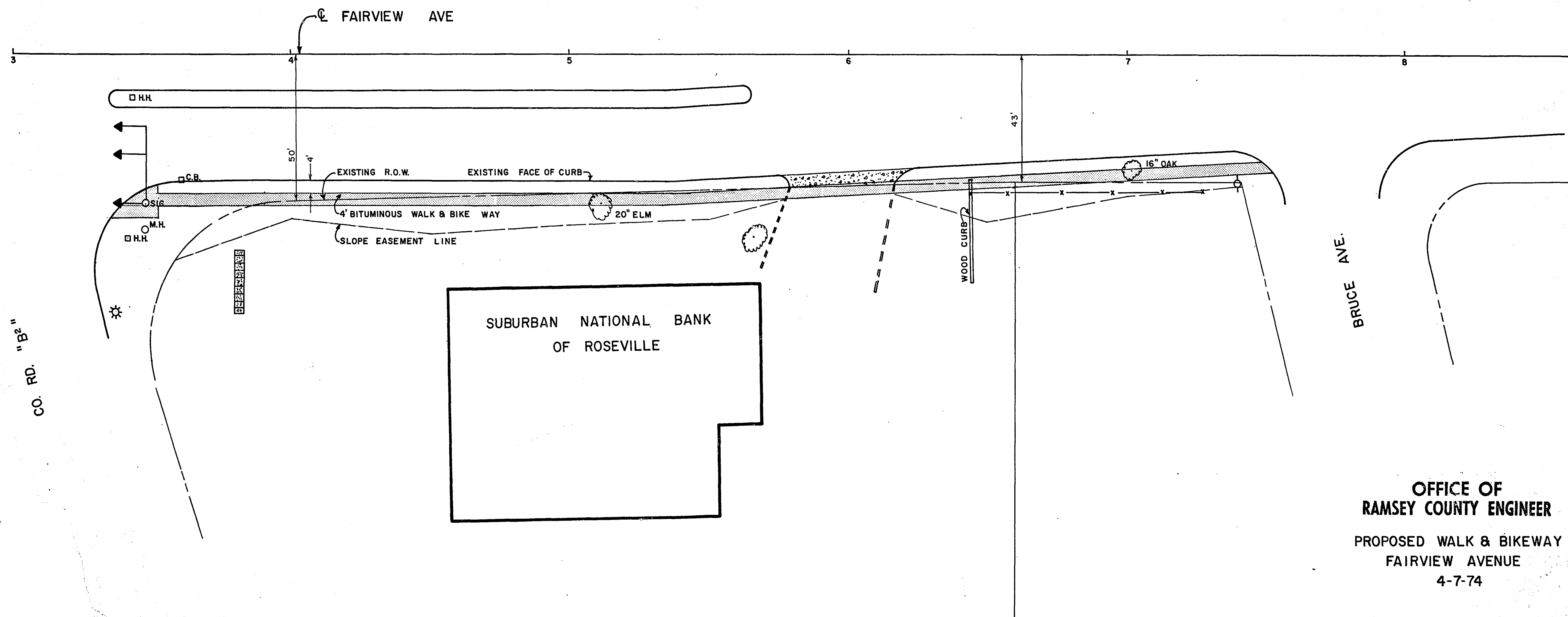


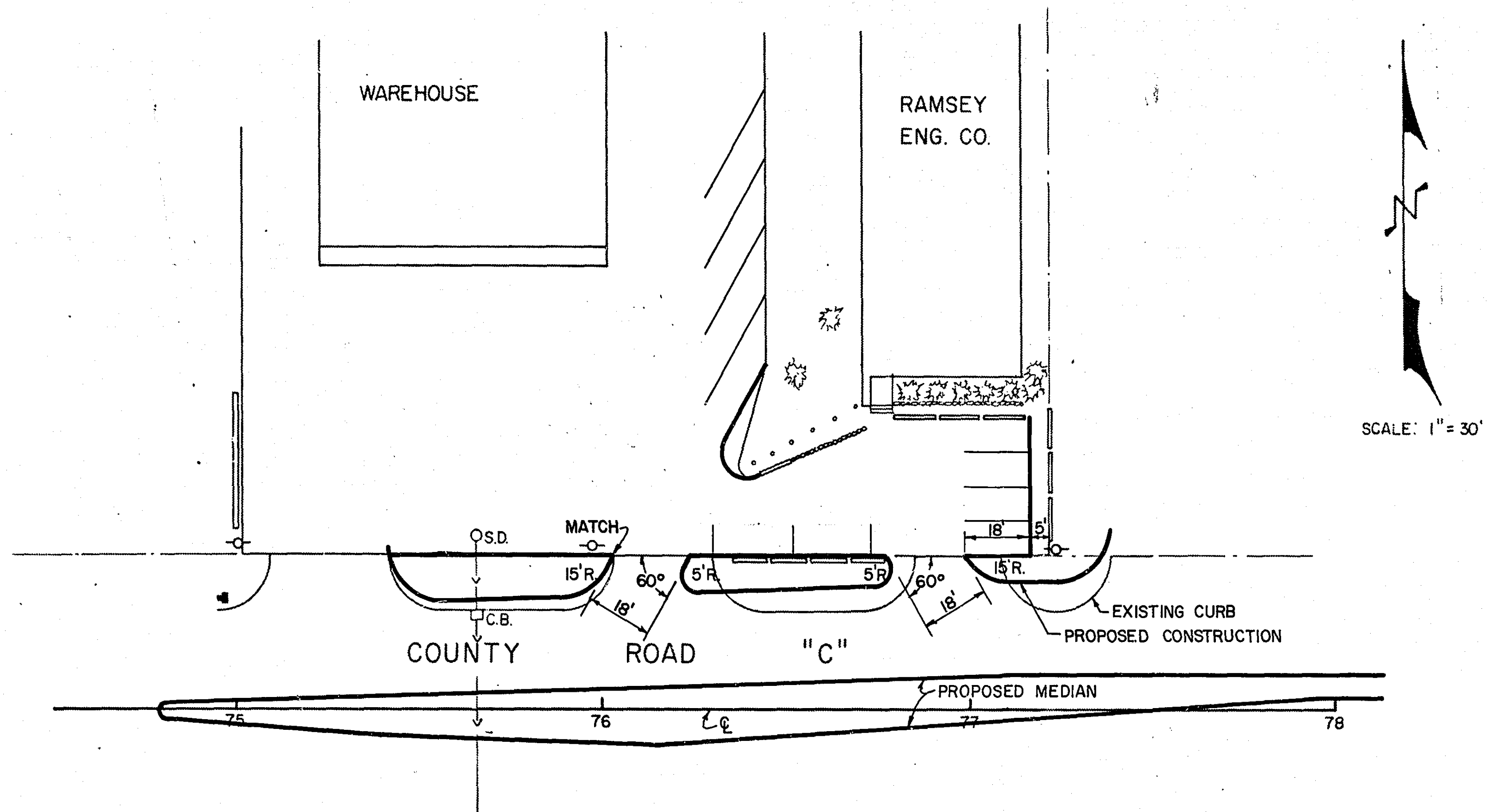
SCALE: 1" = 20'



OFFICE OF
RAMSEY COUNTY ENGINEER
PROPOSED WALK & BIKEWAY
FAIRVIEW AVENUE
4-7-74

RECORDED
RAMSEY CO. ENGR.

20-103
SHEET 1 OF 2 SHEETS



MICROFILMED
RAMSEY CO. ENGR.

RECOMMENDED FOR APPROVAL <i>Paul Kucharsky</i> DATE 8-20-74	REVISIONS	BY	DATE	RAMSEY ENGINEERING CO. ENTRANCE ON COUNTY RD. C		
APPROVED <i>Deane R. Anklan</i> DATE 8-20-74				TRAFFIC CONTROL, PLANNING AND RESEARCH DIVISION		
				DESIGNED <i>PLK</i>	DRAWN R.W.W.	COUNTY ENGINEER DEANE R. ANKLAN
				DATE 8-20-74	CHECKED	RAMSEY COUNTY HWY. DEPT.

PARCEL # 14
T.M. WILLMUS CONSTRUCTION CO., INC.

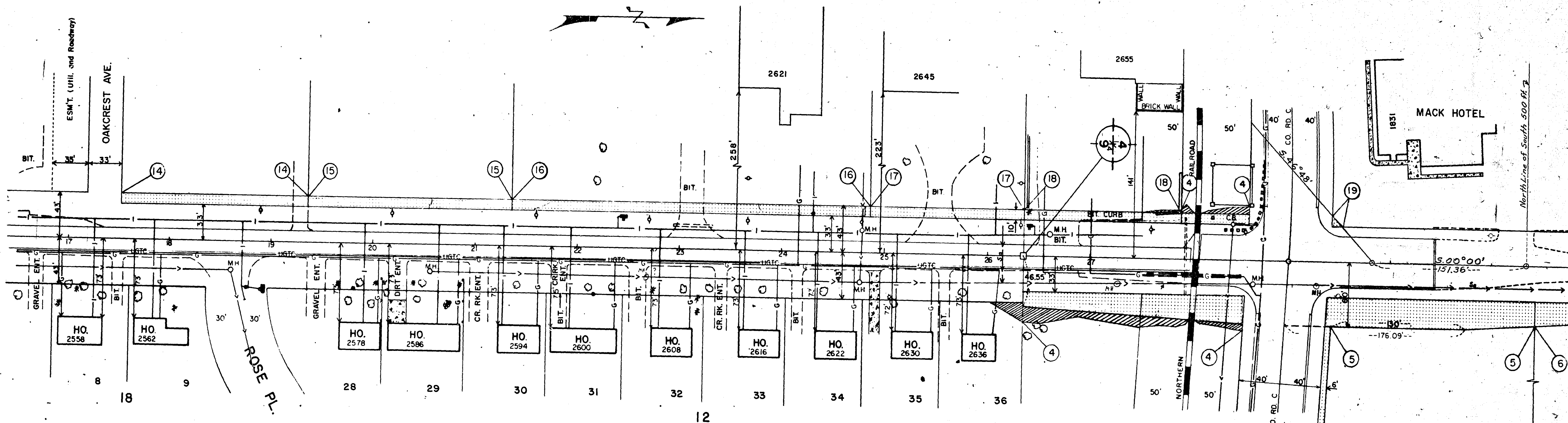
PARCEL # 15
TRANSPORT CLEARINGS
OF TWIN CITIES, INC.

PARCEL # 16
IDEAL SECURITY HARDWARE CORPORATION

PARCEL # 17
JOSEPH A. NUMERO

PARCEL # 18
PACIFIC MUTUAL DOOR CO.

PARCEL # 4
BURLINGTON NORTHERN
RAILROAD
(NEGOTIATED)



JAMES FOURTH ADDITION

LEGEND:

- PROPOSED R/W
- TEMPORARY SLOPE EASEMENT

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 A. Bennett
Date 5-7-73 Reg. No. 8271

PARCEL # 4
BURLINGTON NORTHERN
RAILROAD
(NEGOTIATED)



PARCEL # 5
EUGENE J. GLUEK
LOUIS A. GLUEK
FRANK L. McDONALD
EAST LINE OF SE 1/4 OF SEC 4 T29 R23

Special Drawing -
Mack Hotel proposed acquisition

MICROFILMED
RAMSEY CO. ENGR.

PARCEL # 7
ACQUIRED BY ROSEVILLE

PARCEL # 8
DAYTON DEVELOPMENT
COMPANY

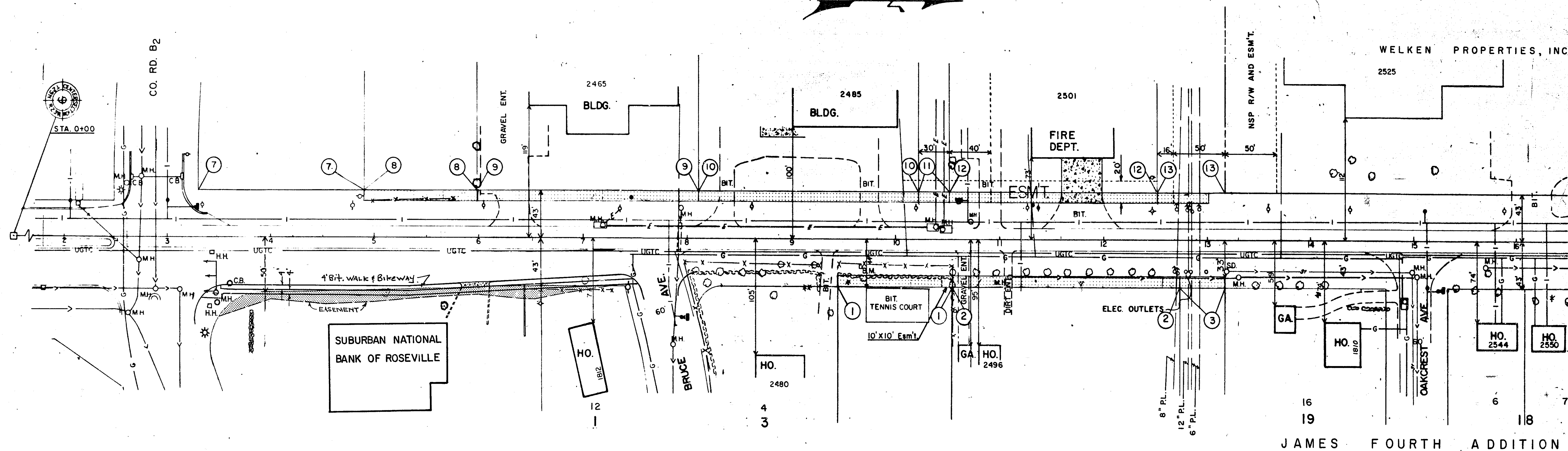
PARCEL # 9
ROBERTS CONSTRUCTION CO.
THE EQUITABLE LIFE ASSURANCE
SOCIETY OF THE UNITED STATES
KAISER JEEP SALES

PARCEL #10
McGOUGH CONSTRUCTION COMPANY, INC.
TWIN CITY FEDERAL SAVINGS AND LOAN
ASSOCIATION
STANDARD OIL COMPANY
WILLIAMS BROTHERS PIPELINE COMPANY

PARCEL #11
NORTHERN STATES POWER CO.
WILLIAMS BROTHERS PIPELINE COMPANY
STANDARD OIL COMPANY

PARCEL # 12
VILLAGE OF ROSEVILLE
WILLIAMS BROTHERS PIPE LINE COMPANY
NORTHERN STATES POWER COMPANY
STANDARD OIL COMPANY

PARCEL #13
WILLIAMS BROTHERS PIPELINE COMPANY
NORTHERN STATES POWER COMPANY
STANDARD OIL COMPANY



ROSEDALE CENTER FIRST
ADDITION

FAIRVIEW HILLS

PARCEL # 1
DAVID ALAN MORGAN
HEDI MORG MORGAN
NORTHERN STATES POWER COMPANY
THOMAS W. McDONOUGH
DARLENE I. McDONOUGH

PARCEL # 2
KERMIT J. PFAFF
NORTHERN STATES POWER COMPANY
LEONORA PFAFF NORTHERN STATES POWER COMPANY

PARCEL # 3
WILLIAMS BROTHERS
PIPE LINE COMPANY

JAMES FOURTH ADDITION

OFFICE OF
RAMSEY COUNTY ENGINEER

DEANE R. ANKLAN
COUNTY ENGINEER
RIGHT OF WAY MAP

FAIRVIEW AVENUE
S.A.P. 62-648-03

LEGEND

- PROPOSED R/W
- TEMPORARY SLOPE EASEMENT

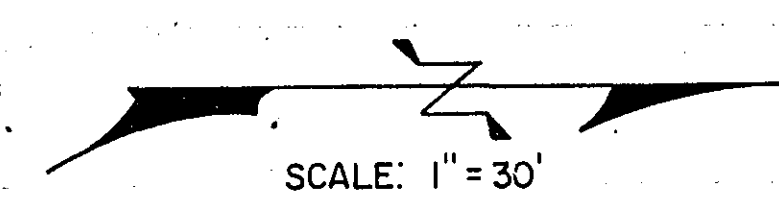
thereby certifying that this map is a true and correct copy of the original map as prepared by me or under my direct supervision and that I am a duly registered professional engineer in the State of Minnesota.
Joseph A. Bennett
Date 5-7-73 Reg. No. 8271



Sheet 1 of 4

Sheet 2 of 2

MICROFILMED
RAMSEY CO. ENGR.



20-103

PARCEL # 7
ACQUIRED BY ROSEVILLE

PARCEL # 8
DAYTON DEVELOPMENT
COMPANY

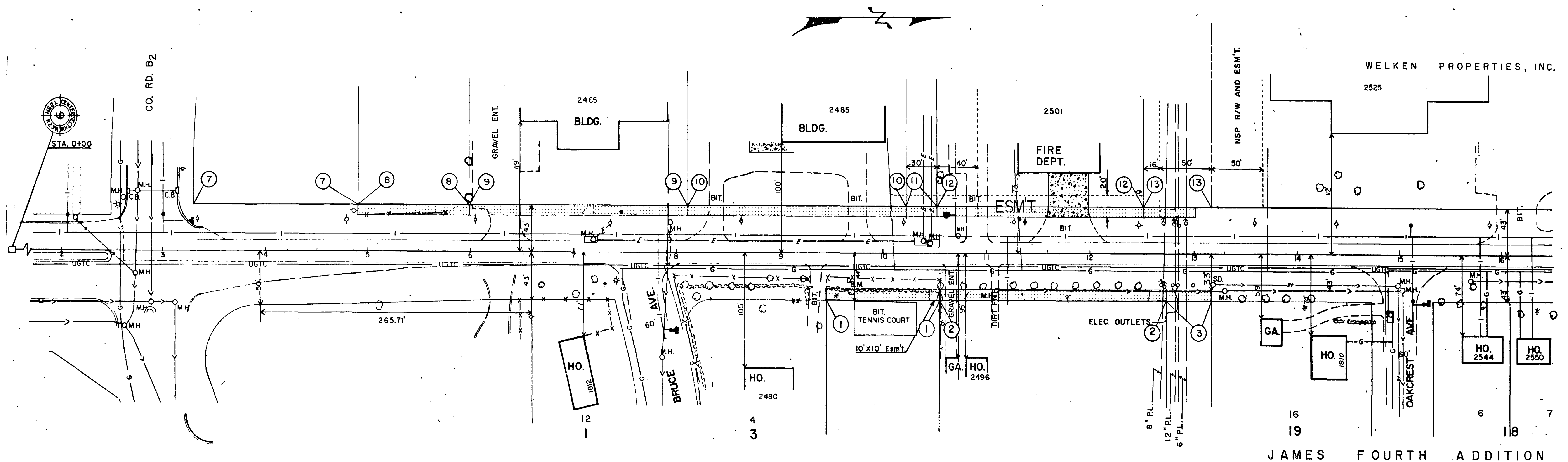
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PIPE LINE COMPANY

JAMES FOURTH ADDITION

OFFICE OF
RAMSEY COUNTY ENGINEER

DEANE R. ANKLAN
COUNTY ENGINEER
RIGHT OF WAY MAP

FAIRVIEW AVENUE
S.A.P. 62-648-03

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 A. Bernhardt
Date 5-7-73 Reg. No. 8271



Sheet 1 of 4

RECORDED
RAMSEY CO. ENGINEER

20-103

PARCEL # 14
T.M. WILLMUS CONSTRUCTION CO., INC.

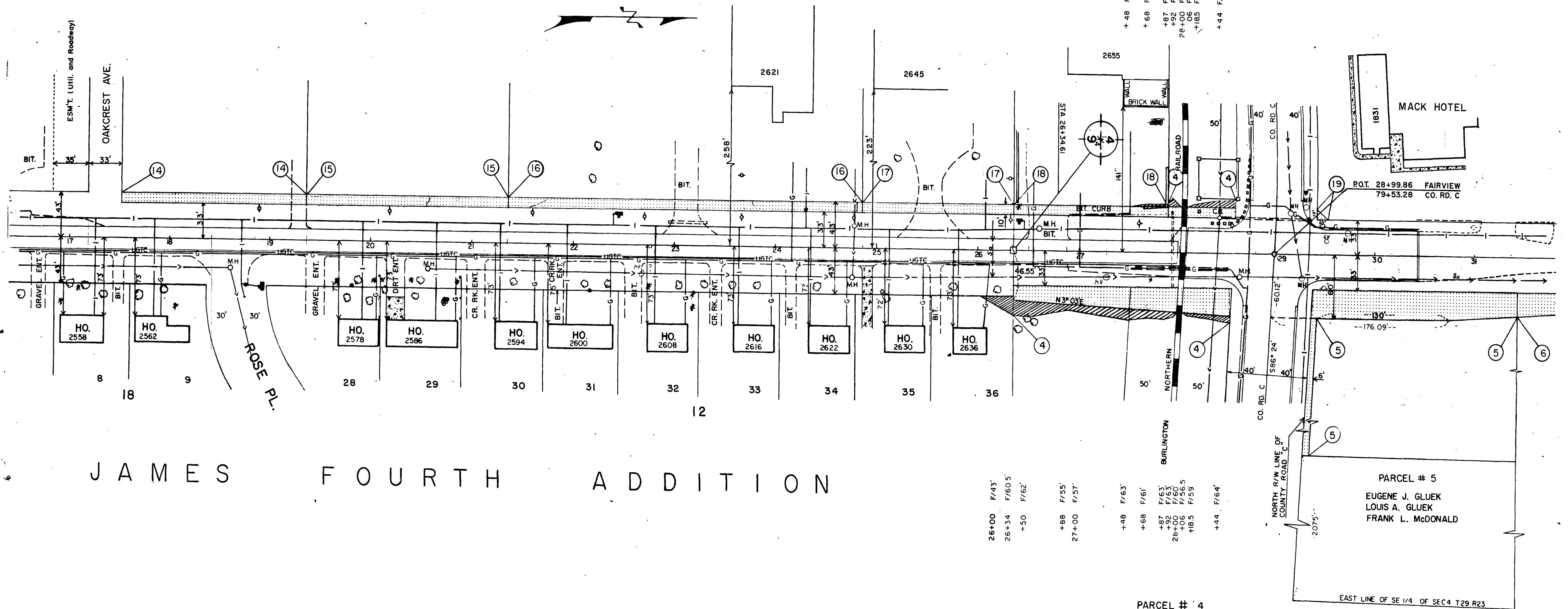
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PARCEL # 17
JOSEPH A. NUMERO

PARCEL # 18
PACIFIC MUTUAL DOOR CO.

PARCEL # 4
BURLINGTON NORTHERN
RAILROAD
(NEGOTIATED)



JAMES FOURTH ADDITION

LEGEND:

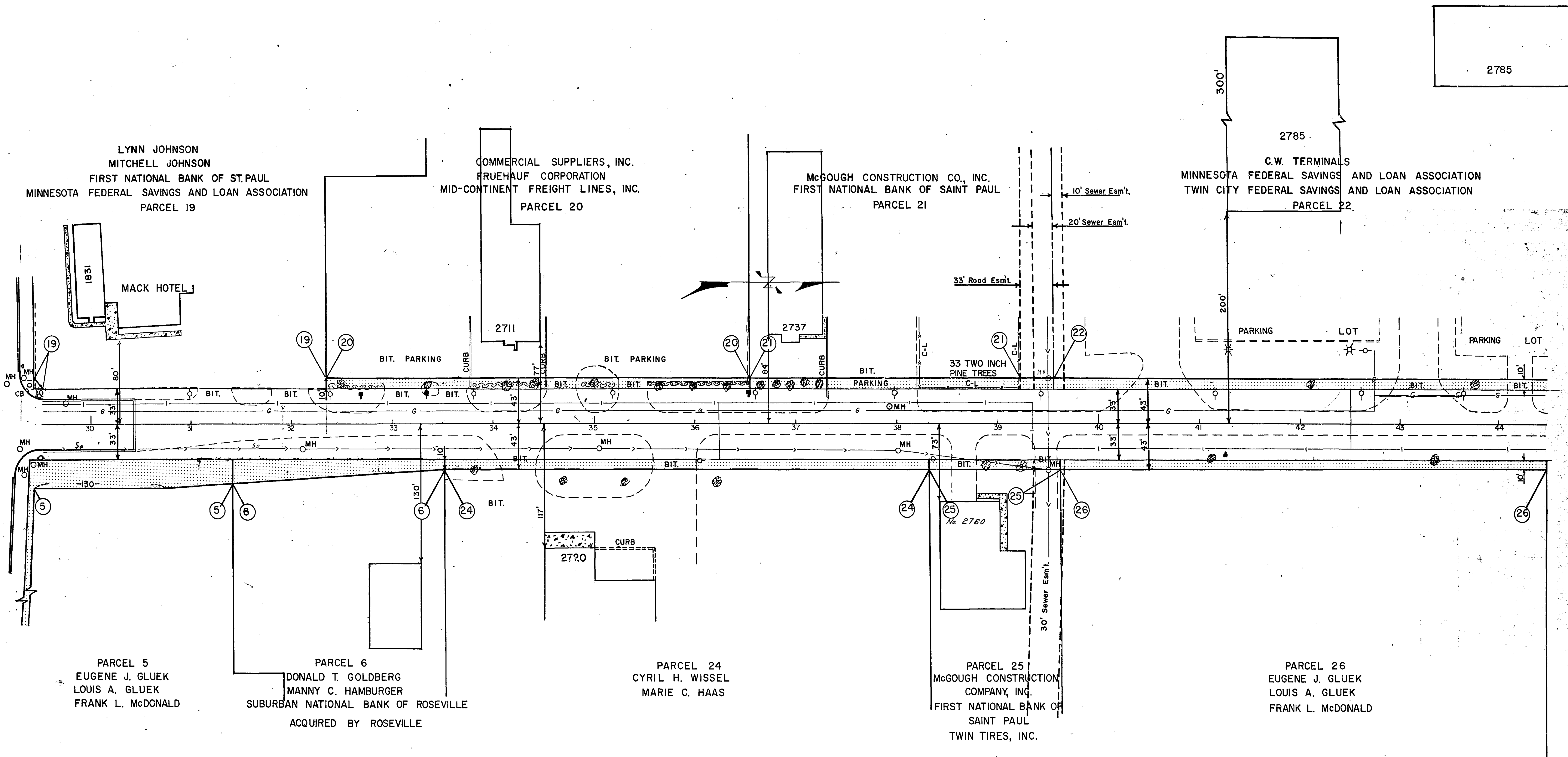
- PROPOSED R/W
- TEMPORARY SLOPE EASEMENT

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Joseph A. Bernier
Date 5-7-73 Reg. No. 8271

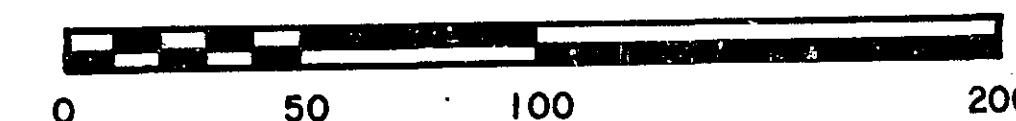
PARCEL # 4
BURLINGTON NORTHERN
RAILROAD
(NEGOTIATED)





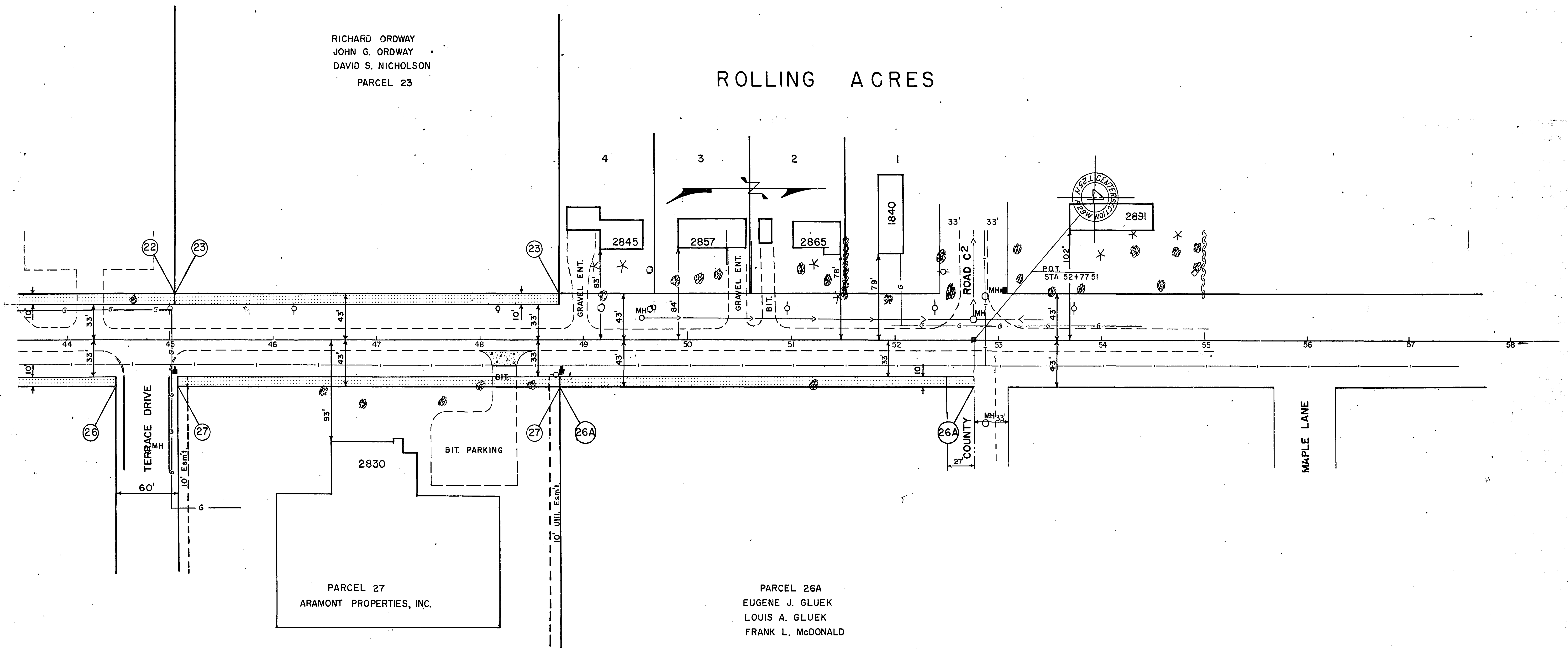
LEGEND:
 [Pattern] PROPOSED R/W
 [Pattern] TEMPORARY SLOPE EASEMENT

