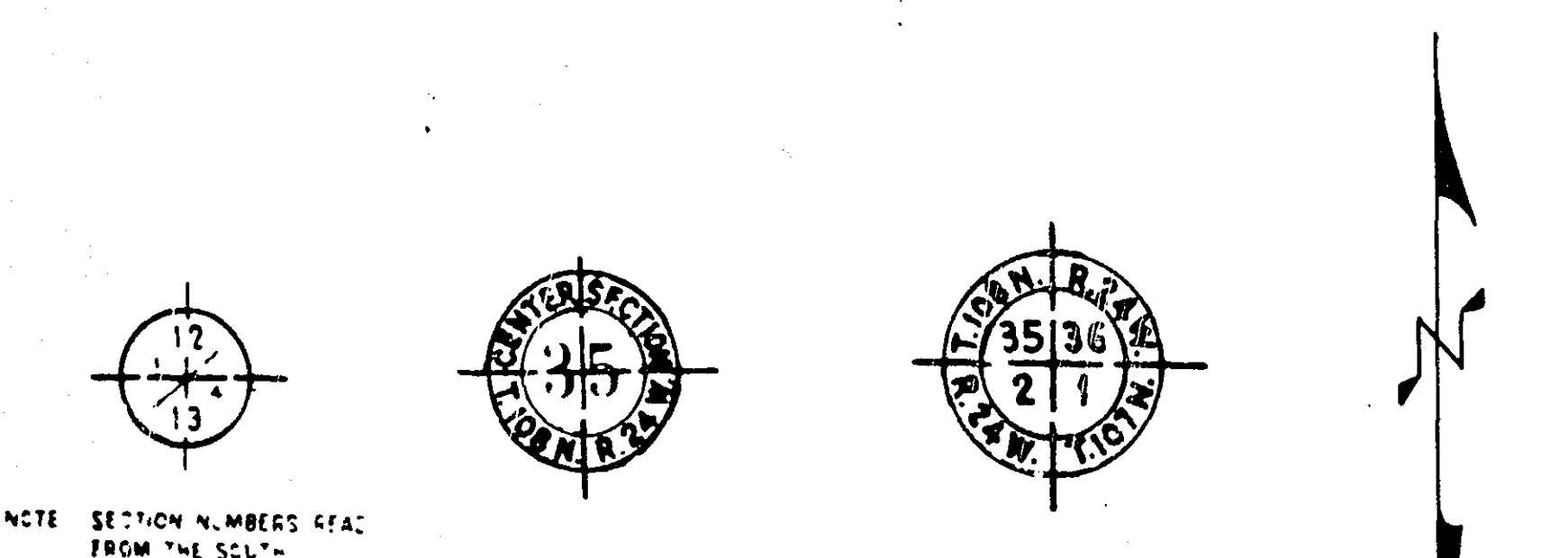


TABULATION OF BIDS RECEIVED JUNE 5, 1974

STATEMENT OF ESTIMATED QUANTITIES						BURY - CARLSON		SHAHER CONTRACTING		REHBEIN CONTRACTING		ALEXANDER CONST. CO.		ARCON CONST. CO.		HARDRIVES INC.		MINN-KOTA EXCAVATING	
ITEM NO.	ITEM	UNIT	S.A.P. 62-623-09	S.A.P. 62-621-01	TOTAL ESTIMATED QUANTITIES	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
2021.501	MOBILIZATION	LUMP SUM			1	7,000.00	7,000.00	9,000.00	9,000.00	12,000.00	12,000.00	5,500.00	5,500.00	17,000.00	17,000.00	12,000.00	12,000.00	19,000.00	19,000.00
2101.502	CLEARING	TREE	75	4	79	15.30	1,208.70	50.00	3,950.00	50.00	3,950.00	27.00	2,133.00	15.00	1,185.00	33.00	2,607.00	25.00	1,975.00
2101.507	GRUBBING	TREE	51	2	53	20.50	1,086.50	50.00	2,650.00	35.00	1,855.00	17.00	901.00	22.00	1,164.00	16.50	874.50	18.00	954.00
2104.503	REMOVE CONCRETE SLAB	S.F.	528		528	0.35	184.80	0.25	132.00	0.30	158.40	0.50	264.00	50.00	26.40	0.33	174.24	1.00	528.00
2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	S.Y.	35		35	3.00	105.00	2.00	70.00	3.00	105.00	5.00	175.00	6.00	210.00	2.20	77.00	4.00	140.00
2104.523	SALVAGE HYDRANT	EACH	1		1	102.00	102.00	200.00	200.00	315.00	315.00	100.00	100.00	250.00	250.00	200.00	200.00	250.00	250.00
2104.521	SALVAGE 44" SPAN R.C.P.	L.F.	8		8	5.10	40.80	10.00	80.00	10.50	84.00	15.00	120.00	5.00	40.00	10.00	80.00	5.00	40.00
2104.521	SALVAGE FENCE, WOVEN WIRE	L.F.	107		107	0.80	85.60	0.75	80.25	0.75	80.25	0.80	85.60	0.75	80.25	0.83	88.81	1.70	177.70
2104.521	SALVAGE FENCE, CHAIN LINK	L.F.	117		117	1.25	146.25	1.15	134.55	1.15	134.55	1.23	143.91	1.15	134.55	1.27	148.59	1.37	160.29
2104.501	REMOVE FENCE	L.F.	554		554	0.80	443.20	0.75	415.50	0.75	415.50	0.80	443.20	0.75	415.50	0.85	459.82	1.10	609.40
2105.501	COMMON EXCAVATION	C.Y.	52,080	3,364	55,444	1.15	63,760.60	1.15	63,760.60	1.15	63,760.60	1.40	77,621.60	1.12	62,097.28	1.18	65,423.92	1.20	66,532.80
2105.543	STABILIZING AGGREGATE	TON	551	173	724	4.35	3,149.40	3.00	2,172.00	4.00	2,896.00	2.50	1,816.00	3.39	2,454.36	3.33	2,410.92	2.60	1,882.40
2130.501	WATER	(M) GAL.	80	20	100	8.00	800.00	6.00	600.00	7.00	700.00	7.00	700.00	8.00	800.00	6.00	600.00	10.00	1,000.00
2211.501	AGGREGATE BASE, CLASS 6	TON	142	76	218	4.35	941.70	4.50	967.50	4.60	991.60	3.75	4,027.50	3.89	4,177.96	3.20	3,436.80	3.10	3,329.40
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	431	40	471	93.00	43,803.00	92.00	43,332.00	90.00	42,300.00	90.00	42,300.00	92.00	43,332.00	94.00	44,274.00	96.50	45,451.50
2331.514	BASE COURSE MIXTURE	TON	9570	895	10,465	6.00	62,790.00	6.00	62,790.00	5.80	60,677.00	6.15	64,359.75	6.00	62,790.00	5.94	62,162.10	6.20	64,883.00
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	196	43	239	93.00	22,188.00	92.00	21,984.00	90.00	21,540.00	90.00	21,540.00	92.00	22,188.00	94.00	22,998.00	96.50	23,765.50
2341.508	WEARING COURSE MIXTURE	TON	1,823	277	2,100	6.80	14,356.00	6.90	14,613.00	7.70	16,431.00	7.40	18,677.60	6.90	12,415.00	6.56	11,857.44	8.24	20,757.76
2341.510	BINDER COURSE MIXTURE	TON	1,739	247	1,986	6.80	13,573.20	6.50	12,909.00	6.35	12,411.00	6.85	13,604.10	6.50	12,909.00	6.14	12,194.04	6.79	13,484.94
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	3,216	471	3,687	0.45	1,659.15	0.50	1,843.50	0.50	1,843.50	0.55	2,021.85	0.50	1,843.50	0.50	1,843.50	0.54	1,990.98
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	7,306	1,096	8,402	0.42	3,128.84	0.50	4,201.00	0.37	3,108.74	0.45	3,280.90	0.50	4,201.00	0.50	4,201.00	0.48	3,360.80
2501.511	15" C.S. PIPE CULVERT, 16 GAUGE	L.F.	230		230	11.50	2,645.00	11.00	2,530.00	21.00	4,830.00	8.55	1,966.50	10.10	2,323.10	10.40	2,393.60	11.30	2,598.90
2501.515	15" R.C.P. APRONS	EACH	1		1	87.00	87.00	100.00	100.00	105.00	105.00	85.00	85.00	87.10	87.10	90.20	90.20	102.00	102.00
2502.541	6" PERFORATED C.M. PIPE DRAIN, CLASS 4	L.F.	350		350	5.10	1,785.00	6.50	2,275.00	7.35	2,572.50	8.50	2,975.00	5.35	1,872.50	5.15	1,802.50	6.00	2,100.00
2502.551	C.M. INSPECTION TEES	L.F.	1.5		1.5	31.00	46.50	15.00	45.00	210.00	315.00	10.00	31.00	50.00	155.00	53.00	79.50	26.30	78.90
2502.573	INSTALL INSPECTION BOX	EACH	1		1	77.00	77.00	225.00	225.00	315.00	315.00	175.00	175.00	200.00	200.00	100.00	100.00	260.00	260.00
2503.511	10" C.S. SEWER PIPE, 16 GAUGE	L.F.	70		70	7.65	535.50	7.00	490.00	16.00	1,120.00	8.00	560.00	12.00	840.00	6.20	434.00	10.30	721.00
2503.511	15" R.C. SEWER PIPE, CLASS IV	L.F.	569		569	10.20	5,803.80	9.50	5,405.50	10.50	5,974.50	8.70	4,950.30	9.40	5,348.60	13.10	7,453.90	10.00	5,690.00
2503.511	18" R.C. SEWER PIPE, CLASS II	L.F.	1,625		1,625	10.70	17,387.50	9.50	15,437.50	11.60	18,850.00	9.50	15,437.50	9.90	16,087.50	12.45	20,231.25	11.00	17,875.00
2503.511	24" R.C. SEWER PIPE, CLASS II	L.F.	994		994	13.00	12,922.00	12.00	11,928.00	12.60	12,524.40	12.75	12,673.50	11.70	11,629.80	15.45	15,357.30	13.00	12,922.00
2503.521	28" SPAN R.C. SEWER PIPE ARCH, CLASS II	L.F.	54		54	15.30	826.20	16.00	864.00	21.00	1,134.00	16.50	891.00	16.20	874.80	16.15	872.10	19.00	1,026.00
503.648	CLEAN EXISTING SEWER, 44" SPAN	L.F.	200		200	10.25	2,050.00	8.00	1,600.00	10.50	2,100.00	15.00	3,000.00	9.60	1,920.00	15.00	3,000.00	3.00	600.00
2506.508	CONSTRUCT MANHOLES, DESIGN A or F	EACH	3		3	360.00	1,080.00	450.00	1,350.00	525.00	1,575.00	395.00	1,185.00	425.00	1,275.00	402.00	1,206.00	400.00	1,200.00
2506.509	CONSTRUCT CATCH BASINS, DESIGN LP-4	EACH	15		15	650.00	9,750.00	625.00	9,375.00	420.00	6,300.00	405.00	6,075.00	700.00	10,500.00	380.00	5,700.00	700.00	10,500.00
2506.509	CONSTRUCT CATCH BASINS, DESIGN LP-4M	EACH	4		4	650.00	2,600.00	450.00	1,800.00	420.00	1,680.00	400.00	1,600.00	600.00	2,400.00	397.40	1,589.60	700.00	2,800.00
2506.509	CONSTRUCT CATCH BASINS, DESIGN I B	EACH	1		1	450.00	450.00	250.00	250.00	420.00	420.00	310.00	310.00	200.00	200.00	150.00	150.00	260.00	260.00
2506.511	RECONSTRUCT MANHOLES	L.F.	35.6	13.6	49.2	56.00	2,755.20	60.00	2,952.00	63.00	3,099.60	68.00	3,345.60	75.00	3,640.00	60.00	2,952.00	55.00	2,706.00
2506.521	INSTALL CASTINGS	EACH	6		6	51.00	306.00	60.00	360.00	75.00	450.00	70.00	420.00	65.00	390.00	50.00	300.00	45.00	270.00
2506.522	ADJUST FRAME AND RING CASTING	EACH	1		1	50.00	50.00	60.00	60.00	75.00	75.00	75.00	75.00	65.00	65.00	50.00	50.00	50.00	50.00
2535.501	BITUMINOUS CURB	L.F.	15	87	102	2.70	270.00	1.75	171.75	1.50	225.00	1.40	210.00	1.75	262.50	1.50	225.00	1.34	181.68
2511.502	HAND-PLACED RIPRAP, CLASS A	C.Y.	4		4	25.50	102.00	60.00	240.00	50.00	200.00	50.00	200.00	35.00	122.50	44.00	176.00	30.00	120.00
2521.501	4" CONCRETE WALK	S.F.	2,218		2,218	0.82	1,818.76	0.80	1,774.40	1.20	2,661.60	0.78	1,730.04	0.90	1,996.20	0.88	1,951.84	83	1,840.94
2531.501	CONCRETE CURB AND GUTTER DESIGN B618	L.F.	7,054	1,209	8,263	2.86	23,454.00	2.70	22,310.20	2.85	23,544.55	2.85	23,544.55	3.00	24,789.00	3.03	25,036.81	2.86	23,632.18
2531.501	CONCRETE CURB AND GUTTER DESIGN V1036	L.F.	200		200	4.85	970.00	4.90	980.00	4.15	830.00	6.00	1,200.00	4.85	970.00	5.34	1,068.00	5.17	1,034.00
2531.503	CONCRETE MEDIAN	S.Y.	55		55	14.00	770.00	13.50	742.50	16.50	907.50	15.00	825.00	16.72	919.60	15.40	847.00	15.40	847.00
2557.517	VEHICULAR GATES, WOVEN WIRE DOUBLE GATE	EACH	2		2	260.00	520.00	250.00	500.00	250.00	500.00	268.00	536.00	250.00	500.00	275.00	550.00	6.33	4,703.19
2557.501	WIRE FENCE, DESIGN 60G-9322	L.F.	743		743	5.80	4,309.40	5.70	4,235.10	5.70	4,235.10	6.10	4,532.30	5.70	4,235.10	6.27	4,658.61	275.00	550.00
2575.505	SODDING	S.Y.	18,537	2,647	21,184	0.62	13,334.08	0.60	12,710.40	0.57	12,074.88	0.58	12,286.72	0.60	12,710.40	0.66	13,981.44	70	14,828.80
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	1.1	0.2	1.3	204.00	265.20	200.00	260.00	200.00	260.00	215.00	279.50	200.00	260.00	220.00	286.00	176.00	228.80
2575.551	TOPSOIL BORROW	C.Y.	1,775	225	2,000	3.20	6,400.00	3.75	7,500.00	3.60	7,200.00	3.40	7,140.00	3.45	7,175.00	3.80	7,760.00	3.00	4,500.00
411.602	MORTAR RUBBLE MASONARY	C.Y.	16		16	63.50	1,016.00	70.00	1,120.00	95.00	1,520.00	90.00	1,440.00	135.00	2,160.00	100.00	1,600.00	100.00	1,600.00
557.604	INSTALL WOVEN WIRE FENCE	L.F.	103		103	1.30	133.90	1.25	128.75	1.25	128.75	1.34	138.02	1.25	128.75	1.38	142.14	1.65	169.95
557.604	INSTALL CHAIN LINK FENCE	L.F.	107		107	2.85	304.95	2.75	294.25	2.75	294.25	2.95	315.65	2.75	294.25	3.03	324.21	3.00	321.00
504.679	ADJUST VALVE BOX	BOX	4		4	45.00	180.00	50.00	200.00	75.00	300.00	50.00	200.00	50.00	200.00	60.00	240.00	40.00	160.00
504.666	INSTALL HYDRANT	EACH	1		1	102.00	102.00	250.00	250.00	210.00	210.00	255.00	255.00	250.00	250.00	250.00	250.00	250.00	250.00
TOTAL							361,084.03		361,904.00		369,024.47		370,024.49		370,464.00		374,148.66		

PLANS SYMBOLS	
STATE LINE	-----
COUNTY LINE	-----
TOWNSHIP OR RANGE LINE	-----
SECTION LINE	-----
QUARTER LINE	-----
SIXTEENTH LINE	-----
RIGHT OF WAY LINE	-----
PRESENT RIGHT OF WAY LINE	-----
CONTROL OF ACCESS LINE	-----
PROPERTY LINE (Except Land Lines)	-----
VACATED PLATTED PROPERTY	-----
CORPORATE OR CITY LIMITS	-----
TRUNK HIGHWAY CENTER LINE	-----
RETAINING WALL	-----
RAILROAD	-----
RAILROAD RIGHT OF WAY LINE	-----
RIVER OR CREEK	-----
DRY RUN	-----
DRAINAGE DITCH	-----
DRAIN TILE	-----
CULVERT	-----
DROP INLET	-----
GUARD RAIL	-----
BARBED WIRE FENCE	-----
WOVEN WIRE FENCE	-----
CHAIN LINK FENCE	-----
RAILROAD SHOW FENCE	-----
STONE WALL OR FENCE	-----
HEDGE	-----
RAILROAD CROSSING SIGN	-----
RAILROAD CROSSING BELL	-----
ELECTRIC WARNING SIGN	-----
CROSSING GATE	-----
MEANDER CORNER	-----
SPRINGS	-----
MARSH	-----
TIMBER	-----
ORCHARD	-----
BRUSH	-----
NURSERY	-----
CATCH BASIN	-----
FIRE HYDRANT	-----
CATTLE GUARD	-----
OVERPASS (Highway Over)	-----
UNDERPASS (Highway Under)	-----
BRIDGE	-----
BUILDING (One Story Frame)	-----
F FRAME	-----
S FRAME	-----
C CONCRETE	-----
T TILE	-----
B BRICK	-----
ST STUCCO	-----
IRON PIPE OR ROD	-----
MONUMENT (STONE, CONCRETE, OR METAL)	-----
WOODEN HUB	-----
GRAVEL PIT	-----
SAND PIT	-----
BORROW PIT	-----
ROCK QUARRY	-----

UTILITIES SYMBOLS	
POWER POLE LINE	-----
TELEPHONE OR TELEGRAPH POLE LINE	-----
JOINT TELEPHONE AND POWER ON POWER POLES	-----
ON TELEPHONE POLES	-----
ANCHOR	-----
STEEL TOWER	-----
STREET LIGHT	-----
PEDESTAL TELEPHONE CABLE TERMINAL	-----
GAS MAIN	-----
WATER MAIN	-----
CONDUIT	-----
TELEPHONE CABLE IN CONDUIT	-----
ELECTRIC CABLE IN CONDUIT	-----
TELEPHONE MANHOLE	-----
ELECTRIC MANHOLE	-----
BURIED TELEPHONE CABLE	-----
BURIED ELECTRIC CABLE	-----
AERIAL TELEPHONE CABLE	-----
SEWER, (SANITARY OR STORM)	-----
SEWER MANHOLE	-----



PIT DATA	
PIT NO.	Located in
PIT NO.	Located in

S.A.P. 62-623-09 COUNTY RD "C"	GROSS LENGTH 3797 FEET 0.7191 MILES
	BRIDGES LENGTH 0 FEET 0 MILES
	EXCEPTIONS LENGTH 0 FEET 0 MILES
	NET LENGTH 3797 FEET 0.7191 MILES
S.A.P. 62-621-01 LITTLE CANADA RD.	GROSS LENGTH 577 FEET 0.1093 MILES
	BRIDGES LENGTH 0 FEET 0 MILES
	EXCEPTIONS LENGTH 0 FEET 0 MILES
	NET LENGTH 577 FEET 0.1093 MILES

PLAN, 1 inch = 50 Feet
 PROFILE, Horiz. 1 inch = 50 Feet Vert. 1 inch = 5 Feet
 CROSS-SECTIONS, 1 inch = 10 Feet
 LAYOUT, 0.75 inch = 5280 Feet

DESIGN DESIGNATIONS

62-623-09 ADT. 1973 (STA. 0+26 TO 13+00)	= 625
62-621-01 ADT. 1973 (STA. 38+23 TO 44+00)	= 4475
ADT. 1985	= 8000
DHV	=
D (DIRECTIONAL DISTRIBUTION)	= 50-50
T (HEAVY COMMERCIAL)	= 300-600

DESIGN LOAD	= 9 TON
DESIGN SPEED	= 40 M.P.H.
EXCEPTION	= 30 M.P.H.
	BETWEEN STA. 22+00 AND STA. 25+00
	35 M.P.H.
	BETWEEN STA. 25+55 AND STA. 27+25

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY

CONSTRUCTION PLAN
FOR GRADING AND BITUMINOUS SURFACING

COUNTY ROAD "C" (C.S.A.H. 23)

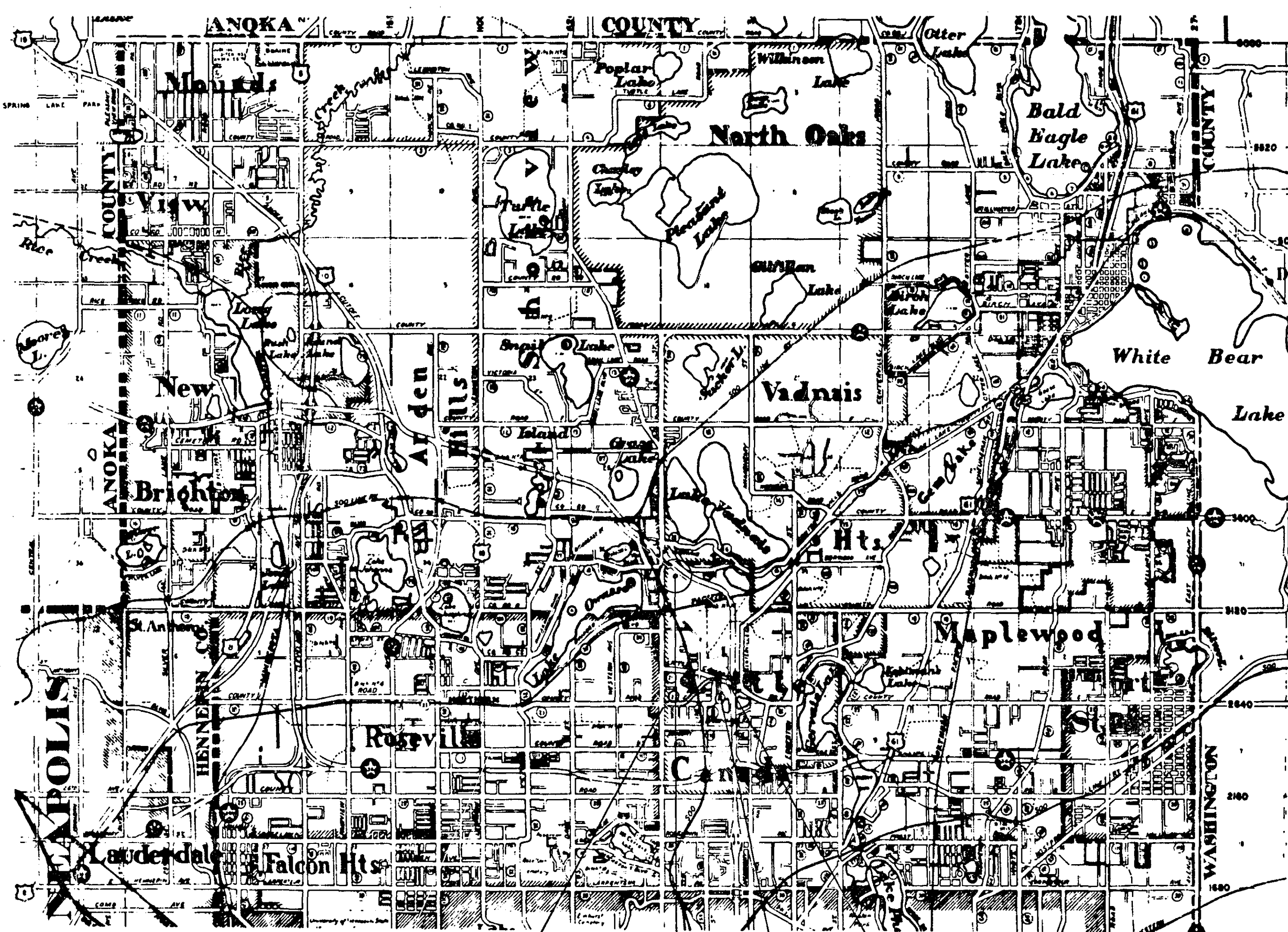
BETWEEN; RICE ST. (T.H. 49) AND: 341' EAST OF LAKE SHORE AVE.

FROM A POINT: 26' EAST AND 5' NORTH OF S.W. COR. SEC. 6, T.29N., R.22W. TO A POINT: 1084.11' NORTH AND 1043.82' EAST OF S 1/4 COR. SEC. 6, T.29N., R.22W.

LITTLE CANADA ROAD (C.S.A.H. 21)

BETWEEN; 341' EAST OF LAKE SHORE AVE. AND: WEST RAMPS OF I 35 E

FROM A POINT: 1084.11' NORTH AND 1043.82' EAST OF S 1/4 COR. SEC. 6, T.29N., R.22W. TO A POINT: 864.35' NORTH AND 1577.22' EAST OF S 1/4 COR. SEC. 6, T.29N., R.22W.



S.A.P. 62-623-09 BEGIN PROJECT
STA. 0+26

END PROJECT S.A.P. 62-621-01
STA. 44+00

END PROJECT S.A.P. 62-623-09
BEGIN PROJECT S.A.P. 62-621-01
STA. 38+23

STOCKPILE EXCESS MATERIAL
SEE SHEET NO. 10

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 7/30/73 REG. NO. 6334

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	TYPICAL SECTION AND ESTIMATED QUANTITIES
3	DRAINAGE CHART & DETAILS
4	DETAIL SHEETS
5-8	PLAN & PROFILE SHEETS
9-10	CONSTRUCTION PLANS
11-18	CROSS SECTION SHEETS
19-23	NON-PARTICIPATING SANITARY SEWER & WATER

RECOMMENDED FOR APPROVAL	DATE 8/10/73
RECOMMENDED FOR APPROVAL	DATE 8/10/73
RECOMMENDED FOR APPROVAL	DATE 8/10/73
RECOMMENDED FOR APPROVAL	DATE
RECOMMENDED FOR APPROVAL	DATE
APPROVED	DATE

RECOMMENDED FOR APPROVAL	DATE 8/13/73
APPROVED	DATE
APPROVED	DATE 3/1/74
APPROVED	DATE

MINNESOTA STATE HIGHWAY DEPARTMENT	
RECOMMENDED FOR APPROVAL	DATE 2-4-74
RECOMMENDED FOR APPROVAL	DATE 12-17-73
APPROVAL	DATE 2/4/74

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

MICROFILMED
RAMSEY CO. ENGR.

