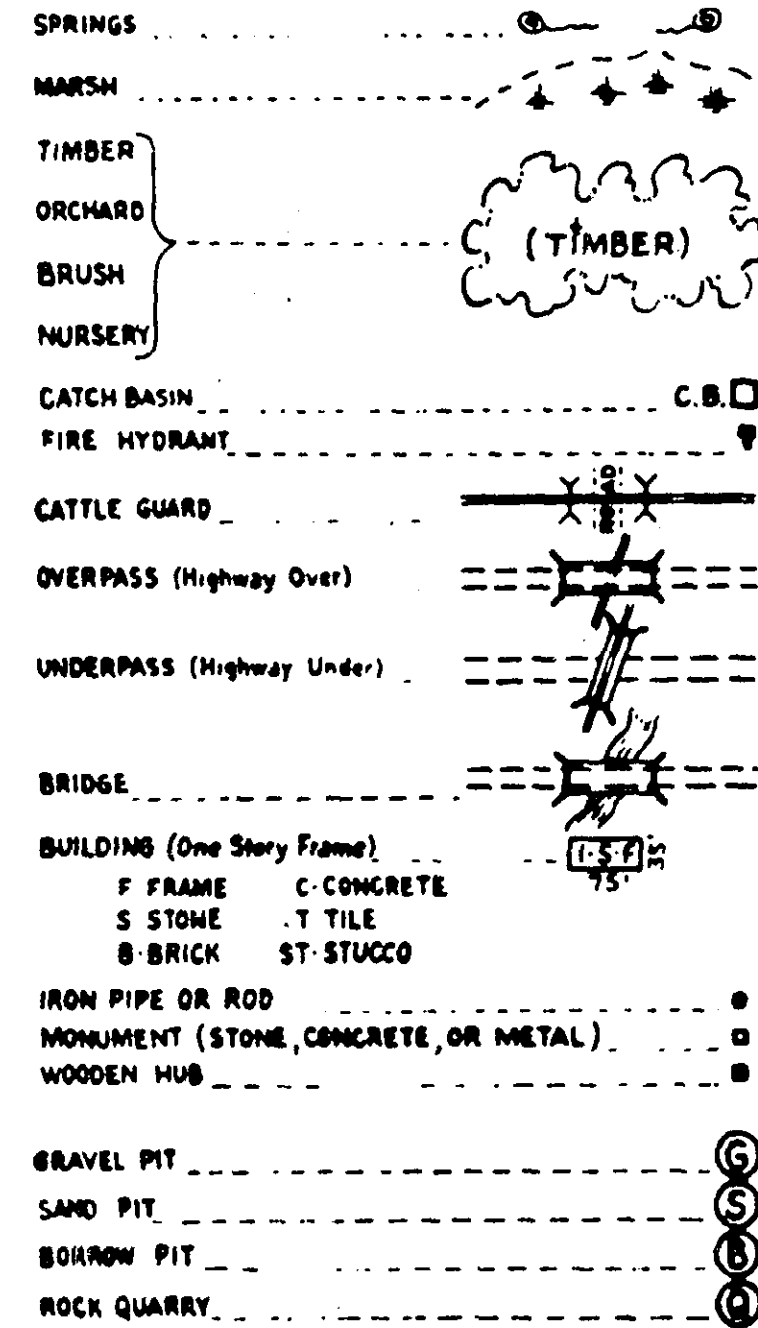
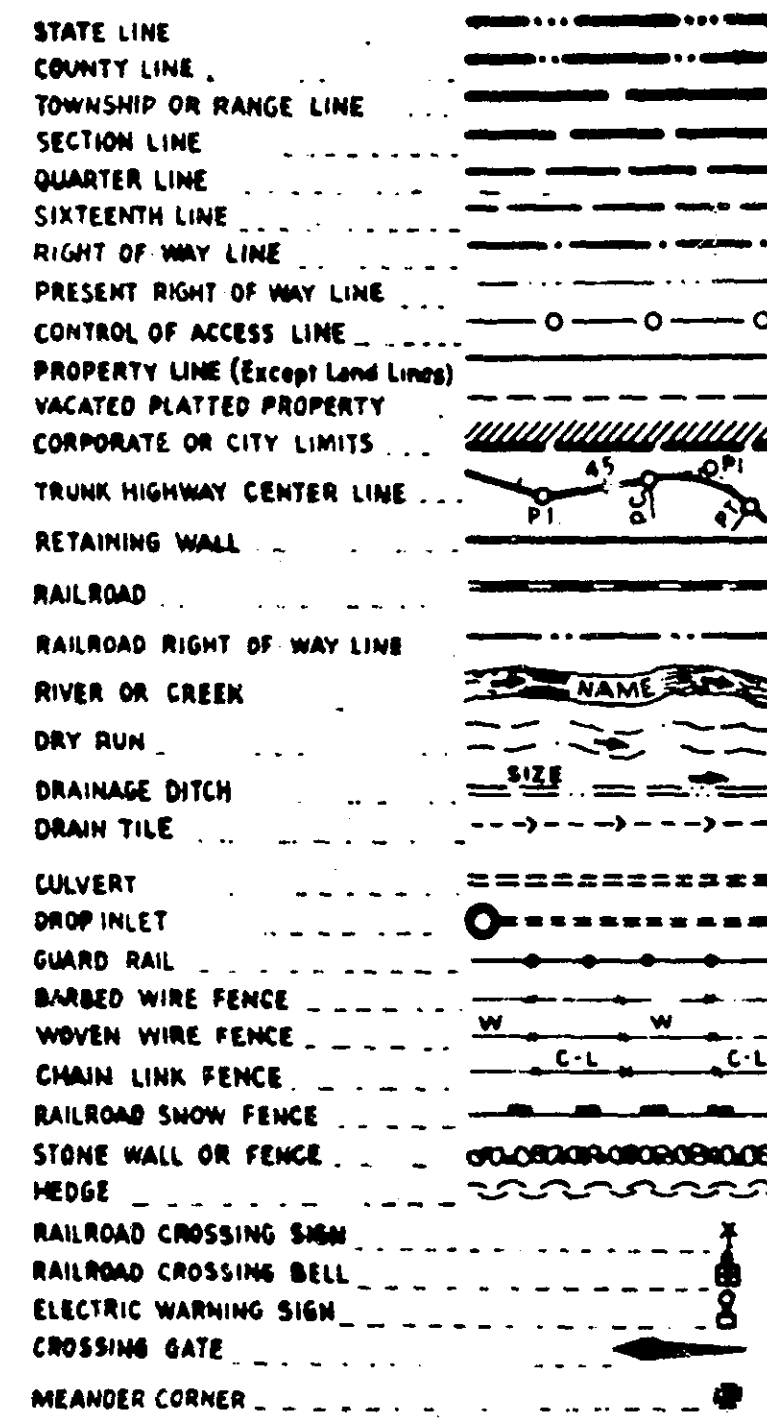
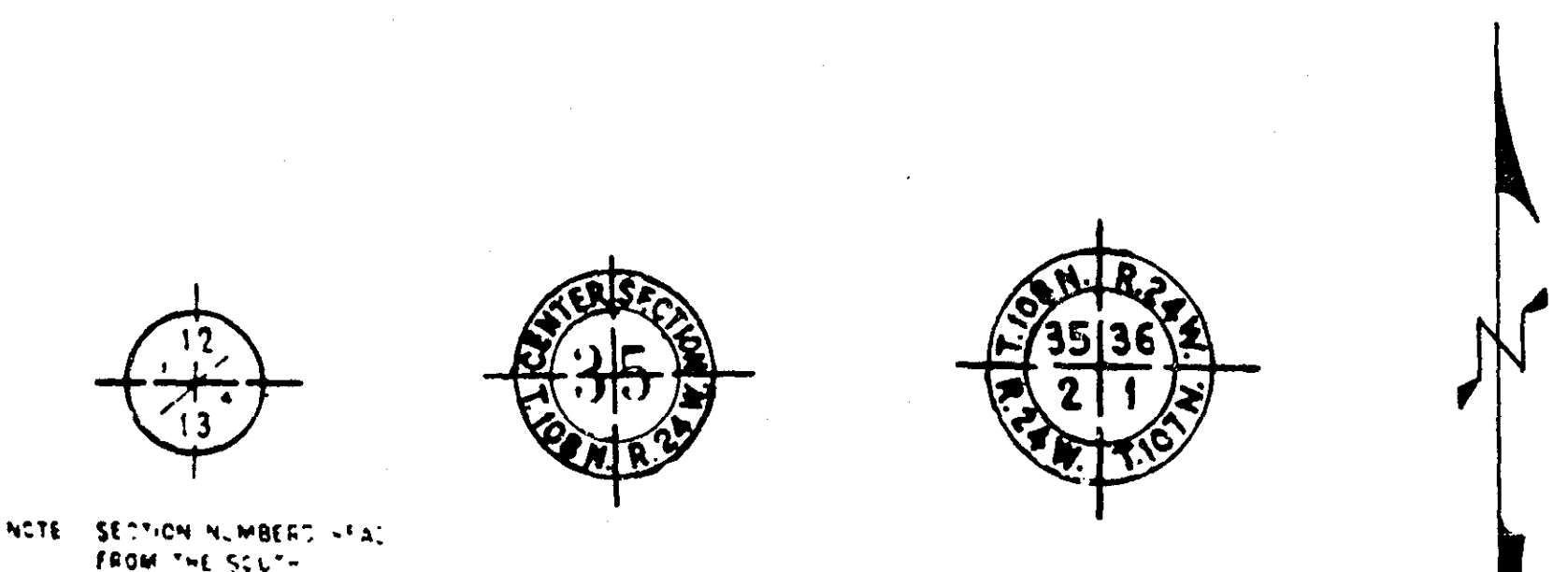
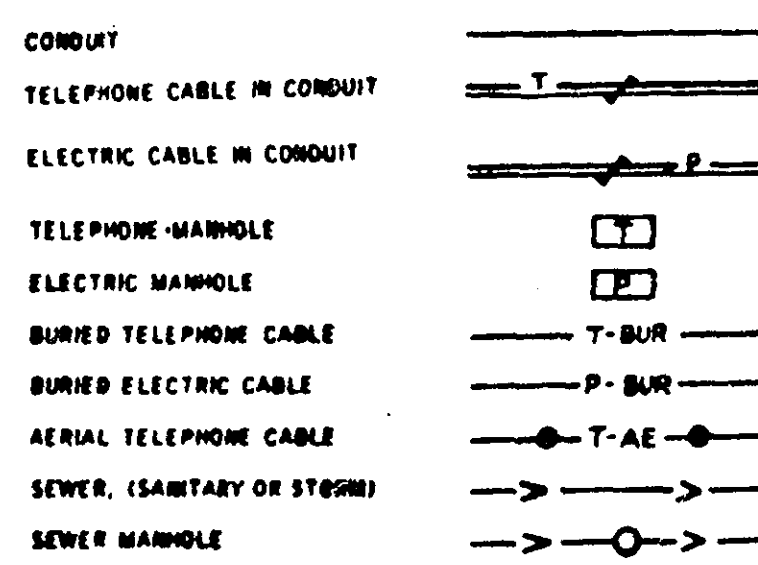
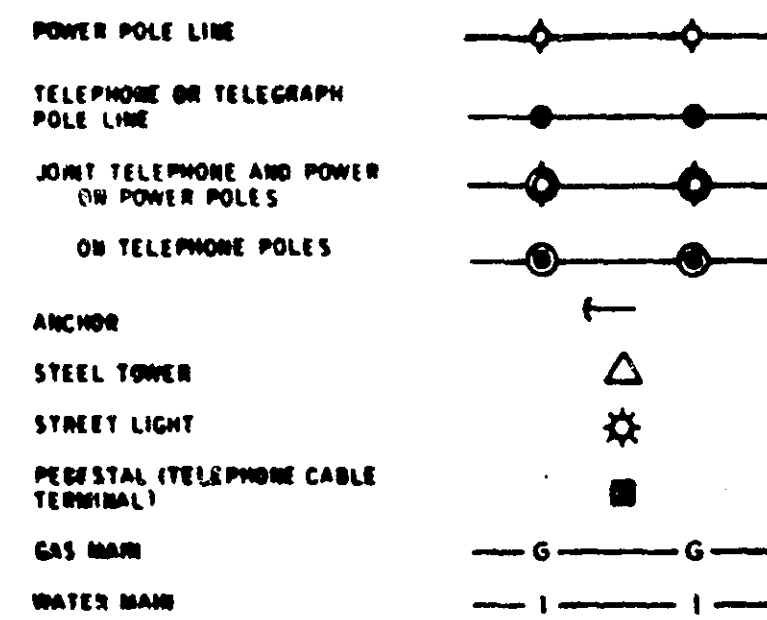


PLANS SYMBOLS



UTILITIES SYMBOLS



PIT DATA

PIT NO. _____ Located in _____
 PIT NO. _____ Located in _____

VICTORIA ST. S.A.P. 62-652-01

FROM: A POINT ON THE EAST LINE OF THE NORTHWEST 1/4 SECTION II T29N R23W 542.54 FEET WEST OF THE NORTH 1073.75' SOUTH OF THE NORTH 1/4 CORNER OF SAID SECTION II. TO: A POINT 18.59 FEET SOUTH AND 1/4 CORNER SECTION II T29N R23W

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY

CONSTRUCTION PLAN FOR GRADING AND BITUMINOUS SURFACING

COUNTY ROAD "C" S.A.P. 62-623-10

BETWEEN: OXFORD ST. AND DALE ST.

FROM: A POINT 103 FEET SOUTH AND 713 FEET EAST OF THE NORTHWEST CORNER SECTION II T29N R23W TO: A POINT ON THE NORTH LINE OF SECTION II 90 FEET WEST OF THE NORTHEAST CORNER OF SAID SECTION II, T29N R23W

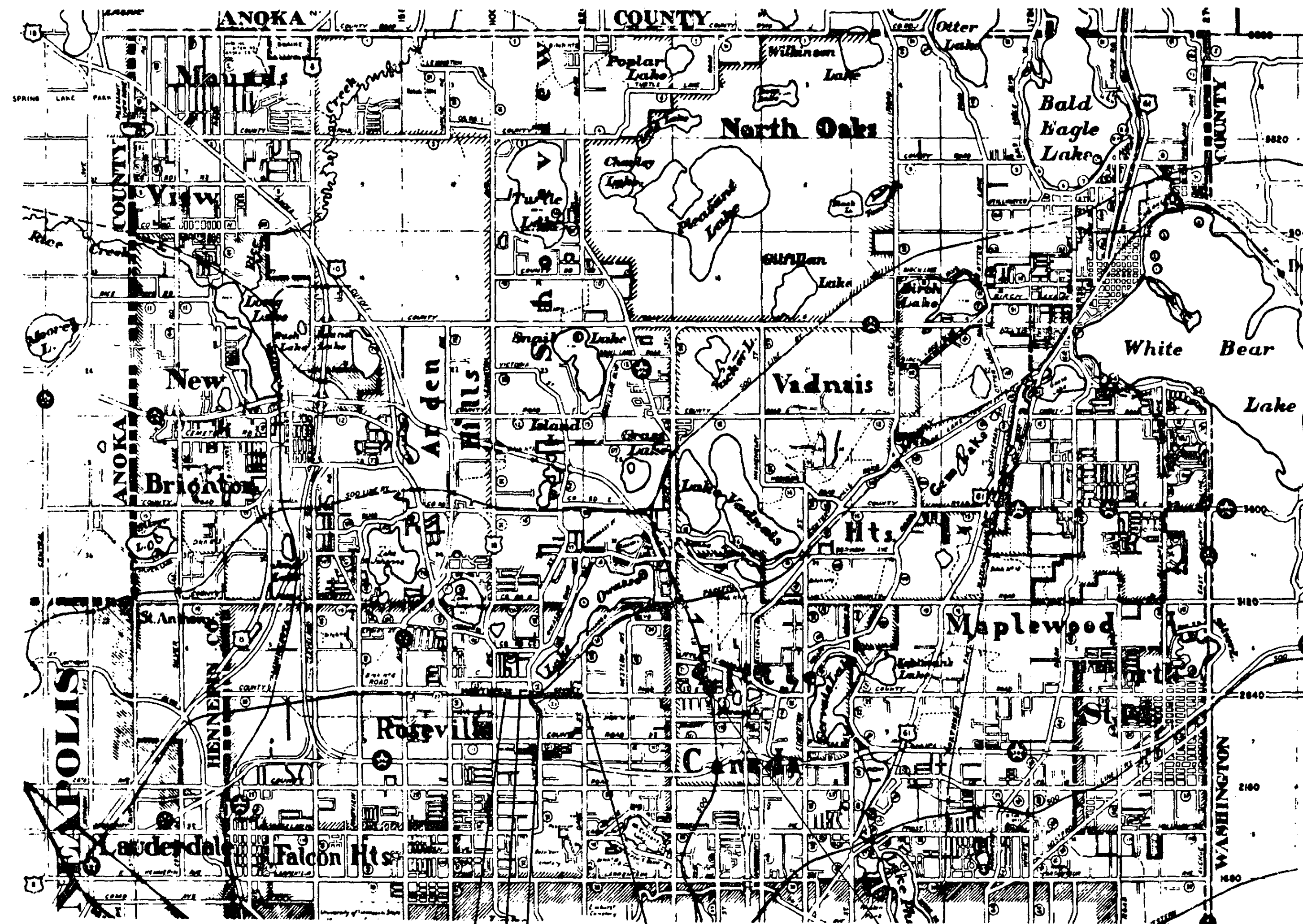
CO. RD. C	GROSS LENGTH	4603.82 FEET 0.8719 MILES
	BRIDGES-LENGTH	225.00 FEET 0.0426 MILES
	EXCEPTIONS-LENGTH	225.00 FEET 0.0426 MILES
VICTORIA ST.	NET LENGTH	4378.82 FEET 0.8293 MILES
	GROSS LENGTH	1230.00 FEET 0.2329 MILES
	EXCEPTION-LENGTH	110.00 FEET 0.0208 MILES
Scales	NET LENGTH	1120.00 FEET 0.2121 MILES
	PROFILE, horiz. 1 inch = 50 feet, vert. 1 inch = 5 feet	
	WORKING PLAN, vert. 1 inch = 50 feet	
LAYOUT, PLAN, 1 inch = 2640 feet	cross-sections 1 inch = 10 feet	

DESIGN DESIGNATION S.A.P. 62-623-10 S.A.P. 62-652-01

ADT 1972	=		
ADT 1985	=	7000	
DHV	=		
D (DIRECTIONAL DISTRIBUTION)	= 50-50	50-50	50-50
T (HEAVY COMMERCIAL)	=	350	
DESIGN SPEED	= 40 MPH	40	40
STA. 65 TO 71	= 35 MPH	35	
DESIGN LOAD	= 9 TON		
SOILS FACTOR	= 100		

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SHEET & ESTIMATED QUANTITIES
3-4	DRAINAGE CHARTS & DETAILS
5-6	DETAIL SHEETS
7-9	PLAN AND PROFILE SHEETS
10-11	CONSTRUCTION PLANS
12-2	CROSS SECTIONS
27	PLAN SHEET
28-29	CROSS SECTIONS
	COMMON BORROW SOURCE



BEG. PROJ. S.A.P. 62-623-10
STA. 59+68

END PROJ. S.A.P. 62-623-10
STA. 30+24

END PROJ. S.A.P. 62-652-01
STA. 112+30

BEG. PROJ. S.A.P. 62-652-01
STA. 100+00

COMMON BORROW SOURCE
SEE SHEETS 27, 28, 29

RECOMMENDED FOR APPROVAL *W. J. Blomquist* 6/6/72 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.