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 A. Bernthal
 Date 5-7-73 Reg. No. 8271



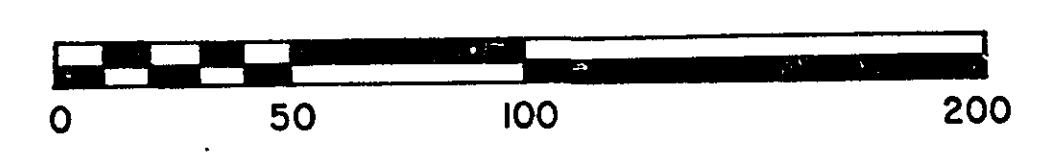
RICHARD ORDWAY
JOHN G. ORDWAY
DAVID S. NICHOLSON
PARCEL 23

ROLLING ACRES



LEGEND:
 PROPOSED R/W
 TEMPORARY SLOPE EASEMENT

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 A. Peroutka
 Date 5-7-73 Reg. No. 8271



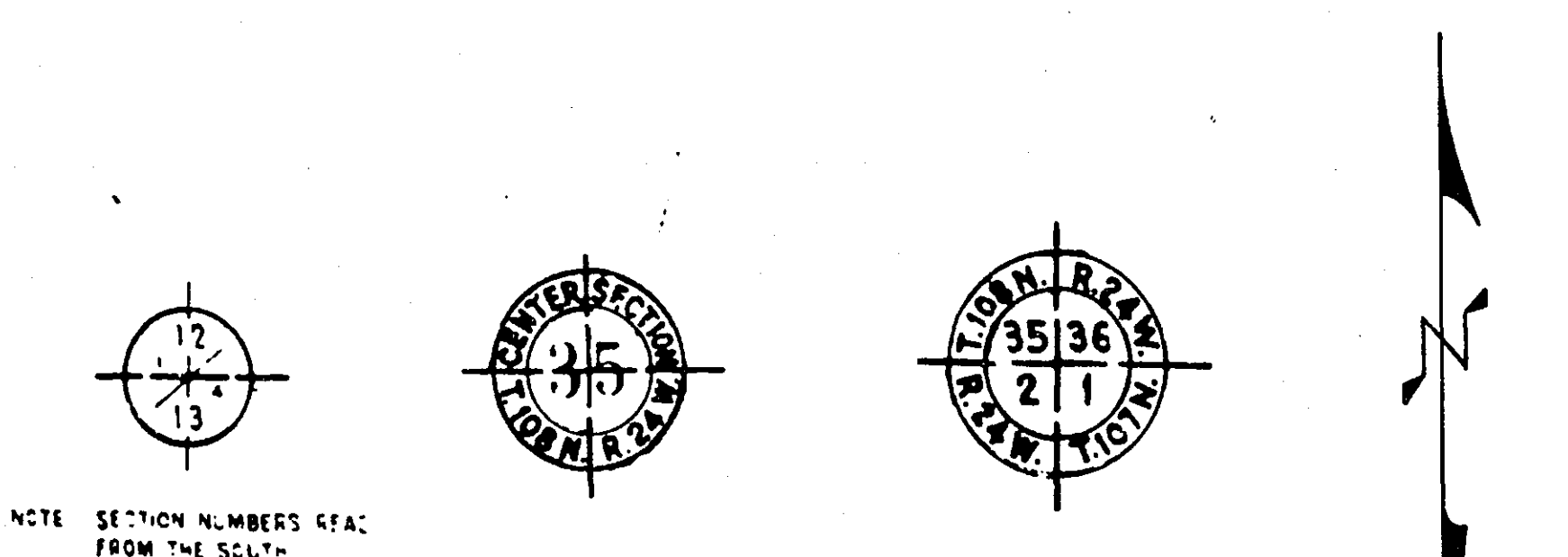
20-103

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 SLOPE FENCE	-----
STONE WALL OR FENCE	-----
MEDGE	-----
RAILROAD CROSSING SIGN	-----
RAILROAD CROSSING BELL	-----
ELECTRIC WARNING SIGN	-----
CROSSING GATE	-----
MEANDER CORNER	-----

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	-----
PERMANENT TELEPHONE CABLE TERMINAL	-----
GAS MAIN	-----
WATER MAIN	-----



PIT DATA

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

THE "MINNESOTA HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED JANUARY 1, 1972 AS AMENDED BY "SUPPLEMENTAL SPECIFICATIONS" DATED JANUARY 1, 1974 SHALL GOVERN.

DESIGN DESIGNATION

ADT 1973	= 7650
ADT 1985	= 10,000
DIRECTIONAL DISTRIBUTION	= 50-50
HEAVY COMMERCIAL	= 300-600

DESIGN LOAD	= 9 TON
DESIGN SPEED	= 40 M.P.H.
SOIL FACTOR	= 100 %

PLAN, 1 INCH=50 FEET
PROFILE, HORIZ. 1 INCH=50 FEET VERT. 1 INCH=5 FT.
CROSS-SECTIONS, 1 INCH=10 FEET
LAYOUT, 0.75 INCH=5280 FEET

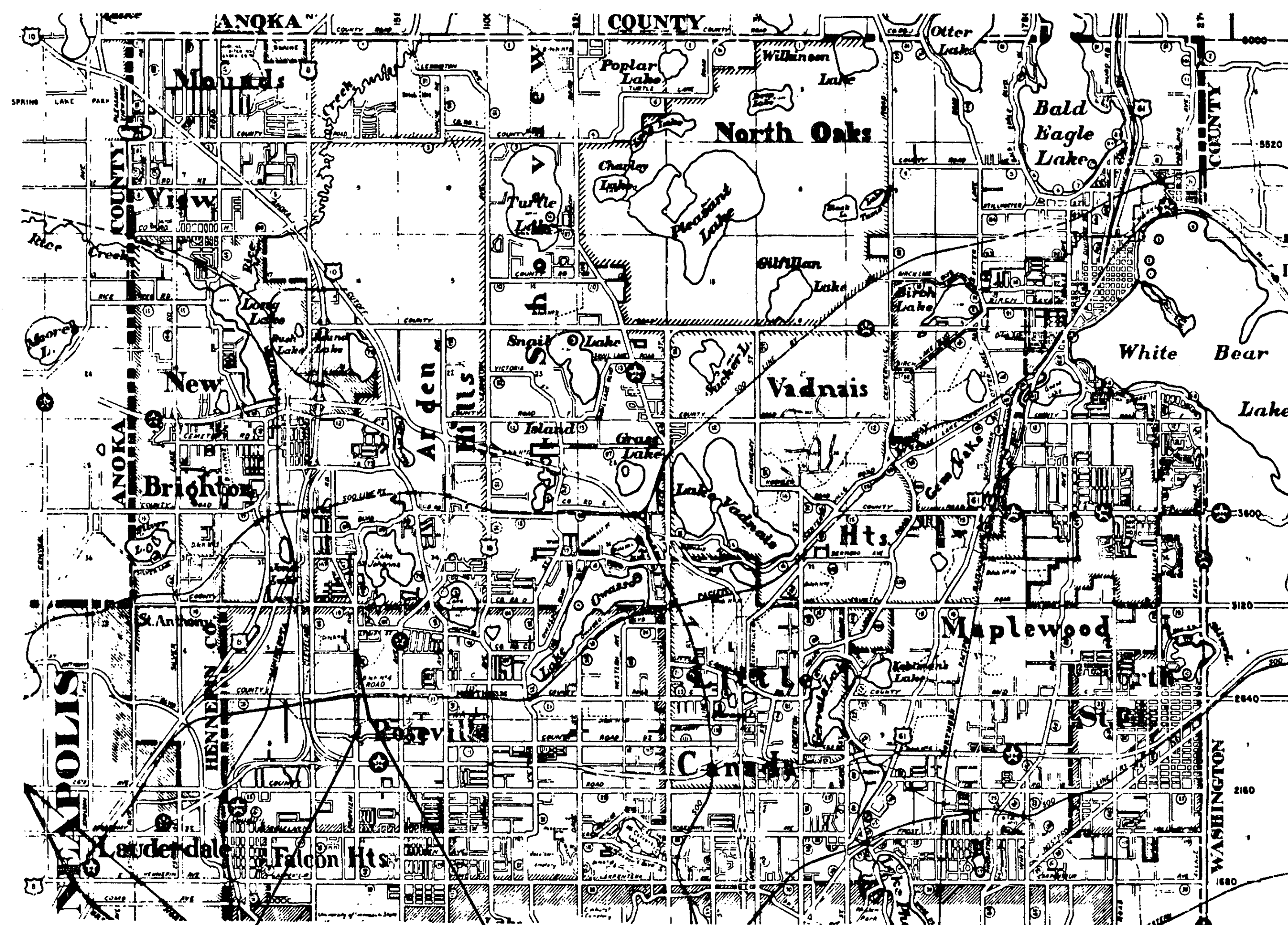
OFFICE OF COUNTY ENGINEER

RAMSEY COUNTY

CONSTRUCTION PLAN FOR GRADING, BITUMINOUS AND CONCRETE SURFACING
FAIRVIEW AVE. (C.S.A.H. 48) S.A.P. 62-648-03
BETWEEN: 519' NORTH OF COUNTY RD. B2 AND: 287' NORTH OF COUNTY RD. C2

FROM: A POINT: 808' NORTH OF THE CENTER OF SECTION 9, T.29 N., R.23 W. TO: A POINT: 287.45' NORTH OF THE CENTER OF SECTION 4, T.29 N., R.23 W.

GROSS LENGTH	4757 FEET	0.9009 MILES
BRIDGES LENGTH	0 FEET	0 MILES
EXCEPTIONS LENGTH	0 FEET	0 MILES
NET LENGTH	4757 FEET	0.9009 MILES



BEGIN PROJECT STA. 8+08
END PROJECT STA. 55+65

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	ESTIMATED QUANTITIES & MISC. CHARTS
3	TYPICAL SECTIONS & DETAILS
4	DRAINAGE CHART & DETAILS
5-6	CONCRETE PAVING DETAILS
7-10	PLAN PROFILES & CONSTRUCTION PLANS-FAIRVIEW AVE.
11	PLAN PROFILES & CONSTRUCTION PLANS-CO. RD. "C"
12-22	CROSS SECTIONS-FAIRVIEW AVE.
23-24	CROSS SECTIONS-CO. RD. "C"
25	SIGNALS (INFORMATIONAL PURPOSES ONLY)

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.

Wayne A. Donath ENGINEER REG. NO. 5782 DATE 2-6-74

RECOMMENDED FOR APPROVAL *W. V. Chervinsky* DATE 2/7/74
DIRECTOR OF SAFETY

RECOMMENDED FOR APPROVAL *W. V. Chervinsky* DATE 2/12/74
MAINTENANCE ENGINEER

RECOMMENDED FOR APPROVAL *W. V. Chervinsky* DATE 2-6-74
CONSTRUCTION ENGINEER

RECOMMENDED FOR APPROVAL *W. V. Chervinsky* DATE 2-7-74
P.E. ENGINEER

RECOMMENDED FOR APPROVAL _____ DATE _____
COUNTY ENGINEER

APPROVED _____ DATE _____

RECOMMENDED FOR APPROVAL *John R. Smith* DATE 2-6-74
COUNTY ENGINEER

APPROVED *Samuel J. Dan* DATE 5/30/74
CHAIRMAN OF THE RAMSEY COUNTY BOARD

APPROVED *R. Dale Lindberg* DATE 5/23/74
MAYOR, VILLAGE OF ROSEVILLE

APPROVED _____ DATE _____

MINNESOTA STATE HIGHWAY DEPARTMENT

RECOMMENDED FOR APPROVAL *James J. Solon* DATE 4-4-74

RECOMMENDED FOR APPROVAL *James J. Solon* DATE 3-20-74
DISTRICT STATE AID ENGINEER

APPROVAL *James J. Solon* DATE 4/1/74
STATE AID ENGINEER

SET NO.

S.A.P. NO. 62-648-03

MICROFILMED Sheet No. 1 of 25 Sheets
RAMSEY CO. ENGR.

20-103

STATEMENT OF ESTIMATED QUANTITIES

ITEM NO.	ITEM	UNIT	62-648-03		FINAL QUANTITIES
			PARTICIPATING	NON-PARTICIPATING	
2021.501	MOBILIZATION	LUMP SUM	1		1
2101.502	CLEARING	TREE	13		9
2101.507	GRUBBING	TREE	15		12
2104.501	REMOVE FENCE	L.F.	160		118
2104.501	REMOVE SEWER PIPE (R.C.)	L.F.	70		121
2104.501	REMOVE CONCRETE CURB & GUTTER	L.F.	1,055		1,009
2104.501	REMOVE CONCRETE CURB	L.F.	345		367
2104.501	REMOVE SEWER PIPE (C.M.)	L.F.	106		106
2104.505	REMOVE CONCRETE PAVEMENT	S.Y.	11,486		10,445
2104.509	REMOVE CATCH BASINS	EACH	6		8
2104.521	SALVAGE GUARD RAIL	L.F.	90		115
2104.523	SALVAGE HYDRANTS	EACH	9		9
2105.501	COMMON EXCAVATION	C.Y.	41,962		42,174
2105.525	TOPSOIL BORROW (L.V.)	C.Y.	857		1,430
2130.501	WATER	(M.) GAL.	150		264
2211.501	AGGREGATE BASE CLASS "B" (100% CRUSHED QUARRY ROCK)	TON	16,089		18,572
2301.502	CONCRETE PAVEMENT, STD. WIDTH	S.Y.	5,600		5,593
2301.503	CONCRETE PAVEMENT, IRR. WIDTH	S.Y.	2,202		2,164
2301.511	STRUCTURAL CONCRETE	C.Y.	1,735		1,724
2301.521	PAVEMENT REINFORCEMENT, TYPE 612 X D4.9 X D4	S.Y.	8,685		8,704
2301.529	REINFORCEMENT BARS	LBS.	9,018		8,952
2301.531	EXPANSION JOINTS, DESIGN E1-1	L.F.	268		223
2301.536	DOWEL BAR ASSEMBLIES	L.F.	2,375		2,378
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	193		193
2331.514	BASE COURSE MIXTURE	TON	4,288		4,285
2331.531	TEMPORARY LANE MARKING	ROAD STATION	220		
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	213		218
2341.508	WEARING COURSE MIXTURE	TON	1,929		2,357
2341.510	BINDER COURSE MIXTURE	TON	1,859		1,892
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	2,095		1,281
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	7,862		
2359.501	PAVEMENT JOINT, DESIGN L-4	ROAD STATION	13		13
2451.503	GRANULAR BACKFILL (L.V.)	C.Y.	200		
2501.515	15" R.C. APRONS	EACH	2		1
2503.511	12" R.C. PIPE SEWER, CLASS IV	L.F.	18		12
2503.511	15" R.C. PIPE SEWER, CLASS IV	L.F.	1,427		1,398
2503.511	18" R.C. PIPE SEWER, CLASS II	L.F.	608		608
2503.511	21" R.C. PIPE SEWER, CLASS II	L.F.	8		8
2503.511	27" R.C. PIPE SEWER, CLASS II	L.F.	175		171
2506.508	CONSTRUCT MANHOLES, DESIGN A OR F	EACH	9		9
2506.509	CONSTRUCT CATCH BASINS, DESIGN L.P.-4	EACH	24		26
2506.511	RECONSTRUCT MANHOLES	L.F.	36.9		35.4
2506.516	CASTING ASSEMBLIES	EACH	12		13
2506.521	INSTALL CASTINGS	EACH	17		18
2506.522	ADJUST FRAME & RING CASTINGS	EACH	21		34
2521.511	4" BITUMINOUS WALK	S.F.		22,960	
2531.501	CONCRETE CURB & GUTTER, DESIGN B.618	L.F.	9,042		8,759
2531.502	CONCRETE CURB, DESIGN B.6-8	L.F.	1,688		2,120
2531.503	CONCRETE MEDIAN, TYPE A	S.Y.	242		240
2531.503	CONCRETE MEDIAN, TYPE B	S.Y.	883		945
2531.507	8" CONCRETE DRIVEWAY PAVEMENT	S.Y.	192		270
2554.501	TRAFFIC BARRIER, DESIGN 8307 (B)	L.F.	200		198
2554.521	ANCHORAGE ASSEMBLIES	EACH	2		2
2557.501	WIRE FENCE, DESIGN 486-9322	L.F.	98		98
2571.541	TRANSPLANT TREE (5" ASPEN)	TREE	1		
2571.541	TRANSPLANT TREES (ASH-3")	TREE	10		9
2575.505	SODDING	S.Y.	10,290		15,764
2575.531	COMMERCIAL FERTILIZER, ANALYSIS 12-12-12	TON	0.64		
504.666	INSTALL HYDRANTS	EACH	9		9
504.679	ADJUST VALVE BOX	EACH	60		30

HYDRANT CHART

FAIRVIEW AVE.

REMOVE		INSTALL	
STATION	LOCATION	STATION	LOCATION
22+45	LT. 27'	22+45	LT. 42'
26+40	LT. 27'	26+30	LT. 42'
32+68	LT. 27'	32+68	LT. 42'
36+54	LT. 27'	36+54	LT. 42'
41+27	RT. 28'	41+27	RT. 42'
45+05	RT. 27'	45+05	RT. 42'
48+78	RT. 28'	48+78	RT. 42'

COUNTY RD. "C"

74+97	LT. 29'	75+05	LT. 39'
78+97	LT. 29'	78+80	LT. 39'

STANDARD DETAIL PLATES

SPECIFICATION REFERENCE TO STANDARD PLATES	
0002A	
11001	EXPANSION JOINTS
1103D	DOWEL BAR ASSEMBLY
1104D	DOWEL BAR ASSEMBLY
1106C	DOWEL BAR ASSEMBLY
1107F	DOWEL BAR ASSEMBLY
1108G	DOWEL BAR ASSEMBLY
1120H	CONTRACTION JOINT
1140H	LONGITUDINAL JOINTS
1141B	PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTION
1150H	CONSTRUCTION OF HEADER JOINTS
1210E	CONCRETE PAVEMENT ADJACENT TO RAILWAY CROSSING
3000F	REINFORCED CONCRETE PIPE
3100F	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
4142D	BEEHIVE GRATE CASTING FOR CATCH BASIN
4000G	MANHOLE OR CATCH BASIN
4005I	MANHOLE OR CATCH BASIN
4010D	CONCRETE SHORT CONE & ADJUSTING RING
4011C	PRECAST CONCRETE BASE
4021C	PRECAST CURB OPENING CATCH BASIN
4101B	RING CASTING FOR MANHOLE OR CATCH BASIN
4102C	MANHOLE OR CATCH BASIN RING CASTING
4110D	COVER CASTING FOR MANHOLE
4180F	MANHOLE STEP CASTING
4181A	ALUMINUM MANHOLE STEP
7020G	CONCRETE CURBS
7100D	CONCRETE CURB & GUTTERS
7105C	CONCRETE MEDIAN
8000D	STANDARD BARRICADES
7036A	PEDESTRIAN CURB RAMP
8307K	STRUCTURAL PLATE BEAM GUARDRAIL
8319C	TWISTED END TREATMENT
9102C	SODDING AT PIPE CULVERT ENDS
9322E	CHAIN LINK FENCE

CLEAR, GRUB, & TRANSPLANT CHART

STATION	LOCATION		DESCRIPTION	CLEAR	GRUB	TRANS-PLANT	TRANSPLANT TO	
	LT.	RT.					LT.	RT.
8+18		41'	STUMP	0	1			
9+68		35'	8" WILLOW	1	1			
10+77		30'	3" ASH			1		40'
10+97		30'	3" ASH			1		40'
11+25		30'	3" ASH			1		40'
11+45		30'	3" ASH			1		40'
11+65		30'	3" ASH			1		40'
11+85		30'	3" ASH			1		40'
12+05		30'	3" ASH			1		40'
12+26		29'	3" ASH			1		40'
12+45		30'	3" ASH			1		40'
14+27	29'		7" COTTON	1	1			
15+71		28'	STUMP	0	1			
24+46		36'	5" ASPEN			1		40'
* 25+76		34'	8" MAPLE	1	1			
* 26+20		36'	8" MAPLE	1	1			
34+13	36'		5" CIRCUS	1	1			
35+64	37'		8" ASH	1	1			
36+63		38'	2" ASH			1		40'
41+13		33'	5" COTTON	1	1			
43+35		34'	6" SASSAPARILLA	1	1			
52+51	42'		6-8" C. BLM.	6	6			
TOTAL				14	16	11		

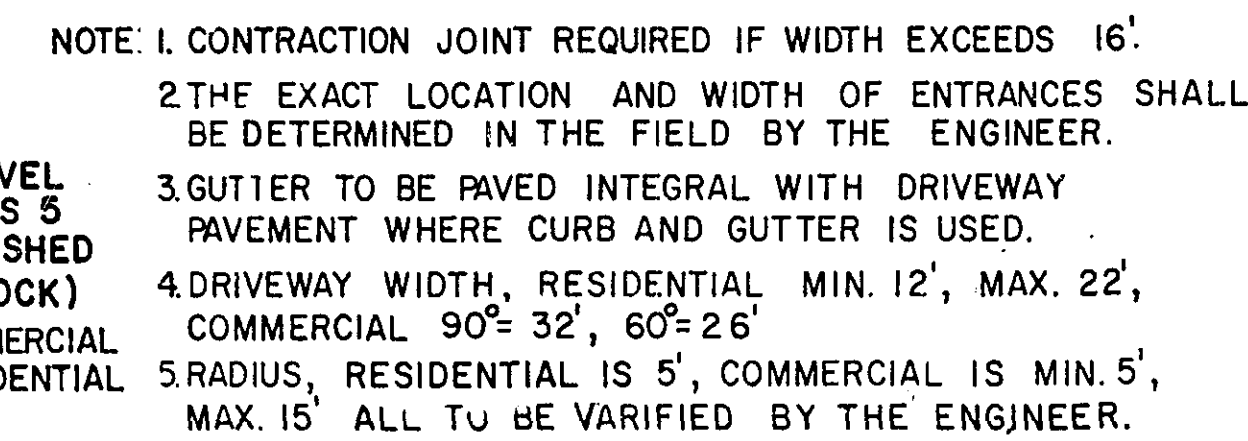
* TRANSPLANT TO 46' RT. IF POSSIBLE, AND O.K. WITH PROPERTY OWNERS.

