

Co. Rd. "C" - JACKSON ST. - DEMONT AVE. Co. Proj 77-138

STATEMENT OF ESTIMATED QUANTITIES ⁹⁻²⁹⁻⁷⁷ RAB

8-30-77 RAB

ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	UNIT PRICE	AMOUNT
2021.501	MOBILIZATION	LUMP SUM	1	1,990 26	1,990 26
2101.502	CLEARING	TREE	65	50 00	3,250 00
2101.506	GRUBBING	TREE	64	30 00	1,920 00
2104.501	REMOVE B612 CONC. CURB	LF	195	1 00	195 00
2104.501	REMOVE 8" V.C. PIPE SEWER	LF	239	3 00	717 00
2104.509	REMOVE MANHOLE	EACH	1	100 00	100 00
2104.523	SALVAGE 36" R.C. PIPE APRON	EACH	1	50 00	50 00
2105.501	COMMON EXCAVATION	CY	12,080	1 70	20,536 00
2105.523	COMMON BORROW	CY	997	1 95	1,944 15
2130.501	WATER	(M) GAL.	100	8 50	850 00
2211.501	AGGREGATE BASE, CLASS 6	TON	2604	3 90	10,147 80
2501.511	12" C.S. PIPE CULVERT, 16 GAUGE	LF	110	12 00	1,320 00
2501.511	18" C.S. PIPE CULVERT, 16 GAUGE	LF	149	14 00	2,086 00
2501.511	24" C.S. PIPE SEWER, 16 GAUGE	LF	32	18 00	576 00
2501.515	12" C.S. PIPE APRON	EACH	8	40 00	320 00
2501.515	24" C.S. PIPE APRON	EACH	1	80 00	80 00
2501.515	18" R.C. PIPE APRON	EACH	1	100 00	100 00
2503.511	8" V.C. PIPE SEWER	LF	240	9 00	2,160 00
2503.511	18" R.C. PIPE SEWER	LF	110	14 00	1,514 00
2503.511	24" R.C. PIPE SEWER	LF	108	16 00	1,728 00
2503.511	36" R.C. PIPE SEWER	LF	64	30 00	1,920 00
2506.508	CONSTRUCT M.H. DESIGN A OR F	EACH	4	700 00	2,800 00
2506.509	CONSTRUCT S.D. DESIGN A OR F	EACH	3	750 00	2,250 00
2506.511	RECONSTRUCT M.H.	LF	7	65 00	455 00
2506.521	INSTALL CASTING	EACH	2	90 00	180 00
2506.522	ADJUST FRAME & RING CASTING	EACH	1	85 00	85 00
2535.501	BITUMINOUS CURB	LF	262	1 30	340 60
2554.501	TRAFFIC BARRIER, DESIGN B	LF	75	6 00	450 00
2554.501	TRAFFIC BARRIER, DESIGN TWISTED END	LF	25	12 00	300 00
2554.521	ANCHORAGE ASSEMBLIES	EACH	2	225 00	450 00
2575.501	ROADSIDE SEEDING	ACRE	1.7	100 00	170 00
2575.502	SEED, MIXTURE 6	POUND	120	1 50	180 00
2575.505	SODDING	SY.	4429	0 85	3,764 65
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	0.6	350 00	210 00
2575.551	TOPSOIL BORROW	CY	837	4 50	3,766 50
501.601	INSTALL 36" R.C. PIPE APRON	EACH	1	50 00	50 00
503.601	REPLACE EXISTING 6" SANITARY SEWER SERVICE	LF	209	6 00	1,254 00
504.601	LOWER 12" WATERMAIN (D.I.P.)	LF	230	8 00	1,840 00
504.678	ADJUST HYDRANT	EACH	2	200 00	400 00
504.679	ADJUST VALVE BOX	EACH	4	50 00	200 00
545.602	RELOCATE ORNAMENTAL ELECTRIC LIGHT	EACH	2	75 00	150 00
TOTAL					72,825 96

BID TABULATIONS TAKEN OCT. 12, 1977

STATEMENT OF ESTIMATED QUANTITIES				Average	C.W.Houle		FISCHER		C.S.McCrossAN		ALEXANDER ConstCo		ShaFer Contr.							
ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES	3 Low BIDDERS	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT				
2021.501	MOBILIZATION	LUMP SUM	1		2500.00	2500.00	3000.00	3000.00	5500.00	5500.00	3000.00	3000.00	5000.00	5000.00						
2101.502	CLEARING	TREE	65		40.00	2600.00	65.00	4225.00	30.00	1950.00	35.00	2275.00	30.00	1950.00						
2101.506	GRUBBING	TREE	64		30.00	1920.00	15.00	960.00	15.00	960.00	17.00	1088.00	30.00	1920.00						
2104.501	REMOVE B612 CONC. CURB	L.F.	185		1.20	234.00	2.00	390.00	1.00	195.00	2.00	390.00	1.25	243.75						
2104.501	REMOVE 8" V.C. PIPE SEWER	L.F.	239		5.00	1195.00	2.00	478.00	3.00	717.00	1.25	298.75	4.00	956.00						
2104.509	REMOVE MANHOLE	EACH	1		100.00	100.00	400.00	250.00	250.00	110.00	110.00	150.00	150.00	150.00						
2104.523	SALVAGE 36" R.C. PIPE APRON	EACH	1		50.00	50.00	100.00	100.00	100.00	100.00	60.00	60.00	150.00	150.00						
2105.501	COMMON EXCAVATION	CY	12080	125	1.50	18120.00	1.75	21140.00	1.85	22348.00	1.85	22348.00	2.25	27180.00						
2105.523	COMMON BORROW	CY	997		4.00	3988.00	3.50	3489.50	2.45	2442.65	2.48	2472.56	3.00	2991.00						
2130.501	WATER	(M) GAL.	100		8.00	800.00	6.00	600.00	15.00	1500.00	7.00	700.00	8.00	800.00						
2211.501	AGGREGATE BASE, CLASS 6	TON	2604	343	3.40	8853.60	3.75	9765.00	3.45	8983.80	4.18	10884.72	4.00	10416.00						
2501.511	12" C.S. PIPE CULVERT, 16 GAUGE	L.F.	110		14.30	1573.00	16.00	1760.00	12.00	1320.00	13.00	1430.00	14.00	1540.00						
2501.511	18" C.S. PIPE CULVERT, 16 GAUGE	L.F.	149		16.60	2473.40	16.00	2384.00	15.00	2235.00	15.15	2257.35	16.00	2384.00						
2501.511	24" C.S. PIPE SEWER, 16 GAUGE	L.F.	32		19.10	611.20	19.00	608.00	18.00	576.00	18.80	601.60	20.00	640.00						
2501.515	12" C.S. PIPE APRON	EACH	8		60.00	480.00	75.00	600.00	50.00	400.00	48.50	388.00	50.00	400.00						
2501.515	24" C.S. PIPE APRON	EACH	1		90.00	90.00	100.00	100.00	100.00	100.00	70.00	70.00	100.00	100.00						
2501.515	18" R.C. PIPE APRON	EACH	1		170.00	170.00	150.00	150.00	165.00	165.00	238.00	238.00	200.00	200.00						
2503.511	8" V.C. PIPE SEWER	L.F.	240		12.00	2880.00	12.00	2880.00	24.00	5760.00	15.15	3636.00	12.00	2880.00						
2503.511	18" R.C. PIPE SEWER	L.F.	110	2033	16.60	1826.00	19.00	2090.00	24.00	2640.00	17.80	1958.00	17.00	1870.00						
2503.511	24" R.C. PIPE SEWER	L.F.	108		19.00	2052.00	21.00	2268.00	29.00	3132.00	21.00	2268.00	20.00	2160.00						
2503.511	36" R.C. PIPE SEWER	L.F.	64		30.00	1920.00	40.00	2560.00	35.00	2240.00	37.80	2419.20	30.00	1920.00						
2506.508	CONSTRUCT M.H. DESIGN A OR F	EACH	4	733 1/2	650.00	2600.00	850.00	3400.00	700.00	2800.00	810.00	3240.00	1000.00	4000.00						
2506.509	CONSTRUCT S.D. DESIGN A OR F	EACH	3		750.00	2250.00	700.00	2100.00	800.00	2400.00	595.00	1785.00	800.00	2400.00						
2506.511	RECONSTRUCT M.H.	L.F.	7		60.00	420.00	100.00	700.00	80.00	560.00	173.00	1211.00	100.00	700.00						
2506.521	INSTALL CASTING	EACH	2		50.00	100.00	75.00	150.00	100.00	200.00	75.00	150.00	100.00	200.00						
2506.522	ADJUST FRAME & RING CASTING	EACH	1		85.00	85.00	75.00	75.00	100.00	100.00	125.00	125.00	100.00	100.00						
2535.501	BITUMINOUS CURB	L.F.	262		2.30	602.60	2.50	655.00	2.50	655.00	2.35	615.70	1.50	393.00						
2554.501	TRAFFIC BARRIER, DESIGN B	L.F.	75		10.50	787.50	12.00	900.00	9.50	712.50	12.25	918.75	10.00	750.00						
2554.501	TRAFFIC BARRIER, DESIGN TWISTED END	L.F.	25		15.00	375.00	15.00	375.00	13.50	337.50	14.60	365.00	15.00	375.00						
2554.521	ANCHORAGE ASSEMBLIES	EACH	2		250.00	500.00	180.00	360.00	225.00	450.00	243.00	486.00	250.00	500.00						
2575.501	ROADSIDE SEEDING	ACRE	1.7		150.00	255.00	225.00	382.50	225.00	382.50	243.00	413.10	200.00	340.00						
2575.502	SEED, MIXTURE 6	POUND	120		2.00	240.00	1.95	234.00	1.95	234.00	2.10	252.00	1.75	210.00						
2575.505	SODDING	SY.	4429		1.10	4871.90	.95	4207.55	.95	4207.55	1.03	4561.87	1.00	4429.00						
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	0.6		200.00	120.00	300.00	180.00	300.00	180.00	194.40	300.00	180.00	180.00						
2575.551	TOPSOIL BORROW	CY.	837		5.00	4185.00	5.75	4818.75	5.75	4818.75	6.20	5189.40	5.50	4605.50						
501.601	INSTALL 36" R.C. PIPE APRON	EACH	1		250.00	250.00	175.00	175.00	125.00	125.00	75.00	75.00	150.00	150.00						
503.601	REPLACE EXISTING 6" SANITARY SEWER SERVICE	L.F.	209		9.00	1881.00	10.00	2090.00	10.00	2090.00	11.20	2338.80	12.00	2508.00						
504.601	LOWER 12" WATERMAIN (D.I.P.)	L.F.	239		7.00	1673.00	10.00	2390.00	12.00	2868.00	35.65	8519.55	15.00	3540.00						
504.678	ADJUST HYDRANT	EACH	2		400.00	800.00	500.00	1000.00	400.00	800.00	325.00	650.00	250.00	500.00						
504.679	ADJUST VALVE BOX	EACH	4		60.00	240.00	60.00	240.00	70.00	280.00	55.00	220.00	100.00	400.00						
545.602	RELOCATE ORNAMENTAL ELECTRIC LIGHT	EACH	2		715.00	1430.00	350.00	500.00	250.00	500.00	700.00	1400.00	300.00	600.00						
					TOTAL:	78,039.20		84784.30		88,321.25		91432.00		92,639.25						

