

MINNESOTA DEPARTMENT OF TRANSPORTATION

ANOKA COUNTY

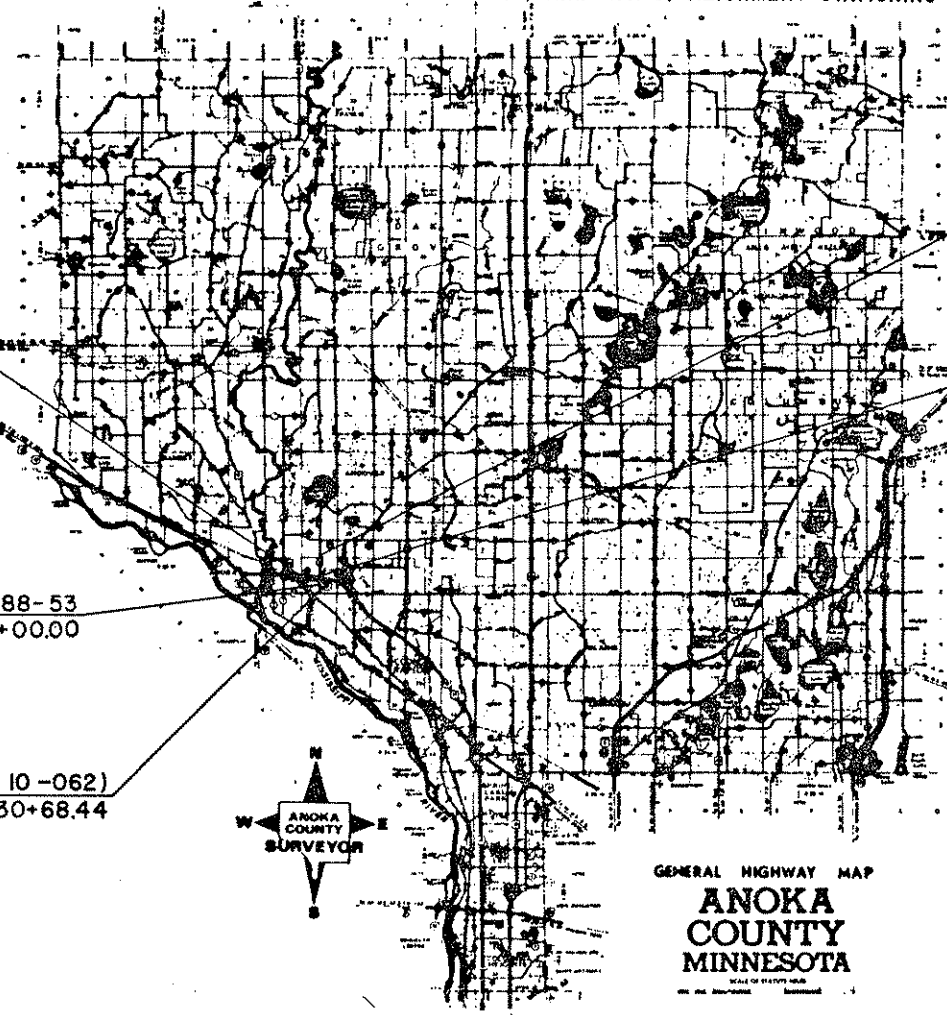
CONSTRUCTION PLAN FOR GRADING, SURFACING, DRAINAGE, UTILITIES, AND BRIDGE NO. 02552

ROUND LAKE BLVD.
 LOCATED ON (C.S.A.H. 9) BETWEEN TH 10/47 AND 133 RD. LANE N.W. (Geographic Description)
 LOCATED ON TH 10/47 BETWEEN B.N.R.R. AND NORTHDAL BLVD. (Geographic Description)
 FROM A PT. 1200.00' N. OF S 1/4 CORNER SEC. 5, T31N, R24W TO A PT. 167.69' N. OF N 1/4 CORNER SEC. 5, T31N, R24W (Legal Description)

STATE PROJ. NO. 0215 - 38 (TH 10-062) STATE AID PROJ. NO. 02-609-08
 CITY IMPROVEMENT PROJ. NO. 88-53

GROSS LENGTH 4015.44 FEET 0.760 MILES
 BRIDGES-LENGTH 0 FEET 0 MILES
 EXCEPTIONS-LENGTH 14 FEET 0.002 MILES
 NET LENGTH 4001.44 FEET 0.758 MILES
 PROJECT LENGTH IS BASED ON TH 10/47 ALIGNMENT STATIONING WITH ONE EQUATION.

GROSS LENGTH 4353.28 FEET 0.824 MILES
 BRIDGES-LENGTH 176.66 FEET 0.033 MILES
 EXCEPTIONS-LENGTH 0 FEET 0 MILES
 NET LENGTH 4353.28 FEET 0.824 MILES
 ROADWAY 0.791 MILES
 BRIDGE 0.032 MILES
 PROJECT LENGTH IS BASED ON THE ROUND LAKE BLVD (C.S.A.H. NO. 9) ALIGNMENT STATIONING WITH NO EQUATIONS.



BEGIN SP0215-38 (TH 10-062)
 EB TH 10/47 STA. 190+53.00

END S.A.P. 02-609-08 & CITY IMP 88-53
 ROUND LAKE BLVD (C.S.A.H. NO. 9) 55+53.28

BRIDGE NO. 02552 & SP 0215-02552
 ROUND LAKE BLVD (C.S.A.H. NO 9 OVER TH 10/47)

BEGIN S.A.P. 02-609-08 & CITY IMP 88-53
 ROUND LAKE BLVD (C.S.A.H. NO 9) STA. 12+00.00

END SP 0215-38 (TH 10-062)
 WB TH 10/47 STA. 230+68.44

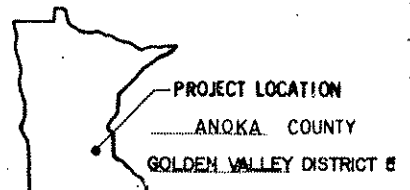
SCALES

PLAN	50
PROFILE	50
INDEX MAP	14000
GENERAL LAYOUT	300

DESIGN DESIGNATION

Functional Classification: Minor Arterial
 No. of Traffic Lanes 6 No. of Parking Lanes 0
 ADT (Current Year) 1988 = 14,600 Design Speed 45 MPH
 ADT (Future Year) 2010 = 50,000 Based on STOPPING Sight Distance
 DHV (Design Hr. Vol.) = 4,750 Height of eye 3.5 Height of object 0.50
 D (Directional Distr.) = 65 % Design Speed not achieved at:
 T (Heavy Commercial) = 1.0 % STA. TO STA. MPH
 R-Value 65 N18 Factor 560,000 TO 3,730,000

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY



DEPARTMENT OF TRANSPORTATION
 FEDERAL HIGHWAY ADMINISTRATION
 APPROVED
 DIVISION ADMINISTRATOR DATE

Right of Way Approval _____ 19
 DIRECTOR, RIGHT OF WAY OPERATIONS
 Recommended for Approval _____ 19
 ASSISTANT DISTRICT ENGINEER
 Recommended for Approval _____ 19
 TRANSPORTATION PLANS ENGINEER
 Recommended for Approval _____ 19
 DIRECTOR, TRAFFIC ENGINEERING
 Recommended for Approval _____ 19
 DESIGN SERVICES DIRECTOR
 Approved _____ 19
 DIRECTOR, OFFICE OF ENGINEERING SERVICES

FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL

STATE PROJ. NO.	AREA	JOB

MINN. PROJ. NO. _____
 MINN. PROJ. NO. _____

GOVERNING SPECIFICATIONS

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

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1 - 33	BRIDGE NO. 02552 PLANS

THIS PLAN CONTAINS 299 SHEETS

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.

BRW, Inc.
 DATE 8-22-89 REG. NO. 12666 ENGR. Boyd R. Paulsen
 COUNTY _____
 Design Squad JOE MALONEY
 Approved Aug. 24, 1989 Paulsen K. [Signature]
 ANOKA COUNTY HIGHWAY ENGINEER
 Approved Aug. 23, 1989 [Signature]
 COON RAPIDS CITY ENGINEER
 Recommended for Approval _____ 19
 DISTRICT STATE AID ENGINEER
 Recommended for Approval _____ 19
 STATE AID PLANS AND SPECS ENGINEER
 Approved _____ 19
 STATE AID ENGINEER

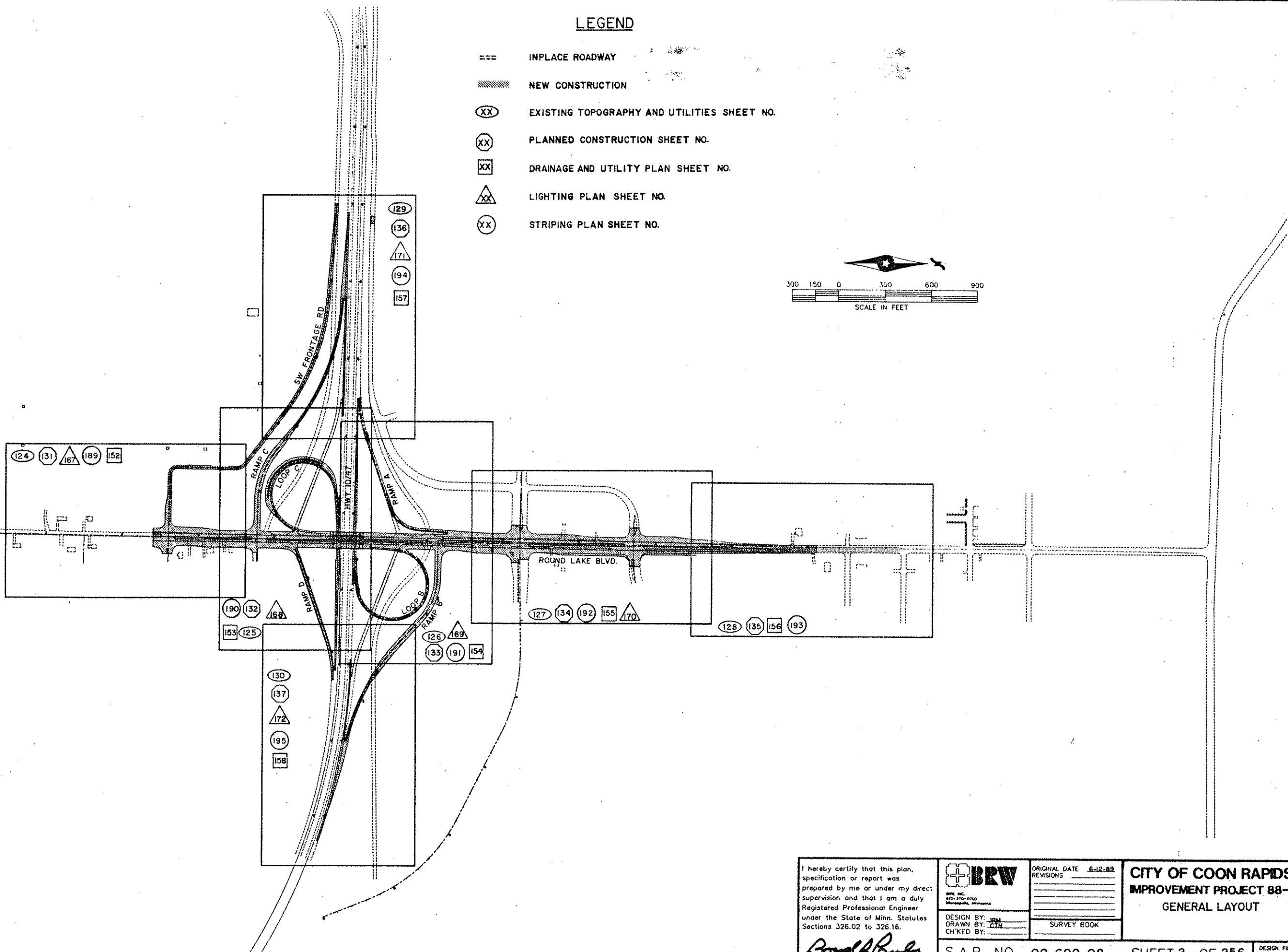
I HEREBY CERTIFY THAT THE FINAL FIELD REVISIONS, IF ANY, OF THIS PLAN WERE MADE BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE _____ REG. NO. _____

STATE AID PROJ. NO. 02-609-08
 STATE PROJ. NO. 0215-38 SHEET NO. 1 OF 256 SHEETS

LEGEND

- === INPLACE ROADWAY
- ▨ NEW CONSTRUCTION
- (XX) EXISTING TOPOGRAPHY AND UTILITIES SHEET NO.
- (XX) PLANNED CONSTRUCTION SHEET NO.
- [XX] DRAINAGE AND UTILITY PLAN SHEET NO.
- △(XX) LIGHTING PLAN SHEET NO.
- (XX) STRIPING PLAN SHEET NO.

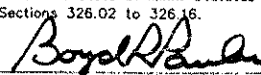



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Paul</i> Date 8-22-89 Minn. Reg. No. J2666	BRW 812-370-0700 Minneapolis, Minnesota	ORIGINAL DATE 6-12-83 REVISIONS _____ _____ _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 GENERAL LAYOUT
		DESIGN BY: JRM DRAWN BY: JTN CH'KED BY:	
S.A.P. NO. 02-609-08		SHEET 2 OF 256	DESIGN FILE No. 16-B640

STATEMENT OF ESTIMATED QUANTITIES							
CHART NO.	ITEM NO.	ITEM	UNIT	TOTAL QUANTITIES		100% LOCAL FUNDING TYPE 1	100% STATE FUNDING TYPE 2
				EST.	FINAL	EST.	EST.
	2021.501	MOBILIZATION	LUMP SUM	LS		0.98	0.02
	2031.501	FIELD OFFICE TYPE D	EACH	1		0.98	0.02
	2031.503	FIELD LABORATORY TYPE D	EACH	1		0.98	0.02
A	2101.501	CLEARING	ACRE	3.5		3.5	
A	2101.502	CLEARING	TREE	47		47	
A	2101.506	GRUBBING	ACRE	3.5		3.5	
A	2101.507	GRUBBING	TREE	47		47	
T	2102.502	PAVEMENT MARKING REMOVAL-PERMANENT (1)(8)	LIN FT	13,053		13,053	
N	2104.501	REMOVE PIPE CULVERTS	LIN FT	570		570	
N	2104.501	REMOVE SEWER PIPE (STORM)	LIN FT	177		177	
C	2104.501	REMOVE CURB AND GUTTER	LIN FT	5,626		5,626	
C	2104.505	REMOVE CONCRETE RAMP NOSE	SQ YD	15		15	
B	2104.505	REMOVE BITUMINOUS PAVEMENT (2)	SQ YD	49,459		49,459	
N	2104.509	REMOVE CONCRETE APRONS	EACH	25		25	
N	2104.509	REMOVE MANHOLES OR CATCH BASINS (3)	EACH	9		9	
F	2104.513	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	7,381		7,381	
D	2104.521	SALVAGE GUARD RAIL - PLATE BEAM	LIN FT	1,351		1,351	
N	2104.523	SALVAGE CASTING (4)	EACH	5		5	
	2104.523	SALVAGE SIGNS TYPE C	EACH	80		80	
	2104.523	SALVAGE SIGNS TYPE D	EACH	16		16	
	2104.523	SALVAGE DELINEATORS	EACH	30		30	
	2105.501	COMMON EXCAVATION	CU YD	152,107 P		151,707	400
	2105.505	MUCK EXCAVATION	CU YD	1,094		1,094	
	2105.507	SUBGRADE EXCAVATION	CU YD	17,673		17,673	
	2105.521	GRANULAR BORROW (LV)	CU YD	172,185		165,465	6,720
	2105.522	SELECT GRANULAR BORROW (LV)	CU YD	48,423		47,976	447
	2105.522	SELECT GRANULAR BORROW MOD. 10% (LV) (5)	CU YD	5,316		5,316	
	2105.543	STABILIZING AGGREGATE	TON	3,200		3,200	
	2130.501	WATER (6)	M GAL	75		75	
	2131.502	CALCIUM CHLORIDE SOLUTION (6)	GAL	10,000		10,000	
J	2211.503	AGGREGATE BASE PLACED CLASS 5	CU YD	1,192 P		1,192	
J	2211.503	AGGREGATE BASE PLACED CLASS 6	CU YD	14,059 P		13,731	328
J	2221.503	AGGREGATE SHOULDERING PLACED CLASS 1	CU YD	220 P		220	
J	2221.503	AGGREGATE SHOULDERING PLACED CLASS 3	CU YD	2,518 P		2,518	
	2301.553	BRIDGE APPROACH PANELS	SQ YD	378 P		378	
H	2331.504	BITUMINOUS MATERIAL FOR MIXTURE (13)	TON	811		790	21
H	2331.510	BINDER COURSE MIXTURE MOD. (13)	TON	458		332	126
H	2331.514	BASE COURSE MIXTURE MOD. (13)	TON	14,635		14,365	270
H	2331.516	SHOULDER MIXTURE MOD. (13)	TON	169		169	
B	0331.601	3.5" THICK TEMPORARY BITUMINOUS PAVEMENT (9)	SQ YD	5,500		5,500	
	2341.504	BITUMINOUS MATERIAL FOR MIXTURE (13)	TON	561		559	2
H	2341.508	WEARING COURSE MIXTURE MOD. (13)	TON	766		766	
H	2341.510	BINDER COURSE MIXTURE MOD. (13)	TON	9,648		9,622	26
	2357.502	BITUMINOUS MATERIAL FOR TACK COAT (7)	GAL	7,301		7,072	229
	2361.504	ASPHALT CEMENT	TON	319		311	8
H	2361.508	WEARING COURSE MIXTURE MOD.	TON	4,562		4,455	107
	0451.601	TRENCH STABILIZATION MATERIAL (CV) (8)	CU YD	50		50	

STATEMENT OF ESTIMATED QUANTITIES CONTINUED										
CHART NO.	ITEM NO.	ITEM	UNIT	TOTAL QUANTITIES		100% LOCAL FUNDING TYPE 1	100% STATE FUNDING TYPE 2			
				EST.	FINAL	EST.	EST.	EST.	EST.	EST.
0	2501.511	18" RC PIPE CULVERT CLASS III	LIN FT	60		60				
0	2501.511	36" RC PIPE CULVERT CLASS V	LIN FT	278		278				
0	2501.515	12" RC PIPE APRON	EACH	13		10			3	
0	2501.515	15" RC PIPE APRON	EACH	2		2				
0	2501.515	24" RC PIPE APRON	EACH	10		8				2
0	2501.515	27" RC PIPE APRON	EACH	4		2				2
0	2501.515	30" RC PIPE APRON	EACH	3		3				
0	2501.515	36" RC PIPE APRON	EACH	8		8				
0	2501.525	28" SPAN RC PIPE-ARCH APRON	EACH	6		6				
0	2501.525	36" SPAN RC PIPE-ARCH APRON	EACH	1		1				
0	2501.525	65" SPAN RC PIPE-ARCH APRON	EACH	1		1				
0	2501.561	24" RC PIPE CULVERT DESIGN 3006 CLASS III	LIN FT	272		216				56
0	2501.561	24" RC PIPE CULVERT DESIGN 3006 CLASS V	LIN FT	200		200				
0	2501.561	27" RC PIPE CULVERT DESIGN 3006 CLASS III	LIN FT	248		146				102
0	2501.561	30" RC PIPE CULVERT DESIGN 3006 CLASS V	LIN FT	192		192				
0	2501.561	36" RC PIPE CULVERT DESIGN 3006 CLASS III	LIN FT	84		84				
0	2501.567	15" CS SAFETY APRON & GRATE DESIGN 3128	EACH	2		2				
0	2501.567	18" CS SAFETY APRON & GRATE DESIGN 3128	EACH	1		1				
0	0501.603	48" STEEL CASING PIPE (JACKED)	LIN FT	242		242				
0	2503.521	28" SPAN RC PIPE-ARCH SEWER CLASS III A	LIN FT	138		138				
0	2503.521	36" SPAN RC PIPE-ARCH SEWER CLASS III A	LIN FT	451		451				
0	2503.521	65" SPAN RC PIPE-ARCH SEWER CLASS III A	LIN FT	80		80				
0	2503.541	12" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	2,023		1,830				193
0	2503.541	15" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	937		937				
0	2503.541	18" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	385		385				
0	2503.541	24" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	620		620				
0	2503.541	30" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	30		30				
0	2503.541	33" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	297		297				
0	2503.541	36" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	110		110				
0	2503.541	48" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	150		150				
0	2506.506	CONSTRUCT MANHOLES DESIGN A OR F	LIN FT	28.4		28.4				
0	2506.506	CONSTRUCT MANHOLES DESIGN 54-4019	LIN FT	5.2		5.2				
0	2506.506	CONSTRUCT MANHOLES DESIGN 60-4020	LIN FT	12.2		12.2				
0	2506.506	CONSTRUCT MANHOLES DESIGN 78-4019	LIN FT	4.0		4				
0	2506.506	CONSTRUCT MANHOLES DESIGN 84-4020	LIN FT	6.5		6.5				
0	2506.506	CONSTRUCT MANHOLES DESIGN C OR G	LIN FT	6.0		6				
0	2506.507	CONST CATCH BASINS DES SPECIAL 1	LIN FT	38.9		38.9				
0	2506.507	CONST CATCH BASINS DES SPECIAL 2-48	LIN FT	208.0		208				
0	2506.507	CONST CATCH BASINS DES SPECIAL 2-60	LIN FT	22.3		22.3				
0	2506.507	CONSTRUCT CATCH BASINS DES C OR G	LIN FT	14.2		6.4				7.8
0	2506.507	CONSTRUCT CATCH BASIN DES H	LIN FT	34.4		28.5				5.9
P	2506.516	CASTING ASSEMBLIES	EACH	77		73				4
N	2506.522	ADJUST FRAME & RING CASTINGS	EACH	5		5				
0	0506.602	CONNECT TO EXISTING MANHOLE	EACH	1		1				
0	2511.501	RANDOM RIPRAP CL III (10)	CU YD	185		168				17
I	2521.501	3" CONCRETE WALK	SQ FT	42,444		40,104				2,340
I	2521.501	4" CONCRETE WALK	SQ FT	270		270				
I	2521.501	6" CONCRETE WALK	SQ FT	1,260		1,260				
I	2531.501	CONCRETE C & G DES B624 (MODIFIED)	LIN FT	80		80				
I	2531.501	CONCRETE C & G DES B624	LIN FT	14,014		12,990				1,024
I	2531.501	CONCRETE C & G DES D424	LIN FT	14,149		14,107				42
I	2531.507	7" CONCRETE DRIVEWAY PAVEMENT	SQ YD	53		53				
I	2535.501	BITUMINOUS CURB	LIN FT	2,504		2,504				
Q	2545.521	3" RIGID STEEL CONDUIT (11)	LIN FT	2,397		2,327				70
Q	2550.512	HANDHOLE TYPE - PVC METAL FRAME & COVER (12)	EACH	1		1				1
Q	2550.512	HANDHOLE TYPE - PVC CONCRETE COVER (12)	EACH	4		4				4

- (1) SEE TRAFFIC CONTROL PLANS FOR REMOVAL LIMITS.
- (2) INCLUDES ALL BITUMINOUS SURFACING REGARDLESS OF THE THICKNESS OF PAVEMENT. NO DIRECT PAYMENT FOR REMOVAL OF BITUMINOUS CURB WILL BE MADE.
- (3) INCLUDES CASTING ASSEMBLY.
- (4) INSTALLED ON EXISTING MANHOLES OR CATCH BASINS.
- (5) FOR BRIDGE APPROACH TREATMENT.
- (6) FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
- (7) BASED ON AN APPLICATION RATE OF 0.05 GAL. PER SQ. YD. PER LAYER APPLIED.
- (8) FOR USE AS DIRECTED BY THE ENGINEER.
- (9) SEE CONSTRUCTION SEQUENCE PLANS FOR DETAILS.
- (10) INCLUDES FILTER BLANKET AND GEOTEXTILE FABRIC AND SHALL BE INCIDENTAL TO THE RIPRAP PLACED.
- (11) FOR LIGHTING AND TMS.
- (12) FOR TMS.
- (13) INCLUDES QUANTITY FOR ADDING 1/4" TO THE DESIGN THICKNESS.

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 State of Minn. Statutes Sections 326.02 to 326.16.  Date: 8-22-89 Minn. Reg. No. J2666	 BRW, INC. 917-310-0700 Minneapolis, Minnesota	ORIGINAL DATE 8-8-89 REVISIONS _____ _____ _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 ESTIMATED QUANTITIES		
		DESIGN BY: JRM DRAWN BY: DJT CHECKED BY: _____		SURVEY BOOK _____	
		S.A.P. NO. 02-609-08		SHEET 3 OF 256	
		Date: 8-22-89 Minn. Reg. No. J2666		DESIGN FILE No. 16-BB40	

STATEMENT OF ESTIMATED QUANTITIES CONTINUED

CHART NO.	ITEM NO.	ITEM	UNIT	TOTAL QUANTITIES		100% LOCAL FUNDING TYPE 1 EST.	100% STATE FUNDING TYPE 2 EST.
				EST.	FINAL		
E	2554.501	TRAFFIC BARRIER DES B8307	LIN FT	600		600	
E	2554.523	TWISTED END TREATMENT	EACH	2		2	
M	0554.603	TPPC MED BARRIER DES 8333 TYPE III	LIN FT	2,420		2,420	
M	0554.603	RELOCATE TPPC BARRIER	LIN FT	90		90	
	0563.601	TRAFFIC CONTROL, PHASE 1 - STAGE 1	LUMP SUM	LS			
	0563.601	TRAFFIC CONTROL, PHASE 1 - STAGE 2	LUMP SUM	LS			
	0563.601	TRAFFIC CONTROL, PHASE 1 - STAGE 3	LUMP SUM	LS			
	0563.601	TRAFFIC CONTROL, PHASE 2 - STAGE 1	LUMP SUM	LS			
	0563.601	TRAFFIC CONTROL, PHASE 2 - STAGE 2	LUMP SUM	LS			
	0563.601	TRAFFIC CONTROL, PHASE 2 - STAGE 3	LUMP SUM	LS			
	0563.601	TRAFFIC CONTROL, PHASE 3 - STAGE 1	LUMP SUM	LS			
	0563.602	TYPE I BARRICADES	UNIT DAY	1,000		1,000	
	0563.602	TYPE II BARRICADES	UNIT DAY	1,000		1,000	
	0563.602	TYPE III BARRICADES	UNIT DAY	1,000		1,000	
	0563.602	FLASHER TYPE A (LOW INTENSITY)	UNIT DAY	1,000		1,000	
	0563.602	FLASHER TYPE B (HIGH INTENSITY)	UNIT DAY	1,000		1,000	
	0563.602	FLASHER TYPE C (STEADY BURN)	UNIT DAY	1,000		1,000	
	0563.602	TUBE DELINEATORS	UNIT DAY	1,000		1,000	
	0563.602	REFLECTORIZED PLASTIC SAFETY DRUM	UNIT DAY	1,000		1,000	
	0563.602	REFLECT PLAST SAFE DRUM W/DOWN ARROW	UNIT DAY	1,000		1,000	
	0563.602	PORTABLE CHANGEABLE MESSAGE SIGN (4)	UNIT DAY	100		100	
	0563.602	48X48 INCH STD. SIGN	UNIT DAY	1,000		1,000	
	0563.602	48X48 INCH STD. SIGN WITH SUPPORTS	UNIT DAY	1,000		1,000	
U	0563.603	ONE-WAY RAISED PAVEMENT MARKER TYPE 1 (1)(4)	EACH	1,051		1,051	
U	0563.603	TWO-WAY RAISED PAVEMENT MARKER TYPE 1 (1)(4)	EACH	276		276	
R	2564.531	F & I SIGN PANELS TYPE C	SQ FT	683		666.75	16.25
S	2564.531	DELINEATORS TYPE IA (X4-6)	EACH	10		10	
S	2564.531	DELINEATORS TYPE IVA (X4-6)	EACH	21		21	
S	2564.531	DELINEATORS TYPE IXB (X4-2)	EACH	20		19	1
M	0564.602	MICRO PRISM BARRIER REFLECTORS (2)(4)	EACH	82		82	
	0564.602	INSTALL SIGNS TYPE D	EACH	12		12	
K	0564.602	PAVT MESSAGE (LT ARROW) EPOXY	EACH	25		25	
K	0564.602	PAVT MESSAGE (RT ARROW) EPOXY	EACH	22		22	
K	0564.602	PAVT MESSAGE (ONLY) EPOXY	EACH	42		42	
K	0564.602	PAVT MESSAGE (LT-THRU ARROW) EPOXY	EACH	2		2	
K	0564.603	4" SOLID LINE WHITE - PAINT	LIN FT	25,432		25,432	
K	0564.603	8" SOLID LINE WHITE - PAINT	LIN FT	3,202		3,202	
K	0564.603	4" BROKEN LINE WHITE - PAINT (10-40)	LIN FT	2,838		2,838	
K	0564.603	4" BROKEN LINE WHITE - PAINT (2-10)	LIN FT	28		28	
K	0564.603	4" SOLID LINE YELLOW - PAINT	LIN FT	14,597		14,597	
K	0564.603	4" BROKEN LINE YELLOW - PAINT	LIN FT	536		536	
K	0564.603	24" SOLID LINE YELLOW - PAINT	LIN FT	135		135	
K	0564.603	4" DOUBLE SOLID LINE YELLOW - PAINT	LIN FT	870		870	
	0564.604	CONSTRUCTION SIGN-SPECIAL (4)	SQ FT	100		100	
	0565.601	TRAFFIC CONTROL INTERCONNECTION A (3)	LUMP SUM	LS			
	0565.601	TRAFFIC CONTROL INTERCONNECTION B (3)	LUMP SUM	LS			
	0565.601	TRAFFIC CONTROL INTERCONNECTION C (3)	LUMP SUM	LS		0.67	0.33
	0565.601	TRAFFIC CONTROL INTERCONNECTION D (3)	LUMP SUM	LS		0.67	0.33
	0565.601	TRAFFIC CONTROL INTERCONNECTION E (3)	LUMP SUM	LS			
	2573.501	BALE CHECK (4)	EACH	200		200	
	2573.502	SILT FENCE, HEAVY DUTY	LIN FT	4,000		4,000	
L	2575.501	ROADSIDE SEEDING	ACRE	32.0 P		32	
	2575.502	SEED MIXTURE 500	POUND	1,200		1,200	
	2575.502	SEED MIXTURE 700	POUND	280		280	
L	2575.505	SODDING	SQ YD	17,897		17,897	
	2575.511	MULCH MATERIAL TYPE 1	TON	64		64	
	2575.519	DISC ANCHORING	ACRE	32.0 P		32	
	2575.532	COMMERCIAL FERT ANALYSIS 10-20-20	POUND	14,400		14,400	
L	0575.605	MULCH MATERIAL TYPE SPECIAL	SQ YD	536		536	
	2580.502	TEMPORARY LANE MARKING	LIN FT	1,524		1,524	
U	2581.501	REMOVABLE PREFORMED PLASTIC MARKING	LIN FT	20,641		20,641	
		CONNECT TO EXISTING WATERMAIN	EACH	1		1	
		12" PLUG	EACH	2		2	
		12" PIPE BENDS 11 1/4	EACH	2		2	
		12" PIPE BENDS 22 1/2	EACH	4		4	
		12" x 12" TEE FITTING	EACH	1		1	
		12" GATE VALVE (RESILIENT SEAT) AND BOX	EACH	1		1	
		12" WATERMAIN-DUCTILE IRON RESTRAINED JOINT	LIN FT	320		320	
		12" WATERMAIN-DUCTILE IRON CL 52	LIN FT	1,362		1,362	
		20" STEEL CASING PIPE	LIN FT	114		114	
		20" STEEL CASING PIPE (JACKED)	LIN FT	148		148	
		ADJUST VALVE BOX, WATER	EACH	1		1	

- (1) PLACED AT 10' SPACES AND INCLUDES REMOVAL.
- (2) PLACED AT 30' SPACES.
- (3) INCLUDES CONDUIT, HANDHOLES AND LOOP DETECTORS.
- (4) FOR USE AS DIRECTED BY THE ENGINEER.
- (5) FOR USE BY THE PAVING CONTRACTOR AND AS DIRECTED BY THE ENGINEER.

INDEX OF TABULATION CHARTS

SHEET NO.	CHART	DESCRIPTION
85	A	CLEARING AND GRUBBING
85	B	BITUMINOUS PAVEMENT REMOVAL
85	C	CONCRETE REMOVAL
85	D	SALVAGE GUARDRAIL
85	E	PLATE BEAM BARRIER
85	F	SAWING BITUMINOUS PAVEMENT
86	G	PRIVATE UTILITIES
87	H	BITUMINOUS SUMMARY
88	I	CONC. WALK, C & G, DRIVEWAY, & BIT. CURB
88	J	AGGREGATE BASE AND SHOULDERING SUMMARY
89	K	PAVEMENT MARKING AND MESSAGES
89	L	TURF ESTABLISHMENT
89	M	TPPC BARRIER REFLECTORS & TABULATION
148	N	INPLACE DRAINAGE TABULATION
149-151	O	DRAINAGE TABULATION
149	P	DRAINAGE CASTING SCHEDULE
167	Q	LIGHTING & TRAFFIC MGMT. CONDUIT SYSTEM
184	R	TYPE "C" SIGNS
184	S	DELINEATORS
89	T	PAVEMENT MARKING REMOVAL - PERMANENT
89	U	REM. PRE. PLASTIC MARKING & T.R.P.M.

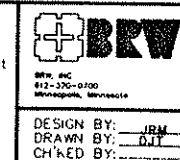
STANDARD PLATES

PLATE NO.	DESCRIPTION
0004A	SPECIFICATION REFERENCE TO STANDARD PLATES (1988)
1120S	CONTRACTION JOINTS
1140S	LONGITUDINAL JOINTS
1141C	PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTION
3000K	REINFORCED CONCRETE PIPE
3006F	GASKET JOINT FOR R.C. PIPE
3007B	SHEAR REINFORCEMENT FOR PRECAST DRAINAGE STRUCTURES
3014J	REINFORCED CONCRETE PIPE ARCH DETAIL
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3110G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE - ARCH
3128D	SAFTY APRON
3133B	RIPRAP AT RCP OUTLETS
3145E	CONCRETE PIPE TIES
4000I	MANHOLE OR CATCH BASIN (DESIGN A)
4002E	MANHOLE OR CATCH BASIN (DESIGN C)
4005K	MANHOLE OR CATCH BASIN (DESIGN F)
4006K	MANHOLE OR CATCH BASIN (DESIGN G OR DESIGN H)
4010G	CONC. SHORT CONE AND ADJUSTING RING (SECTIONAL CONCRETE)
4011D	PRECAST CONCRETE BASE
4019E	MANHOLE FOR CATCH BASIN (NOT FOR USE UNDER TRAFFIC LOADS)
4020E	MANHOLE OR CATCH BASIN (FOR USE UNDER TRAFFIC LOADS)
4101C	RING CASTING FOR MANHOLE OR CATCH BASIN
4110D	COVER CASTING FOR MANHOLE
4129F	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE)
4132E	CATCH BASIN FRAME CASTING (FOR SQ. GRATE AND TYPE D C&G)
4154B	CATCH BASIN GRATE CASTING
4160D	CURB BOX CASTING FOR CATCH BASIN (NO. 823A)
4180H	MANHOLE OR CATCH BASIN STEP
5200B	REINFORCED CONCRETE SURGE BASIN
7065C	BITUMINOUS CURB
7100F	CONCRETE CURB AND GUTTERS (DESIGN B & DESIGN V)
7102G	CONCRETE CURB AND GUTTERS (DESIGN BR, D, & S)
7107H	ENTRANCE NOSE (URBAN)
7108D	EXIT NOSE (URBAN DESIGN)
7111G	INSTALLATION AND REINFORCEMENT OF C.B. CASTINGS (CONCRETE CURB AND CURB & GUTTER)
8000I	STANDARD BARRICADES
8117F	PRECAST CONCRETE HANHOLE (OR PULLBOX)
	PVC HANDHOLE (OR PULLBOX)
8307N	STRUCTURAL PLATE BEAM GUARDRAIL - DESIGN A & DESIGN B
8318C	GUARDRAIL ANCHORAGE PLATE FOR BRIDGES
8319G	TWISTED END TREATMENT
8333A	TEMPORARY PORTABLE PRECAST CONCRETE BARRIER (CONTACTOR OWNED OR RENTED)

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 State of Minn. Statutes Sections 326.02 to 326.15

Boyd Rankin

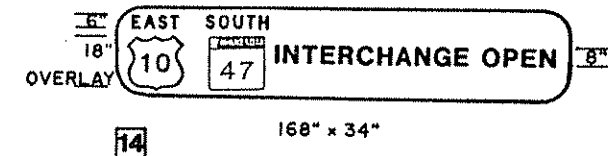
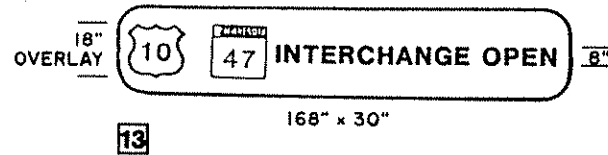
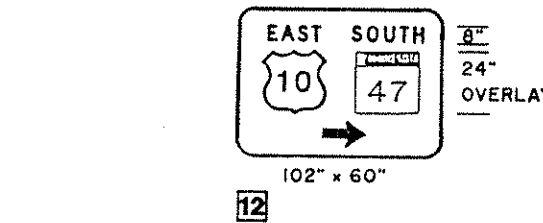
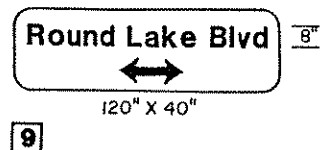
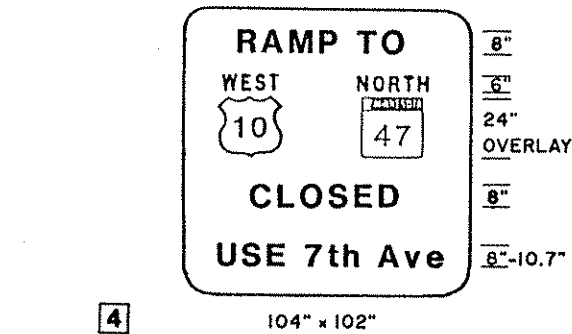
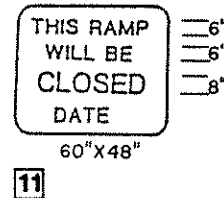
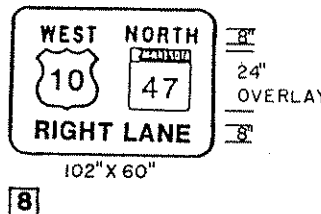
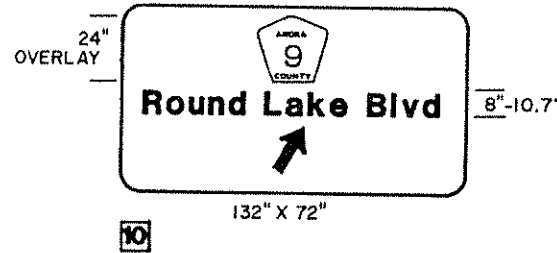
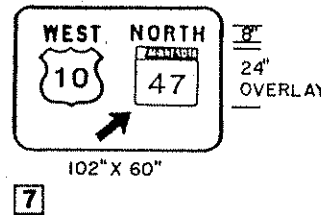
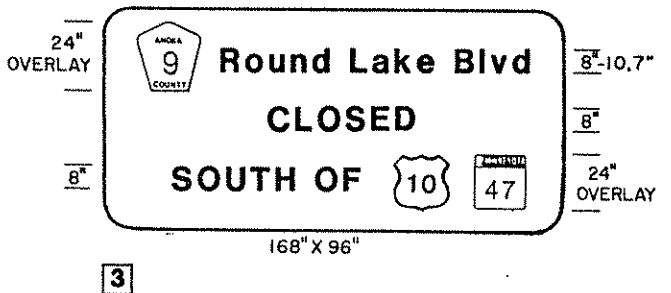
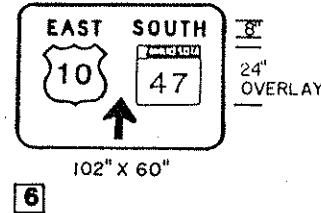
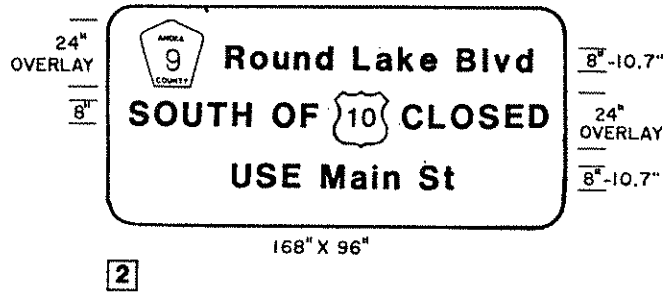
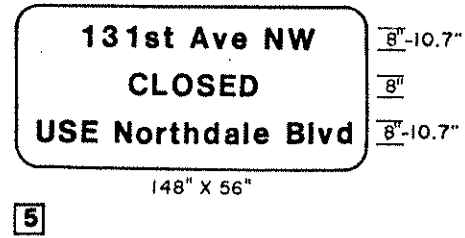
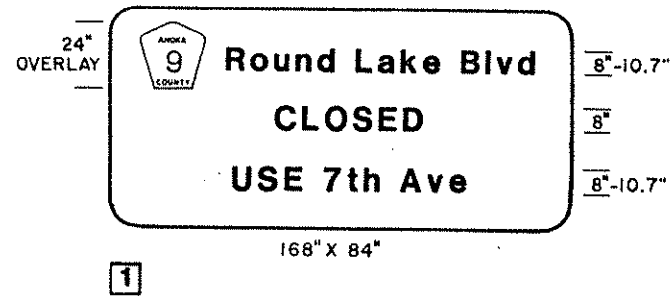
Date 8-22-89 Minn. Reg. No. 12666



ORIGINAL DATE 8-8-89
REVISIONS
DESIGN BY: JRM
DRAWN BY: DJT
CHECKED BY:

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ESTIMATED QUANTITIES
8
STANDARD PLATES

SPECIAL SIGNS



LEGEND

- TEMPORARY PORTABLE PRECAST CONCRETE BARRIER
- CHANNELIZING DEVICE
- ☀ TEMPORARY REFLECTOR (FLASHER)
- ☀ TEMPORARY REFLECTOR (STEADYBURN)
- ⓧ CONSTRUCTION SIGN-SPECIAL
- IMPACT ATTENUATOR BARRELS - DESIGN SPEED
- ⊥ TYPE III BARRICADE
- ⊥ SIGN

INDEX

SHEET NO.	DESCRIPTION
5	TITLE, NOTES AND SPECIAL SIGNS
6 - 40	CONSTRUCTION SEQUENCE
41 - 42	TRAFFIC CONTROL TABULATION
43 - 48	TRAFFIC CONTROL PHASE 1 STAGE 1
49 - 54	TRAFFIC CONTROL PHASE 1 STAGE 2
55 - 60	TRAFFIC CONTROL PHASE 1 STAGE 3
61 - 66	TRAFFIC CONTROL PHASE 2 STAGE 1
67 - 72	TRAFFIC CONTROL PHASE 2 STAGE 2
73 - 78	TRAFFIC CONTROL PHASE 2 STAGE 3
79 - 84	TRAFFIC CONTROL PHASE 3 STAGE 1

NOTES

1. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER.
 2. ALL DISTANCES ARE APPROXIMATE.
 3. DIAMOND WARNING SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
 4. BARRICADES ARE 6' OR 8' TYPE III UNLESS OTHERWISE NOTED.
 5. OBLITERATE ANY CONFLICTING PAVEMENT MARKINGS.
 6. REMOVE OR COVER ANY CONFLICTING SIGNING (INCIDENTAL).
 7. POLYMER LANE TAPE, REMOVAL OF PAVEMENT MARKINGS (PAINT), TRPM, BARRIER, AND BARRIER REFLECTORS ARE SEPARATE BID ITEMS.
 8. TRPM, POLYMER LANE TAPE AND MN/DOT PAINTING ARE INTERCHANGEABLE ACCORDING TO ACTUAL CONDITIONS ENCOUNTERED AS DIRECTED BY THE ENGINEER.
 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXTRA SIGNING NEEDED TO FACILITATE TRAFFIC SWITCHES OR FOR TRANSITIONING TRAFFIC FROM ONE STAGE TO ANOTHER.
 10. AN ANNUAL FALL REVIEW OF ALL TRAFFIC CONDITIONS WILL BE MADE TO PREPARE FOR WINTER MAINTENANCE OF THE PROJECT. THIS MAY INCLUDE ADJUSTMENTS OR EXCHANGE OF ONE TRAFFIC CONTROL DEVICE FOR ANOTHER. BARRICADE OR STAND MOUNTED SIGNS MAY BE REQUIRED TO BE POST MOUNTED AT A HEIGHT OF 7' FROM THE BOTTOM OF THE SIGN TO THE EDGE OF THE ROADWAY. READJUSTMENTS MAY AGAIN BE REQUIRED IN THE SPRING.
 11. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH THE MMUTCD.
 12. THE CONTRACTOR SHALL COORDINATE WITH THE FINAL SIGNING PROJECT SO THAT THE INSTALLATION OF THE PERMANENT SIGNS IS COMPLETED BEFORE THE PERMANENT ROADWAYS ARE OPEN TO TRAFFIC.
 13. WHEN CONSTRUCTION OCCURS ON OR ADJACENT TO TRAVELED ROADWAYS, TEMPORARY TRAFFIC CONTROL SHALL BE ESTABLISHED AND MAINTAINED IN ACCORDANCE WITH APPENDIX B OF THE MMUTCD.
 14. UNLESS OTHERWISE NOTED, TRAFFIC SIGNS, MARKINGS AND DELINEATION, AND TRAFFIC SIGNALS SHALL BE IN ACCORDANCE WITH THE MINN. TRAFFIC ENGINEER'S MANUAL.
 15. THE CONSTRUCTION SEQUENCE PLANS INDICATE THE GENERAL SEQUENCE OF CONSTRUCTION ONLY. REFER TO DETAILED PLANS FOR ADDITIONAL INFORMATION.
 16. IF THE CONTRACTOR DESIRES TO PERFORM THE WORK IN A SEQUENCE OTHER THAN THAT INDICATED ON THE PLANS, THE CONTRACTOR SHALL SUBMIT THE PROPOSED CHANGES, IN WRITING, TO THE ENGINEER FOR APPROVAL AT LEAST 30 DAYS PRIOR TO COMMENCEMENT OF THE WORK. IF THE SEQUENCE OF CONSTRUCTION CHANGES ARE APPROVED AND THE CHANGES RESULT IN CHANGES TO THE TRAFFIC CONTROL, THE CONTRACTOR SHALL SUBMIT, IN WRITING, REVISED TRAFFIC CONTROL PLANS TO THE ENGINEER FOR APPROVAL, AT LEAST 14 DAYS PRIOR TO IMPLEMENTING THE TRAFFIC CONTROL.
 17. ALL PAVEMENT MARKINGS NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERMANENT STRIPING PLAN.
- BARRIER REFLECTORS
MICROPRISM BARRIER REFLECTORS "REFLEXITE BARRIER MOUNT DELINEATOR" 7-7/8" x 4-1/2", AN APPROVED EQUAL, OR MINIMUM 36 SQ. IN. HI. INT. YELLOW OR WHITE SHEETING MOUNTED ON TOP OF BARRIER OR AS DIRECTED BY ENGINEER.
- TRPM - TEMPORARY RAISED PAVEMENT MARKERS (STIMSONITE #66 WITH BUTYL PAD OR AN APPROVED EQUAL.)

- NOTES:**
1. ALL DIMENSIONS AND SIZES ARE SUBJECT TO FINAL VERIFICATION BEFORE FABRICATION BEGINS.
 2. SIGN PANELS SHALL BE BLACK BORDER AND LETTERING ON REFLECTIVE ORANGE BACKGROUND.
 3. UNLESS OTHERWISE NOTED, BORDER TO BE 1-1/4" AND RADIUS TO BE 6".
 4. MEASUREMENT WILL BE MADE BY THE SQUARE FOOT OF SIGN PANELS FURNISHED AND INSTALLED PAYMENT WILL BE MADE UNDER ITEM NO. 0564.604 CONSTRUCTION SIGNS - SPECIAL.

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 State of Minn. Statutes Sections 326.02 to 326.16.

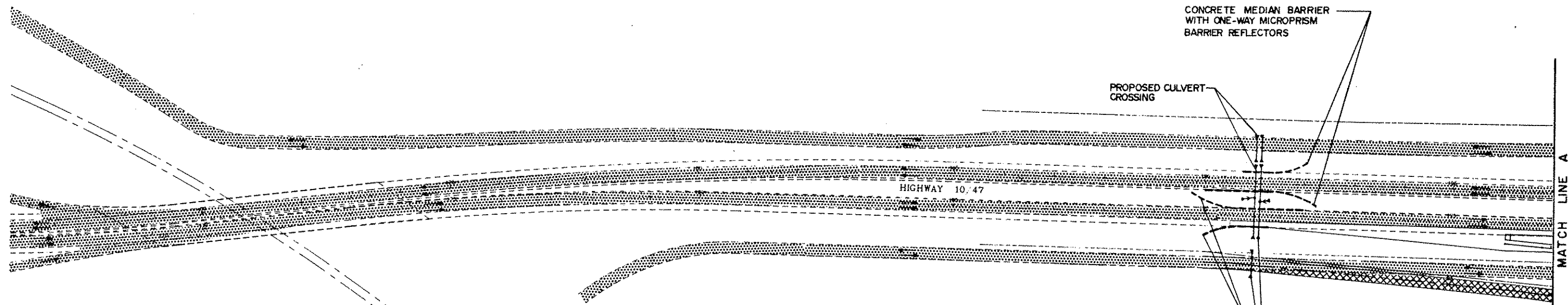
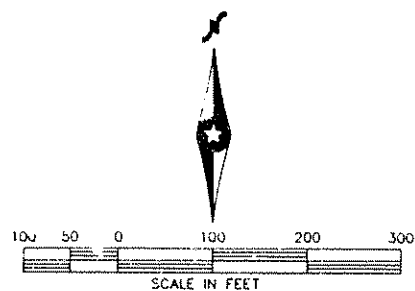
Boyd R. Paulsen

Date: 6-22-89 Minn. Reg. No. 12-655

BRW
BRW, INC.
612-370-9700
Minneapolis, Minnesota

ORIGINAL DATE: 8-8-89
REVISIONS:
DESIGN BY: SKA
DRAWN BY: SKA
SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
SPECIAL SIGN DETAILS



PHASE 1, STAGE 1 OCTOBER 15 TO NOVEMBER 15, 1989

GENERAL:

THE CONSTRUCTION SEQUENCE PLANS INDICATE THE GENERAL SEQUENCE OF CONSTRUCTION ONLY. REFER TO DETAILED PLANS FOR ADDITIONAL INFORMATION.

TRAFFIC:

- W.B. TH 10/47 LANE SHIFT LEFT AND LANES NARROW TO 11 FEET IN VICINITY OF RAMP B DECELERATION LANE. MAINTAIN TWO LANES AND MINIMUM SHOULDERS.
- ALL OTHER TRAFFIC WILL REMAIN ON THE INPLACE ROADWAYS AND THE INPLACE BRIDGE.
- ROUND LAKE BOULEVARD IS CONTINUOUS AND TWO-WAY BETWEEN MAIN STREET AND BUNKER LAKE BOULEVARD.

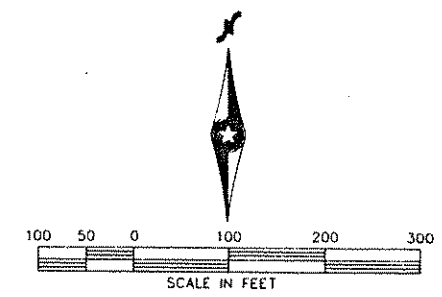
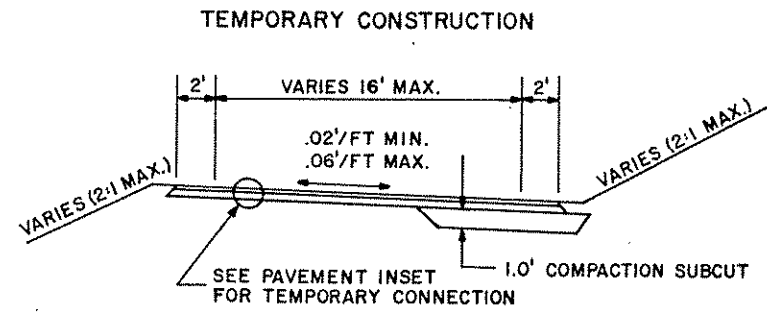
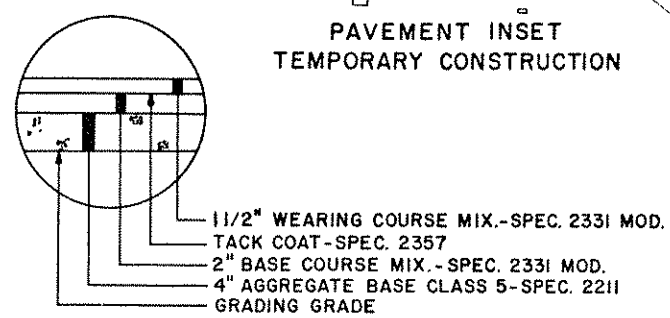
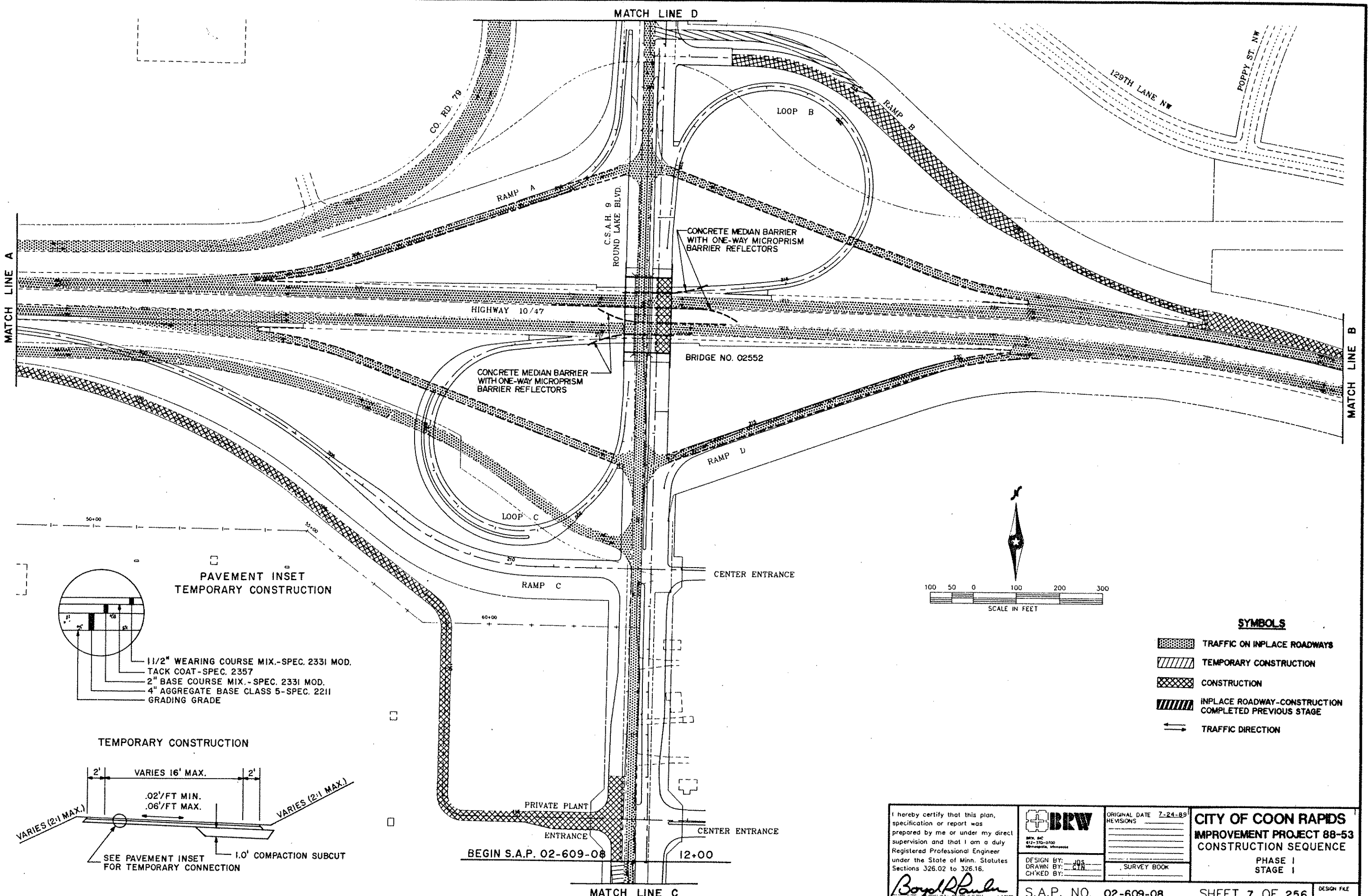
CONSTRUCTION:

- RAMP B INSIDE 26 FEET FROM STA. 212+00 TO 215+50.
- RAMP B FROM STA. 215+50 TO W.B. TH 10/47 DECELERATION LANE.
- S.W. FRONTAGE ROAD FROM STA. 90+00 TO 117+50.
- BRIDGE NO. 02552 EAST 34 FEET.
- RAMP B TEMP. CONNECTION FROM ROUND LAKE BOULEVARD STA. 31+25 TO RAMP B STA. 215+50.
- S.W. FRONTAGE ROAD TEMP. CONNECTION ALONG ROUND LAKE BOULEVARD FROM ROUND LAKE BOULEVARD STA. 9+00 TO 12+00.
- CULVERT CROSSING AT E.B. TH 10/47 STA. 191+05 FROM S.W. FRONTAGE ROAD TO TH 10/47 TO C.R. 79.

SYMBOLS

- TRAFFIC ON INPLACE ROADWAYS
- TEMPORARY CONSTRUCTION
- CONSTRUCTION
- INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
- TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16. Date: 8-22-89 Minn. Reg. No. 12688	 BRW, INC. 812-370-1700 Minneapolis, Minnesota	ORIGINAL DATE 7-24-89 REVISIONS _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 CONSTRUCTION SEQUENCE PHASE I STAGE I
		DESIGN BY: JNS DRAWN BY: CTN CHECKED BY: _____	
S.A.P. NO. 02-609-08		SHEET 6 OF 256	DESIGN FILE No. 16-8840



- SYMBOLS**
- TRAFFIC ON INPLACE ROADWAYS
 - TEMPORARY CONSTRUCTION
 - CONSTRUCTION
 - INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
 - TRAFFIC DIRECTION

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Boyd R. Paulsen
Date: 8-21-89 Minn. Reg. No. 12666

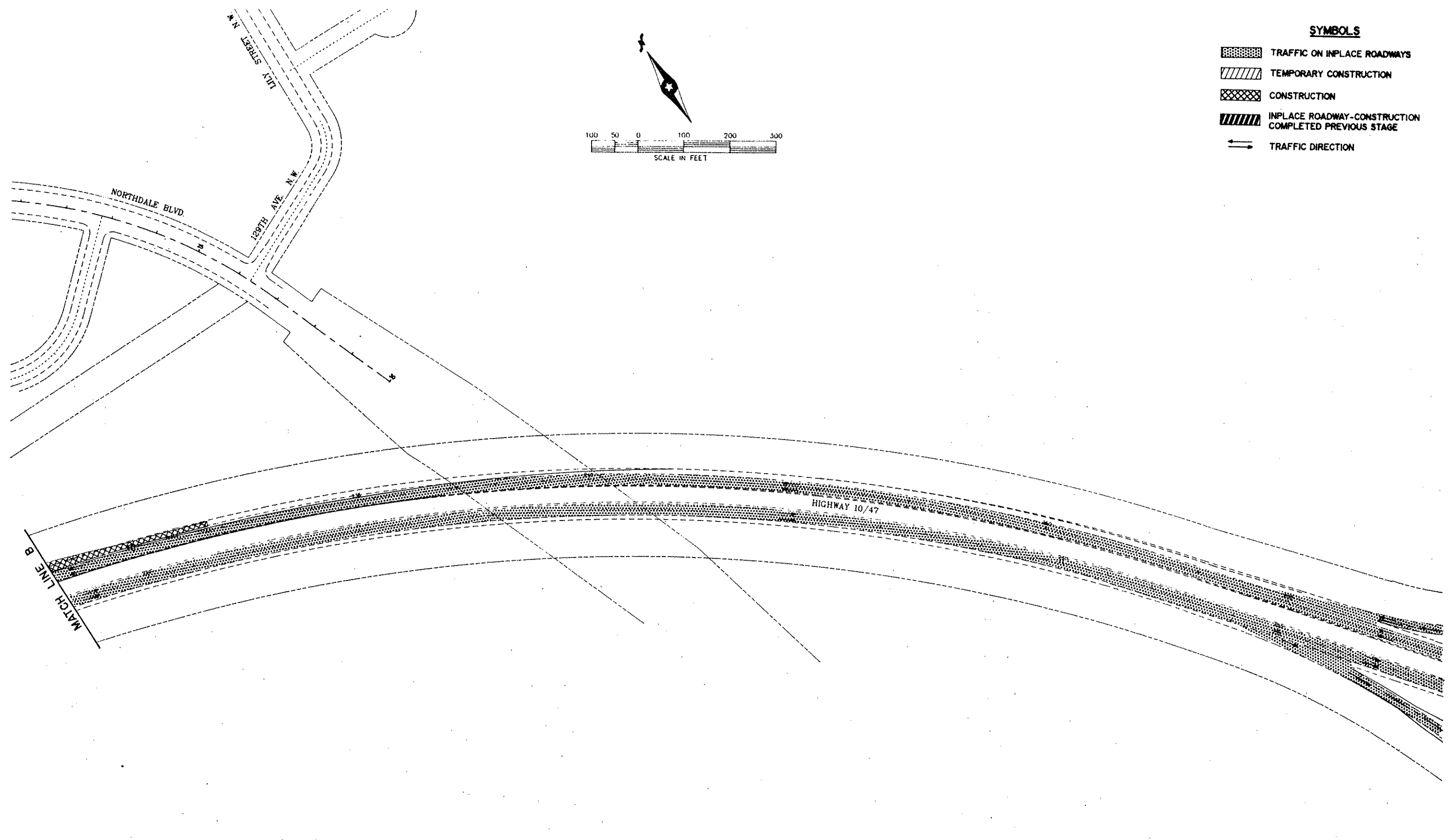
BRW

DESIGN BY: JDS
DRAWN BY: CTR
CHK'D BY:






ORIGINAL DATE	7-24-89
REVISIONS	
SURVEY BOOK	

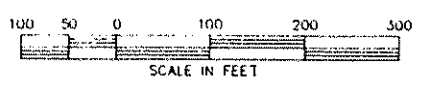
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE


PHASE I
STAGE I

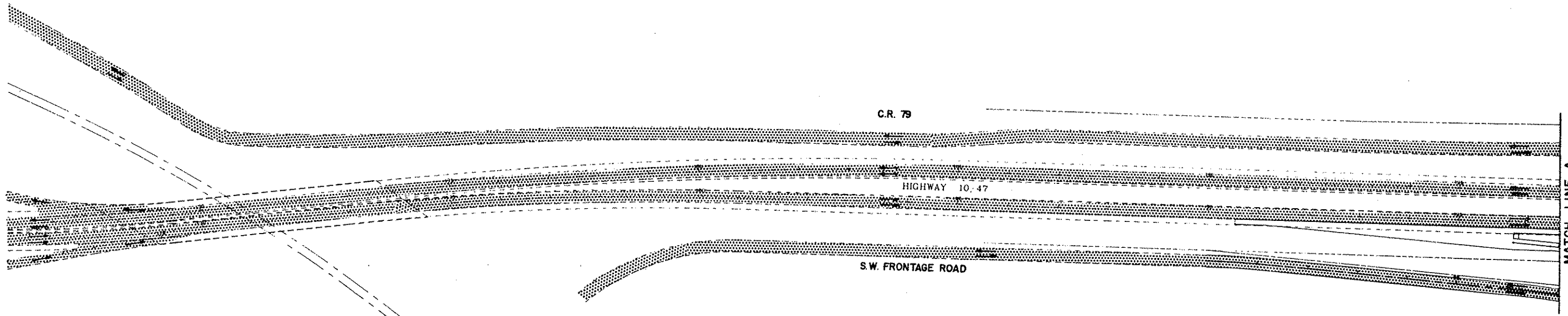
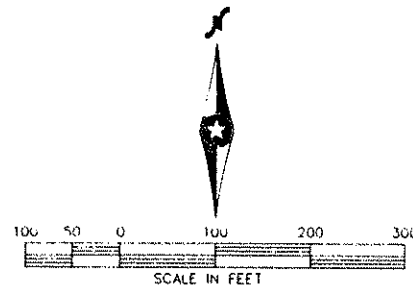


SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



<p>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 State of Minn. Statutes Sections 326.02 to 326.16.</p> <p><i>Boyd Paulsen</i> Date: 8-22-89 Minn. Reg. No. _____</p>	 <small>BRW, INC. 612-370-0766 Minneapolis, MN 55412</small>	ORIGINAL DATE 7-24-89	<p>CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 CONSTRUCTION SEQUENCE PHASE I STAGE I</p>
		REVISIONS	
DESIGN BY: JDS	DATE: _____	S.A.P. NO. _____	
DRAWN BY: CTH	DATE: _____	SHEET 8 OF 256	
CHECKED BY: _____	DATE: _____	DESIGN FILE No. 16-8840	



PHASE 1, STAGE 2 NOVEMBER 15 TO DECEMBER 15, 1989

GENERAL:

- THE CONSTRUCTION SEQUENCE PLANS INDICATE THE GENERAL SEQUENCE OF CONSTRUCTION ONLY. REFER TO DETAILED PLANS FOR ADDITIONAL INFORMATION.

TRAFFIC:

- W.B. TH 10/47 TO ROUND LAKE BOULEVARD IS ON RAMP B/RAMP B TEMP. CONNECTION.
- FEDERAL CARTRIDGE TO ROUND LAKE BOULEVARD IS ON S.W. FRONTAGE ROAD.
- ALL OTHER TRAFFIC WILL REMAIN ON THE INPLACE ROADWAYS AND THE INPLACE BRIDGE.
- ROUND LAKE BOULEVARD IS CONTINUOUS AND TWO-WAY BETWEEN MAIN STREET AND BUNKER LAKE BOULEVARD.

CONSTRUCTION:

- LOOP C FROM STA. 199+00 TO 205+50.
- RAMP C FROM STA. 197+00 TO 212+00.
- LOOP B FROM STA. 215+00 TO 224+00.
- BRIDGE NO. 02552 EAST 34 FEET.

SYMBOLS

- TRAFFIC ON INPLACE ROADWAYS
- TEMPORARY CONSTRUCTION
- CONSTRUCTION
- INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
- TRAFFIC DIRECTION

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Boyd R. Paulsen
Date 8-22-89 Minn. Reg. No 12666

BRW
BRW, INC.
817-370-0700
Minneapolis, Minnesota

DESIGN BY: JDS
DRAWN BY: CTN
CHK'D BY:

ORIGINAL DATE 7-24-89
REVISIONS
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
PHASE 1
STAGE 2

MATCH LINE D

MATCH LINE A

MATCH LINE B

CO. RD. 79

RAMP A

C.S.A.H. 9
ROUND LAKE BLVD.

RAMP B

LOOP B

129TH LANE NW

POPPY ST. NW

CONCRETE MEDIAN BARRIER
WITH ONE-WAY MICRO-
PRISM BARRIER
REFLECTORS

HIGHWAY 10/47

CONCRETE MEDIAN BARRIER
WITH ONE-WAY MICRO-
PRISM BARRIER
REFLECTORS

BRIDGE NO. 02552

RAMP D

LOOP C

RAMP C

CENTER ENTRANCE

50+00

55+00

60+00

PRIVATE PLANT

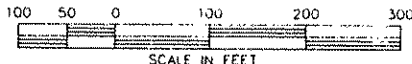
ENTRANCE

CENTER ENTRANCE






BEGIN S.A.P. 02-609-08

12+00

MATCH LINE C



SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

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Boyd Paul

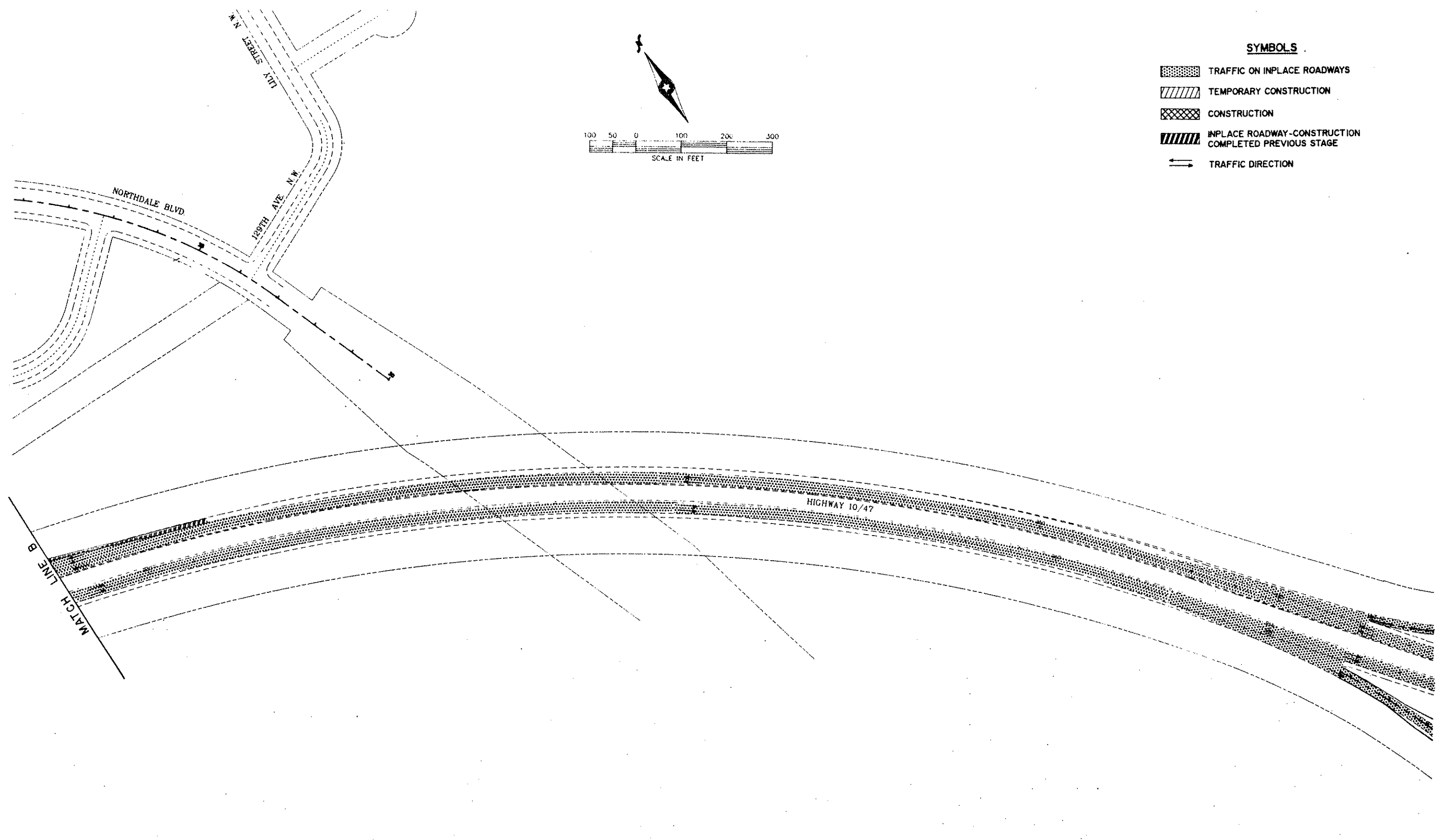
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BRW






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CHECKED BY:

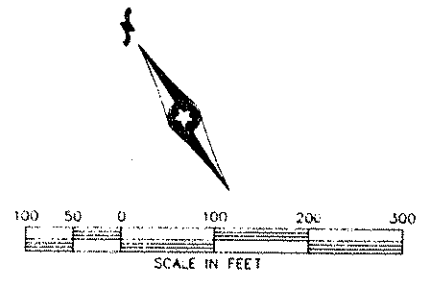
ORIGINAL DATE	7-24-89
REVISIONS	
SURVEY BOOK	


CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
PHASE 1
STAGE 2

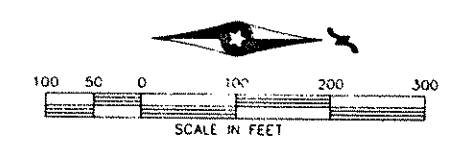


SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



<p>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 State of Minn. Statutes Sections 326.02 to 326.16.</p> <p><i>Boyd Paul</i></p> <p><small>Date 8-22-89 Minn. Reg. No. 12666</small></p>		ORIGINAL DATE 7-24-89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 CONSTRUCTION SEQUENCE PHASE I STAGE 2
		DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 13 OF 256	DESIGN FILE No. 16-8840








C.S.A.H. 9
ROUND LAKE BLVD.

MATCH LINE C

MAIN STREET

SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

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Boyd R. Paulsen

Date: 8-22-89 Minn. Reg. No. 12686



ORIGINAL DATE	7-24-89
REVISIONS	
SURVEY BOOK	

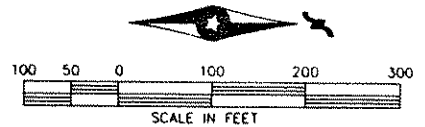
DESIGN BY: JDS
DRAWN BY: EFN
CHECKED BY:

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
PHASE 1
STAGE 2






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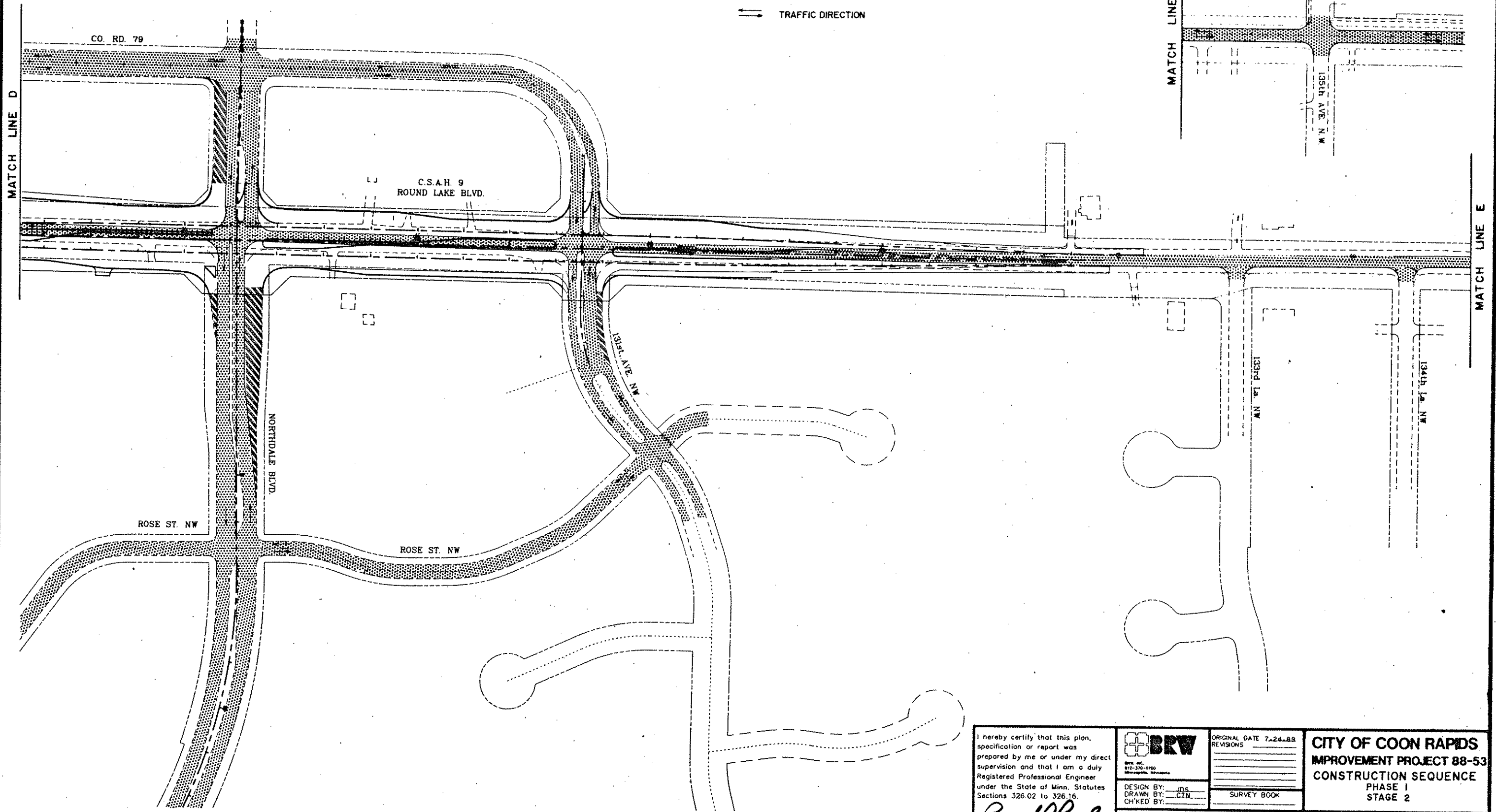
SHEET 14 OF 256

DESIGN FILE No. 15-8840



SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



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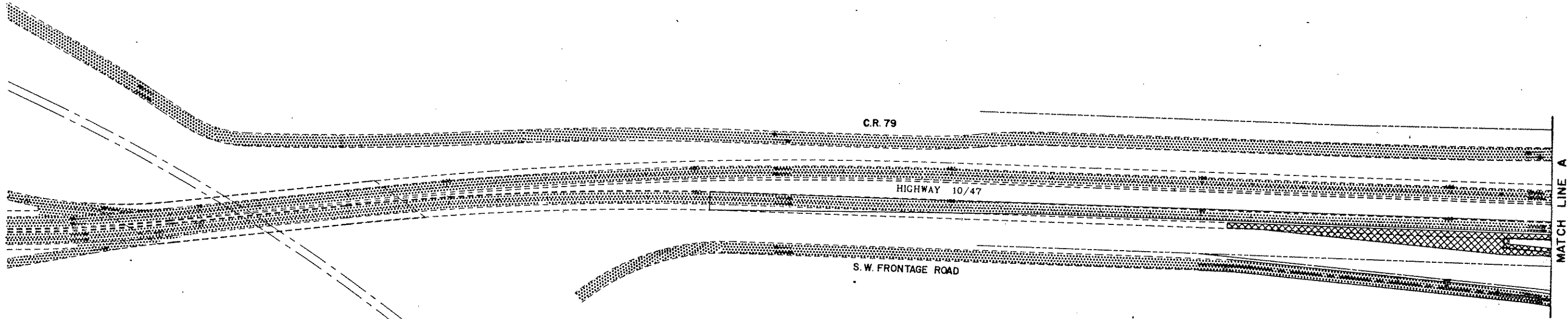
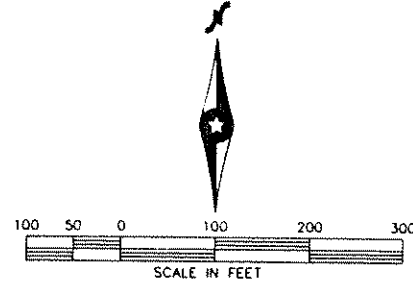
Boyd R. Paul

Date 8-22-89 Minn. Reg. No. 12568



ORIGINAL DATE 7-24-89
REVISIONS
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 1
 STAGE 2



MATCH LINE A

PHASE 1, STAGE 3 APRIL 15 TO JUNE 1, 1990

GENERAL:

- THE CONSTRUCTION SEQUENCE PLANS INDICATE THE GENERAL SEQUENCE OF CONSTRUCTION ONLY. REFER TO DETAILED PLANS FOR ADDITIONAL INFORMATION.

TRAFFIC:

- W.B. TH 10/47 LANE SHIFT LEFT AND LANES NARROW TO 11 FEET BETWEEN RAMP B DECELERATION LANE AND RAMP A ACCELERATION LANE. MAINTAIN TWO LANES AND MINIMUM SHOULDERS.
- E.B. TH 10/47 LANE SHIFT LEFT AND LANES NARROW TO 11 FEET BETWEEN RAMP C DECELERATION LANE AND RAMP D ACCELERATION LANE. MAINTAIN TWO LANES AND MINIMUM SHOULDERS.
- W.B. TH 10/47 TO NORTH ROUND LAKE BOULEVARD IS ON RAMP B/RAMP B TEMP. CONNECTION.
- W.B. TH 10/47 TO SOUTH ROUND LAKE BOULEVARD IS CLOSED - DETOUR VIA MAIN STREET.
- FEDERAL CARTRIDGE TO ROUND LAKE BOULEVARD IS ON S.W. FRONTAGE ROAD/S.W. FRONTAGE ROAD TEMP. CONNECTION.
- E.B. TH 10/47 TO ROUND LAKE BOULEVARD RAMP CLOSED - DETOUR VIA 7TH AVENUE.
- ROUND LAKE BOULEVARD S.B. TO W.B. TH 10/47 IS ON INPLACE RAMP.
- ROUND LAKE BOULEVARD S.B. TO E.B. TH 10/47 IS ON INPLACE RAMP.
- ROUND LAKE BOULEVARD IS NOT CONTINUOUS - NO ACCESS BETWEEN S.W. FRONTAGE ROAD AND TH 10/47.

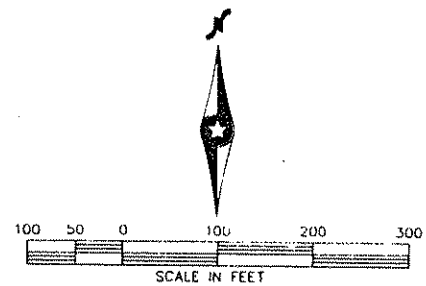
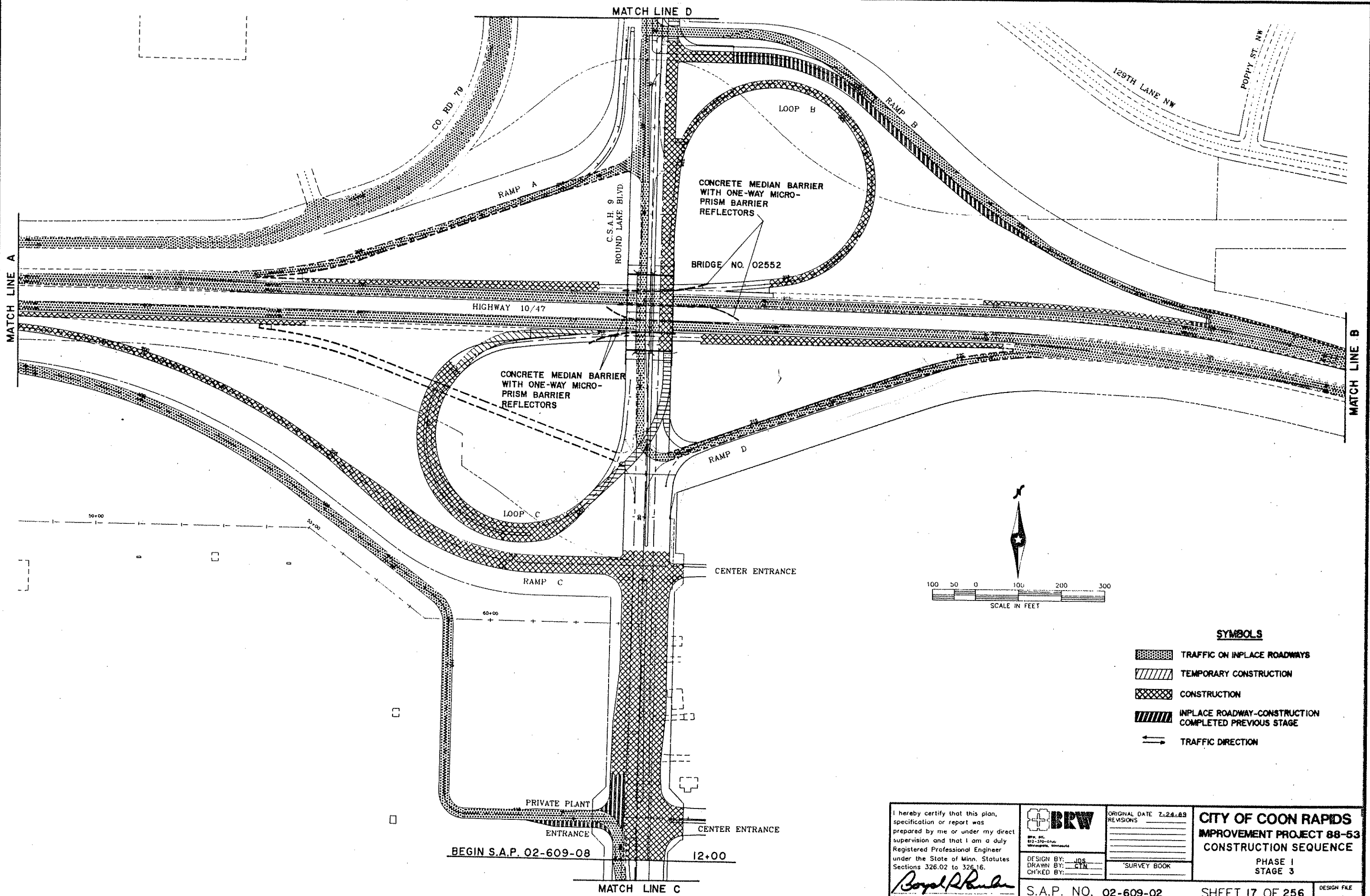
CONSTRUCTION:

- LOOP C FROM STA. 200+00 TO 206+50.
- E.B. TH 10/47 OUTSIDE SHOULDER FROM STA. 213+00 TO 220+00.
- LOOP B FROM STA. 214+50 TO ROUND LAKE BOULEVARD N.B.
- W.B. TH 10/47 OUTSIDE SHOULDER FROM STA. 203+50 TO 210+50.
- RAMP C FROM E.B. TH 10/47 DECELERATION LANE TO ROUND LAKE BOULEVARD S.B.
- E.B. TH 10/47 OUTSIDE SHOULDER FROM STA. 196+00 TO 204+00.
- ROUND LAKE BOULEVARD N.B. AND S.B. FROM STA 12+00 TO 19+25.
- ROUND LAKE BOULEVARD N.B. (EAST OF CENTERLINE ROUND LAKE BOULEVARD N.B.) FROM STA. 26+00 TO 31+00 AND FROM STA. 32+00 TO 55+00.
- RAMP B INSIDE TWO LANES FROM ROUND LAKE BOULEVARD N.B. TO STA. 212+00.
- BRIDGE NO. 02552 EAST 34 FEET.
- ROUND LAKE BOULEVARD N.B. TEMP. WIDENING FROM STA. 47+50 TO 57+50.
- ROUND LAKE BOULEVARD TEMP. CONNECTION FROM STA. 31+00 TO 32+00.
- LOOP C TEMP. CONNECTION FROM BRIDGE TO STA. 200+00.
- LOOP C TEMP. CONNECTION FROM 206+50 TO E.B. TH 10/47.

SYMBOLS

- TRAFFIC ON INPLACE ROADWAYS
- TEMPORARY CONSTRUCTION
- CONSTRUCTION
- INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
- TRAFFIC DIRECTION

<p>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 State of Minn. Statutes Sections 326.02 to 326.16.</p> <p style="text-align: right;"><i>Boyd R. Paulsen</i> Date: 8-22-89 Minn. Reg. No. 12666</p>		ORIGINAL DATE: 2-24-89 REVISIONS:	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 CONSTRUCTION SEQUENCE PHASE 1 STAGE 3
		DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 16 OF 256	DESIGN FILE No. 16-8840



- SYMBOLS**
- TRAFFIC ON INPLACE ROADWAYS
 - TEMPORARY CONSTRUCTION
 - CONSTRUCTION
 - INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
 - TRAFFIC DIRECTION

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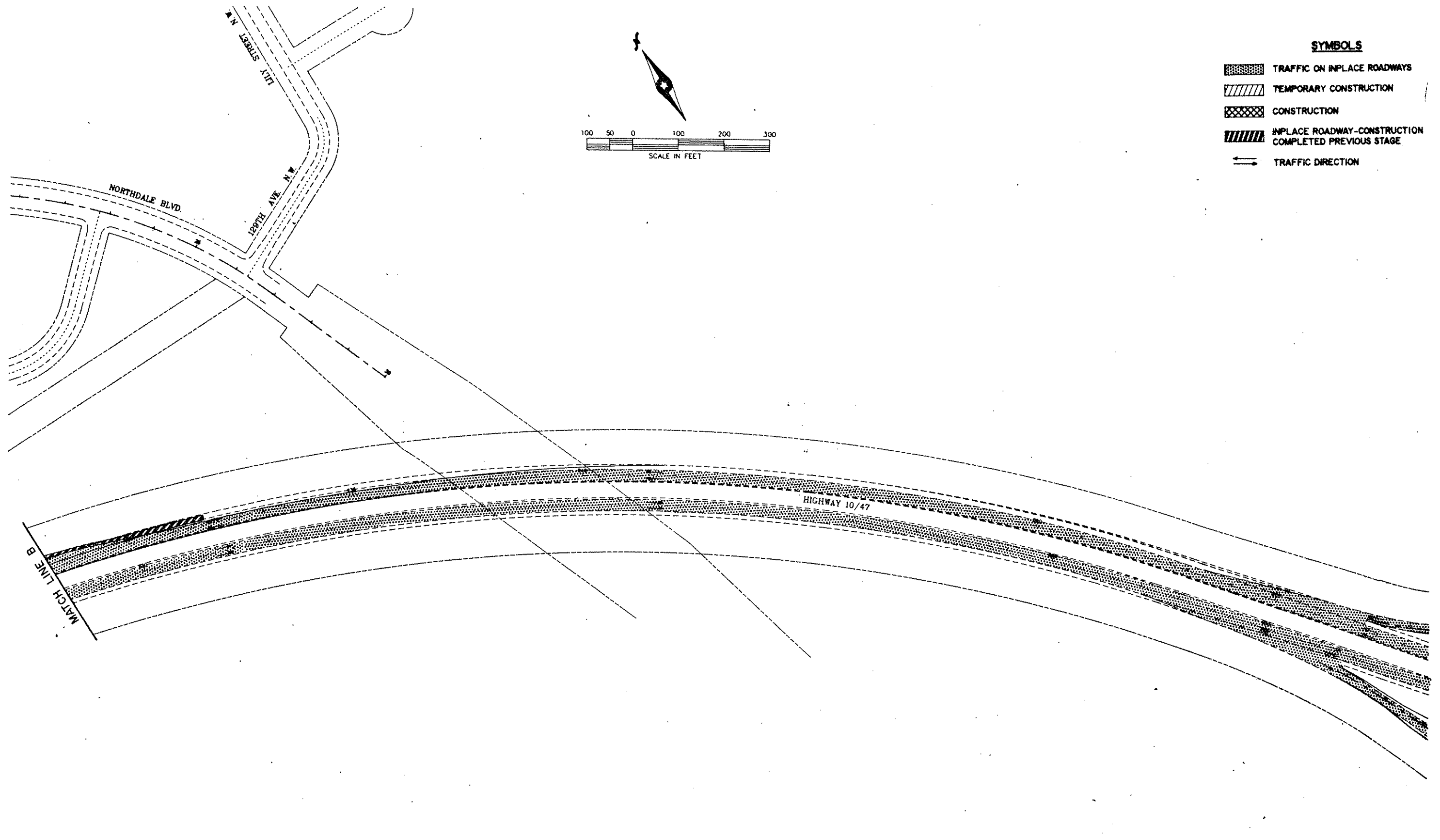
Boyd R. Rucker
 Date 8-22-89 Minn. Reg. No. 12686

BRW <small>BRW, INC. 812-370-0100 MINNEAPOLIS, MINNESOTA</small>	ORIGINAL DATE 7-24-89
	REVISIONS
DESIGN BY: JDS	SURVEY BOOK
DRAWN BY: CTN	
CHECKED BY:	






CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE

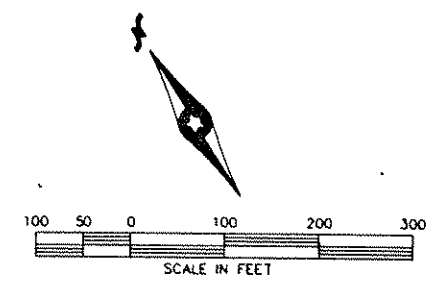
PHASE 1
 STAGE 3

BEGIN S.A.P. 02-609-08 12+00



SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



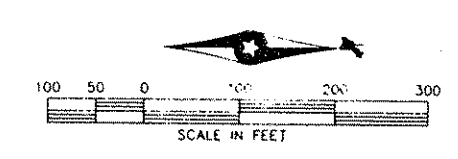
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Joseph Paulsen
Date: 2-22-89 Minn. Reg. No. J2666



ORIGINAL DATE	7-24-89
REVISIONS	
DESIGN BY:	JDS
DRAWN BY:	CTR
CHECKED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE I
 STAGE 3








C.S.A.H. 9
ROUND LAKE BLVD.

MATCH LINE C

MAIN STREET

SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

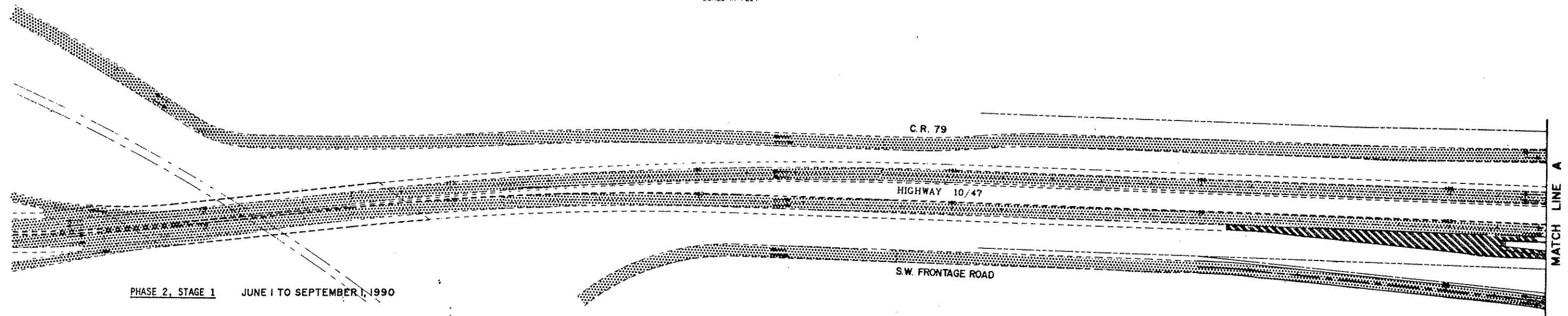
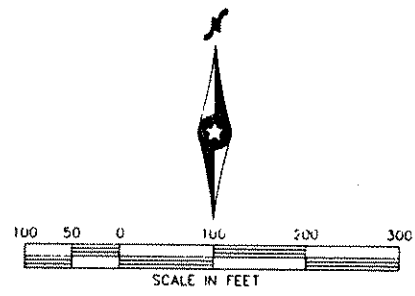
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Boyd R. Paulsen
Date 8-22-89, Minn. Reg. No. 12666



ORIGINAL DATE	7-24-89
REVISIONS	
DESIGN BY:	JDS
DRAWN BY:	CTN
CHECKED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
PHASE 1
STAGE 3



PHASE 2, STAGE 1 JUNE 1 TO SEPTEMBER 1, 1990

GENERAL:

THE CONSTRUCTION SEQUENCE PLANS INDICATE THE GENERAL SEQUENCE OF CONSTRUCTION ONLY. REFER TO DETAILED PLANS FOR ADDITIONAL INFORMATION.






TRAFFIC:

- W.B. TH 10/47 TO NORTH ROUND LAKE BOULEVARD IS ON RAMP B WITH TEMP. LANE RESTRICTIONS.
- W.B. TH 10/47 TO SOUTH ROUND LAKE BOULEVARD IS CLOSED - DETOUR VIA MAIN STREET.
- E.B. TH 10/47 TO ROUND LAKE BOULEVARD RAMP CLOSED - DETOUR VIA 7TH AVENUE.
- ROUND LAKE BOULEVARD S.B. TO W.B. TH 10/47 IS ON LOOP C/LOOP C TEMP. CONN.
- FEDERAL CARTRIDGE TO ROUND LAKE BOULEVARD IS ON S.W. FR. RD./S.W. FR. RD. TEMP. CONN.
- ROUND LAKE BOULEVARD N.B. AND S.B. IS ON ROUND LAKE BOULEVARD N.B./ROUND LAKE BOULEVARD N.B. TEMP. WIDENING.
- TH 10/47 ON INPLACE 12-FOOT LANES WITH SHOULDERS

CONSTRUCTION:

- RAMP D FROM STA. 215+00 TO 220+00.
- RAMP A FROM STA. 204+50 TO 205+50 AND FROM STA. 209+00 TO ROUND LAKE BOULEVARD S.B.
- ROUND LAKE BOULEVARD S.B. (WEST OF CENTERLINE ROUND LAKE BOULEVARD S.B.) FROM BRIDGE TO STA. 30+50.
- ROUND LAKE BOULEVARD S.B. (WEST OF CENTERLINE ROUND LAKE BOULEVARD N.B.) FROM STA. 30+50 TO 55+50.
- REMOVE INPLACE BRIDGE.
- BRIDGE NO. 02552 WEST 75 FEET.
- RAMP D TEMP. CONNECTION FROM ROUND LAKE BOULEVARD N.B. STA. 22+50 TO RAMP D STA. 215+00.
- LOOP C TEMP. CONNECTION FROM ROUND LAKE BOULEVARD N.B. STA. 27+00 TO ROUND LAKE BOULEVARD S.B. STA. 30+50.
- WATERMAIN CROSSING AT E.B. TH 10/47 STA. 205+25 FROM TH 10/47 TO RAMP A.

SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

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Boyd R. Parker
 Date: 8-22-89 Minn. Reg. No. 12666

BRW
 INC.
 812-278-9700
 Minneapolis, Minnesota

DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE	2-24-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-63
CONSTRUCTION SEQUENCE
 PHASE 2
 STAGE 1

S.A.P. NO. 02-609-08 SHEET 21 OF 256

DESIGN FILE No. 16-8840

MATCH LINE D

MATCH LINE A

MATCH LINE B

MATCH LINE C

CO. RD. 7B

129TH LANE NW

POPPY ST. NW

LOOP B

CONCRETE MEDIAN BARRIER WITH ONE-WAY MICROPRISM BARRIER REFLECTORS

CONCRETE MEDIAN BARRIER WITH ONE-WAY MICROPRISM BARRIER REFLECTORS

BRIDGE NO. 02552

HIGHWAY 10/47

PROPOSED WATERMAIN CROSSING

CONCRETE MEDIAN BARRIER WITH ONE-WAY MICROPRISM BARRIER REFLECTORS

REMOVE INPLACE BRIDGE

LOOP C

RAMP D

RAMP C

CENTER ENTRANCE

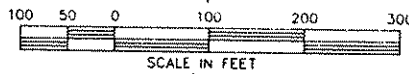
PRIVATE PLANT

ENTRANCE

CENTER ENTRANCE

BEGIN S.A.P. 02-609-08

12+00



SYMBOLS

- TRAFFIC ON INPLACE ROADWAYS
- TEMPORARY CONSTRUCTION
- CONSTRUCTION
- INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
- TRAFFIC DIRECTION

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Boyd Bauer

Date: 8-22-89 Minn. Reg. No. 12666

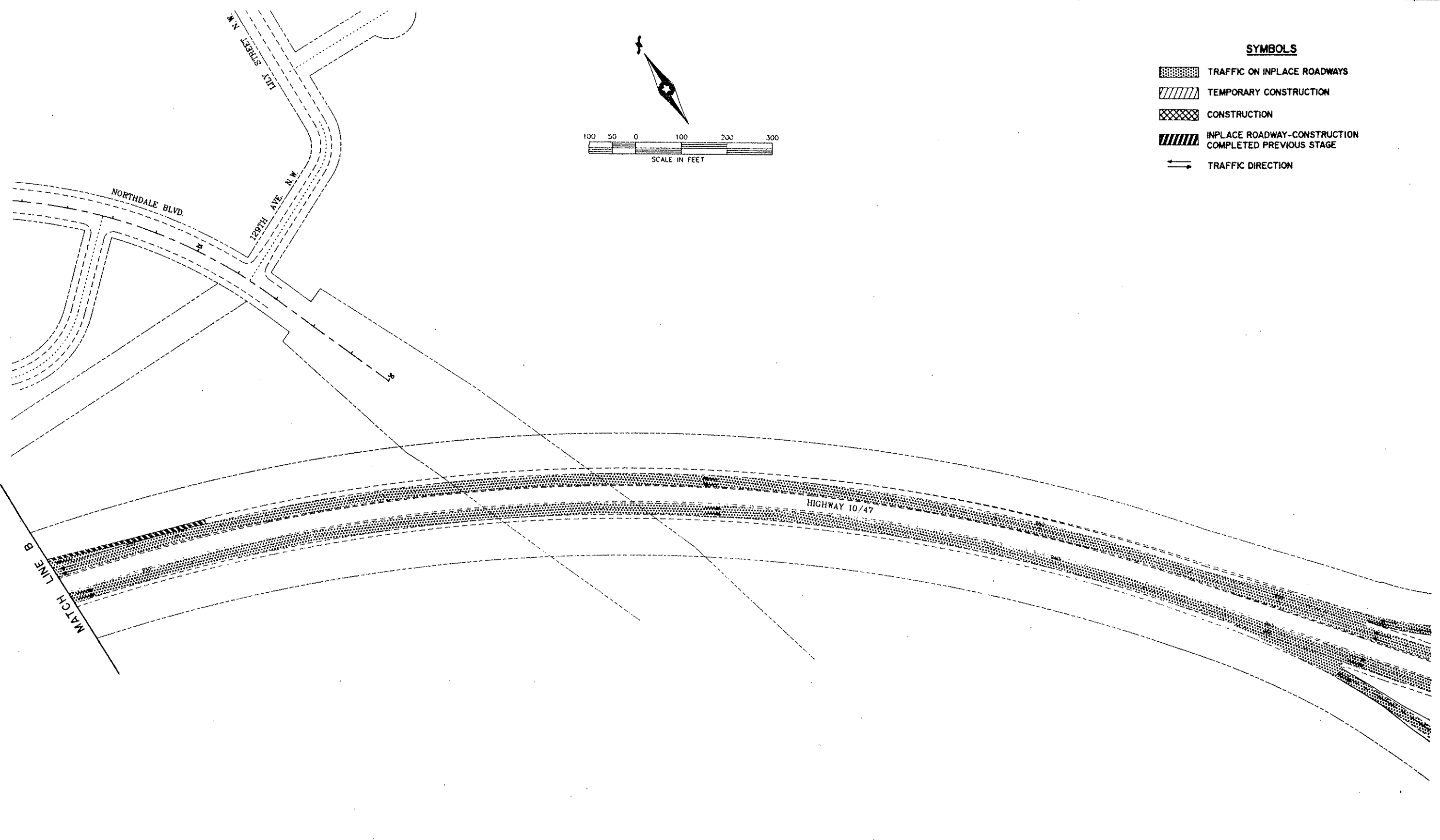
BRW

BRW, INC.
813-370-0700
Minneapolis, Minnesota






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DRAWN BY: CTN
CHECKED BY:

ORIGINAL DATE	7-24-89
REVISIONS	
SURVEY BOOK	


CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
PHASE 2
STAGE 1

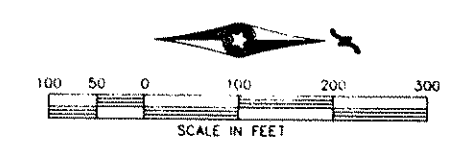


SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



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		DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 23 OF 256	<small>DESIGN FILE No. 16-8840</small>








C.S.A.H. 9
ROUND LAKE BLVD.

MATCH LINE C

MAIN STREET

SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

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Boyd Paul

Date: 8-22-89 Minn. Reg. No. 12666

BRW
BRW, INC.
812-370-0700
Minneapolis, Minnesota






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DRAWN BY: CTN
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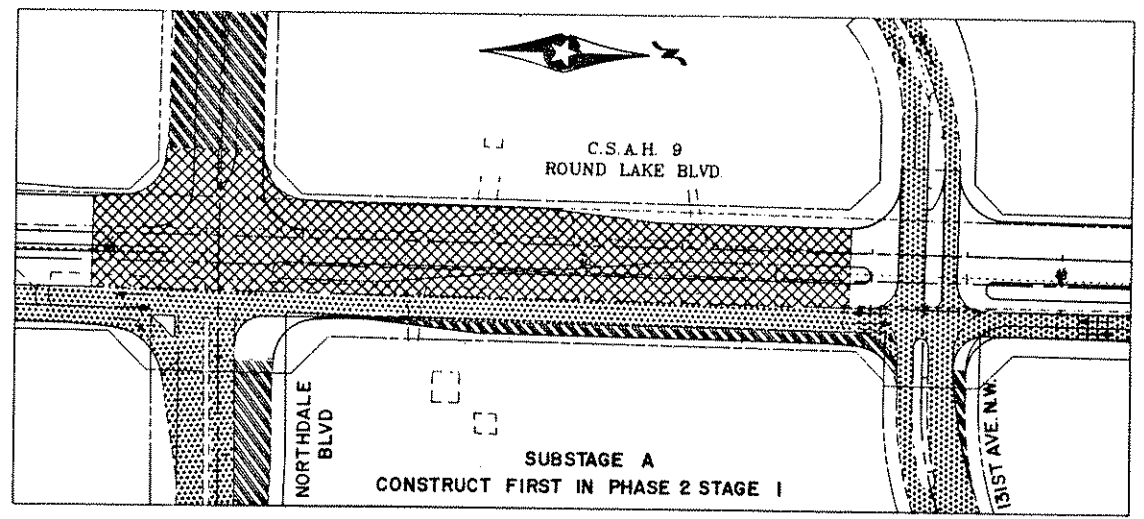
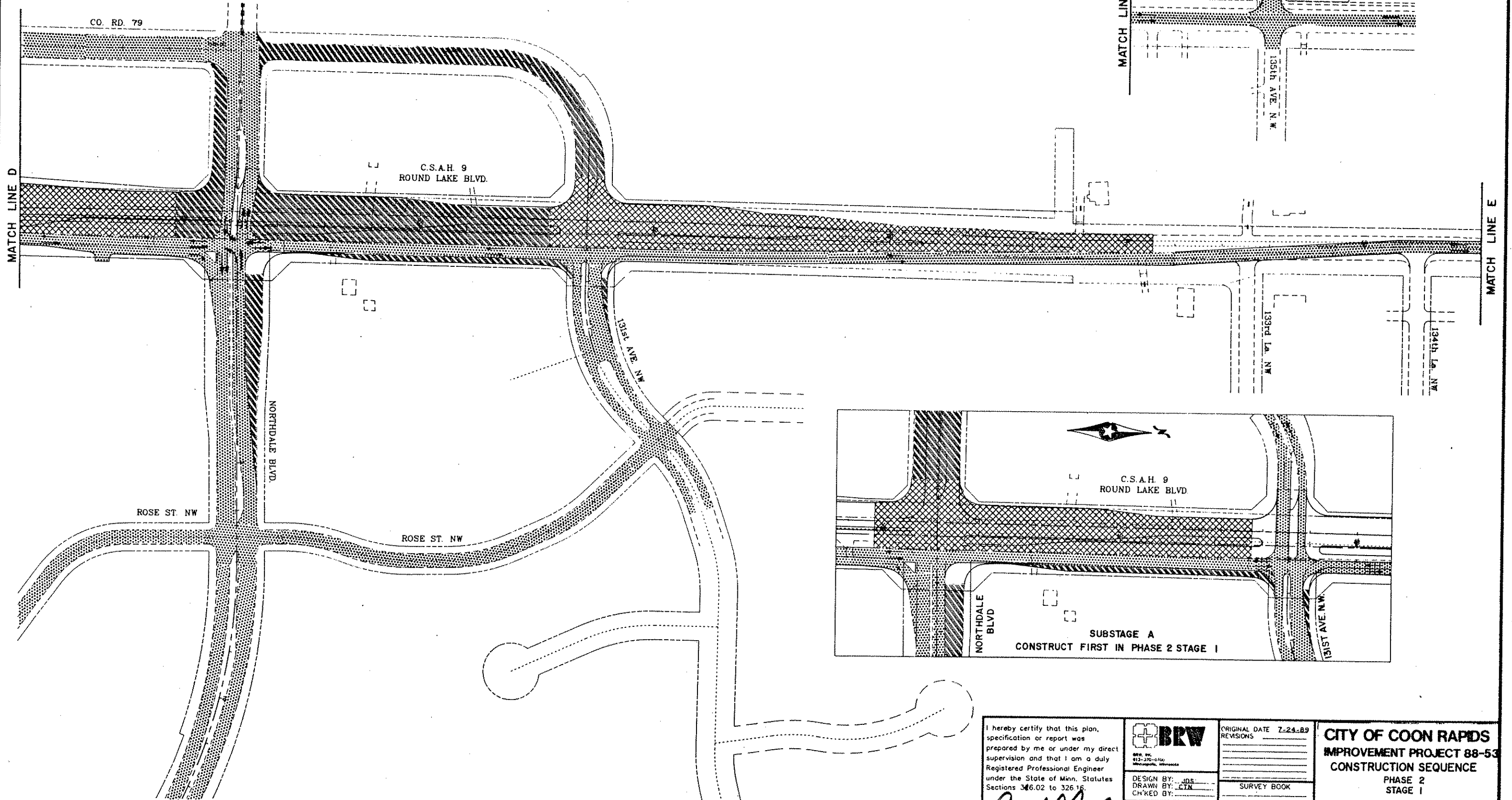
ORIGINAL DATE 7-24-89
REVISIONS
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE

PHASE 2
STAGE 1


SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

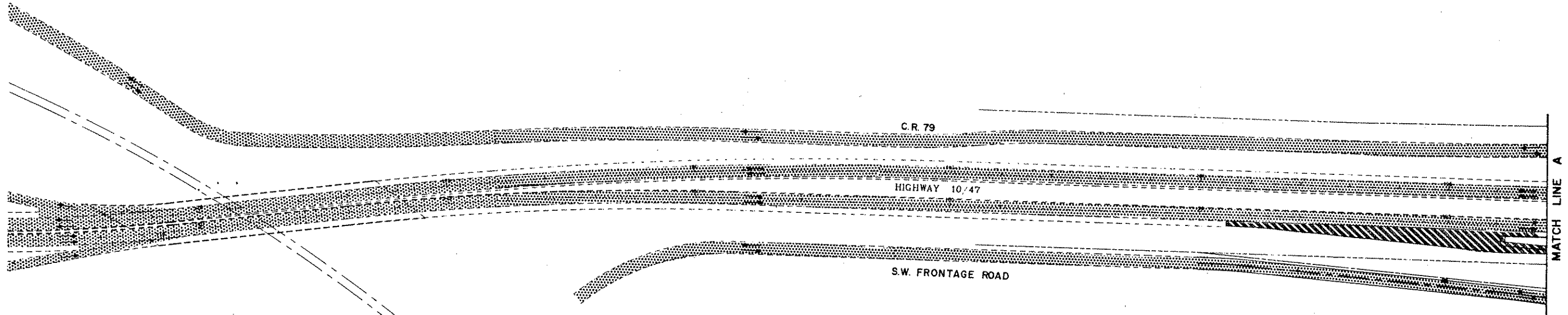
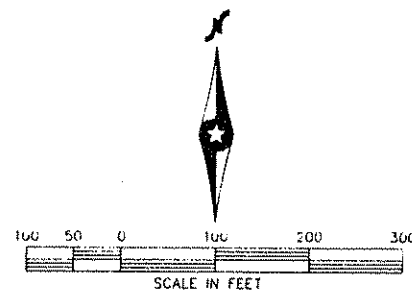


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 346.02 to 326.16.

Boyd R. ...
 Date: 8-22-89 Minn. Reg. No. 12666

 BRW, INC. 813-370-0100 Minneapolis, Minnesota	ORIGINAL DATE: 7-24-89 REVISIONS:
	DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 2
 STAGE 1



PHASE 2, STAGE 2 SEPTEMBER 1 TO OCTOBER 1, 1990

GENERAL:

THE CONSTRUCTION SEQUENCE PLANS INDICATE THE GENERAL SEQUENCE OF CONSTRUCTION ONLY. REFER TO DETAILED PLANS FOR ADDITIONAL INFORMATION.

TRAFFIC:

- W.B. TH 10/47 TO NORTH ROUND LAKE BOULEVARD IS ON RAMP B WITH TEMP. LANE RESTRICTIONS.
- W.B. TH 10/47 TO SOUTH ROUND LAKE BOULEVARD IS CLOSED - DETOUR VIA MAIN STREET.
- E.B. TH 10/47 TO ROUND LAKE BOULEVARD RAMP CLOSED - DETOUR VIA 7TH AVENUE.
- ROUND LAKE BOULEVARD S.B. TO W.B. TH 10/47 IS ON RAMP A.
- ROUND LAKE BOULEVARD S.B. TO E.B. TH 10/47 IS ON RAMP D/RAMP D TEMP. CONNECTION.
- FEDERAL CARTRIDGE TO ROUND LAKE BOULEVARD IS ON S.W. FR. RD./S.W. FR. RD. TEMP. CONN.
- ROUND LAKE BOULEVARD S.B. OPEN WITH TEMP. LANE RESTRICTIONS.
- ROUND LAKE BOULEVARD N.B. OPEN WITH TEMP. LANE RESTRICTIONS.
- TH 10/47 ON INPLACE 12-FOOT LANES WITH SHOULDERS.

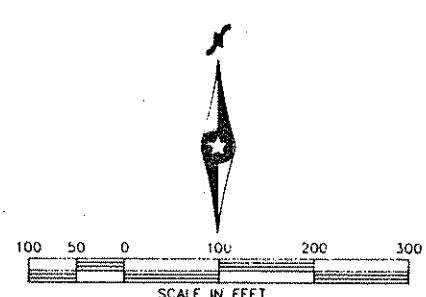
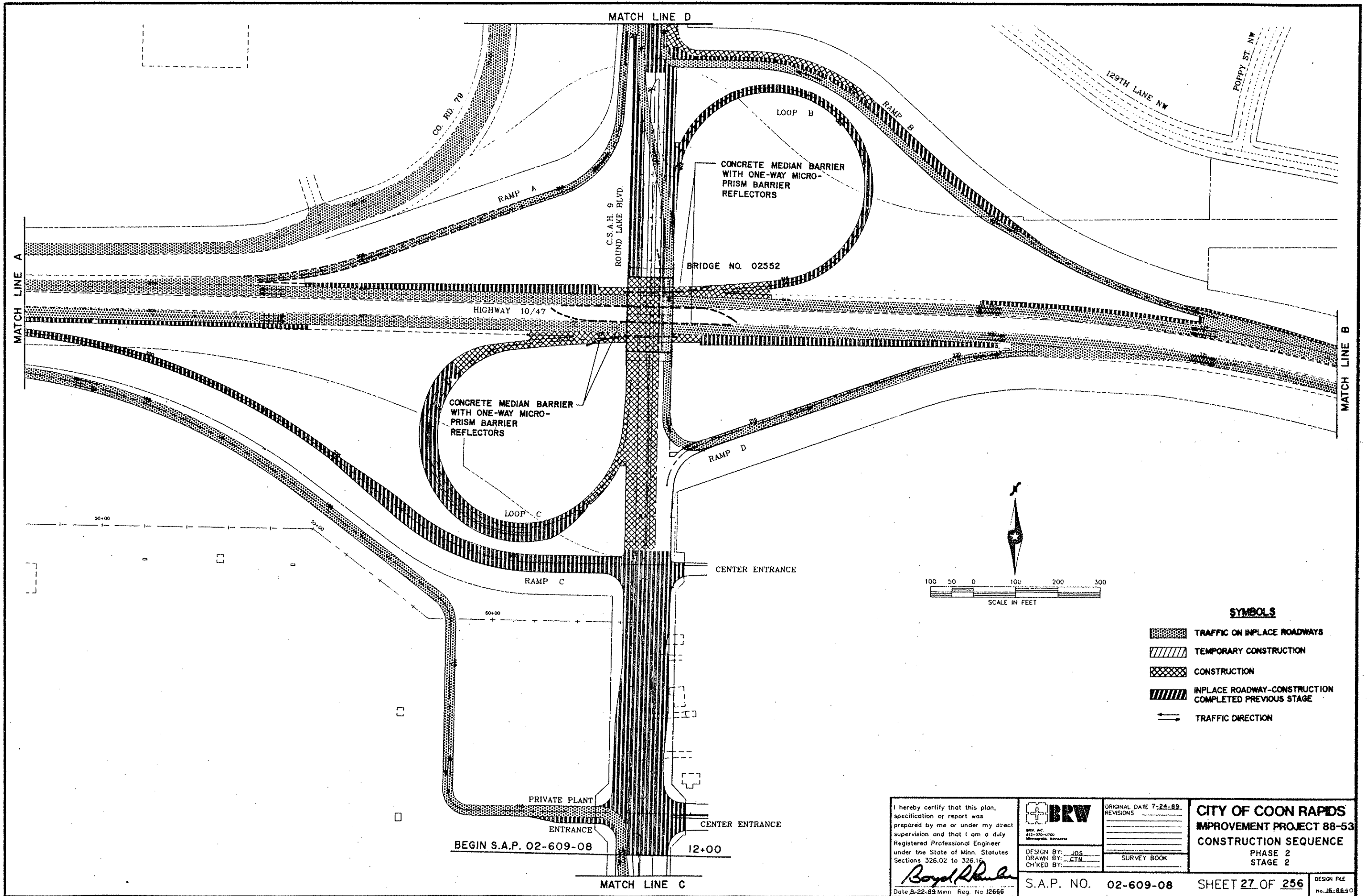
CONSTRUCTION:






- LOOP B ACCELERATION LANE FROM W.B. TH 10/47 STA. 210+50 TO 214+50.
- LOOP C FROM STA. 198+50 TO 200+00.
- LOOP C FROM STA. 206+50 TO 208+50.
- LOOP C ACCELERATION LANE FROM E.B. TH 10/47 STA. 209+00 TO 212+50.
- RAMP B OUTSIDE LANE FROM ROUND LAKE BOULEVARD TO STA. 215+50.
- ROUND LAKE BOULEVARD N.B. (EAST OF CENTERLINE ROUND LAKE BOULEVARD N.B.) FROM STA. 31+00 TO 32+00.
- ROUND LAKE BOULEVARD S.B. (WEST OF CENTERLINE ROUND LAKE BOULEVARD N.B.) FROM STA. 19+25 TO BRIDGE.

SYMBOLS

- TRAFFIC ON INPLACE ROADWAYS
- TEMPORARY CONSTRUCTION
- CONSTRUCTION
- INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
- TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16. <small>Date: 8-22-89 Minn. Reg. No. 12866</small>		ORIGINAL DATE REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 CONSTRUCTION SEQUENCE PHASE 2 STAGE 2
	DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:	SURVEY BOOK	S.A.P. NO. 02-609-08



- SYMBOLS**
-  TRAFFIC ON INPLACE ROADWAYS
 -  TEMPORARY CONSTRUCTION
 -  CONSTRUCTION
 -  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
 -  TRAFFIC DIRECTION

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Boyd R. ...

Date 8-22-89 Minn. Reg. No. 12668

BRW

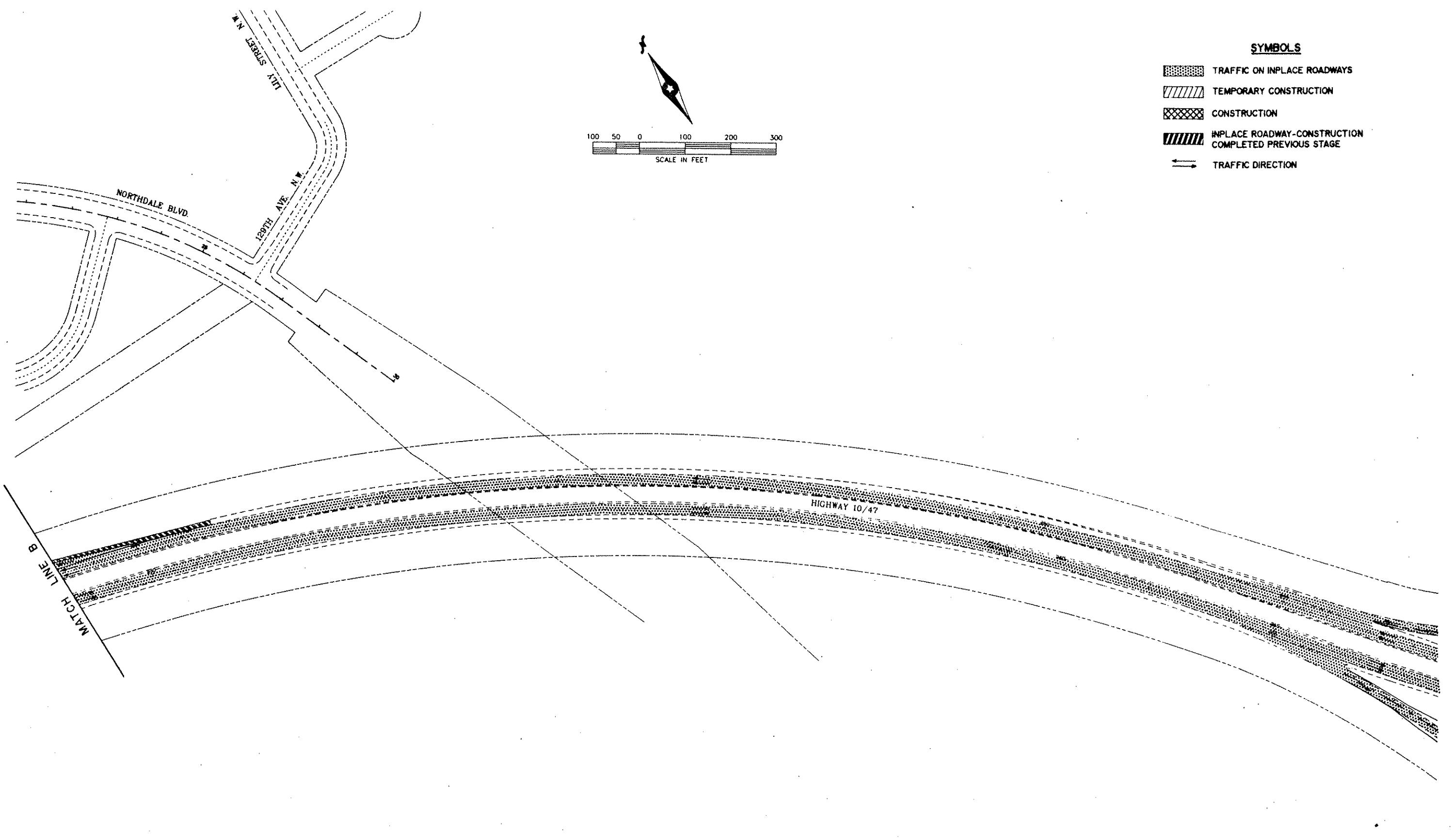
DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE 7-24-89
 REVISIONS
 SURVEY BOOK






CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 2
 STAGE 2

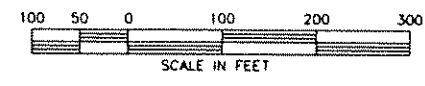
BEGIN S.A.P. 02-609-08 12+00


S.A.P. NO. 02-609-08 SHEET 27 OF 256 DESIGN FILE No. 16-8840

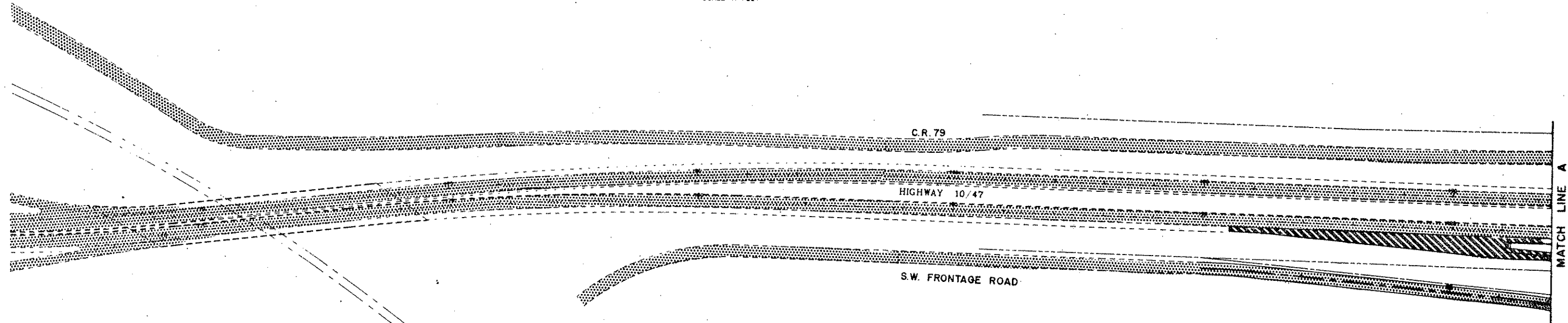
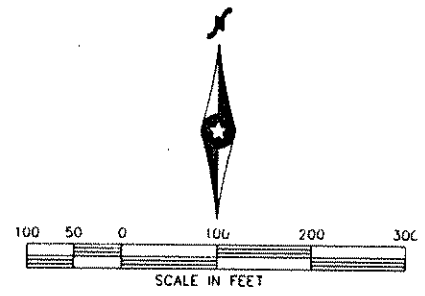


SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



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		<p>DESIGN BY: JDS</p> <p>DRAWN BY: CTR</p> <p>CHKD BY:</p>	
<p>S.A.P. NO. 02-609-08</p>		<p>SHEET 20 OF 256</p>	<p>DESIGN FILE No. 15-8840</p>



MATCH LINE A

PHASE 2, STAGE 3 OCTOBER 1 TO OCTOBER 15, 1990

GENERAL:

THE CONSTRUCTION SEQUENCE PLANS INDICATE THE GENERAL SEQUENCE OF CONSTRUCTION ONLY. REFER TO DETAILED PLANS FOR ADDITIONAL INFORMATION.

TRAFFIC:

- W.B. TH 10/47 TO NORTH ROUND LAKE BOULEVARD IS ON RAMP B WITH TEMP. LANE RESTRICTIONS.
- W.B. TH 10/47 TO SOUTH ROUND LAKE BOULEVARD IS CLOSED - DETOUR VIA MAIN STREET.
- E.B. TH 10/47 TO ROUND LAKE BOULEVARD IS CLOSED - DETOUR VIA 7TH AVENUE.
- ROUND LAKE BOULEVARD S.B. TO W.B. TH 10/47 IS ON RAMP A.
- ROUND LAKE BOULEVARD S.B. TO E.B. TH 10/47 IS ON LOOP C.
- FEDERAL CARTRIDGE TO ROUND LAKE BOULEVARD IS ON S.W. FR. RD./S.W. FR. RD. TEMP. CONNECTION.
- ROUND LAKE BOULEVARD S.B. OPEN WITH TEMP. LANE RESTRICTIONS.
- ROUND LAKE BOULEVARD N.B. OPEN WITH TEMP. LANE RESTRICTIONS.
- TH 10/47 ON INPLACE 12-FOOT LANES WITH SHOULDERS.

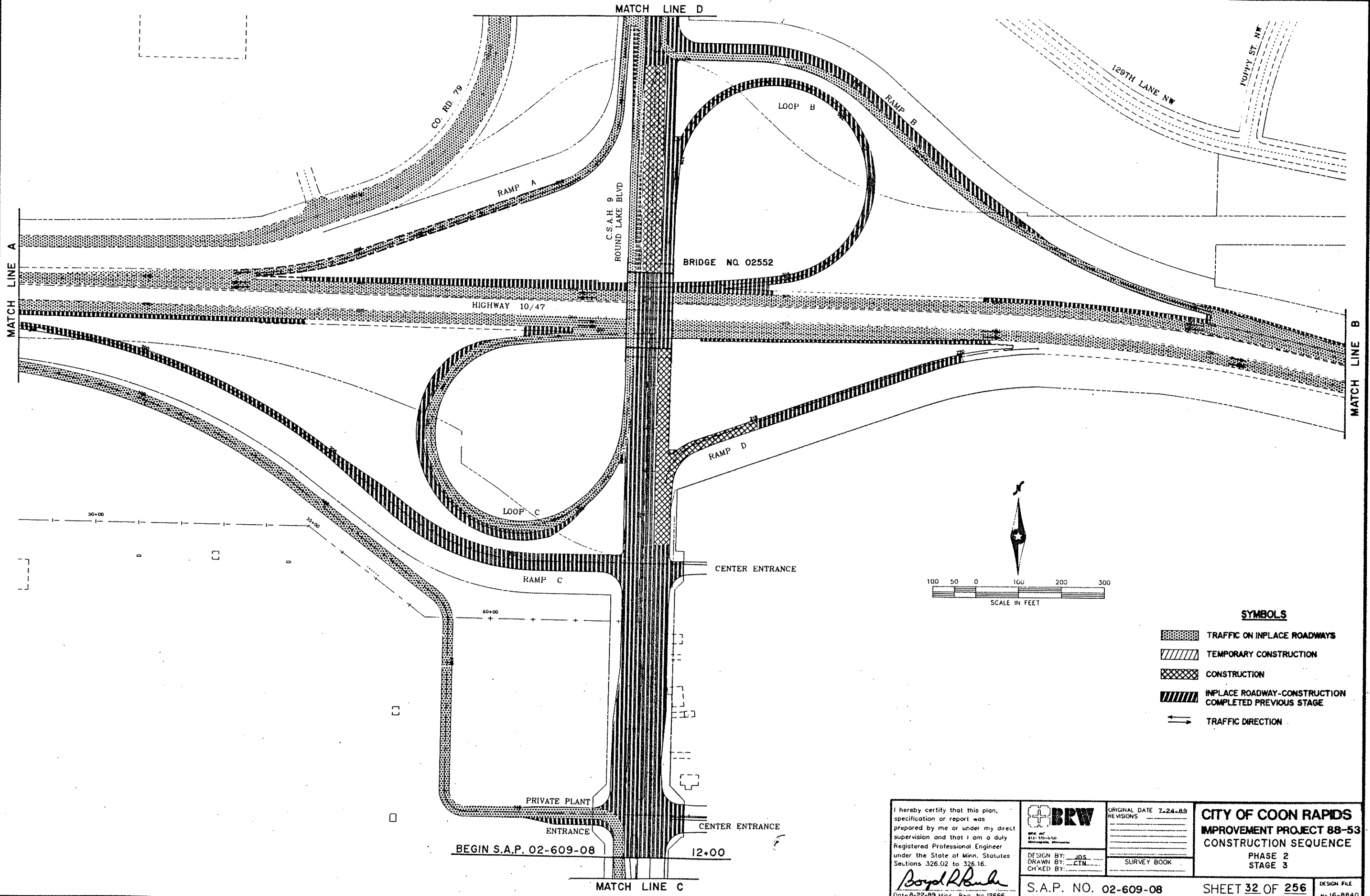
CONSTRUCTION:

- ROUND LAKE BOULEVARD N.B. AND S.B. INSIDE LANES AND MEDIAN FROM BRIDGE TO STA. 30+50.
- ROUND LAKE BOULEVARD N.B. (EAST OF CENTERLINE ROUND LAKE BOULEVARD N.B.) FROM STA. 19+25 TO BRIDGE.
- RAMP D FROM ROUND LAKE BOULEVARD N.B. TO STA. 215+00.






SYMBOLS

- TRAFFIC ON INPLACE ROADWAYS
- TEMPORARY CONSTRUCTION
- CONSTRUCTION
- INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
- TRAFFIC DIRECTION

<p>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 State of Minn. Statutes Sections 326.02 to 326.16.</p> <p style="text-align: right;"><i>Boyd R. Rankin</i></p> <p style="font-size: small;">Date 8-22-89 Minn. Reg. No. 12656</p>	<p style="font-size: x-small;">BRW, INC. 612-376-0700 Minneapolis, Minnesota</p>	<p>ORIGINAL DATE 7-24-89</p> <p>REVISIONS</p>	<p>CITY OF COON RAPIDS</p> <p>IMPROVEMENT PROJECT 88-63</p> <p>CONSTRUCTION SEQUENCE</p> <p>PHASE 2 STAGE 3</p>
		<p>DESIGN BY: JRS</p> <p>DRAWN BY: GTH</p> <p>CHECKED BY:</p>	
<p>S.A.P. NO. 02-609-08</p>		<p>SHEET 31 OF 256</p>	<p>DESIGN FILE No. 16-8890</p>



SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Bunker

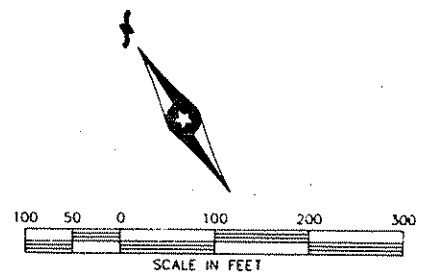
Date: 8-22-89 Minn. Reg. No. 12666

BRW
BRW, INC.
 812 - 13th Avenue
 Minneapolis, Minnesota






DESIGN BY: JDS
 DRAWN BY: CTM
 CHECKED BY:

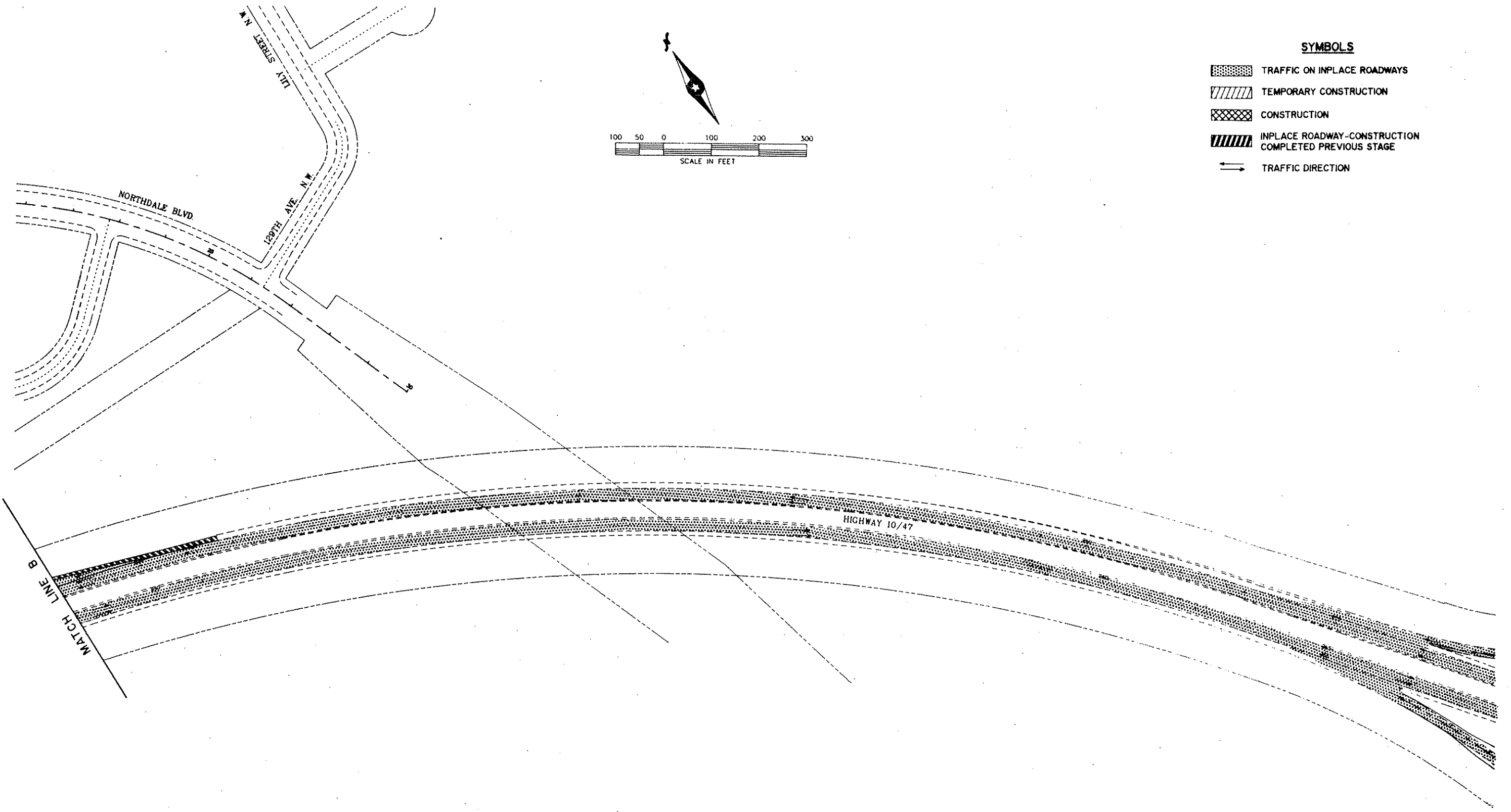
ORIGINAL DATE 7-24-89
 REVISIONS
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 2
 STAGE 3



SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



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Boyd R. Runk

Date 8-22-89 Minn. Reg. No 12666



ORIGINAL DATE 7-24-89
 REVISIONS _____

 SURVEY BOOK _____

DESIGN BY: JDS
 DRAWN BY: CTM
 CHECKED BY: _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 2
 STAGE 3

S.A.P. NO. 02-609-08 SHEET 33 OF 256 DESIGN FILE No 18-8853








C.S.A.H. 9
ROUND LAKE BLVD.

MATCH LINE C

MAIN STREET

SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen
Boyd R. Paulsen
Date 8-22-89 Minn. Reg. No. 12666

BRW
BRW, INC.
812-370-0100
Minneapolis, Minnesota

DESIGN BY: JDS
DRAWN BY: CTM
CHECKED BY:

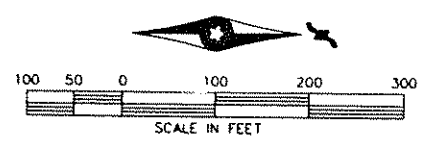
ORIGINAL DATE 7-24-89
REVISIONS
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE






PHASE 2
STAGE 3

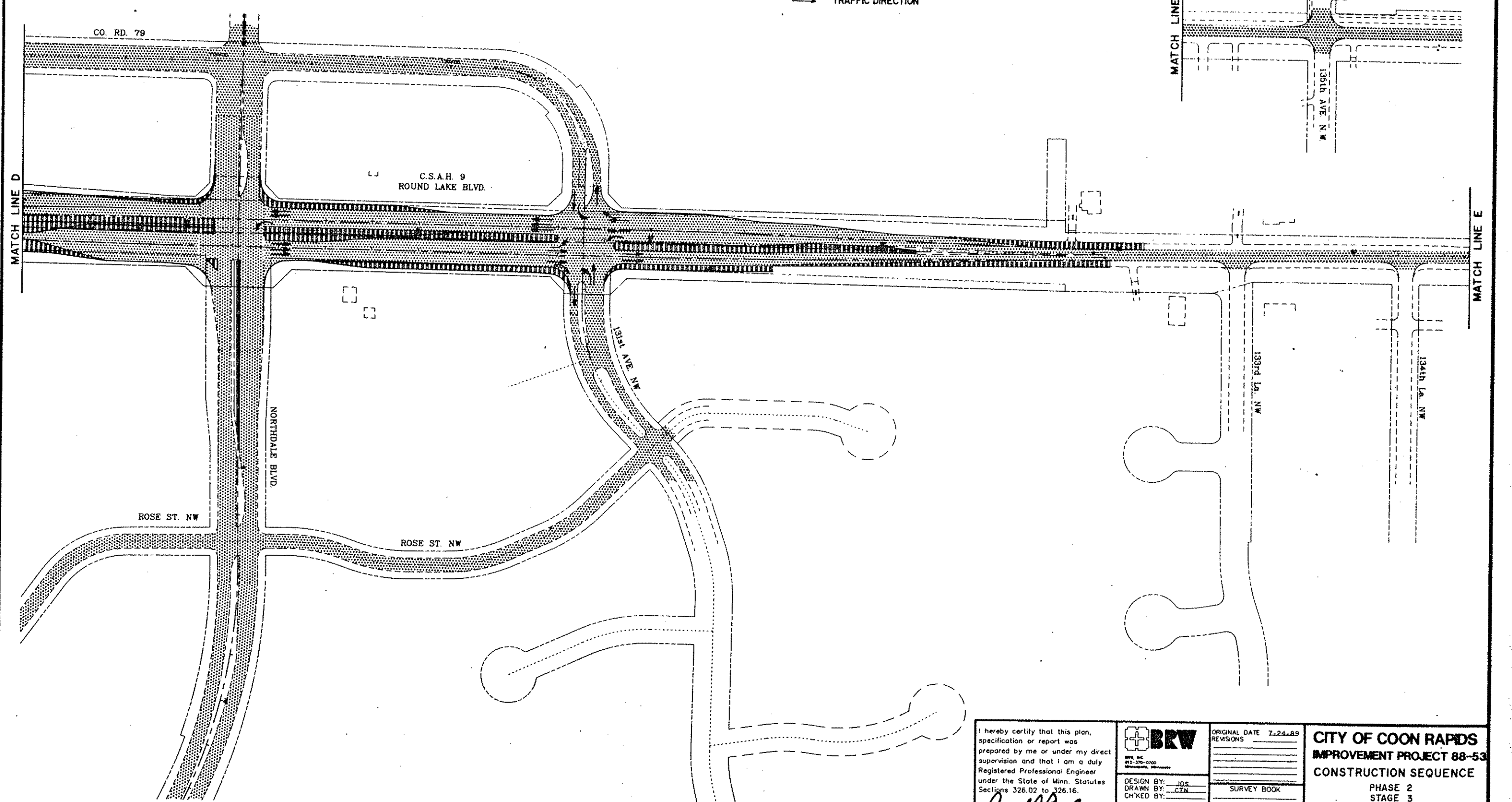
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S.A.P. NO. 02-609-08 SHEET 34 OF 256



SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



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Royall Parker

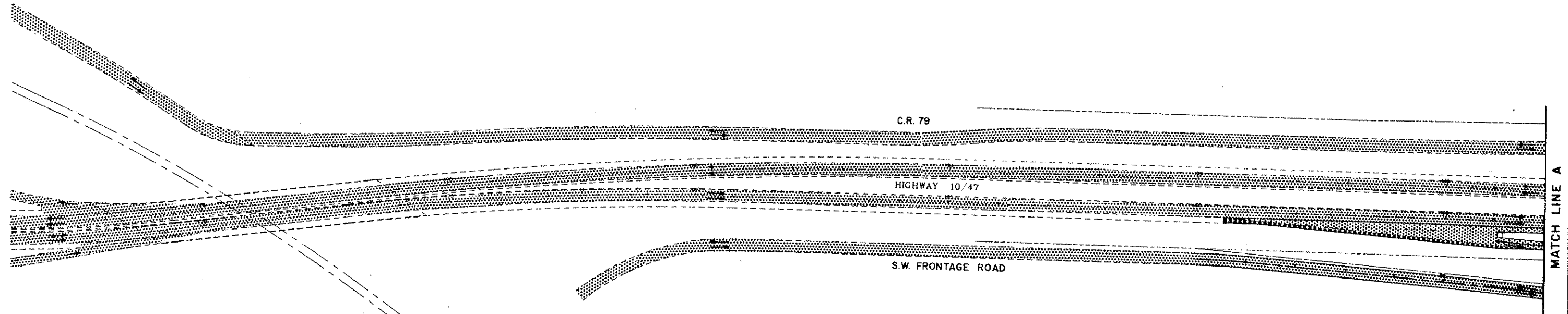
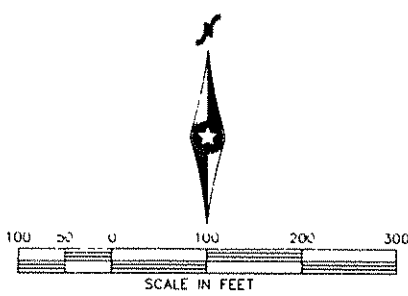
Date: 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 212-370-0700
 Minneapolis, Minnesota

DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE	7-24-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 2
 STAGE 3



PHASE 3, STAGE 1 OCTOBER 15, 1990

GENERAL:

THE CONSTRUCTION SEQUENCE PLANS INDICATE THE GENERAL SEQUENCE OF CONSTRUCTION ONLY. REFER TO DETAILED PLANS FOR ADDITIONAL INFORMATION.