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 2-6-74 Reg. No. 5782

TYPICAL SECTIONS

BITUMINOUS WALK
STA. 8+00 TO 52+60
M.H.D. 2521



CONCRETE MEDIAN
TYPE B

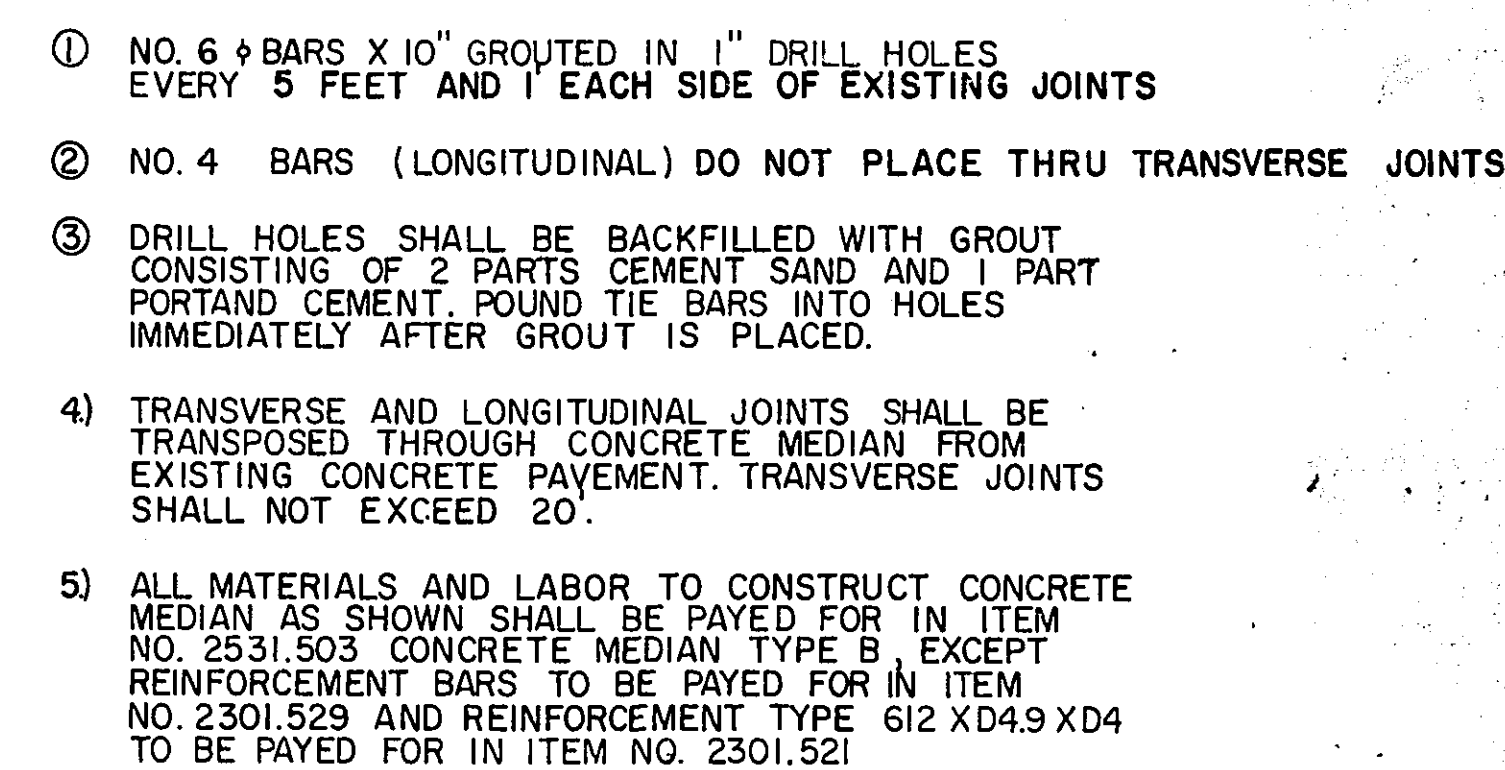
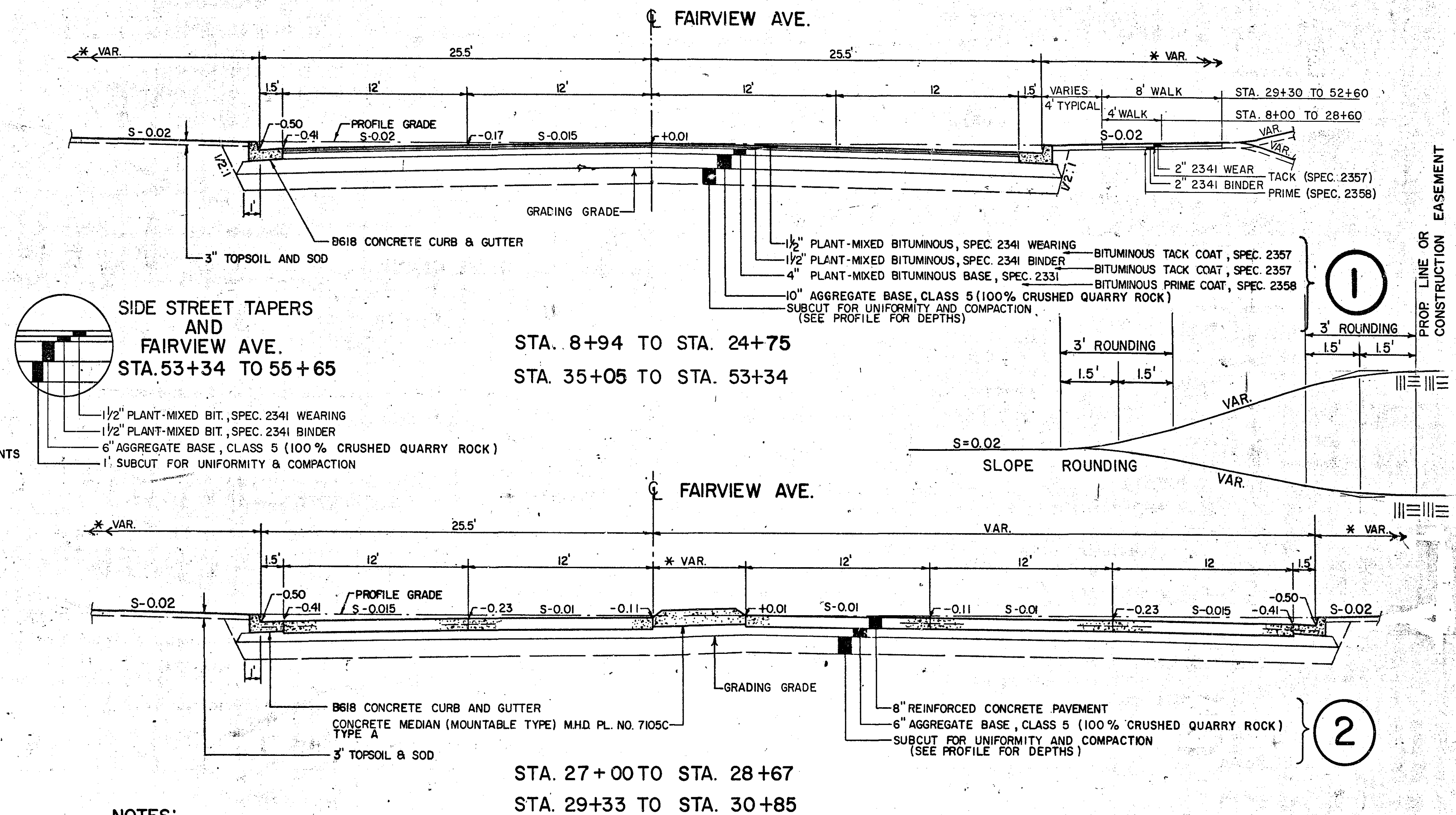
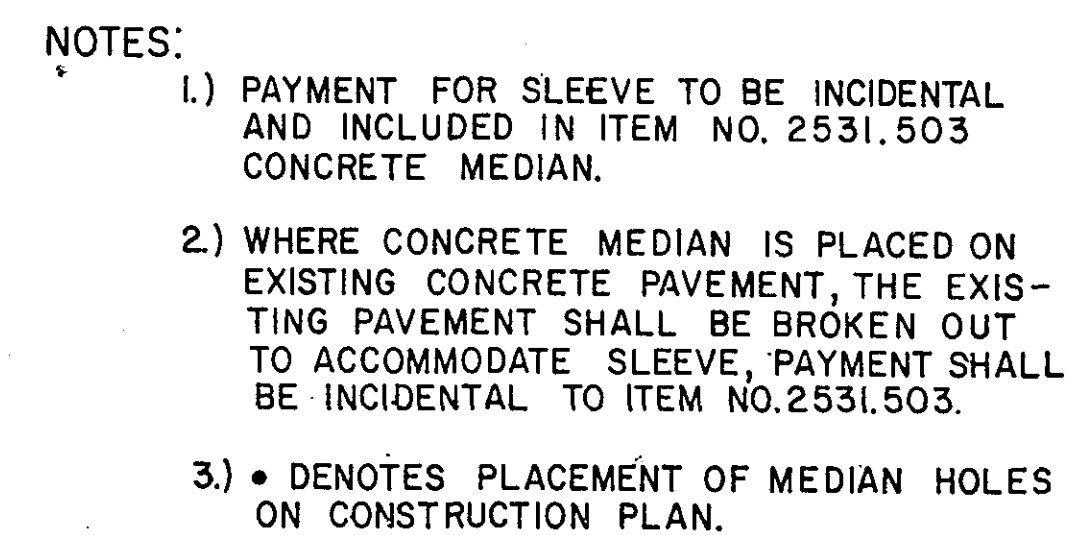
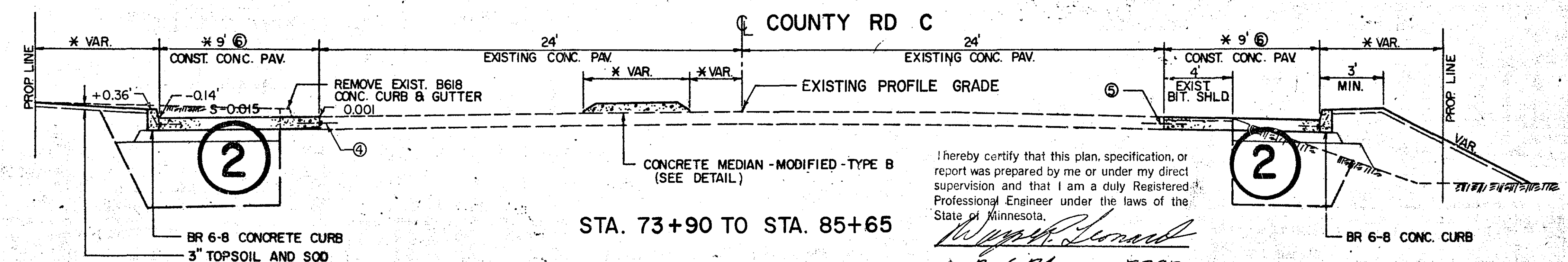
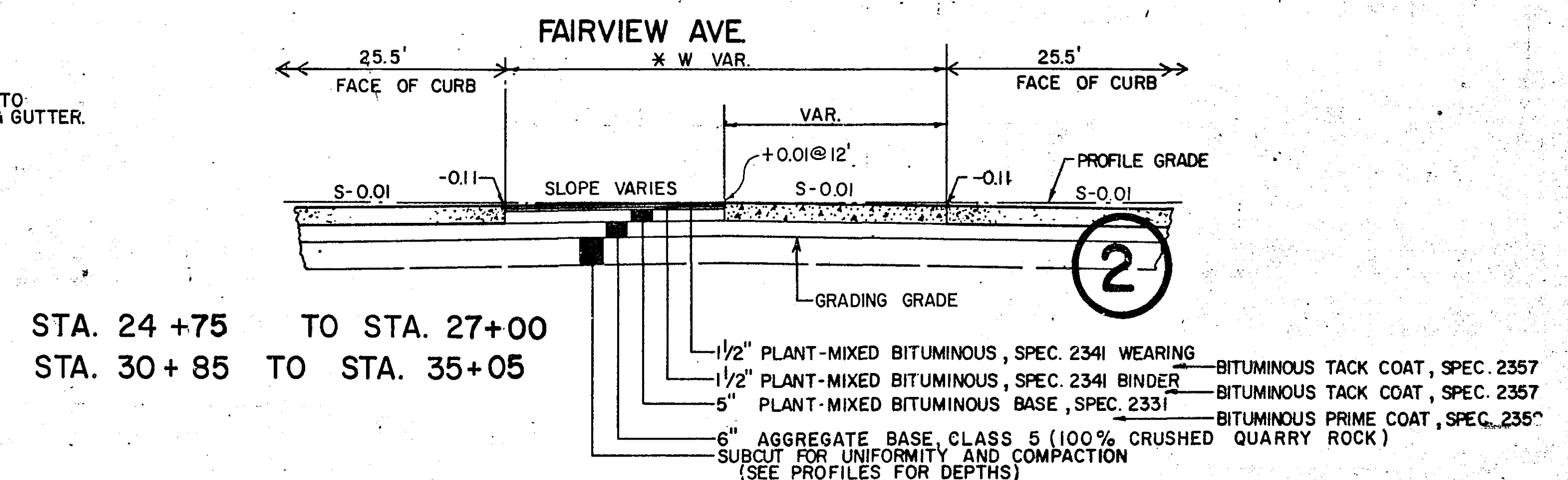


Diagram illustrating the cross-section of a bridge deck with reinforcement details:

- Top Reinforcement:** L2KT
- Bottom Reinforcement:** L2KT
- Intermediate Reinforcement:** L2KT OR L3 MODIFIED (SEE CONSTRUCTION PLAN)
- Longitudinal Bars:** NO. 5 BARS - 2'-6" LONG, SPACED AT 2'-6" CENTERS, DRILL & GROUT
- Tie Bars:** 8 MIN. PENETRATION INTO INPLACE CONC. PAV. FOR L3 MODIFIED PAYMENT FOR DRILLING & GROUTING SHALL BE INCIDENTAL TO L3 MODIFIED
- Right Side Detail:** BR 6-8 CONC. CURB, NO. 4 BARS, CUT BARS TO CONFORM WHERE NECESSARY
- Dimensions:** 30:1 TAPER, 5' (height), 5' (width)



- 1) * - SEE CONSTRUCTION PLANS FOR DIMENSIONS
- 2) SEE X-SECTIONS FOR SLOPES
- 3) PROFILE GRADE = TOP OF CURB
- 4) EXISTING DOWEL BARS & KEYWAY SHALL BE CLAMPED OR SPLICED AS REQUIRED. NO FEE FOR PAYMENT FOR CLEANING SHALL BE INCIDENTAL TO ITEM NO. 2104.501 REMOVE CONCRETE CURB & GUTTER.
- 5) NO. 5 BARS - 2'-6" LONG DRILLED & GROUTED L3-MODIFIED JOINT. (SEE DETAIL A)
- 6) CONTRACTION JOINTS SHALL BE CID TYPE MATCHED TO ADJACENT PAVEMENT JOINTS. (SEE DETAIL A)



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 Leonard

Date 2-6-74 Reg. No. 5782

CHART

STATION	LOCATION	NO.	TYPE	DESIGN	CONST. HEIGHT LIN. FT.	CASTING ASSEMBLY	ELEVATION					RECONSTRUCT C.B. OR M.H. LIN. FT.	INSTALL CASTING ASSEMBLY	INSTALL. CONCRETE PIPE SEWER LINEAR FEET					MOVING M.H. OR C.B.	REMOVE PIPE SEWER LIN. FT.	APRON	CLASS	DRAINS TO		REMARK						
							PROFILE	ORIGINAL GRATE OR RING	NEW GRATE OR RING	C.B. OR MH INVERT	ADJUST CASTING ASSEMBLY			12"	15"	18"	21"	27"					STRUCTURE NO.	INV. EL.							
10+39	11' LT.	1	MH	ELECTRIC			968.90	969.3																						ADJ. BY OTHERS	
10+45	9' LT.	2	MH	ELECTRIC			968.85	969.28																						ADJ. BY OTHERS	
10+72	15' LT.	3	MH	WATER			968.60	968.39	968.36	-0.03																				1 ADJ. RING	
11+10±	35' RT.	4	MH	SAN.			968.28	968.46		-0.5±																				REMOVE	
13+18	28' RT.	5	SD				962.87	961.75																						PLACE OVER EXIST. 15'	
13+18	27' RT.	6	CB	LP-4	6.3	C	962.87		962.87	957.2±															9	951.3±					
13+18	27' LT.	7	CB	LP-4	5.8	C	962.87		962.87	957.7														IV	6	957.2					
13+30	34' RT.	8	MH	SAN.			962.45	961.13	962.63				6.7	I																	
14+60	27' RT.	9	CB	LP-4	7.3	C	957.90		957.90	951.8±											6'X15"				11	949.8±				PLACE OVER EXIST. 15'	
14+89	58' RT.	10	MH	GAS			956.89																							ADJ. BY OTHERS	
14+98	28' RT.	11	MH	STORM			956.57	955.67	956.0±	949.78	+0.33																				
15+03	33' RT.	12	MH	SAN.			956.40	955.77	955.8		+0.03																			6 ADJ. RINGS	
15+70	24' RT.	13	MH	SAN.			954.39	954.7	953.89		-0.81																			6 ADJ. RINGS	
16+66	24.5 LT	14	CB	STORM			951.89	951.46																						REMOVE	
16+61	27' LT.	15	CB	LP-4	6.2	C	952.03		952.03	946.5±														IV	16					CONNECT TO EXIST. 12"	
17+05	44' LT.	16	MH	STORM			950.76	950.76	950.8±		+0.04										18'X12"										
17+16	38' LT.	17	MH	SAN.			950.44	950.43	950.1±		-0.3±																			5 ADJ. RINGS	
17+29	21' LT.	18	MH	WATER			950.06	949.92	949.71		-0.21																			7 ADJ. RINGS	
18+23	27' RT.	19	CB	LP-4	5.5	C	947.33		947.33	942.5														IV	21	941.5					
18+75	125' RT.	19A	CB					936.5±	936.6±	930.6±	0.00±																			O.K. LEAVE	
21+24	27' LT.	20	CB	LP-4	13.4	C	938.60		938.60	925.9±														IV	26					BUILD OVER EXIST. SEWER	
18+45	40' RT.	21	MH	A OR F	11.1	A	946.69		947.0±	936.0														IV	19A	932.0					
18+61	38' LT.	22	MH	SAN.			946.23	945.54	946.47		+0.93																			4 ADJ. RINGS	
18+61	27' RT.	23	MH	SAN.			946.23	945.09	945.6±		+0.5±																			7 ADJ. RINGS	
20+56	27' RT.	24	MH	SAN.			940.58	940.55	940.60		+0.05																			2 ADJ. RINGS	
21+24	37' LT.	25	MH	STORM			938.60	941.50	938.82			7.7	I																	11 ADJ. RINGS	
21+24	24' RT.	26	MH	STORM			938.60	938.77	938.20		-0.57																			6 ADJ. RINGS	
22+66	28' RT.	27	MH	SAN.			934.50	934.65	934.54		-0.11																			6 ADJ. RINGS	
22+79	21' RT.	28	MH	STORM			934.11	934.27	933.76		-0.51													IV						4 ADJ. RINGS	
22+89	40' LT.	29	CB	A OR F	4.6	B	933.80		932.0	927.5														IV	28	926.9					
22+96	27' RT.	30	CB	LP-4	5.1	C	933.62		933.62	929.2														IV	28	929.0					
22+80	14' RT.	31	CB	STORM			934.08																							REMOVE	
22+85	21' LT.	32	CB	STORM			933.94	932.07													5'X16"				28					REMOVE	
24+77	28' RT.	33	MH	SAN.			928.56	928.85	928.6±		-0.25										33'X18"				31					4 ADJ. RINGS TURN C	
24+78	20' LT.	34	MH	SAN.		D	928.54	927.95	928.21																					NO ADJ. RINGS	
26+45	20' RT.	37	MH	STORM		D	925.38	924.72	925.17																					NO ADJ. RINGS	
26+60	16' LT.	38	MH	WATER		D	925.14	925.04	924.97																					2 ROWS BRICK	
27+58	22' RT.	39	MH	SAN.		D	923.80	922.88	923.59																						
27+76	30.5' LT.	40	CB	LP-4	5.1	C	923.88		923.88	918.5																					
27+76	42.5' RT.	41	CB	LP-4	5.8	C	923.88		923.88	918.87																					
28+40	34' LT.	42	SD	STORM		A	923.60	921.23		914.44																					
28+58	22' RT.	43	MH	SAN.		D	923.24	922.92	923.10																						
29+17	39' LT.	44	MH	SAN.				922.85																							
29+28	23' RT.	45	MH	SAN.		D		922.63																							
29+32	44' LT.	46	MH	WATER		D	922.90		923.08																						
29+33	47' RT.	47	MH	WATER		D	922.89	923.40																							
29+37	33' LT.	48	CB	STORM			922.94																								
29+37	33' LT.	49	MH	A OR F	5.7	D	922.94		922.6	917.0±																					REMOVE
29+43	37' LT.	50	MH	T&L			923.01	923.40	922.67																						BUILD @ EXIST. CB & LOC
29+74	20' LT.	51	MH	WATER		D	923.38	922.95	923.03																						
32+11	24' RT.	52	MH	SAN.		D	922.55	923.12	922.34	918.12		7.6	I																		ADJ. BY OTHERS
32+50	27' LT.	53	CB	LP-4	5.9	C	922.41		922.41	917.17														IV	54	916.51					3 ADJ. RINGS
32+50	36.5' RT.	54	CB	LP-4	6.5	C	922.41		922.41	916.51														II	54A	915.94					
33+55	38' RT.	54A	MH	A OR F		A	922.87		922.94	915.94														II	58	914.35					
35+05	23' RT.	55	MH	SAN.		D	922.57	922.65	922.18	918.15																					
36+50	27' LT.	56	CB	LP-4	5.1	C	921.90		921.90	917.46																					
36+50	27' RT.	57	CB	LP-4	5.7	C	921.90		921.90	916.56														IV	57	916.90					
36+50	33.5' RT.	58	MH	A OR F	8.5	A	921.90		922.06	913.60	914.41													IV	58	916.80					
38+02	23' RT.	59	MH	SAN.			922.60	923.22	922.21			7.4	I											II	62	912.72					2 ADJ. RINGS
39+50	35' LT.	60	MH	SAN.			923.34	922.5±	923.44		+0.94																				
39+50	43' RT.	61	MH	SAN.			923.34	923.22																							O.K. LEAVE
38+25	33.5' RT.	62	MH				922.72		922.88		0.00±																				CONST. BY ROSEVILLE
41+11	27' LT.	63	CB	LP-4	5.1	C	924.15		924.15	919.72														IV	64	919.16					
41+11	27' RT.	64	CB	LP-4	5.7	C	924.15		924.15	919.16	918.30													IV	65	919.06					
49+57	20' LT.	64A	MH	SAN.			925.84	926.16	925.51		-0.65																				4 ADJ. RINGS
41+11	33.5' RT.	65	MH	A OR F	6.2	A	924.15		924.31	918.22														IV	62	916.50					
51+05	27' LT.	66	CB	LP-4	5.1	C	924.87		924.87	920.44														IV	67	919.88					
51+05	27' RT.	67	CB																												

NOTE: CATCH BASIN DISTANCE COMPUTED TO FACE.

A-RING CASTING M.H.D. NO. 700-7, COVER CASTING NO. 712 (INCLUDED WITH STRUCTURE, NOT SEPERATE PAY ITEM)
B-RING CASTING M.H.D. NO. 700-7, COVER CASTING NO. 730-9 (INCLUDED WITH STRUCTURE, NOT SEPERATE PAY ITEM)
C-RING CASTING M.H.D. NO. 790-2, COVER CASTING NO. 790-2 (INCLUDED WITH STRUCTURE, NOT SEPERATE PAY ITEM)
D=GRATE FRAME CASTING M.H.D. NO. 770, FLANGE FRAME CASTING M.H.D. NO. 771, COVER CASTING NO. 712

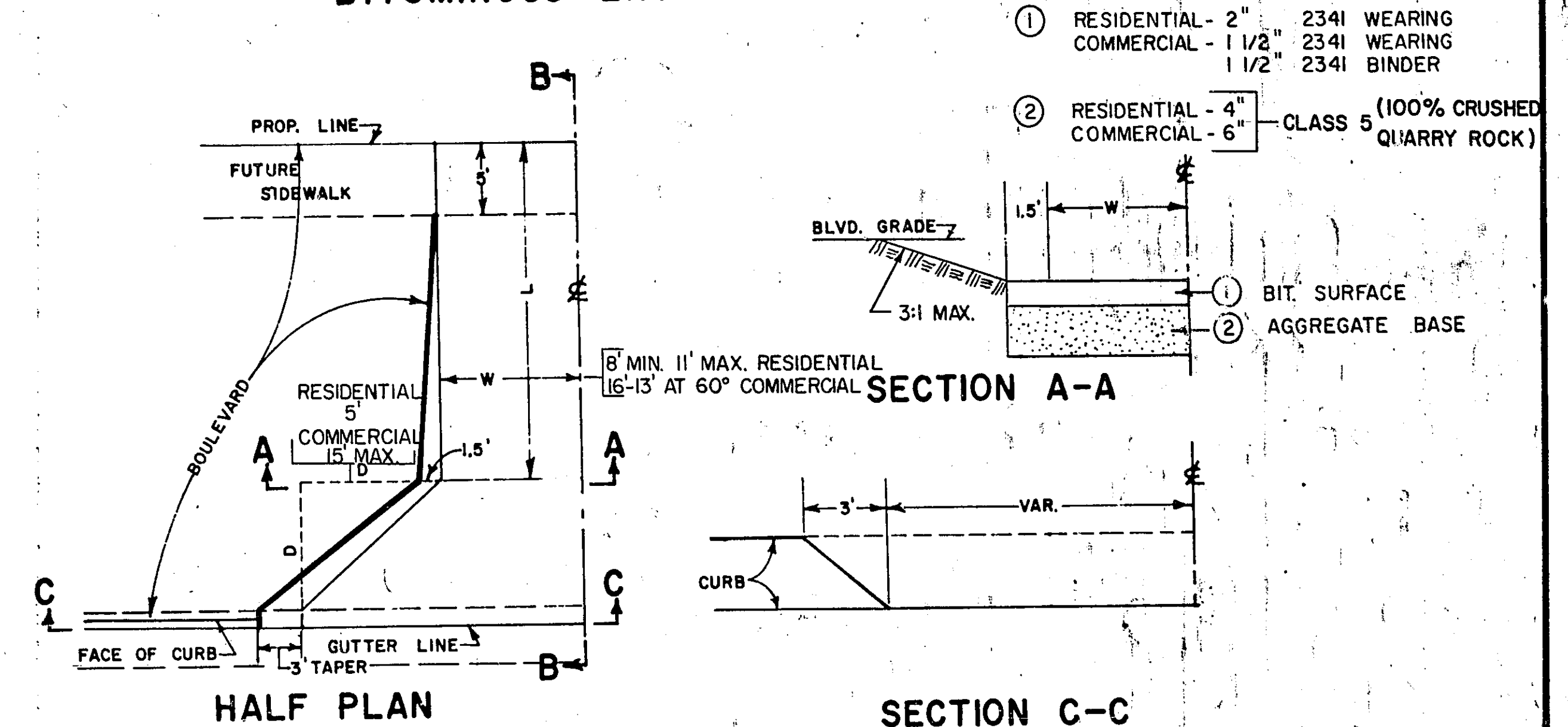
DESIGN — [LP-4 M.H.D. STD. PLATE NO. 4021C
A ORF M.H.D. STD. PLATE NO. 4000G OR 4005I

S.A.P. No. 62-648-03

MICROFILMED.
RAMSEY CO. ENGRS. Sheet No. 4 of 25 Sheets

20-103

BITUMINOUS ENTRANCE DETAILS

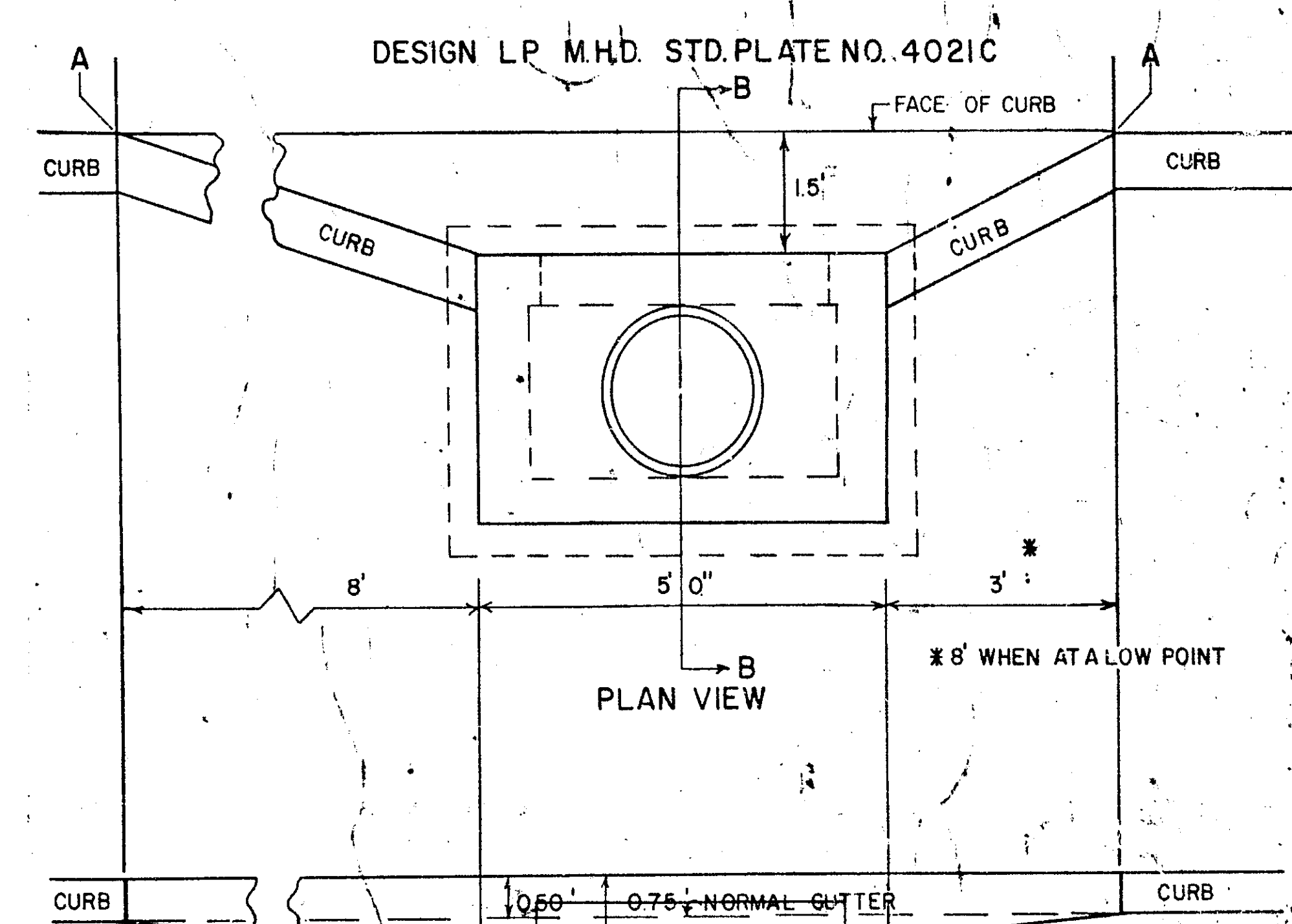


SECTION C-C

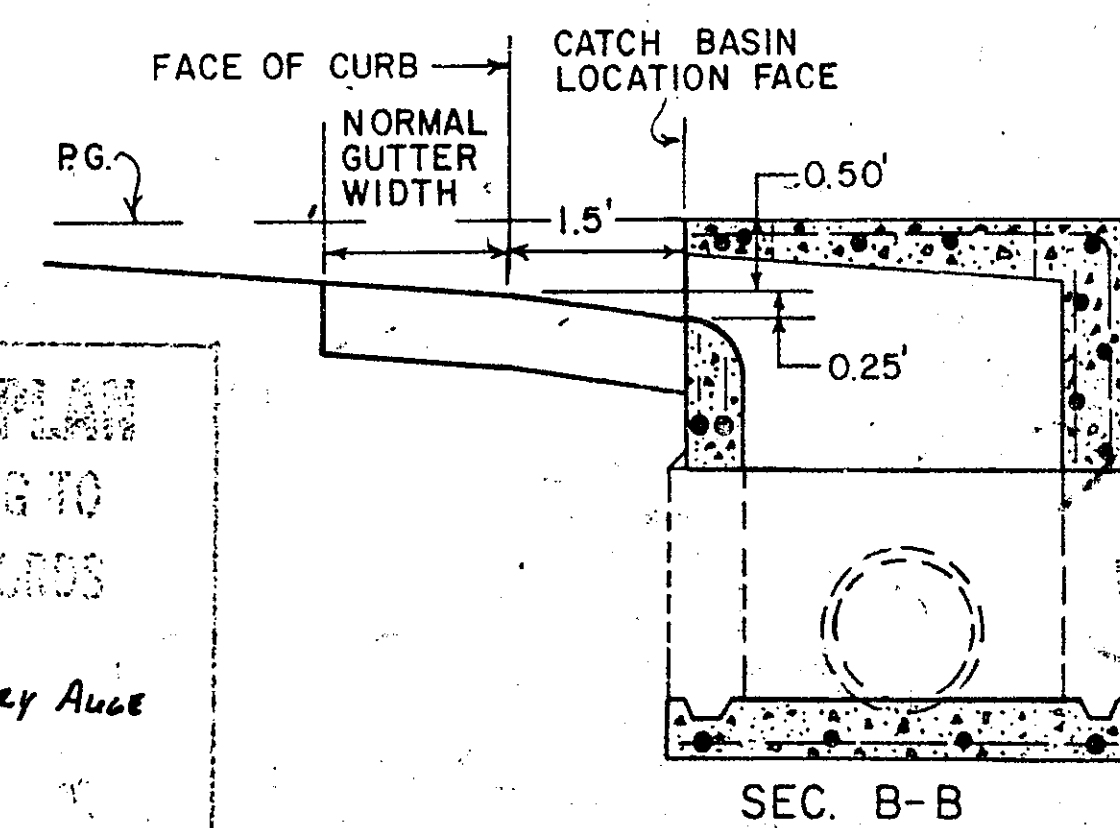
NOTE: D= RESIDENTIAL 5' COMMERCIAL IS
MAX. 15' ALL TO BE VARIFIED BY THE
ENG. W= RESIDENTIAL IS 8' MIN.,
11' MAX., COMMERCIAL IS 16' FOR 90°,
13' FOR 60° THE EXACT LOCATION
AND WIDTH OF ENTRANCES SHALL BE
DETERMINED BY ENGINEER IN THE FIELD.

