

**PLANS SYMBOLS**

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

**UTILITIES SYMBOLS**

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

# MINNESOTA DEPARTMENT OF TRANSPORTATION

## ANOKA COUNTY

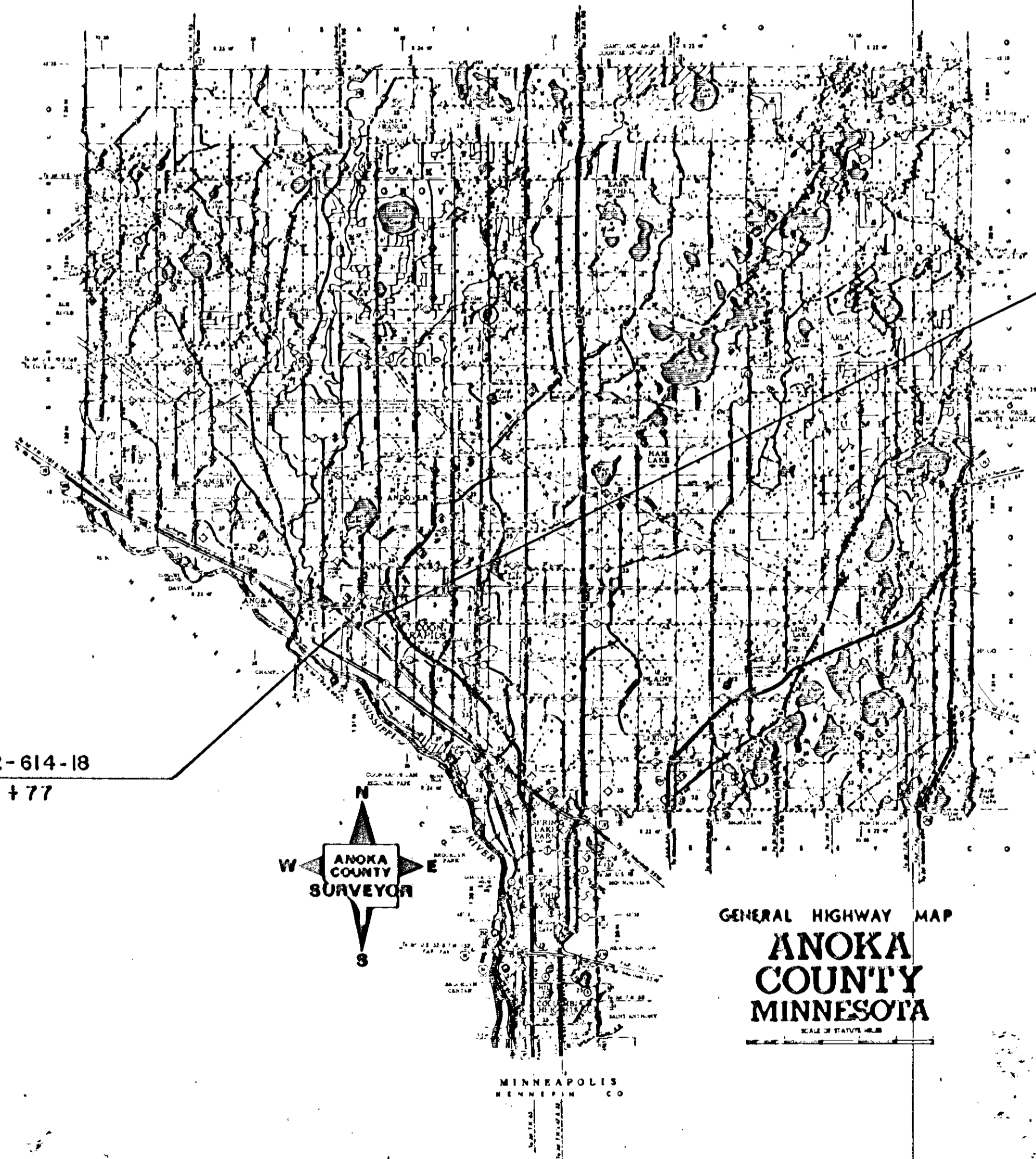
### CONSTRUCTION PLAN FOR GRADING, BASE, SURFACING, DRAINAGE AND BRIDGE NO. 02560

LOCATED ON ( MAIN STREET ) BETWEEN C.S.A.H. 9 (ROUND LAKE BLVD.) AND WEDGEWOOD DRIVE (Geographic Description)

FROM A PT. 514.00' E. OF SW CORNER OF SW 1/4, SECTION 5, T31N, R24W TO A PT. 137.70' W. OF SE CORNER OF SW 1/4, SECTION 5, T31N, R24W (Legal Description)

STATE AID PROJ. NO. 02-614-18

GROSSENGTH	1973.000	FEET	0.374	MILES
BRIDGESLENGTH	241.100	FEET	0.046	MILES
EXCEPTIONSLENGTH	0.000	FEET	0.000	MILES
NET LENGTH	1973.000	FEET	0.374	MILES



BEGIN S.A.P. 02-614-18 STA. 44+77

END S.A.P. 02-614-18 STA. 64+50

**SCALES**

PLAN	50
PROFILE	5
INDEX MAP	2 MI.
CROSS SECTION	10V,10H

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

**GOVERNING SPECIFICATIONS**

THE 1988 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" AND "SUPPLEMENTAL SPECIFICATIONS TO THE 1988 STANDARD SPECIFICATIONS FOR CONSTRUCTION", DATED JANUARY 2, 1991, SHALL GOVERN.

SHEET NO.	INDEX	DESCRIPTION
1	TITLE SHEET	
2	STATEMENT OF ESTIMATED QUANTITIES	
3-8	TRAFFIC CONTROL	
9-12	TEMPORARY TRAFFIC CONTROL SIGNAL SYSTEM	
13	EXISTING TRAFFIC SIGNAL MODIFICATIONS	
14-15	TABULATED QUANTITIES	
16	EARTHWORK SUMMARY AND CONSTRUCTION NOTES	
17-23	DETAIL AND STANDARD PLAN SHEETS	
24	EXISTING CONDITIONS AND REMOVALS	
25	TYPICAL SECTIONS	
26-27	PLANNED CONSTRUCTION	
28-29	SIGNING AND STRIPING	
30	TRAFFIC SIGNAL INTERCONNECTION	
31-42	CROSS SECTIONS	

1-31 BRIDGE NO. 02560

THIS PLAN CONTAINS 73 SHEETS

**DESIGN DESIGNATION**

N18 Factor	3,066,400
R-Value	70
ADT Current Year 1986	= 13,500
ADT (Future Year) 2010	= 39,000
Soil Factor	NA
9 Ton Design	
Shoulder Width	NA

Design Speed 45 MPH  
Based on STOPPING Sight Distance  
Height of eye 3.5' Height of Object 0.5'  
Design Speed not achieved at: NA  
Funct. Classification: Arterial High Density  
4 Traffic Lanes 0 Parking Lanes

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

BRW, INC.

DATE 2-15-91 REG. NO. 20235 ENGR. *Paul Johnson*

Design Squad PAUL JOHNSON

Recommended For Approval *William R. Ottum* 19.91  
CITY OF COON RAPIDS, ENGINEER

Recommended For Approval *Paul Johnson* 19.91  
CITY OF ANOKA, ENGINEER

Approved 2/22 19.91 *James L. Reed*  
ANOKA COUNTY HIGHWAY ENGINEER

Recommended For Approval *C. E. W. Schell* 19.91  
DISTRICT STATE AID ENGINEER

Recommended For Approval *State Aids Engineer* 4-1-91  
STATE AID PLANS AND SPECS ENGINEER

Approved 4-1 19.91 *Demis C. Colton*  
STATE AID ENGINEER

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

DATE REG. NO.

STATE AID PROJ. NO. 02-614-18  
STATE PROJ. NO.

SHEET NO. 1 OF 42 SHEETS



STATEMENT OF ESTIMATED QUANTITIES

CHART NO.	ITEM NO.	ITEM	UNIT	S.A.P. 02-614-18		STORM SEWER		TOTAL	
				ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
	0013.601	SURVEY EQUIPMENT	LUMP SUM	0.96		0.04		1.00	
	2021.501	MOBILIZATION	LUMP SUM	0.96		0.04		1.00	
	2031.501	FIELD OFFICE TYPE D	EACH	0.96		0.04		1.00	
	0100.603	TEMPORARY RAILROAD CROSSING	LUMP SUM	1				1	
B	2101.501	CLEARING	ACRE	3.50				3.50	
B	2101.502	CLEARING	TREE	8				8	
B	2101.506	GRUBBING	ACRE	3.50				3.50	
B	2101.507	GRUBBING	TREE	8				8	
C	2102.502	PAVEMENT MARKING REMOVAL (1)(2)	LIN FT	3,045				3,045	
A	2104.501	REMOVE PIPE CULVERTS	LIN FT	103				103	
A	2104.501	REMOVE BITUMINOUS CURB	LIN FT	1,035				1,035	
A	2104.501	REMOVE RIGID STEEL CONDUIT	LIN FT	373				373	
A	2104.501	REMOVE CHAIN LINK FENCE	LIN FT	50				50	
A	2104.505	REMOVE BITUMINOUS PAVEMENT (3)	SQ YD	12,354				12,354	
A	2104.505	REMOVE BITUMINOUS MEDIAN	SQ YD	333				333	
A	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	164				164	
A	2104.521	SALVAGE 1-2/C#14	LIN FT	373				373	
A	2104.523	SALVAGE LOOP DETECTORS	EACH	2				2	
A	2104.523	SALVAGE SIGNS TYPE C	EACH	23				23	
A	2104.523	SALVAGE HANDHOLES	EACH	2				2	
	2105.501	COMMON EXCAVATION	CU YD	4,923 P				4,923	
	2105.507	SUBGRADE EXCAVATION	CU YD	838 P				838	
	2105.521	GRANULAR BORROW (CV)	CU YD	155,641 P				155,641	
	2105.522	SELECT GRANULAR BORROW (CV)	CU YD	5,459 P				5,459	
	2105.522	SELECT GRANULAR BORROW MOD. 10% (CV) (4)	CU YD	1,108 P				1,108	
	2130.501	WATER (5)	M GAL	30				30	
F	2211.503	AGGREGATE BASE PLACED CLASS 6A	CU YD	2,183 P				2,183	
	2301.553	BRIDGE APPROACH PANELS	SQ YD	364 P				364	
F	2331.508	TYPE 61 WEARING COURSE MIXTURE	TON	696				696	
F	2331.510	TYPE 41 BINDER COURSE MIXTURE (6)	TON	1,851				1,851	
F	2331.514	TYPE 31 BASE COURSE MIXTURE (6)	TON	2,527				2,527	
F	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GAL	1,163				1,163	
A	0451.601	CRUSHED ROCK BEDDING (CV)	CU YD	1,037 P				1,037 P	
I	2503.541	12" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT			114		114	
I	2503.541	15" RC PIPE SEWER DESIGN 3006 CLASS III	LIN FT			690		690	
I	2506.506	CONSTRUCT DRAINAGE STRUCTURE DESIGN C OR G	LIN FT			31.3		31.3	
I	2506.507	CONSTRUCT DRAINAGE STRUCTURE DESIGN A OF F	LIN FT			9.3		9.3	
J	2506.516	CASTING ASSEMBLIES	EACH			8		8	
	0506.602	CONNECT INTO EXISTING STORM SEWER	EACH			2		2	
G	2521.501	3" CONCRETE WALK	SQ FT	22,192				22,192	
G	2531.501	CONCRETE C & G DES B624	LIN FT	6,689				6,689	
G	2531.501	CONCRETE C & G DES B624 (MODIFIED)	LIN FT	216				216	
G	0531.603	CONCRETE C & G TRANSITION	LIN FT	28				28	
E	2554.501	TRAFFIC BARRIER DES B8307	LIN FT	200				200	
E	2554.523	TWISTED END TREATMENT	EACH	4				4	
E	0554.603	GUARDRAIL TRANSITION CONNECTION	LIN FT	100				100	
	2557.529	TEMPORARY FENCE (15)	LIN FT	175				175	

NOTES:

- (1) SEE TRAFFIC CONTROL PLANS AND REISLING BOULEVARD STRIPING PLAN FOR REMOVAL LIMITS.
- (2) FOR USE AS DIRECTED BY THE ENGINEER.
- (3) INCLUDES ALL BITUMINOUS SURFACING REGARDLESS OF THE THICKNESS OF PAVEMENT.
- (4) FOR BRIDGE APPROACH TREATMENT.
- (5) FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
- (6) INCLUDES QUANTITY FOR ADDING 1/4" TO THE DESIGN THICKNESS AND TABULATED QUANTITY.
- (7) INCLUDES SIGNAL MODIFICATIONS AS REQUIRED BY THE DETOUR.
- (8) FOR TRAFFIC CONTROL AS DIRECTED BY THE ENGINEER. INCLUDES SUBSEQUENT REMOVAL.
- (9) INCLUDES ALL ITEMS NECESSARY FOR THE COMPLETION OF THE WORK.
- (10) FOR TEMPORARY EROSION CONTROL AS DIRECTED BY THE ENGINEER.
- (11) SEE TRAFFIC CONTROL PLANS FOR PLACEMENT LIMITS.
- (12) INCLUDES QUANTITY FOR ADDING 10% TO THE TABULATED QUANTITY.
- (13) SEE SPECIAL PROVISIONS FOR UNIT DAY PRICE SCHEDULE FOR PAYMENT OF ITEMS USED IN ADDITION TO THOSE SHOWN IN THE PLANS.
- (14) PAINTED PAVEMENT MARKINGS MAY BE SUBSTITUTED FOR EPOXY PAVEMENT MARKINGS, IF DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE AT ONE-HALF THE UNIT COST FOR EPOXY.
- (15) SEE "EXISTING CONDITIONS AND REMOVAL PLAN" FOR LOCATION OF FENCE.

STATEMENT OF ESTIMATED QUANTITIES (CONT.)

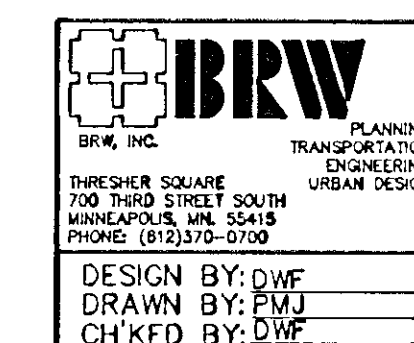
CHART NO.	ITEM NO.	ITEM	UNIT	S.A.P. 02-614-18		STORM SEWER		TOTAL	
				ESTIMATED	FINAL	ESTIMATED	FINAL	ESTIMATED	FINAL
K	0563.601	TRAFFIC CONTROL (13)	LUMP SUM	0.96		0.04		1.00	
D	0563.603	ONE-WAY TEMP RAISED PAVEMENT MARKER (8)(12)	EACH	185				185	
	0563.603	REPLACE ONE-WAY TRPM (8)	EACH	25				25	
L	2564.631	F & I SIGN PANELS TYPE C	SQ FT	121				121	
	0564.602	INSTALL SIGNS TYPE C	EACH	12				12	
M	0564.602	PAVT MESSAGE (LT ARROW) EPOXY (14)	EACH	14				14	
M	0564.602	PAVT MESSAGE (RT ARROW) EPOXY (14)	EACH	9				9	
M	0564.602	PAVT MESSAGE (ONLY) EPOXY (14)	EACH	26				26	
M	0564.603	4" SOLID LINE WHITE - PAINT	LIN FT	11,674				11,674	
M	0564.603	8" SOLID LINE WHITE - PAINT	LIN FT	130				130	
M	0564.603	4" BROKEN LINE WHITE - PAINT (10-40)	LIN FT	1,678				1,678	
M	0564.603	24" STOP LINE WHITE - EPOXY (14)	LIN FT	104				104	
M	0564.603	4" SOLID LINE YELLOW - PAINT	LIN FT	7,470				7,470	
M	0564.603	4" DOUBLE SOLID LINE YELLOW - PAINT	LIN FT	680				680	
	0565.601	SALVAGE TEMPORARY SIGNAL SYSTEM "A"	LUMP SUM	1				1	
	0565.601	TRAFFIC CONTROL INTERCONNECTION "B" (7)(9)	LUMP SUM	1				1	
	0565.601	TRAFFIC CONTROL INTERCONNECTION "C" (7)(9)	LUMP SUM	1				1	
	0565.604	TEMPORARY TRAFFIC SIGNAL SYSTEM "A"	SYSTEM	1				1	
	2573.501	BALE CHECK (10)	EACH	50				50	
	2573.502	SILT FENCE, HEAVY DUTY (10)	LIN FT	1,600				1,600	
	2575.501	ROADSIDE SEEDING	ACRE	4.4				4.4	
H	2575.502	SEED MIXTURE 1000	POUND	167				167	
H	2575.505	SODDING	SQ YD	3,669				3,669	
H	2575.511	MULCH MATERIAL TYPE 1	TON	1.5				1.5	
H	2575.519	DISC ANCHORING	ACRE	0.7				0.7	
H	2575.523	WOOD FIBER BLANKETS, TYPE REGULAR	SQ YD	17,809				17,809	
H	2575.532	COMMERCIAL FERT ANALYSIS 10-20-20	POUND	2,326				2,326	
D	2581.501	REM. PREF. PLASTIC PAVEMENT MARKING (11)(12)	LIN FT	3,200				3,200	

STANDARD PLATES

PLATE NO.	DESCRIPTION
0005 A	SPECIFICATION REFERENCE TO STANDARD PLATES
1120 S	CONTRACTION JOINTS
1140 S	LONGITUDINAL JOINTS
1141 C	PAVEMENT KEYWAY FOR KEYED JOINT CONSTRUCTION
3000 L	REINFORCED CONCRETE PIPE
3006 F	GASKET JOINT FOR R.C. PIPE
4000 I	MANHOLE OR CATCH BASIN
4002 E	MANHOLE OR CATCH BASIN
4005 K	MANHOLE OR CATCH BASIN
4010 G	CONCRETE SHORT CONE AND ADJUSTING RING
4011 D	PRECAST CONCRETE BASE
4126 E	CATCH BASIN FRAME CASTING
4149 C	GRATE CASTING FOR CATCH BASIN
4161 F	CURB BOX CASTING FOR CATCH BASIN
4180 H	MANHOLE OR CATCH BASIN STEP
7100 F	CONCRETE CURB AND GUTTERS
7110 E	CURB AND GUTTER CONSTRUCTION AT CATCH BASIN
7111 G	INSTALLATION AND REINFORCEMENT OF CATCH BASIN CASTINGS
8000 I	STANDARD BARRICADES
8117 F	PRECAST CONCRETE HANDHOLE (OR PULLBOX)
8307 N	STEEL PLATE BEAM GUARDRAIL
8318 C	GUARDRAIL ANCHORAGE PLATE FOR BRIDGES AND BCT'S
8319 G	TWISTED END TREATMENT

INDEX OF TABULATION CHARTS

SHEET NO.	CHART	DESCRIPTION
14	A	MISC. REMOVALS AND SALVAGES
14	B	CLEARING AND GRUBBING
14	C	PAVEMENT MARKING REMOVAL
14	D	TEMPORARY LANE MARKINGS
14	E	GUARDRAIL
15	F	BITUMINOUS AND AGGREGATE SUMMARY
15	G	CURB & GUTTER AND CONCRETE WALK SUMMARY
15	H	TURF ESTABLISHMENT
15	I	DRAINAGE TABULATION
15	J	DRAINAGE CASTING SCHEDULE
8	K	TRAFFIC CONTROL DEVICES
29	L	TYPE "C" SIGNS
29	M	PAVEMENT MARKINGS AND MESSAGES



ORIGINAL DATE 2/20/91  
 REVISIONS ADD CRUSHED ROCK, 3/5/91

DESIGN BY: DWF  
 DRAWN BY: PUJ  
 CHECKED BY: DWF

SURVEY BOOK

ANOKA COUNTY  
 C.S.A.H. 14 OVER B.N.R.R.  
 ESTIMATED QUANTITIES

**GENERAL NOTES:**

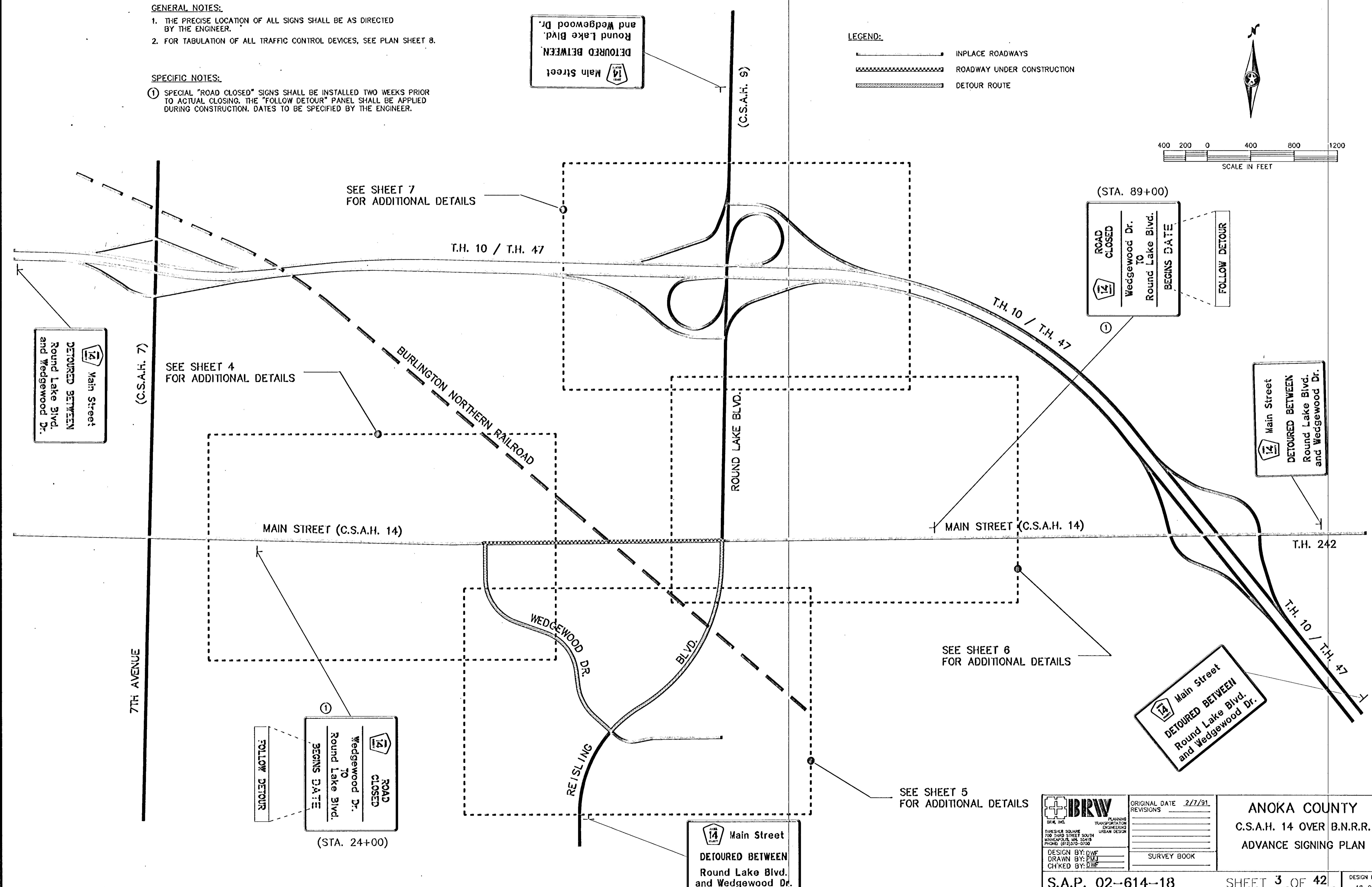
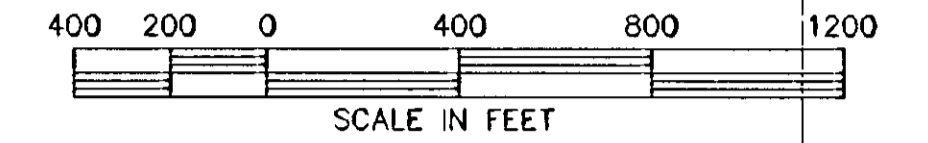
1. THE PRECISE LOCATION OF ALL SIGNS SHALL BE AS DIRECTED BY THE ENGINEER.
2. FOR TABULATION OF ALL TRAFFIC CONTROL DEVICES, SEE PLAN SHEET 8.

**SPECIFIC NOTES:**

- ① SPECIAL "ROAD CLOSED" SIGNS SHALL BE INSTALLED TWO WEEKS PRIOR TO ACTUAL CLOSING. THE "FOLLOW DETOUR" PANEL SHALL BE APPLIED DURING CONSTRUCTION. DATES TO BE SPECIFIED BY THE ENGINEER.

**LEGEND:**

- INPLACE ROADWAYS
- ROADWAY UNDER CONSTRUCTION
- DETOUR ROUTE



①  
ROAD CLOSED  
Wedgewood Dr.  
TO  
Round Lake Blvd.  
BEGINS DATE  
FOLLOW DETOUR

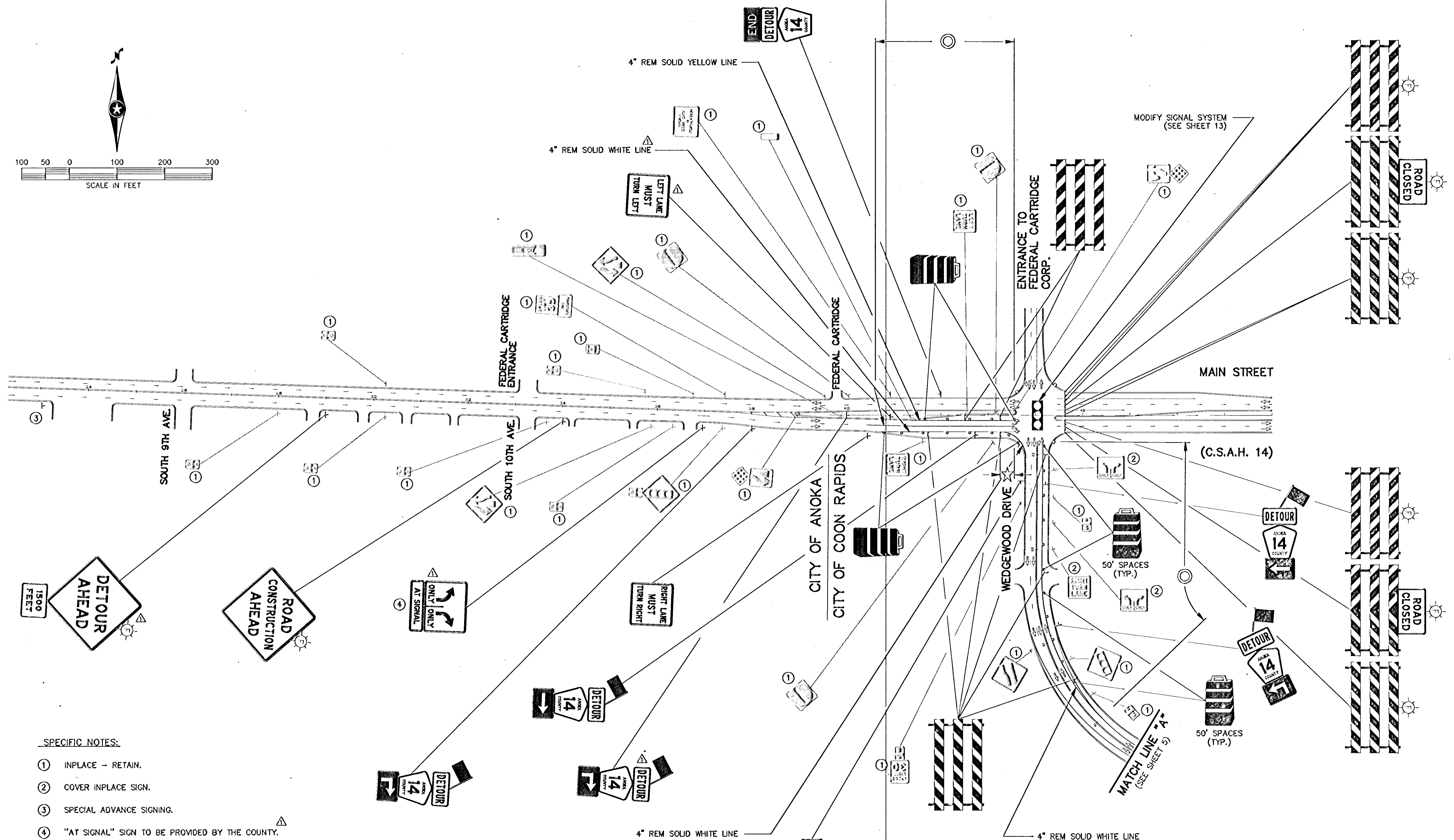
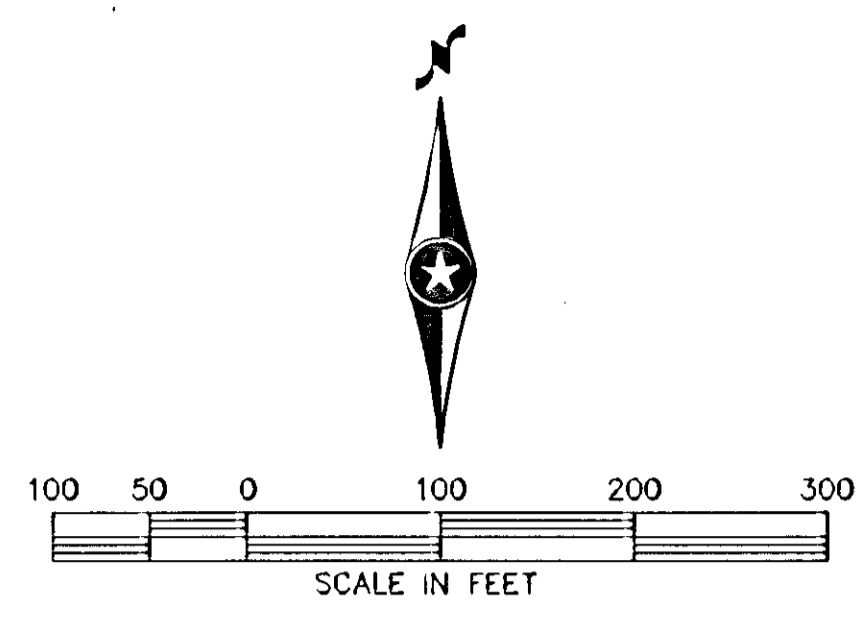
(STA. 24+00)

(STA. 89+00)  
ROAD CLOSED  
Wedgewood Dr.  
TO  
Round Lake Blvd.  
BEGINS DATE  
FOLLOW DETOUR

<p><b>IBRW</b> INCORPORATED PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 379-0700</p>	ORIGINAL DATE 2/7/91 REVISIONS
	SURVEY BOOK

**ANOKA COUNTY**  
C.S.A.H. 14 OVER B.N.R.R.  
ADVANCE SIGNING PLAN



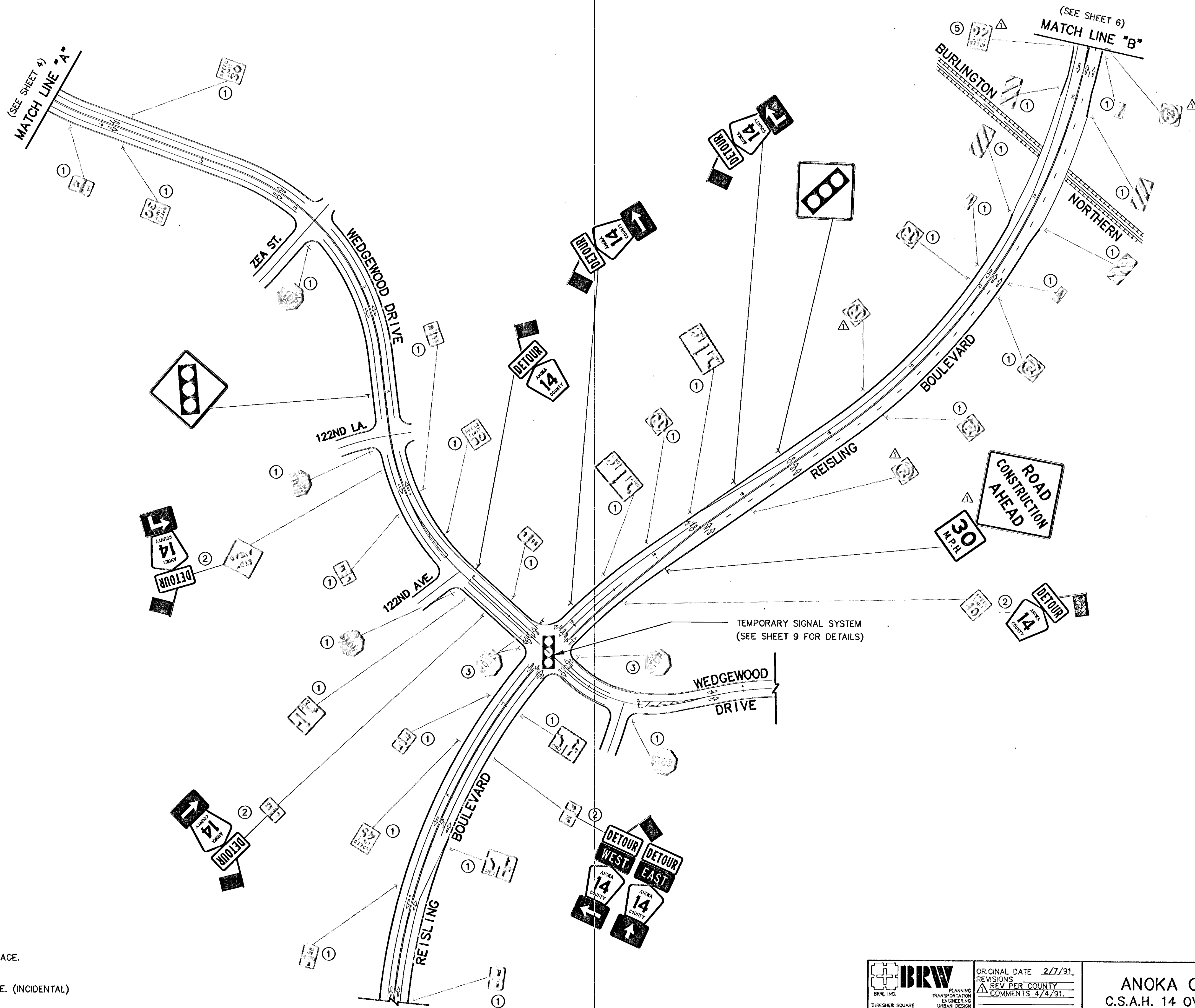
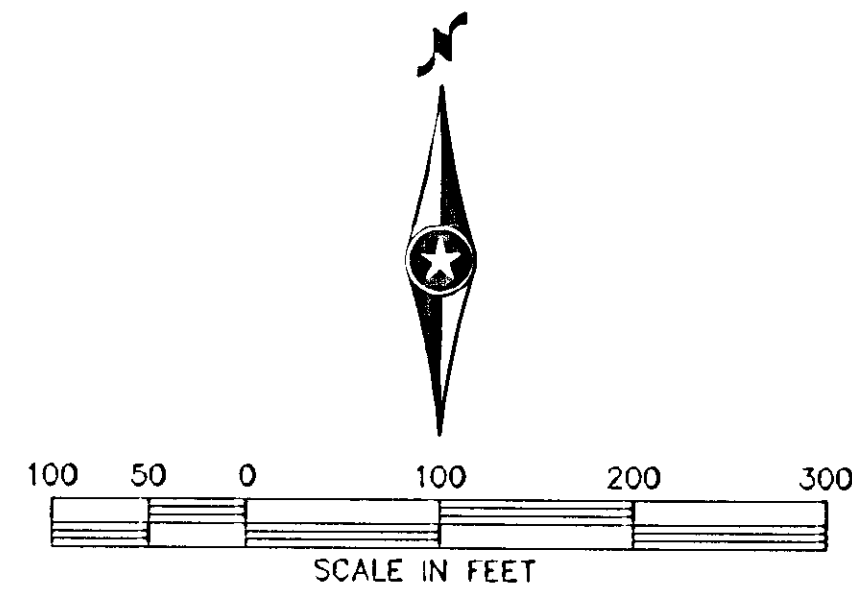


- SPECIFIC NOTES:**
- ① INPLACE - RETAIN.
  - ② COVER INPLACE SIGN.
  - ③ SPECIAL ADVANCE SIGNING.
  - ④ "AT SIGNAL" SIGN TO BE PROVIDED BY THE COUNTY.

- GENERAL NOTES:**
- 1. ALL SIGNS AND DEVICES SHOWN IN BOLD SHALL BE INSTALLED THIS STAGE.
  - 2. SEE SHEET 8 FOR GENERAL NOTES AND LEGEND.
  - 3. ALL SALVAGED SIGNS SHALL BE REINSTALLED AT COMPLETION OF STAGE. (INCIDENTAL)

<p>BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>700 SHEP SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 338-6700</p> <p>DESIGN BY: DJW DRAWN BY: PMJ CHECKED BY: DJW</p>	<p>ORIGINAL DATE 2/15/91</p> <p>REVISIONS BY REV FOR COUNTY DATE COMMENTS 4/4/91.</p>	<p><b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R.</p> <p>TRAFFIC CONTROL DETAILS</p>
	<p>SURVEY BOOK</p>	
<p>S.A.P. 02-614-18</p>		<p>SHEET 4 OF 42</p>
<p>DESIGN FILE No. 18-9012</p>		<p>SP02E12</p>





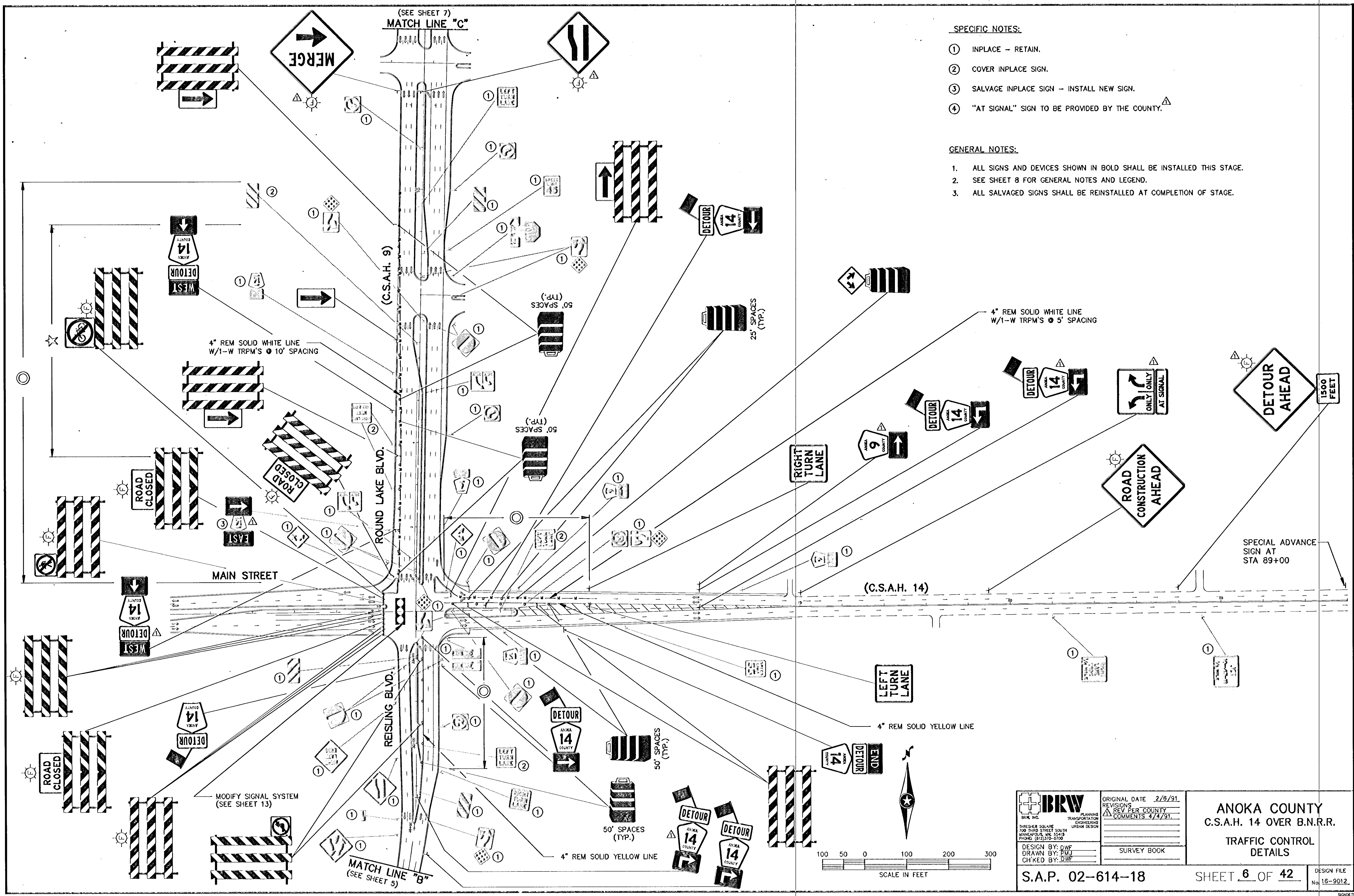
SPECIFIC NOTES:

- ① INPLACE - RETAIN.
- ② SALVAGE INPLACE SIGN - INSTALL NEW SIGN.
- ③ INPLACE - SALVAGE.
- ④ MOUNT ON INPLACE SIGN.
- ⑤ INPLACE - COVER.

GENERAL NOTES:

- 1. ALL SIGNS AND DEVICES SHOWN IN BOLD SHALL BE INSTALLED THIS STAGE.
- 2. SEE SHEET 8 FOR GENERAL NOTES AND LEGEND.
- 3. ALL SALVAGED SIGNS SHALL BE REINSTALLED AT COMPLETION OF STAGE. (INCIDENTAL)

<p>IBRW PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>THURSDAY SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, WIS. 55415 PHONE: (612)372-0700</p>	<p>ORIGINAL DATE 2/7/91</p> <p>REVISIONS</p> <p>REV PER COUNTY</p> <p>COMMENTS 4/4/91</p>	<p>ANOKA COUNTY C.S.A.H. 14 OVER B.N.R.R.</p> <p>TRAFFIC CONTROL DETAILS</p>
	<p>DESIGN BY: DWF</p> <p>DRAWN BY: PMJ</p> <p>CHECKED BY: DWF</p>	
<p>S.A.P. 02-614-18</p>		<p>SHEET 5 OF 42</p>



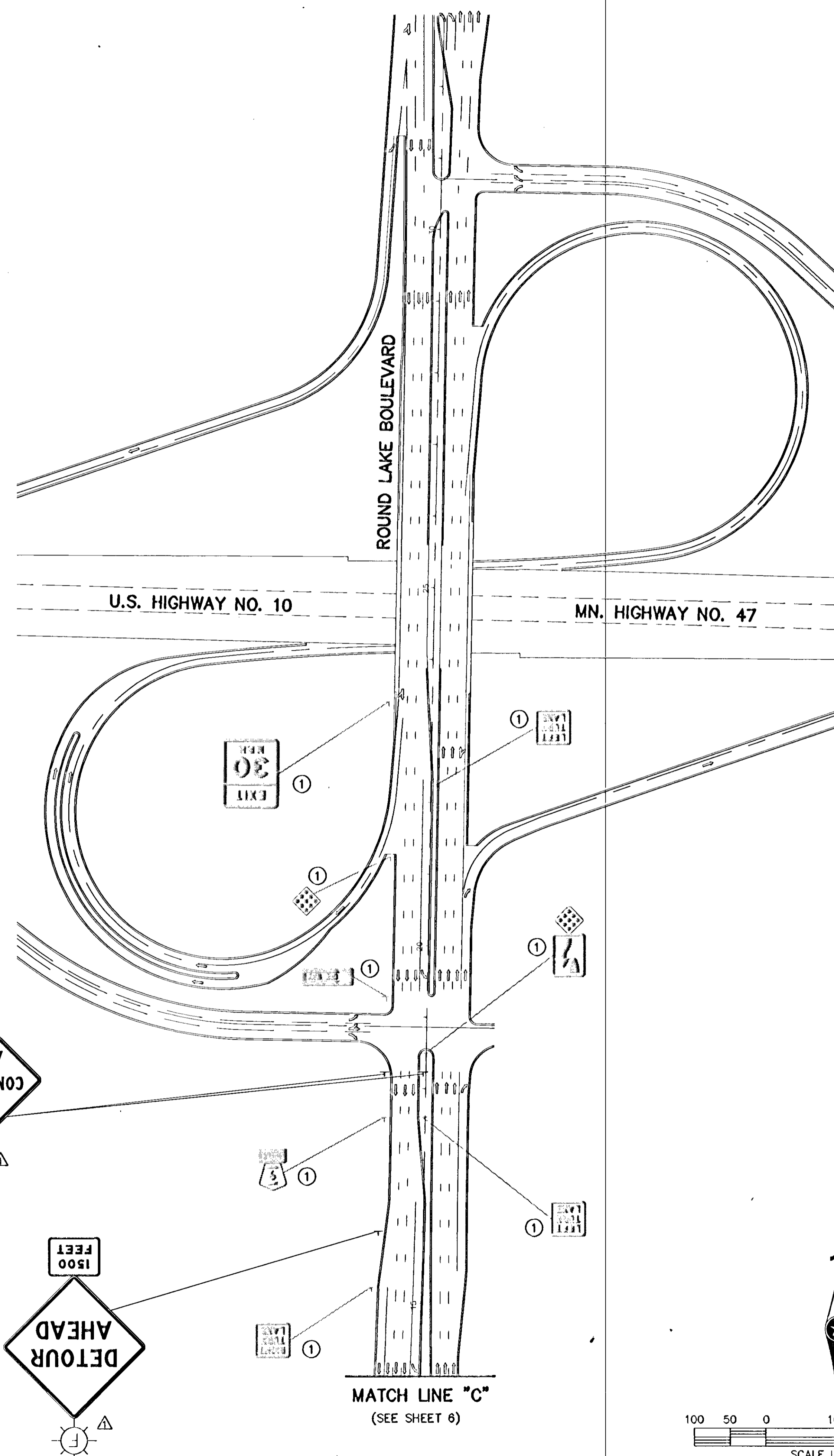
- SPECIFIC NOTES:**
- ① INPLACE - RETAIN.
  - ② COVER INPLACE SIGN.
  - ③ SALVAGE INPLACE SIGN - INSTALL NEW SIGN.
  - ④ "AT SIGNAL" SIGN TO BE PROVIDED BY THE COUNTY.