SET NO.
REV. MAY 1, 1974

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	S.A.P. 62-623-09	S.A.P. 62-621-01	TOTAL ESTIMATED QUANTITIES	NON-PARTICI- PATING ROADWAY ITEMS
2021.501	MOBILIZATION	LUMP SUM			1	
2101.502	CLEARING	TREE	75	4	79	
2101.507	GRUBBING	TREE	51	2	53	
2104.503	REMOVE CONCRETE SLAB	S.F.	528		528	
2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	S.Y.	35		35	
2104.523	SALVAGE HYDRANT	EACH	1		1	
2104.521	SALVAGE 44" SPAN R.C.P.	L.F.	8		8	
2104.521	SALVAGE FENCE, WOVEN WIRE	L.F.	107		107	
2104.521	SALVAGE FENCE, CHAIN LINK	L.F.	117		117	
2104.501	REMOVE FENCE	L.F.	554		554	
2105.501	COMMON EXCAVATION	C.Y.	52,080	3,364	55,444	
2105.543	STABILIZING AGGREGATE	TON	551	173	724	
2130.501	WATER	(M) GAL.	80	20	100	
2211.501	AGGREGATE BASE, CLASS 6	TON	142	76	1074	856
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	431	40	471	
2331.514	BASE COURSE MIXTURE	TON	9570	895	10,465	
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	196	43	266	27
2341.508	WEARING COURSE MIXTURE	TON	1,823	277	2,524	424
2341.510	BINDER COURSE MIXTURE	TON	1,739	247	1,986	
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	3,216	471	3,687	
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	7,306	1,096	8,402	
2501.511	15" C.S. PIPE CULVERT, 16 GAUGE	L.F.	20		20	
2501.515	15" R.C.P. APRONS	EACH	1		1	
2502.541	6" PERFORATED C.M. PIPE DRAIN, CLASS 4	L.F.	350		350	
2502.551	C.M. INSPECTION TEES	L.F.	1		1	
2502.573	INSTALL INSPECTION BOX	EACH	1		1	
2503.511	10" C.S. SEWER PIPE, 16 GAUGE	L.F.	70		70	
2503.511	15" R.C. SEWER PIPE, CLASS IV	L.F.	569		569	
2503.511	18" R.C. SEWER PIPE, CLASS II	L.F.	1,625		1,625	
2503.511	24" R.C. SEWER PIPE, CLASS II	L.F.	994		994	
2503.521	28" SPAN R.C. SEWER PIPE ARCH, CLASS II	L.F.	54		54	
503.648	CLEAN EXISTING SEWER, 44" SPAN	L.F.	200		200	
2506.508	CONSTRUCT MANHOLES, DESIGN A or F	EACH	3		3	
2506.509	CONSTRUCT CATCH BASINS, DESIGN LP-4	EACH	15		15	
2506.509	CONSTRUCT CATCH BASINS, DESIGN LP-4M	EACH	4		4	
2506.509	CONSTRUCT CATCH BASINS, DESIGN I B	EACH	1		1	
2506.511	RECONSTRUCT MANHOLES	L.F.	35.6	13.6	49.2	
2506.521	INSTALL CASTINGS	EACH	6	1	7	
2506.522	ADJUST FRAME AND RING CASTING	EACH	1	2	3	
2535.501	BITUMINOUS CURB	L.F.	15	87	102	
2511.502	HAND-PLACED RIPRAP, CLASS A	C.Y.	4		4	
2521.501	4" CONCRETE WALK	S.F.	2,218		2,218	
2531.501	CONCRETE CURB AND GUTTER DESIGN B618	L.F.	7,054	1,209	8,263	
2531.501	CONCRETE CURB AND GUTTER DESIGN V1036	L.F.	200		200	
2531.503	CONCRETE MEDIAN	S.Y.	55		55	
2557.517	VEHICULAR GATES, WOVEN WIRE DOUBLE GATE	EACH	2		2	
2557.501	WIRE FENCE, DESIGN 606-9322	L.F.	743		743	
2575.505	SODDING	S.Y.	18,537	2,647	21,184	
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	1.1	0.2	1.3	
2575.551	TOPSOIL BORROW	C.Y.	1275	225	1,500	
411.602	MORTAR RUBBLE MASONRY	C.Y.	16		16	
557.604	INSTALL WOVEN WIRE FENCE	L.F.	103		103	
557.604	INSTALL CHAIN LINK FENCE	L.F.	107		107	
504.679	ADJUST VALVE BOX	BOX	4	4	8	
504.666	INSTALL HYDRANT	EACH	1		1	

VILLAGE OF LITTLE CANADA NON-PARTICIPATING SANITARY SEWER & WATER MAIN

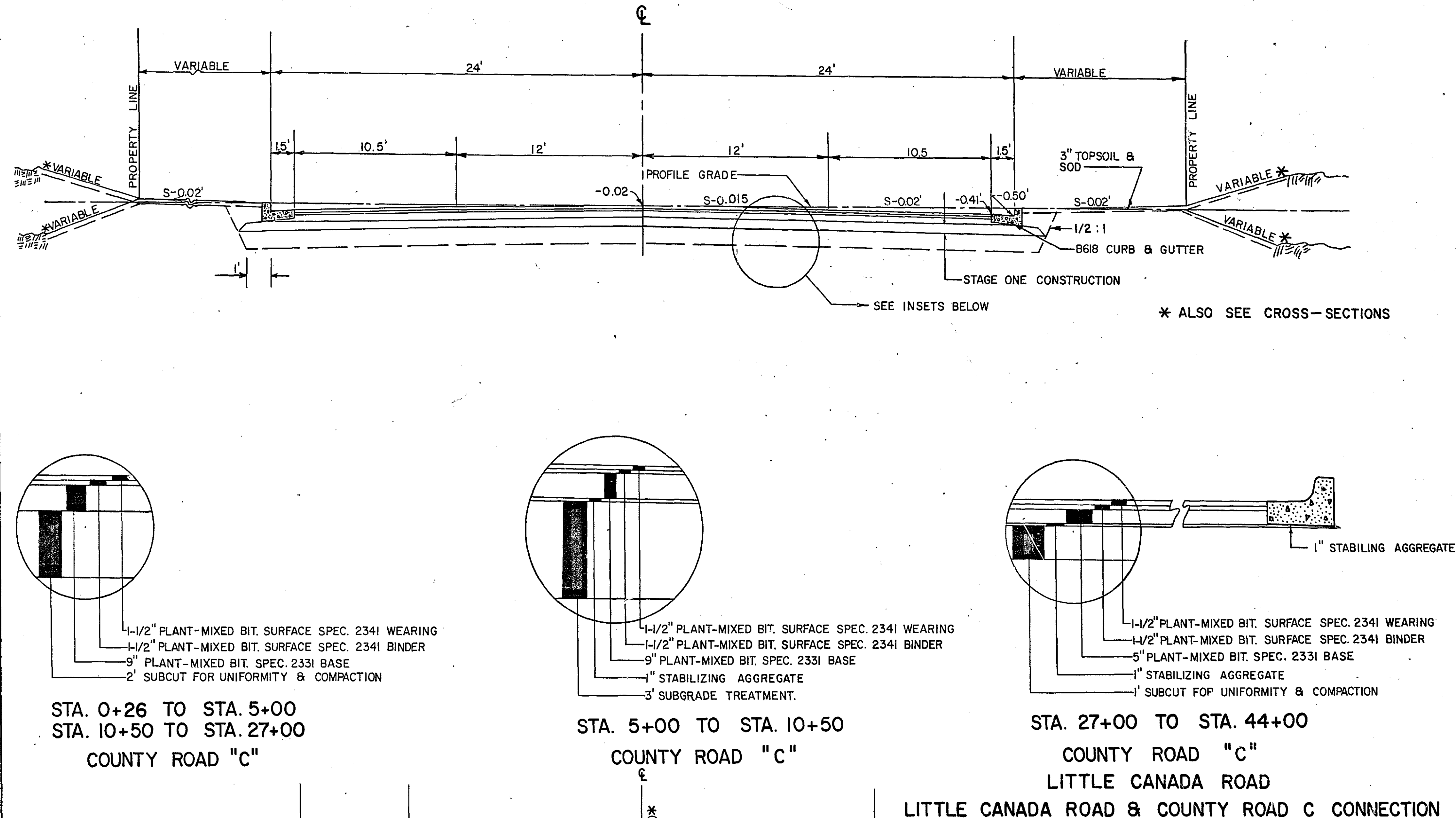
6" V.C.P. EXTRA STRENGTH SERVICE	L.F.	500	500
8" V.C.P. EXTRA STRENGTH	L.F.	885	885
9" V.C.P. EXTRA STRENGTH	L.F.	43	43
8" x 6" V.C.P. EXTRA STRENGTH TEES	EACH	12	12
STANDARD MANHOLE	L.F.	45	45
MANHOLE FRAME & COVER	EACH	5	5
TRENCHING 0-8 FT.	L.F.	210	210
TRENCHING 8-10 FT.	L.F.	480	480
TRENCHING 10-12 FT.	L.F.	238	238
6" D.I.P. WATERMAIN, HYD. CONNECTIONS & STUBS	L.F.	560	560
8" D.I.P. WATERMAIN	L.F.	3500	3500
12" D.I.P. WATERMAIN	L.F.	76	76
C.I.P. FITTINGS	LBS.	3840	3840
8" GATE VALVE & BOX	EACH	9	9
6" GATE VALVE & BOX	EACH	5	5
HYDRANTS	EACH	10	10
1" COPPER HOUSE CONNECTIONS	L.F.	2400	2400
1" CORPORATION COCKS	EACH	60	60
1" CURB STOP & BOX	EACH	60	60
ROCK, TRENCH STABILIZATION	TONS	500	500

STANDARD DETAIL PLATES

7065C	BITUMINOUS CURB
4000G	MANHOLE OR CATCH BASIN
40051	MANHOLE OR CATCH BASIN
4010D	CONCRETE SHORT CONE & ADJUSTING RING
4011C	PRECAST CONCRETE BASE
4016C	CURB OPENING CATCH BASIN
4011B	RING CASTING FOR MANHOLE OR CATCH BASIN
4110D	COVER CASTING FOR MANHOLE
4180F	MANHOLE STEP CASTING
7100D	CONCRETE CURB GUTTERS
7105C	CONCRETE MEDIAN
8000D	STANDARD BARRICADES
8008D	CONTRACTORS' SIGN
9320E	WOVEN WIRE FENCE (WOOD POST)
9322E	CHAIN LINK FENCE
3040C	CORRUGATED METAL PIPE
0002A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000F	REINFORCED CONCRETE PIPE
3014F	REINFORCED CONCRETE PIPE ARC DETAIL
3100F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3143B	INSPECTION TEES

TYPICAL SECTIONS

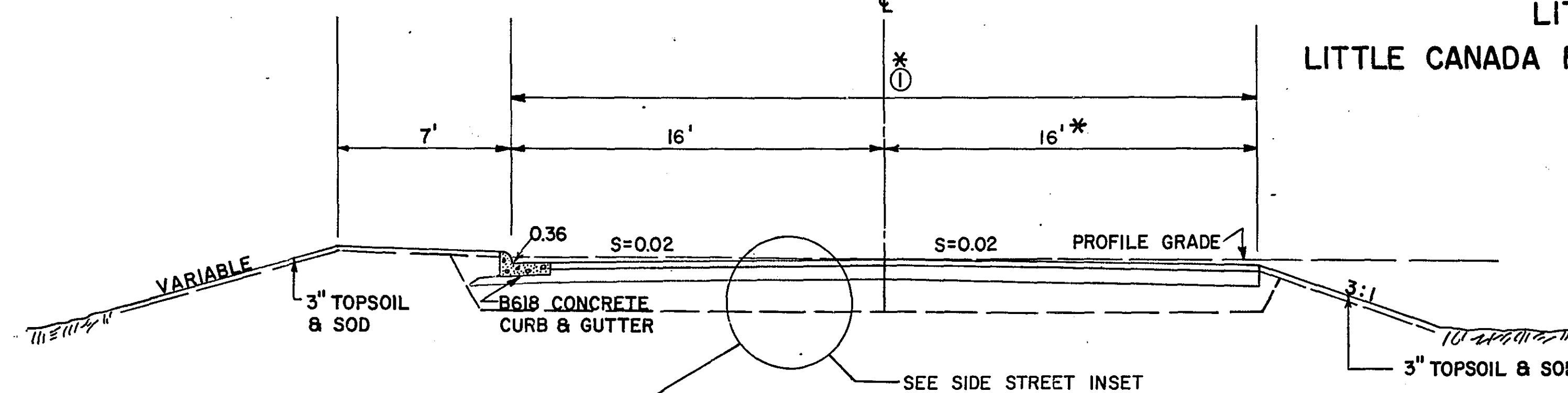
COUNTY ROAD "C"



STA. 0+26 TO STA. 5+00
STA. 10+50 TO STA. 27+00
COUNTY ROAD "C"

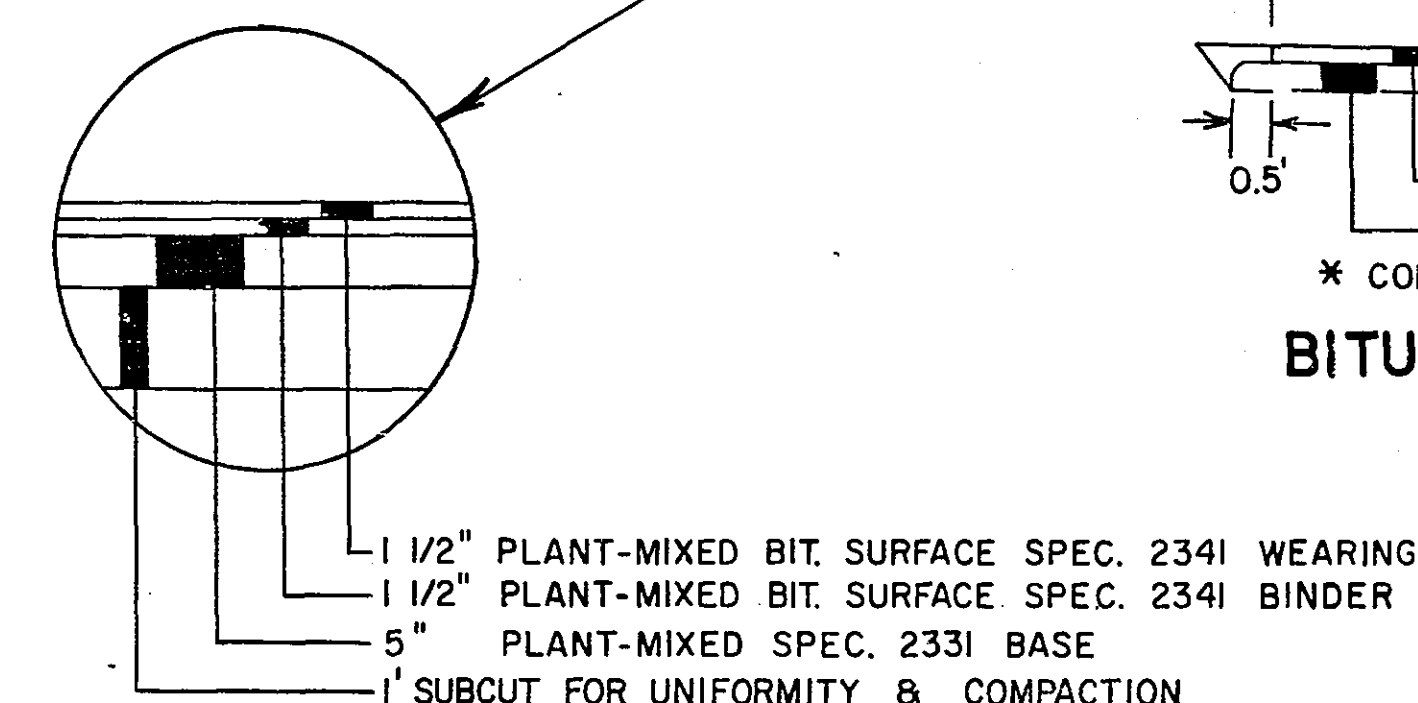
STA. 5+00 TO STA. 10+50
COUNTY ROAD "C"

STA. 27+00 TO STA. 44+00
COUNTY ROAD "C"
LITTLE CANADA ROAD
LITTLE CANADA ROAD & COUNTY ROAD C CONNECTION

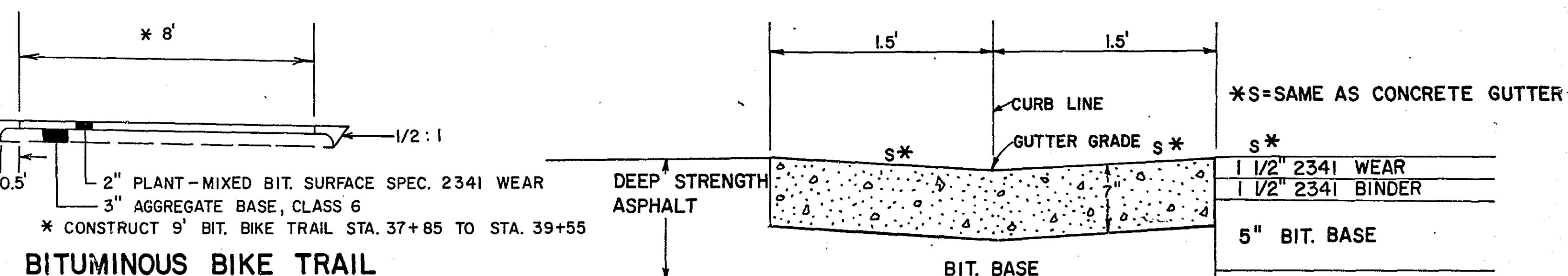


STA. 15+50 RT.
OLD COUNTY RD. "C"

* TAPER TO MEET EXISTING ROADWAY



SIDE STREETS
PARK STREET
SPRUCE STREET
CO. RD. C (OLD)
LAKE SHORE AVE.
COUNTRY DRIVE



OLD CO. RD. C AT SYLVAN ST.
RT. STA. 15+50

CONC. GUTTER
SHALL BE PAID UNDER ITEM NO. 2531.501,
CONC. CURB & GUTTER, DESIGN B618

NOTE: DRAIN GUTTER
AS SHOWN ON
SHEET NO. 4

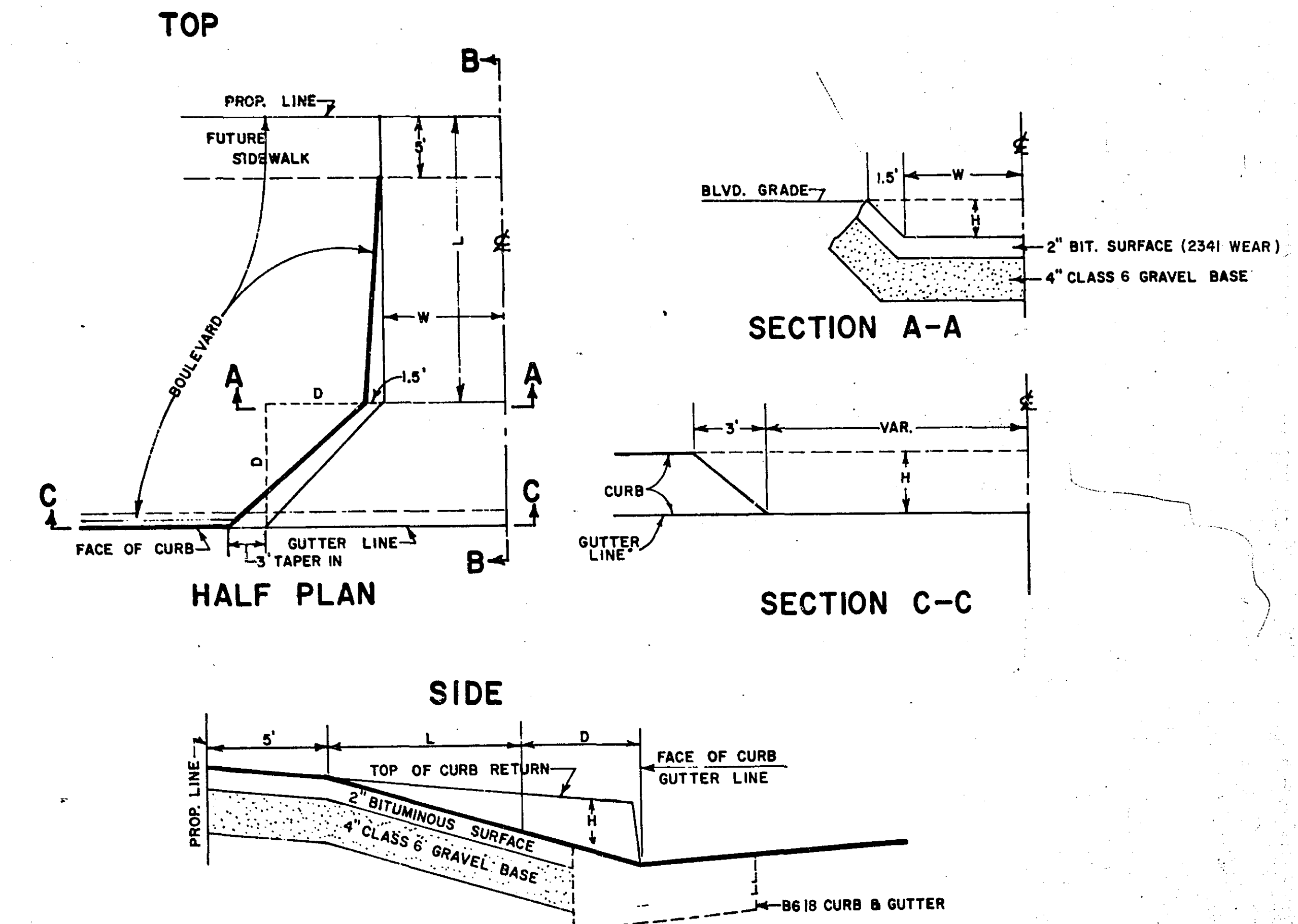
I hereby certify that this plan, specification, or
report was prepared by me or under my direct
supervision and that I am a duly Registered
Professional Engineer under the laws of the
State of Minnesota.
[Signature]
Date 7/30/13 Reg. No. 6530

DRAINAGE

CHART

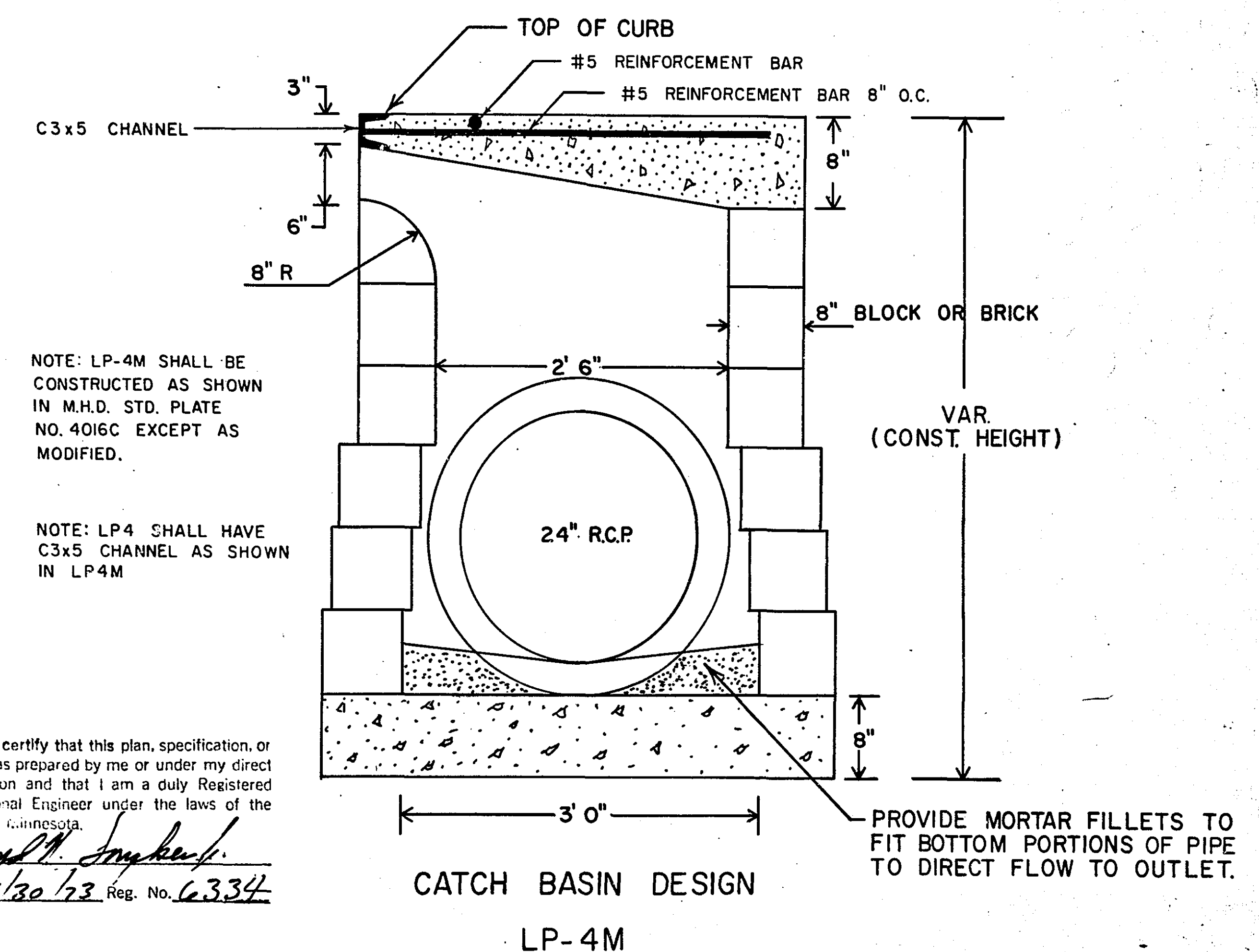
STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	CASTING ASSEMBLY	ELEVATION			ADJUST CASTING ASSEMBLY	RECONSTRUCT C.B. OR M.H. LIN. FT.	INSTALL CASTING ASSEMBLY	INSTALL CONCRETE PIPE SEWER LINEAR FEET					MOVING M.H. OR C.B. LIN. FT.	REMOVE PIPE SEWER LIN. FT.	APRON	CLASS	DRAINS TO		REMARK
							PROFILE	ORIGINAL GRATE OR RING	NEW GRATE OR RING				10" C.S.	15"	18"	24"	28" SPAN					STRUCTURE NO.	INV. EL.	
0+15	LT 30'	1	M.H.																					
1+51	LT 17'	2	M.H.				955.17	955.6	954.87															
4+50	LT 17'	3	M.H.				949.33	949.9	949.03		7.3	I												
7+76	LT 17'	4	M.H.				944.44	944.54	944.14		7.1	I												
9+39	LT 23'	5	C.B.				941.67				7.6	I												
9+56	LT 26'	6	C.B.	LP-4 M	4.65	B	941.53		941.53	937.55														REMOVE
9+61	RT 26'	7	C.B.	LP-4	4.00	B	941.53		941.53	938.20														
10+98	LT 17'	8	M.H.				942.90	943.02	942.60	-0.42														
12+85	LT 27'	9	M.H.	A OR F	7.56	A	943.82		943.88	936.40														
14+33	RT 16'	10	M.H.				942.90	944.5	942.62		6.1	I												
14+40	LT 30'	9	M.H.	A OR F	7.40	A	942.86		942.94	935.62														
16+00	RT 26'	11	C.B.	LP-4	6.07	B	940.73		940.73	935.33														
16+00	LT 26'	12	C.B.	LP-4 M	6.58	B	940.73		940.73	934.82														
18+75	RT 26'	13	C.B.	LP-4	5.07	B	931.15		931.15	926.75														
18+75	LT 26'	14	C.B.	LP-4	5.57	B	931.15		931.15	926.25														
23+00	RT 26'	15	C.B.	LP-4	5.34	B	910.17		910.17	905.50														
23+00	LT 26'	16	C.B.	LP-4 M	5.84	B	910.17		910.17	905.00														
24+21	RT 35'	17	C.B.	I B	3.4	C	907.15		907.31	904.21														
24+51	RT 27.5'	18	C.B.	LP-4	3.77	B	907.14		907.14	904.04														
24+62	LT 27.5'	19	C.B.	LP-4 M	3.84	B	907.04		907.04	903.87														
26+50	RT 26'	20	C.B.	LP-4	3.79	B	908.62		908.62	905.5														
26+50	LT 26.75'	21	C.B.	LP-4	4.29	B	908.62		908.62	905.0														
30+40	RT 26'	22	C.B.	LP-4	6.70	B	918.73		918.73	912.70														
30+40	LT 26'	23	C.B.	LP-4	7.20	B	918.73		918.73	912.20														
34+15	RT 26'	24	C.B.	LP-4	5.68	B	919.66		919.66	914.65														
34+00	LT 26'	25	C.B.	LP-4	6.21	B	919.63		919.63	914.09														
34+95	LT 80'	26	M.H.				919.68	920.92	920.01		7.5	I												
35+75	RT 26'	27	C.B.	LP-4	4.10	B	918.93		918.93	915.50														
35+75	LT 30'	28	C.B.	LP-4	4.60	B	918.93		918.93	915.00														
37+44	RT 16'	29	M.H.				919.24	920.41	918.96		7.0	I												
39+93	RT 20'	30	M.H.				920.09	921.09	919.73		6.6	I												
42+70	LT 14'	31	M.H.				920.46	920.49																
43+29	RT 20'	32	M.H.				920.34	920.07	919.98	-0.1														
40+96	RT 20'	33	M.H.				920.78	921.17	920.42	-0.75														
16+00*	RT 50'	IIA	S.D.	A o F	3.7	D			939.5*	935.8														
15+37*	RT 52'	IIB	C.B.	LP4	6.4	B	941.99		942.13	936.4														
TOTALS											3	492	7	70	569	1625	994	54						

BITUMINOUS ENTRANCE DETAILS



SECTION B-B

NOTE: D=RESIDENTIAL 5', COMMERCIAL IS MIN. 5' MAX. 15' ALL TO BE VERIFIED BY THE ENG.
W=RESIDENTIAL IS 6' MIN. 11' MAX. COMMERCIAL IS 16' FOR 90°, 13' FOR 60° THE EXACT LOCATION AND WIDTH OF ENTRANCES SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.



