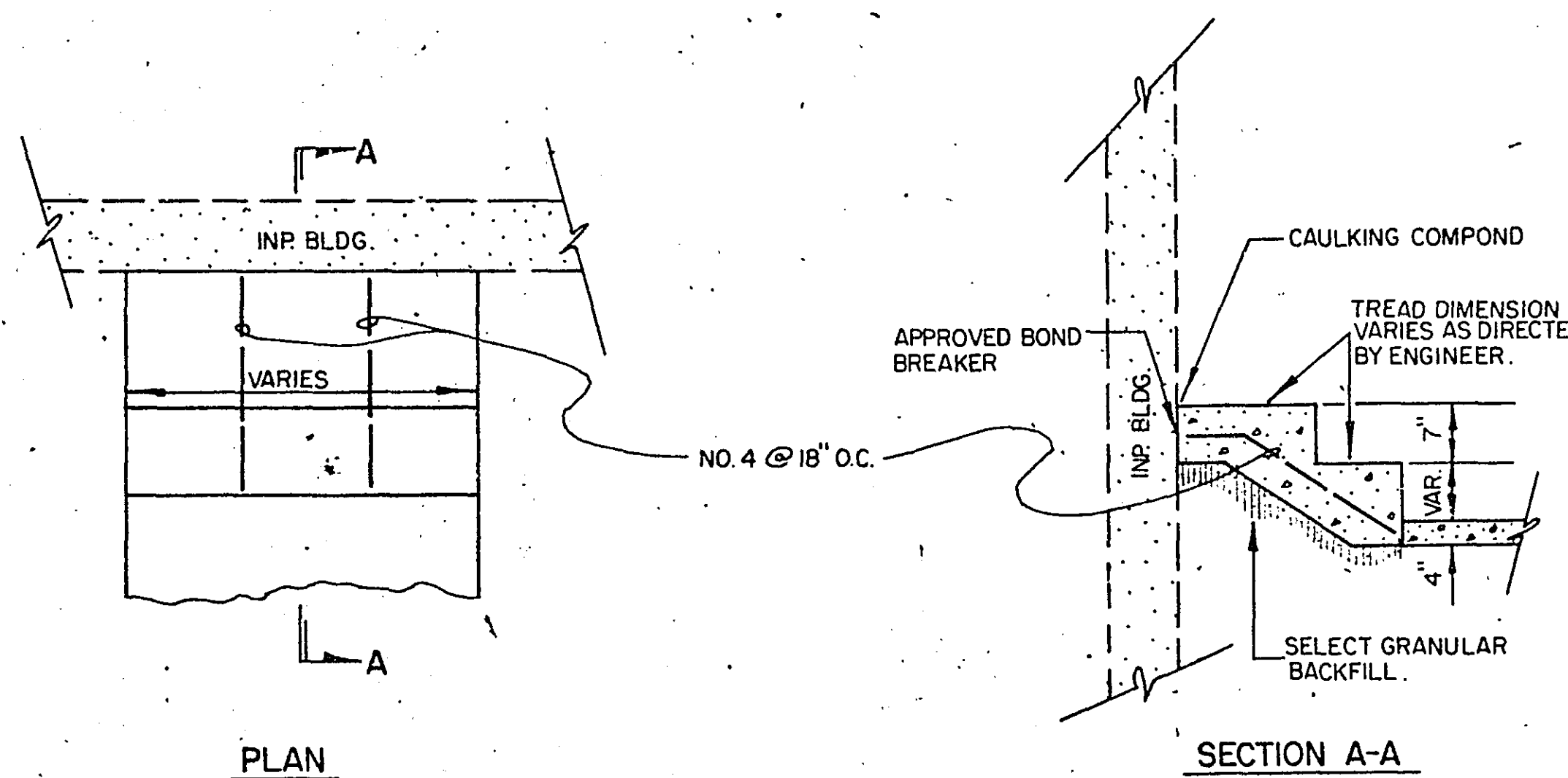
TYPICAL CURB DETAIL @ MID BLOCK BUS STOP EXITS



TYPICAL CURB DETAIL @ PARALLEL PARKING STALLS



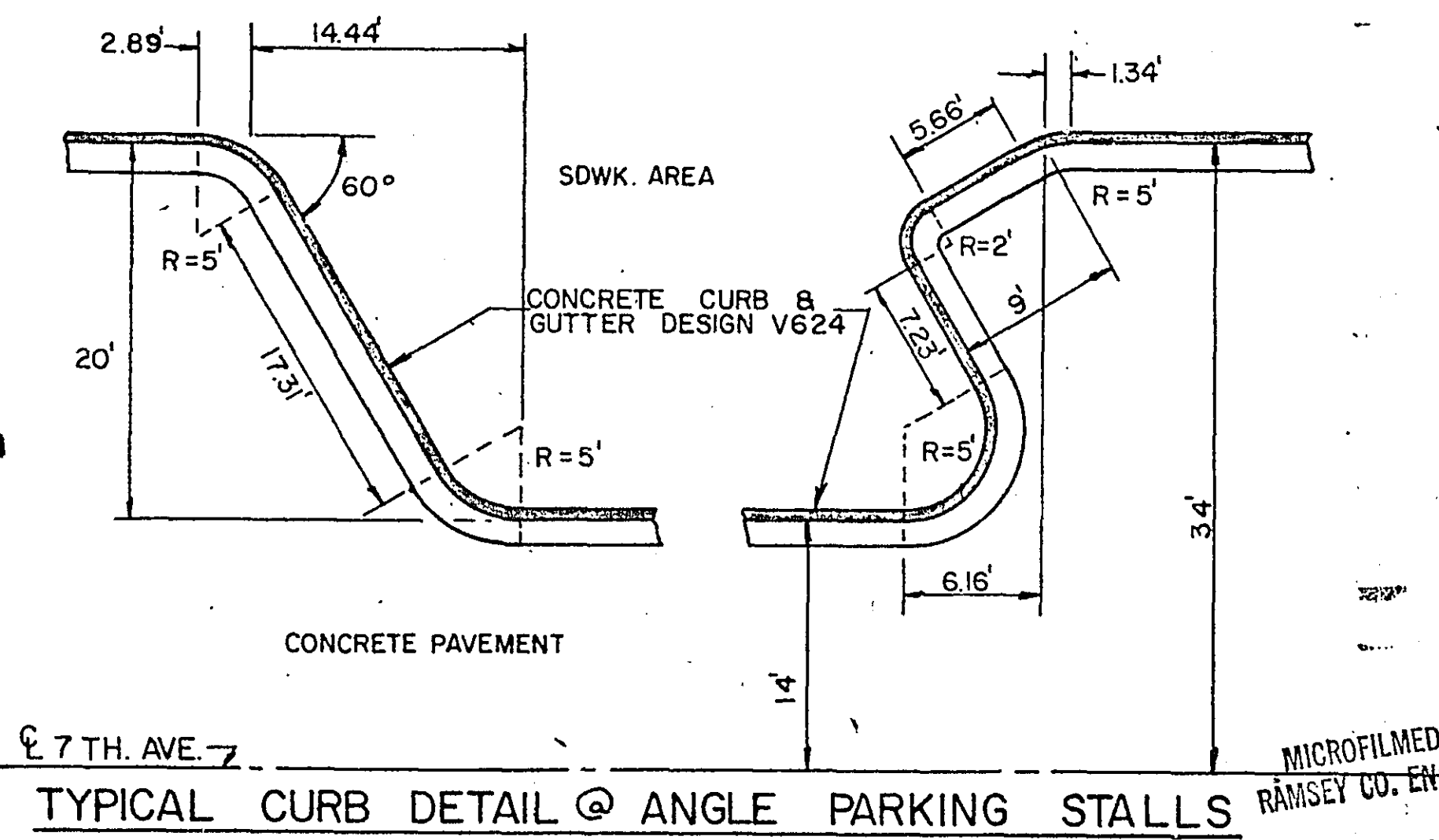
TYPE "Z" CATCH BASIN



TYPICAL CONCRETE STEP DETAIL

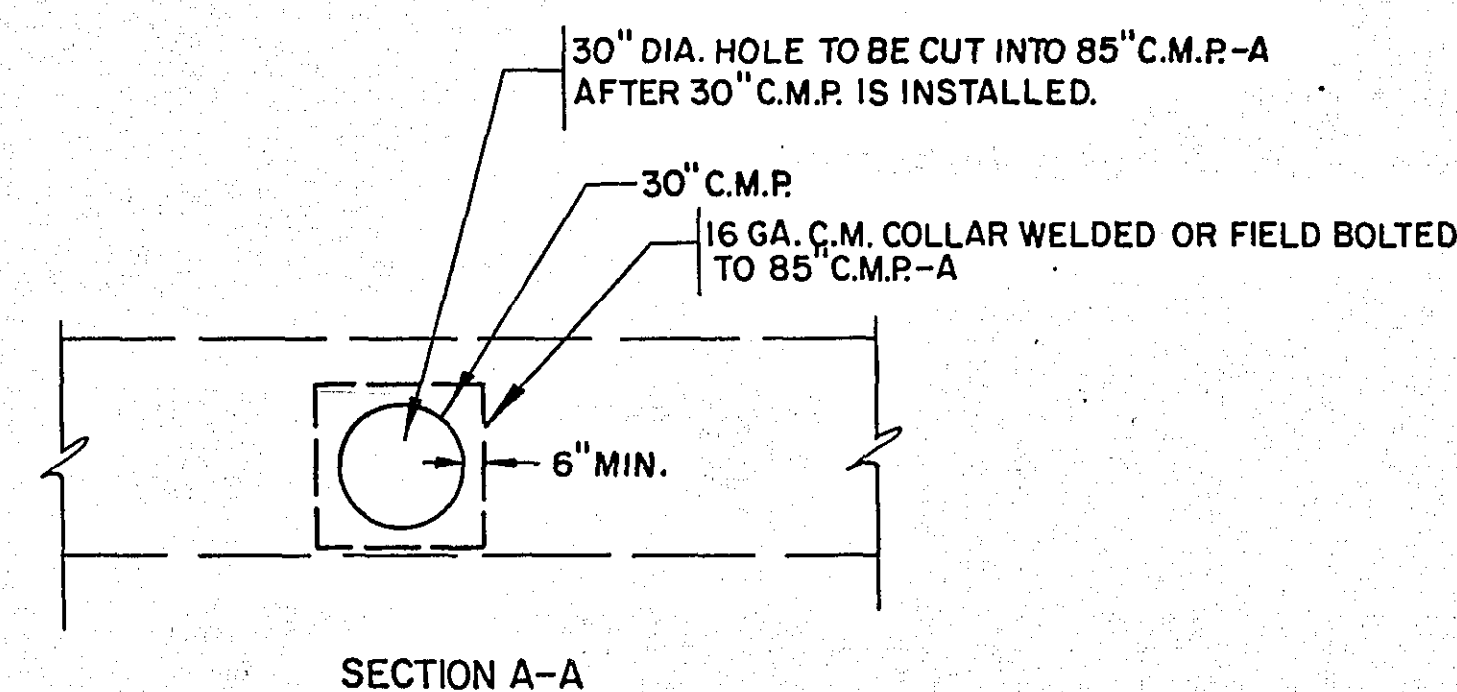
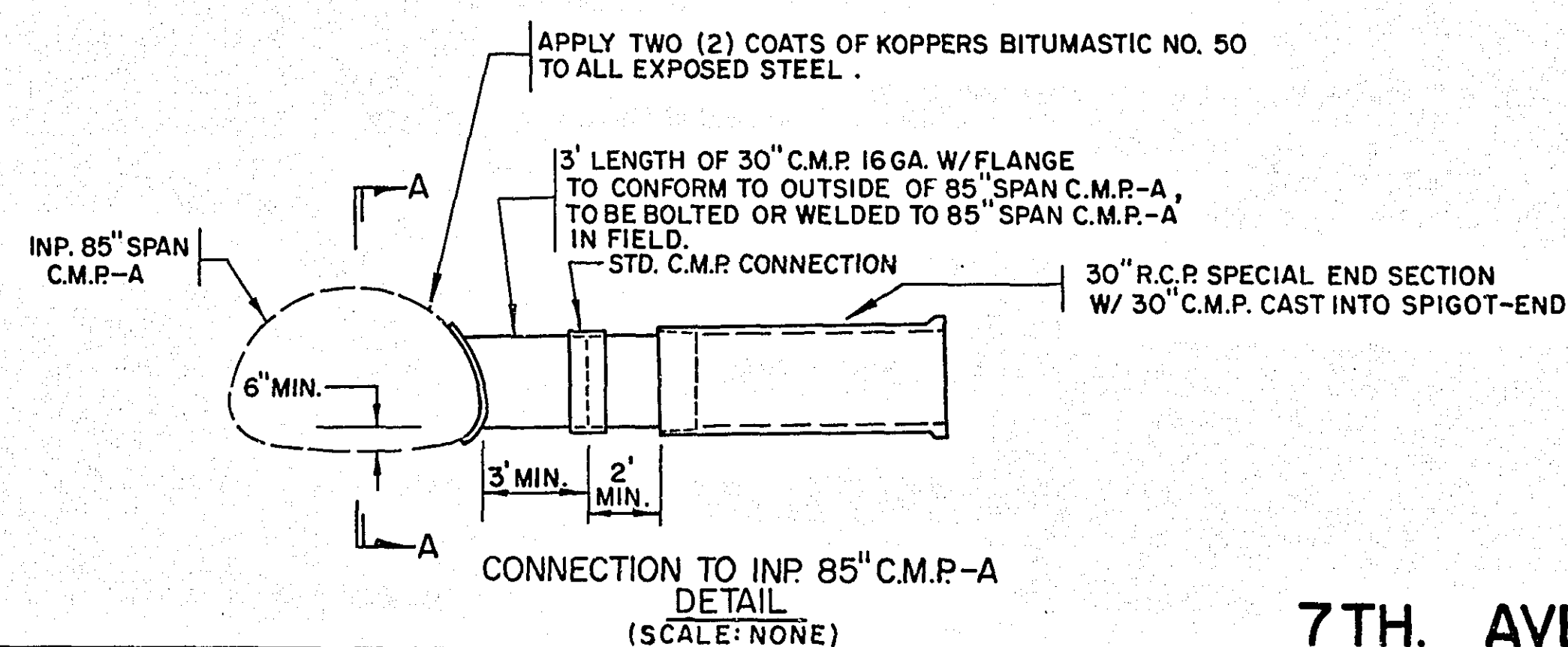
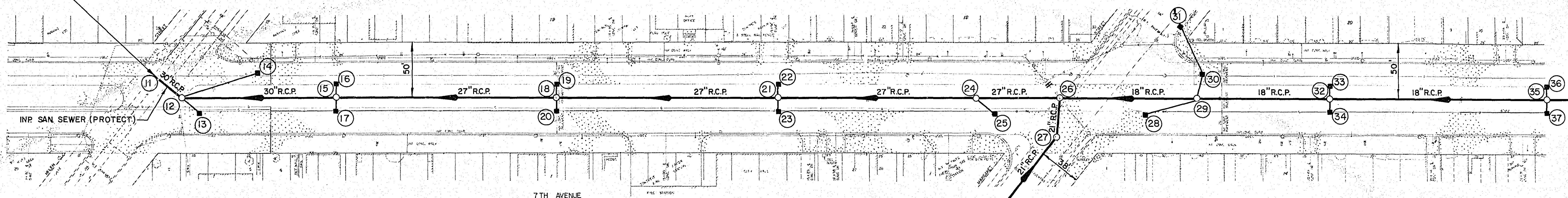
NOTE: SEE SPECIFICATIONS FOR ADDITIONAL DETAILS

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 4/14/78 Reg. No. 4571

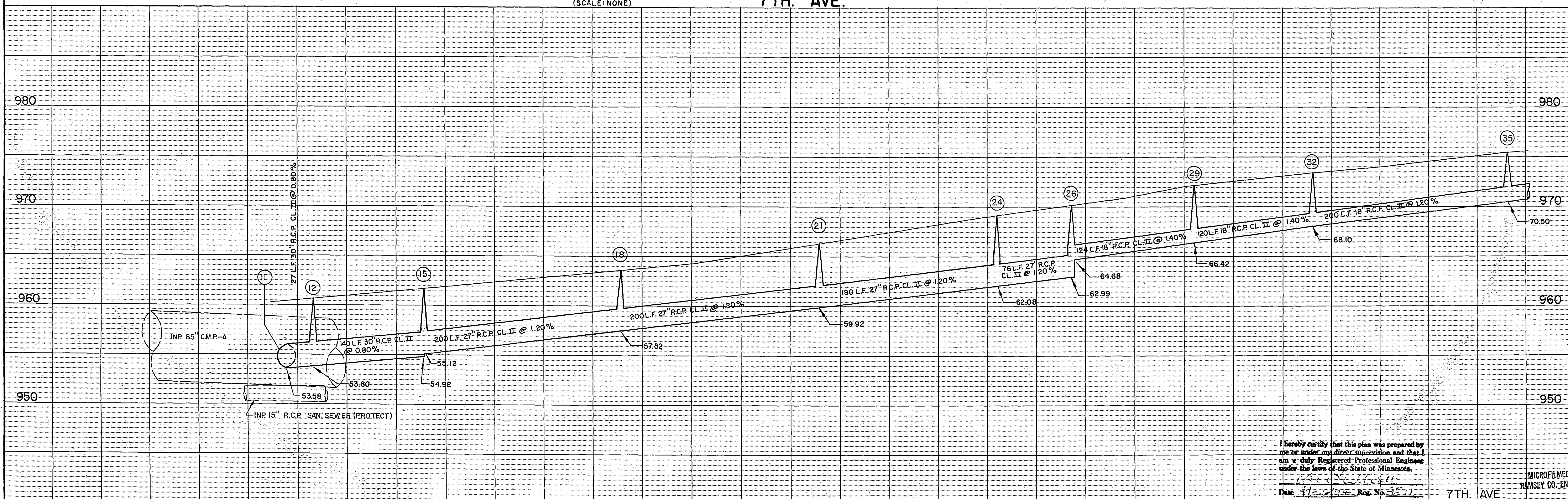


TYPICAL CURB DETAIL @ ANGLE PARKING STALLS

NOTE: CONTRACTOR TO VERIFY LOCATION & ELEVATION OF INP. 85" C.M.P.-A STORM SEWER AT THIS POINT BEFORE CONSTRUCTION OF NEW 30" R.C.P. STORM SEWER. (SEE DETAIL BELOW)



7TH. AVE.



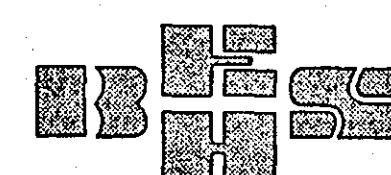
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 3/22/77 Reg. No. 3511

7TH. AVE.

MICROFILMED
RAMSEY CO. ENGR.

SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				

SCALE:
1" = 50' HORIZ.
1" = 5' VERT.



BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

NORTH SAINT PAUL, MINNESOTA

STORM SEWER

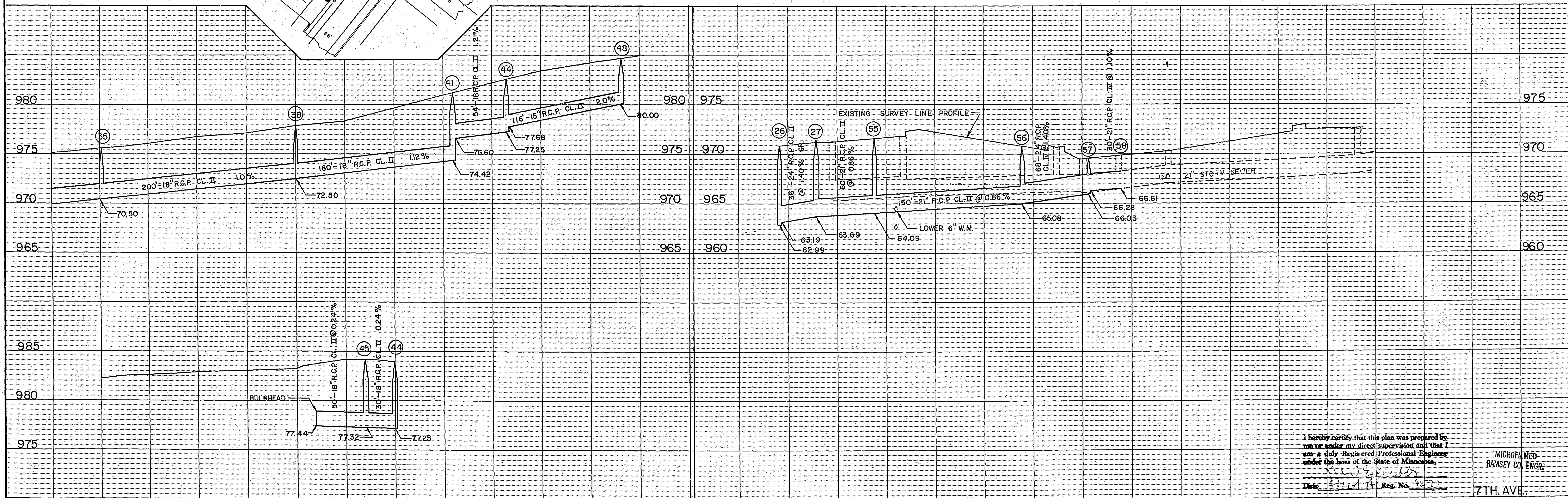
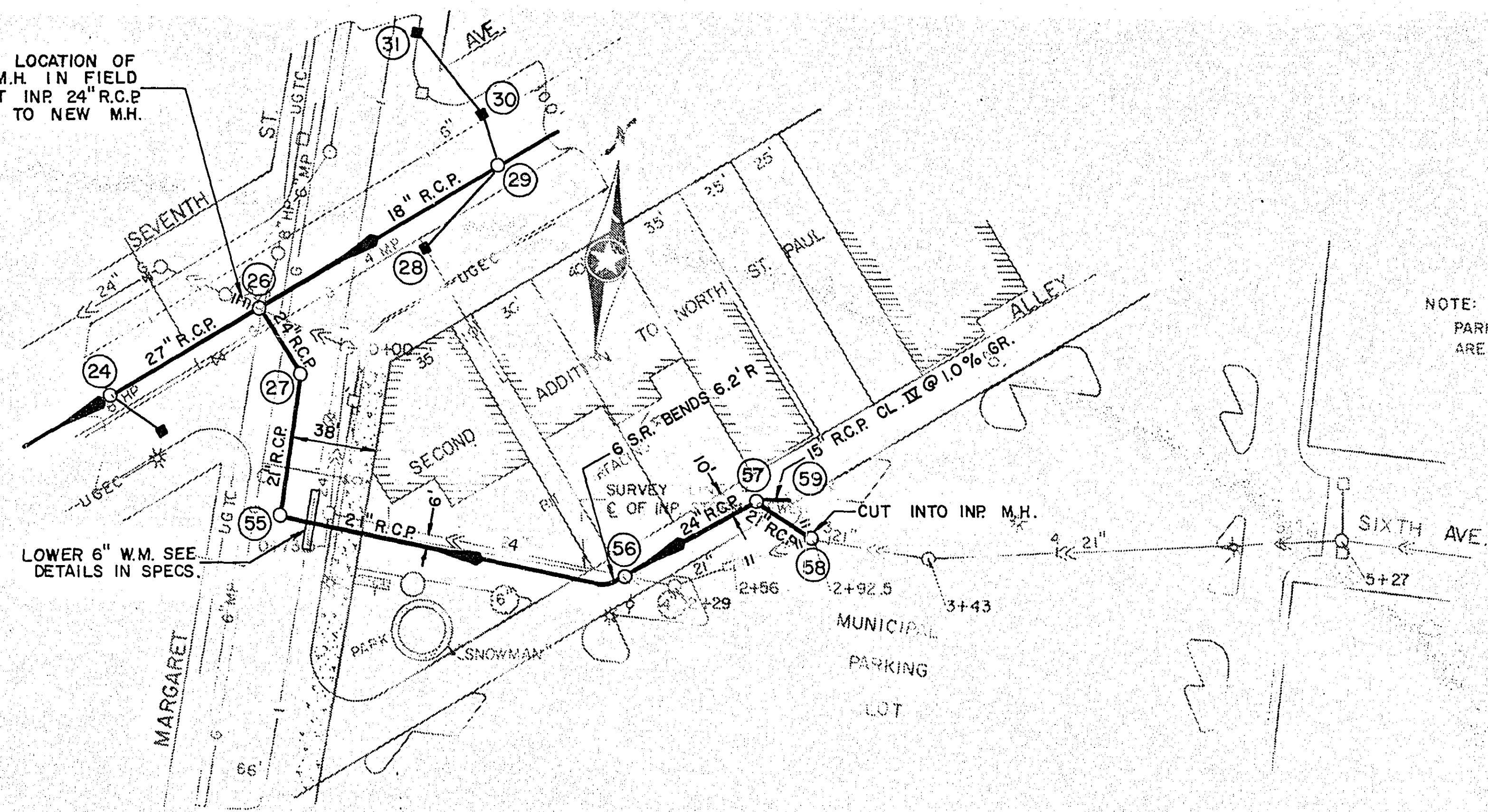
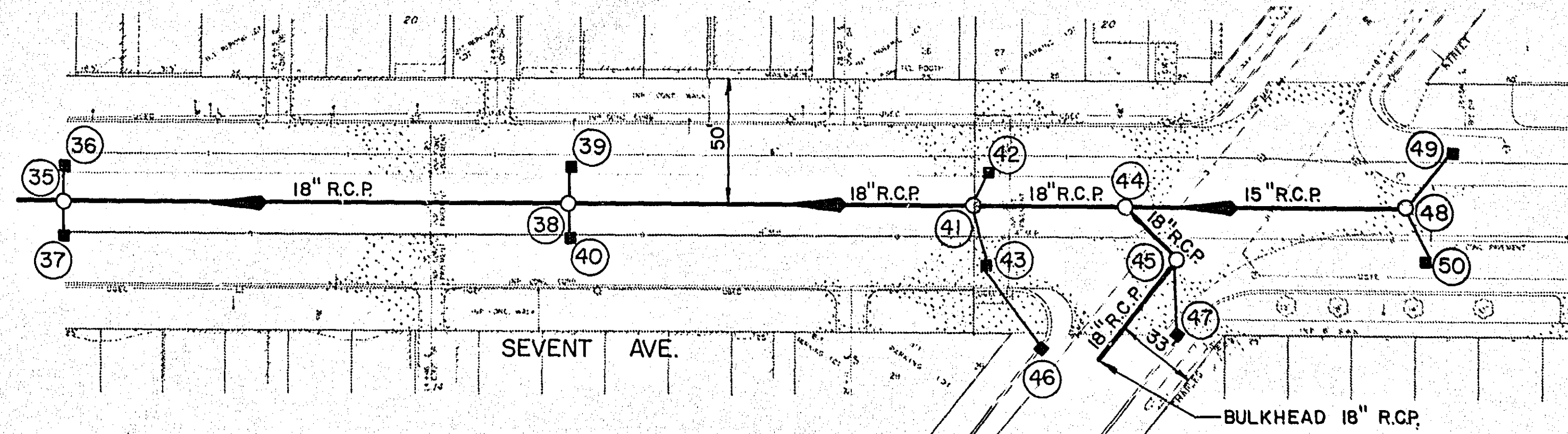
S.A.D. 7303

FILE NO.:	10
DATE:	58
APRIL 26, 1974	

57-111

VERIFY LOCATION OF
M.H. IN FIELD
CONNECT INP. 24" R.C.P.
TO NEW M.H.

NOTE:
PARKING LOT ISLANDS
ARE B-618 C.S.G.

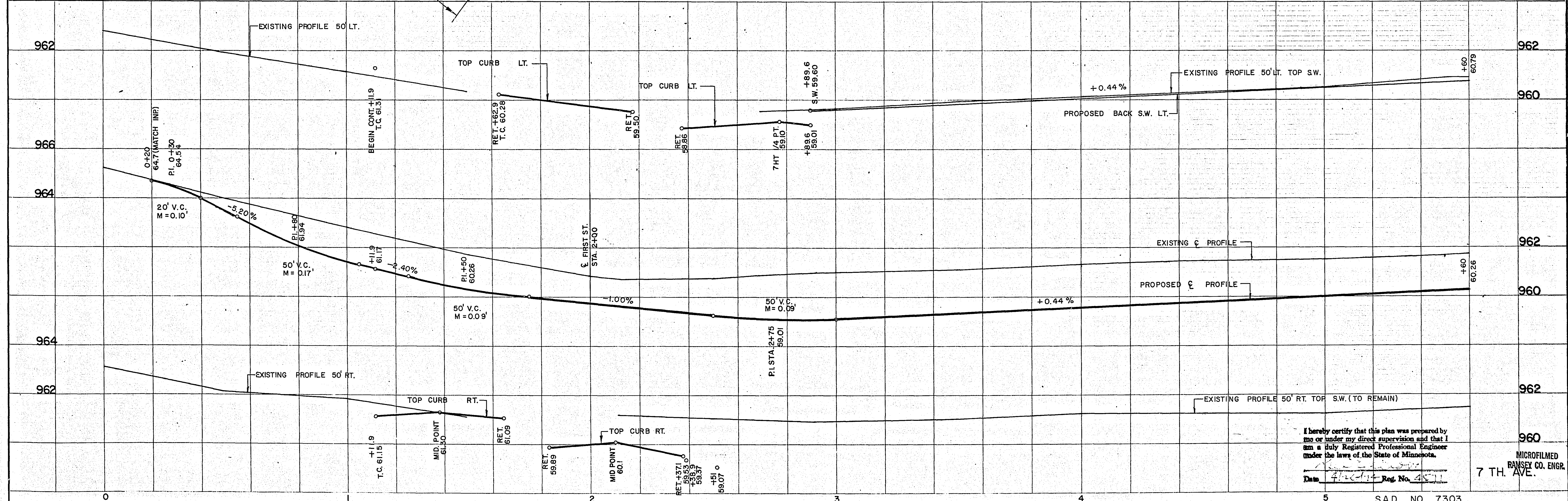
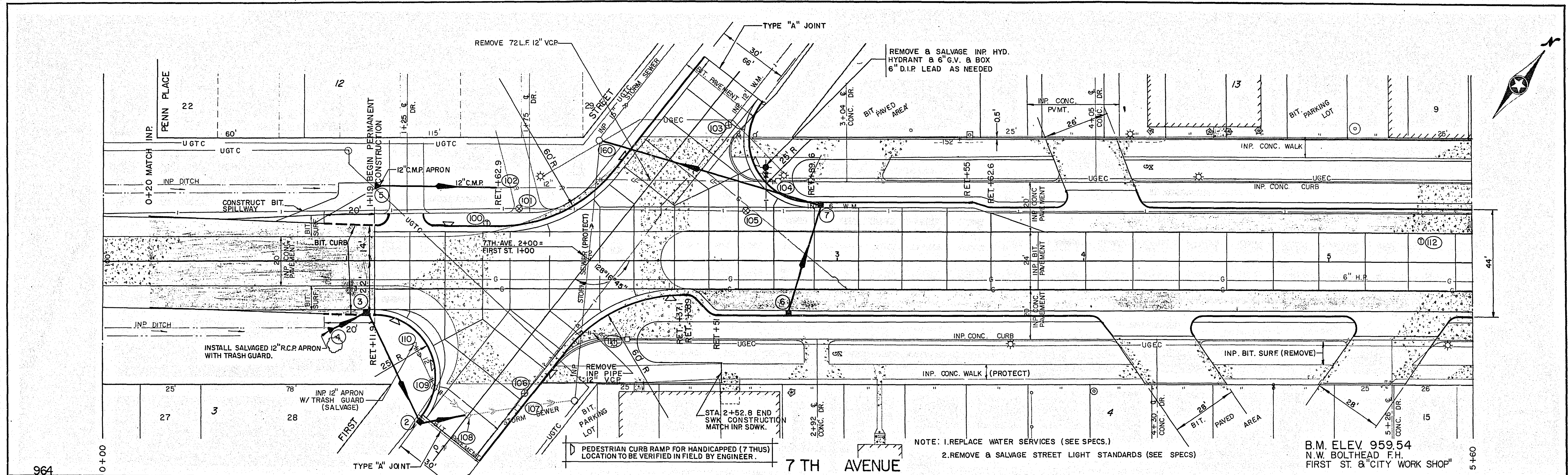


I hereby certify that this plan was prepared by
me or under my direct supervision and that I
am a duly Registered Professional Engineer
under the laws of the State of Minnesota.
Date: 4/12/74 Reg. No. 4521

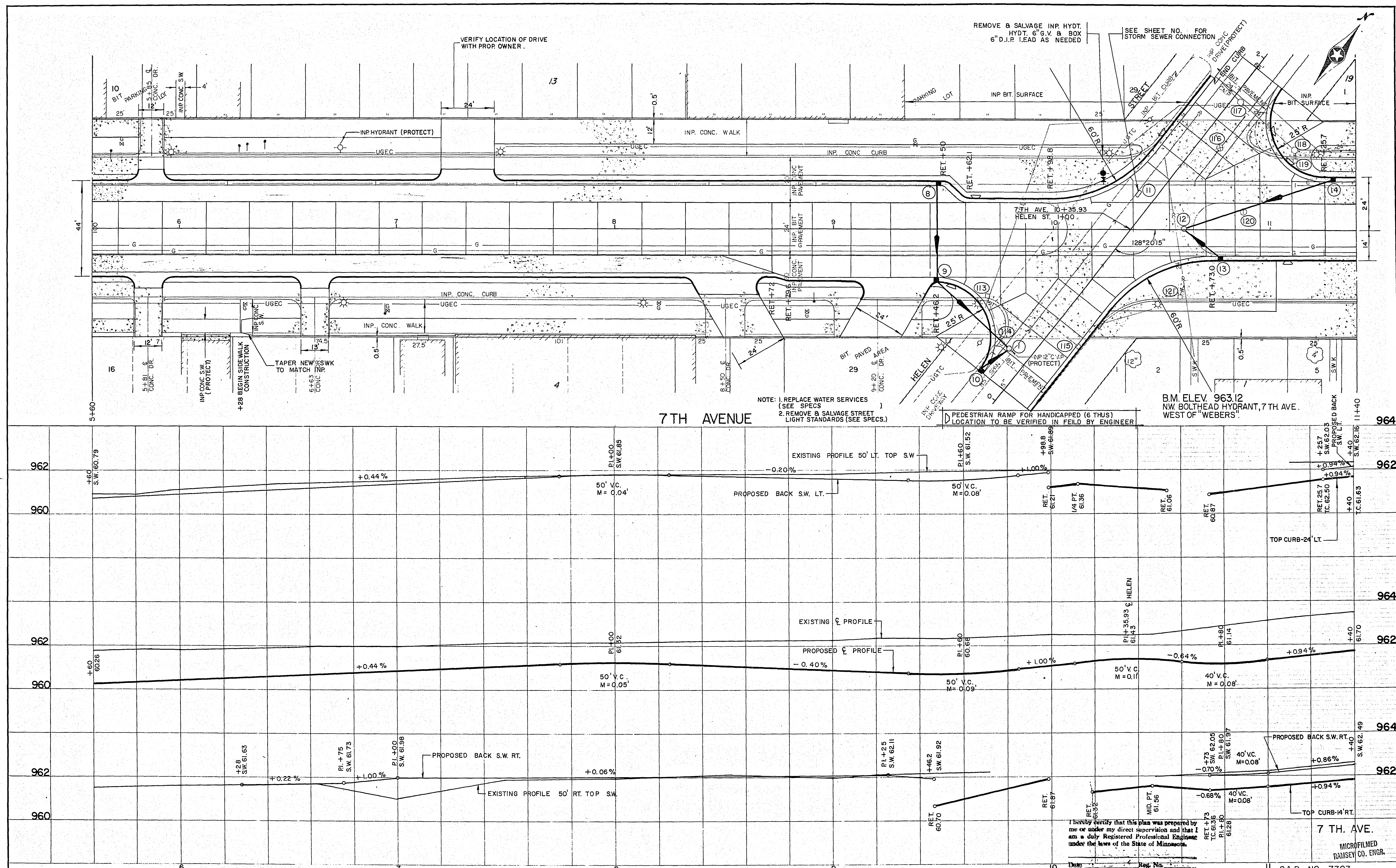
MICROFILMED
RAMSEY CO. ENGR.