SECTION B-B

CURB OPENING CATCH BASIN INSTALLATION DETAIL



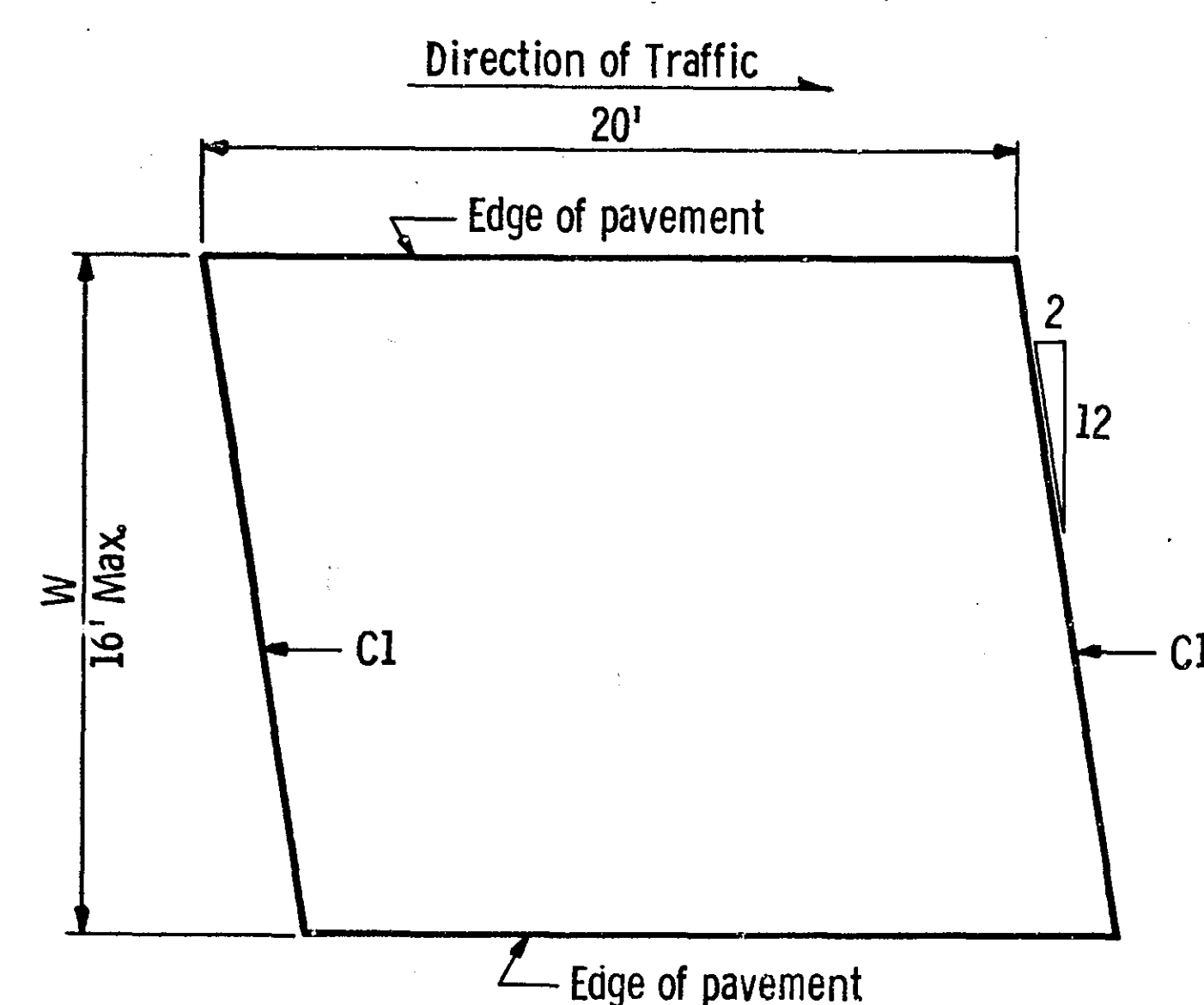
SEC. A-A



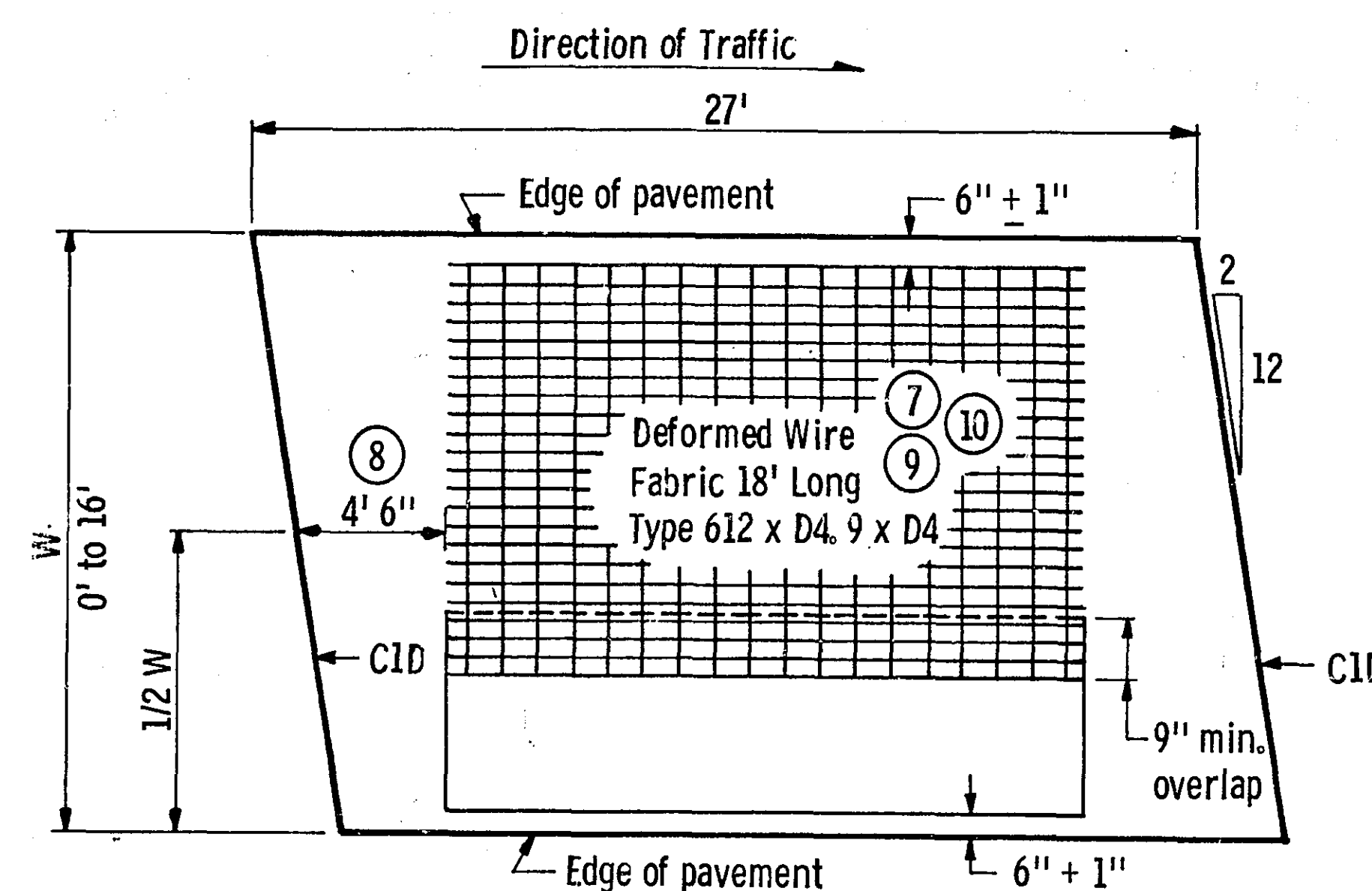
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.

Wayne R. Leonard
Date 2-6-74 Reg. No. 5792

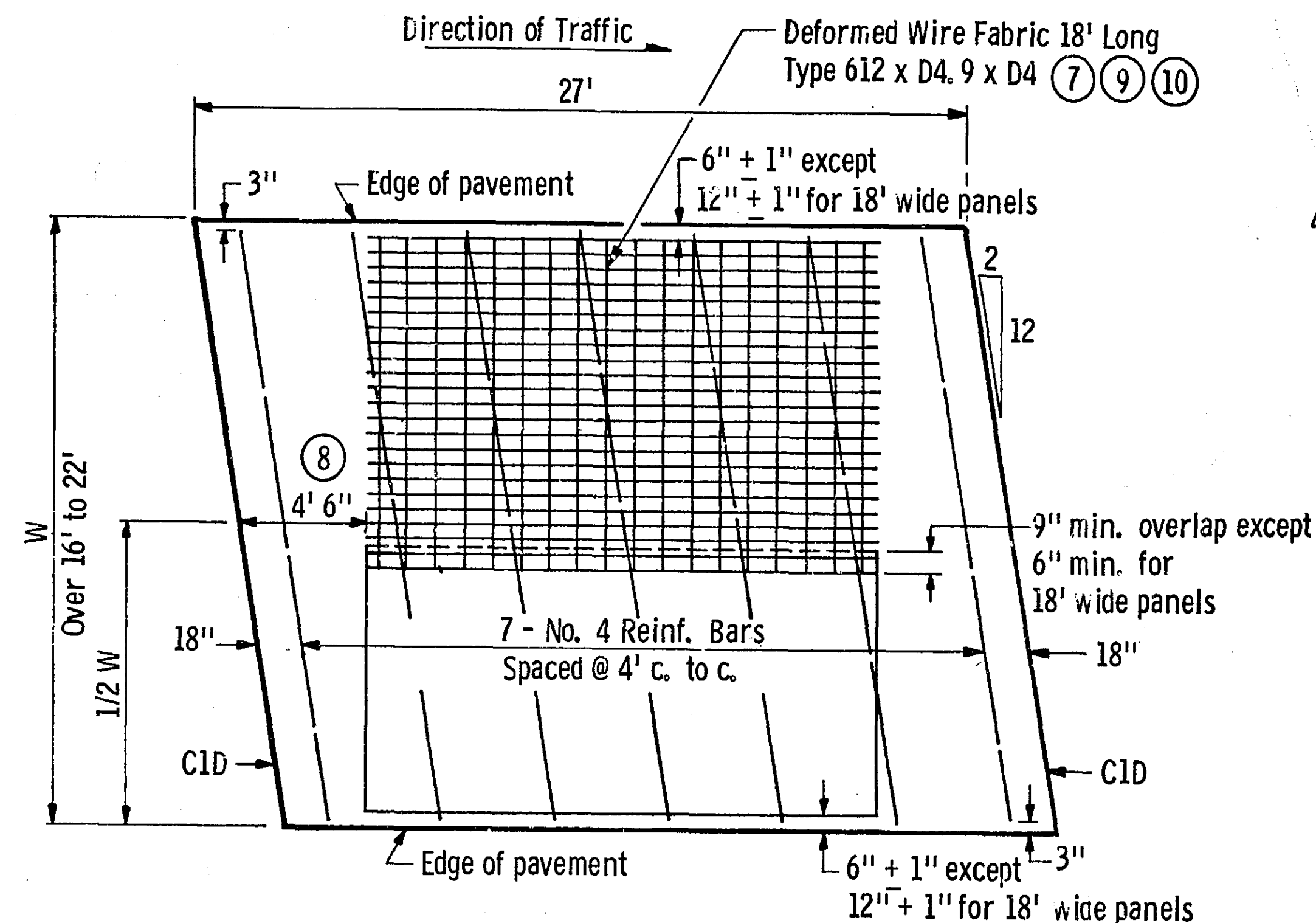
Fed. Proj. No.



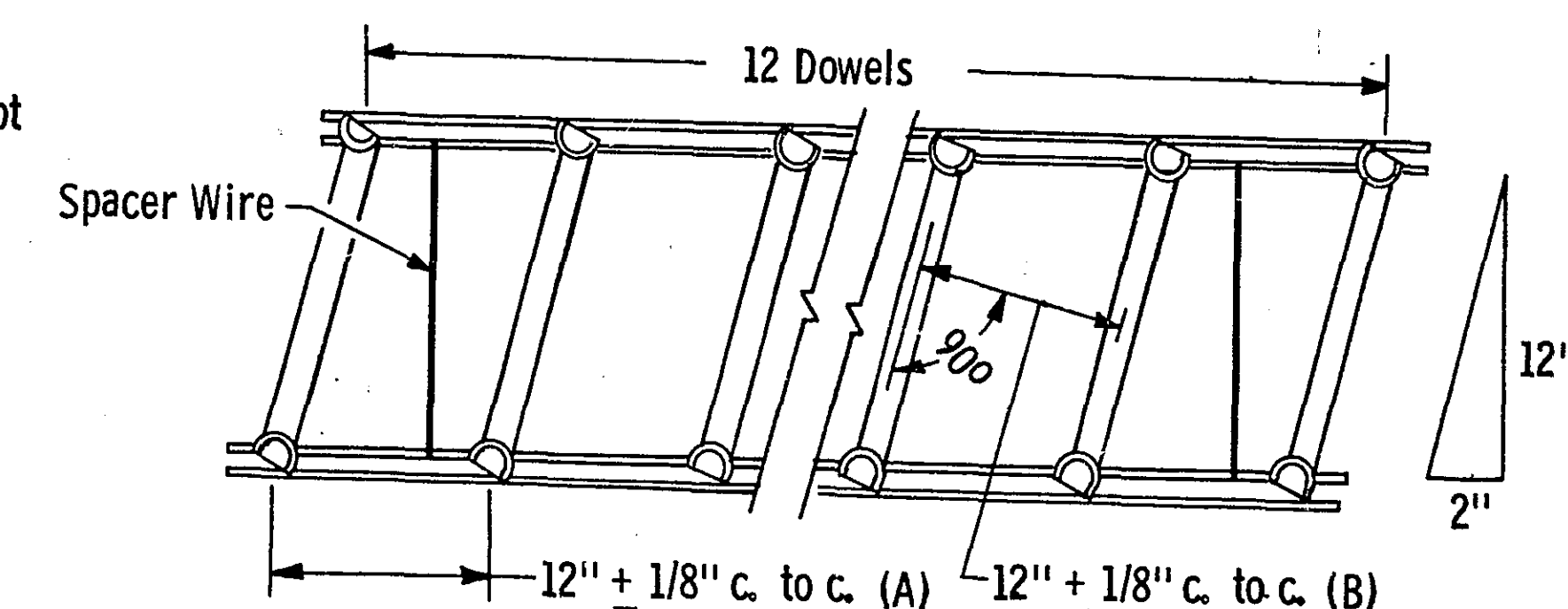
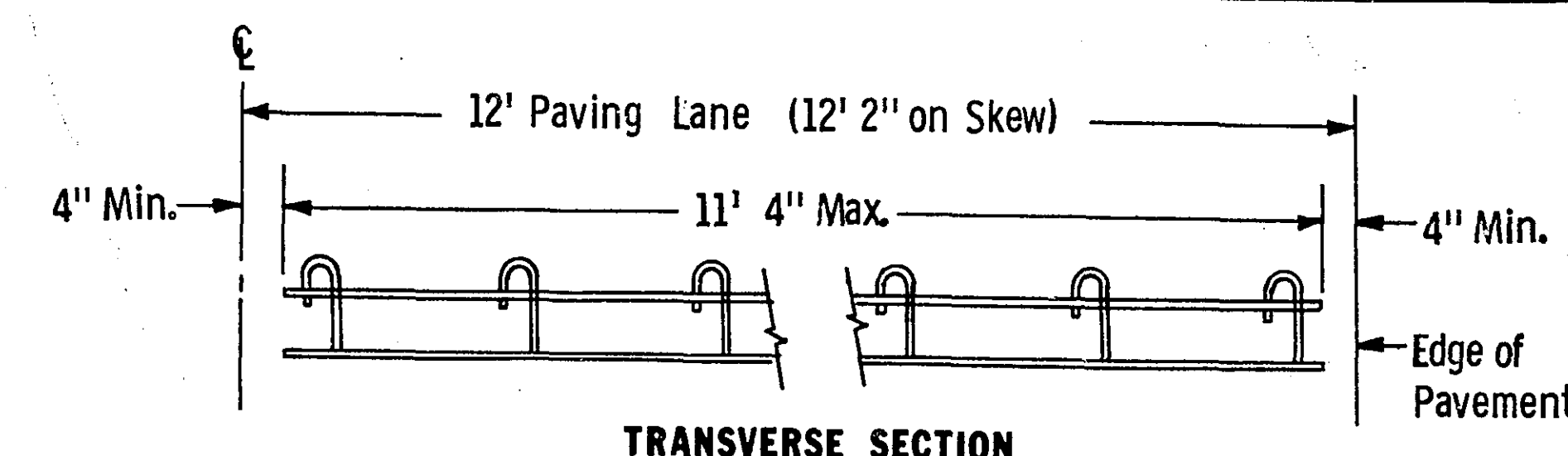
NON-REINFORCED CONCRETE PAVEMENT
FOR 20 FT. SKEWED PANELS - 0' TO 16' WIDTHS
DETAIL A



REINFORCED CONCRETE PAVEMENT
FOR 27 FT. SKEWED PANELS - 0' TO 16' WIDTHS
DETAIL D



SUPPLEMENTAL PANEL REINFORCEMENT
FOR 27 FT. SKEWED PANELS OVER 16' TO 22' WIDTHS
DETAIL G

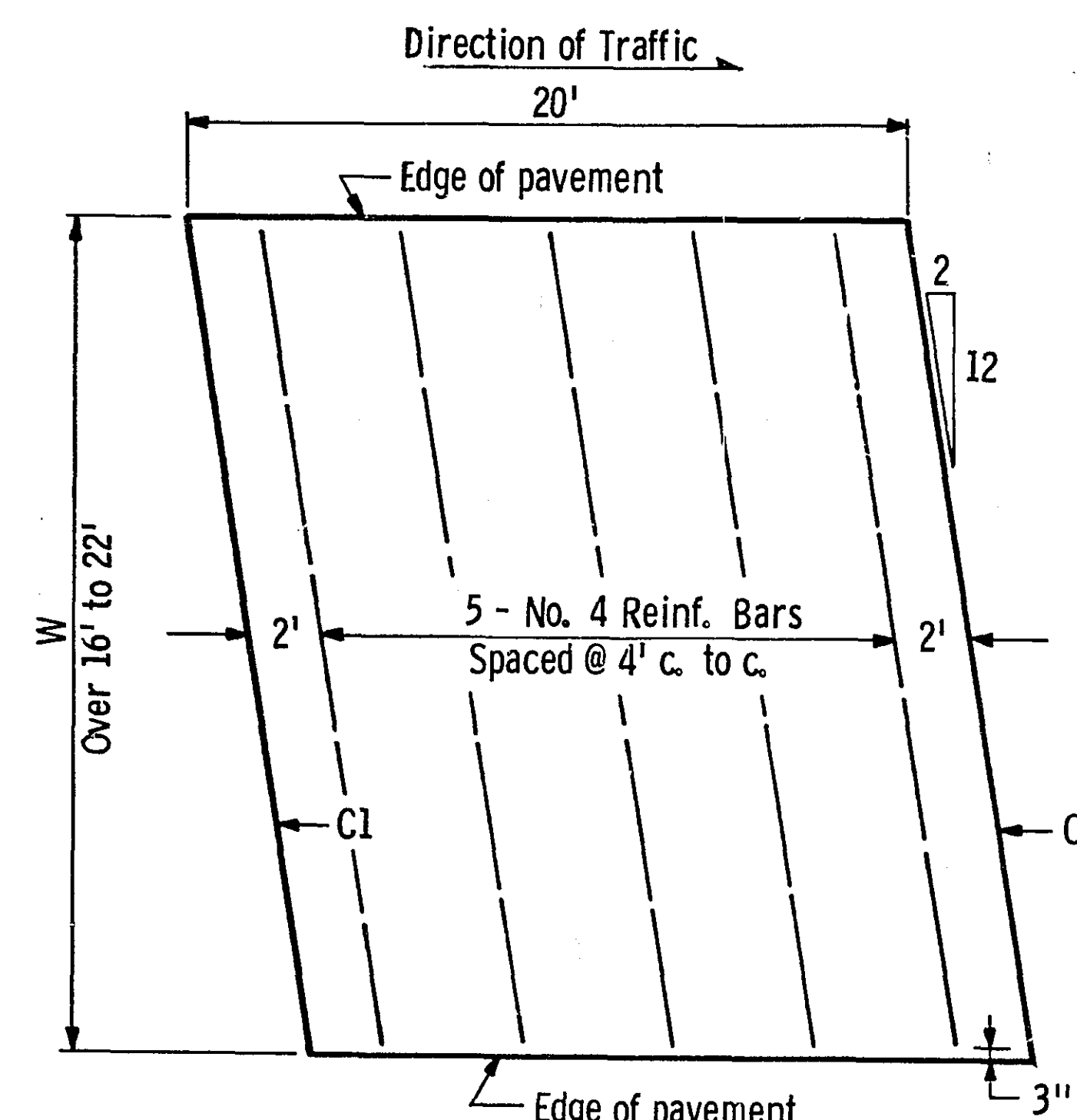


Alternate (A) or (B) may be used for dowel bar spacing.
Cut Spacer Wire after staking in place on grade.

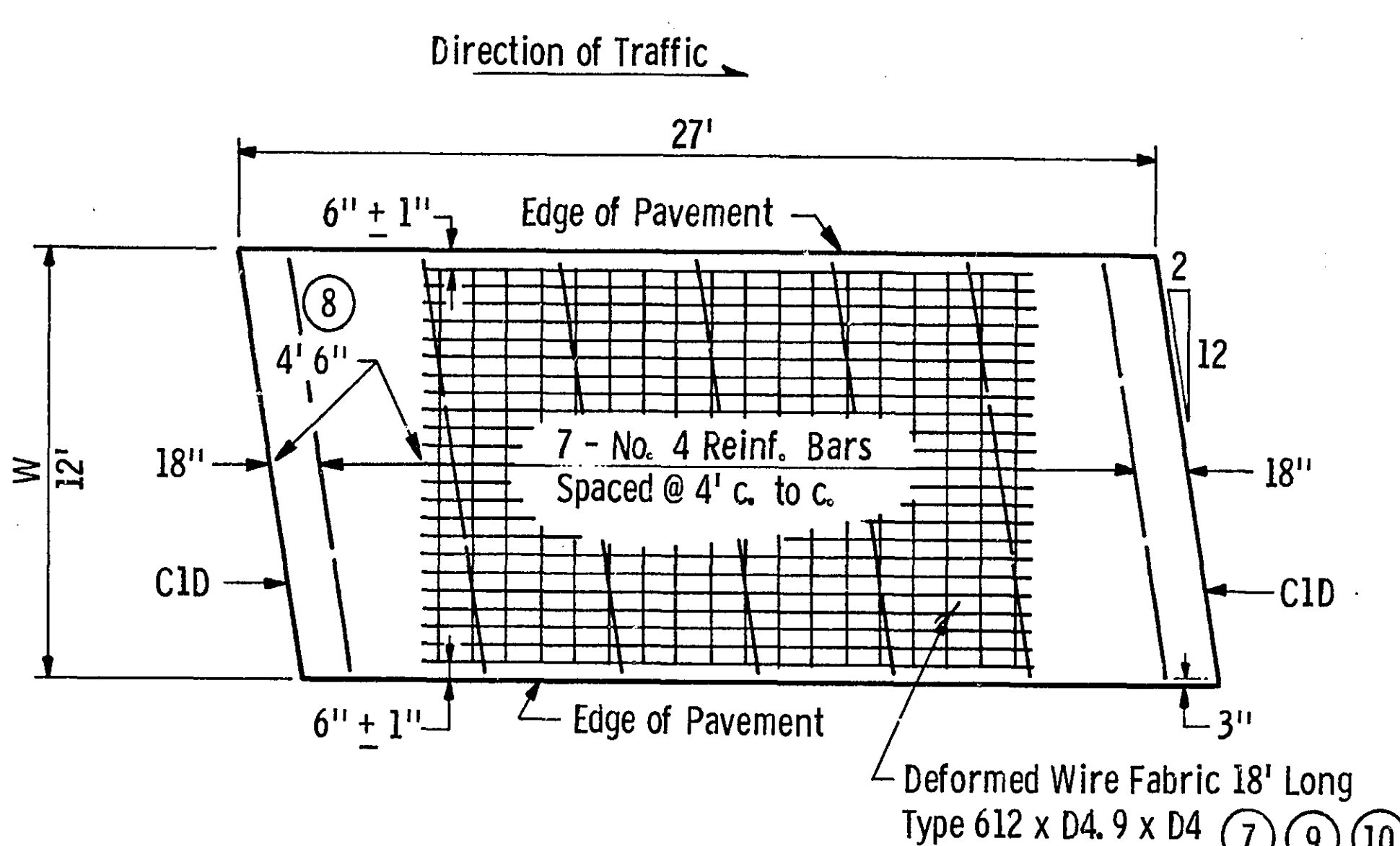
PLAN

MODIFIED DOWEL BAR ASSEMBLY DETAILS

Dowel bar assemblies shall be similar to those shown
on Standard Plates 1103 to 1108 except as modified above.

