

PLAN SYMBOLS

COUNTY LINE
TOWNSHIP OR RANGE LINE
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
RIGHT OF WAY LINE
TEMPORARY EASEMENT
EXISTING RIGHT OF WAY
PROPERTY LINE
PERMANENT EASEMENT
RETAINING WALL
RAILROAD
RAILROAD RIGHT OF WAY
RIVER OR CREEK
DRAINAGE DITCH
CULVERT
DROP INLET
GUARD RAIL
BARBED WIRE FENCE
WOVEN WIRE FENCE
CHAIN LINK FENCE
WOOD FENCE
STONE WALL OR FENCE
HEDGE

LOWLAND
TIMBER
ORCHARD
BRUSH
NURSERY

CATTLE GUARD
OVERPASS (Highway Over)
UNDERPASS (Highway Under)
BRIDGE

BUILDING (One Story Frame)
F-FRAME C-CONCRETE
S-STONE T-TILE
B-BRICK ST-STUCCO

RAILROAD CROSSING BELL
RAILROAD CROSSING GATE
MANHOLE
CATCH BASIN
FIRE HYDRANT
CAST IRON MONUMENT
IRON PIN
GRAVEL PIT
SAND PIT
BORROW PIT
ROCK QUARRY

UTILITY SYMBOLS

POWER POLE LINE
TELEPHONE OR TELEGRAPH
POLE LINE
JOINT TELEPHONE & POWER
ON POWER POLES
ON TELEPHONE POLES
ANCHOR
STEEL TOWER
STREET LIGHT
PEDESTAL (Cable Terminal)
GAS MAIN
WATERMAIN
TELEPHONE CABLE IN CONDUIT
ELECTRIC CABLE IN CONDUIT
TELEPHONE MANHOLE
ELECTRIC MANHOLE
BURIED TELEPHONE CABLE
BURIED ELECTRIC CABLE
SEWER (Sanitary or Storm)
SEWER MANHOLE

SCALES

PLAN
PROFILE
HORIZONTAL
VERTICAL
X-SECTIONS
HORIZONTAL
VERTICAL
INDEX MAP

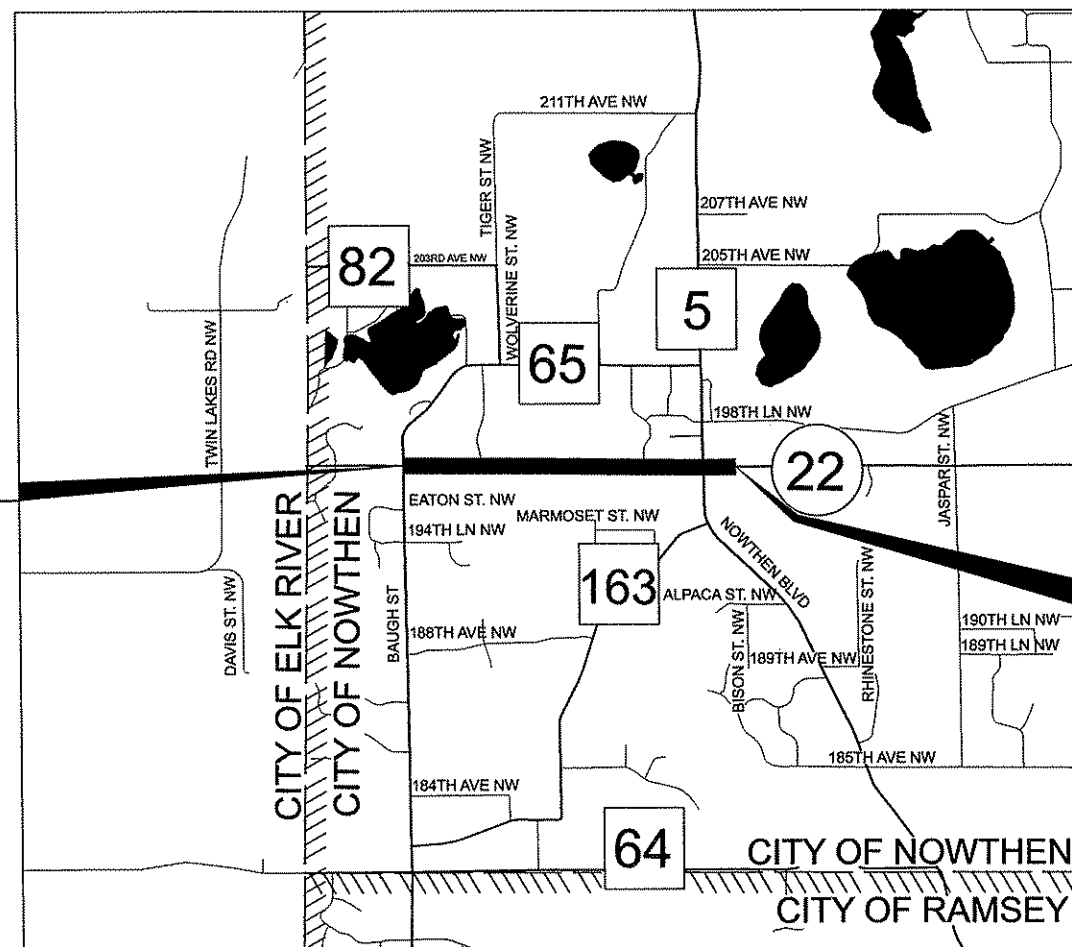
MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