RECOMMENDED FOR APPROVAL *Marie K. T. Blomquist* 6/1/72

RECOMMENDED FOR APPROVAL *Marie K. T. Blomquist* 6/1/72

RECOMMENDED FOR APPROVAL _____ DATE _____

RECOMMENDED FOR APPROVAL _____ DATE _____

APPROVED _____ DATE _____

APPROVED _____ DATE _____

APPROVED _____ DATE _____

APPROVED _____ DATE _____

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL *J. J. Blomquist* DATE 6-10-72

RECOMMENDED FOR APPROVAL *Marie K. T. Blomquist* DATE 6-10-72

APPROVAL *Marie K. T. Blomquist* DATE 6/10/72

THE "MINNESOTA HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1972 SHALL GOVERN.

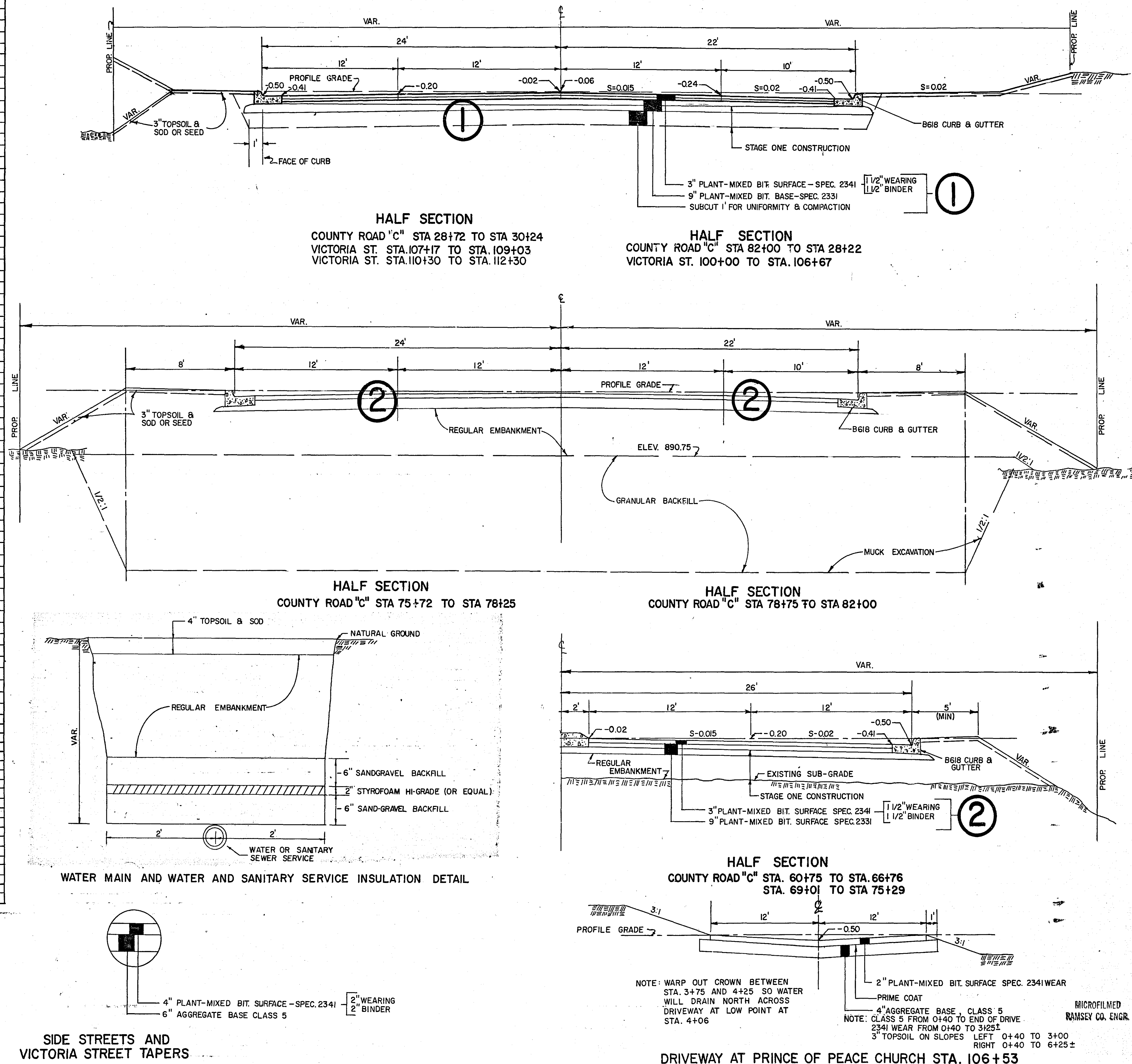
STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES		TOTAL ESTIMATED QUANTITIES
			62-623-10	62-652-01	
2101.502	CLEARING	TREE	18	12	30
2101.507	GRUBBING	TREE	15	11	26
2104.501	REMOVE SEWER PIPE	L.F.	100		100
2104.501	REMOVE CONCRETE CURB & GUTTER	L.F.	36		36
2104.509	REMOVE CATCH BASINS	EACH	1		1
2105.501	COMMON EXCAVATION	C.Y.	26,701	3,560	30,261
2105.505	MUCK EXCAVATION	C.Y.	29,074	106	29,180
2105.521	GRANULAR BORROW (E.V.)	C.Y.	35,893		35,893
2105.523	COMMON BORROW (E.V.)	C.Y.	8,508		8,508
2130.501	WATER	(M) GAL.	90	10	100
2211.501	AGGREGATE BASE, CLASS 5	TON	400	571	971
2301.503	CONCRETE PAVEMENT, IRREGULAR WIDTH	S.Y.	333		333
2301.511	STRUCTURAL CONCRETE	C.Y.	240		240
2301.521	PAVEMENT REINFORCEMENT, TYPE 612X04.9X04	S.Y.	333		333
2301.529	REINFORCEMENT BARS	POUND	13,600		13,600
2301.531	EXPANSION JOINT, DESIGN E4	L.F.	166		166
2301.531	EXPANSION JOINT, DESIGN E41	L.F.	26		26
2301.553	BRIDGE APPROACH PANELS, DESIGN SKEW	S.Y.	604		604
2301.536	DOOR BAR ASSEMBLIES	L.F.	45		45
2301.514	BRIDGE APPROACH TREATMENT	LUMP SUM	1		1
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	483	136	619
2331.514	BASE COURSE MIXTURE	TON	10,730	3,032	13,762
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	203	69	272
2341.508	WEARING COURSE MIXTURE	TON	1,811	657	2,468
2341.510	BINDER COURSE MIXTURE	TON	1,811	562	2,373
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	3,154	930	4,084
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	7,060	2,204	9,264
2501.515	15" (R.C.) APRONS	EACH	1	2	3
2501.515	18" (R.C.) APRONS	EACH	2	4	6
2501.515	5'X7' (R.C.) APRONS	EACH	2		2
2501.541	5'X7' SERVICE TUNNEL CULVERT	L.F.	104		104
2503.511	15" (R.C.) PIPE SEWER, CLASS IV	L.F.	2,414	260	2,684
2503.511	18" (R.C.) PIPE SEWERS, CLASS II	L.F.	415	153	568
2506.508	CONSTRUCT MANHOLES, DESIGN A OR F	EACH	2	1	3
2506.509	CONSTRUCT CATCH BASINS, DESIGN RC-2	EACH	16	3	19
2506.509	CONSTRUCT CATCH BASINS, DESIGN RC-2M	EACH	2		2
2506.509	CONSTRUCT CATCH BASINS, DESIGN LP-4	EACH	2	2	4
2506.509	CONSTRUCT CATCH BASINS, DESIGN H	EACH	1		1
2506.511	RECONSTRUCT MANHOLES	L.F.	33.6	9.7	43.3
2506.521	INSTALL CASTING	EACH	7	4	11
2506.522	ADJUST FRAME RING & CASTINGS	EACH	10	1	11
2503.511	8" (V.C.) PIPE SEWER (EXTRA STRENGTH)	L.F.		20	20
2531.501	CONCRETE CURB & GUTTER, DESIGN B618	L.F.	8698	2200	10,898
2531.503	CONCRETE MEDIAN	S.Y.	546		546
2545.511	LIGHTING UNITS, TYPE 12BA-40	EACH	2		2
2545.511	LIGHTING UNITS, TYPE 12-40	EACH	6	3	9
2545.515	LIGHT BASES, DESIGN E	EACH	6	3	9
2545.521	1" RIGID STEEL CONDUIT	L.F.	85		85
2545.521	2" RIGID STEEL CONDUIT	L.F.	412		412
2545.521	3" RIGID STEEL CONDUIT	L.F.	320	74	394
2545.531	UNDERGROUND WIRE, 1 CONDUCTOR NO.4	L.F.	1236		1236
2545.531	UNDERGROUND WIRE, 1 CONDUCTOR NO.10	L.F.	170		170
2545.533	ARMORED CABLE, 3 CONDUCTOR NO.4	L.F.	1055	486	1541
2545.541	SERVICE PANELS, TYPE A	EACH	1		1
2545.551	JUNCTION BOXES	EACH	4		4
2545.553	PULL BOXES	EACH	6		6
2575.501	ROADSIDE SEEDING	ACRE	1.9	0.4	2.3
2575.502	SEED, MIXTURE 6	POUND	140	32	172
2575.505	SODDING	S.Y.	11,391	6389	17,780
2575.511	MULCH MATERIAL, TYPE 1-3	TON	3.7	0.8	4.5
2575.512	MULCH MATERIAL, TYPE 2-3	GAL.	1624	374	1998
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	0.8	0.5	1.3
2503.665	RELOCATE SANITARY SEWER, 6" V.C.	L.F.	40		40
2554.501	TRAFFIC BARRIER, DESIGN B 8307	L.F.	250		250
2554.501	TRAFFIC BARRIER, DESIGN A 8307	L.F.	1,218		1,218
2554.521	ANCHORAGE ASSEMBLIES, BRIDGE ANCHORAGE	EACH	4		4
2554.521	ANCHORAGE ASSEMBLIES	EACH	4		4
2104.523	SALVAGE HYDRANT	EACH	4		4
504.666	INSTALL HYDRANT	EACH	4		4
504.612	1" COPPER WATER SERVICE CONNECTION	L.F.	387	50	437
504.630	1" CORPORATION COCK	CONNECTION	8		8
504.634	1" WATER VALVE & BOX	ASSEMBLIES	8		8
503.634	4" CAST IRON SOIL PIPE	L.F.	290		290
503.690	SANITARY SEWER SERVICE CONNECTION	CONNECTION	2		2
504.679	ADJUST VALVE BOX	BOX	25	5	30
2104.521	SALVAGE 16" CAST IRON WATERMAIN	L.F.	400		400
504.665	INSTALL 16" WATERMAIN	L.F.	400		400
123.604	BACKHOE RENTAL 3/8 CU.YD.	HOOR	25		25
503.665	RELOCATE SANITARY SEWER 4" C.I.	L.F.	60		60
503.698	SEWER INSULATION	S.Y.	44	22	66
504.652	WATERMAIN INSULATION	S.Y.	84	22	106

① 5'X7' SERVICE TUNNEL SHALL BE CRETEX, NORTH STAR, OR EQUAL.

② SEE DRAINAGE SHEET FOR DIMENSIONS

TYPICAL SECTIONS



DRAINAGE CHART CO. RD. "C"

STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	CASTING ASSEMBLY	ELEVATION			ADJUST CASTING ASSEMBLY	RECONSTRUCT C.B. OR M.H. LIN. FT.	INSTALL CASTING ASSEMBLY	INSTALL CONCRETE PIPE SEWER						REMOVE PIPE SEWER LIN. FT.	APRON	CLASS	DRAINS TO		REMARK		
							CURB GRADE	ORIGINAL GRATE OR RING	NEW GRATE OR RING				C.B. OR M.H. INVERT	LINEAR FEET								STRUCTURE NO.	INV. EL.			
														15"	18"	24"	30"	36"							MISC.	
61+34	RT. 25.5	1	CB	RC-2	6.16	B	901.30		900.64	897.30			28										2	897.02		
61+34	LT. 2.0	2	CB	RC-2M	6.44	C	901.30		901.12	897.02			42						1			APRON	896.6	STA 61+34 LT. 44		
74+00	RT. 2	3	CB	RC-2M	6.36	C	903.20		903.02	899.0			132									5	894.2			
75+10	LT. 25.5	4	CB	RC-2	7.91	B	899.35		898.69	894.7			53									5	894.2			
75+30	RT. 25.5	5	CB	RC-2	6.66	B	898.72		898.06	894.2			306									7	890.4			
75+83	LT. 48	6	MH	WATER			897.00	894.36	896.66		8.4	1													REMOVE CONE ADD 4' O"	
78+36	RT. 26	7	CB	LP-4	7.52	E	895.25		895.25	890.4			52									8	889.68			
78+36	LT. 26	8	CB	LP-4	8.24	E	895.25		895.25	889.68			168	(INCLUDES 7 BENDS)					1			APRON	888.0	STA 79+86 LT. 55		
79+92	LT. 50			SERVICE TUNNEL					884.5										2			RT. 72'	884.5	5 X 7 SERVICE TUNNEL		
81+00	LT. 25	9	MH	A OR F	7.28	D	899.28		899.34	892.0			134	(INCLUDES 7 BENDS)					1			APRON	888.0	STA 79+95 LT. 55		
81+18	RT. 21.5	10	CB	RC-2	5.12	B	898.66		898.00	895.70			50									9	894.7			
81+81	RT. 12	11	MH	SAN			900.25	897.67	900.04		7.3	1													REMOVE CONE ADD 2' 8"	
82+08	LT. 144	12	MH	SAN							O.K. LEAVE															
82+92	RT. 37	13	MH	SAN			904.73	897.87	901.50		8.5	1													REMOVE CONE ADD 4' O"	
8+50	LT. 21.5	14	CB	RC-2	8.34	B	910.18		909.52	904.0			300									9	892.0			
8+93	RT. 29	14A	SD																						REMOVE	
9+07	RT. 36	15	MH				913.11	912.46	913.19		+9															
10+08	LT. 21.5	16	MH	A OR F	6.50	D	918.30		917.90	911.80			158									14	905.5			
10+15	RT. 21.5	17	CB	RC-2	6.94	B	918.66		918.00	913.88			44									16	913.5			
10+16	LT. 10	18	MH	WATER			918.71	919.36	918.49		-0.9														REMOVE RINGS & 4" OF	
10+17 ±	LT. 44	19	CB	RC-2		B			920.84	913.24			23									16	913.0			
10+34	RT. 30	20	MH				919.63	919.54			O.K. LEAVE															
10+52 ±	LT. 44	21	CB	RC-2		B			920.90	913.57			33									19	913.24			
10+74	LT. 21.5	22	CB	RC-2	7.75	B	921.69		921.03	916.1			66									16	913.5			
10+81	RT. 27	23	MH				922.26	922.58			-0.3															
13+74	RT. 29	24	MH			A	936.25	935.52	936.39		-0.9	1													REMOVE RING & F&I.	
14+16	LT. 21.5	25	CB	RC-2	9.10	B	937.64		936.98	930.7			342									22	917.0			
14+16	RT. 21.5	26	CB	RC-2	5.80	B	937.64		936.98	934.0			43									25	933.7			
15+85	RT. 29	27	MH			A	941.85	942.36	941.99		-0.4	1													F&I. NEW CASTING	
17+95	RT. 26	28	MH				942.35	941.47	942.43		+0.9															
18+26	RT. 27	29	MH				942.02	941.06	942.12		+1.1															
20+75	RT. 25	30	MH				939.33	938.16	939.39		+1.2															
21+55	RT. 21.5	31	CB	RC-2	5.76	B	938.47		937.81	934.87			43									32	934.44			
21+55	LT. 21.5	32	CB	RC-2	6.19	B	938.47		937.81	934.44			415									33A	930.86			
23+54	RT. 20	33	MH				936.43	936.28	936.03		-0.2															
25+62	LT. 21.5	33A	CB	RC-2	5.30	B	934.60		934.03	930.86			105									35	929.61			
25+62	LT. 210	33B	CB	H	5.00	A			934.80	931.80			188									33A	930.86		GRATE NO. 730.6	
25+87	RT. 19	34	MH				934.38	934.68	934.00		-0.7															
26+75	LT. 21.5	35	CB	RC-2	6.15	B	933.60		932.94	929.61				61								37	929.0			
26+75	RT. 21.5	36	CB	RC-2	5.47	B	933.60		932.94	930.29			43									35	929.61			
27+36	LT. 23	37	MH				932.82	934.22	932.84	929.0		2.9	1													
28+15	RT. 20	38	MH				931.13	932.04	930.73		6.5	1													REMOVE 2' 8" SECTION	
30+74	RT. 25	39	CB						920.98																	
30+81	LT. 23	40	MH	WATER					921.35																	
30+89	LT. 30	41	CB						921.00																	
30+95	LT. 86	42	MH						921.97																	
30+97	RT. 21	43	MH						921.05																	
																	</									

A = RING CASTING H.H.D. NO. 700-2, COVER CASTING NO. 712 (INCLUDED WITH STRUCTURE, NOT SEPARATE PAY ITEM.)
 B = NEENAH INLET FRAME, GRATE, CURB BOX R3067 OR EQUAL (INCLUDED WITH STRUCTURE, NOT SEPARATE PAY ITEM.)
 C = NEENAH INLET FRAME, GRATE, R-3516 OR EQUAL (INCLUDED WITH STRUCTURE, NOT SEPARATE PAY ITEM.)
 D = GRATE FRAME CASTING, H.H.D. NO. 770, FLANGE FRAME CASTING NO. 771, COVER CASTING NO. 712 (INCL. WITH STRUCT., NOT SEP. PAY ITEM)
 E = RING CASTING H.H.D. NO. 790-2, COVER CASTING NO. 712 (INCLUDED WITH STRUCTURE, NOT SEPARATE PAY ITEM.)