TRAFFIC:

- W.B. TH 10/47 TO ROUND LAKE BOULEVARD IS ON RAMP B.
- E.B. TH 10/47 TO ROUND LAKE BOULEVARD IS ON RAMP C.
- ROUND LAKE BOULEVARD N.B. TO W.B. TH 10/47 IS ON LOOP B.
- ROUND LAKE BOULEVARD N.B. TO E.B. TH 10/47 IS ON RAMP D.
- ROUND LAKE BOULEVARD S.B. TO W.B. TH 10/47 IS ON RAMP A.
- ROUND LAKE BOULEVARD S.B. TO E.B. TH 10/47 IS ON LOOP C.
- ROUND LAKE BOULEVARD S.B. AND N.B. (NORTH OF S.W. FRONTAGE ROAD) OPEN. TRAFFIC SIGNALS OPERATIONAL.
- ROUND LAKE BOULEVARD CLOSED BETWEEN MAIN STREET AND S.W. FRONTAGE ROAD.

CONSTRUCTION:

NONE ANTICIPATED. FINAL OVERLAY BITUMINOUS WEARING COURSE AND PERMANENT PAVEMENT MARKINGS SCHEDULED FOR SPRING 1991.

SYMBOLS

- TRAFFIC ON INPLACE ROADWAYS
- TEMPORARY CONSTRUCTION
- CONSTRUCTION
- INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
- TRAFFIC DIRECTION

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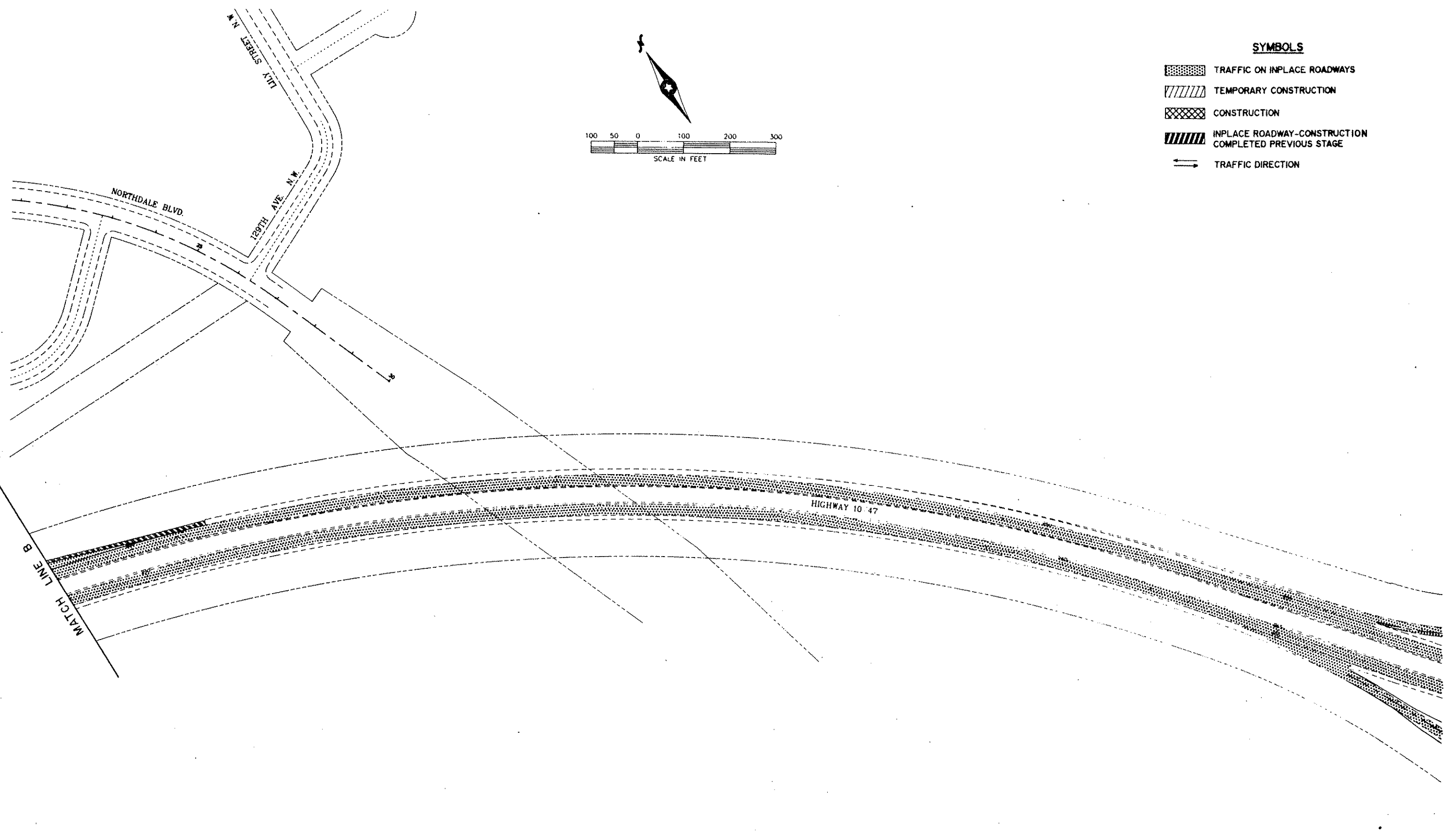
Boyd R. Parker

Date 8-22-89 Minn. Reg. No. 12566






BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

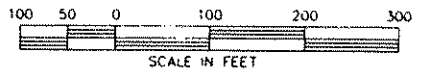
ORIGINAL DATE	7-24-89
REVISIONS	
DESIGN BY:	JDS
DRAWN BY:	CTN
CHECKED BY:	
SURVEY BOOK	


CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 3
 STAGE 1



SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION



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		DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 38 OF 256	DESIGN FILE No 16-8840








C.S.A.H 9
ROUND LAKE BLVD.

MATCH LINE C

MAIN STREET

SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

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Boyd R. Paulsen
 Dot: 8-22-89 Minn. Reg. No. 12666



ORIGINAL DATE 7-24-89
 REVISIONS _____

 SURVEY BOOK

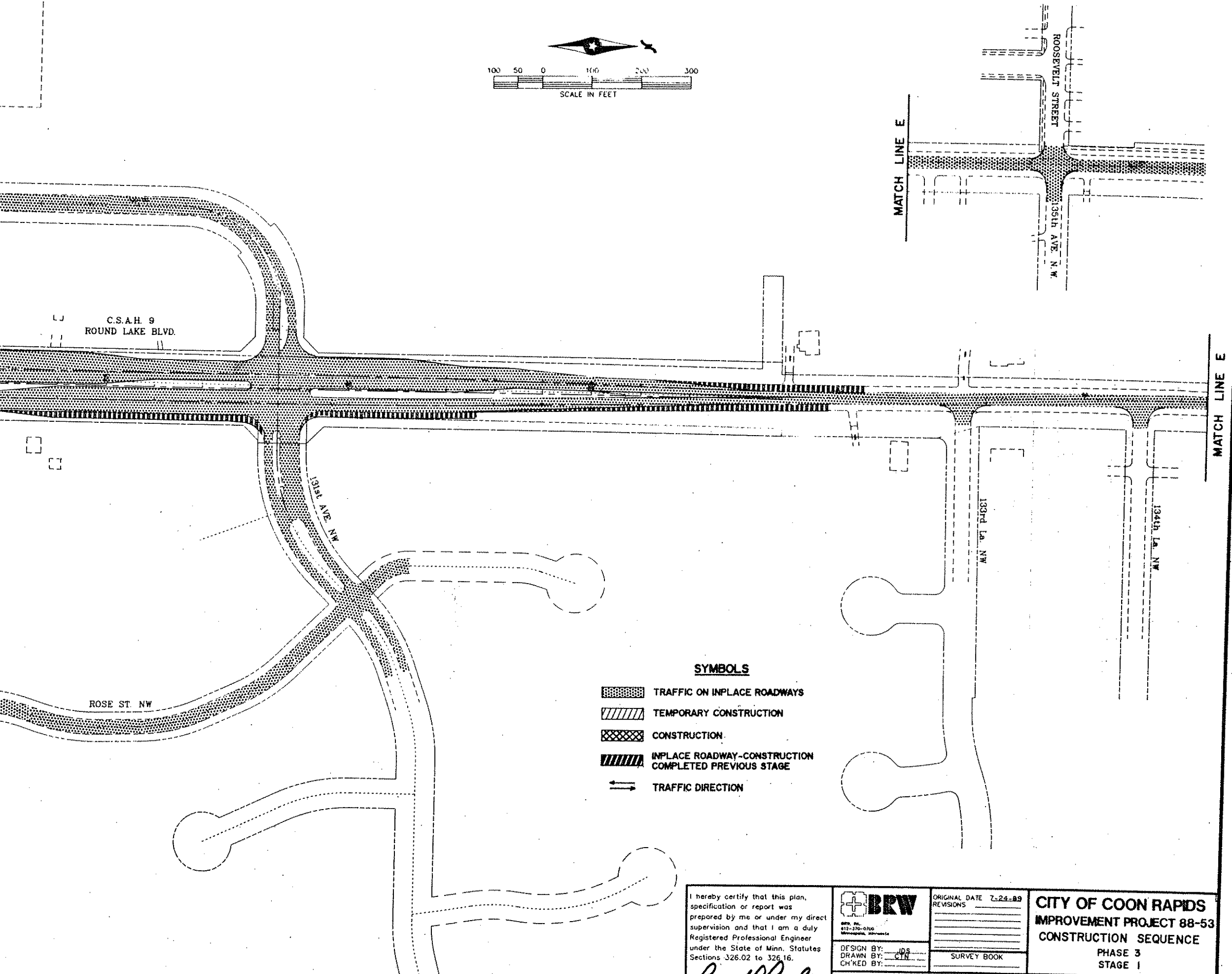
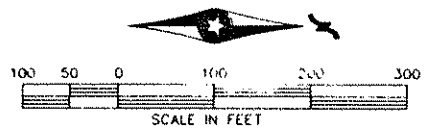
DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY: _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 3
 STAGE 1






S.A.P. NO. 02-609-08

SHEET 39 OF 256

DESIGN FILE NO. 16-8840




SYMBOLS

-  TRAFFIC ON INPLACE ROADWAYS
-  TEMPORARY CONSTRUCTION
-  CONSTRUCTION
-  INPLACE ROADWAY-CONSTRUCTION COMPLETED PREVIOUS STAGE
-  TRAFFIC DIRECTION

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Boyd Parker
 Date: 8-22-89 Minn. Reg. No. 12666

 BRW <small>875, Inc. 813-238-0760 Minneapolis, Minnesota</small>	ORIGINAL DATE 7-24-89 REVISIONS _____ _____ _____
	DESIGN BY: JDS DRAWN BY: CTN CHECKED BY: _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION SEQUENCE
 PHASE 3
 STAGE 1

SIGN	SIGN NO.	SIZE AND COLOR	QUANTITY PER PHASE						
			PH 1 ST 1	PH 1 ST 2	PH 1 ST 3	PH 2 ST 1	PH 2 ST 2	PH 2 ST 3	PH 3 ST 1
	RI-1	30"x30" WHITE ON RED	4	7	6	6	8	8	
	RI-2	36"x36" 36" RED ON WHITE				1			
	R3-5(L)	30"x36" BLACK ON WHITE					1	1	
	R3-7(L)	30"x30" BLACK ON WHITE					1	1	
	R3-X2	30"x30" BLACK ON WHITE					2	2	
	R5-1	30"x30" WHITE ON RED		2	2	1			
	R5-1a	36"x24" WHITE ON RED		1	1				
	RII-2	48"x30" BLACK ON WHITE	5	5	13	15	12	11	6
	RII-4	60"x30" BLACK ON WHITE	1		2	2	2	2	
	WI-1(R)	30"x30" BLACK ON ORANGE			2	3	2	3	
	WI-1(L)	30"x30" BLACK ON ORANGE			2	1	2	1	
	WI-3(R)	30"x30" BLACK ON ORANGE			1				
	WI-3(L)	30"x30" BLACK ON ORANGE			1	2	2	2	
	WI-6	48"x24" BLACK ON ORANGE	3	4	6	8	5	6	
	WI-7	48"x24" BLACK ON ORANGE			1	2			

SIGN	SIGN NO.	SIZE AND COLOR	QUANTITY PER PHASE						
			PH 1 ST 1	PH 1 ST 2	PH 1 ST 3	PH 2 ST 1	PH 2 ST 2	PH 2 ST 3	PH 3 ST 1
	W3-1	36"x36" BLACK ON ORANGE		1					
	W3-2	36"x36" BLACK ON ORANGE				1			
	W4-1(R)	48"x48" BLACK ON ORANGE				1	1	1	
	WI3-1	24"x24" BLACK ON ORANGE			6	6	6	6	
	WI4-X7	18"x18" BLACK ON ORANGE		8	15	18	15	21	
	W20-3	48"x48" BLACK ON ORANGE	1		4	4	4	4	3
	W20-3	48"x48" BLACK ON ORANGE			1	1	1	1	
	W20-3	48"x48" BLACK ON ORANGE							1
	W21-4	48"x48" BLACK ON ORANGE	11	11	9	9	9	9	2
	W21-XI	48"x48" BLACK ON ORANGE	5	4	2	1	2		
	SPECIAL	48"x48" BLACK ON ORANGE	2		4				
	SPECIAL	48"x48" BLACK ON ORANGE			2	2	1	1	
	MI-4	24"x24" BLACK ON WHITE					6		
	MI-5A	24"x24" WHITE & BLUE ON GOLD & BLUE					6		
	MI-6	24"x24" YELLOW & WHITE ON BLUE			23	23	23	23	

SIGN	SIGN NO.	SIZE AND COLOR	QUANTITY PER PHASE						
			PH 1 ST 1	PH 1 ST 2	PH 1 ST 3	PH 2 ST 1	PH 2 ST 2	PH 2 ST 3	PH 3 ST 1
	M3-1	24"x12" BLACK ON WHITE			1	7	1	1	
	M3-3	24"x12" BLACK ON WHITE			1	1	1	1	
	M3-4	24"x12" BLACK ON WHITE				6			
	M4-5	24"x12" BLACK ON WHITE				10			
	M4-8	24"x12" BLACK ON ORANGE			24	26	24	24	
	M4-10(L)	48"x18" BLACK ON ORANGE			2	2	2	2	
	M5-1(R)	21"x15" BLACK ON WHITE			2	2	2	2	
	M5-1(L)	21"x15" BLACK ON WHITE			1	3	1	1	
	M6-1	21"x15" BLACK ON WHITE			8	12	8	8	
	M6-2(R)	21"x15" BLACK ON WHITE			1	1	1	1	
	M6-2(L)	21"x15" BLACK ON WHITE			1	3	1	1	
	M6-3	21"x15" BLACK ON WHITE			7	11	7	7	
	G20-2	60"x24" BLACK ON ORANGE	4	4	4	4	4	4	

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Boyd R. Rasmussen

Date 8-22-89 Minn. Reg. No. 12666

BRW
BRW INC.
617 310 0700
Bloomington, Minnesota

DESIGN BY: JDS
DRAWN BY:

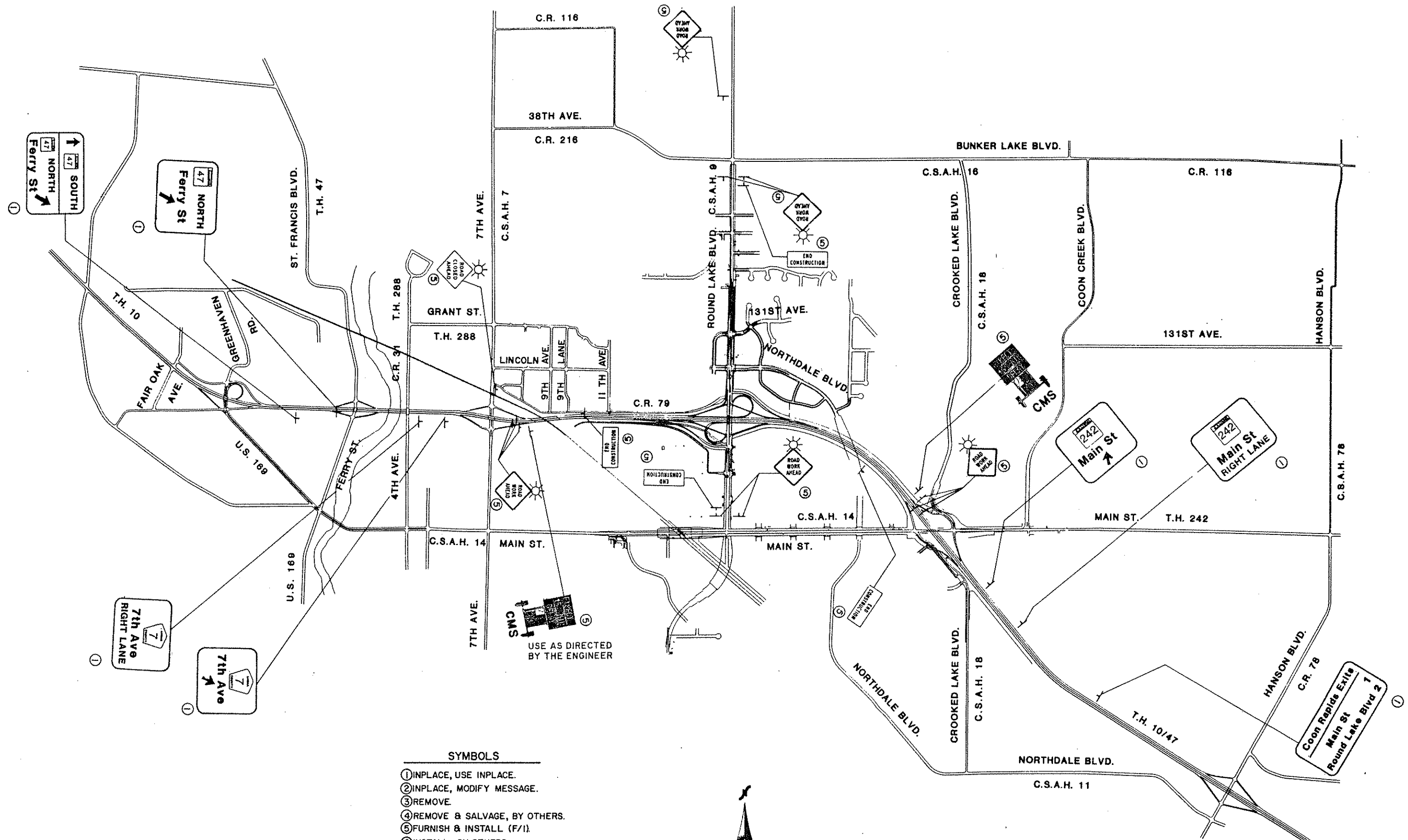
ORIGINAL DATE: 8-8-89
REVISIONS:

SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
TABULATION

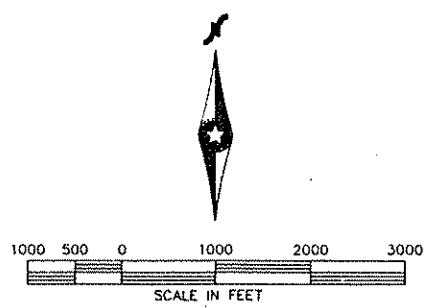
S.A.P. NO. 02-609-08 SHEET 41 OF 256

DESIGN FILE
No. 16-8840



SYMBOLS

- ① INPLACE, USE INPLACE.
- ② INPLACE, MODIFY MESSAGE.
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS.
- ⑤ FURNISH & INSTALL (F/I).
- ⑥ INSTALL, BY OTHERS.
- CMS - PORTABLE CHANGEABLE MESSAGE SIGN.
- DETOUR



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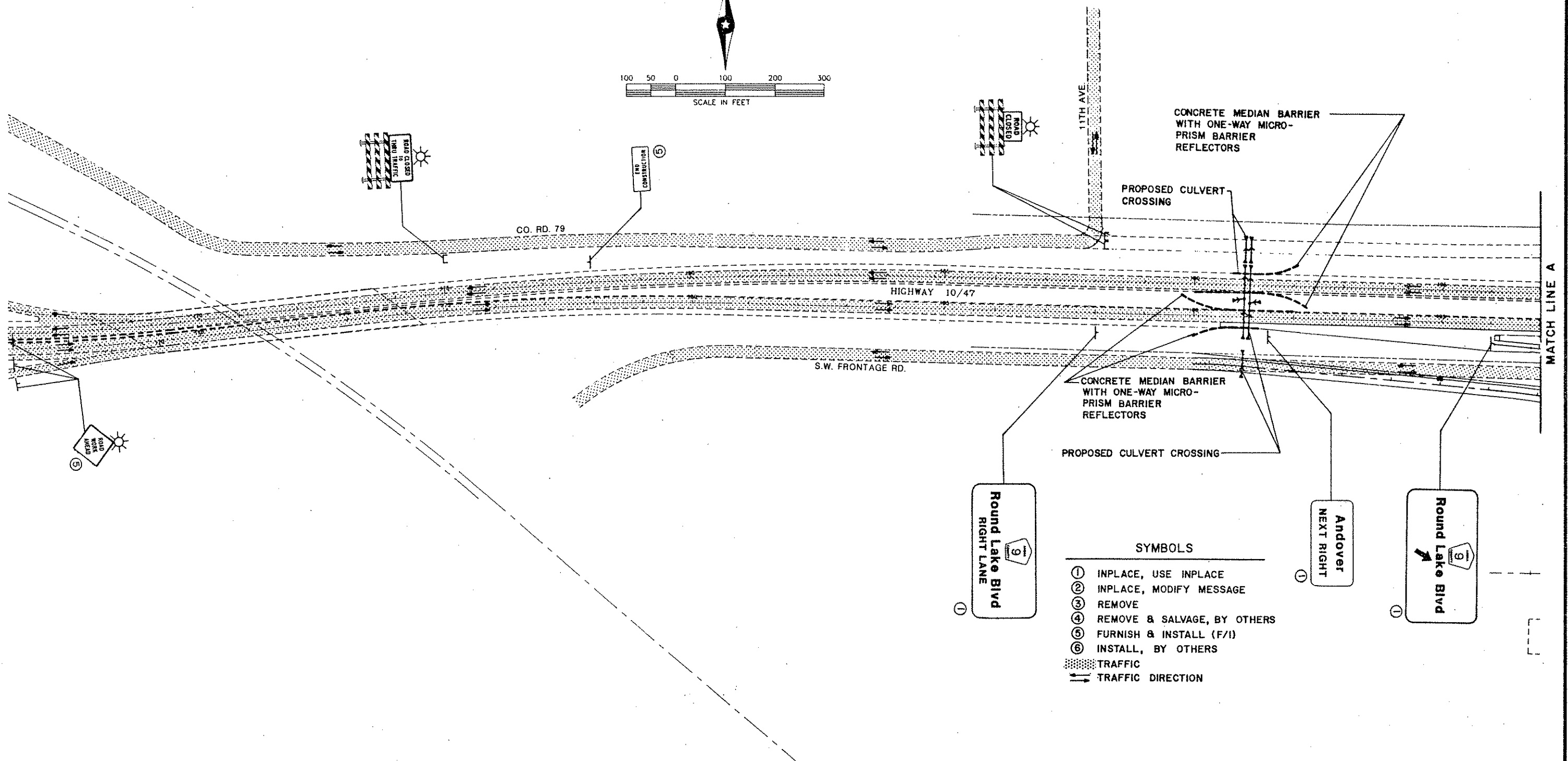
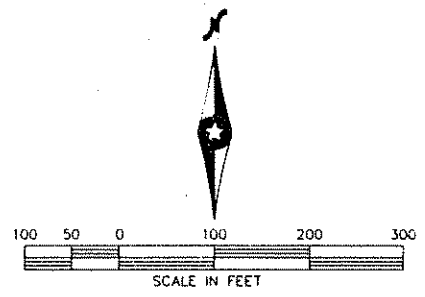
Boyd Paulsen
 Date 8-22-89, Minn. Reg. No. 12666

BRW
 812-370-0700
 DESIGN BY: JDS
 DRAWN BY: LEB
 CH'K'D BY:

ORIGINAL DATE	7-21-89
REVISIONS	
SURVEY BOOK	

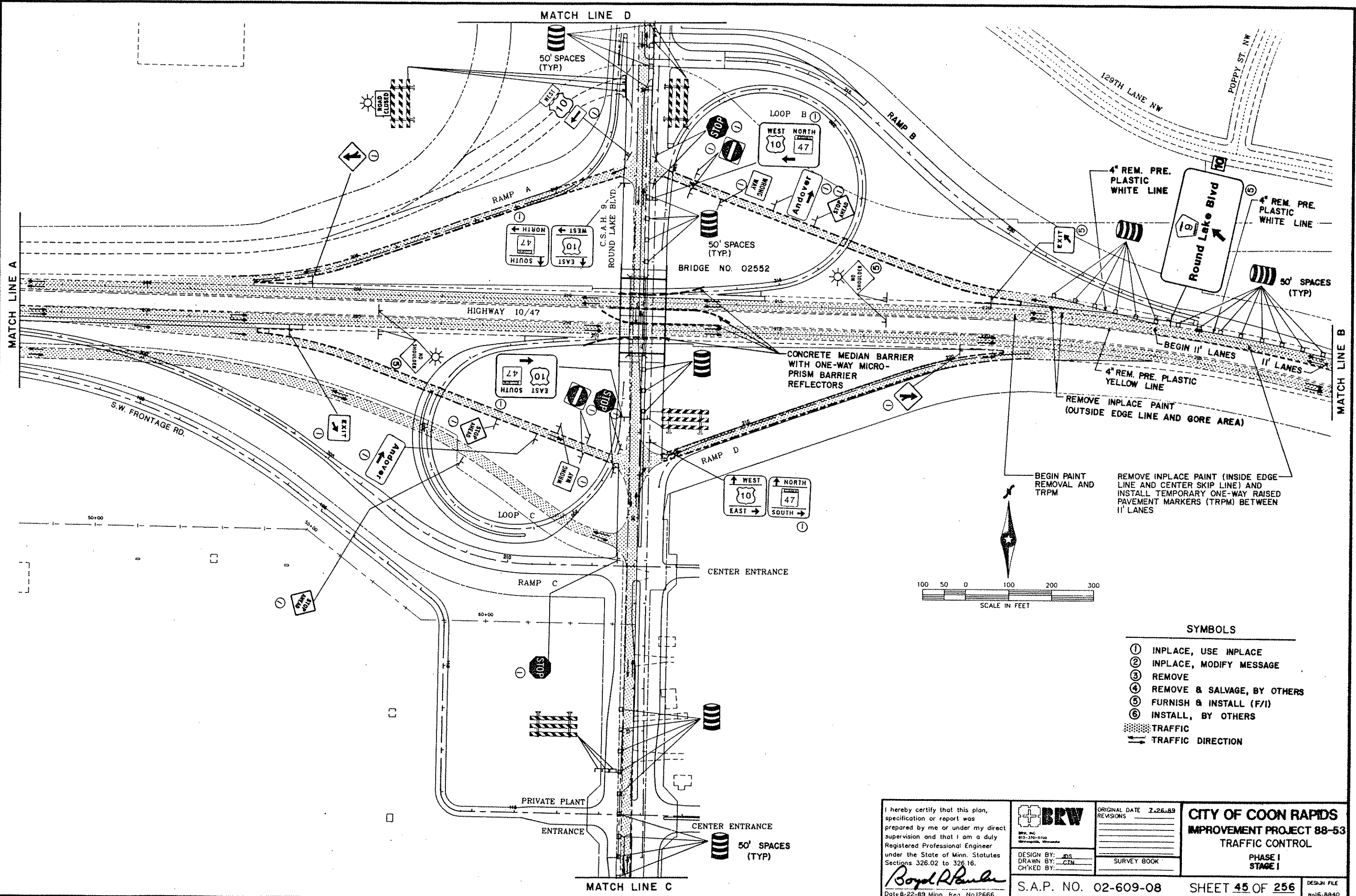
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL LAYOUT
ADVANCE SIGNING
 PHASE I STAGE I

S.A.P. NO. 02-609-08 SHEET 43 OF 256

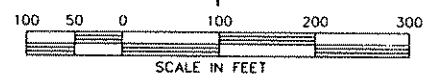


- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paulsen</i> Date 8-22-83 Minn. Reg. No. 12666		ORIGINAL DATE 7-26-89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TRAFFIC CONTROL PHASE I STAGE I
		DESIGN BY: JDS DRAWN BY: CTN CH'KED BY:	
S.A.P. NO. 02-609-08		SHEET 44 OF 256	DESIGN FILE No. 16-8840



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION



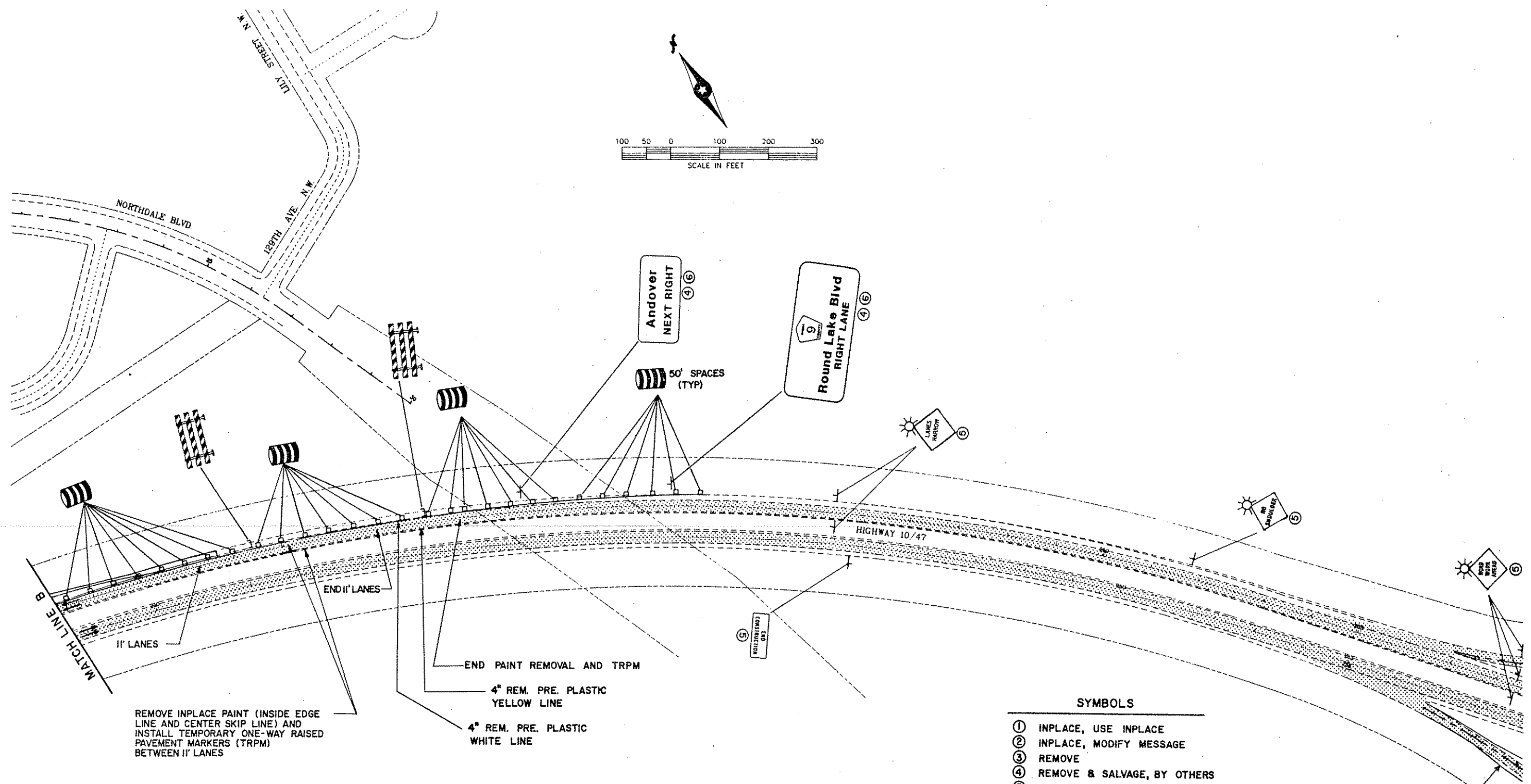
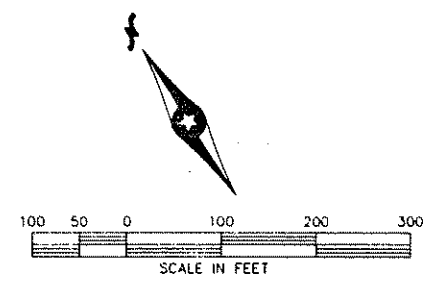
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Royal R. Paulsen
Date 8-22-89, Minn. Reg. No. 12666

BRW
DESIGN BY: JDS
DRAWN BY: CTM
CHK'D BY:

ORIGINAL DATE: 7-26-89
REVISIONS:
SURVEY BOOK:

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE I
STAGE I



REMOVE INPLACE PAINT (INSIDE EDGE LINE AND CENTER SKIP LINE) AND INSTALL TEMPORARY ONE-WAY RAISED PAVEMENT MARKERS (TRPM) BETWEEN 11' LANES

END PAINT REMOVAL AND TRPM

4" REM. PRE. PLASTIC YELLOW LINE

4" REM. PRE. PLASTIC WHITE LINE

SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- ⇨ TRAFFIC DIRECTION

FUTURE ROADWAY BY OTHERS

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

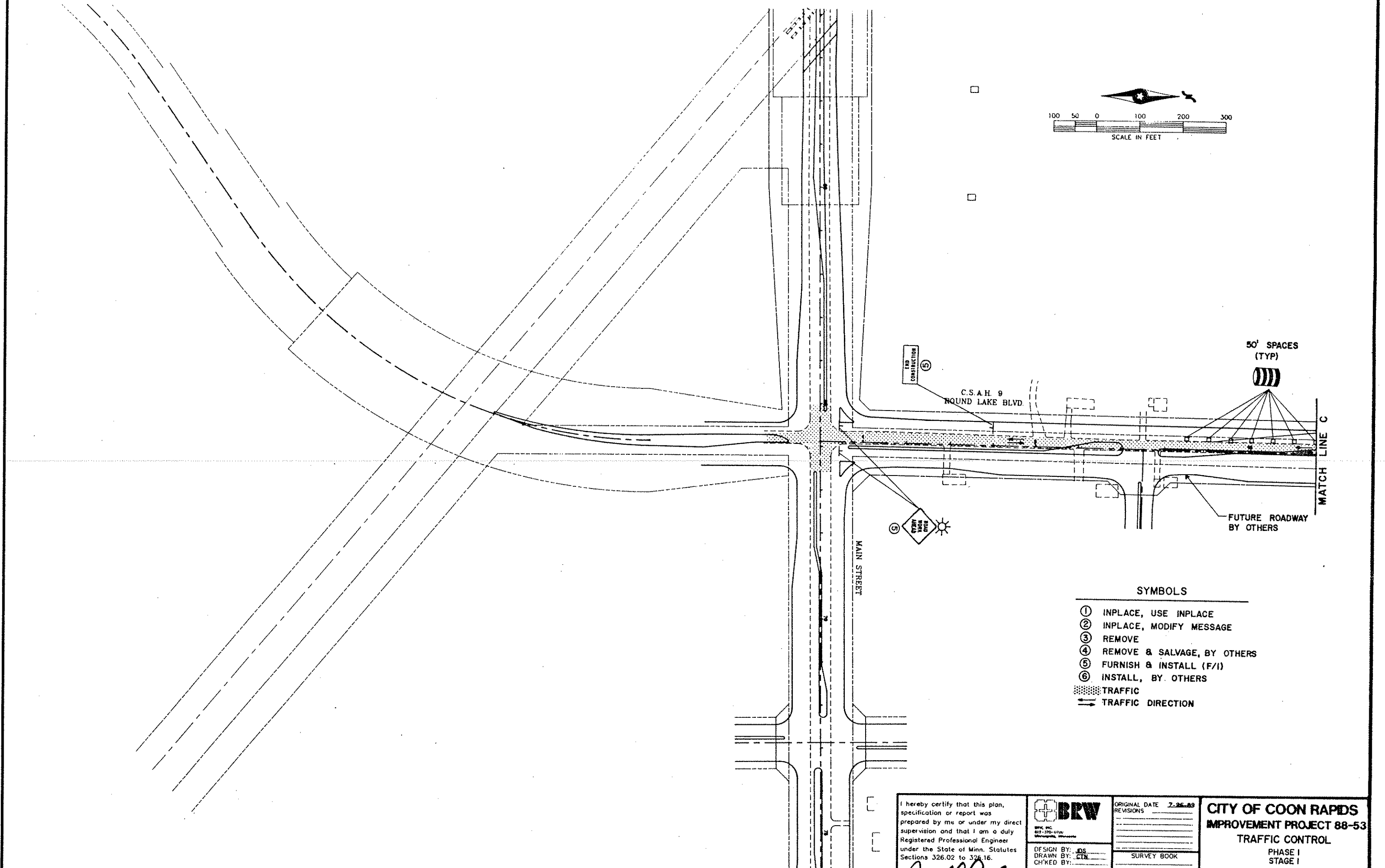
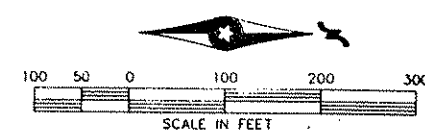
Date 8-22-89 Minn. Reg. No. 12666



ORIGINAL DATE 7-26-89
 REVISIONS _____
 DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY: _____
 SURVEY BOOK _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE I
 STAGE I

S.A.P. NO. 02-609-08 SHEET 46 OF 256 DESIGN FILE No. 16-88AD



⑤
FURNISH & INSTALL (F/I)
TRIP
CONSTRUCTION

C.S.A.H. 9
ROUND LAKE BLVD.

50' SPACES
(TYP)



MATCH LINE C

FUTURE ROADWAY
BY OTHERS



MAIN STREET

SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- TRAFFIC DIRECTION

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Boyd Paulsen
Date 8-22-88 Minn. Reg. No. 12668

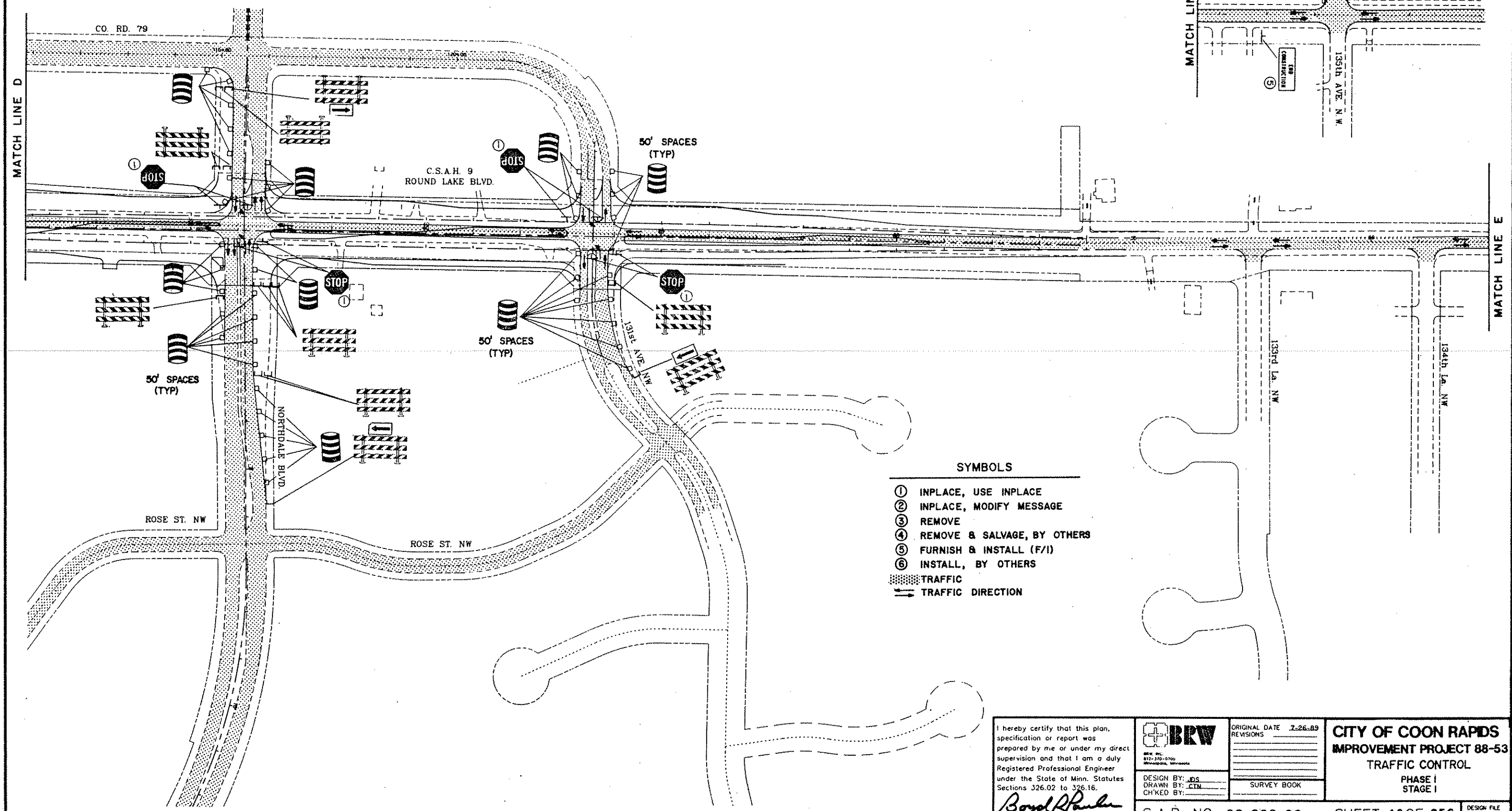
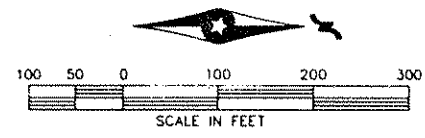


ORIGINAL DATE	7-26-89
REVISIONS	
DESIGN BY:	JS
DRAWN BY:	CTA
CHECKED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE I
STAGE I

S.A.P. NO. 02-609-08 SHEET 47 OF 256

DESIGN FILE
No. 16-8840



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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Boyd Paulsen

Date: 8-22-88 Minn. Reg. No. 12666

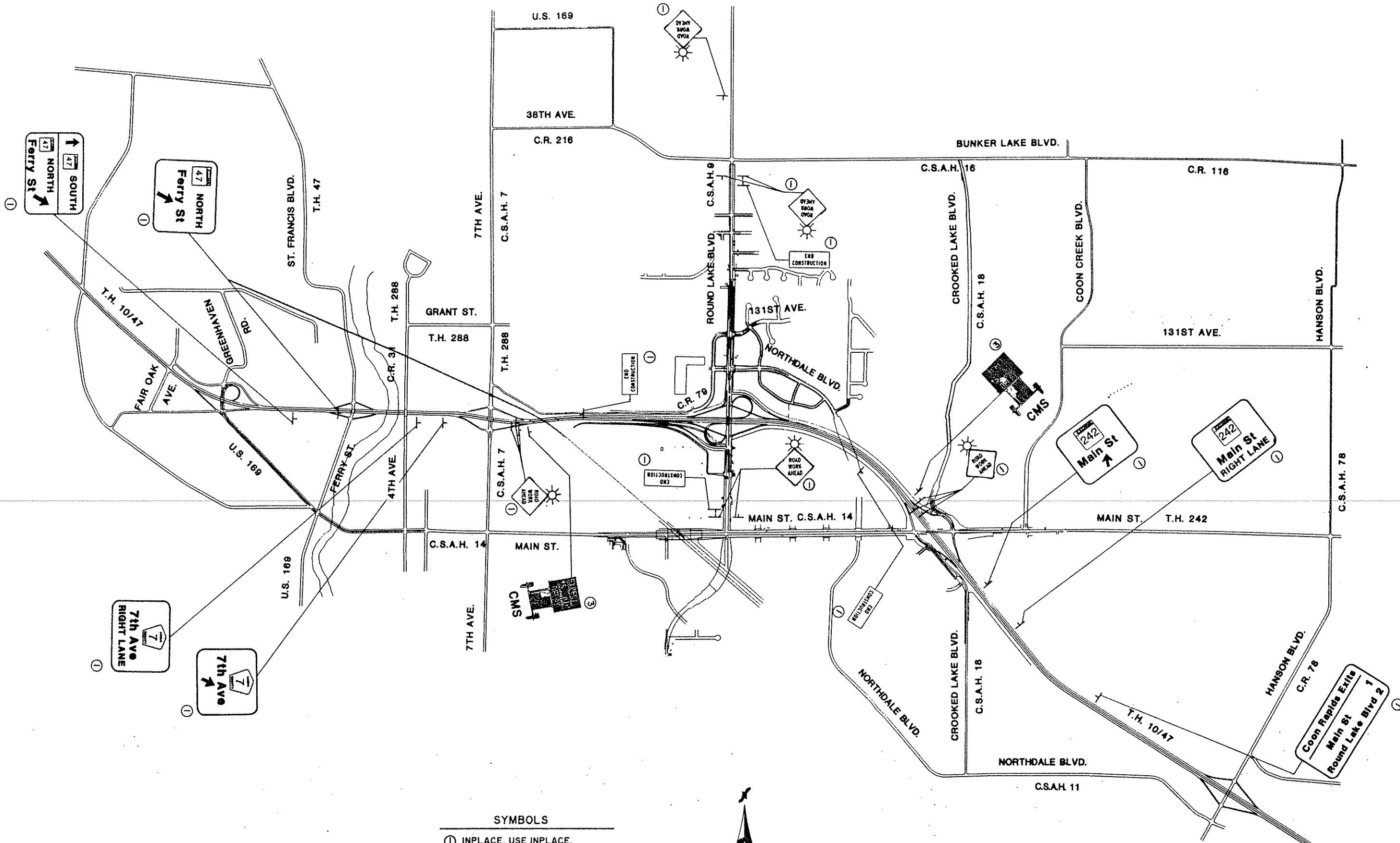
BRW

BRW INC.
817-370-0700
Minneapolis, Minnesota

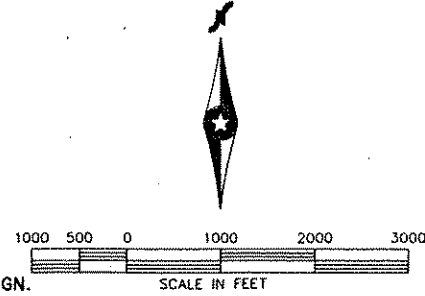
DESIGN BY: JS
DRAWN BY: CTM
CHK'ED BY:

ORIGINAL DATE	7-26-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE I
 STAGE I



- SYMBOLS**
- ① INPLACE, USE INPLACE.
 - ② INPLACE, MODIFY MESSAGE.
 - ③ REMOVE.
 - ④ REMOVE & SALVAGE, BY OTHERS.
 - ⑤ FURNISH & INSTALL (F/I).
 - ⑥ INSTALL, BY OTHERS.
 - CMS - PORTABLE CHANGEABLE MESSAGE SIGN.
 - DETOUR

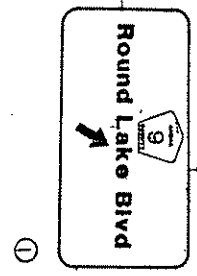
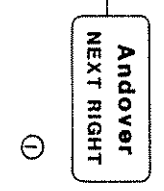
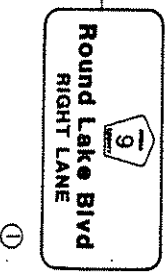
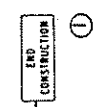
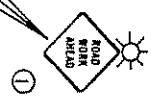
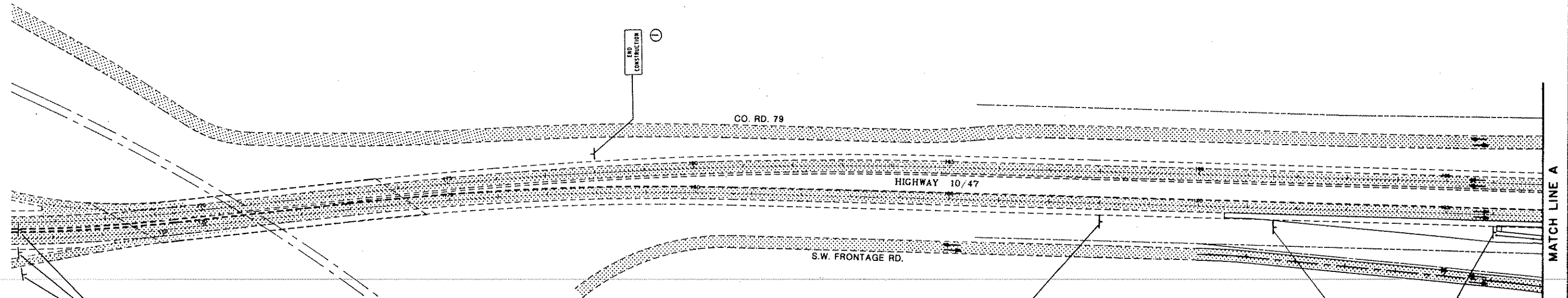
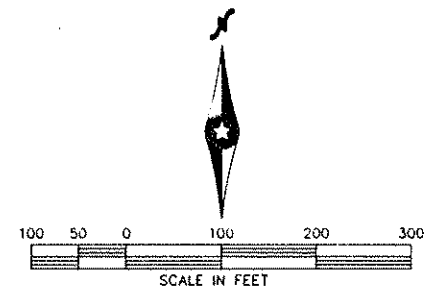


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen
 Date: 8-22-89, Minn. Reg. No. 12666

	ORIGINAL DATE	7-21-89
	REVISIONS	
DESIGN BY: JDS	SURVEY BOOK	
DRAWN BY: LEB CTN		
CHECKED BY:		

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL LAYOUT
ADVANCE SIGNING
PHASE I STAGE 2



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - ⇨ TRAFFIC DIRECTION

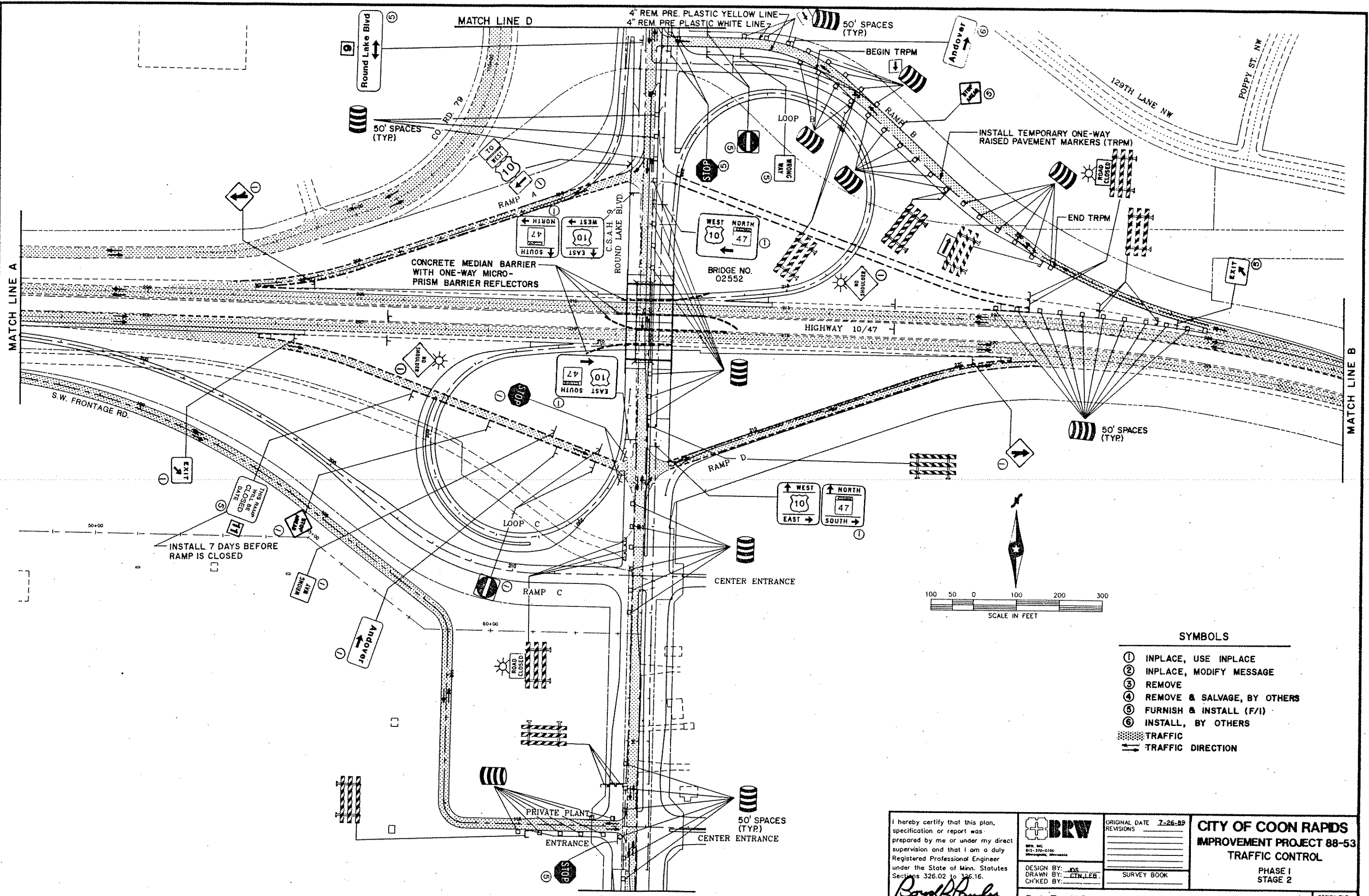
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date: 8-22-89, Minn. Reg. No. 2655

	ORIGINAL DATE	7-26-89
	REVISIONS	
DESIGN BY:	DN	
DRAWN BY:	DN	
CH'KED BY:		
SURVEY BOOK		
S.A.P. NO. 02-609-08		

CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TRAFFIC CONTROL PHASE I STAGE 2	DESIGN FILE No. 16-8840
SHEET 50 OF 256	



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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Royall

Date 8-22-99 Minn. Reg. No. 12656

BRW
 BRW, INC.
 812-370-0700
 Minneapolis, MN 55414

DESIGN BY: JDS
 DRAWN BY: CTR, LEB
 CHECKED BY:

ORIGINAL DATE 7-26-89
 REVISIONS

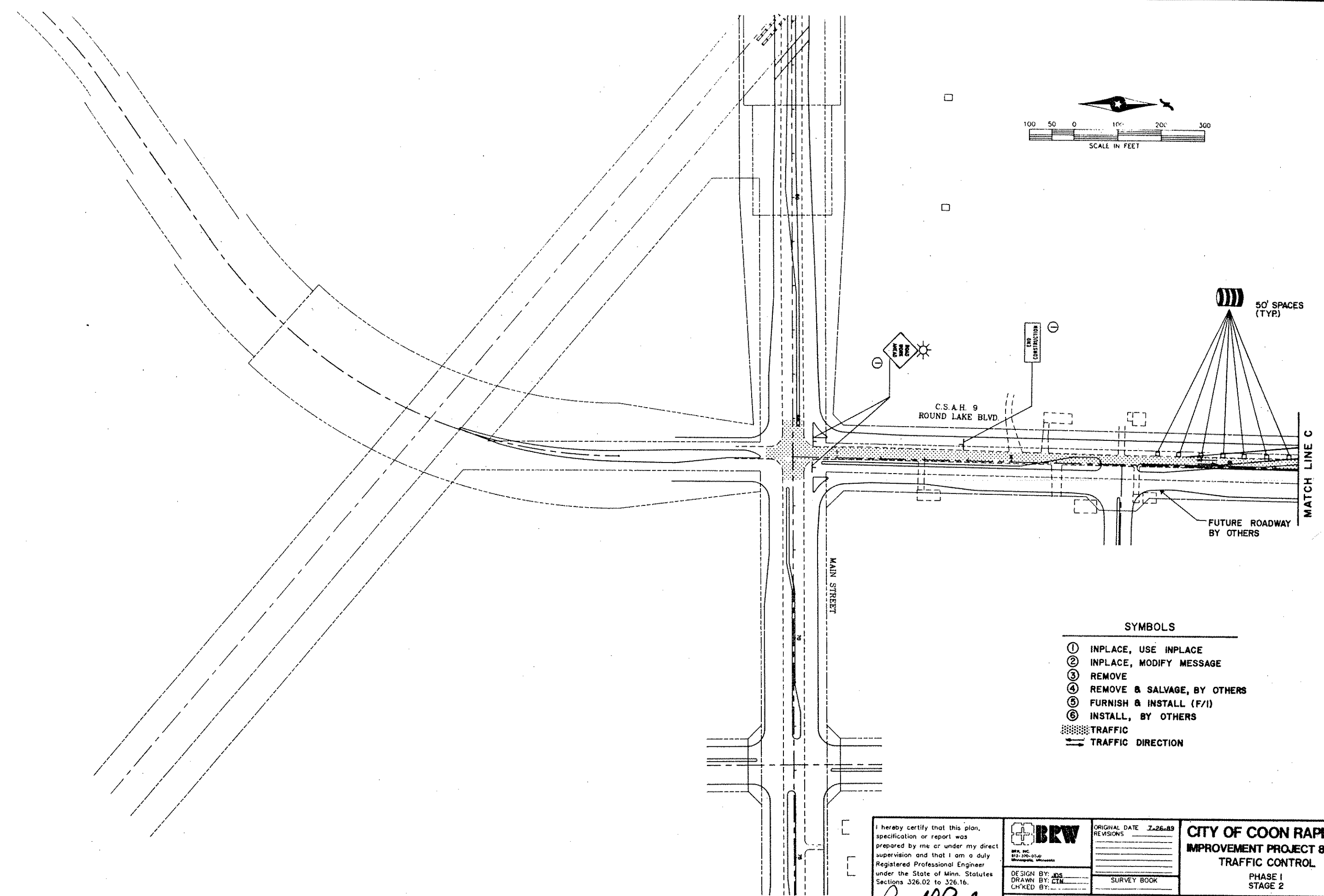
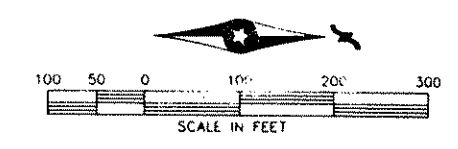
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL

PHASE I
 STAGE 2

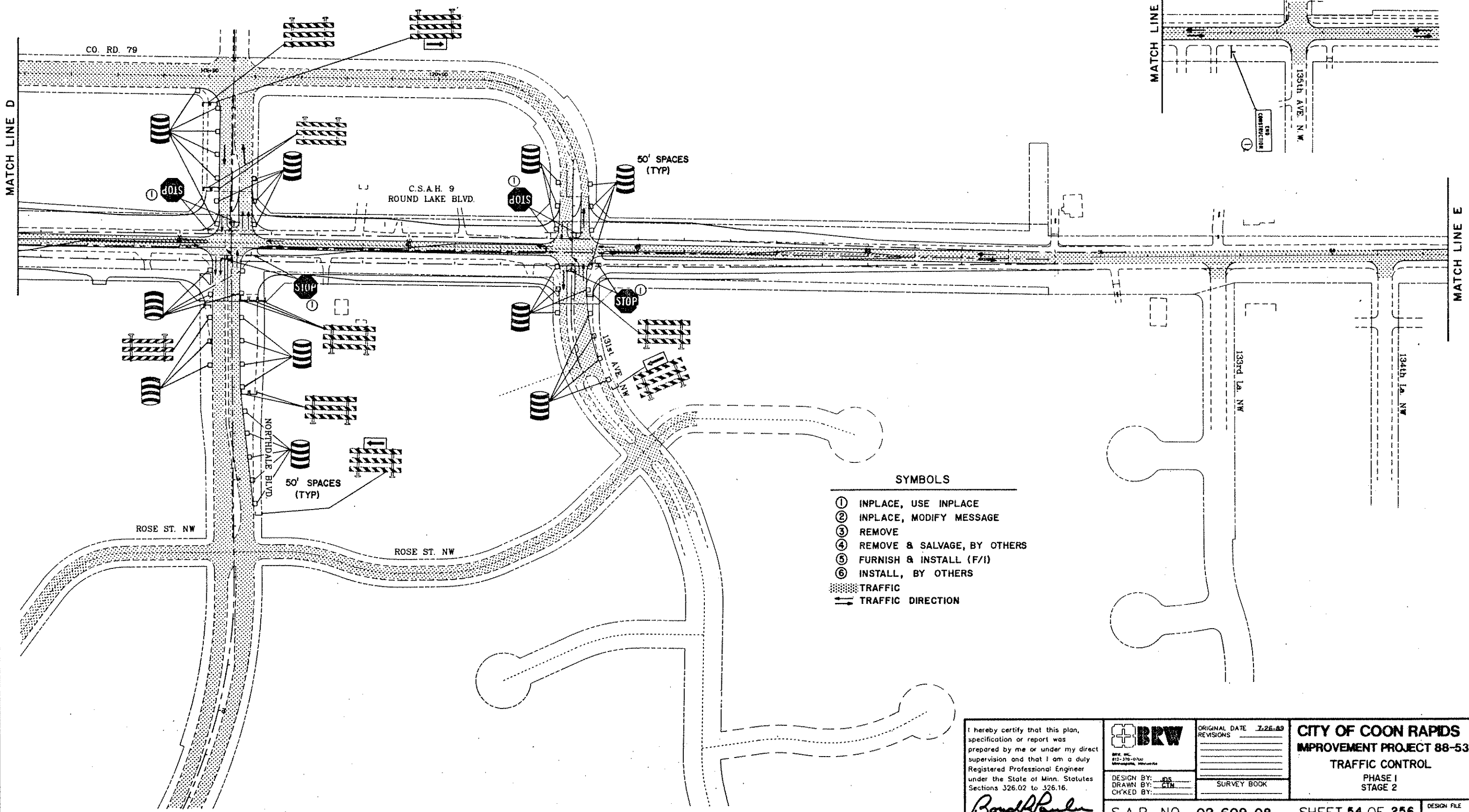
S.A.P. NO. 02-609-08 SHEET 51 OF 256

DESIGN FILE No. 16-8830



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Paulin</i> Date: 8-22-88 Minn. Reg. No. 12666		ORIGINAL DATE <u>1-26-89</u> REVISIONS _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TRAFFIC CONTROL PHASE I STAGE 2
		DESIGN BY: <u>JDS</u> DRAWN BY: <u>CTM</u> CHECKED BY: _____	
S.A.P. NO. <u>02-609-08</u>		SHEET <u>53</u> OF <u>256</u>	DESIGN FILE No. <u>16-8840</u>



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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Boyd Paulsen
 Date 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 #12-376-0700
 Minneapolis, Minnesota

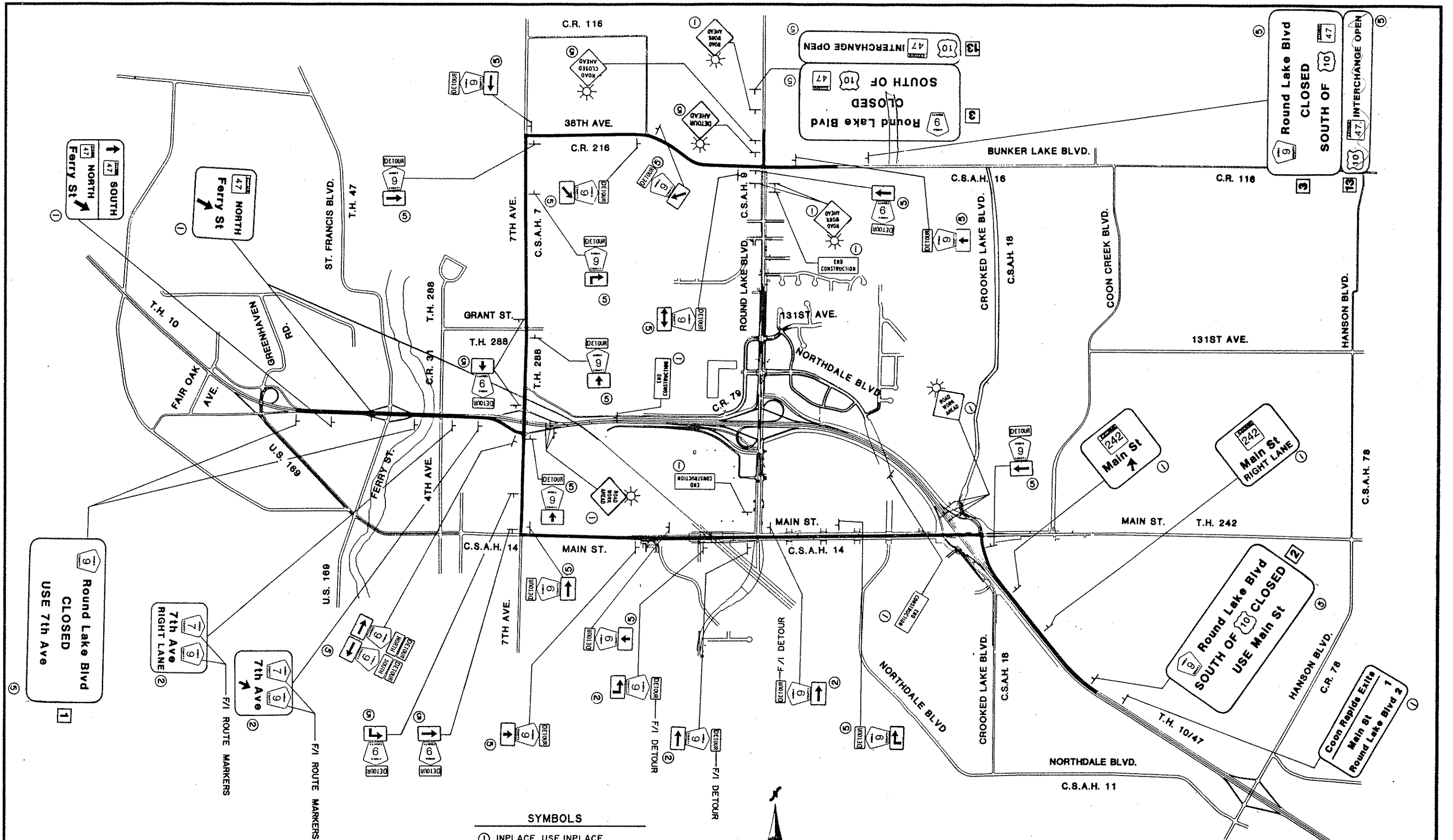
ORIGINAL DATE 7-26-89
 REVISIONS _____

 SURVEY BOOK _____

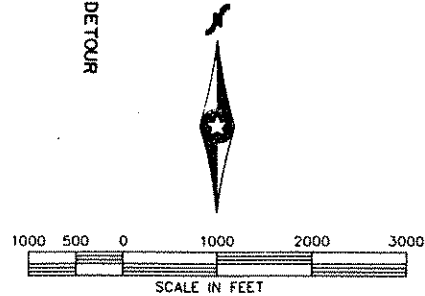
DESIGN BY: DS
 DRAWN BY: CTN
 CHECKED BY: _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE I
 STAGE 2

S.A.P. NO. 02-609-08 SHEET 54 OF 256 DESIGN FILE No. 16-8840



- SYMBOLS**
- ① INPLACE, USE INPLACE.
 - ② INPLACE, MODIFY MESSAGE.
 - ③ REMOVE.
 - ④ REMOVE & SALVAGE, BY OTHERS.
 - ⑤ FURNISH & INSTALL (F/I).
 - ⑥ INSTALL, BY OTHERS.
 - DETOUR



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Boyd R. Rankin
 Date: 8-22-89, Minn. Reg. No. 12666

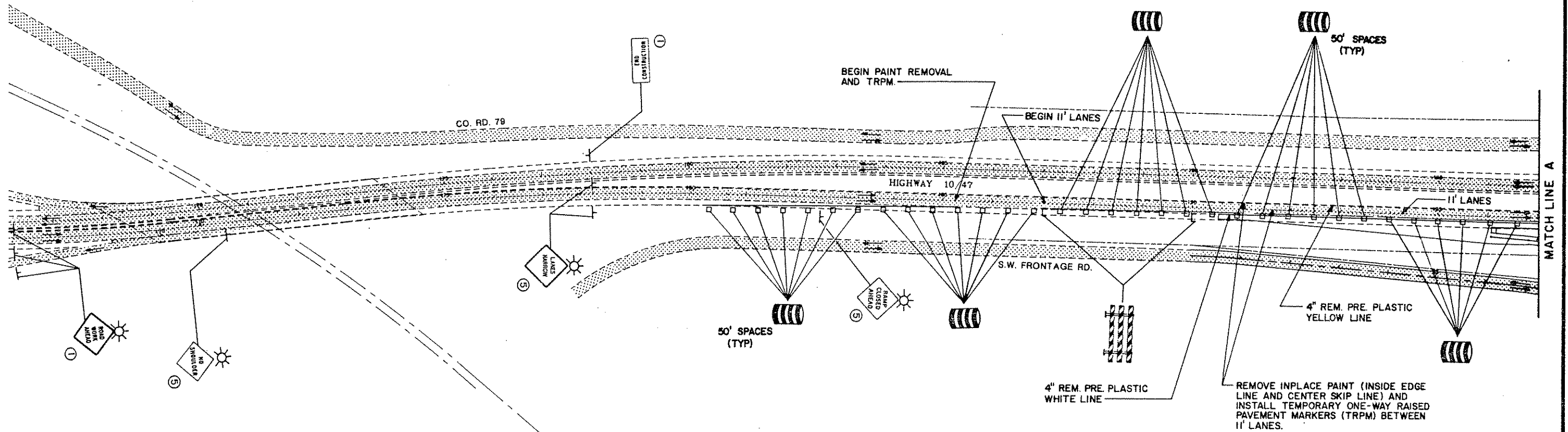
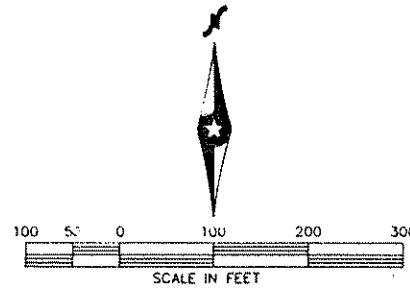
BRW
 BRW, INC.
 912-370-0700
 Minneapolis, MN

DESIGN BY: JDS
 DRAWN BY: LEB CTN
 CHECKED BY:

ORIGINAL DATE: 7-21-89
 REVISIONS:
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL LAYOUT
ADVANCE SIGNING
PHASE I STAGE 3

S.A.P. NO. 02-609-08 SHEET 55 OF 256 DESIGN FILE No. 16-8840



SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- TRAFFIC DIRECTION

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Boyd Paul

Date 8-22-88 Minn. Reg. No. 12668

BRW

BRW, INC.
812-370-0700
Minneapolis, Minnesota

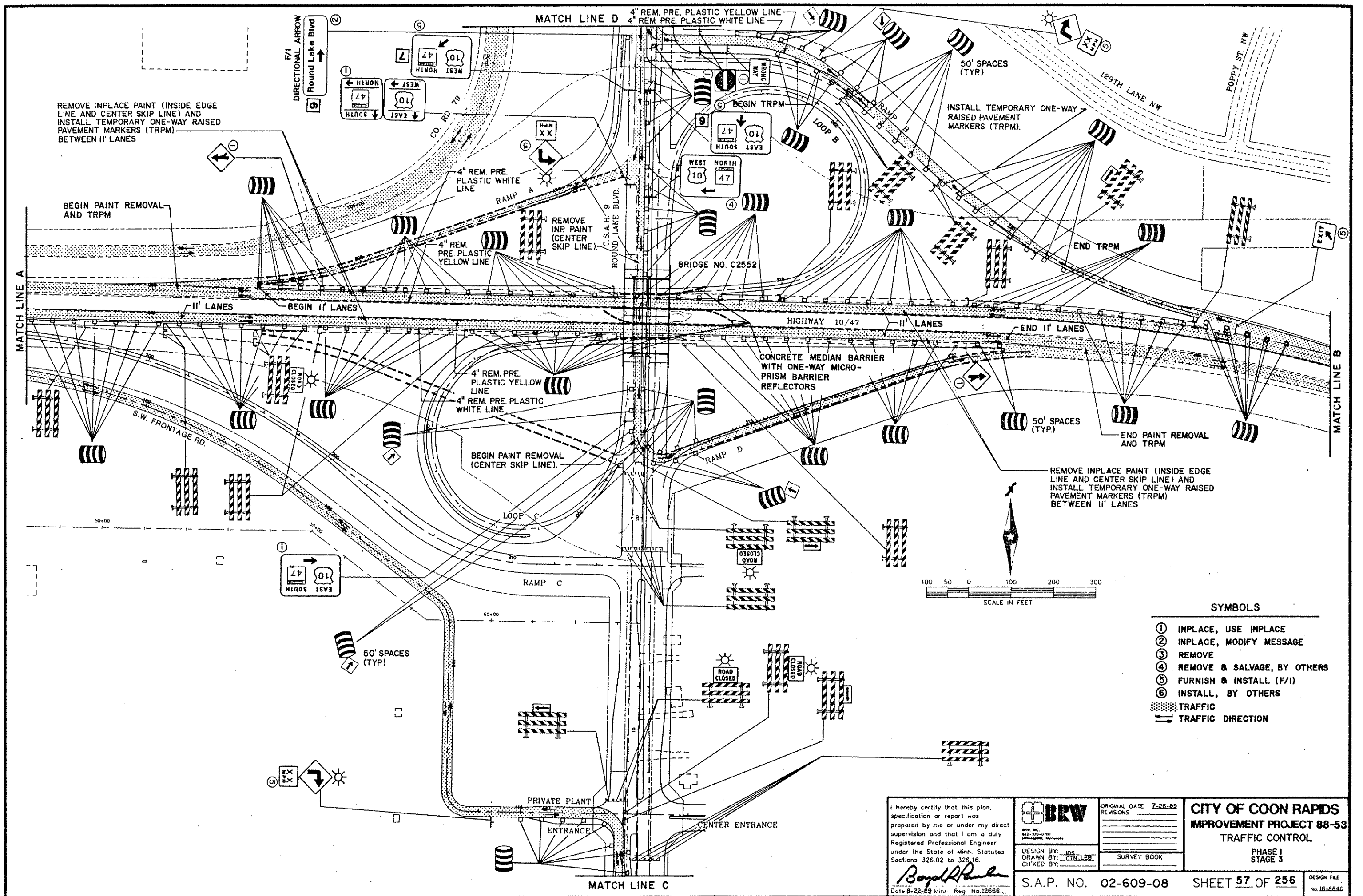
DESIGN BY: JDS
DRAWN BY: CTN
CHK'D BY:

ORIGINAL DATE 7-26-89
REVISIONS

SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE I
STAGE 3

S.A.P. NO. 02-609-08 SHEET 56 OF 256 DESIGN FILE No. 16-88A0



REMOVE INPLACE PAINT (INSIDE EDGE LINE AND CENTER SKIP LINE) AND INSTALL TEMPORARY ONE-WAY RAISED PAVEMENT MARKERS (TRPM) BETWEEN 11' LANES

BEGIN PAINT REMOVAL AND TRPM

11' LANES

BEGIN 11' LANES

HIGHWAY 10/47

11' LANES

END 11' LANES

4" REM. PRE. PLASTIC YELLOW LINE

4" REM. PRE. PLASTIC WHITE LINE

BEGIN PAINT REMOVAL (CENTER SKIP LINE)

CONCRETE MEDIAN BARRIER WITH ONE-WAY MICRO-PRISM BARRIER REFLECTORS

REMOVE INPLACE PAINT (INSIDE EDGE LINE AND CENTER SKIP LINE) AND INSTALL TEMPORARY ONE-WAY RAISED PAVEMENT MARKERS (TRPM) BETWEEN 11' LANES



SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- TRAFFIC DIRECTION

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Boyd R. ...

Date: 8-22-89 Minn. Reg. No. 12886

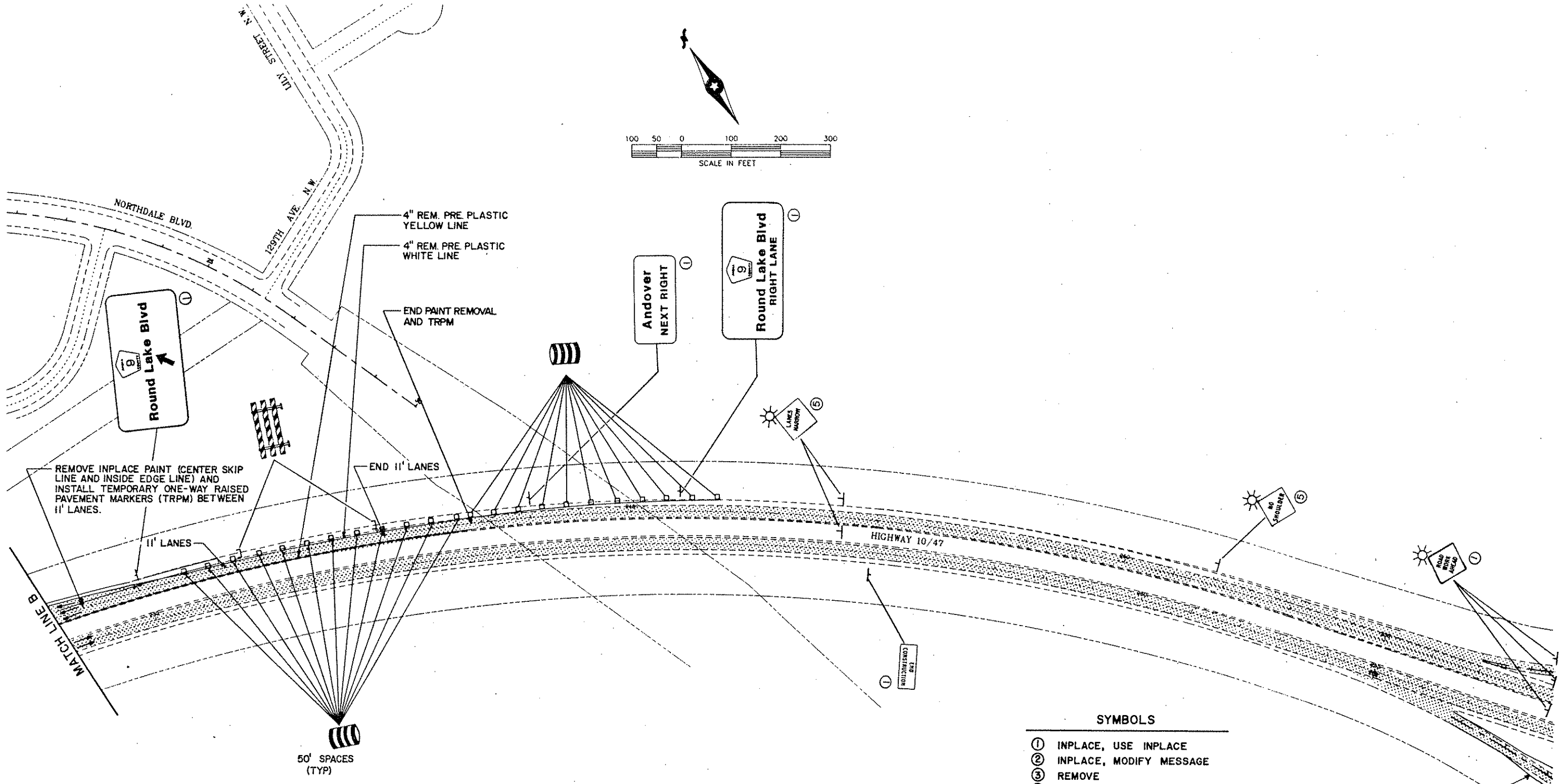
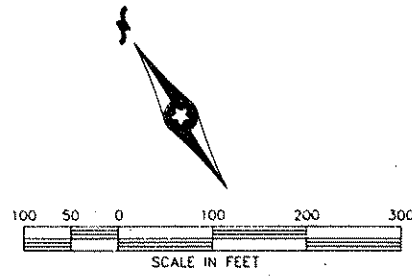
BRW

DESIGN BY: JDS
DRAWN BY: CTN/LEE
CHECKED BY:

ORIGINAL DATE 7-26-88
REVISIONS
SURVEY BOOK

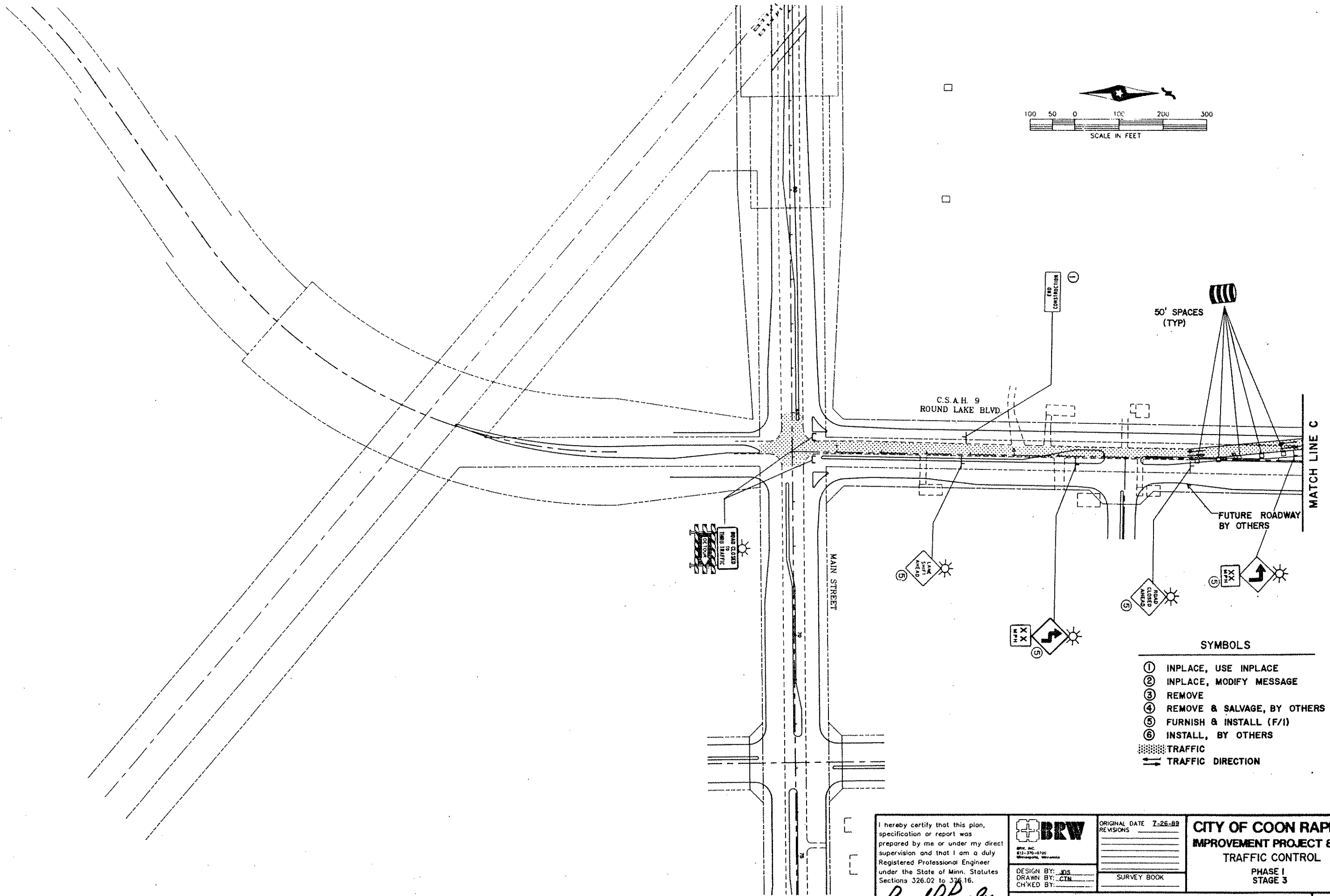
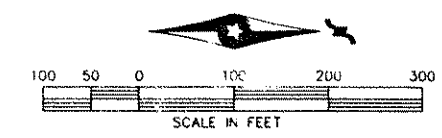
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE I
STAGE 3

S.A.P. NO. 02-609-08 SHEET 57 OF 256 DESIGN FILE No. 16-8840



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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		DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 58 OF 256	DESIGN FILE No. 16-BB40



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
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 - ▨ TRAFFIC
 - ⇨ TRAFFIC DIRECTION

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Boyd R. Paulsen
 Date: 8-22-89, Minn. Reg. No. 12666

BRW
 BRW, INC.
 412-370-0700
 Minneapolis, Minnesota

DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:

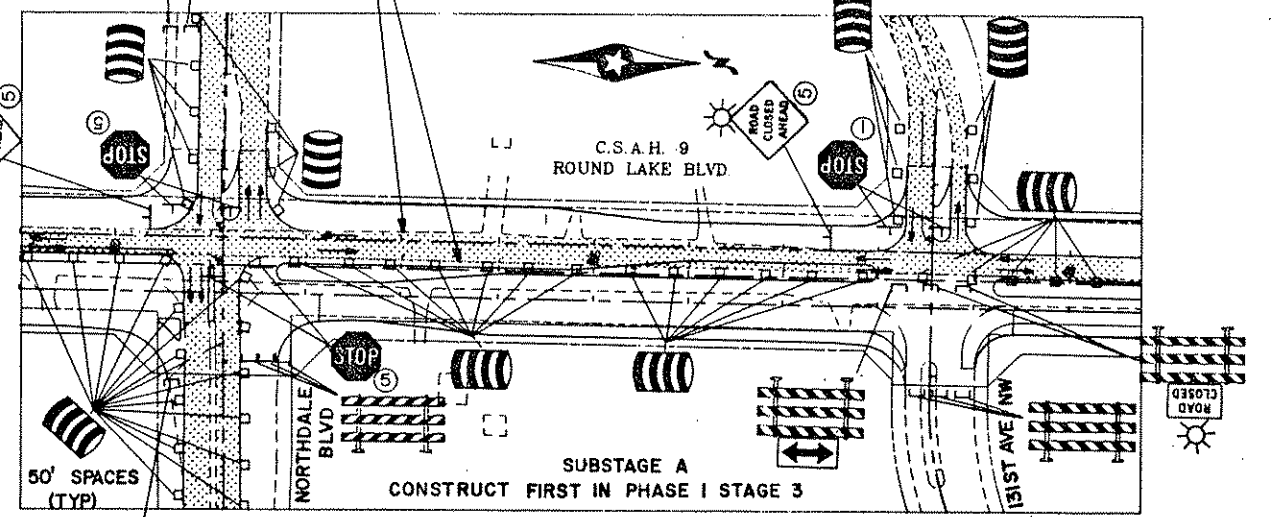
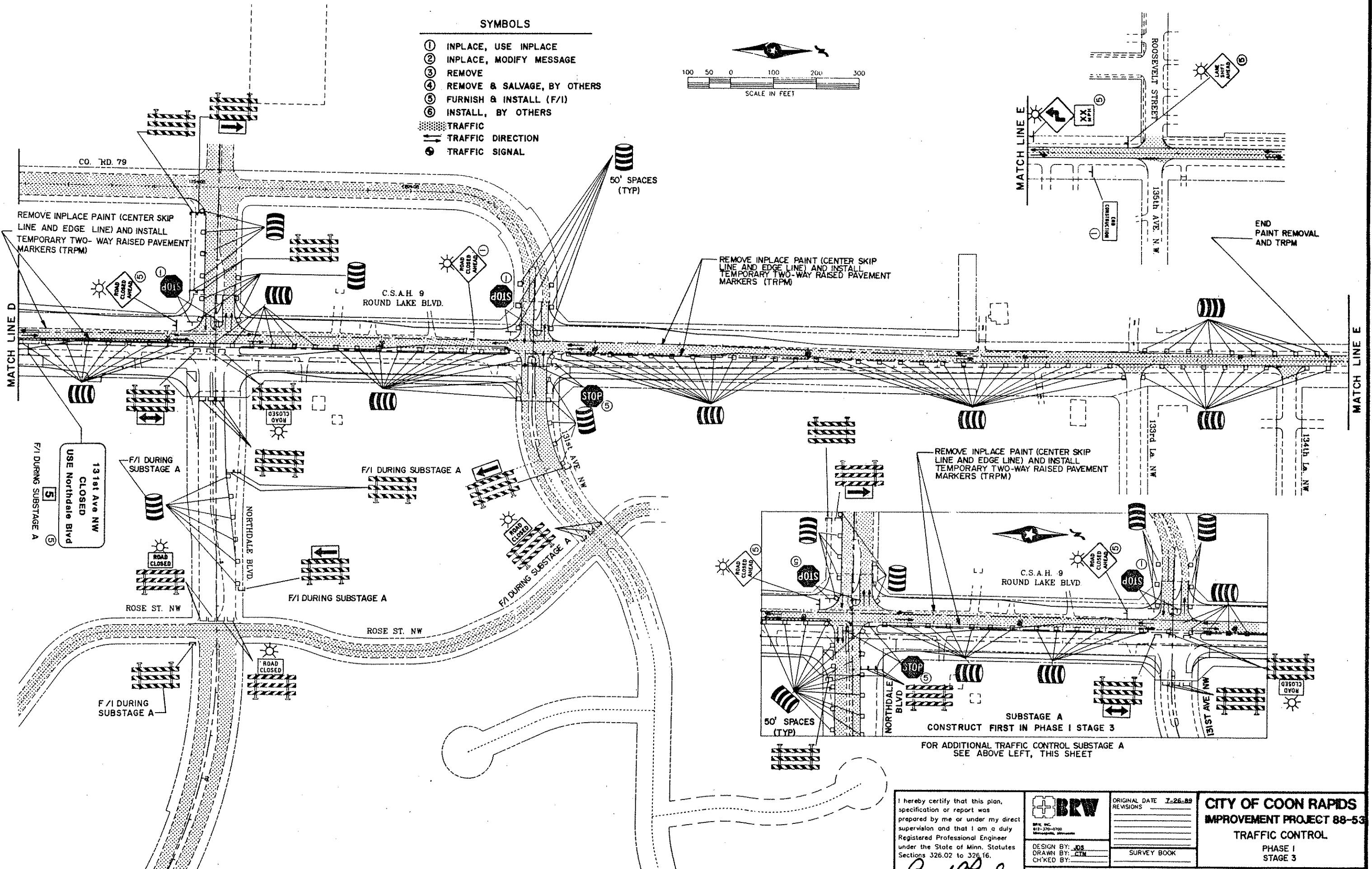
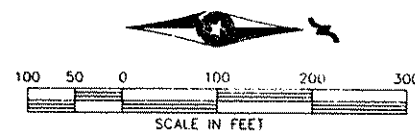
ORIGINAL DATE: 7-26-89
 REVISIONS:

 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 TRAFFIC CONTROL
 PHASE I
 STAGE 3

SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- TRAFFIC
- TRAFFIC DIRECTION
- TRAFFIC SIGNAL



FOR ADDITIONAL TRAFFIC CONTROL SUBSTAGE A
SEE ABOVE LEFT, THIS SHEET

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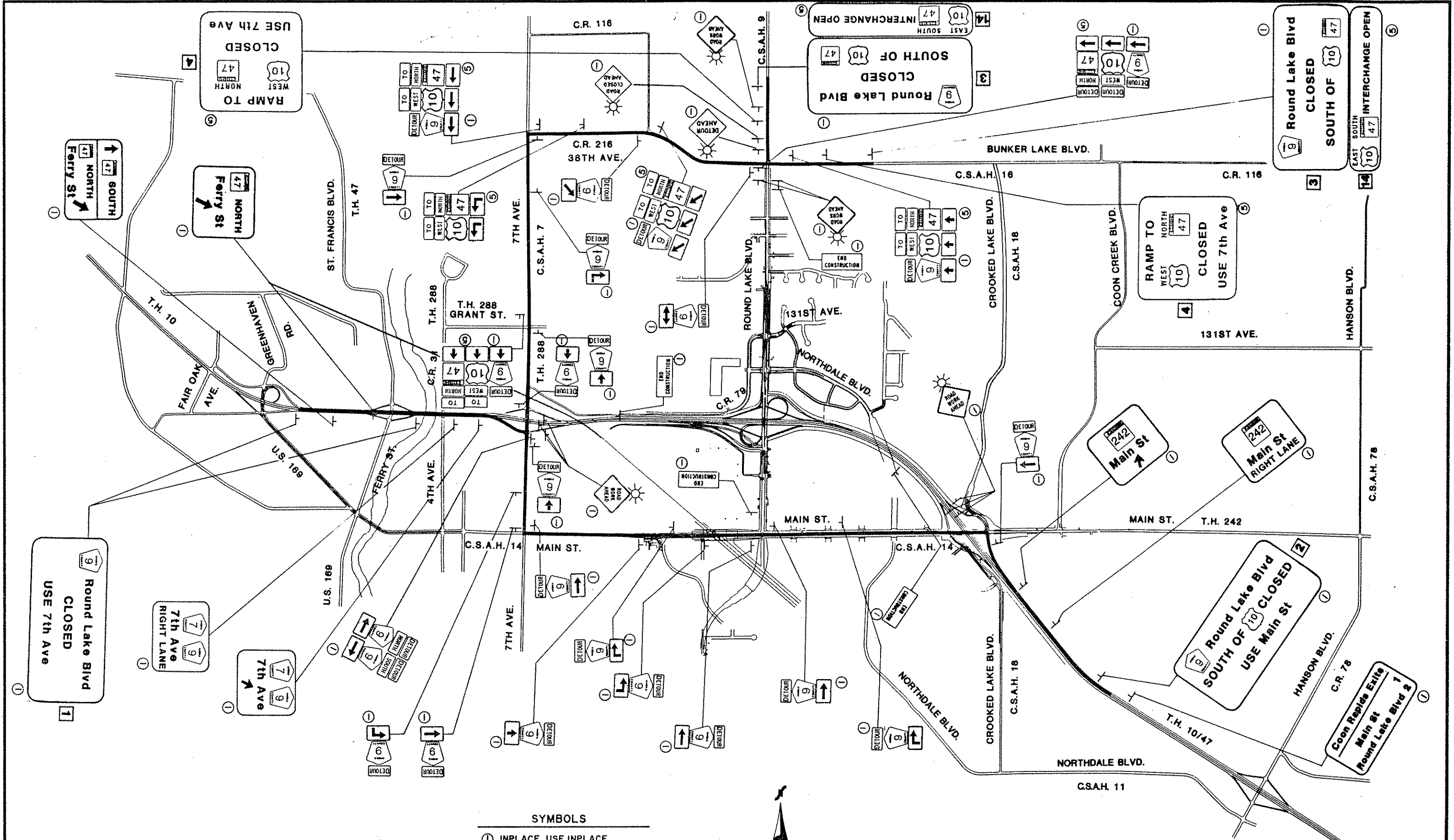
Royal R. ...
Date: 8-22-89, Minn. Reg. No. J2666

BRW
BRW, INC.
612-275-0700
Minneapolis, Minnesota

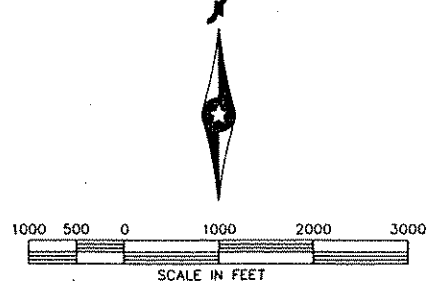
DESIGN BY: JCS
DRAWN BY: CTM
CHECKED BY:

ORIGINAL DATE: 7-26-89
REVISIONS:
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE I
STAGE 3



- SYMBOLS**
- ① INPLACE, USE INPLACE.
 - ② INPLACE, MODIFY MESSAGE.
 - ③ REMOVE.
 - ④ REMOVE & SALVAGE, BY OTHERS.
 - ⑤ FURNISH & INSTALL (F /I).
 - ⑥ INSTALL, BY OTHERS.
 - ▬ DETOUR



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 State of Minn. Statutes Sections 326.02 to 326.16.

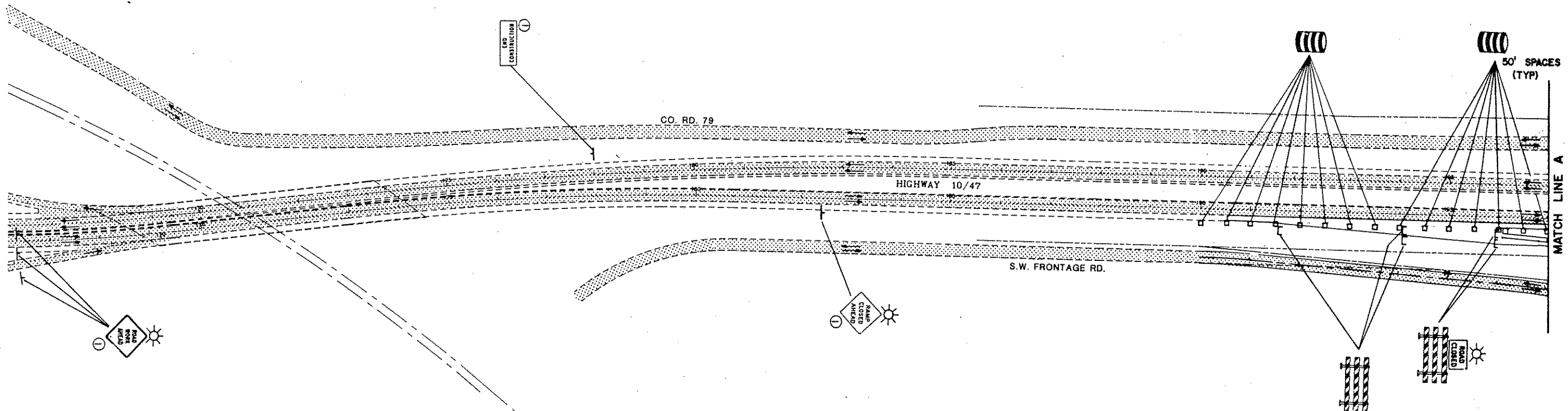
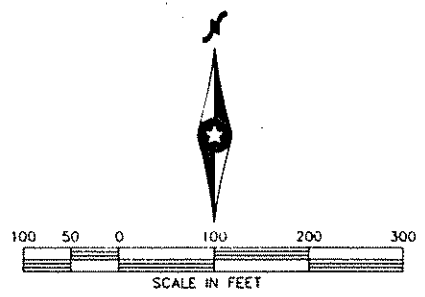
Boyd R. Paulsen
 Date: 8-22-89, Minn. Reg. No. 12666

	ORIGINAL DATE	7-21-88
	REVISIONS	
DESIGN BY: JDS	SURVEY BOOK	
DRAWN BY: LEB CTN		
CHECKED BY:		
S.A.P. NO. 02-609-08		

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL LAYOUT
 ADVANCE SIGNING
 PHASE 2 STAGE 1

SHEET 61 OF 256

DESIGN FILE No. 15-8840



SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paul
 Date: 8-22-89 Minn. Reg. No. 12656

BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

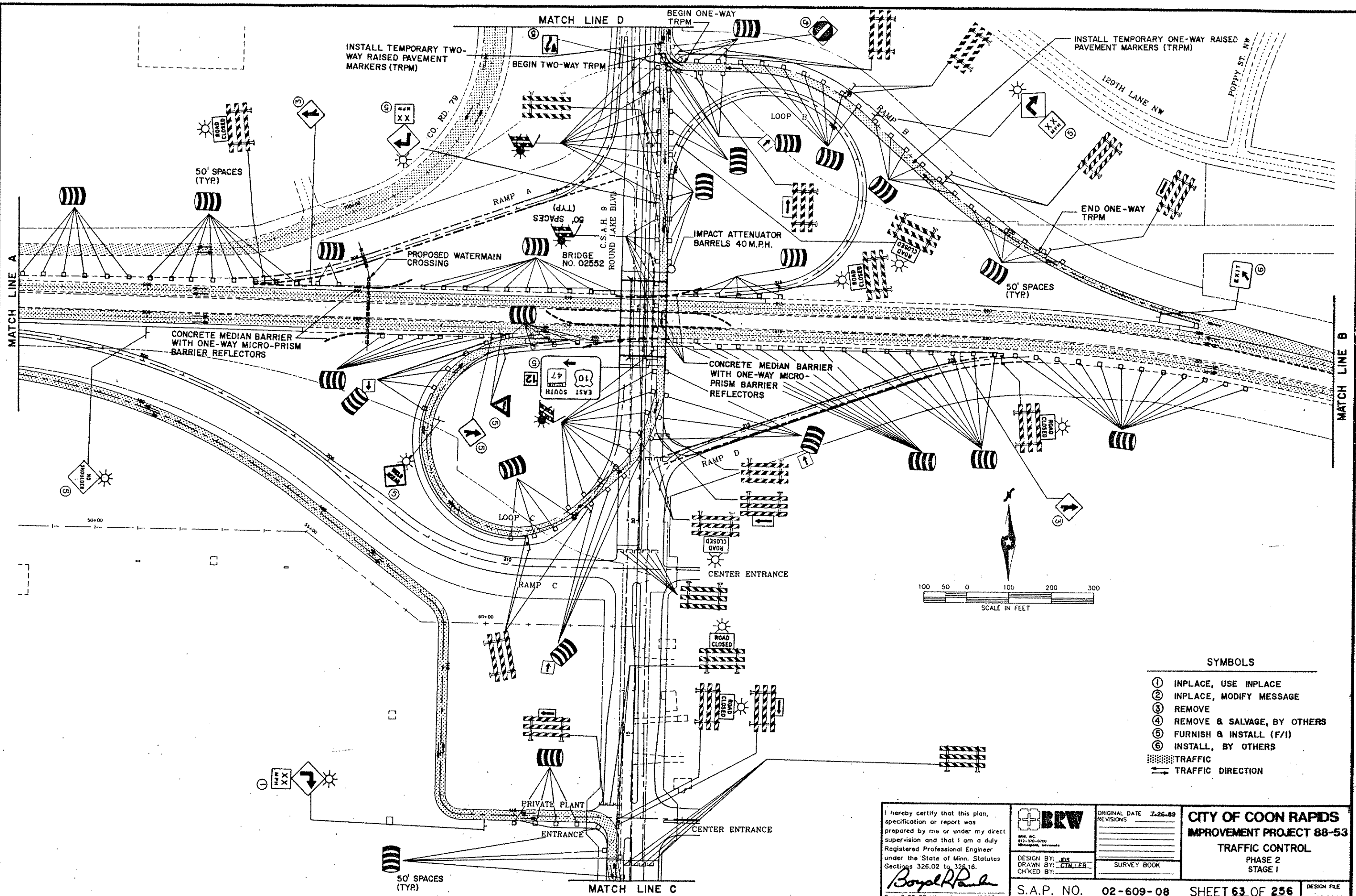
DESIGN BY: *RS*
 DRAWN BY: *CTM*
 CHECKED BY: _____

ORIGINAL DATE: 7-26-89
 REVISIONS: _____
 SURVEY BOOK: _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE I

S.A.P. NO. 02-609-08 SHEET 62 OF 256

DESIGN FILE No. 16-BB40



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - TRAFFIC
 - TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen

Date 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

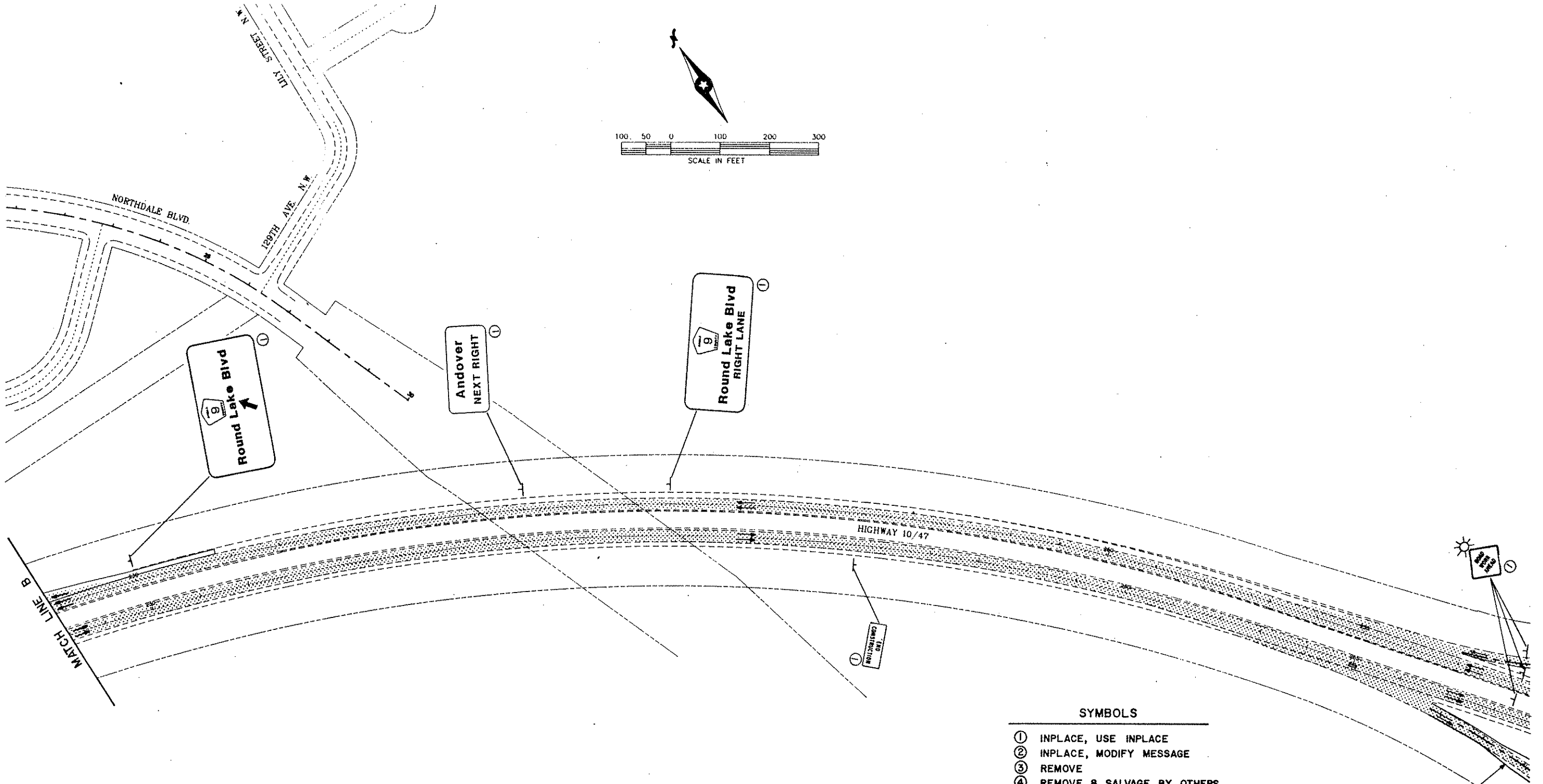
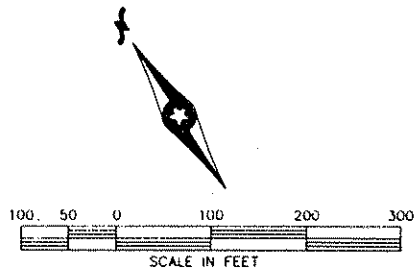
DESIGN BY: JDS
 DRAWN BY: CTN/LEB
 CHECKED BY:

ORIGINAL DATE	7-26-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE 2
STAGE 1

S.A.P. NO. 02-609-08 SHEET 63 OF 256

DESIGN FILE No. 16-8840



SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- ⇄ TRAFFIC DIRECTION

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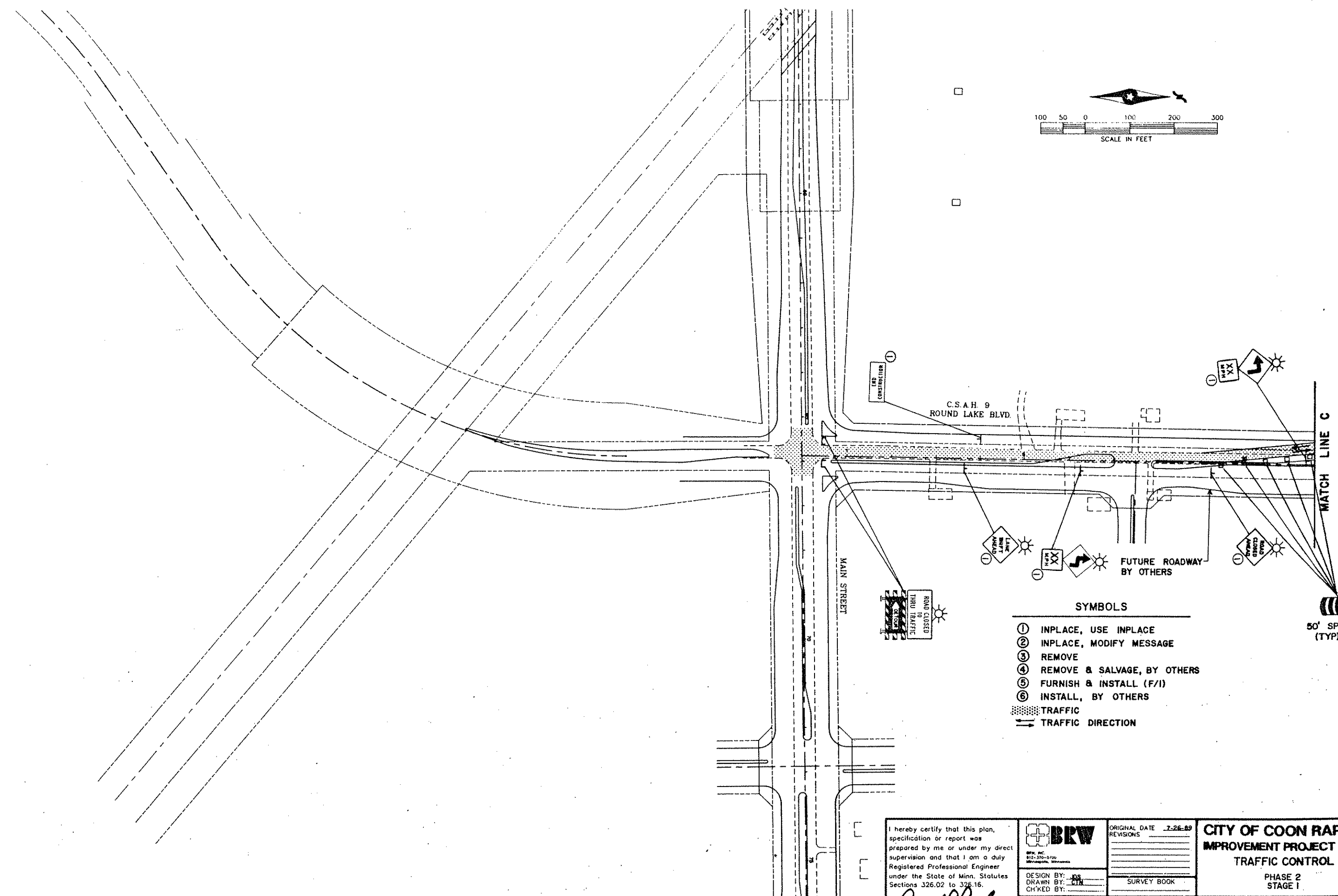
Boyd Paulsen

Date: 8-22-89 Minn. Reg. No. 12668

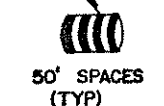
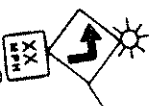
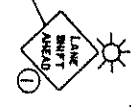
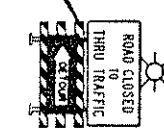


ORIGINAL DATE	7-26-89
REVISIONS	
DESIGN BY:	JIS
DRAWN BY:	CTH
CHECKED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE 2
STAGE 1



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION



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Boyd Paulsen

Date: 8-22-89 Minn. Reg. No. 12965

BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

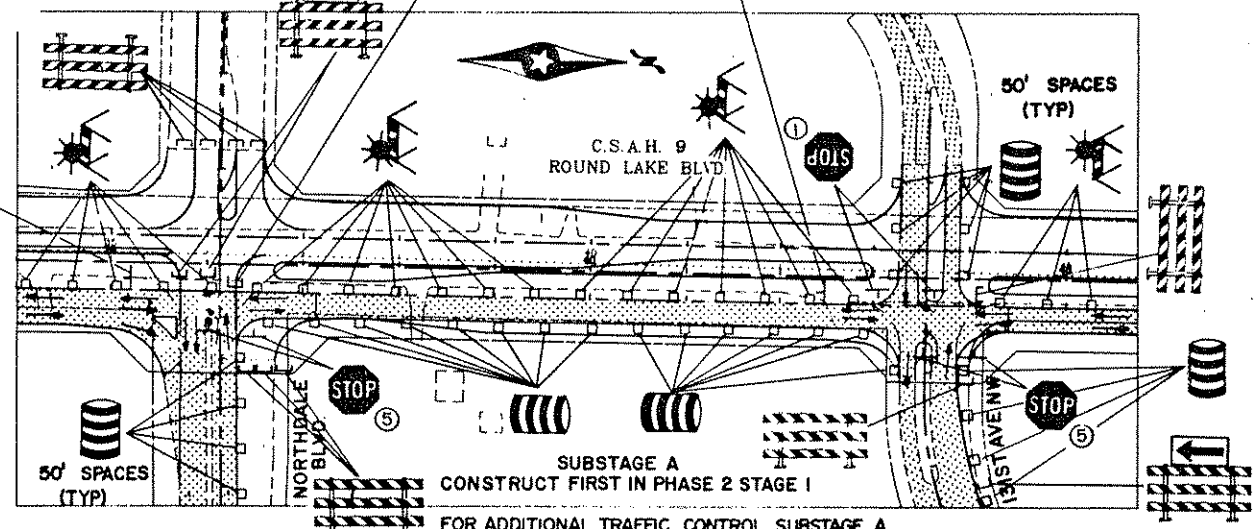
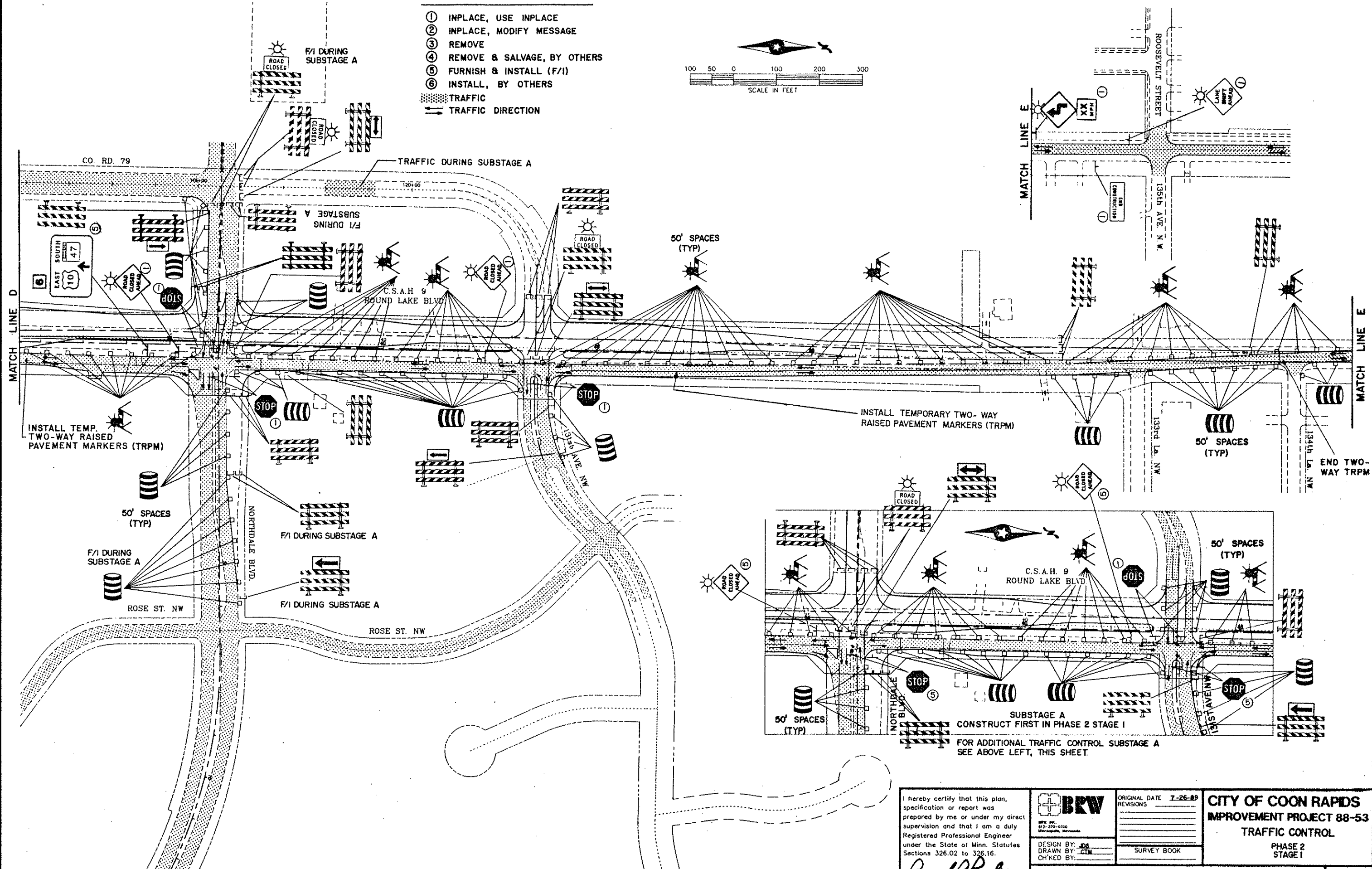
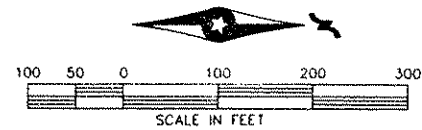
DESIGN BY: JS
 DRAWN BY: CKN
 CHECKED BY:

ORIGINAL DATE: 7-26-89
 REVISIONS:
 SURVEY BOOK:

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 1

SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ☀️ TRAFFIC
- ➔ TRAFFIC DIRECTION



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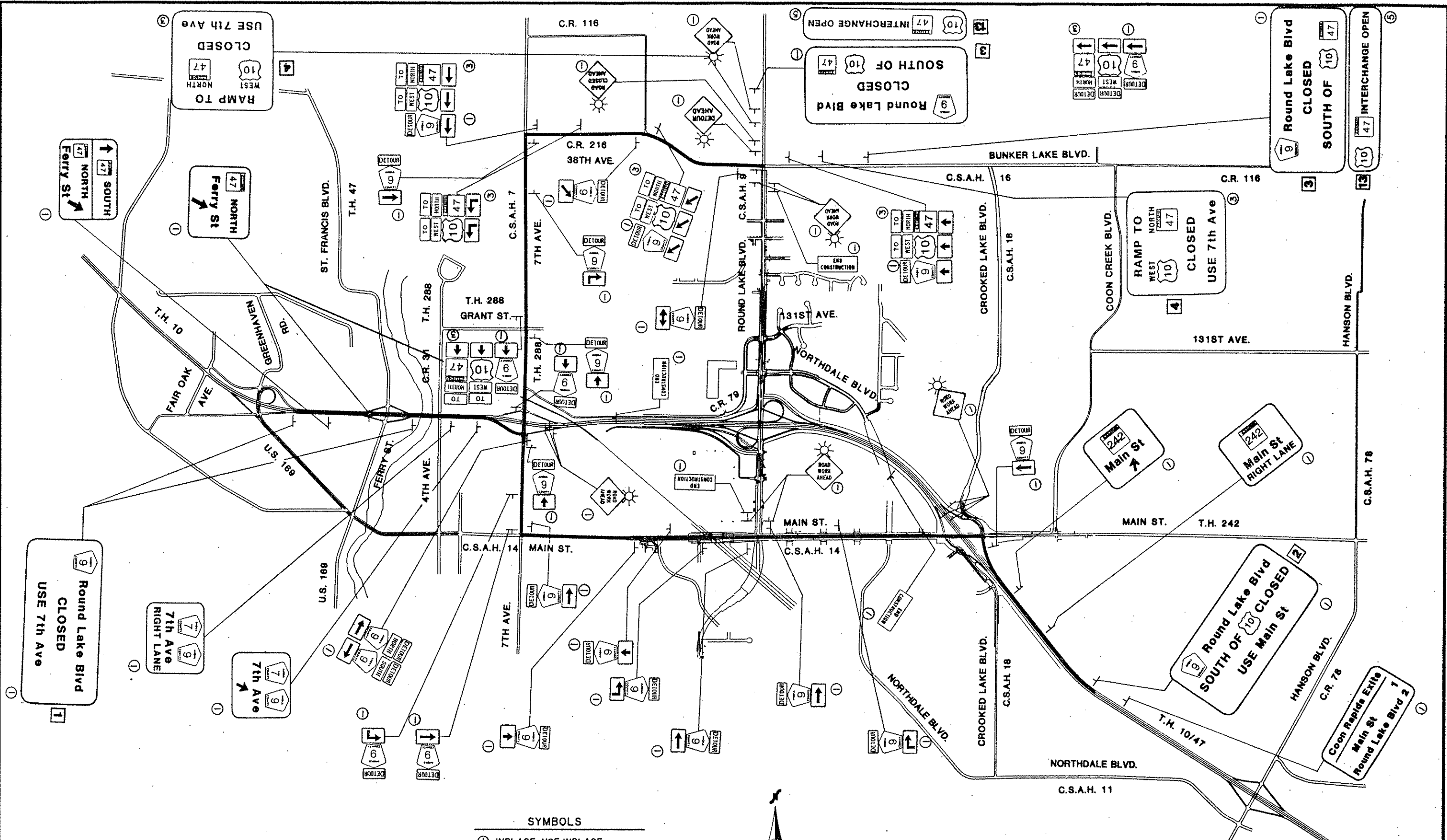
Royce R. Rasmussen
 Date: 8-22-89 Minn. Reg. No. 12956

BRW
 BRW, INC.
 812-375-0700
 Minneapolis, Minnesota

DESIGN BY: *DS*
 DRAWN BY: *CTM*
 CH'K'D BY:

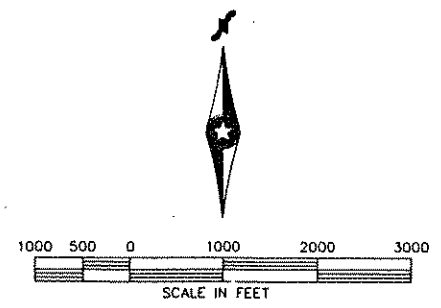
ORIGINAL DATE: 7-26-89
 REVISIONS:
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 1



SYMBOLS

- ① INPLACE, USE INPLACE.
- ② INPLACE, MODIFY MESSAGE.
- ③ REMOVE.
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- ⑥ INSTALL, BY OTHERS.
- ▬ DETOUR



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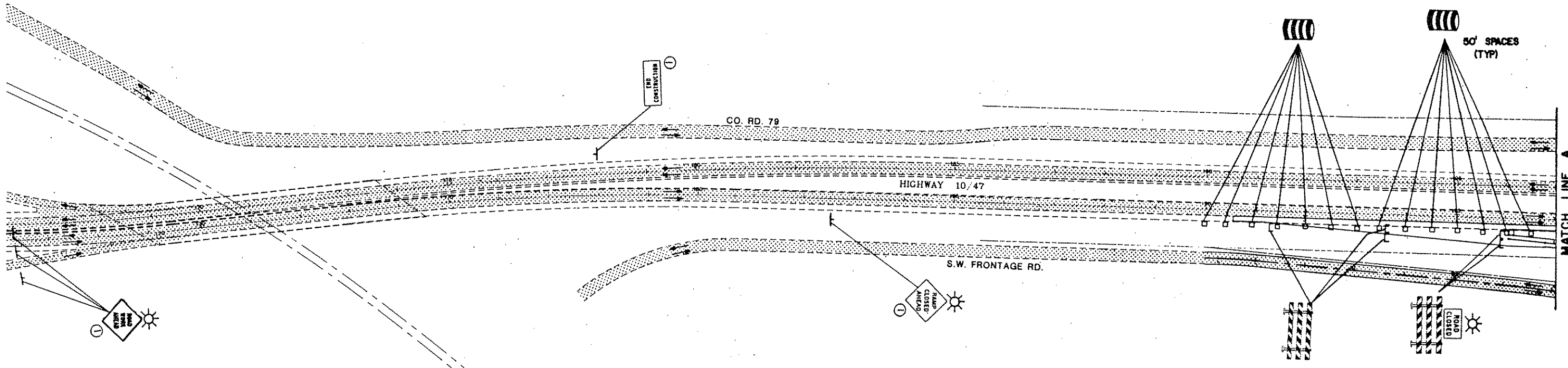
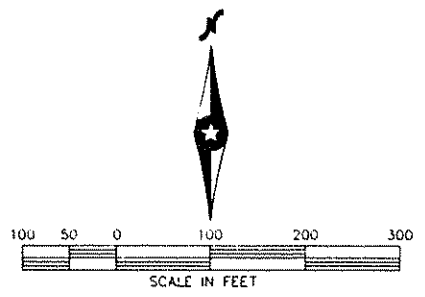
Boyd Paul

Date 8-22-89 Minn. Reg. No. 12666

BRW
 816, INC.
 412-376-0700
 Minneapolis, Minnesota

ORIGINAL DATE 7-21-88
 REVISIONS
 DESIGN BY: JDA
 DRAWN BY: TEB, CTA
 CHECKED BY:
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 8E 53
TRAFFIC CONTROL LAYOUT
ADVANCE SIGNING
PHASE 2 STAGE 2



SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- TRAFFIC DIRECTION

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Boyd Paulsen
 Date 8-22-89 Minn. Reg. No. 12666

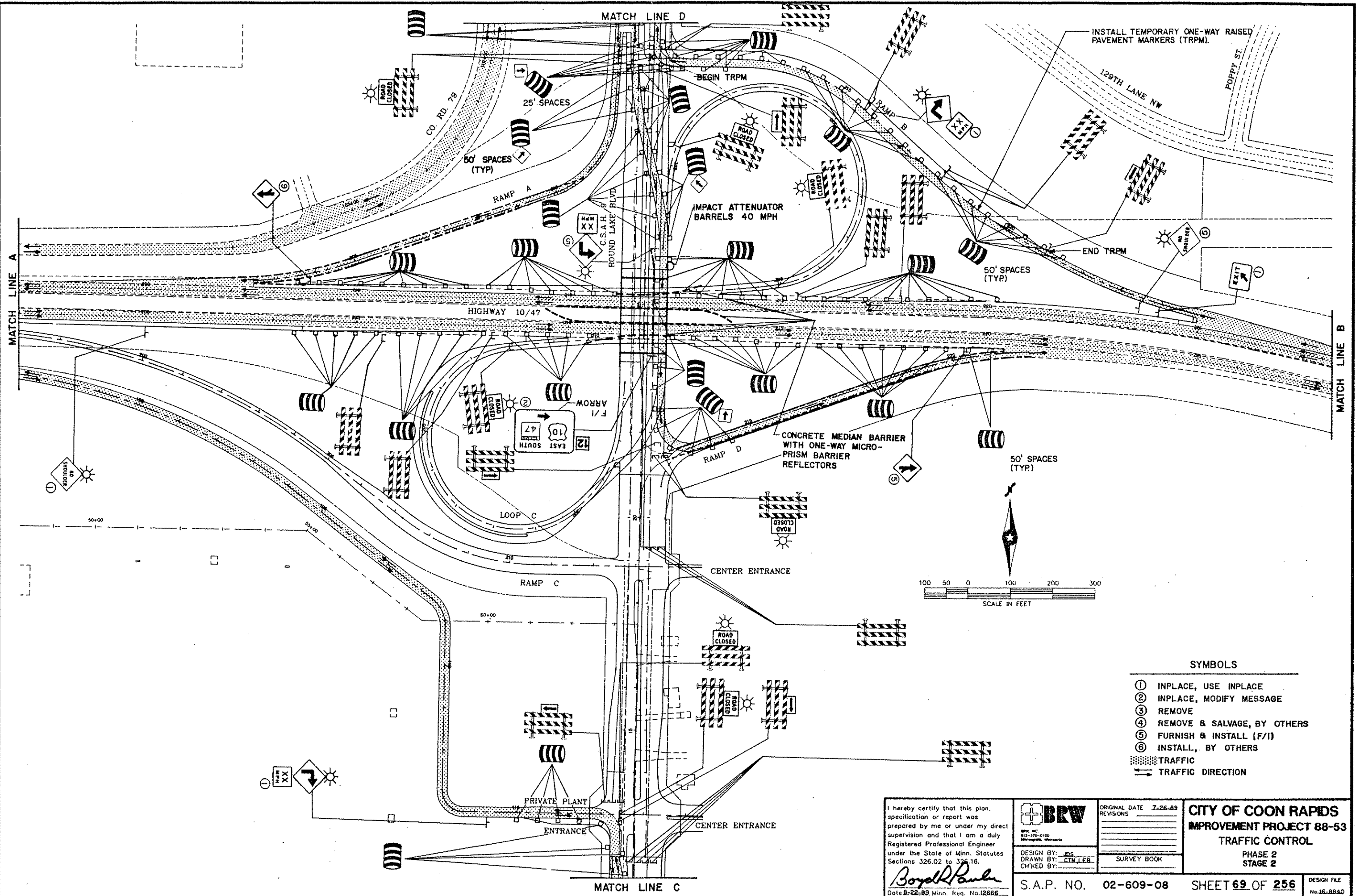
BRW
 BRW, INC.
 612-370-0100
 Minneapolis, Minnesota

DESIGN BY: JRS
 DRAWN BY: VTN
 CHECKED BY:

ORIGINAL DATE 2-26-88
 REVISIONS
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 2

S.A.P. NO. 02-609-08 SHEET 68 OF 256 DESIGN FILE No. 16-8840



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen
 Date: 8-22-89 Minn. Reg. No. 12886

BRW
 BRW, INC.
 812-170-0100
 Minneapolis, Minnesota

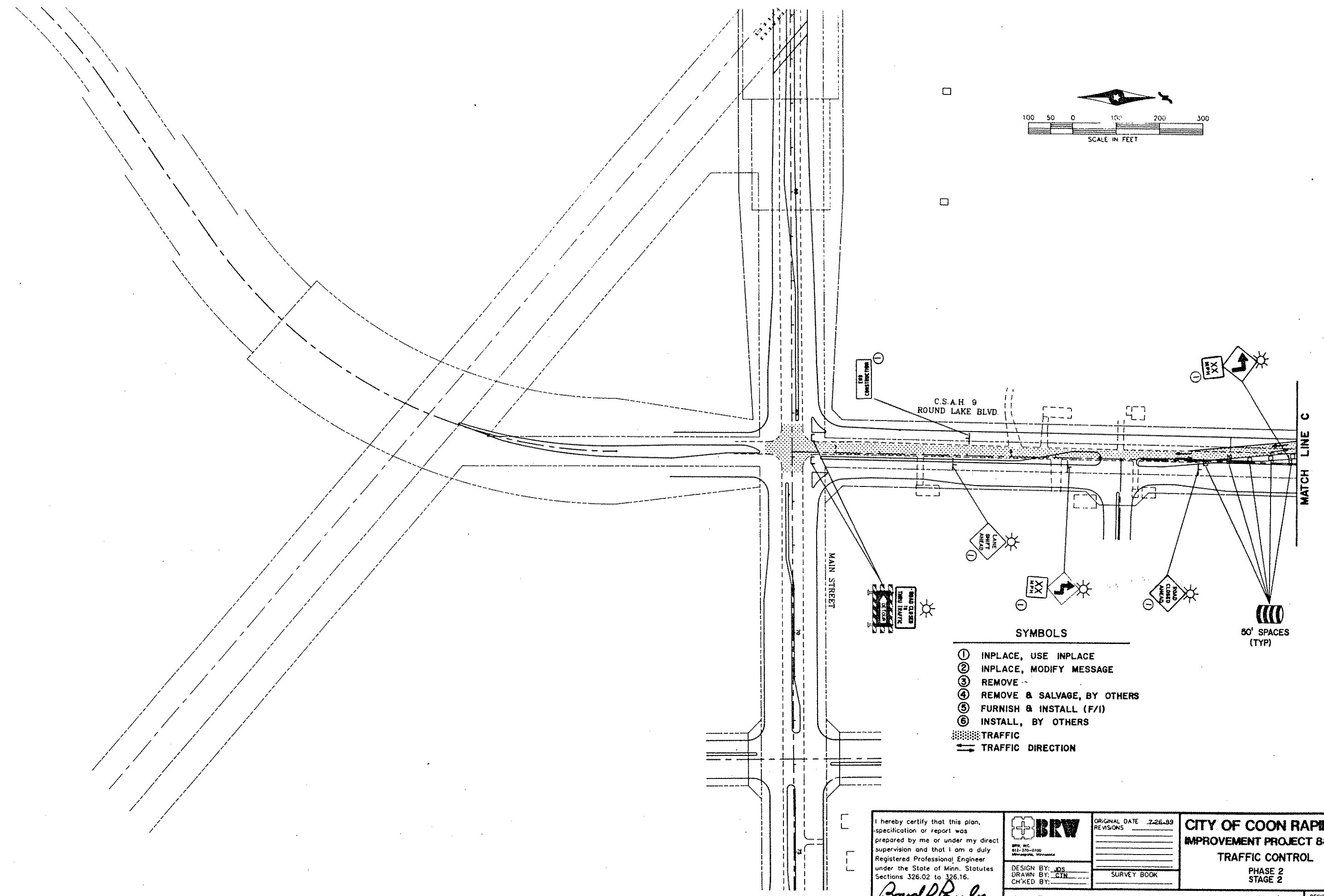
DESIGN BY: JDS
 DRAWN BY: CTN, LEB
 CHECKED BY:

ORIGINAL DATE: 7-26-89
 REVISIONS:
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 2

S.A.P. NO. 02-609-08 SHEET 69 OF 256

DESIGN FILE No. 16-8840



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16.