CONSTRUCTION PLAN FOR GRADING, AGG.BASE, CONCRETE SURFACING, AND DRAINAGE
LOCATED ON C.S.A.H. 22 BETWEEN BAUGH ST. NW AND NOWTHEN BLVD. NW

STATE PROJ. NO. 002-622-028

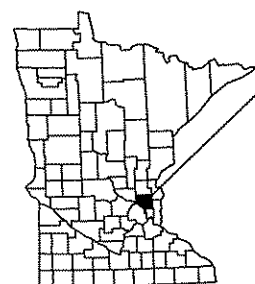
C.S.A.H. 22

GROSS LENGTH 8814.17 FEET 1.669 MILES
BRIDGES-LENGTH 0.00 FEET 0.000 MILES
EXCEPTIONS-LENGTH 0.00 FEET 0.000 MILES
NET LENGTH 8814.17 FEET 1.669 MILES



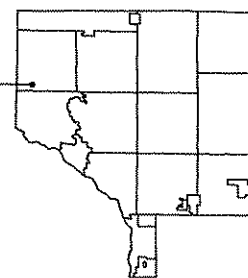
END S.A.P. 002-622-028
W.B. C.S.A.H. 22 STA. 98+24.12

BEGIN S.A.P. 002-622-028
E.B. C.S.A.H. 22 STA. 10+09.95



PROJECT LOCATION

CITY OF NOWTHEN
ANOKA COUNTY
MN/DOT TRANSPORTATION DISTRICT - METRO
SECTION 19, 20, 21, 28, 29, 30
TOWNSHIP 33 NORTH
RANGE 25 WEST



GOVERNING SPECIFICATIONS

THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MNMUTCD), AND PAR VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

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THIS PLAN CONTAINS 139 SHEETS

DESIGN DESIGNATION

ESAL 20 5,312,000
R VALUE 27
ADT (2012) = 5,155
Proj. ADT (2032) = 10,309
Proj. HCADT (2032) = 618
Soil Factor NA
10 TON DESIGN

Functional Classification MINOR COLLECTOR
No. of Traffic Lanes 2 No. of Parking Lanes 0
Design Speed 55 MPH
Based on Stopping Sight Distance 495' (MINIMUM)
Height of eye 3.5' Height of object 2.0'
Design Speed not achieved at: N/A