CATCH BASINS
 MANHOLES

RC-2, DETAIL ON SHEET NO. 4
 RC-2H, DETAIL ON SHEET NO. 4
 LP-4, MHD STD. PLATE NO. 4018C
 H, MHD STD. PLATE NO. 4006H
 A OR F MHD STD. PLATE NO. 4000G OR 4005I

STANDARD DETAIL PLATES

0001A	SPECIFICATION REFERENCE TO STANDARD PLATES
1017C	CONCRETE PAVEMENTS WITH STEEL FABRIC REINFORCEMENT
1038C	BRIDGE APPROACH PANEL (SKEW)
1100Y	EXPANSTION JOINTS
1103D	DOWEL BAR ASSEMBLY
1104D	DOWEL BAR ASSEMBLY
1106C	DOWEL BAR ASSEMBLY
1107F	DOWEL BAR ASSEMBLY
1108F	DOWEL BAR ASSEMBLY
1120H	CONTRACTION JOINT
1140L	LONGITUDINAL JOINTS
1141B	PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTION
3000F	REINFORCED CONCRETE PIPE
4010D	CONCRETE ADJUSTING RING
3100F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3133A	RIPRAP AT RCP OUTLETS
3135A	HAND-PLACED RIPRAP AT PRECAST CONCRETE SERVICE TUNNEL
3145A	CONCRETE PIPE JOINT TIES
4000G	MANHOLE OR CATCH BASIN
4005I	MANHOLE OR CATCH BASIN
4006H	MANHOLE OR CATCH BASIN
4011C	PRECAST CONCRETE BASE
4016C	CURB OPENING CATCH BASIN
4101B	RING CASTING FOR MANHOLE OR CATCH BASIN
4110D	COVER CASTING FOR MANHOLE
4142D	BEEHIVE GRATE CASTING FOR CATCH BASIN
4180F	MANHOLE STEP CASTING
7055C	BITUMINOUS CURB
7100D	CONCRETE CURB AND GUTTERS
7105C	CONCRETE MEDIAN
8000C	STANDARD BARRICADES
8008D	CONTRACTOR'S SIGN
8117C	PRECAST CONCRETE HANDHOLE
8307J	STRUCTURAL PLATE BEAM GUARDRAIL
8317C	GUARDRAIL ANCHORAGE ASSEMBLY FOR BRIDGES
8318A	GUARDRAIL ANCHORAGE PLATE FOR BRIDGES
8319C	TWISTED END TREATMENT
9102C	SODDING AT PIPE CULVERT ENDS

CLEARING AND GRUBBING CHART

STATION	LOCATION	TREE TYPE	CLEAR	GRUB
77+01	LT. 7'	6" WILLOW	5	5
77+02	RT. 24'	6" WILLOW	1	1
79+75	RT. 29'	6" TW. WILLOW	2	1
174+11	LT. 31'	10" ELM	1	1
174+19	LT. 21'	6" PINE	1	1
174+68	LT. 24'	14" ELM	1	1
174+91	LT. 25'	18" ELM	1	1
19+23	LT. 26'	10" OAK	1	1
19+61	LT. 31'	24" OAK	1	1
20+00	LT. 31'	10" OAK	1	1
28+29	RT. 30±	6" TRIP. POP.	3	1

98+15	LT. 54'	9" PINE	1	1
98+55	LT. 47'	6" ASH	1	1
98+55	LT. 51'	5" ASH	1	1
98+77	LT. 43'	48" COTT.	1	1
99+11	LT. 49'	6" ELM	1	1
99+33	LT. 34'	8" BEECH	1	1
99+59	LT. 46'	14" ELM	1	1
99+60	LT. 34'	4" ELM	1	1
99+73	LT. 47'	6" ELM	1	1
99+82	LT. 40'	6" TWN. ELM	2	1
102+50	LT. 24'	5" ELM	1	1
TOTAL			30	26

CO. RD. "C"

VICTORIA ST.

 MICROFILMED
 RAMSEY CO. ENG.

DRAINAGE CHART - VICTORIA STREET

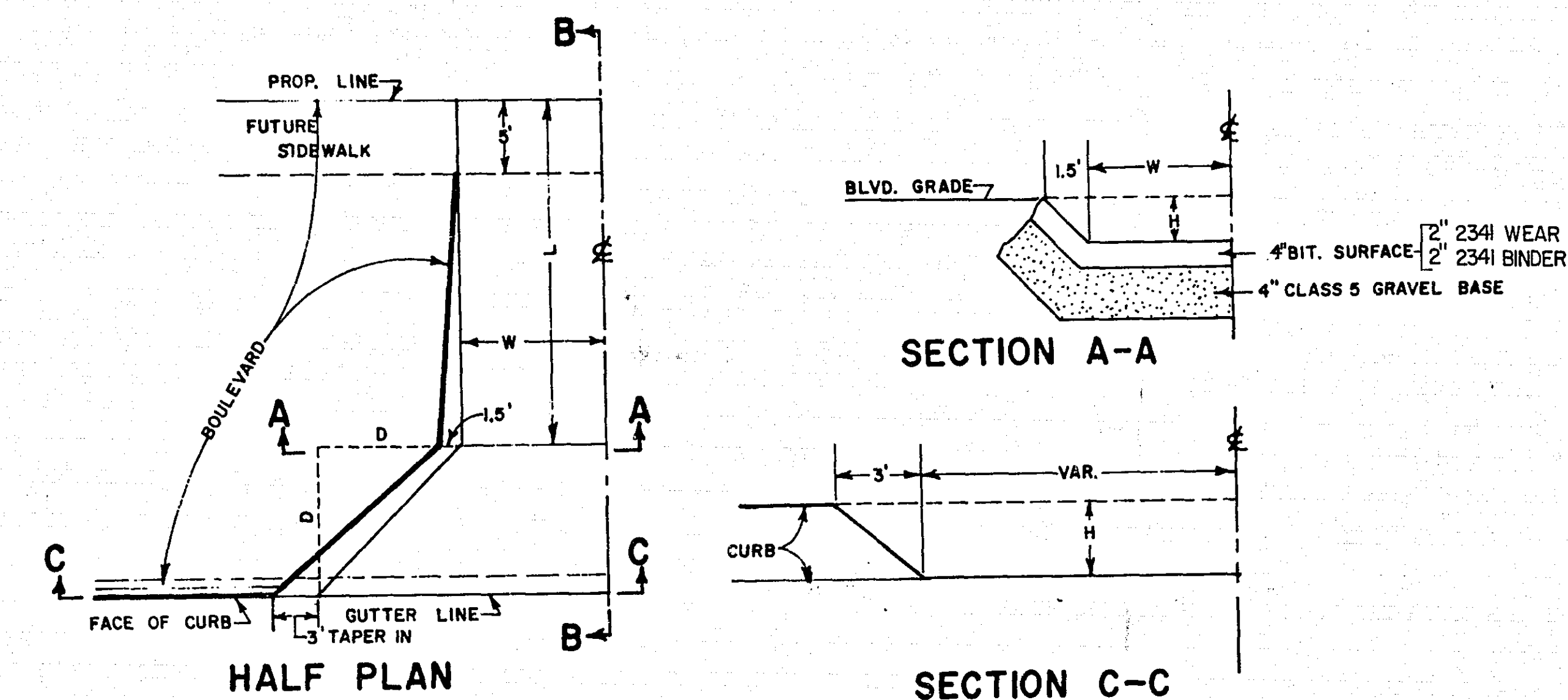
STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	CASTING ASSEMBLY	ELEVATION			ADJUST CASTING ASSEMBLY	RECONSTRUCT C.B. OR M.H. LIN. FT.	INSTALL CASTING ASSEMBLY	INSTALL CONCRETE PIPE SEWER LINEAR FEET				MOVING M.H. OR C.B. LIN. FT.	REMOVE PIPE SEWER LIN. FT.	APRON CLASS	DRAINS TO		REMARK
							PROFILE	ORIGINAL GRATE OR RING	NEW GRATE OR RING				15"	18"	24"	30"				STRUCTURE NO.	INV. EL.	
98+88	LT. 22	42	MH				892.3	891.83			O.K. LEAVE											
100+05	LT. 21.5	43	CB	RC-2	6.14	B	894.26		893.60	890.28			76						I	APRON	888.0	RT. 54 STA 100+05
102+34	LT. 17	44	MH				898.17	896.80	897.87		+1.07	I										
103+36	LT. 6	45	MH				899.60	897.05	899.49		+2.44	I										
104+16	LT. 3	46	MH				99.73	896.32	899.67		+3.34	I										
105+06	LT. 13	47	MH				898.63	895.21	898.41		+2.80	I										
106+75	LT. 24	48	CB	LP-4	6.67	E	895.78		895.78	891.78			48							49		
106+75	RT. 24	49	CB	LP-4	7.33	E	895.78		895.78	891.12			30						I	APRON	888.0	RT. 44 STA 106+75
110+52	RT. 42	50	MH	WATER			896.14	894.16			O.K. LEAVE											
110+65	LT. 30	51	MH	TELE							BY OTHERS											
110+67	RT. 19	52	MH	WATER			895.98	894.86	895.72		+0.86											
110+75	RT. 23.5	53	CB	RC-2	7.48	B	895.92		895.26	890.6			11						I	APRON	890.0	RT. 42 STA 110+61
111+03	LT. 37	55	SD	APRON						892.8			60							53	890.6	
111+40	RT. 23.5	56	CB	RC-2	6.25	B	896.33		895.67	892.24			106	22					I	APRON	892.0	RT. 50 STA 111+35
111+53	LT. 38	58	SD	APRON						892.92			60						I	56	892.24	
112+68	LT. 28	59	MH					900.81			O.K. LEAVE											
TOTALS											I	9.7	4	260	153			5				

SANITARY SEWER

105+10	LT. 30 ±	47A	MH	A OR F	10.7	G	898.50		898.70	888.0			20							47	887.53	
--------	----------	-----	----	--------	------	---	--------	--	--------	-------	--	--	----	--	--	--	--	--	--	----	--------	--

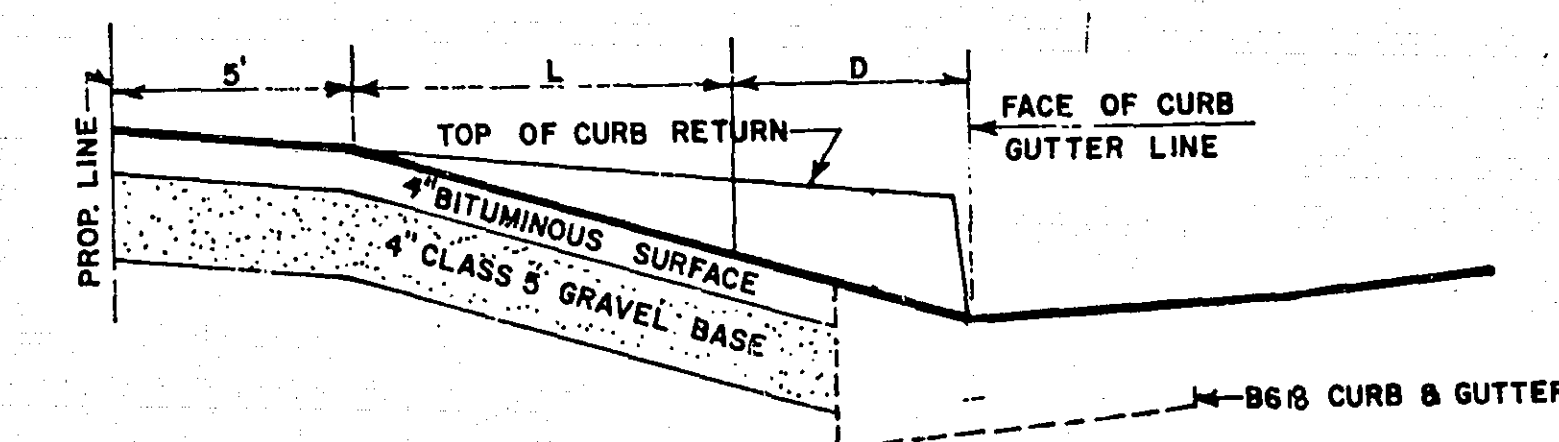
* NOTE: 15"X106" R.C.P. SHALL BE BULKHEADED AT 112+46 RT. 28'
G: SEE SPECIAL PROVISIONS