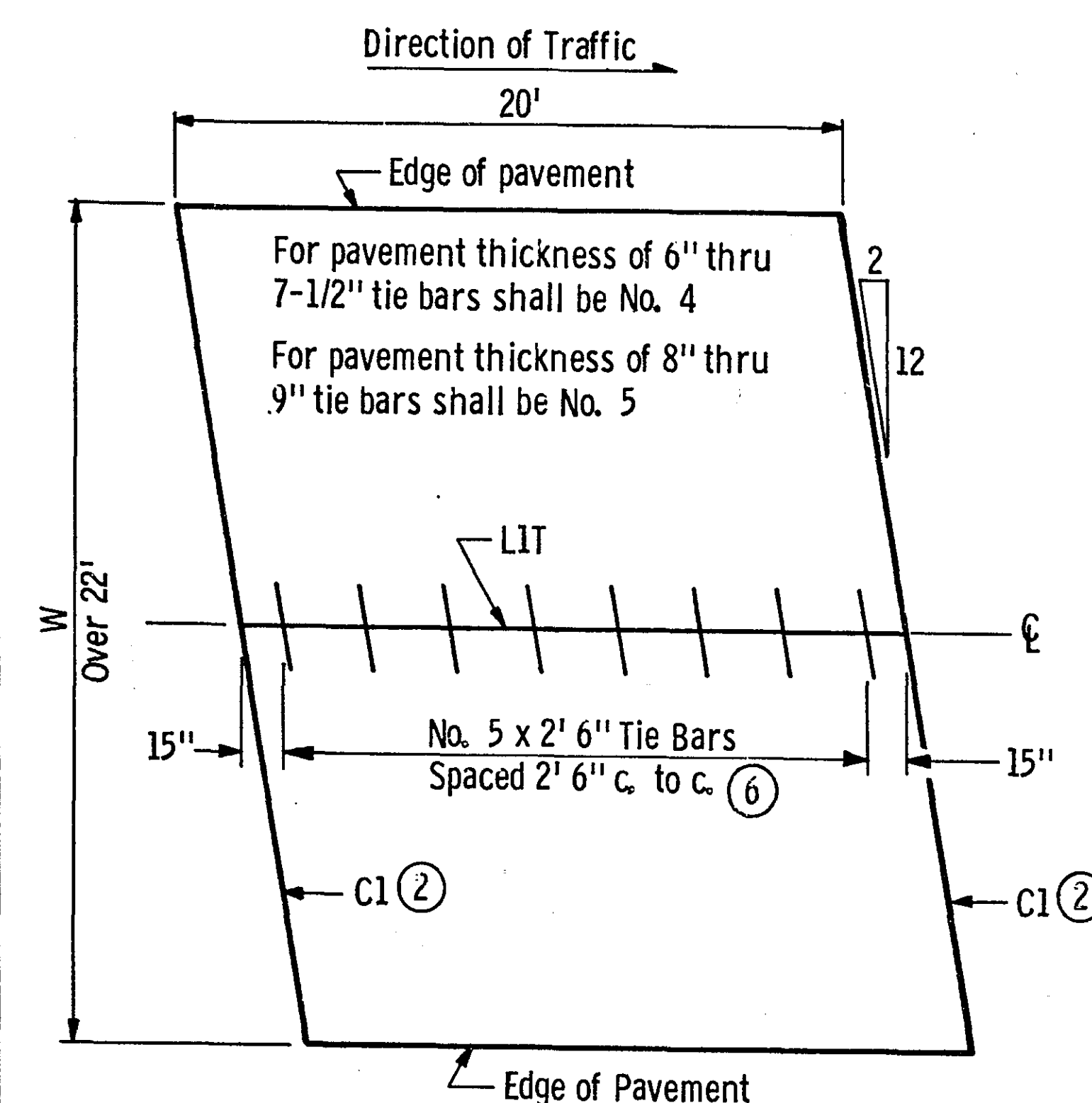


SUPPLEMENTAL PANEL REINFORCEMENT
FOR 20 FT. SKEWED PANELS - OVER 16' TO 22' WIDTHS
DETAIL B

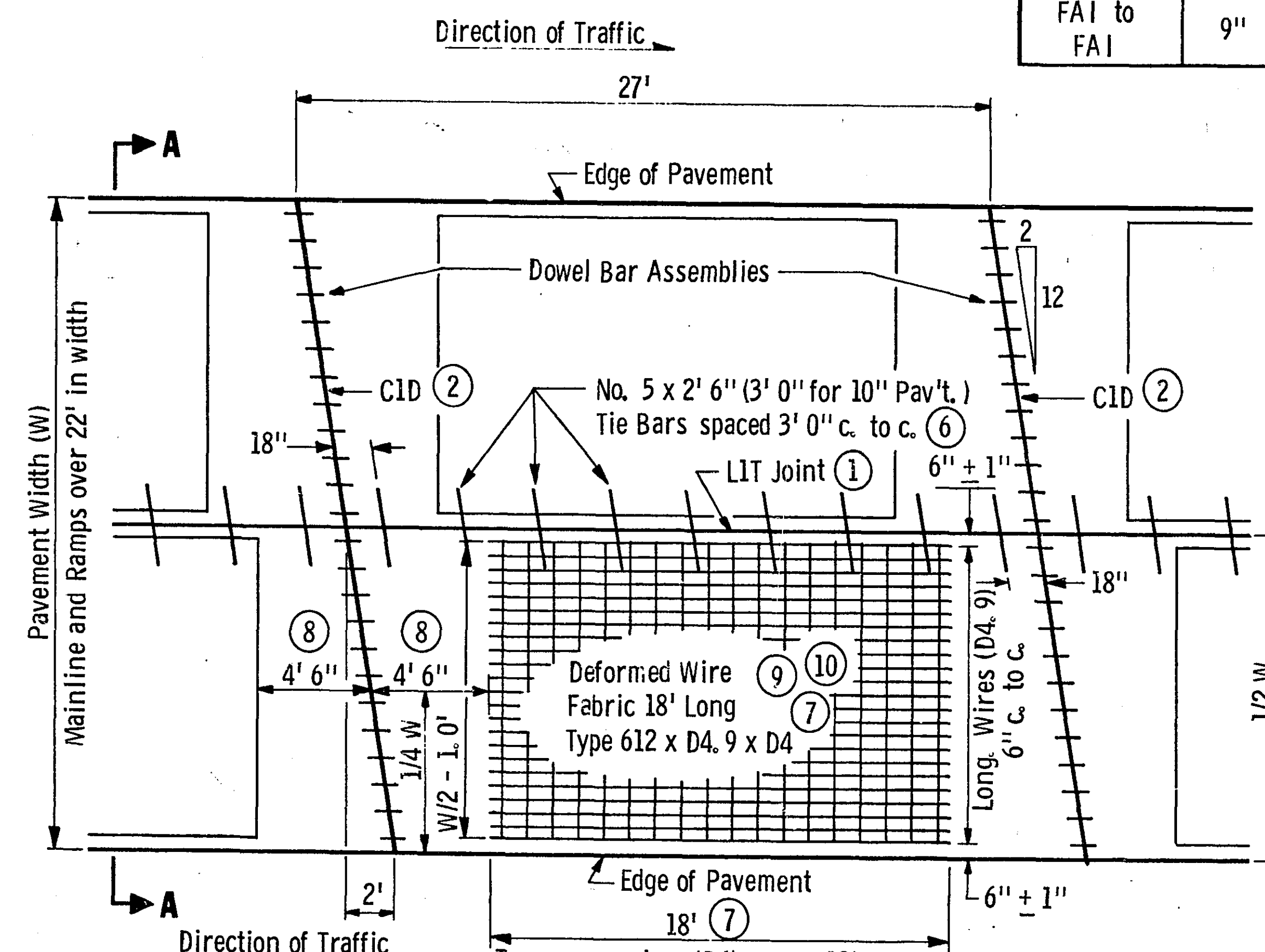


SUPPLEMENTAL PANEL REINFORCEMENT
FOR 27 FT. PANELS
DETAIL E

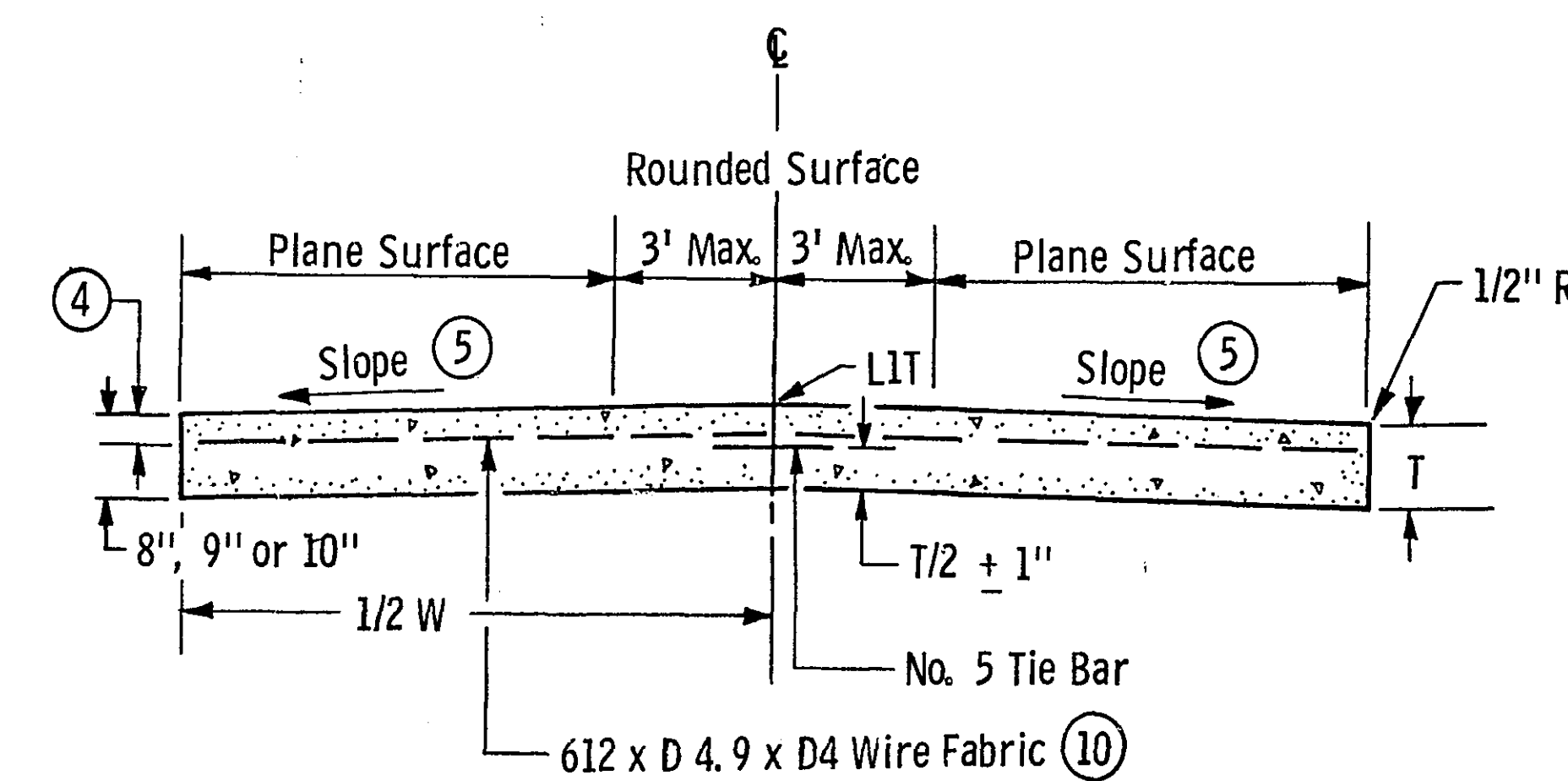
RAMP DESIGN									
③ TST-HCADT	Pav't. Thick.	Pav't. Width	Panel Length	⑩ Fabric Reinf.	④ Supple. Reinf.	Skew. Cont. Jts.	L. Jt.	Control Cont. Joints Spacing @	See Detail
0 to 125	8"	0 to 16'	20'	None	No	C1	None	40'	A
0 to 125	8"	Over 16' to 22'	20'	None	Yes	C1	None	40'	B
0 to 125	8"	Over 22'	20'	None	No	C1	Yes	40'	C
Over 125	8"	0 to 16'	27'	612 x D4, 9 x D4	No	C1D	None	27'	D
Over 125	8"	Over 16' to 22'	27'	612 x D4, 9 x D4	Yes	C1D	None	27'	G
Over 125	8"	Over 22'	27'	612 x D4, 9 x D4	No	C1D	Yes	27'	F
FAI to FAI	9"	0 to 16'	27'	612 x D4, 9 x D4	No	C1D	None	27'	D
FAI to FAI	9"	Over 16' to 22'	27'	612 x D4, 9 x D4	Yes	C1D	None	27'	G
FAI to FAI	9"	Over 22'	27'	612 x D4, 9 x D4	No	C1D	Yes	27'	F



NON-REINFORCED CONCRETE PAVEMENT
FOR 20 FT. SKEWED PANELS - OVER 22' WIDTHS
DETAIL C



REINFORCED CONCRETE PAVEMENT
FOR SKEWED 27 FT. PANELS - OVER 22' WIDTHS
DETAIL F



SECTION A-A

APPROVED May 2, 1972

Shirley A. Smith
Engineering Standards Engineer
RESEARCH AND STANDARDS
DIVISION

CONCRETE PAVEMENT WITH SKEWED JOINTS 20 FT. AND 27 FT. PANELS

S.A.P. No. 62-648-03

MICROFILMED
RAMSEY CO. ENGR.

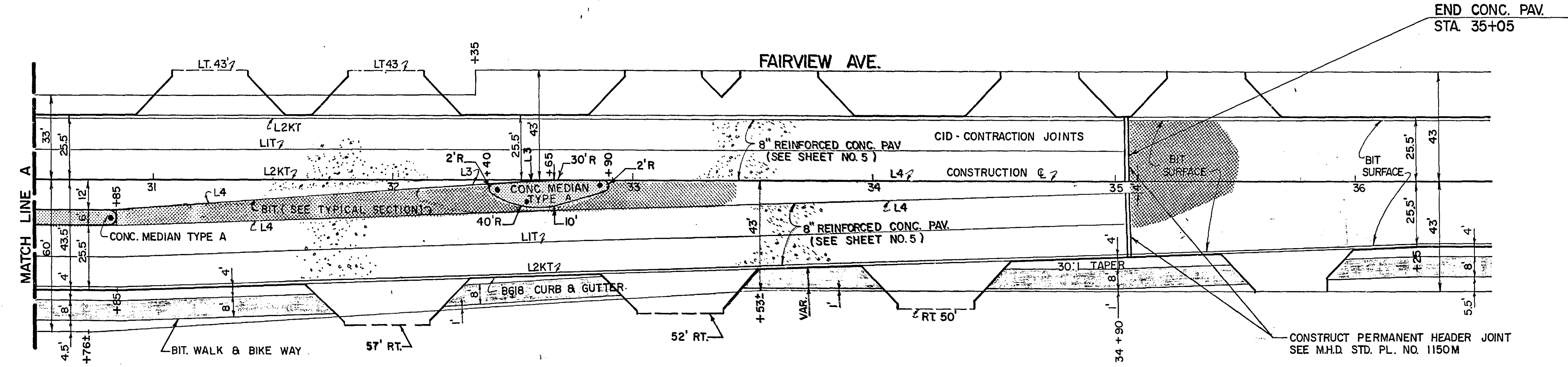
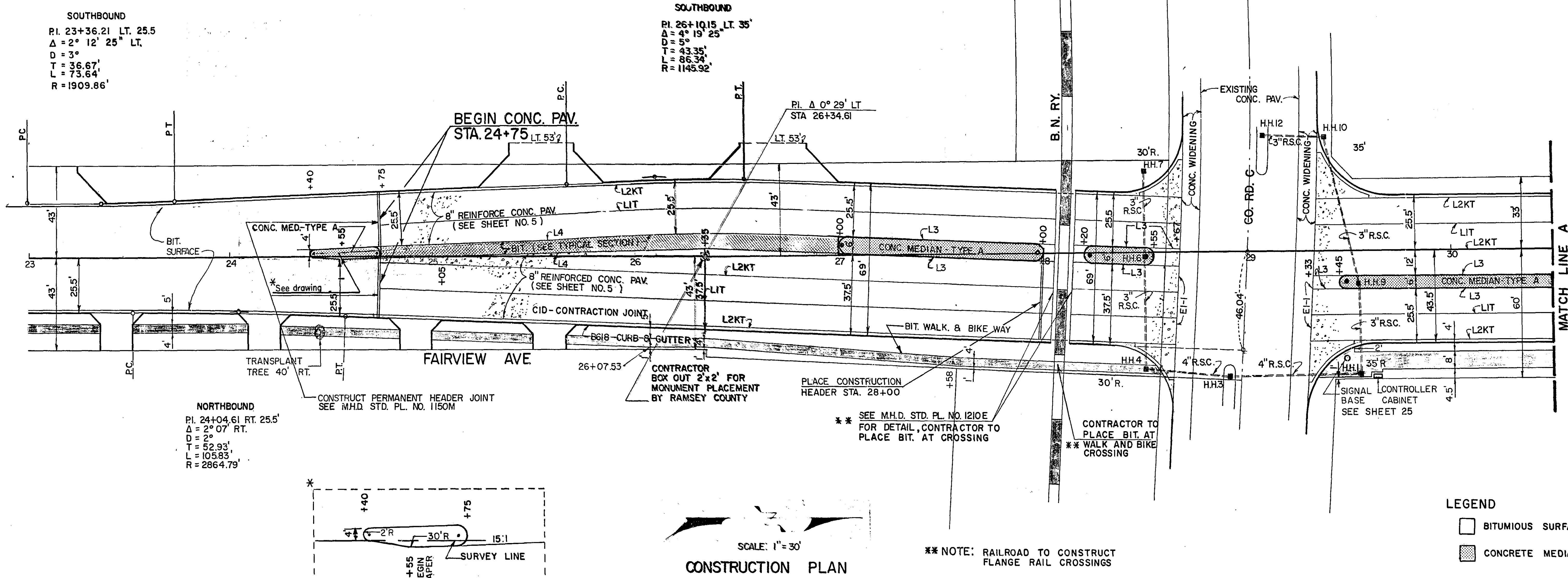
Sheet No. 5 of 25 Sheets

NOTES:

- 1) R.S.C. - RIGID STEEL CONDUIT
- 2) H.H. - HANDHOLE
- 3) HANDHOLES 3, 6, 9 AND 12 SHALL BE FURNISHED WITH TYPE LD-METAL FRAME & COVER.
- 4) BREAK OUT EXISTING CONCRETE PAVEMENT TO INSTALL HANDHOLES 3 AND 12 AND BACKFILL AROUND HANDHOLES WITH AGGREGATE MATERIAL AS DIRECTED BY ENGR.
- 5) HANDHOLE 1 IS TWO HANDHOLES PLACED SIDE BY SIDE WITH 4" R.S.C. BETWEEN.
- 6) SEE SHEET NO. 25 FOR LOCATION OF HANDHOLES
- 7) RIGID STEEL CONDUIT SHALL BE INSTALLED BY DRILLING METHOD IN AREAS WHERE INPLACE CONCRETE PAVEMENT IS NOT TO BE DISTURBED.

LEGEND

- BITUMIOUS SURFACING
- CONCRETE MEDIAN



ASBUILT PLAN CONFORMING TO CONST. RECORDS

DONE BY: **JERRY AUGER**
 DATE: **1-6-76**

CONCRETE PAVING DETAIL

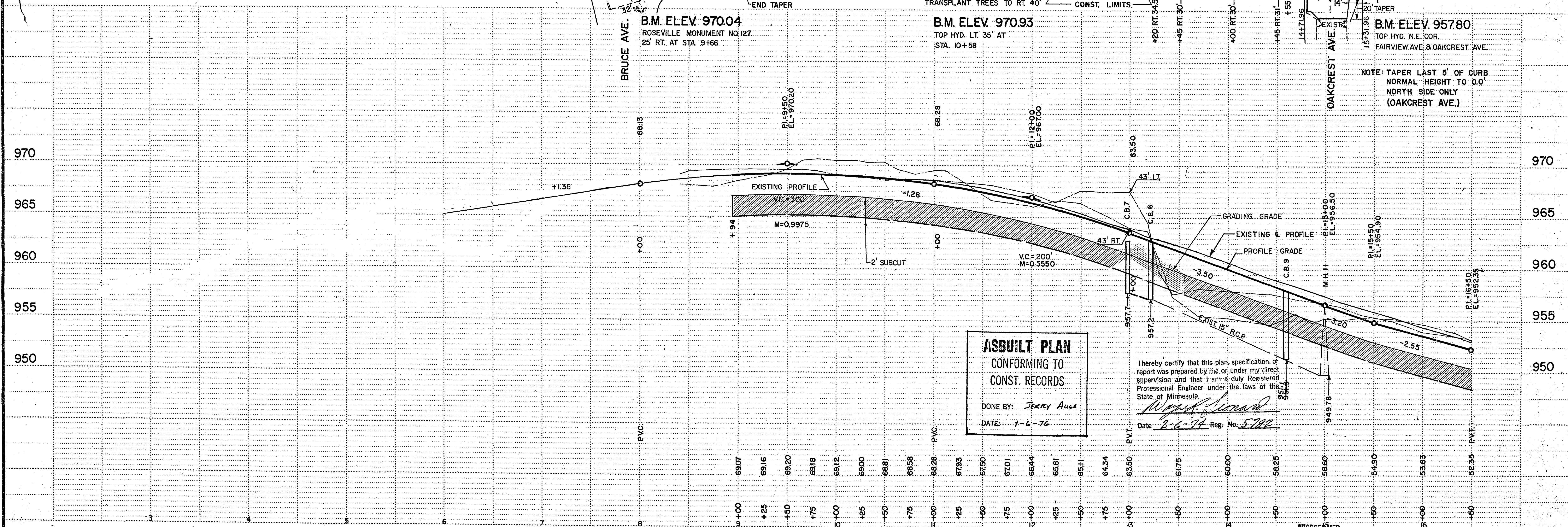
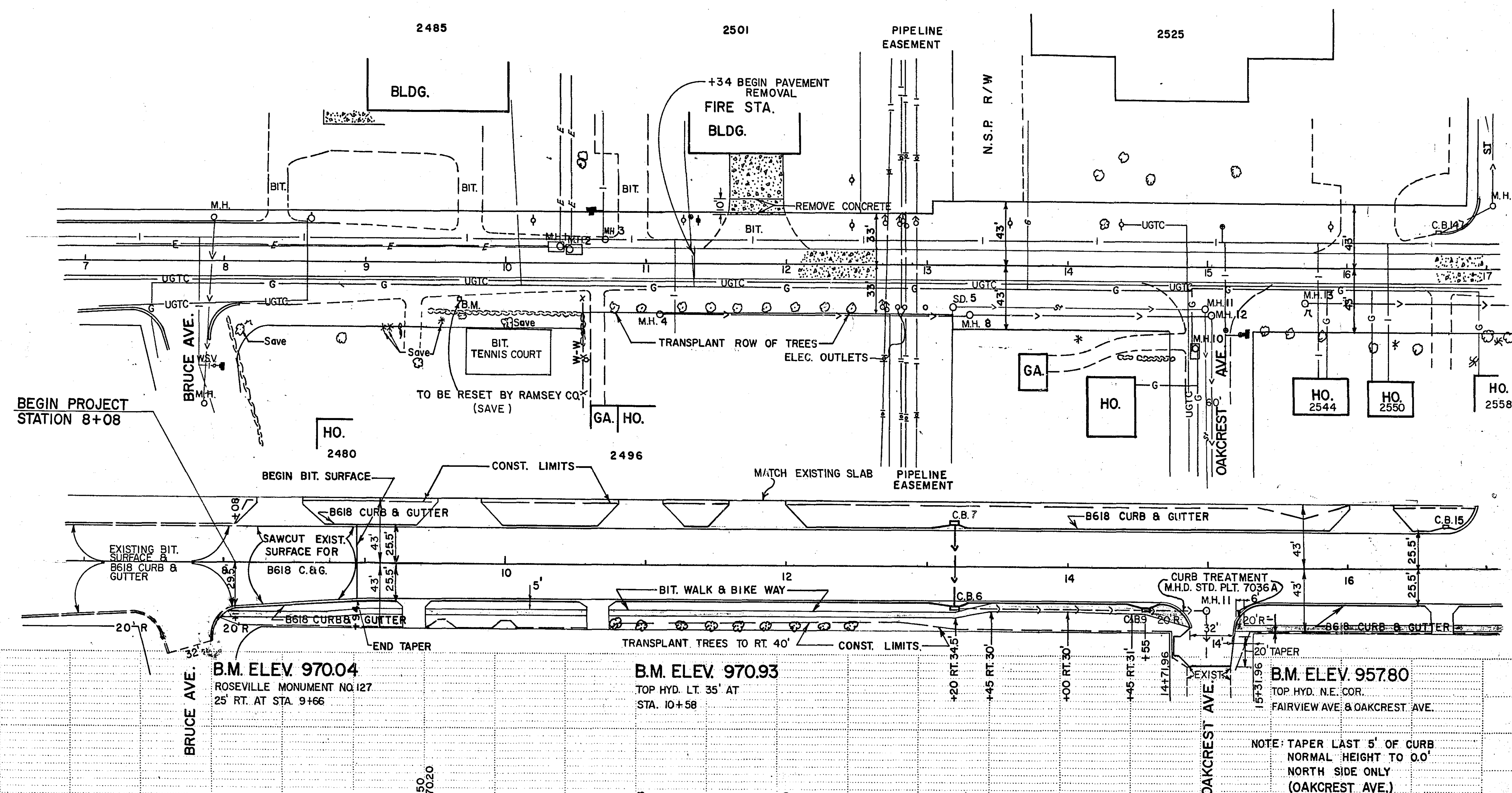
REVISED 7-25-74 R.W.W.
 SIGNAL UNDERGROUND
 & HANDHOLES.

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. W. W.
 Date **2-6-74** Reg. No. **5782**

S.A.P. NO. 62-648-03

MICROFILMED
 SHEET NO. 6 OF 25 SHEETS

Remove 20 L.F. of woven
wire fence sta. 10+53 RT. 23' to 43'



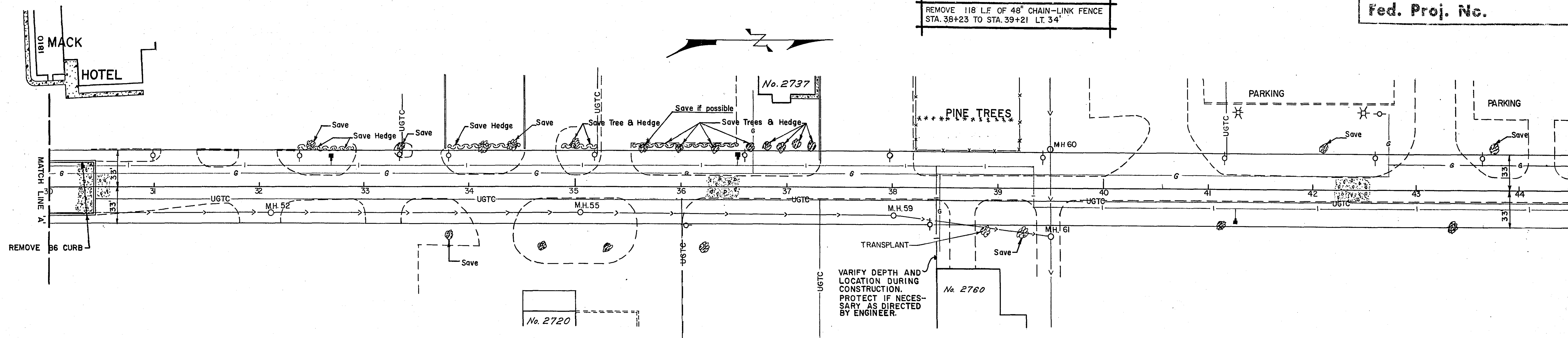
ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *Jerry Auga*
DATE: 1-6-76

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 Leonard
Date: 2-6-76 Reg. No. 5702



REMOVE 118 L.F. OF 48" CHAIN-LINK FENCE
STA. 38+23 TO STA. 39+21 LT. 34'

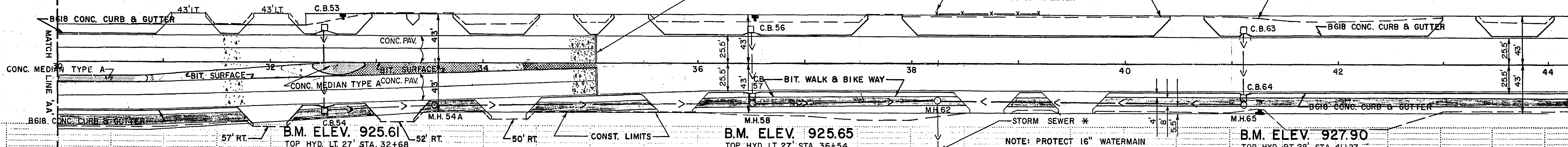


* NOTE: STORM SEWER TO BE
CONSTRUCTED BY VILLAGE
OF ROSEVILLE

FOR DETAILS SEE SHEET NO'S. 5 & 6

END CONC. PAV.
STA. 35+05

F&I 98 L.F. OF FENCE.
DESIGN 486-9322
STA. 38+23 TO 39+21 LT. 43.5'



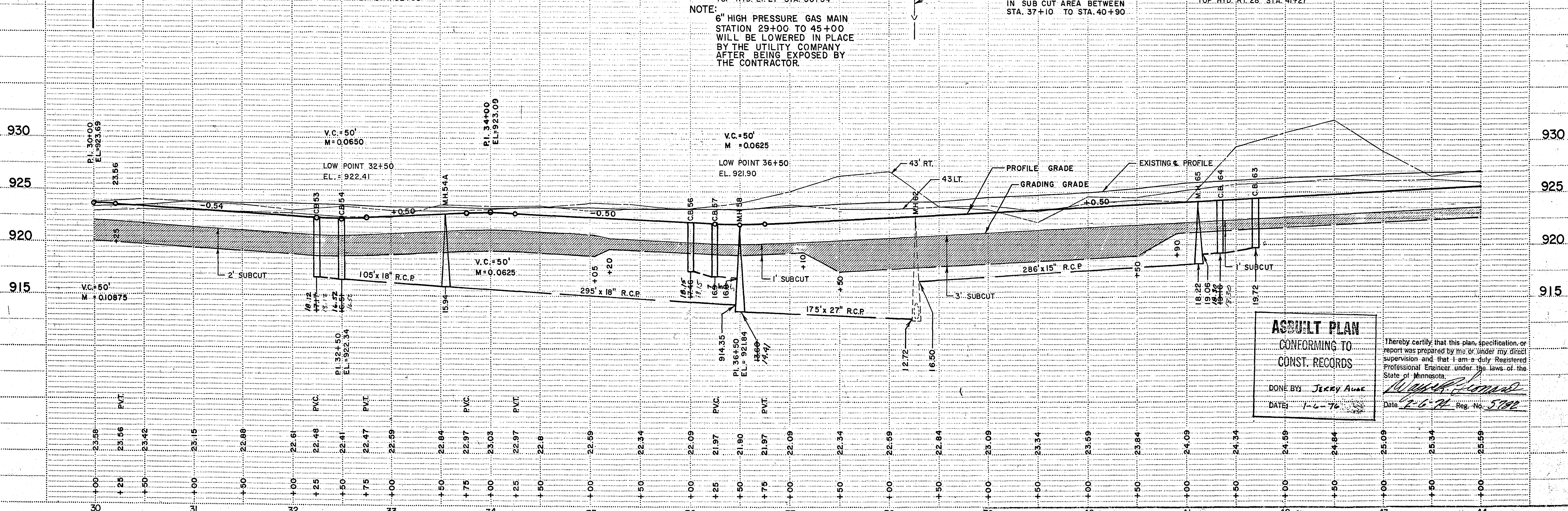
NOTE:
6" HIGH PRESSURE GAS MAIN
STATION 29+00 TO 45+00
WILL BE LOWERED IN PLACE
BY THE UTILITY COMPANY
AFTER BEING EXPOSED BY
THE CONTRACTOR