- GENERAL NOTES:**
- 1. ALL SIGNS AND DEVICES SHOWN IN BOLD SHALL BE INSTALLED THIS STAGE.
  - 2. SEE SHEET 8 FOR GENERAL NOTES AND LEGEND.
  - 3. ALL SALVAGED SIGNS SHALL BE REINSTALLED AT COMPLETION OF STAGE.

<p><b>BRW</b> BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>THRASHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 370-0700</p>	<p>ORIGINAL DATE 2/8/91</p> <p>REVISIONS</p> <p>REV PER COUNTY COMMENTS 4/4/91.</p>	<p><b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R.</p> <p>TRAFFIC CONTROL DETAILS</p>
	<p>SURVEY BOOK</p>	
<p>DESIGN BY: DWF DRAWN BY: PMJ CHECKED BY: DWF</p>	<p>S.A.P. 02-614-18</p>	<p>SHEET 6 OF 42</p>

DESIGN FILE No. 16-9012



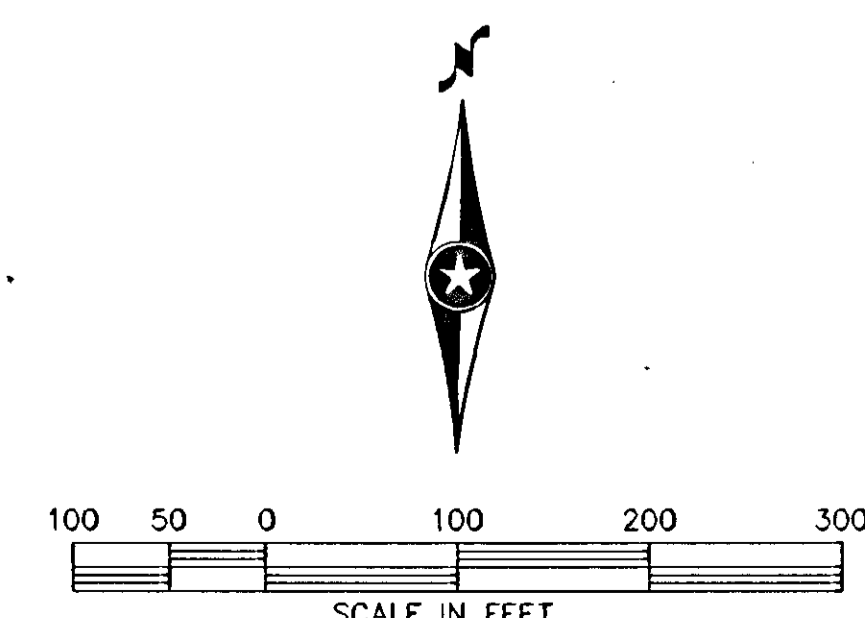


SPECIFIC NOTES:

- ① INPLACE -- RETAIN.

GENERAL NOTES:

1. ALL SIGNS AND DEVICES SHOWN IN BOLD SHALL BE INSTALLED THIS STAGE.
2. SEE SHEET 8 FOR GENERAL NOTES AND LEGEND.



 <small>IBRW, INC.          700 THIRD STREET SOUTH          MINNEAPOLIS, MN. 55415          PHONE: (612) 270-0700</small>	ORIGINAL DATE <u>2/7/91</u> REVISIONS Δ REV PER COUNTY COMMENTS <u>4/4/91</u>	ANOKA COUNTY C.S.A.H. 14 OVER B.N.R.R. TRAFFIC CONTROL DETAILS
	DESIGN BY: DWF DRAWN BY: PMJ CHECKED BY: DWF	SURVEY BOOK

TRAFFIC CONTROL DEVICES TABULATION <span style="float: right;">(K)</span>							
SIGN OR DEVICE	SIGN NO.	SIZE AND COLOR	QUANTITY	SIGN OR DEVICE	SIGN NO.	SIZE AND COLOR	QUANTITY
	TYPE III BARRICADE		34		R9-3A	18" X 18" BLK & RED ON WHITE	2
	PLASTIC DRUM	①	57		R11-2	48" X 30" BLACK ON WHITE	5
	W1-6	48" X 24" BLACK ON YELLOW	4		M1-6	24" X 24" WHITE & YELLOW ON BLUE	25 <sup>△</sup>
	W3-3	36" X 36" BLACK, GREEN & RED ON YELLOW	2		M1-6	24" X 24" WHITE & YELLOW ON BLUE	1 <sup>△</sup>
	W4-2(R)	48" X 48" BLACK ON YELLOW	1		M3-2A	24" X 12" WHITE ON BLUE	2 <sup>△</sup>
	W12-1	24" X 24" BLACK ON ORANGE	1		M3-4A	24" X 12" WHITE ON BLUE	3
	W13-1	24" X 24" BLACK ON ORANGE	3 <sup>△</sup>		M4-6A	24" X 12" WHITE ON BLUE	2
	W20-1	48" X 48" BLACK ON ORANGE	4 <sup>△</sup>		M4-8	24" X 12" BLACK ON ORANGE	25 <sup>△</sup>
	W20-2	48" X 48" BLACK ON ORANGE	3		M5-1A(L)	21" X 15" WHITE ON BLUE	4 <sup>△</sup>
	W20-100C	24" X 18" BLACK ON ORANGE	3		M5-1A(R)	21" X 15" WHITE ON BLUE	6 <sup>△</sup>
	W20-X3L	48" X 48" BLACK ON ORANGE	1		M6-1A	21" X 15" WHITE ON BLUE	8 <sup>△</sup>
	R3-X1	30" X 30" BLACK ON WHITE	1		M6-3A	21" X 15" WHITE ON BLUE	3
	R3-X2	30" X 30" BLACK ON WHITE	1				28 <sup>△</sup>
	R3-2	24" X 24" BLK & RED ON WHITE	2		SPECIAL	132" X 84" BLACK ON ORANGE	5
	R3-7(R)	30" X 30" BLACK ON WHITE	1		SPECIAL	32" X 108" BLACK ON ORANGE	2
	R3-7(L)	30" X 30" BLACK ON WHITE	1		SPECIAL	96" X 12" BLACK ON ORANGE	2
	R3-8E	36" X 30" BLACK ON WHITE	2		FLAG	ORANGE	20 <sup>△</sup>
	R5-6	24" X 24" BLK & RED ON WHITE	2				

TRAFFIC CONTROL DEVICES LEGEND:

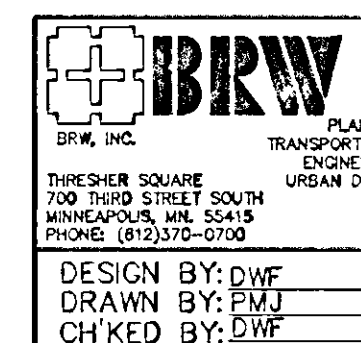
- TRAFFIC CONTROL SIGN
- TYPE III BARRICADE
- DRUM-LIKE CHANNELIZER
- TYPE A FLASHING WARNING LIGHT (LOW INTENSITY)
- SOLID LINE PAVEMENT MARKING (PAINT OR TAPE)
- SOLID LINE PAVEMENT MARKING PLUS TRPM
- REMOVE CONFLICTING PAVEMENT MARKINGS
- INSTALL REMOVEABLE PAVEMENT MARKINGS

SPECIFIC NOTES:

- ① SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

GENERAL NOTES:

1. FIELD CONDITIONS MAY REQUIRE MODIFICATIONS OF THIS LAYOUT AS DEEMED NECESSARY BY THE ENGINEER.
2. ALL DISTANCES ARE APPROXIMATE.
3. DIAMOND WARNING SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
4. BARRICADES ARE 6' OR 8' TYPE III UNLESS OTHERWISE NOTED.
5. OBLITERATE ANY CONFLICTING PAVEMENT MARKINGS.
6. REMOVE OR COVER ANY CONFLICTING SIGNING (INCIDENTAL).
7. POLYMER LANE TAPE, REMOVAL OF PAVEMENT MARKINGS (PAINT) AND TRPM ARE SEPERATE BID ITEMS.
8. TRPM, POLYMER LANE TAPE AND PAINTING ARE INTERCHANGEABLE ACCORDING TO ACTUAL CONDITIONS ENCOUNTERED AS DIRECTED BY THE ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EXTRA SIGNING NEEDED TO FACILITATE TRAFFIC SWITCHES OR FOR TRANSITIONING TRAFFIC.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ANY WORK AREAS NEAR TRAFFIC IN ACCORDANCE WITH MMUTCD.
11. THE CONTRACTOR SHALL COORDINATE WITH THE FINAL SIGNING PROJECT SO THAT THE INSTALLATION OF THE PERMANENT SIGNS IS COMPLETED BEFORE THE PERMANENT ROADWAYS ARE OPEN TO TRAFFIC.
12. WHEN CONSTRUCTION OCCURS ON OR ADJACENT TO TRAVELED ROADWAYS, TEMPORARY TRAFFIC CONTROL SHALL BE ESTABLISHED AND MAINTAINED IN ACCORDANCE WITH APPENDIX B OF THE MMUTCD.
13. UNLESS OTHERWISE NOTED, TRAFFIC SIGNS, MARKINGS AND DELINEATION, AND TRAFFIC SIGNALS SHALL BE IN ACCORDANCE WITH THE MMUTCD.
14. ALL PAVEMENT MARKINGS NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERMANENT STRIPING PLAN.
15. ALL BARRICADES WILL HAVE REFLECTIVE MATERIAL ON BOTH SIDES.
16. FOR TABULATION OF ALL TRAFFIC CONTROL DEVICES SEE PLAN SHEET XX.
17. BARRICADES SHALL BE PLACED SO THAT DIAGONAL STRIPES SLOPE DOWN TOWARD TRAFFIC.
18. EACH FOOT OF NON-DRIVEN BARRICADE OR SIGN MOUNTING ASSEMBLY SHALL BE WEIGHED DOWN WITH SAND BAGS.



ORIGINAL DATE	2/4/91.
REVISIONS	
REV PER COUNTY	
COMMENTS	4/4/91.
SURVEY BOOK	

ANOKA COUNTY  
C.S.A.H. 14 OVER B.N.R.R.  
TRAFFIC CONTROL  
ESTIMATED QUANTITIES



(A) CONTROLLER AND CABINET  
WOOD FOUNDATION (SEE SPECIAL PROVISIONS)  
EXTEND INTO HH1  
2-3" RSC  
8-12/C #12  
4-3/C #12  
9-2/C #14  
EXTEND INTO HH2  
METERED SIGNAL SERVICE  
1-1/4" RSC  
3-1/C #6

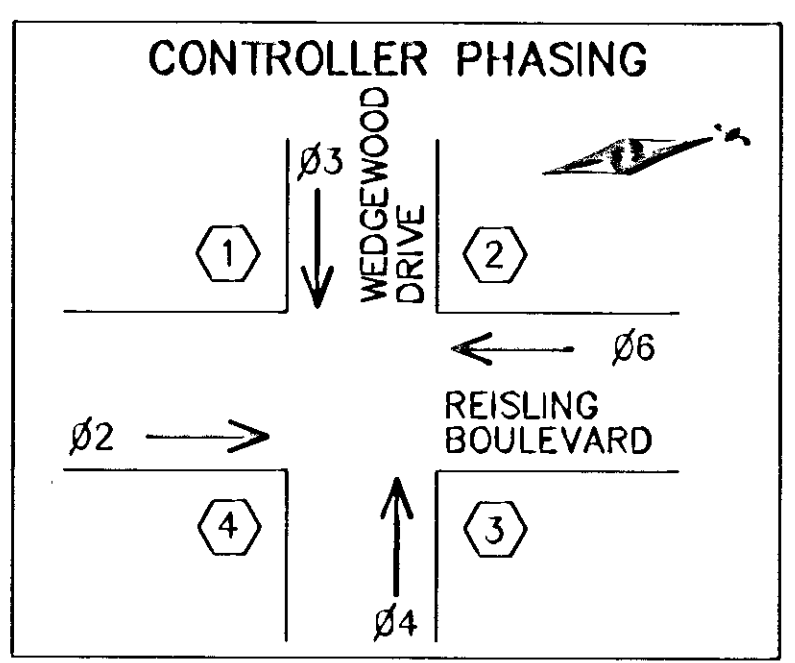
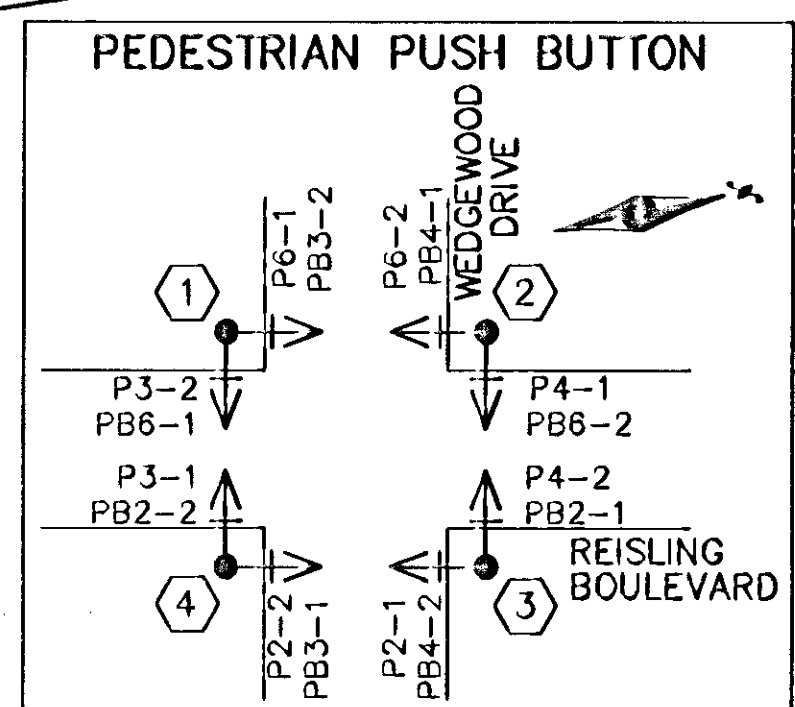
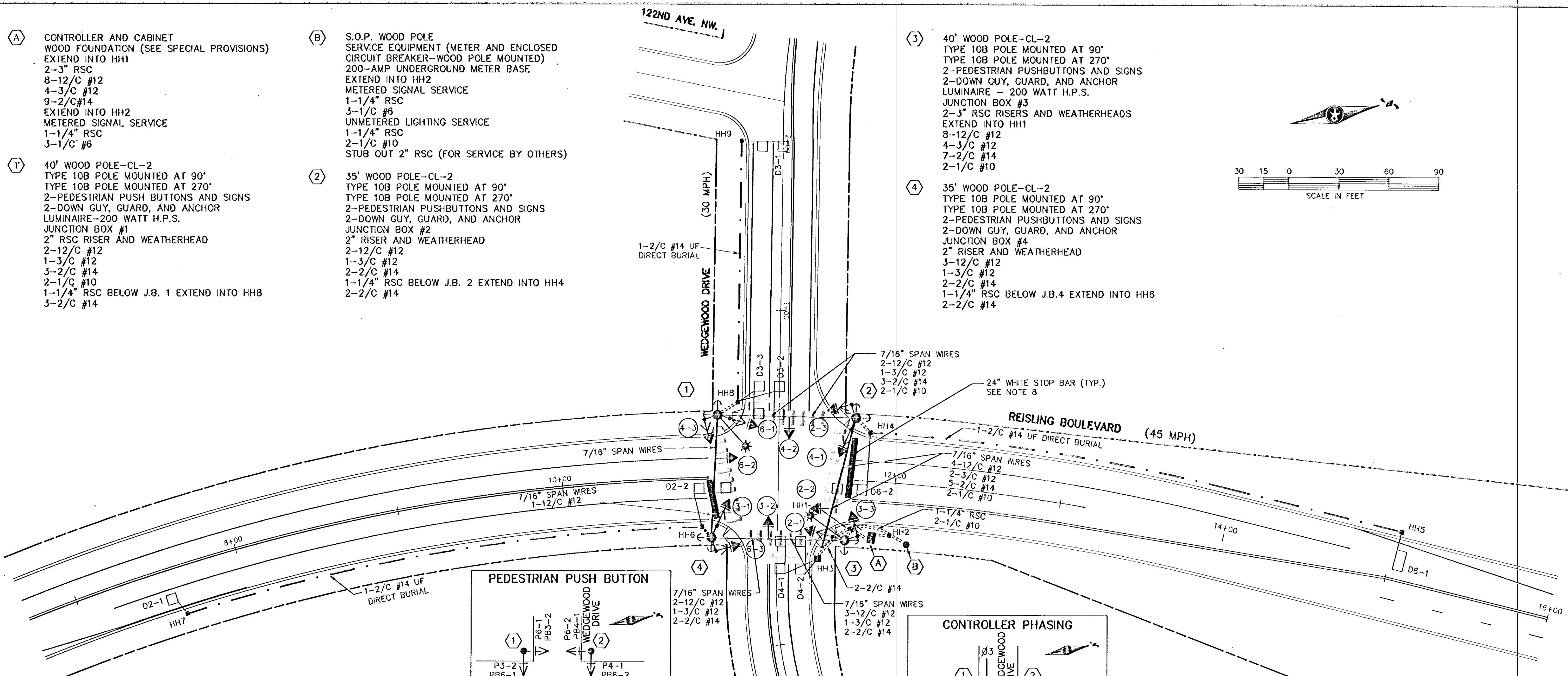
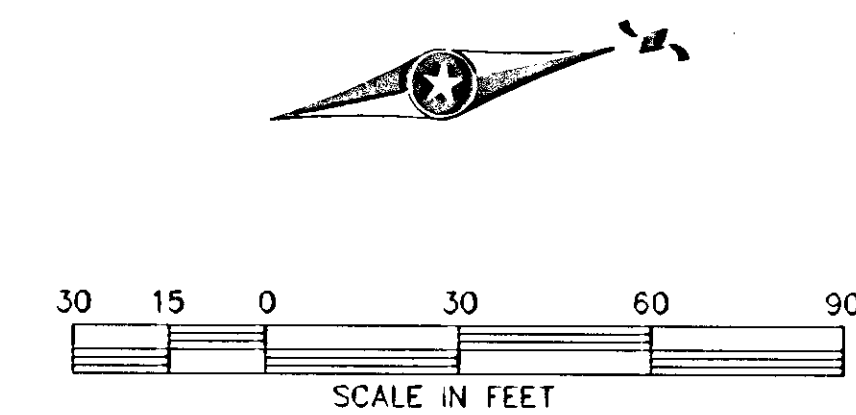
(1) 40' WOOD POLE-CL-2  
TYPE 10B POLE MOUNTED AT 90°  
TYPE 10B POLE MOUNTED AT 270°  
2-PEDESTRIAN PUSH BUTTONS AND SIGNS  
2-DOWN GUY, GUARD, AND ANCHOR  
LUMINAIRE-200 WATT H.P.S.  
JUNCTION BOX #1  
2" RSC RISER AND WEATHERHEAD  
2-12/C #12  
1-3/C #12  
3-2/C #14  
2-1/C #10  
1-1/4" RSC BELOW J.B. 1 EXTEND INTO HH8  
3-2/C #14

(B) S.O.P. WOOD POLE  
SERVICE EQUIPMENT (METER AND ENCLOSED  
CIRCUIT BREAKER-WOOD POLE MOUNTED)  
200-AMP UNDERGROUND METER BASE  
EXTEND INTO HH2  
METERED SIGNAL SERVICE  
1-1/4" RSC  
3-1/C #6  
UNMETERED LIGHTING SERVICE  
1-1/4" RSC  
2-1/C #10  
STUB OUT 2" RSC (FOR SERVICE BY OTHERS)

(2) 35' WOOD POLE-CL-2  
TYPE 10B POLE MOUNTED AT 90°  
TYPE 10B POLE MOUNTED AT 270°  
2-PEDESTRIAN PUSHBUTTONS AND SIGNS  
2-DOWN GUY, GUARD, AND ANCHOR  
JUNCTION BOX #2  
2" RISER AND WEATHERHEAD  
2-12/C #12  
1-3/C #12  
2-2/C #14  
1-1/4" RSC BELOW J.B. 2 EXTEND INTO HH4  
2-2/C #14

(3) 40' WOOD POLE-CL-2  
TYPE 10B POLE MOUNTED AT 90°  
TYPE 10B POLE MOUNTED AT 270°  
2-PEDESTRIAN PUSHBUTTONS AND SIGNS  
2-DOWN GUY, GUARD, AND ANCHOR  
LUMINAIRE - 200 WATT H.P.S.  
JUNCTION BOX #3  
2-3" RSC RISERS AND WEATHERHEADS  
EXTEND INTO HH1  
8-12/C #12  
4-3/C #12  
7-2/C #14  
2-1/C #10

(4) 35' WOOD POLE-CL-2  
TYPE 10B POLE MOUNTED AT 90°  
TYPE 10B POLE MOUNTED AT 270°  
2-PEDESTRIAN PUSHBUTTONS AND SIGNS  
2-DOWN GUY, GUARD, AND ANCHOR  
JUNCTION BOX #4  
2" RISER AND WEATHERHEAD  
3-12/C #12  
1-3/C #12  
2-2/C #14  
1-1/4" RSC BELOW J.B.4 EXTEND INTO HH6  
2-2/C #14



SIGNAL INDICATIONS						
FACE	PHASE	FLASH	R	Y	G	G
2-1	2	R	12"	12"	12"	
2-2	2	R	12"	12"	12"	
2-3	2	R	12"	12"	12"	
3-1	3	R	12"	12"	12"	
3-2	3	R	12"	12"	12"	12"
3-3	3	R	12"	12"	12"	12"
4-1	4	R	12"	12"	12"	
4-2	4	R	12"	12"	12"	12"
4-3	4	R	12"	12"	12"	12"
6-1	6	R	12"	12"	12"	
6-2	6	R	12"	12"	12"	
6-3	6	R	12"	12"	12"	

LOOP DETECTORS			
NUMBER	SIZE	LOCATION*	FUNCTION
D2-1	6' X 6'	330	1
D2-2	2-6'X6'	-	12
D3-1	2-6'X6'	147	3,8
D3-2	2-6'X6'	-	7
D3-3	2-6'X6'	-	7
D4-1	2-6'X6'	-	7
D4-2	2-6'X6'	-	7
D6-1	14' X 6'	330	1
D6-2	2-6'X6'	-	12

- LOOP DETECTOR FUNCTIONS
1. CALL AND EXTEND
  2. CALL ONLY
  3. EXTEND ONLY
  4. CALL ONLY DENSITY
  5. DELAYED CALL ONLY
  6. DELAYED CALL ONLY DENSITY
  7. DELAYED CALL - IMMEDIATE EXTEND
  8. CARRY OVER (STRETCH)
  9. ADVISORY DETECTOR
  10. SAMPLING DETECTOR
  11. SPECIAL DETECTOR
  12. EXTEND ONLY AFTER DELAY

- NOTES:
1. SEE SPECIAL PROVISIONS FOR CONTRACTOR'S RESPONSIBILITY FOR LOCATION OF UTILITIES.
  2. ALL SIGNAL FACES SHALL HAVE BACKGROUND SHIELDS.
  3. LUMINAIRE AT LOCATION 3 SHALL INCLUDE P.E.C. AND CHECK SWITCH.
  4. SEE SPECIAL PROVISIONS FOR SIGNAL SERVICE DETAILS.
  5. HANDHOLES SHALL BE CONCRETE WITH CONCRETE COVERS.
  6. LOOP DETECTOR WIRES D6-1 AND D6-2 SHALL BE CROSS LINKED POLYETHYLENE (XLP) IN 1" N.M.C. ALL OTHER LOOP DETECTORS SHALL BE SAWCUT. SEE SPECIAL PROVISIONS.
  7. CONTRACTOR SHALL INSTALL COUNTY FURNISHED CONTROLLER AND CABINET. SEE SPECIAL PROVISIONS.
  8. ALL STOP BARS ON REISLING BOULEVARD SHALL BE PLACED WITH REMOVABLE PREFORMED PLASTIC PAVEMENT MARKING MATERIAL.

<p><b>Electrical Engineer Cert.</b></p> <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 Electrical Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.</p> <p>Date: 2/1/91 Minn. Reg. No. 11611</p>	<p><b>Civil Engineer Cert.</b></p> <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>Date: 2/1/91 Minn. Reg. No. 13713</p>
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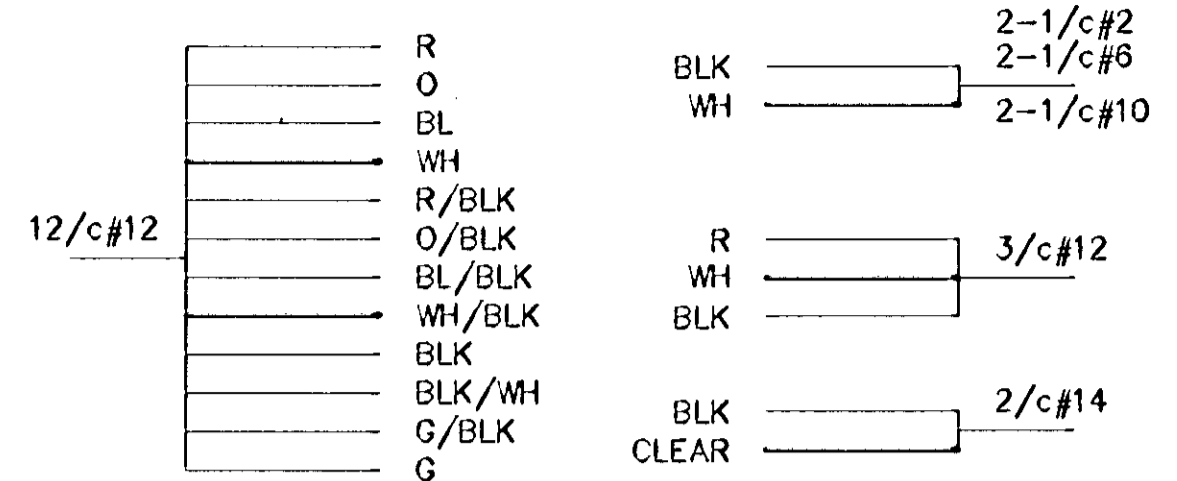
**BRW**  
BRW INC.  
PLANNING  
TRANSPORTATION  
ENGINEERING  
DESIGN

DESIGN BY: BG  
DRAWN BY: IKR  
CHECKED BY: EOR

ORIGINAL DATE: 2/7/91  
REVISIONS:  
SURVEY BOOK

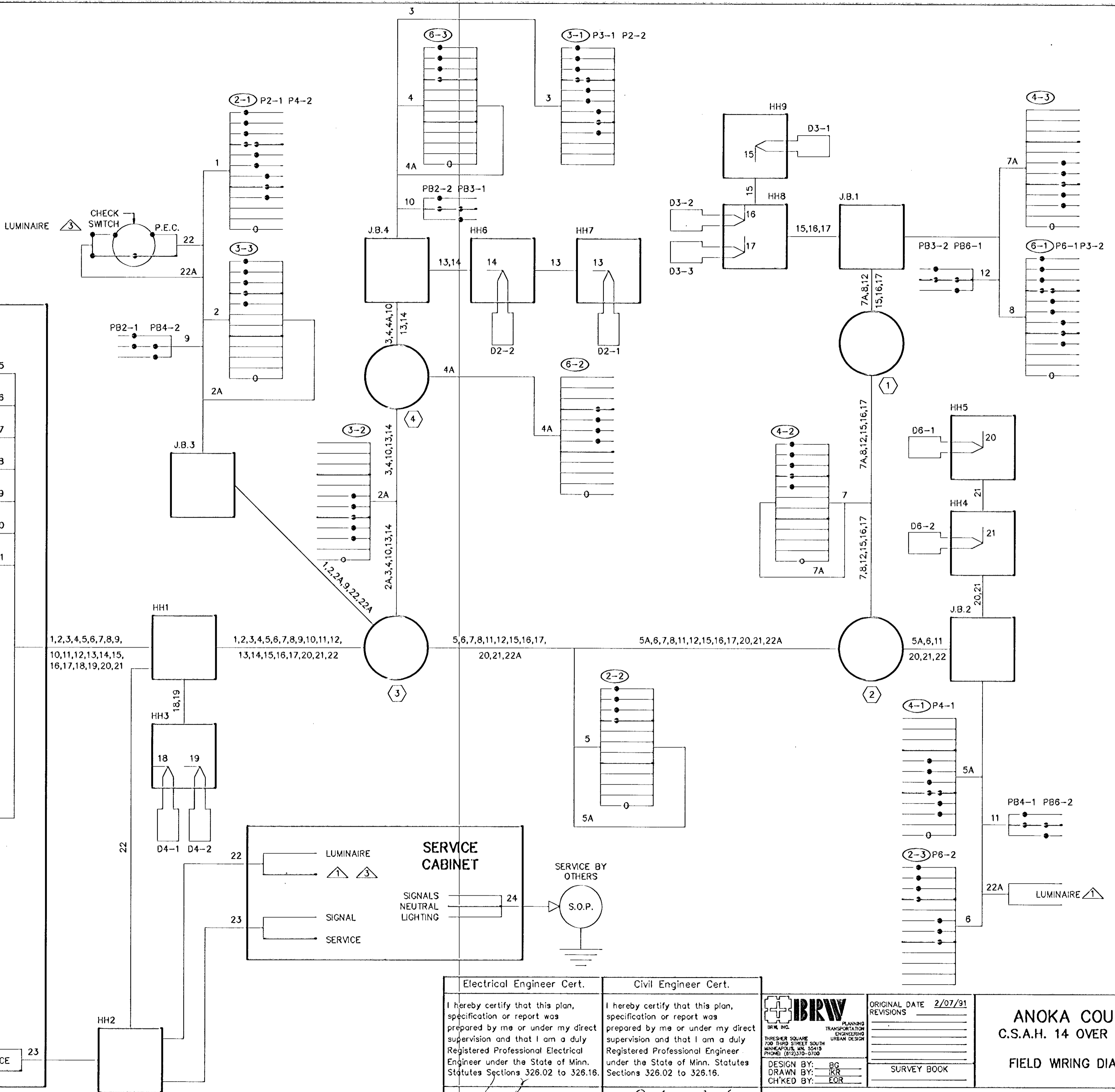
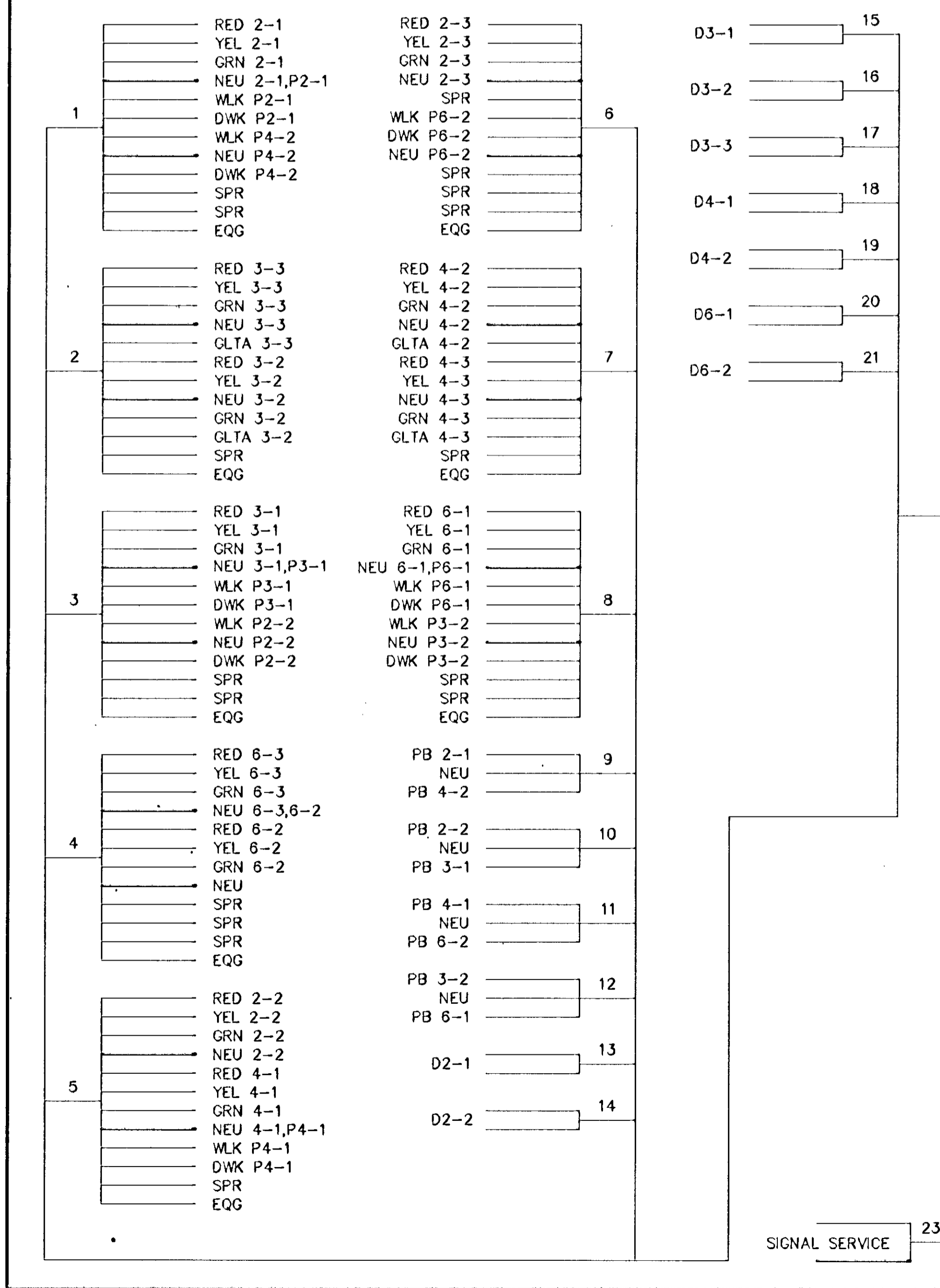
**ANOKA COUNTY**  
C.S.A.H. 14 OVER B.N.R.R.  
SIGNAL PLAN LAYOUT

**CONDUCTOR COLOR CODING**



NOTE: ALL TERMINAL BLOCK CONNECTIONS SHALL ARRANGED AS SPECIFIED ABOVE.

**CONTROLLER CABINET**



<p>Electrical Engineer Cert.</p> <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 Electrical Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.</p> <p>Date: <u>1/11/91</u> Minn. Reg. No. <u>11617</u></p>	<p>Civil Engineer Cert.</p> <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>Date: <u>1/11/91</u> Minn. Reg. No. <u>18015</u></p>	<p><b>IBRW</b></p> <p>PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>THRESHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612)370-3700</p> <p>DESIGN BY: <u>BO</u> DRAWN BY: <u>JCR</u> CHK'D BY: <u>ECR</u></p>	<p>ORIGINAL DATE <u>2/07/91</u></p> <p>REVISIONS</p> <p>SURVEY BOOK</p>	<p><b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R.</p> <p>FIELD WIRING DIAGRAM</p>
<p>S.A.P. 02-614-18</p>			<p>SHEET 10 OF 42</p>	<p>DESIGN FILE No 18-9012</p>



STANDARD PLATES	
PLATE NO	DESCRIPTION
8110 C	TRAFFIC SIGNAL BRACKETING - POLE MOUNTED
8111 B	TRAFFIC SIGNAL BRACKETING - PEDESTAL MOUNTED
8112 C	PEDESTAL FOUNDATION
8113 C	MAGNETIC VEHICLE DETECTOR INSTALLATION
8115 C	PEDESTRIAN PUSH BUTTON INSTALLATION
8117 F	PRECAST CONCRETE HANDHOLE
8118 C	SERVICE EQUIPMENT AND POLE
8119 C	GROUND MOUNTED CABINET FOUNDATION
8120 H	P-80 AND P-90 POLE FOUNDATION
8121 B	TRANSFORMER BASE WITH POLE BASE PLATE
8122 C	PEDESTAL AND PEDESTAL BASE
8123 B	POLE AND MAST ARM
8124 D	SIGNAL HEAD MOUNTS
8126 C	P-100 POLE FOUNDATION
8130 D	SAW CUT LOOP DETECTORS

\* STANDARD PLATES APPLICABLE TO THIS PLAN

CONDUCTOR COLOR CODE

- R-RED
- O-ORANGE
- BL-BLUE
- WH-WHITE
- R/BLK-RED WITH BLACK TRACER
- O/BLK-ORANGE WITH BLACK TRACER
- BL/BLK-BLUE WITH BLACK TRACER
- W/BLK-WHITE WITH BLACK TRACER
- BLK-BLACK
- BLK/WH-BLACK WITH WHITE TRACER
- G/BLK-GREEN WITH BLACK TRACER
- G-GREEN

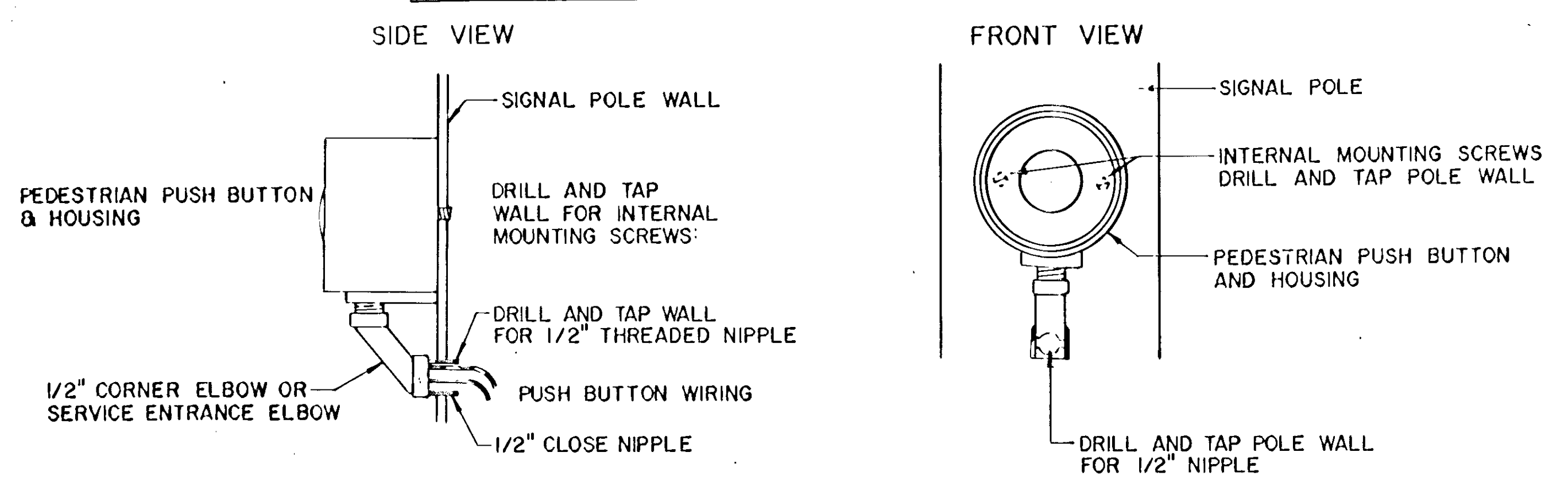
ABBREVIATIONS  
EQUIPMENT AND INDICATIONS

- R,RED-RED
- Y,YEL-YELLOW
- G,GRN-GREEN
- WLK-WALK
- NEU-NEUTRAL
- DWK-DONT WALK
- LUM-LUMINAIRE
- DNL-DOWNLIGHT
- H.H.-HANDHOLE
- EQG-EQUIPMENT GROUND
- R.S.C.-RIGID STEEL CONDUIT
- GLTA-GREEN LEFT TURN ARROW
- YRTA-YELLOW RIGHT TURN ARROW
- D2-1(eg)-DETECTOR-PHASE "2"
- GR,R-GROUND ROD
- SER-SERVICE
- P2-2 PEDESTRIAN INDICATIONS-PHASE "2"
- 2-1(eg)-SIGNAL HEADS-PHASE "2"
- SPR-SPARE CONDUCTORS
- N.M.C.-NON METALLIC CONDUIT
- E.V.P.-EMERGENCY VEHICLE PRE-EMPTION
- J.B.-JUNCTION BOX
- W.P.-WOOD POLE
- P.E.C.-PHOTOELECTRIC CELL
- Br.Gr.-BARE GROUND

LEGEND OF SYMBOLS

- CONTROLLER AND SERVICE EQPT. NO'S
- SIGNAL BASE NO.
- SIGNAL FACE NO.
- LUMINAIRE NO.
- CONTROLLER AND CABINET
- CONTROLLER AND CABINET-IN PLACE
- HANDHOLE
- HANDHOLE-IN PLACE
- RIGID STEEL CONDUIT (R.S.C.)
- RIGID STEEL CONDUIT (R.S.C.)-IN PLACE
- SIGNAL FACE WITH BACKGROUND SHIELD
- SIGNAL FACE W/O BACKGROUND SHIELD
- SIGNAL FACE-IN PLACE
- PEDESTRIAN INDICATIONS
- PEDESTRIAN INDICATIONS-IN PLACE
- PEDESTRIAN PUSH BUTTON ON PEDESTAL OR POLE
- PEDESTRIAN PUSH BUTTON STATION
- TRAFFIC SIGNAL PEDESTAL
- TRAFFIC SIGNAL PEDESTAL-IN PLACE
- TRAFFIC SIGNAL POLE AND MAST ARM
- TRAFFIC SIGNAL POLE AND MAST ARM-IN PLACE
- STREET LIGHT POLE AND LUMINAIRE
- STREET LIGHT POLE AND LUMINAIRE-IN PLACE
- MAST ARM AND LUMINAIRE
- MAST ARM AND LUMINAIRE-IN PLACE
- WOOD POLE
- WOOD POLE-IN PLACE
- SOURCE OF POWER
- RAILROAD SIGNAL-IN PLACE
- RIGHT OF WAY LINE
- CENTER LINE
- EDGE OF ROADWAY
- SHOULDER LINE
- CURB LINE
- STOP BAR
- CROSSWALK
- DIRECT BURIED POWER CABLE
- DIRECT BURIED POWER CABLE-IN PLACE

PEDESTRIAN PUSH BUTTON MOUNTING DETAIL



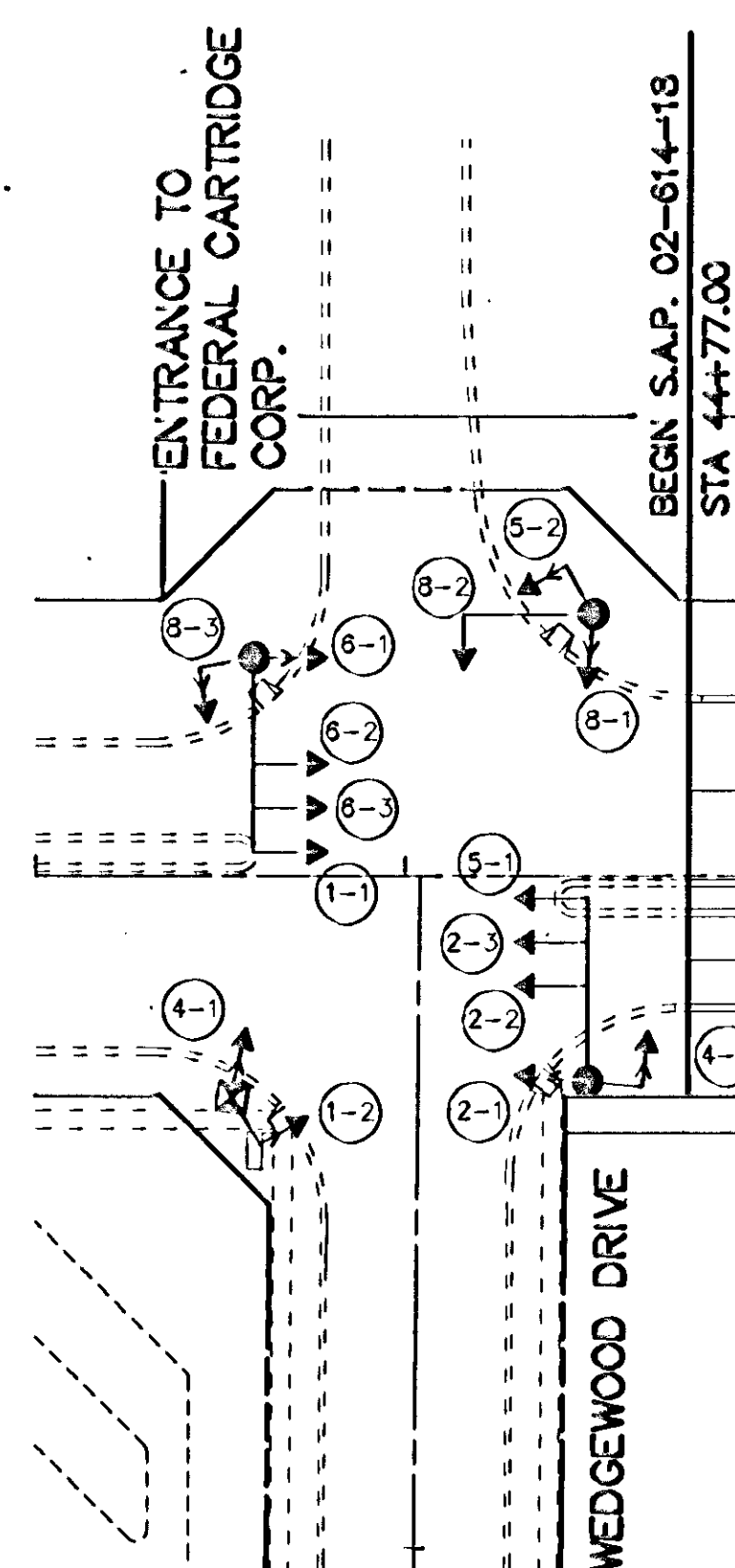
<p>ELEC. ENGR. CERT.</p> <p>I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.</p> <p><i>[Signature]</i></p> <p>Date <u>2/12/91</u> Minn. Reg. No. <u>12532</u></p>	<p>CIVIL ENGR. CERT.</p> <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>[Signature]</i></p> <p>Date <u>2/12/91</u> Minn. Reg. No. <u>13075</u></p>	<p><b>BRW</b> INC.</p> <p>PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>THRESHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612)370-0700</p> <p>DESIGN BY: <u>EOR</u> DRAWN BY: <u>KJM</u></p>	<p>ORIGINAL DATE <u>2/07/91</u> REVISIONS</p> <p>SURVEY BK. NO.</p>	<p><b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R. TRAFFIC SIGNAL DETAILS &amp; LEGENDS</p>
<p>S.A.P. 02-614-18</p>			<p>SHEET 12 OF 42</p>	<p>DESIGN FILE No. 16-9012</p>

**SPECIFIC NOTE:**

① WHEN DIRECTED BY THE ENGINEER, CONTRACTOR SHALL BAG AND TURN OFF SIGNAL HEADS; 1-1, 1-2, 5-1, 5-2, 6-1, 6-2 AND 6-3. AT THE COMPLETION OF THE PROJECT, SIGNAL HEADS SHALL BE TURNED ON AND BAGS REMOVED.