7TH. AVE.

SURVEY: DESIGN: DRAWN:	APPROVED:	NO.	DATE	REVISIONS	SCALE:	BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota	NORTH SAINT PAUL, MINNESOTA	STORM SEWER	FILE NO.:	11 58	
									DATE:		
									APRIL 26, 1974		



SURVEY:		APPROVED:		NO. DATE		REVISIONS		SCALE:		BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES.		NORTH SAINT PAUL, MINNESOTA		STREET CONSTRUCTION AND SIDEWALKS		FILE NO. 7378		12	
DESIGN:								1" = 20' HORIZ.		Saint Paul, Minnesota						DATE: APRIL 26, 1974		58	
DRAWN:								1" = 2" VERT.											



SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				

SCALE:
1" = 20' HORIZ.
1" = 2' VERT.

REFS

BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

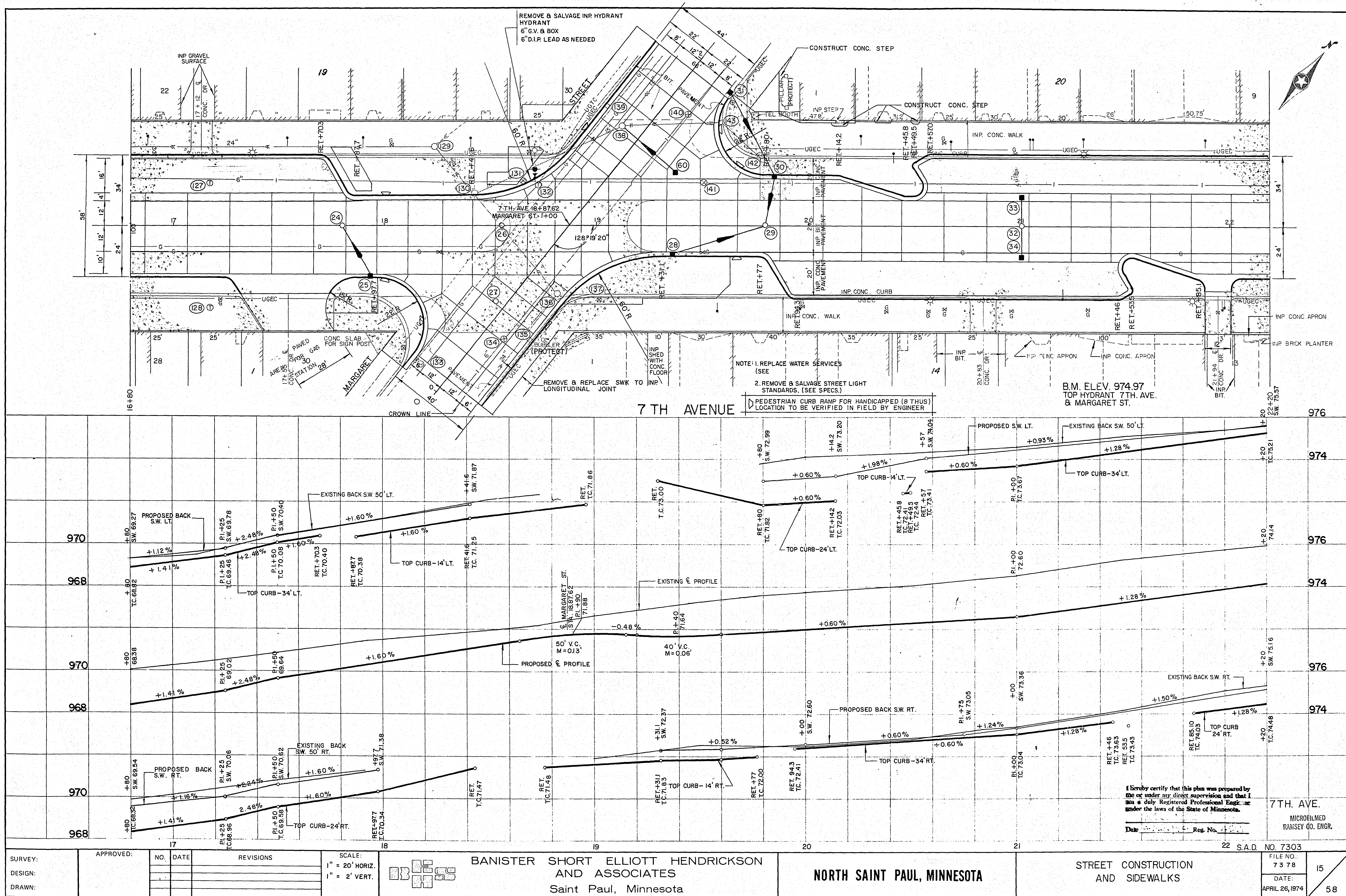
NORTH SAINT PAUL, MINNESOTA

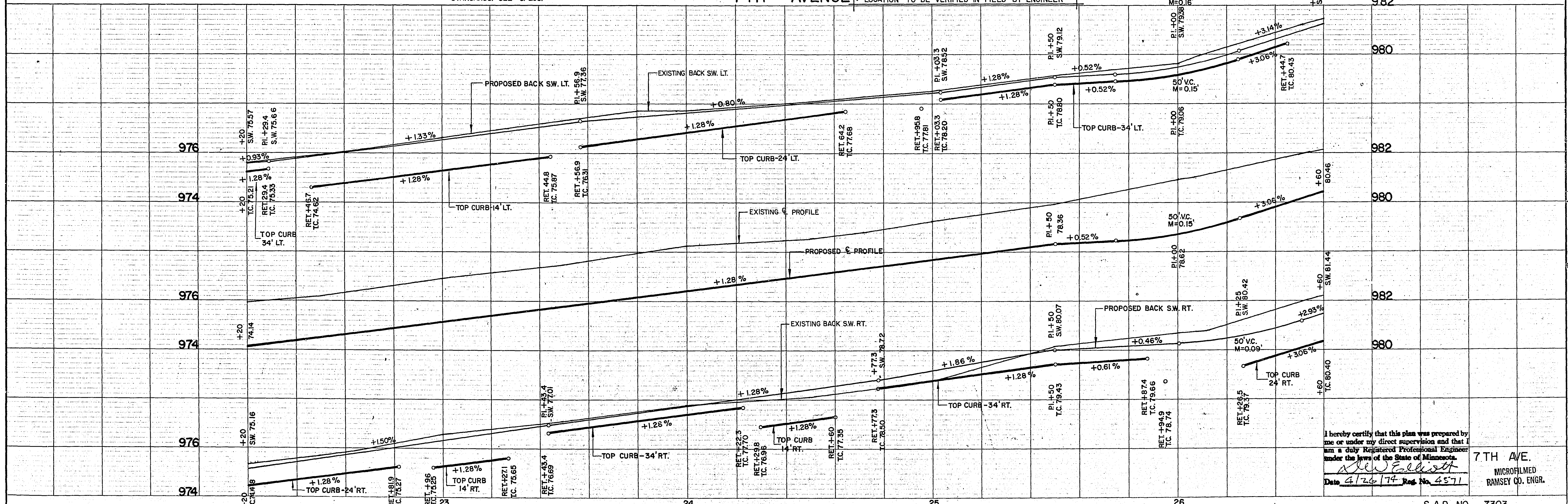
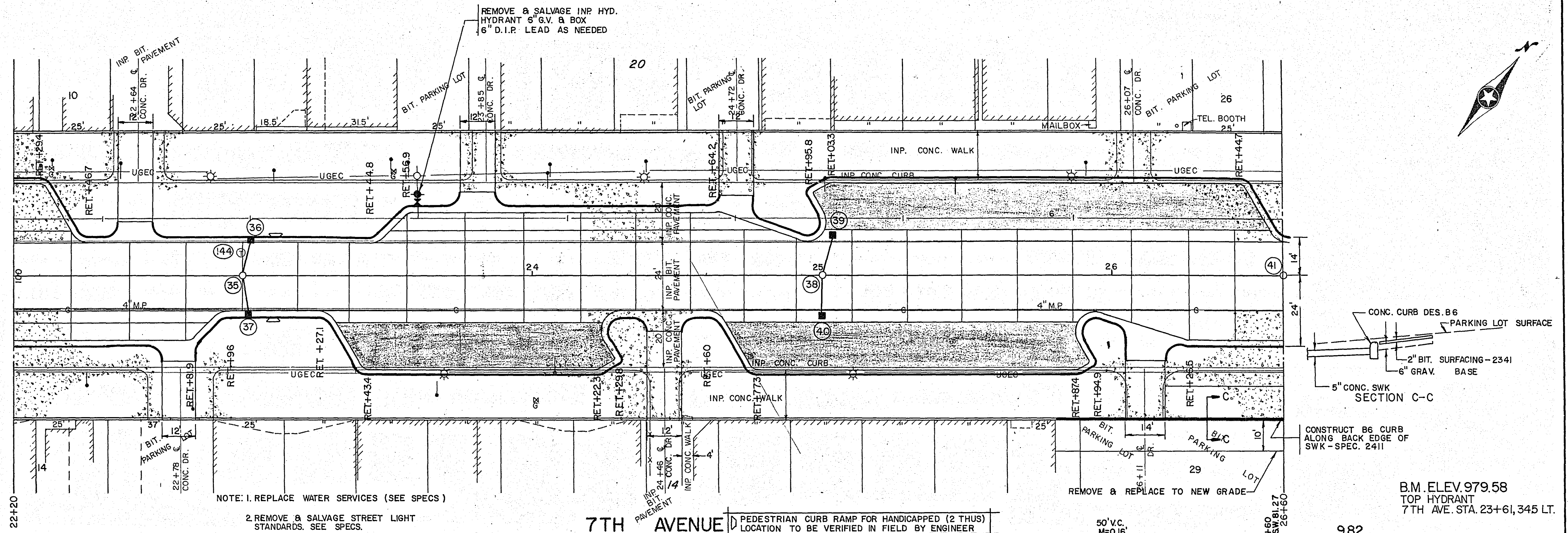
STREET CONSTRUCTION
AND SIDEWALKS

FILE NO.: 7378	13 58
DATE: APRIL 26, 1974	

C. S. A. P. NO. 62-628-03

S.A.P. 151-020-05





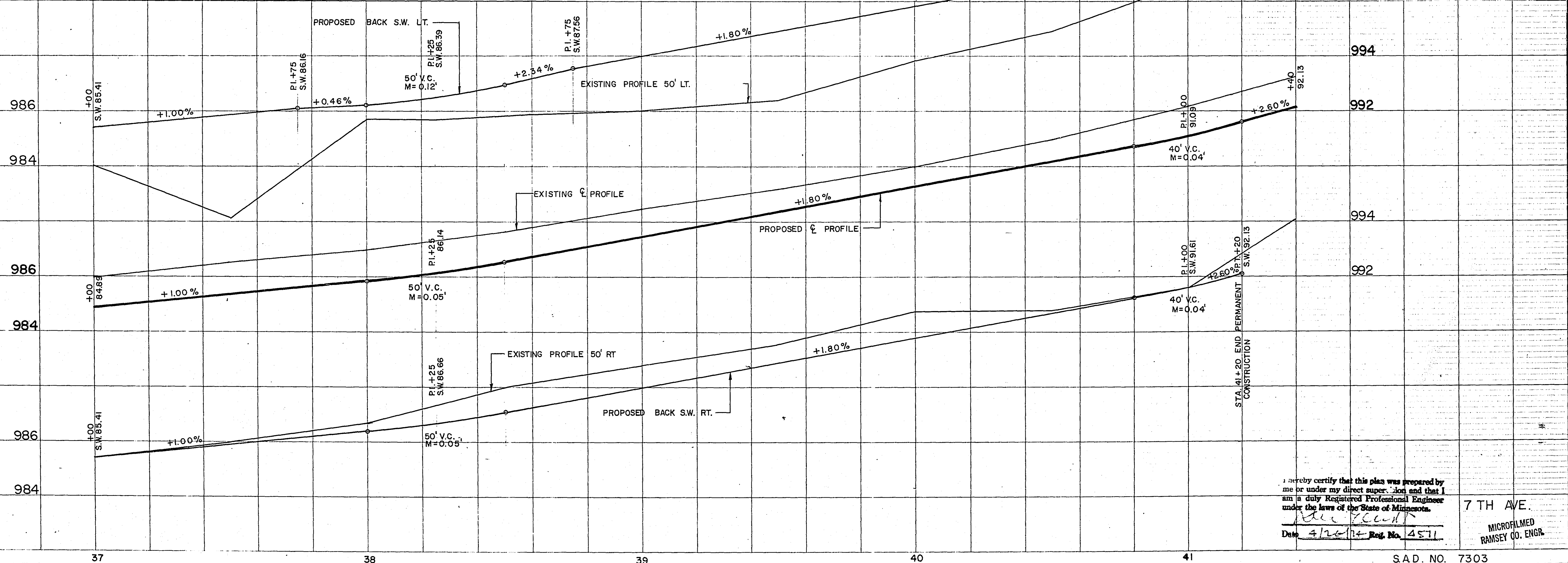
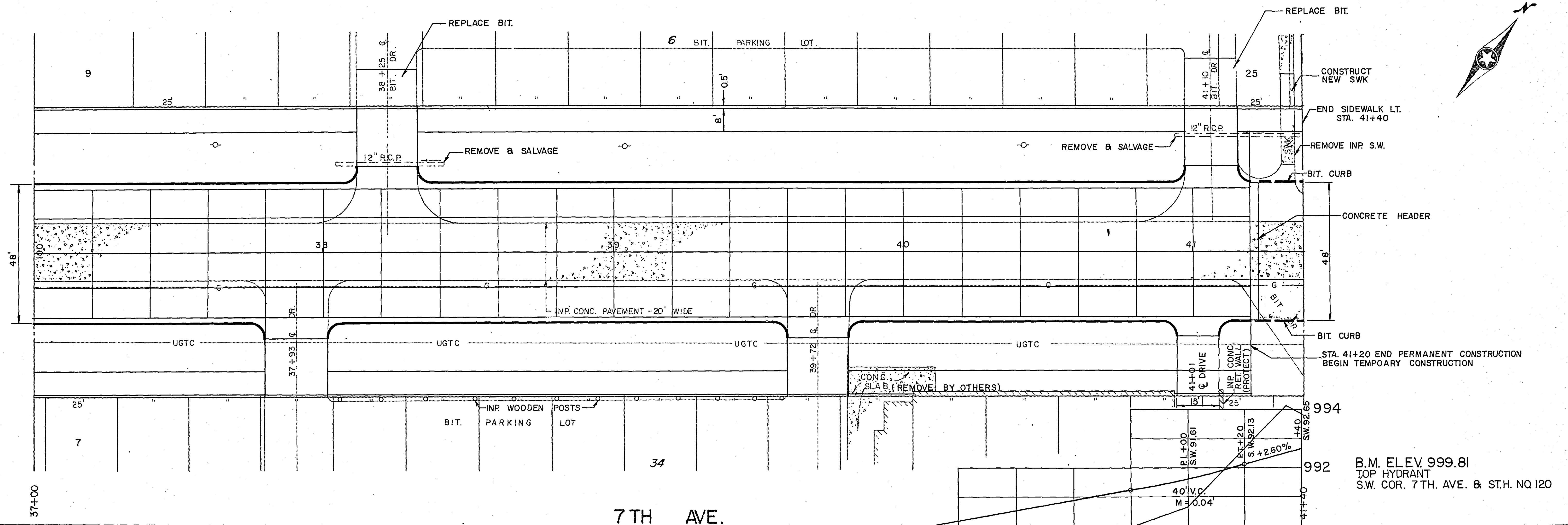
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

NEW ELLIOTT

Date 4/26/74 Reg. No. 4571

7TH AVE.
MICROFILMED
RAMSEY CO. ENGR.

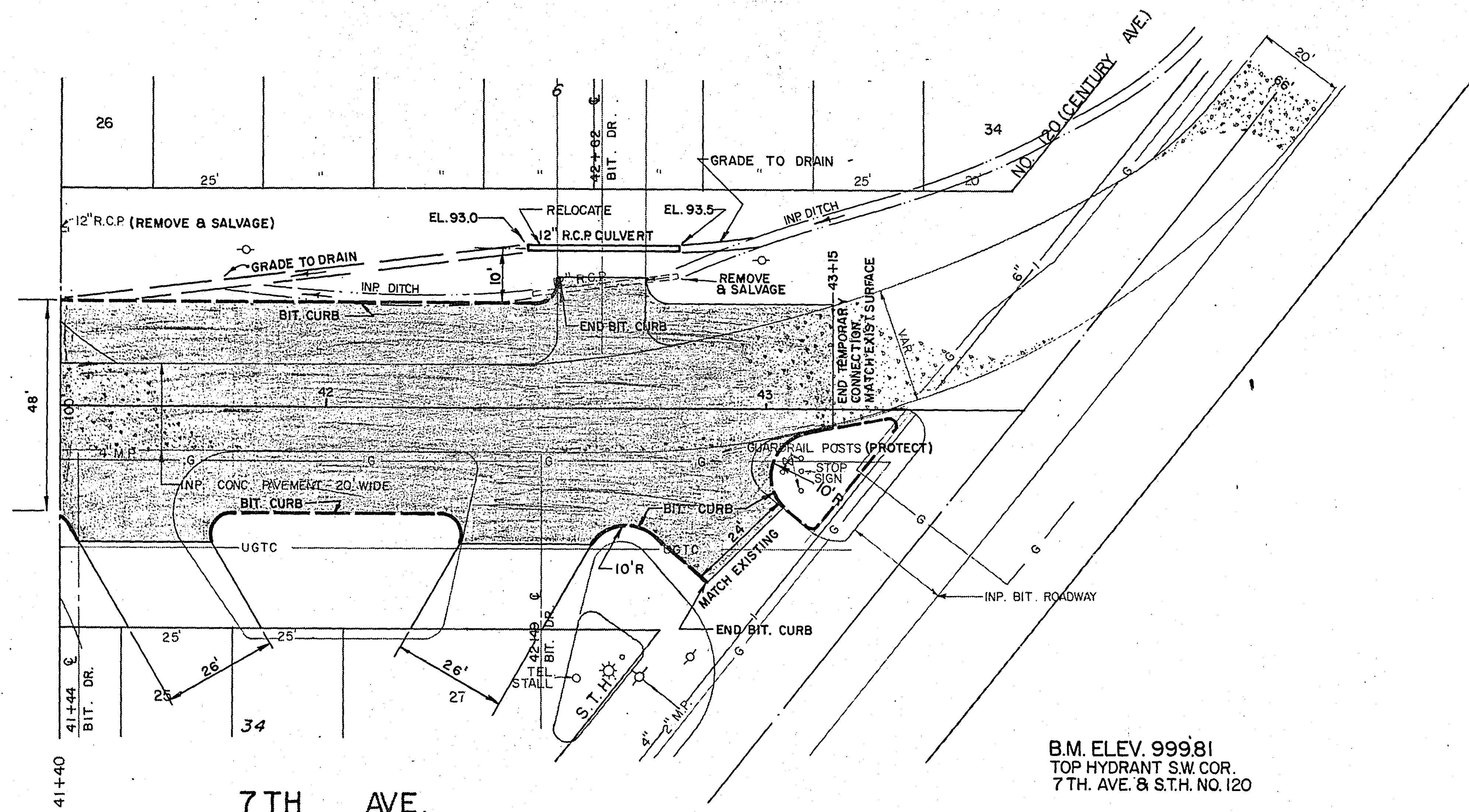
SURVEY:	APPROVED:	NO.	DATE	REVISIONS	SCALE: 1" = 20' HORIZ. 1" = 2' VERT.		BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota	NORTH SAINT PAUL, MINNESOTA	STREET CONSTRUCTION AND SIDEWALKS	S.A.D. NO. 7303	FILE NO.: 7378	16 58
DESIGN:										DATE: APRIL 26, 1974		
DRAWN:												



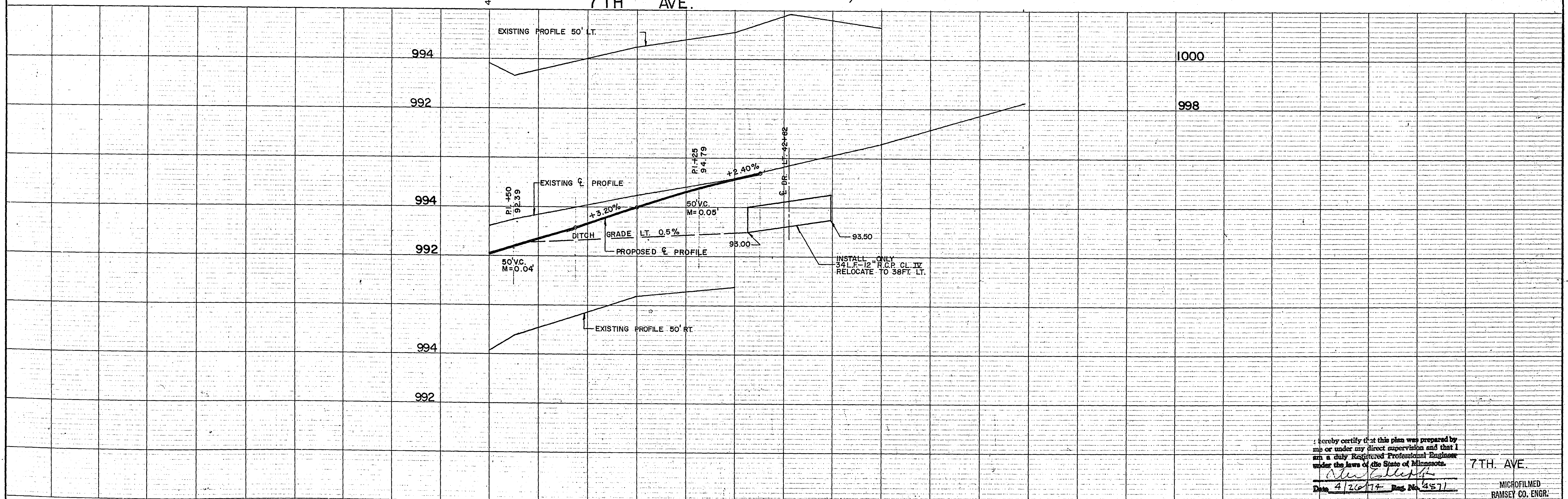
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
 Date 4/20/74 Reg. No. 4571

7TH AVE.
 MICROFILMED
 RAMSEY CO. ENGR.

SURVEY:	APPROVED:	NO.	DATE	REVISIONS	SCALE: 1" = 20' HORIZ. 1" = 2' VERT.	 BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota	NORTH SAINT PAUL, MINNESOTA	STREET CONSTRUCTION AND SIDEWALKS	FILE NO.: 7 378	19
DESIGN:									DATE: APRIL 26, 1974	
DRAWN:										



B.M. ELEV. 999.81
TOP HYDRANT S.W. COR.
7TH. AVE. & S.T.H. NO. 120



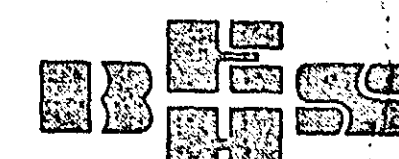
I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
[Signature]
Date 4/26/74 Reg. No. 4571

7TH. AVE.

MICROFILMED
RAMSEY CO. ENGR.

SURVEY: DESIGN: DRAWN:	APPROVED:	NO.	DATE	REVISIONS

SCALE:
1" = 20' HORIZ.
1" = 2' VERT.



BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

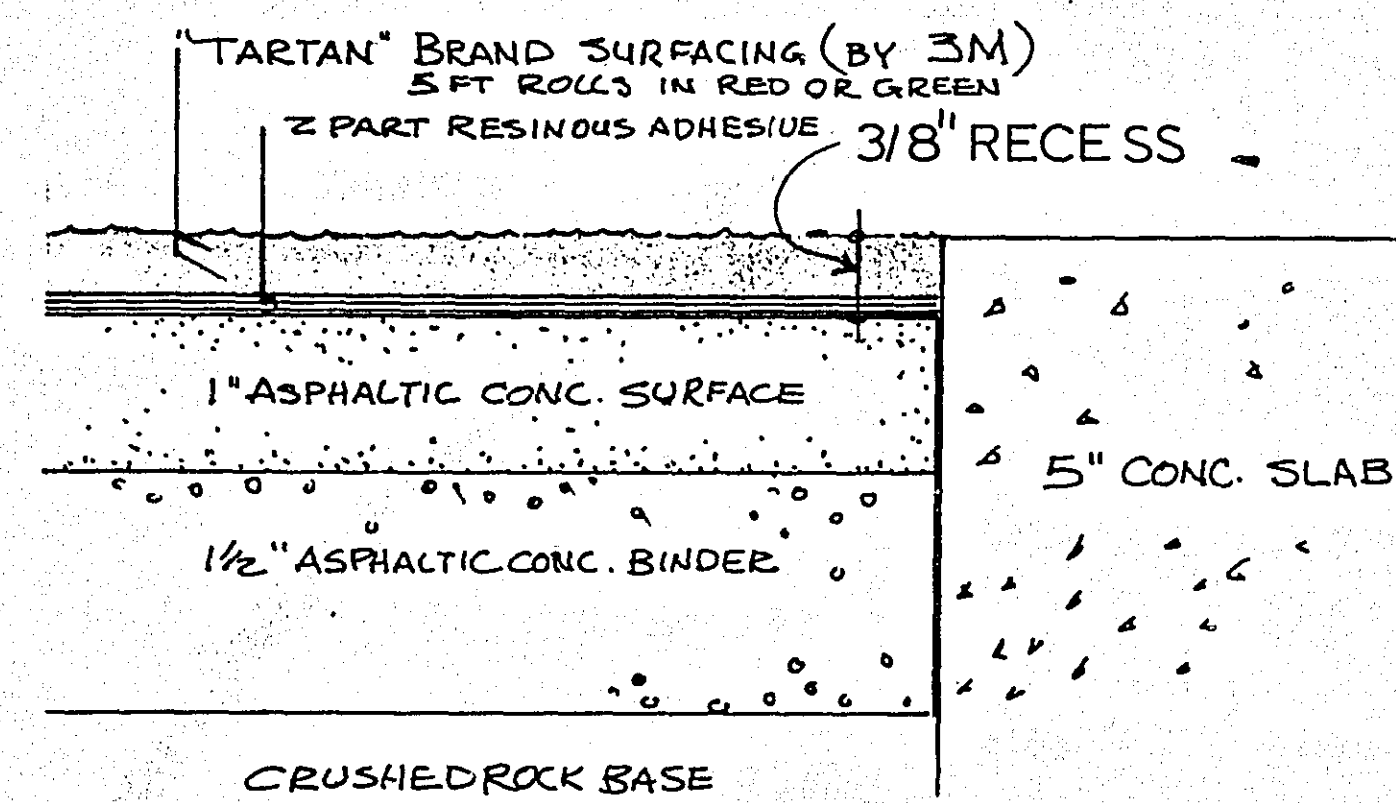
NORTH SAINT PAUL, MINNESOTA

STREET CONSTRUCTION
AND SIDEWALKS

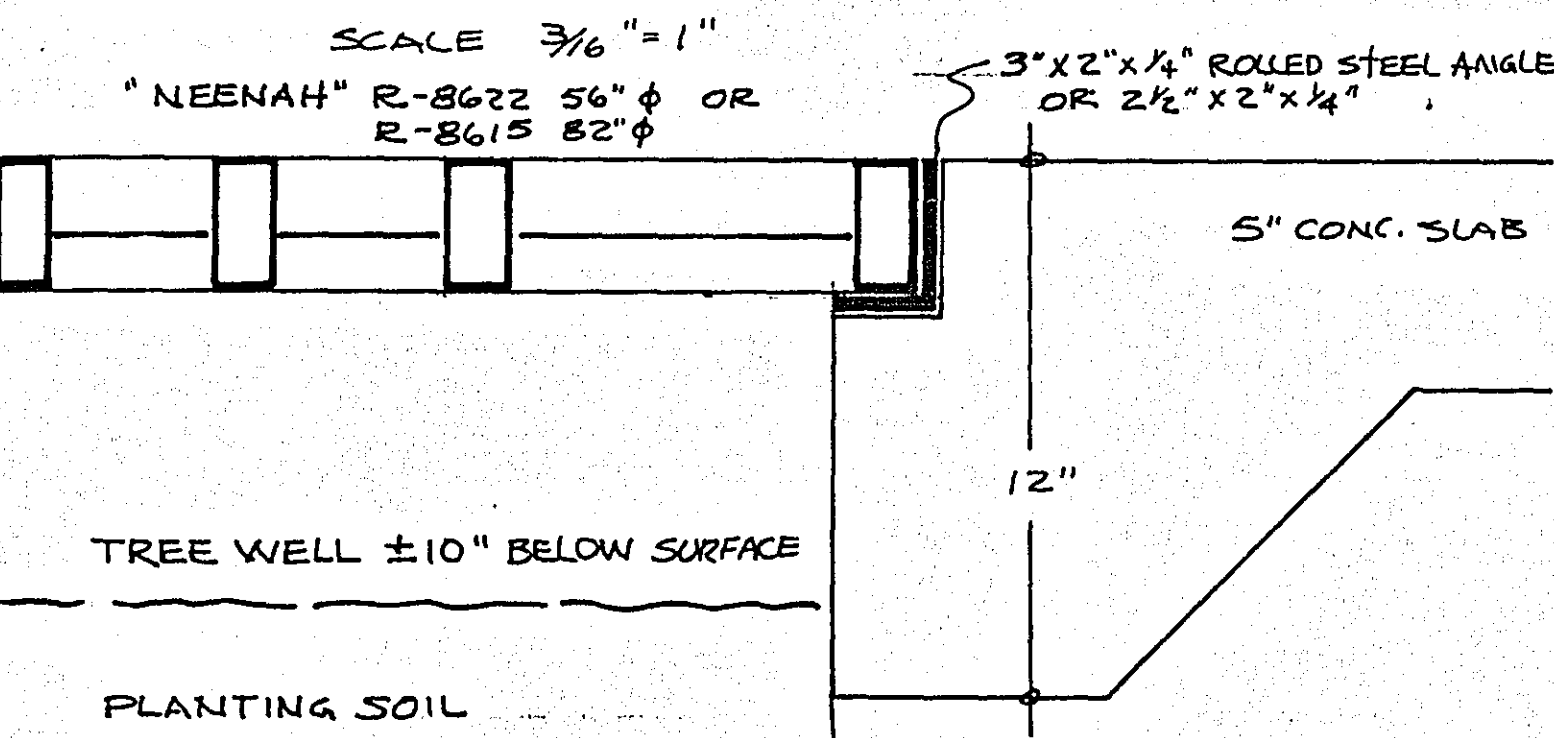
S.A.D. NO. 7303

FILE NO.: 7378	20
DATE: APRIL 26, 1974	

PLAY AREA SURFACING

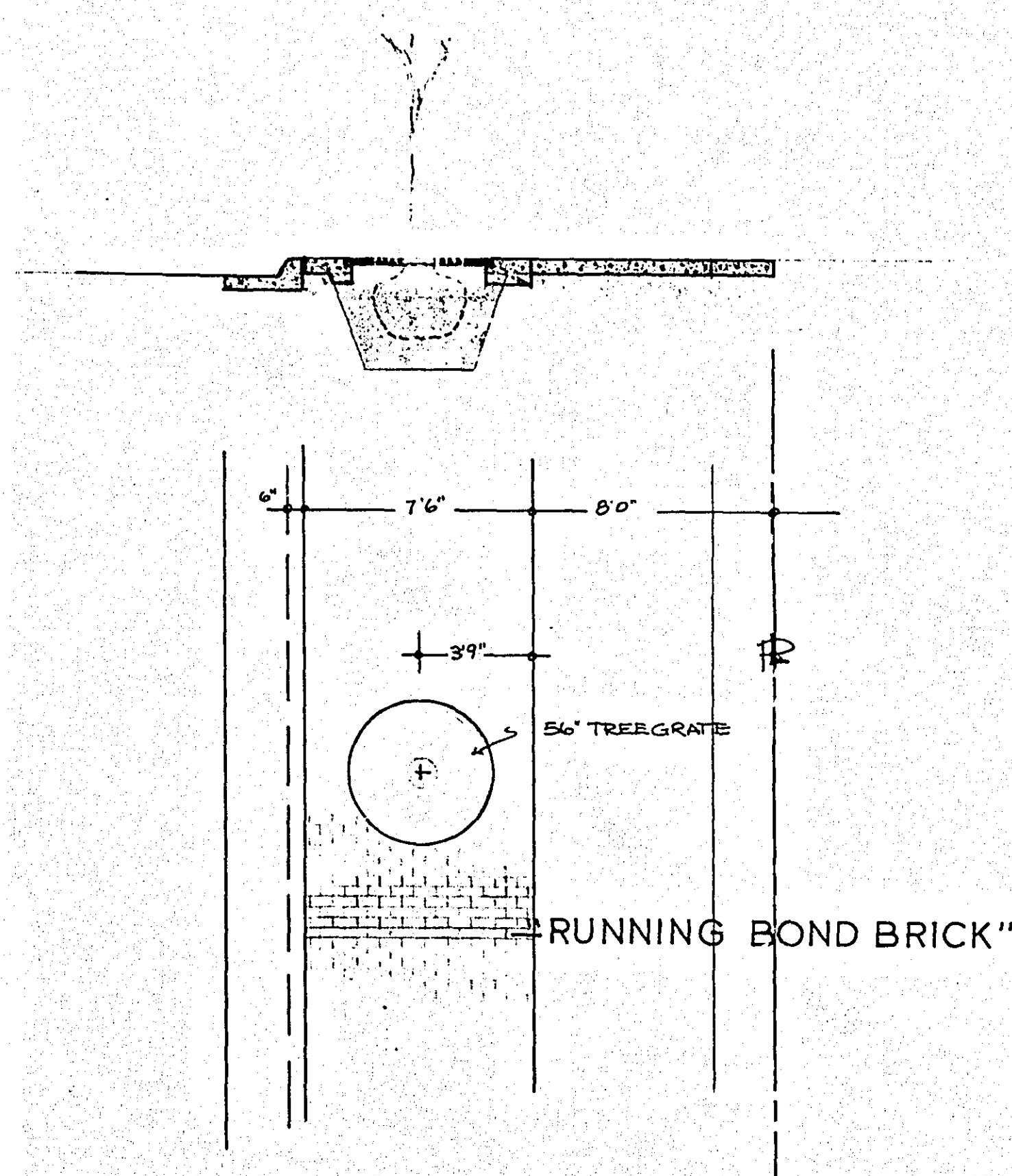


TREE GRATE DETAIL



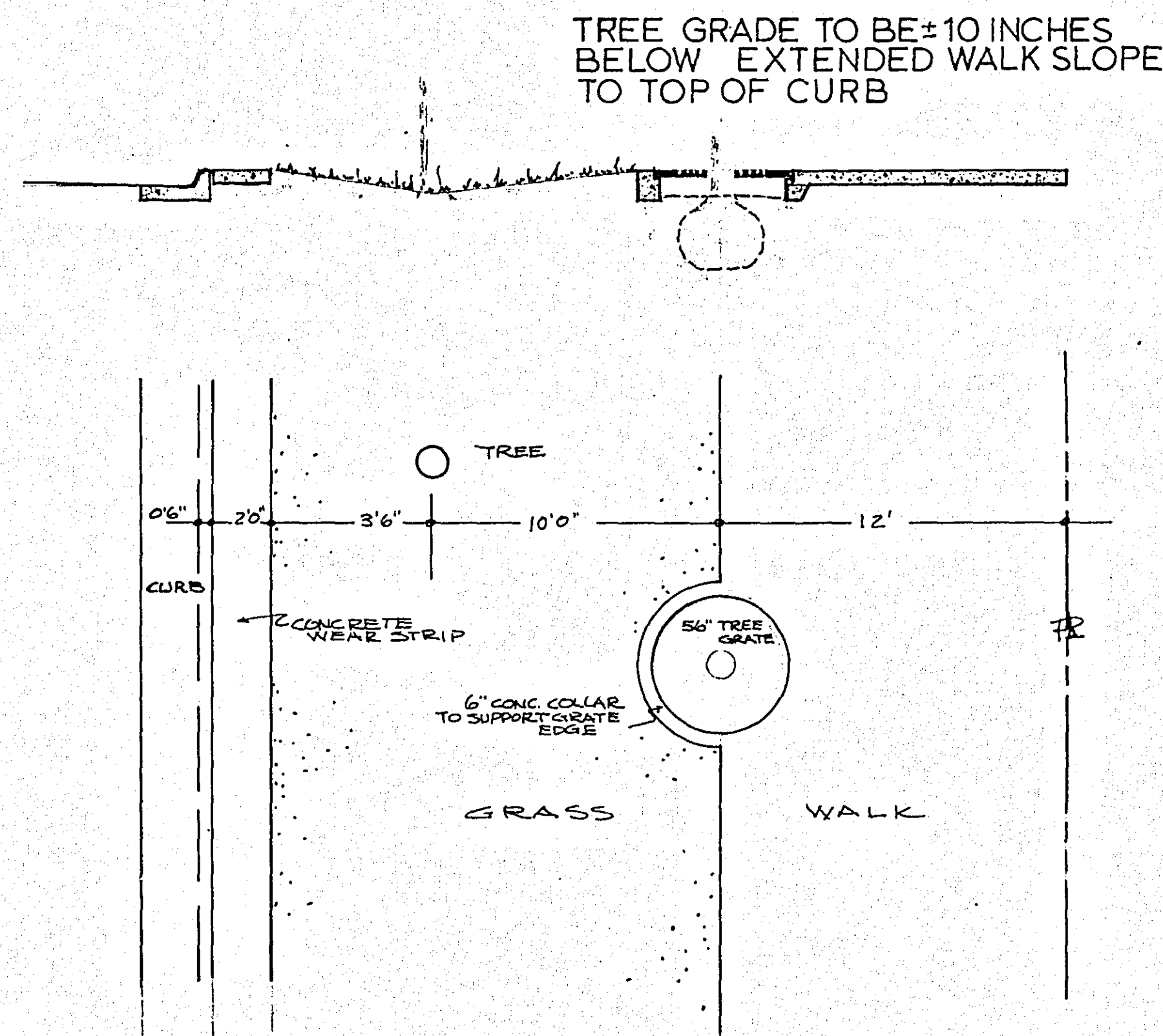
TYPICAL SIDE WALK NORTH ON MARGARET ST. TO CHARLES ST.

SCALE 3/16" = 1'0"



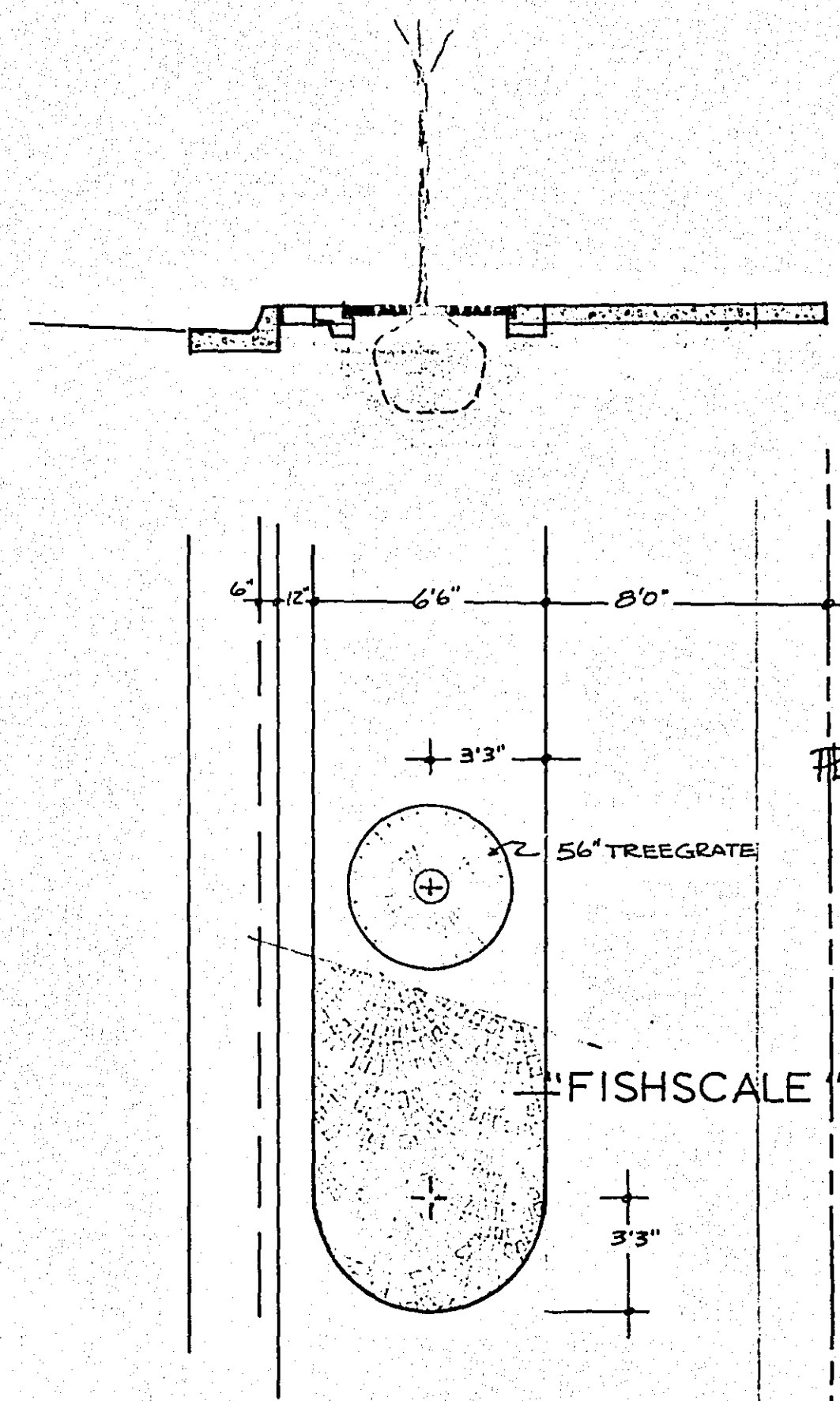
SIDE WALK SECTION WHERE WALK IS 12 FT. NORTH ON FIRST ST. TO HELEN ST.

SCALE 3/16" = 1'0"



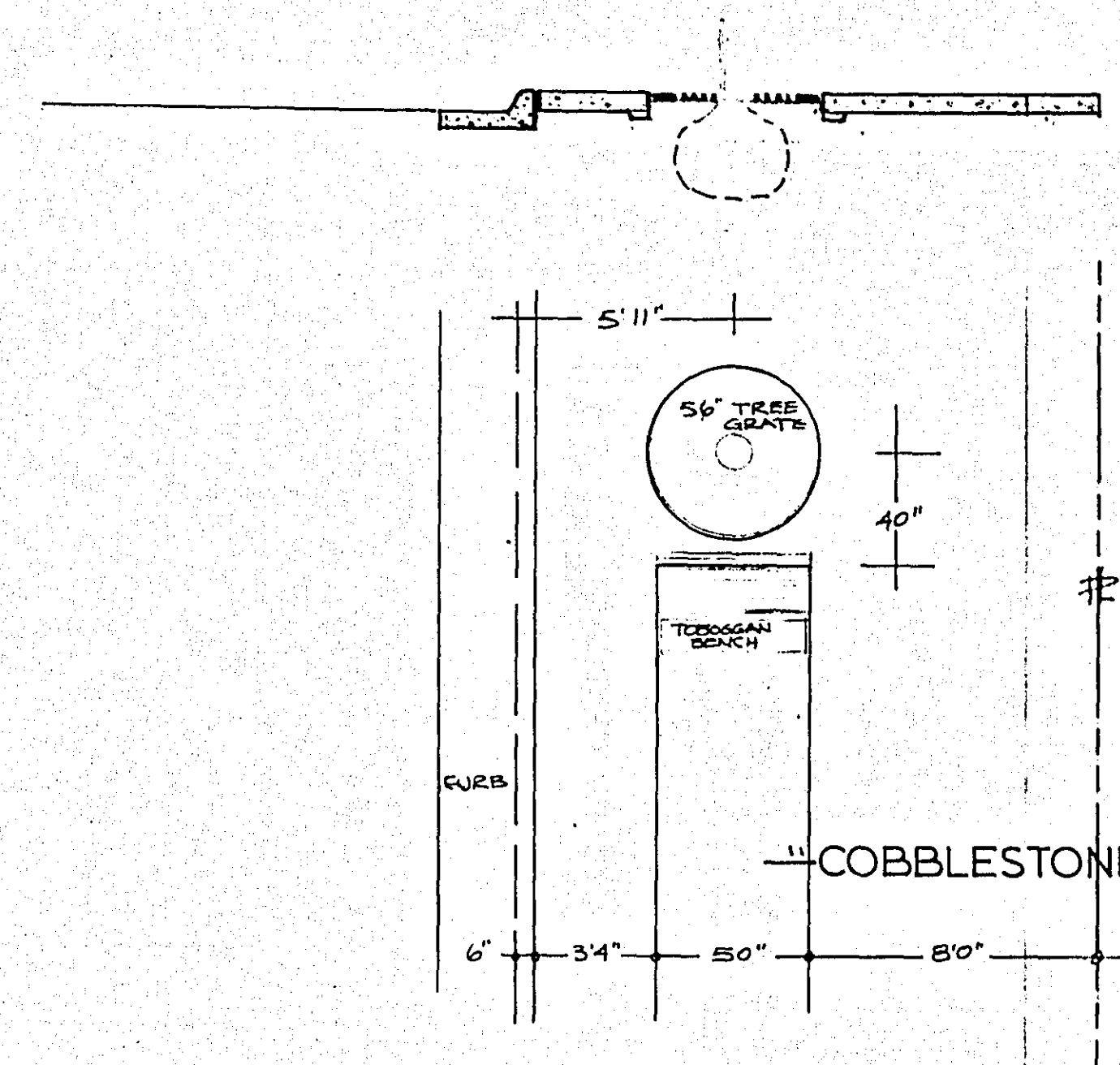
TYPICAL SIDE WALK SOUTH ON MARGARET ST. TO CHARLES ST.

SCALE 3/16" = 1'0"

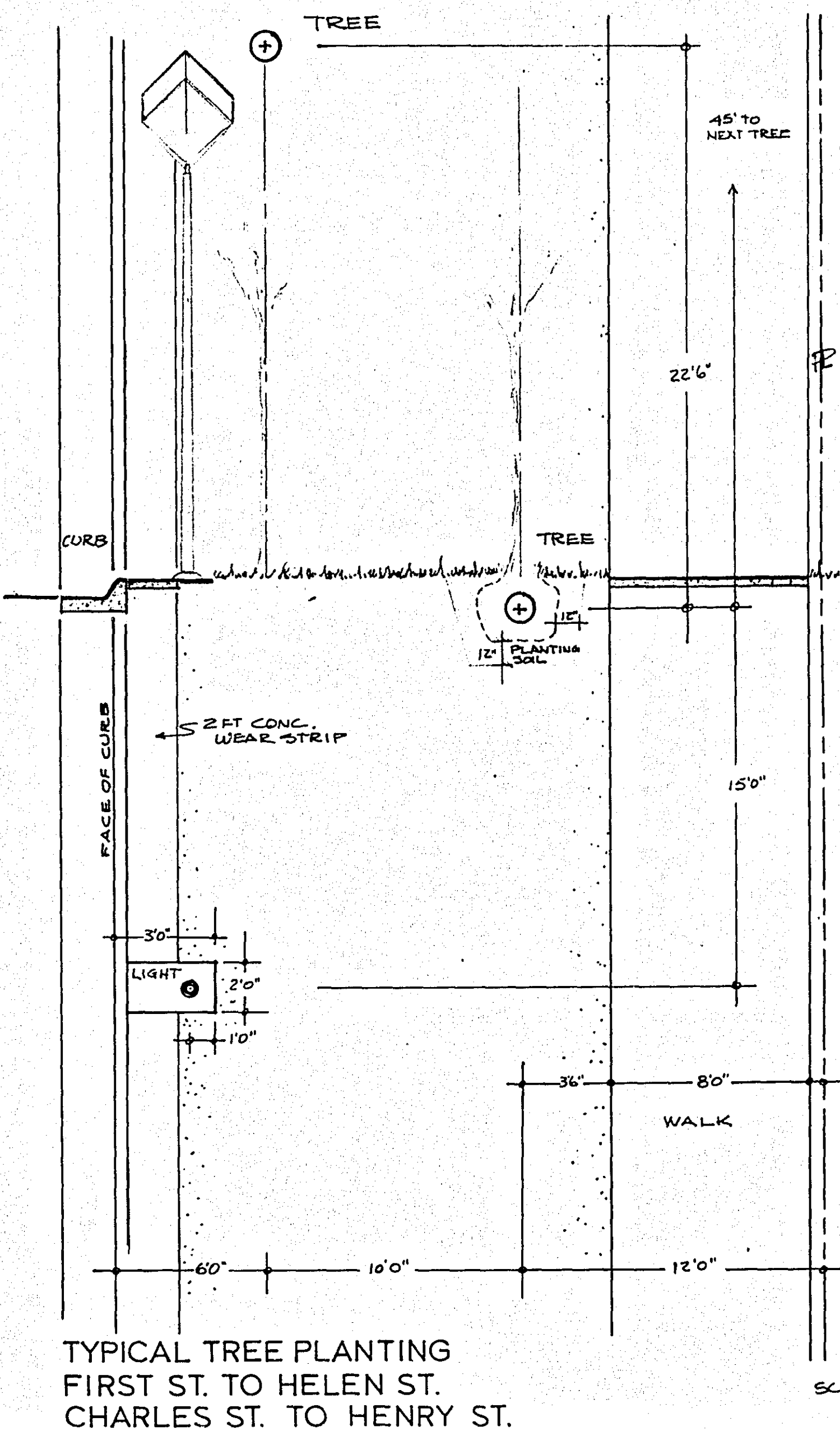
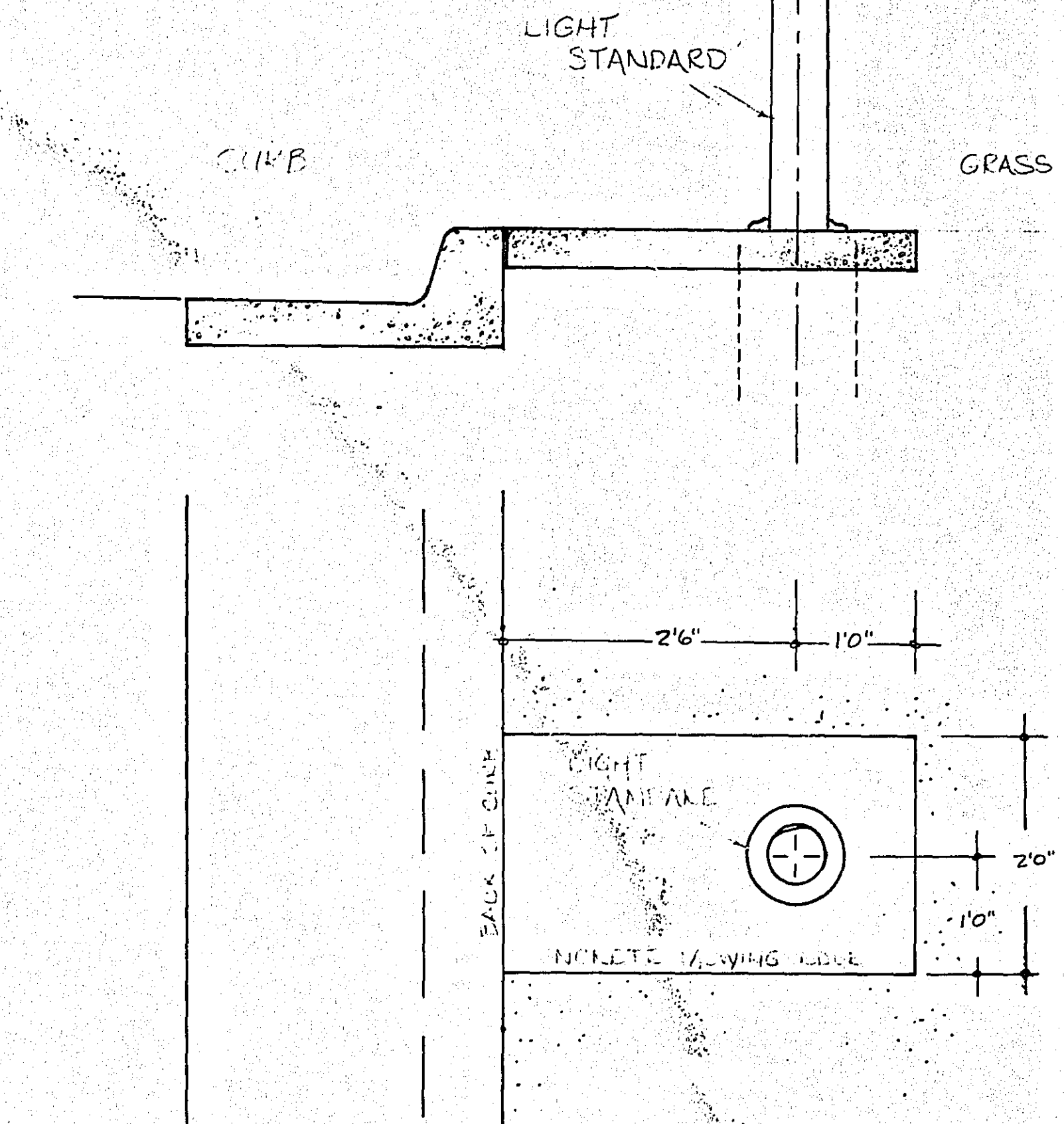


TYPICAL SIDE WALK ON HELEN TO MARGARET ST. with TOBOGGAN

SCALE 3/16" = 1'0"

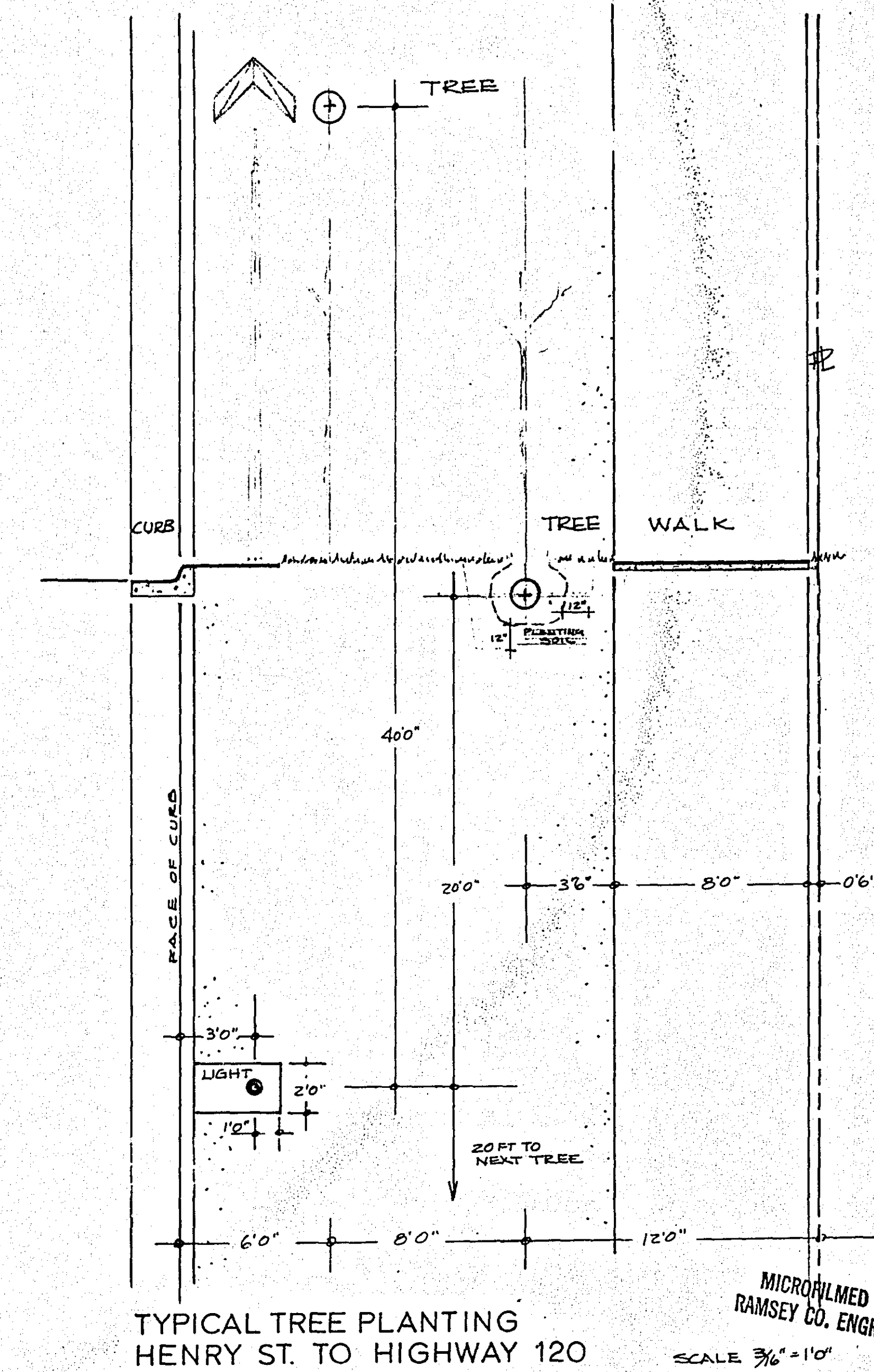


CONCRETE MOWING EDGE AROUND LIGHT STANDARD



TYPICAL TREE PLANTING FIRST ST. TO HELEN ST. CHARLES ST. TO HENRY ST.

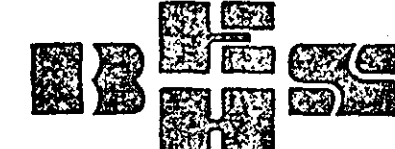
SCALE 3/16" = 1'0"



TYPICAL TREE PLANTING HENRY ST. TO HIGHWAY 120

SCALE 3/16" = 1'0"

SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				



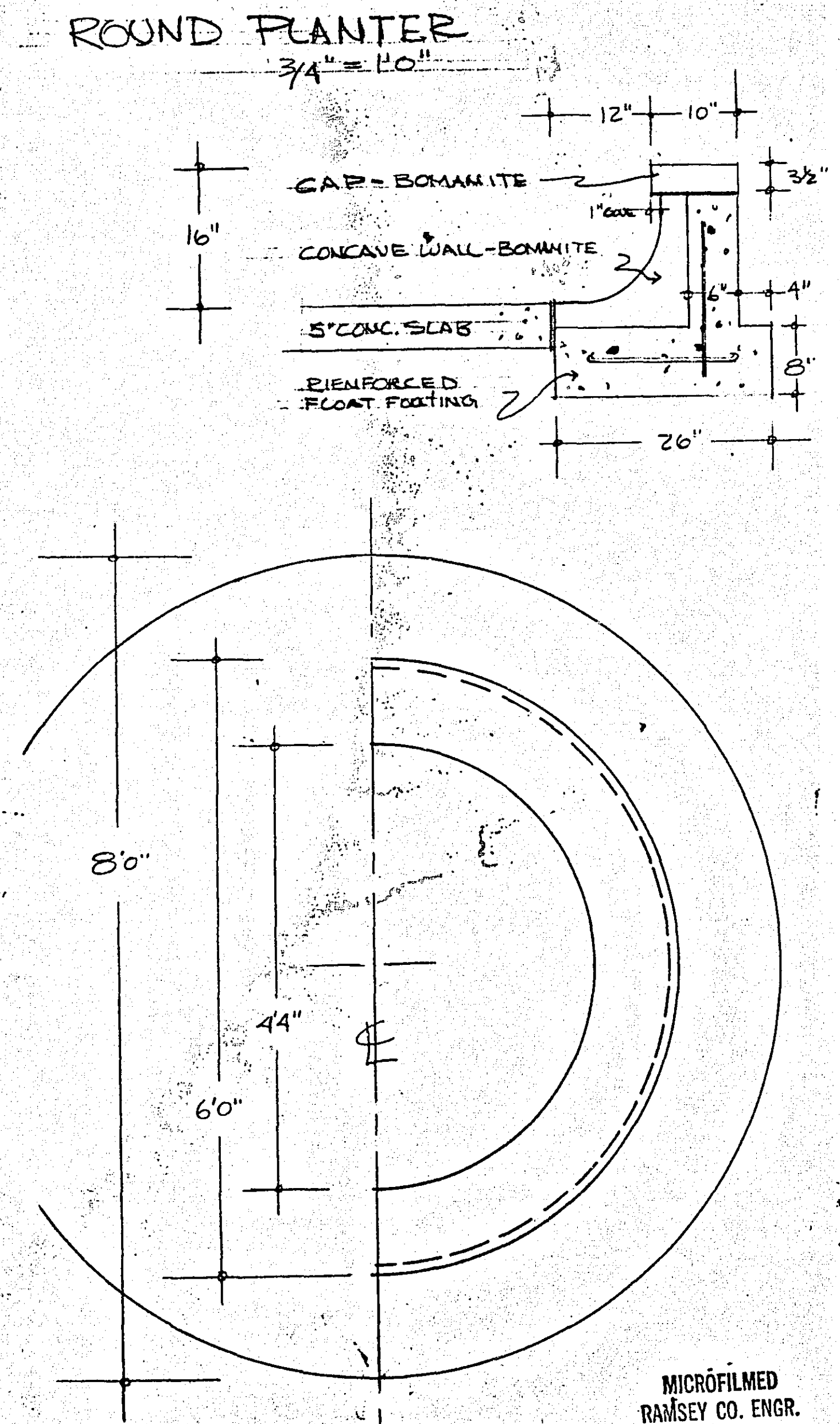
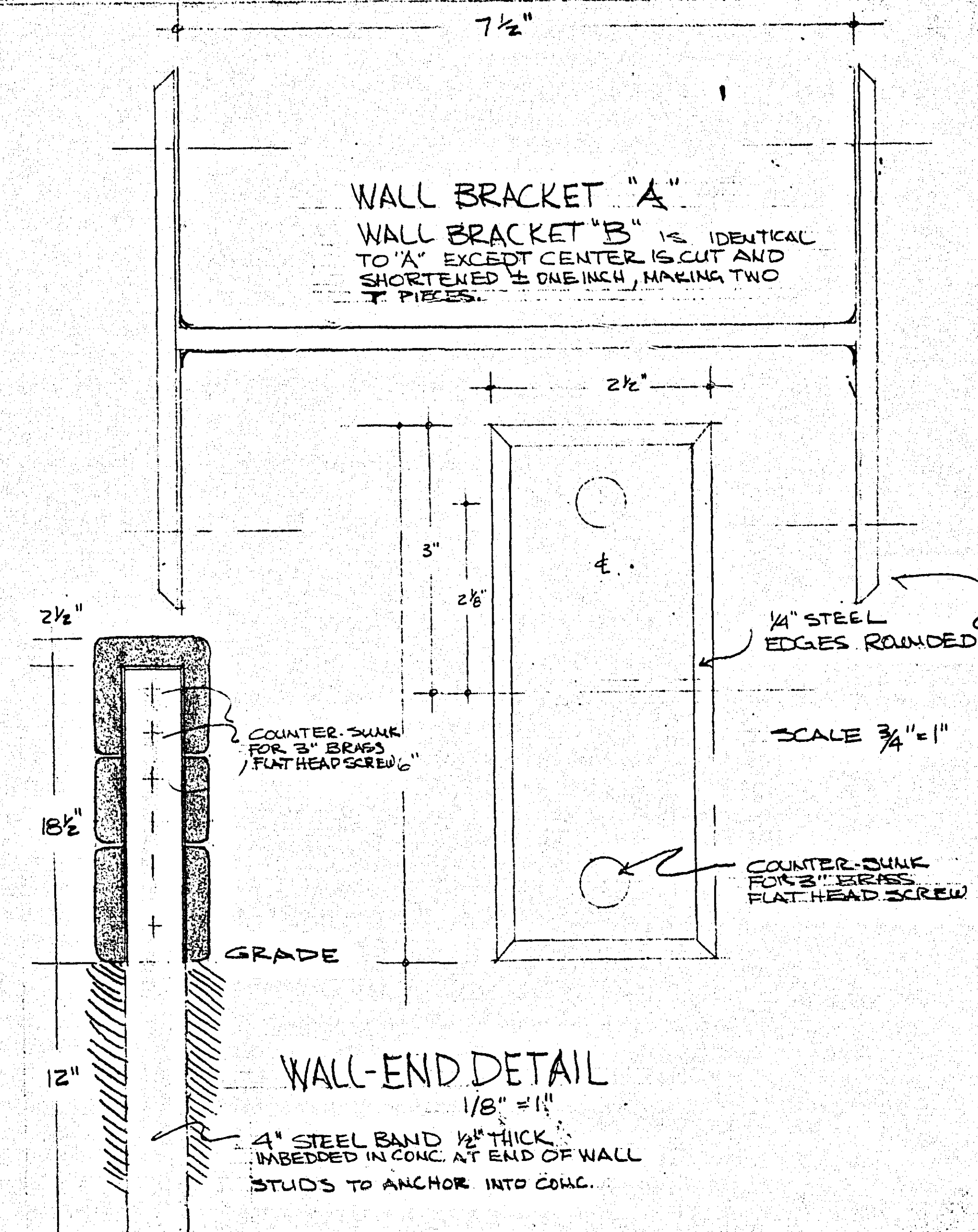
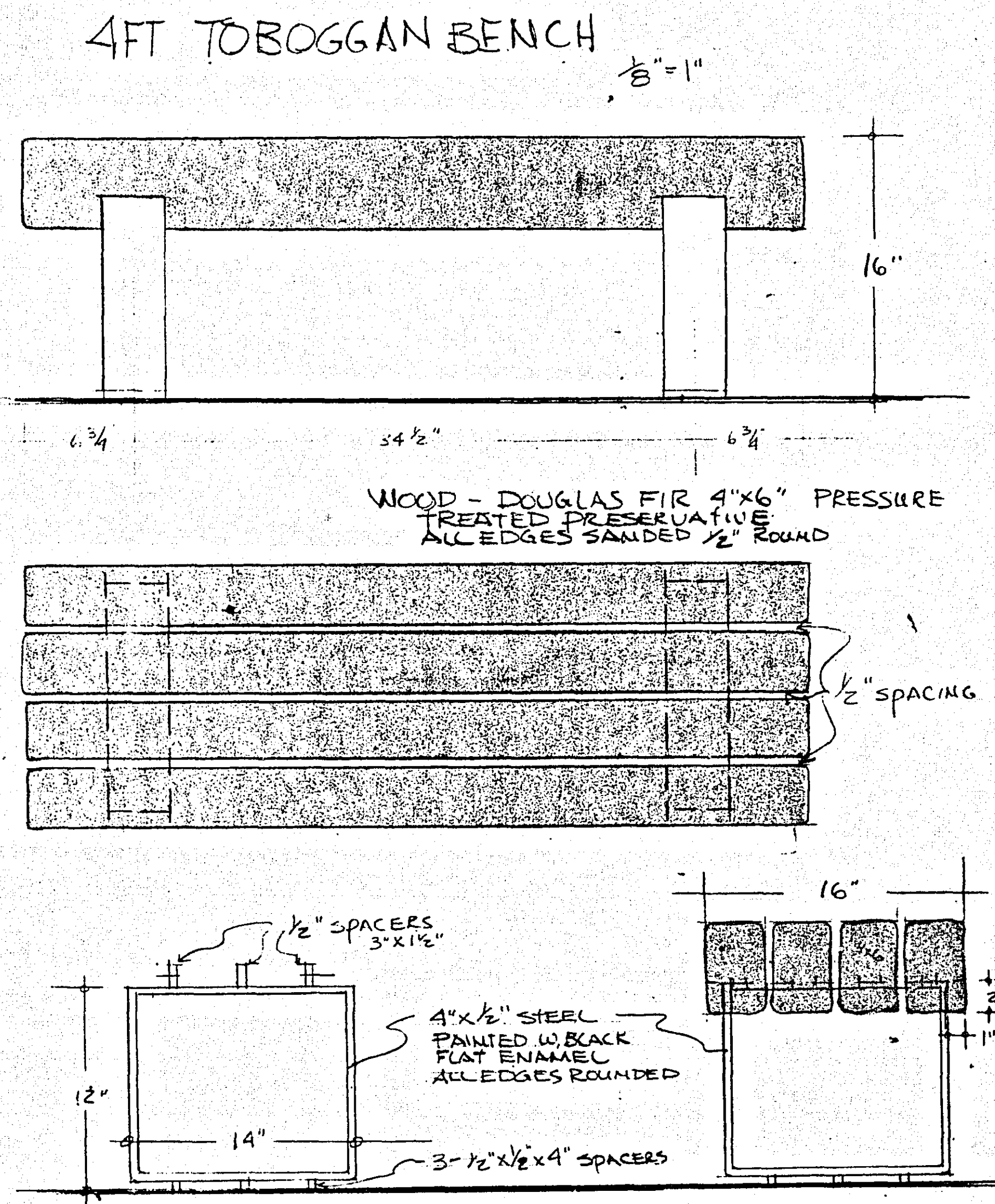
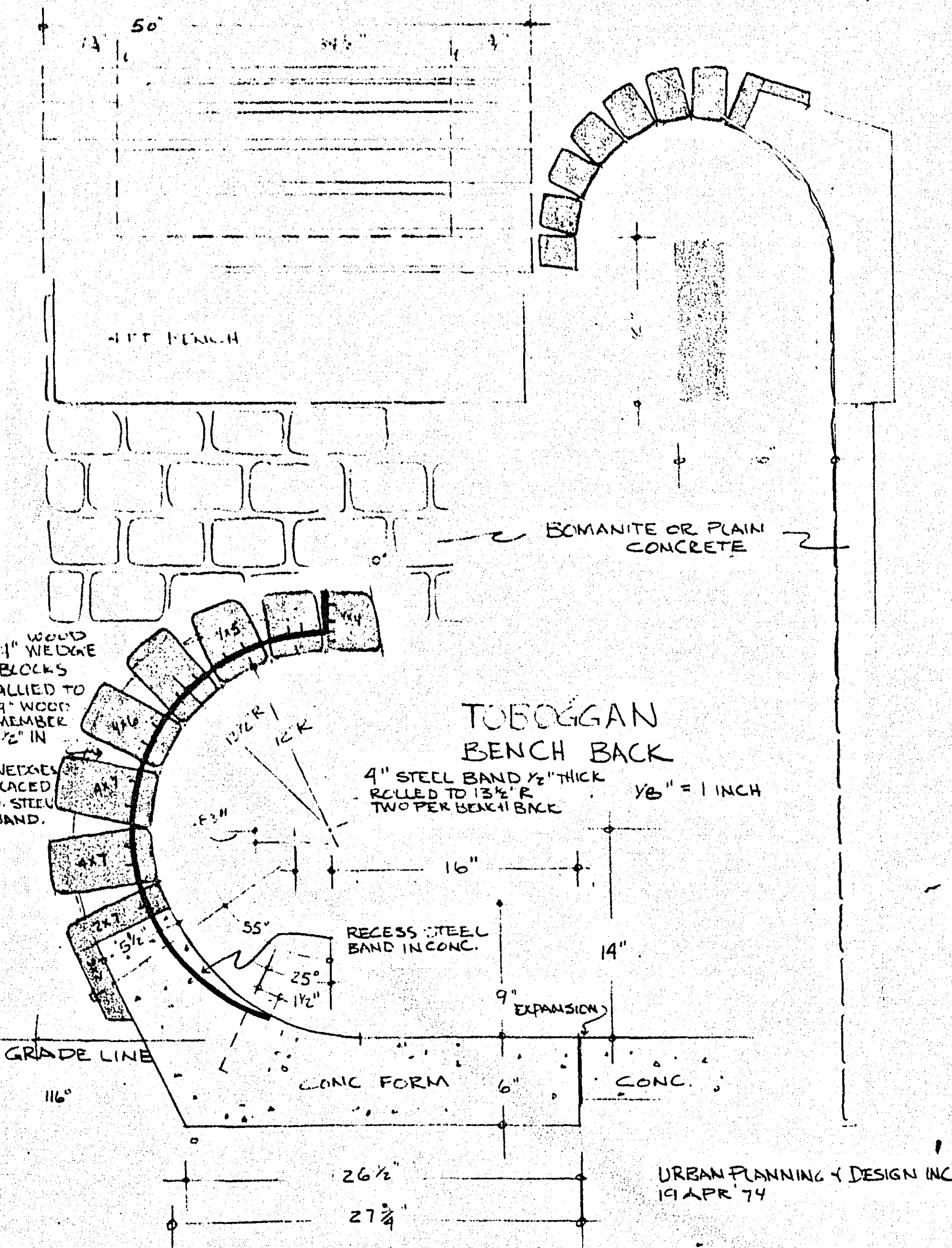
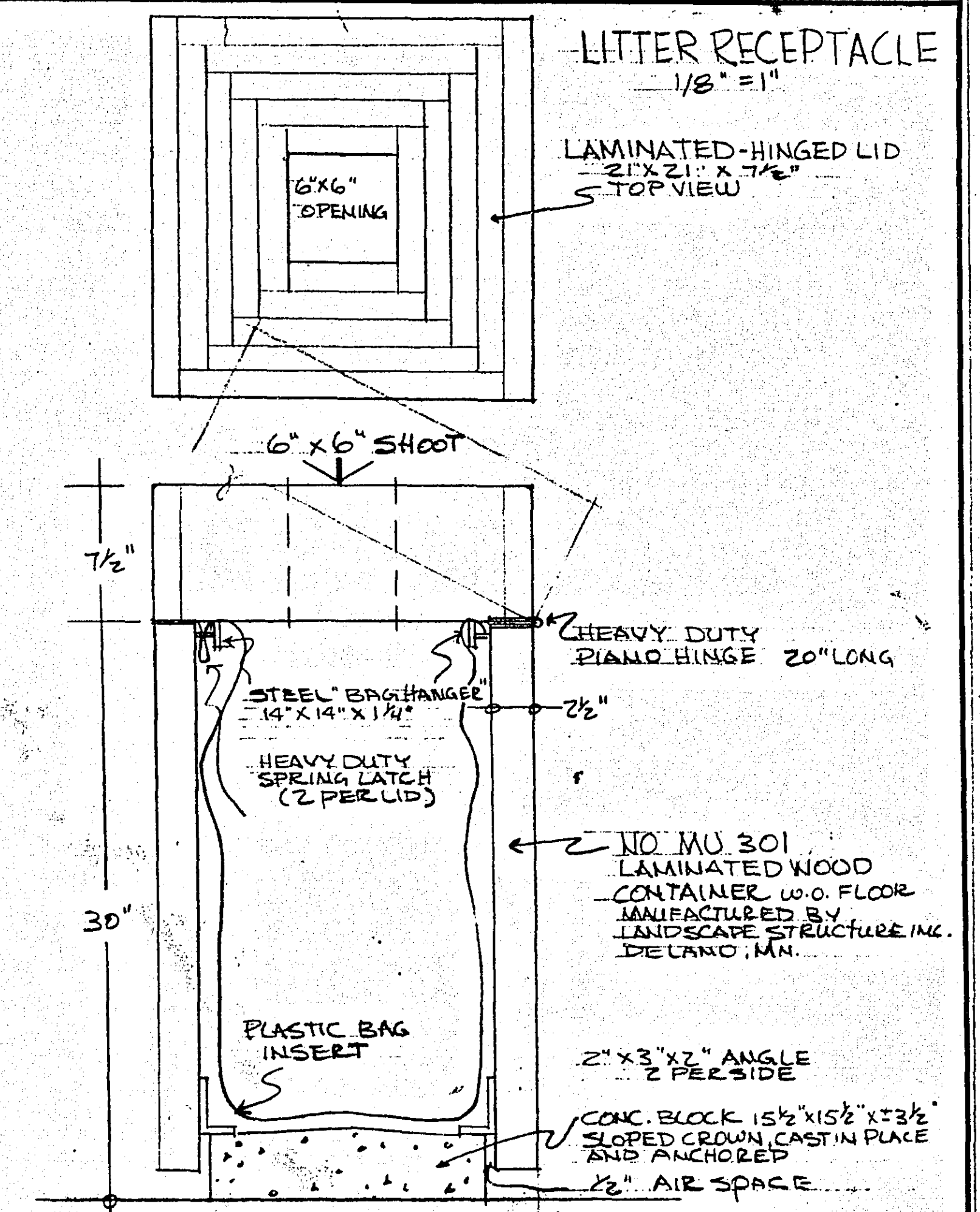
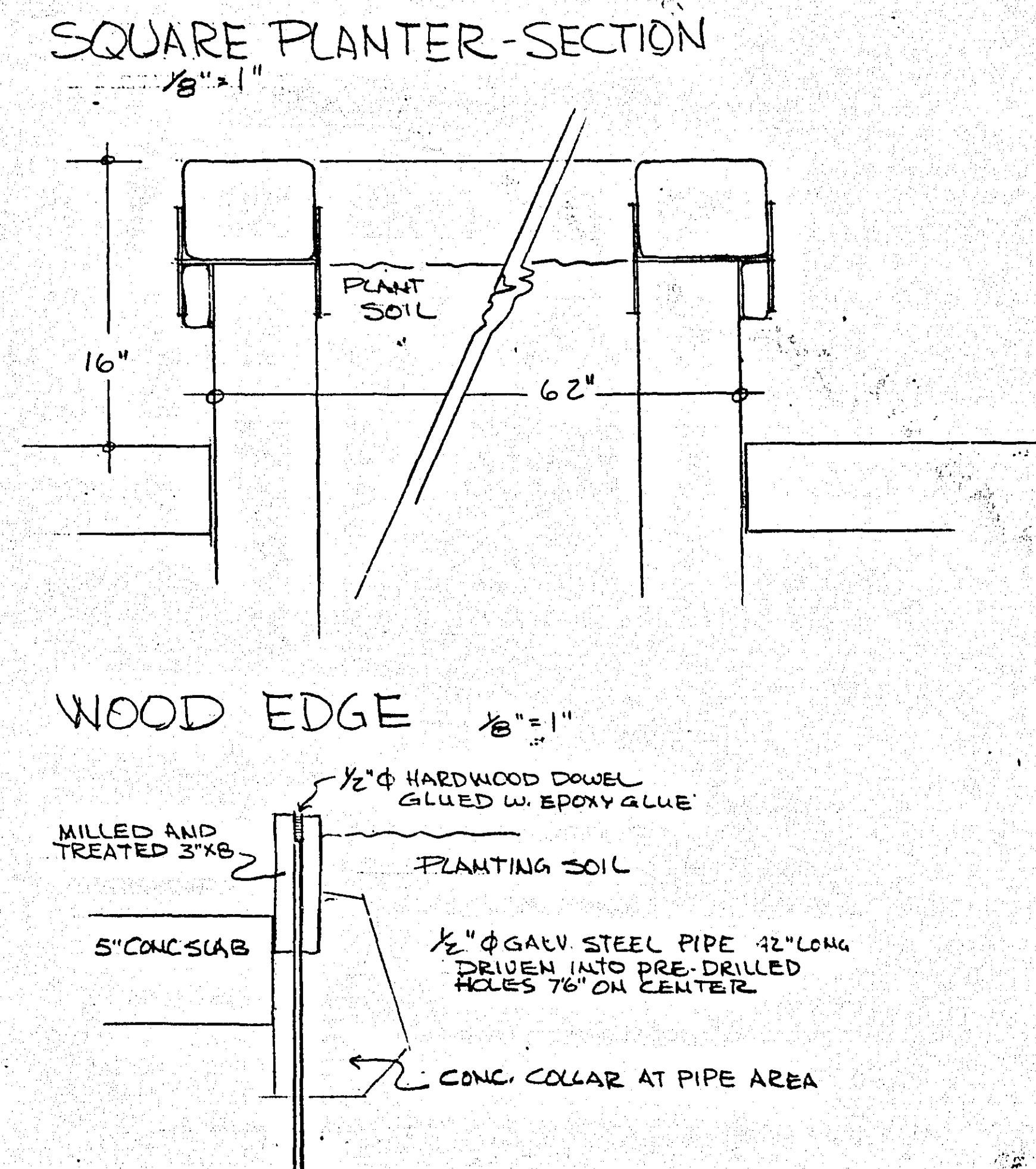
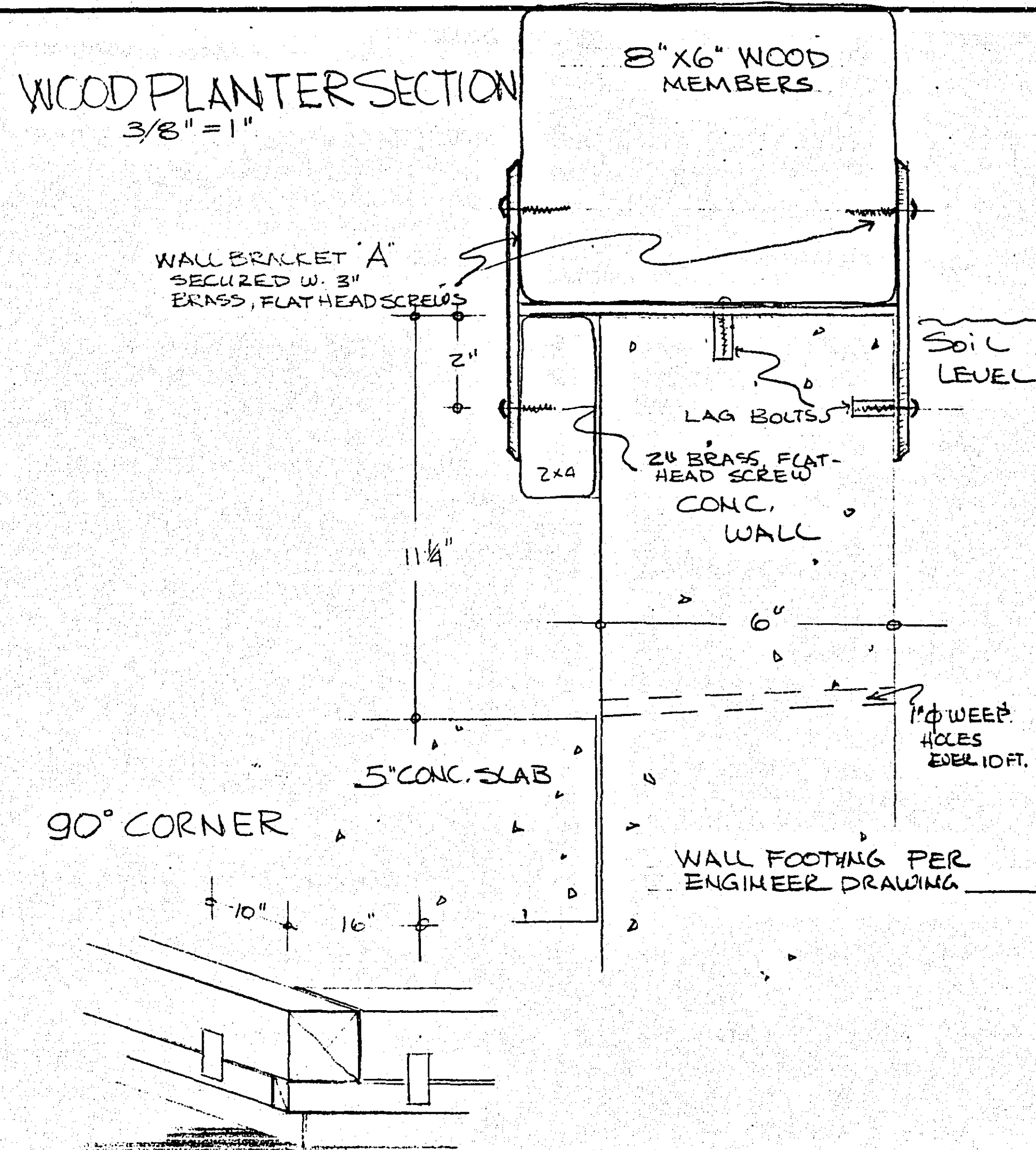
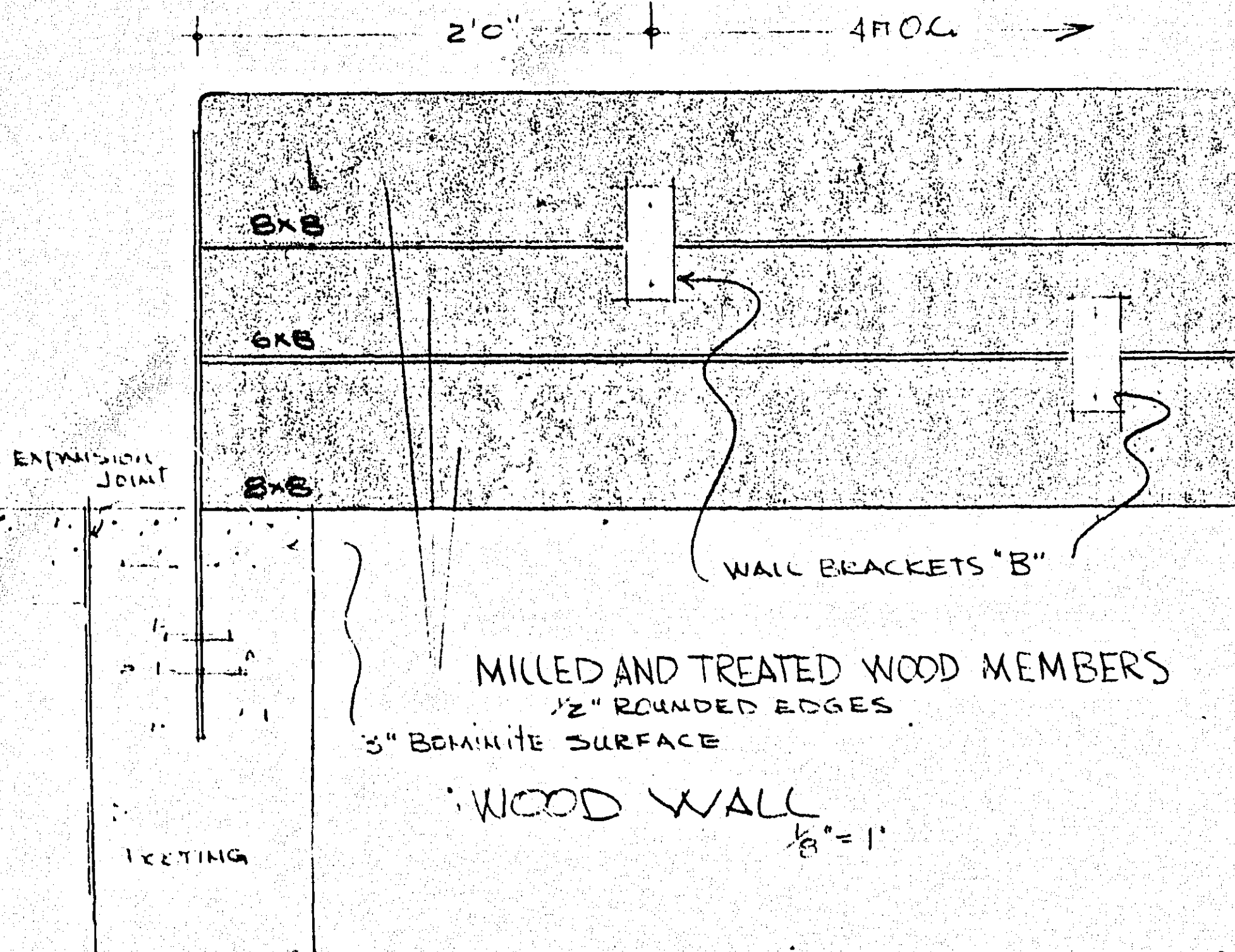
BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

NORTH SAINT PAUL, MINNESOTA

DESIGN PLANNING
ASSOCIATES, INC.
MINNEAPOLIS MN

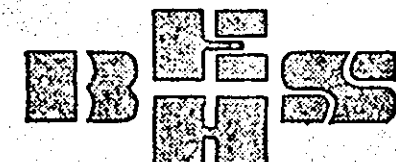
URBAN PLANNING AND
DESIGN INC.
MINNEAPOLIS MINNESOTA

S.A.D. 7303
FILE NO. 7378
DATE APRIL 26, 1974
21
58



SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				

SCALE:



BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

DESIGN PLANNING
ASSOCIATES, INC.
MINNEAPOLIS MN

URBAN PLANNING AND
DESIGN INC.
MINNEAPOLIS MINNESOTA

NORTH SAINT PAUL, MINNESOTA

S.A.D. 7303

FILE NO.:

7378

DATE:

APRIL 26, 1974

22 8

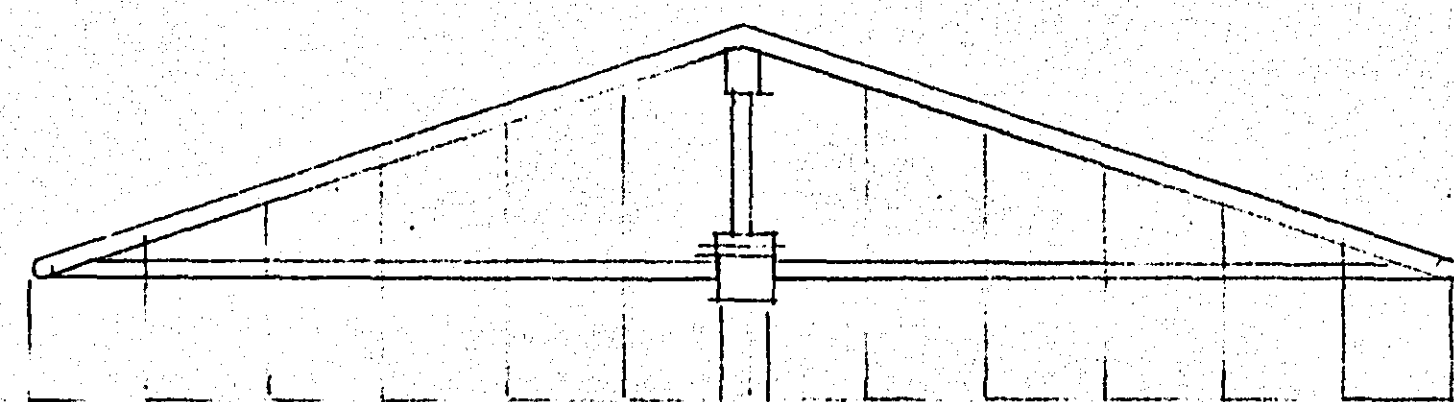
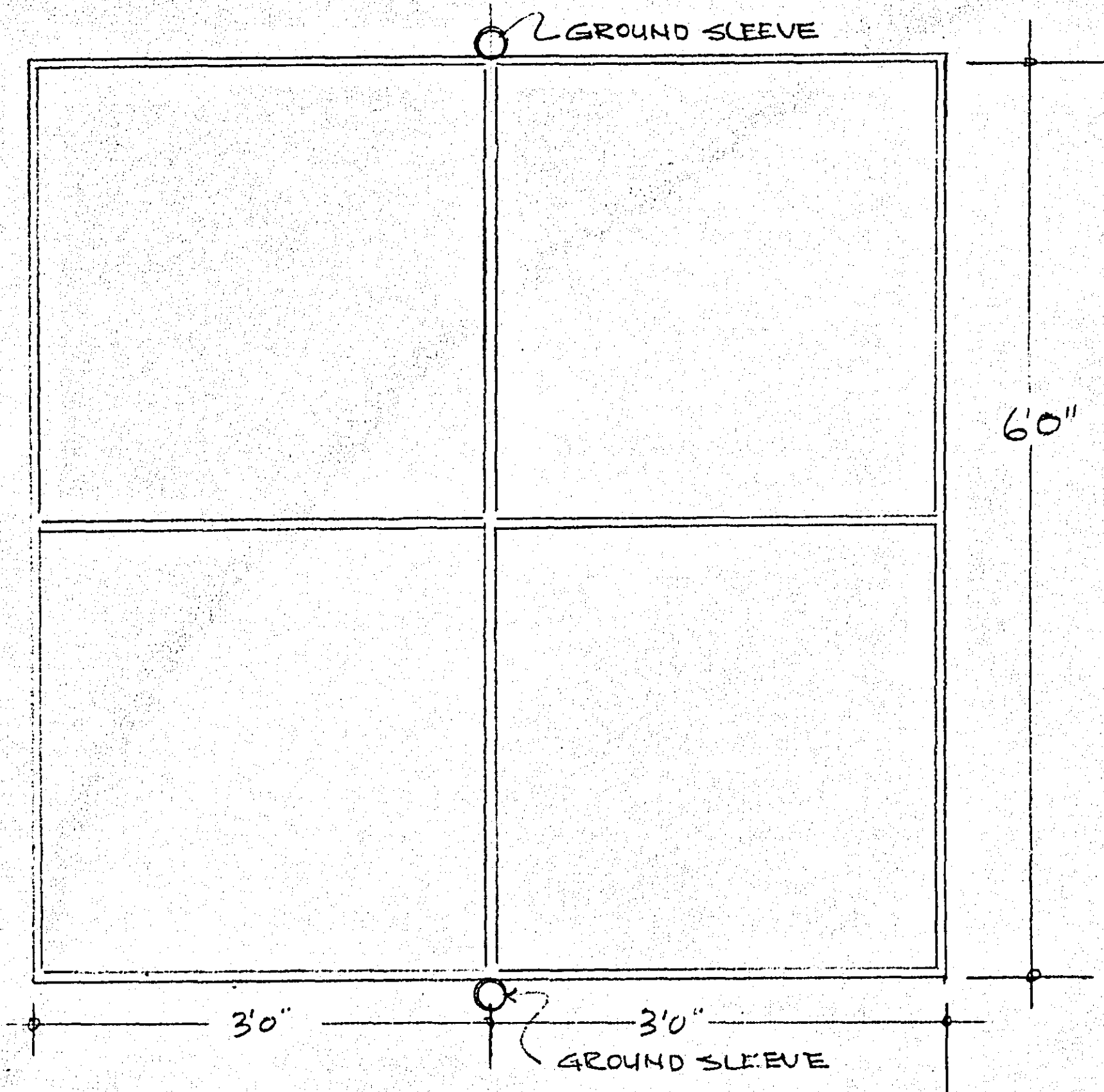
23

58

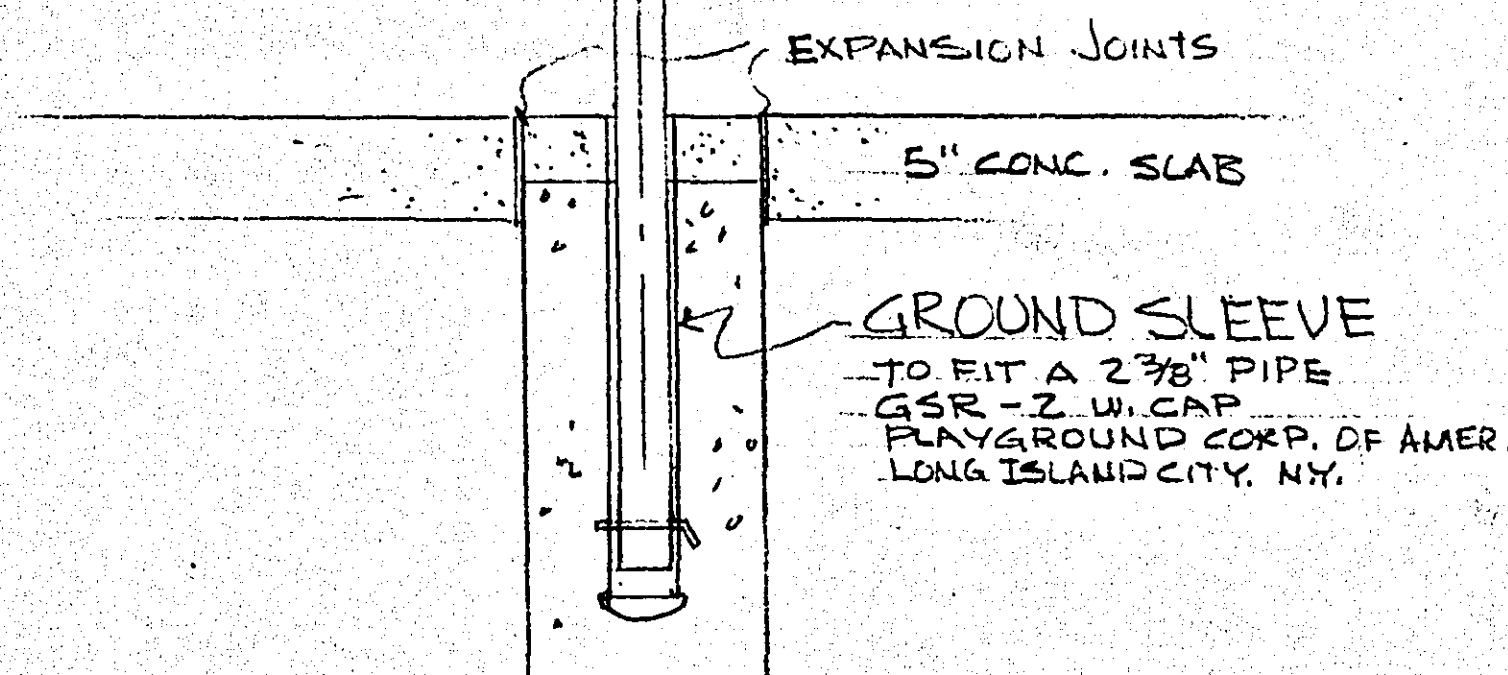
MICROFILMED
RAMSEY CO. ENGR.