MICROFILMED
DANIEL W. ENOMICROFILMED
DANIEL W. ENO

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 SNOW 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 C CONCRETE
S STONE 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

COUNTY RD. "C"
& JACKSON ST.
DEMONT AVE &
JACKSON ST.

GROSS LENGTH 1677 FEET = 0.32 MILES
BRIDGES-LENGTH FEET = MILES
EXCEPTIONS-LENGTH FEET = MILES
NET LENGTH 1677 FEET = 0.32 MILES

PLAN, 0 10 20 30 40 50
PROFILE, HORZ., 0 10 20 30 40 50
PROFILE, VERT., 0 5 10
CROSS SECTIONS, 0 5 10
LAYOUT, 1 5,280'

OFFICE OF COUNTY ENGINEER RAMSEY COUNTY

COUNTY RD. "C" & JACKSON ST. DEMONT AVE. & JACKSON ST.

CONSTRUCTION PLAN FOR: GRADING, AGGREGATE BASE
AND STORM SEWER

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

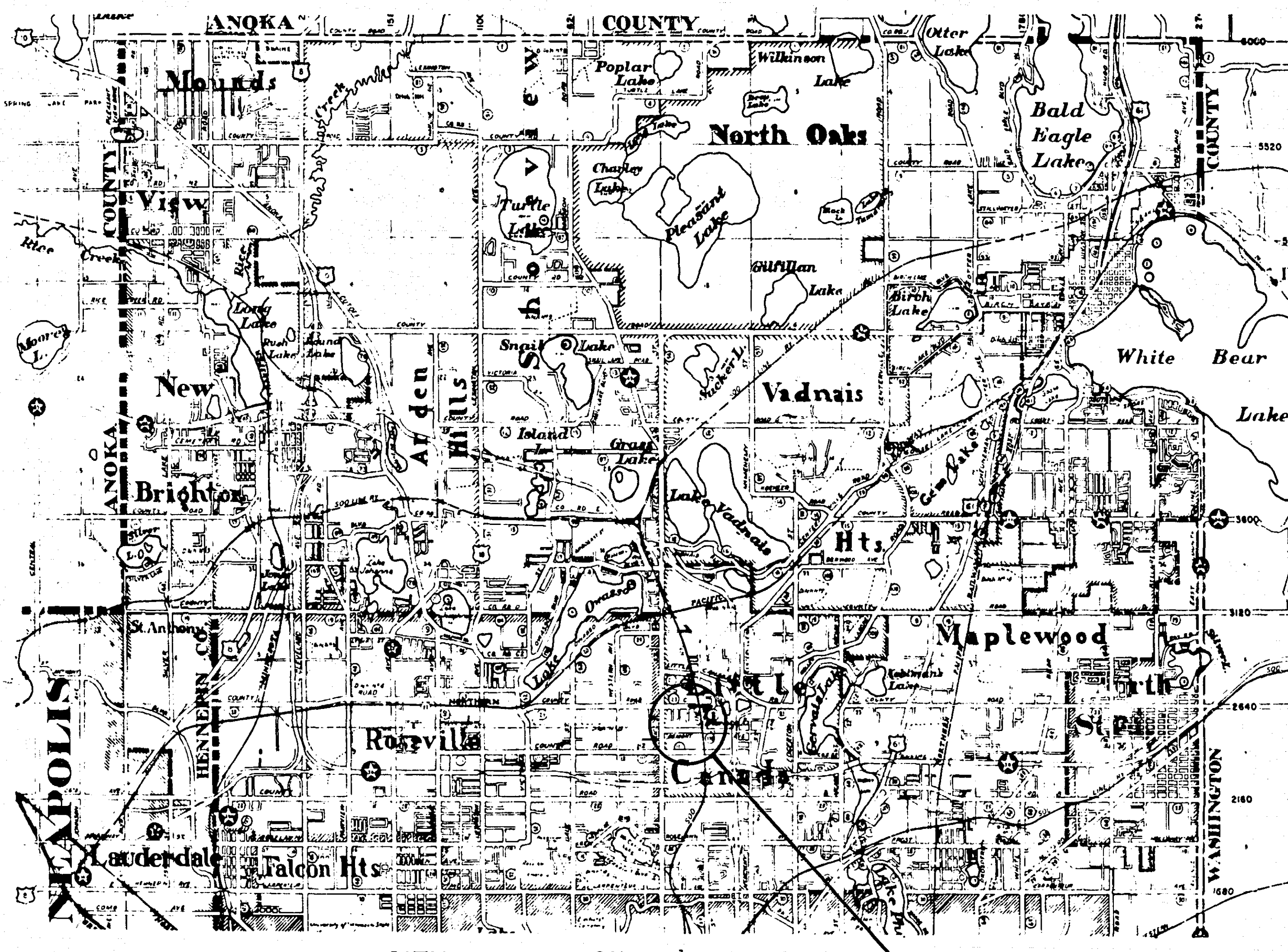
CONDUIT
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
AERIAL TELEPHONE CABLE
SEWER, (SANITARY OR STORM)
SEWER MANHOLE



NOTE: SECTION NUMBERS REF.
FROM "THE SCL"

PIT DATA

PIT NO. Located in
Dead Haul
PIT NO. Located in
Dead Haul



CITY OF ST. PAUL

"C" & JACKSON
DEMONT & JACKSON

INDEX

- 1 TITLE SHEET
- 2 ESTIMATED QUANTITIES & TYPICAL SECTION
- 3-6 PLAN AND PROFILES
- 7-21 CROSS SECTIONS

RECOMMENDED FOR APPROVAL DJL DATE 7/12/77
ENVIRONMENTAL ENGINEER
RECOMMENDED FOR APPROVAL MDK DATE 7/13/77
MAINTENANCE ENGINEER
RECOMMENDED FOR APPROVAL JKP DATE 7-13-77
CONSTRUCTION ENGINEER
RECOMMENDED FOR APPROVAL JKP DATE 7-13-77
R.O.W. ENGINEER
RECOMMENDED FOR APPROVAL JKP DATE 7-12-77
TRAFFIC ENGINEER
APPROVED LKF DATE 7-13-77
DESIGN ENGINEER

ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES
WILL BE COMPLIED WITH IN CONSTRUCTION OF THIS PROJECT.