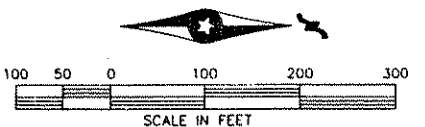
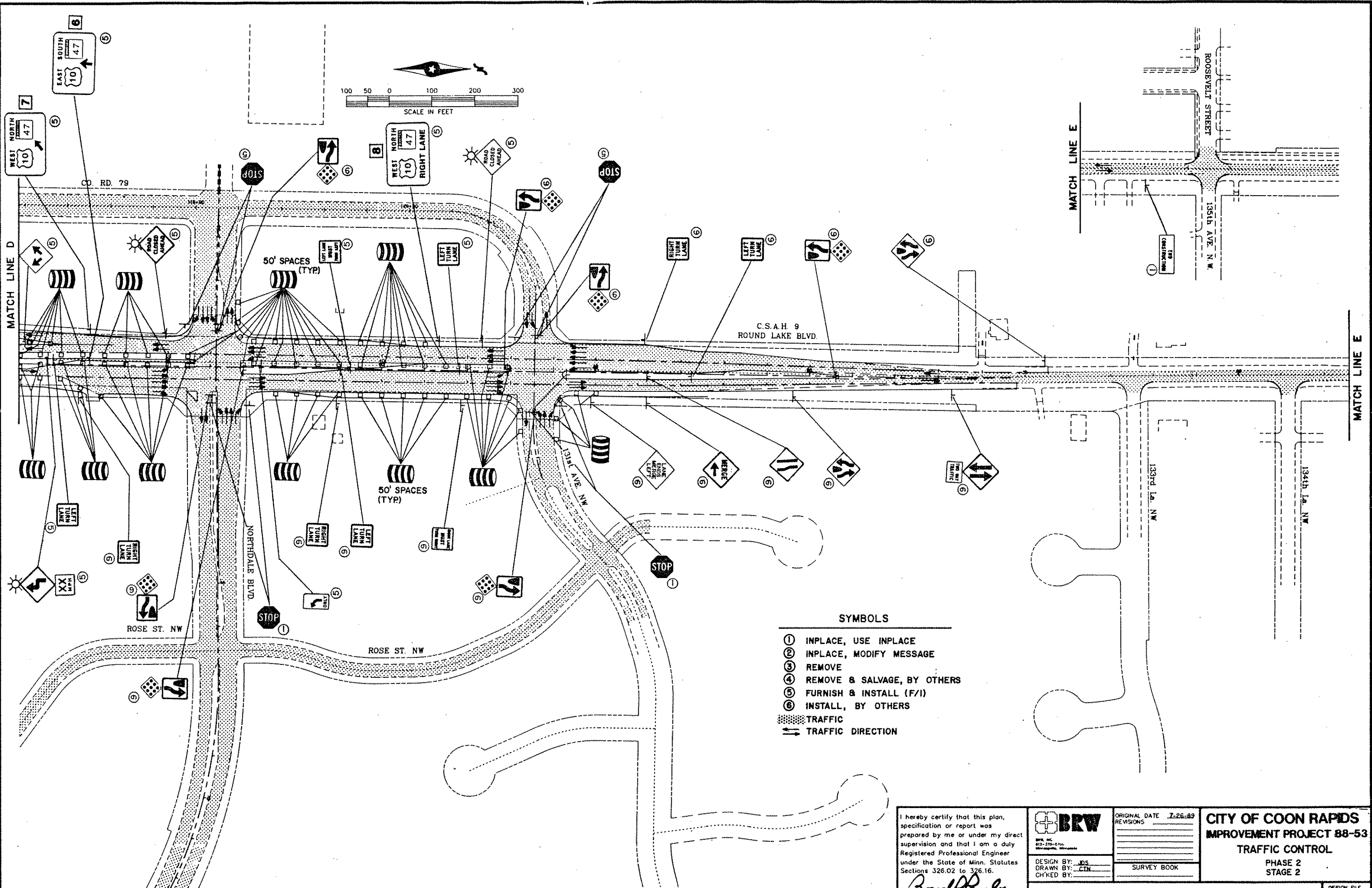
Boyd R. Paul
 Date 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 812-370-0100
 Minneapolis, Minnesota

DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE	7-26-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 2



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - ➔ TRAFFIC DIRECTION

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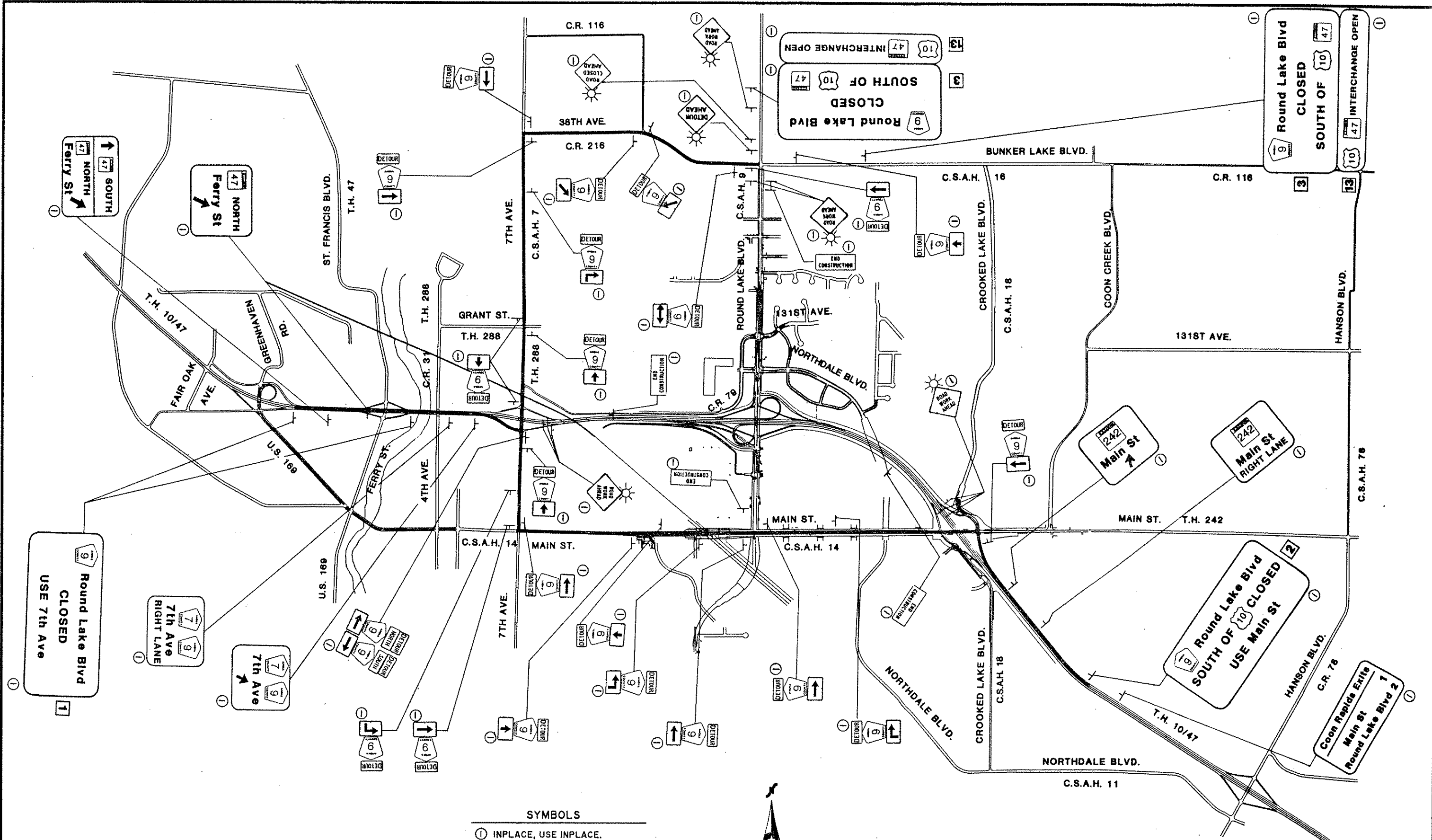
Boyd Paul
 Date: 8-22-89 Minn. Reg. No. 12566

BRW
 BRW, INC.
 812-370-0111
 Minneapolis, Minnesota

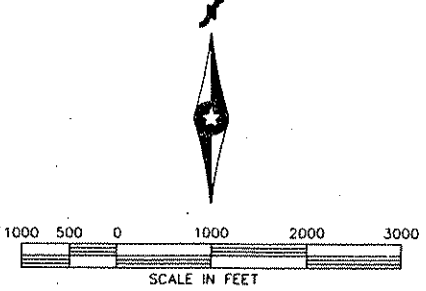
ORIGINAL DATE: 7-26-89
 REVISIONS:
 DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 2

S.A.P. NO. 02-609-08 SHEET 72 OF 256 DESIGN FILE No. 16-8840



- SYMBOLS**
- ① INPLACE, USE INPLACE.
 - ② INPLACE, MODIFY MESSAGE.
 - ③ REMOVE.
 - ④ REMOVE & SALVAGE, BY OTHERS.
 - ⑤ FURNISH & INSTALL (F/I).
 - ⑥ INSTALL, BY OTHERS.
 - DETOUR



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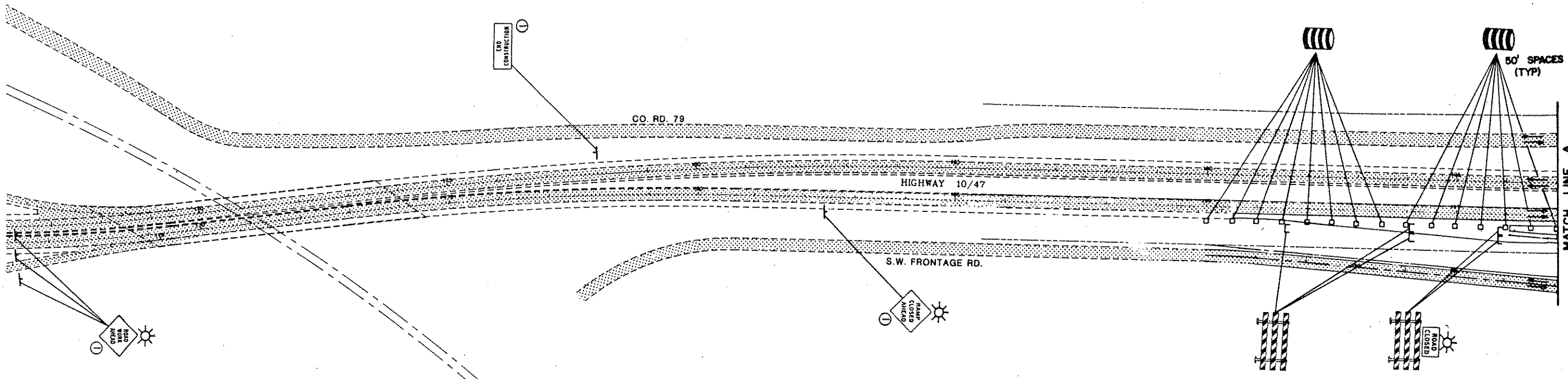
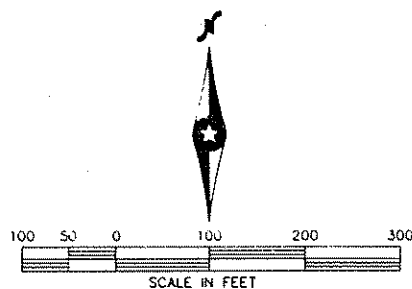
Boyd R. Paulsen
 Date: 8-22-89, Minn. Reg. No. 12666

BRW
 BRW, INC.
 412-370-0760
 Minneapolis, Minnesota

ORIGINAL DATE: 8-2-89
 REASONS:
 DESIGN BY: JDS
 DRAWN BY: LFB/CTM
 CHECKED BY:
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL LAYOUT
ADVANCE SIGNING
PHASE 2 STAGE 3

S.A.P. NO. 02-609-08 SHEET 73 OF 256 DESIGN FILE No. 18-88.40



SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- TRAFFIC DIRECTION

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Boyd R. Bunker
 Date 8-22-89 Minn. Reg. No. 12686

BRW
 BRW, INC.
 912-370-0700
 Minneapolis, Minnesota

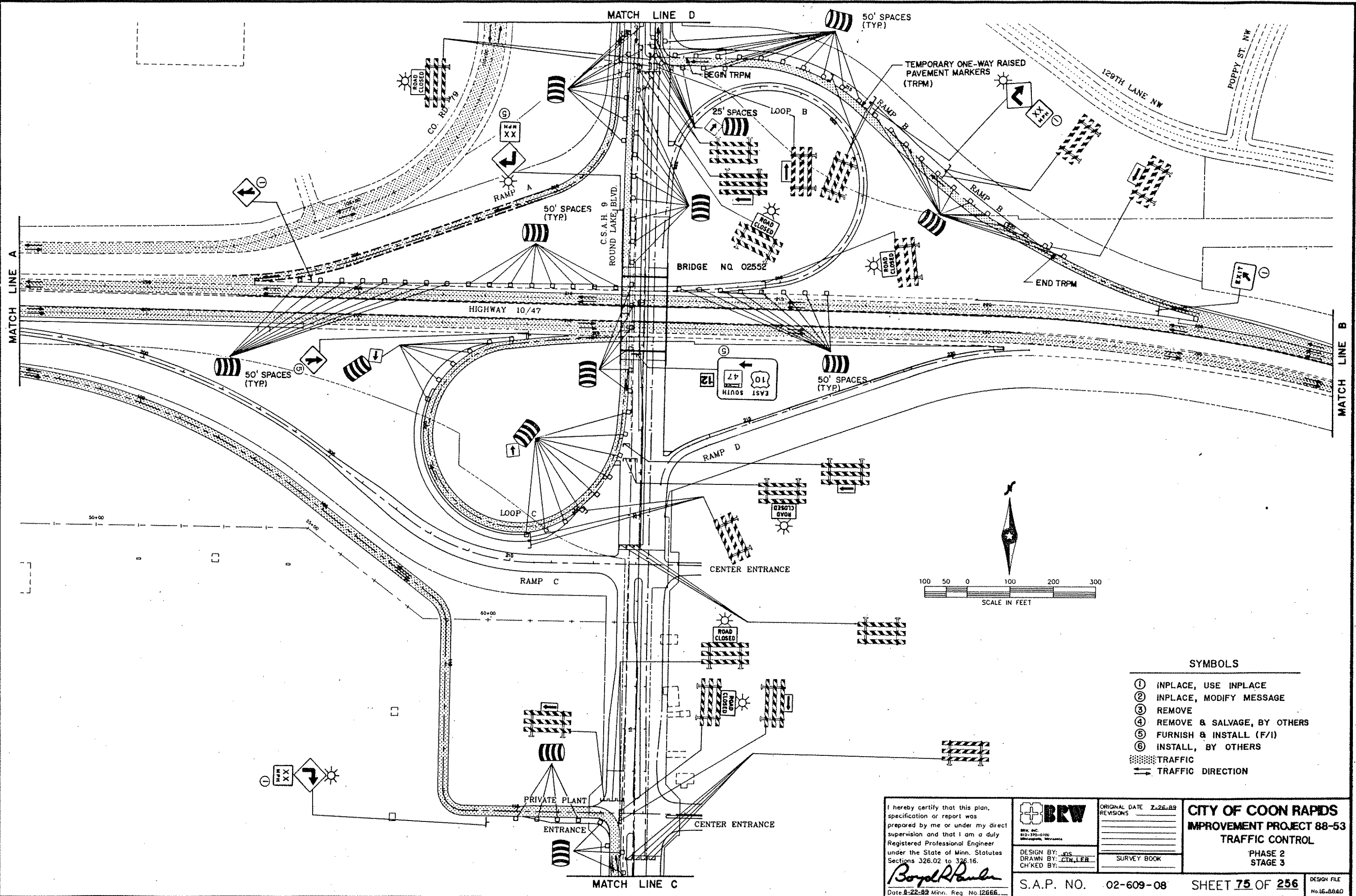
DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE 7-26-89
 REVISIONS _____

 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 3

S.A.P. NO. 02-609-08 SHEET 74 OF 256 DESIGN FILE No. 15-BB40



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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Boyd R. Rasmussen

Date: 8-22-82 Minn. Reg. No. 12666

BRW
 BRW, INC.
 813-370-0700
 Minneapolis, Minnesota

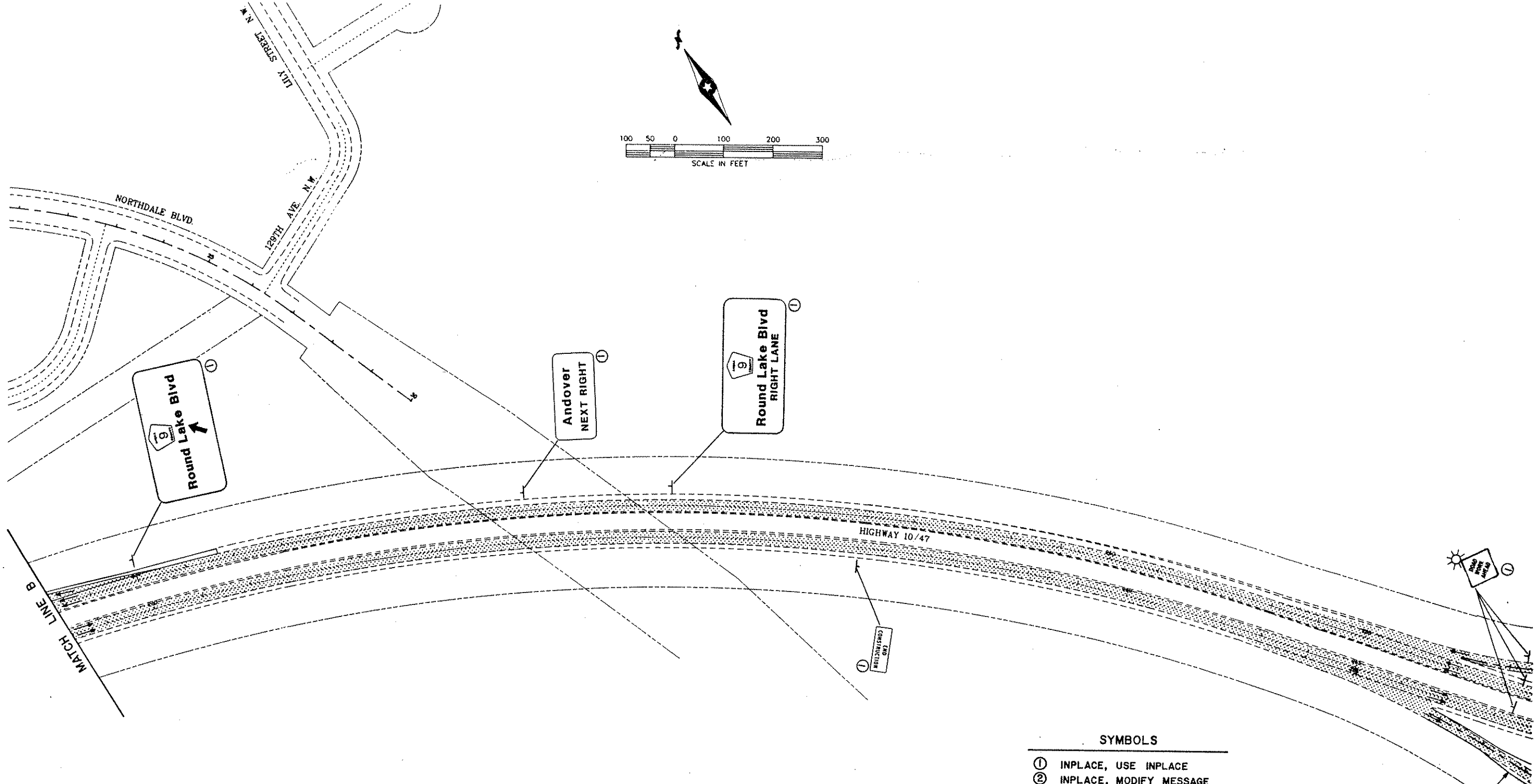
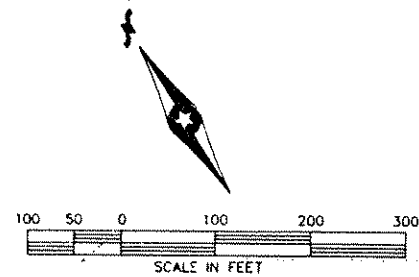
DESIGN BY: JDS
 DRAWN BY: CTN, LER
 CHECKED BY:

ORIGINAL DATE: 7-26-89
 REVISIONS:
 SURVEY BOOK:

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 3

S.A.P. NO. 02-609-08 SHEET 75 OF 256

DESIGN FILE No. 15-8840



SYMBOLS

- ① INPLACE, USE INPLACE
- ② INPLACE, MODIFY MESSAGE
- ③ REMOVE
- ④ REMOVE & SALVAGE, BY OTHERS
- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- ⇨ TRAFFIC DIRECTION

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Boyd R. Bauler
 Date 8-22-89 Minn. Reg. No. 12668

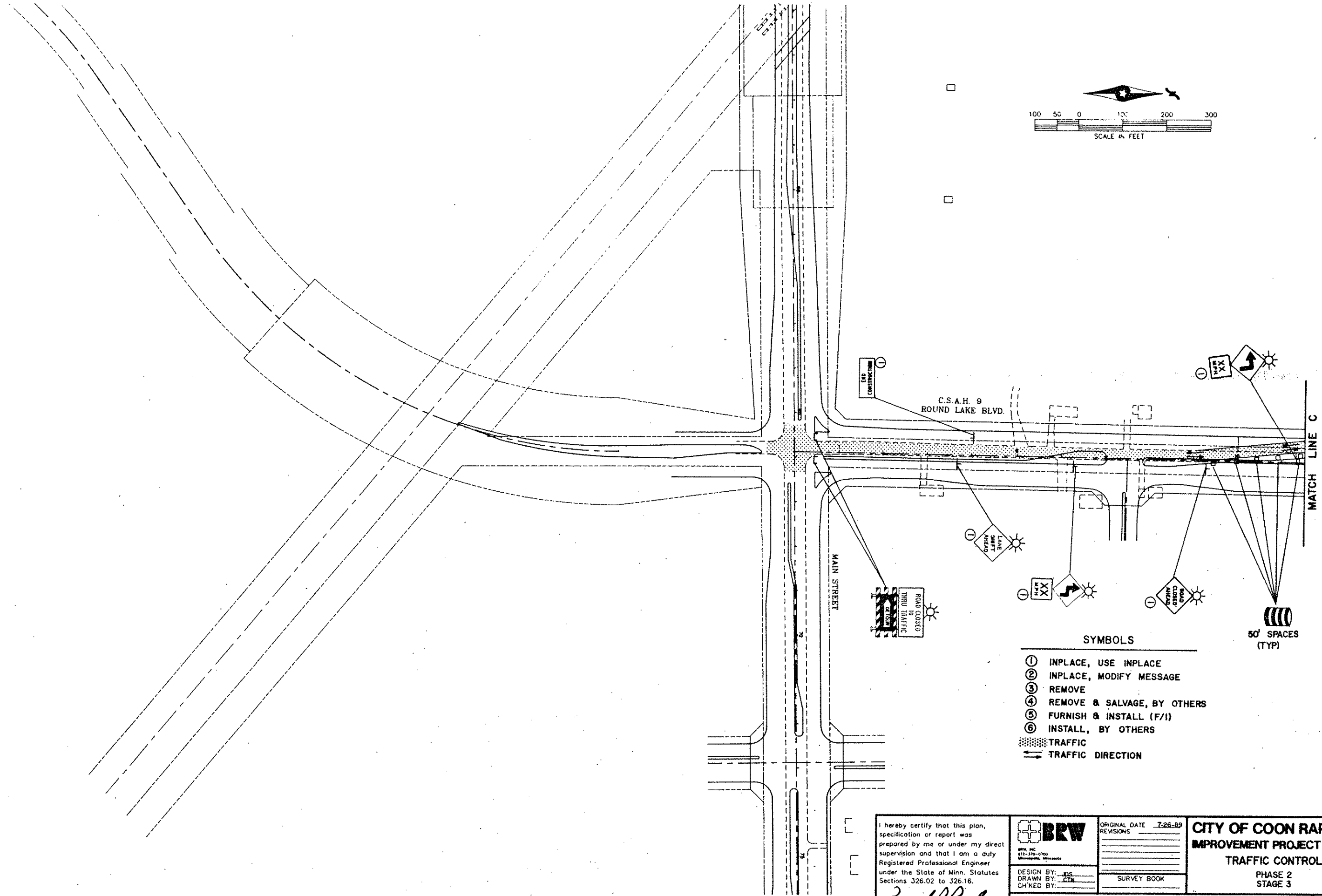
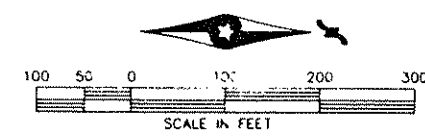
BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE 7.26.89
 REVISIONS
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 3

S.A.P. NO. 02-609-08 SHEET 76 OF 256 DESIGN FILE No. 16-BB40



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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Boyd R. Paul
 Date: 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

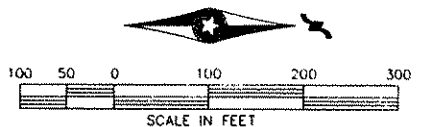
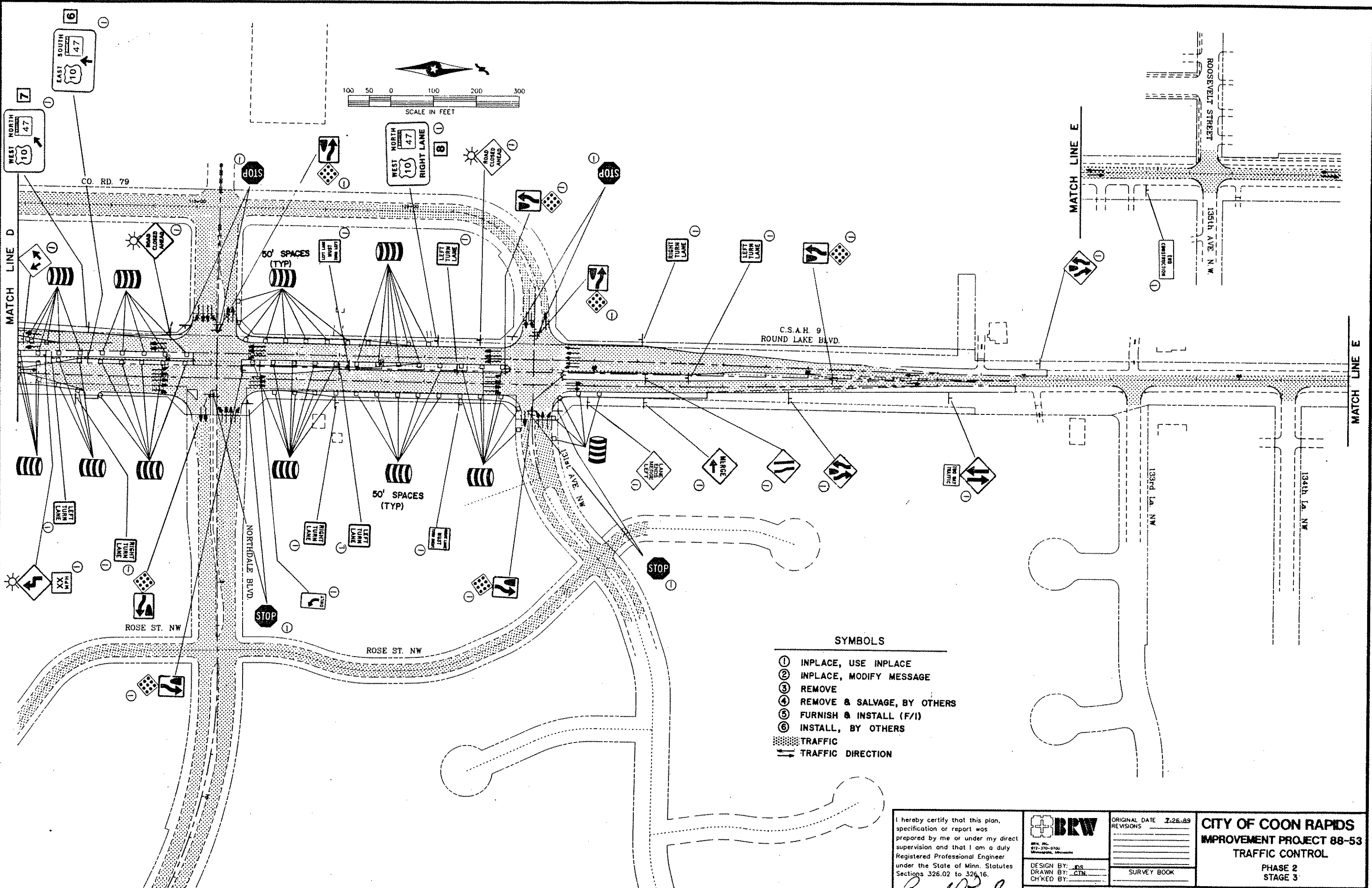
DESIGN BY: JDS
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE: 7-26-89
 REVISIONS:
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 3

S.A.P. NO. 02-609-08 SHEET 77 OF 256

DESIGN FILE No. 15-8840



- SYMBOLS**
- ① INPLACE, USE INPLACE
 - ② INPLACE, MODIFY MESSAGE
 - ③ REMOVE
 - ④ REMOVE & SALVAGE, BY OTHERS
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 - TRAFFIC DIRECTION

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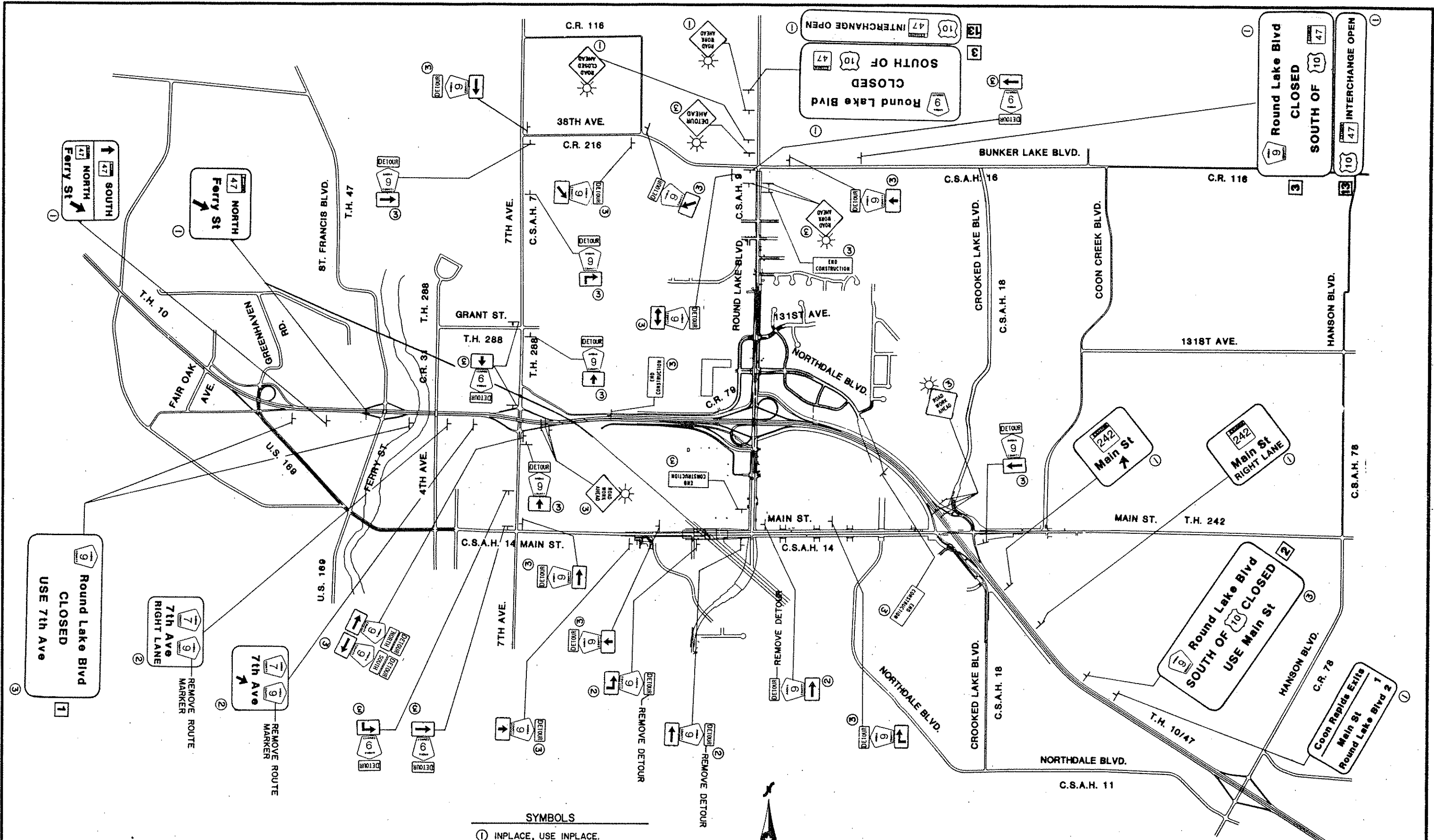
Boyd Paulsen
 Date 8-22-83 Minn. Reg. No. 12666

BRW
 BRW, INC.
 812-270-0700
 Minneapolis, Minnesota

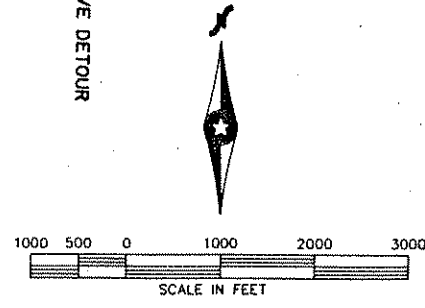
ORIGINAL DATE 7-26-89
 REVISIONS
 DESIGN BY: JRS
 DRAWN BY: ZTN
 CHECKED BY:
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
 PHASE 2
 STAGE 3

S.A.P. NO. 02-609-08 SHEET 78 OF 256 DESIGN FILE No. 16-B040



- SYMBOLS**
- ① INPLACE, USE INPLACE.
 - ② INPLACE, MODIFY MESSAGE.
 - ③ REMOVE.
 - ④ REMOVE & SALVAGE, BY OTHERS.
 - ⑤ FURNISH & INSTALL (F/I).
 - ⑥ INSTALL, BY OTHERS.
 - DETOUR



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Rasmussen
 Date: 2-22-89, Minn. Reg. No. 2666

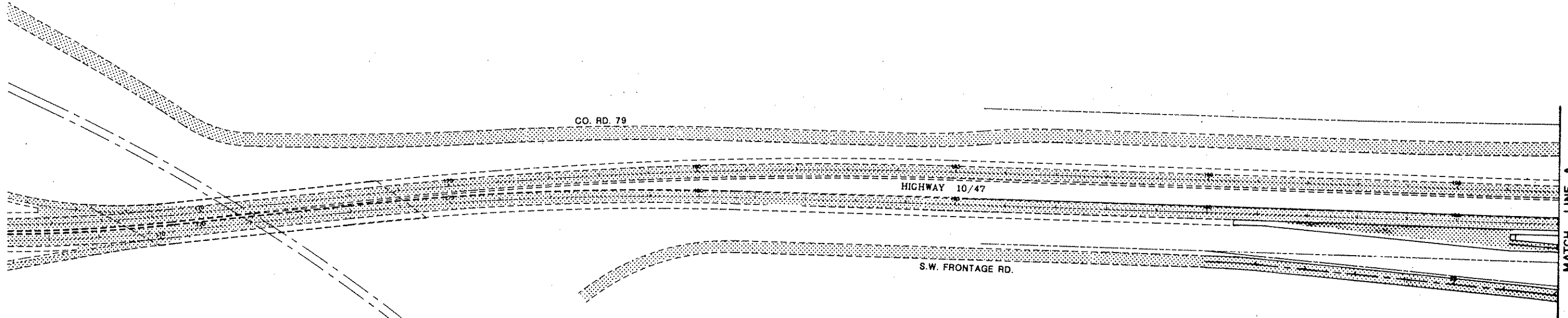
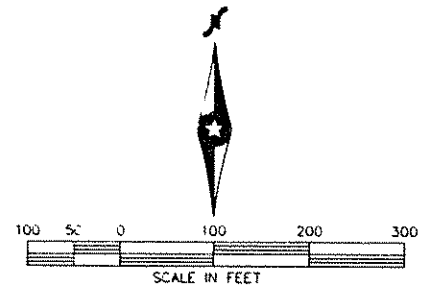
BRW
 BRW, INC.
 212-370-2000
 Minneapolis, Minnesota

DESIGN BY: JDS
 DRAWN BY: LEB, CTN
 CHECKED BY:

ORIGINAL DATE: 2-21-89
 REVISIONS:

SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL LAYOUT
ADVANCE SIGNING
PHASE 3: STAGE 1

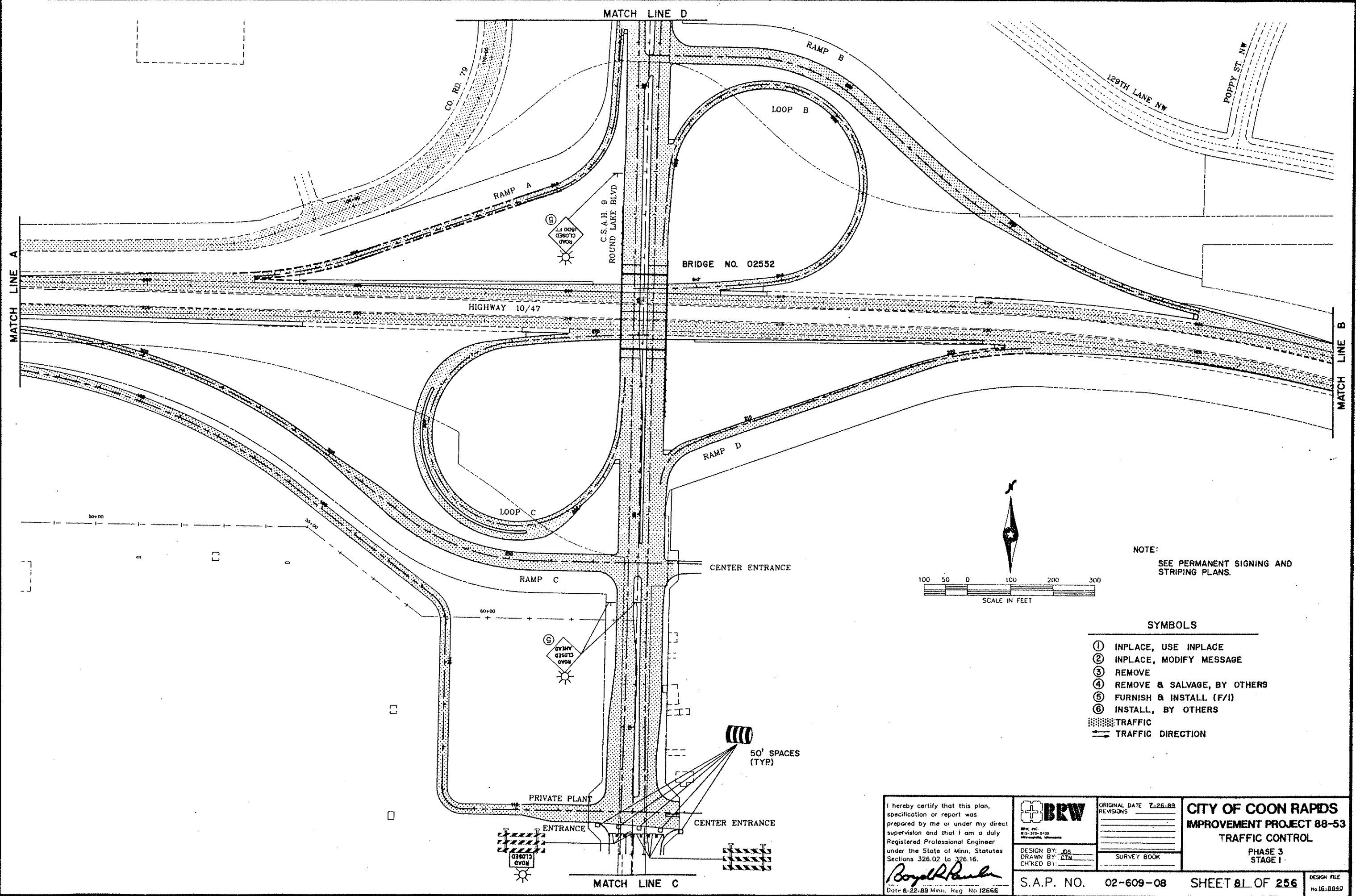


NOTE:
SEE PERMANENT SIGNING AND STRIPING PLANS.

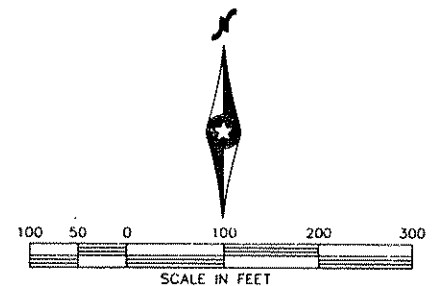
SYMBOLS

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- ⑤ FURNISH & INSTALL (F/I)
- ⑥ INSTALL, BY OTHERS
- ▨ TRAFFIC
- ↔ TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Paulsen</i> Date 8-22-89 Minn. Reg. No. 12666		ORIGINAL DATE 7-26-89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TRAFFIC CONTROL PHASE 3 STAGE 1
		DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 80 OF 256	DESIGN FILE No. 16-8840



NOTE:
SEE PERMANENT SIGNING AND STRIPING PLANS.



SYMBOLS

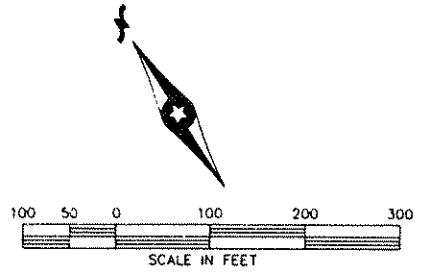
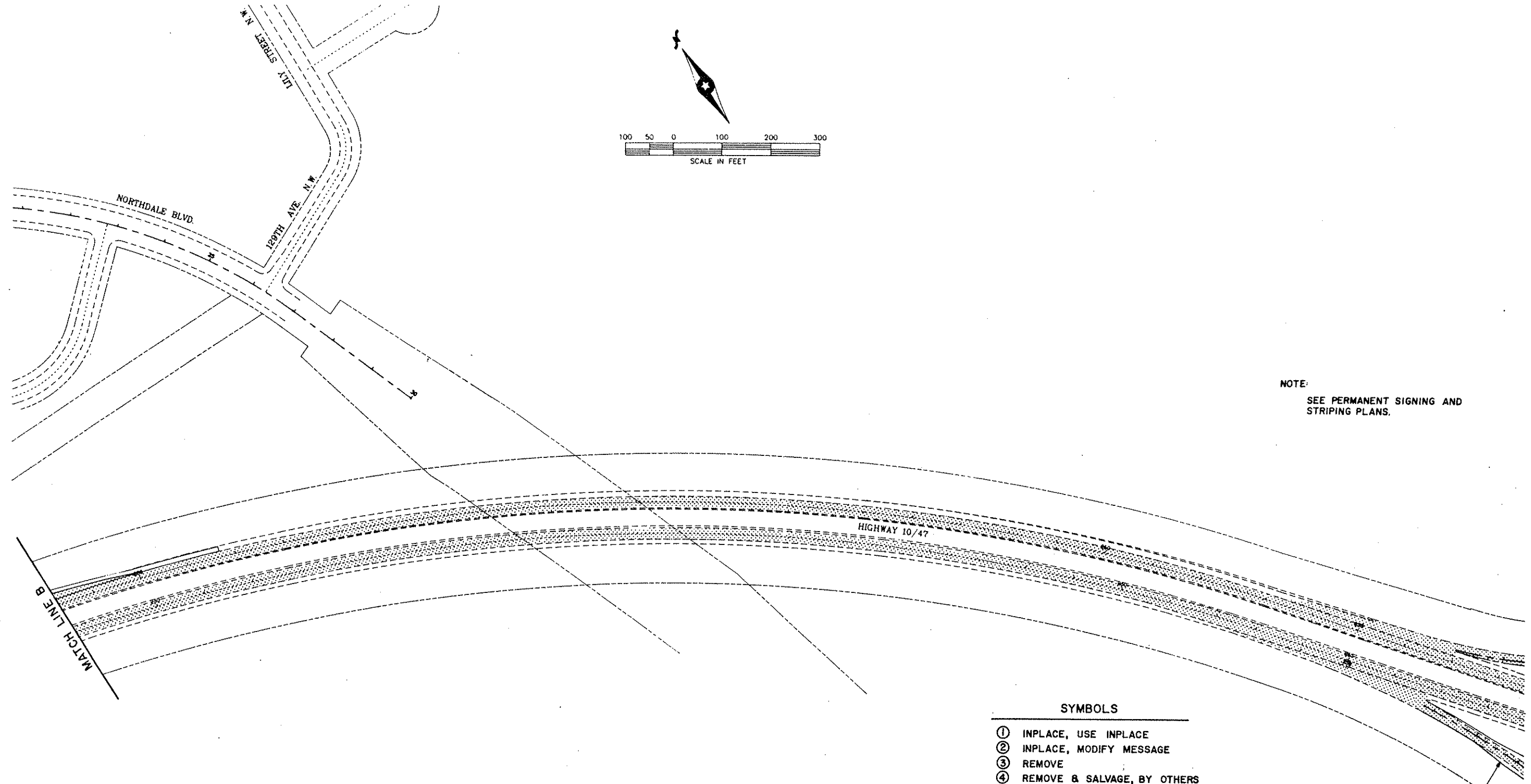
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Boyd R. Paulsen
Date 8-22-89 Minn. Reg. No 12566

 BRW, INC. 612-370-0700 Minneapolis, Minnesota	ORIGINAL DATE 7-26-88
	REVISIONS
DESIGN BY: JDS	SURVEY BOOK
DRAWN BY: CTM	
CHECKED BY:	

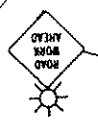
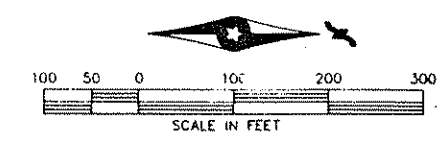
CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TRAFFIC CONTROL PHASE 3 STAGE I	
S.A.P. NO. 02-609-08	SHEET 81 OF 256
DESIGN FILE No 15-8840	



NOTE:
SEE PERMANENT SIGNING AND STRIPING PLANS.

- SYMBOLS**
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 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Bunker</i> Date: 8-22-89, Minn. Reg. No. 12666		ORIGINAL DATE 7-26-89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TRAFFIC CONTROL PHASE 3 STAGE I
		DESIGN BY: JDS DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 82 OF 256	DESIGN FILE No. 16-BB4D



C.S.A.H. 9
ROUND LAKE BLVD.

MATCH LINE C

FUTURE ROADWAY
BY OTHERS

MAIN STREET

SYMBOLS

- ① INPLACE, USE INPLACE
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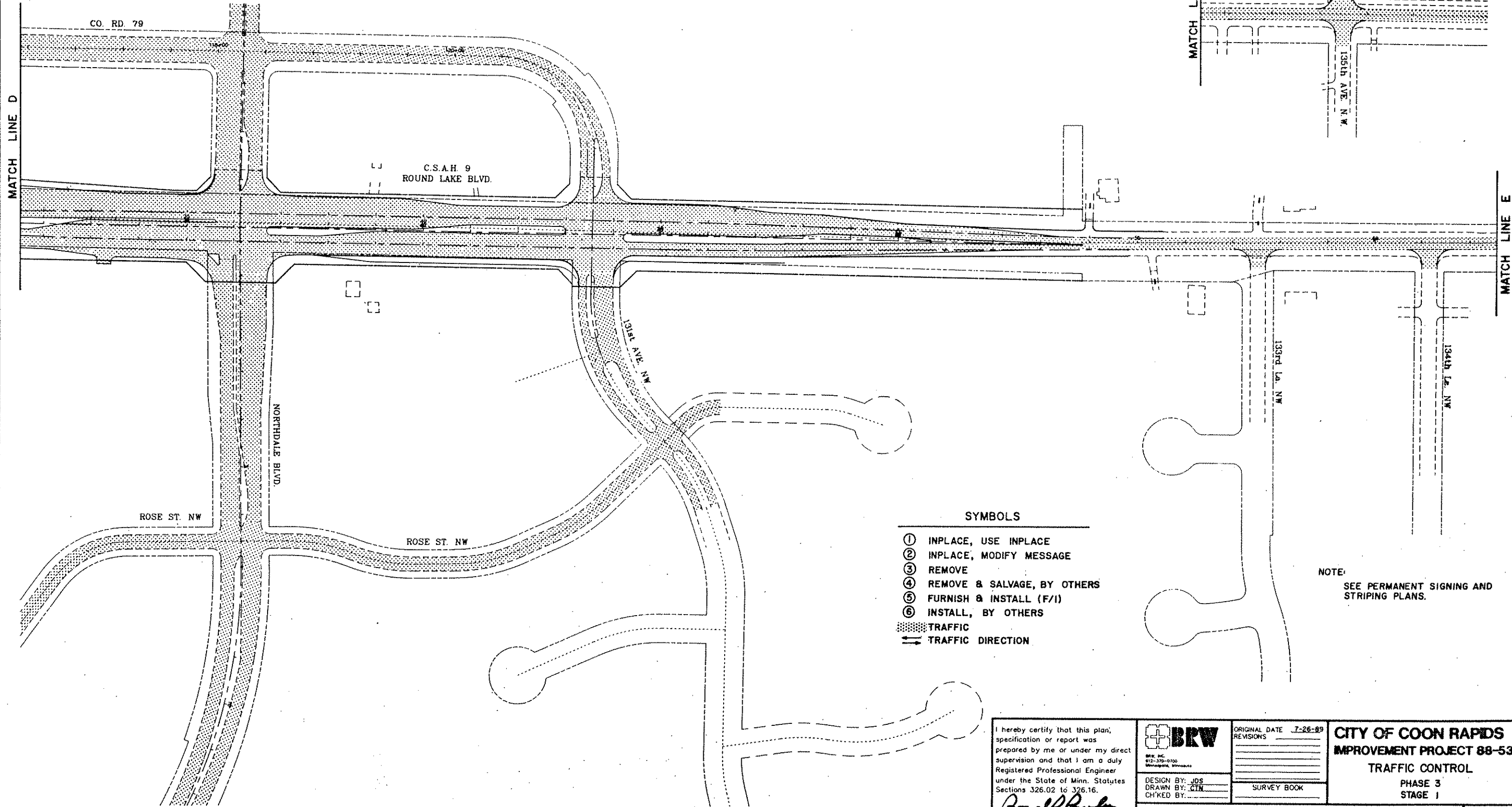
Boyd R. Paulsen
Date 8-22-89 Minn. Reg. No. 12666

BRW
813-370-0100
Minneapolis, Minnesota

DESIGN BY: *RS*
DRAWN BY: *CTH*
CHECKED BY:

ORIGINAL DATE	7-26-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE 3
STAGE 1



- SYMBOLS**
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 - ③ REMOVE
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 - ⑤ FURNISH & INSTALL (F/I)
 - ⑥ INSTALL, BY OTHERS
 - ▨ TRAFFIC
 - TRAFFIC DIRECTION

NOTE:
SEE PERMANENT SIGNING AND STRIPING PLANS.

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 State of Minn. Statutes Sections 326.02 to 326.16.

Royce R. Bunker

Date: 8-22-89 Minn. Reg. No. 12666

BRW
BRW, INC.
612-375-0700
Minneapolis, Minnesota

DESIGN BY: JDS
DRAWN BY: CTN
CHK'D BY:

ORIGINAL DATE: 7-26-89
REVISIONS:
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL
PHASE 3
STAGE 1

S.A.P. NO. 02-609-06 SHEET 84 OF 256 DESIGN FILE No. 16-8840

CLEARING AND GRUBBING (A)			
STATION	OFFSET	QUANTITY	
		TREE	ACRE
ROUND LAKE BLVD			
12+06	48' LT	1	
12+29	80' & 94' LT	2	
12+93	48' LT	1	
13+14	95' LT	1	
13+74	35' RT	1	
15+15	38' RT	1	
15+63 TO 16+60	25' TO 70' RT		1.60
16+37	102' & 107' RT	2	
16+53	104' RT	1	
16+57	78' RT	1	
17+20	30' RT	1	
17+58	34' RT	1	
18+20	35' RT	1	
33+44	34' RT	1	
33+70	90' RT	1	
34+04	52' TO 80' RT	3	
34+50	95' RT	1	
39+00	77' RT	1	
39+06	55' RT	1	
39+18	98' RT	1	
39+46	72' RT	1	
39+60	41' RT	1	
39+65 TO 40+10	40' TO 105' RT		0.10
39+66	80' LT	1	
39+91	82' LT	1	
39+95	64' LT	1	
40+02	80' LT	1	
40+67	77' & 85' LT	2	
40+76	68' LT	1	
41+13 TO 44+66	45' TO 100' LT		0.53
41+81	64' RT	1	
42+38	42' & 54' RT	2	
42+79	75' RT	1	
43+03	97' RT	1	
43+06	70' RT	1	
46+19 TO 53+56	25' TO 100' LT		1.19
49+30	44' RT	1	
49+48	50' RT	1	
S.W. FRONTAGE ROAD			
90+80 TO 91+40	68' TO 95' RT		0.08
116+10	15' LT	1	
116+13	5' & 35' LT	2	
116+30	CL	1	
116+32	14' LT	1	
116+62	14' LT	1	
116+70	25' LT	1	
TOTAL		47	3.50

BITUMINOUS PAVEMENT REMOVAL (B)			
STATION TO STATION	LOCATION	SQ. YDS.	
ROUND LAKE BLVD			
12+00 TO 23+80	LT & RT	4117	
25+65 TO 33+50	LT & RT	3737	
33+50 TO 48+00	LT & RT	9077	
48+00 TO 52+00	LT & RT	2133	
52+00 TO 55+54	LT	511	
52+00 TO 54+80	RT	373	
E.B. T.H. 10/47			
190+35 TO 196+08	12' RT TO 22' RT	700	
196+08 TO 203+70	12' RT TO 53' RT	1659	
208+90 TO 220+42	12' RT TO 22' RT	1280	
W.B. T.H. 10/47			
190+85 TO 191+25	61' RT TO 85' RT	107	
202+51 TO 214+65	12' RT TO 22' RT	1297	
219+55 TO 227+00	12' RT TO 53' RT	1602	
227+00 TO 231+68	12' RT TO 22' RT	520	
EXISTING RAMP A @ W.B. T.H. 10/47 STATIONING			
204+75 TO 205+35	LT	107	
208+65 TO 211+38	LT	624	
EXISTING RAMP B @ W.B. T.H. 10/47 STATIONING			
211+88 TO 220+65	LT	1754	
EXISTING RAMP C @ E.B. T.H. 10/47 STATIONING			
202+60 TO 211+50	RT	1868	
EXISTING RAMP D @ E.B. T.H. 10/47 STATIONING			
211+80 TO 219+10	RT	1586	
S.W. FRONT. RD @ E.B. T.H. 10/47 STATIONING			
190+00 TO 211+50	RT	6124	
COUNTY RD. #79 @ W.B. T.H. 10/47 STATIONING			
210+45 TO 221+65	LT	3593	
NORTHDALE BLVD			
0+00 TO 1+24	LT & RT	721	
131ST AVENUE N.W.			
0+00 TO 0+83	LT & RT	490	
SUBTOTAL		43980	
TEMPORARY BITUMINOUS PAVEMENT			
RAMP B	PHASE 1 STAGE 1	1151 (1)	
S.B. RLB @ S.W. FR. RD.	PHASE 1 STAGE 1	533 (1)	
LOOP B	PHASE 1 STAGE 3	1390 (1)	
N.B. RLB @ RAMP B	PHASE 1 STAGE 3	236 (1)	
N.B. RLB 47+80-57+40	PHASE 1 STAGE 3	1287 (1)	
RLB 27+40-30+20	PHASE 2 STAGE 1	882 (1)	
SUBTOTAL		5479	
GRAND TOTAL		49459	

(1) 3.5" THICK TEMPORARY BITUMINOUS PAVEMENT

CONCRETE REMOVAL (C)			
STATION TO STATION	OFFSET	CURB & GUTTER LIN. FT.	CONCRETE RAMP NOSE SQ. YD.
ROUND LAKE BLVD			
38+12 TO 38+80	44' TO 54' LT		
EXISTING RAMP C @ E.B. T.H. 10/47 STATIONING			
202+70 TO 211+00	23' TO 311' RT	1784	7.3
EXISTING RAMP B @ W.B. T.H. 10/47 STATIONING			
212+25 TO 222+80	22' TO 288' LT	1812	7.3
RAMP A			
204+85 TO 211+78	10' LT TO 90' RT	585	
RAMP D			
212+80 TO 220+00	10' LT TO 8' RT	1435	
TOTAL		5626	14.6

SAWING BITUMINOUS PAVEMENT (F)		
STATION TO STATION	LOCATION	LIN. FT.
ROUND LAKE BLVD		
52+00 TO 55+53	LT & RT	683
N.B. ROUND LAKE BLVD		
35+55 TO 36+71	RT	116
43+12 TO 57+40	RT	1303
S.B. ROUND LAKE BLVD		
35+50 TO 36+52	LT	102
43+20 TO 43+82	LT	62
E.B. TH 10/47		
190+53 TO 203+70	RT	1337
208+90 TO 218+00	RT	920
281+00 TO 220+42	RT	242
W.B. TH 10/47		
202+51 TO 205+00	LT	256
205+00 TO 214+65	LT	975
219+55 TO 231+68	LT	1233
RAMP A		
204+85	LT & RT	20
205+45	LT & RT	20
209+00	LT & RT	20
RAMP D		
220+00	LT & RT	20
S.W. FRONTAGE ROAD		
90+00	LT & RT	24
COUNTY ROAD #79		
190+85	LT & RT	24
191+09	LT & RT	24
TOTAL		7381

GUARDRAIL SALVAGE (D)		
STATION	OFFSET	QUANT LIN FT
ROUND LAKE BLVD		
19+14 TO 19+69	6' RT	(1) 55
22+03 TO 23+79	LT & RT	(1) 350
25+56 TO 27+43	LT & RT	(1) 376
E.B. TH 10/47		
210+26 TO 213+03	35' TO 23' RT	(1) 180
W.B. TH 10/47		
211+12 TO 212+18	26' TO 38' RT	(1) 210
211+29 TO 213+04	22' TO 35' LT	(1) 180
TOTAL		1351

(1) INCLUDES REMOVAL OF ANCHORAGE ASSEMBLY

PLATE BEAM BARRIER (E)				
STATION TO STATION	LOCATION	BARRIER 8307 DESIGN "B" LIN. FT.	TWISTED END DESIGN 8319 EACH	BRIDGE CONNECTION DESIGN (1) 8318 EACH
N.B. ROUND LAKE BLVD				
22+29 TO 23+53	RT	75	1	1
S.B. ROUND LAKE BLVD				
26+04 TO 27+18	LT	75	1	1
MEDIAN TH 10/47				
210+66 TO 212+89	LT & RT	450		
TOTAL		600	2	2

(1) INCIDENTAL TO LIN. FT. OF GUARDRAIL

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Boyd R. Paul

Date: 8-22-89 Minn. Reg. No. 12666



ORIGINAL DATE 4/18/89
 REVISIONS
 DESIGN BY:
 DRAWN BY:
 CHECKED BY:
 SURVEY BOOK

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 TABULATED QUANTITIES

S.A.P. NO. 02-609-08

SHEET 85 OF 256

DESIGN FILE No. 16-8840

PRIVATE UTILITIES (G)				
LOCATION	INPLACE ITEM	CONSTRUCTION LIMITS		OWNER
		WITHIN	OUTSIDE	
		LIN FT	LIN FT	
ROUND LAKE BLVD (SECTION LINE)				
12+00 TO 12+91, RT	AERIAL	91		ANOKA ELECTRIC COOPERATIVE
12+91 TO 13+60, 20'-120' RT	AERIAL	95	25	ANOKA ELECTRIC COOPERATIVE
12+91 TO 15+17, RT	AERIAL	226		ANOKA ELECTRIC COOPERATIVE
15+17 TO 15+20, 18'-85' RT	AERIAL	67		ANOKA ELECTRIC COOPERATIVE
15+17 TO 16+80, RT	AERIAL	163		ANOKA ELECTRIC COOPERATIVE
16+80 TO 18+25, RT	AERIAL	145		ANOKA ELECTRIC COOPERATIVE
17+22 TO 18+25, 70'-17' RT	AERIAL	115		ANOKA ELECTRIC COOPERATIVE
18+25 TO 18+38, 17'-60' RT	BURIED	42		ANOKA ELECTRIC COOPERATIVE
18+25 TO 19+60, RT	AERIAL	135		ANOKA ELECTRIC COOPERATIVE
18+38 TO 20+55, RT	BURIED	217		ANOKA ELECTRIC COOPERATIVE
20+55 TO 20+75, 61'-97' RT	BURIED	41		ANOKA ELECTRIC COOPERATIVE
20+75 TO 28+80, RT	BURIED	805		ANOKA ELECTRIC COOPERATIVE
28+80 TO 31+00, 97'-33' RT	BURIED	229		ANOKA ELECTRIC COOPERATIVE
29+24 TO 30+45, RT	AERIAL	121		ANOKA ELECTRIC COOPERATIVE
30+45 TO 31+00, RT	BURIED	55		ANOKA ELECTRIC COOPERATIVE
31+00 TO 55+53, RT	BURIED	2453		ANOKA ELECTRIC COOPERATIVE
31+00 TO 39+40, RT	BURIED	840		ANOKA ELECTRIC COOPERATIVE
39+00 TO 39+40, LT & RT	BURIED	175	105	ANOKA ELECTRIC COOPERATIVE
39+40 TO 55+53, RT	BURIED	1613		ANOKA ELECTRIC COOPERATIVE
55+53 TO 55+53, RT & LT	BURIED	100		ANOKA ELECTRIC COOPERATIVE
S.W. FRONTAGE ROAD				
91+82 TO 93+88, 27'-14' RT	AERIAL	205		CITY OF ANOKA
93+88 TO 95+90, 14'-1' RT	AERIAL	200		CITY OF ANOKA
95+90 TO 97+90, 1' RT TO 20' LT	AERIAL	202		CITY OF ANOKA
97+90 TO 99+80, 20'-70' LT	AERIAL	203		CITY OF ANOKA
99+80 TO 101+60, 70'-128' LT	AERIAL	203		CITY OF ANOKA
101+60 TO 105+12, 128'-210' LT	AERIAL	395		CITY OF ANOKA
105+12 TO 107+15, 210'-235' LT	AERIAL	192		CITY OF ANOKA
107+15 TO 108+95, 235'-178' LT	AERIAL	335		CITY OF ANOKA
108+95 TO 110+80, 178' LT	AERIAL	185		CITY OF ANOKA
110+85 TO 112+85, 178' LT	AERIAL	206		CITY OF ANOKA
LOOP B				
217+73 TO 222+35, 50' RT TO 96' LT	AERIAL	355		ANOKA ELECTRIC COOPERATIVE
222+35 TO 223+52, 96' LT TO 127' RT	BURIED	255		ANOKA ELECTRIC COOPERATIVE
RAMP B				
211+40 TO 211+40 LT & RT	BURIED	65		ANOKA ELECTRIC COOPERATIVE
217+48 TO 219+44, 150'-16' RT	AERIAL	250		ANOKA ELECTRIC COOPERATIVE
219+44 TO 221+12, 16' RT TO 62' LT	AERIAL	185		ANOKA ELECTRIC COOPERATIVE
221+12 TO 224+10, 62'-150' LT	AERIAL	30	260	ANOKA ELECTRIC COOPERATIVE
ROUND LAKE BLVD (SECTION LINE)				
12+00 TO 16+46, 28' LT	12 WAY MCD BURIED	446		U.S. WEST
16+46 TO 18+76, 28' LT	6 WAY MCD BURIED	230		U.S. WEST
18+76 TO 20+33, 28'-70' LT	6 WAY MCD BURIED	162		U.S. WEST
20+33 TO 30+08, 67' LT	6 WAY MCD BURIED	975		U.S. WEST
30+08 TO 31+32, 67'-34' LT	6 WAY MCD BURIED	128		U.S. WEST
31+32 TO 35+00, 34' LT	6 WAY MCD BURIED	368		U.S. WEST

PRIVATE UTILITIES CONT. (G)				
LOCATION	INPLACE ITEM	CONSTRUCTION LIMITS		OWNER
		WITHIN	OUTSIDE	
		LIN FT	LIN FT	
35+00 TO 36+00, 34'-30' LT	6 WAY MCD BURIED	100		U.S. WEST
36+00 TO 45+00, 30' LT	6 WAY MCD BURIED	900		U.S. WEST
45+00 TO 47+56, 30' TO 26' LT	6 WAY MCD BURIED	256		U.S. WEST
47+56 TO 50+00, 26'-22' LT	6 WAY MCD BURIED	244		U.S. WEST
50+00 TO 53+00, 22'-17' LT	6 WAY MCD BURIED	300		U.S. WEST
53+00 TO 55+53, 22'-25' LT	6 WAY MCD BURIED	253		U.S. WEST
ROUND LAKE BLVD (SECTION LINE)				
12+00 TO 18+97, 31' LT	16" GAS	697		MIDWEST GAS
18+97 TO 19+34, 31'-97' LT	16" GAS	76		MIDWEST GAS
19+34 TO 30+40, 97' LT	16" GAS	1106		MIDWEST GAS
30+40 TO 30+53, 97'-67' LT	16" GAS	32		MIDWEST GAS
30+53 TO 35+15, 67' LT	16" GAS	462		MIDWEST GAS
30+58 TO 33+78, 9' RT	2" GAS	320		MIDWEST GAS
33+78 TO 35+00, 9' RT	3" GAS	122		MIDWEST GAS
35+00 TO 38+00, 9'-14' RT	3" GAS	300		MIDWEST GAS
35+15 TO 38+12, 67'-62' LT	16" GAS	297		MIDWEST GAS
38+12 TO 40+05, 62'-42' LT	16" GAS	194		MIDWEST GAS
40+05 TO 43+00, 42' LT	16" GAS	295		MIDWEST GAS
43+00 TO 45+00, 42'-44' LT	16" GAS	200		MIDWEST GAS
45+00 TO 48+00, 44'-41' LT	16" GAS	300		MIDWEST GAS
48+00 TO 50+00, 41'-35' LT	16" GAS	200		MIDWEST GAS
50+00 TO 53+00, 35' LT	16" GAS	300		MIDWEST GAS
53+00 TO 55+00, 35'-38' LT	16" GAS	200		MIDWEST GAS
55+00 TO 57+00, 38' LT	16" GAS	53	147	MIDWEST GAS
38+00 TO 43+00, 14' RT	3" GAS	500		MIDWEST GAS
43+00 TO 45+00, 14'-12' RT	3" GAS	200		MIDWEST GAS
45+00 TO 50+00, 12'-21' RT	3" GAS	500		MIDWEST GAS
50+00 TO 53+00, 21' RT	3" GAS	300		MIDWEST GAS
53+00 TO 55+00, 21'-18' RT	3" GAS	200		MIDWEST GAS
55+00 TO 55+53, 18' RT	3" GAS	53		MIDWEST GAS
RAMP B				
210+30 TO 215+57, 13'-190' RT	2" GAS	440		MIDWEST GAS
215+57 TO 220+85, 190' RT TO 75' LT	2" GAS	560		MIDWEST GAS
ROUND LAKE BLVD (SECTION LINE)				
12+00 TO 12+91, RT	AERIAL	91		NORTH CENTRAL CABLE T.V.
12+91 TO 15+17, RT	AERIAL	226		NORTH CENTRAL CABLE T.V.
15+17 TO 16+80, RT	AERIAL	163		NORTH CENTRAL CABLE T.V.
16+80 TO 18+25, RT	AERIAL	145		NORTH CENTRAL CABLE T.V.
18+25 TO 19+60, RT	AERIAL	135		NORTH CENTRAL CABLE T.V.
19+60 TO 20+90, RT	AERIAL	130		NORTH CENTRAL CABLE T.V.
20+90 TO 23+55, RT	AERIAL	265		NORTH CENTRAL CABLE T.V.
23+55 TO 25+80, RT	AERIAL	225		NORTH CENTRAL CABLE T.V.
25+80 TO 27+80, RT	AERIAL	200		NORTH CENTRAL CABLE T.V.
27+80 TO 29+25, RT	AERIAL	145		NORTH CENTRAL CABLE T.V.
29+25 TO 30+45, RT	AERIAL	120		NORTH CENTRAL CABLE T.V.
30+45 TO 35+60, RT	BURIED	515		NORTH CENTRAL CABLE T.V.
35+60 TO 35+60, 20'-300' RT	BURIED	280		NORTH CENTRAL CABLE T.V.

GENERAL NOTES:

- THE SIZES, LOCATIONS, AND DEPTHS OF UTILITIES AS SHOWN IN THE PLANS ARE ONLY APPROXIMATE AND THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF THE INFORMATION GIVEN.

MIDWEST GAS
STEVE H. GUHANICK
1930 COON RAPIDS BLVD.
COON RAPIDS, MN. 55433-9921
(612) 755-3800


NORTHERN STATES POWER CO.
JIM CONRAD
NORTH DIVISION
4501 68TH AVE. NORTH
BROOKLYN CENTER, MN. 55429
(612) 566-9120

U.S. WEST
STEVE WALEN
FLOOR 2
5910 SHINGLE CREEK PARKWAY
BROOKLYN CENTER, MN. 55430
(612) 569-2505

CITY OF ANOKA
DAN VOSS
WATER AND ELECTRIC
ANOKA CITY HALL
2015 FIRST AVE. NORTH
(612) 421-2903

ANOKA ELECTRIC COOPERATIVE
MARK MUDRICK
2022 NORTH FERRY
ANOKA, MN. 55303
(612) 421-3761

NORTH CENTRAL CABLE TV
JIM MORRISON
934 WOODHILL DRIVE
ROSEVILLE, MN. 55113
(612) 483-3233

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Paulsen</i> Date: 8-22-89 Minn. Reg. No. J2666	 BRW, INC. 612-370-0100 BROOKLYN CENTER, MN.	ORIGINAL DATE 7-31-89	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 PRIVATE UTILITIES
		REVISIONS	
DESIGN BY: JRM	DRAWN BY: DJW	CH'KED BY:	S.A.P. NO. 02-609-08 SHEET 86 OF 256 DESIGN FILE No. 18-8840

BITUMINOUS SUMMARY																			(H)
STATION TO STATION	MODIFIED BASE 2331			BINDER 2331			SHOULDER MIX 2331			BINDER SPECIAL 2341			WEARING 2341			WEARING 2361			FUNDING
	DEPTH INCH	AREA SQ. FT.	TON	DEPTH INCH	AREA SQ. FT.	TON	DEPTH INCH	AREA SQ. FT.	TON	DEPTH INCH	AREA SQ. FT.	TON	DEPTH INCH	AREA SQ. FT.	TON	DEPTH INCH	AREA SQ. FT.	TON	
ROUND LAKE BLVD																			
47+64 TO 48+00							1.5	632	6										LOCAL
48+00 TO 50+66							1.5	4462	43										LOCAL
52+00 TO 55+53																1.0	9324	62	LOCAL
N.B. ROUND LAKE BLVD																			
12+00 TO 16+50	3.5	26000	586							1.5	26000	260				1.0	26000	173	LOCAL
16+50 TO 26+00	3.5	38570	870							1.5	38570	386				1.0	38570	257	LOCAL
16+50 TO 26+00	3.0	746	14							3.0	746	15				1.0	746	5	LOCAL
26+00 TO 33+50	3.0	34068	659							3.0	34068	681				1.0	34068	227	LOCAL
33+50 TO 48+00	3.0	85294	1649							3.0	85294	1706				1.0	85294	569	LOCAL
33+50 TO 48+00	3.5	1054	24							1.5	1054	11				1.0	1054	7	LOCAL
48+00 TO 55+53	3.5	17233	389							1.5	17233	172				1.0	17233	115	LOCAL
S.B. ROUND LAKE BLVD																			
12+00 TO 16+50	3.5	26000	586							1.5	26000	260				1.0	26000	173	LOCAL
16+50 TO 26+00	3.5	34300	774							1.5	34300	343				1.0	34300	229	LOCAL
16+50 TO 26+00	3.0	746	14							3.0	746	15				1.0	746	5	LOCAL
26+00 TO 33+50	3.0	33968	657							3.0	33968	679				1.0	33968	226	LOCAL
33+50 TO 48+00	3.0	81859	1583							3.0	81859	1637				1.0	81859	546	LOCAL
48+00 TO 48+40	3.0	1489	29							3.0	1489	30				1.0	1489	10	LOCAL
48+40 TO 55+53	3.5	18944	427							1.5	18944	189				1.0	18944	126	LOCAL
E.B. HWY 10/47																			
190+53 TO 197+18	3.0	15915	308							3.0	15915	318				1.0	15915	106	LOCAL
197+18 TO 203+70	1.5	6520	63				1.5	6520	63										LOCAL
208+90 TO 218+00	3.0	16040	310							3.0	16040	321				1.0	16040	107	LOCAL
218+00 TO 220+42	3.0	2496	48							3.0	2496	50				1.0	2496	17	LOCAL
W.B. HWY 10/47																			
202+51 TO 205+00	3.0	1898	37							3.0	1898	38				1.0	1898	13	LOCAL
205+00 TO 214+65	3.0	16086	311							3.0	16086	322				1.0	16086	107	LOCAL
219+55 TO 223+93	1.5	4380	42				1.5	4380	42										LOCAL
223+93 TO 231+68	3.0	17320	335							3.0	17320	346				1.0	17320	115	LOCAL
RAMP A																			
204+85 TO 205+10	3.5	409	9							1.5	409	4				1.0	409	3	LOCAL
205+10 TO 214+30	3.5	8050	182							1.5	8050	81				1.0	8050	54	LOCAL
RAMP B																			
210+48 TO 218+50	3.5	28710	648							1.5	28710	287				1.0	28710	181	LOCAL
218+50 TO 224+90	3.5	12055	272							1.5	12055	121				1.0	12055	80	LOCAL
LOOP B																			
213+55 TO 216+00	2.5	3300	53	1.5	3300	32										1.0	3300	22	LOCAL
216+00 TO 224+57	2.5	11985	193	1.5	11985	116										1.0	11985	80	LOCAL
LOOP C																			
198+52 TO 209+34	2.5	28512	264	1.5	28512	159										1.0	28512	109	LOCAL
RAMP C																			
196+08 TO 204+50	3.5	10678	241							1.5	10678	107				1.0	10678	71	LOCAL
204+50 TO 212+60	3.5	26525	598							1.5	26525	265				1.0	26525	177	LOCAL
RAMP D																			
212+95 TO 219+10	3.5	11275	205							1.5	11275	92				1.0	11275	61	LOCAL
219+10 TO 220+00	3.5	1383	25							1.5	1383	11				1.0	1383	7	LOCAL
S.W. FRONTAGE ROAD																			
90+00 TO 105+50	2.0	37200	479										1.5	37200	372				LOCAL
105+50 TO 110+00	2.0	12000	155										1.5	12000	120				LOCAL
110+00 TO 117+13	2.0	19433	250										1.5	19433	194				LOCAL
COUNTY ROAD 79																			
190+85 TO 191+35	2.0	960	12										1.5	960	10				LOCAL
TOTALS																			
LOCAL FUNDING			13301			307			154			8747			696			4050	
STATE FUNDING			250			117			0			24			0			97	
PROJECT			13551			424			154			8771			696			4147	

BASIS FOR QUANTITIES

BITUMINOUS MATERIAL FOR:

- 2331 NON-WEARING COURSE 5.3% OF VOLUME
- WEARING COURSE 5.8% OF VOLUME
- 2341 NON-WEARING COURSE 5.3% OF VOLUME
- WEARING COURSE 6.5% OF VOLUME
- 2361 WEARING COURSE 7.0% OF VOLUME

UNIT WEIGHT OF BITUMINOUS MIX: 110 LBS./SQ. YD./INCH

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Pauler
 Date: 8-22-99 Minn. Reg. No. 12666

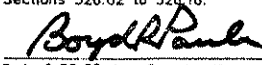



ORIGINAL DATE 4/09/99
 REVISIONS
 DESIGN BY: SPJ
 DRAWN BY: BKJ
 CHECKED BY:
 SURVEY BOOK

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 TABULATED QUANTITIES

CONCRETE WALK, CURB AND GUTTER, MEDIAN, DRIVEWAY PAVEMENT AND BITUMINOUS CURB (I)											
STATION TO STATION	LOCATION	3"	4"	6"	B624	B624	D424		BIT.	7"	FUNDING
		CONC. WALK	CONC. WALK	CONC. WALK	C&G	C&G MOD.	C&G		CURB	DRIVEWAY PAVEMENT	
		SQ. FT.	SQ. FT.	SQ. FT.	LIN. FT.	LIN. FT.	LIN. FT.		LIN. FT.	SQ. YD.	
MEDIAN ROUND LAKE BLVD.											
12+00 TO 16+50	LT & RT	4500			828						LOCAL
16+50 TO 26+00	LT & RT	6534			1314	80					LOCAL
26+00 TO 33+50	LT & RT	11433			1440						LOCAL
33+50 TO 48+00	LT & RT	15825			2757				38		LOCAL
48+00 TO 55+53	LT & RT				40				498		LOCAL
N.B. ROUND LAKE BLVD.											
12+00 TO 16+50	RT				515						LOCAL
16+50 TO 26+00	RT				703						LOCAL
26+00 TO 33+50	RT				655					53	LOCAL
33+50 TO 48+00	RT	686	120		1303				1030		LOCAL
48+00 TO 57+40	RT								940		LOCAL
S.B. ROUND LAKE BLVD.											
12+00 TO 16+50	LT				468						LOCAL
16+50 TO 26+00	LT				705						LOCAL
26+00 TO 33+50	LT				750						LOCAL
33+50 TO 48+00	LT	1126	150		1472						LOCAL
48+00 TO 55+53	LT				40						LOCAL
E.B. TH 10/47											
196+08 TO 197+18	RT						110				LOCAL
208+90 TO 210+00	RT						110				LOCAL
210+00 TO 213+00	RT						300				LOCAL
W.B. TH 10/47											
210+55 TO 213+55	LT						300				LOCAL
213+55 TO 214+65	LT						110				LOCAL
223+93 TO 224+93	LT						101				LOCAL
RAMP A											
205+10 TO 205+45	LT & RT			50			90				LOCAL
209+00 TO 214+30	LT & RT						1056				LOCAL
RAMP B											
210+48 TO 218+50	LT & RT						1605				LOCAL
218+50 TO 224+90	LT & RT			63			1241				LOCAL
LOOP B											
213+55 TO 216+00	LT & RT			428			489				LOCAL
216+00 TO 224+57	LT & RT			70			1711				LOCAL
LOOP C											
198+52 TO 209+34	LT & RT			507			2205				LOCAL
		2340				1024	42				STATE
RAMP C											
196+08 TO 204+50	LT & RT			60			1609				LOCAL
204+50 TO 212+60	LT & RT						1652				LOCAL
RAMP D											
212+95 TO 219+00	LT & RT			82			1238				LOCAL
219+00 TO 220+00	LT & RT						180				LOCAL
S.W. FRONTAGE ROAD											
115+15 TO 117+13	LT & RT										LOCAL
TOTALS											
LOCAL FUNDING		40104	270	1260	12990	80	14107		2504	53	
STATE FUNDING		2340	0	0	1024	0	42		0	0	
PROJECT		42444	270	1260	14104	80	14149		2504	53	

AGGREGATE BASE AND SHOULDERING SUMMARY (J)						
STATION TO STATION	LOCATION	AGGREGATE	AGGREGATE	AGGREGATE	AGGREGATE	FUNDING
		BASE CLASS 6	BASE CLASS 5	SHOULDER CLASS 3	SHOULDER CLASS 1	
		CU. YD.	CU. YD.	CU. YD.	CU. YD.	
N.B. ROUND LAKE BLVD						
12+00 TO 16+50	RT & LT	548				LOCAL
16+50 TO 26+00	RT & LT	832				LOCAL
26+00 TO 33+50	RT & LT	982				LOCAL
33+50 TO 48+00	RT & LT	261				LOCAL
48+00 TO 55+53	RT & LT	344				LOCAL
S.B. ROUND LAKE BLVD						
12+00 TO 16+50	RT & LT	546				LOCAL
16+50 TO 26+00	RT & LT	735				LOCAL
26+00 TO 33+50	RT & LT	988				LOCAL
33+50 TO 48+00	RT & LT	2827				LOCAL
48+00 TO 55+53	RT & LT	422				LOCAL
E.B. TH 10/47						
190+53 TO 197+18	RT	428		16		LOCAL
197+18 TO 203+70	RT	64		111		LOCAL
208+90 TO 218+00	RT	462		78		LOCAL
218+00 TO 220+42	RT	69				LOCAL
W.B. TH 10/47						
202+51 TO 205+00	LT	53				LOCAL
205+00 TO 214+65	LT	463		78		LOCAL
219+00 TO 223+93	LT		47	80		LOCAL
223+93 TO 231+68	LT	471		15		LOCAL
RAMP A						
204+85 TO 205+10	LT & RT	15		15		LOCAL
205+10 TO 214+30	LT & RT	232		174		LOCAL
RAMP B						
210+48 TO 218+50	LT & RT	658		220		LOCAL
218+50 TO 224+90	LT & RT	322		309		LOCAL
LOOP B						
213+55 TO 216+00	LT & RT	84		82		LOCAL
216+00 TO 224+57	LT & RT	300		286		LOCAL
LOOP C						
198+52 TO 209+34	LT & RT	377		375		LOCAL
		283				STATE
RAMP C						
196+80 TO 204+50	LT & RT	325		220		LOCAL
204+50 TO 212+60	LT & RT	622		226		LOCAL
RAMP D						
212+95 TO 219+10	LT & RT	266		203		LOCAL
219+10 TO 220+00	LT & RT	35		30		LOCAL
S.W. FRONTAGE ROAD						
90+00 TO 105+50	LT & RT		625		133	LOCAL
105+50 TO 110+00	LT & RT		201		43	LOCAL
110+00 TO 117+13	LT & RT		307		44	LOCAL
COUNTY ROAD #79						
190+85 TO 191+35	LT & RT		12			LOCAL
TOTALS						
LOCAL FUNDING		13731	1192	2518	220	
STATE FUNDING		328	0	0	0	
PROJECT		14059	1192	2518	220	

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 State of Minn. Statutes Sections 326.02 to 326.16.  Date: 8-22-89 Minn. Reg. No. J2666...	 BRW, INC. 913-275-0700 Minneapolis, Minnesota	ORIGINAL DATE: 4/18/89 REVISIONS: _____ _____ _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TABULATED QUANTITIES
		DESIGN BY: SPJ DRAWN BY: PMJ CHECKED BY: _____	
S.A.P. NO. 02-609-08		SHEET 88 OF 256	DESIGN FILE No. 16-8840

PAVEMENT MARKING AND MESSAGES (K)												
STATION TO STATION	4" SOLID LINE WHITE	4" BROKEN LINE WHITE	8" SOLID LINE WHITE	4" SOLID LINE YELLOW	4" SOLID DOUBLE YELLOW	4" BROKEN LINE YELLOW	24" SOLID LINE YELLOW	4" BROKEN (2'-10') WHITE	LEFT ARROW EPOXY	RIGHT ARROW EPOXY	LT-THRU ARROW EPOXY	ONLY EPOXY
	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	EACH	EACH	EACH	EACH
ROUND LAKE BLVD.												
3+00 TO 16+50	2030	285		842					4	3		5
ROUND LAKE BLVD.												
16+50 TO 26+00												
AND	7955	800	1447	5094		90		28	4	4	2	8
T.H. 10/47												
205+00 TO 218+00												
ROUND LAKE BLVD.												
26+00 TO 33+50	4361	731	560	3601					4	4		8
33+50 TO 48+00	5114	926		3039			79		13	11		21
48+00 TO 62+50	1510	52		466	870		56					
T.H. 10/47												
189+50 TO 205+00	2332		598	832		309						
218+00 TO 232+00	2130	44	597	723								
TOTAL	25432	2838	3202	14597	870	536	135	28	25	22	2	42

TURF ESTABLISHMENT (L)					
STATION TO STATION	LOCATION	SOD	SEED MIX 500	SEED MIX 700	MULCH MATL TYPE SPECIAL
		SQ YD	(1) (4) ACRE	(2) ACRE (4)	SQ. YD. (3)
ROUND LAKE BLVD					
12+00 TO 16+50	LT	182		0.3	
12+00 TO 16+50	RT	195		0.3	
16+50 TO 26+00	LT	1211		0.2	
16+50 TO 26+00	RT	1144		0.6	
26+00 TO 33+50	LT	844		0.1	
26+00 TO 33+50	RT	321		0.2	
33+50 TO 48+00	LT	599		0.9	
33+50 TO 48+00	RT	560		0.9	
48+00 TO 55+53	LT	391		0.8	
48+00 TO 55+53	RT	446		0.8	
MEDIAN TH 10/47					
210+66 TO 212+89	RT & LT				536
RAMP A					
204+85 TO 205+45	LT	40	0.1		
204+85 TO 205+45	RT	40	0.1		
206+40 TO 214+30	LT	408	0.4		
206+40 TO 214+30	RT	355	1.3		
RAMP B					
210+69 TO 218+50	LT	797	0.8		
210+69 TO 218+50	RT	505	1.3		
218+50 TO 224+90	LT	393	0.2		
218+50 TO 224+90	RT	655	1.5		
LOOP B					
212+90 TO 216+00	LT	200	0.2		
212+90 TO 216+00	RT	102			
216+00 TO 227+00	LT	535	2.0		
216+00 TO 227+00	RT	1271			
LOOP C					
198+52 TO 210+55	LT	1490			
198+52 TO 210+55	RT	723	3.5		
RAMP C					
196+08 TO 212+58	LT	1175	4.6		
196+08 TO 212+58	RT	1830	2.8		
RAMP D					
212+30 TO 219+10	LT	603	2.0		
212+30 TO 219+10	RT	606	1.0		
219+10 TO 220+00	LT	60	0.1		
219+10 TO 220+00	RT	60	0.1		
SW FRONTAGE RD					
90+00 TO 96+08	LT		0.8		
90+00 TO 104+90	RT		1.1		
109+30 TO 110+00	LT		0.1		
110+00 TO 116+85	LT	80	0.2		
110+00 TO 116+85	RT	76	0.2		
SPECIAL DITCH					
47+10 TO 55+50	LT & RT			1.3	
55+50 TO 62+46	LT & RT			1.1	
TOTAL		17897	23.9	8.0	536


TPPC BARRIER REFLECTORS & TABULATION (M)				
PHASE	LOCATION	F. & L L.F.	RELOCATE L.F.	REFLECTORS
1 STAGE I	FROM E.B. T.H. 10\47 STA. 189 + 80 LT. TO E.B. T.H. 10\47 STA. 192 + 00 LT.	230		8
1 STAGE I	FROM E.B. T.H. 10\47 STA. 189 + 95 RT. TO E.B. T.H. 10\47 STA. 191 + 25 RT.	130		4
1 STAGE I	FROM W.B. T.H. 10\47 STA. 190 + 00 RT. TO W.B. T.H. 10\47 STA. 192 + 20 RT.	230		8
1 STAGE I	FROM W.B. T.H. 10\47 STA. 190 + 80 LT. TO W.B. T.H. 10\47 STA. 192 + 10 LT.	130		4
1 STAGE I	FROM E.B. T.H. 10\47 STA. 210 + 80 LT. TO E.B. T.H. 10\47 STA. 213 + 70 LT.	290		10
1 STAGE I	FROM W.B. T.H. 10\47 STA. 211 + 00 RT. TO W.B. T.H. 10\47 STA. 213 + 70 RT.	290		10
1 STAGE I	FROM E.B. T.H. 10\47 STA. 210 + 40 RT. TO E.B. T.H. 10\47 STA. 212 + 40 RT.	200		7
1 STAGE I	FROM W.B. T.H. 10\47 STA. 211 + 15 LT. TO W.B. T.H. 10\47 STA. 213 + 15 LT.	200		7
2 STAGE I	FROM N.B. RLB STA. 23+85 LT. TO N.B. RLB STA. 25+62 LT.	180		6
2 STAGE I	FROM E.B. T.H. 10\47 STA. 204 + 23 RT. TO E.B. T.H. 10\47 STA. 205 + 57 RT.	140		5
2 STAGE I	FROM W.B. T.H. 10\47 STA. 204 + 93 LT. TO W.B. T.H. 10\47 STA. 206 + 28 LT.	140		5
2 STAGE I	FROM E.B. T.H. 10\47 STA. 209 + 50 LT. TO E.B. T.H. 10\47 STA. 210 + 80 LT.	130		4
2 STAGE I	FROM W.B. T.H. 10\47 STA. 209 + 70 RT. TO W.B. T.H. 10\47 STA. 211 + 00 RT.	130		4
2 STAGE I	FROM E.B. T.H. 10\47 STA. 210 + 80 LT. TO E.B. T.H. 10\47 STA. 211 + 70 LT.		90	3
TOTAL		2420	90	82

PAVEMENT MARKING REMOVAL - PERMANENT (T)			
PHASE	BROKEN LINE - PAINT		EDGE LINE - PAINT
	LIN. FT.	LIN. FT.	LIN. FT.
PHASE 1 STAGE 1	324		2060
PHASE 1 STAGE 2			
PHASE 1 STAGE 3	2252		7230
PHASE 2 STAGE 1			
PHASE 2 STAGE 2			
PHASE 2 STAGE 3			
PHASE 3 STAGE 1			
TOTAL	2834		10219

REMOVABLE PREFORMED PLASTIC MARKING & T.R.P.M. (U)				
PHASE	4" SOLID LINE - WHITE	4" SOLID LINE - YELLOW	ONE-WAY TRPM	TWO-WAY TRPM
	LIN. FT.	LIN. FT.	EACH	EACH
PHASE 1 STAGE 1	1520	1620	129	
PHASE 1 STAGE 2	550	400	71	
PHASE 1 STAGE 3	7330	7345	657	247
PHASE 2 STAGE 1			98	4
PHASE 2 STAGE 2				
PHASE 2 STAGE 3				
PHASE 3 STAGE 1				
TOTAL	10340	10301	1051	276

TOTALS ON CHARTS T & U INCLUDE A 10% FACTOR.

- (1) APPLICATION RATE OF 50 LBS. PER ACRE
- (2) APPLICATION RATE OF 35 LBS. PER ACRE
- (3) AGGREGATE MULCH PLACED IN MEDIAN AT BRIDGE 02552 SEE TYPICAL SECTIONS FOR DETAILS
- (4) MULCH MATERIAL TYPE 1 APPLIED AT 2 TONS PER ACRE, FERTILIZER ANALYSIS 10-20-20 APPLIED AT 450 POUNDS PER ACRE, AND DISC ANCHORING WILL BE REQUIRED ON ALL AREAS DESIGNATED TO BE SEEDED

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paulsen</i> Date: 2-22-89 Minn. Reg. No. 12666	 BRW Box AC 817-370-0700 Minneapolis, Minnesota	ORIGINAL DATE 4/18/89	CITY OF COON RAPIDS IMPROVEMENT PROJECT 83-5 TABULATED QUANTITIES
		REVISIONS	
S.A.P. NO. 02-609-08		SURVEY BOOK	DESIGN FILE No. 83-5
SHEET 89 OF 256			

EARTHWORK SUMMARY

EXCAVATION

(E) COMMON EXCAVATION	152,107 CY (EV)	REGULAR	100,743 CY (EV) (E)
		TOPSOIL	51,364 CY (EV)
(C) SUBGRADE EXCAVATION	17,673 CY (EV)	REGULAR	15,214 CY (EV)
		TOPSOIL	2,459 CY (EV)
MUCK EXCAVATION	1,094 CY (EV)		

EMBANKMENT

(F) EMBANKMENT	257,049 CY (CV)	GRANULAR	221,223 CY (CV) (F)
		SELECT GRANULAR	32,282 CY (CV)
		SELECT GRANULAR MOD. 10%	3,544 CY (CV)
TOPSOIL	29,391 CY (CV)		
(G) GRANULAR BORROW	172,185 CY (LV)		
		SELECT GRANULAR BORROW	48,423 CY (LV)
(D) SELECT GRANULAR BORROW MOD. 10%	5316 CY (LV)		

NOTES:

- | | |
|---|--|
| (A) SHRINKAGE FACTOR OF 125% USED FOR NORMAL GRADING (EV TO CV) | (E) INCLUDES 600 CY (EV) FOR TEMPORARY CONNECTIONS |
| (B) ADJUSTMENT FACTOR OF 150% USED FOR TRUCK HAUL BORROW (LV TO CV) | (F) INCLUDES 473 CY (CV) FOR TEMPORARY CONNECTIONS |
| (C) INCLUDES 940 CY FOR BRIDGE APPROACH TREATMENT | (G) INCLUDES 710 CY (LV) FOR TEMPORARY CONNECTIONS |
| (D) BRIDGE APPROACH TREATMENT | |

SOILS AND CONSTRUCTION NOTES

- TOP OF GRADING SUBGRADE IS DEFINED AS THE BOTTOM OF THE CLASS 6 AGGREGATE BASE FOR ROUND LAKE BOULEVARD (RAMPS AND LOOPS INCLUSIVE), THE BOTTOM OF THE CLASS 5 AGGREGATE BASE FOR THE SOUTHWEST FRONTAGE ROAD, AND THE BOTTOM OF THE CLASS 3 AGGREGATE SHOULDERING FOR THE TH 10/47 MODIFIED SHOULDER.
- SELECTED GRADING MATERIALS SHALL CONSIST OF GRANULAR MATERIALS, OF WHICH THE UPPER 1.0 FOOT OF THE SUBGRADE SHALL CONSIST OF SELECT GRANULAR MATERIALS.
- GRANULAR MATERIAL, REGARDLESS OF SOURCE, SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2A.
- SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B.
- STABILIZING AGGREGATE SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2C.
- COMPACTION OF THE GRADING PORTION OF THIS PROJECT SHALL BE BY THE "SPECIFIED DENSITY METHOD."
- STABILIZING AGGREGATE SHALL BE INCORPORATED INTO THE SUBGRADE TO ACHIEVE SATISFACTORY SURFACE STABILITY FOR PLACEMENT FOR THE CLASS 6, 5 OR 3 AGGREGATE BASE, AT LOCATIONS DEEMED NECESSARY BY THE ENGINEER, IN ACCORDANCE WITH SPEC. 2105.3G. SELECT GRANULAR MATERIAL WHICH IS FURNISHED BY THE CONTRACTOR SHALL BE STABILIZED IF NECESSARY, AT THE CONTRACTOR'S EXPENSE. WHERE STABILIZING AGGREGATE IS DEEMED NECESSARY, IT SHOULD BE APPLIED AT A RATE OF APPROXIMATELY 200 POUNDS PER SQUARE YARD.
- TEST ROLLING WILL NOT BE REQUIRED.
- AS A PRECAUTIONARY MEASURE FROM A SOILS STANDPOINT, TRAFFIC LANES TO BE USED DURING CONSTRUCTION MUST BE DELINEATED TO KEEP VEHICLES A SAFE DISTANCE AWAY FROM THE ADJACENT EXCAVATION. THE DELINEATION SHOULD COINCIDE WITH POINTS ESTABLISHED BY PROJECTING 2:1 OR GREATER (FLATTER) SLOPE BETWEEN THE EDGE OF THE TRAFFIC SURFACE AND THE BOTTOM OF THE EXCAVATION.
- IN FILL AREAS, THE SUBGRADE SHALL BE CONSTRUCTED WITH SELECTED GRADING MATERIAL, OF WHICH THE UPPER 1.0 FEET SHALL CONSIST OF SELECT GRANULAR MATERIAL.
- BITUMINOUS AND/OR CONCRETE ITEMS REMOVED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL EITHER BE RECYCLED OR DISPOSED OF OFF THE PROJECT LIMITS.
- DISPOSITION OF EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH SPEC. 2105.3D.

- WHERE WIDENING ON TH 10/47 FOR THE ADDITION OF ACCELERATION/DECELERATION LANES, REMOVE THE EXISTING BITUMINOUS SHOULDER. USE A SAWCUT TO PROVIDE A NEAT LINE HORIZONTALLY AND CUT VERTICALLY TO THE BOTTOM OF THE EXISTING BITUMINOUS SURFACING, AND THEN AT A 1:1 TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATIONS.
- WHERE MATCHING INTO THE INPLACE ROADWAY AT THE ENDS OF CONSTRUCTION, CUT VERTICALLY TO THE TOP OF THE GRADING SUBGRADE AND THEN AT A 20:1 TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
- PROVIDE 20:1 TAPERS BETWEEN CHANGES IN DEPTH OF SUBGRADE EXCAVATIONS.
- WHERE CONNECTING NEW SURFACING TO AN INPLACE PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING THE INPLACE PAVEMENT.
- USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES PRIOR TO PLACING BITUMINOUS MIXTURES AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON EXISTING CONCRETE OR BITUMINOUS SURFACES. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF .03 TO .05 GALLONS/SQUARE YARD BETWEEN BITUMINOUS LAYERS. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY); ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH SPEC. 2357.
- COMPACTION OF THE SPECIFICATION 2331 BASE, BINDER, SHOULDER MIXTURE MODIFIED AND SPECIFICATION 2341 WEAR MODIFIED SHALL BE BY THE "SPECIFIED DENSITY METHOD." COMPACTION OF THE SPECIFICATION 2361 WEAR MODIFIED SHALL BE BY THE "ORDINARY COMPACTION METHOD."
- COMPACTION OF THE AGGREGATE BASE LAYERS SHALL BE BY THE "SPECIFIED DENSITY METHOD" EXCEPT THAT IN AREAS WHERE THE PLANNED THICKNESS IS 2 INCHES, COMPACTION SHALL BE OBTAINED BY THE "ORDINARY COMPACTION METHOD."
- IF THE CONTRACTOR ELECTS TO SUBSTITUTE SPECIFICATION 2332, RECYCLED BITUMINOUS MIXTURE, FOR A SPECIFICATION 2331 MODIFIED MIXTURE, THE FOLLOWING PROVISIONS SHALL APPLY WHETHER THE SALVAGE MATERIAL IS OBTAINED ON THIS PROJECT OR FROM OTHER SOURCES: THE MAXIMUM PERCENTAGE OF SALVAGED ASPHALTIC CONCRETE TO BE ALLOWED IN THE RECYCLED MIXTURE SHALL BE 50 PERCENT IF PROVISIONS A AND/OR B LISTED BELOW ARE MET AND THE SALVAGE MATERIAL IS MILLED OR CRUSHED SUCH THAT 100 PERCENT PASSES THE 1/4-INCH SIEVE WHEN ENTERING THE COLD FEED.
 - IF THE MATERIAL IS REMOVED BY PROFILING (MILLING) MACHINE, SEPARATE STOCKPILES SHALL BE CONSTRUCTED WHENEVER THERE IS REASON TO BELIEVE THAT THE COMPOSITE MATERIAL TYPE HAS OR WILL CHANGE.

FOR EXAMPLE, MULTIPLE STOCKPILES WILL BE REQUIRED WHEN MULTIPLE PASSES ARE MADE, WHEN THE PLANNED DEPTH OF MILLING CHANGES, OR WHEN THERE IS AN OBVIOUS OR KNOWN CHANGE IN MATERIAL TYPE(S) SUCH AS SPECIFICATIONS 2361, 2351, 2341 OR 2331 MIXTURES OR AGGREGATE SOURCES.
 - IF THE SALVAGED MATERIAL IS REMOVED BY METHOD(S) OTHER THAN MILLING, SEPARATE STOCKPILES WILL BE REQUIRED WHENEVER THERE IS A KNOWN CHANGE IN PAVEMENT THICKNESS OR COMPOSITE MATERIAL TYPE.

IF THE ABOVE CONDITIONS ARE NOT MET, OR THE SALVAGED MATERIAL IN THE STOCKPILE COMES FROM MISCELLANEOUS SITE, THE MAXIMUM AMOUNT OF SALVAGE MATERIAL TO BE ALLOWED IN THE RECYCLED MIXTURE SHALL BE REDUCED TO 30 PERCENT. IN NO CASE SHALL THE MAXIMUM SIZE OF THE SALVAGED MATERIAL EXCEED 3 INCHES WHEN ENTERING THE COLD FEED.

- IN AREAS TO BE DISTURBED BY CONSTRUCTION, STRIP AND SAVE FOR REUSE AS SLOPE DRESSING, ALL TOPSOIL AND INPLACE SLOPE DRESSING. REFER TO THE CROSS-SECTIONS FOR THE LIMITS OF TOPSOIL STRIPPING. GENERAL DEPTHS OF TOPSOILS LAYERS ARE ASSUMED TO BE AS FOLLOWS:

SOUTHWEST INTERCHANGE QUADRANT - 1'-0"
 SOUTHEAST INTERCHANGE QUADRANT - 2'-0"
 NORTHEAST INTERCHANGE QUADRANT - 0'-6"
 NORTHWEST INTERCHANGE QUADRANT - 1'-6"

- SLOPE DRESSING ON THIS PROJECT IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING PRIOR CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.
- PLACE A MINIMUM OF 6 INCHES TOPSOIL OR SLOPE DRESSING ON ALL AREAS DISTURBED BY CONSTRUCTION AND SCHEDULED FOR PERMANENT TURF ESTABLISHMENT. FERTILIZE WITH COMMERCIAL FERTILIZER, ANALYSIS 10-20-10, AT A RATE OF 450 POUNDS PER ACRE, OR EQUIVALENT.
- ON PERMANENT SLOPES 3:1 OR FLATTER WITHIN THE INTERCHANGE AREA, USE MIXTURE 500 SEED AND TYPE 1 MULCH WITH DISC ANCHORING.
- USE MIXTURE 700 SEED AND TYPE 1 MULCH WITH DISC ANCHORING FOR AREAS ADJACENT TO ROUND LAKE BOULEVARD OUTSIDE OF THE INTERCHANGE AREA (NORTH OF RAMP B AND SOUTH OF RAMP C) WHERE SOD IS NOT SPECIFIED.
- ALL SOD UTILIZED WITHIN THE PROJECT UNITS SHALL MEET THE REQUIREMENTS OF SPECIFICATION 3878.2B (EROSION CONTROL SOD).
- TRAFFIC SHALL NOT BE ALLOWED ON NEWLY PLACED SPEC 2361 MOD WEARING COURSE FOR 12 HOURS OR UNTIL THE SURFACE TEMPERATURE HAS DROPPED TO 140°F OR AS DIRECTED BY THE ENGINEER, THE SURFACE TEMPERATURE MAY BE LOWERED BY FLUSHING WITH WATER.

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 State of Minn. Statutes Sections 326.02 to 326.18.

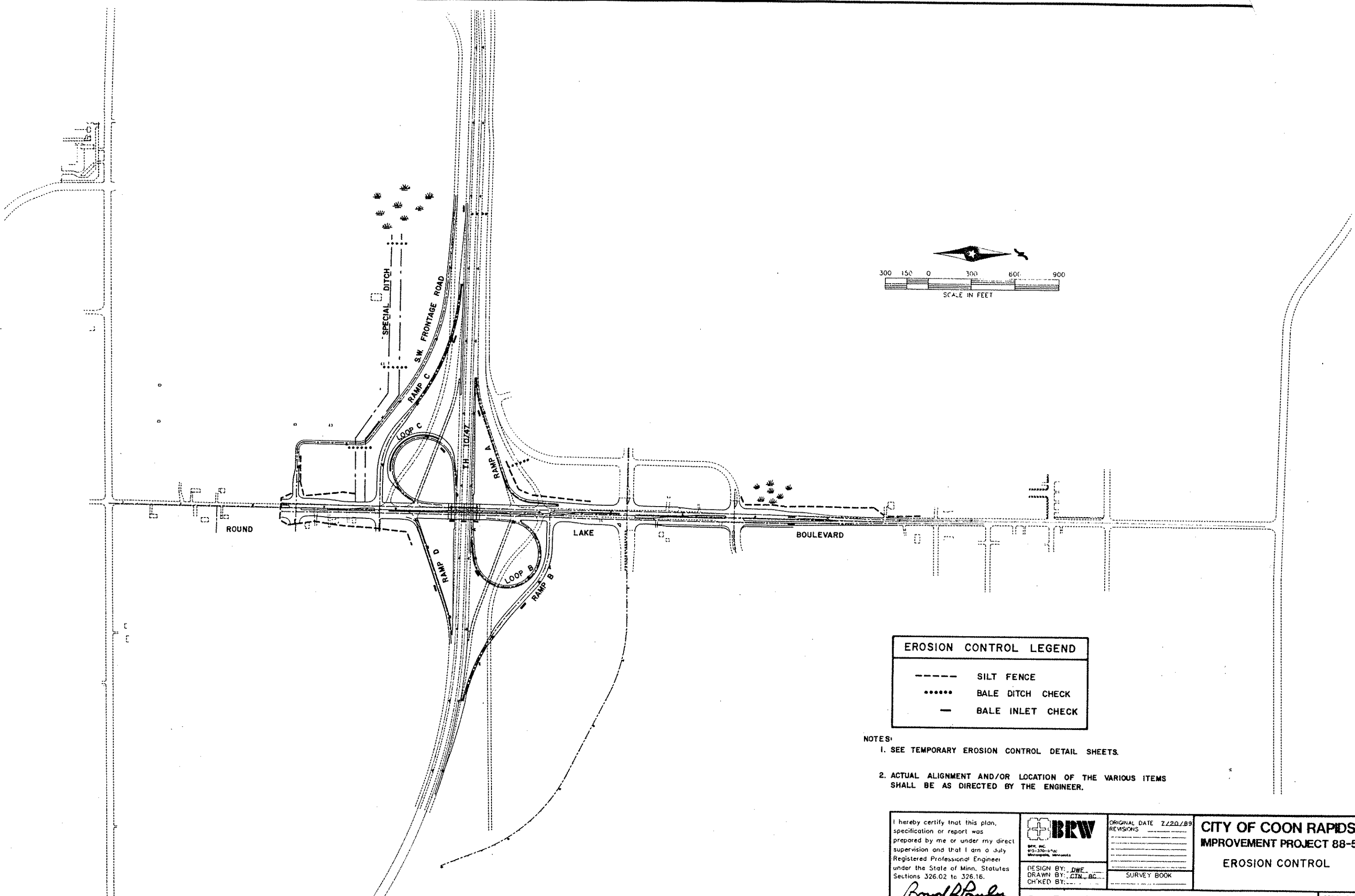
Joyd R. Paulsen
 Date: 8-22-89 Minn. Reg. No. 12666



ORIGINAL DATE: 7-21-89
 REVISIONS:

 SURVEY BOOK: _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
EARTHWORK SUMMARY
SOILS & CONSTRUCTION NOTES



EROSION CONTROL LEGEND	
-----	SILT FENCE
.....	BALE DITCH CHECK
---	BALE INLET CHECK

- NOTES:
- SEE TEMPORARY EROSION CONTROL DETAIL SHEETS.
 - ACTUAL ALIGNMENT AND/OR LOCATION OF THE VARIOUS ITEMS SHALL BE AS DIRECTED 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 July Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen
 Date 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 872-376-0700
 Minneapolis, Minnesota

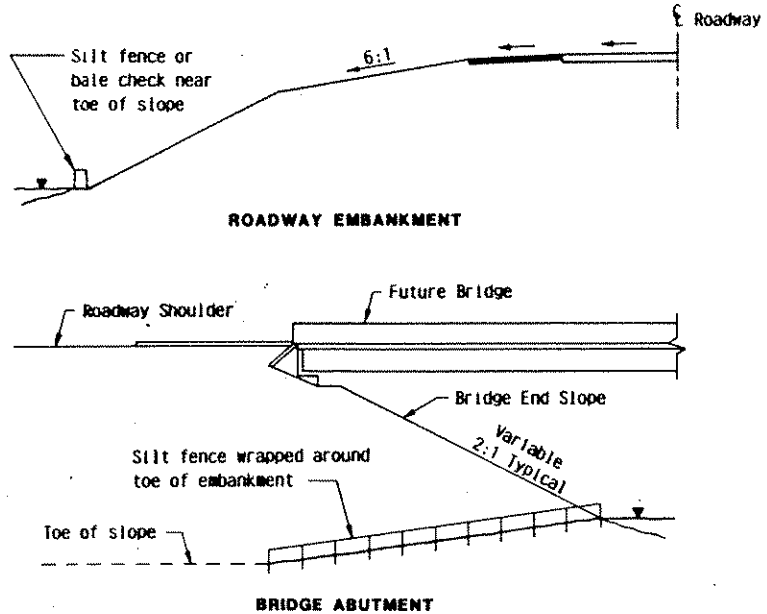
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 DRAWN BY: CTN, BC
 CHECKED BY:

ORIGINAL DATE 7/20/89
REVISIONS
SURVEY BOOK

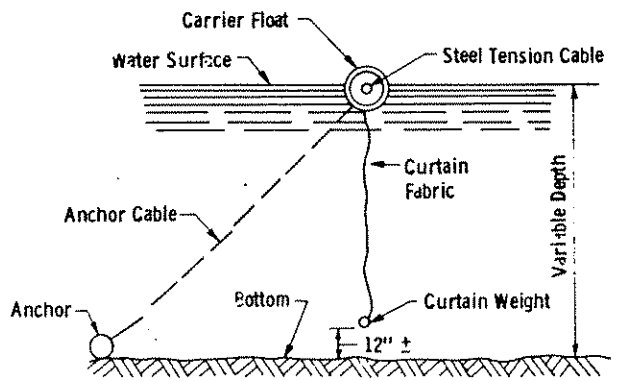
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
EROSION CONTROL

S.A.P. NO. 02-609-08 SHEET 91 OF 256

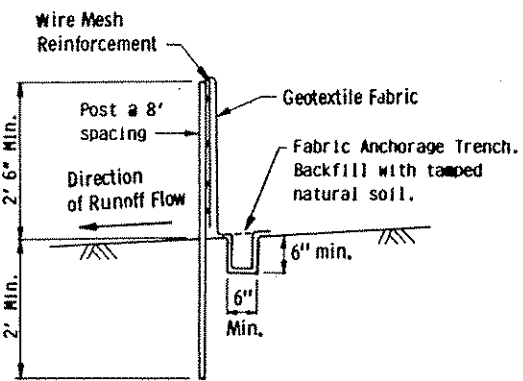
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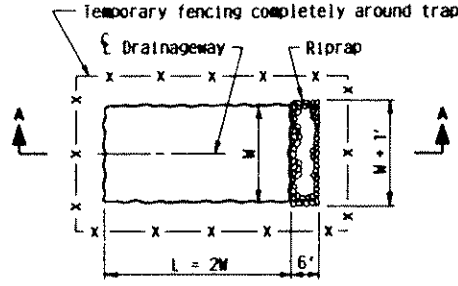
SILT FENCE OR BALE CHECK TO PROTECT ADJACENT CRITICAL AREAS



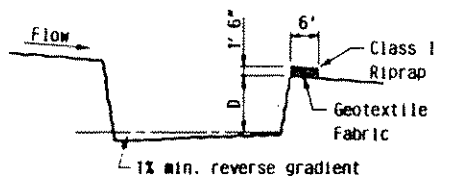
FLLOATATION SILT CURTAIN



SILT FENCE DETAIL



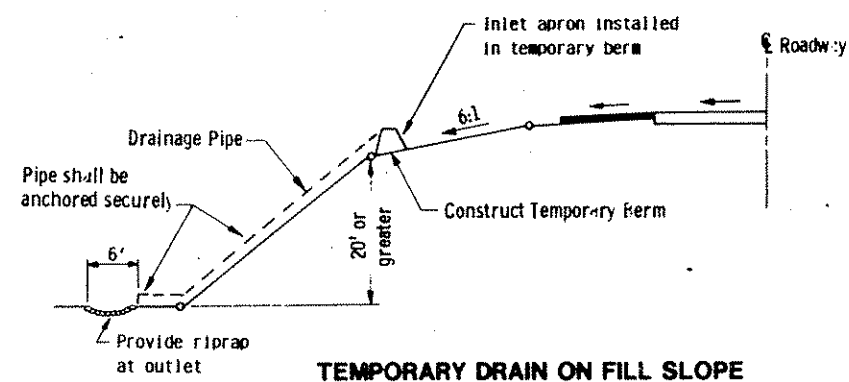
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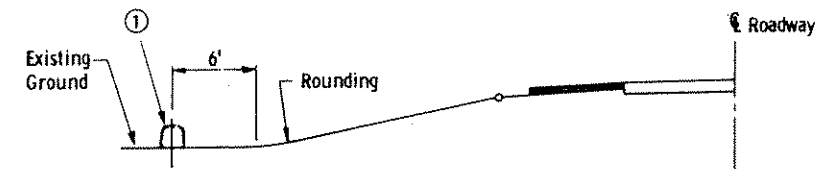
SECTION A-A

NOTE:
D = 3' min., 6' max.
W = 10' min., 20' max.

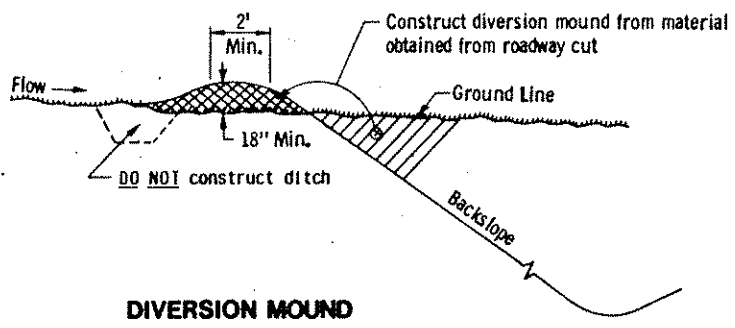
TEMPORARY SEDIMENT TRAP



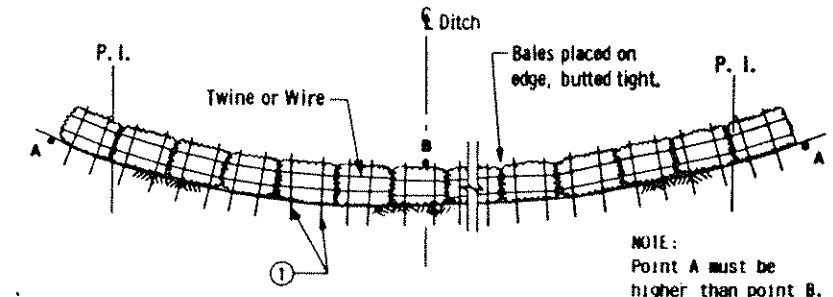
TEMPORARY DRAIN ON FILL SLOPE



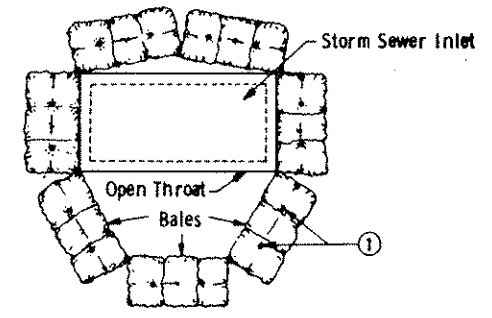
BALE DIVERSION



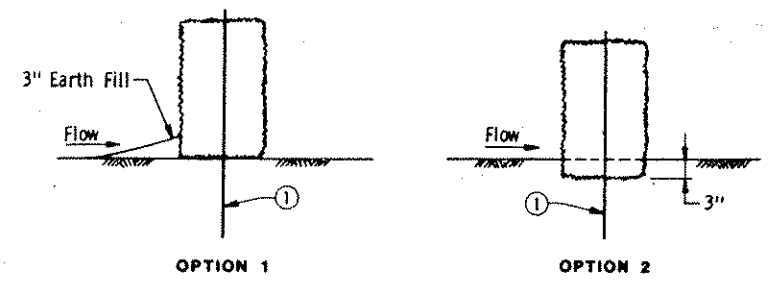
DIVERSION MOUND



BALE DITCH CHECK

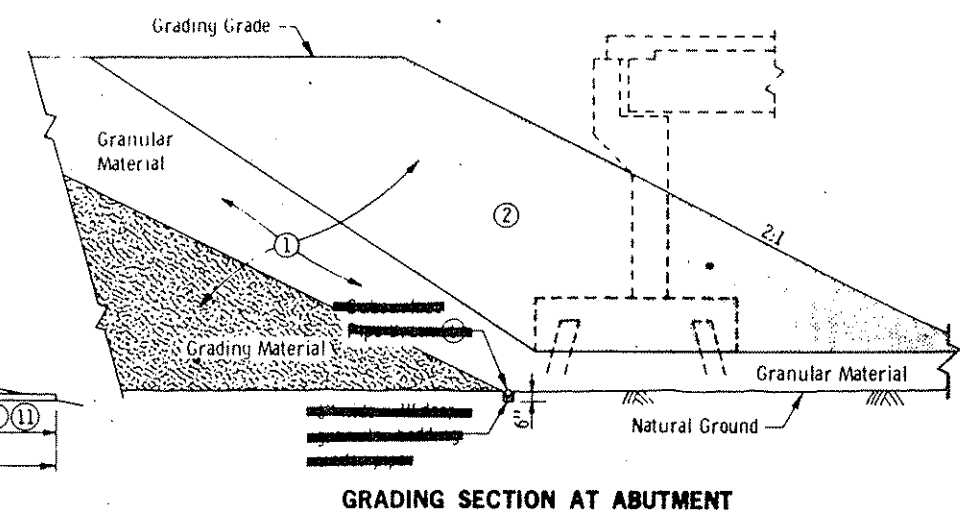
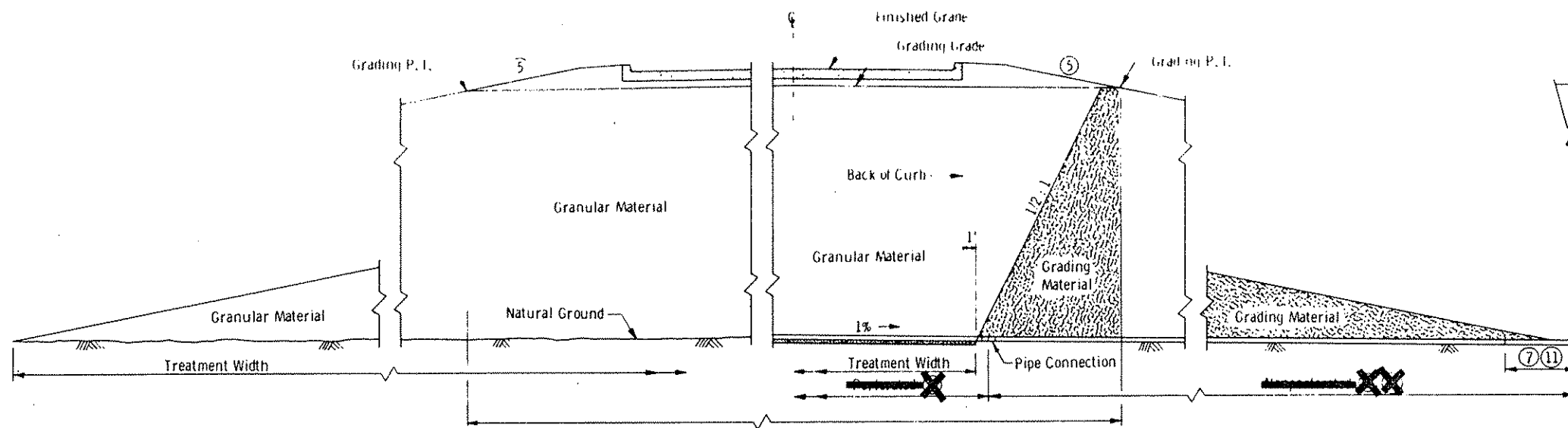
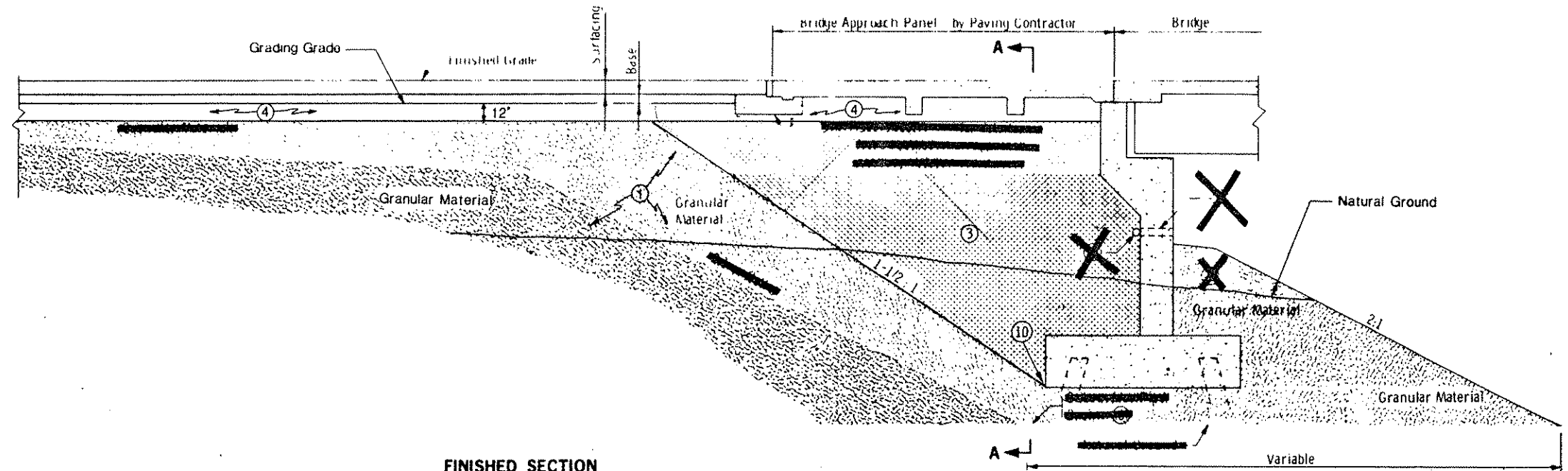
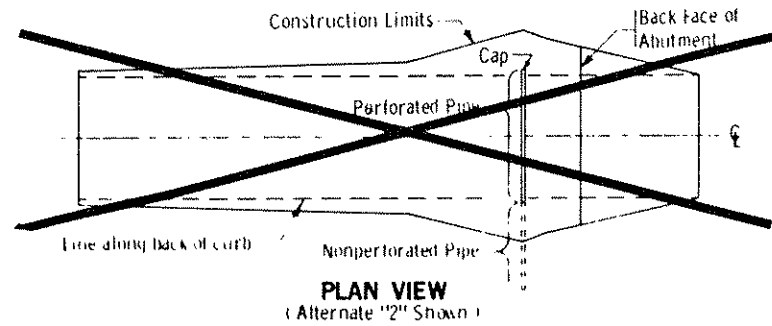


BALE CHECK TO PROTECT STORM SEWER INLETS



BALE CHECK DETAILS

NOTE:
① Two 2" x 2" Wood Stakes or Reinforcing Bars in each bale and embedded in the ground 10" minimum.



ALTERNATE "1" (12)
(No Pipe Required)

ALTERNATE "2" (13)
(Pipe Required)

NOTES:

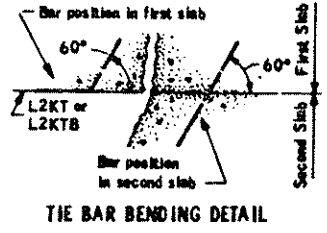
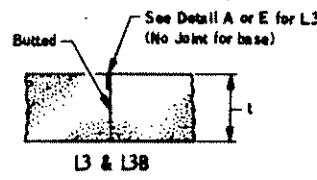
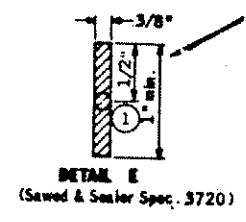
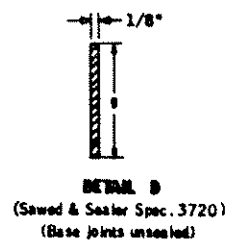
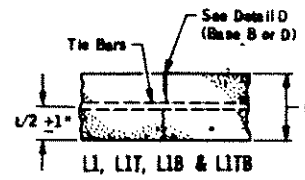
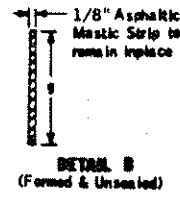
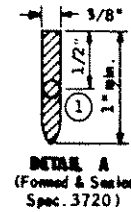
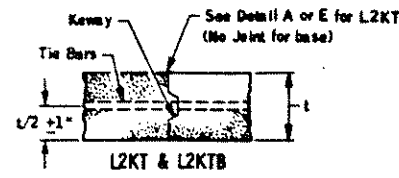
- ① Grading and granular material - placed by Grading and/or Paving Contractor.
- ② Any grading material. To be constructed by Grading and/or Paving Contractor prior to bridge construction. To be removed by Bridge Contractor.
- ③ Second Stage Construction, after completion of bridge construction: Granular material (modified to 10% passing the 200 sieve) - placed by Paving and/or Grading Contractor. Any temporary fill placed by the Bridge Contractor for access to the bridge shall be removed prior to placing backfill.
- ④ Third Stage Construction: granular material (modified to 15% passing the 200 sieve) - placed by Paving Contractor.
- ⑤ See typical.

SECTION A-A

- ① ~~Perforated pipe by Paving Contractor~~
- ② ~~Perforated pipe by Paving Contractor~~
- ③ ~~Perforated pipe by Paving Contractor~~
- ④ ~~Perforated pipe by Paving Contractor~~
- ⑤ ~~Perforated pipe by Paving Contractor~~
- ⑥ ~~Perforated pipe by Paving Contractor~~
- ⑦ ~~Perforated pipe by Paving Contractor~~
- ⑧ ~~Perforated pipe by Paving Contractor~~
- ⑨ ~~Perforated pipe by Paving Contractor~~
- ⑩ Provide temporary drainage during construction of abutment and placement of second stage construction.
- ⑪ ~~Perforated pipe by Paving Contractor~~
- ⑫ The designer shall specify alternate.
- ⑬ At bridge locations where the natural ground line is above the elevation of the bottom of the abutment footing, only zone 2 and 3 work is required for the treatment.

APPROVED July 5, 1979
John G. [Signature]
Director
OFFICE OF ENGINEERING STANDARDS

BRIDGE APPROACH TREATMENT
(HIGH ABUTMENT - MODIFIED)



TYPE L1 JOINT DEPTHS		
Pavement Thickness	Concrete Pavement	Concrete Base
t	g	g
6"	2"	2"
6-1/2"	2-1/8"	2"
7"	2-1/4"	2-1/4"
7-1/2"	2-1/2"	2-1/4"
8"	2-5/8"	2-1/2"
8-1/2"	2-7/8"	2-1/2"
9"	3"	2-3/4"
10"	3-1/4"	3"

LONGITUDINAL JOINTS					
CLASS DESIGNATION				JOINT DETAIL	JOINT SEALER SPEC.
Without Tie Bars	With Tie Bars	With Keyway & Tie Bars	Butted		
L1 L1B	L1T L1TB	L2KT L2KTB	L3 L3B	D B or D A or E None	3720 Unsealed 3720 Unsealed

LEGEND
 L = Longitudinal Joint
 No. = Joint Reference
 T = Tie Bars
 K = Keyway
 B = Concrete Base

EXAMPLE
 L2KT Tie Bars
 L1TB Joint Reference
 L3B Longitudinal Joint

LONGITUDINAL JOINT NOTES

Tie bars for L1TB joints shall be the same size and spacing as shown on standard plan sheet 5-297.216 - 219.

Except when noted otherwise in the plans the tie bar spacing for all L2KT and L2KTB joints shall be 2' 6" c. to c. and bent 60° as shown.

Tie bars in the L2KT and L2KTB joints shall be the same size and length as used for the L1T or L1TB joints when tying pav't. to pav't. or base to base. Tie bars in the L2KT or L2KTB joints shall be No. 4 x 2' 6" when tying curb and gutter to pav't. or base.

All tie bars shall meet the requirements of Grade 60 for AASHTO M-31 or M-53.

Normally, tied pavement widths shall not exceed 30 feet except bridge approach panels and pavement tapers.

Joint width tolerance, +1/16", -1/32".

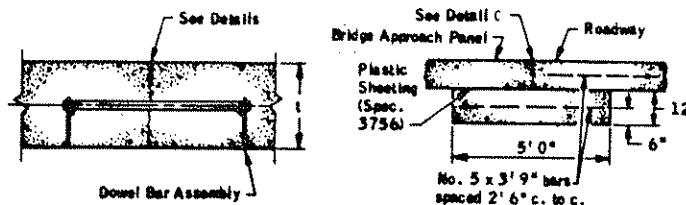
Spec. 3720 Sealer - Top of sealer flush to -3/16" below top of pavement surface.

- ① Just prior to sealing joint (Detail A & E) a paper rope with a 1/8" larger diameter than the joint opening may be placed 1/2" below the top of the pavement.

GENERAL NOTES:

See the following standard plates and standard plan sheet for additional details: Dowel Bar Assembly 1103; Pav't. Keyway 1141 and Concrete Pavement with Skewed Joints 5-297.216 - 219.

See paving layouts in the plans for joint class designations to be used and special reinforcement required.



LEGEND
 C = Contraction Joint
 No. = Joint Reference
 -1 = Hot Poured Seal
 D = Dowel Bars
 S = Concrete Sill
 B = Concrete Base

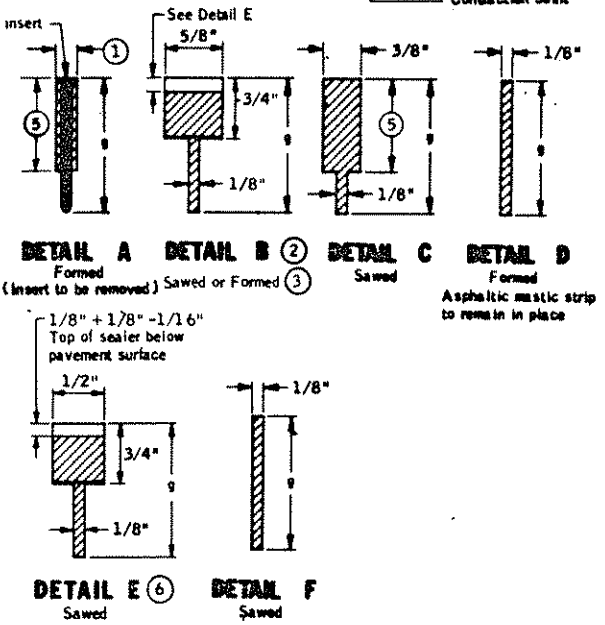
EXAMPLE
 C1DB Concrete Base
 Dowel Bars
 Joint Reference
 Contraction Joint

CONTRACTION JOINTS

CLASS DESIGNATION	WITHOUT DOWELS	WITH DOWELS	JOINT DETAIL	JOINT SEALER SPEC.
C1	C1B	A or C	3721	
C1-1	C1D-1	A or B	3720	
C1B	C1DB	D or F	Unsealed	
C2-1	C2D-1	B	3720	
C3S		C	3721	
C4	C4D	C	3721	
C5-1	C5D-1	E	3720	

MIN. CONTRACTION JOINT DEPTHS

Pavement Thickness	Concrete Pavement	Concrete Base
t	g	g
6"	1-1/2"	1-1/4"
6-1/2"	1-5/8"	1-1/4"
7"	1-3/4"	1-1/2"
7-1/2"	1-7/8"	1-1/2"
8"	2"	1-1/2"
8-1/2"	2-1/8"	1-1/2"
9"	2-1/4"	1-1/2"
10"	2-1/2"	2"



- ① Design C1 or C1D: Prior to installing preformed joint sealer in the formed joint, (Detail A) the joint shall be widened to a nominal width of 3/8" by sawing along the full length of the formed joint.
- ② Design C1-1 or C1D-1: Prior to sealing formed joint (Detail A) with hot poured joint sealer, the joint shall be widened to a nominal width of 5/8" for a depth of 3/4", +1/8", -1/16", by sawing along the full length of the formed joint. Prior to sealing joint (Detail B) with hot poured joint sealer a strip of paper 5/8" wide shall be placed on the bottom of the 5/8" wide joint.
- ③ Design C2-1 or C2D-1: Prior to sealing joint (Detail B) with hot poured joint sealer a strip of paper 5/8" wide shall be placed on the bottom of the 5/8" wide joint.
- ④ Design C2-1 or C2D-1: Use insert for forming joint (no sawing permitted).
- ⑤ Use 5/16" x 2" insert for forming joint. Final dimensions shall be obtained by sawing.
- ⑥ Depth shall be 1/4" greater than preformed joint sealer when compressed to fit joint design width.
- ⑦ Design C5-1 or C5D-1: Prior to sealing joint (Detail E) with hot poured joint sealer a strip of paper 1/2" wide shall be placed on the bottom of the 1/2" wide joint.

CONTRACTION JOINT NOTES

In concrete base construction the contraction joints shall be spaced at 30 foot intervals and at right angles to the longitudinal joints except as noted below. Where concrete base is constructed adjacent to existing pavement or base, the contraction joints in the new base shall match those in the existing pavement or base except that the spacing shall not be less than 15 feet nor more than 30 feet.

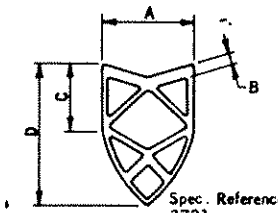
Joint width tolerances: +1/16", -1/32".

GENERAL NOTES:
 See the following standard plates and standard plan sheet for additional details: Dowel Bar Assembly 1103; Construction of Header Joints 1150, and Concrete Pavement with Skewed Joints 5-297.216 - 219.
 See paving layouts in the plans for joint class designation to be used and special reinforcement required.

CONTRACTION JOINTS DESIGN C

REQUIRED DIMENSIONS

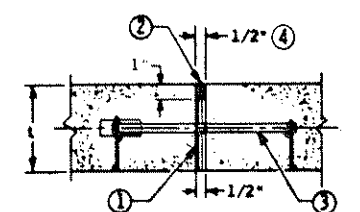
Joint Type	Transverse	
	Nominal Sealer Size	Use in all 3/8" Joints
A	0.80" +0.14" -0.05"	1.25" ± 0.13"
B	0.08" ± 0.02"	0.10" ± 0.02"
C	0.60" Min.	1.00" Min.
D	0.80" Min.	1.00" Min.
Web and wall thickness unless noted	0.03" Min.	0.06" Min.



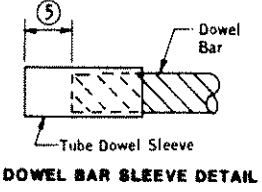
NOTES:
 "A" Dimension shall apply at any point throughout "C" depth. The above concrete joint sealers shall be used in 3/8" and 1/2" contraction joints. In its final position, the top corners of the preformed joint sealer shall be placed not less than 1/8" nor more than 5/16" below the pavement surface.

Sharp internal corners will not be permitted. All corners shall be provided with suitable fillet. Currently approved configurations are on file in the Materials Engineering Section, Minnesota Department Of Transportation.

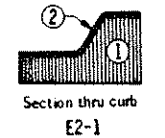
CONTRACTION JOINT SEALER (PREFORMED ELASTIC TYPE)



E1D-1 (with dowels)
 E1-1 (without dowels)
 DETAIL A



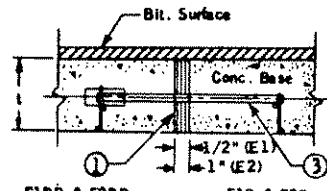
DOWEL BAR SLEEVE DETAIL



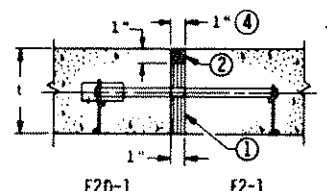
Section thru curb E2-1



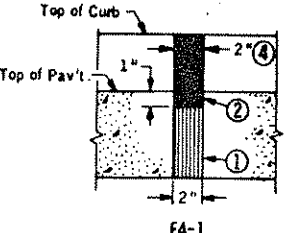
Section thru curb E4-1



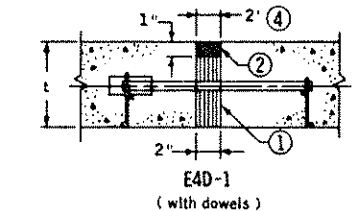
E1DB & E2DB (with dowels)
 E1B & E2B (without dowels)
 DETAIL F



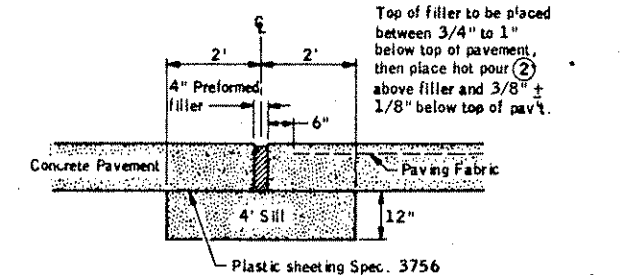
E2D-1 (with dowels)
 E2-1 (without dowels)
 DETAIL G



E4-1 (without dowels)
 DETAIL H



E4D-1 (with dowels)
 DETAIL I



DETAIL ESS JOINT

- ① Preformed Joint Filler Material - Spec. 3702
- ② Joint Sealer Spec. 3720 Top of sealer, flush to 1/8" below top of pavement surface. Top of sealer for curb section E joints flush with surface (0") ± 1/8".
- ③ Dowel Bar Assembly See Std. Pl. 1103
- ④ Joint width. Joint width is equal to half of the Joint No. in 1/2" intervals (i.e. E1 = 1/2", E2 = 1", E3 = 1-1/2", E4 = 2", E8 = 4").
- ⑤ Space from end of dowel bar to end of sleeve to be equal to expansion joint width.

LEGEND
 E = Expansion Joint
 No. = Joint Reference
 -1 = Hot Poured Seal
 D = Dowel Bars
 B = Concrete Base

EXAMPLE
 E1D-1 Hot Poured Seal
 Dowel Bars
 Joint Reference
 Expansion Joint

EXPANSION JOINTS

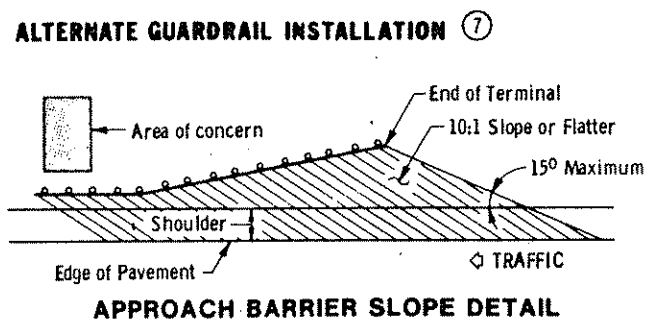
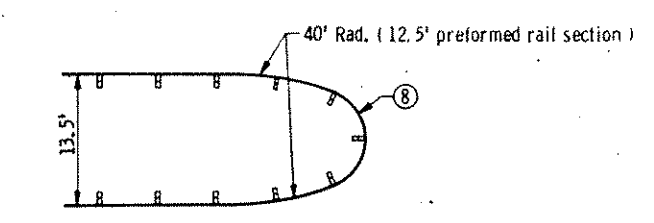
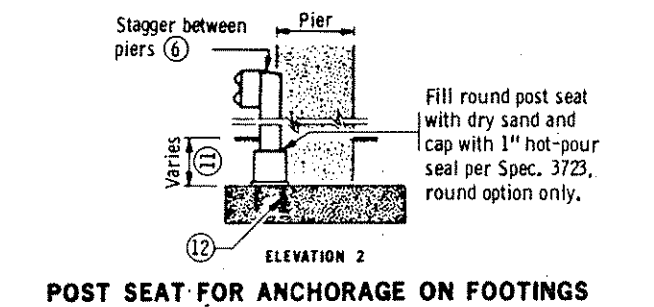
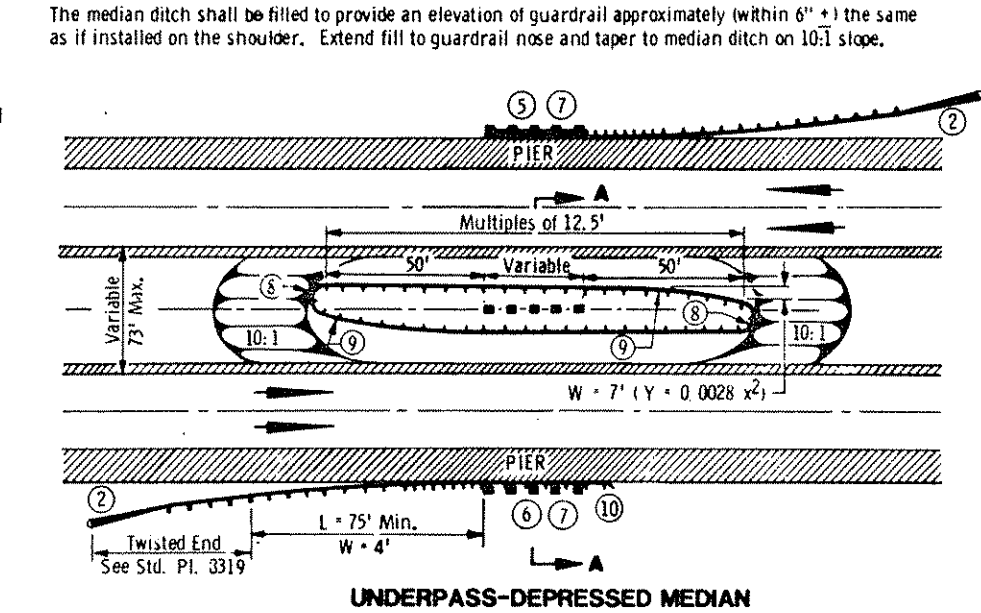
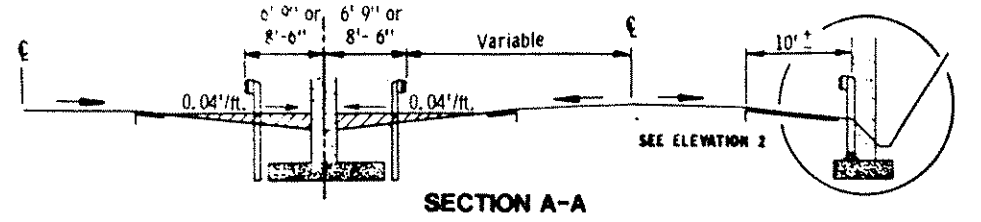
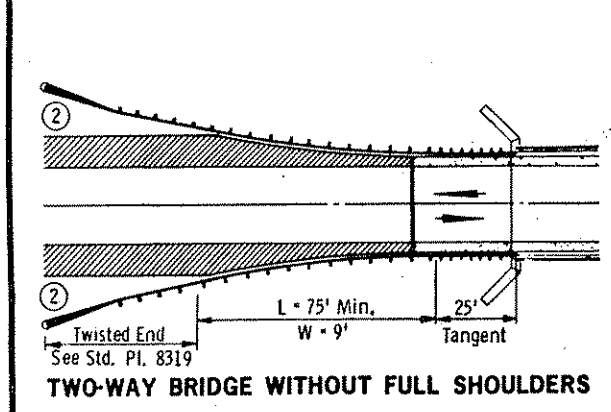
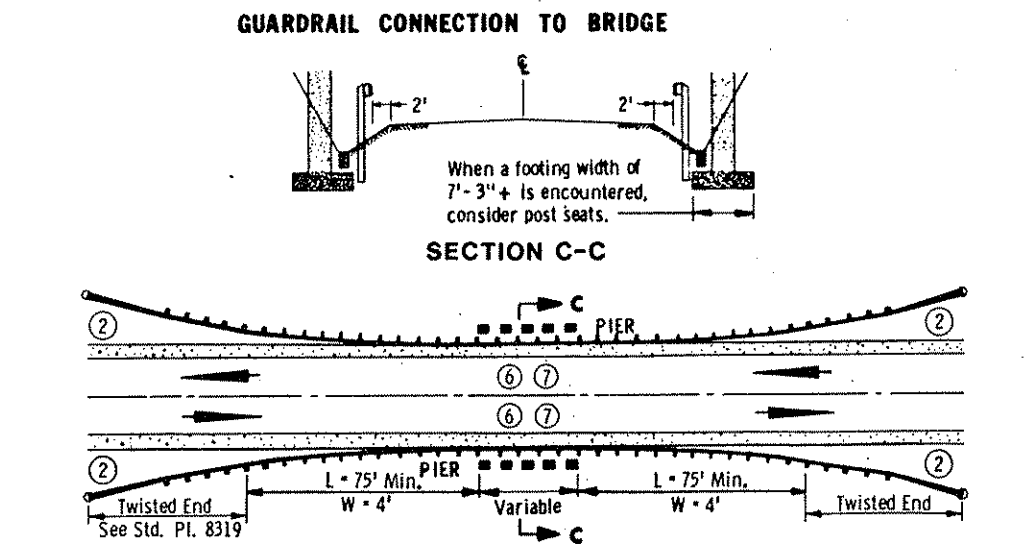
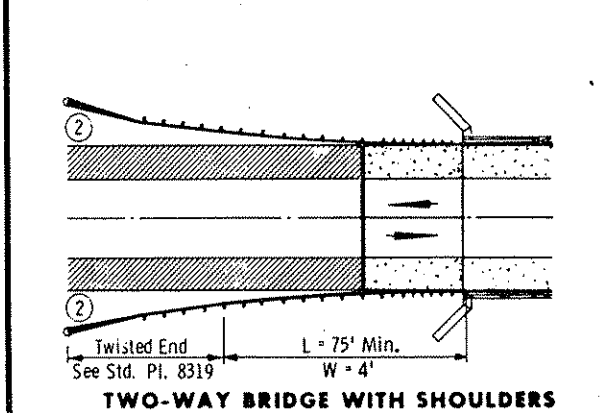
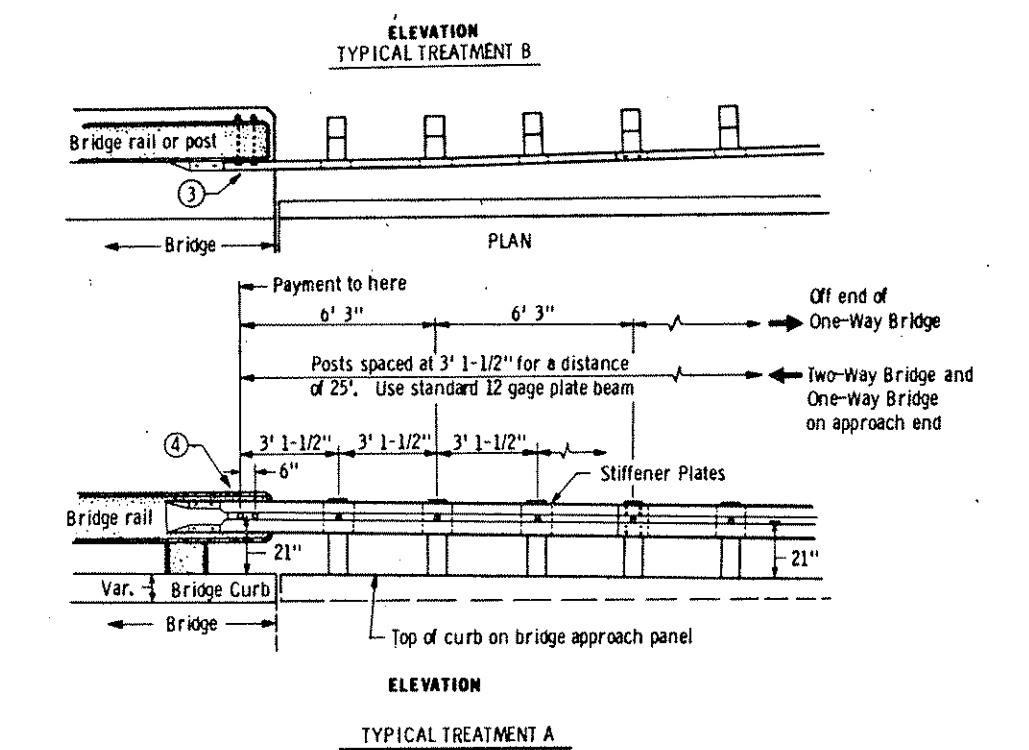
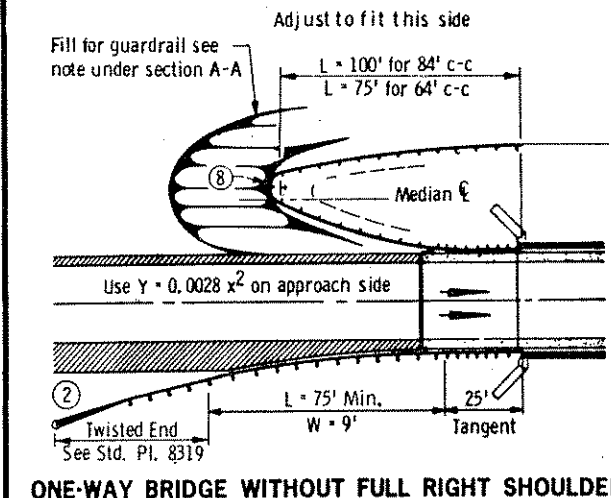
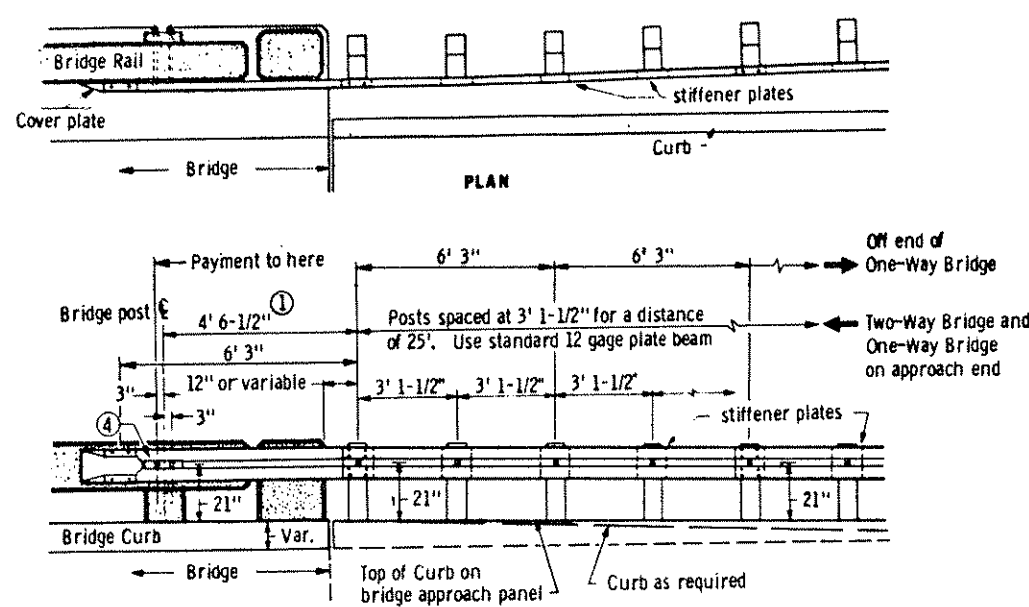
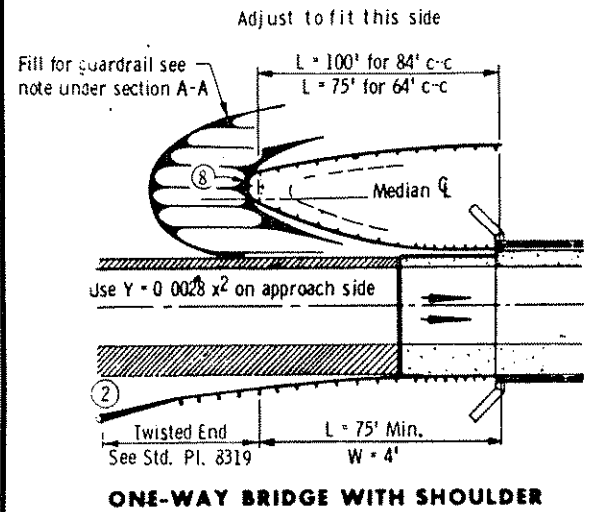
CLASS DESIGNATION	WITH DOWELS	WITHOUT DOWELS	JOINT DETAIL	JOINT SEALER SPEC.
E1D-1	E1-1	A	F	② Unsealed
E1DB	E1B	G	F	② Unsealed
E2D-1	E2-1	H	F	② Unsealed
E2DB	E2B	I	F	② Unsealed
E4D-1	E4-1	I	F	② Unsealed

EXPANSION JOINTS DESIGN E

PAVEMENT JOINTS

APPROVED June 25, 1985
 [Signature]
 OFFICE OF ENGINEERING STANDARDS

LONGITUDINAL JOINTS DESIGN L



APPROVED May 8, 1984

R.O. King
Director

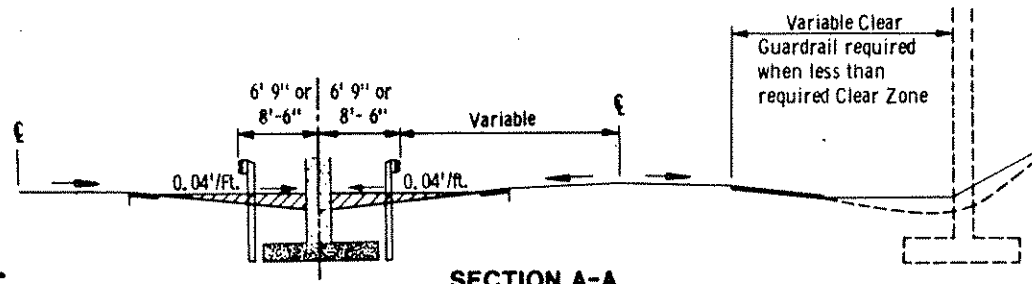
OFFICE OF ENGINEERING STANDARDS

- NOTES:**
- All guardrail posts shall be 6' 3" c. to c. except where noted.
- The required L length and W offset shall be determined in the field by the engineer.
- when the approaching flare can be buried in the backslope eliminate the twisted end and add required rail length to reach backslope.
- See Road Design Manual 10-7.03 for design parameters.
- The latest approved Standard Plates shall apply 8307, 8316, 8317, 8319.
- Use the standard 6' 3" section with 4' 6-1/2" dimension wherever feasible. Lengths are tabulated in plans for various types of corner posts and/or railings.
 - See approach barrier slope detail for suggested slopes in this area.
 - Drill holes for two 1-1/4" bolts, lock two nuts, where W exceeds 15", 1-1/4" bolt anchorages, Spec. 3387, may be used. Embed 6 inches minimum in concrete. Allow 1/16" clearance after tightening bolt anchorages.
 - See Standard Plate 8317 "Guardrail Anchorage Assembly for Bridges" for cover plate and bearing plate details.
 - Concrete barrier wall between pier columns. See sheet _____ for wall details. Connect guardrail to barrier wall anchorage plate Std. Plate 8318.
 - Use 3' 1-1/2" post spacing between and at the upstream end of piers when less than 2' from face of rail to face of pier.
 - Notes (5), (6) and Alternate Guardrail as determined by designer and specified on sheet _____.
 - 5 foot radius nose section (12.5' preformed rail section, see Fig. 10-7.02A Road Design Manual).
 - 25' of field formed, plus 25' of preformed (40' radius) rail sections.
 - Extend downstream past hazard sufficient length to provide terminal section for anchorage. (see 10-7.0(16) Road Design Manual).
 - If embedment is greater than 3' 0" or if embedment is 2' 6" to 3' 0" and adjacent posts are embedded 3' 0" or more, post seat is not required.
 - 3/4" bolt anchorages for fastening post seat shall have an ultimate pull out strength of at least 13,500 lbs. and shall be installed in sound concrete to a depth equal to at least six times the bolt diameter.