PLAN

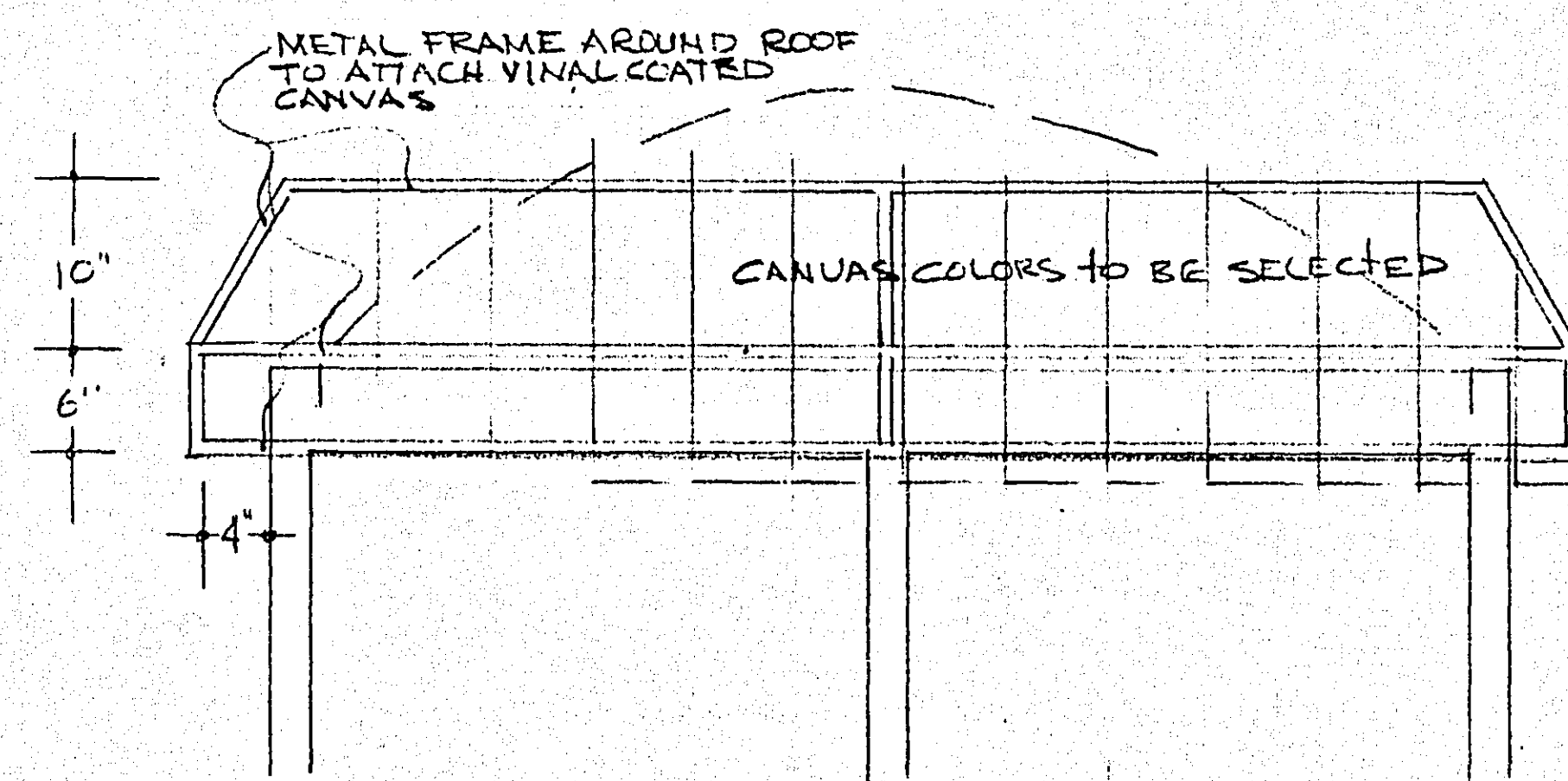
1"=10"



DISPLAY SHELTER -NIC-

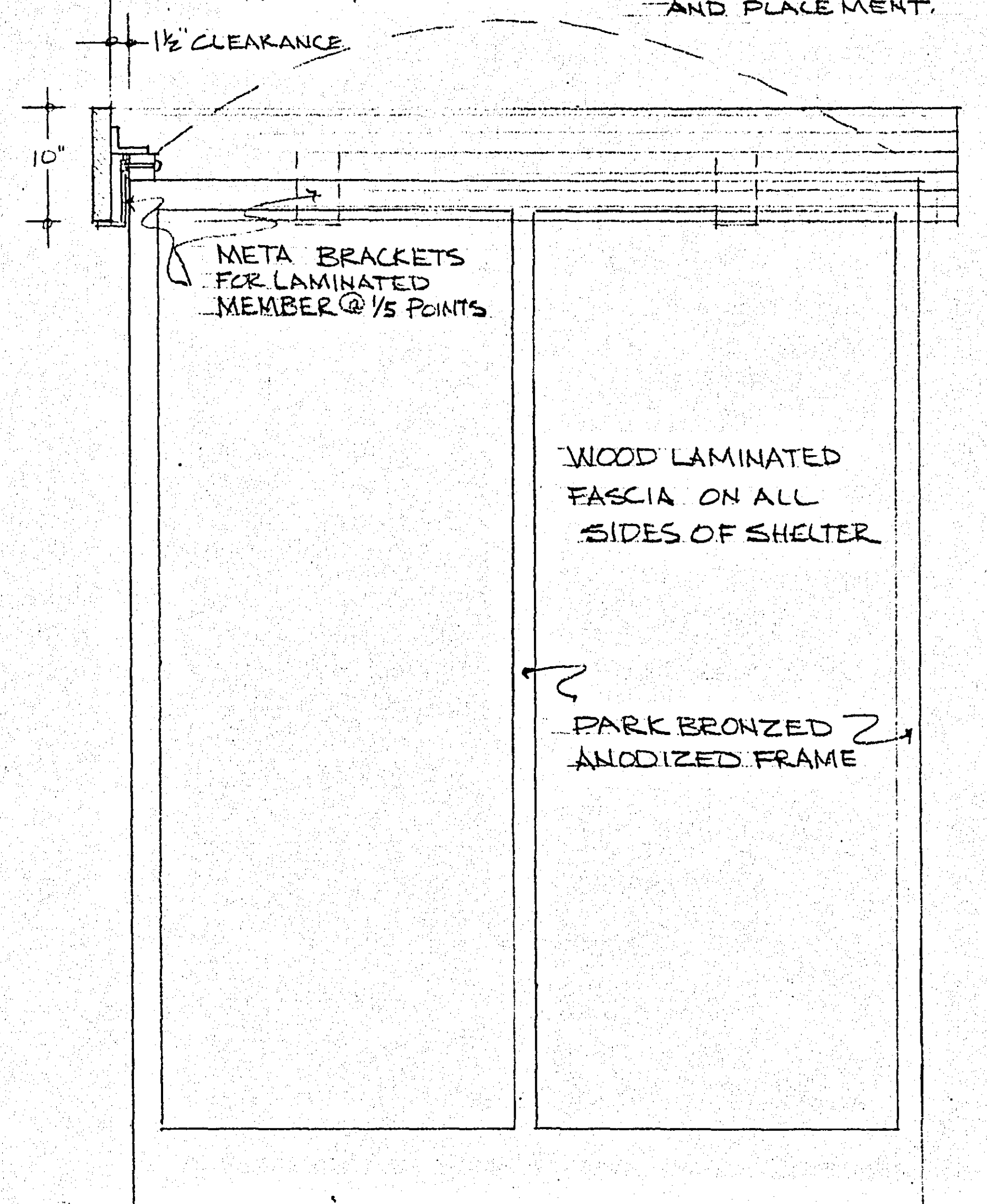


NEAR MEDICAL CLINIC



NOTE:
FIELD CHECK ALL DIMENSIONS
ON EXISTING BUS SHELTERS
TO INSURE PROPER SIZING
AND PLACEMENT.

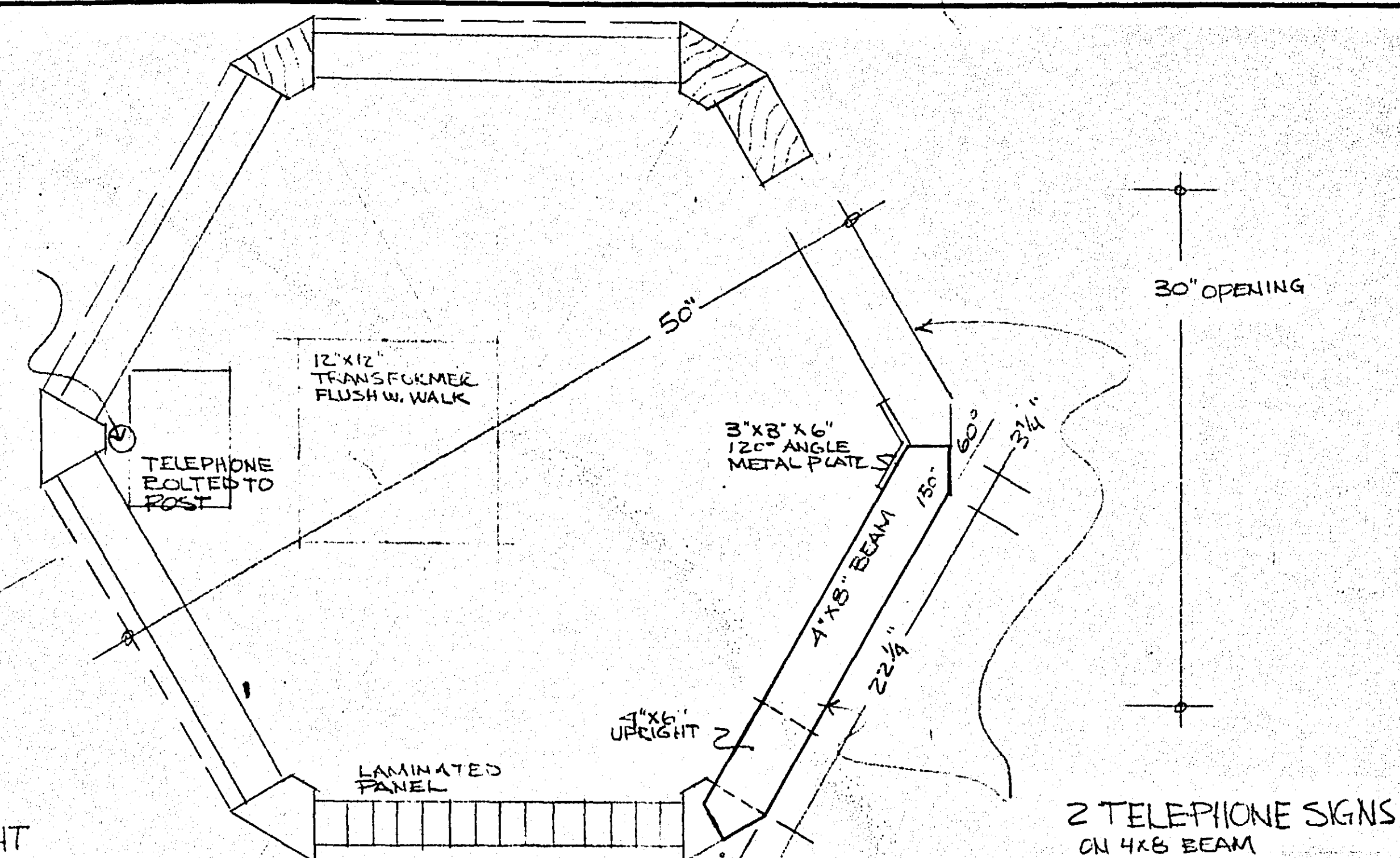
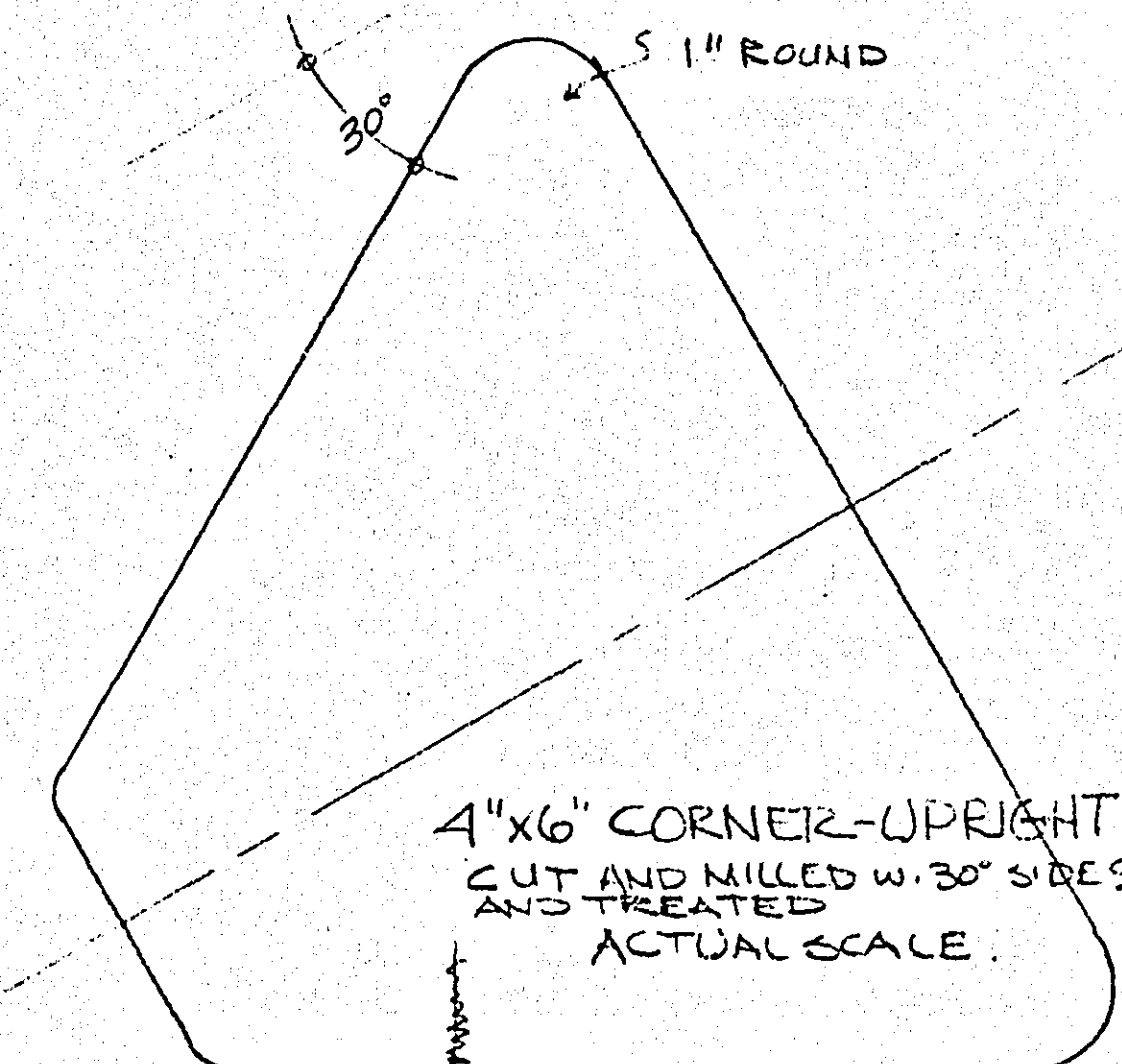
NEAR POST OFFICE



BUS STOP SHELTER

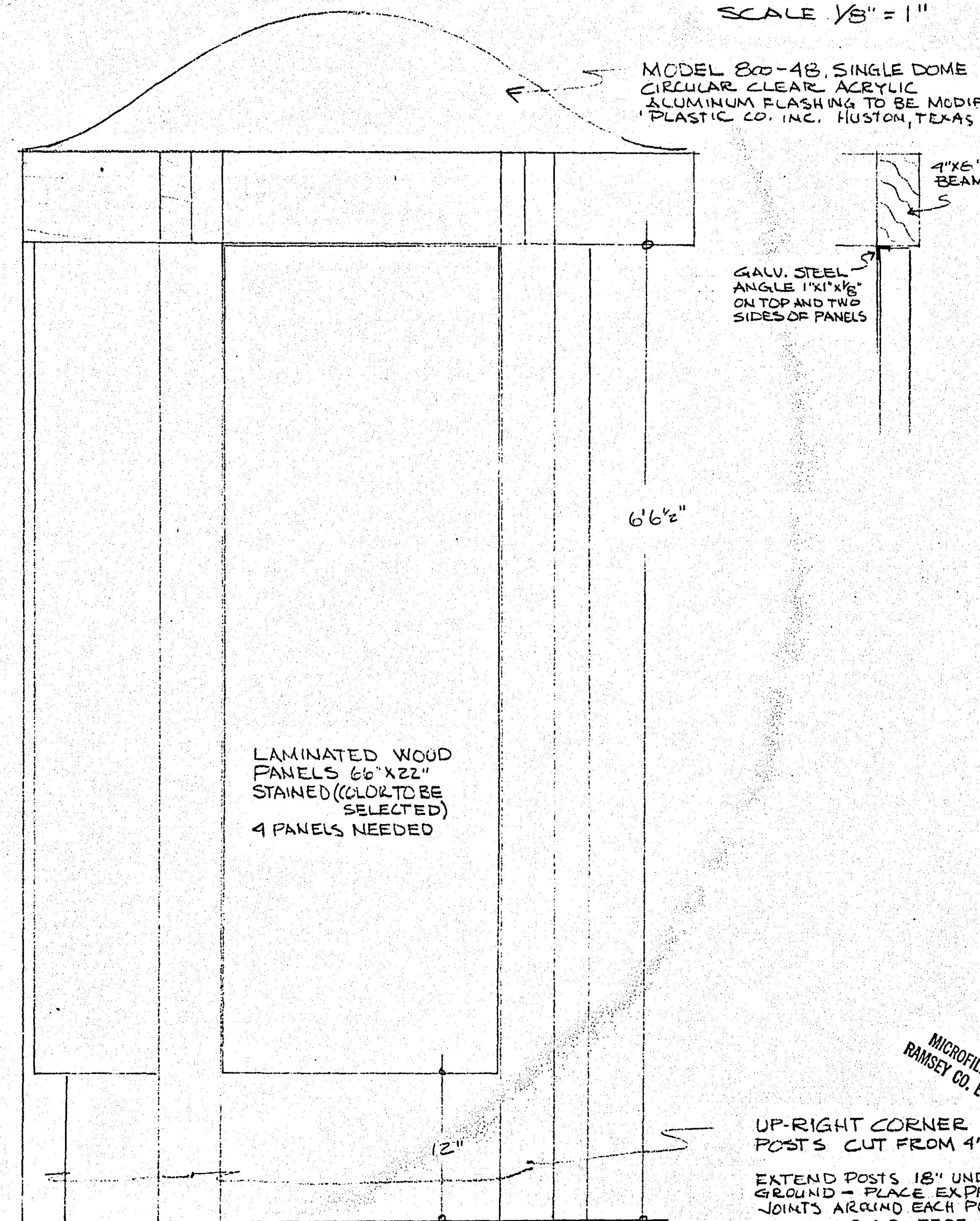
SCALE 1"=10"

SERVICE
CONDUIT
(ELEC. & TELE.)



KIOSK AND TELEPHONE SCALE 1/8"=1"

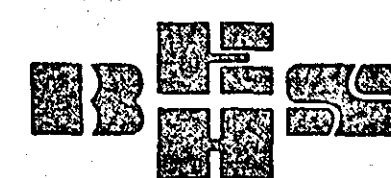
MODEL 800-48, SINGLE DOME
CIRCULAR CLEAR ACRYLIC
ALUMINUM FLASHING TO BE MODIFIED
PLASTIC CO. INC. HOUSTON, TEXAS



UP-RIGHT CORNER
POSTS CUT FROM 4"X6"
EXTEND POSTS 18" UNDER-
GROUND - PLACE EXPANSION
JOINTS AROUND EACH POST,
S.A.D. 7303.

SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				

SCALE:



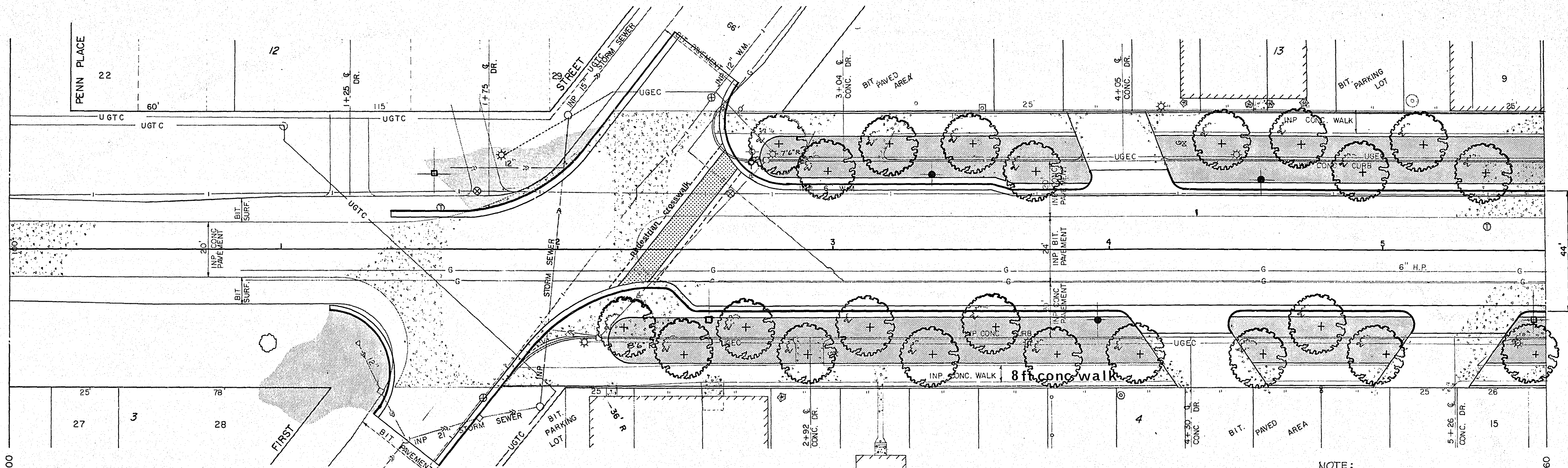
BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

DESIGN PLANNING
ASSOCIATES, INC.
MINNEAPOLIS MN

URBAN PLANNING AND
DESIGN INC.
MINNEAPOLIS MINNESOTA

NORTH SAINT PAUL, MINNESOTA

FILE NO.:	7378
DATE:	APRIL 26, 1974



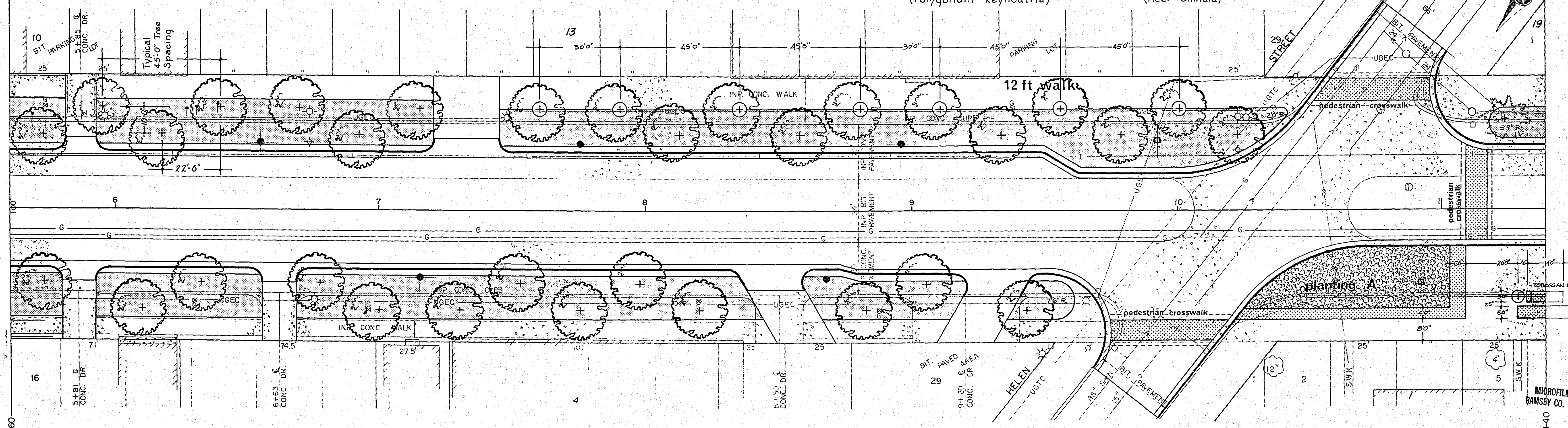
- Concrete, Broom finish
- Bomanite, Cobblestone finish ①
- Bomanite, Fishscale finish ①
- Bomanite, Running Bond Brick finish ①
- Bomacron, Wood ①
- Planting area
- Grass area

- 35" Down Light
- "Snowflake" Light
- + Tree
- + Tree with treegrate (56" dia.)
- + Tree with treegrate (82" dia.)

- 55 Ash, Summit 2 1/2" B+B - Uniform branching height. (Fraxinus Penn. Lanc. Summit) (Min. 6')
- 1 Honey Locust Imperial 3 1/2" B+B (Gleditsia Triacanthos 'Imperial')
- 1 Linden, Greenspire 4" B+B (Tilia Cordata 'Greenspire')

- Planting A:
- 70 - Juniper, Waukegan 18" - 30" on center. (J. Horig, Douglasi 'Waukegan')
 - 110 - Fleece Flower Potted - 8" on center. (Polygonum Reynoutria)
 - 20 - Currant, Alpine 18" - 30" on center. (Ribes Alpinum)
 - 6 - Maple, Amur Pot 1 1/2" (Acer Ginnala)

NOTE:
TREE GRADES FROM FIRST ST. TO HELEN ST.
TO BE 10 INCHES BELOW EXTENDED
WALK SLOPE TO TOP OF CURB.



① USE BOMANITE, BOMACRON OR EQUAL

7TH AVENUE

- Planting B:
 80 - Juniper Scandia
 18" - 30" on center
 (Juniperus Sabina 'Scandia')
 7 - Crabapple, Red Splendor
 3" - 8" B & B - Matched.
 10 Dog - Tulips
- Planting C:
 2 - Maple, Amur
 Pot 1 1/2"
 (Acer Ginnala)
 3 - Arborvitae, Globe
 18"
 (Thuja Occidentalis 'Woodward')
 30 - Spirea, Dwarf Garland
 Potted - 12" on center
 (Spirea Arguta Compacta)
 10 - Potentilla, 'Gold Drop'
 15" - 24" on center
 (Potentilla Farreri 'Gold Drop')
 5 - Mint Plants - (Labiata) To be selected.
- Planting D:
 2 - Maple, Amur
 Pot 1 1/2"
 (Acer Ginnala)
 33 - Currant, Alpine
 18" - 30" on center.
 (Ribes Alpinum)
 25 - Spirea, Anthony Waterer
 15" - 30" on center.
 (Spirea Bumalda 'Anthony Waterer')
 30 - Juniper, Waukegan
 18" - 30" on center.
 (J. Horis, Douglasi 'Waukegan')
 3 - Arborvitae, Globe
 18"
 (Thuja Occidentalis 'Woodward')
 4 - Mockorange - Minn. Snowflake Dwarf.
 18 B & B
 5 - Mint Plants
 (Labiata) - To be selected.
 3 - Rose, Rugosa Hybrids
 2 Year #1
 6 Dog - Daffodils

- Concrete, Broom finish
 Bomanite, Cobblestone finish
 Bomanite, Fishscale finish
 Bomanite, Running Bond Brick finish
 Bomanite, Wood
 Planting area
 Grass area

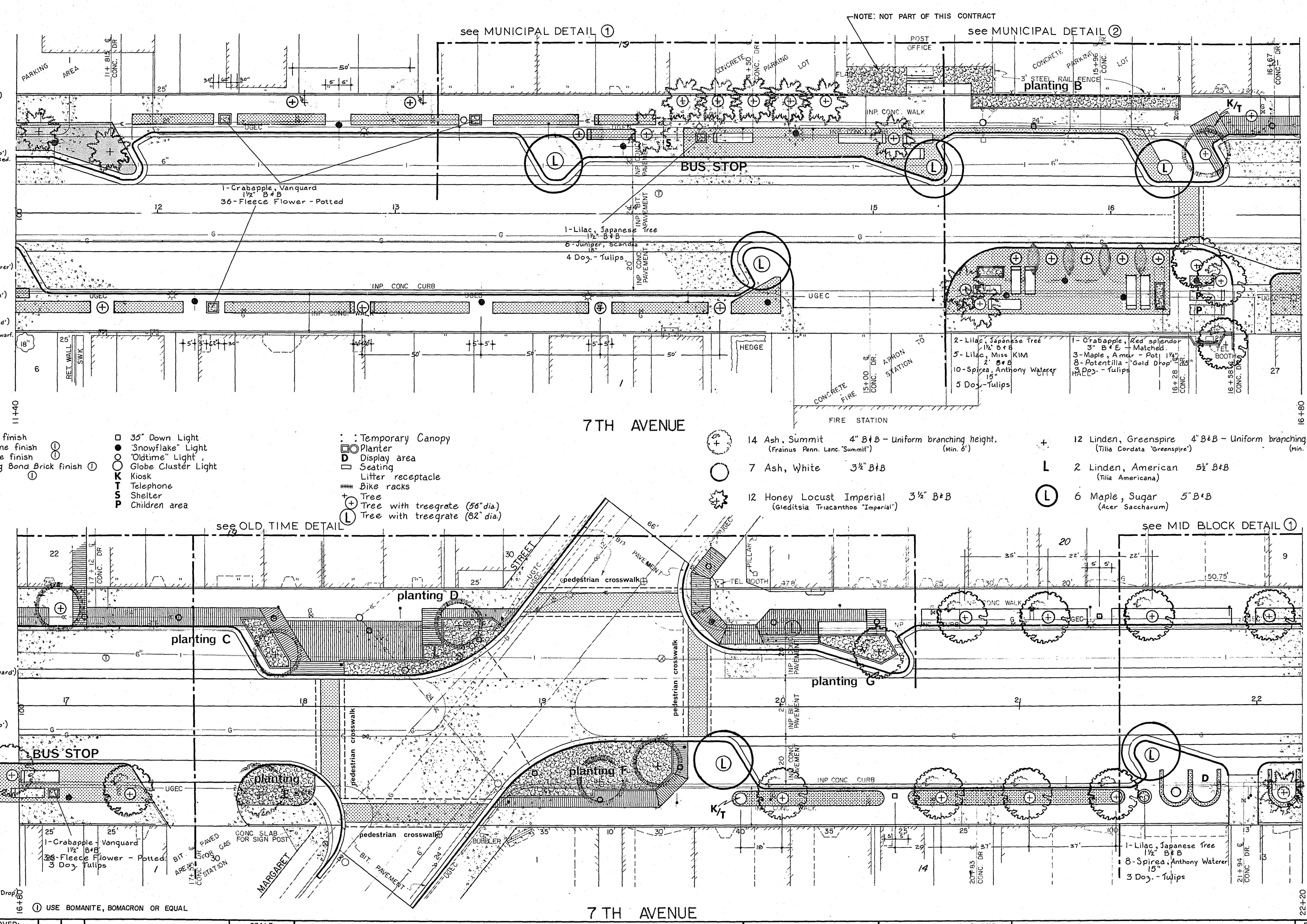
- 35" Down Light
 "Snowflake" Light
 "Oldtime" Light
 Globe Cluster Light
 Kiosk
 Telephone
 Shelter
 Children area

- Temporary Canopy
 Planter
 Display area
 Seating
 Litter receptacle
 Bike racks
 Tree
 Tree with treegrate (36" dia.)
 Tree with treegrate (62" dia.)