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.

Myer Leonard REG. NO. 5792 DATE 7-13-77

RECOMMENDED FOR APPROVAL Kenneth P. Wolf DATE 7/13/77
COUNTY ENGINEER

APPROVED Wm. H. Schuba DATE 9-17-77
CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED Donald Valente DATE 7/15/77
MAYOR, CITY OF "LITTLE CANADA"

APPROVED _____ DATE _____

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL _____ DATE _____

RECOMMENDED FOR APPROVAL _____ DATE _____
DISTRICT STATE AID ENGINEER

APPROVAL _____ DATE _____
STATE AID ENGINEER

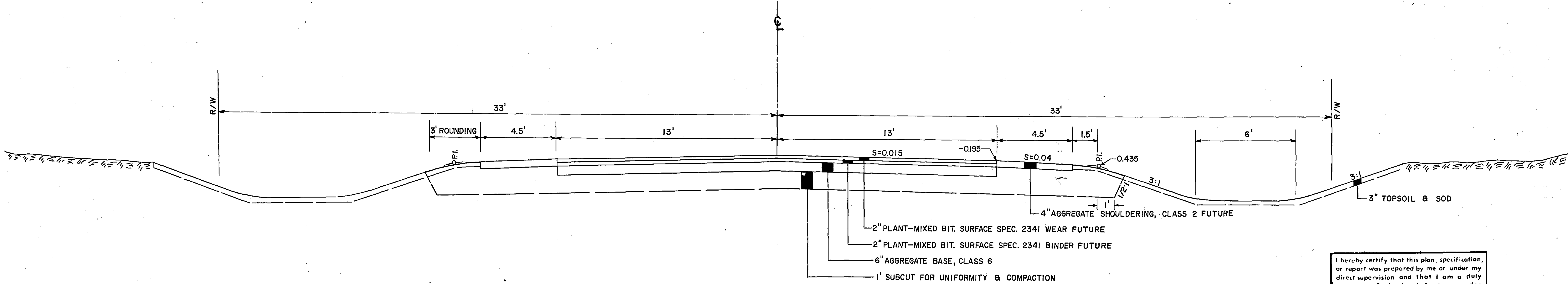
REVISED	DATE	DESIGNED BY
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		CHECKED BY

THE "MINNESOTA HIGHWAY DEPARTMENT STANDARD
SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED
JANUARY 1, 1972 AS AMENDED BY "SUPPLEMENTAL SPEC-
IFICATIONS DATED APRIL 1, 1976 SHALL GOVERN.

STATEMENT OF ESTIMATED QUANTITIES			
ITEM NO.	ITEM	UNIT	ESTIMATED QUANTITIES
2021.501	MOBILIZATION	LUMP SUM	1
2101.502	CLEARING	TREE	65
2101.505	GRUBBING	TREE	64
2104.501	REMOVE 6612 CONC. C'IRB	L.F.	195
2104.501	REMOVE 8" V.C. PIPE SEWER	L.F.	239
2104.509	REMOVE MANHOLE	EACH	1
2104.523	SALVAGE 36" R.C. PIPE APRON	EACH	1
2105.501	COMMON EXCAVATION	CY	12080
2105.523	COMMON BORROW	CY	997
2130.501	WATER	(M) GAL.	100
2211.501	AGGREGATE BASE, CLASS 6	TON	2604
2501.511	12" C.S. PIPE CULVERT, 16 GAUGE	L.F.	110
2501.511	18" C.S. PIPE CULVERT, 16 GAUGE	L.F.	149
2501.511	24" C.S. PIPE SEWER, 16 GAUGE	L.F.	32
2501.515	12" C.S. PIPE APRON	EACH	8
2501.515	24" C.S. PIPE APRON	EACH	1
2501.515	18" R.C. PIPE APRON	EACH	1
2503.511	8" V.C. PIPE SEWER	L.F.	240
2503.511	18" R.C. PIPE SEWER	L.F.	110
2503.511	24" R.C. PIPE SEWER	L.F.	108
2503.511	36" R.C. PIPE SEWER	L.F.	64
2506.508	CONSTRUCT M.H. DESIGN A OR F	EACH	4
2506.509	CONSTRUCT S.D. DESIGN A OR F	EACH	3
2506.511	RECONSTRUCT M.H.	L.F.	7
2506.521	INSTALL CASTING	EACH	2
2506.522	ADJUST FRAME & RING CASTING	EACH	1
2535.501	BITUMINOUS CURB	L.F.	262
2554.501	TRAFFIC BARRIER, DESIGN B	L.F.	75
2554.501	TRAFFIC BARRIER, DESIGN TWISTED END	L.F.	25
2554.521	ANCHORAGE ASSEMBLIES	EACH	2
2575.501	ROADSIDE SEEDING	ACRE	1.7
2575.502	SEED, MIXTURE 6	POUND	120
2575.505	SODDING	SY.	4429
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	0.6
2575.551	TOPSOIL BORROW	CY.	837
501.601	INSTALL 36" R.C. PIPE APRON	EACH	1
503.601	REPLACE EXISTING 6" SANITARY SEWER SERVICE	L.F.	209
504.601	LOWER 12" WATERMAIN (D.I.P.)	L.F.	230
504.678	ADJUST HYDRANT	EACH	2
504.679	ADJUST VALVE BOX	EACH	4
545.602	RELOCATE ORNAMENTAL ELECTRIC LIGHT	EACH	2

STANDARD DETAIL PLATES	
0002A	SPECIFICATION REFERENCE TO STANDARD PLATES
3000G	REINFORCED CONCRETE PIPE
3006B	GASKET JOINT FOR R.C. PIPE
3040D	CORRUGATED METAL PIPE
3100F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3123G	METAL APRON FOR CORRUGATED METAL PIPE
3124A	METAL APRON CONNECTIONS
3145A	CONCRETE PIPE JOINT TIES
4000G	MANHOLE OR CATCH BASIN
4005J	MANHOLE OR CATCH BASIN (SECTIONAL CONCRETE)
4010E	CONCRETE SHORT RING & ADJUSTING RING
4011C	PRECAST CONCRETE BASE
4101B	RING CASTING FOR MANHOLE OR CATCH BASIN
4110D	COVER CASTING FOR MANHOLE
4142D	BEEHIVE GRATE CASTING FOR CATCH BASIN
4180F	MANHOLE STEP CASTING
7065C	BITUMINOUS CURB
8000F	STANDARD BARRICADES
8307K	STRUCTURAL PLATES BEAM GUARDRAIL, DESIGN B
8319C	TWISTED END TREATMENT
9102C	SODDING AT PIPE CULVERT END