TRAFFIC SIGNAL INTERCONNECTION 'B'  
CITY OF COON RAPIDS  
CITY OF ANOKA

TRAFFIC SIGNAL INTERCONNECTION 'C'

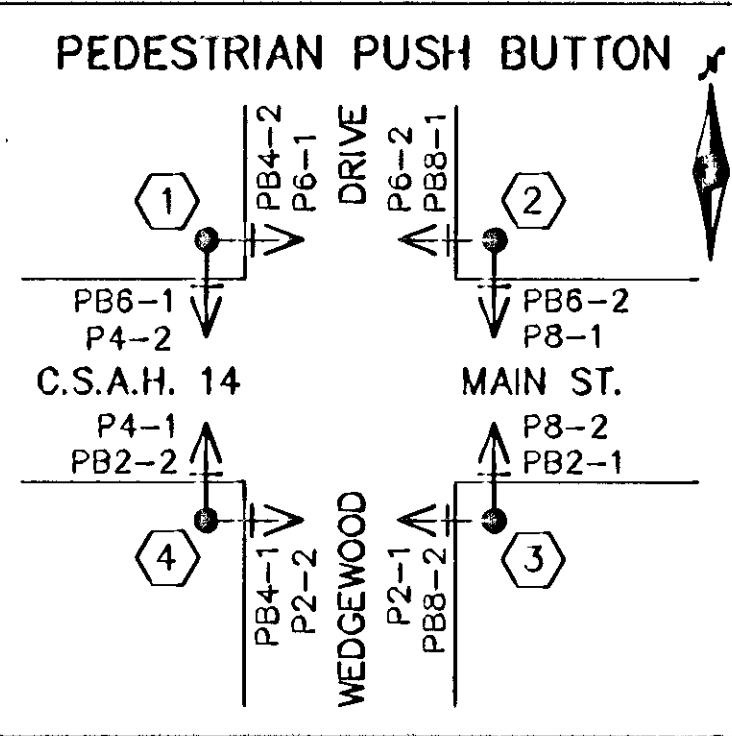
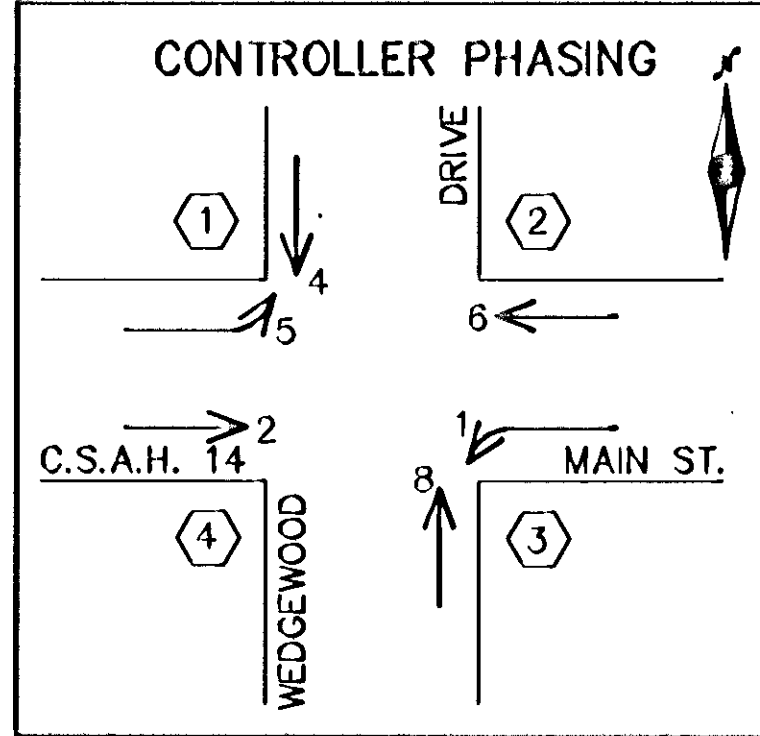


SIGNAL INDICATIONS						
FACE	PHASE	FLASH	R	Y	G	MODIFICATIONS
1-1	1	R	12"	12"	12"	BAG
1-2	1	R	12"	12"	12"	BAG
2-1	2	R	12"	12"	12"	
2-2	2	R	12"	12"	12"	
2-3	2	R	12"	12"	12"	
4-1	4	R	12"	12"	12"	
4-2	4	R	12"	12"	12"	
4-3	4	R	12"	12"	12"	
5-1	5	R	12"	12"	12"	BAG
5-2	5	R	12"	12"	12"	BAG
6-1	6	R	12"	12"	12"	BAG
6-2	6	R	12"	12"	12"	BAG
6-3	6	R	12"	12"	12"	BAG
8-1	8	R	12"	12"	12"	
8-2	6	R	12"	12"	12"	

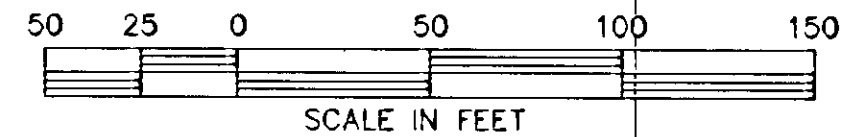
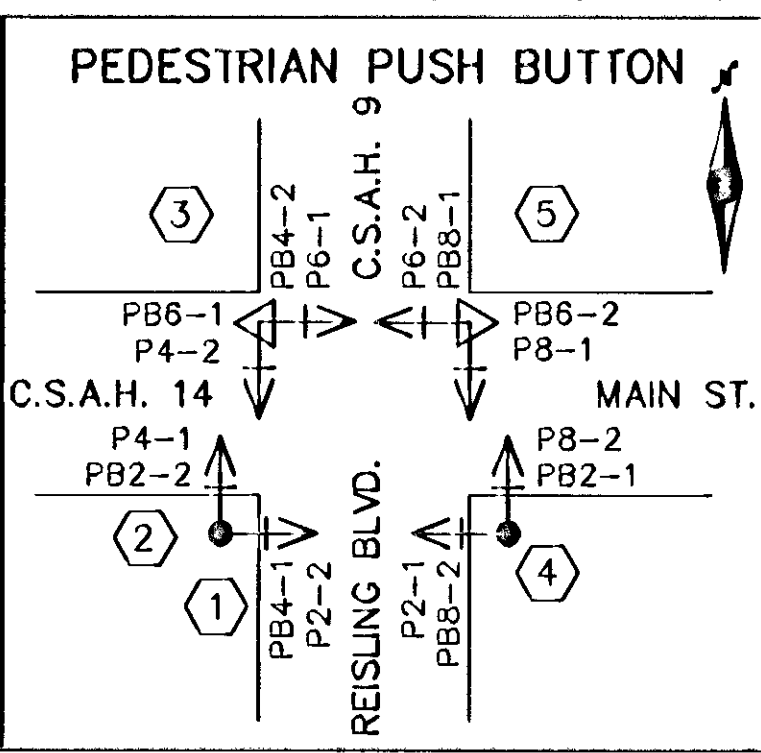
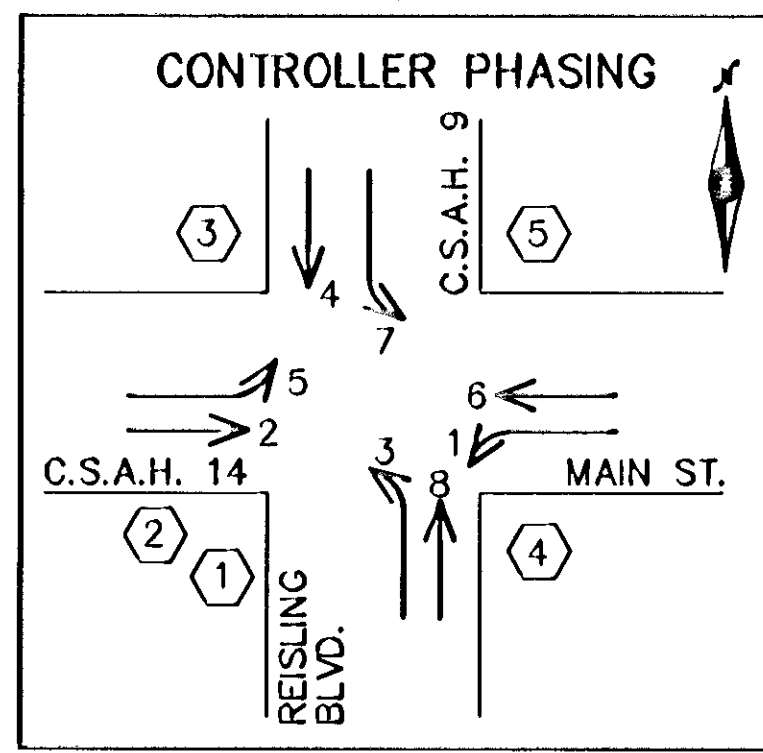
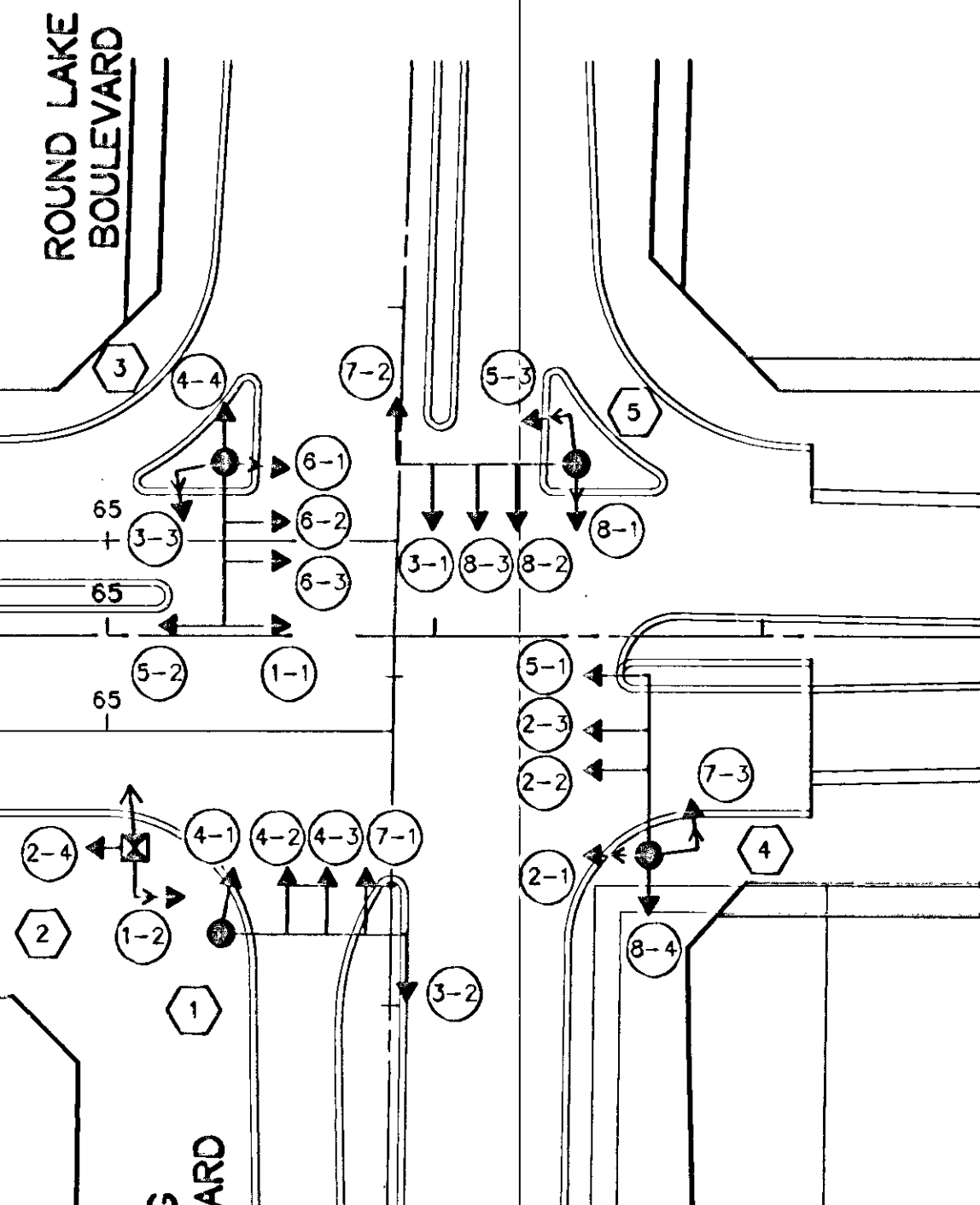
**GENERAL NOTES:**

- WHEN DIRECTED BY THE ENGINEER, CONTRACTOR SHALL MAKE THE MODIFICATIONS SHOWN IN THE SIGNAL INDICATION CHART.
- ALL NECESSARY LENSES ARE IN PLACE AT THE EXISTING SIGNAL SYSTEM OR SHALL BE PROVIDED BY ANOKA COUNTY.
- WHEN REMOVAL OF A BAG IS SPECIFIED, CONTRACTOR SHALL ALSO TURN IN THE CORRESPONDING SIGNAL HEAD. WHEN INSTALLING A BAG IS SPECIFIED, CONTRACTOR SHALL ALSO TURN OFF THE CORRESPONDING SIGNAL HEAD.
- AT THE CONCLUSION OF THE PROJECT, CONTRACTOR SHALL MODIFY LENSES, REMOVE BAGS, AND TURN ON SIGNAL HEADS TO PROVIDE FOR FULL OPERATION OF ALL PHASES AND ALL APPROACHES TO THE INTERSECTION.

SIGNAL INDICATIONS						
FACE	PHASE	FLASH	R	Y	G	MODIFICATIONS
1-1	1	R	12"	12"	12"	REMOVE BAG
1-2	1	R	12"	12"	12"	REMOVE BAG
2-1	2	R	12"	12"	12"	BAG
2-2	2	R	12"	12"	12"	BAG
2-3	2	R	12"	12"	12"	BAG
2-4	2	R	12"	12"	12"	BAG
3-1	3	R	12"	12"	12"	
3-2	3	R	12"	12"	12"	
3-3	3	R	12"	12"	12"	
4-1	4	R	12"	12"	12"	REMOVE BAG
4-2	4	R	12"	12"	12"	REMOVE ARROW LENSES, INSTALL SOLID BALL LENSES
4-3	4	R	12"	12"	12"	REMOVE ARROW LENSES, INSTALL SOLID BALL LENSES
4-4	4	R	12"	12"	12"	REMOVE BAG
5-1	5	R	12"	12"	12"	BAG
5-2	5	R	12"	12"	12"	BAG
5-3	5	R	12"	12"	12"	BAG
6-1	6	R	12"	12"	12"	BAG
6-2	6	R	12"	12"	12"	BAG
6-3	6	R	12"	12"	12"	BAG
7-1	7	R	12"	12"	12"	REMOVE BAG
7-2	7	R	12"	12"	12"	REMOVE BAG
7-3	7	R	12"	12"	12"	REMOVE BAG
8-1	8	R	12"	12"	12"	REMOVE BAG
8-2	8	R	12"	12"	12"	REMOVE BAG
8-3	8	R	12"	12"	12"	REMOVE BAG
8-4	8	R	12"	12"	12"	REMOVE BAG



END S.A.P. 02-614-18  
STA 64+50.00



<p>Electrical Engineer Cert.</p> <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 328.02 to 328.16.</p> <p>Date: 2/11/91, Minn. Reg. No. J2637</p>	<p>Civil Engineer Cert.</p> <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 328.02 to 328.16.</p> <p>Date: 2/11/91, Minn. Reg. No. 18013</p>
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**IBRW**  
INCORPORATING  
PLANNING  
TRANSPORTATION  
ENGINEERING  
URBAN DESIGN

700 THIRD STREET SOUTH  
MINNEAPOLIS, MN 55415  
PHONE: (612) 337-7100

DESIGN BY: DMF  
DRAWN BY: DMF  
CHECKED BY: DMF

ORIGINAL DATE: 2/11/91  
REVISIONS:  
SURVEY BOOK

**ANOKA COUNTY**  
C.S.A.H. 14 OVER B.N.R.R.  
SIGNAL HEAD MODIFICATION  
TRAFFIC SIGNAL  
INTERCONNECTION 'B' & 'C'

S.A.P. 02-614-18

SHEET 13 OF 42

DESIGN FILE No. 16-9012



MISCELLANEOUS REMOVALS AND SALVAGES (A)											
STATION TO STATION	LOCATION (1)	REMOVE							SALVAGE		
		BIT. PAV'T. (SQ.YD.)	BIT. CURB (LIN.FT.)	BIT. MEDIAN (SQ.YD.)	PIPE CULVERT (LIN.FT.)	CHAIN LINK FENCE (LIN.FT.)	1-1/4" RSC (LIN.FT.)	SAWING BIT. PAV'T. (LIN.FT.)	1-2/C#14 (LIN.FT.)	LOOP DETECTORS (EACH)	HAND HOLES (EACH)
44+77	LT. & RT.										
44+77 TO 48+65	LT.	1,485	393					373			
44+77 TO 48+65	RT.	1,098	393						2	2	
44+77 TO 48+65	LT. & RT.			333							
48+65 TO 55+40	LT. & RT.	3,725									
50+63	LT. & RT.				103						
52+75	25' RT. TO 178' RT.	217									
54+07	RT.					50					
55+40 TO 63+30	LT. & RT.	5,059									
63+30 TO 64+50	LT.	315	132								
63+30 TO 64+50	RT.	455	117								
64+50	LT. & RT.							82			
TOTALS		12,354	1,035	333	103	50	373	164	373	2	2

REMOVABLE PREFORMED PLASTIC PAVEMENT MARKING AND TRPM'S (D)				
STATION TO STATION	LOCATION	4" SOLID LINE WHITE	4" SOLID LINE YELLOW	ONE-WAY TRPM
MAIN STREET				
40+50 TO 43+60	RT	310		
40+60 TO 41+60	RT	100		
41+35 TO 43+60	RT		225	
43+25 TO 43+80	RT	70		
66+55 TO 69+40	LT		285	
66+70 TO 70+00	LT	335		67
ROUND LAKE BLVD				
00+70 TO 10+20	LT	950		95
REISLING BLVD				
29+40 TO 32+50	LT		310	
WEDGEWOOD DRIVE				
16+00 TO 22+30	RT	630		
TOTALS		2,395	820	162

CHART "A" NOTES:

(1) OFFSETS ARE FROM CENTERLINE OF SURVEY.

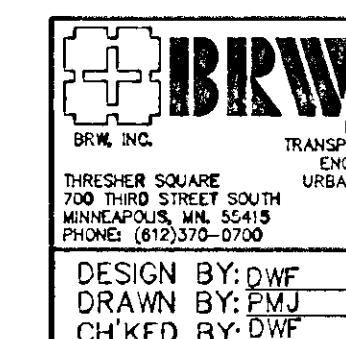
CLEARING AND GRUBBING (B)			
STATION	OFFSET	QUANTITY	
		TREE	ACRE
53+49 TO 53+98	65'-87' RT		0.05
54+26	78' RT	1	
54+65 TO 55+21	67'-120' RT		0.05
55+09 TO 55+61	103'-140' LT		0.05
55+91	100'-132' LT	2	
56+56	108' LT	1	
57+88 TO 58+31	65'-99' RT		0.05
59+55	118' LT	1	
59+80	117' LT	1	
59+88	125' LT	1	
60+14	117' LT	1	
60+70 TO 61+50	64'-110' RT		0.05
61+37 TO 62+98	98'-140' LT		0.10
TOTALS		8	3.50

PAVEMENT MARKING REMOVAL (3) (C)			
STATION TO STATION (1)	LOCATION (1)	PERMANENT LANE PAINT (LIN FT)	TEMPORARY LANE TAPE (LIN FT)
MAIN STREET			
43+30 TO 43+60	36' RIGHT	30	
ROUND LAKE BLVD			
3+85 TO 9+20	42' LEFT	535	
REISLING BLVD			
6+00 TO 8+80	24' LEFT	280	
6+00 TO 10+90	0' TO 12' LEFT	980 (5)	
8+35 TO 8+85	12' RIGHT	50	
10+90	0' TO 24' RIGHT		144 (4)
11+70	24' LEFT TO 12' RIGHT		216 (4)
11+70 TO 13+20	CL		150
11+70 TO 15+00	12' TO 0' RIGHT		660 (5)
TOTALS		1,875	1,170

CHART "C" NOTES:

- (1) STATIONING AND LOCATION ARE REFERENCED TO THE CENTERLINE OF SURVEY.
- (2) THIS ITEM ONLY INCLUDES THE LANE TAPE PLACED AS PART OF A PREVIOUS PROJECT. REMOVABLE LANE MARKINGS APPLIED IN CONJUNCTION WITH THE TRAFFIC CONTROL PLANS OF THIS PROJECT WILL BE REMOVED AS AN INCIDENTAL COST OF FURNISHING AND INSTALLING THE MARKING.
- (3) ALL MARKINGS ARE BASED ON 4" EQUIVALENT WIDTHS.
- (4) 24" STOP BAR.
- (5) SOLID DOUBLE BARRIER STRIPES.

GUARDRAIL (E)				
STATION TO STATION	LOCATION	BARRIER 8307 DESIGN "B" (LIN FT)	TWISTED END DESIGN 8319 (EACH)	GUARDRAIL TRANSITION CONNECTION (LIN FT)
52+42 TO 53+67	LT	50	1	25
53+36 TO 54+61	RT	50	1	25
56+08 TO 57+33	LT	50	1	25
57+03 TO 58+28	RT	50	1	25
TOTALS		200	4	100



ORIGINAL DATE 2/12/91  
 REVISIONS  
 REV PER COUNTY  
 COMMENTS 4/4/91  
 SURVEY BOOK

ANOKA COUNTY  
 C.S.A.H. 14 OVER B.N.R.R.  
 TABULATED QUANTITIES

BITUMINOUS AND AGGREGATE BASE SUMMARY (F)													
STATION TO STATION	TYPE 31 BASE			TYPE 41 BINDER			TYPE 61 WEAR			TACK COAT	AGGREGATE BASE CLASS 6A		
	DEPTH (IN.)	AREA (SQ.FT.)	WEIGHT (TON)	DEPTH (IN.)	AREA (SQ.FT.)	WEIGHT (TON)	DEPTH (IN.)	AREA (SQ.FT.)	WEIGHT (TON)	(GAL.)	DEPTH (IN.)	AREA (SQ.FT.)	VOLUME (CU. YD.)
E.B. MAIN STREET													
44+77 TO 54+10	3.5	22,562	509	2.5	22,562	363	1.0	22,562	150	251	6.0	23,443	434
57+12 TO 64+50	3.5	29,750	671	2.5	29,750	479	1.0	29,750	198	331	6.0	35,523	658
W.B. MAIN STREET													
44+77 TO 53+57	3.5	30,130	680	2.5	30,130	485	1.0	30,130	201	335	6.0	30,561	566
56+60 TO 64+50	3.5	22,118	499	2.5	22,118	356	1.0	22,118	147	246	6.0	28,338	525
TOTALS			2,359			1,683			696	1,163			2,183

**BASIS OF QUANTITIES:**

UNIT WEIGHT OF BITUMINOUS MIX:  
 TYPE 31 BASE - 116 LBS/SQ YD/INCH  
 TYPE 41 BINDER - 116 LBS/SQ YD/INCH  
 TYPE 61 WEAR - 120 LBS/SQ YD/INCH

**TACK COAT:**

APPLICATION RATE - 0.05 GAL/SQ YD/LAYER

CURB & GUTTER AND CONCRETE WALK SUMMARY (G)					
STATION	LOCATION	B624 C & G	B624 C & G MOD.	C & G TRANSITION	3" CONCRET WALK
		(LIN FT)	(LIN FT)	(LIN FT)	(SQ FT)
E.B. MAIN STREET					
44+77 TO 53+00	LT	823			7,267
44+77 TO 53+00	RT	823			
53+00 TO 54+24	LT	96	30.5		1,038
53+00 TO 54+61	RT	129	23.5	7	
56+66 TO 64+50	LT	754	30.5		4,220
57+02 TO 64+50	RT	720	23.5	7	
E.B. MAIN STREET					
44+77 TO 53+00	LT	823			
44+77 TO 53+00	RT	823			3,335
53+00 TO 53+66	LT	39	23.5	7	
53+00 TO 54+04	RT	71	30.5		951
56+08 TO 64+50	LT	810	23.5	7	
56+44 TO 64+50	RT	778	30.5		5,381
TOTALS		6,689	216	28	22,192

TURF ESTABLISHMENT (H)							
STATION TO STATION	LOCATION	SOD (SQ YD)	SEED MIX 1000		MULCH MATERIAL TYPE I		WOOD FIBER BLANKETING (SQ YD)
			(ACRE)	(LBS)	(ACRE)	(TONS)	
44+77 TO 53+00	LT	549	0.96	36	0.24	0.48	3,456
44+77 TO 53+00	RT	549	0.89	34	0.29	0.58	2,927
53+00 TO 54+38	LT	301	0.07	3			318
53+00 TO 55+34	RT	440	0.19	7			935
55+31 TO 64+50	LT	939	1.14	43	0.12	0.24	4,928
56+26 TO 64+50	RT	891	1.16	44	0.08	0.16	5,245
TOTALS		3,669		167	1.46	0.73	17,809

**BASIS OF QUANTITIES:**

SEED MIX 1000 ..... 38 LBS PER ACER  
 FERTILIZER 10-20-20 ..... 450 LBS PER ACER  
 MULCH MATERIAL TYPE I ..... 2 TONS PER ACER

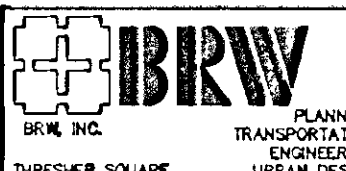
DRAINAGE TABULATION (I)														
STRUCTURE NUMBER	STATION	LOCATION	REMARKS	CONSTRUCTION					FURNISH & INSTALL		DRAINS TO			
				MH OR CB	DESIGN	TOP OF CASTING ELEVATION	OUTLET ELEVATION	PAY HEIGHT (LIN. FT.)	CASTING ASSEMBLY	12" RCP CLASS III	15" RCP CLASS III	STRUCTURE NUMBER	INLET ELEVATION	PIPE GRADE (%)
1	49+25	36' LT		CB	C OR G	887.36	883.19	4.04	A	26		2	882.94	0.96
2	49+25	10' LT		CB	C OR G	887.79	882.94	4.72	A	20		4	882.72	1.10
3	49+25	36' RT		CB	C OR G	887.36	882.97	4.26	A	26		4	882.72	0.96
4	49+25	10' RT	(1)	CB	C OR G	887.79	882.72	4.94	A		428	STUB	871.51	2.62
5	62+35	48' LT		CB	C OR G	884.94	880.87	3.94	A	34		6	880.54	0.97
6	62+35	16' LT		CB	C OR G	885.34	880.54	4.67	A	8		7	880.44	1.25
7	62+35	8' LT		CB	C OR G	885.33	880.44	4.76	A		62	8	879.84	0.97
8	62+35	54' RT	(1)	CB	A OR F	884.67	875.28	9.26	A		200	STUB	871.28	2.00

**REMARKS:**

(1) REMOVE BULKHEAD AND CONNECT TO EXISTING STORM SEWER.

DRAINAGE CASTING SCHEDULE (J)				
ASSEMBLY TYPE	NUMBER REQUIRED	FRAME CASTING	GRATE CASTING	CURB BOX CASTING
A	8	801	810	821-B

CASTING NUMBER	STD. PLATE NUMBER
801	4126 E
810	4149 C
821-B	4161 F

 BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN 120 THIRD STREET SOUTH MINNEAPOLIS, MN 55413 PHONE: (612) 338-3100	ORIGINAL DATE 2/20/91 REVISIONS _____ _____ _____ _____ _____ SURVEY BOOK _____	<b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R. TABULATED QUANTITIES	
	DESIGN BY: DWF DRAWN BY: EMJ CHECKED BY: DWF	S.A.P. 02-614-18	SHEET 15 OF 42
	No. 16-9012	DESIGN FILE	No. 16-9012

## EARTHWORK SUMMARY

### EXCAVATION

COMMON EXCAVATION .....	4,923 CY
SELECTED GRADING MATERIAL .....	328 CY
TOPSOIL .....	4,595 CY
 SUBGRADE EXCAVATION .....	 838 CY
SELECTED GRADING MATERIAL .....	838 CY
TOPSOIL .....	0 CY

### EMBANKMENT (CV)

EMBANKMENT .....	166,201 CY
GRANULAR .....	157,004 CY
SELECT GRANULAR .....	5,459 CY
SELECT GRANULAR MOD. ....	1,108 CY
TOPSOIL .....	2,630 CY

### BORROW (CV)

GRANULAR BORROW .....	155,641 CY
SELECT GRANULAR BORROW .....	5,459 CY
SELECT GRANULAR BORROW MOD. ....	1,108 CY

#### GENERAL NOTES:

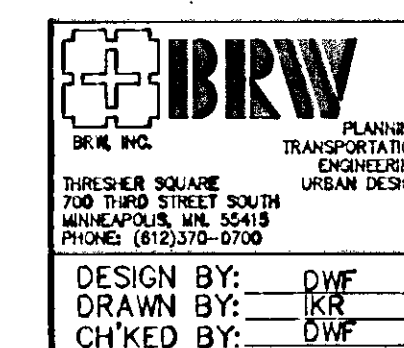
- 1) 15% SHRINKAGE FACTOR FOR NORMAL GRADING (EV TO CV).

#### SOILS AND CONSTRUCTION NOTES:

1. TOP OF GRADING SUBGRADE IS DEFINED AS THE BOTTOM OF THE AGGREGATE BASE.
2. IN FILL AREAS, THE SUBGRADE SHALL BE CONSTRUCTED WITH SELECTED GRADING MATERIAL.
3. SELECTED GRADING MATERIALS SHALL CONSIST OF GRANULAR MATERIALS, OF WHICH THE UPPER 1.0 FOOT OF THE SUBGRADE SHALL CONSIST OF SELECT GRANULAR MATERIALS.
4. GRANULAR MATERIAL, REGARDLESS OF SOURCE, SHALL MEET THE REQUIREMENTS OF SPEC. 3149.2A.
5. SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF SPEC 3149.2B.
6. COMPACTION OF THE GRADING PORTION OF THIS PROJECT SHALL BE BY THE "SPECIFIED DENSITY METHOD".
7. TEST ROLLING WILL NOT BE REQUIRED.
8. 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.
9. DISPOSITION OF EXCAVATED MATERIAL SHALL BE IN ACCORDANCE WITH SPEC. 2105.3D.
10. 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.
11. WHERE CONNECTING NEW SURFACING TO AN INPLACE PAVEMENT, THE EXCAVATION SHALL BE BACKFILLED PROMPTLY TO AVOID UNDERMINING THE INPLACE PAVEMENT.
12. 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 0.03 TO 0.05 GALLONS PER 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.
13. COMPACTION OF THE BITUMINOUS BASE AND BINDER SHALL BE BY THE "SPECIFIED DENSITY METHOD". COMPACTION OF THE TYPE 61 WEAR SHALL BE BY THE "ORDINARY COMPACTION METHOD".
  14. REFER TO THE SPECIAL PROVISIONS FOR SPECIFICATIONS REGARDING PLANT MIXED BITUMINOUS PAVEMENTS.
  15. COMPACTION OF THE AGGREGATE BASE LAYERS SHALL BE BY THE "SPECIFIED DENSITY METHOD".
  16. IN AREAS TO BE DISTURBED BY CONSTRUCTION, STRIP AND RE-USE AS SLOPE DRESSING ALL TOPSOIL AND INPLACE SLOPE DRESSING. REFER TO THE CROSS-SECTIONS FOR THE LIMITS OF TOPSOIL STRIPPING. GENERAL DEPTHS OF TOPSOIL LAYER ARE ASSUMED TO BE 0'-6".
  17. SLOPE DRESSING ON THIS PROJECT IS DEFINED AS THE TOPSOIL OR OTHER SOIL PLACED DURING PRIOR CONSTRUCTION TO PROVIDE A MEDIUM FOR ESTABLISHING TURF.
  18. PLACE A MINIMUM OF 4 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.
  19. ON SLOPES GREATER THAN 3:1, USE MIXTURE 1000 SEED AND WOOD FIBER BLANKETING.
  20. ON SLOPES LESS THAN 3:1, USE MIXTURE 1000 SEED AND TYPE 1 MULCH.
  21. SOD ALL PERMANENT BOULEVARD AREAS.

22. ALL SOD UTILIZED WITHIN THE PROJECT LIMITS SHALL MEET THE REQUIREMENTS OF SPEC. 3878.2B (EROSION CONTROL SOD).
23. EXCESS TOPSOIL MAY BE USED IN EMBANKMENT CONSTRUCTION IN AREAS OUTSIDE OF A 1 1/2:1 SLOPE FROM THE BACK OF CURB.



ORIGINAL DATE 2/7/91  
 REVISIONS \_\_\_\_\_  
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 SURVEY BOOK \_\_\_\_\_

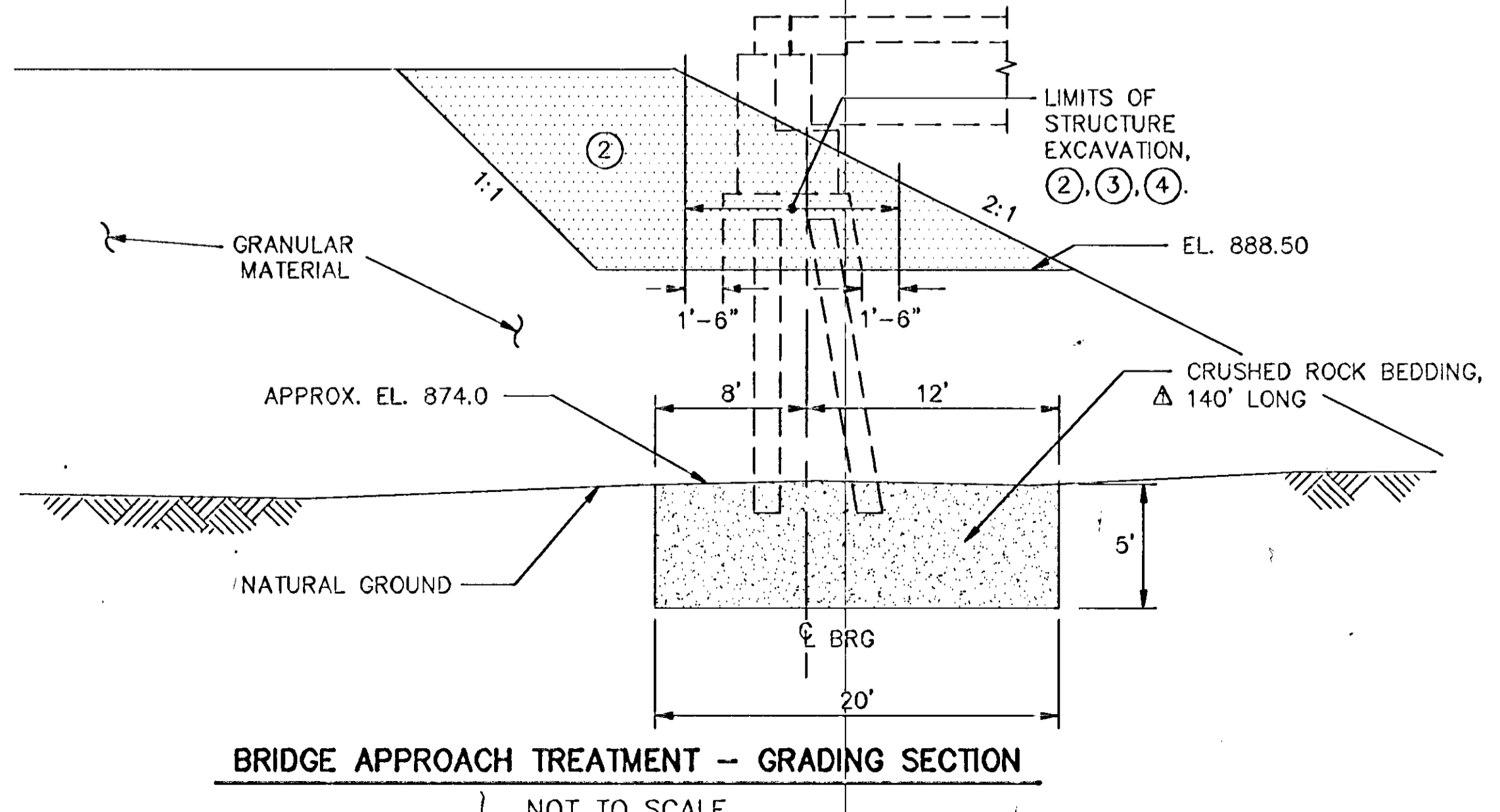
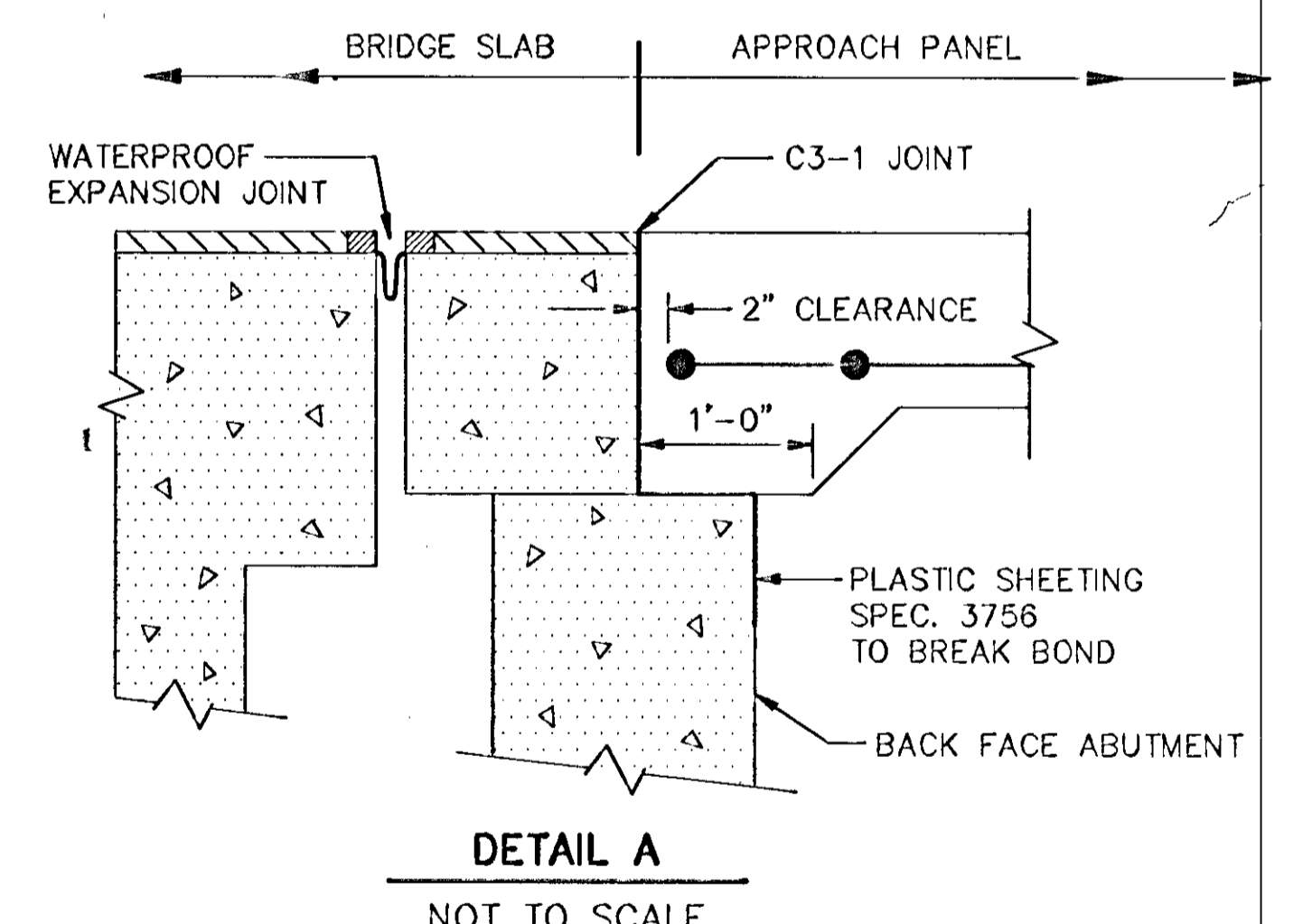
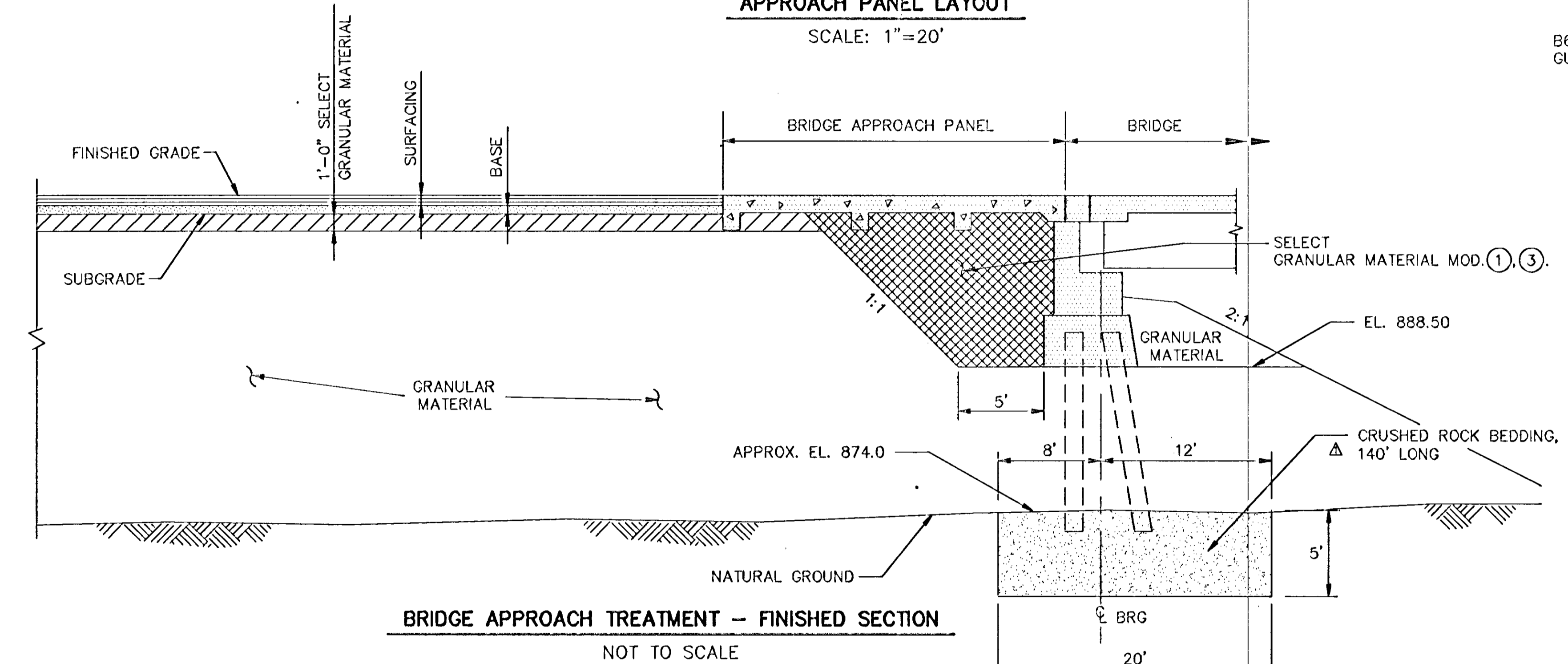
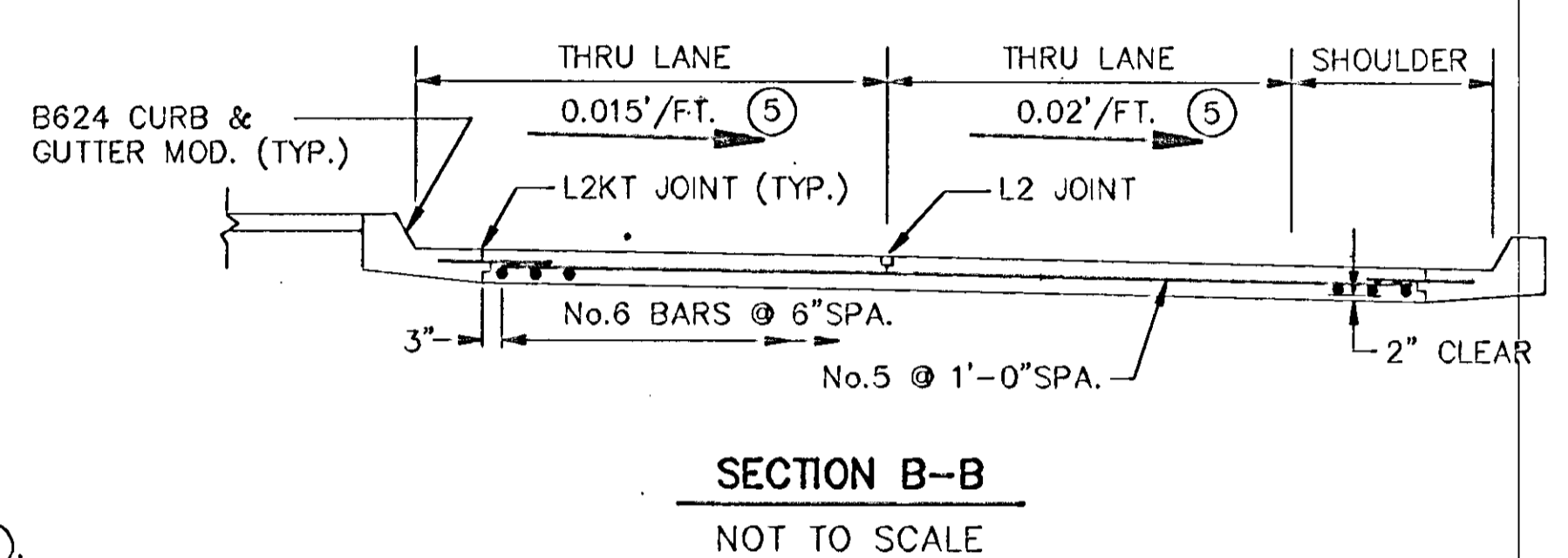
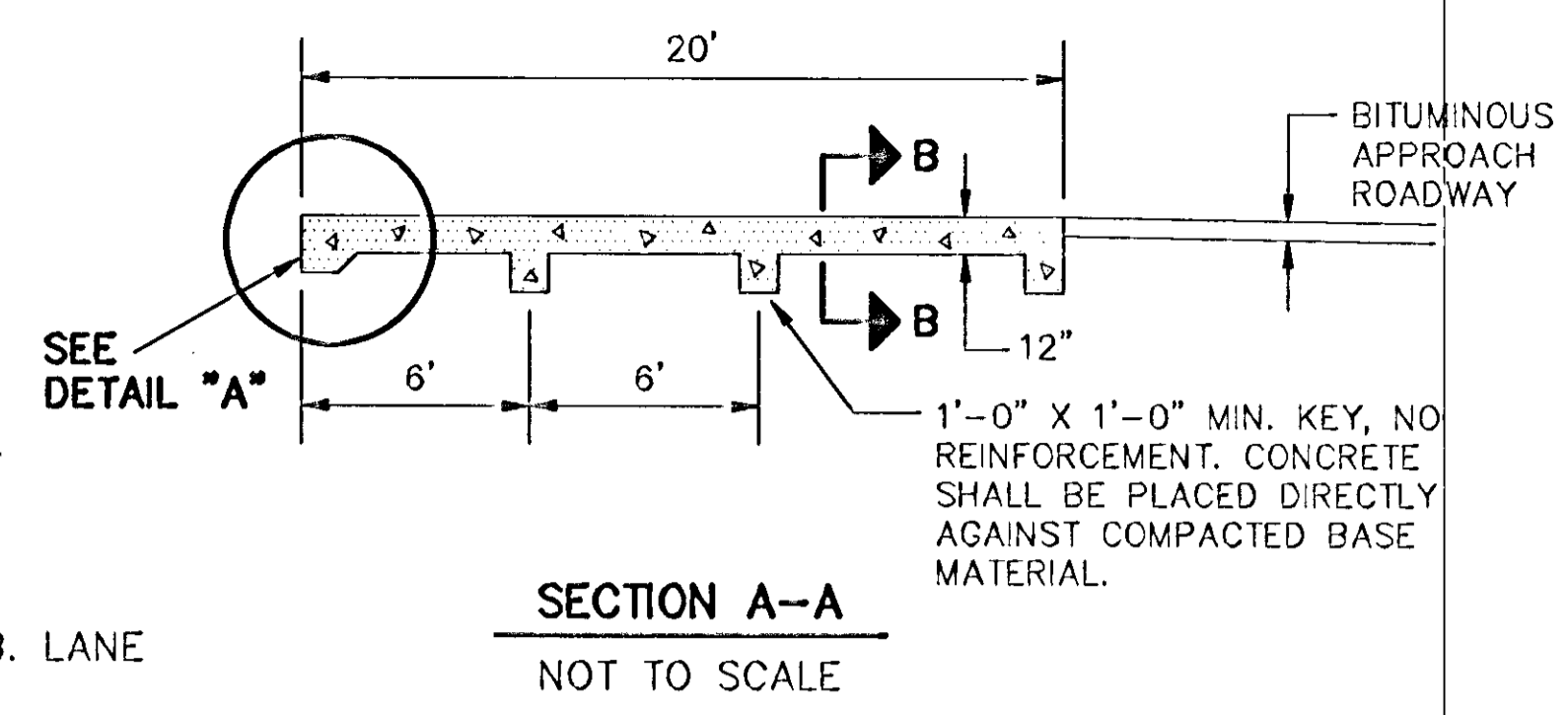
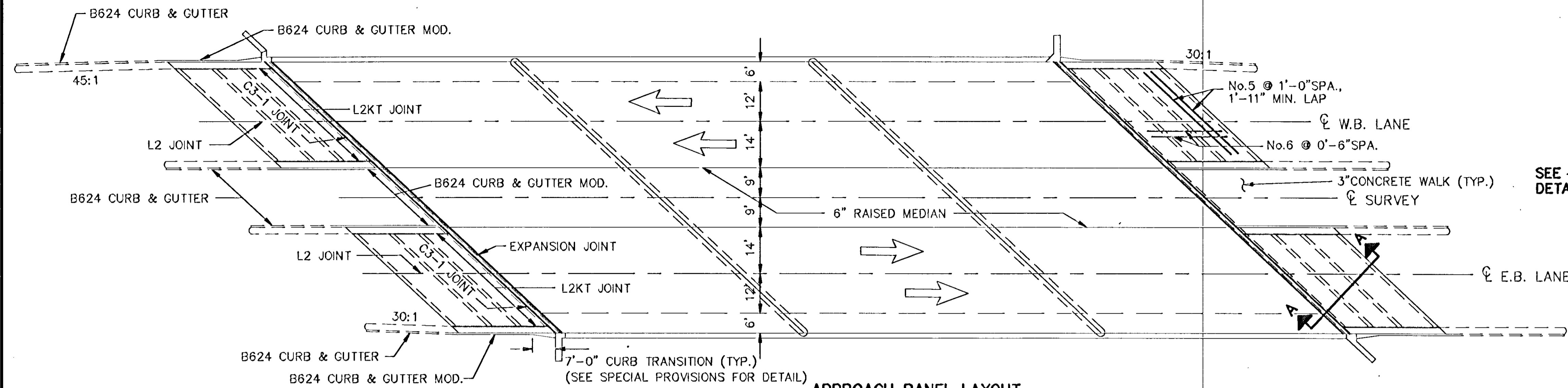
**ANOKA COUNTY**  
 C.S.A.H. 14 OVER B.N.R.R.  
**EARTHWORK SUMMARY**  
**& CONSTRUCTION NOTES**