NOTE: PROTECT 16" WATERMAIN
IN SUB CUT AREA BETWEEN
STA. 37+10 TO STA. 40+90

B.M. ELEV. 925.61
TOP HYD. LT. 27' STA. 32+68

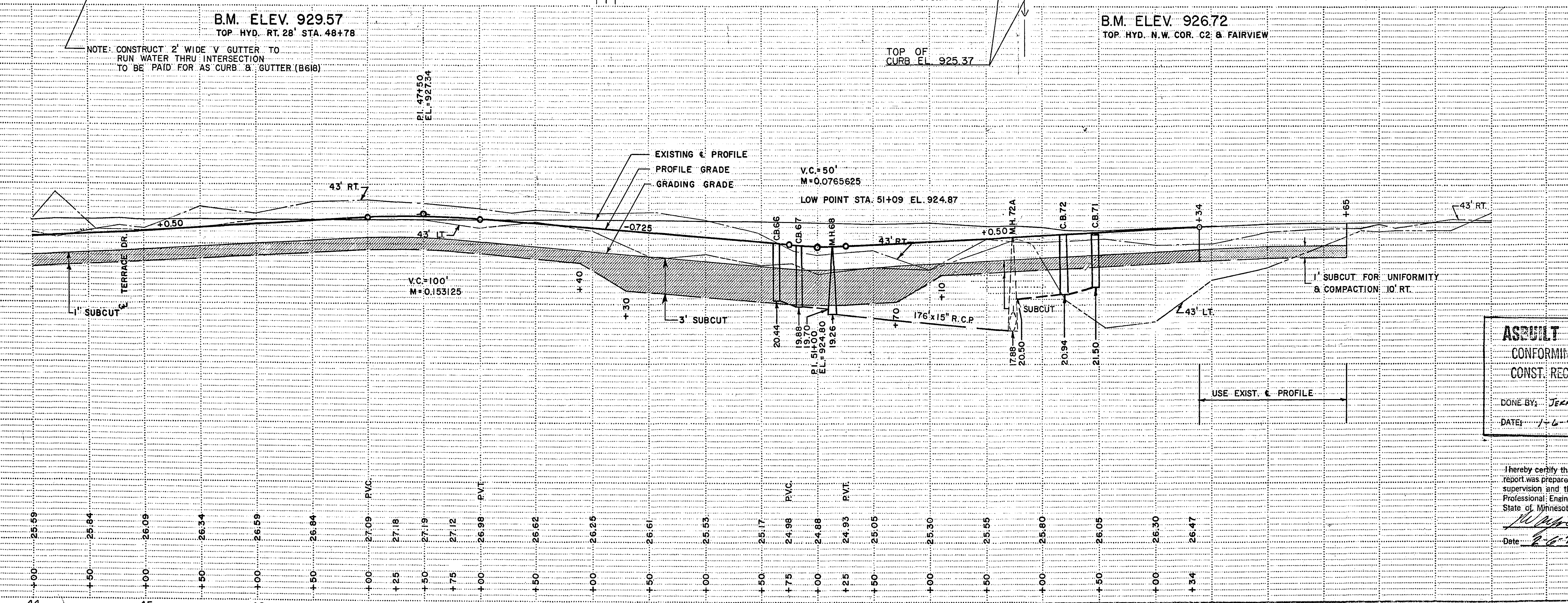
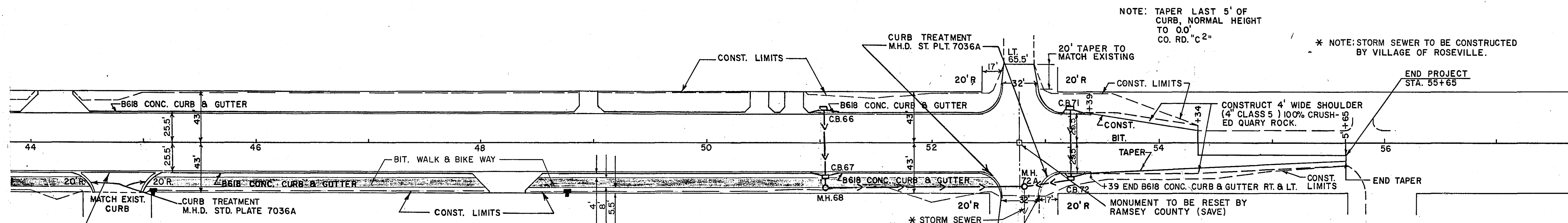
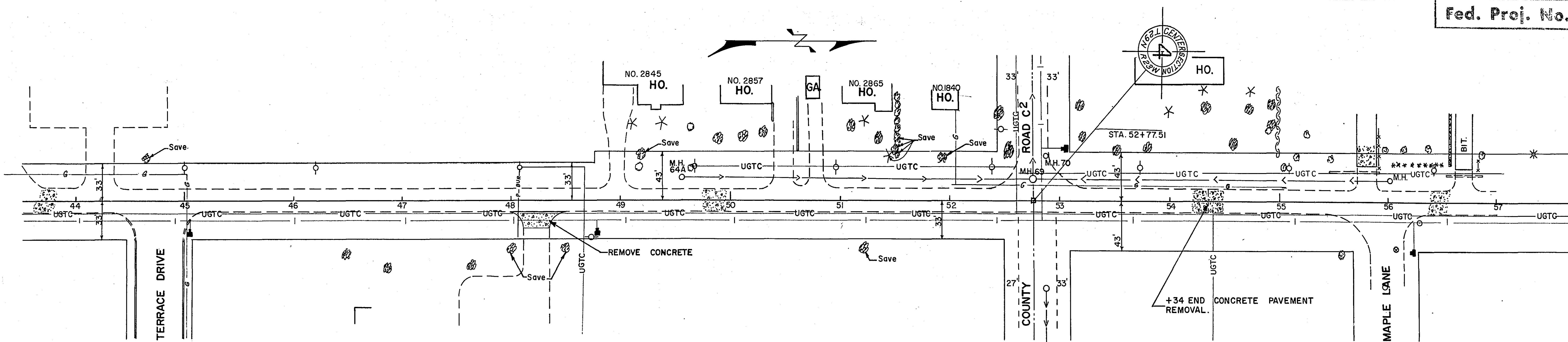
B.M. ELEV. 925.65
TOP HYD. LT. 27' STA. 36+54

B.M. ELEV. 927.90
TOP HYD. RT. 28' STA. 41+27



ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *Jersey Aune*
DATE: 1-6-76

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 J. Jones
Date: 1-6-76 Reg. No. 5702

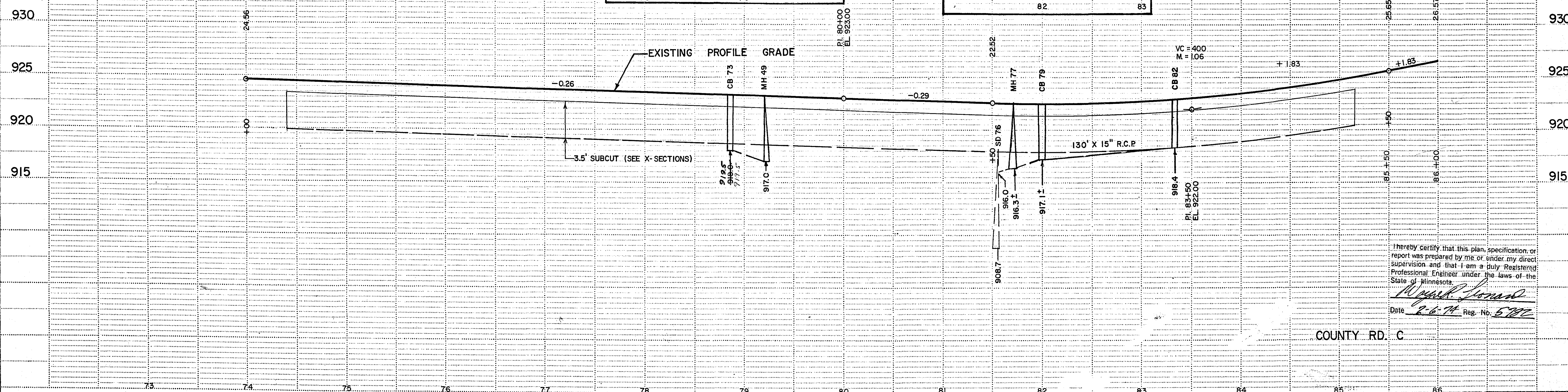
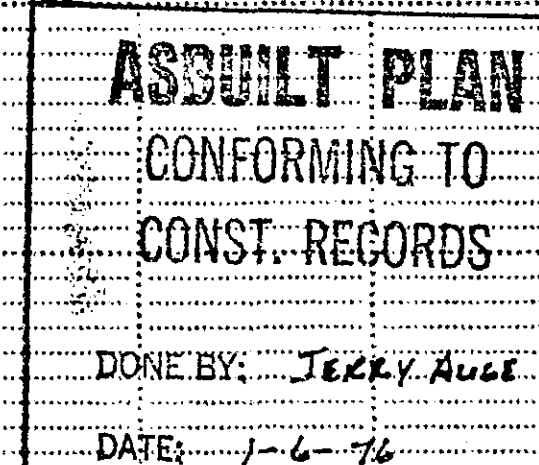
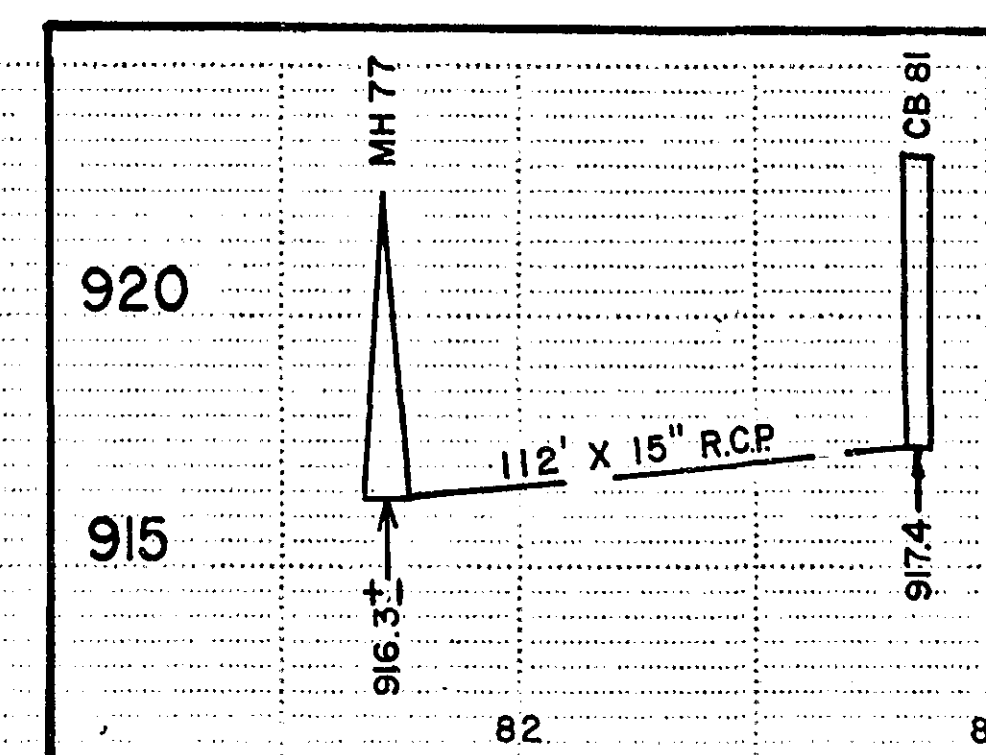
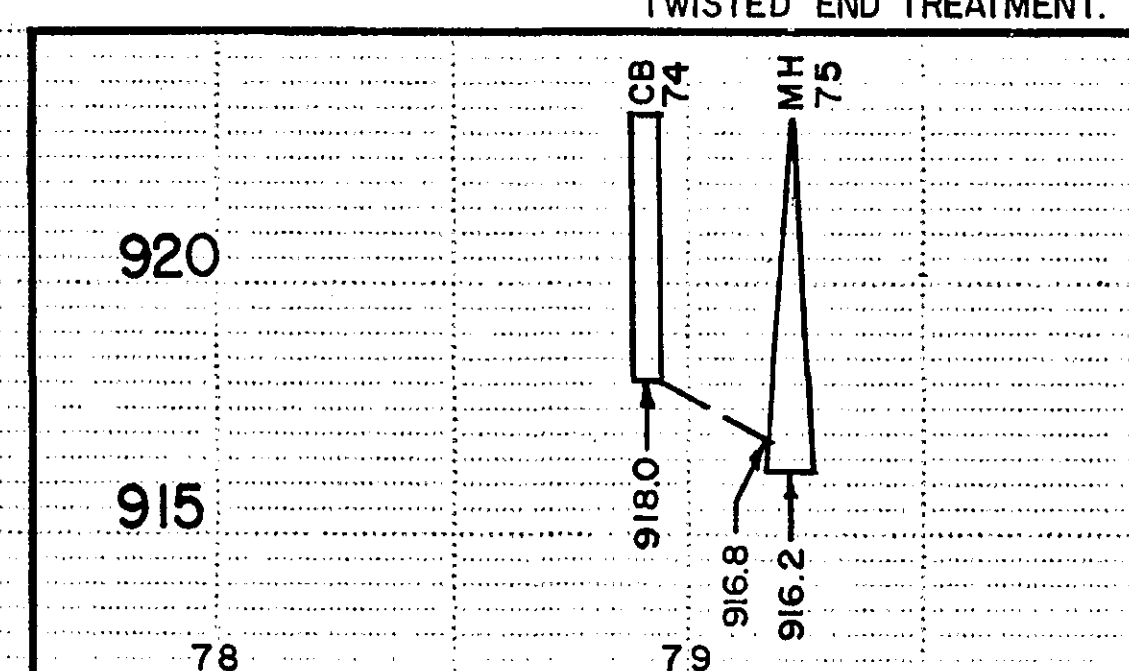


ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY: *JEFFREY A. AUST*
DATE: *1-6-76*

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.

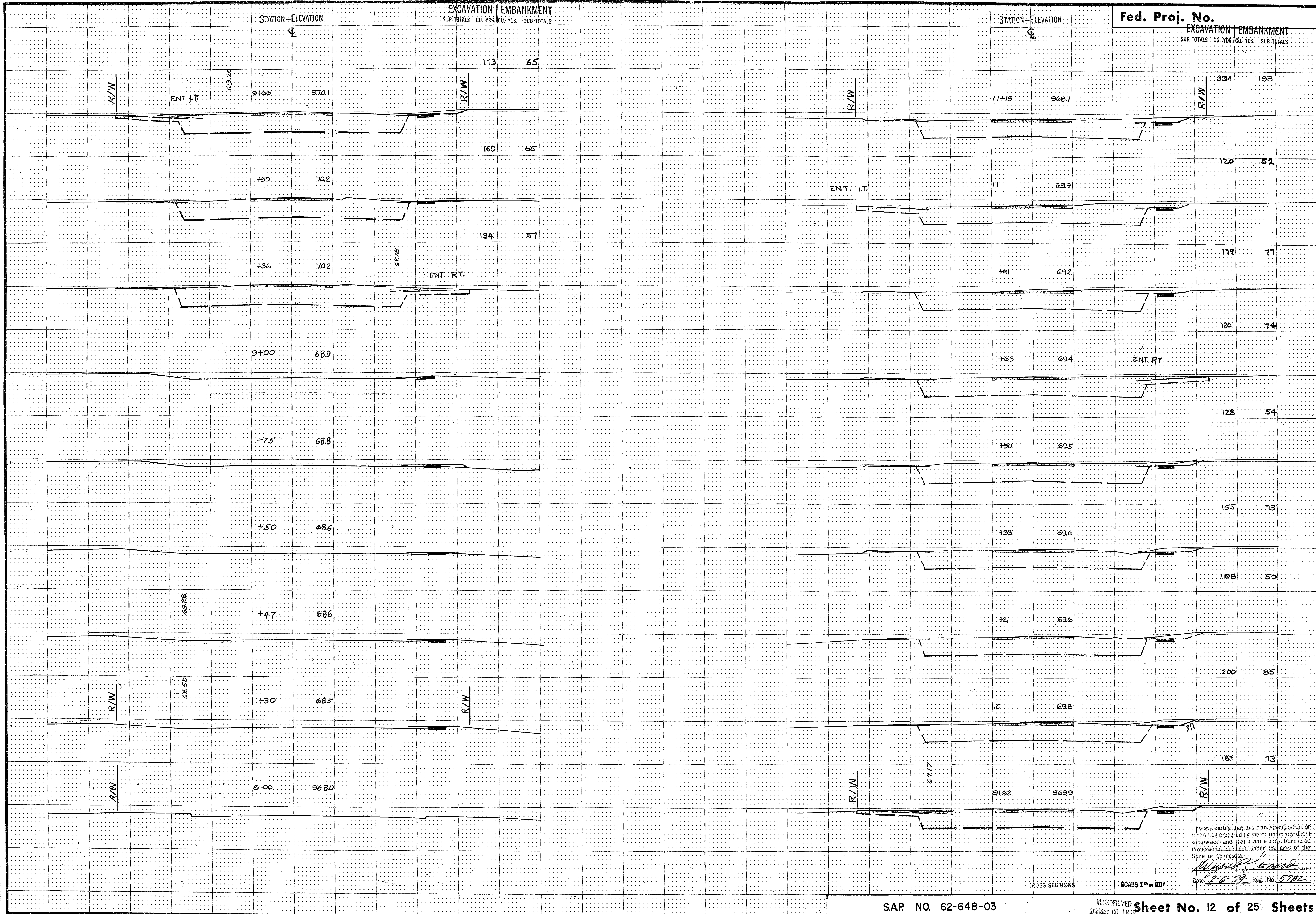
W. A. R. [Signature]
Date: *2-6-76* Reg. No. *5722*



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. Leonard

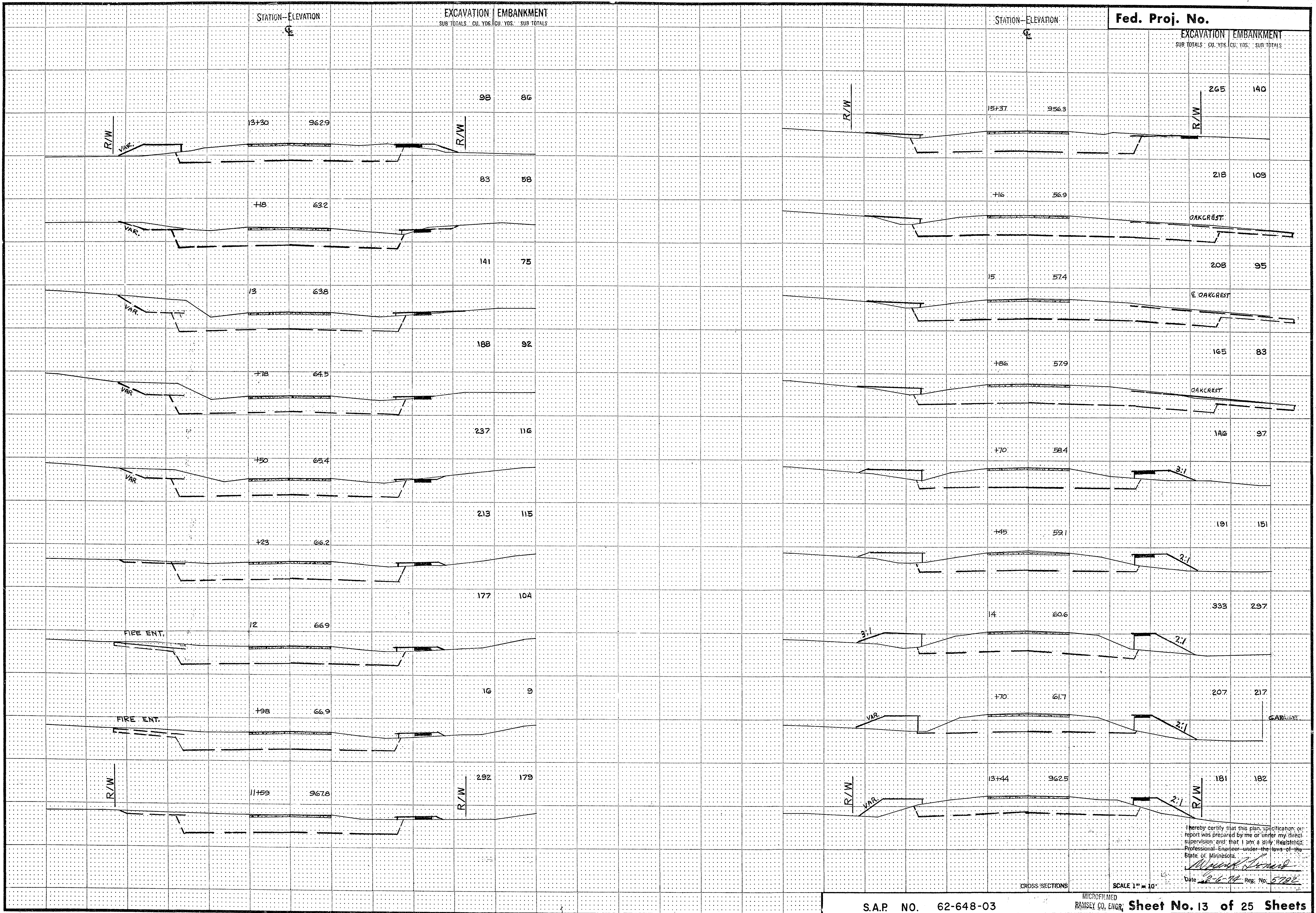
Date 2-6-74 Reg. No. 5399



Fed. Proj. No. EXCAVATION EMBANKMENT
SUB TOTALS CU. YDS. SUB TOTALS CU. YDS.

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 2-6-77 Reg. No. 5702

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



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.
Michael J. Dorn
Date 2-6-74 Reg. No. 5782

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

R/W

18+08 9479

R/W 104 70

53 37

18 48.1

363 217

+50 496

ENT. RT.

271 170

DAKCREST

H5 509

121 83

DAKCREST

17 514

124 171

+85 519

151 69

+68 525

ENT. RT

302 133

+35 535

312 141

ENT. LT.

16 544

255 121

15+70 955.4

R/W

R/W
VAR.

20+00 9428

254 103

437 205

+50 44.1

ENT. RT.

199 105

+26 44.8

213 127

19 45.5

120 67

+85 45.9

59 34

+78 46.1

ROSE PL.

150 99

+61 46.6

ROSE PL.