TYPICAL SECTION

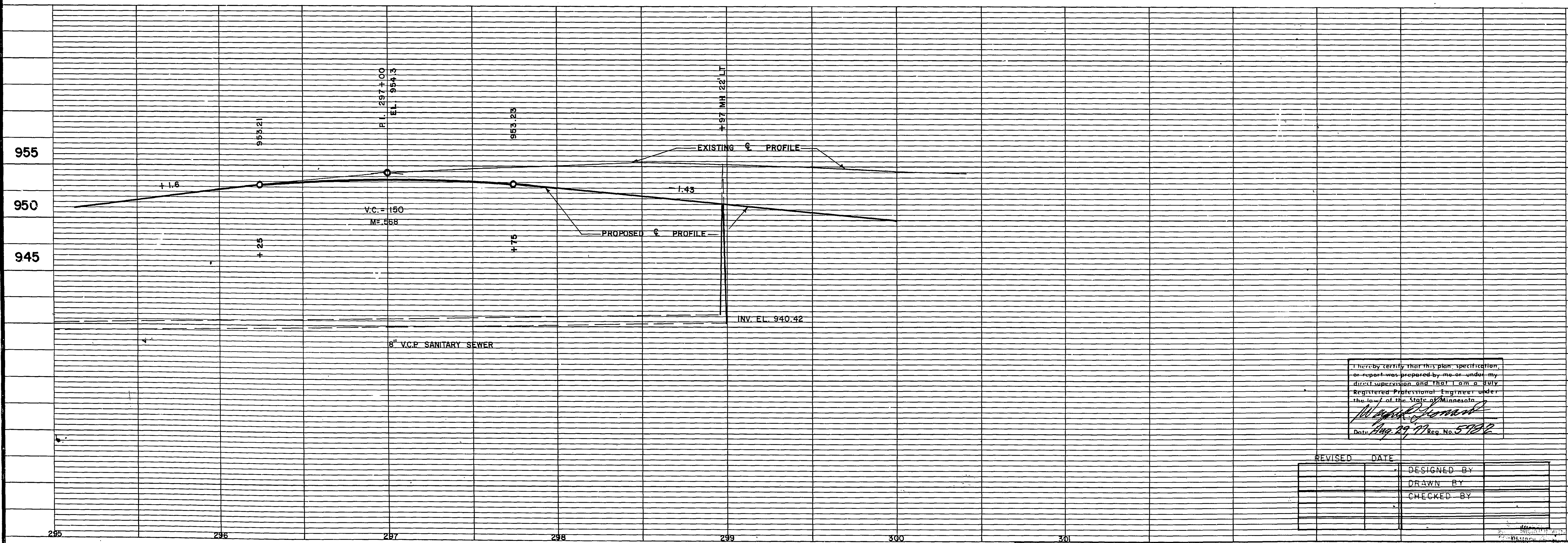
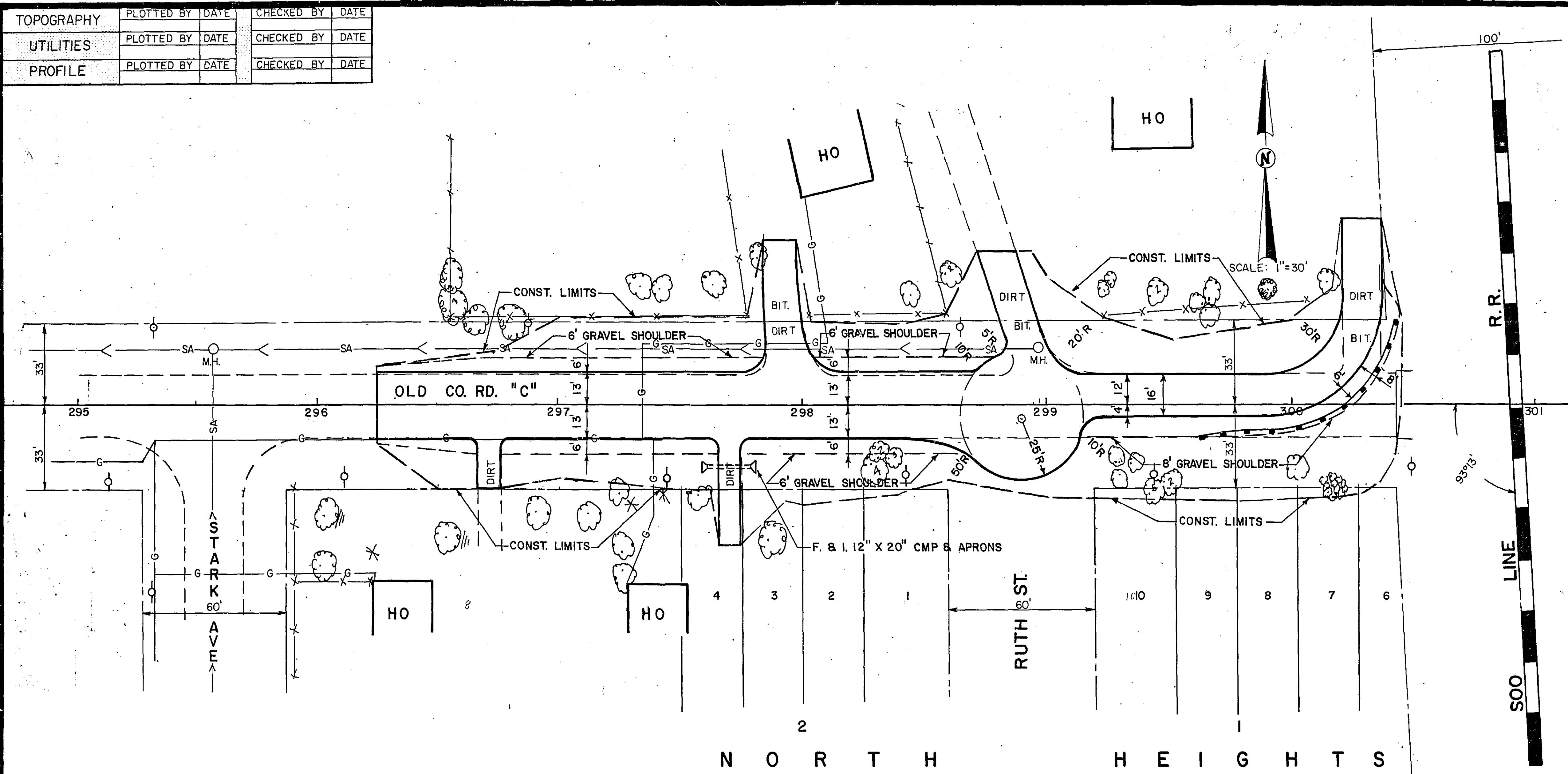


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

[Signature]
Date Aug 29 78 Reg. No. 5702

REVISED	DATE	DESIGNED BY	
LKF	9-29-77	DRAWN BY	
		CHECKED BY	

TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE

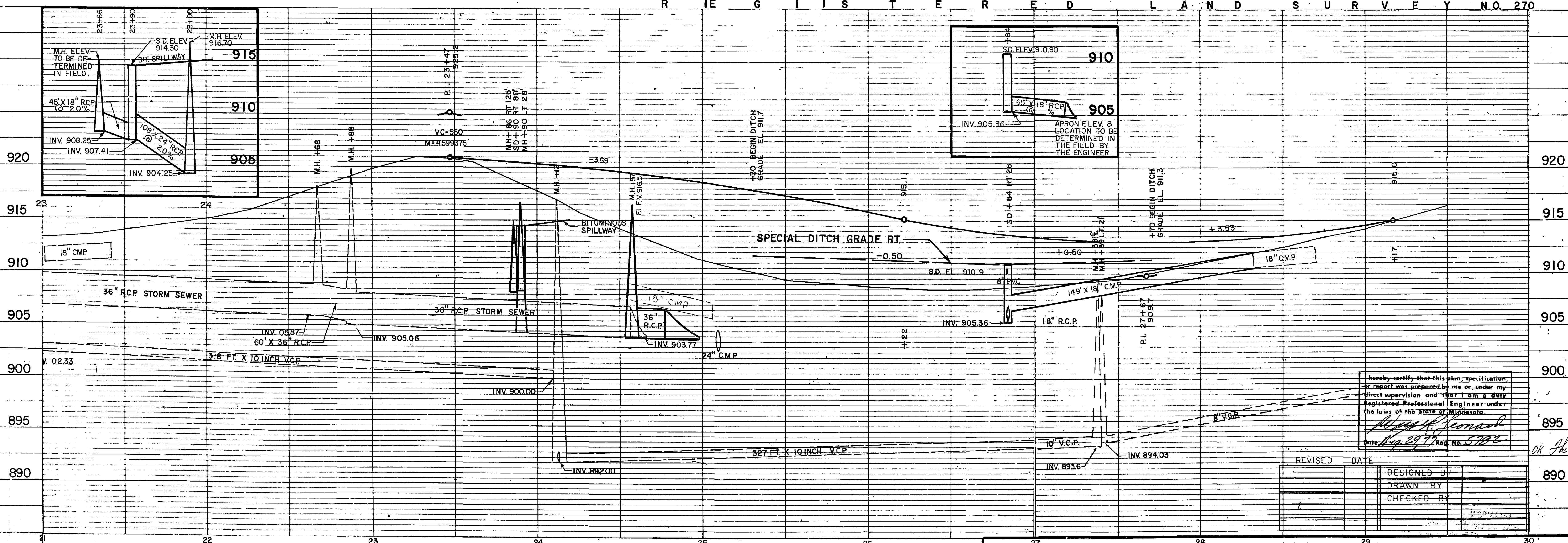
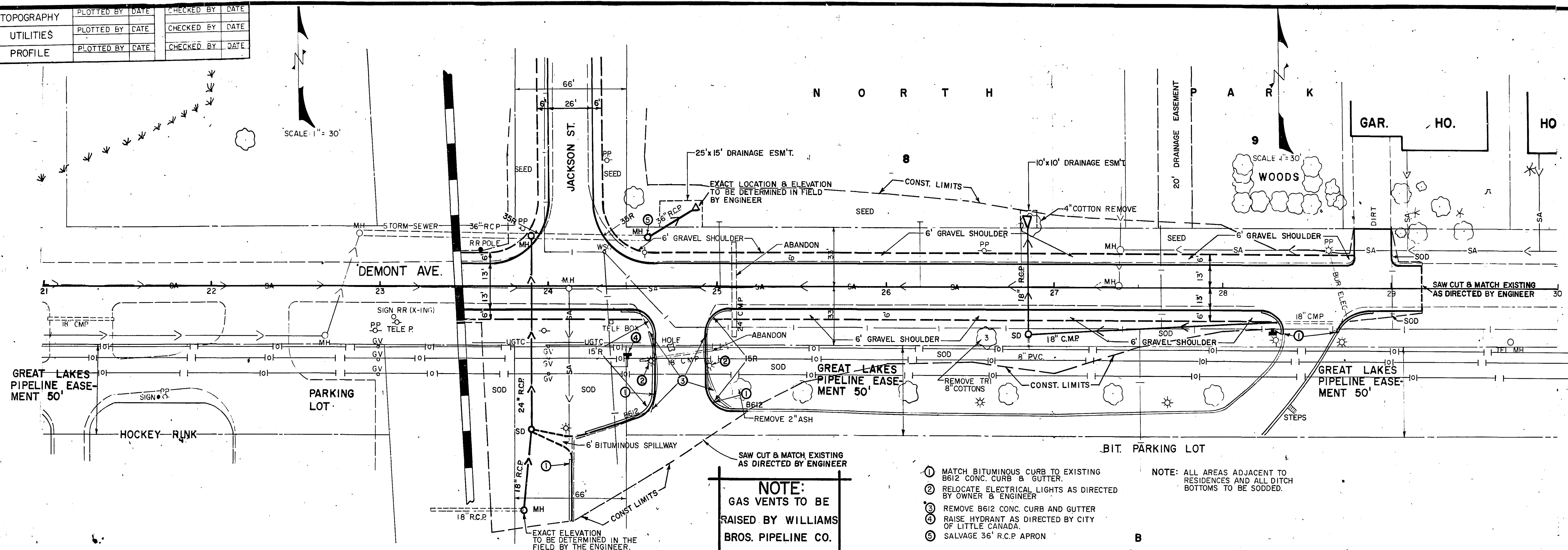


