

# MINNESOTA DEPARTMENT OF TRANSPORTATION

## ANOKA COUNTY

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

LOCATED ON ROUND LAKE BLVD. (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, T.31N, R.24W TO A PT. 167.69' N OF N 1/4 CORNER SEC. 5, T.31N, R.24W (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.

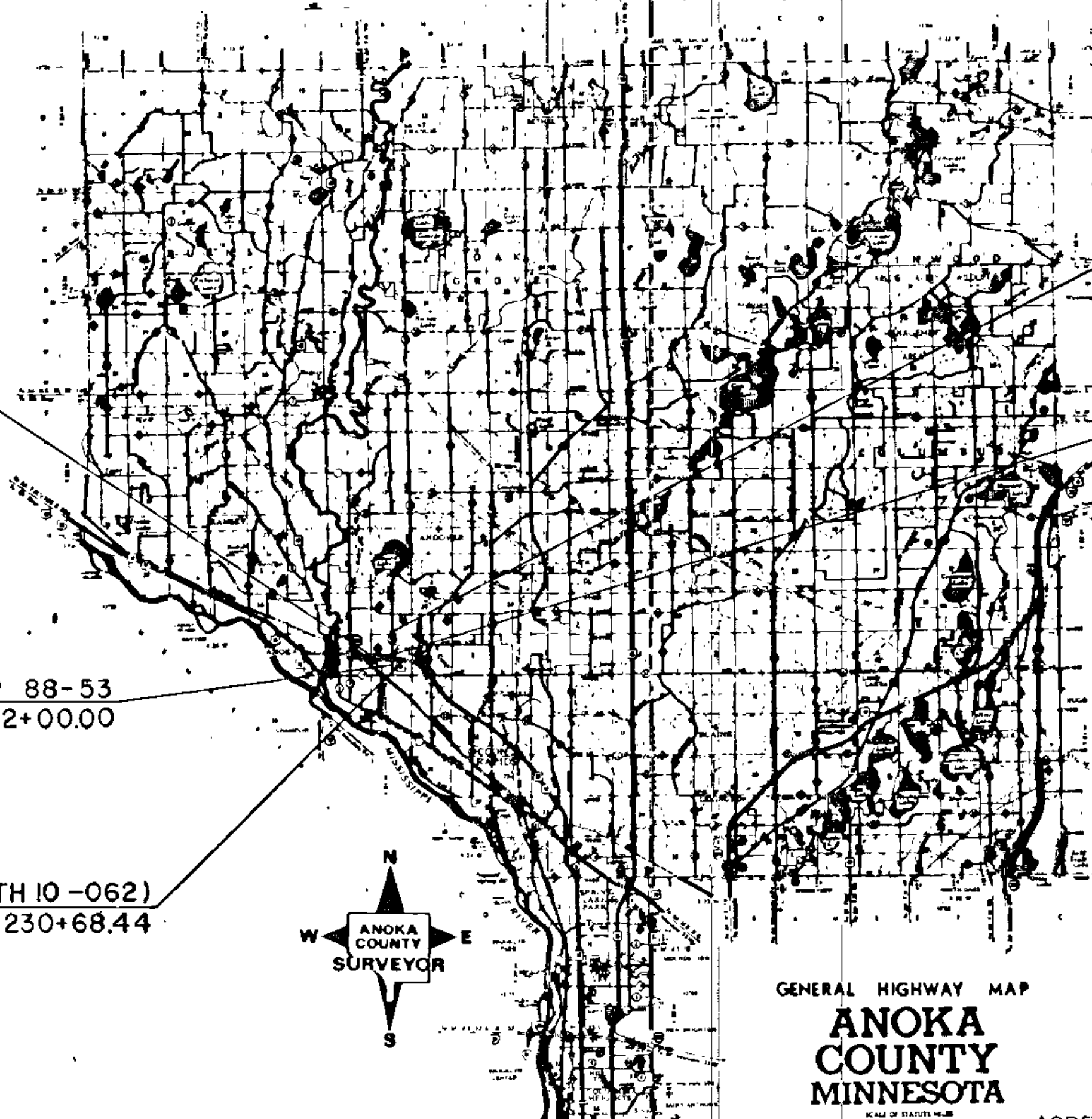
MINN. PROJ. NO. \_\_\_\_\_  
 MINN. PROJ. NO. \_\_\_\_\_

#### GOVERNING SPECIFICATIONS

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

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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

DEPARTMENT OF TRANSPORTATION  
 FEDERAL HIGHWAY ADMINISTRATION  
 APPROVED \_\_\_\_\_  
 DIVISION ADMINISTRATOR DATE

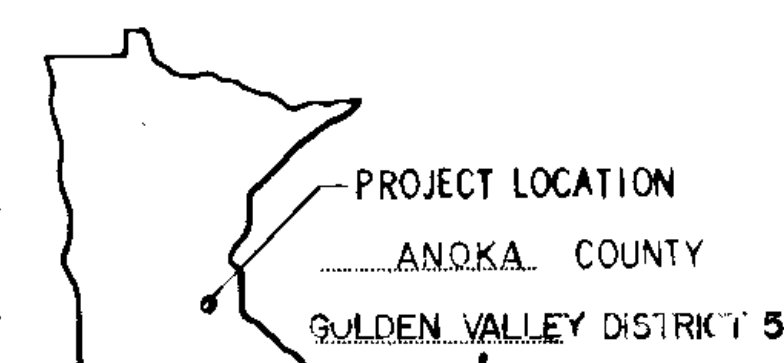
Recommended for Approval: \_\_\_\_\_ 9/16/89  
 HYDRAULICS ENGINEER  
 Right of Way Approval: \_\_\_\_\_ 9-25 1989  
 DIRECTOR, RIGHT OF WAY OPERATIONS  
 Recommended for Approval: C.E.W. Weichselbaum 8/30/89  
 ASSISTANT DISTRICT ENGINEER, S.A.  
 Recommended for Approval: William H. Mueller 9-12-89  
 ACTING DESIGN SERVICE DIRECTOR  
 Recommended for Approval: Ferris G. Silts 9-12-1989  
 DIRECTOR, TRAFFIC ENGINEERING  
 Recommended for Approval: R.M.H.P. 9-18-1989  
 DIRECTOR, OFFICE OF TECHNICAL SUPPORT  
 Approved: \_\_\_\_\_ 9/15/89  
 DEPUTY DIVISION DIRECTOR  
 TECHNICAL SERVICES DIVISION

BRW, Inc.  
 DATE 8-22-89 REG. NO. 12666 ENGR. *Boyd R. Paulin*  
 COUNTY \_\_\_\_\_  
 Design Squad: JOE MALONEY  
 Approved Aug 23, 1989 *Paul K. Lund*  
 ANOKA COUNTY HIGHWAY ENGINEER  
 Approved Aug 23, 1989 *William R. Ottensmeyer*  
 COON RAPIDS CITY ENGINEER  
 Recommended for Approval: C.E.W. Weichselbaum 8/30/89  
 DISTRICT STATE AID ENGINEER  
 Recommended for Approval: *Julius Skallman* 9/3/89  
 STATE AID PLANS AND SPECS ENGINEER  
 Approved 9/15/89 *William H. Mueller*  
 STATE AID ENGINEER

SCALES  
 PLAN \_\_\_\_\_ 50  
 PROFILE \_\_\_\_\_ 50  
 INDEX MAP \_\_\_\_\_ 14000  
 GENERAL LAYOUT \_\_\_\_\_ 300

#### DESIGN DESIGNATION

Functional Classification: HIGH DENSITY 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

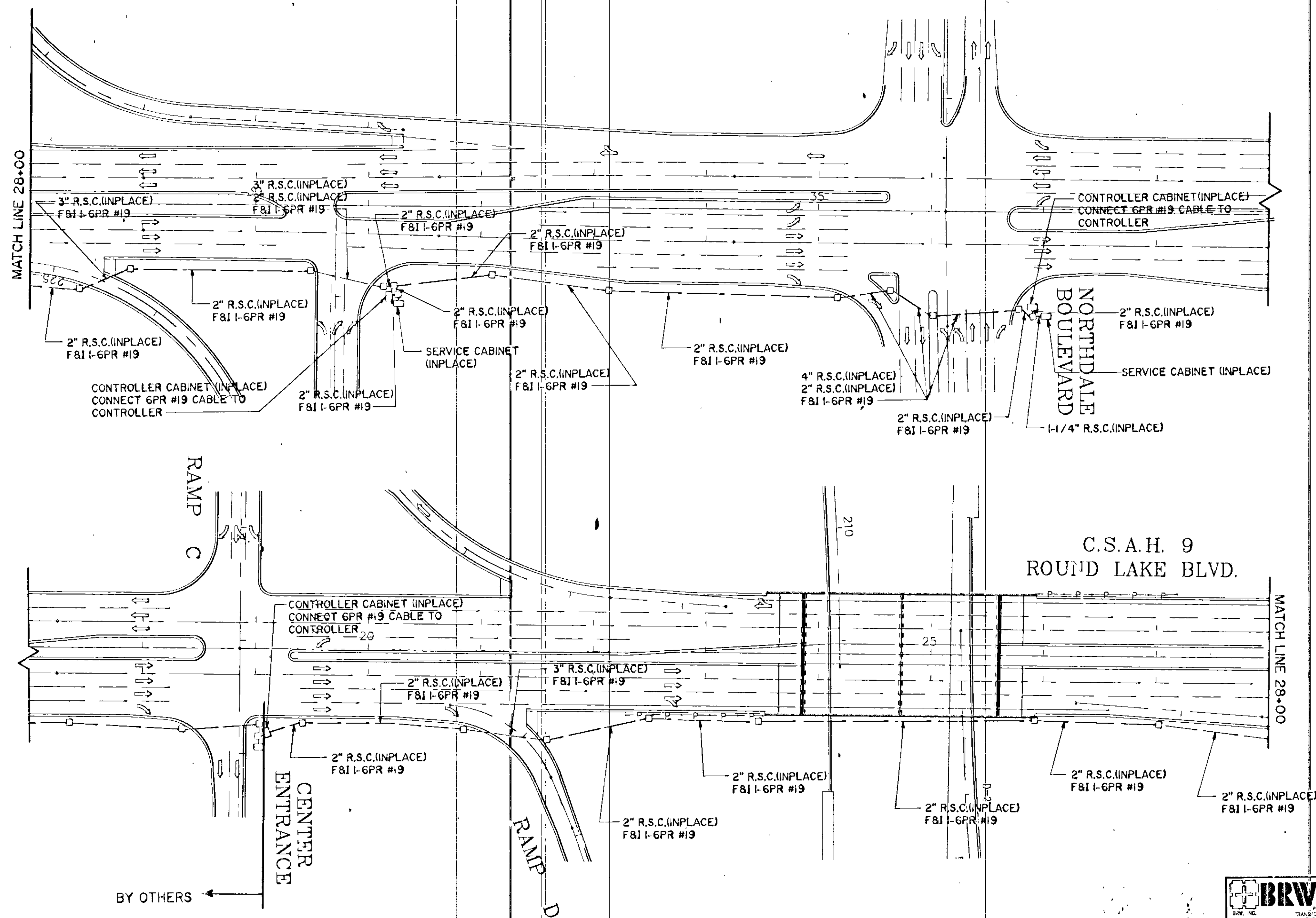


AGREEMENT NO 66340  
 CITY OF COON RAPIDS  
 SP 0215-38 (TH. 10-62)  
 STATE FUNDS  
 DISTRICT 5  
 FOR PLANS AND UTILITIES SYMBOLS SEE TECHNICAL MANUAL  
 STATE PROJ. NO. AREA JOB

PLAN REVISIONS		
DATE	SHEET NO.	APPROVED BY

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 (TH. 10-062) SHEET NO. 1 OF 256 SHEETS

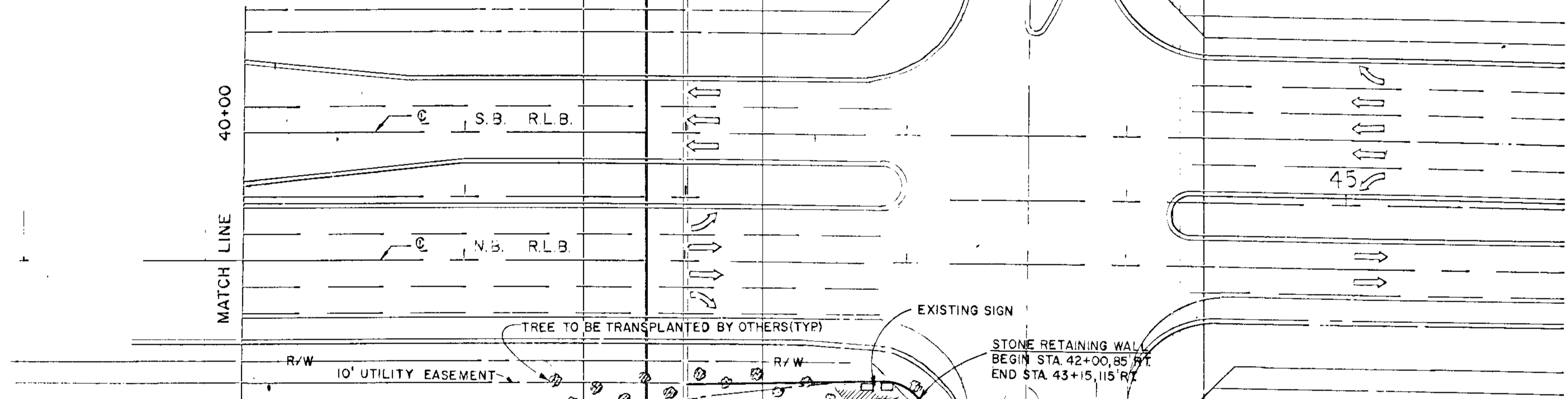
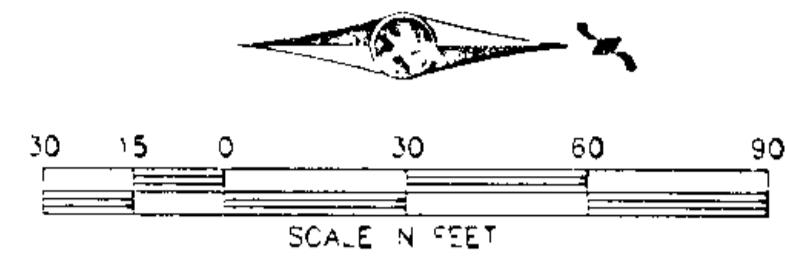
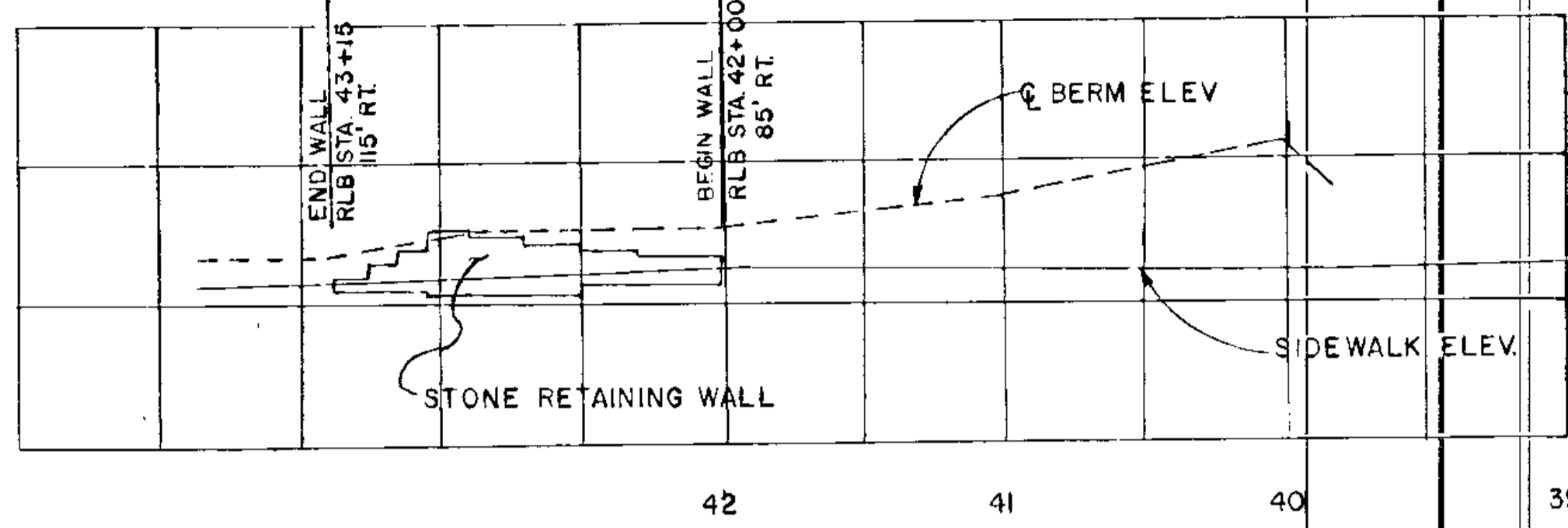


**LEGEND**

CONTROLLER OR SERVICE CABINET (INPLACE)	□
HANDHOLE (INPLACE)	□
RIGID STEEL CONDUIT (INPLACE)	---

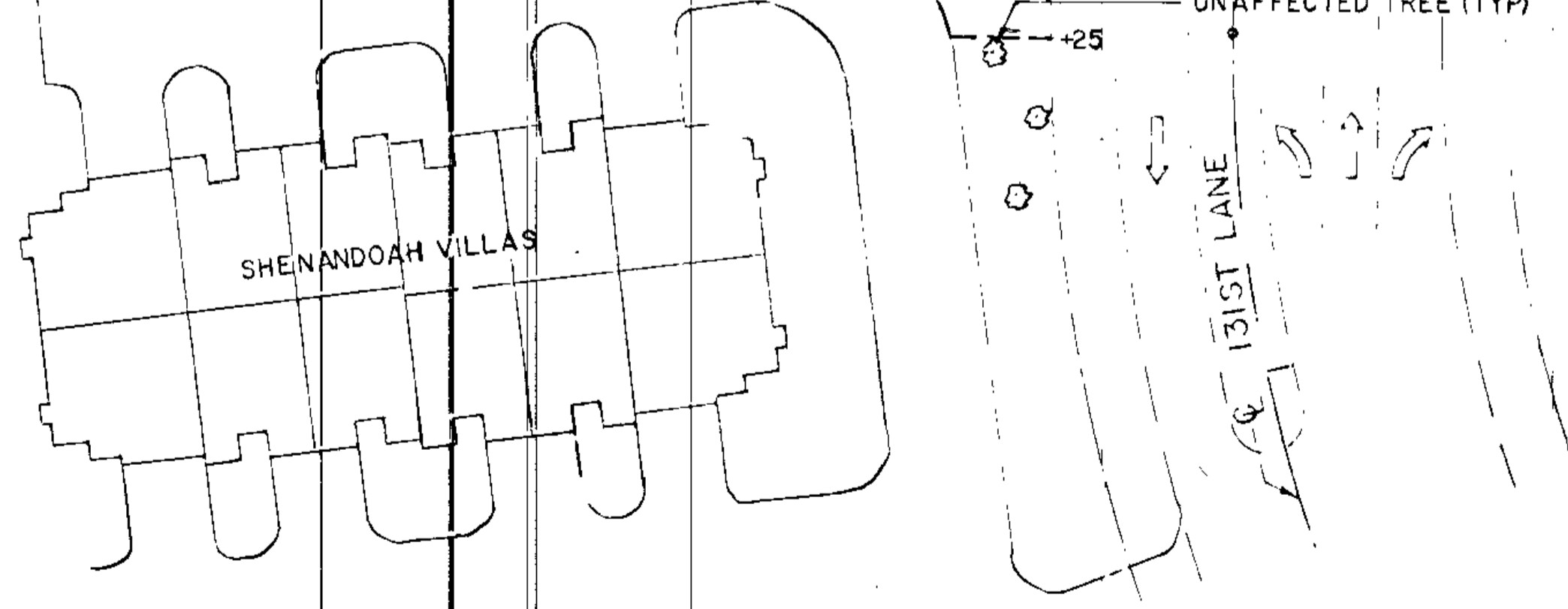
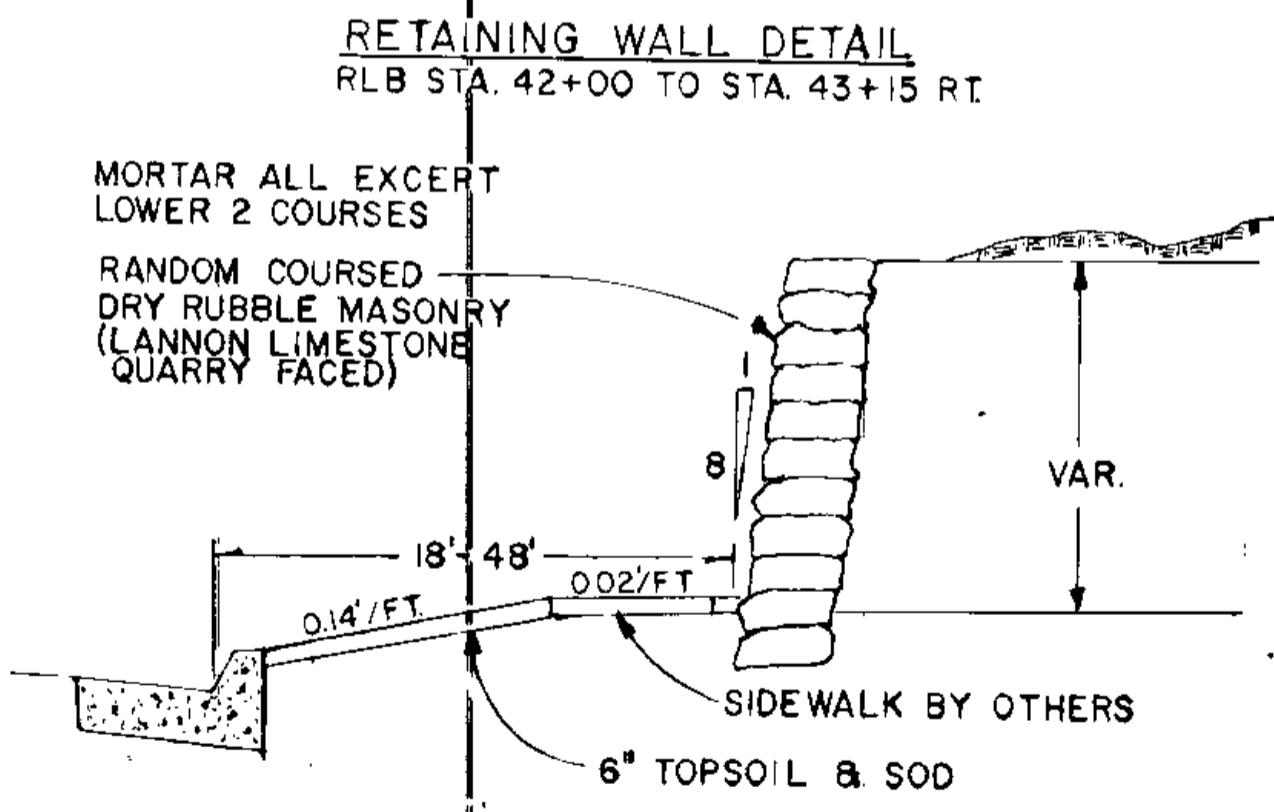
<p><b>BRW</b>          BUREAU OF ROAD WORKS          700 THIRD STREET SOUTH          MINNEAPOLIS, MN 55415          PHONE: (612) 375-6100</p>	ORIGINAL DATE: 11/1/80 REVISIONS:	CITY OF COON RAPIDS PROJECT 88-53 CONTRACT AMENDMENT NO. 1 TRAFFIC SYSTEM INTERCONNECT
	DESIGN BY: EGR DRAWN BY: LB CHECKED BY: DWF	
S.A.P. 02-609-08		SHEET 1 OF 1

890  
880  
870  
860

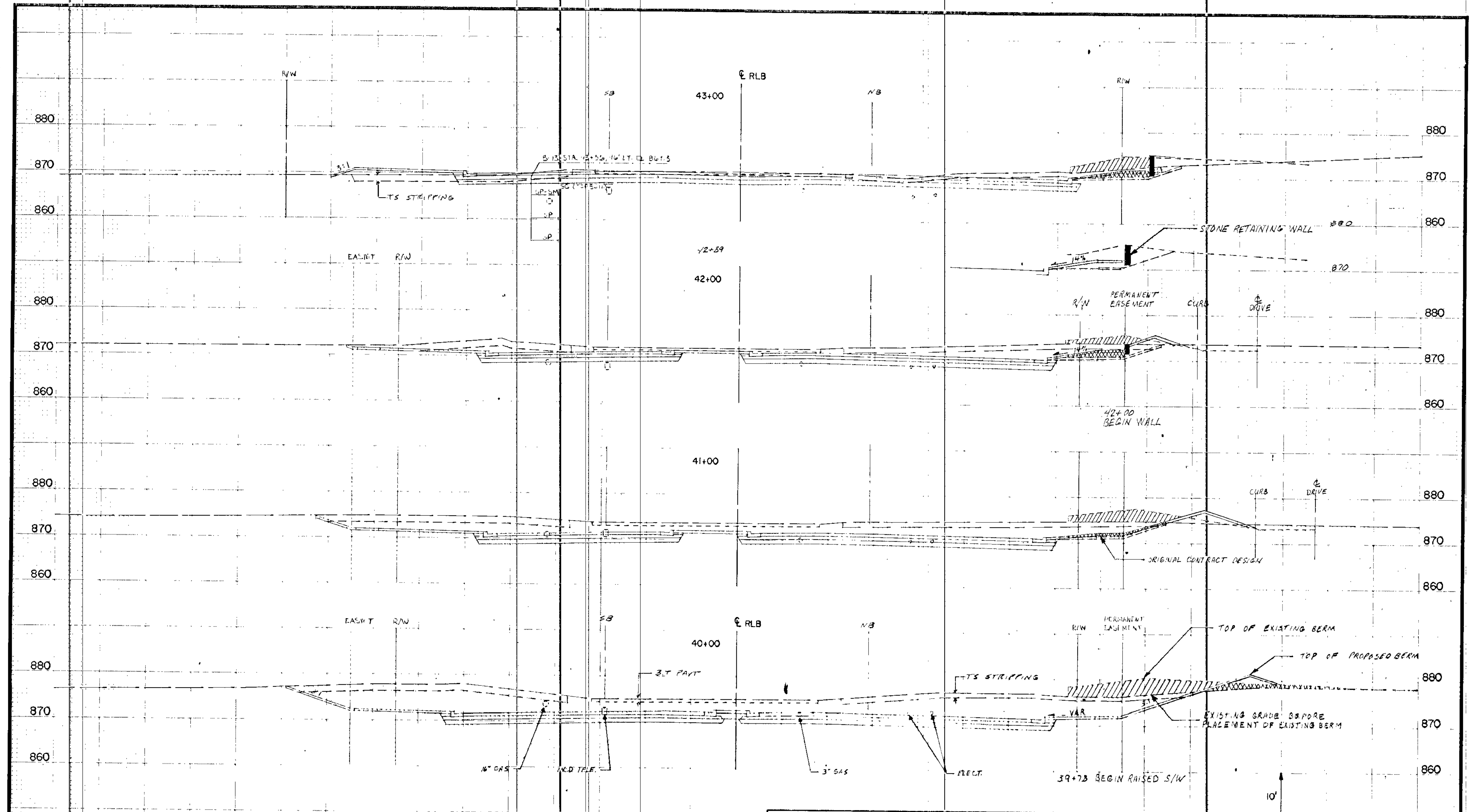


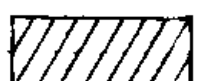

- NOTES:**
- 1) SEE THE SPECIAL PROVISIONS FOR ITEM 0411, "STONE RETAINING WALL" FOR SPECIFIC MATERIAL AND CONSTRUCTION REQUIREMENTS.
  - 2) EXISTING SIGN SHALL REMAIN IN PLACE. RETAINING WALL MAY BE SLIGHTLY ADJUSTED INTO THE UTILITY EASEMENT, AS APPROVED BY THE ENGINEER, TO AVOID THE SIGN.
  - 3) SEE SHEET NO. 2 FOR CROSS SECTIONS
  - 4) BERM SHALL BE SODDED BY OTHERS.
  - 5) PAYMENT FOR THIS WORK SHALL BE MADE FOR THE CUBIC YARDS OF COMMON EXCAVATION AND SQUARE FOOTAGE OF THE RETAINING WALL. ALL OTHER WORK REQUIRED TO COMPLETE THIS CONSTRUCTION SHALL BE CONSIDERED TO BE INCIDENTAL.
  - 6) SHEET 2 OF THIS CONTRACT AMENDMENT VOIDS AND REPLACES ORIGINAL PLAN SHEET 215 OF 256 IN ITS ENTIRETY

- CONSTRUCTION**
- CONSTRUCT STONE RETAINING WALL
  - RESHAPE BERM
  - PLUG EXISTING SPRINKLER SYSTEM WHERE SYSTEM LEAVES CONSTRUCTION LIMITS.



<p>BRW 612-370-0100 Millsboro, PA</p>	<p>ORIGINAL DATE: 2/8/90</p> <p>REVISIONS:</p>	<p><b>CITY OF COON RAPIDS</b></p> <p>IMPROVEMENT PROJECT 88-53</p> <p>LANDSCAPE BERM/ RETAINING WALL PLAN AND ELEVATION</p> <p>RLB STA. 40+00 - 46+00</p>
	<p>DESIGN BY: LWF</p> <p>DRAWN BY: DJW</p> <p>CHECKED BY:</p>	



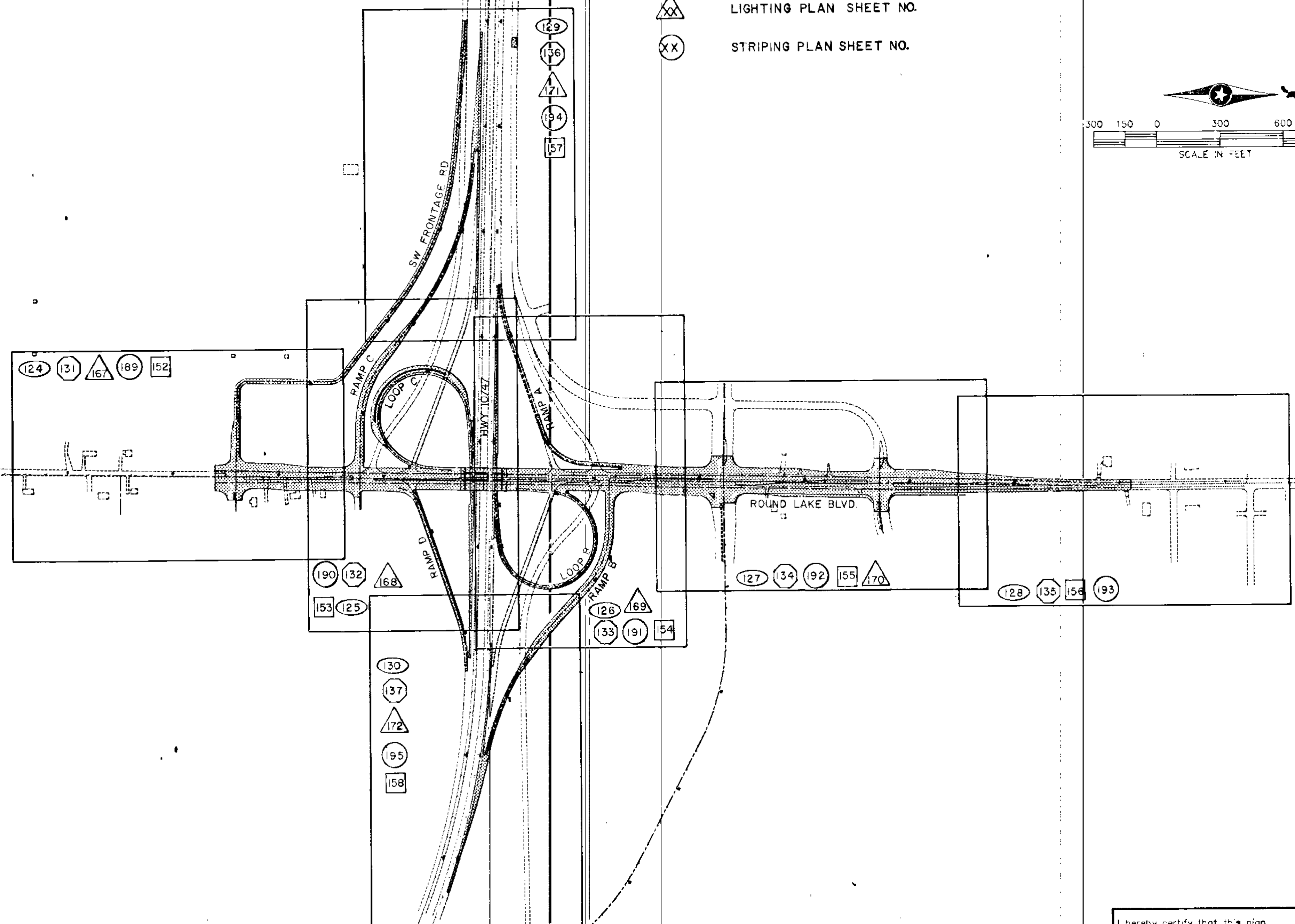
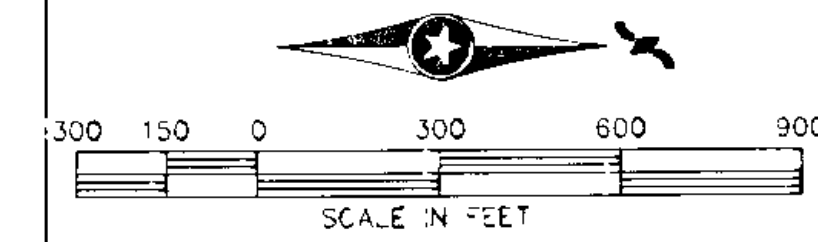
REVISED EARTHWORK SUMMARY	
	ADDITIONAL COMMON EXCAVATION = 568 C.Y.
	COMMON EXCAVATION REDUCTION = 220 C.Y.
	TOTAL ADDITIONAL COMMON EXCAVATION PER THIS CONTRACT AMMENDMENT = 348 C.Y.

**BRW**  
 BRW, Inc.  
 412 2nd St. S.W.  
 Minneapolis, MN 55408  
 DESIGN BY: DWF  
 DRAWN BY: DJW

ORIGINAL DATE 2/8/90  
 REVISIONS  
 SURVEY BK NO.  
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 LANDSCAPE BERM/  
 RETAINING WALL  
 CROSS SECTIONS  
 RLB STA 40+00 TO 43+00

**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 326.18.

*Boyd A. Paul*  
Date 8-22-88 Minn. Reg. No. 12666

**IBRW**  
INC. REG. NO. 012-370-0700  
MINNEAPOLIS, MINNESOTA

DESIGN BY: JBM  
DRAWN BY: JFN  
CHK'D BY:

ORIGINAL DATE	6-12-88
REVISIONS	
SURVEY BOOK	

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
GENERAL LAYOUT

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		47,978	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	
	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.
O	2501.511	18" RC PIPE CULVERT CLASS III	LIN FT	60		60	
O	2501.511	36" RC PIPE CULVERT CLASS V	LIN FT	278		278	
O	2501.515	12" RC PIPE APRON	EACH	13		10	3
O	2501.515	15" RC PIPE APRON	EACH	2		2	
O	2501.515	24" RC PIPE APRON	EACH	10		8	2
O	2501.515	27" RC PIPE APRON	EACH	4		2	2
O	2501.515	30" RC PIPE APRON	EACH	3		3	
O	2501.515	36" RC PIPE APRON	EACH	8		8	
O	2501.525	28" SPAN RC PIPE-ARCH APRON	EACH	6		6	
O	2501.525	36" SPAN RC PIPE-ARCH APRON	EACH	1		1	
O	2501.525	65" SPAN RC PIPE-ARCH APRON	EACH	1		1	
O	2501.561	24" RC PIPE CULVERT DESIGN 3006 CLASS III	LIN FT	272		216	56
O	2501.561	24" RC PIPE CULVERT DESIGN 3006 CLASS V	LIN FT	200		200	
O	2501.561	27" RC PIPE CULVERT DESIGN 3006 CLASS III	LIN FT	248		146	102
O	2501.561	30" RC PIPE CULVERT DESIGN 3006 CLASS V	LIN FT	192		192	
O	2501.561	36" RC PIPE CULVERT DESIGN 3006 CLASS III	LIN FT	84		84	
O	2501.567	15" CS SAFETY APRON & GRATE DESIGN 3128	EACH	2		2	
O	2501.567	18" CS SAFETY APRON & GRATE DESIGN 3128	EACH	1		1	
O	0501.603	48" STEEL CASING PIPE (JACKED)	LIN FT	242		242	
O	2503.521	28" SPAN RC PIPE-ARCH SEWER CLASS III A	LIN FT	138		138	
O	2503.521	36" SPAN RC PIPE-ARCH SEWER CLASS III A	LIN FT	451		451	
O	2503.521	65" SPAN RC PIPE-ARCH SEWER CLASS III A	LIN FT	80		80	
O	2503.541	12" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	2,023		1,830	193
O	2503.541	15" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	937		937	
O	2503.541	18" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	385		385	
O	2503.541	24" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	620		620	
O	2503.541	30" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	30		30	
O	2503.541	33" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	297		297	
O	2503.541	36" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	110		110	
O	2503.541	48" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT	150		150	
O	2508.506	CONSTRUCT MANHOLES DESIGN A OR F	LIN FT	28.4		28.4	
O	2508.506	CONSTRUCT MANHOLES DESIGN 54-4019	LIN FT	5.2		5.2	
O	2508.506	CONSTRUCT MANHOLES DESIGN 60-4020	LIN FT	12.2		12.2	
O	2508.506	CONSTRUCT MANHOLES DESIGN 78-4019	LIN FT	4.0		4	
O	2508.506	CONSTRUCT MANHOLES DESIGN 84-4020	LIN FT	6.5		6.5	
O	2508.506	CONSTRUCT MANHOLES DESIGN C OR G	LIN FT	6.0		6	
O	2508.507	CONST CATCH BASINS DES SPECIAL 1	LIN FT	38.9		38.9	
O	2508.507	CONST CATCH BASINS DES SPECIAL 2-48	LIN FT	208.0		208	
O	2508.507	CONST CATCH BASINS DES SPECIAL 2-60	LIN FT	22.3		22.3	
O	2508.507	CONSTRUCT CATCH BASINS DES C OR G	LIN FT	14.2		6.4	7.8
O	2508.507	CONSTRUCT CATCH BASIN DES H	LIN FT	34.4		28.5	5.9
P	2508.516	CASTING ASSEMBLIES	EACH	77		73	4
N	2508.522	ADJUST FRAME & RING CASTINGS	EACH	5		5	
O	0508.602	CONNECT TO EXISTING MANHOLE	EACH	1		1	
O	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	
Q	2550.512	HANDHOLE TYPE - PVC CONCRETE COVER (12)	EACH	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.

*Boyd R. Paulsen*  
Date: 22-89 Minn. Reg. No. 12668



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

CITY OF COON RAPIDS  
IMPROVEMENT PROJECT 88-53  
ESTIMATED QUANTITIES

STATEMENT OF ESTIMATED QUANTITIES CONTINUED

CHART NO.	ITEM NO.	ITEM		TOTAL QUANTITIES		100% LOCAL	100% STATE
				EST.	FINAL	FUNDING TYPE 1	FUNDING TYPE 2
				EST.		EST.	EST.
E	2554.501	TRAFFIC BARRIER DES 88307	LIN FT	600		600	
E	2554.523	TRAFFIC CONTROL, PHASE 1 - STAGE 2	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	L\$			
	0563.601	TRAFFIC CONTROL, PHASE 1 - STAGE 2	LUMP SUM	L\$			
	0563.601	TRAFFIC CONTROL, PHASE 1 - STAGE 3	LUMP SUM	L\$			
	0563.601	TRAFFIC CONTROL, PHASE 2 - STAGE 1	LUMP SUM	L\$			
	0563.601	TRAFFIC CONTROL, PHASE 2 - STAGE 2	LUMP SUM	L\$			
	0563.601	TRAFFIC CONTROL, PHASE 2 - STAGE 3	LUMP SUM	L\$			
	0563.601	TRAFFIC CONTROL, PHASE 3 - STAGE 1	LUMP SUM	L\$			
	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	L\$			
	0565.601	TRAFFIC CONTROL INTERCONNECTION B (3)	LUMP SUM	L\$			
	0565.601	TRAFFIC CONTROL INTERCONNECTION C (3)	LUMP SUM	L\$			
	0565.601	TRAFFIC CONTROL INTERCONNECTION D (3)	LUMP SUM	L\$			
	0565.601	TRAFFIC CONTROL INTERCONNECTION E (3)	LUMP SUM	L\$			
	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

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85	B	BITUMINOUS PAVEMENT REMOVAL
85	C	CONCRETE REMOVAL
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184	S	DELINEATORS
89	T	PAVEMENT MARKING REMOVAL - PERMANENT
89	U	REM. PRE. PLASTIC MARKING & T.R.P.M.

STANDARD PLATES

PLATE NO.	DESCRIPTION
0005A	SPECIFICATION REFERENCE TO STANDARD PLATES (1988)
1120S	CONTRACTION JOINTS
1140S	LONGITUDINAL JOINTS
1141C	PAVEMENT KEYWAY FOR KEYS 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 HANDBOX (OR PULLBOX)
	PVC HANDBOX (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. J2656



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

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

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

SHEET 4 OF 256

DESIGN FILE No. 16-8840

CLEARING AND GRUBBING (A)			
STATION	OFFSET	QUANTITY	
		TREE	ACRE
ROUND LAKE BLVD			
12+06	46' LT	1	
12+29	80' & 94' LT	2	
12+93	46' 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+48	72' RT	1	
39+60	41' RT	1	
39+65 TO 40+10	40' TO 105' RT		0.10
39+68	80' LT	1	
39+91	82' LT	1	
39+95	84' LT	1	
40+02	80' LT	1	
40+67	77' & 85' LT	2	
40+78	68' LT	1	
41+13 TO 44+68	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

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+58 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

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. TH 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. TH 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	1588	
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	
NORTHDAL 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

PLATE BEAM BARRIER (E)				
STATION TO STATION	LOCATION	BARRIER 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

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	1794	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

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: 2-22-89, Minn. Reg. No. J2666

**BRW**  
BRW, INC.  
112-376-0700  
Minneapolis, Minnesota

DESIGN BY: \_\_\_\_\_  
DRAWN BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_

ORIGINAL DATE: 4/18/89  
REVISIONS: \_\_\_\_\_  
SURVEY BOOK: \_\_\_\_\_

**CITY OF COON RAPIDS**  
IMPROVEMENT PROJECT 88-53  
TABULATED QUANTITIES



PRIVATE UTILITIES					(6)
LOCATION	INPLACE ITEM	CONSTRUCTION LIMITS		OWNER	
		WITHIN LIN FT	OUTSIDE 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.					(6)
LOCATION	INPLACE ITEM	CONSTRUCTION LIMITS		OWNER	
		WITHIN LIN FT	OUTSIDE 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 53+00, 26'-22' LT	6 WAY MCD BURIED	244		U.S. WEST	
50+00 TO 50+00, 22'-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

U.S. WEST  
STEVE WAALLEN  
FLOOR 2  
5910 SHINGLE CREEK PARKWAY  
BROOKLYN CENTER, MN. 55430  
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ANOKA ELECTRIC COOPERATIVE  
MARK MUDRICK  
2022 NORTH FERRY  
ANOKA, MN. 55303  
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NORTHERN STATES POWER CO.  
JIM CONRAD  
NORTH DIVISION  
4501 68TH AVE. NORTH  
BROOKLYN CENTER, MN. 55429  
(612) 568-9120

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

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 326.15.  
*Boyd Paulsen*  
Date 8-22-89 Minn. Reg. No. 12666



ORIGINAL DATE 7-31-89  
REVISIONS  
DESIGN BY: JRM  
DRAWN BY: D.W.  
CHKD BY:  
SURVEY BOOK

CITY OF COON RAPIDS  
IMPROVEMENT PROJECT 88-53  
PRIVATE UTILITIES

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

SHEET 86 OF 256

DESIGN FILE No. 16-8840

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	1708				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							1.0	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							1.0	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	191	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
			195			117											81	STATE	
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	29							1.5	1383	11				1.0	1383	7	LOCAL
			59									24					16	STATE	
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
																			LOCAL
TOTALS																			
LOCAL FUNDING			13301																4050
STATE FUNDING			250																97
PROJECT			13551				424												4147

BASIS FOR QUANTITIES

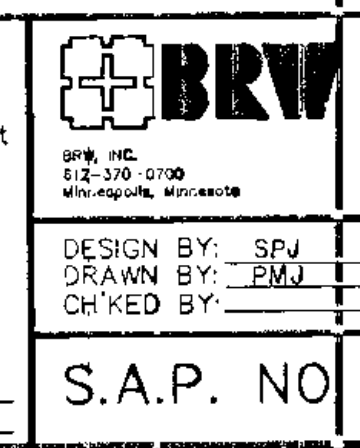
BITUMINOUS MATERIAL FOR:

- 2331 NON-WEARING COURSE 5.3% OF VOLUME
- WEARING COURSE 5.9% 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: 140 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 Paulsen*  
Date 8-22-89 Minn. Reg. No 12866



ORIGINAL DATE 4/8/89  
REVISIONS

SURVEY BOOK

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

CITY OF COON RAPIDS  
IMPROVEMENT PROJECT 88-53

TABULATED QUANTITIES

SHEET 87 OF 256

DESIGN FILE No. 16-8840

CONCRETE WALK, CURB AND GUTTER, MEDIAN, DRIVEWAY PAVEMENT AND BITUMINOUS CURB (I)										
STATION TO STATION	LOCATION	3" CONC. WALK SQ. FT.	4" CONC. WALK SQ. FT.	6" CONC. WALK SQ. FT.	B624 C&G LIN. FT.	B624 C&G MOD. LIN. FT.	D424 C&G LIN. FT.	BIT. CURB LIN. FT.	7" DRIVEWAY PAVEMENT SQ. YD.	FUNDING
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			36		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
204+50 TO 212+60	LT & RT	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 BASE CLASS 6 CU. YD.	AGGREGATE BASE CLASS 5 CU. YD.	AGGREGATE SHOULDER CLASS 3 CU. YD.	AGGREGATE SHOULDER CLASS 1 CU. YD.	FUNDING				
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	2405	261			LOCAL				
48+00 TO 55+53	RT & LT	344				LOCAL				
S. B. ROUND LAKE BLVD										
12+00 TO 16+50	RT & LT	548				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		11		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	89		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		13734	15811	1192	1261	2518	2327	220		
STATE FUNDING		328	0	0	0	0	0	0		
PROJECT		14062	15811	1192	1261	2518	2327	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.

*Boyd Paul*

Date 8-22-88 Minn. Reg. No. J2666



ORIGINAL DATE 4/18/89  
 REVISIONS  
 AS2 BRW 11/19/89  
 SURVEY BOOK

CITY OF COON RAPIDS  
 IMPROVEMENT PROJECT 88-53  
 TABULATED QUANTITIES

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	2" 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.												
13+00 TO 16+50	2030	285		842		137			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

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


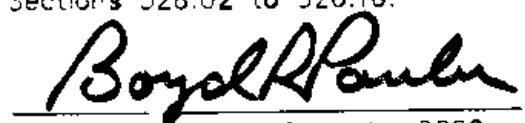
PAVEMENT MARKING REMOVAL - PERMANENT (T)			
PHASE	BROKEN LINE - PAINT	EDGE LINE - PAINT	
	LIN. FT.	LIN. FT.	
PHASE 1 STAGE 1	324	2060	
PHASE 1 STAGE 2			
PHASE 1 STAGE 3	2252	7230	
PHASE 2 STAGE 1			
PHASE 2 STAGE 2			
PHASE 2 STAGE 3			
PHASE 3 STAGE 1			
TOTAL	2834	10219	

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.

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

- (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 I 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.	 BRW 600 W. 1st St. Minneapolis, Minnesota 55401	ORIGINAL DATE 4/18/89	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> TABULATED QUANTITIES
		DESIGN BY: SPJ DRAWN BY: PMJ CHECKED BY:	
 Date: 8-22-89 Minn. Reg. No. 12656		S.A.P. NO. 02-609-08	SHEET 89 OF 256 DESIGN FILE No. 16-884Q

**EARTHWORK SUMMARY**

EXCAVATION

(E) COMMON EXCAVATION 152,107 CY (EV)  
  
(C) SUBGRADE EXCAVATION 17,673 CY (EV)  
  
MUCK EXCAVATION 1,094 CY (EV)

REGULAR 100,743 CY (EV) (E)  
TOPSOIL 51,364 CY (EV)  
  
REGULAR 15,214 CY (EV)  
TOPSOIL 2,459 CY (EV)

EMBANKMENT

(F) EMBANKMENT 257,049 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)

GRANULAR 221,223 CY (CV) (F)  
SELECT GRANULAR 32,282 CY (CV)  
SELECT GRANULAR MOD. 10% 3,544 CY (CV)

**NOTES:**

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

SOILS AND CONSTRUCTION NOTES

1. 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.
2. SELECTED GRADING MATERIALS SHALL CONSIST OF GRANULAR MATERIALS, OF WHICH THE UPPER 1.0 FOOT OF THE SUBGRADE SHALL CONSIST OF SELECT GRANULAR MATERIALS.
3. GRANULAR MATERIAL, REGARDLESS OF SOURCE, SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2A.
4. SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2B.
5. STABILIZING AGGREGATE SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2C.
6. COMPACTION OF THE GRADING PORTION OF THIS PROJECT SHALL BE BY THE "SPECIFIED DENSITY METHOD."
7. 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.
8. TEST ROLLING WILL NOT BE REQUIRED.
9. 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.
10. 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.
11. 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.
12. DISPOSITION OF EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH SPEC. 2105.3D.

13. 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.
14. 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.
15. PROVIDE 20:1 TAPERS BETWEEN CHANGES IN DEPTH OF SUBGRADE EXCAVATIONS.
16. WHERE CONNECTING NEW SURFACING TO AN INPLACE PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING THE INPLACE PAVEMENT.
17. 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.
18. 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."
19. 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."
20. 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 1/2-INCH SIEVE WHEN ENTERING THE COLD FEED.
  - A. 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.
  - B. 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.

21. 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"
22. SLOPE DRESSING ON THIS PROJECT IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING PRIOR CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.
23. 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.
24. ON PERMANENT SLOPES 3:1 OR FLATTER WITHIN THE INTERCHANGE AREA, USE MIXTURE 500 SEED AND TYPE 1 MULCH WITH DISC ANCHORING.
25. 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 500 IS NOT SPECIFIED.
26. ALL SOD UTILIZED WITHIN THE PROJECT UNITS SHALL MEET THE REQUIREMENTS OF SPECIFICATION 3878.2B (EROSION CONTROL SOD).
27. 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 326.16.

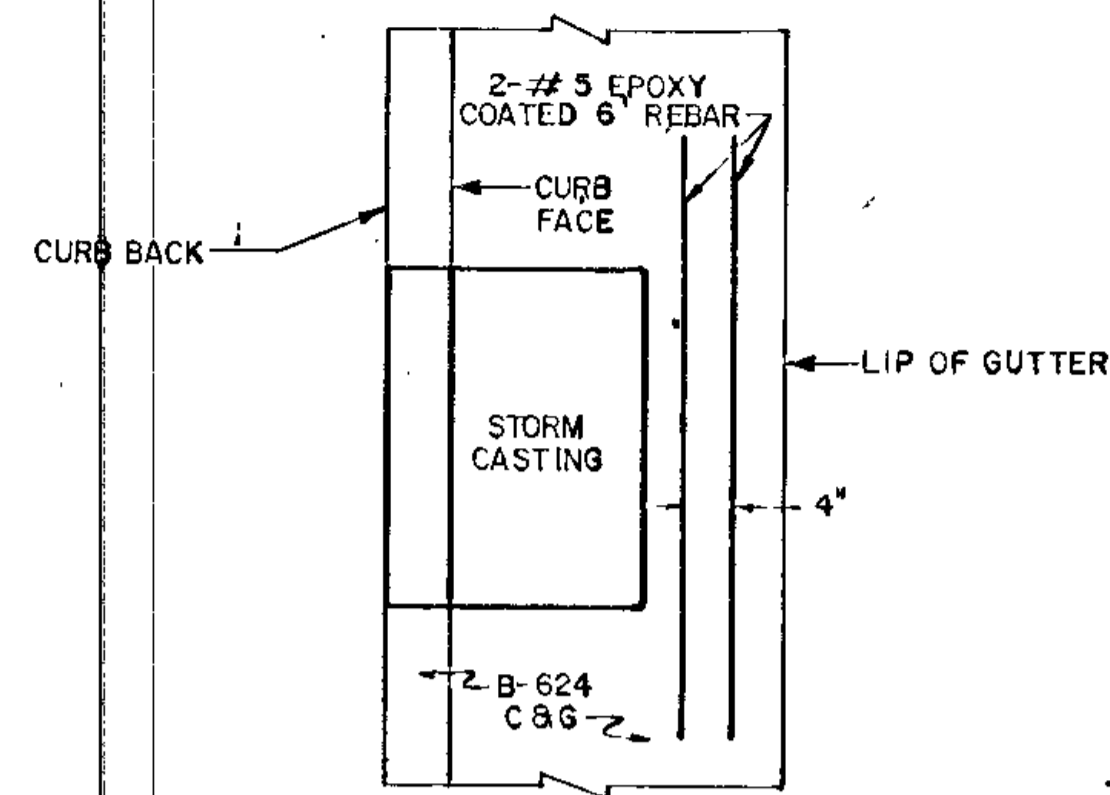
*Boyd Bauer*

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

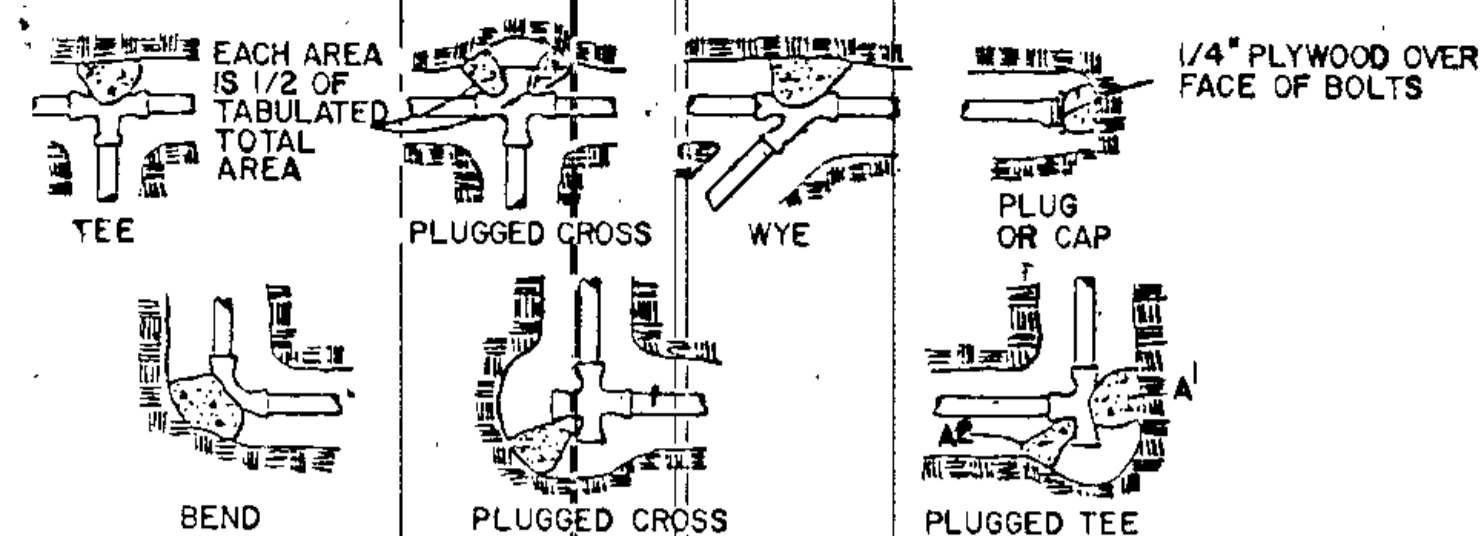


ORIGINAL DATE	7-21-83
REVISIONS	
DESIGN BY:	J.H.A.
DRAWN BY:	L.C.
CHECKED BY:	
SURVEY BOOK	

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



**C&G REINFORCEMENT AT STORM CASTING**



NOMINAL FITTING SIZE, INCHES	TEE, WYE, PLUG OR CAP	90° BEND PLUGGED CROSS	TEE PLUGGED ON RUN A1   A2	45° BEND	22 1/2° BEND	11 1/4° BEND
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

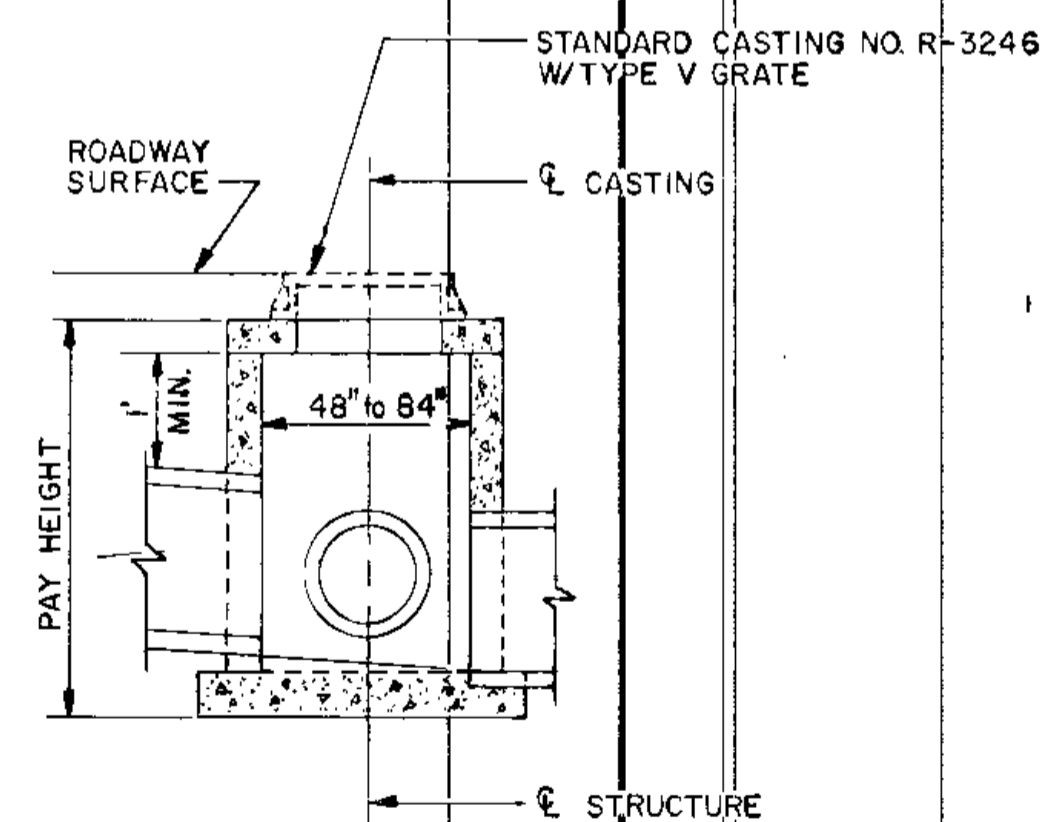
**NOTES:**

- 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 STRESSIES).
- 4) BEARING AREAS AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER BEARING AREAS AND BLOCKING DETAILS SHOWN THIS STANDARD DETAIL.

**NOTE:**

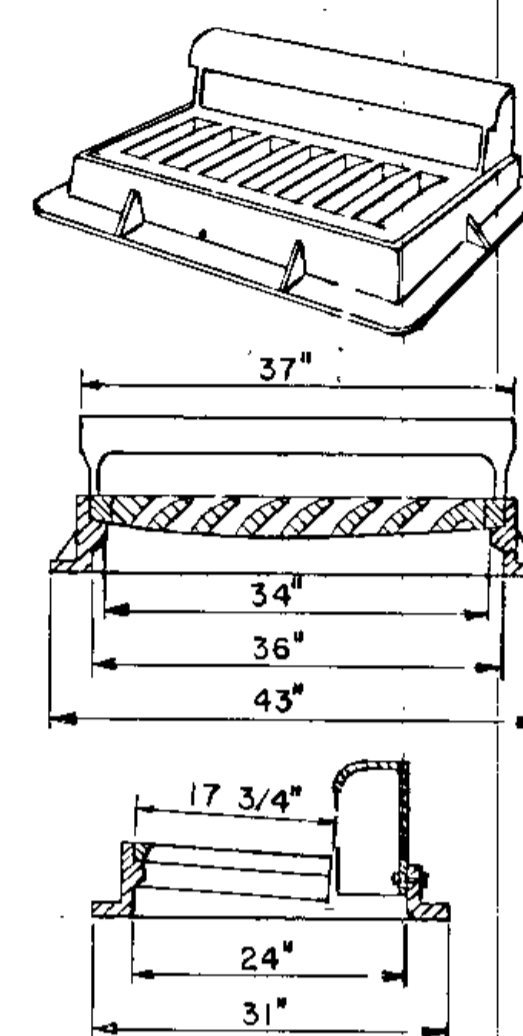
ABOVE BEARING AREAS BASED ON TEST PRESSURE OF 150 P.S.I. AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 POUNDS PER SQUARE FOOT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, USE THE FOLLOWING EQUATION: BEARING AREA = (TEST PRESSURE/150) \* (2000/SOIL BEARING STRESS) \*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

**THRUST BLOCKING DETAIL**

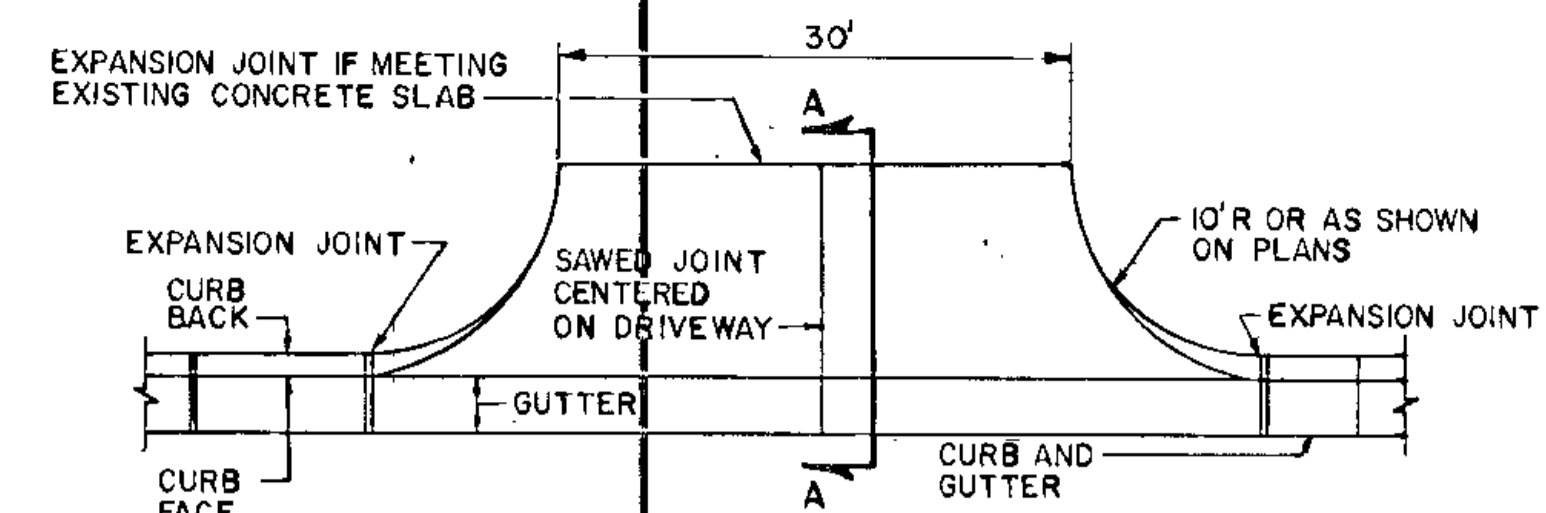


**CATCH BASIN DESIGN (SPECIAL 2)**

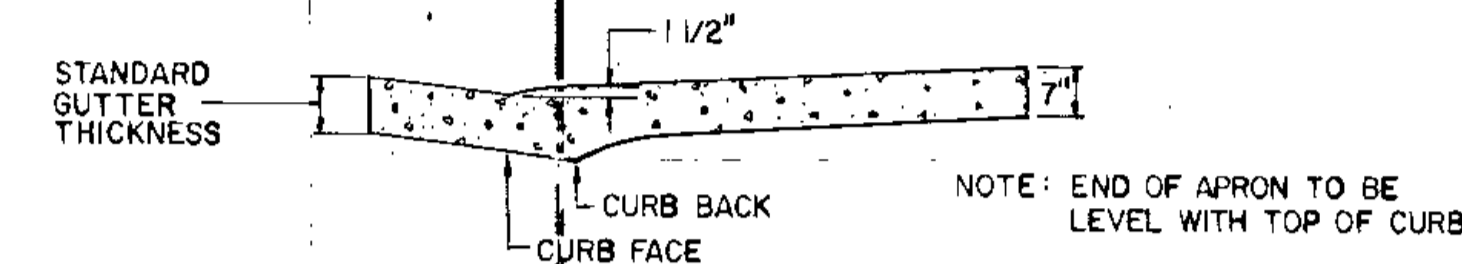
**INLET ASSEMBLY**  
NEENAH FOUNDRY NO. R-3246 OR APPROVED EQUAL WITH TYPE V GRATE.



**INLET CASTING**

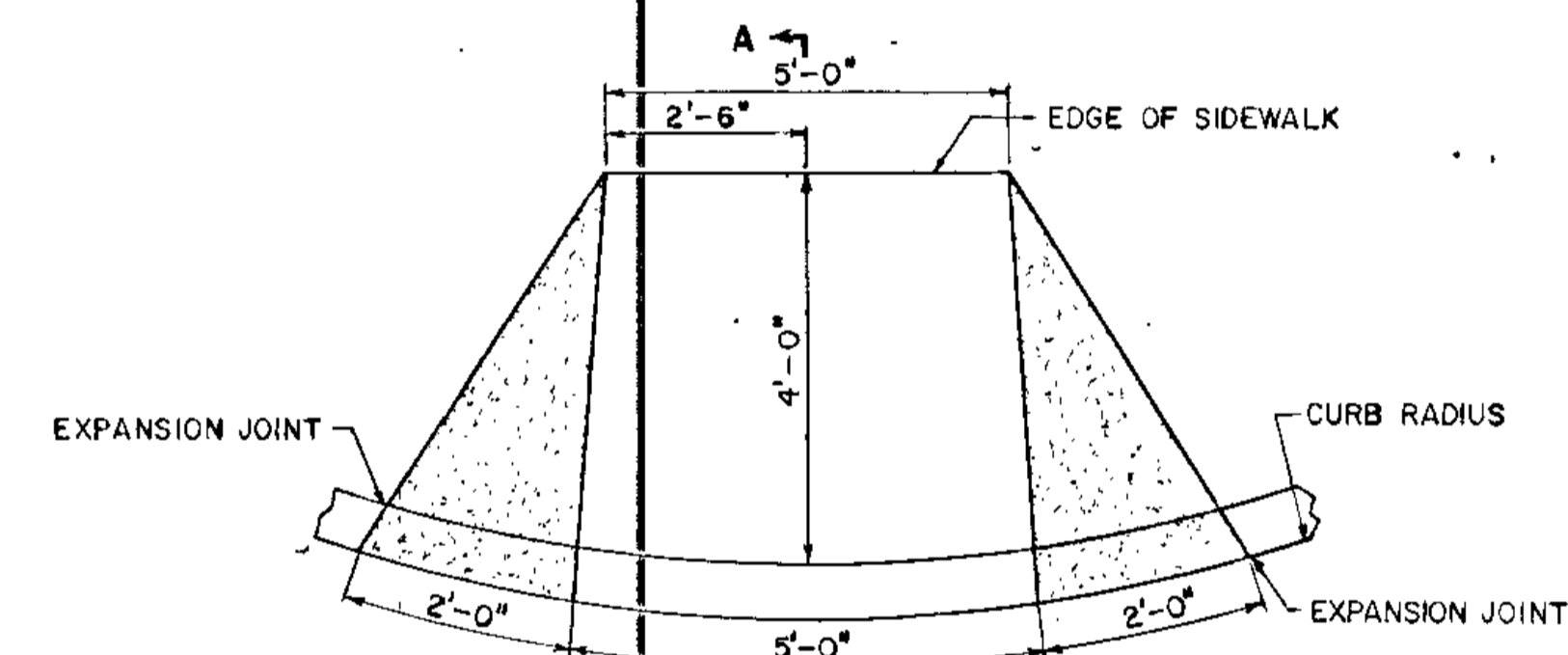


**PLAN**

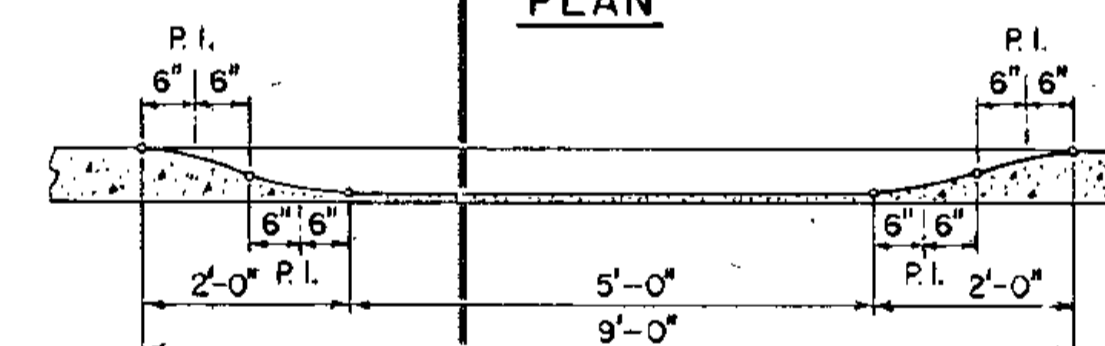


**SECTION A-A**

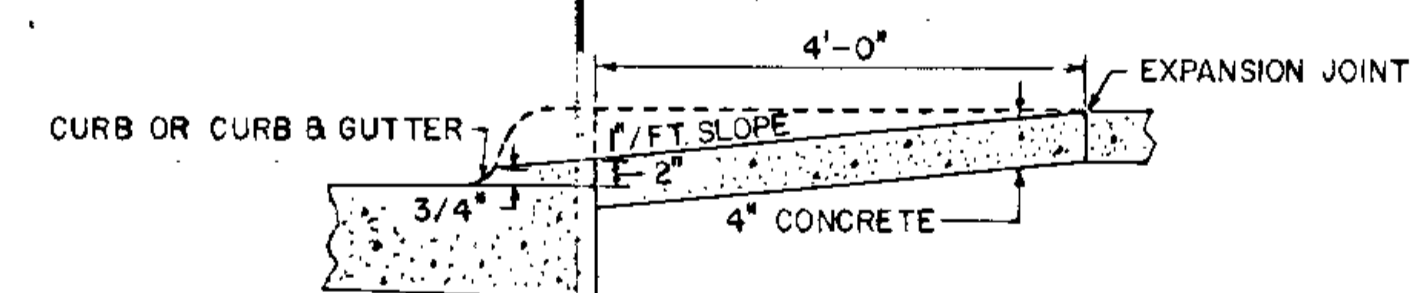
**COMMERCIAL INTEGRAL CONCRETE DRIVEWAY APRON**



**PLAN**



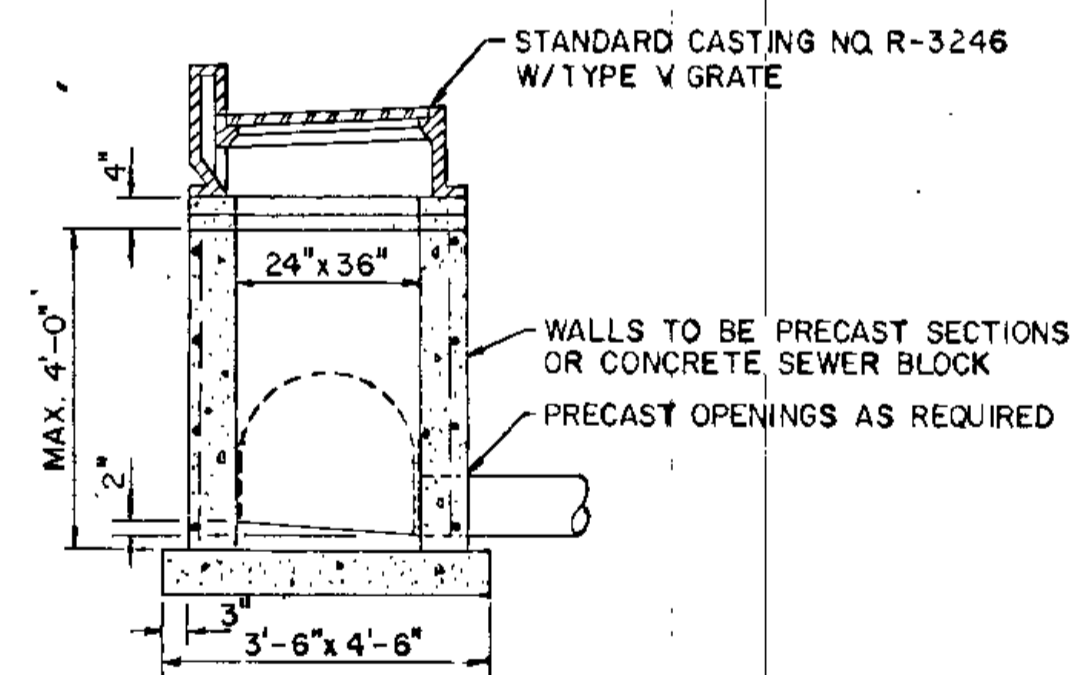
**ELEVATION**



**SECTION A-A**

**PEDESTRIAN CURB RAMP**

**CATCH BASIN DESIGN (SPECIAL 1)**

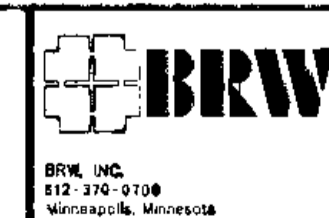


NOTE: CONCRETE ADJUSTING RINGS, MIN. 4\"/>

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



BRW, INC.  
512-370-0108  
Winneapolis, Minnesota

DESIGN BY: SPJ  
DRAWN BY: J.M.J.

ORIGINAL DATE: 7-27-89  
REVISIONS:  
SURVEY BK. NO.

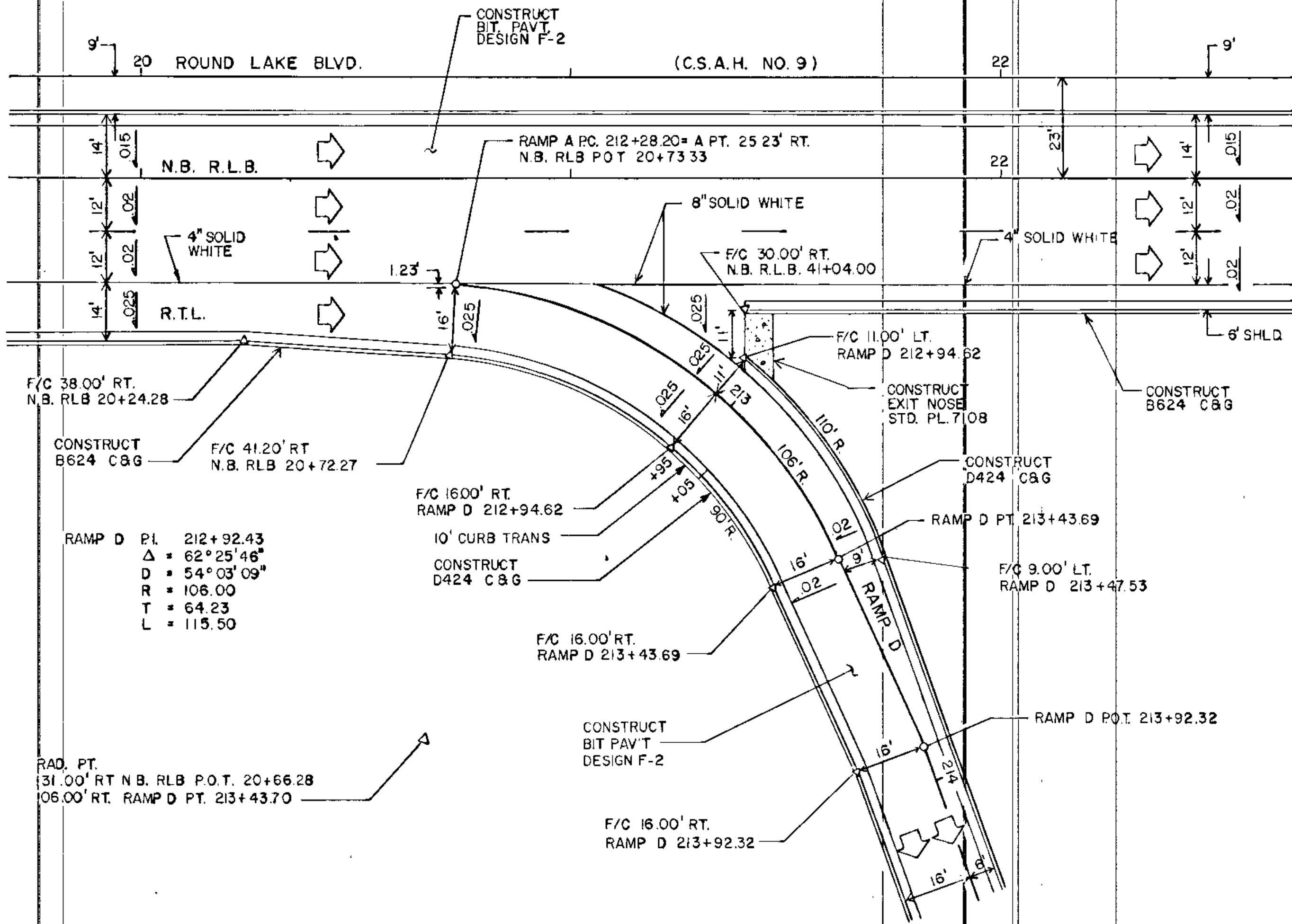
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
CONSTRUCTION DETAILS

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

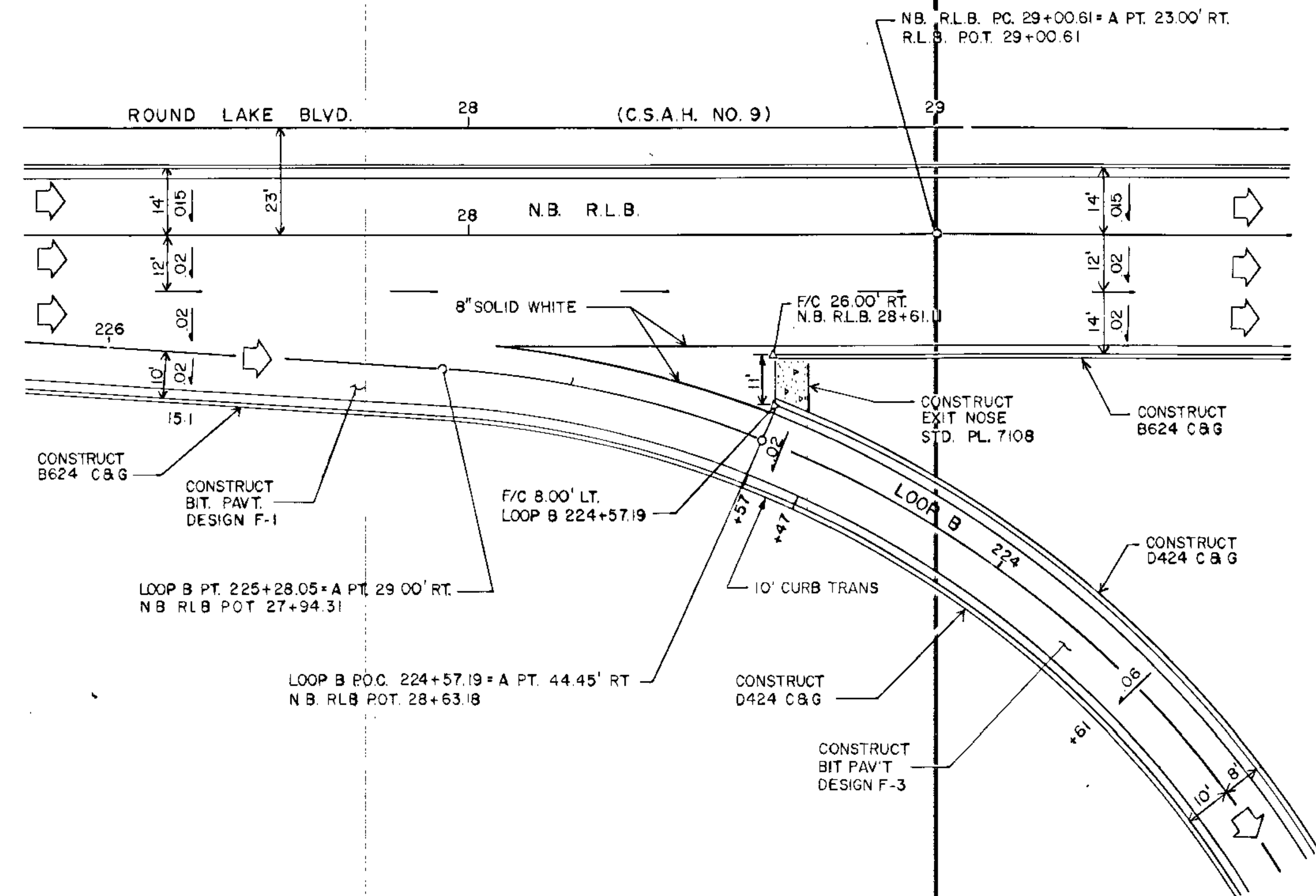
SHEET 100 OF 256

DESIGN FILE No. 16-88A0

**EXIT NOSE - N.B. ROUND LAKE BLVD. TO RAMP D**

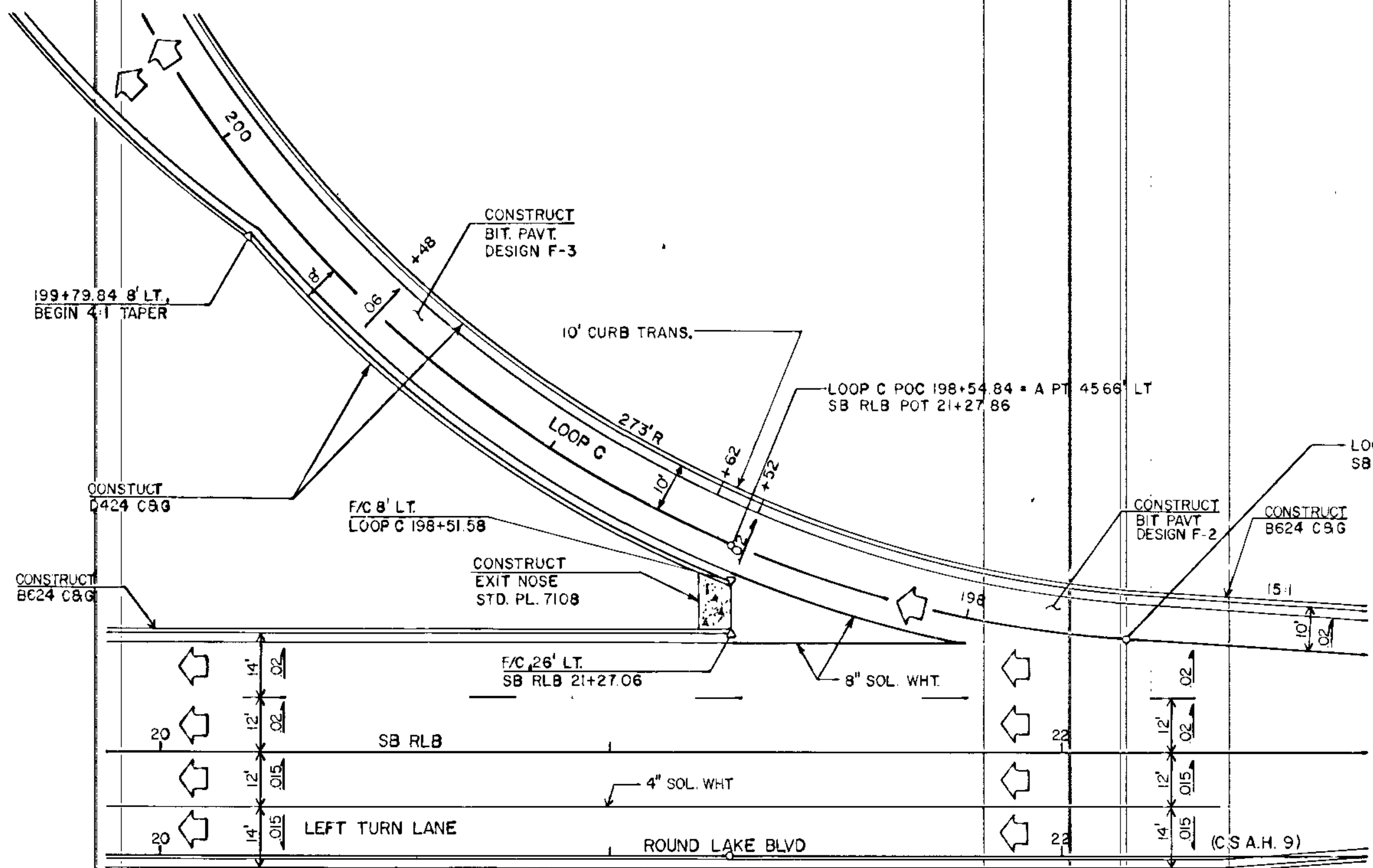


**EXIT NOSE - N.B. ROUND LAKE BLVD. TO LOOP B**

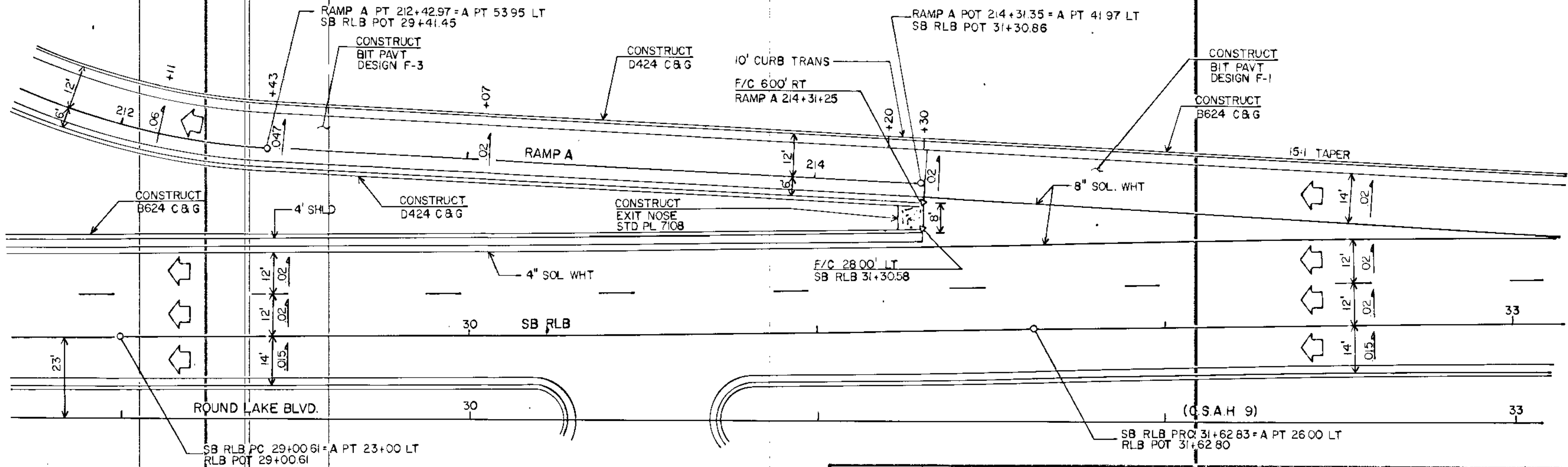


I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paul</i> Date 8-22-89 Minn. Reg. No. J2666.	BRW, Inc. 512-276-0300 Minneapolis, Minnesota	ORIGINAL DATE: 4/13/89 REVISIONS:	<b>CITY OF COON RAPIDS</b> IMPROVEMENT PROJECT 88-53 CONSTRUCTION DETAILS EXIT NOSE - RAMP D EXIT NOSE - LOOP B
		DESIGN BY: J.M. DRAWN BY: J.S.S.	
S.A.P. NO. 02-609-08		SHEET 101 OF 256	

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

**BRW**  
BRW, Inc.  
812 379 0100  
Minneapolis, Minnesota  
DESIGN BY JRM  
DRAWN BY P.J.F. LEB

ORIGINAL DATE 4/11/89
REVISIONS 5/18/89
LOOP C HOV LANE
SURVEY BK. NO.