Approved: [Signature] 6/11/2012 ANOKA COUNTY ENGINEER
Approved: [Signature] 6/11/2012 CITY OF NOWTHEN ENGINEER
Reviewed for Compliance: [Signature] 6/21/2012 DISTRICT STATE AID ENGINEER
Approved for State Aid Funding: [Signature] 6/21/2012 STATE AID ENGINEER

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

PRINT NAME: CURT A. KOBIARCSIK
SIGNATURE: [Signature]
DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: [Signature] DATE: [Signature]
DESIGN BY: [Signature] DATE: [Signature]
CHECKED BY: [Signature] DATE: [Signature]



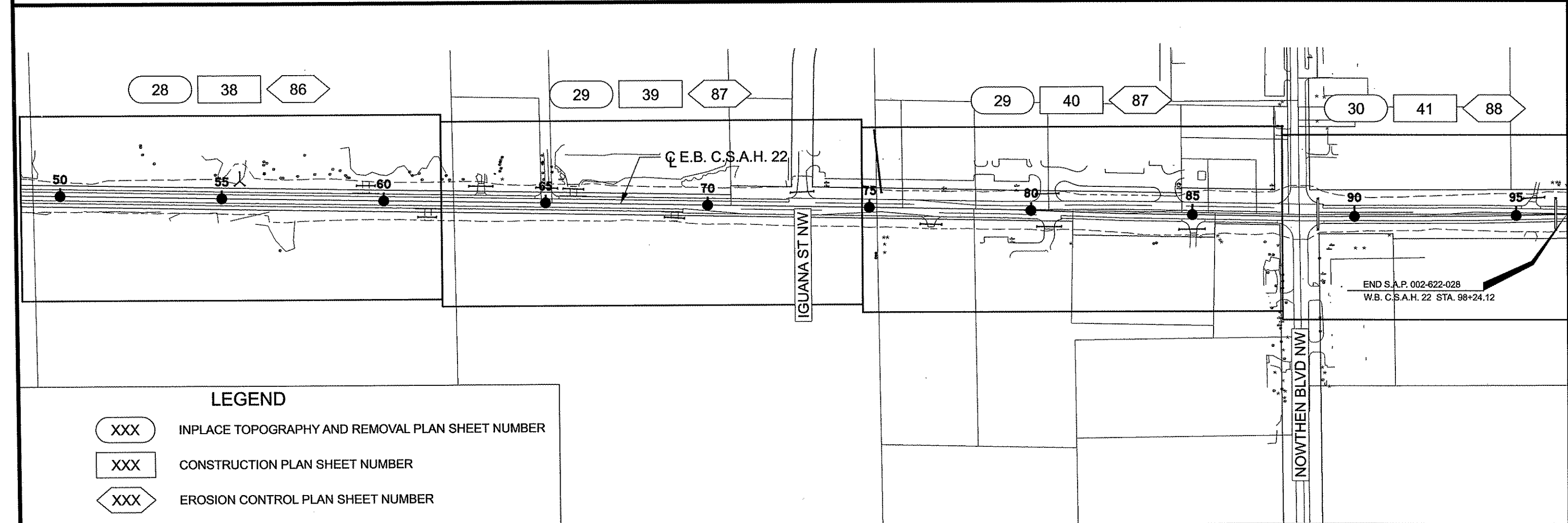
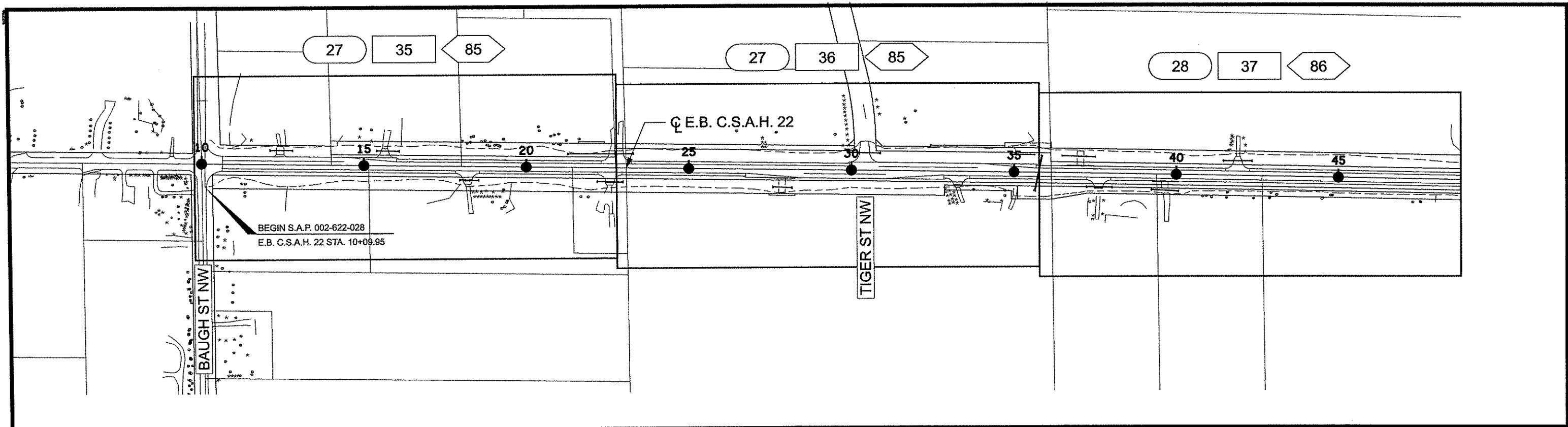
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