BITUMINOUS ENTRANCE DETAILS



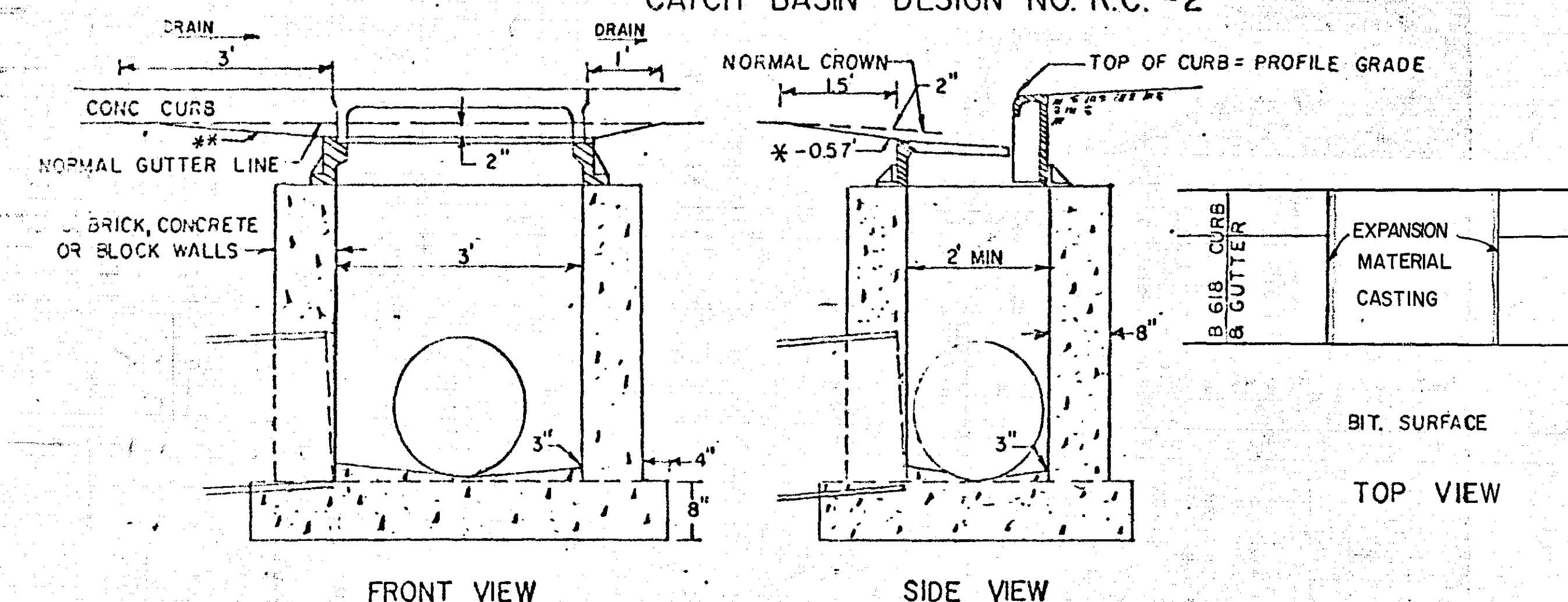
HALF PLAN

SECTION C-C



SECTION B-B

CATCH BASIN DESIGN NO. R.C. -2



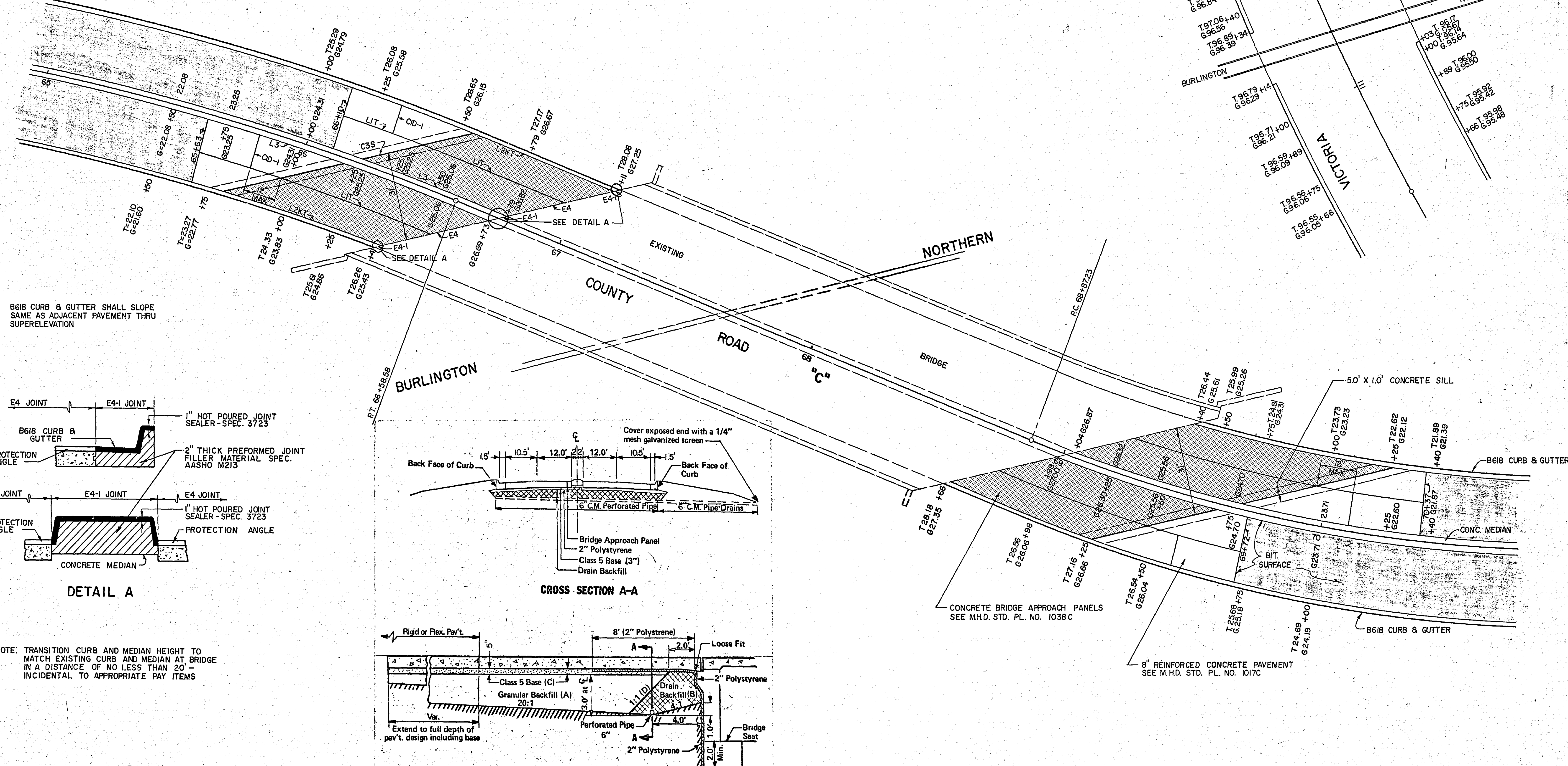
FRONT VIEW

SIDE VIEW

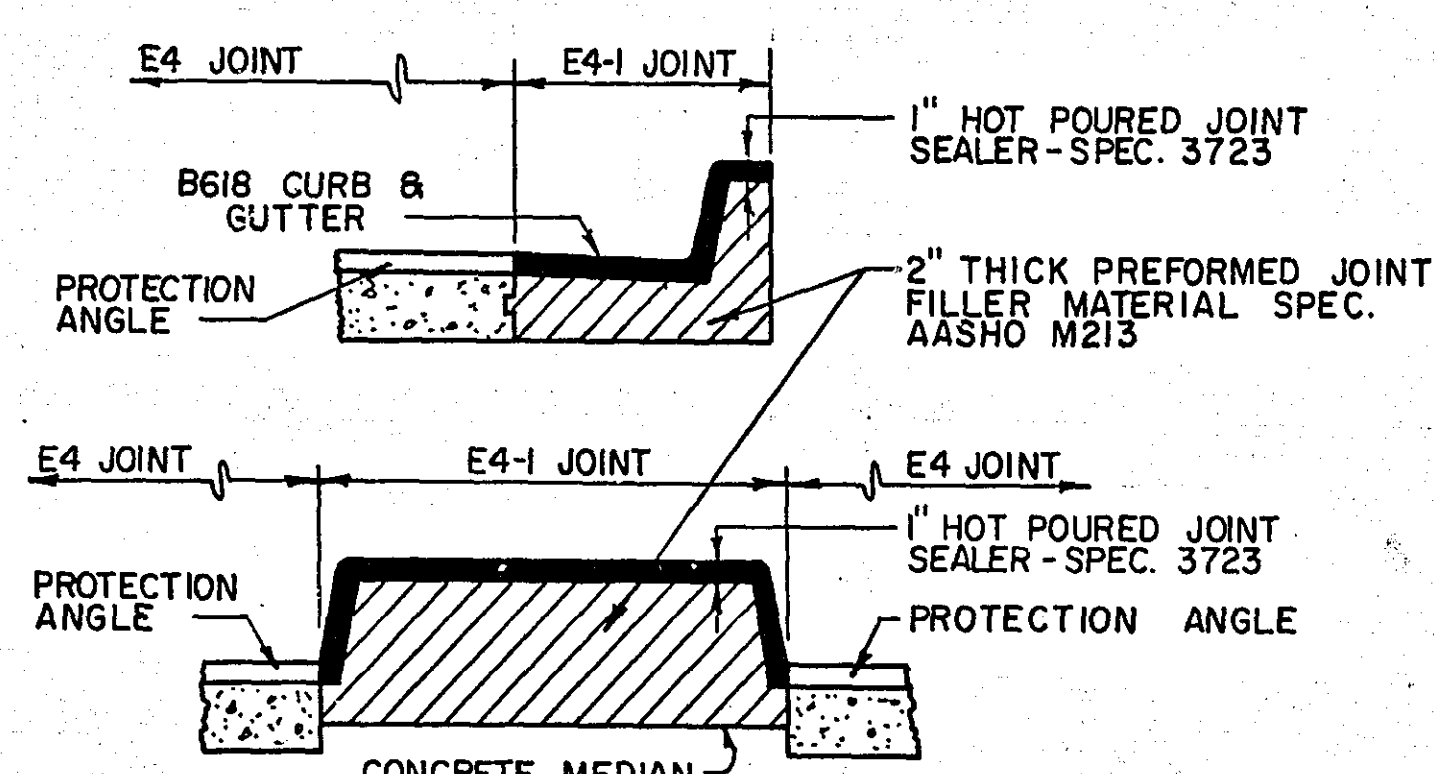
CATCH BASIN DESIGN NO. R.C. -2M
THE BLOCK, BRICK, OR CONC. CONSTRUCTION
SHALL BE THE SAME AS THE R.C. -2.
THE FRAME & GRATE SHALL BE NEENAH R-3516 OR EQUAL.

SCALE: 1" = 20'

T=DENOTES TOP OF CURB
G=DENOTES GUTTER

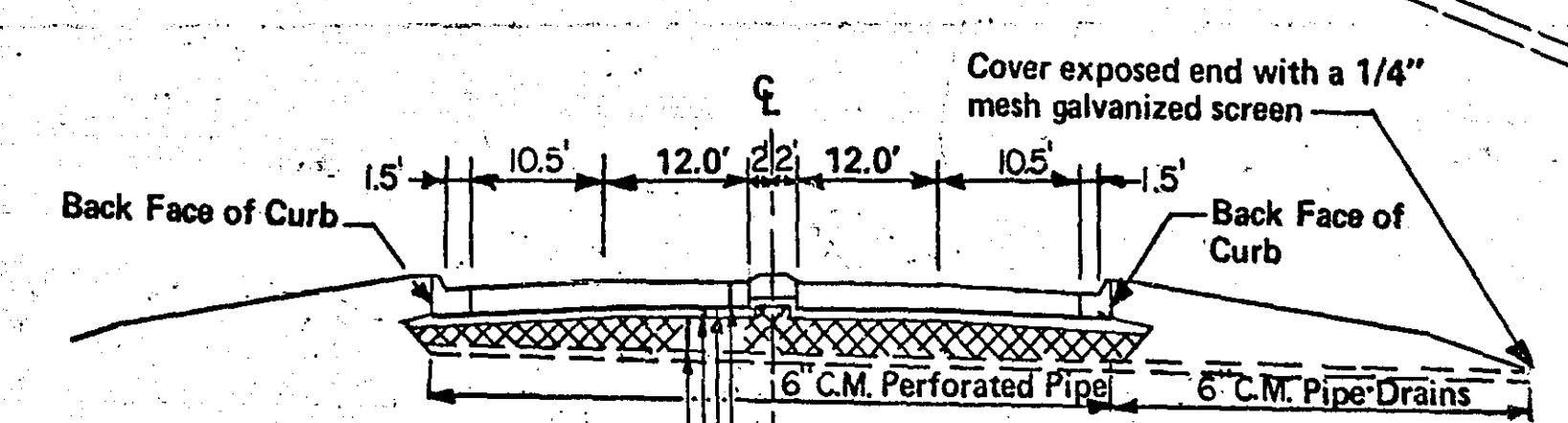


B618 CURB & GUTTER SHALL SLOPE SAME AS ADJACENT PAVEMENT THRU SUPERELEVATION

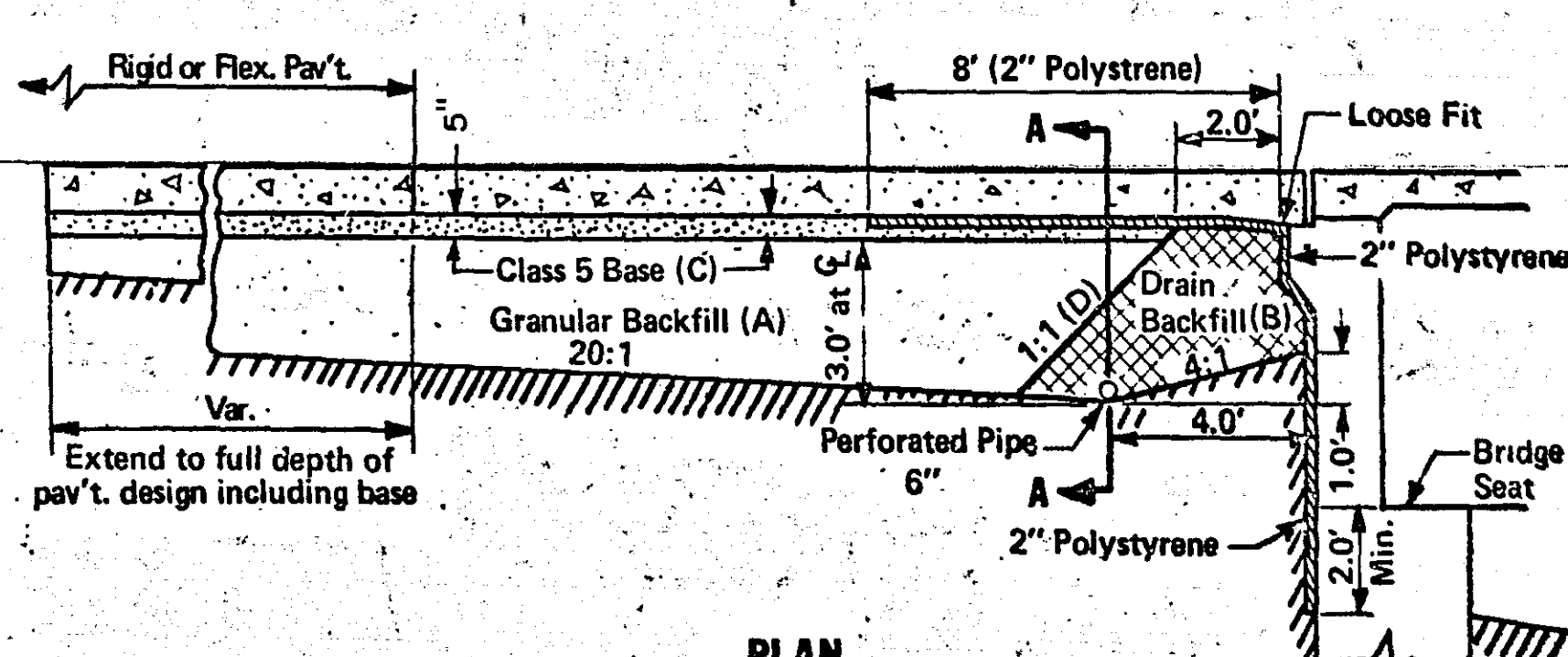


DETAIL A

NOTE: TRANSITION CURB AND MEDIAN HEIGHT TO MATCH EXISTING CURB AND MEDIAN AT BRIDGE IN A DISTANCE OF NO LESS THAN 20' INCIDENTAL TO APPROPRIATE PAY ITEMS