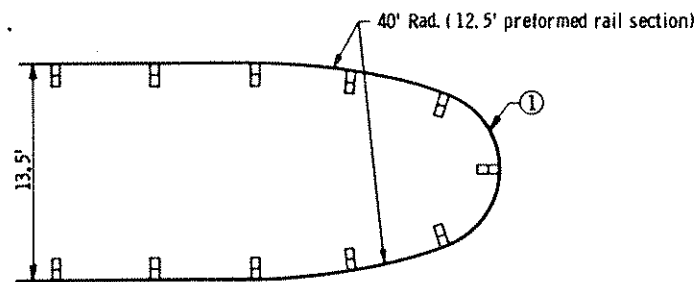
GUARDRAIL IMPROVEMENTS FOR BRIDGES AND PIERS

S.A.P. NO. 02-609-08

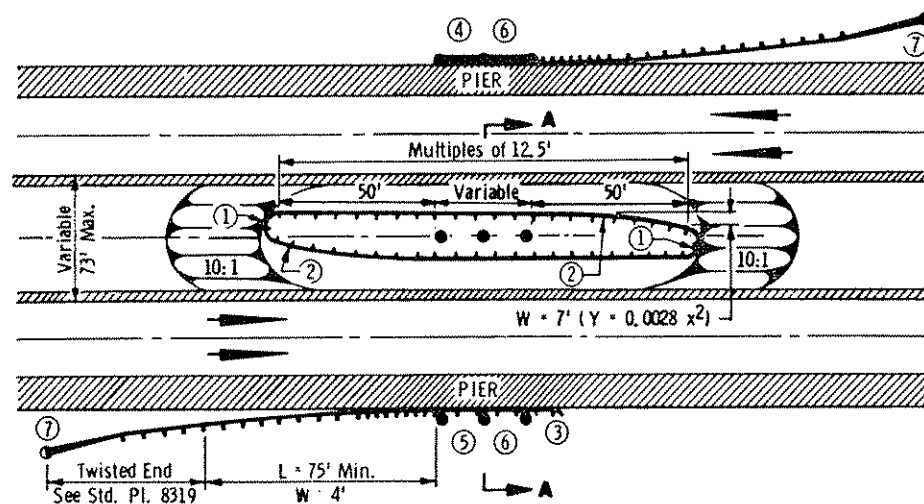
Sheet No. 95 of 256 Sheets



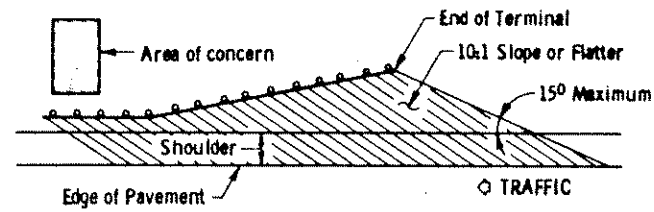
The median ditch shall be filled to provide an elevation of guardrail approximately (within 6" ±) the same as it installed on the shoulder. Extend fill to guardrail nose and taper to median ditch on 10:1 slope.



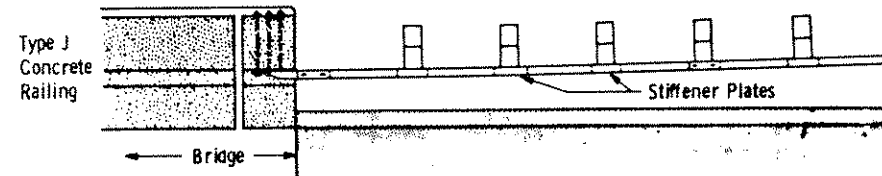
ALTERNATE GUARDRAIL INSTALLATION



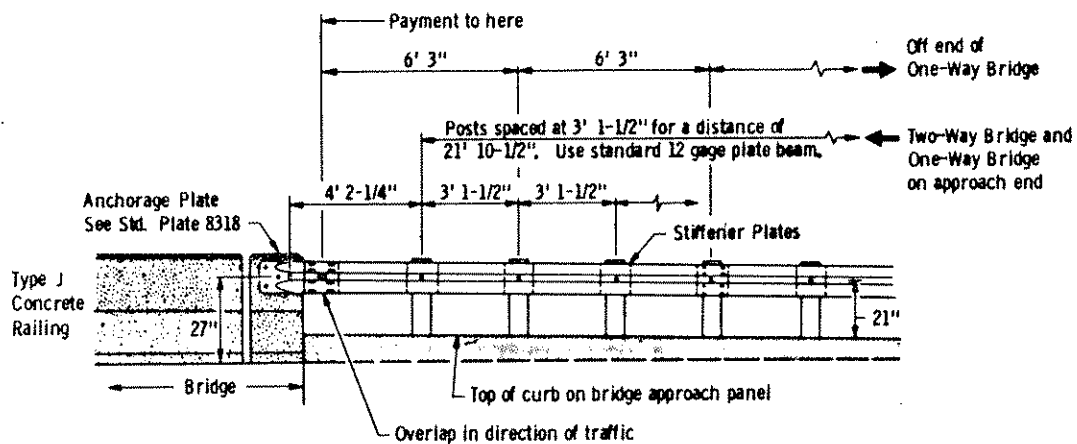
(WHEN REQUIRED)
UNDERPASS - DEPRESSED MEDIAN



APPROACH BARRIER SLOPE DETAIL



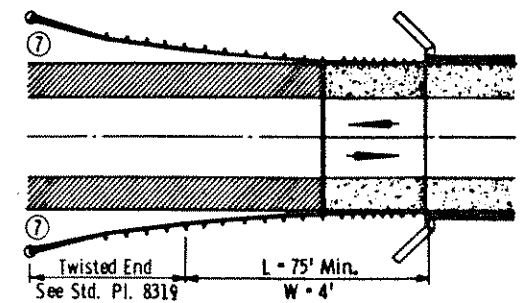
PLAN



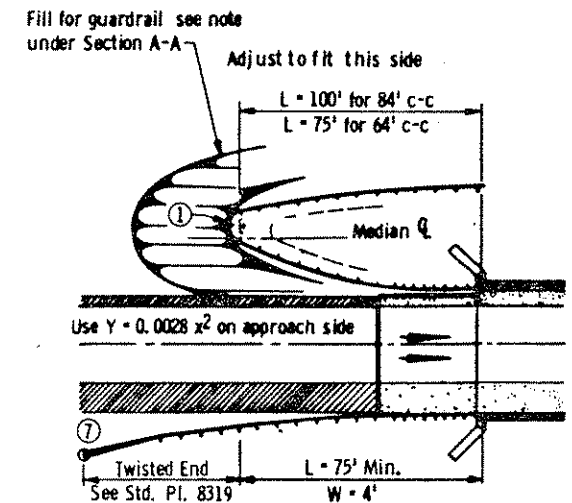
ELEVATION

GUARDRAIL CONNECTION TO BRIDGE

- ① 5 foot radius nose section (12.5 preformed rail section, see Fig. 10-7, 02A Road Design Manual).
- ② 25' of field formed plus 25' of preformed (40' radius) rail sections.
- ③ Extend downstream past hazard sufficient length to provide terminal section for anchorage (See 10-7, 0 (16) Road Design Manual).
- ④ Concrete barrier wall between pier columns. See sheet for wall details. Connect guardrail to barrier wall anchorage plate Std. Plate 8318.
- ⑤ Use 3' 1-1/2" post spacing between and at the upstream end of piers when less than 2' from face of rail to face of pier.
- ⑥ Notes ④, ⑤ and Alternate Guardrail as determined by designer and specified on sheet.
- ⑦ See approach barrier slope detail for suggested slopes in this area.



TWO-WAY BRIDGE WITH SHOULDERS



ONE-WAY BRIDGE WITH SHOULDER

GENERAL NOTES:

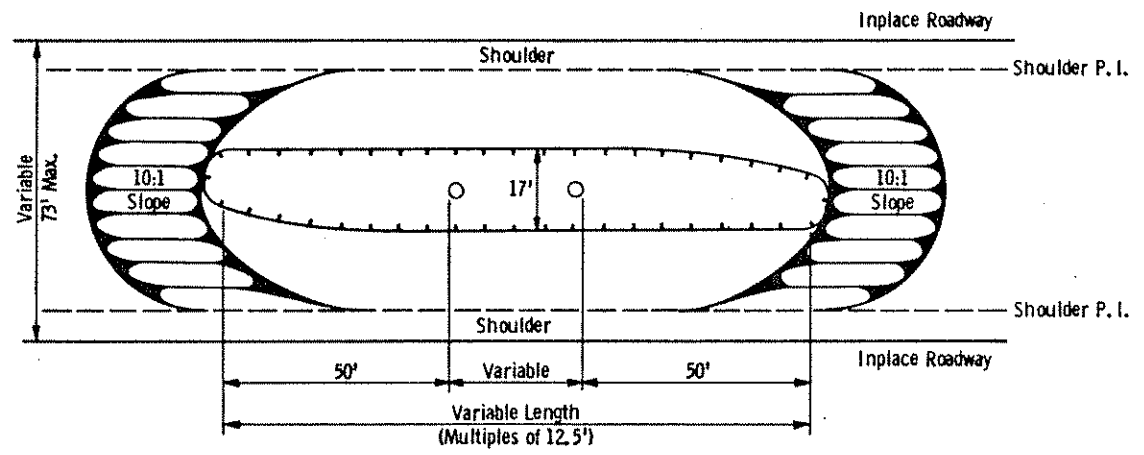
- All guardrail posts shall be 6'-3" c. to c. except where noted.
- When the approaching flare can be buried in the backslope eliminate the twisted end and add required rail length to reach backslope. The required L length and W offset shall be determined in the field by the Engineer. See Road Design Manual 10-7.03 for design parameters.
- The latest approved Standard Plates shall apply 8307, 8318, 8319.

APPROVED May 8, 1984
R.D. King
 Director
 OFFICE OF ENGINEERING STANDARDS

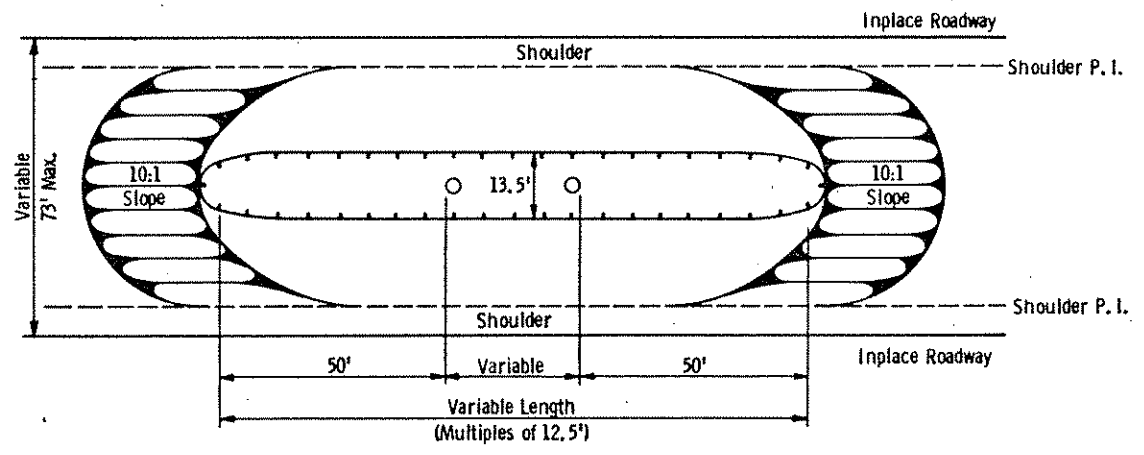
GUARDRAIL TREATMENT AT BRIDGES AND PIERS

S.A.P. NO. 02-609-08

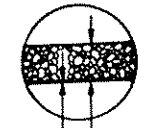
Sheet No. 96 of 256 Sheets



17 FOOT GUARDRAIL LOOP



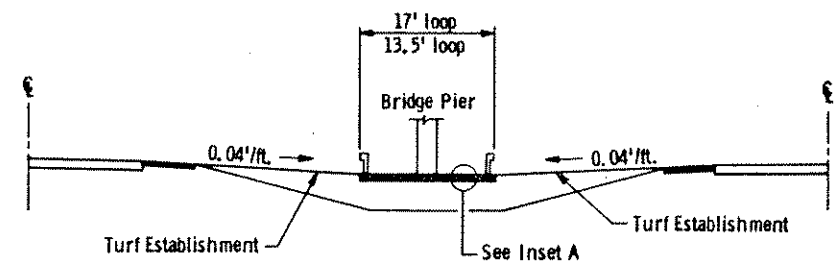
13.5 FOOT GUARDRAIL LOOP



3" Aggregate Mulch (Spec. 2575)
 6 Mil Plastic Sheetting
 (Incidental, no direct
 payment will be made)

INSET A

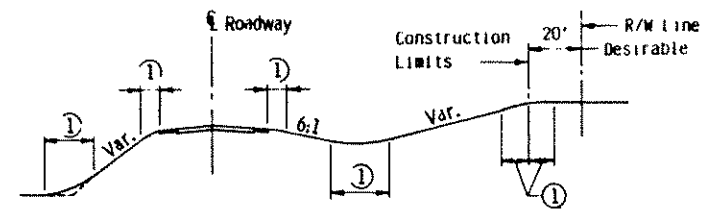
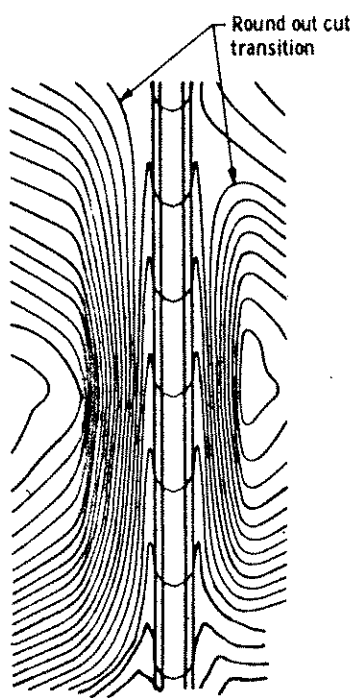
Aggregate Mulch Requirements
 3/8" to 2", with 5% allowable passing the 3/8" sieve.
 Crushing is allowable, but not required.



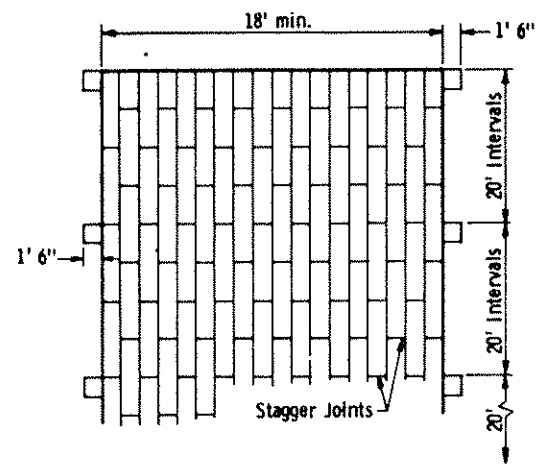
SECTION THRU GUARDRAIL LOOP

APPROVED March 10, 1981
R.O. Kip
 Director
 OFFICE OF ENGINEERING STANDARDS

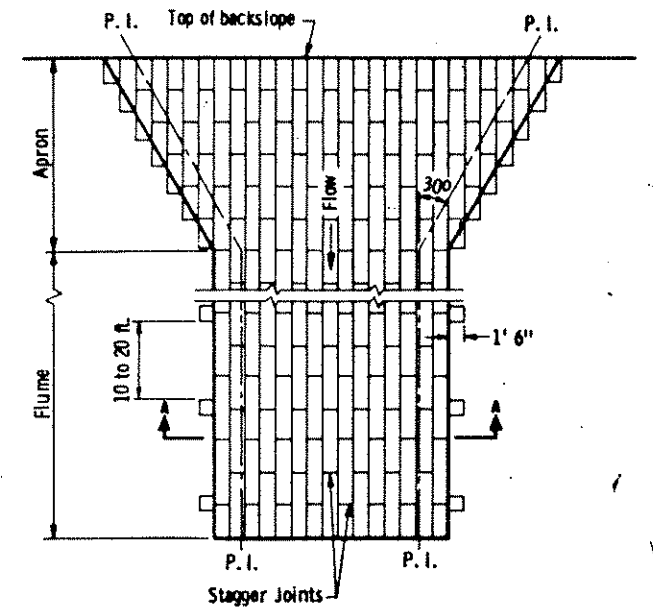
MEDIAN LOOP ENCLOSURE TREATMENT



ROUNDING SHOULDERS AND BACKSLOPES
 ① Rounding per typical sections.

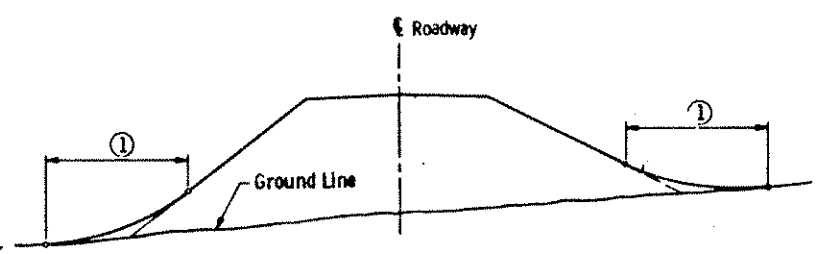


PLAN (ENLARGED)

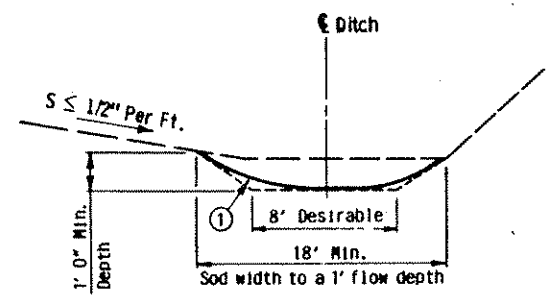


PLAN

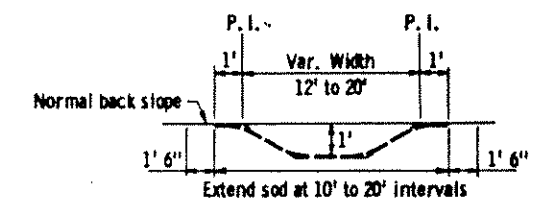
CONTOURING ROAD CUTS



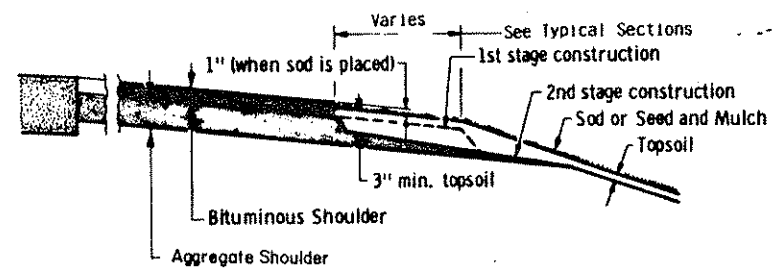
SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES



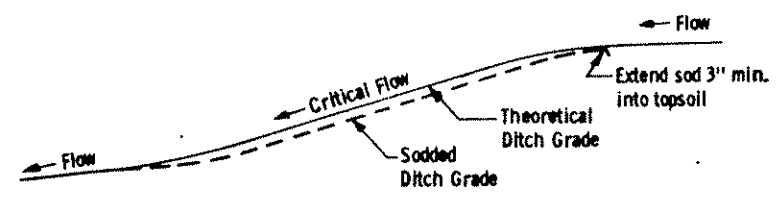
SODDED DITCH CROSS SECTION
 Where front or back slope is flat (less than 1/2"/ft.), first notch ditch and then provide rounding.



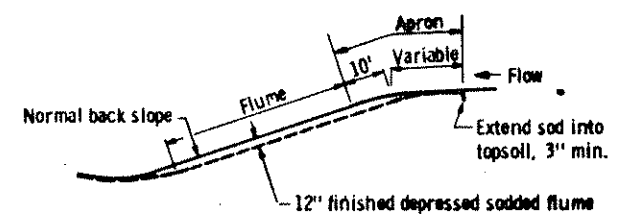
SECTION A-A



SHAPING AND TOPSOILING INSLOPES

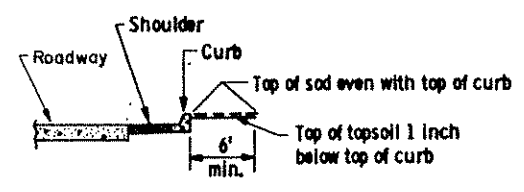


DITCH PROFILE



LONGITUDINAL CROSS SECTION

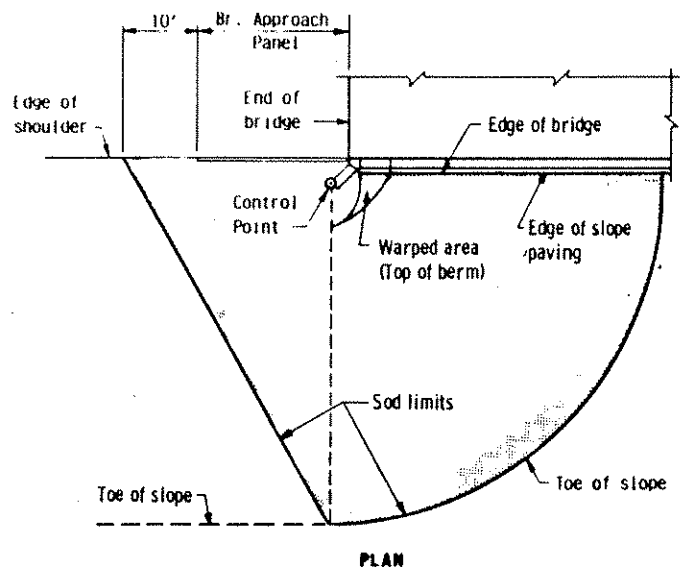
SODDED FLUME DETAILS



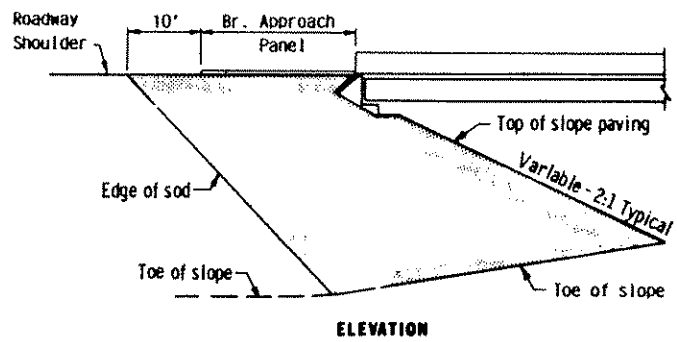
SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED

SODDED DITCH DETAILS

APPROVED January 31, 1985
 R.O. King
 Director
 OFFICE OF ENGINEERING STANDARDS

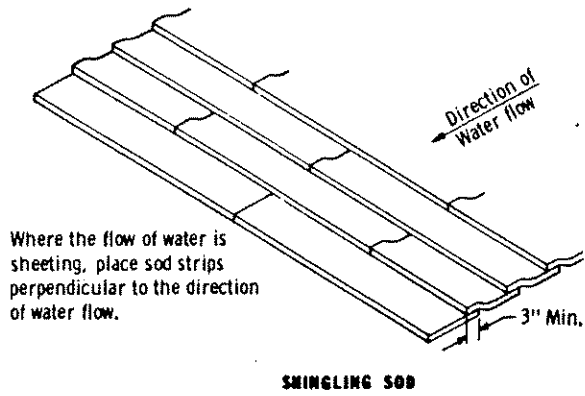


PLAN

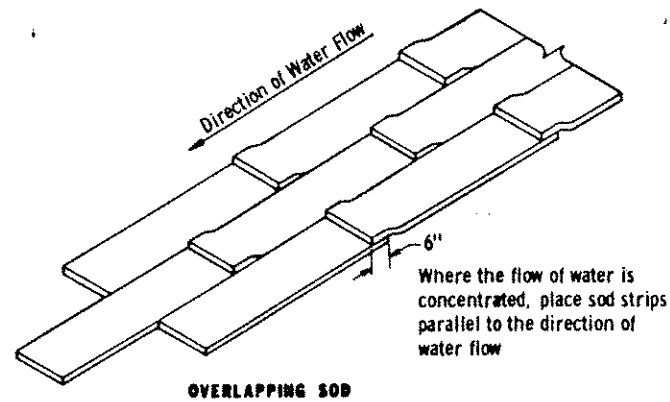


ELEVATION

SODDING LIMITS AT BRIDGE APPROACH FILLS

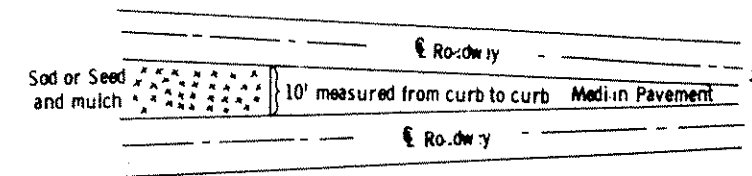


SHINGLING SOD

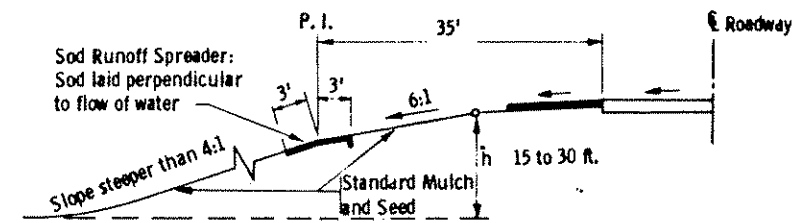


OVERLAPPING SOD

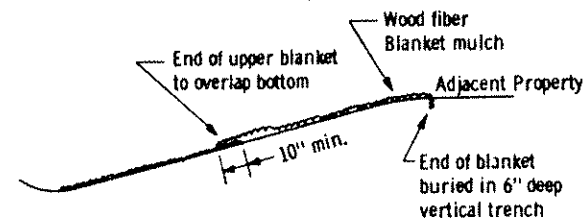
SPECIAL SOD PLACEMENT TECHNIQUES



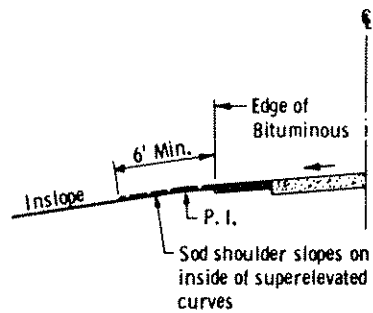
SODDING LIMITS AT GORE AREA



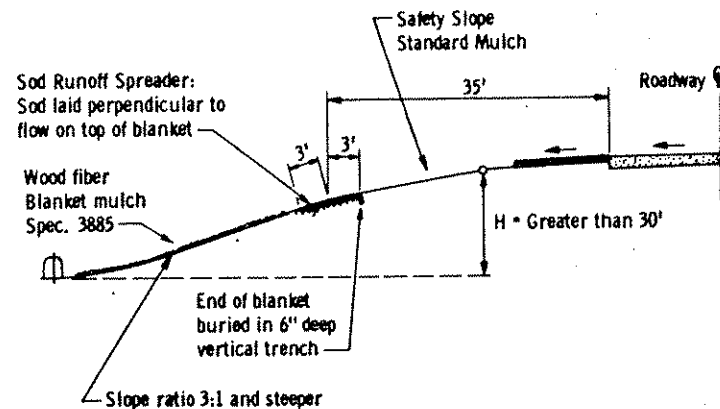
BROKEN - BACK SAFETY FILL SLOPE



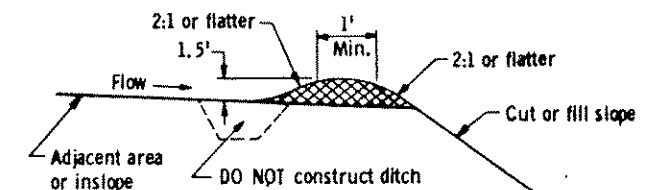
WOOD FIBER BLANKET INSTALLATION ON A CUT SLOPE



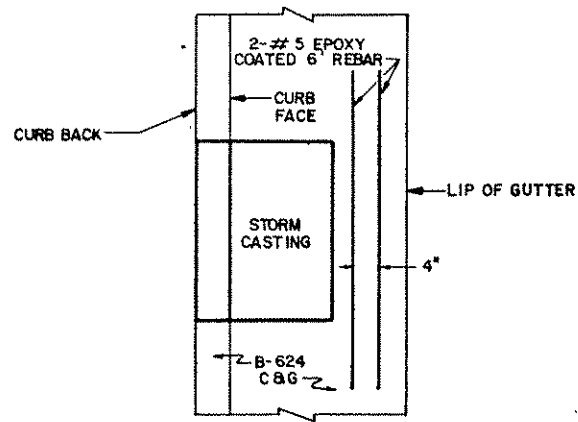
SODDING INSLOPES OF SUPERELEVATED CURVES



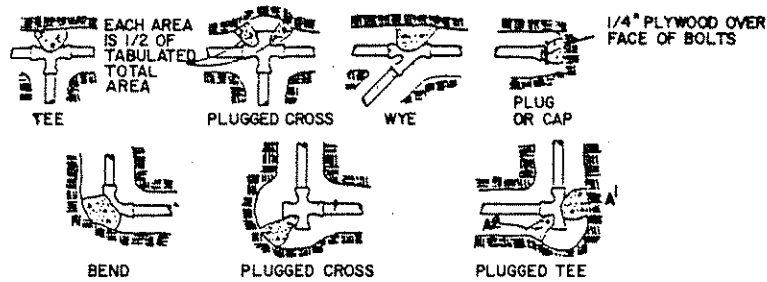
WOOD FIBER BLANKET INSTALLATION ON A BACKSLOPE (WHEN REQUIRED)



PERMANENT SLOPE PROTECTION DIKE



C&G REINFORCEMENT AT STORM CASTING



NOMINAL FITTING SIZE, INCHES	TEE, WYE, PLUG OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN		45° BEND	22 1/2° BEND	11 1/4° BEND
			A ¹	A ²			
4	1.0	1.4	1.9	1.4	1.0	-	-
6	2.1	3.0	4.3	3.0	1.6	1.0	-
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.6	1.2
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7

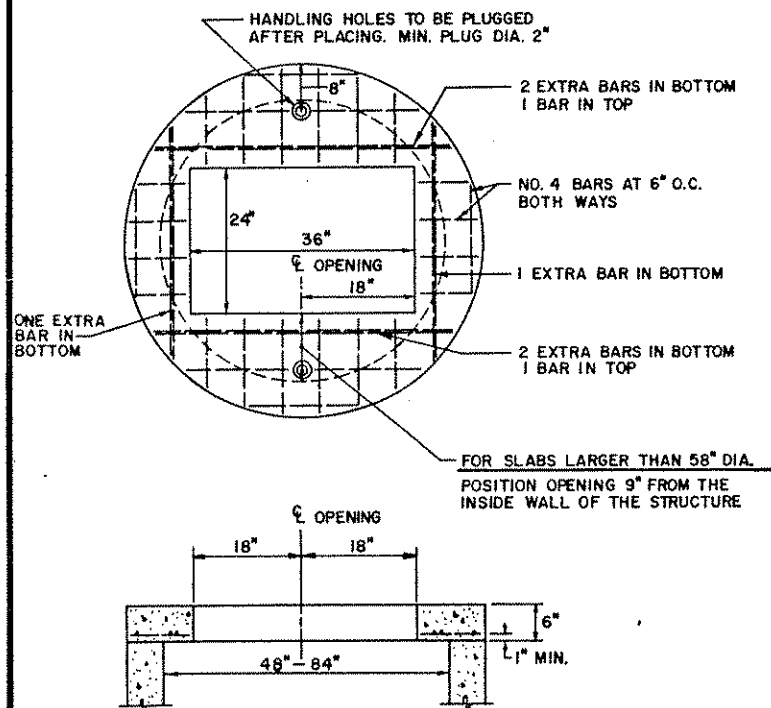
NOTES:

- 1) CONCRETE THRUST BLOCKING TO BE POURED AGAINST UNDISTURBED EARTH.
- 2) KEEP CONCRETE CLEAR OF JOINT AND ACCESSORIES.
- 3) IF NOT SHOWN ON PLANS, REQUIRED BEARING AREAS AT FITTING SHALL BE AS INDICATED ABOVE, ADJUST IF NECESSARY TO CONFORM TO THE TEST PRESSURES AND ALLOWABLE SOIL BEARING STRESSES.
- 4) BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN THIS STANDARD DETAIL.

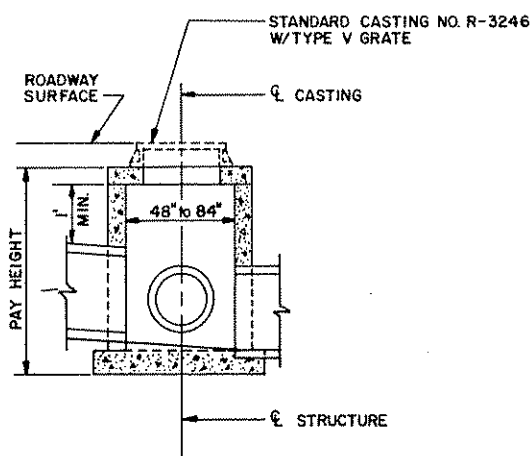
NOTE:

ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150) * (2000/SOIL BEARING STRESS) * (TABLE VALUE).

THRUST BLOCKING DETAIL

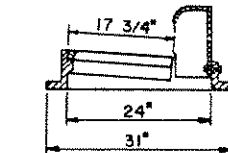
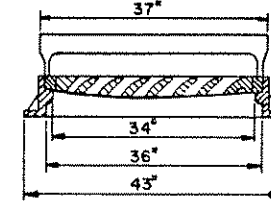
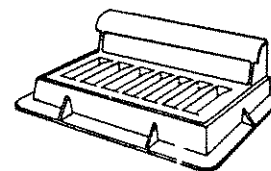


H.S. 20 DESIGN MANHOLE SLAB-TOP (RECTANGULAR OPENING)

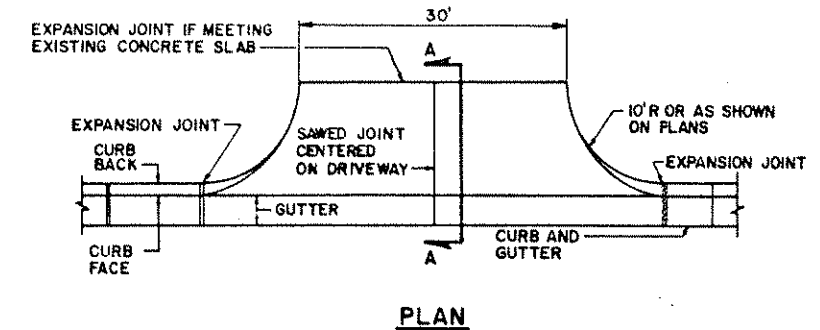


CATCH BASIN DESIGN (SPECIAL 2)

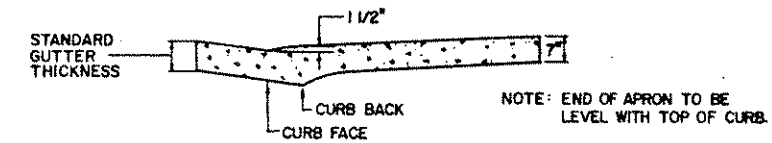
INLET ASSEMBLY
NEENAH FOUNDRY NO. R-3246 OR APPROVED EQUAL WITH TYPE V GRATE.



INLET CASTING

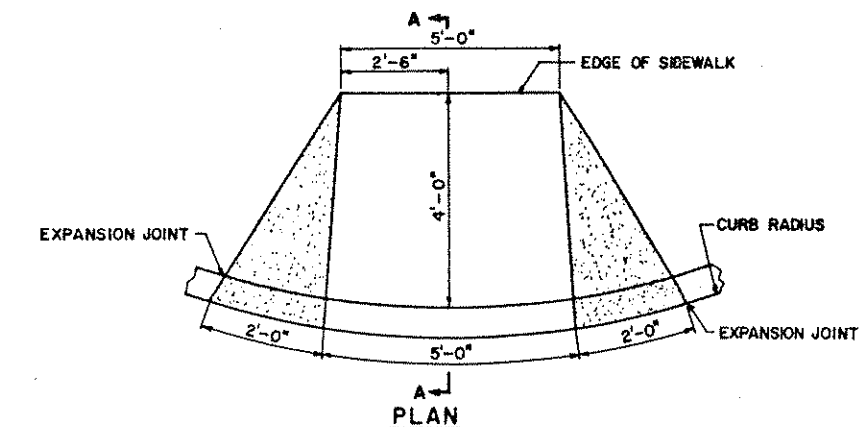


PLAN

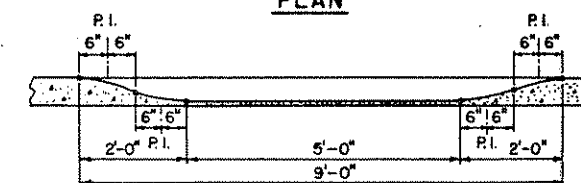


SECTION A-A

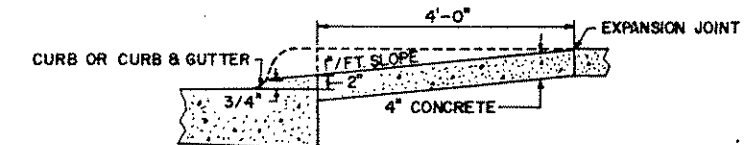
COMMERCIAL INTEGRAL CONCRETE DRIVEWAY APRON



PLAN



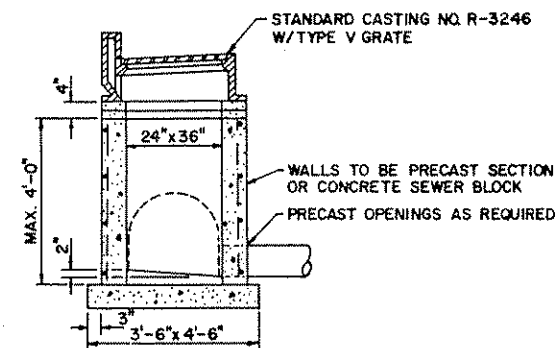
ELEVATION



SECTION A-A

PEDESTRIAN CURB RAMP

CATCH BASIN DESIGN (SPECIAL 1)



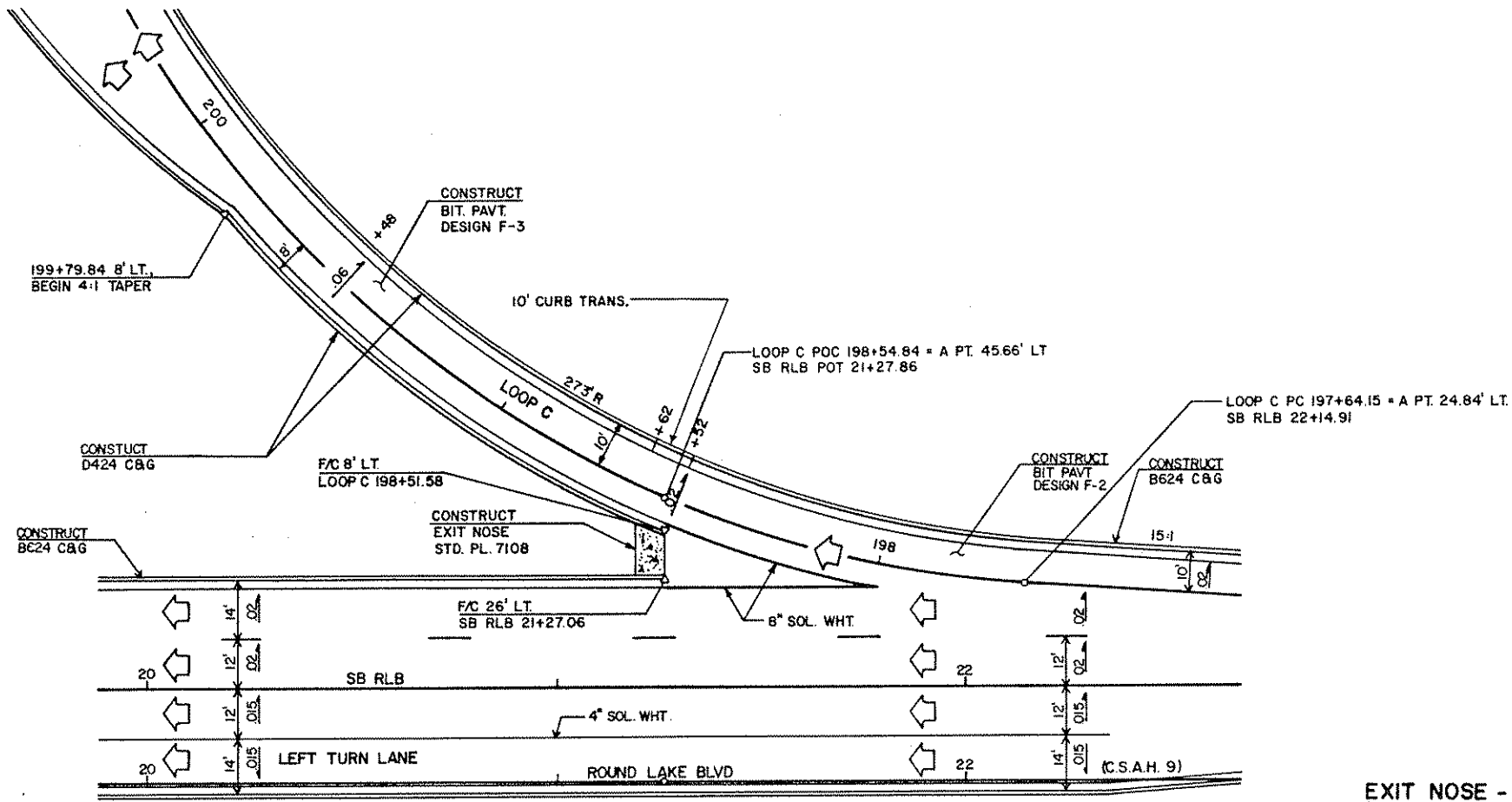
NOTE: CONCRETE ADJUSTING RINGS, MIN. 4"-MAX. 10". NO MINIMUM WITH FINAL ADJUSTMENT. CONCRETE BASE SHALL BE 6" POURED IN PLACE OR 5" PRECAST SLAB.

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 State of Minn. Statutes Sections 326.02 to 326.16.
Boyd R. Bunker
Date 8-22-89, Minn. Reg. No. 12666.

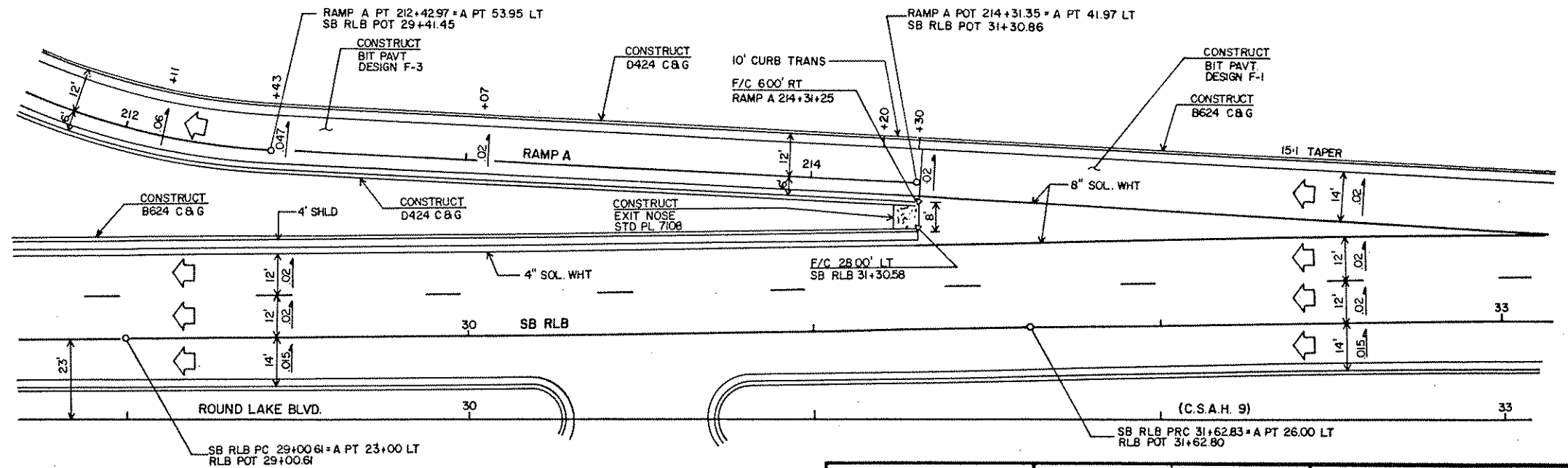
 <small>DRW, INC. 117 378-0100 Minneapolis, Minnesota</small>	ORIGINAL DATE: 7-27-89 REVISIONS:
	DESIGN BY: SPJ DRAWN BY: PMJ SURVEY BK. NO.

CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 CONSTRUCTION DETAILS
S.A.P. NO. 02-609-08 SHEET 100 OF 256 DESIGN FILE No. 88-53

EXIT NOSE - SB ROUND LAKE BLVD. TO LOOP C



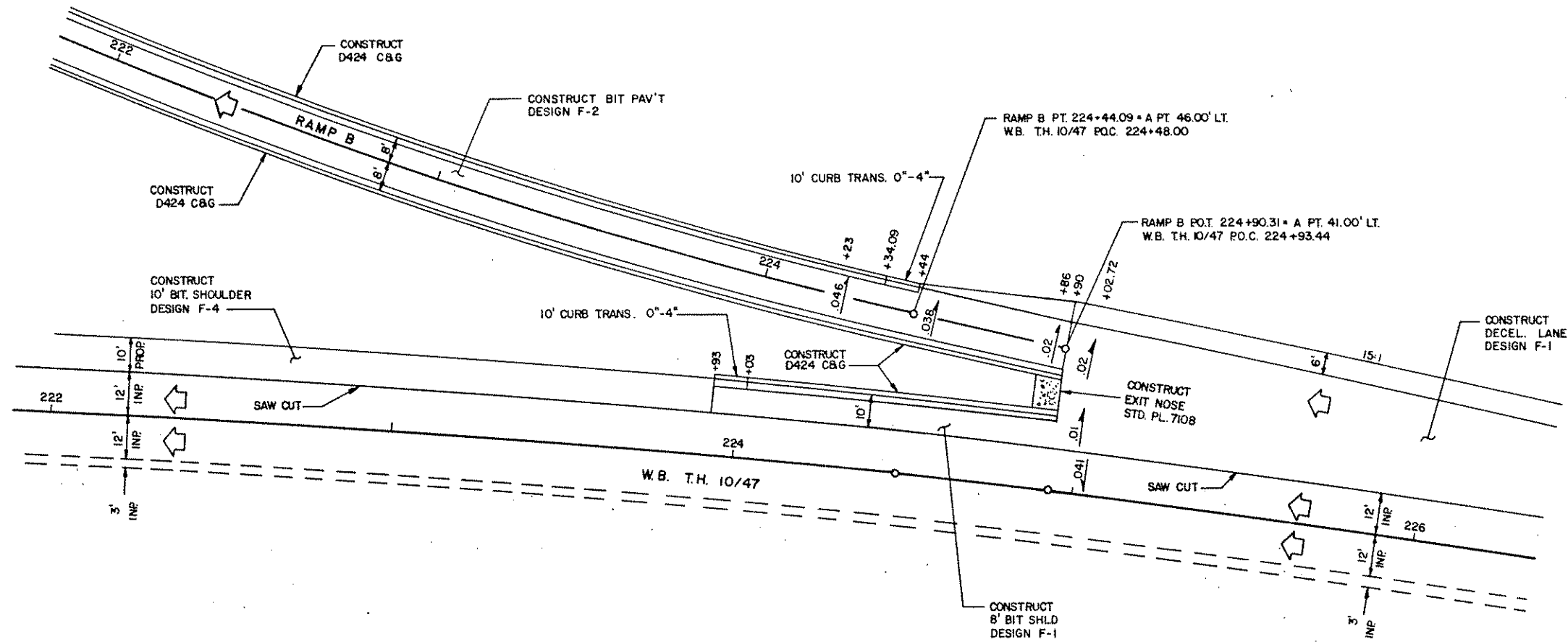
EXIT NOSE - SB ROUND LAKE BLVD TO RAMP A



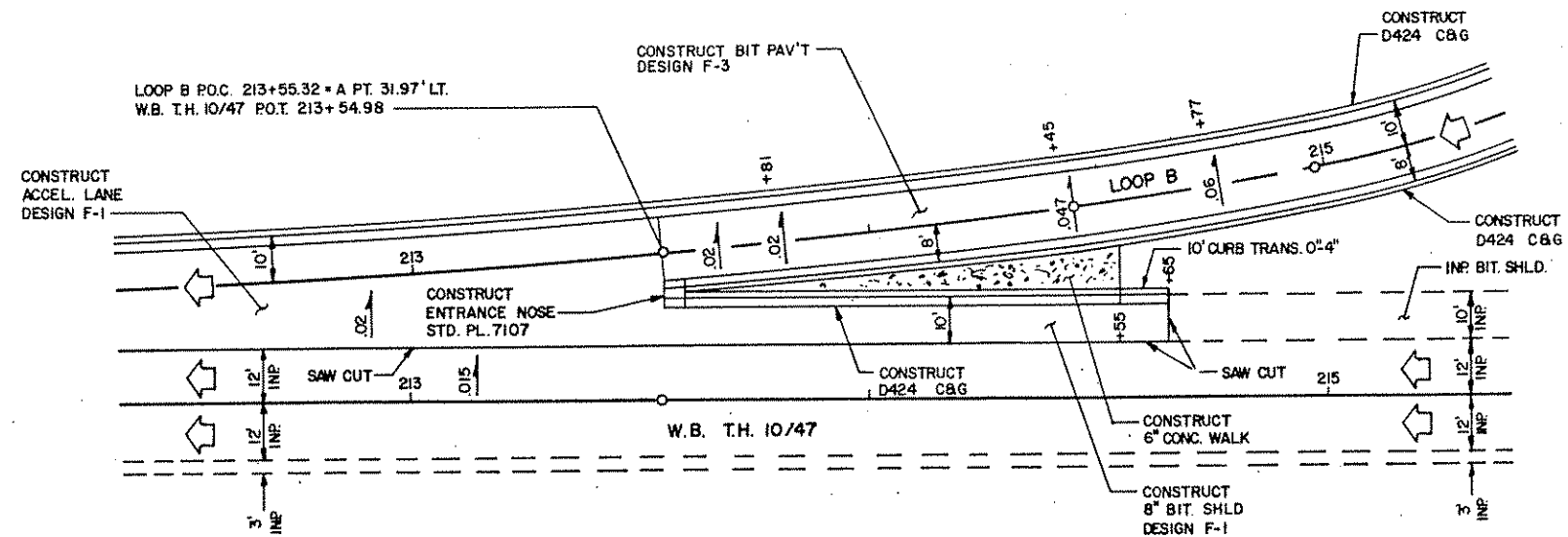
SCALE
20'

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Parker</i> Date 8-22-89 Minn. Reg. No. 126611	BRW, Inc. 617 270 0100 Minneapolis, Minnesota	ORIGINAL DATE: 4/11/89 REVISIONS: 5/19/89 LOOP C HOV LANE	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 CONSTRUCTION DETAILS EXIT NOSE - LOOP C EXIT NOSE - RAMP A
		DESIGN BY: JRM DRAWN BY: P.J.F. LEB...	
S.A.P. NO. 02-609-08		SHEET 102 OF 256	DESIGN FILE No. 16-8840

EXIT NOSE W.B. T.H. 10/47 TO RAMP B



ENTRANCE NOSE LOOP B TO W.B. T.H. 10/47



SCALE
20'

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 State of Minn. Statutes Sections 326.02 to 326.16.
Boyd R. Paul
Date 8-22-89 Minn. Reg. No. 15886

BRW
BRW, Inc.
212-310-0100
Winneapolis, Minnesota
DESIGN BY: J.M.
DRAWN BY: JS-S

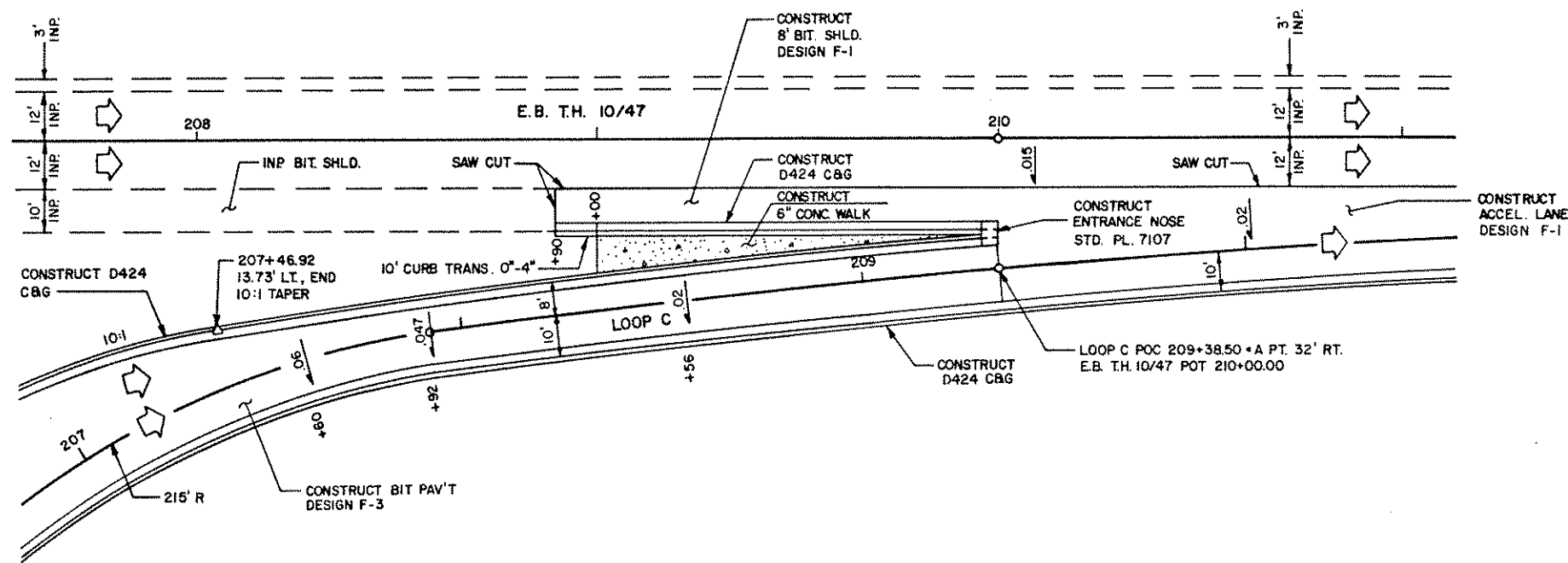
ORIGINAL DATE: 4/5/89
REVISIONS:

SURVEY BK. NO.

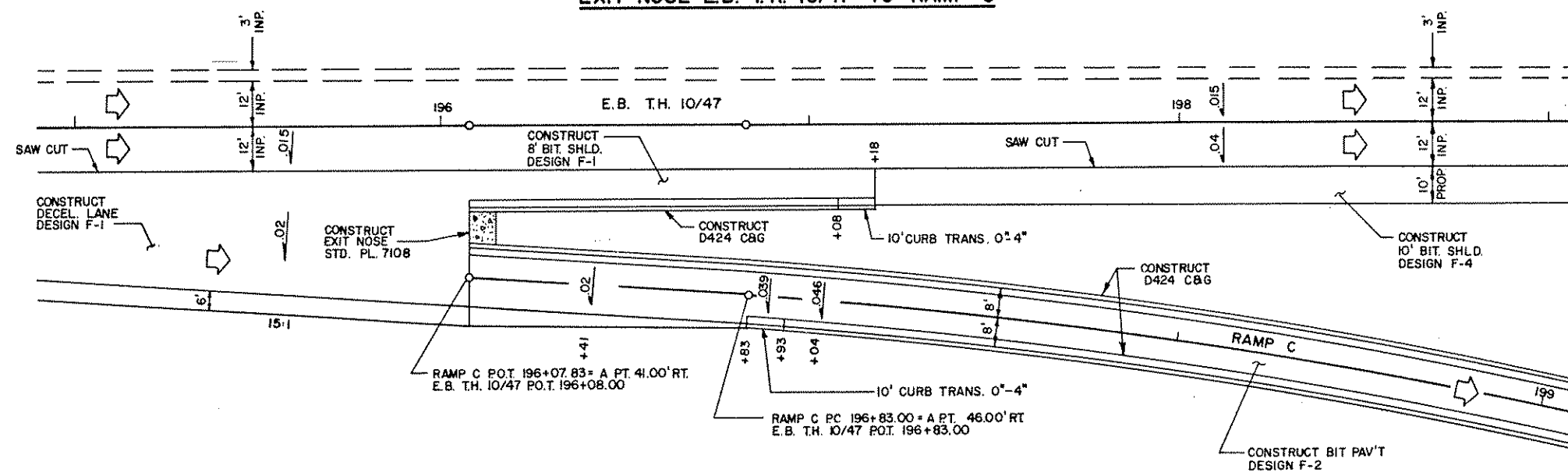
S.A.P. NO. 02-609-08

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION DETAILS
EXIT NOSE - RAMP B
ENTRANCE NOSE - LOOP B
SHEET 103 OF 256
DESIGN FILE
No. 16-8840

ENTRANCE NOSE LOOP C TO E.B. T.H. 10/47



EXIT NOSE E.B. T.H. 10/47 TO RAMP C



SCALE
20'

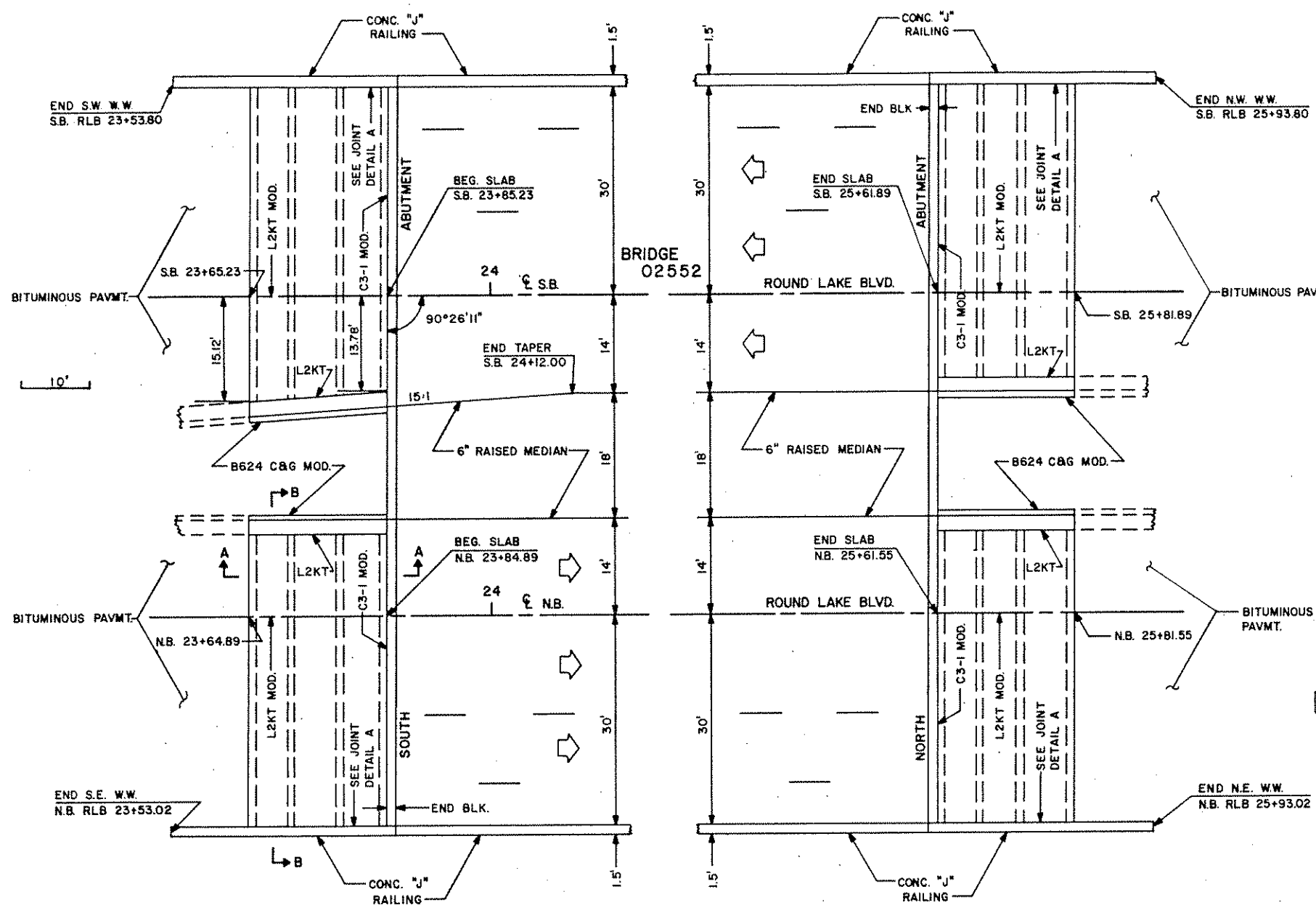
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.
Bryant R. Paul
Date 8-22-89, Minn. Reg. No. 12666.

BRW
BRW, Inc.
812 378 8100
Minneapolis, Minnesota
DESIGN BY: JRM
DRAWN BY: JS-S, LEB

ORIGINAL DATE: 4/13/89
REVISIONS: 5/8/89
SHLD. TAPER, 5/18/89
LOOP C HOV LANE
SURVEY BK. NO.

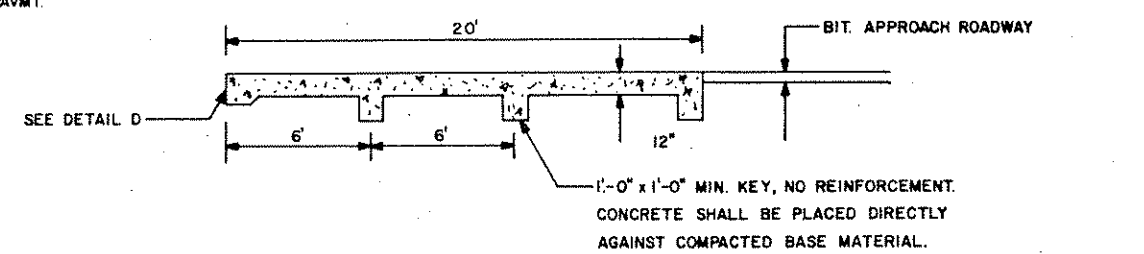
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CONSTRUCTION DETAILS
ENTRANCE NOSE - LOOP C
EXIT NOSE - RAMP C

S.A.P. NO. 02-609-08 SHEET 104 OF 256 DESIGN FILE No. 16-8840

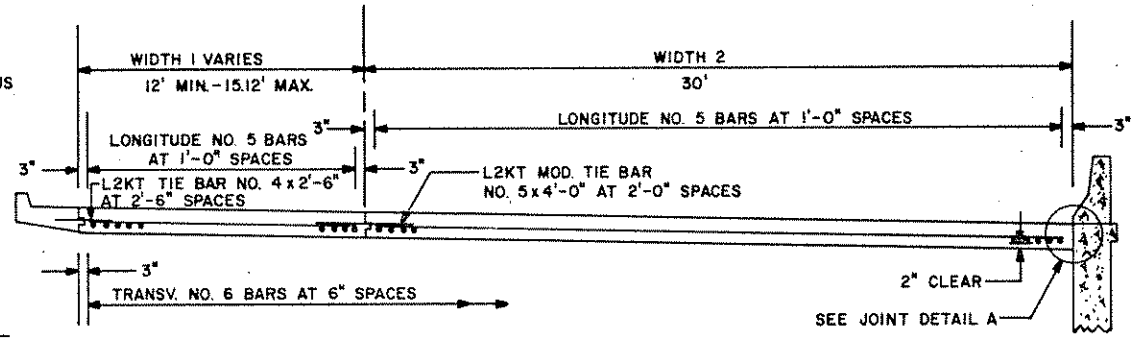


APPROACH PANEL LAYOUT

BRIDGE NO.	ABUTMENT SKEW	ROADWAY	ABUTMENT	WIDTH 1	WIDTH 2	PANEL SY
02522	0°-26'-11"	N.B. RLB	SOUTH	12'-0"	30'-0"	93
02522	0°-26'-11"	N.B. RLB	NORTH	12'-0"	30'-0"	93
02522	0°-26'-11"	S.B. RLB	SOUTH	15'-1 1/2" TO 13'-9 3/8"	30'-0"	99
02522	0°-26'-11"	S.B. RLB	NORTH	12'-0"	30'-0"	93

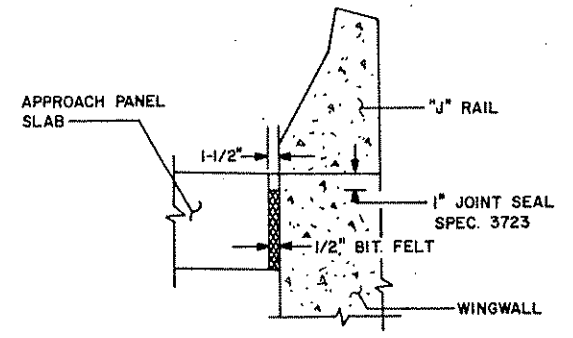


SECTION A-A

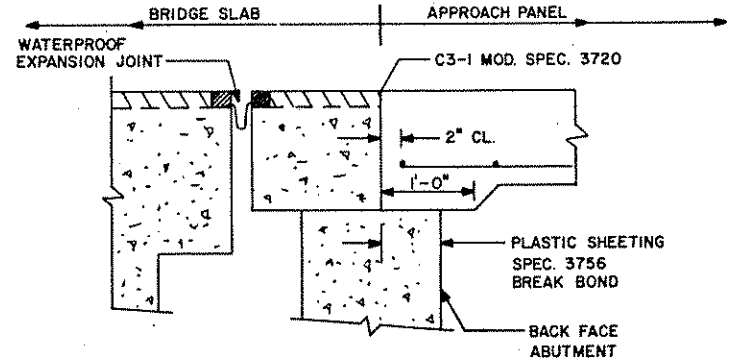


SECTION B-B

- NOTES:
1. USE NO. 6 BARS AT 6" LONGITUDINAL AND NO. 5 BARS AT 1'-0" TRANSVERSE REINFORCEMENT. ALL BARS ARE TO BE EPOXY COATED.
 2. ALL APPROACH PANEL DIMENSIONS ARE MEASURED ALONG \bar{C} ALIGNMENT OR AT RIGHT ANGLES TO \bar{C} REGARDLESS OF SKEW.
 3. EACH S.Y. OF BRIDGE APPROACH PANEL REQUIRES 36.4 POUNDS OF RE-BAR PLUS EXTRA NO. 4 AND NO. 5 TIE BARS FOR L2KT AND L2KT MOD. JOINTS.



DETAIL A



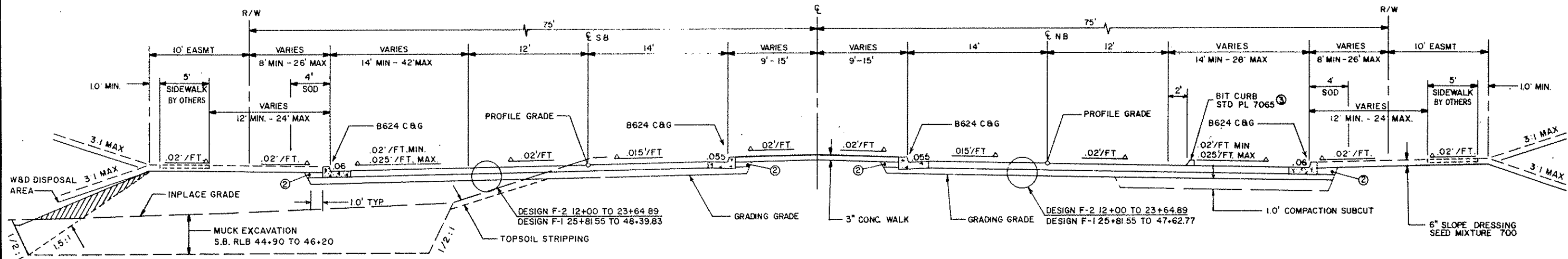
DETAIL D

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 State of Minn. Statutes Sections 326.02 to 326.15. <i>Boyd R. Paulsen</i> Date 8-22-82 Minn. Reg. No. 12686.		ORIGINAL DATE 6/16/82 REVISIONS:	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 BRIDGE APPROACH PANEL DETAILS
		DESIGN BY: JRM DRAWN BY: LEB	
S.A.P. NO. 02-609-08		SHEET 105 OF 256	DESIGN FILE No. 18-BB4C

ROUND LAKE BLVD. (C.S.A.H. 9)

STA. N.B. 12+00 TO 47+62.77

STA. S.B. 12+00 TO 48+39.85



ROUND LAKE BLVD. (C.S.A.H. 9)
LEFT TURN LANE

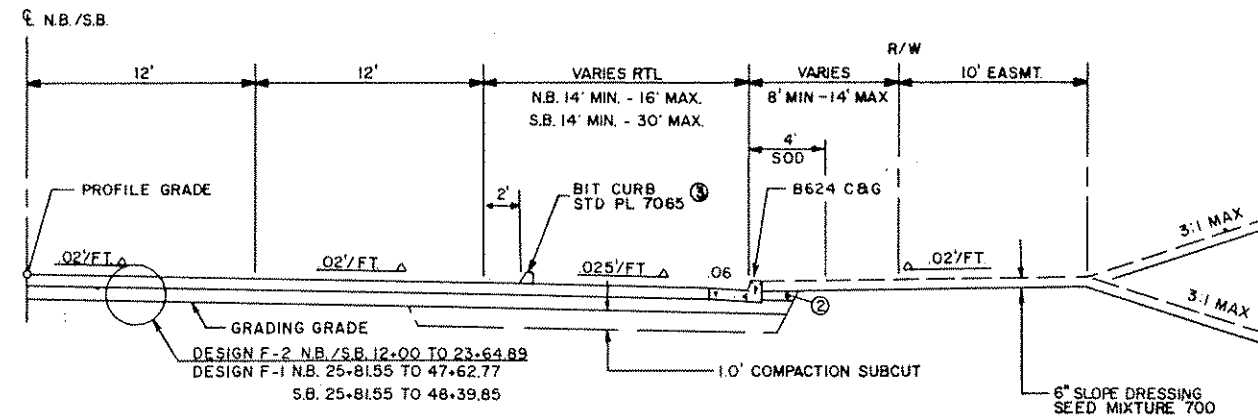
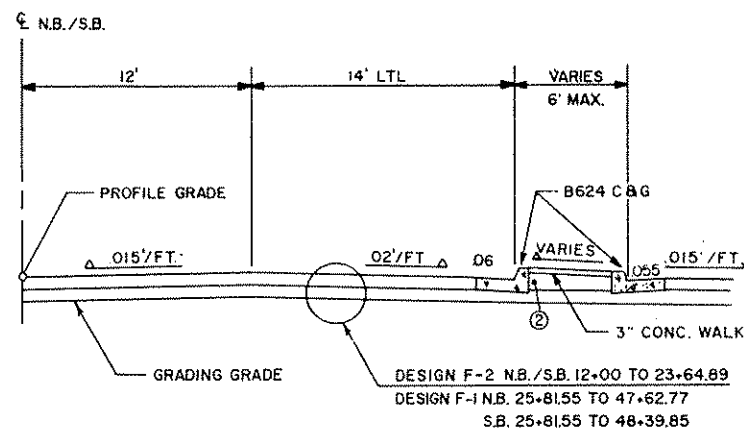
- STA. N.B. 12+0000 TO 12+44.22
- STA. N.B. 39+0403 TO 42+89.60
- STA. S.B. 13+4353 TO 16+42.23
- STA. S.B. 19+3407 TO 22+32.00
- STA. S.B. 36+7866 TO 39+79.60
- STA. S.B. 44+2960 TO 47+20.11

ROUND LAKE BLVD. (C.S.A.H. 9)
RIGHT TURN LANE

- STA. N.B. 15+4595 TO 18+20.06
- STA. N.B. 19+02.07 TO 20+72.27
- STA. N.B. 33+29.74 TO 35+02.08
- STA. N.B. 38+91.12 TO 42+84.60
- STA. S.B. 13+52.96 TO 15+21.38
- STA. S.B. 31+30.58 TO 35+12.03
- STA. S.B. 37+00.05 TO 39+54.03
- STA. S.B. 44+39.60 TO 46+15.22

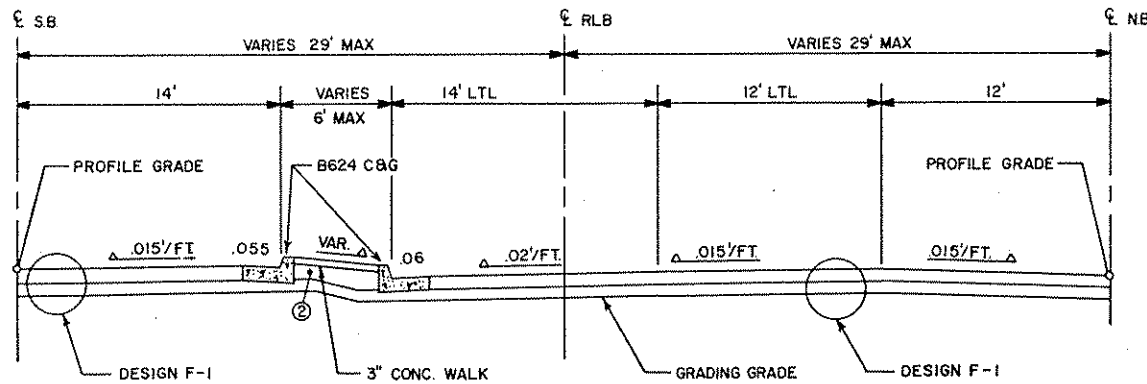
ROUND LAKE BLVD. (C.S.A.H. 9)
DOUBLE LEFT TURN LANE

STA. N.B. 32+30 TO 35+60



NOTES

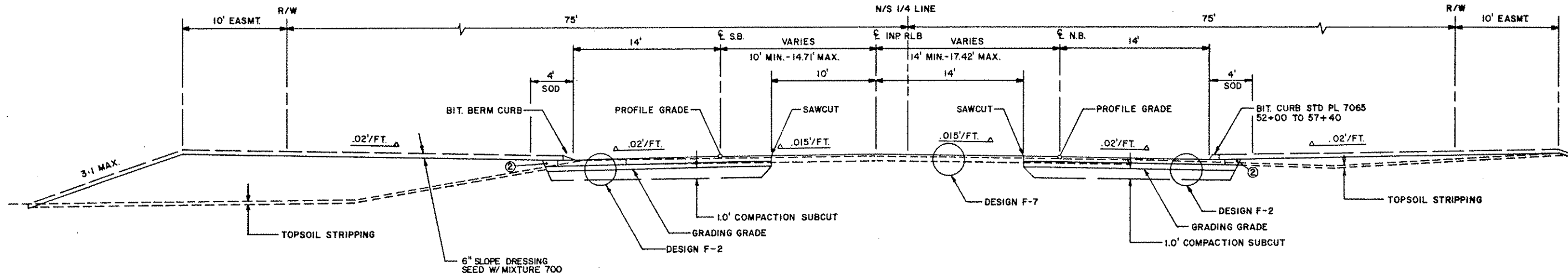
- FOR SUPERELEVATION TRANSITIONS, SEE SUPERELEVATION PLAN UNLESS OTHERWISE SPECIFIED, THE SUBGRADE CROSS SLOPES WILL BE THE SAME AS THE FINISHED CROSS SLOPES.
- UNLESS OTHERWISE SPECIFIED, D424 C&G WILL MATCH THE SLOPE OF THE ADJACENT PAVEMENT.
- SEE PROFILES FOR LONGITUDINAL SUBCUT TAPERS.
- ② SELECT GRADING MATERIAL.
- ③ NB 37+71 TO 43+30 26'-80' RT
NB 44+00 TO 47+62.77 55'-14' 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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paulsen</i> Date: 8-22-89 Minn. Reg. No. 12666.	BRW, INC. 412 310 0700 Minneapolis, Minnesota	ORIGINAL DATE 8/28/89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TYPICAL SECTIONS ROUND LAKE BLVD. (C.S.A.H. 9)
		DESIGN BY: JRM DRAWN BY: LEB	
S.A.P. NO. 02-609-08		SHEET 107 OF 256	
Date: 8-22-89 Minn. Reg. No. 12666.		DESIGN FILE No. 16-B840	

ROUND LAKE BLVD. (C.S.A.H. 9)
TEMPORARY CONNECTION

STA. N.B. 52+00.17 TO 54+80.13
STA. S.B. 52+00.03 TO 55+52.80



ROUND LAKE BLVD. (C.S.A.H. 9)
TEMPORARY CONNECTION

STA. N.B. 47+62.77 TO 52+00.17
STA. S.B. 48+39.85 TO 52+00.03

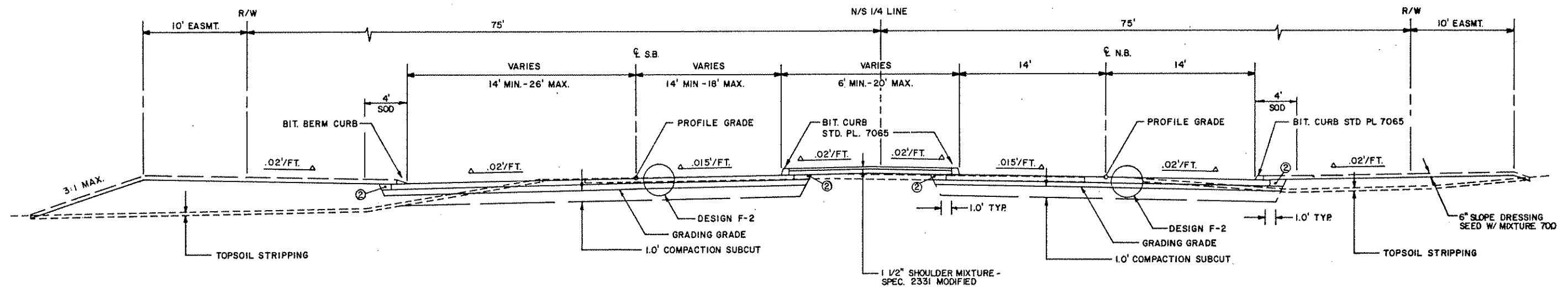
NOTES

FOR SUPERELEVATION TRANSITIONS, SEE SUPERELEVATION PLAN UNLESS OTHERWISE SPECIFIED, THE SUBGRADE CROSS SLOPES WILL BE THE SAME AS THE FINISHED CROSS SLOPES.

UNLESS OTHERWISE SPECIFIED, D424 C&G WILL MATCH THE SLOPE OF THE ADJACENT PAVEMENT.

SEE PROFILES FOR LONGITUDINAL SUBCUT TAPERS.

- ① VARIABLE DEPTH AGGREGATE SHOULDERING - CLASS 3 - SPEC. 2221.
- ② SELECT GRADING MATERIAL



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date 8-22-89 Minn. Reg. No. 12666



DESIGN BY: JRM
DRAWN BY: LEB

ORIGINAL DATE: 6/13/89
REVISIONS:
SURVEY BK. NO.

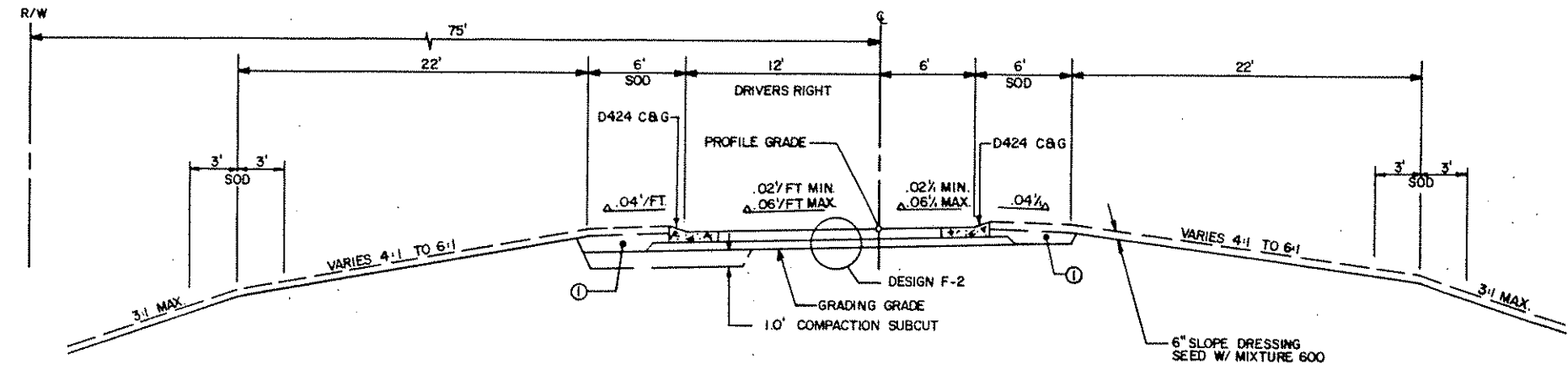
S.A.P. NO. 02-609-08

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TYPICAL SECTIONS
ROUND LAKE BLVD. (C.S.A.H. 9)
TEMPORARY CONNECTION

SHEET 108 OF 256

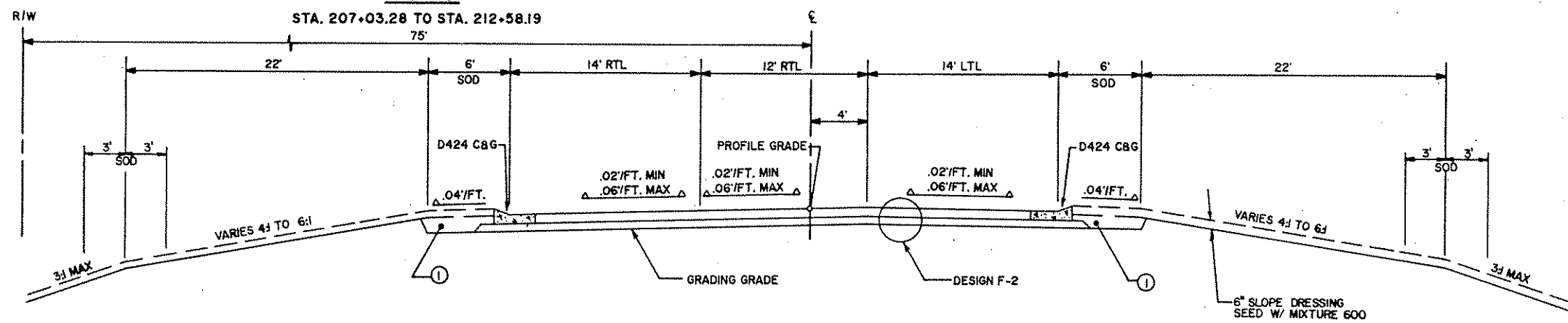
DESIGN FILE No. 15-8840

RAMP A
STA. 209+00 TO 214+31.35

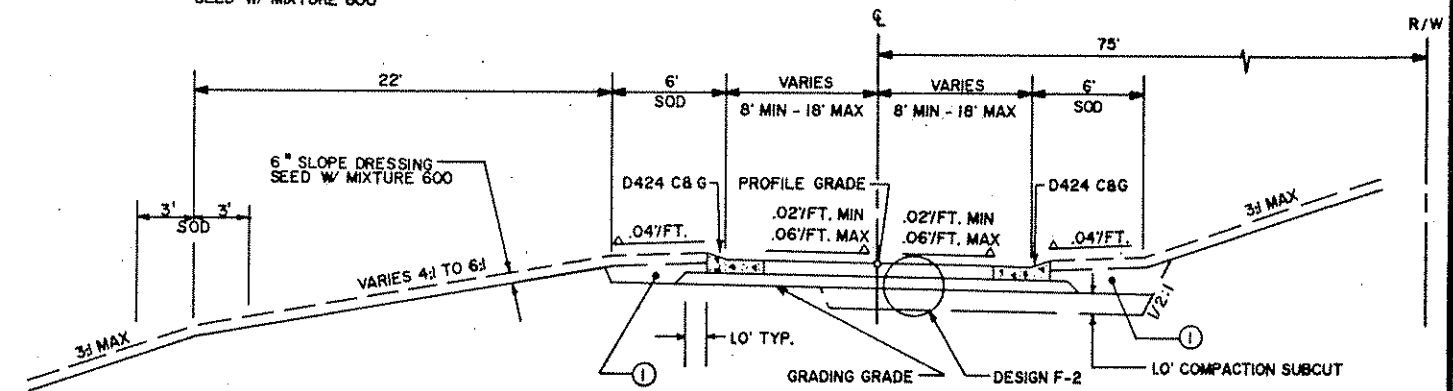


RAMP B
STA. 210+68.42 TO 218+71.42

RAMP C
STA. 207+03.28 TO STA. 212+58.19



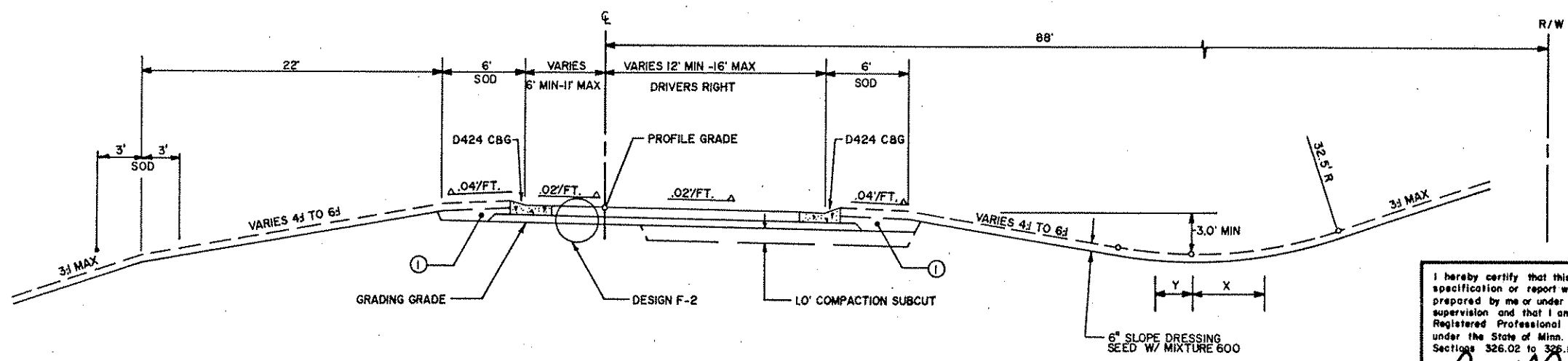
RAMP B
STA. 220+81.42 TO 224+90.31
RAMP C
STA. 196+07.83 TO 207+03.28



NOTES

- FOR SUPERELEVATION TRANSITIONS, SEE SUPERELEVATION PLAN UNLESS OTHERWISE SPECIFIED, THE SUBGRADE CROSS SLOPES WILL BE THE SAME AS THE FINISHED CROSS SLOPES.
- UNLESS OTHERWISE SPECIFIED, D424 C&G WILL MATCH THE SLOPE OF THE ADJACENT PAVEMENT.
- SEE PROFILES FOR LONGITUDINAL SUBCUT TAPERS.
- ① VARIABLE DEPTH AGGREGATE SHOULDERING - CLASS 3 - SPEC. 222L

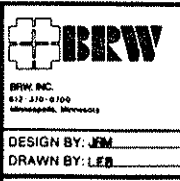
RAMP D
STA. 212+95 TO 220+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date 8-22-89 Minn. Reg. No. 12666



ORIGINAL DATE: 8-2-89
REVISIONS:
DESIGN BY: JEM
DRAWN BY: LEB
SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TYPICAL SECTIONS
RAMPS A, B, C, & D

NOTES

FOR SUPERELEVATION TRANSITIONS, SEE SUPERELEVATION PLAN UNLESS OTHERWISE SPECIFIED, THE SUBGRADE CROSS SLOPES WILL BE THE SAME AS THE FINISHED CROSS SLOPES.

UNLESS OTHERWISE SPECIFIED, D424 C&G WILL MATCH THE SLOPE OF THE ADJACENT PAVEMENT.

SEE PROFILES FOR LONGITUDINAL SUBCUT TAPERS.

- ① VARIABLE DEPTH AGGREGATE SHOULDERING - CLASS 3 - SPEC. 222L
- ② SELECT GRADING MATERIAL

TH 10/47 MEDIAN TREATMENT

210+66 TO 211+22 - 13.5' WIDTH
 211+22 TO 212+32 - 30' WIDTH
 212+32 TO 212+89 - 13.5' WIDTH

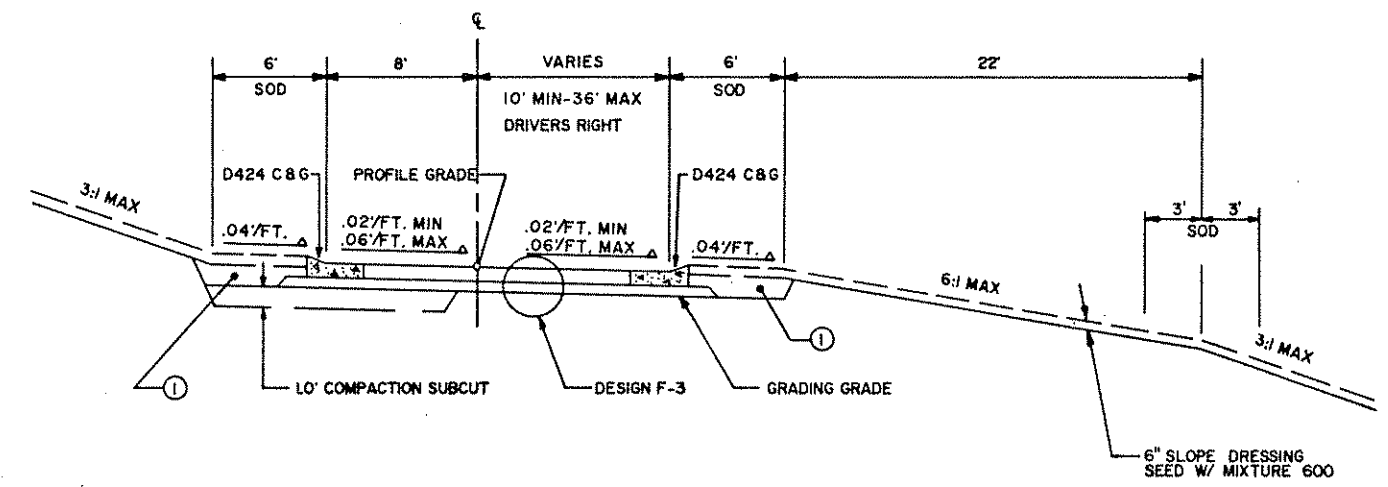
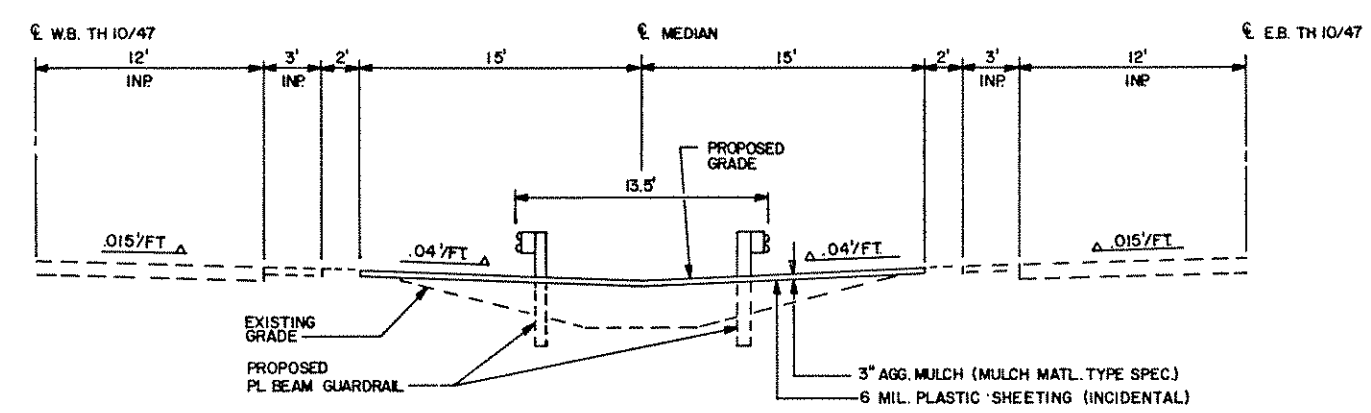
LOOP B

213+55.32 TO 224+57.19

LOOP C

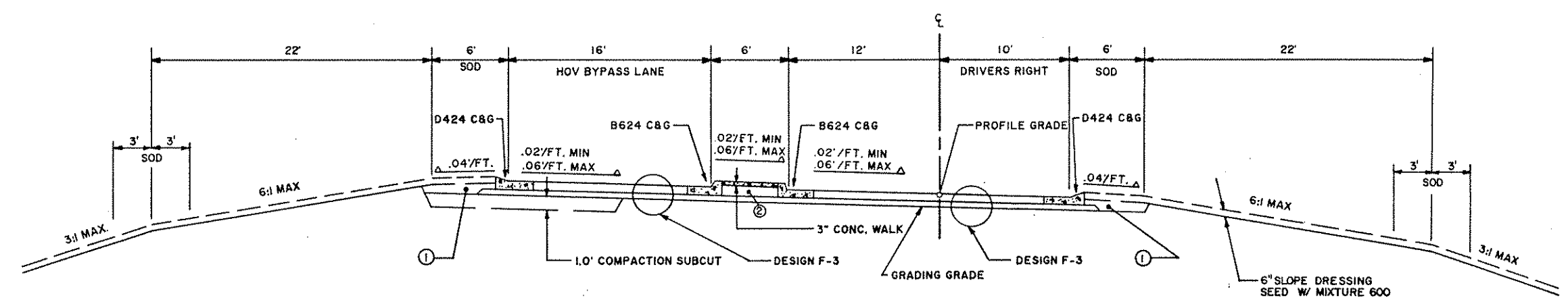
198+54.84 TO 199+79.84

207+92.18 TO 209+33.50



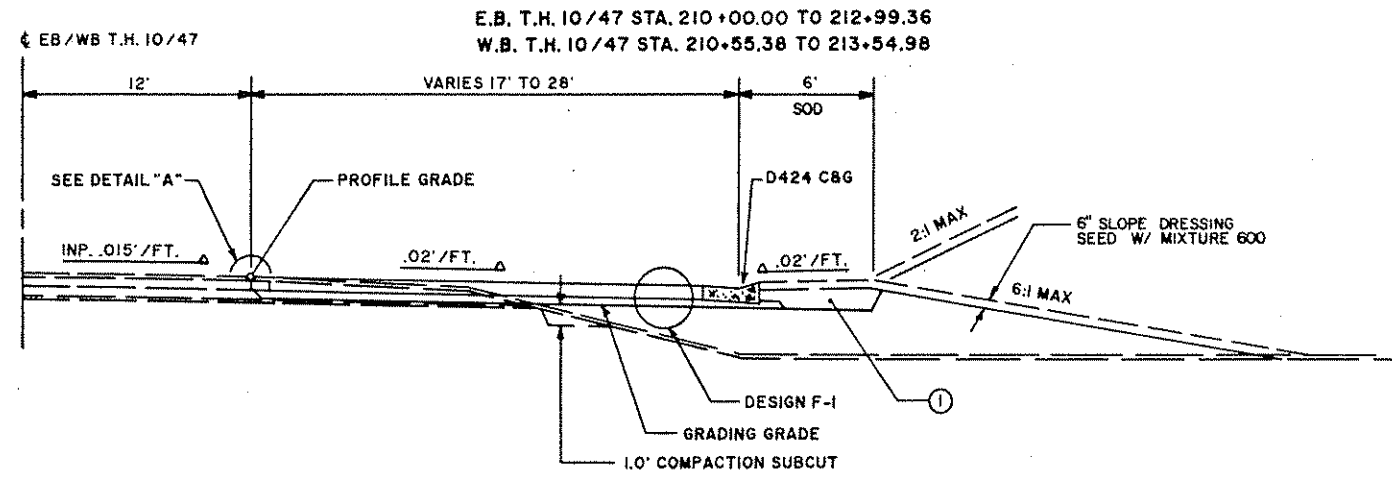
LOOP C

201+23.84 TO 205+86.07



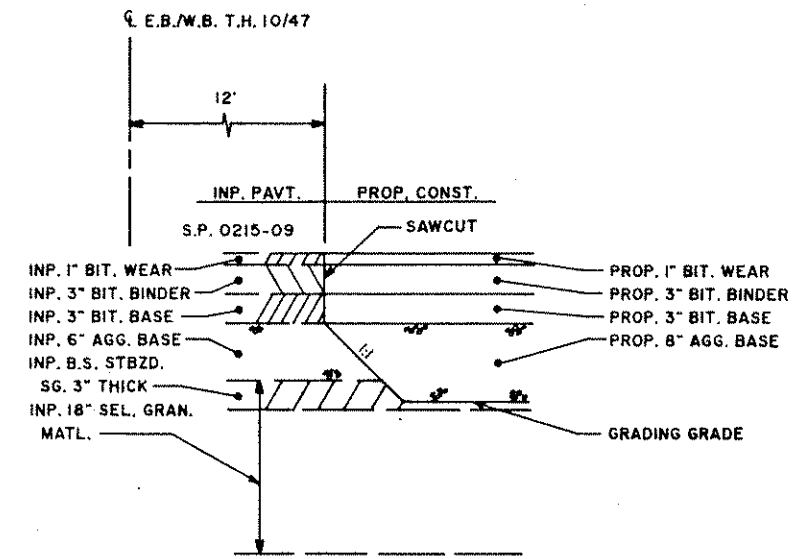
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Banker</i> Date 8-22-89 Minn. Reg. No. 12666	BRW INC. 812 310 0700 Minneapolis, Minnesota	ORIGINAL DATE: 5/2/89 REVISIONS:	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TYPICAL SECTIONS LOOP B & C TH10/47 MEDIAN TREATMENT
		DESIGN BY: J.M. DRAWN BY: LEB	
S.A.P. NO. 02-609-08		SHEET 110 OF 256	DESIGN FILE No. 16-8840

ACCELERATION LANE



E.B. T.H. 10/47 STA. 210+00.00 TO 212+99.36
W.B. T.H. 10/47 STA. 210+55.38 TO 213+54.98

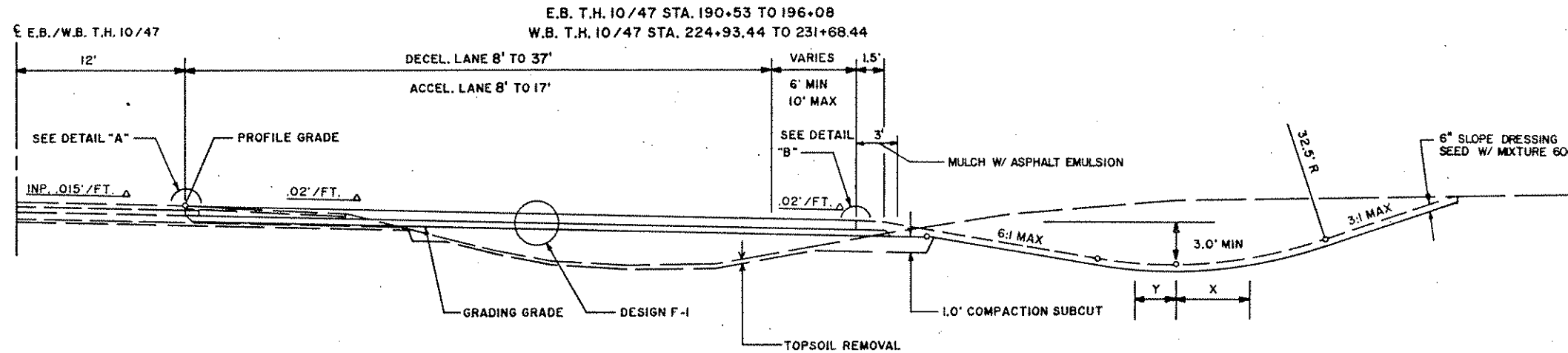
DETAIL "A"



ACCELERATION LANE

E.B. T.H. 10/47 STA. 212+99.36 TO 220+42.00
W.B. T.H. 10/47 STA. 202+50.90 TO 210+55.38

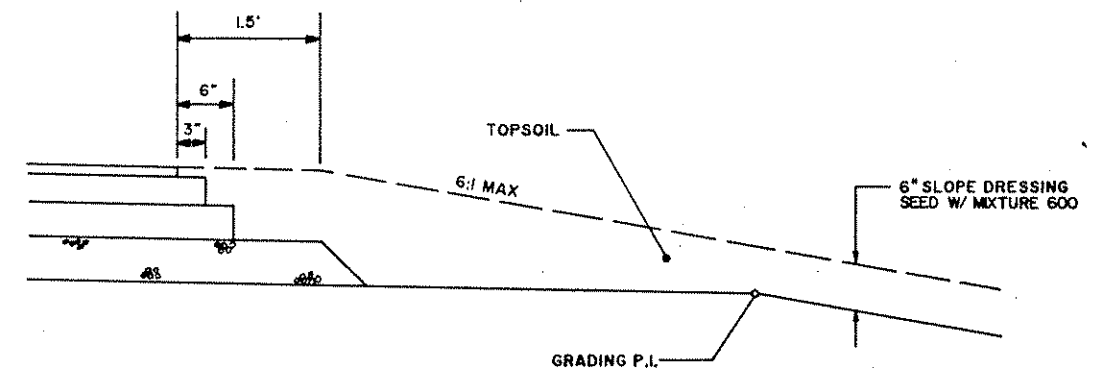
DECELERATION LANE



E.B./W.B. T.H. 10/47

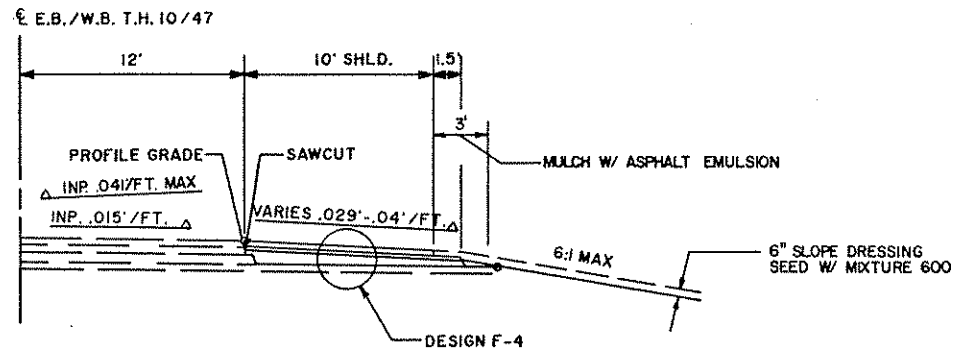
E.B. T.H. 10/47 STA. 190+53 TO 196+08
W.B. T.H. 10/47 STA. 224+93.44 TO 231+68.44

DETAIL "B"



T.H. 10/47 BITUMINOUS SHOULDER

E.B. T.H. 10/47 STA. 197+18 TO 203+70
W.B. T.H. 10/47 STA. 219+55 TO 223+93



E.B./W.B. T.H. 10/47

NOTES

FOR SUPERELEVATION TRANSITIONS, SEE SUPERELEVATION PLAN UNLESS OTHERWISE SPECIFIED, THE SUBGRADE CROSS SLOPES WILL BE THE SAME AS THE FINISHED CROSS SLOPES.

UNLESS OTHERWISE SPECIFIED, D424 C&G WILL MATCH THE SLOPE OF THE ADJACENT PAVEMENT.

SEE PROFILES FOR LONGITUDINAL SUBCUT TAPERS.

① VARIABLE DEPTH AGGREGATE SHOULDERING - CLASS 3 - SPEC. 2221.

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Rasmussen

Date 2-22-89 Minn. Reg. No. 12666



ORIGINAL DATE: 5/22/89
REVISIONS:
DESIGN BY: JRM
DRAWN BY: LEB

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TYPICAL SECTIONS
ACCELERATION & DECELERATION
LANES, T.H. 10/47 BITUMINOUS
SHOULDER, DETAILS A & B

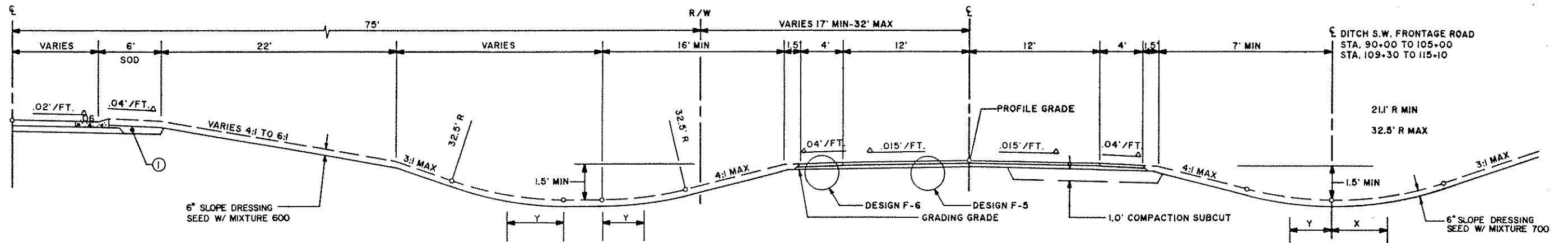
S.A.P. NO. 02-609-08

SHEET III OF 256

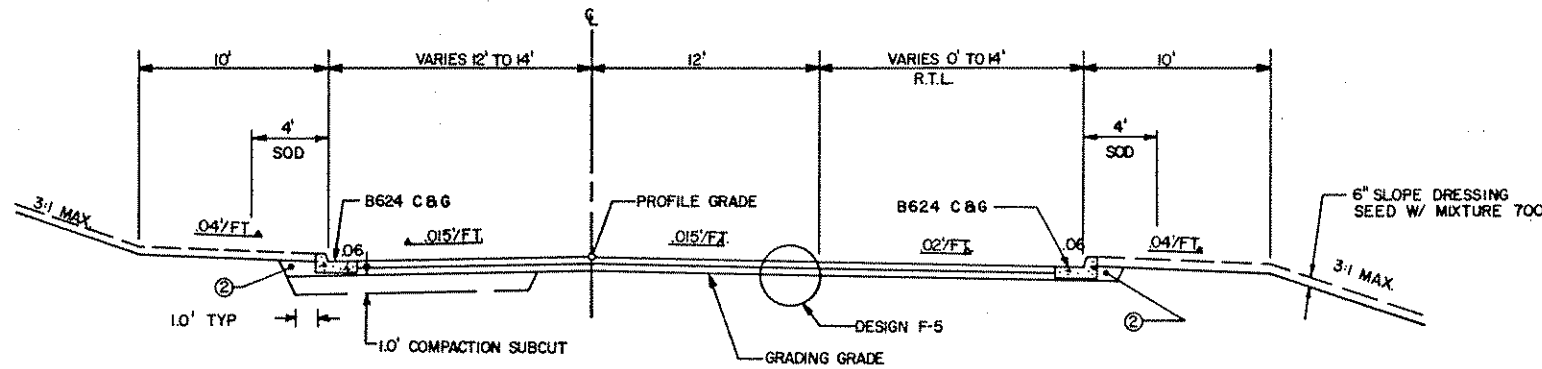
DESIGN FILE
No. 15-863

RAMP C
STA. 196+83 TO 209+00

S.W. FRONTAGE ROAD
STA. 90+00 TO 115+14

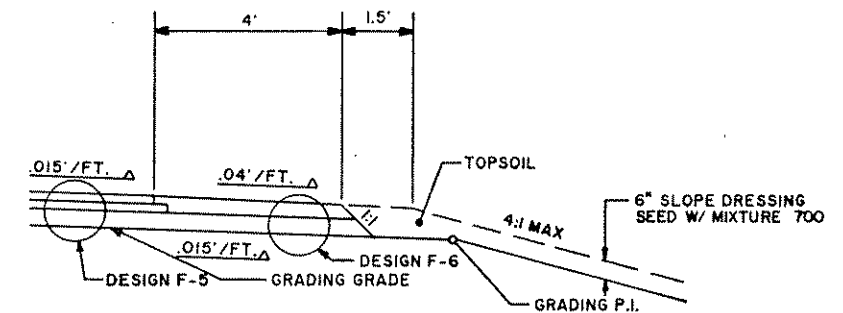


S.W. FRONTAGE ROAD
STA. 115+14 TO 117+11.61

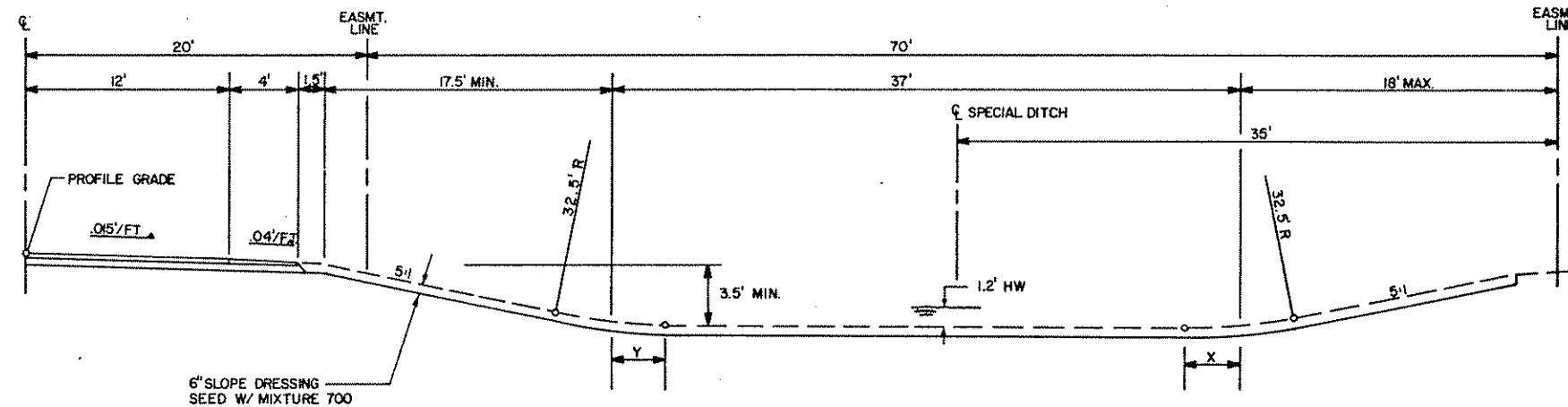


SHOULDER DETAIL

S.W. FR. RD. STA. 90+00 TO 115+14



S.W. FRONTAGE ROAD
STA. 105+00 TO 108+32.83



SPECIAL DITCH
STA. 47+65 TO 62+23

NOTES

FOR SUPERELEVATION TRANSITIONS, SEE SUPERELEVATION PLAN UNLESS OTHERWISE SPECIFIED, THE SUBGRADE CROSS SLOPES WILL BE THE SAME AS THE FINISHED CROSS SLOPES.

UNLESS OTHERWISE SPECIFIED, D424 C&G WILL MATCH THE SLOPE OF THE ADJACENT PAVEMENT.

SEE PROFILES FOR LONGITUDINAL SUBCUT TAPERS.

- ① VARIABLE DEPTH AGGREGATE SHOULDERING - CLASS 3 - SPEC. 2221.
- ② SELECT GRADING MATERIAL.

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 State of Minn. Statutes Section 326.02 to 326.16.

Boyd H. ...

Date 8-22-89 Minn. Reg. No. 12666

BRW

DESIGN BY: JRM
DRAWN BY: LEB

ORIGINAL DATE: 5-3-89
REVISIONS:
SURVEY BK. NO.

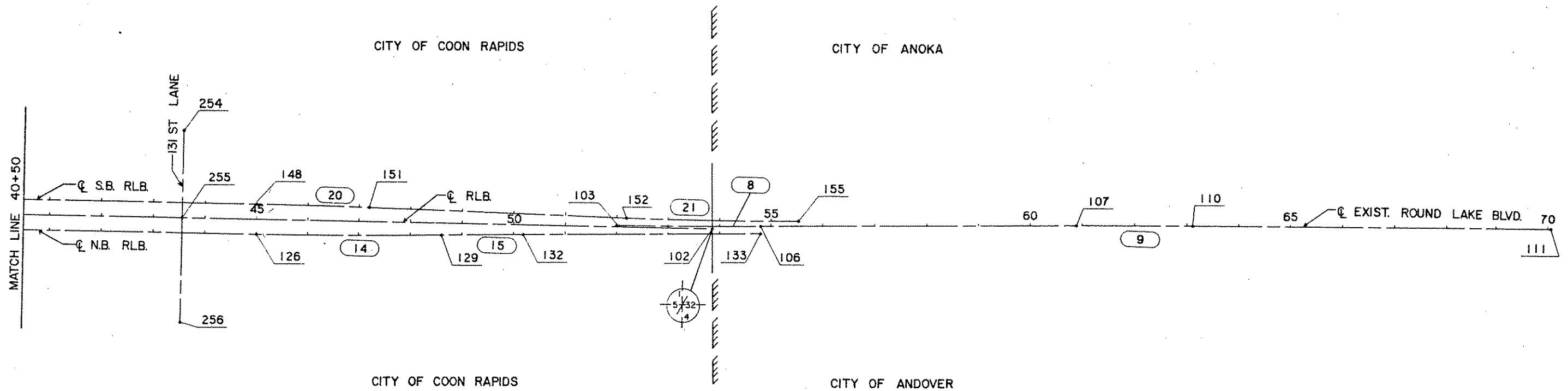
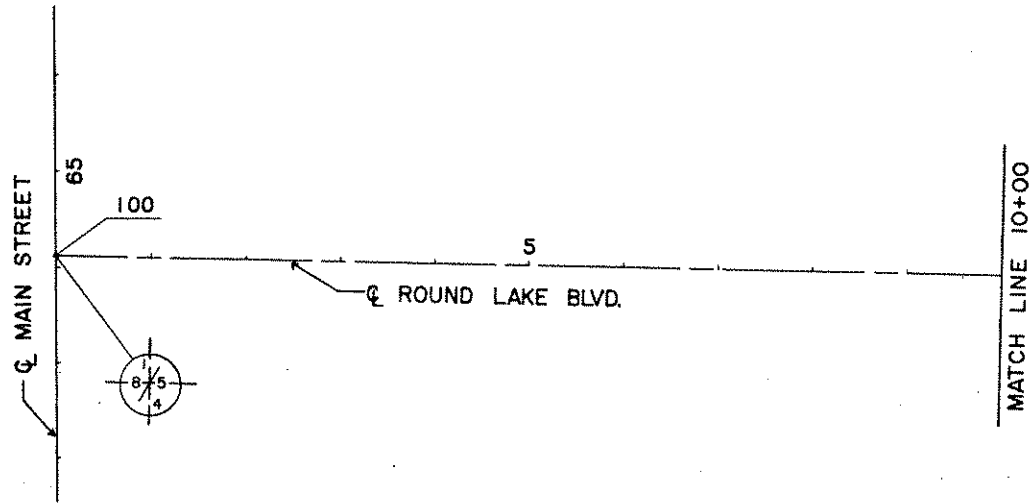
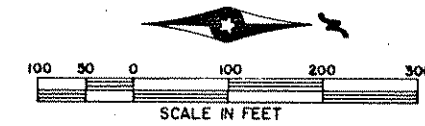
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

TYPICAL SECTIONS
S.W. FRONTAGE ROAD

DESIGN FILE NO. 88-53

S.A.P. NO. 02-609-08

SHEET 12 OF 256



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date 8-22-89 Minn. Reg. No. 12666

BRW

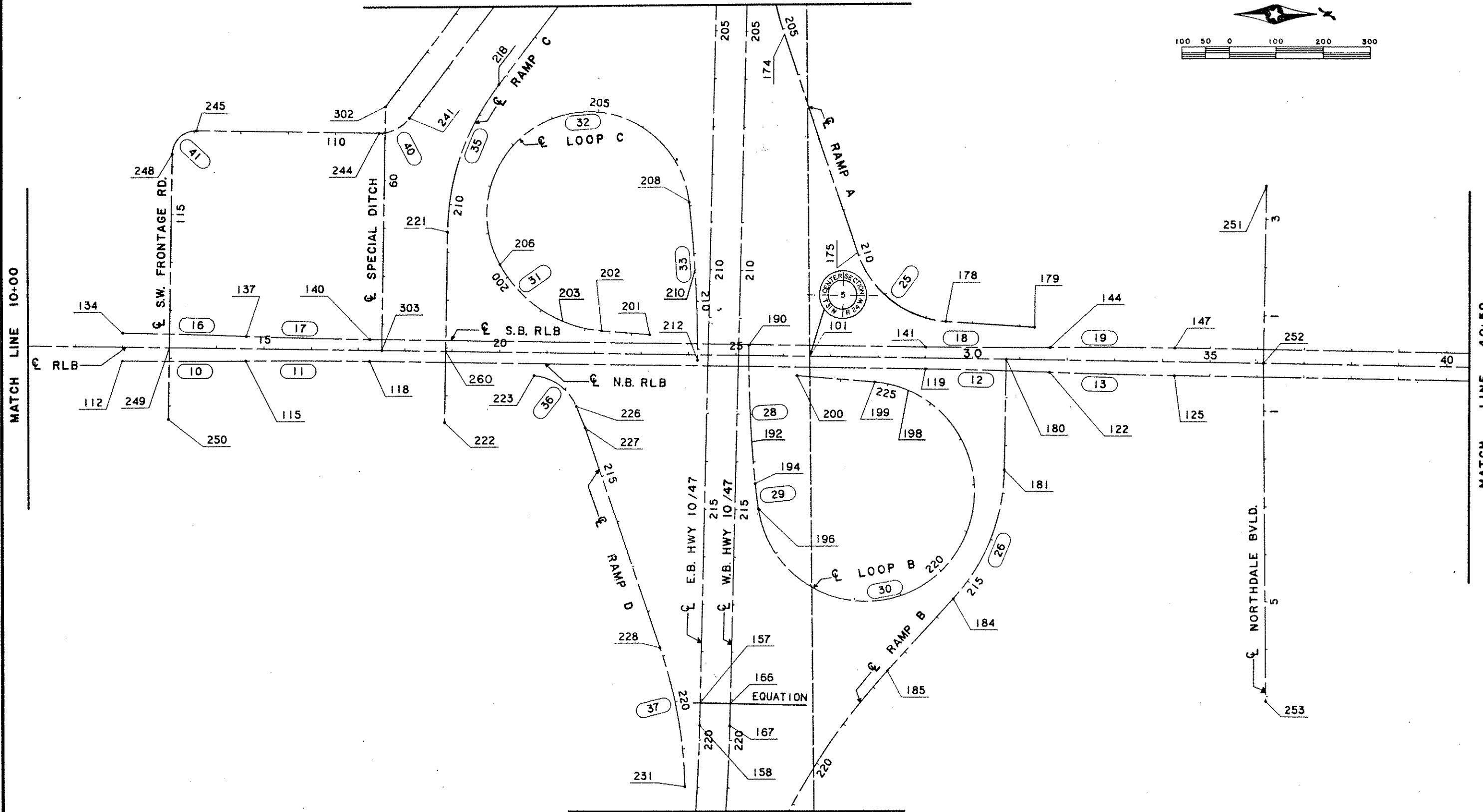
BRW, INC.
812 378 0300
Minneapolis, Minnesota

DESIGN BY: JRM
DRAWN BY: CTN

ORIGINAL DATE: 6-16-89
REVISIONS:
SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 ALIGNMENT PLAN
 RLB 0+00 - 10+00
 RLB 40+50 - 70+06

MATCH LINE 204+50



MATCH LINE 221+50

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 State of Minn. Statutes Section 326.02 to 326.16.

Boyd Paulsen

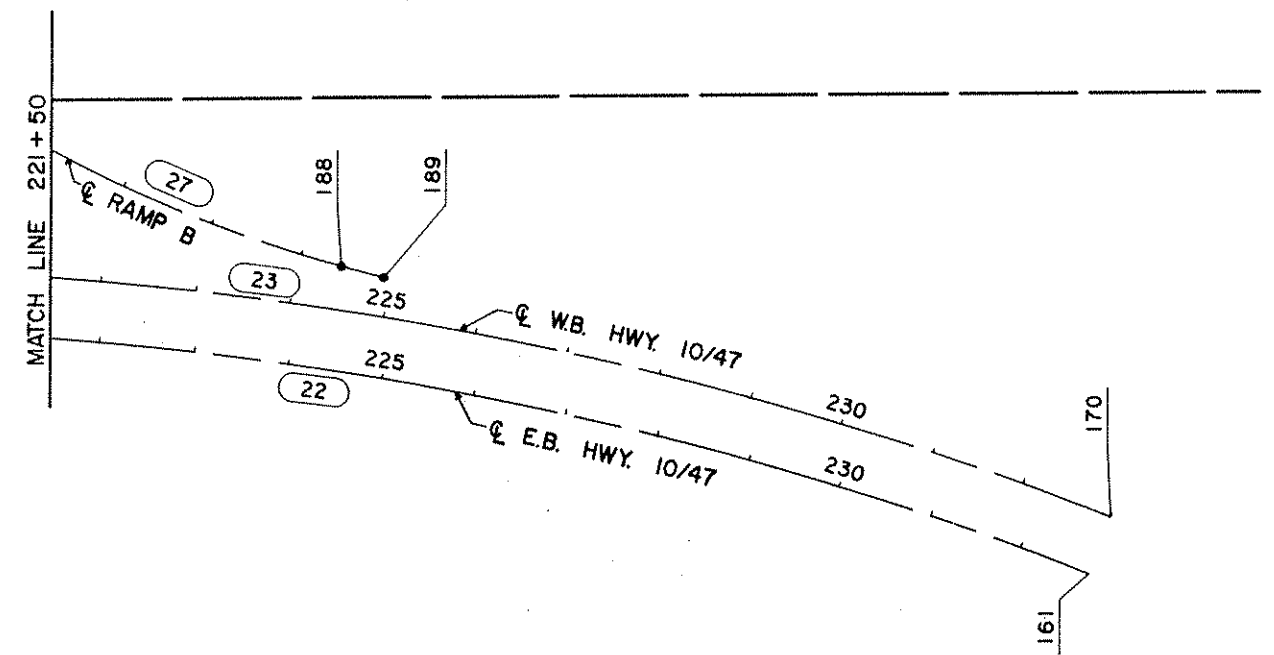
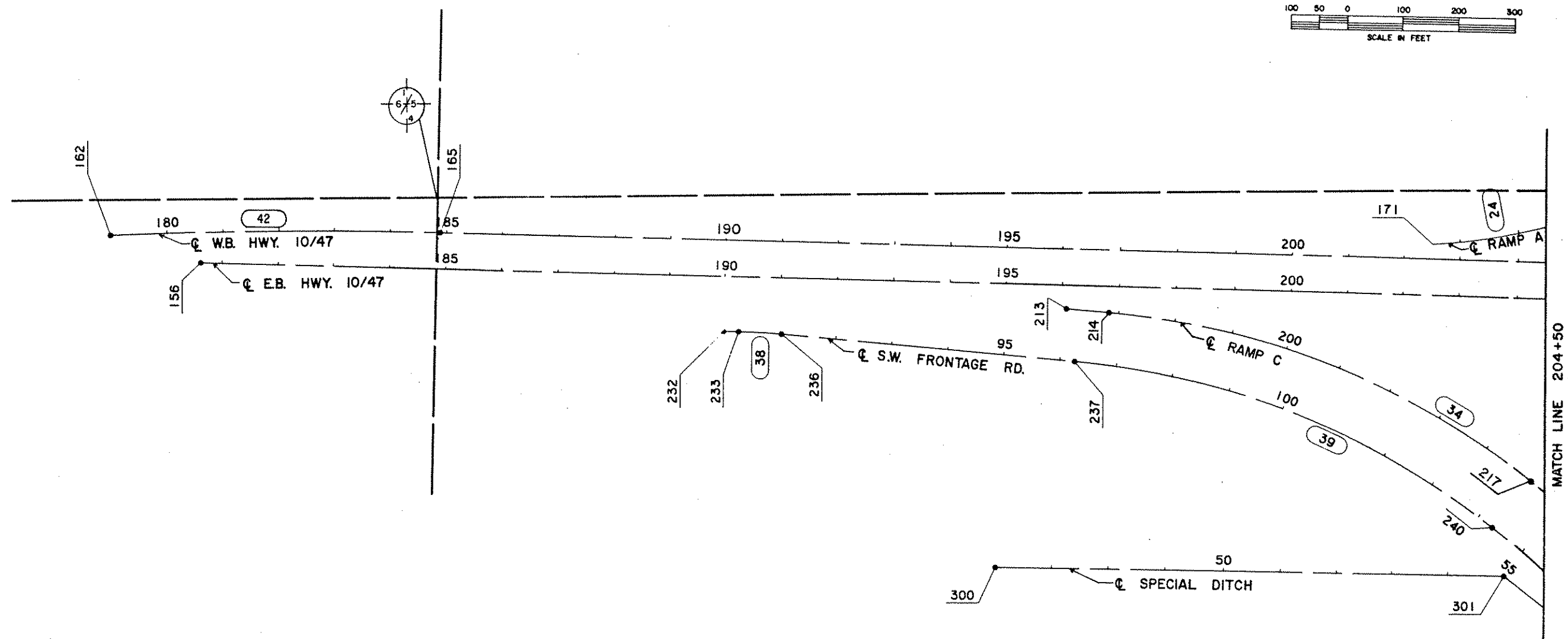
Date 8-22-89 Minn. Reg. No. 12666.

IBRW

DESIGN BY: JRM
DRAWN BY: CTN

ORIGINAL DATE: 6-16-89
REVISIONS:
SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ALIGNMENT PLAN
 RLB 10+00 - 40+50
 HWY 10/47 204+50 - 221+50



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date 8-22-89 Minn. Reg. No. 12555.

IBRW
 INC.
 812 310 8100
 MINNEAPOLIS, MINNESOTA

DESIGN BY: JRM
 DRAWN BY: CTN

ORIGINAL DATE: 6-16-89
REVISIONS:
SURVEY BK NO.

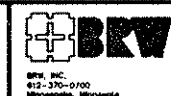
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ALIGNMENT PLAN
 WB HWY. 10 47 179+00 - 204+50
 WB HWY. 10 47 221+50 - 233+00

CURVE NO.	POINT NO.	POINT TYPE	STATION	CURVE DATA					COORDINATES		AZIMUTH
				A	D	R	T	L	X	Y	
SPECIAL DITCH											
	300	P.I.	46+00.000 = A PT 500.0 RT EB 10/47 194+94.32						5080.951	13961.376	
	301	P.I.	55+00.000 = A PT 55.00 RT SW FR RD 105+00.00					900.000	5980.838	13947.144	90°54'21.8"
	302	P.I.	58+45.189 = A PT 52.11 RT SW FR RD 108+89.57					345.189	6254.009	13736.114	
	303	P.I.	63+55.345 = CL RLB 17+50.00					510.156	6764.083	13726.989	91°01'29.5"
ROUND LAKE BOULEVARD ON SECTION LINE											
	100	P.O.T.	0+00.000 = CL CL MAIN STREET 65+87.70 = QUARTER CORNER						6732.782	11977.269	
	101	P.O.T.	26+55.849 = CENTER SECTION					2655.849	6780.286	14632.693	01°01'29.5"
	102	P.O.T.	53+85.602 = QUARTER CORNER					2729.753	6829.111	17362.010	01°01'29.5"
EXISTING ROUND LAKE BOULEVARD											
	103	P.C.	52+00.000 = A PT 2.97 LT RLB 51+99.68 ON SECTION LINE						6822.819	17176.170	01°01'08.5"
	104	P.I.	53+39.996	01°24'00.9"	00°30'00.5"	11456.214	139.996	279.979	6825.308	17316.145	
8	105	R.P.							-4631.584	17379.911	
	106	P.T.	54+79.979						6824.377	17456.138	359°37'07.6"
	107	P.C.	60+89.113					609.134	6820.324	18065.260	359°37'07.7"
	108	P.I.	62+00.004	00°33'16.0"	00°15'00.0"	22918.310	110.891	221.780	6819.586	18176.148	
9	109	R.P.							29738.127	18217.736	
	110	P.T.	63+10.893						6819.922	18287.038	00°10'23.7"
	111	P.O.T.	70+06.003					695.110	6822.024	18982.145	00°10'23.7"
NORTH BOUND ROUND LAKE BOULEVARD											
	112	P.C.	12+00.000 = A PT 29.00 RT RLB 12+00.00						6783.241	13176.559	01°01'29.5"
	113	P.I.	13+31.114	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217	6785.586	13307.652	
10	114	R.P.							-4674.082	13381.522	
	115	P.R.C.	14+62.217 = A PT 26.00 RT RLB 14+62.19						6784.931	13438.765	359°42'49.6"
	116	P.I.	15+93.331	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217	6784.276	13569.877	
11	117	R.P.							18243.944	13496.007	
	118	P.T.	17+24.434 = A PT 23.00 RT RLB 17+24.39 = EQUATION						6786.621	13700.971	01°01'29.5"
	118	P.O.T.	17+24.39 = A PT 23.00 RT RLB 17+24.39								
	119	P.C.	29+00.610 = A PT 23.00 RT RLB 29+00.61					1176.219	6807.660	14877.002	01°01'29.5"
	120	P.I.	30+31.724	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217	6810.005	15008.096	
12	121	R.P.							18264.983	14672.039	
	122	P.R.C.	31+62.827 = A PT 26.00 RT RLB 31+62.80						6815.349	15139.101	02°20'09.5"
	123	P.I.	32+93.941	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217	6820.693	15270.107	
13	124	R.P.							-4634.285	15606.164	
	125	P.T.	34+25.044 = A PT 29.00 RT RLB 34+25.00 = EQUATION						6823.038	15401.200	01°01'29.5"
	125	P.O.T.	34+25.000 = A PT 29.00 RT RLB 34+25.00								
	126	P.C.	45+00.002 = A PT 29.00 RT RLB 45+00.00					1075.002	6842.266	16476.031	01°01'29.5"
	127	P.I.	46+80.169	01°48'05.5"	00°30'00.0"	11459.155	180.167	360.304	6845.489	16656.169	
14	128	R.P.							-4615.056	16680.994	
	129	P.R.C.	48+60.306 = A PT 23.33 RT RLB 48+80.25						6843.047	16836.319	359°13'24.1"
	130	P.I.	49+39.397	00°23'43.6"	00°15'00.0"	22918.312	79.091	158.181	6841.975	16915.403	
15	131	R.P.							29759.253	17146.968	
	132	P.T.	50+18.487 = A PT 18.91 RT RLB 50+18.36						6841.448	16994.492	359°37'07.7"
	133	P.O.T.	54+80.130 = A PT 14.00 RT EXIST RLB 54+79.97					461.642	6838.377	17458.124	359°37'07.7"

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paul

Date: 2-22-82 Minn. Reg. No. J2666



ORIGINAL DATE: 6-21-88
 REVISIONS: _____
 SURVEY BOOK: _____

DESIGN BY: _____
 DRAWN BY: CTM
 CHECKED BY: _____


CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ALIGNMENT TABULATIONS
 SPECIAL DITCH,
 RLB ON SECTION LINE,
 EXIST RLB, NB RLB

S.A.P. NO. 02-609-08

SHEET 116 OF 256

DESIGN FILE No 16-9840

CURVE NO.	POINT NO.	POINT TYPE	STATION	CURVE DATA					COORDINATES		AZIMUTH
				Δ	D	R	T	L	X	Y	
SOUTH BOUND ROUND LAKE BOULEVARD											
	134	P.C.	12+00.000 = A PT 29.00 LT RLB 12+00.00								
	135	P.I.	13+31.114	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217	6725.250	13177.596	01°01'29.5"
16	136	R.P.							6727.595	13308.689	
	137	P.R.C.	14+62.217 = A PT 26.00 LT RLB 14+62.19						18182.573	12972.632	
	138	P.I.	15+93.331	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217	6732.940	13439.695	02°20'09.5"
17	139	R.P.							6738.284	13570.700	
	140	P.T.	17+24.434 = A PT 23.00 LT RLB 17+24.39 = EQUATION						-4716.694	13906.757	
	140	P.O.T.	17+24.39 = A PT 23.00 LT RLB 17+24.39						6740.629	13701.794	01°01'29.5"
	141	P.C.	29+00.610 = A PT 23.00 LT RLB 29+00.61								
	142	P.I.	30+31.724	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217	6761.667	14677.828	01°01'29.5"
18	143	R.P.							6764.012	15008.921	
	144	P.R.C.	31+62.827 = A PT 26.00 LT RLB 31+62.80						-4695.656	15082.791	
	145	P.I.	32+93.941	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217	6763.357	15140.034	359°42'49.6"
19	146	R.P.							6762.702	15271.147	
	147	P.T.	34+25.044 = A PT 29.00 LT RLB 34+25.00 = EQUATION						18222.370	15197.276	
	147	P.O.T.	34+25.000 = A PT 29.00 LT RLB 34+25.00						6765.048	15402.240	01°01'29.5"
	148	P.C.	45+00.000 = A PT 29.00 LT RLB 45+00.00								
	149	P.I.	46+09.920	01°05'57.0"	00°30'00.0"	11459.158	109.920	219.833	6784.276	16477.068	01°01'29.5"
20	150	R.P.							6786.242	16586.971	
	151	P.T.	47+19.833 = A PT 26.89 LT RLB 47+19.82						18241.601	16272.104	
	152	P.C.	52+18.855 = A PT 17.32 LT RLB 52+18.75						6790.316	16696.815	02°07'26.5"
	153	P.I.	53+85.854	02°30'18.7"	00°45'00.6"	7637.624	167.000	333.946	6808.811	17195.494	02°07'26.5"
21	154	R.P.							6815.000	17362.379	
	155	P.T.	55+52.801 = A PT 10.00 LT EXIST RLB 55+53.28						-823.566	17478.564	
									6813.889	17529.375	359°37'07.8"
EAST BOUND HWY. 10/47											
	156	P.O.T.	180+61.900						3661.747	14497.745	
	157	P.O.T.	219+08.110 = 219+22.11 EB EQUATION					3846.210	7506.706	14399.654	91°27'41.0"
	158	P.C.	219+68.839								
	159	P.I.	226+29.952	19°38'19.8"	01°30'00.0"	3819.720	661.113	1309.255	46.729	7553.421	14398.462
22	160	R.P.							8214.319	14381.602	
	161	P.T.	232+78.094						7456.006	10579.985	
									8831.106	14143.601	111°06'00.8"
WEST BOUND HWY. 10/47											
	162	P.C.	179+00.000								
	163	P.I.	181+94.475	03°55'31.7"	00°40'00.4"	8592.912	294.475	588.720	3501.478	14545.688	87°32'09.3"
42	164	R.P.							3795.681	14558.349	
	165	P.T.	184+88.720						3870.916	5960.722	
									4090.061	14550.839	91°27'40.9"
	166	P.O.T.	219+08.110 = 219+22.11 WB EQUATION					3419.39	7508.338	14463.633	91°27'41.0"
	167	P.C.	219+68.839								
	168	P.I.	226+41.029	19°38'19.8"	01°28'31.0"	3883.720	672.190	1331.192	46.729	7555.053	14462.441
23	169	R.P.							8227.025	14445.298	
	170	P.T.	233+00.031						7456.006	10579.985	
									8854.146	14203.310	111°06'00.8"

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Rasmussen</i> Date: 8-22-89 Minn. Reg. No. 12666	 BRW, INC. 612-370-0700 Minneapolis, Minnesota	ORIGINAL DATE: 6-21-89 REVISIONS:	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 ALIGNMENT TABULATIONS SB RLB EB 10/47 WB 10/47
		DESIGN BY: _____ DRAWN BY: CTN CHECKED BY: _____	
S.A.P. NO. 02-609-08		SHEET 117 OF 256	DESIGN FILE No. 15-8840

CURVE NO.	POINT NO.	POINT TYPE	STATION	CURVE DATA					COORDINATES		AZIMUTH
				A	D	R	T	L	X	Y	
RAMP A											
	171	P.C.	202+50.900 = A PT 26.00 LT WB 10/47 202+50.90						5852.335	14531.888	87°01'55.3"
	172	P.I.	203+81.565	15°34'59.5"	06°00'00.2"	954.922	130.665	259.718	5982.825	14538.654	
24	173	R.P.							5802.891	15485.530	
	174	P.T.	205+10.618						6106.701	14580.225	71°26'55.8"
	175	P.C.	209+93.355					482.737	6564.356	14733.809	71°26'55.9"
	176	P.I.	211+34.903	67°27'36.3"	27°01'34.7"	212.000	141.547	249.609	6698.548	14778.842	
25	177	R.P.							6496.908	14934.793	
	178	P.T.	212+42.964 = A PT 77.02 LT RLB 29+41.87						6708.394	14920.046	03°59'19.6"
	179	P.O.T.	214+31.346 = A PT 67.28 LT RLB 31+30.00					188.382	6721.498	15107.972	03°59'19.8"
RAMP B											
	180	P.O.T.	210+19.416 = CL CL RLB 30+71.29						6787.716	15048.071	
	181	P.C.	212+50.806					231.39	7019.070	15043.932	91°01'29.5"
	182	P.I.	214+06.352	41°37'14.3"	13°59'59.9"	409.256	155.546	297.291	7174.591	15041.150	
26	183	R.P.							7011.750	14634.741	
	184	P.T.	215+48.097						7289.004	14935.773	132°38'43.8"
	185	P.C.	217+54.830					206.733	7441.069	14795.720	132°38'43.8"
	186	P.I.	221+06.267	27°34'13.4"	04°00'00.0"	1432.394	351.437	689.259	7699.571	14557.635	
27	187	R.P.							8411.459	15849.331	
	188	P.T.	224+44.089 = A PT 46.00 LT WB 10/47 224+48.00						8038.914	14466.232	105°04'30.5"
	189	P.O.T.	224+90.313 = A PT 41.00 LT WB 10/47 224+93.44					46.224	8083.547	14454.210	105°04'30.5"
LOOP B											
	190	P.C.	211+55.380 = A PT 21.00 LT WB 10/47 211+55.38						6756.389	14503.823	90°18'56.2"
	191	P.I.	213+00.421	05°47'48.0"	02°00'00.0"	2864.789	145.040	289.833	6901.427	14503.024	
	192	P.O.C.	213+55.320 = A PT 31.97 LT WB 10/47 213+54.98						6956.202	14509.697	
28	193	R.P.							6772.170	17368.569	
	194	P.C.C.	214+45.213						7045.805	14516.878	84°31'08.2"
29	195	R.P.		03°11'38.5"	06°00'00.0"	954.930	26.624	53.234	6954.593	15467.442	
	196	P.C.C.	214+98.447						7098.626	14523.437	81°19'29.8"
30	197	R.P.		256°29'09.6"	24°54'40.4"	230.000		1029.601	7063.935	14750.805	
	198	P.O.C.	224+57.189 = A PT 67.45 RT RLB 28+63.18						6851.428	14838.788	
	199	P.T.	225+28.048 = A PT 52.00 RT RLB 27+94.31						6834.754	14770.207	184°50'20.2"
	200	P.O.T.	226+93.420 = A PT 41.00 RT RLB 26+29.31					165.372	6820.804	14805.424	184°50'20.2"
LOOP C											
	201	P.O.T.	196+61.324 = A PT 41.00 LT RLB 23+17.50						6733.240	14295.135	
	202	P.C.	197+64.146 = A PT 47.84 LT RLB 22+14.91					102.822	6724.567	14192.679	184°50'19.9"
	203	P.O.C.	198+54.84 = A PT 68.66 LT RLB 21+27.06						6702.18	14105.22	
	204	P.I.	199+09.165	55°57'17.6"	20°59'15.1"	272.999	145.018	286.610	6712.334	14048.178	
31	205	R.P.							6452.540	14215.708	
	206	P.C.C.	200+30.756 = A PT 182.45 LT RLB 19+99.08						6585.752	13977.415	240°47'37.2"
32	207	R.P.		202°54'50.1"	26°38'57.1"	215.000		761.426	6480.841	14165.082	
	208	P.C.C.	207+92.182 = A PT 49.34 RT EB 10/47 208+57.74						6457.277	14378.787	83°42'27.5"
	209	P.I.	209+57.678	06°36'45.0"	02°00'00.0"	2864.773	165.495	330.623	6621.775	14396.925	
	210	P.O.C.	209+33.500 = A PT 32.00 RT EB 10/47 210+00.00						6598.067	14390.805	
33	211	R.P.							6771.261	11531.273	
	212	P.T.	211+22.805 = A PT 22.00 RT EB 10/47 211+89.00						6787.267	14396.001	90°19'12.4"

184
185
190
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198
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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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paul

Date: 8-22-89 Minn. Reg. No. J2666

BRW
 INC.
 812-333-0700
 Minneapolis, Minnesota

DESIGN BY: _____
 DRAWN BY: CTW
 CHECKED BY: _____

ORIGINAL DATE	8-21-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ALIGNMENT TABULATIONS
 RAMP A, RAMP B
 LOOP B, LOOP C

S.A.P. NO. 02-609-08 SHEET 18 OF 256

DESIGN FILE No. 16-8840

CURVE NO.	POINT NO.	POINT TYPE	STATION	CURVE DATA					COORDINATES		AZIMUTH
				A	D	R	T	L	X	Y	
RAMP C											
	213	P.O.T.	196+07.830 = A PT 41.00 RT EB 10/47 196+08.00						5206.299	14417.328	
	214	P.C.	196+82.996 = A PT 46.00 RT EB 10/47 196+83.00					75.166	5281.147	14410.416	95°16'31.7"
	215	P.I.	200+99.300	32°24'41.1"	04°00'00.0"	1432.394	416.304	810.285	5695.687	14372.140	
34	216	R.P.							5149.447	12984.090	
	217	P.T.	204+93.281						6025.134	14117.634	127°41'12.7"
	218	P.C.	207+24.826					231.545	6208.371	13976.080	127°41'12.7"
	219	P.I.	208+97.400	36°39'43.2"	11°00'00.0"	520.871	172.574	333.291	6344.940	13870.578	
35	220	R.P.							6526.803	14388.279	
	221	P.T.	210+58.117						6517.486	13867.491	91°01'29.5"
	260	P.O.T.	213+07.187 = CL CL RLB 18+86.07					249.07	6766.52	13863.04	91°01'29.5"
	222	P.O.T.	214+56.187 CENTER ENTRANCE					149.00	6915.493	13860.371	91°01'29.5"
RAMP D											
	223	P.C.	212+28.195 = A PT 48.23 RT RLB 20+73.33						6818.094	14049.409	04°50'20.0"
	224	P.I.	212+92.428	62°25'46.2"	54°03'09.3"	106.000	64.233	115.498	6823.512	14113.413	
36	225	R.P.							6923.716	14040.467	
	226	P.T.	213+43.693						6882.756	14138.234	67°16'06.2"
	227	P.I.	213+92.322 = INPLACE RAMP D 213+92.33					48.629	6927.608	14157.025	67°16'06.3"
	228	P.C.	218+81.086					488.764	7389.972	14315.485	71°04'57.0"
	229	P.I.	220+31.625	17°55'01.9"	06°00'00.0"	954.930	150.539	298.620	7532.380	14364.291	
37	230	R.P.							7699.566	13412.134	
	231	P.T.	221+79.706 = A PT 26.00 RT EB 10/47 221+00.00						7682.895	14366.919	88°59'58.9"
SOUTH WEST FRONTAGE ROAD											
	232	P.O.T.	90+00.000 = A PT 97.00 RT EB 10/47 190+00.00						4597.068	14376.852	
	233	P.C.	90+26.781					26.781	4623.841	14376.169	91°27'41.0"
	234	P.I.	90+64.936	03°48'50.7"	05°00'00.0"	1145.916	38.155	76.282	4661.984	14375.196	
38	235	R.P.							4594.617	13230.625	
	236	P.T.	91+03.063						4699.977	14371.687	95°16'31.7"
	237	P.C.	96+26.598					523.535	5221.295	14323.551	95°16'31.7"
	238	P.I.	100+39.789	32°24'41.1"	04°01'48.5"	1421.684	413.191	804.227	5632.736	14285.561	
39	239	R.P.							5090.580	12907.889	
	240	P.T.	104+30.825						5959.720	14032.958	127°41'12.7"
	241	P.C.	108+32.826					402.001	6277.850	13787.197	127°41'12.7"
	242	P.I.	108+73.008	53°20'16.8"	71°37'11.0"	80.000	40.182	74.474	6309.648	13762.632	
40	243	R.P.							6228.942	13723.888	
	244	P.T.	109+07.300						6308.929	13722.457	181°01'29.5"
	245	P.C.	112+94.628					387.328	6302.001	13335.191	181°01'29.5"
	246	P.I.	113+44.628	90°00'00.0"	114°35'29.6"	50.000	50.000	78.540	6301.107	13285.199	
41	247	R.P.							6351.993	13334.297	
	248	P.T.	113+73.168						6351.099	13284.305	91°01'29.5"
	249	P.O.T.	117+78.168 = CL CL RLB 13+00.00					405.00	6756.03	13277.06	91°01'29.5"
	250	P.O.T.	119+28.168 CENTER ENTRANCE					150.00	6906.010	13274.378	91°01'29.5"
NORTHDALÉ BOULEVARD											
	251	P.O.T.	3+66.790					366.79	6430.68	15596.29	271°01'29.5"
	252	P.O.T.	0+00.000 = CL CL RLB 36+13.04						6797.406	15589.732	
	253	P.O.T.	7+09.907					709.907	7507.296	15594.771	89°35'35.9"
131 ST LANE											
	254	P.O.T.	1+66.790						6443.83	16335.16	
	255	P.O.T.	0+00.000 = CL CL 43+55.60 RD. LK. BLVD.					166.790	6810.688	16332.172	91°01'29.5"
	256	P.O.T.	2+00.000					200.000	7010.656	16328.595	91°01'29.5"

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 State of Minn. Statutes Section 326.02 to 326.16.