155 113

+42 47.0

113 31

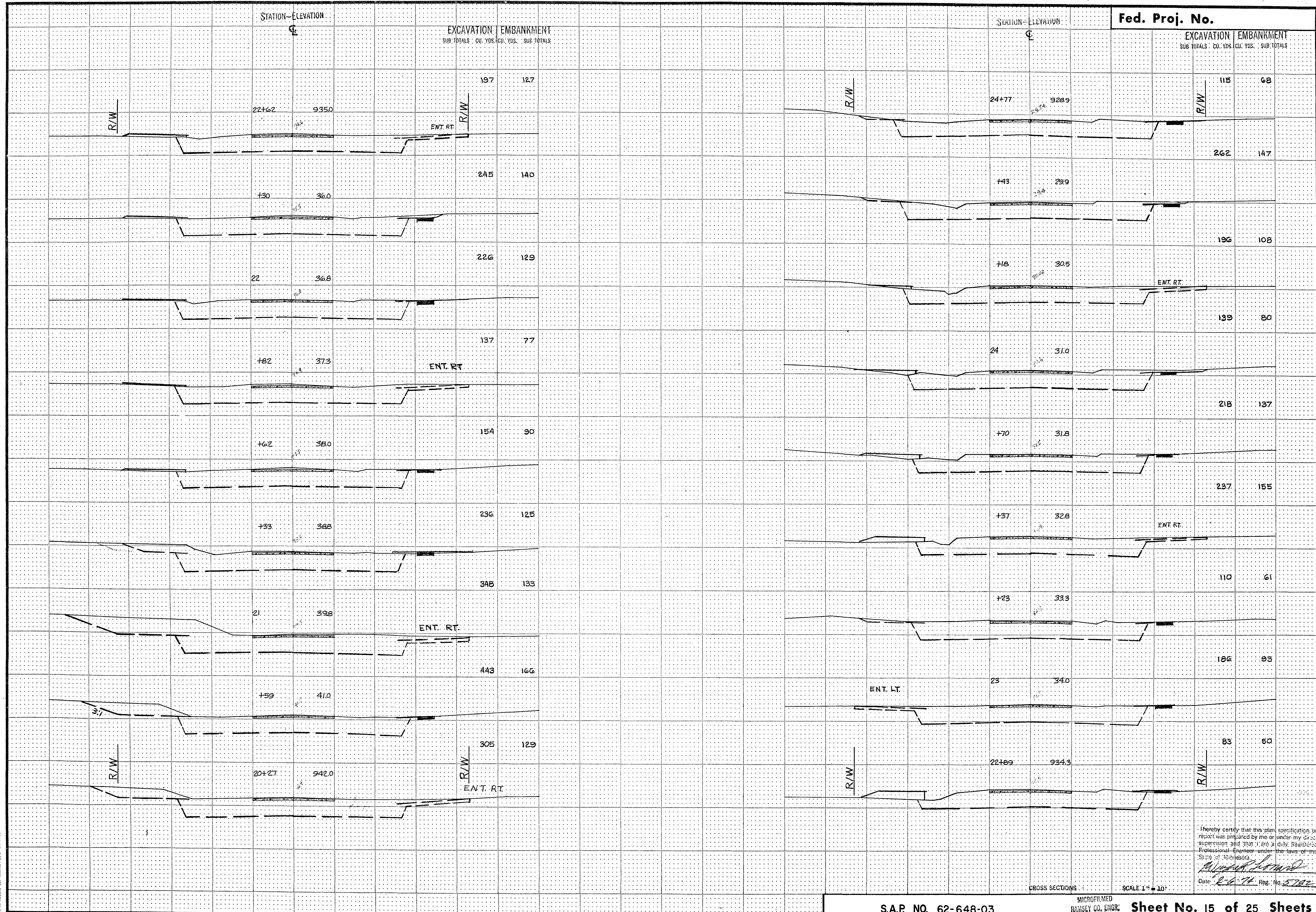
18+24 9475

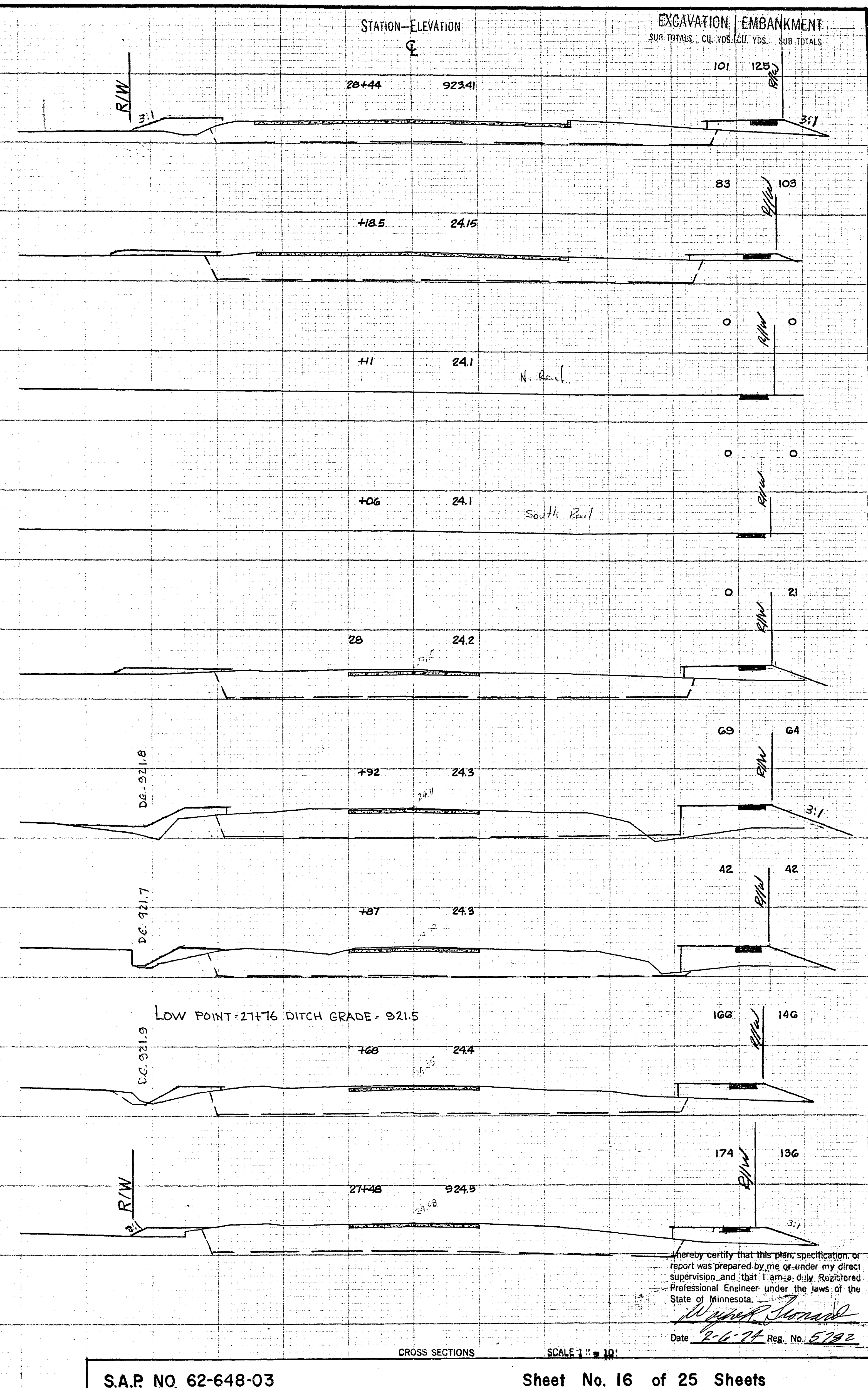
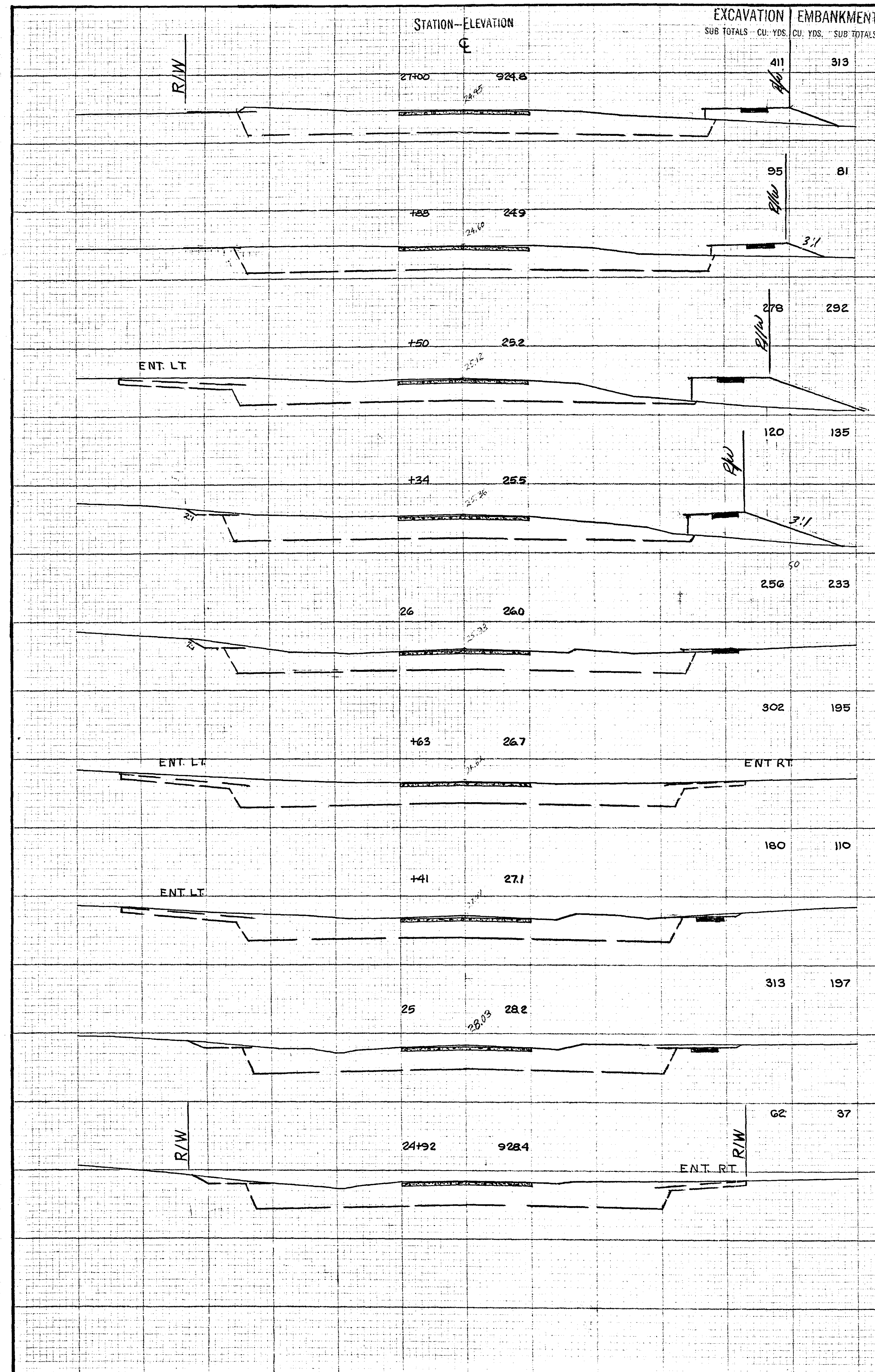
R/W

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. Brown
Date 2-6-74 Reg. No. 5722

CROSS SECTIONS

SCALE 1" = 10'

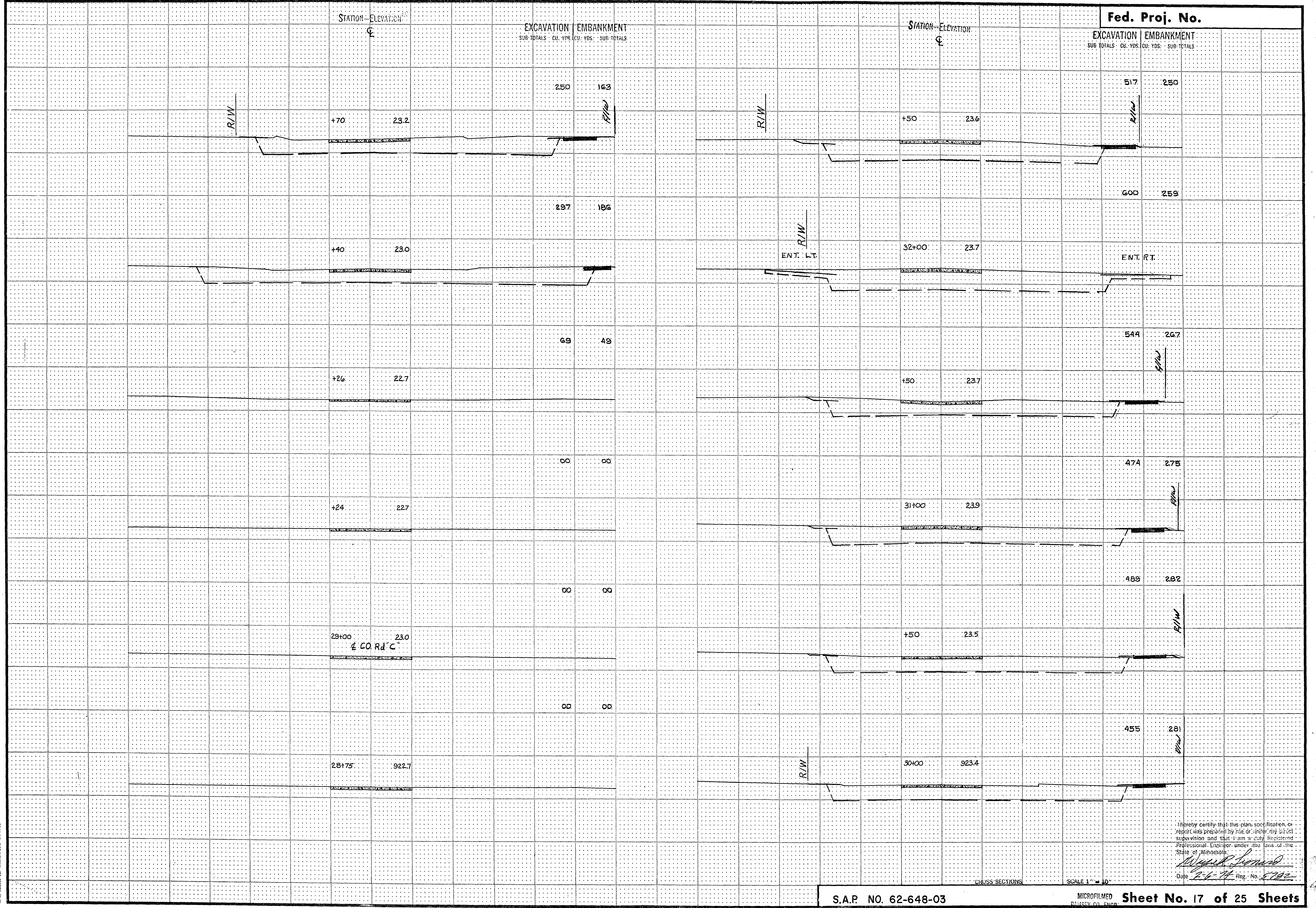




LOW POINT: 27+76 DITCH GRADE - 921.5

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 2-6-74 Reg. No. 5792

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



Fed. Proj. No.

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

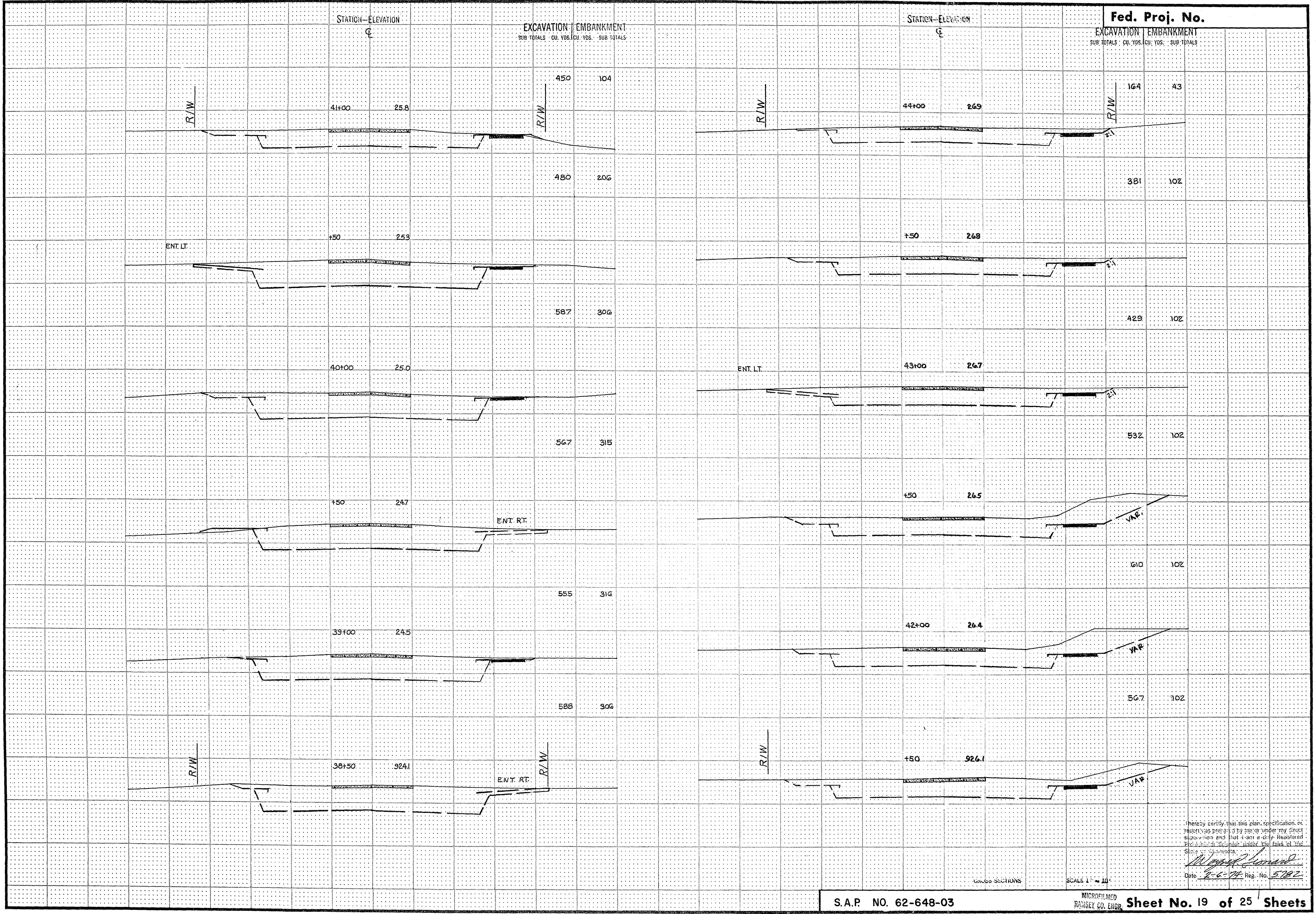
I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Walter J. Leonard
Date 2-6-74 Reg. No. 5702

S.A.P. NO. 62-648-03

MICROFILMED
RANNEY CO. ENGR. Sheet No. 17 of 25 Sheets

20708

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



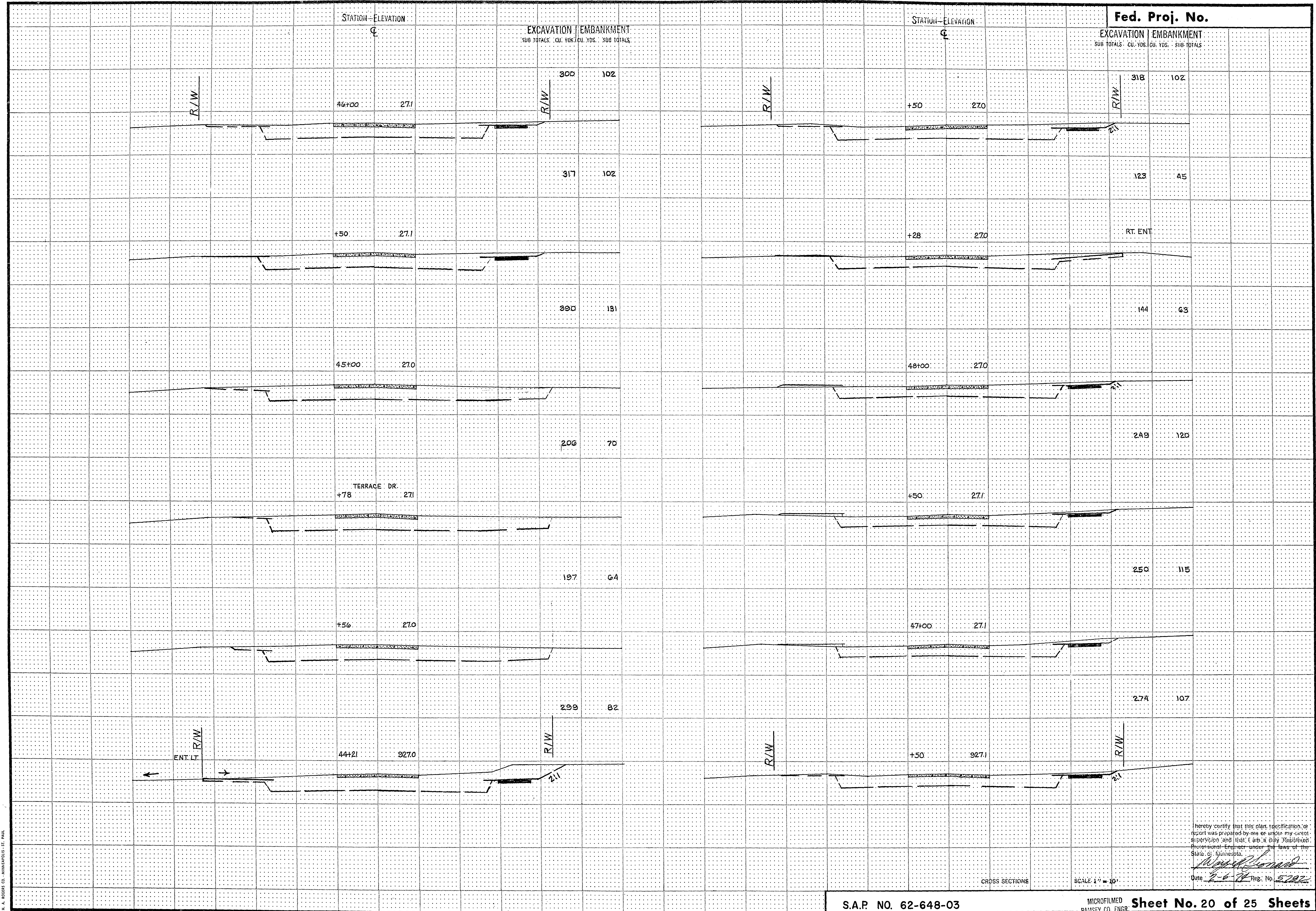
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of Minnesota.
Date 8-6-74 Reg. No. 5782

S.A.P. NO. 62-648-03

Microfilmed
RAMSEY CO. ENGR. Sheet No. 19 of 25 Sheets

20-103

FUNCTIONAL CROSS SECTION - OPEN DOTTED
N. A. ROEDS CO. - MINNEAPOLIS - ST. PAUL



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.
N. A. Roeds
Date 2-6-78 Reg. No. 5792

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

STATION-ELEVATION

±

EXCAVATION EMBANKMENT

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

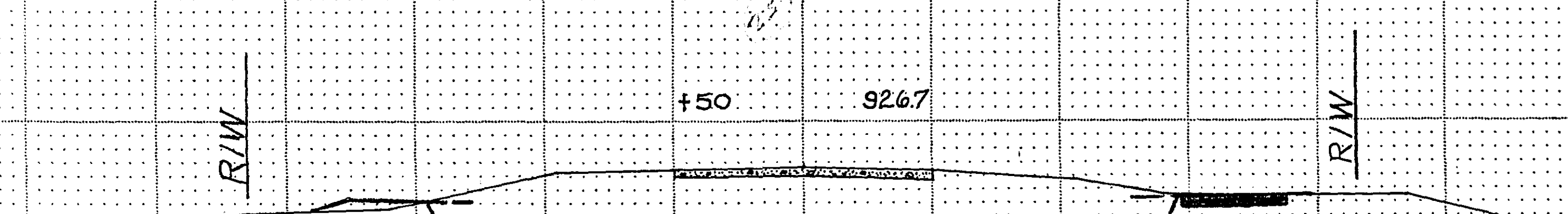
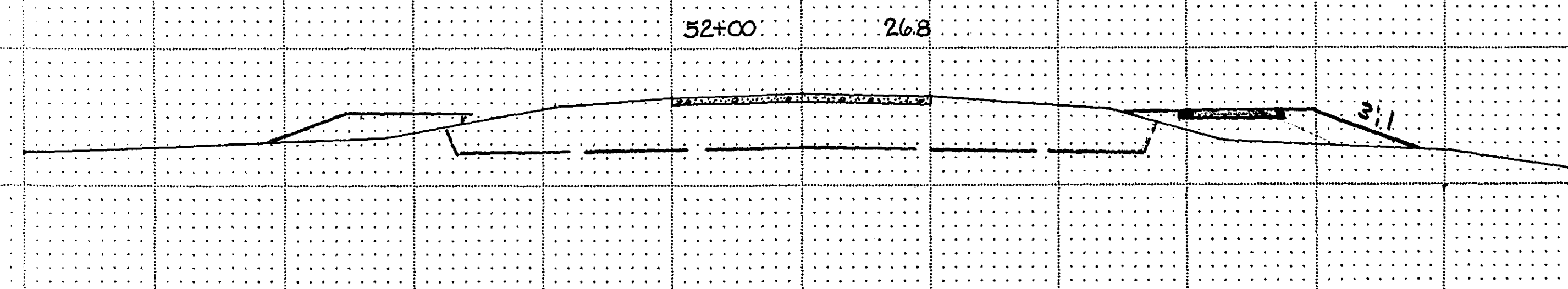
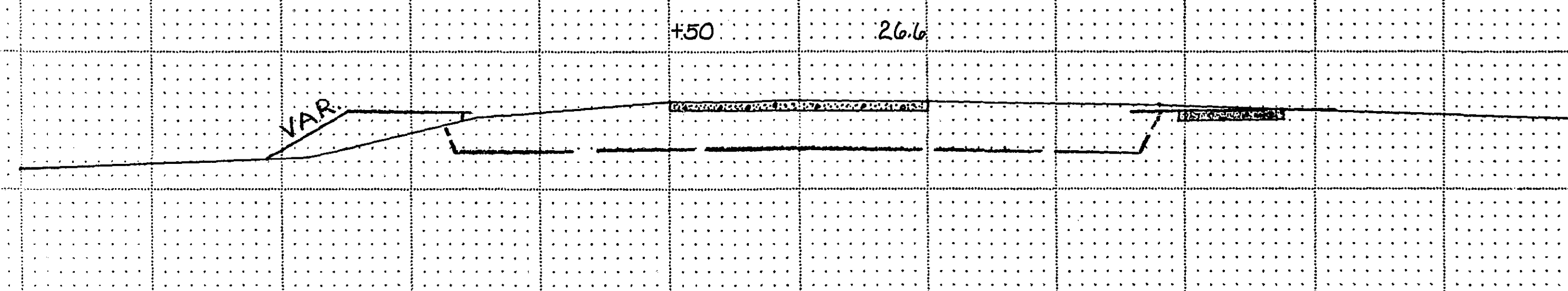
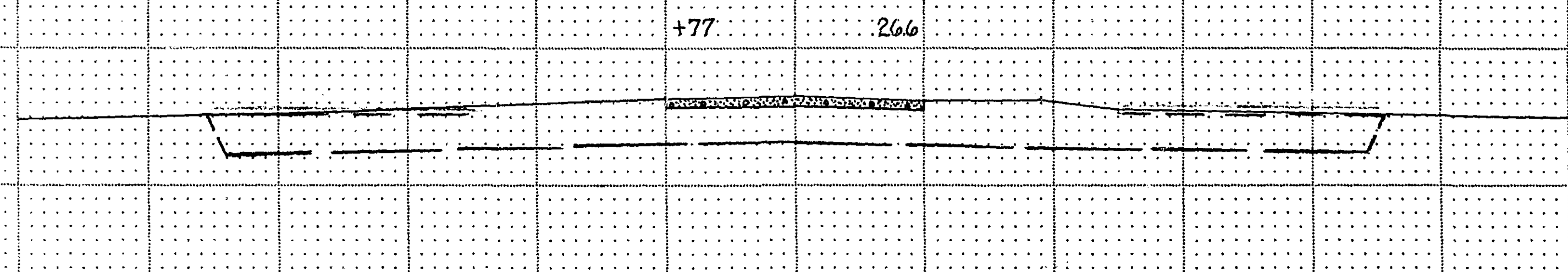
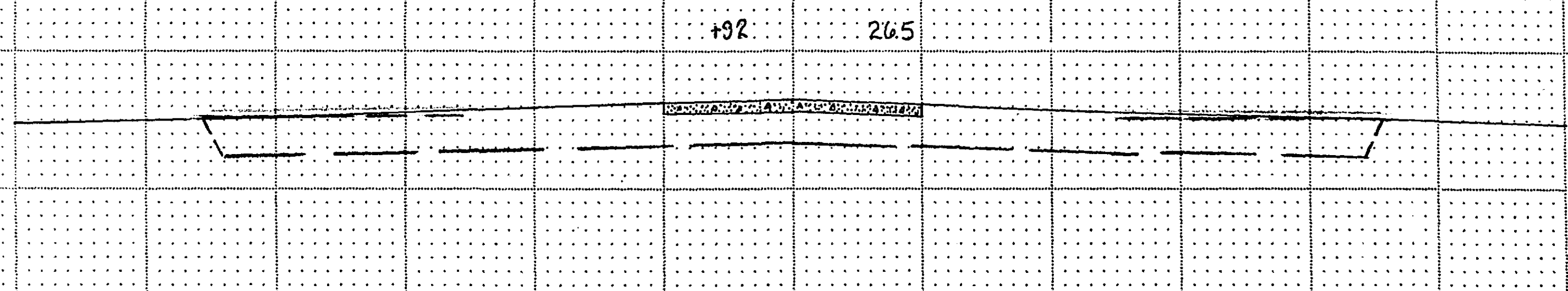
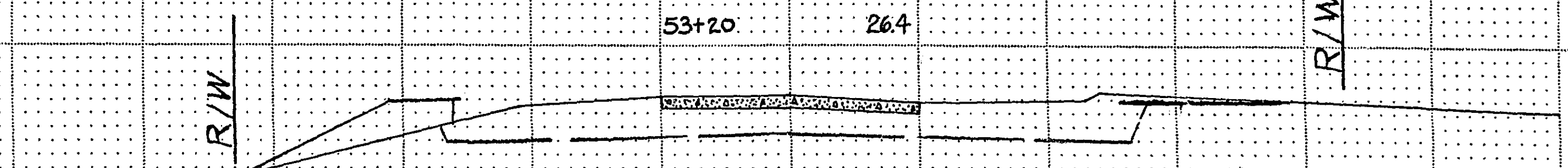
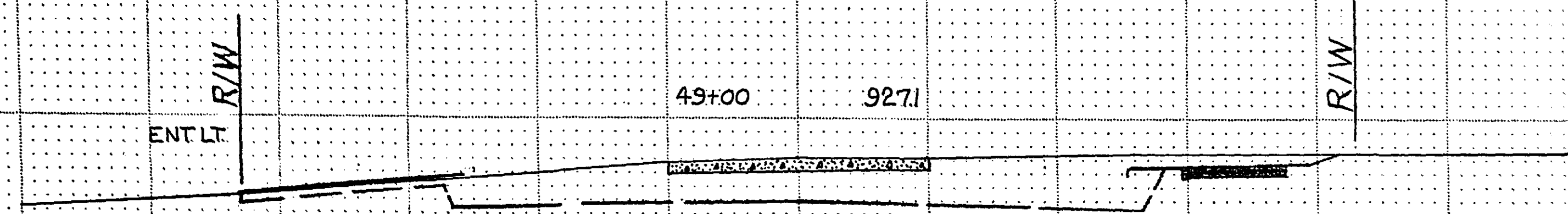
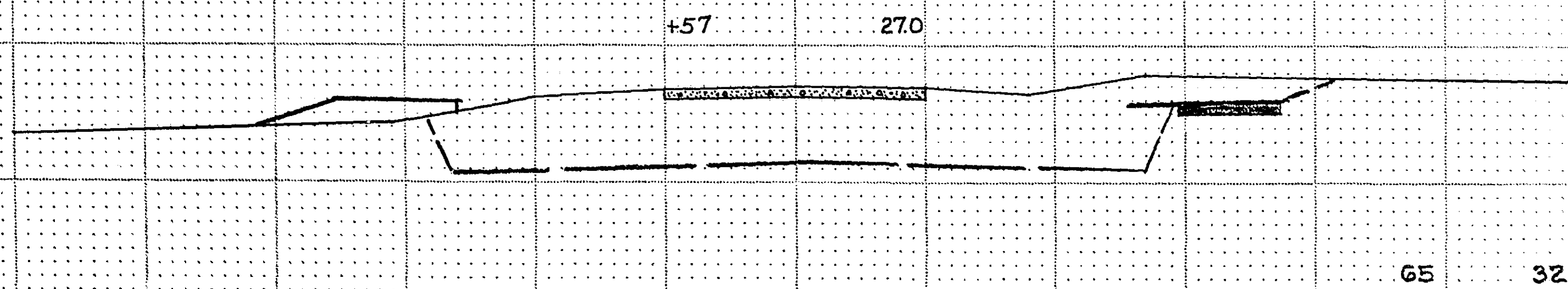
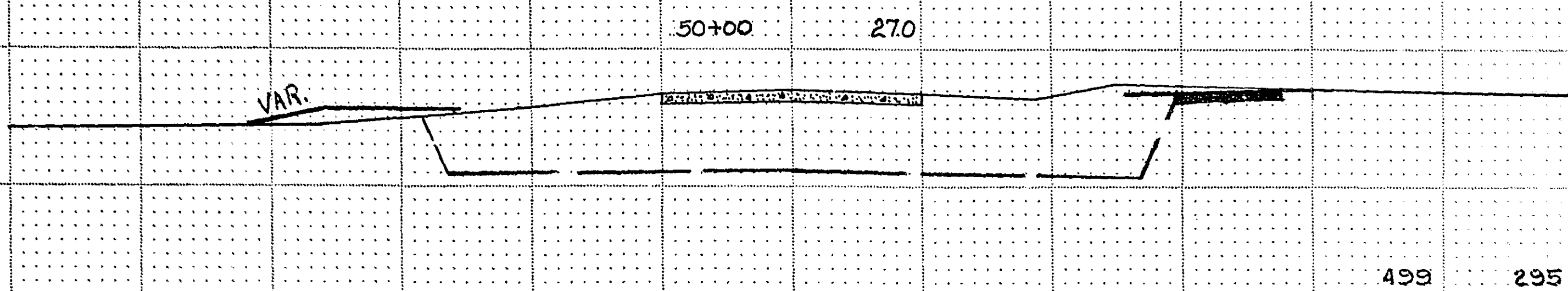
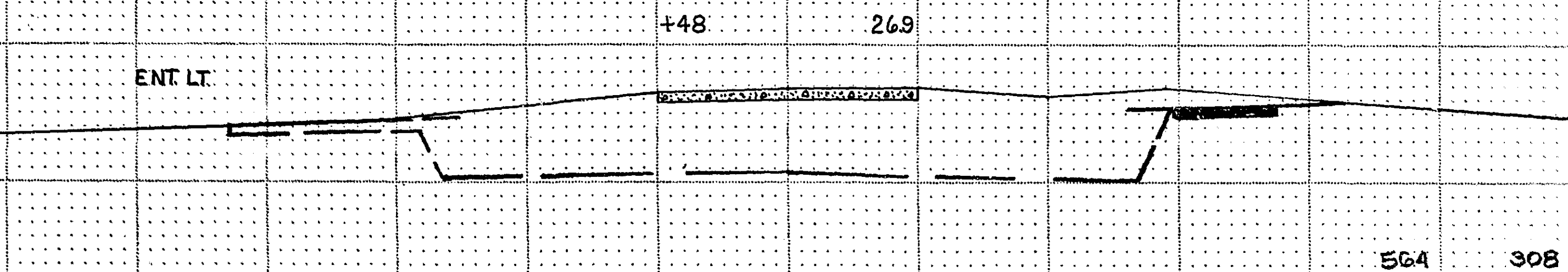
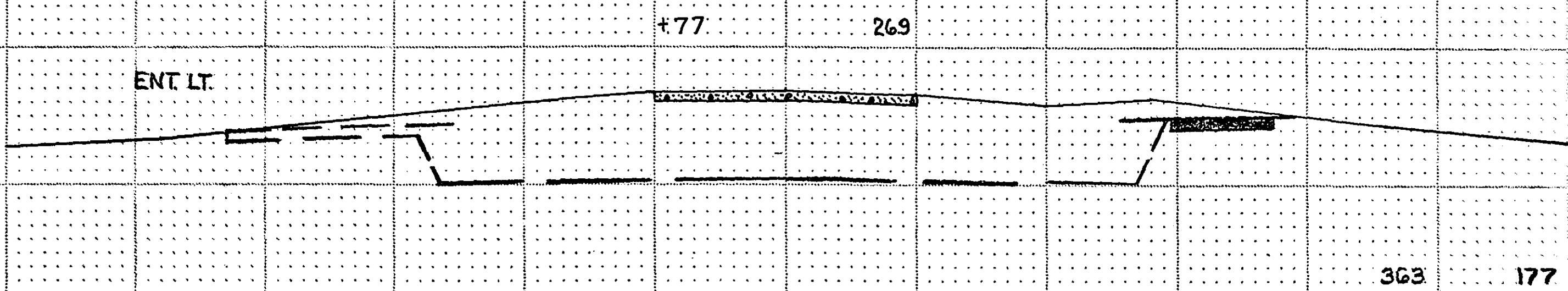
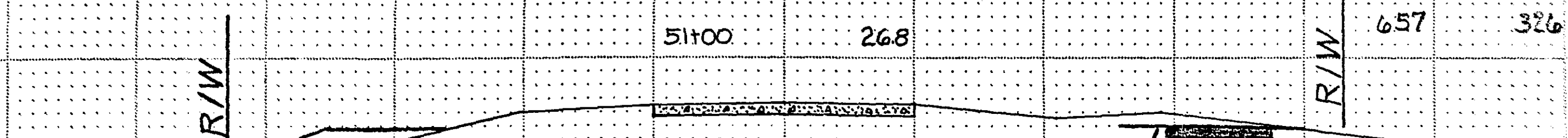
STATION-ELEVATION