CROSS SECTION A-A

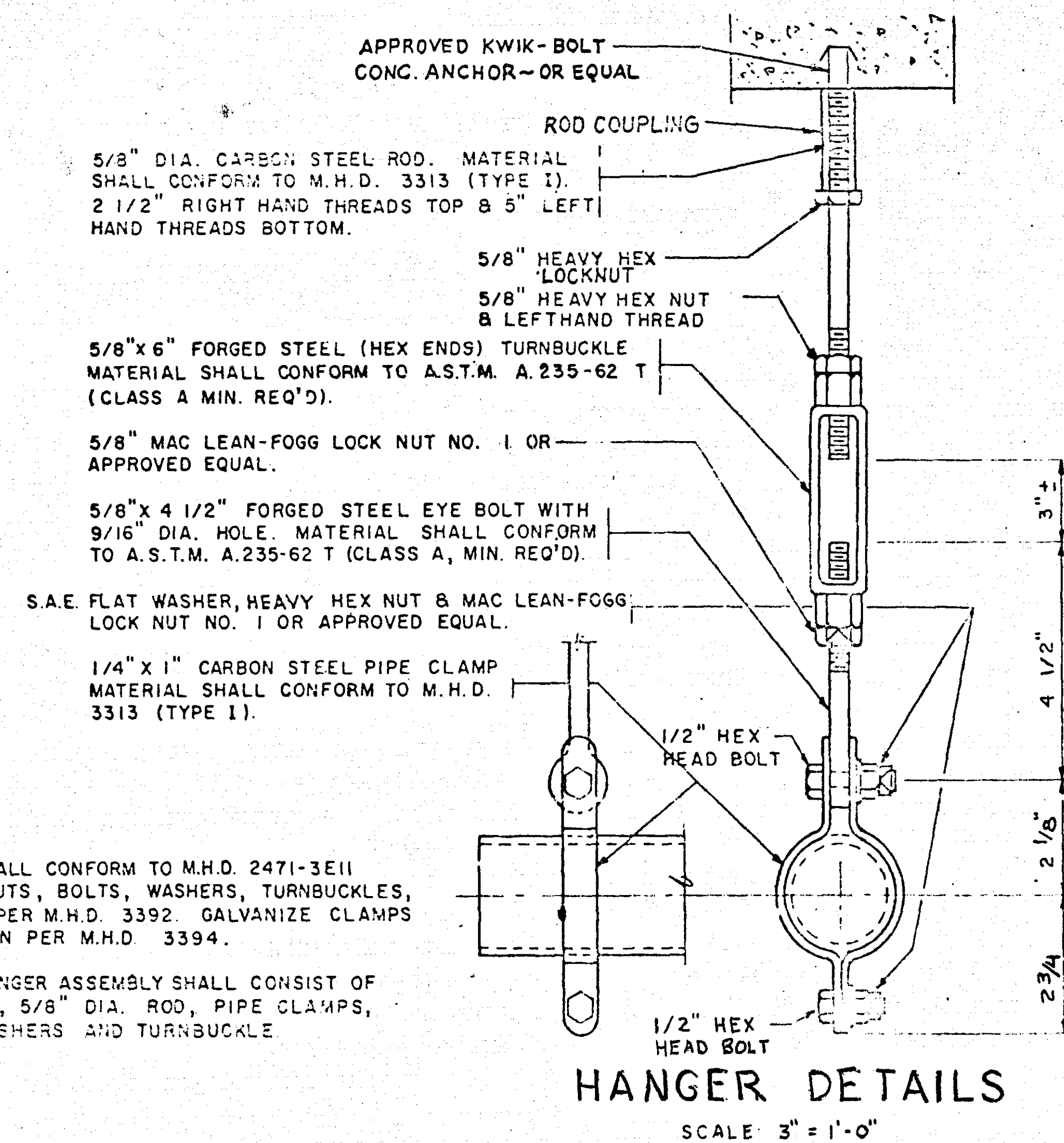


PLAN

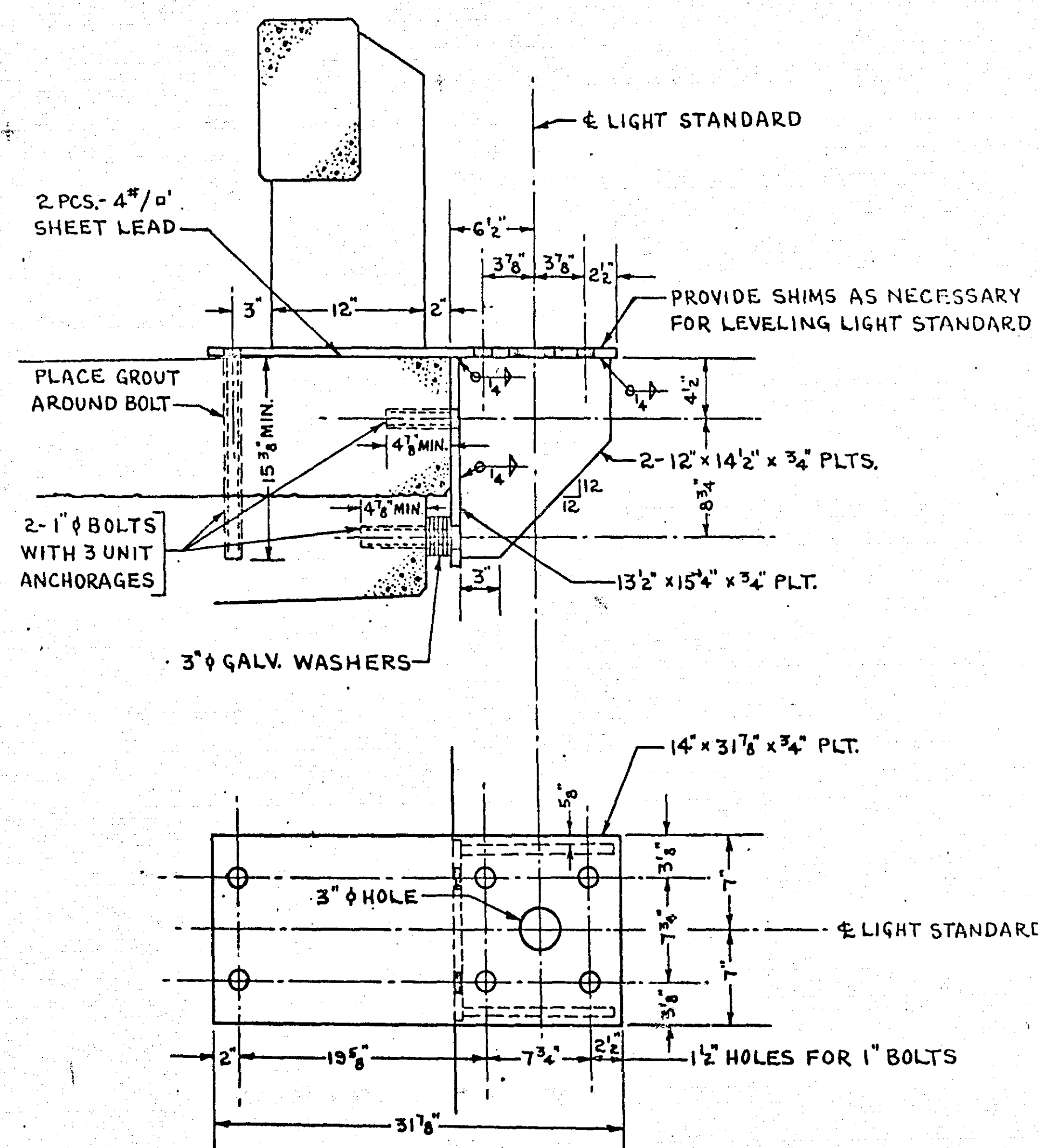
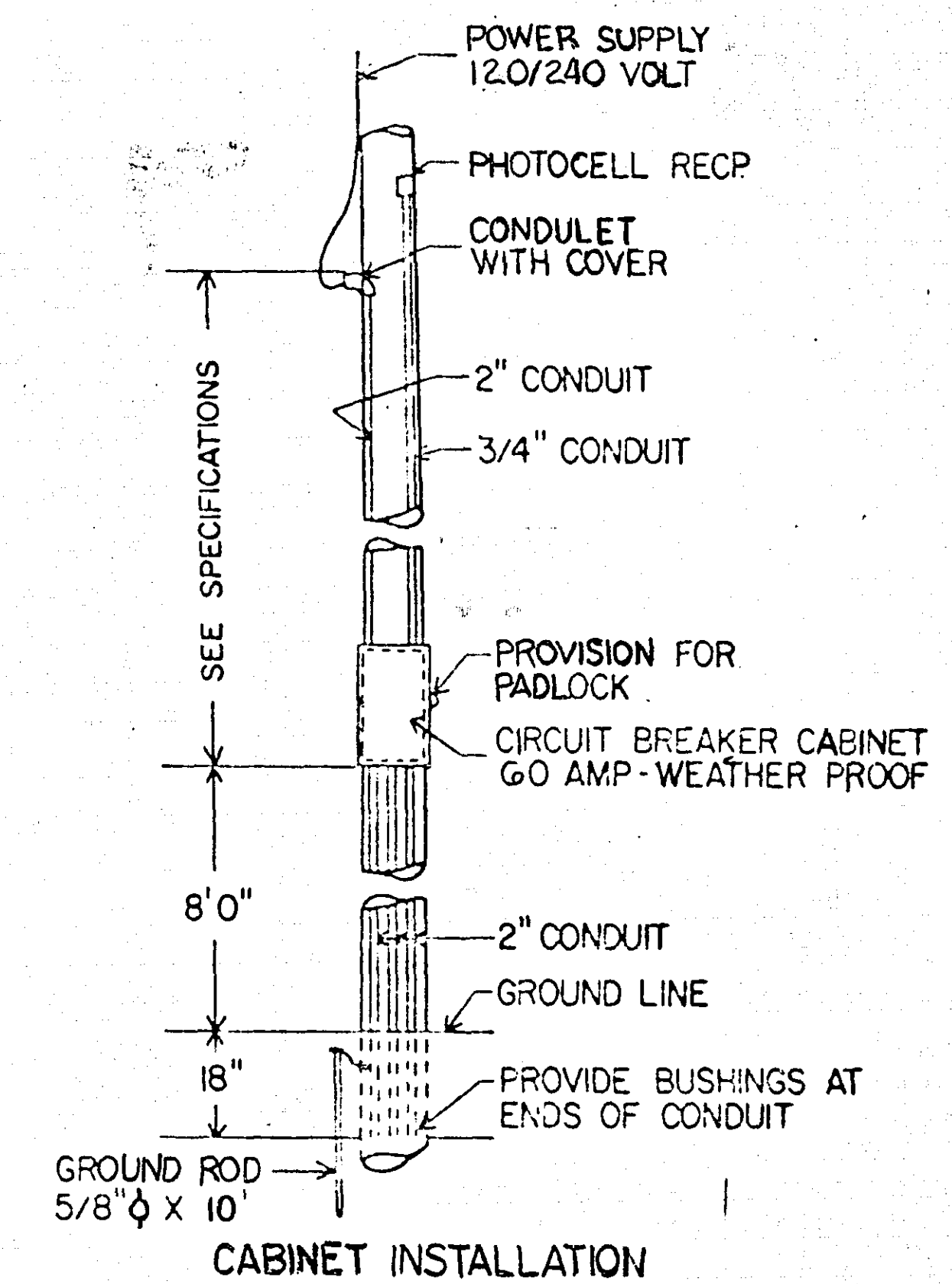
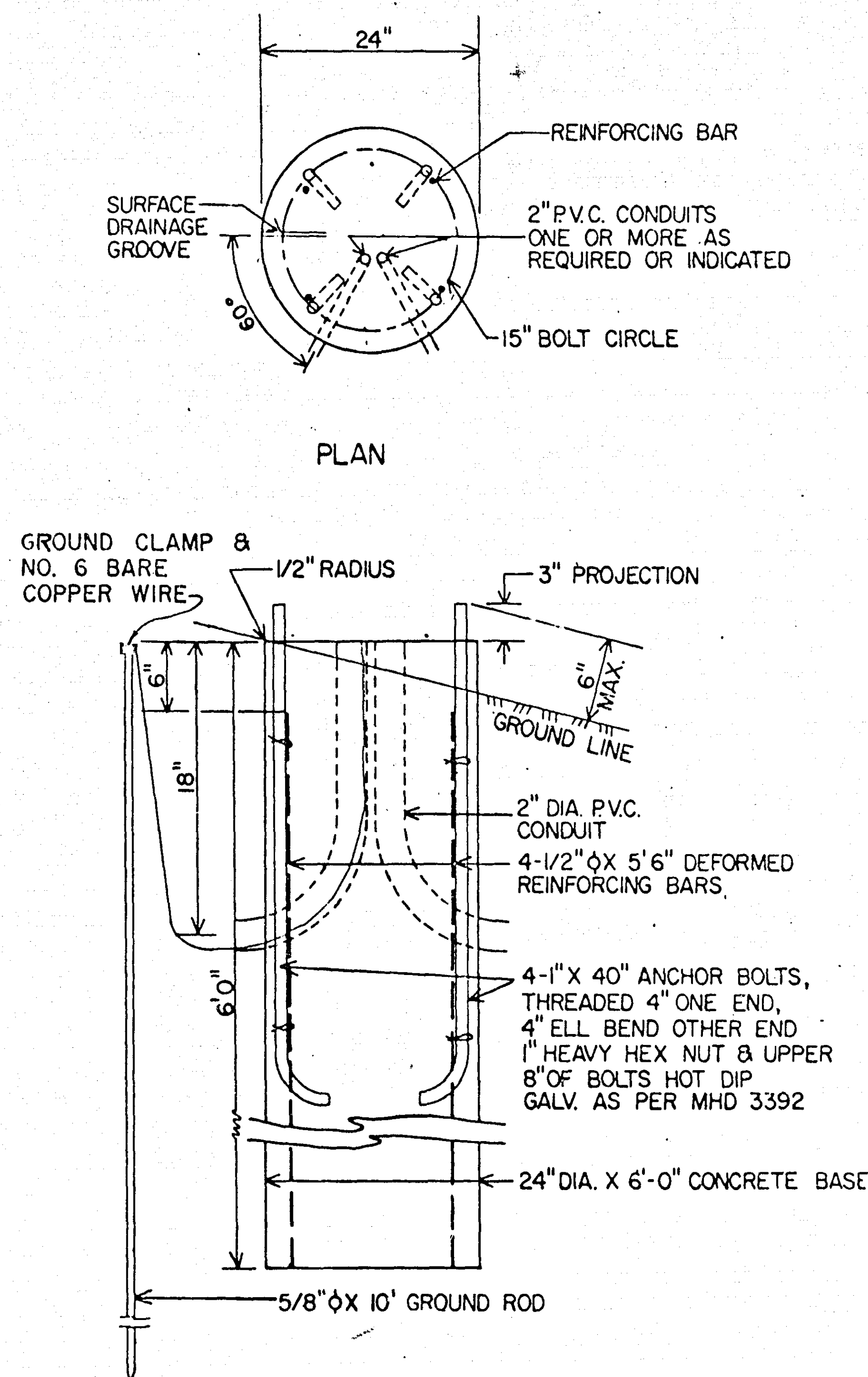
- | | |
|-----------------------|-------------------------------------|
| (A) Granular Backfill | (B) Drain Backfill |
| Pass Sieve | CA 5 as per Table 3137-1 |
| 2" | |
| #10 | (C) Limit % Passing #200 to 6% Max. |
| #40 | Within Limits of Treatment. |
| #200 | |
| | (D) 1:1 Slope or Flatter. |

BRIDGE APPROACH TREATMENT

BRIDGE APPROACH PANELS



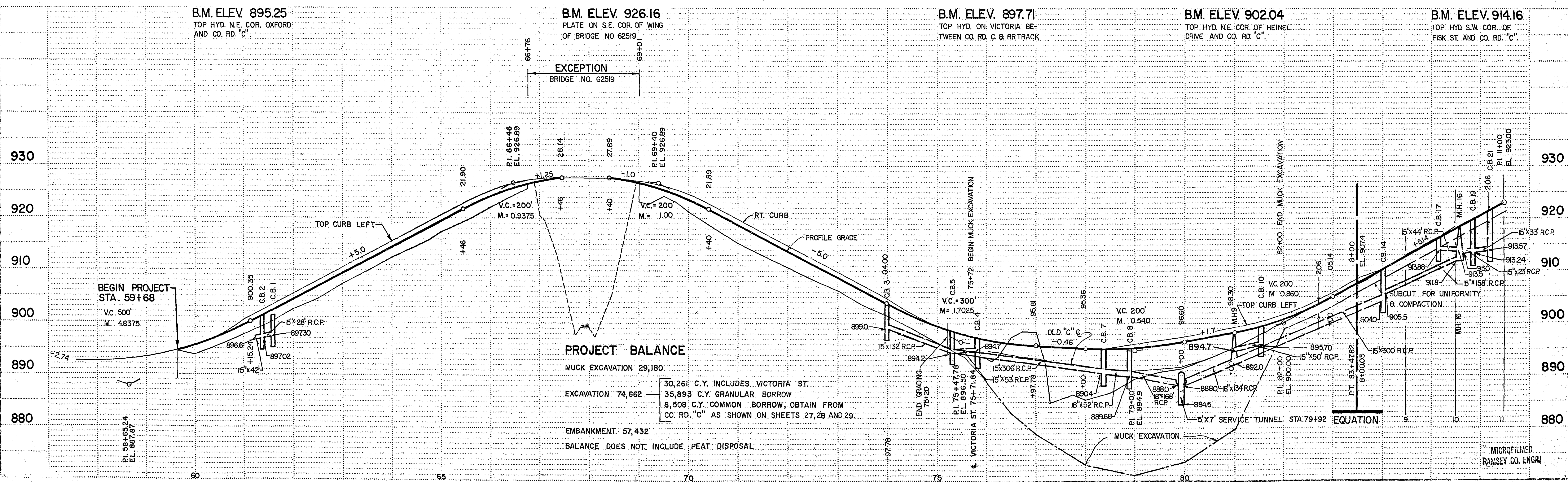
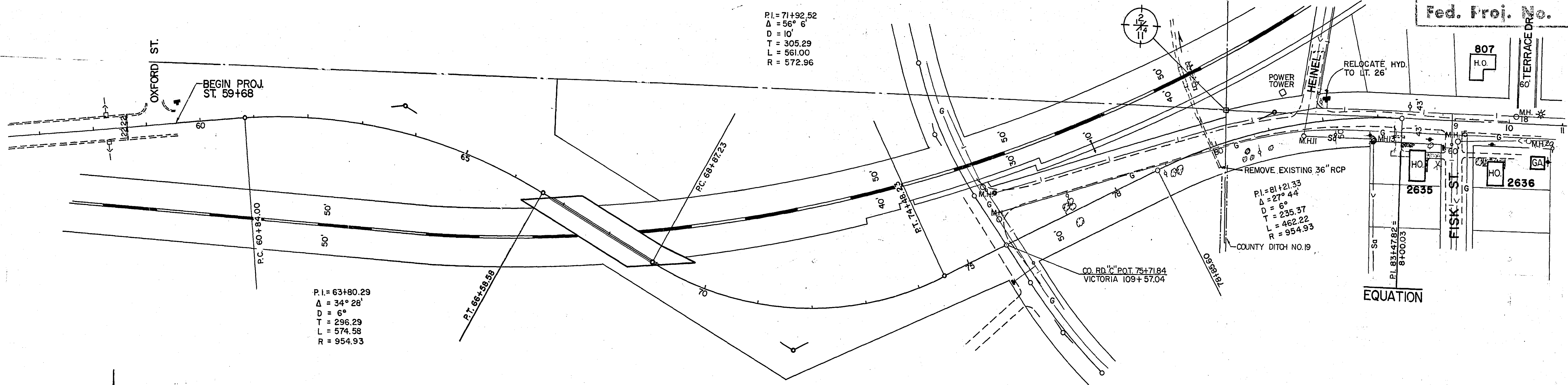
LIGHT BASE, DESIGN E

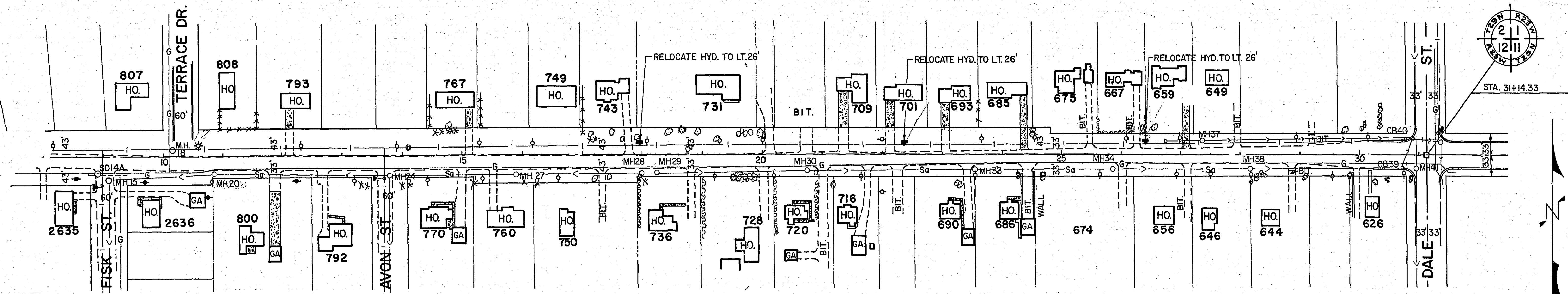


LIGHT STANDARD SUPPORT BRACKET

FOR LIGHTING UNITS ON BRIDGES-TYPE 12BA-40
TOTAL OF TWO REQUIRED
MATERIAL: STRUCTURAL STEEL MHD 3305
GALV. PER MHD 3394 AFTER FABRICATION

40 FT. ORNAMENTAL LIGHT STANDARDS





B.M. ELEV. 914.16
TOP HYD. SW. COR. FISK ST.
AT CO. RD. "C".

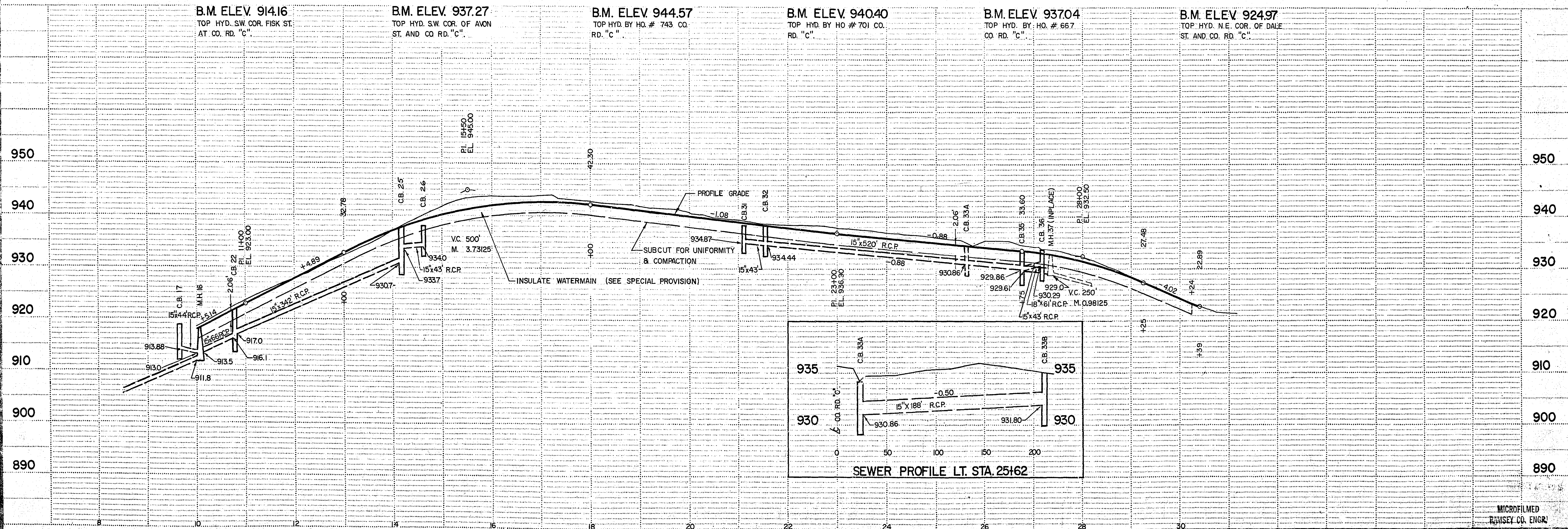
B.M. ELEV. 937.27
TOP HYD. SW. COR. OF AVON
ST. AND CO. RD. "C".