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

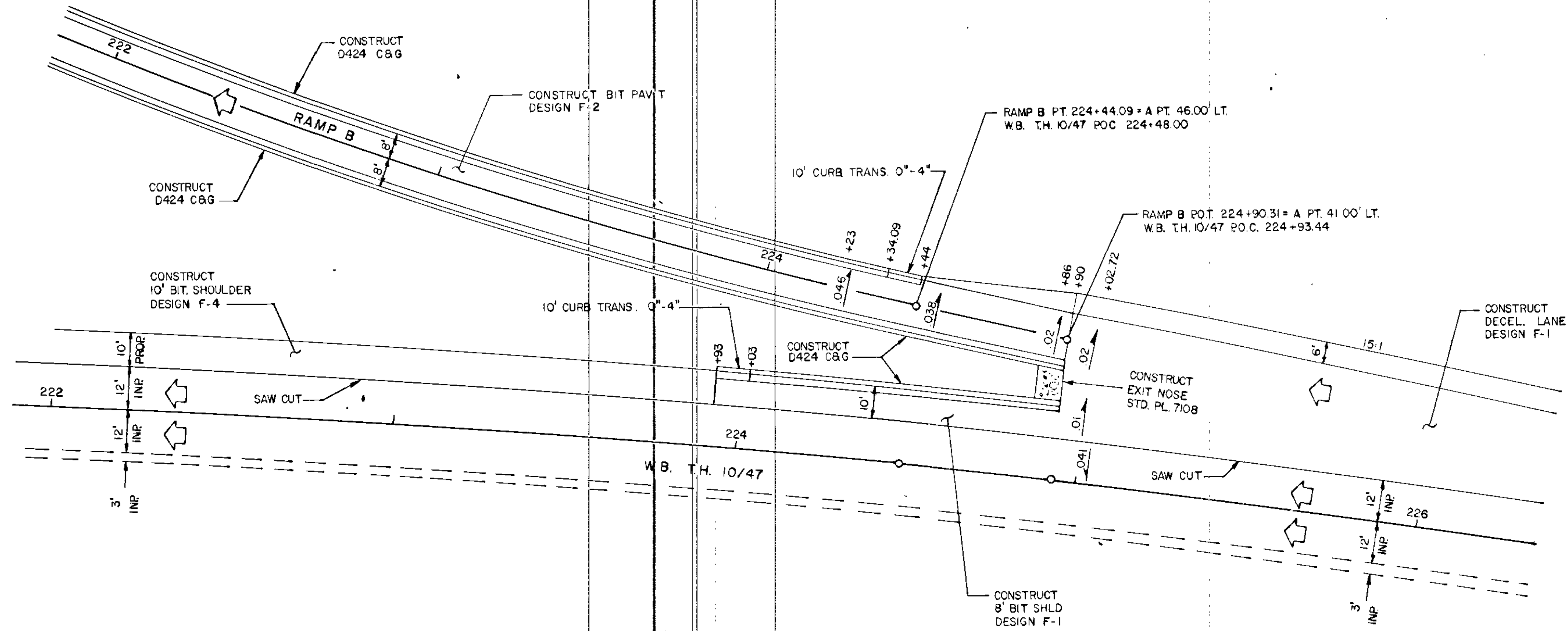
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SHEET 102 OF 256

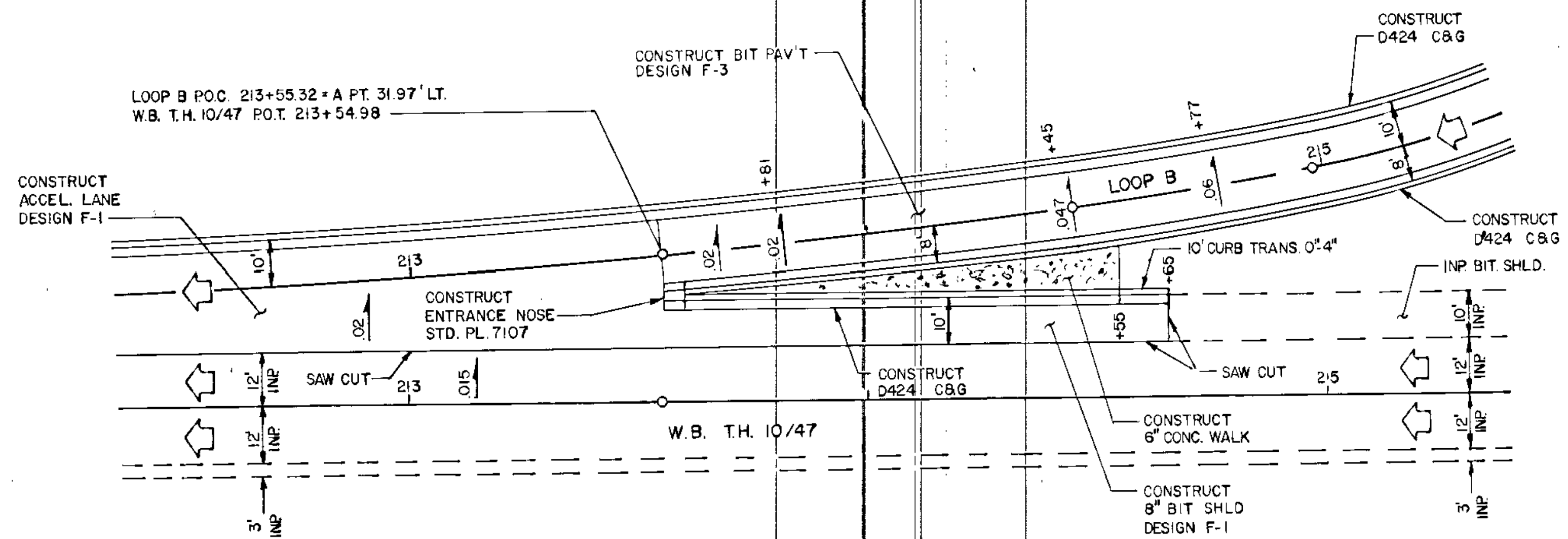
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No. 16-8840



**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 Section 326.02 to 326.16.

*Boyd Paul*

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

**BRW**  
BRW, Inc.  
512 316 0100  
Minneapolis, Minnesota

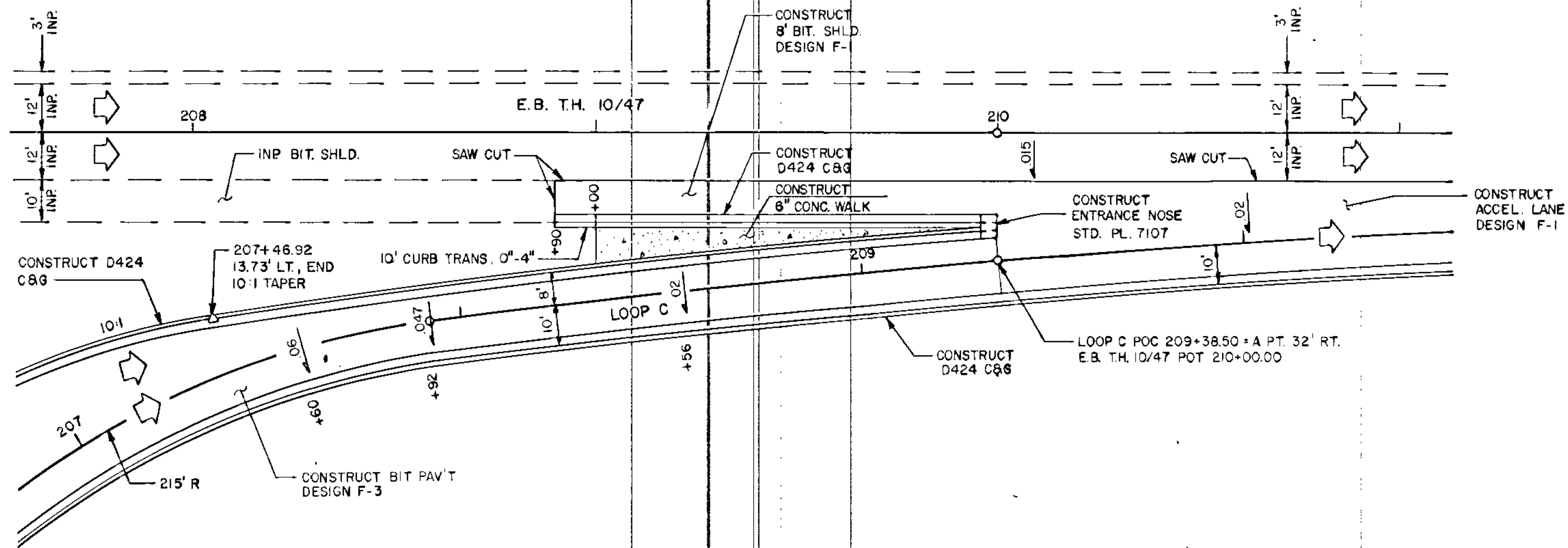
DESIGN BY: J.M.  
DRAWN BY: J.S.-S

ORIGINAL DATE: 4/5/89  
REVISIONS:  
SURVEY BK. NO.  
S.A.P. NO. 02-609-08

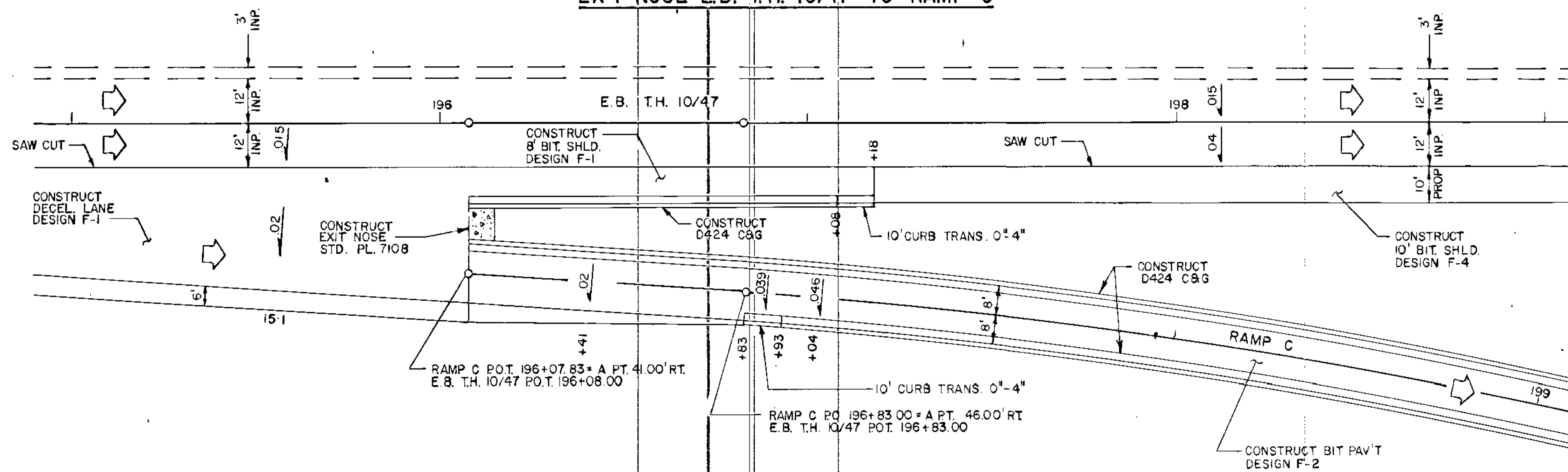
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
CONSTRUCTION DETAILS  
EXIT NOSE - RAMP B  
ENTRANCE NOSE - LOOP B

DESIGN FILE  
No. 16-8840

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



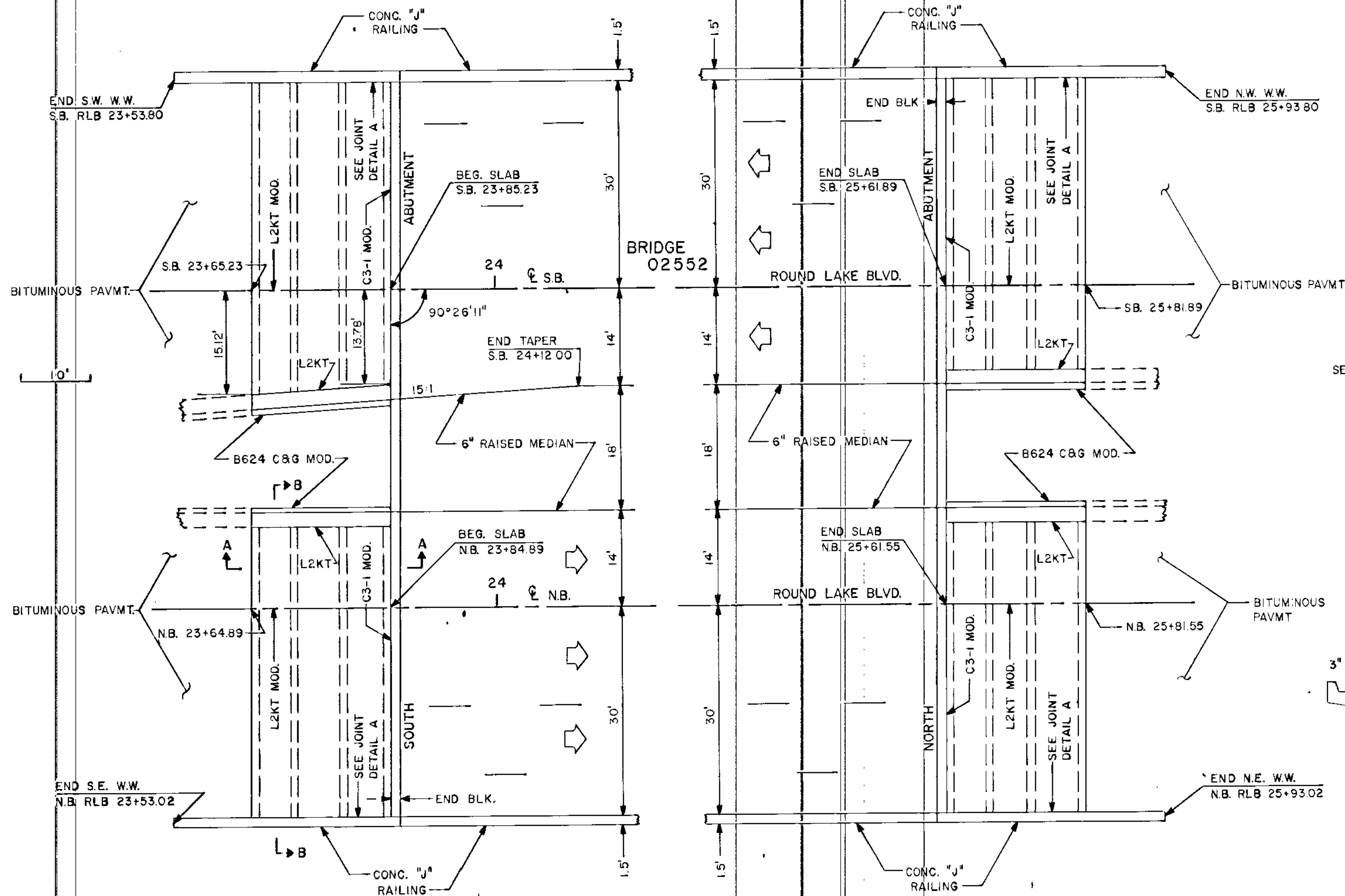
**EXIT NOSE E.B. T.H. 10/47 TO RAMP C**



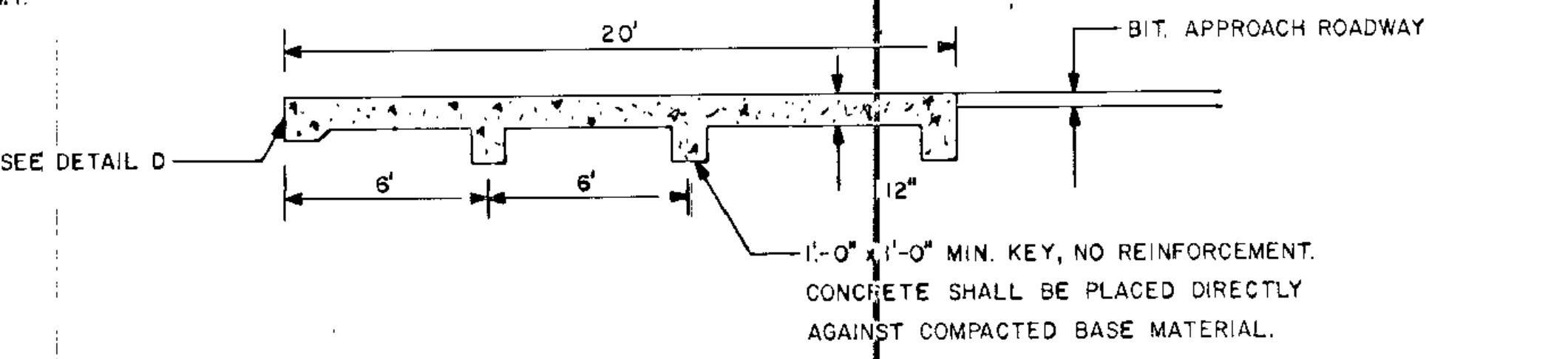
SCALE  
20'

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. <i>Boyd R. Paul</i> Date 8-22-89, Minn. Reg. No. 12666	BRW, Inc. 512-7-0 2100 Minneapolis, Minnesota	ORIGINAL DATE 4/13/89 REVISIONS 5/8/89 SHLD TAPER, 5/18/89 LOOP C HOV LANE	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> CONSTRUCTION DETAILS ENTRANCE NOSE-LOOP C EXIT NOSE-RAMP C
		DESIGN BY JRM DRAWN BY JS-S, LEB	
S.A.P. NO. 02-609-08		SHEET 104 OF 256	DESIGN FILE No. 16-8849

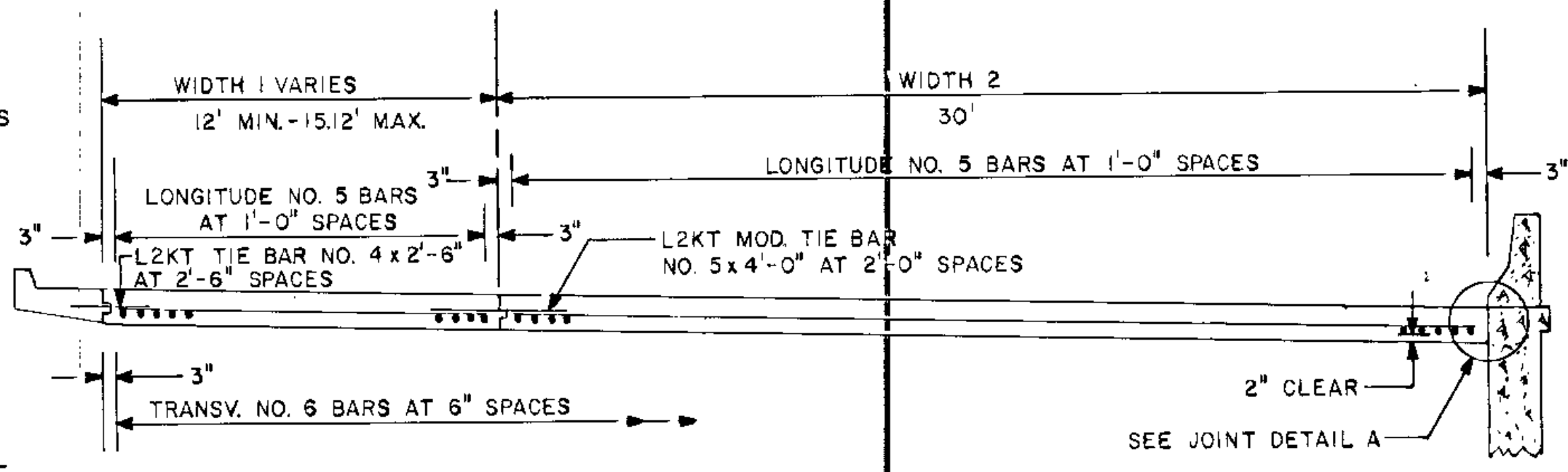
BRIDGE NO.	ABUTMENT SKEW	ROADWAY	ABUTMENT	WIDTH 1	WIDTH 2	PANEL SY
02522	0°-26'-11"	N.B. RLB	SOUTH	12'-0"	30'-0"	93
02522	0°-26'-11"	N.B. RLB	NORTH	12'-0"	30'-0"	93
02522	0°-26'-11"	S.B. RLB	SOUTH	15'-1 1/2" TO 13'-9 3/8"	30'-0"	99
02522	0°-26'-11"	S.B. RLB	NORTH	12'-0"	30'-0"	93



APPROACH PANEL LAYOUT

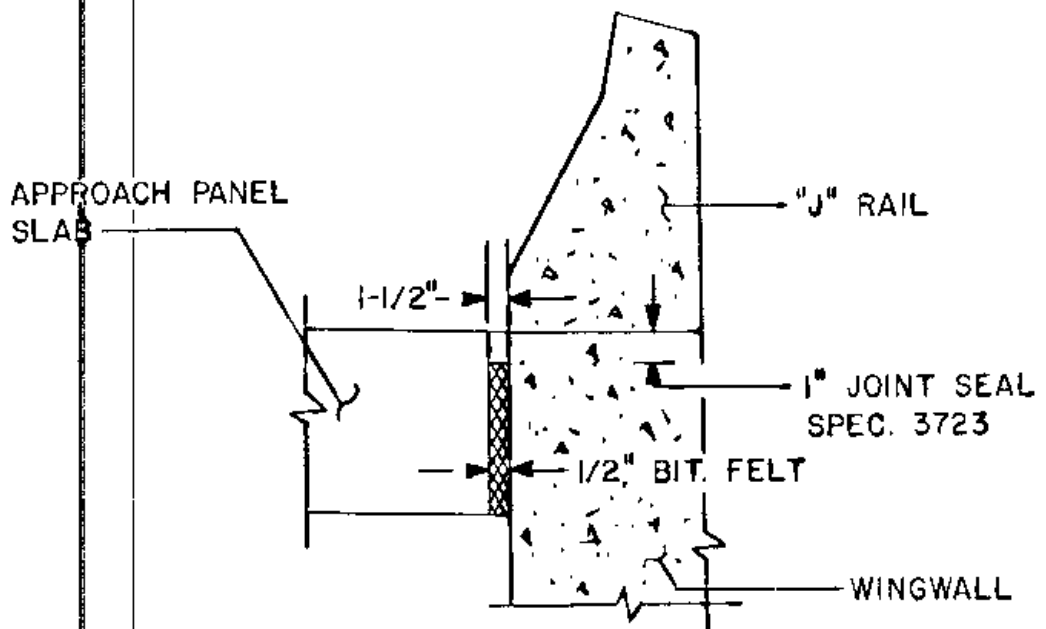


SECTION A-A

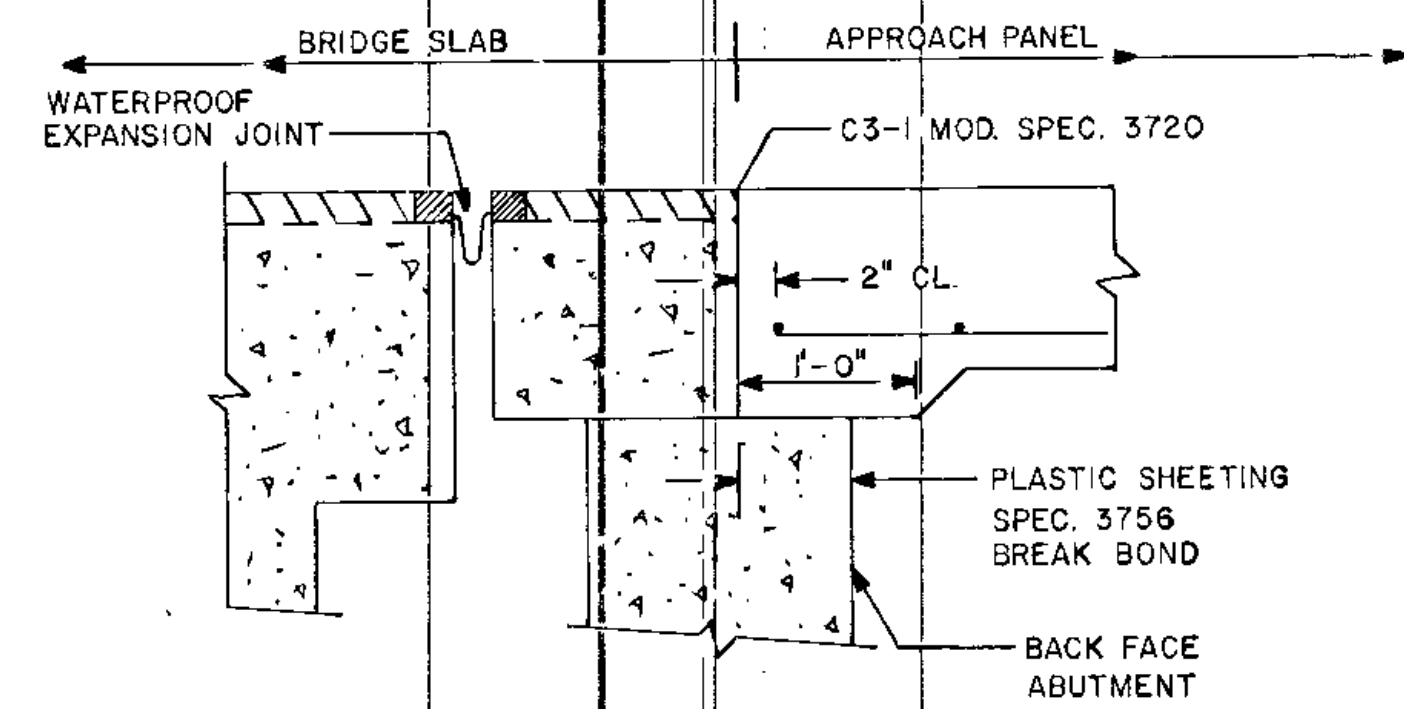


SECTION B-B

- NOTES:
- USE NO. 6 BARS AT 6" LONGITUDINAL AND NO. 5 BARS AT 1'-0" TRANSVERSE REINFORCEMENT. ALL BARS ARE TO BE EPOXY COATED.
  - ALL APPROACH PANEL DIMENSIONS ARE MEASURED ALONG C ALIGNMENT OR AT RIGHT ANGLES TO C REGARDLESS OF SKEW
  - EACH S.Y. OF BRIDGE APPROACH PANEL REQUIRES 364 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 326.46.

*Boyd R. Paulsen*

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

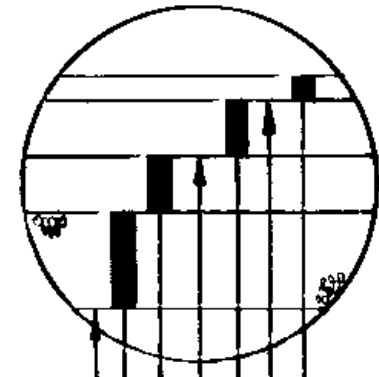
**BRW**

DESIGN BY: JRM  
DRAWN BY: LEB

SURVEY BK. NO.

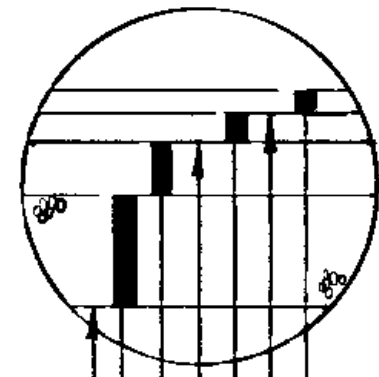
**CITY OF COON RAPIDS**  
IMPROVEMENT PROJECT 88-53  
BRIDGE APPROACH  
PANEL DETAILS

S.A.P. NO. 02-609+08 SHEET 105 OF 256



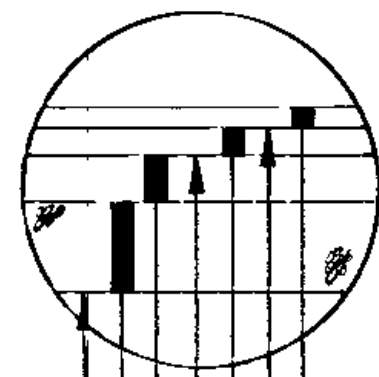
**DESIGN F-1 (ESAL 3.7)**  
 ROUND LAKE BLVD. NORTH OF BRIDGE 02552  
 T.H. 10/47 ACCEL. & DECEL. LANES

- 1" WEARING COURSE MIXTURE - SPEC. 2361 MODIFIED
- TACK COAT - SPEC. 2357
- 3" BINDER COURSE MIXTURE - SPEC. 2341 MODIFIED
- TACK COAT - SPEC. 2357
- 3" BASE COURSE MIXTURE - SPEC. 2331 MODIFIED
- 8" AGGREGATE BASE CLASS 6 - SPEC. 2211
- GRADING GRADE



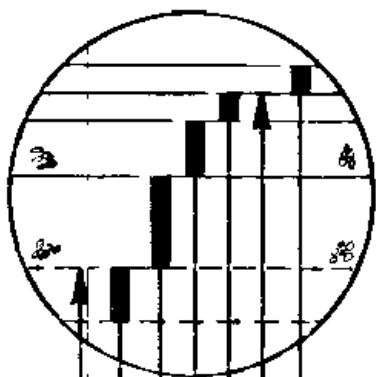
**DESIGN F-2 (ESAL 1.7)**  
 ROUND LAKE BLVD. SOUTH OF BRIDGE 02552  
 RAMP A, RAMP B  
 RAMP C, RAMP D  
 NB/SB ROUND LAKE BLVD. TEMPORARY CONNECTION

- 2" WEARING COURSE MIXTURE - SPEC. 2361 MODIFIED
- TACK COAT - SPEC. 2357
- 1 1/2" BINDER COURSE MIXTURE - SPEC. 2341 MODIFIED
- TACK COAT - SPEC. 2357
- 3 1/2" BASE COURSE MIXTURE - SPEC. 2331 MODIFIED
- 6" AGGREGATE BASE CLASS 6 - SPEC. 2211
- GRADING GRADE



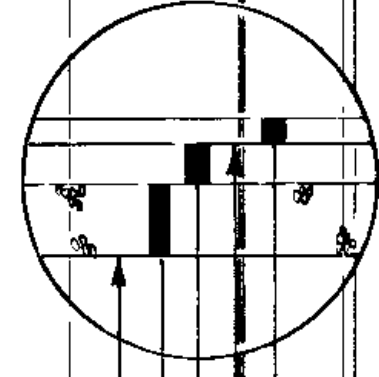
**DESIGN F-3 (ESAL 0.72)**  
 LOOP B  
 LOOP C

- 1" WEARING COURSE MIXTURE - SPEC. 2361 MODIFIED
- TACK COAT - SPEC. 2357
- 1 1/2" BINDER COURSE MIXTURE - SPEC. 2331 MODIFIED
- TACK COAT - SPEC. 2357
- 2 1/2" BASE COURSE MIXTURE - SPEC. 2331 MODIFIED
- 5" AGGREGATE BASE CLASS 6 - SPEC. 2211
- GRADING GRADE



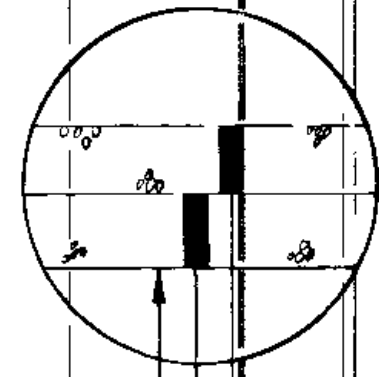
**DESIGN F-4**  
 T.H. 10/47 SHOULDER MODIFIED

- 1 1/2" SHOULDER MIXTURE - SPEC. 2331 MODIFIED
- TACK COAT
- 1 1/2" BASE COURSE MIXTURE - SPEC. 2331 MODIFIED
- 3" AGGREGATE SHOULDERING CLASS 5 - SPEC. 2221
- VAR. DEPTH AGGREGATE SHOULDERING CLASS 3 - SPEC. 2221
- BITUMINOUS STABILIZED SUBGRADE 3" THICK - INPLACE
- GRADING GRADE



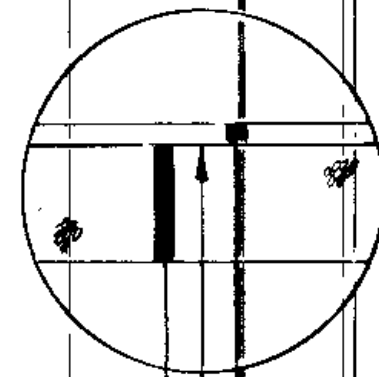
**DESIGN F-5 (ESAL 0.15)**  
 S.W. FRONTAGE ROAD

- 1 1/2" WEARING COURSE MIXTURE - SPEC. 2341 MODIFIED
- TACK COAT - SPEC. 2357
- 2" BASE COURSE MIXTURE - SPEC. 2331 MODIFIED
- 4" AGGREGATE BASE CLASS 5 - SPEC. 2211
- GRADING GRADE



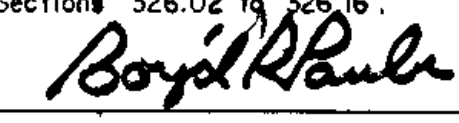

**DESIGN F-6**  
 S.W. FRONTAGE ROAD SHOULDER

- 2 1/4" MIN. - 3 1/2" AGGREGATE SHOULDERING CLASS 1 - SPEC. 2221
- 4" AGGREGATE BASE CLASS 5 - SPEC. 2211
- GRADING GRADE



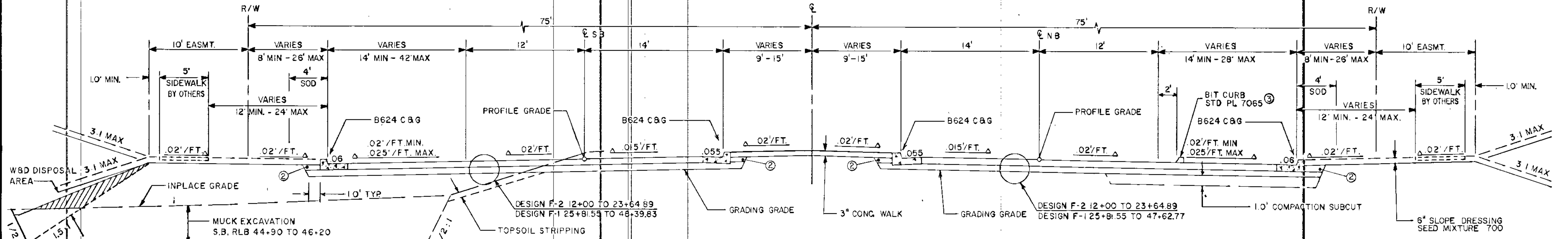
**DESIGN F-7**  
 NB/SB ROUND LAKE BLVD. TEMPORARY CONNECTION

- 1" WEARING COURSE MIXTURE - SPEC. 2361 MODIFIED
- TACK COAT - SPEC. 2357
- INPLACE 6 1/2" BITUMINOUS PAVEMENT

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 8-22-88 Minn. Reg. No. 12666.	 BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THUNDERBOLT SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 338-6700	ORIGINAL DATE: 4/27/83 REVISIONS: _____ _____ _____ _____	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> TYPICAL SECTIONS DESIGN INSETS
		DESIGN BY: J.M. DRAWN BY: J.S.S.	
S.A.P. NO. 02-609-08		SHEET 106 OF 256	DESIGN FILE No. 16-B&D

**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**

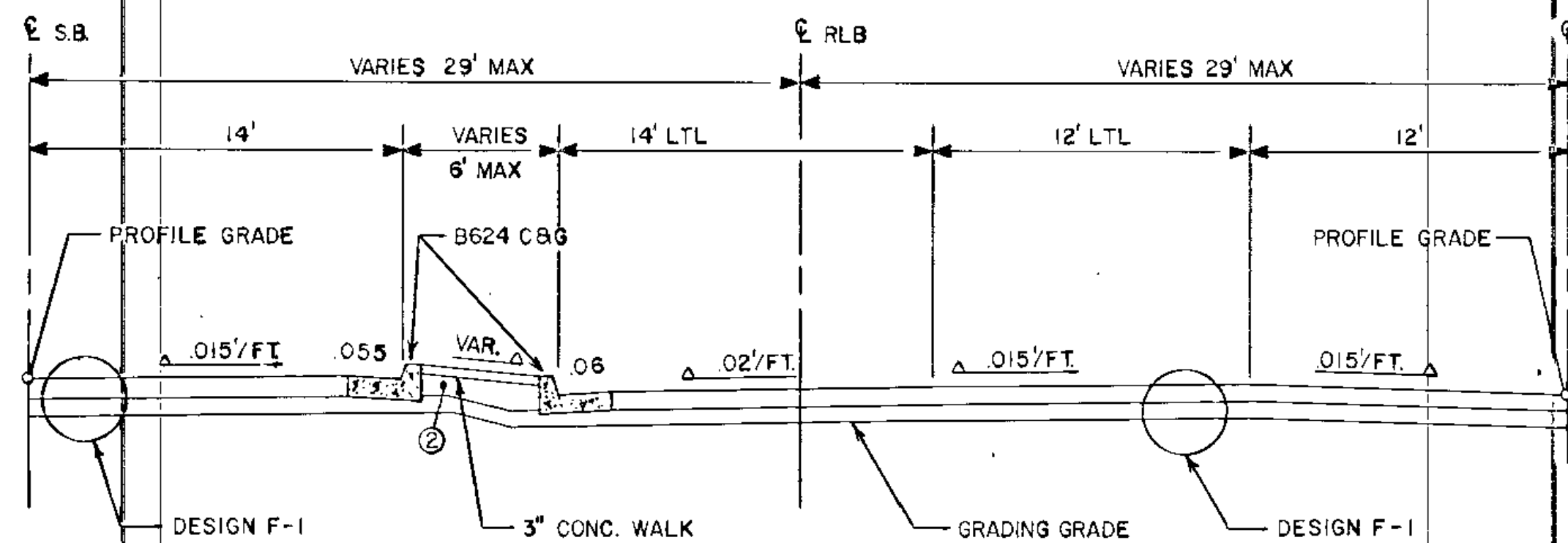
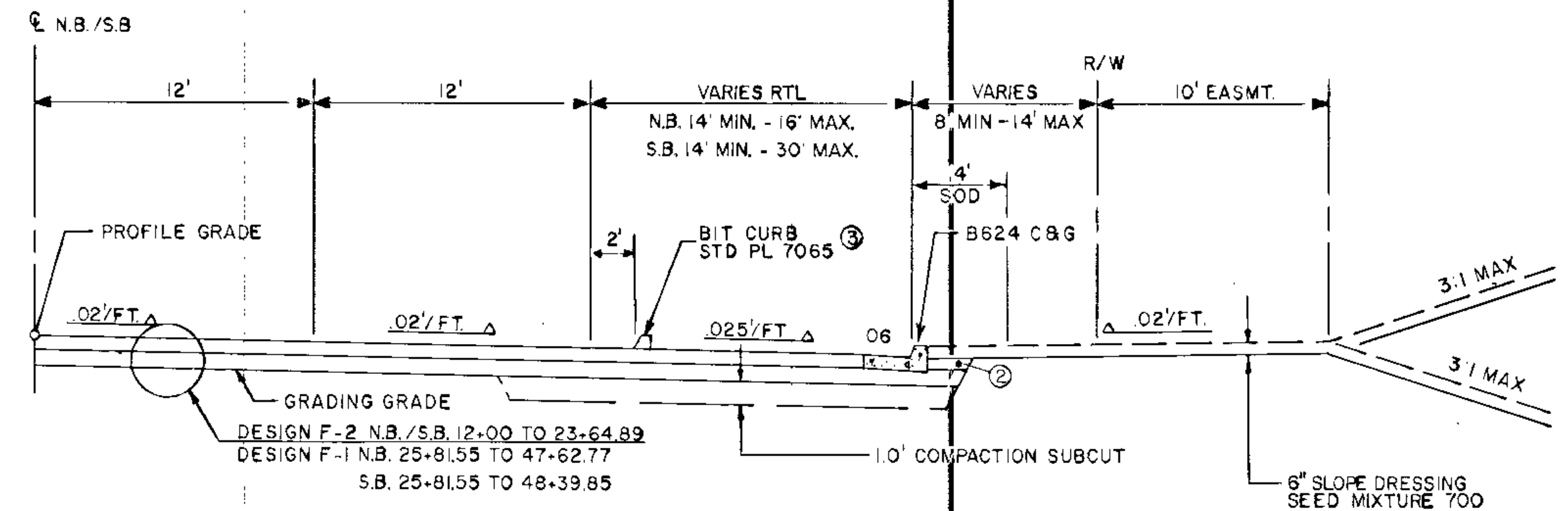
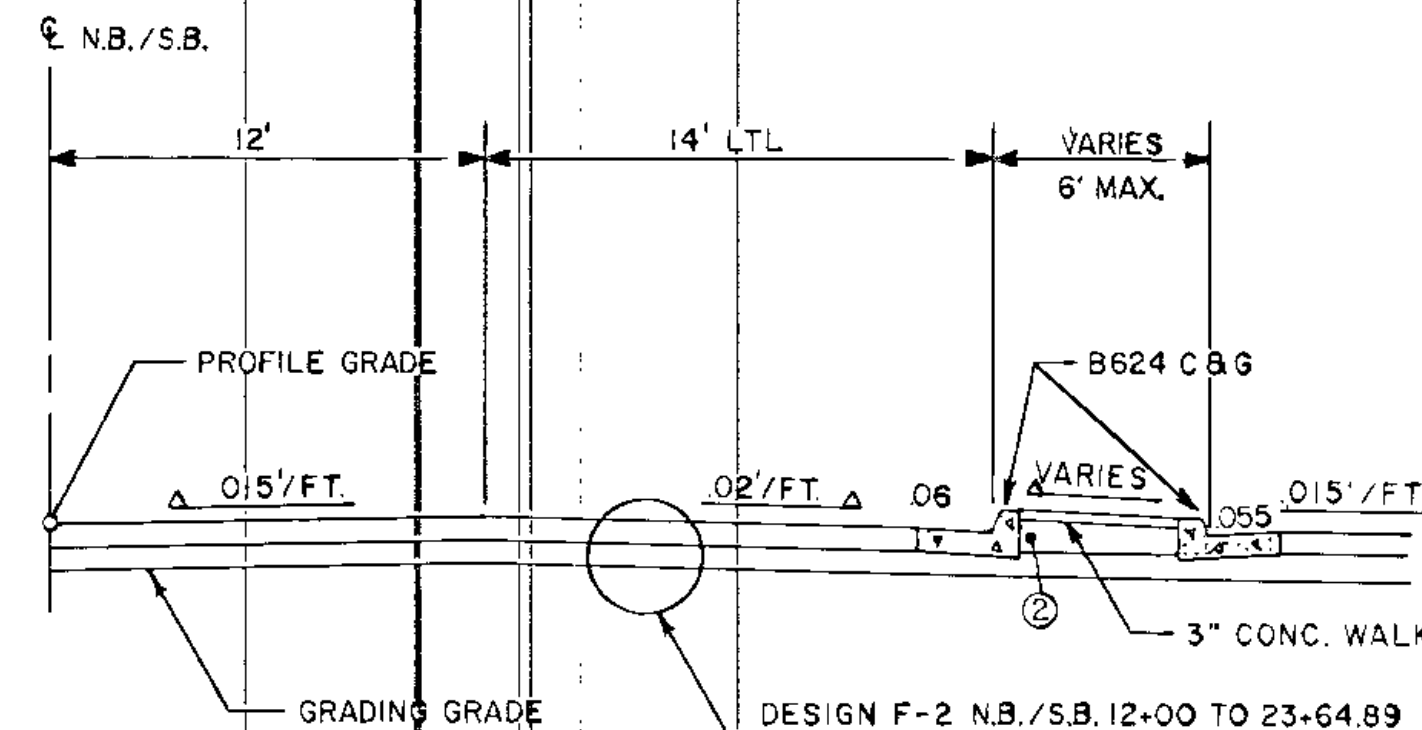
STA. N.B. 12+0000 TO 12+44.22  
STA. N.B. 39+0403 TO 42+89.60  
STA. S.B. 13+4353 TO 16+42.23  
STA. S.B. 19+3407 TO 22+32.00  
STA. S.B. 36+78.66 TO 39+79.80  
STA. S.B. 44+2960 TO 47+20.11

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

STA. N.B. 15+4595 TO 18+20.06  
STA. N.B. 19+0207 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+0005 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.

*Boyd Paulin*

Date 8-22-89 Minn. Reg. No. 22668.



DESIGN BY JRM  
DRAWN BY LEB

ORIGINAL DATE 4/28/89  
REVISIONS:

SURVEY BK. NO.

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

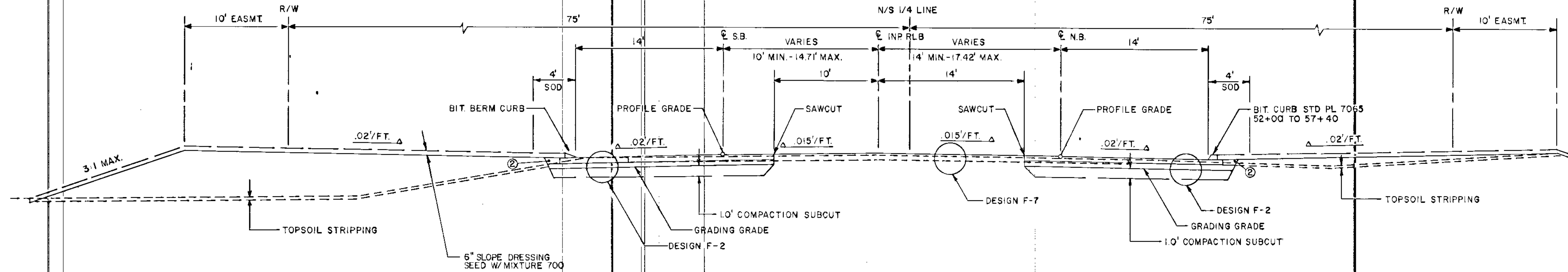
S.A.P. NO. 02-609-08

SHEET 107 OF 256

DESIGN FILE  
No. 16-8840

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

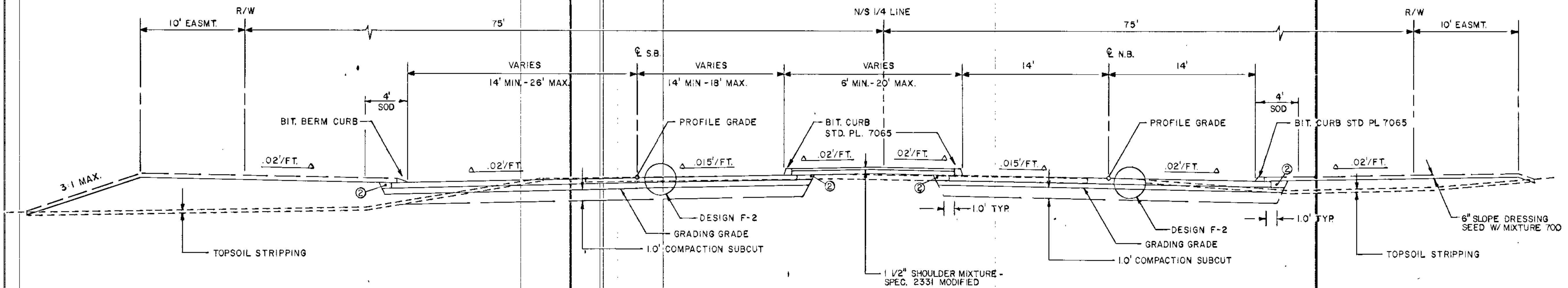
NOTES

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 8-22-88 Minn. Reg. No. J2668

**BRW**

DESIGN BY JRM  
DRAWN BY LEB

ORIGINAL DATE: 6/13/83  
REVISIONS: \_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

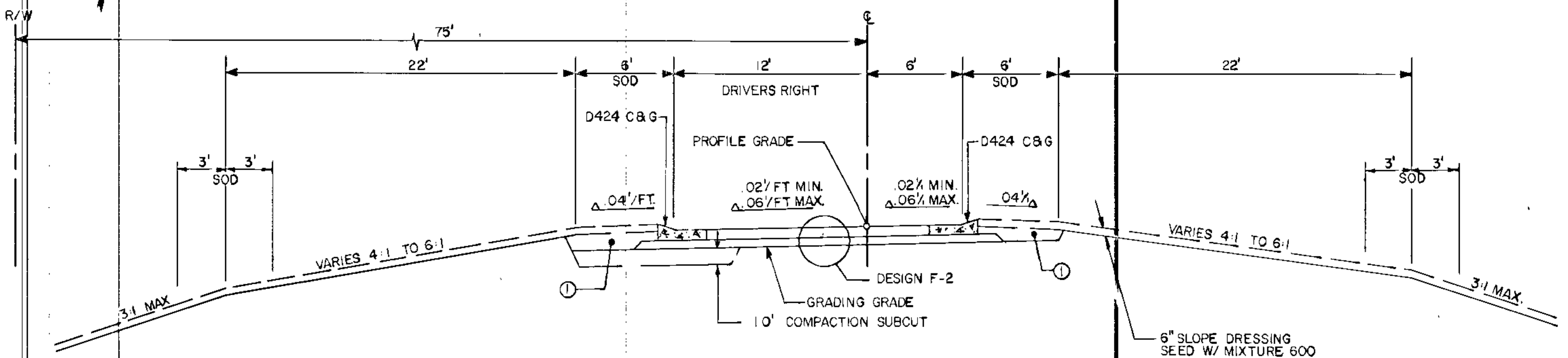
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
TYPICAL SECTIONS  
ROUND LAKE BLVD. (C.S.A.H. 9)  
TEMPORARY CONNECTION

S.A.P. NO. 02-509-08

SHEET 108 OF 256

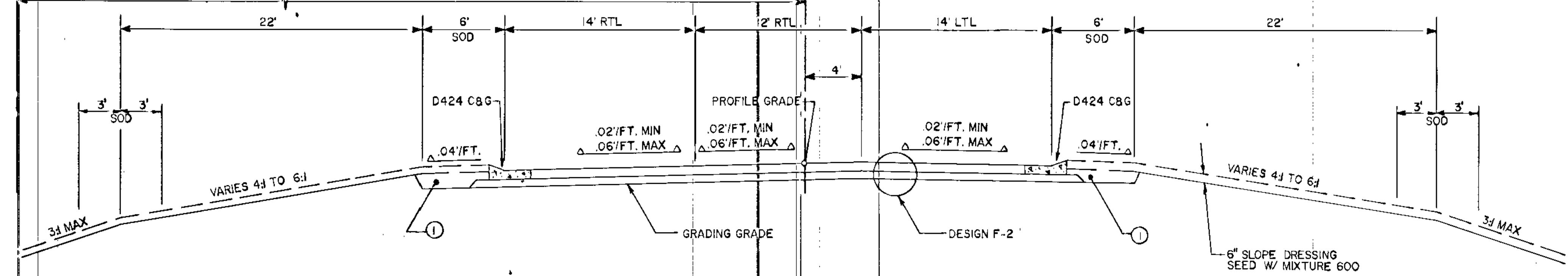
DESIGN FILE No. 16-8840

**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



**NOTES**

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

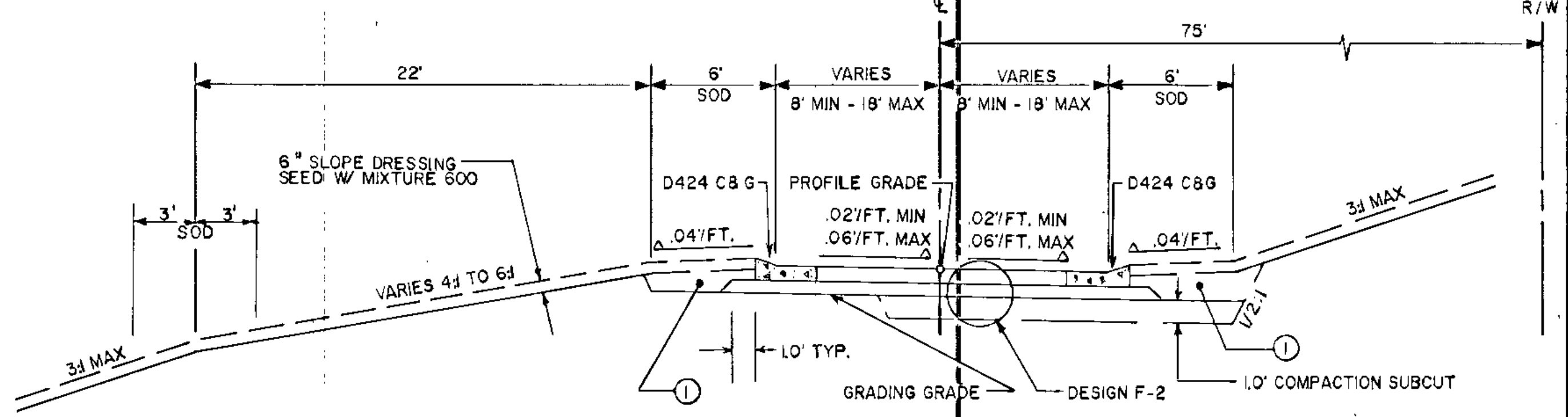
UNLESS OTHERWISE SPECIFIED, D424 C&G WILL MATCH THE SLOPE OF THE ADJACENT PAVEMENT.

SEE PROFILES FOR LONGITUDINAL SUBCUT TAPERS.

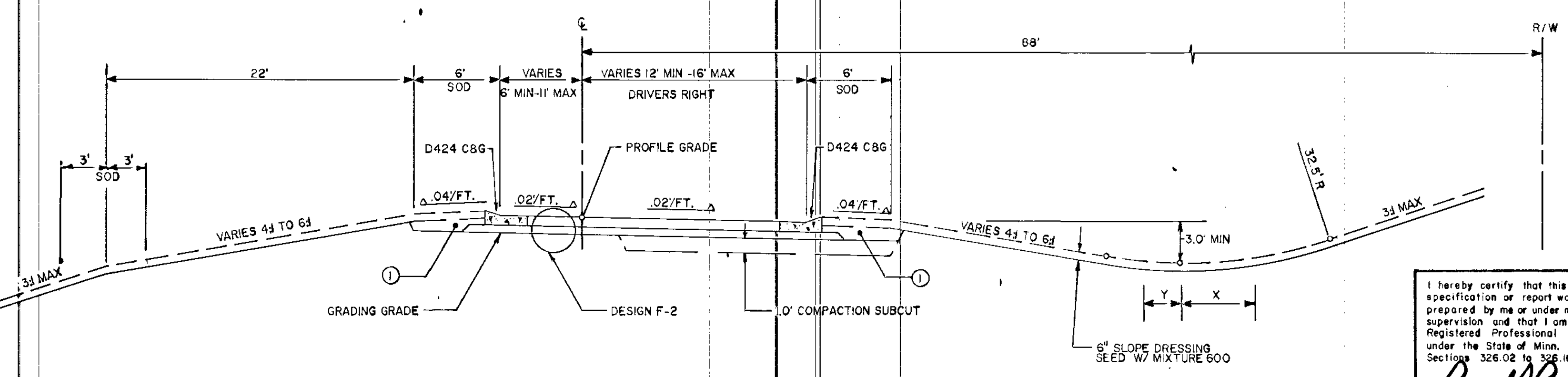
① VARIABLE DEPTH AGGREGATE SHOULDERING - CLASS 3 - SPEC. 2221.

**RAMP B**  
STA. 220+81.42 TO 224+90.31

**RAMP C**  
STA. 196+07.83 TO 207+03.28



**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. 2666.

**BRW**

BRW, INC.  
412 216 0708  
Minneapolis, Minnesota

DESIGN BY: JEM  
DRAWN BY: LEB

ORIGINAL DATE: 8-2-89  
REVISIONS:

SURVEY BK. NO.

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

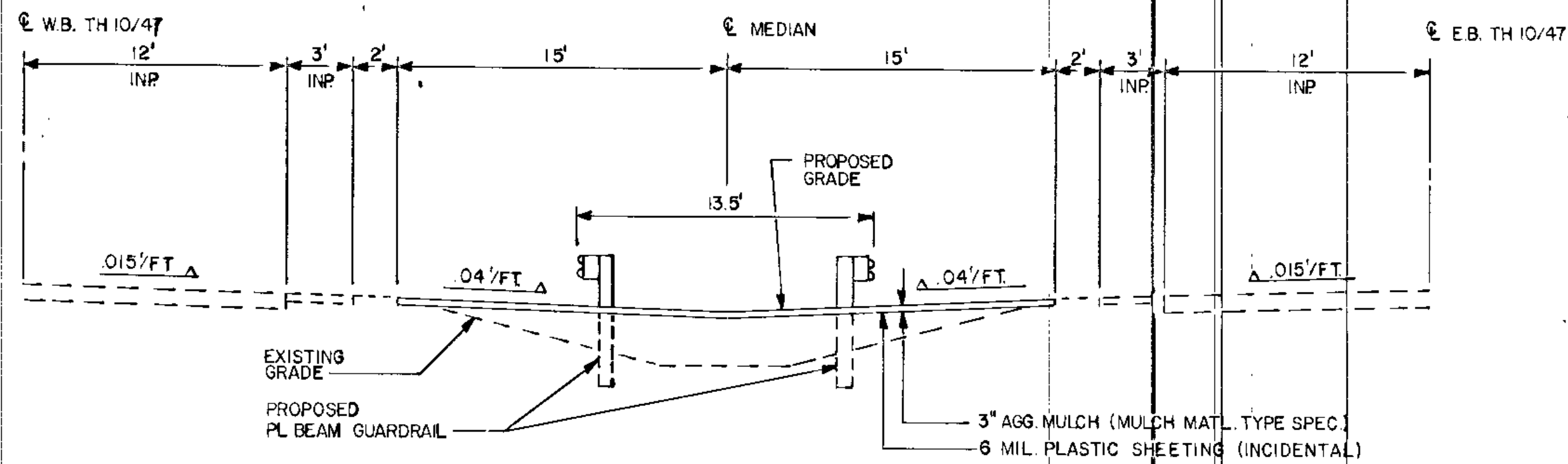
DESIGN FILE No. 16-8842

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

SHEET 109 OF 256

**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

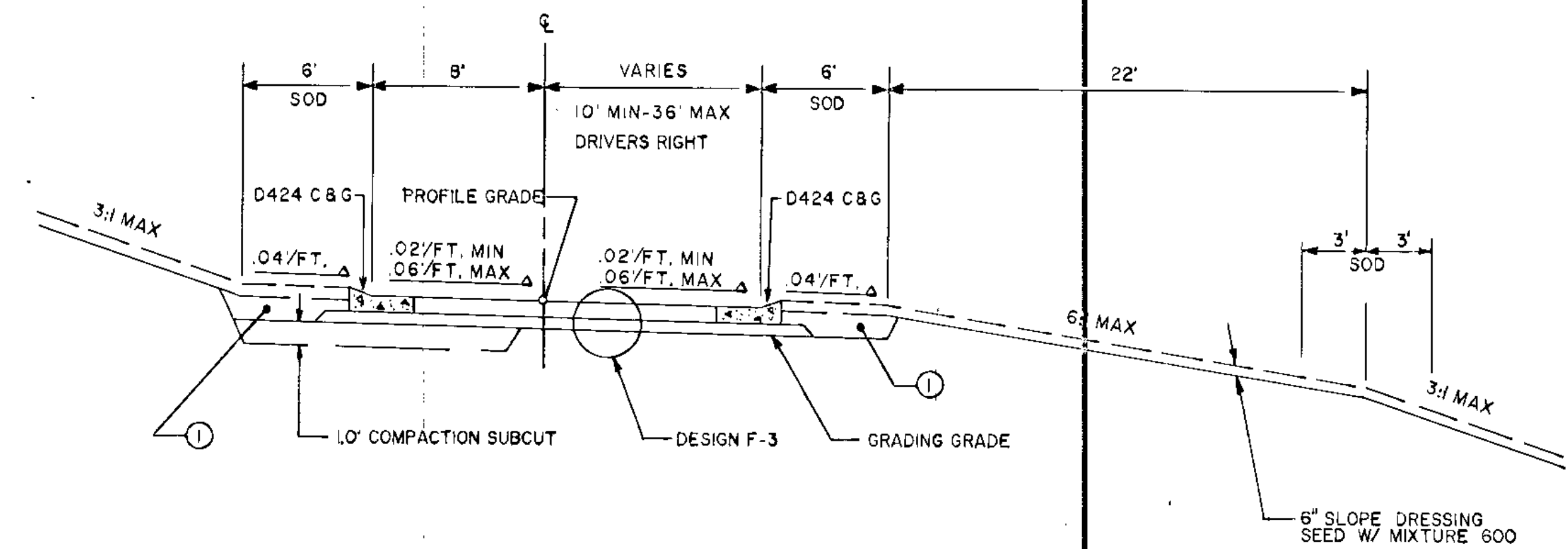


**LOOP B**

213+55.32 TO 224+57.19

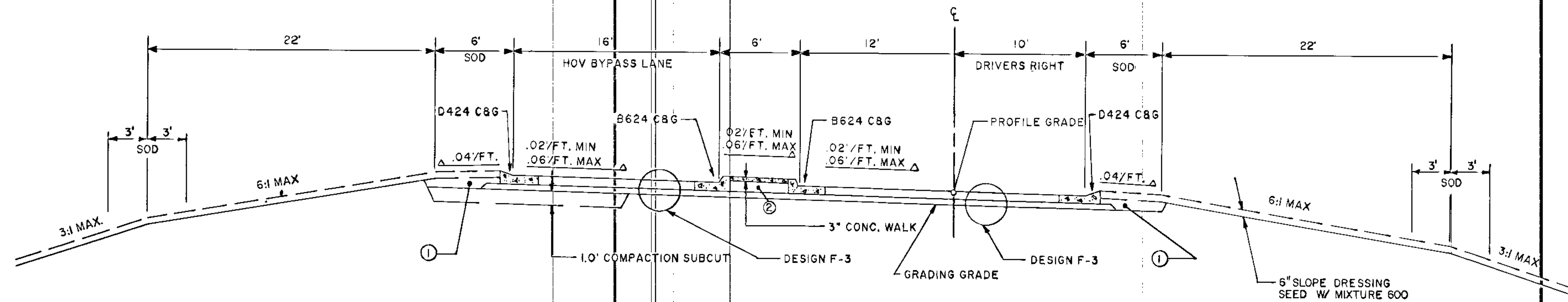
**LOOP C**

198+54.84 TO 199+79.84  
 207+92.18 TO 209+33.50



**LOOP C**

201+23.84 TO 205+86.07



**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 2-22-89 Minn. Reg. No. 2666



ORIGINAL DATE: 5/2/89
REVISIONS:
SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
**TYPICAL SECTIONS**  
 LOOP B & C  
 TH 10/47 MEDIAN TREATMENT

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

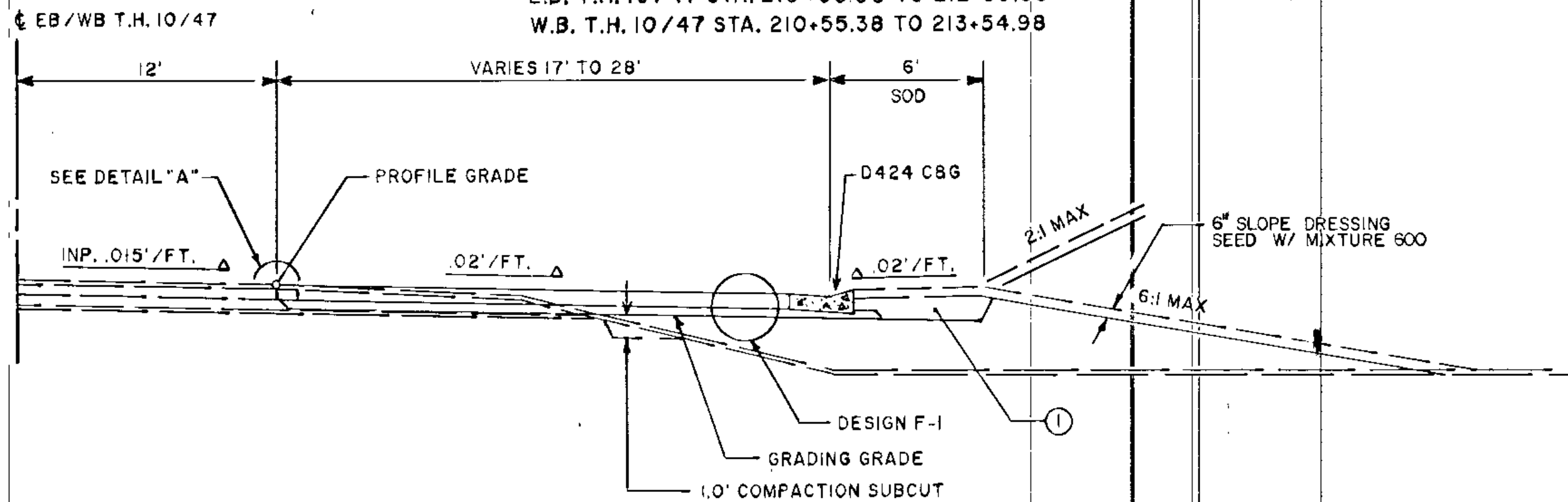
SHEET 110 OF 256

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

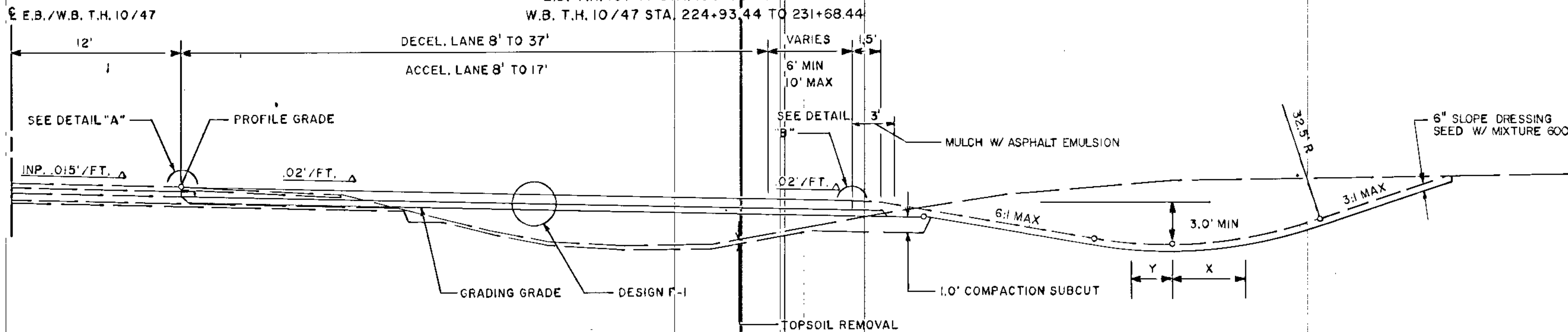


**ACCELERATION LANE**

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

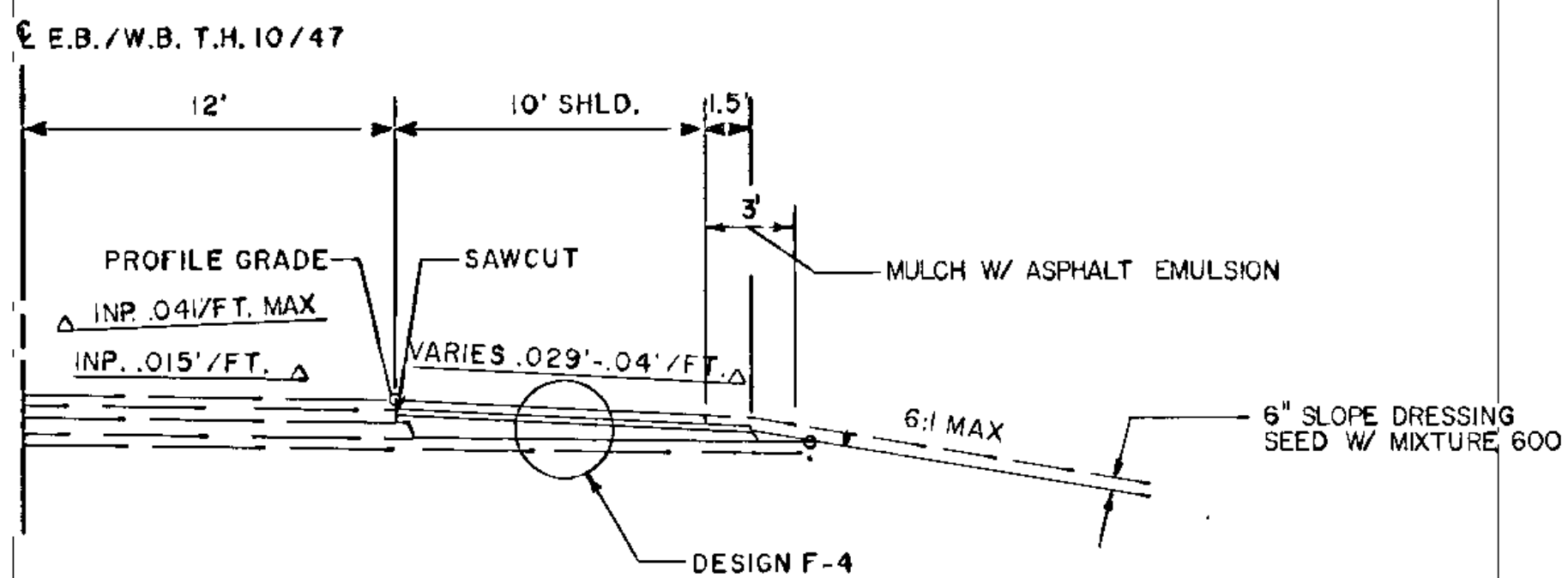
**DECELERATION LANE**

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



**T.H. 10/47 BITUMINOUS SHOULDER**

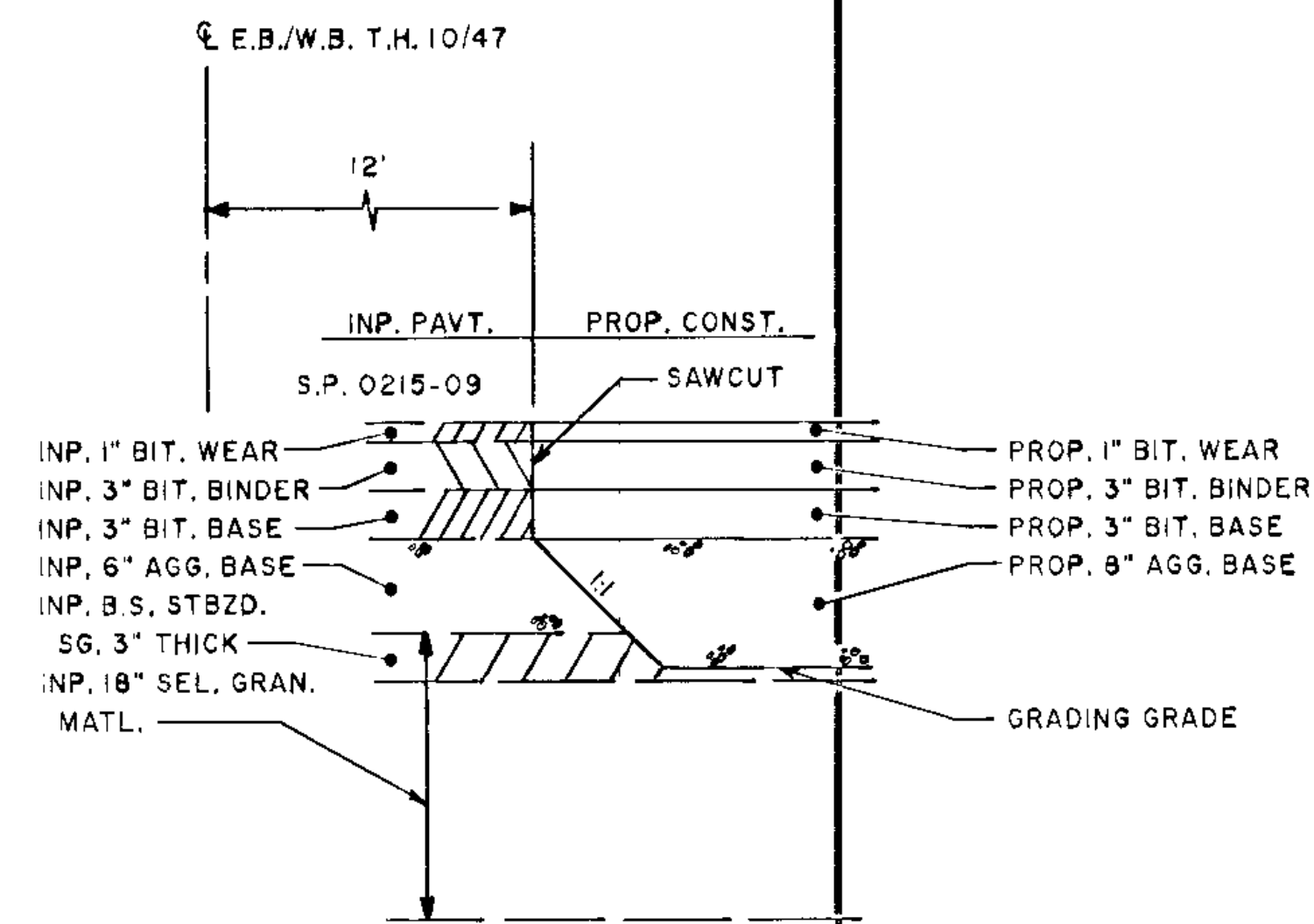
E.B. T.H. 10/47 STA. 197+18 TO 203+70  
W.B. T.H. 10/47 STA. 219+55 TO 223+93



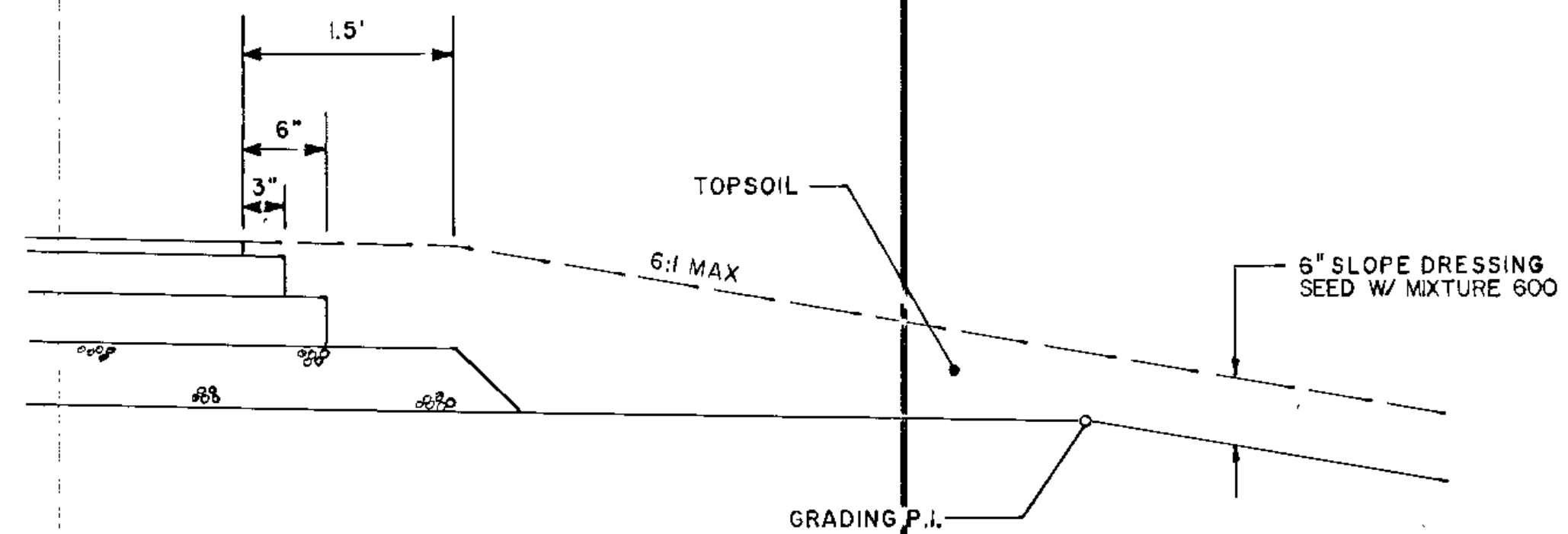
**NOTES**

- 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.

**DETAIL "A"**



**DETAIL "B"**



I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Section 326.02 to 326.16.  
*Boyd Bank*  
Date 8-22-89 Minn. Reg. No. J2666

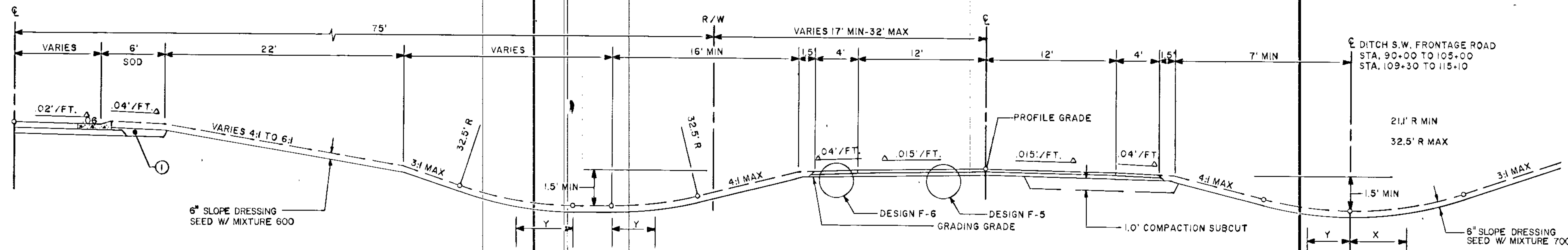
**BRW**  
BRW, INC.  
112 378 0708  
MINNEAPOLIS, MINNESOTA  
DESIGN BY JRM  
DRAWN BY LEB

ORIGINAL DATE 5/2/89  
REVISIONS  
SURVEY BK. NO.  
S.A.P. NO. 02-609-08

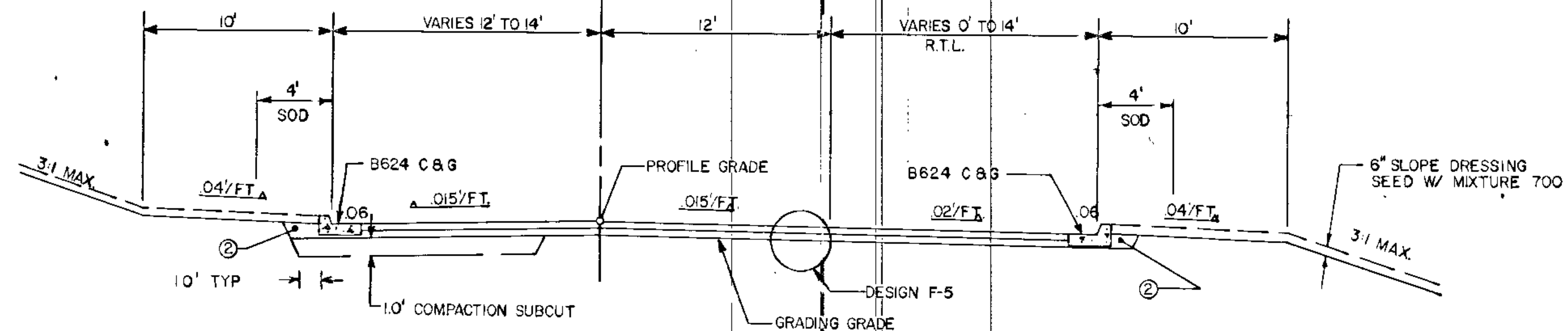
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
TYPICAL SECTIONS  
ACCELERATION & DECELERATION  
LANES, T.H. 10/47 BITUMINOUS  
SHOULDER, DETAILS A & B  
SHEET III OF 256  
DESIGN FILE  
No. 16-884D

**RAMP C**  
STA. 196+83 TO 209+00

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

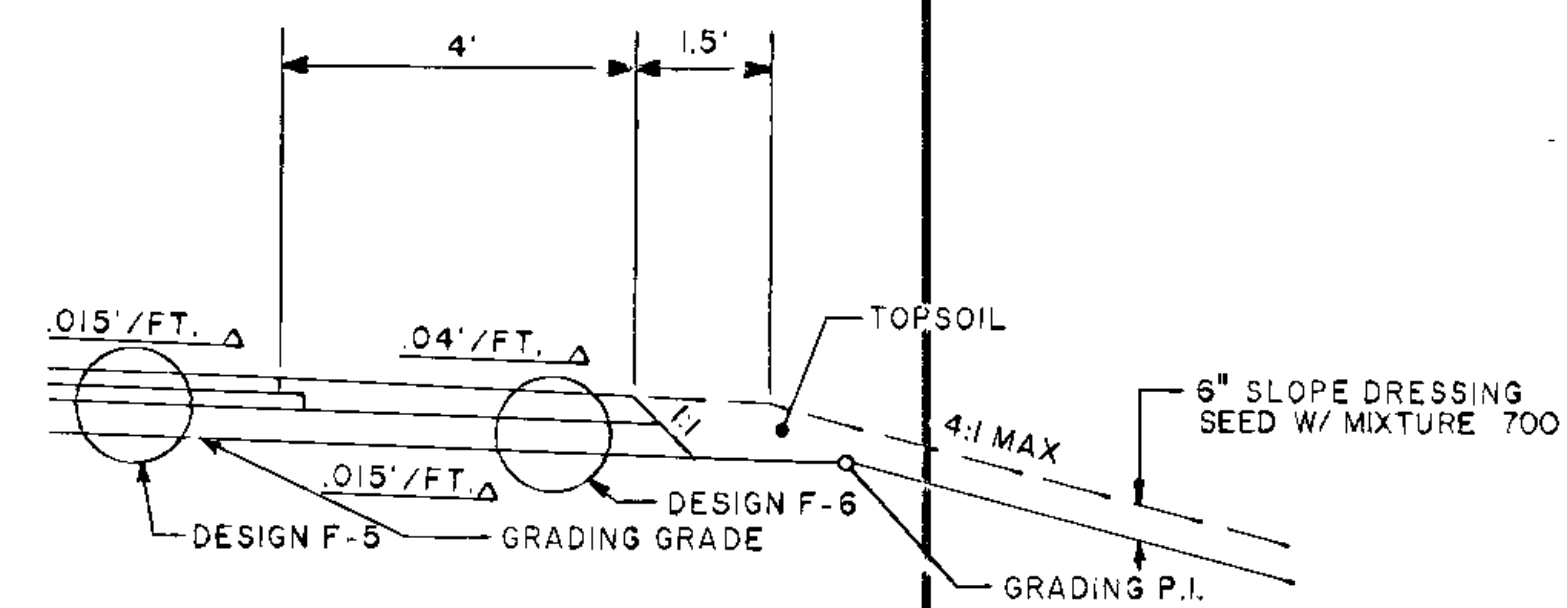


**S.W. FRONTAGE ROAD**  
STA. 115+14 TO 117+11.6

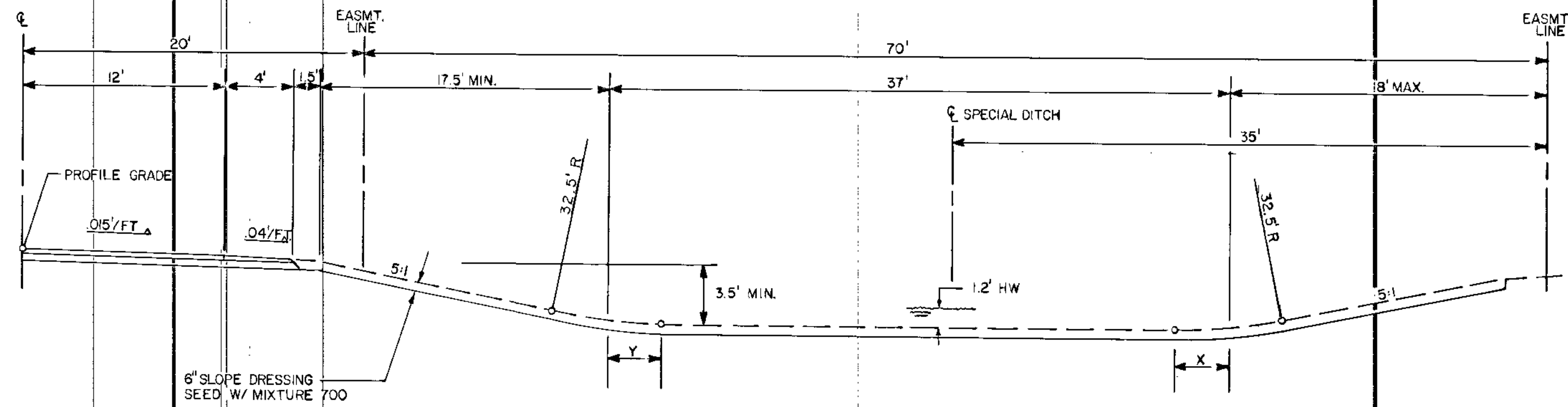


**SHOULDER DETAIL**

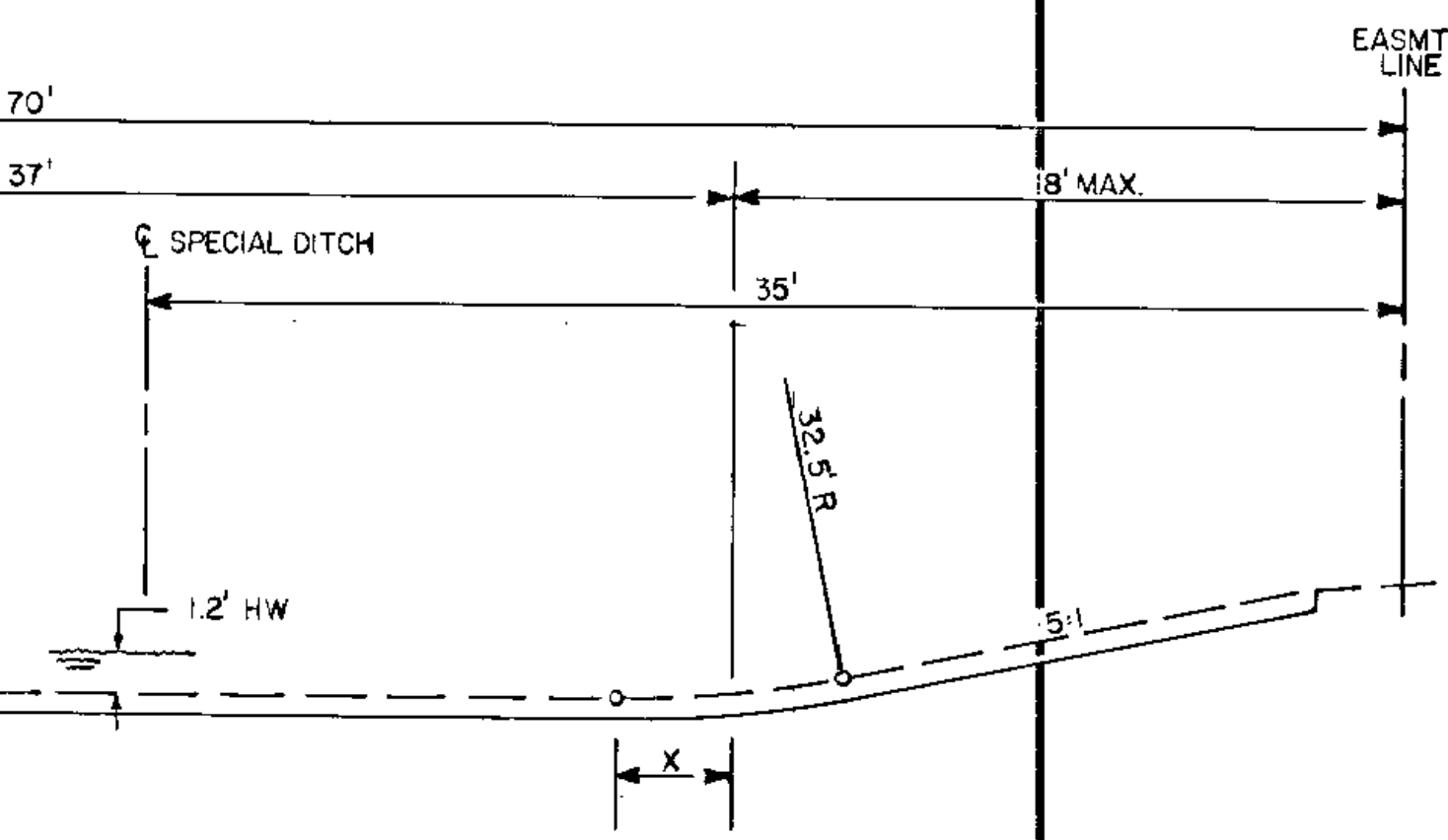
S.W. FR. RD. STA. 90+00 TO 115+14



**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 Hauke*

Date 8-22-83 Minn. Reg. No. 12686

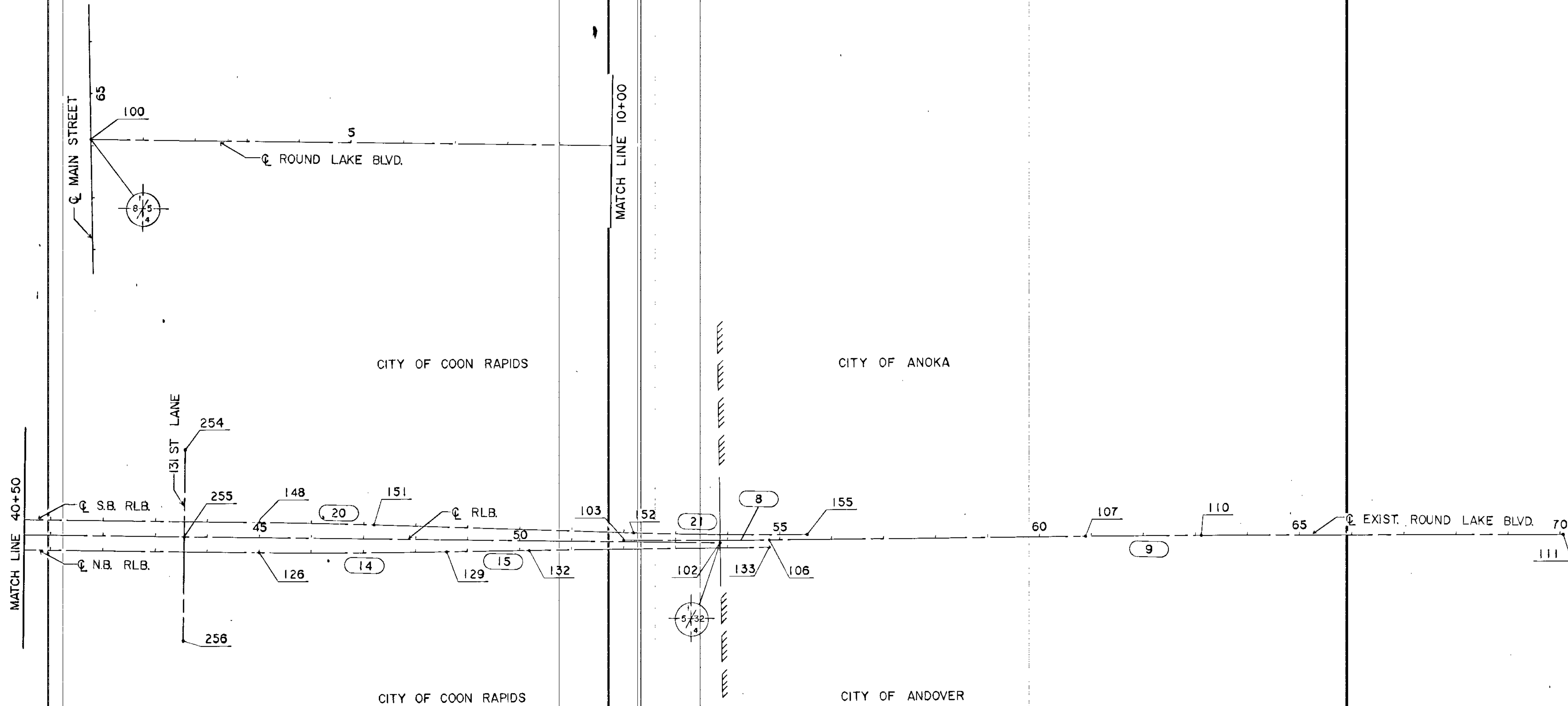
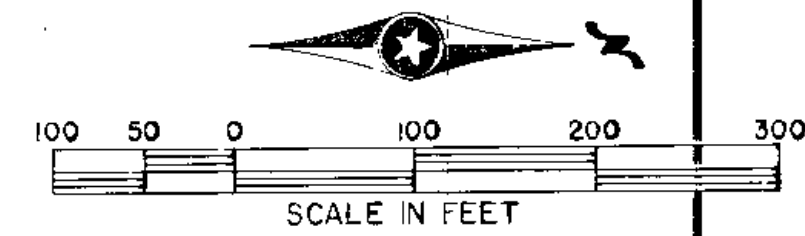
**BRW**

DESIGN BY: JRM  
DRAWN BY: LEB

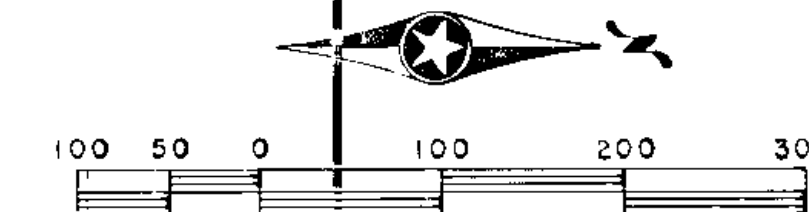
ORIGINAL DATE: 5-3-89
REVISIONS:
SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

TYPICAL SECTIONS  
S.W. FRONTAGE ROAD



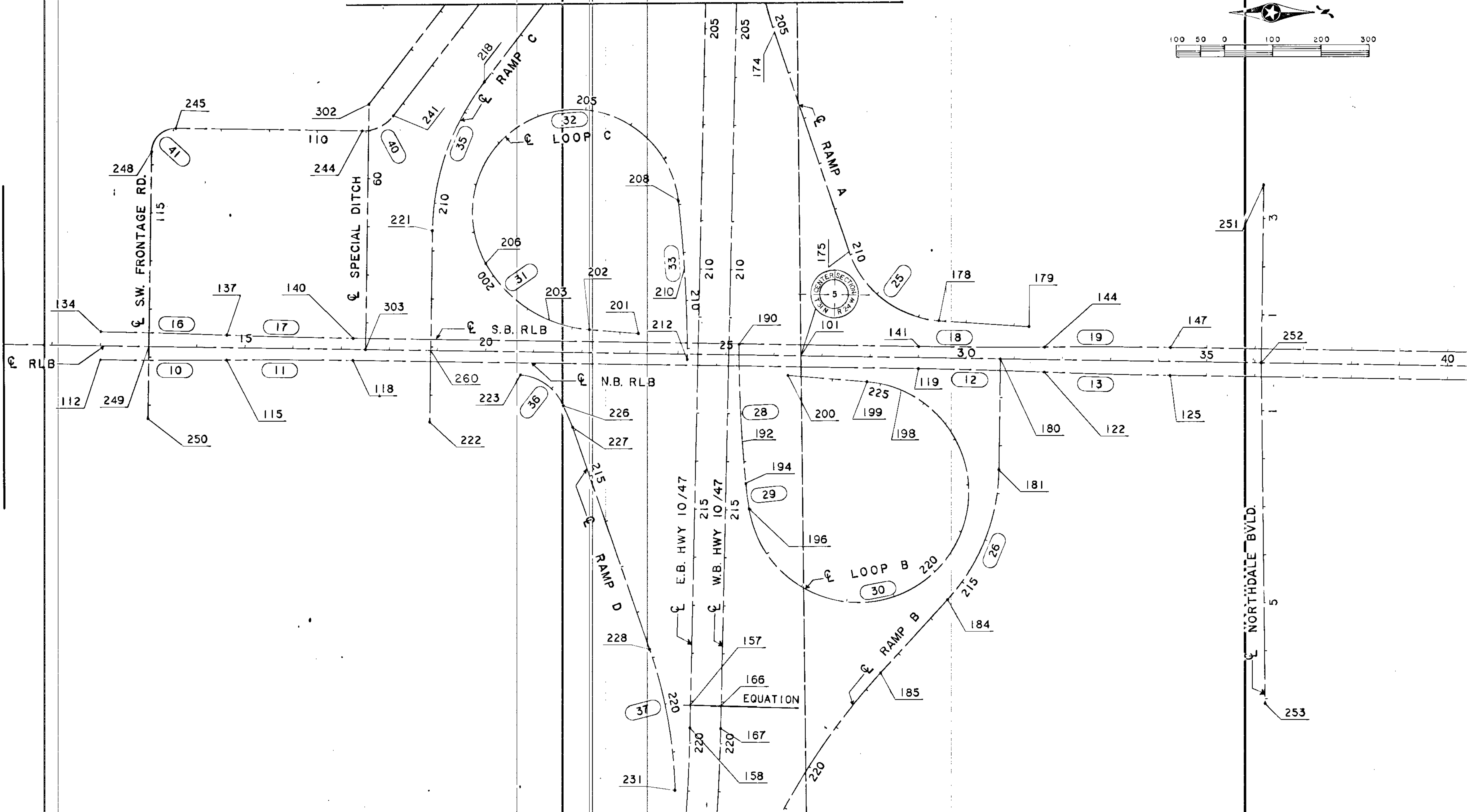
MATCH LINE 204+50



MATCH LINE 10+00

MATCH LINE 40+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 Sections 326.02 to 326.16.  
*Boyd Paulsen*  
Date 8-22-88 Minn. Reg. No. 12666.

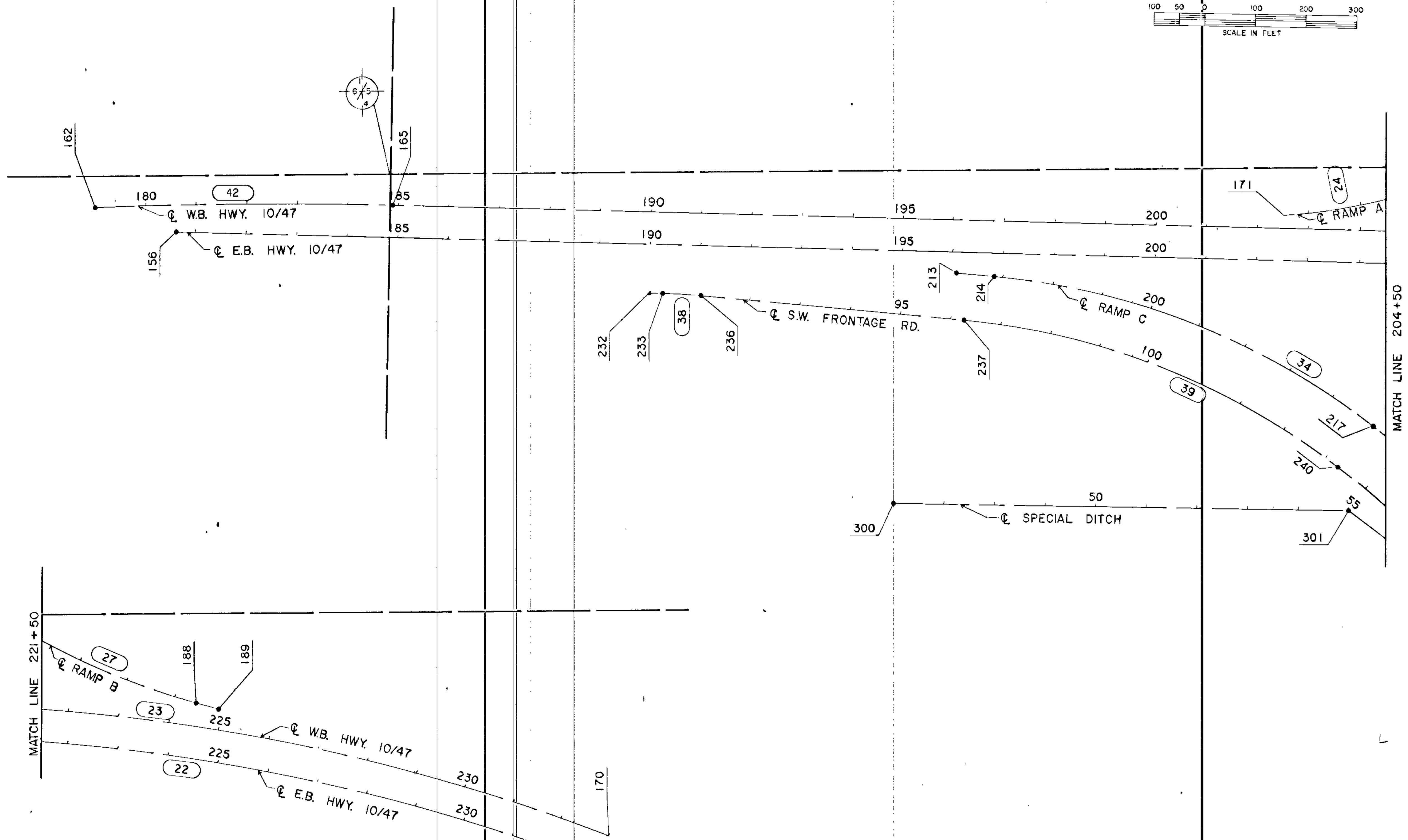
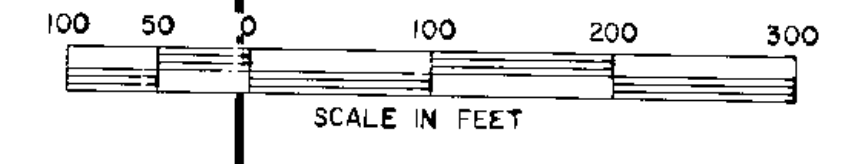
<b>BRW</b>	ORIGINAL DATE: 6-16-88
BRW, INC. 212 3rd St. N. Minneapolis, Minnesota	REVISIONS:
DESIGN BY: JRM	SURVEY BK. NO.
DRAWN BY: CTM	

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

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

SHEET 114 OF 256

DESIGN FILE No. 6-8840



MATCH LINE 221+50

MATCH LINE 204+50

<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>Date 8-22-88 Minn. Reg. No. 12656.</p>	<p>BRW S.W., INC. 612 370 0700 Minneapolis, Minnesota</p>	<p>ORIGINAL DATE: 6-16-89</p> <p>REVISIONS:</p>	<p><b>CITY OF COON RAPIDS</b>  <b>IMPROVEMENT PROJECT 88-53</b>          ALIGNMENT PLAN          WB HWY. 10 47 179+00 - 204+50          WB HWY. 10 47 221+50 - 233+00</p>
		<p>DESIGN BY: JBM</p> <p>DRAWN BY: CTN</p>	
<p>S.A.P. NO. 02-609-08</p>		<p>SHEET 115 OF 256</p>	

DESIGN FILE No. 16-BB40.

CURVE NO.	POINT NO.	POINT TYPE	STATION	CURVE DATA					COORDINATES		AZIMUTH
				Δ	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+69.57					345.189	6254.009	13736.114	
	303	P.I.	63+55.345 = CL RLB 17+50.00					510.156	6764.083	13728.989	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	18217.738	
	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	6784.278	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						6823.038	15401.200	
	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+60.25						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	17456.124	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: 8-22-89, Minn. Reg. No. 2666



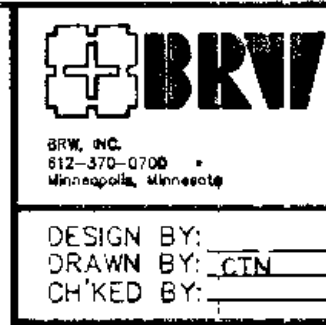
ORIGINAL DATE: 6-21-89  
REVISIONS:  
DESIGN BY:  
DRAWN BY: CTN  
CHECKED BY:  
SURVEY BOOK:

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

CURVE NO.	POINT NO.	POINT TYPE	STATION	CURVE DATA					COORDINATES		AZIMUTH	
				A	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							6725.250	13177.596	01°01'29.5"
	135	P.I.	13+31.114	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217		6727.595	13308.689	
16	136	R.P.								18182.573	12972.632	
	137	P.R.C.	14+62.217 = A PT 26.00 LT RLB 14+62.19							6732.940	13439.695	02°20'09.5"
	138	P.I.	15+93.331	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217		6738.284	13570.700	
17	139	R.P.								-4716.694	13906.757	
	140	P.T.	17+24.434 = A PT 23.00 LT RLB 17+24.39 = EQUATION							6740.629	13701.794	01°01'29.5"
	140	P.O.T.	17+24.39 = A PT 23.00 LT RLB 17+24.39									
	141	P.C.	29+00.610 = A PT 23.00 LT RLB 29+00.61					1176.22		6761.667	14877.828	01°01'29.5"
	142	P.I.	30+31.724	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217		6764.012	15008.921	
18	143	R.P.								-4695.656	15082.791	
	144	P.R.C.	31+62.827 = A PT 26.00 LT RLB 31+62.80							6763.357	15140.034	359°42'49.6"
	145	P.I.	32+93.941	01°18'39.9"	00°30'00.0"	11459.156	131.114	262.217		6762.702	15271.147	
19	146	R.P.								18222.370	15197.276	
	147	P.T.	34+25.044 = A PT 29.00 LT RLB 34+25.00 = EQUATION							6765.048	15402.240	01°01'29.5"
	147	P.O.T.	34+25.000 = A PT 29.00 LT RLB 34+25.00									
	148	P.C.	45+00.000 = A PT 29.00 LT RLB 45+00.00					1075.000		6784.276	16477.068	01°01'29.5"
	149	P.I.	46+09.920	01°05'57.0"	00°30'00.0"	11459.156	109.920	219.833		6786.242	16586.971	
20	150	R.P.								18241.601	16272.104	
	151	P.T.	47+19.833 = A PT 26.89 LT RLB 47+19.82							6790.316	16696.815	02°07'28.5"
	152	P.C.	52+18.855 = A PT 17.32 LT RLB 52+18.75					499.022		6808.811	17195.494	02°07'28.5"
	153	P.I.	53+85.854	02°30'18.7"	00°45'00.6"	7637.624	167.000	333.946		6815.000	17362.379	
21	154	R.P.								-823.566	17478.564	
	155	P.T.	55+52.801 = A PT 10.00 LT EXIST RLB 55+53.28							6813.889	17529.375	359°37'07.8"
EAST BOUND HWY. 10/47												
	156	P.O.T.	180+61.900					3846.210		3661.747	14497.745	
	157	P.O.T.	219+08.110 = 219+22.11 EB EQUATION							7506.706	14399.654	91°27'41.0"
	158	P.C.	219+68.839					46.729		7553.421	14398.462	91°27'41.0"
	159	P.I.	226+29.952	19°38'19.8"	01°30'00.0"	3819.720	661.113	1309.255		8214.319	14381.602	
22	160	R.P.								7456.006	10579.985	
	161	P.T.	232+78.094							8831.106	14143.601	111°06'00.8"
WEST BOUND HWY. 10/47												
	162	P.C.	179+00.000							3501.478	14545.688	87°32'09.3"
	163	P.I.	181+94.475	03°55'31.7"	00°40'00.4"	6592.912	294.475	588.720		3795.681	14558.349	
42	164	R.P.								3870.916	5960.722	
	165	P.T.	184+88.720							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					46.729		7555.053	14462.441	91°27'41.0"
	168	P.I.	226+41.029	19°38'19.8"	01°28'31.0"	3883.720	672.190	1331.192		8227.025	14445.298	
23	169	R.P.								7456.006	10579.985	
	170	P.T.	233+00.031							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.

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



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

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
**ALIGNMENT TABULATIONS**  
 SB RLB  
 EB 10/47  
 WB 10/47

CURVE NO.	POINT NO.	POINT TYPE	STATION	CURVE DATA					COORDINATES		AZIMUTH	
				Δ	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							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.								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	14605.424	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	266.610		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"

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: 8-22-89, Minn. Reg. No. J2656



ORIGINAL DATE: 6-21-89  
 REVISIONS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 SURVEY BOOK: \_\_\_\_\_

DESIGN BY: \_\_\_\_\_  
 DRAWN BY: CTN  
 CHECKED BY: \_\_\_\_\_

**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 118 OF 256

DESIGN FILE No. LG-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+81.066					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						7682.695	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"
NORTHDALE 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						6443.93	16335.18	
	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 Sections 326.02 to 326.16.