TITLE SHEET

Sheet 1 of 139 Sheets

NO DATE BY CKD APPR REVISION
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LEGEND

- XXX INPLACE TOPOGRAPHY AND REMOVAL PLAN SHEET NUMBER
- XXX CONSTRUCTION PLAN SHEET NUMBER
- XXX EROSION CONTROL PLAN SHEET NUMBER

NO	DATE	BY	CKD	APPR	REVISION
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06/07/2012 1:48:24 PM					

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

PRINT NAME: CURT A. KOBIARCSIK

SIGNATURE: *[Signature]*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE:

DESIGN BY: NJD DATE:

CHECKED BY: JEO DATE:



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

GENERAL LAYOUT

Sheet 2 of 139 Sheets

TAB / NOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES ESTIMATED	SAP 002-622-028 ANOKA COUNTY	
					ROADWAY QUANTITIES	
					PARTICIPATING	NON- PARTICIPATING
	2021.501	MOBILIZATION	LUMP SUM	1	1	
	2031.501	FIELD OFFICE TYPE D	EACH	1	1	
A	2101.501	CLEARING	ACRE	1.7	1.7	
A	2101.502	CLEARING	TREE	168	168	
A	2101.506	GRUBBING	ACRE	1.7	1.7	
A	2101.507	GRUBBING	TREE	107	107	
O	2102.502	PAVEMENT MARKING REMOVAL	LIN FT	12,700	12,700	
F, G	2104.501	REMOVE PIPE CULVERTS	LIN FT	1,088	1,088	
B	2104.501	REMOVE CURB	LIN FT	52	52	
B	2104.505	REMOVE CONCRETE PAVEMENT	SQ YD	103	103	
B	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	29,305	29,305	
B	2104.513	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)	LIN FT	454	454	
M	2104.523	SALVAGE SIGN TYPE C	EACH	65	1	64
M	2104.523	SALVAGE SIGN TYPE D	EACH	1	1	
M	2104.523	SALVAGE SIGN TYPE SPECIAL	EACH	3	3	
[3]	2104.601	RELOCATE MISCELLANEOUS STRUCTURES	LUMP SUM	1		1
	2104.601	HAUL SALVAGED MATERIAL	LUMP SUM	1		1
L	2105.501	COMMON EXCAVATION	CU YD	34,566	34,566	
L	2105.505	MUCK EXCAVATION	CU YD	5,604	5,604	
L	2105.507	SUBGRADE EXCAVATION	CU YD	13,928	13,928	
L, R	2105.522	SELECT GRANULAR BORROW (CV)	CU YD	10,129	10,129	
L	2105.525	TOPSOIL BORROW (CV)	CU YD	868	868	
I	2105.607	EXCAVATION SPECIAL 1 (CV)	CU YD	2,857	2,857	
E	2118.501	AGGREGATE SURFACING CLASS 2	TON	38	38	
E, J	2211.501	AGGREGATE BASE (CV) CLASS 5 (P)	TON	5,000	5,000	