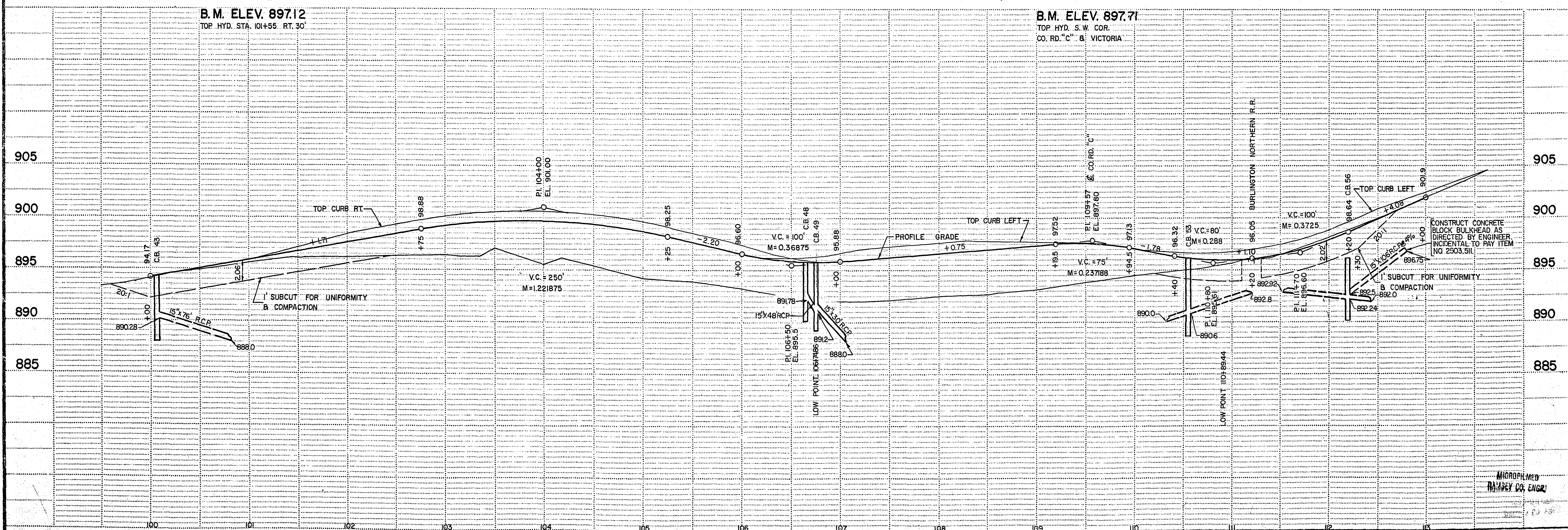
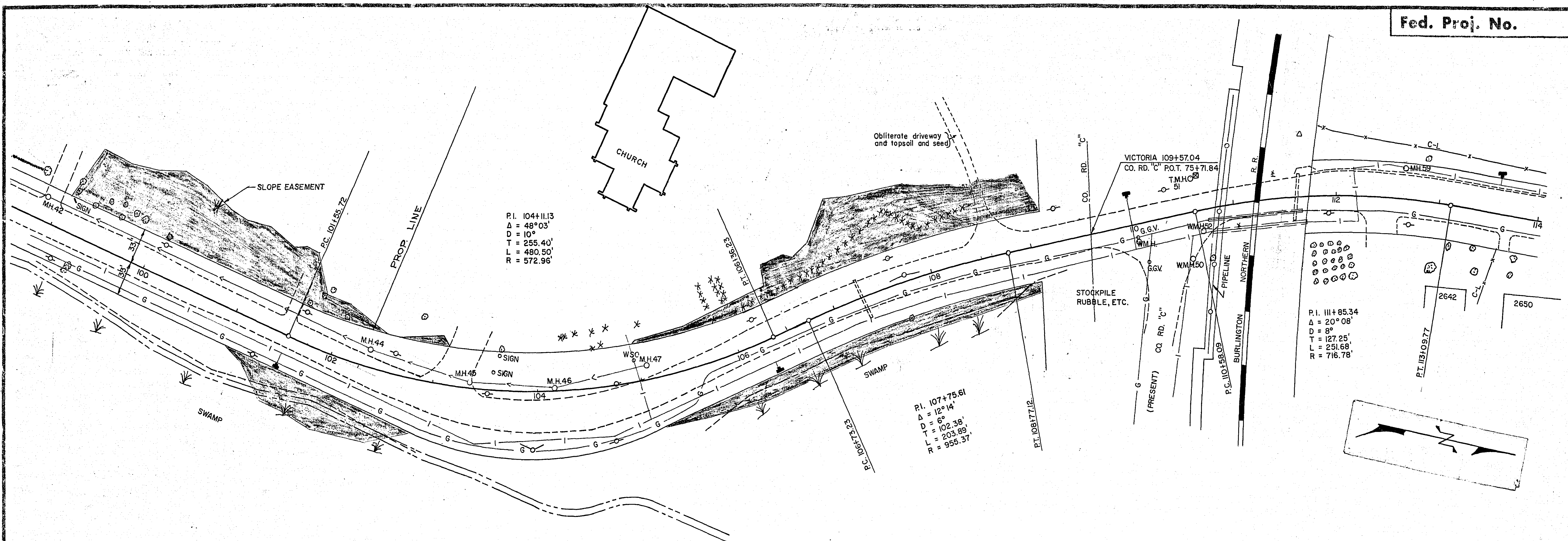
B.M. ELEV. 944.57
TOP HYD. BY HO. # 743 CO.
RD. "C".

B.M. ELEV. 940.40
TOP HYD. BY HO. # 701 CO.
RD. "C".

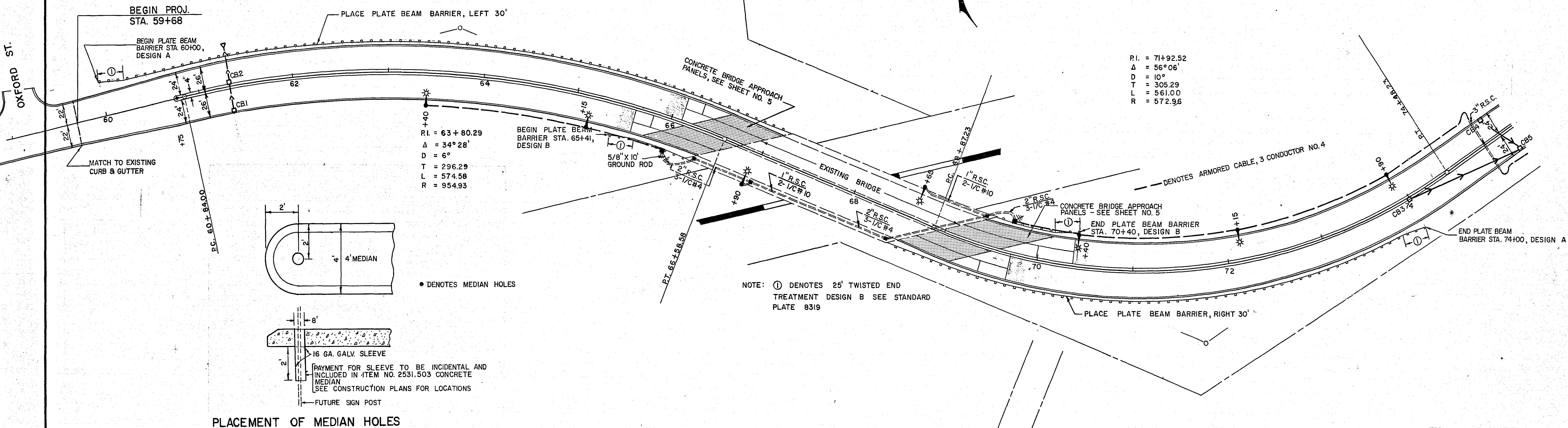
B.M. ELEV. 937.04
TOP HYD. BY HO. # 667
CO. RD. "C".

B.M. ELEV. 924.97
TOP HYD. N.E. COR. OF DALE
ST. AND CO. RD. "C".

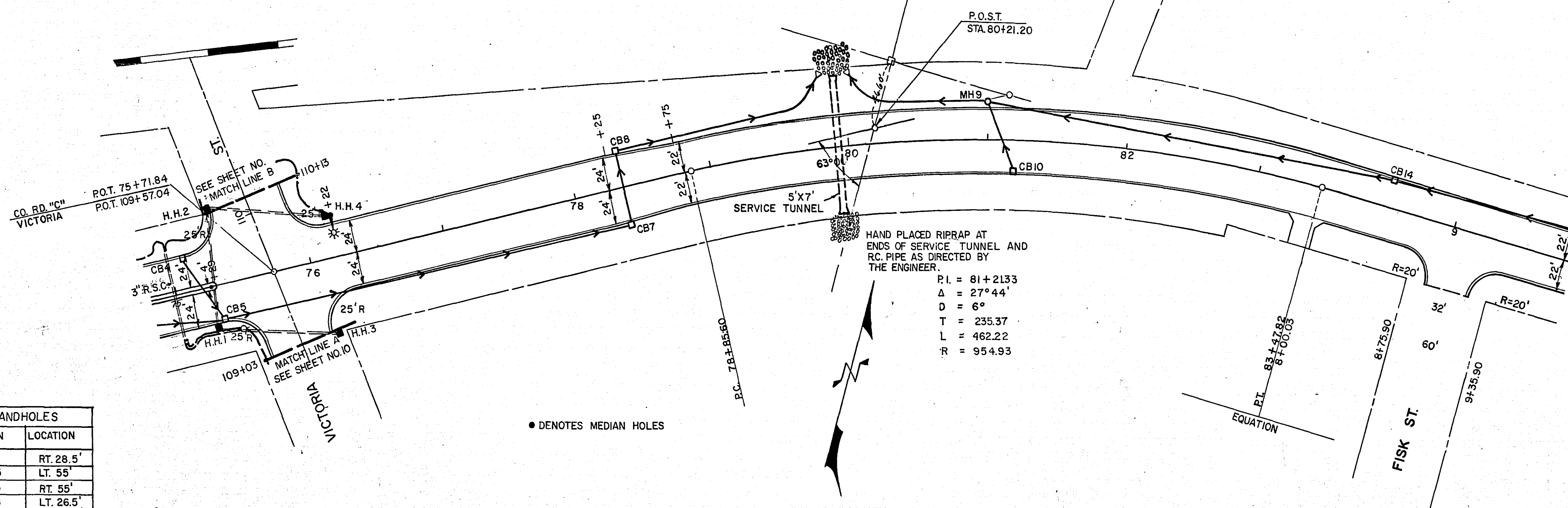




NOTE: ALL BOULEVARDS AND SLOPES SHALL BE SODDED EXCEPT THE SLOPES ON CO. RD. "C" BETWEEN STA. 59+68 AND 82+50 AND THE SLOPES ON VICTORIA ST. WHICH SHALL BE SEEDED & MULCHED.

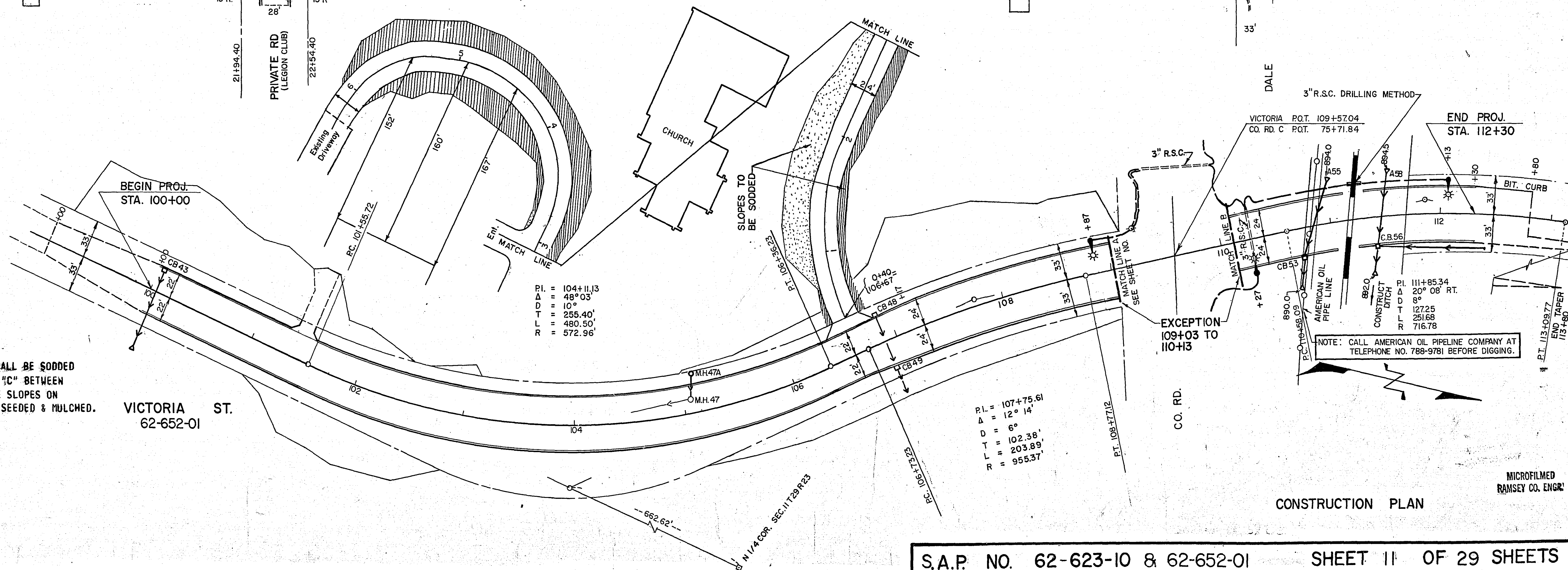
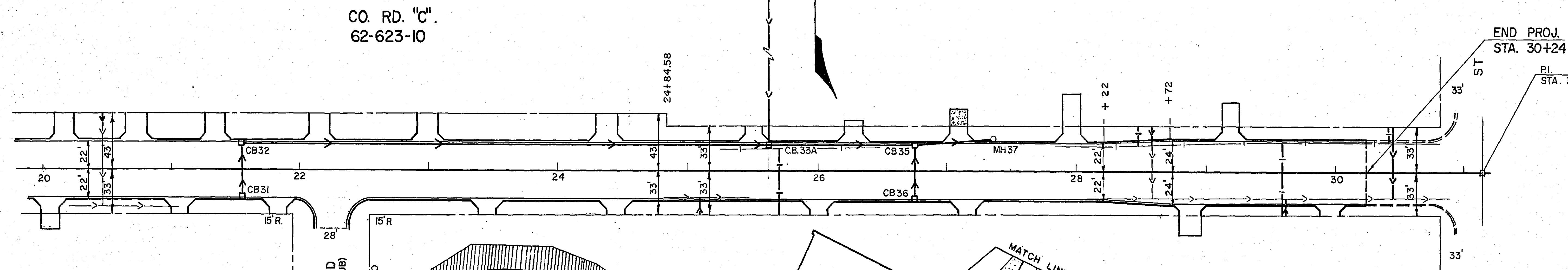
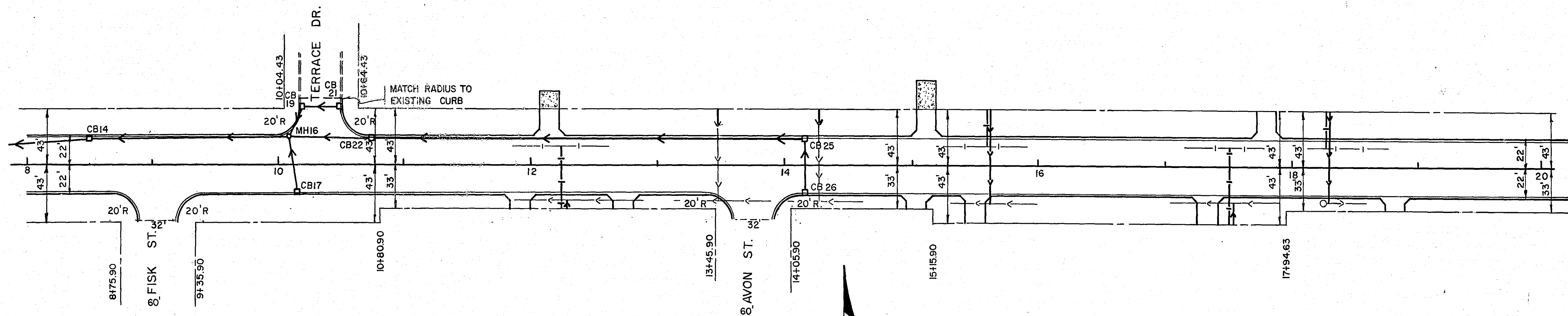


PLACEMENT OF MEDIAN HOLES



I hereby certify that this plan, specification, or report 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. *Except street lights.*
Kenzie Parker
 Date 6/22/72 Reg. No. 2042

CONSTRUCTION PLAN



NOTE: ALL BOULEVARDS AND SLOPES SHALL BE SODDED EXCEPT THE SLOPES ON CO. RD. "C" BETWEEN STA. 59+68 AND 82+50 AND THE SLOPES ON VICTORIA ST. WHICH SHALL BE SEED & MULCHED.

VICTORIA ST.
62-652-01

SLOPE EASEMENT (FILL)
 SLOPE EASEMENT (CUT)

P.L. = 107+75.61
A = 12° 14'
D = 6°
T = 102.38'
L = 203.89'
R = 955.37'

CONSTRUCTION PLAN

S.A.P. NO. 62-623-10 & 62-652-01 SHEET 11 OF 29 SHEETS

MICROFILMED
RAMSEY CO. ENGR.

STATION-ELEVATION

E

EXCAVATION EMBANKMENT

SUB TOTALS CU. YDS. CU. YDS. SUB TOTALS

STATION-ELEVATION

E

Fed. Proj. No.