*Boyd Paul*

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



DESIGN BY: \_\_\_\_\_  
 DRAWN BY: GIN  
 CHECKED BY: \_\_\_\_\_

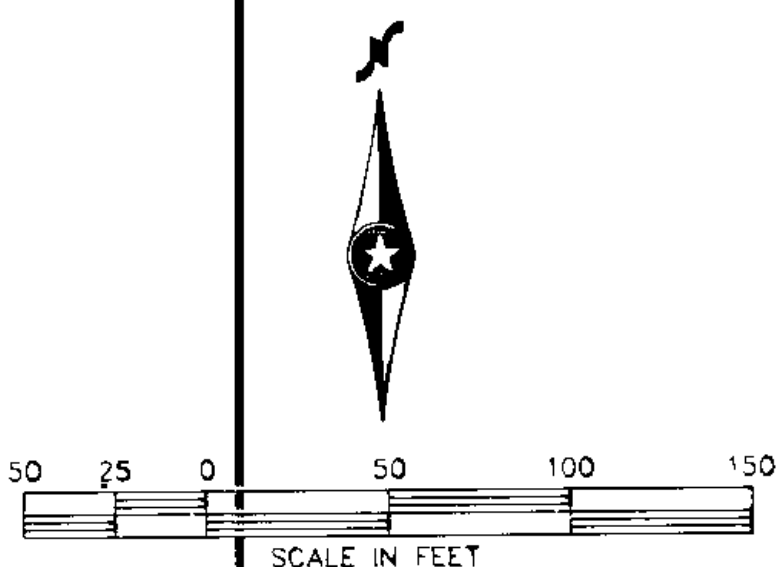
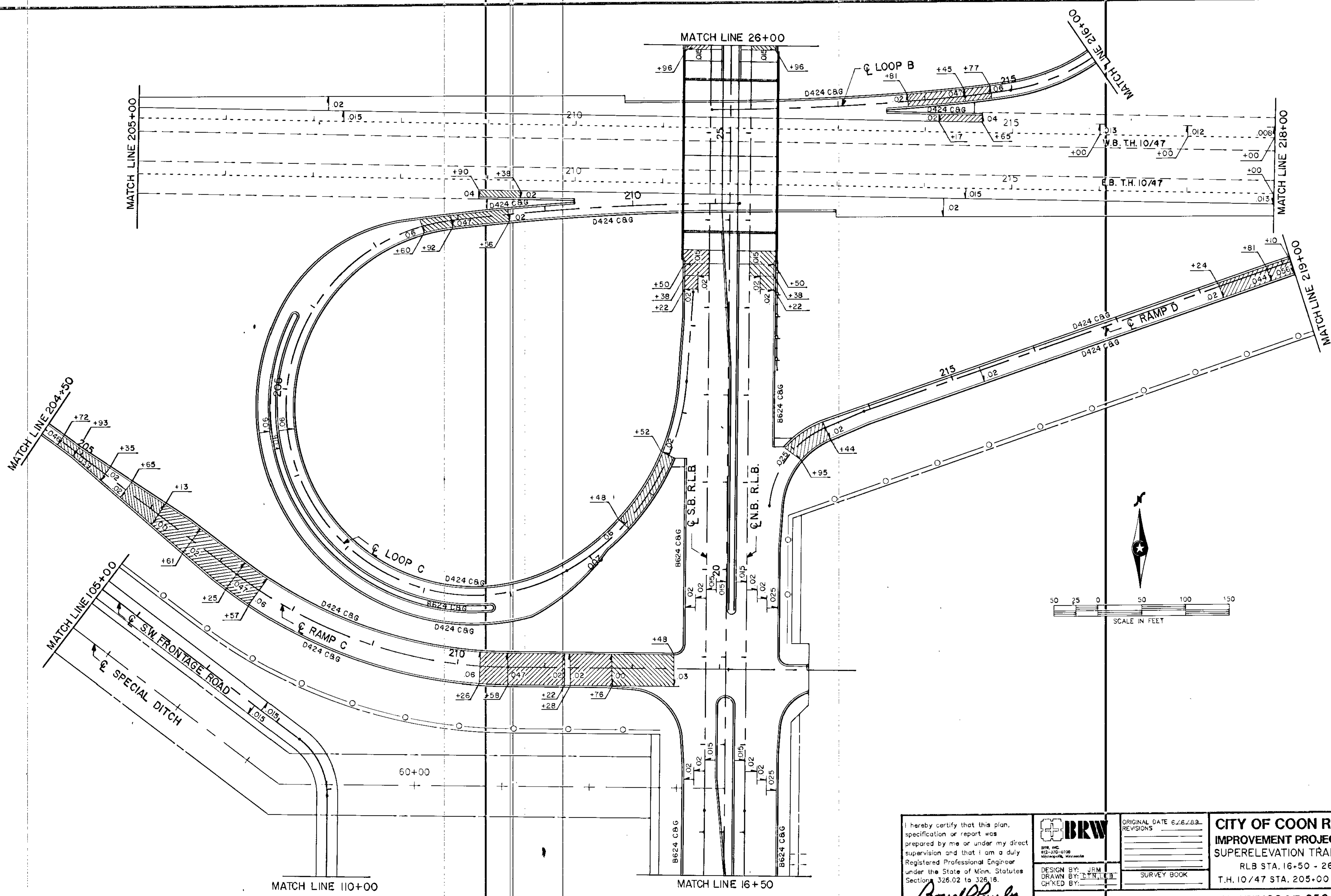
ORIGINAL DATE 6-21-89  
 REVISIONS \_\_\_\_\_  
 SURVEY BOOK \_\_\_\_\_

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

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

SHEET 119 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 326.18.

*Boyd Paulsen*

Date 2-22-88, Minn. Reg. No. 12666

**IBRW**  
 INC.  
 812-370-0700  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: C.N.L.B.  
 CHECKED BY:

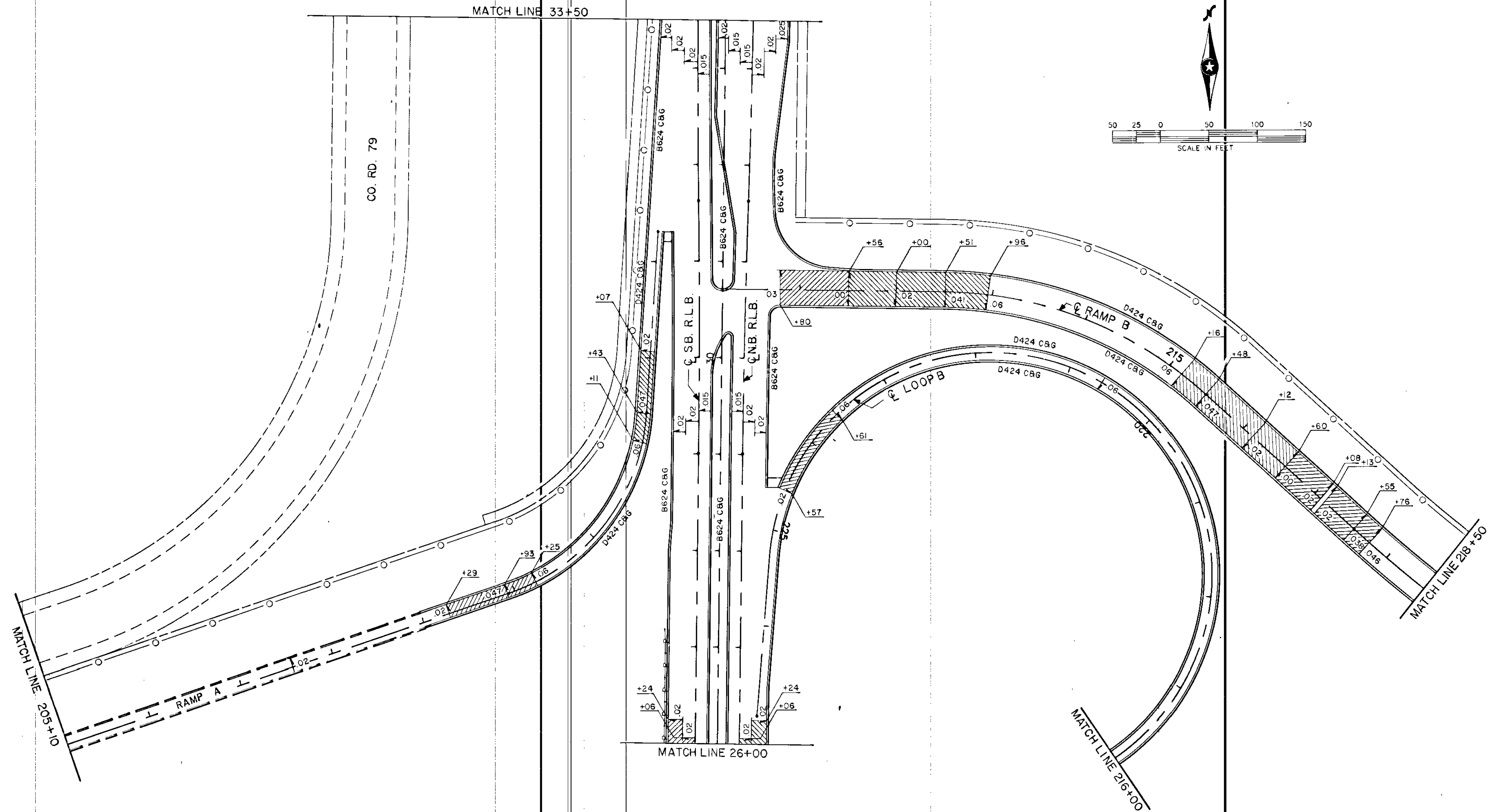
ORIGINAL DATE 6/2/83  
 REVISIONS

SURVEY BOOK

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 SUPERELEVATION TRANSITIONS  
 RLB STA. 16+50 - 26+00  
 T.H. 10/47 STA. 205+00 - 218+00

DESIGN FILE  
 No. 16-8840

S.A.P. NO. 02-609-08 SHEET 120 OF 256



MATCH LINE 205+10

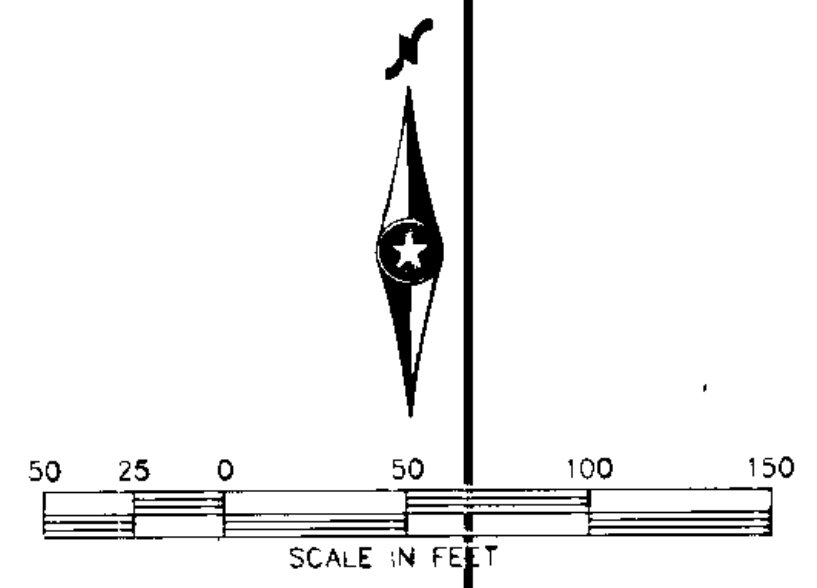
MATCH LINE 33+50

CO. RD. 79

MATCH LINE 26+00

MATCH LINE 216+00

MATCH LINE 216+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 326.15.  
*Boyd Paul*  
Date: 2-22-89 Minn. Reg. No. 22666

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

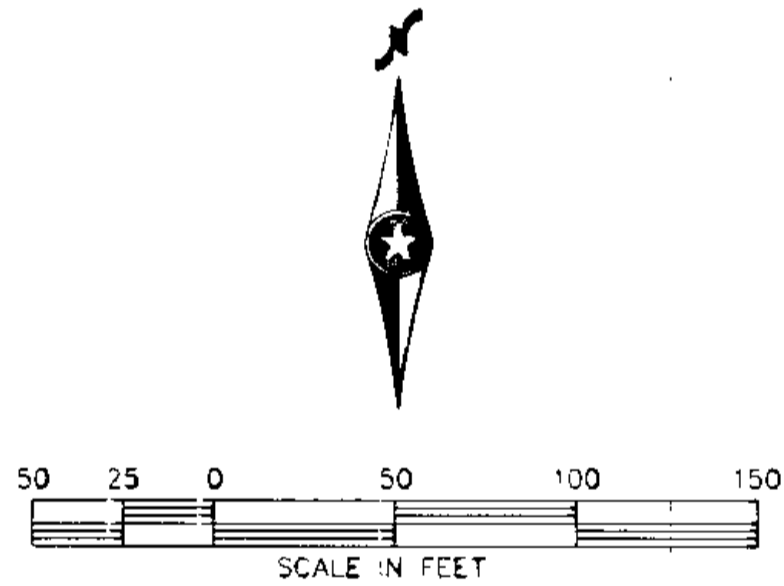
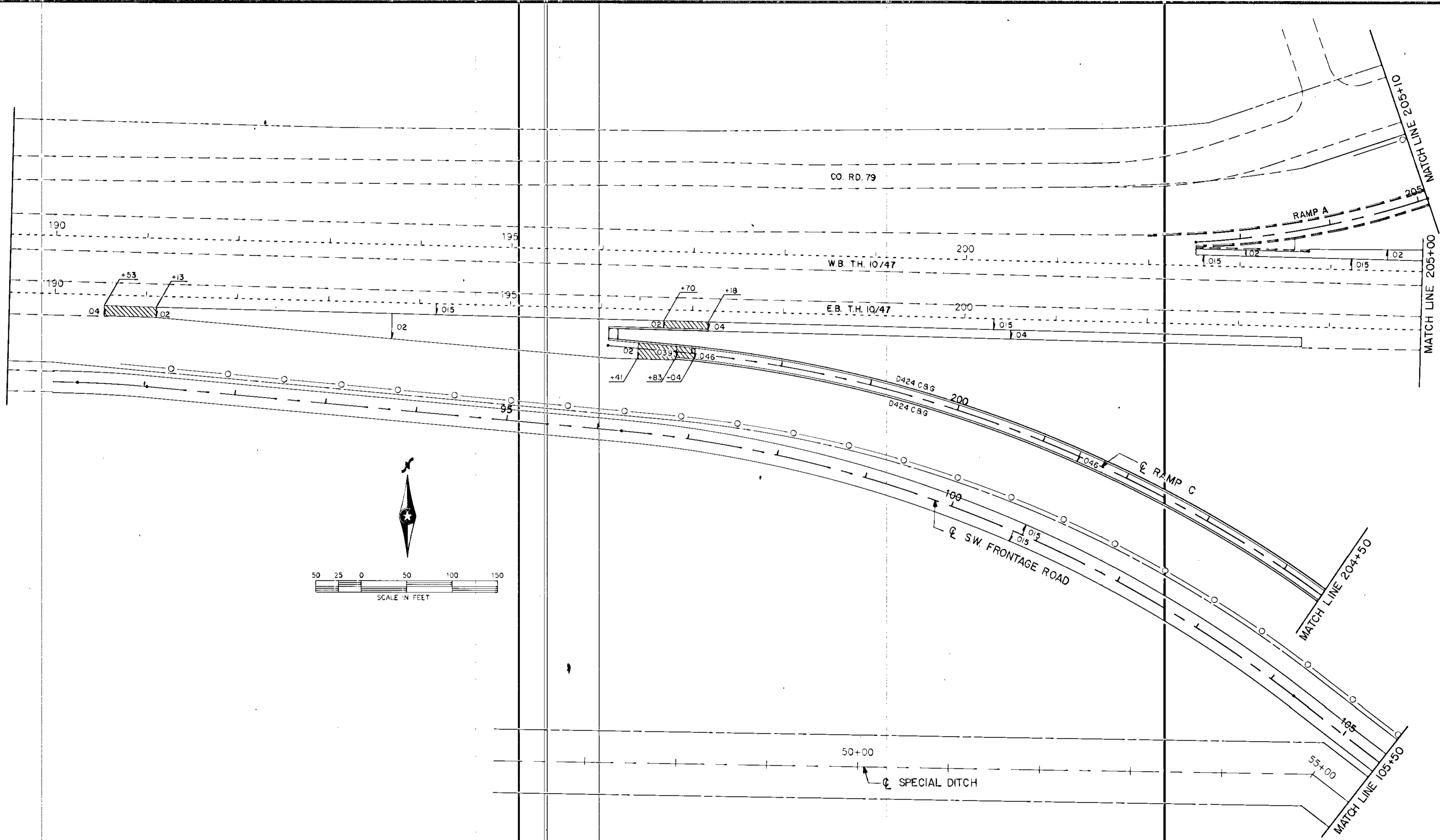
ORIGINAL DATE	6/6/89
REVISIONS	
SURVEY BOOK	

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
SUPERELEVATION TRANSITIONS  
R.L.B. STA. 26+00 - 33+50

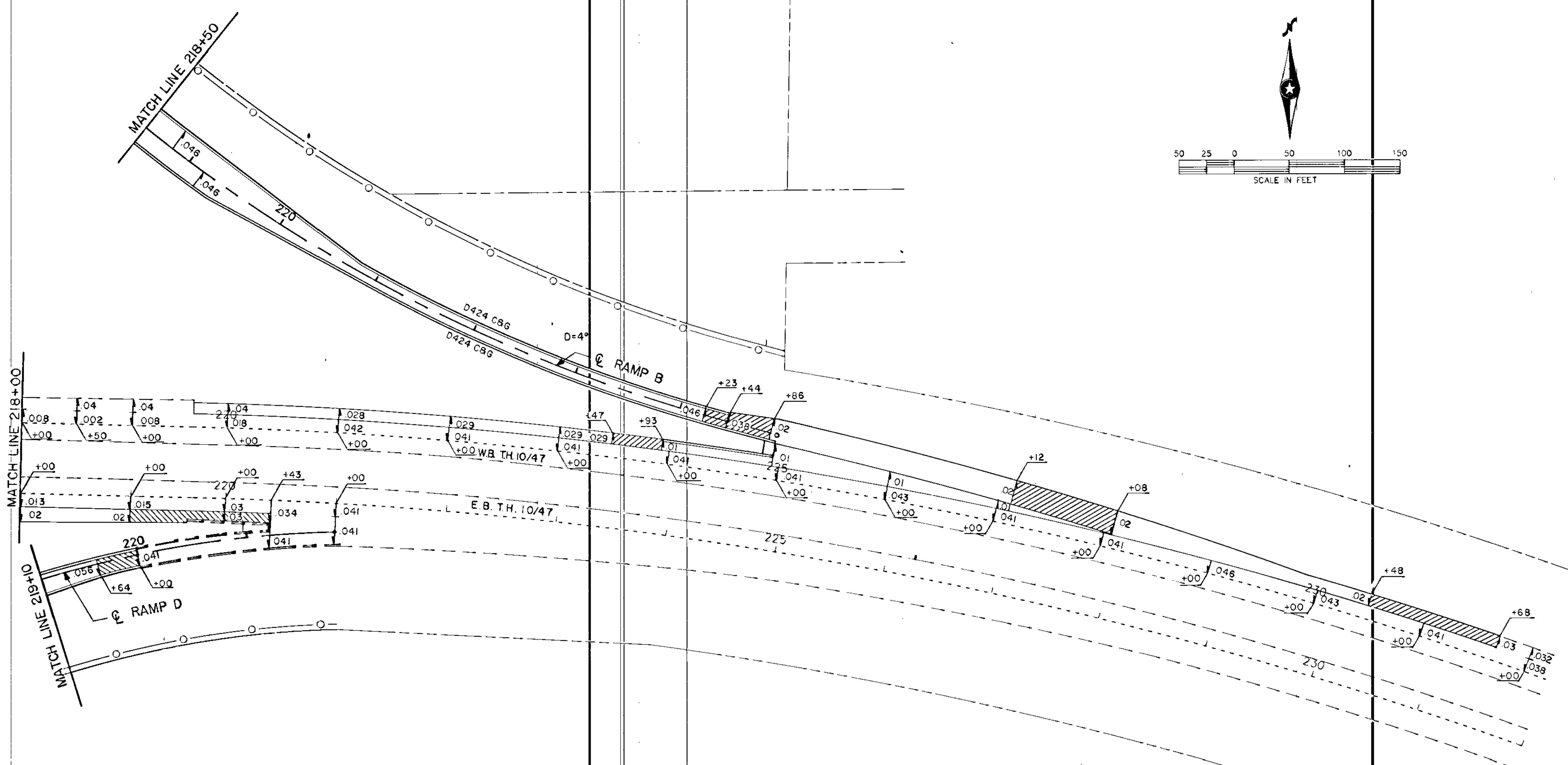
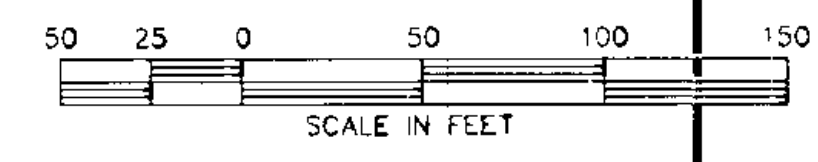
S.A.P. NO. C2-609-08

SHEET **21** 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 326.18. <i>Boyd R. Paulsen</i> Date 8-22-89 Minn. Reg. No. J2566	 <small>IBRW, INC. 812-370-0700 Minneapolis, Minnesota</small>	ORIGINAL DATE 6/6/89 REVISIONS _____	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> SUPERELEVATION TRANSITIONS T.H. 10/47 STA. 189+50 - 205+00
		DESIGN BY: JRM DRAWN BY: CTN, LEB CHECKED BY: _____	
S.A.P. NO. 02-609-08		SHEET 122 OF 256	
		<small>DESIGN FILE No. 16-8840</small>	



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

**BRW**  
 INC.  
 812-378-0700  
 Minneapolis, Minnesota

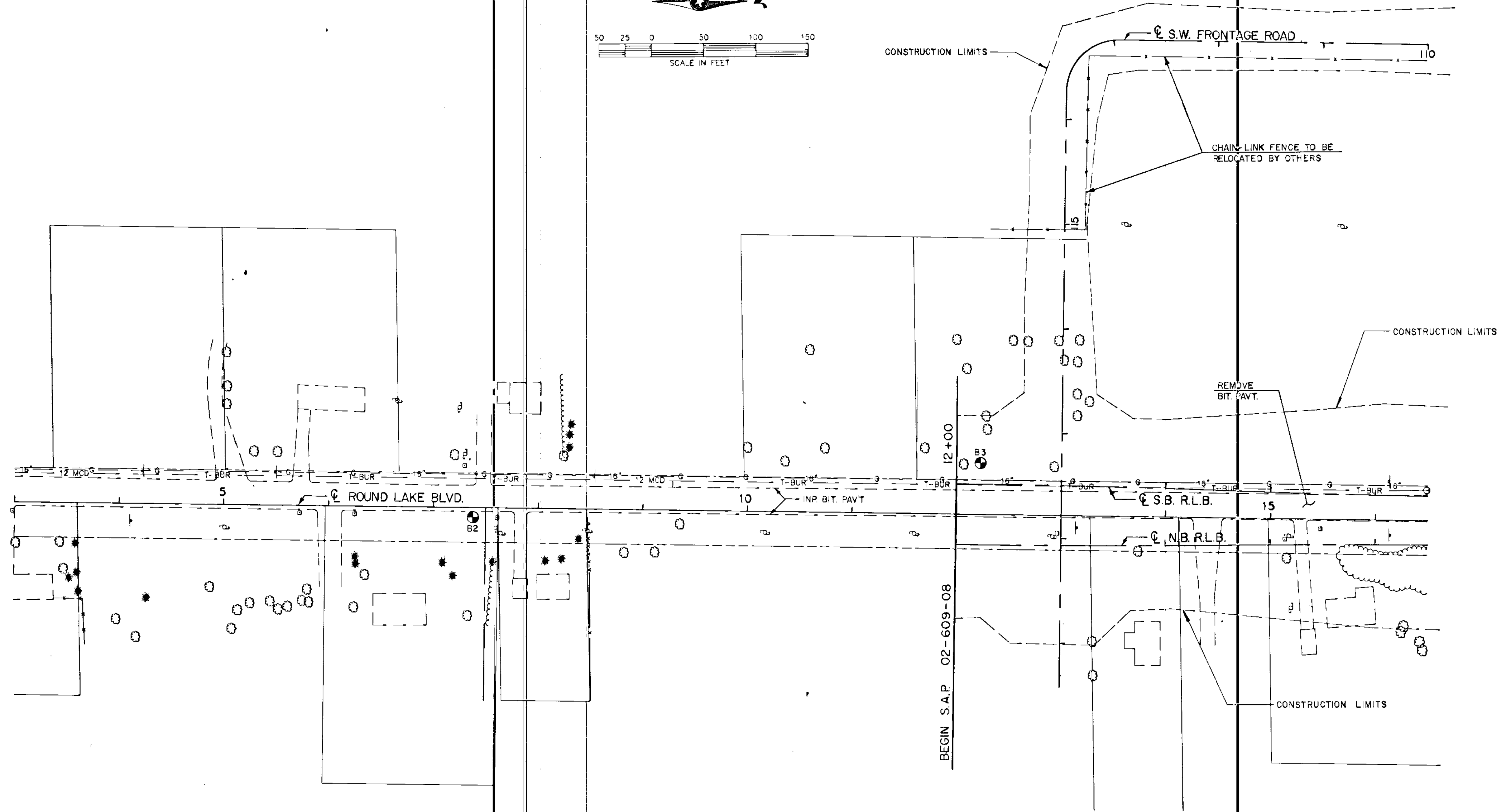
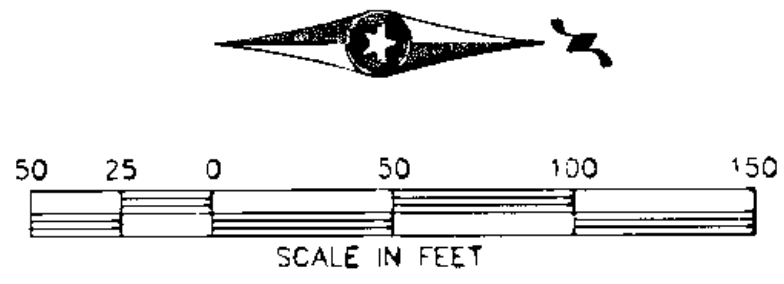
DESIGN BY: JRM  
 DRAWN BY: CTN,LEB  
 CHECKED BY:

ORIGINAL DATE: 6/6/89  
 REVISIONS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 SURVEY BOOK: \_\_\_\_\_

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

S.A.P. NO. 02-609-08 SHEET 1230F 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 Rowley*

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

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

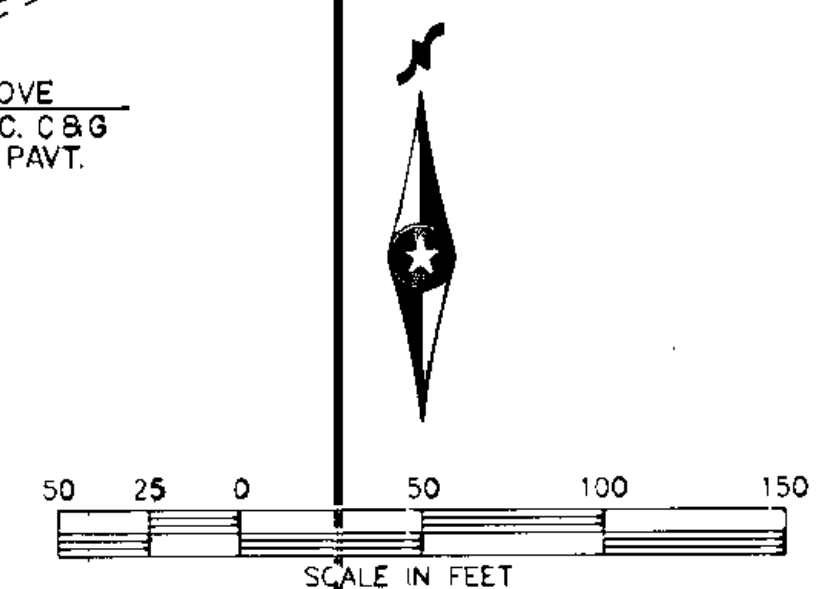
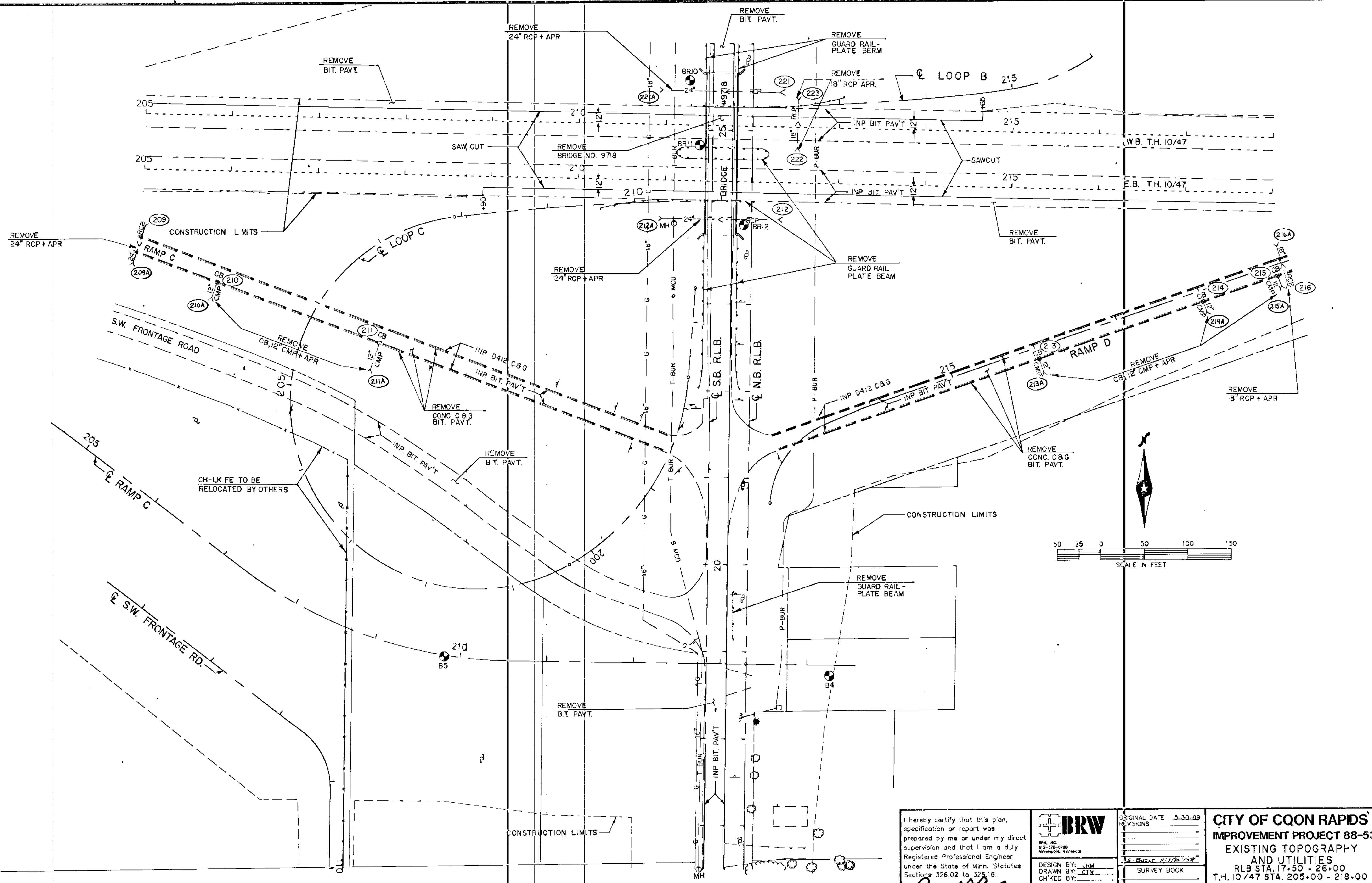
DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY:

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

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 EXISTING TOPOGRAPHY  
 AND UTILITIES  
 RLB STA. 3+00 - 16+50

S.A.P. NO. 02-609-08 SHEET 124 OF 256

DESIGN FILE No. 16-8840



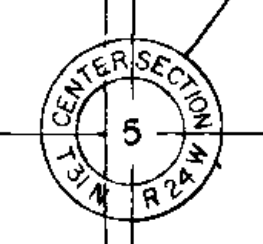
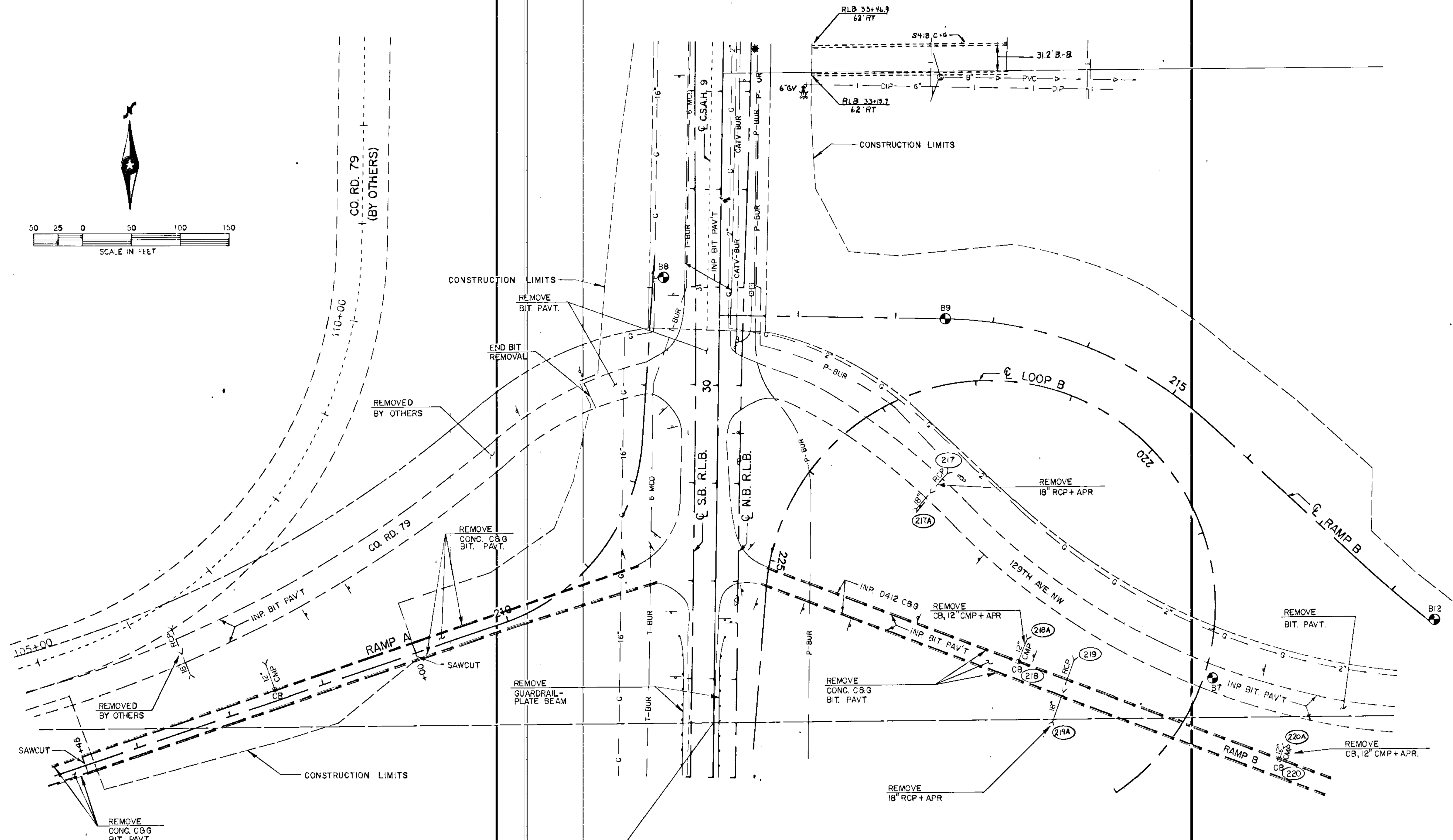
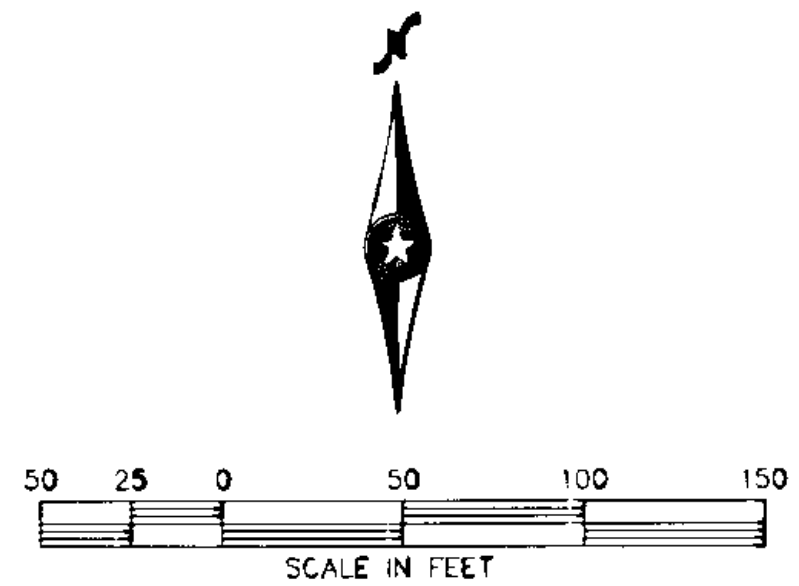
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

*Boyd R. Raulo*

Date 9-22-82 Minn. Reg. No. J2665

 BRW, INC. 412-370-0700 Minneapolis, Minnesota	ORIGINAL DATE 5-30-69 REVISIONS
	AS-BUILT 11/19/72 SURVEY BOOK
	DESIGN BY: JRM DRAWN BY: CIN CHECKED BY:
	S.A.P. NO. 02-609-08

<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> EXISTING TOPOGRAPHY AND UTILITIES RLB STA. 17+50 - 26+00 T.H. 10/47 STA. 205+00 - 218+00	DESIGN FILE No. 16-8840
SHEET 125 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 R. Paulsen*  
 Date: 3-22-89, Minn. Reg. No. 12666

**BRV**  
 BRV, INC.  
 612-276-2700  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY:

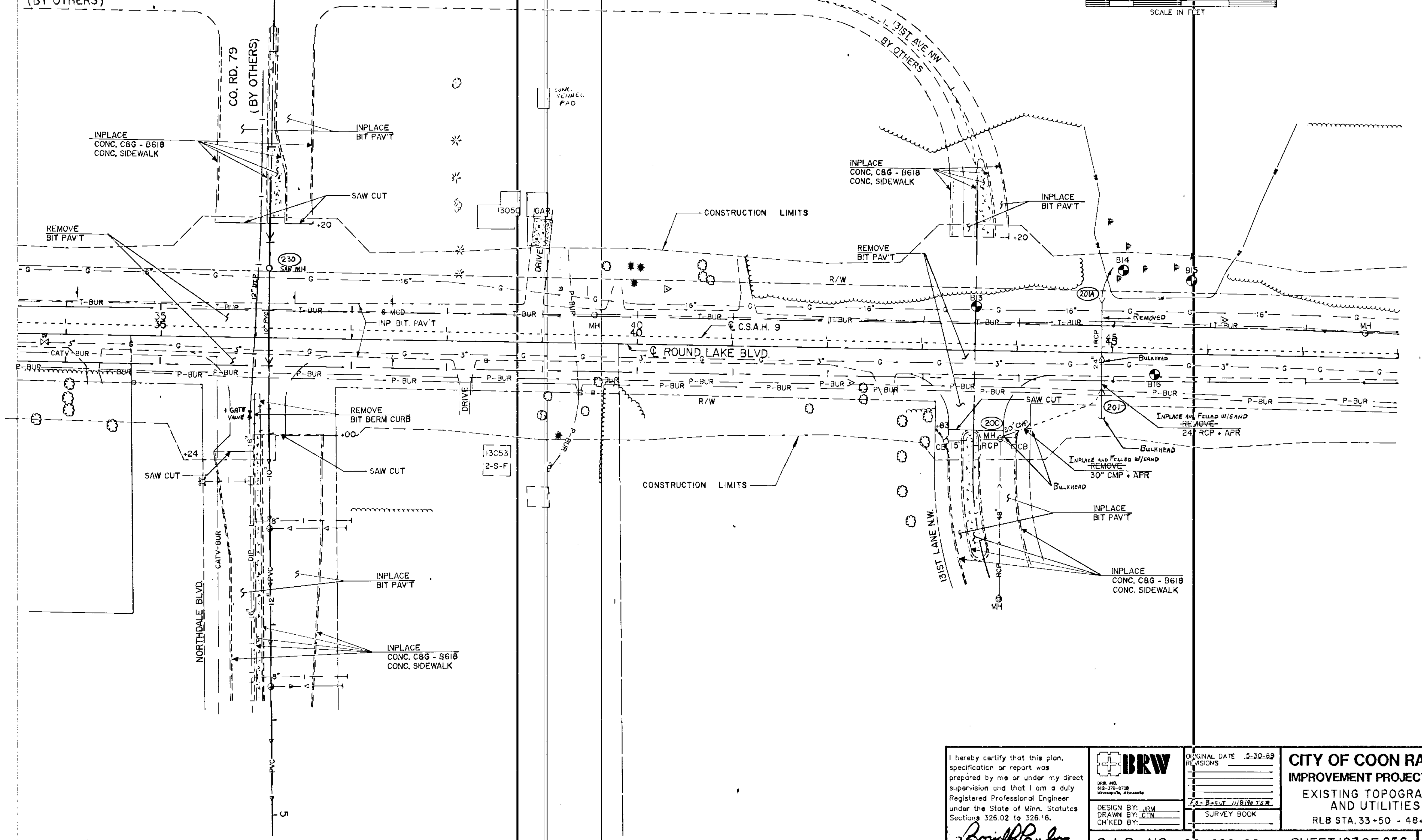
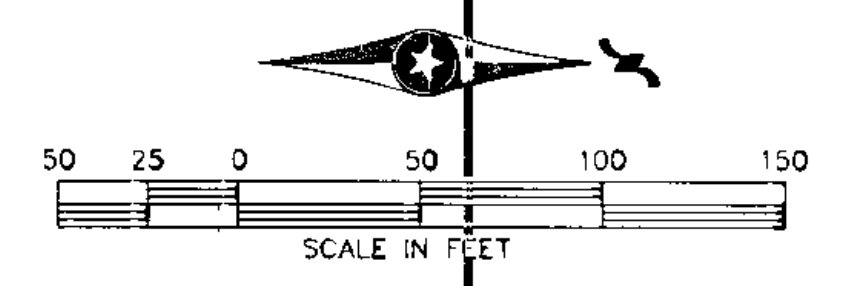
ORIGINAL DATE	5-30-89
REVISIONS	
AS-BUILT 11/13/90 JOR	
SURVEY BOOK	

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



CO. RD. 79  
115+00  
(BY OTHERS)

120+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

**BRW**  
BRW, INC.  
612-375-0708  
Minneapolis, Minnesota

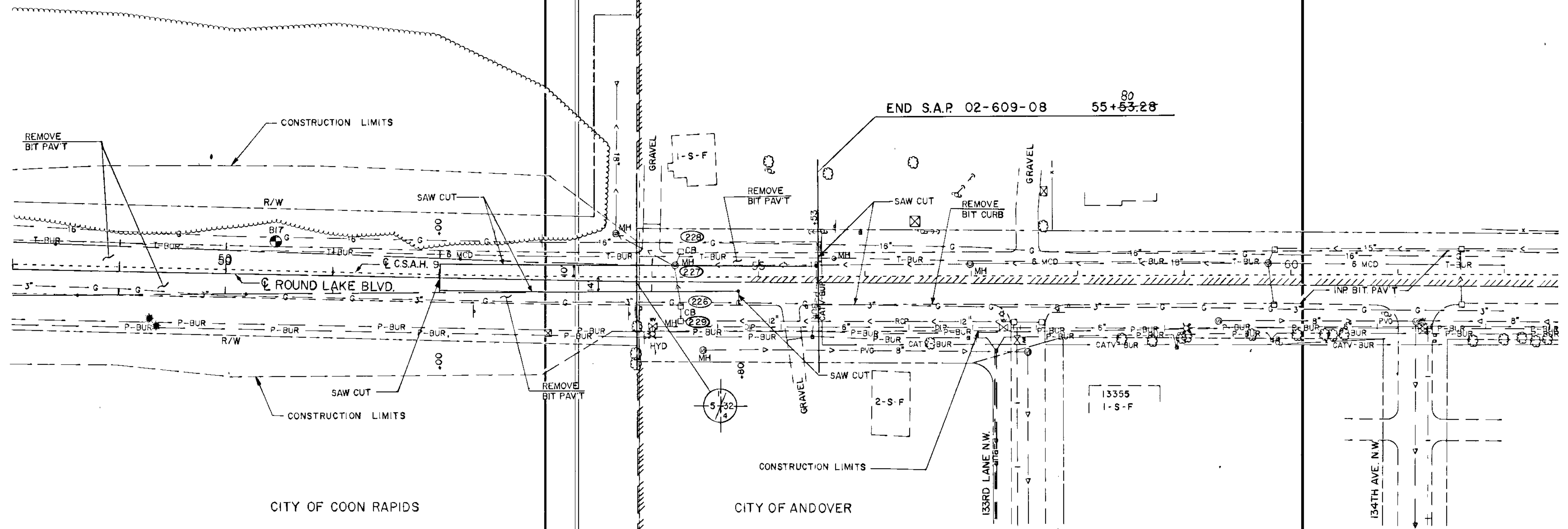
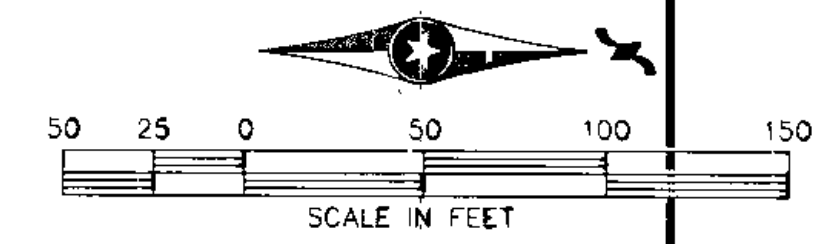
ORIGINAL DATE 5-30-89  
REVISIONS  
DESIGN BY: JRM  
DRAWN BY: CTN  
CHECKED BY:  
SURVEY BOOK

**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. 15-8849

CITY OF COON RAPIDS

CITY OF ANOKA



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.

*Boyd R. Rasmussen*

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

**BRW**

DESIGN BY: JRM  
DRAWN BY: JTN  
CHECKED BY:

ORIGINAL DATE 5-30-89  
REVISIONS

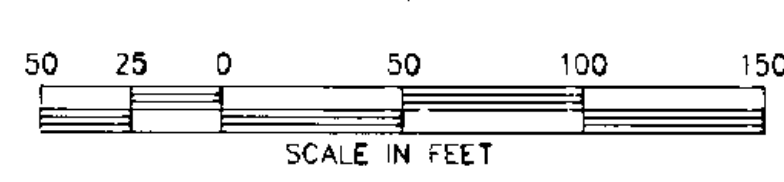
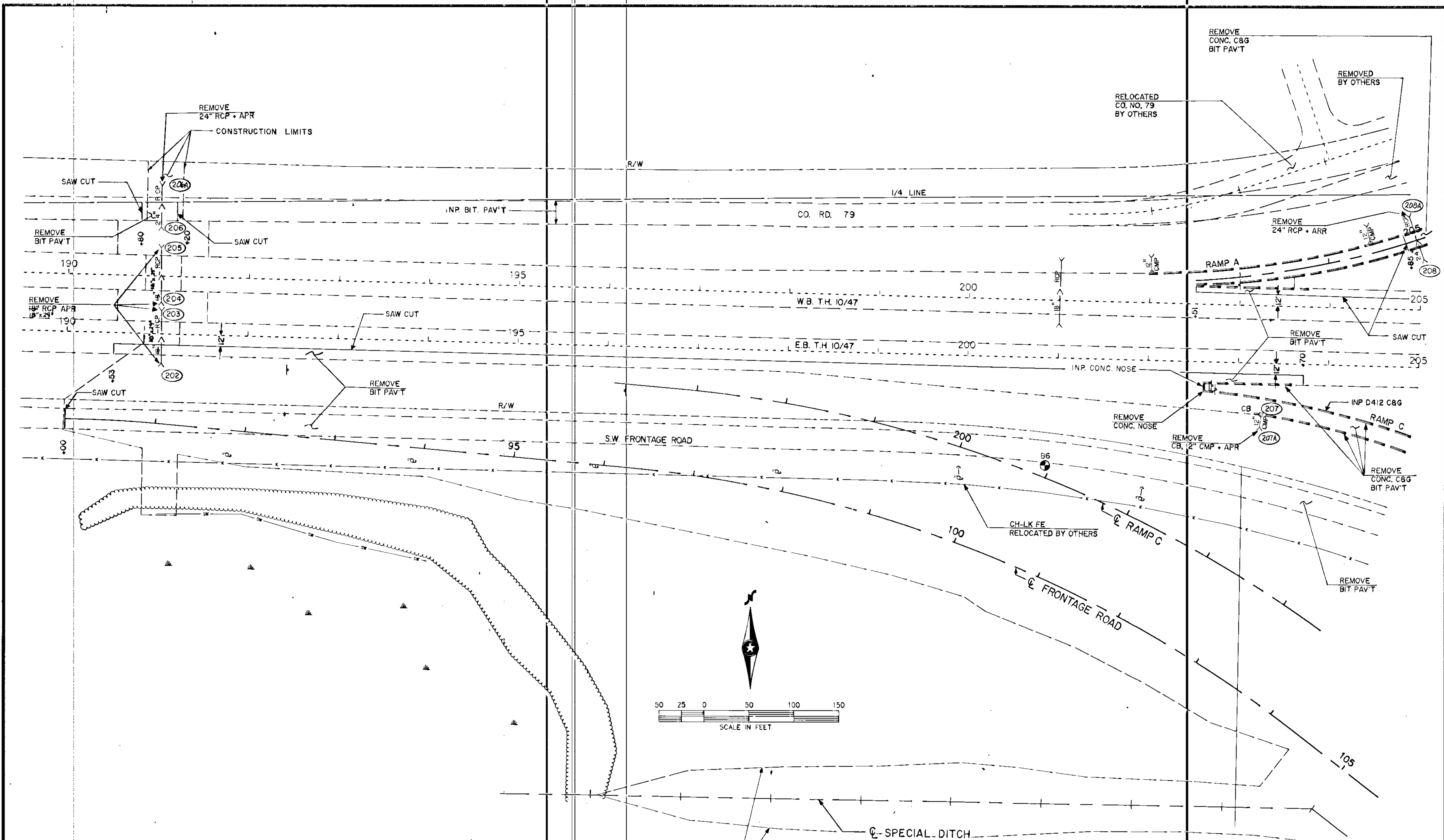
AS-BUILT 11/19/89 T.S.R.

SURVEY BOOK

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

S.A.P. NO. 02-609-08 SHEET 128 OF 256

DESIGN FILE No. 16-BB40



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. Hinkle*  
 Date: 2-22-89 Minn. Reg. No. 12666

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

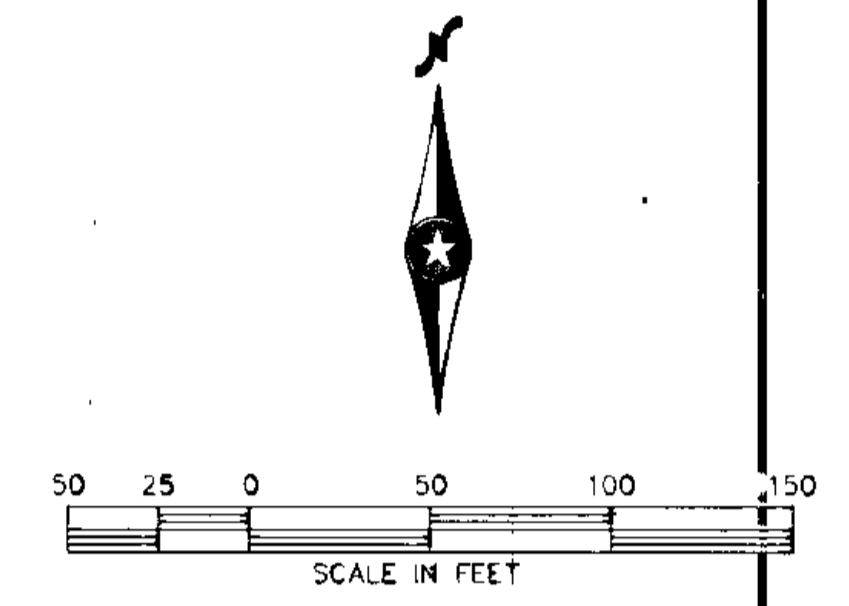
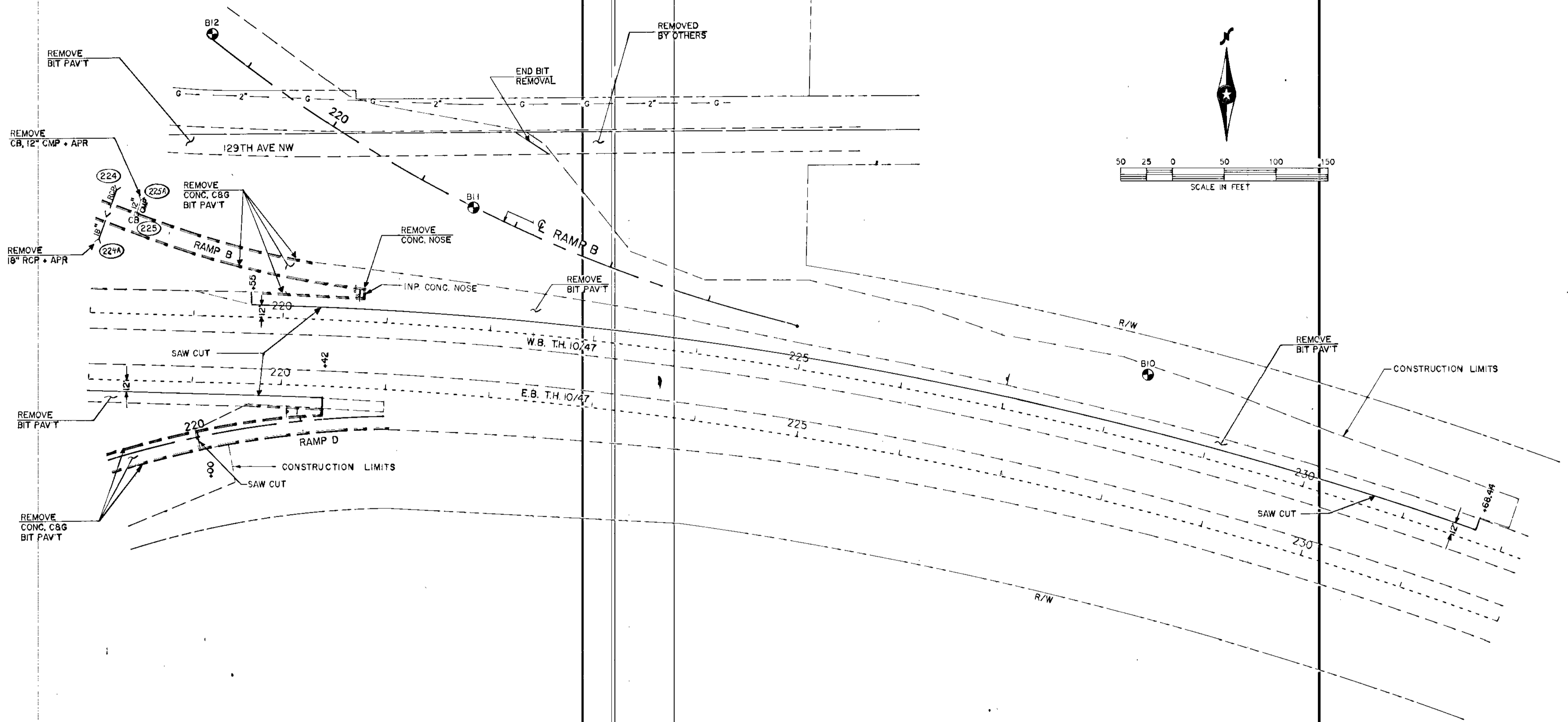
ORIGINAL DATE 5-30-89  
 REVISIONS  
 AS-BUILT 11/10/90  
 SURVEY BOOK

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

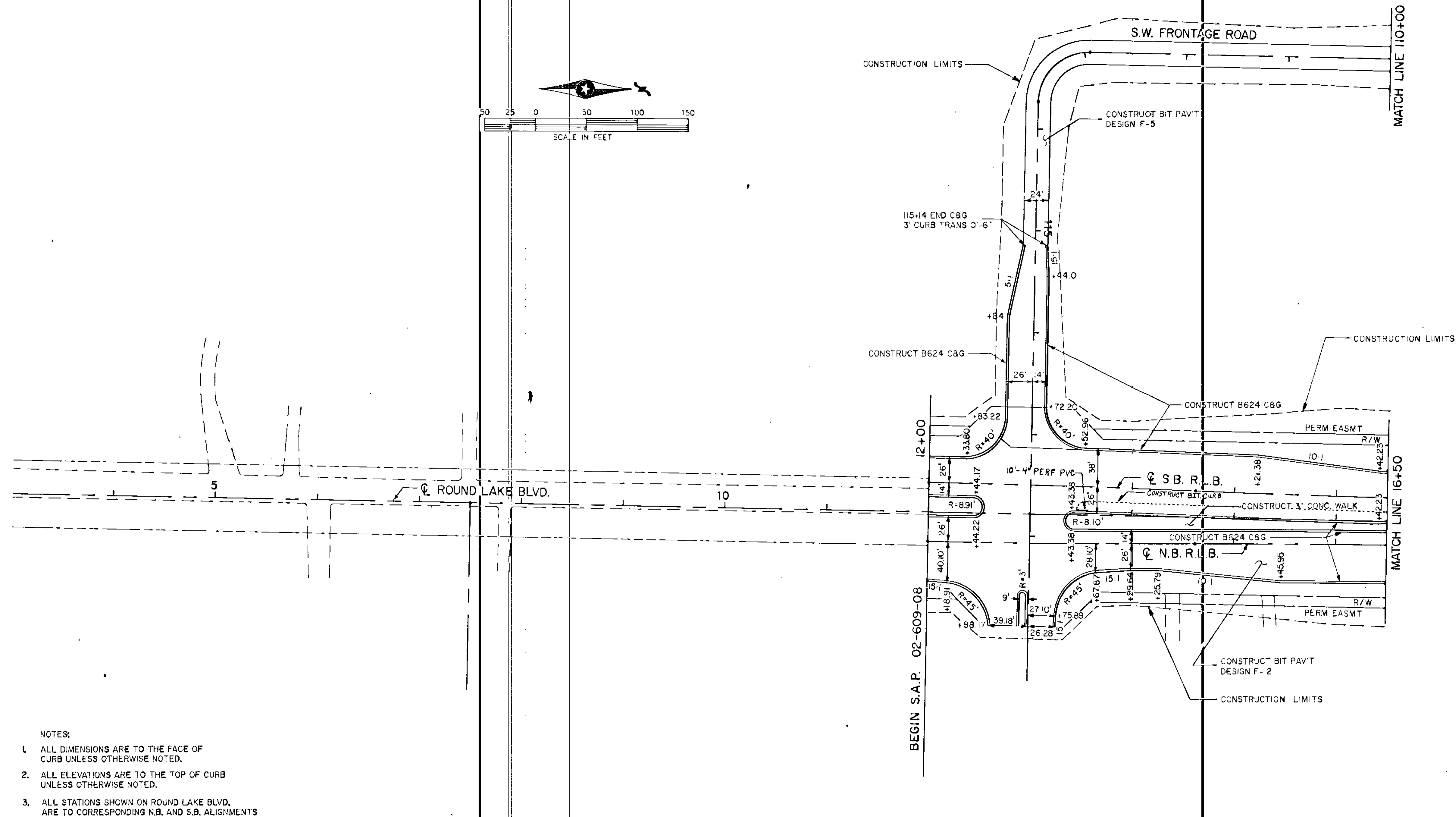
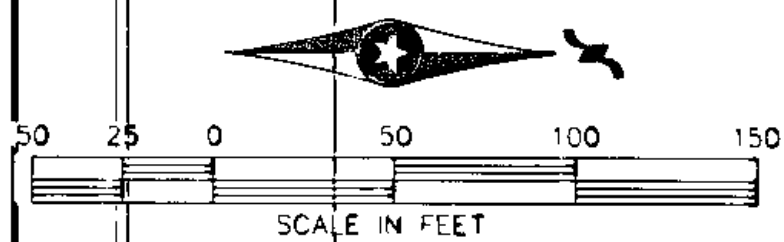
S.A.P. NO. 02-609-08

SHEET 129 OF 256

DESIGN FILE No. 16-884Q

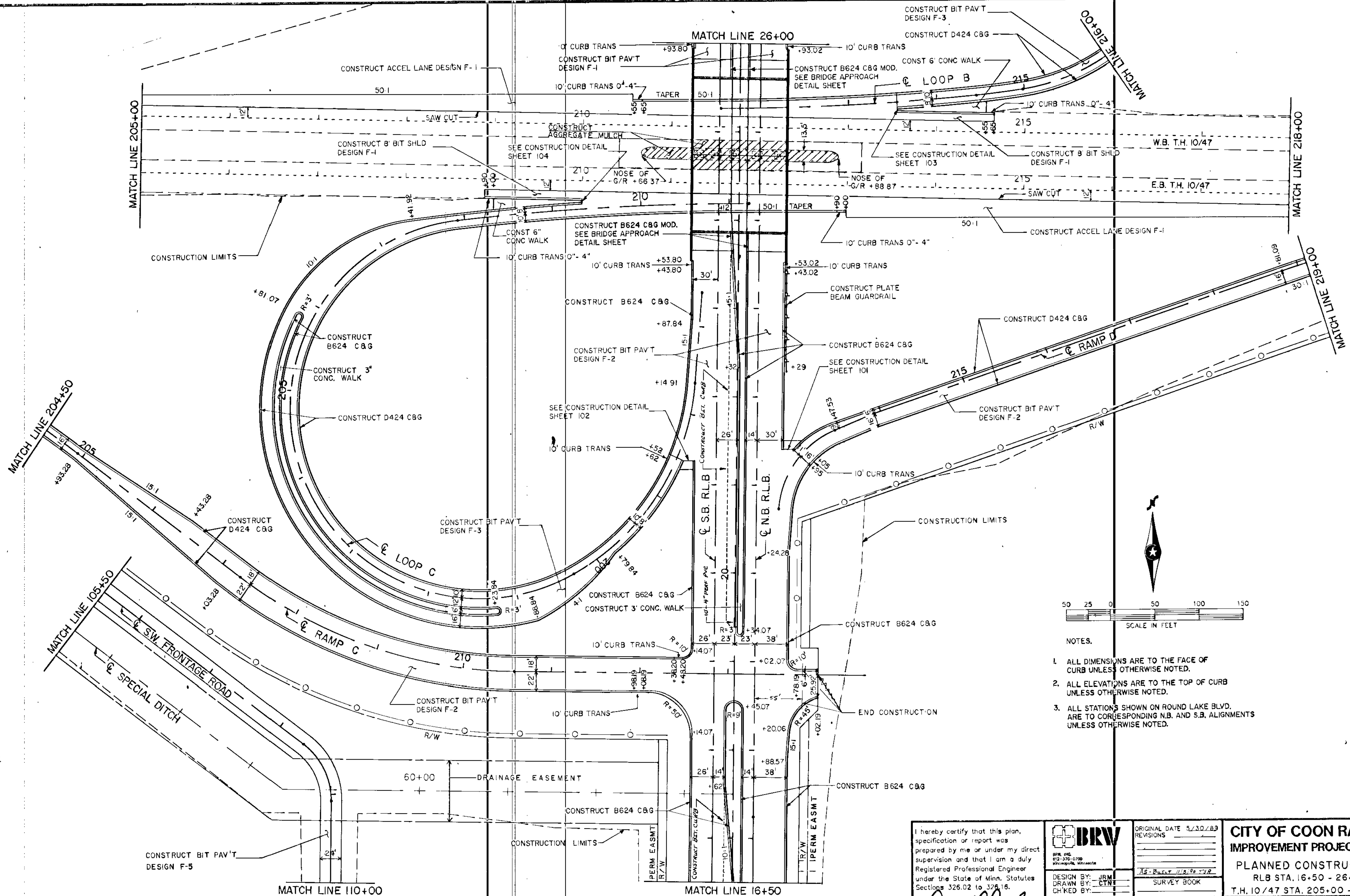


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paulsen</i> Date 8-22-09 Minn. Reg. No. 12666	 <small>IBRW, INC. 812-370-0708 Minneapolis, Minnesota</small>	ORIGINAL DATE 5-30-09 REVISIONS	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> EXISTING TOPOGRAPHY AND UTILITIES T.H. 10/47 STA. 218+00 - 232+00	
		DESIGN BY: JRM DRAWN BY: CIN CHECKED BY:		AS-BUILT 11/8/09 JRM SURVEY BOOK
		S.A.P. NO. 02-609-08		SHEET 130 OF 256
		DESIGN FILE No. 15-8840		



- 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.

<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 Paulsen</i> Date 8-22-89 Minn. Reg. No. 12666</p>	<p><b>BRW</b> <small>BRW, INC. 612-370-0700 Minneapolis, Minn. 55412</small></p>	<p>ORIGINAL DATE 5/30/89 REVISIONS</p> <p>As-Built 11/8/89 TSP SURVEY BOOK</p>	<p><b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> PLANNED CONSTRUCTION RLB STA. 12+00 - 16+50</p>
<p>DESIGN BY: JRM DRAWN BY: CTN CHECKED BY:</p>		<p>S.A.P. NO. 02-609-08</p>	<p>SHEET 13 OF 256</p>



- 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.

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. 2666

**BRW**

BRW, INC.  
612-370-0700  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: CTN  
CHKD BY:

ORIGINAL DATE	5/30/89
REVISIONS	
AS-BUILT 11/8/90 TSB	
SURVEY BOOK	

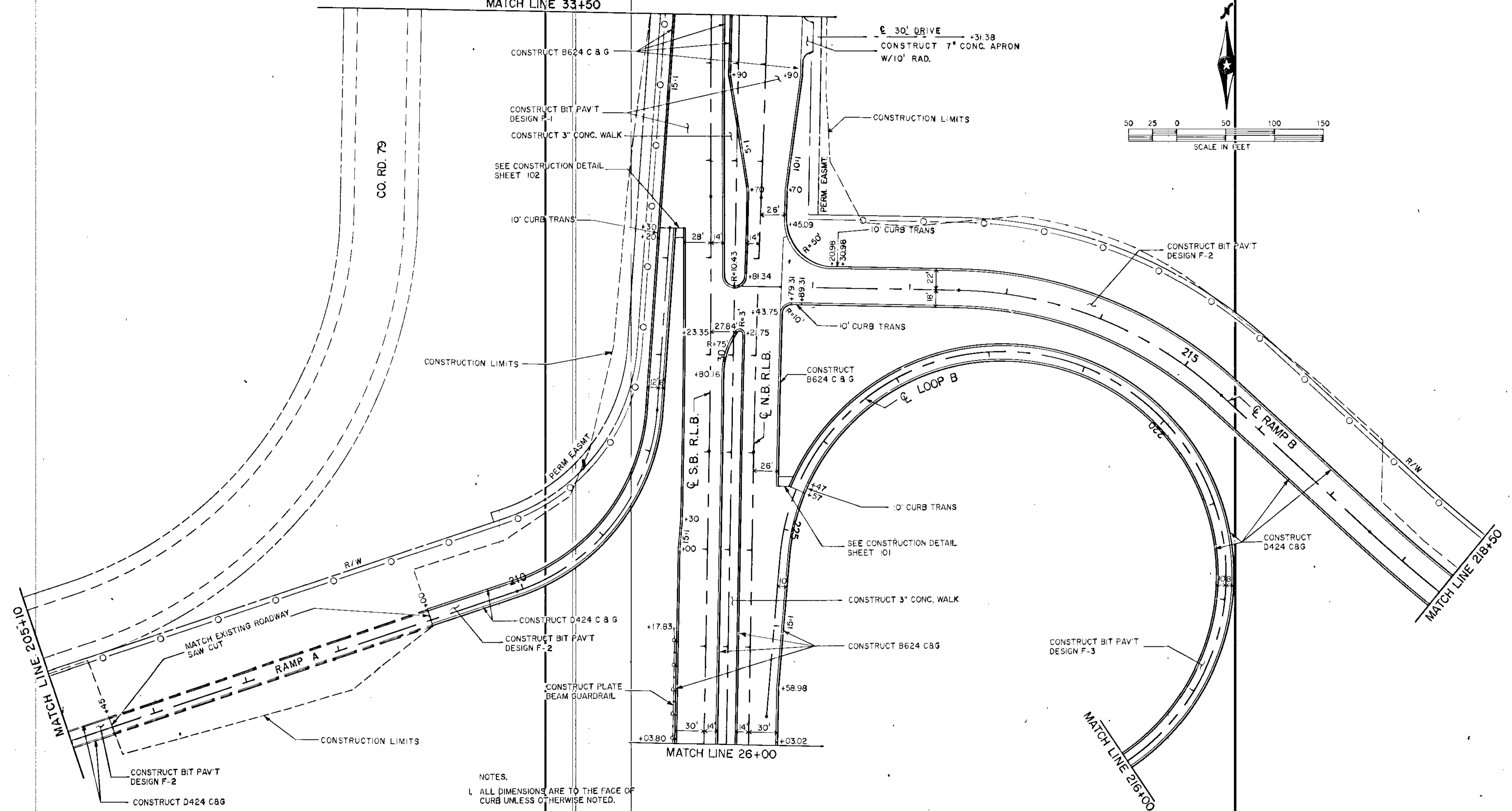
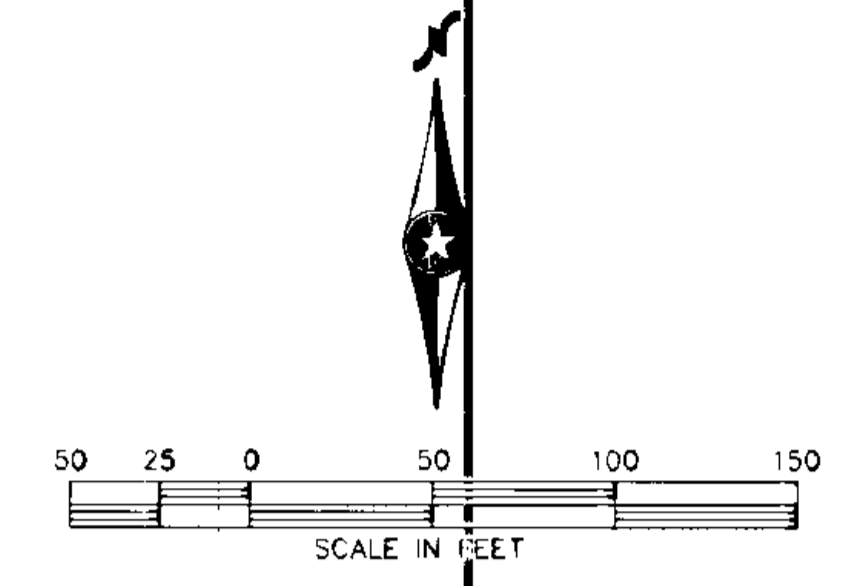
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

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. 16-8840

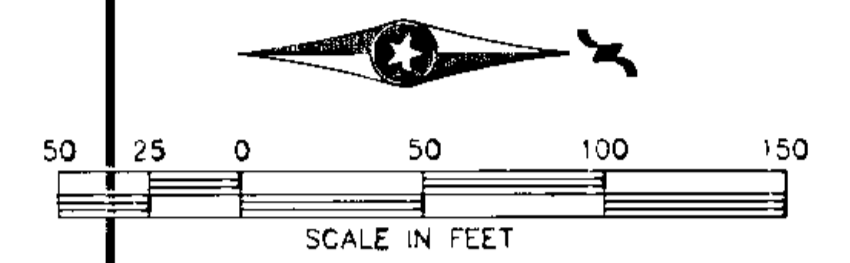
MATCH LINE 33+50



- 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.

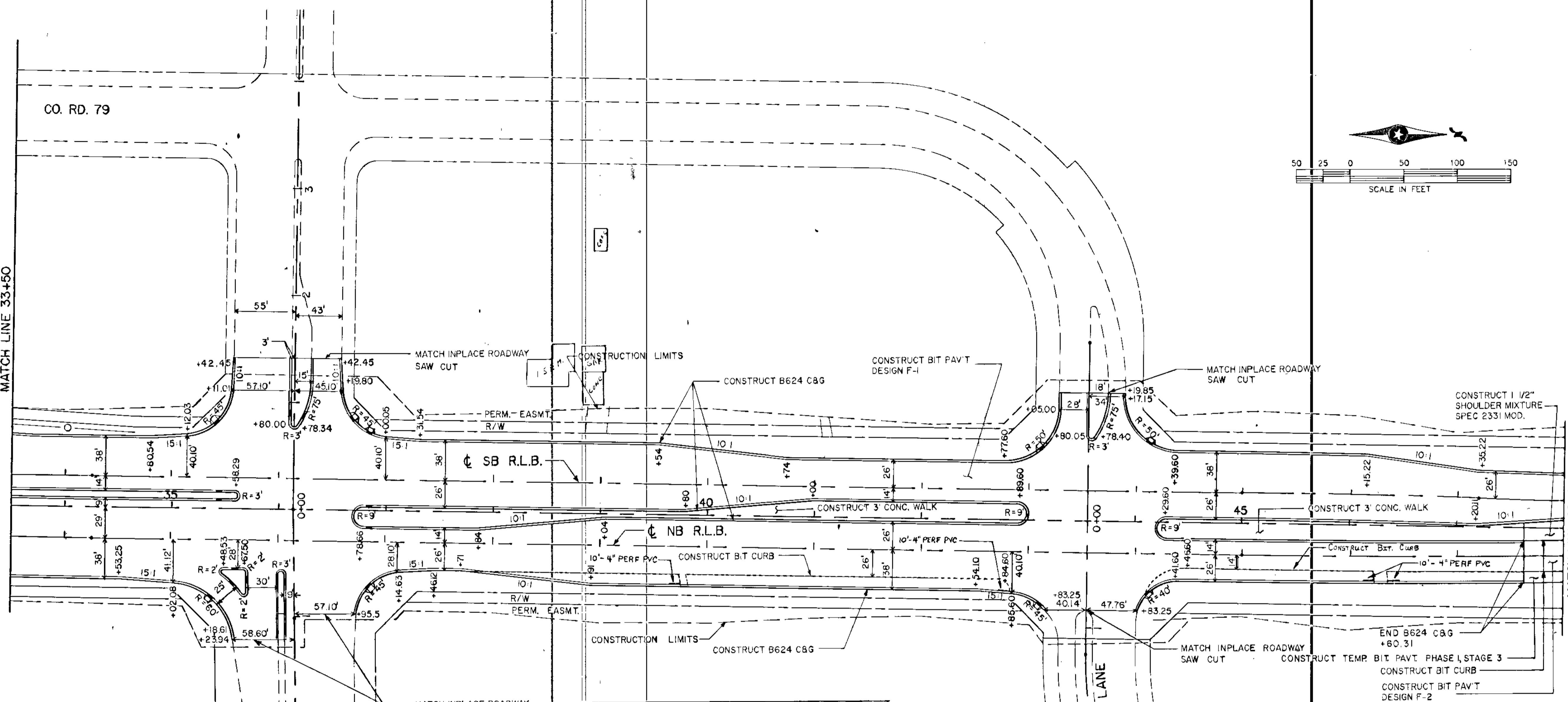
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paulsen</i> Date 8-22-89 Minn. Reg. No. 2666	BRW <small>BRW, INC. 512-375-0700 Minneapolis, Minnesota</small>	ORIGINAL DATE 5/30/89 REVISIONS	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> PLANNED CONSTRUCTION RLB STA. 26+00 - 33+50
		DESIGN BY: JRM DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 133 OF 256	DESIGN FILE No. 16-8840

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
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.
  3. ALL STATIONS SHOWN ON ROUND LAKE BLVD. ARE TO CORRESPONDING N.B. AND S.B. ALIGNMENTS UNLESS OTHERWISE 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 Section 326.02 to 326.16.

*Boyd R. Bunker*  
 Date 2-22-89, Minn. Reg. No. 12666

**BRW**  
 BRW, INC.  
 612-376-0700  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: CYN  
 CHECKED BY:

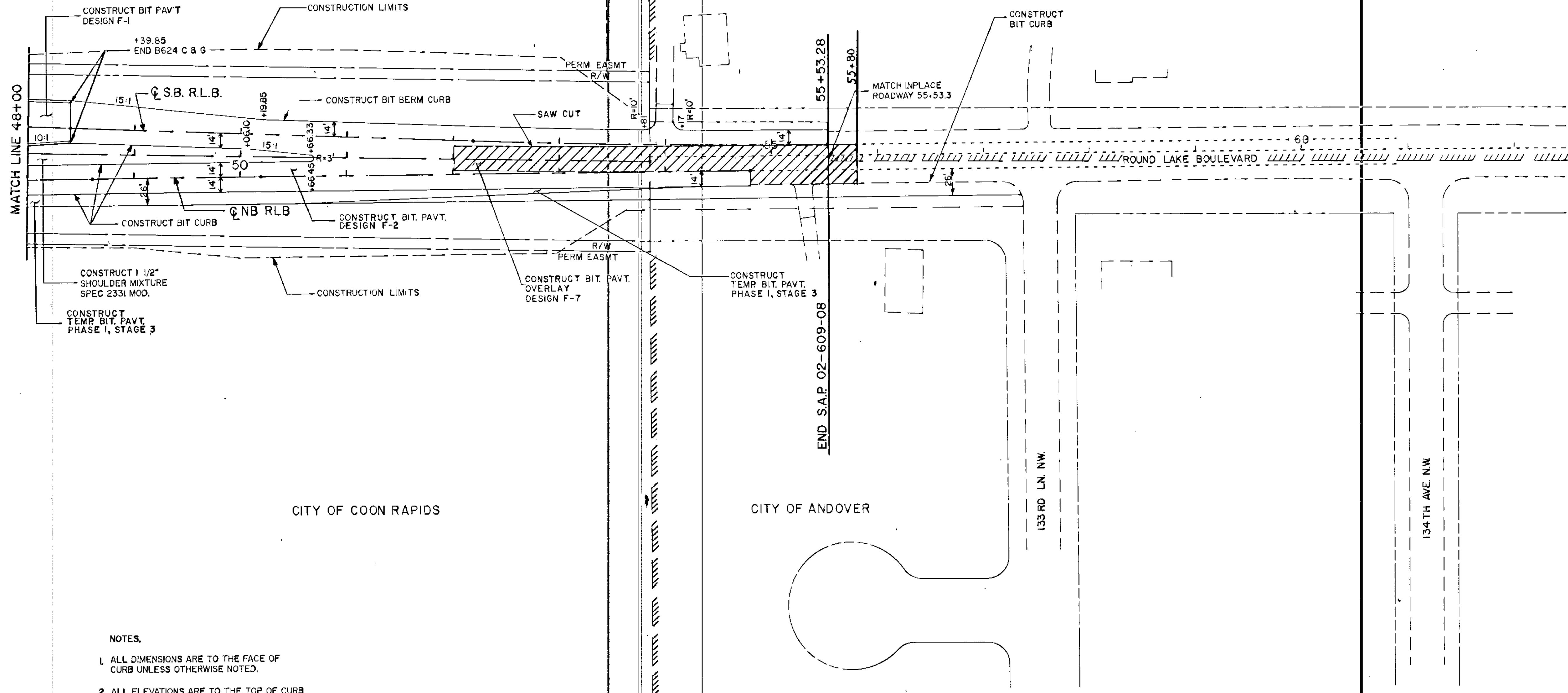
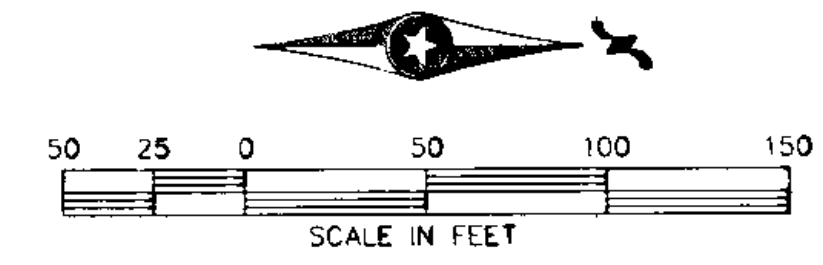
ORIGINAL DATE	5/30/89
REVISIONS	
AS-BUILT 11/27/89	
SURVEY BOOK	

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



CITY OF COON RAPIDS

CITY OF ANOKA



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.

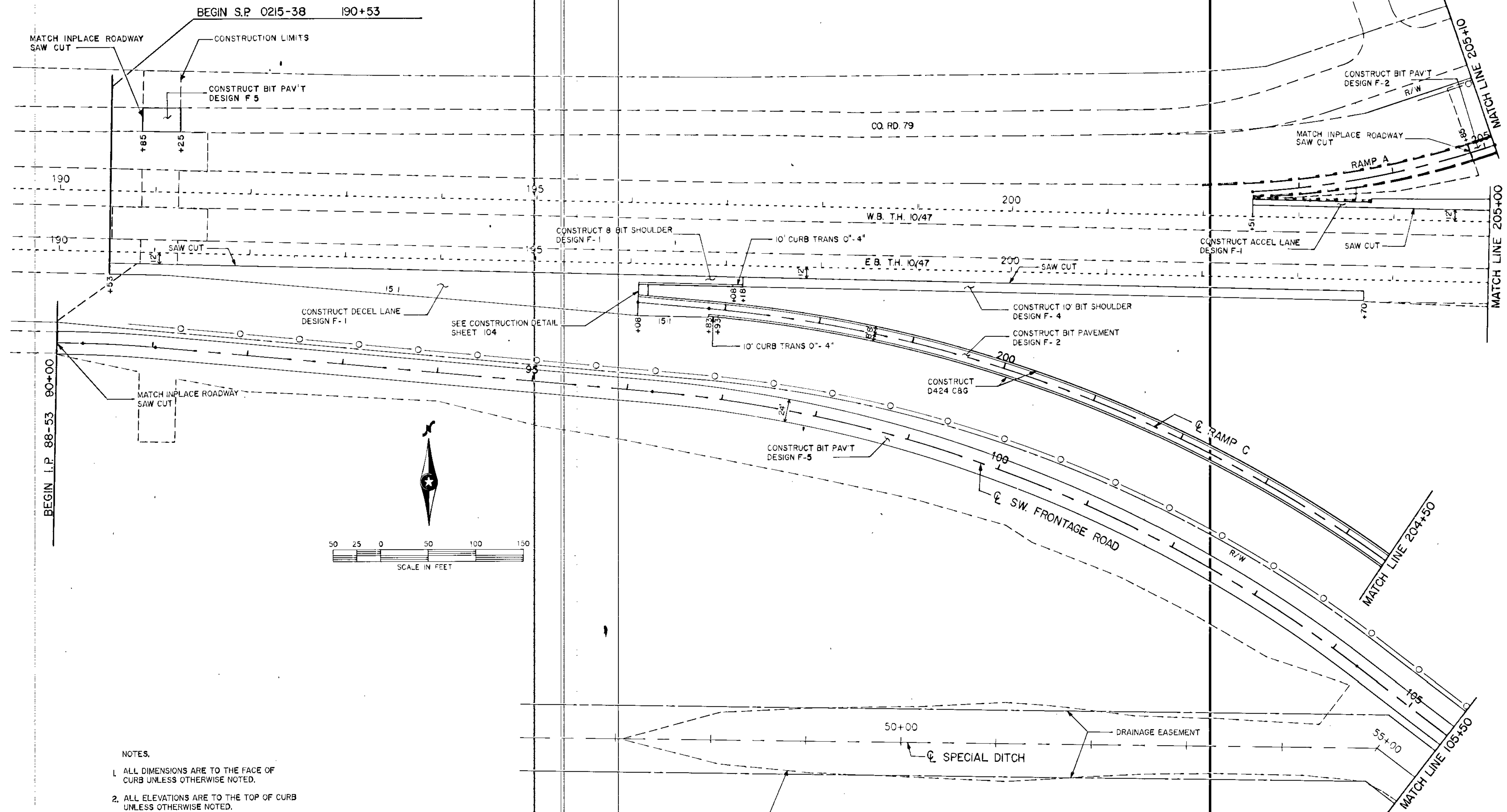
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

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



ORIGINAL DATE	6/14/89
REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	CTN
CHECKED BY:	
SURVEY BOOK	

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 PLANNED CONSTRUCTION  
 RLB STA. 48+00 - 62+50



- 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.

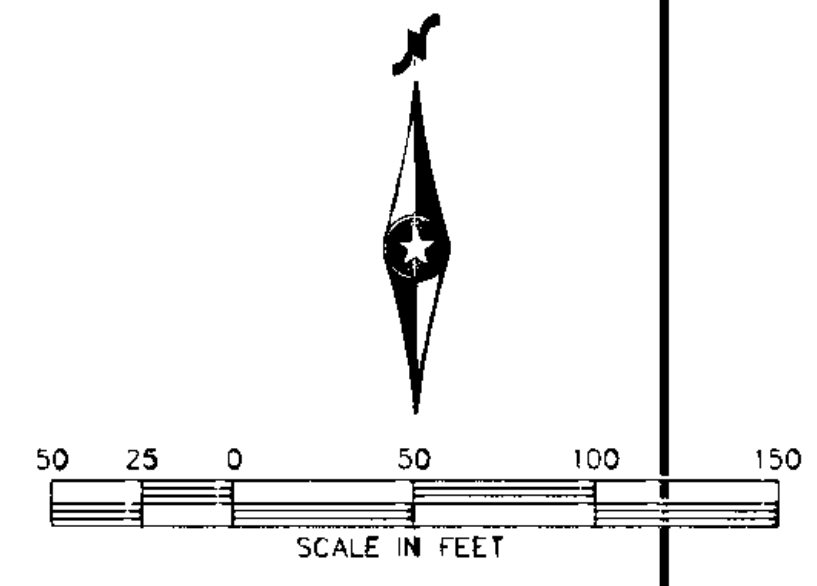
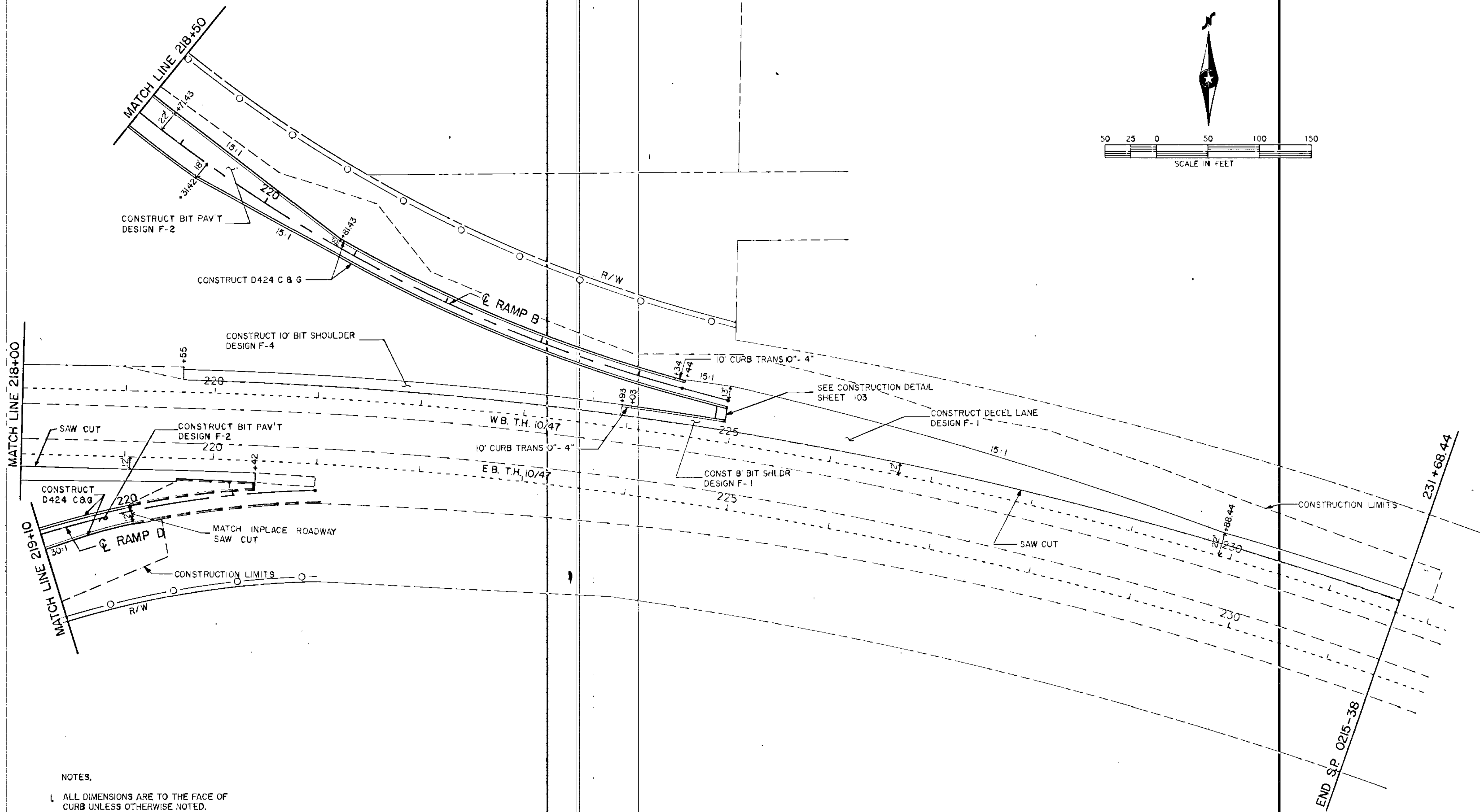
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.

*Boyd R. Paulsen*  
 Date: 2-22-89, Minn. Reg. No. 12666



ORIGINAL DATE	5/30/89
REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	CTN
CHECKED BY:	
SURVEY BOOK	

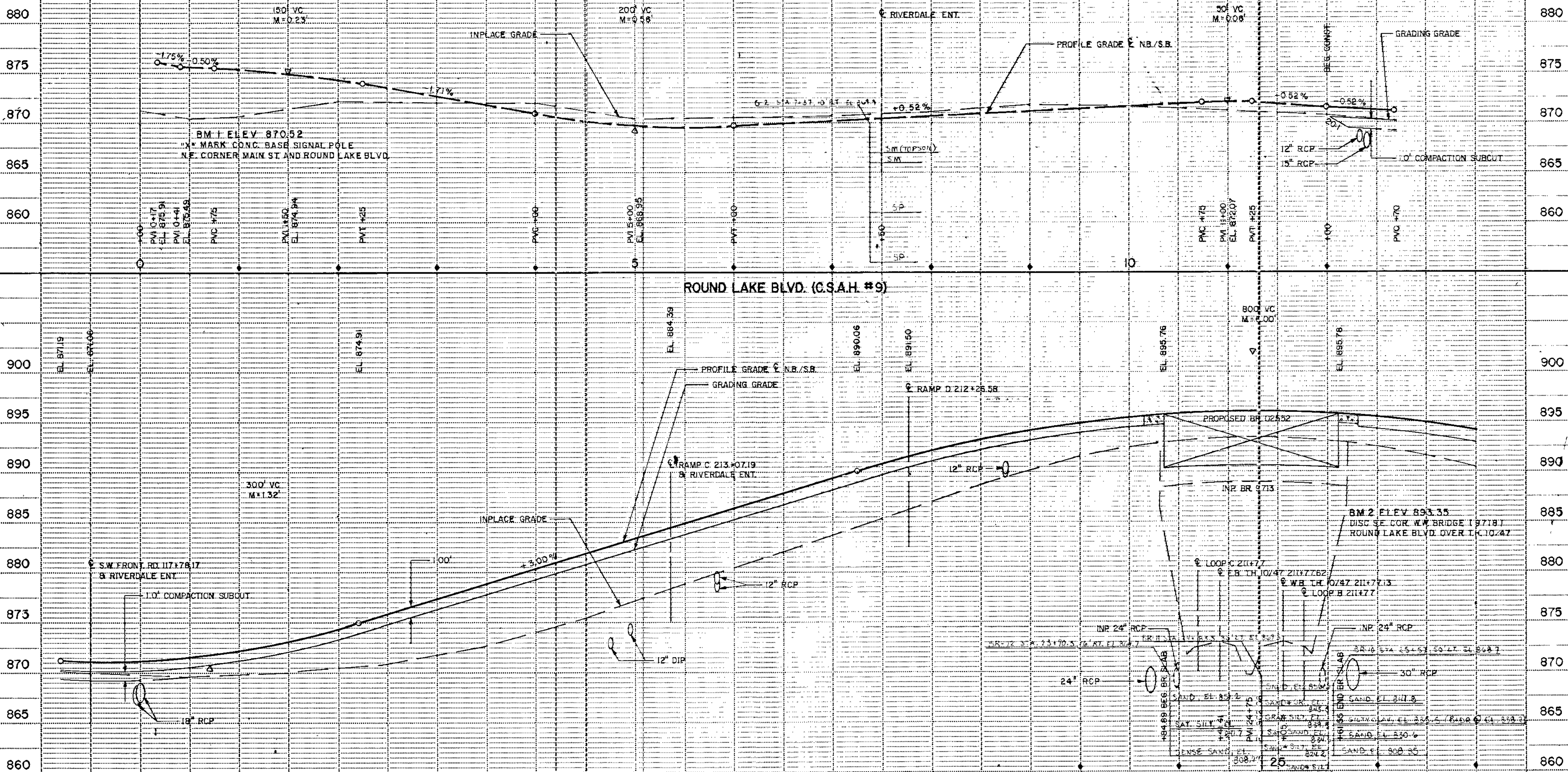
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 PLANNED CONSTRUCTION  
 T.H. 10/47 STA. 189+50 - 205+00



- 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.

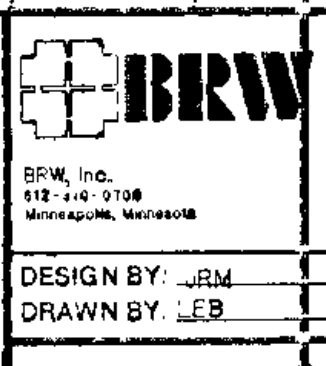
<p>I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.18.</p> <p style="text-align: right;"><i>Boyd K. Kuhn</i></p> <p style="font-size: small;">Date: 8-22-89, Minn. Reg. No. 12666</p>	<p style="font-size: x-small;">BRW, INC. 812-370-2700 Minneapolis, Minnesota</p>	ORIGINAL DATE 5/30/89 REVISIONS _____ _____ _____ SURVEY BOOK _____	<p><b>CITY OF COON RAPIDS</b></p> <p><b>IMPROVEMENT PROJECT 88-53</b></p> <p>PLANNED CONSTRUCTION</p> <p>T.H. 10/47 STA. 218+00 - 232+00</p>
S.A.P. NO. 02-609-08		SHEET 137 OF 256	DESIGN FILE No. 16-BB40

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.

*Boyd Paulsen*



ORIGINAL DATE 4/9/89
REVISIONS:
SURVEY BK. NO.

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

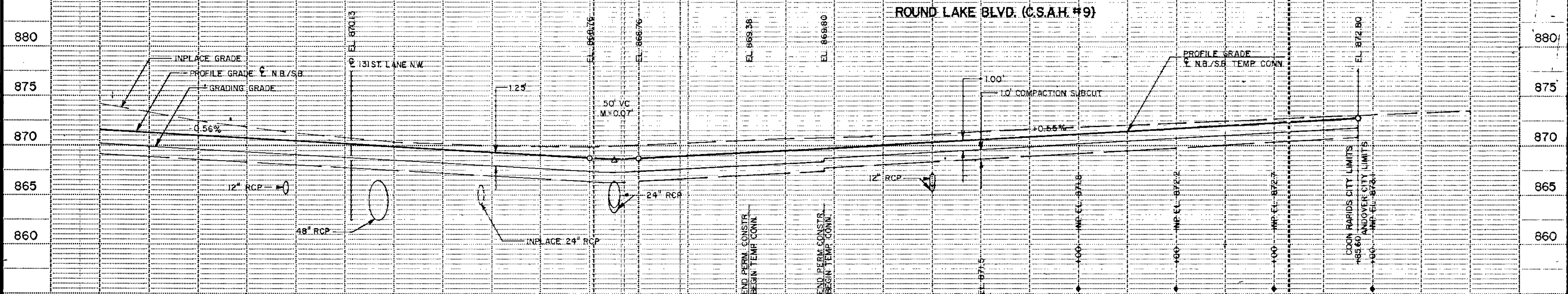
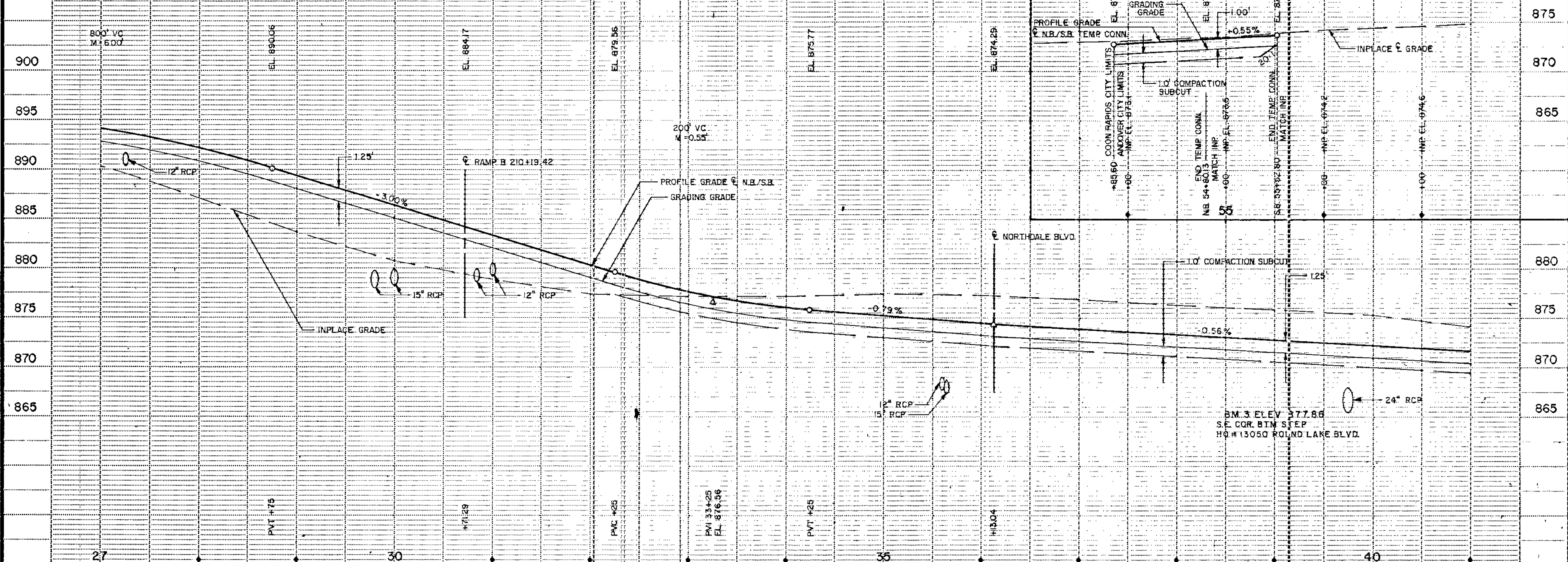
Date 8-22-89 Minn. Reg. No. 12666

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

SHEET 139 OF 256

DESIGN FILE  
 No. 16-8840

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.