±

Fed. Proj. No.

EXCAVATION EMBANKMENT

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



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 12-6-74 Reg. No. 5782

CROSS SECTIONS

SCALE 1" = 10'

S.A.P. NO. 62-648-03

MICROFILMED
RAMSEY CO. ENGR.

Sheet No. 21 of 25 Sheets

20-103

STATION-ELEVATION

C

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

STATION-ELEVATION

C

Fed. Proj. No.

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

+83 26.8

+65 ABRUPT

+43 26.8

0 13

55+00 26.7

0 21

+50 26.6

+34 ABRUPT

71 72

54+00 26.4

R/W

2:1

3:1

R/W

53+55 926.2

122 122

R/W

2:1

R/W

57+00 26.9

+64 26.9

+14 26.8

56+00 926.8

CROSS SECTIONS

SCALE 1" = 10'

S.A.P. NO. 62-648-03

MICROFILMED
RAMSEY CO. ENGR.

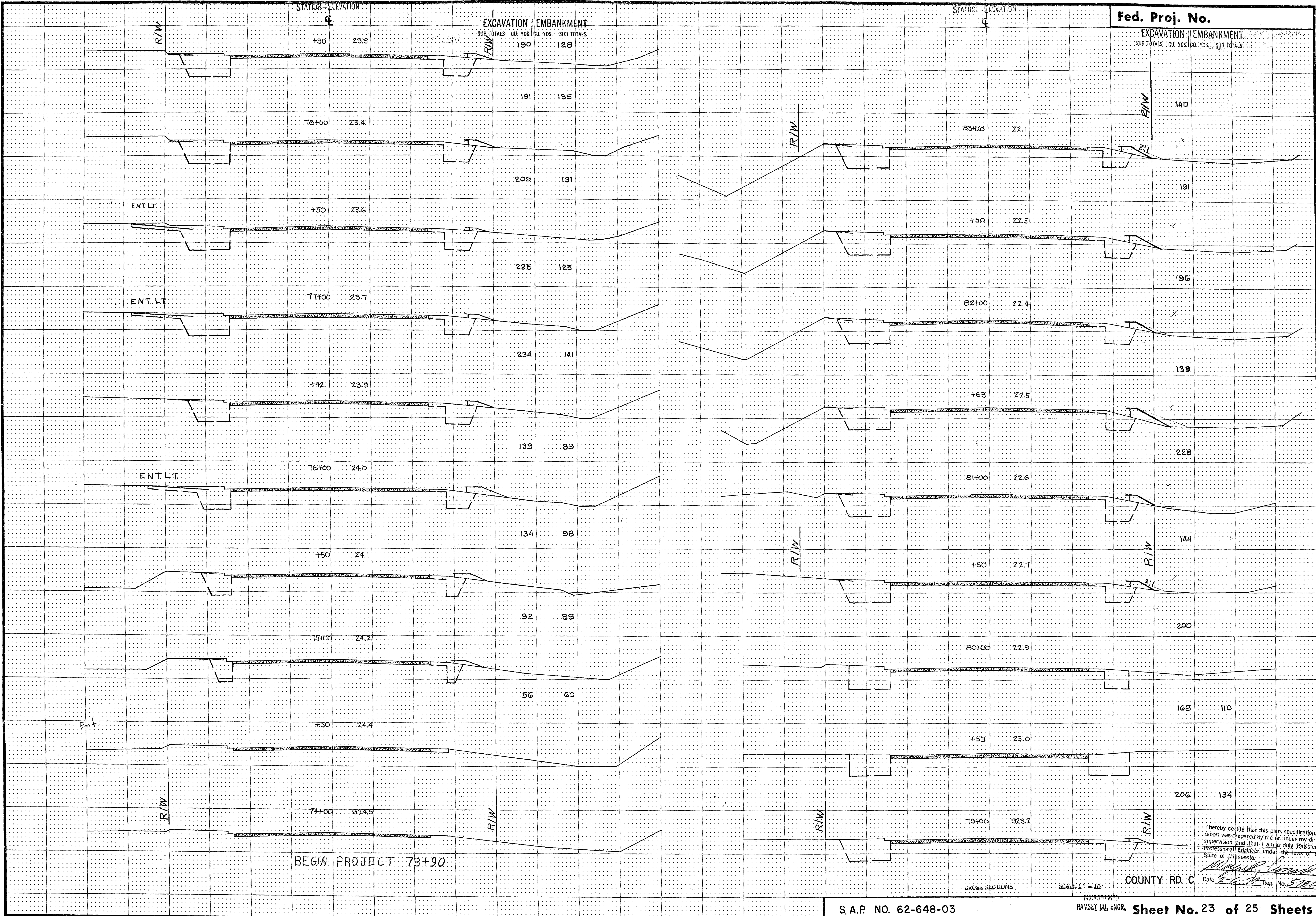
Sheet No. 22 of 25 Sheets

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 Engineer under the laws of the State of Minnesota.

Wm. J. [Signature]
Date 2-6-74 Reg. No. 5722

20-103

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



Fed. Proj. No.

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

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: 2-16-77 Reg. No. 57002

COUNTY RD. C

Fed. Proj. No.

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

STATION-ELEVATION
C

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

STATION-ELEVATION
C

END PROJECT 85+65

GRAND TOTALS

TOTAL CUT = 41,962
TOTAL FILL = 21,777 X 130% = 28,310

13,612 EXCESS

ENT. RT.

R/W

85+59 25.7

R/W

85+24 25.1

16

R/W

85+00 24.7

R/W

24

VAR

69

84+50 24.0

VAR

99

84+00 23.4

VAR

76

83+70 23.1

VAR

89

83+40 23.0

R/W

R/W

COUNTY RD. C

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 2-6-74 Reg. No. 5782

CROSS SECTIONS

SCALE 1" = 10'

S.A.P. NO. 62-648-03

MICROFILMED
RAMSEY CO. ENGR.

Sheet No. 24 of 25 Sheets

20-103

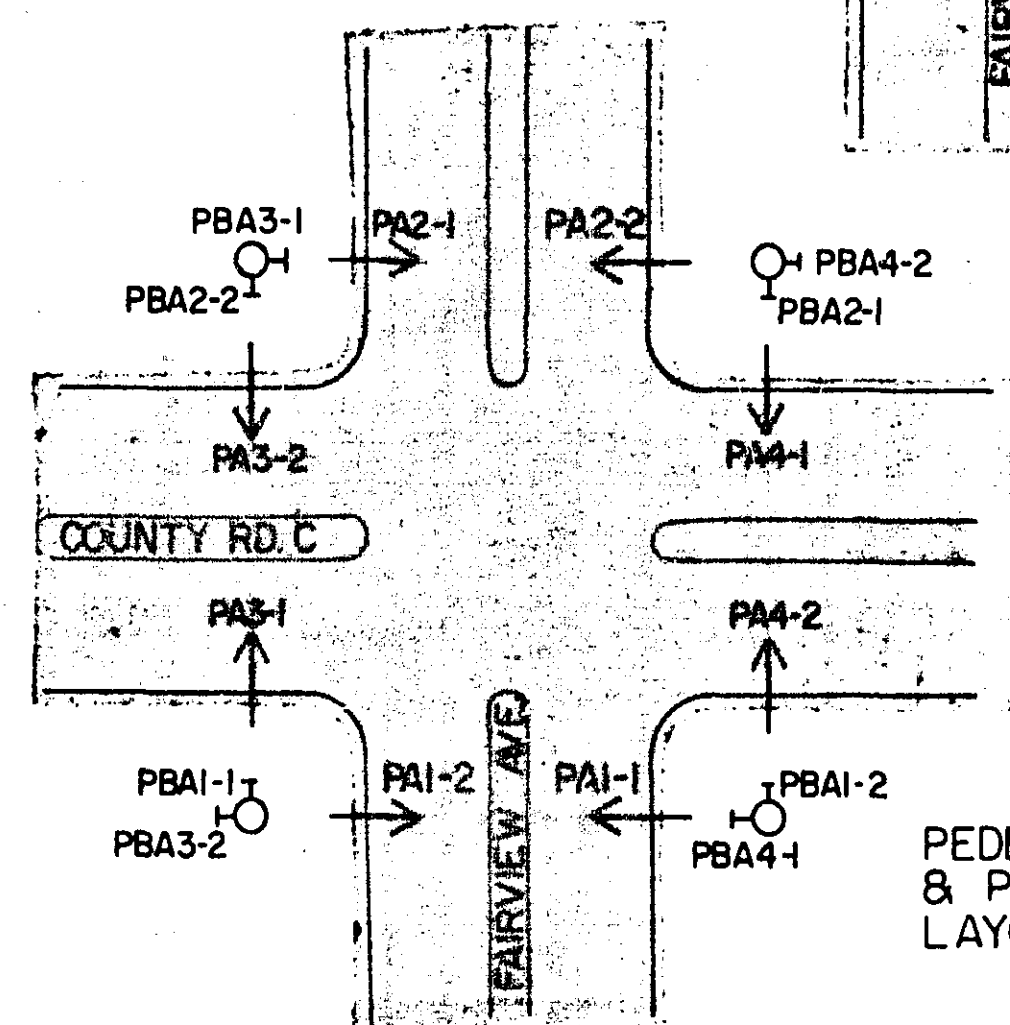
FUNCTIONAL CROSS SECTION - OPEN DOTTED
H. A. ROGERS CO. MINNEAPOLIS, ST. PAUL

PHASING
DIAGRAM

COUNTY RD C

FAIRVIEW AVE

A1, A2, A3, A4, B1, B2, B3, B4

[illegible]

FAIRVIEW AVE. & COUNTY ROAD C

10'x20' LOOP DETECTOR

1 1/4" R.S.C.
1-2/c #14

3" R.S.C.
2-12/c #12
2-3/c #12
2-2/c #14

8'x40' LOOP DETECTOR

3" R.S.C.
2-12/c #12
2-3/c #12
2-2/c #14

TYPE A-35
2-ONE WAY SIGNALS (OVERHEAD MTD.)
1-ONE WAY SIGNAL (TYPE IOC-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS
SIGN DOWN LIGHT (OVERHEAD MTD.)

3" R.S.C.
2-12/c #12
2-3/c #12

3" R.S.C.
1-2/c #14

6'x40' LOOP DETECTOR

DA3-1

FAIRVIEW AVE.

DB4-1

DB2-1

DAI-1

10'x19' LOOP DETECTOR

1 1/4" R.S.C.
1-2/c #12

3" R.S.C.
2-12/c #12
2-3/c #12
2-1/c #10

TYPE A-35-T-30-15
LUMINAIRE (APPROX. 315°)
2-ONE WAY SIGNALS (OVERHEAD MTD.)
1-ONE WAY SIGNAL (TYPE IOC-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS
SIGN DOWN LIGHT (OVERHEAD MTD.)

3" R.S.C.
2-12/c #12
2-3/c #12
2-1/c #10

1 1/4" R.S.C. (INTERCONNECT TO RAILROAD)
1-3/c #12 (SIGNAL CONTROL)

8'x30' LOOP DETECTOR

3" R.S.C.
2-12/c #12
2-3/c #12
2-2/c #14
2-1/c #10

10'x20' LOOP DETECTOR

DA4-1

NOTE: SIGNAL INSTALLATION TO BE LET UNDER SEPARATE CONTRACT CONCURRENT WITH THIS CONTRACT.

TYPE A-35-T-30-15
LUMINAIRE (APPROX. 315°)
2-ONE WAY SIGNALS (OVERHEAD MTD.)
1-ONE WAY SIGNAL (TYPE IOC-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS
SIGN DOWN LIGHT (OVERHEAD MTD.)

3" R.S.C.
2-12/c #12
2-3/c #12
2-1/c #10

CONTROLLER CABINET
(SEE SPECIAL PROVISIONS)

2-4" R.S.C.
6-12/c #12
6-3/c #12
8-2/c #14
2-1/c #6

2-1 1/4" R.S.C.
2-1/c #6
4-1/c #10

SOURCE OF POWER
SERVICE EQUIPMENT

10'x19' LOOP DETECTOR

1 1/4" R.S.C.
1-2/c #14

DA2-1

CONCRETE MEDIAN TO BE CONSTRUCTED BY OTHERS

B.N. RAILROAD

28+99.86+FAIRVIEW =
79+53.28+CO. RD. C

4" R.S.C.
3-12/c #12
6-3/c #12
4-2/c #14
2-1/c #10

6'x40' LOOP DETECTOR

4" R.S.C.
3-12/c #12
6-3/c #12
3-2/c #14
2-1/c #10

TYPE A-35
2-ONE WAY SIGNALS (OVERHEAD MTD.)
1-ONE WAY SIGNAL (TYPE IOC-POLE MTD. 270°)
2-SETS PEDESTRIAN INDICATIONS
2-PEDESTRIAN PUSH BUTTONS
SIGN DOWN LIGHT (OVERHEAD MTD.)
PHOTOELECTRIC CELL (ON LIGHTS)

3" R.S.C.
3-12/c #12
6-3/c #12

1 1/4" R.S.C.
1-2/c #14

10'x20' LOOP DETECTOR

STATION	LOCATION	DESCRIPTION
FAIRVIEW AVE.		
27+24	RT. 40'	HANDHOLE 5
28+46	LT. 31.5'	SIGNAL NO. 3
28+50	RT. 54'	HANDHOLE 4
28+50	RT. 2'	HANDHOLE 6
28+50	LT. 38'	HANDHOLE 7
28+58	RT. 64'	SIGNAL NO. 2
29+43	LT. 42.5'	SIGNAL NO. 4
29+49	RT. 50'	SIGNAL NO. 1
29+55	RT. 58'	HANDHOLE 1
29+55	RT. 15'	HANDHOLE 9
29+67	RT. 58'	CONTROLLER CABINET
30+75	LT. 29'	HANDHOLE 11
COUNTY RD. C		
78+03	RT. 35'	HANDHOLE 8
78+99	LT. 6'	HANDHOLE 12
78+99	LT. 36'	HANDHOLE 10
80+11	RT. 6'	HANDHOLE 3
81+21	LT. 36'	HANDHOLE 2

INFORMATION PURPOSES ONLY
FAIRVIEW AVE. & COUNTY RD. C
NOT IN CONTRACT

SAP NO

SHEET NO 25 OF 25 SHEETS

UNRECORDED
RANSLEY CO. FIBRE

SHEET NO. 25 OF 25 SHEETS

20-103

TABULATION OF BIDS RECEIVED JULY 3, 1974 — 62-648-03

STATEMENT OF ESTIMATED QUANTITIES				DUNKLEY INC		C.W. HOULE		HARDRIVES INC.		PALDA & SONS		SHAFFER CO.		ALEXANDER CONST.		C.S. McCROSSAN		ARCON CONST.		PROGRESSIVE CONTR.		
ITEM NO.	ITEM	UNIT	62-648-03		UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
			PARTICIPATING	Avg UNIT PRICE																		
2021.501	MOBILIZATION	LUMP SUM	1	21,833.33	10,000.00	10,000.00	23,500.00	23,500.00	20,000.00	20,000.00	24,000.00	24,000.00	18,000.00	18,000.00	25,000.00	25,000.00	12,000.00	12,000.00	40,000.00	40,000.00	25,000.00	25,000.00
2101.502	CLEARING	TREE	13	45.00	100.00	1,300.00	35.00	455.00	40.00	520.00	50.00	650.00	50.00	650.00	30.00	390.00	35.00	455.00	50.00	650.00	75.00	975.00
2101.507	GRUBBING	TREE	15	40.00	50.00	750.00	20.00	300.00	40.00	600.00	50.00	750.00	50.00	750.00	30.00	450.00	35.00	525.00	50.00	750.00	75.00	1,125.00
2104.501	REMOVE FENCE	L.F.	160	92	10.00	1,600.00	0.75	120.00	0.83	132.00	1.00	160.00	1.00	160.00	1.75	280.00	2.00	320.00	0.75	120.00	5.00	800.00
2104.501	REMOVE SEWER PIPE (R.C.)	L.F.	70	4.67	5.00	350.00	5.00	350.00	2.75	192.50	5.00	350.00	4.00	280.00	3.00	210.00	4.00	280.00	4.00	280.00	5.00	350.00
2104.501	REMOVE CONCRETE CURB & GUTTER	L.F.	1,055	87	2.00	2,110.00	1.00	1,055.00	1.43	1,508.65	0.75	791.25	0.85	896.75	1.35	1,424.25	2.50	2,637.50	0.85	896.75	1.65	1,740.75
2104.501	REMOVE CONCRETE CURB	L.F.	345	78	2.00	690.00	0.90	310.50	1.10	379.50	0.60	207.00	0.85	293.25	1.00	345.00	1.00	345.00	0.85	293.25	1.65	569.25
2104.501	REMOVE SEWER PIPE (C.M.)	L.F.	106	3.67	5.00	530.00	3.00	318.00	2.75	291.50	5.00	530.00	3.00	318.00	2.75	291.50	4.00	424.00	3.00	318.00	3.50	371.00
2104.505	REMOVE CONCRETE PAVEMENT	S.Y.	11,486	1.37	2.75	31,586.50	1.60	18,377.60	1.32	15,161.52	1.50	17,229.00	1.00	11,486.00	1.65	18,951.90	1.12	12,864.32	1.00	11,486.00	1.50	17,458.72
2104.509	REMOVE CATCH BASINS	EACH	6	61.67	140.00	840.00	60.00	360.00	75.00	450.00	75.00	450.00	50.00	250.00	100.00	600.00	200.00	1,200.00	65.00	390.00	60.00	360.00
2104.521	SALVAGE GUARD RAIL	L.F.	90	1.43	5.00	450.00	1.40	126.00	1.54	138.60	1.90	171.00	1.50	135.00	1.40	126.00	1.50	135.00	1.40	126.00	1.40	126.00
2104.523	SALVAGE HYDRANTS	EACH	9	226.67	300.00	2,700.00	180.00	1,620.00	250.00	2,250.00	300.00	2,700.00	200.00	1,800.00	150.00	1,350.00	300.00	2,700.00	200.00	1,800.00	300.00	2,700.00
2105.501	COMMON EXCAVATION	C.Y.	41,962	1.08	0.85	35,667.70	0.90	37,765.80	1.35	56,648.70	1.00	41,962.00	1.35	56,648.70	1.48	62,103.76	1.18	49,411.06	1.35	56,648.70	2.30	96,512.60
2105.525	TOPSOIL BORROW (L.V.)	C.Y.	857	4.00	5.00	4,285.00	3.50	2,997.50	4.40	3,770.80	4.00	3,428.00	4.50	3,856.50	4.00	3,428.00	4.50	3,856.50	4.50	3,856.50	4.50	3,856.50
2130.501	WATER	(M.) GAL.	150	6.33	10.00	1,500.00	6.00	900.00	6.00	900.00	6.00	900.00	7.00	1,050.00	7.50	1,125.00	6.00	900.00	7.00	1,050.00	5.00	750.00
2211.501	AGGREGATE BASE CLASS "5" (100% CRUSHED QUARRY ROCK)	TON	16,089	3.81	4.25	68,378.25	3.85	61,942.65	4.03	64,838.67	3.80	61,138.20	3.80	61,138.20	4.30	69,182.70	4.23	68,054.47	3.80	61,138.20	4.15	64,769.35
2301.502	CONCRETE PAVEMENT, STD. WIDTH	S.Y.	5,600	5.50	8.50	47,600.00	5.50	30,800.00	6.05	33,880.00	5.50	30,800.00	5.50	30,800.00	5.50	30,800.00	3.75	21,000.00	3.96	22,176.00	5.45	30,520.00
2301.503	CONCRETE PAVEMENT, IRR. WIDTH	S.Y.	2,202	7.83	9.00	19,818.00	7.00	15,414.00	7.70	16,955.40	9.50	20,997.00	7.00	15,414.00	7.00	15,414.00	5.50	18,111.00	5.46	12,072.92	6.85	15,303.90
2301.511	STRUCTURAL CONCRETE	C.Y.	1,735	15.33	32.00	55,520.00	26.00	45,110.00	28.60	49,621.00	24.00	41,640.00	26.00	45,110.00	26.00	45,110.00	25.00	43,975.00	27.66	47,990.10	25.00	43,375.00
2301.521	PAVEMENT REINFORCEMENT, TYPE 612 X D49 X D4	S.Y.	8,685	1.18	3.50	30,397.50	1.25	10,856.25	1.38	11,985.30	1.05	9,119.25	1.25	10,856.25	1.25	10,856.25	2.10	18,238.50	1.85	16,267.25	1.85	16,267.25
2301.529	REINFORCEMENT BARS	LBS.	9,018	37	0.85	7,665.30	0.40	3,607.20	0.44	3,967.92	0.30	2,705.40	0.40	3,607.20	0.40	3,607.20	0.40	3,607.20	0.30	2,705.40	0.40	3,607.20
2301.531	EXPANSION JOINTS, DESIGN EI-1	L.F.	268	3.00	8.50	2,278.00	4.00	1,072.00	4.40	1,179.20	1.00	268.00	4.00	1,072.00	4.00	1,072.00	5.00	1,340.00	8.50	2,278.00	4.00	1,072.00
2301.536	DOWEL BAR ASSEMBLIES	L.F.	2,375	2.50	5.50	13,062.50	2.75	6,531.25	3.03	7,196.25	2.00	4,750.00	2.75	6,531.25	2.75	6,531.25	2.25	5,343.75	2.25	5,343.75	2.75	6,531.25
2331.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	193	93.33	95.00	18,335.00	92.00	17,756.00	90.00	17,370.00	93.00	17,949.00	95.00	18,335.00	90.00	17,370.00	90.00	17,370.00	92.00	17,756.00	92.00	17,756.00
2331.514	BASE COURSE MIXTURE	TON	4,288	6.87	9.50	40,736.00	5.75	24,656.00	7.24	31,045.12	6.60	28,320.80	6.76	28,986.88	6.45	27,657.60	6.46	27,700.48	5.75	24,656.00	5.75	24,656.00
2331.531	TEMPORARY LANE MARKING	ROAD STATION	220	3.83	25.00	5,500.00	5.00	1,100.00	3.85	847.00	5.00	1,100.00	1.50	330.00	5.00	1,100.00	5.00	1,100.00	5.00	1,100.00	5.00	1,100.00
2341.504	BITUMINOUS MATERIAL FOR MIXTURE	TON	213	93.33	95.00	20,235.00	92.00	19,596.00	90.00	19,170.00	93.00	19,809.00	95.00	20,235.00	90.00	19,170.00	90.00	19,170.00	92.00	19,596.00	92.00	19,596.00
2341.508	WEARING COURSE MIXTURE	TON	1,929	7.15	14.00	27,006.00	7.40	14,274.60	7.57	14,602.53	7.05	13,579.45	7.00	13,503.00	7.00	13,503.00	7.06	13,618.74	7.40	14,274.60	7.40	14,274.60
2341.510	BINDER COURSE MIXTURE	TON	1,859	7.15	13.00	24,167.00	7.40	13,756.60	7.41	13,775.19	7.05	13,105.95	7.00	13,013.00	7.00	13,013.00	7.06	13,124.54	7.40	14,274.60	7.40	14,274.60
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL.	2,095	55	0.65	1,361.75	0.55	1,152.25	0.46	963.70	0.49	1,026.55	0.60	1,257.00	0.55	1,152.25	0.75	1,571.25	0.55	1,152.25	0.55	1,152.25
2358.501	BITUMINOUS MATERIAL FOR PRIME COAT	GAL.	7,862	43	0.55	4,324.10	0.50	3,931.00	0.50	3,931.00	0.43	3,380.66	0.55	4,324.10	0.45	3,537.40	0.70	5,503.40	0.50	3,931.00	0.50	3,931.00
2359.501	PAVEMENT JOINT, DESIGN L-4	ROAD STATION	13	46.67	50.00	650.00	50.00	650.00	55.00	715.00	40.00	520.00	50.00	650.00	50.00	650.00	100.00	1,300.00	59.00	767.00	50.00	650.00
2451.503	GRANULAR BACKFILL (L.V.)	C.Y.	200	5.67	5.50	1,100.00	3.00	600.00	8.00	1,60												