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

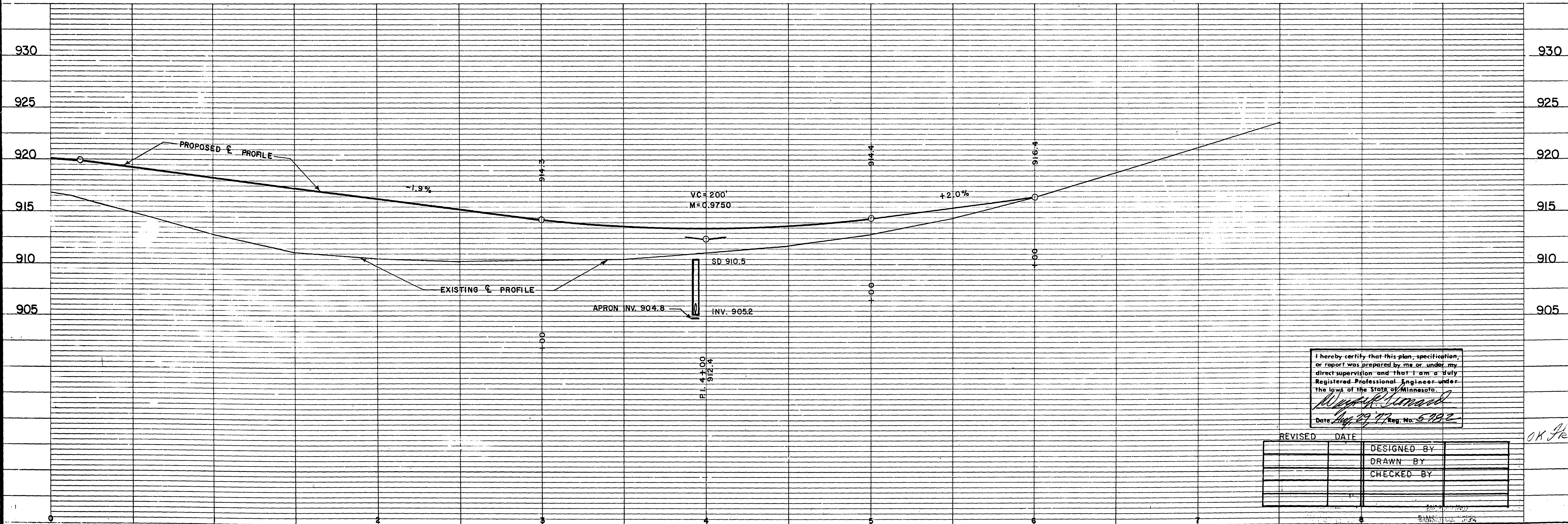
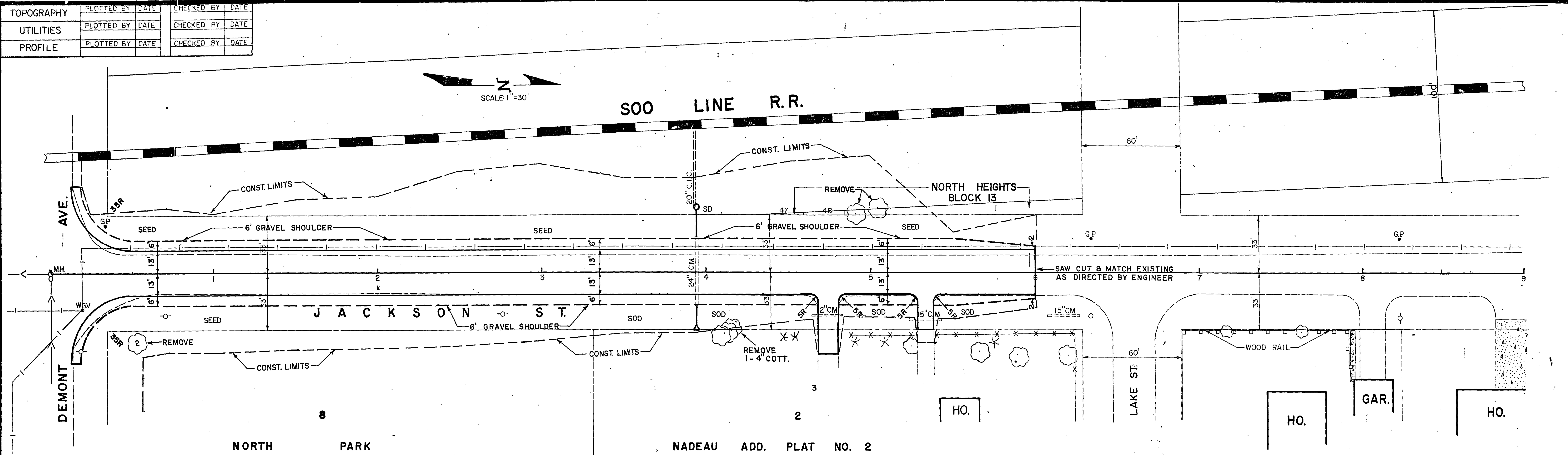
[Signature]
Date: Aug. 29, 77 Reg. No. 5722

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE



TOPOGRAPHY	PLOTTED BY	DATE	CHECKED BY	DATE
UTILITIES	PLOTTED BY	DATE	CHECKED BY	DATE
PROFILE	PLOTTED BY	DATE	CHECKED BY	DATE



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 J. Leonard
 Date May 27, 77 Reg. No. 5792

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

Fed. Proj. No.