*Royce Paul*

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

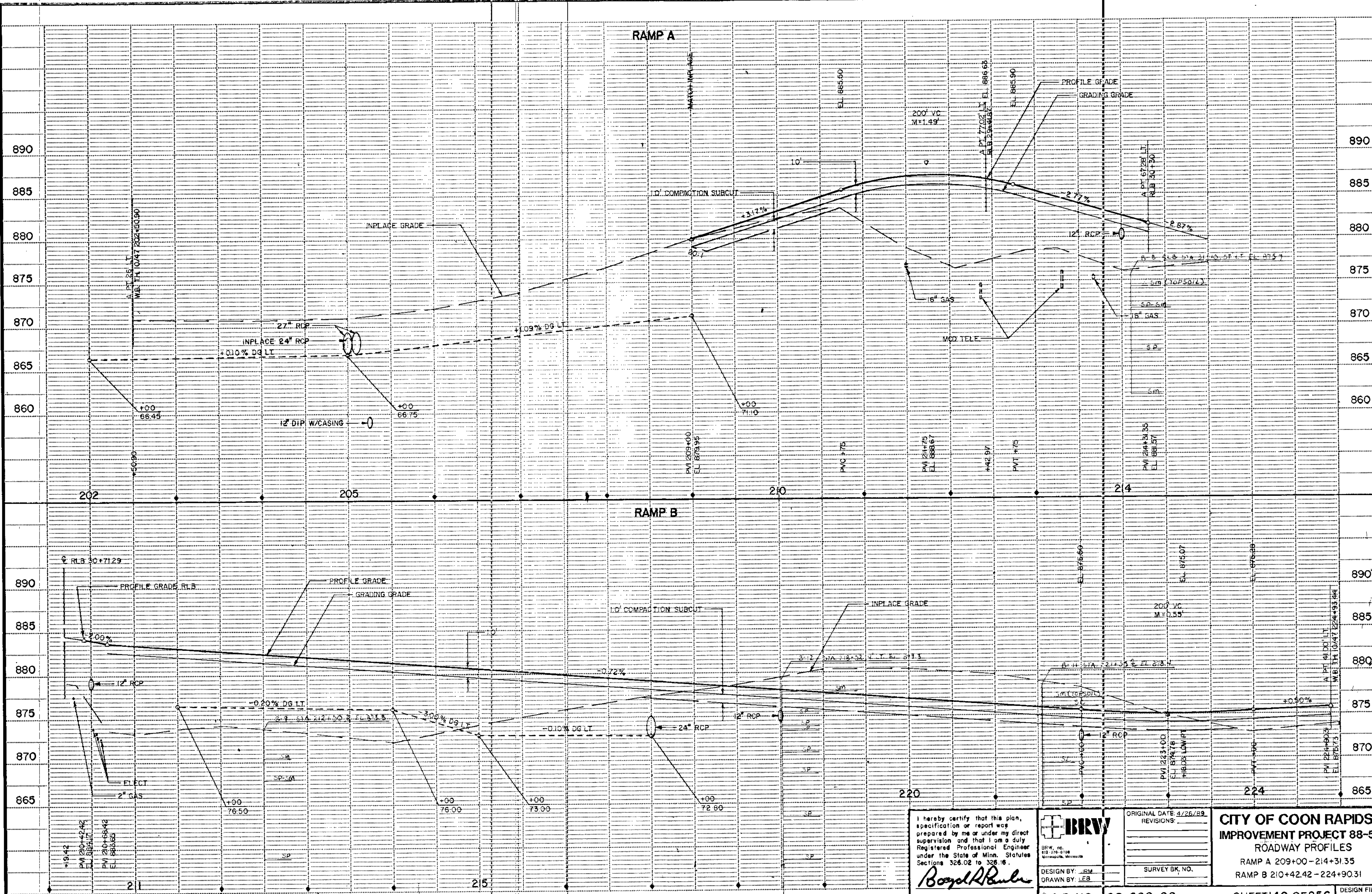
**BRW**

DESIGN BY: JRM  
DRAWN BY: LB

ORIGINAL DATE 4/20/89  
REVISIONS 6/12/89  
TEMP. CONN.

SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
ROADWAY PROFILES  
ROUND LAKE BLVD. (C.S.A.H. 9)  
27+00 - 55+52.80



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

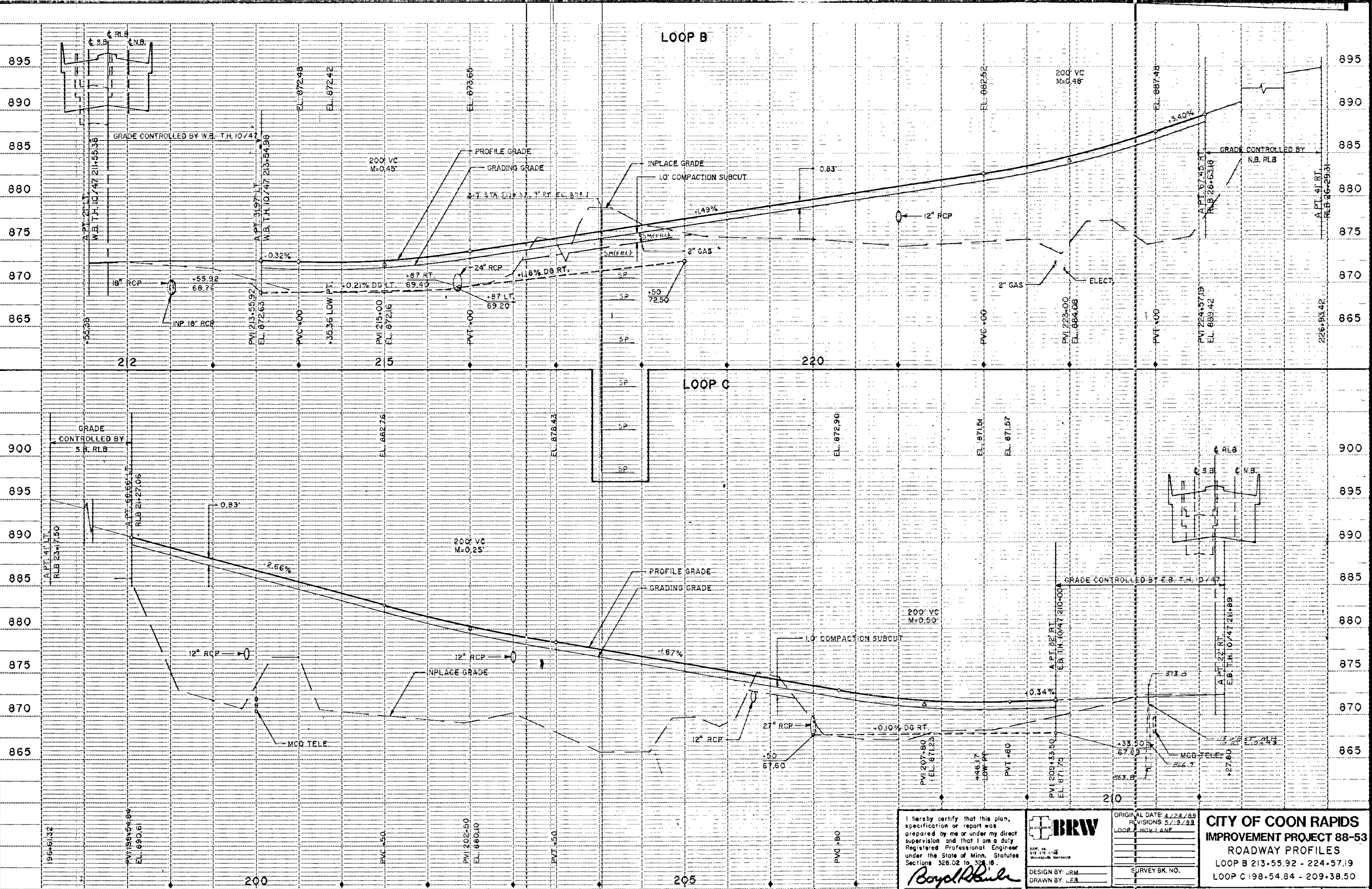
**BRW**

BRW, Inc.  
 413 118-0108  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: LEB

ORIGINAL DATE: 4/26/89
REVISIONS:
SURVEY BK. NO.

**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



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 326.18.

*Boyd R. Paul*

Date 8-22-83 Minn. Reg. No. 12668

**BRW**

DESIGN BY: JRM  
DRAWN BY: LER

SURVEY BK. NO.

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

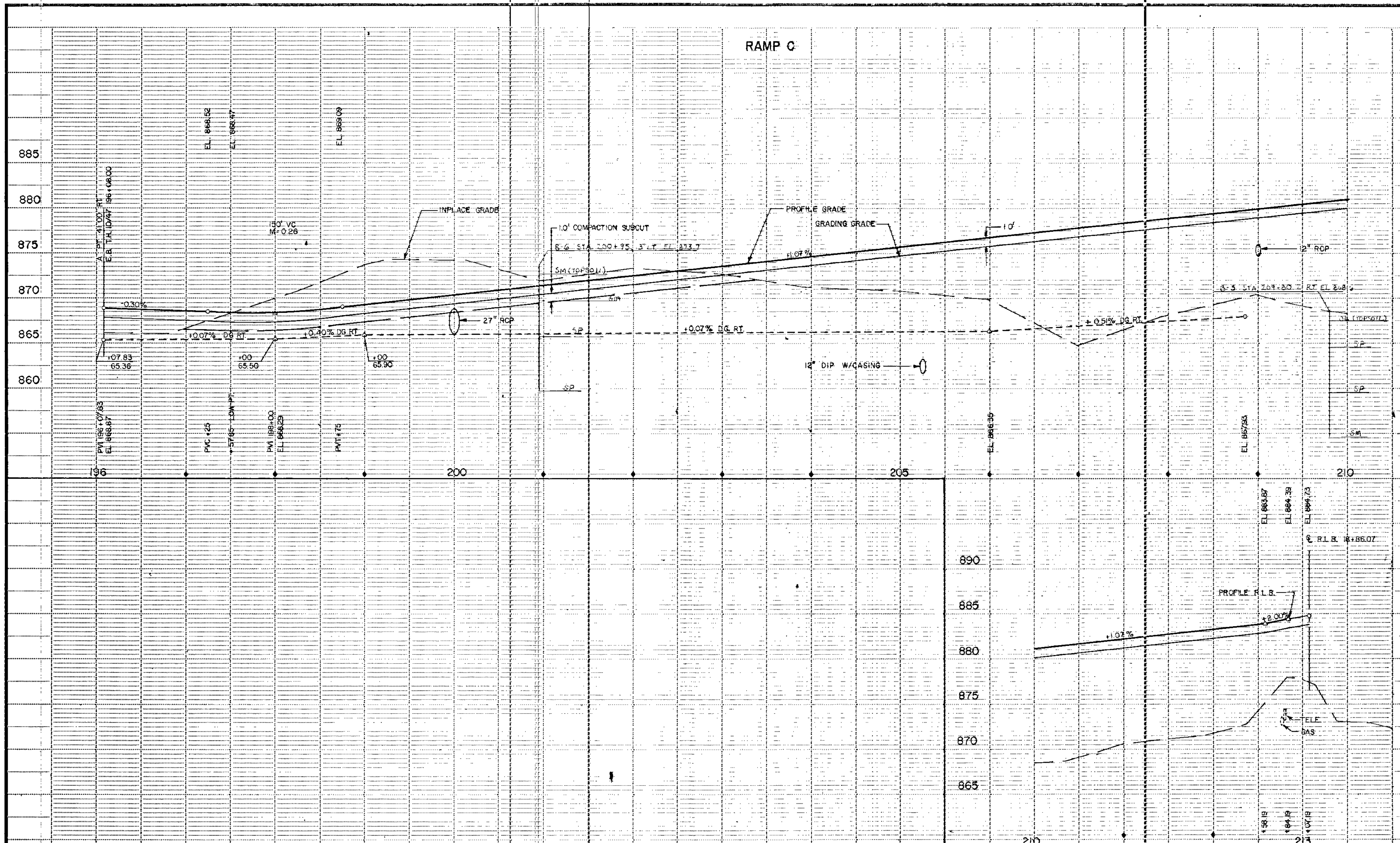
ORIGINAL DATE: 4/24/83  
REVISIONS: 5/19/83  
LOOP - HOV LANE

**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

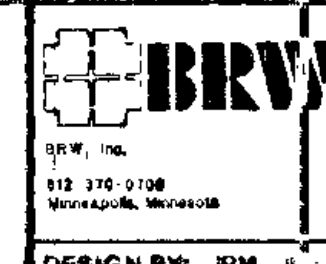
DESIGN FILE No. 16-8840

ALL DIMENSIONS IN FEET

RAMP C



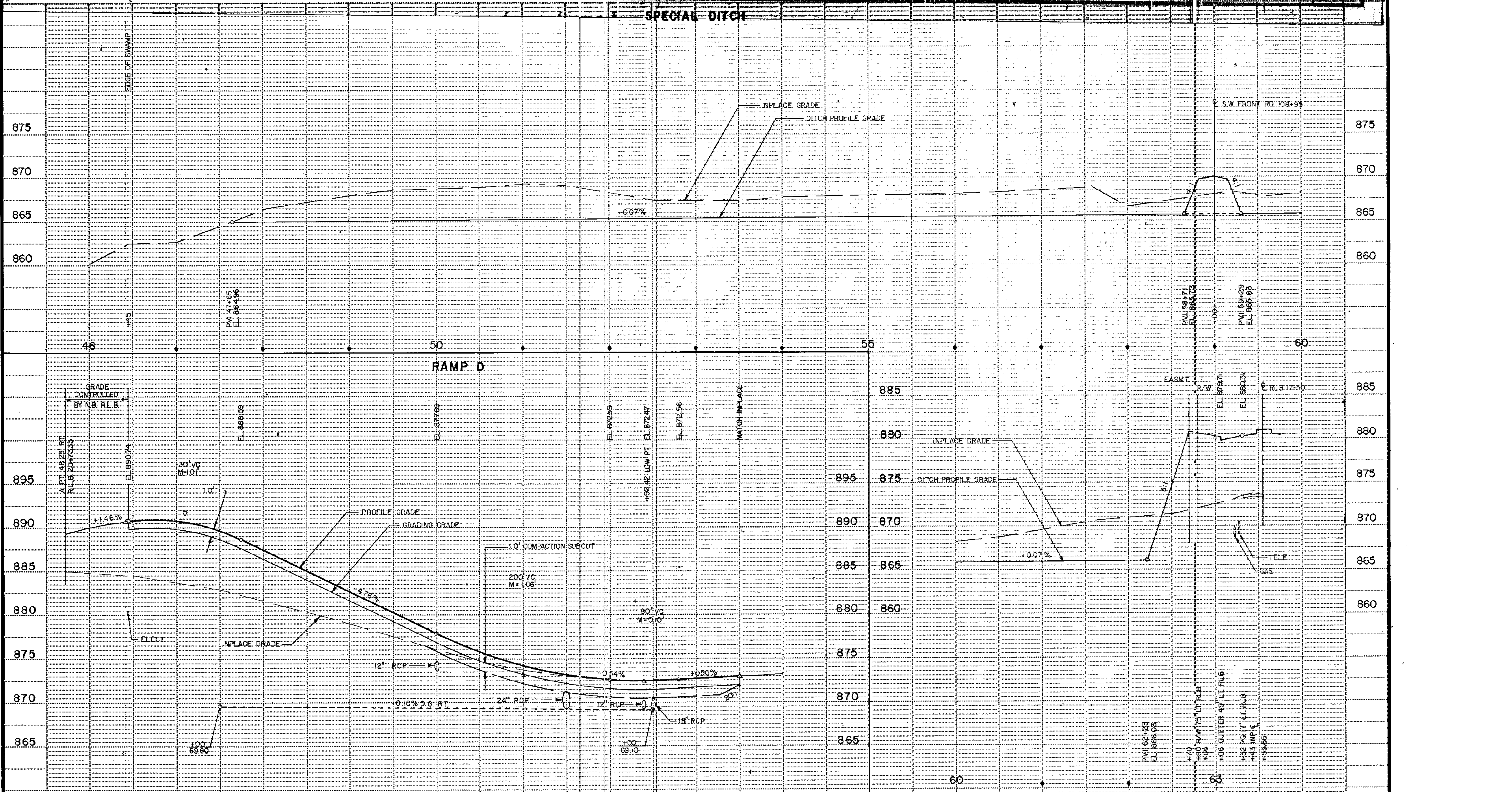
I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.



ORIGINAL DATE	4-27-89
REVISIONS:	
DESIGN BY:	JRM
SURVEY BK. NO.	

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROADWAY PROFILES  
 RAMP C 196+07.83 - 212+64.19





120	PVI 212+44.52 EL. 880.75 PVC 196	23	PVI 213+60 EL. 891.59	25	PVI 217+50 EL. 873.13	220	PVI 218+90 EL. 872.57	PVI 220+50	PVI 223+00 EL. 872.90
-----	----------------------------------------	----	--------------------------	----	--------------------------	-----	--------------------------	------------	--------------------------

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

*Boyd R. Baul*

Date 2-22-83 Minn. Reg. No. 12668 S.A.P. NO. 02-609-08

**BRW**

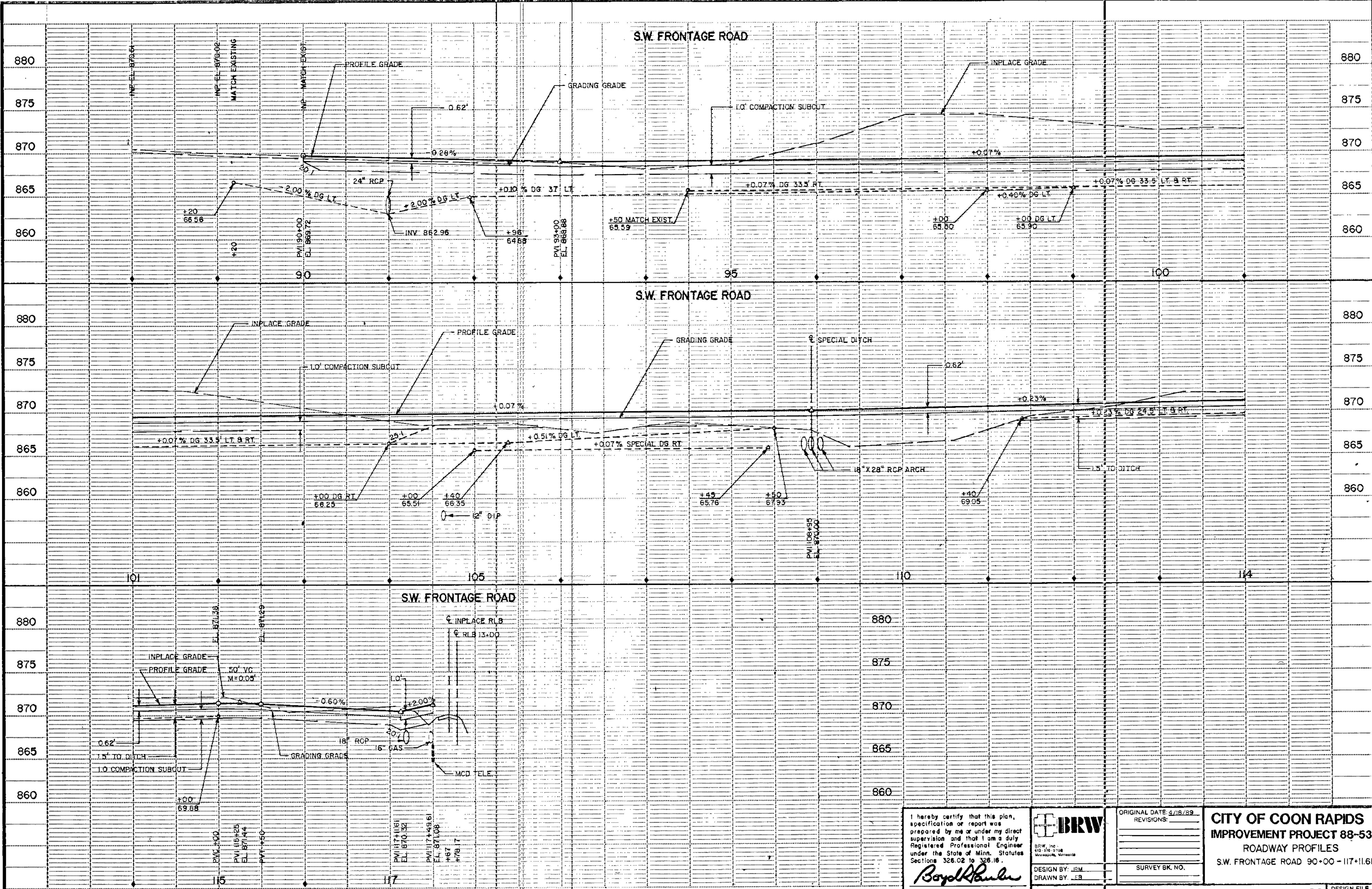
DESIGN BY: JRM  
 DRAWN BY: LEB

ORIGINAL DATE 4/25/89  
 REVISIONS:

**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

DESIGN FILE No. 16-8840

ALL DIMENSIONS IN FEET



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

**BRW**

BRW, Inc.  
612 376 0708  
Minneapolis, Minnesota

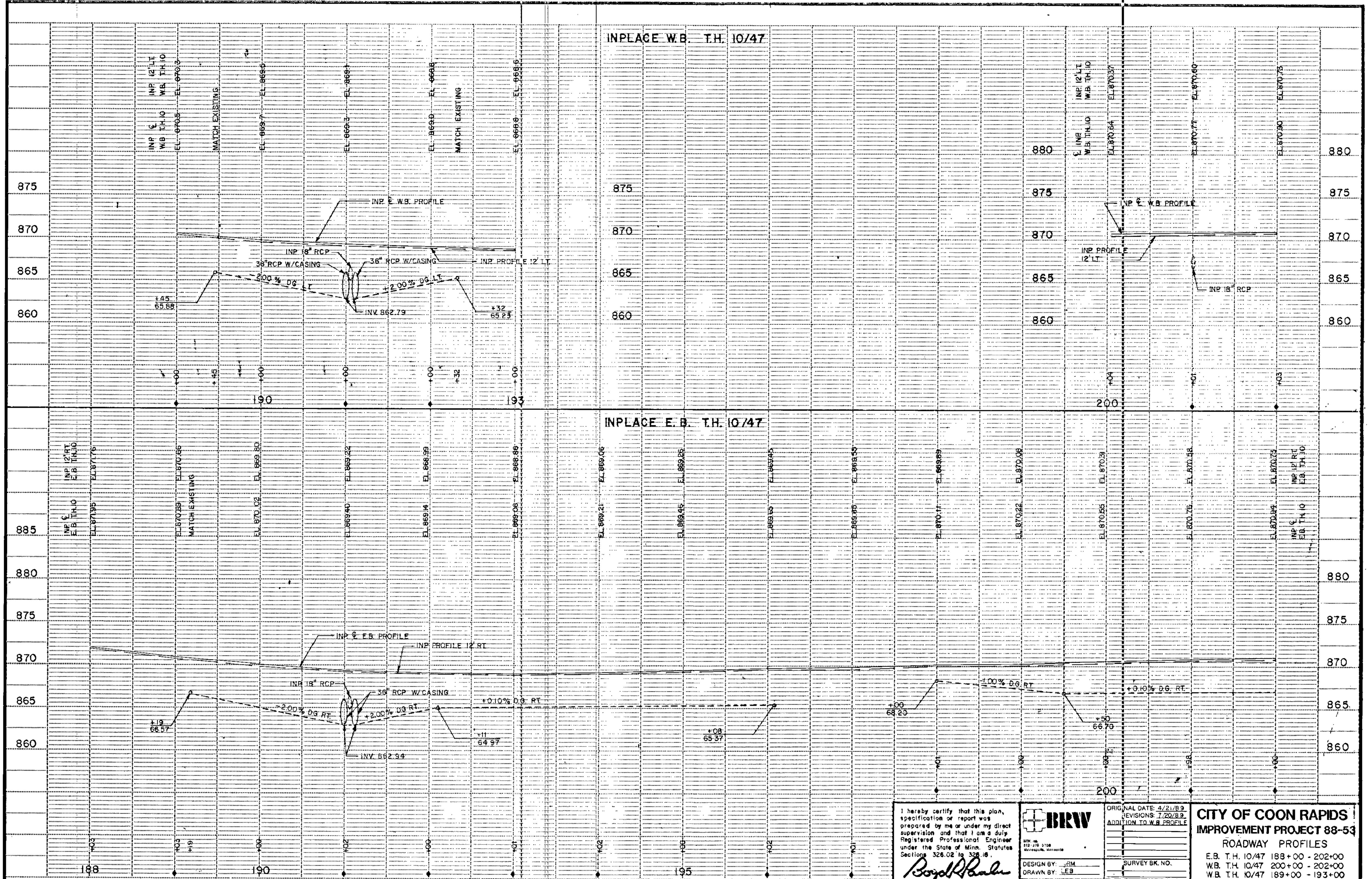
DESIGN BY: JRM  
DRAWN BY: JEB

ORIGINAL DATE: 4/18/83
REVISIONS:
SURVEY BK. NO.

**CITY OF COON RAPIDS**  
IMPROVEMENT PROJECT 88-53  
ROADWAY PROFILES  
S.W. FRONTAGE ROAD 90+00 - 117+11.61

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

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



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*Boyd B. Bahr*

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

**BRW**

DESIGN BY: JRM  
DRAWN BY: LEB

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

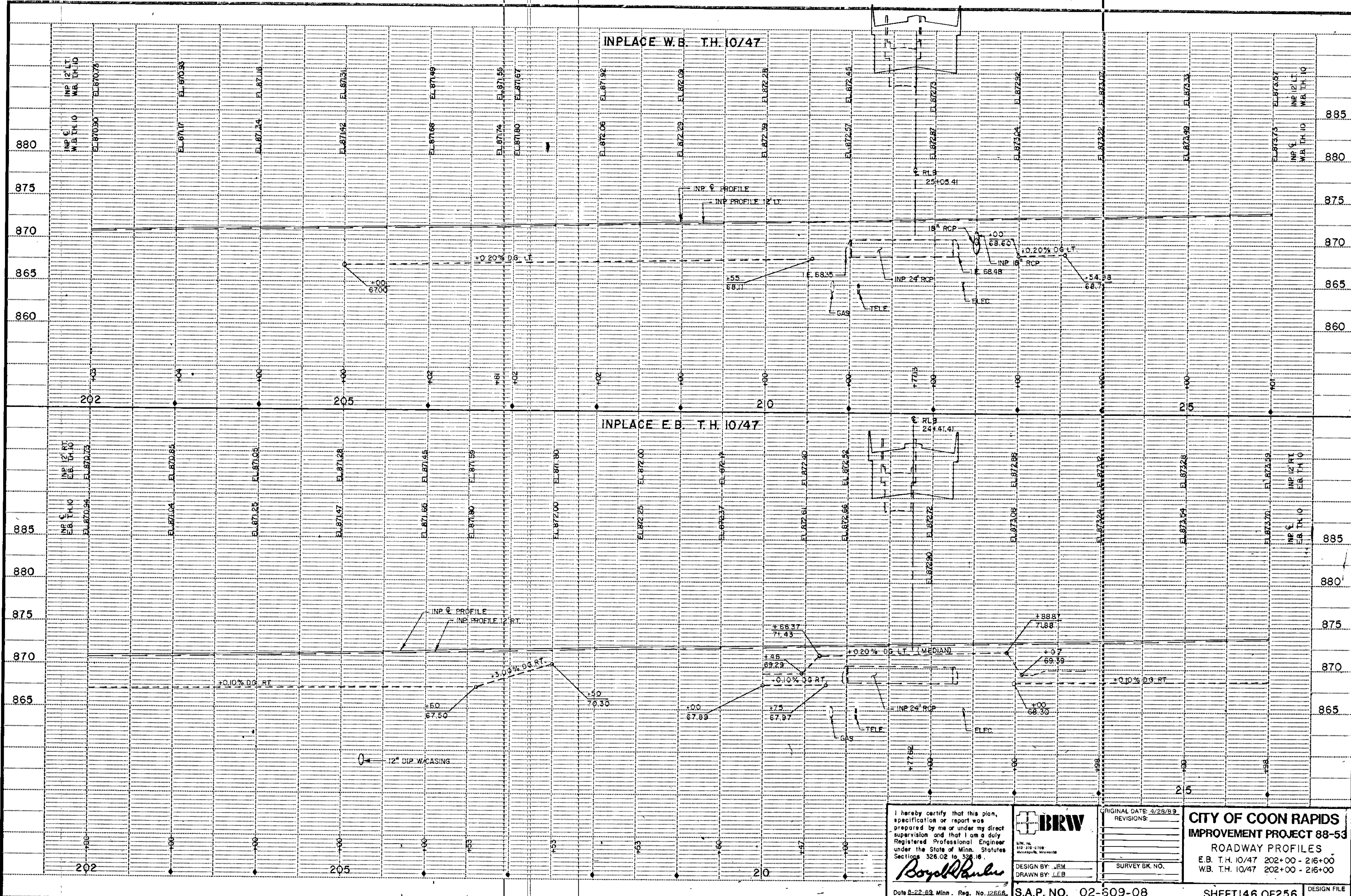
SURVEY BK. NO.

**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

SHEET 145 OF 256

DESIGN FILE  
No. 15-884Q



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 Paulsen*

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

**BRW**

DESIGN BY: JRM  
DRAWN BY: LEB

S.A.P. NO. 02-509-08

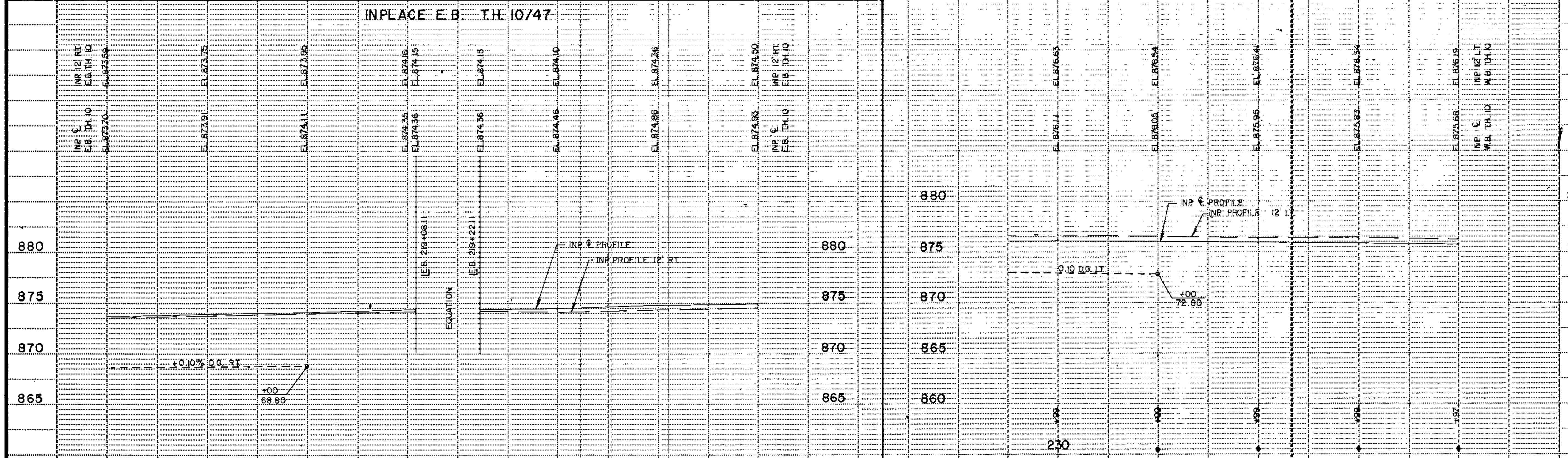
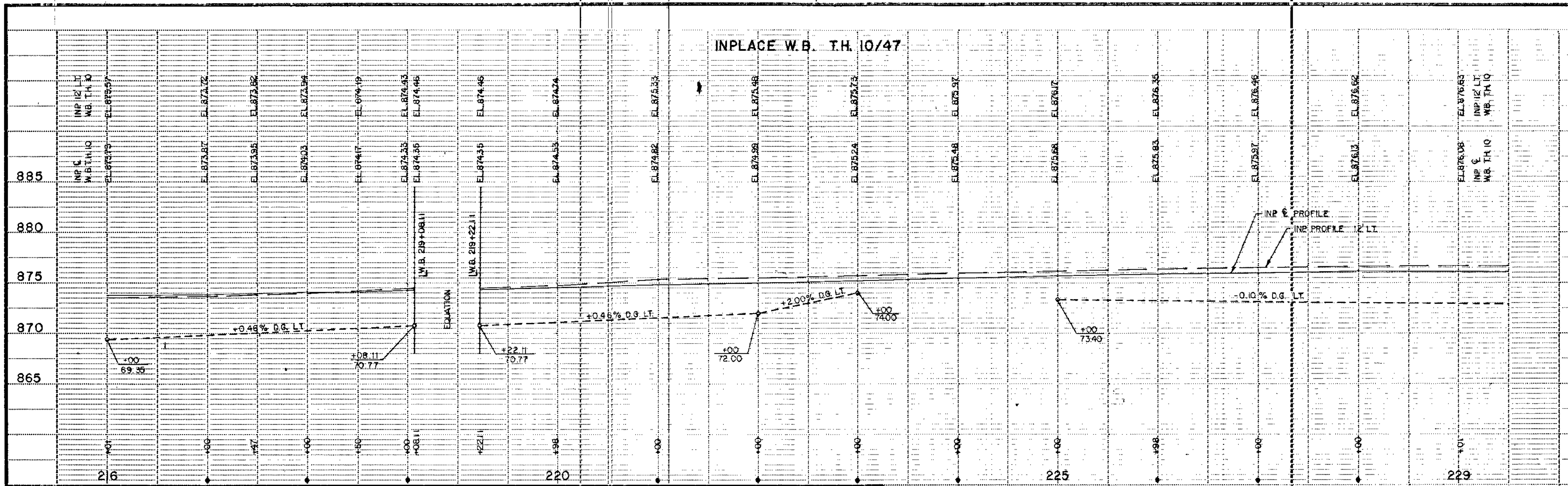
ORIGINAL DATE: 4/28/89  
REVISIONS:

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

SHEET 146 OF 256

DESIGN FILE  
No 16-5840



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

**BRW**

BRW, Inc.  
214-338-2128  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: LE9

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

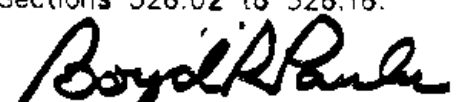

ORIGINAL DATE: 4/21/89
REVISIONS:
SURVEY BK. NO.

**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

SHEET 147 OF 256

DESIGN FILE  
No. 16-8849

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	o +					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	18" x 24" RCP-A				1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
4	203	191+05	29' LT	18" RCP	18" x 24" RCP-A				1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
W.B. TH 10/47														
5	204	191+03	31' RT	18" RCP	18" x 24" RCP-A				1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
6	205	191+03	35' LT	18" RCP	18" x 24" RCP-A				1	MNDOT				FILL PIPE WITH SAND & BULKHEAD
7	206	191+01	50' LT TO 104' LT	24" 18" RCP					2 +	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						ANOKA COUNTY	872.53	872.65	1	
28	227	54+21	11' LT	MH	o +					ANOKA COUNTY	872.95	873.03	1	
29	228	54+27	24' LT	CB						ANOKA COUNTY	872.53	872.65	1	
30	229	54+27	42' RT	MH	o +					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	 <small>BRW, INC. 812-370-0100 Minneapolis, Minnesota</small>	ORIGINAL DATE 4/8/89 REVISIONS _____	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> INPLACE DRAINAGE TABULATION
		DESIGN BY: SPJ DRAWN BY: PMJ CHECKED BY: _____	
S.A.P. NO. 02-609-08		SHEET 148 OF 256	
		DESIGN FILE No. 18-8840	

DRAINAGE TABULATION

Table with columns: LINE NO., STRUCT NO., BASE LINE, STATION, LOCATION (5), REMARKS NOTES, CONSTRUCTION (MH or CB, DESIGN TYPE, TOP OF CASTING ELEV, OUTLET ELEV), PAY HEIGHT FT, F & I CAST ASSEM, FURNISH & INSTALL (12" RCP to 48" RCP, APRON), DRAINS TO (CLASS OF PIPE, STRUCT NO, PIPE GRADE, INLET ELEV, RANDOM RIPRAP CU. YD.).

DRAINAGE CASTING SCHEDULE (P) table with columns: ASSEMBLY TYPE, NUMBER REQUIRED, FRAME CASTING, GRATE CASTING, CURB BOX CAST, RING CASTING, COVER CASTING.

STANDARD PLATE NO. / CASTING NO. table with columns: STANDARD PLATE NO., CASTING NO.

DRAINAGE TABULATION NOTES

- (3) SEE CONSTRUCTION DETAIL SHEET FOR SPEC. 1 STRUCTURE DETAIL.
(4) SEE CONSTRUCTION DETAIL SHEET FOR SPEC. 2 STRUCTURE DETAIL.
(5) ALL OFFSET LOCATIONS DESCRIBE THE CENTER OF THE STRUCTURE BASE.
(8) TIE LAST THREE PIPE JOINTS ON STORM SEWER F.E.S.
(9) SEE CONSTRUCTION DETAIL SHEET FOR ASSEMBLY B-20 DETAIL.
(10) STEPS ON EAST SIDE.
(12) RISER.
(14) CLASS III RIPRAP INCLUDING GRANULAR FILTER WITH GEOTEXTILE FABRIC.
(15) TIE ALL JOINTS.
(16) INSTALL BENT BOLT AS PER STANDARD PLATE 4154.
(17) 100% STATE FUNDED.
(18) 13-100% LOCAL FUNDING, 2- 100% STATE FUNDED.
(19) 73-100% LOCAL FUNDING, 4- 100% STATE FUNDED.

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: 2-22-89 Minn. Reg. No. J2666



DESIGN BY: SPJ
DRAWN BY: PMJ
CHECKED BY:

ORIGINAL DATE: 4/18/89
REVISIONS:
AS-BUILT 10/25/90 TSP
SURVEY BOOK

CITY OF COON RAPIDS
IMPROVEMENT PROJECT 88-53
DRAINAGE TABULATION



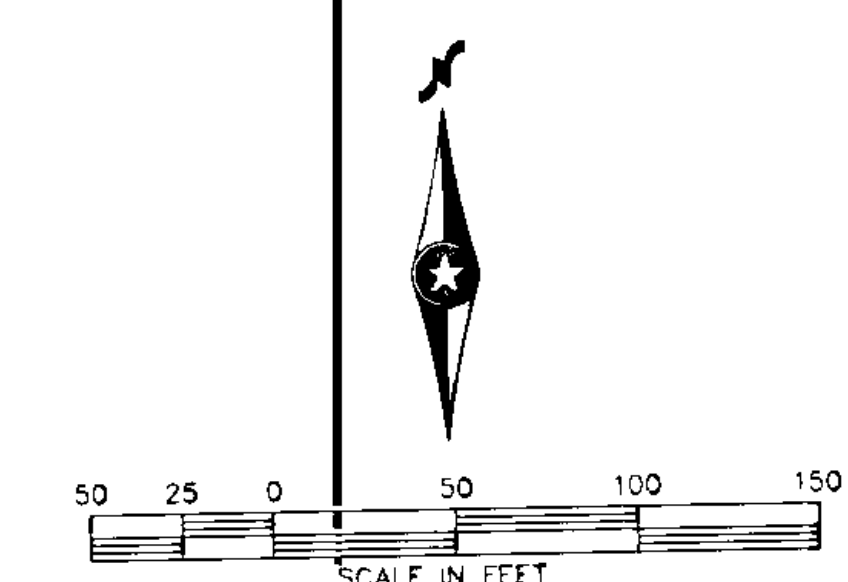
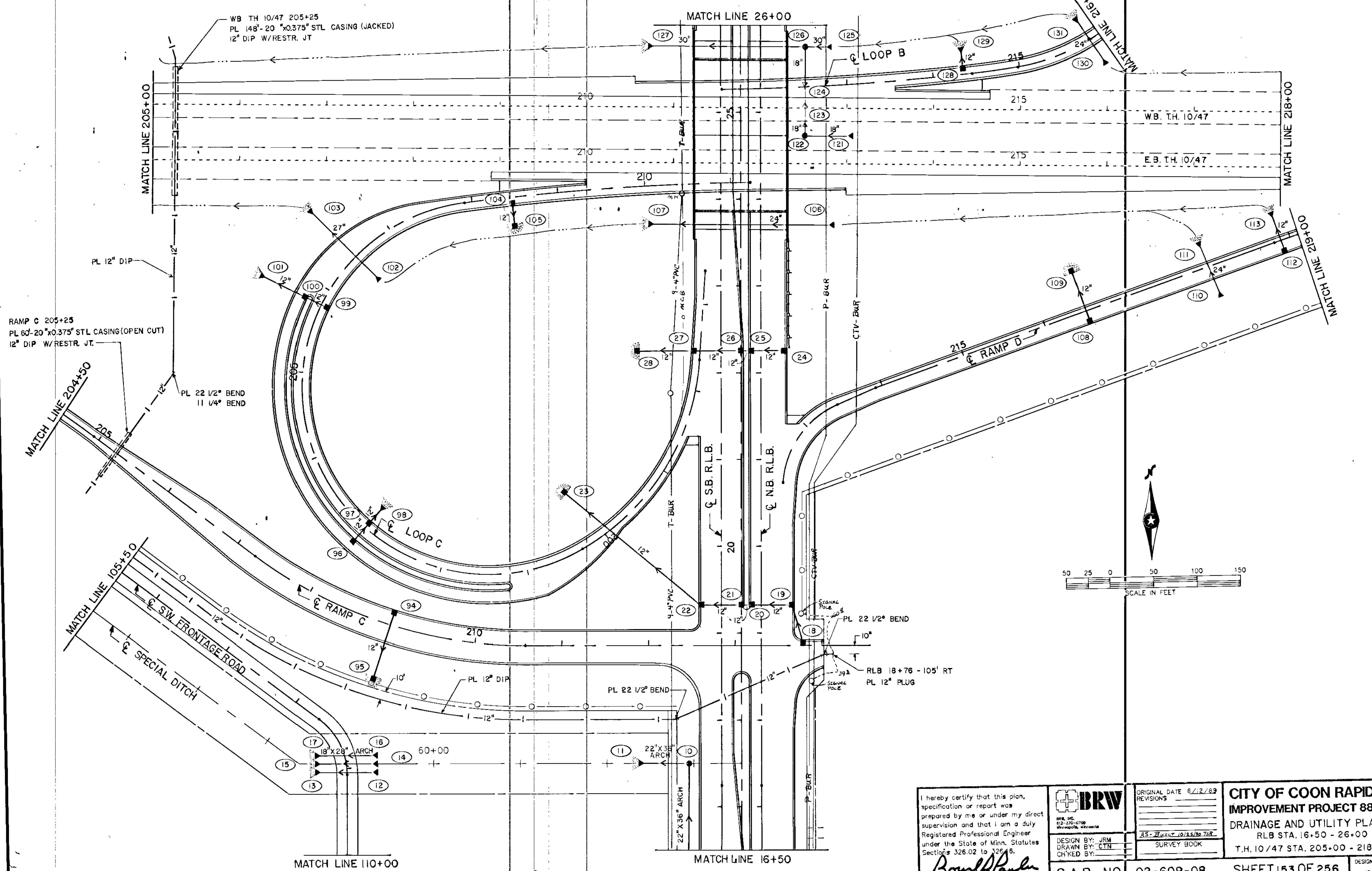


DRAINAGE TABULATION																																			
LINE NO.	STRUCT NO.	BASE LINE	STATION	LOCATION (5)	REMARKS NOTES	CONSTRUCTION					FURNISH & INSTALL										DRAINS TO														
						MH or CB	DESIGN TYPE	TOP OF CASTING ELEV	OUTLET ELEV	PAY HEIGHT FT	F & I CAST ASSEM	12" RCP LF	15" RCP LF	18" RCP LF	24" RCP LF	27" RCP LF	30" RCP LF	33" RCP LF	36" RCP LF	48" RCP LF	18" x 28" RCP-A LF	22" x 36" RCP-A LF	40" x 65" RCP-A LF	APRON EACH	CLASS OF PIPE	STRUCT NO	PIPE GRADE	INLET ELEV	RANDOM RIPRAP CU. YD. (14)						
91	84	RAMP C	197+58	7.00 RT		CB	H	867.97	865.77	2.2	B-8	12 15													111	85	1.50	865.50	2.6 2.7						
92	85	RAMP C	197+58	25.00 RT	(8)		APRON		865.50															1-12"	111	87	1.13	866.00	6.9						
93	86	RAMP C	200+00	30.00 LT	(6)		APRON		866.68						48 58									1-27"	111	89	7.11	866.80	2.6 3.0						
94	87	RAMP C	200+00	30.00 RT			APRON		866.00															1-27"	111	91	0.20	866.89	10.1						
95	88	RAMP C	203+00	7.00 RT		CB	H	873.23	869.50	3.7	B-8	32												1-12"	111	93	0.20	866.89	18.5						
96	89	RAMP C	203+00	45.00 RT	(8)		APRON		866.80																1-12"	111	95	4.47	871.00	10.1					
97	90	RAMP A	205+00	24.00 RT	(6)		APRON		867.00						48 44										1-12"	111	97	2.77	875.79	10.1					
98	91	RAMP A	205+00	32.00 LT			APRON		866.89																1-27"	111	98	2.77	874.96	18.5					
99	92	RAMP A	205+10	24.00 RT	(6)		APRON		867.00						48 44										1-12"	111	100	0.50	871.51	10.1					
100	93	RAMP A	205+10	32.00 LT			APRON		866.89																1-27"	111	101	0.50	871.17	18.5					
101	94	RAMP C	209+00	17.00 LT		CB	H	878.86	875.16	3.7	B-8	84 87												1-12"	111	103	2.77	875.79	2.6 3.3						
102	95	RAMP C	209+00	73.00 RT	(15)		APRON		871.00																1-12"	111	104	9.00	878.63	2.6 3.3					
103	96	LOOP C	203+00	18.33 LT	(16)	CB	C OR G	880.31	876.54	3.8	B-5	27												1-12"	111	105	39.00	874.96	2.6 3.3						
104	97	LOOP C	203+00	9.00 RT		CB	H	878.63	875.79	2.8	B-8	24													1-12"	111	107	2.77	874.96	2.6 3.3					
105	98	LOOP C	203+00	39.00 RT	(8)		APRON		874.96																1-12"	111	109	5.44	870.00	2.6 3.3					
106	99	LOOP C	205+78	9.00 RT		CB	H	873.91	871.64	2.3	B-8	27													1-12"	111	110	38.00	867.70	2.6 3.3					
107	100	LOOP C	205+78	18.33 LT	(16)	CB	C OR G	875.59	871.51	4.0	B-5	62													1-12"	111	111	38.00	867.70	2.6 3.3					
108	101	LOOP C	205+78	88.33 LT	(8) (16)		APRON		871.17																1-12"	111	112	208+46	9.00	868.97	2.6 3.3				
109	102	LOOP C	206+50	38.00 RT	(6) (16)		APRON		867.70						102 104										1-27"	111	113	218+92	15.00	869.39	2.6 3.3				
110	103	LOOP C	206+50	76.00 LT			APRON		867.51																1-27"	111	114	218+92	33.00	869.00	2.6 3.3				
111	104	LOOP C	208+46	9.00 RT		CB	H	871.21	868.97	2.2	B-8	21 24													1-12"	111	115	214+00	17.00	877.50	2.6 3.3				
112	105	LOOP C	208+46	38.00 RT	(8)		APRON		868.00																1-12"	111	116	221+00	9.00	877.08	2.6 3.3				
113	106	E.B. TH10/47	212+83.62	70.00 RT	(6)		APRON		868.30																1-24"	V	117	217+00	54.00	872.80	2.6 3.3				
114	107	E.B. TH10/47	210+71.62	70.00 RT			APRON		868.00																1-24"	V	118	217+00	54.00	872.50	2.6 3.3				
115	108	RAMP D	216+50	15.00 RT	(16)	CB	H	877.39	873.70	3.7	B-8	65 62													1-12"	111	119	218+92	15.00	869.39	2.6 3.3				
116	109	RAMP D	216+50	50.00 LT	(15)		APRON		870.00																	1-12"	111	120	218+92	33.00	869.00	2.6 3.3			
117	110	RAMP D	218+00	37.00 RT	(6)		APRON		869.00						56											1-24"	111	121	214+00	17.00	877.50	2.6 3.3			
118	111	RAMP D	218+00	31.00 LT			APRON		868.86																	1-24"	111	122	221+00	9.00	877.08	2.6 3.3			
119	112	RAMP D	218+92	15.00 RT	(16)	CB	H	871.63	869.39	2.2	B-8	39 42														1-12"	111	123	212+52	46.00	869.25	2.6 3.3			
120	113	RAMP D	218+92	33.00 LT	(8) (16)		APRON		869.00																	1-12"	111	124	217+00	54.00	872.80	2.6 3.3			
121	114	RAMP B	214+00	17.00 RT		CB	H	880.14	877.50	2.6	B-8	44														1-12"	111	125	217+00	54.00	872.50	2.6 3.3			
122	115	LOOP B	221+00	9.00 LT		CB	C OR G	880.46	877.08	3.4	B-8		21													1-15"	111	126	212+52	46.00	869.25	2.6 3.3			
123	116	LOOP B	221+00	36.00 LT	(8)		APRON		876.97																	1-15"	111	127	212+52	46.00	869.25	2.6 3.3			
124	117	RAMP B	217+00	54.00 LT	(6)		APRON		872.80						96											1-24"	111	128	212+81.13	70.00	868.40	2.6 3.3			
125	118	RAMP B	217+00	54.00 RT			APRON		872.50																	1-24"	111	129	214+35	9.00	869.62	2.6 3.3			
126	119	RAMP B	218+50	21.00 LT		CB	H	876.88	874.60	2.3	B-8	66														1-12"	111	130	215+87	33.00	869.40	2.6 3.3			
127	120	RAMP B	218+50	51.00 RT	(15)		APRON		874.25																	1-12"	111	131	215+87	33.00	869.40	2.6 3.3			
128	121	E.B. TH10/47	213+07	32.00 LT	(8)		SAFETY APRON		869.39																	1-18"	111	132	213+07	32.00	869.25	2.6 3.3			
129	122	E.B. TH10/47	212+52	32.00 LT		MH	C OR G	871.80	869.28	2.9	A-4															1-18"	111	133	212+52	46.00	869.25	2.6 3.3			
130	123	E.B. TH10/47	212+52	46.00 LT	(7)				869.25																		1-30"	V	134	222+00	7.00	871.84	2.6 3.3		
131	124	W.B. TH10/47	212+52	24.00 LT	(7)				868.80																		1-30"	V	135	210+73.13	70.00	870.00	2.6 3.3		
132	125	W.B. TH10/47	212+81.13	70.00 LT	(6)				868.40																		1-30"	V	136	40.00	RT	864.12	5.0	864.12	2.6 3.3
133	126	W.B. TH10/47	212+52	70.00 LT	(11)	MH	54-4019		868.36	5.2																1-30"	V	137	214+35	9.00	869.62	2.2	869.62	2.6 3.3	
134	128	W.B. TH10/47	212+52	71.25 LT	(12)		A OR F	879.00		5.1	A-4															1-30"	V	138	215+87	33.00	869.40	2.2	869.40	2.6 3.3	
135	127	W.B. TH10/47	210+73.13	70.00 LT	(6)		APRON		868.14																	1-30"	V	139	215+87	31.00	869.20	2.2	869.20	2.6 3.3	
136	128	LOOP B	214+35	9.00 RT		CB	H	871.86	869.62	2.2	B-8	14														1-12"	111	140	223+18	7.00	872.37	2.2	872.37	2.6 3.3	
137	129	LOOP B	214+35	29.00 RT	(8)		APRON		869.52																		1-12"	111	141	222+00	7.00	871.84	3.0	871.84	2.6 3.3
138	130	LOOP B	215+87	33.00 RT	(6)		APRON		869.40						50 58												1-24"	111	142	222+00	7.00	871.84	3.0	871.84	2.6 3.3
139	131	LOOP B	215+87	31.00 LT			APRON		869.20																		1-24"	111	143	222+00	7.00	871.84	3.0	871.84	2.6 3.3
140	132	RAMP B	223+18	7.00 LT		CB	H	874.60	872.37	2.2	B-8	117														1-12"	111	144	222+00	7.00	871.84	3.0	871.84	2.6 3.3	
141	133	RAMP B	222+00	7.00 LT		CB	C OR G	875.03	872.02	3.0	B-8	32 38														1-12"	111	145	222+00	7.00	871.84	3.0	871.84	2.6 3.3	
142	134	RAMP B	222+00	7.00 LT	(15)		APRON		871.84																		1-12"	111	146	40.00	RT	864.12	5.0	864.12	2.6 3.3
143	136	N.B. RLB	46+25	40.00 RT		MH	C OR G	868.79	864.12	5.0					16											1-12"	111	147	40.00	RT	864.12	5.0	864.12	2.6 3.3	

DRAINAGE TABULATION NOTES

- (2) REINFORCED CONCRETE PIPE CULVERT
- (5) ALL OFFSET LOCATIONS DESCRIBE THE CENTER OF THE STRUCTURE BASE
- (6) PIPE CULVERT DESIGN 3006
- (7) CONNECT TO EXISTING 18" RCP CULVERT
- (8) TIE LAST THREE PIPE JOINTS ON STORM SEWER F.E.S.
- (11) STEPS ON NORTH SIDE
- (12) RISER
- (14) CLASS III RIPRAP INCLUDING GRANULAR FILTER WITH GEOTEXTILE FABRIC
- (15) TIE ALL JOINTS
- (16)





RAMP C 205+25  
 PL 60'-20" x 0.375" STL CASING (OPEN CUT)  
 12" DIP W/RESTR. JT.

WB TH 10/47 205+25  
 PL 148'-20" x 0.375" STL CASING (JACKED)  
 12" DIP W/RESTR. JT.

PL 22 1/2° BEND  
 11 1/4° BEND

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

ORIGINAL DATE 6/22/89  
 REVISIONS  
 AS-SHEET 10/13/89 T&R  
 SURVEY BOOK  
 DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY:

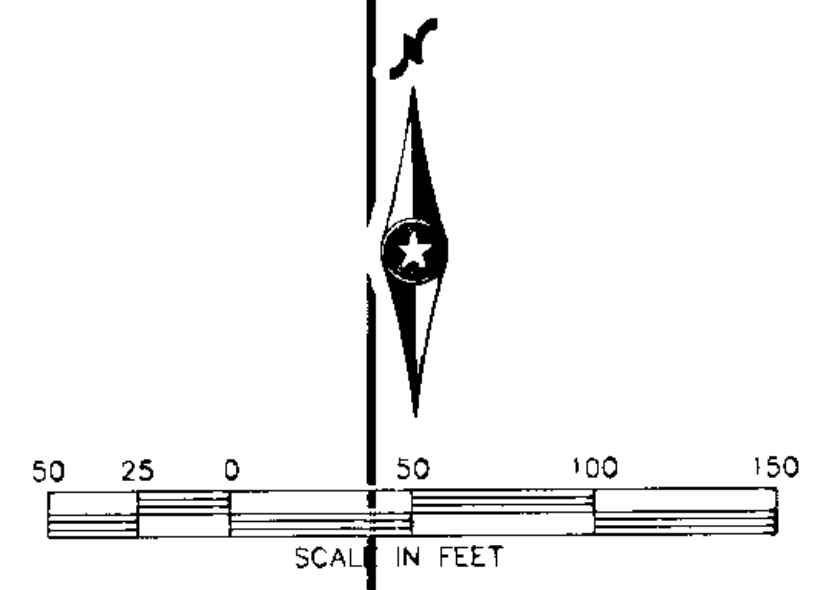
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 DRAINAGE AND UTILITY PLAN  
 RLB STA. 16+50 - 26+00  
 T.H. 10/47 STA. 205+00 - 218+00

S.A.P. NO. 02-609-08 SHEET 153 OF 256

DESIGN FILE No. 15-8850

MATCH LINE 33+50

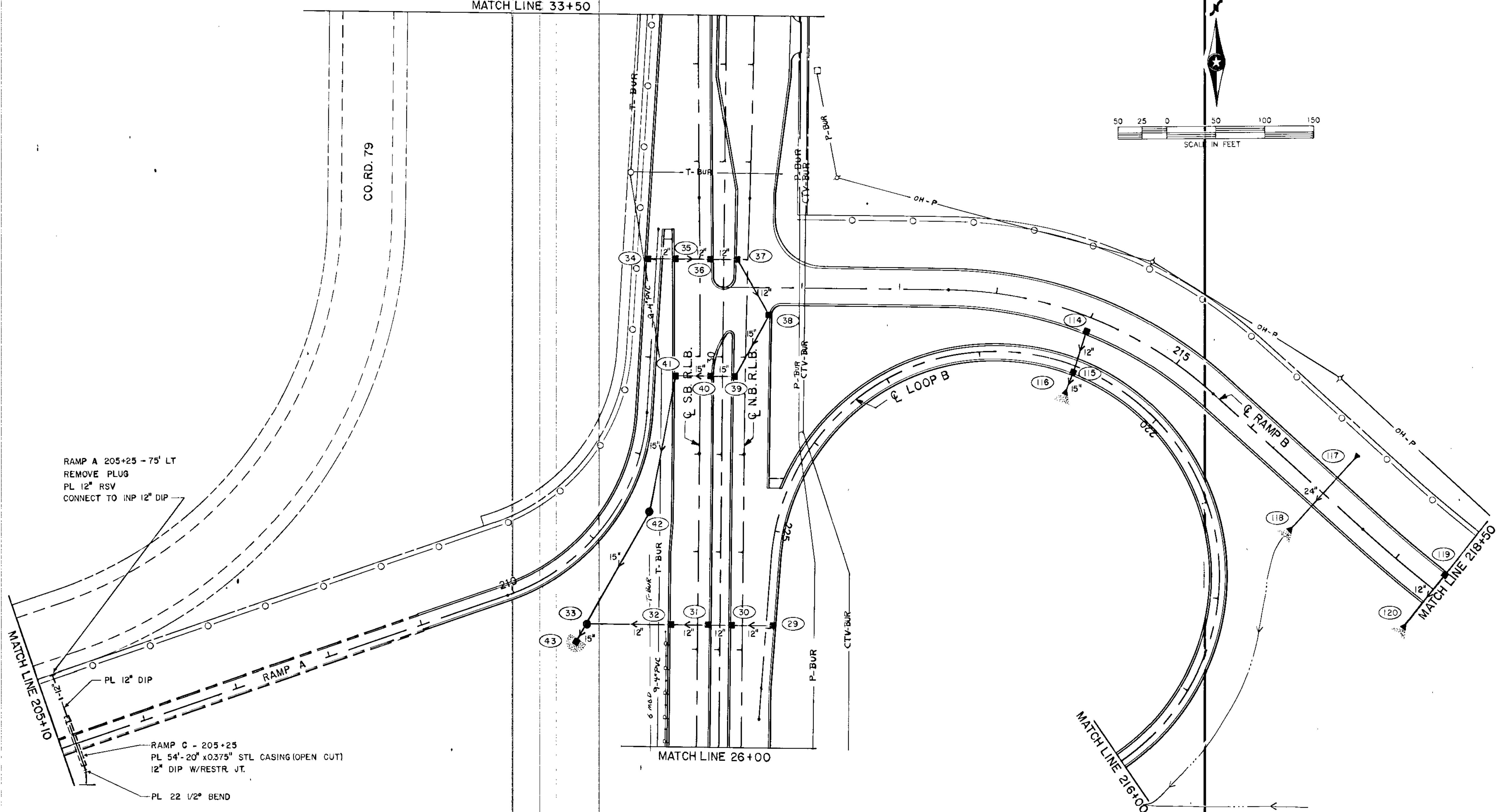
CO. RD. 79



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

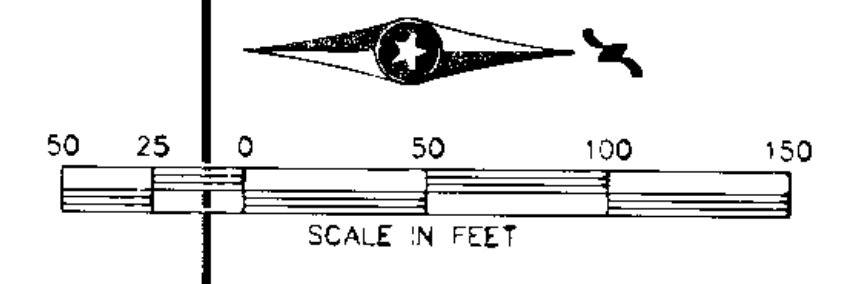
RAMP C - 205+25  
 PL 54'-20" x 0.375" STL CASING (OPEN CUT)  
 12" DIP W/RESTR. JT.

PL 22 1/2° BEND

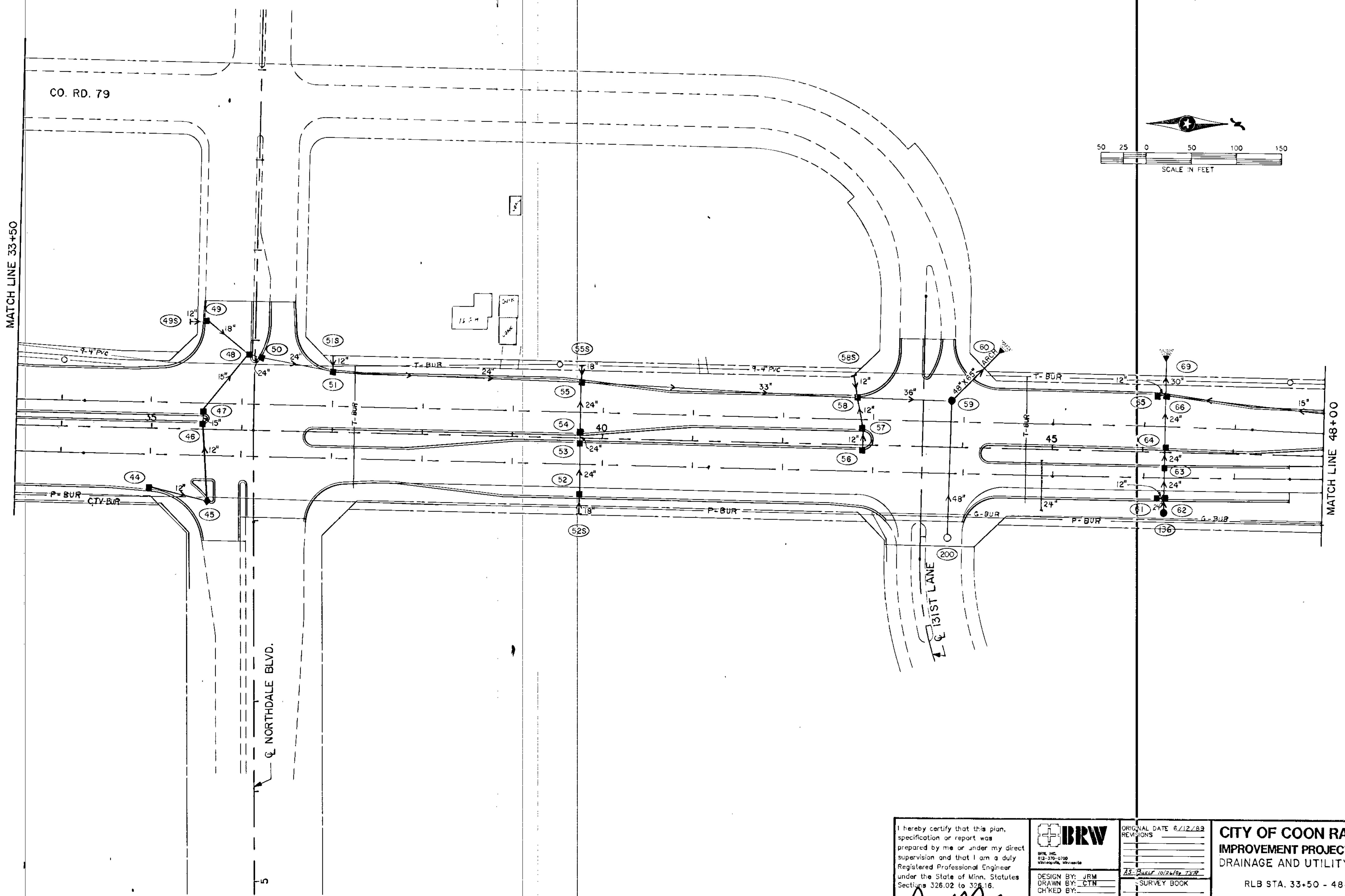


I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16. <i>Boyd Paulsen</i> Date 8-22-82 Minn. Reg. No. 12666	<p>BRW, INC. 612-370-0700 Minneapolis, Minnesota</p>	ORIGINAL DATE 6/12/83 REVISIONS	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> <b>DRAINAGE AND UTILITY PLAN</b> RLB STA. 26+00 - 33+50
		DESIGN BY: JRM DRAWN BY: CTN CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 154 OF 256	

CO. RD. 79



MATCH LINE 33+50



MATCH LINE 48+00

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

**BRW**  
BRW, INC.  
612-370-0700  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: CTN  
CHECKED BY:

ORIGINAL DATE 6/12/89  
REVISIONS

15-BUR 10/24/98 TSP  
SURVEY BOOK

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

RLB STA. 33+50 - 48+00

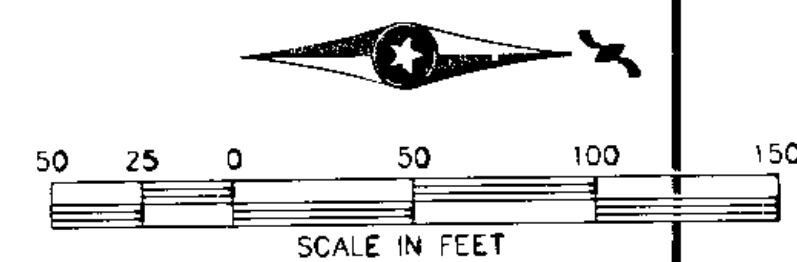
S.A.P. NO. 02-609-08

SHEET 155 OF 256

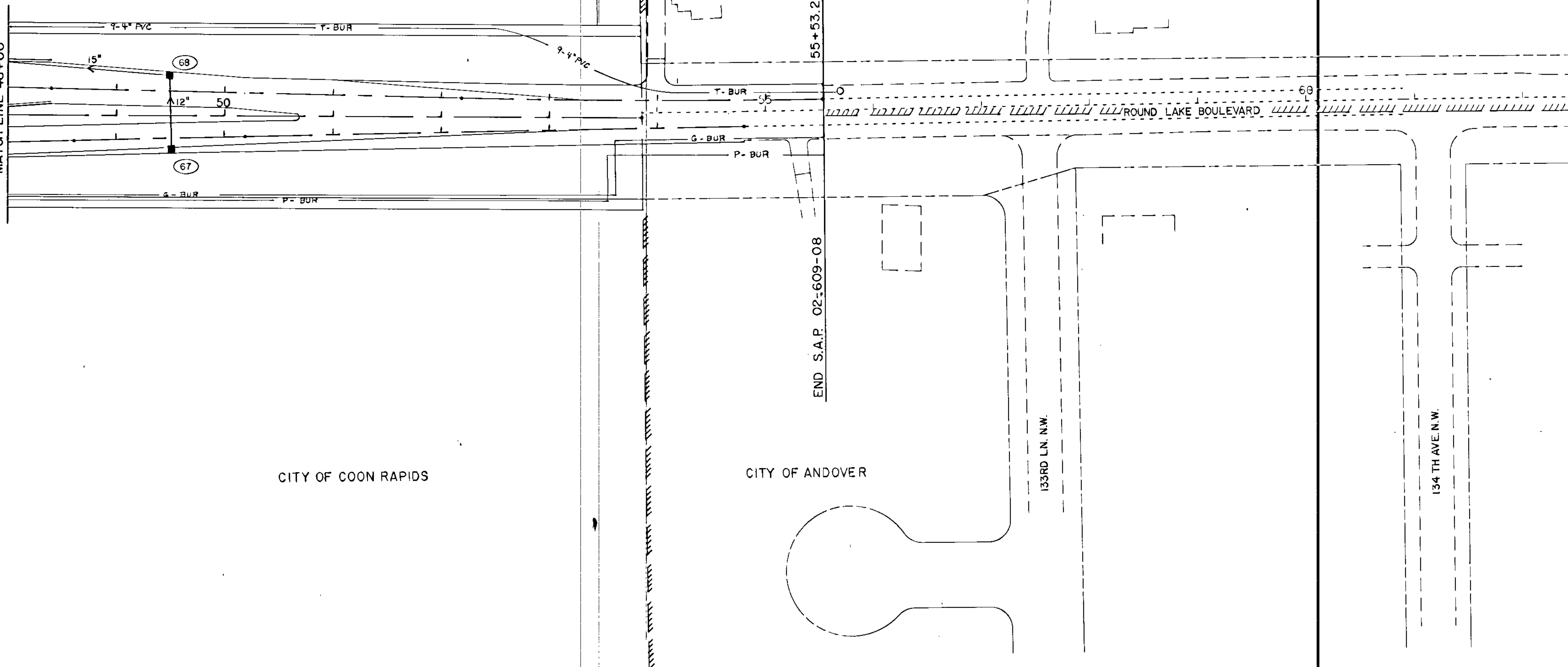
DESIGN FILE No. 6-8840

CITY OF COON RAPIDS

CITY OF ANOKA



MATCH LINE 48+00



CITY OF COON RAPIDS

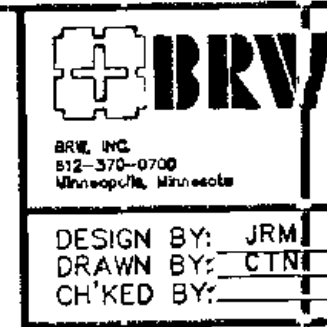
CITY OF ANDOVER

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 Paulsen*  
Date 8-22-89 Minn. Reg. No. J2666



ORIGINAL DATE	6/12/89
REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	CTN
CHK'D BY:	
SURVEY BOOK	HS-Boyle 10/24/88 752

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

S.A.P. NO. 02-609-08 SHEET 156 OF 256

DESIGN FILE No. 6-8840

BEGIN S.P. 0215-38 190+53

BEGIN I.P. 88-53 90+00

MATCH LINE 205+00  
MATCH LINE 204+50  
MATCH LINE 105+50

CO. RD. 79

W.B. T.H. 10/47

E.B. T.H. 10/47

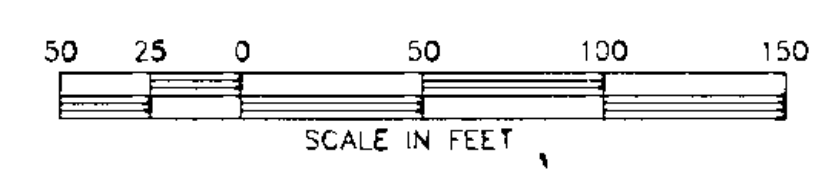
SW FR 104+63 - 20' LT  
PL 12"x12" TEE

SW FR 104+63 - 30' RT  
PL 12" PLUG

SW FR 104+63 - 30' LT  
PL 12" RSV

PL 12" DIP

50+00  
SPECIAL DITCH



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*Boyd Paulsen*

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

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

DESIGN BY: JRM  
DRAWN BY: CTN  
CHECKED BY:

ORIGINAL DATE: 6/2/89  
REVISIONS:

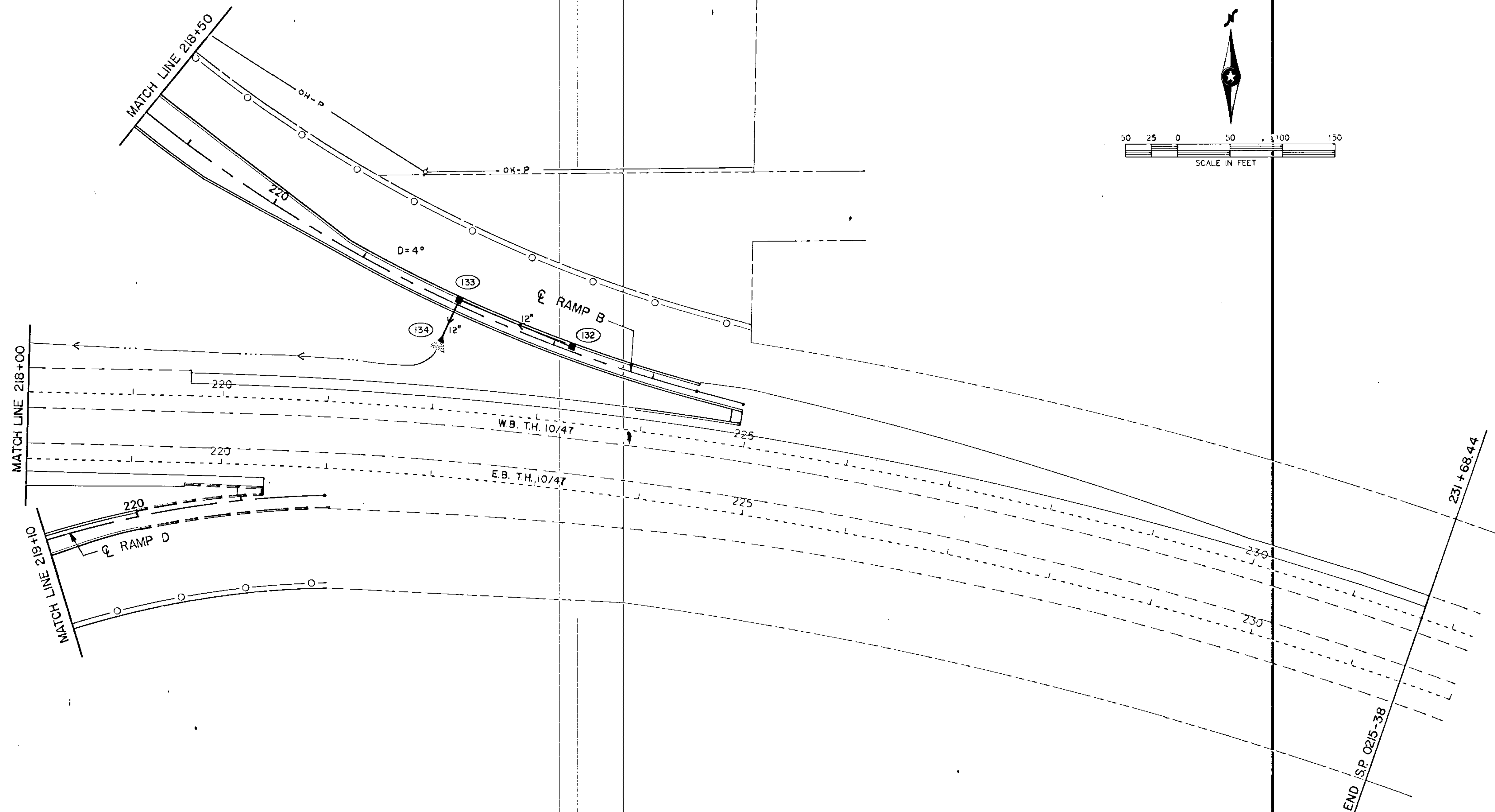
*A-Buser 10/29/90*

SURVEY BOOK

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

T.H. 10/47 STA. 189.50 - 205.00

DESIGN FILE No. 16-6840



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. 2666



BRW, INC.  
 512-375-0700  
 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  
 DRAINAGE AND UTILITY PLAN**

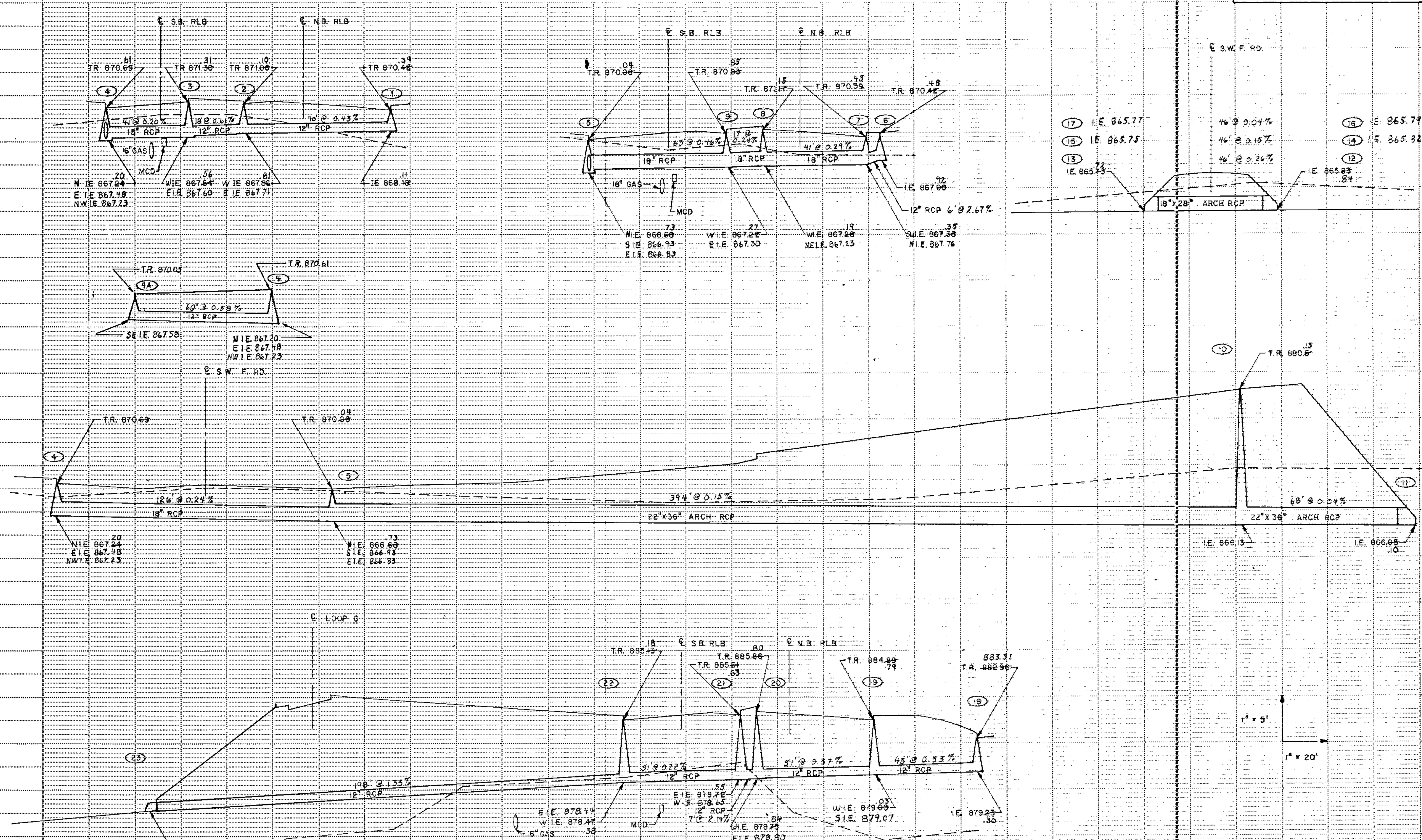
T.H. 10/47 STA. 218+00 - 232+00

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

SHEET 158 OF 256

DESIGN FILE  
 No. 15-9840





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

**BRW**  
 BRW, Inc.  
 115 7th St. N.  
 Minneapolis, Minnesota

DESIGN BY: SPJ  
 DRAWN BY: PMJ

ORIGINAL DATE: 4/18/89
REVISIONS:
As-Drawn 10/23/90 TCR
SURVEY BK. NO.

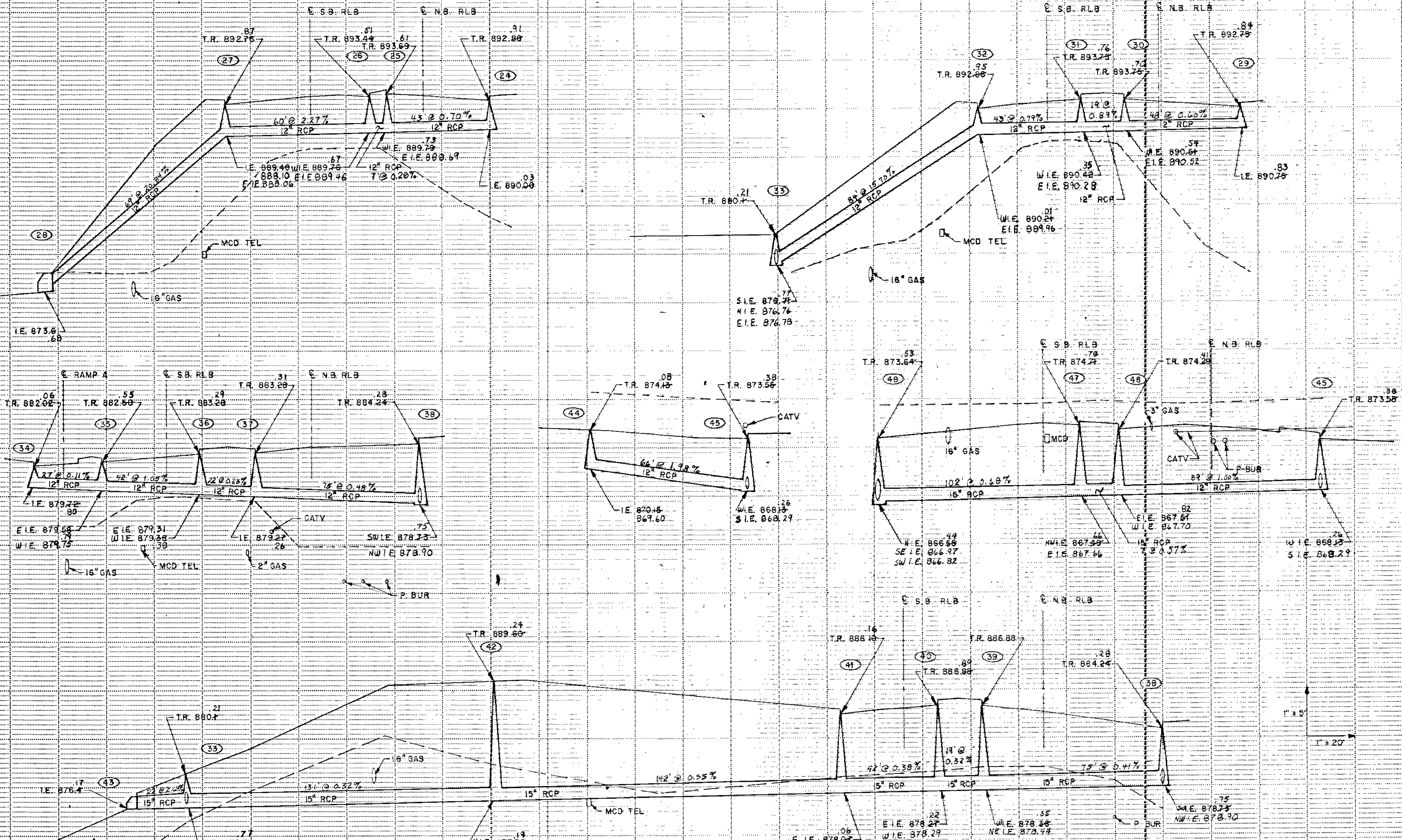
**CITY OF COON RAPIDS**  
 IMPROVEMENT PROJECT 88-53

STORM SEWER PROFILES

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

SHEET 19 OF 256

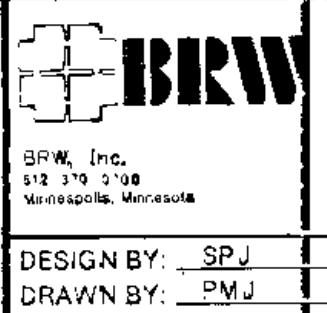
DESIGN FILE No. 16-8840



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

*Bayou Paulin*

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



DESIGN BY: SPJ  
DRAWN BY: PMJ

ORIGINAL DATE: 4/18/89
REVISIONS:
RE-DESIGN 10/23/90 T.S.R.
SURVEY BK. NO.

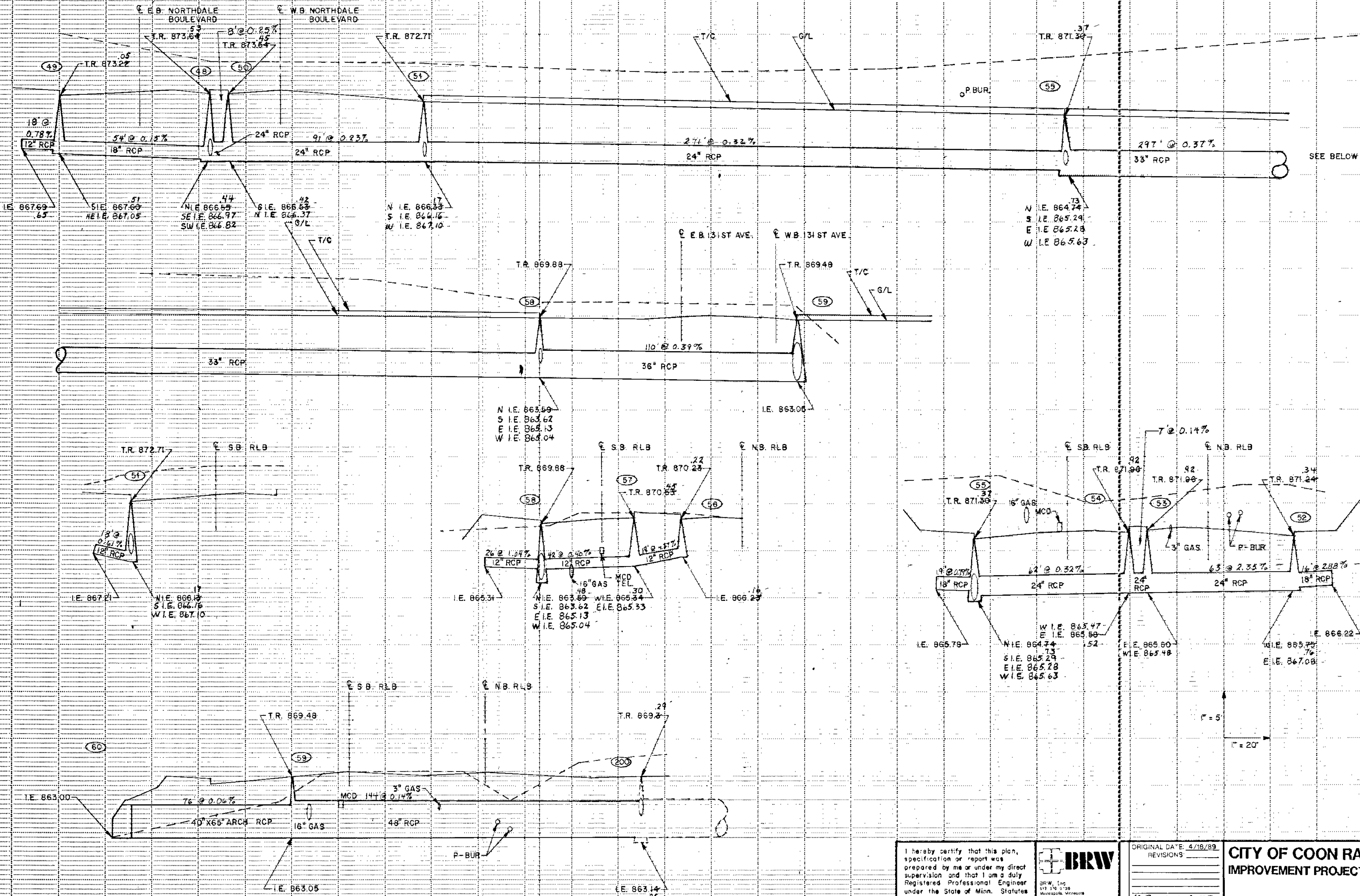
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CITY OF COON RAPIDS  
IMPROVEMENT PROJECT 88-53

STORM SEWER PROFILES

SHEET 160 OF 256

DESIGN FILE  
No. 15-8840



SEE BELOW

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 R. Paulsen*

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

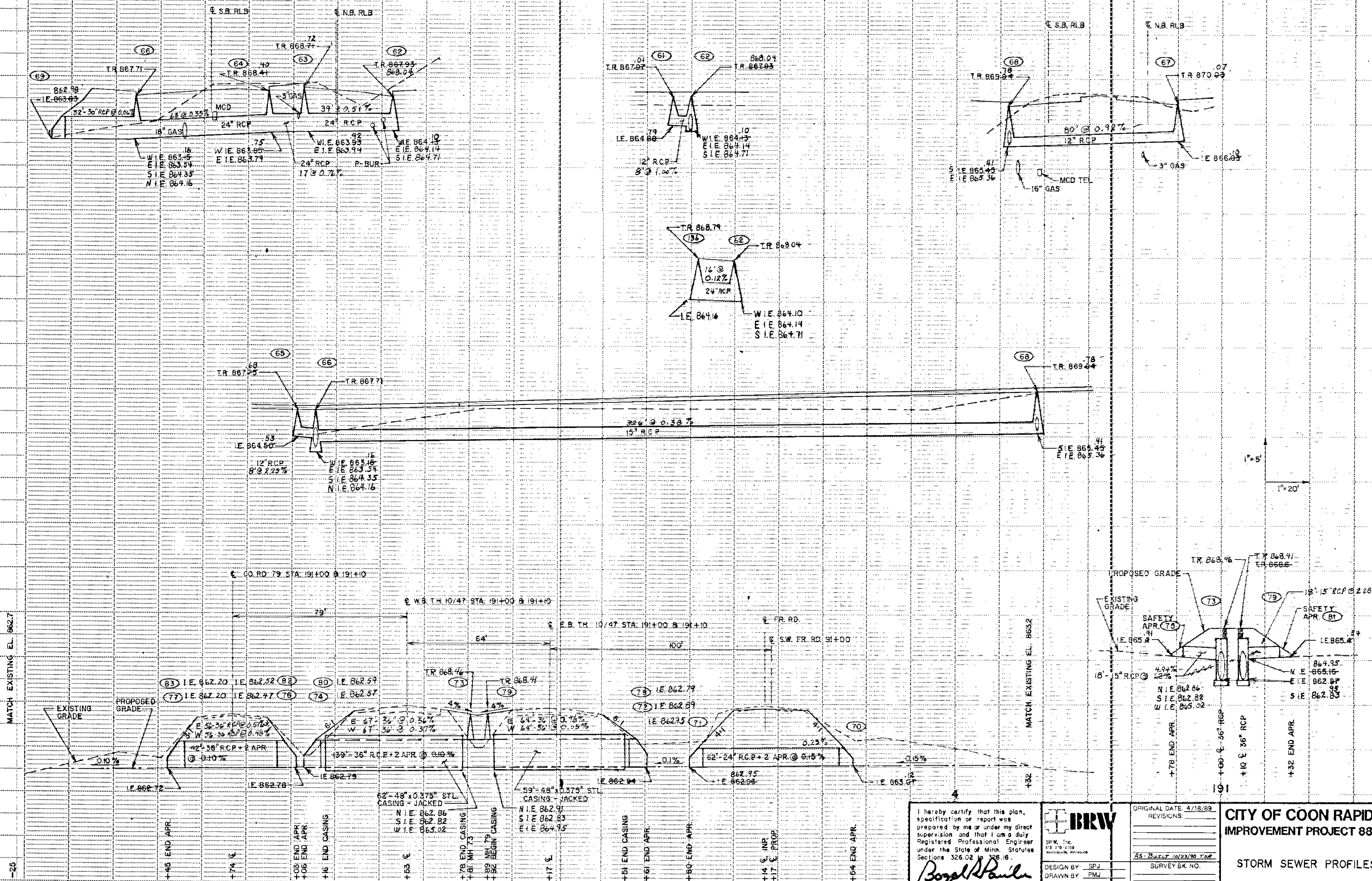
**BRW**  
 BRW, Inc.  
 312 1/2 W. 13th St.  
 Minneapolis, Minnesota

DESIGN BY: SPJ  
 DRAWN BY: PMJ

ORIGINAL DATE: 4/18/89
REVISIONS:
AS-BUILT 10/12/90 TSP
SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

STORM SEWER PROFILES



**BRW**  
 ORIGINAL DATE: 4/18/89  
 REVISIONS:  
 AS-BUILT 10/23/90 TSP  
 SURVEY BK. NO.  
 DESIGN BY: SPJ  
 DRAWN BY: PMJ

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 325.02 to 325.16.  
*Boyd Paulsen*  
 Date 8-22-89, Minn. Reg. No. 12668

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

MATCH EXISTING EL. 862.7

MATCH EXISTING EL. 865.2

-25

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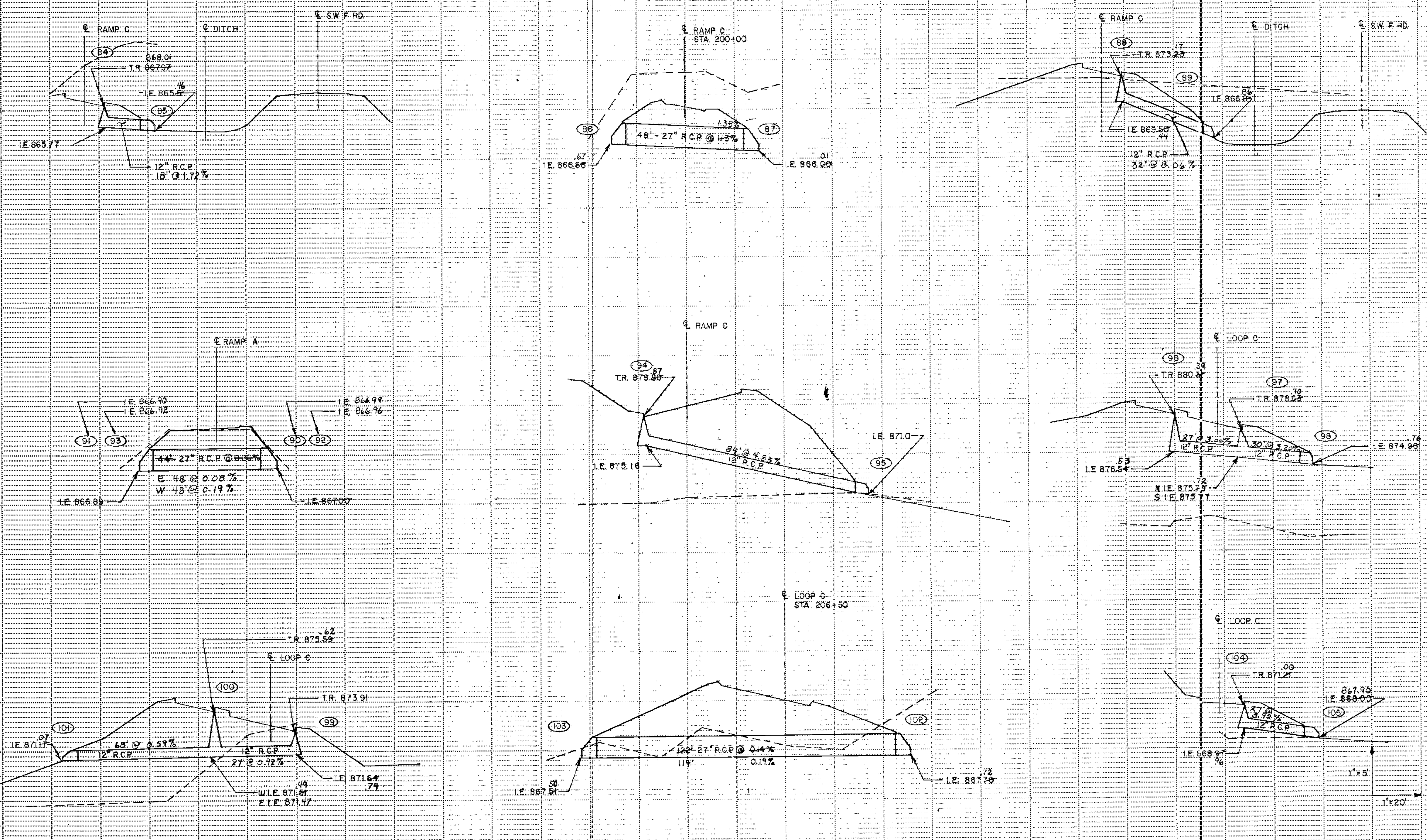
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S.A.P. NO. 02-609-08

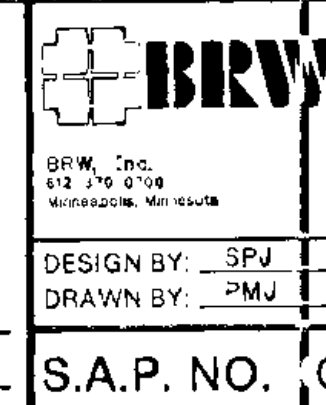
DESIGN FILE No. 16-8840

SHEET 162 OF 256



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*Boyd R. Paulsen*



ORIGINAL DATE	4/18/89
REVISIONS	
AS-BUILT	10/23/90 TSP
SURVEY BK. NO.	