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.
Date 7/30/73 Reg. No. 6334

CASTINGS: A= RING CASTING M.H.D. NO. 700-7, COVER CASTING NO. 712 (INCLUDE WITH STRUCTURE, NOT SEPARATE PAY ITEM)
B= RING CASTING M.H.D. NO. 790-2, COVER CASTING NO. 712 (INCLUDE WITH STRUCTURE, NOT SEPARATE PAY ITEM)
C= RING CASTING M.H.D. NO. 790-3, COVER CASTING NO. 712 (INCLUDE WITH STRUCTURE, NOT SEPARATE PAY ITEM)
D= RING CASTING M.H.D. NO. 700-7, COVER CASTING NO. 720 (INCLUDE WITH STRUCTURE, NOT SEPARATE PAY ITEM)

MANHOLES & CATCH BASINS: L.P. 4 M.H.D. STD. PLATE NO. 4016C
L.P. 4M M.H.D. STD. PLATE NO. 4016C EXCEPT AS MODIFIED ON SHEET NO. 3
I B DETAIL ON SHEET NO. 5
A or F M.H.D. STD. PLATE NO. 4000G or 4005 I

S.A.P. No. 62-623-09

MICROFILMED
RAMSEY CO. ENGR. Sheet No. 3 of 23 Sheets

20-104

SCALE 1" = 10'

REMOVE 8 L.F. 44" SPAN R.C.P.

CONSTRUCT A 2' 9" DROP IN PIPE TO GET UNDER CONCRETE WALK (PAYMENT SHALL BE INCIDENTAL TO ITEM NO. 2503.511 10" C.S. PIPE SEWER 16 GAGE)

MAKE SUITABLE CONNECTION AS DIRECTED BY ENGINEER

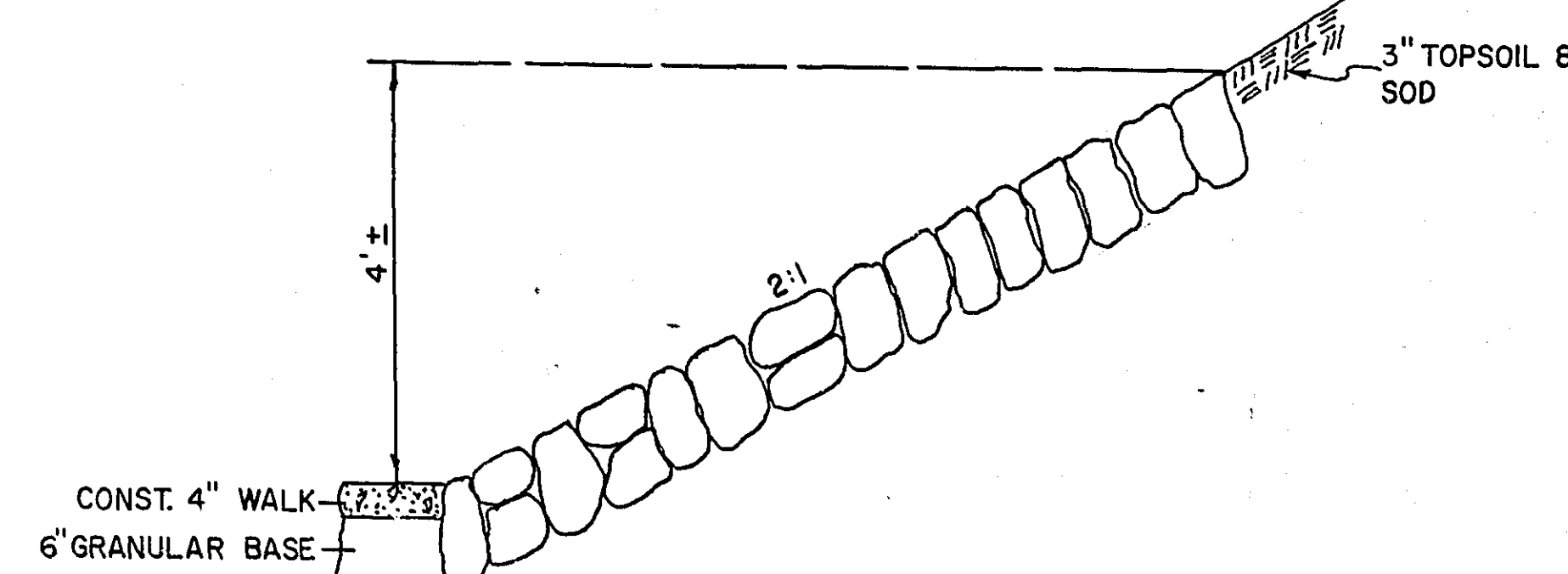
INV. 907.0 ± INP 10" C.S. PERFORATED PIPE DRAIN

USE INSPECTION TEE TO FORM ANGLE IN PIPE STD. PLATE 3143 B

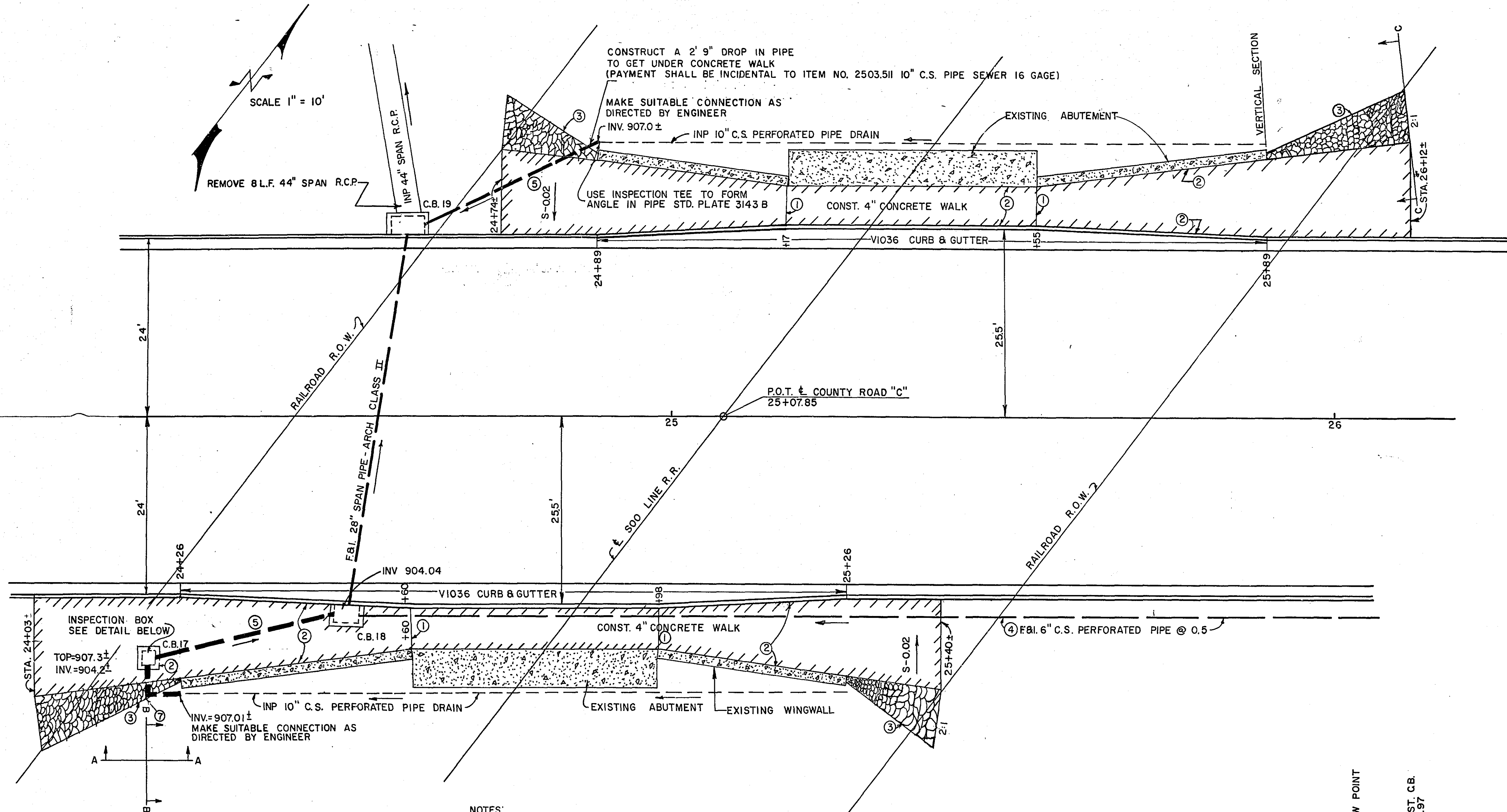
CONST. 4" CONCRETE WALK

EXISTING ABUTMENT

VERTICAL SECTION

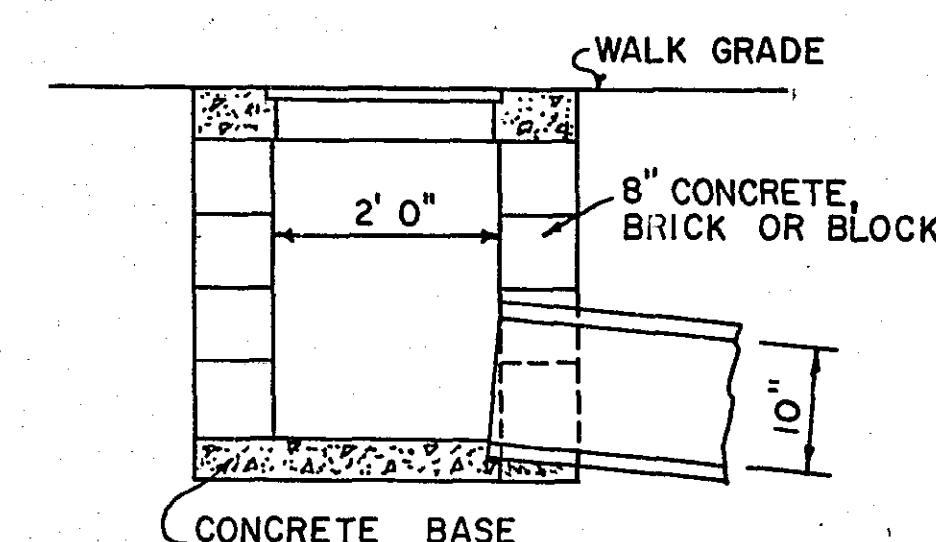
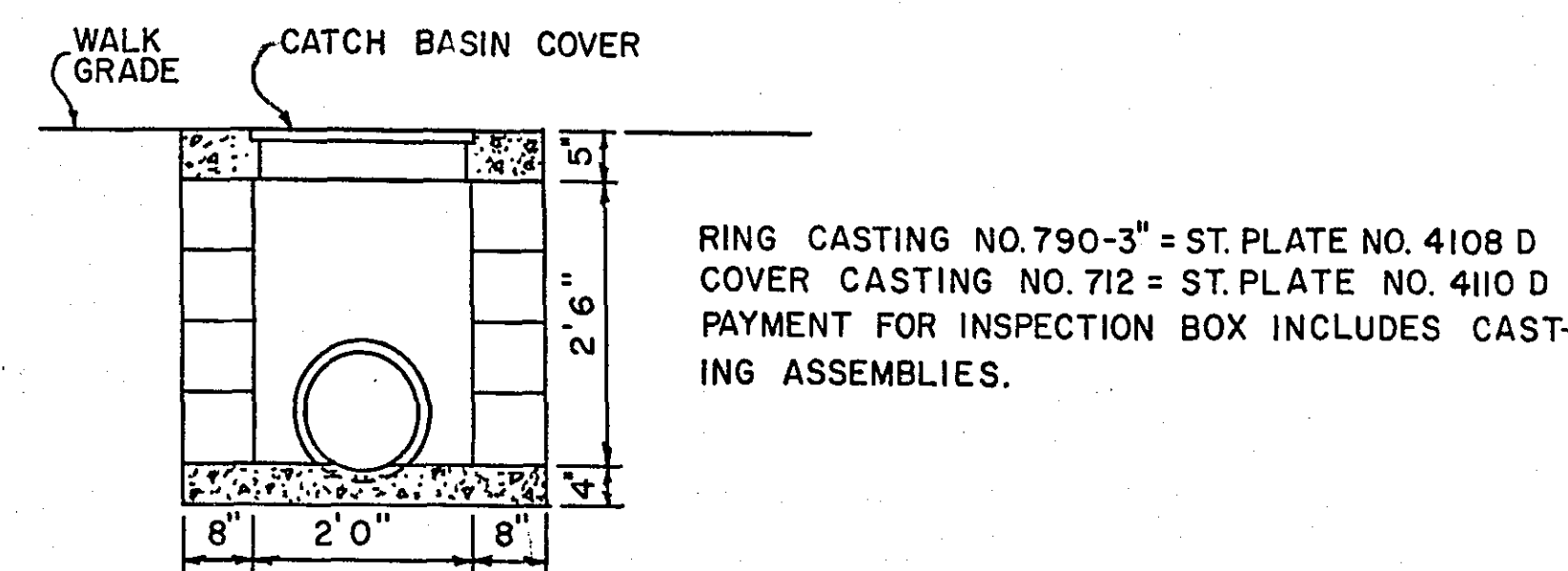


SECTION C-C
STA. 26+23 RT.

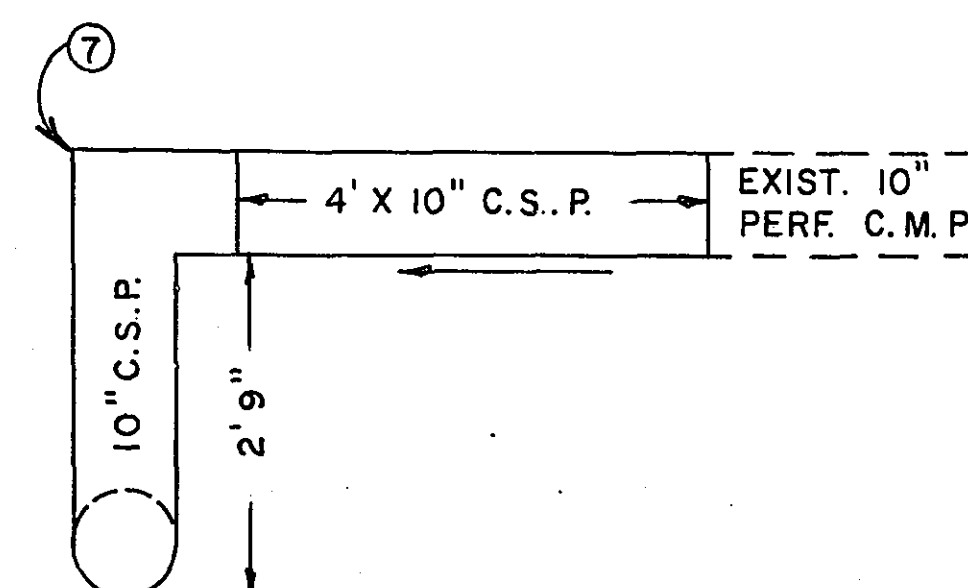


NOTES:

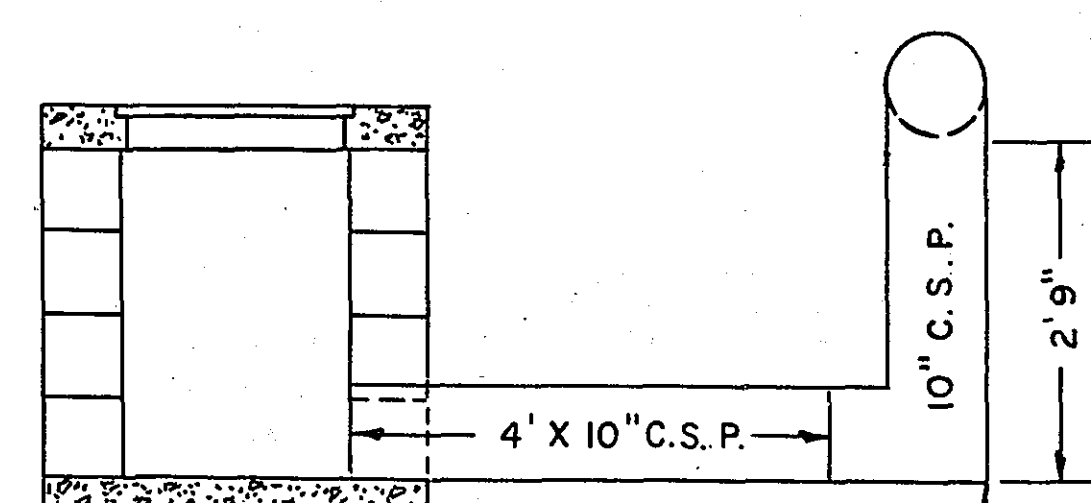
- ① 1/2" EXPANSION JOINTS
- ② CONST. 4" CONCRETE SIDEWALK WITH 6" GRANULAR BASE
- ③ 1/2" PREFORMED JOINT FILLER MATERIAL
- ④ CONSTRUCT 12" THICK MASONRY WALL & SLOPE PROTECTION AT END OF 4 WING WALLS
- ⑤ THE EXACT LOCATION AND ELEVATION OF ALL PERFORATED PIPE SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER
- ⑥ FURNISH AND INSTALL 10" C.S. PIPE SEWER
- ⑦ SLOPE ON R.R. PROPERTY SHALL BE TOPSOILED AND SODDED AS DIRECTED BY THE ENGINEER.
- ⑧ CONSTRUCT 90° BEND (PAYMENT SHALL BE INCIDENTAL TO ITEM NO. 2503.511 10" C.S. PIPE SEWER 16 GAGE)



INSPECTION BOX DETAILS
(DESIGN I.B.)



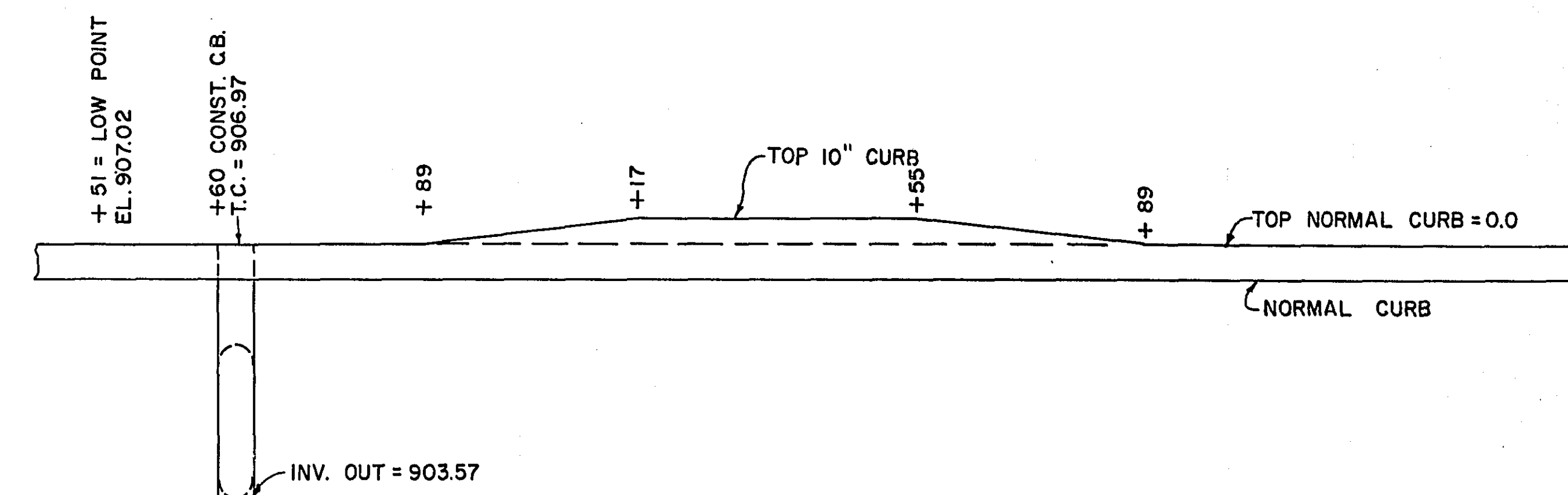
SECTION A-A



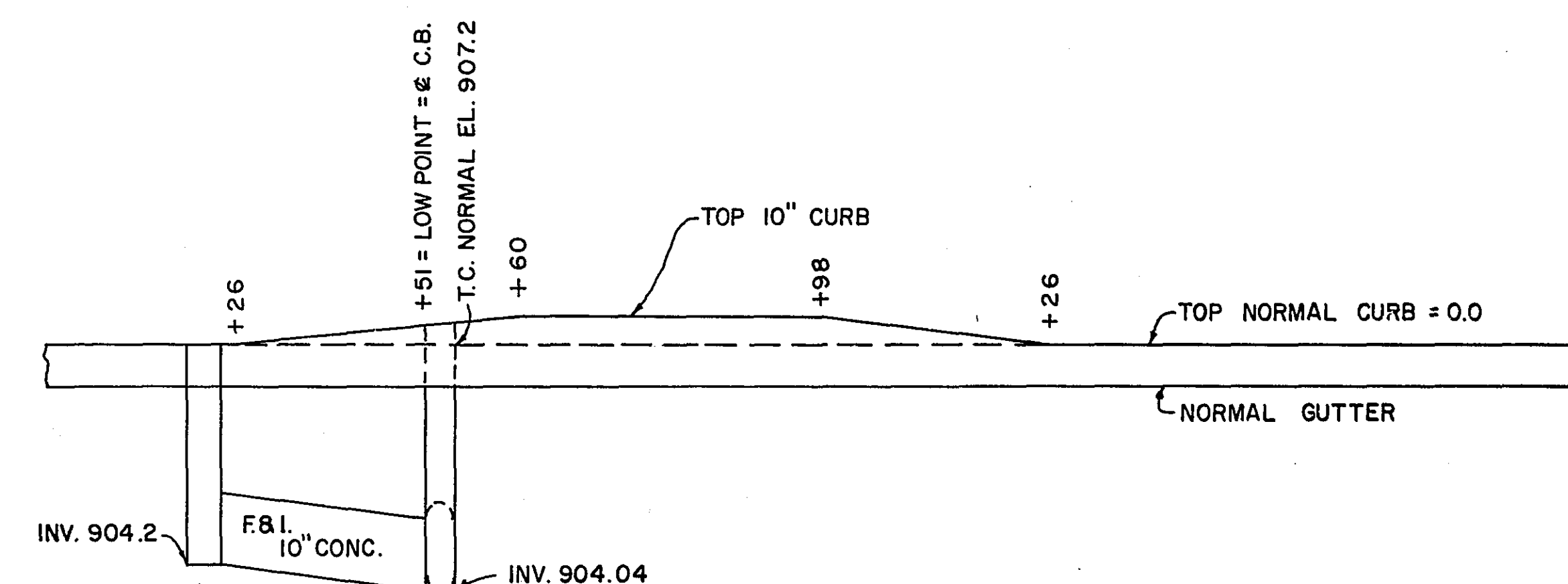
SECTION B-B

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 Tennessee.

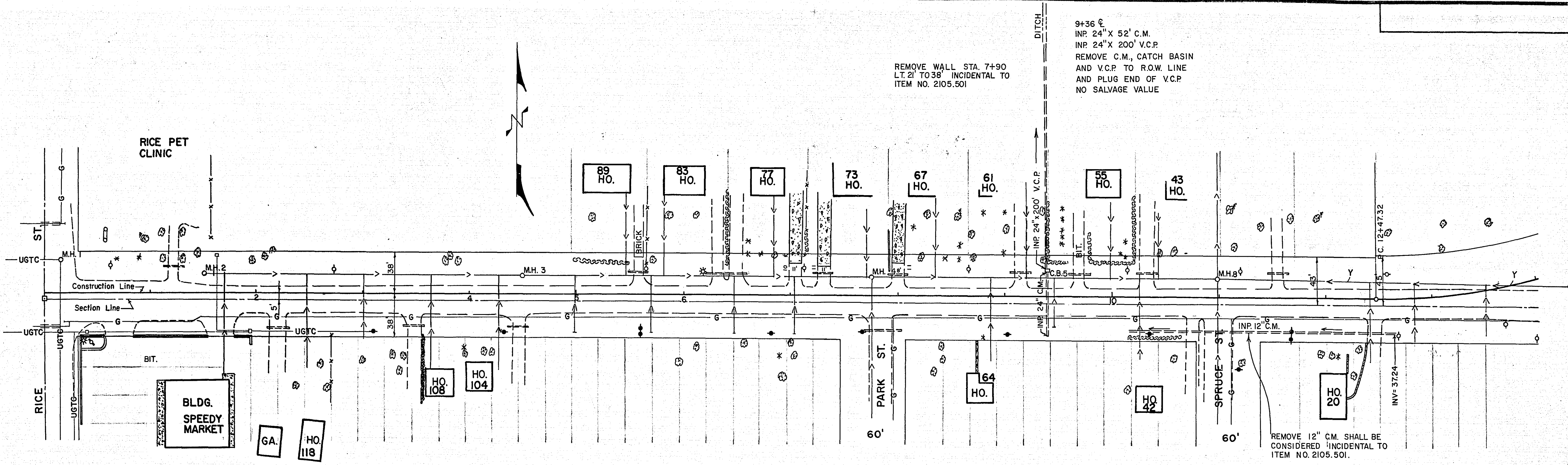
Sheldon H. Smyke
Date 7/30/73 Reg. No. 6334