CUT

FILL

139

31

256

74

133

43

81

31

75

37

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 Aug 29, 77 Reg. No. 5702

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

Co. Proj. No. 77-138

CO. RD. "C"

MICROFILMED
RAMSEY CO. ENGINEERS

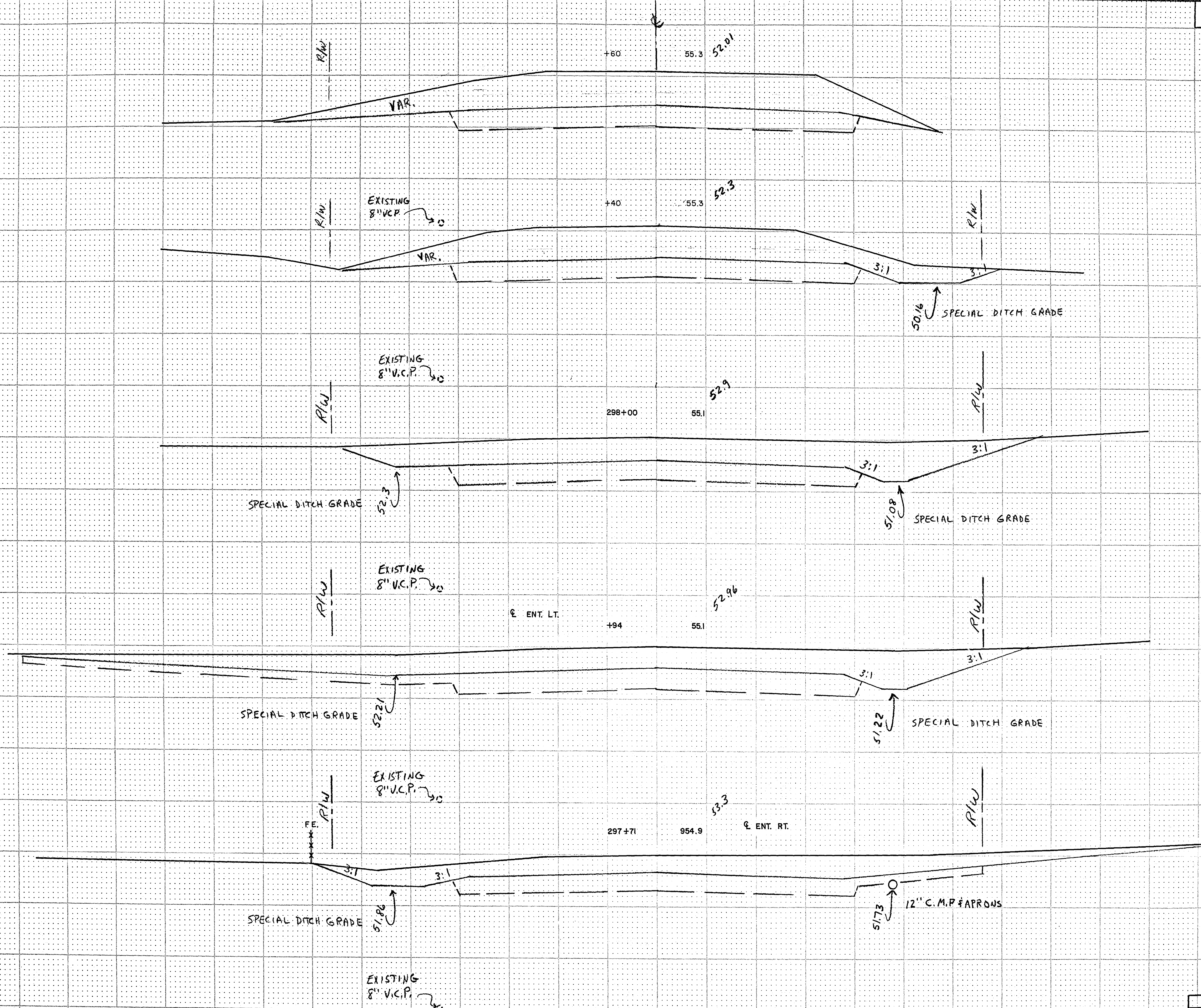
Sheet No. 7 of 21 Sheets

18-121

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

Fed. Proj. No.

CUT	FILL
378	67



161	30
-----	----

304	59
-----	----

56	9
----	---

216	34
-----	----

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.

W. J. J. J.
Date Aug 27, 72 Reg. No. 5782

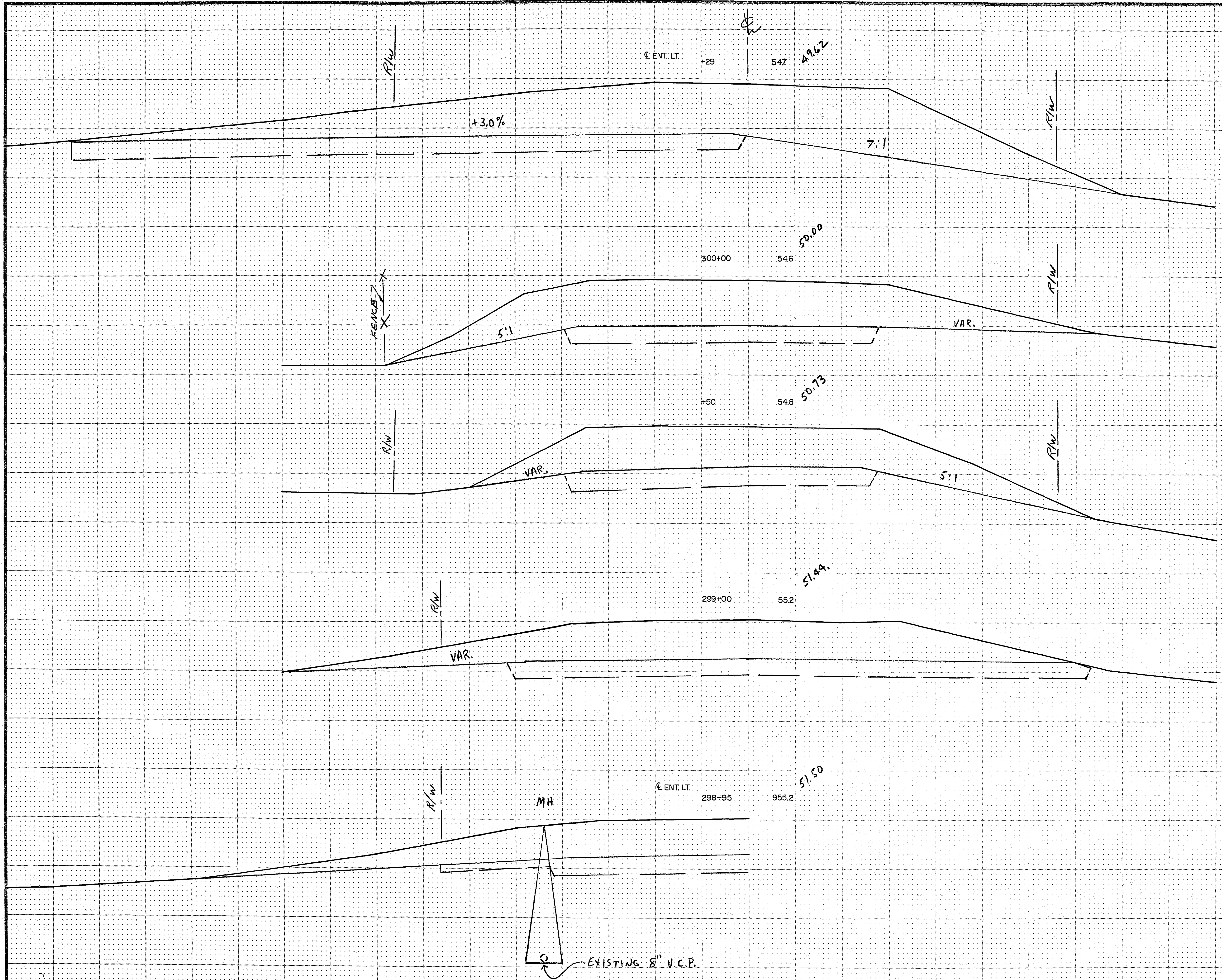
REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
		INSTRUMENTED
		REVISION NO. 001

Co. Proj. No. 77-138 CO. RD. "C"

Sheet No. 8 of 21 Sheets

Fed. Proj. No.