EXCAVATION EMBANKMENT

SUB TOTALS CU. YDS. CU. YDS. SUB TOTALS

+50 04.7

62+00 02.4

+50 99.9

61+00 97.8

+50 95.8

60+00 93.9

+68 94.5

+50 94.1

59+00 893.2

0 350

0 310

0 322

0 267

6 174

13 109

79 SQ. FT.

47 SQ. FT.

36 SQ. FT.

17 SQ. FT.

+75 209

+50 19.5

+25 18.4

65+00 17.2

+75 15.9

+50 14.7

64+00 12.4

+50 09.9

63+00 907.3

0 150

0 156

0 151

0 149

0 150

0 277

0 249

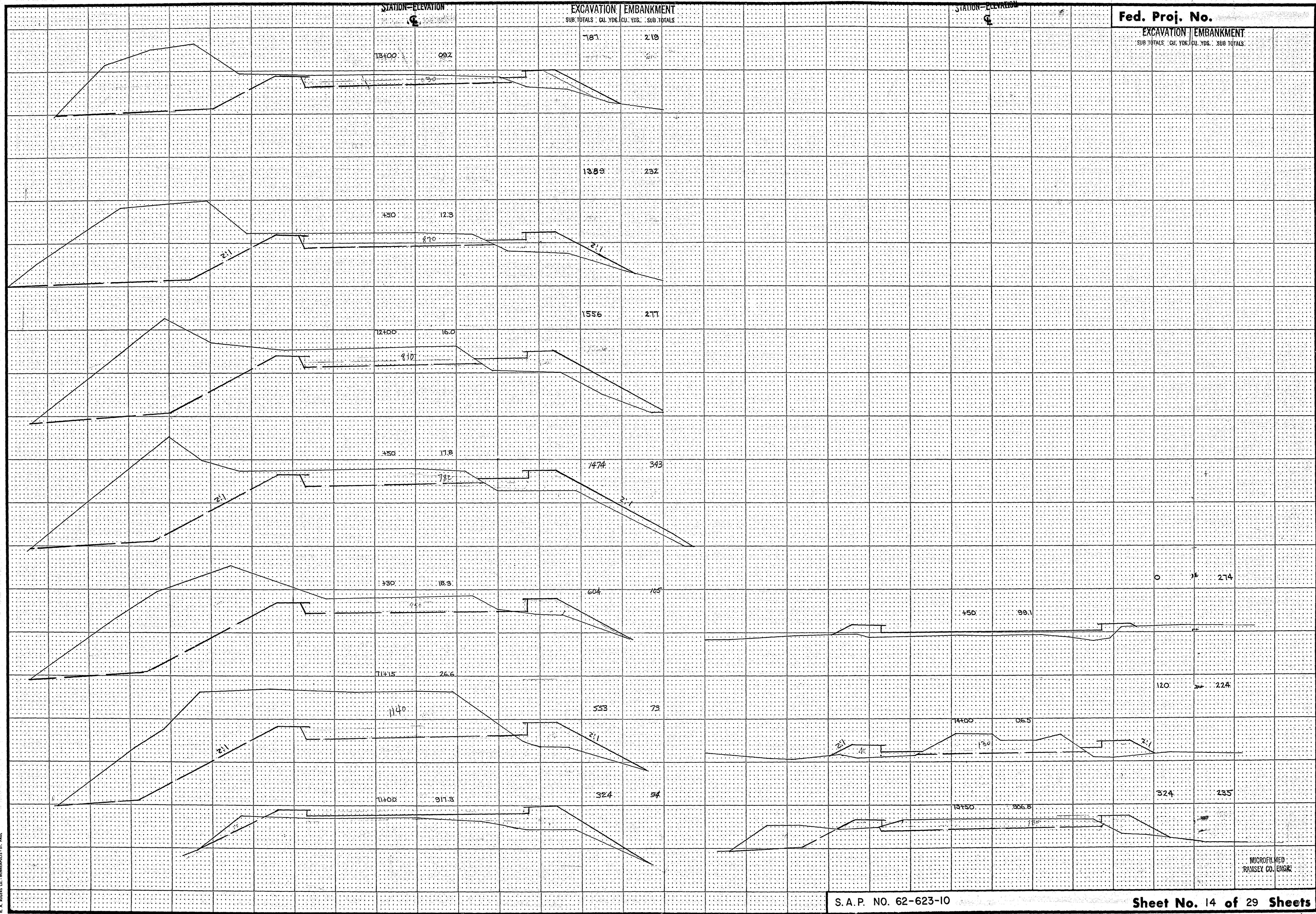
0 284

MICROFILM
RAMSEY CO. EGR.

S. A. P. NO. 62-623-10

Sheet No. 12 of 29 Sheets

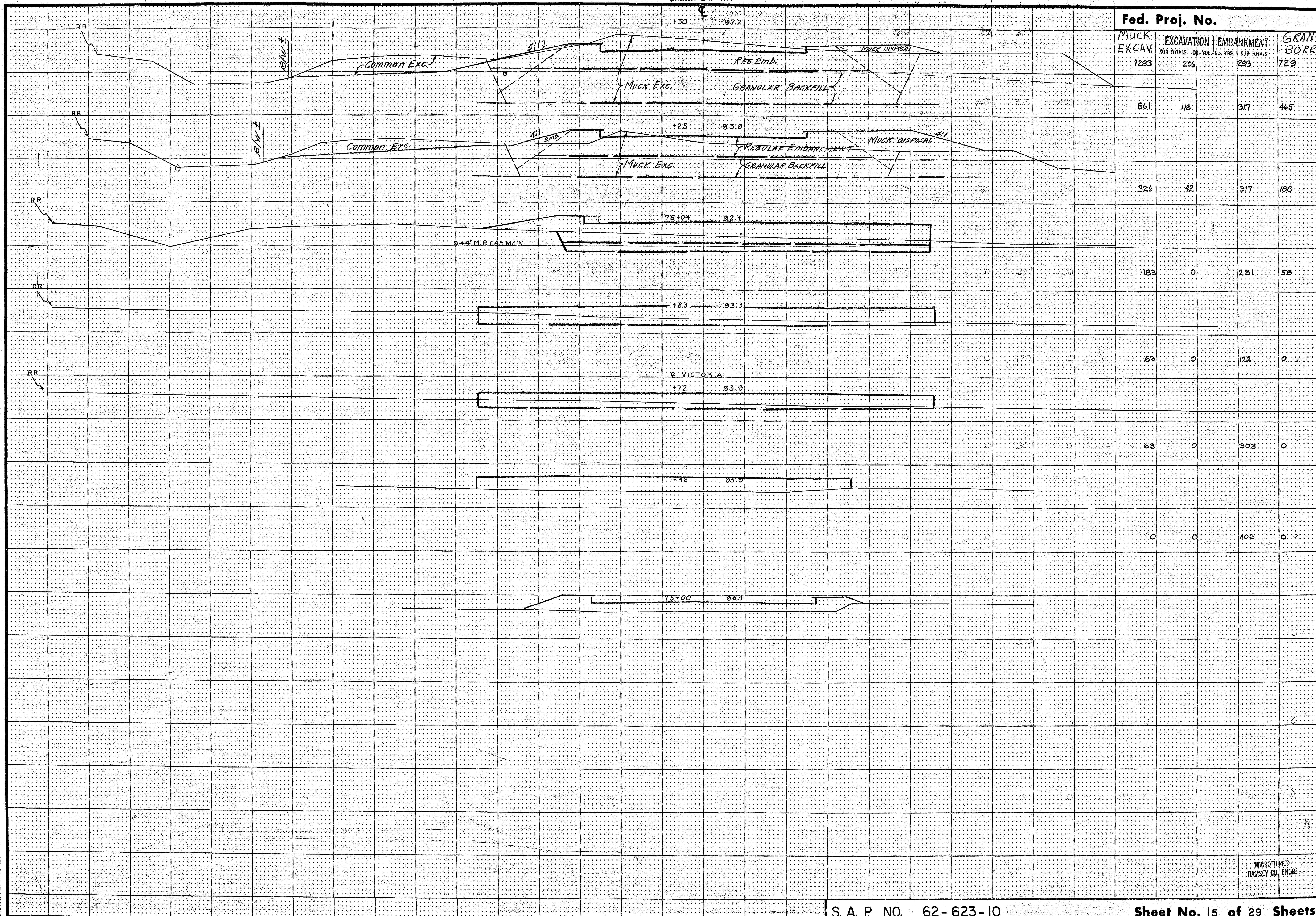
21-104



STATION-ELEVATION

Fed. Proj. No.

MUCK EXCAV.	EXCAVATION	EMBANKMENT	GRAN. BORR.
1283	206	293	729



FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGEE CO. - MINNEAPOLIS, ST. PAUL

S. A. P. NO. 62-623-10

Sheet No. 15 of 29 Sheets

MICROFILMED
RAMSEY CO. ENGINEERS

STATION-ELEVATION

Fed. Proj. No.

MUCK EXCAV	EXCAVATION		EMBANKMENT		GRAN. BORR.
	SUB TOTALS	CU. YDS.	CU. YDS.	SUBTOTALS	

2982	0	541	3077
------	---	-----	------

2983	0	545	3139
------	---	-----	------

3041	0	492	3178
------	---	-----	------

3022	0	491	3193
------	---	-----	------

1399	25	256	1503
------	----	-----	------

2059	141	487	2383
------	-----	-----	------

368	40	100	412
-----	----	-----	-----

1045	101	250	827
------	-----	-----	-----

1417	204	310	876
------	-----	-----	-----

MICROFILMED
RAMSEY CO. (ENG)

S. A. P. NO. 62-623-10

Sheet No. 16 of 29 Sheets

21-104

STATION-ELEVATION

MUCK
EXCAV.EXCAVATION
SUB TOTALS CU. YDS.EMBANKMENT
SUB TOTALS CU. YDS.GRAN.
BORR.

Fed. Proj. No.

82+10 00.0

0 164 390 0

+9.8 00.0

VAR.

4" M.P. GASMAIN

+7.8 93.1

VAR.

0 128 285 0

+8.3 92.3

?

0 167 291 0

+5.6 96.0

?

4" M.P. GASMAIN

0 95 171 0

81+00 95.4

PEAT DISPOSAL

MUCK EXG.

4" M.P. GASMAIN

REG. EMB.

PEAT DISPOSAL

GRAN. BACKFILL

12.73 415 1307 1084

+5.0 93.3

PEAT DISPOSAL

MUCK EXG.

4" M.P. GASMAIN

REG. EMB.

PEAT DISPOSAL

GRAN. BACKFILL

216.3 0 879 2400

80+11 92.1

4043 0 910 4106

NORMAL LAKE EL. 887.0
(LAKE OWASSO)

MUCK EXG.

70+22 80.1

REG. EMB.

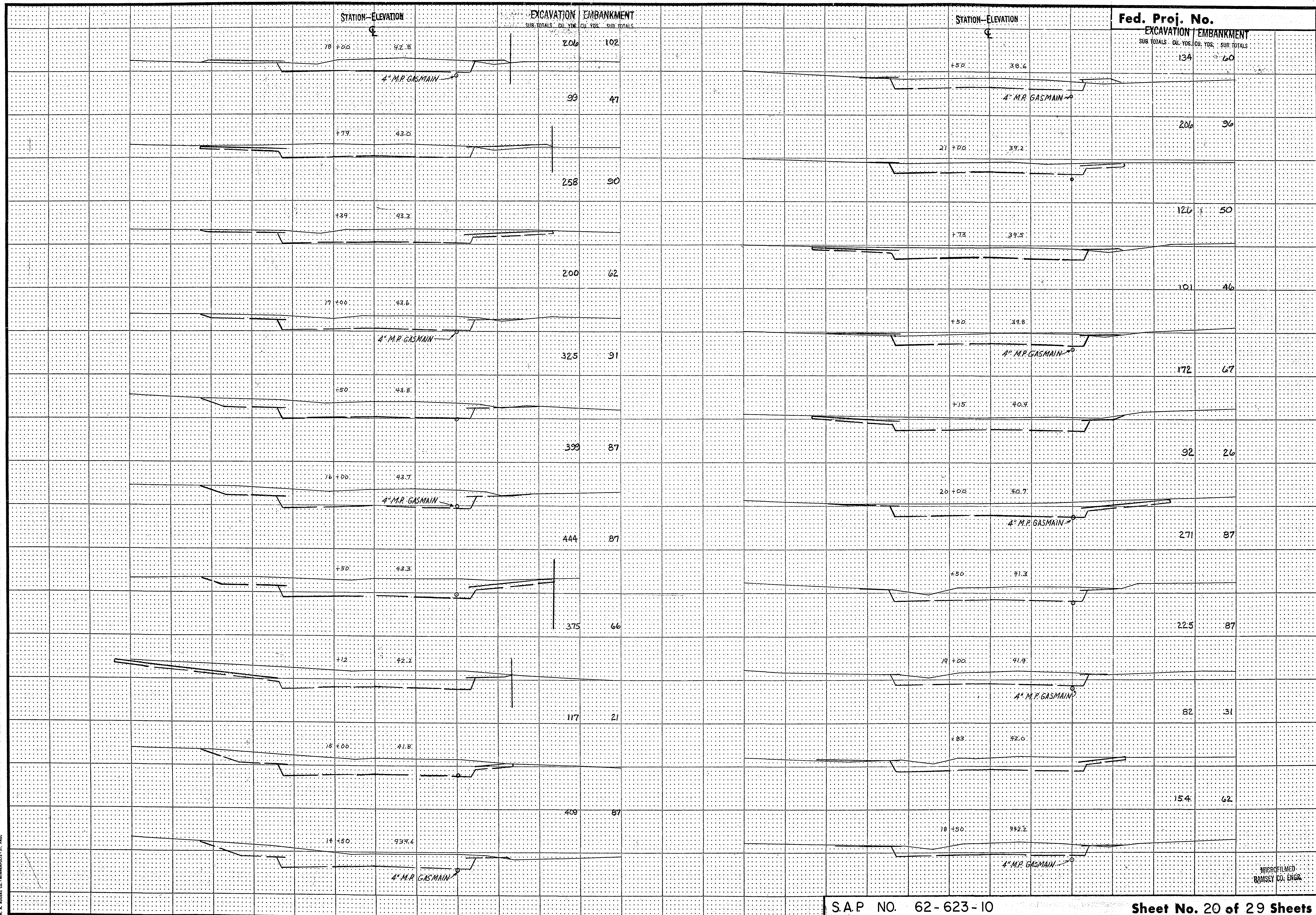
PEAT DISPOSAL

5X1' SERVICE TUNNEL

S. A. P. NO. 62-623-10

Sheet No. 17 of 29 Sheets

21-104



FUNCTIONAL CROSS SECTION - OPEN DOTTED
M. A. REESE CO. - MINNEAPOLIS, ST. PAUL

S.A.P. NO. 62-623-10

Sheet No. 20 of 29 Sheets

MICROFILMED
RAMSEY CO. ENGR.

21-104

STATION-ELEVATION

EXCAVATION EMBANKMENT
SUB TOTALS CU. YDS. CU. YDS. SUB TOTALS

STATION-ELEVATION

Fed. Proj. No.