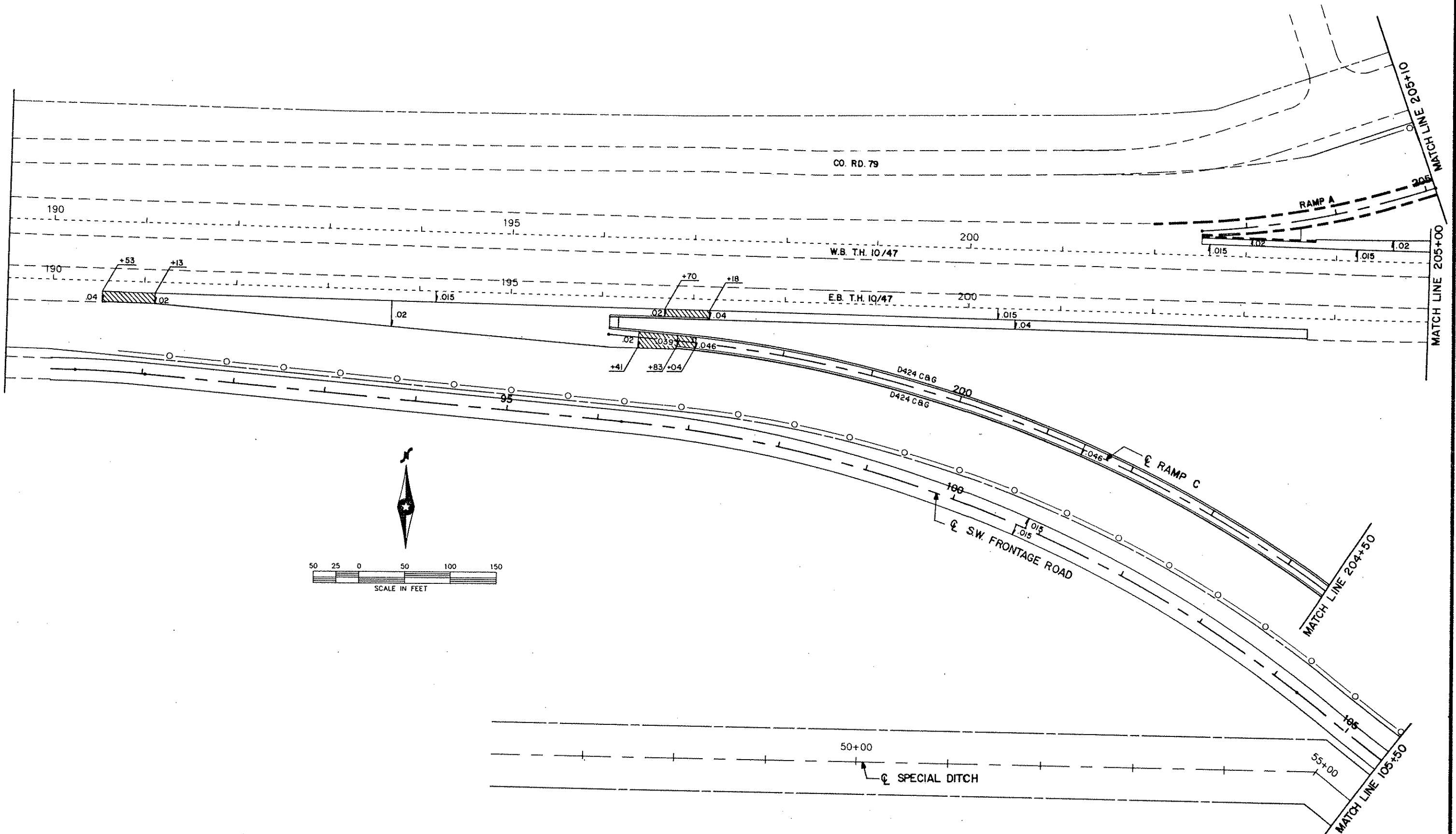
Boyd Paul

Date 8-22-89 Minn. Reg. No. 12666

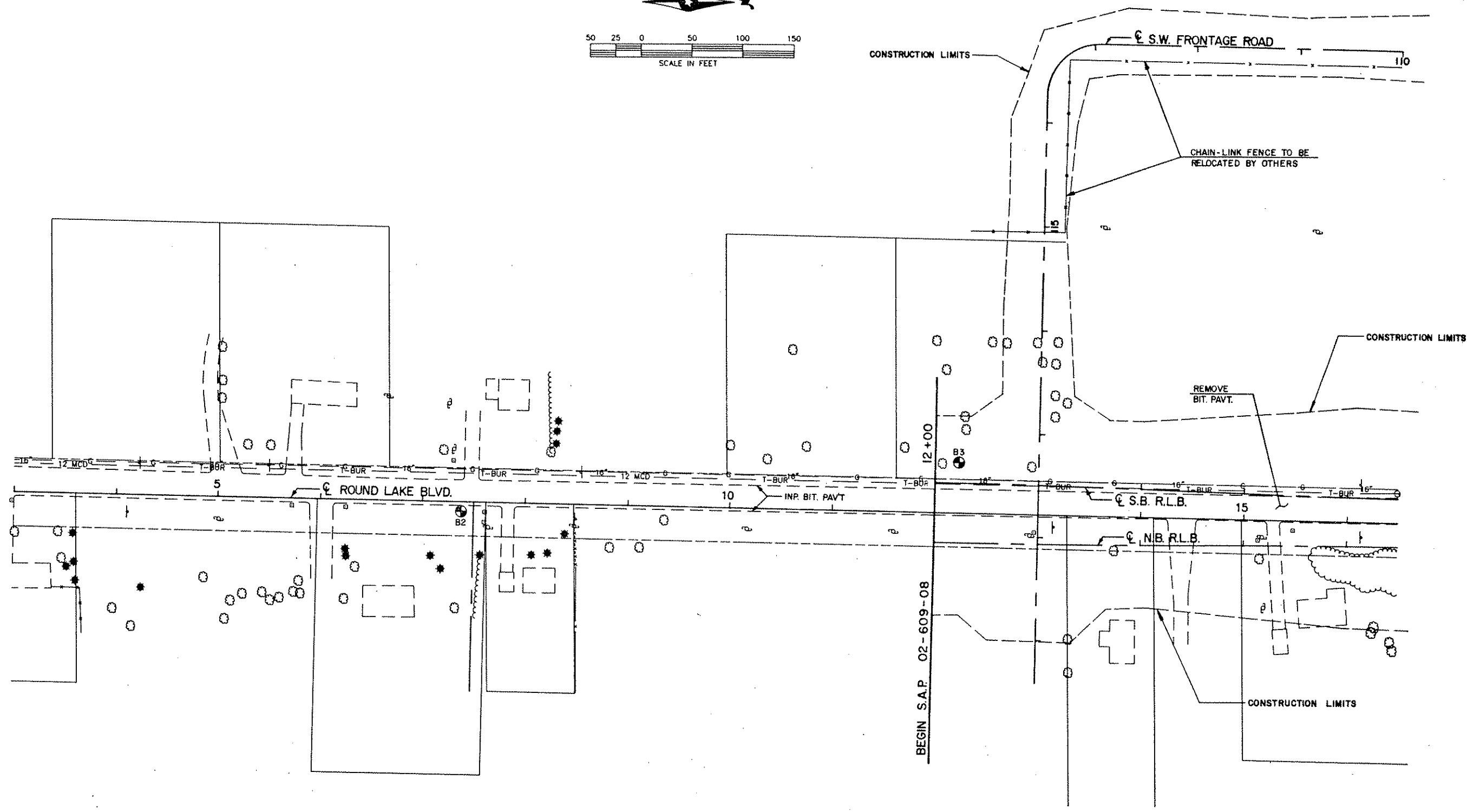
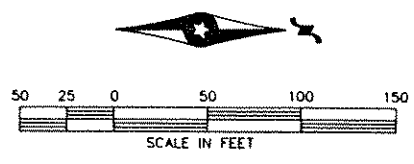


ORIGINAL DATE	8-21-89
REVISIONS	
DESIGN BY:	
DRAWN BY:	CTN
CHECKED BY:	
SURVEY BOOK	

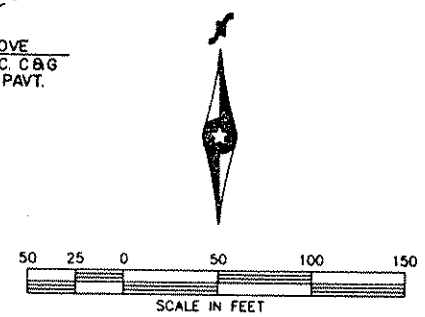
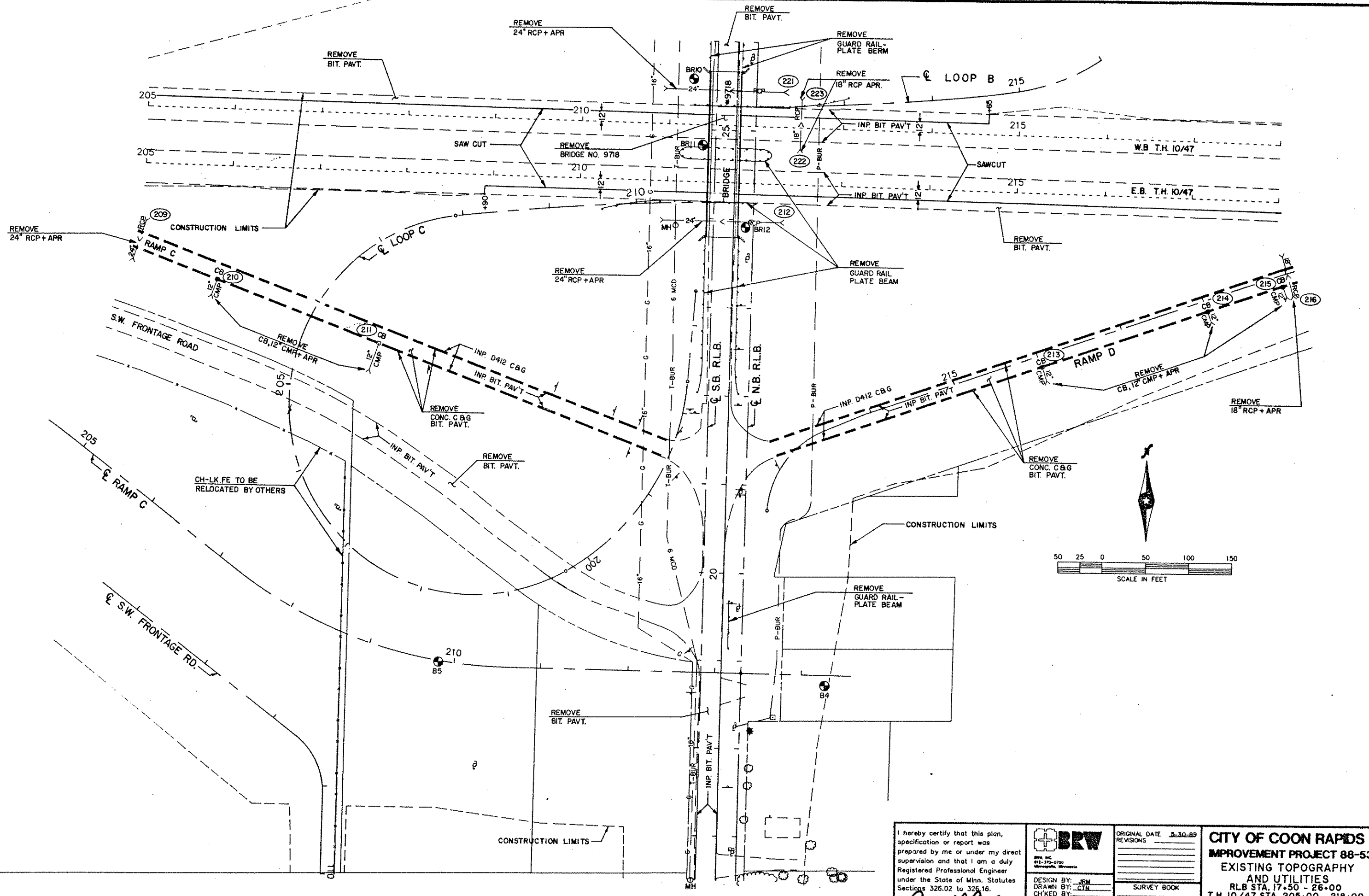
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ALIGNMENT TABULATIONS
 RAMP C, RAMP D,
 SW FRONTAGE RD,
 NORTHDALÉ BLVD., 131ST LANE



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		DESIGN BY: JRM DRAWN BY: CTN, LEB CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 122 OF 256	DESIGN FILE No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Abula</i> Date 8-22-89 Minn. Reg. No. 12666	BRW, INC. 813-370-0700 Minneapolis, MN	ORIGINAL DATE 8-30-89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 EXISTING TOPOGRAPHY AND UTILITIES RLB STA. 3+00 - 16+50
		DESIGN BY: JRM DRAWN BY: CTN CH'KED BY:	
S.A.P. NO. 02-609-08		SHEET 124 OF 256	DESIGN FILE No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. R. R.

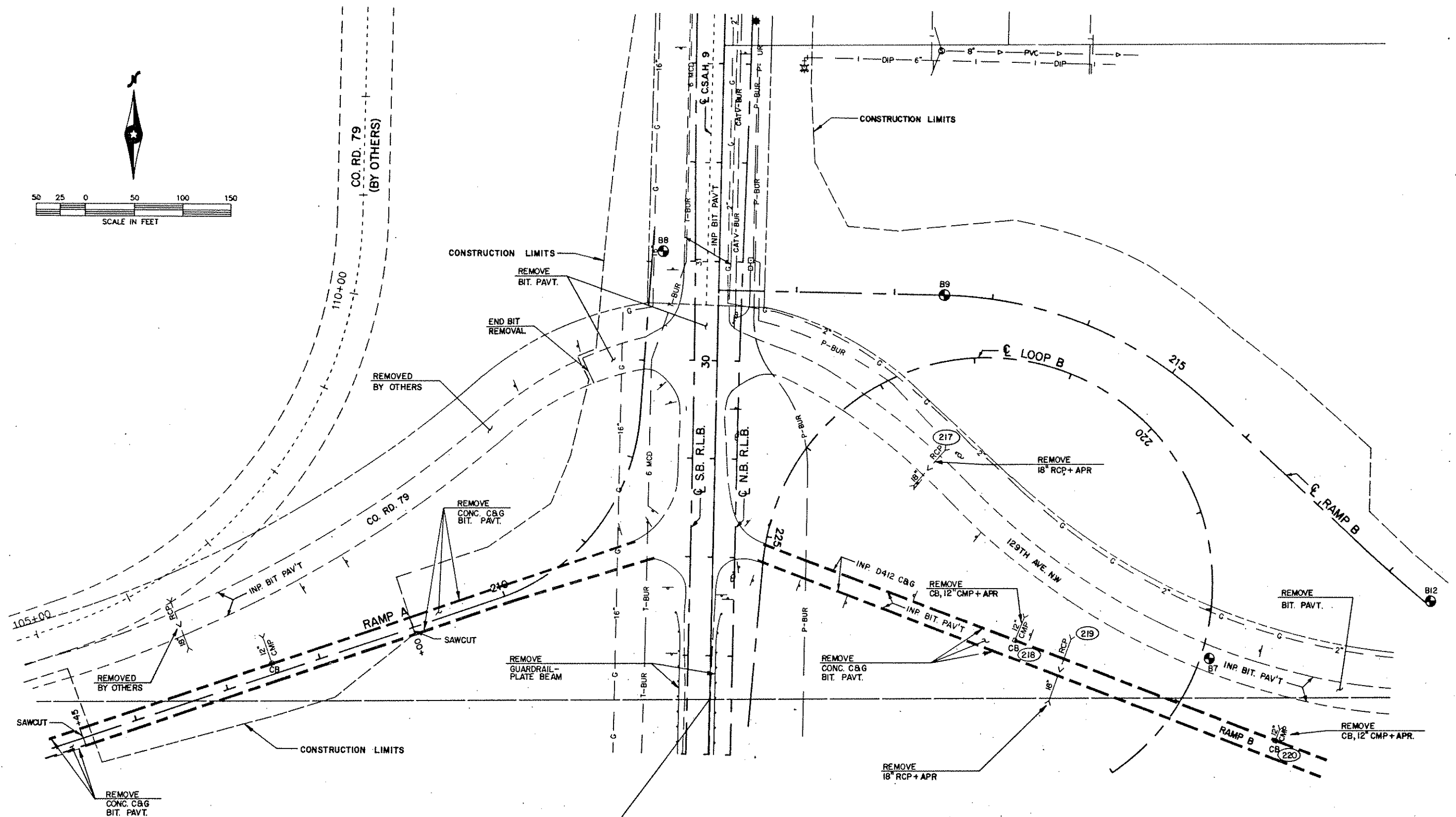
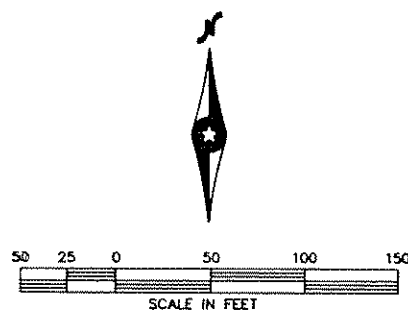
Date 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 811-375-0700
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE	8-30-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 EXISTING TOPOGRAPHY
 AND UTILITIES
 RLB STA. 17+50 - 26+00
 T.H. 10/47 STA. 205+00 - 218+00



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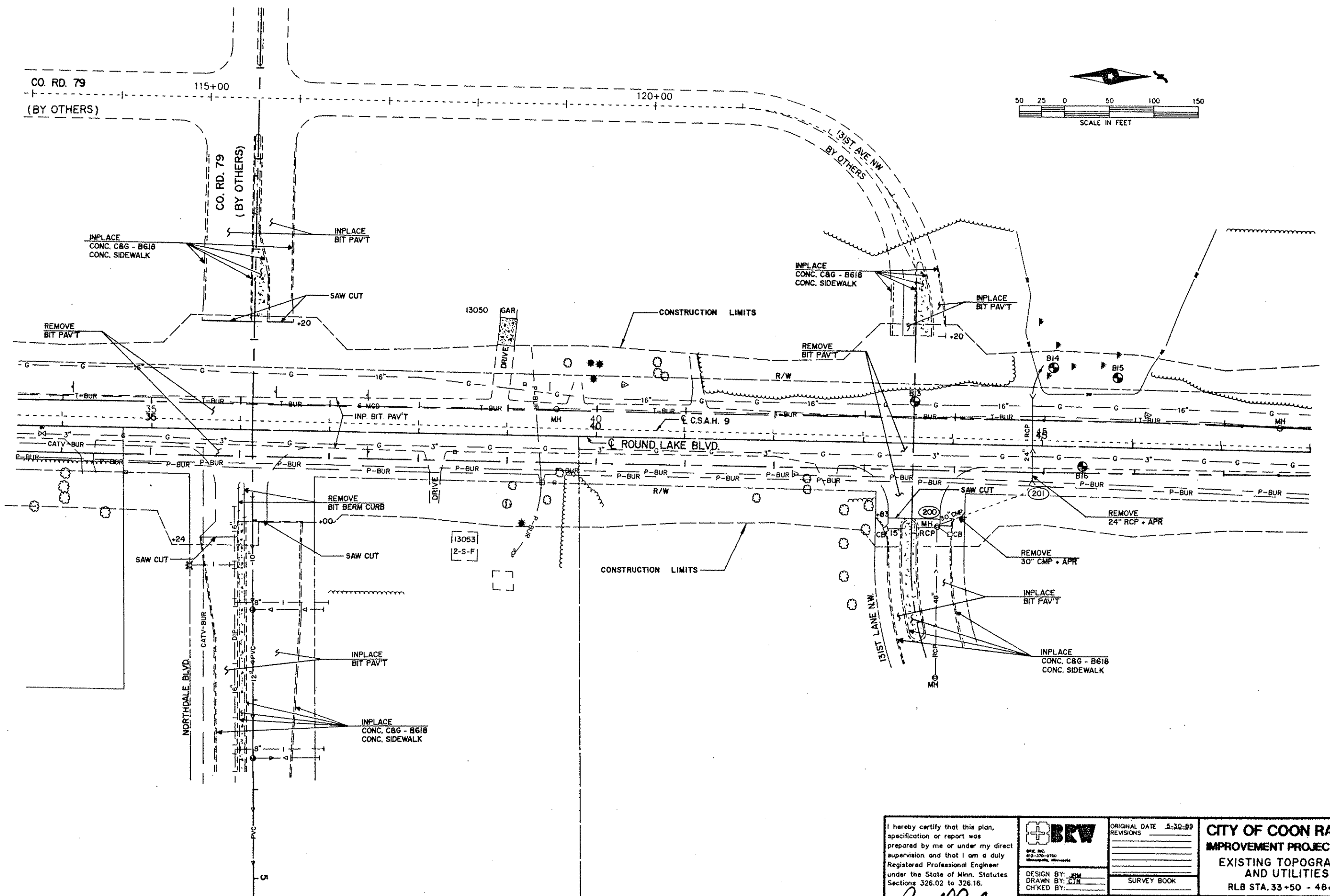
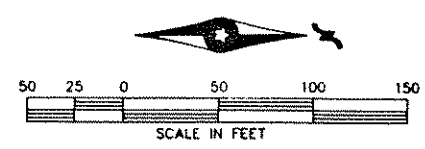
Boyd R. Rasmussen
 Date: 8-22-89 Minn. Reg. No. 12656

BRW
 BRW, INC.
 613-370-0700
 Minneapolis, Minnesota

DESIGN BY: *BRW*
 DRAWN BY: *CMH*
 CHECKED BY: *CMH*

ORIGINAL DATE	8-30-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
EXISTING TOPOGRAPHY AND UTILITIES
 RLB STA. 26+00 - 33+50



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Boyd Paulsen
 Date: 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 873-370-0700
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: CTN
 CHECKED BY:

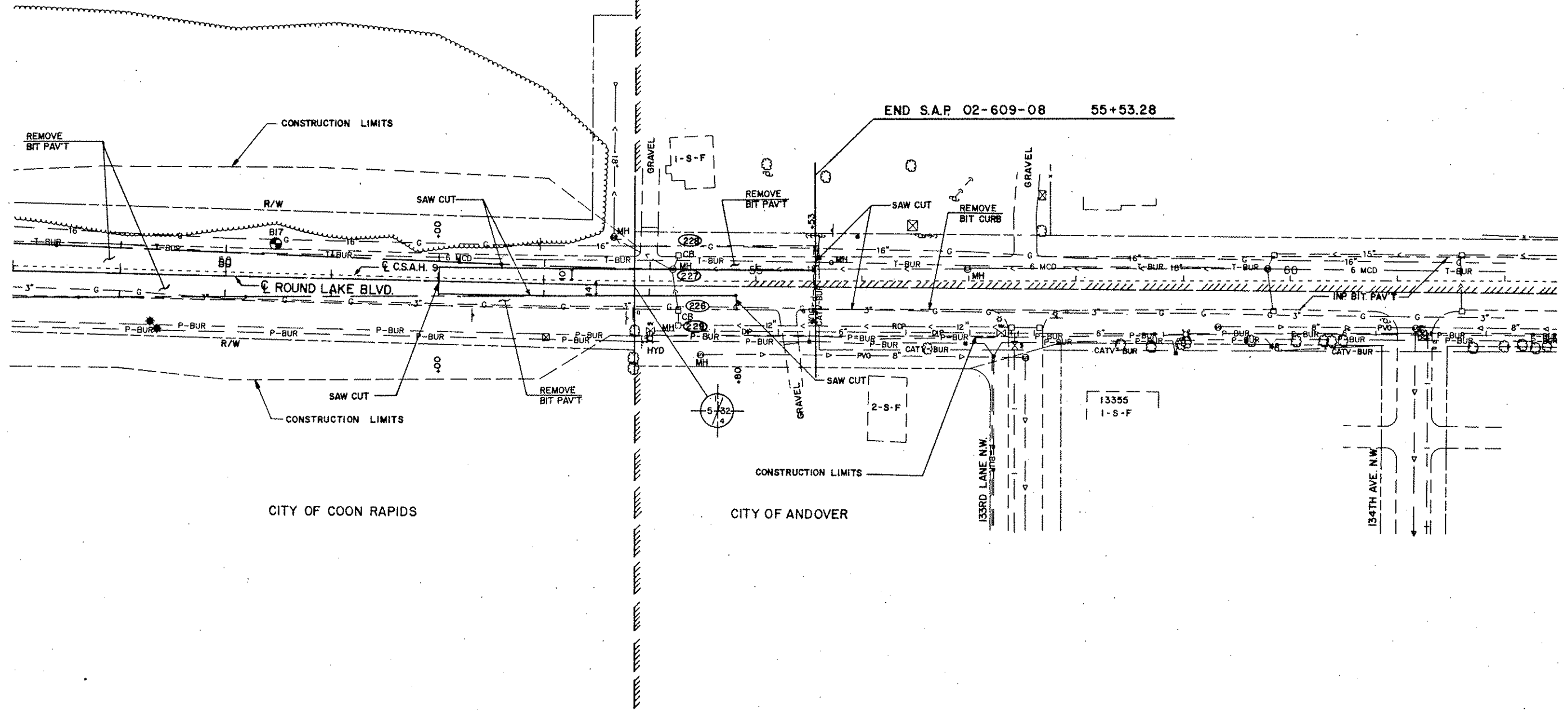
ORIGINAL DATE 8-30-89
 REVISIONS
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 EXISTING TOPOGRAPHY
 AND UTILITIES
 RLB STA. 33+50 - 48+00

S.A.P. NO. 02-609-08 SHEET 127 OF 256 DESIGN FILE No. 16-8840

CITY OF COON RAPIDS

CITY OF ANOKA



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Boyd

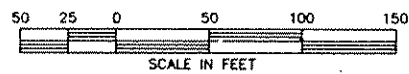
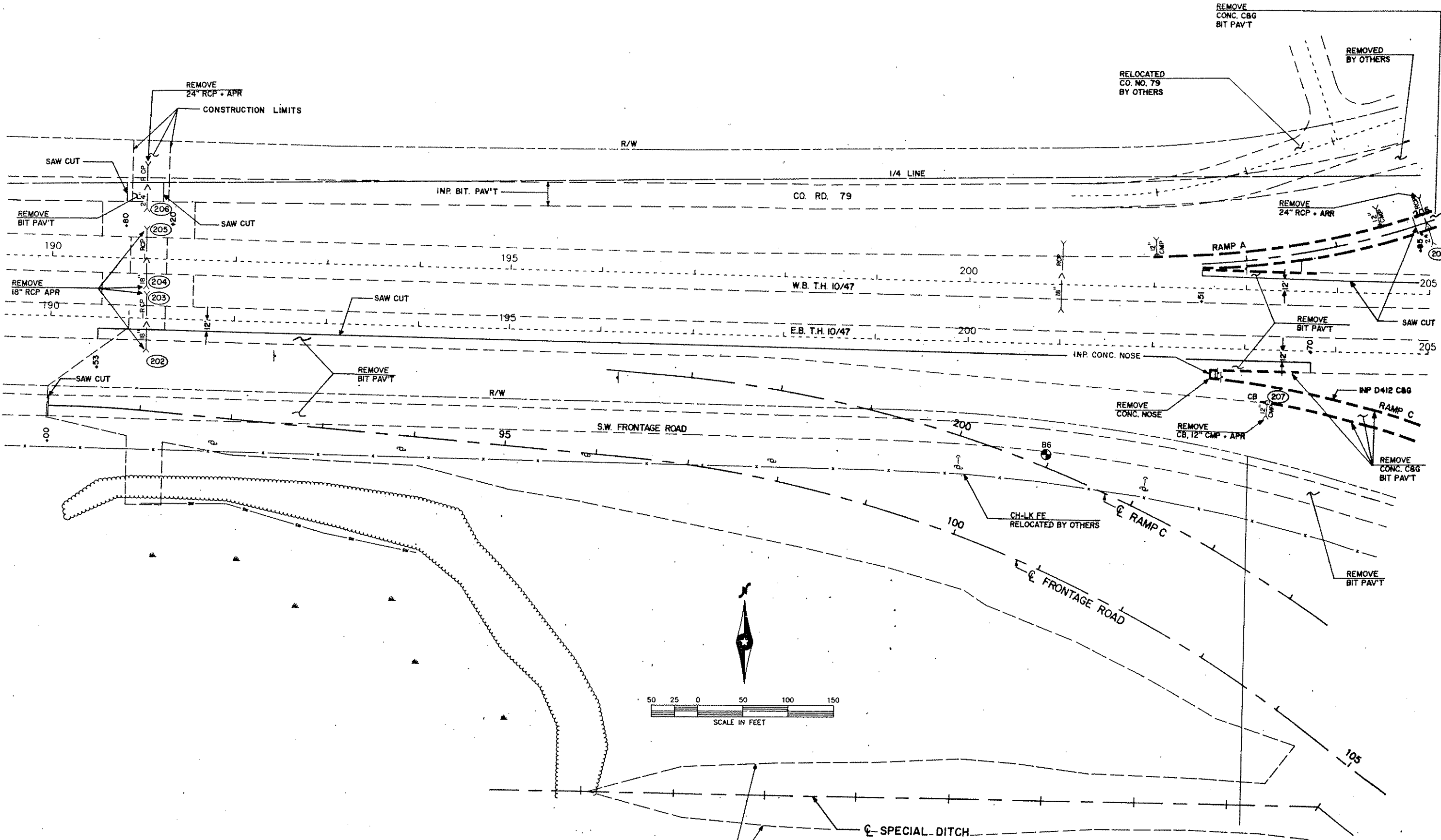
Date: 8-22-89 Minn. Reg. No. 12565



DESIGN BY: JRM
DRAWN BY: CTH
CHK'D BY:

ORIGINAL DATE	5-30-89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 EXISTING TOPOGRAPHY
 AND UTILITIES
 RLB STA. 48+00 - 62+50



CONSTRUCTION LIMITS

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. ...

Date: 9-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: CTR
 CHECKED BY:

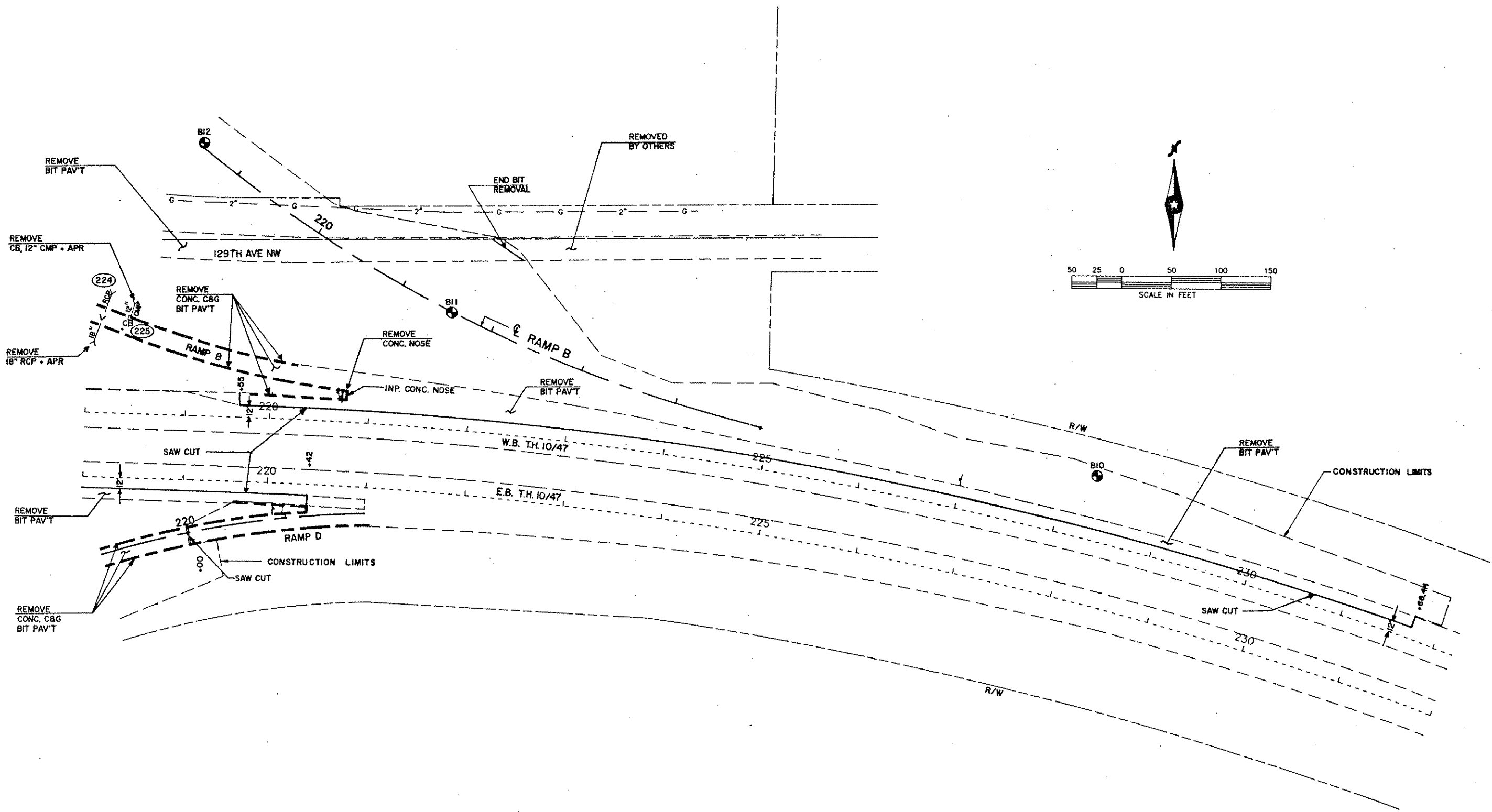
ORIGINAL DATE: 5-30-89
 REVISIONS:
 SURVEY BOOK:

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 EXISTING TOPOGRAPHY
 AND UTILITIES
 T.H. 10/47 STA. 189+50 - 205+00

S.A.P. NO. 02-609-08

SHEET 129 OF 256

DESIGN FILE No. 15-8840



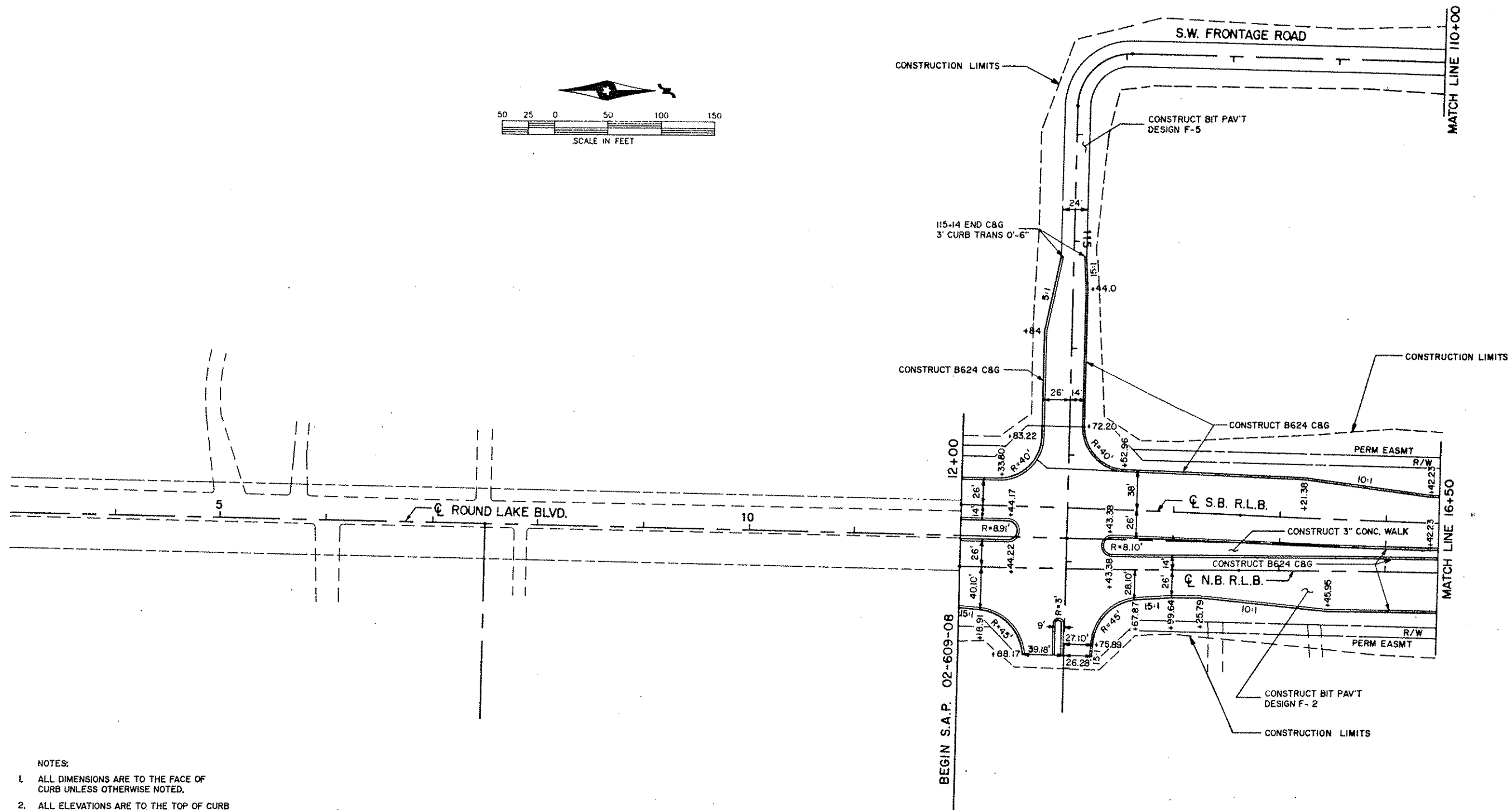
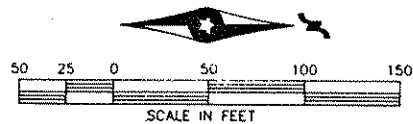
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen
 Date 8-22-89 Minn. Reg. No. 12655



ORIGINAL DATE	5-30-89
REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	LTM
CHECKED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
EXISTING TOPOGRAPHY
AND UTILITIES
 T.H. 10/47 STA. 218+00 - 232+00



- NOTES:
1. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 2. ALL ELEVATIONS ARE TO THE TOP OF CURB UNLESS OTHERWISE NOTED.
 3. ALL STATIONS SHOWN ON ROUND LAKE BLVD. ARE TO CORRESPONDING N.B. AND S.B. ALIGNMENTS UNLESS OTHERWISE NOTED.

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Boyd Paulsen

Date 8-22-89 Minn. Reg. No. 12666

BRW

BRW, INC.
913-370-0700
Minneapolis, Minnesota

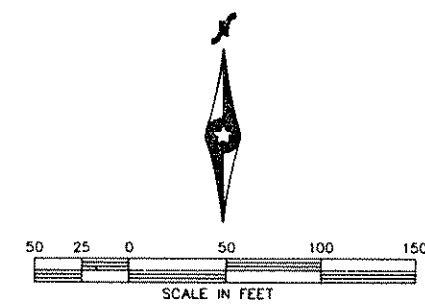
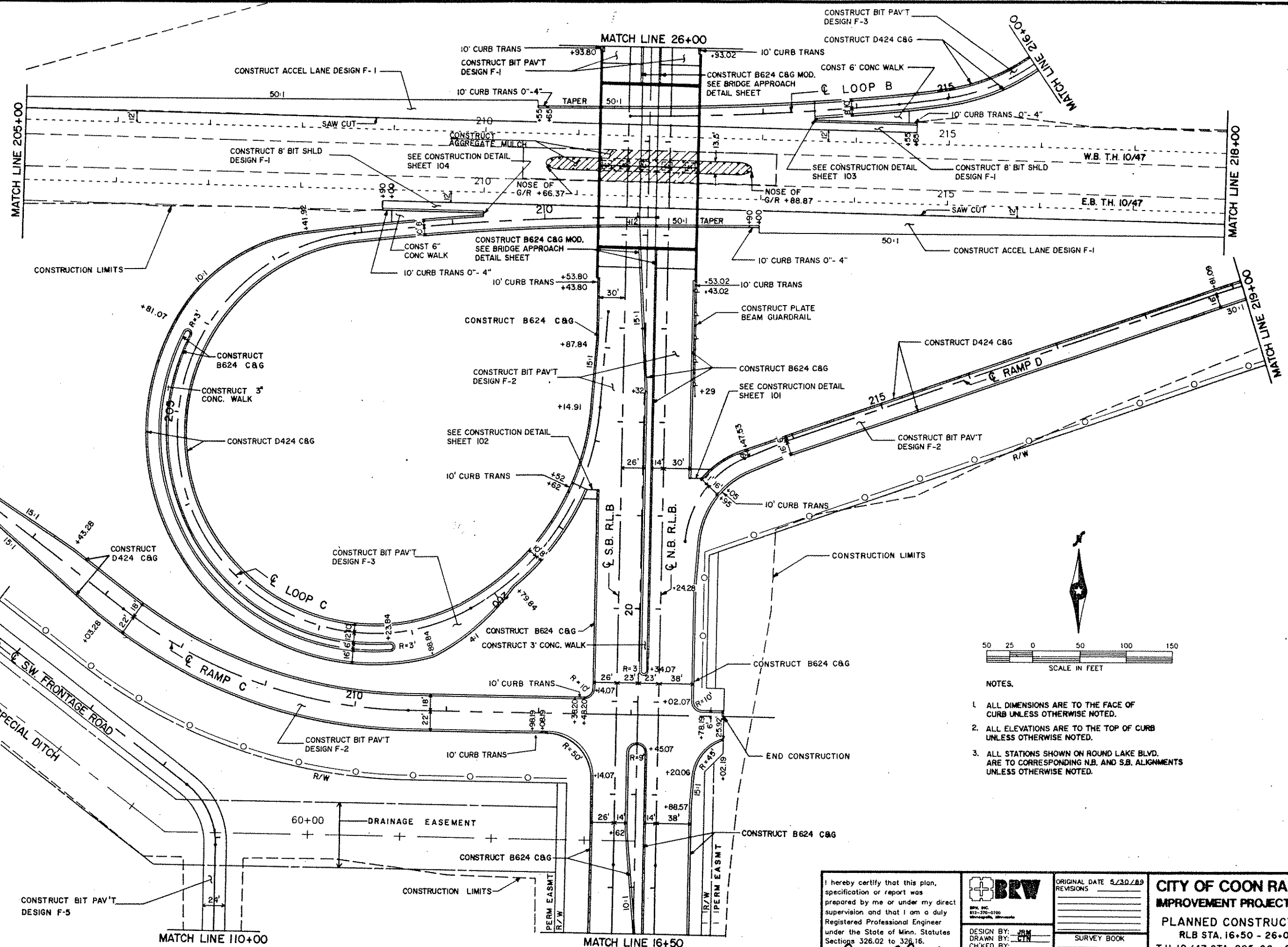
DESIGN BY: JRM
DRAWN BY: EYH
CHECKED BY:

ORIGINAL DATE	5/30/89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

PLANNED CONSTRUCTION
RLB STA. 12+00 - 16+50

DESIGN FILE
No. 16-884D



- NOTES.
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Boyd Blum

Date 8-22-89 Minn. Reg. No. 12655

BRW

BRW, INC.
812-376-0700
Minneapolis, Minnesota

DESIGN BY: JRM
DRAWN BY: CTN
CHECKED BY:

ORIGINAL DATE	5/30/89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS

IMPROVEMENT PROJECT 88-53

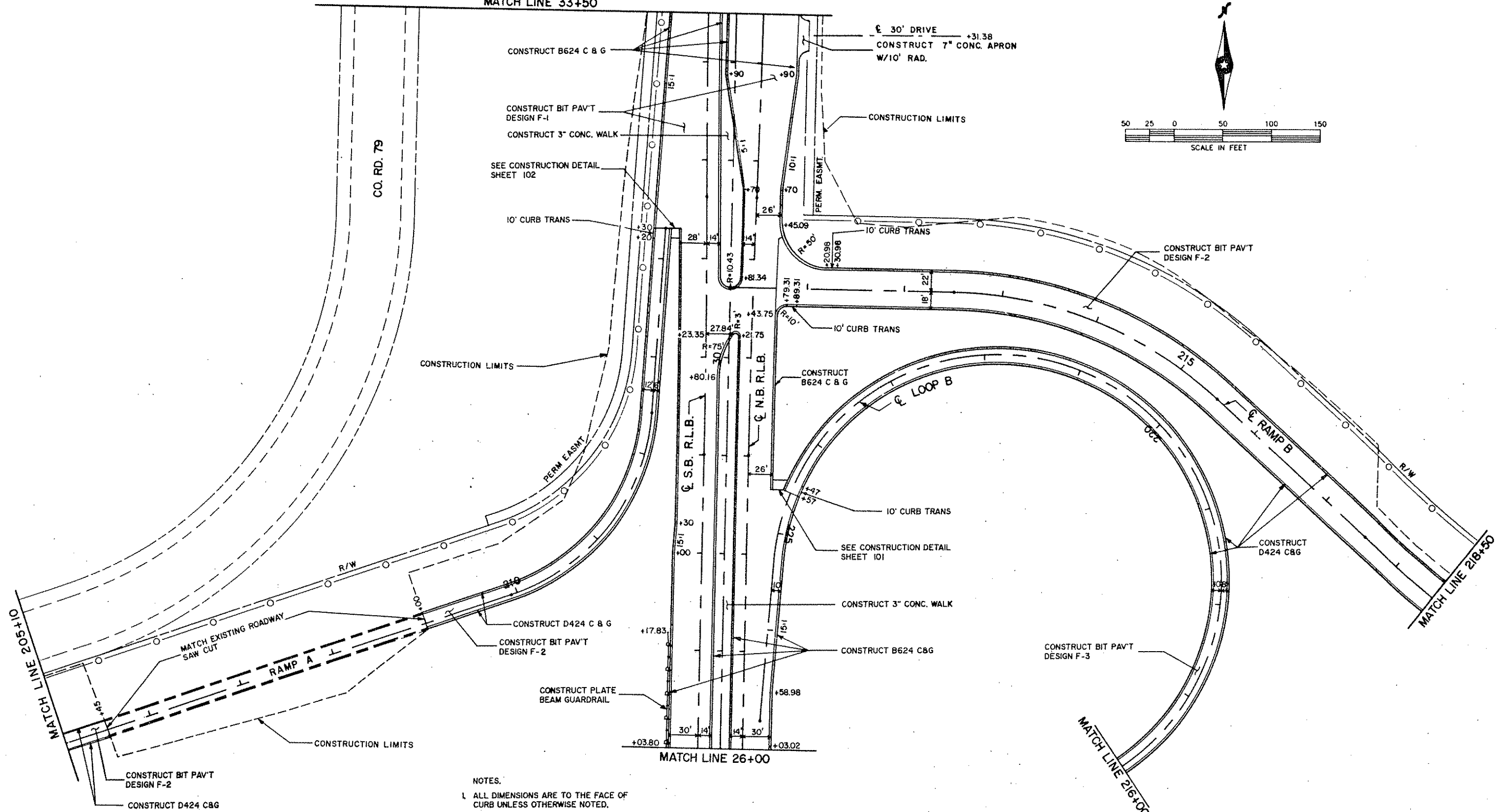
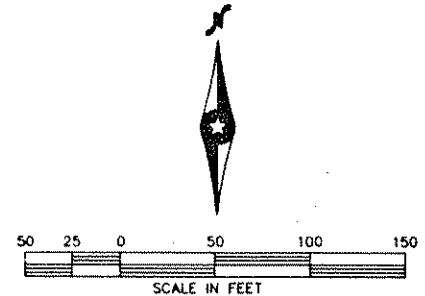
PLANNED CONSTRUCTION

RLB STA. 16+50 - 26+00
T.H. 10/47 STA. 205+00 - 218+00

S.A.P. NO. 02-609-08 SHEET 132 OF 256

DESIGN FILE No. 16-884D

MATCH LINE 33+50



- NOTES.
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 2. ALL ELEVATIONS ARE TO THE TOP OF CURB UNLESS OTHERWISE NOTED.
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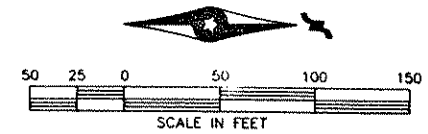
Boyd R. ...
 Date: 8-22-89, Minn. Reg. No. 12666

BRW
 BRW, INC.
 817-200-0700
 Minneapolis, Minnesota

ORIGINAL DATE	5/30/89
REVISIONS	
SURVEY BOOK	

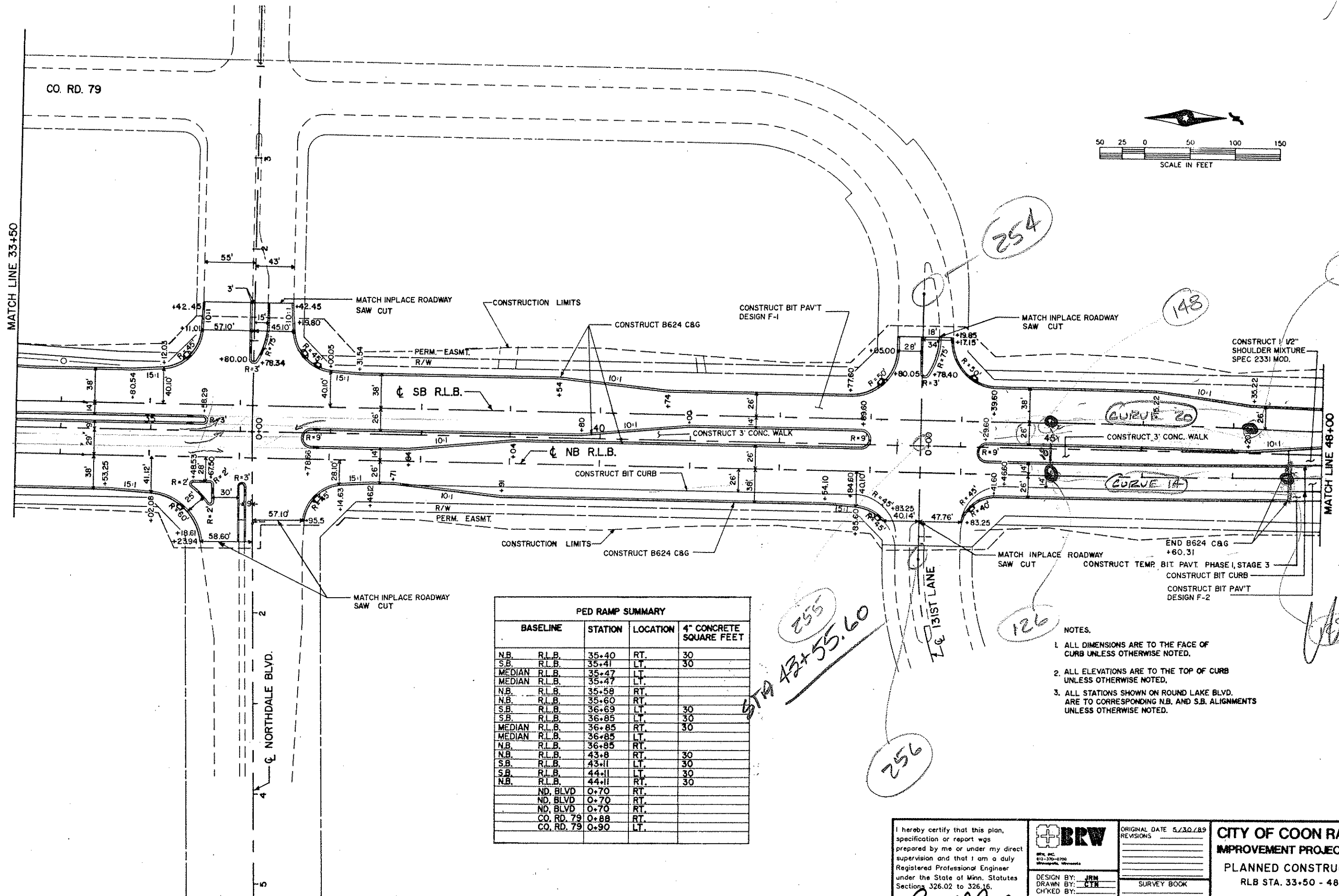
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
PLANNED CONSTRUCTION
 RLB STA. 26+00 - 33+50

CO. RD. 79



MATCH LINE 33+50

MATCH LINE 48+00



PED RAMP SUMMARY

BASELINE	STATION	LOCATION	4" CONCRETE SQUARE FEET
N.B. R.L.B.	35+40	RT.	30
S.B. R.L.B.	35+41	LT.	30
MEDIAN R.L.B.	35+47	LT.	
MEDIAN R.L.B.	35+47	LT.	
N.B. R.L.B.	35+58	RT.	
N.B. R.L.B.	35+60	RT.	
S.B. R.L.B.	36+69	LT.	30
S.B. R.L.B.	36+85	LT.	30
S.B. R.L.B.	36+85	LT.	30
MEDIAN R.L.B.	36+85	RT.	30
MEDIAN R.L.B.	36+85	LT.	
N.B. R.L.B.	36+85	RT.	
N.B. R.L.B.	43+8	RT.	30
S.B. R.L.B.	43+11	LT.	30
S.B. R.L.B.	44+11	LT.	30
N.B. R.L.B.	44+11	RT.	30
ND. BLVD	0+70	RT.	
ND. BLVD	0+70	RT.	
ND. BLVD	0+70	RT.	
CO. RD. 79	0+88	RT.	
CO. RD. 79	0+90	LT.	

- NOTES.**
1. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 2. ALL ELEVATIONS ARE TO THE TOP OF CURB UNLESS OTHERWISE NOTED.
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Boyd R. Bunker
Date: 8-22-89 Minn. Reg. No. 12668

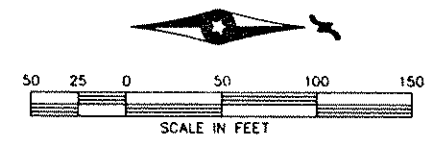
BRW
DESIGN BY: JRM
DRAWN BY: CTR
CHECKED BY:

ORIGINAL DATE 5/30/89
REVISIONS:
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
PLANNED CONSTRUCTION
RLB STA. 33+50 - 48+00

CITY OF COON RAPIDS

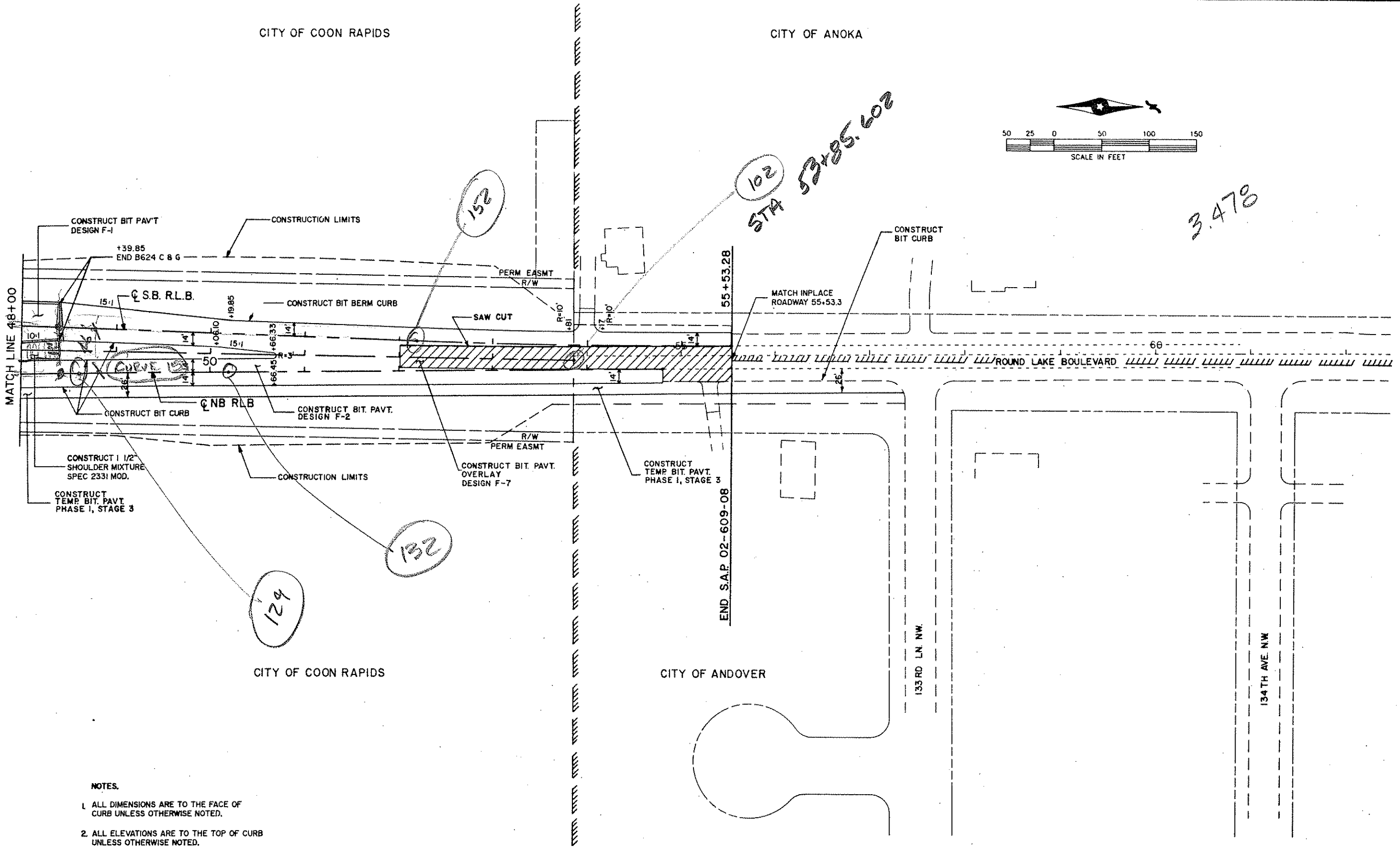
CITY OF ANOKA



3.478

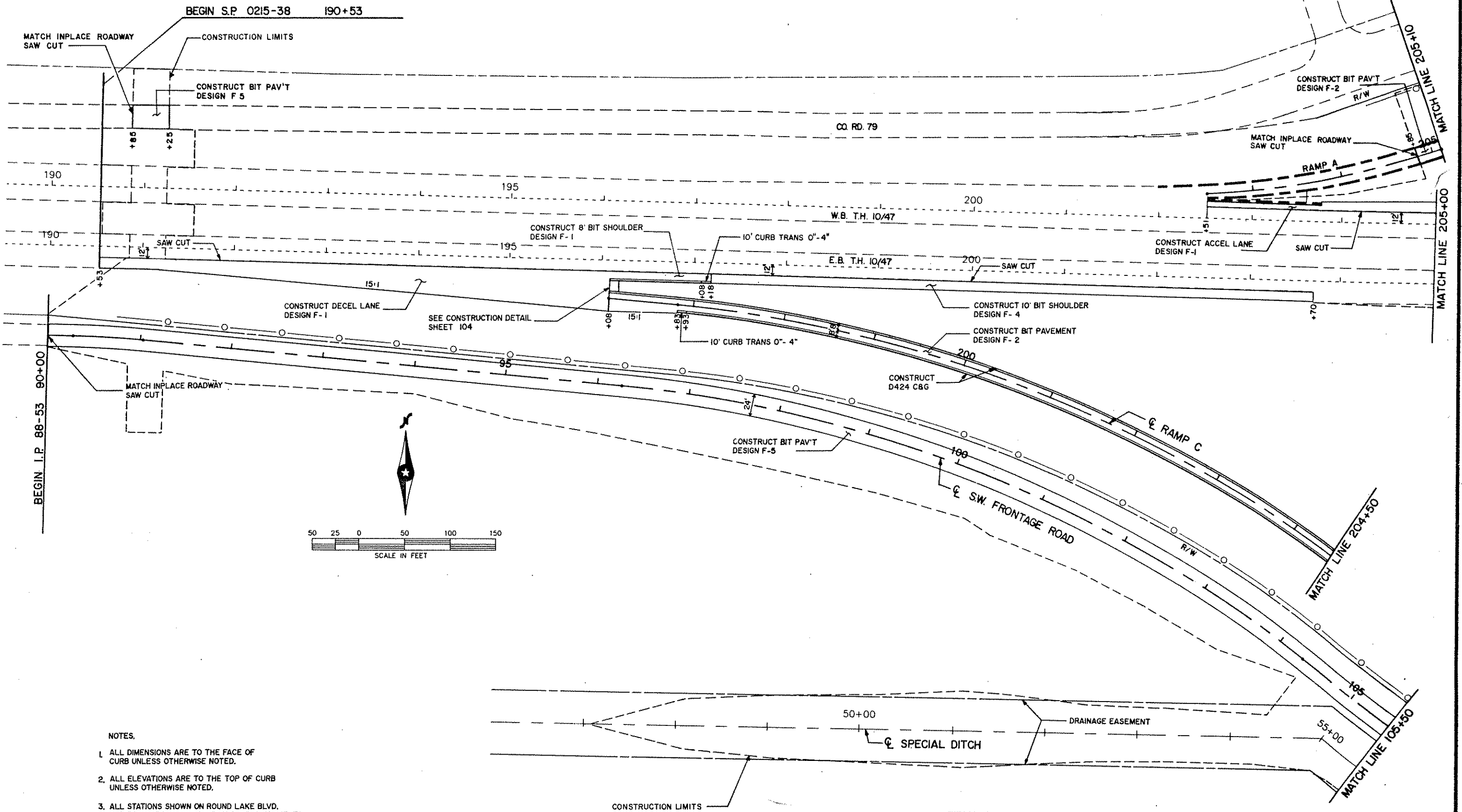
102
STA 53+85.602

55+53.28
END S.A.P. 02-609-08




- NOTES.
1. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
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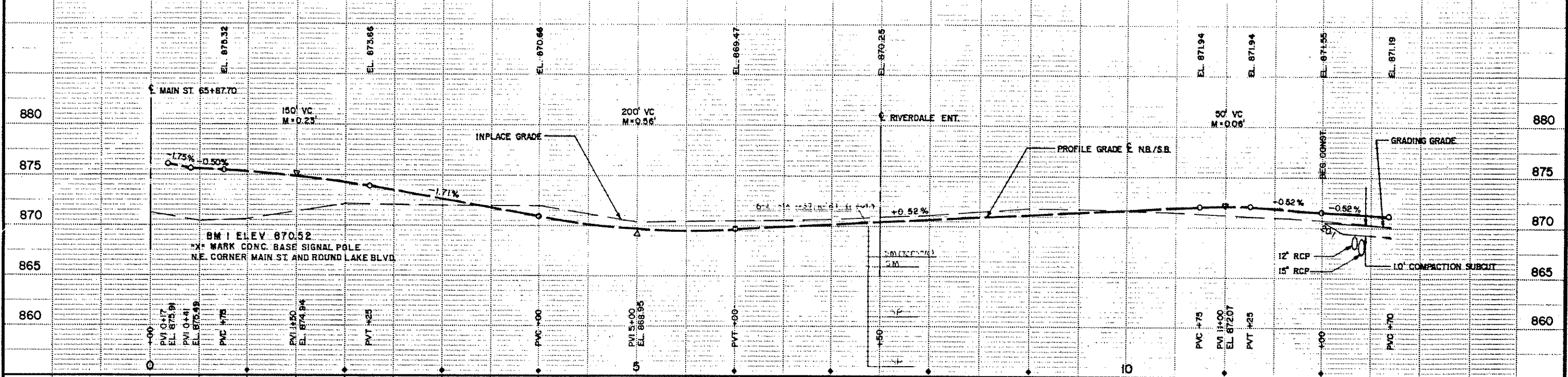
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paulsen</i> Date: 8-22-89 Minn. Reg. No. 12666		ORIGINAL DATE 6/14/89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 PLANNED CONSTRUCTION RLB STA. 48+00 - 62+50
		DESIGN BY: JRM DRAWN BY: CTM CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 135 OF 256	DESIGN FILE No. 15-884Q



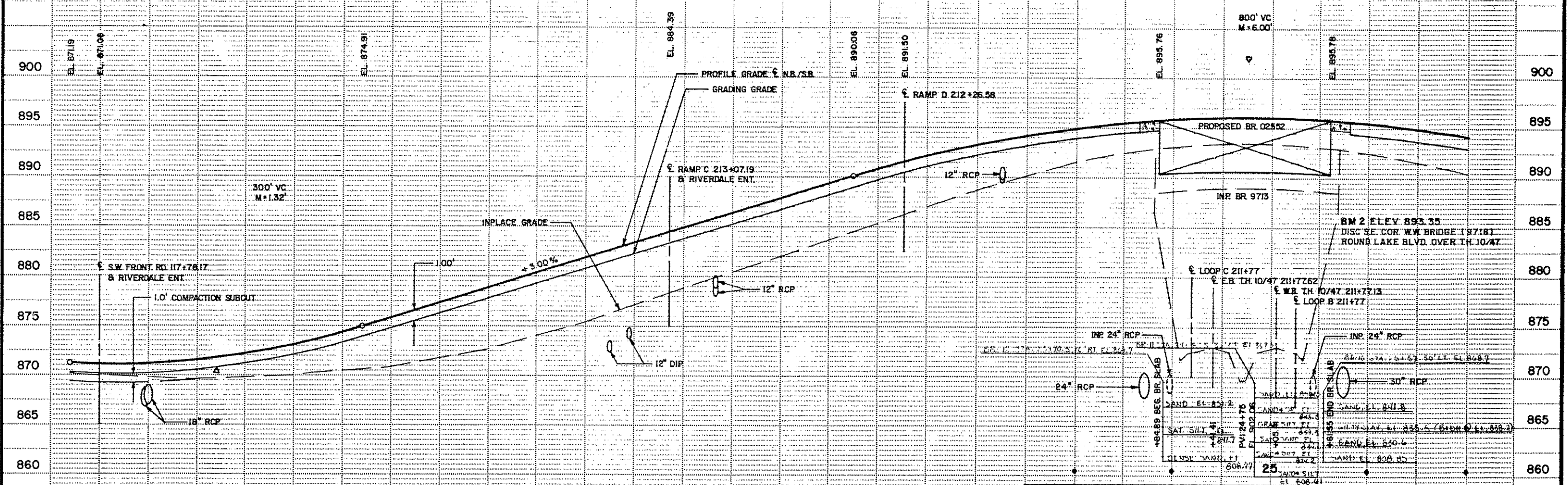
- NOTES.
1. ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
 2. ALL ELEVATIONS ARE TO THE TOP OF CURB UNLESS OTHERWISE NOTED.
 3. ALL STATIONS SHOWN ON ROUND LAKE BLVD. ARE TO CORRESPONDING N.B. AND S.B. ALIGNMENTS UNLESS OTHERWISE NOTED.

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		DESIGN BY: JRM DRAWN BY: ETR CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 136 OF 256	DESIGN FILE No. 16-884D

ROUND LAKE BLVD. (C.S.A.H. #9)



ROUND LAKE BLVD. (C.S.A.H. #9)



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Boyd Paul

Date 8-22-89 Minn. Reg. No. 2666

	ORIGINAL DATE	4/19/89
	REVISIONS	
DESIGN BY JRM	SURVEY BK NO.	
DRAWN BY LER		

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROADWAY PROFILES
 ROUND LAKE BLVD. (C.S.A.H. #9)
 0+00 - 27+00

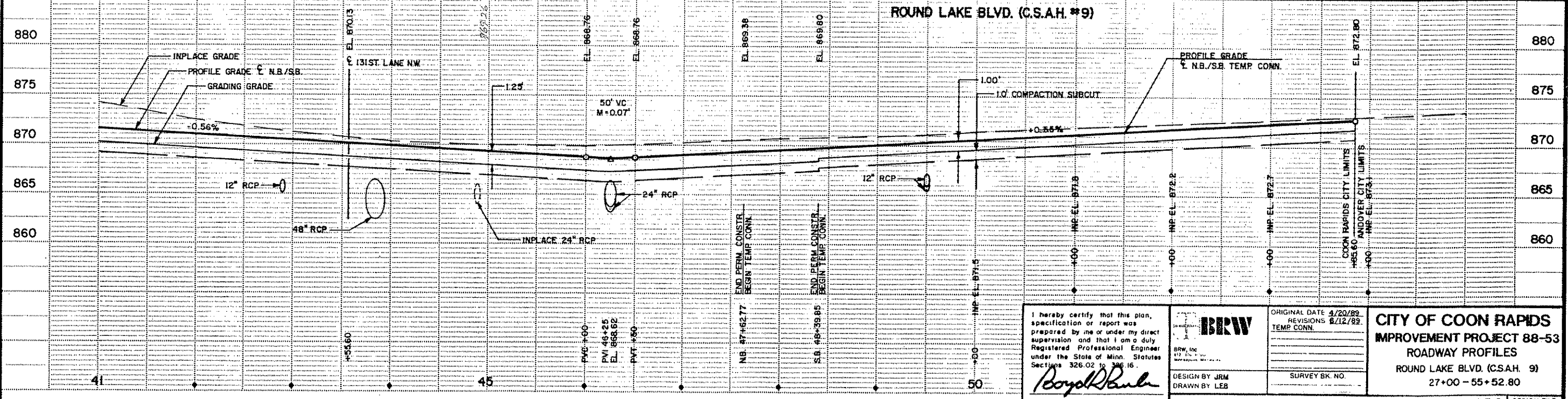
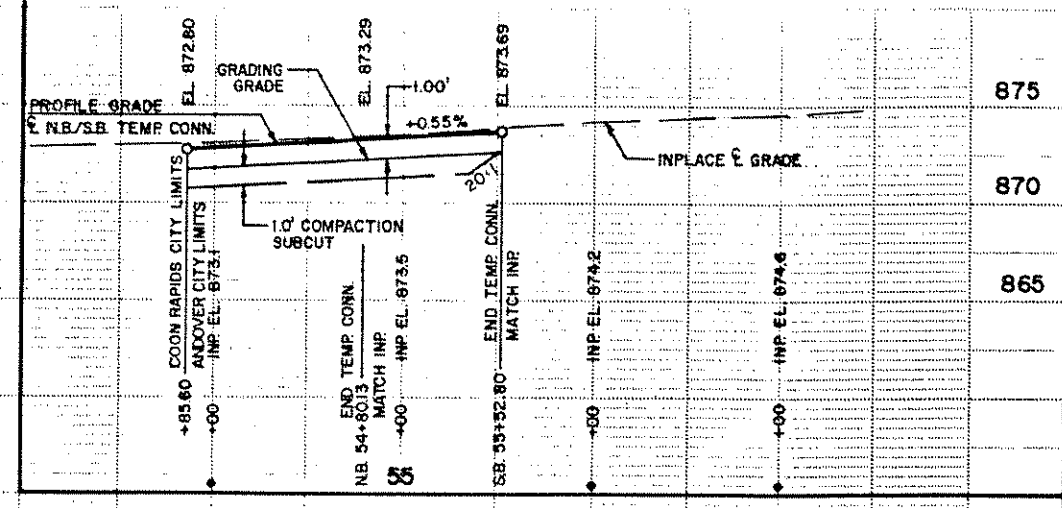
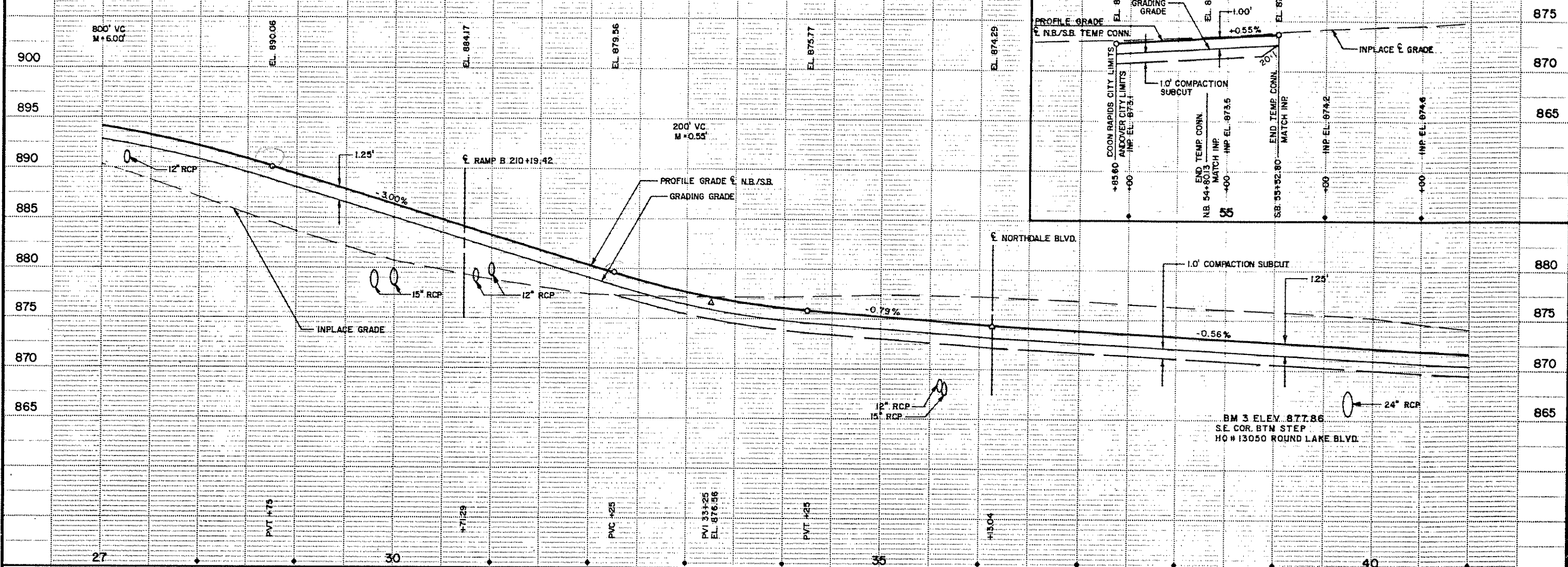
S.A.P. NO. 02-609-08

SHEET 138 OF 256

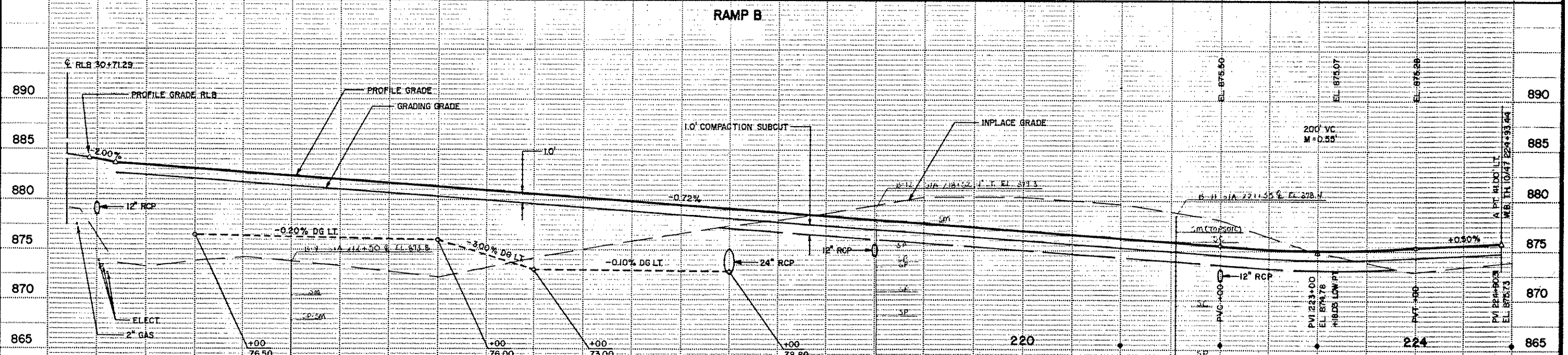
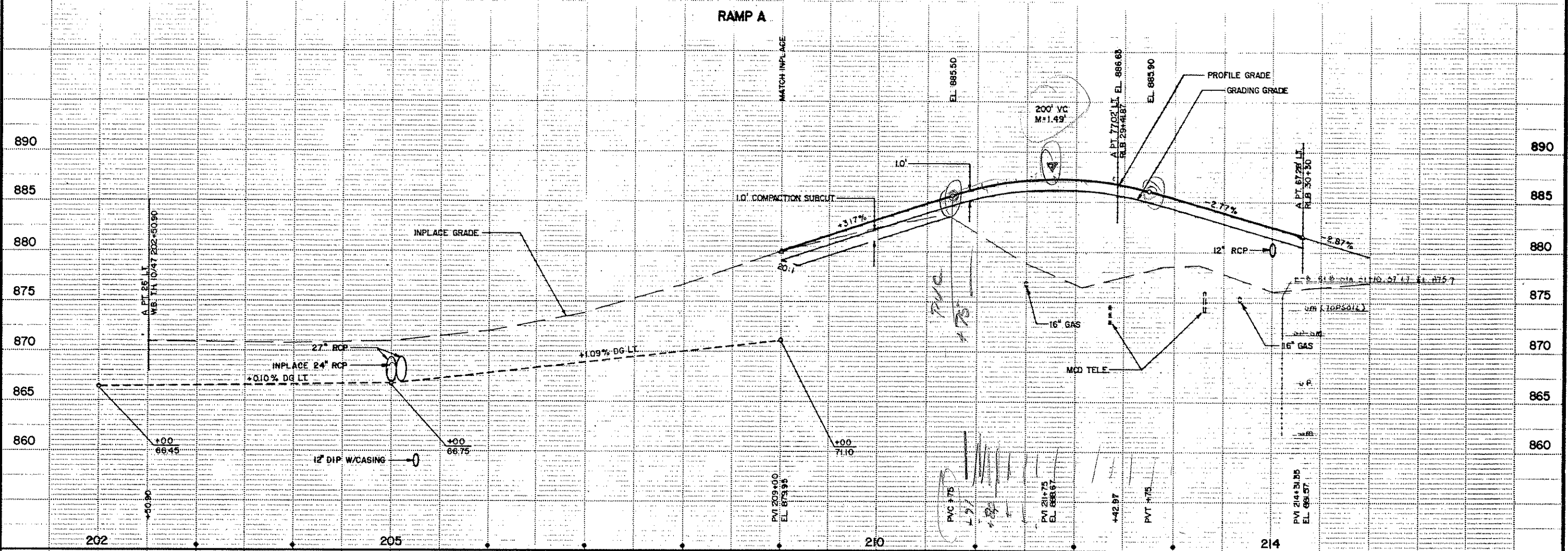
DESIGN FILE No 16-8940

FULL PROFILE DOTTED

ROUND LAKE BLVD. (C.S.A.H. #9)



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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Royce Paul</i> Date 8-22-89 Minn. Reg. No. 12666	BRW, Inc. 117 1/2 Hennepin Ave.	ORIGINAL DATE 4/20/89 REVISIONS 8/12/89 TEMP. CONN.	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 ROADWAY PROFILES ROUND LAKE BLVD. (C.S.A.H. 9) 27+00 - 55+52.80
		DESIGN BY JRM DRAWN BY LEB	



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paul

Date 8-22-89 Minn. Reg. No. 12666

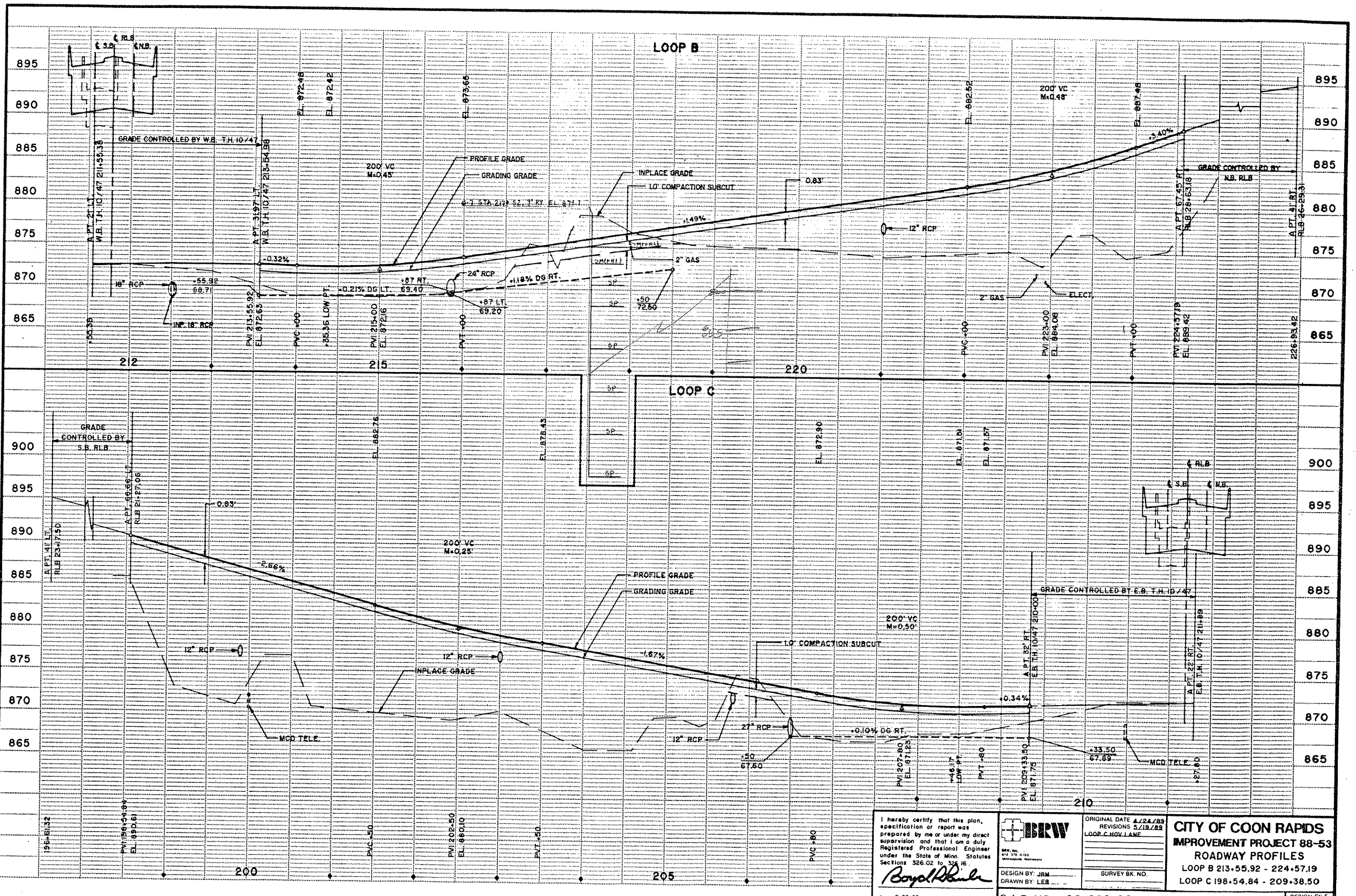
 BRW, Inc. 417 2nd St. S. Minneapolis, MN 55402	ORIGINAL DATE 4/26/89 REVISIONS
	DESIGN BY JRM DRAWN BY LEB
SURVEY BK NO.	
S.A.P. NO. 02-609-08	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROADWAY PROFILES
 RAMP A 209+00-214+31.35
 RAMP B 210+42.42-224+90.31

SHEET 140 OF 256

DESIGN FILE No. 16-8940

PAL: PMS:ALL: NOTED



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 State of Minn. Statutes Sections 326.02 to 326.16

Boyd Paul

Date 8-22-82 Minn. Reg. No. 12666

BRW

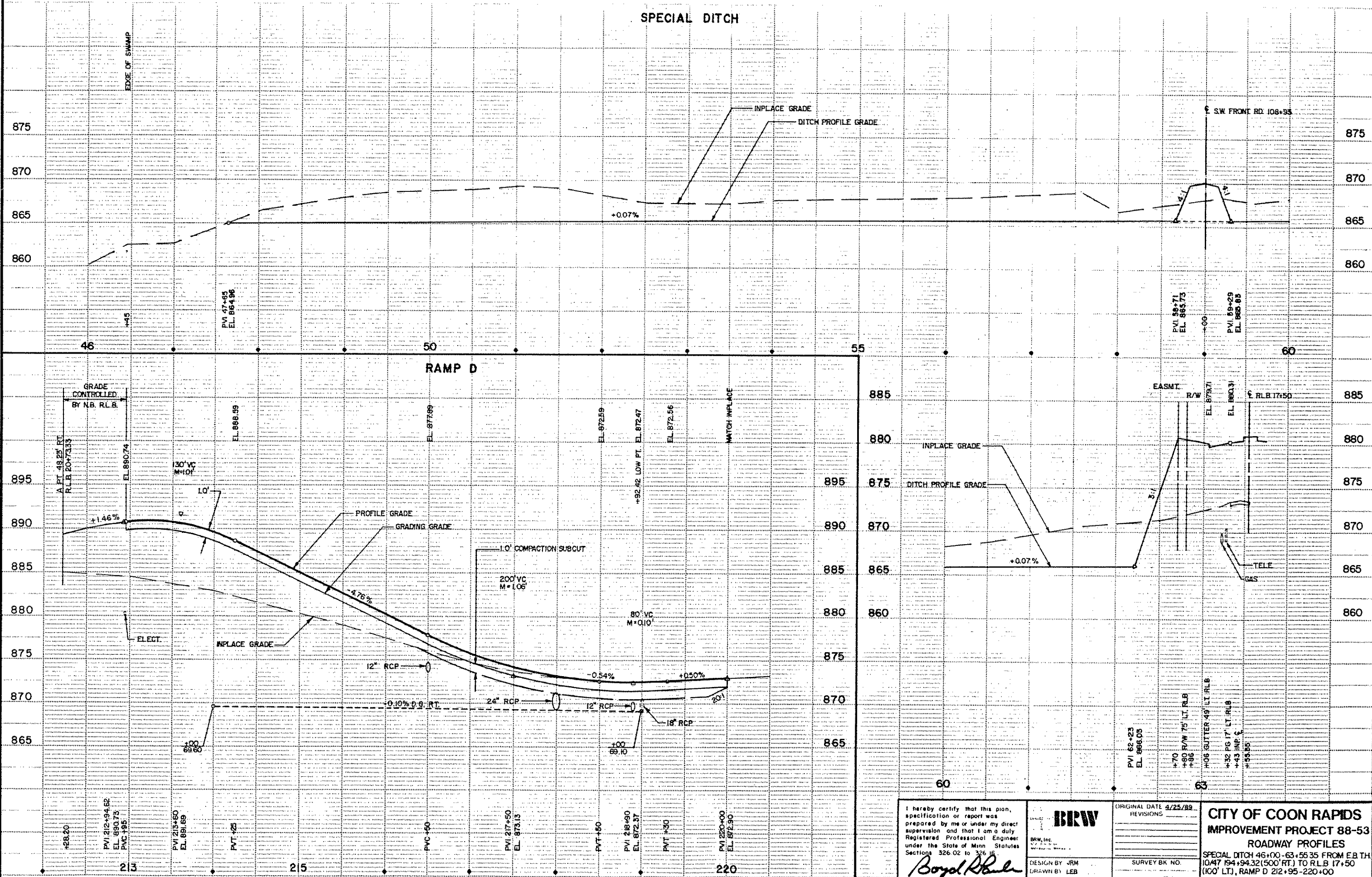
DESIGN BY: JRM
DRAWN BY: LEB

ORIGINAL DATE 4/24/83
REVISIONS 5/18/83
LOOP C NOV 1 AME

SURVEY BK NO

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROADWAY PROFILES
LOOP B 213+55.92 - 224+57.19
LOOP C 198+54.84 - 209+38.50

SPECIAL DITCH



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 State of Minn. Statutes Sections 326.02 to 326.15

Boyd Paul

Date 8-22-89 Minn. Reg. No. 1266E.

BRW
 BRW, Inc.
 DESIGN BY JRM
 DRAWN BY LEB

ORIGINAL DATE 4/25/89
 REVISIONS
 SURVEY BK NO.

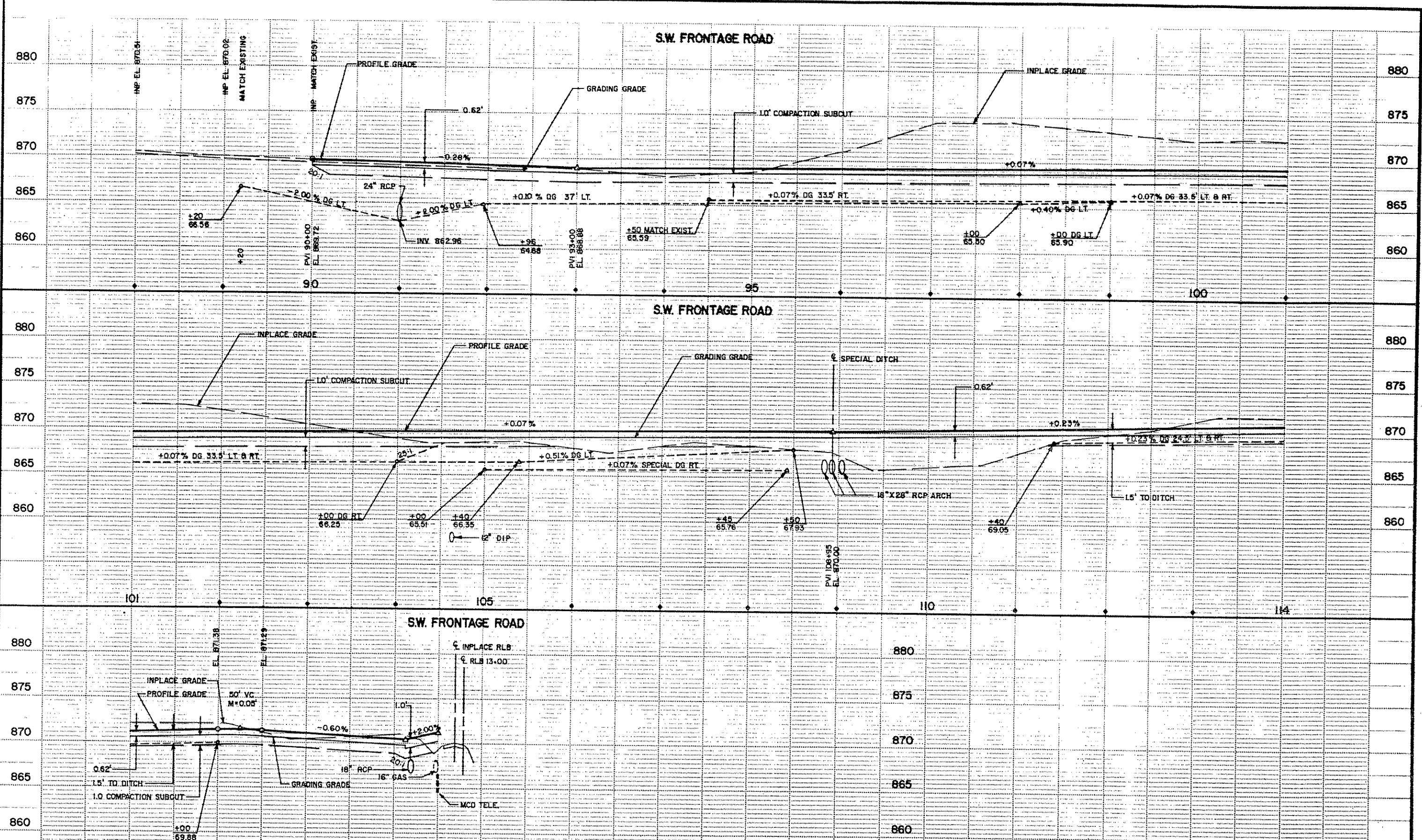
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROADWAY PROFILES
 SPECIAL DITCH 46+00-63+55.35 FROM E.B. TH. 10/47 194+94.32 (500' RT.) TO R.L.B. 17+50 (100' LT.), RAMP D 212+95-220+00

S.A.P. NO. 02-609-08

SHEET 143 OF 256

DESIGN FILE No 16-8840

PLAN PROFILE DOTTED



PAUL PEDRINI DOTTED

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. ...

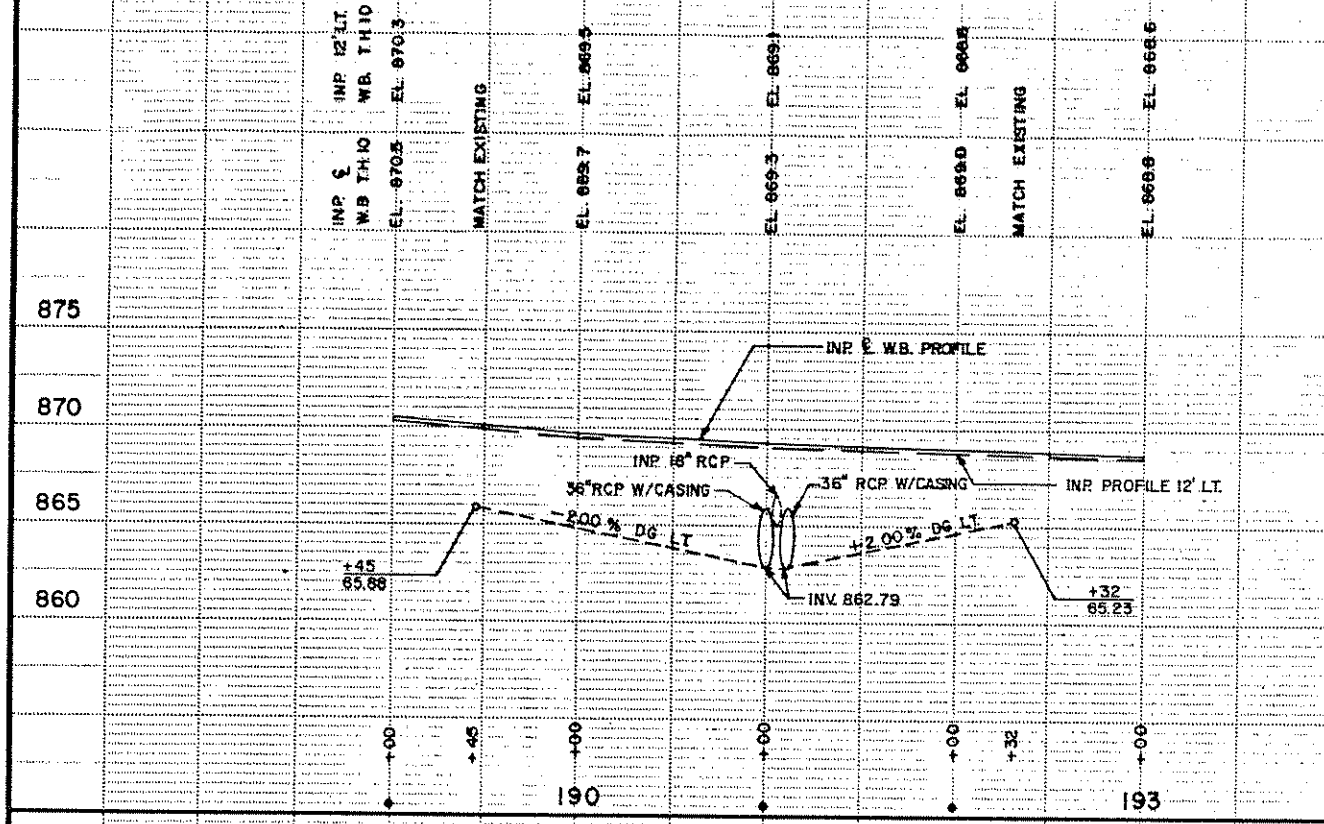
Date 8-22-83, Minn. Reg. No. 12666

<p>BRW, Inc. 417 110 Ave. Minneapolis, Minnesota</p>	ORIGINAL DATE 1/18/82 REVISIONS
	DESIGN BY JRM DRAWN BY LEB
SURVEY BK NO	

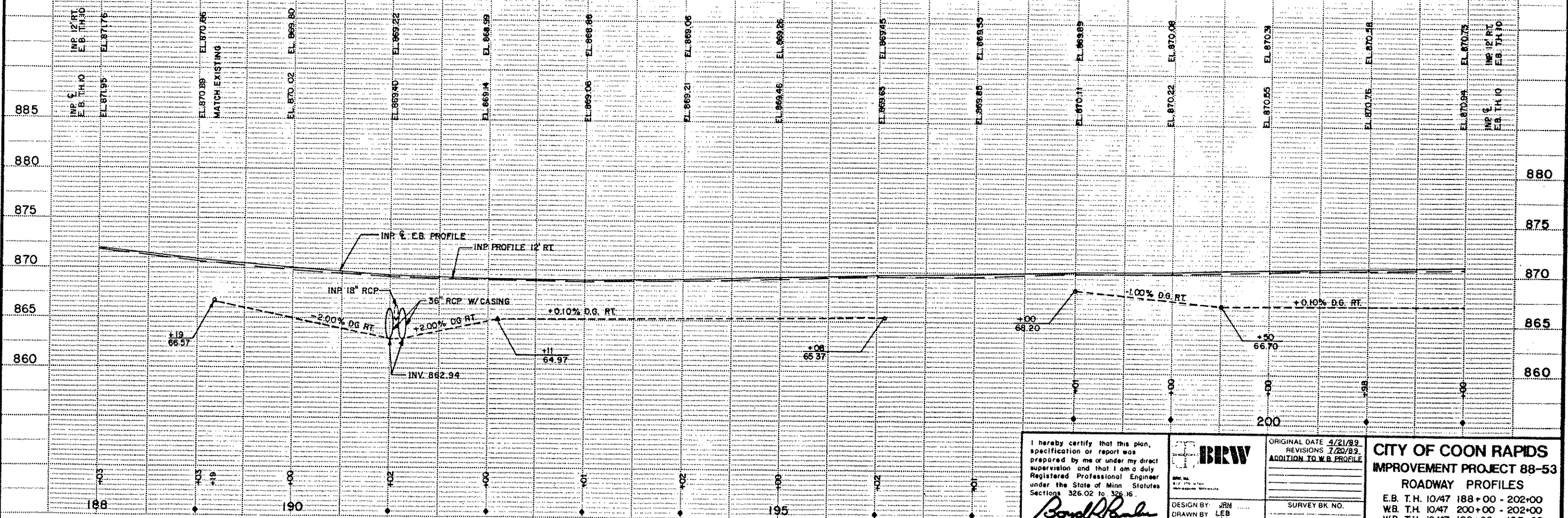
CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 ROADWAY PROFILES S.W. FRONTAGE ROAD 90+00 - 117+11.61
S.A.P. NO. 02-609-08
SHEET 144 OF 256

DESIGN FILE No 16-8840

INPLACE W.B. T.H. 10/47



INPLACE E.B. T.H. 10/47



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 State of Minn Statutes Sections 326.02 to 326.16.

Boyd R. Rasmussen

Date: 8-22-89, Minn. Reg. No. 1256E.

IBRW

DESIGN BY JRM
DRAWN BY LEB

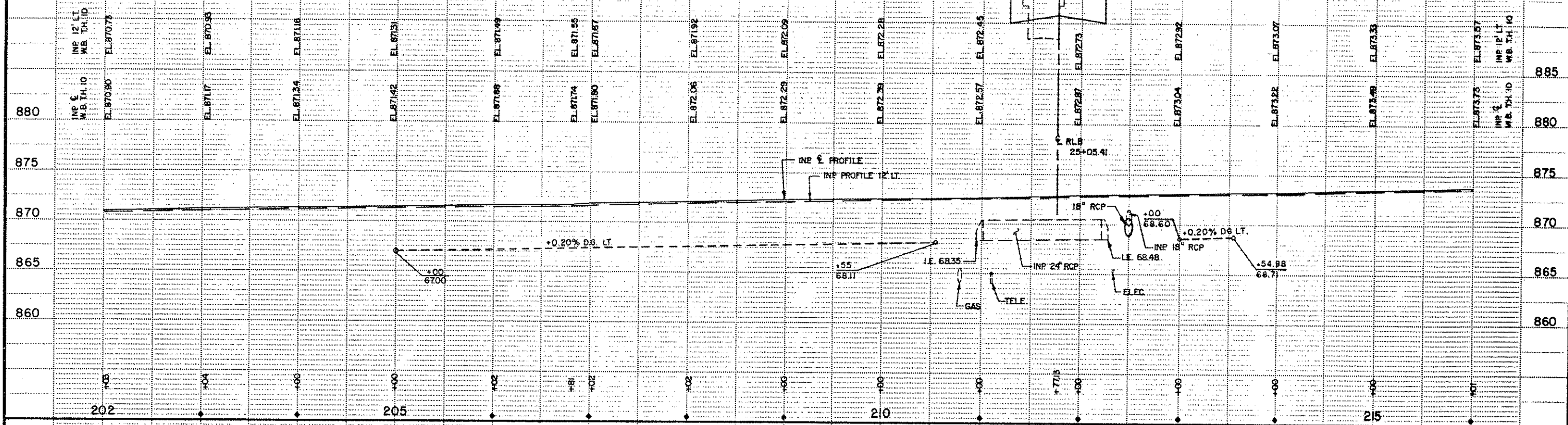
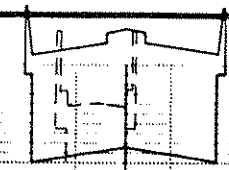
ORIGINAL DATE 4/21/89
REVISIONS 7/20/89
ADDITION TO W.B. PROFILE

SURVEY BK. NO.

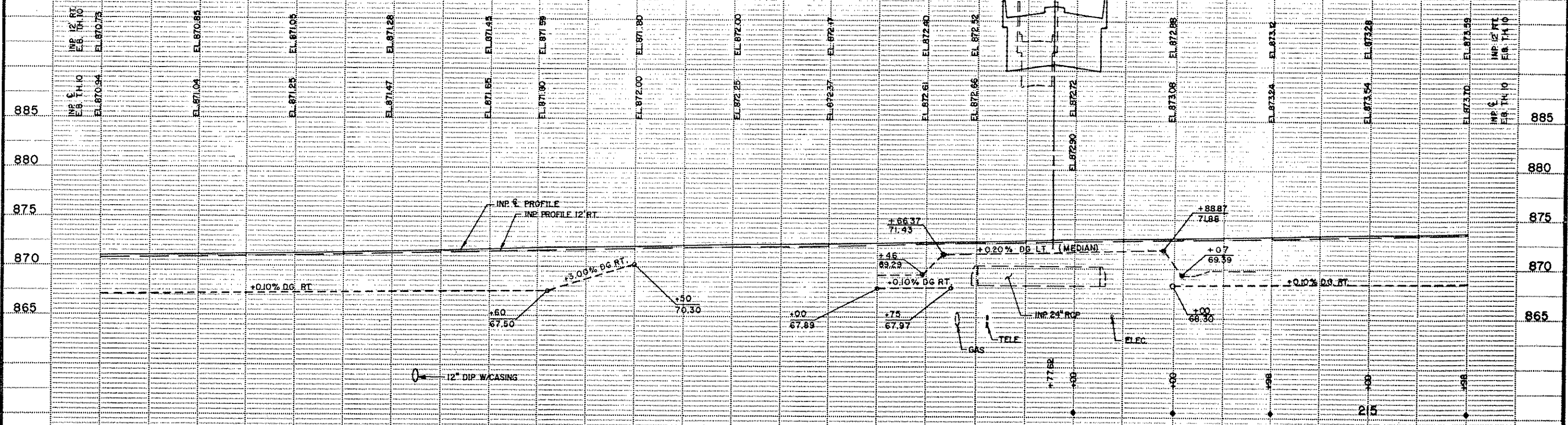
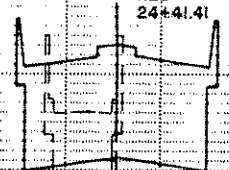
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROADWAY PROFILES

E.B. T.H. 10/47 188+00 - 202+00
W.B. T.H. 10/47 200+00 - 202+00
W.B. T.H. 10/47 189+00 - 193+00

INPLACE W.B. T.H. 10/47



INPLACE E.B. T.H. 10/47



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Banker

Date 8-22-89 Minn. Reg. No. 12656.



ORIGINAL DATE	4/28/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 ROADWAY PROFILES
 E.B. T.H. 10/47 202+00 - 216+00
 W.B. T.H. 10/47 202+00 - 216+00

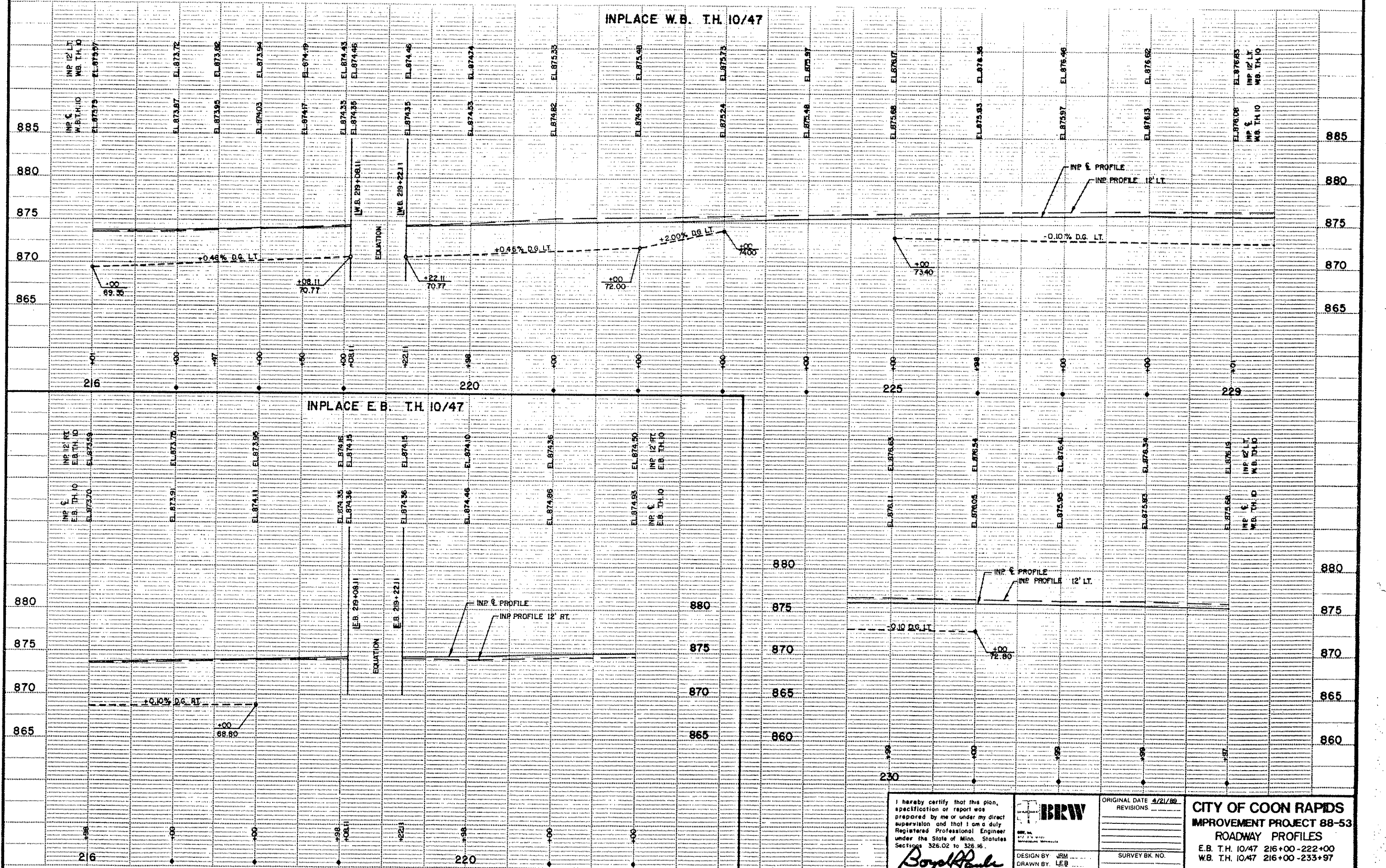
S.A.P. NO. 02-609-08

SHEET 146 OF 256

DESIGN FILE No 16-8840

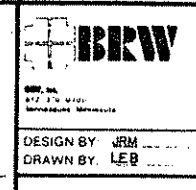
INPLACE W.B. T.H. 10/47

INPLACE E.B. T.H. 10/47



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Boyd



ORIGINAL DATE 4/21/89
 REVISIONS
 SURVEY BK. NO.

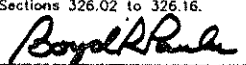

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROADWAY PROFILES
 E.B. T.H. 10/47 216+00-222+00
 W.B. T.H. 10/47 216+00-233+97

Date 8-22-89 Minn. Reg. No 12666.

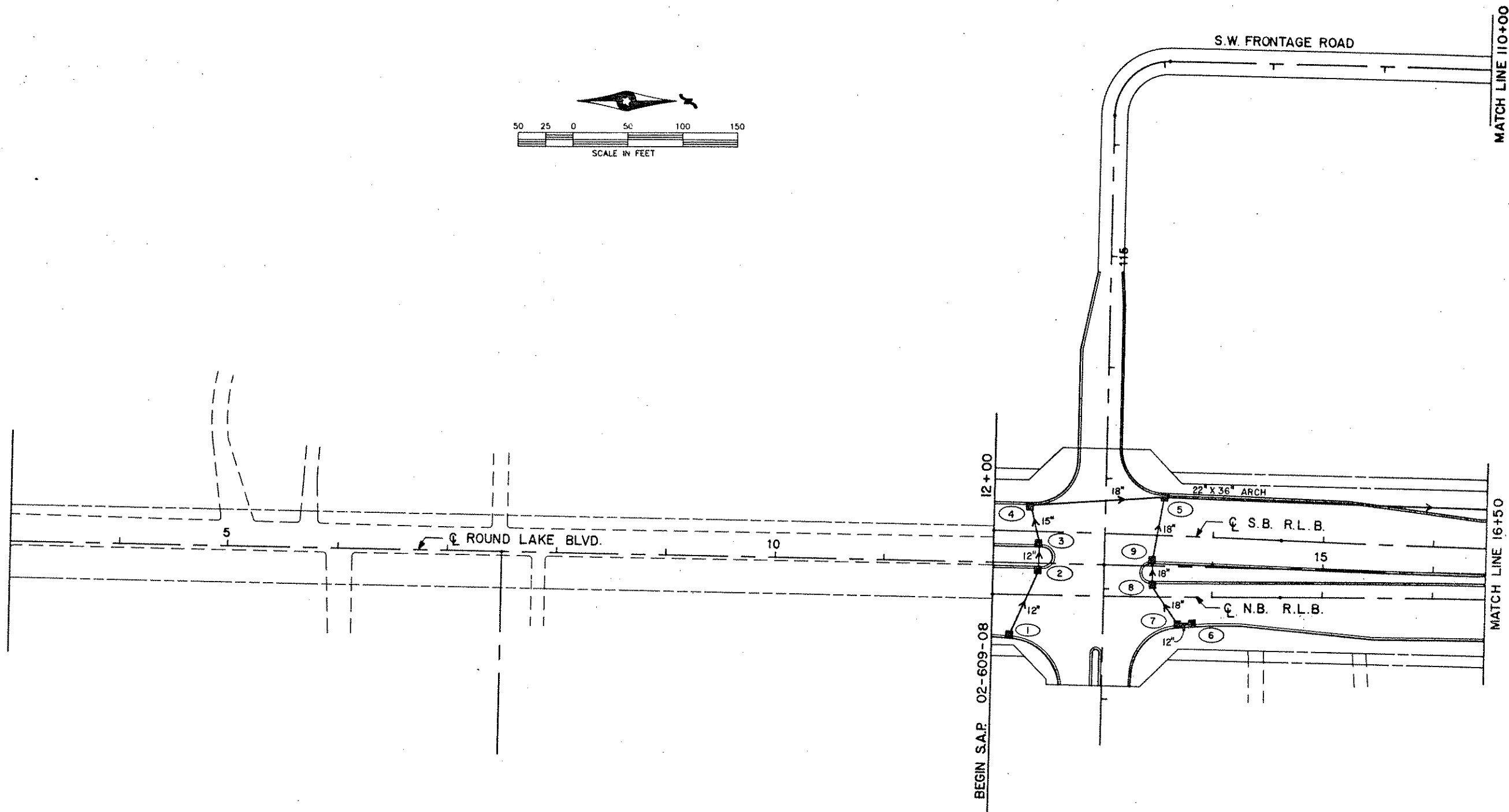
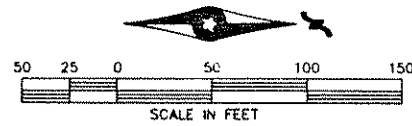
DESIGN BY JRM
 DRAWN BY LEB
 S.A.P. NO. 02-609-08

SHEET 147 OF 256
 DESIGN FILE No 16-8840

INPLACE DRAINAGE TABULATION														(N)
LINE NO.	STRUCT NO.	STATION	LOCATION	INPLACE ITEM	SALVAGE CASTING ASSEMBLY	REMOVE				OWNERSHIP	TOP OF CASTING			REMARKS
						M.H. OR C.B.	PIPE SEWER	PIPE CULVERT	CONC APRON		PROPOSED ELEV.	INPLACE ELEV.	ADJUST EACH	
131 LANE NW														
1	200	0+81 TO 0+91	55'LT TO 30'LT	30" CMP, APRON	1			27		COON RAPIDS	869.30	869.30	1	BULKHEAD OPENING IN MH
ROUND LAKE BLVD														
2	201	44+90	58'LT TO 44'RT	24" RCP				90	2	ANOKA COUNTY				
E.B. TH 10/47														
3	202	191+05	35'RT	18" RCP					1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
4	203	191+05	29'LT	18" RCP					1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
W.B. TH 10/47														
5	204	191+03	31'RT	18" RCP					1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
6	205	191+03	35'LT	18" RCP					1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
7	206	191+01	50'LT TO 104'LT	18" RCP					1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
E.B. TH 10/47														
8	207	203+26	56'RT TO 70'RT	12" CMP, APRON		1	12			MNDOT				
RAMP A														
8	208	205+00	28'LT TO 22'LT	24" RCP				38	2	MNDOT				
E.B. TH 10/47														
10	209	205+80 TO 205+86	128'RT TO 146'RT	24" RCP				34	2	MNDOT				
11	210	205+80 TO 205+86	128'RT TO 146'RT	12" CMP, APRON		1	16			MNDOT				
LOOP C														
12	211	206+17 TO 206+70	82'RT TO 88'RT	12" CMP, APRON		1	30			MNDOT				
E.B. TH 10/47														
13	212	210+96 TO 212+32	43'RT	24" RCP				124	2	MNDOT				
RAMP D														
14	213	216+00	12'RT TO 32'RT	12" CMP, APRON		1	18			MNDOT				
15	214	218+00	12'RT TO 26'RT	12" CMP, APRON		1	12			MNDOT				
16	215	218+92	12'RT TO 26'RT	12" CMP, APRON		1	12			MNDOT				
17	216	219+00	20'LT TO 26'RT	18" RCP				34	2	MNDOT				
LOOP B														
18	217	222+55 TO 223+32	87'LT TO 105'LT	18" RCP				36	2	MNDOT				
19	218	215+72 TO 216+62	166'LT TO 178'LT	12" CMP, APRON		1	24			MNDOT				
20	219	215+76 TO 216+93	96'LT TO 127'LT	18" RCP				54	2	MNDOT				
W.B. TH 10/47														
21	220	217+55 TO 217+60	123'LT TO 138'LT	12" CMP, APRON		1	12			MNDOT				
22	221	210+96 TO 212+30	39'LT	24" RCP				122	2	MNDOT				
23	222	212+52	24'RT	18" RCP					1	MNDOT				
24	223	212+52	30'LT	18" RCP					1	MNDOT				
25	224	218+08 TO 218+22	71'LT TO 118'LT	18" RCP				38	2	MNDOT				
26	225	218+43 TO 218+48	95'LT TO 112'LT	12" CMP		1	14			MNDOT				
ROUND LAKE BLVD														
27	226	54+27	27'RT	CB		1				ANOKA COUNTY	872.53	872.65	1	
28	227	54+21	11'LT	MH		1				ANOKA COUNTY	872.95	873.03	1	
29	228	54+27	24'LT	CB		1				ANOKA COUNTY	872.53	872.65	1	
30	229	54+27	42'RT	MH		1				ANOKA COUNTY	873.00	873.00	1	

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 State of Minn. Statutes Sections 326.02 to 326.16.  Date: 8-22-89 Minn. Reg. No. 12666	 BRW, INC. 612-336-0700 Minneapolis, Minnesota	ORIGINAL DATE 4/18/89 REVISIONS _____ _____ _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 INPLACE DRAINAGE TABULATION	
		DESIGN BY: SPJ DRAWN BY: PLU CHECKED BY: _____		SURVEY BOOK _____
		S.A.P. NO. 02-609-08		SHEET 148 OF 256

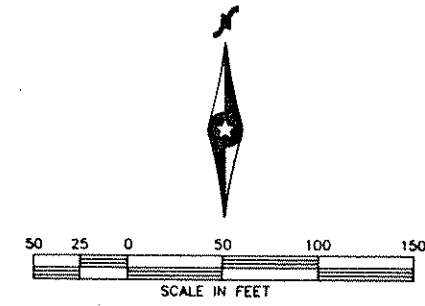
DESIGN FILE No. 88-8840



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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paul</i> Date 8-22-89 Minn. Reg. No. 12666	 BRW, INC. 812-370-0700 Minneapolis, Minnesota	ORIGINAL DATE 6/12/89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 DRAINAGE AND UTILITY PLAN RLB STA. 3+00 - 16+50
		DESIGN BY: JRM DRAWN BY: JTH CH'KED BY:	
S.A.P. NO. , 02-609-08		SHEET 152 OF 256	DESIGN FILE No. 16-8840

MATCH LINE 33+50

CO. RD. 79



RAMP A 205+25 - 75' LT
REMOVE PLUG
PL 12" RSV
CONNECT TO INP 12" DIP

MATCH LINE 205+10

PL 12" DIP

RAMP C - 205+25
PL 54'-20" x 0.375" STL CASING (OPEN CUT)
12" DIP W/RESTR. JT.

PL 22 1/2" BEND

RAMP A

MATCH LINE 26+00

S.B. R.L.B.

N.B. R.L.B.

LOOP B

RAMP B

MATCH LINE 216+00

MATCH LINE 218+50

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Boyd Paul

Date: 8-22-89 Minn. Reg. No. 12666



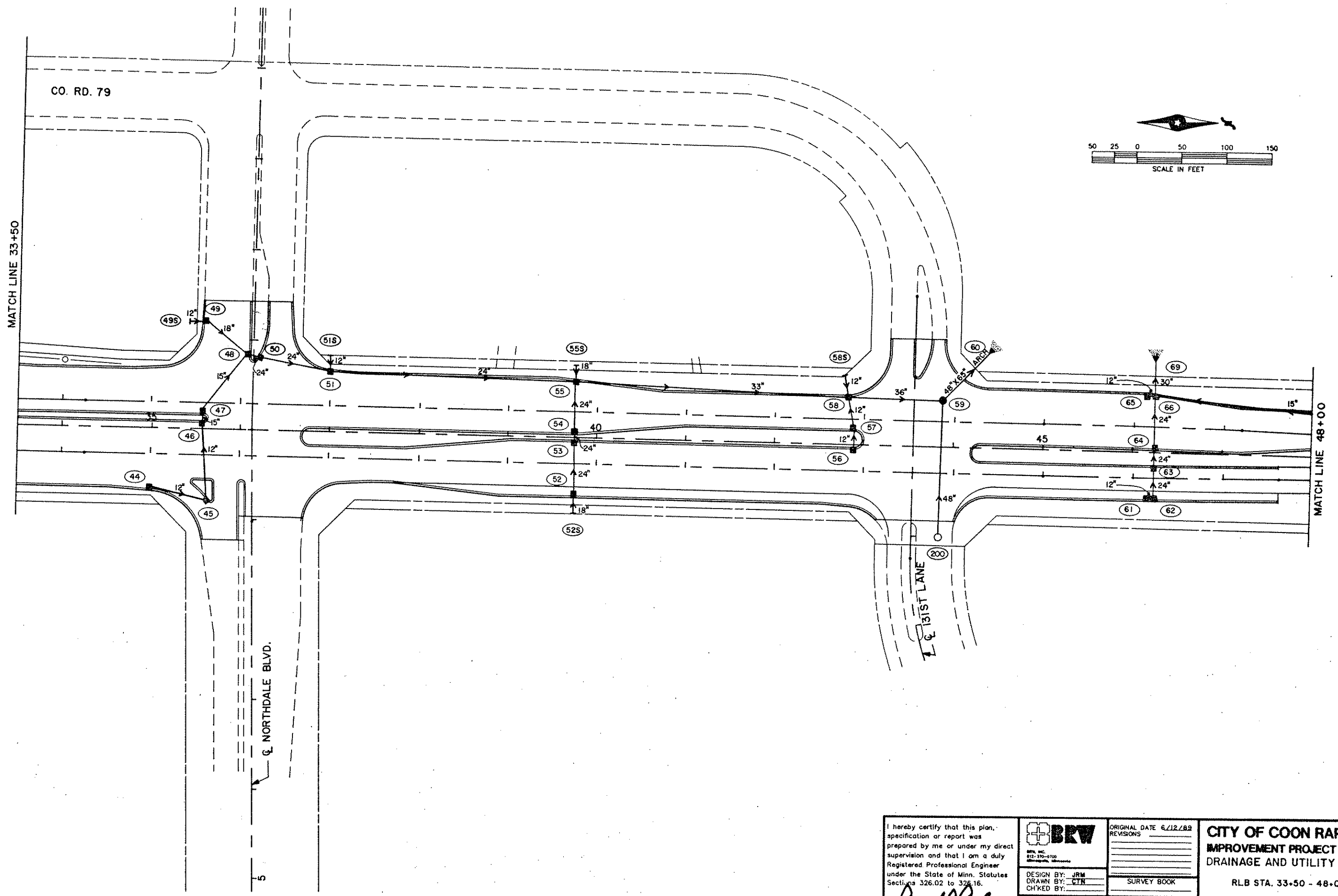
ORIGINAL DATE 6/12/89
REVISIONS
DESIGN BY: JRM
DRAWN BY: CTN
CHECKED BY:
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
DRAINAGE AND UTILITY PLAN
RLB STA. 26+00 - 33+50

S.A.P. NO. 02-609-08

SHEET 154 OF 256

DESIGN FILE No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paul
 Date: 9-22-99 Minn. Reg. No. 12666

BRW
 BRW, INC.
 812-370-9700
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE 6/12/89
REVISIONS
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
DRAINAGE AND UTILITY PLAN

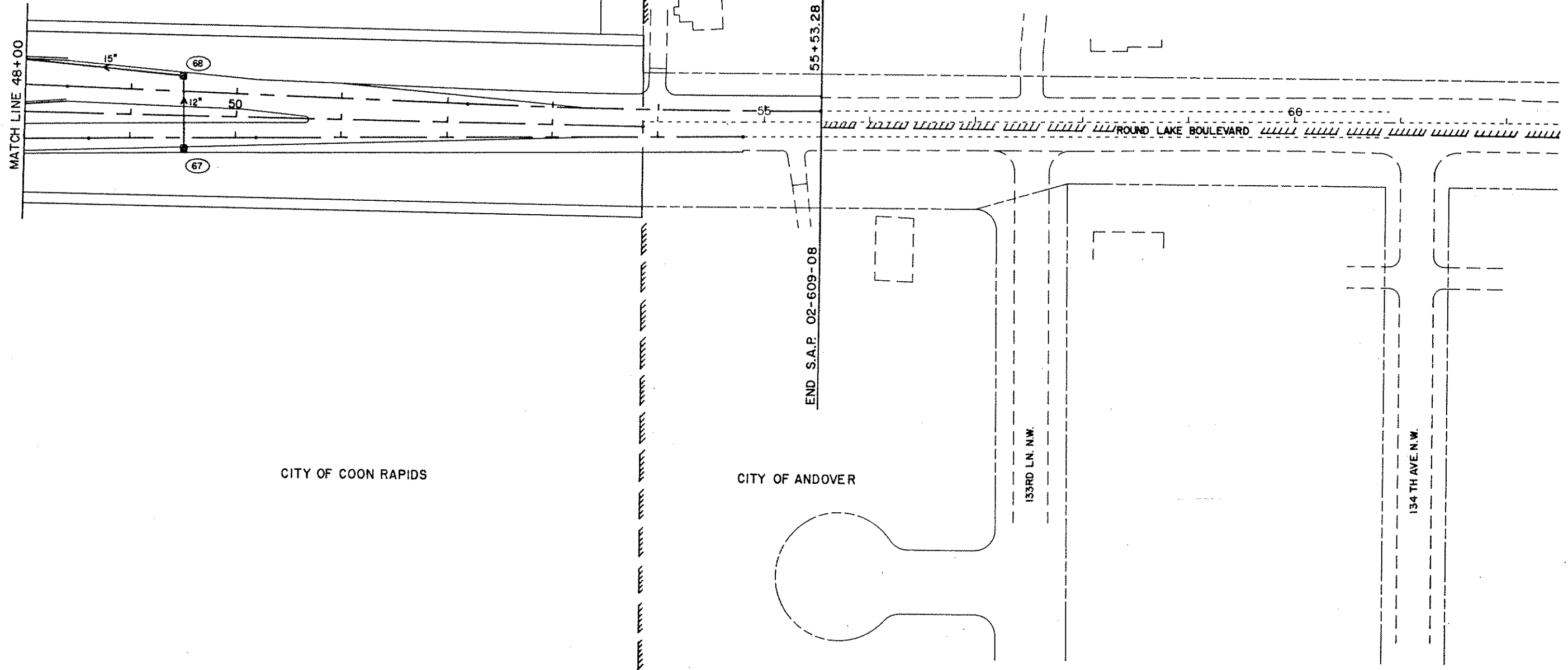
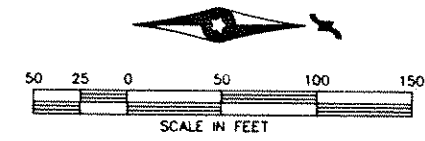
RLB STA. 33+50 - 48+00

S.A.P. NO. 02-609-08 SHEET 155 OF 256

DESIGN FILE No. 16-8840

CITY OF COON RAPIDS

CITY OF ANOKA



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date: 8-22-89 Minn. Reg. No. 12656

BRW

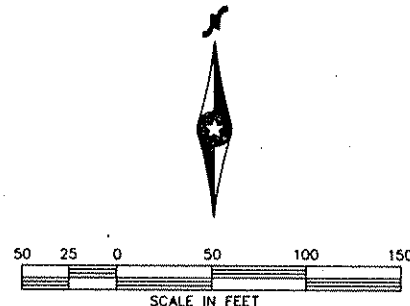
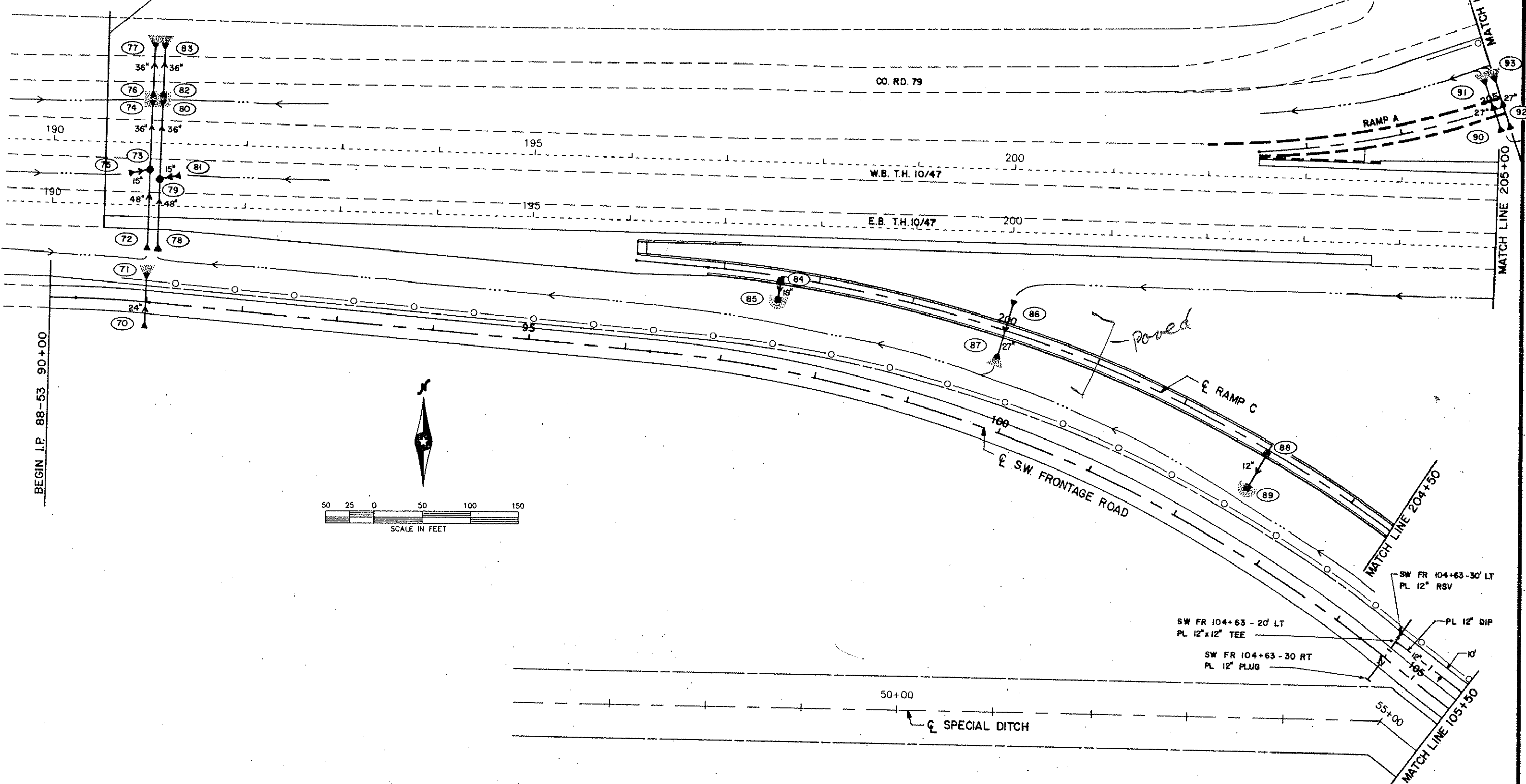
DESIGN BY: JRM
DRAWN BY: CTM
CHECKED BY:

ORIGINAL DATE	6/12/89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
DRAINAGE AND UTILITY PLAN
RLB STA. 48+00 - 62+50

BEGIN S.P. 0215-38 190+53

BEGIN I.P. 88-53 90+00



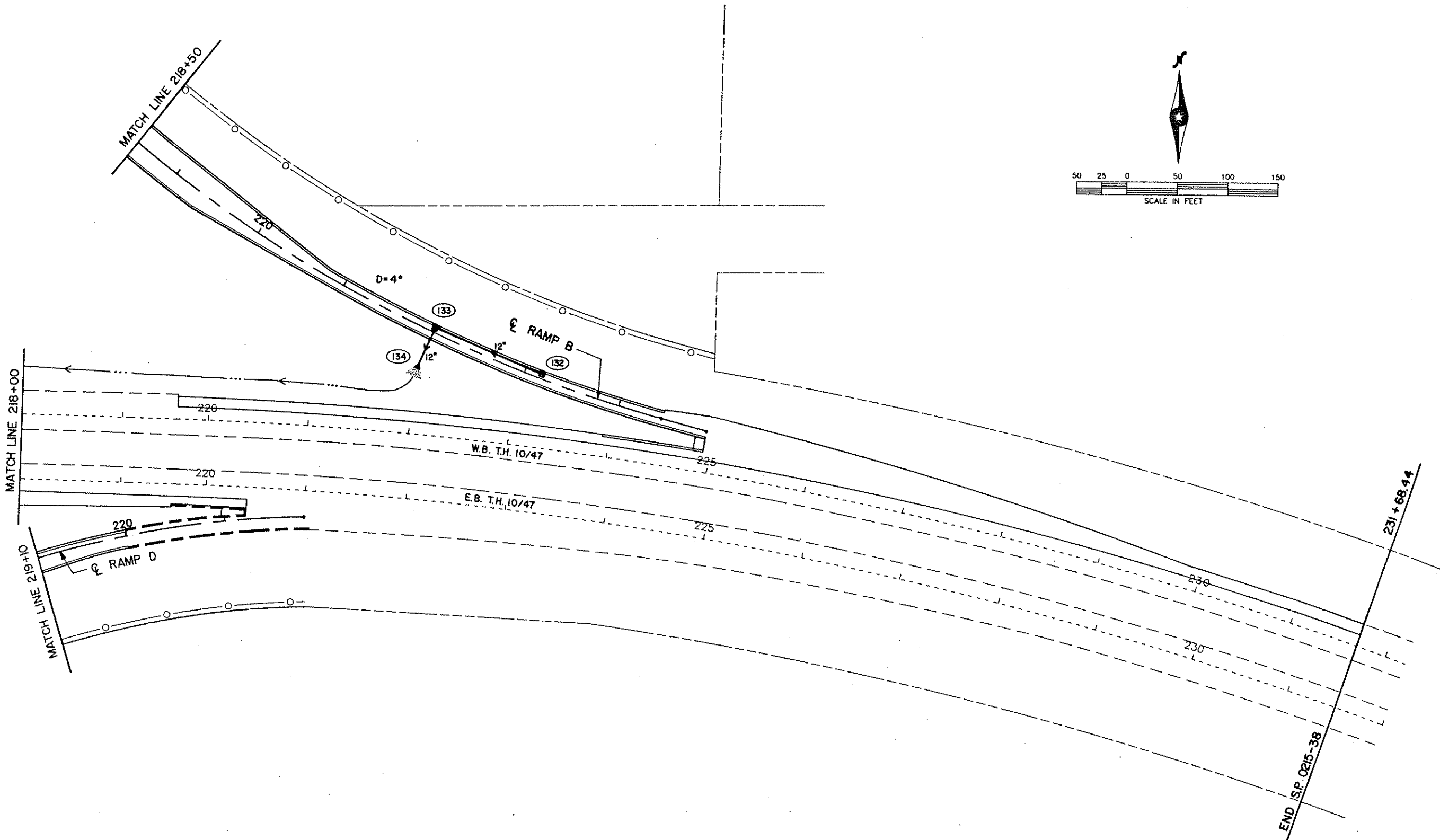
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen
 Date: 8-22-89 Minn. Reg. No. 12666



ORIGINAL DATE	6/12/89
REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	CTM
CHECKED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
DRAINAGE AND UTILITY PLAN
 T.H. 10/47 STA. 189+50 - 205+00



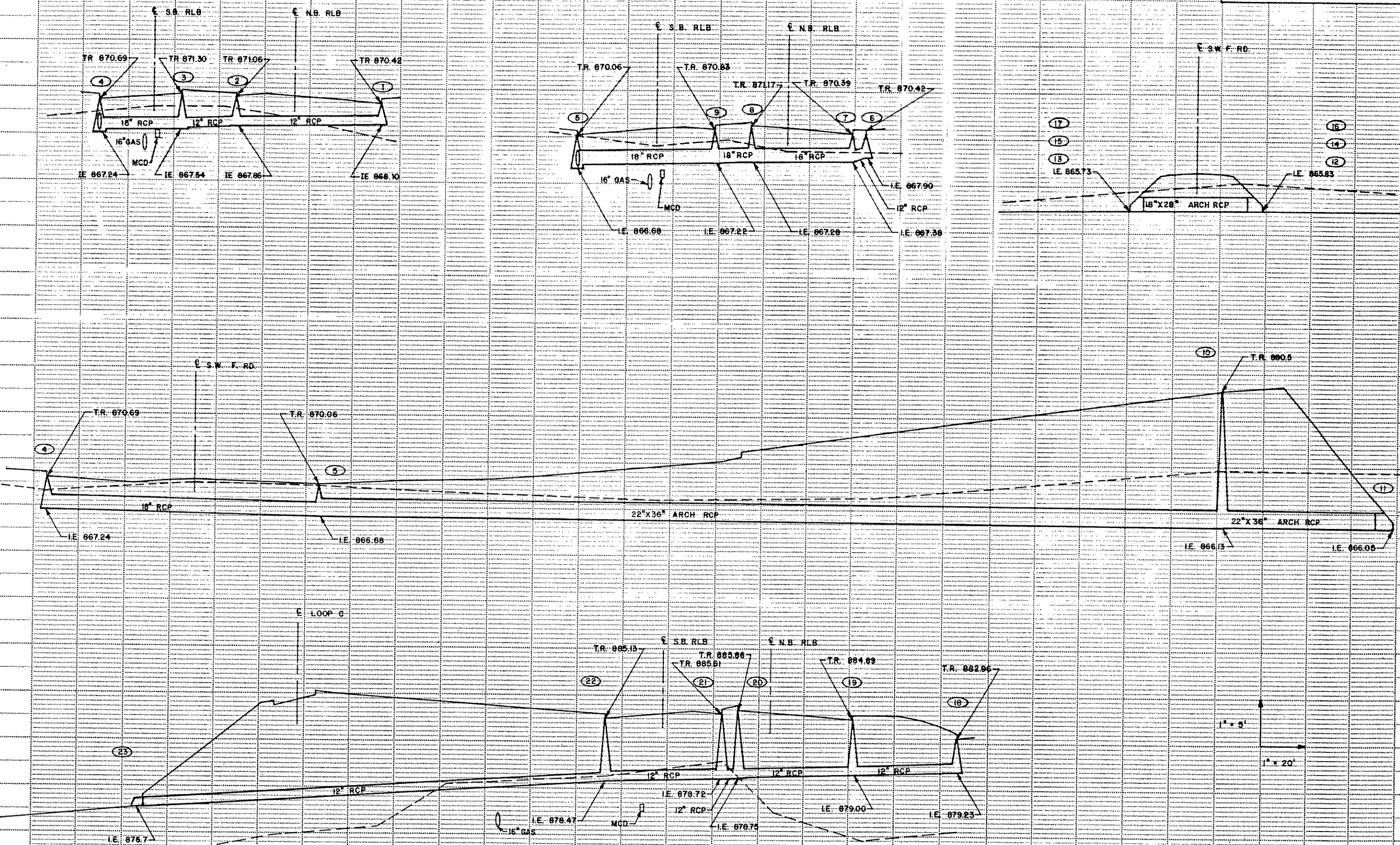
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen
 Date 8-22-92 Minn. Reg. No. 12656



ORIGINAL DATE	6/12/89
REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	CTN
CHECKED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
DRAINAGE AND UTILITY PLAN
 T.H. 10/47 STA. 218+00 - 232+00



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 State of Minn. Statutes Sections 326.02 and 326.16.

Boyd Paulsen

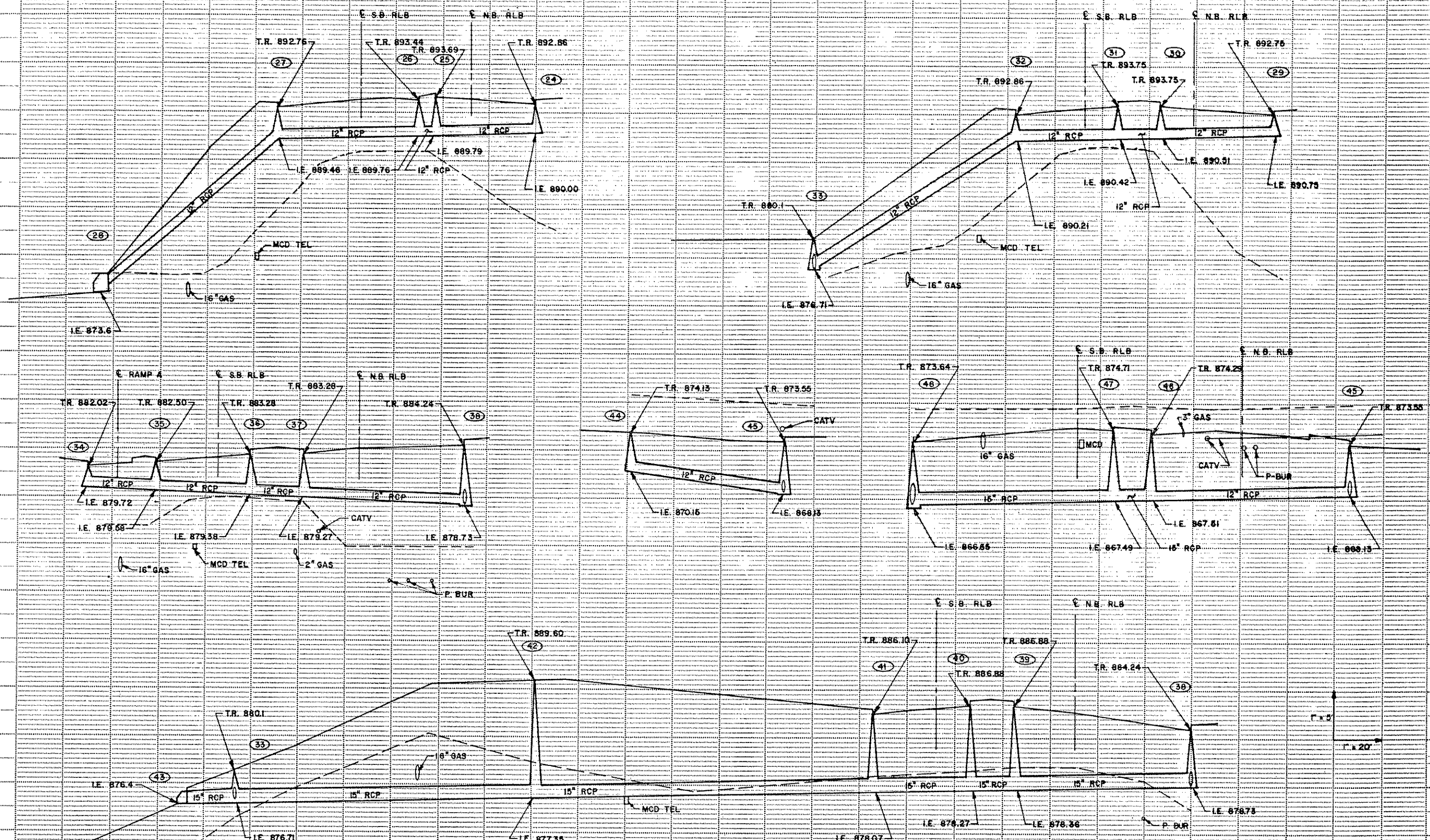
BRW
 BRW, Inc.
 412 4th St. N.
 Minneapolis, Minn. 55401

DESIGN BY: SPJ
 DRAWN BY: PMJ

ORIGINAL DATE	4/18/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

STORM SEWER PROFILES



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date 8-28-89 Minn. Reg. No. 12666.

IBRW
 BRW, Inc.
 512 3rd Ave.
 Minneapolis, Minnesota

DESIGN BY: SPJ
 DRAWN BY: PMJ

ORIGINAL DATE	4/8/89
REVISIONS	
SURVEY BK. NO.	