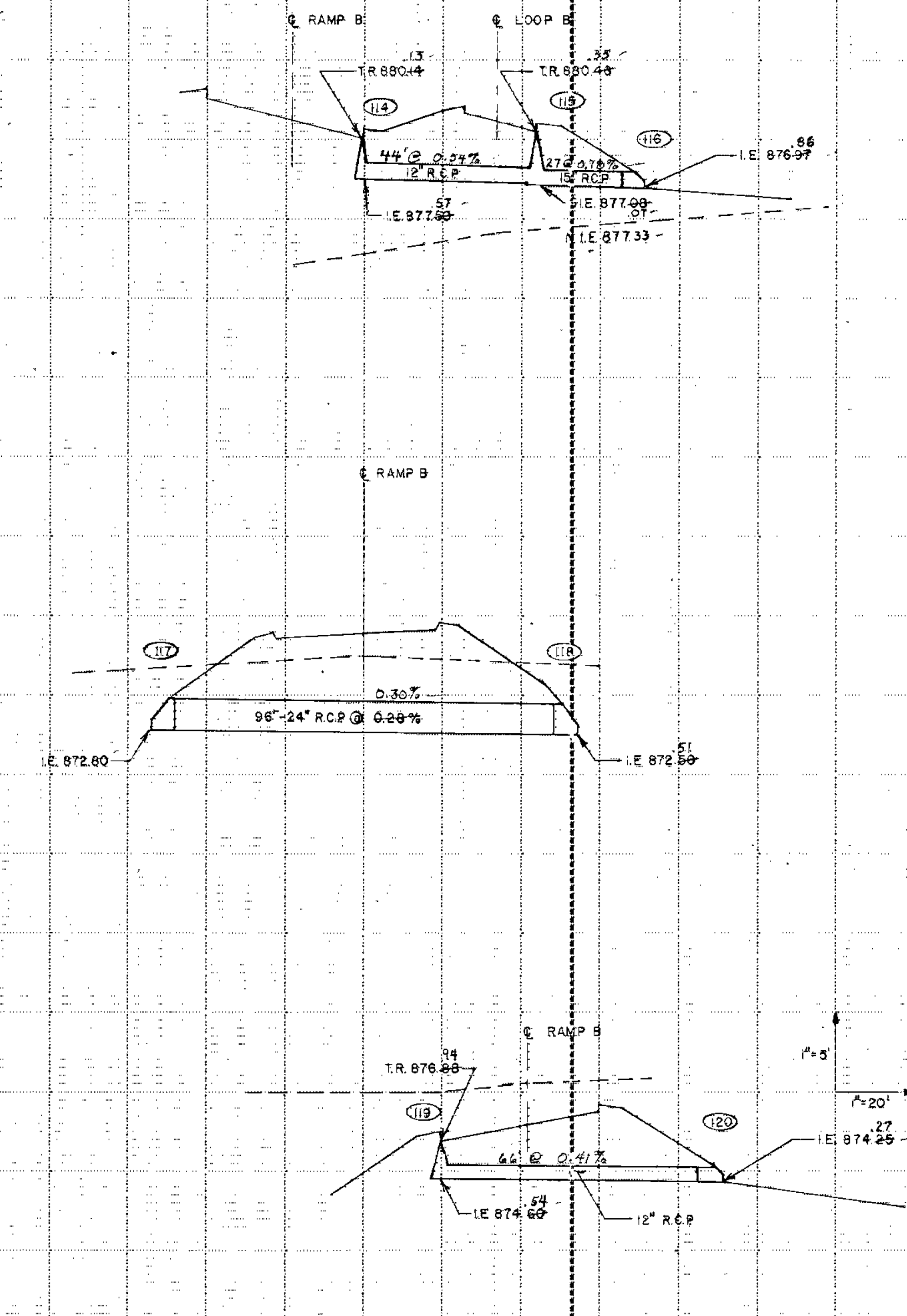
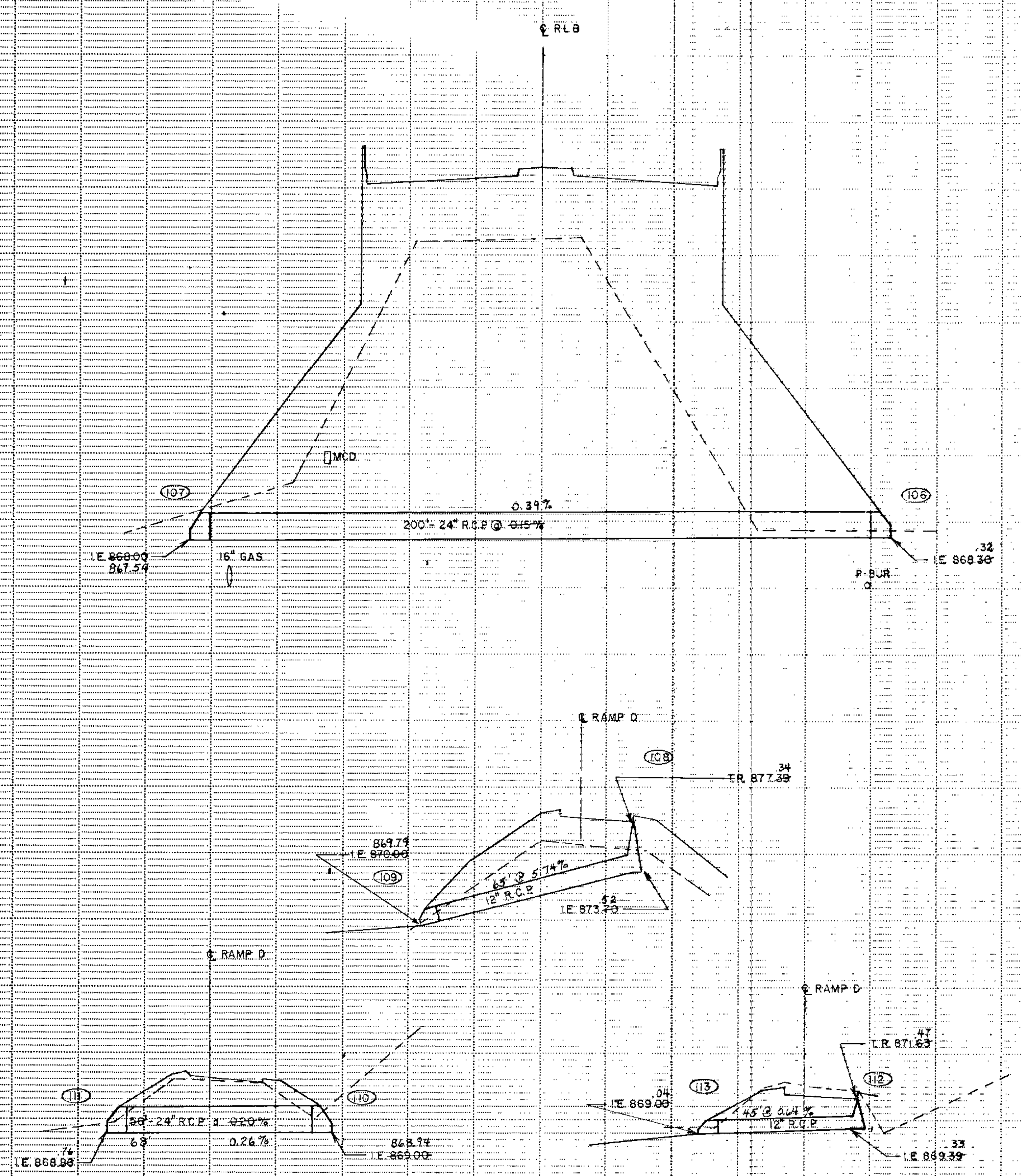
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

STORM SEWER PROFILES

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

DESIGN BY: SPJ  
 DRAWN BY: PMJ  
 S.A.P. NO. 02-609-08

SHEET 163 OF 256  
 DESIGN FILE No. 16-884Q



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 R. Baird*

**BRW**

BRW, Inc.  
312 376 2700  
Winneapolis, Minnesota

DESIGN BY: SPJ  
DRAWN BY: PMJ

ORIGINAL DATE: 4/18/89
REVISIONS
AS BUILT 10/23/90 TOR
SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

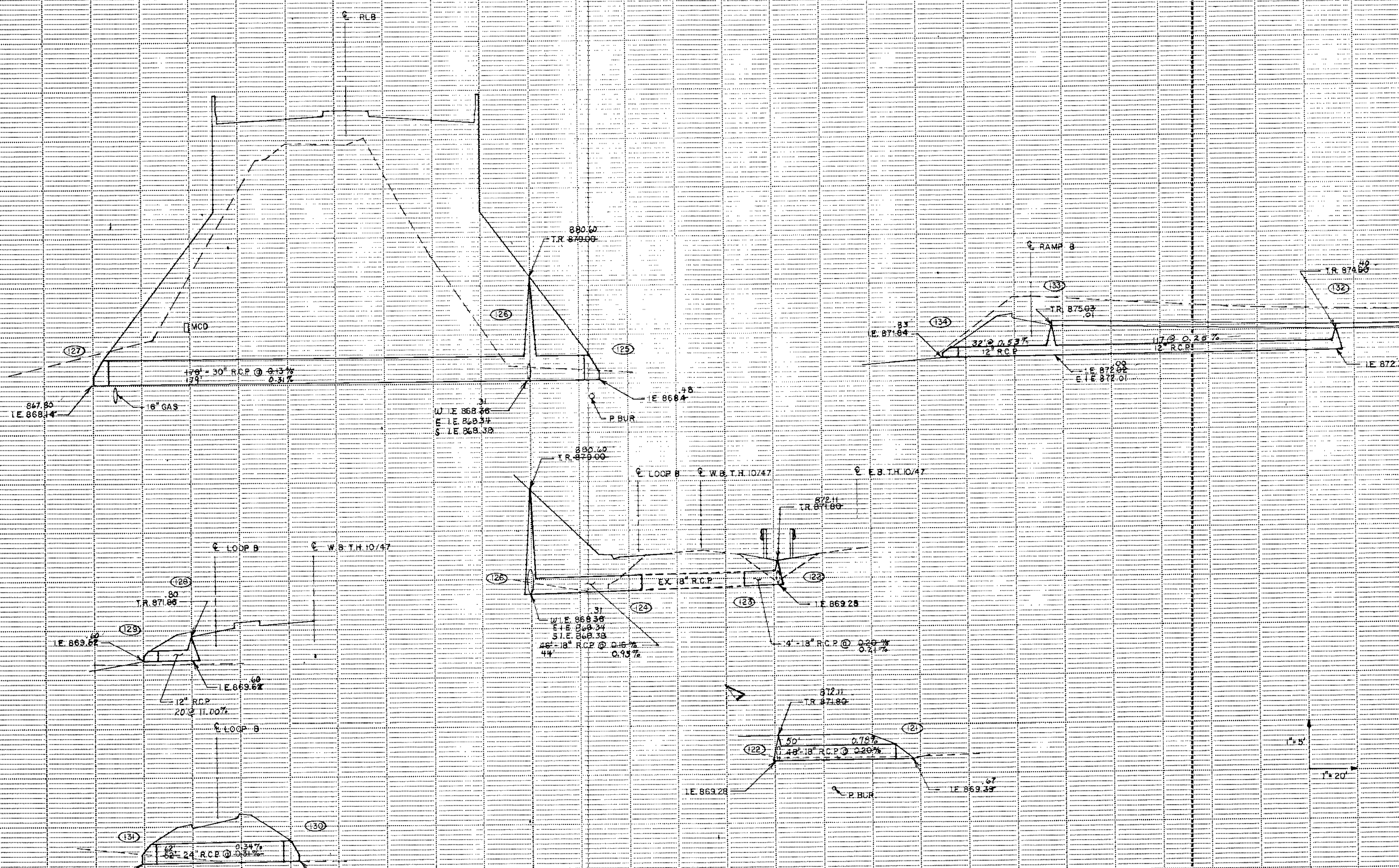
STORM SEWER PROFILES

DESIGN FILE No. 16-8840

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

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

SHEET 164 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 Paul*

Date 8-22-88 Minn. Reg. No. J2666.

**BRW**

BRW, Inc.  
512 5th St  
Minneapolis, Minnesota

DESIGN BY: SPJ  
DRAWN BY: PMJ

ORIGINAL DATE: 4/18/89  
REVISIONS:

AS BUILT 10/23/90 TSD

SURVEY BK. NO.

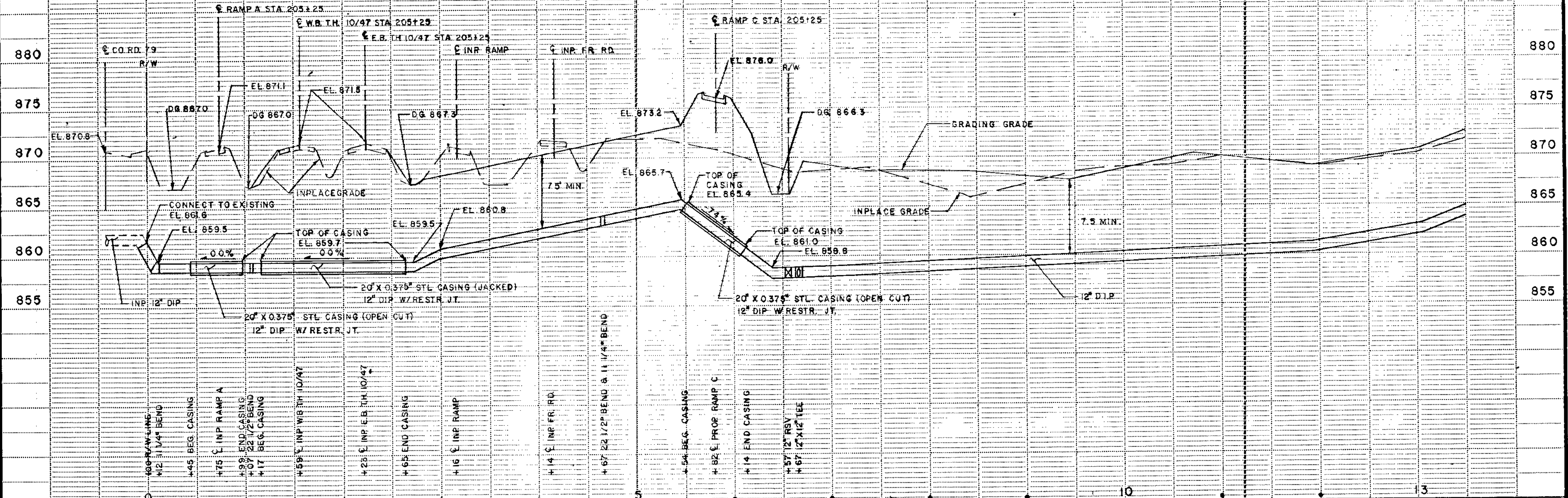
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

**STORM SEWER PROFILES**

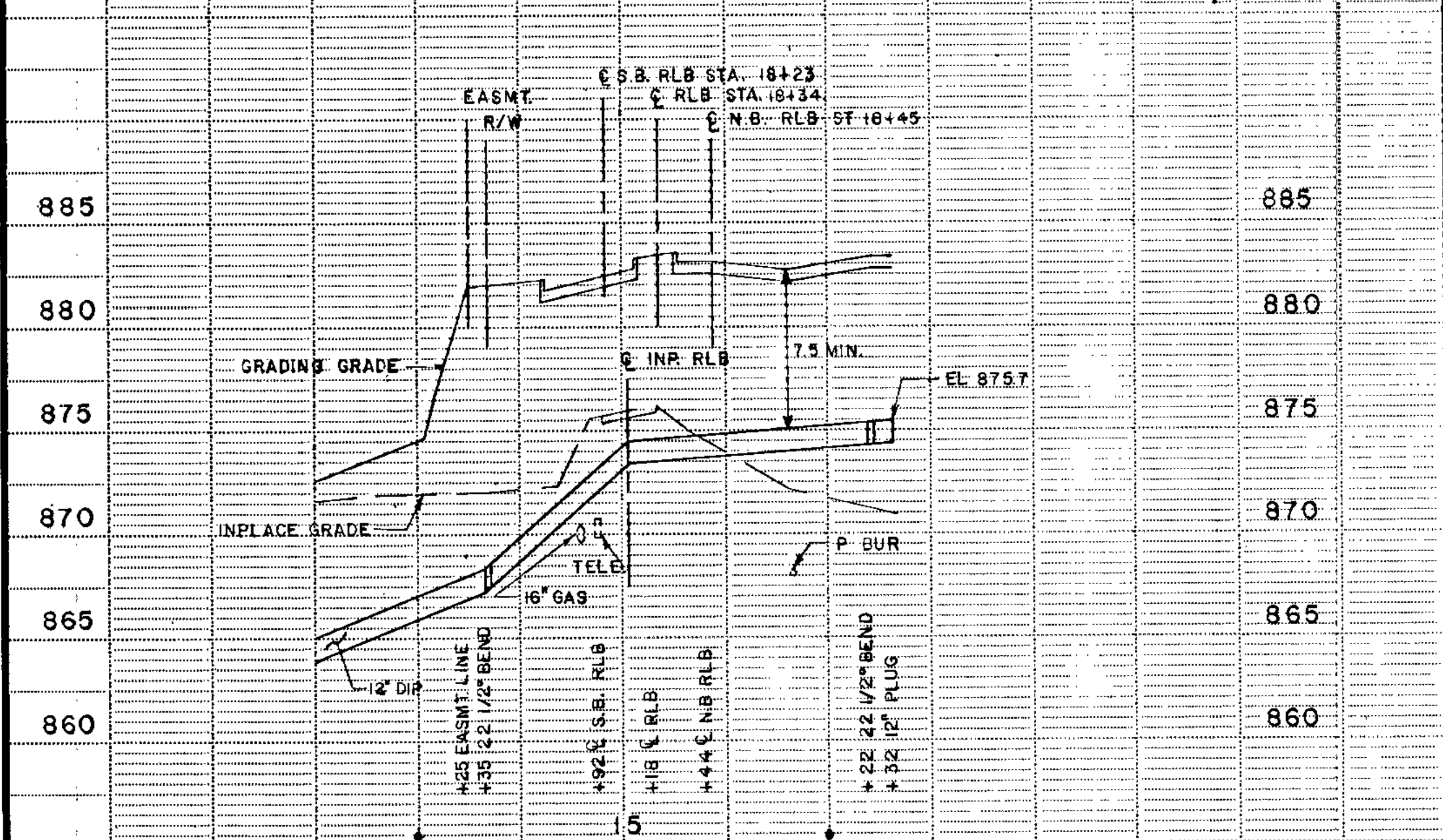
SHEET 165 OF 256

DESIGN FILE No. 16-8840

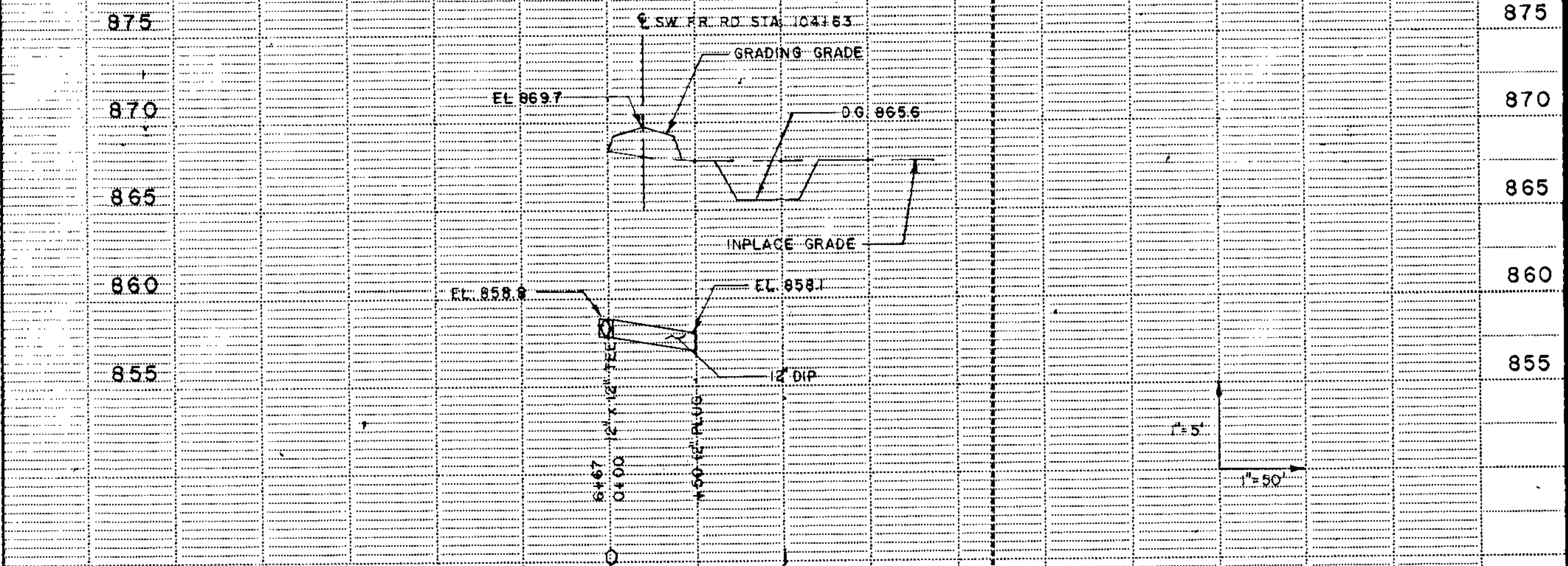
12" WATERMAIN  
RAMP A STA 205+25 TO RAMP C STA 211+46



12" WATERMAIN  
RAMP C STA. 211+46 TO ROUND LAKE BLVD STA. 18+76



12" WATERMAIN S.W. FRONT RD. STA. 104+63



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 Schultz*

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

**BRW**

DESIGN BY: JRM  
DRAWN BY: LEB, BGL

ORIGINAL DATE: 7-18-89  
REVISIONS:

SURVEY BK. NO.

**CITY OF COON RAPIDS**  
IMPROVEMENT PROJECT 88-53

WATERMAIN PROFILE  
RAMP A STA. 205+25 TO ROUND LAKE BLVD. STA. 18+76

SHEET 166 OF 256

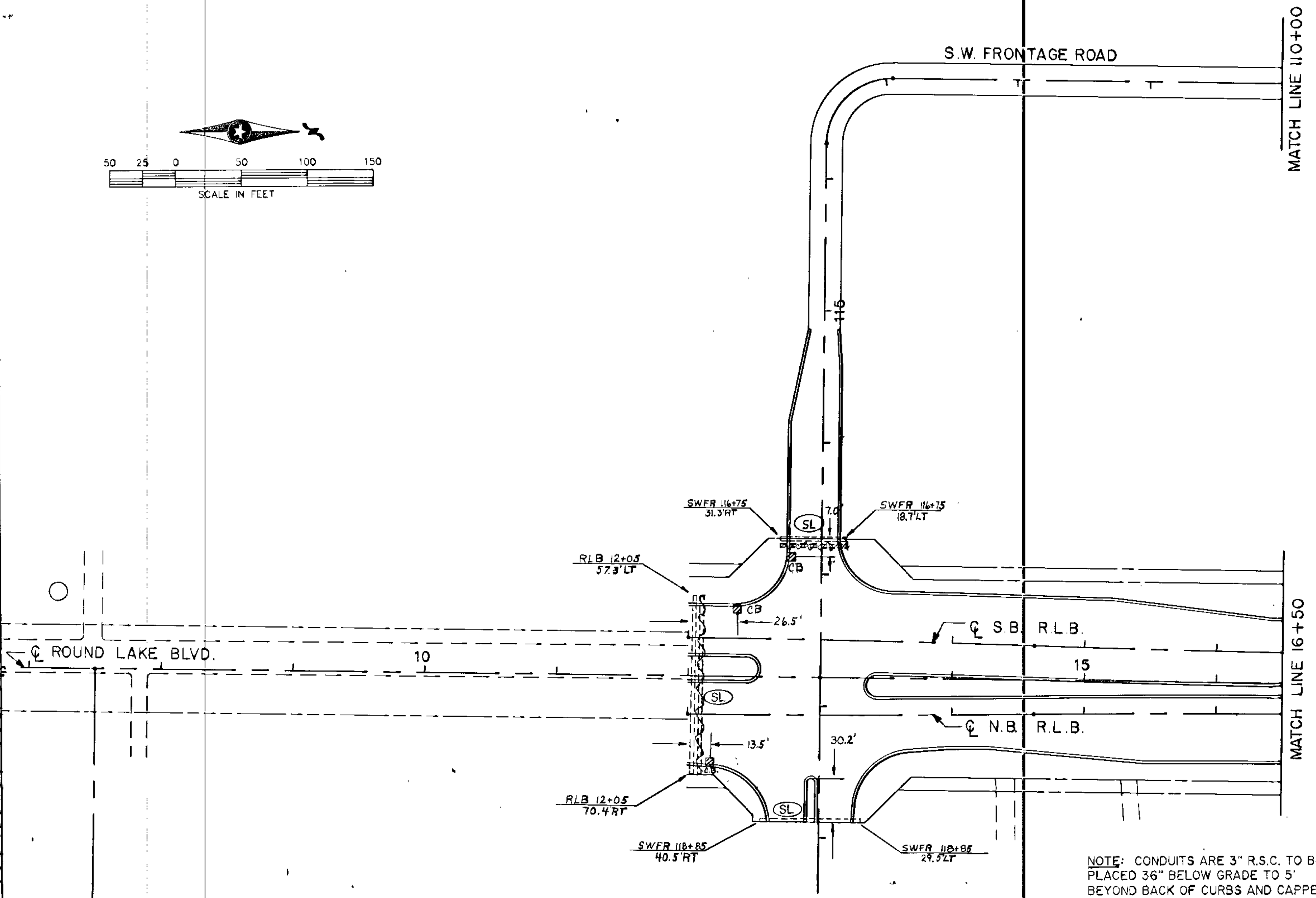
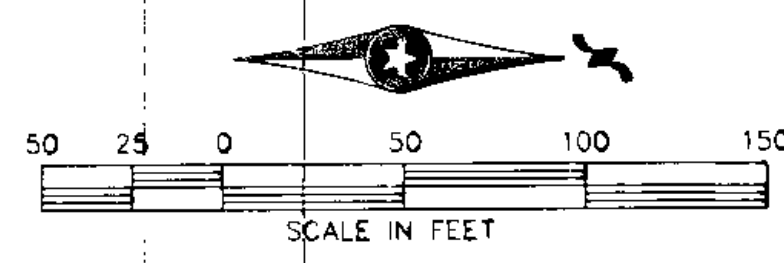
DESIGN FILE No. 16-8840

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				
<b>ROUND LAKE BLVD.</b>						
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+38	57	55	112			LOCAL
31+36	85	59	144			LOCAL
44+77	72	60	132			LOCAL
<b>RAMP A</b>						
204+25	15	13	28			LOCAL
213+66	17	11	28			LOCAL
<b>RAMP B</b>						
211+92	28	23	51			LOCAL
212+00	28	23	51			LOCAL
223+19	14	14	28			LOCAL
<b>LOOP B</b>						
215+29	15	14	29			LOCAL
223+93	15	13	28			LOCAL
223+98	15	13	28			LOCAL
<b>LOOP C</b>						
199+75	13	15	28			LOCAL
205+68	36	14	50	2	1	STATE
207+59	15	16	31			LOCAL
<b>RAMP C</b>						
197+81	14	14	28			LOCAL
212+02	23	28	51			LOCAL
212+09	23	28	51			LOCAL
213+97	12	34	46			LOCAL
<b>RAMP D</b>						
213+52	14	22	28			LOCAL
213+58	14	22	28			LOCAL
218+52	7	13	20	2		STATE
219+45	11	19	30			LOCAL
<b>S.W. FRONTAGE ROAD</b>						
118+78	20	32	52			LOCAL
118+??	27	44	71			LOCAL
<b>COUNTY ROAD #79</b>						
1+30	60	50	110			LOCAL
<b>NORTHDALE BLVD</b>						
0+77 TO 0+92	72	78	150			LOCAL
<b>131ST LANE NW</b>						
1+01 EAST'LY	34	51	86			LOCAL
0+84 WEST'LY	39	53	92			LOCAL
<b>TOTALS</b>						
LOCAL FUNDING			2327	0	0	
STATE FUNDING			70	4		
PROJECT			2397	4		

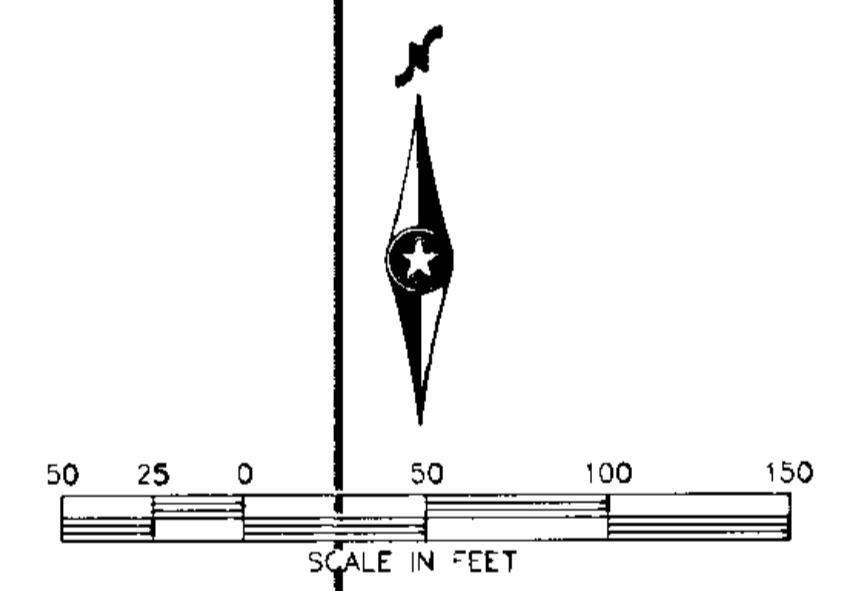
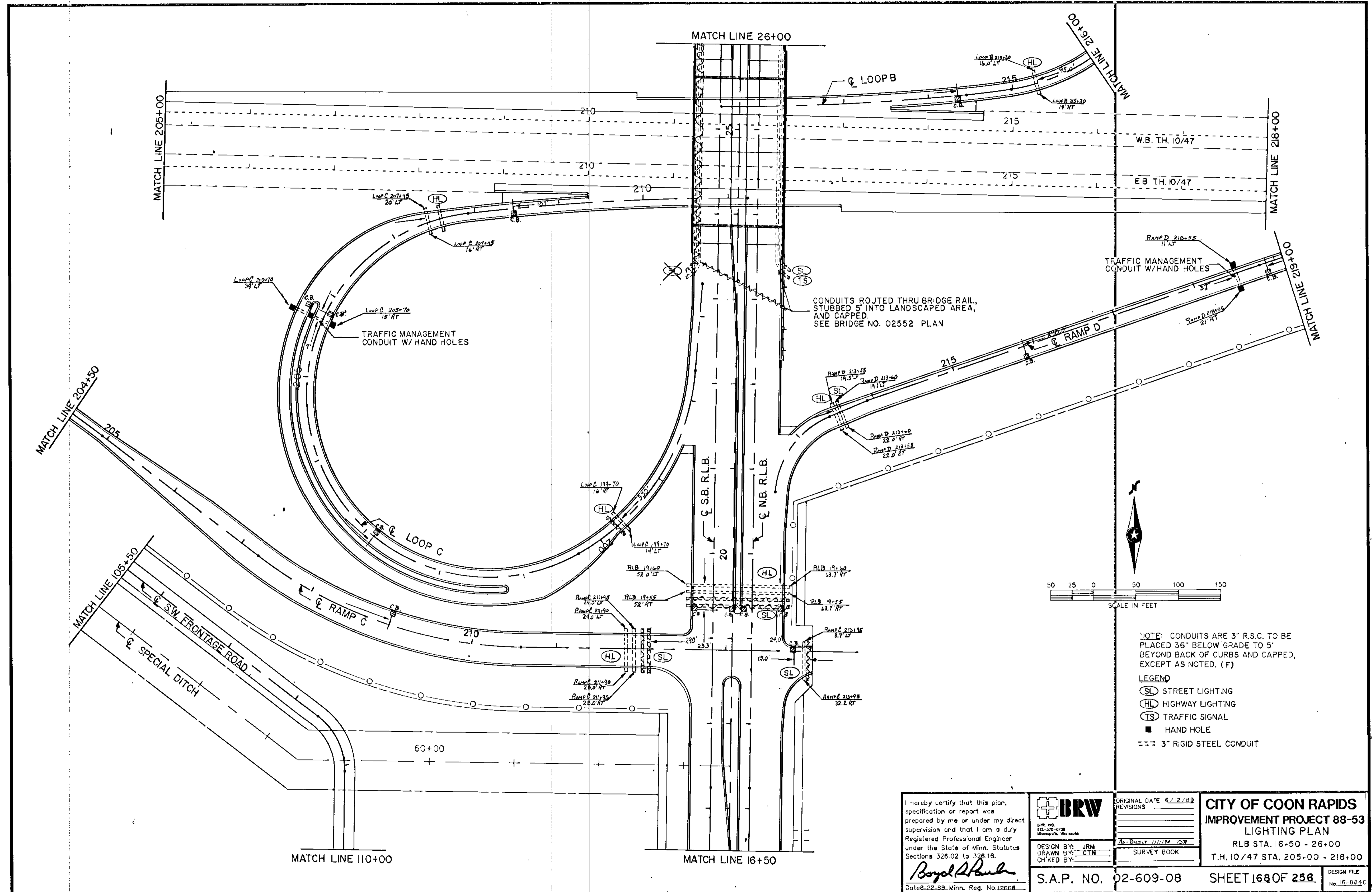


NOTE: CONDUITS ARE 3" R.S.C. TO BE PLACED 36" BELOW GRADE TO 5' BEYOND BACK OF CURBS AND CAPPED, EXCEPT AS NOTED. (F)

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

NOTE: SEE PLAN SHEET 167, 168, 169, 170, 171, AND 172 FOR REVISED STATION AND LOCATION

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. Bauer</i> Date: 2-22-89, Minn. Reg. No. 12666		ORIGINAL DATE: 6/12/83 REVISIONS:	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> LIGHTING PLAN RLB STA. 3+00 - 16+50
		DESIGN BY: JRM DRAWN BY: CTS CHECKED BY:	
S.A.P. NO. 02-609-08		SHEET 167 OF 256	



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

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 A. Paul*

Date: 2-22-89 Minn. Reg. No. 12668



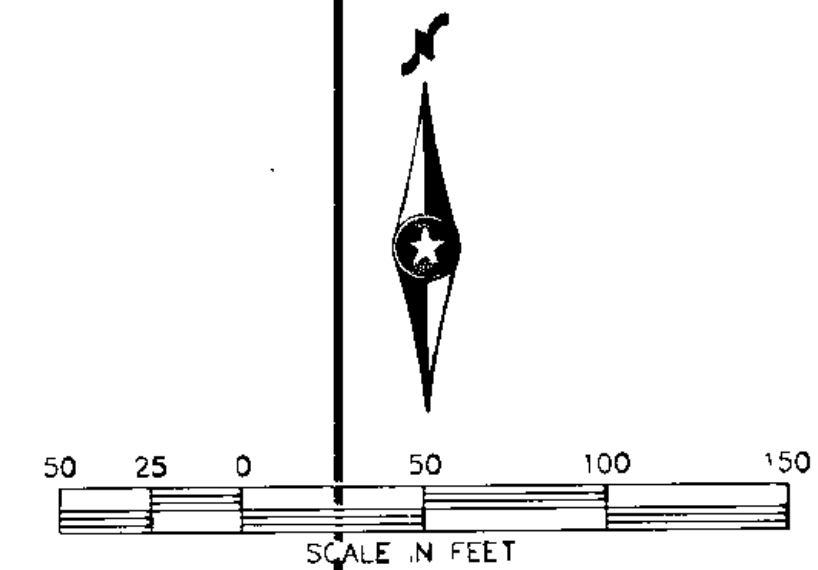
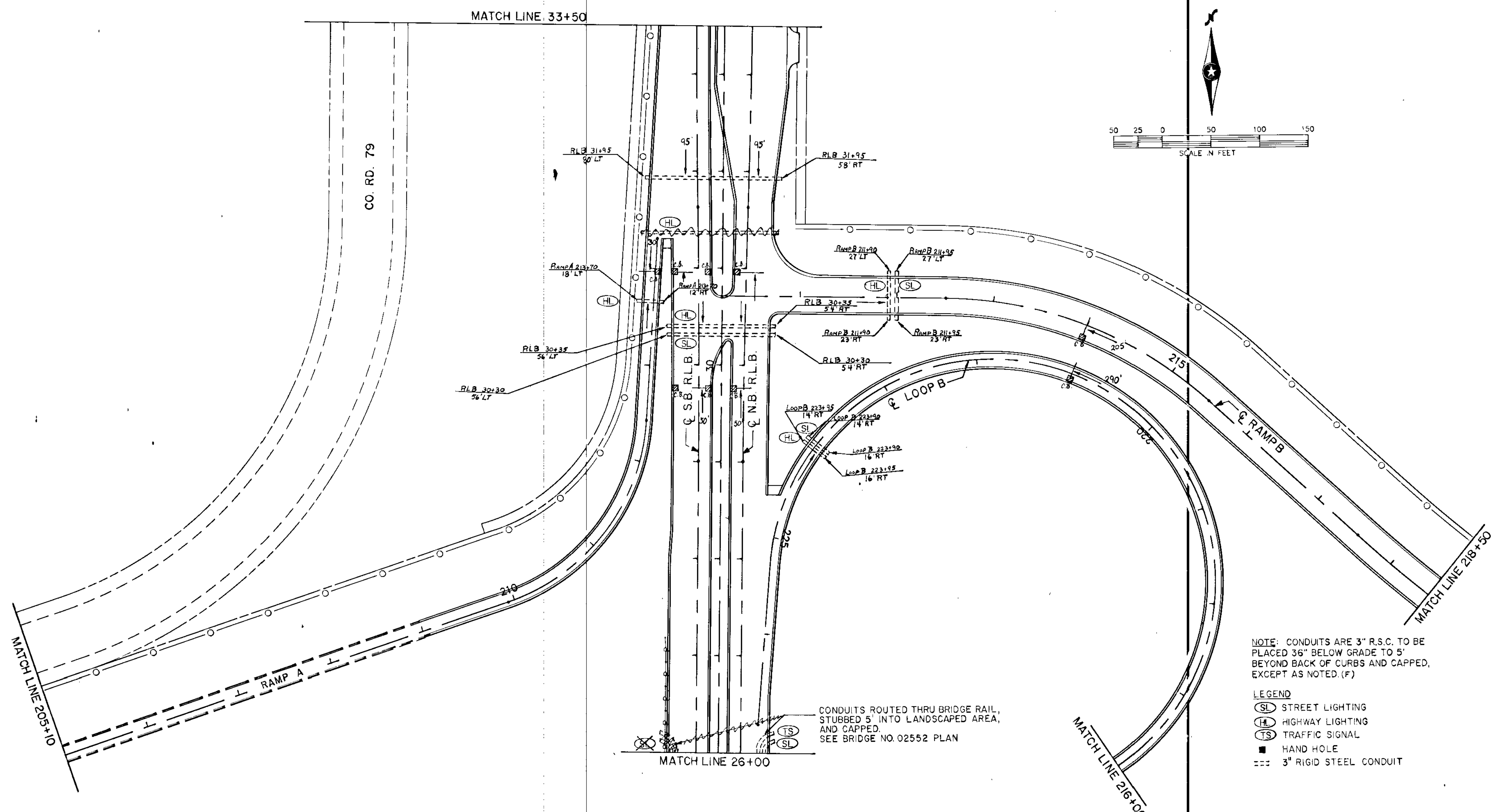
ORIGINAL DATE 6/12/89  
 REVISIONS  
 No. DUCT 11/1/89 128

DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY:

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

**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. 16-6840



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

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

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

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

**BRW**

DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY:

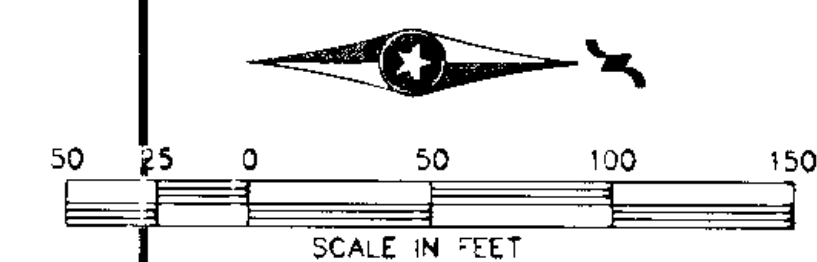
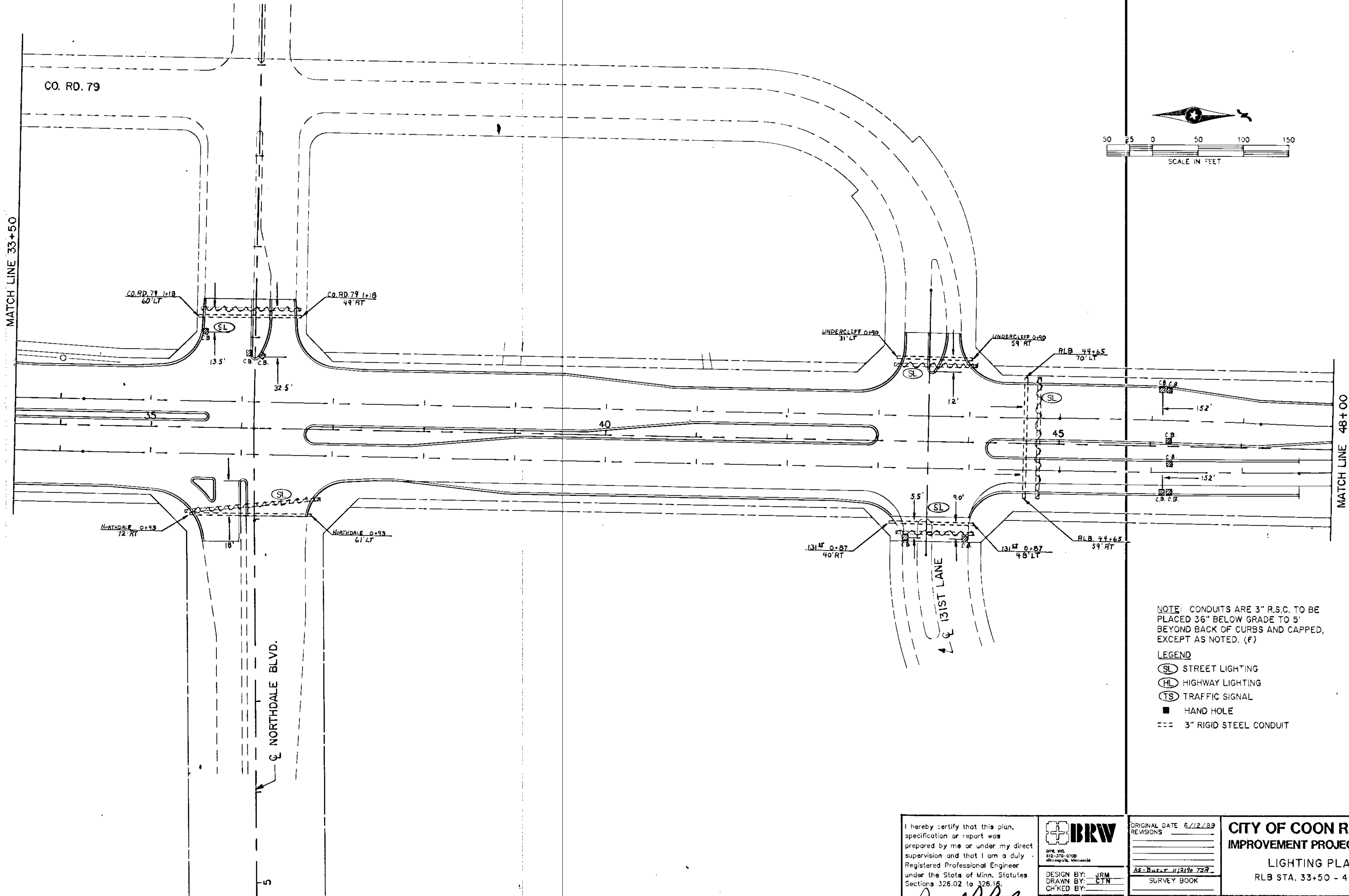
ORIGINAL DATE: 8/12/89  
 REVISIONS:

AS SHOWN IN 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. (F)

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 326.15.

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

**BRW**  
 CIVIL ENGINEERS  
 612-379-0700  
 Minneapolis, Minnesota

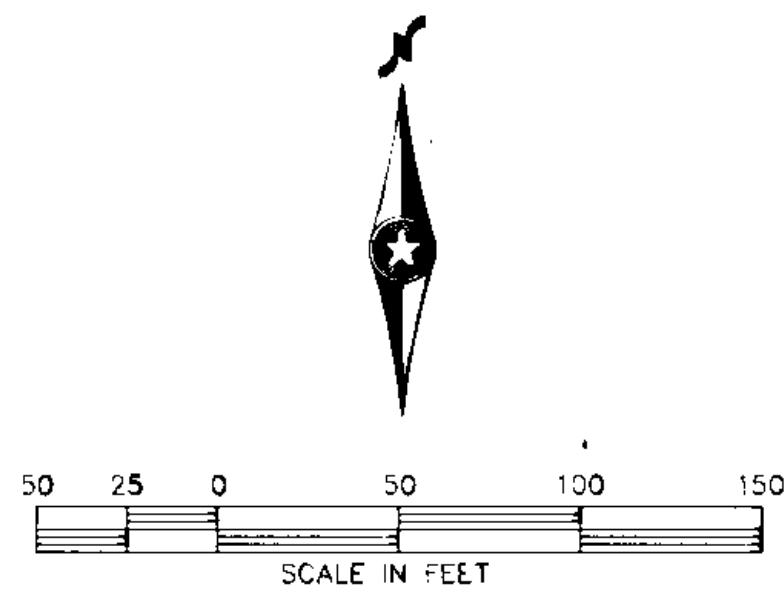
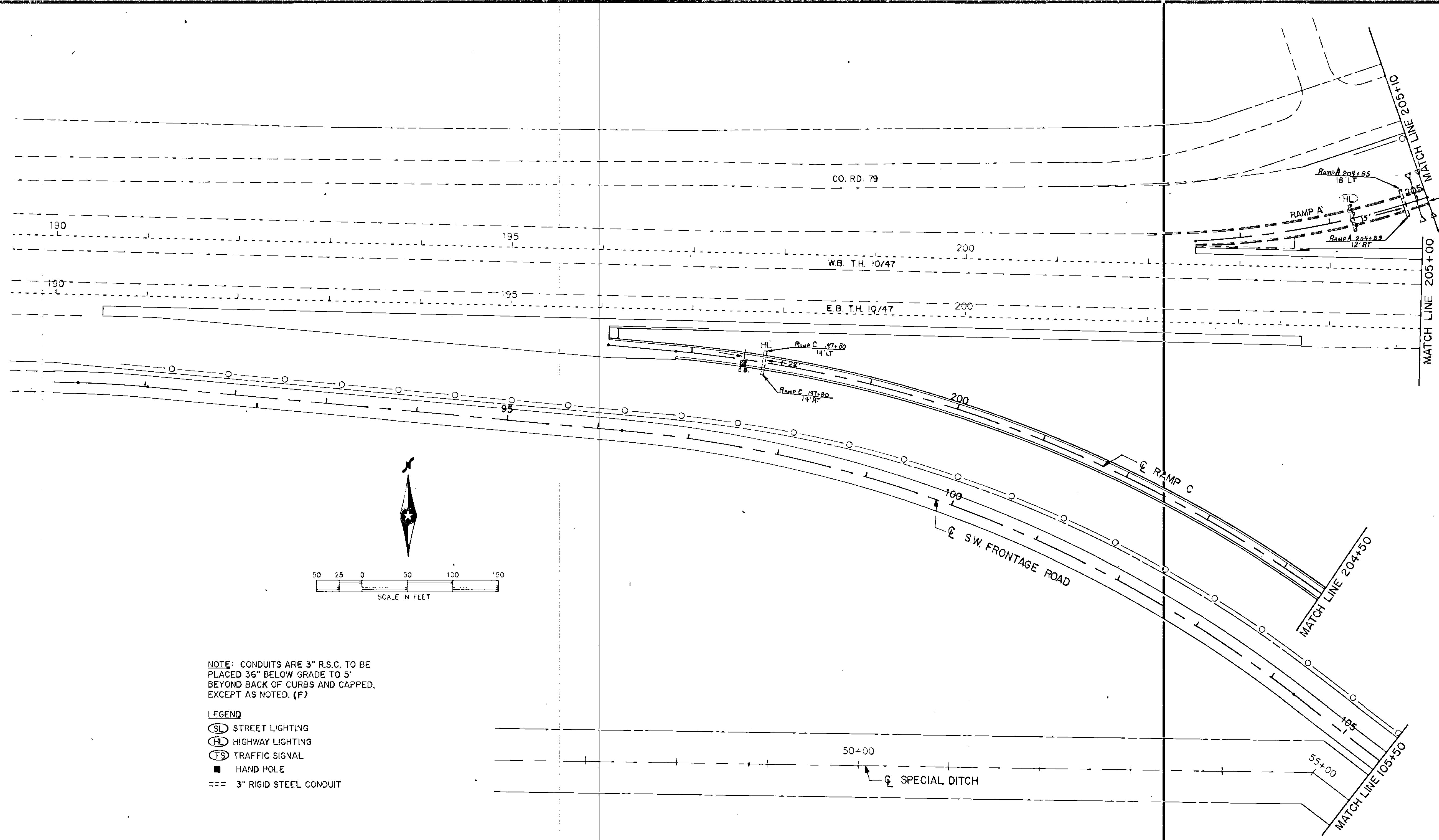
DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY:

ORIGINAL DATE	6/12/89
REVISIONS	
AS-BUILT 11/21/89	
SURVEY BOOK	

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

LIGHTING PLAN  
 RLB STA. 33+50 - 48+00

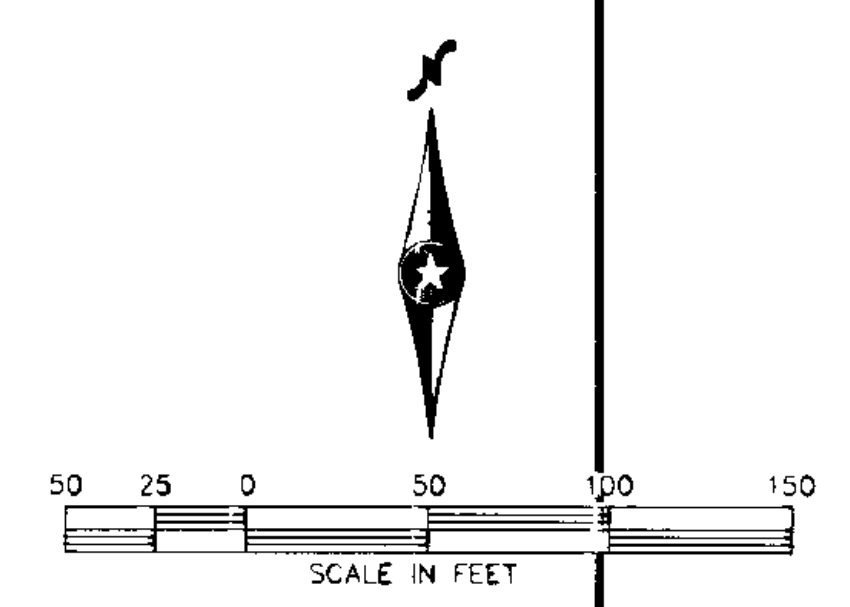
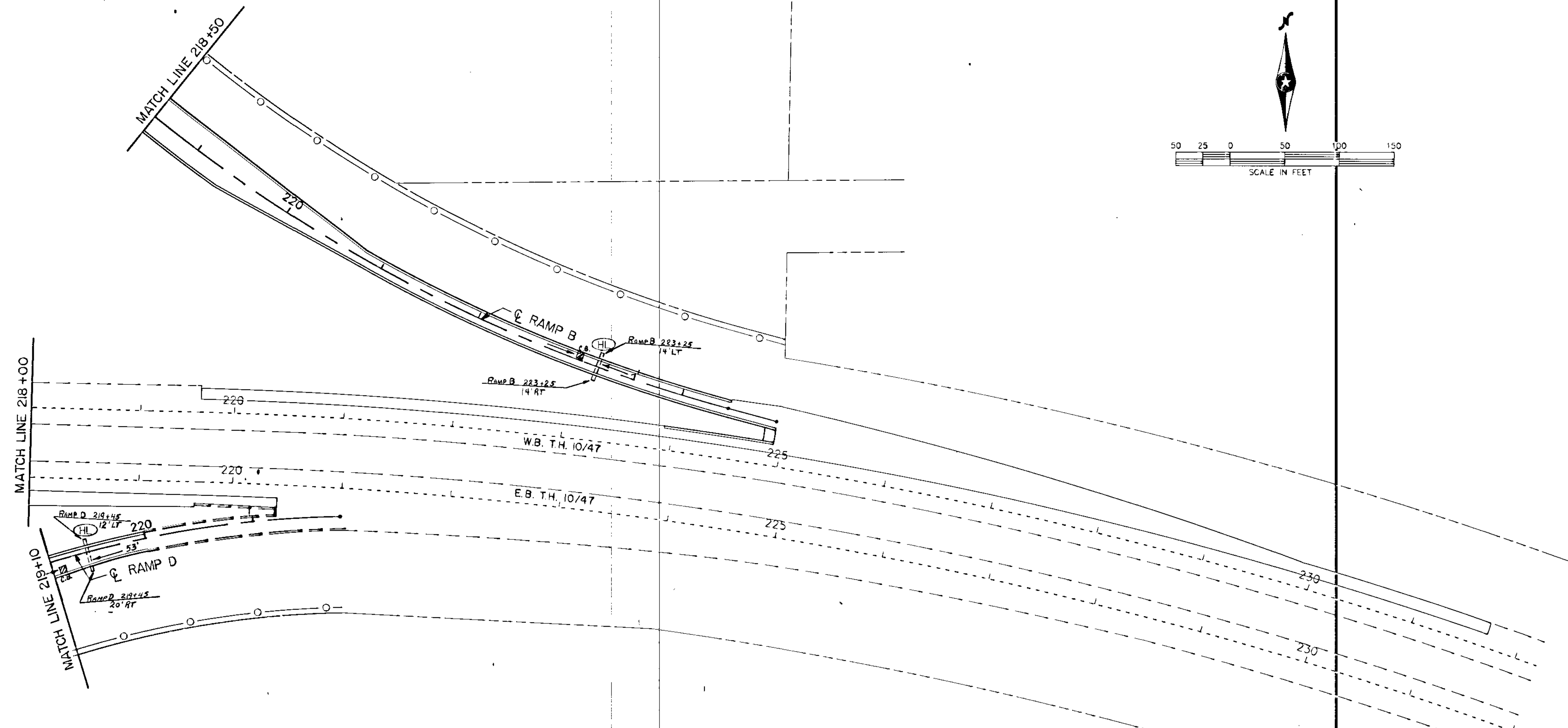
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NOTE: CONDUITS ARE 3" R.S.C. TO BE PLACED 36" BELOW GRADE TO 5' BEYOND BACK OF CURBS AND CAPPED, EXCEPT AS NOTED. (F)

- 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. <i>Boyd R. Buler</i> Date: 8-22-89 Minn. Reg. No. 12666	BRW, INC. 812-370-0700 Minneapolis, Minnesota	ORIGINAL DATE: 6/12/89 REVISIONS:	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> LIGHTING PLAN T.H. 10/47 STA. 189+50 - 205+00	
		DESIGN BY: JRM DRAWN BY: CTN CHECKED BY:		AS-BUILT 11/19/89 TSW SURVEY BOOK
		S.A.P. NO. 02-609-08		SHEET 171 OF 256



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

- 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 326.18.

*Boyd Paulsen*

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



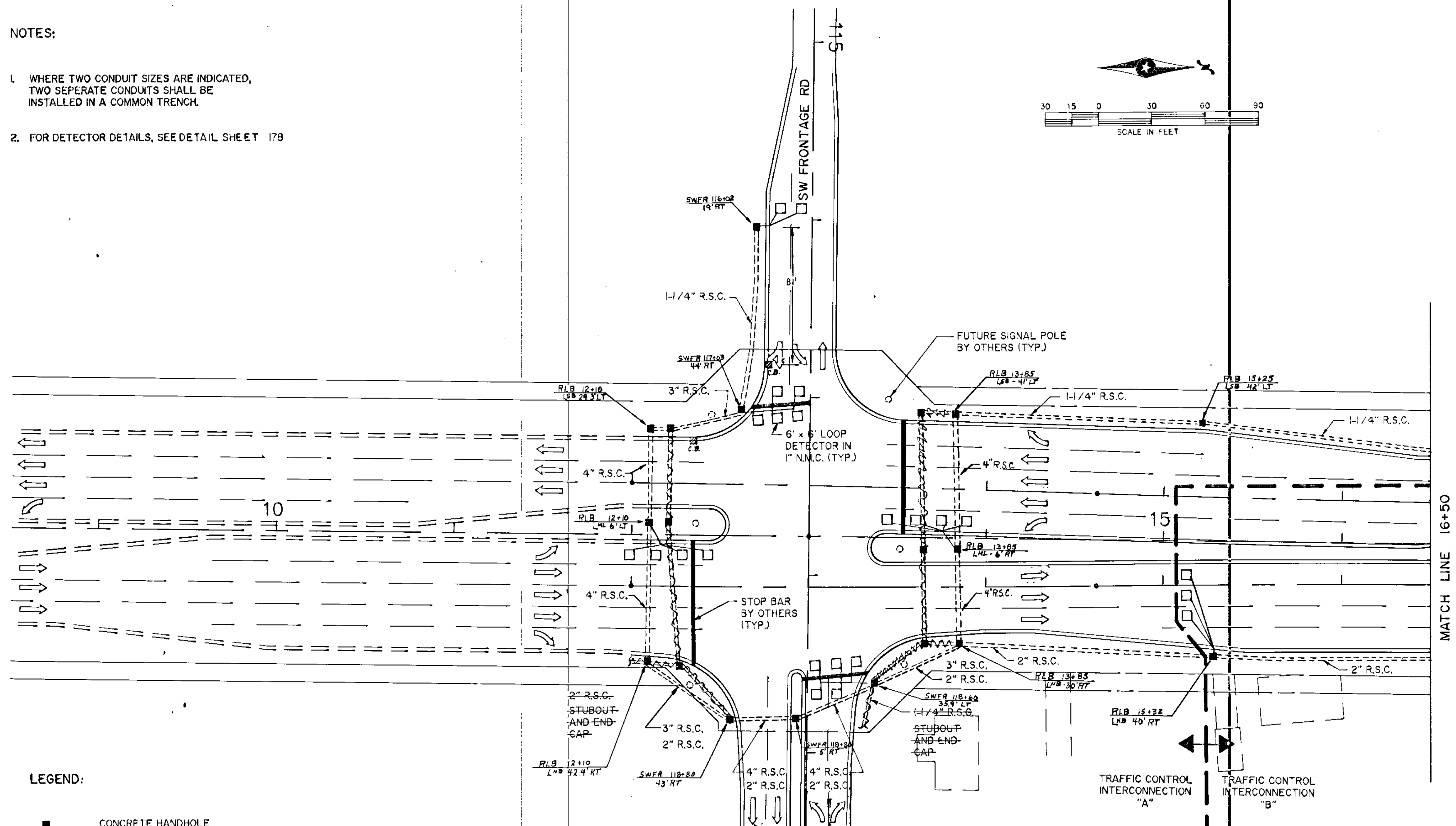
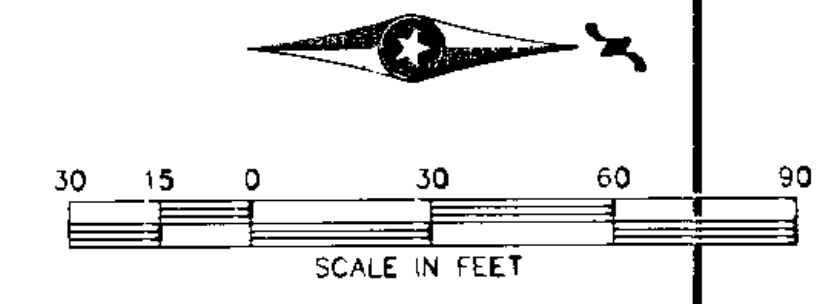
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REVISIONS	
DESIGN BY:	JRM
DRAWN BY:	CTN
CHECKED BY:	
AS-BUILT 11/13/90 TSP	
SURVEY BOOK	

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

S.A.P. NO.	02-609-08	SHEET 172 OF 256	DESIGN FILE No. 6-8840
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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.

*Boyd R. Parker*

Date: 8-22-88, Minn. Reg. No. 2666

**BRV**

BRV, INC.  
612-370-0700  
Minneapolis, Minnesota

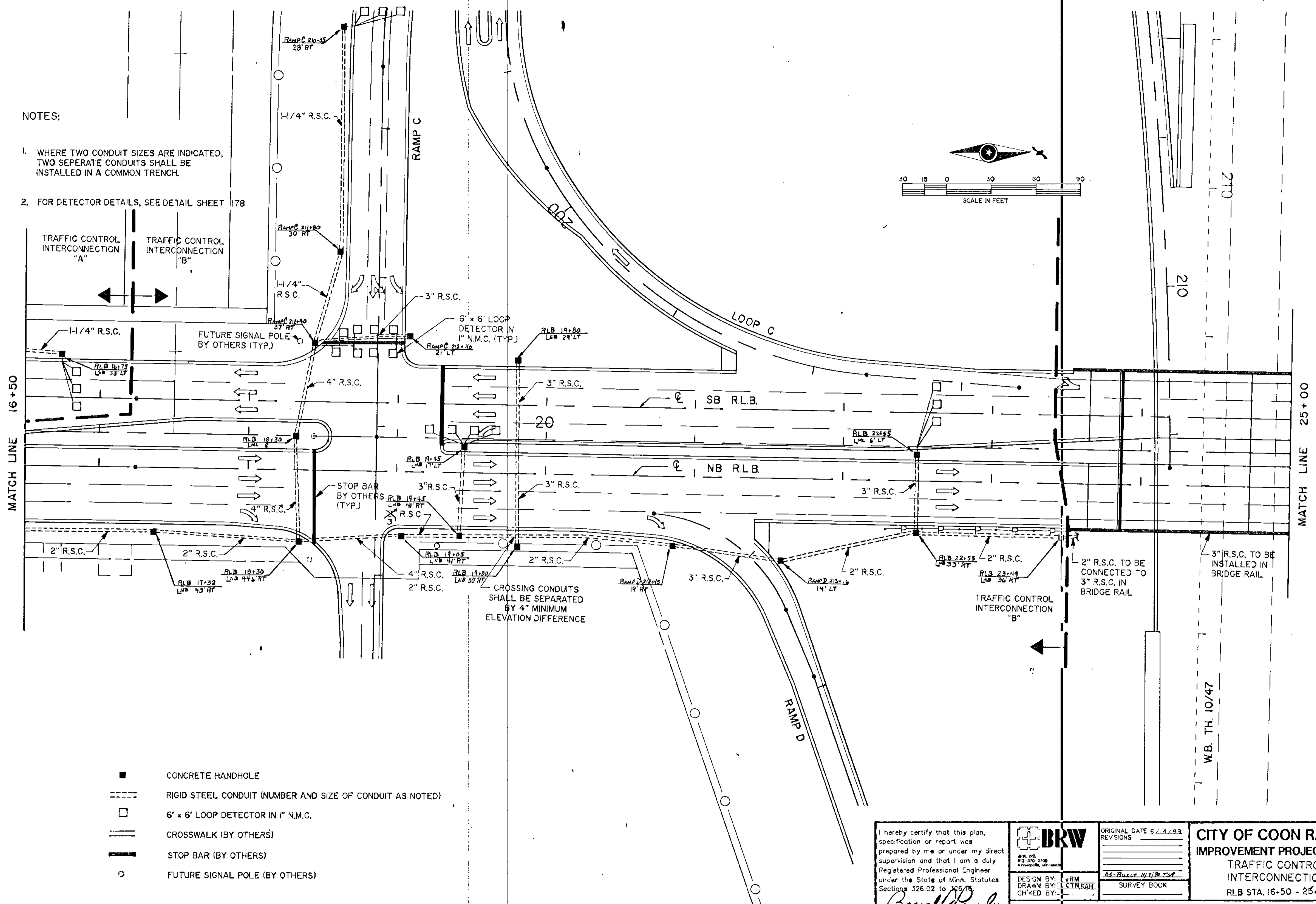
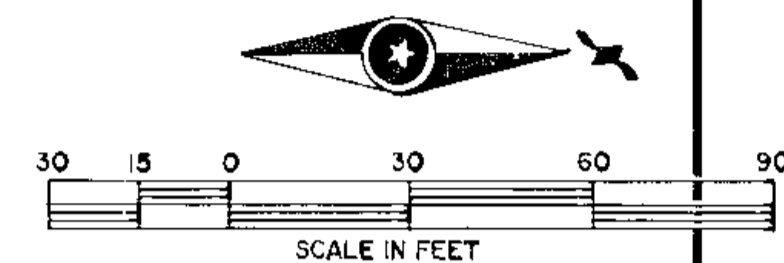
DESIGN BY: JRM  
DRAWN BY: CTM  
CHECKED BY:

ORIGINAL DATE 6/14/89
REVISIONS
AS-BUILT 11/19/88
SURVEY BOOK

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 TRAFFIC CONTROL INTERCONNECTION  
 RLB STA. 8+50 - 16+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



MATCH LINE 16+50

MATCH LINE 25+00

- 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)

CROSSING CONDUITS SHALL BE SEPARATED BY 4" MINIMUM ELEVATION DIFFERENCE

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 Paulsen*  
Date 8-22-69, Minn. Reg. No. 12666

**BRW**  
BRW, INC.  
812-370-0700  
Minneapolis, MN 55402

DESIGN BY: JRM  
DRAWN BY: CTN/BAH  
CHECKED BY:

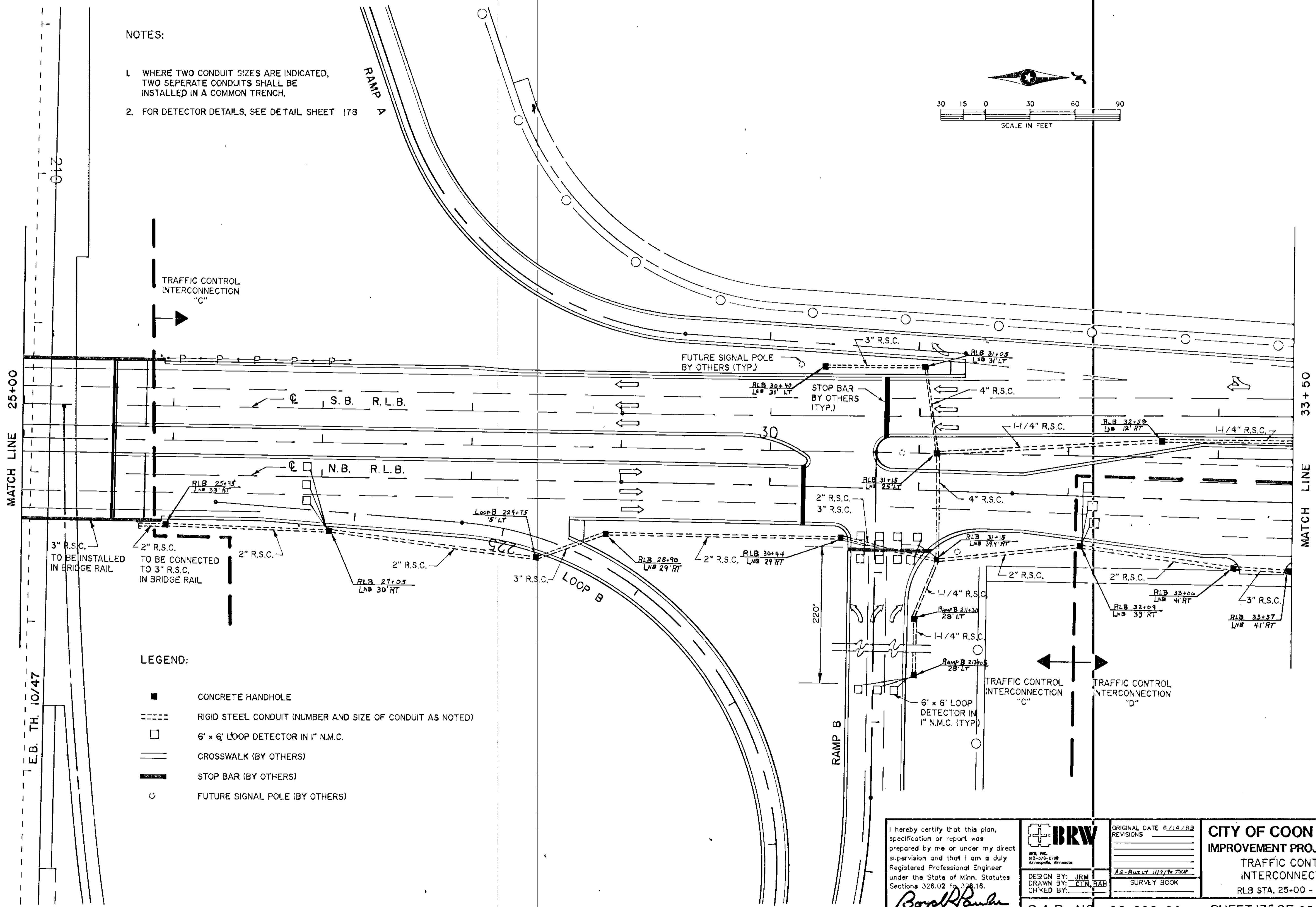
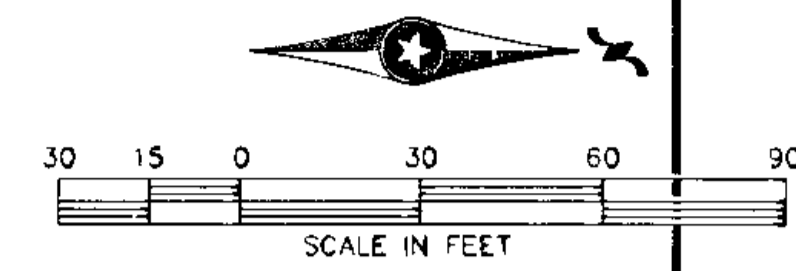
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REVISIONS	
AS-BUILT 11/1/70	
SURVEY BOOK	

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
TRAFFIC CONTROL INTERCONNECTION  
RLB STA. 16+50 - 25+00



NOTES:

1. WHERE TWO CONDUIT SIZES ARE INDICATED, TWO SEPARATE 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.

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

**IBRW**  
 INC. 812-378-0708  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: CTN, RAH  
 CHECKED BY:

ORIGINAL DATE 6/14/89  
 REVISIONS

As-Built 11/7/89  
 SURVEY BOOK

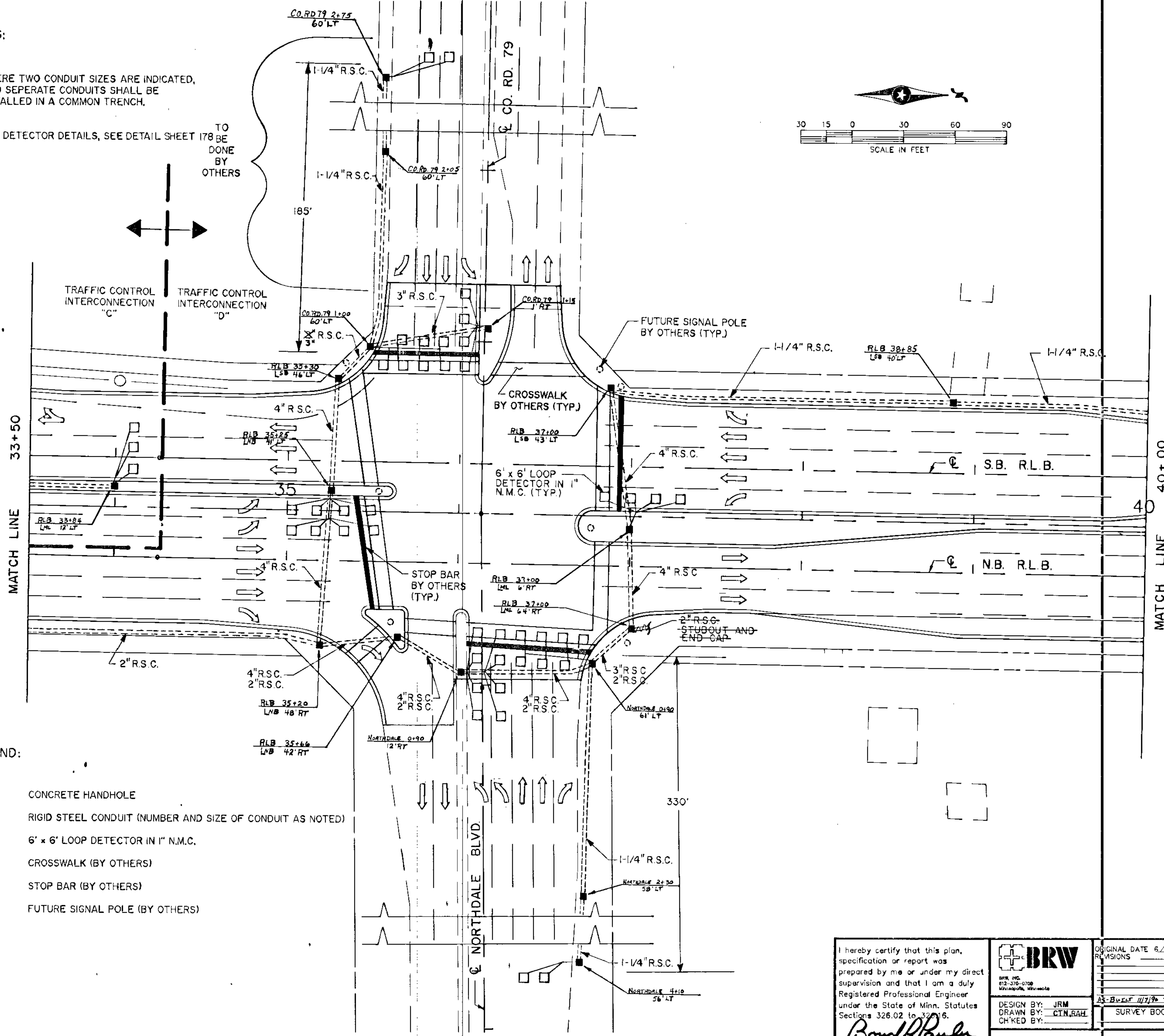
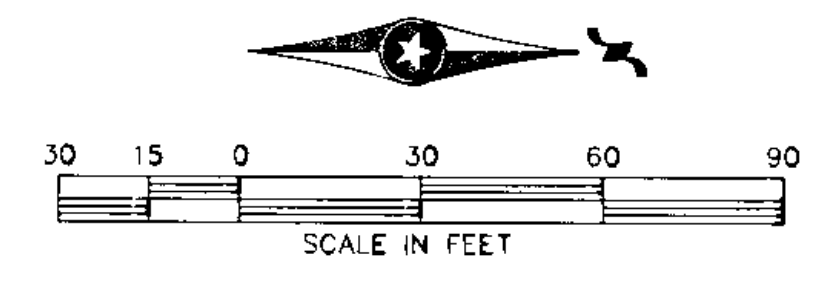
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 TRAFFIC CONTROL INTERCONNECTION  
 RLB STA. 25+00 - 33+50

S.A.P. NO. 02-609-08 SHEET 175 OF 256 DESIGN FILE No. 16-8840

NOTES:

1. WHERE TWO CONDUIT SIZES ARE INDICATED, TWO SEPARATE CONDUITS SHALL BE INSTALLED IN A COMMON TRENCH.

2. FOR DETECTOR DETAILS, SEE DETAIL SHEET 178 TO BE DONE BY OTHERS



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.

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

**BRW**  
 BRW, INC.  
 612-276-0700  
 12000 Highway 101, Minneapolis, MN 55426

DESIGN BY: JRM  
 DRAWN BY: CTN,RAH  
 CHECKED BY:

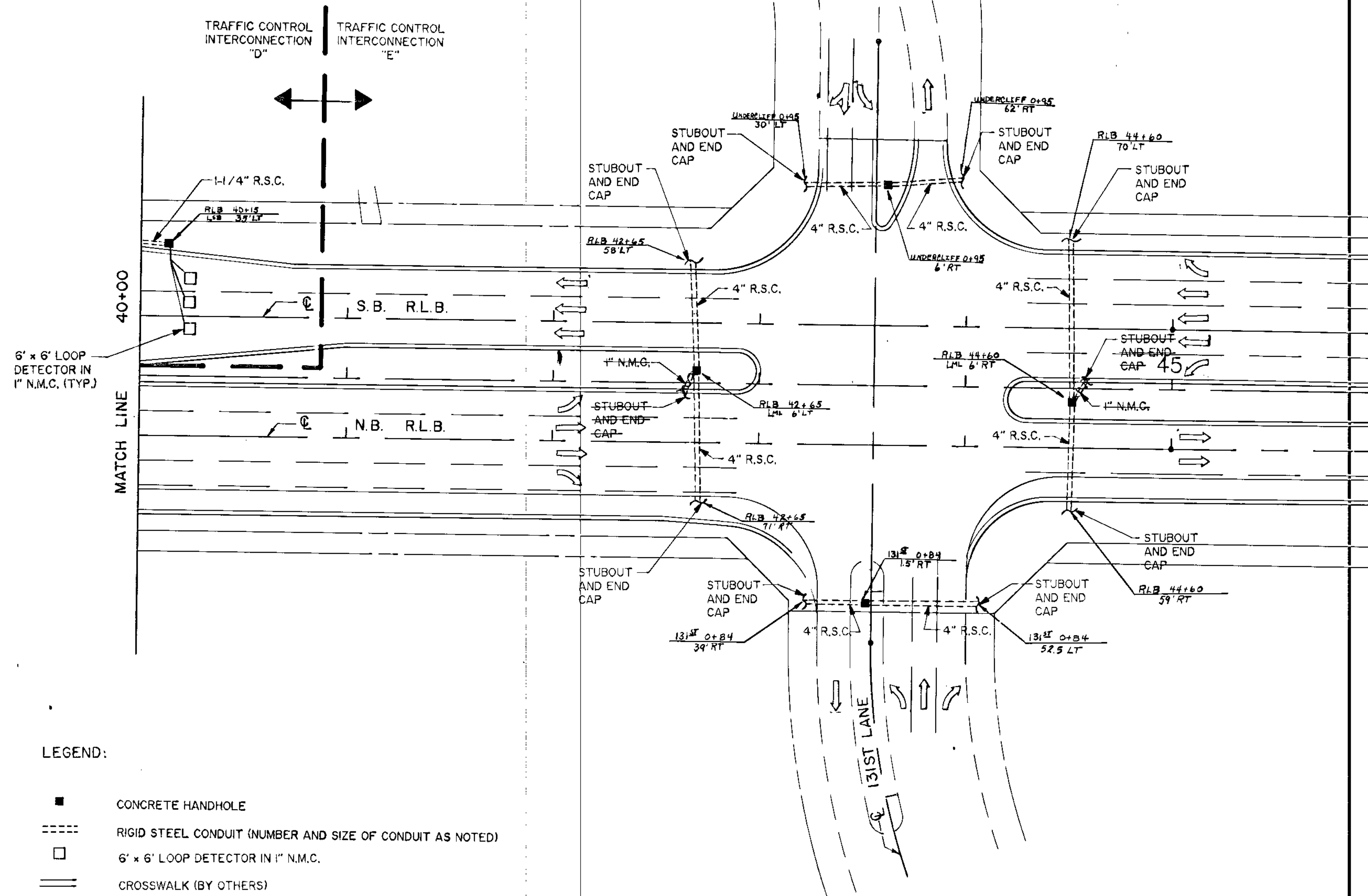
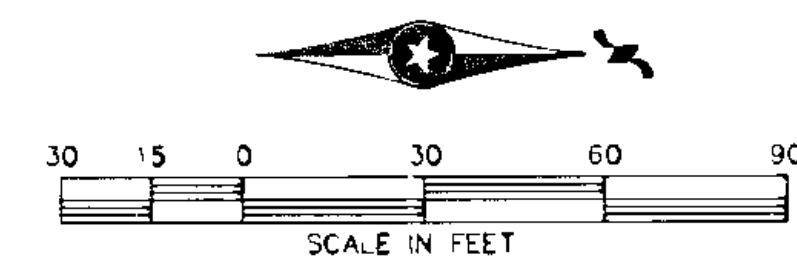
ORIGINAL DATE 6/14/89  
 REVISIONS

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 TRAFFIC CONTROL INTERCONNECTION  
 RLB STA. 33+50 - 40+00

S.A.P. NO. 02-609-08 SHEET 176 OF 256 DESIGN FILE No. 16-8840

NOTES:

- WHERE TWO CONDUIT SIZES ARE INDICATED, TWO SEPARATE 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)

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*

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

**BRV**  
 BRV, INC.  
 612-376-0700  
 Minneapolis, Minnesota

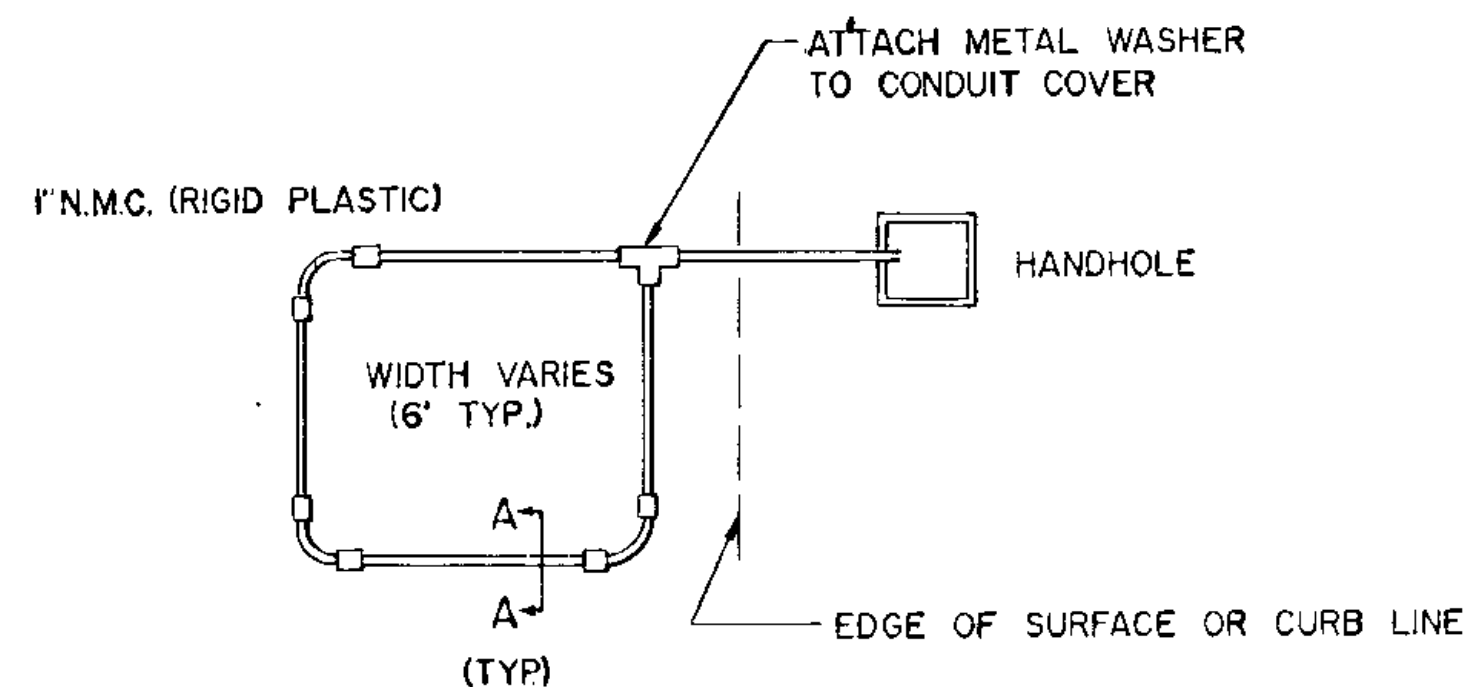
DESIGN BY: JRM  
 DRAWN BY: CTF/BAH  
 CHECKED BY:

ORIGINAL DATE: 6/14/88
REVISIONS:
AS-BUILT 11/6/88
SURVEY BOOK

**CITY OF COON RAPIDS**  
 IMPROVEMENT PROJECT 88-53  
 TRAFFIC CONTROL INTERCONNECTION  
 RLB STA. 40+00 - 46+00

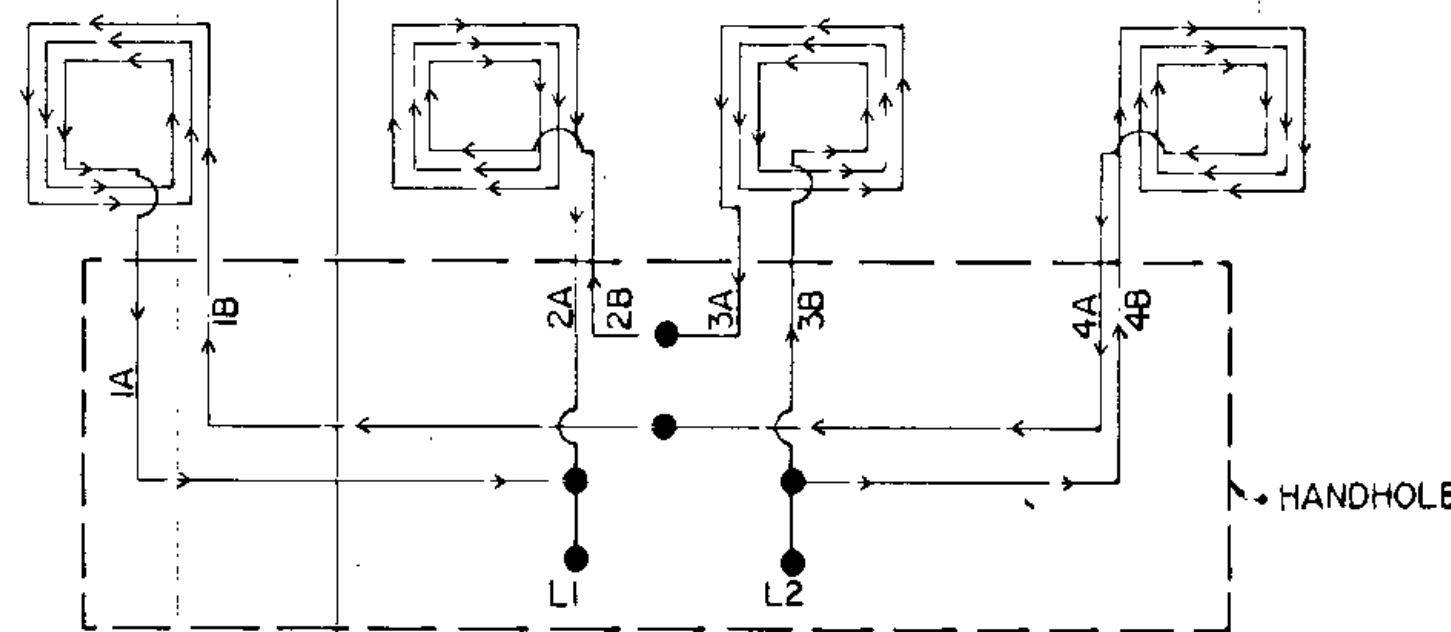
**LOOP DETECTOR DETAIL "A"**

PLAN VIEW  
(NOT TO SCALE)



**LOOP DETECTOR DETAIL "C"**

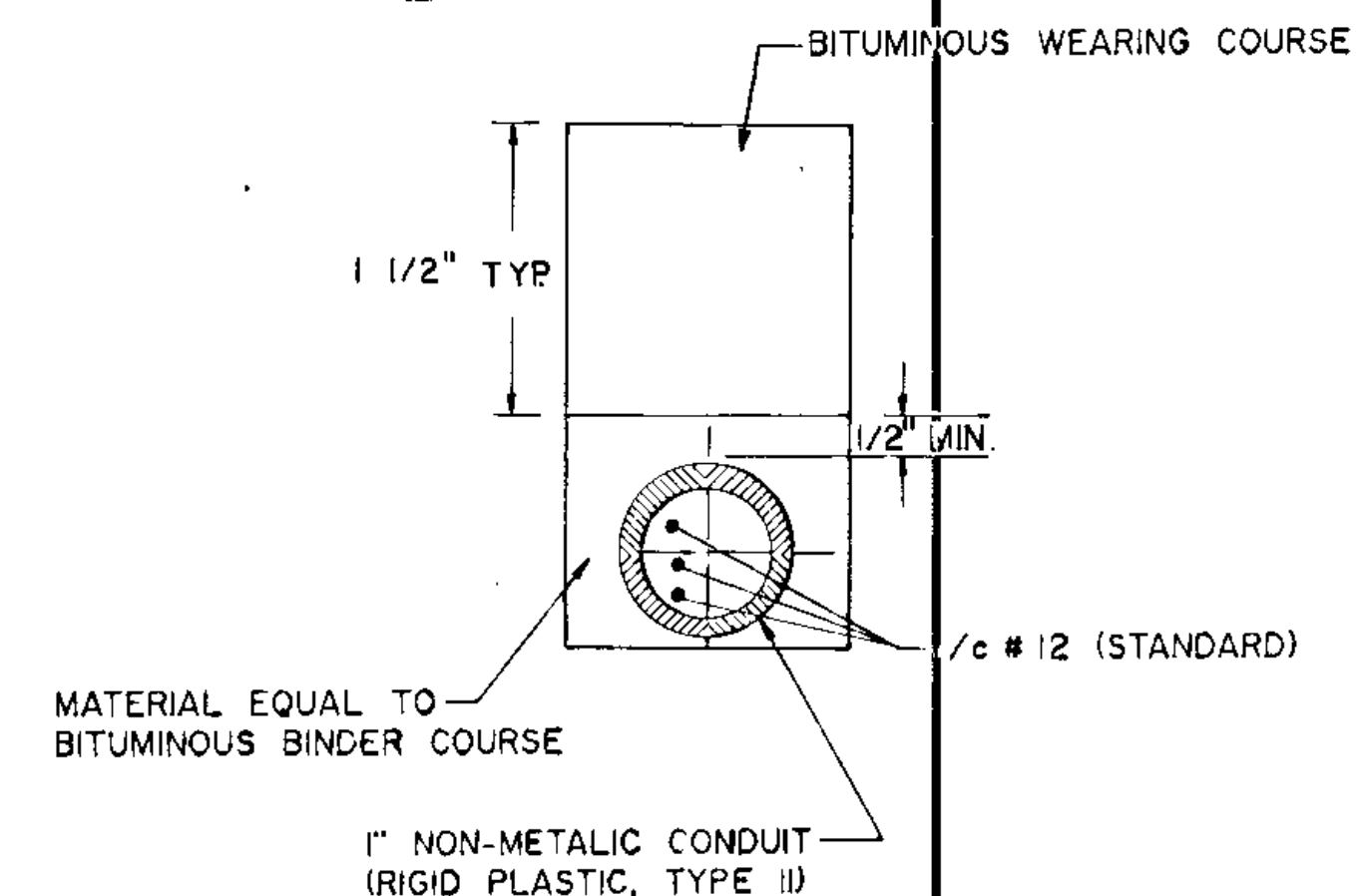
PLAN VIEW  
(NOT TO SCALE)



LOOP CONNECTIONS SHALL BE SPLICED IN THE HANDHOLE AS FOLLOWS:

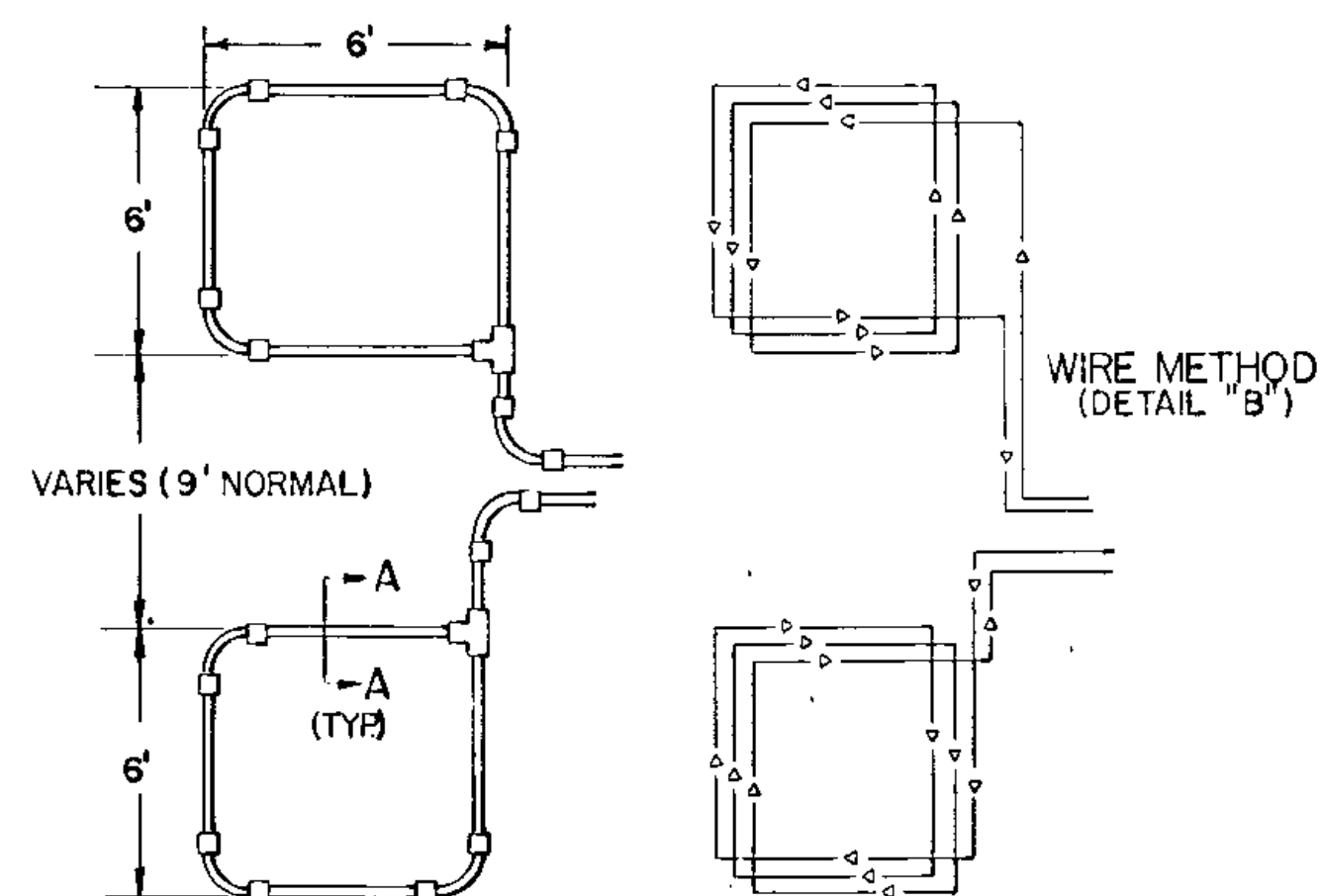
IB TO 4A 2B TO 3A; IA AND 2A TO L1; 3B AND 4B TO L2.  
SPLICE CONTROL CABLE TO L1 & L2 IN HANDHOLE  
ALL CONDUCTORS SHALL BE TAGGED IN HANDHOLE (IA, IB, ect).

**CROSS SECTION A-A**



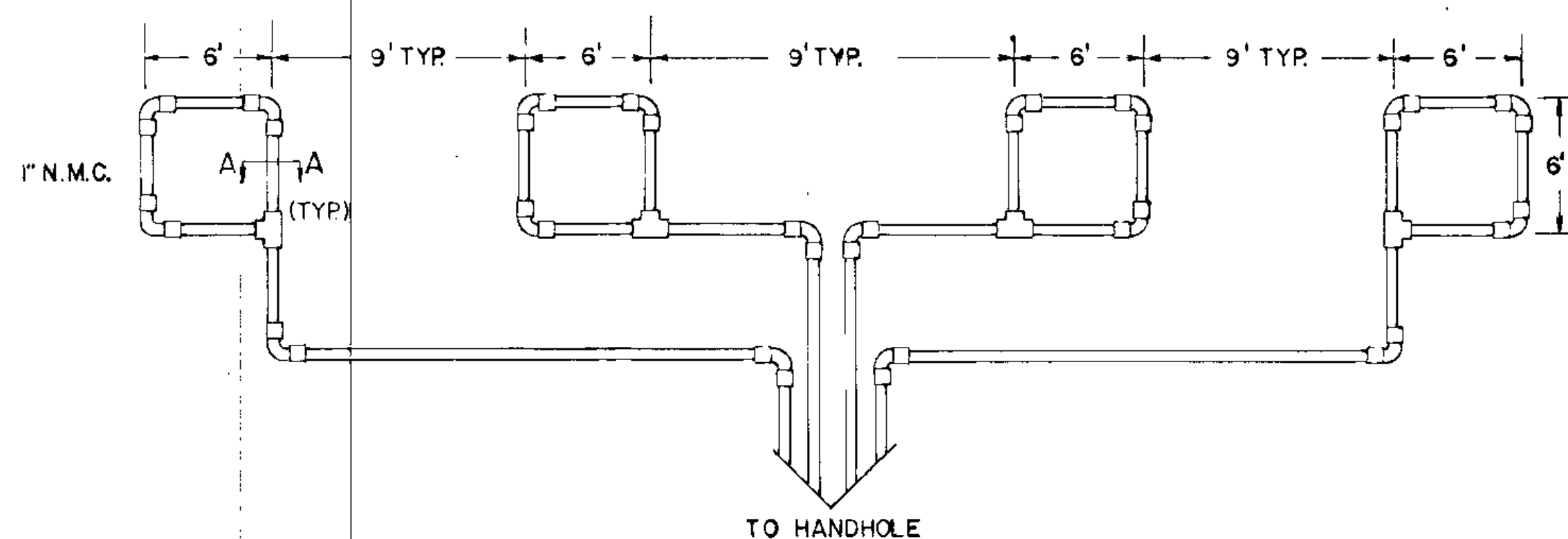
**CONDUIT INSTALLATION DETAIL FOR LOOP DETECTORS**

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.



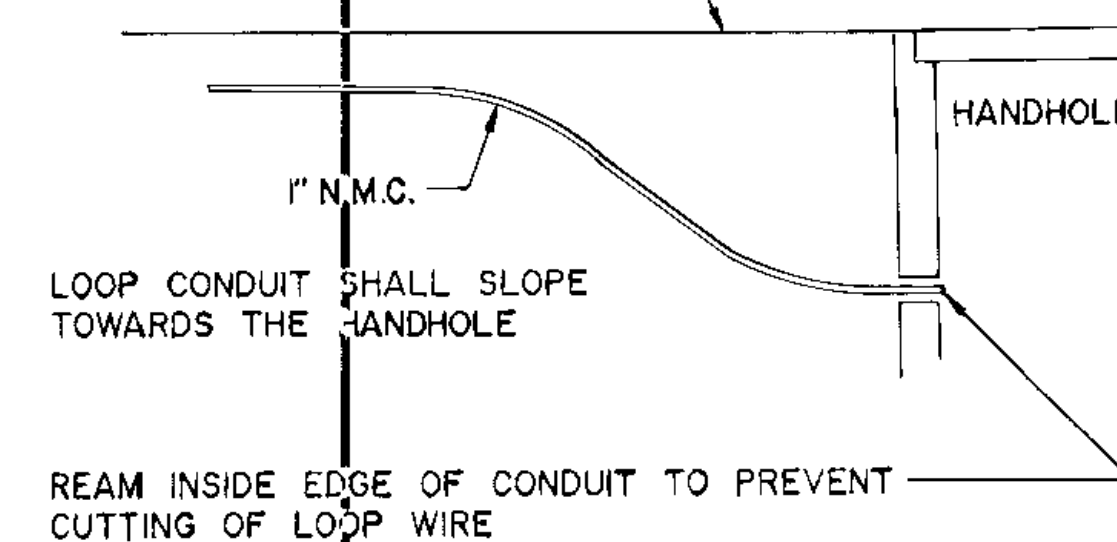
**LOOP DETECTOR DETAIL "B"**

PLAN VIEW  
(NOT TO SCALE)  
(TYPICAL)



- 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).

ROADWAY SURFACE



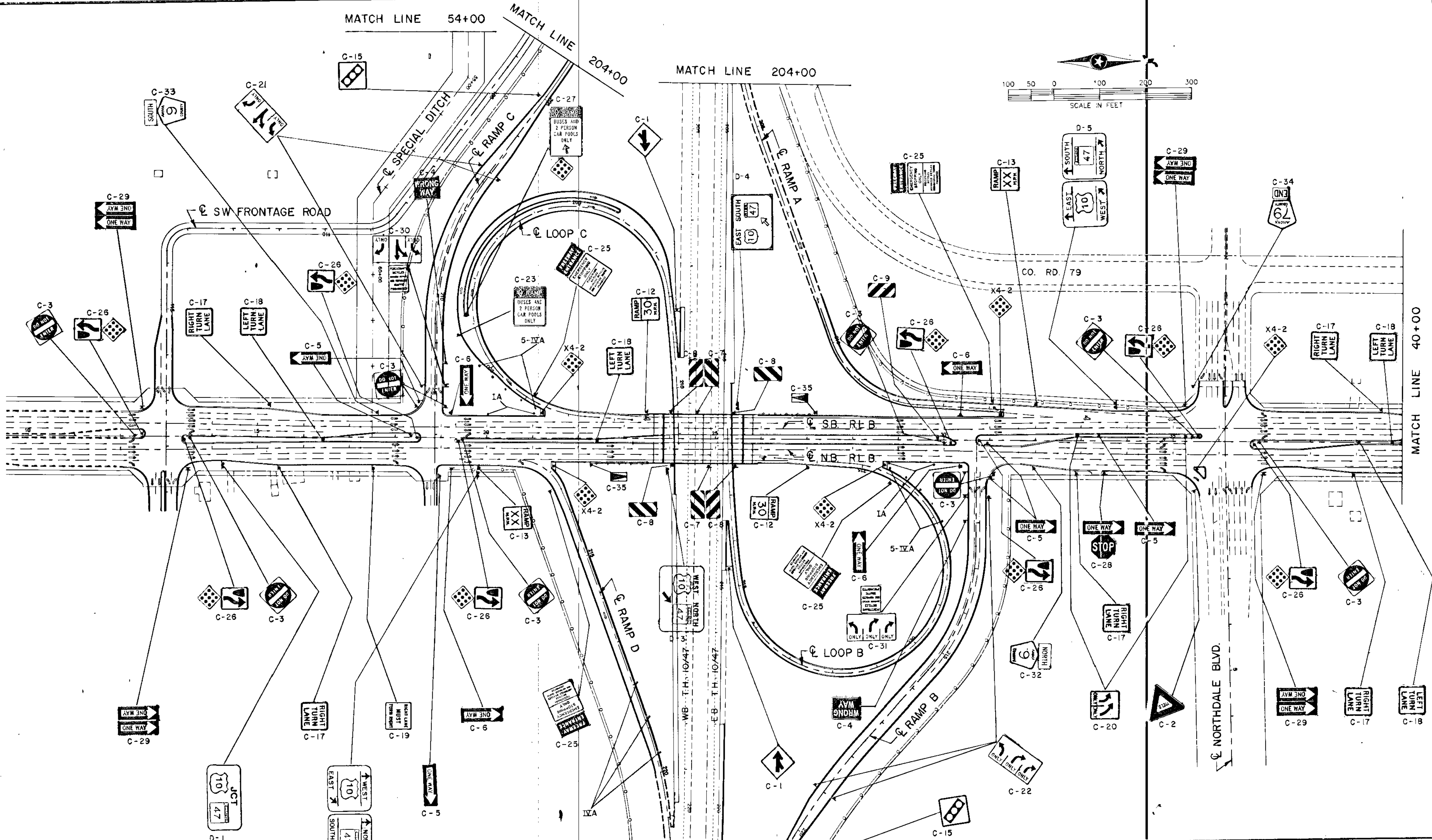
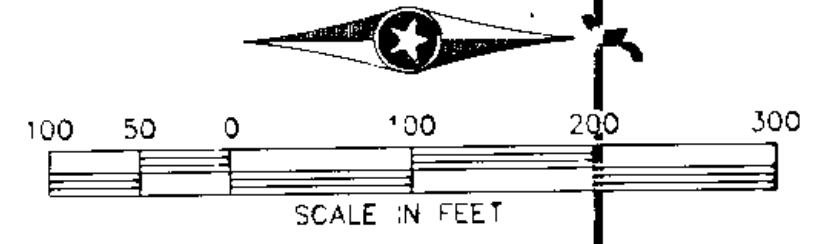
**DRAINAGE DETAILS**

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	BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THRESHOR SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55418 PHONE: (612) 330-0700	ORIGINAL DATE 6/14/89 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. C2-609-08		SHEET 178 OF 256	DESIGN FILE No. 16-6849

MATCH LINE 54+00  
MATCH LINE 204+00

MATCH LINE 204+00

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 Sections 326.02 to 326.16.