S.A.P. 02-614-18

SHEET 16 OF 42

DESIGN FILE  
 No. 16-9012

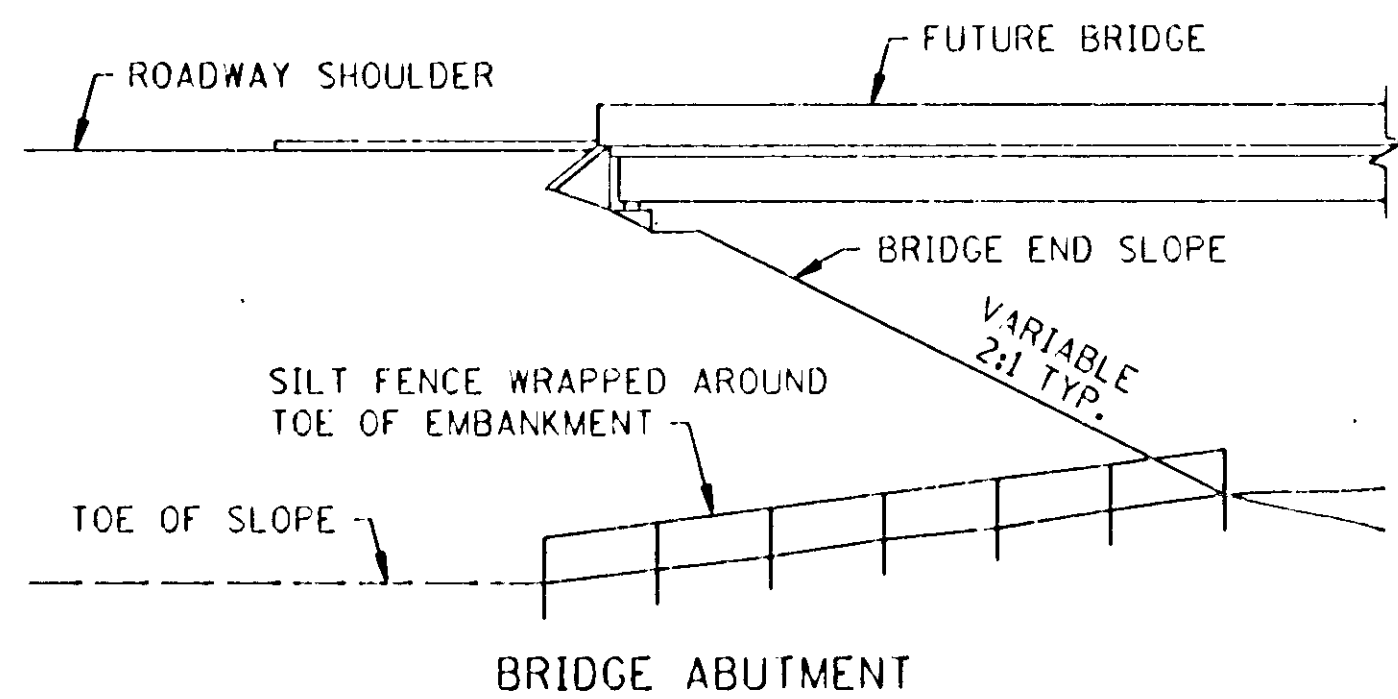
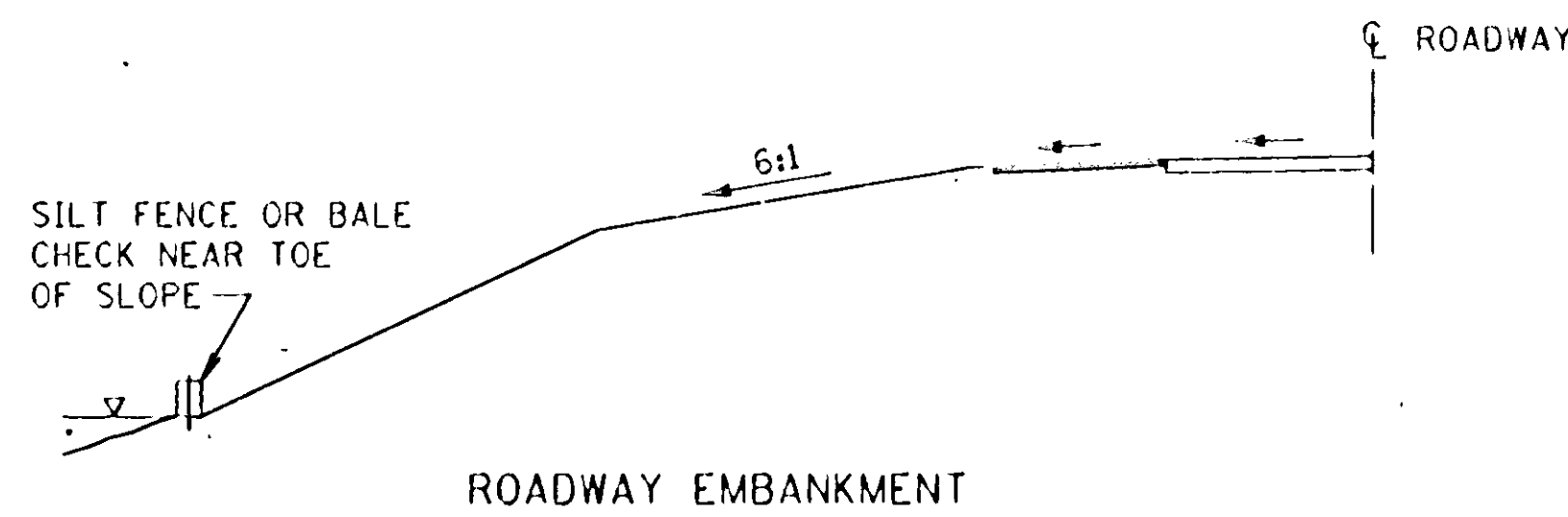




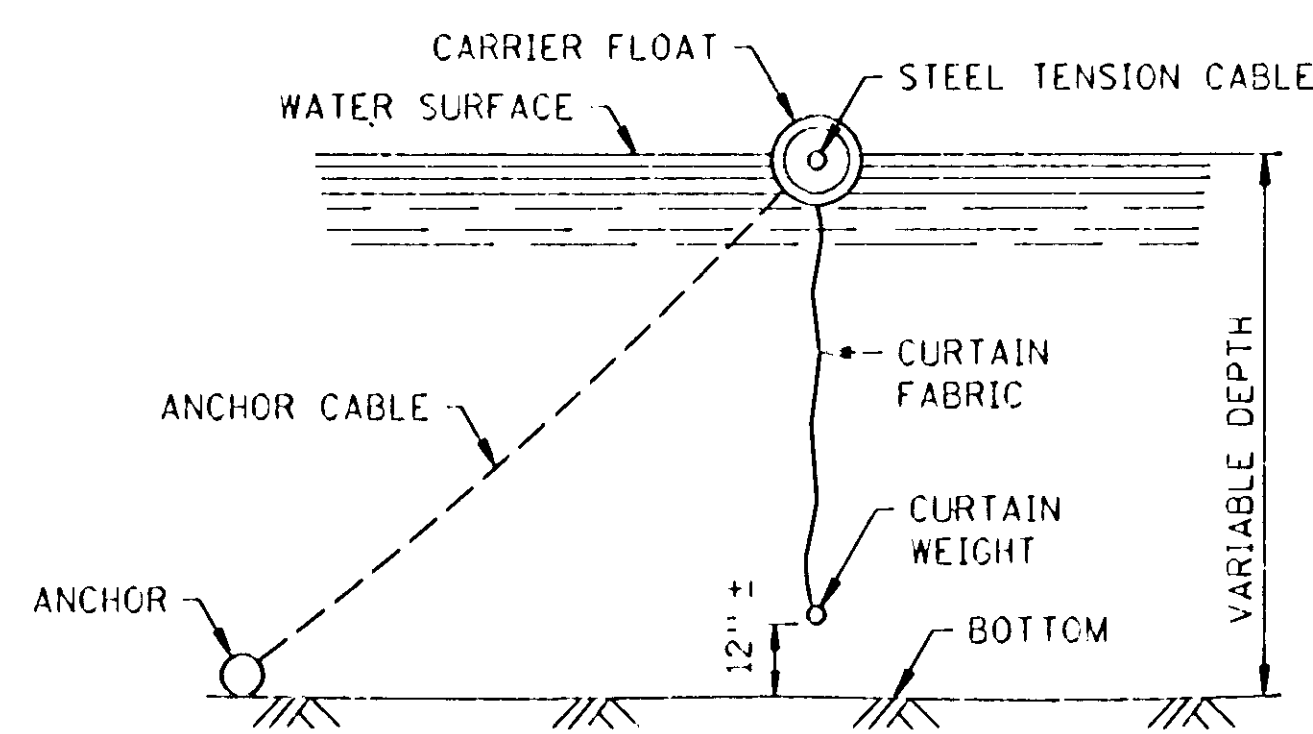
- SPECIFIC NOTES:**
- 1 SELECT GRANULAR MATERIAL MODIFIED TO LESS THAN 7% PASSING THE 200 SIEVE.
  - 2 GRANULAR MATERIAL TO BE REMOVED AS NECESSARY FOR BRIDGE CONSTRUCTION.
  - 3 EARTHWORK QUANTITIES ARE BASED ON FINISHED SECTION ONLY. NO COMPENSATION SHALL BE MADE FOR GRANULAR MATERIAL FURNISHED AS PART OF GRADING SECTION.
  - 4 SEE BRIDGE PLANS FOR QUANTITY AND BASIS OF PAYMENT FOR STRUCTURE EXCAVATION.
  - 5 CROSS SLOPE IS PERPENDICULAR TO ROADWAY CENTERLINE

- NOTES:**
1. USE No. 6 BARS @ 6" LONGITUDINAL AND No. 5 BARS @ 1'-0" TRANSVERSE REINFORCEMENT.
  2. ALL BARS TO BE EPOXY COATED.
  3. EACH S.Y. OF BRIDGE APPROACH PANEL REQUIRES 36.4 POUNDS OF REBAR PLUS EXTRA No. 4 TIE BARS FOR L2KT JOINT.
  4. B624 CURB & GUTTER MOD. AND CURB TRANSITION ARE SEPARATE BID ITEMS.
  5. FOR CONTRACTION JOINTS, SEE STD. PLATE 1120S. FOR LONGITUDINAL JOINTS, SEE STD. PLATE 1140S.

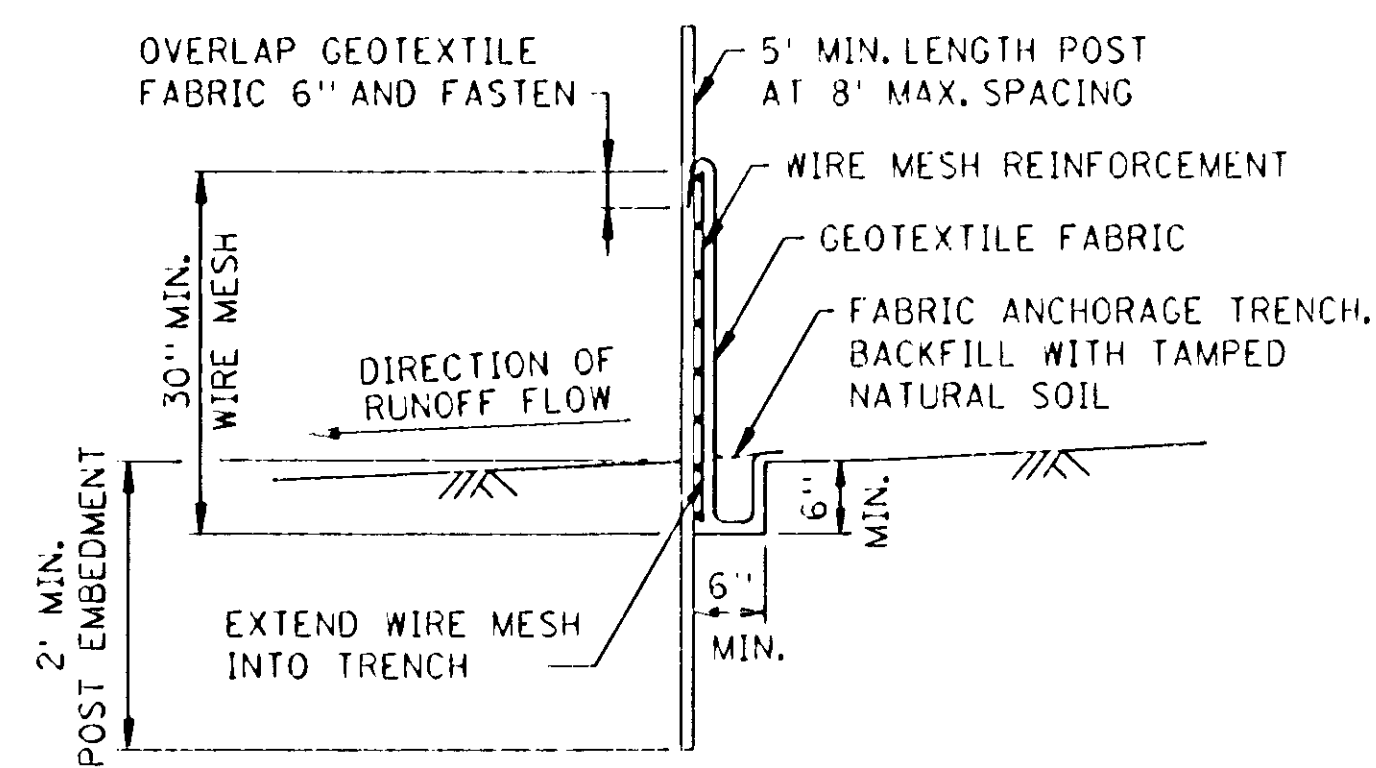
<p><b>BRW</b> INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>THURSDAY SQUARE 200 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 337-0100</p>	<p>ORIGINAL DATE 2/7/91 REVISIONS ADD CRUSHED ROCK, 3/5/91</p>	<p><b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R.</p> <p>BRIDGE APPROACH PANEL AND TREATMENT</p>
	<p>DESIGN BY: DWF DRAWN BY: KR CHK'D BY: DWF</p>	
<p>S.A.P. 02-614-18</p>		<p>DESIGN FILE No. 16-9012</p>



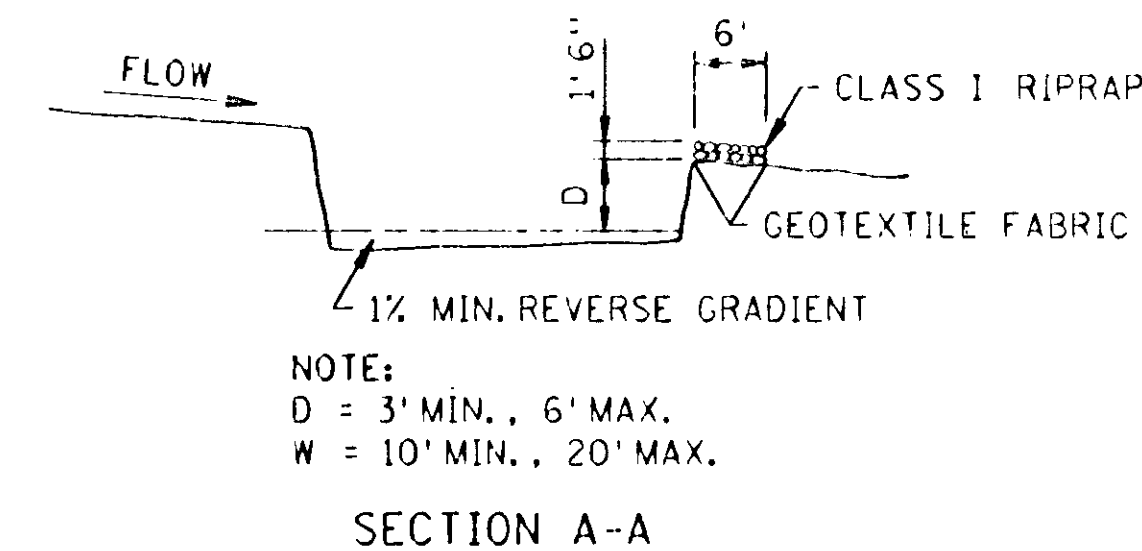
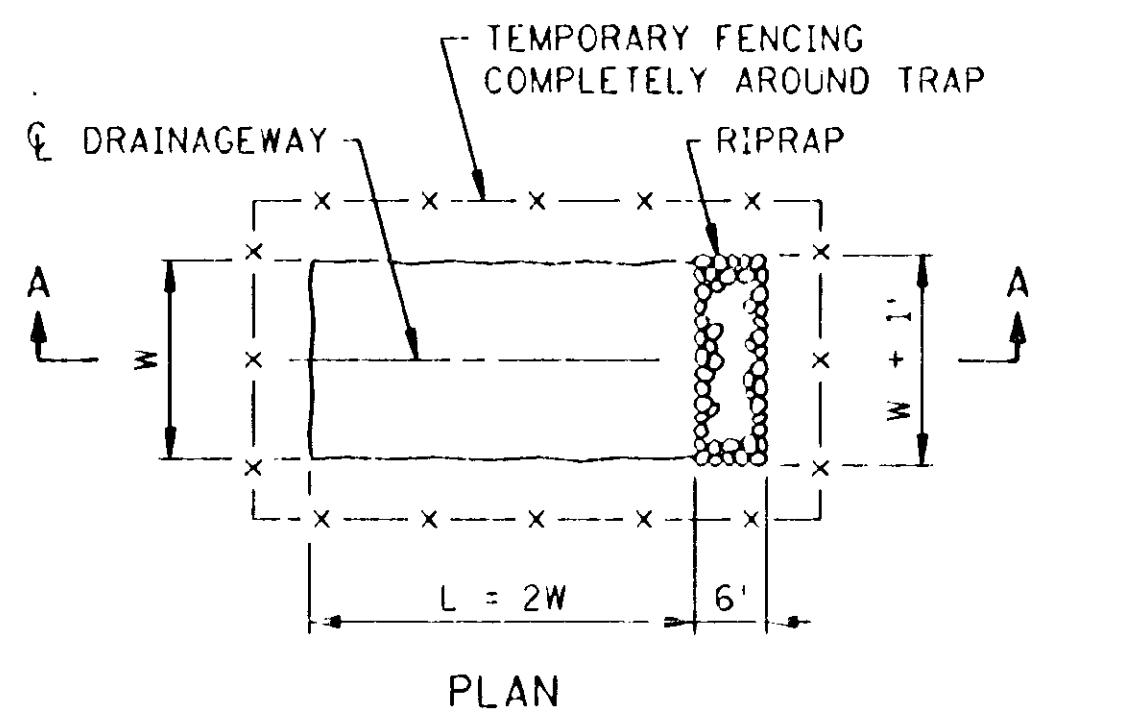
SILT FENCE OR BALE CHECK TO PROTECT ADJACENT CRITICAL AREAS



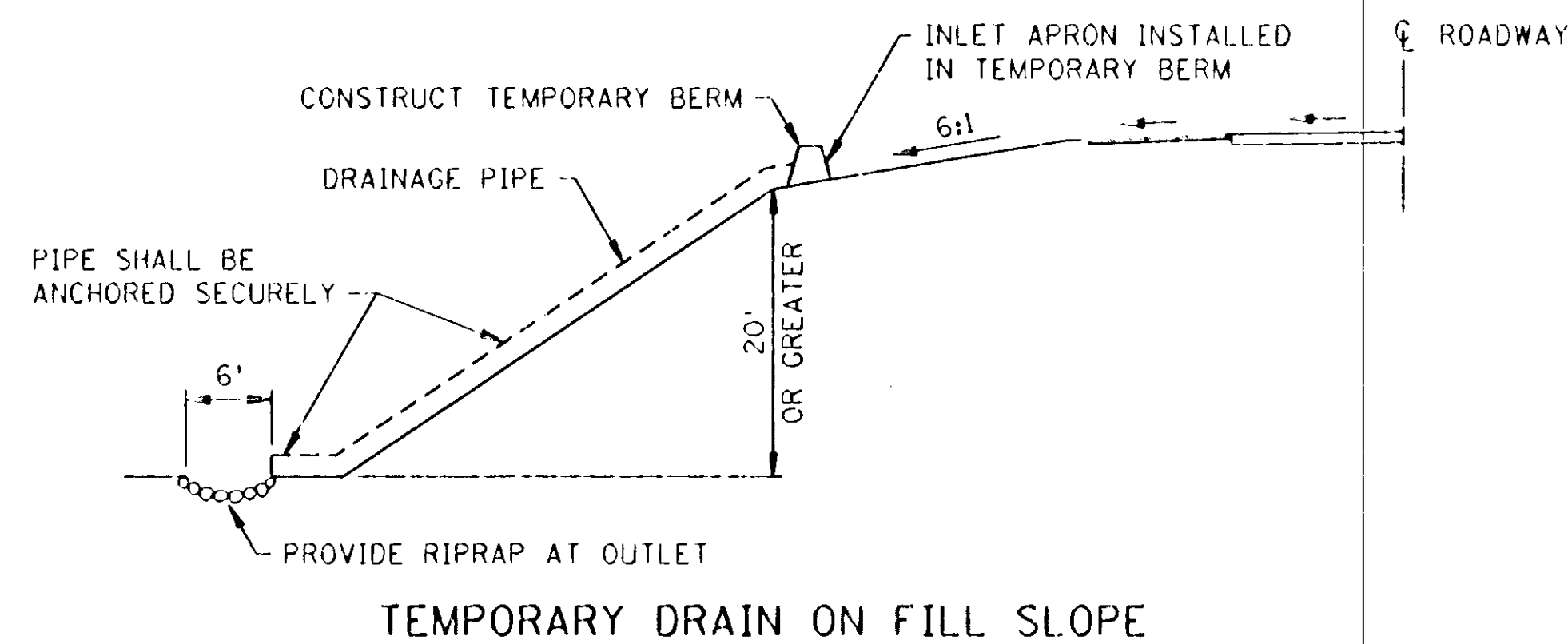
FLOATATION SILT CURTAIN



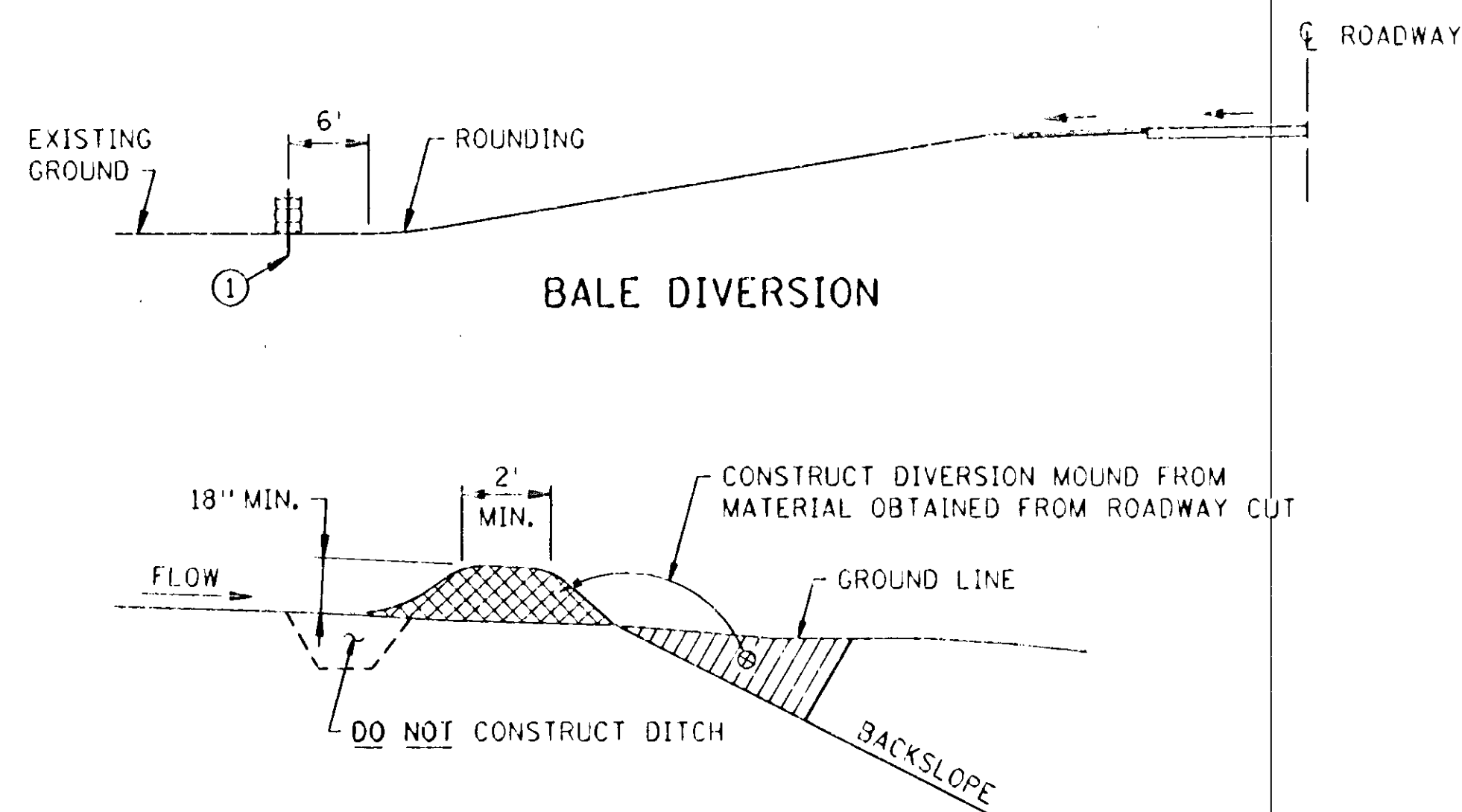
SILT FENCE DETAIL



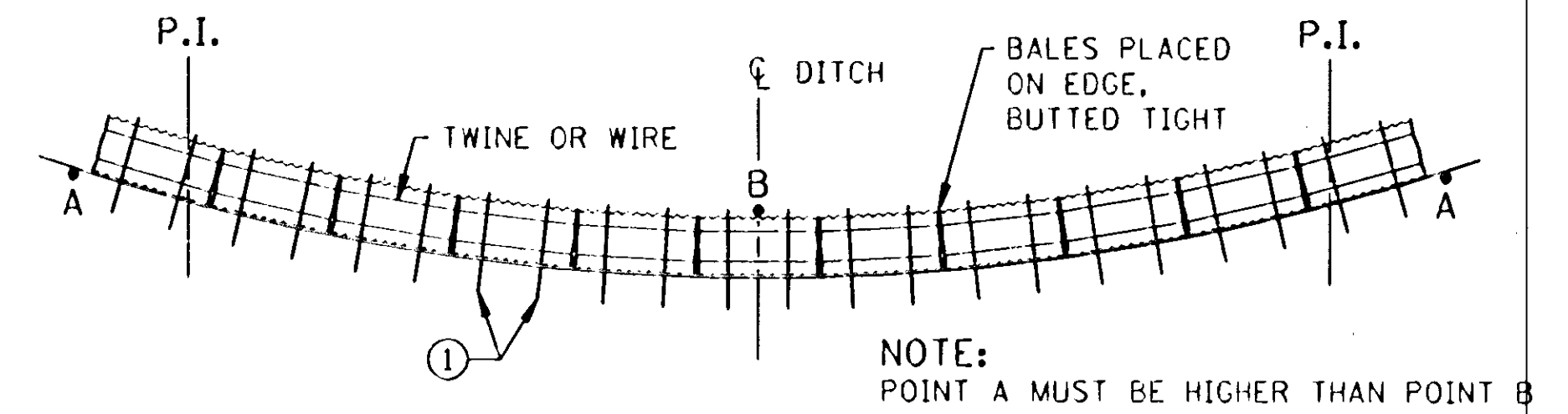
TEMPORARY SEDIMENT TRAP



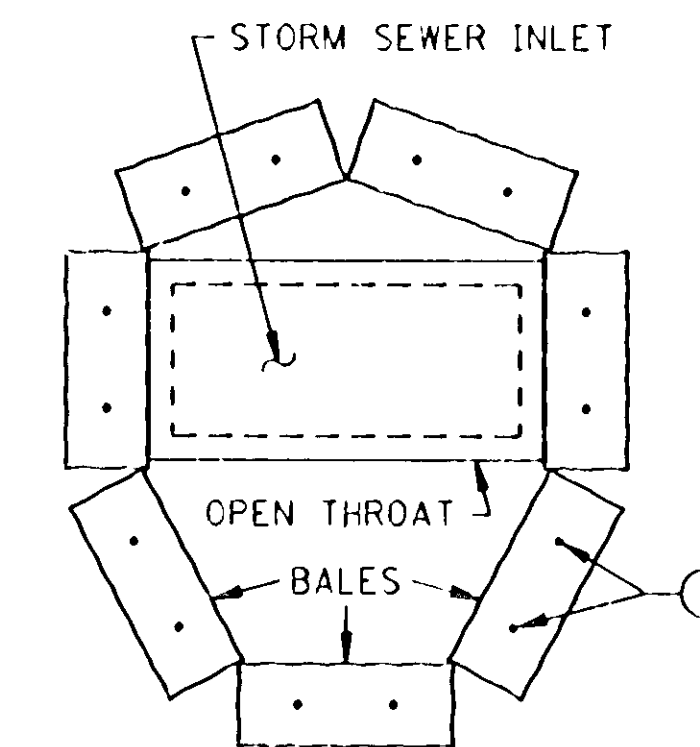
TEMPORARY DRAIN ON FILL SLOPE



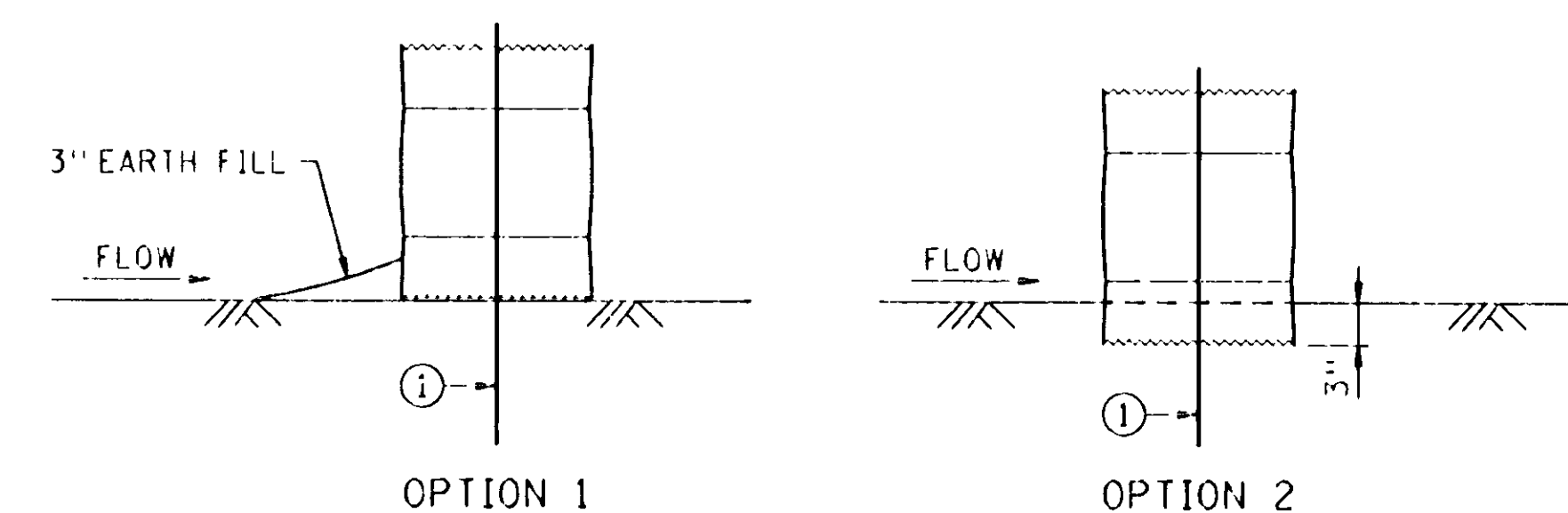
DIVERSION MOUND



BALE DITCH CHECK



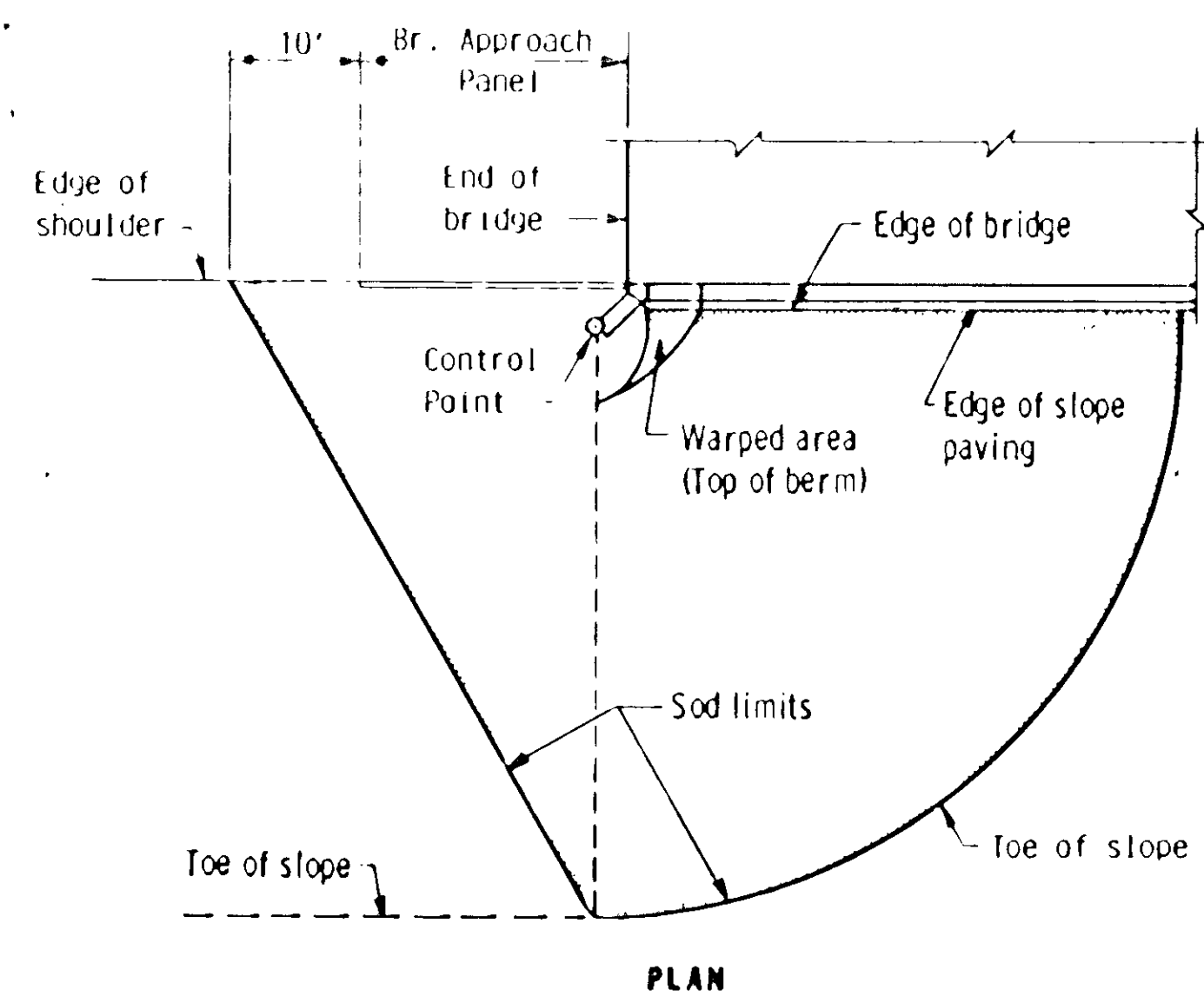
BALE CHECK TO PROTECT STORM SEWER INLETS



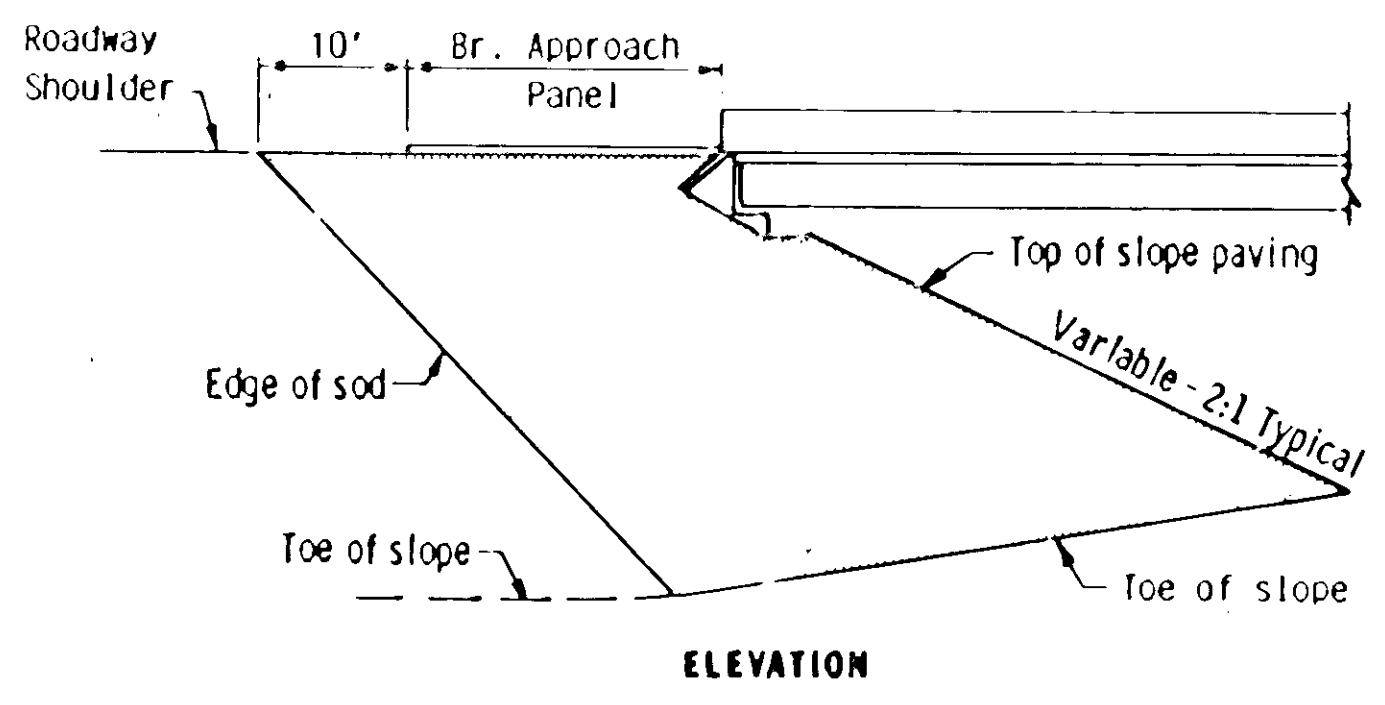
BALE CHECK DETAILS

NOTE:  
① TWO 2" X 2" WOOD STAKES OR REINFORCING BARS IN EACH BALE AND EMBEDDED IN THE GROUND 10" MINIMUM.