CUT	FILL
209	29



443	56
542	61
510	77

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 J. [Signature]
Date *Aug 29 1962* Reg. No. *5702*

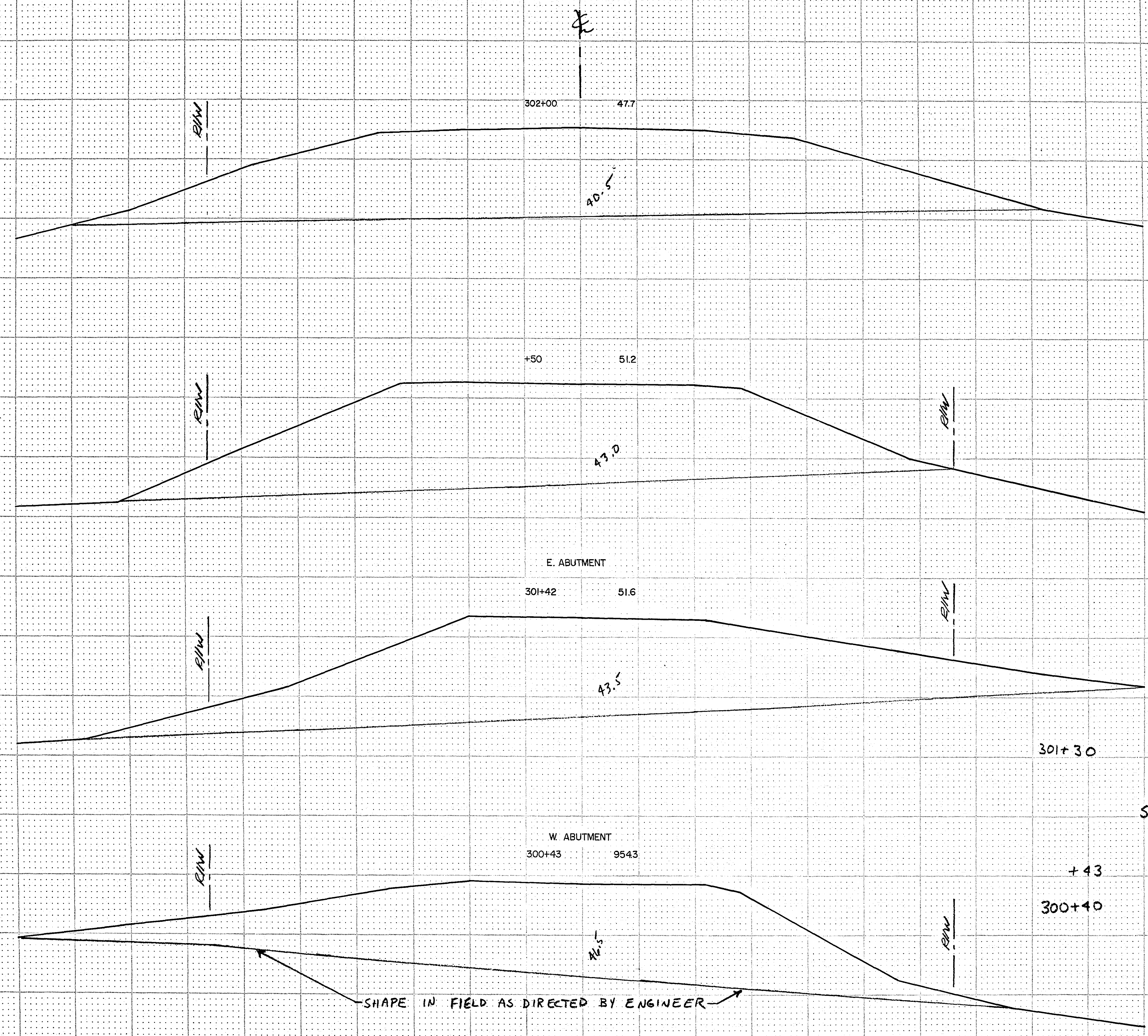
REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
		MICROFILMED RAMSEY CO. ENGRS

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

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

Fed. Proj. No.

CUT FILL



	CUT	FILL
SUBTOTAL	1030	0
	803	0
	129	0
	98	0
SUBTOTAL	3600	642
	48	0
	49	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.
Wm. R. Leonard
Date Aug. 27, 27 Reg. No. 5782

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
		INCHES CO. ENGR.

Fed. Proj. No.

CUT

FILL

1323

68

+78 43.9

SUPER ELEV. @ 0.03 PER FT.

NORMAL DITCH
SECTION 2' DEEP

EXIST. 12" WATER MAIN

+50 41.3

1' DEEP DITCH

654

42

32.67

SPECIAL DITCH
GRADE

EXIST. 12" WATER MAIN

12+00 37.7

1' DEEP DITCH

669

74

33.1

SPECIAL DITCH
GRADE

EXIST. 12" WATER MAIN

11+50 35.1

312

118

EXIST. 12" WATER MAIN

100

81

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 R. Horn
Date *Aug 27, 1922* Reg. No. *5782*

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
		MINOR CHANGES RAMSEY CO. ENGINEERS

Co. Proj. No. 77-138

JACKSON ST. Sheet No. 11 of 21 Sheets

18-121

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

Fed. Proj. No.

CUT

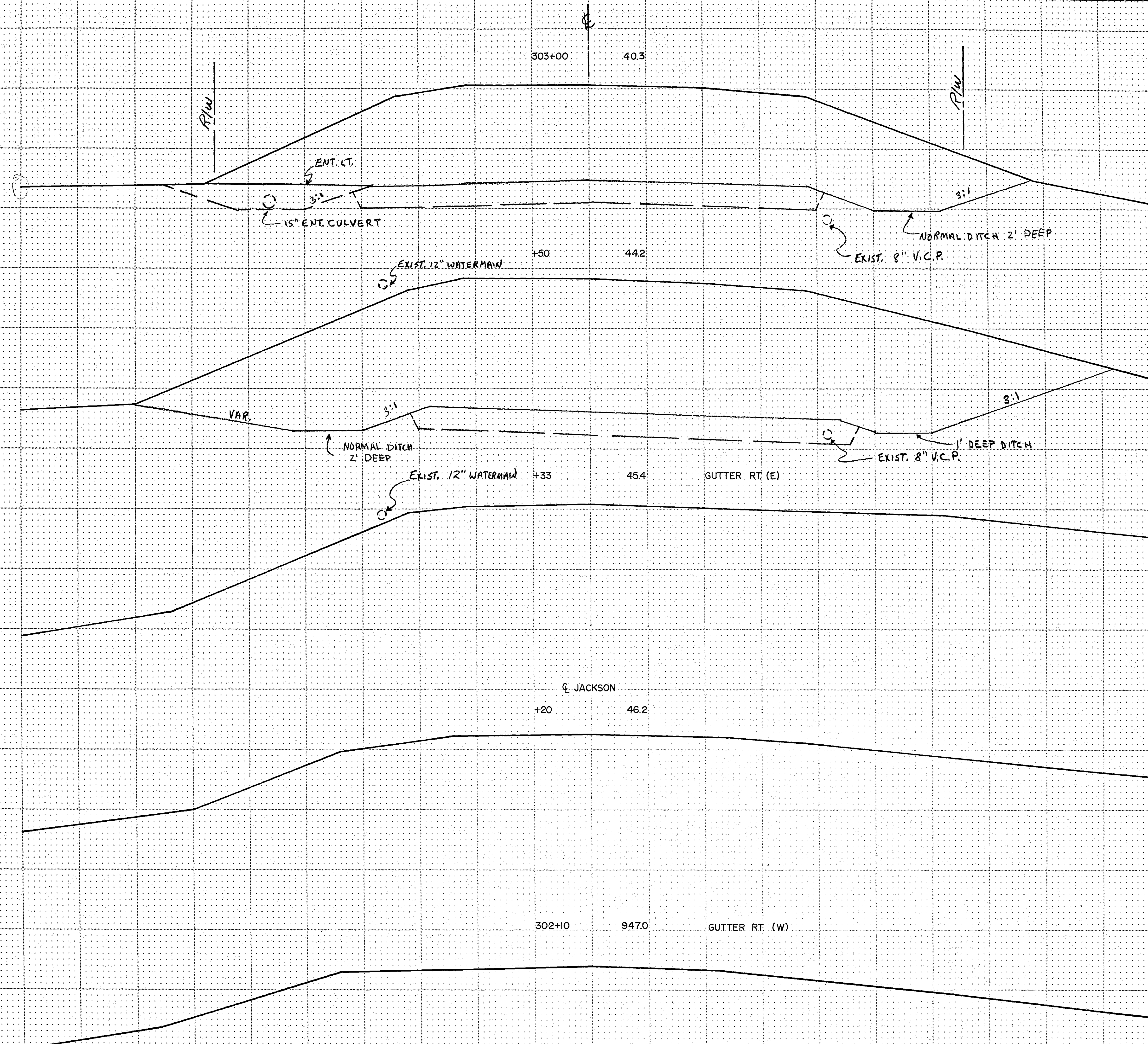
FILL

879

74

1238

74



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.
William J. Jensen
 Date Aug. 27, 1962 Reg. No. 5762

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
		MICROFILMED
		REMOVED

Fed. Proj. No.