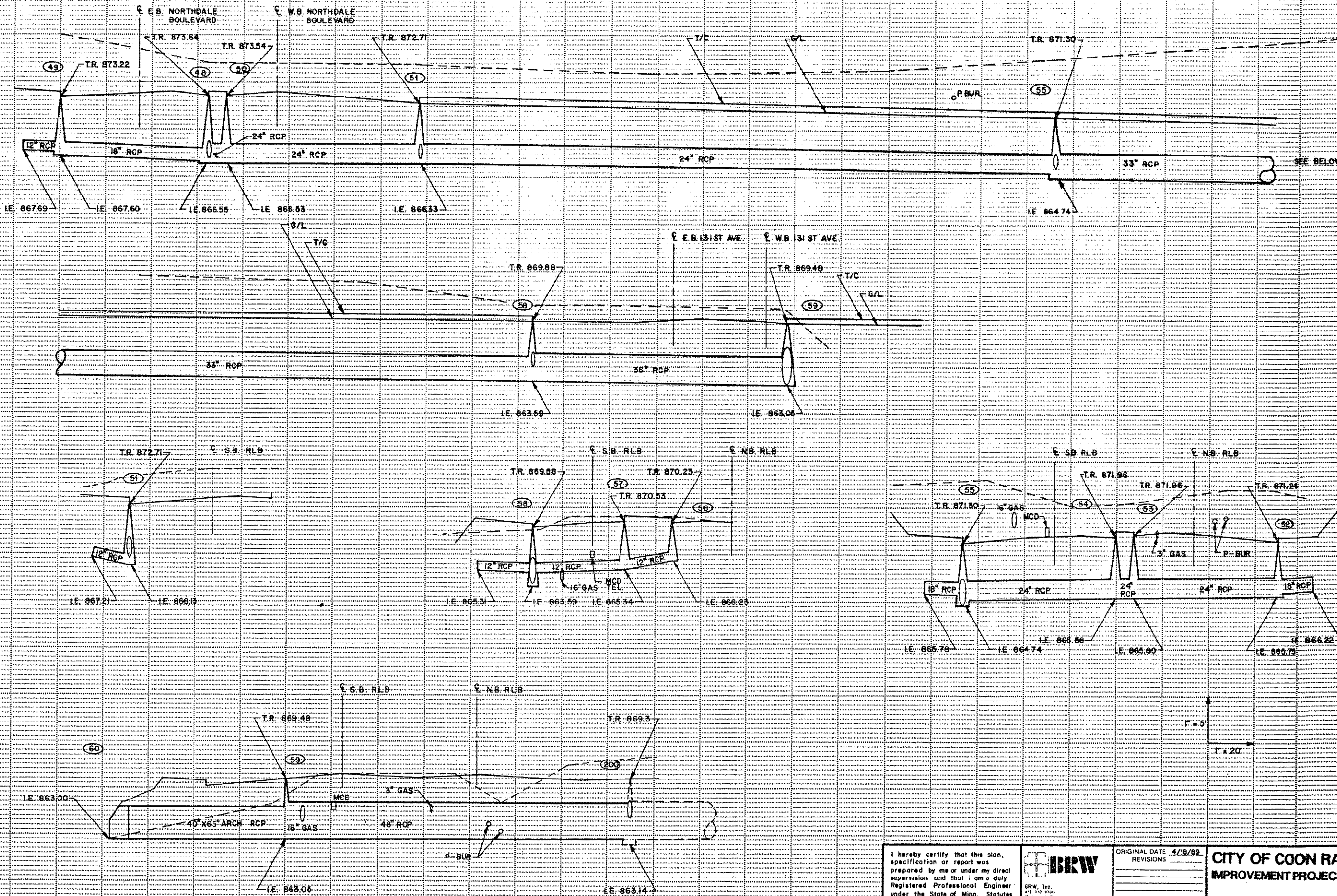
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

STORM SEWER PROFILES

S.A.P. NO. 02-609-08

SHEET 160 OF 258

DESIGN FILE No 15-8940



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Rankin

Date R-22-89 Minn. Reg. No. 12656

BRW
 BRW, Inc.
 417 3rd St.
 Minneapolis, MN 55401

DESIGN BY: SPJ
 DRAWN BY: PMJ

ORIGINAL DATE	4/18/89
REVISIONS	
SURVEY BK. NO.	

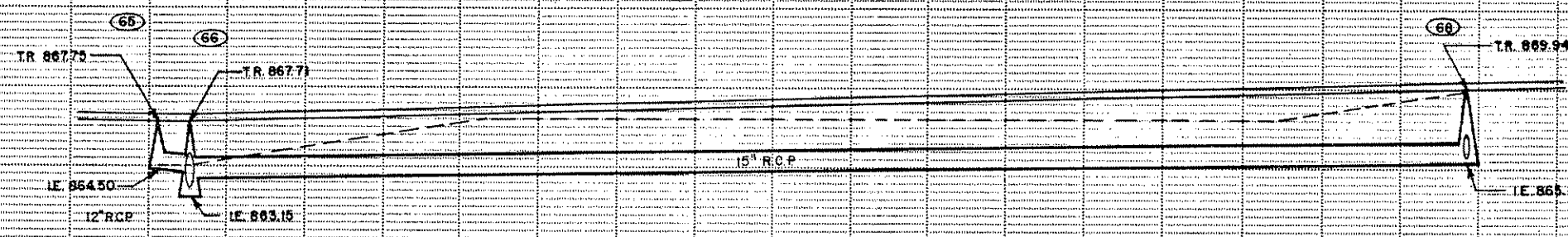
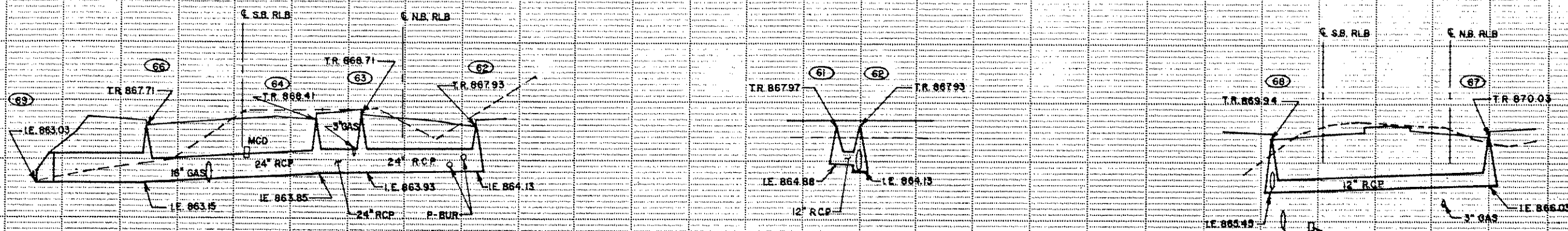
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

STORM SEWER PROFILES

DESIGN FILE No. 16-8840

S.A.P. NO. 02-609-08

SHEET 161 OF 256

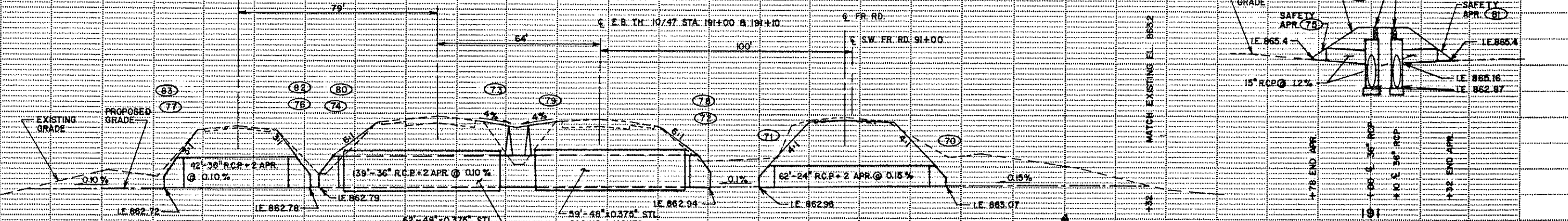


CO. RD. 79 STA. 191+00 & 191+10

W.B. TR 10/47 STA. 191+00 & 191+10

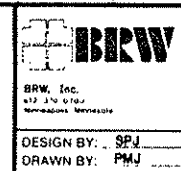
E.B. TR 10/47 STA. 191+00 & 191+10

FR. RD. SW. FR. RD. 91+00



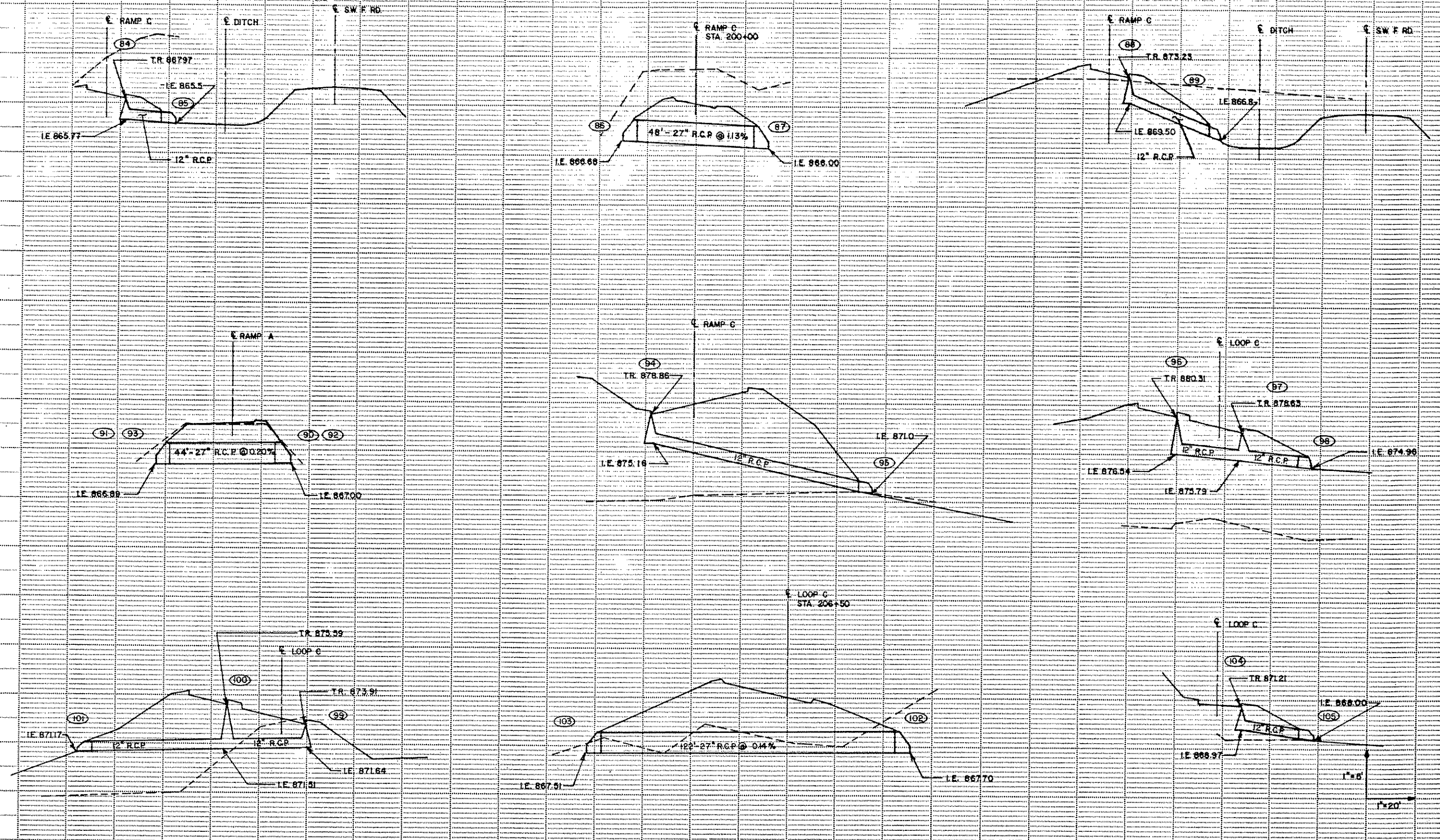
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paul



ORIGINAL DATE 4/18/82
 REVISIONS
 DESIGN BY: SPJ
 DRAWN BY: PMJ

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 STORM SEWER PROFILES



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paul

Date 8-22-89 Minn. Reg. No. 126EE.

BRW
 BRW, Inc.
 412 E. 4th
 Minneapolis, Minnesota

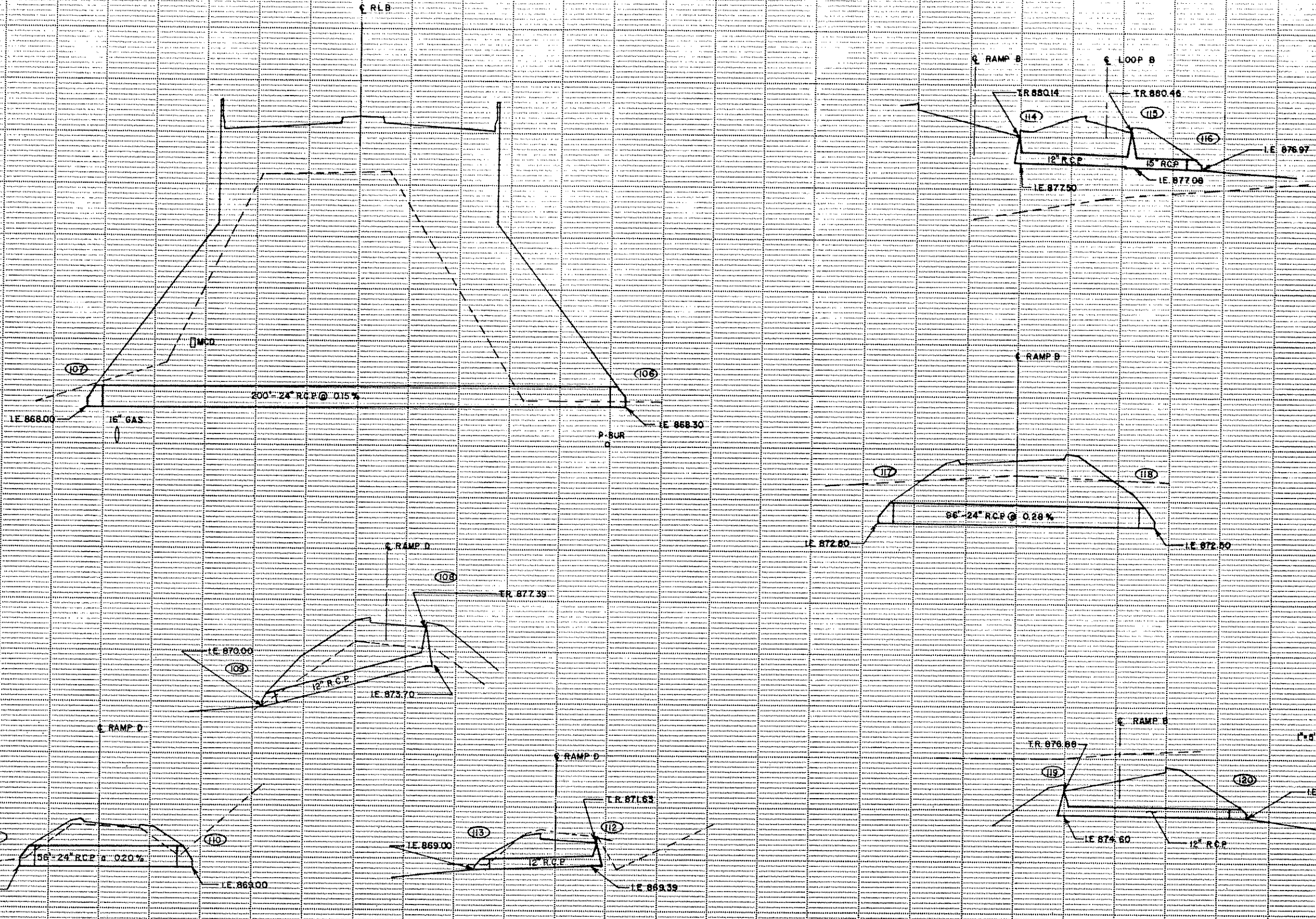
DESIGN BY: SPJ
 DRAWN BY: PMJ

ORIGINAL DATE	3/18/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

STORM SEWER PROFILES

SHEET 63 OF 256



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 State of Minn. Statutes Section 326.02 to 326.16.

Boyd

Date 8-22-92 Minn. Reg. No. 12656



DESIGN BY: SPJ
DRAWN BY: PMJ

ORIGINAL DATE	4/18/89
REVISIONS	
SURVEY BK. NO.	

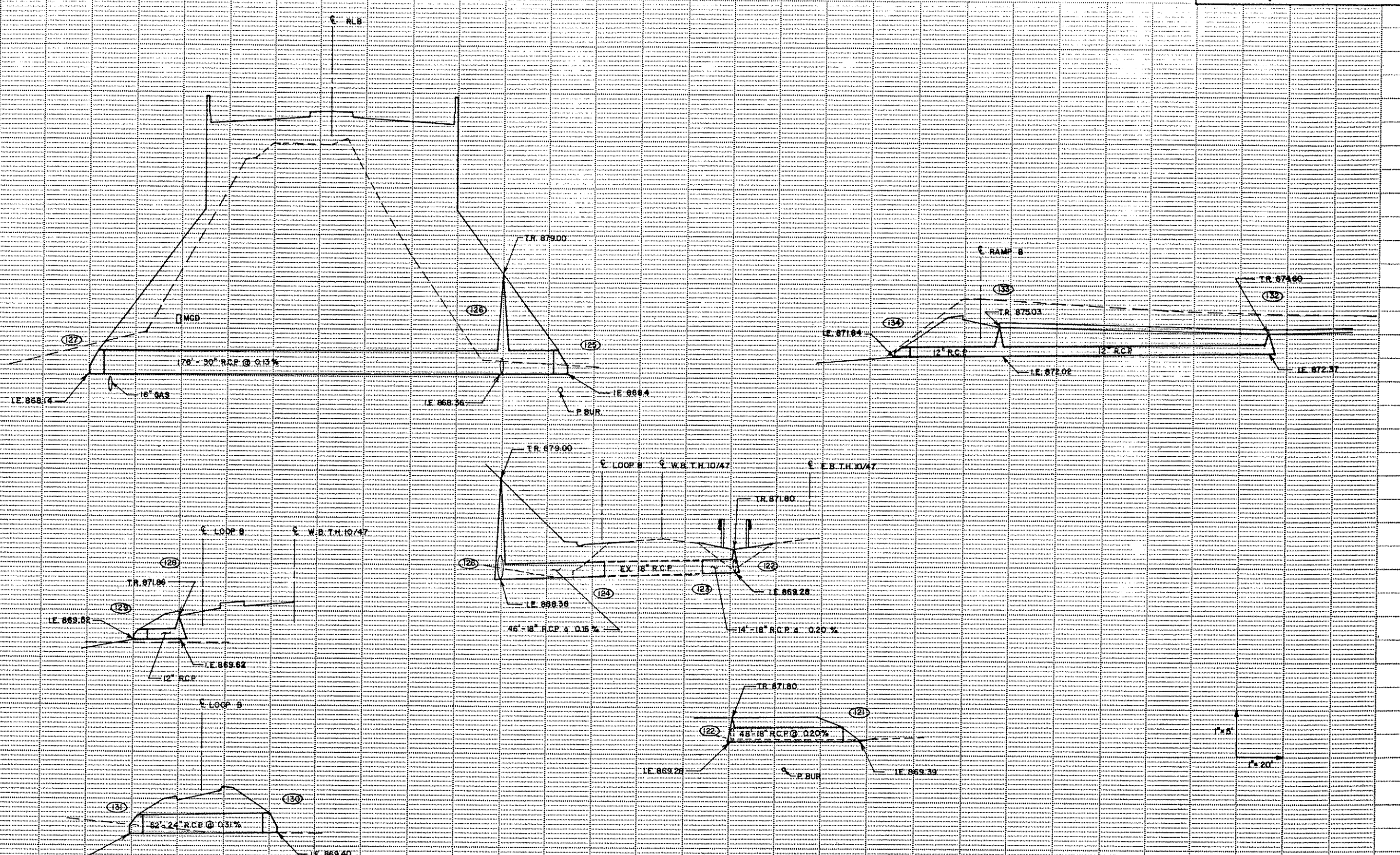
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

STORM SEWER PROFILES

S.A.P. NO. 02-609-08

SHEET 164 OF 256

DESIGN FILE
No 16-8840



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 State of Minn. Statutes Section 326.02 to 326.06.

Boyd B. B...

Date 8-22-89 Minn. Reg. No. 12666.

BRW
 BRW, Inc.
 111 1/2 S. 1st St.
 Minneapolis, Minnesota 55402

DESIGN BY: SPJ
 DRAWN BY: PMJ

ORIGINAL DATE 4/18/89
 REVISIONS _____

SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

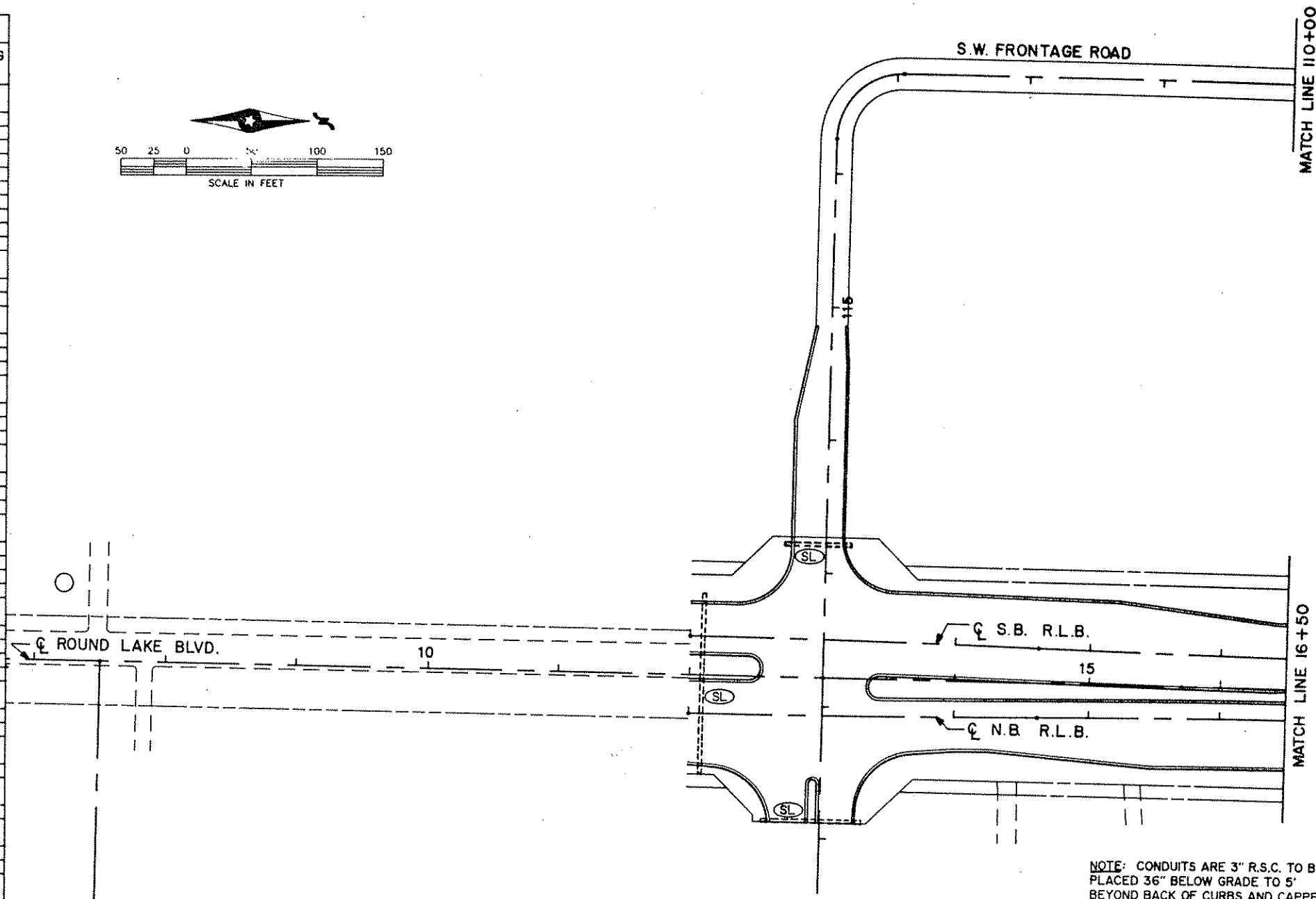
STORM SEWER PROFILES

SHEET 165 OF 256

DESIGN FILE No. 16-8840

S.A.P. NO. 02-609-08

LIGHTING AND TRAFFIC MANAGEMENT CONDUIT SYSTEM (Q)						
STATION	LOCATION		3" R.S.C. LIN. FT.	HANDHOLE-PVC CONC. COVER EACH	HANDHOLE-PVC METAL COVER EACH	FUNDING
	LT	RT				
ROUND LAKE BLVD.						
12+10	60	74	134			LOCAL
19+38	55	67	122			LOCAL
19+58	55	67	122			LOCAL
23+45 TO 26+25	55	55	100			LOCAL
23+45 TO 26+25	55	55	100			LOCAL
23+45 TO 26+25	55	55	100			LOCAL
30+26	57	55	112			LOCAL
30+36	57	55	112			LOCAL
31+36	85	59	144			LOCAL
44+77	72	60	132			LOCAL
RAMP A						
204+25	15	13	28			LOCAL
213+86	17	11	28			LOCAL
RAMP B						
211+92	28	23	51			LOCAL
212+00	28	23	51			LOCAL
223+19	14	14	28			LOCAL
LOOP B						
215+29	15	14	29			LOCAL
223+93	15	13	28			LOCAL
223+98	15	13	28			LOCAL
LOOP C						
199+75	13	15	28			LOCAL
205+68	36	14	50	2	1	STATE
207+59	15	16	31			LOCAL
RAMP C						
197+81	14	14	28			LOCAL
212+02	23	28	51			LOCAL
212+09	23	28	51			LOCAL
213+97	12	34	46			LOCAL
RAMP D						
213+52	14	22	26			LOCAL
213+58	14	22	26			LOCAL
218+52	7	13	20	2		STATE
219+45	11	19	30			LOCAL
S.W. FRONTAGE ROAD						
116+78	20	32	52			LOCAL
118+??	27	44	71			LOCAL
COUNTY ROAD #79						
1+30	60	50	110			LOCAL
NORTHDALE BLVD						
0+77 TO 0+92	72	78	150			LOCAL
131ST LANE NW						
1+01 EAST'LY	34	51	86			LOCAL
0+84 WEST'LY	39	53	92			LOCAL
TOTALS						
LOCAL FUNDING			2327	0	0	
STATE FUNDING			70	4		
PROJECT			2397	4		



NOTE: CONDUITS ARE 3" R.S.C. TO BE PLACED 36" BELOW GRADE TO 5' BEYOND BACK OF CURBS AND CAPPED, EXCEPT AS NOTED.

- LEGEND
- (SL) STREET LIGHTING
 - (HL) HIGHWAY LIGHTING
 - (TS) TRAFFIC SIGNAL
 - HAND HOLE
 - === 3" RIGID STEEL CONDUIT

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paul

Date: 8-22-89 Minn. Reg. No. 12666

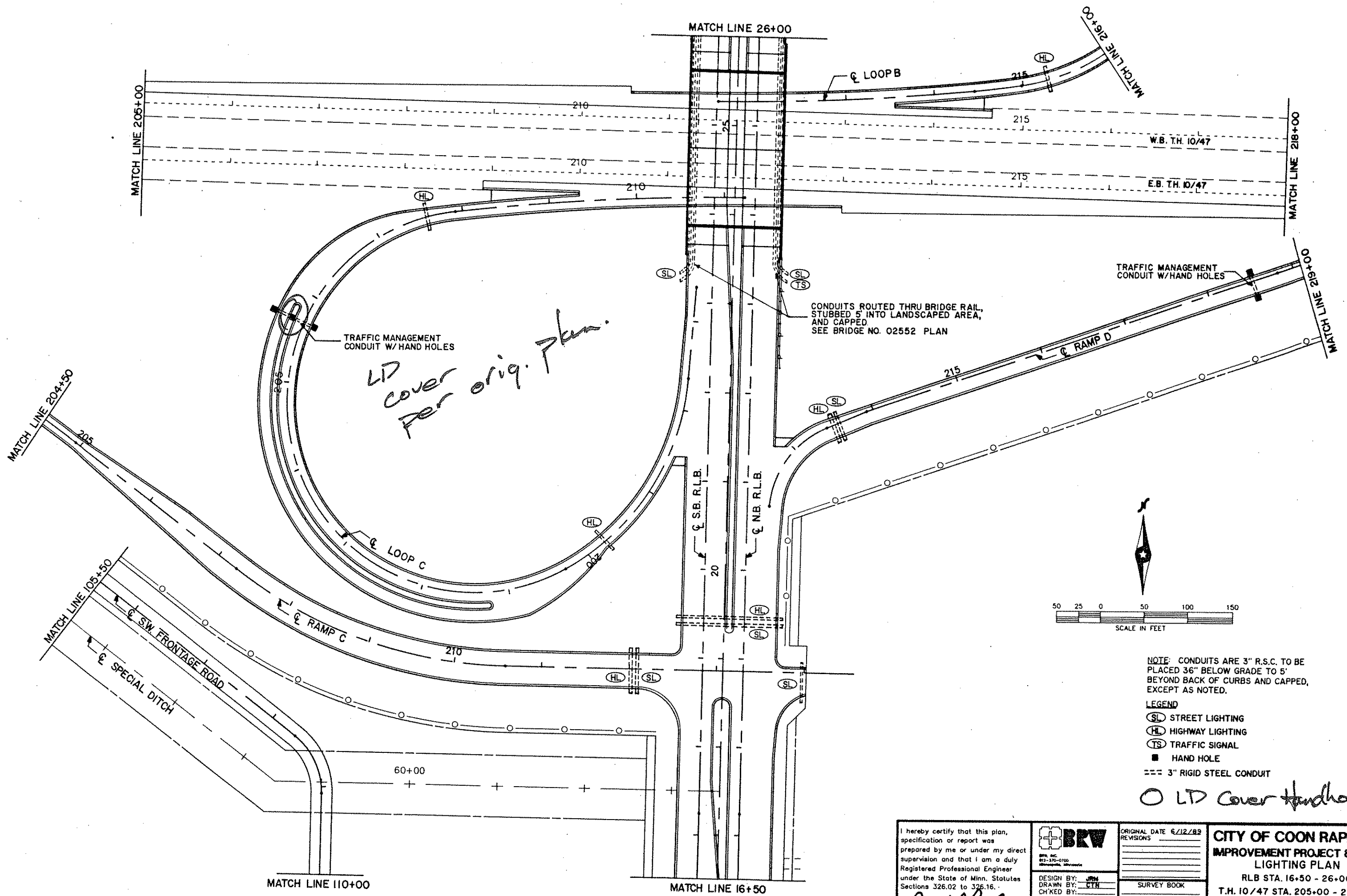
BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: CTN
 CHECKED BY:

ORIGINAL DATE 6/12/89
 REVISIONS
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
LIGHTING PLAN
 RLB STA. 3+00 - 16+50

S.A.P. NO. 02-609-08 SHEET 167 OF 256 DESIGN FILE No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. [Signature]

Date: 2-22-89, Minn. Reg. No. 12666

BRW

DESIGN BY: JPM
 DRAWN BY: CTH
 CHECKED BY:

ORIGINAL DATE	6/12/89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS

IMPROVEMENT PROJECT 88-53

LIGHTING PLAN

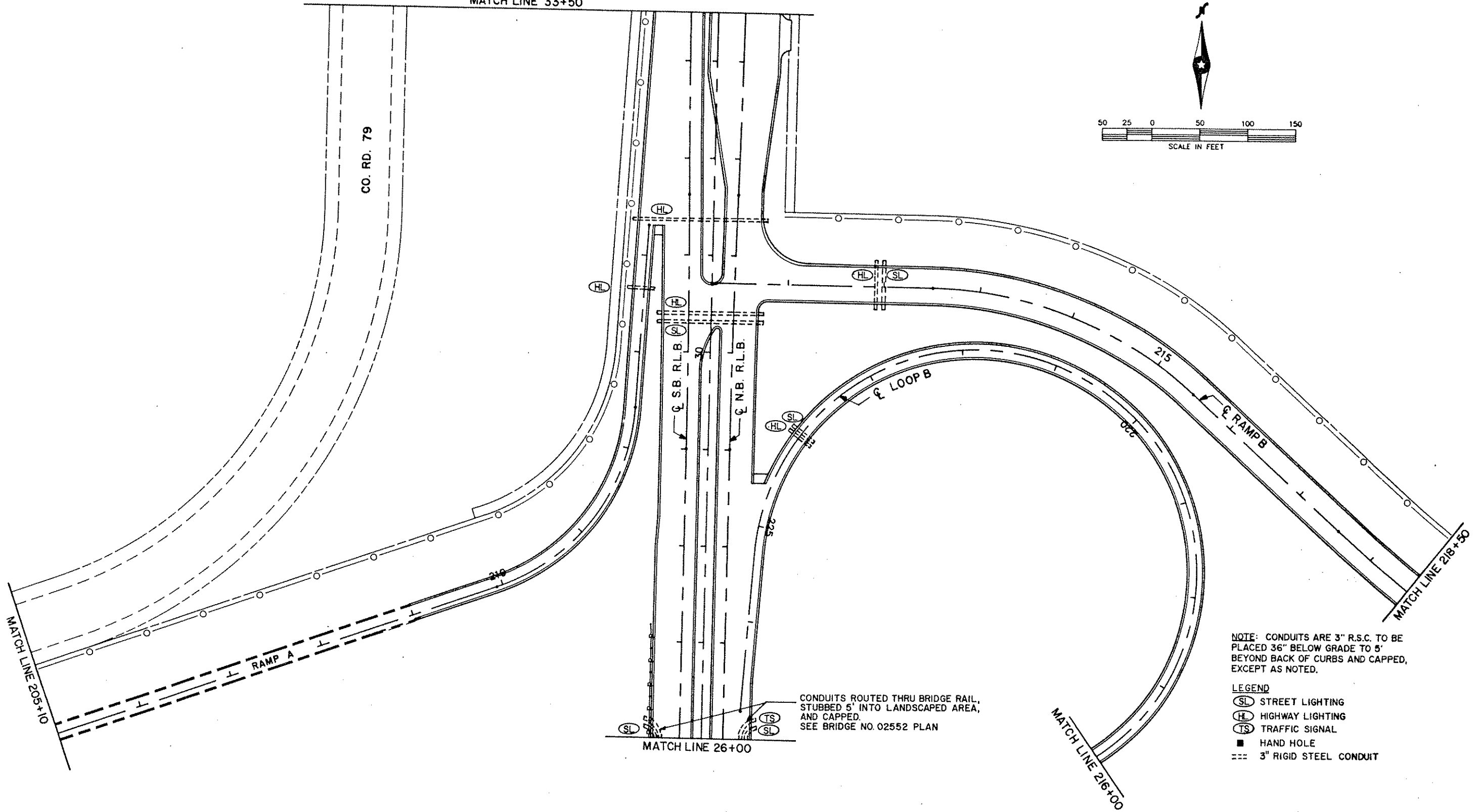
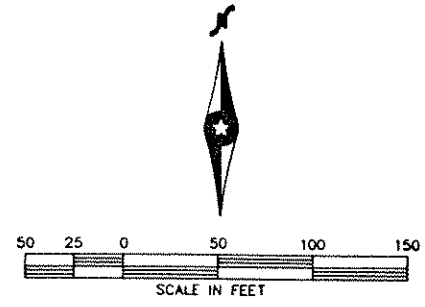
RLB STA. 16+50 - 26+00

T.H. 10/47 STA. 205+00 - 218+00

DESIGN FILE No. 15-8840

MATCH LINE 33+50

CO. RD. 79



CONDUITS ROUTED THRU BRIDGE RAIL,
STUBBED 5' INTO LANDSCAPED AREA,
AND CAPPED.
SEE BRIDGE NO. 02552 PLAN

NOTE: CONDUITS ARE 3" R.S.C. TO BE
PLACED 36" BELOW GRADE TO 5'
BEYOND BACK OF CURBS AND CAPPED,
EXCEPT AS NOTED.

- LEGEND
- (SL) STREET LIGHTING
 - (HL) HIGHWAY LIGHTING
 - (TS) TRAFFIC SIGNAL
 - HAND HOLE
 - 3" RIGID STEEL CONDUIT

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specification or report was
prepared by me or under my direct
supervision and that I am a duly
Registered Professional Engineer
under the State of Minn. Statutes
Sections 326.02 to 326.16.
Boyd R. Bunker
Date: 8-22-89 Minn. Reg. No. J2666

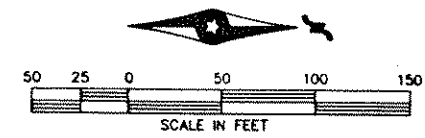
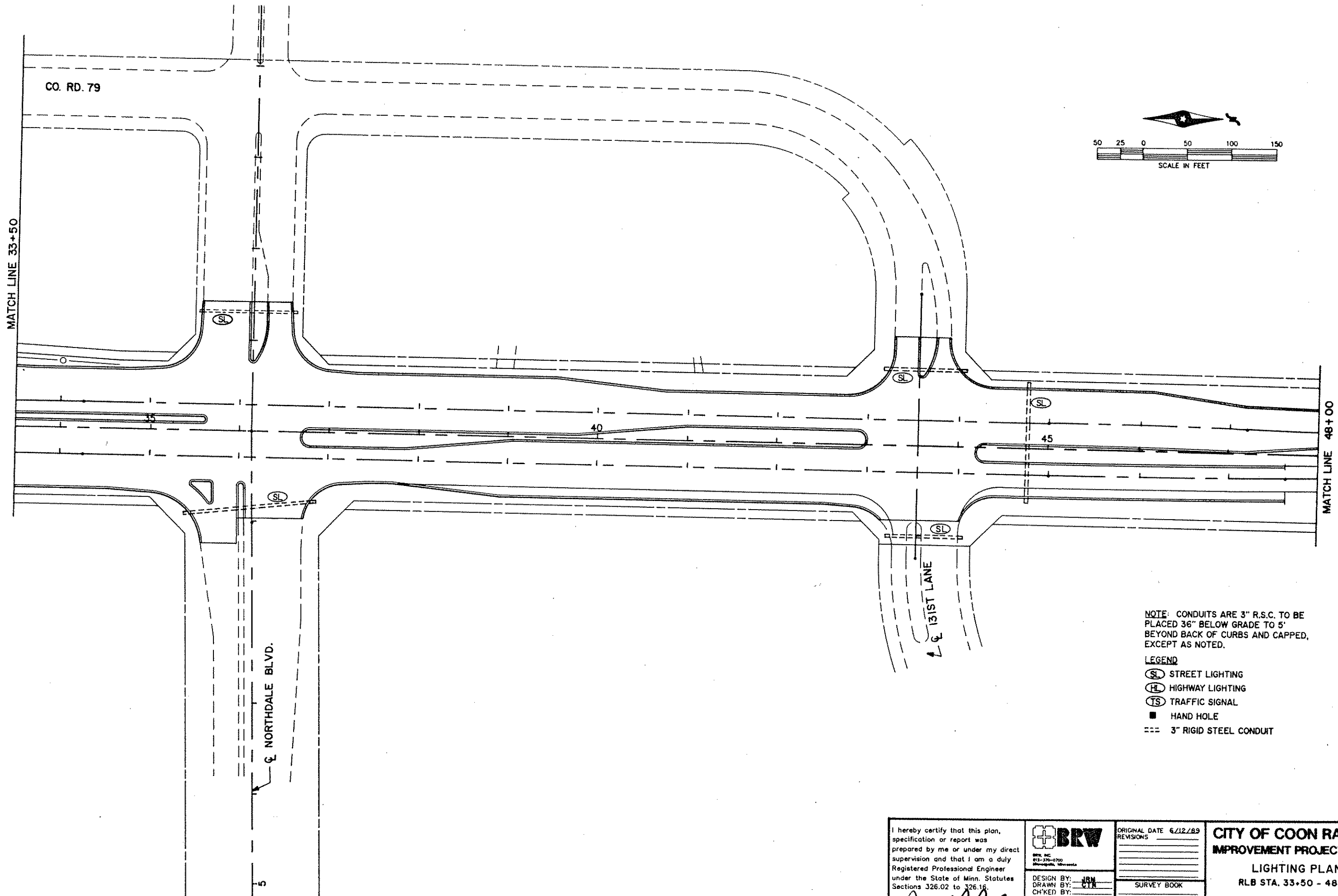
BRW
BRW, INC.
912-370-0700
Minneapolis, Minnesota

DESIGN BY: JRM
DRAWN BY: CTR
CHK'D BY:

ORIGINAL DATE 6/12/89
REVISIONS
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
LIGHTING PLAN
RLB STA. 26+00 - 33+50

S.A.P. NO. 02-609-08 SHEET 169 OF 256 DESIGN FILE No. 16-8840



NOTE: CONDUITS ARE 3" R.S.C. TO BE PLACED 36" BELOW GRADE TO 5' BEYOND BACK OF CURBS AND CAPPED, EXCEPT AS NOTED.

- LEGEND
- (SL) STREET LIGHTING
 - (HL) HIGHWAY LIGHTING
 - (TS) TRAFFIC SIGNAL
 - HAND HOLE
 - 3" RIGID STEEL CONDUIT

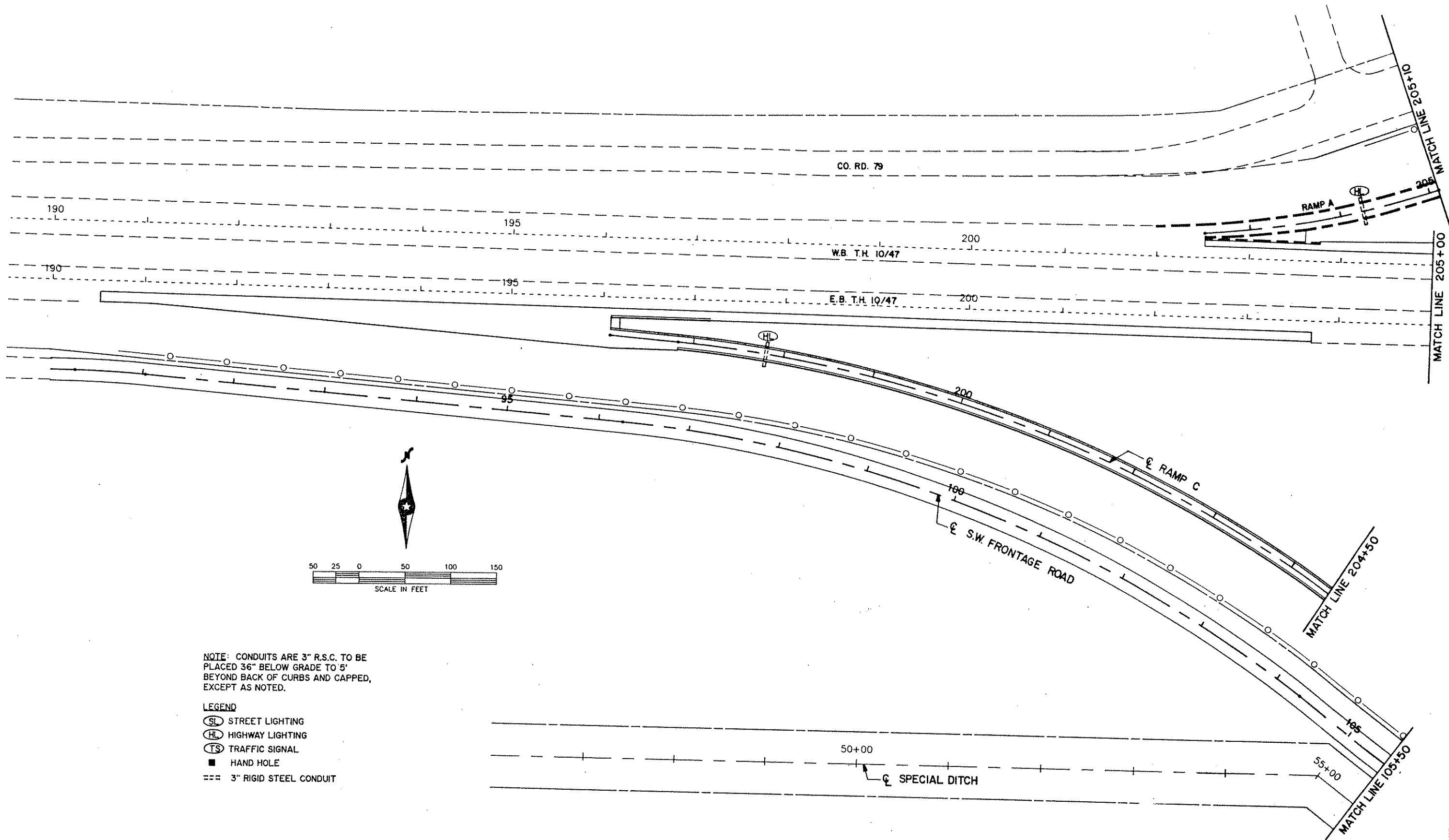
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen
 Date 8-22-89, Minn. Reg. No. 12637

BRW
 BRW, INC.
 812-370-0700
 Minneapolis, Minnesota

ORIGINAL DATE	6/12/89
REVISIONS	
DESIGN BY:	JRN
DRAWN BY:	CJK
CHK'D BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
LIGHTING PLAN
 RLB STA. 33+50 - 48+00



NOTE: CONDUITS ARE 3" R.S.C. TO BE PLACED 36" BELOW GRADE TO 5" BEYOND BACK OF CURBS AND CAPPED, EXCEPT AS NOTED.

LEGEND

- (SL) STREET LIGHTING
- (HL) HIGHWAY LIGHTING
- (TS) TRAFFIC SIGNAL
- HAND HOLE
- === 3" RIGID STEEL CONDUIT

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Rasmussen
 Date: 8-22-89 Minn. Reg. No. 12666



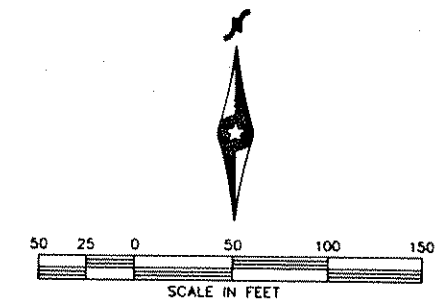
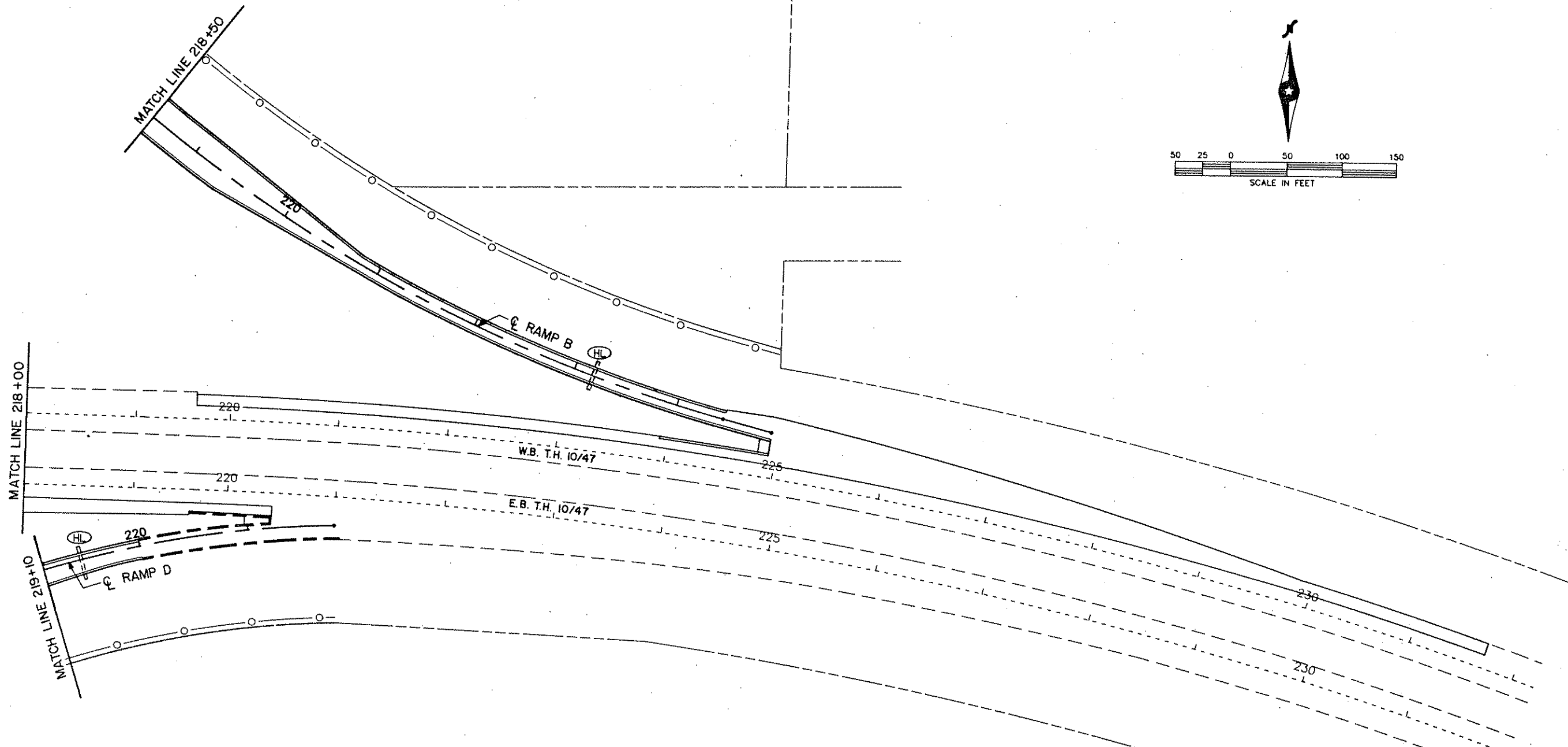
ORIGINAL DATE	6/12/89
REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	STW
CH'KED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 LIGHTING PLAN
 T.H. 10/47 STA. 189+50 - 205+00

S.A.P. NO. 02-609-08

SHEET 121 OF 256

DESIGN FILE No. 16-8880



NOTE: CONDUITS ARE 3" R.S.C. TO BE PLACED 36" BELOW GRADE TO 5' BEYOND BACK OF CURBS AND CAPPED, EXCEPT AS NOTED.

- LEGEND
- (SL) STREET LIGHTING
 - (HL) HIGHWAY LIGHTING
 - (TS) TRAFFIC SIGNAL
 - HAND HOLE
 - 3" RIGID STEEL CONDUIT

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen
 Date 8-22-89, Minn. Reg. No. 12666

BRW
 BRW, INC.
 812-310-0700
 Minneapolis, Minnesota

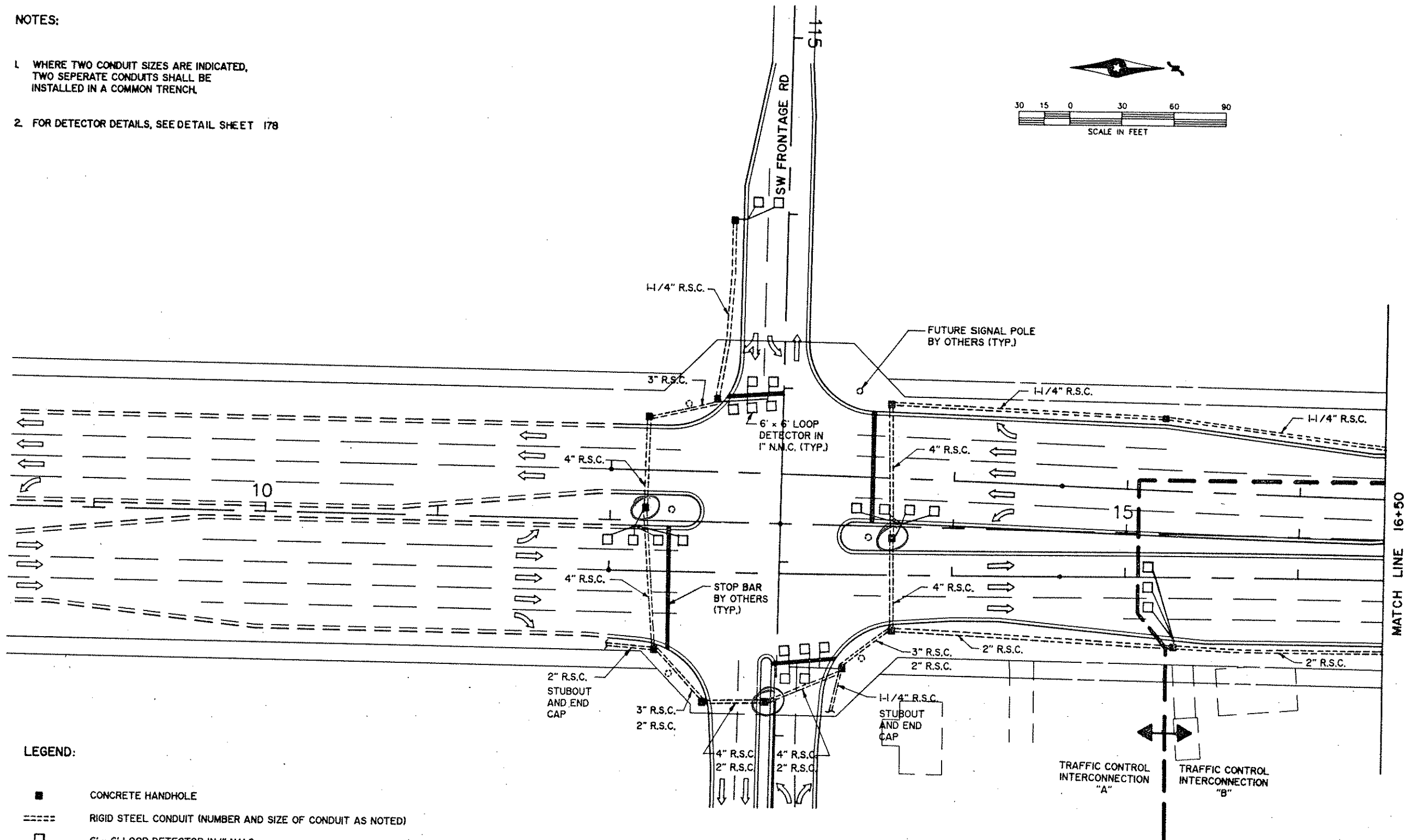
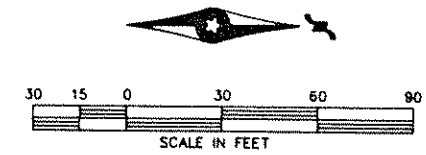
DESIGN BY: JRM
 DRAWN BY: CTN
 CH'KED BY:

ORIGINAL DATE	6/12/89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 LIGHTING PLAN
 T.H. 10/47 STA. 218+00 - 232+00

NOTES:

1. WHERE TWO CONDUIT SIZES ARE INDICATED, TWO SEPERATE CONDUITS SHALL BE INSTALLED IN A COMMON TRENCH.
2. FOR DETECTOR DETAILS, SEE DETAIL SHEET 178



LEGEND:

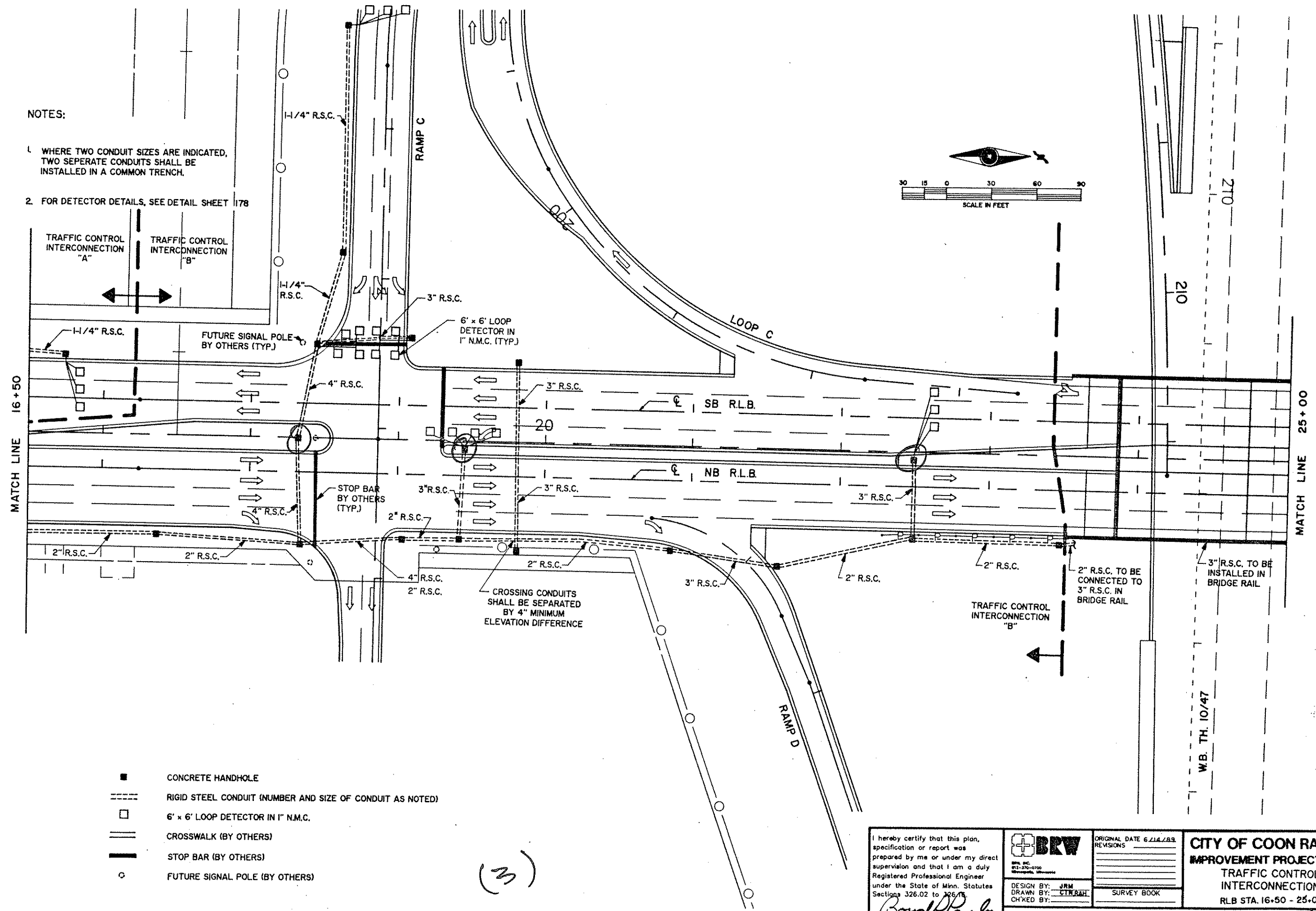
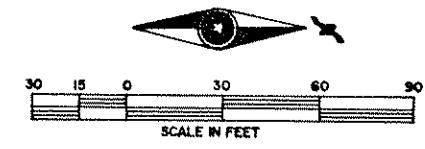
- CONCRETE HANDHOLE
- ==== RIGID STEEL CONDUIT (NUMBER AND SIZE OF CONDUIT AS NOTED)
- 6' x 6' LOOP DETECTOR IN 1" N.M.C.
- == CROSSWALK (BY OTHERS)
- STOP BAR (BY OTHERS)
- FUTURE SIGNAL POLE (BY OTHERS)

○ LD Covers on Handhole (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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Parker</i> Date: 8-22-89 Minn. Reg. No. 2656		ORIGINAL DATE 6/14/89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TRAFFIC CONTROL INTERCONNECTION RLB STA. 8+50 - 16+50
		DESIGN BY: JRM DRAWN BY: ETR CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 173 OF 256	

NOTES:

- WHERE TWO CONDUIT SIZES ARE INDICATED, TWO SEPARATE CONDUITS SHALL BE INSTALLED IN A COMMON TRENCH.
- FOR DETECTOR DETAILS, SEE DETAIL SHEET 178



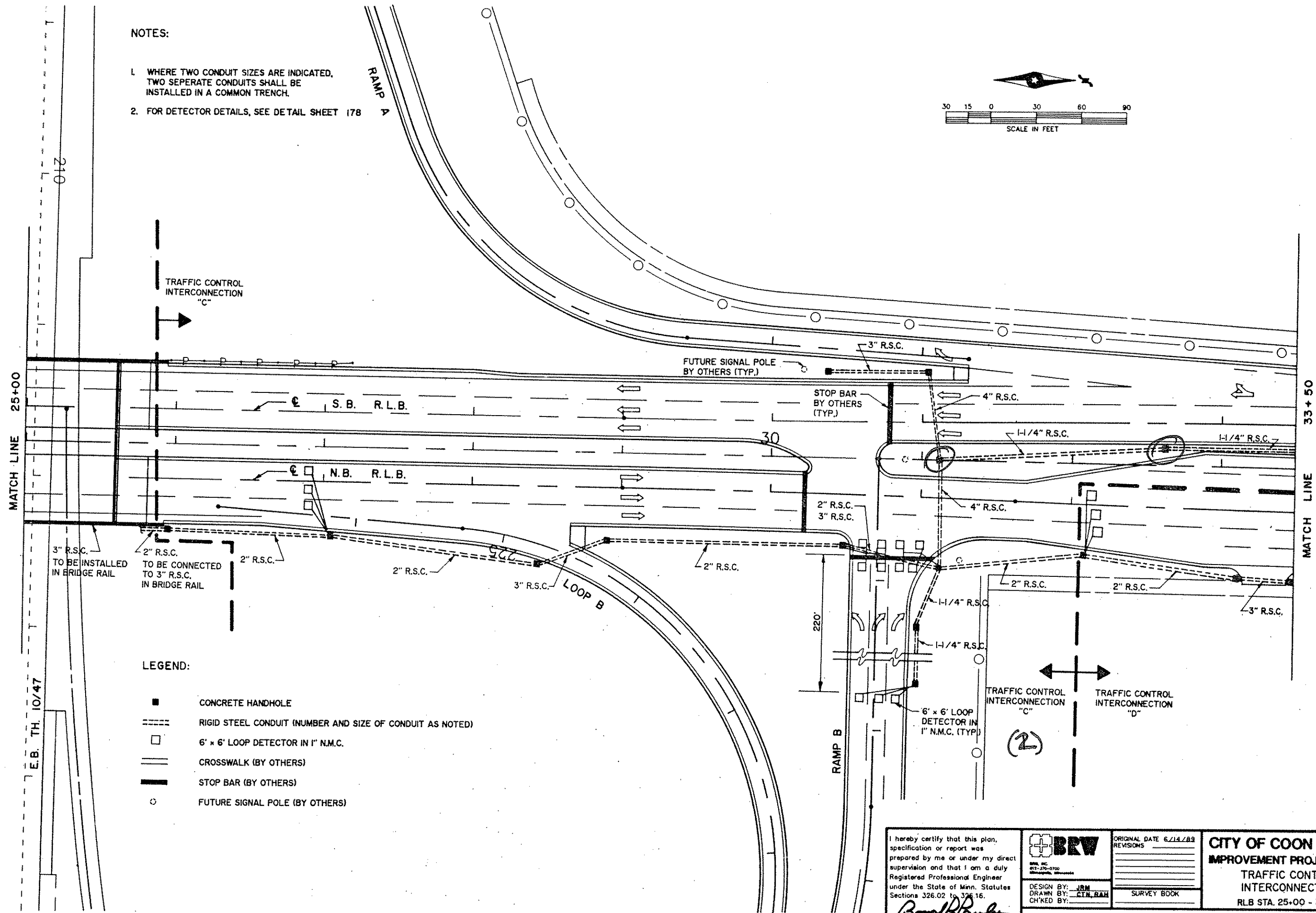
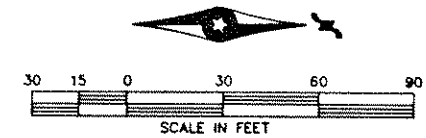
- CONCRETE HANDHOLE
- RIGID STEEL CONDUIT (NUMBER AND SIZE OF CONDUIT AS NOTED)
- 6' x 6' LOOP DETECTOR IN 1" N.M.C.
- CROSSWALK (BY OTHERS)
- STOP BAR (BY OTHERS)
- FUTURE SIGNAL POLE (BY OTHERS)

(3)

<p>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 State of Minn. Statutes Sections 326.02 to 326.15.</p> <p><i>Boyd Paul</i></p> <p>Date 8-22-82 Minn. Reg. No. 12656</p>	<p>BRW, INC. 612-270-0700 Minneapolis, Minnesota</p>	<p>ORIGINAL DATE 6/14/89</p> <p>REVISIONS</p>	<p>CITY OF COON RAPIDS</p> <p>IMPROVEMENT PROJECT 88-53</p> <p>TRAFFIC CONTROL INTERCONNECTION</p> <p>RLB STA. 16+50 - 25+00</p>
		<p>DESIGN BY: JRM</p> <p>DRAWN BY: CTR/BAH</p> <p>CHECKED BY:</p>	
<p>S.A.P. NO. 02-609-08</p>		<p>SHEET 174 OF 256</p>	<p>DESIGN FILE No. 16-8840</p>

NOTES:

1. WHERE TWO CONDUIT SIZES ARE INDICATED, TWO SEPERATE CONDUITS SHALL BE INSTALLED IN A COMMON TRENCH.
2. FOR DETECTOR DETAILS, SEE DETAIL SHEET 178



LEGEND:

- CONCRETE HANDHOLE
- ==== RIGID STEEL CONDUIT (NUMBER AND SIZE OF CONDUIT AS NOTED)
- 6' x 6' LOOP DETECTOR IN 1" N.M.C.
- CROSSWALK (BY OTHERS)
- STOP BAR (BY OTHERS)
- FUTURE SIGNAL POLE (BY OTHERS)

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyer & Paulsen

Date: 8-22-89 Minn. Reg. No. 12565

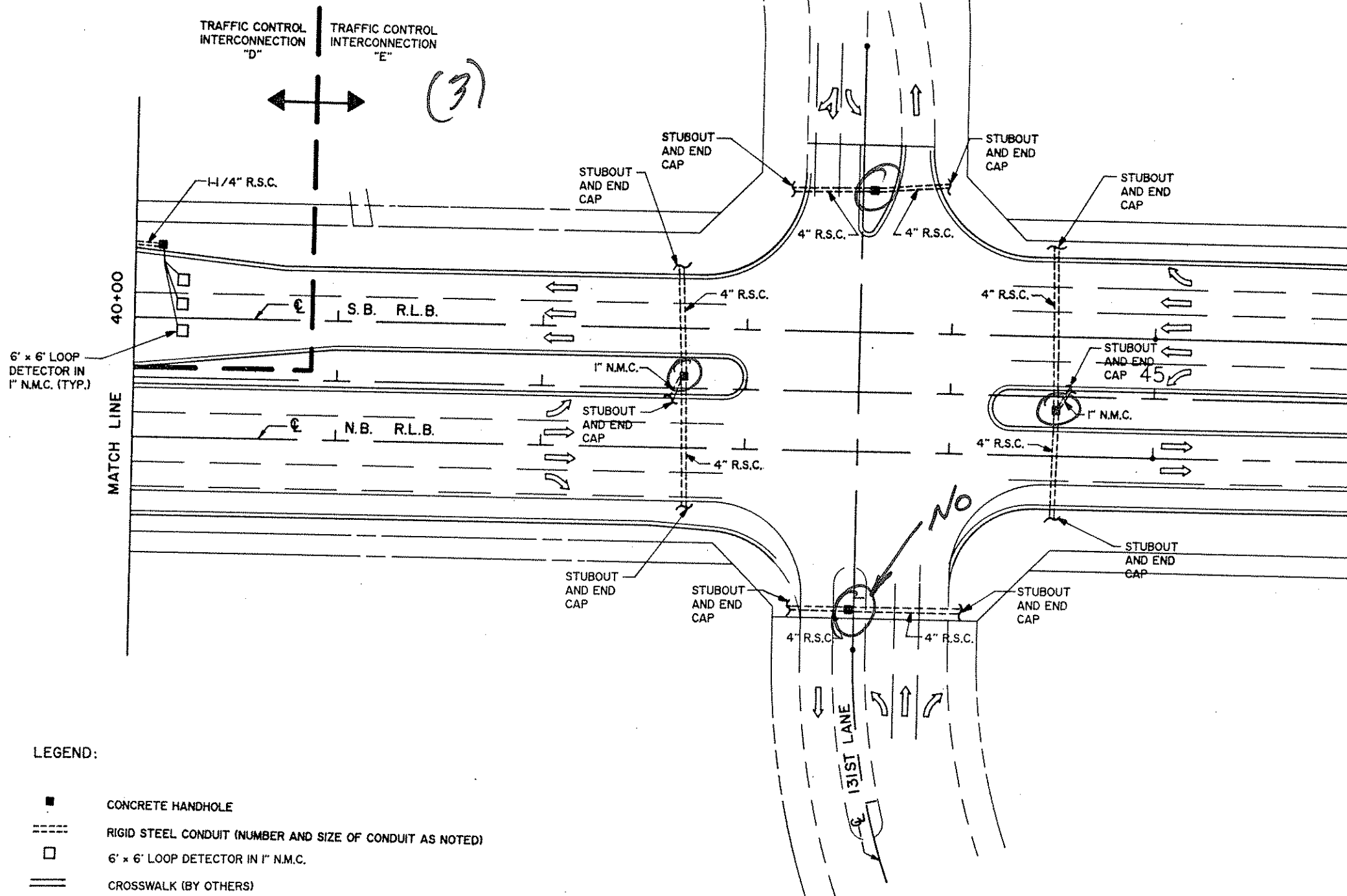
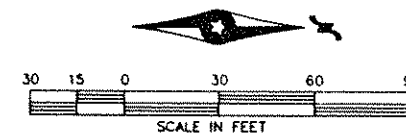
BRW
BRW, INC.
 451-276-0700
 Minneapolis, Minnesota

ORIGINAL DATE	6/19/89
REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	CTM, BAH
CH'KED BY:	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TRAFFIC CONTROL INTERCONNECTION
 RLB STA. 25+00 - 33+50

NOTES:

- WHERE TWO CONDUIT SIZES ARE INDICATED, TWO SEPERATE CONDUITS SHALL BE INSTALLED IN A COMMON TRENCH.
- FOR DETECTOR DETAILS, SEE DETAIL SHEET 178



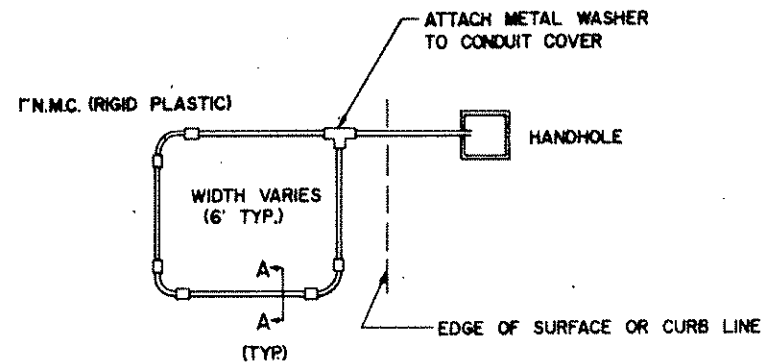
LEGEND:

- CONCRETE HANDHOLE
- RIGID STEEL CONDUIT (NUMBER AND SIZE OF CONDUIT AS NOTED)
- 6' x 6' LOOP DETECTOR IN 1" N.M.C.
- ==== CROSSWALK (BY OTHERS)
- STOP BAR (BY OTHERS)
- FUTURE SIGNAL POLE (BY OTHERS)

<p>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 State of Minn. Statutes Sections 326.02 to 326.16.</p> <p><i>Boyd B. B...</i></p> <p>Date 8-22-82 Minn. Reg. No. 12666</p>	<p>BRW, Inc. 812-270-0700 Minneapolis, Minnesota</p>	<p>ORIGINAL DATE 6/14/82</p> <p>REVISIONS</p>	<p>CITY OF COON RAPIDS</p> <p>IMPROVEMENT PROJECT 88-53</p> <p>TRAFFIC CONTROL INTERCONNECTION</p> <p>RLB STA. 40+00 - 46+00</p>
		<p>DESIGN BY: JRM</p> <p>DRAWN BY: CYN/BAH</p> <p>CHECKED BY:</p>	
<p>S.A.P. NO. 02-609-08</p>		<p>DESIGN FILE No. 16-8840</p>	<p>SHEET 177 OF 256</p>

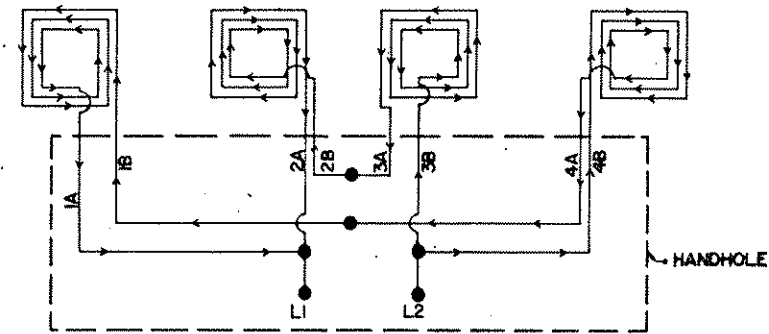
LOOP DETECTOR DETAIL "A"

PLAN VIEW
(NOT TO SCALE)



LOOP DETECTOR DETAIL "C"

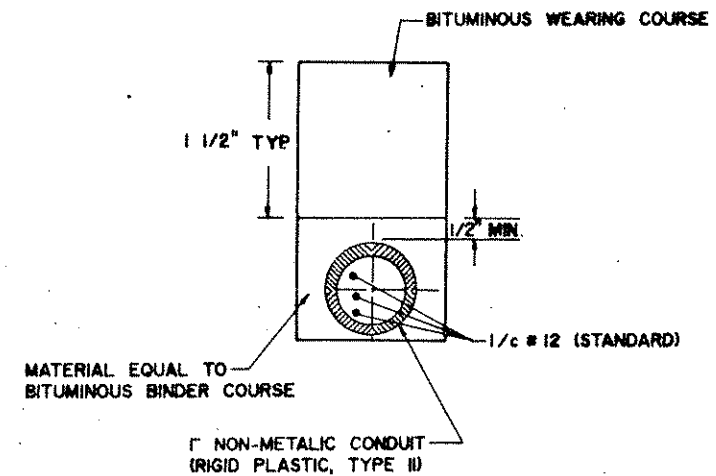
PLAN VIEW
(NOT TO SCALE)



LOOP CONNECTIONS SHALL BE SPLICED IN THE HANDHOLE AS FOLLOWS:

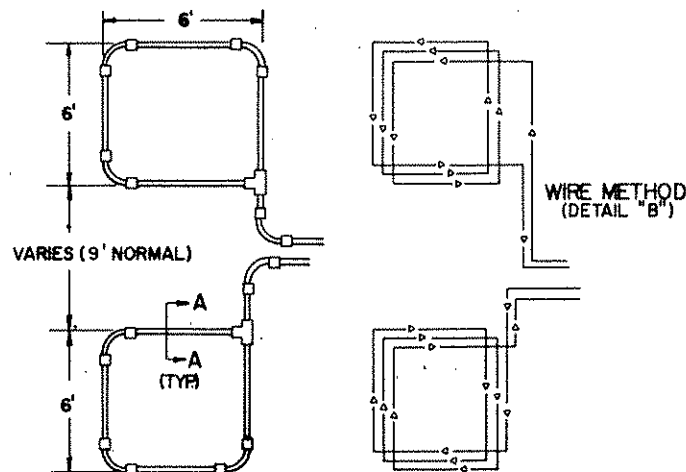
1B TO 4A 2B TO 3A: 1A AND 2A TO L1; 3B AND 4B TO L2.
SPLICE CONTROL CABLE TO L1 & L2 IN HANDHOLE
ALL CONDUCTORS SHALL BE TAGGED (1A, 1B, ect).

CROSS SECTION A-A



CONDUIT INSTALLATION DETAIL FOR LOOP DETECTORS

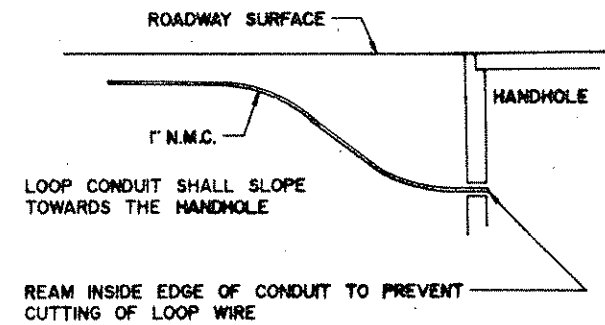
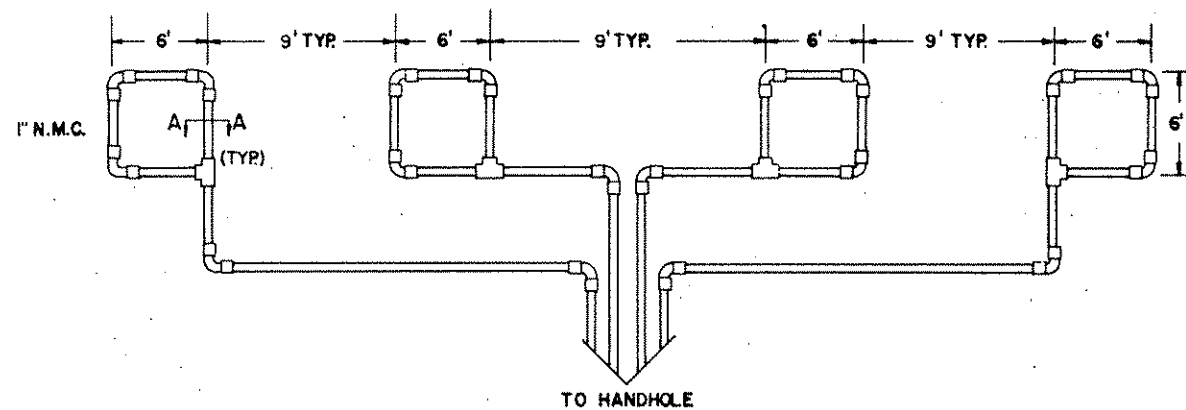
LOOP DETECTOR CONDUITS ARE TO BE INSTALLED IN 3" CUT TRENCHES AS SHOWN ON PLANS. INSTALL EACH COMPLETE DETECTOR ASSEMBLY WITH THE DETECTOR WIRE PULLED THROUGH THE COMPLETE ASSEMBLY TO HANDHOLE. WHERE APPROPRIATE, PLACE DETECTOR CONDUIT IN BITUMINOUS BINDER COURSE PRIOR TO PLACEMENT OF THE WEARING COURSE. THE DEPTH OF THE TRENCH AND THE RESULTANT PLACEMENT OF THE DETECTOR CONDUIT SHALL BE SUCH THAT THE ENTIRE DETECTOR ASSEMBLY DRAINS INTO THE HANDHOLE. BACKFILL AND COMPACT THE TRENCHES WITH MATERIAL EQUIVALENT TO THE MATERIAL REMOVED.



CONDUITS MAY BE PLACED IN COMMON TRENCH.

LOOP DETECTOR DETAIL "B"

PLAN VIEW
(NOT TO SCALE)
(TYPICAL)



DRAINAGE DETAILS

NOTES:

- 1) ALL CORNERS SHALL BE STANDARD 90° CONDUIT BENDS.
- 2) CONNECT WIRES IN HANDHOLES USING WESTERN UNION SPLICE, SOLDERED, TAPED & WATERPROOFED.
- 3) LOOP DETECTOR WIRES SHALL BE CROSS LINKED POLYETHYLENE (XPL) SEE SPECIAL PROVISIONS.
- 4) LOOP WIRES SHALL BE TWISTED A MIN. OF 1 TURN PER 3 FEET FROM THE LOOP TO THE CONDUIT AND 3 TURNS PER FOOT THROUGH THE CONDUIT TO THE HANDHOLE.
- 5) N.M.C. DESIGNATES NON-METALLIC CONDUIT (SPEC 3803).

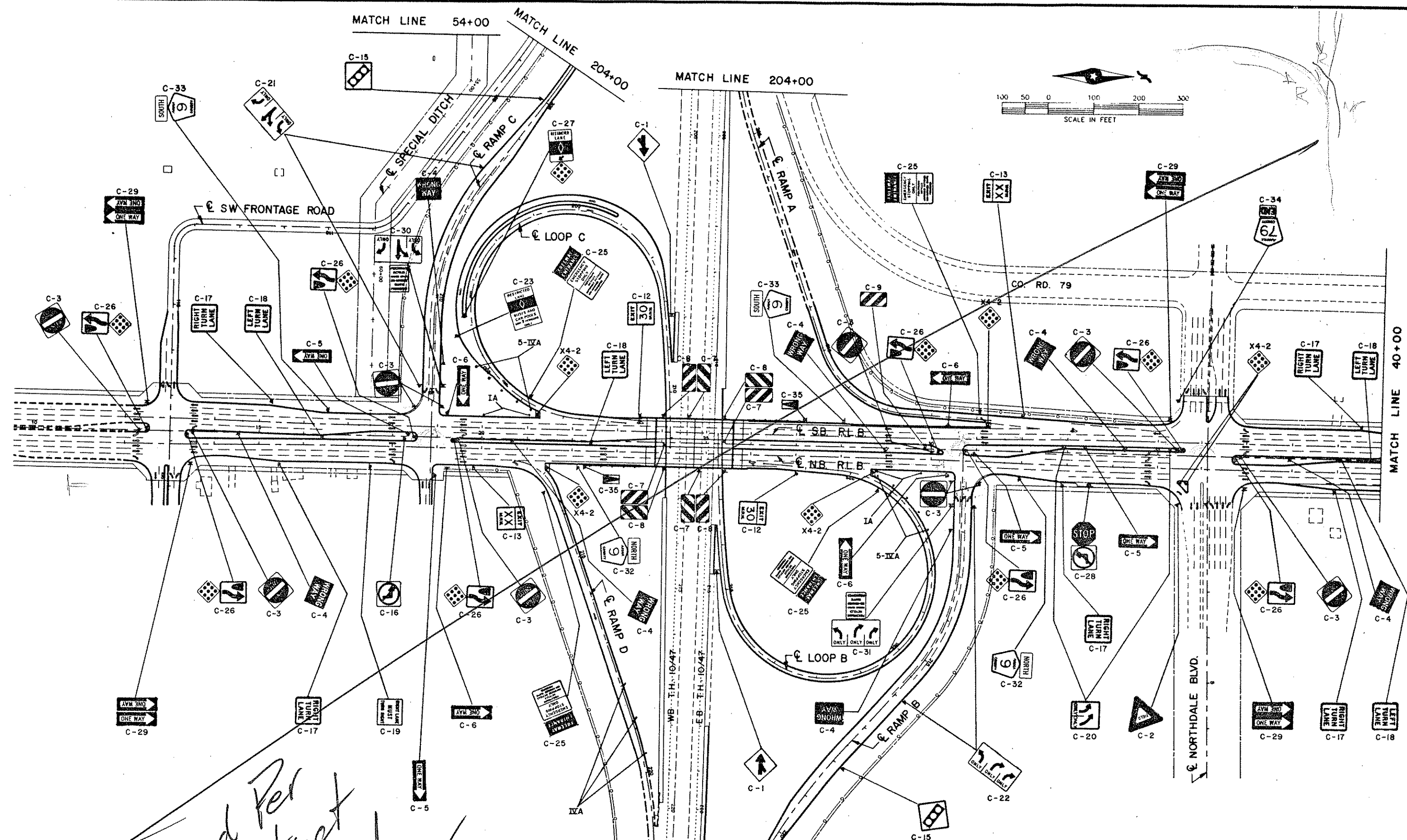
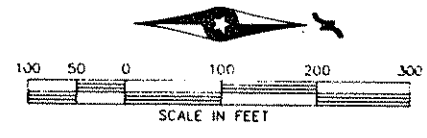
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Parker</i> Date 8-22-89 Minn. Reg. No. J2666	BRW, INC. PLANNING TRANSPORTATION ENGINEERING 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612)370-0700	ORIGINAL DATE: 8/14/89 REVISIONS:	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 TRAFFIC CONTROL INTERCONNECTION LOOP DETECTOR DETAILS
		DESIGN BY: DRAWN BY: KJM/RAH	
S.A.P. NO. 02-609-08		SHEET 178 OF 256	DESIGN FILE No. 16-8840

MATCH LINE 54+00

MATCH LINE 204+00

MATCH LINE 204+00

MATCH LINE 221+50



*Revised Per
Contract
Amend.
No. 5*

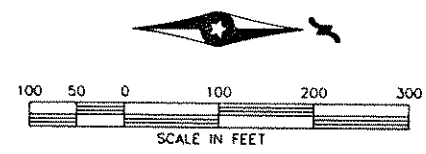
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.46.

Boyd Hauke
Date: 8-22-82 Minn. Reg. No. 12665

BRW
DESIGN BY: JRM
DRAWN BY: CTH
CHK'ED BY:

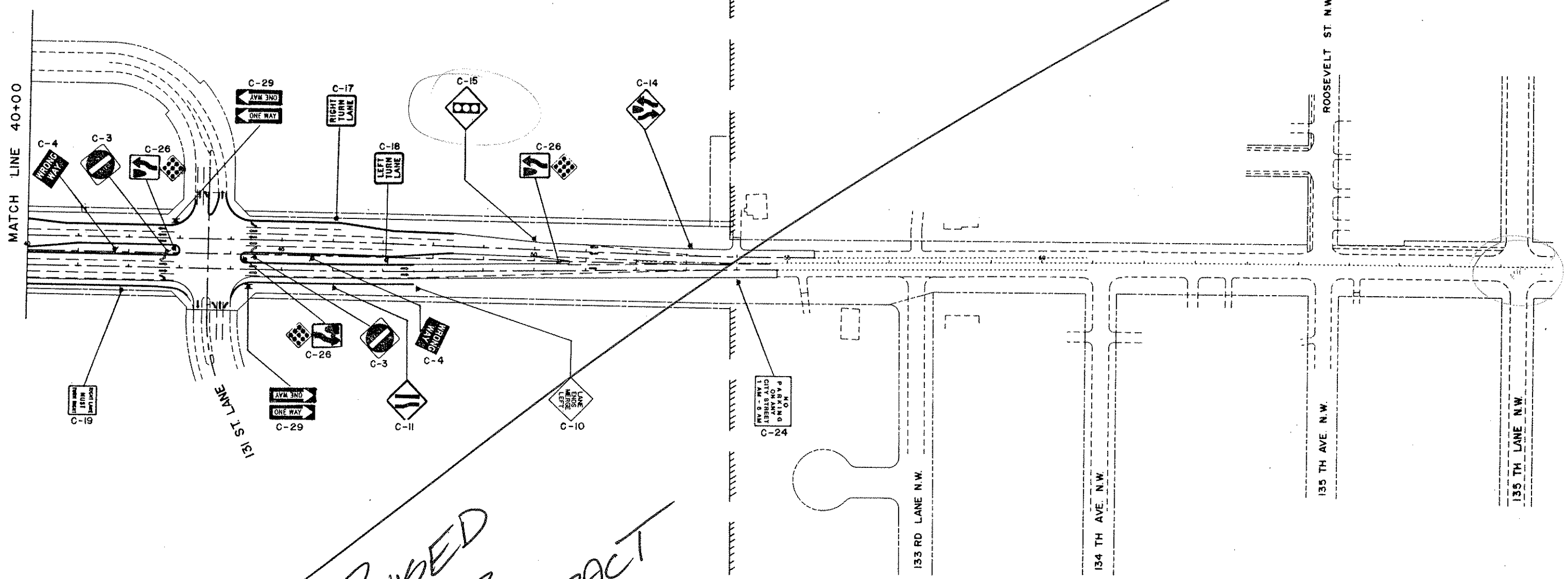
ORIGINAL DATE	6/13/89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
SIGNING PLAN
RLB STA. 9+50 - 40+00
T.H. 10/47 STA. 204+00 - 221+50



CITY OF COON RAPIDS

CITY OF ANDOVER

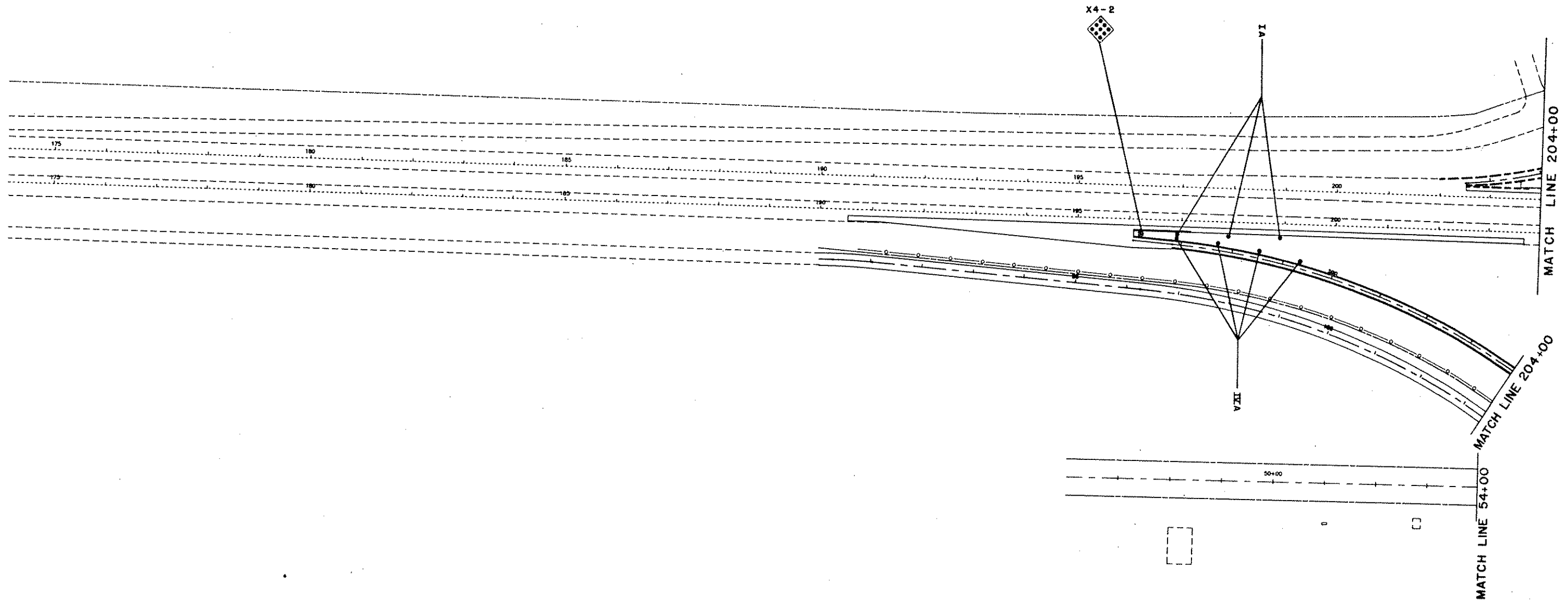
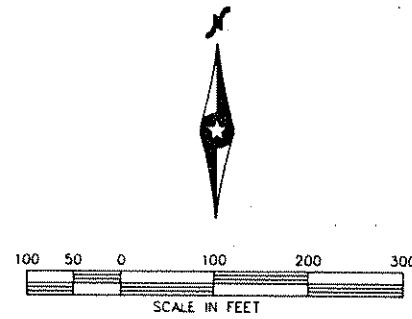


*REVISED
PER CONTRACT
AMEND.
NO. 5*

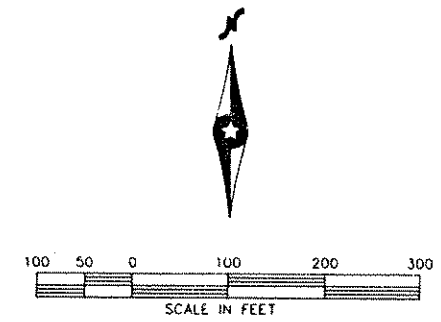
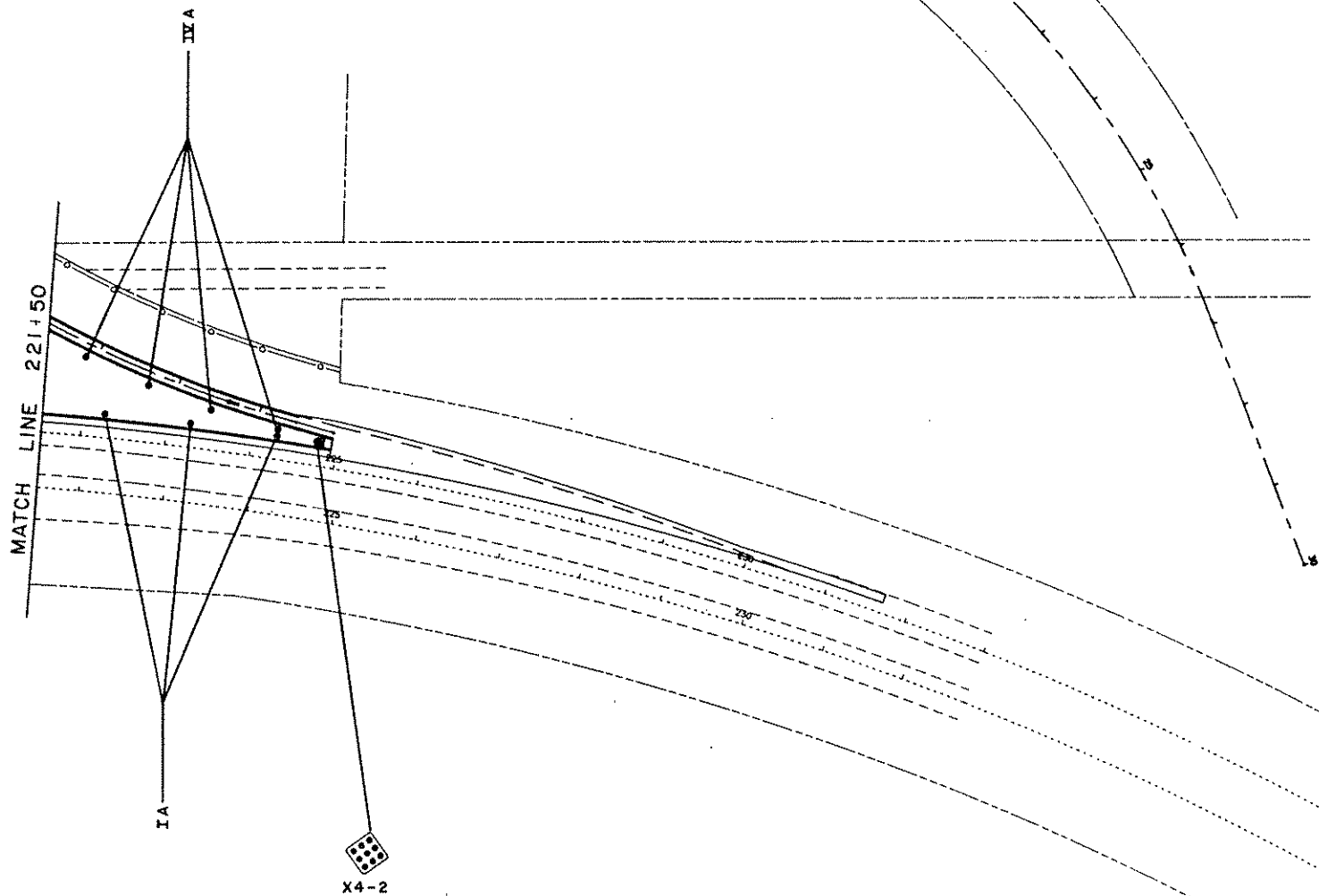
CITY OF COON RAPIDS


CITY OF ANDOVER

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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyer</i> Date 8-22-89 Minn. Reg. No. 12666		ORIGINAL DATE 6/13/89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 SIGNING PLAN RLB STA. 40+00 - 55+52.80
		DESIGN BY: JRM DRAWN BY: CTR CH'KED BY:	
S.A.P. NO. 02-609-08		SHEET 100 OF 256	DESIGN FEE No. 16.8840



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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Paul</i> Date 8-22-89 Minn. Reg. No. 12666		ORIGINAL DATE 6/19/89 REVISIONS _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 SIGNING PLAN T.H. 10/47 STA. 174+00 - 204+00
		DESIGN BY: JRM DRAWN BY: CTR CHECKED BY: _____	
S.A.P. NO. 02-609-08		SHEET 181 OF 256	DESIGN FILE No. 16-8840



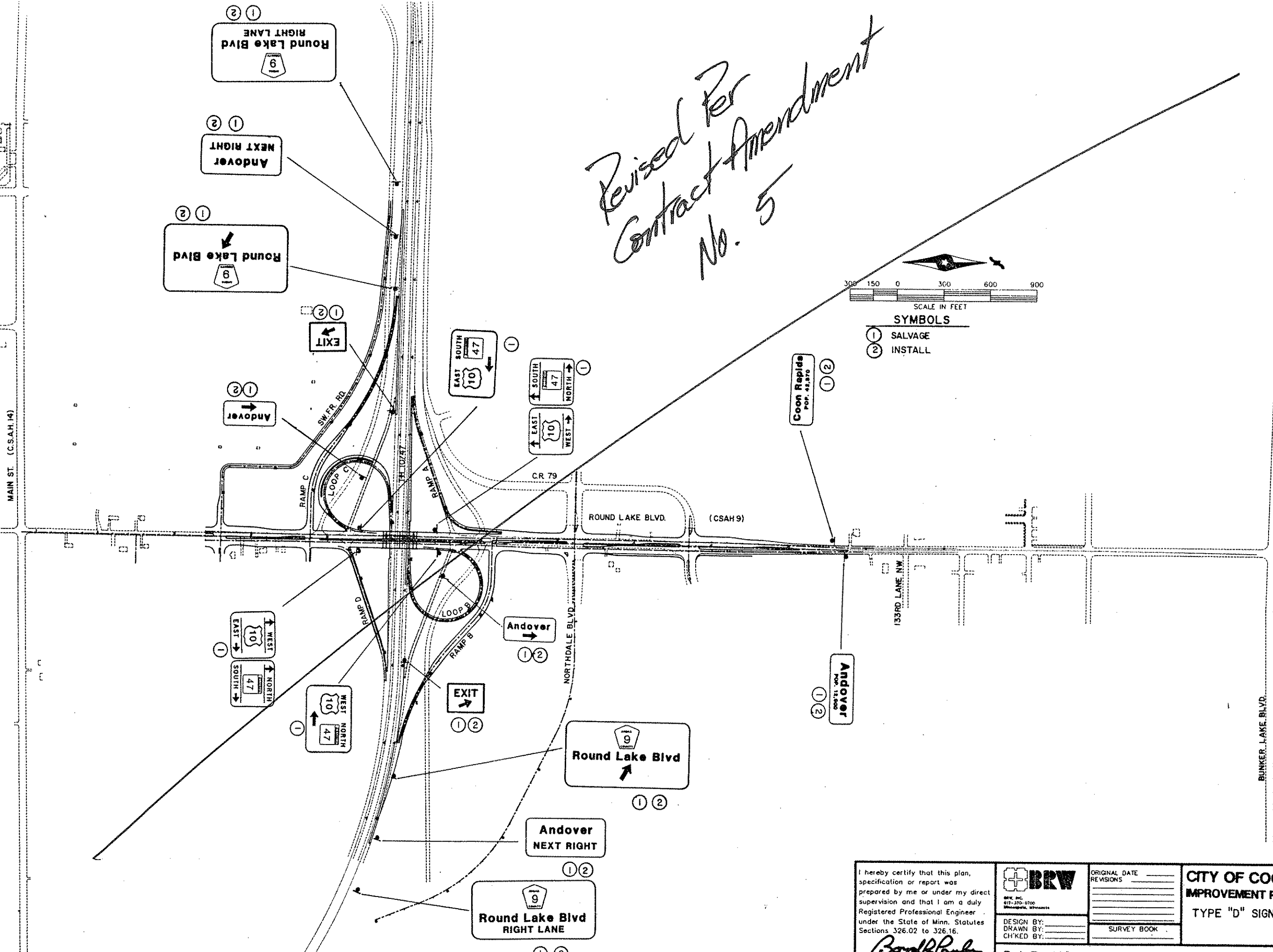
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paulsen</i> Date: 9-22-89 Minn. Reg. No. J2866	 <small>BRW, Inc. 811-370-0700 Minneapolis, Minnesota</small>	ORIGINAL DATE 6/14/89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 SIGNING PLAN T.H. 10/47 STA. 221+50 - 232+00	
		DESIGN BY: JRM DRAWN BY: GYH CHECKED BY:		SURVEY BOOK
		S.A.P. NO. 02-609-08 SHEET 182 OF 256		

DESIGN FILE No. 16-8840

*Revised Per
Contract Amendment
No. 5*



SYMBOLS
 ① SALVAGE
 ② INSTALL



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 State of Minn. Statutes Sections 326.02 to 326.16.
Boyd Paul
 Date: 8-22-89 Minn. Reg. No. 12666

BRW
 BRW, INC.
 417-270-0700
 Minneapolis, Minnesota

DESIGN BY: _____
 DRAWN BY: _____
 CHECKED BY: _____

ORIGINAL DATE	_____
REVISIONS	_____
SURVEY BOOK	_____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 TYPE "D" SIGNS LAYOUT

S.A.P. NO. 02-609-08

SHEET 103 OF 256

DESIGN FILE
 No. 16-8840

TYPE "C" SIGNS (R)									
REFERENCE NUMBER	NUMBER OF INSTALLATION	NUMBER OF INSTALLATIONS	POSTS PER INSTALLATION (QUANTITY - TYPE)	LENGTH OF POSTS (FT.)	MOUNTING HEIGHT (FT.)	SIGN PANEL SIZE (FT.)	SIGN PANEL AREA PER PANEL (SQ. FT.)	SIGN PANEL CODE NUMBER	SIGN PANEL LEGEND
C-1	2	2-U	14	6	36 X 36	9.00	W4-1 (R)	MERGE	
C-2	1	1-U	16	7	36 EQU	3.90	R1-2	YIELD	
C-3	12	1-U	15	7	30 X 30	6.25	R5-1	DO NOT ENTER	
C-4	9	2-U	15	7	36 X 24	6.00	R5-1a	WRONG WAY	
C-5	4	2-U	14	7	36 X 12	3.00	R6-1 (R)	ONE WAY	
C-6	4	2-U	14	7	36 X 12	3.00	R6-1 (L)	ONE WAY	
C-7	4	1-U	9	4	12 X 36	3.00	X4-4 (R)	CLEARANCE MARKER	
C-8	4	1-U	9	4	12 X 36	3.00	X4-4 (L)	CLEARANCE MARKER	
C-9	1	1-U	9	4	8 X 18	1.00	X4-4 (R)	CLEARANCE MARKER	
C-10	1	2-U	14	7	36 X 36	9.00	W9-2 (L)	LANE ENDS MERGE LEFT	
C-11	1	2-U	14	7	36 X 36	9.00	W4-2R	PAV'T WIDTH TRANS. SIGN	
C-12	2	2-U	14	7	36 X 48	12.00	W13-2	EXIT ADVISORY (30 MPH)	
C-13	2	2-U	14	7	36 X 48	12.00	W13-2	EXIT ADVISORY (MPH)	
C-14	1	2-U	14	7	36 X 36	9.00	W6-1	DIVIDED HIGHWAY	
C-15	3	2-U	14	7	36 X 36	9.00	W3-3	SIGNAL AHEAD	
C-16	1	2-U	14	7	36 X 36	9.00	R3-2	NO LEFT TURN	
C-17	6	1-U	13	7	30 X 30	6.25	R3-X1	RIGHT TURN LANE	
C-18	5	1-U	13	7	30 X 30	6.25	R3-X2	LEFT TURN LANE	
C-19	2	1-U	14	7	30 X 30	6.25	R3-7 (R)	RT. LN. MUST TURN RIGHT	
C-20	2	2-U	14	7	36 X 30	7.50	R3-8F	DOUBLE LEFT TURN ONLY	
C-21	2	2-U	14	7	48 X 30	10.00	R3-8G	DOUBLE LEFT, THRU, & RT. TURN	
C-22	2	2-U	14	7	48 X 30	10.00	R3-8G (MOD)	LEFT ONLY & DOUBLE RT. ONLY	
C-23	1	2-U	14	6	36 X 30	7.50		RESTRICTED LANE, B & CP ONLY	
C-24	1	1-U	14	6	30 X 30	6.25		NO PARKING ON ANY CITY STREET	
C-25	4	2-U	16	6	36 X 18	4.50	E1-6	FREEWAY ENTRANCE	
					36 X 36	9.00	R16-X4	NO PEDS, ETC.	
C-26	11	1-U	14	7	24 X 30	5.00	R4-7	KEEP RIGHT	
					18 X 18		X4-2	HAZARD MARKER PLT. H-2	
C-27	1	1-U	14	7	30 X 42	8.75	R3-10 (MOD)	RESTRICTED LANE, ARROW TO L. & DN	
					18 X 18		X4-2	HAZARD MARKER PLT. H-2	
C-28	1	1-U	14	7	30 X 30	6.25	R1-1	STOP	
					24 X 24	4.00	R3-2	NO LEFT TURN	
C-29	6	2-U	14	7	36 X 12	3.00	R6-1 (R)	ONE WAY (1)	
					36 X 12	3.00	R6-1 (L)	ONE WAY	
C-30	1	2-U	14	7	48 X 30	10.00	R3-8G	DOUBLE LEFT, THRU, & RT. TURN (1)	
					18 X 24	3.00	R5-10d	NO PEDS, ETC.	
C-31	1	2-U	14	7	48 X 30	10.00	R3-8G (MOD)	LEFT ONLY & DOUBLE RT. ONLY (1)	
					18 X 24	3.00	R5-10d	NO PEDS, ETC.	
C-32	2	1-U	14	7	24 X 24	4.00	M1-6	COUNTY RT. MARKER - 9	
					24 X 12	2.00	M3-1A	CARDINAL DIR. MARKER - N	
C-33	2	1-U	14	7	24 X 24	4.00	M1-6	COUNTY RT. MARKER - 9	
					24 X 12	2.00	M3-3A	CARDINAL DIR. MARKER - S	
C-34	1	1-U	14	7	24 X 24	4.00	M1-6	COUNTY RT. MARKER - 79	
					24 X 12	2.00	M4-6A	END	
C-35	2	1-U	9	4	12 X 6	1.00	X4-5	SNOWPLOW MARKER (RAISE)	
TOTAL						683.00			

*Revised Per
Contract Amendment
No. 5*

DELINEATORS (S)		
DELINEATOR TYPE	QUANTITY	REMARKS
(2) IA (X4-6)	10	EXIT NOSE
(2) IIIA (X4-6)		EXIT NOSE
(2) IVA (X4-6)	21	EXIT NOSE
(3) IXB (X4-2)	20 (5)	EXIT NOSE & ISLAND

SPECIFIC NOTES:

- (1) MOUNTED BACK TO BACK.
- (2) SEE STANDARD SIGNS MANUAL FOR GUIDE MARKER PLATE (X4-6).
- (3) SEE STANDARD SIGNS MANUAL FOR MARKER PLATE (X4-2) HAZARD.
- (4) 100% STATE FUNDED
- (5) 19 - 100% LOCAL FUNDING, 1 - 100% STATE FUNDED.

GENERAL NOTES:

1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICE.
2. SEE SHEETS 185 TO 188 FOR STRUCTURAL DETAILS.
3. SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE "C" SIGN PANELS.
4. SEE "DELINEATORS" PLATE FOR PLACEMENT DETAILS, SHEET
5. DELINEATOR LOCATIONS WILL BE PROVIDED 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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulin

Date: 8-22-89 Minn. Reg. No. 12666

DRW

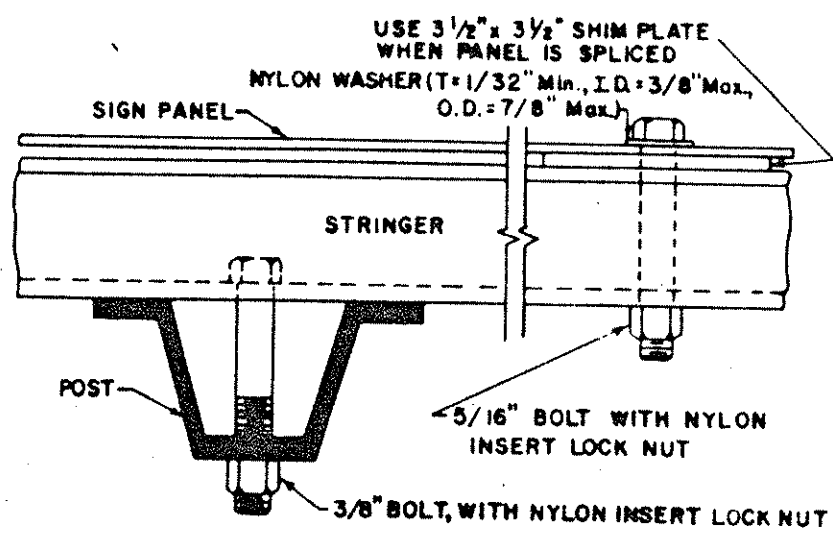
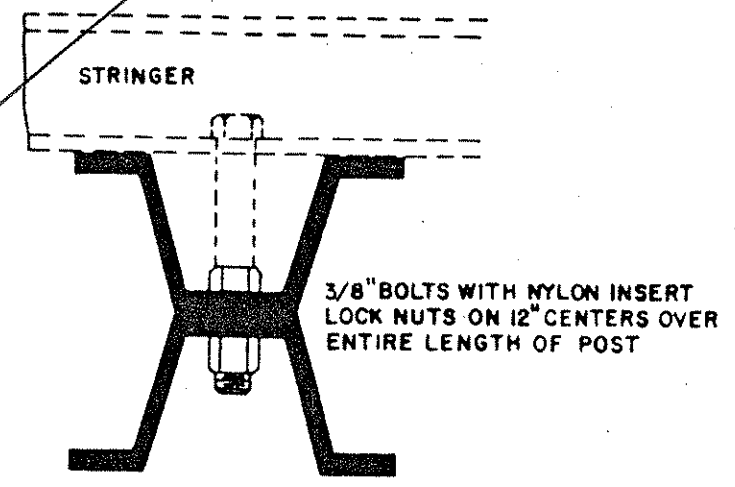
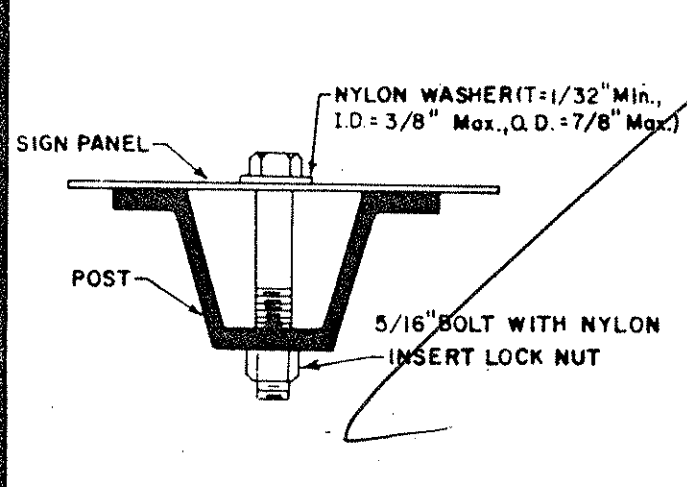
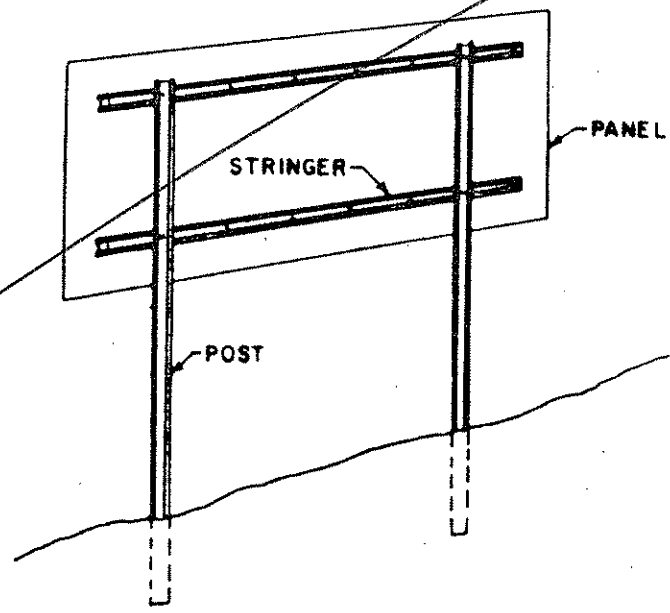
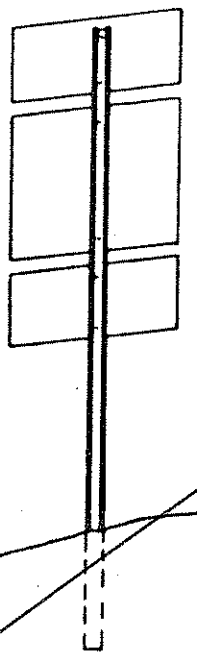
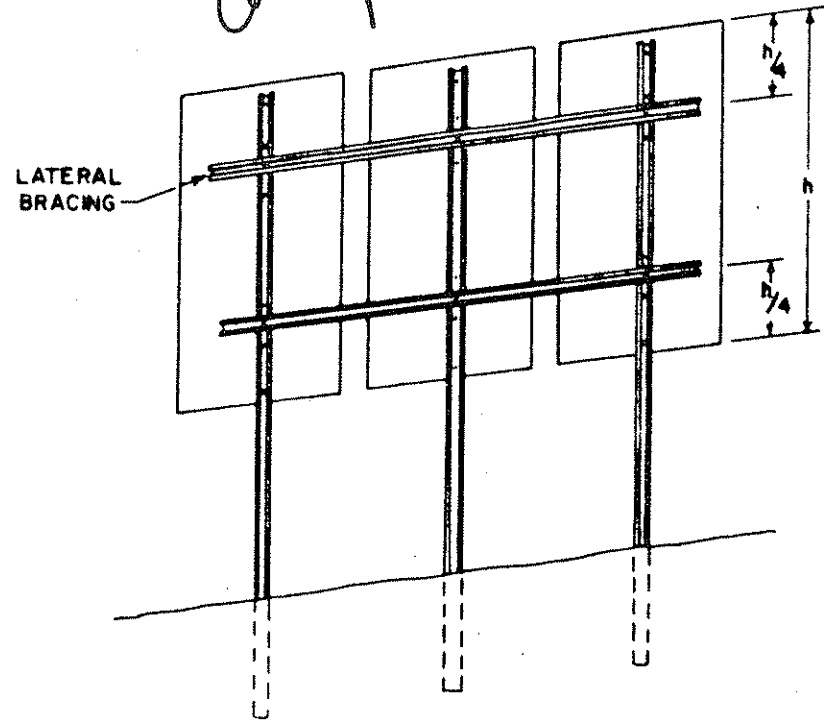
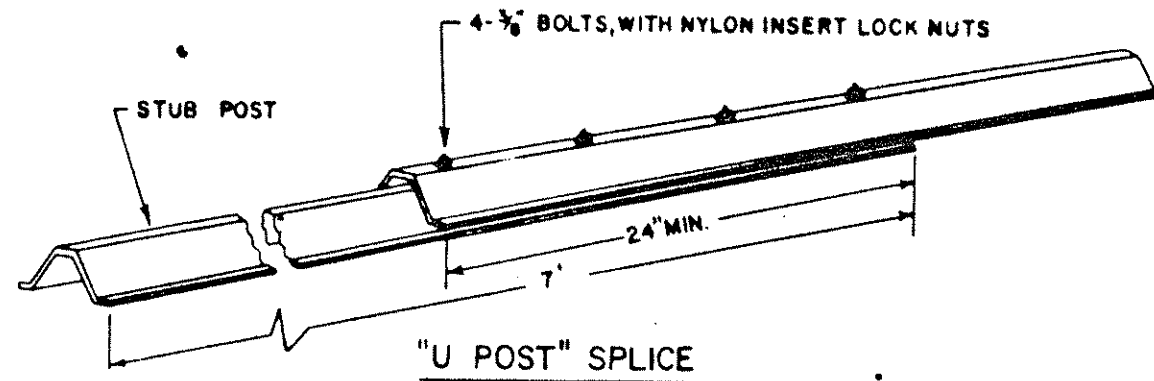
DESIGN BY: BPJ
DRAWN BY: BPJ
CHECKED BY:

ORIGINAL DATE: 4/18/89
REVISIONS:

SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
TYPE "C" SIGN
DATA

Rev. Per
Cont. Amend.
No. 5



NOTES:

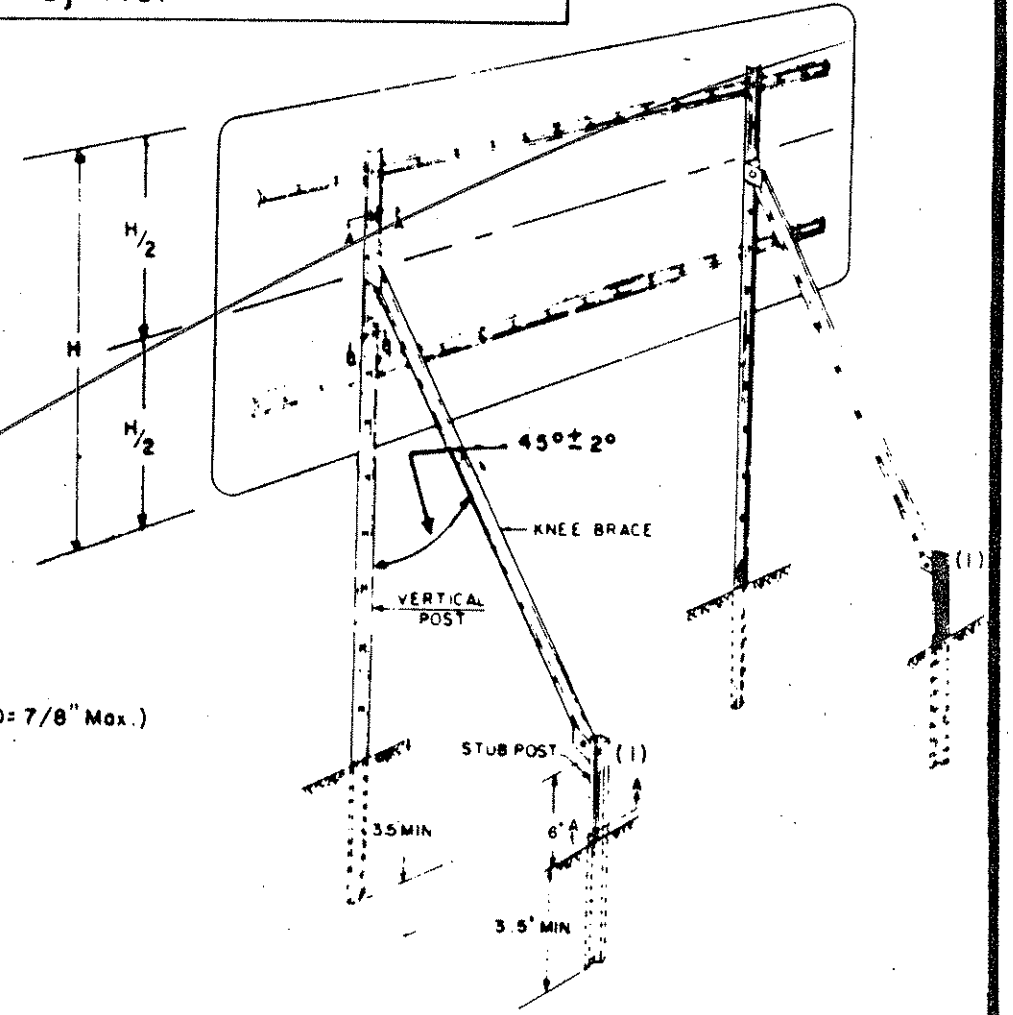
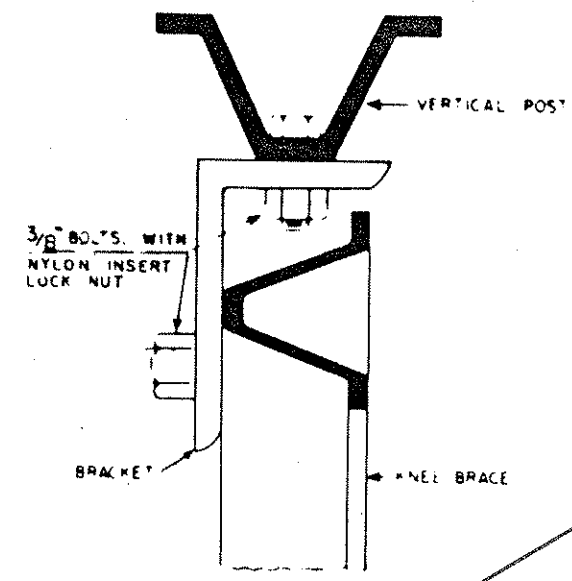
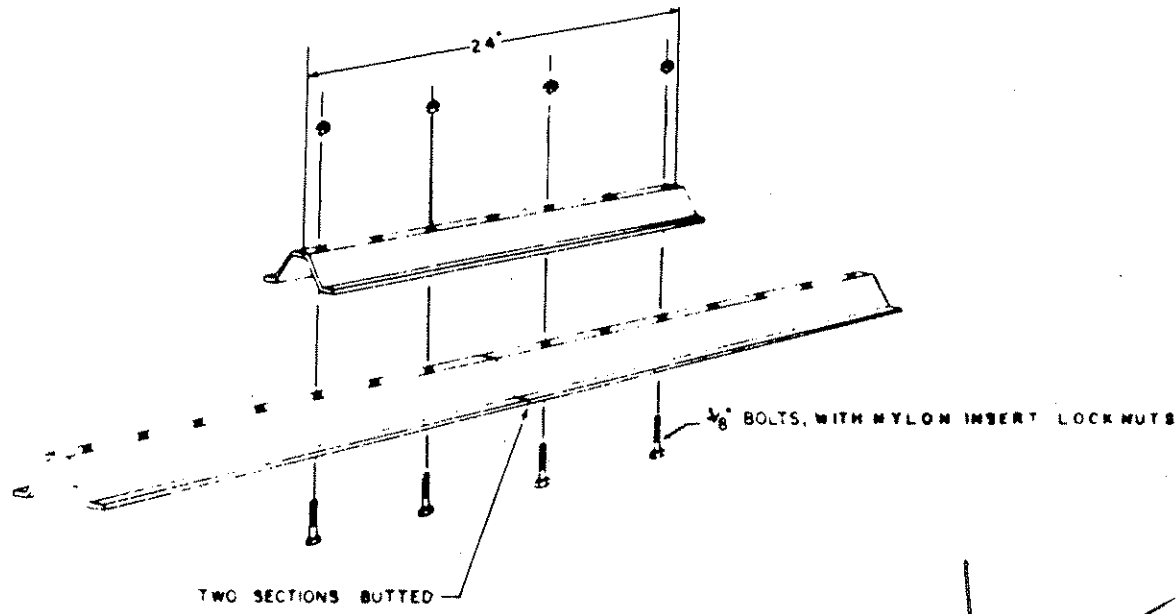
1. Posts, stringers, knee braces and lateral bracing shall conform to Mn/DOT 3401 for 4" posts, except stringers and lateral bracing may be 3" posts.
2. For Type "D" sign post lengths and spacings see Sign Data Sheet.
3. Type "D" sign panels shall be bolted to stringers at 12 inch max. intervals in accordance with Type "D" Stringer And Panel-Joint Detail. (See Standard Signs Manual)
4. Mounting for Type "C" sign panels shall be as indicated in the Standard Signs Manual unless specified otherwise. For post lengths see Sign Data Sheet.
5. All vertical "U Posts" shall be spliced. Driven stub post shall be 7 feet in length.
6. Bolts, nuts and washers shall be stainless steel, unless indicated otherwise.
7. "U Post" embedment shall be at least 3 1/2 feet. "X Post" embedment shall be at least 5 feet.
8. Where two or more single post signs (Type C) are mounted side by side, they shall be reinforced laterally by at least two post sections, bolted at each post and located approximately at the quarter points as shown in sketch.
9. A-Frame Bracket shall be steel conforming to Mn/DOT 3306 and galvanized in accordance with Mn/DOT 3394.
10. Collars shall be used to shim overlays and demountable legend away from panel where interference with bolt heads is encountered Mn/DOT 3352.2A7.
11. Two and three post Type "C" signs shall be reinforced with at least one lateral brace. Installations where the total panel height is 60 inches or more shall have two lateral braces located approximately at the quarter points.
12. A stainless steel washer with same dimensions shall be provided between all nylon washers and bolt heads.

DESIGN A
"C" & "D" SIGN DETAILS
Sheet 1 of 3

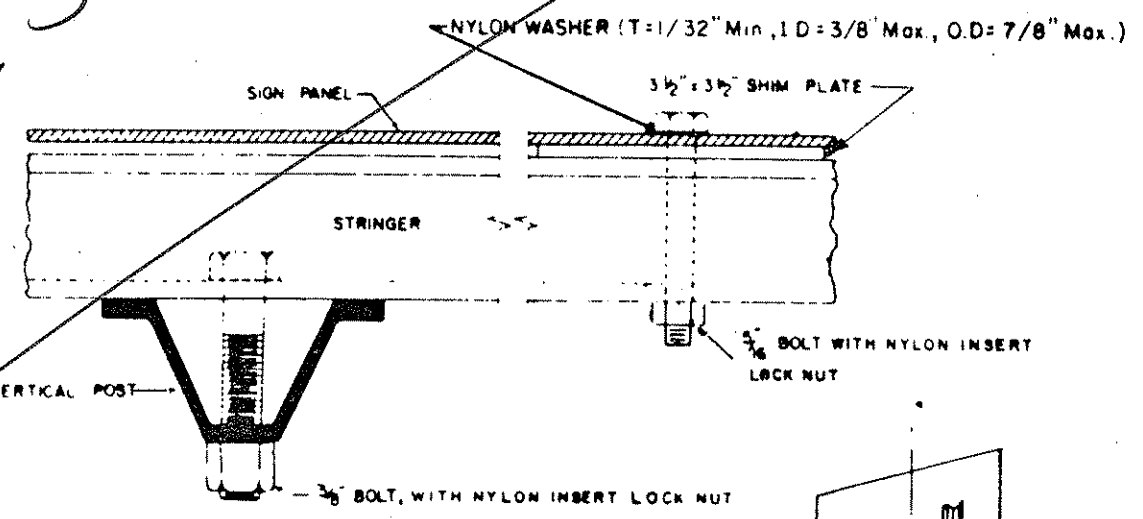
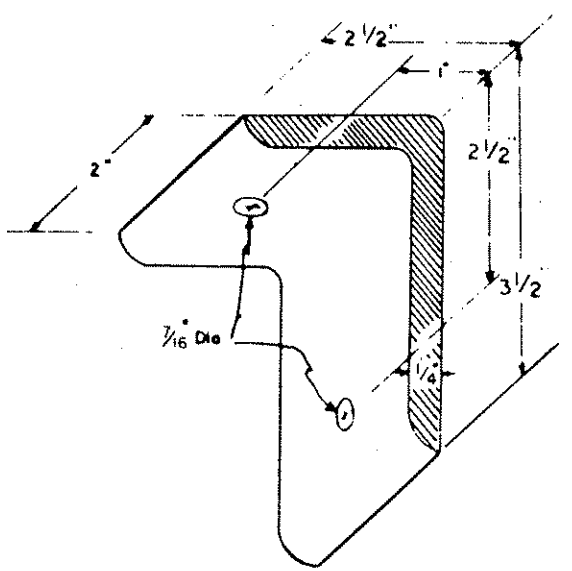
REV. 10-15-76
2-9-78
7-8-80
4-7-82

S.A.P. No. 02-609-08

Sheet No. 185 of 256 Sheets

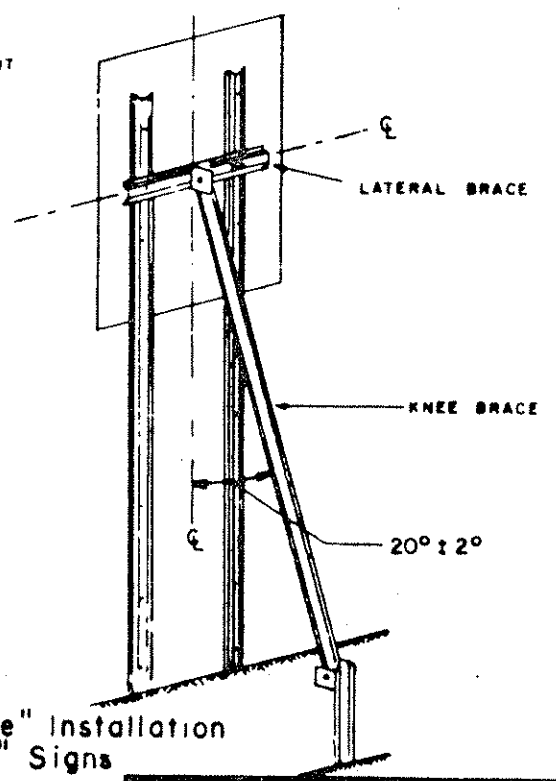
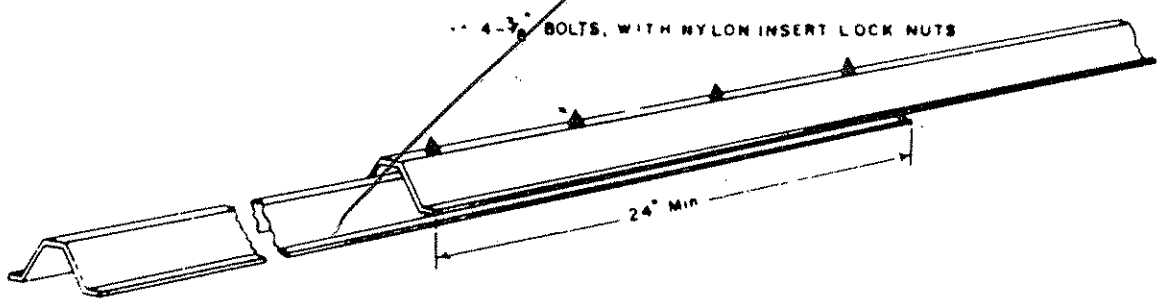


Rev. Per Contr. Amend No. 5



Typical "A-Frame" Installation Type "D" Signs

(1) Offset stub post 1' toward roadway relative to vertical post.

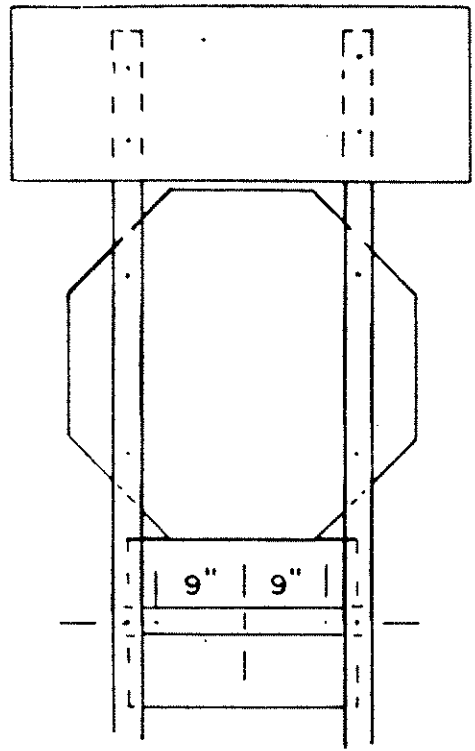


Typical "A-Frame" Installation Type "C" Signs

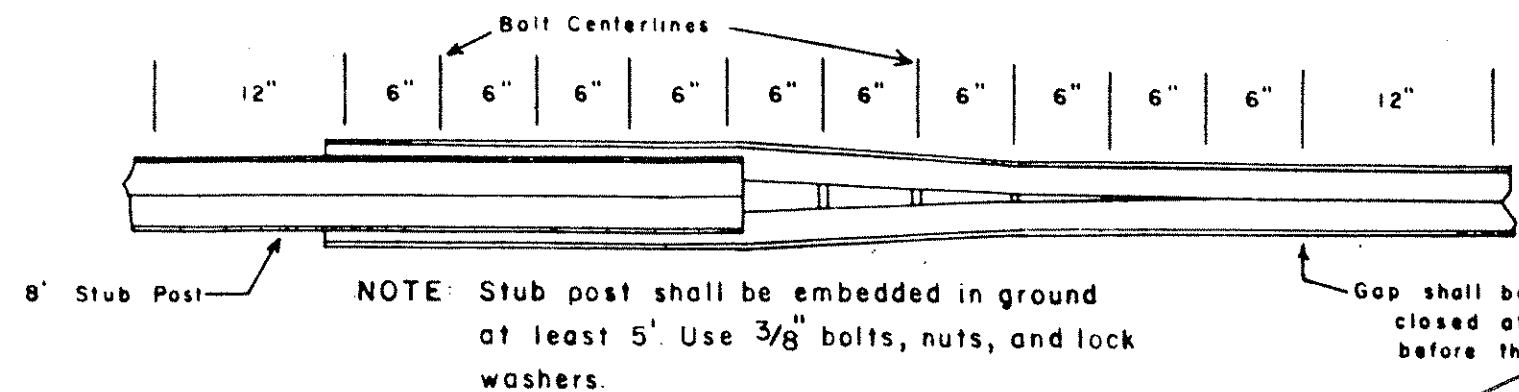
DESIGN A
"C" & "D" SIGN DETAILS
(A-FRAME SUPPORT)

Sheet 2 of 3

REV. 10-15-76
2-9-78



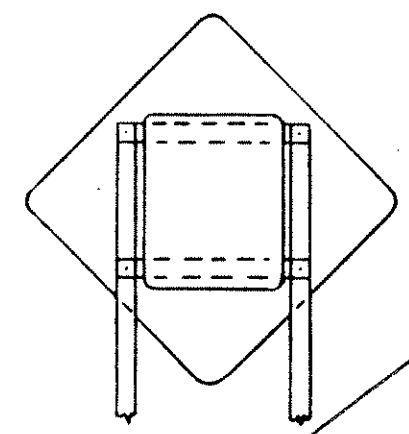
R6-1, R1-1 & (X1-6, R6-3 or R6-3a)
Mounting



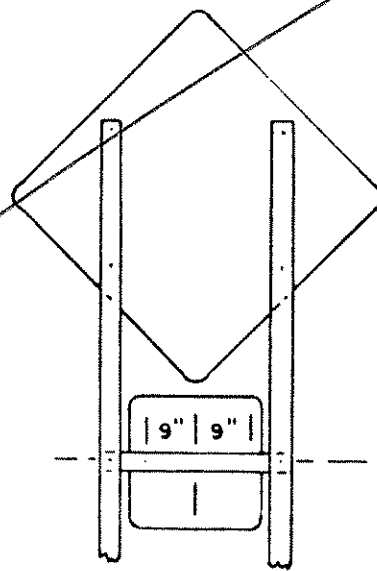
NOTE: Stub post shall be embedded in ground at least 5'. Use 3/8" bolts, nuts, and lock washers.

"X POST" SPLICE

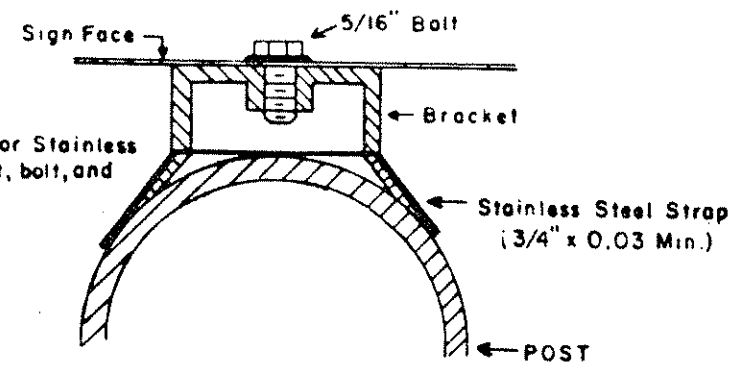
*Rev. Per Contract
Amendment No. 5*



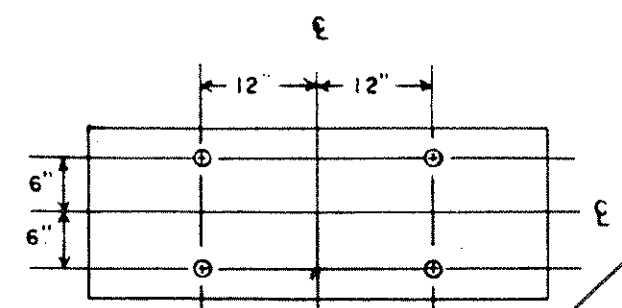
Back to back mounting
of R4-7 and W9-2.



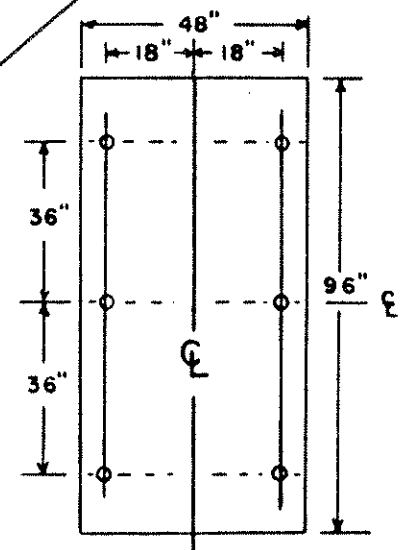
W4-1 & W4-1P
W1-2 & W13-1
W6-1 & W6-1P
W6-2 & W6-2P
W6-3 & W6-3P
Mounting



STRAP MOUNTING DETAIL
FOR TYPE "C" SIGNS

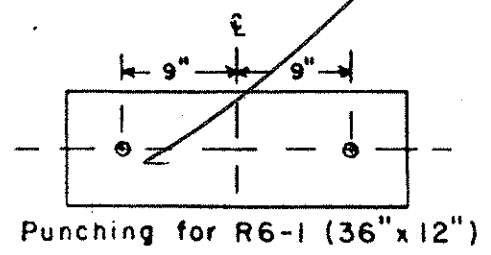


Punching for R6-1 (48" x 18")

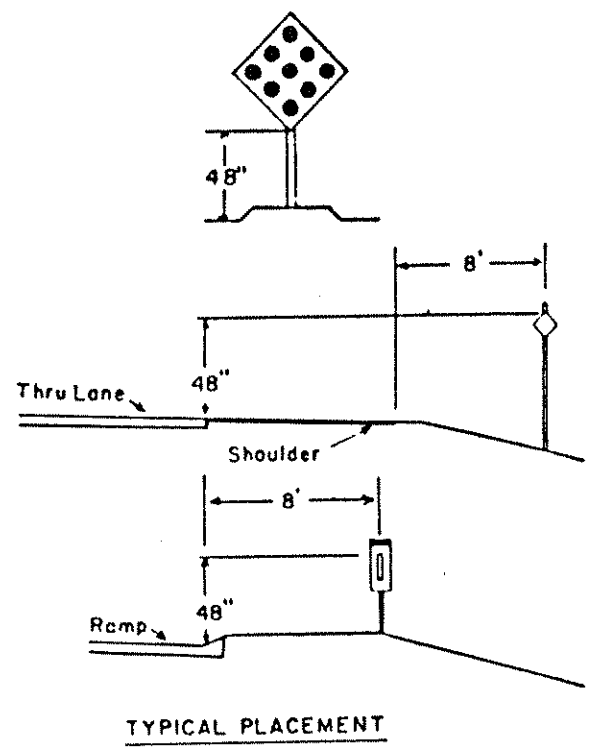


Punching for R2-4a
SPEED LIMIT

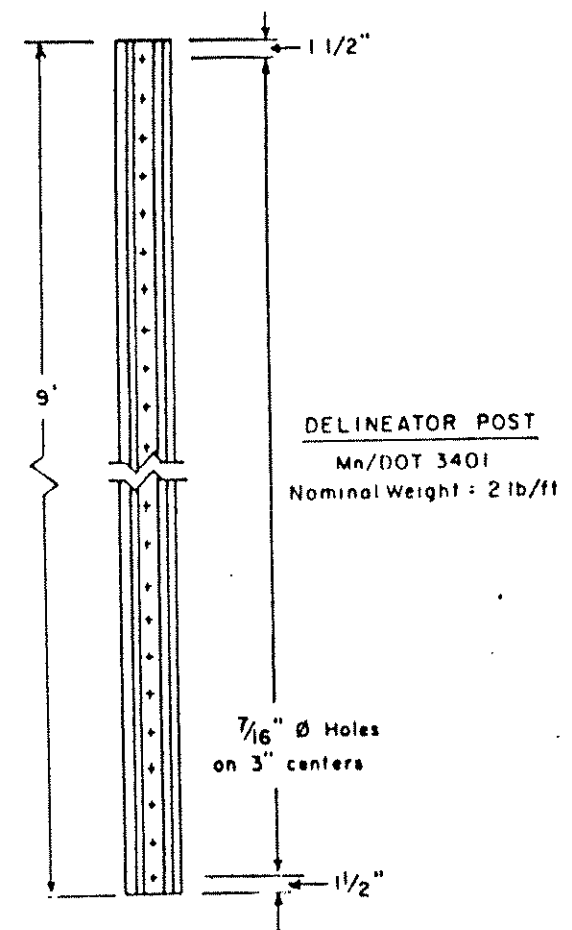
- REV. 1-6-67
- 7-17-67
- 5-18-71
- 5-17-73
- 2-5-74
- 1-14-77
- 3-2-78
- 5-26-78
- 7-22-80



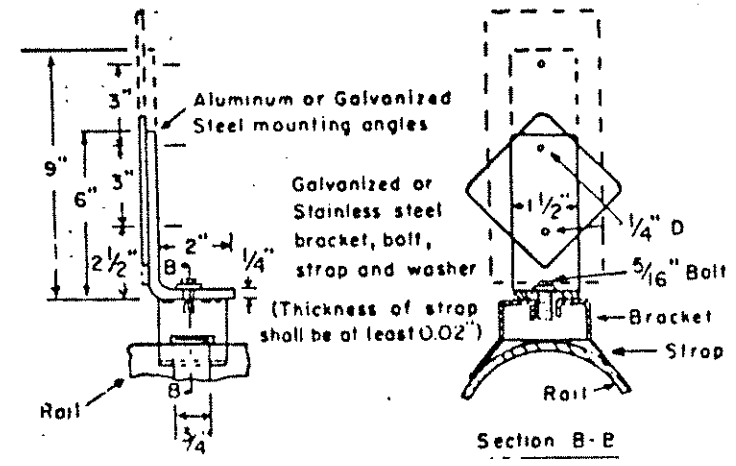
Punching for R6-1 (36" x 12")



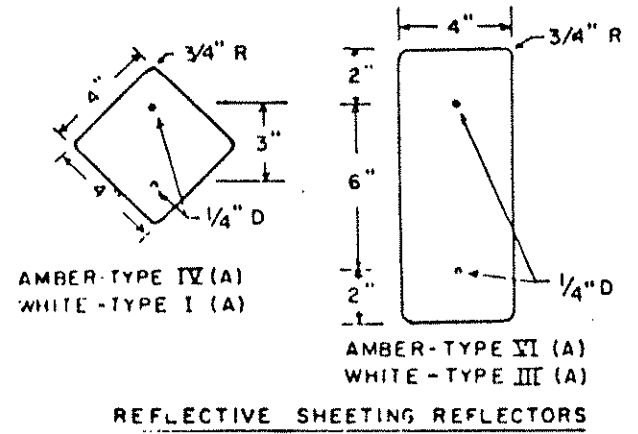
TYPICAL PLACEMENT



DELINEATOR POST
Mn/DOT 3401
Nominal Weight = 2 lb/ft



BRIDGE RAIL MOUNTING



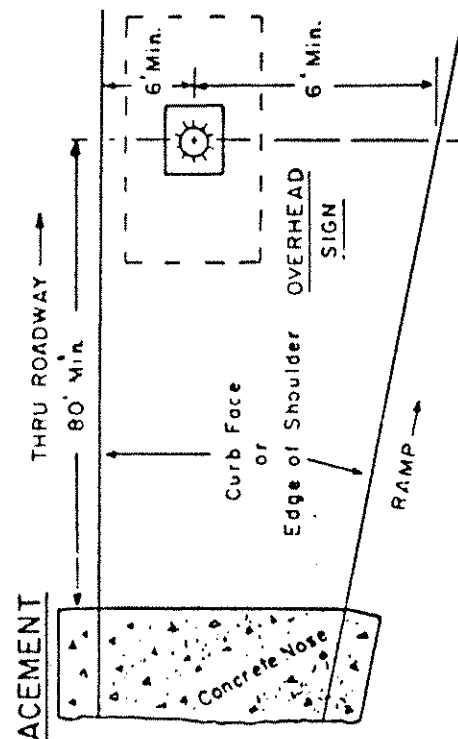
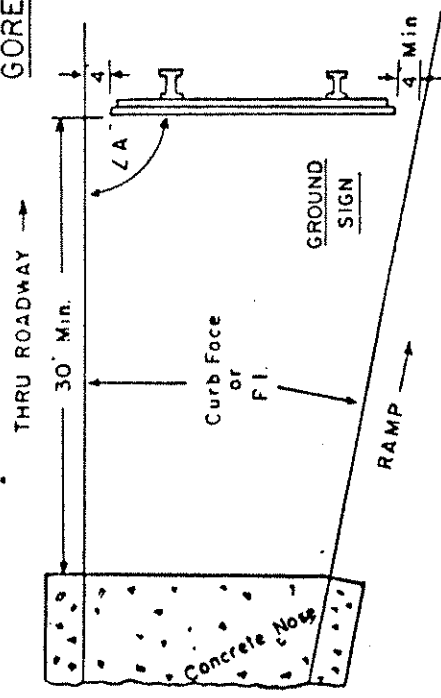
REFLECTIVE SHEETING REFLECTORS

NOTES
1. A tolerance of 1/16 inch will be permitted in the spacing of the mounting holes.