- 14 Ash, Summit
 (Fraxinus Penn. Lanc. 'Summit')
 4" B & B - Uniform branching height.
 (min. 6')
 7 Ash, White
 3 1/2" B & B
 12 Honey Locust Imperial
 (Gleditsia Triacanthos 'Imperial')
 3 1/2" B & B

- 12 Linden, Greenspire
 (Tilia Cordata 'Greenspire')
 4" B & B - Uniform branching height.
 (min. 6')
 2 Linden, American
 (Tilia Americana)
 5 1/2" B & B
 6 Maple, Sugar
 (Acer Saccharum)
 5" B & B

- Planting E:
 35 - Potentilla, 'Gold Drop'
 15" - 24" on center
 (Potentilla Farreri 'Gold Drop')
 300 - Fleece Flower
 Potted - 8" on center.
 (Polygnum Reynoutria)
 18 - Currant, Alpine
 18" - 30" on center.
 (Ribes Alpinum)
 4 - Rose, Rugosa Hybrids
 2 Year #1
 8 - Dog, Tulips
- Planting F:
 3 - Arborvitae, Globe
 18"
 (Thuja Occidentalis 'Woodward')
 70 - Juniper, Waukegan
 18" - 30" on center
 (J. Horis, Douglasi 'Waukegan')
 110 - Potentilla, 'Gold Drop'
 15" - 24" on center.
 (Potentilla Farreri 'Gold Drop')
 3 - Maple, Amur
 Pot 1 1/2"
 (Acer Ginnala)
 15 - Mockorange, Minn. Snowflake Dwarf
 18 B & B
 4 - Rose, Rugosa Hybrids
 2 Year #1
 12 Dog - Daffodils
- Planting G:
 5 - Maple, Amur
 Pot 1 1/2"
 (Acer Ginnala)
 20 - Potentillas, 'Gold Drop'
 15" - 24" on center.
 (Potentilla Farreri 'Gold Drop')
 150 - Fleece Flower
 Potted - 8" on center.
 (Polygnum Reynoutria)



Planting H:
 6-Spruce, Colorado Green
 12" B&B Select Narrow Species
 (Picea pungens)

600-Fleece Flower
 Potted - 8" on center.
 (Polygonum Reynoutria)

18 Dog - Daffodils

Planting I:

1-Plum, Newport
 3 1/2" B&B
 (Prunus 'Newport')

16-Juniper, Scandia
 18" - 30" on center.
 (Juniperus Sabina 'Scandia')

6 Dog - Tulips

Planting J:

4-Maple, Amur
 Pot 1 1/2"
 (Acer Ginnala)

18-Spirea, Anthony Waterer
 15" - 30" on center.
 (Spirea Bumalda 'Anthony Waterer')

Planting K:

3-Lilac, Japanese Tree
 1 1/2" B&B
 (Syringa Amurensis Japanese)

16-Juniper, Scandia
 18" - 30" on center.
 (Juniperus Sabina 'Scandia')

3 Dog - Tulip

Planting L:

4-Maple, Amur
 Pot 1 1/2"
 (Acer Ginnala)

18-Spirea, Anthony Waterer
 15" - 30" on center.
 (Spirea Bumalda
 Anthony Waterer)

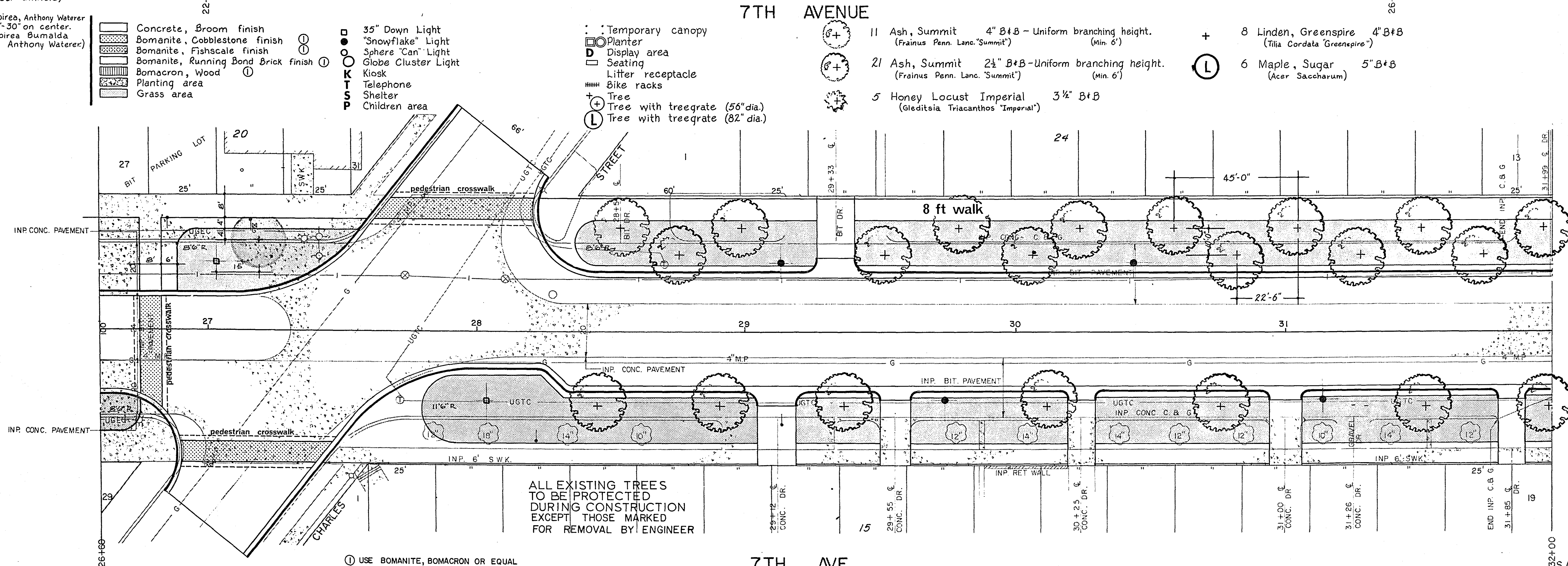
- Concrete, Broom finish
- Bomanite, Cobblestone finish
- Bomanite, Fishscale finish
- Bomanite, Running Bond Brick finish
- Bomacron, Wood
- Planting area
- Grass area

- 35" Down Light
- "Snowflake" Light
- Sphere "Can" Light
- Globe Cluster Light
- Kiosk
- Telephone
- Shelter
- Children area

- Temporary canopy
- Planter
- Display area
- Seating
- Litter receptacle
- Bike racks
- Tree
- Tree with treegrate (56" dia.)
- Tree with treegrate (82" dia.)

- 11 Ash, Summit 4" B&B - Uniform branching height.
 (Fraxinus Penn. Lanc. 'Summit') (Min. 6')
- 21 Ash, Summit 2 1/2" B&B - Uniform branching height.
 (Fraxinus Penn. Lanc. 'Summit') (Min. 6')
- 5 Honey Locust Imperial 3 1/2" B&B
 (Gleditsia Triacanthos 'Imperial')

- 8 Linden, Greenspire 4" B&B
 (Tilia Cordata 'Greenspire')
- 6 Maple, Sugar 5" B&B
 (Acer Saccharum)

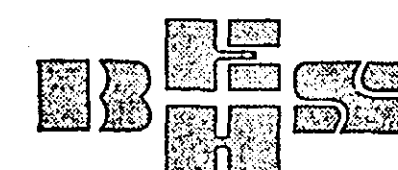


① USE BOMANITE, BOMACRON OR EQUAL

7TH AVE

SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				

SCALE:
 1" = 20'



BANISTER SHORT ELLIOTT HENDRICKSON
 AND ASSOCIATES
 Saint Paul, Minnesota

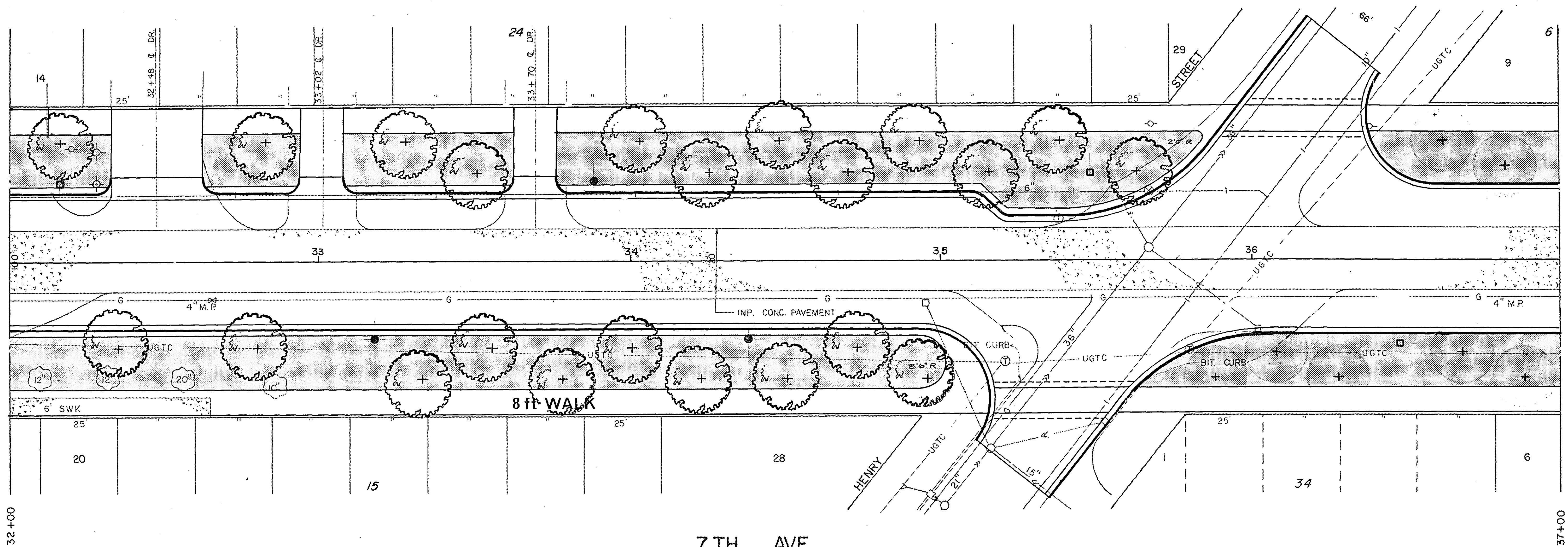
DESIGN PLANNING
 ASSOCIATES, INC.
 MINNEAPOLIS MN

URBAN PLANNING AND
 DESIGN INC.
 MINNEAPOLIS MINNESOTA

NORTH SAINT PAUL, MINNESOTA

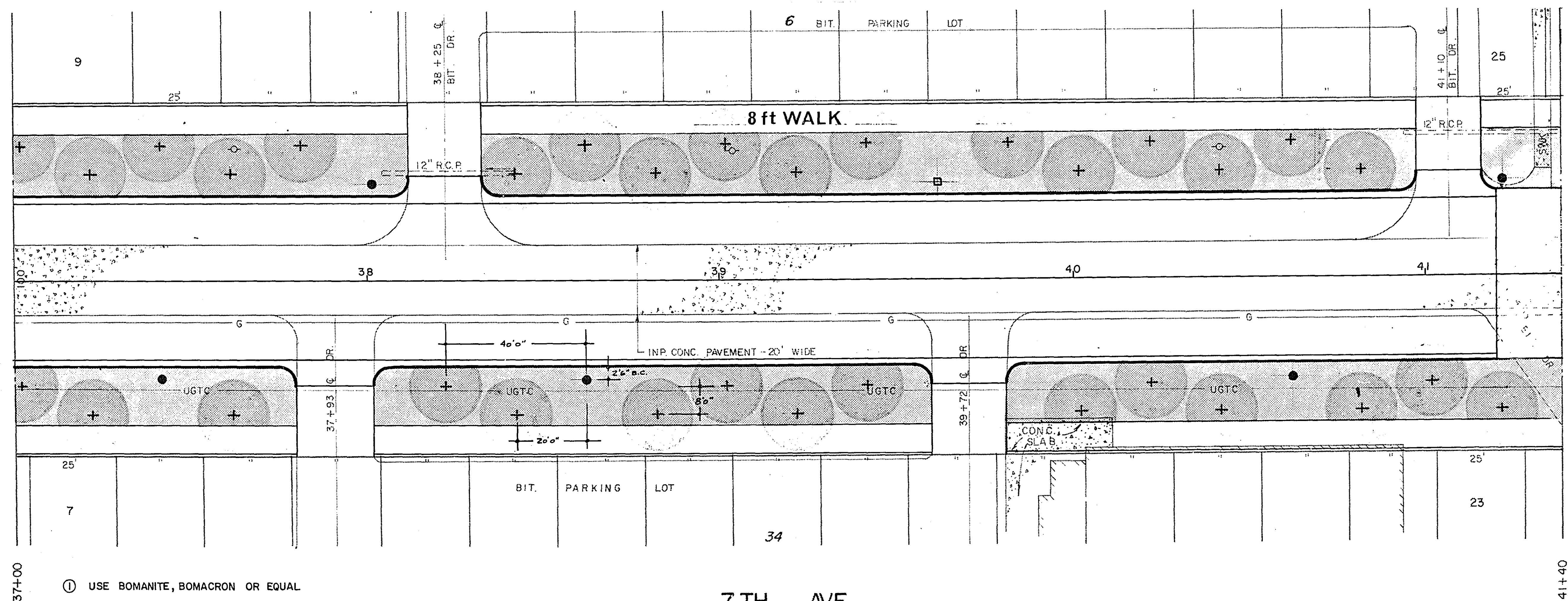
FILE NO.: 7378	27
DATE: APRIL 26, 1974	58

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 RAMSEY CO. ENGR.
 S.A.D. 7303



- Concrete, Broom finish
- Bomanite, Cobblestone finish ①
- Bomanite, Fishscale finish ①
- Bomanite, Running Bond Brick finish ① + Tree
- Bomacron, Wood ①
- Planting area
- Grass area
- 35" Down Light
- "Snowflake" Light

- 7TH AVE.
- 22 Ash, Summit 2 1/2" B+B - Uniform branching height. (Min. 6')
 - 39 Linden, Greenspire 2 1/2" B+B - Uniform branching height. (Min. 5'-6')

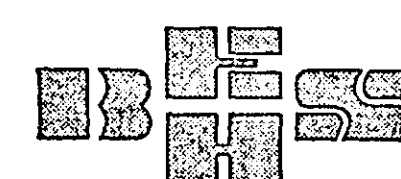


① USE BOMANITE, BOMACRON OR EQUAL

7TH AVE.

SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				

SCALE:
1" = 20'



BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota

DESIGN PLANNING
ASSOCIATES, INC.
MINNEAPOLIS MN

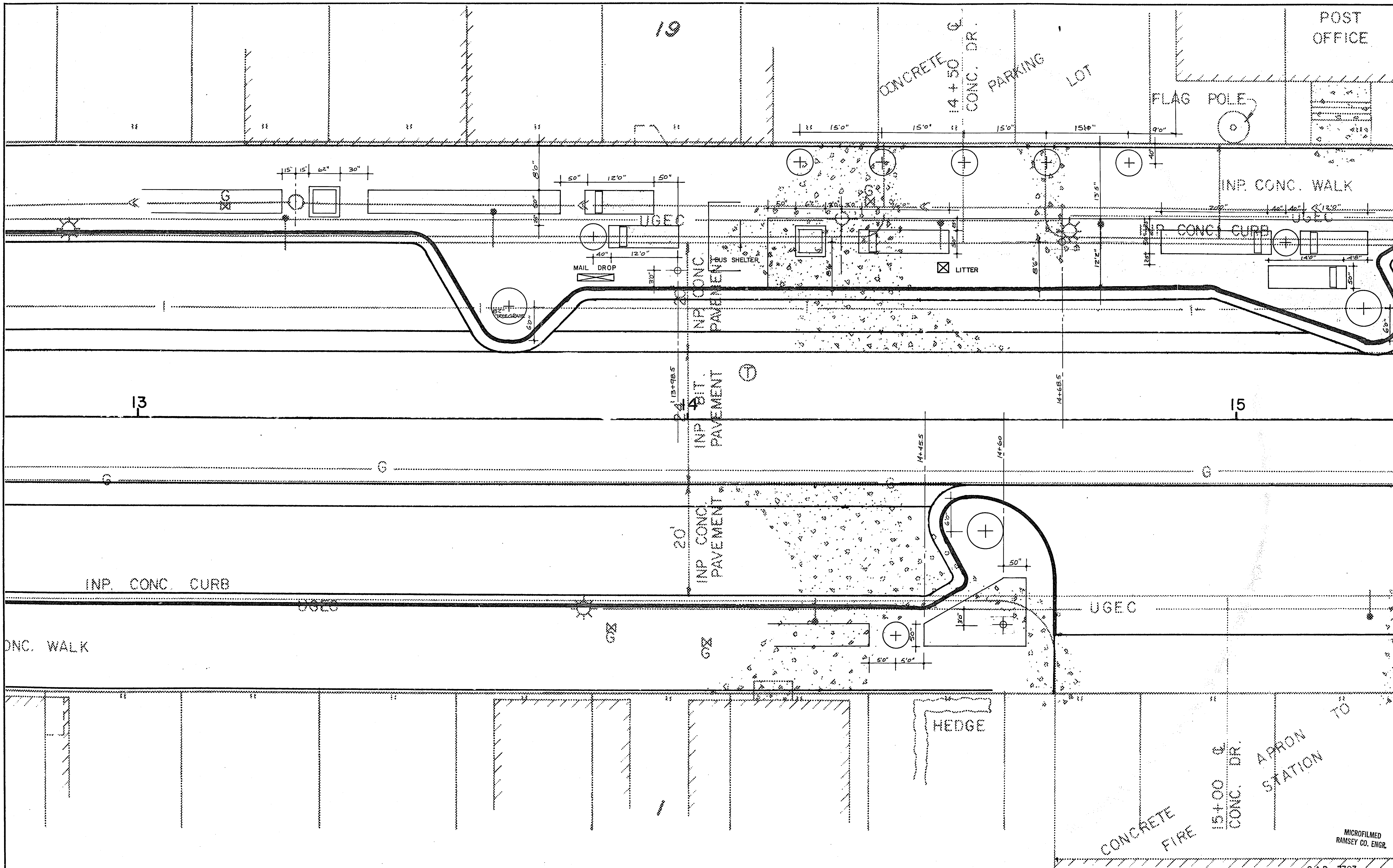
URBAN PLANNING AND
DESIGN INC.
MINNEAPOLIS MINNESOTA

NORTH SAINT PAUL, MINNESOTA

S.A.D. 7303
FILE NO.:
7378
DATE:
APRIL 26, 1974

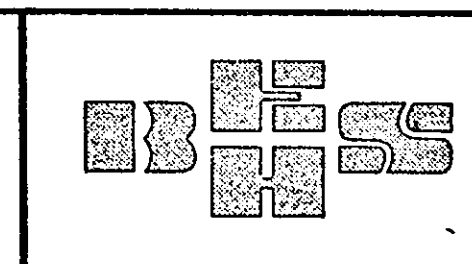
28
58

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RAMSEY CO. ENGR.

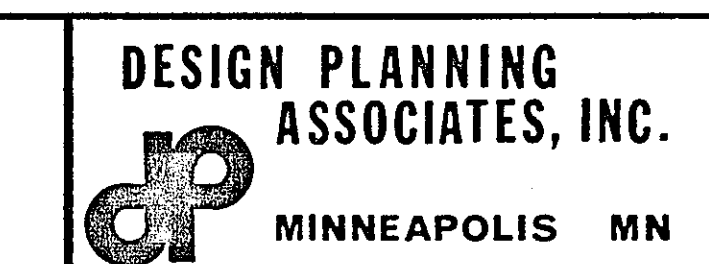


SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN:				

SCALE:
1/8" = 1'-0"



BANISTER SHORT ELLIOTT HENDRICKSON
AND ASSOCIATES
Saint Paul, Minnesota



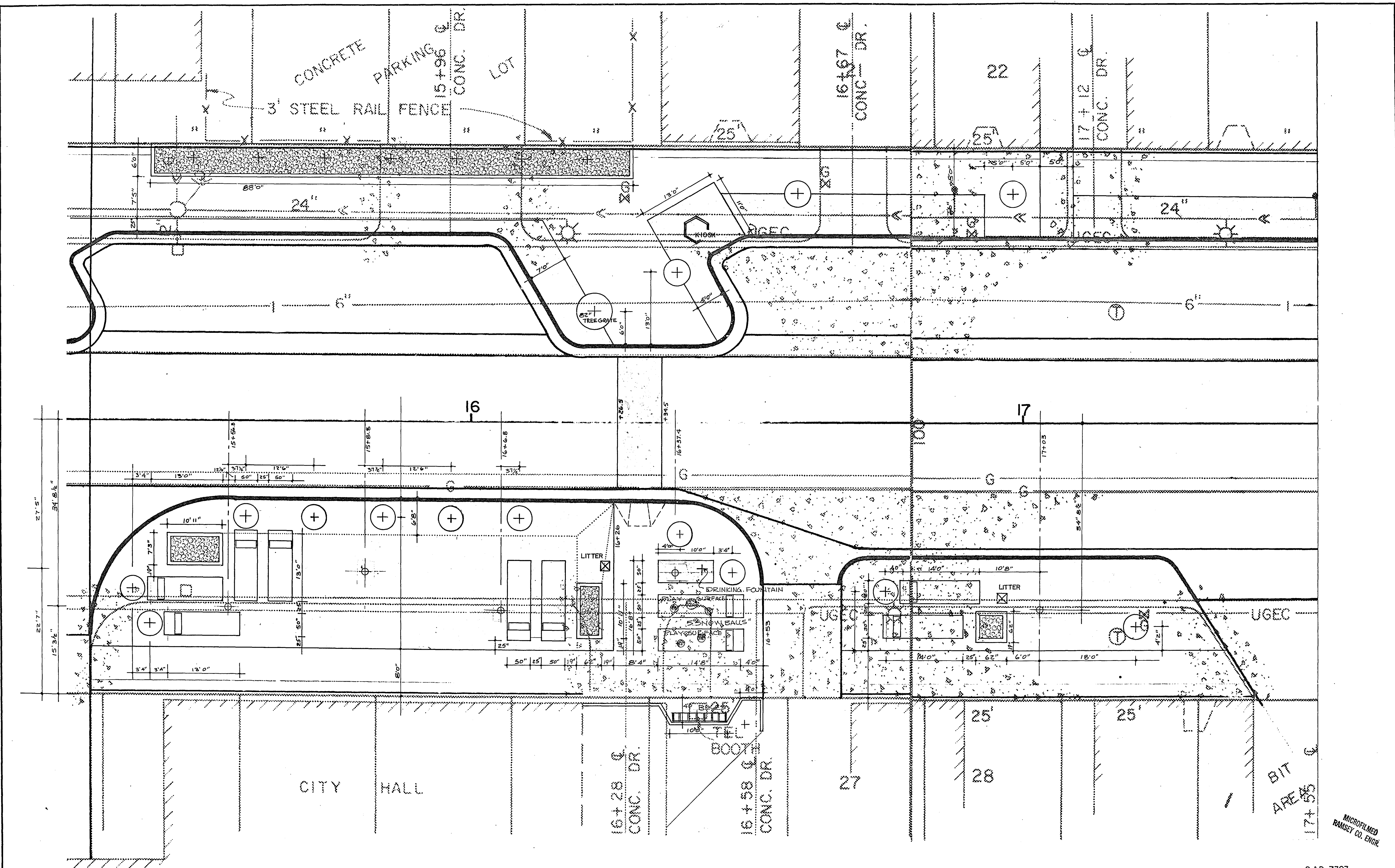
DESIGN PLANNING
ASSOCIATES, INC.
MINNEAPOLIS MN

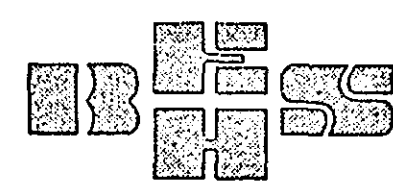
URBAN PLANNING AND
DESIGN INC.
MINNEAPOLIS MINNESOTA

NORTH SAINT PAUL, MINNESOTA
MUNICIPAL 1/ HELEN ST. TO MARGARET ST.

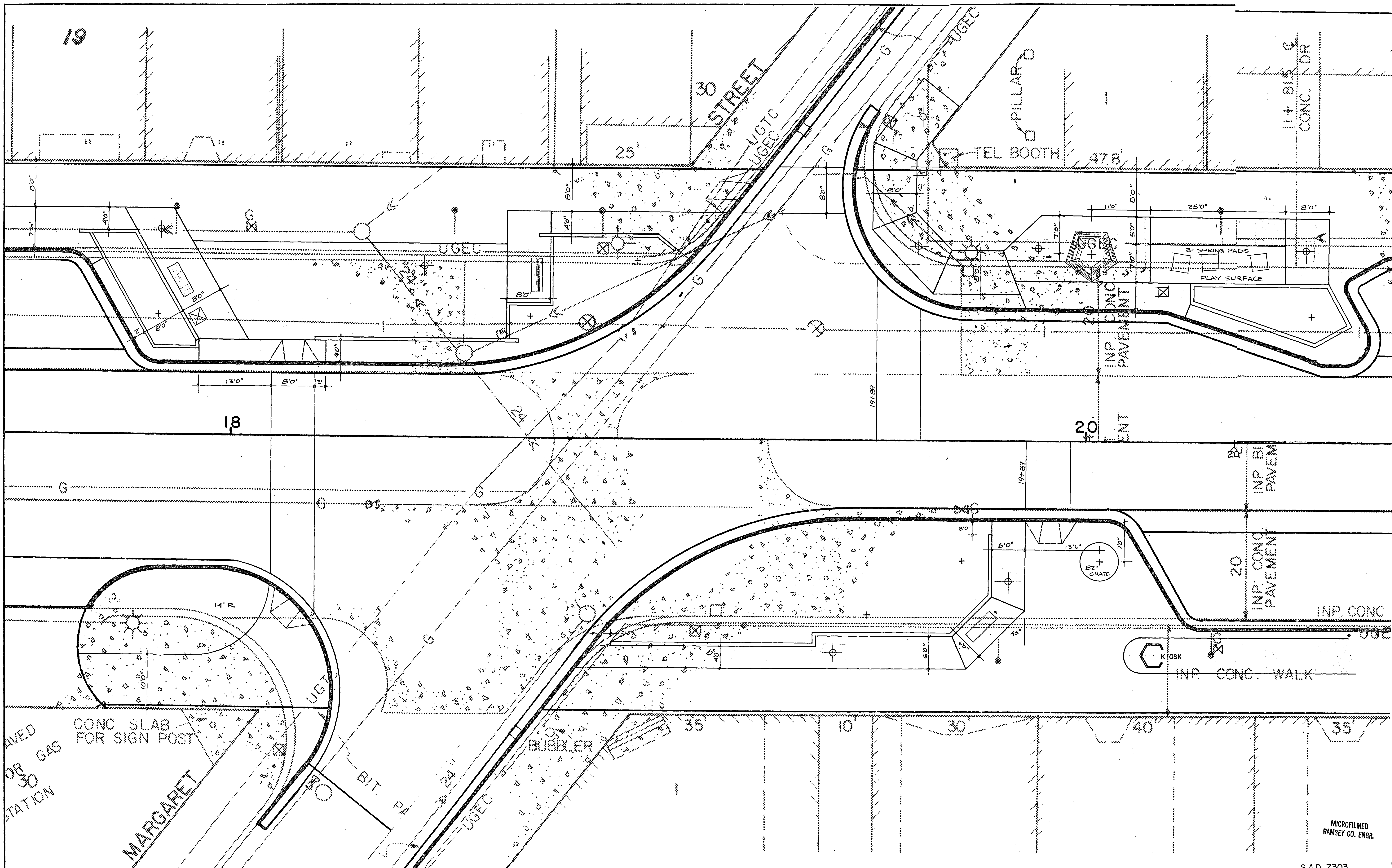
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S.A.D. 7303
FILE NO.: 7378
DATE: APRIL 26, 1974
29
58



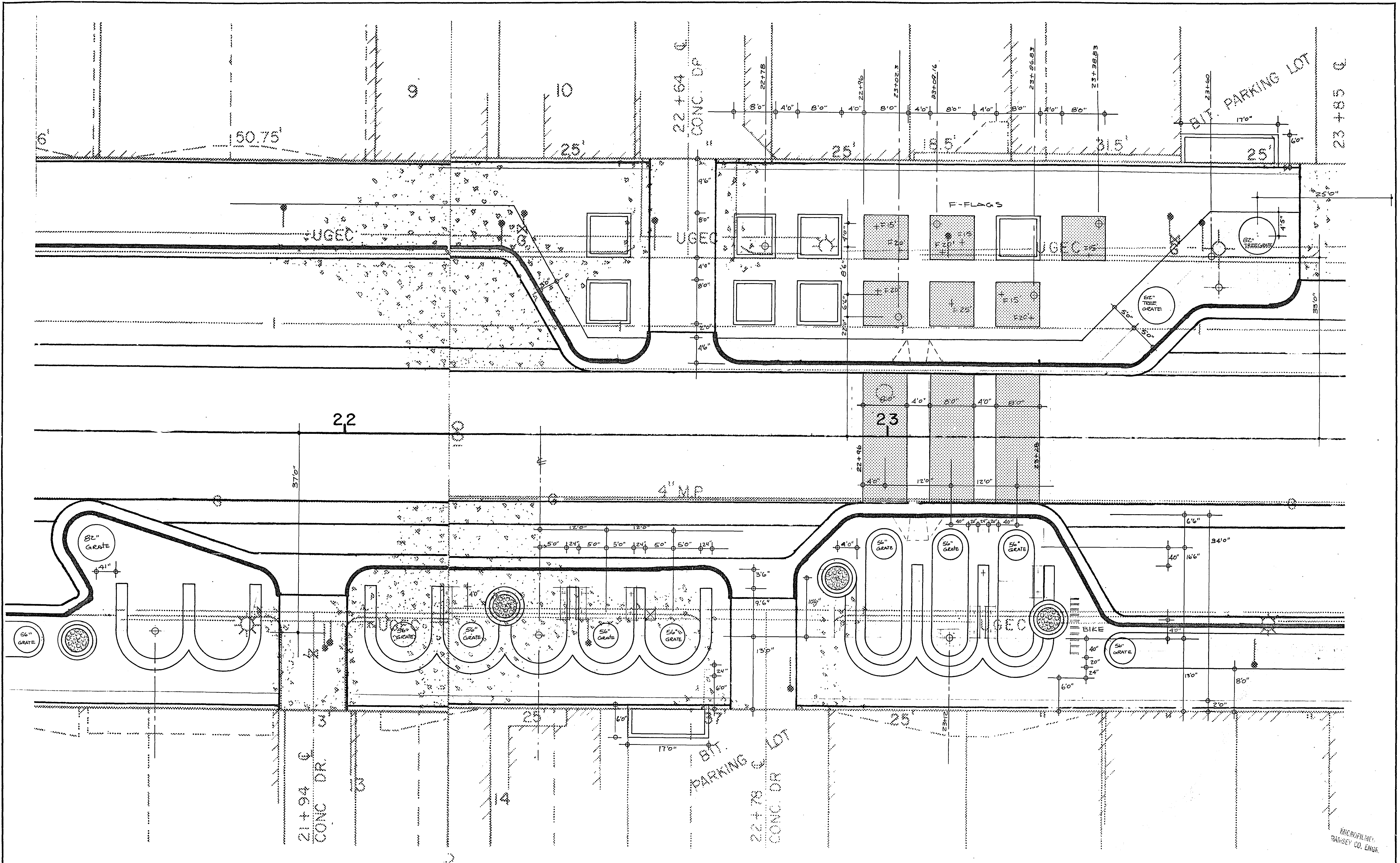
SURVEY: DESIGN: DRAWN:	APPROVED:	NO.	DATE	REVISIONS	SCALE: $\frac{1}{8}'' = 1'-0''$	 BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota	 DESIGN PLANNING ASSOCIATES, INC. MINNEAPOLIS MN	 URBAN PLANNING AND DESIGN INC. MINNEAPOLIS MINNESOTA	NORTH SAINT PAUL, MINNESOTA MUNICIPAL 2/ HELEN ST. TO MARGARET ST.		S.A.D. 7303 FILE NO.: 7378 DATE: APRIL 26, 1974	30 58

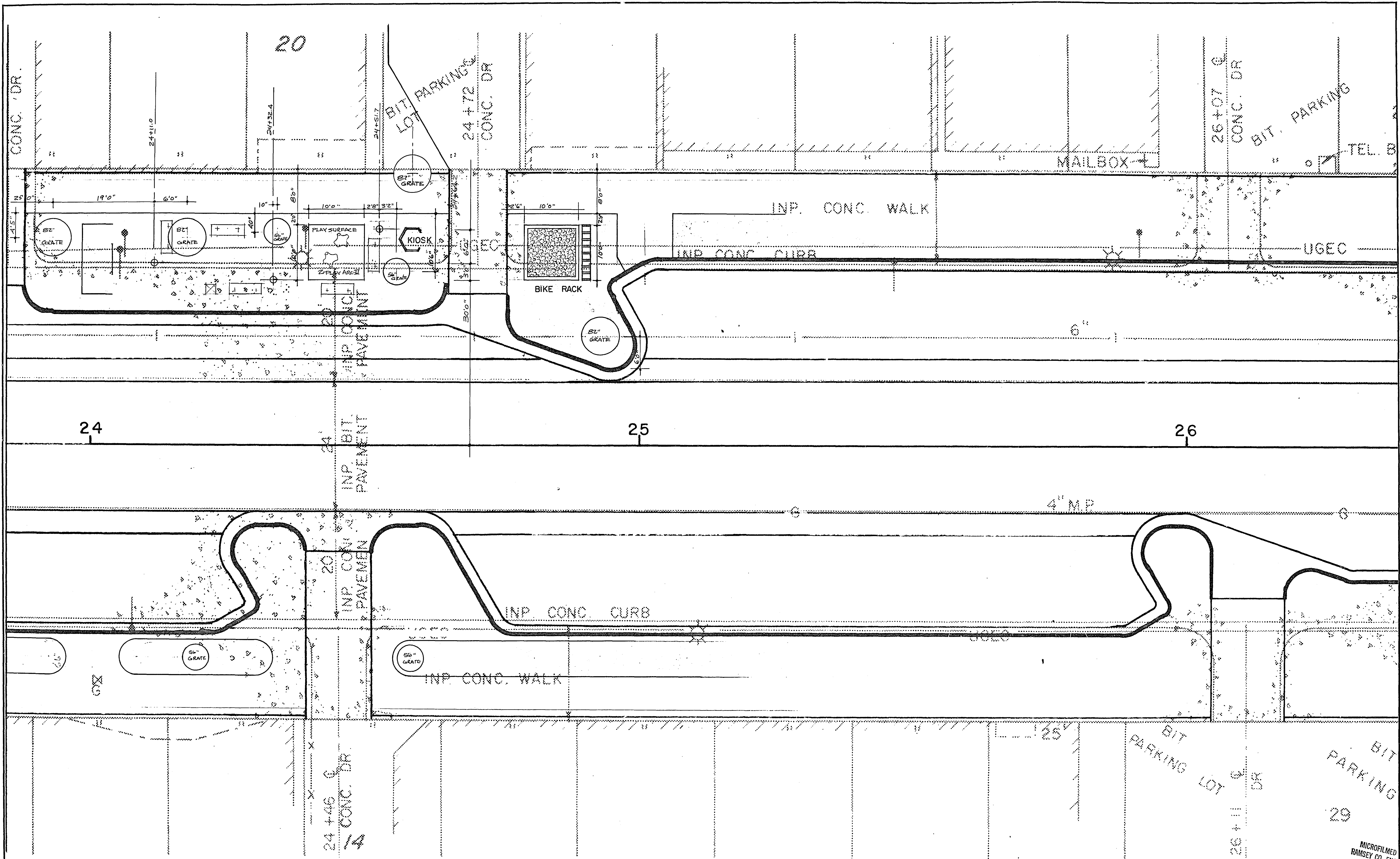
MICROFILMED
RAMSEY CO. ENGR



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RAMSEY CO. ENGR.