LT. CURB AND CATCH BASIN



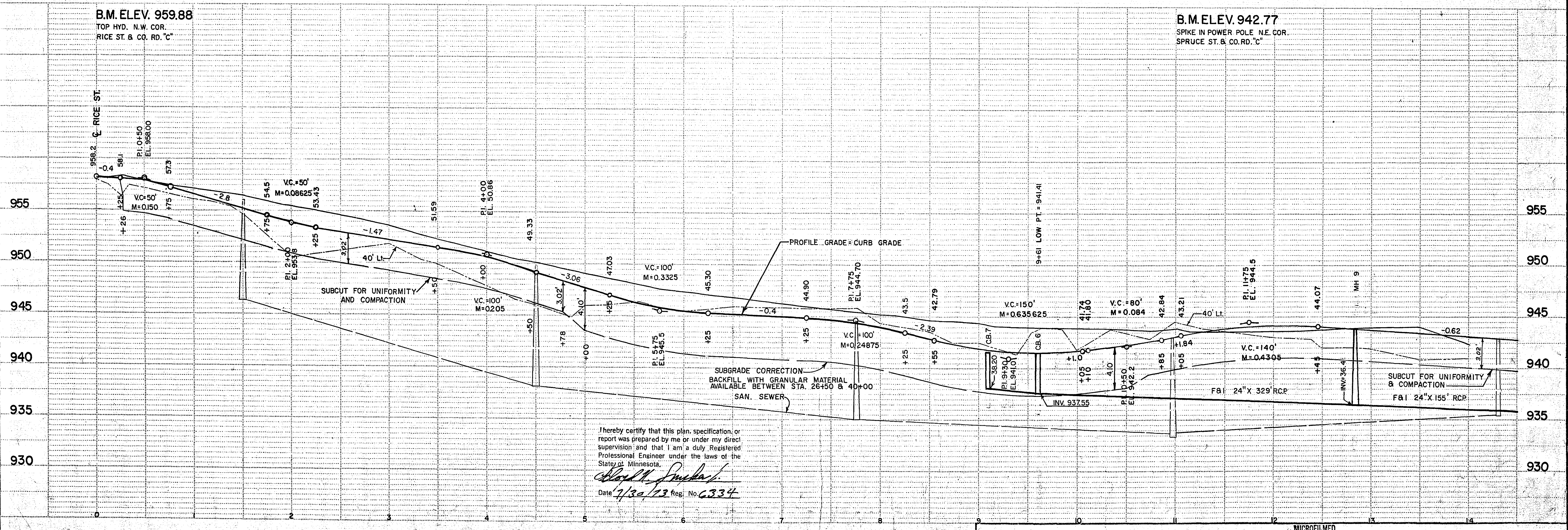
RT. CURB AND CATCH BASIN



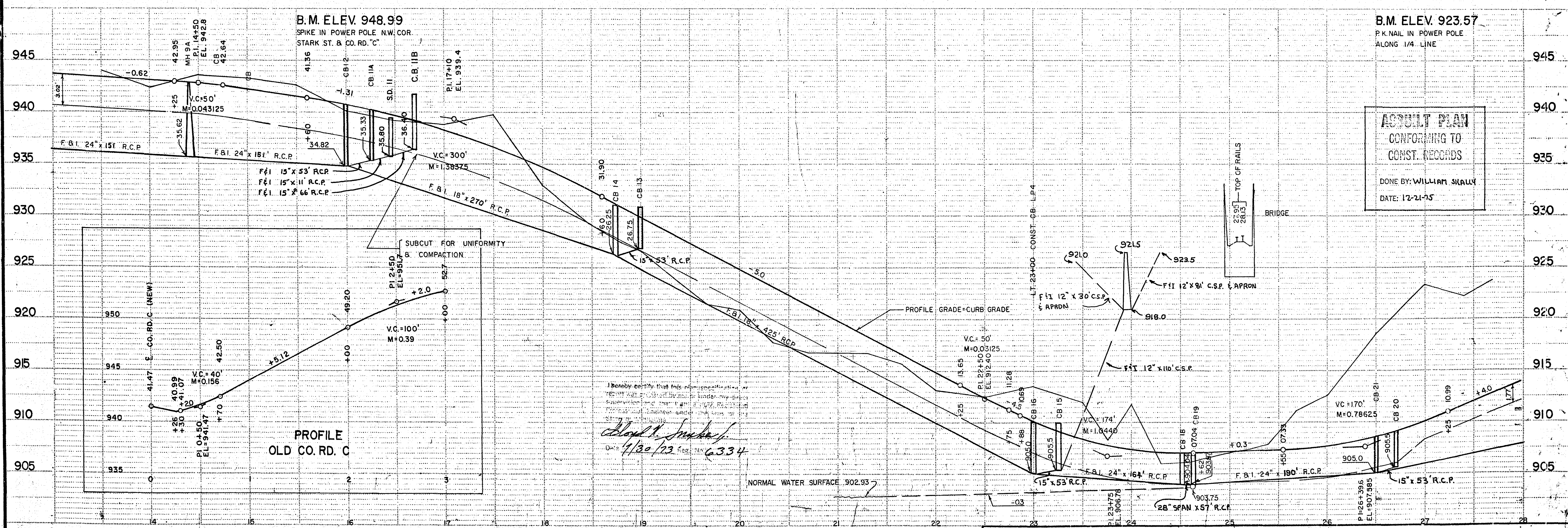
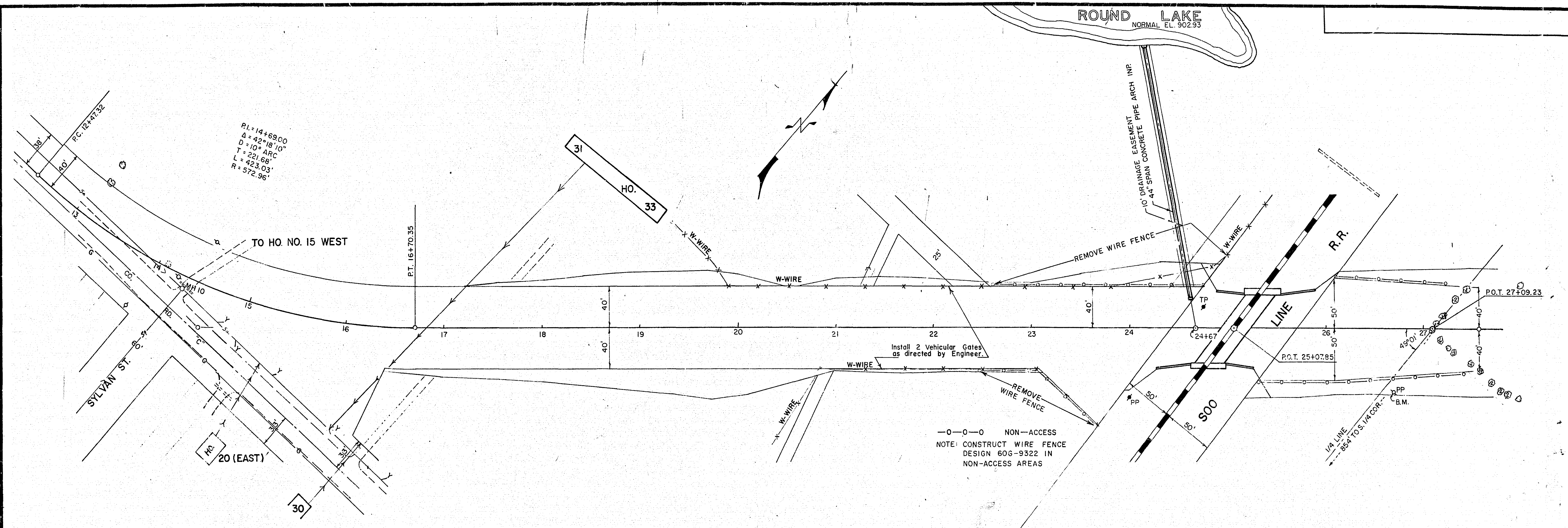
REMOVE WALL STA. 7+90
LT. 21' TO 38' INCIDENTAL TO
ITEM NO. 2105.501

9+36 C.
INP. 24" X 52' C.M.
INP. 24" X 200' V.C.P.
REMOVE C.M., CATCH BASIN
AND V.C.P. TO R.O.W. LINE
AND PLUG END OF V.C.P.
NO SALVAGE VALUE

REMOVE 12" C.M. SHALL BE
CONSIDERED INCIDENTAL TO
ITEM NO. 2105.501.



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.
Wayne M. Smith
Date 7/30/23 Reg. No. 6334



ACTUAL PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: WILLIAM SKALLY
 DATE: 12-21-05

OF PIPE AS DIRECTED BY
THE ENGINEER.

—O—O—O NON-ACCESS
NOTE: CONSTRUCT WIRE FENCE DESIGN
60G-9322 IN NON ACCESS AREAS

INSTALL 2 VEHICULAR GATES AS
DIRECTED BY THE ENGINEER

F. & I. 6" C.S. PERFORATED PIPE

- ④ THE EXACT LOCATION AND ELEVATION
OF ALL PERFORATED PIPE SHALL BE
DETERMINED IN THE FIELD BY THE
ENGINEER.
- ⑧ EXISTING BIT SURFACE SHALL BE SAW
CUT PRIOR TO BIT PAVEMENT REMOVAL
AS DIRECTED BY ENGINEER.
(INCIDENTAL TO PAY ITEM NO.2105.501)

NOTE: PIPE CROSSING UNDER RAILROAD
SHALL BE DONE ACCORDING TO
SOO LINE RAILROAD SPECIFICATIONS

INPLACE

EXISTING BRIDGE
SOO LINE RAILROAD

POT
STA 27+0983

CONST. BERM

CONSTRUCTION PLAN

B.M. ELEV. 923.57

P.K. NAIL IN POWER POLE
ALONG 1/4 LINE

945

940

935

930

925

920

915

910

905

LT-23+00 CONST. CB L.P.4

PROFILE GRADE=CURB GRADE

VC=50'
M=0.03123

PI=23+50

EL=912.40

11.28

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13.65

7.75

10.89

11.28

13.65

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10.89

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10.89

11.28

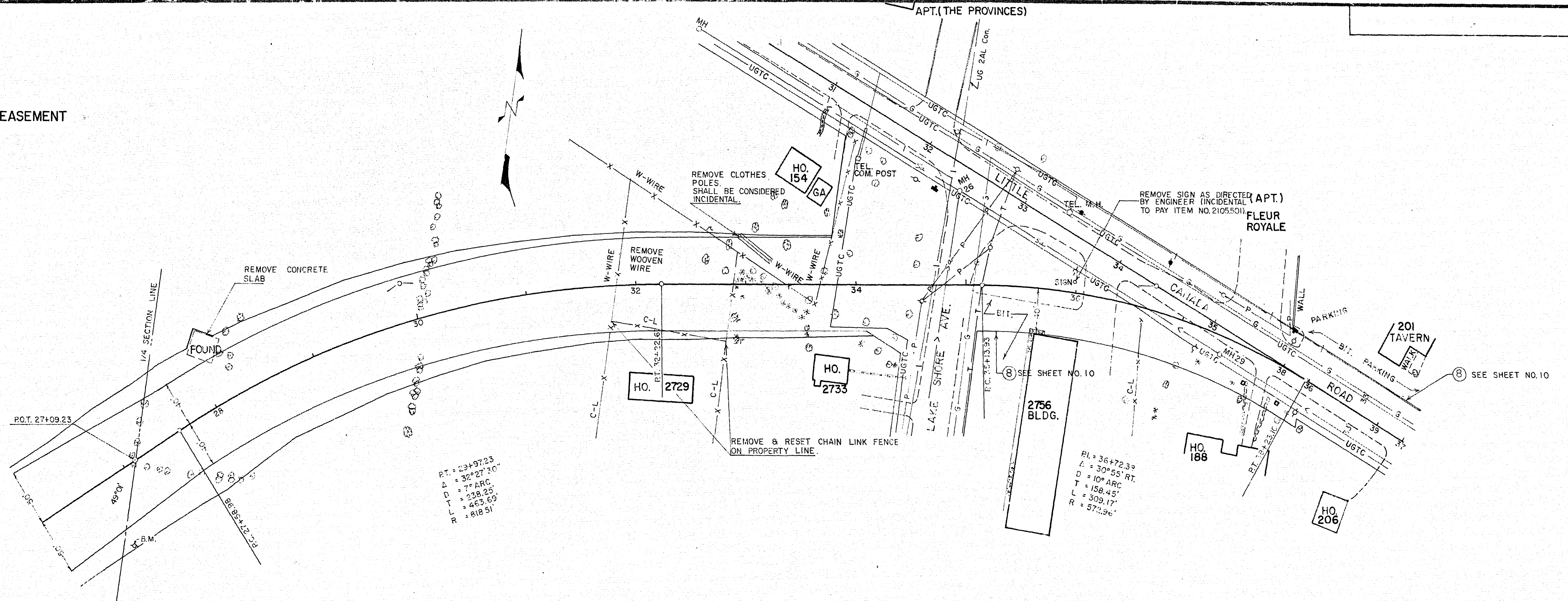
13.65

7.75

10.89

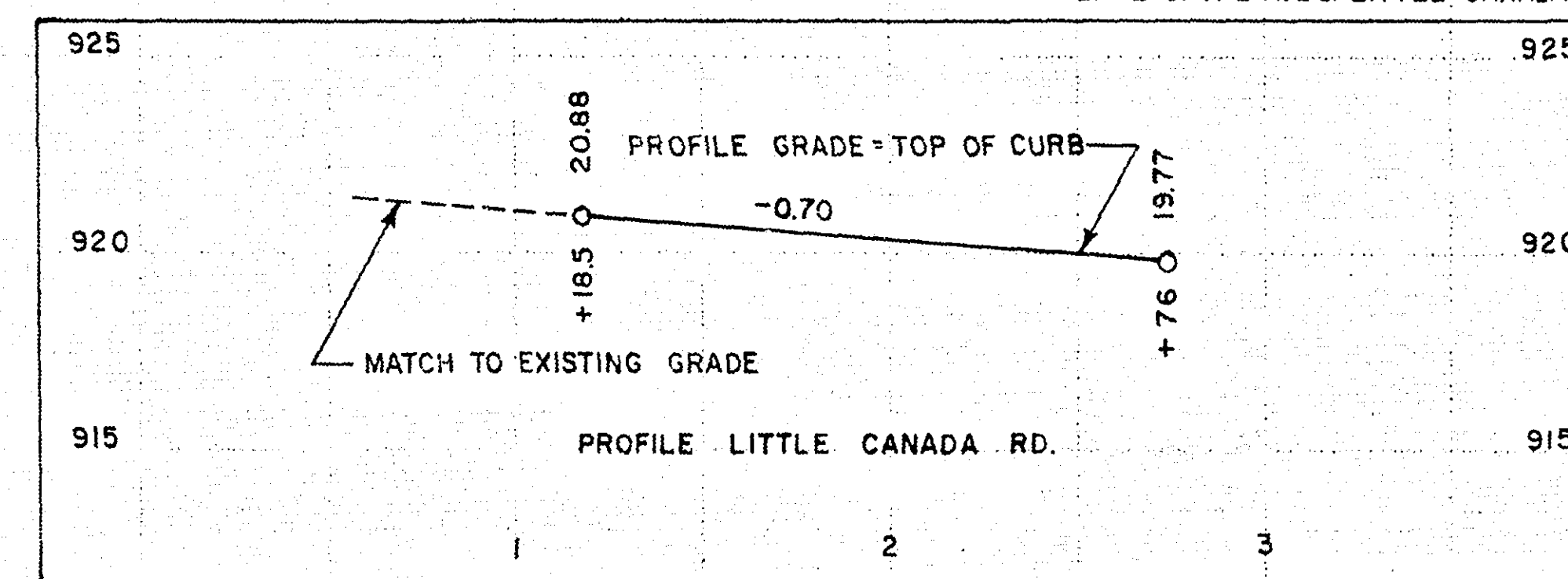
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 = SLOPE EASEMENT

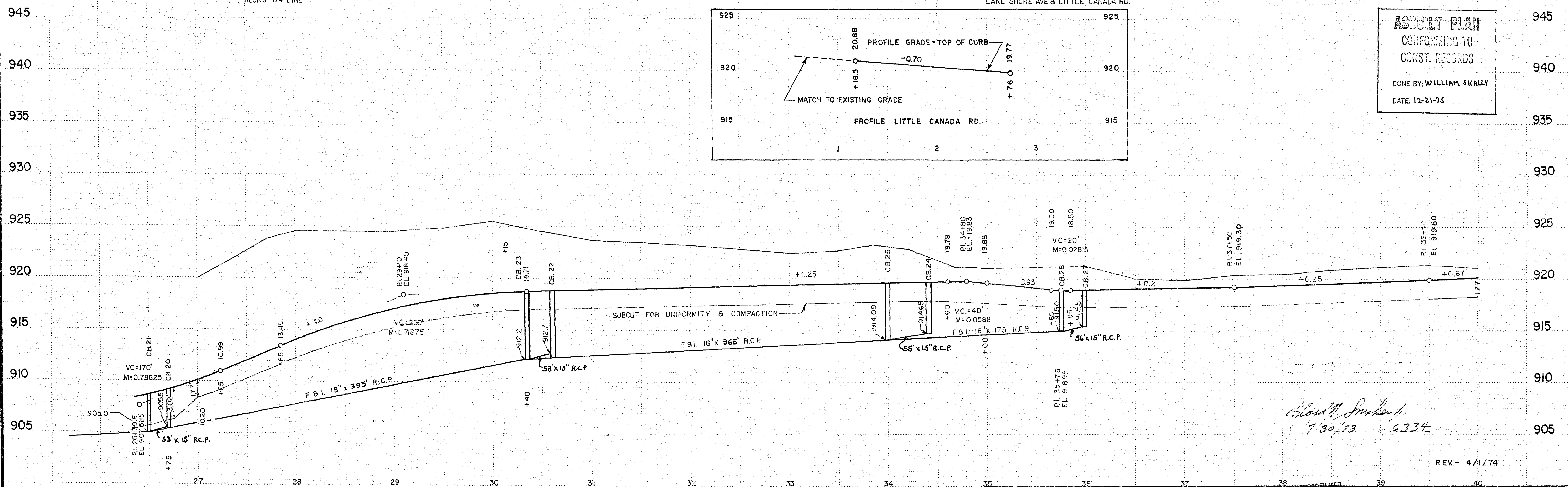


B.M. ELEV. 923.57
RK. NAIL IN POWER POLE
ALONG 1/4 LINE

B.M. ELEV. 917.87
SPIKE IN ARC LIGHT POLE N.E. COR.
LAKE SHORE AVE & LITTLE CANADA RD.



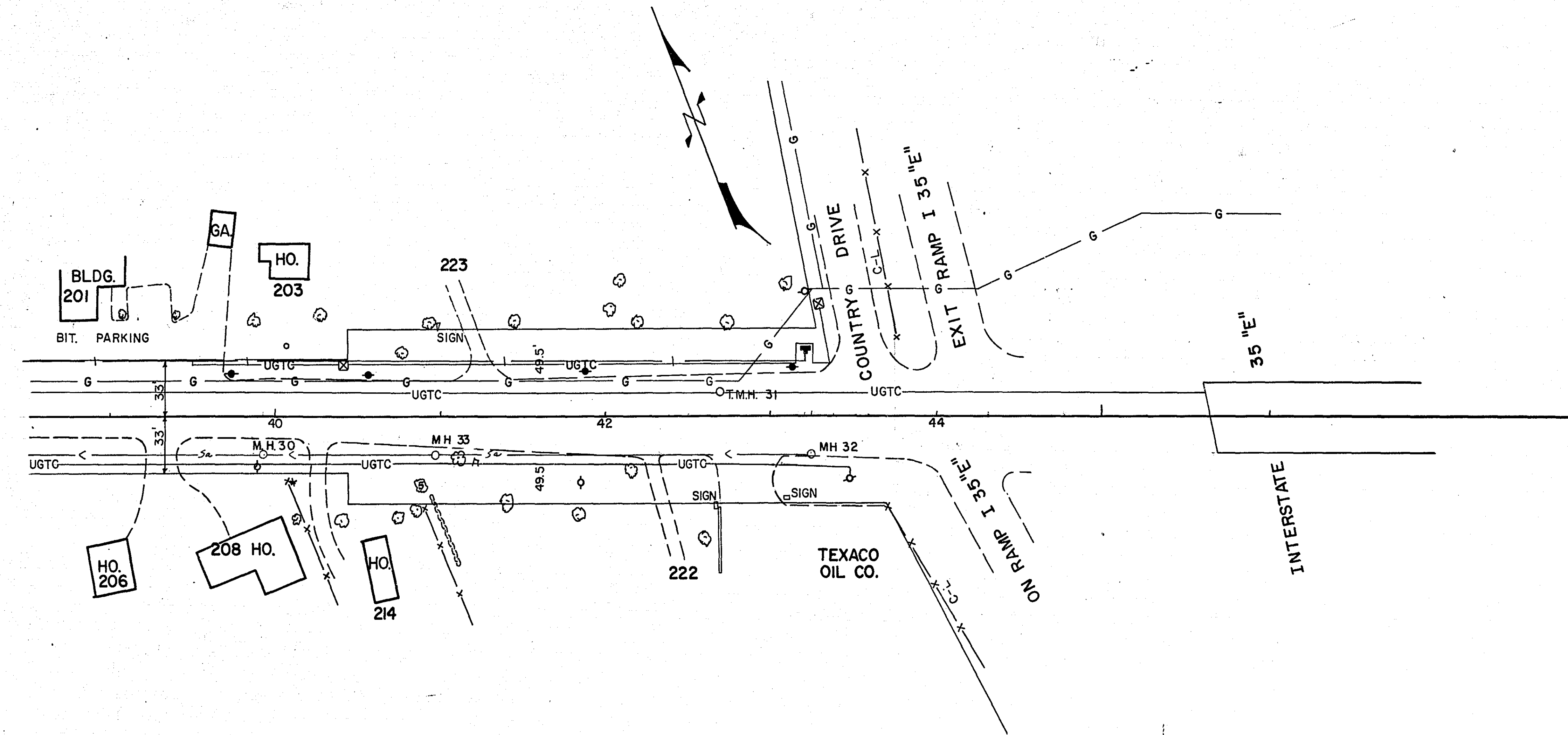
ADULT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: WILLIAM SKALLY
DATE: 12-21-75



REV- 4/1/74

S.A.P. NO. 62-623-09 & S.A.P. No. 62-621-01 **Sheet No. 7 of 23 Sheets**

20-104



CLEARING AND GRUBBING CHART S.A.P. 62-623-09

STATION	LOCATION	TREE TYPE	CLEAR	GRUB
1 + 96	LT. 28'	6" BOX ELDER	1	1
2 + 07	LT. 32'	4" MAPLE	3	3
3 + 78	LT. 30'	5" LOCUST	1	1
3 + 82	LT. 33'	5" LOCUST	1	1
3 + 89	LT. 29'	5" LOCUST	1	1
14 + 08	LT. 3'	4" ELM	1	1
27 + 09	RT. 2'	12" BOX ELDER	1	1
27 + 12	LT. 5'	8" BOX ELDER	1	1
27 + 18	RT. 11'	10" BOX ELDER	6	1
27 + 19	LT. 11'	12" BOX ELDER	1	1
27 + 26	RT. 18'	8" BOX ELDER	1	1
27 + 31	RT. 23'	6" BOX ELDER	3	1
27 + 32	LT. 27'	14" BOX ELDER	2	1
27 + 44	LT. 39'	14" BOX ELDER	4	1
27 + 48	RT. 35'	14" BOX ELDER	4	1
27 + 59	RT. 41'	10" BOX ELDER	3	1
27 + 70	RT. 52'	10" BOX ELDER	2	1
27 + 99	LT. 42'	6" BOX ELDER	1	1
28 + 09	LT. 24'	12" BOX ELDER	2	1
28 + 24	LT. 40'	10" BOX ELDER	1	1
28 + 28	LT. 26'	8" BOX ELDER	1	1
28 + 33	LT. 33'	12" BOX ELDER	1	1
28 + 39	LT. 54'	8" BOX ELDER	1	1
29 + 88	RT. 42'	6" BOX ELDER	2	1
29 + 92	RT. 33'	18" BOX ELDER	1	1
30 + 06	LT. 10'	6" OAK	2	1
30 + 07	LT. 15'	10" BOX ELDER	1	1
30 + 10	RT. 12'	8" BOX ELDER	1	1
30 + 13	LT. 27'	4" ELM	1	1
30 + 13	LT. 32'	4" ELM	1	1
30 + 15	LT. 19'	32" BOX ELDER	1	1
30 + 18	LT. 38'	6" ASH	2	1
30 + 25	LT. 44'	14" BOX ELDER	3	1
32 + 65	LT. 23'	4" CHINESE ELM	1	1
32 + 82	LT. 11'	8" WILLOW	1	1
33 + 36	LT. 31'	24" BOX ELDER	1	1
33 + 72	LT. 11'	26" BOX ELDER	1	1
33 + 80	RT. 27'	18" ASH	1	1
33 + 95	LT. 26'	12" CHINESE ELM	2	1
34 + 09	RT. 32'	18" ASH	1	1
34 + 48	RT. 24'	12" WILLOW	1	1
34 + 55	LT. 18'	16" CHINESE ELM	1	1
34 + 58	LT. 41'	8" ELM	1	1
35 + 41	RT. 1'	4" CHINESE ELM	1	1

CO. RD. "C"

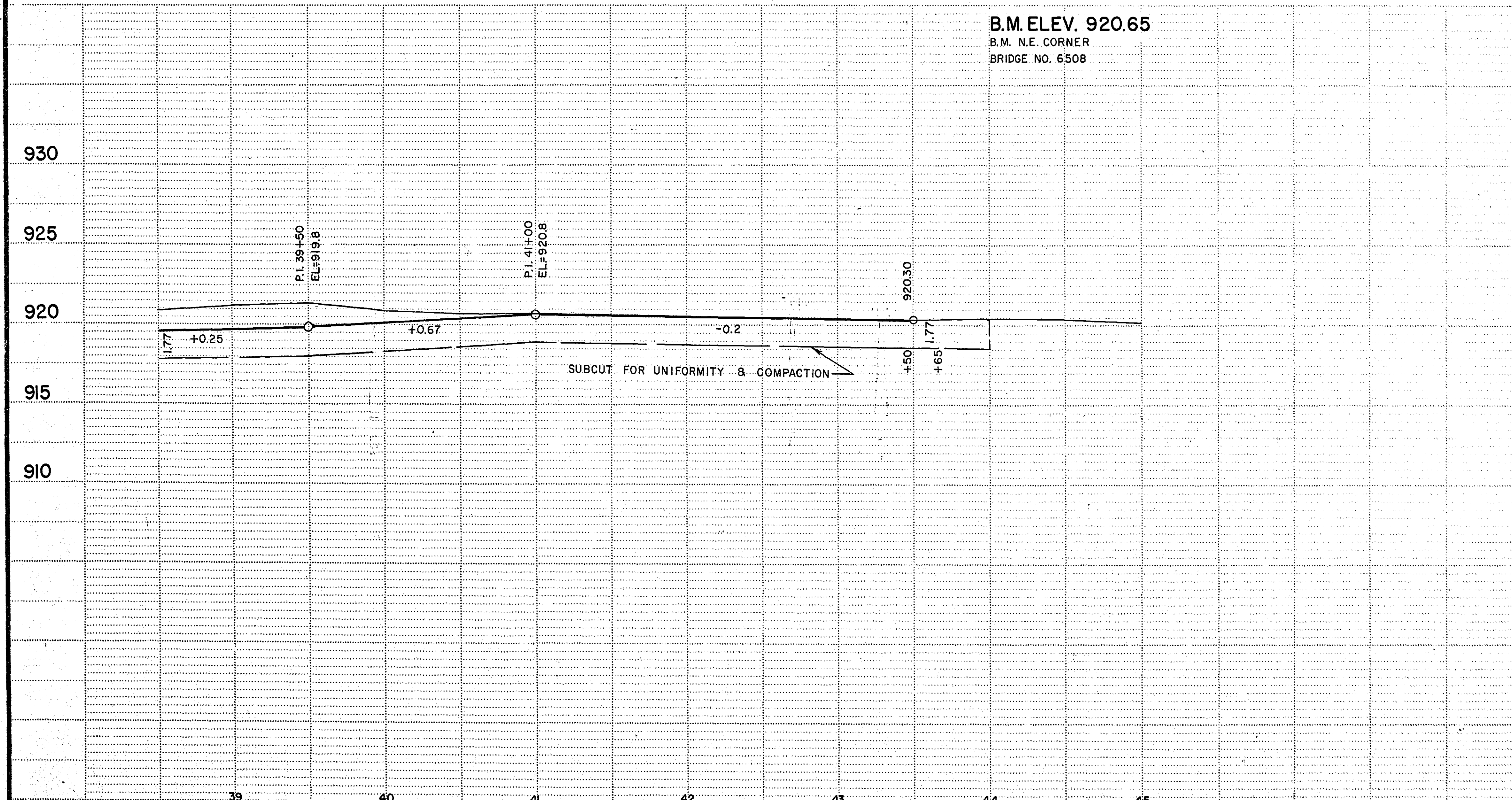
CLEARING AND GRUBBING CHART S.A.P. 62-621-01

STATION	LOCATION	TREE TYPE	CLEAR	GRUB
41 + 11	RT. 25'	5" CHINESE ELM	4	1
41 + 22	RT. 27'	STUMP	74	48

LITTLE CANADA RD.

TOTAL

NOTE: ALL TREES MUST BE APPROVED BY THE ENGINEER BEFORE REMOVAL.