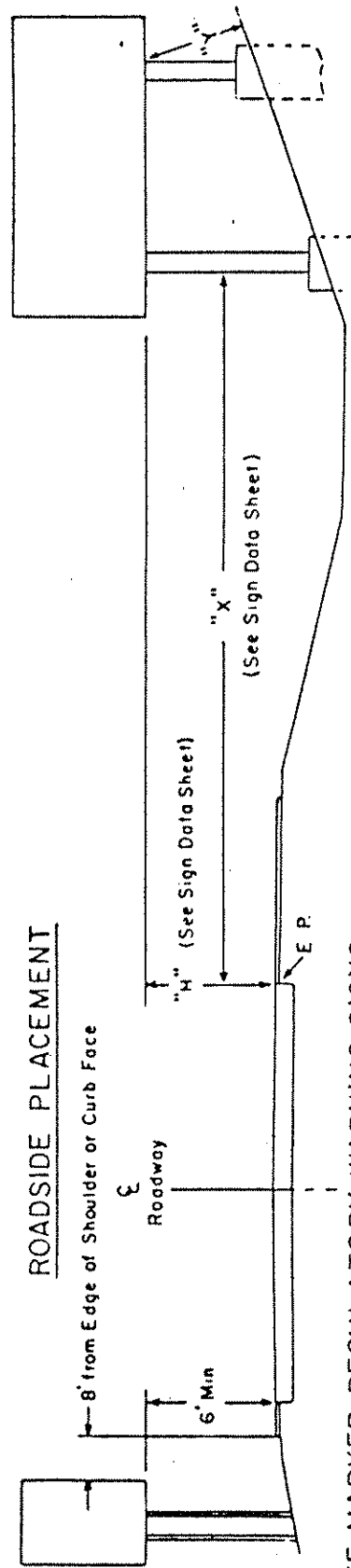
Revised 12-15-76
2-9-78
9-15-78
4-14-80

DELINEATORS

GORE PLACEMENT



ROADSIDE PLACEMENT



SIGN PLACEMENT

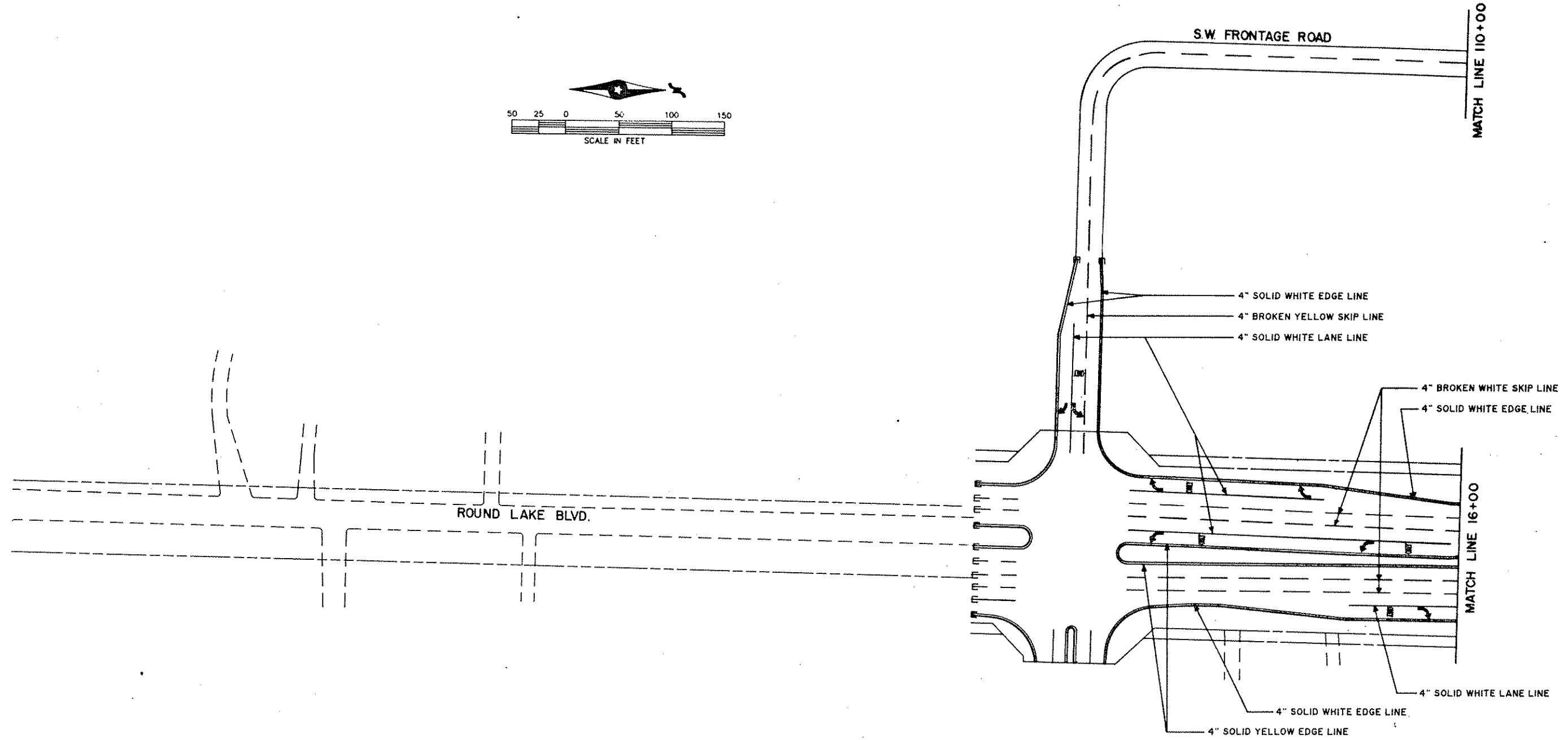
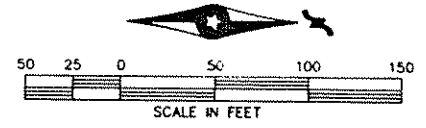
RTE. MARKER, REGULATORY, WARNING SIGNS & MINOR GUIDE SIGNS (TYPE "D" SIGNS)

MAJOR GUIDE SIGN (TYPE "A" SIGNS)

- NOTES:
- 1) If a secondary sign is mounted below a major sign, the major sign shall be at least 8' above the pavement edge and the secondary sign at least 5'.
 - 2) All route markers, warning, and regulatory signs shall be at least 6' above pavement edge except where heavy pedestrian traffic is encountered they shall be 7'.
 - 3) Sign faces shall be vertical.
 - 4) Overhead signs shall be positioned at right angles to the thru roadway unless otherwise noted.
 - 5) To avoid specular glare, LA shall be approximately 93° for signs located less than 30' from edge of pavement and approximately 92° for signs located 30' or more from edge of pavement. This applies to signs Type "A", "C", "B", "D" and includes signs in the gore.

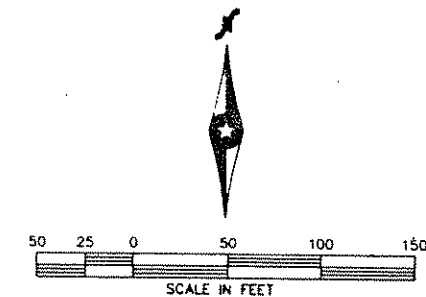
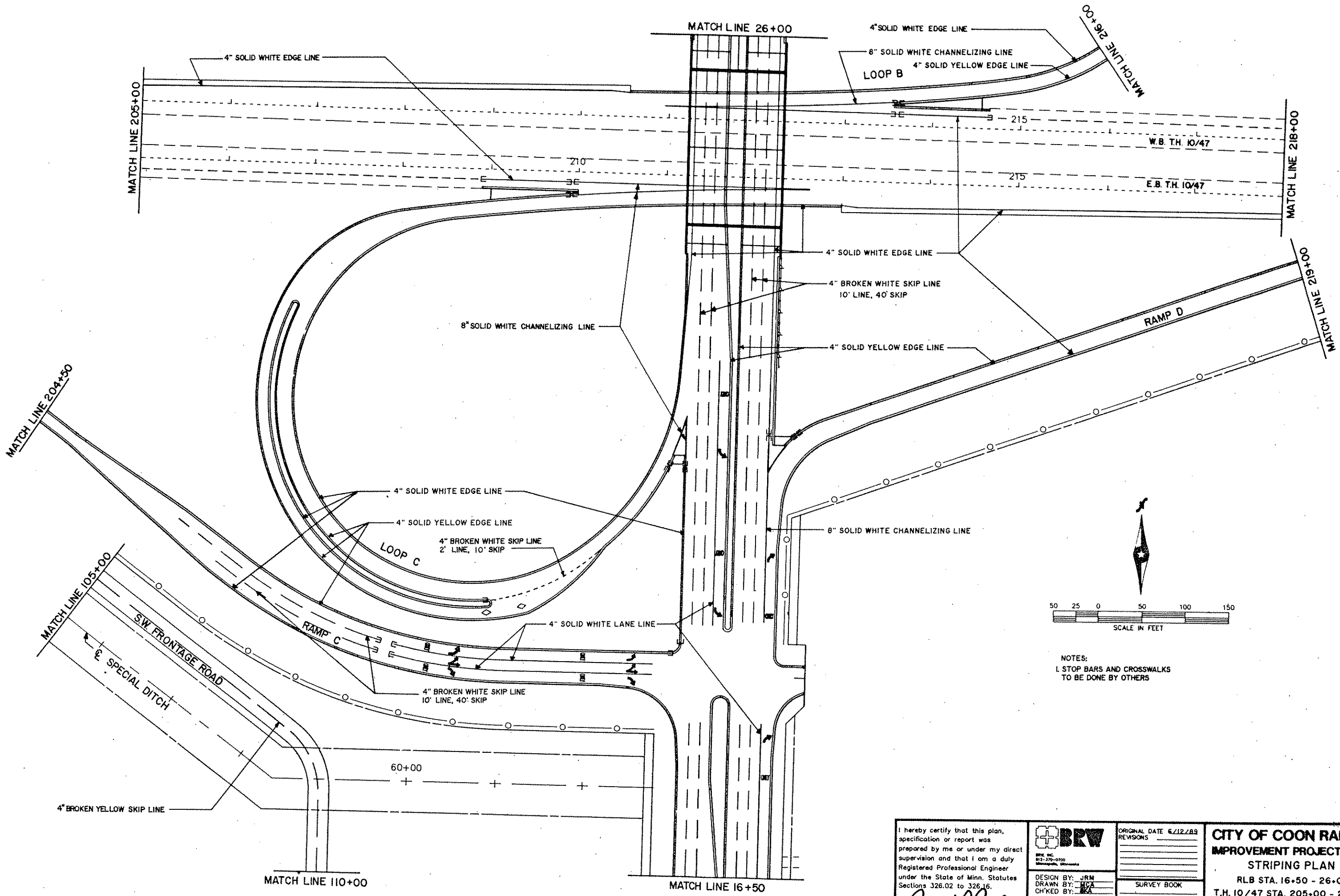
- 6) "Y" is the perpendicular distance from the ground line to the friction fuse on the post. This distance shall be at least 6'.
- 7) Where "X" is less than 30', "H" shall be 7' ± 6". Where "X" is 30' or greater, minimum and preferred "H" is 5'.
- 8) Lateral Clearances given apply to right and/or left side installation.

Revised 5-9-74



NOTES:
 1 STOP BARS AND CROSSWALKS
 TO BE DONE BY OTHERS

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 State of Minn. Statutes Sections 326.02 to 326.16. Date: 8-22-89 Minn. Reg. No. 12656	 BRW, INC. 818-200-0700 Minneapolis, Minnesota	ORIGINAL DATE 6/12/89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 STRIPING PLAN RLB STA. 3+00 - 16+50
		DESIGN BY: JRM DRAWN BY: MCA CHECKED BY: SKA	
S.A.P. NO. 02-609-08		SHEET 189 OF 256	DESIGN FILE No. 15-8840



NOTES:
 1. STOP BARS AND CROSSWALKS
 TO BE DONE BY OTHERS

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 State of Minn. Statutes Sections 328.02 to 328.16.

Boyd R. Paulsen
 Date 8-22-89 Minn. Reg. No. J2666

BRW
 BRW, INC.
 817-220-0700
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: HVA
 CH'KED BY: HVA

ORIGINAL DATE 6/12/89
 REVISIONS

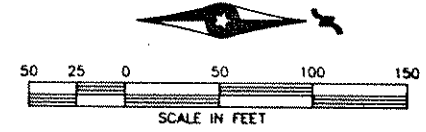
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
STRIPING PLAN
 RLB STA. 16+50 - 26+00
 T.H. 10/47 STA. 205+00 - 218+00

S.A.P. NO. 02-609-08

DESIGN FILE No. 16-8840

CO. RD. 79



MATCH LINE 33+50

4" SOLID WHITE LANE LINE
 4" SOLID WHITE EDGE LINE
 4" SOLID WHITE LANE LINE
 4" SOLID YELLOW EDGE LINE
 4" SOLID WHITE EDGE LINE

Q NORTHDALE BLVD.

4" SOLID YELLOW EDGE LINE
 4" SOLID WHITE EDGE LINE
 4" SOLID WHITE LANE LINE
 4" SOLID WHITE EDGE LINE
 4" SOLID WHITE LANE LINE
 4" SOLID WHITE EDGE LINE
 4" SOLID WHITE LANE LINE

4' BROKEN WHITE SKIP LINE
 10' LINE, 40' SKIP
 YELLOW CROSSHATCHING LINE
 24" WIDE AT 45°, 20' SPACING
 4" SOLID DOUBLE YELLOW LINE

131ST LANE

4" SOLID YELLOW EDGE LINE
 4" SOLID WHITE LANE LINE
 4" SOLID WHITE EDGE LINE
 4" SOLID WHITE LANE LINE
 4" SOLID WHITE EDGE LINE
 4" BROKEN WHITE SKIP LINE
 10' LINE, 40' SKIP
 4" SOLID WHITE LANE LINE

MATCH LINE 48+00

NOTES:
 1 STOP BARS AND CROSSWALKS
 TO BE DONE BY OTHERS

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 State of Minn. Statutes Sections 326.02 to 326.16,
Boyd Paulsen
 Date: 8-22-89 Minn. Reg. No. 12666

BRW
 BRW INC.
 812-370-0700
 Minneapolis, Minnesota
 DESIGN BY: JRN
 DRAWN BY: MCA
 CH'KED BY: SKA

ORIGINAL DATE 6/12/89
 REVISIONS
 SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 STRIPING PLAN
 RLB STA. 33+50 - 48+00

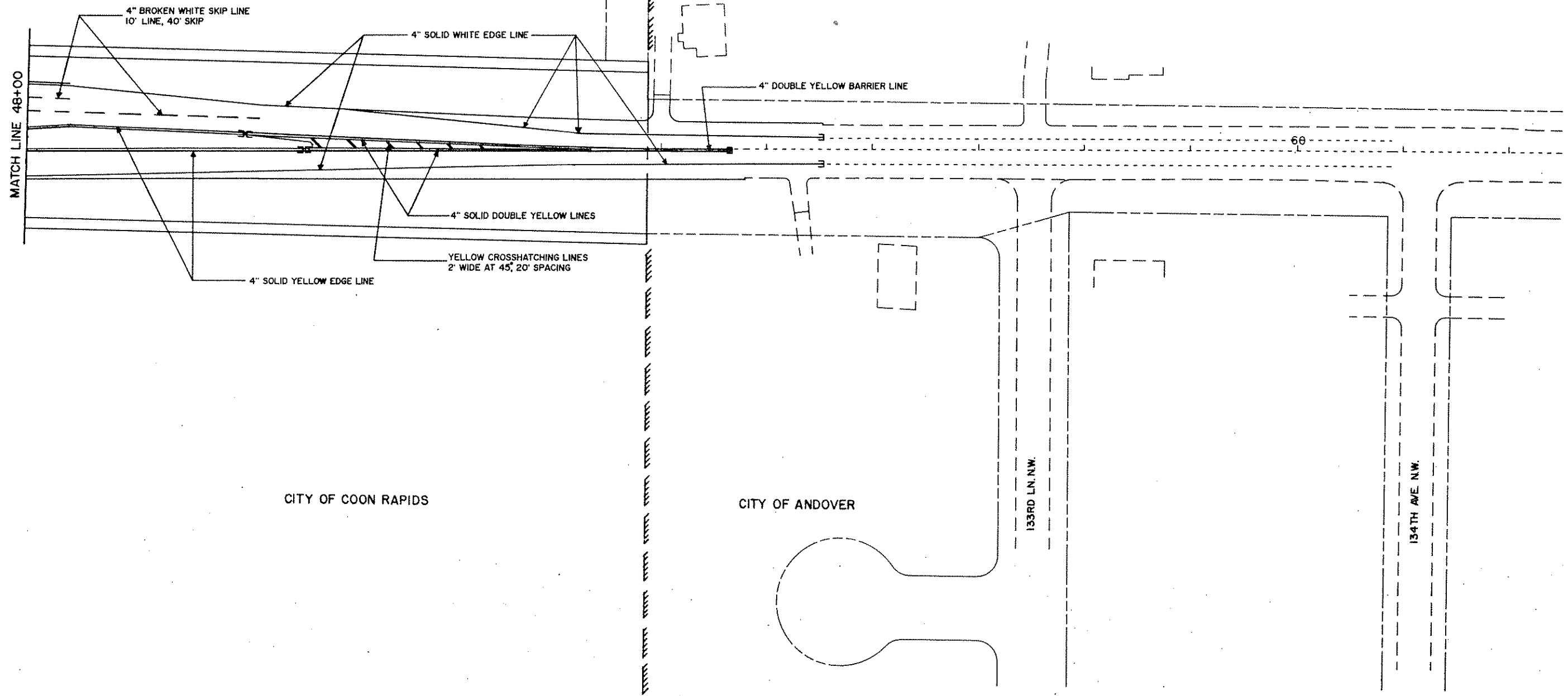
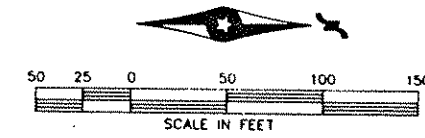
S.A.P. NO. 02-609-08

SHEET 192 OF 256

DESIGN FILE No. 15-8840

CITY OF COON RAPIDS

CITY OF ANOKA



CITY OF COON RAPIDS

CITY OF ANDOVER

133RD LN. N.W.

134TH AVE. N.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 State of Minn. Statutes Sections 326.02 to 326.16

Boyd R. Paul
Date: 8-22-89 Minn. Reg. No. 12666

BRW
812-376-0700
Minneapolis, Minnesota

DESIGN BY: JRM
DRAWN BY: NVA
CHKED BY: NVA

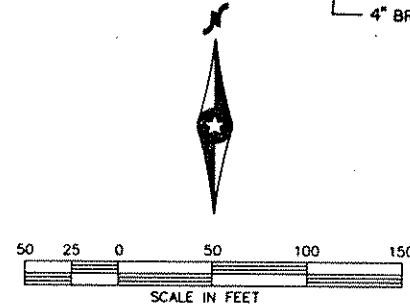
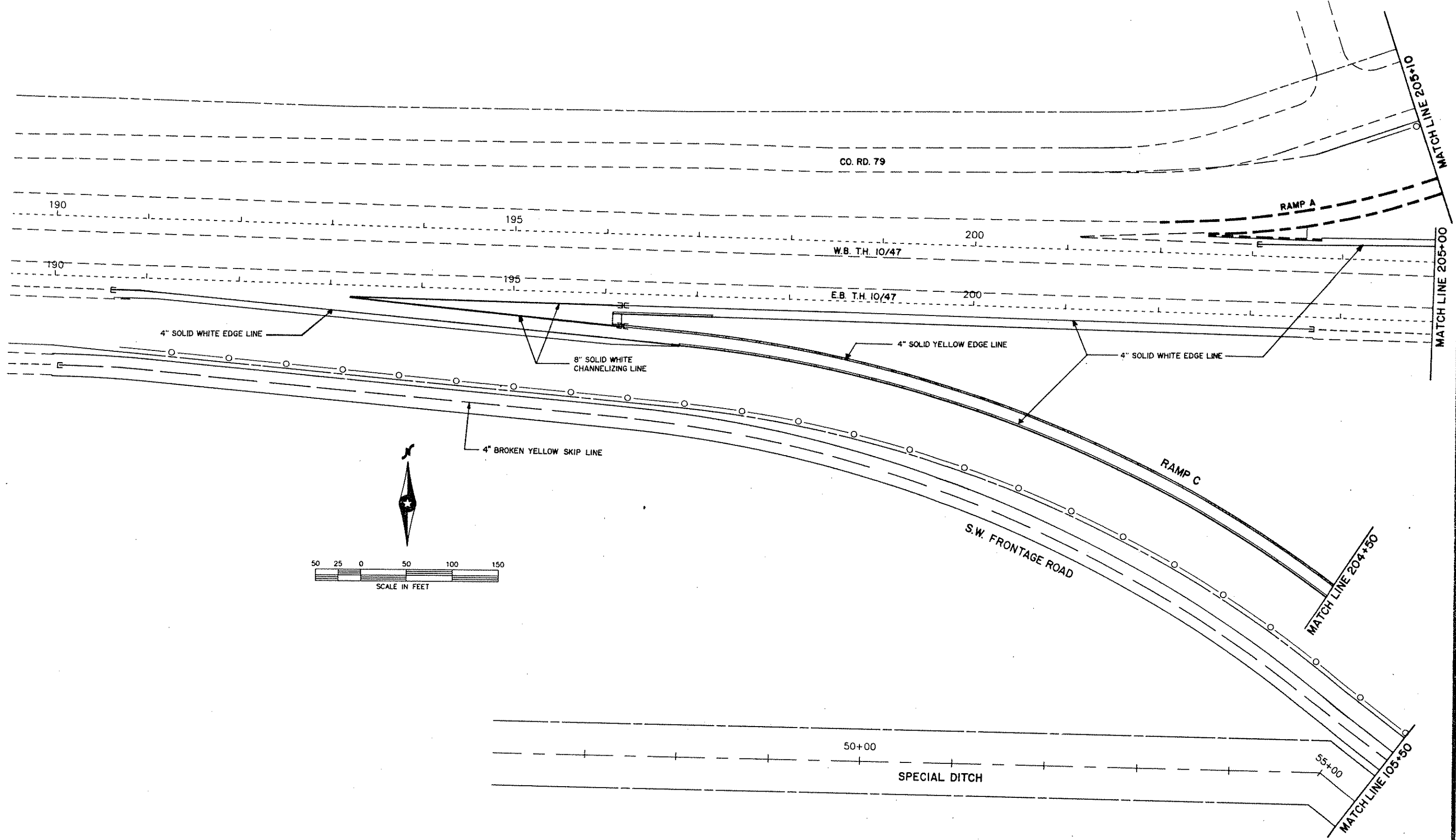
ORIGINAL DATE 6/12/89
REVISIONS
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
STRIPING PLAN
RLB STA. 48+00 - 62+50

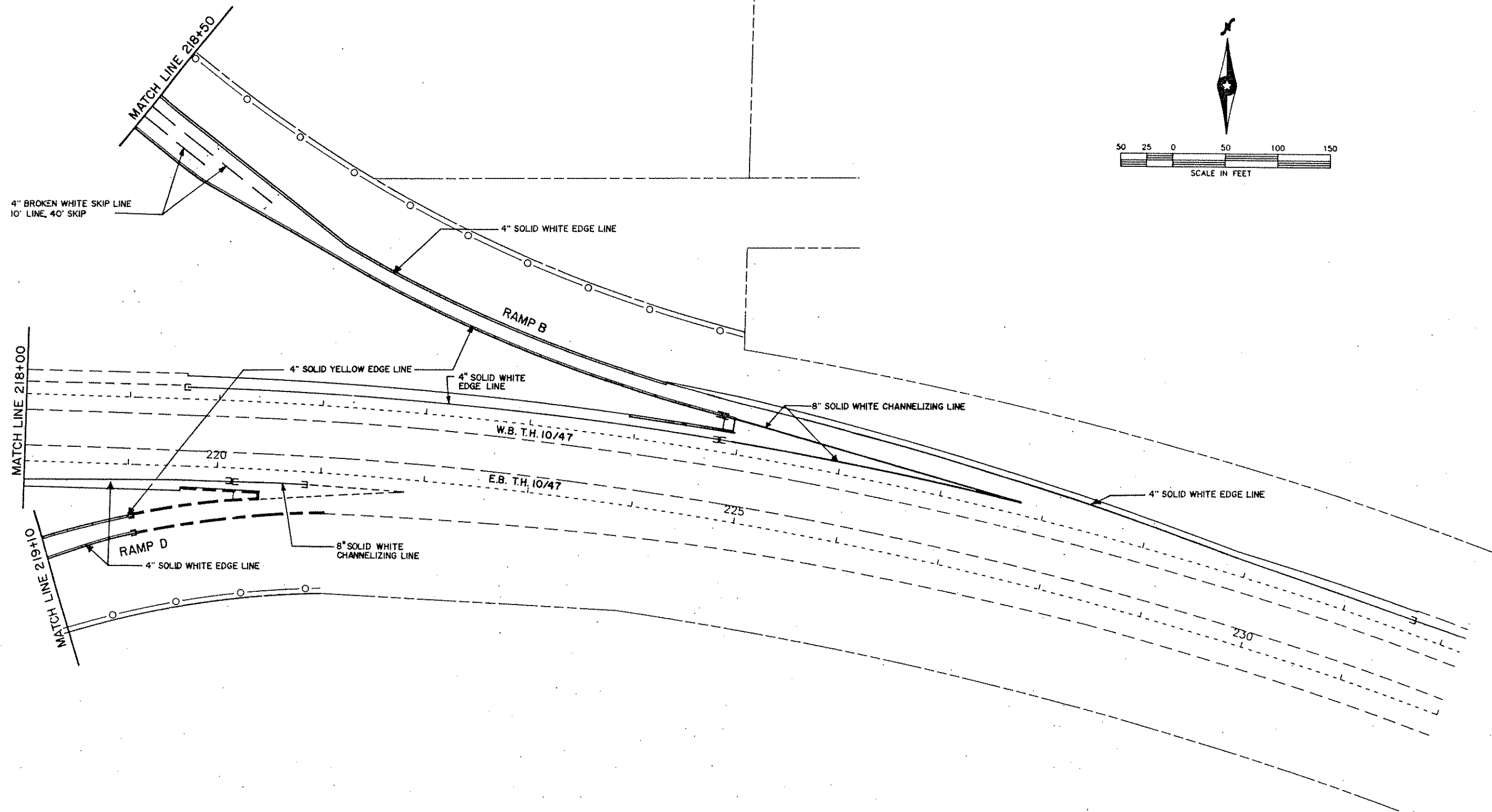
S.A.P. NO. 02-609-08

SHEET 193 OF 256

DESIGN FILE No. 15-8840



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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Paulsen</i> Date 8-22-82 Minn. Reg. No. 12666		ORIGINAL DATE 6/14/82 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 STRIPING PLAN T.H. 10/47 STA. 189+50 - 205+00
		DESIGN BY: JRM DRAWN BY: MCA CH'KED BY: SKA	
S.A.P. NO. 02-609-08		SHEET 194 OF 256	DESIGN FILE No. 16-AR40



4" BROKEN WHITE SKIP LINE
10' LINE, 40' SKIP

4" SOLID WHITE EDGE LINE

RAMP B

4" SOLID YELLOW EDGE LINE

4" SOLID WHITE
EDGE LINE

8" SOLID WHITE CHANNELIZING LINE

W.B. T.H. 10/47

E.B. T.H. 10/47

225

4" SOLID WHITE EDGE LINE

RAMP D

8" SOLID WHITE
CHANNELIZING LINE

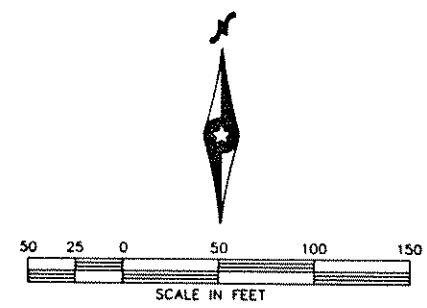
4" SOLID WHITE EDGE LINE


230

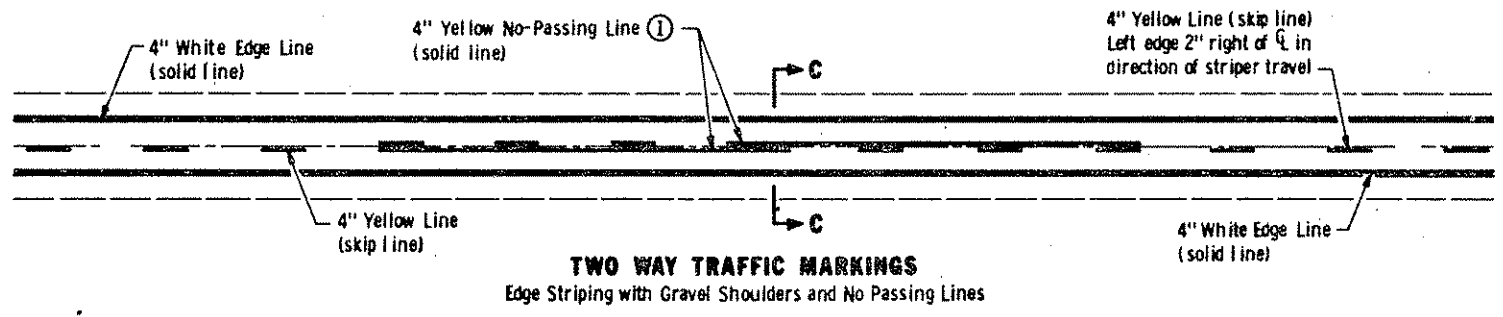
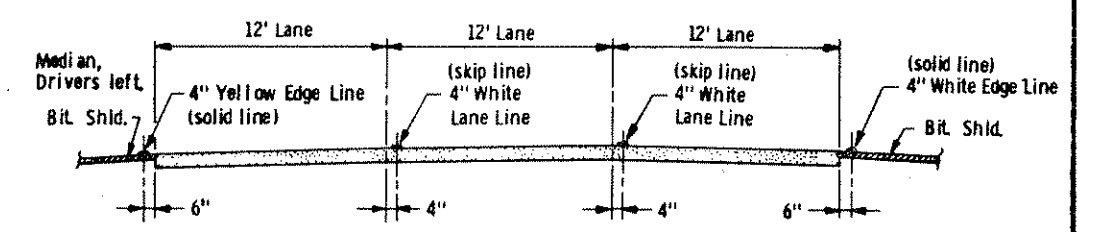
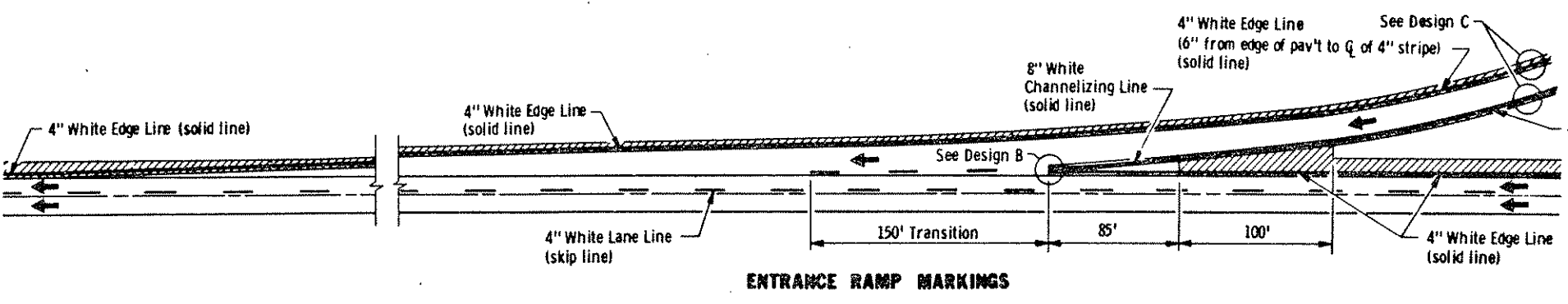
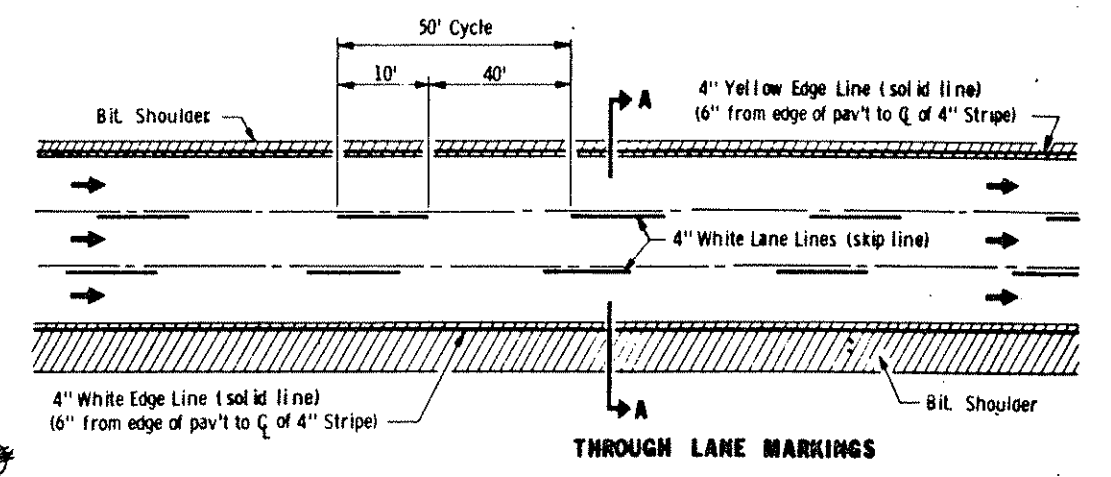
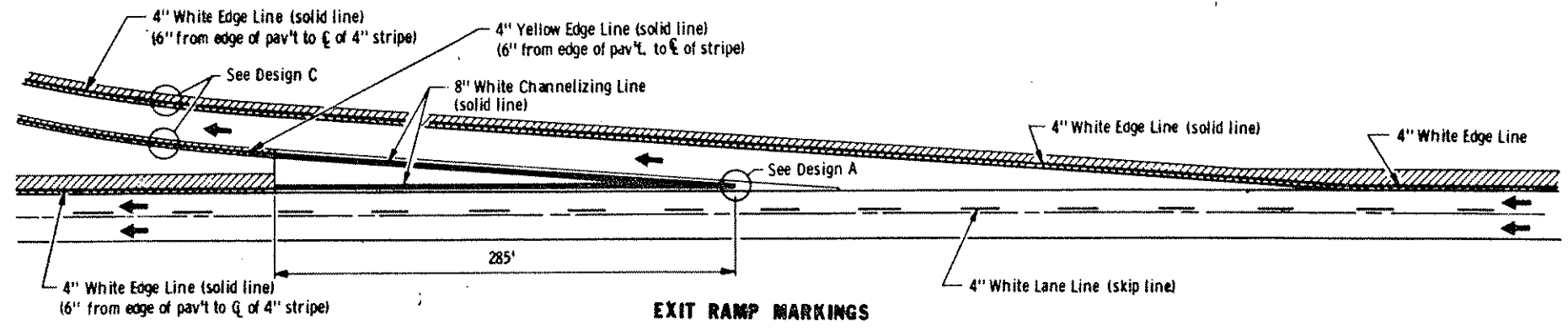
MATCH LINE 218+00

MATCH LINE 219+00

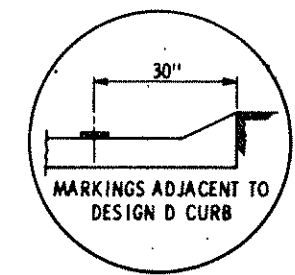
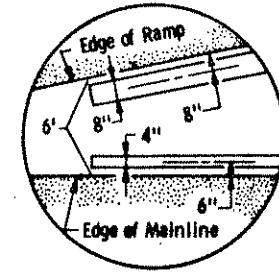
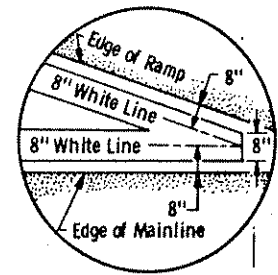
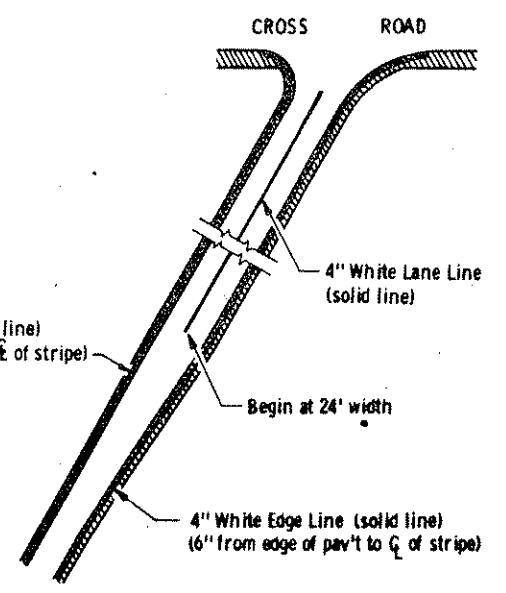
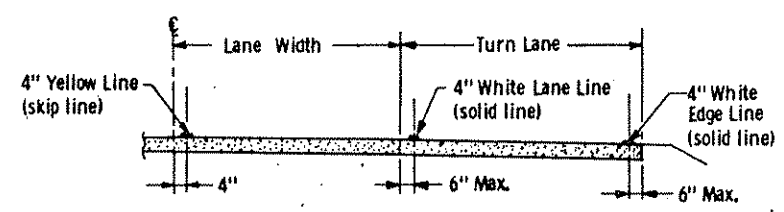
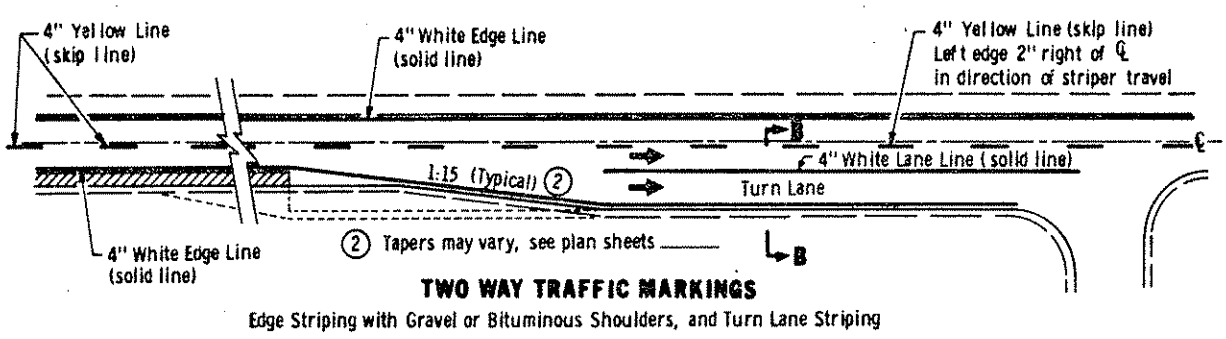
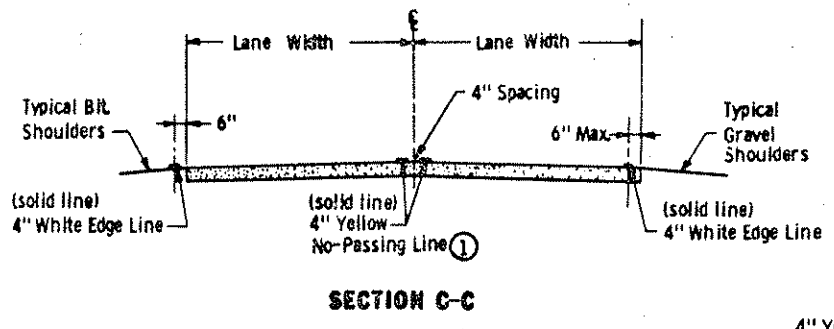
MATCH LINE 218+50



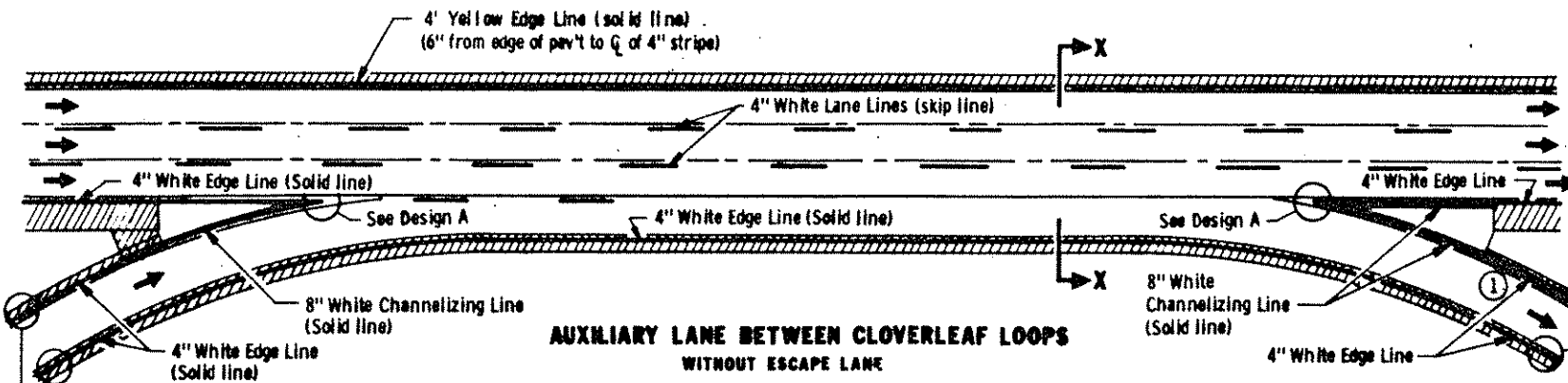
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd R. Paulsen</i> Date: 8-22-89 Minn. Reg. No. 12666	 <small>BRW, INC. 821-376-6700 Minneapolis, Minnesota</small>	ORIGINAL DATE 6/12/89 REVISIONS	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 STRIPING PLAN T.H. 10/47 STA. 218+00 - 232+00
		DESIGN BY: JRM DRAWN BY: MCA CHECKED BY: SKA	
S.A.P. NO. 02-609-08		SHEET 195 OF 256	DESIGN FILE No. 16-8840



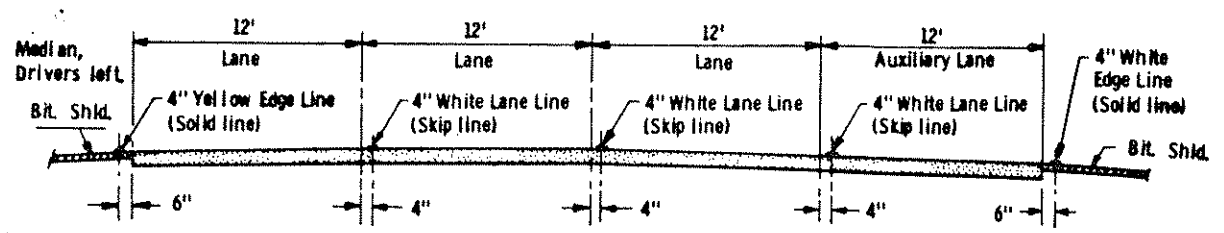
① As required-Location to be determined by District Traffic Engineer.



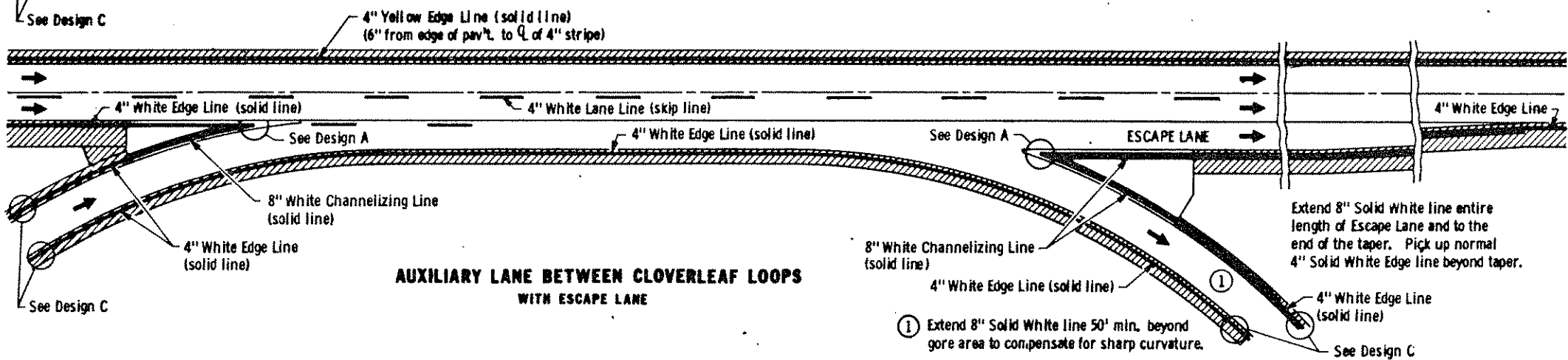
APPROVED March 5, 1980
John J. Thorne
 Director
 OFFICE OF ENGINEERING STANDARDS



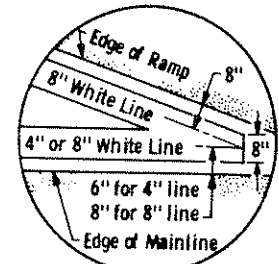
AUXILIARY LANE BETWEEN CLOVERLEAF LOOPS WITHOUT ESCAPE LANE



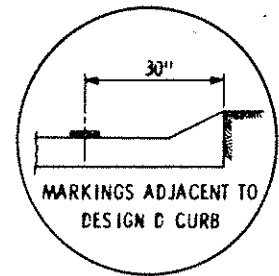
SECTION X-X



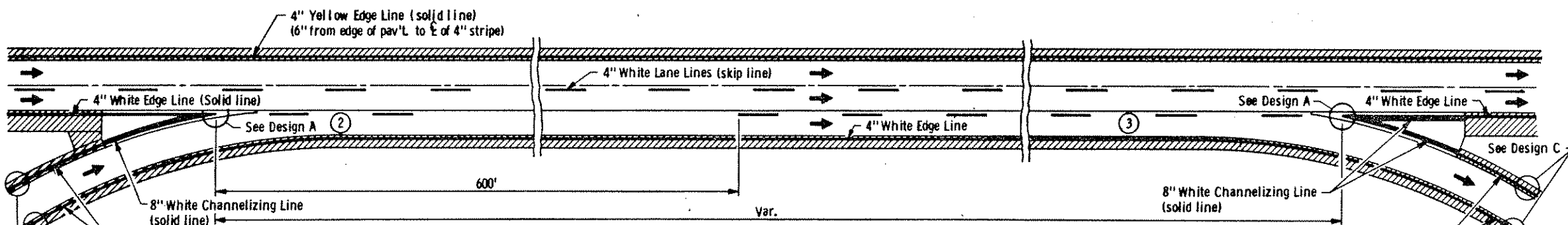
AUXILIARY LANE BETWEEN CLOVERLEAF LOOPS WITH ESCAPE LANE



DESIGN A



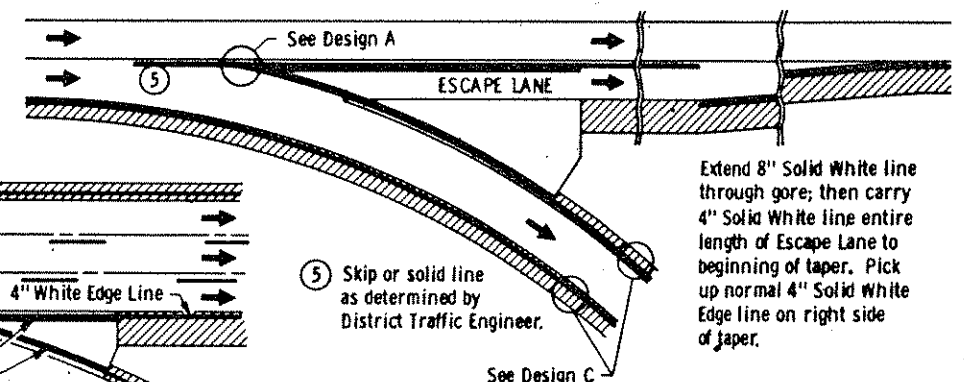
DESIGN C



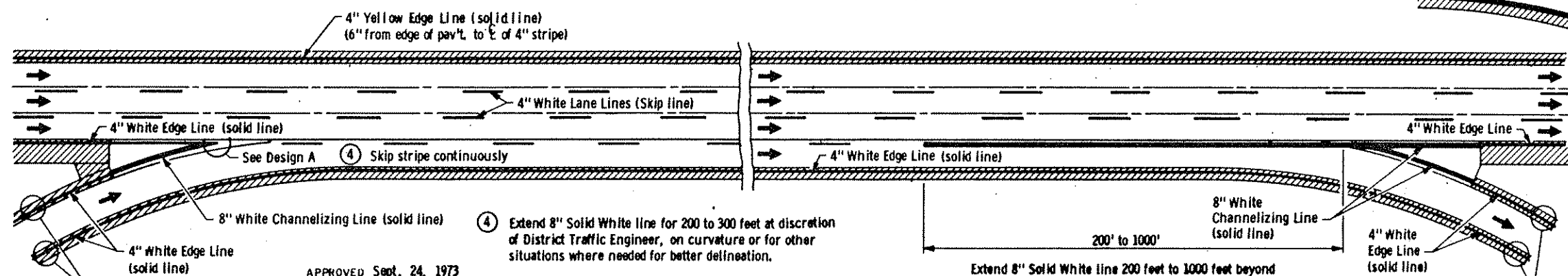
AUXILIARY LANE LESS THAN 1/2 MILE IN LENGTH EXCEPT CLOVERLEAF WITH ESCAPE LANE

② 2 Skip Stripes if Auxiliary Lane is greater than 500 feet. Use 8" Solid White line up to 100 feet if needed on curve or special situations where more delineation is needed.

③ Omit Skip Stripes when Auxiliary Lane is less than 600 feet long. Extend 8" Solid White line up to 200 feet at discretion of District Traffic Engineer if deemed necessary for better delineation.



AUXILIARY LANE WITH ESCAPE LANE

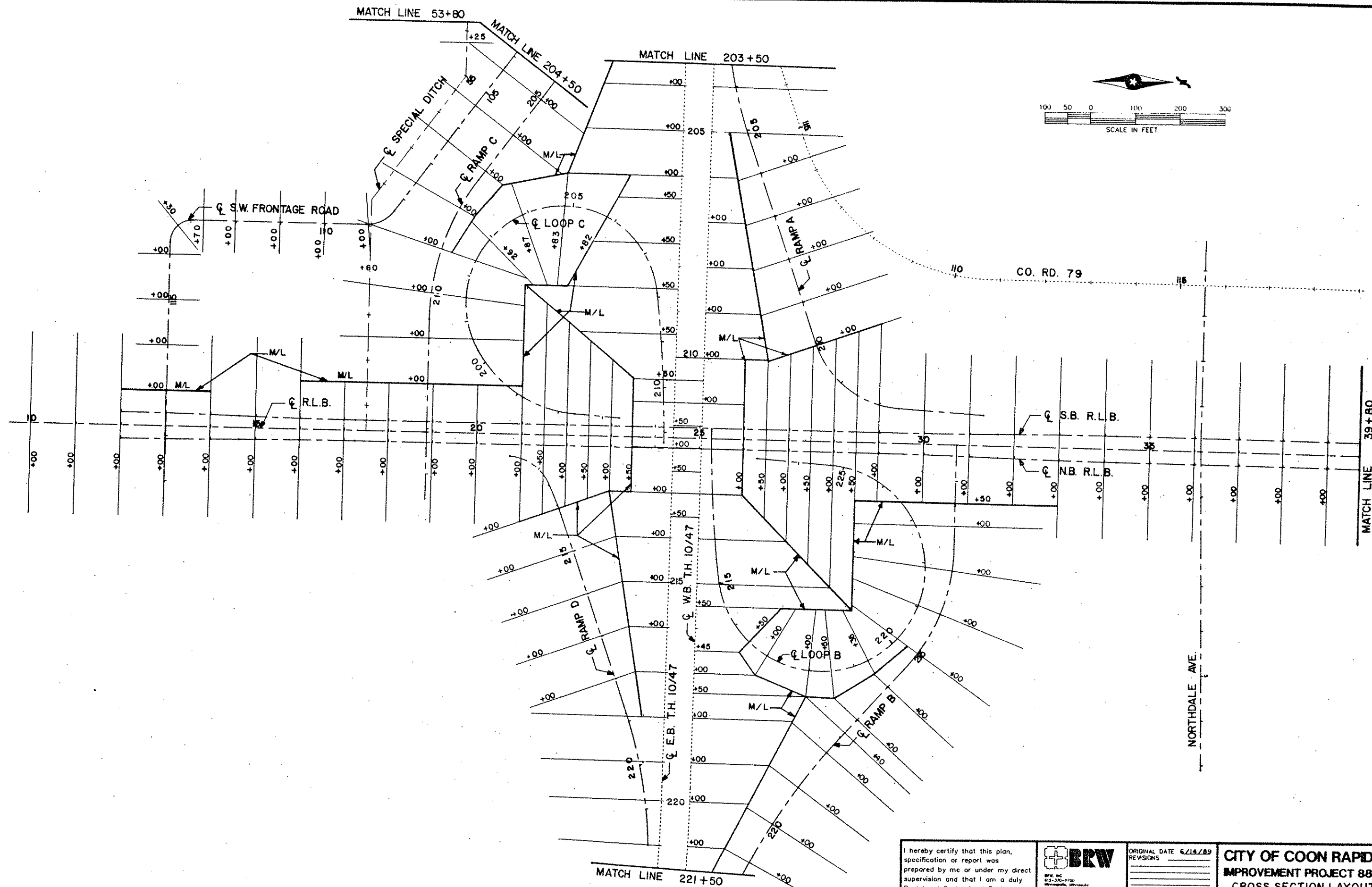


AUXILIARY LANE GREATER THAN 1/2 MILE IN LENGTH WITHOUT ESCAPE LANE

Extend 8" Solid White line 200 feet to 1000 feet beyond intersection of Gore Stripes, depending on length of lane being dropped, as determined by District Traffic Engineer.

⑤ Skip or solid line as determined by District Traffic Engineer.

APPROVED Sept. 24, 1973
Stephen D. Light
 Engineering Standards Engineer
 RESEARCH AND STANDARDS DIVISION

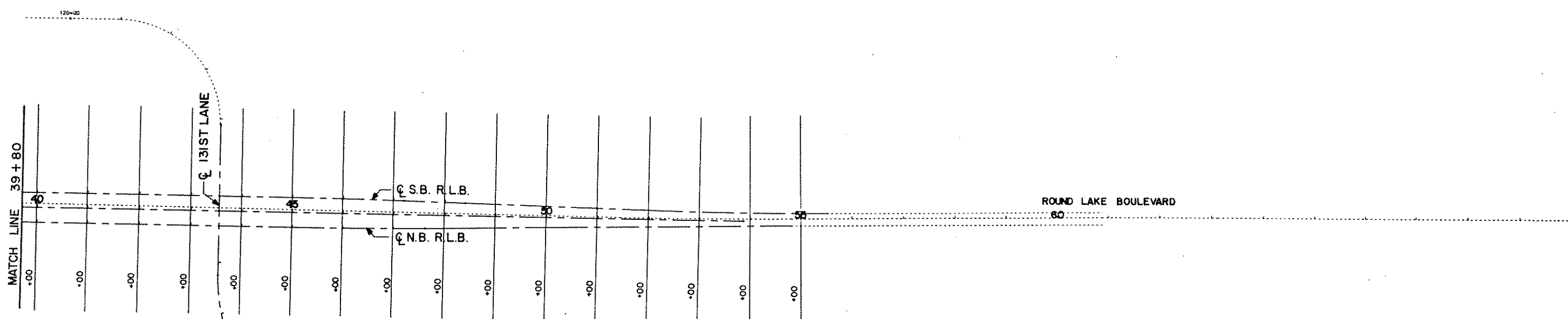
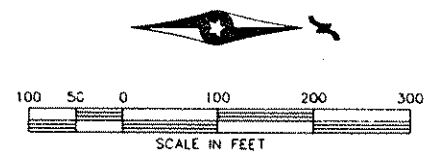



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

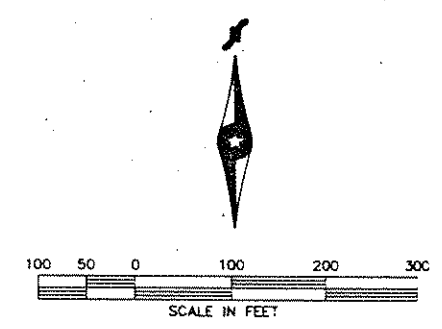
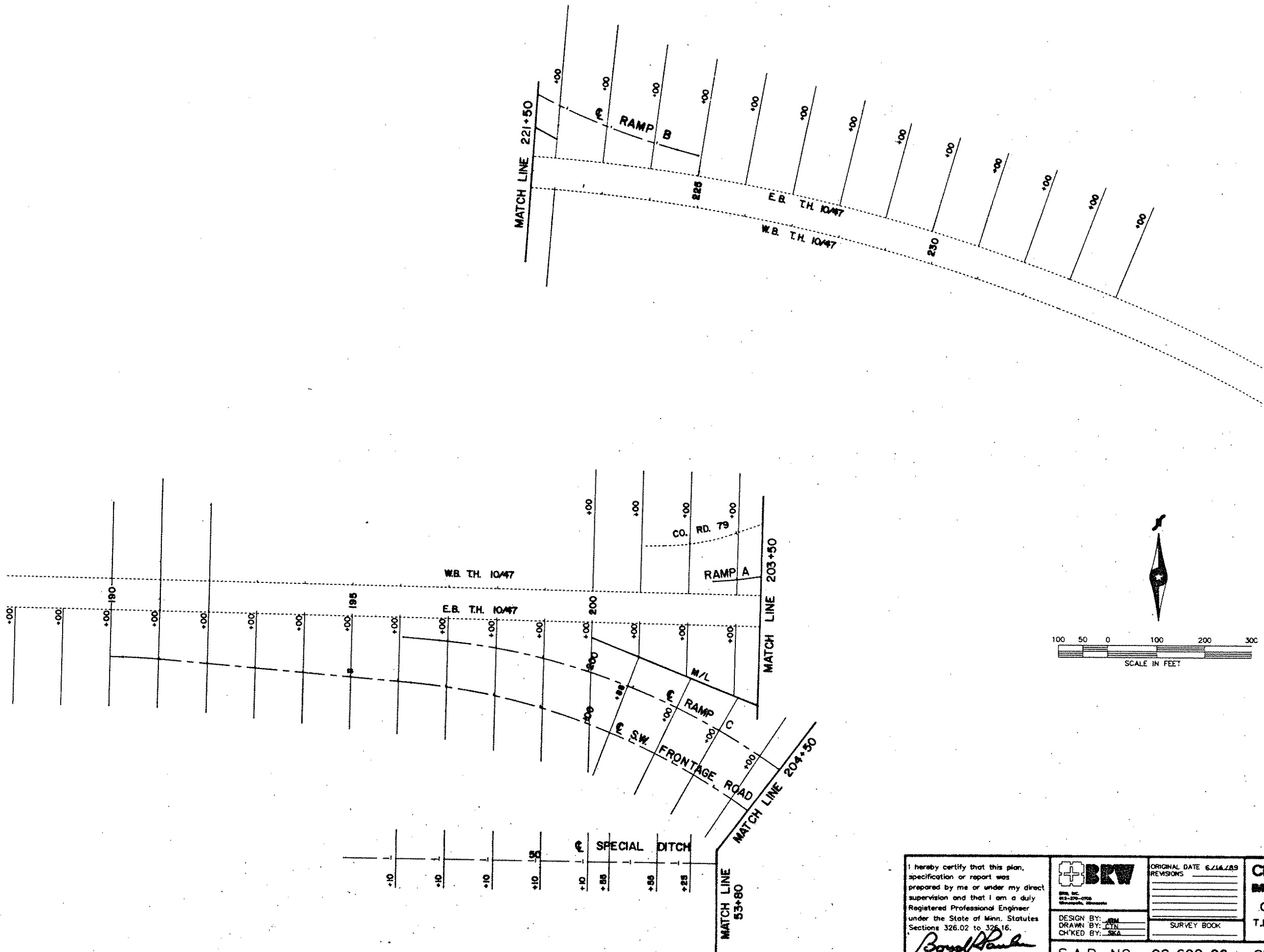
Boyd Paulk
 Date: _____ Minn. Reg. No. J2885

	ORIGINAL DATE 6/14/89
	REVISIONS
DESIGN BY: JRM	SURVEY BOOK
DRAWN BY: CTN	
CHECKED BY: SKA	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CROSS SECTION LAYOUT
 RLB STA. 10+00 - 39+80
 T.H. 10/47 STA. 203+50 - 221+00



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 State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paul</i> Date: _____ Minn. Reg. No. 12668	 <small>BRW, INC. 817-370-0700 Minneapolis, Minnesota</small>	ORIGINAL DATE 6/14/89 REVISIONS _____ _____ _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 CROSS SECTION LAYOUT RLB STA. 39+80 - 55+00
		DESIGN BY: JRM DRAWN BY: CTN CHECKED BY: SKA	
S.A.P. NO. 02-609-08		SHEET 199 OF 256	DESIGN FILE No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16.

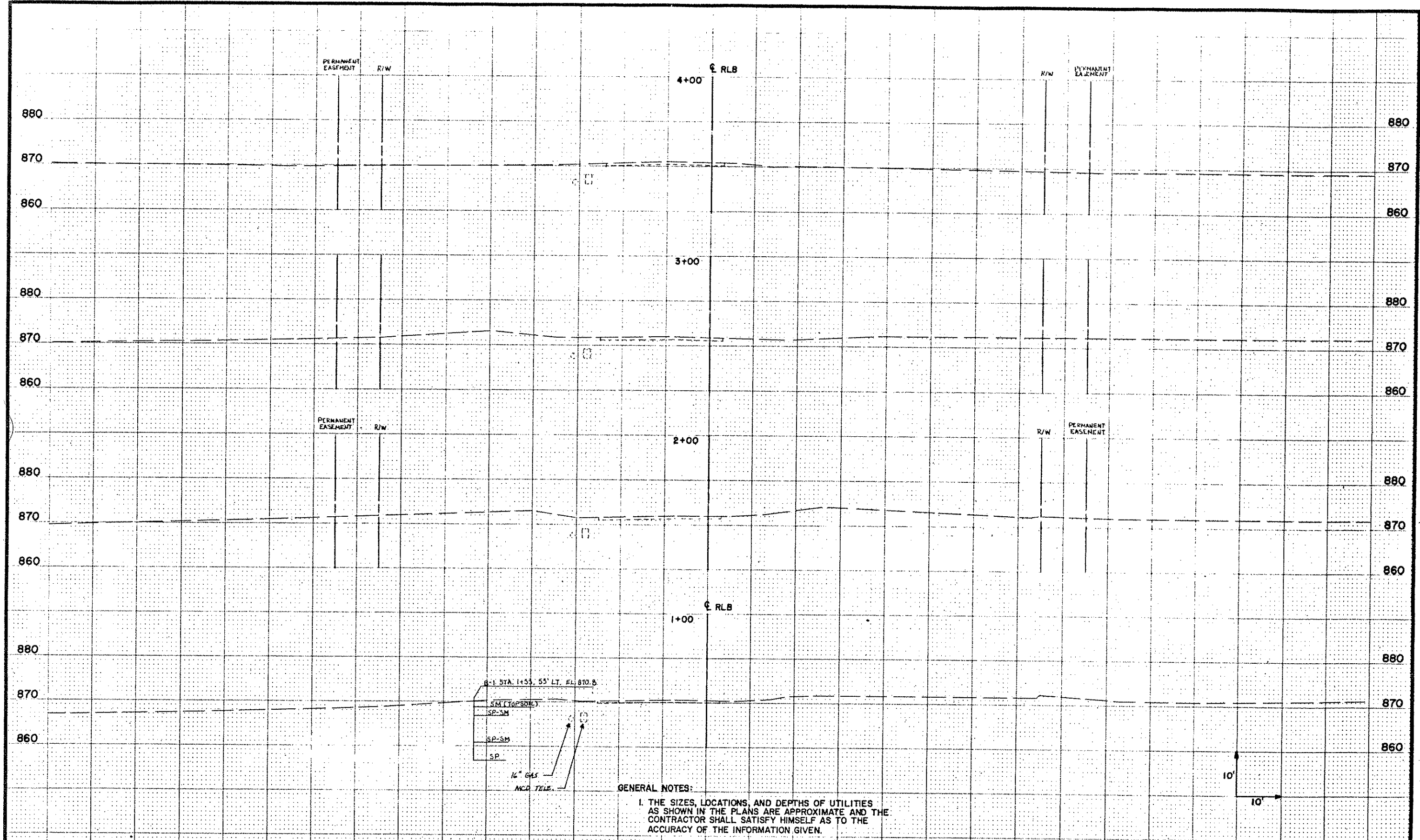
Boyd Rankin
 Date _____ Minn. Reg. No. J2666

BRW
 815 N. W. 1st St.
 Minneapolis, Minnesota

DESIGN BY: BRW
 DRAWN BY: CTN
 CHECKED BY: SKA

ORIGINAL DATE	6/16/89
REVISIONS	
SURVEY BOOK	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
CROSS SECTION LAYOUT
 T.H. 10/47 STA. 188+00 - 203+50
 & 221+50 - 232+00

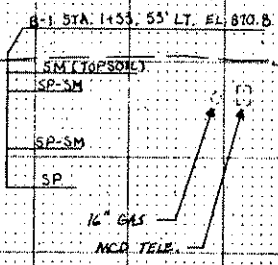


PERMANENT EASEMENT R/W

R/W PERMANENT EASEMENT

PERMANENT EASEMENT R/W

R/W PERMANENT EASEMENT



GENERAL NOTES:

1. THE SIZES, LOCATIONS, AND DEPTHS OF UTILITIES AS SHOWN IN THE PLANS ARE APPROXIMATE AND THE CONTRACTOR SHALL SATISFY HIMSELF AS TO THE ACCURACY OF THE INFORMATION GIVEN.

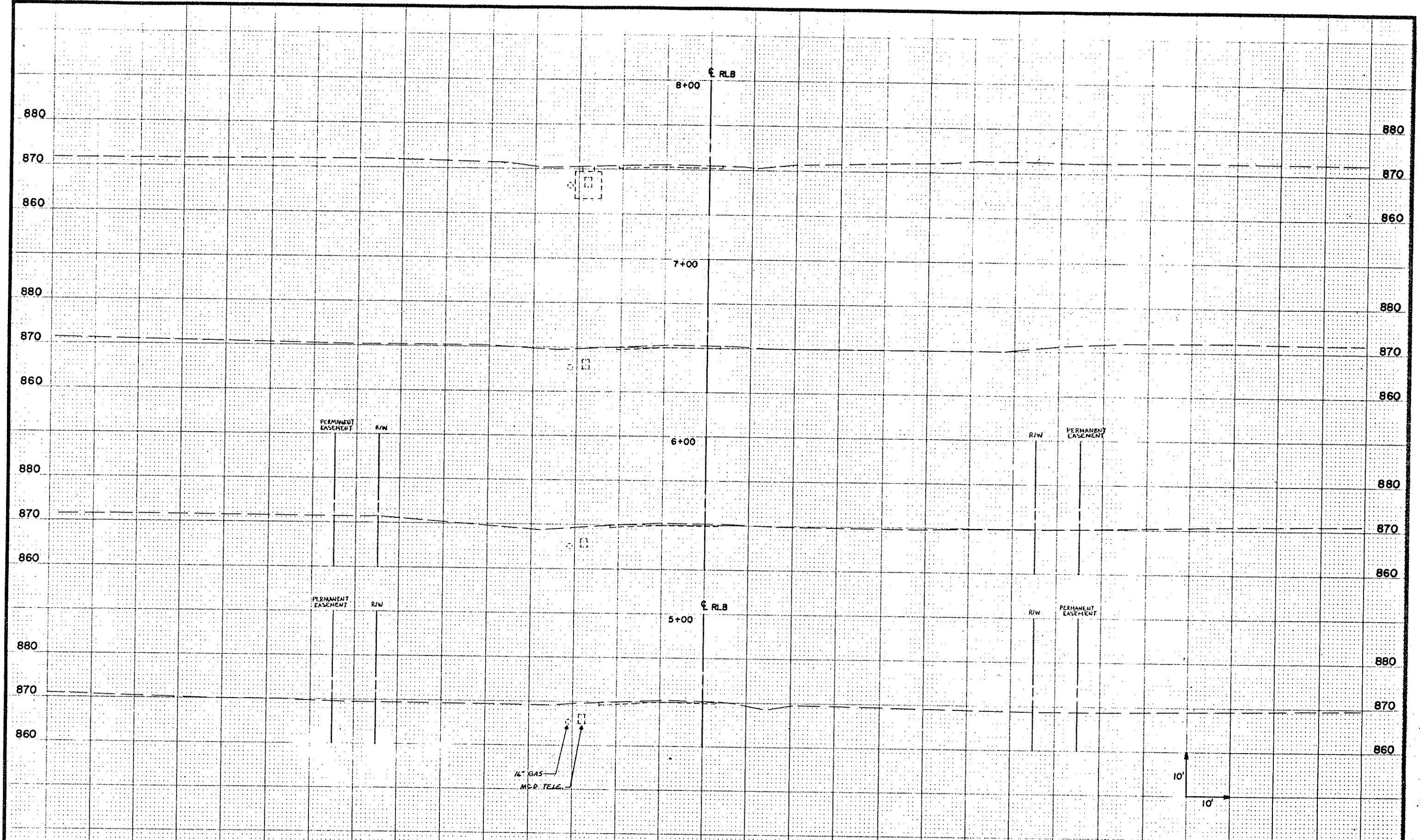
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date _____ Minn. Reg. No. 12656.

	ORIGINAL DATE 3/20/88
	REVISIONS
DESIGN BY: JRM	SURVEY BK. NO.
DRAWN BY: JAC LEB	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROUND LAKE BLVD. (C.S.A.H. 9)
1+00 TO 4+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

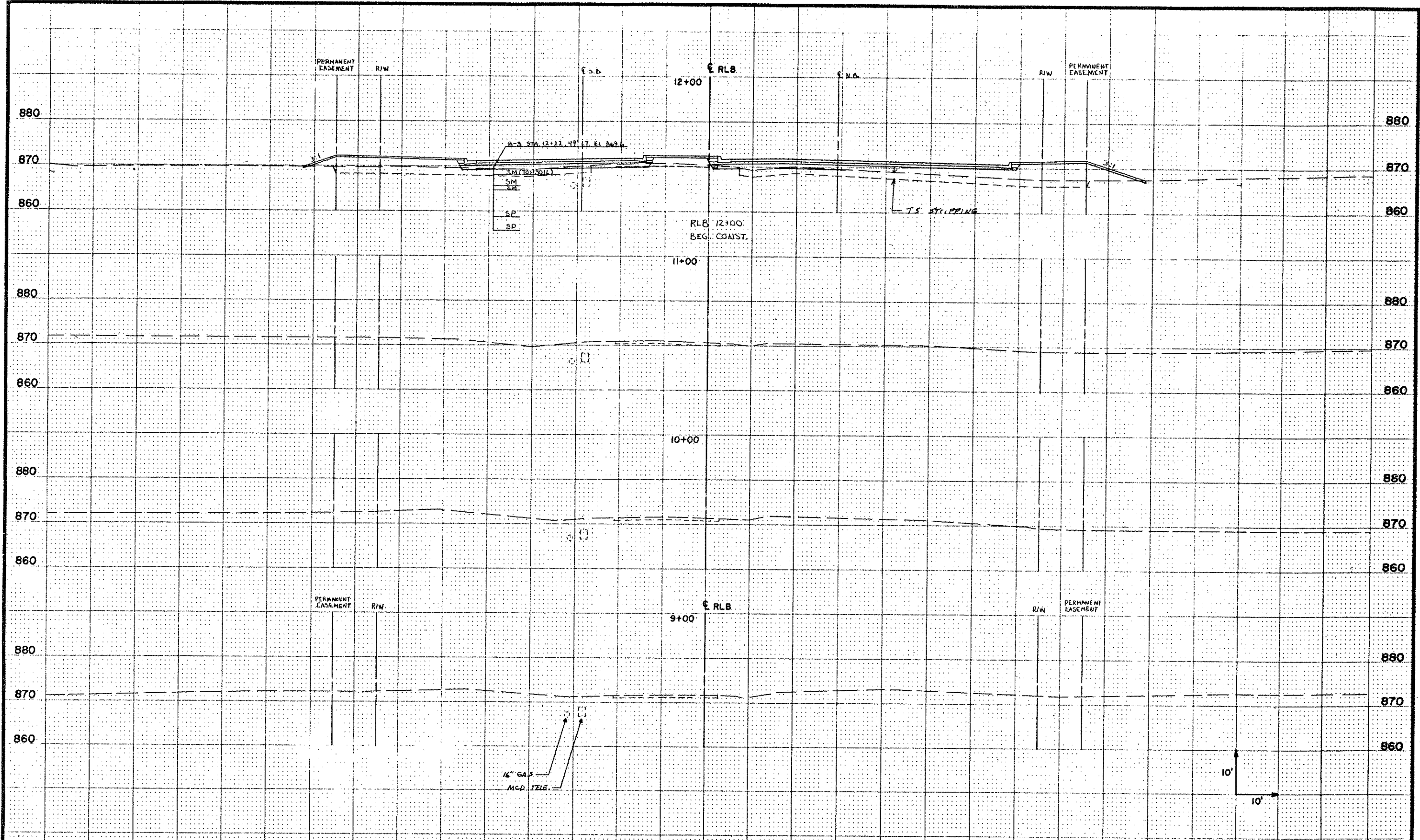
Date _____ Minn. Reg. No. 12666

BRW
 BRW, Inc.
 212 West 10th Street
 Minneapolis, Minnesota

DESIGN BY: JPM
 DRAWN BY: JAC LEB

ORIGINAL DATE	3/20/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (C.S.A.H. 9)
 5+00 TO 8+00



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 State of Minn. Statutes Sections 326.02 to 326.16

Boyd Hauke

Date _____ Minn. Reg. No. 12665

BRW

BRW, Inc.
117 7th St. S.
Minneapolis, Minnesota

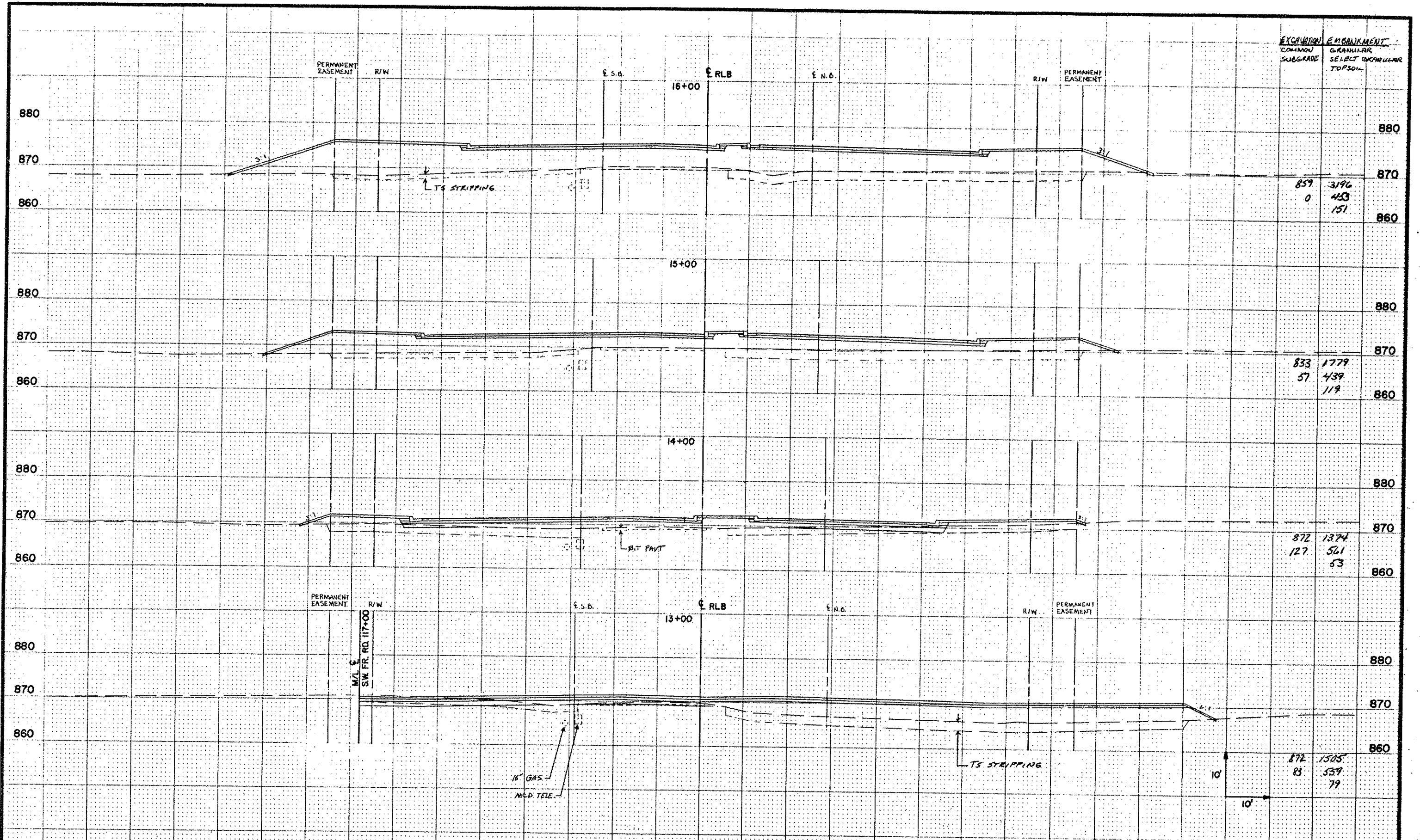
DESIGN BY: JRM
DRAWN BY: JC, LEB

ORIGINAL DATE 3/20/89
REVISIONS _____
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROUND LAKE BLVD. (C.S.A.H. 9)
9+00 TO 12+00

SHEET 203 OF 256

DESIGN FILE No. 15-8840



EXCAVATION COMMON SUBGRADE	EMBANKMENT GRAVULAR SELECT GRAVULAR TOPSOIL
----------------------------------	--

859	3196
0	453
	151

833	1779
57	439
	119

872	1374
127	561
	53

872	1505
83	539
	79

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 State of Minn. Statutes Section 326.02, s. 16.

Boyd Paul

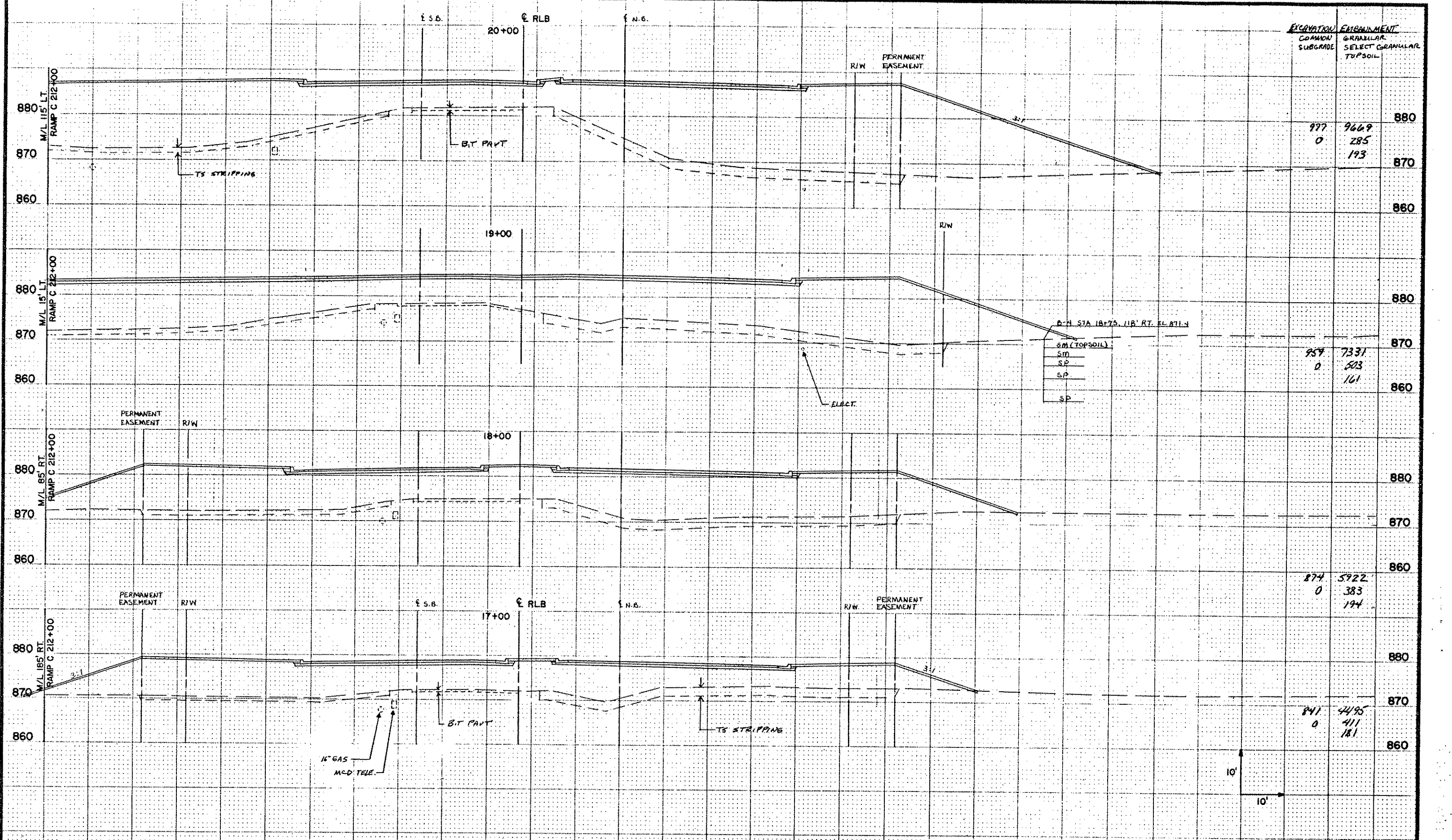
Date _____ Minn. Reg. No. 12666

BRW
 BRW, Inc.
 123 1/2 N. 1st St.
 Minneapolis, Minnesota

DESIGN BY JRM
 DRAWN BY JC, LEB

ORIGINAL DATE 3/20/88
REVISIONS
SURVEY BK. NO.

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (C.S.A.H. 9)
 13+00 TO 16+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Bauer

Date _____ Minn. Reg. No. 12566.

BRW
 BRW, Inc.
 411 7th St. N.
 Minneapolis, MN 55401

DESIGN BY JRM
 DRAWN BY JC, LEB

ORIGINAL DATE 3/20/89
 REVISIONS _____
 SURVEY BK. NO. _____

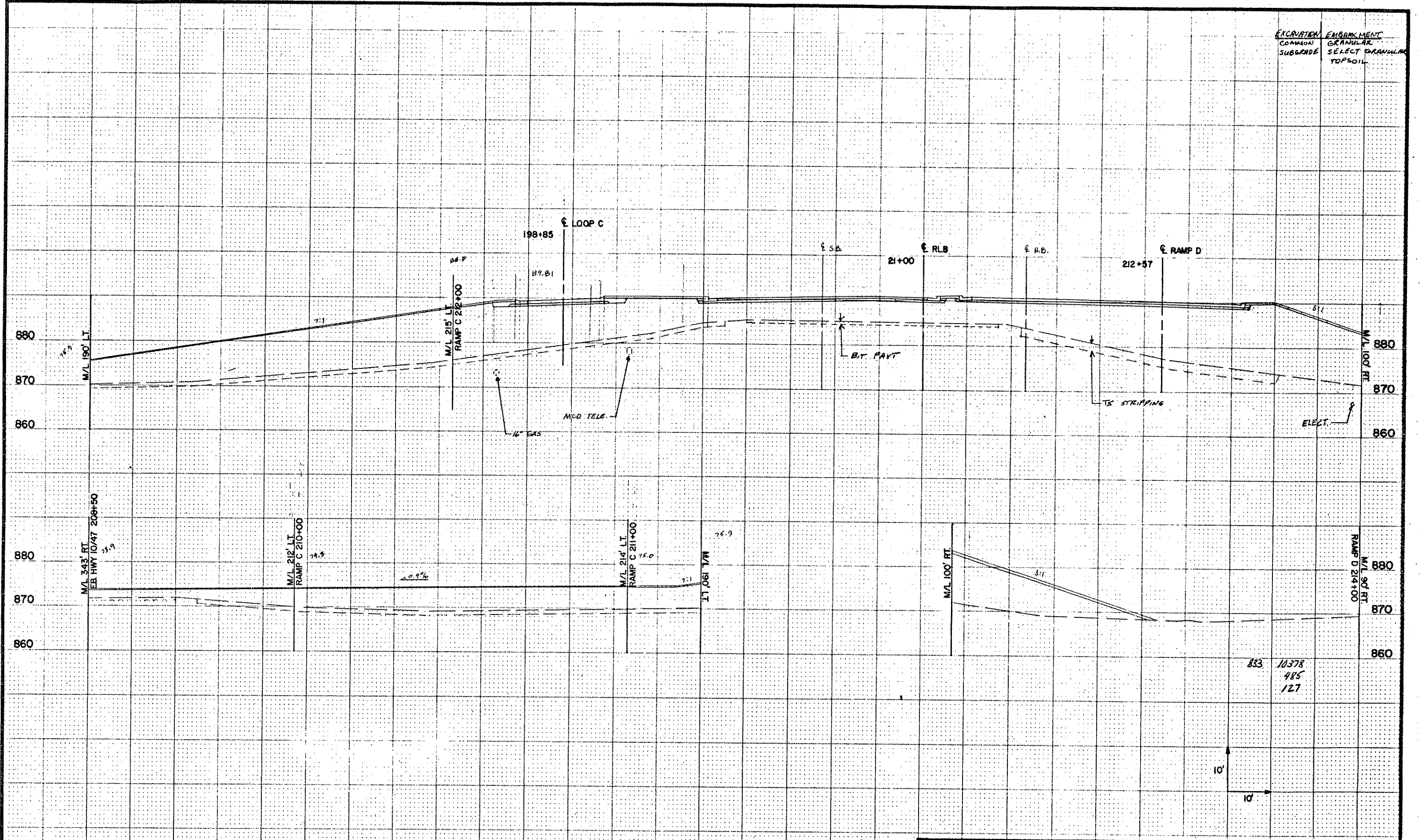
CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (C.S.A.H. 9)
 17+00 TO 20+00

S.A.P. NO. 02-609-08

SHEET 205 OF 256

DESIGN FILE No. 16-8840

EXCAVATION COMMON SUBGRADE
 EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL



833 10378
 485
 127

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 State of Minn. Statutes Sections 326.02 to 326.16.

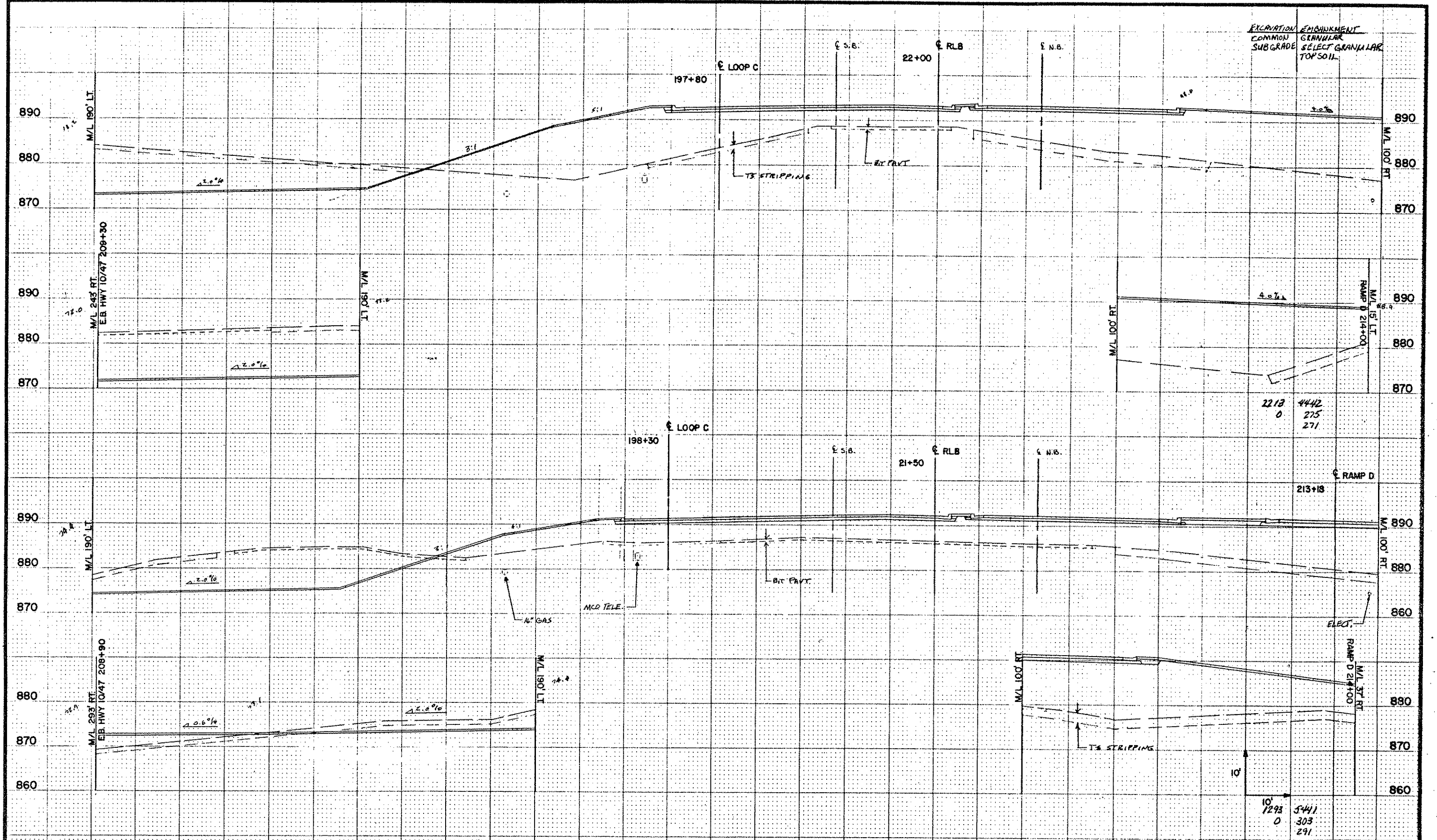
Boyd Paul

Date _____ Minn. Reg. No. 12668



ORIGINAL DATE	3/20/89
REVISIONS	
DESIGN BY	JRM
DRAWN BY	JC, LEB
SURVEY BK NO.	

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (C.S.A.H. 9)
 21+00



EXCAVATION COMMON SUBGRADE
 EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL

2213 4442
 0 275
 271

10' 1293 541
 0 303
 291

I hereby certify that the plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date _____ Minn. Reg. No. 12656

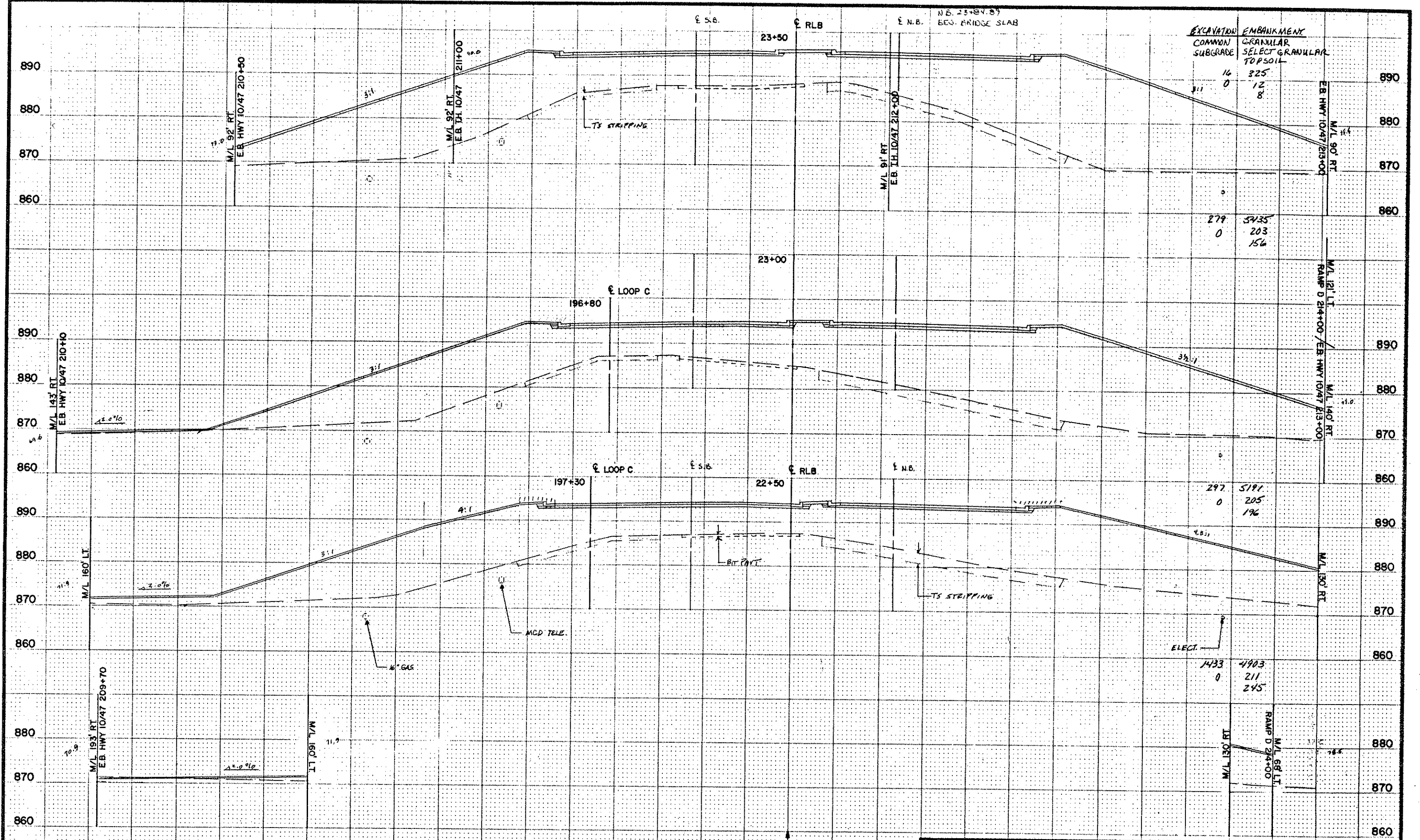
BRW
 BRW, Inc.
 412 1st Ave. S.
 Minneapolis, MN 55401

DESIGN BY JRM
 DRAWN BY JC, LEB

ORIGINAL DATE	3/20/89
REVISIONS	
SURVEY BK NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (C.S.A.H. 9)
 21+50 TO 22+00

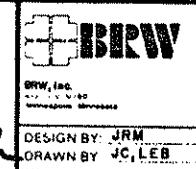
DESIGN FILE No. 16-8840



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 State of Minn. Statutes Section 326.02 to 326.10

Boyd R. Paul

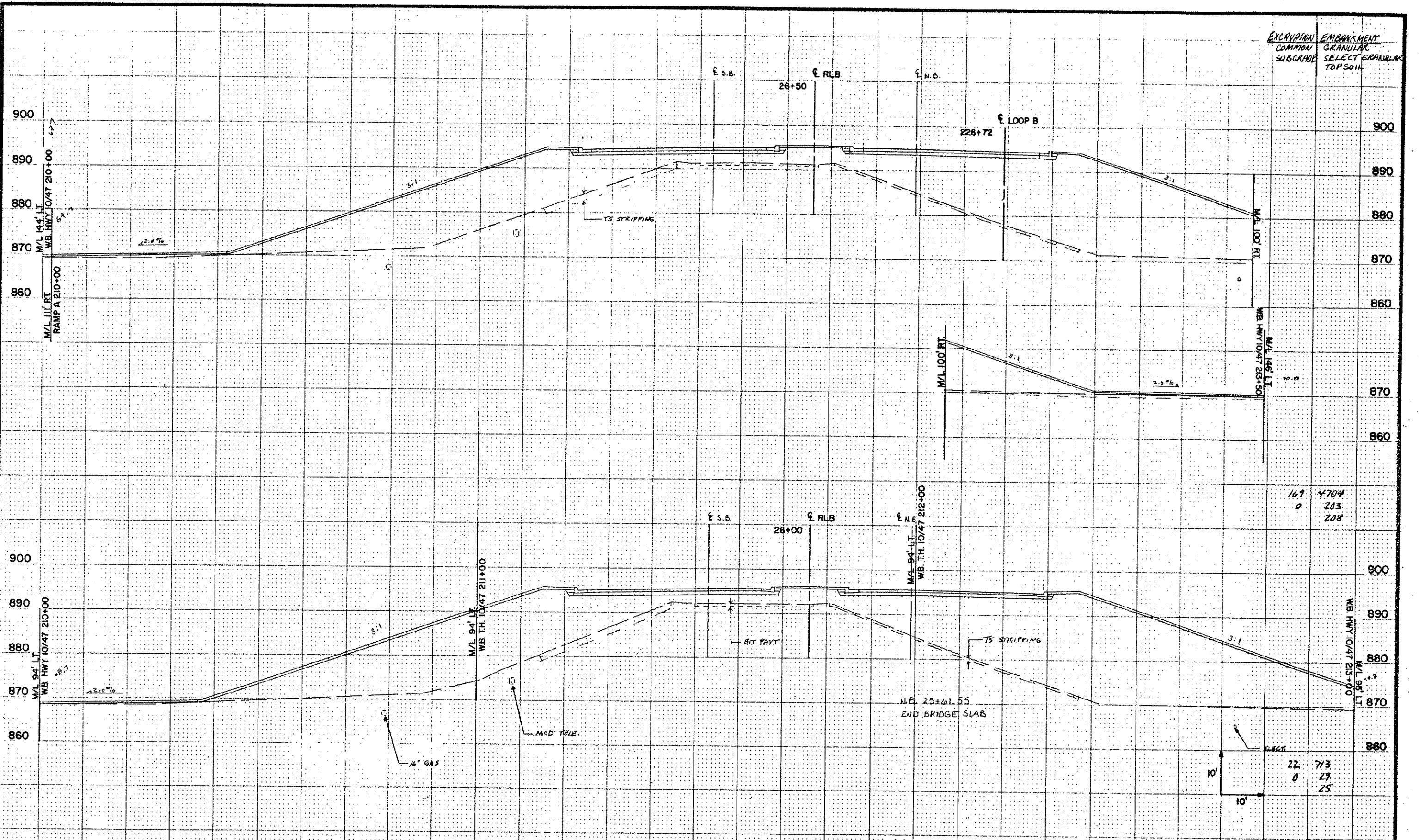
Date _____ Minn. Reg. No. 12666.



ORIGINAL DATE: 3/20/89
REVISIONS
SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROUND LAKE BLVD. (C.S.A.H. 9)
22+50 TO 23+50

EXCAVATION COMMON SUBGRADE
 EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL



169 4704
 0 213
 208

22 713
 0 29
 10' 25

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 State of Minn. Statutes Sections 326.02 to 326.05
Boyd Bank
 Date _____ Minn. Reg. No. 12686

BRW
 BRW, Inc.
 412 5th Street
 Minneapolis, Minnesota
 DESIGN BY JRM
 DRAWN BY JS, LEB

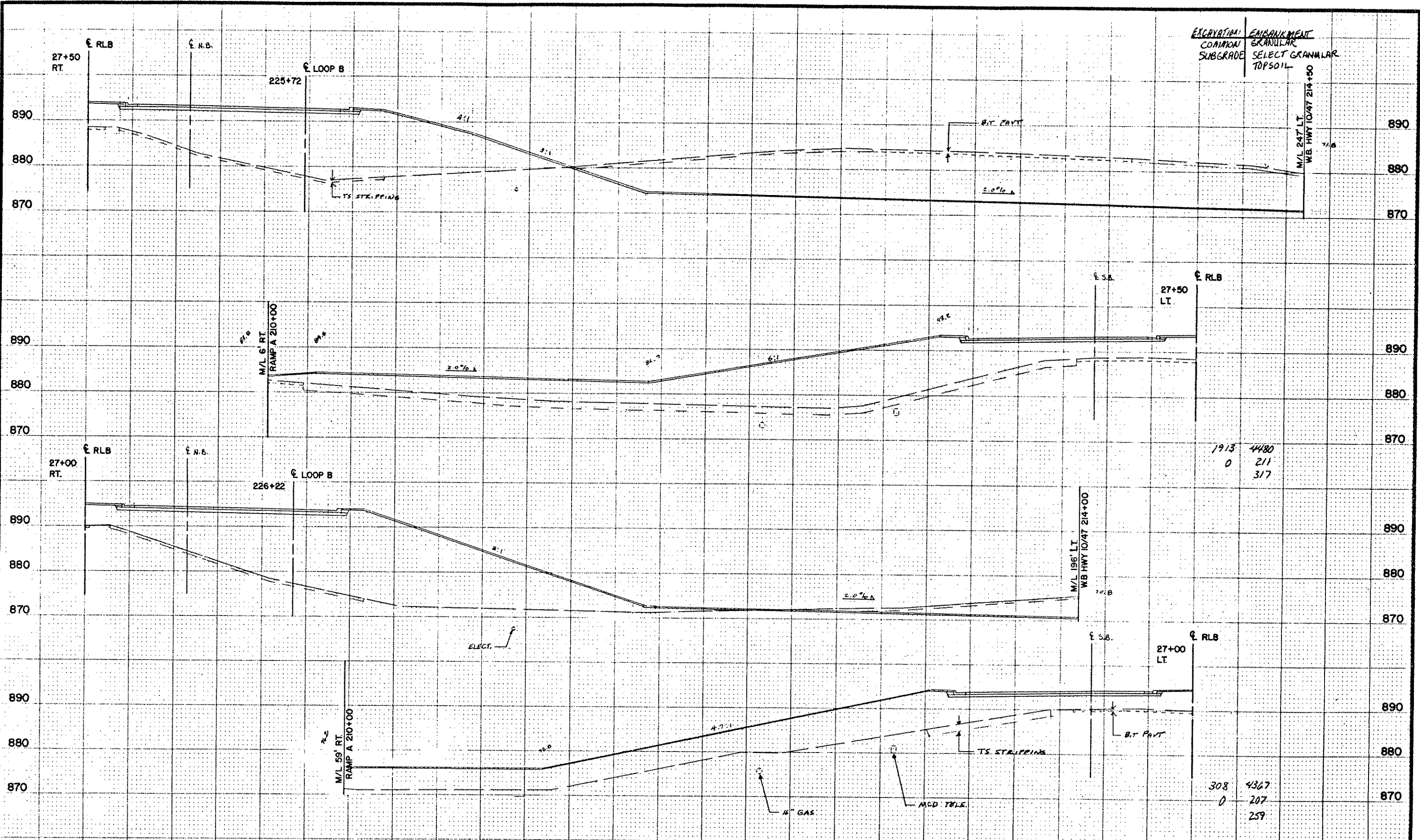
ORIGINAL DATE 3/29/89
 REVISIONS _____
 SURVEY BK. NO. _____

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (CSAH 9)
 26+00 TO 26+50

S.A.P. NO. 02-609-08

SHEET 209 OF 256

DESIGN FILE No. 16-8840



EXCAVATION: COMMON SUBGRADE
 EMBANKMENT: GRANULAR SELECT GRANULAR TOPSOIL

1913 4480
 0 211
 317

308 4367
 0 207
 259

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Rasmussen

Date _____ Minn. Reg. No. J2666

BRW
 BRW, Inc.
 412 7th Street
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: J.C.L.E.B.

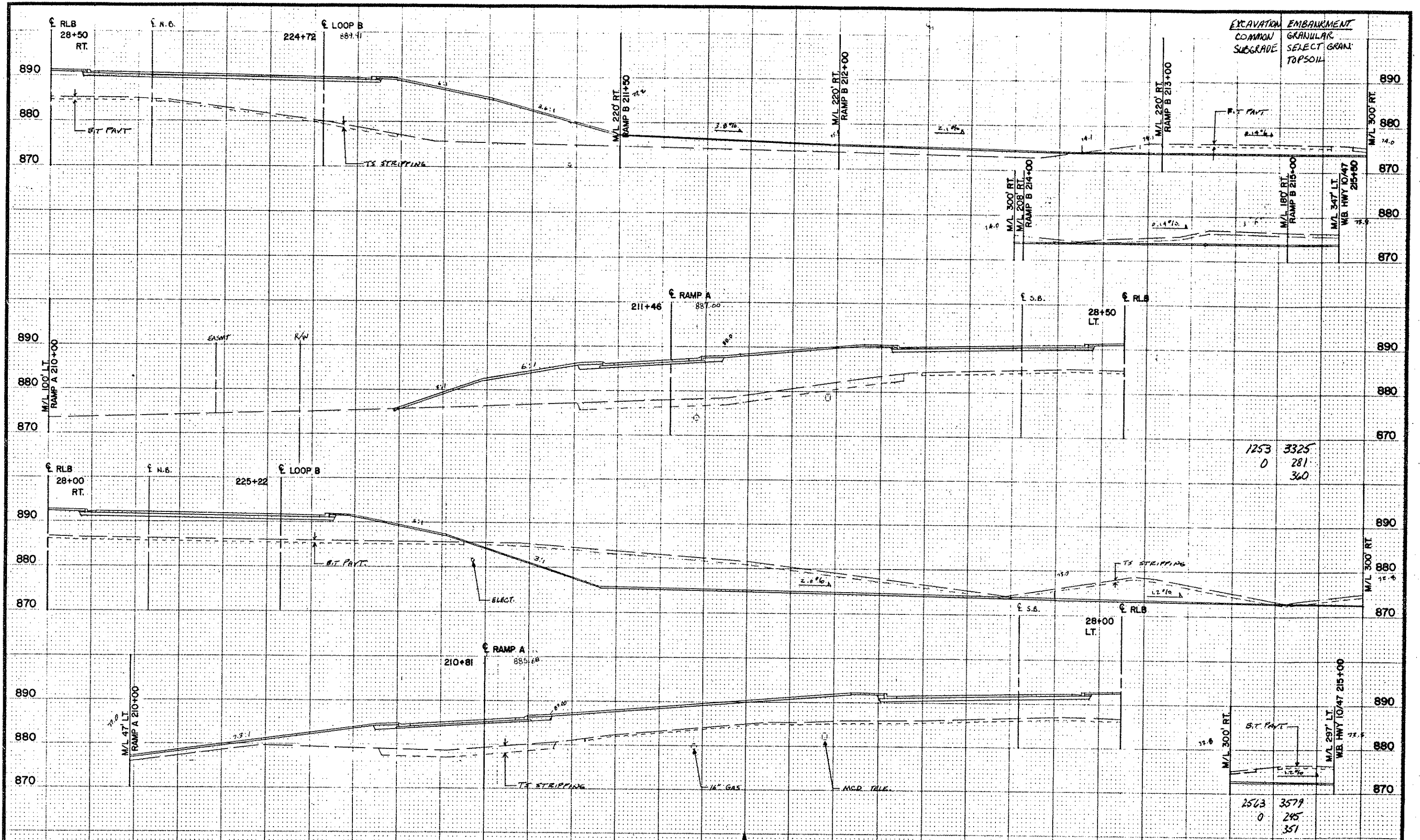
ORIGINAL DATE: 3/20/89
 REVISIONS: _____
 SURVEY BK. NO.: _____

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (C.S.A.H. 9)
 27+00 TO 27+50

DESIGN FILE No. 18-8840

S.A.P. NO. 02-609-08

SHEET 210 OF 256

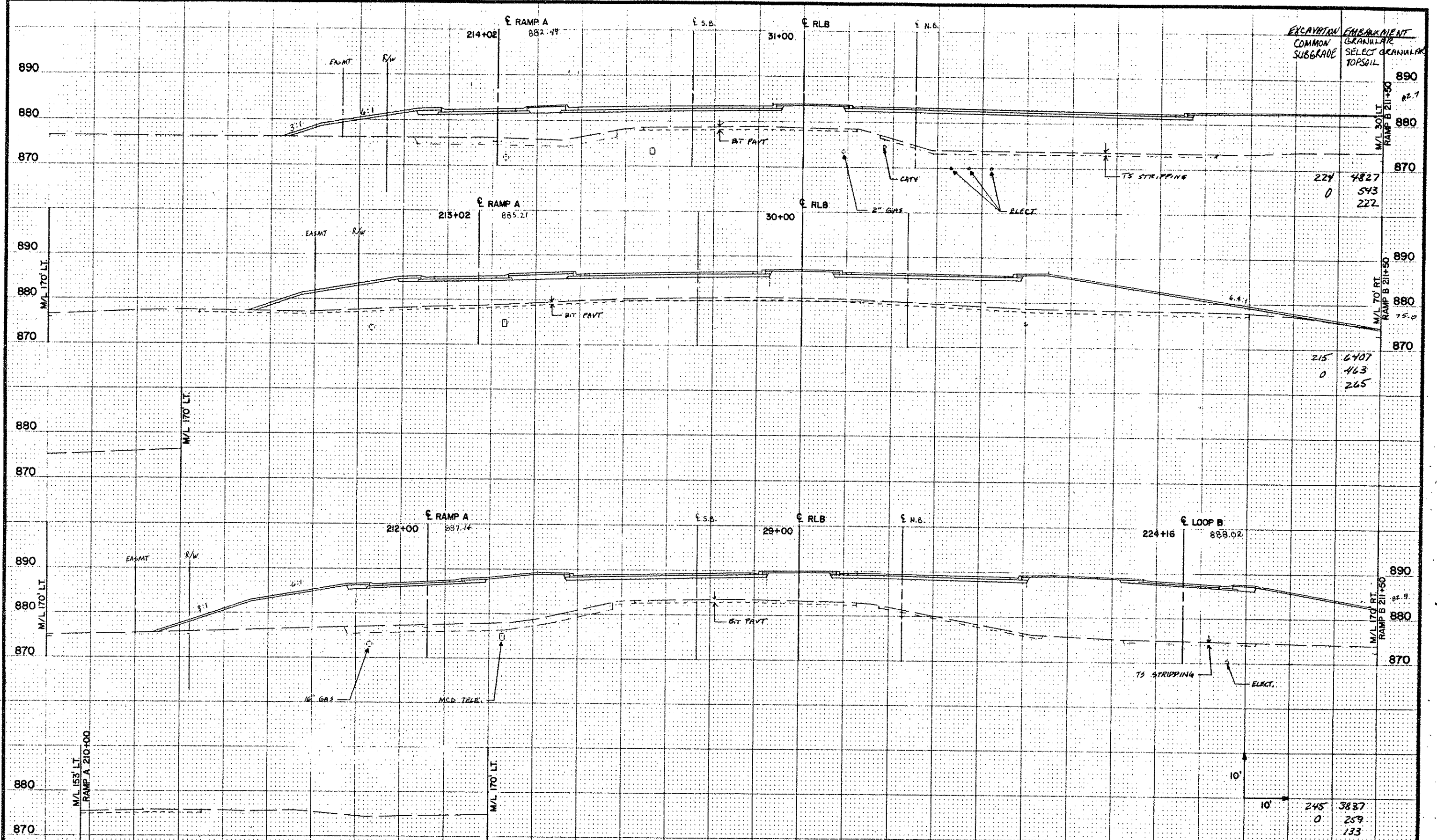


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.
Royall B. Baker
 Date _____ Minn. Reg. No. J2656E

BRW
 BRW, Inc.
 412 7th Street
 Minneapolis, Minnesota
 DESIGN BY JRM
 DRAWN BY JC, LEB

ORIGINAL DATE 3/20/89
 REVISIONS _____
 SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROUND LAKE BLVD (CSAH 9)
28+00 TO 28+50



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 State of Minnesota Statutes Sections 326.02 to 326.16.

Boyd Rankin

Date _____ Minn. Reg. No. J2556

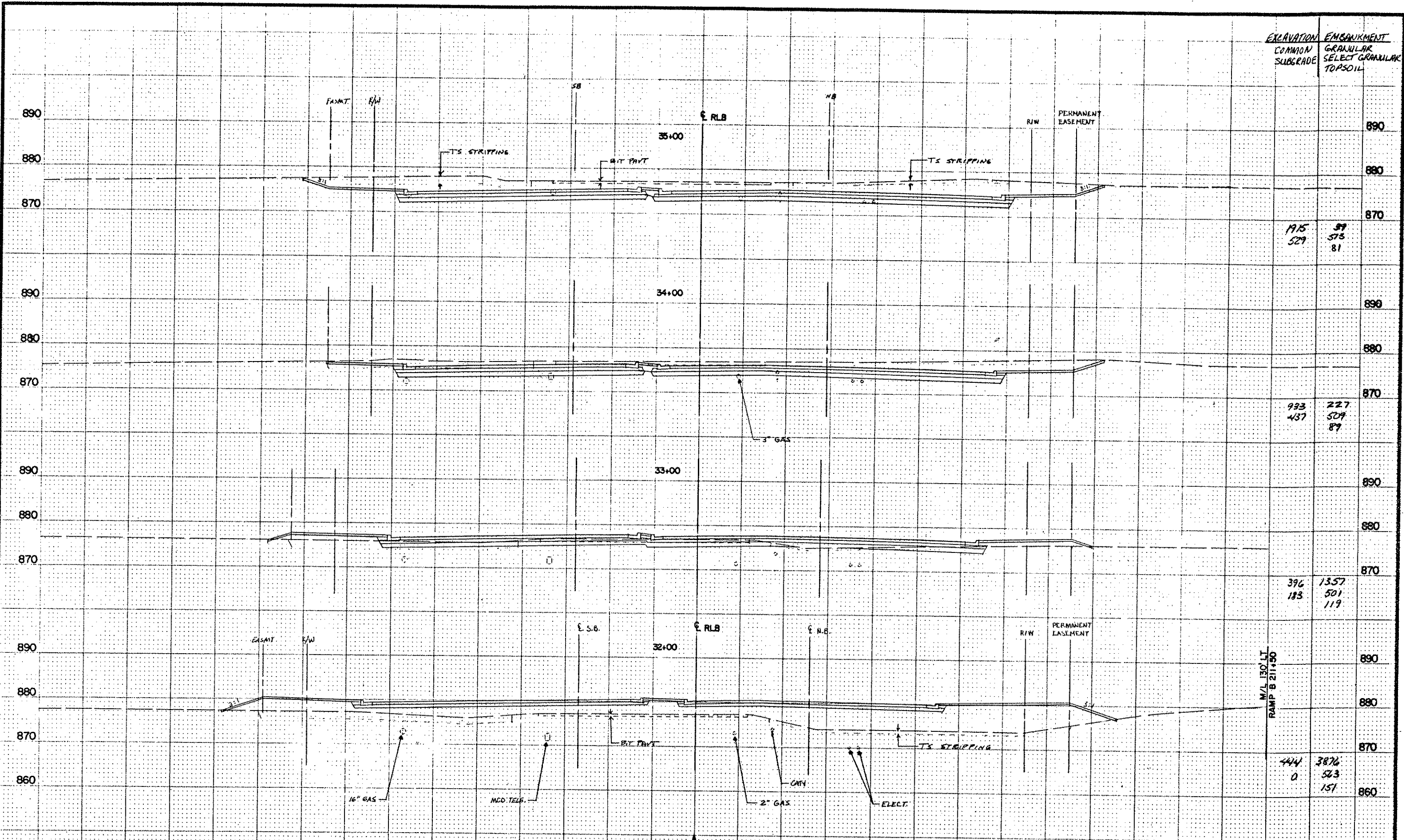
BRW
 BRW, Inc.
 512 1st Ave. S.
 Minneapolis, Minnesota 55402

DESIGN BY JRM
 DRAWN BY JC, LEB

ORIGINAL DATE	3/20/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (CSAH. 9)
 29+00 TO 31+00

EXCAVATION	EMBANKMENT
COMMON	GRANULAR
SUBGRADE	SELECT GRANULAR TOPSOIL



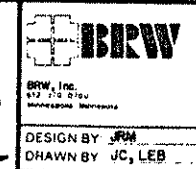
115	39
529	573
	81
933	227
437	509
	89
396	1357
183	501
	119
444	3876
0	523
	151

M/L 130' LT
RAMP B 211+50

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date _____ Minn. Reg. No. 12666



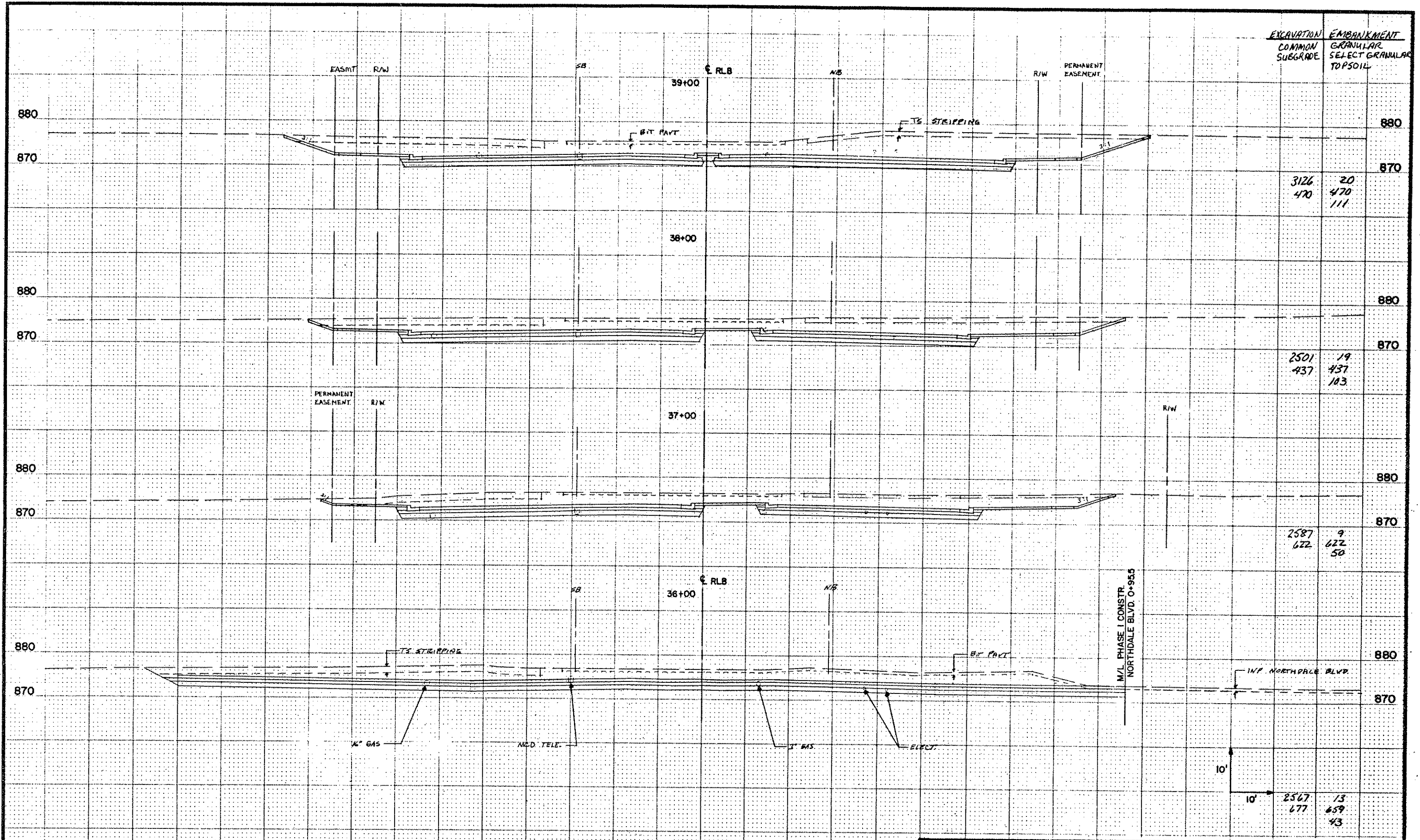
ORIGINAL DATE	3/20/89
REVISIONS	
SURVEY BK NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROUND LAKE BLVD. (C.S.A.H. 9)
32+00 TO 35+00

S.A.P. NO. 02-609-08

SHEET 213 OF 256

DESIGN FILE
No. 16-8840



EXCAVATION COMMON SUBGRADE	EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL
----------------------------------	--

3126	20
470	470
	111

2501	19
437	437
	103

2587	9
622	622
	50

2567	13
677	659
	43

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date _____ Minn. Reg. No. J2666.

BRW
 BRW, Inc.
 111 15th Ave S
 Minneapolis, MN 55404

DESIGN BY JRM
 DRAWN BY JC, LEB

ORIGINAL DATE 3/20/89
 REVISIONS _____
 SURVEY BK. NO. _____

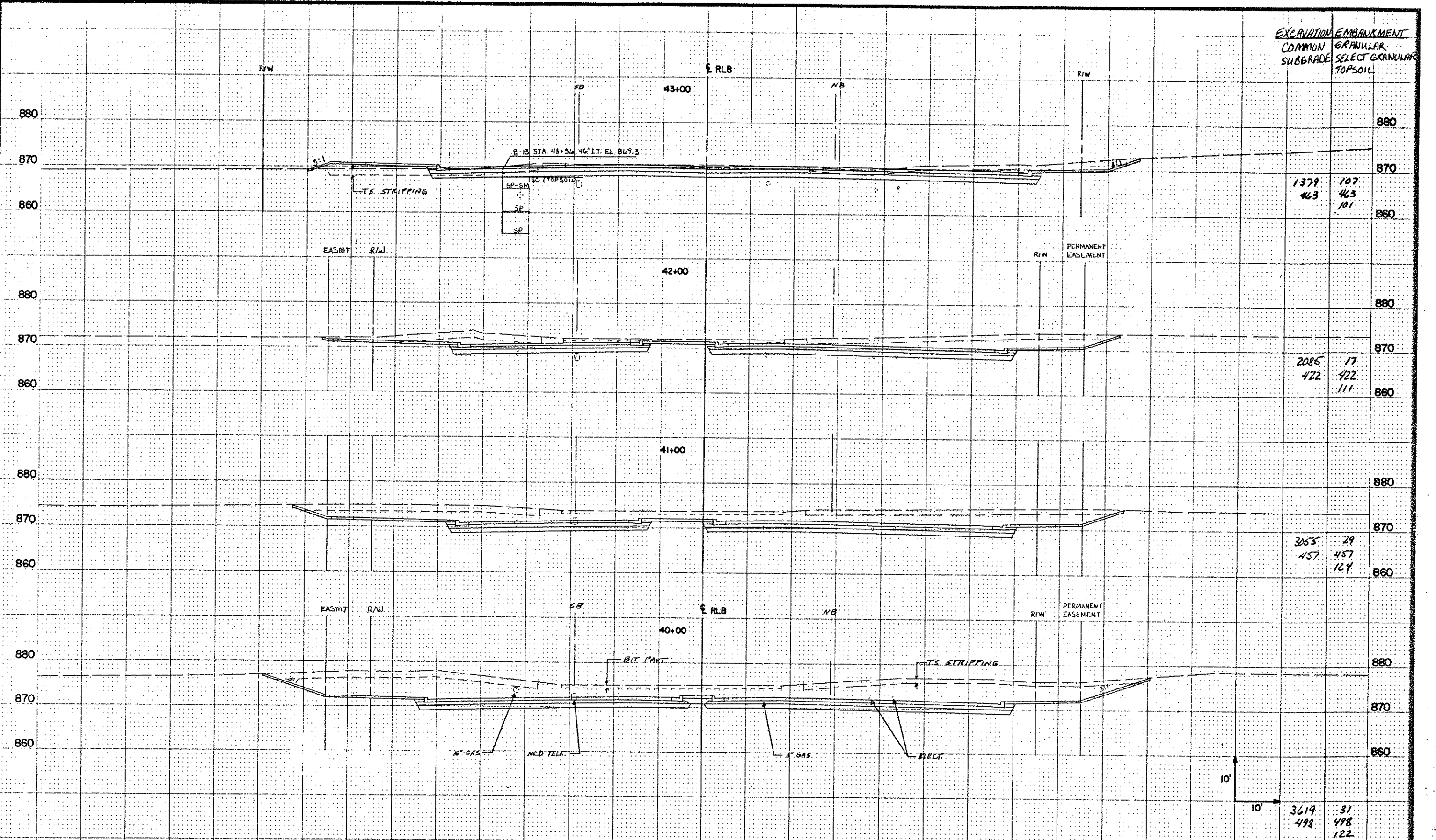
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROUND LAKE BLVD. (CSA.H. 9)
36+00 TO 39+00

S.A.P. NO. 02-609-08

SHEET 214 OF 256

DESIGN FILE
 No 18-8840

EXCAVATION COMMON SUBGRADE
EMBRANKMENT GRANULAR SELECT GRANULAR TOPSOIL



1379
463
107
463
101

2085
422
17
422
111

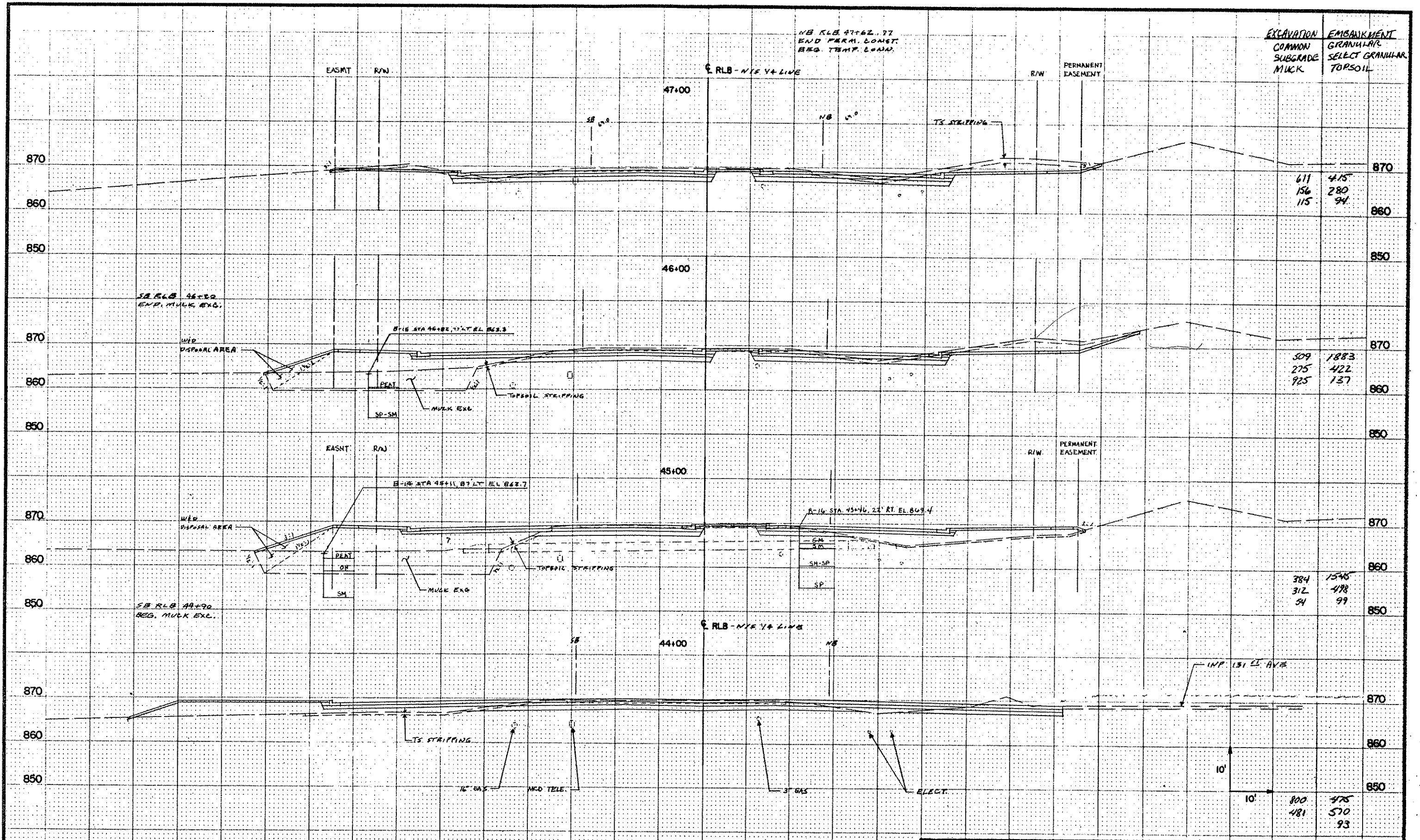
3055
457
29
457
124

3619
498
31
498
122

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 State of Minnesota Statutes Section 326.02 to 326.16.
Boyd Hauke
Date _____ Minn. Reg. No. 12656

BRW
BRW, Inc.
612 716 8101
HOMERIDGE, MINNESOTA
DESIGN BY JRM
DRAWN BY JC, LEB
SURVEY BK NO.
S.A.P. NO. 02-609-08

ORIGINAL DATE 3/20/88
REVISIONS
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROUND LAKE BLVD. (C.S.A.H. 9)
40+00 TO 43+00
SHEET 215 OF 256
DESIGN FILE No 16-8840



EXCAVATION	EMBANKMENT
COMMON SUBGRADE MUCK	GRANULAR SELECT GRANULAR TOPSOIL

611	415	870
156	280	860
115	94	850
509	1883	870
275	422	860
925	137	850
384	1546	870
312	478	860
54	99	850
800	475	870
481	570	860
	93	850

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Hauke

Date _____ Minn. Reg. No. 12666

BRW

BRW, Inc.
1777 1/2 Ave.
Minneapolis, Minnesota

DESIGN BY: JRM
DRAWN BY: JC, LEB

ORIGINAL DATE: 3/20/89

REVISIONS: _____

SURVEY BK. NO. _____

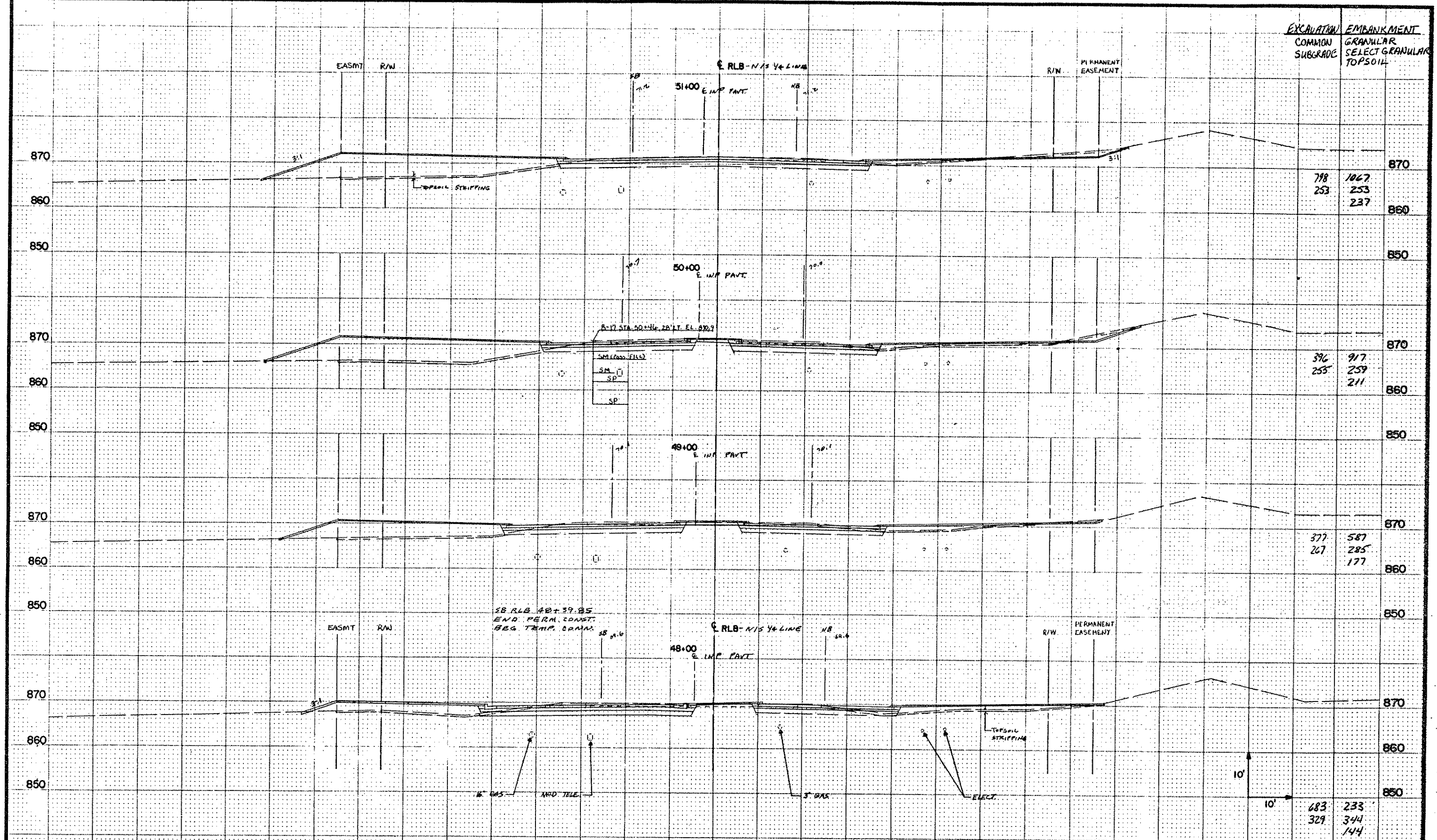
CITY OF COON RAPIDS

IMPROVEMENT PROJECT 88-53

ROUND LAKE BLVD. (C.S.A.H. 9)

44+00 TO 47+00

DESIGN FILE No. 18-8940



EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL

718	1067
253	253
	237

396	917
255	259
	211

377	587
267	285
	177

10'	683	233
10'	329	344
		144

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date _____ Minn. Reg. No. 12656

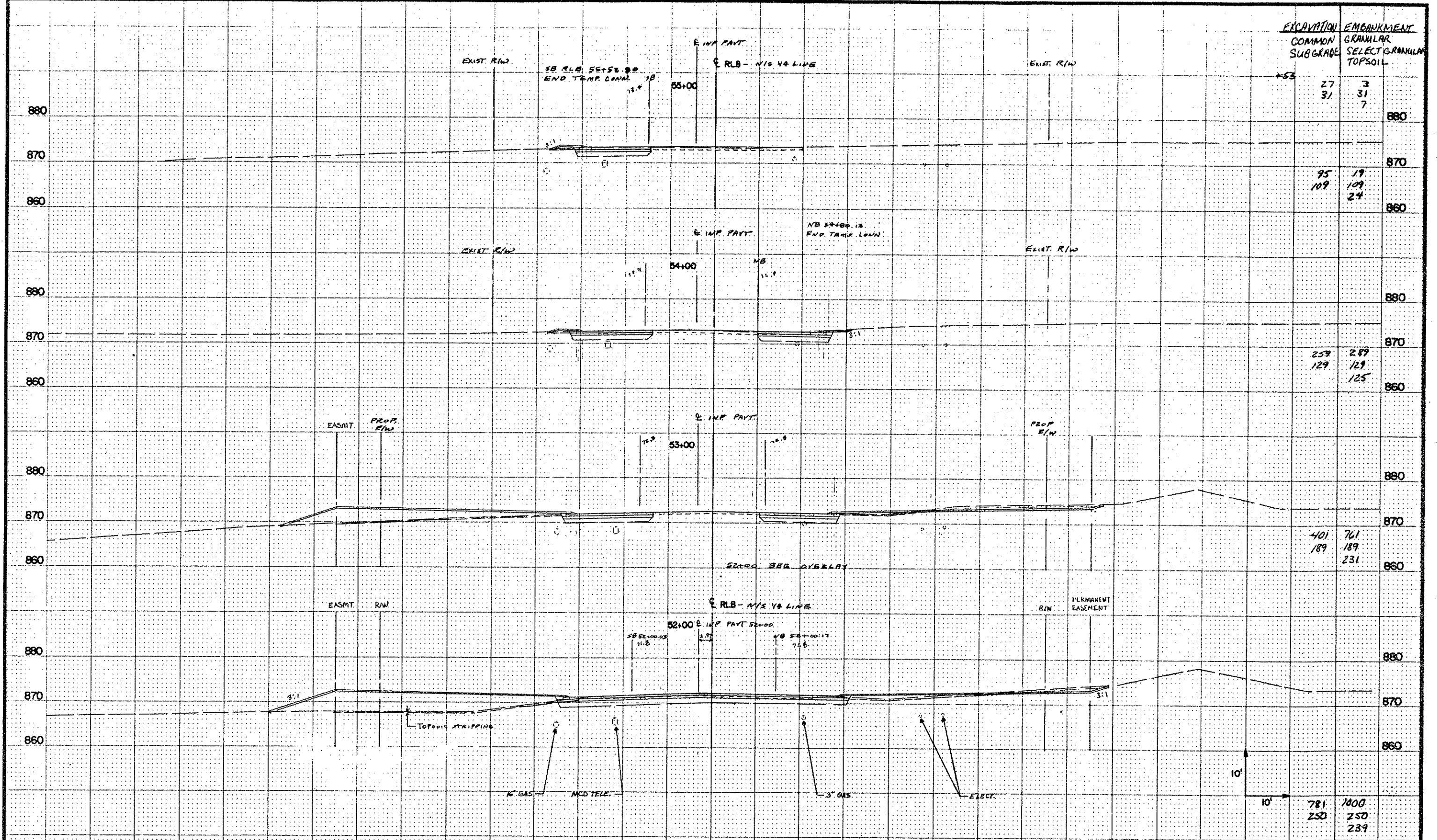


BRW, Inc.
417 7th St. S.
Minneapolis, MN 55402

ORIGINAL DATE	3/20/09
REVISIONS	
SURVEY BK. NO.	

DESIGN BY JRM
DRAWN BY JC, LEB

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
ROUND LAKE BLVD. (C.S.A.H. 9)
48+00 TO 51+00



ELEVATION	EXCAVATION		EMBANKMENT	
	COMMON SUBGRADE	GRANULAR TOPSOIL	GRANULAR TOPSOIL	SELECT GRANULAR TOPSOIL
880	27	3	31	7
870	95	19	109	24
860	259	289	129	125
850	401	761	189	231
840	781	1000	250	289

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 State of Minn. Statutes Sections 326.02 to 326.15.

Boyd Bank

Date _____ Minn. Reg. No. 12558

BRW, Inc.