S.A.D. 7303

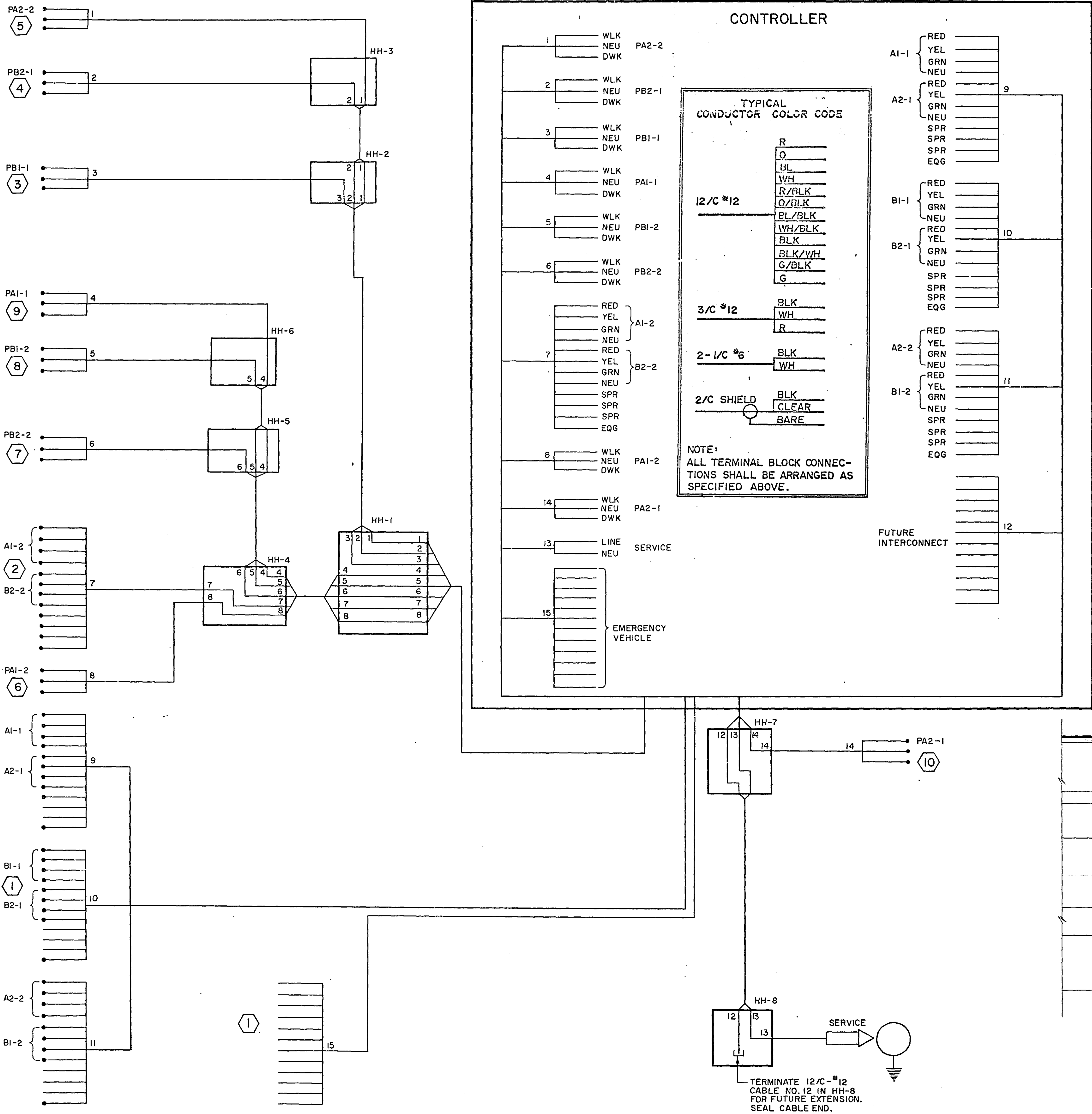




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										DATE: APRIL 26, 1974	58		

S.A.D. 7303
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RAMSEY CO. ENGR

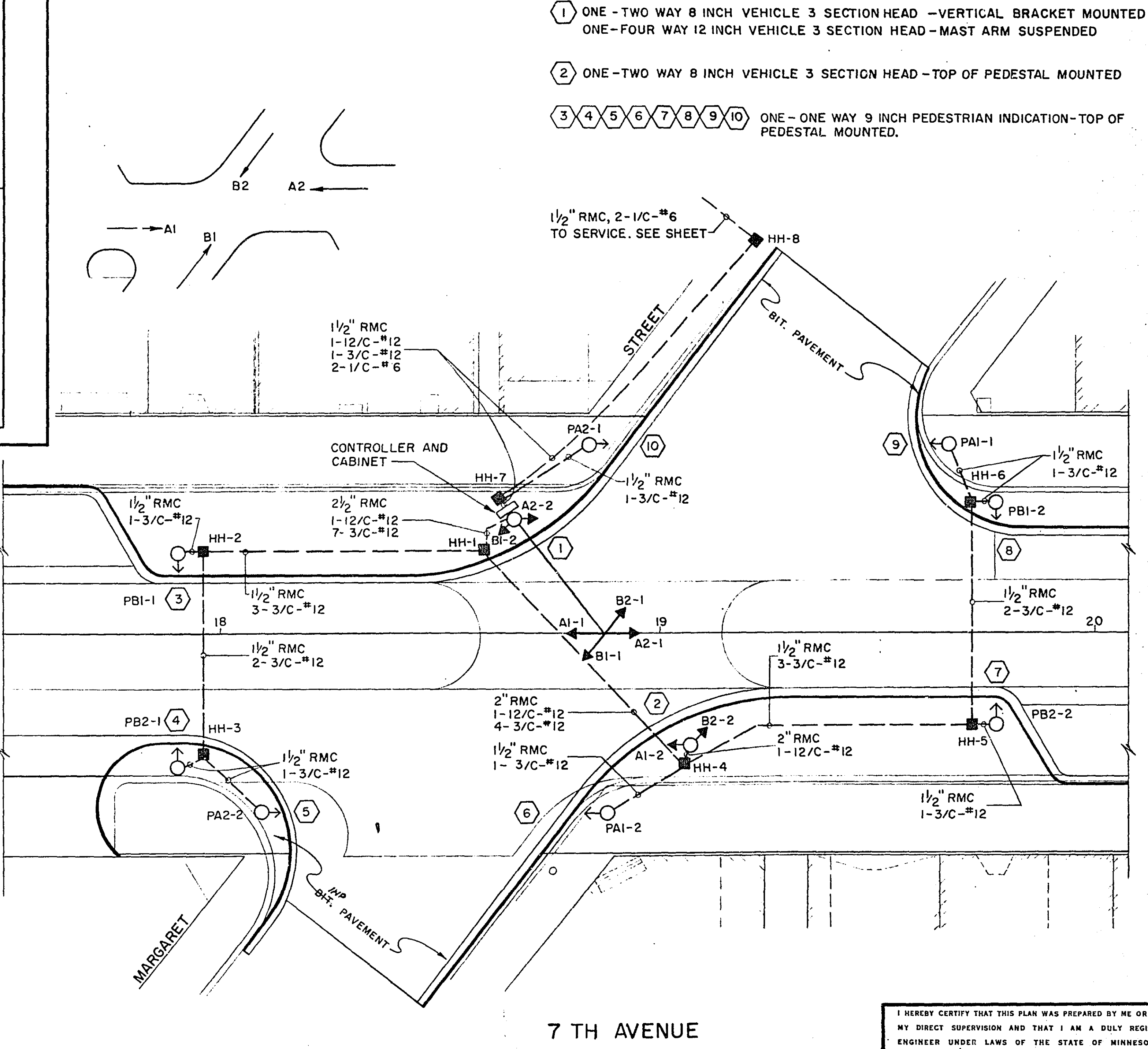
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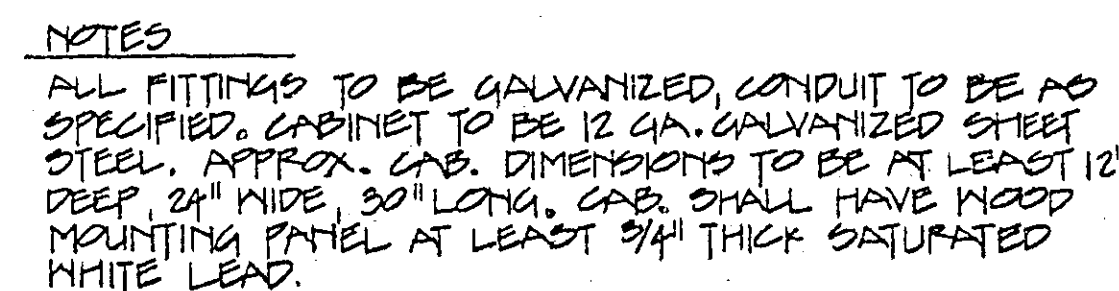


- NOTES
1. PROVIDE TERMINAL STRIPS IN THE BASE OF ALL STANDARDS WITH TERMINALS FOR ALL CONDUCTORS IN STANDARD.
 2. NO SPLICES ARE TO BE MADE IN HANDHOLES.
 3. GROUND CONDUCTORS ARE NOT SHOWN. INSTALL GROUNDING AS SPECIFIED.

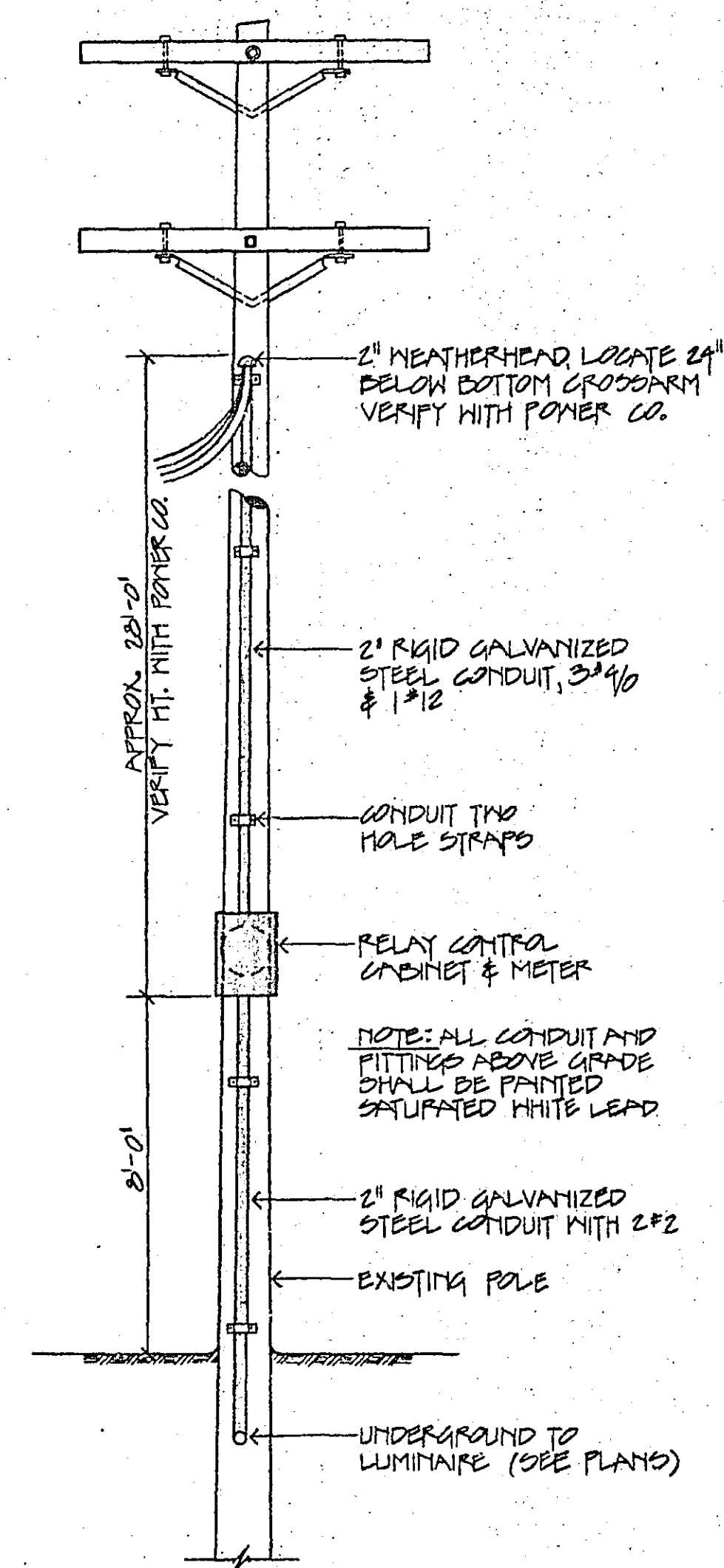
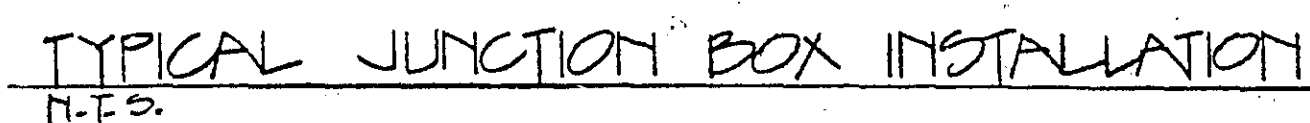
EQUIPMENT AND INDICATIONS	
RED-RED	B3(eg)-SIGNAL HEAD-PHASE "B"
YEL-YELLOW	DA-4(eg)-DETECTOR-PHASE "A"
GRN-GREEN	HH-HANDHOLE
LTA-LEFT TURN ARROW	GRR-GROUND ROD
RTA-RIGHT TURN ARROW	SERV-SERVICE
WLK-WALK	ST.LHT-STREET LIGHT
NEU-NEUTRAL	S.O.P-SOURCE OF POWER
DWK-DON'T WALK	SPR-SPARE CONDUCTOR
LUM-LUMINAIRE	○-SPLICE
SWD-SWITCHED	PEC-PHOTOELECTRIC CELL
DNL-DOWNLIGHT	EQG-EQUIPMENT GROUND

CONDUCTOR COLOR ABBREVIATIONS	
R-RED	
O-ORANGE	
BL-BLUE	
WH-WHITE	
R/BLK-RED WITH BLACK TRACER	
O/BLK-ORANGE WITH BLACK TRACER	
BL/BLK-BLUE WITH BLACK TRACER	
WH/BLK-WHITE WITH BLACK TRACER	
BLK-BLACK	
BLK/WH-BLACK WITH WHITE TRACER	
G/BLK-GREEN WITH BLACK TRACER	
G-GREEN	

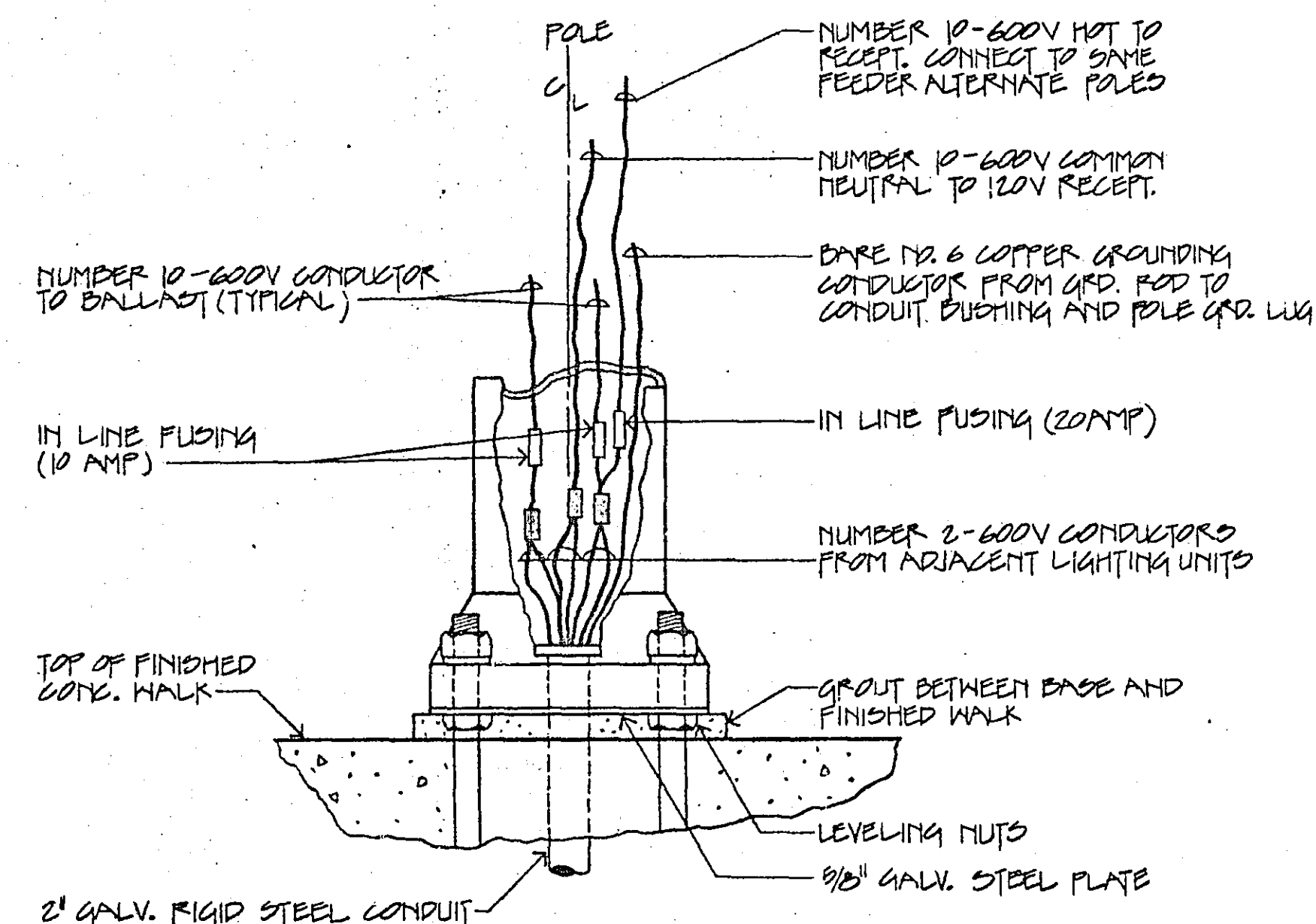




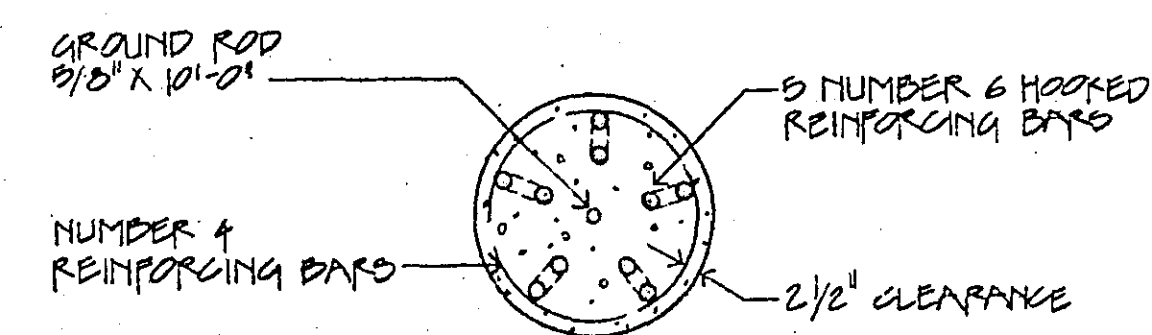
RELAY CONTROL CABINET AND FEED POINT
D.T.S.



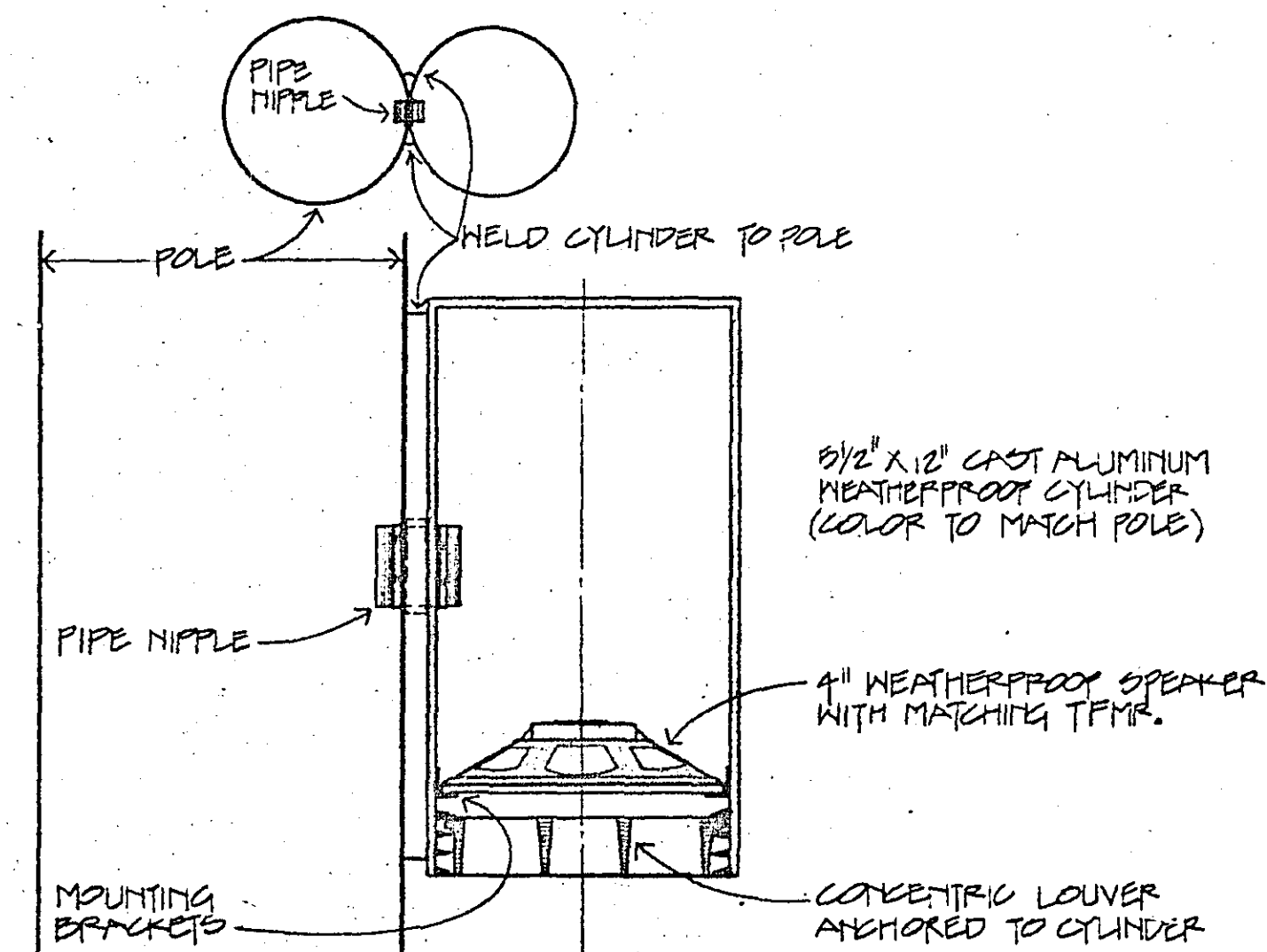
FEED POINT POLE DETAIL
N.T.S.



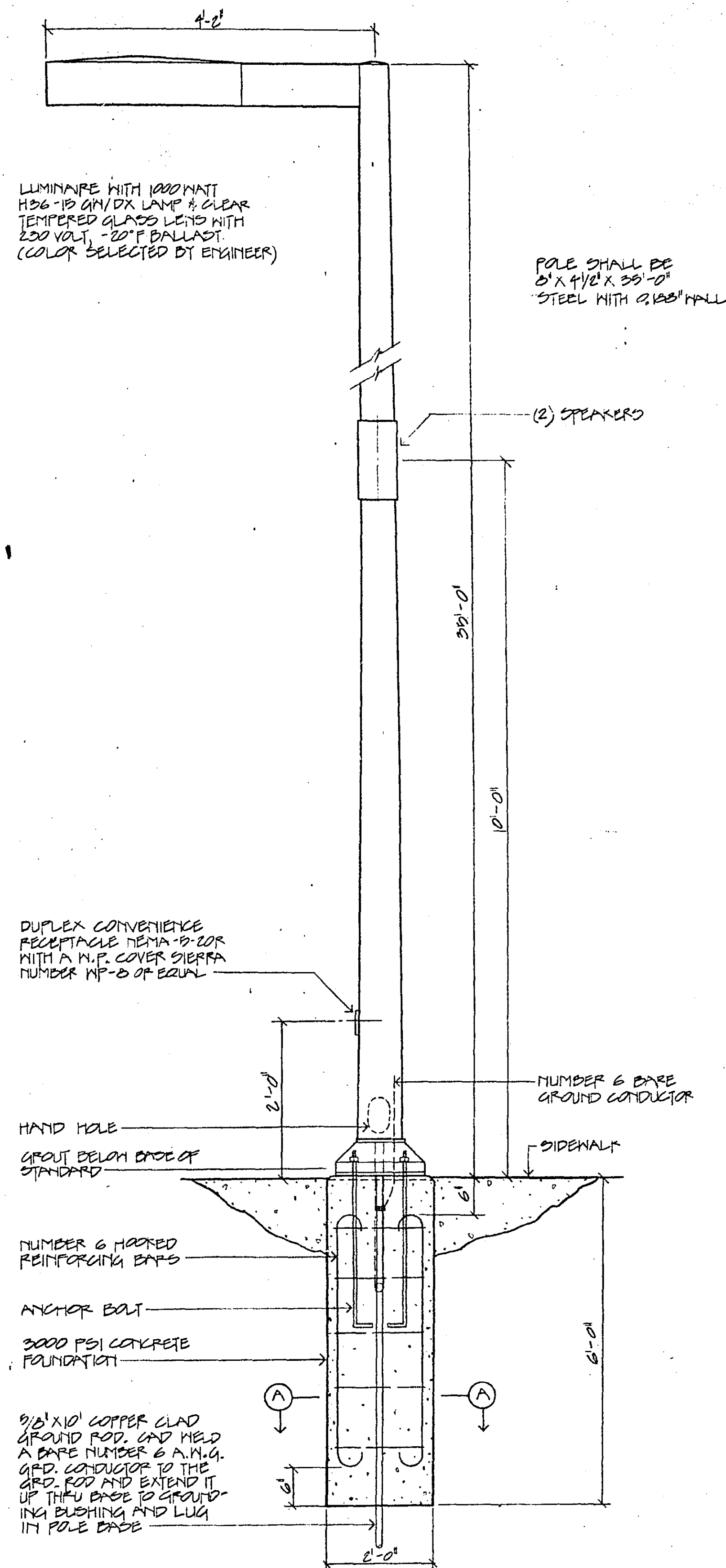
POLE MOUNTING DETAIL



SECTION A-A



TYPICAL SPEAKER DETAIL
N.T.S.



FIXTURE TYPE 'A'

- ① LIGHTING FIXTURE STANDARD
- ② DENOTED FIXTURE TYPE
- ③ DENOTED CIRCUIT NUMBER
- ④ W.P. DUPLEX CONVENIENCE RECEPT. NEMA 5-20P
(RECEPT. SHALL BE GROUND FAULT CIRCUIT
INTERRUPTER TYPE)
- ⑤ WEATHERPROOF SPEAKER - SEE DETAIL
- ⑥ WEATHERPROOF MICROPHONE OUTLET
- ⑦ NOT W.P. JUNCTION BOX - SEE DETAIL
- ⑧ RIGID CONDUIT UNDERGROUND - 24" BELOW GRADE

I HEREBY CERTIFY THAT THIS
MY DIRECT SUPERVISION AND
ENGINEER, UNDER LAWS

Leo P. C.