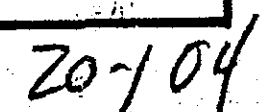
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Donald M. Smyke Jr.
 Date 7/30/73 Reg. No. 6334

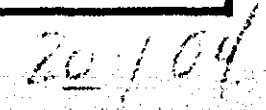
REV - 4/1/74

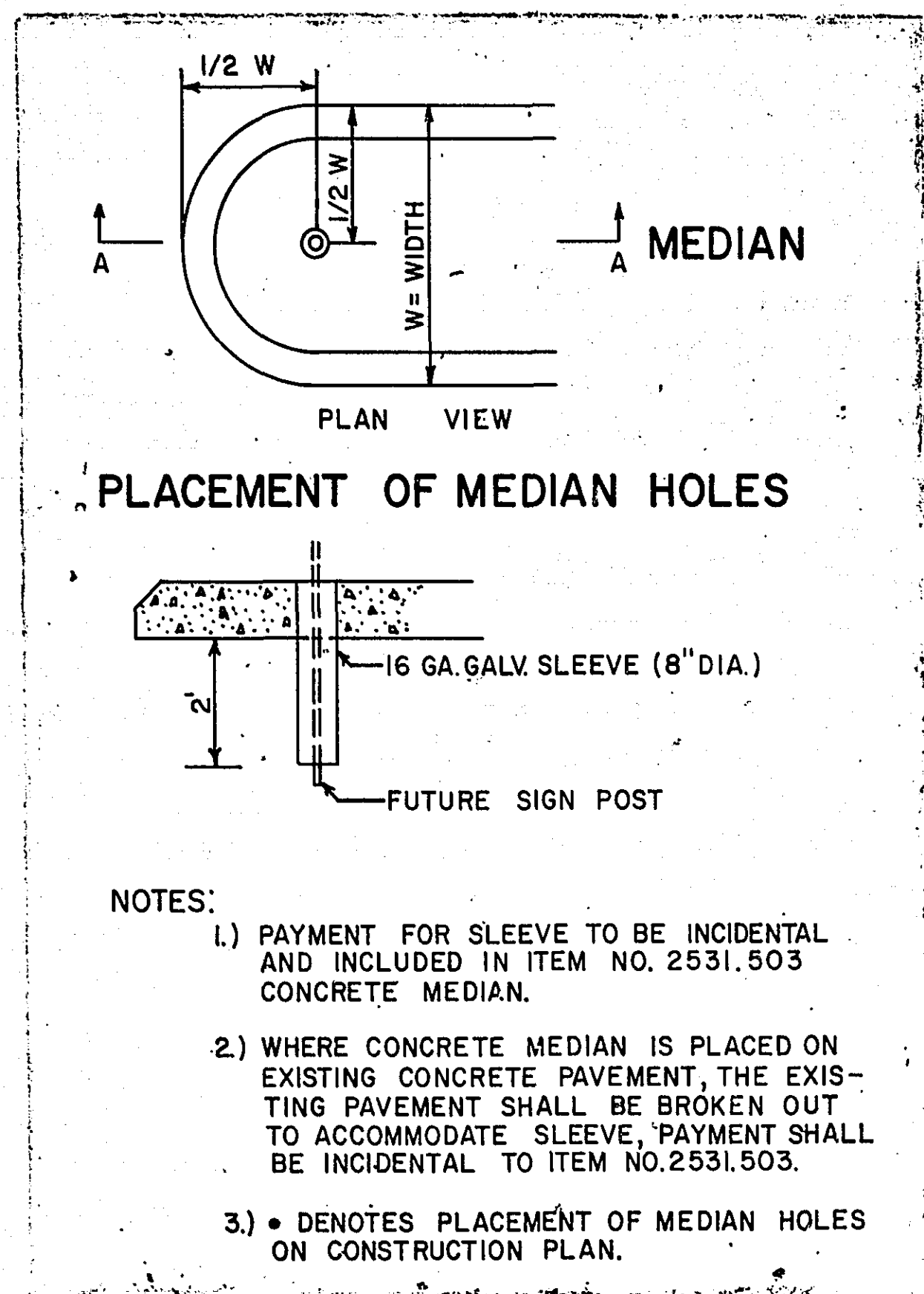
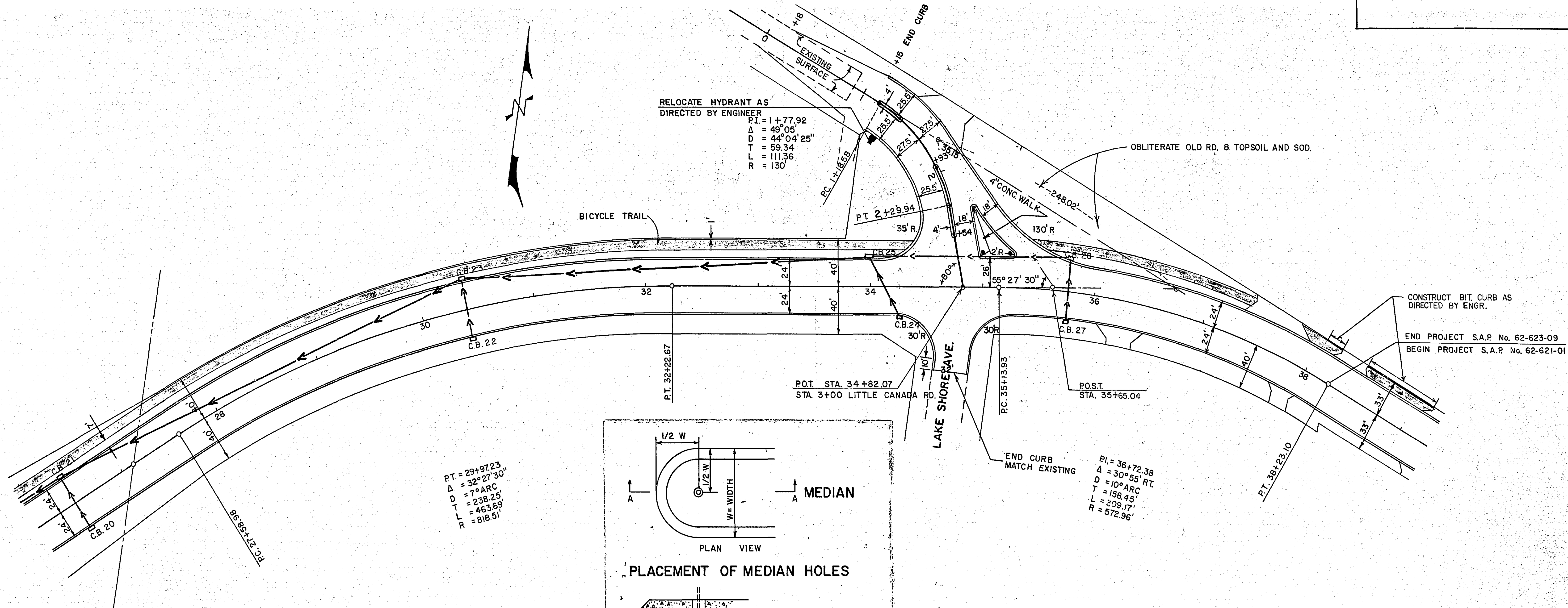
S.A.P. No. 62-621-01

MICROFILMED
 SHEET No. 8 of 23 Sheets

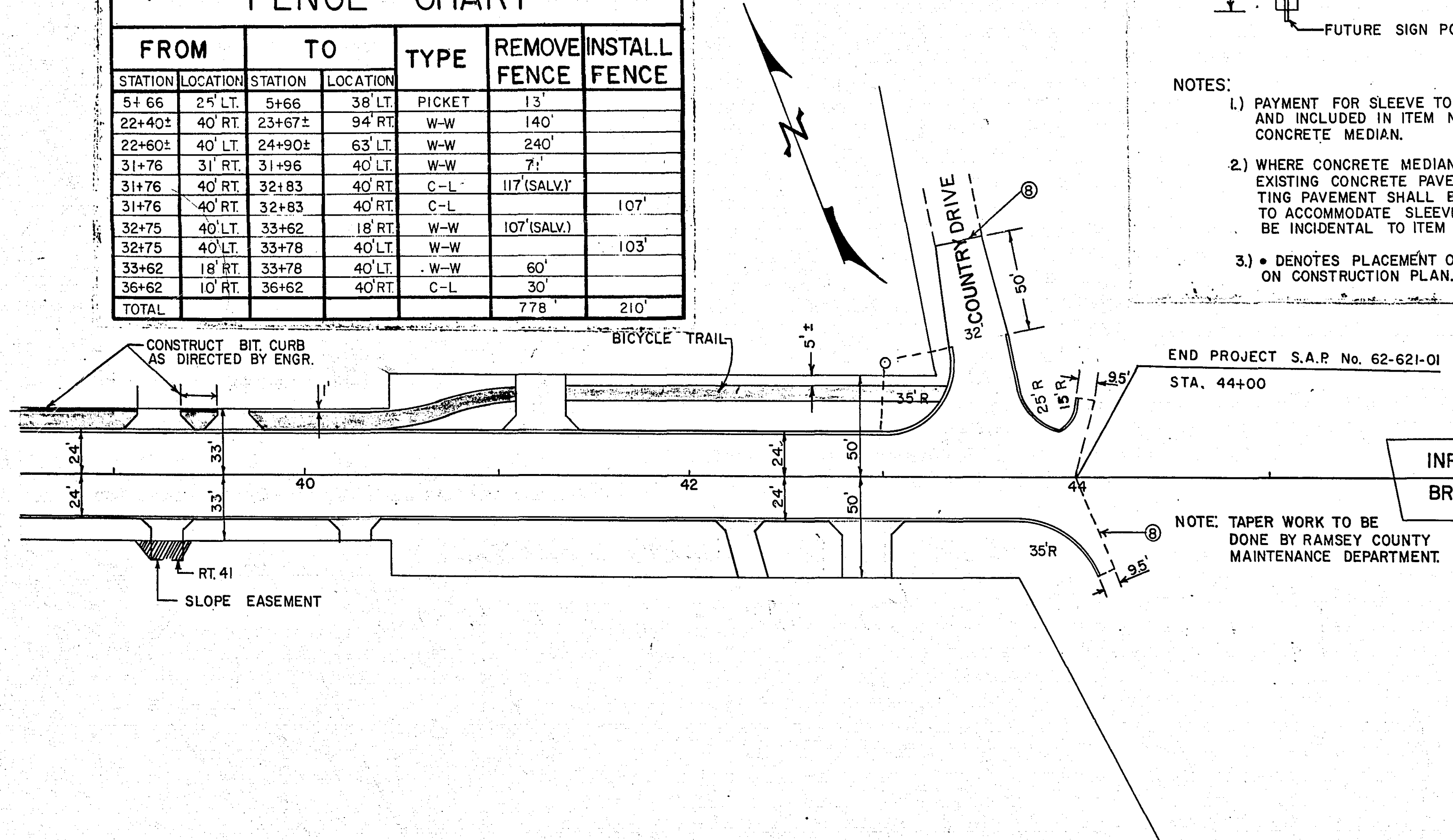
20-104





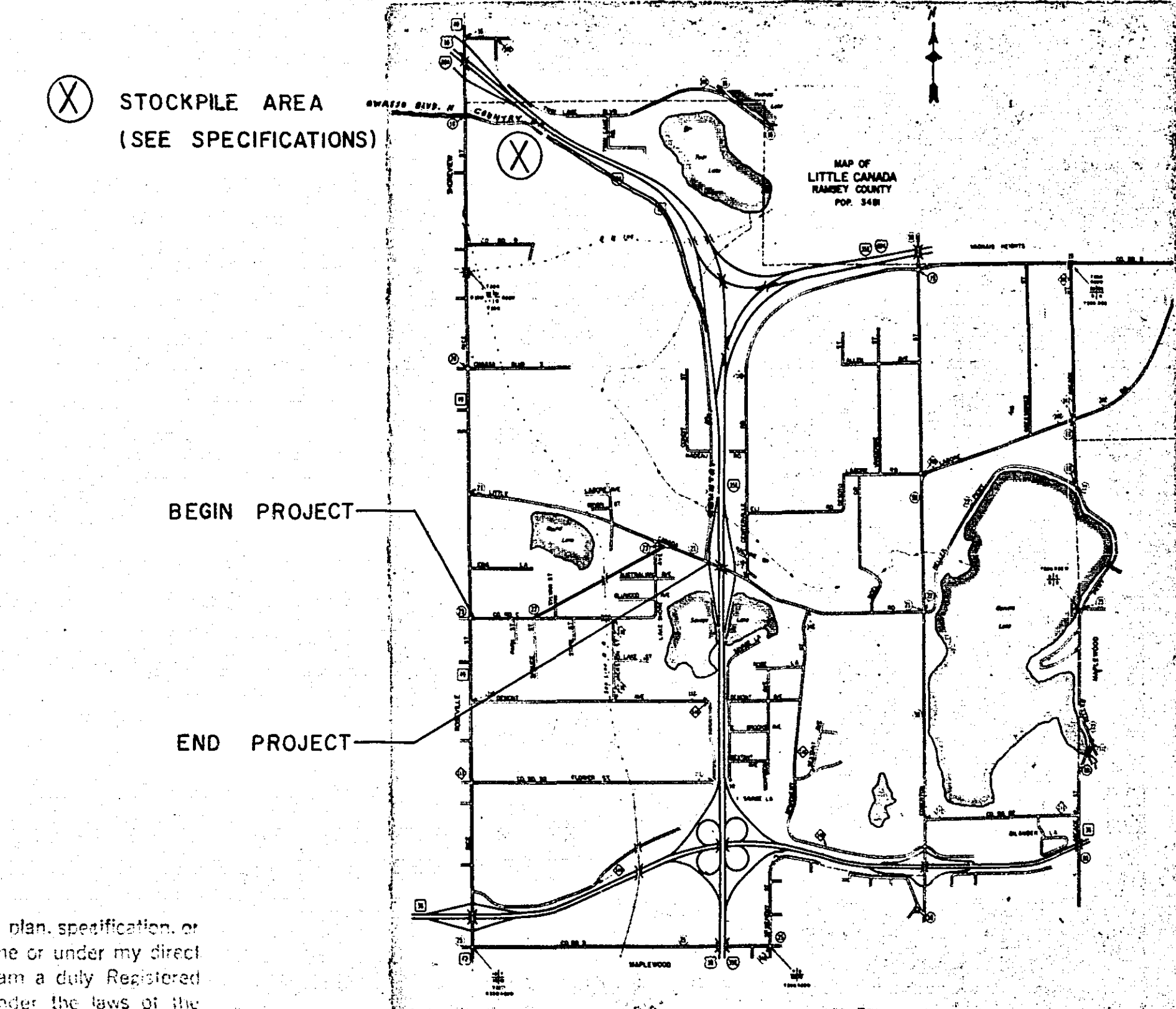


FENCE CHART					
FROM	TO	TYPE	REMOVE FENCE	INSTALL FENCE	
STATION	LOCATION	STATION	LOCATION		
5+66	25' LT.	5+66	38' LT.	PICKET	13'
22+40±	40' RT.	23+67±	94' RT.	W-W	140'
22+60±	40' LT.	24+90±	63' LT.	W-W	240'
31+76	31' RT.	31+96	40' LT.	W-W	7'
31+76	40' RT.	32+83	40' RT.	C-L	117' (SALV.)
31+76	40' RT.	32+83	40' RT.	C-L	107'
32+75	40' LT.	33+62	18' RT.	W-W	107' (SALV.)
32+75	40' LT.	33+78	40' LT.	W-W	103'
33+62	18' RT.	33+78	40' LT.	W-W	60'
36+62	10' RT.	36+62	40' RT.	C-L	30'
TOTAL					778' 210'



NOTES:

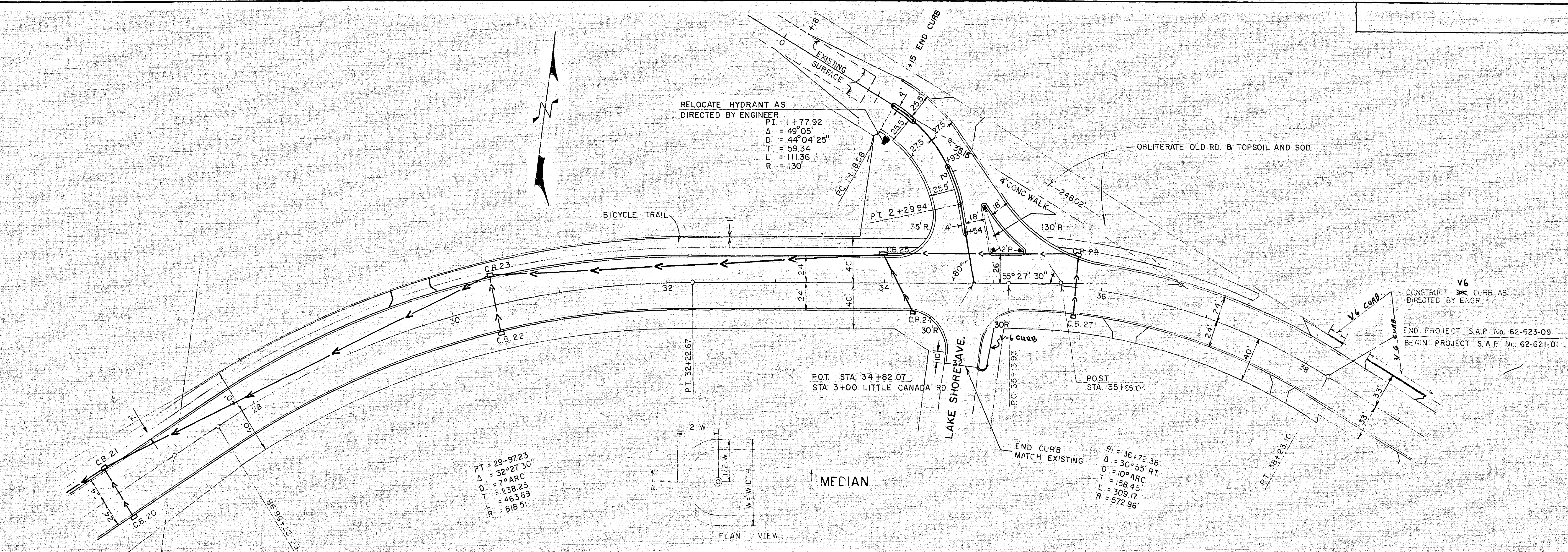
- 1.) EXISTING BIT SURFACE SHALL BE SAW CUT PRIOR TO BIT PAVEMENT REMOVAL AS DIRECTED BY ENGR. (INCIDENTAL TO PAY ITEM NO. 2105.501)



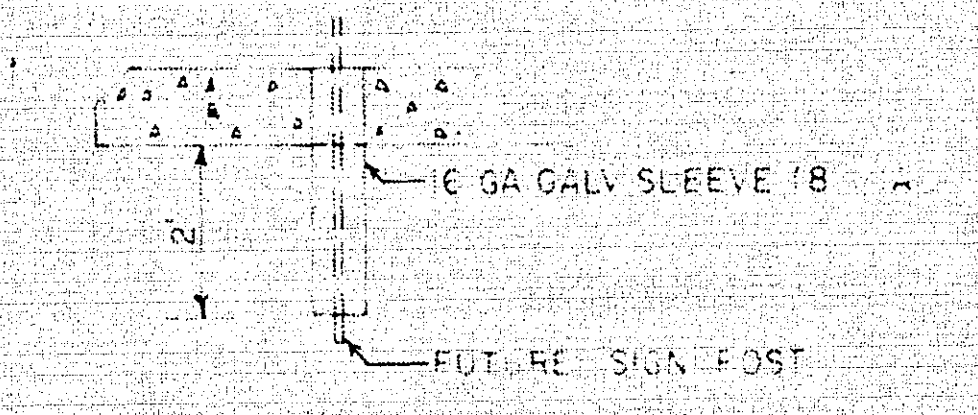
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Joseph L. Snyder

Date 7/30/73 Reg. No. 6334

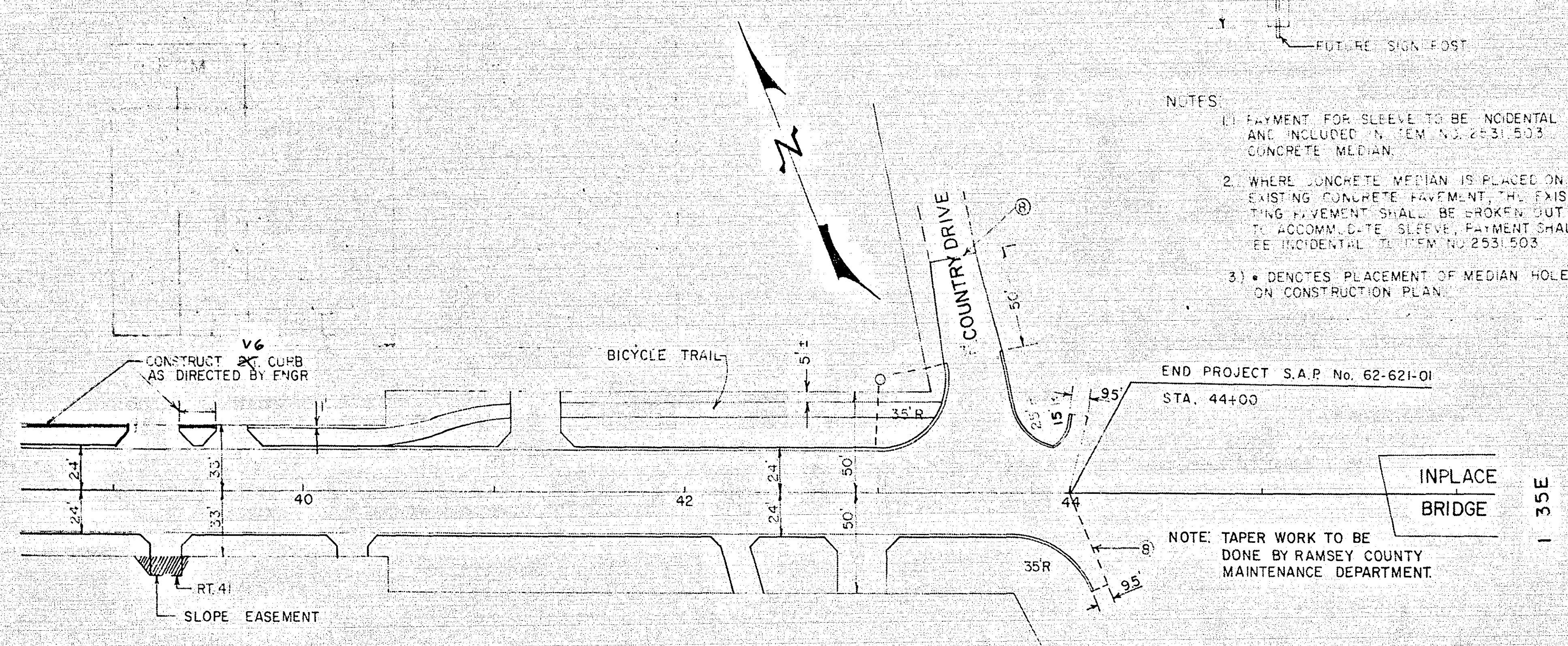


PLACEMENT OF MEDIAN HOLES



- NOTES:
1. PAYMENT FOR SLEEVE TO BE INCIDENTAL AND INCLUDED IN ITEM NO. 2+31.503 CONCRETE MEDIAN.
 2. WHERE CONCRETE MEDIAN IS PLACED ON EXISTING CONCRETE PAVEMENT, THE EXISTING PAVEMENT SHALL BE BROKEN OUT TO ACCOMMODATE SLEEVE. PAYMENT SHALL BE INCIDENTAL TO ITEM NO. 253.503.
 3. * DENOTES PLACEMENT OF MEDIAN HOLES ON CONSTRUCTION PLAN.

- NOTES:
- ⑥ EXISTING BIT SURFACE SHALL BE SAW CUT PRIOR TO BIT PAVEMENT REMOVAL AS DIRECTED BY ENGR. (INCIDENTAL TO PAY ITEM NO. 2105.501)



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: WILLIAM SKALLY
DATE: 12-21-15

Handwritten signature: Howard L. Smiley
7/50/93 6334

CONSTRUCTION PLAN

STATION-ELEVATION

+49

561

ENT. RT.

EXCAVATION EMBANKMENT

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

309

174

+51

564

+53

566

+55

569

ENT. LT.

+57

571

+59

577

ENT. RT.

+61

582

+63

582

+65

583

+67

582

+69

582

+71

582

+73

582

STATION-ELEVATION

+75

+77

504

+79

514

+81

521

+83

524

ENT. RT.

+85

527

+87

536

+89

543

+91

551

ENT. RT.

+93

555

+95

556

Fed. Proj. EXCAVATION EMBANKMENT

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

137

100

183

162

247

176

82

52

88

56

248

145

268

141

342

142

185

113

76

48

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.

Harold H. Snider
Date 7/30/73 Reg. No. 6334

S. A. P. No. 62-623-09

MICROFILMED
RAMSEY CO. ENGR.

Sheet No. 11 of 23 Sheets

20

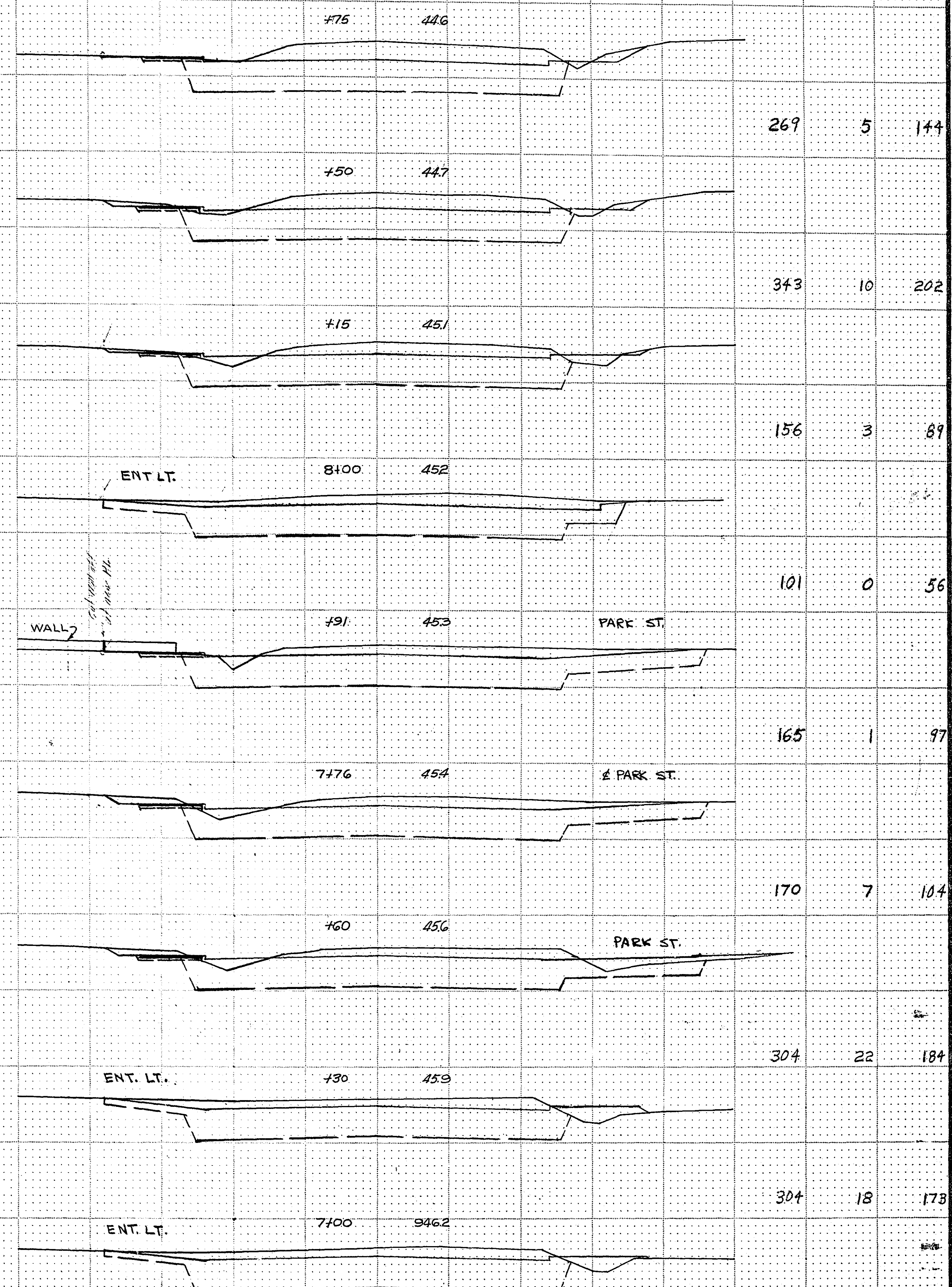
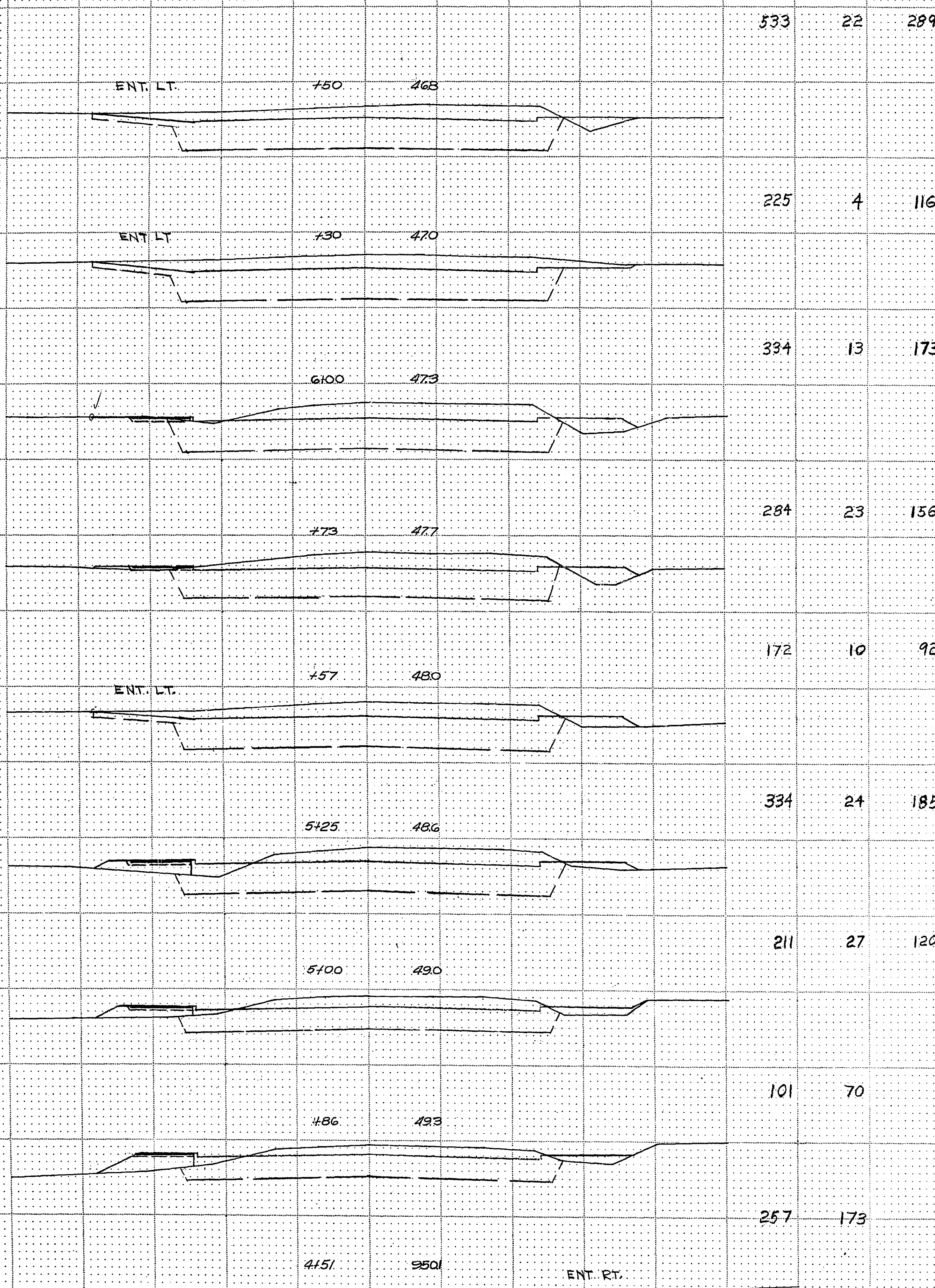
Fed. Proj. No.