DESIGN BY: JRM
DRAWN BY: JC, LEB

ORIGINAL DATE: 3/20/89

REVISIONS:

SURVEY BK. NO. _____

CITY OF COON RAPIDS

IMPROVEMENT PROJECT 88-53

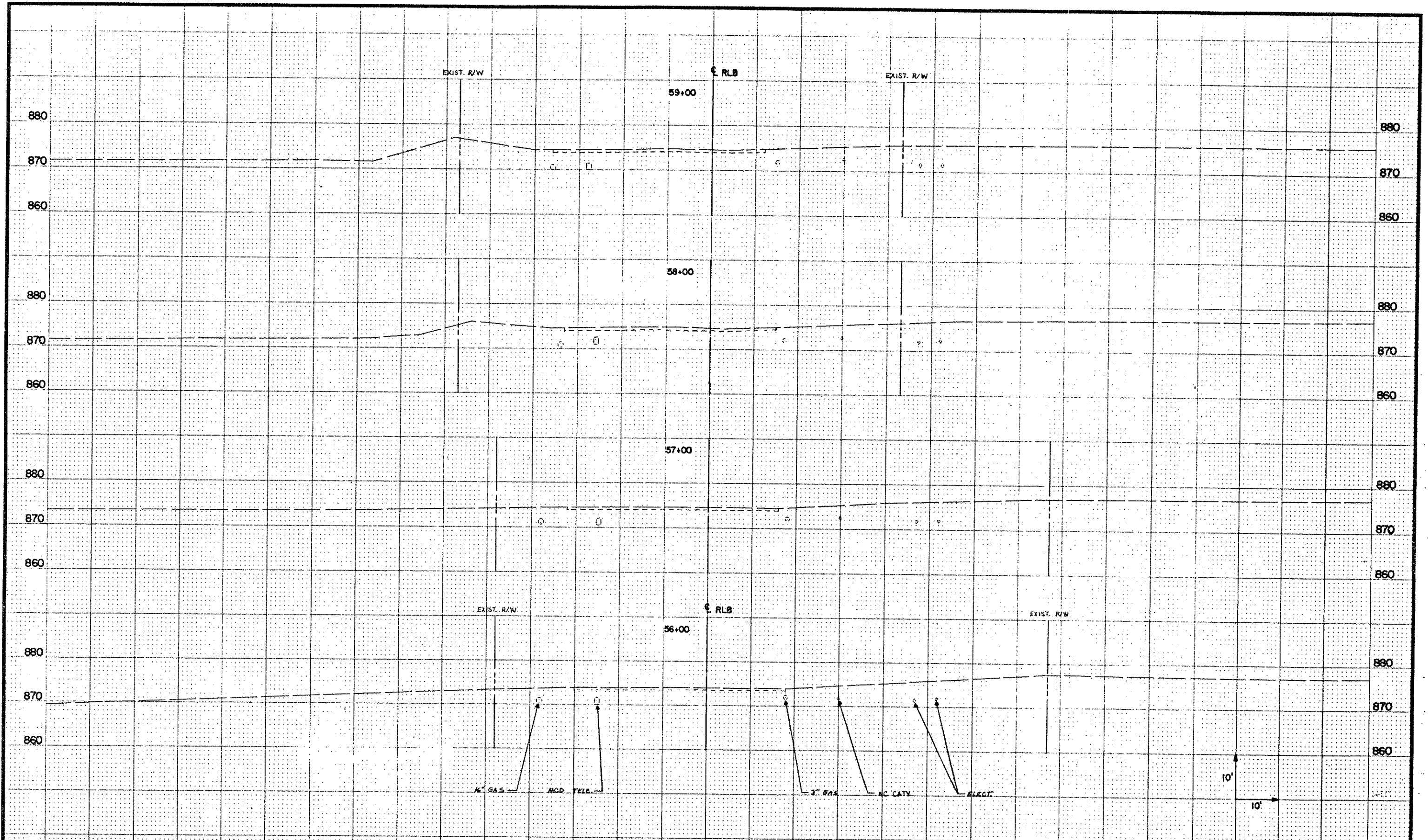
ROUND LAKE BLVD. (C.S.A.H. 9)

52+00 TO 55+00

S.A.P. NO. 02-609-08

SHEET 218 OF 256

DESIGN FILE No. 16-8940



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date _____ Minn. Reg. No. 12656

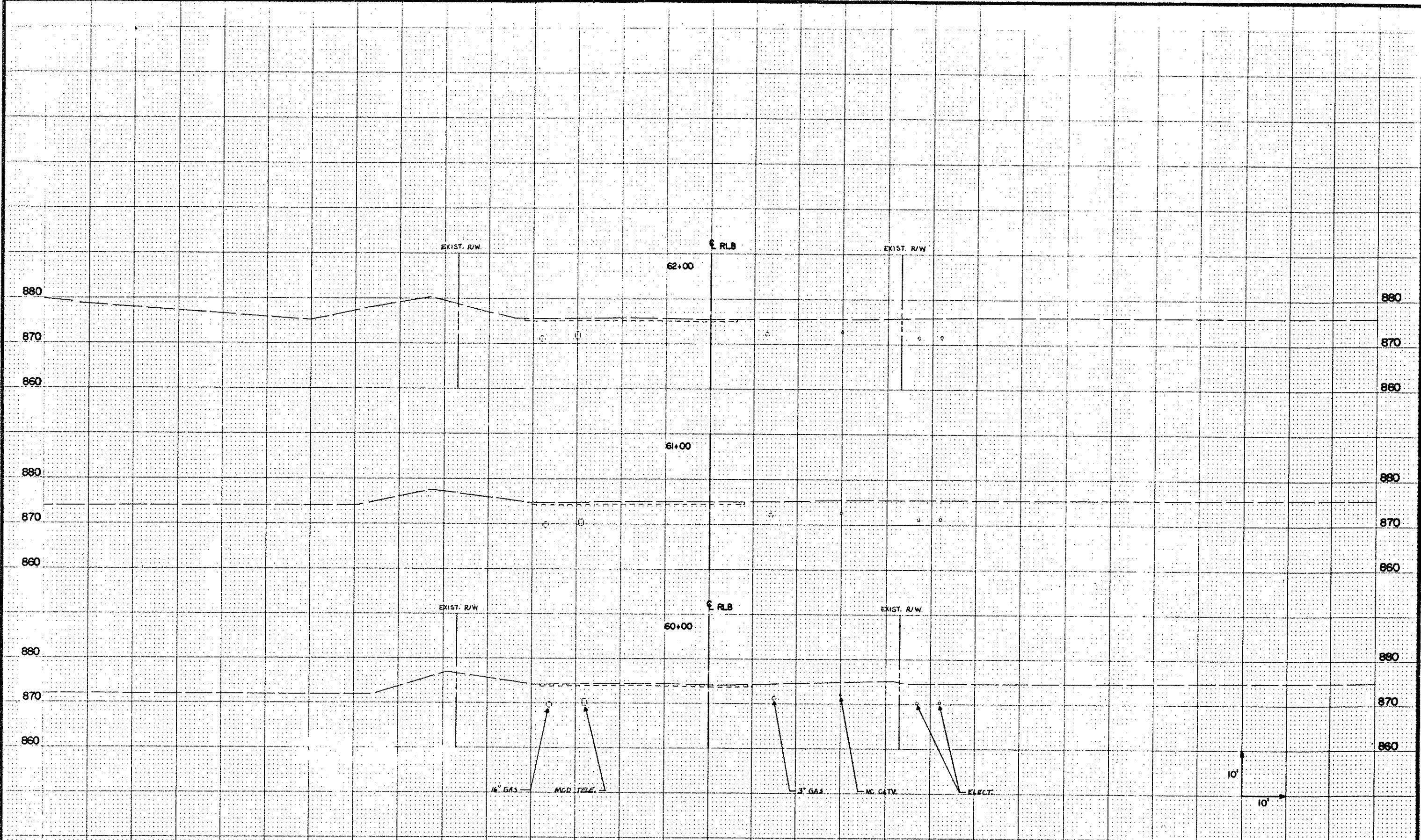
BRW

BRW, Inc.
412 318 6100
MINNEAPOLIS, MINNESOTA

DESIGN BY: JEM
DRAWN BY: JAC LEB

ORIGINAL DATE	3/20/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (C.S.A.H. 9)
 56+00 TO 59+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

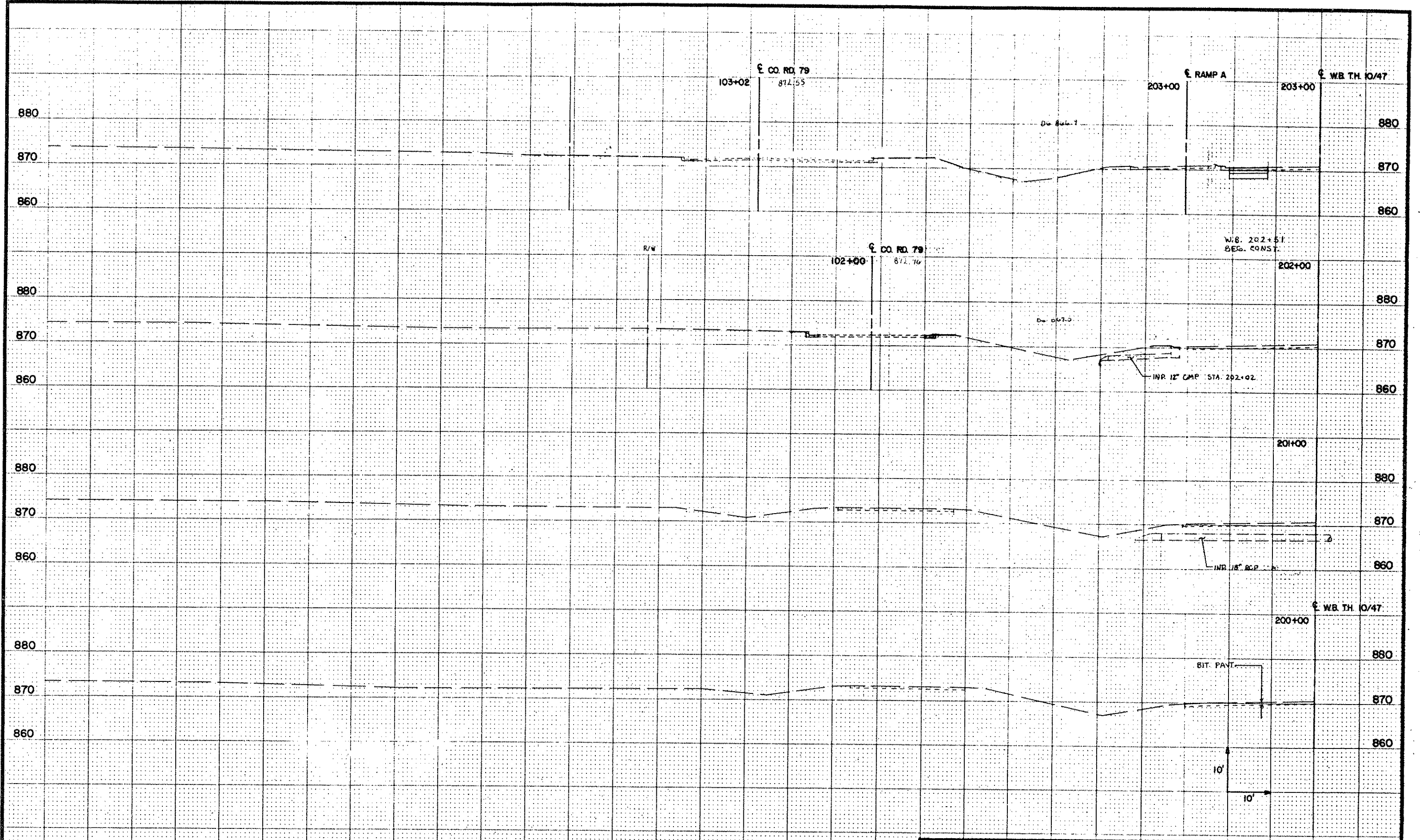
Date _____ Minn. Reg. No. 12666.

BRW
 BRW, INC.
 117 1st Ave.
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: JAC LEB

ORIGINAL DATE	3/20/99
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 ROUND LAKE BLVD. (CSA# 9)
 60+00 TO 62+00



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 State of Minnesota Statutes Sects. 326.02 to 326.16.

Royd Buler

Date _____ Minn. Reg. No. 12666

BRW
 BRW, Inc.
 10000 Hennepin Avenue
 Minneapolis, MN 55424

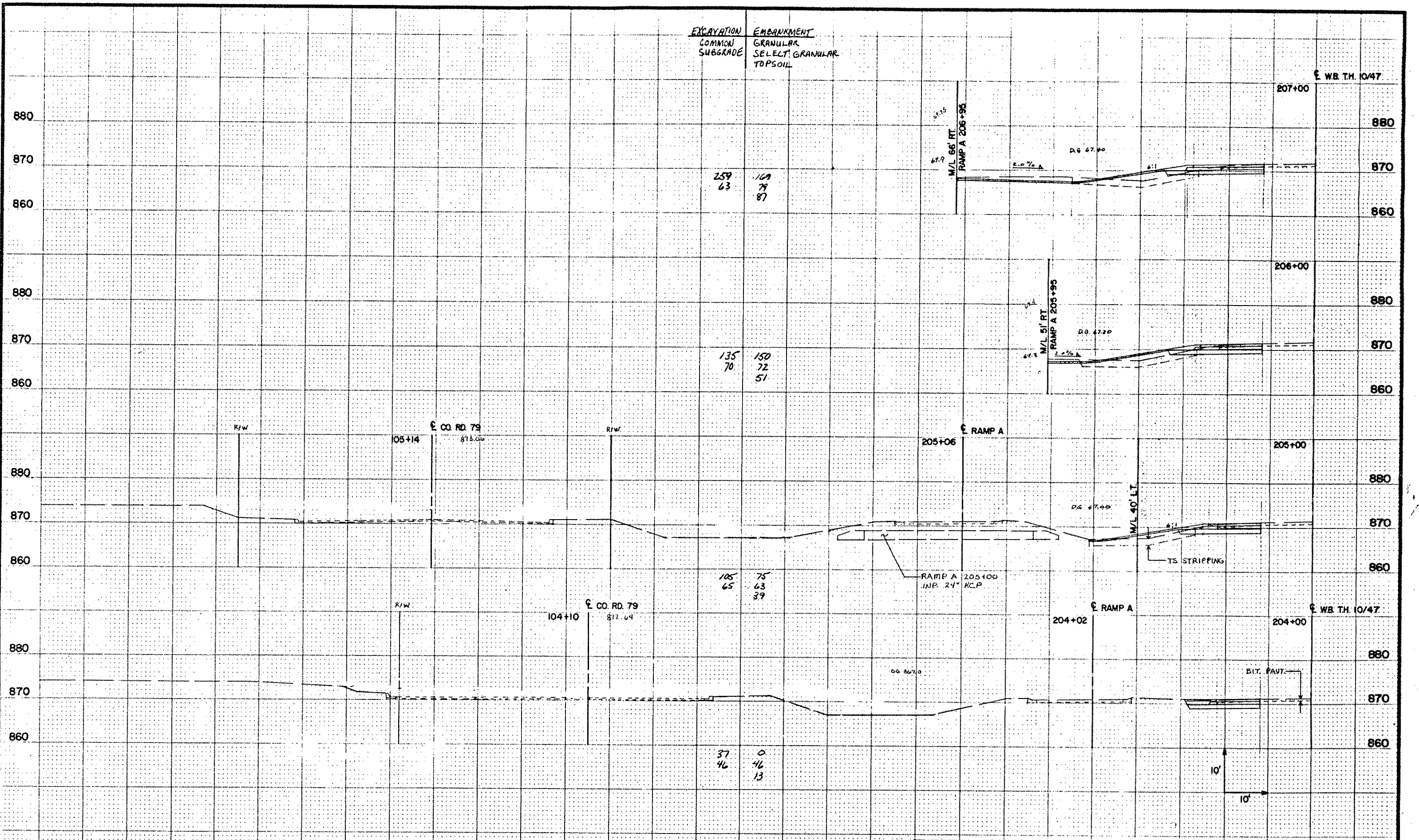
DESIGN BY: *C.S. JRM*
 DRAWN BY: *L.S. JAC LED*

ORIGINAL DATE	3/23/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 WB. TH. 10/47
 200+00 TO 203+00

EXCAVATION
COMMON
SUBGRADE

EMBANKMENT
GRANULAR
SELECT GRANULAR
TOPSOIL



259
63

109
79
87

135
70

150
72
51

105
65

75
63
39

37
46

0
46
13

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 State of Minn. Statutes Sections 326.02 to 326.16.

Royce Parker

Date _____ Minn. Reg. No. 12555.

BRW

BRW, Inc.
417 7th St.
Minneapolis, Minnesota

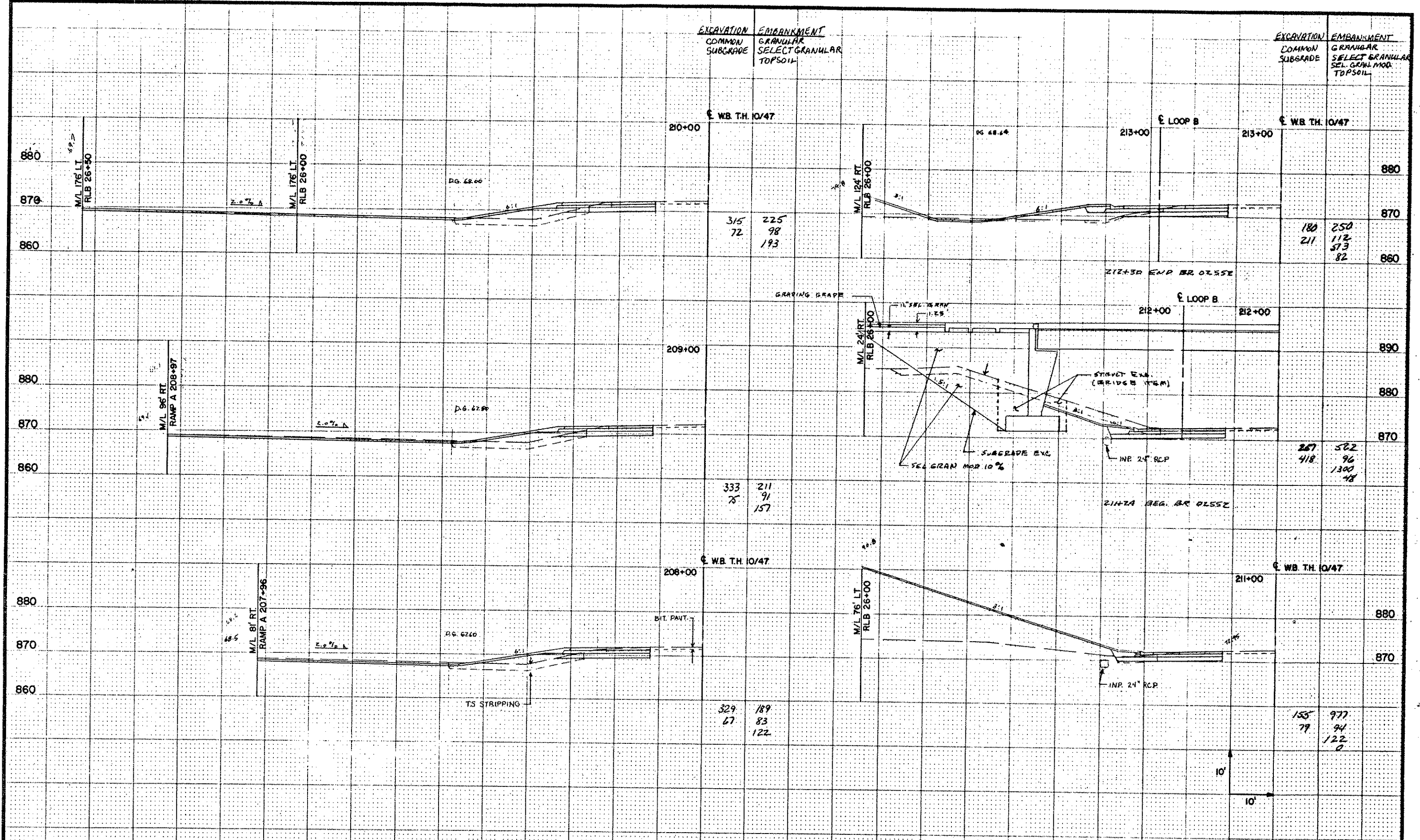
DESIGN BY: *JRM*
DRAWN BY: *JAG LEB*

ORIGINAL DATE 3/23/89

REVISIONS

SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
WB. TH. 10/47
204+00 TO 207+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date _____ Minn. Reg. No. 12656

BRW

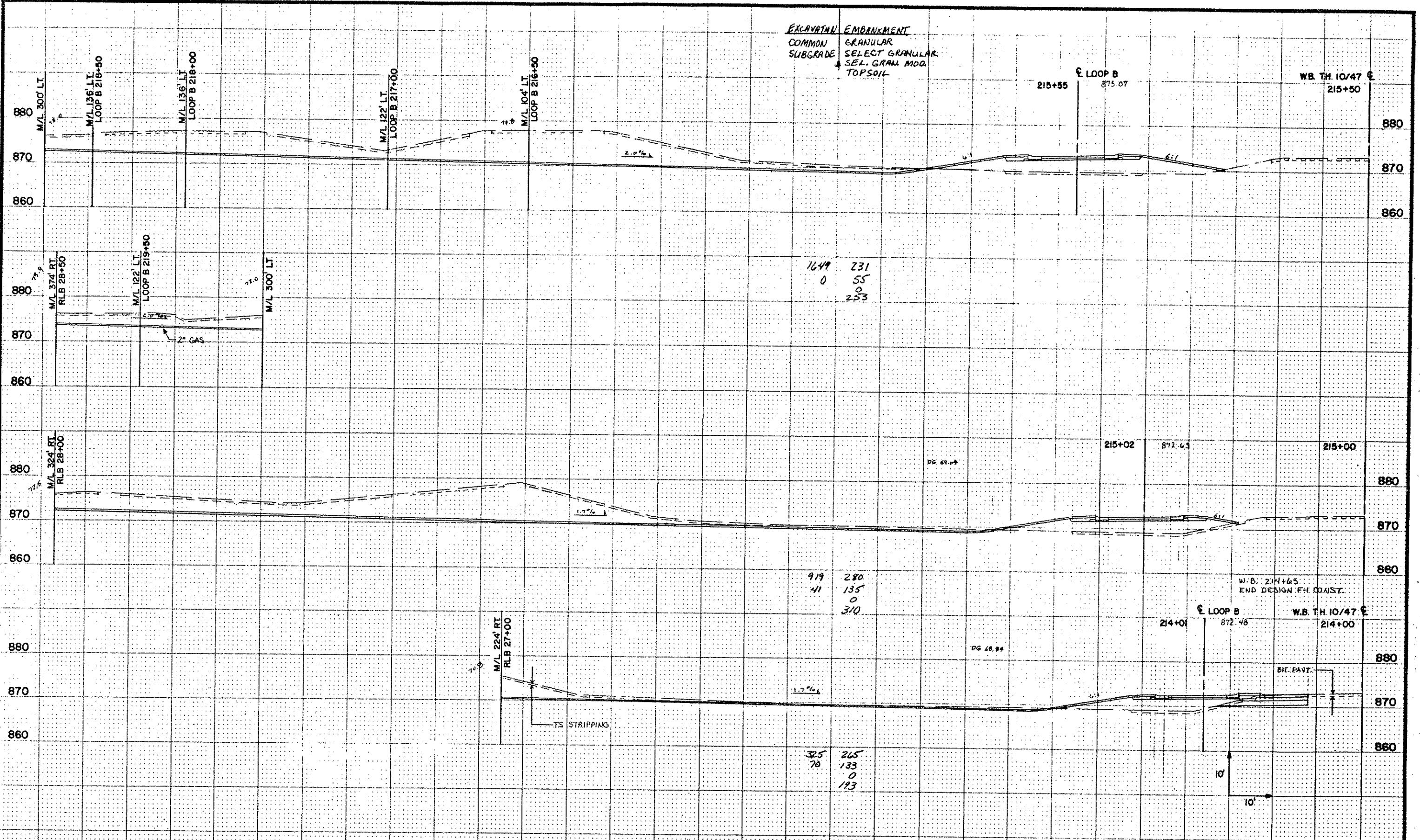
BRW, Inc.
212 1-0 6100
MINNEAPOLIS, MINN.

DESIGN BY: JRM
DRAWN BY: JAC LEB

ORIGINAL DATE	3/23/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
WB TH. 10/47
208+00 TO 213+00

EXCAVATION COMMON SUBGRADE
 EMBANKMENT GRANULAR SELECT GRANULAR SEL. GRAN. MOD. TOPSOIL



1649 231
 0 55
 0 0
 253

919 280
 41 135
 0 0
 310

325 265
 70 133
 0 0
 123

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 State of Minn. Statutes Section 326.02 to 326.06.

Royce Paulsen

Date _____ Minn. Reg. No. 12666

BRW
 BRW, Inc.
 111 1/2 9100
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: JAC LEB

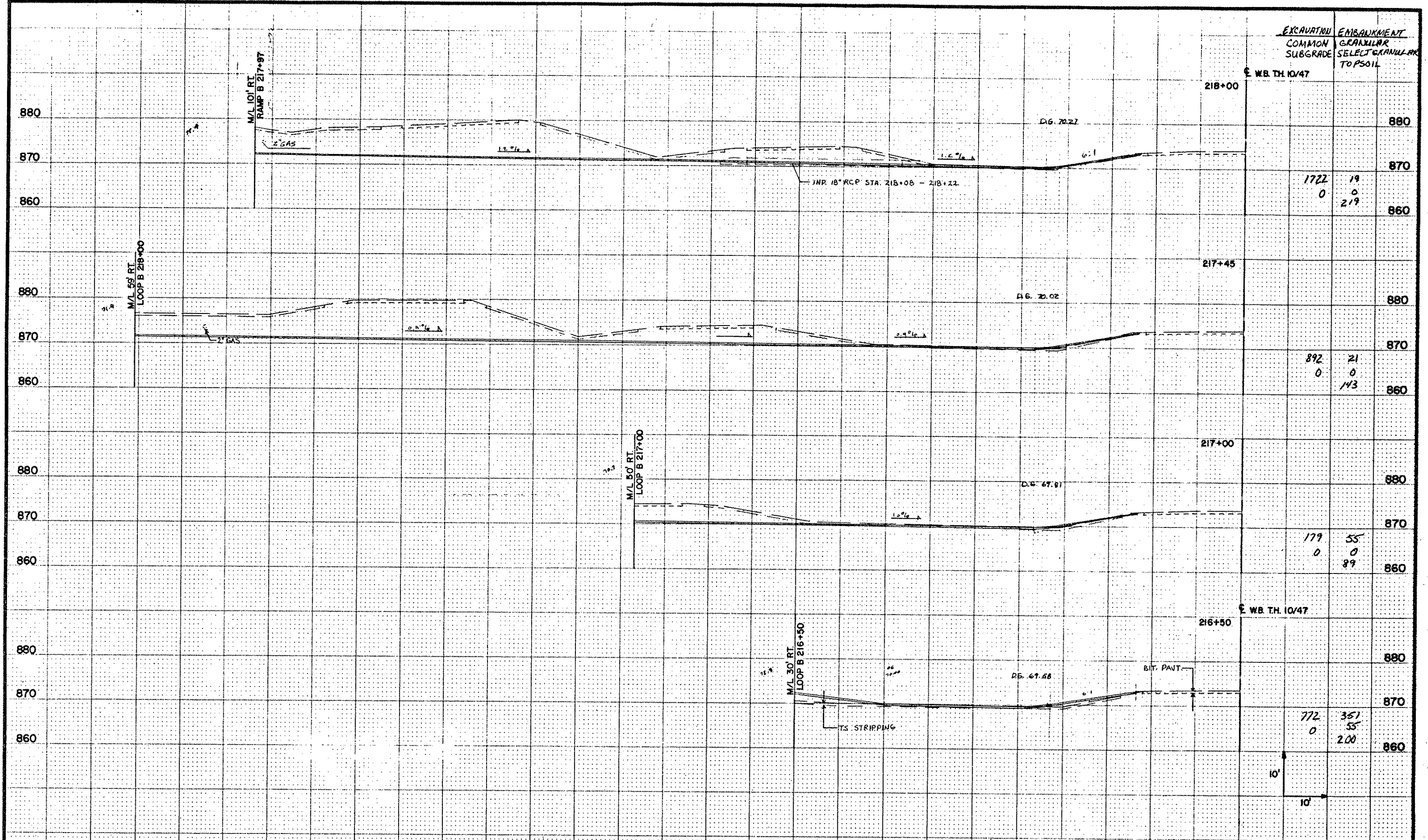
ORIGINAL DATE 3/23/89
 REVISIONS _____
 SURVEY BK. NO. _____

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 WB. TH. 10/47
 214+00 TO 215+50

SHEET 224 OF 256

DESIGN FILE No. 16-8840

S.A.P. NO. 02-609-08



EXCAVATION COMMON SUBGRADE
EMBAKMENT GRANULAR SELECT GRANULAR TOP SOIL

WB TH. 10/47

Station	Excavation	Embankment
218+00	1722 0	19 0 219
217+45	892 0	21 0 143
217+00	179 0	55 0 89
216+50	772 0	351 55 208

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

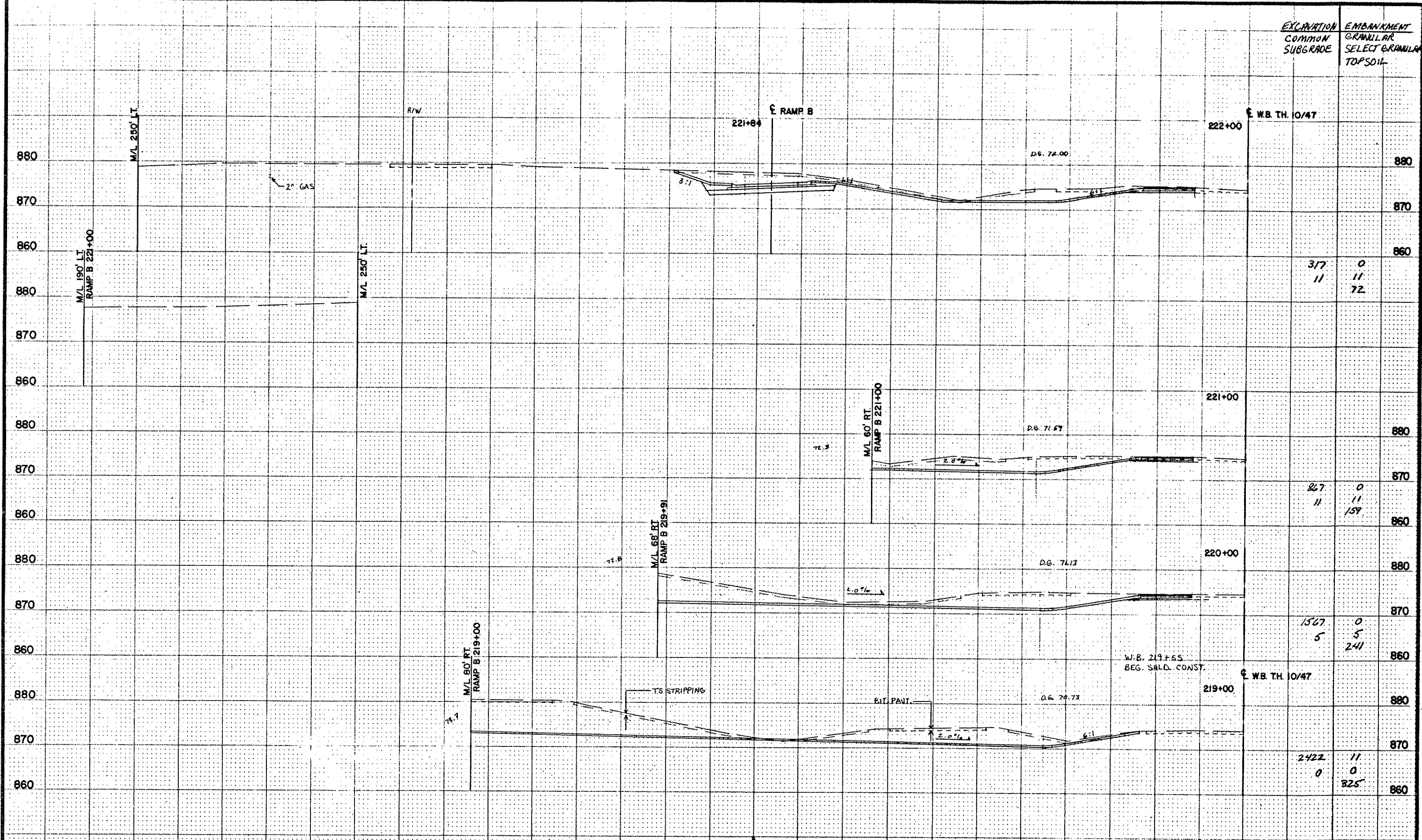
Date _____ Minn. Reg. No. 12666

BRW
BRW, Inc.
417 10th St. S.
Minneapolis, MN 55402

DESIGN BY: JRM
DRAWN BY: JAC LEB

ORIGINAL DATE 3/23/89
REVISIONS _____
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
WB TH. 10/47
216+50 TO 218+00



EXCAVATION
COMMON
SUBGRADE

EMBANKMENT
GRANULAR
SELECT GRANULAR
TOPSOIL

WB TH 10/47

Station	Excavation	Embankment
222+00	377 11	0 11 72
221+00	267 11	0 11 159
220+00	1567 5	0 5 241
219+00	2422 0	11 0 325

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Kauler

Date _____ Minn. Reg. No. 12656

BRW

BRW, Inc.
213 510 6700
Minneapolis, MN 55425

DESIGN BY: JRM
DRAWN BY: JAC LES

ORIGINAL DATE 3/23/89

REVISIONS

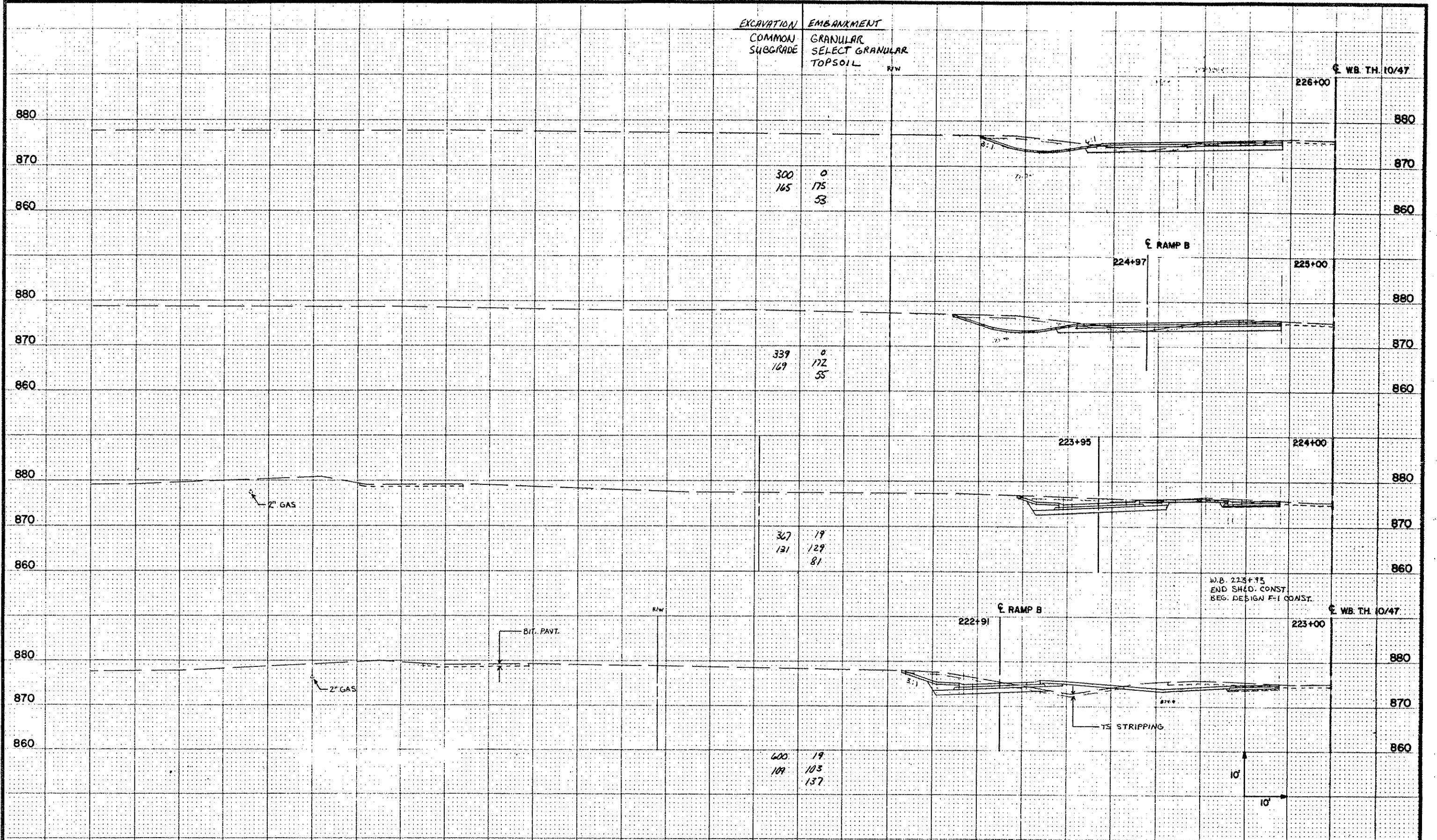
SURVEY BK NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
WB. TH. 10/47
219+00 TO 222+00

S.A.P. NO. 02-609-08

SHEET 226 OF 256

DESIGN FILE
No 16-8840

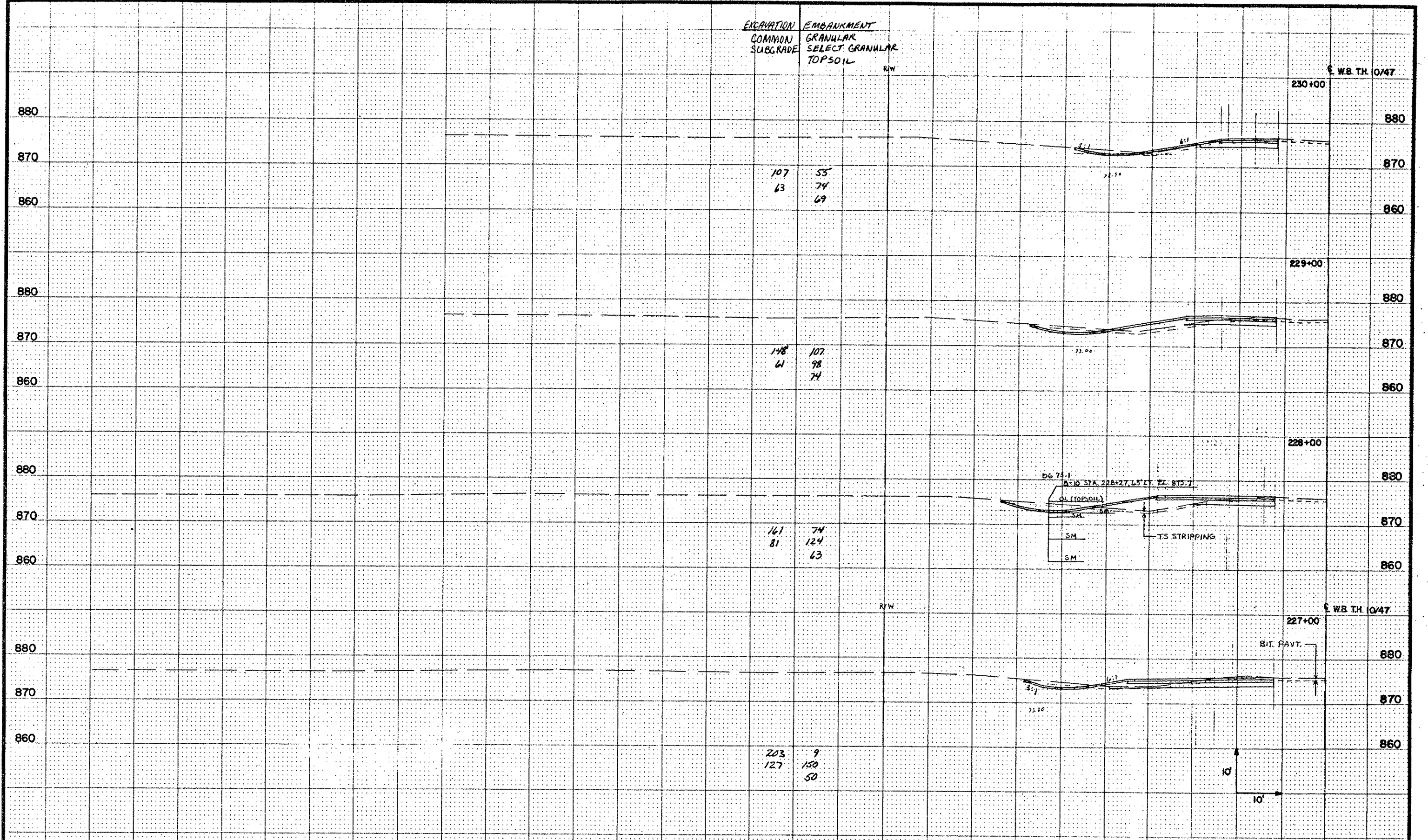


EXCAVATION	EMBANKMENT
COMMON	GRANULAR
SUBGRADE	SELECT GRANULAR
	TOPSOIL

WB. TH. 10/47

W.B. 223+95
END SHLD. CONST.
BEG. DESIGN F-1 CONST.

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 State of Minn. Statutes Sections 326.02 to 326.06. <i>Boyd Paulsen</i> Date _____ Minn. Reg. No. 12666	 BRW, Inc. 612 370 8700 Minneapolis, Minnesota	ORIGINAL DATE 3/23/89 REVISIONS _____	CITY OF COON RAPIDS IMPROVEMENT PROJECT 88-53 WB. TH. 10/47 223+00 TO 226+00
		DESIGN BY JRM DRAWN BY JAC LEB	
S.A.P. NO. 02-609-08		SHEET 227 OF 256	
		DESIGN FILE No. 16-8840	



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 State of Minn. Statutes Sections 326.02 to 326.16

Boyd Paulsen

Date _____ Minn. Reg. No. 1266E

BRW

BRW, Inc.
412 10th Street
Minneapolis, Minnesota

DESIGN BY: *JRM*
DRAWN BY: *JAC LEB*

ORIGINAL DATE 3/23/89
REVISIONS _____

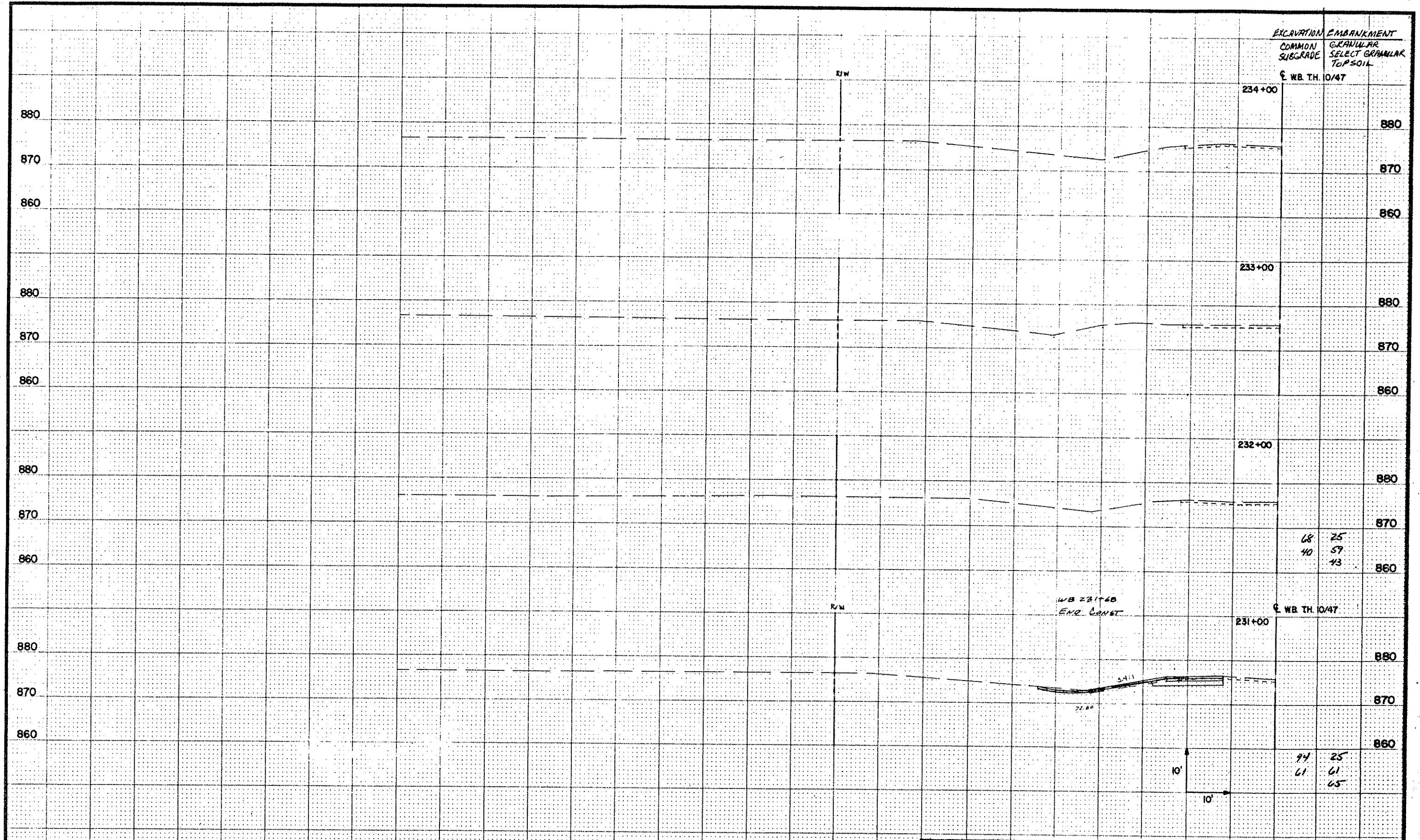
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
WB TH. 10/47
227+00 TO 230+00

S.A.P. NO. 02-609-08

SHEET 228 OF 256

DESIGN FILE NO. 16-8940



EXCAVATION COMMON SUBGRADE	EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL
WB TH. 10/47	WB TH. 10/47

234+00

233+00

232+00

231+00

68	25
40	59
	43

WB TH. 10/47

94	25
61	61
	65

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date _____ Minn. Reg. No. 12666

BRW

BRW, Inc.
412 7th Street
St. Paul, MN 55102

DESIGN BY: *JRM*
DRAWN BY: JAC LER

ORIGINAL DATE 3/23/89

REVISIONS _____

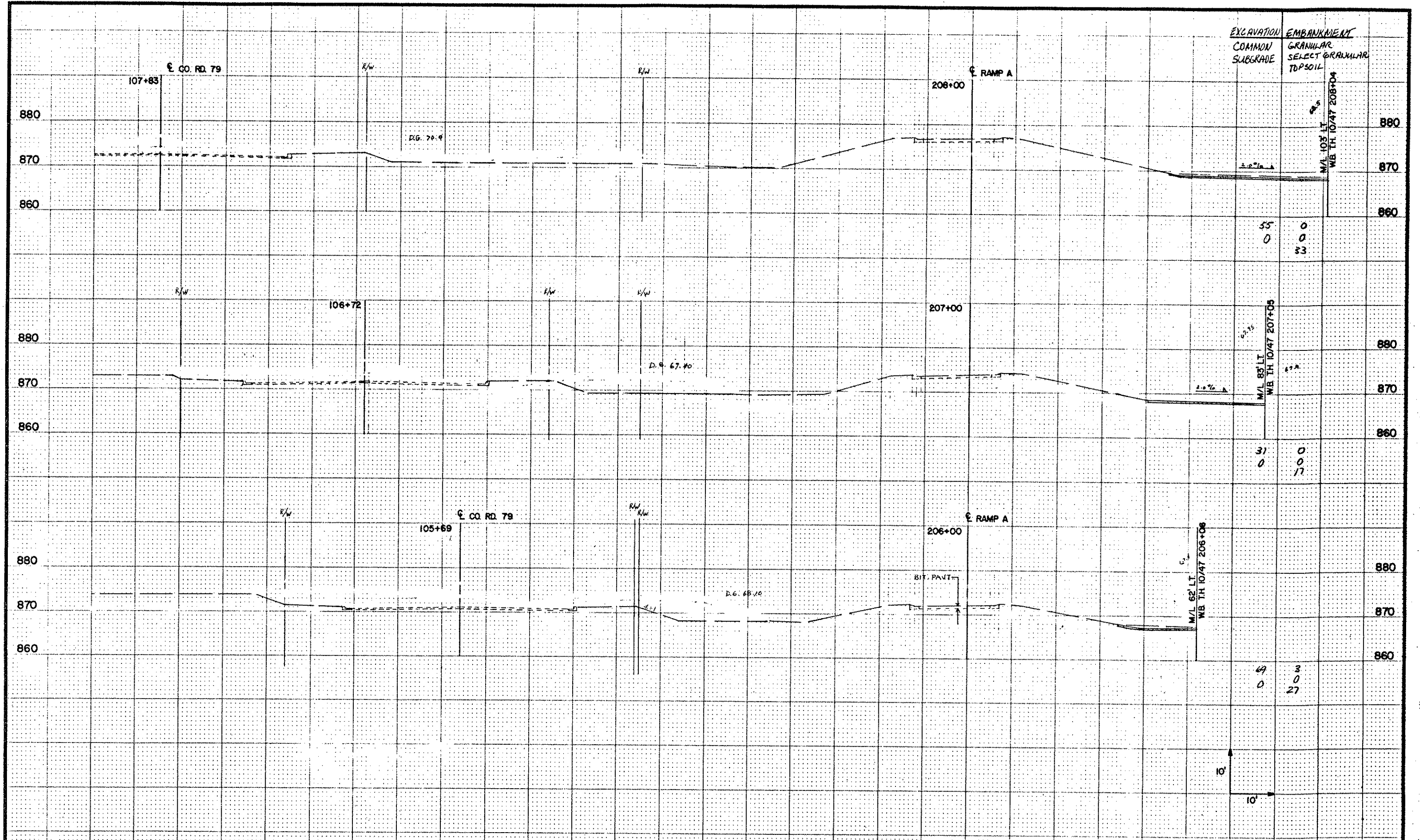
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
WB. TH. 10/47
231+00 TO 234+00

S.A.P. NO. 02-609-08

SHEET 229 OF 256

DESIGN FILE
No 15-5892



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 State of Minn. Statutes Sections 326.02 to 326.16

Boyd Paulsen

Date _____ Minn. Reg. No. 12666

BRW
 BRW, Inc.
 417 316 5100
 Minneapolis, Minnesota

DESIGN BY: *JRM*
 DRAWN BY: JAC LEB

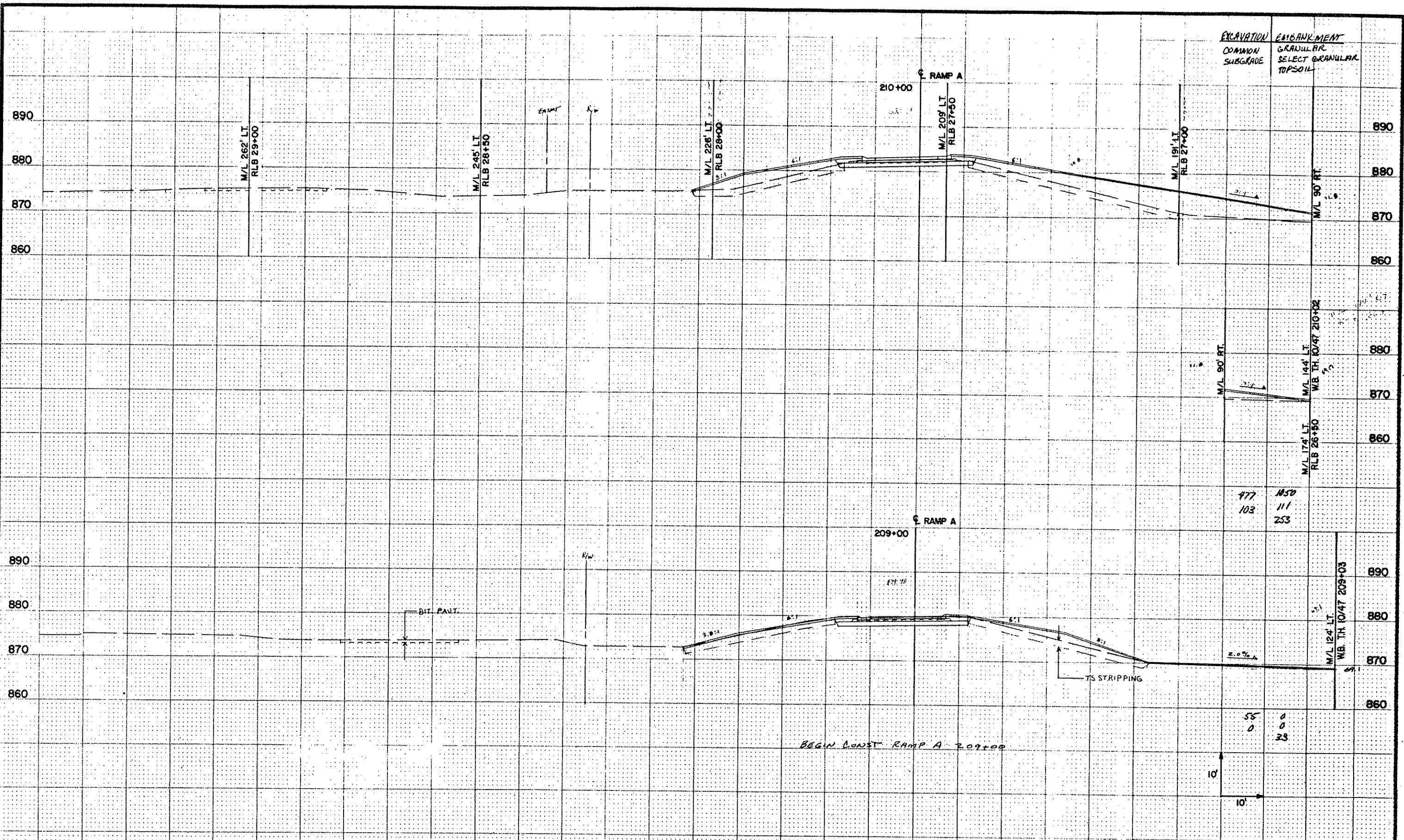
ORIGINAL DATE: 3/29/89
 REVISIONS: _____
 SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP A
206+00 TO 208+00

S.A.P. NO. 02-609-08

SHEET 230 OF 256

DESIGN FILE No. 16-8840



EXCAVATION
COMMON
SUBGRADE

EMBANKMENT
GRANULAR
SELECT GRANULAR
TOPSOIL

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulin

Date _____ Minn. Reg. No. 12666

BRW

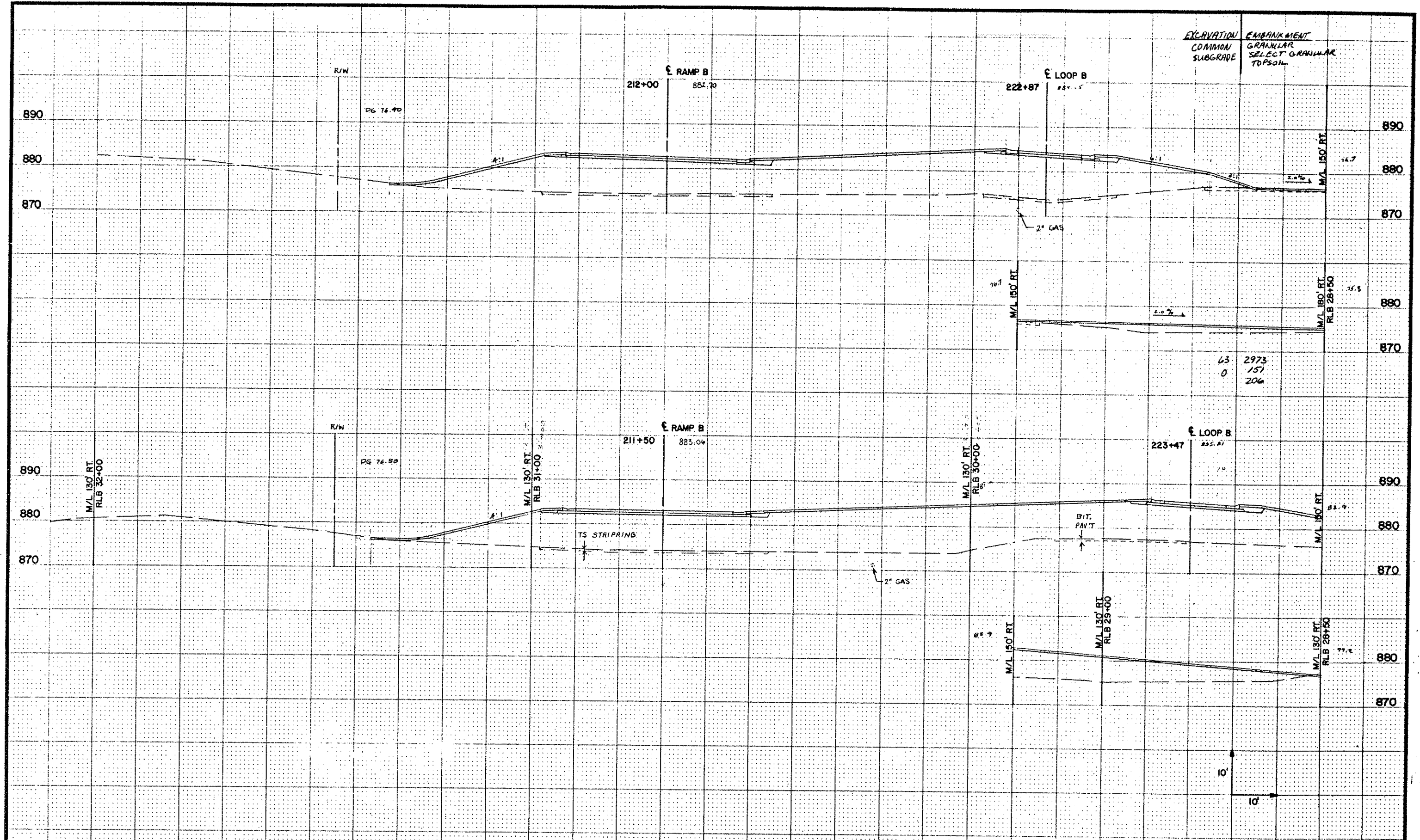
BRW, Inc.
111 1st Street
Northfield, Minnesota

DESIGN BY *JPM*
DRAWN BY *JAC, LEB*

ORIGINAL DATE 3/29/89
REVISIONS _____

SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP A
209+00 TO 210+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date _____ Minn. Reg. No. 12666

DRW

DESIGN BY: JRM
DRAWN BY: JAC, LEB

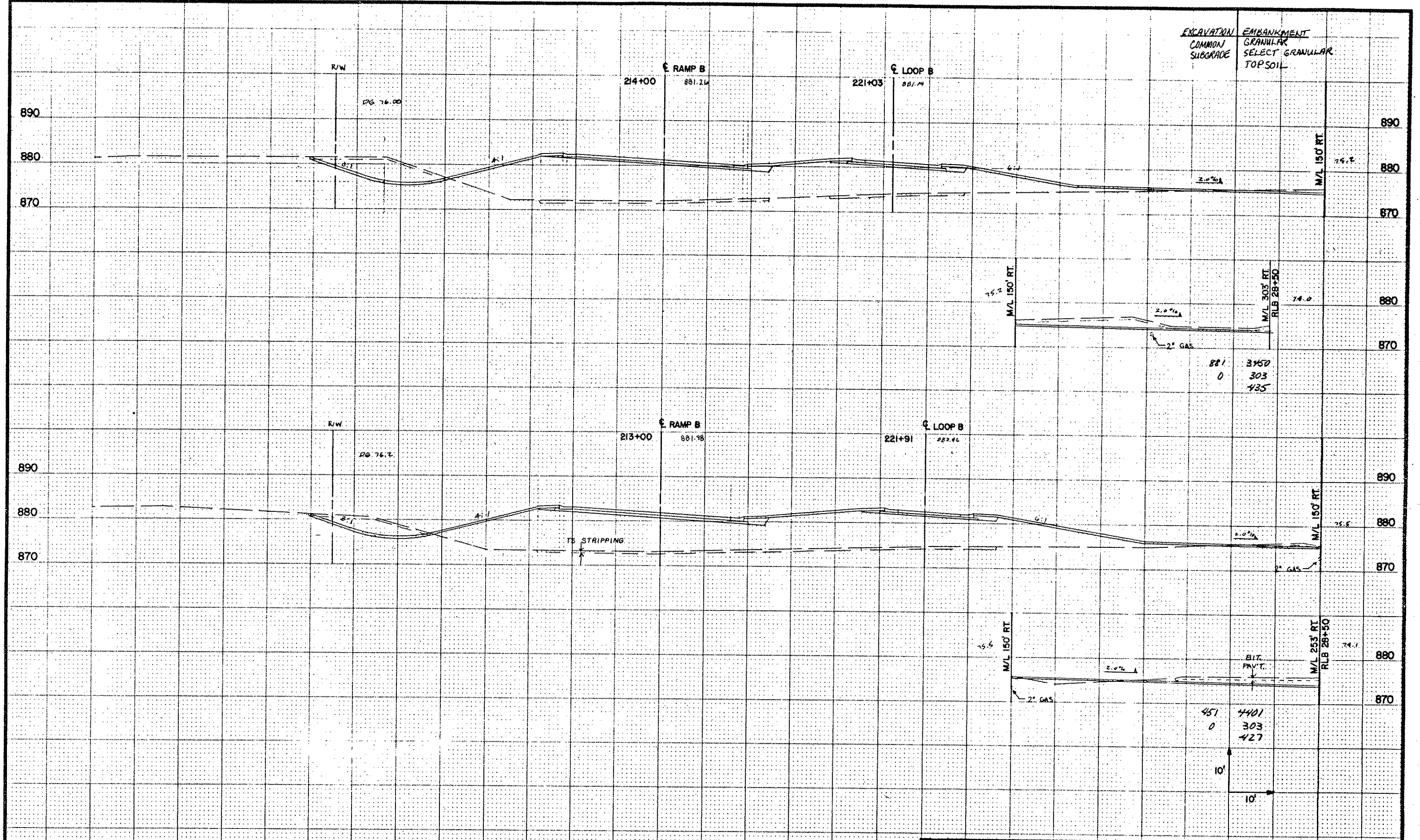
ORIGINAL DATE: 3/27/89
REVISIONS: _____
SURVEY BK NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP B
211+50 TO 212+00

S.A.P. NO. 02-609-08

SHEET 232 OF 256

DESIGN FILE No. 16-8840



EXCAVATION
COMMON
SUBGRADE

EMBANKMENT
GRAVELLAR
SELECT GRANULAR
TOPSOIL

214+00 RAMP B 881.24

221+03 LOOP B 881.14

213+00 RAMP B 881.18

221+91 LOOP B 882.46

881 3450
0 303
435

451 4401
0 303
427

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date _____ Minn. Reg. No. 12666

BRW

BRW, Inc.
211 1st St. S.
Bloomington, Minnesota

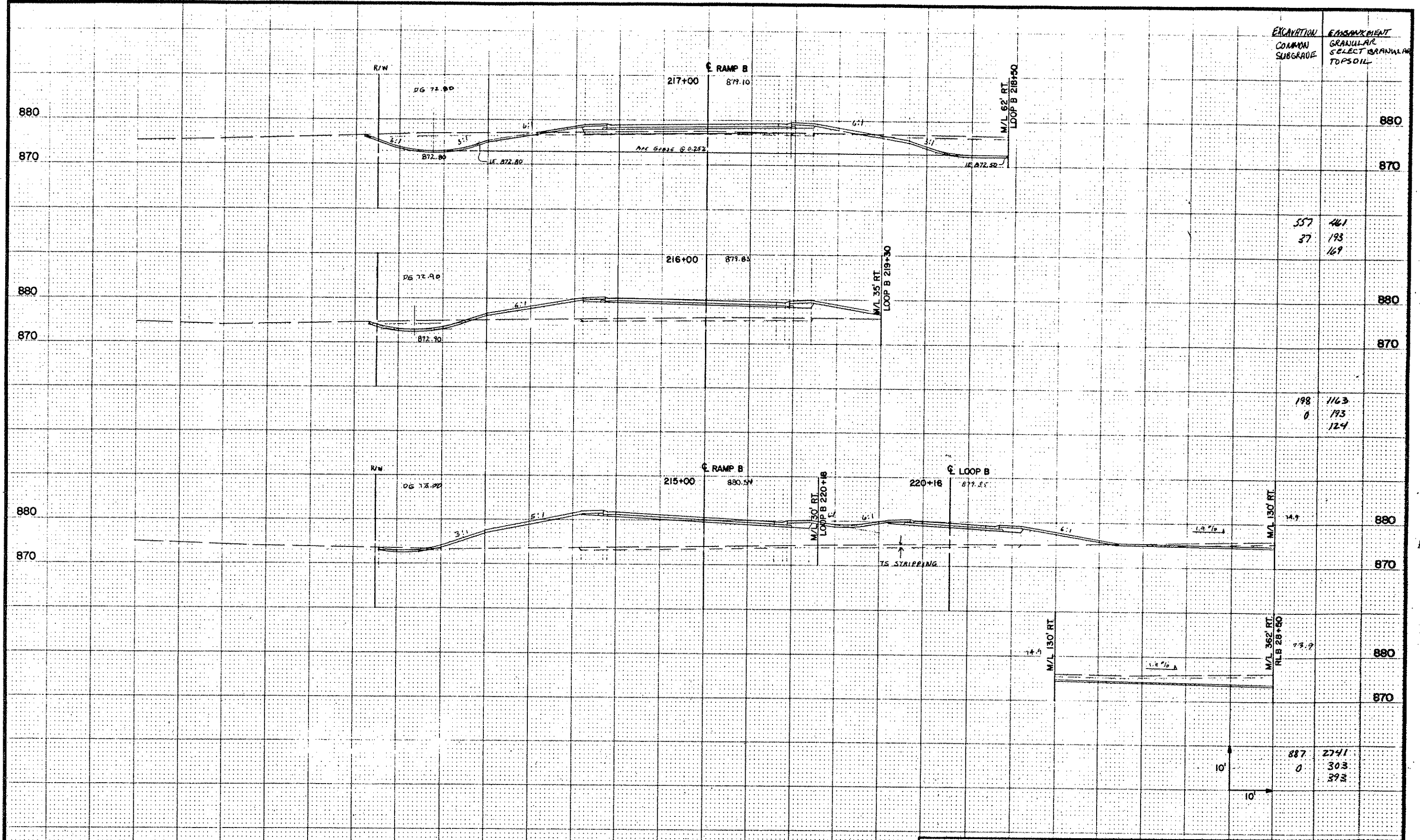
DESIGN BY *JRM*
DRAWN BY *JAC LEB*

ORIGINAL DATE 3/27/89

REVISIONS

SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP B
213+00 TO 214+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

Date _____ Minn. Reg. No. 32666

BRW

DESIGN BY: JRM
DRAWN BY: JAC LER

ORIGINAL DATE	3/27/89
REVISIONS	
SURVEY BK. NO.	

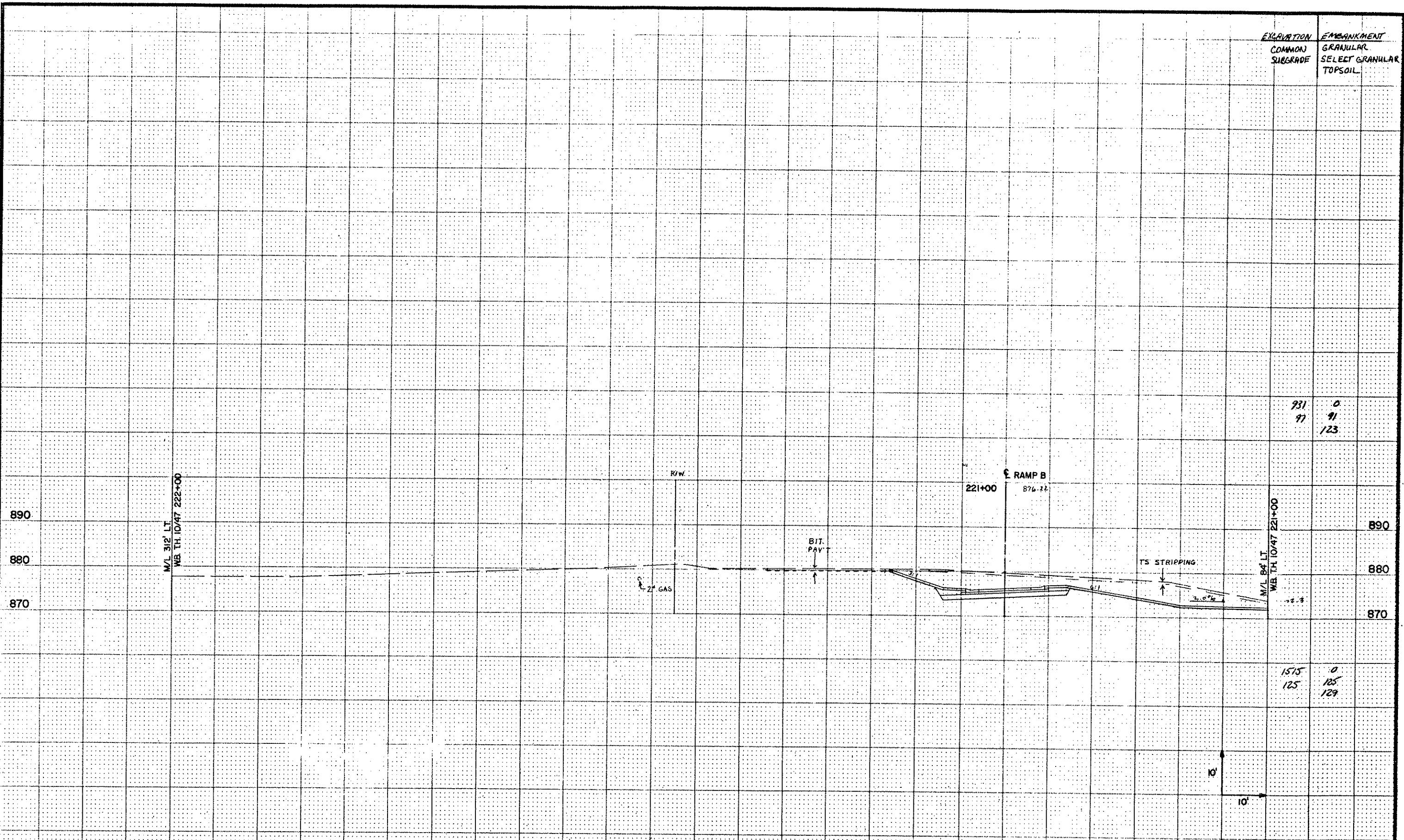
CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP B
215+00 TO 217+00

S.A.P. NO. 02-609-08

SHEET 234 OF 256

DESIGN FILE No. 16-8840

EXCAVATION	EMBANKMENT
COMMON	GRANULAR
SUBGRADE	SELECT GRANULAR TOPSOIL



231
97
123

1515
125
129

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paulsen

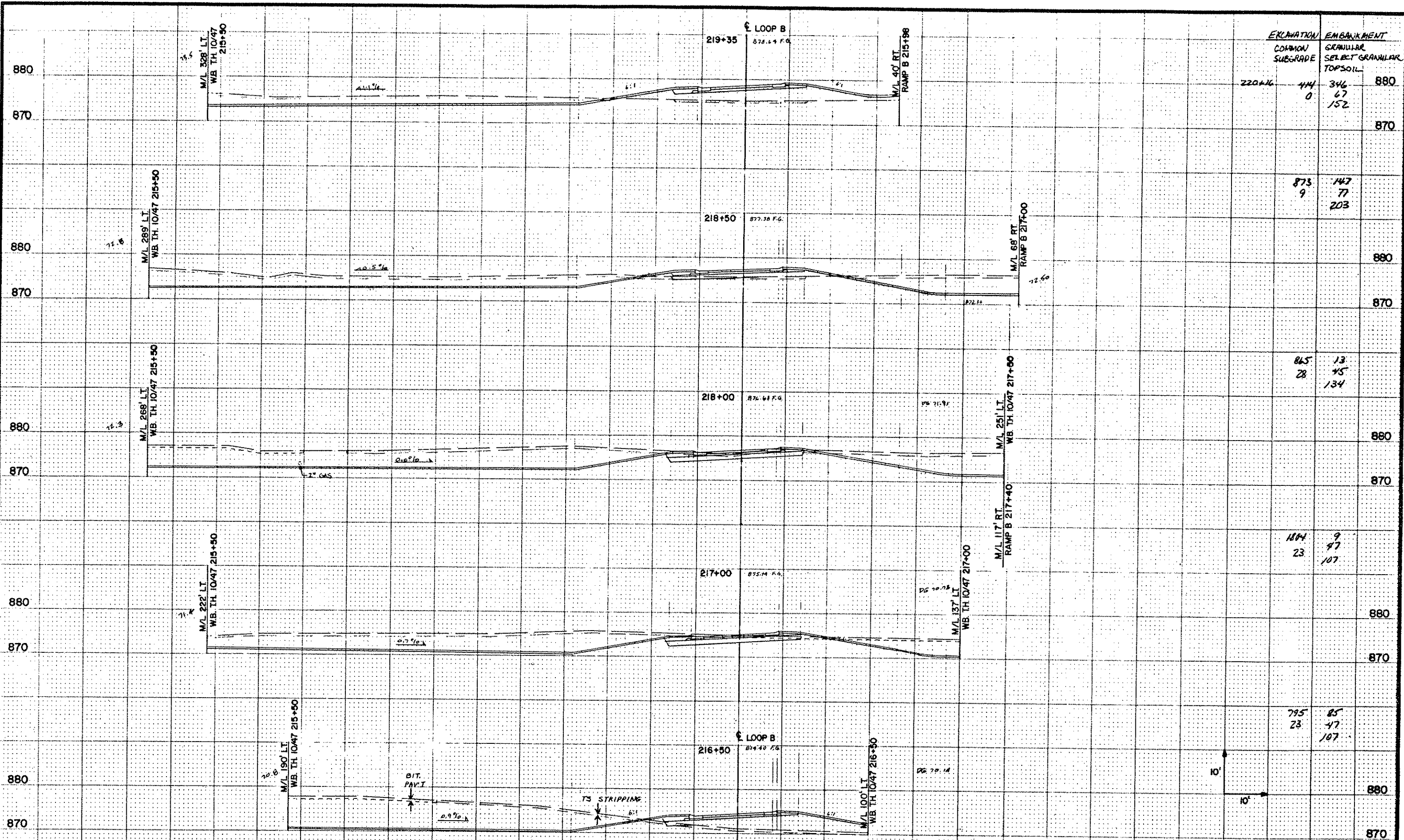
Date _____ Minn. Reg. No. 12666.

BRW
BRW, Inc.
317 1/2 S. 4th
Minneapolis, Minnesota

DESIGN BY: JRM
DRAWN BY: JAC, LEB

ORIGINAL DATE: 3/29/88
REVISIONS: _____
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP B
221+00



ELEVATION	EMBANKMENT	
	COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL
880	220+26	444
870	0	346 67 152
880	873	147
870	9	77 203
880	865	13
870	28	45 134
880	184	9
870	23	47 107
880	795	85
870	23	47 187

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 State of Minn Statutes Sections 326.02 to 326.16

Boyd R. Paulsen

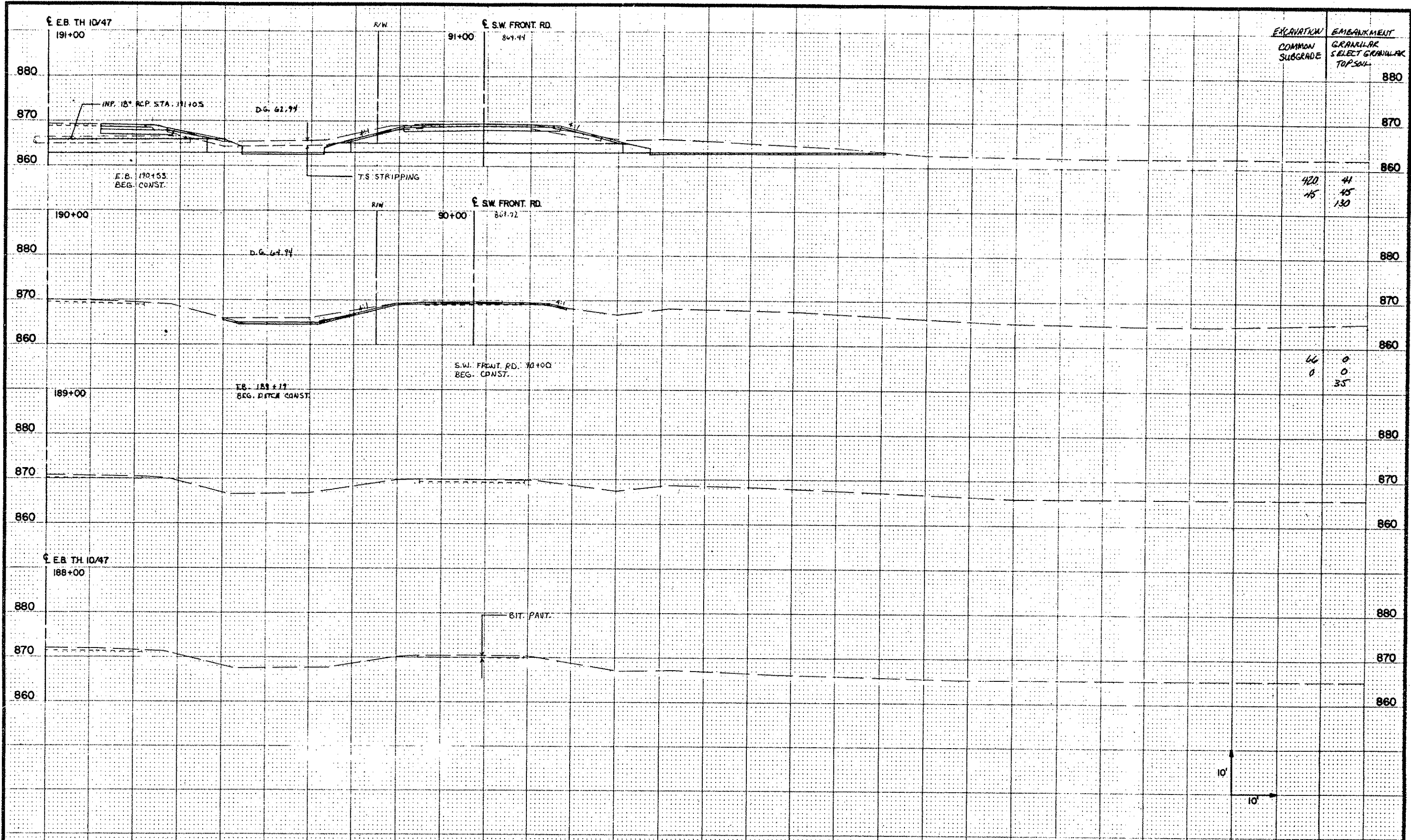
Date _____ Minn. Reg. No. J2666

BRW

DESIGN BY: JRM
DRAWN BY: JAC, LER

ORIGINAL DATE: 3/27/89
REVISIONS: _____
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
LOOP B
216+50 TO 219+35



EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOP 304-

420	41
15	15
	130

44	0
0	35

10'
10'

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

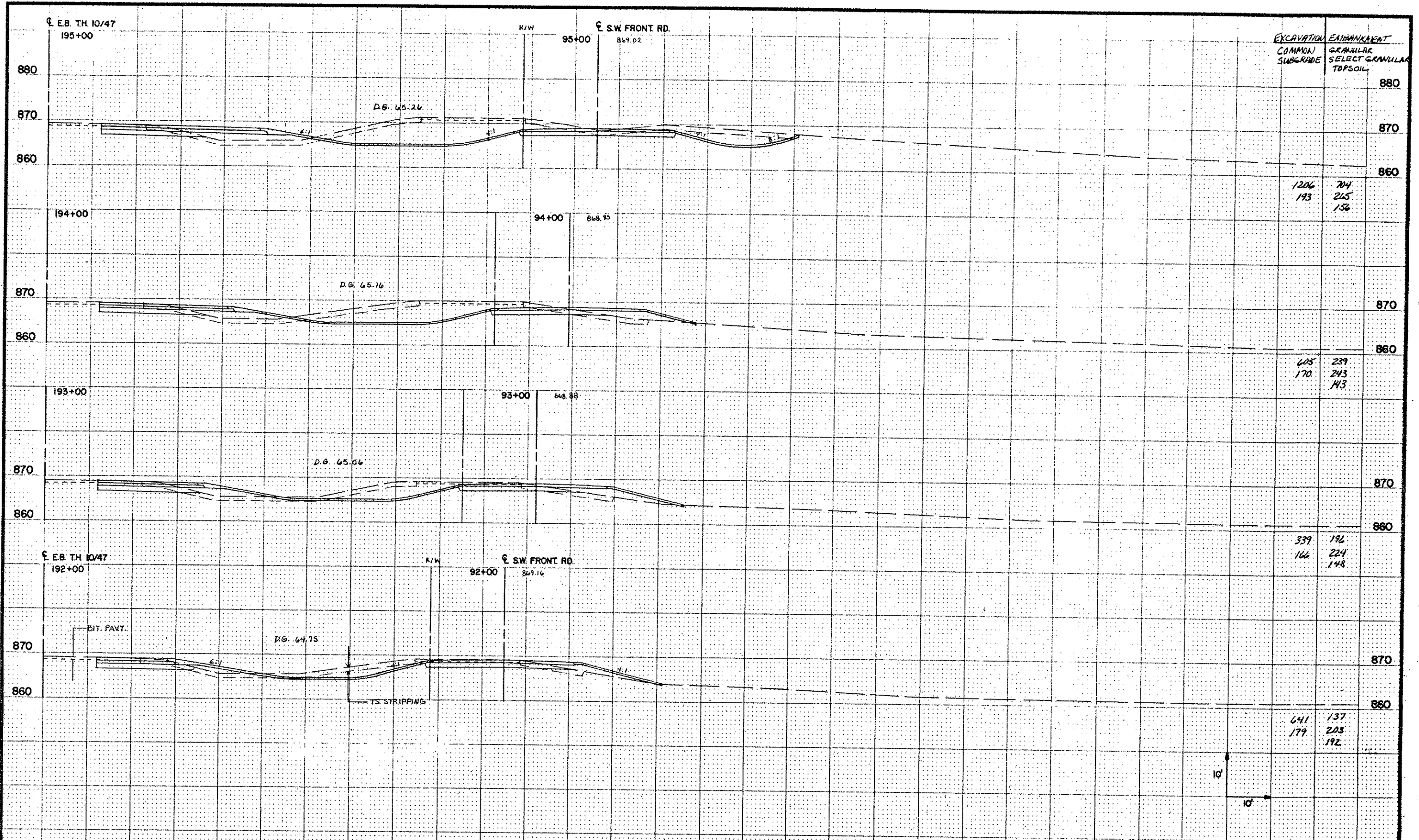
Date _____ Minn. Reg. No. 12656

BRW
BRW, Inc.
515 210 0100
Hennepin County, Minnesota

DESIGN BY: *JAC*
DRAWN BY: *JAC LEB*

ORIGINAL DATE 3/20/89
REVISIONS
SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
E.B. TH. 10/47
188+00 TO 191+00



I hereby certify that the plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date _____ Minn. Reg. No. 12666.

BRW

BRW, Inc.
512 7th Ave.
Minneapolis, Minnesota

DESIGN BY BRW
DRAWN BY JAC LEB

ORIGINAL DATE 3/20/89
REVISIONS _____

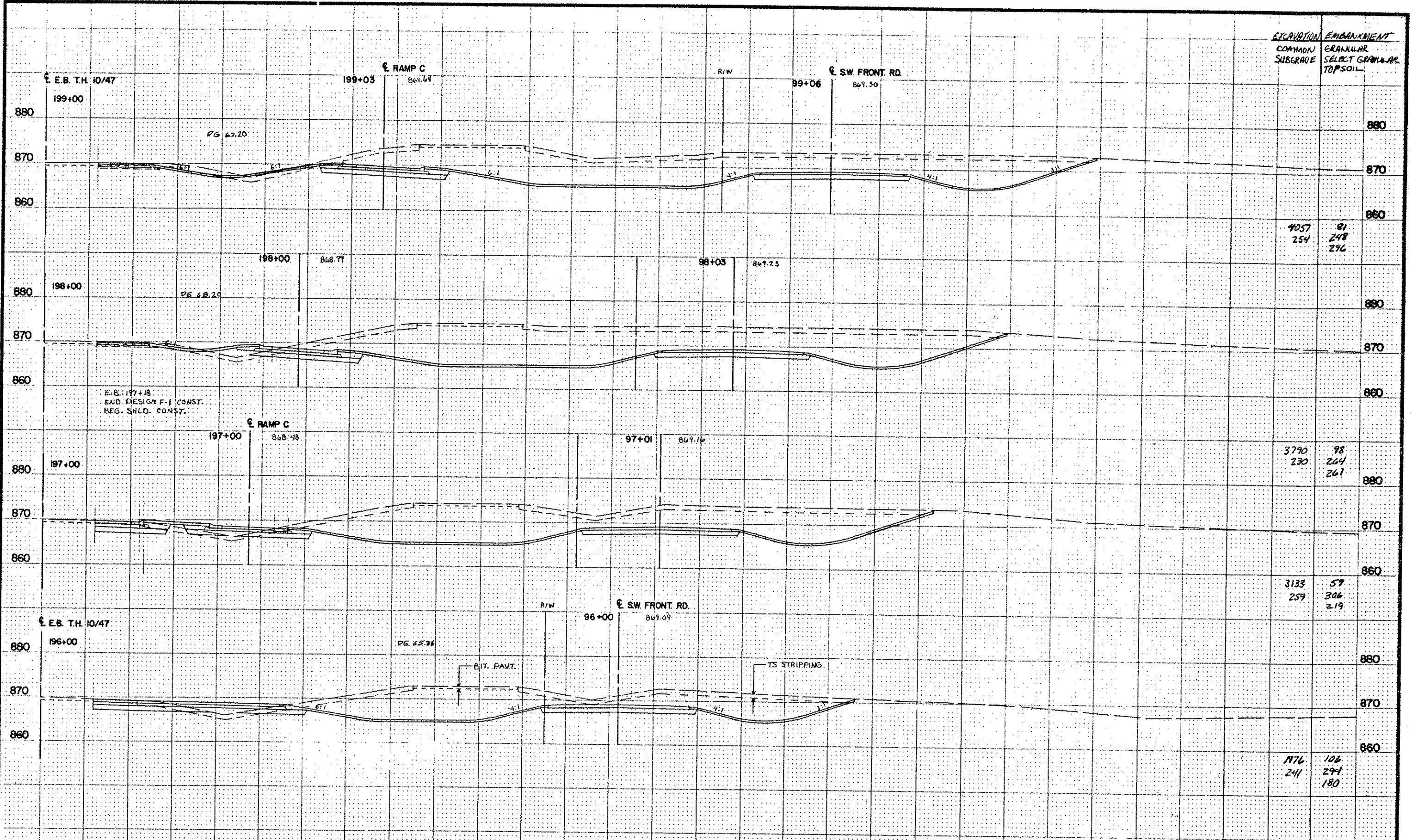
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
E.B. TH. 10/47
192+00 TO 195+00

S.A.P. NO. 02-609-08

SHEET 239 OF 256

DESIGN FILE No. 16-8840



EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL

4057	81
254	248
	256

3790	98
230	264
	261

3133	57
259	306
	219

176	106
241	294
	180

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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen

Date _____ Minn. Reg. No. 12666.

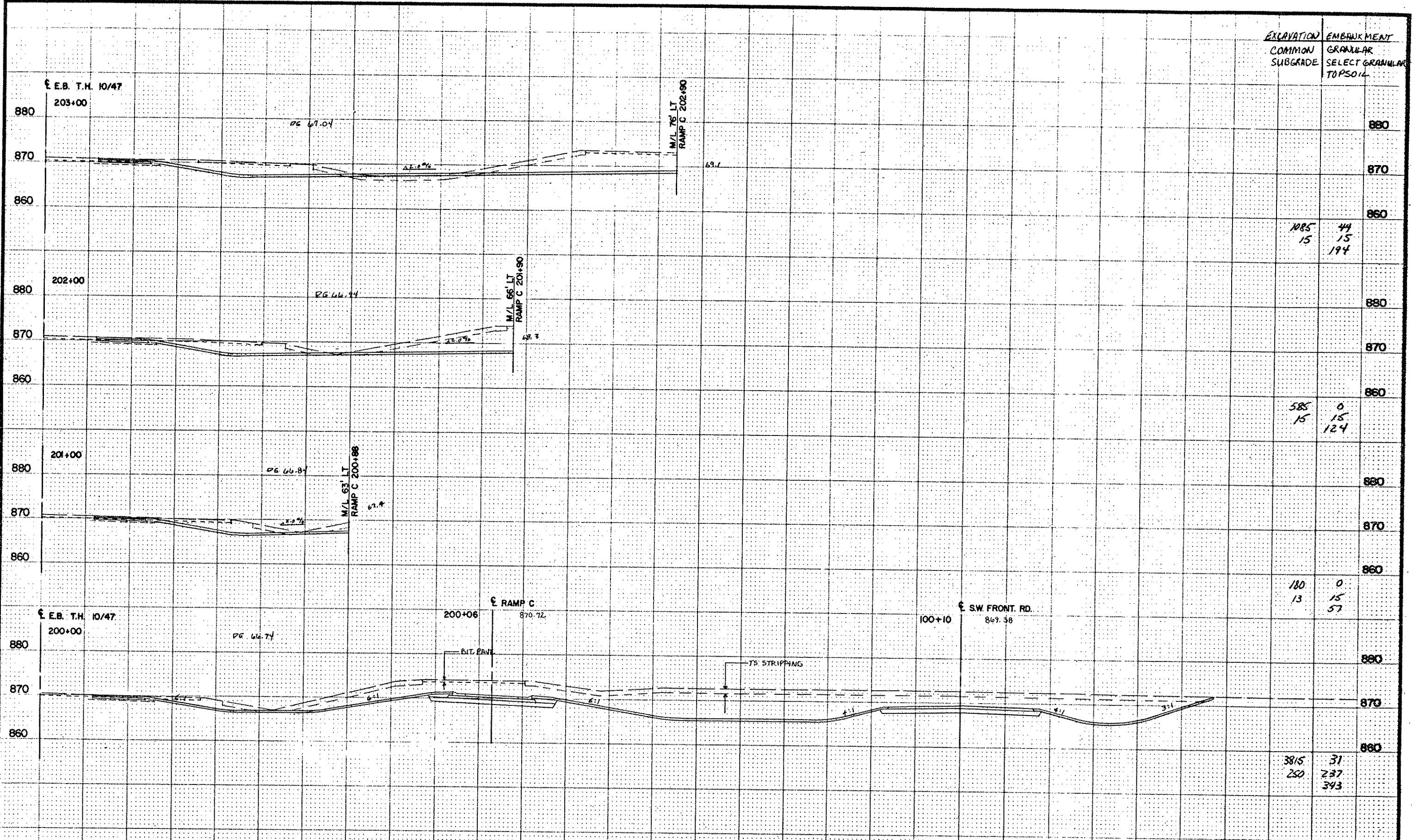
BRW

BRW, Inc.
812 17th Street
Minneapolis, Minnesota

DESIGN BY: JAC
DRAWN BY: JAC LEB

ORIGINAL DATE 3/20/89
REVISIONS _____
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
E.B. T.H. 10/47
196+00 TO 199+00



EXCAVATION	EMBANKMENT
COMMON	GRAVELLAR
SUBGRADE	SELECT GRANULAR TOPSOIL

1085	44
15	15
	194

585	0
15	15
	124

180	0
13	15
	57

3815	31
250	237
	343

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 State of Minn. Statutes, Sections 326.02 to 326.16.

Boyd B. Bule

Date _____ Minn. Reg. No. 12666.

IRW

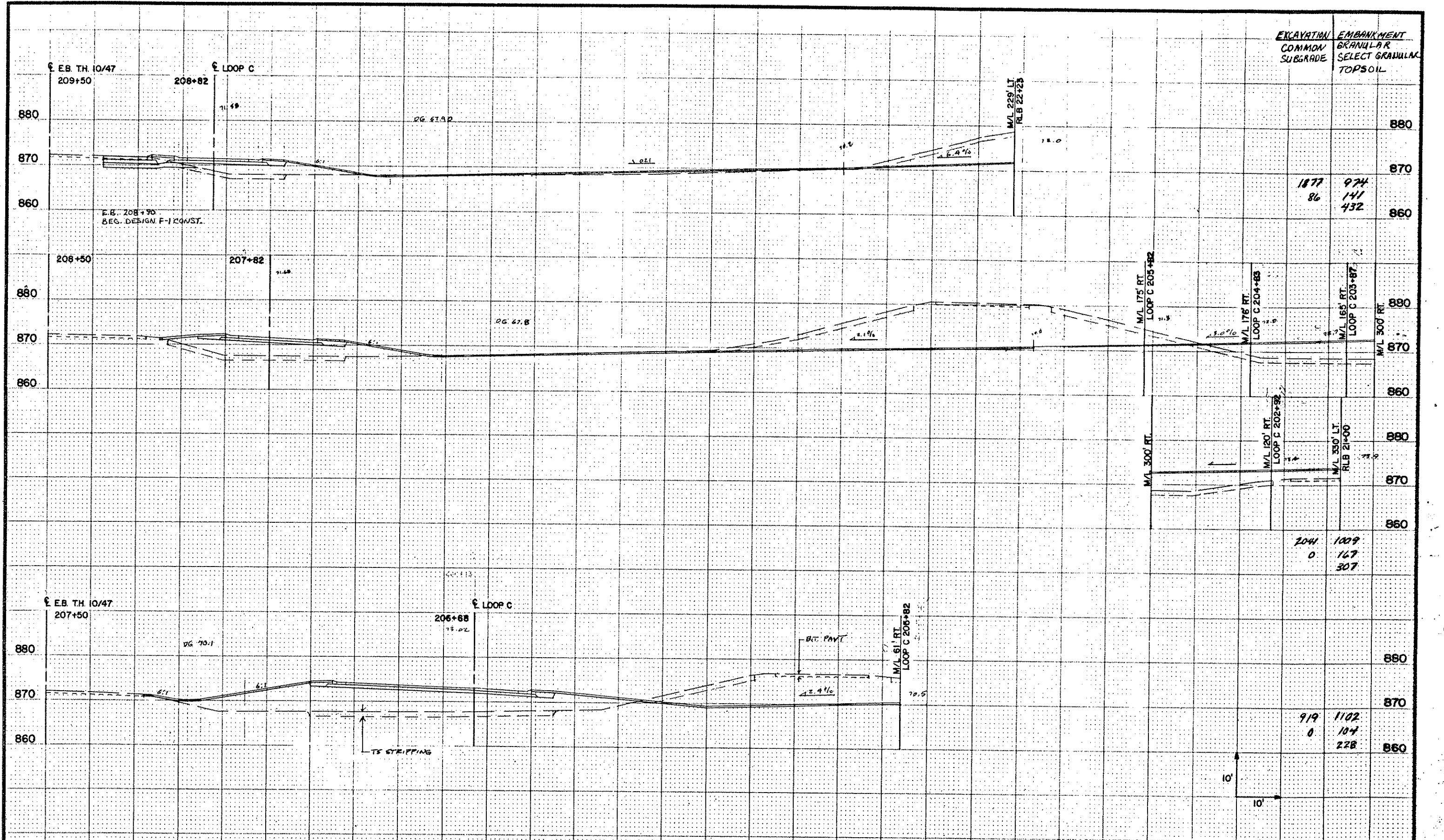
IRW, Inc.
172 21st St. S.
Minneapolis, Minnesota

DESIGN BY: JRM
DRAWN BY: JAC, LEB

ORIGINAL DATE: 3/20/88
REVISIONS: _____

SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
E.B. T.H. 10/47
200+00 TO 203+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen

Date _____ Minn. Reg. No. 12655.

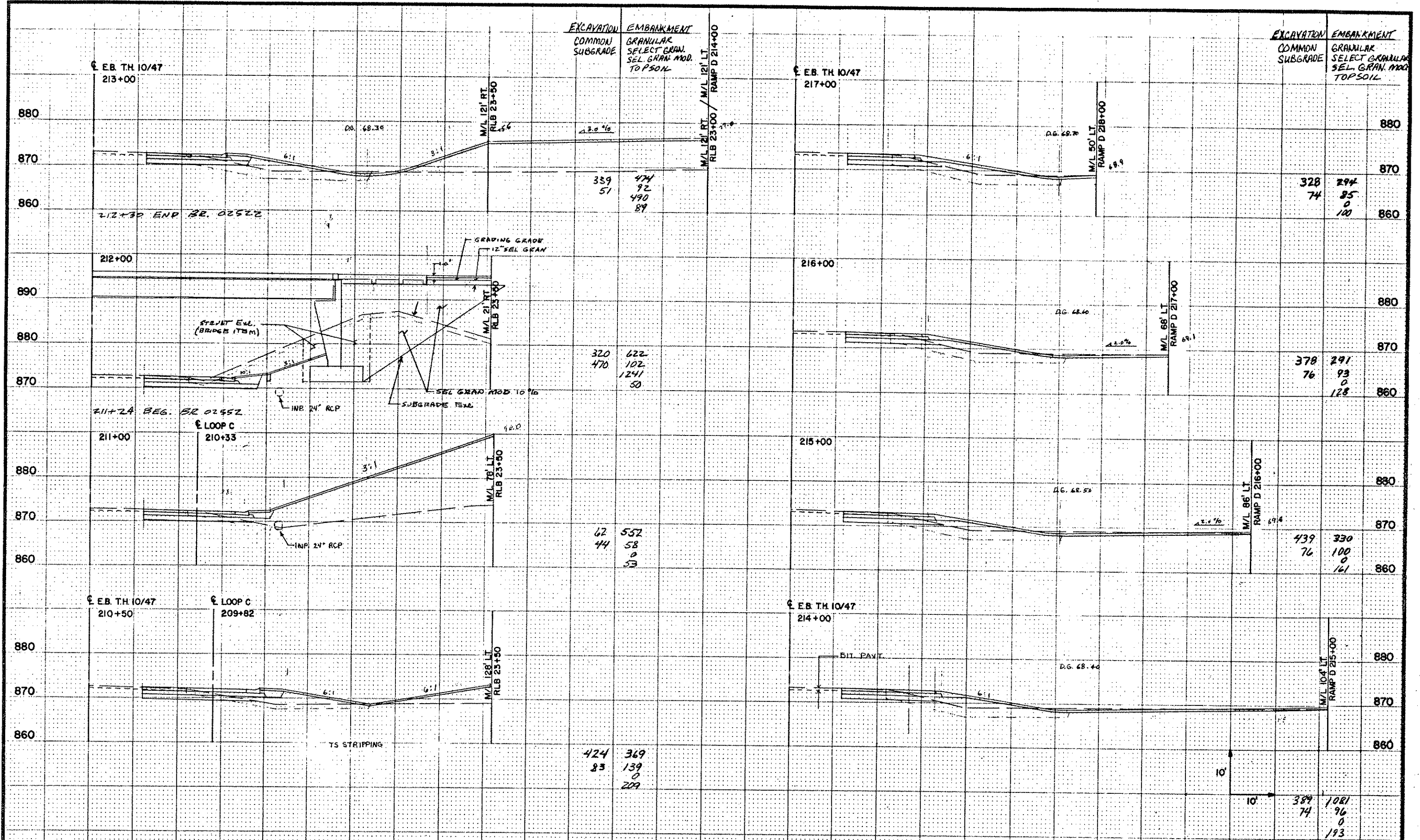
BRW
 BRW, Inc.
 612 710 0100
 Minneapolis, Minnesota

DESIGN BY: JRM
 DRAWN BY: JAC, LEB

ORIGINAL DATE: 3/20/89
 REVISIONS: _____
 SURVEY BK NO: _____

CITY OF COON RAPIDS
 IMPROVEMENT PROJECT 88-53
 EB. TH. 10/47
 207+50 TO 209+50

DESIGN FILE
 No 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. Paulsen

Date _____ Minn. Reg. No. 12656

BRW
 BRW, Inc.
 817 110 814C
 Excavation Services

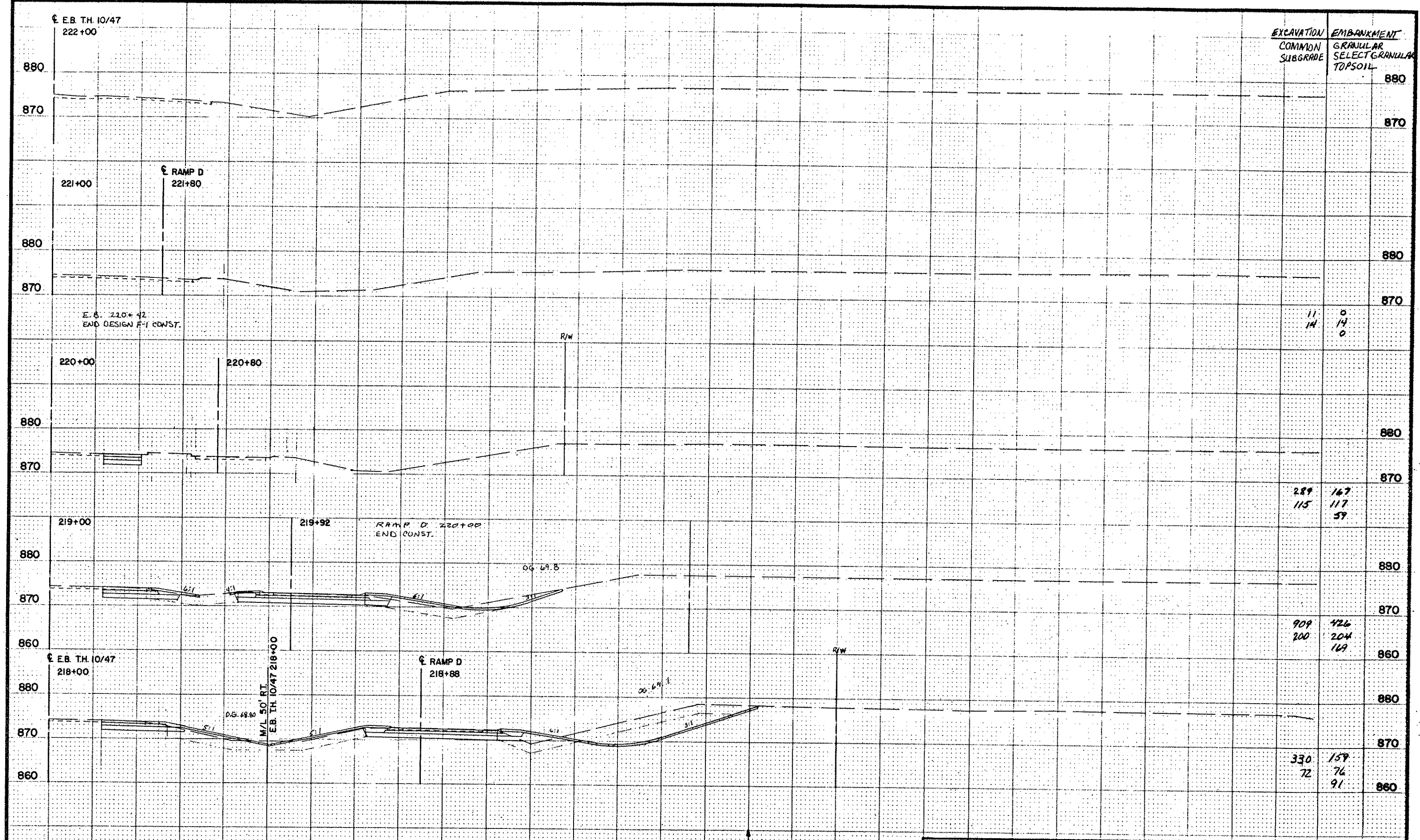
DESIGN BY JRM
 DRAWN BY JAC LEB

ORIGINAL DATE 3/20/89
 REVISIONS

SURVEY BK. NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 EB TH. 10/47
 210+50 TO 217+00

DESIGN FILE
 No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16.

Royall Paulin

Date _____ Minn. Reg. No. J2666

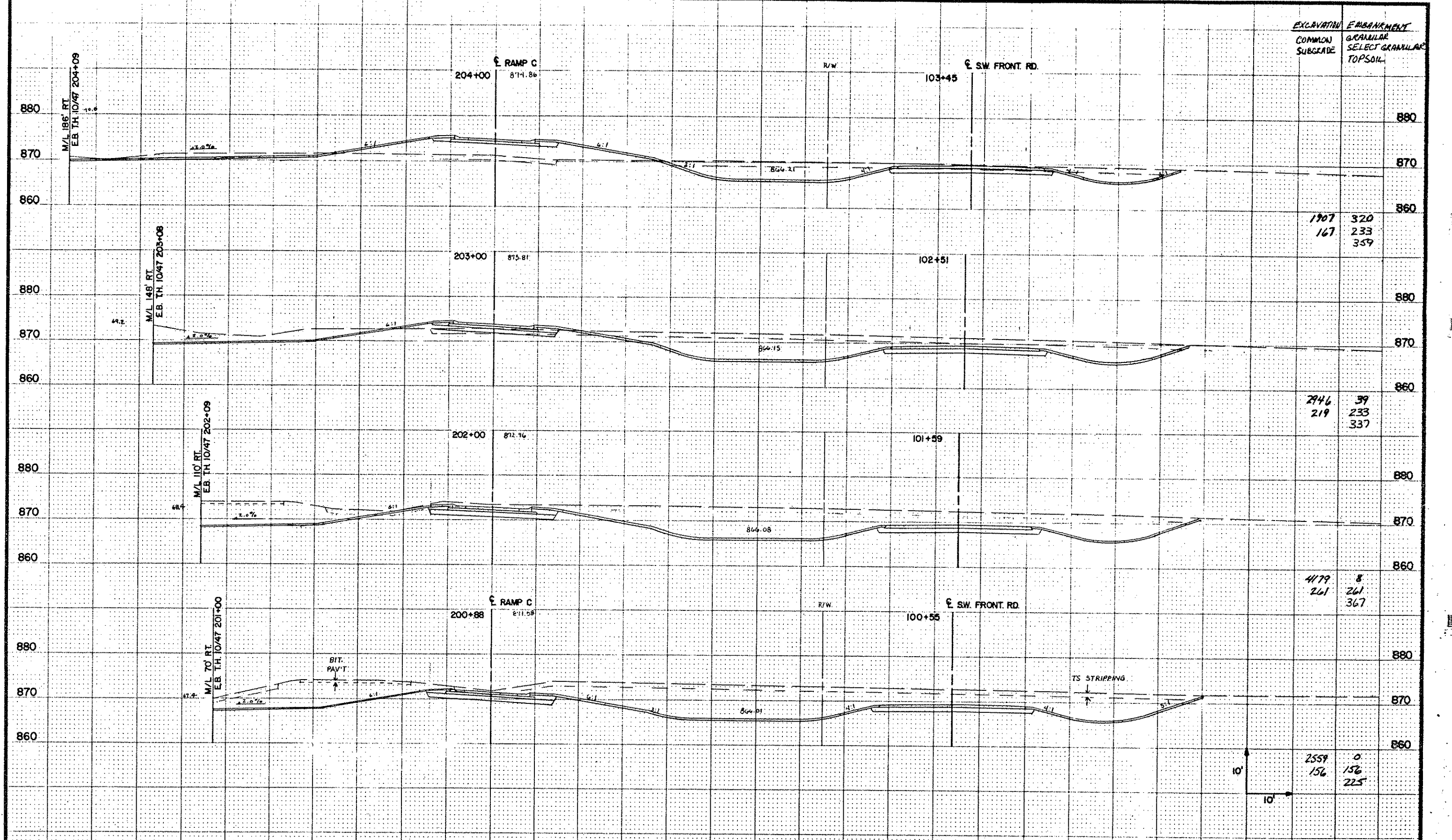
BRW
 BRW, Inc.
 427 1/2 St. N.
 Minneapolis, Minnesota

DESIGN BY JRM
 DRAWN BY JAC LED

ORIGINAL DATE 3/20/89
 REVISIONS _____

SURVEY BK NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 E.B. TH. 10/47
 218+00 TO 222+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date _____ Minn. Reg. No. 12655.

BRW

DESIGN BY: *JML*

DRAWN BY: *JAC LEB*

ORIGINAL DATE: 3/27/89

REVISIONS:

SURVEY BK. NO. _____

CITY OF COON RAPIDS

IMPROVEMENT PROJECT 88-53

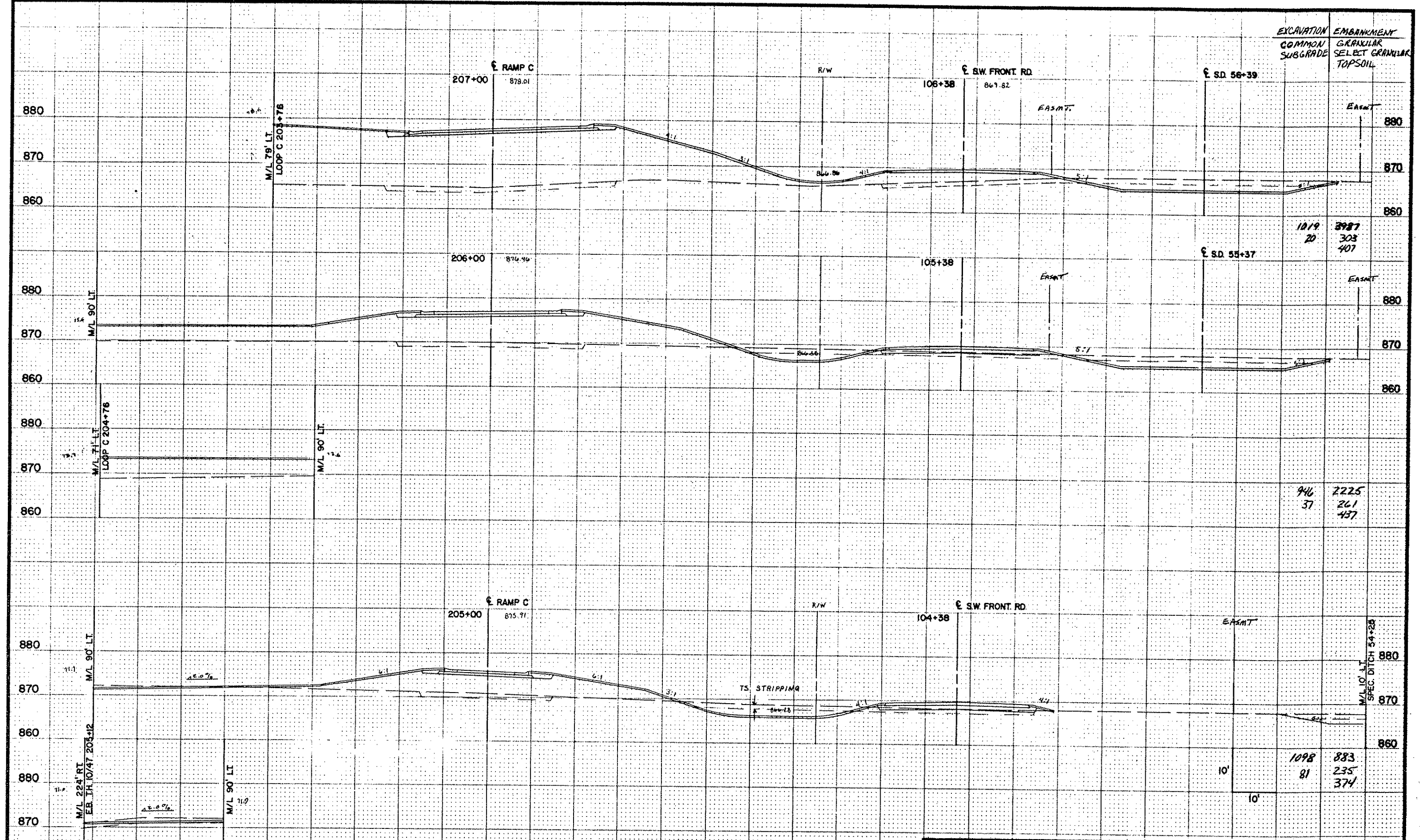
RAMP C

200+88 TO 204+00

S.A.P. NO. 02-609-08

SHEET 246 OF 256

DESIGN FILE No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd R. ...

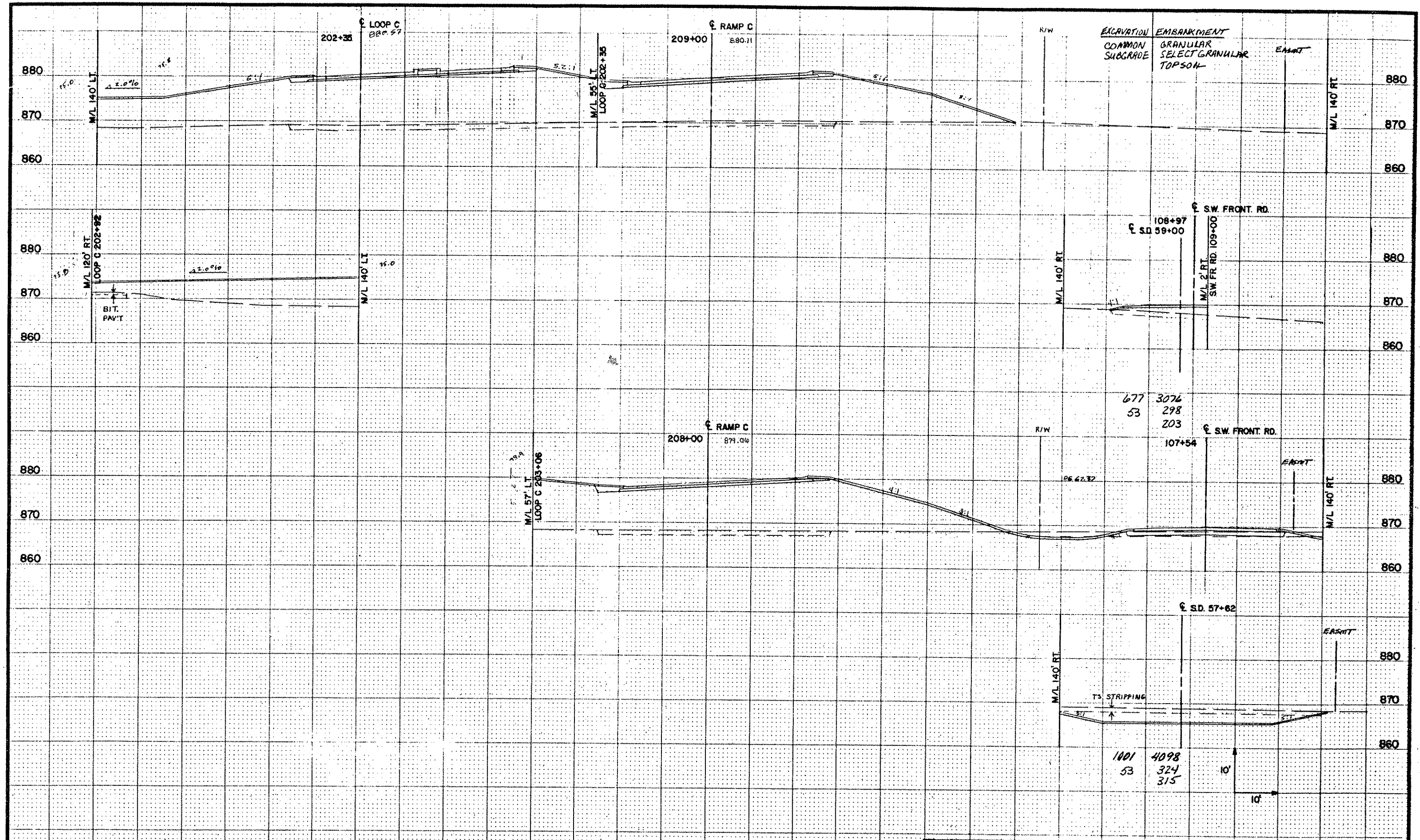
Date _____ Minn. Reg. No. 12666

IBRW

DESIGN BY: JRM
DRAWN BY: JAC LEW

ORIGINAL DATE 3/27/89
REVISIONS _____
SURVEY BK NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP C
205+00 TO 207+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Royce Paul

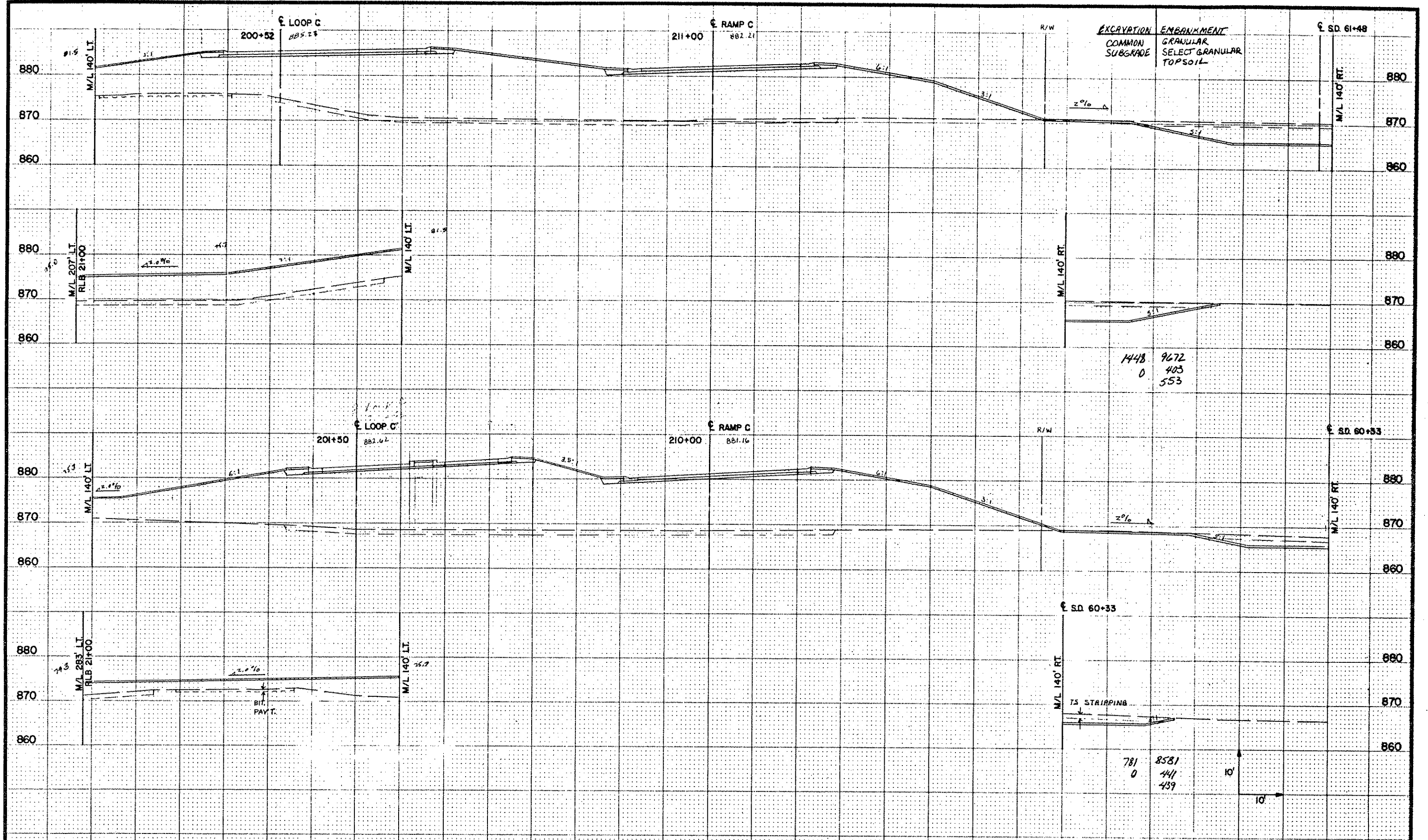
Date _____ Minn. Reg. No. J2686.

IBRW
IBRW, Inc.
417 3rd St
St. Paul, MN 55102

DESIGN BY: JRM
DRAWN BY: JAC LEB

ORIGINAL DATE 3/29/89
REVISIONS _____
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP C
208+00 TO 209+00.



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 State of Minn. Statutes Sections 326.02 to 326.16.

Roy H. ...

Date _____ Minn. Reg. No. 12566.

BRW

BRW, Inc.
217 1/2 Ave.
Bloomington, Minnesota

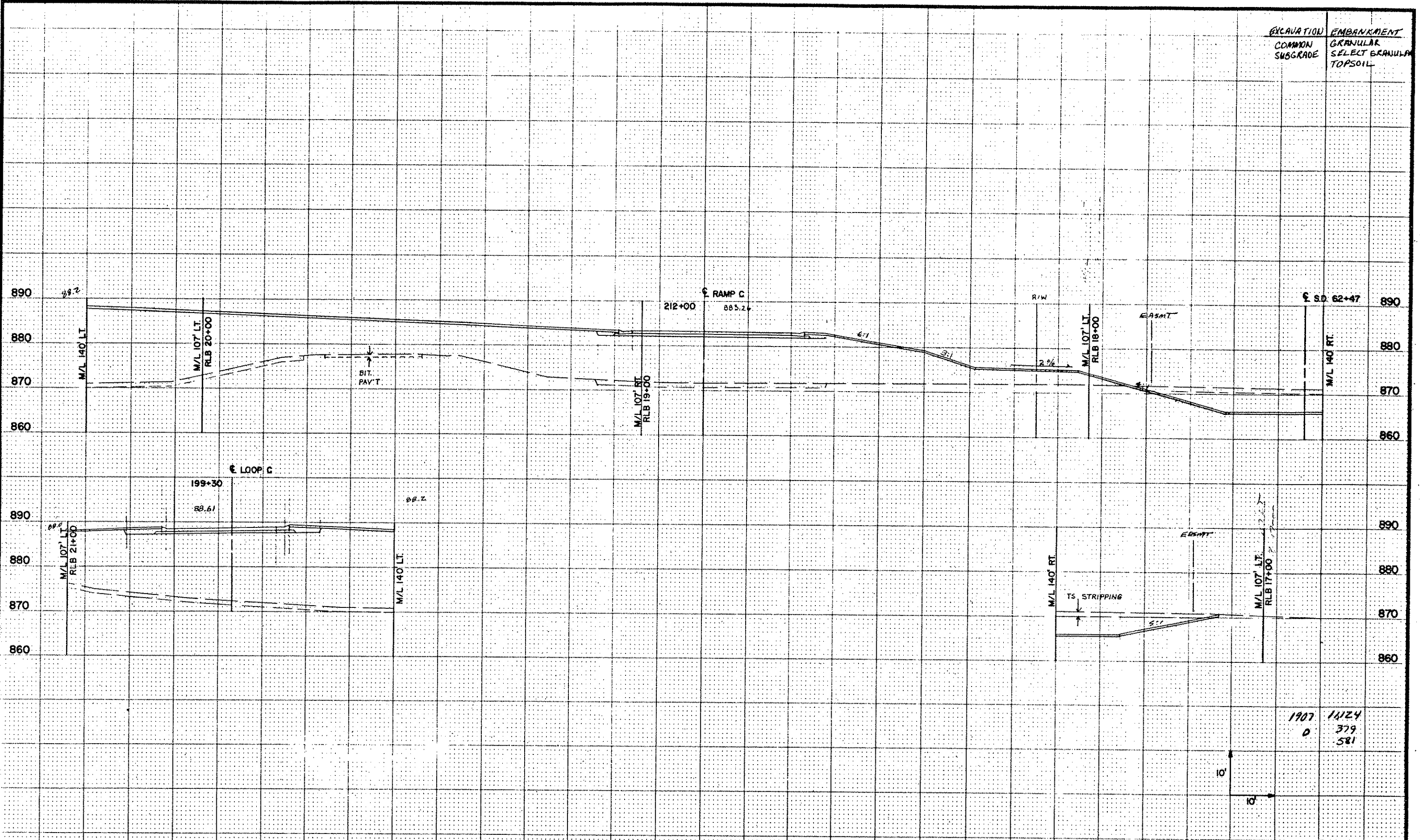
DESIGN BY: JRM
DRAWN BY: JAC LEB

ORIGINAL DATE	3/27/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP C
210+00 TO 211+00

DESIGN FILE No. 16-8840

EXCAVATION COMMON SUBGRADE
 EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL



1907 16124
 0 379
 581

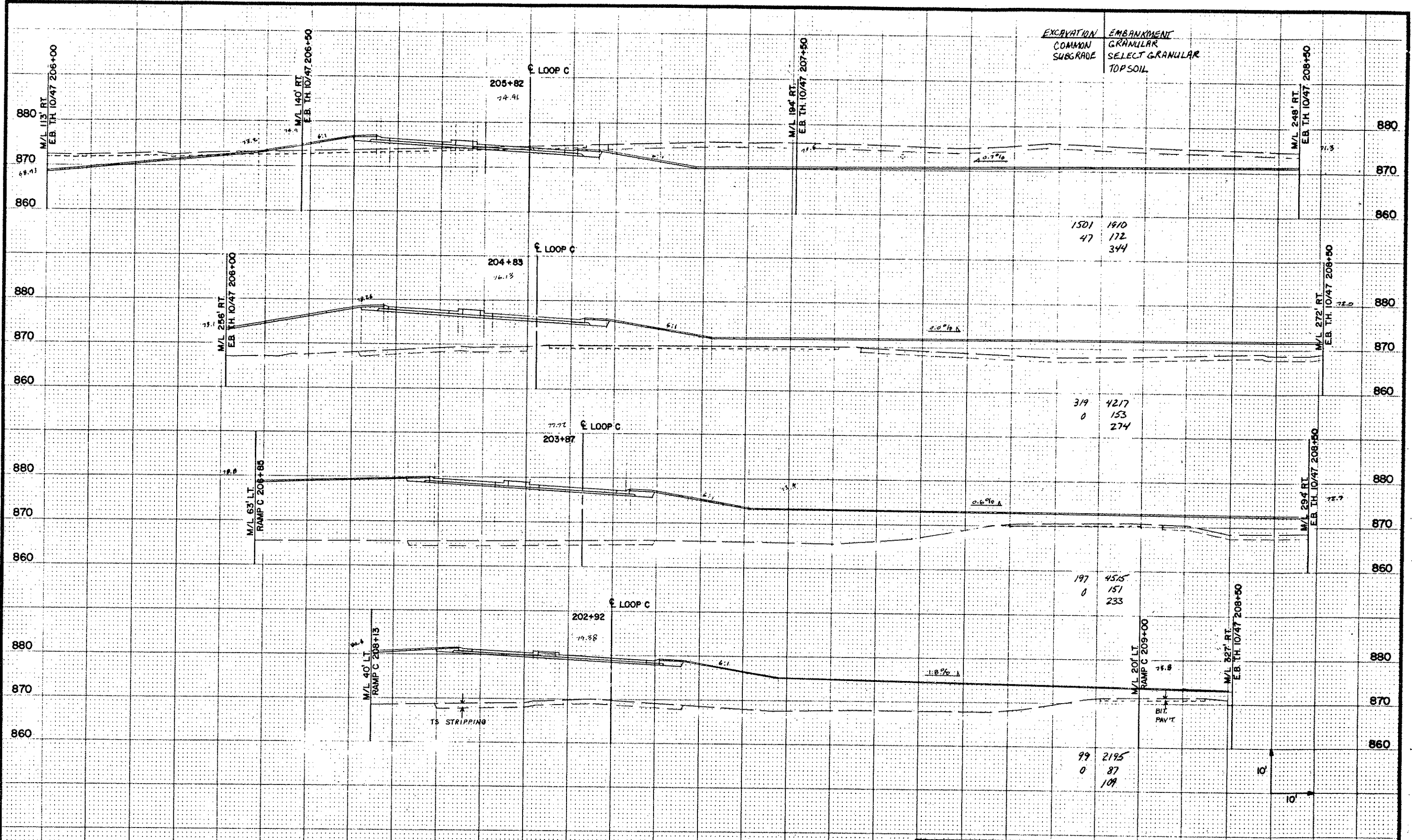
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.
Boyd R. Paulsen
 Date _____ Minn. Reg. No. 12665

IBRW
 INC.
 411 W. 5TH
 MINNEAPOLIS, MINN. 55401
 DESIGN BY: JRM
 DRAWN BY: JAC LEB

ORIGINAL DATE 3/23/89
 REVISIONS

 SURVEY BK NO.

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP C
212+00



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Paul

Date _____ Minn. Reg. No. 12556.

BRW

BRW, Inc.
617 7th St. N.
Minneapolis, Minnesota

DESIGN BY: JRM
DRAWN BY: JAC LEB

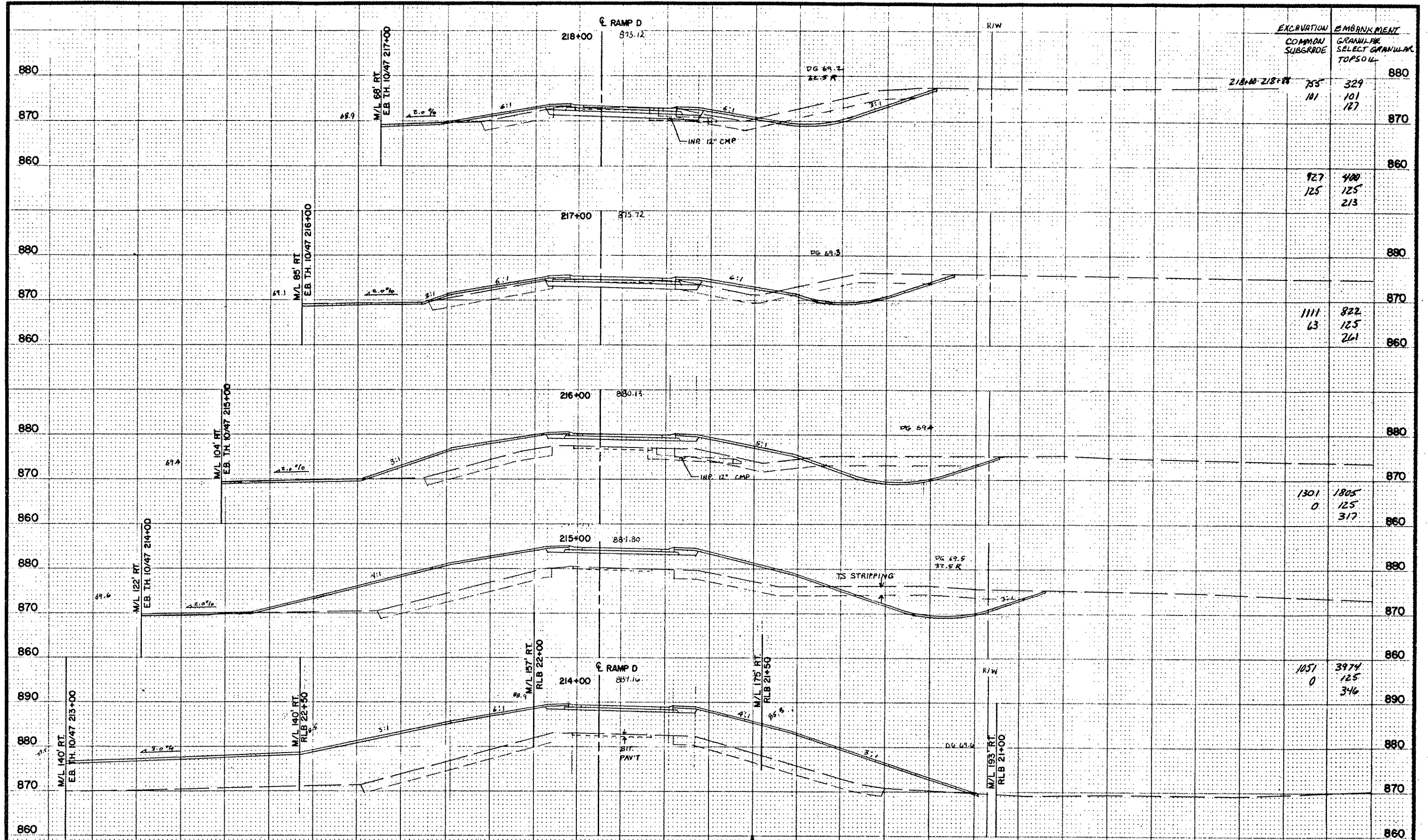
ORIGINAL DATE	3/29/83
REVISIONS	
SURVEY BK NO.	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
 LOOP C
 202+92 TO 205+82

S.A.P. NO. 02-609-08

SHEET 251 OF 256

DESIGN FILE No. 15-8849



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 State of Minn. Statutes Sections 326.02 to 326.16.

Boyd Hank

Date _____ Minn. Reg. No. 12556.

BRW

BRW, Inc.
212 1-10 5400
Minneapolis, Minnesota

DESIGN BY JRM
DRAWN BY JAC LEB

ORIGINAL DATE <u>3/27/89</u>
REVISIONS _____

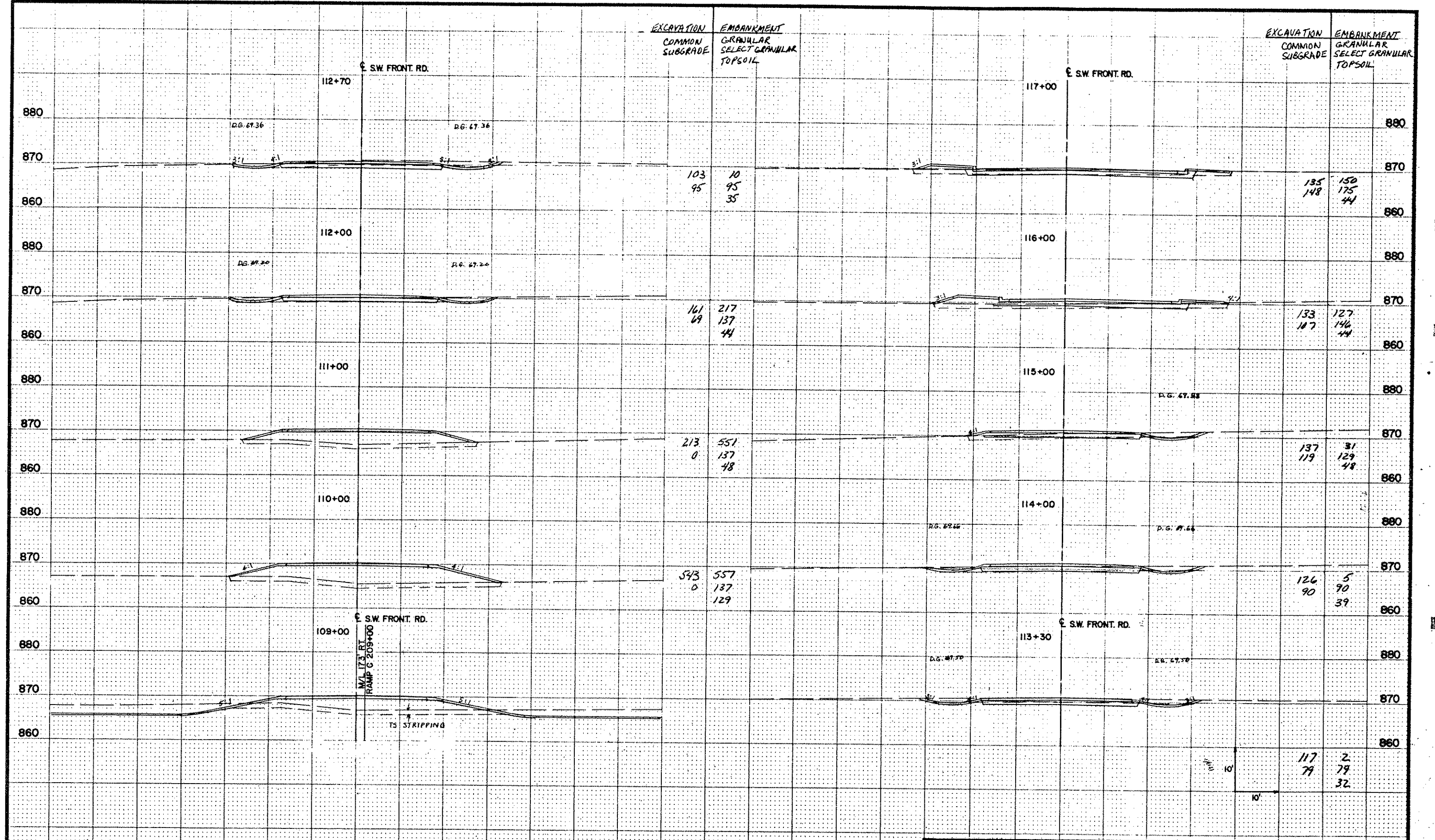
SURVEY BK. NO. _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
RAMP D
214+00 TO 218+00

S.A.P. NO. 02-609-08

SHEET 252 OF 256

DESIGN FILE No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16.

Royal Paul

Date _____ Minn. Reg. No. 12656

BRW

BRW, Inc.
111 7th St.
Marquette, Minnesota

DESIGN BY: *JEM*

DRAWN BY: *JAC LEB.*

ORIGINAL DATE	4/19/89
REVISIONS	
SURVEY BK. NO.	

CITY OF COON RAPIDS

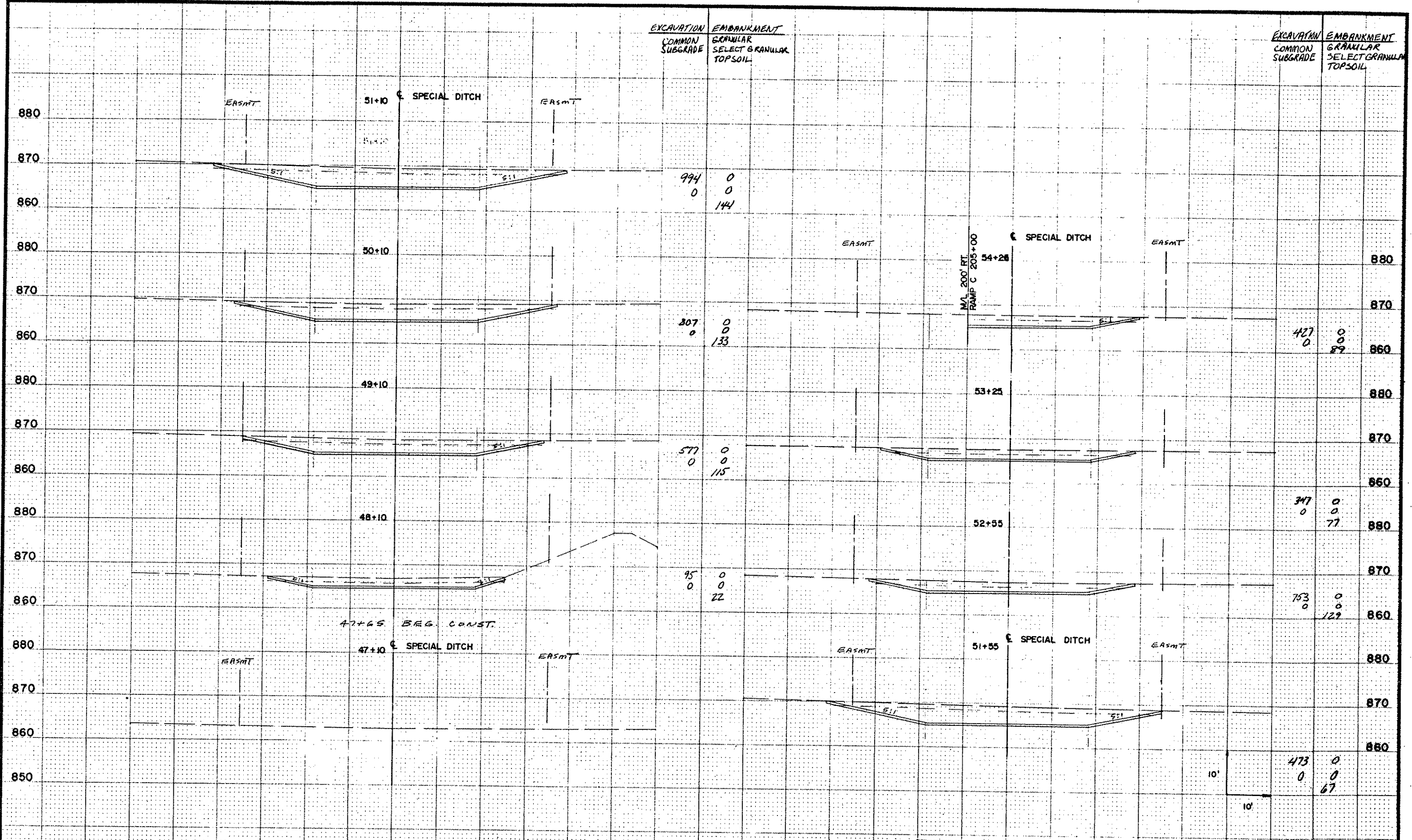
IMPROVEMENT PROJECT 88-53

SW. FRONTAGE ROAD

109+00 TO 117+00

SHEET 253 OF 256

DESIGN FILE No. 16-8849



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 State of Minn. Statutes Sections 326.02 to 326.16.

Royce R. Paul

Date _____ Minn. Reg. No. J2656

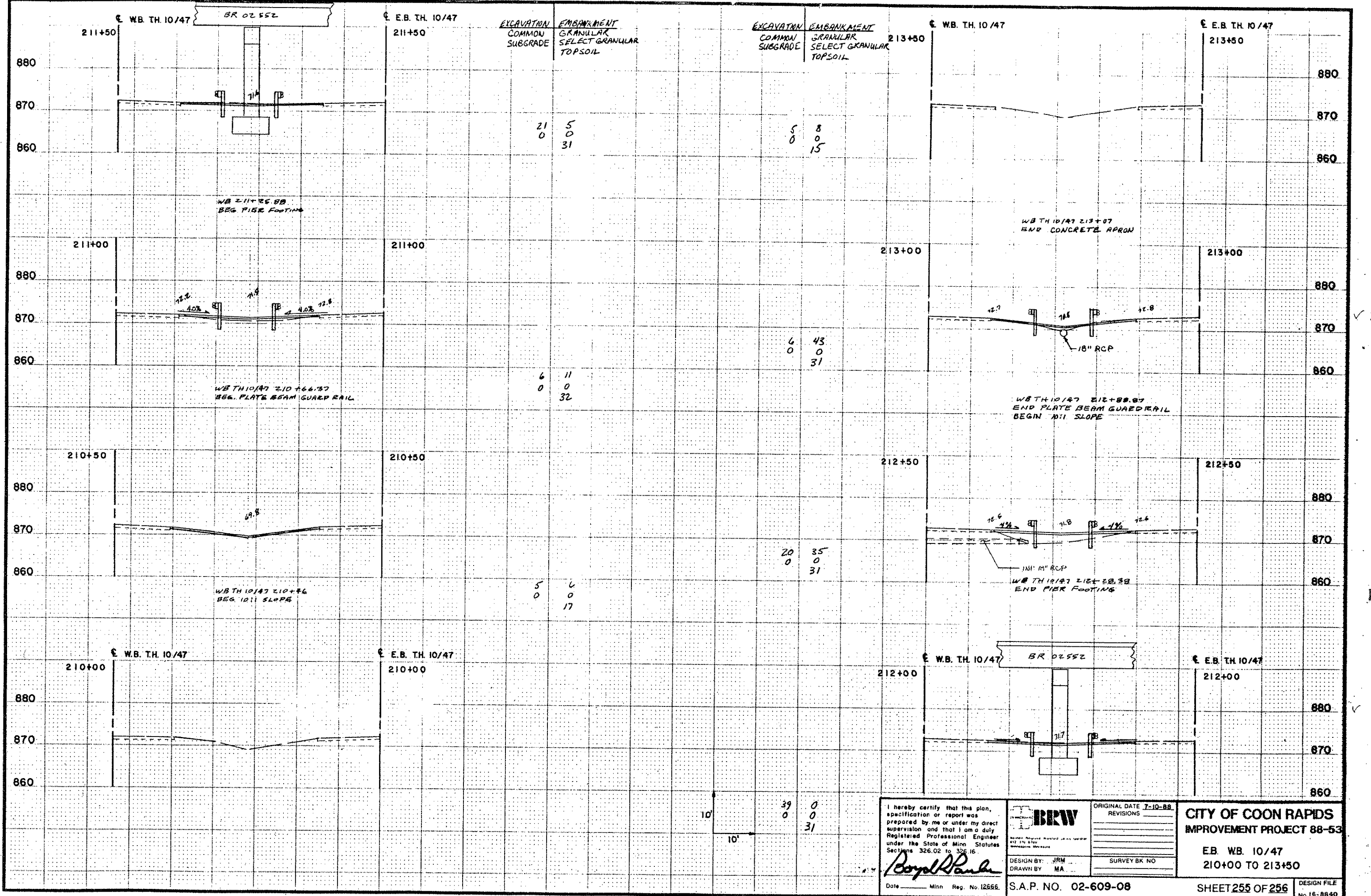
	ORIGINAL DATE 4/29/89
	REVISIONS _____
DESIGN BY JRM	SURVEY BK. NO. _____
DRAWN BY JAC. LES	

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
SPECIAL DITCH
47+10 TO 54+25

S.A.P. NO. 02-609-08

SHEET 254 OF 256

DESIGN FILE No. 16-8840



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 State of Minn. Statutes Sections 326.02 to 326.16

Boyd Parker

Date _____ Minn. Reg. No. 12555.

BRW

DESIGN BY: JRM
DRAWN BY: MA

ORIGINAL DATE: 7-10-88
REVISIONS: _____
SURVEY BK NO: _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53

E.B. WB. 10/47
210+00 TO 213+50

S.A.P. NO. 02-609-08

SHEET 255 OF 256

DESIGN FILE No 15-8840

EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL

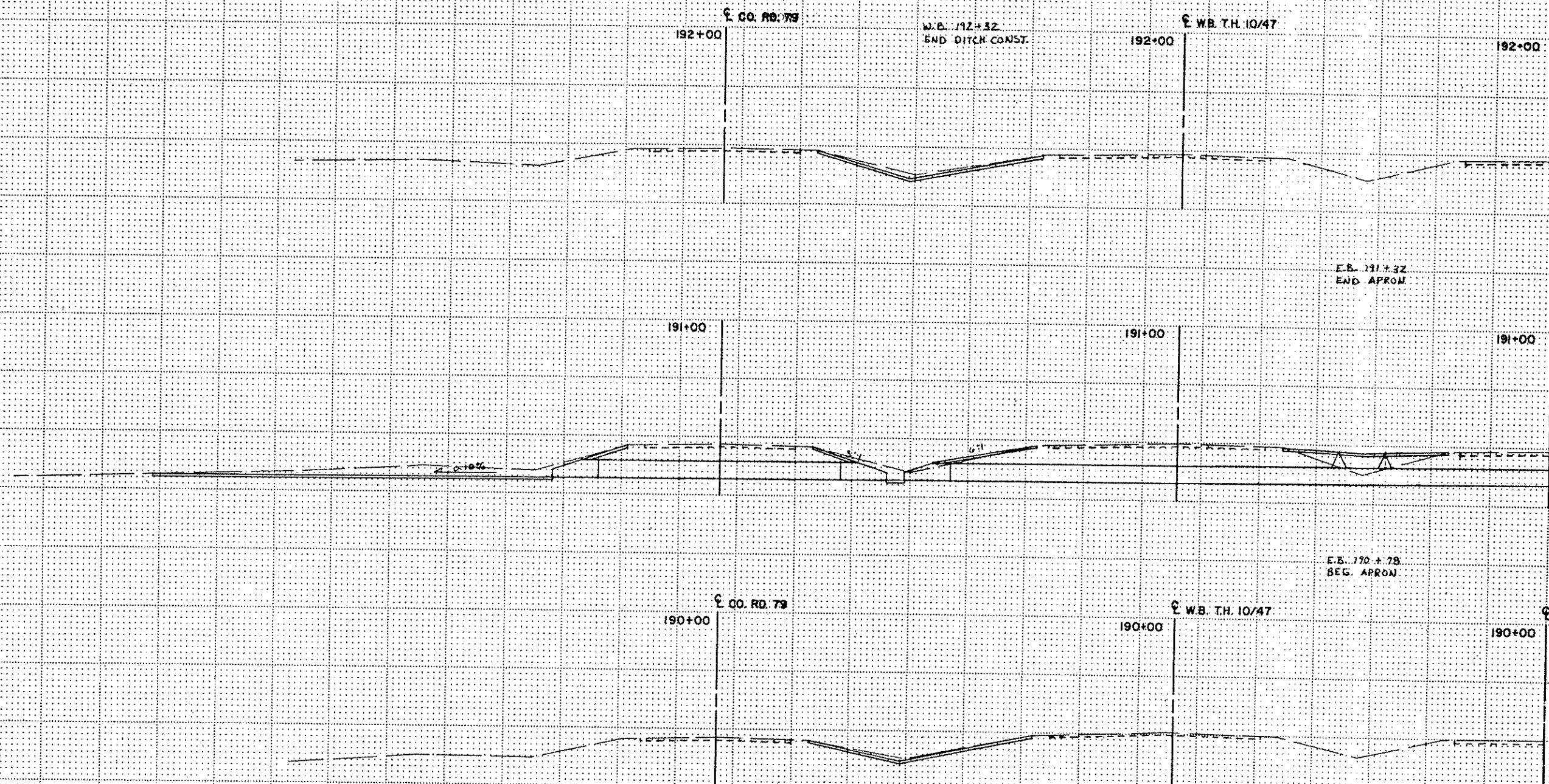
192+32	15 0	0 11
	0	11

192+00	135 0	55 94
	0	94

191+00	119 0	30 82
	0	82

190+00	24 0	0 20
	0	20

10'
10'



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 State of Minn. Statutes Section 326.02 to 326.16.

Boyd Parker

Date _____ Minn. Reg. No 12556.

BRW
REGISTERED PROFESSIONAL ENGINEER
STATE OF MINNESOTA

DESIGN BY: JRM
DRAWN BY: LEB

ORIGINAL DATE 7-19-88
REVISIONS _____
SURVEY BK. NO _____

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
E.B. / W.B. T.H. 10/47
STA. 190+00 - 192+00

S.A.P. NO. 02-609-08

SHEET 256 OF 256
DESIGN FILE No 16-8840.