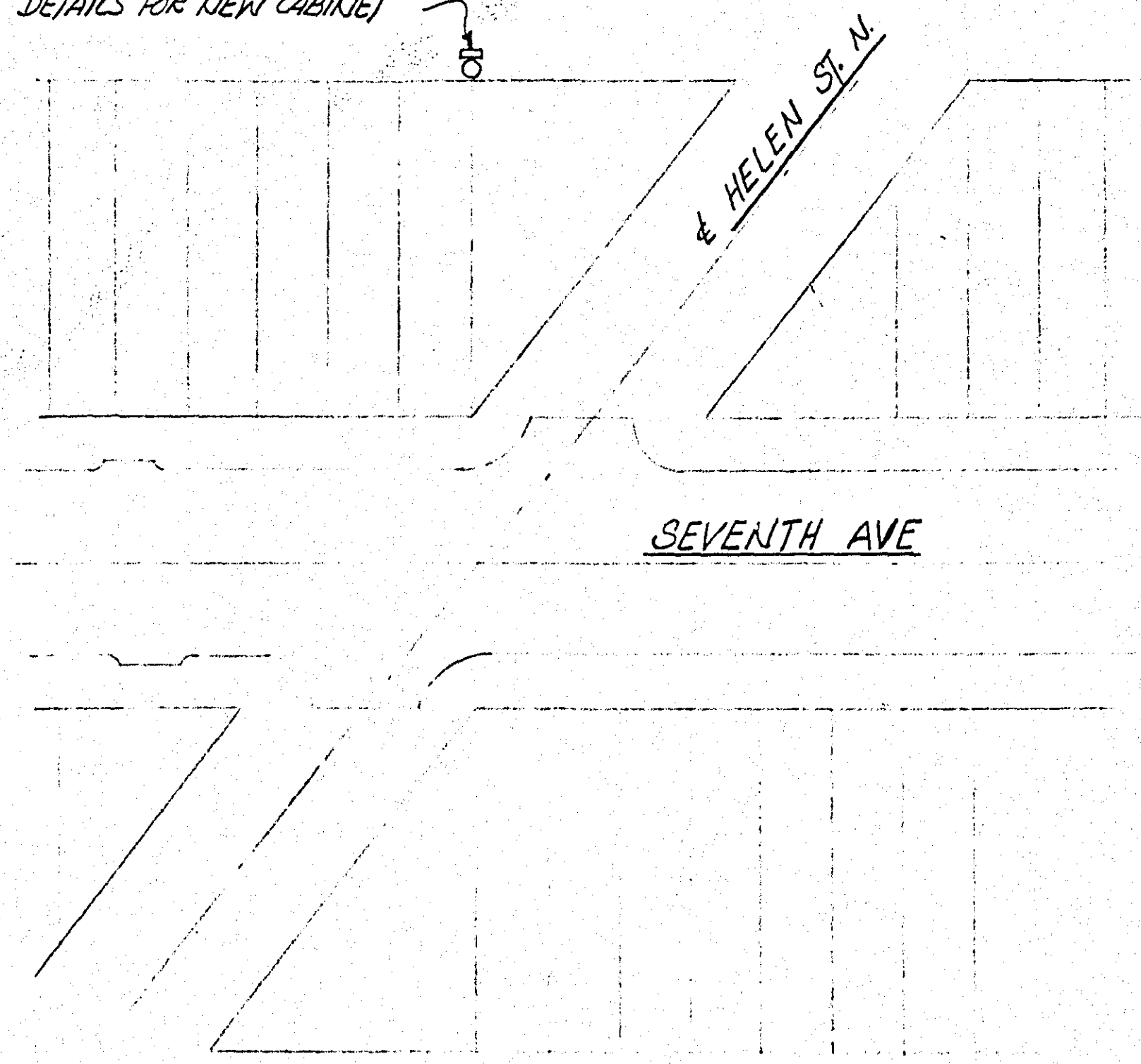
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER
MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED
ENGINEER UNDER LAWS OF THE STATE OF MINNESOTA

Geo P. Ellison

SEE NO. 4713

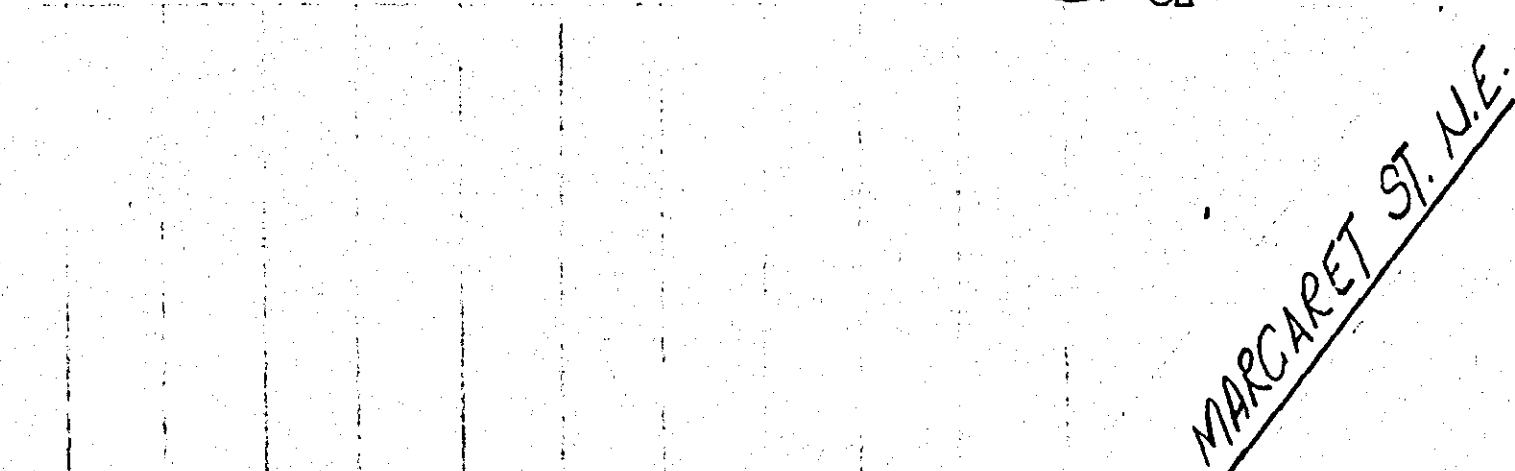
MICROFILMED
RAMSEY CO. EN

FEED POINT NO. 1. REFER TO FEED POINT SCHEDULE AND DETAILS FOR NEW CABINET



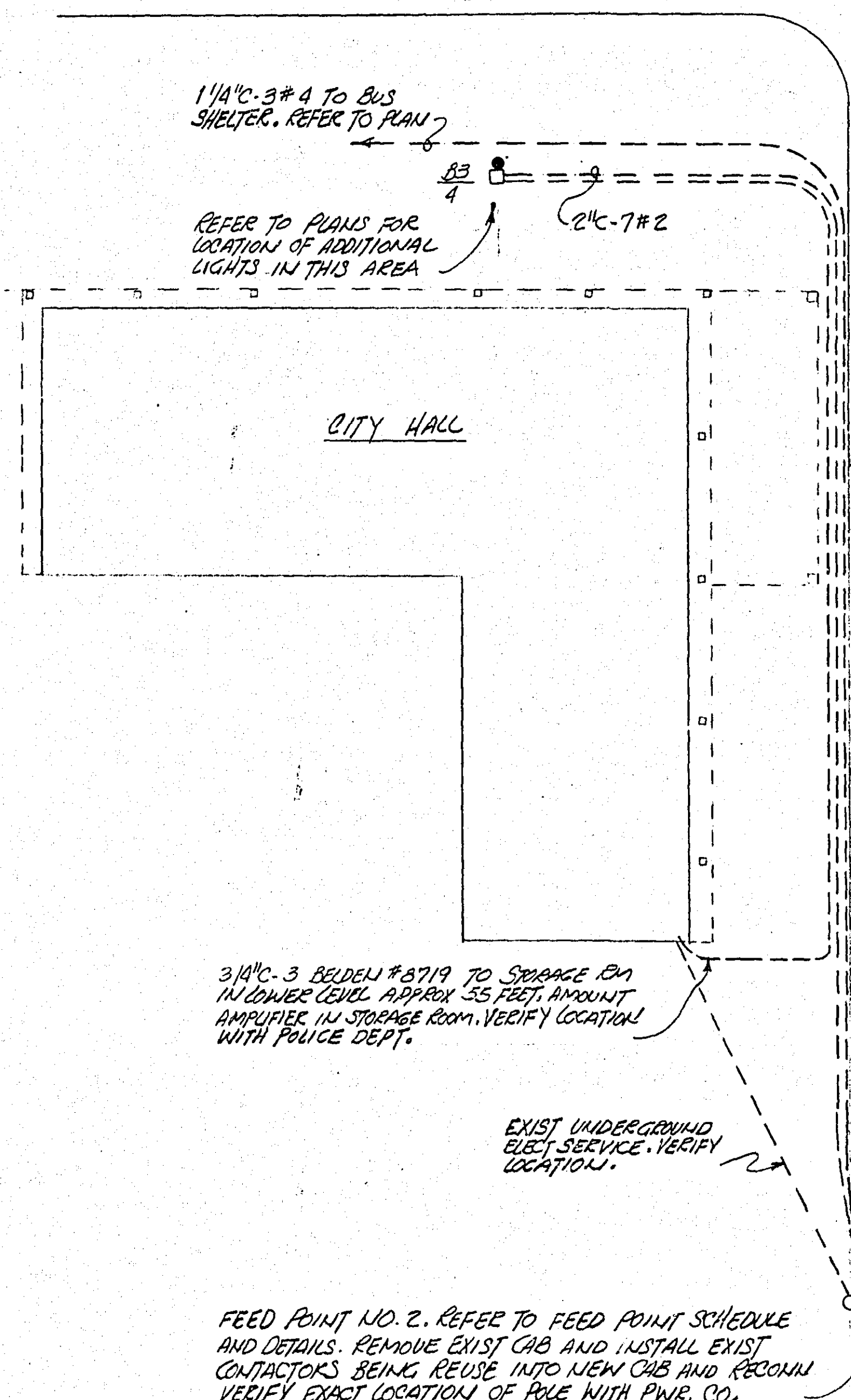
PLAN OF FEED POINT NO. 1
SCALE: 1" = 60'-0"

FEED POINT NO. 3. REFER TO FEED POINT SCHEDULE AND DETAILS. REMOVE EXIST. F.P. CAB AND INSTALL EXIST. CONTACTORS BEING RE-USED IN NEW CABINET. VERIFY LOC. WITH PWR. CO.



PLAN OF FEED POINT NO. 3
SCALE: 1" = 60'-0"

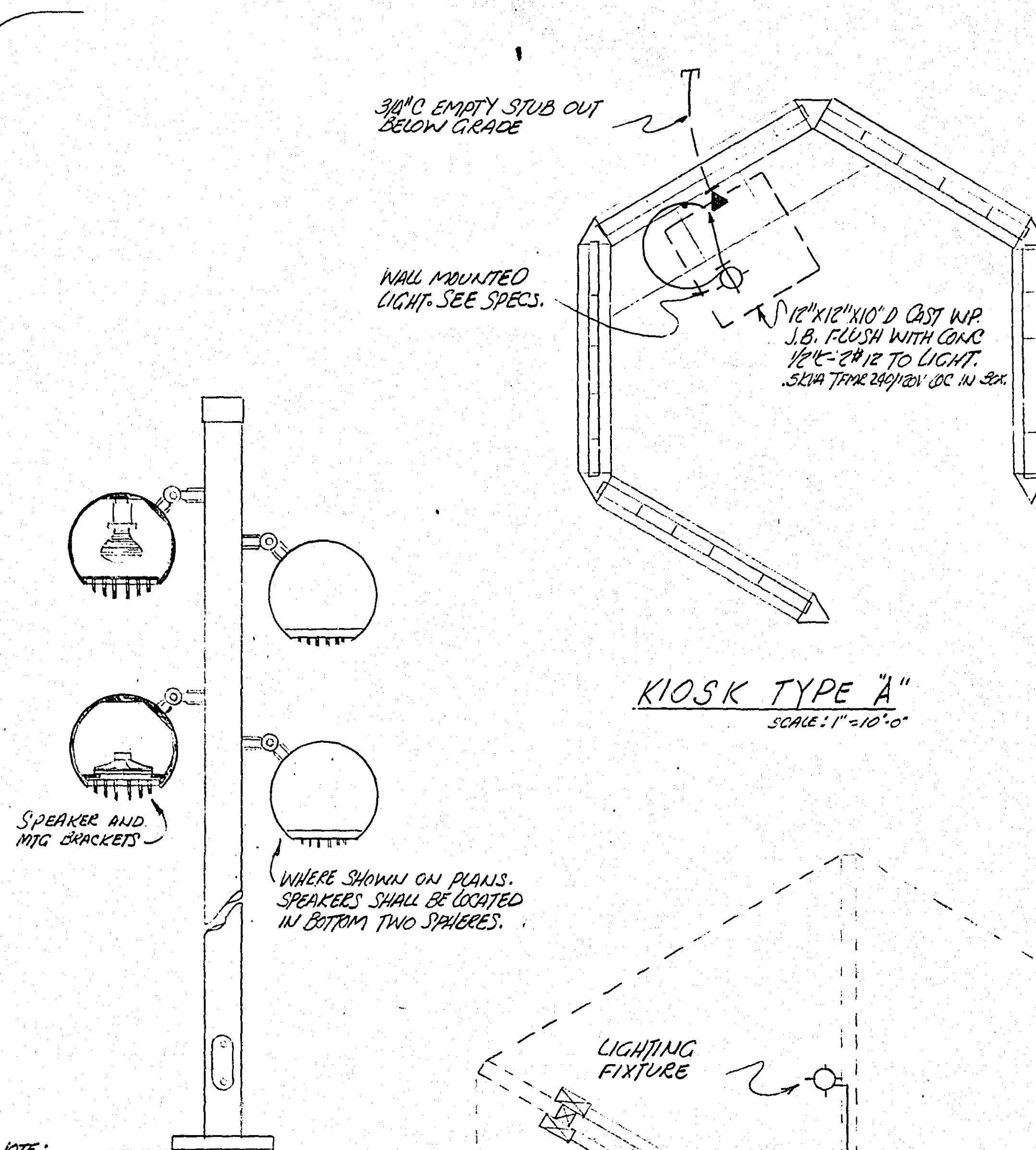
SEVENTH AVE



PLAN OF FEED POINT NO. 2
SCALE: 1" = 16'-0"

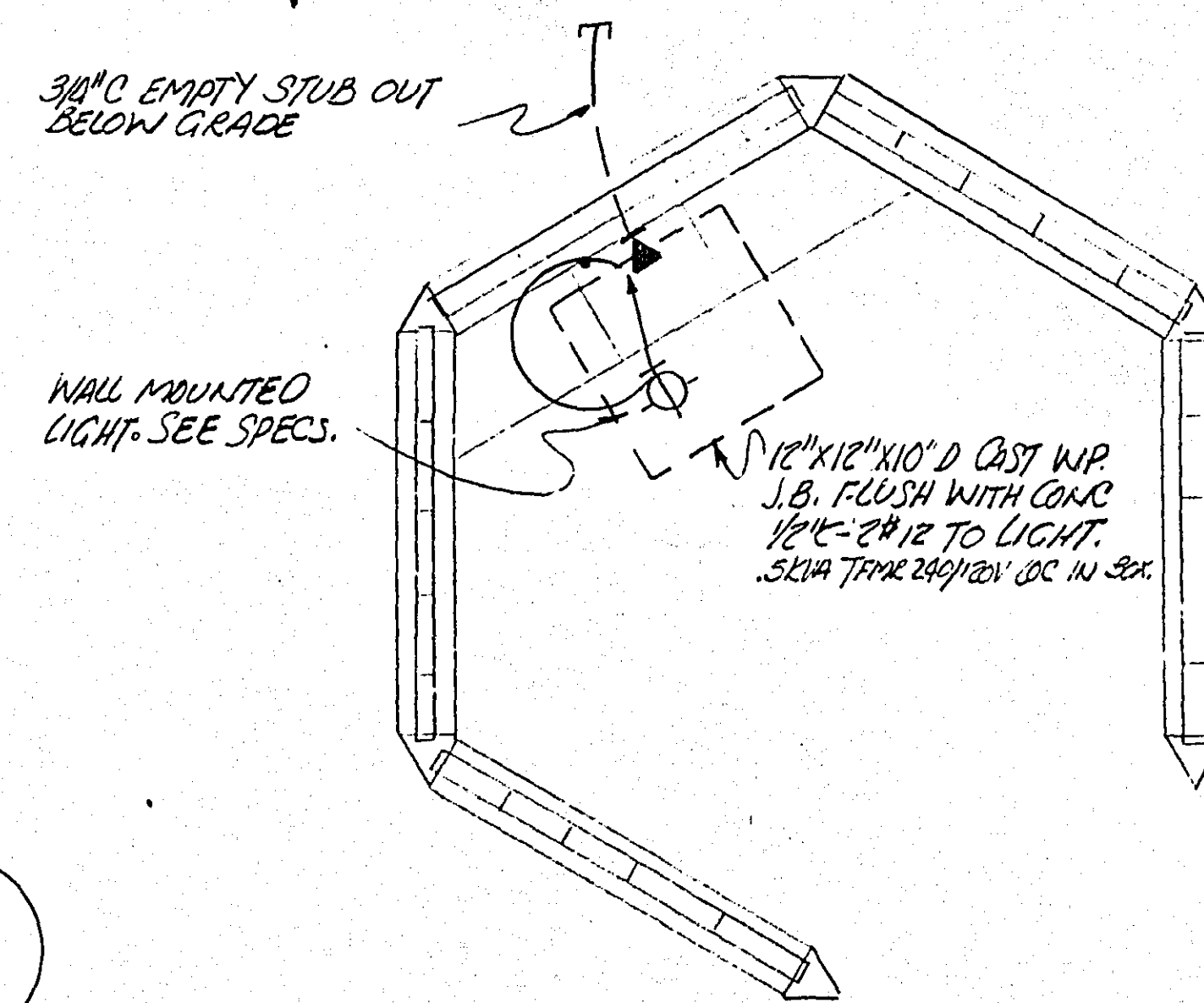
FEED POINT SCHEDULE					
F.P. NO.	EQUIP. SERVED	CONTACTOR SIZE	CONTROL	CIRCUIT BREAKER	OTHER
I*	ALL NITE LIGHTS MID NITE LIGHTS	60A. 2P. 30A. 2P.	PILOT CCT. TIMER	60A. 2P. 30A. 2P.	TEST SW. TEST SW.
II*	ALL NITE LIGHTS MID NITE LIGHTS RECEPTACLE CCT NO RECEPTACLE CCT SO BUS SHELTER MAIN C.B.	30A. 2P. 60A. 2P. 60A. 2P. 60A. 2P. NONE -	PILOT CCT. TIMER NONE NONE NONE -	30A. 2P. 60A. 2P. 60A. 2P. 60A. 2P. 225A. 2P.	TEST SW. TEST SW. S.P. SWITCH S.P. SWITCH NONE NONE
III*	ALL NITE LIGHTS MID NITE LIGHTS NO MID NITE LIGHTS SQ RECEPTACLE CCT NO RECEPTACLE CCT SO TRAFFIC SIGNAL MAIN CR	60A. 2P. 60A. 2P. 60A. 2P. 60A. 2P. 60A. 2P. NONE -	PILOT CCT. TIMER - NONE NONE NONE -	60A. 2P. 60A. 2P. 60A. 2P. 60A. 2P. 60A. 2P. 30A. 2P. 225A. 2P.	TEST SW. TEST SW. TEST SW. NONE NONE -
IV*	ALL NITE LIGHTS MID NITE LIGHTS BUS SHELTER	60A. 2P. 60A. 2P. NONE	PILOT CCT. TIMER NONE	60A. 2P. 60A. 2P. 60A. 2P.	TEST SW. TEST SW. -

*METER TO BE INSTALLED IN ENCLOSURE

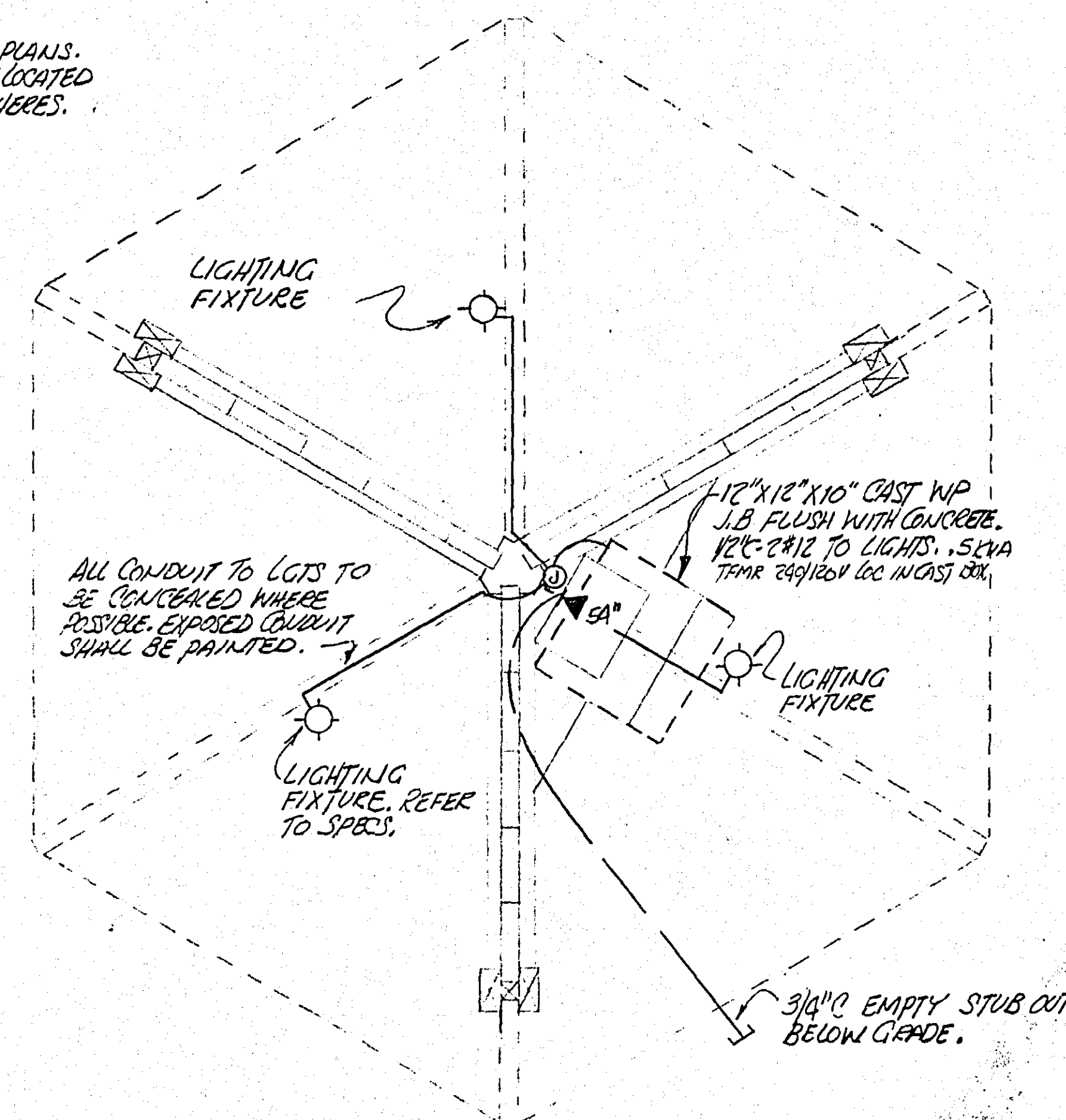


NOTE:
CONCRETE BASE TO BE THE SAME AS
DETAILED FOR TYPE "E" FIXTURE. EACH FIXTURE
SHALL HAVE FOUR SPHERES.

DETAIL LIGHT FIXTURE TYPE "E"
N.T.S.



KIOSK TYPE "A"
SCALE: 1" = 10'-0"



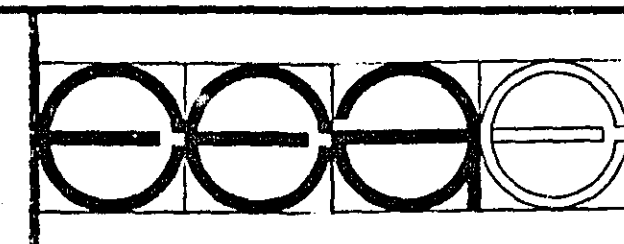
KIOSK TYPE "B"
SCALE: 1" = 10'-0"

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ENGINEER UNDER LAWS OF THE STATE OF MINNESOTA.
Res P. Ellison
REG. NO. 4713

S.A.D. 7303

SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN: JPT				

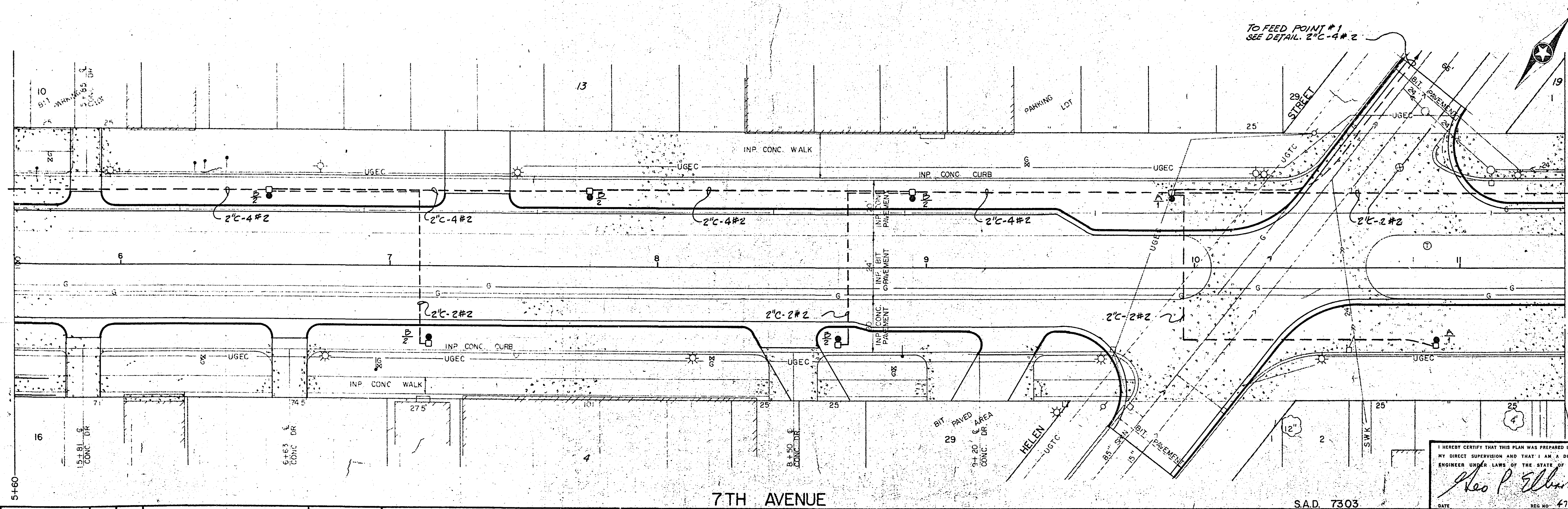
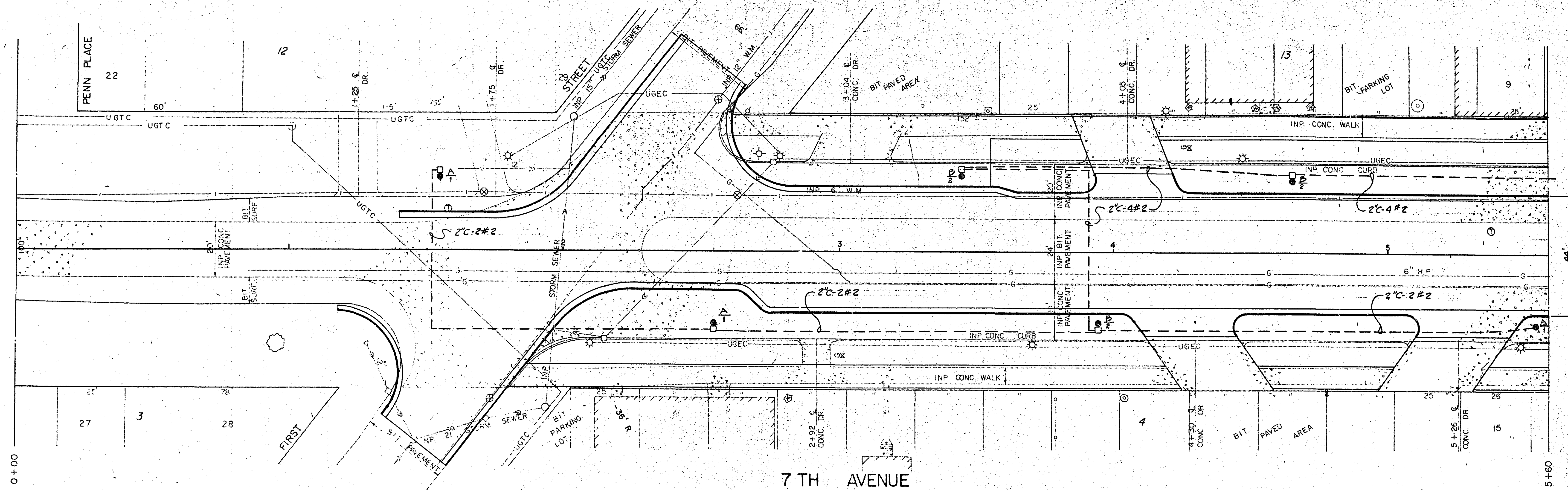
SCALE: BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota



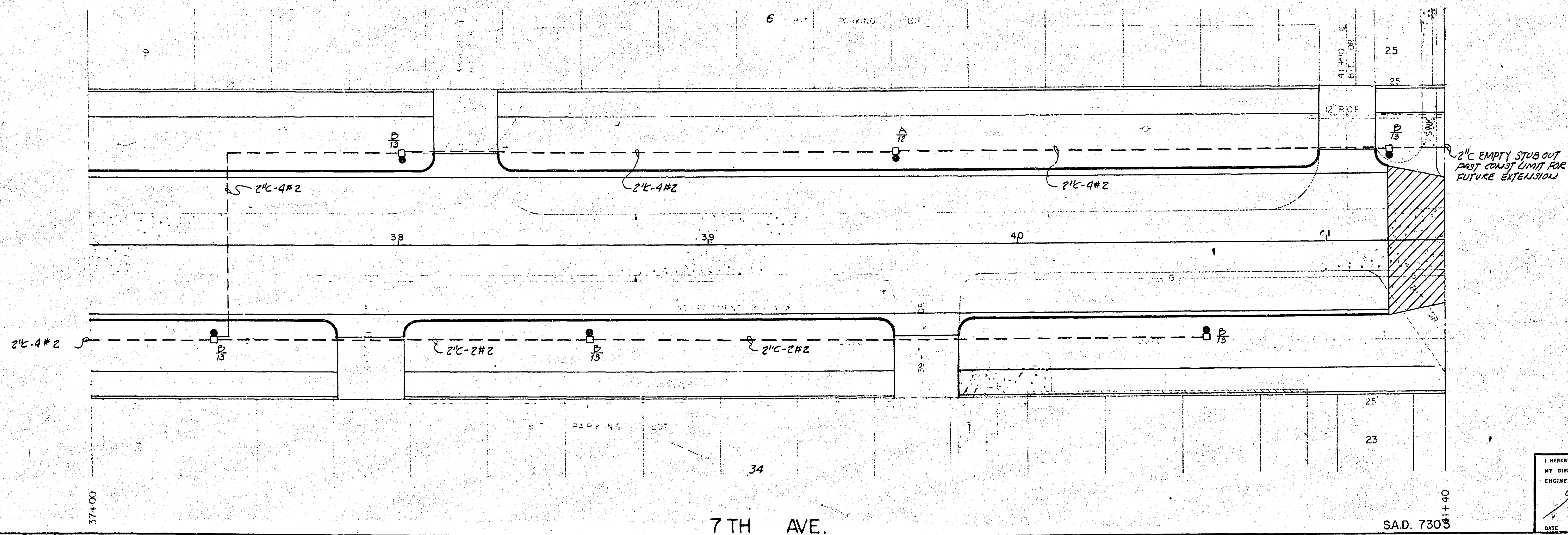
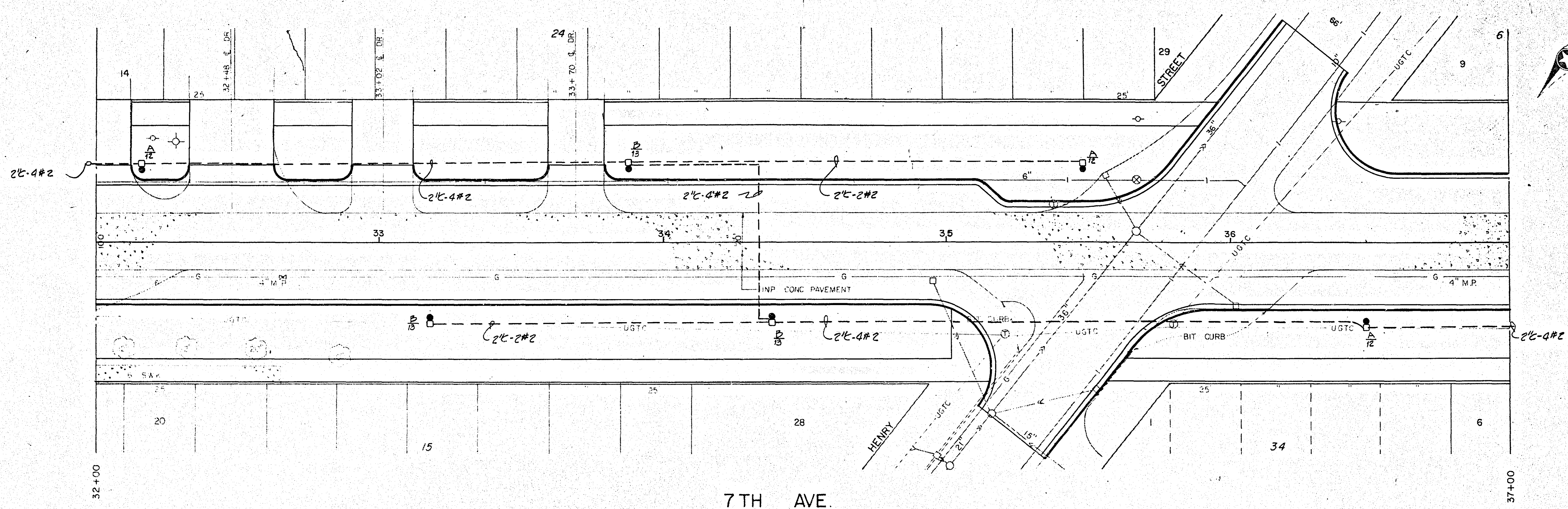
ERICKSON ELLISON AND ASSOCIATES INC. CONSULTING ENGINEERS SAINT PAUL MINNESOTA

NORTH SAINT PAUL, MINNESOTA
TRAFFIC SIGNAL PLANS & DETAILS

FILE NO.: 7378
DATE: APRIL 26, 1974
36
58



SURVEY: DESIGN: DRAWN: JFT	APPROVED:	NO.	DATE	REVISIONS	SCALE: 1" = 20'	BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES Saint Paul, Minnesota	ERICKSEN ELLISON AND ASSOCIATES INC. CONSULTING ENGINEERS SAINT PAUL MINNESOTA	NORTH SAINT PAUL, MINNESOTA		FILE NO.:	37 58
									7378	DATE:	
									APRIL 26, 1974		



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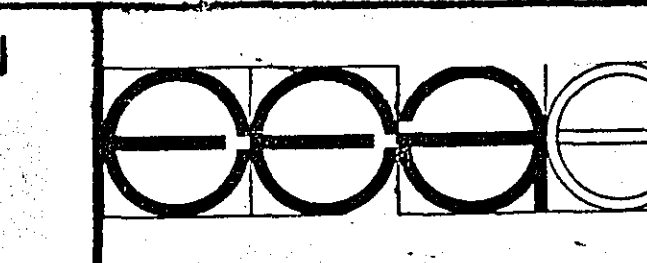
Leo P. Ellison

DATE: APRIL 26, 1974 REG. NO. 4713

SURVEY:	APPROVED:	NO.	DATE	REVISIONS
DESIGN:				
DRAWN: JPT				

SCALE:
1" = 20'

BANISTER SHORT ELLIOTT HENDRICKSON AND ASSOCIATES
Saint Paul, Minnesota



ERICKSON ELLISON AND ASSOCIATES INC.
CONSULTING ENGINEERS
SAINT PAUL, MINNESOTA

NORTH SAINT PAUL, MINNESOTA

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DATE: APRIL 26, 1974
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