STATION-ELEVATION
C

EXCAVATION EMBANKMENT GRAN.
SUB TOTALS CU. YDS. SUB TOTALS CU. YDS. BACKFILL

STATION-ELEVATION
C

EXCAVATION EMBANKMENT GRAN.
SUB TOTALS CU. YDS. SUB TOTALS CU. YDS. BACKFILL



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.
Alfred H. Dryden
 Date 7/30/73 Reg. No. 6334

S.A.P. No. 62-623-09

MICROFILMED
 RAMSEY CO. ENGR. Sheet No. 12 of 23 Sheets

70-104

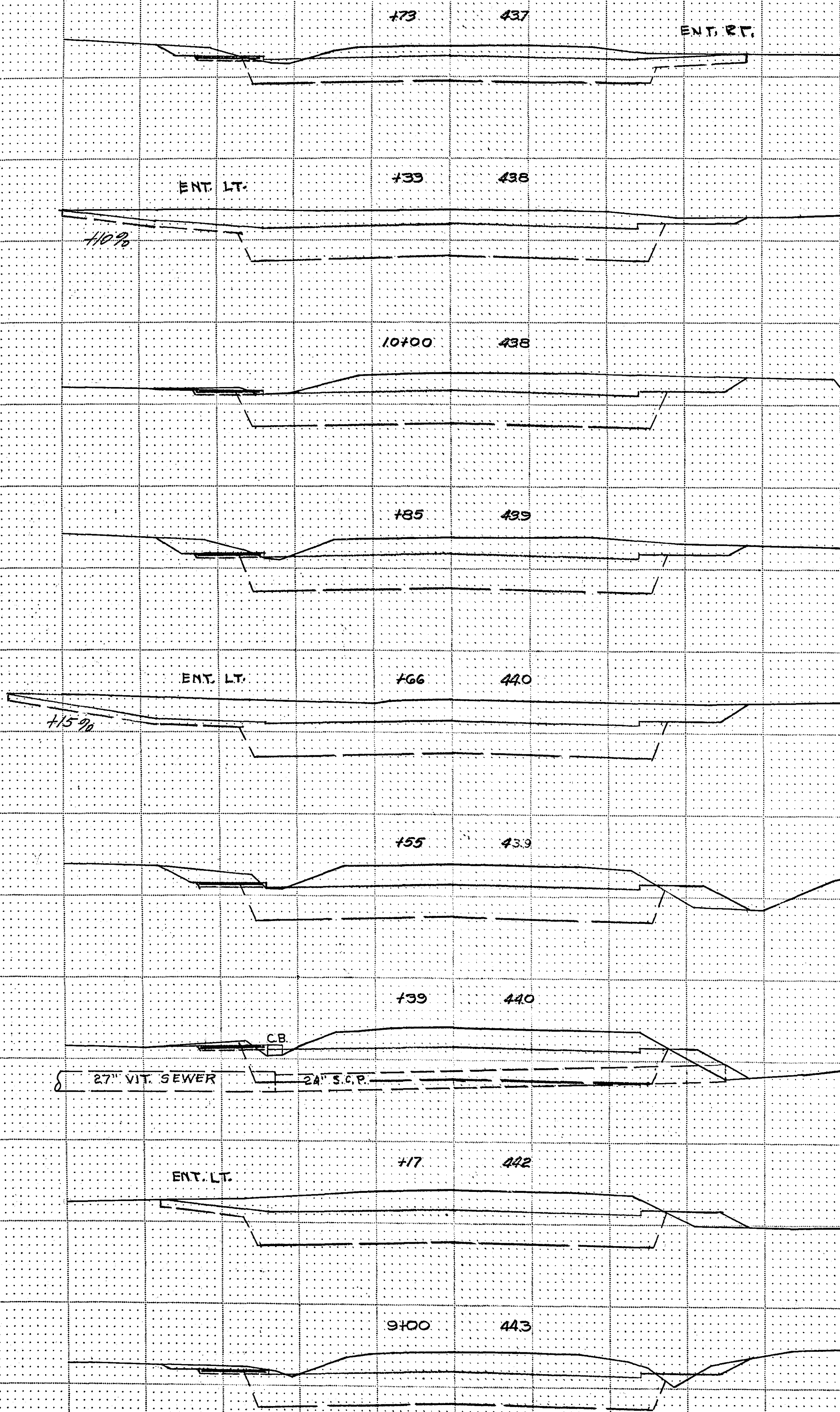
FUNCTIONAL CROSS SECTION - OPEN DOTTED
 H. A. ROGERS CO. - MINNEAPOLIS, ST. PAUL

STATION-ELEVATION
±

EXCAVATION EMBANKMENT GRAN.
SUB-TOTALS CU. YDS. CU. YDS. SUB-TOTALS BACKFILL

STATION-ELEVATION
±

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



234 106

426 193

411 191

183 87

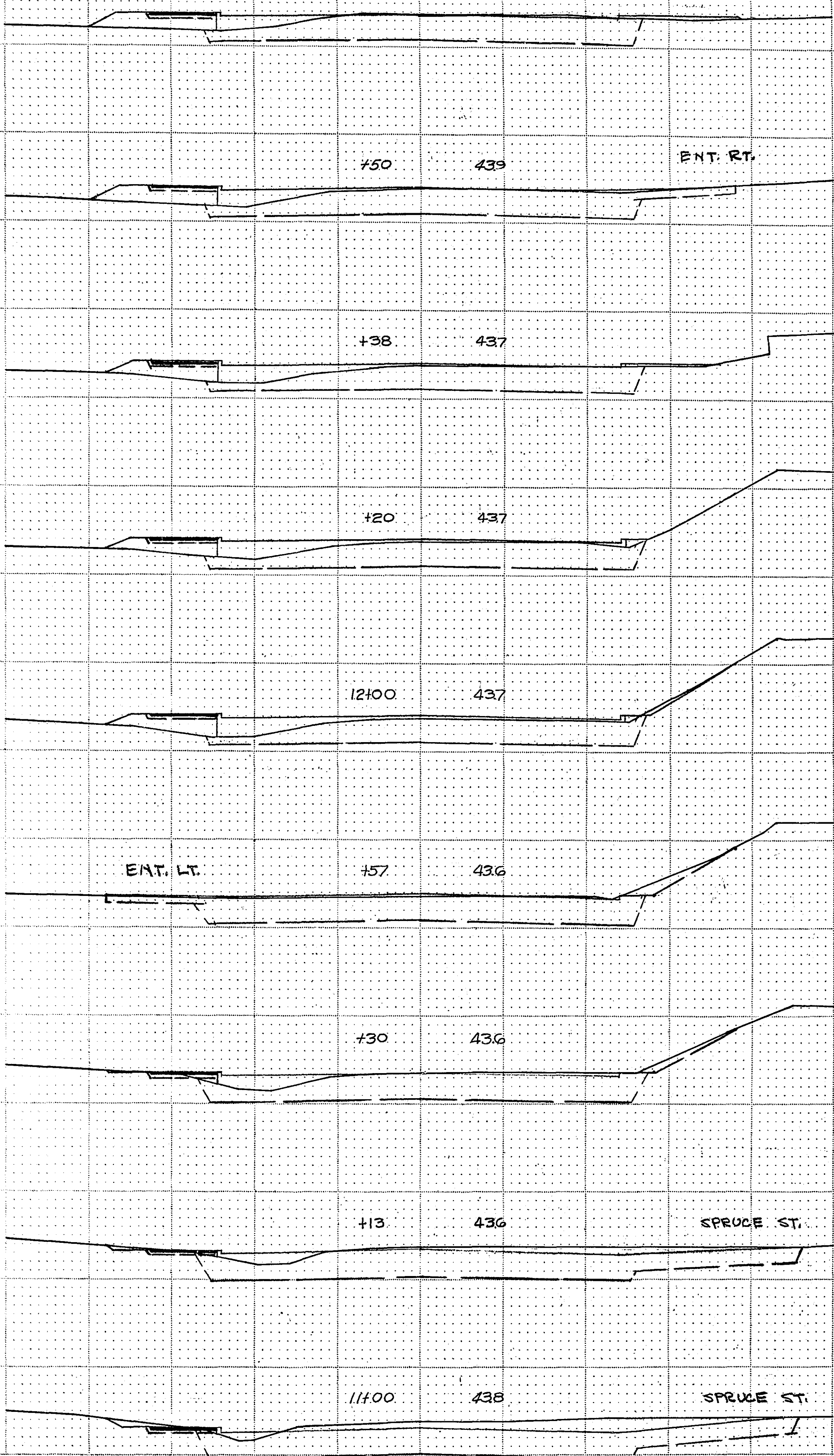
272 110

155 64

189 92

269 127

207 98



482 439

450 439

438 437

420 437

420 437

ENT. LT.

457 436

430 436

413 436

414 438

92 96

155 164

55 58

76 86

85 94

215 186

152 107

111 73

108 61

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.
[Signature]
Date 7/30/73 Reg. No. 6334

STATION-ELEVATION

E

+50 39.7

17+00 38.7

+50 39.2

16+00 40.1

+50 42.6

15+00 43.3

ENT. LT.

14+50 43.6

14+00 42.3

4+50 44.0

13+00 34.9

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

381 251

579 202

386 211

363 224

588 227

CONNECTION TO EXIST. "C" (SEE PROFILE)

706 206

607 193

522 214

356 244

293 262

STATION-ELEVATION

C

+30 16.7

21+00 16.8

+70 16.8

+35 17.9

20+00 21.0

+70 21.5

+30 24.6

19+00 26.6

+80 27.5

+45 29.3

18+00 33.0

Fed. Proj. EXCAVATION EMBANKMENT
SUB TOTALS: CU. YDS. CU. YDS. SUB TOTALS

120 176

41 165

142 189

700 250

120 244

192 217

84 236

142 228

244 184

176 252

148 278

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.

Date: 7/30/52 Reg. No. 6334

S.A.P. No. 62-623-09

MICROFILMED
RAMSEY CO. ENGR. Sheet No. 14 of 23 Sheets

20-104

STATION-ELEVATION

EXCAVATION EMBANKMENT

STATION-ELEVATION

EXCAVATION EMBANKMENT

Fed. Proj. No.

87 36

260 79

436 117

15 4

609 112

569 96

537 96

1080 193

675 193

274 228

132 174

+40 22.2

27+00 23.3

+50 18.5

26+00 12.6 12.6

+70 11.1

+40 07.9

+20 07.4

25+00 07.1

24+89 906.8

1382 58

2032 77

2500 163

2249 193

1205 116

830 118

286 80

171 80

88 44

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.

David H. [Signature]
Date 7/30/53 Reg. No. 6334

S.A.P. No. 62-623-09

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Sheet No. 15 of 23 Sheets

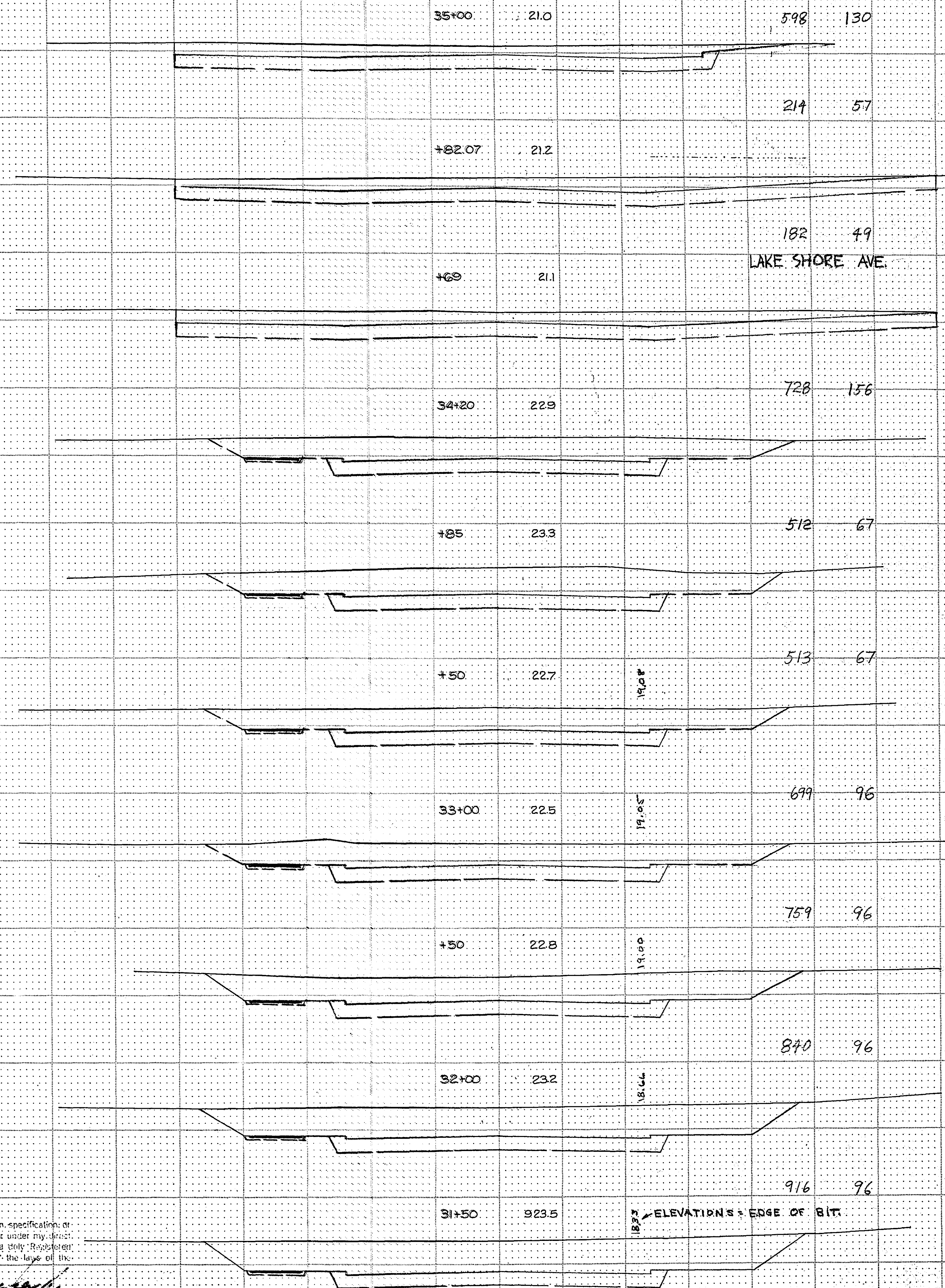
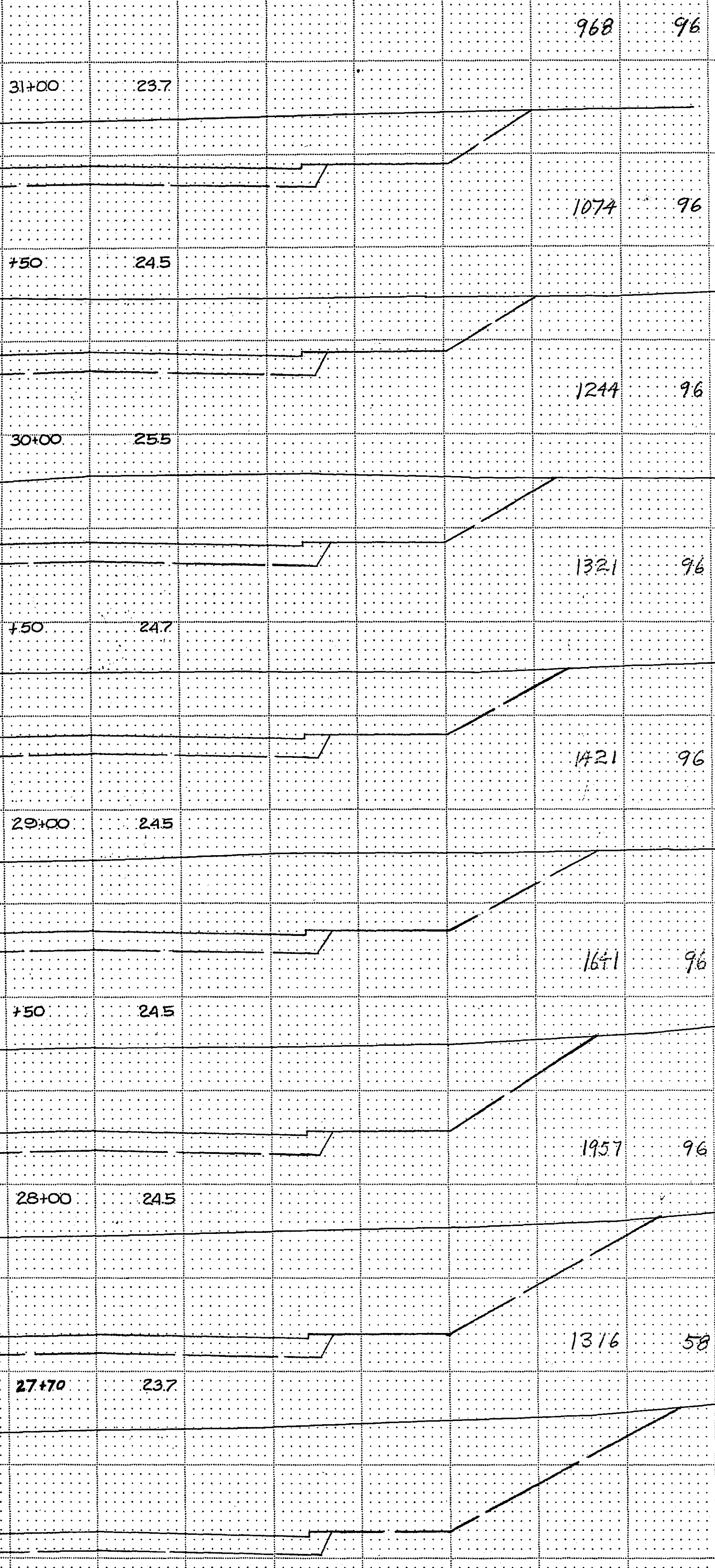
20-104

STATION ELEVATION

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

STATION ELEVATION

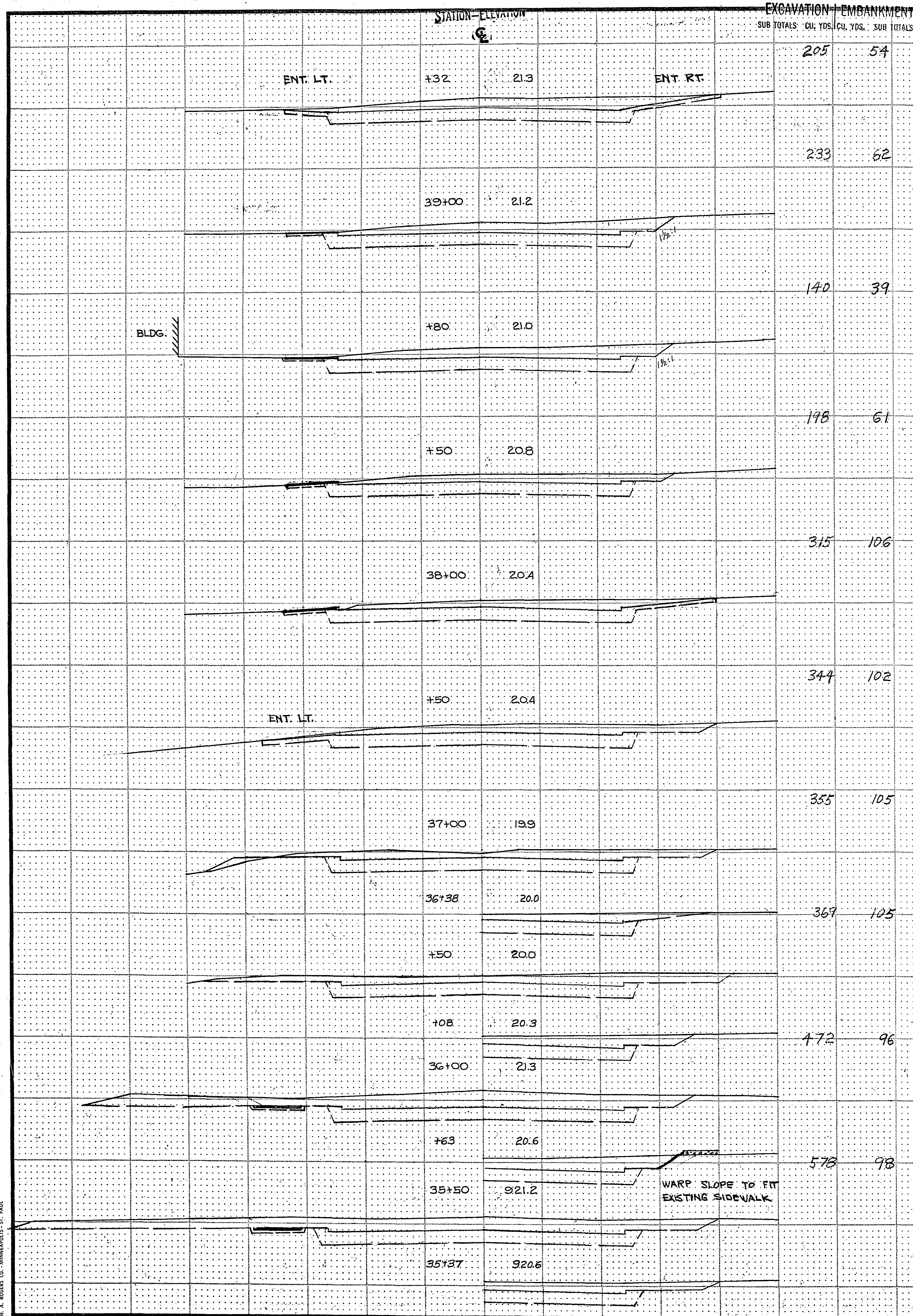
EXCAVATION EMBANKMENT
SUB TOTALS CU. YDS. CU. YDS. SUB TOTALS



LAKE SHORE AVE.

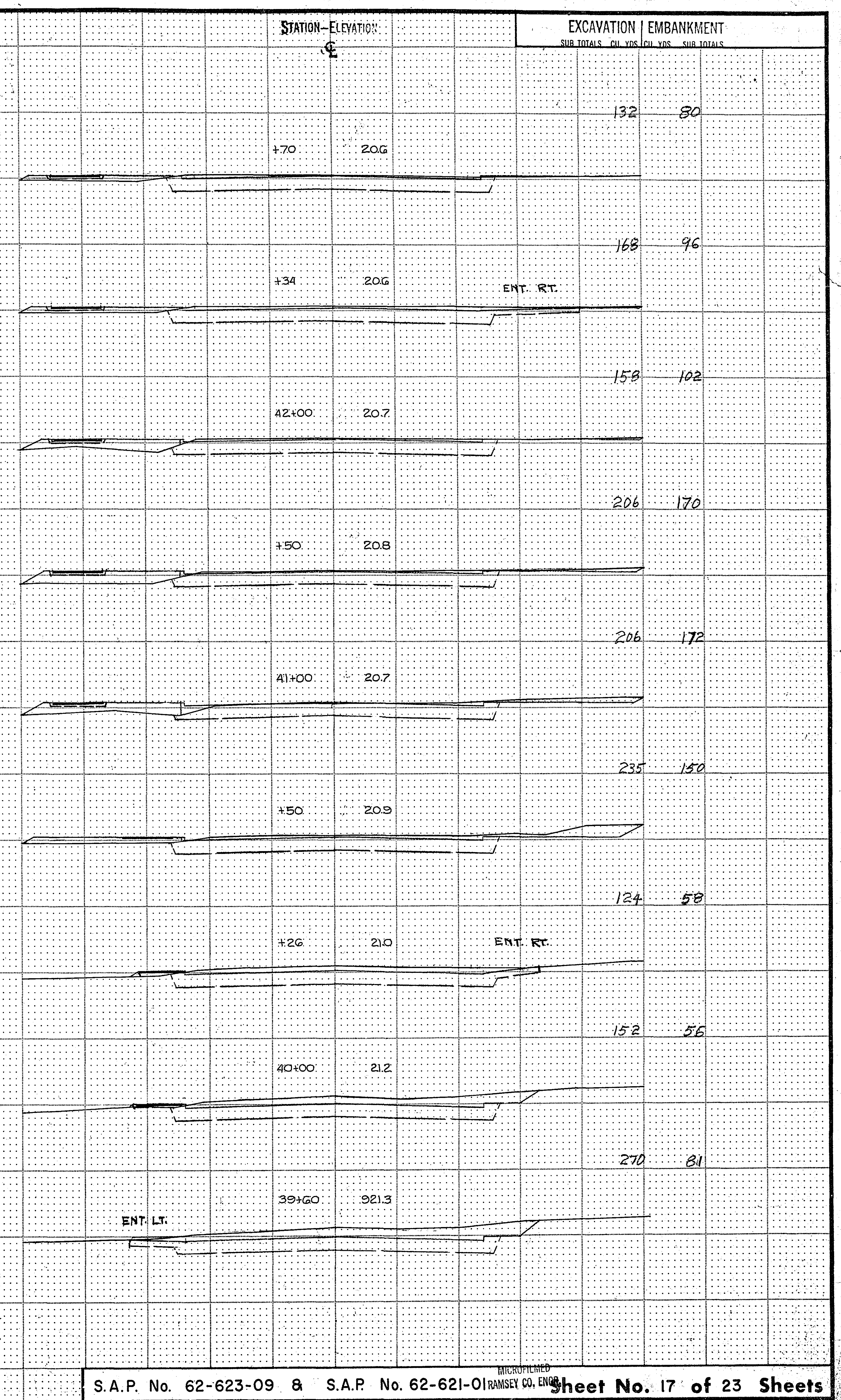
ELEVATIONS - EDGE OF BIT.