*Boyd Paulsen*  
Date 8-22-89 Minn. Reg. No. 2666

**BRW**  
BRW, INC.  
151-302-0700  
Minneapolis, Minnesota

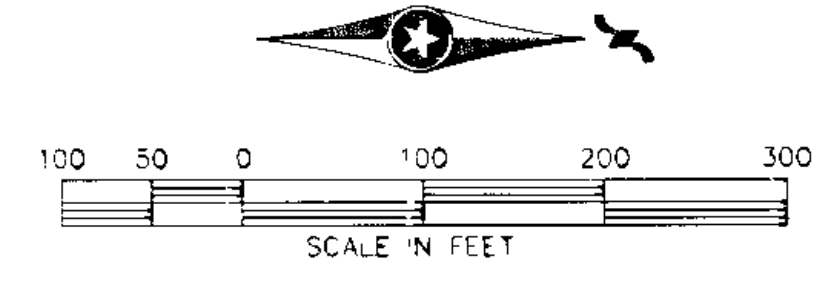
ORIGINAL DATE 6/13/83  
REVISIONS 10/9/89  
2/12/90

DESIGN BY: JRM  
DRAWN BY: CTE  
CHECKED BY:

SURVEY BOOK

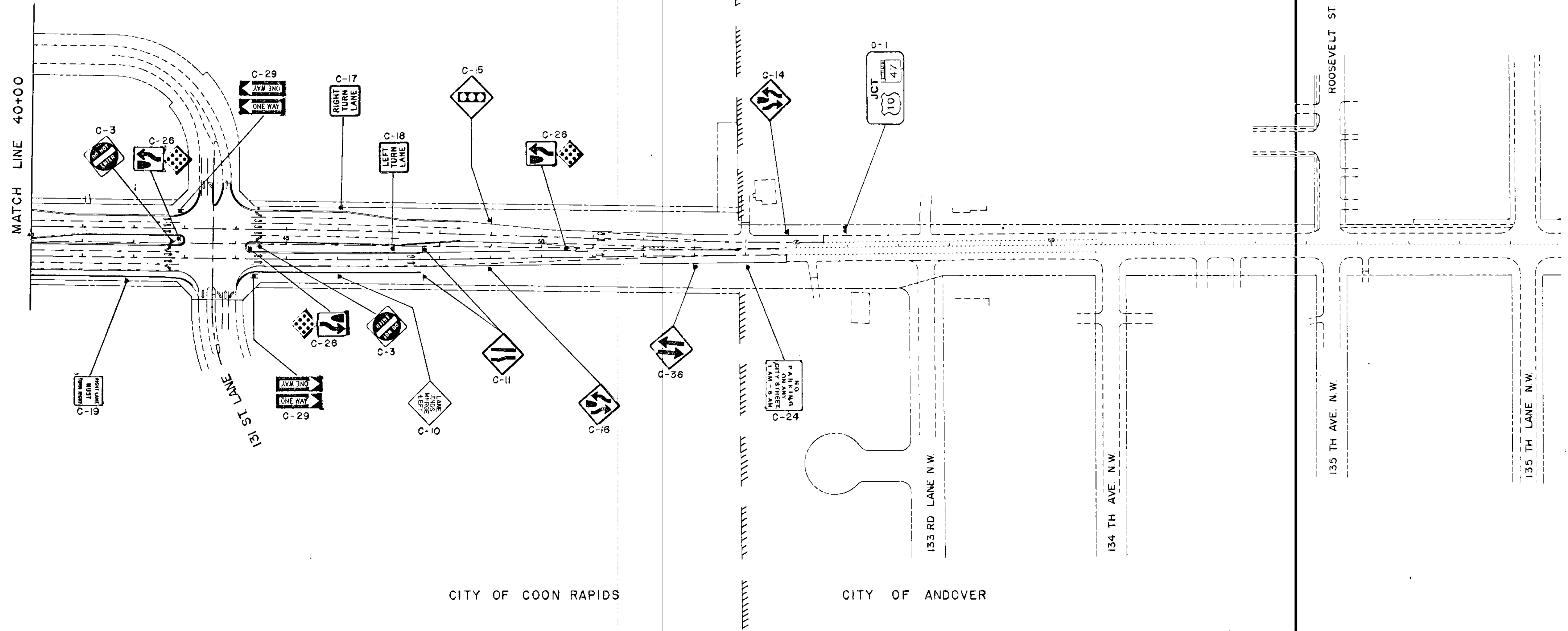
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
**SIGNING PLAN**  
RLB STA. 9+50 - 40+00  
T.H. 10/47 STA. 204+00 - 221+50

S.A.P. NO. 02-609-08 SHEET 179 OF 256 DESIGN FILE No. 16-BB40



CITY OF COON RAPIDS

CITY OF ANDOVER



MATCH LINE 40+00

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.

*Boyd Hansen*  
 Date 8-22-89 Minn. Reg. No. 22666



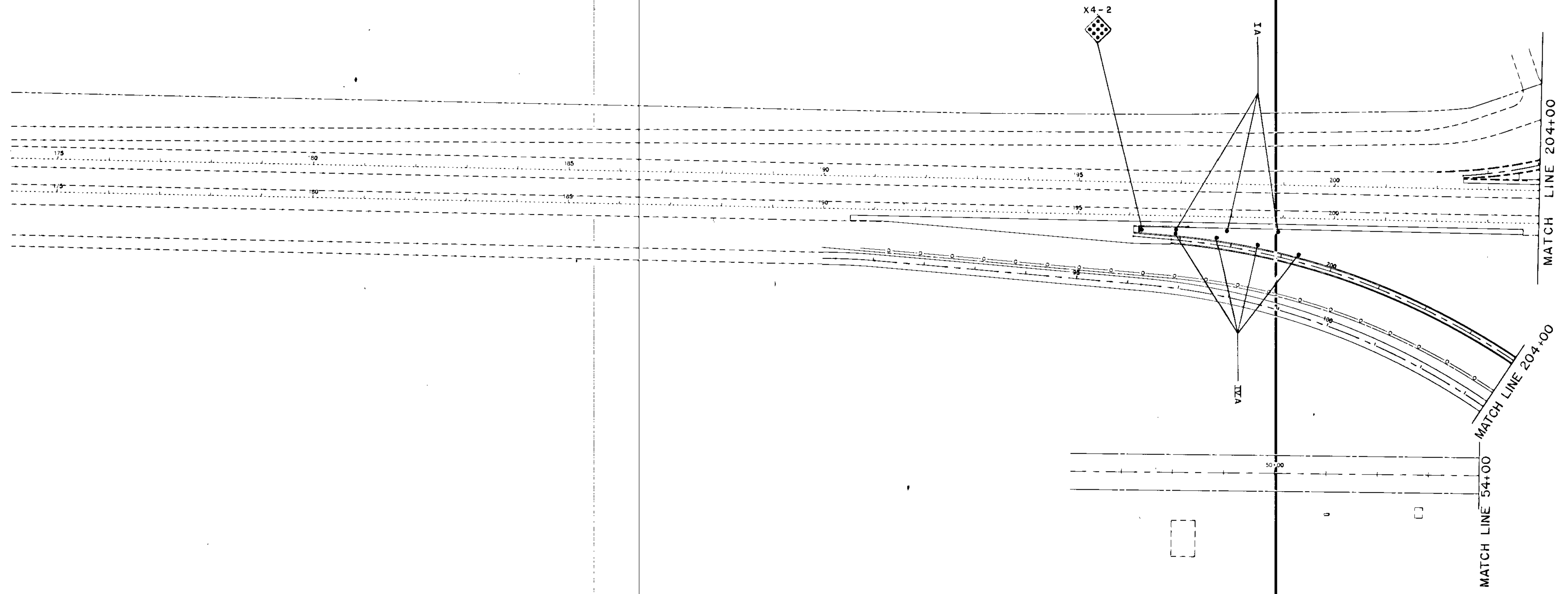
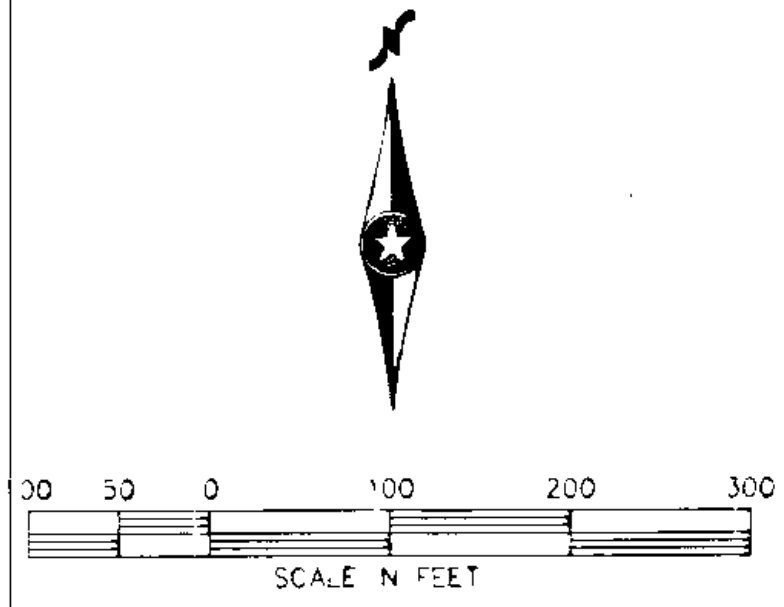
DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY:

ORIGINAL DATE 6/13/89  
 REVISIONS 10/9/89  
 2/12/90

SURVEY BOOK

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 SIGNING PLAN  
 RLB STA. 40+00 - 55+52.80

S.A.P. NO. 02-609-08 SHEET 180 OF 256 DESIGN FILE No. 16-BB.4D



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

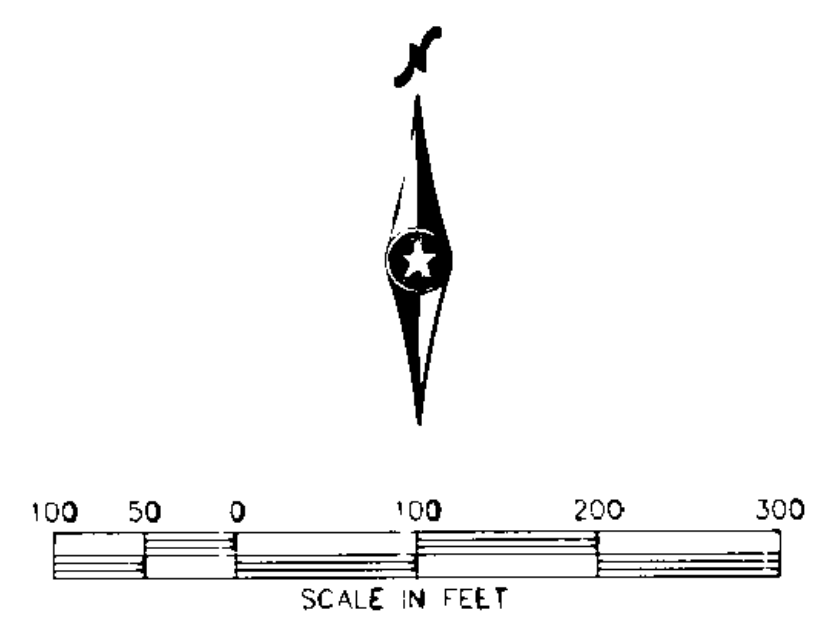
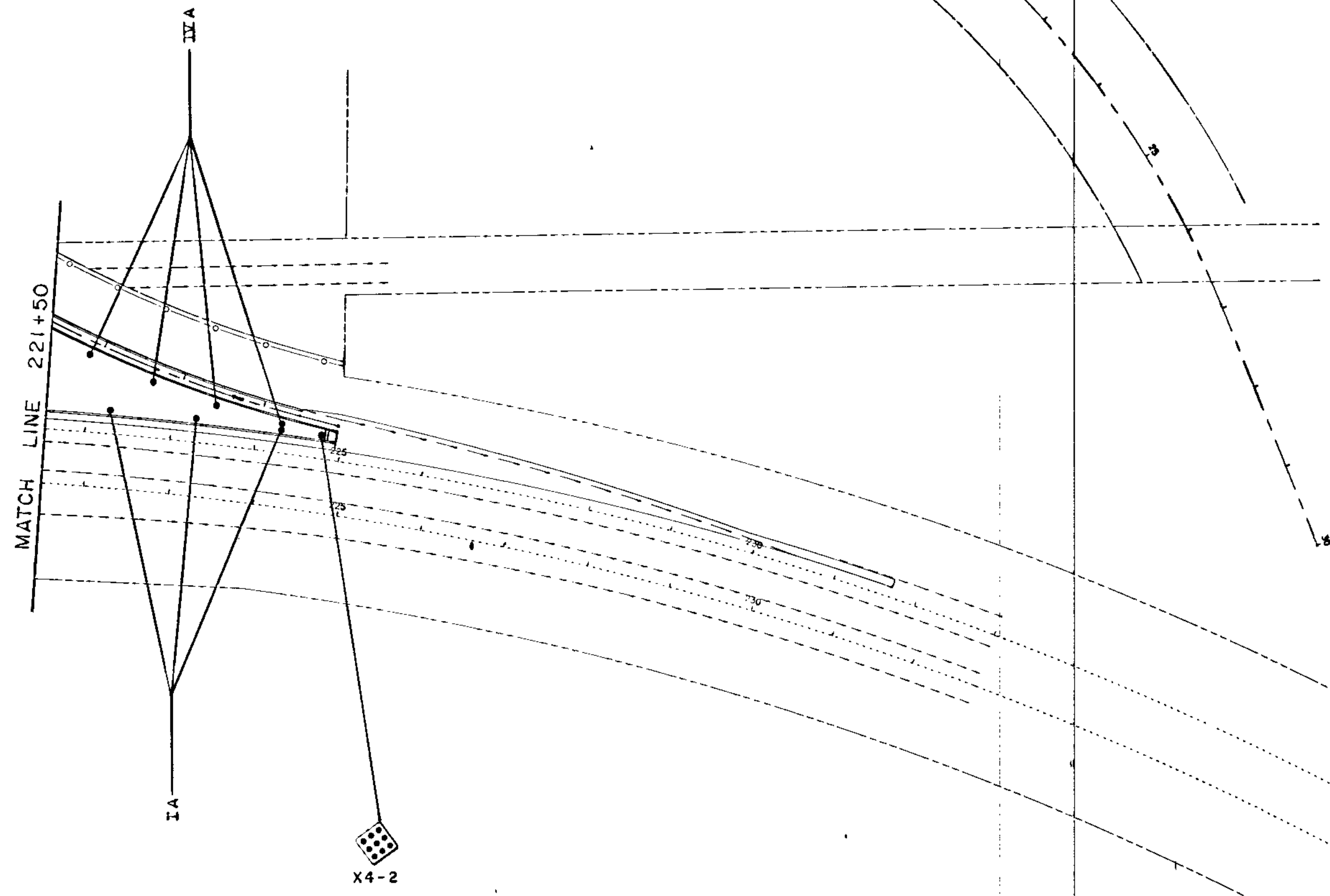


DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY:

ORIGINAL DATE 6/4/83  
 REVISIONS:  
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 \_\_\_\_\_  
 SURVEY BOOK

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 SIGNING PLAN  
 T.H. 10/47 STA. 174+00 - 204+00

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 Section 326.02 to 326.16.

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

**BRW**  
 BRW, INC.  
 612-370-0700  
 Minneapolis, Minnesota

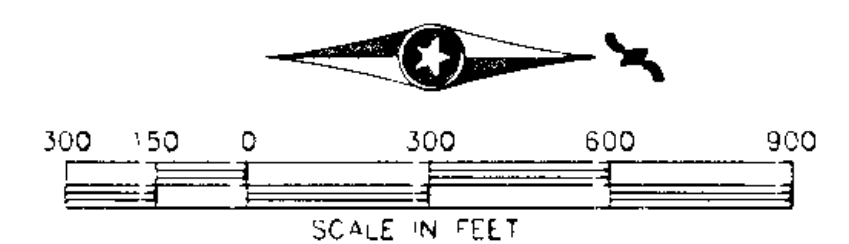
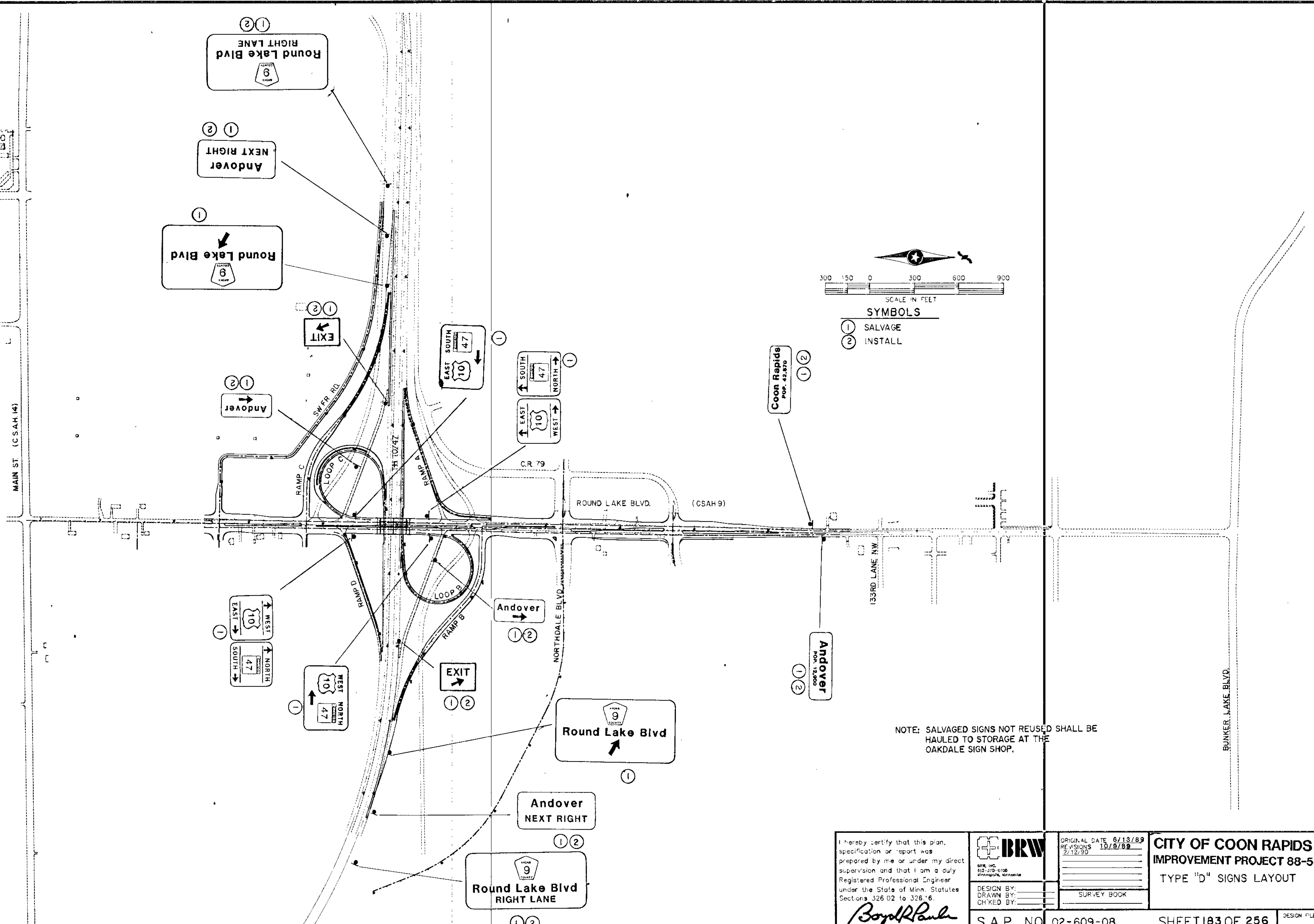
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 DRAWN BY: CTN  
 CHECKED BY:

ORIGINAL DATE 6/14/89  
 REVISIONS  
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 SURVEY BOOK

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 SIGNING PLAN  
 T.H. 10/47 STA. 221+50 - 232+00

S.A.P. NO. 02-609-08 SHEET 182 OF 256 DESIGN FILE No. 18-88-SP





**SYMBOLS**  
 ① SALVAGE  
 ② INSTALL

NOTE: SALVAGED SIGNS NOT REUSED SHALL BE HAULED TO STORAGE AT THE OAKDALE SIGN SHOP.

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**  
 BRW, INC.  
 612-370-6700  
 Minneapolis, Minnesota

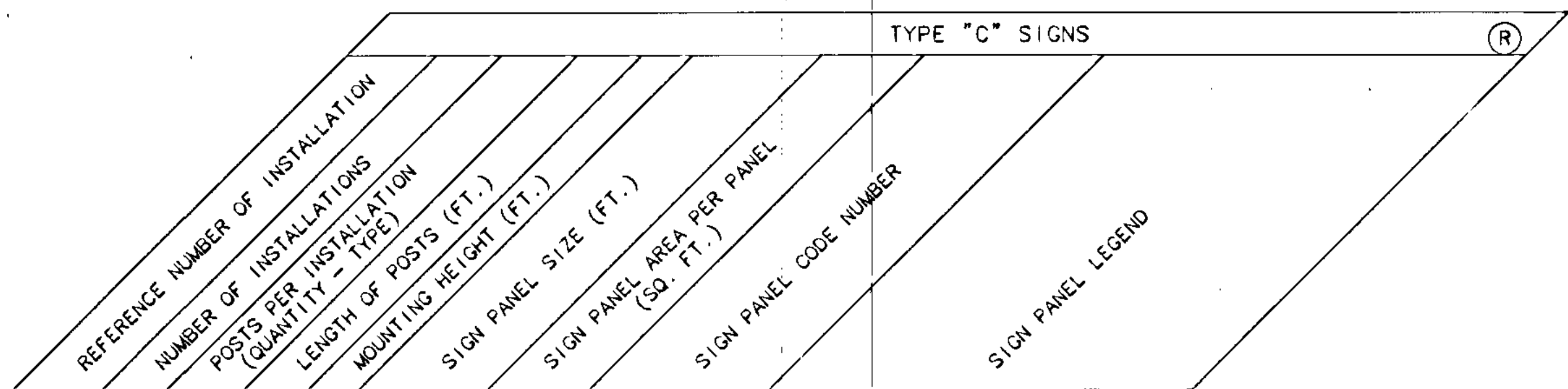
ORIGINAL DATE 6/13/89  
 REVISIONS 10/9/89  
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 SURVEY BOOK

DESIGN BY:  
 DRAWN BY:  
 CHECKED BY:

S.A.P. NO. 02-609-08 SHEET 183 OF 256

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

DESIGN FILE  
 No. 16-8839



REFERENCE NUMBER	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	2	2-U	15	7	36 X 24	6.00	R5-1a	WRONG WAY
C-5	6	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	2	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	2	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	W13-3	RAMP ADVISORY (30 MPH)
C-13	2	2-U	14	7	36 X 48	12.00	W13-3	RAMP 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	W6-2	DIVIDED HIGHWAY ENDS
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	3	2-U	14	7	48 X 30	10.00	R3-8G	DOUBLE LEFT, THRU, & RT. TURN
C-22	3	2-U	14	7	48 X 24	8.00	R3-8G (MOD)	LEFT ONLY & DOUBLE RT. ONLY (6)
C-23	1	2-U	14	6	36 X 42	10.50	SPECIAL	HOV LANE SIGN (4)(6)
C-24	1	1-U	14	6	30 X 30	6.25	SPECIAL	NO PARKING ON ANY CITY STREET (7)
C-25	4	2-U	16	6	36 X 18	4.50	E1-6	FREEWAY ENTRANCE
C-26	11	1-U	14	7	36 X 36	9.00	R16-X4	NO PEDS, ETC.
C-27	1	1-U	14	7	24 X 30	5.00	R4-7	KEEP RIGHT
C-28	1	1-U	14	7	18 X 18	---	X4-2	HAZARD MARKER PLT. H-2 (4)(6)
C-29	6	2-U	14	7	36 X 54	13.50	SPECIAL	HOV LANE GUIDE SIGN (4)
C-30	1	2-U	14	7	18 X 18	---	X4-2	HAZARD MARKER PLT. H-2 (4)
C-31	1	2-U	14	7	30 X 30	6.25	R1-1	STOP
C-32	1	1-U	14	7	36 X 12	3.00	R6-1(R)	ONE WAY
C-33	1	1-U	14	7	36 X 12	3.00	R6-1(R)	ONE WAY (1)
C-34	1	2-U	14	7	36 X 12	3.00	R6-1(L)	ONE WAY
C-35	1	2-U	14	7	48 X 30	10.00	R3-8G	DOUBLE LEFT, THRU, & RT. TURN (1)
C-36	1	2-U	14	7	18 X 24	3.00	R5-10d	NO PEDS, ETC.
C-37	1	2-U	14	7	48 X 24	8.00	R3-8G (MOD)	LEFT ONLY & DOUBLE RT. ONLY (1) (6)
C-38	1	2-U	14	7	18 X 24	3.00	R5-10d	NO PEDS, ETC.
C-39	1	1-U	14	7	24 X 24	4.00	M1-6	COUNTY RT. MARKER - 9
C-40	1	1-U	14	7	24 X 12	2.00	M3-1A	CARDINAL DIR. MARKER - N
C-41	1	1-U	14	7	24 X 24	4.00	M1-6	COUNTY RT. MARKER - 9
C-42	1	1-U	14	7	24 X 12	2.00	M3-3A	CARDINAL DIR. MARKER - S
C-43	1	1-U	14	7	24 X 24	4.00	M1-6	COUNTY RT. MARKER - 79
C-44	1	1-U	14	7	24 X 12	2.00	M4-6A	END
C-45	2	1-U	9	4	12 X 6	1.00	X4-5	SNOWPLOW MARKER (RAISE)
C-46	1	1-U	14	7	30 X 30	6.25	W6-3	TWO WAY TRAFFIC
TOTAL						656.65		

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)	19 (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.
- (6) SEE SPECIAL PROVISIONS FOR MODIFIED SIGN DETAILS.
- (7) SALVAGE AND INSTALL BY OTHERS. SIGN PANEL AREA NOT INCLUDED IN TOTAL.

**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*

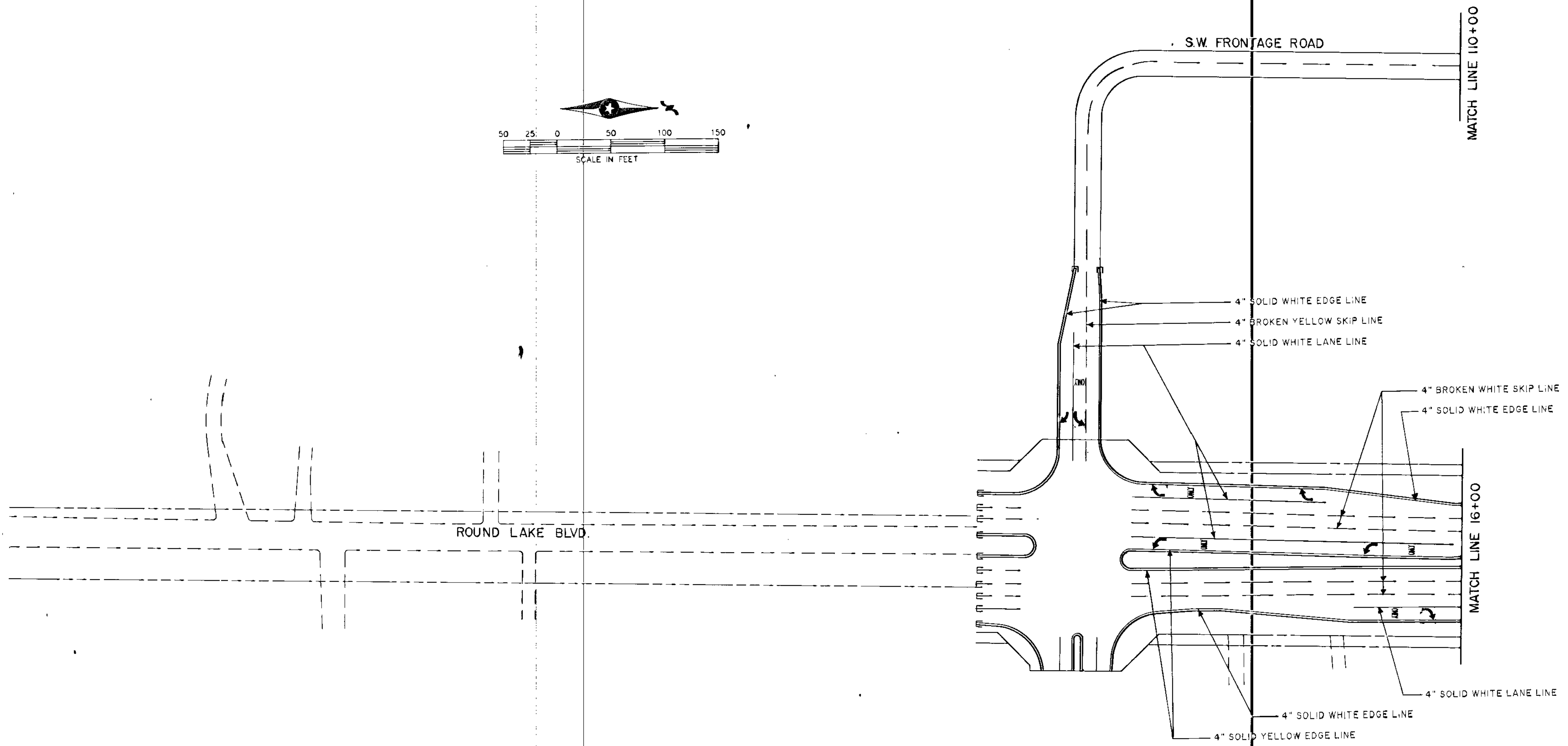
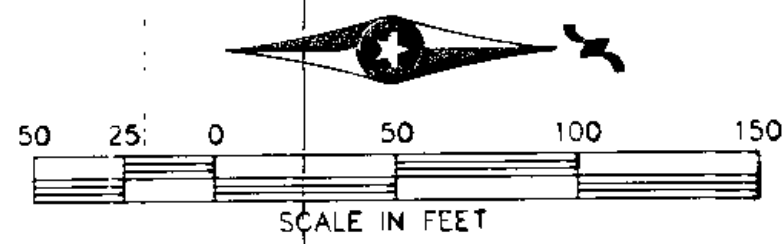
Date 8-22-89, Minn. Reg. No. J2666



ORIGINAL DATE 4/18/89  
 REVISIONS 10/9/89  
 SURVEY BOOK

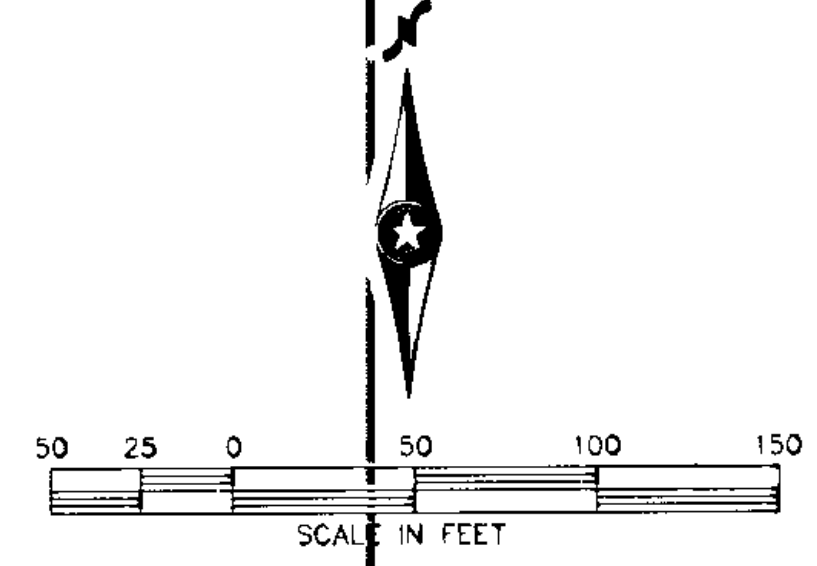
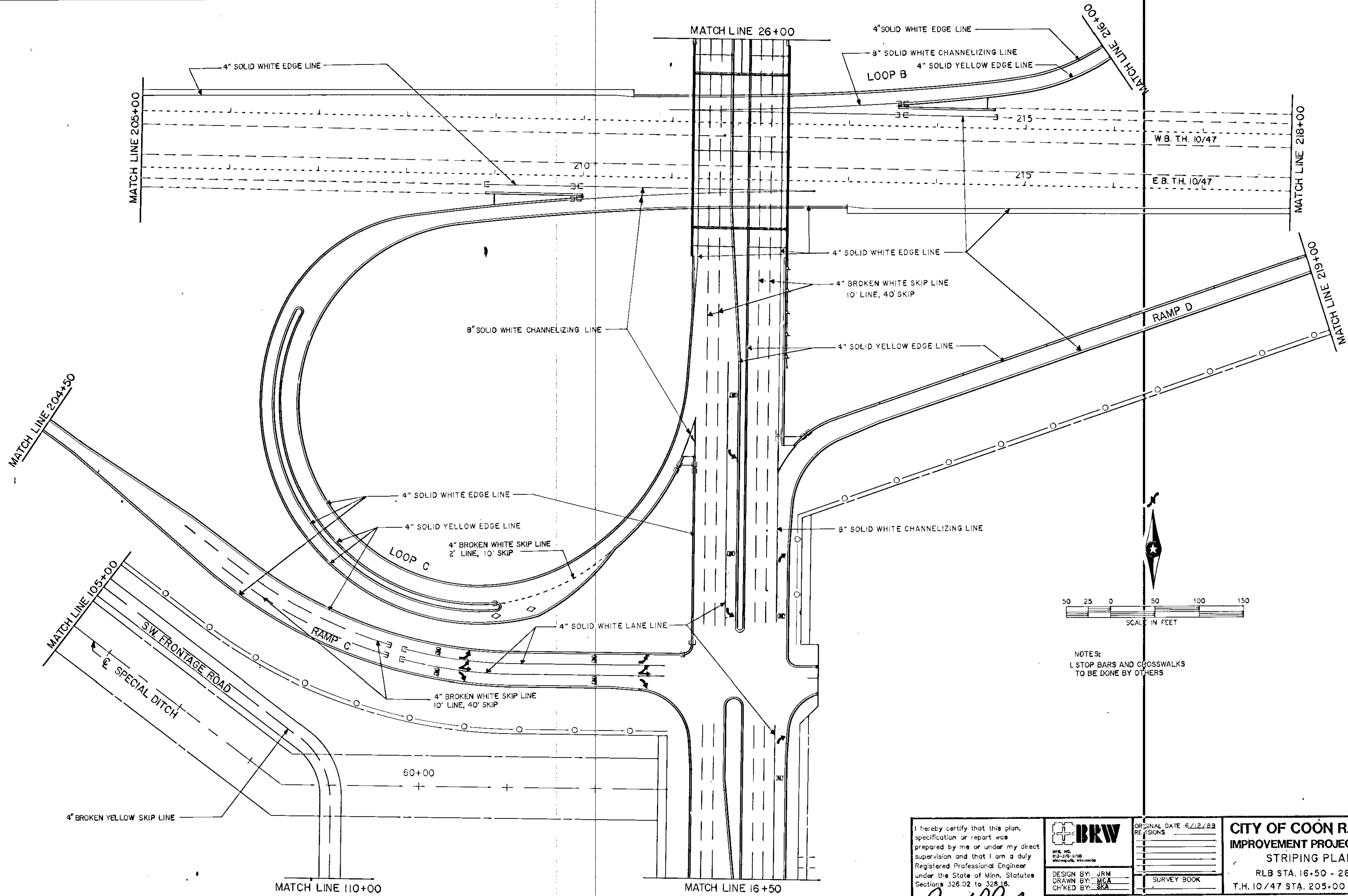
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 TYPE "C" SIGN DATA

S.A.P. NO. 02-609-08 SHEET 184 OF 256 DESIGN FILE No. 16-8849



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 326.165. <i>Boyd R. Bulter</i> Date 8-22-88 Minn. Reg. No. 12666	 IBERW INC. 612-370-5700 Minneapolis, Minnesota	ORIGINAL DATE 6/12/89 REVISIONS	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> 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. 16-8840



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 326.02 to 326.16.

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

**BRW**  
 BRW, INC.  
 612-270-0700  
 Minneapolis, Minnesota

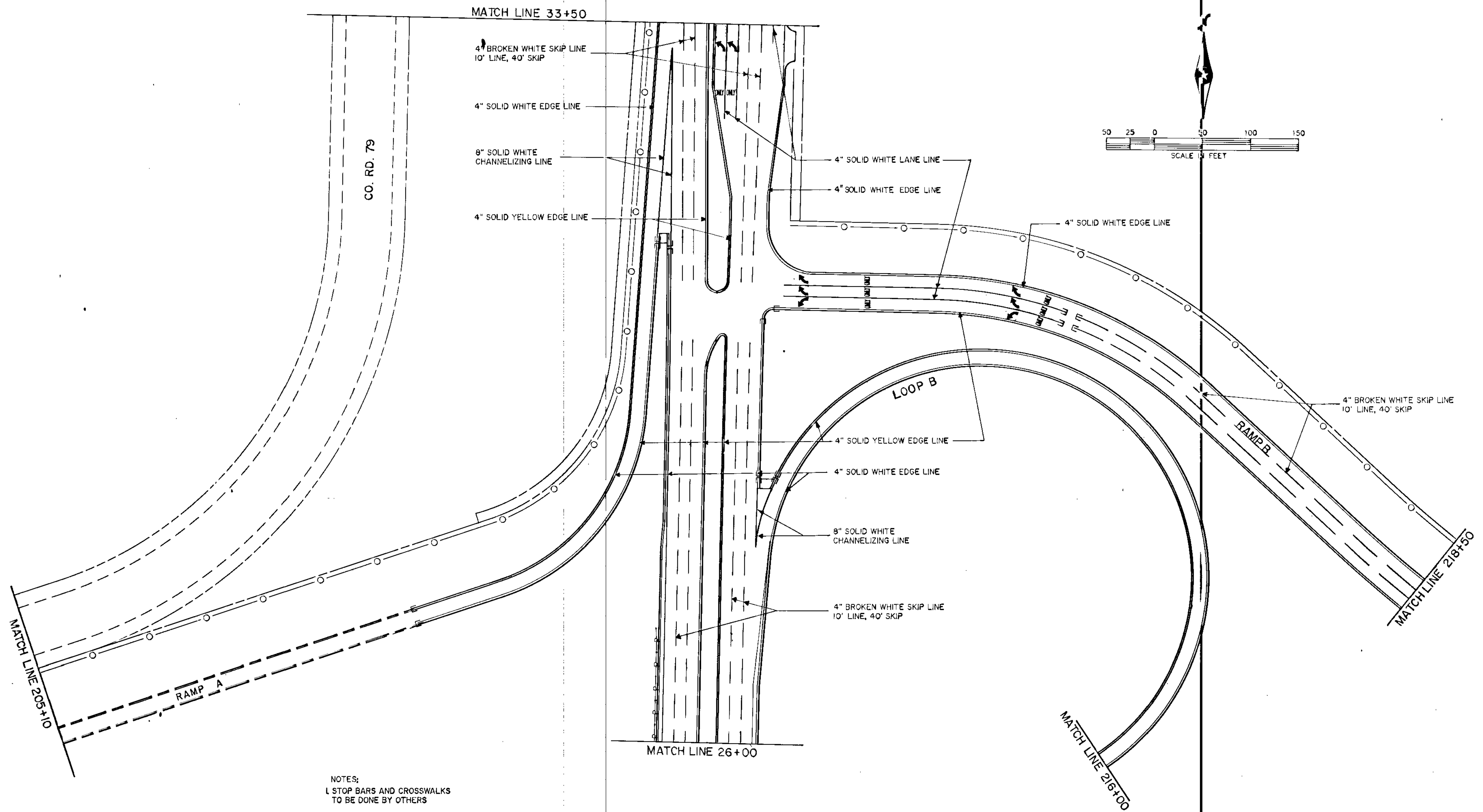
DESIGN BY: JRM  
 DRAWN BY: MCA  
 CHECKED BY: SKA

ORIGINAL DATE 6/12/88  
 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 SHEET 190 OF 256 DESIGN FILE No. 15-8840



NOTES:  
 L STOP BARS AND CROSSWALKS  
 TO BE DONE BY OTHERS

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*Boyd Paulsen*  
 Date 8-22-82 Minn. Reg. No. 12656

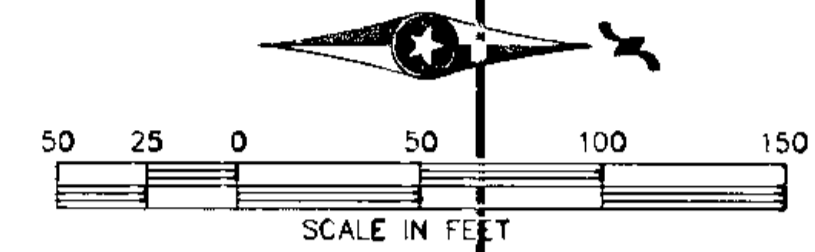
**BRW**  
 BRW, INC.  
 812-370-0700  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: MCA  
 CHECKED BY: SKA

ORIGINAL DATE 6/12/83
REVISIONS
SURVEY BOOK

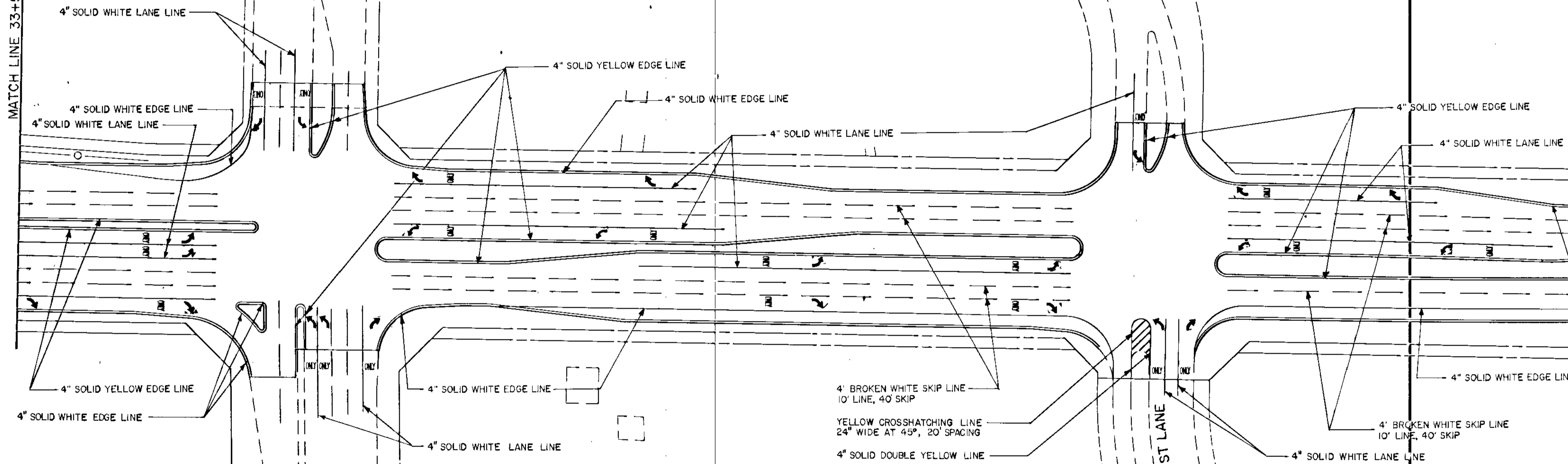
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 STRIPING PLAN  
 RLB STA. 26+00 - 33+50

CO. RD. 79



MATCH LINE 33+50

MATCH LINE 48+00



♀ NORTHDALE BLVD.

131ST LANE

- 4" BROKEN WHITE SKIP LINE  
10' LINE, 40' SKIP
- YELLOW CROSSHATCHING LINE  
24" WIDE AT 45°, 20' SPACING
- 4" SOLID DOUBLE YELLOW LINE

NOTES:  
1. STOP BARS AND CROSSWALKS  
TO BE DONE BY OTHERS

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*Boyd Paulk*

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

**BRW**

BRW, INC.  
612-370-0700  
Minneapolis, Minnesota

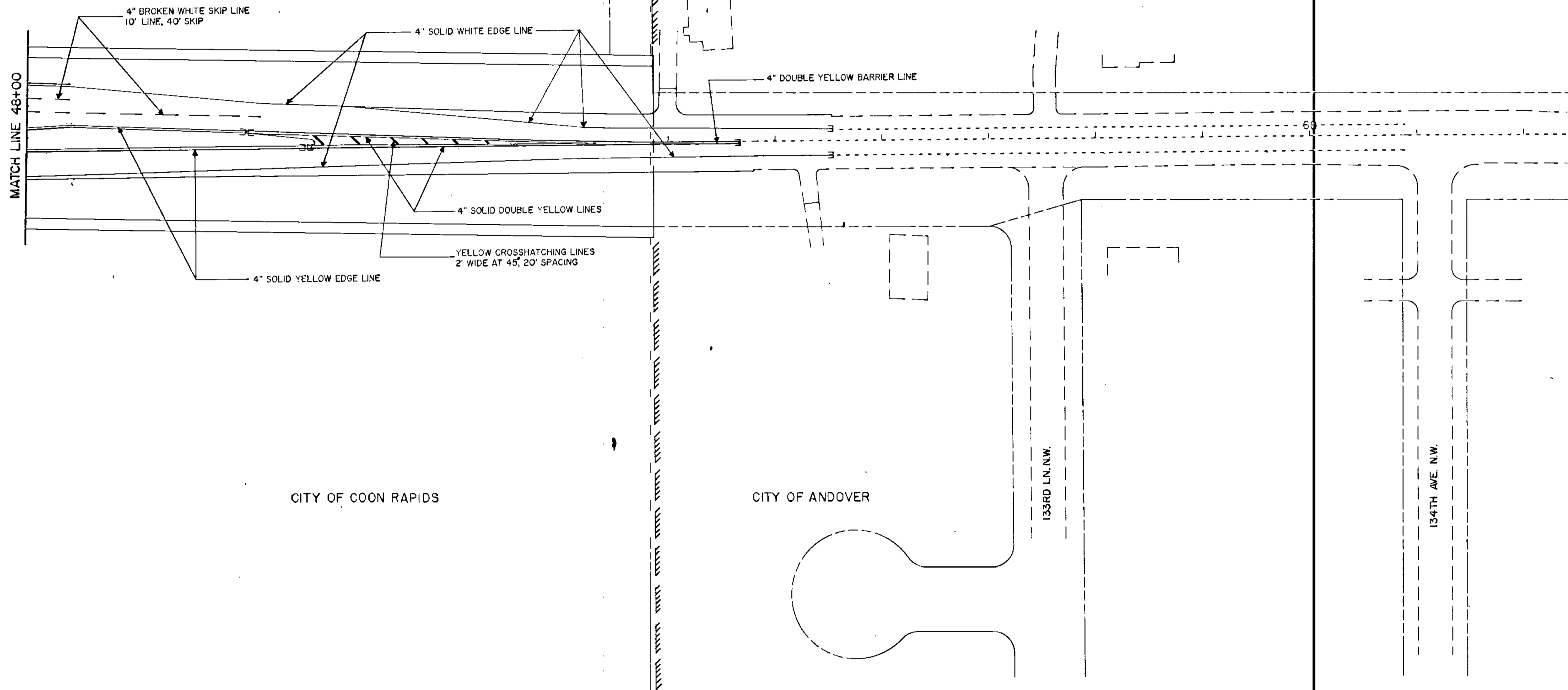
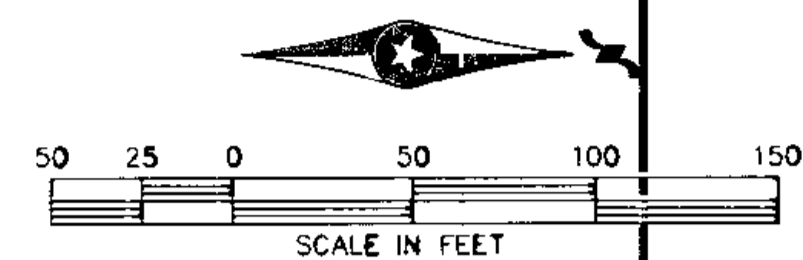
DESIGN BY: JRM  
DRAWN BY: MCA  
CHECKED BY: SKA

ORIGINAL DATE	6/12/89
REVISIONS	
SURVEY BOOK	

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

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. Palla*

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

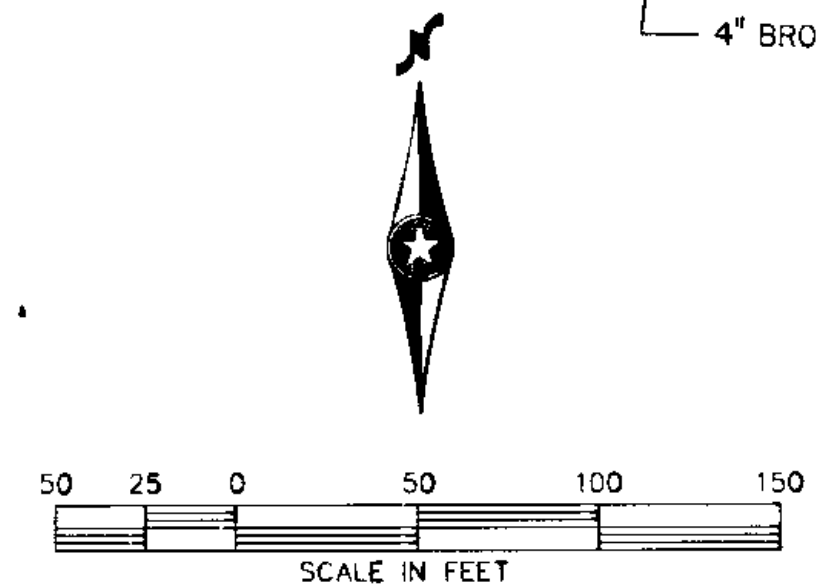
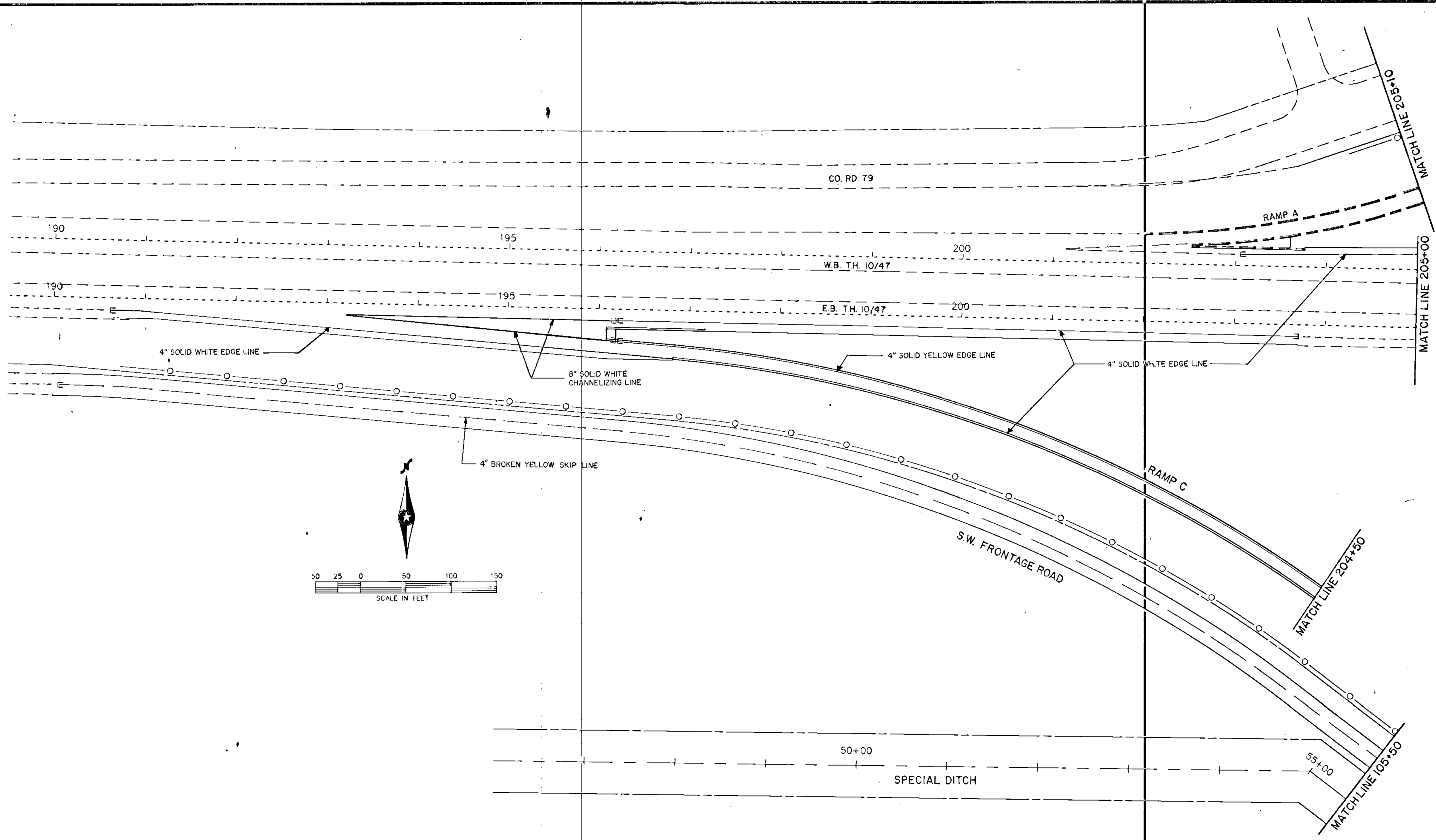
**BRV**  
 BRV, INC.  
 615-270-1700  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: MCA  
 CHECKED BY: SKA

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. 18-8840



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

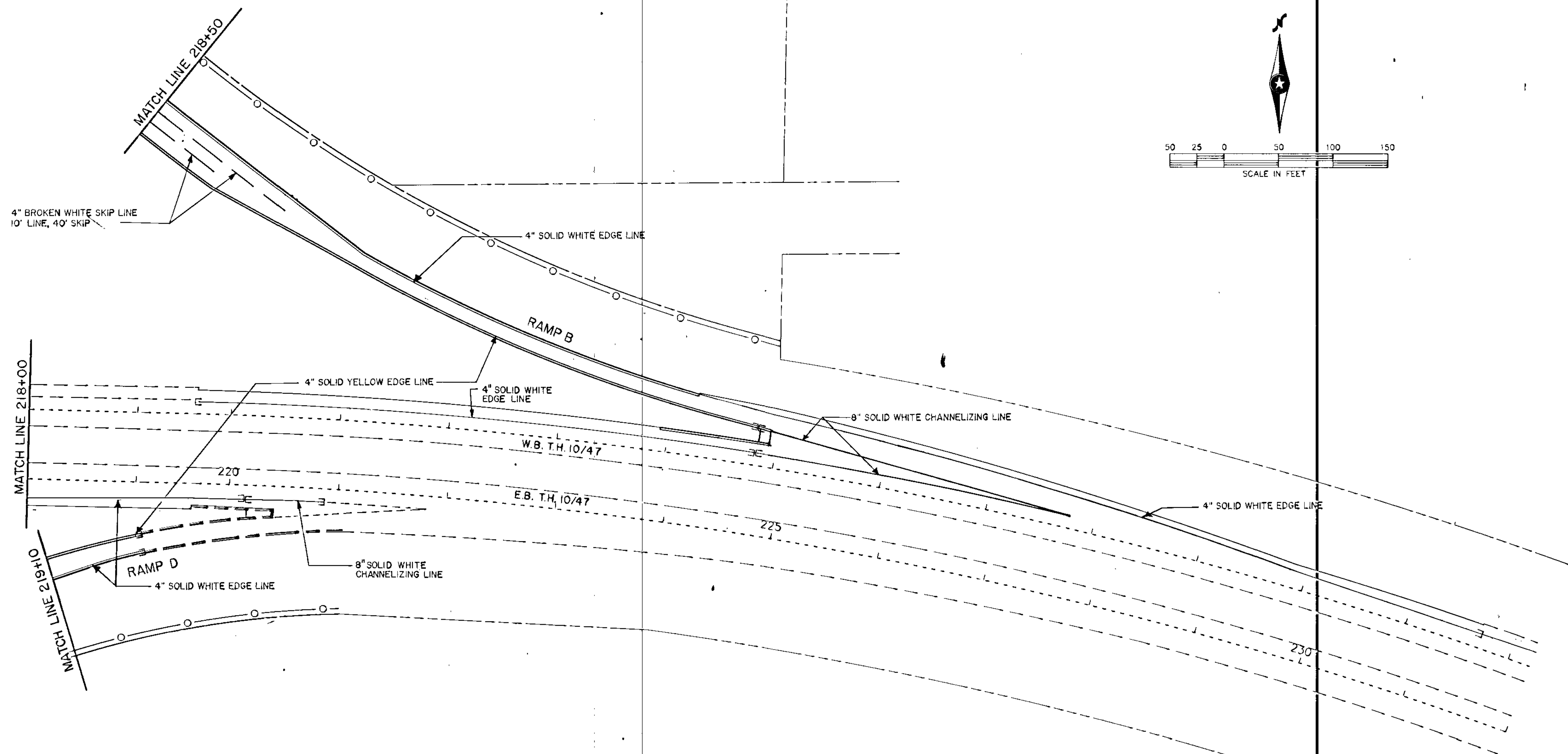
**BRW**  
 BRW, INC.  
 812-370-0708  
 Minneapolis, Minnesota

ORIGINAL DATE 6/14/83
REVISIONS
DESIGN BY: JRW
DRAWN BY: MCA
CHK'D BY: SFA
SURVEY BOOK

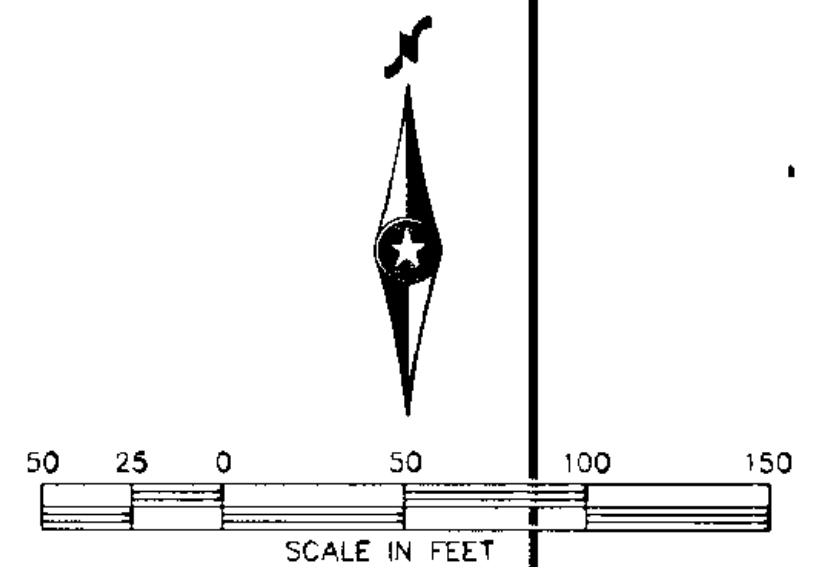
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 STRIPING PLAN  
 T.H. 10/47 STA. 189+50 - 205+00

S.A.P. NO. 02-609-08 SHEET 194 OF 256 DESIGN FILE No. 16-B640





4" BROKEN WHITE SKIP LINE  
10' LINE, 40' SKIP



MATCH LINE 218+00

MATCH LINE 216+10

MATCH LINE 218+50

RAMP B

RAMP D

220

W.B. T.H. 10/47

E.B. T.H. 10/47

225

230

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

**BRW**  
BRW, INC.  
612-376-0700  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: MCA  
CHECKED BY: SKA

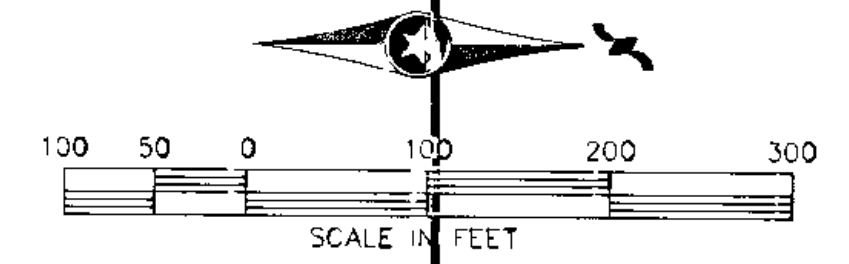
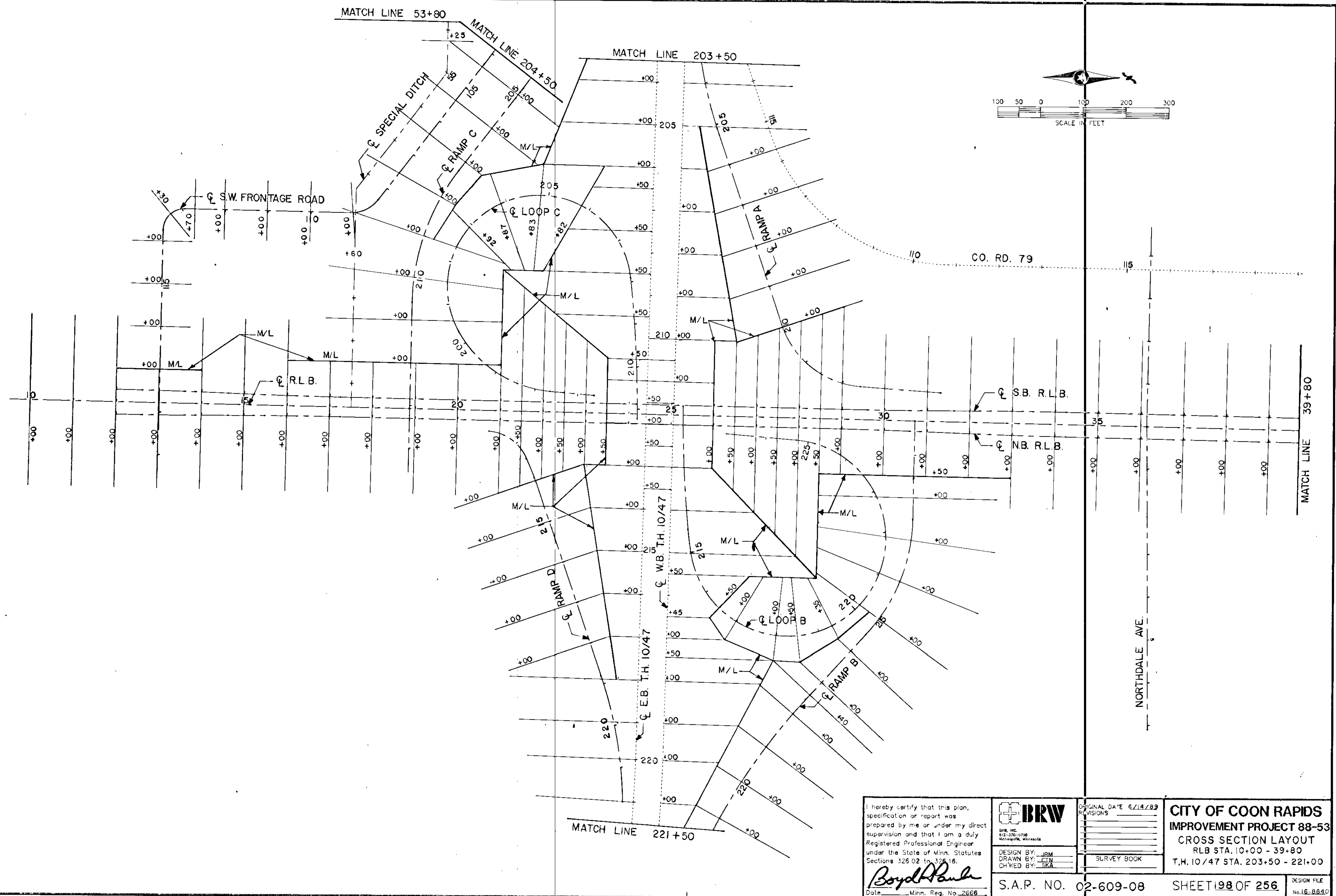
ORIGINAL DATE: 8/12/83  
REVISIONS:  
SURVEY BOOK

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

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

SHEET 195 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 Paul*  
 Date \_\_\_\_\_ Minn. Reg. No. 2666

**BRW**  
 BRW, INC.  
 612-376-0700  
 Minneapolis, Minnesota

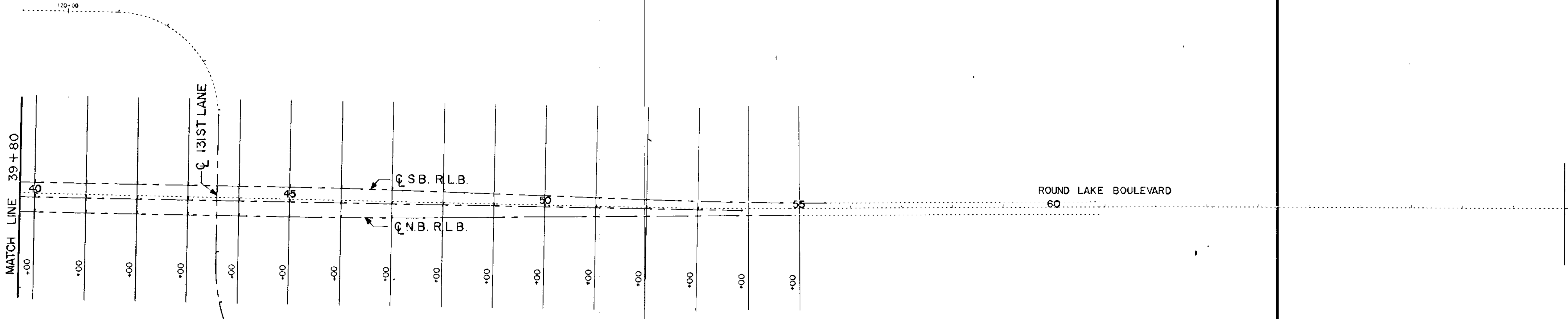
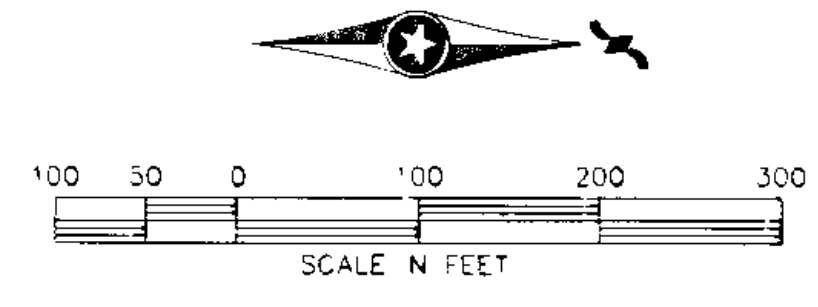
DESIGN BY: JRM  
 DRAWN BY: CEN  
 CHECKED BY: SKA

ORIGINAL DATE 6/14/89

REVISIONS

SURVEY BOOK

**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.

*Boyd Paul*  
Date: \_\_\_\_\_ Minn. Reg. No. J2666

**BRW**  
BRW, INC.  
812-770-0100  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: CLN  
CHECKED BY: SKA

S.A.P. NO

ORIGINAL DATE 8/14/89  
REVISIONS

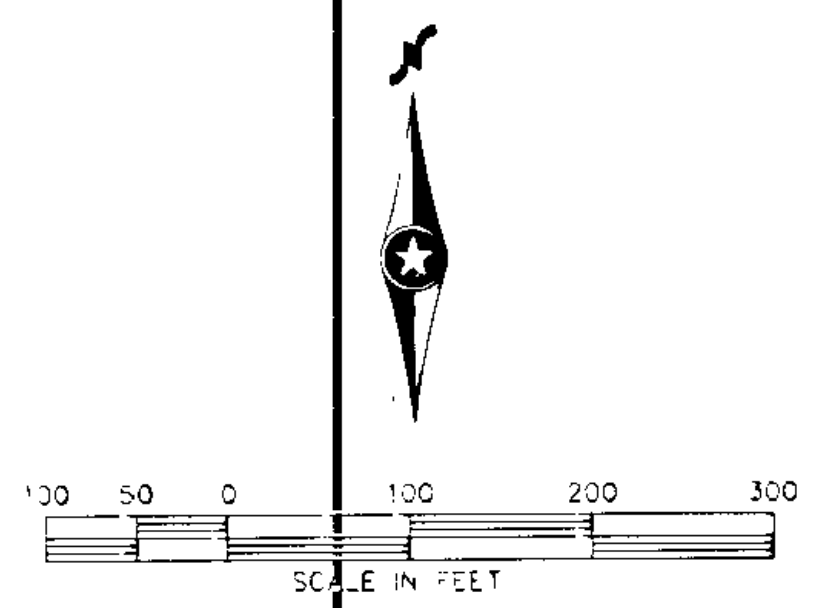
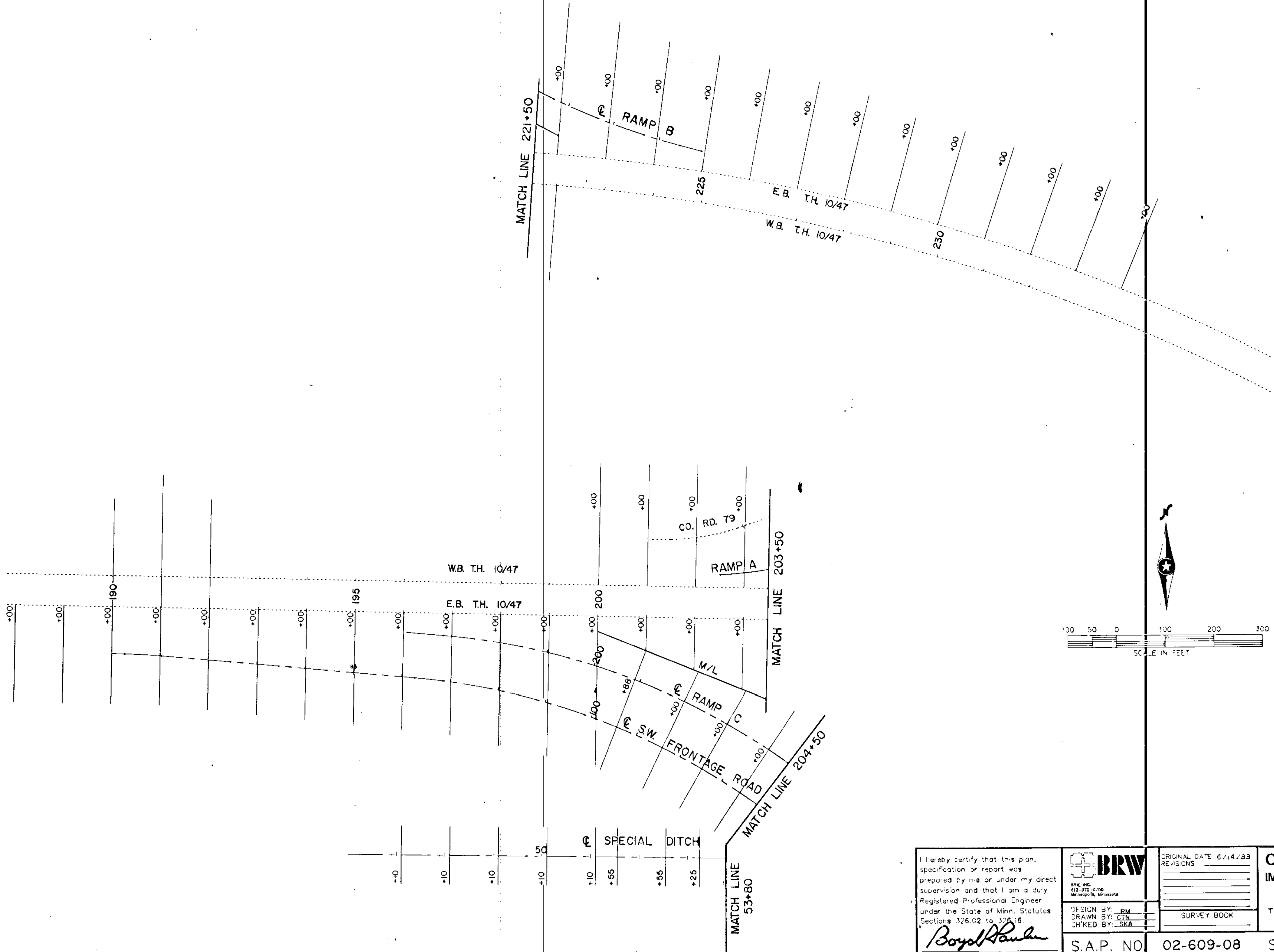
SURVEY BOOK

02-609-08

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
**CROSS SECTION LAYOUT**  
RLB STA. 39+80 - 55+00

SHEET 199 OF 256

DESIGN FILE No. 6-8840



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. 2666

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

DESIGN BY: JRM  
 DRAWN BY: CTN  
 CHECKED BY: SKA

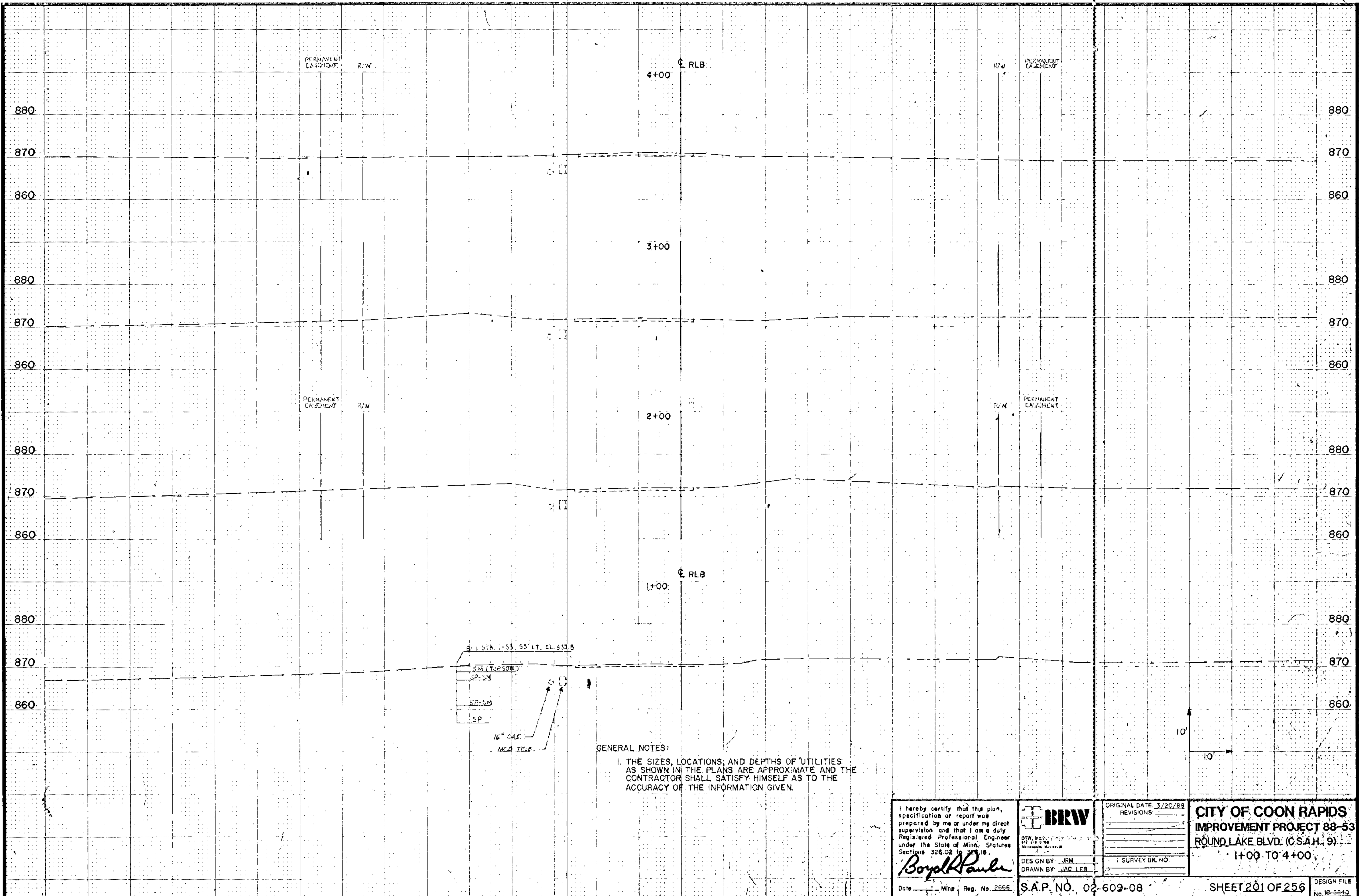
ORIGINAL DATE: 6/14/89  
 REVISIONS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

S.A.P. NO. 02-609-08 SHEET 20 OF 256

DESIGN FILE No. 16-BB4D



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

**BRW**  
 BRW, INC.  
 412 17th Street  
 Minneapolis, Minnesota

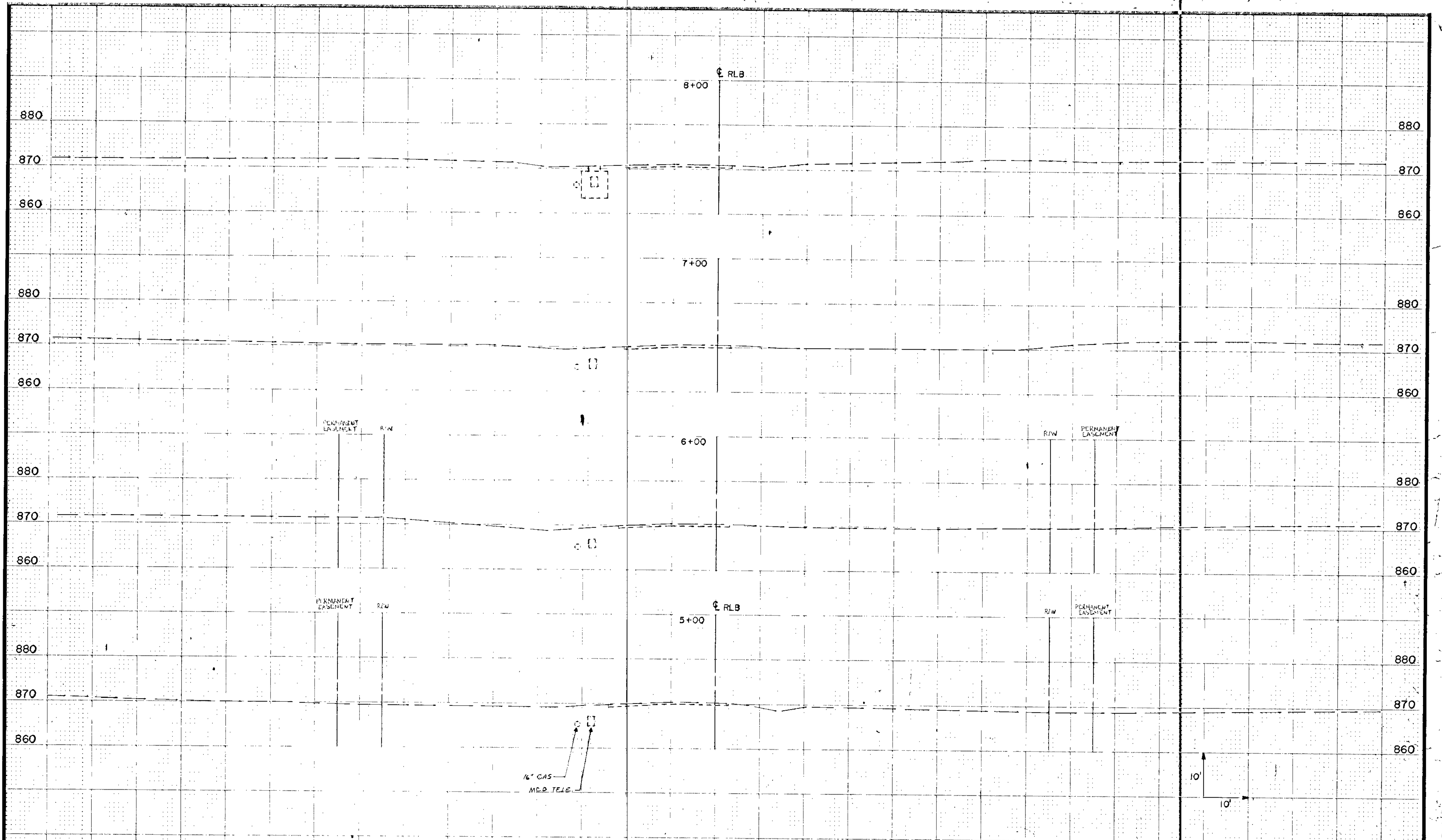
DESIGN BY: JRM  
 DRAWN BY: JAC LEB

ORIGINAL DATE: 3/20/89  
 REVISIONS: \_\_\_\_\_

SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
**ROUND LAKE BLVD. (C.S.A.H. 9)**  
**1+00 TO 4+00**

DESIGN FILE No. 18-884D



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.  
613 216 2100  
Minneapolis, Minnesota

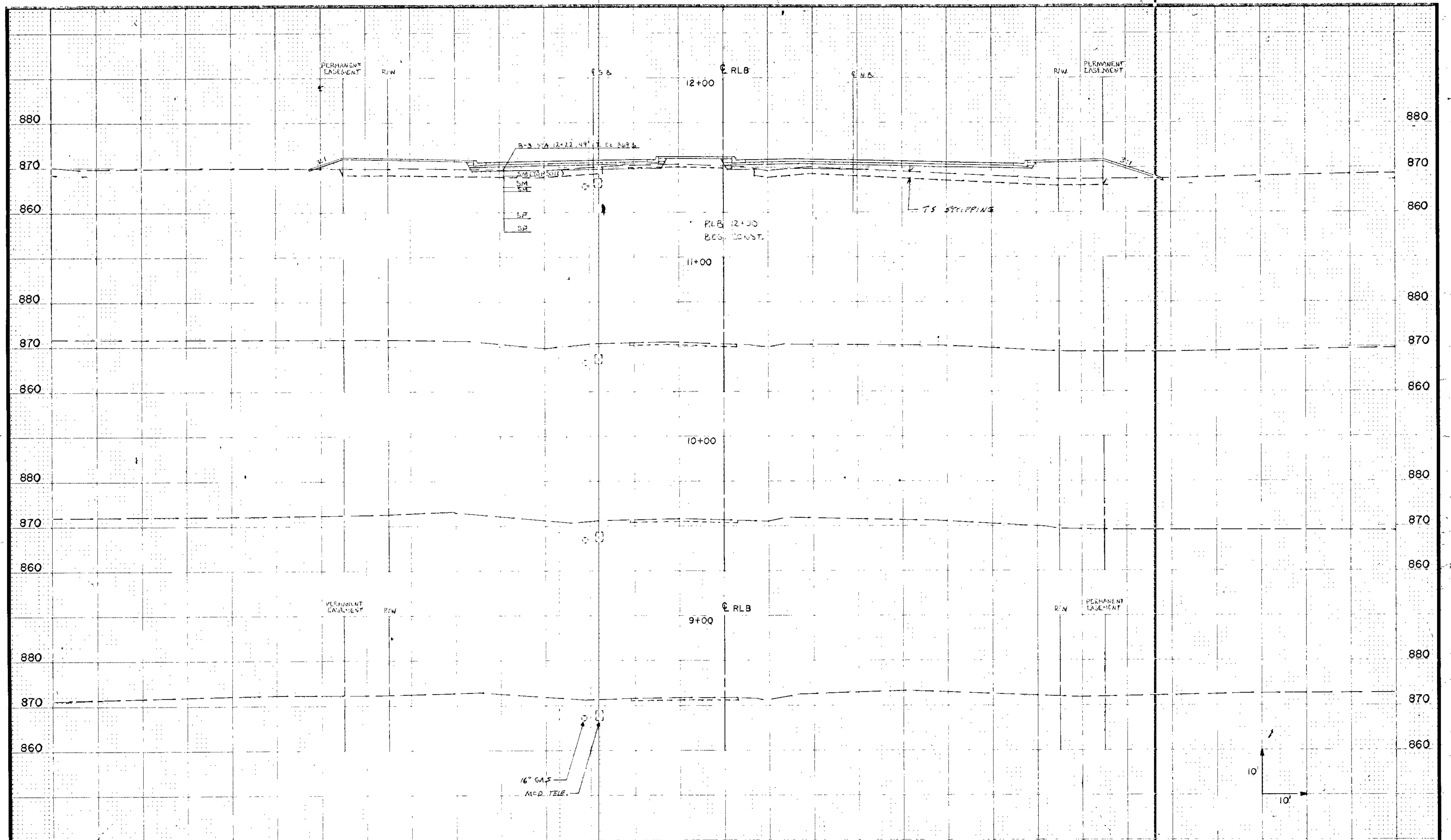
DESIGN BY JRM  
DRAWN BY JAC LEB


ORIGINAL DATE 3/20/89  
REVISIONS \_\_\_\_\_

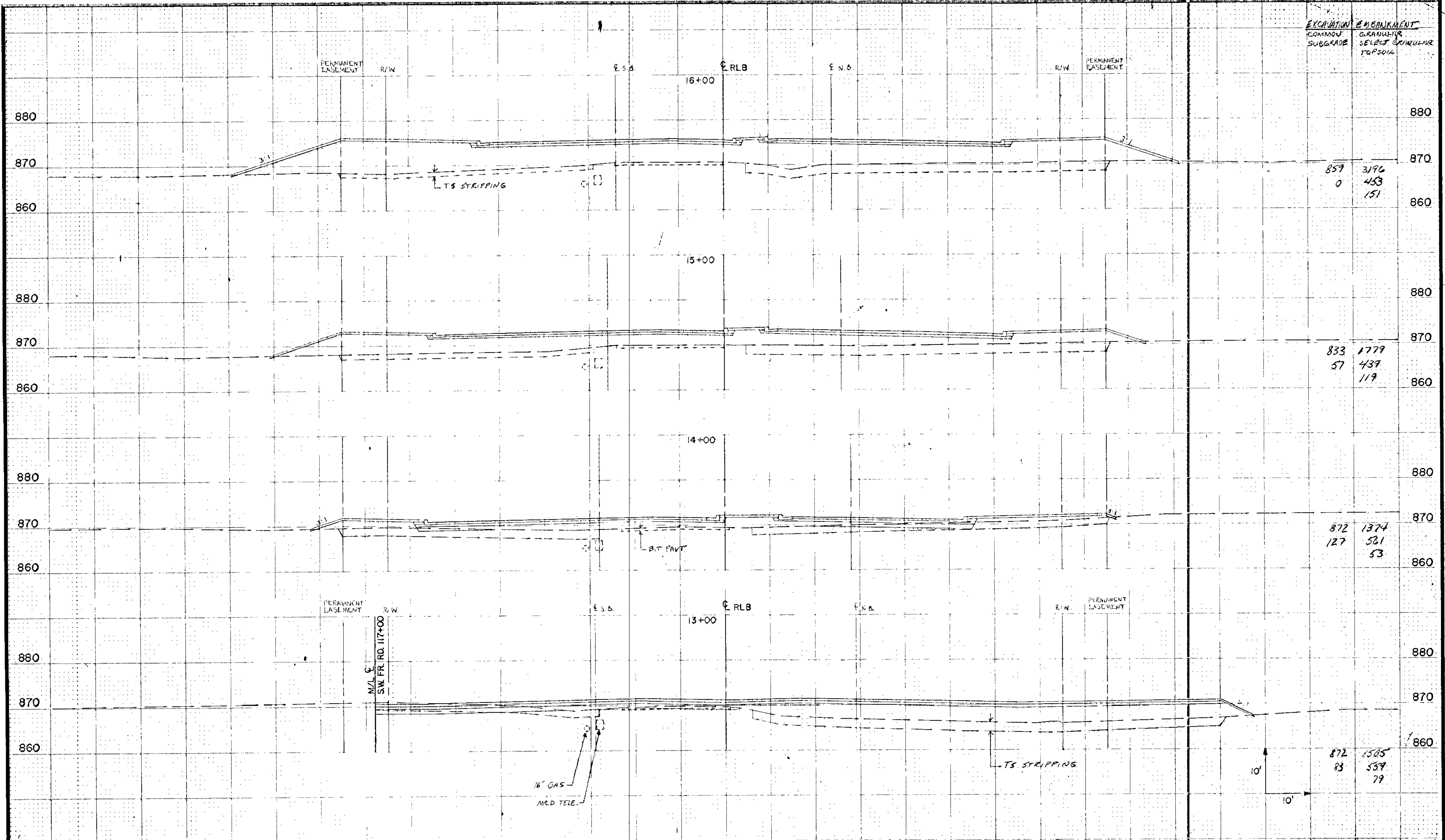
SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 5+00 TO 8+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. <i>Boyd Paulsen</i> Date _____ Minn. Reg. No. 12665	 BRW, INC. 417 7th Street Minneapolis, MN 55408	ORIGINAL DATE 3/20/89 REVISIONS _____ _____ _____	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> ROUND LAKE BLVD. (C.S.A.H. 9) 9+00 TO 12+00
		DESIGN BY JRM DRAWN BY J.C. LEE	
S.A.P. NO. 02-609-08		SHEET 203 OF 256	DESIGN FILE No. 16-8840



EXCAVATION COMMON SUBGRADE	EMBANKMENT GRAVELLY SELECT GRANULAR TOPSOIL
----------------------------------	------------------------------------------------------

859	3196
0	453
	151

833	1779
57	437
	119

872	1374
127	581
	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 Sections 326.02 to 326.16

*Boyd Paul*

Date \_\_\_\_\_ Minn. Reg. No. 12656

**BRW**

BRW, Inc.  
612 2nd St  
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)  
13+00 TO 16+00

DESIGN FILE NO. 16-8840

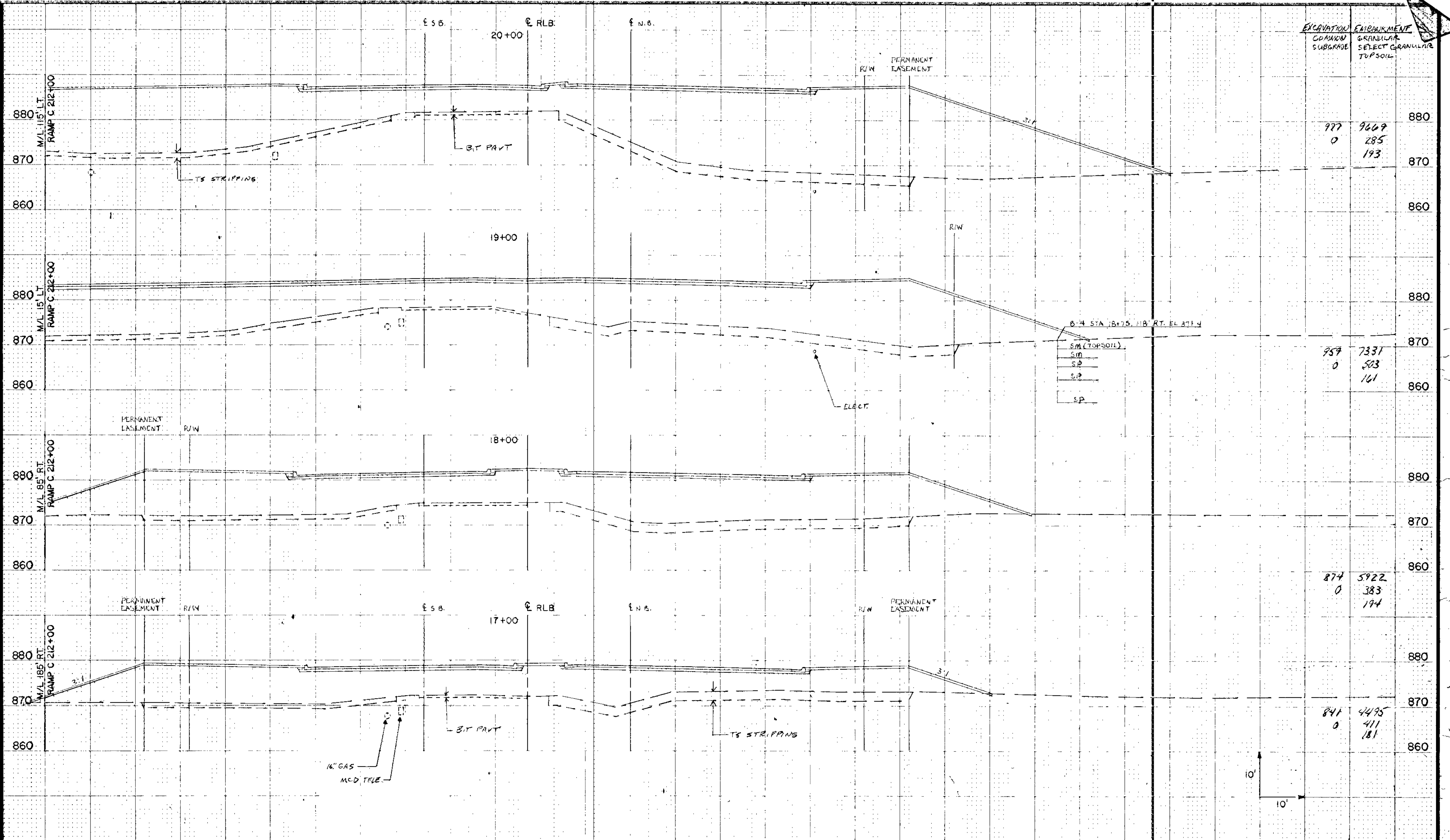
S.A.P. NO. 02-609-08

SHEET 204 OF 256



EXCAVATION  
 GRANULAR  
 SUBGRADE

EMBANKMENT  
 GRANULAR  
 SELECT GRANULAR  
 TOPSOIL



Station	Excavation	Embarkment
17+00	841 0	4435 411 181
18+00	874 0	5922 383 194
19+00	959 0	7331 503 161
20+00	977 0	9669 285 193

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 326.08.

*Boyd Paulsen*

Date \_\_\_\_\_ Minn. Reg. No. 12666.