SUB TOTAL

CUT
6963
325

FILL
997
196

ENT. LT. +21 29.7

305+00 30.4

EXISTING 24" x 52" R.C.P.

+50 325

304+00 34.6

303+50 936.9

94

44

305

79

441

74

624

74

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 J. Howard
Date *Aug 27 1972* Reg. No. *5782*

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
		MICROFILMED
		RAMSEY CO. ENGINEERS

Co. Proj. No. 77-138 CO. RD. "C" & JACKSON ST. Sheet No. 13 of 21 Sheets

18-121

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

Fed. Proj. No.

CUT 0
FILL 381

SHOULDER LT.

+26

15.7

R/W

VAR.

E. JACKSON
M.H.

+13

916.77

R/W

VAR.

0 204

SHOULDER LT.

24+00

17.6

R/W

VAR.

0 182

+90

18.4

R/W

VAR.

0 128

916.7

3:1

108" x 24" RCP

904.25

E. RR. EMBANKMENT

23+60

920.6

20:55

42 198

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.

Wm. H. J. Juma
Date Aug 29 1912 Reg. No. 5082

REVISED	DATE	
		DESIGNED BY
		DRAWN BY
		CHECKED BY
		MICROFILMED
		RAMSEY CO. ENGR.

Co. Proj. No. 77-138 DEMONT & JACKSON Sheet No. 14 of 21 Sheets

18-121

CUT FILL

B&I2 CURB

1103

244

339

230

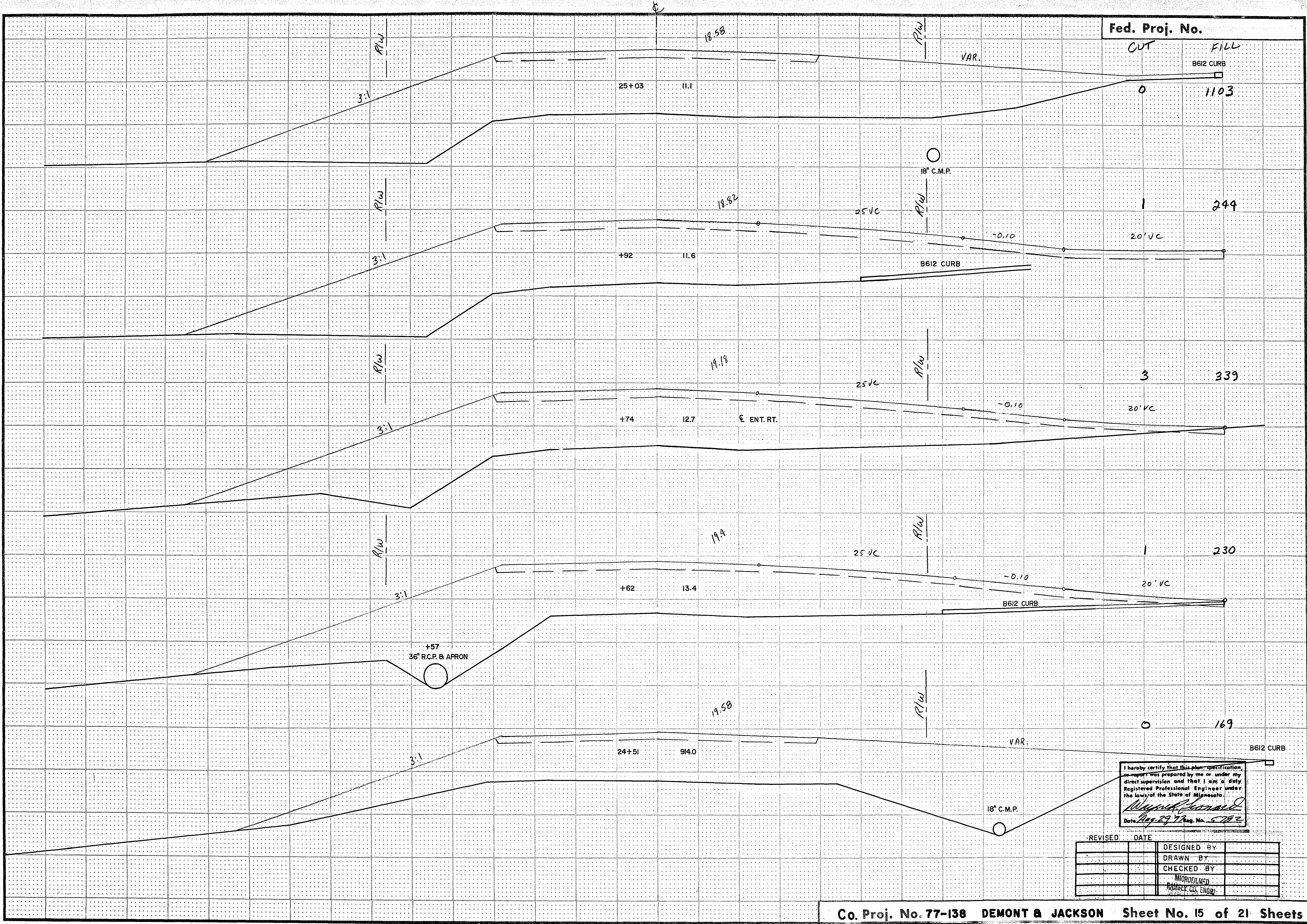
169

B&I2 CURB

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 Leonard
Date Aug. 29, 1952 Reg. No. 5782

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
		HYDROFILMED
		REPRODUCTION

FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. - MINNEAPOLIS 31, PAUL



Fed. Proj. No.

CUT

7

FILL

180

0

343

0

522

0

758

0

966

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.
W. J. J. J. J.
 Date *May 29, 77* Reg. No. *5782*

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
		INCH/FOOT
		RAMSEY CO. ENGR.

Co. Proj. No. 77-138 DEMONT & JACKSON Sheet No. 16 of 21 Sheets

18-121

R/W

3:1

+50

09.4

12.35

3:1

VAR.

11.23

SPECIAL DITCH GRADE

R/W

3:1

27+00

08.8

12.83

3:1

R/W

5:1

SD+84 EL. 910.9

68' x 18" RCP

R/W

3:1

+50

08.5

14.22

3:1

R/W

5:1

SPECIAL DITCH GRADE

R/W

3:1

26+00

08.8

15.83

3:1

R/W

5:1

SPECIAL DITCH GRADE

R/W

3:1

25+50

909.4

17.39

3:1

R/W

5:1

SPECIAL DITCH GRADE

SUB TOTAL

228

5984



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.

Wagner Leonard
Date: Aug. 29 '22 Reg. No. 5762

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY
MICROFILMED RAMSEY CO. ENGR.		

Fed. Proj. No.

CUT

FILL

2

191

3

343

0

45

36" R.C.P. & ARRON

EDGE BIT

+14

16.5

DEMONT

0+00

916.7

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 R. Edwards
Date *Aug 29, 1982* Reg. No. *5782*

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

Co. Proj. No. 77-138

JACKSON ST.

Sheet No. 18 of 21 Sheets

18-121

Fed. Proj. No.

CUT FILL

87 149

0 298

0 316

50 217

0 350

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.
W. J. J. J.
Date *Aug 29, 17* Reg. No. *5782*

REVISED	DATE	DESIGNED BY	DRAWN BY	CHECKED BY

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

Fed. Proj. No.

CUT

FILL

9

14

2

47

3

11

0

188

77

244

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.
Wm. J. Leonard
 Date: *Aug 28, 1977* Reg. No. *5782*

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

Co. Proj. No. 77-138 JACKSON ST. Sheet No. 20 of 21 Sheets

18-121

5+00

12.8

+79

12.3

E ENT. RT. (BIT)

4+50

11.7

+94

11.0

3+50

910.5

20" CAST IRON

24" CMP

24" CMP

24" CMP & APRON

SD

R/W

R/W

R/W

R/W

R/W

R/W

R/W

R/W

R/W

4:1

3:1

2:1

4:1

3:1

2:1

3:1

3:1

2:1

3:1

2:1

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

Fed. Proj. No.

CUT FILL

TOTALS 12,080 cy. 19,059 c.y.
x 1.3
13,077 c.y. Fill
12,080 c.y. CUT
997 Borrow

SUBTOTAL 259 2436

65 19

11 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.
Date Aug 29 1921 Reg. No. 5782

REVISED	DATE	DESIGNED BY
		DRAWN BY
		CHECKED BY

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

18-121