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Date 7/30/73 Reg. No. 6334



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.

John H. Hennings
Date 7/30/55 Reg. No. 2334



STATION-ELEVATION
C

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

STATION-ELEVATION
C

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

TOTAL 55,444 23,109 (INCLUDES 130%)

44+00 203

171 102

+70 203

112 56

COUNTRY DR

+54 204

143 67

+34 205

196 105

43+00 920.5

ENT. RT.

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 Wisconsin.

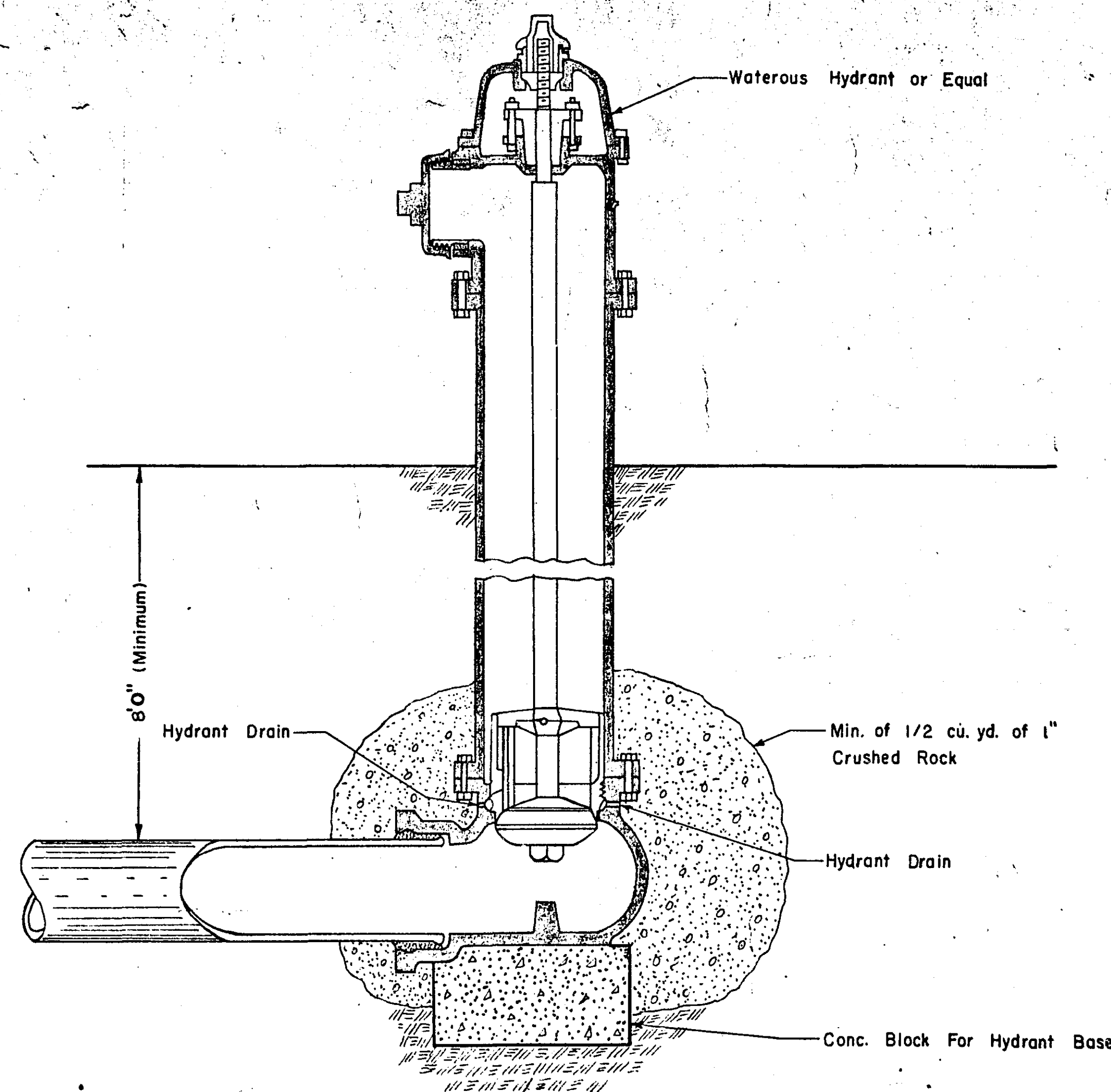
Donald L. Jay
Date 7/30/73 Reg. No. 6338

S.A.P. No. 62-621-01.

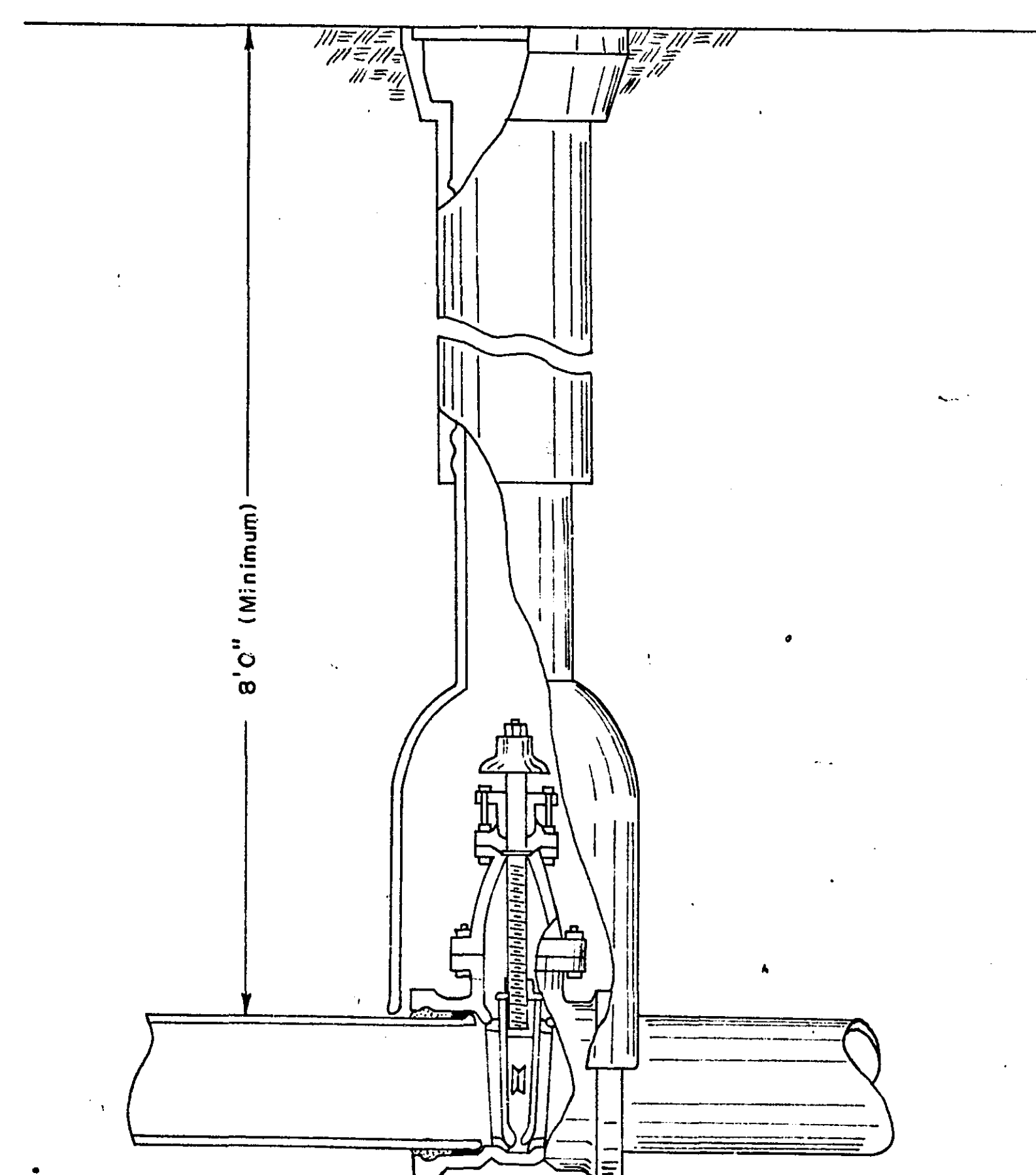
Sheet No. 18 of 23 Sheets

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RAMSEY CO. ENGR.

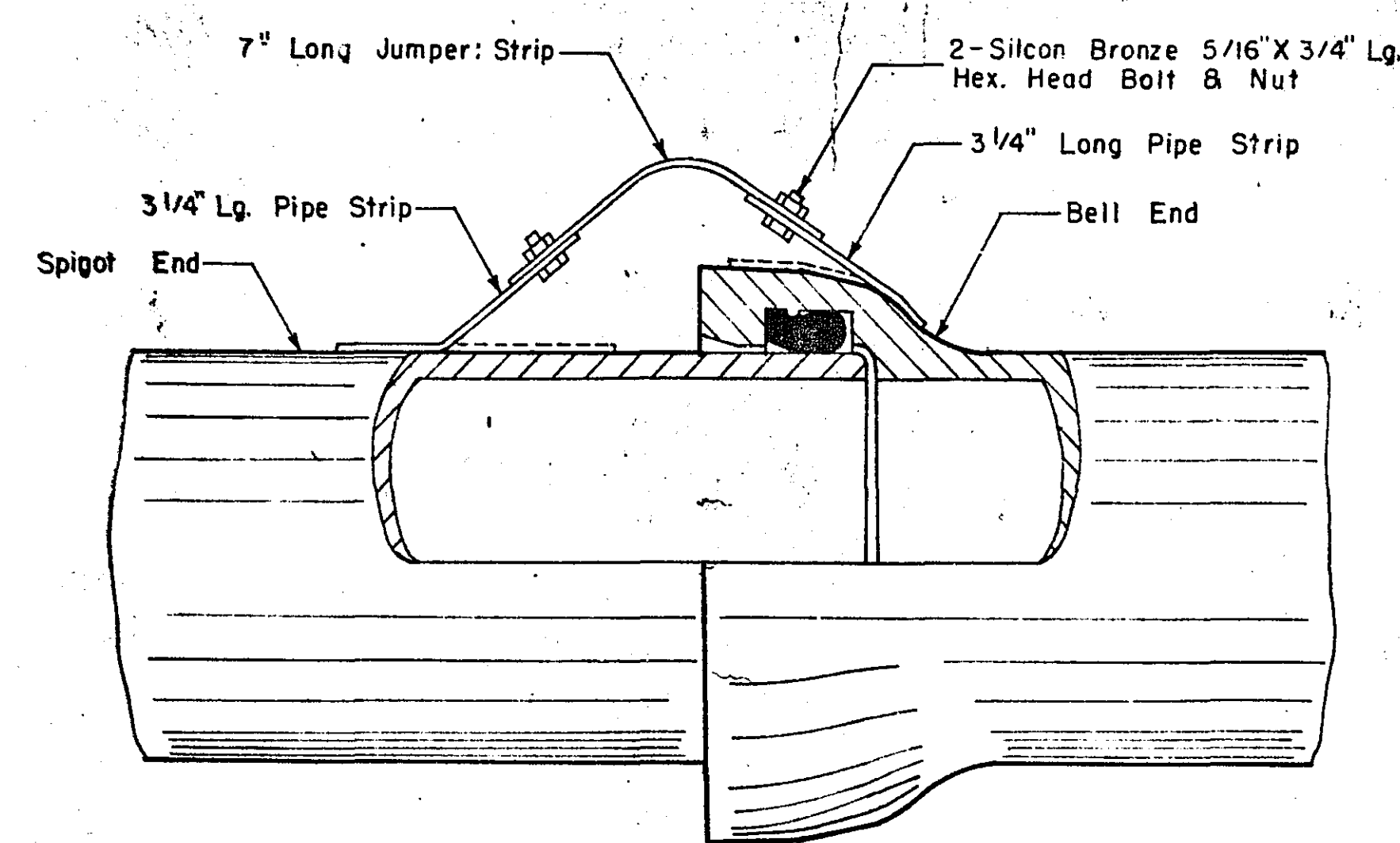
20-104



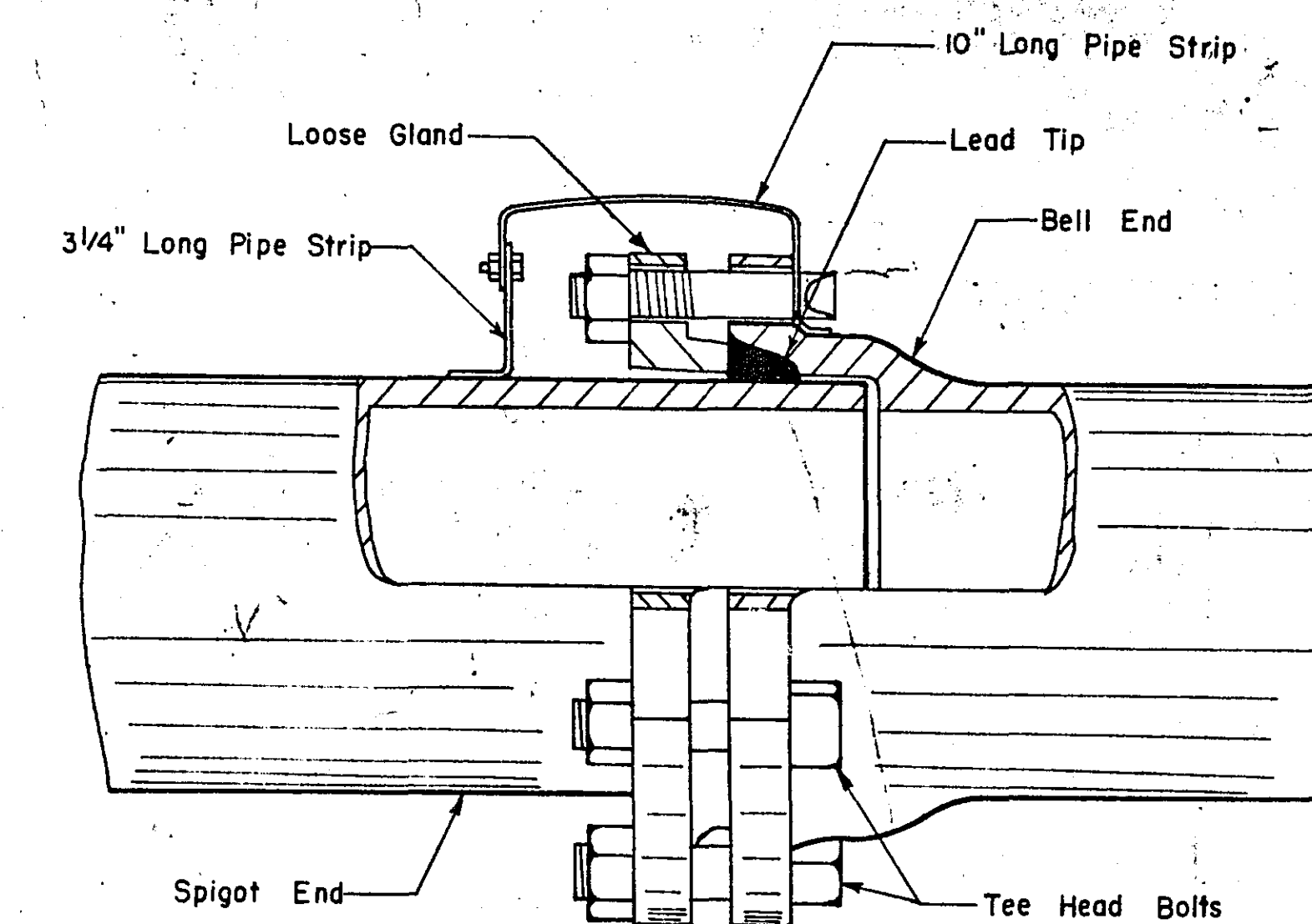
TYPICAL FIRE HYDRANT INSTALLATION
CUT-AWAY VIEW OF STANDARD TYPE HYDRANT



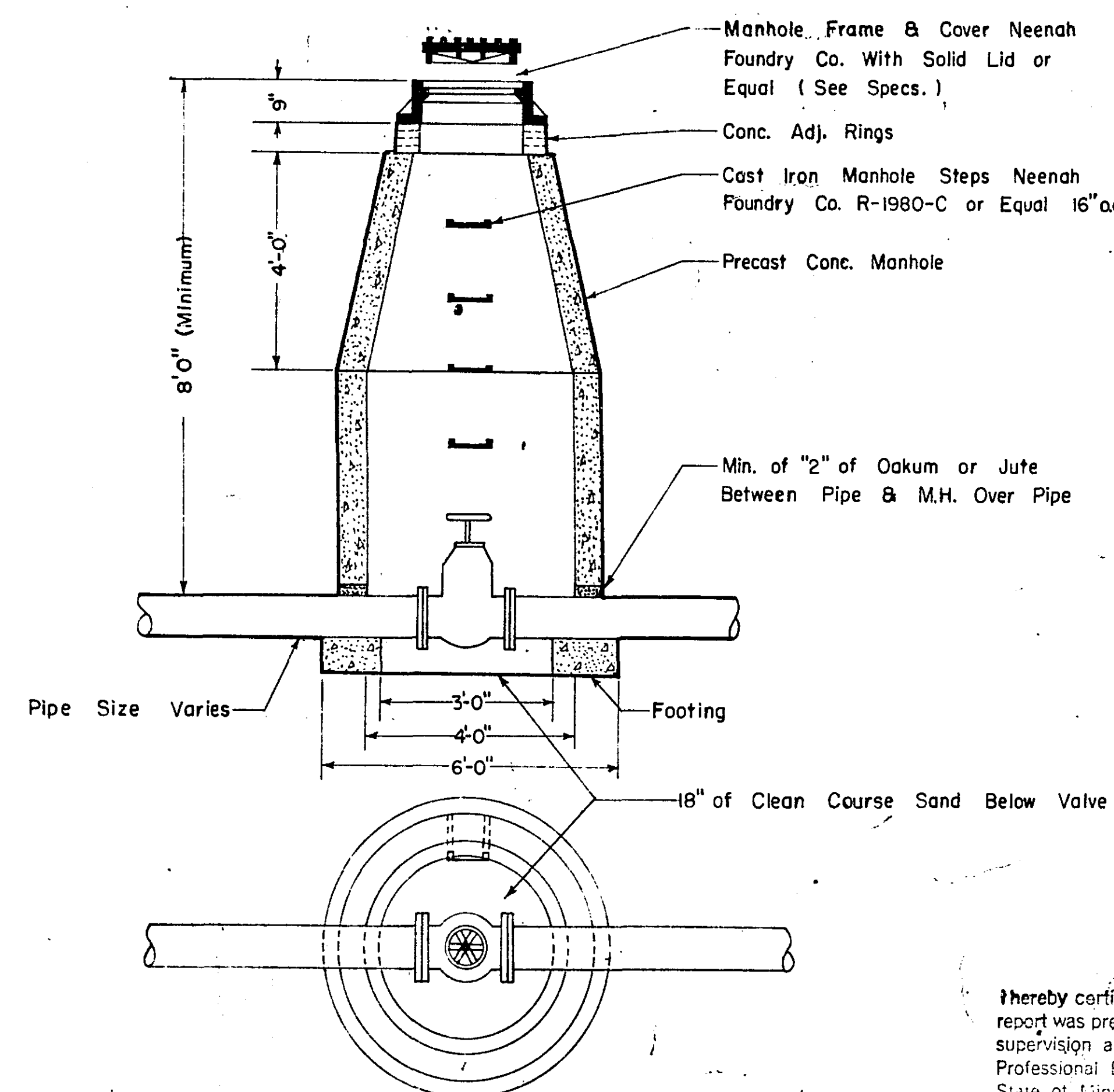
TYPICAL GATE VALVE AND BOX INSTALLATION
CUT-AWAY VIEW OF STANDARD TYPE GATE VALVE



DUCTILE IRON PIPE — SLIP-TYPE JOINT



DUCTILE IRON PIPE — MECHANICAL JOINT



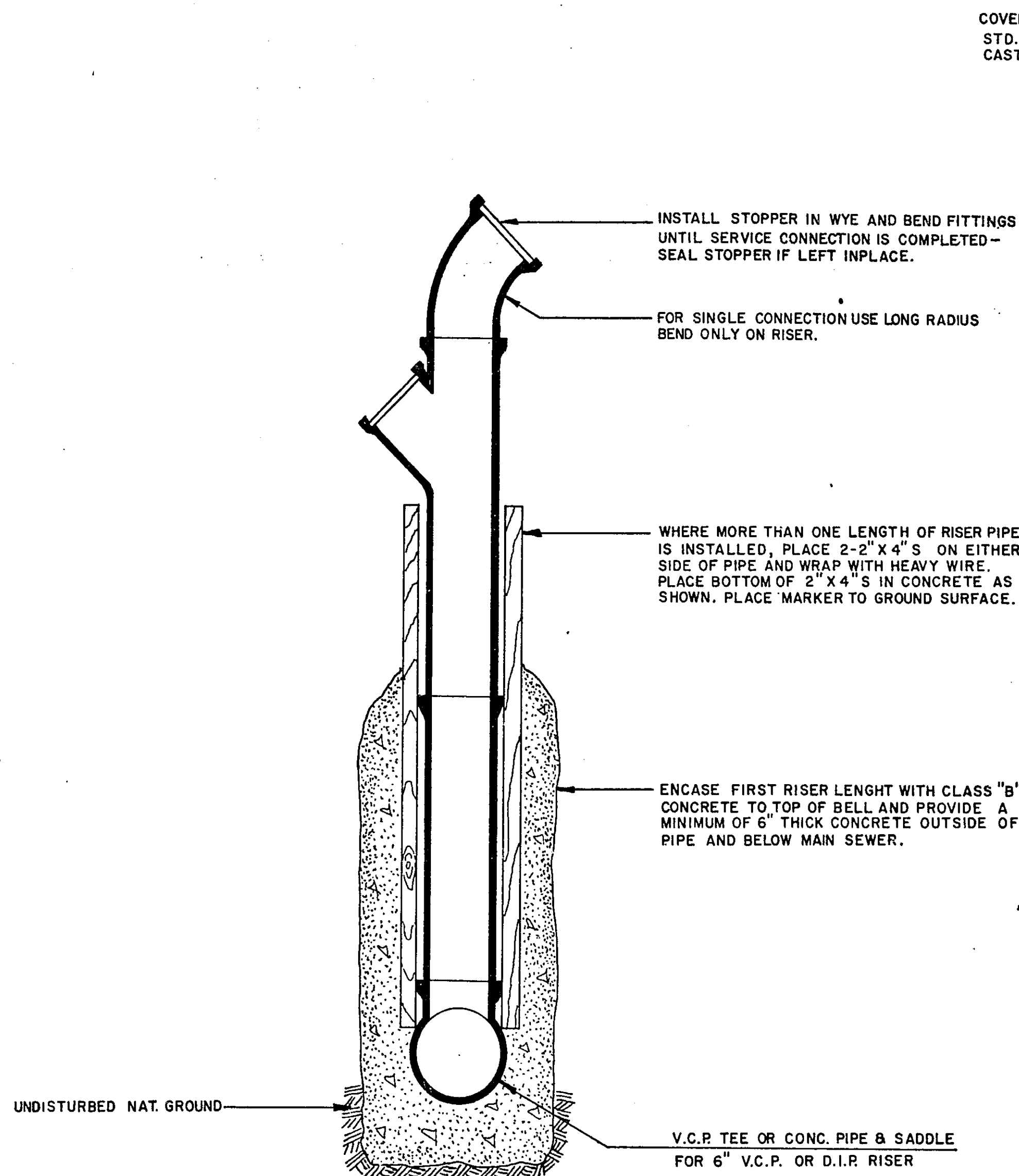
VALVE MANHOLE

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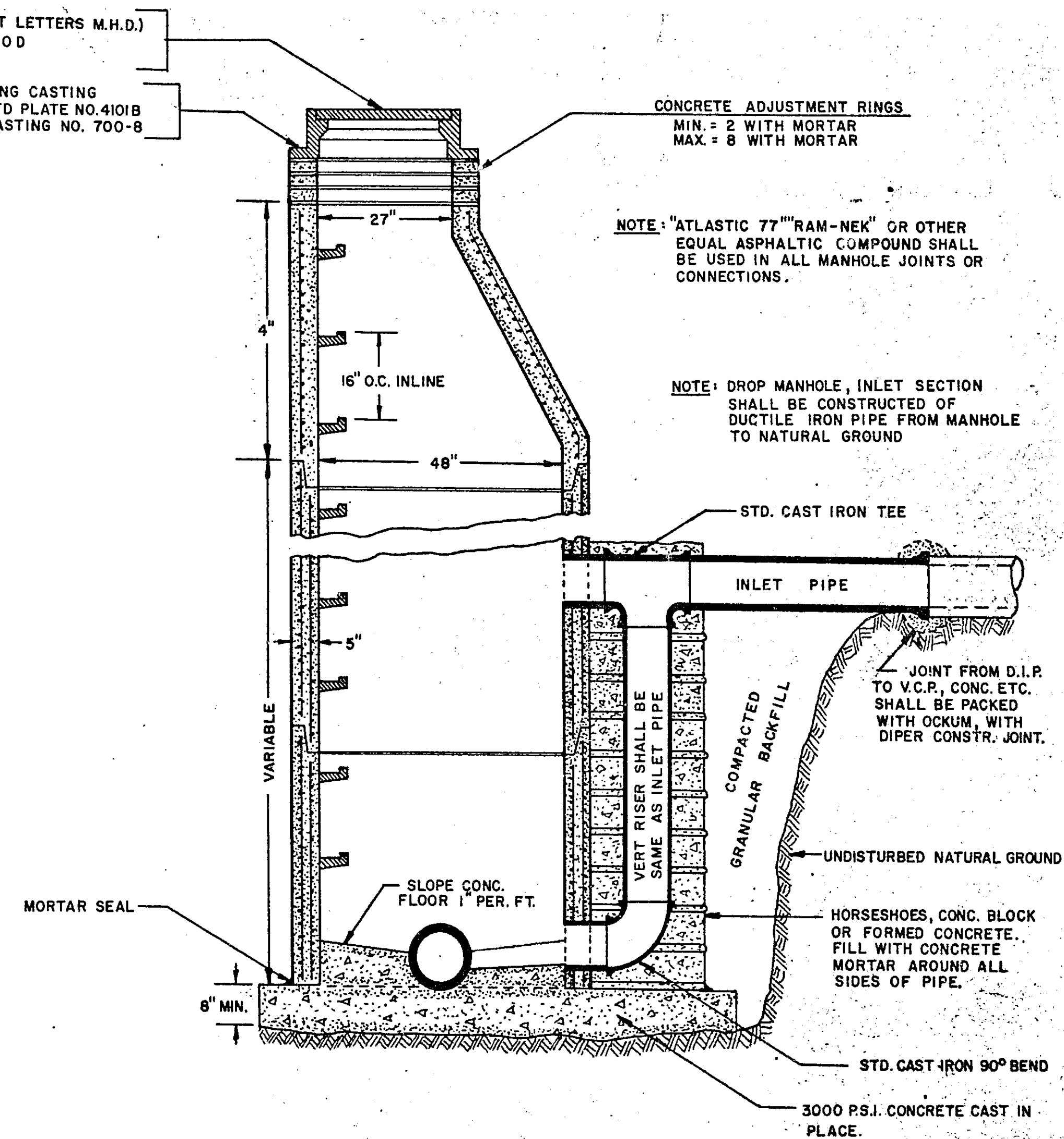
Date _____ Reg. No. _____