**BRW**  
 BRW, Inc.  
 118 3rd St.  
 Minneapolis, MN 55401

DESIGN BY JRM  
 DRAWN BY JC, LEB

ORIGINAL DATE 3/20/89  
 REVISIONS \_\_\_\_\_

SURVEY BK. NO. \_\_\_\_\_

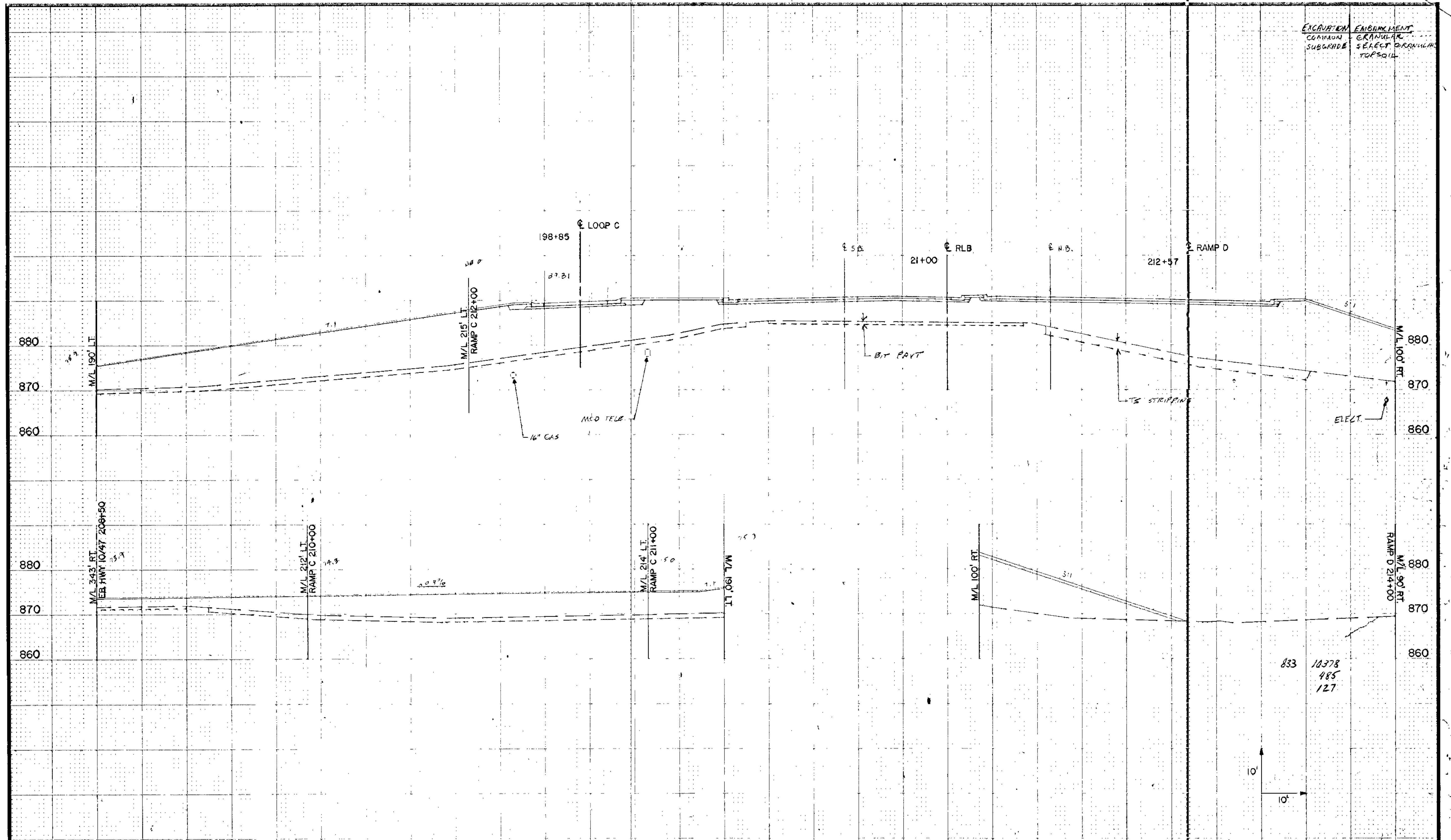
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 17+00 TO 20+00

DESIGN FILE No. 16-8840

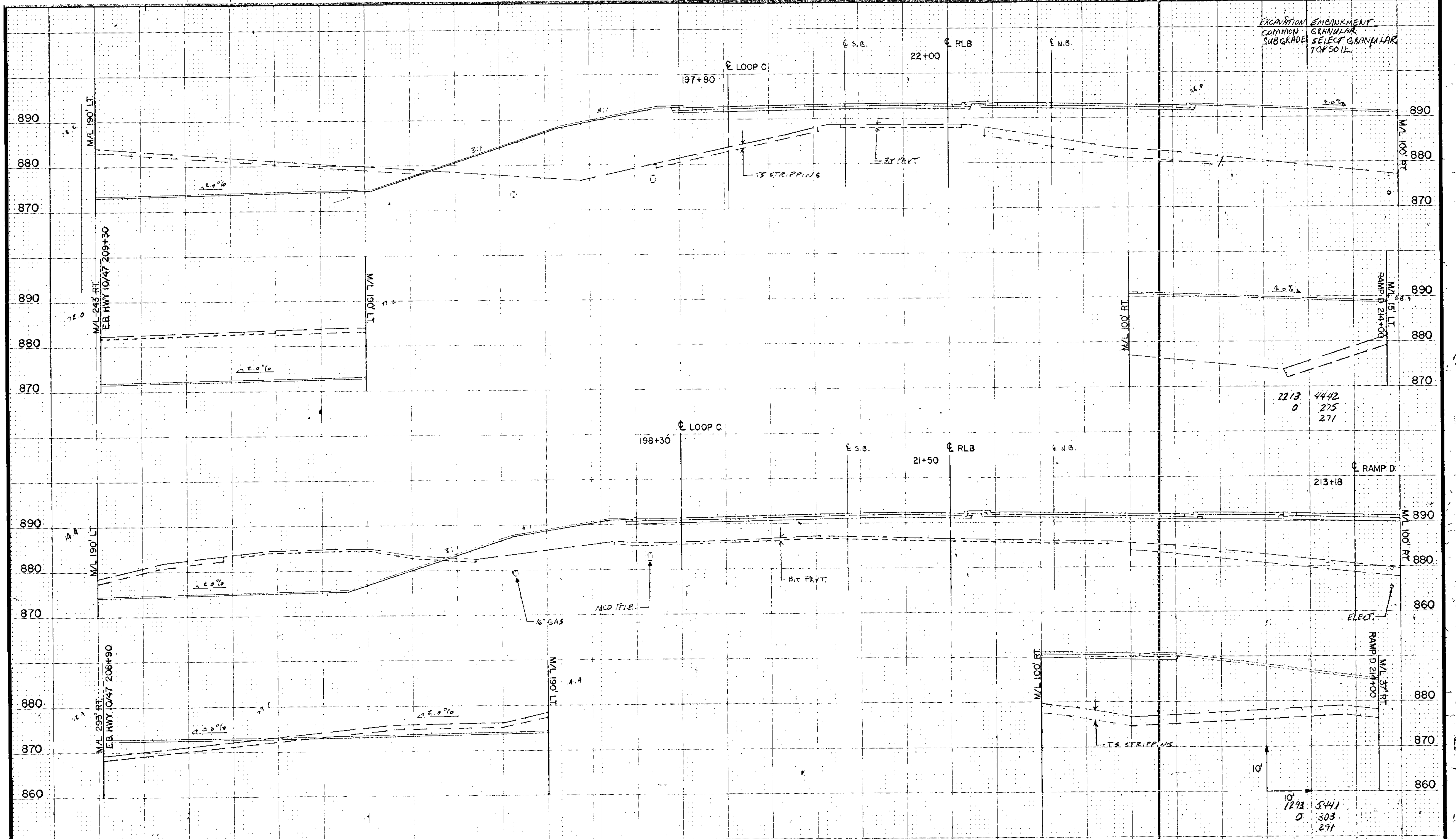
S.A.P. NO. 02-609-08

SHEET 205 OF 256

EXCAVATION SUBGRADE  
 EMANKMENT GRANULAR SELECT BRANCHED 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. <i>Boyd Pauler</i> Date _____ Minn. Reg. No. 12666	 BRW, Inc. 112 7th St SE Minneapolis, MN 55414	ORIGINAL DATE 3/20/89 REVISIONS	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> ROUND LAKE BLVD. (C.S.A.H. 9) 21+00
		DESIGN BY: JRM DRAWN BY: J.C. LEB	
S.A.P. NO. 02-603-08		SHEET 206 OF 256	
		DESIGN FILE No. 16-8840	



EXCAVATION COMMON SUBGRADE  
 EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL

2213 4442  
 0 275  
 271

10' 1293 5441  
 0 303  
 291

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.  
 613 3rd St  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: JC, LEB

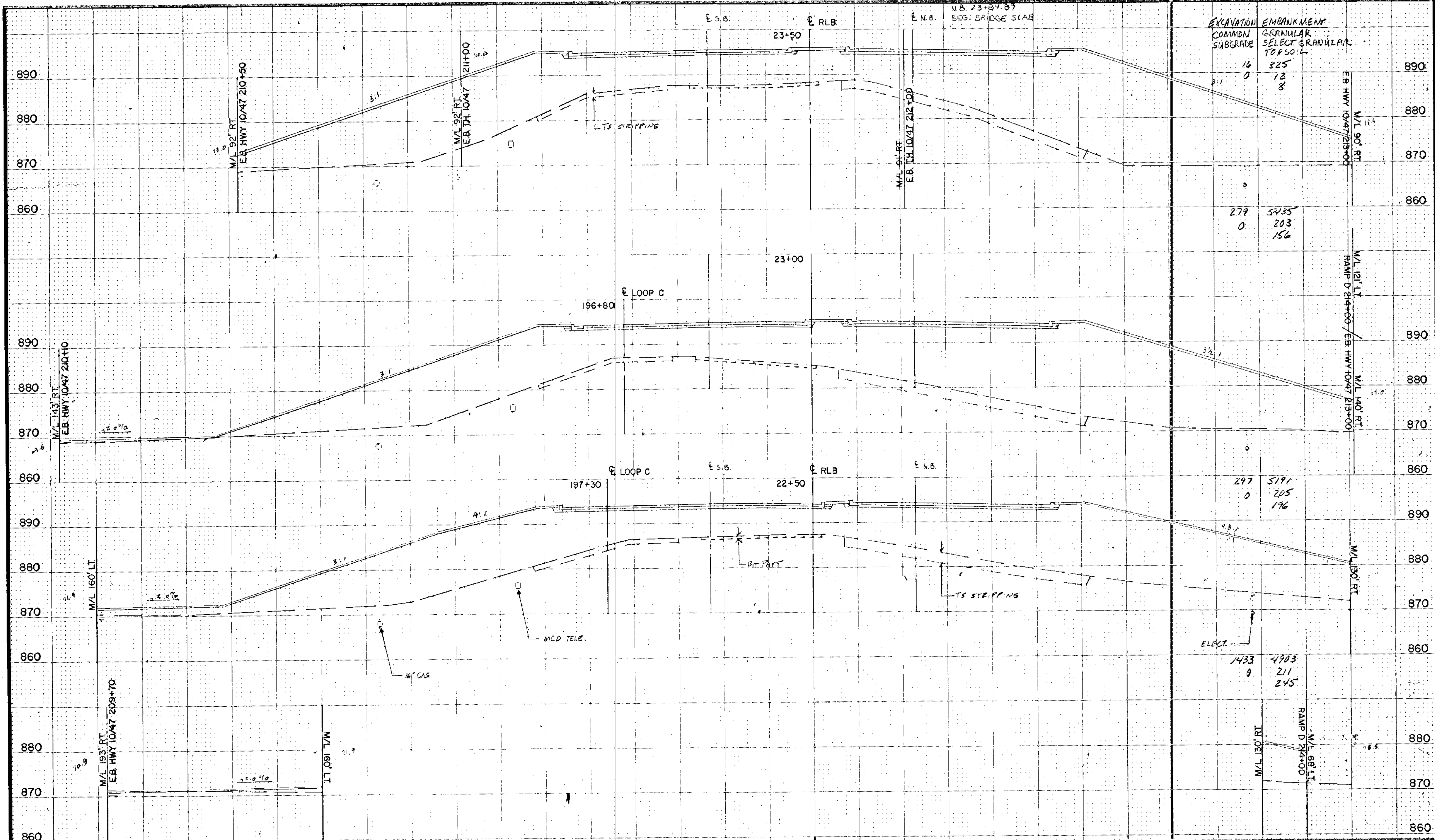
ORIGINAL DATE	3/20/89
REVISIONS	
SURVEY BK. NO.	

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 21+50 TO 22+00

DESIGN FILE No. 16-8840

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

SHEET 207 OF 256



EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOP SOIL
16	325
0	13
	8

277	5435
0	203
	156

297	5191
0	205
	196

1433	4903
0	211
	245

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 328.02 to 328.15

*Boyd Rankin*

Date \_\_\_\_\_ Minn. Reg. No. 1266E

**BRW**  
 BRW, Inc.  
 112 S. 3rd Street  
 Minneapolis, Minnesota

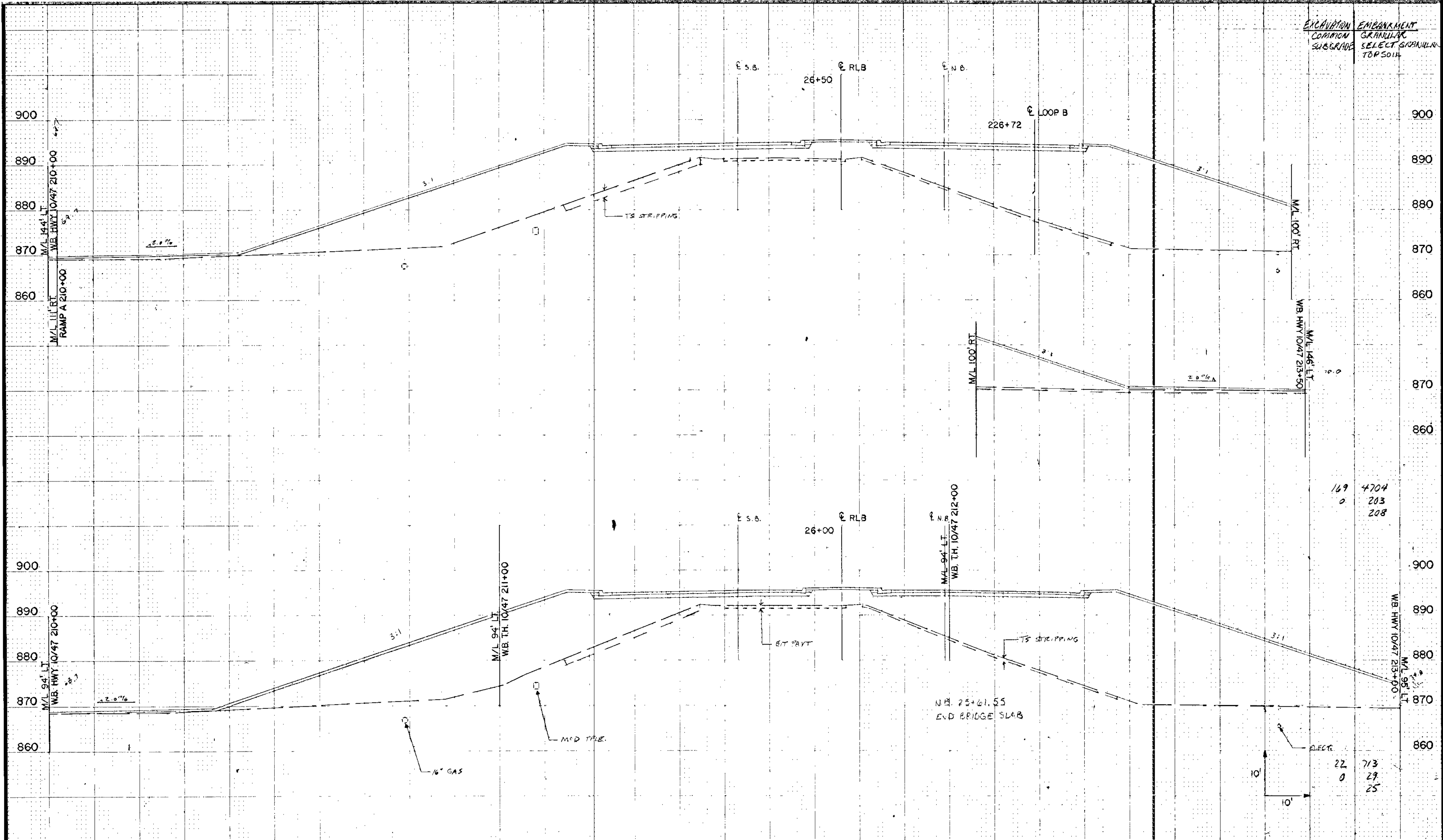
DESIGN BY: JRM  
 DRAWN BY: JC, LEB

ORIGINAL DATE: 3/20/89  
 REVISIONS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 22+50 TO 23+50

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

DESIGN FILE No. 16-8840



EXCAVATION COMMON SUBGRADE  
 EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL

169 4704  
 0 203  
 208

22 713  
 0 29  
 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 Section 326.02 to 326.05.

*Boyd Bank*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**  
 BRW, Inc.  
 412 N. 1st St.  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: JC, LE

ORIGINAL DATE 3/20/89  
 REVISIONS  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

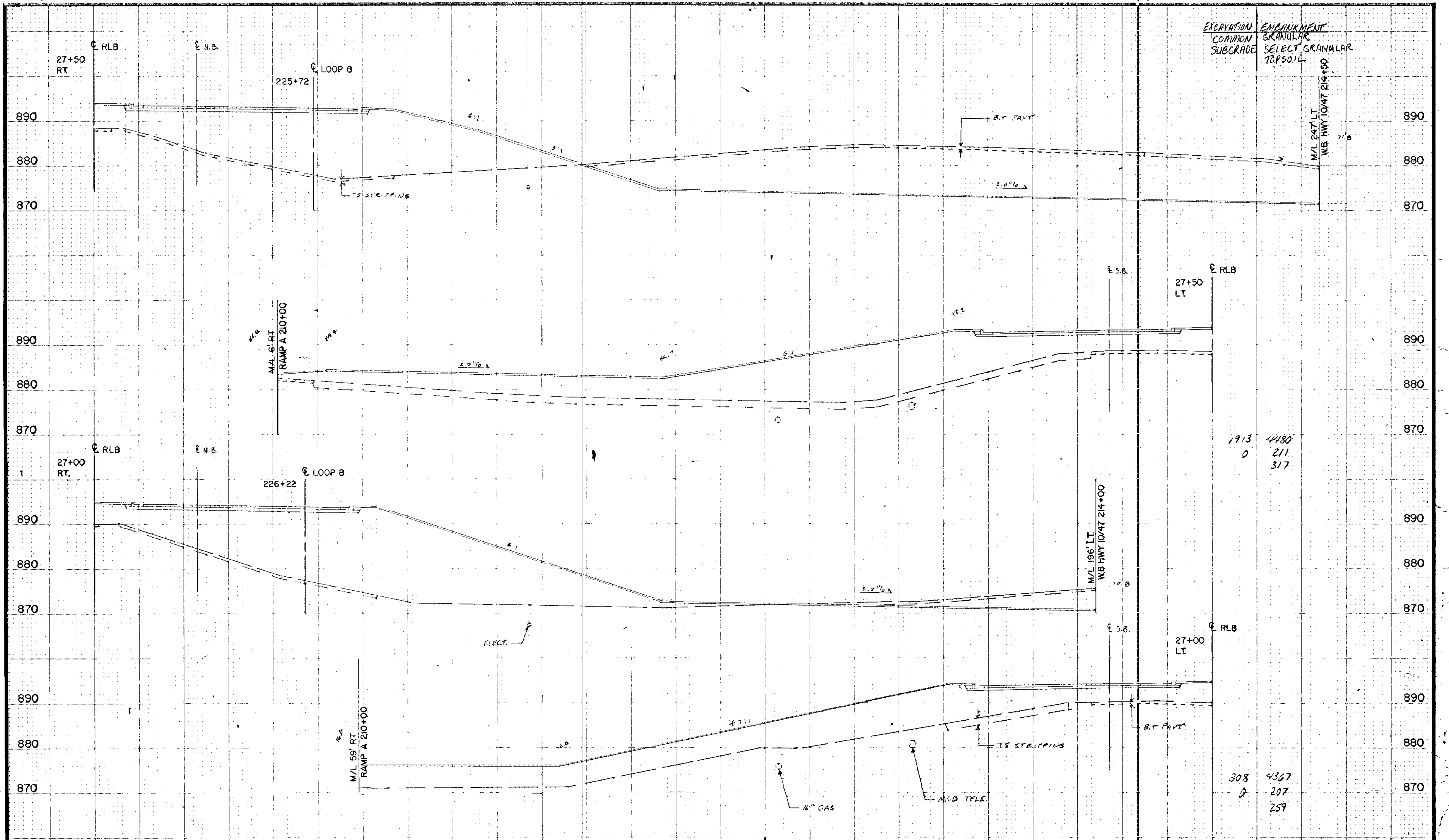
SURVEY BK. NO.  
 \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 26+00 TO 26+50

SHEET 209 OF 256

DESIGN FILE No. 16-8840

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



EXCAVATION: COMMON SUBGRADE  
 EMBANKMENT: GRANULAR TOPSOIL

1913 4480  
 0 211  
 317

308 4367  
 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.  
*Royce Paul*  
 Date \_\_\_\_\_ Minn. Reg. No. J2666

**BRW**  
 BRW, INC.  
 447 110 5500  
 MINNEAPOLIS, MINNESOTA

DESIGN BY: JRM  
 DRAWN BY: J.C. LEB

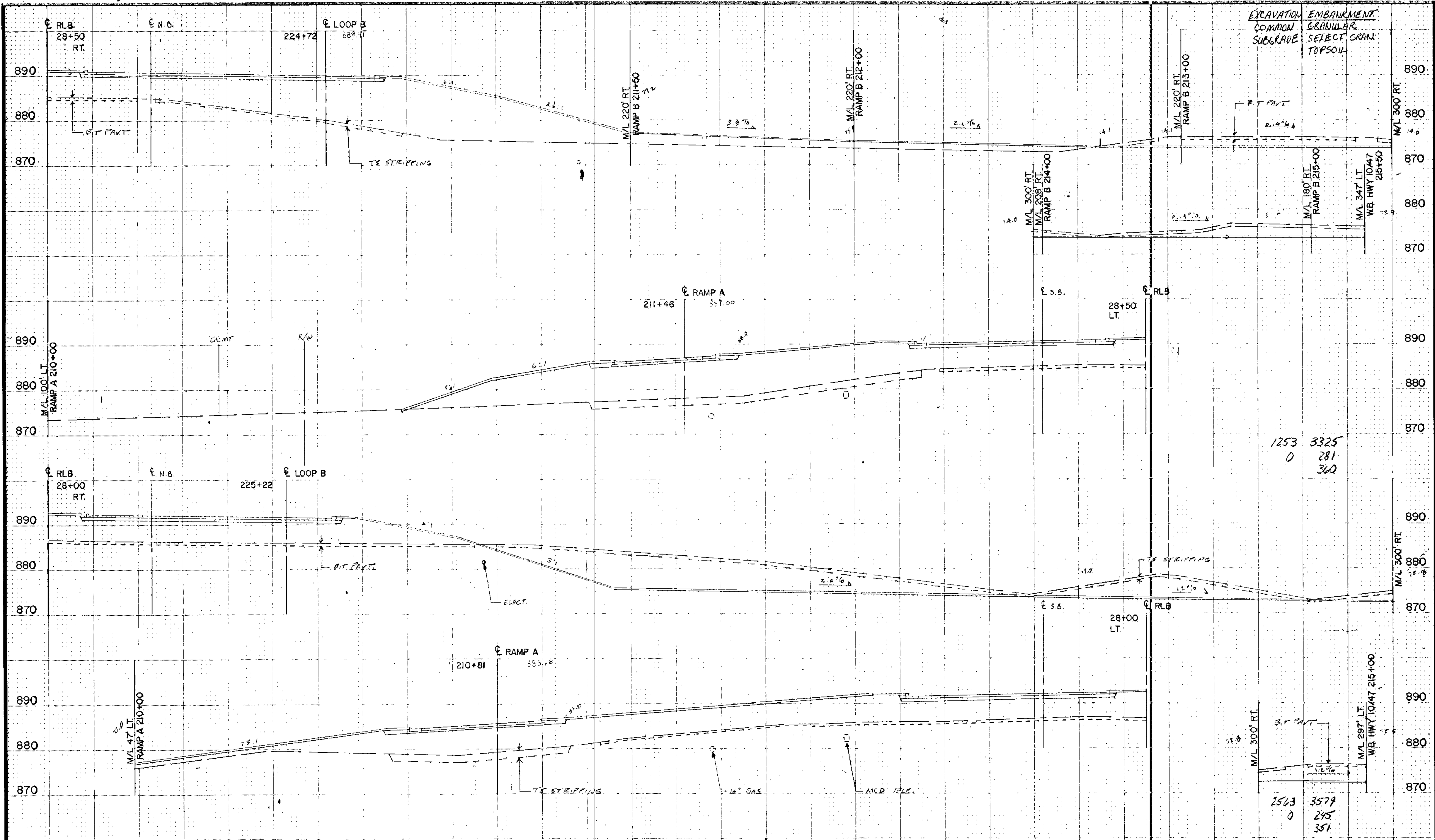
ORIGINAL DATE: 3/20/89  
 REVISIONS:  
 \_\_\_\_\_  
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 \_\_\_\_\_  
 SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 27+00 TO 27+50

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

SHEET 210 OF 256

DESIGN FILE No. 16-8849



EXCAVATION COMMON SUBGRADE  
 EMBANKMENT GRANULAR SELECT GRAN. TOPSOIL

1253 3325  
 0 281  
 360

2563 3579  
 0 245  
 351

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 \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**  
 BRW, Inc.  
 613 276 0726  
 1000 W. WASHINGTON ST.  
 ST. LOUIS, MO 63101  
 DESIGN BY: JRM  
 DRAWN BY: JC, LEB

ORIGINAL DATE: 3/20/69  
 REVISIONS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 SURVEY BK. NO.  
 S.A.P. NO. 02-609-08

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 28+00 TO 28+50  
 DESIGN FILE No. 16-8840

SHEET 211 OF 256



EXCAVATION COMMON SUBGRADE  
EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL

224  
0  
4827  
543  
222

215  
0  
6407  
463  
265

245  
0  
3837  
259  
133

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 Bauer*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**  
BRW, Inc.  
612 7th Street  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: JC, LEB

ORIGINAL DATE 3/20/89  
REVISIONS \_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

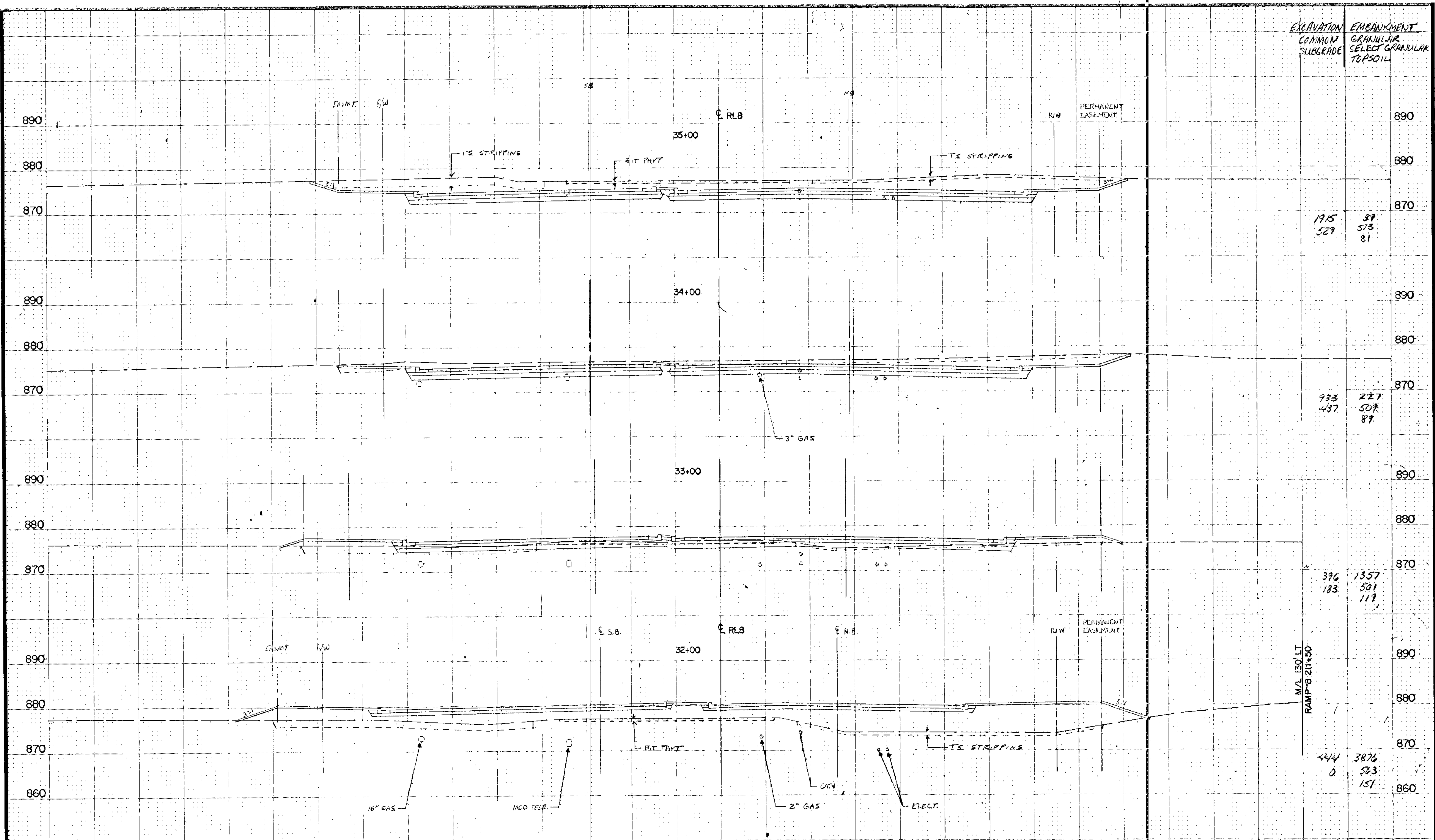
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
ROUND LAKE BLVD. (C.S.A.H. 9)  
29+00 TO 31+00

DESIGN FILE No 16-8840

S.A.P. NO. 02-609-08 SHEET 212 OF 256



EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL



1915	39
529	573
	81

933	227
437	509
	89

396	1357
183	501
	119

444	3876
0	523
	151

M/V 150' 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 326.08.

*Boyd Parker*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**

BRW Inc.  
122 2nd St.  
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**

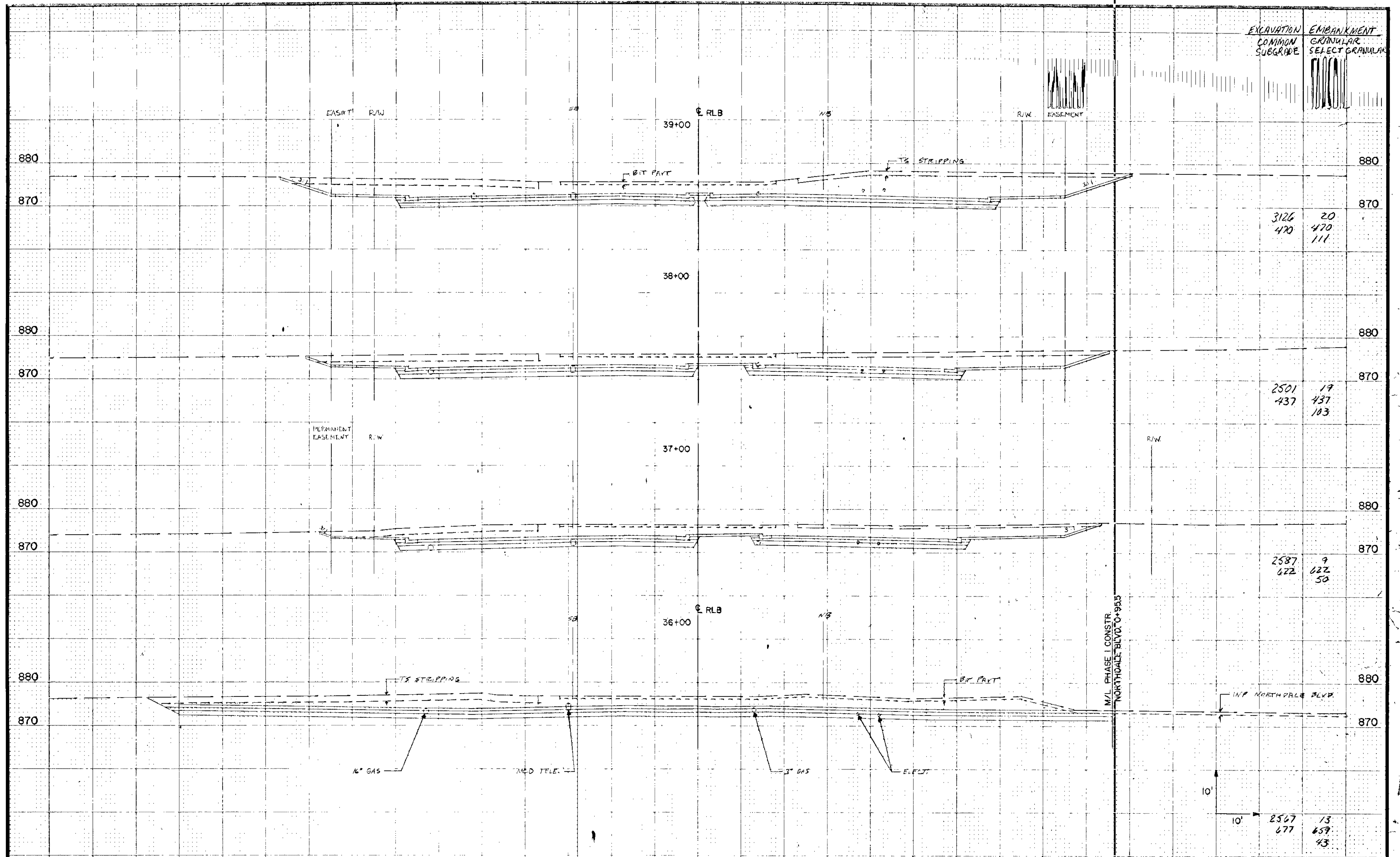
ROUND LAKE BLVD. (C.S.A.H. 9)

32+00 TO 35+00

SHEET 213 OF 256

DESIGN FILE No. 15-8840

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



EXCAVATION COMMON SUBGRADE	EMBANKMENT GRANULAR SELECT GRANULAR
3126 470	20 470 111
2501 437	17 437 103
2587 622	9 622 50
2567 677	13 659 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 H. ...*

Date \_\_\_\_\_ Minn. Reg. No. 12666.

**BRW**  
 BRW, Inc.  
 512 216 0100  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: JC, LEB

ORIGINAL DATE 3/20/89
REVISIONS
SURVEY BK. NO.

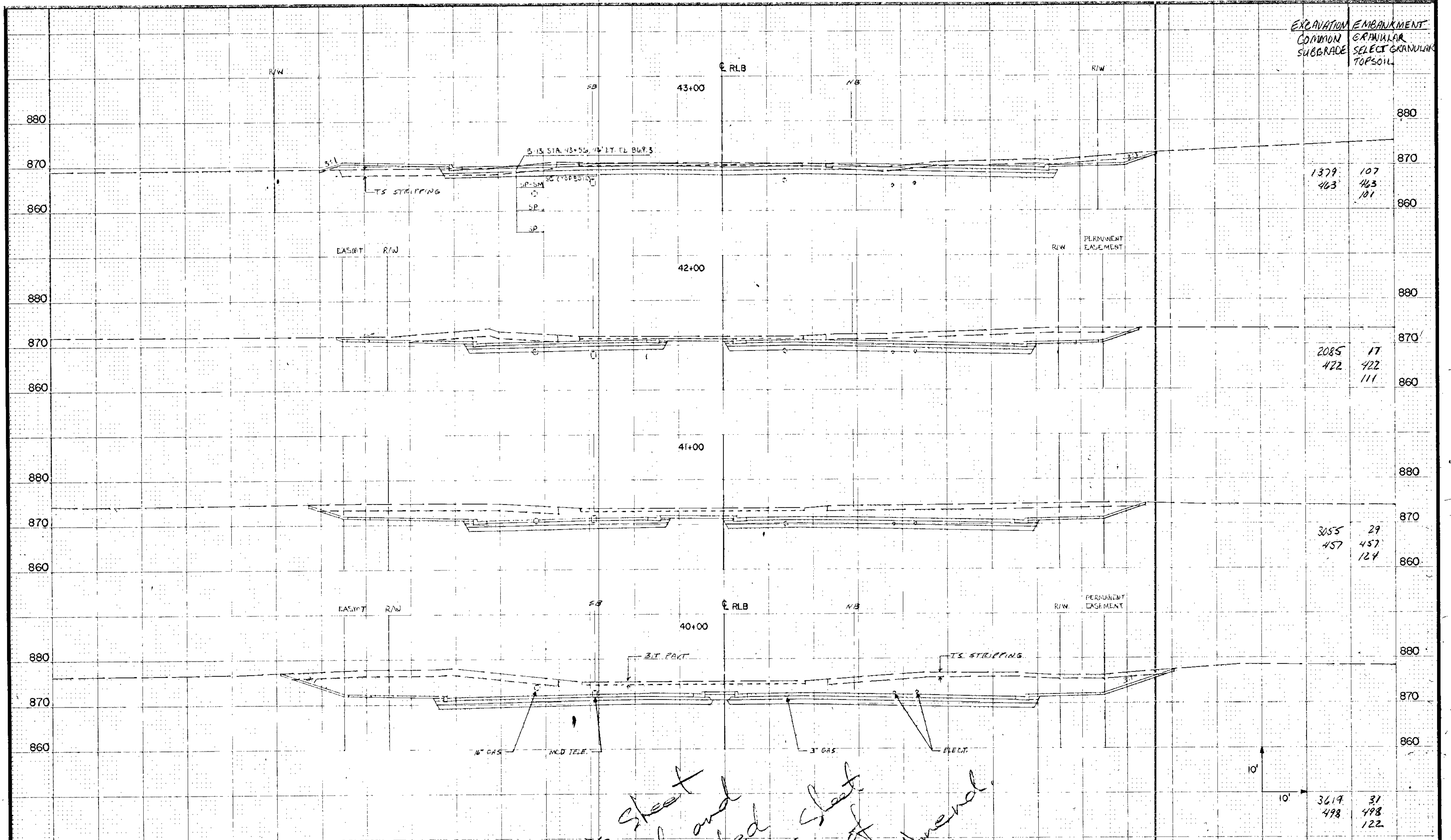
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 36+00 TO 39+00

SHEET 214 OF 256

DESIGN FILE No. 16-8243

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

EXCAVATION COMMON SUBGRADE  
EMBANKMENT GRANULAR SELECT TOPSOIL



1379  
463

107  
463  
101

2085  
422

17  
422  
111

3055  
457

29  
457  
124

3619  
498

31  
498  
122

*This sheet voided and superseded by Plan sheet 2 of 2 of Contract Amend. No. 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 Section 326.02 to 326.16.

*Boyd Paulsen*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**

BRW, Inc.  
619 1st St. S.  
Minneapolis, MN 55414

DESIGN BY: JRM  
DRAWN BY: J.C. 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)  
40+00 TO 43+00

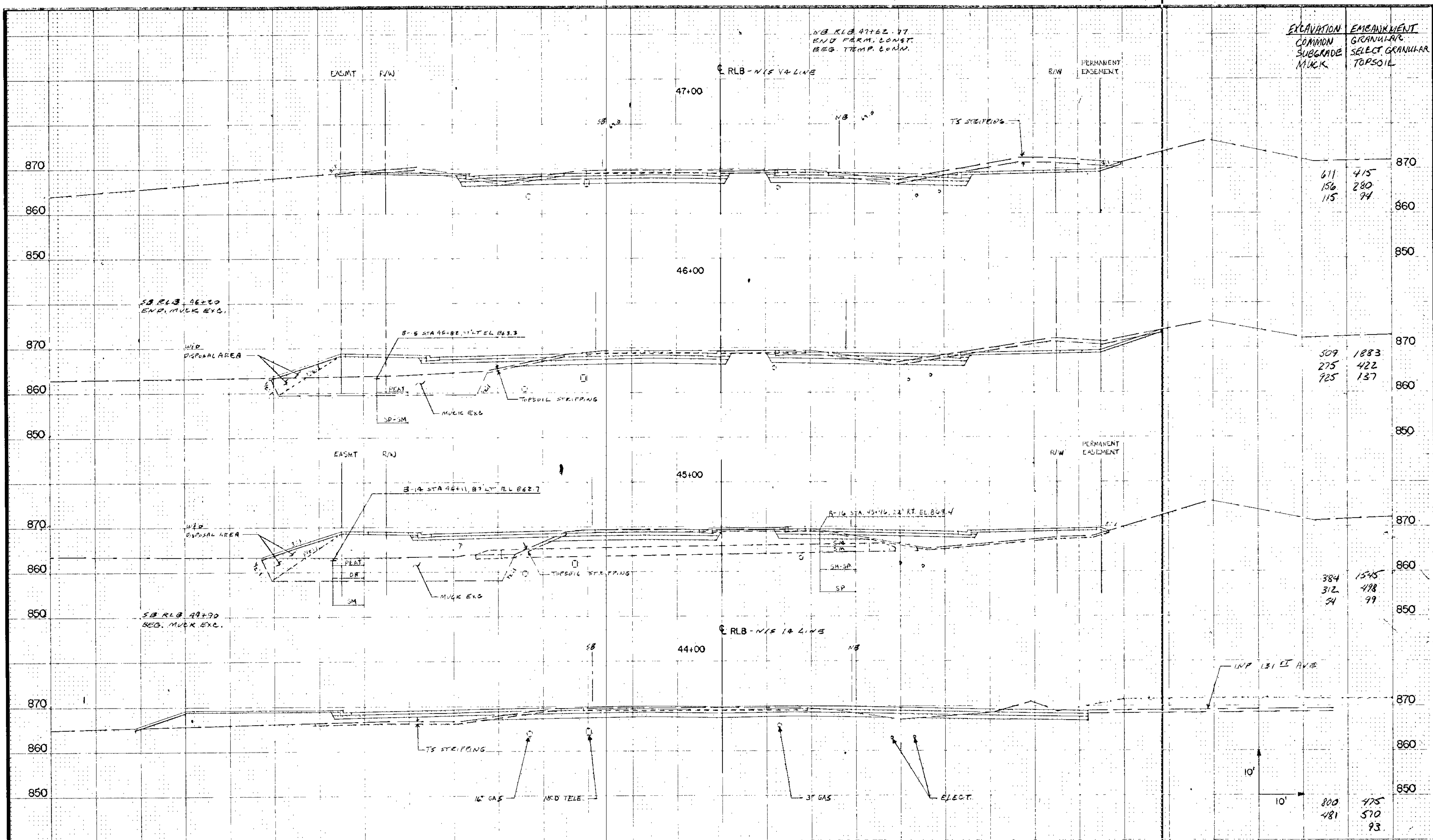
SHEET 215 OF 256

DESIGN FILE No 16-8840

S.A.P. NO. C2-609-08

NB RLB 47+00  
END FIRM. CONST.  
BEG. TEMP. CONN.

EXCAVATION	EMBANKMENT
COMMON SUBGRADE MUCK	GRANULAR SELECT GRANULAR TOPSOIL



611	415
156	280
115	94

509	1883
275	422
925	137

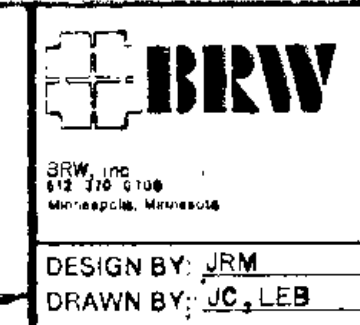
384	1545
312	488
54	99

800	475
481	570
	93

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. J2656



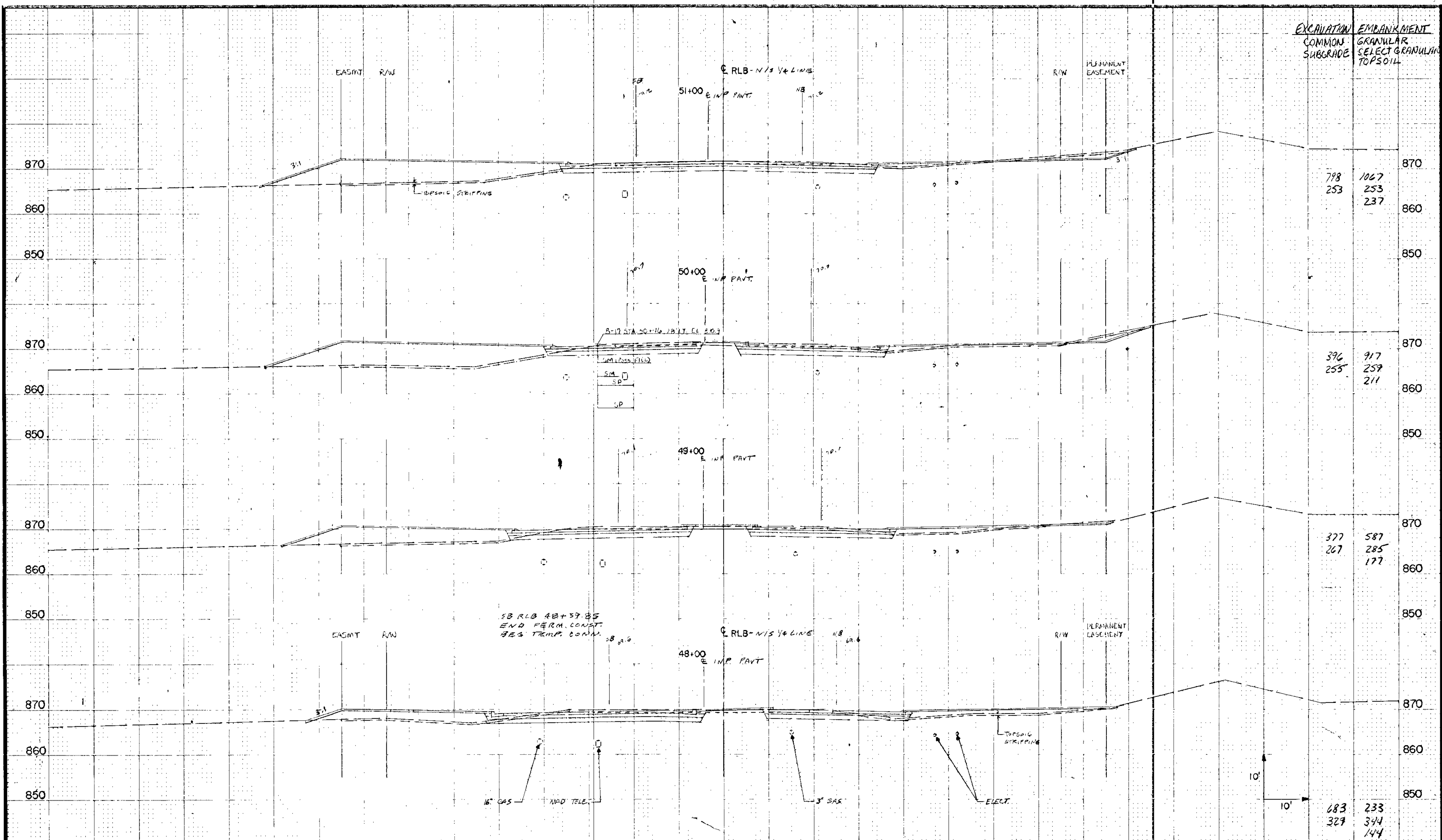
ORIGINAL DATE 3/20/89  
REVISIONS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
ROUND LAKE BLVD (C.S.A.H 9)  
44+00 TO 47+00

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

SHEET 216 OF 256  
DESIGN FILE No. 16-BB40

EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL



798	1067	870
253	253	860
	237	
		850
		870
396	917	870
255	259	860
	211	
		850
		870
377	587	870
267	285	860
	177	
		850
		870
		860
		850
183	233	850
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 Hauke*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**

BRW, Inc.  
612 778 0100  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: J.C. LEB

ORIGINAL DATE 3/20/89

REVISIONS

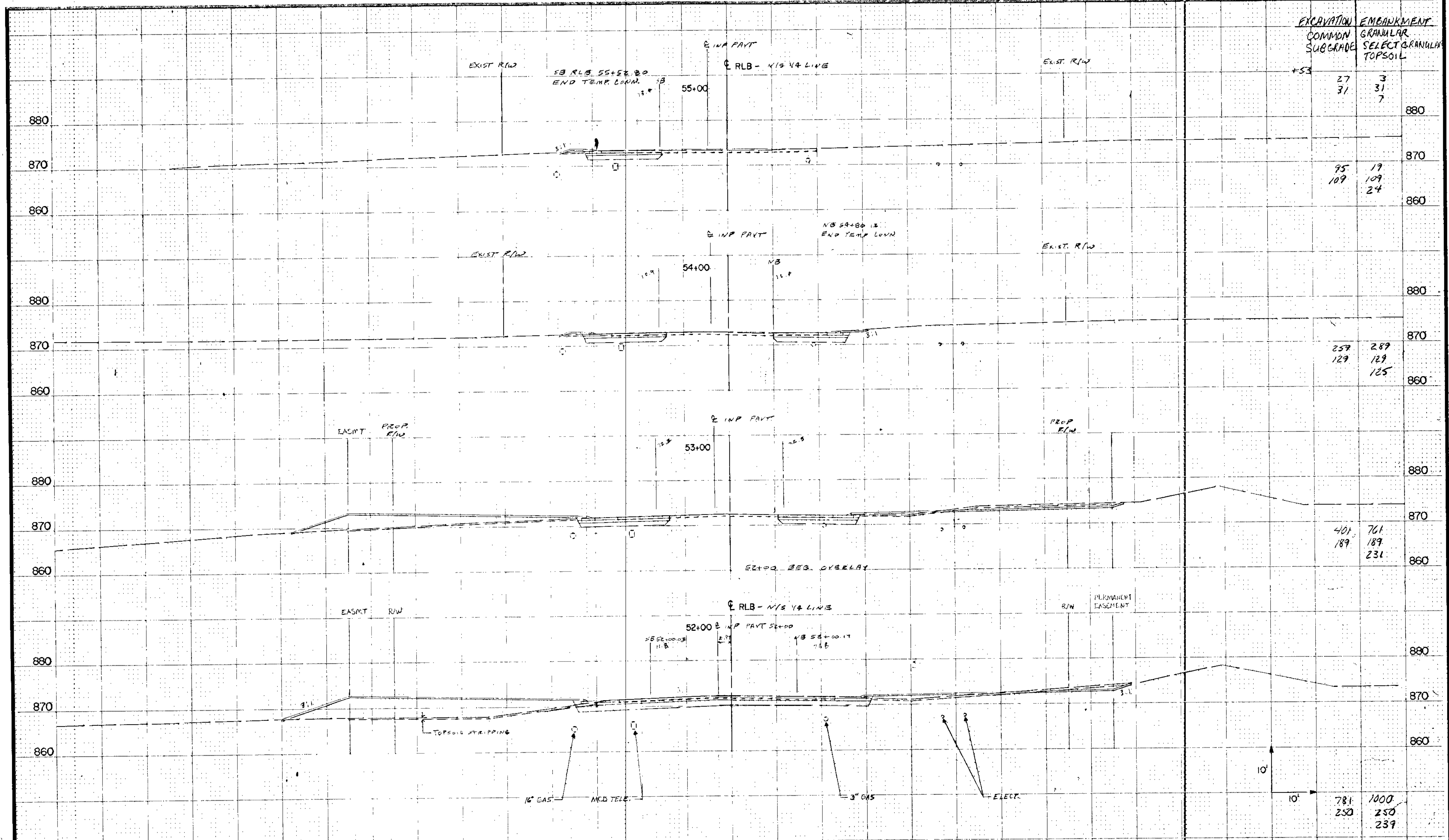
SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (C.S.A.H. 9)  
 48+00 TO 51+00

DESIGN FILE No. 15-8840

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

SHEET 217 OF 256



EXCAVATION COMMON SUBGRADE	EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL	
27 31	3 31 7	880
75 109	19 109 24	870
259 129	289 129 125	860
401 189	761 189 231	880
		870
		860
781 250	1000 250 239	880
		870
		860

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. 12568

**BRW**

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

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 \_\_\_\_\_ Minn. Reg. No. 12656

**BRW**

BRW, Inc.  
612 728 2100  
Minneapolis, Minnesota

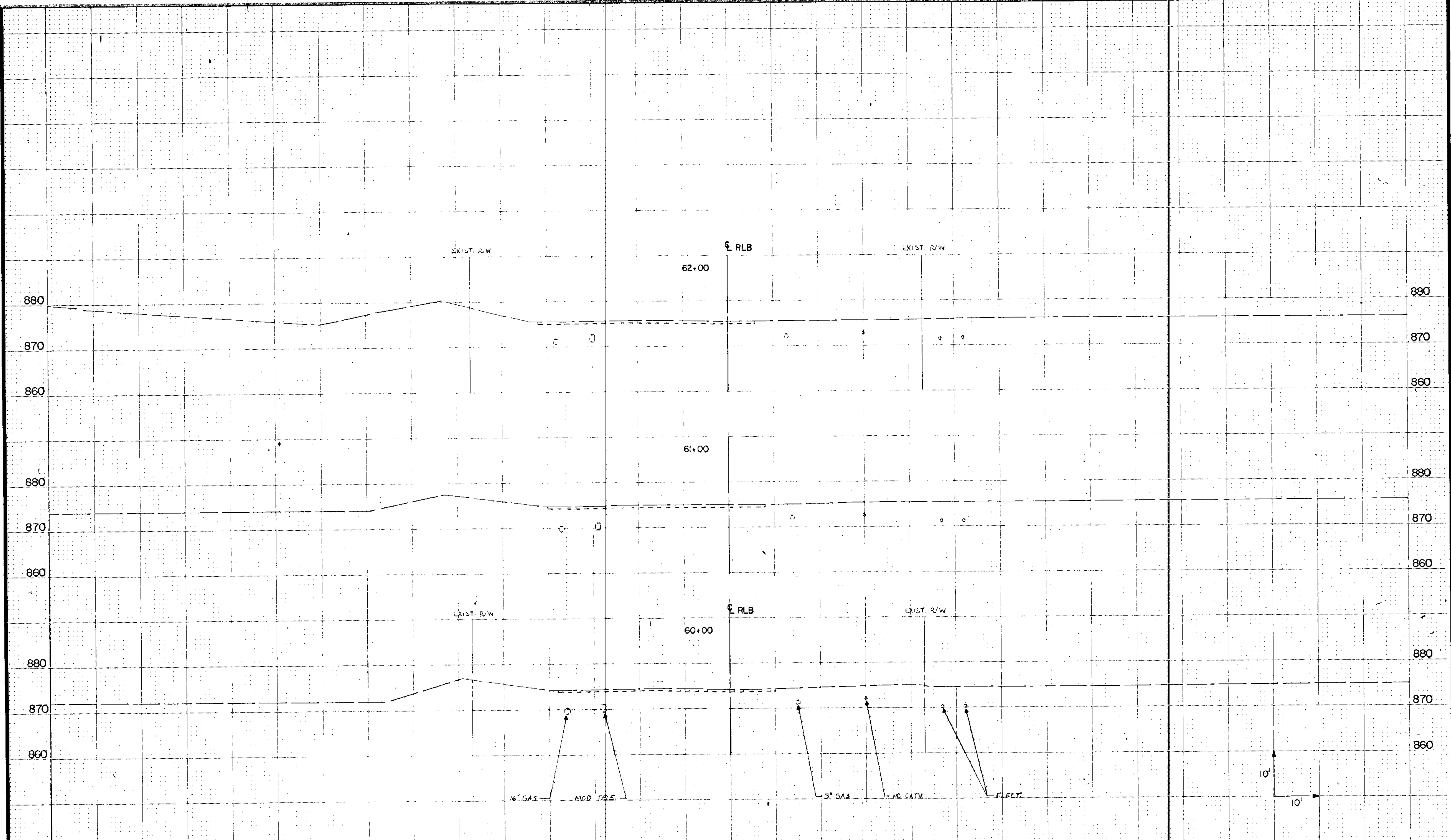
DESIGN BY: JRM  
DRAWN BY: JAC/LCB

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

DESIGN FILE No. 16-8840

S.A.P. NO. 02-609-08 SHEET 219 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 \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**  
 BRW, Inc.  
 112 7th St. S.  
 Minneapolis, Minnesota

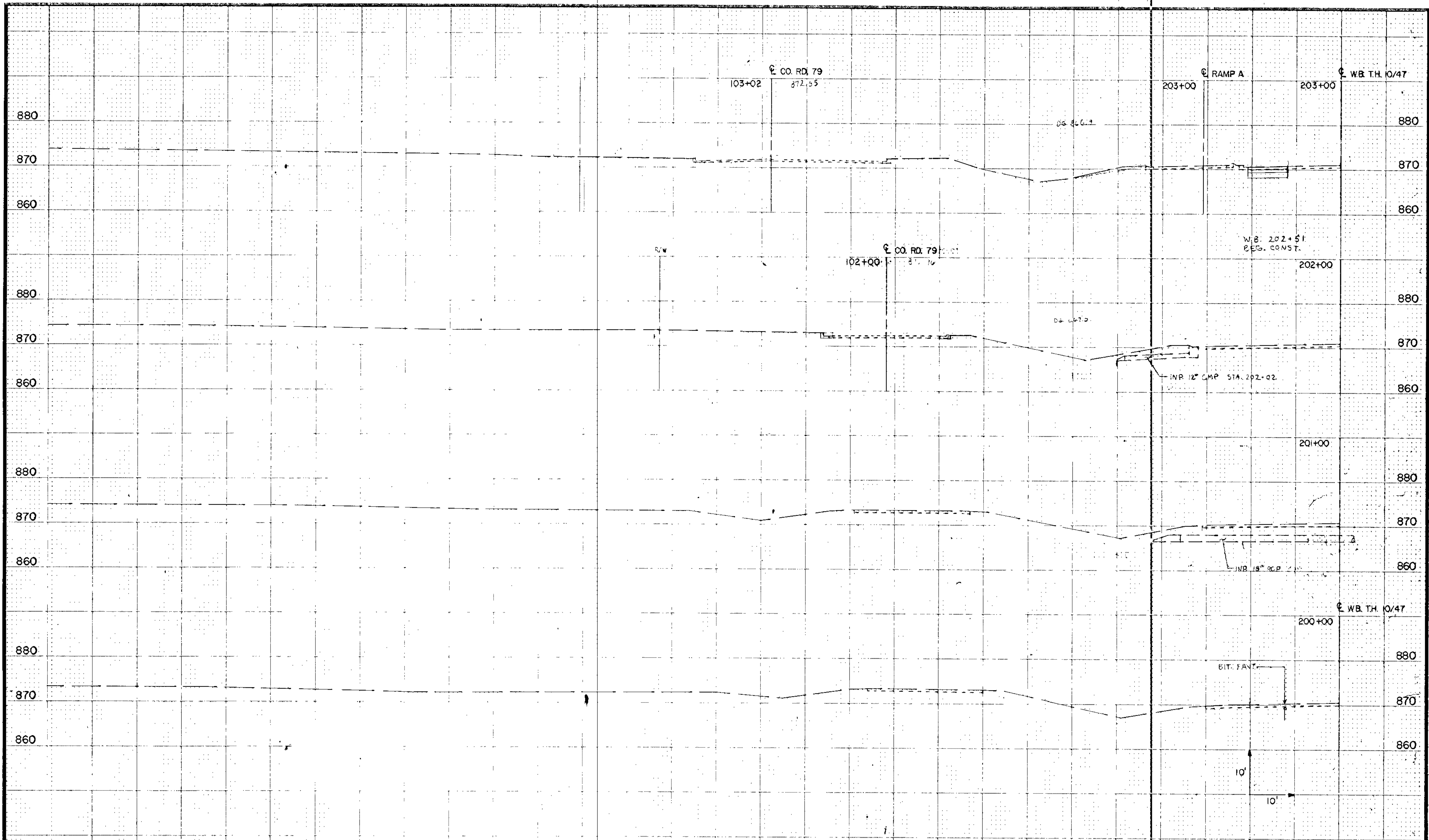
DESIGN BY: JRM  
 DRAWN BY: JAC, LEB

ORIGINAL DATE	3/20/89
REVISIONS	
SURVEY BK. NO.	

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 ROUND LAKE BLVD. (CSAH 9)  
 60+00 TO 62+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 Sect. 326.02 to 326.18.

*Royd Paulsen*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**

BRW, Inc. 4500 1st St. N. Minneapolis, MN 55412

DESIGN BY: JRM  
DRAWN BY: JAC

ORIGINAL DATE	3/23/89
REVISIONS	
SURVEY BK. NO.	

**CITY OF COON RAPIDS**

**IMPROVEMENT PROJECT 88-53**

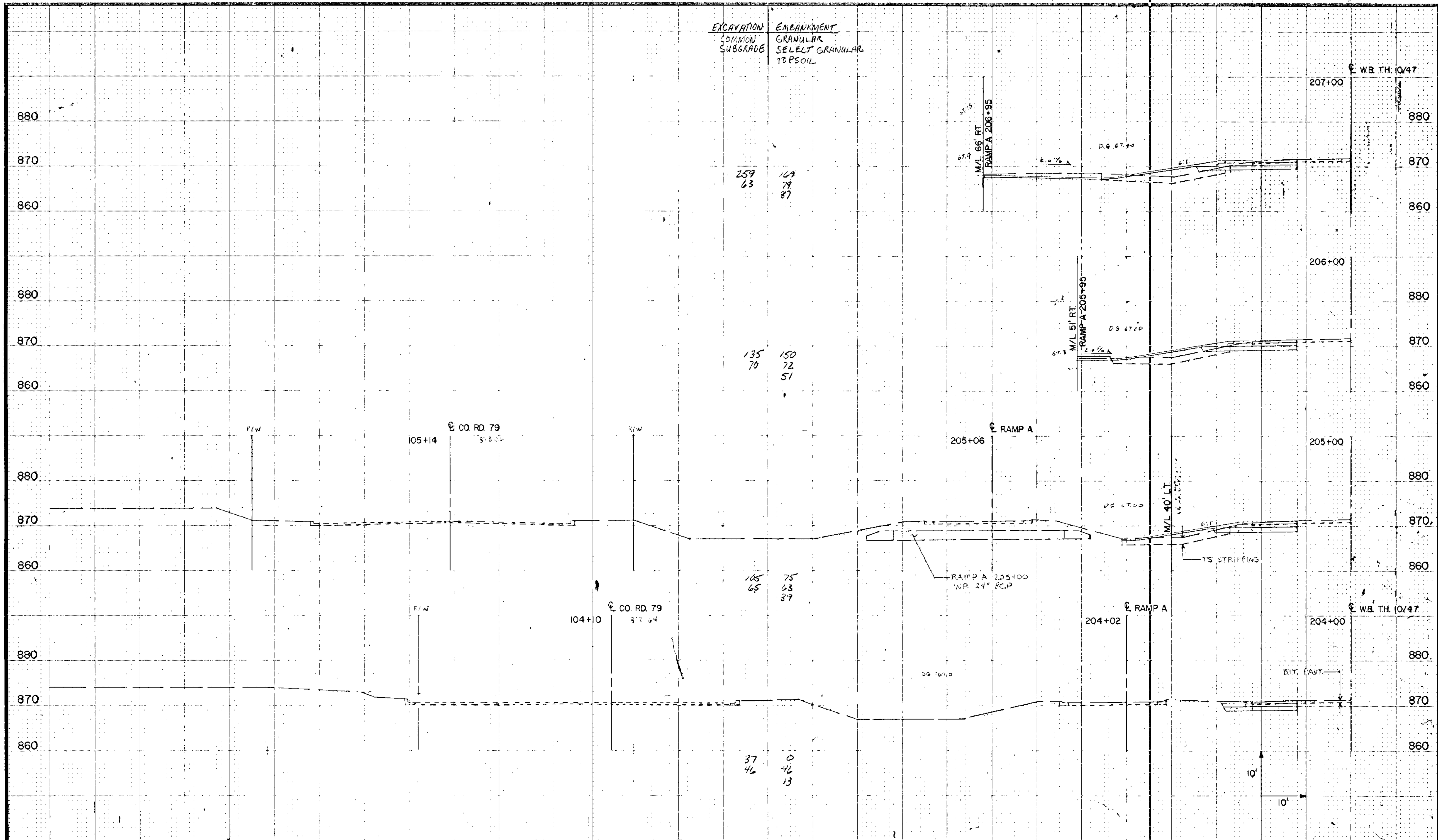
WB. T.H. 10/47

200+00 TO 203+00

SHEET 221 OF 256

DESIGN FILE No. 15-8849

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



259  
63

167  
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 R. Rasmussen*

Date \_\_\_\_\_ Minn. Reg. No. J2666

**BRW**

BRW, INC.  
113 376 010  
MINNEAPOLIS, MINN.

DESIGN BY: JRM  
DRAWN BY: JAC, LEB

ORIGINAL DATE 3/23/89  
REVISIONS \_\_\_\_\_

SURVEY BK NO. \_\_\_\_\_

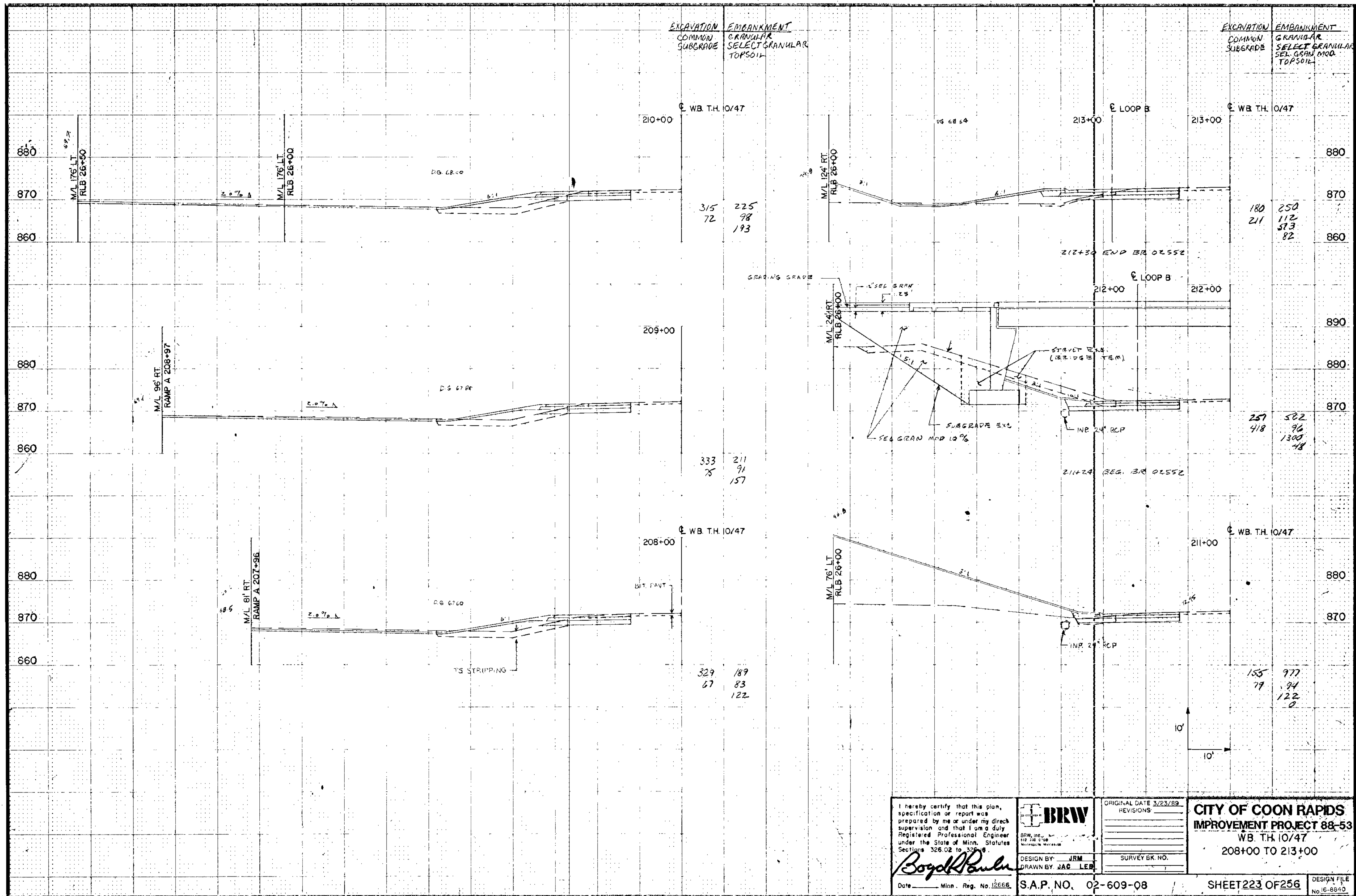
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

WB. TH. 10/47  
204+00 TO 207+00

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

SHEET 222 OF 256

DESIGN FILE No. 88-840



EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL

EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
SEL. GRAN. MOD.  
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 326.08.

*Boyd Paulsen*

Date \_\_\_\_\_ Minn. Reg. No. 1266E

**BRW**  
BRW, Inc.  
113 216 5100  
Bloomington, MN 55425

DESIGN BY: JRM  
DRAWN BY: JAR LEB

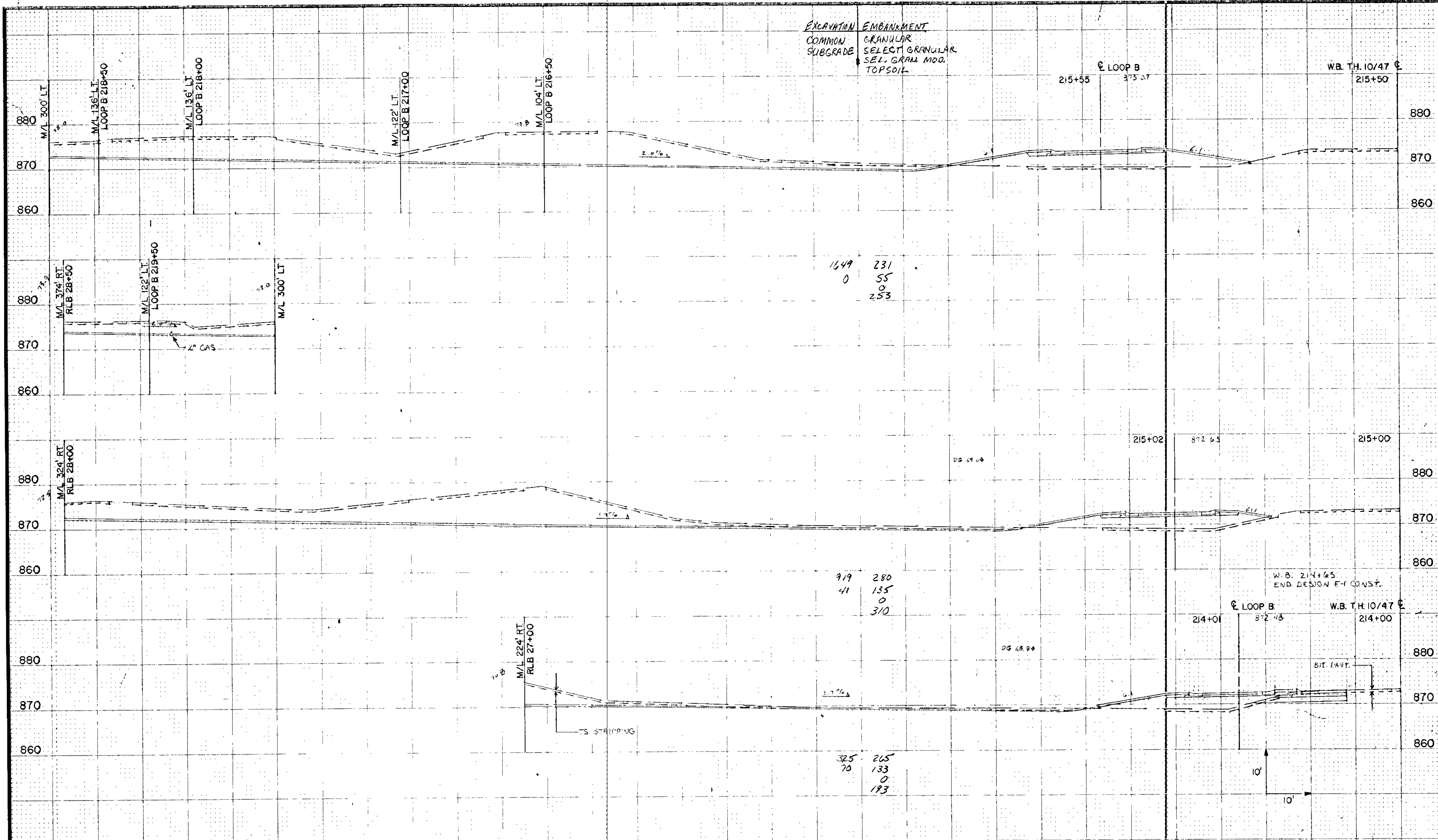
ORIGINAL DATE 3/23/89  
REVISIONS: \_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
WB. TH. 10/47  
208+00 TO 213+00

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

SHEET 223 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 326.04.

*Boyd Paulsen*

Date \_\_\_\_\_ Minn. Reg. No. 12666.

**BRW**

BRW, Inc.  
612 118 5100  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: JAG, LEB

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

ORIGINAL DATE 3/23/89
REVISIONS _____
_____
_____
SURVEY BK. NO. _____

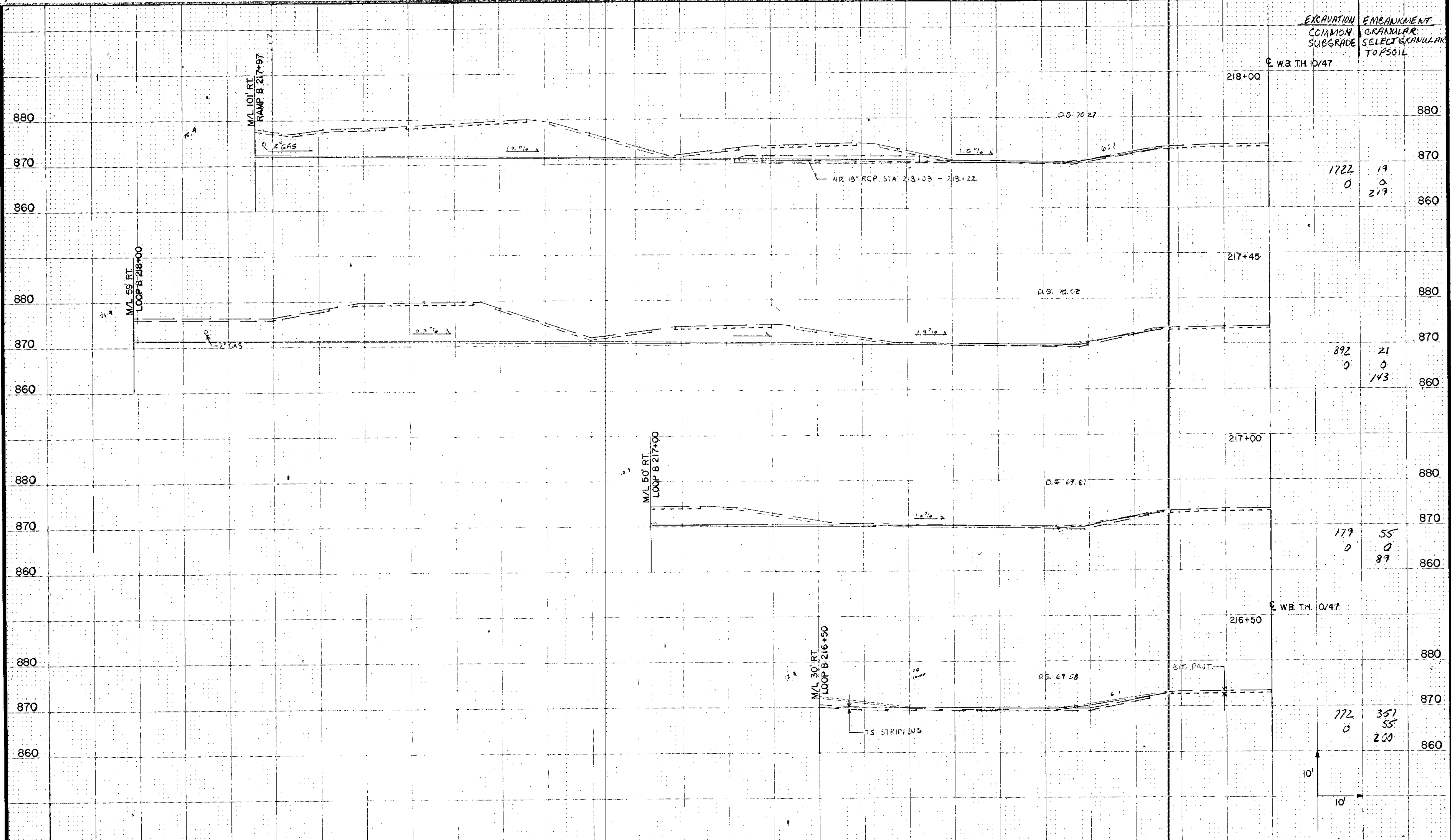
**CITY OF COON RAPIDS**

**IMPROVEMENT PROJECT 88-53**

WB. TH. 10/47

214+00 TO 215+50

DESIGN FILE No. 16-8840



EXCAVATION COMMON SUBGRADE  
 EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL

WB TH. 10/47

218+00

1722	19	880
0	0	870
	217	860

217+45

892	21	880
0	0	870
	143	860

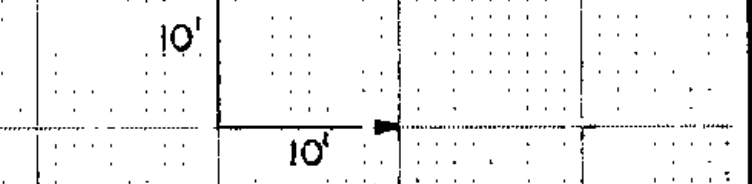
217+00

179	55	880
0	0	870
	89	860

WB TH. 10/47

216+50

172	351	880
0	55	870
	200	860



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, 31.16.

*Boyd Paulsen*  
 Date: \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**  
 BRW, Inc.  
 612 276 0700  
 MINNEAPOLIS, MN 55412

DESIGN BY: JRM  
 DRAWN BY: JAC LEE

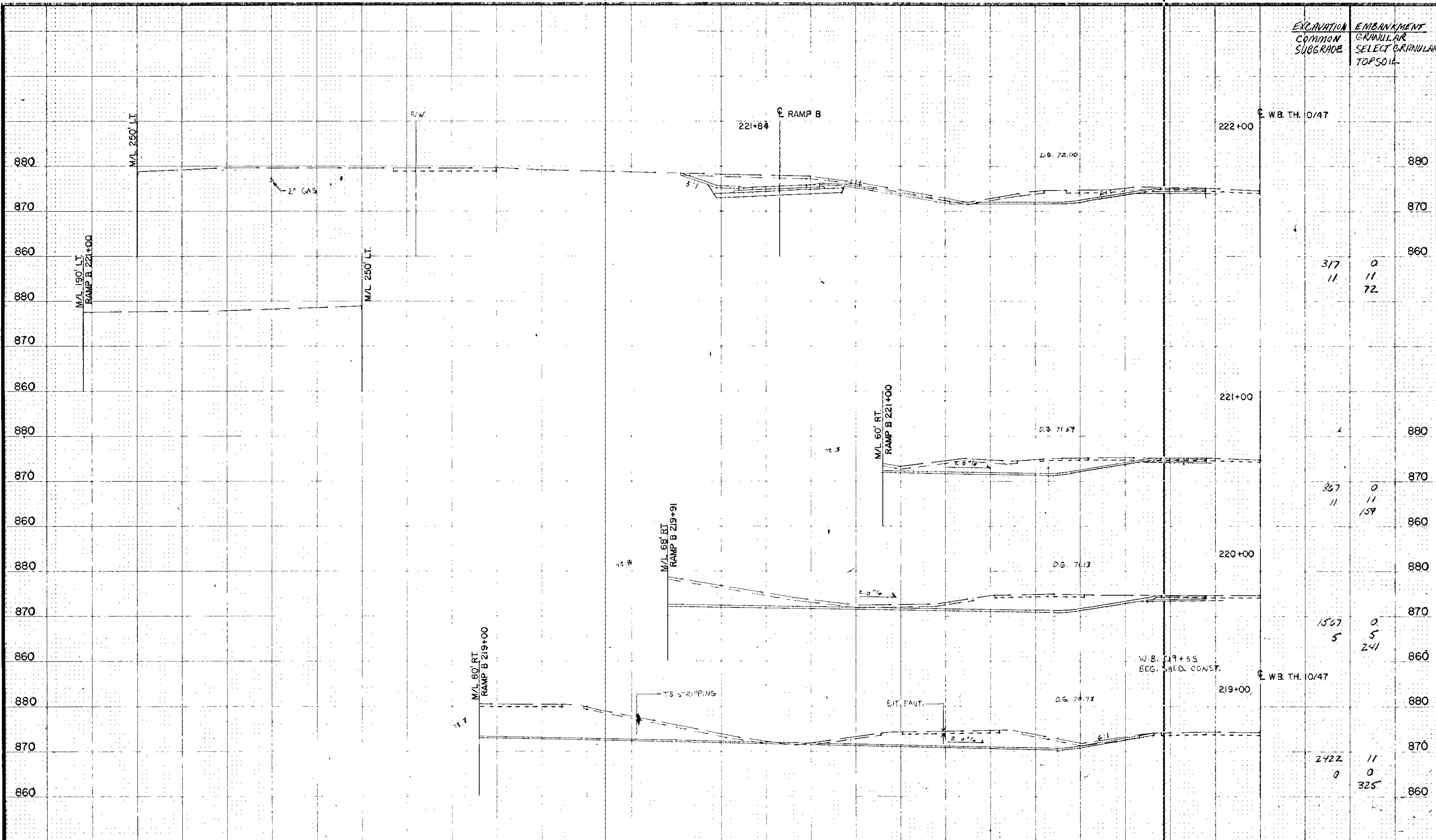
ORIGINAL DATE: 3/23/89  
 REVISIONS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 SURVEY BK. NO.:

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 WB TH. 10/47  
 216+50 TO 218+00

DESIGN FILE No. 16-8840

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

SHEET 225 OF 256



EXCAVATION  
COMMON  
SUBGRADE

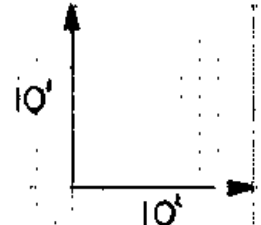
EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL

317	0
11	11
	72

867	0
11	11
	159

1567	0
5	5
	241

2422	11
0	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 Paul*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**

BRW, INC.  
112 17th St SW  
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  
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

R/W

W.B. TH. 10/47

880

880

870

870

860

860

300  
165

0  
175  
53

224+97  
RAMP B

226+00

225+00

880

880

870

870

860

860

337  
147

0  
172  
55

223+95

224+00

880

880

870

870

860

860

367  
131

19  
129  
81

W.B. 223+95  
END SHO. CONST.  
BEG. DESIGN F-I CONST.

222+91  
RAMP B

W.B. TH. 10/47

223+00

880

880

870

870

860

860

600  
109

19  
103  
137

TS STRIPPING

10'  
10'

2" GAS

2" GAS

5" T. (Avt.)

R/W

I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.05.

*Boyd Paulsen*

Date \_\_\_\_\_ Minn. Reg. No. 12665

**BRW**

BRW, Inc.  
612 210 4700  
MINNEAPOLIS, MINNESOTA

DESIGN BY: JRM  
DRAWN BY: JAC, LEB

ORIGINAL DATE 3/23/89  
REVISIONS

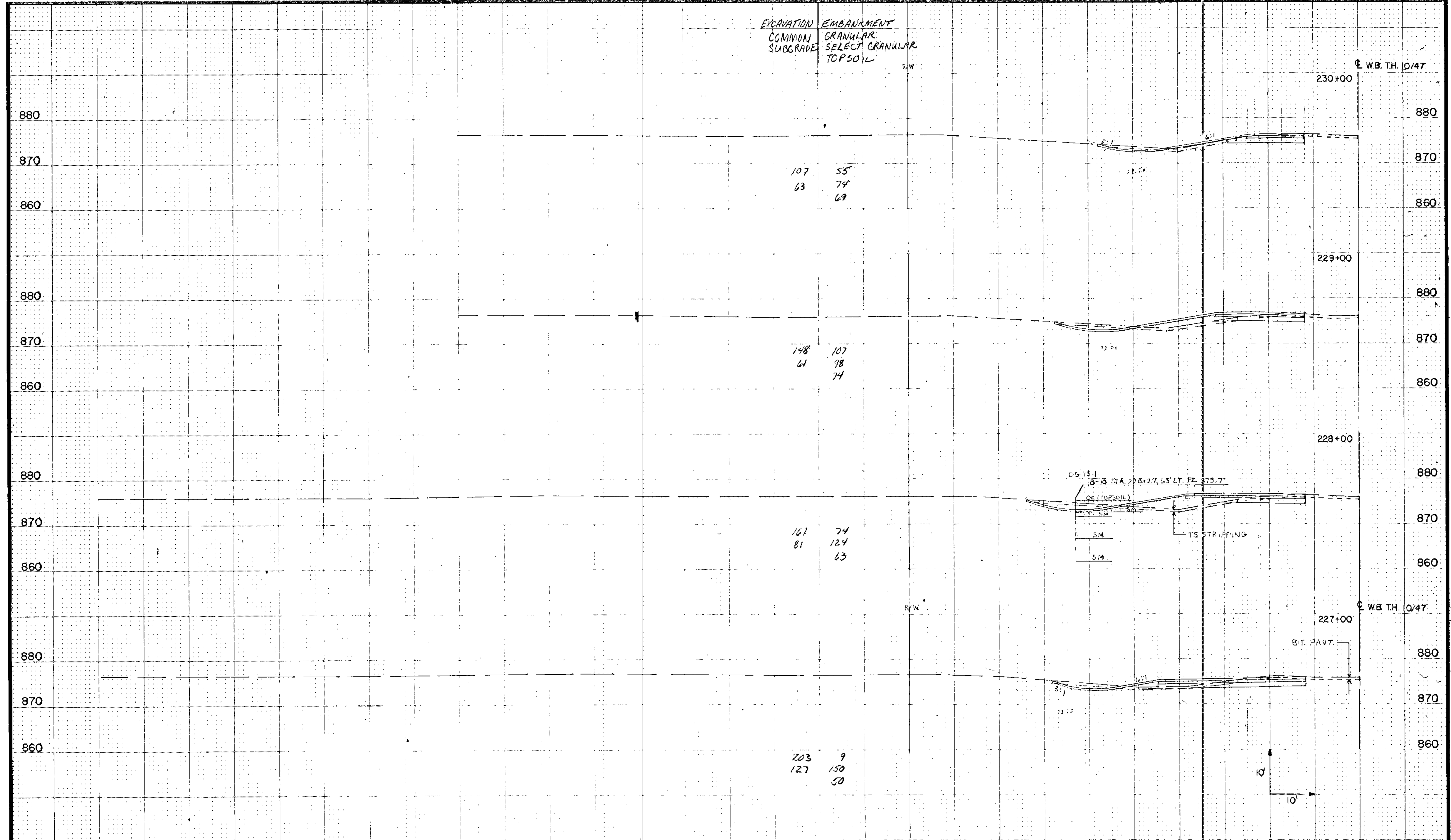
SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
W.B. TH. 10/47  
223+00 TO 226+00

DESIGN FILE No. 16-8840

S.A.P. NO. C2-609-08

SHEET 227 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 \_\_\_\_\_ Minn. Reg. No. J2666

**BRW**

BRW, INC.  
112 1/2 W. 57th  
Minneapolis, Minnesota

DESIGN BY: **JRM**  
DRAWN BY: **JAC LEB**

ORIGINAL DATE 3/23/89  
REVISIONS \_\_\_\_\_

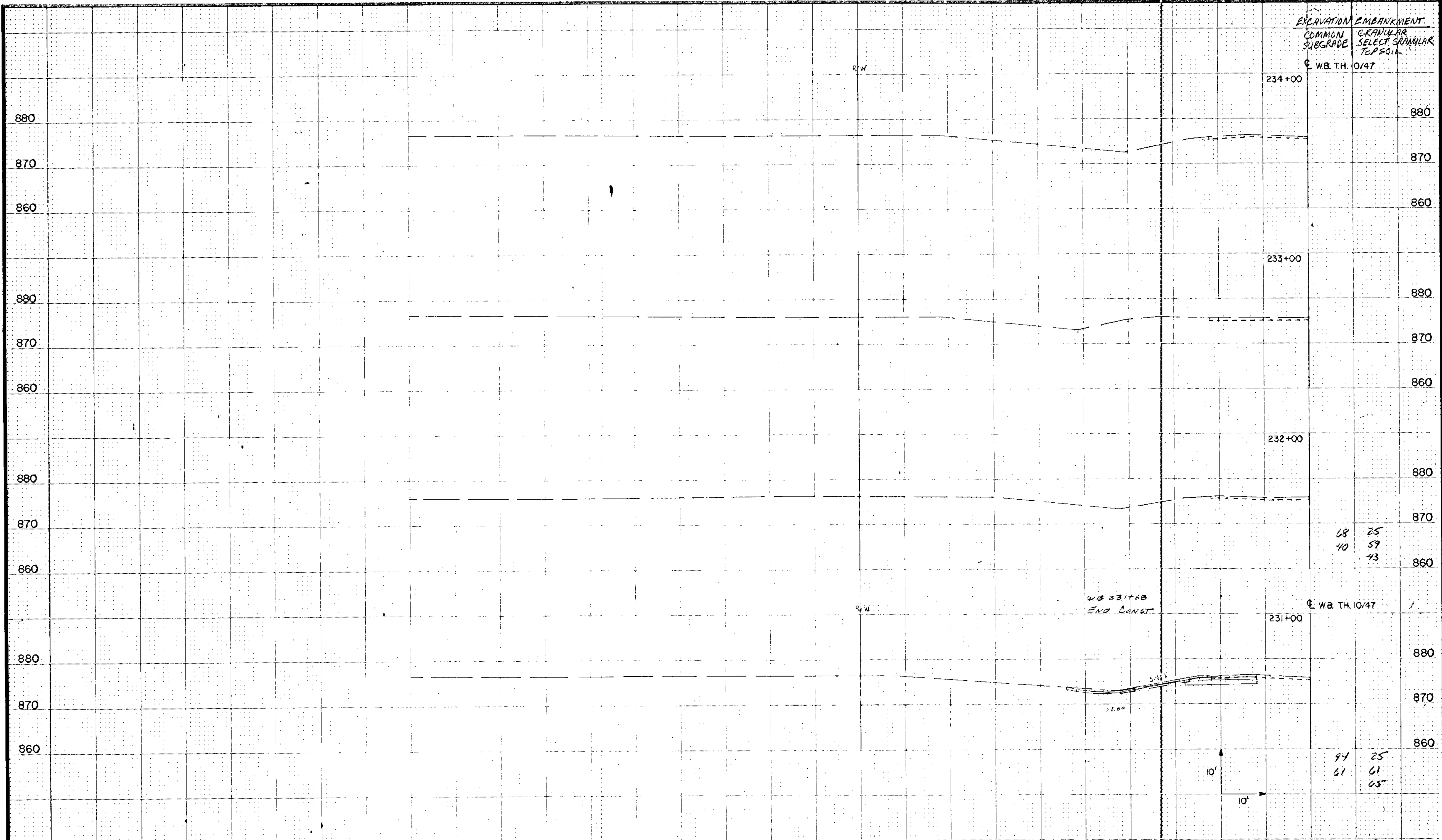
SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
WB.T.H. 10/47  
227+00 TO 230+00

DESIGN FILE No. 16-8840

S.A.P. NO. 02-609-08 SHEET 228 OF 256





EXCAVATION COMMON SUBGRADE  
EMBANKMENT GRANULAR SELECT GRANULAR TOPSOIL

234+00

233+00

232+00

231+00

WB TH. 10/47

WB 231+63  
END CONST

68 25  
40 59  
43

94 25  
61 61  
65

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 Paulsen*  
Date \_\_\_\_\_ Minn. Reg. No. 12665

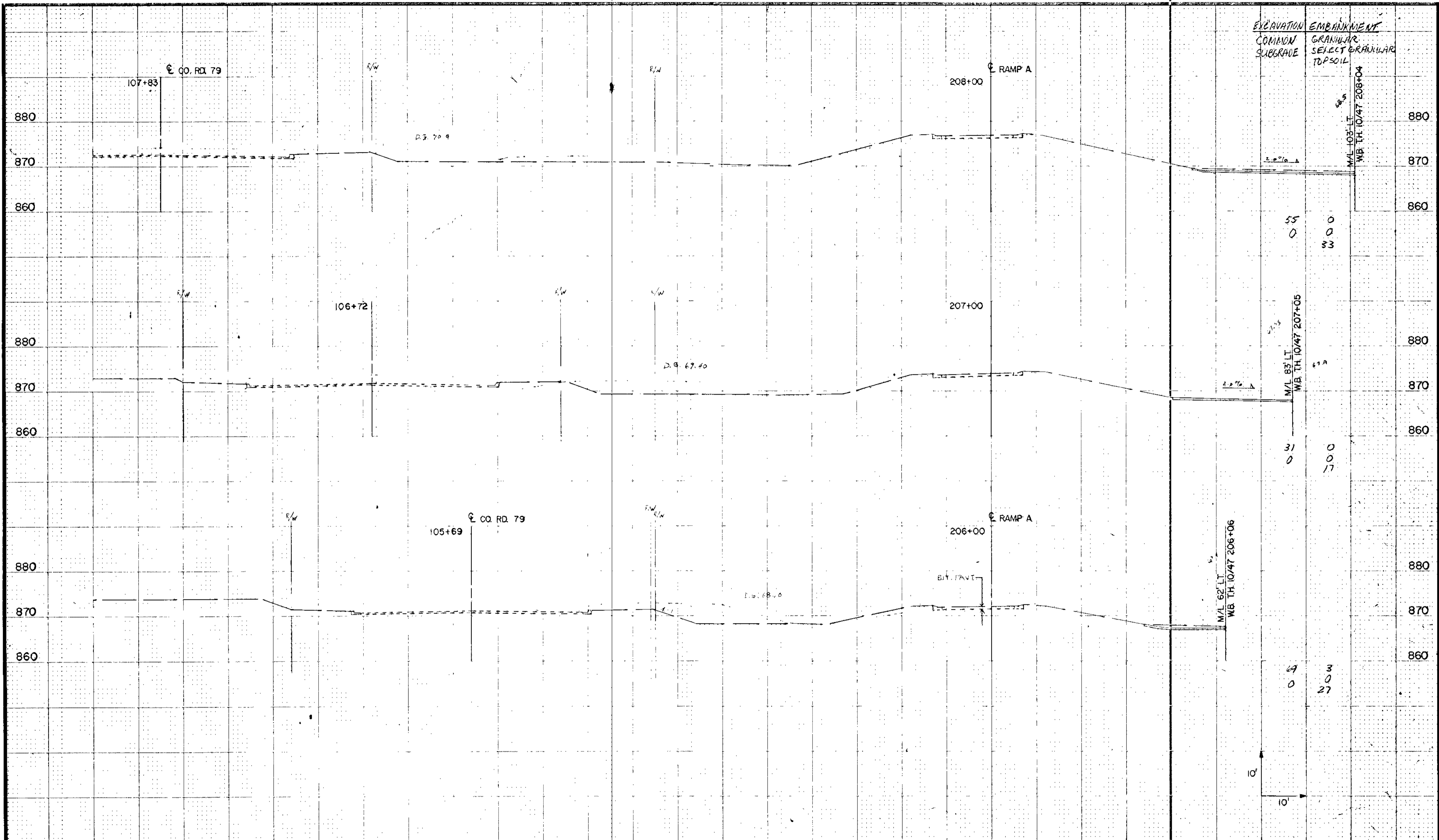
**IBRW**  
IBRW, Inc.  
212 3rd St SW  
Minneapolis, Minnesota  
DESIGN BY: JRM  
DRAWN BY: JAC LER

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  
DESIGN FILE No. 16-8849

S.A.P. NO. C2-609-08

SHEET 229 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 \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**

BRW, Inc.  
412 218 6700  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: JAC, LEB

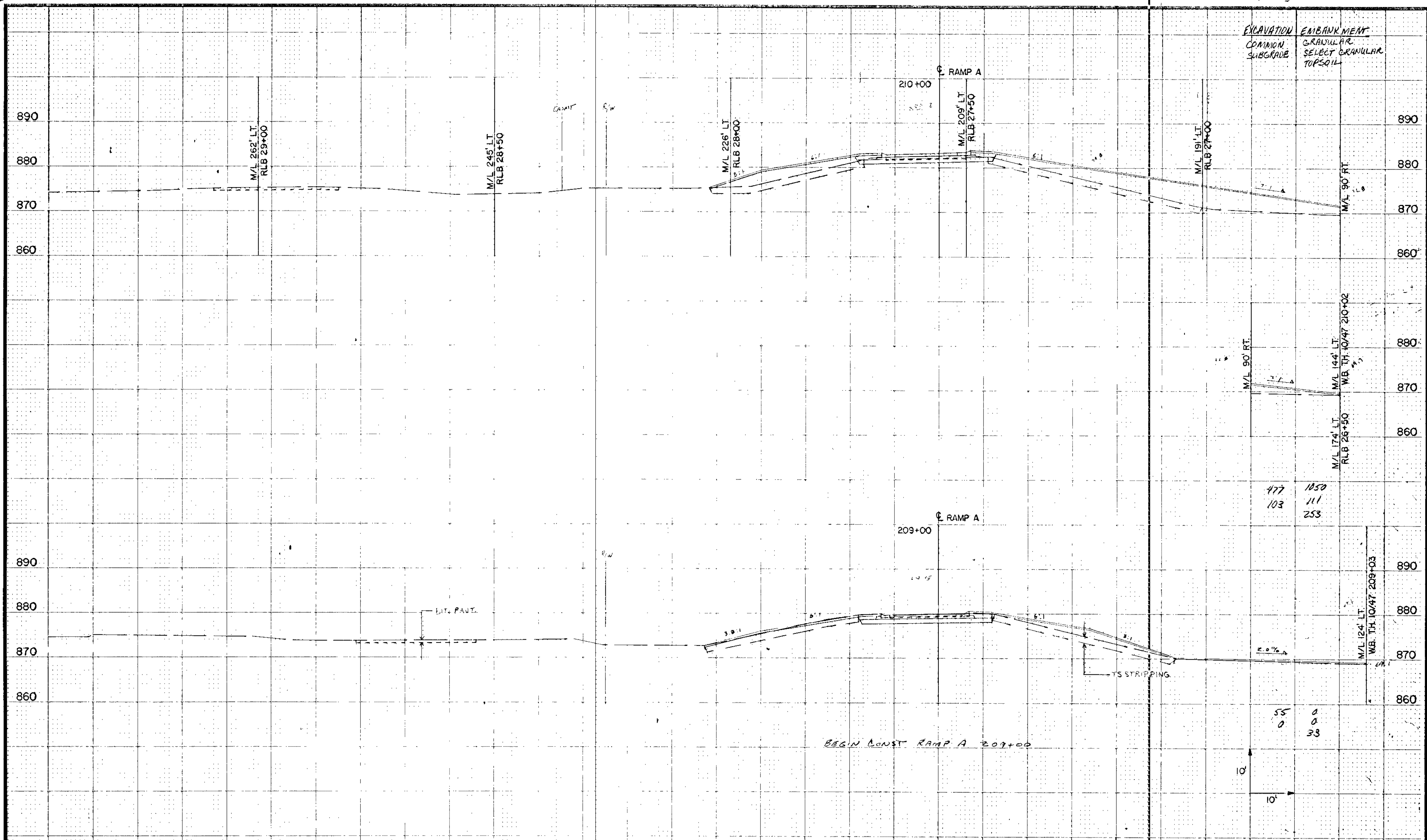
ORIGINAL DATE 3/29/89  
REVISIONS: \_\_\_\_\_

SURVEY BK. NO. \_\_\_\_\_

S.A.P. NO. 02-509-08

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
RAMP A  
206+00 TO 208+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.

*Boyd Paul*

Date \_\_\_\_\_ Minn. Reg. No. 12666

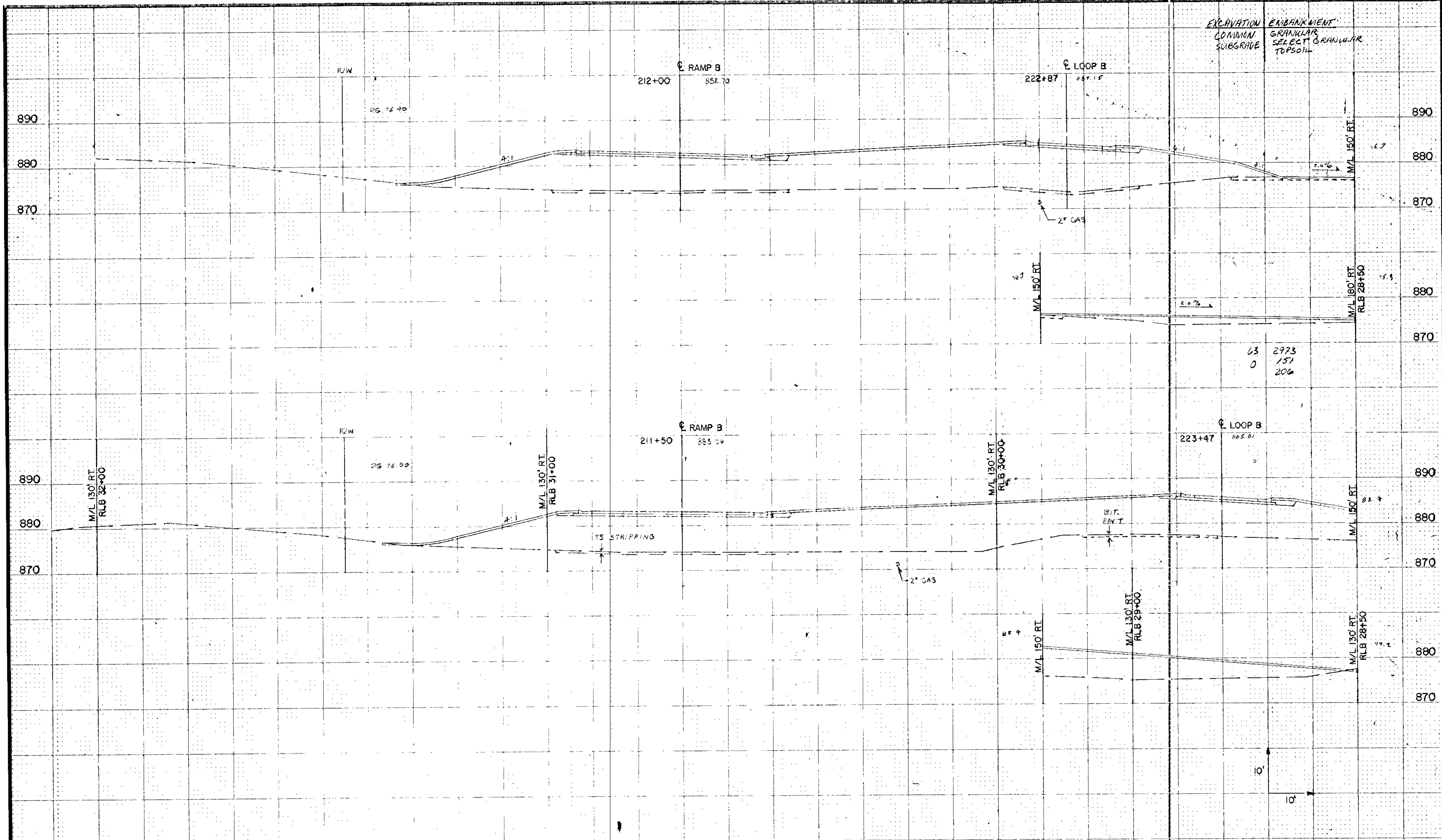
**BRW**  
 BRW, Inc.  
 618 218 0100  
 Minneapolis, Minnesota

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**  
**209+00 TO 210+00**



63 2973  
0 151  
206

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.  
612 376 0108  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: JAG, LEG

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

ORIGINAL DATE: 3/27/89
REVISIONS
SURVEY BK. NO.