STANDARD SHEET NO. 5-297.405	TITLE: TEMPORARY EROSION CONTROL
STANDARD APPROVED: DECEMBER 19, 1990	
S.A.P. 02-614-18	SHEET NO. 18 OF 42 SHEETS

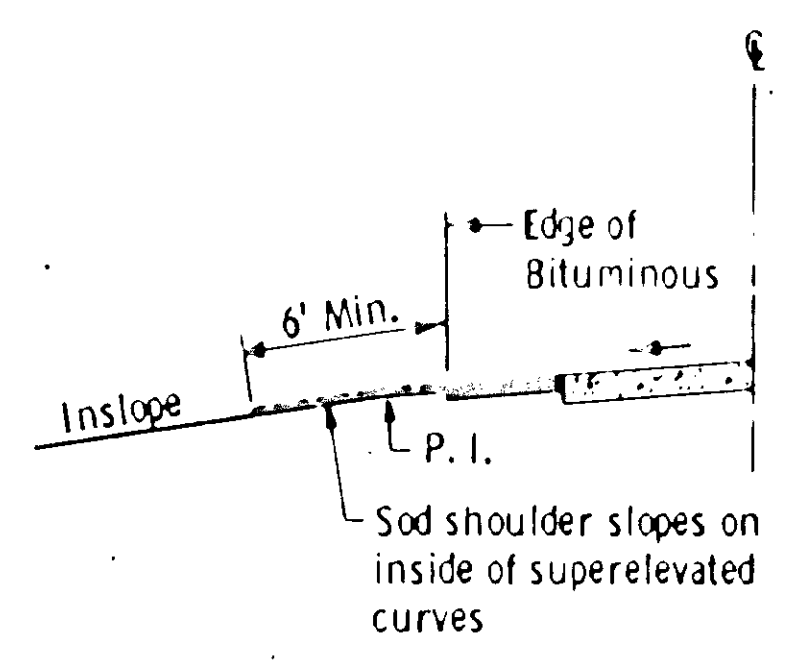


PLAN

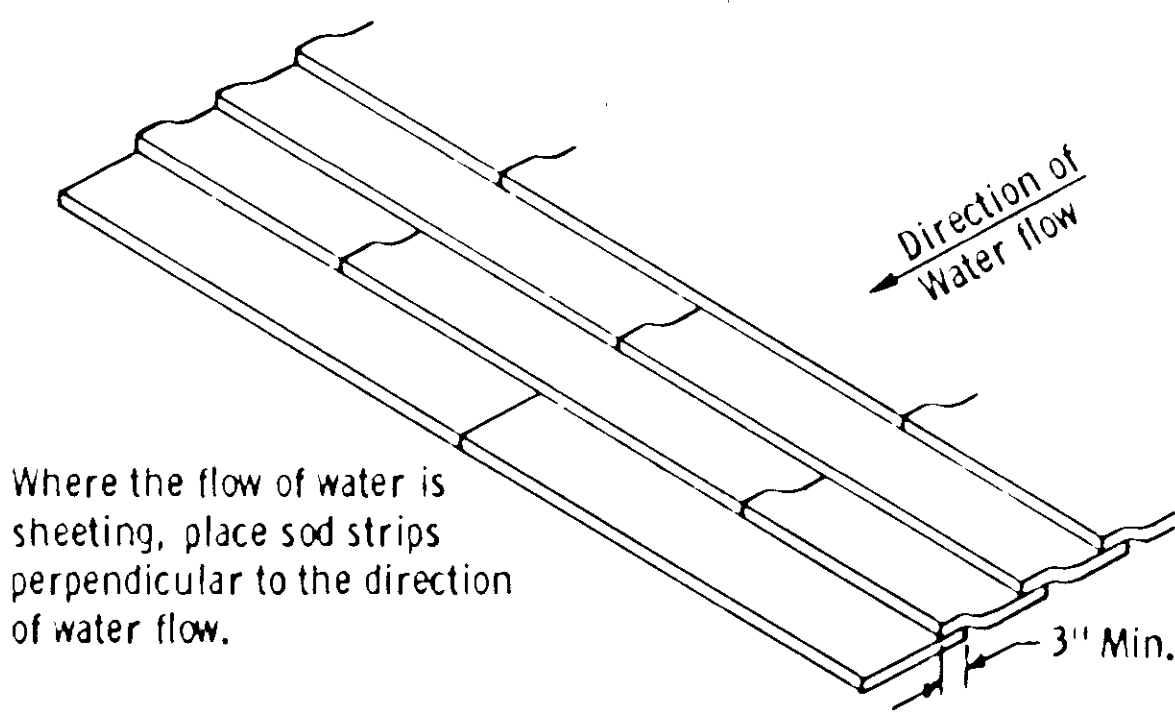


ELEVATION

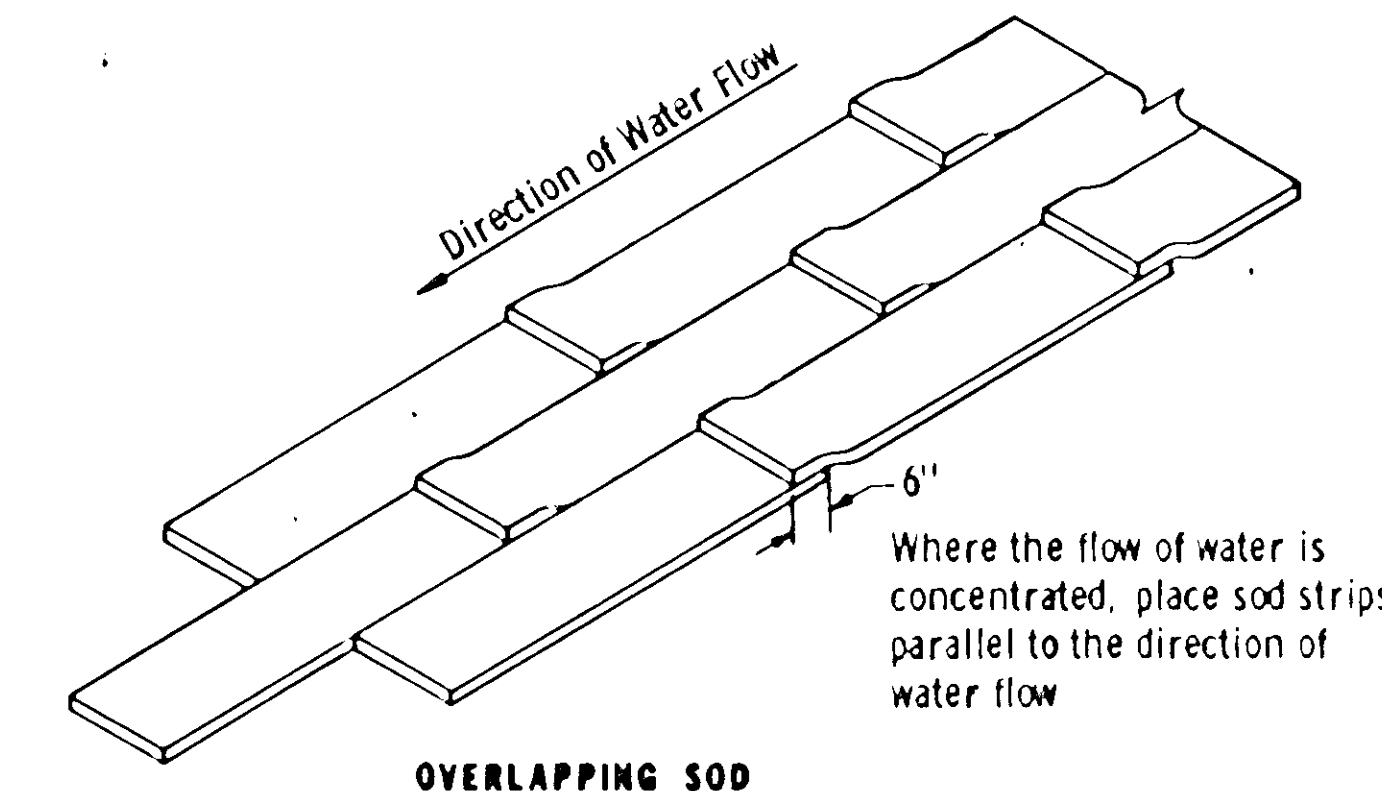
SODDING LIMITS AT BRIDGE APPROACH FILLS



SODDING INSLOPES OF SUPERELEVATED CURVES



SHINGLING SOD

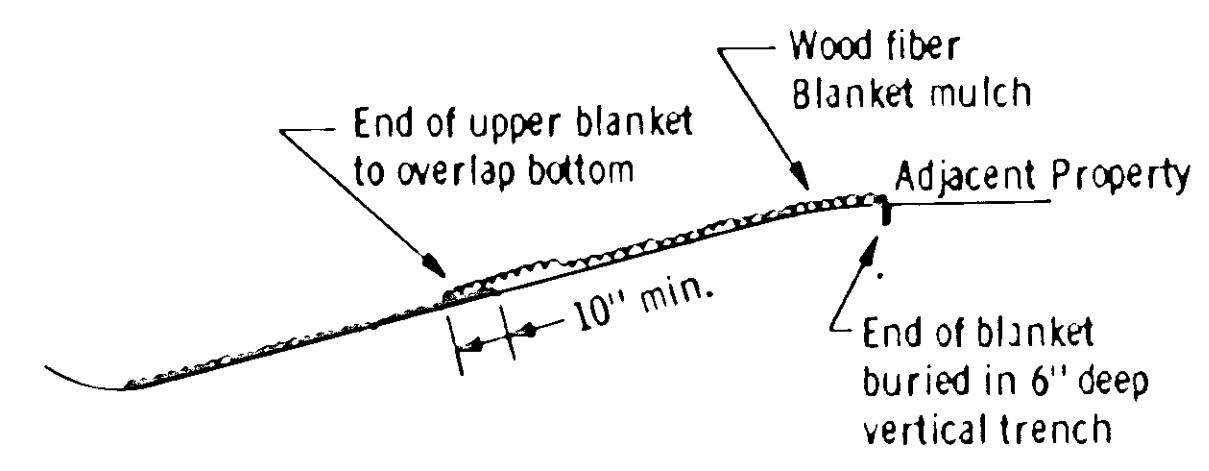


OVERLAPPING SOD

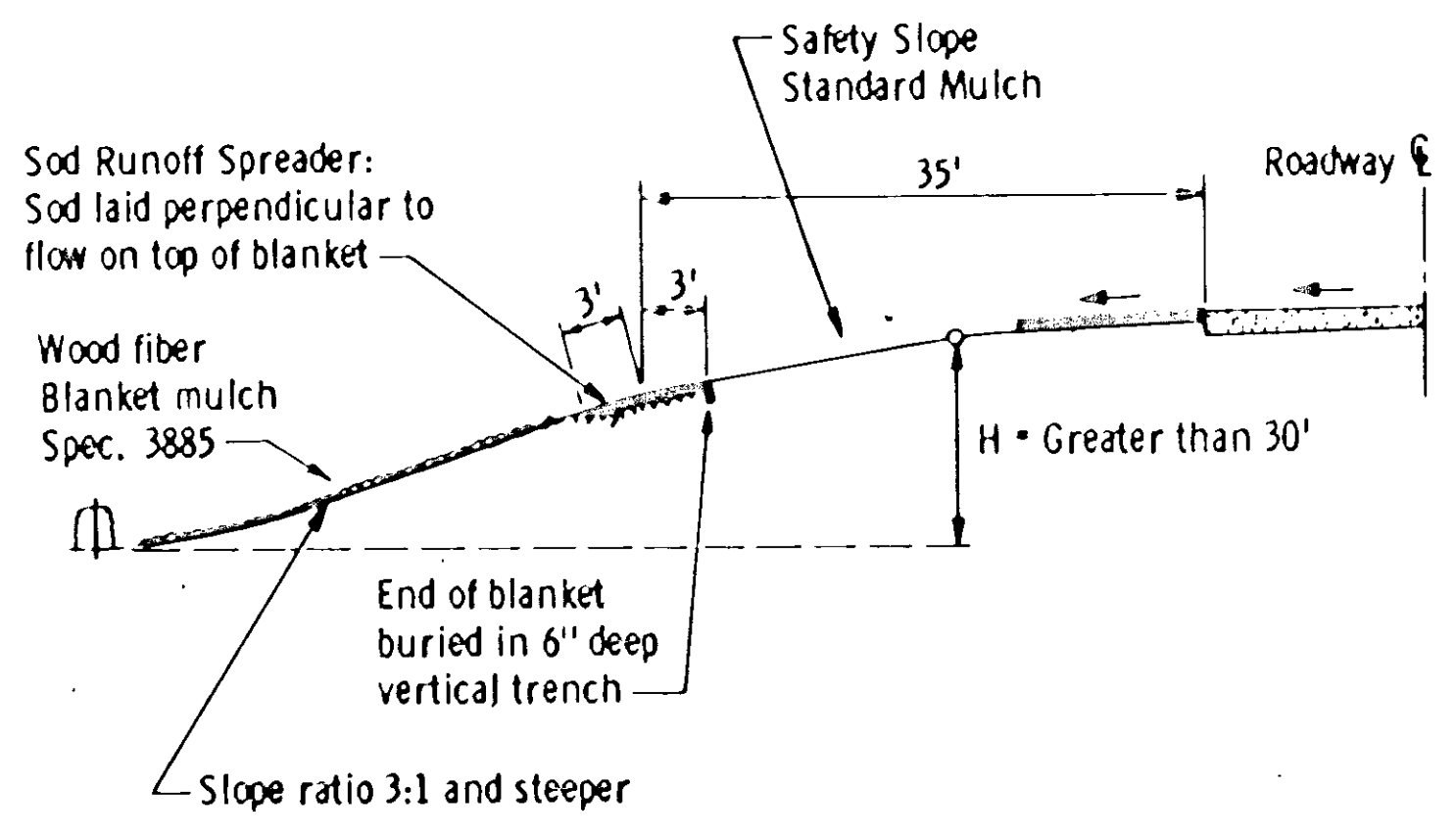
SPECIAL SOD PLACEMENT TECHNIQUES

Where the flow of water is sheeting, place sod strips perpendicular to the direction of water flow.

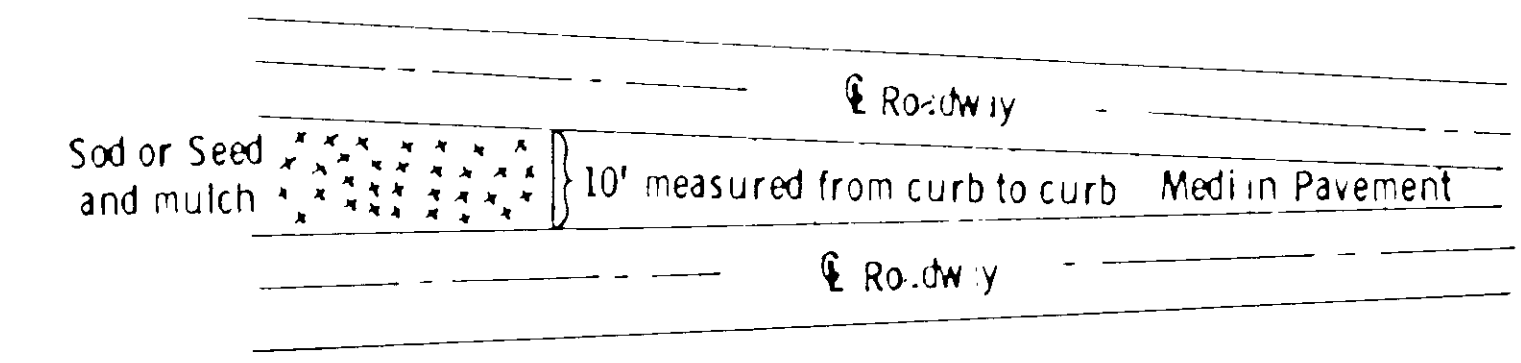
Where the flow of water is concentrated, place sod strips parallel to the direction of water flow



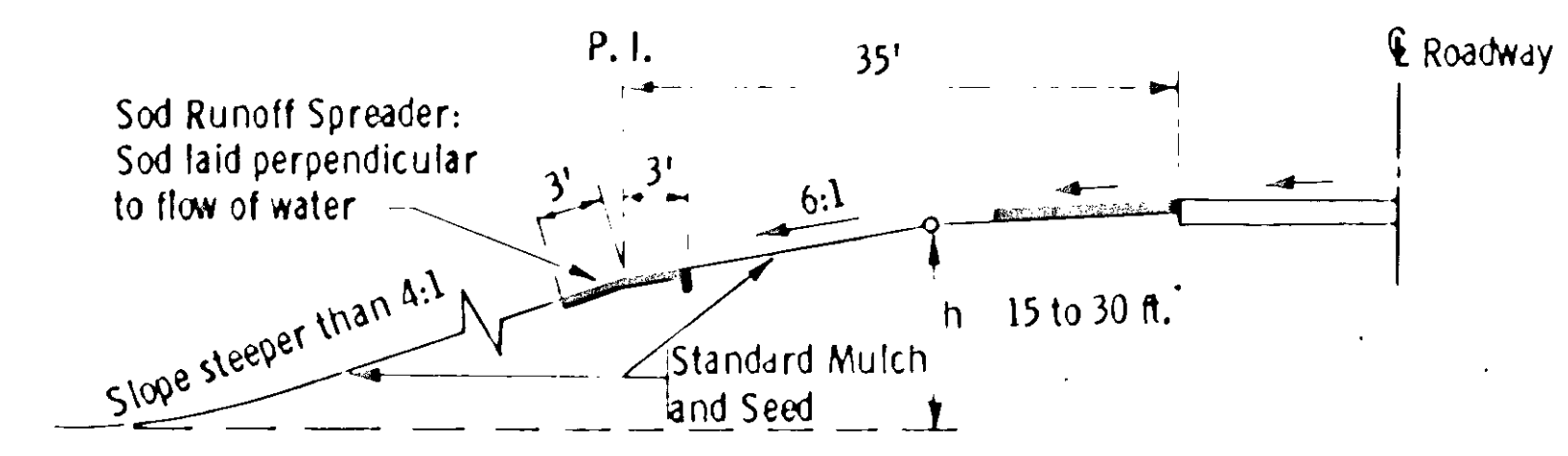
WOOD FIBER BLANKET INSTALLATION ON A CUT SLOPE



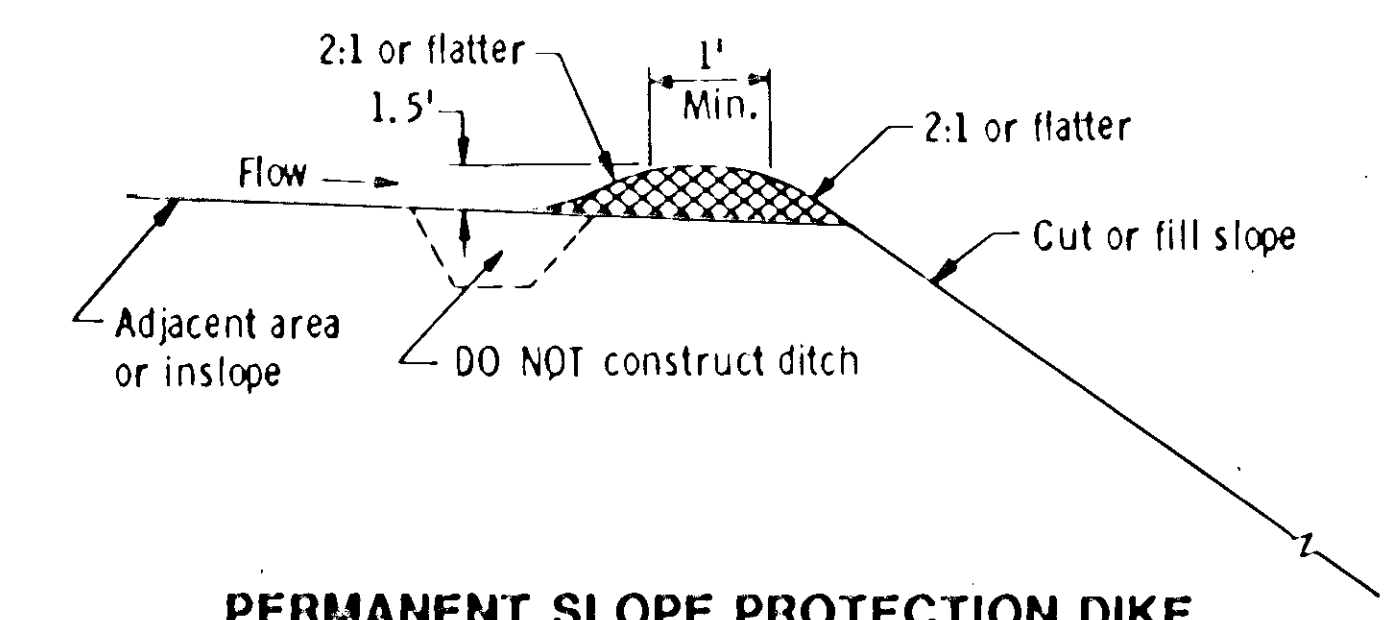
WOOD FIBER BLANKET INSTALLATION ON A BACKSLOPE (WHEN REQUIRED)



SODDING LIMITS AT GORE AREA



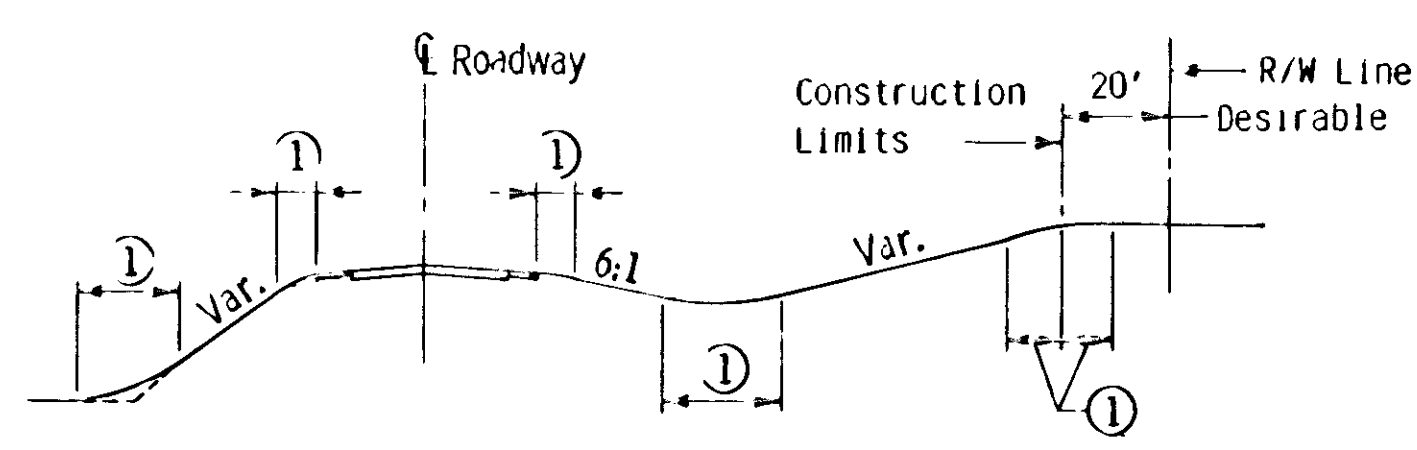
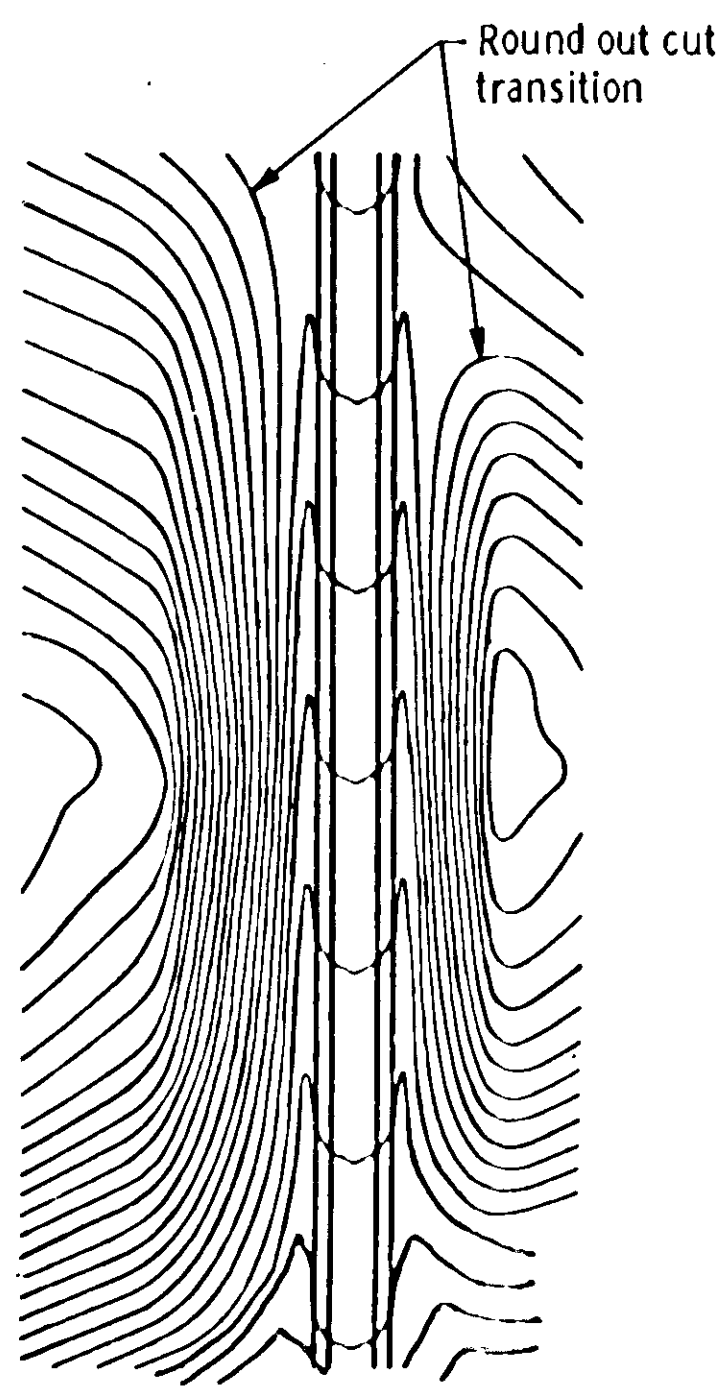
BROKEN - BACK SAFETY FILL SLOPE



PERMANENT SLOPE PROTECTION DIKE

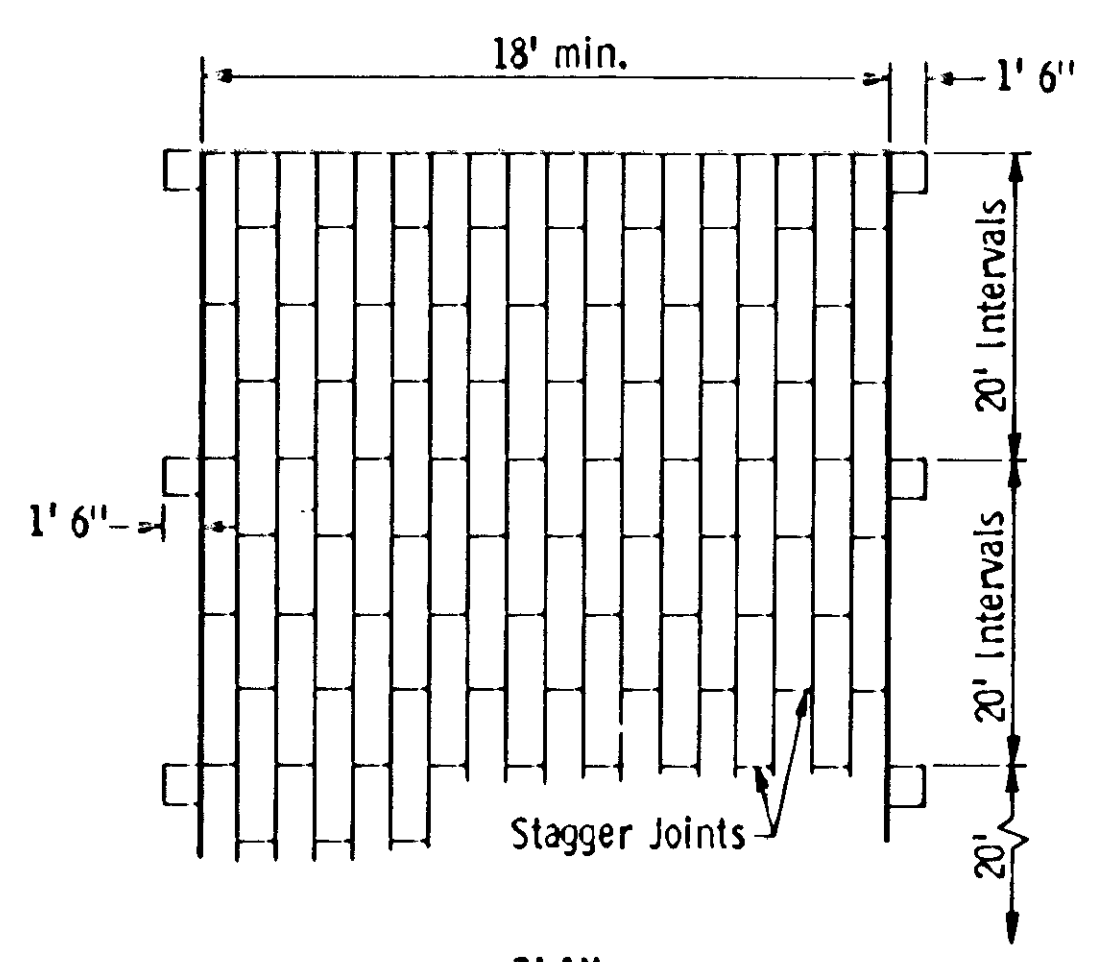
APPROVED January 31, 1985  
 R. O. [Signature]  
 Director  
 OFFICE OF ENGINEERING STANDARDS



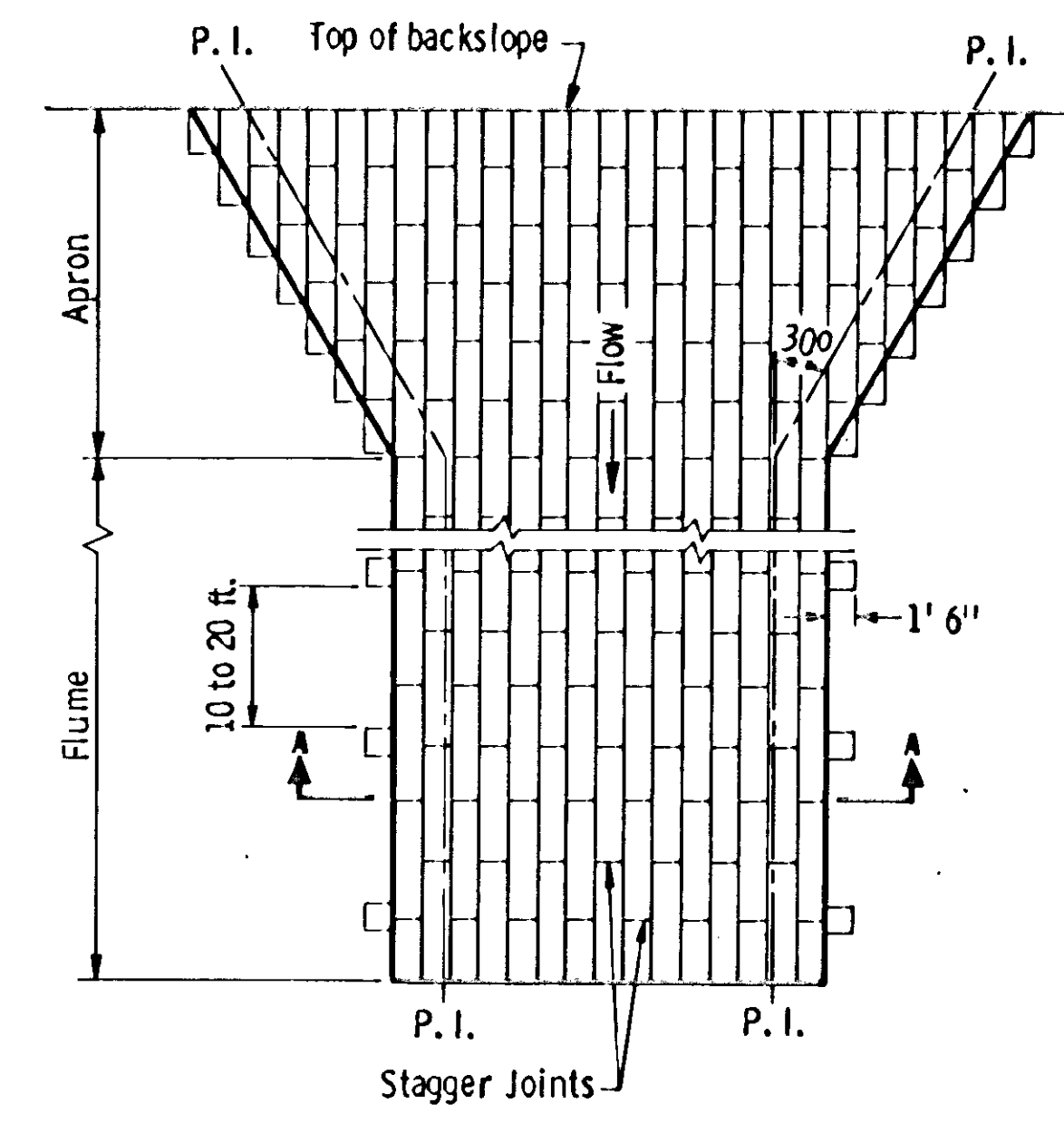


**ROUNDING SHOULDERS AND BACKSLOPES**

① Rounding per typical sections.

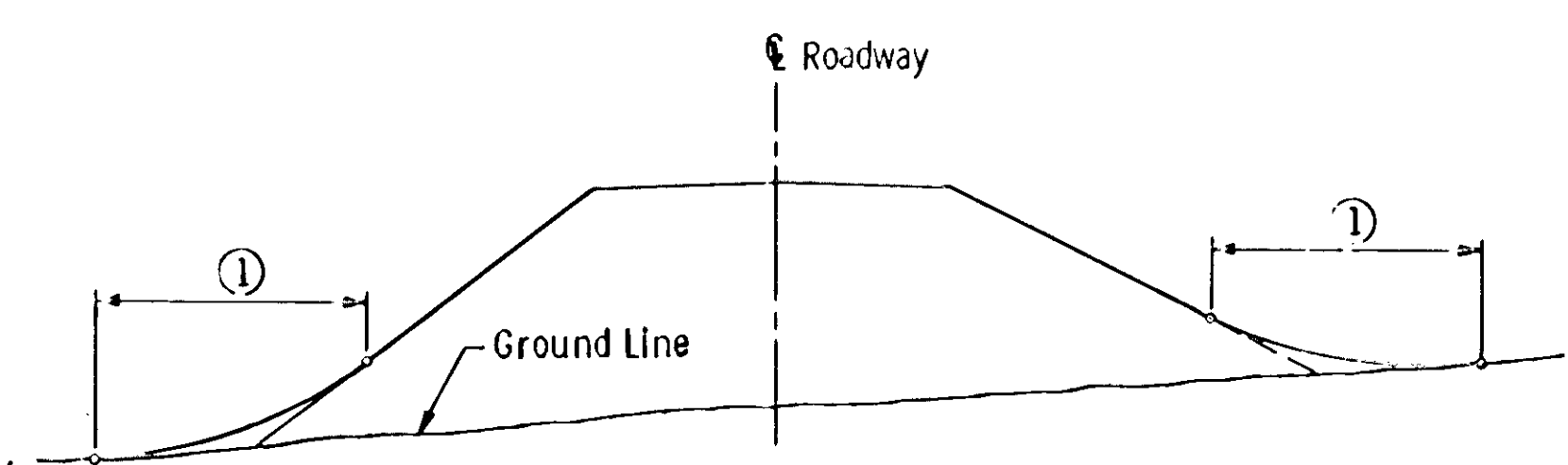


**PLAN (ENLARGED)**

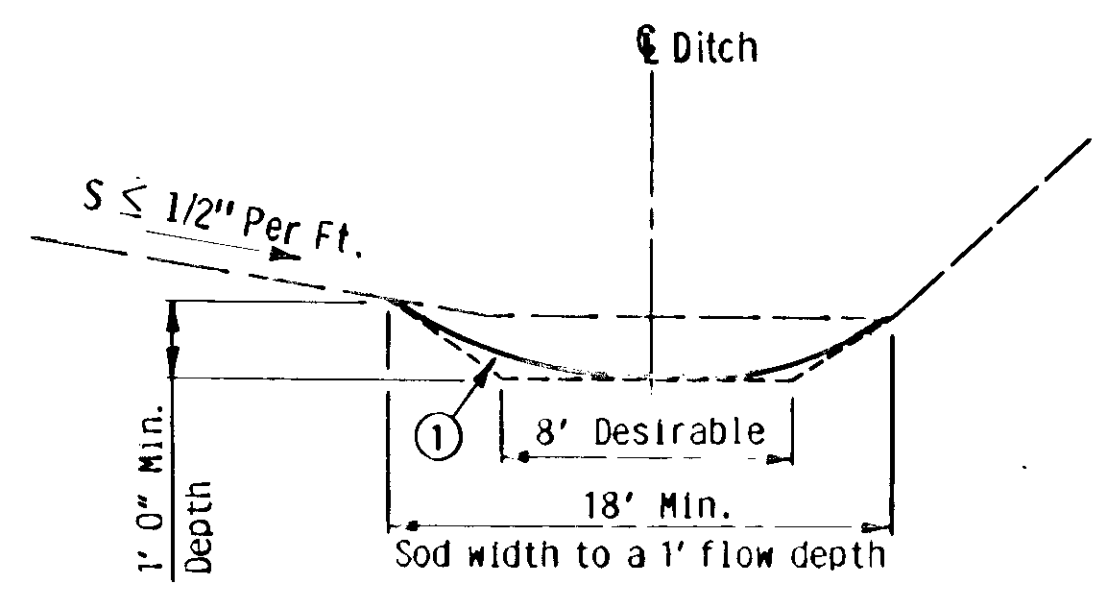


**PLAN**

**CONTOURING ROAD CUTS**

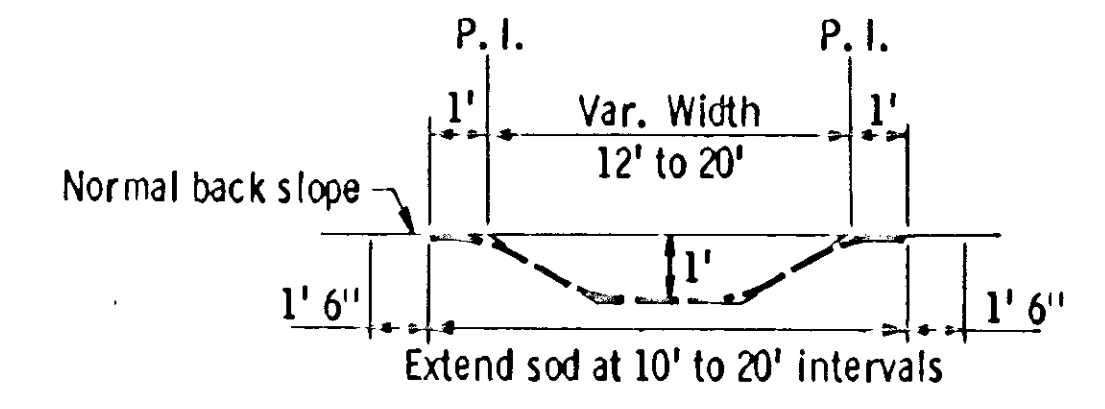


**SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES**

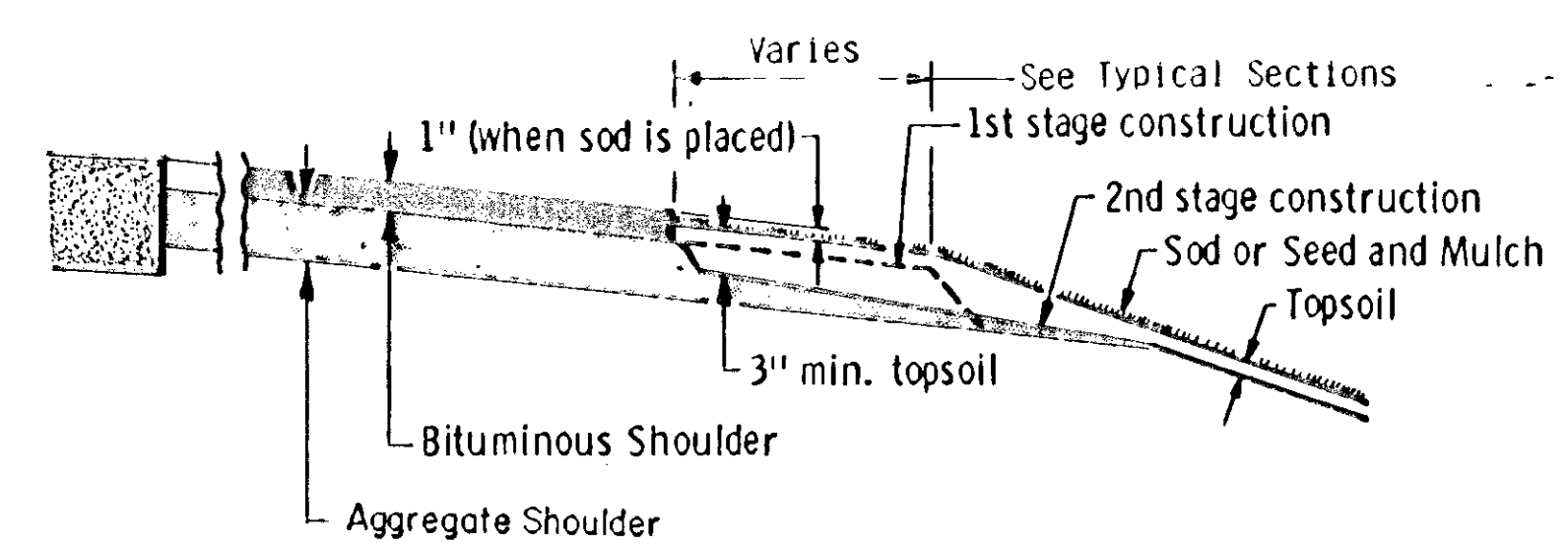


**SODDED DITCH CROSS SECTION**

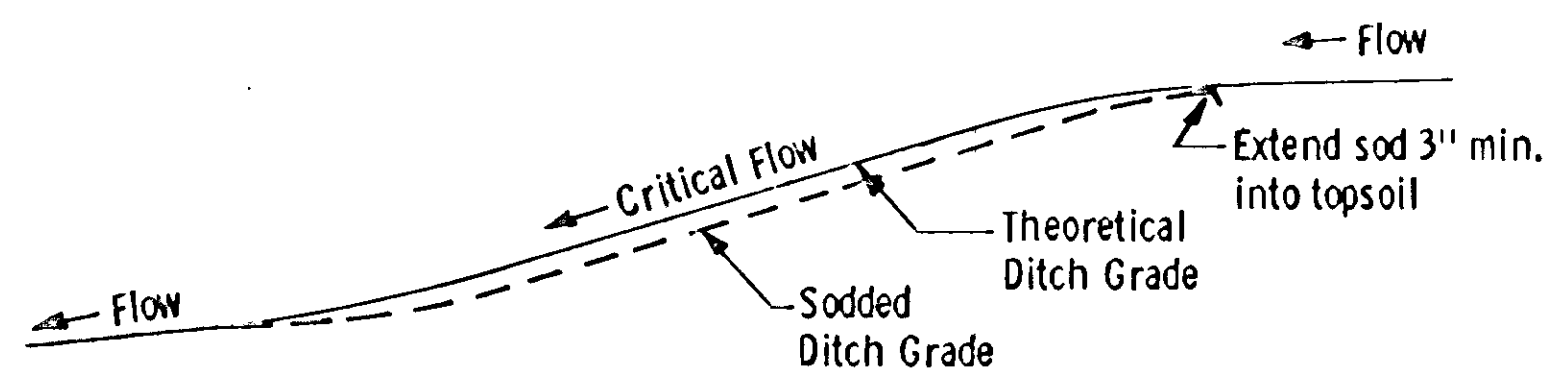
Where front or back slope is flat (less than 1/2"/ft.), first notch ditch and then provide rounding.