WATER MAIN DETAILS		
MILNER W. CARLEY & ASSOCIATES CONSULTING ENGINEERS		
500 W. Hwy. 96 St. Paul 12, Minn.		18 Fourth Ave. S.E. St. Cloud, Minn.
SURVEY BY _____	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.	REVISIONS
DESIGNED BY _____		
DRAWN BY <i>R.F.M.</i>		
APPROVED BY _____		
SHEET OF SHEETS	Date <i>4-5-74</i> Reg. No. <i>9772</i>	COMM. NO. _____

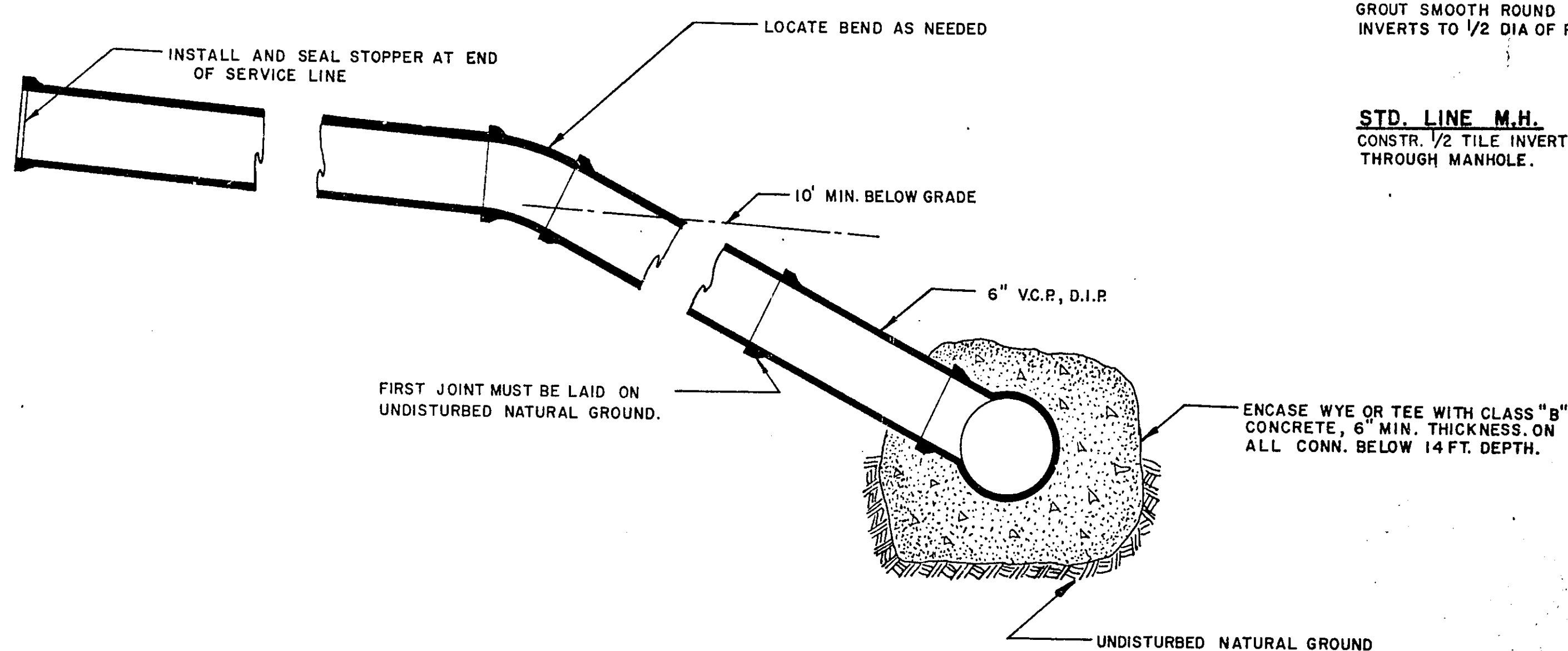
RAMSEY CO. ENGR.



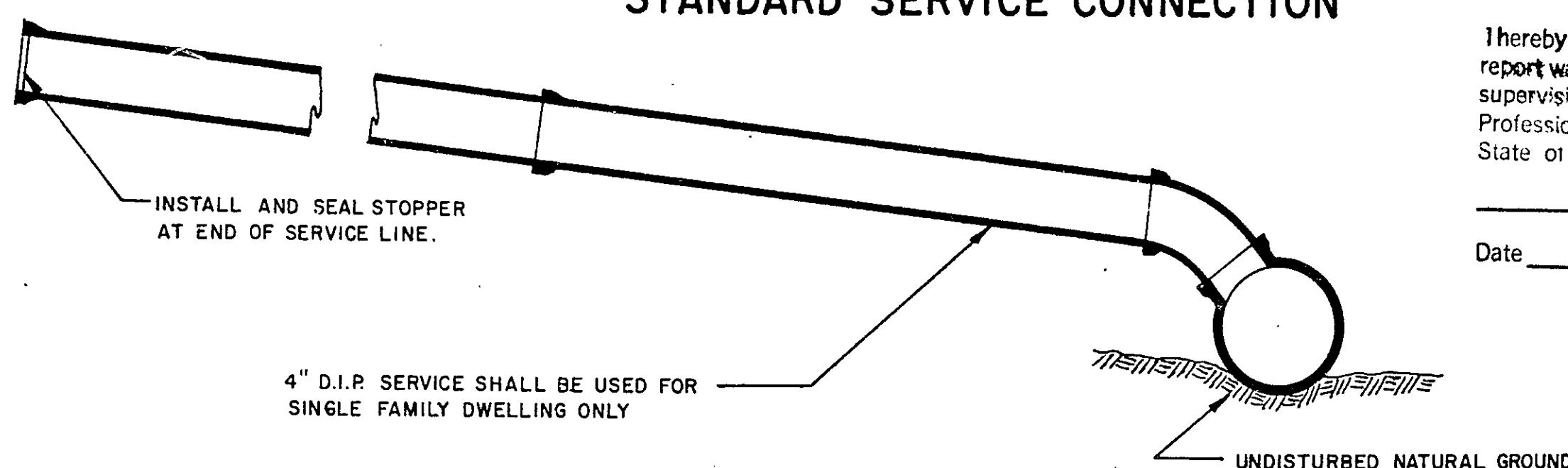
STANDARD RISER CONNECTION



STANDARD MANHOLE DETAIL
SHOWING DROP SECTION



STANDARD SERVICE CONNECTION

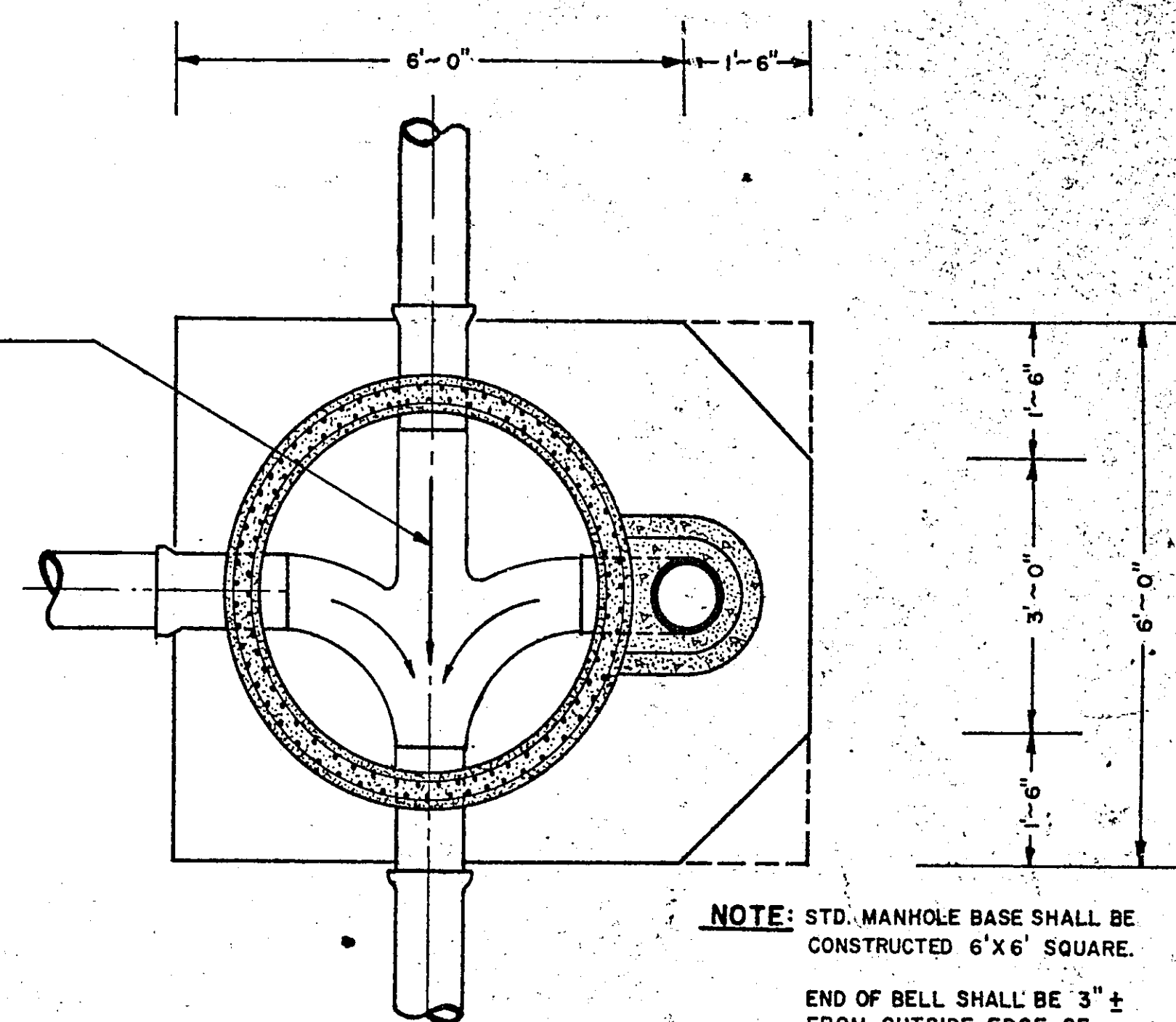


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report was prepared by me or under my direct
supervision and that I am a duly Registered
Professional Engineer under the laws of the
State of Minnesota.

Date _____ Reg. No. _____

JUNCTION M.H.
GROUT SMOOTH ROUND
INVERTS TO 1/2 DIA OF PIPE

STD. LINE M.H.
CONSTR. 1/2 TILE INVERT
THROUGH MANHOLE.



STANDARD JUNCTION MANHOLE
SHOWING DROP SECTION & BASE

SANITARY SEWER DETAILS

MILNER W. CARLEY & ASSOCIATES
CONSULTING CIVIL ENGINEERS LAND SURVEYORS

500 W. HWY. 96
ST. PAUL 12, MINN.
484-3901

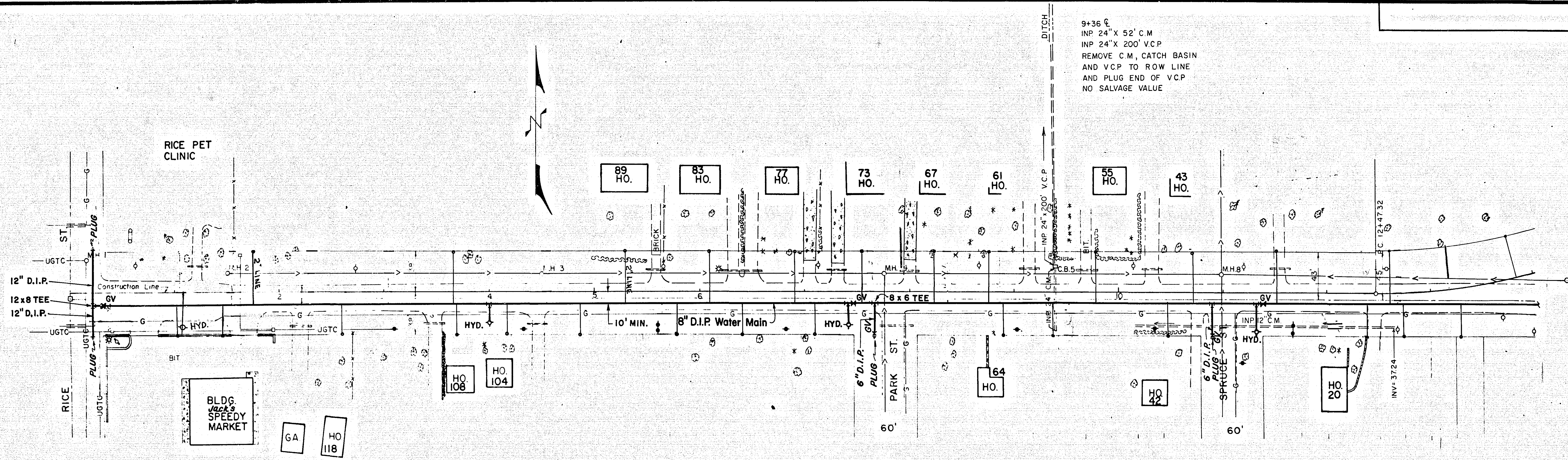
314 OAK ST.
SAUK CENTRE, MINN.
352-3664

18 4TH AVE. S.E.
ST. CLOUD, MINN.
251-7751

SURVEY BY
DESIGNED BY D.O.C., K.R.O.
DRAWN BY K.R.O., C.V.
APPROVED BY D.O.C.
SHEET 20 OF 23 SHEETS

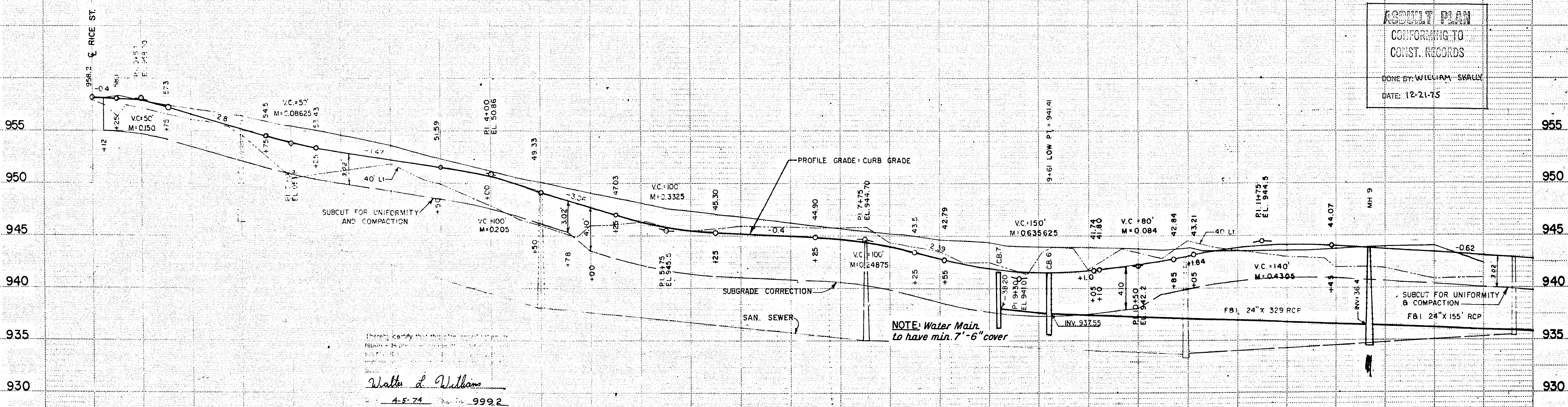
I hereby certify that this plan, specification, or report
was prepared by me or under my direct supervision
and that I am a duly Registered Professional Engi-
neer under the laws of the State of Minnesota.
Walter J. Williams
Date 4-5-74 Reg. No. 9992

REVISIONS
MICROFILMED
RAMSEY CO. ENGR.
COMM. NO. 20-104

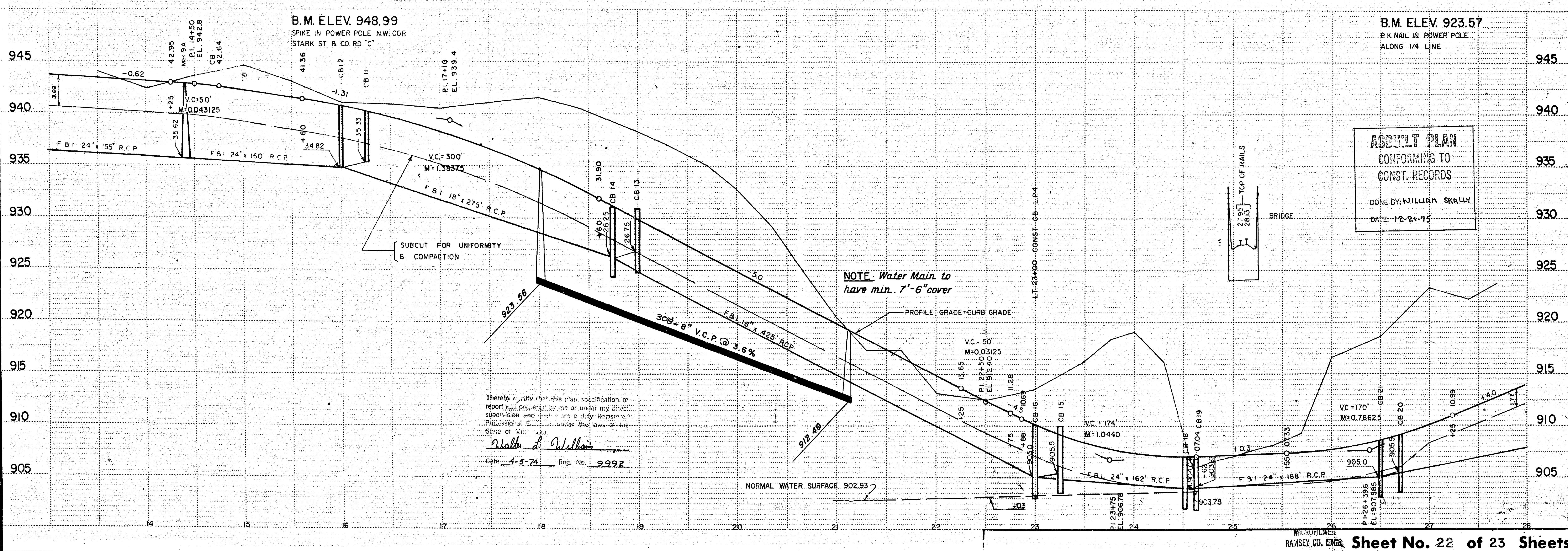
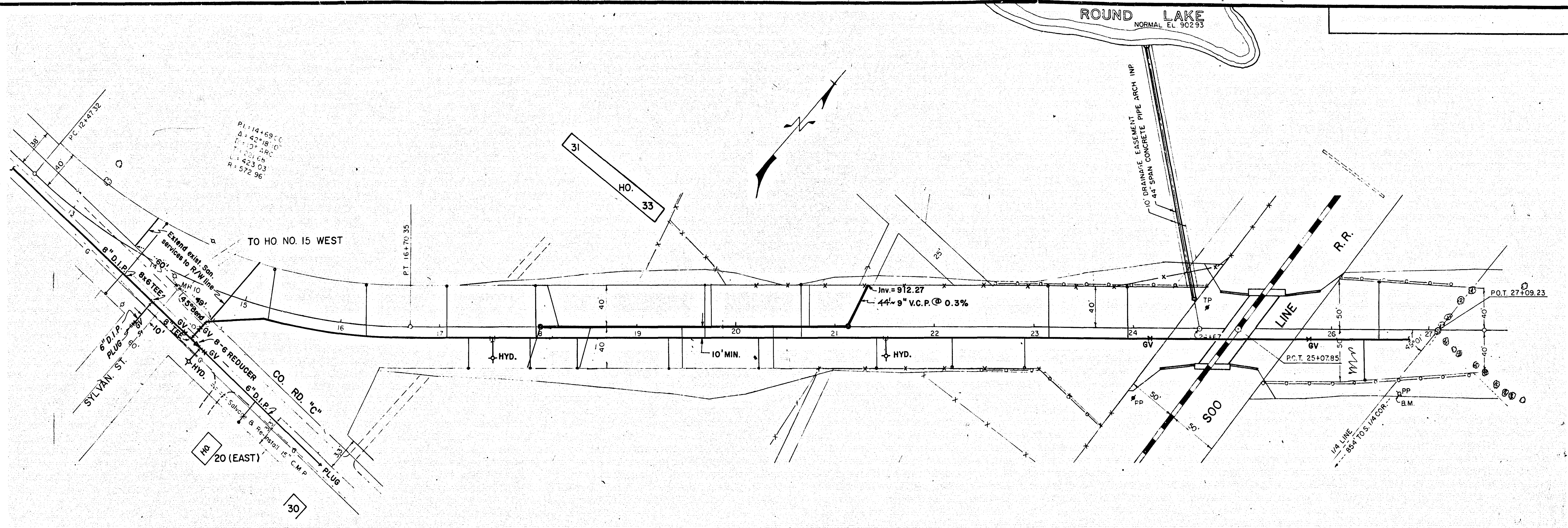


B.M. ELEV. 959.88
TOP HYD. N.W. COR.
RICE ST. & CO. RD. "C"

B.M. ELEV. 942.77
SPIKE IN POWER POLE N.E. COR.
SPRUCE ST. & CO. RD. "C"



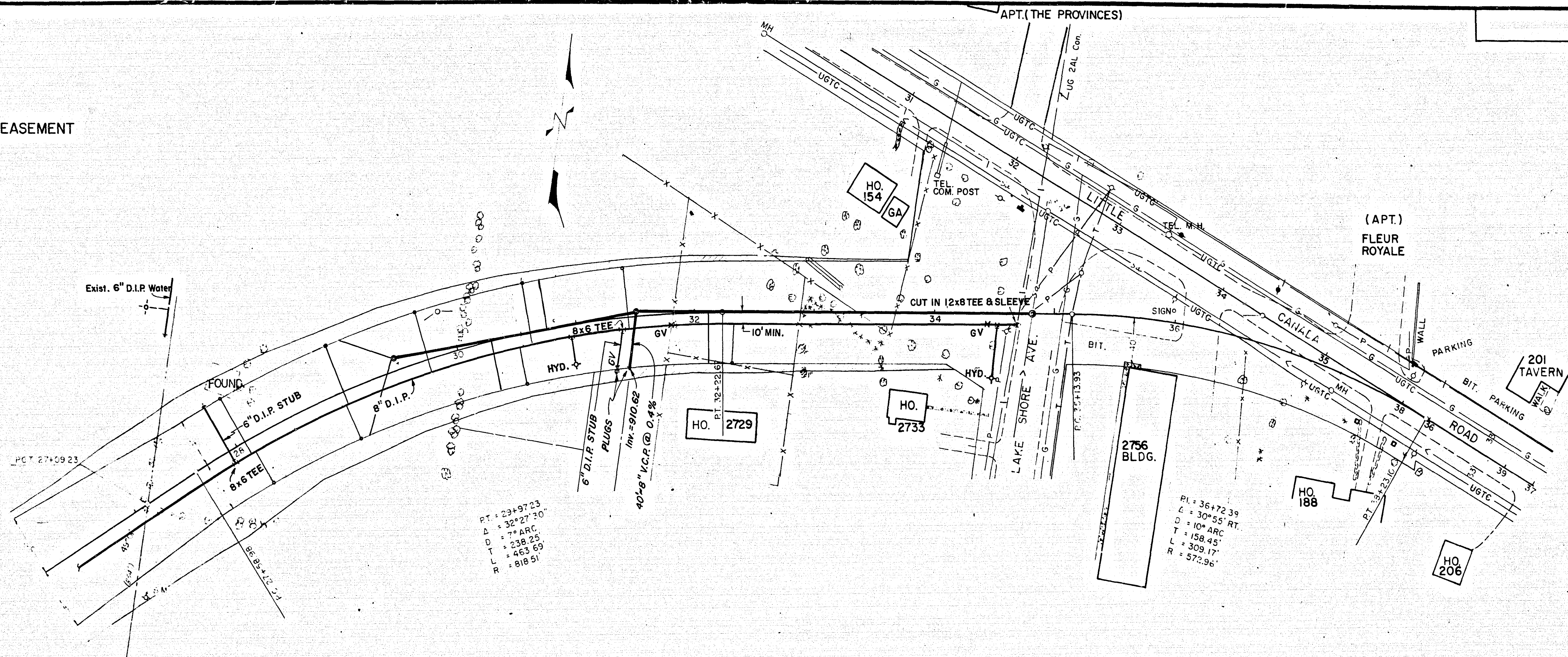
Walter L. Williams
4-5-74 9992



AS-BUILT PLAN
 CONFORMING TO
 CONST. RECORDS
 DONE BY: WILLIAM SKALLY
 DATE: 12-21-75

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.
 Walter L. Walker
 Date: 4-5-74 Reg. No. 9992

 = SLOPE EASEMENT

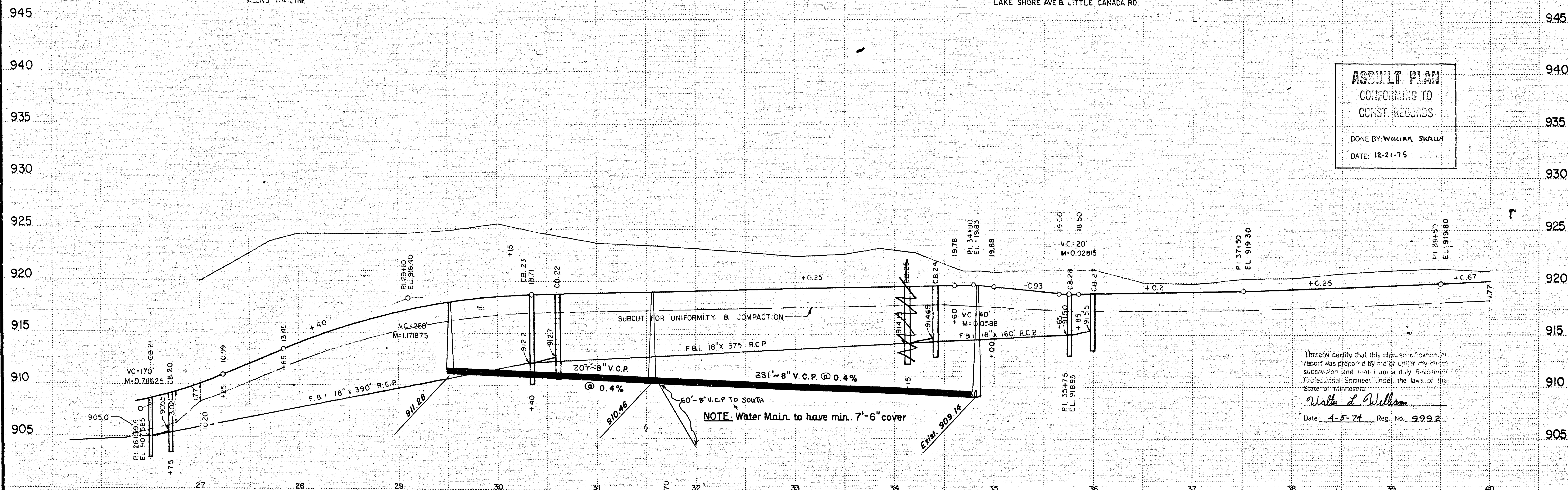


B.M. ELEV. 923.57
R.R. NAIL IN POWER POLE
ALONG 1/4 LINE

B.M. ELEV. 917.87
SPIKE IN ARC LIGHT POLE N.E. COR.
LAKE SHORE AVE & LITTLE CANADA RD.

ADULT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: WILLIAM SKALLY
DATE: 12-21-75



Thereby 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.

Walter L. Williams
Date 4-5-74 Reg. No. 9922