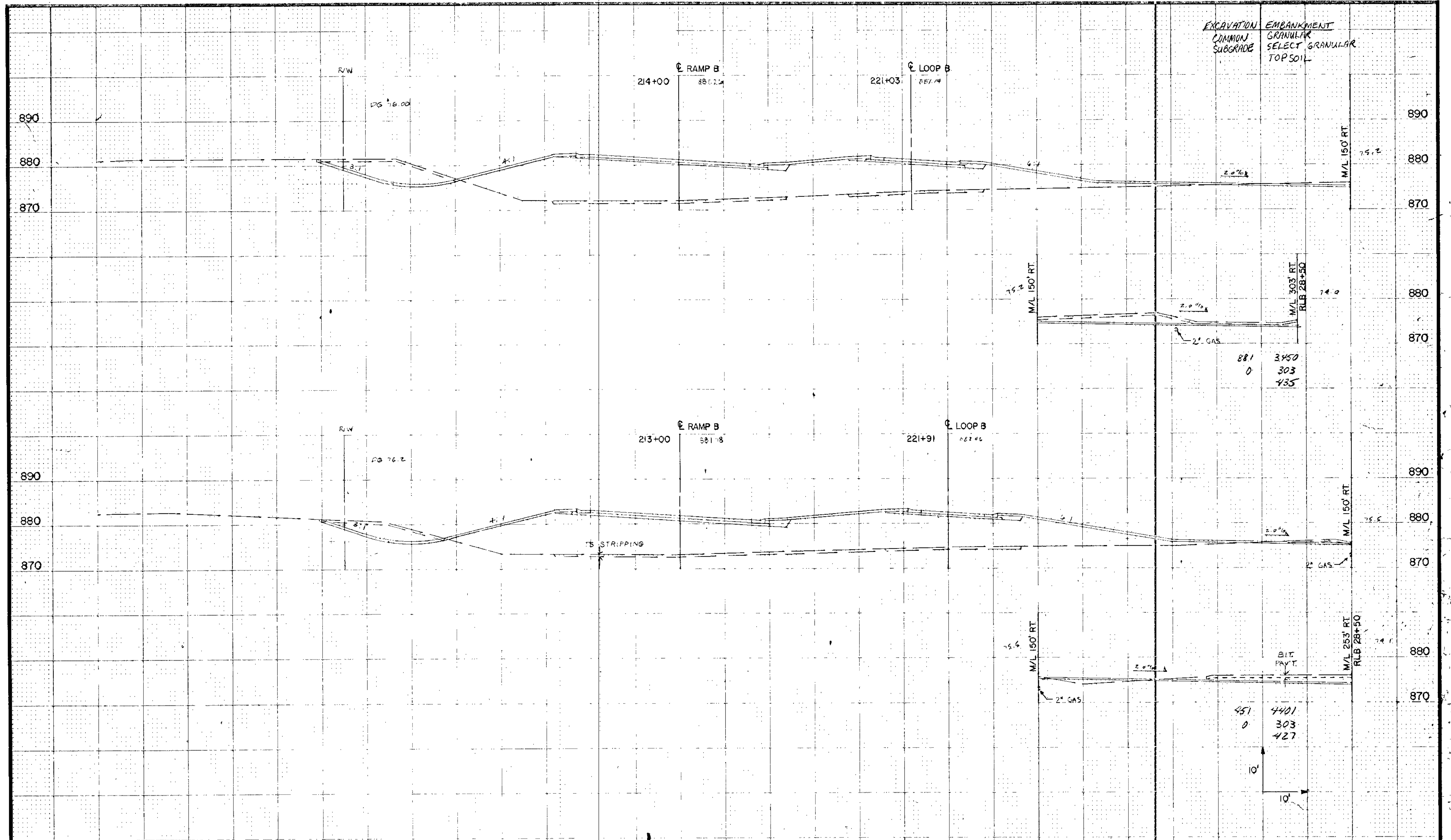
**CITY OF COON RAPIDS**

**IMPROVEMENT PROJECT 88-53**

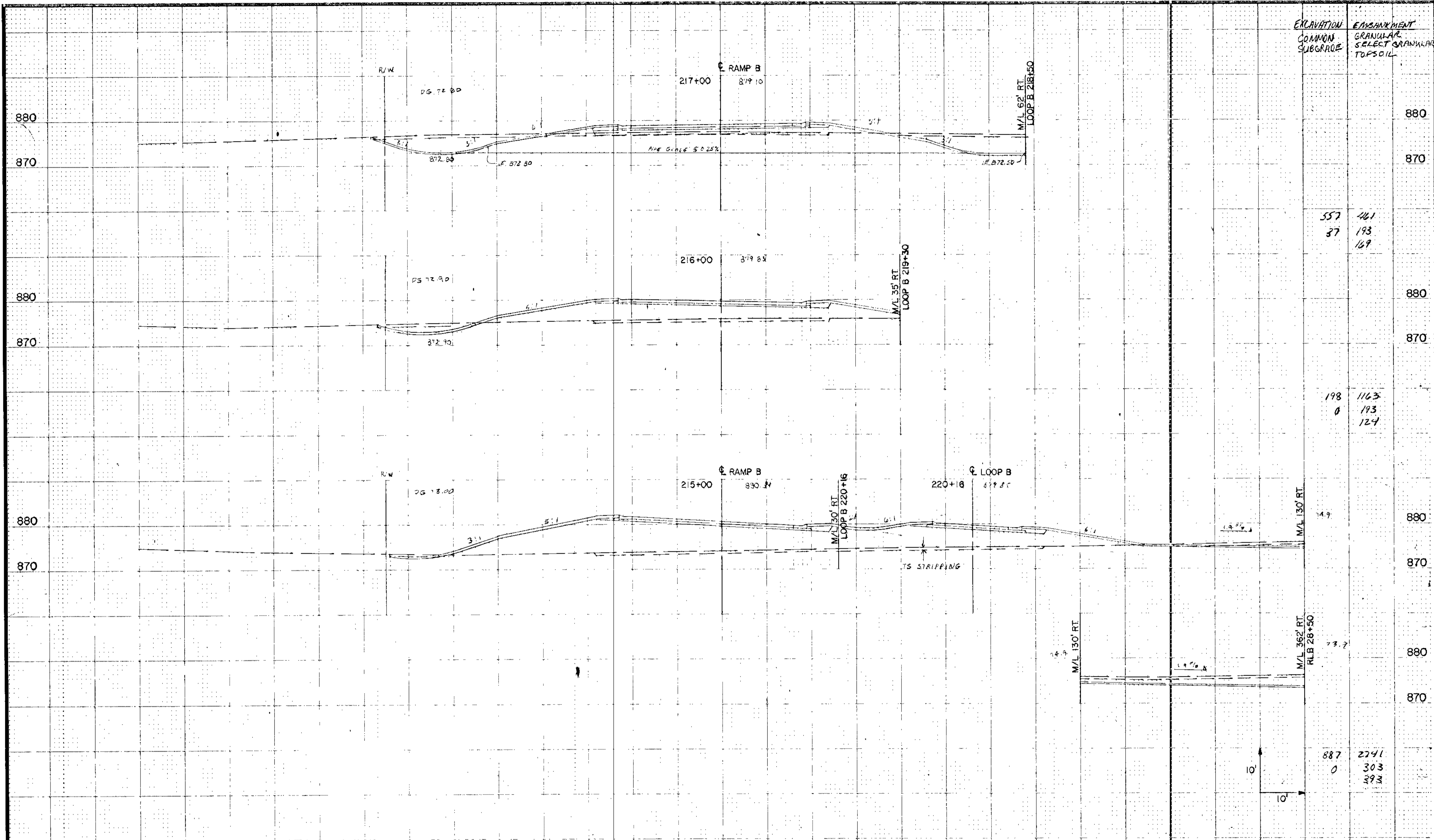
**RAMP B**

211+50 TO 212+00

DESIGN FILE No. IG-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 _____ Minn. Reg. No. 12668	BRW, Inc. 137 1/2 State Minneapolis, Minnesota	ORIGINAL DATE 3/27/89	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> <b>RAMP B</b> 213+00 TO 214+00
		REVISIONS _____ _____ _____	
DESIGN BY: JRM DRAWN BY: JAC LEB		S.A.P. NO. 02-609-08	SHEET 233 OF 256
		No. 16-8840	DESIGN FILE



EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL

557  
37

461  
193  
167

198  
0

1163  
193  
124

887  
0

2741  
303  
393

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 Hansen*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**IBRW**

IBRW, Inc.  
118 218 21st  
Minneapolis, MN 55414

DESIGN BY: JRM  
DRAWN BY: JAC LEB

ORIGINAL DATE 3/27/89  
REVISIONS:

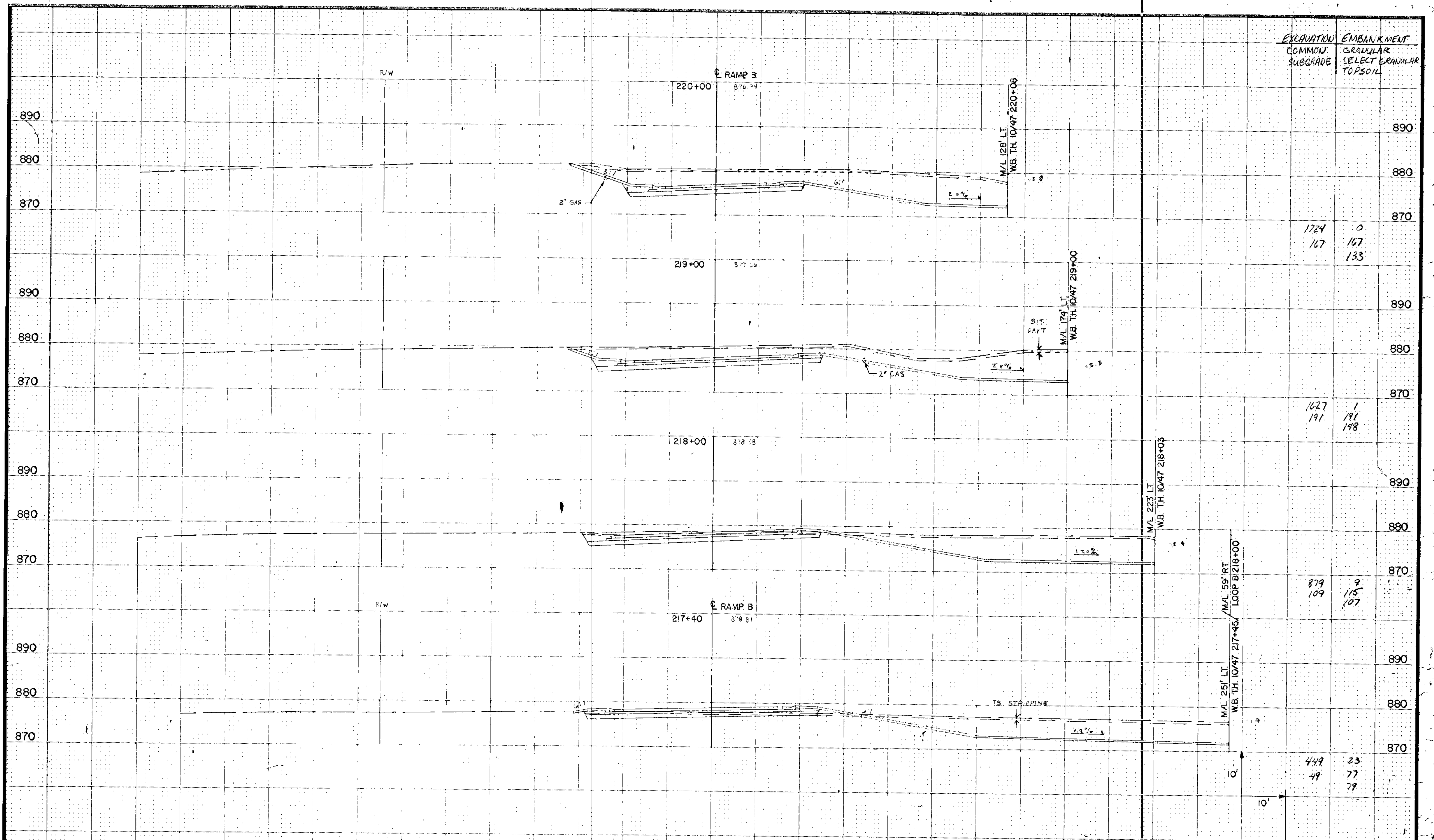
SURVEY BR. NO.

**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-B840



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 326.10.

*Boyd Paulsen*  
 Date: \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**  
 BRW, Inc.  
 418 2nd St  
 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 B**  
**217+40 TO 220+00**

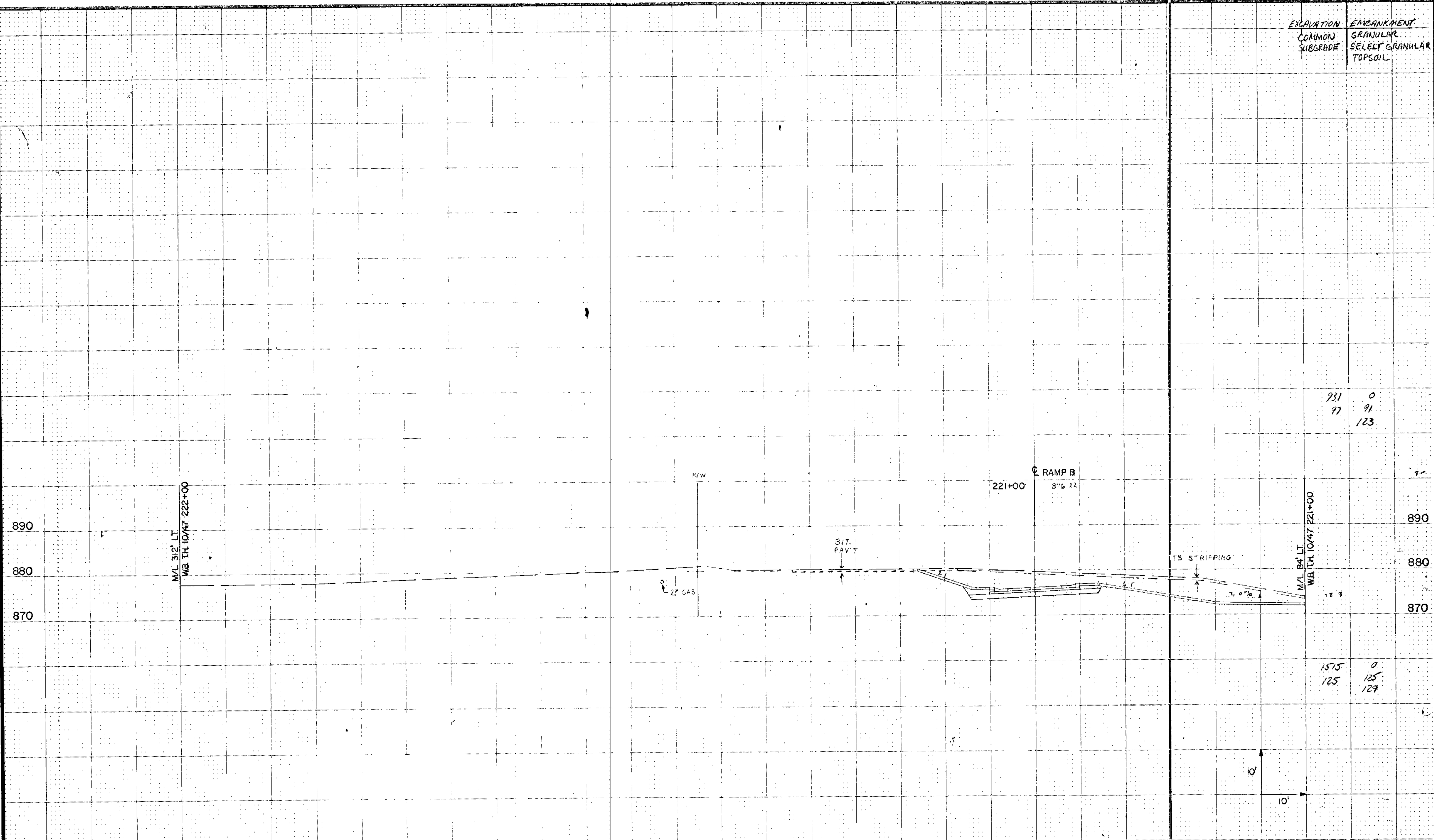
SHEET 235 OF 256

DESIGN FILE No 16-5640

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

EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL



931  
97

0  
91  
123

1515  
125

0  
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 Paul*

Date \_\_\_\_\_ Minn. Reg. No. 22666

**BRW**

BRW, INC.  
615 7th St. N.  
Minneapolis, MN 55401

DESIGN BY: JRM  
DRAWN BY: JAC, LEB

ORIGINAL DATE 3/29/89  
REVISIONS \_\_\_\_\_

SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

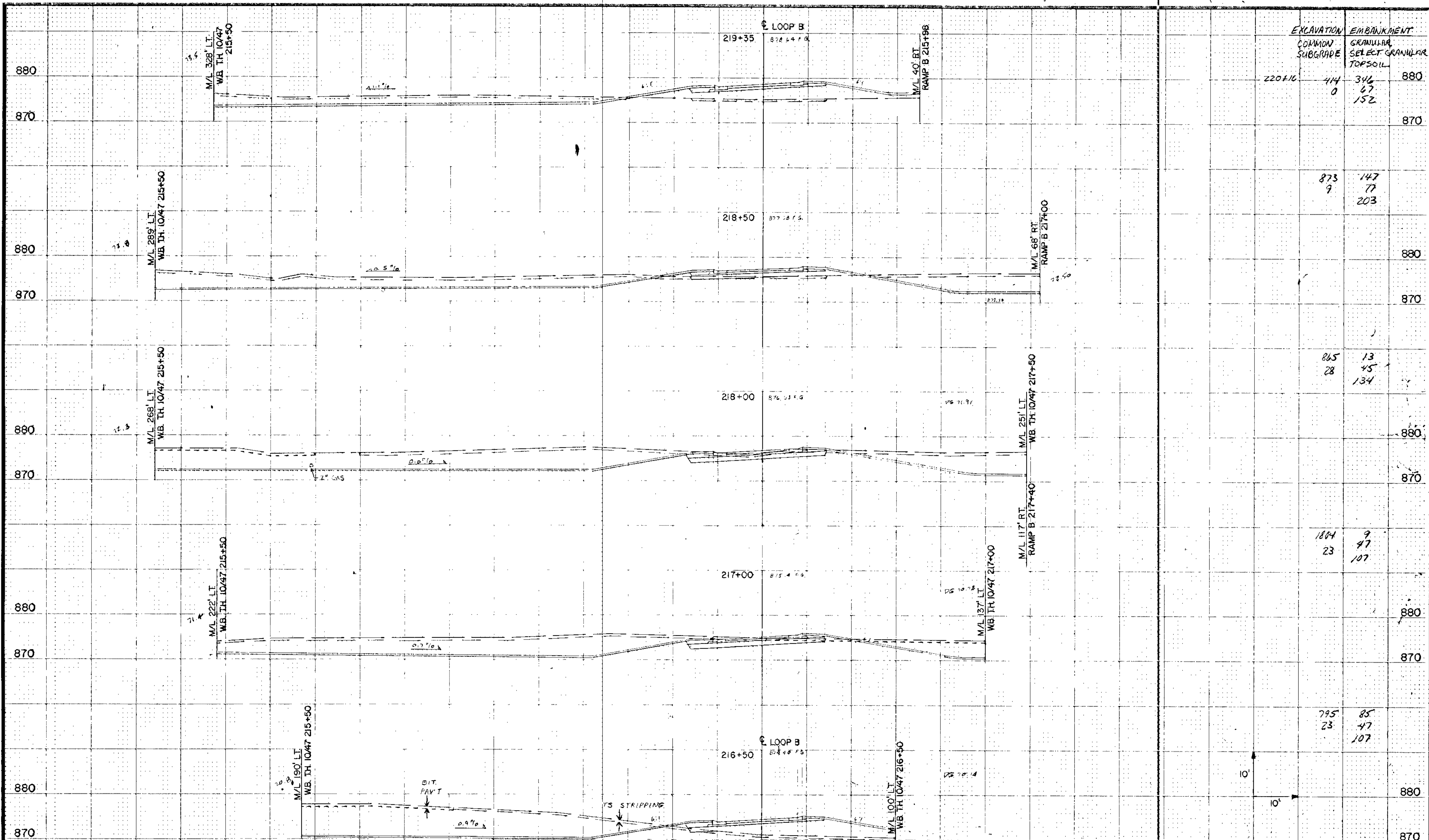
RAMP B  
221+00

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

SHEET 236 OF 256

DESIGN FILE  
No. 16-8840



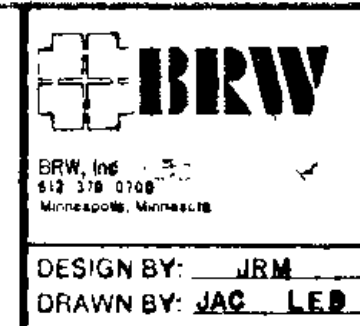


STATION	EXCAVATION		EMBANKMENT	
	COMMON SUBGRADE		GRANULAR SELECT TOPSOIL	GRANULAR
220+10	414	0	346	880
			67	870
			152	
	873	9	147	
			77	880
			203	870
	865	28	13	
			45	880
			134	870
	1804	23	9	
			47	880
			107	870
	795	23	85	
			47	880
			107	870

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. 22656

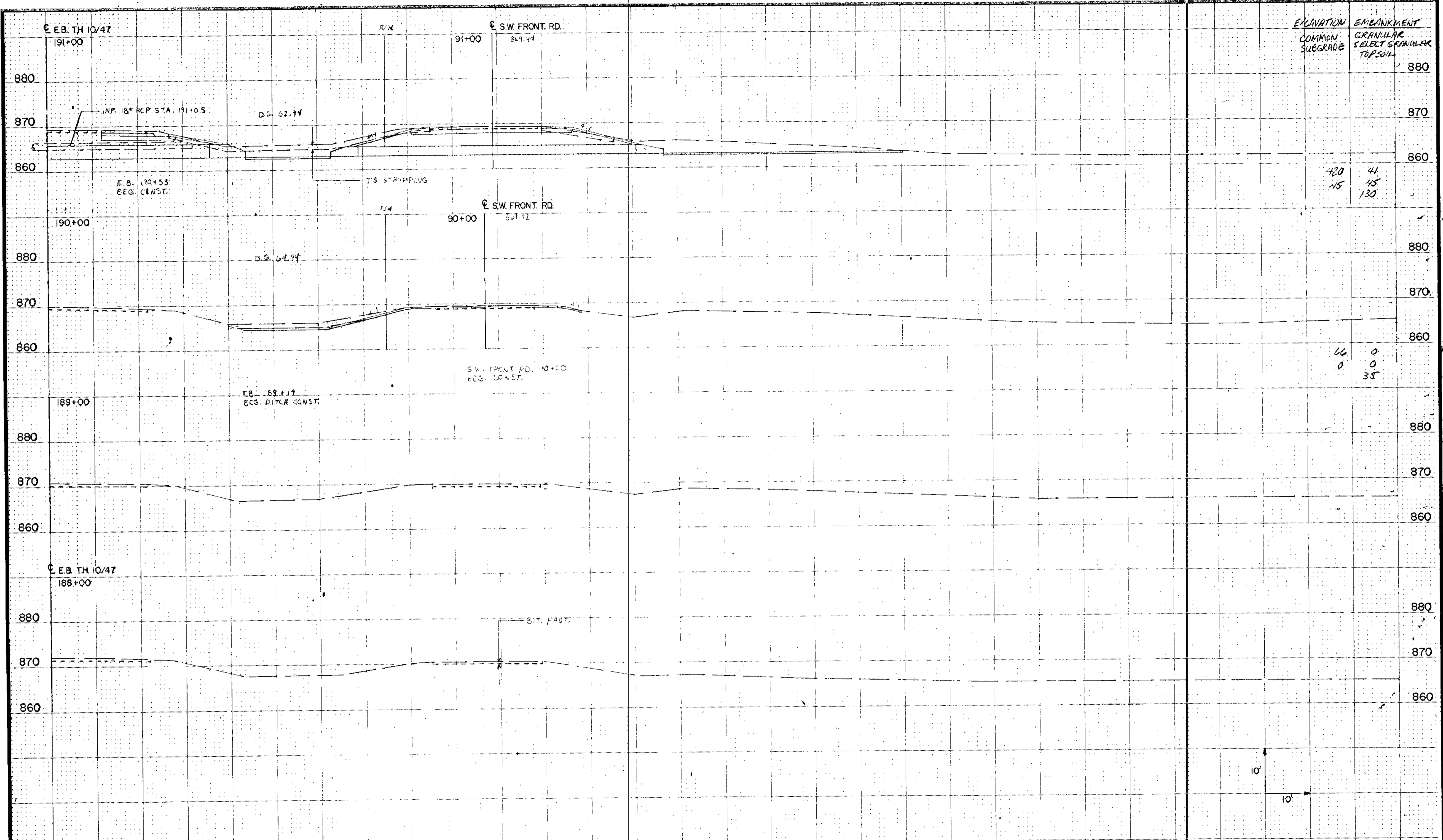


ORIGINAL DATE 3/27/89  
 REVISIONS \_\_\_\_\_  
 SURVEY BK NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 LOOP B  
 216+50 TO 219+35

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

DESIGN FILE No. 16-8640  
 SHEET 237 OF 256



EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL

420	41
45	15
	130

66	0
0	35

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. J2656

**BRW**  
 BRW, Inc.  
 612 210 0700  
 Minneapolis, Minnesota

DESIGN BY: JRM  
 DRAWN BY: JAC LER

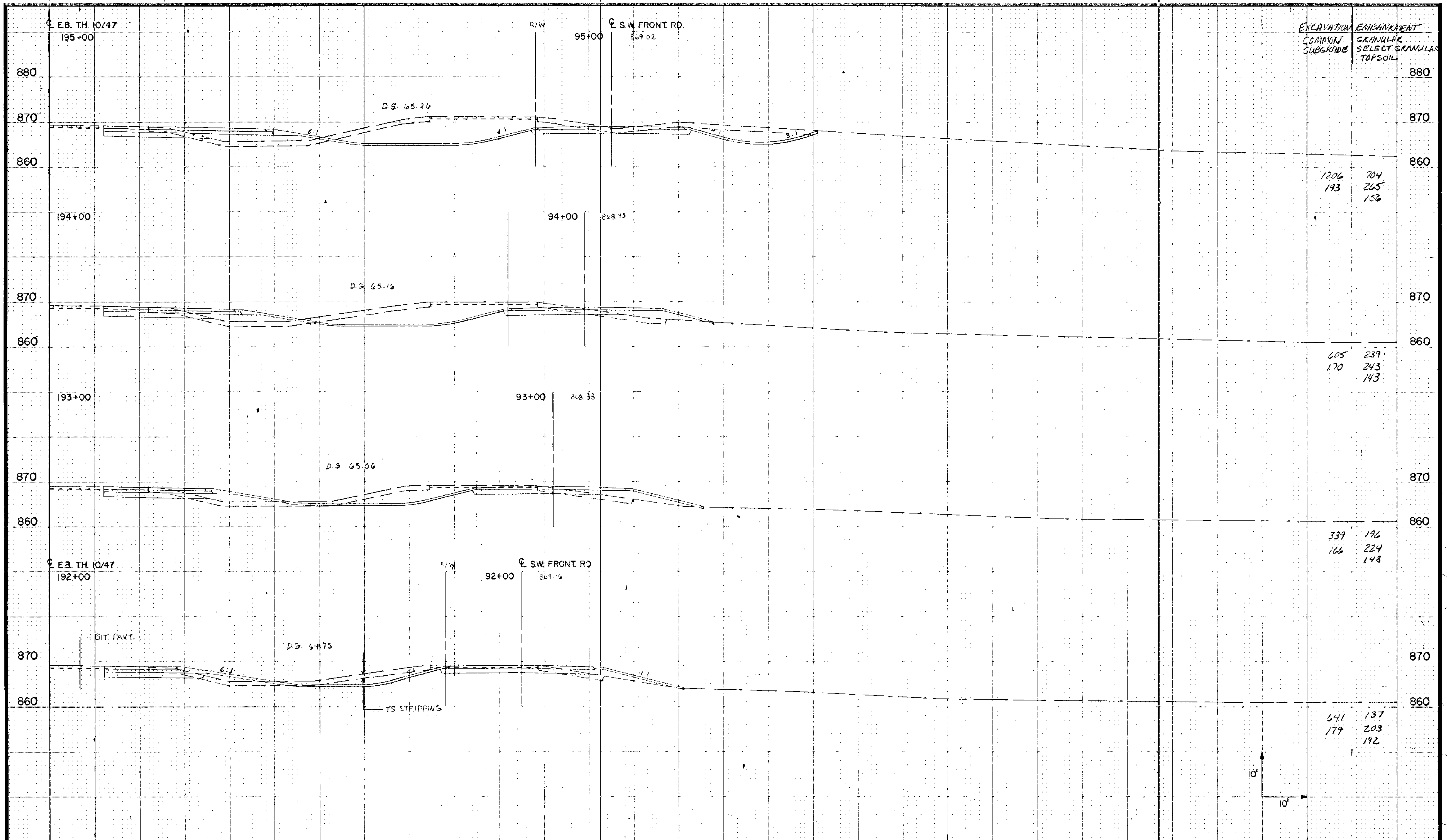
ORIGINAL DATE 3/20/89  
 REVISIONS \_\_\_\_\_  
 SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 E.B. TH. 10/47  
 188+00 TO 191+00

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

SHEET 238 OF 256

DESIGN FILE No. 16-8840



E.B. TH. 10/47  
195+00

R/W  
95+00  
E S.W. FRONT RD.  
869.02

880

870

860

194+00

94+00  
868.75

870

860

193+00

93+00  
868.33

870

860

E.B. TH. 10/47  
192+00

R/W  
92+00  
E S.W. FRONT RD.  
869.16

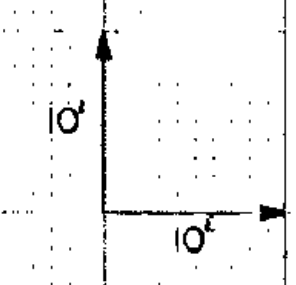
870

860

BIT. PAVT.

D.S. 64.75

YS STRIPPING



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.  
612 312 6100  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: JAC LEE

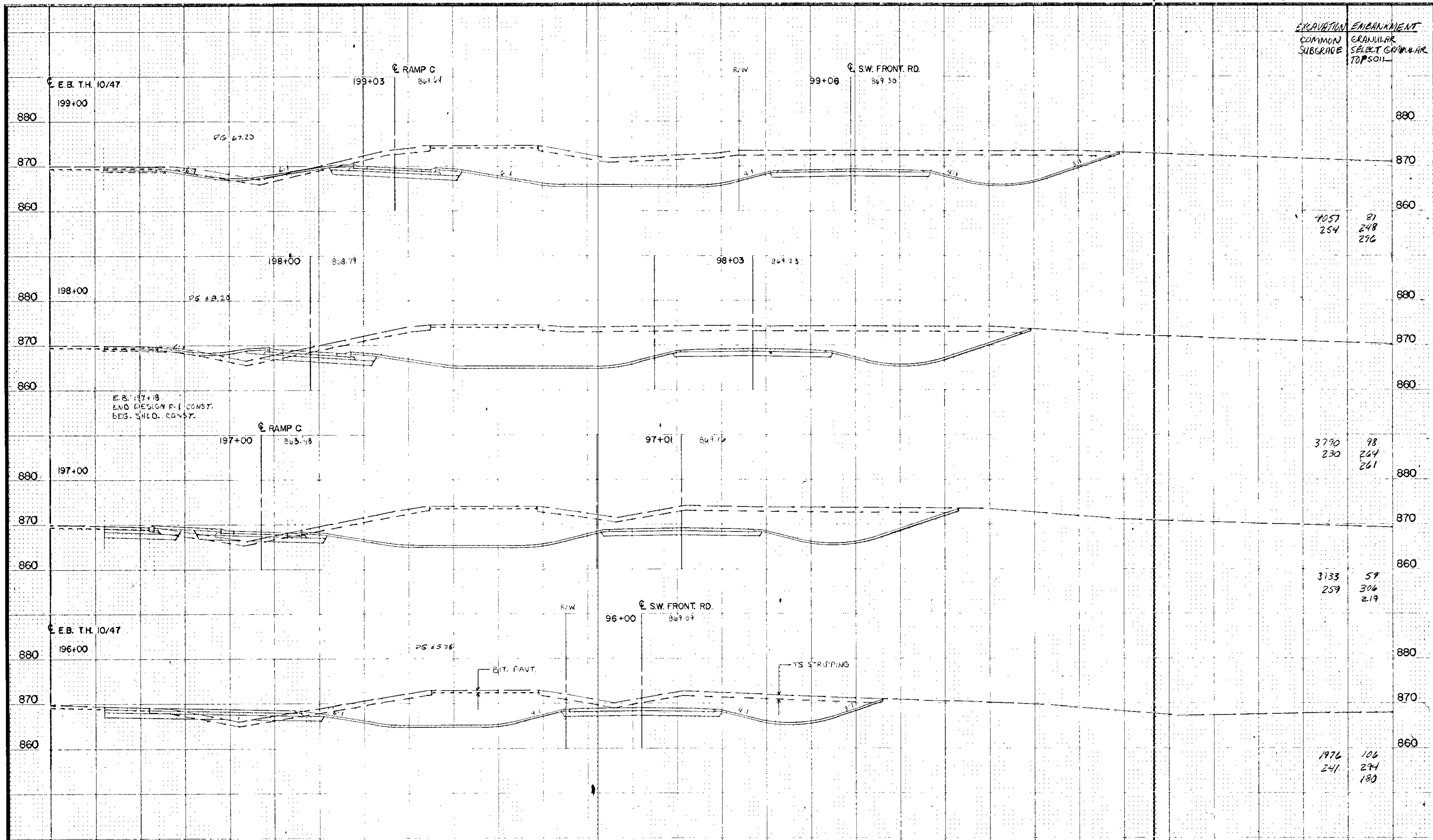
ORIGINAL DATE 3/20/89  
REVISIONS:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

**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



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. Paulin*  
Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**  
BRW, Inc.  
112 2nd St. NE  
Minneapolis, MN 55412

DESIGN BY: JRM  
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

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

SHEET 240 OF 250

DESIGN FILE No. 16-8540



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, 1326.16

*Boyd Rubin*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**

BRW, Inc.  
118 210 0100  
Minneapolis, Minnesota

DESIGN BY: JRM  
DRAWN BY: JAC LEB

ORIGINAL DATE 3/20/99  
REVISIONS \_\_\_\_\_

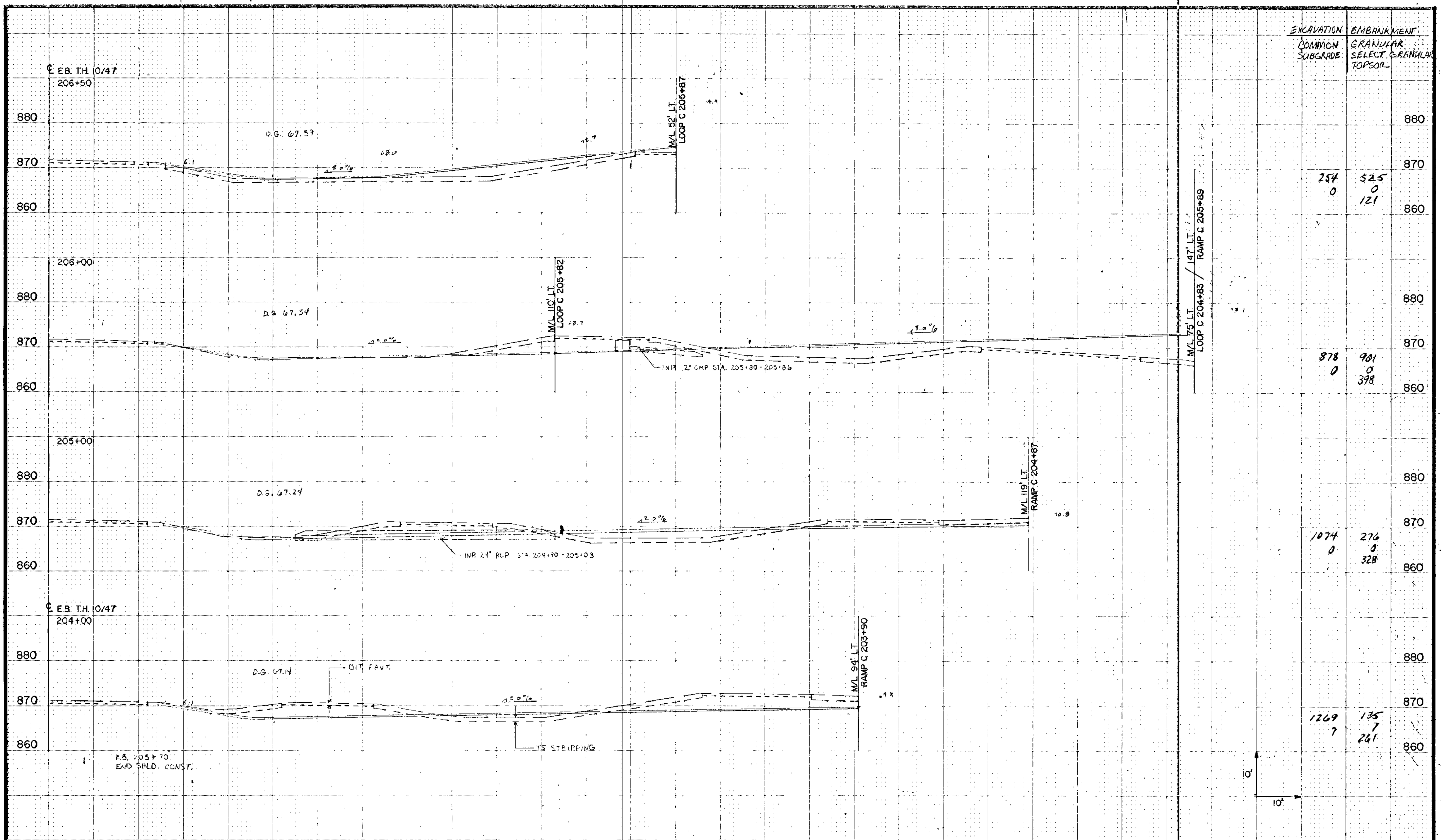
SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 E.B. T.H. 10/47  
 200+00 TO 203+00

S.A.P. NO. C2-609-08

SHEET 241 OF 256

DESIGN FILE  
No. 16-8840



EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL

254	525
0	0
	121

878	901
0	0
	398

1074	276
0	0
	328

1269	135
7	7
	261

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**

DESIGN BY: JRM  
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  
204+00 TO 206+50

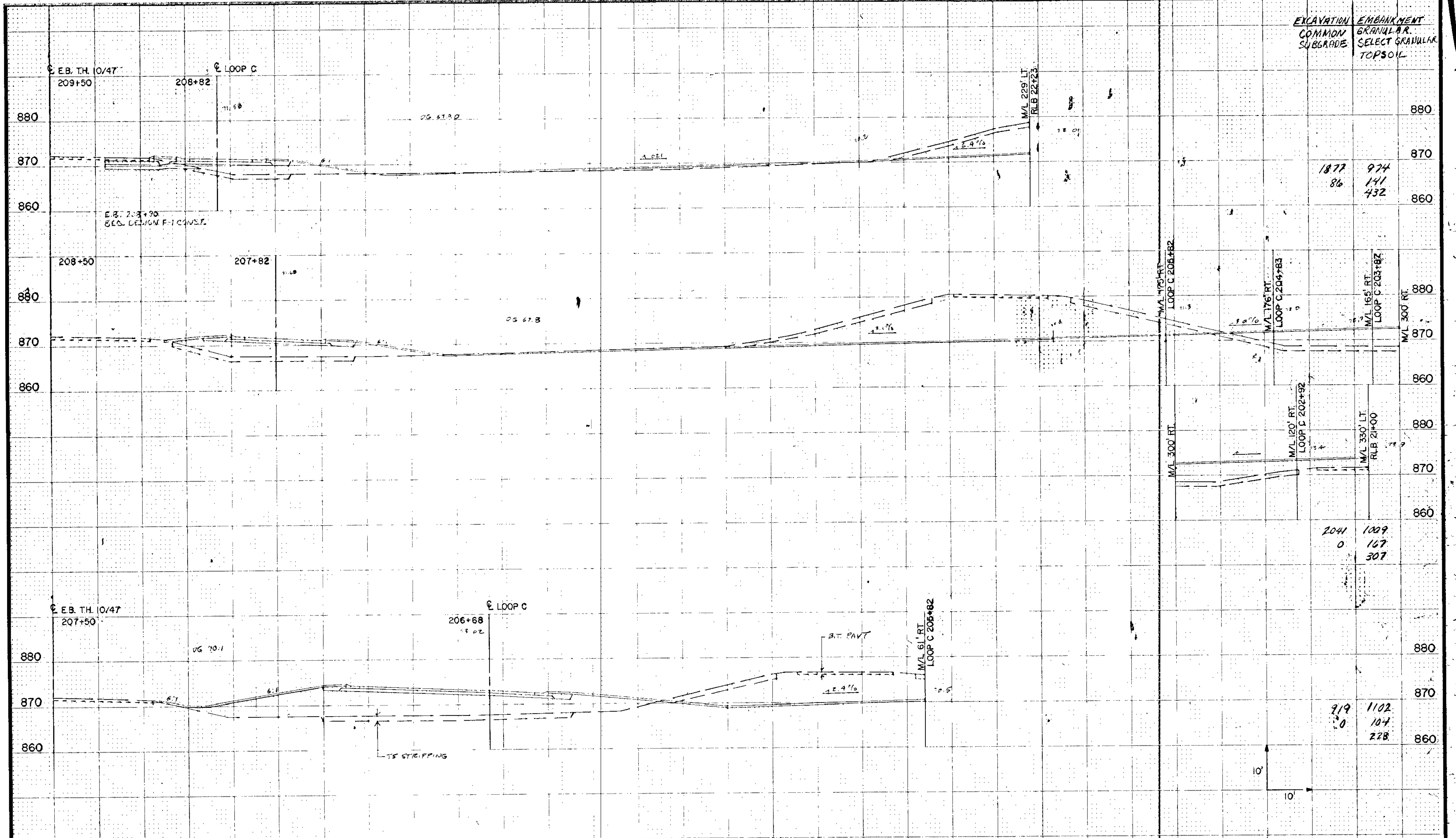
S.A.P. NO. 02-609-08

SHEET 242 OF 256

DESIGN FILE No. 16-8840

EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL



1877  
86

974  
141  
432

2041  
0

1009  
167  
307

919  
0

1102  
104  
228

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 326.18.

*Boyd R. Bahr*

Date \_\_\_\_\_ Minn. Reg. No. J2656.

**BRW**

DESIGN BY: JRM  
DRAWN BY: JAO

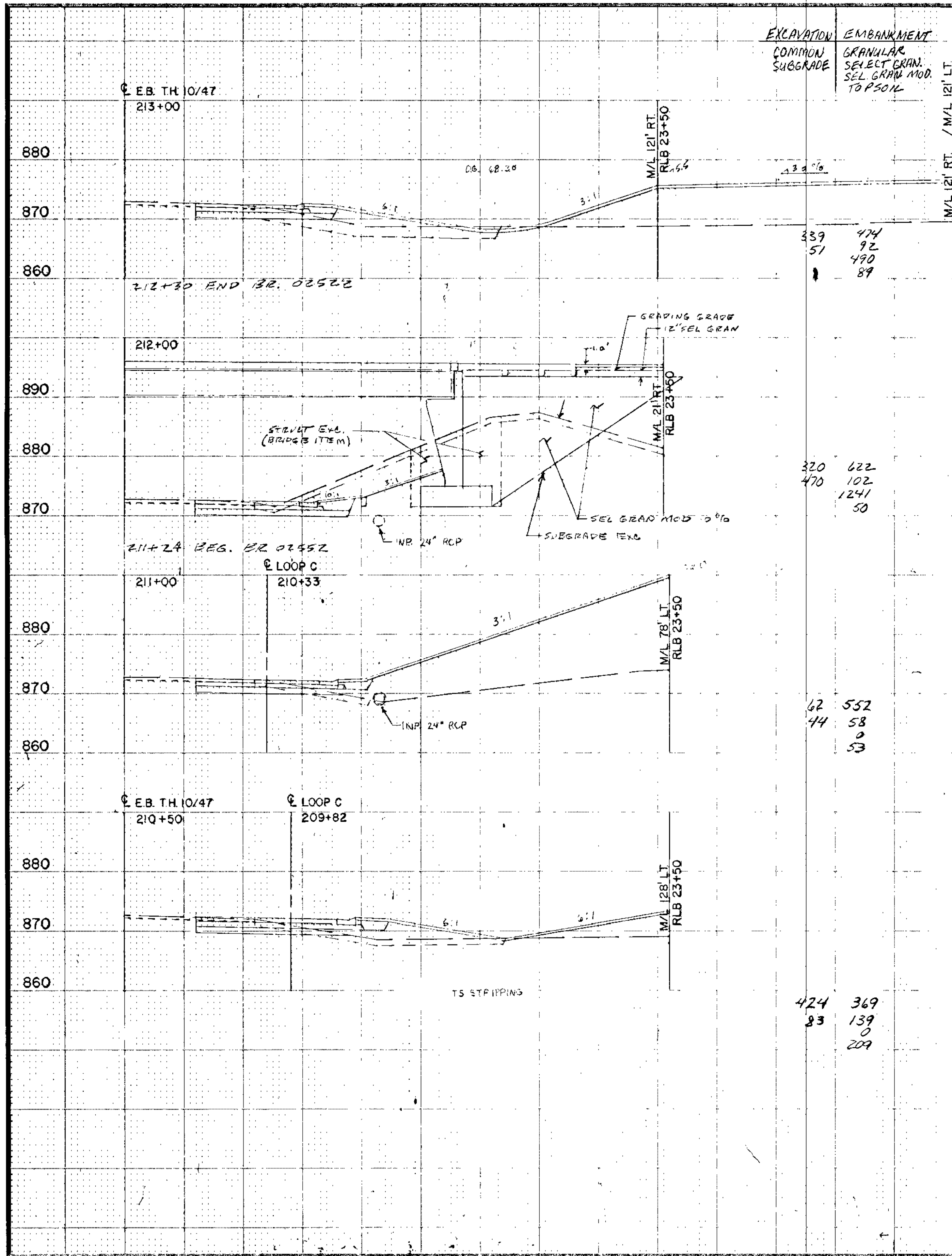
ORIGINAL DATE 3/20/89  
REVISIONS \_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
E.B. TH. 10/47  
207+50 TO 209+50

SHEET 243 OF 256

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

DESIGN FILE  
No. 16-8890



EXCAVATION  
COMMON  
SUBGRADE

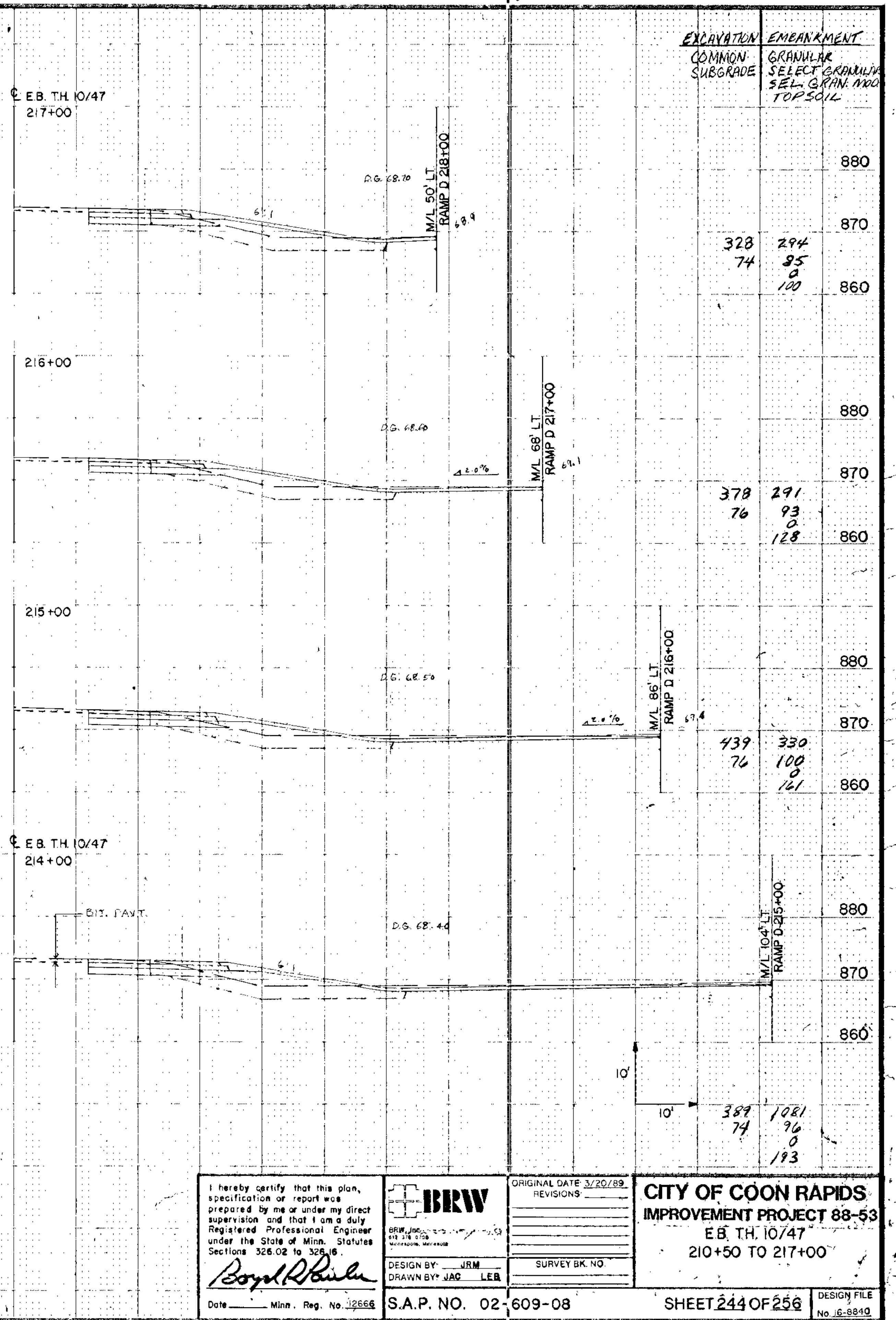
EMBANKMENT  
GRANULAR  
SELECT GRAN.  
SEL GRAN MOD.  
TOPSOIL

339 474  
51 92  
490 89

320 622  
470 102  
1241 50

62 552  
44 58  
53

424 369  
83 139  
209



EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
SEL GRAN MOD  
TOPSOIL

328 294  
74 95  
0 100

378 291  
76 93  
0 128

439 330  
76 100  
0 161

389 1081  
74 96  
0 193

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 \_\_\_\_\_ Minn. Reg. No. 32666

**BRW**

BRW, INC.  
413 1/2 S. 25th  
MINNEAPOLIS, MINNESOTA

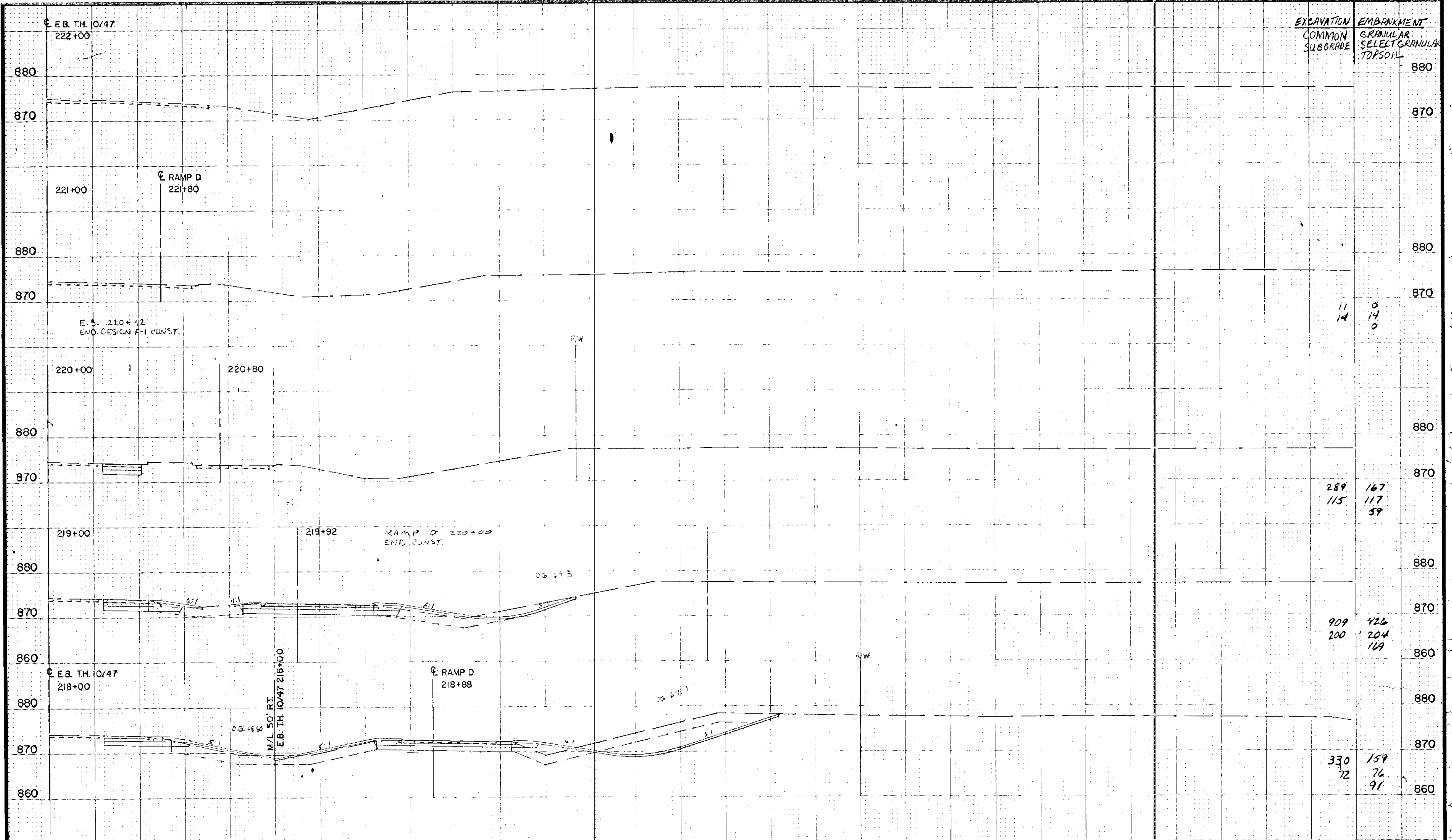
DESIGN BY: JRM  
DRAWN BY: JAC LEB

ORIGINAL DATE 3/20/89  
REVISIONS \_\_\_\_\_

SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
EB TH. 10/47  
210+50 TO 217+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 326.18.

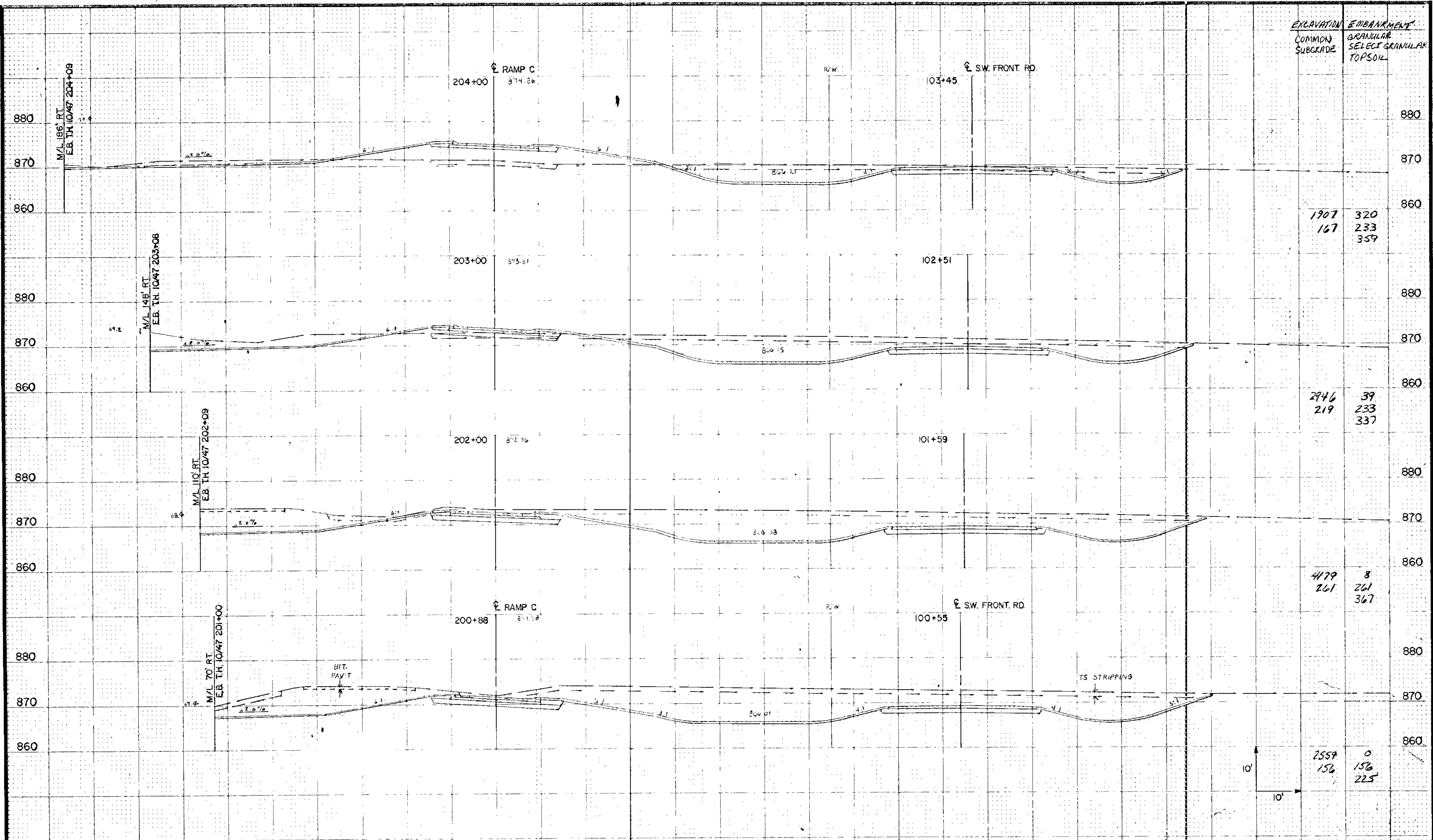
*Boyd Paulsen*  
Date \_\_\_\_\_ Minn. Reg. No. 12666

**BRW**  
BRW, Inc.  
118 7th St. SE  
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**  
E.B. TH. 10/47  
218+00 TO 222+00



EXCAVATION	EMBANKMENT
COMMON	GRANULAR
SUBGRADE	SELECT GRANULAR
	TOPSOIL

1907	320
167	233
	359

2946	39
219	233
	337

4179	8
261	261
	367

2559	0
156	156
	225

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. 12666

**BRW**

DESIGN BY: JRM  
DRAWN BY: JAC LER

ORIGINAL DATE 3/27/89  
REVISIONS \_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

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

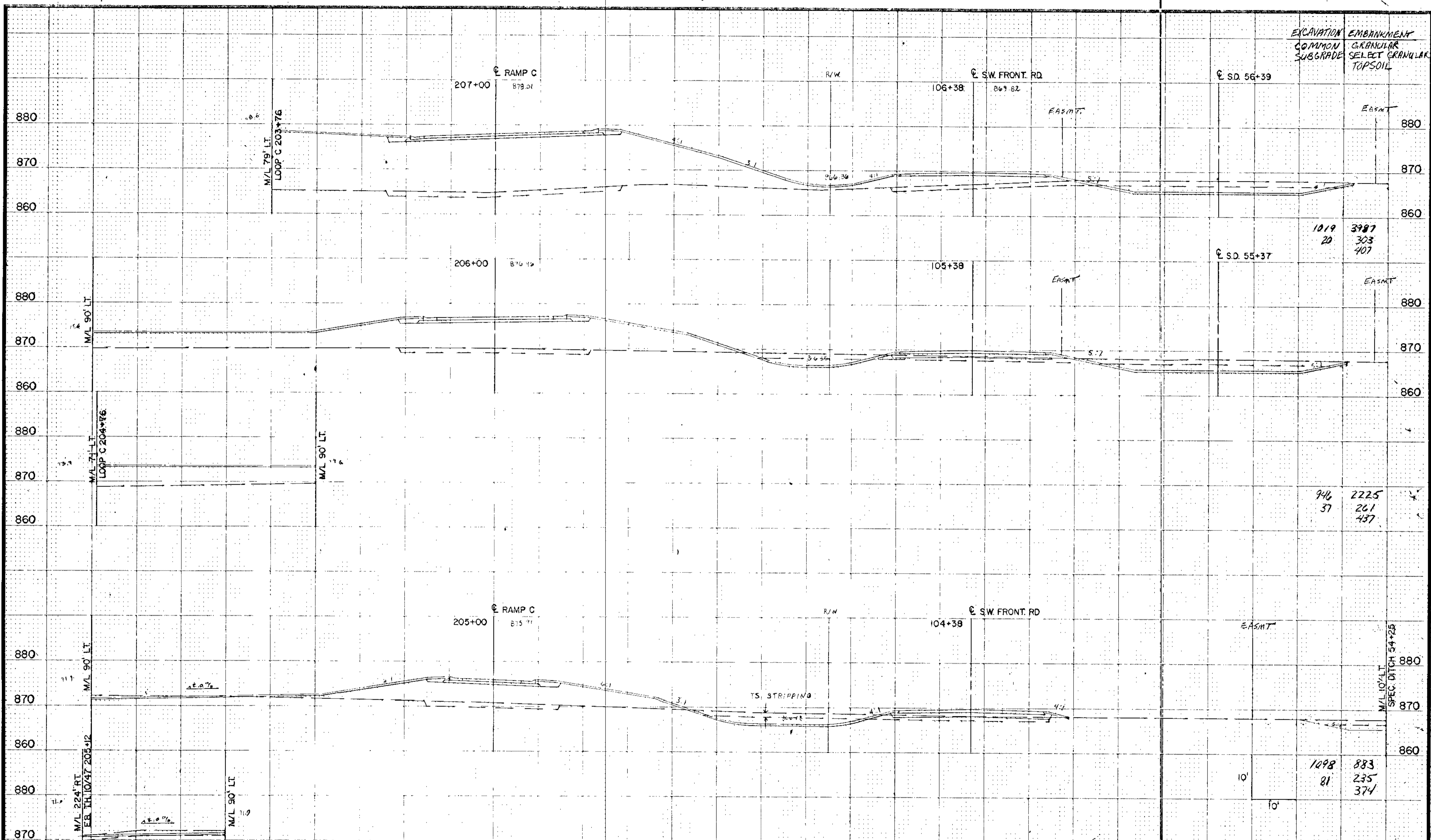
**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
RAMP C  
200+88 TO 204+00

SHEET 246 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 326.10.

*Boyd Rankin*

Date \_\_\_\_\_ Minn. Reg. No. 12666

**IBRW**

DESIGN BY: JRM  
DRAWN BY: JAC LEB

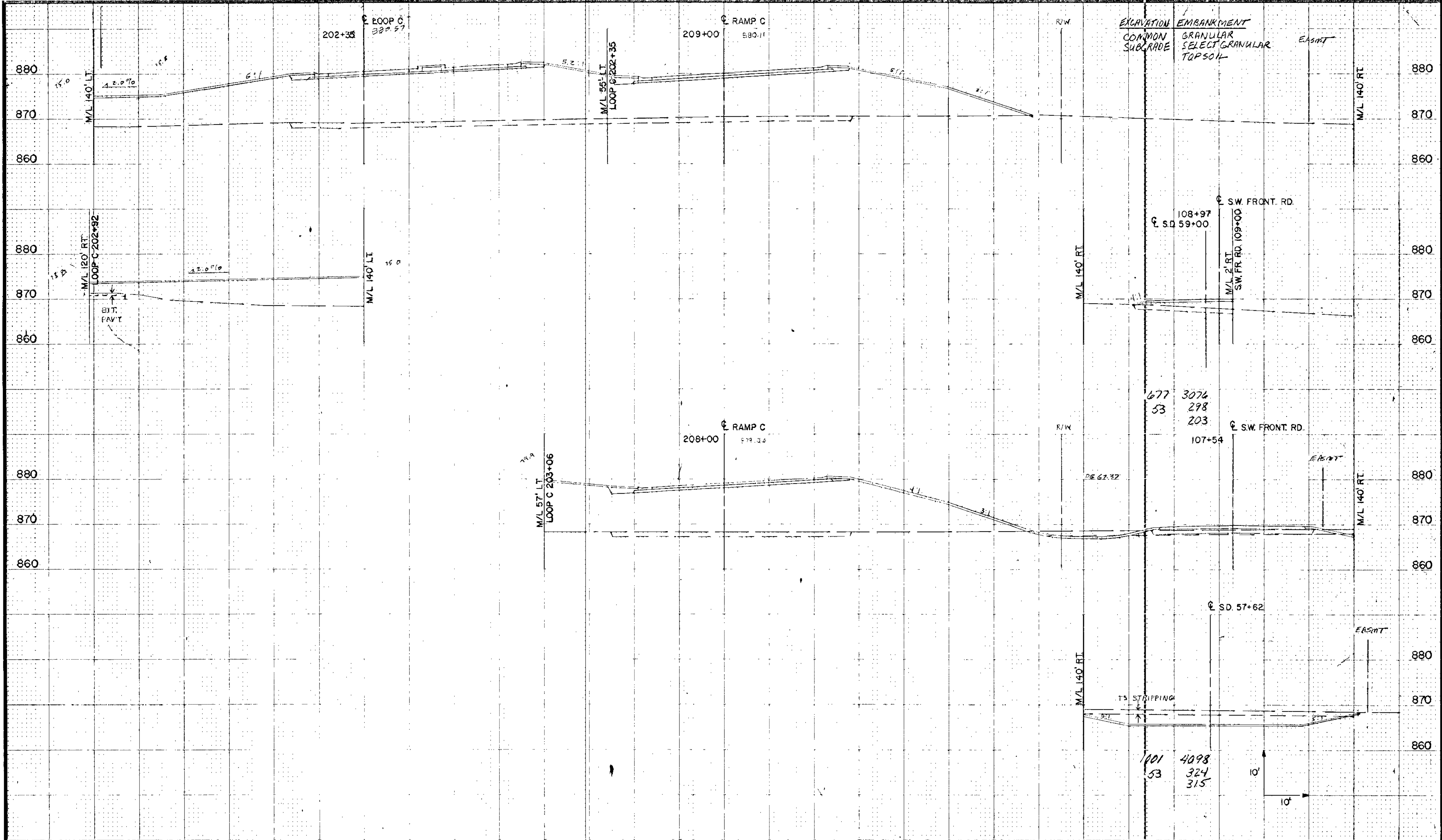
ORIGINAL DATE 3/27/89  
REVISIONS \_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
**RAMP C**  
**205+00 TO 207+00**

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

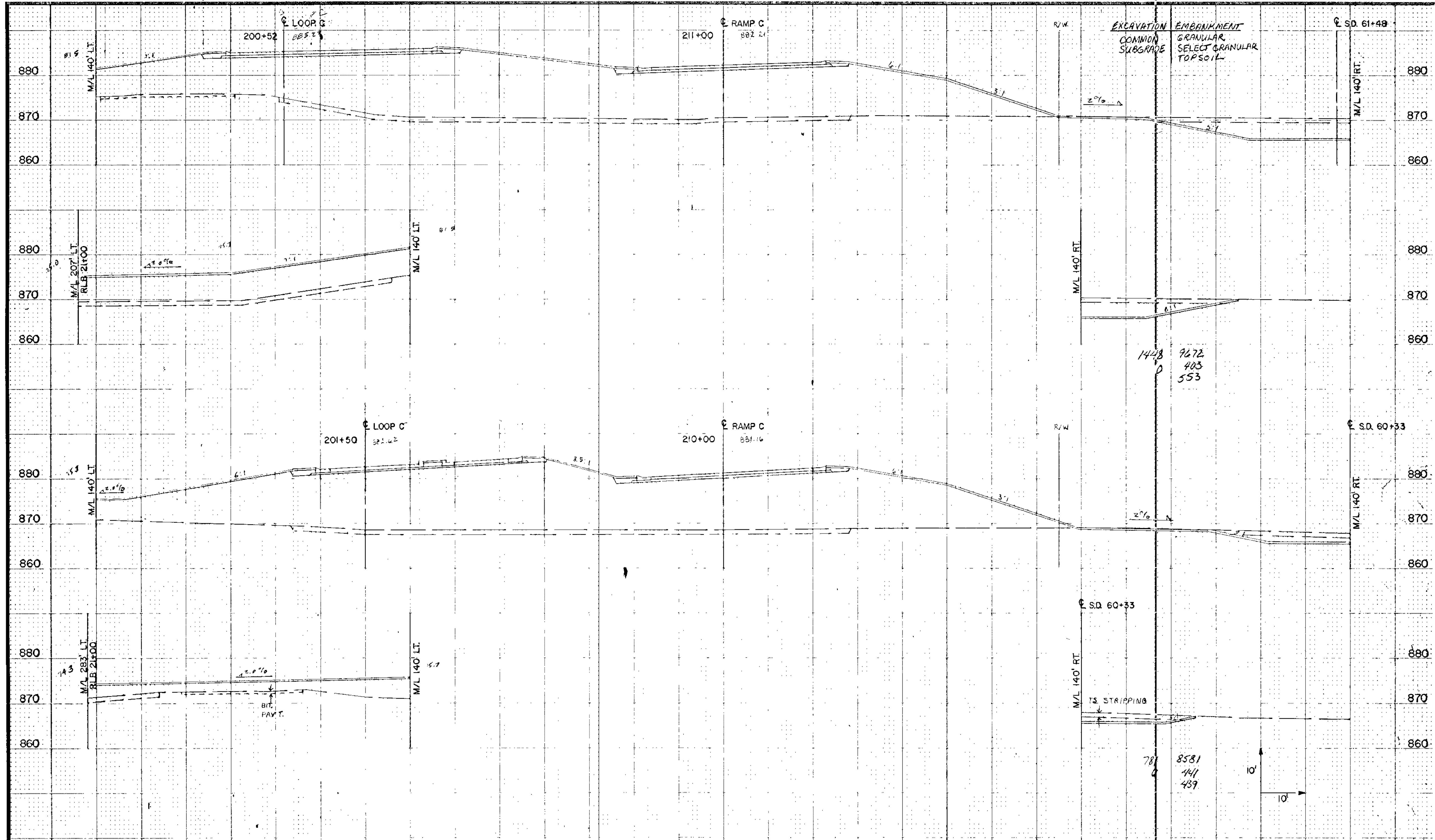
SHEET 247 OF 256

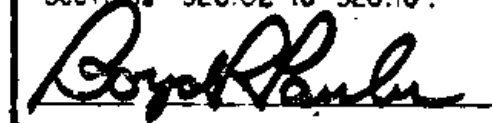

DESIGN FILE  
No 16-8840



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 326.10. <i>Boyd Paul</i> Date: _____ Minn. Reg. No. 12556.	 <small>BRW, INC. 212 278 6700 Newspaper, Minnesota</small>	ORIGINAL DATE 3/29/89 REVISIONS _____	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> <b>RAMP C</b> <b>208+00 TO 209+00</b>
		DESIGN BY JRM DRAWN BY JAC LEB	
S.A.P. NO. 02-609-08		SHEET 248 OF 256	

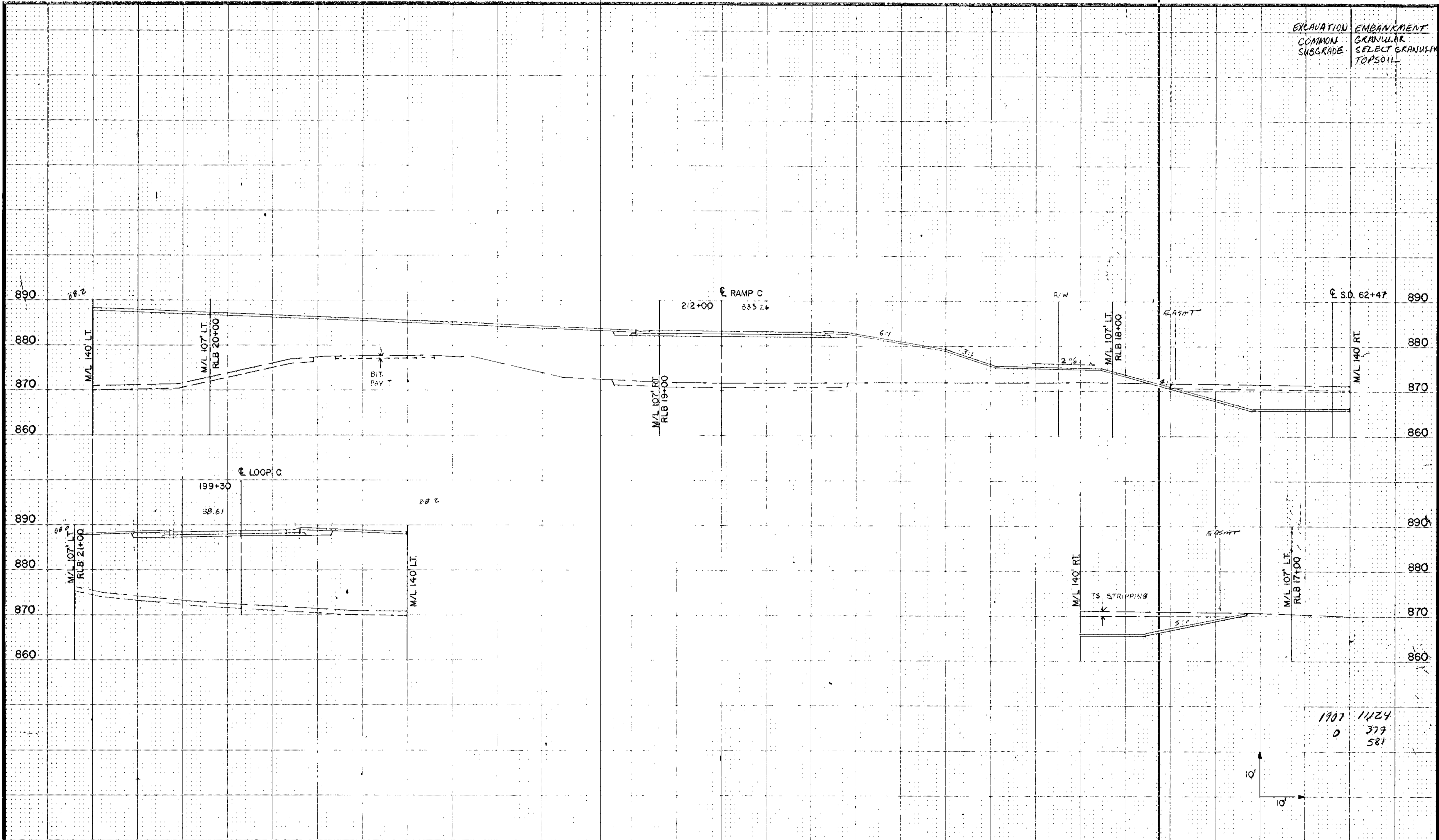
DESIGN FILE No. 16-9840



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 _____ Minn. Reg. No. 12555	 BRW, Inc. 813 218 8708 Minneapolis, Minnesota	ORIGINAL DATE 3/27/89 REVISIONS: _____	<b>CITY OF COON RAPIDS</b> <b>IMPROVEMENT PROJECT 88-53</b> RAMP C 210+00 TO 211+00
		DESIGN BY: JRM DRAWN BY: JAC LEB	
S.A.P. NO. 02-609-08		SHEET 249 OF 256	
		DESIGN FILE No. 16-9840	

EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL



1907 11/24  
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 Paulin*

Date \_\_\_\_\_ Minn. Reg. No. 1266B

**BRW**  
BRW, Inc.  
113 216 0100  
BROOKFIELD, WISCONSIN

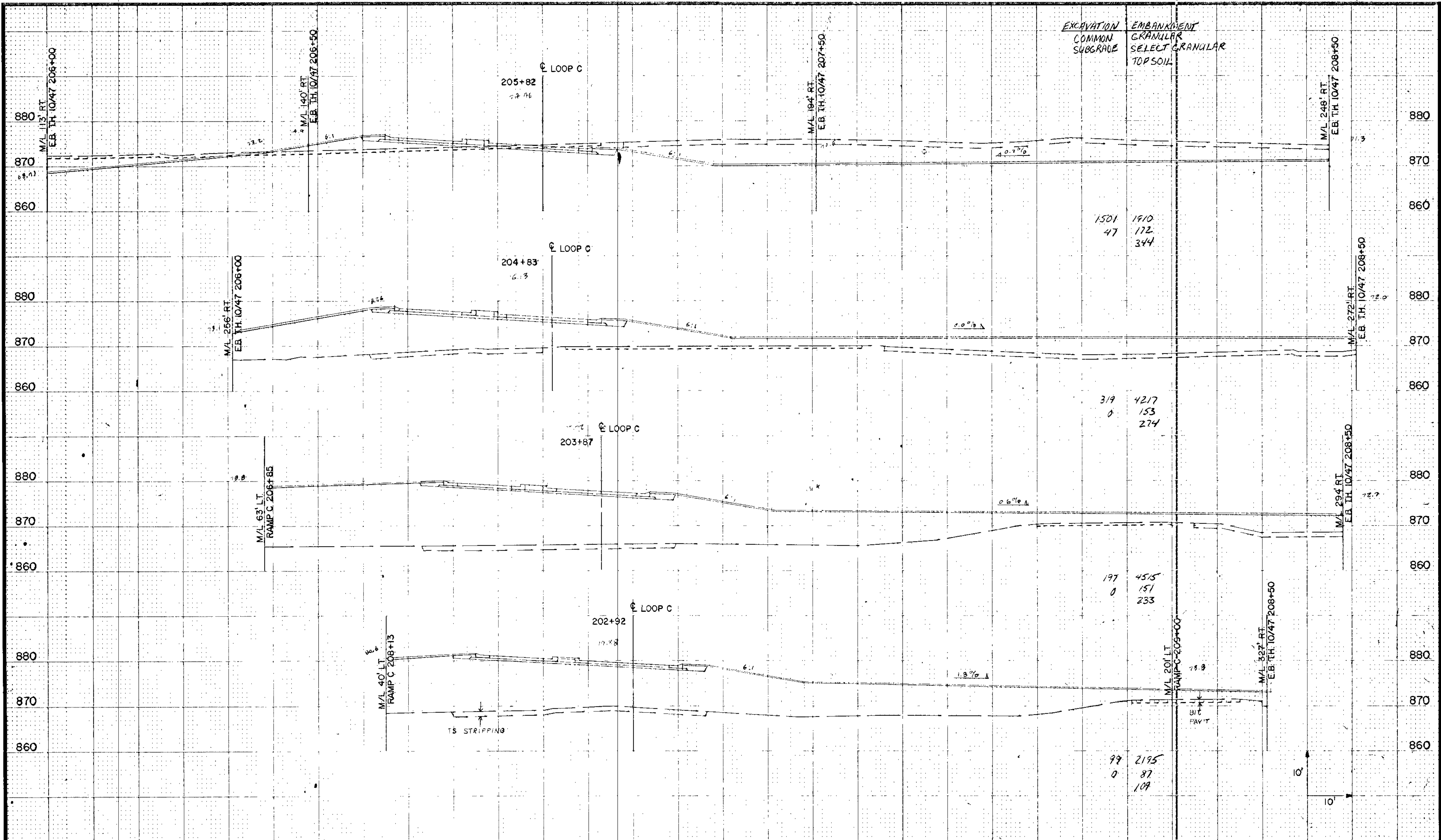
DESIGN BY: JRM  
DRAWN BY: JAC, LEB

ORIGINAL DATE 3/29/89  
REVISIONS \_\_\_\_\_  
SURVEY BK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
RAMP C  
212+00

SHEET 250 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 326.10.

*Royall Ruler*

Date \_\_\_\_\_ Minn. Reg. No. 12566

**BRW**

BRW, INC.  
112 3rd St  
Bryn Mawr, Pennsylvania

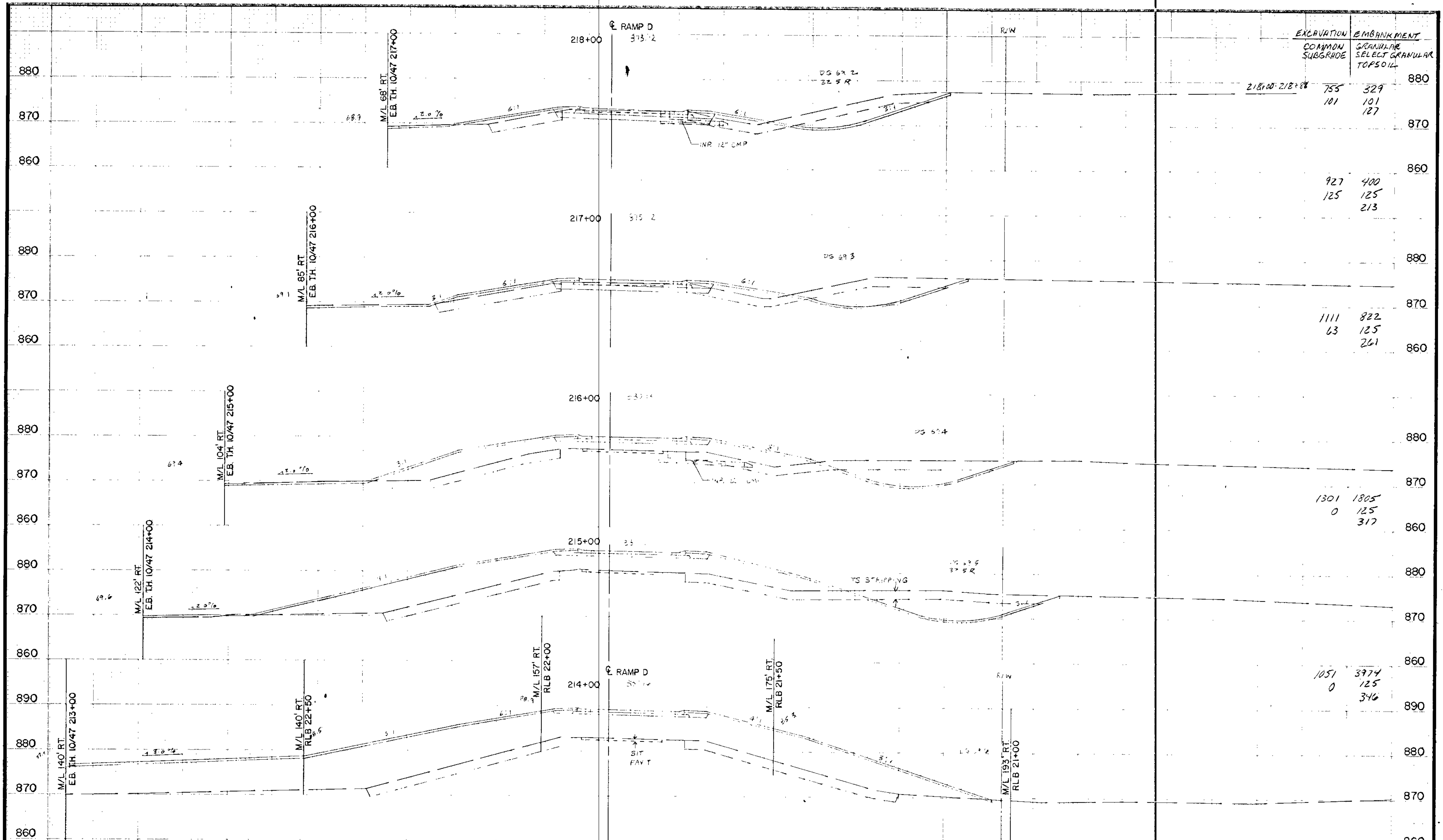
DESIGN BY: JRM  
DRAWN BY: JAC LER

ORIGINAL DATE 3/29/69
REVISIONS:
SURVEY BK. NO.

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
 LOOP C  
 202+92 TO 205+82

SHEET 251 OF 256

DESIGN FILE No. 16-8649



STATION	EXCAVATION		EMBANKMENT	
	COMMON SUBGRADE	SELECT GRANULAR TOPSOIL	GRANULAR	SELECT GRANULAR TOPSOIL
218+00 - 218+88	755	101	329	127
	927	125	400	213
	1111	63	822	125
				261
	1301	0	1805	125
				317
	1051	0	3974	125
				316

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. 2666

BRW, Inc.  
577 7th St. N.  
Minneapolis, MN 55412

ORIGINAL DATE 3/27/89

REVISIONS \_\_\_\_\_

DESIGN BY JRM

DRAWN BY JAC LEE

SURVEY BK NO \_\_\_\_\_

**CITY OF COON RAPIDS**

**IMPROVEMENT PROJECT 88-53**

RAMP D

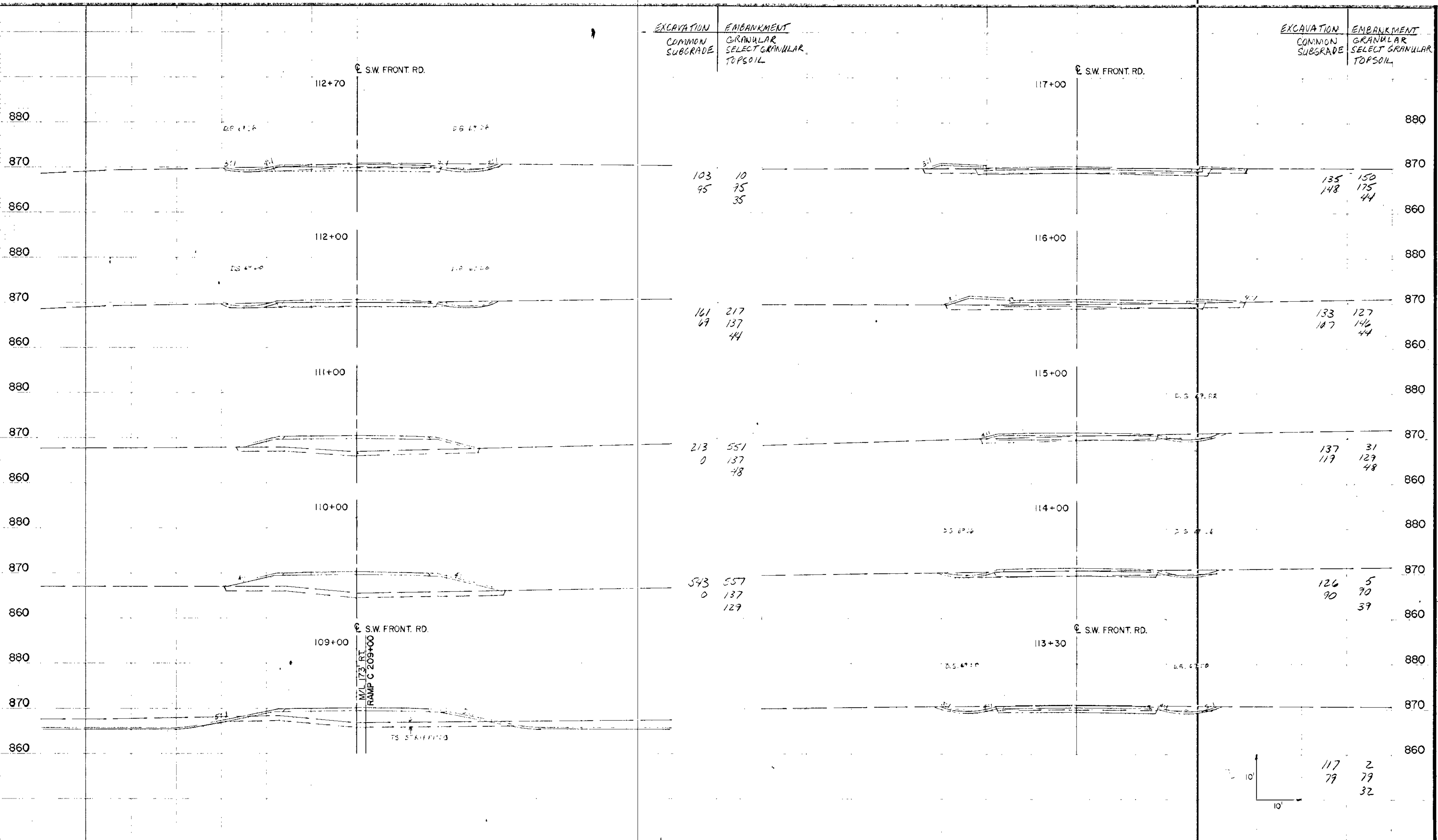
214+00 TO 218+00

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

SHEET 252 OF 256

DESIGN FILE No. 16-8840





EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL

EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL

103  
95

10  
75  
35

135  
148

150  
175  
44

161  
69

217  
137  
44

133  
107

127  
146  
44

213  
0

551  
137  
48

137  
117

31  
129  
48

543  
0

557  
137  
129

126  
90

5  
70  
39

117  
79

2  
79  
32

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.  
172 1/2 S. 2nd  
Minneapolis, MN 55402

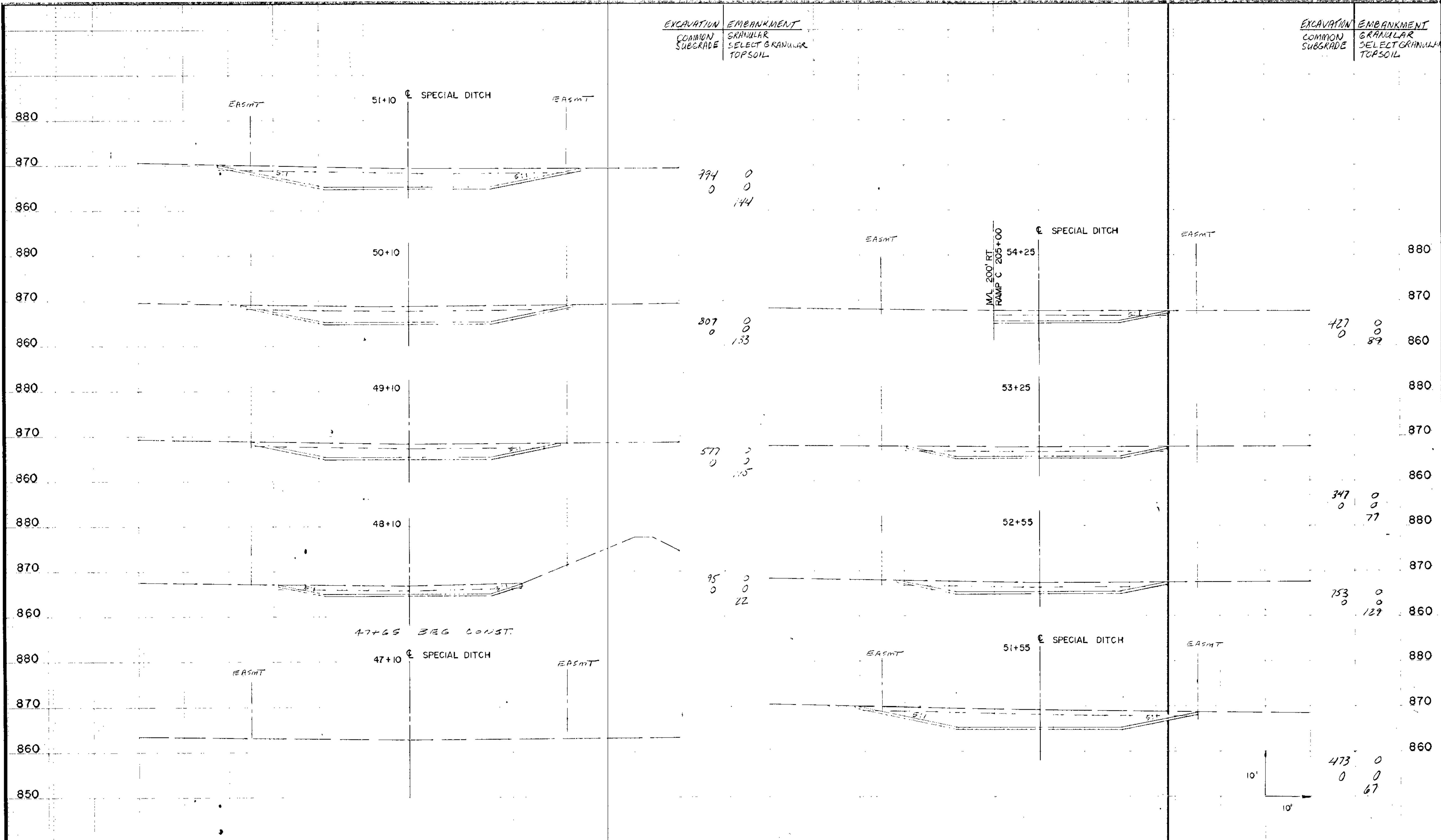
DESIGN BY JRM  
DRAWN BY JAC, LEB

ORIGINAL DATE 4/19/89  
REVISIONS \_\_\_\_\_

SURVEY SK. NO. \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
S.W. FRONTAGE ROAD  
109+00 TO 117+00

DESIGN FILE  
No. 16-8840



EXCAVATION	EMBANKMENT
COMMON	GRANULAR
SUBGRADE	SELECT GRANULAR
	TOPSOIL

EXCAVATION	EMBANKMENT
COMMON	GRANULAR
SUBGRADE	SELECT GRANULAR
	TOPSOIL

794	0
0	0
	144

807	0
0	133

577	0
0	115

95	0
0	0
	12

427	0
0	89

347	0
0	77

753	0
0	129

473	0
0	67

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. Runk*

Date \_\_\_\_\_ Minn. Reg. No. 12665

**BRW**

BRW, Inc.  
117 7th St SE  
Minneapolis, MN 55414

DESIGN BY: JRM  
DRAWN BY: JAC - LEB

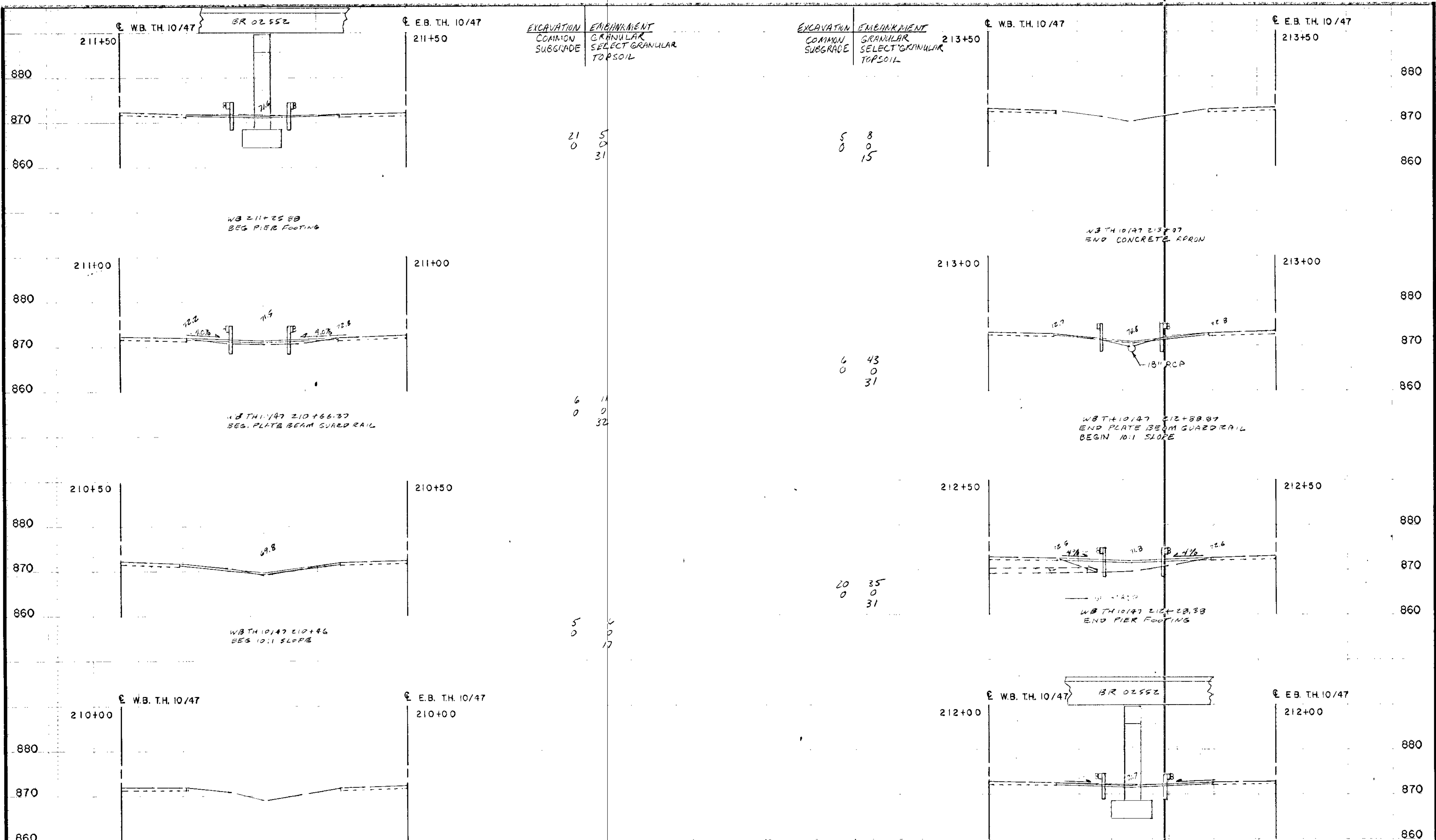
ORIGINAL DATE: 4/19/89  
REVISIONS: \_\_\_\_\_  
SURVEY BK NO: \_\_\_\_\_

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**  
**SPECIAL DITCH**  
**47+10 TO 54+25**

SHEET 254 OF 256

DESIGN FILE No 16-8840

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



EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL

EXCAVATION  
COMMON  
SUBGRADE

EMBANKMENT  
GRANULAR  
SELECT GRANULAR  
TOPSOIL

21  
0

5  
0  
31

5  
0

8  
0  
15

6  
0

11  
0  
32

6  
0

43  
0  
31

5  
0

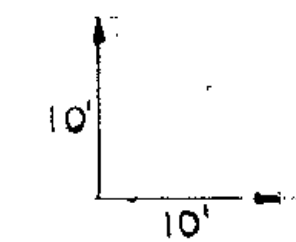
6  
0  
17

20  
0

35  
0  
31

39  
0

0  
0  
31



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. 12666.

**BRW**

DESIGN BY JRM  
DRAWN BY MA

ORIGINAL DATE 7-10-88  
REVISIONS

SURVEY BK NO

**CITY OF COON RAPIDS**  
**IMPROVEMENT PROJECT 88-53**

EB WB. 10/47  
210+00 TO 213+50

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

SHEET 255 OF 256

DESIGN FILE  
No. 15-8840