**SECTION A-A**

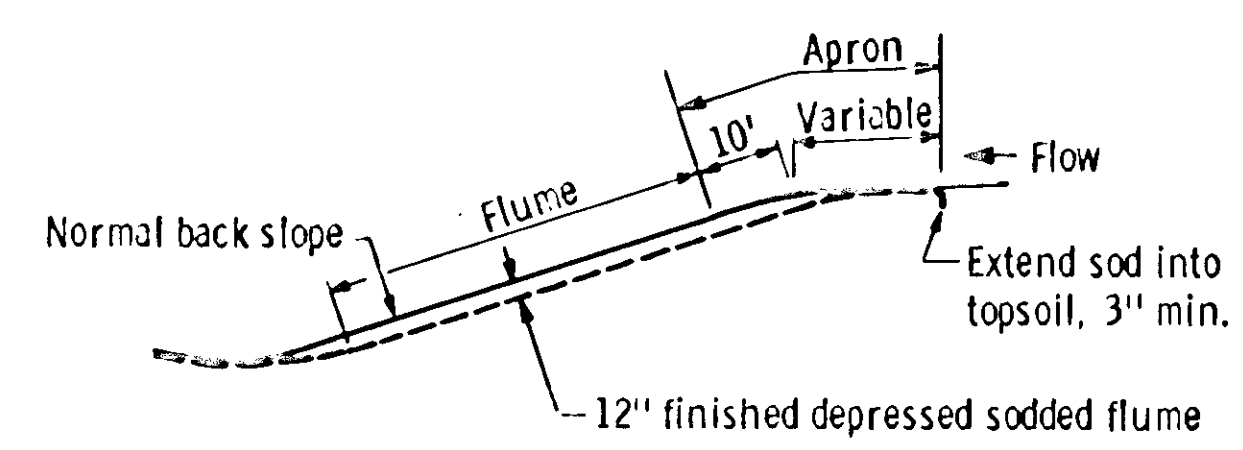


**SHAPING AND TOPSOILING INSLOPES**



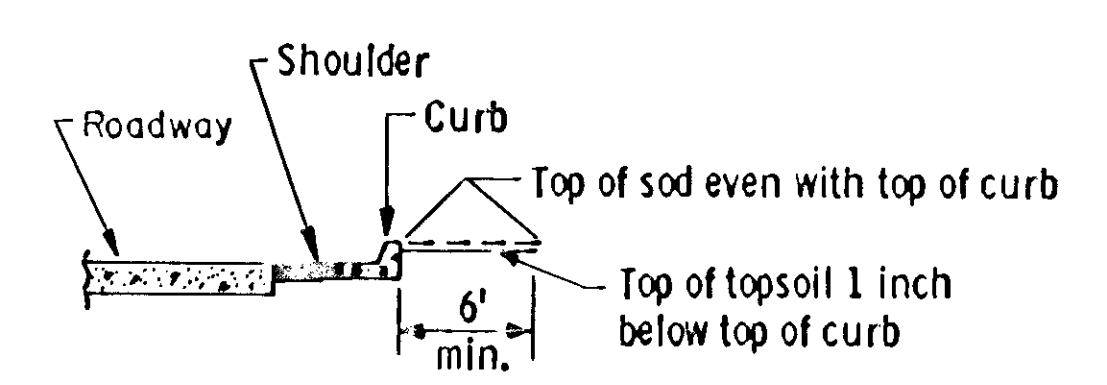
**DITCH PROFILE**

**SODDED DITCH DETAILS**



**LONGITUDINAL CROSS SECTION**

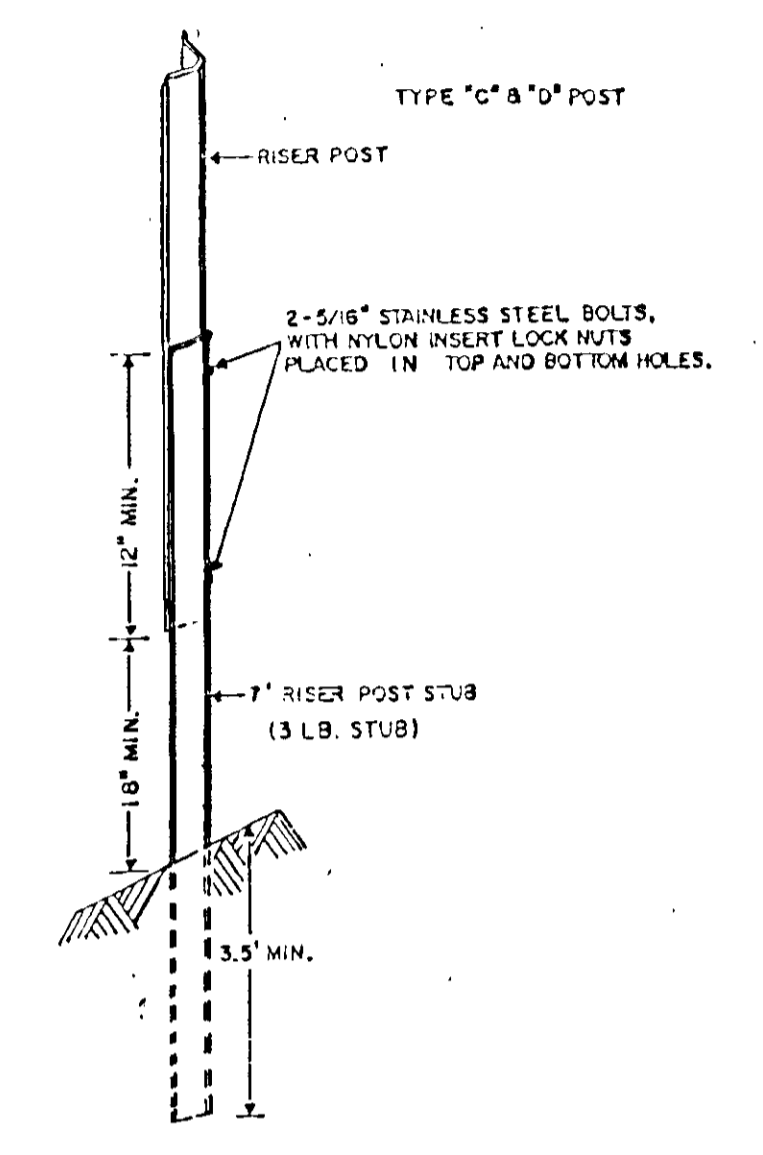
**SODDED FLUME DETAILS**



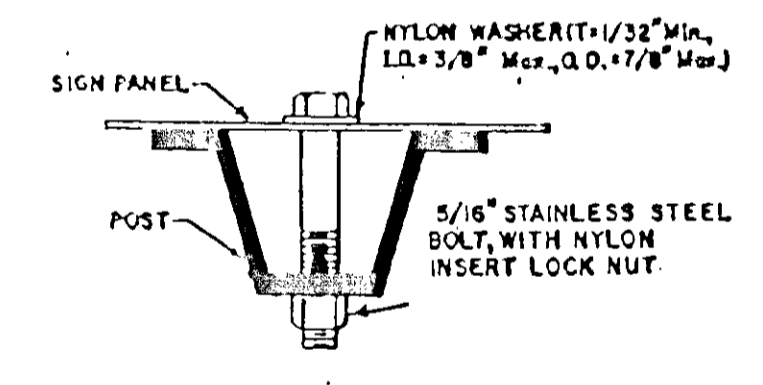
**SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED**

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

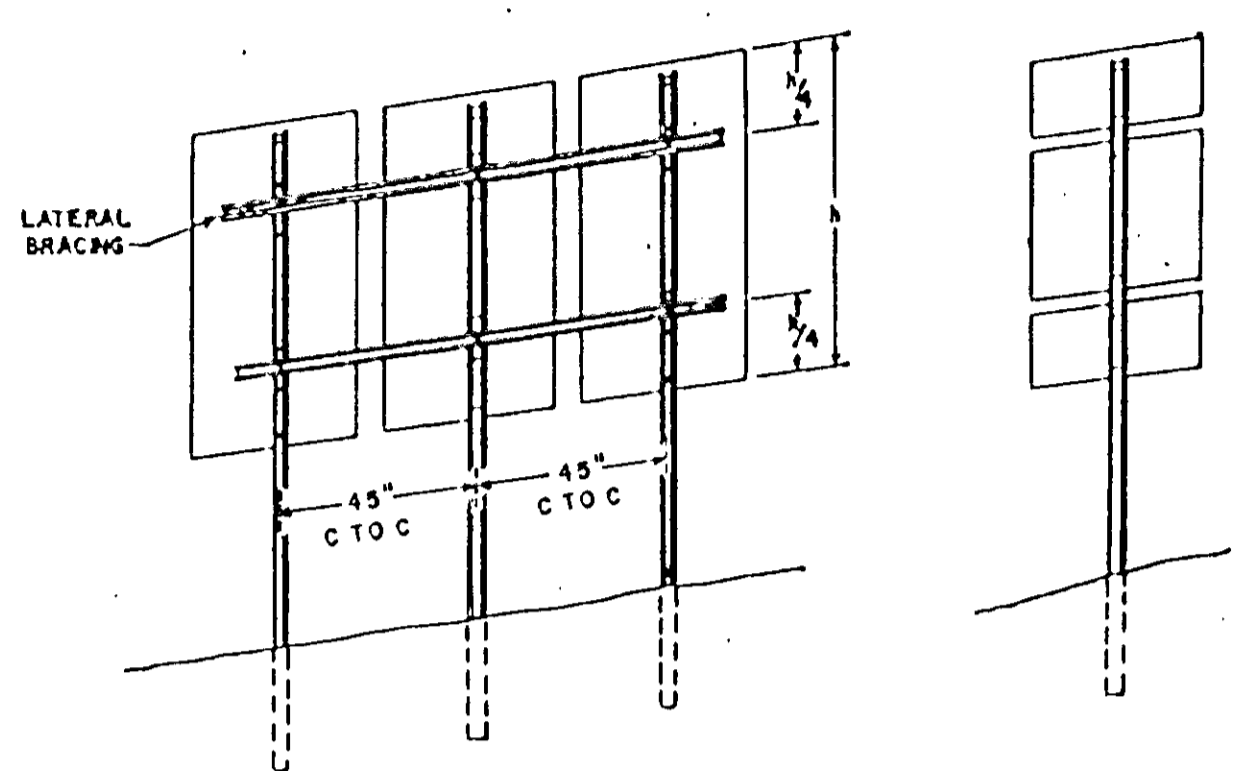
**PERMANENT EROSION CONTROL**



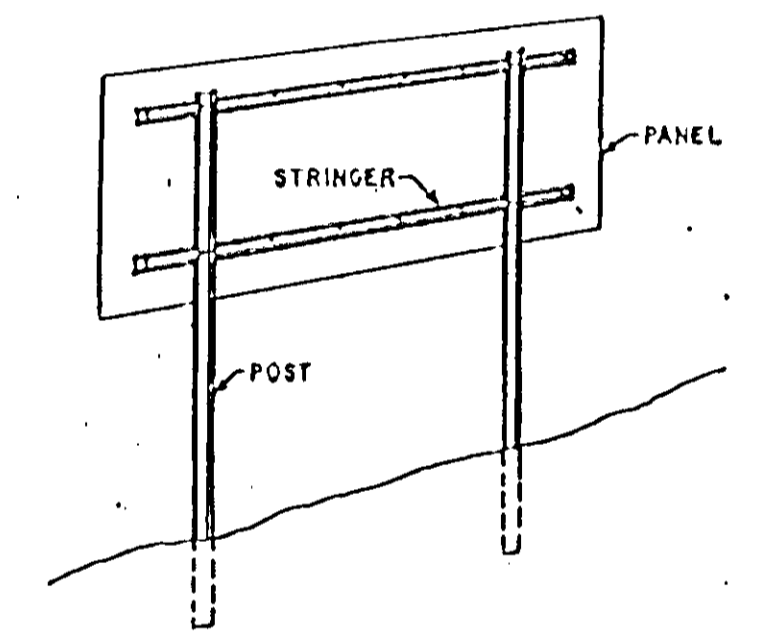
"U POST" SPLICE



"U POST" MOUNTING  
TYPE "C" SIGNS



TYPICAL TYPE "C" INSTALLATIONS



TYPICAL TYPE "D" INSTALLATION

- NOTES:
1. Use 3# riser stub posts, risers, stringers, knee braces, lateral braces and knee brace stub posts. All shall conform to Mn/DOT 3401.
  2. For Type "D" sign post lengths and spacings see Sign Data Sheet.
  3. Type "D" sign panels shall be bolted to stringers at 24" maximum intervals in accordance with Type "D" Stringer and Panel-Joint Detail (See Standard Signs Manual).
  4. Mounting (Punching Code) for Type "C" sign panels shall be as indicated in the Standard Signs Manual unless otherwise specified.
  5. All riser (vertical) "U Posts" shall be spliced. Driven stub posts shall be at least 7' long.
  6. Use Stainless Steel 5/16" bolts, washers and nylon insert lock nuts as shown for all ground mounted and overhead mounted signs.
  7. Stainless Steel washer with same dimensions shall be provided between all nylon washers and bolt heads.
  8. Bracing stubs shall be no more than 4" above ground and embedded at least 3-1/2'.
  9. A-Frame Bracket shall be steel conforming to Mn/DOT 3306 and galvanized in accordance with Mn/DOT 3394.
  10. Collars shall be used to shim overlays and demountable legend away from panel where interference with bolt heads is encountered, Mn/DOT 3352.2A7.
  11. 2 and 3 post Type "C" signs shall be reinforced with at least one lateral brace. Installations where the total panel height is 60" or more shall have two lateral braces located approximately at the quarter points.
  12. Where 2 or more single post signs (Type C) are mounted side by side, they shall be reinforced laterally by at least 2 post sections, bolted at each post and located approximately at the quarter points as shown in sketch.

"C" & "D" SIGN DETAILS

Rev. 3-23-90

State Proj. No. 02-614-18 Sheet No. 21 of 42 Sheets

**IBRW**  
BRW, INC.  
 PLANNING  
 TRANSPORTATION  
 ENGINEERING  
 DESIGN SECTION  
 TRUESHER SQUARE  
 700 E. 10TH STREET SOUTH  
 MINNEAPOLIS, MN 55415  
 PHONE: (612) 370-0700

ORIGINAL DATE	2/07/91
REVISIONS	
DESIGN BY:	
DRAWN BY:	
CHECKED BY:	
SURVEY BOOK	

**ANOKA COUNTY**  
 C.S.A.H. 14 OVER B.N.R.R.  
 "C" & "D" SIGN DETAILS

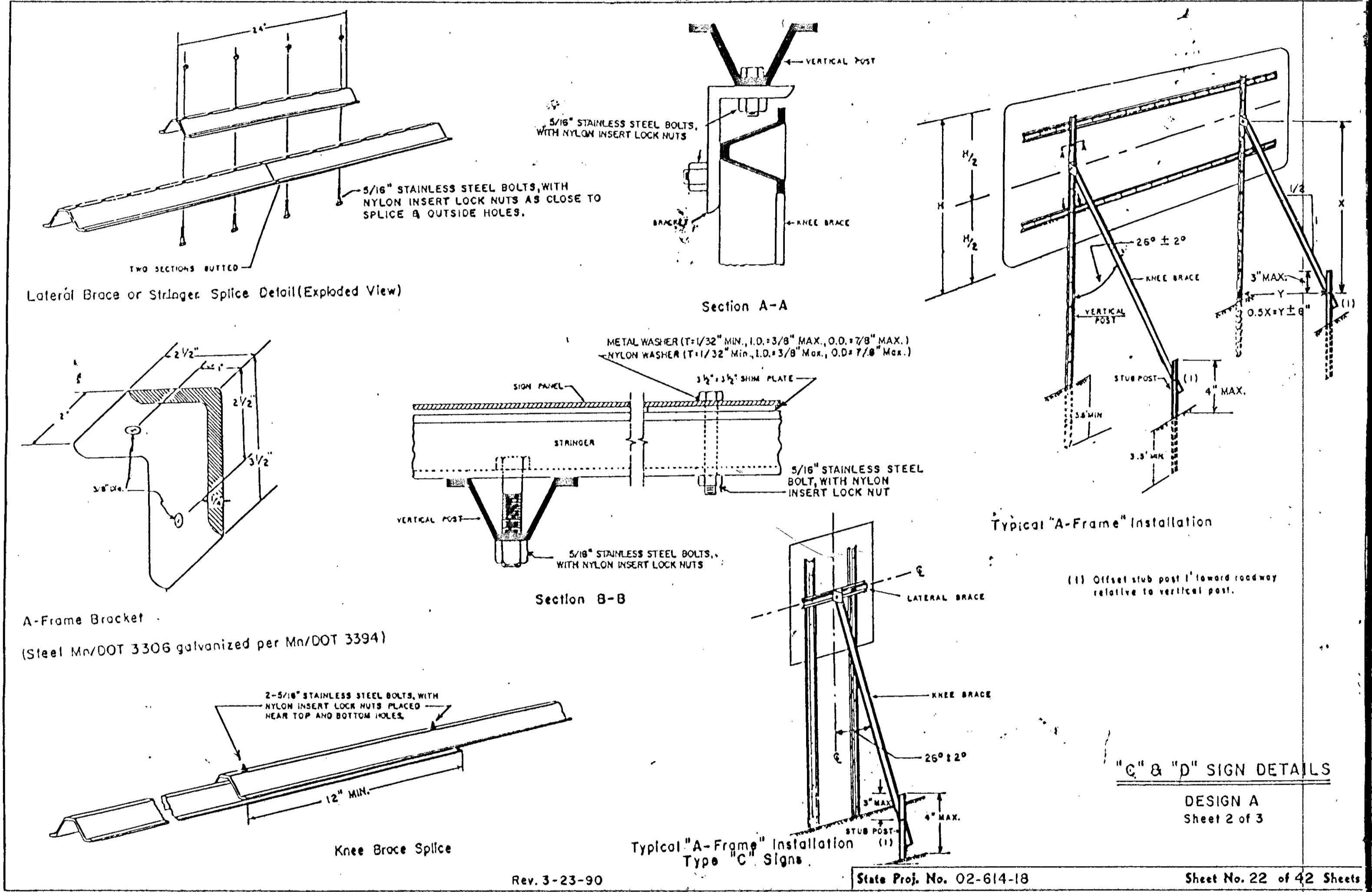
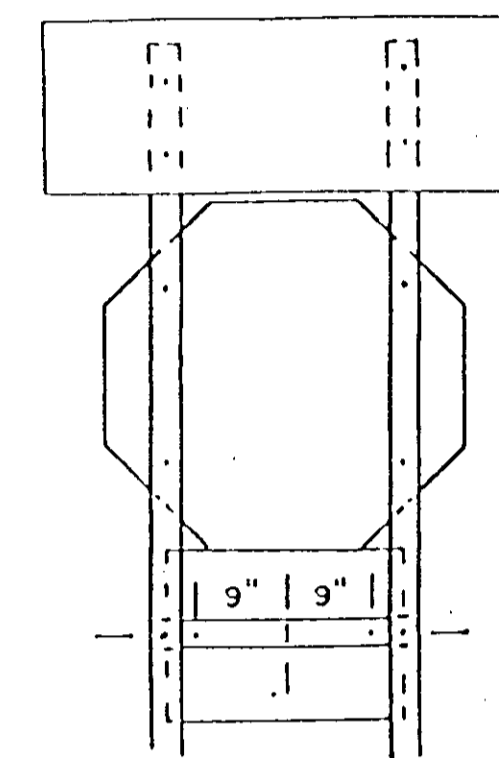


ILLUSTRATION POST - 12/14/18 - 15/18 - 15/18

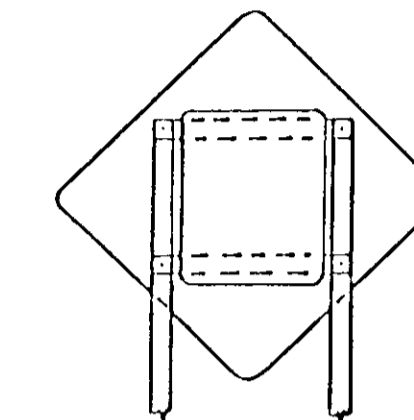
Rev. 3-23-90 State Proj. No. 02-614-18 Sheet No. 22 of 42 Sheets

<p><b>BRW</b> BRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>THRESHOLD SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 339-0700</p>	<p>ORIGINAL DATE: 2/07/91</p> <p>REVISIONS:</p>	<p><b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R.</p> <p>"C" &amp; "D" SIGN DETAILS</p>
	<p>DESIGN BY:</p> <p>DRAWN BY:</p> <p>CHECKED BY:</p>	
<p>S.A.P. 02-614-18</p>		<p>SHEET 22 OF 42</p>
		<p>DESIGN FILE No. 18-9012</p>

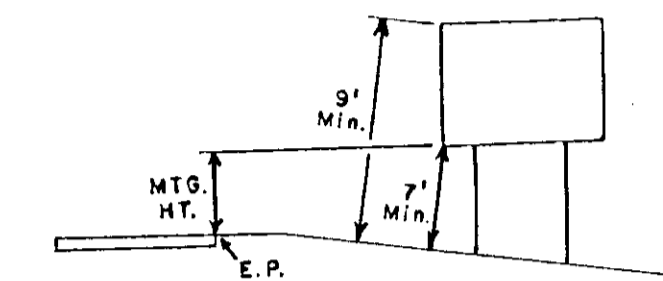




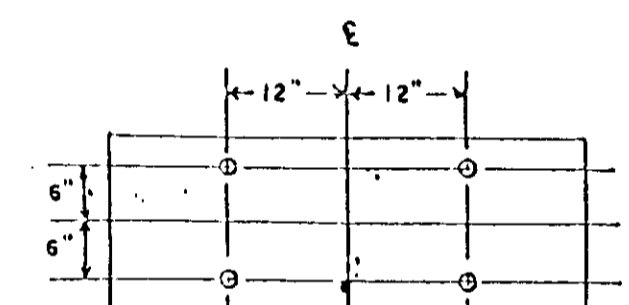
R6-1, R1-1 & (XI-6, R6-3 or R6-3a)  
Mounting



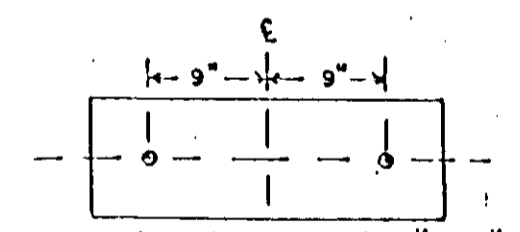
Back to back mounting  
of R4-7 and W9-2.



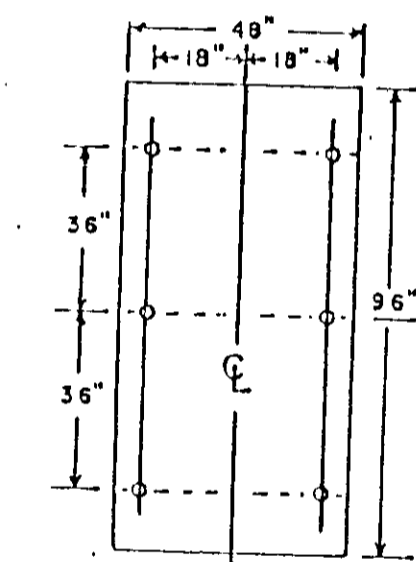
Typical Mounting



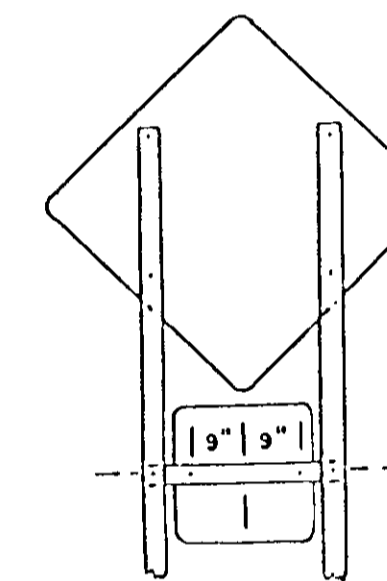
Punching for R6-1 (48" x 18")



Punching for R6-1 (36" x 12")



Punching for R2-4a  
SPEED LIMIT.



W1-2 & W13-1  
W3-1a  
W3-2a  
Mounting

"C" & "D" SIGN DETAILS

DESIGN A  
Sheet 3 of 3

DRAWING NO. 021 17/90

Rev. 3-23-90

State Proj. No. 02-614-18

Sheet No. 23 of 42 Sheets

**IBRW**  
BRW, INC.  
PLANNING  
TRANSPORTATION  
ENGINEERING  
URBAN DESIGN

THRESHER SQUARE  
700 THIRD STREET SOUTH  
MINNEAPOLIS, MN 55415  
PHONE: (612) 379-0700

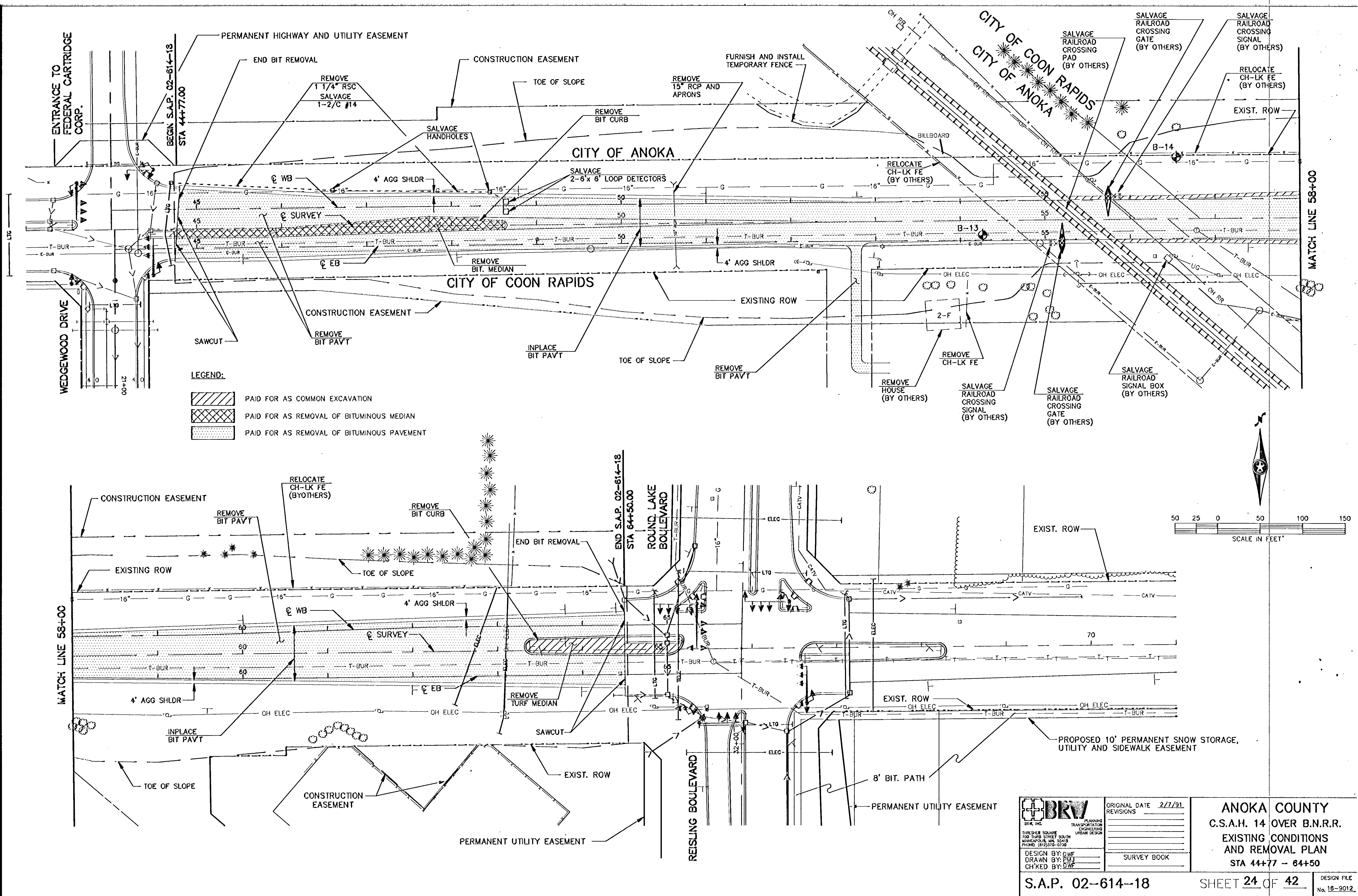
ORIGINAL DATE	2/07/91
REVISIONS	
DESIGN BY:	
DRAWN BY:	
CHECKED BY:	
SURVEY BOOK	

ANOKA COUNTY  
C.S.A.H. 14 OVER B.N.R.R.  
"C" & "D" SIGN DETAILS

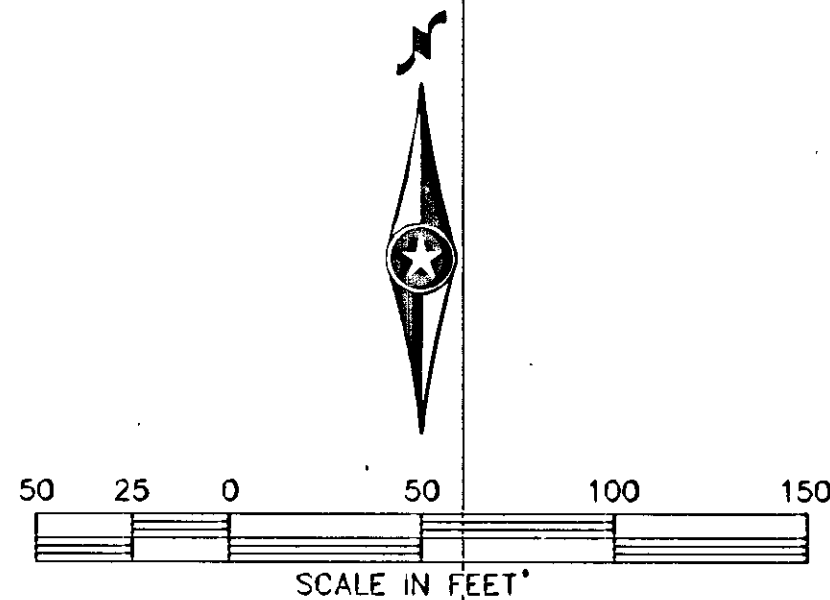
S.A.P. 02-614-18

SHEET 23 OF 42

DESIGN FILE  
No. 16-9012



- LEGEND:**
- PAID FOR AS COMMON EXCAVATION
  - PAID FOR AS REMOVAL OF BITUMINOUS MEDIAN
  - PAID FOR AS REMOVAL OF BITUMINOUS PAVEMENT

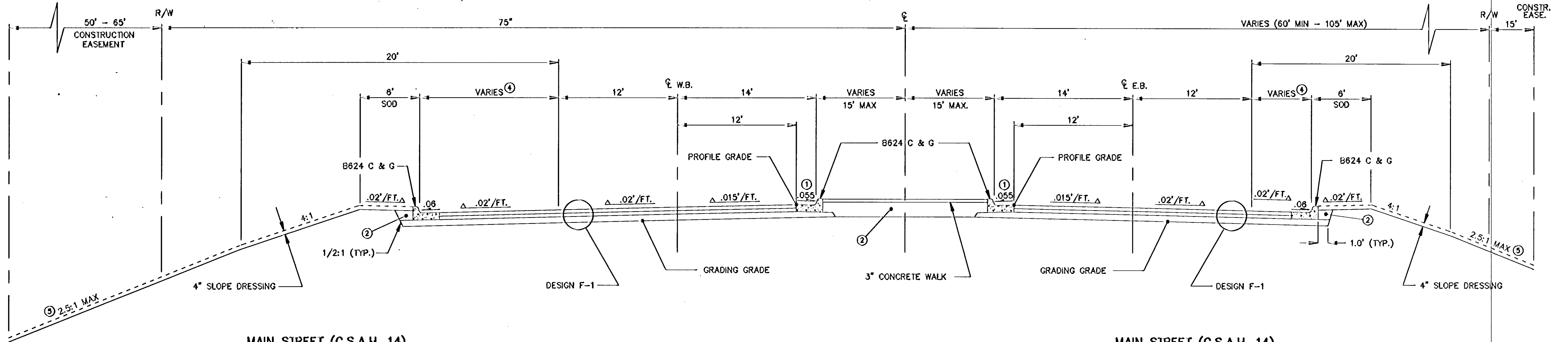


**BRW**  
 BRW, INC.  
 PLANNING  
 TRANSPORTATION  
 ENGINEERING  
 URBAN DESIGN  
 700 THIRD STREET SOUTH  
 MINNEAPOLIS, MN 55415  
 PHONE: (612) 339-0100

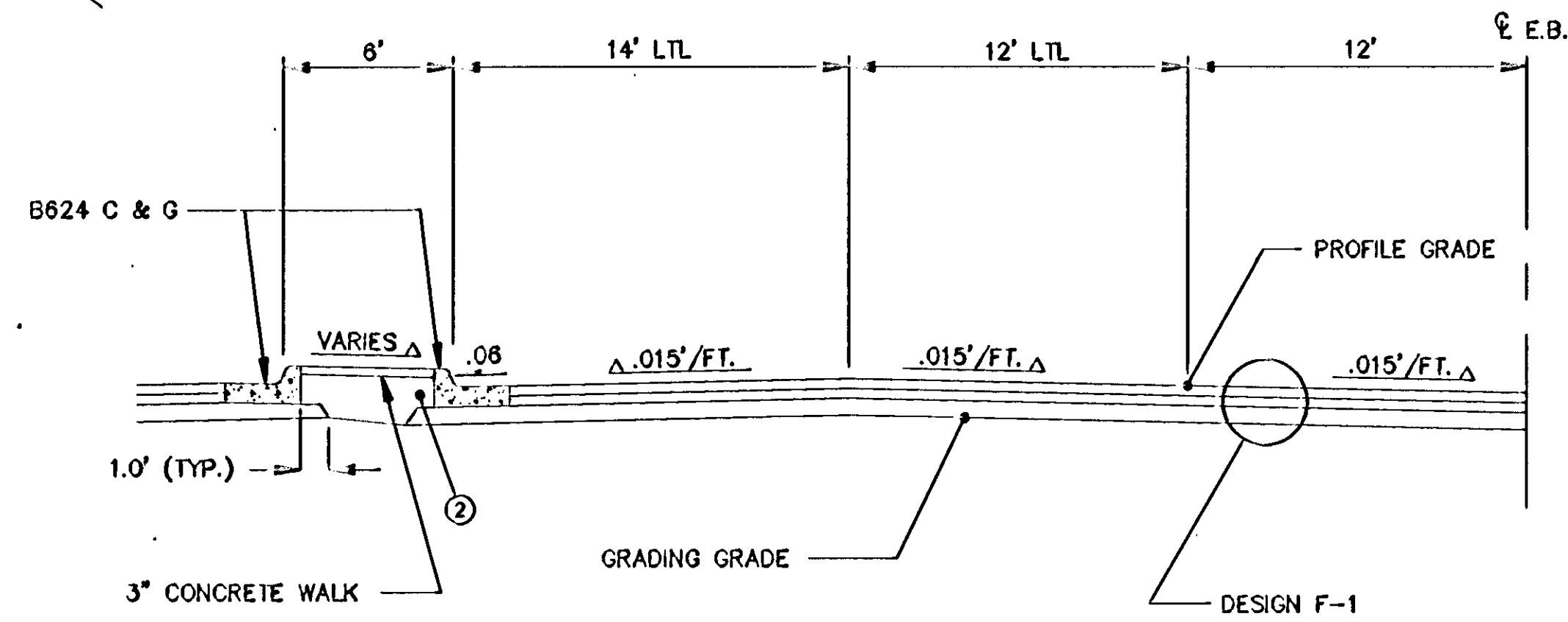
ORIGINAL DATE 2/7/91  
 REVISIONS \_\_\_\_\_  
 \_\_\_\_\_  
 SURVEY BOOK \_\_\_\_\_

**ANOKA COUNTY**  
 C.S.A.H. 14 OVER B.N.R.R.  
 EXISTING CONDITIONS  
 AND REMOVAL PLAN  
 STA 44+77 - 64+50

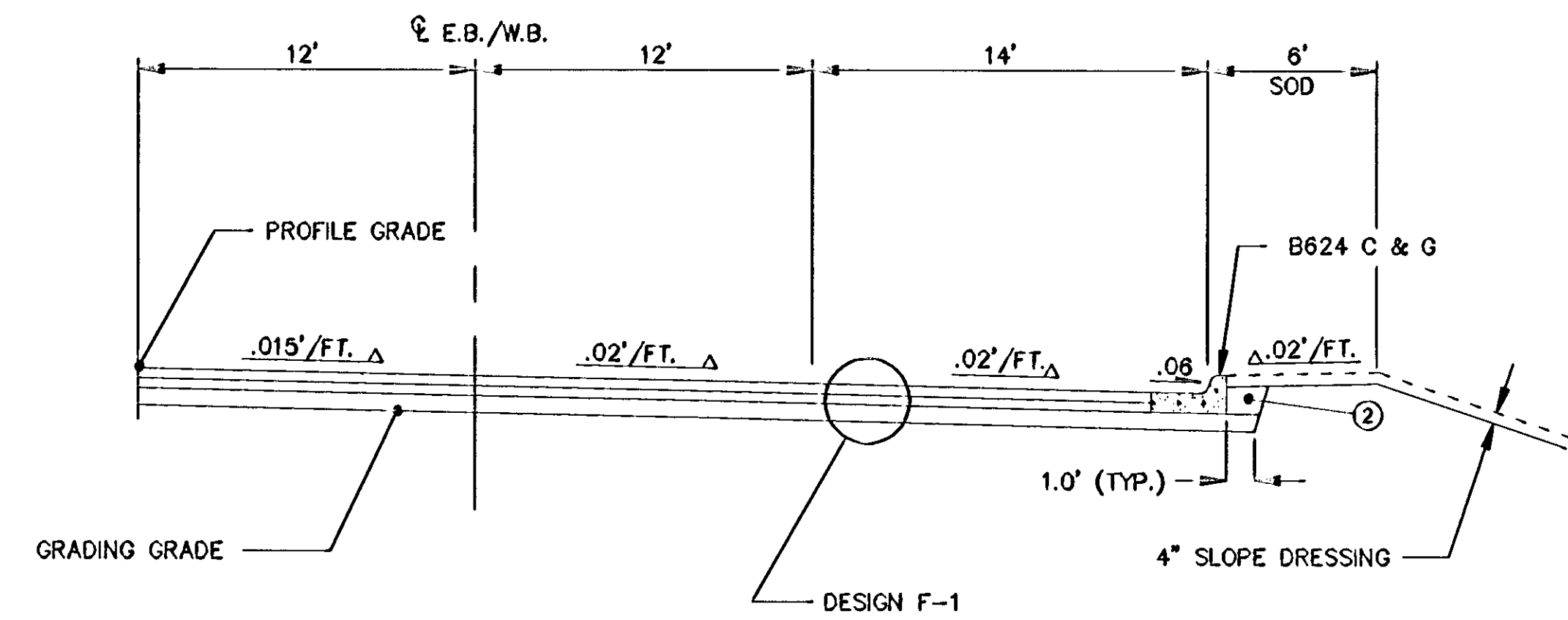
**MAIN STREET (C.S.A.H. 14)**  
STA 44+77.00 TO 64+50.00



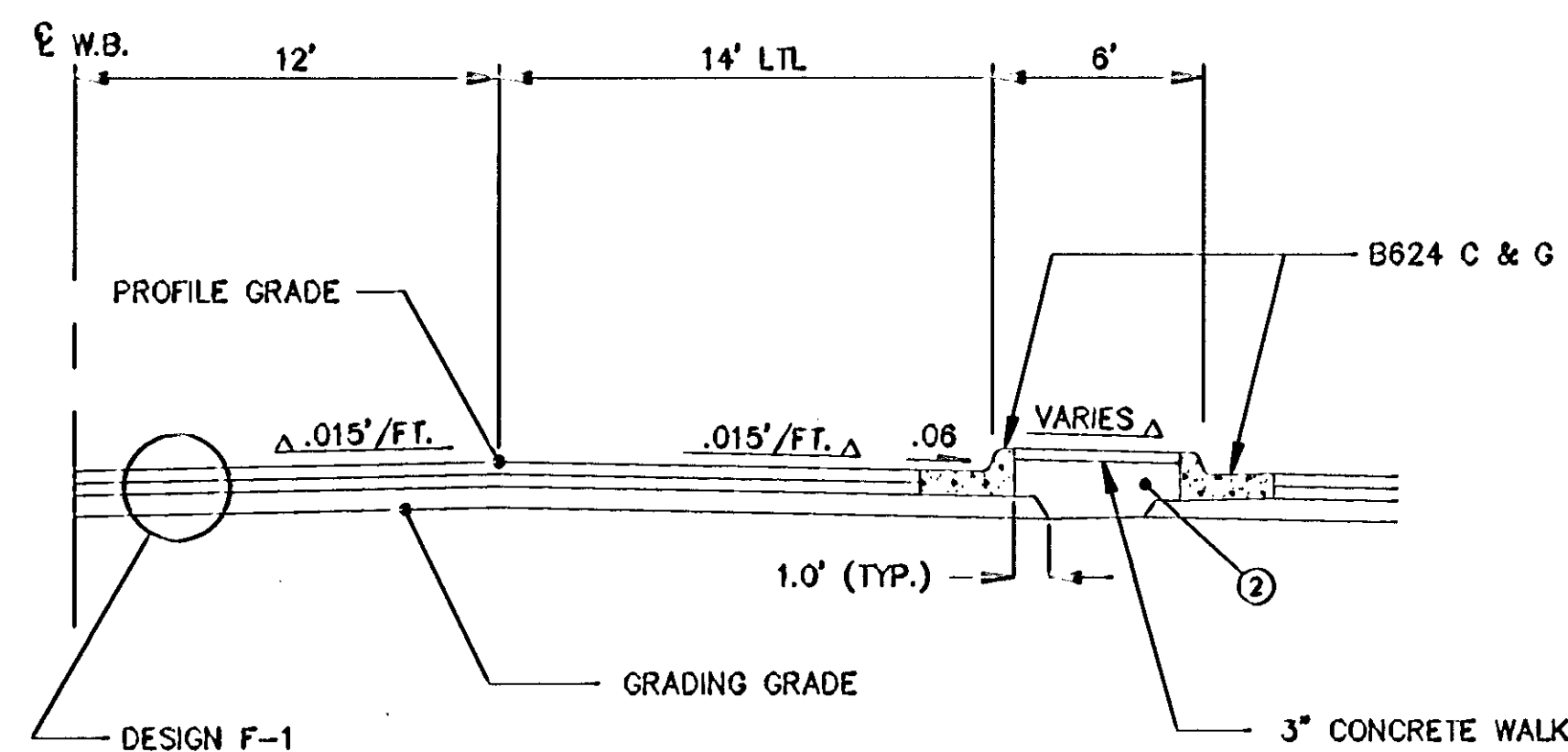
**MAIN STREET (C.S.A.H. 14)**  
**DOUBLE LEFT TURN LANES**  
STA E.B. 59+82.00 TO 64+50.00



**MAIN STREET (C.S.A.H. 14)**  
**RIGHT TURN LANE**  
STA E.B. 59+82.00 TO 64+50.00  
STA W.B. 44+77.00 TO 49+18.00 ③

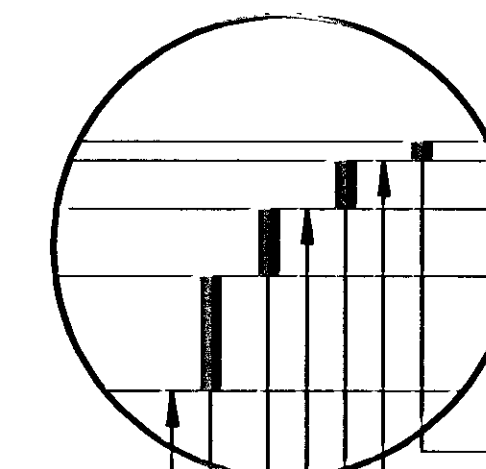


**MAIN STREET (C.S.A.H. 14)**  
**LEFT TURN LANE**  
STA W.B. 44+77.00 TO 49+18.00



**SPECIFIC NOTES:**

- ① MAXIMUM ROLLOVER WITH CURB SHALL NOT EXCEED 0.07'.
- ② GRANULAR MATERIAL.
- ③ SECTION FOR WB IS SHOWN LOOKING DOWN STATIONING.
- ④ VARIABLE WIDTH LANE TAPERS AND TURN LANES.
- ⑤ 2:1 MAXIMUM AT BRIDGE ABUTMENTS.