EXCAVATION EMBANKMENT
SUB TOTALS CU. YDS. CU. YDS. SUB TOTALS

9
+5.5 36.5

97 36

+4.3 36.6

71 21

24 +00 37.0

264 15

+6.4 37.4

205 63

+4.5 37.7

120 33

23 +00 38.0

291 82

+5.0 38.4

281 91

+7.5 38.9

151 44

22 +00 38.3

11 48

21 +00 38.3

88 37

+0.9 34.1

103 26

27 +00 34.2

326 87

+5.0 35.2

162 44

+2.5 35.4

158 45

26 +00 35.5

52 17

+9.1 35.5

99 37

+7.2 35.5

112 46

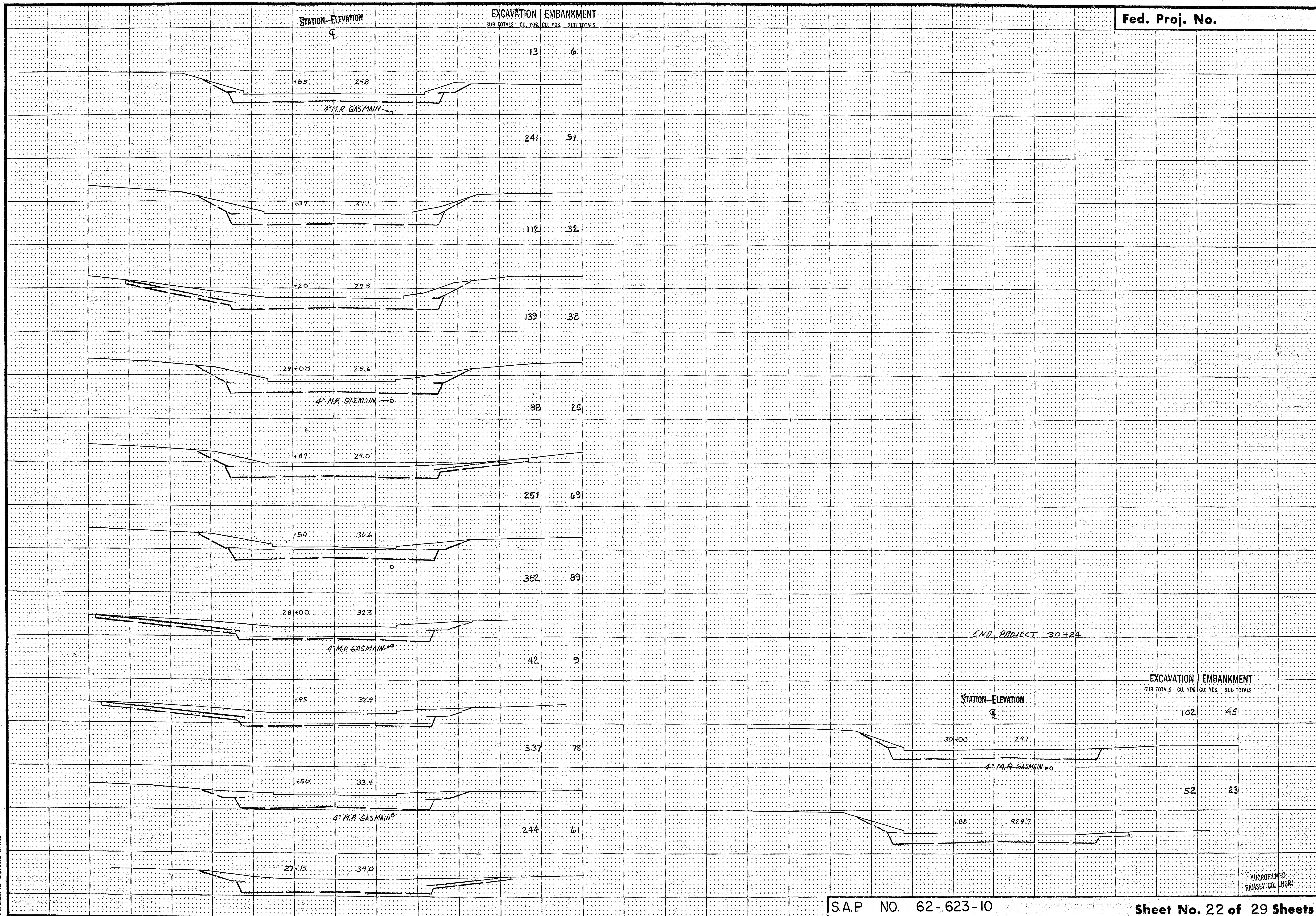
+5.0 35.6

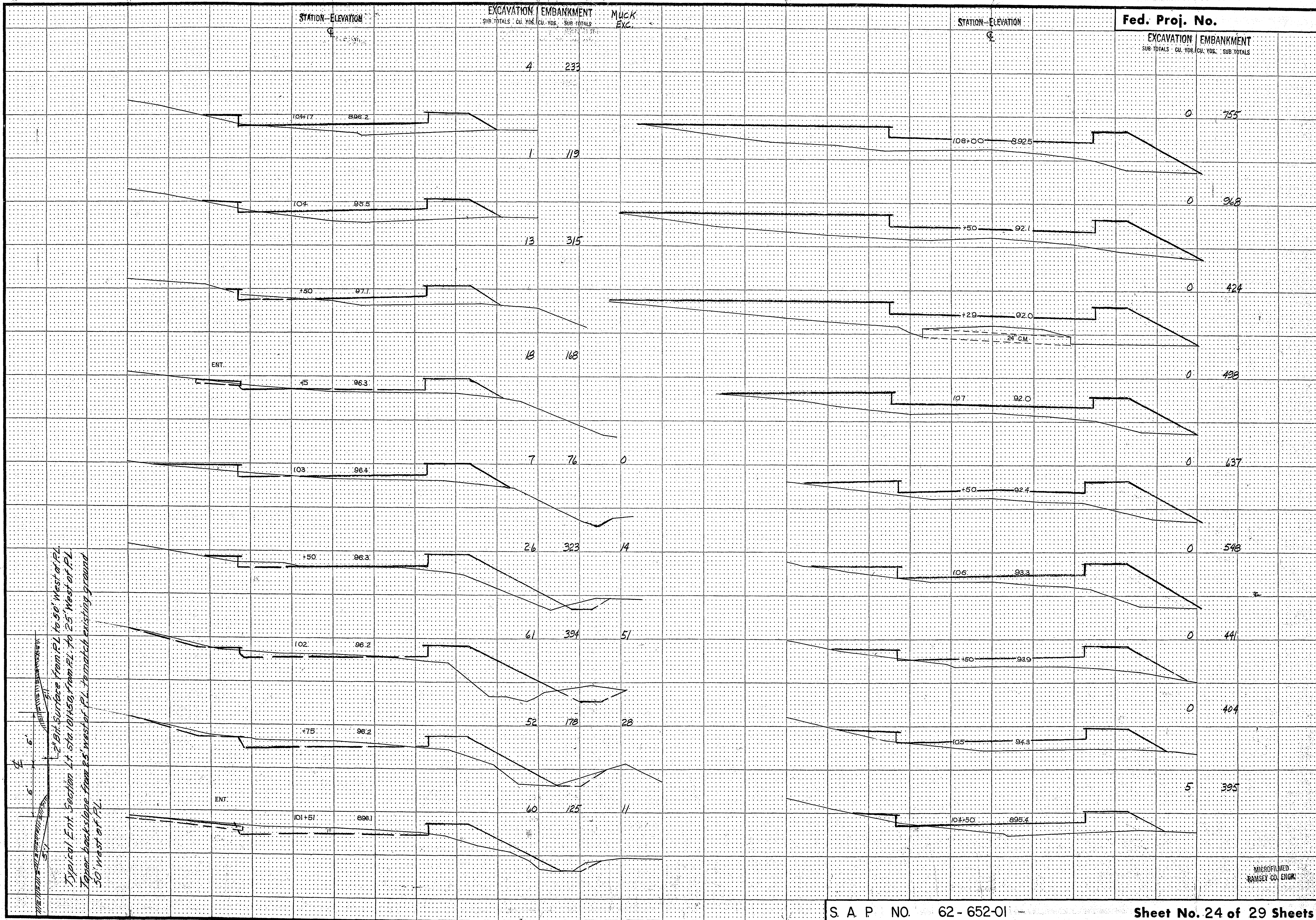
252 105

25 +00 36.0

127 53

24 +7.4 36.3





MICROFILMED
RAMSEY CO. ENGR.

FUNCTIONAL CROSS SECTION - OPEN DOTTED
L. A. ROGEE CO. - MINNEAPOLIS, ST. PAUL

STATION-ELEVATION

EXCAVATION EMBANKMENT
CU. YDS. CU. YDS.

STATION-ELEVATION

Fed. Proj. No.

EXCAVATION EMBANKMENT
SUB TOTALS CU. YDS. CU. YDS. SUB TOTALS

12.8 2.8

111+00 95.7

8.0 2.0

+6.6 95.7

PROPOSED X-DRAIN

2.3 8

+5.2 95.0

1.8 7

+4.0 94.9

2.1 7

110+12 94.5

+5.7 93.9

109 93.2

0 53.3

+6.0 92.6

108+50 892.7

114 906.0

+6.9 904.8

+3.5 903.3

113 901.8

6.8 3

+6.8 900.6

3.8 3

+5.0 899.9

ENT.

17.3 13

112 98.2

13.9 2.7

+6.2 96.9

24 CM

6.9 2.1

111+40 886.2

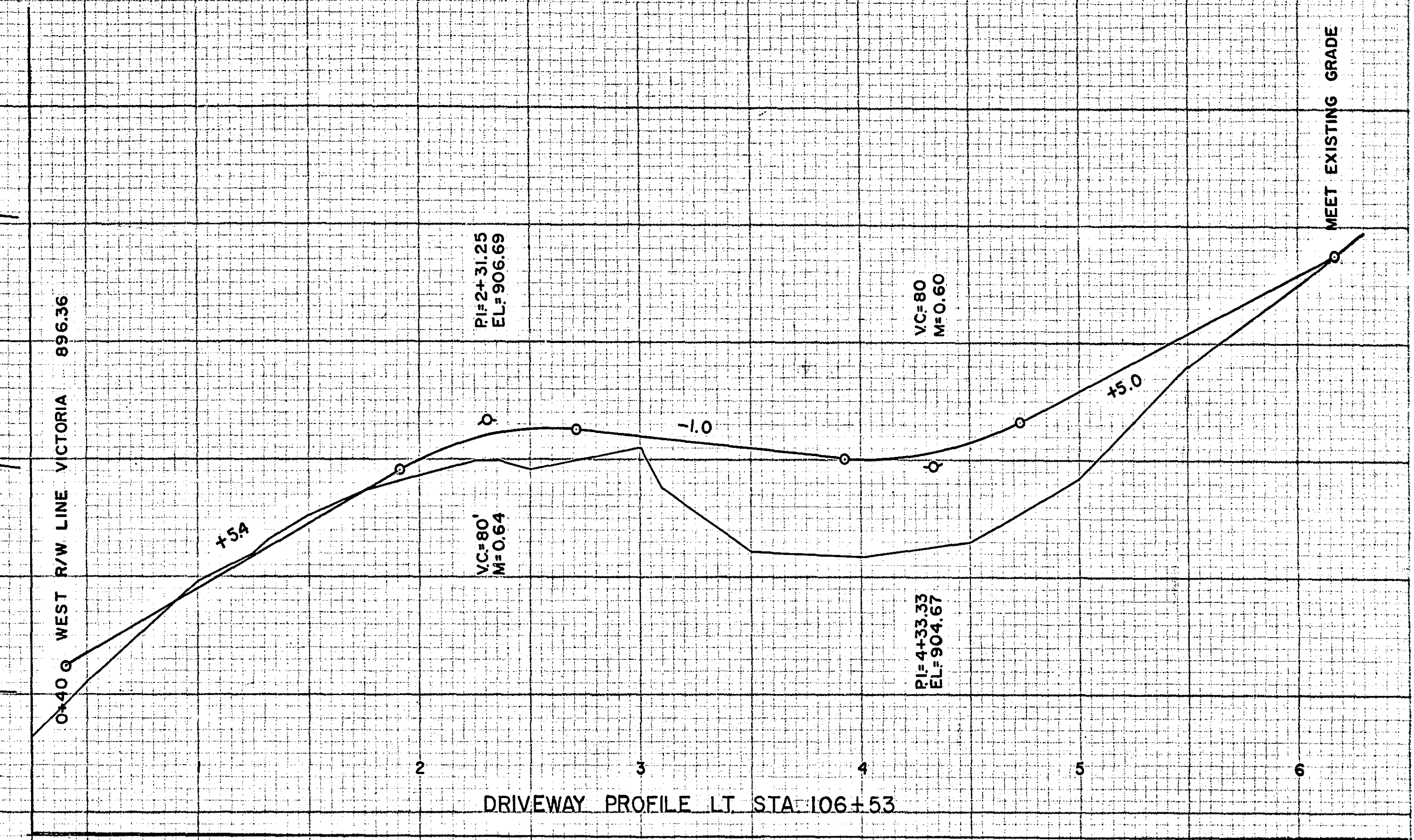
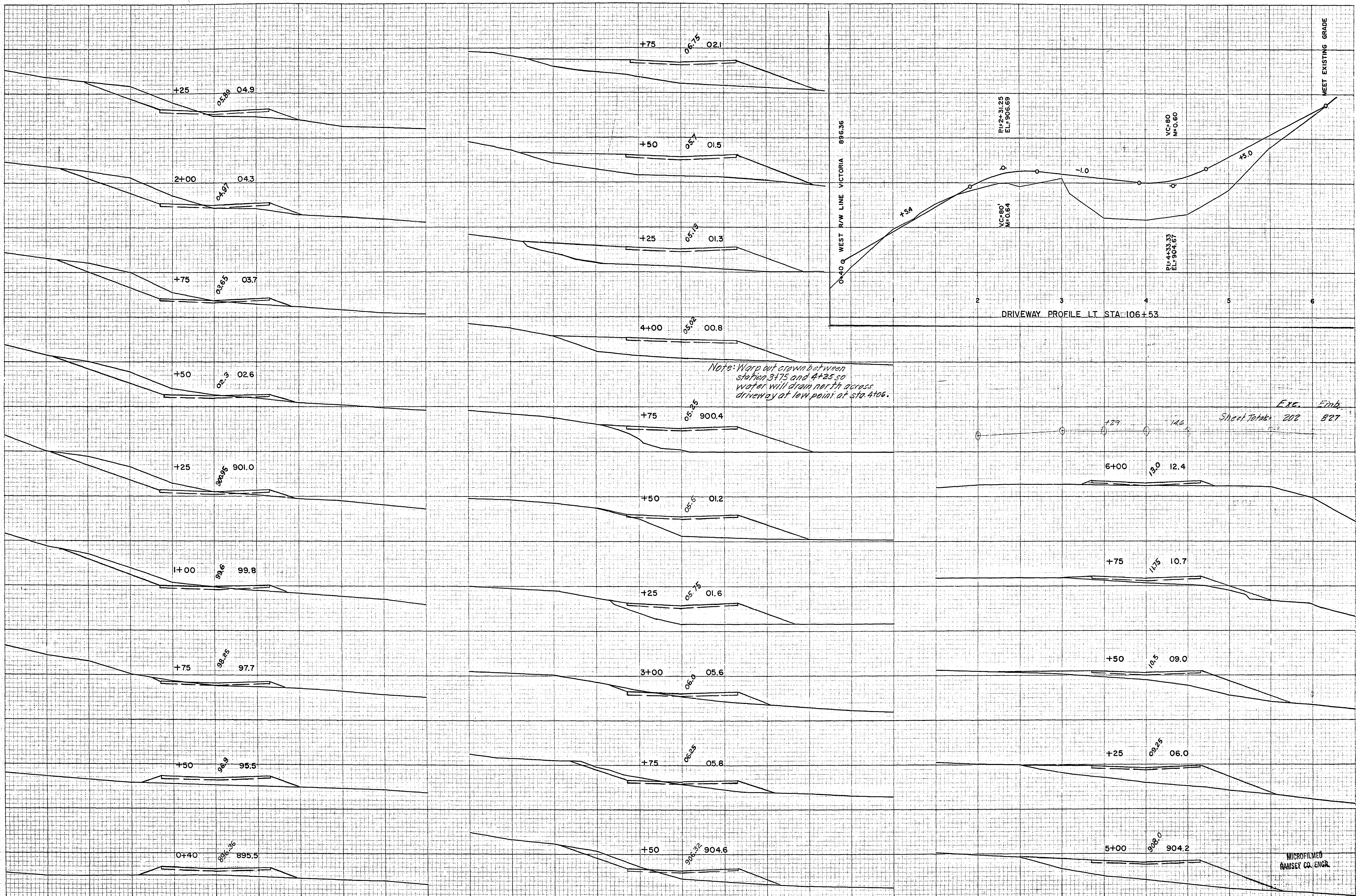
PROPOSED X-DRAIN

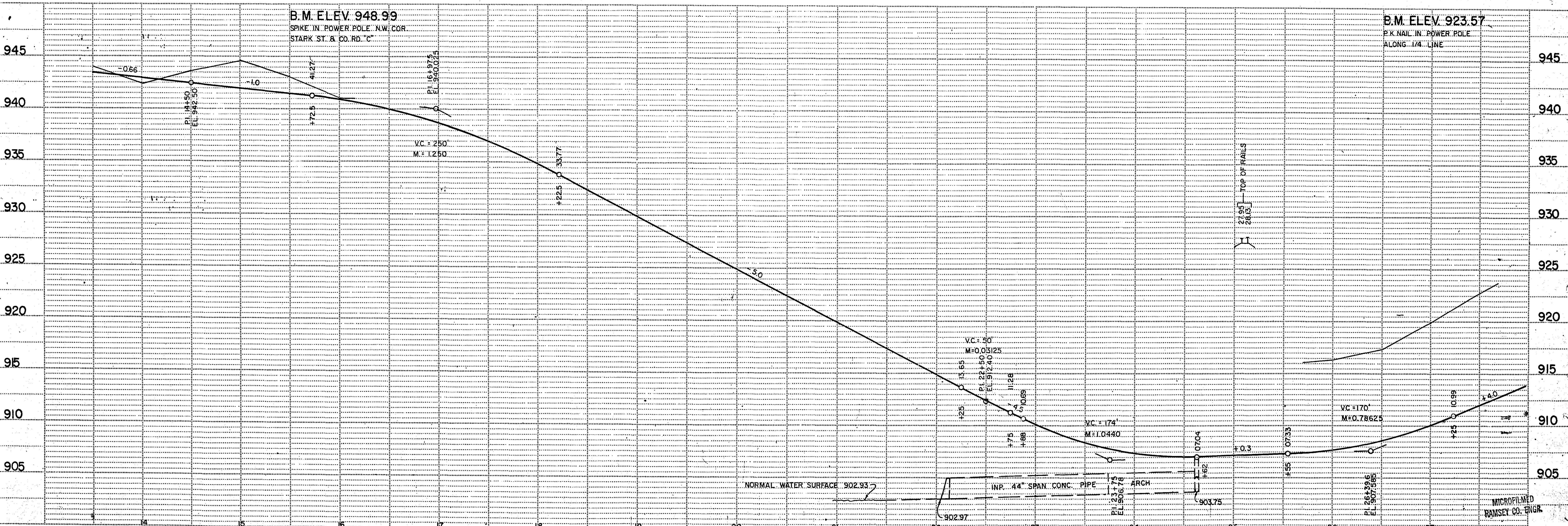
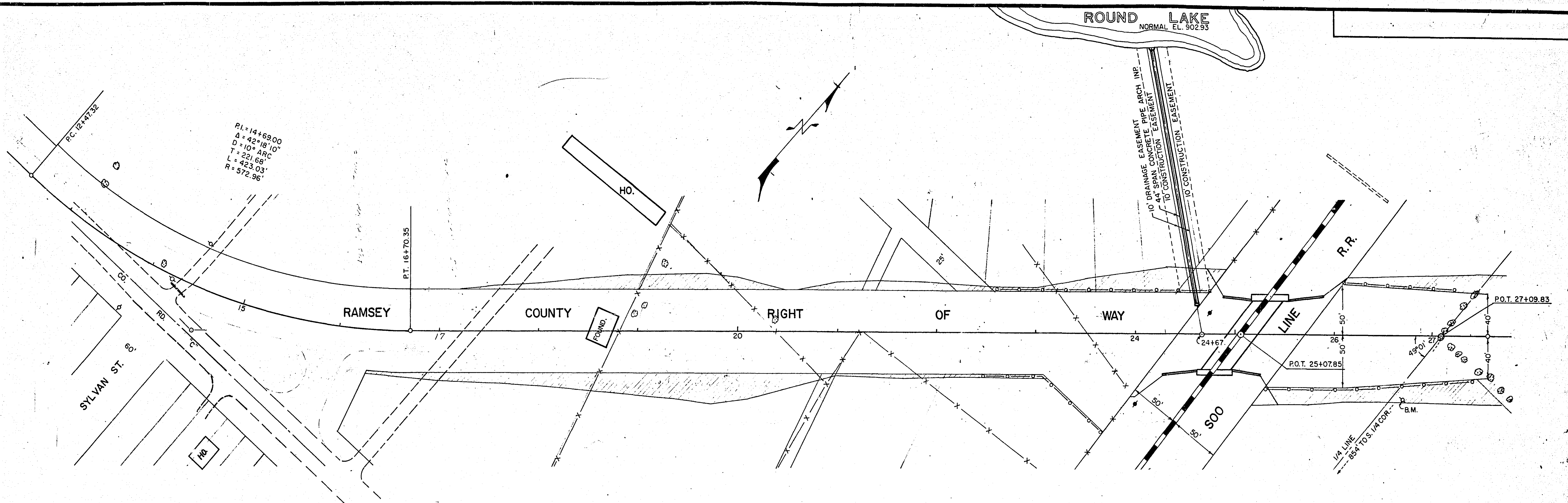
MICROFILMED
RAMSEY CO. ENGR.

S. A. P. NO. 62-652-01

Sheet No. 25 of 29 Sheets

21-104





STATION-ELEVATION

STATION-ELEVATION

Fed. Proj. No.

135 29.3

175 18.4

20+00 32.8

150 16.4

170 35.1

23+00 13.7

130 31.1

150 12.5

19+00 38.4

22+00 13.2

180 39.1

165 15.7

145 40.5

130 17.3

18+00 41.7

21+00 20.5

17+50 41.2

20+10 24.5

MICROFILMED
RAMSEY CO. ENGR.

S.A.P. NO. 62-623-10 & 62-652-01

Sheet No. 28 of 29 Sheets

21-104

FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. MINNEAPOLIS - ST. PAUL

STATION ELEVATION

Fed. Proj. No.

27+00

29.3

24+00

28.1

22+00

27.7

25+00

27.0

28+00

26.6

ABUTMENT

26+00

25.9

23+00

26.2

WING WALL

24+00

26.2

32+00

23.2

31+00

23.7

30+00

25.5

29+00

24.5

28+00

24.5

24+00

22.2

27+00

23.3

25+00

21.8

26+00

22.6

MICROFILMED
RAMSEY CO. MINN.