**DESIGN F-1**

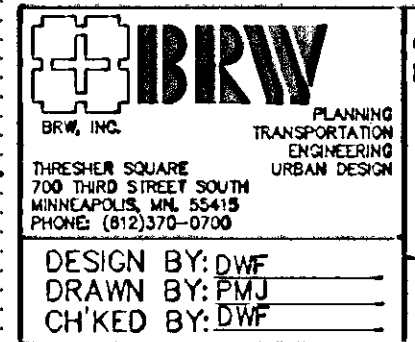
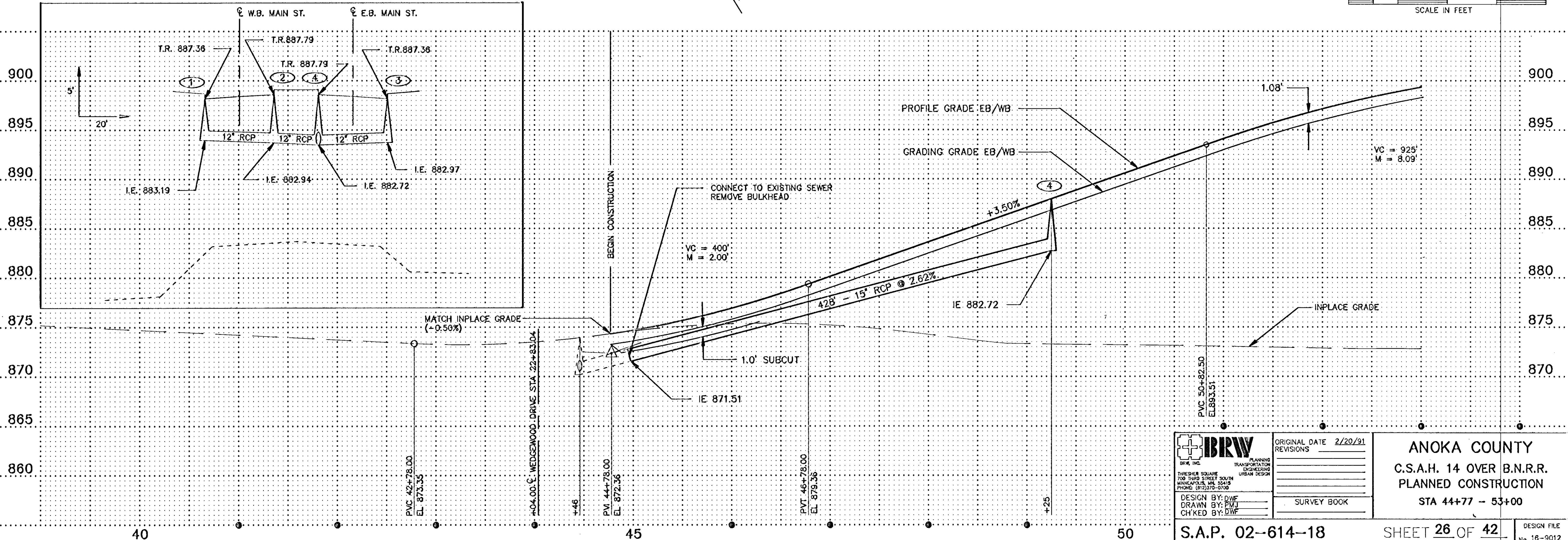
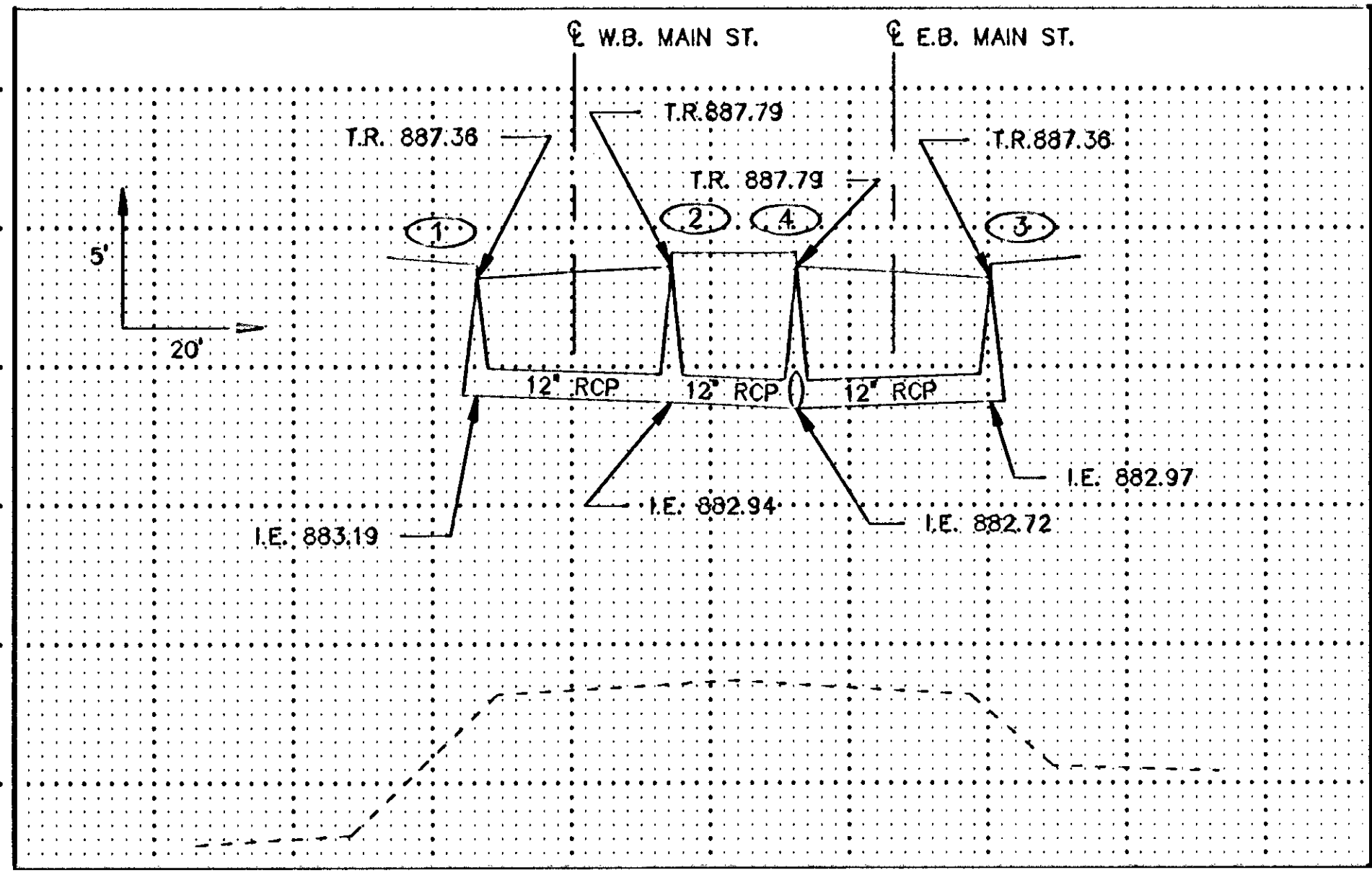
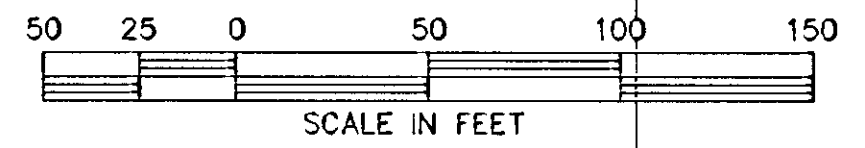
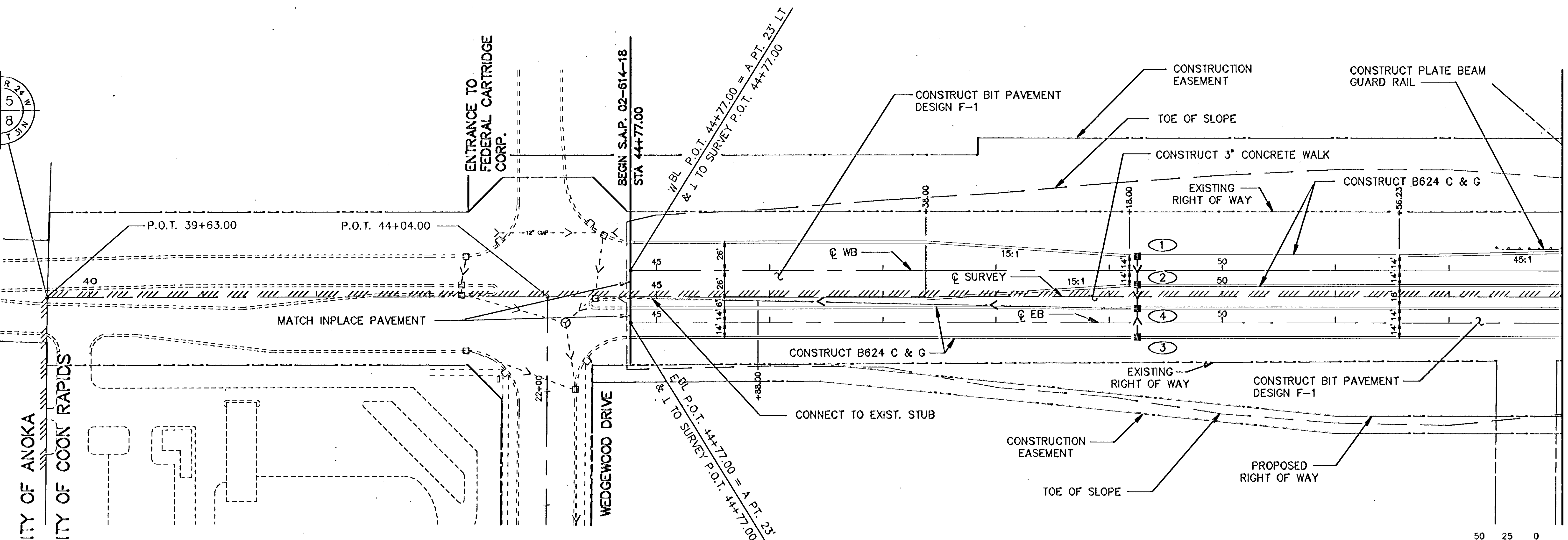
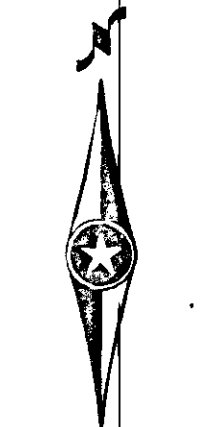
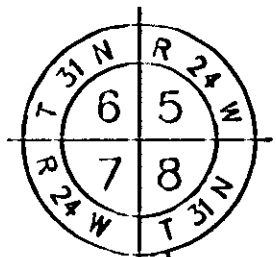
- 1" TYPE 61 WEARING COURSE MIXTURE - SPEC. 2331
- TACK COAT - SPEC. 2357
- 2 1/2" TYPE 41 BINDER COURSE MIXTURE - SPEC. 2331
- TACK COAT - SPEC. 2357
- 3 1/2" TYPE 31 BASE COURSE MIXTURE - SPEC. 2331
- 6" AGGREGATE BASE CLASS 6 - SPEC. 2211
- GRADING GRADE

**IBIRW**  
INC.  
PLANNING  
TRANSPORTATION  
ENGINEERING  
URBAN DESIGN  
THUNDER SQUARE  
700 THIRD STREET SOUTH  
MINNEAPOLIS, MN 55415  
PHONE: (612) 379-0700

ORIGINAL DATE	2/7/91
REVISIONS	
DESIGN BY:	DWF
DRAWN BY:	PMJ
CHECKED BY:	DWF
SURVEY BOOK	

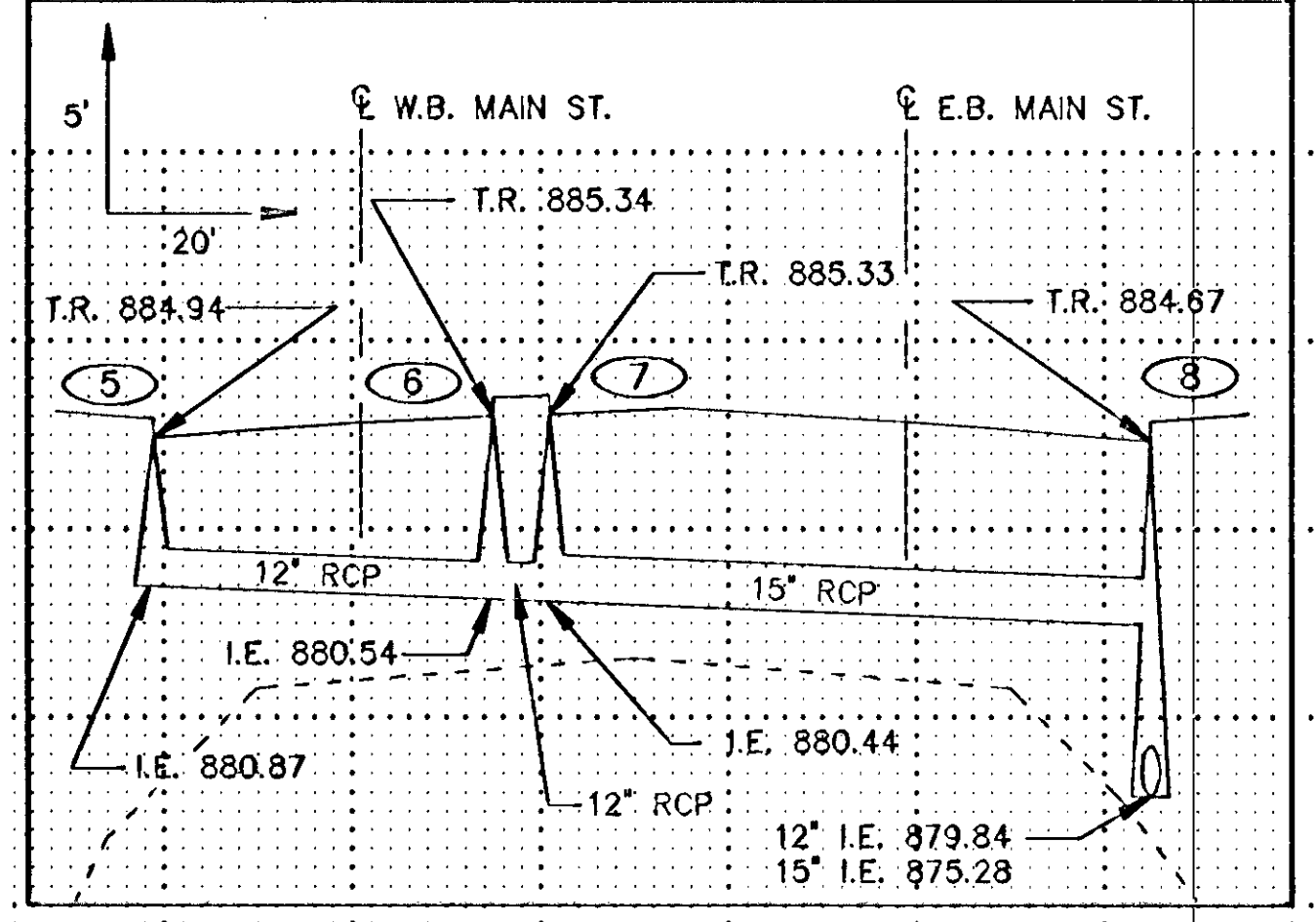
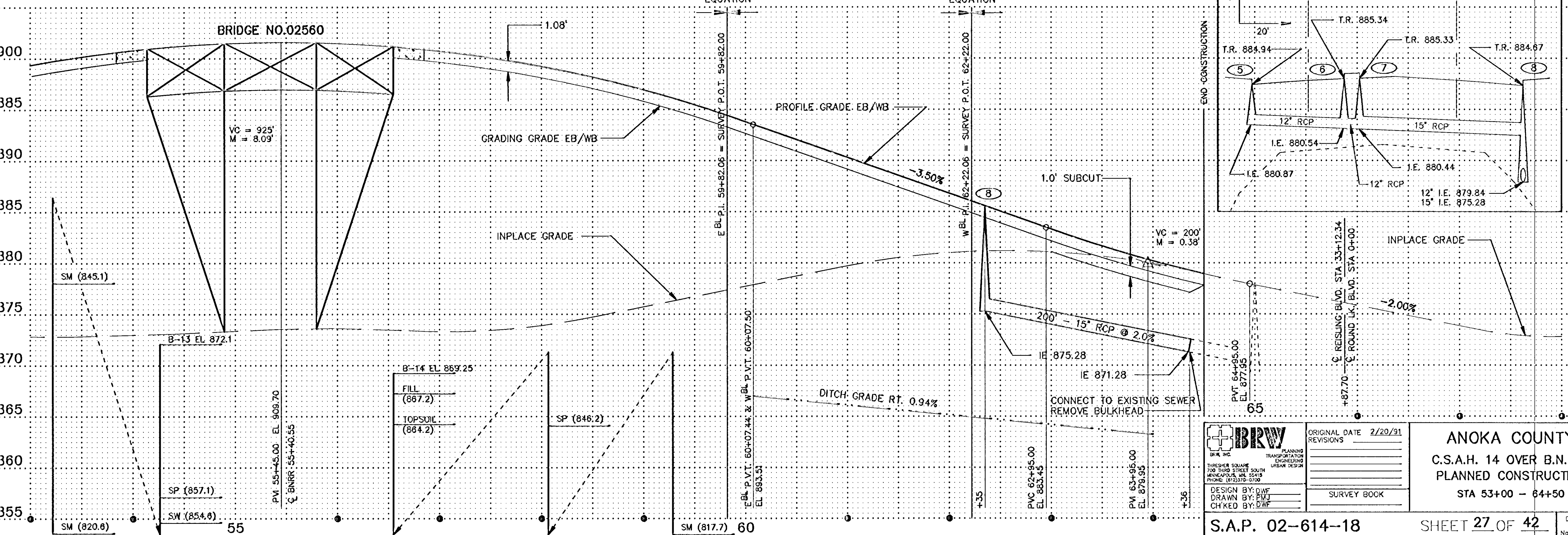
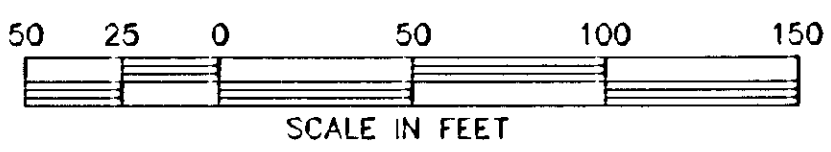
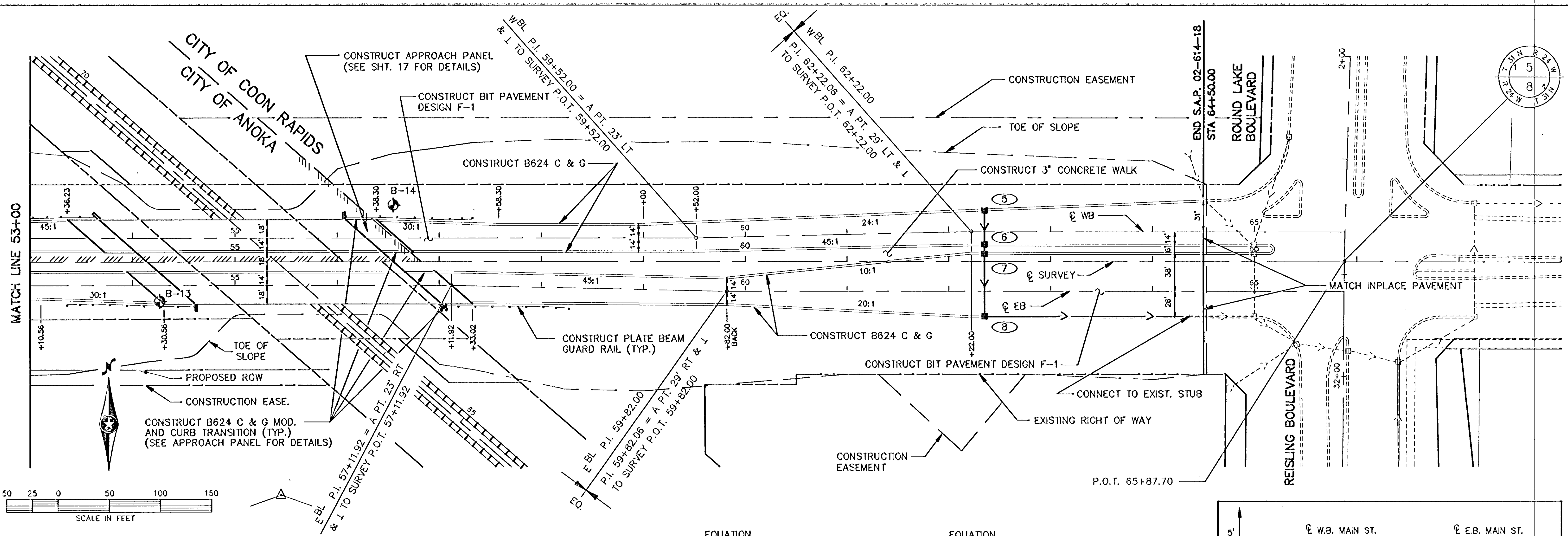
**ANOKA COUNTY**  
C.S.A.H. 14 OVER B.N.R.R.  
TYPICAL SECTIONS  
MAIN STREET





DESIGN BY: DJW	ORIGINAL DATE: 2/20/91
DRAWN BY: PJL	REVISIONS:
CHECKED BY: DJW	SURVEY BOOK:

**ANOKA COUNTY**  
 C.S.A.H. 14 OVER B.N.R.R.  
 PLANNED CONSTRUCTION  
 STA 44+77 - 53+00



**BRW**  
 BRW, INC.  
 PLANNING  
 TRANSPORTATION  
 ENGINEERING  
 URBAN DESIGN

THREACHER SQUARE  
 700 THIRD STREET SOUTH  
 ANOKA, MINN. 55413  
 PHONE: (612) 370-0700

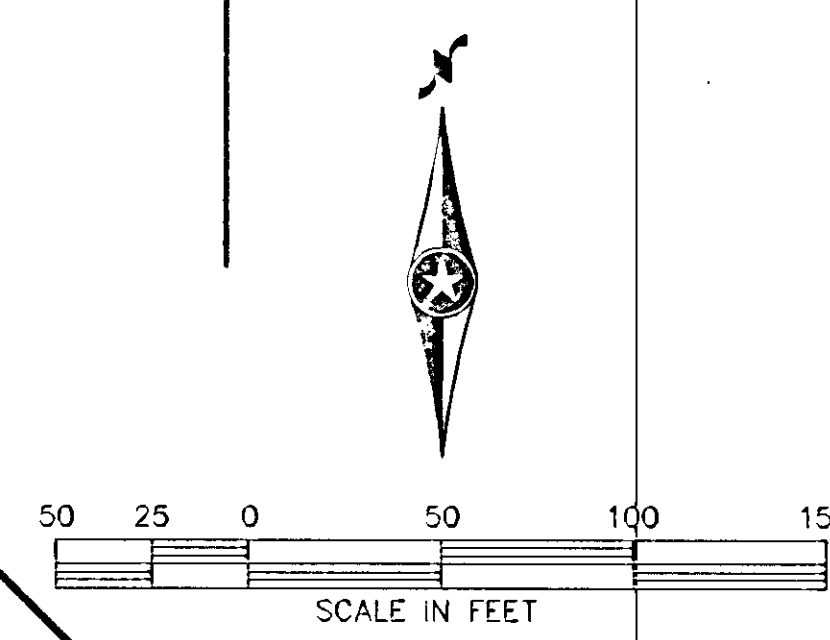
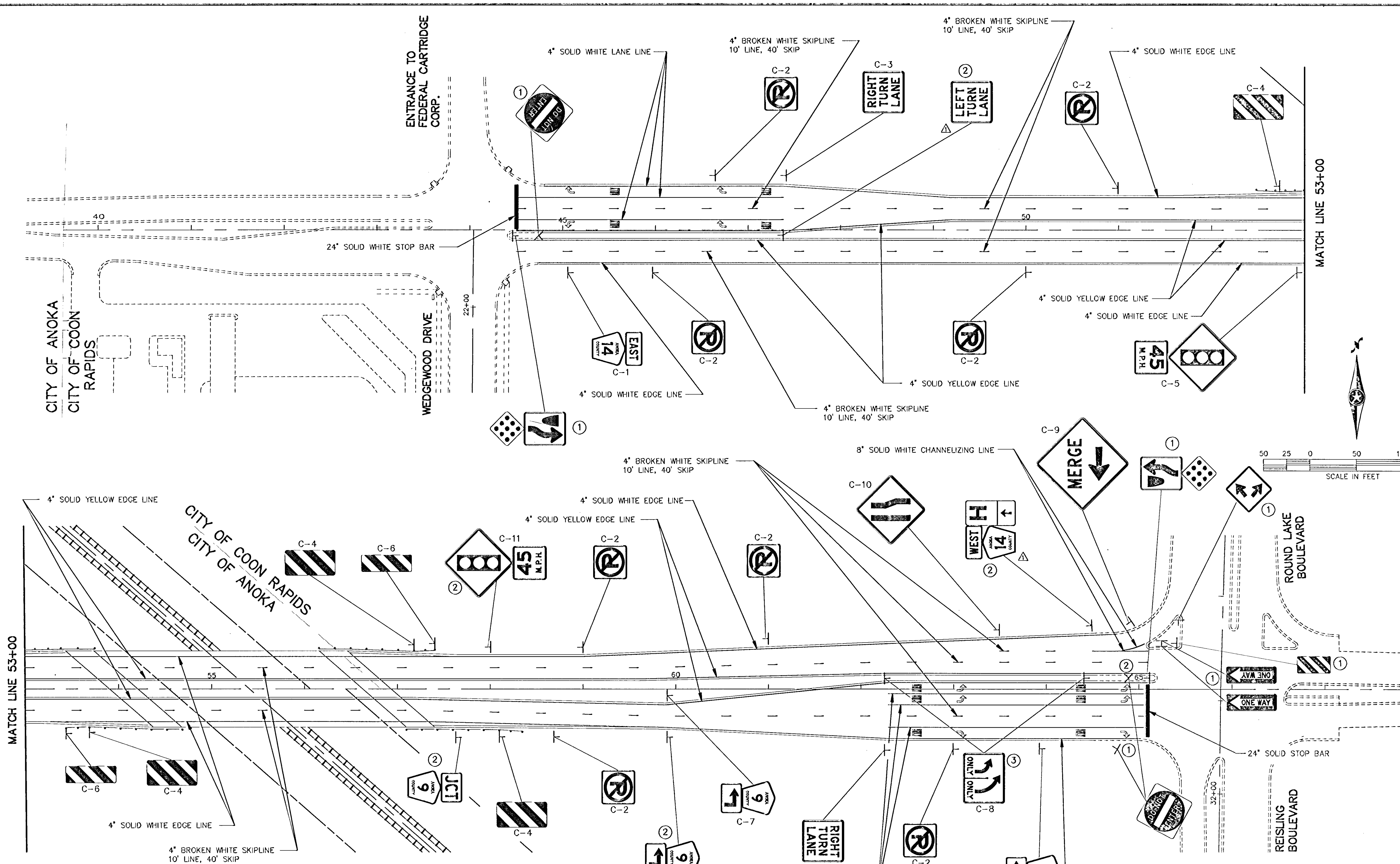
DESIGN BY: DWF  
 DRAWN BY: PMJ  
 CHECKED BY: DWF

ORIGINAL DATE 2/20/91  
 REVISIONS

SURVEY BOOK

**ANOKA COUNTY**  
 C.S.A.H. 14 OVER B.N.R.R.  
 PLANNED CONSTRUCTION  
 STA 53+00 - 64+50

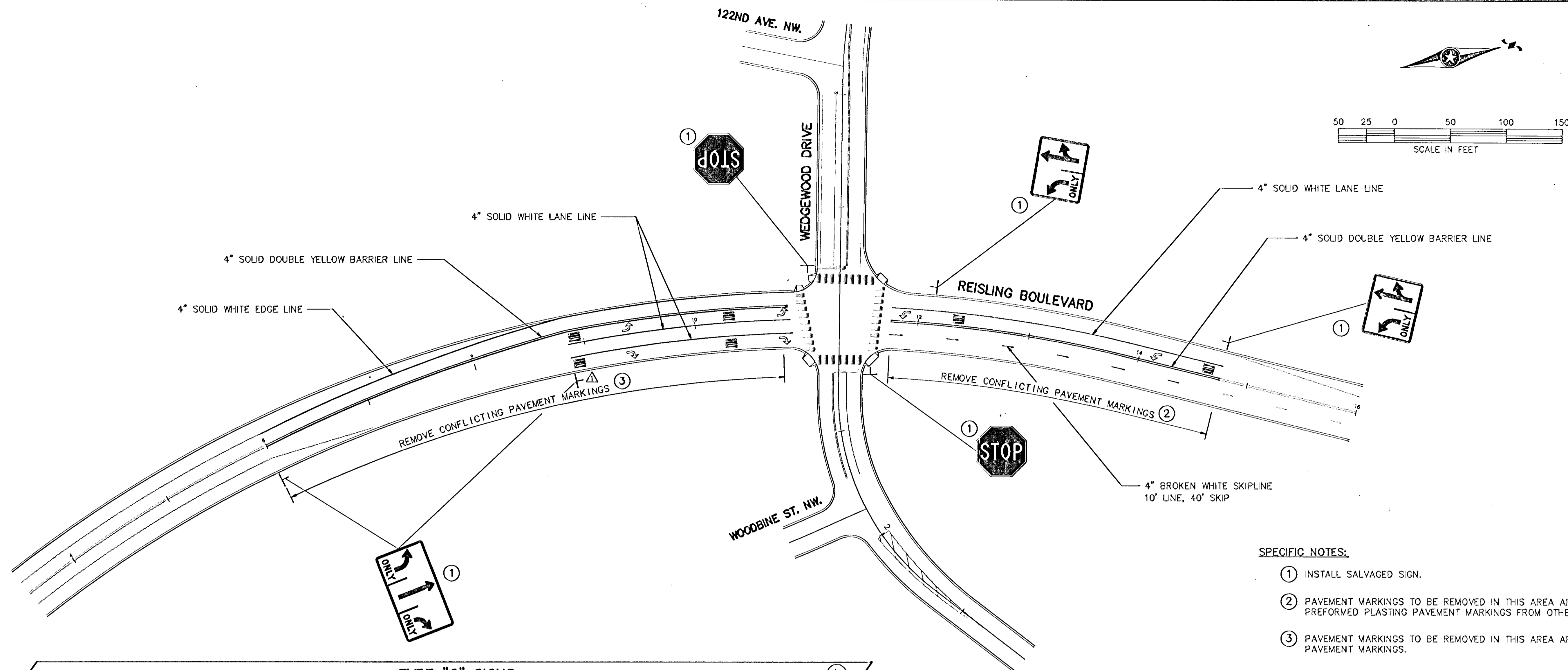




- SPECIFIC NOTES:**
- ① INPLACE SIGN, LEAVE INPLACE.
  - ② INSTALL SALVAGED SIGN.

<p><b>IBRW</b> INC.</p> <p>PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>THRESHER SQUARE 720 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 335-0100</p>	ORIGINAL DATE 2/7/91 REVISIONS REV PER COUNTY COMMENTS 4/4/91.	<b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R. SIGNING AND STRIPING MAIN STREET	
	DESIGN BY: DJW		SURVEY BOOK
	DRAWN BY: EVJ		
	CHECKED BY: DJW		
<b>S.A.P. 02-614-18</b>		SHEET <b>28</b> OF <b>42</b>	
		DESIGN FILE No. 16-9012	





- SPECIFIC NOTES:**
- ① INSTALL SALVAGED SIGN.
  - ② PAVEMENT MARKINGS TO BE REMOVED IN THIS AREA ARE REMOVABLE PREFORMED PLASTING PAVEMENT MARKINGS FROM OTHER PROJECT.
  - ③ PAVEMENT MARKINGS TO BE REMOVED IN THIS AREA ARE PAINTED PAVEMENT MARKINGS.

TYPE "C" SIGNS								
REFERENCE NUMBER OF INSTALLATION	NUMBER OF INSTALLATIONS	POSTS PER INSTALLATION (QUANTITY-TYPE)	LENGTH OF POSTS (FT.)	MOUNTING HEIGHT (FT.)	SIGN PANEL (IN.)	SIGN PANEL AREA PER PANEL (SQ. FT.)	SIGN PANEL CODE NUMBER	SIGN PANEL DESCRIPTION
C-1	1	1-U	13	7	24 X 24	4.00	M1-6	ANOKA COUNTY 14 ROUTE MARKER
C-2	8	1-U	11	7	24 X 12	2.00	M3-2A	EAST
C-3	2	1-U	13	7	12 X 12	1.00	R8-3a	NO PARKING
C-4	4	1-U	10	4	30 X 30	6.25	R3-X1	RIGHT TURN LANE
C-5	1	2-U	16	7	18 X 36	4.50	X4-4(R)	CLEARANCE MARKER
C-6	2	1-U	10	4	36 X 36	9.00	W3-3	SIGNAL AHEAD
C-7	1	1-U	(1)	7	24 X 24	4.00	W13-1	ADVISORY SPEED 45 MPH
C-8	2	2-U	(1)	7	12 X 36	3.00	X4-4(R)	CLEARANCE MARKER
C-9	1	2-U	15	7	24 X 24	4.00	M1-6	ANOKA COUNTY 9 ROUTE MARKER
C-10	1	2-U	15	7	21 X 15	2.19	M5-1A(L)	ADVANCE TURN ARROW - 90
C-11	1	2-U	16	7	36 X 30	7.50	R3-8F	DOUBLE LEFT TURN ONLY
					48 X 48	16.00	W20-X3(L)	MERGE (LEFT) (2)
					48 X 48	16.00	W4-2(R)	LANE REDUCTION TRANSITION (RIGHT)
					24 X 24	4.00	W13-1	ADVISORY SPEED 45 MPH
<b>TOTAL</b>						120.69		

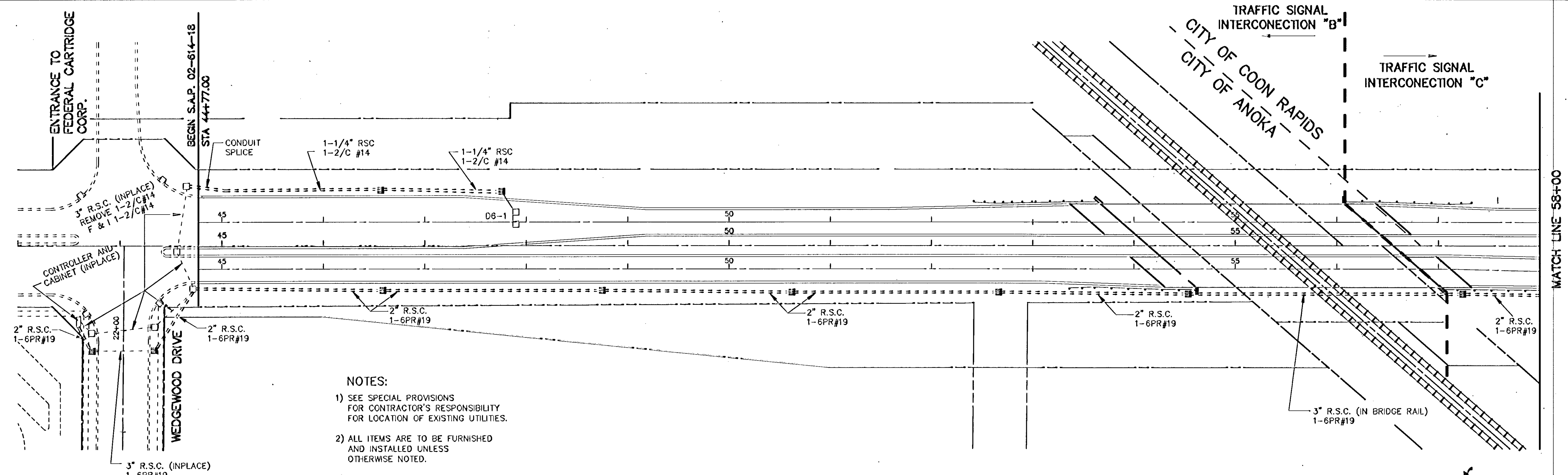
- TABULATION NOTES:**
- (1) SIGN SHALL BE INSTALLED PER THE "ISLAND MOUNT BREAK-AWAY SIGN POST INSTALLATION DETAIL" AS SHOWN IN THE SPECIAL PROVISIONS.
  - (2) BLACK LEGEND SHALL BE DIRECT APPLIED ON YELLOW BACKGROUND.

- GENERAL NOTES:**
- 1. POST LENGTHS ARE APPROXIMATE AND INCLUDE EMBEDMENT, BUT DO NOT INCLUDE ADDITIONAL LENGTH REQUIRED FOR SPLICE.
  - 2. SEE SHEETS 21 TO 23 FOR STRUCTURAL DETAILS.
  - 3. SEE STANDARD SIGNS MANUAL FOR PUNCHING CODE AND DETAILED DRAWINGS OF TYPE "C" SIGN PANELS.

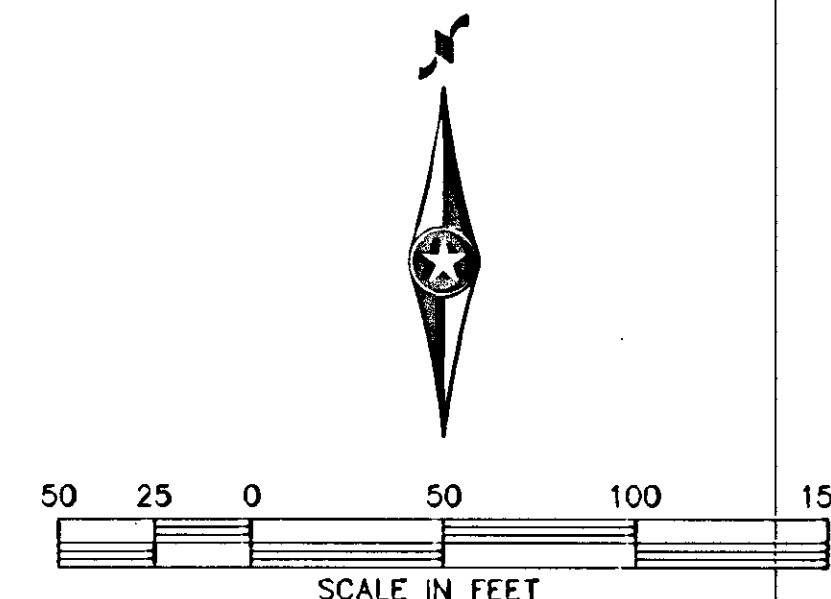
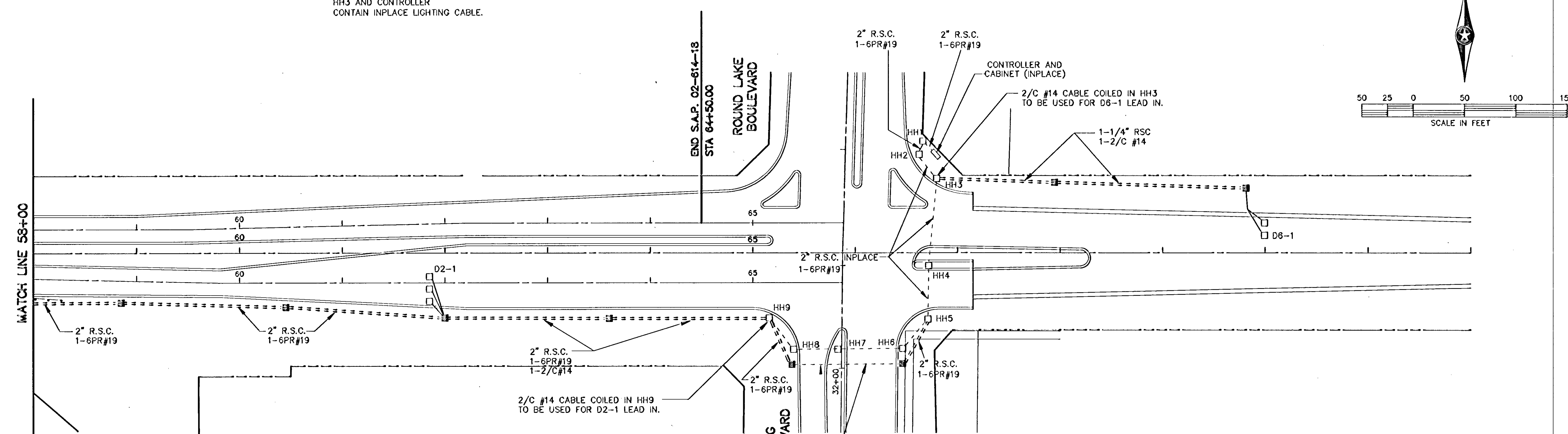
PAVEMENT MARKING AND MESSAGES									
STATION TO STATION	4" SOLID LINE WHITE (LIN FT)	8" SOLID LINE WHITE (LIN FT)	BROKEN LINE WHITE (LIN FT)	24" SOLID LINE WHITE (LIN FT)	4" SOLID LINE YELLOW (LIN FT)	4" DBL SLD LINE YELLOW (LIN FT)	LEFT ARROW WHITE (EACH)	RIGHT ARROW WHITE (EACH)	ONLY WHITE (EACH)
<b>MAIN STREET (1)</b>									
44+50 TO 53+00	4,502		680	48	3,350		4	4	8
53+00 TO 65+10	5,792	130	938	56	4,120		6	3	12
<b>REISLING BOULEVARD</b>									
6+00 TO 15+00	1,380		60			680	4	2	6
<b>TOTALS</b>	11,674	130	1,678	104	7,470	680	14	9	26

- CHART M NOTES:**
- (1) QUANTITIES INCLUDE DOUBLE THE AMOUNT ON THE PORTIONS OF MAIN STREET WHICH WILL RECEIVE FINAL BITUMINOUS WEAR COURSE IN SPRING 1992.

<p><b>BRW</b> INC. PLANNING TRANSPORTATION ENGINEERING DESIGN</p> <p>7200 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 332-0700</p>	<p>ORIGINAL DATE 2/11/91</p> <p>REVISIONS</p> <p>REV PER COUNTY COMMENTS 4/4/91.</p>	<p><b>ANOKA COUNTY</b></p> <p>C.S.A.H. 14 OVER B.N.R.R.</p> <p>SIGNING AND STRIPING</p> <p>REISLING BOULEVARD</p>
	<p>DESIGN BY: DWF</p> <p>DRAWN BY: EWJ</p> <p>CHECKED BY: DWF</p>	
<p><b>S.A.P. 02-614-18</b></p>		<p>SHEET 29 OF 42</p>



- NOTES:**
- 1) SEE SPECIAL PROVISIONS FOR CONTRACTOR'S RESPONSIBILITY FOR LOCATION OF EXISTING UTILITIES.
  - 2) ALL ITEMS ARE TO BE FURNISHED AND INSTALLED UNLESS OTHERWISE NOTED.
  - 3) CONDUIT RUNS AT SIGNAL INTERCONNECT "C" BETWEEN HH3 AND CONTROLLER CONTAIN INPLACE LIGHTING CABLE.

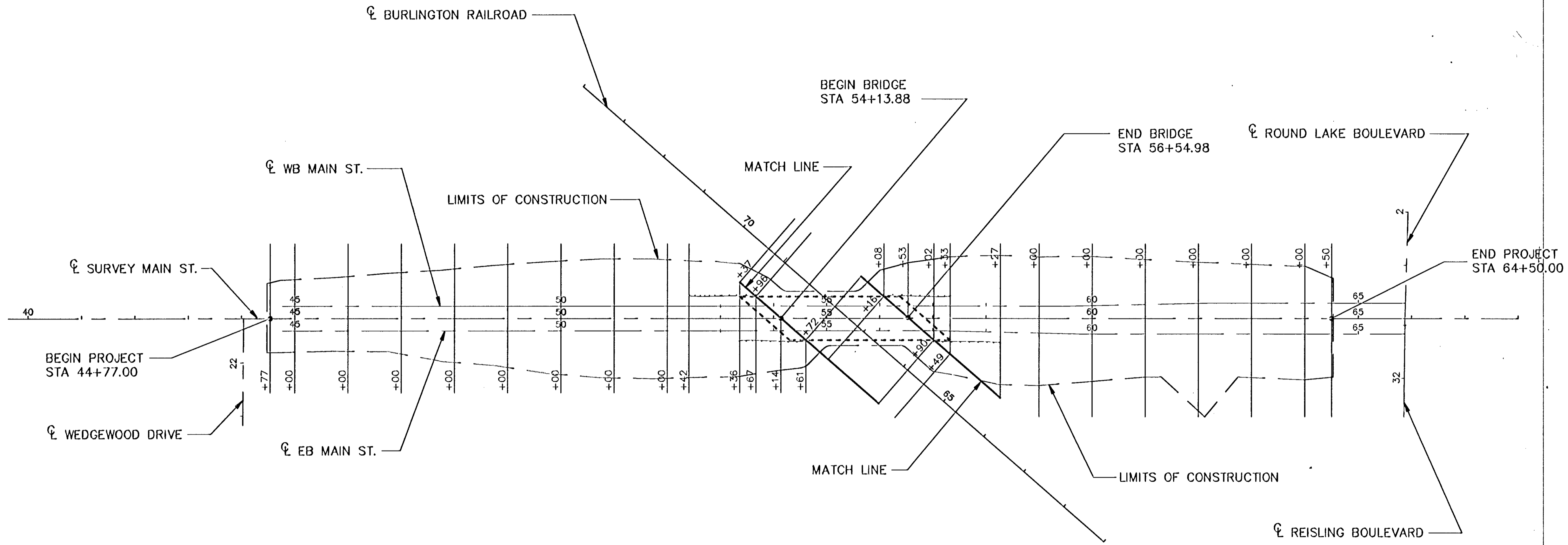
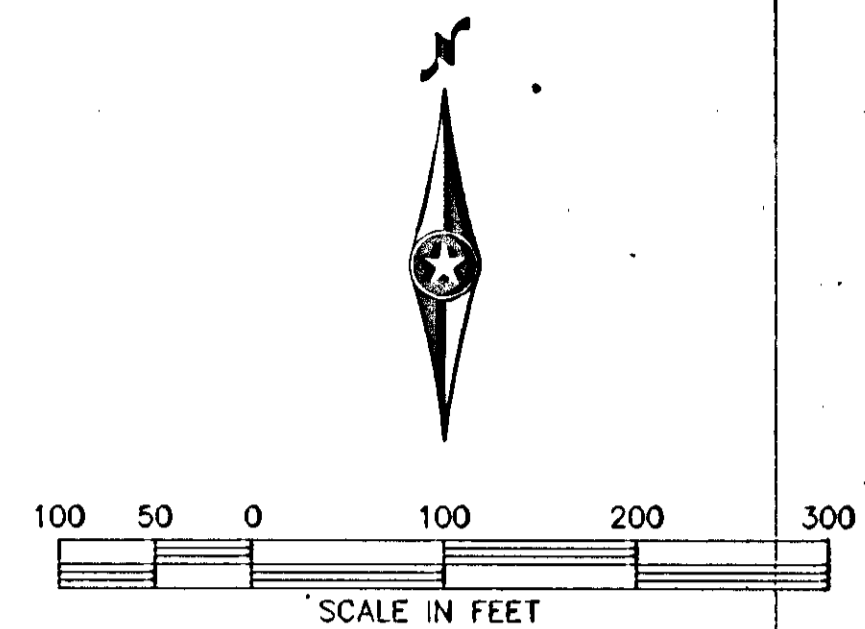


<p>Electrical Engineer Cert.</p> <p>I hereby certify that this plan, specification or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Electrical Engineer under the State of Minn. Statutes Sections 326.02 to 326.16.</p> <p><i>[Signature]</i> Date <u>2/12/11</u> Minn. Reg. No. <u>12412</u></p>	<p>Civil Engineer Cert.</p> <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>[Signature]</i> Date <u>2/12/11</u> Minn. Reg. No. <u>015</u></p>
--	--

**IBRW**  
INTEGRATED BUSINESS & RESEARCH WORKS, INC.  
 PLANNING  
 TRANSPORTATION  
 ENGINEERING  
 URBAN DESIGN  
 730 THIRD STREET SOUTH  
 MINNEAPOLIS, MN 55419  
 PHONE: (612) 333-0700

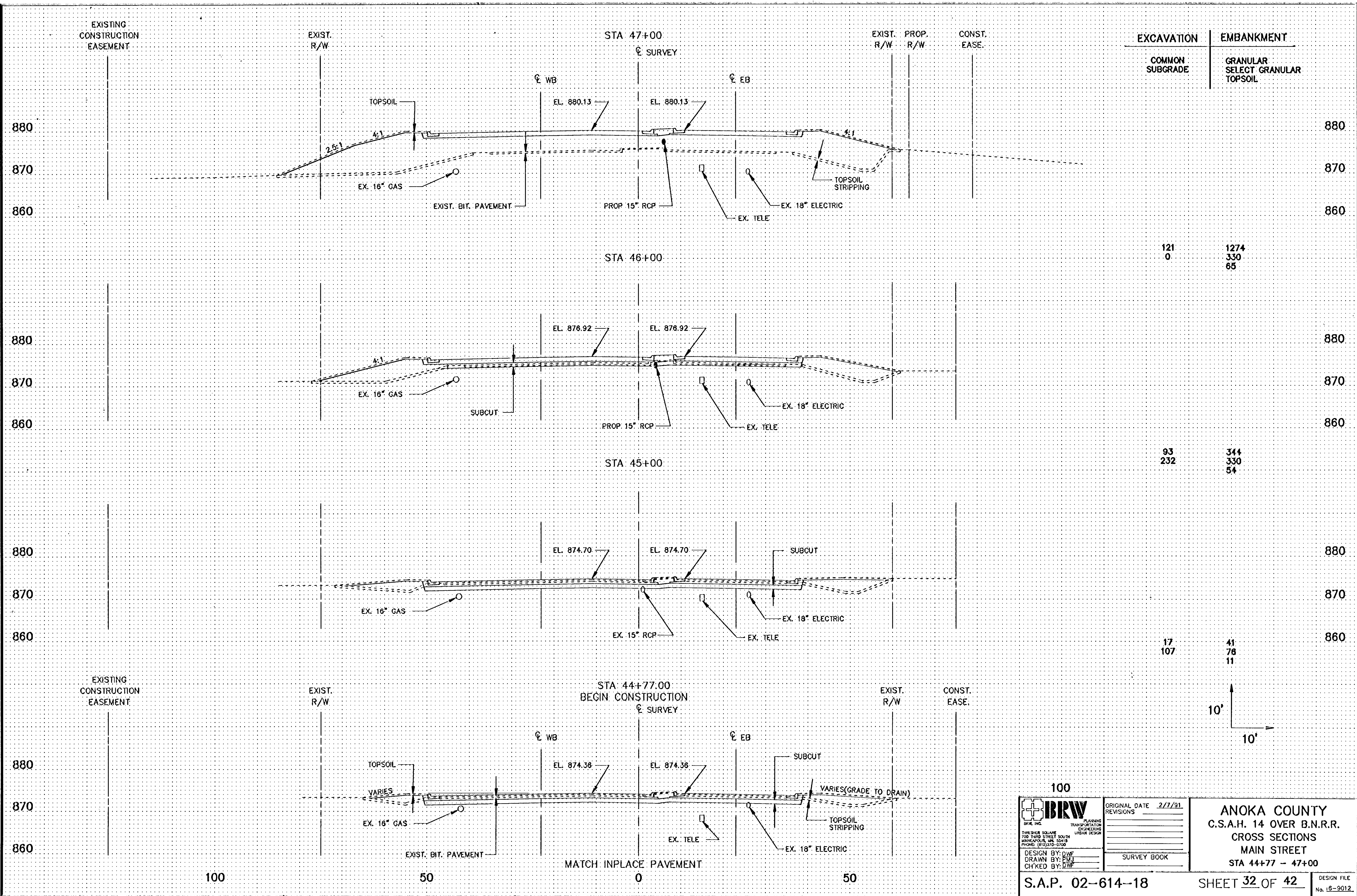
ORIGINAL DATE	2/7/91
REVISIONS	
SURVEY BOOK	

**ANOKA COUNTY**  
 C.S.A.H. 14 OVER B.N.R.R.  
 TRAFFIC SIGNAL  
 INTERCONNECTION  
 "B" & "C"




<b>BRW</b> <small>BRW INC. PLANNING TRANSPORTATION ENGINEERING</small> <small>THURSDAY SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 335-0100</small>	ORIGINAL DATE <u>2/7/91</u> REVISIONS _____ _____ _____ _____	<b>ANOKA COUNTY</b> <b>C.S.A.H. 14 OVER B.N.R.R.</b> <b>CROSS SECTION LAYOUT</b> <b>MAIN ST. AND B.N.R.R.</b>	
	DESIGN BY: DWF DRAWN BY: PMJ CHECKED BY: DWF		SURVEY BOOK _____ _____ _____
	<b>S.A.P. 02-614-18</b>		SHEET <u>31</u> OF <u>42</u>
	DESIGN FILE No. 18-9012		<small>CROSSLAY</small>

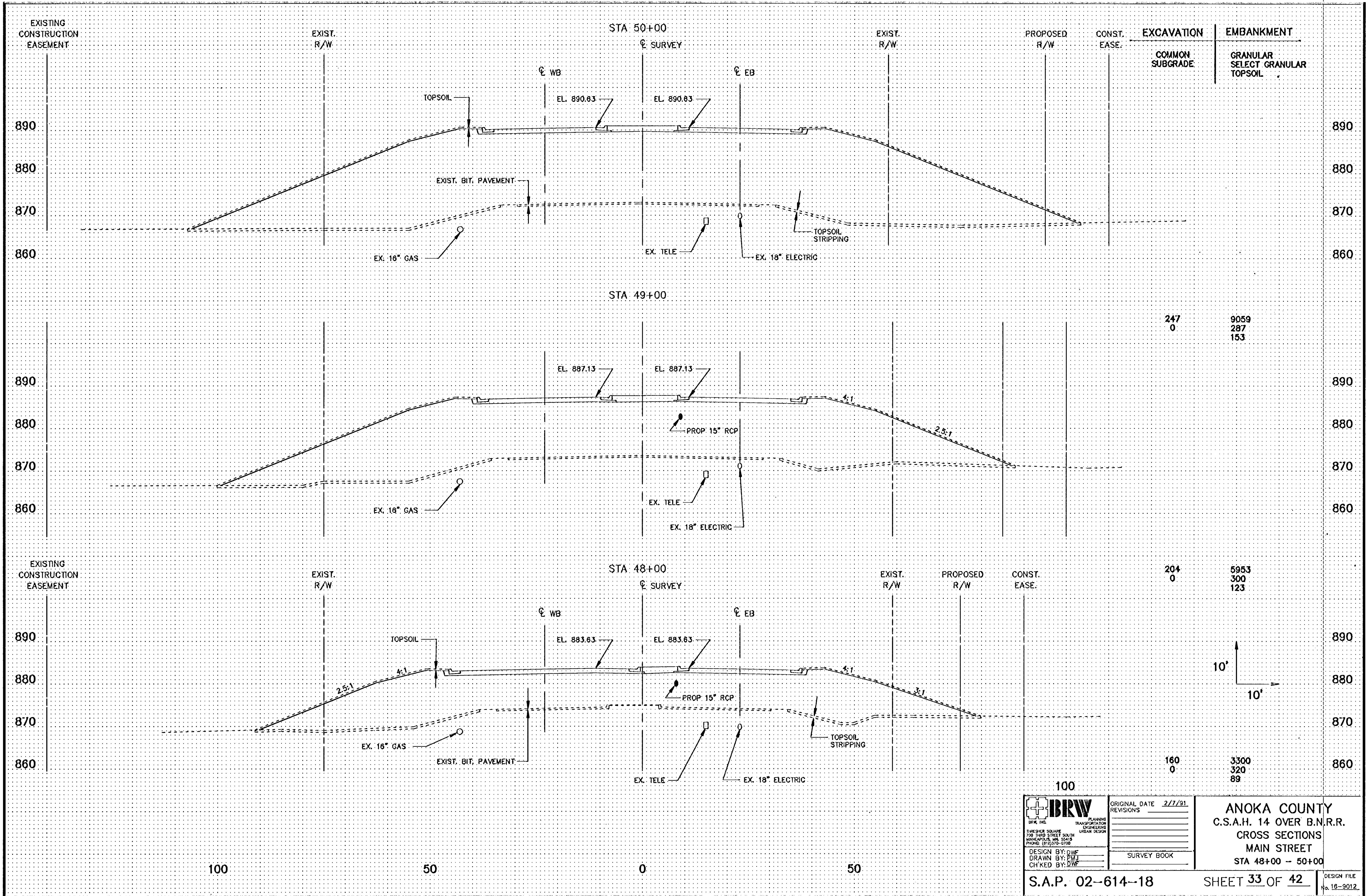




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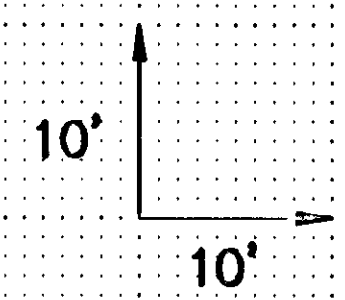
 <p style="font-size: 8px;">IBRW, INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p style="font-size: 8px;">THRESHOLD SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 375-0700</p>	ORIGINAL DATE <u>2/17/91</u>	<p><b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R. CROSS SECTIONS MAIN STREET STA 44+77 - 47+00</p>
	REVISIONS	
	SURVEY BOOK	
	DESIGN BY: DWK DRAWN BY: PJL CHECKED BY: DWK	

S.A.P. 02-614-18      SHEET 32 OF 42      DESIGN FILE No. 16-9012



247	9059
0	287
	153

204	5953
0	300
	123



**BRW**  
 INC.  
 PLANNING  
 TRANSPORTATION  
 ENGINEERING  
 URBAN DESIGN  
 700 THIRD STREET SOUTH  
 MINNEAPOLIS, MN 55415  
 PHONE: (612) 270-0700

ORIGINAL DATE: 2/7/91  
 REVISIONS:  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 SURVEY BOOK

**ANOKA COUNTY**  
 C.S.A.H. 14 OVER B.N.R.R.  
 CROSS SECTIONS  
 MAIN STREET  
 STA 48+00 - 50+00

S.A.P. 02-614-18

SHEET 33 OF 42

DESIGN FILE  
 No. 16-9012

100

50

0

50

100

160

3300  
 320  
 89







STA 54+14  
BEGIN BRIDGE CONSTRUCTION

MATCH  
LINE

EXIST.  
R/W

PROPOSED  
R/W

CONST.  
EASE.

EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL SELECT GRAN. MOD

900

890

880

870

900

890

880

870

STA 53+67

EL. 900.40

EL. 900.40

900

890

880

870

900

890

880

870

66  
0  
3957  
71  
34  
258

STA 53+36

CL SURVEY

EXIST.  
R/W

PROPOSED  
R/W

CONST.  
EASE.

EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL SELECT GRAN. MOD

900

890

880

870

900

890

880

870

EL. 899.95

EL. 899.95

59  
0  
3760  
82  
31  
63

MATCH  
LINE

TOPSOIL

CL WB

CL EB

BEGIN  
GUARDRAIL  
RIGHT

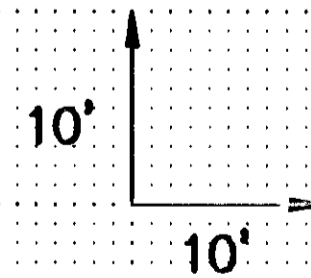
EX. 16" GAS

EXIST. BIT. PAVEMENT

EX. 18" ELECTRIC

EX. TELE

TOPSOIL  
STRIPPING



100

**IBRW**  
INC.  
PLANNING  
TRANSPORTATION  
ENGINEERING  
DESIGN

700 THIRD STREET SOUTH  
MINNEAPOLIS, MN 55415  
PHONE: (612) 338-2028

DESIGN BY: DWF  
DRAWN BY: EMJ  
CHK'D BY: DWF

ORIGINAL DATE	2/7/91
REVISIONS	
SURVEY BOOK	

ANOKA COUNTY  
C.S.A.H. 14 OVER B.N.R.R.  
CROSS SECTIONS  
MAIN STREET  
STA 53+36 - 54+14

S.A.P. 02-614-18

SHEET 35 OF 42

DESIGN FILE  
No. 16-9012

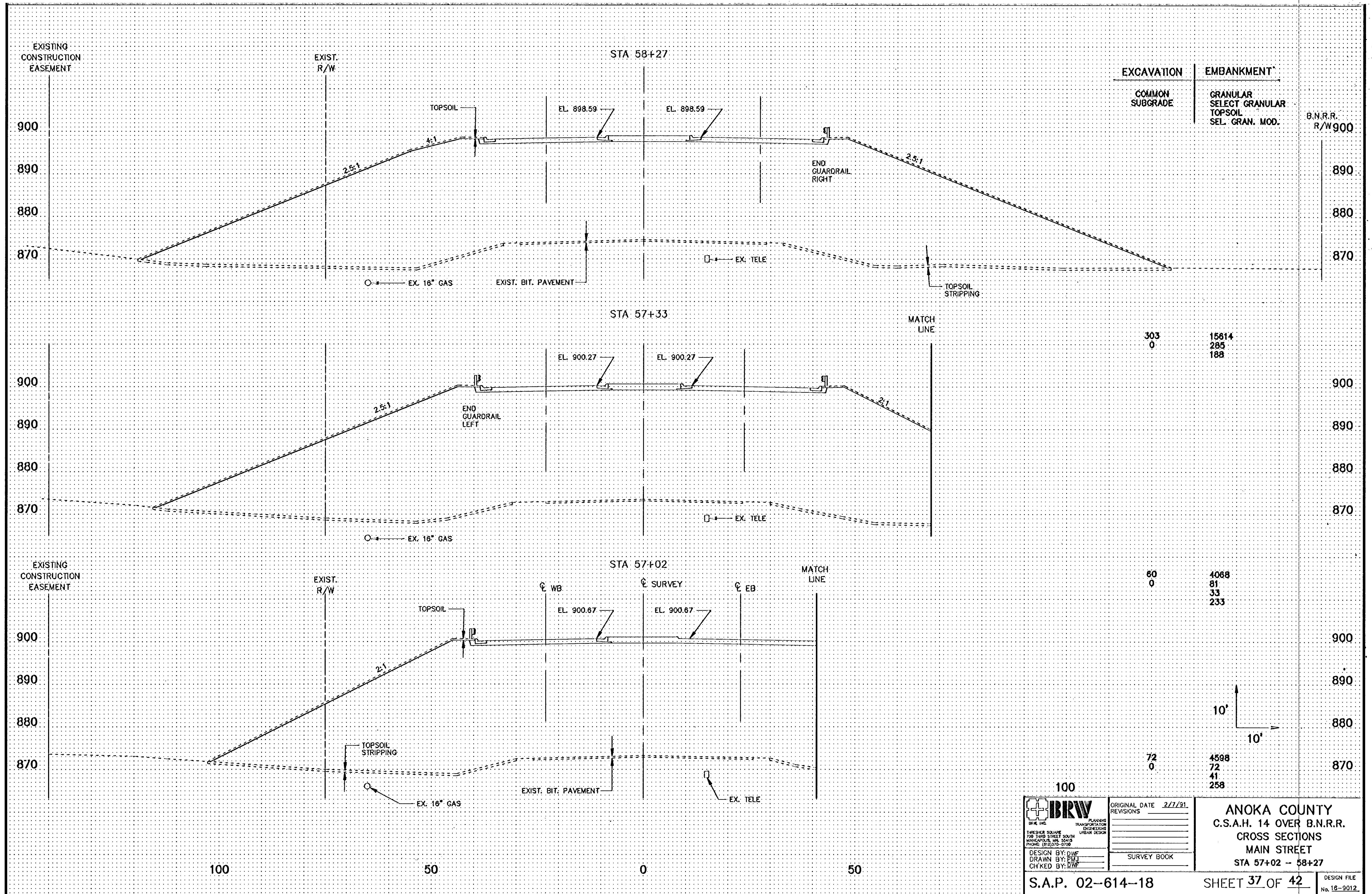
100

50

0

50

CROSS4



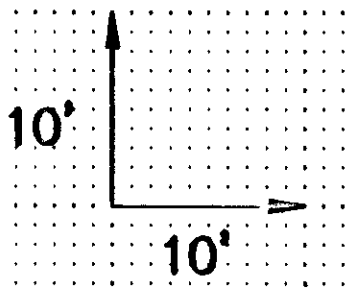
EXCAVATION	EMBANKMENT*
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL SEL. GRAN. MOD.

B.N.R.R.  
R/W 900

303  
0  
15614  
285  
188

60  
0  
4068  
81  
33  
233

72  
0  
4598  
72  
41  
258



 BRW INC. PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN THRESHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 375-0100	ORIGINAL DATE	2/7/91
	REVISIONS	
DESIGN BY: DWF		
DRAWN BY: PWJ		
CHECKED BY: DWF		
	SURVEY BOOK	

ANOKA COUNTY  
C.S.A.H. 14 OVER B.N.R.R.  
CROSS SECTIONS  
MAIN STREET  
STA 57+02 - 58+27

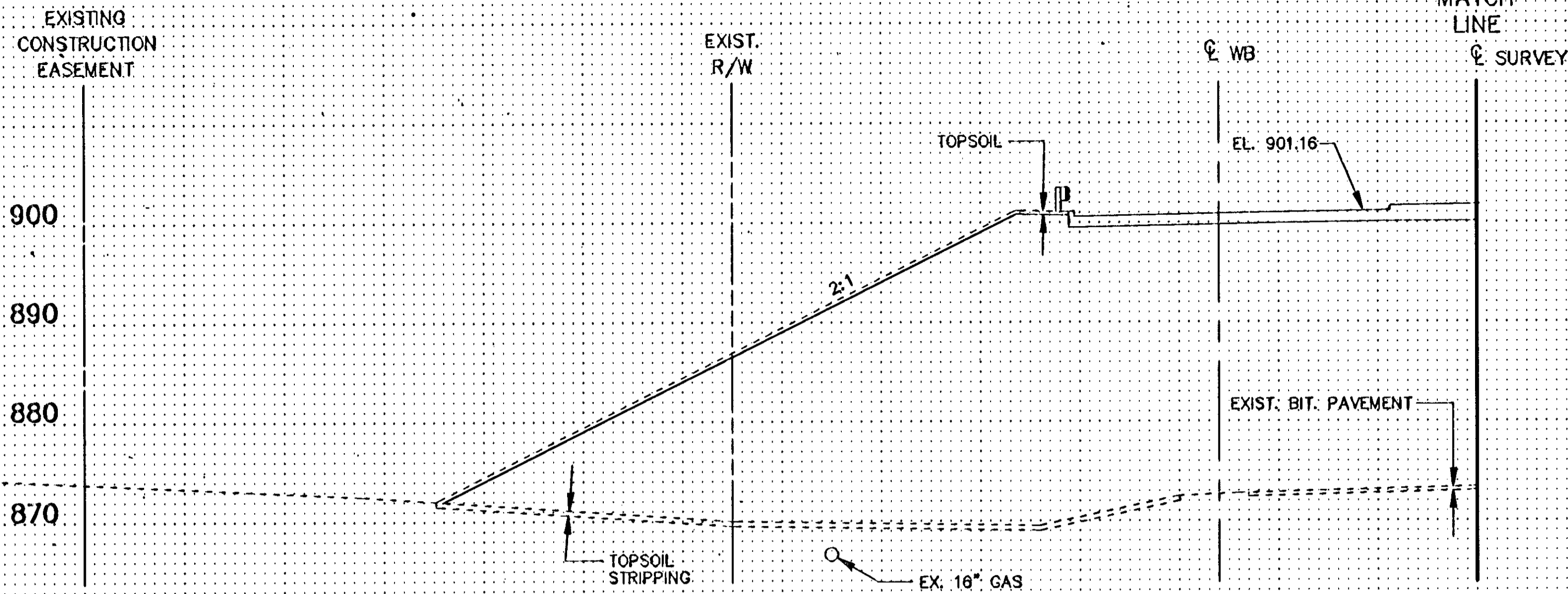
S.A.P. 02-614-18

SHEET 37 OF 42

DESIGN FILE  
No. 18-9012

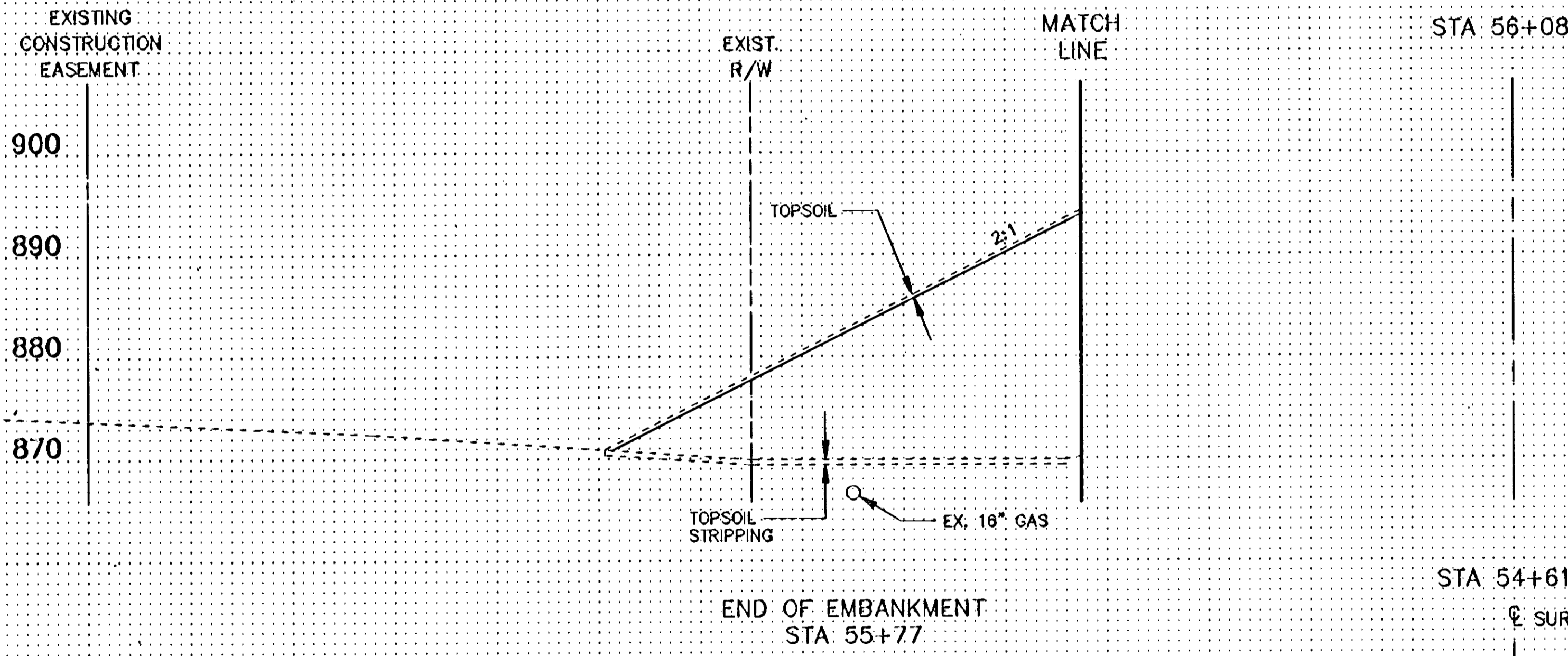


STA 56+53  
END BRIDGE CONSTRUCTION  
MATCH  
LINE

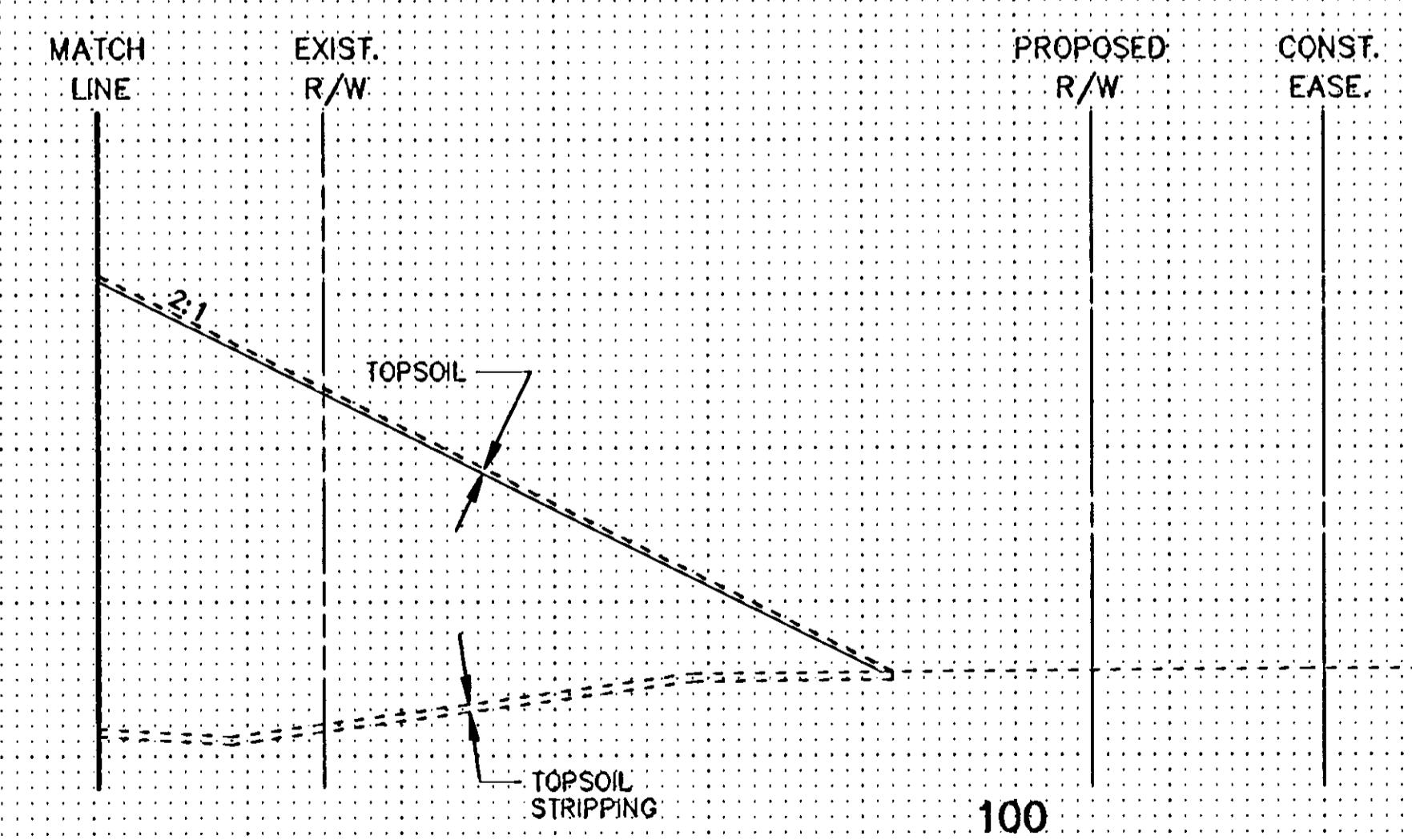
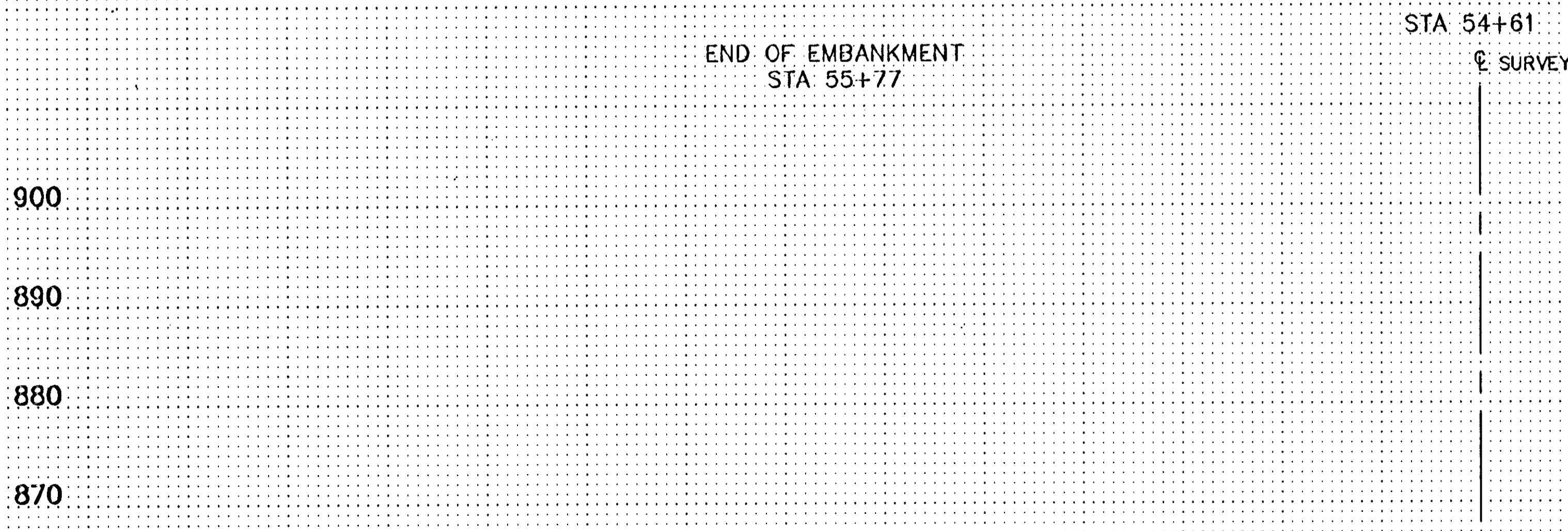


EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL SEL. GRAN. MOD.

51  
0  
2158  
7  
33  
233



END OF EMBANKMENT  
STA 54+87



53  
0  
2164  
8  
33  
233

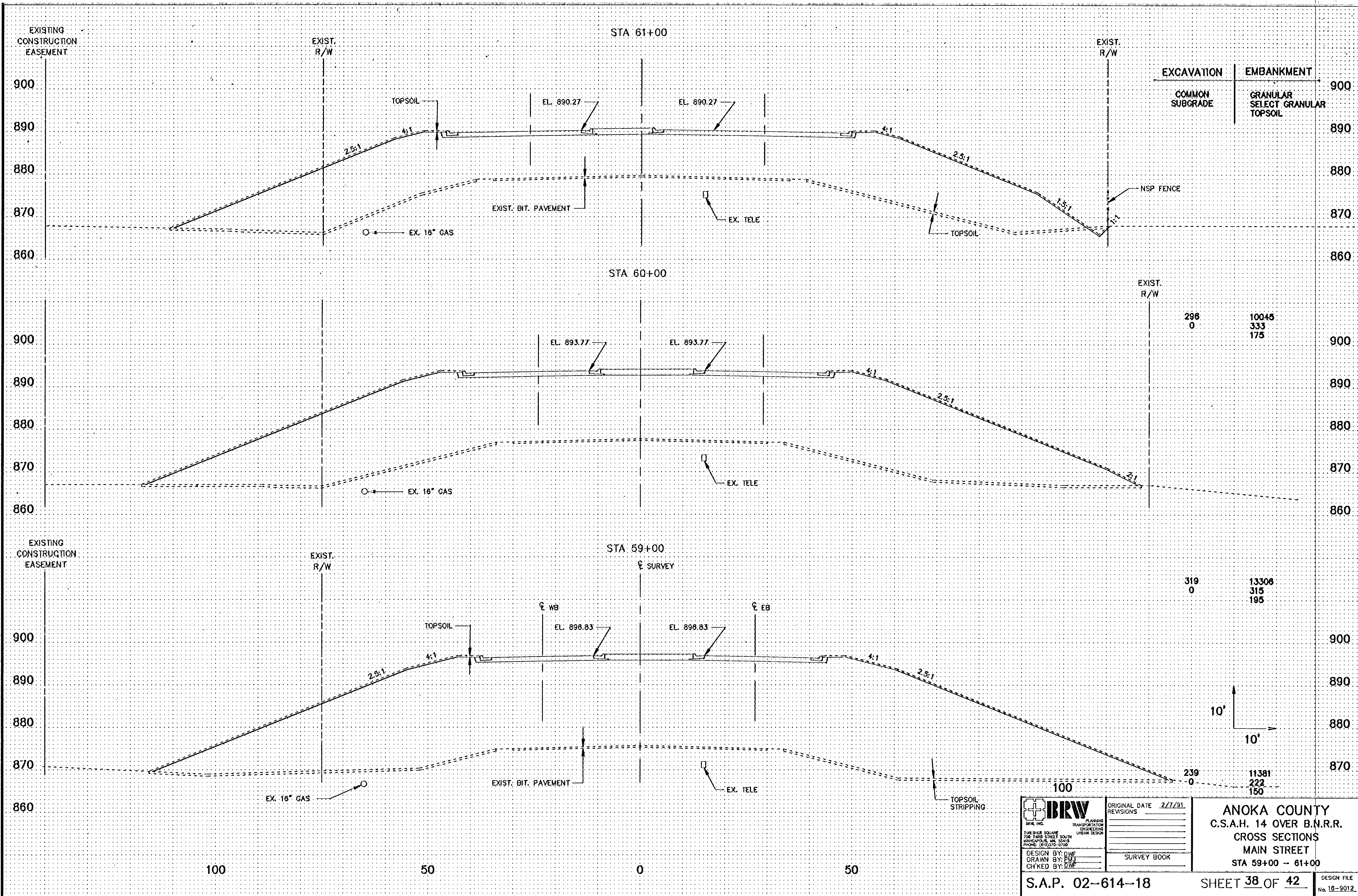
**BRW**  
INC.  
PLANNING  
TRANSPORTATION  
ENGINEERING  
URBAN DESIGN  
700 THIRD STREET SOUTH  
MINNEAPOLIS, MN 55415  
PHONE: (612)370-0700

ORIGINAL DATE	2/7/91
REVISIONS	
DESIGN BY: DWF	
DRAWN BY: PMJ	
CHECKED BY: DWF	
SURVEY BOOK	

ANOKA COUNTY  
C.S.A.H. 14 OVER B.N.R.R.  
CROSS SECTIONS  
MAIN STREET  
STA 54+61 - 56+53

100 50 0 50





EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL

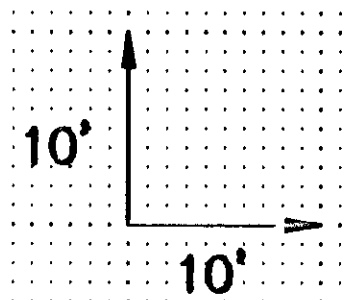
EXIST. R/W

296	10045
0	333
	175

EXIST. R/W

319	13308
0	315
	195

EXIST. R/W



**IBRW**  
 INCORPORATED  
 PLANNING  
 TRANSPORTATION  
 ENGINEERING  
 URBAN DESIGN

700 THIRD STREET SOUTH  
 ANNAPOLIS, MD 20410  
 PHONE: (410) 291-0100

DESIGN BY: DWF  
 DRAWN BY: PMJ  
 CHECKED BY: DWF

ORIGINAL DATE	2/7/91
REVISIONS	
SURVEY BOOK	

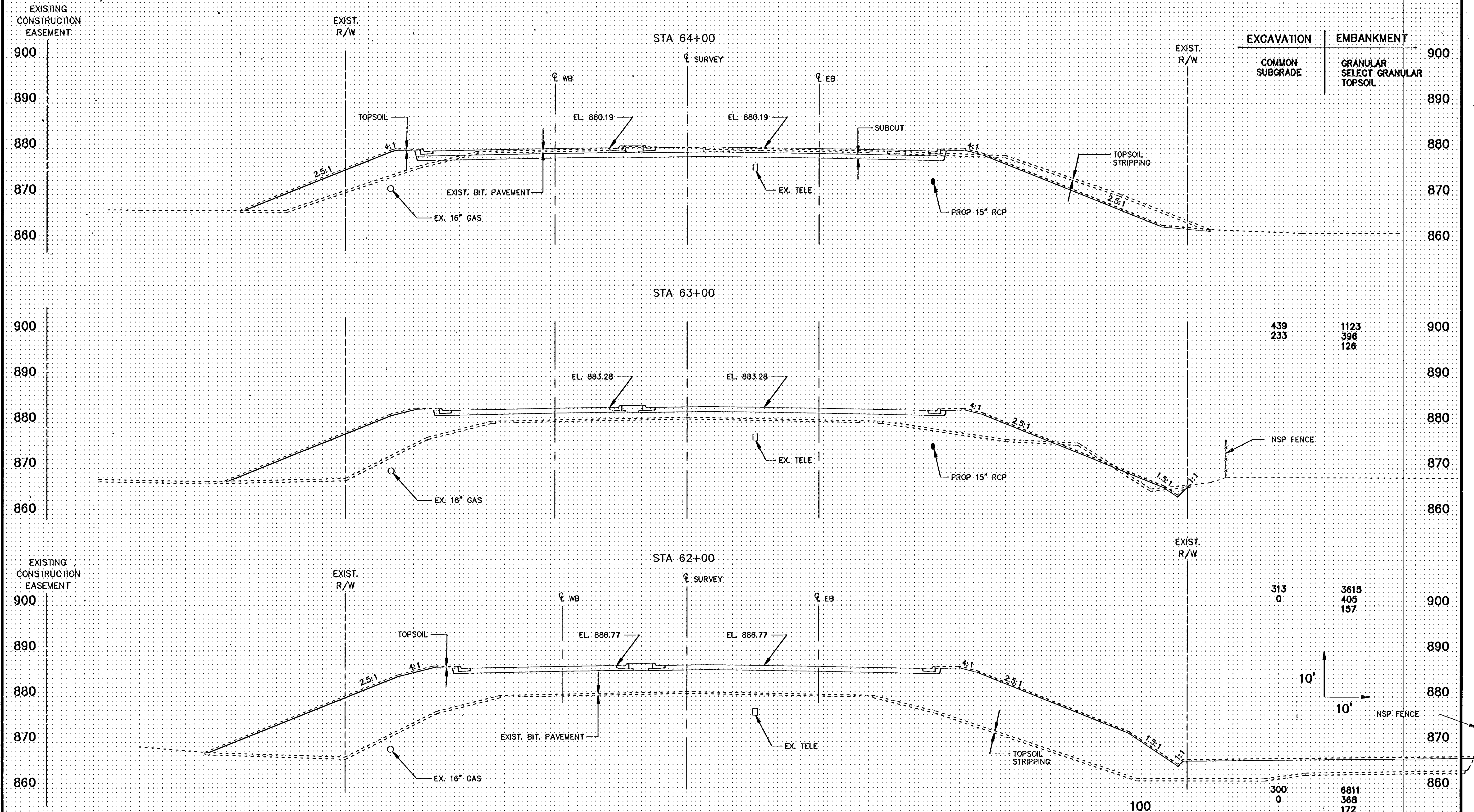
**ANOKA COUNTY**  
 C.S.A.H. 14 OVER B.N.R.R.  
 CROSS SECTIONS  
 MAIN STREET  
 STA 59+00 - 61+00

S.A.P. 02-614-18

SHEET 38 OF 42

DESIGN FILE  
 No. 16-9012





EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL

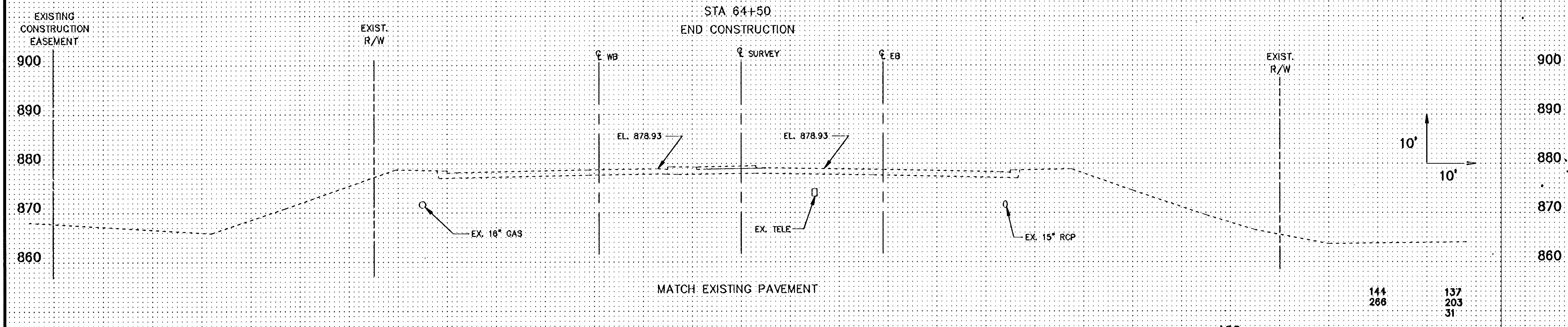
439	1123
233	396
	126

313	3615
0	405
	157

300	6811
0	368
	172

<p><b>IBRW</b> INCORPORATED PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN</p> <p>700 THIRD STREET SOUTH MINNEAPOLIS, MN 55415 PHONE: (612) 370-0700</p> <p>DESIGN BY: DWF DRAWN BY: PMJ CHECKED BY: DWF</p>	ORIGINAL DATE: 2/7/91 REVISIONS:	<b>ANOKA COUNTY</b> C.S.A.H. 14 OVER B.N.R.R. CROSS SECTIONS MAIN STREET STA 62+00 - 64+00	
	SURVEY BOOK		
	S.A.P. 02-614-18		SHEET 39 OF 42
	DESIGN FILE No. 16-9012		

EXCAVATION	EMBANKMENT
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL



<p><b>IBRW</b> INC. THRESHER SQUARE 700 THIRD STREET SOUTH MINNEAPOLIS, MN 55413 PHONE: (612) 370-0700</p>	PLANNING TRANSPORTATION ENGINEERING URBAN DESIGN	ORIGINAL DATE <u>2/7/91</u> REVISIONS _____ _____ _____ _____	<b>ANOKA COUNTY</b> <b>C.S.A.H. 14 OVER B.N.R.R.</b> <b>CROSS SECTIONS</b> <b>MAIN STREET</b> <b>STA 64+50</b>
	DESIGN BY: DWF DRAWN BY: PMJ CHECKED BY: DWF	SURVEY BOOK _____	
	S.A.P. 02-614-18	SHEET <u>40</u> OF <u>42</u>	
	DESIGN FILE No. 16-9012		

100

50

0

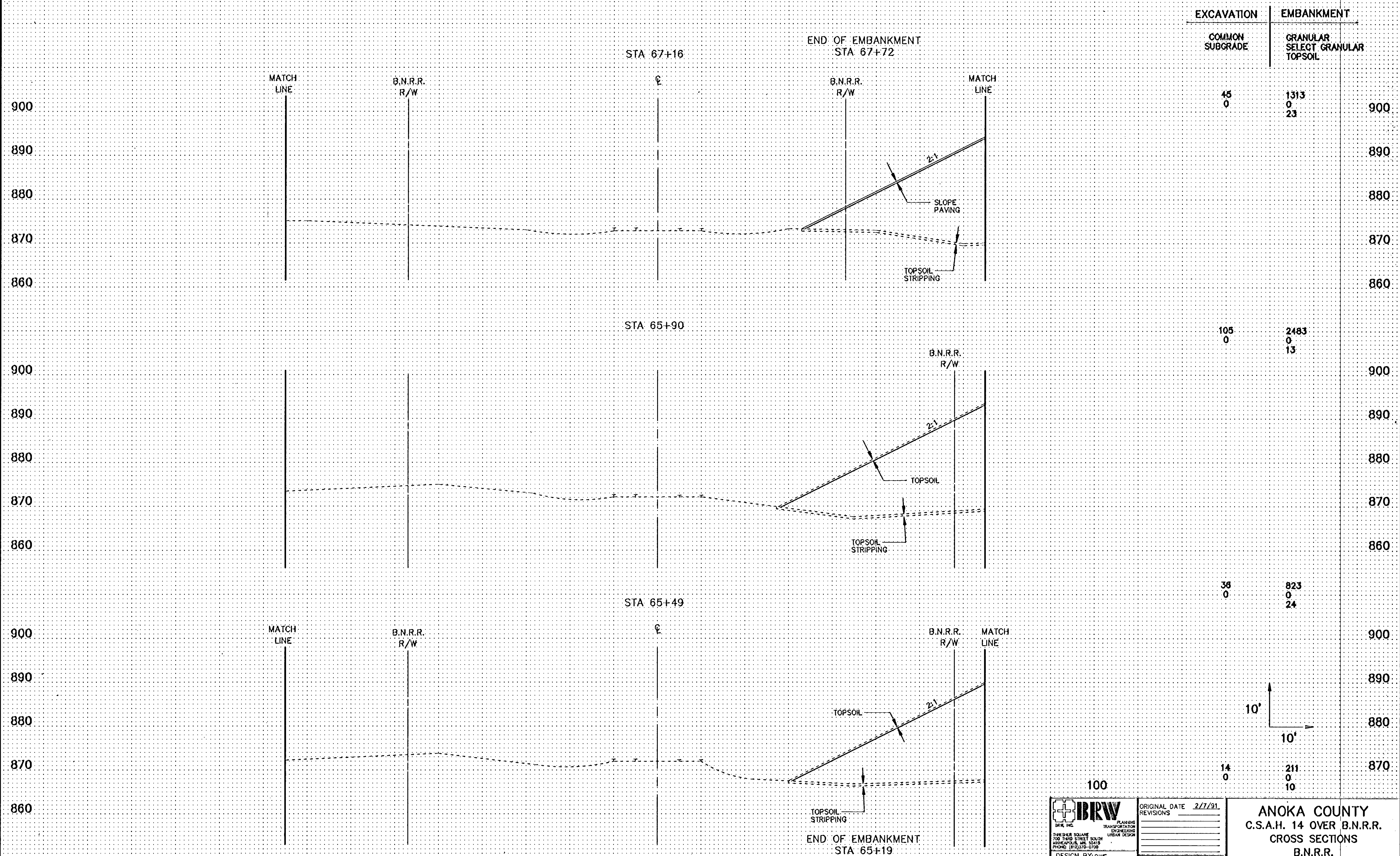
50

100

144  
266

137  
203  
31





EXCAVATION	EMBANKMENT	
COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL	
45 0	1313 0 23	900
105 0	2483 0 13	900
38 0	823 0 24	900
14 0	211 0 10	900

**BRW** INC.

PLANNING  
TRANSPORTATION  
ENGINEERING  
URBAN DESIGN

THREE SIX SQUARE  
200 THIRD STREET SOUTH  
MINNEAPOLIS, MN 55415  
PHONE: 612-337-0700

DESIGN BY: DWF  
DRAWN BY: PMJ  
CHECKED BY: DWF

ORIGINAL DATE: 2/7/91

REVISIONS:

SURVEY BOOK

**ANOKA COUNTY**

C.S.A.H. 14 OVER B.N.R.R.

CROSS SECTIONS

B.N.R.R.

STA 65+49 - 67+16

S.A.P. 02-614-18
SHEET 41 OF 42
DESIGN FILE  
No. 16-9012

100

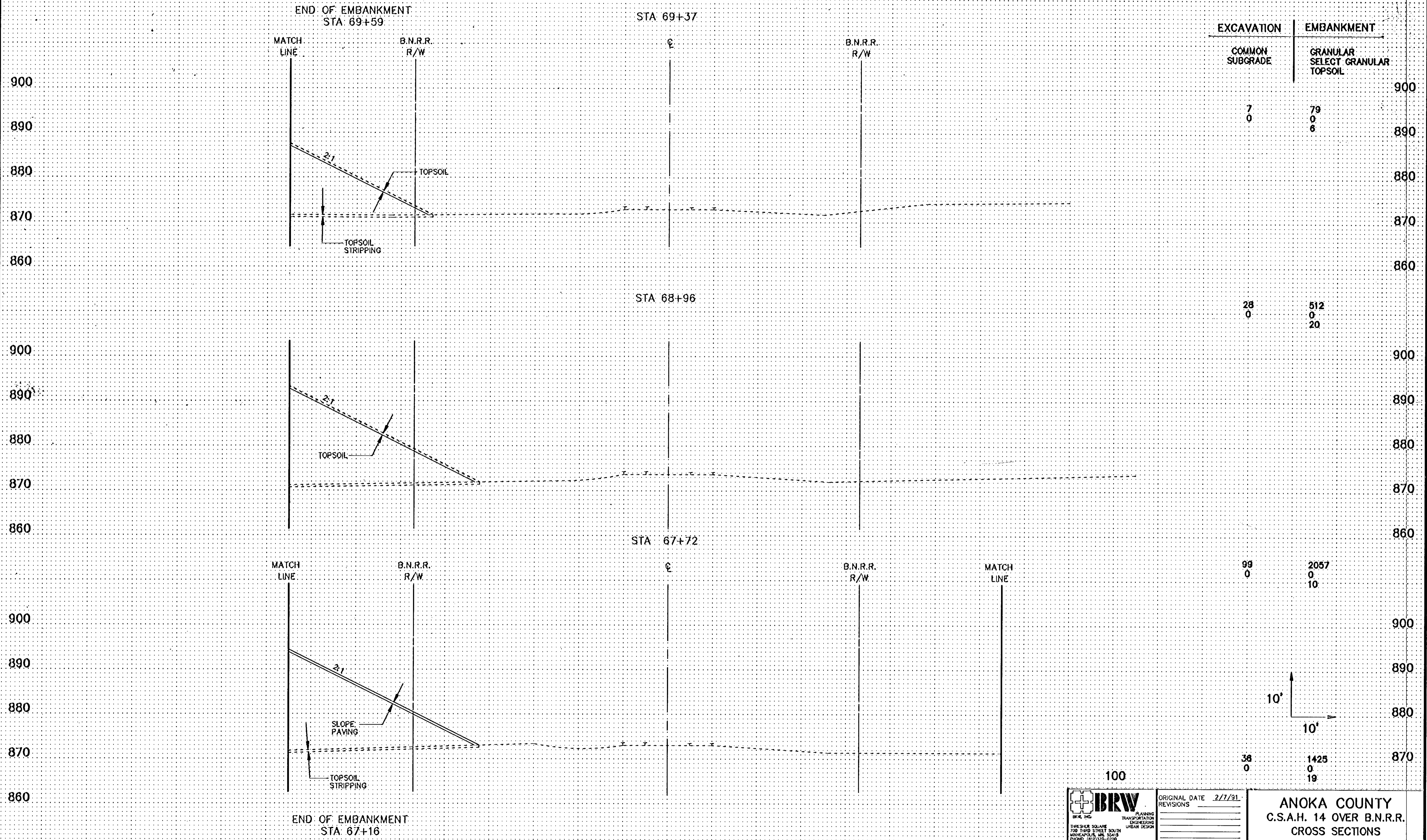
50

0

50

100





EXCAVATION	EMBANKMENT	
	COMMON SUBGRADE	GRANULAR SELECT GRANULAR TOPSOIL

7  
0

79  
0  
6

28  
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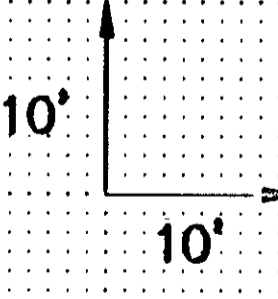
512  
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20

99  
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2057  
0  
10

38  
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19



 <small>BRW, INC.</small> <small>THREESIDER SQUARE</small> <small>700 THIRD STREET SOUTH</small> <small>MINNEAPOLIS, MN 55415</small> <small>PHONE: (612) 270-0700</small>	ORIGINAL DATE <u>2/7/91</u> REVISIONS _____	<b>ANOKA COUNTY</b> <b>C.S.A.H. 14 OVER B.N.R.R.</b> <b>CROSS SECTIONS</b> <b>B.N.R.R.</b> <b>STA 67+72 -- 69+37</b>	
	DESIGN BY: <u>DWF</u> DRAWN BY: <u>PMJ</u> CHECKED BY: <u>DWF</u>		SURVEY BOOK _____
	S.A.P. 02-614-18		
	SHEET <u>42</u> OF <u>42</u>		

DESIGN FILE  
No. 16-9012