C	2301.538	1.25" DOWEL BAR	EACH	17,911	17,911	
C	2301.604	CONCRETE PAVEMENT 8.5"	SQ YD	32,306	32,306	
D	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	117	117	
D, E	2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,B)	TON	2,495	2,495	
I	2360.502	TYPE SP 12.5 NON WEAR COURSE MIX (3,B)	TON	646	646	
D	2360.502	TYPE SP 12.5 NON WEAR COURSE MIX (4,B)	TON	207	207	
F	2501.511	18" CS PIPE CULVERT	LIN FT	1,218	1,218	
F	2501.511	24" CS PIPE CULVERT	LIN FT	74	74	
F	2501.511	24" RC PIPE CULVERT CLASS V	LIN FT	456	456	
F	2501.511	36" RC PIPE CULVERT CLASS V	LIN FT	97	97	
F	2501.515	18" GS PIPE APRON	EACH	38	38	
G	2501.515	18" RC PIPE APRON	EACH	7	7	
F	2501.515	24" RC PIPE APRON	EACH	12	12	
F	2501.515	36" RC PIPE APRON	EACH	2	2	
G	2501.602	TRASH GUARD FOR 18" PIPE APRON	EACH	4	4	
F	2501.602	24" GS PIPE APRON	EACH	2	2	
I	2503.511	24" PVC PIPE SEWER	LIN FT	40	40	
G	2503.541	18" RC PIPE SEWER DESIGN 3006	LIN FT	181	181	
G	2506.501	CONSTRUCT DRAINAGE STRUCTURE DES 48-4020	LIN FT	15.49	15.49	
G	2506.516	CASTING ASSEMBLY	EACH	3	3	
F, G	2511.501	RANDOM RIPRAP CLASS II	CU YD	21.7	21.7	
F, G	2511.515	GEOTEXTILE FILTER TYPE III	SQ YD	12.0	12.0	
E	2521.501	6" CONCRETE WALK	SQ FT	860	860	

TAB / NOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES ESTIMATED	SAP 002-622-028 ANOKA COUNTY	
					ROADWAY QUANTITIES	
					PARTICIPATING	NON- PARTICIPATING
[4]	2533.508	PORTABLE PREC CONC BAR DES 8337-PINNED	LIN FT	1,090	1,090	
[4]	2533.508	RELOCATE PORT PRE CONC BAR DES 8337-PIN	LIN FT	100	100	
Q	2540.602	MAIL BOX	EACH	15		15
[4]	2554.615	IMPACT ATTENUATOR	ASSEMBLY	6	6	
[4]	2554.615	RELOCATE IMPACT ATTENUATOR	ASSEMBLY	2	2	
N, [1]	2563.601	TRAFFIC CONTROL	LUMP SUM	1	1	
[2]	2563.601	DETOUR SIGNING	LUMP SUM	1	1	
O	2563.602	RAISED PAVEMENT MARKER TEMPORARY	EACH	230	230	
[4]	2563.602	PORTABLE CONCRETE BARRIER DELINEATOR	EACH	45	45	
[5]	2564.531	SIGN PANELS TYPE C	SQ FT	484.56	484.56	
M	2564.536	INSTALL SIGN PANEL TYPE D	EACH	1	1	
M	2564.537	INSTALL SIGN TYPE C	EACH	1	1	
M	2564.537	INSTALL SIGN TYPE SPECIAL	EACH	3	3	
[5]	2564.550	DELINEATOR TYPE X4-15	EACH	16	16	
H	2573.502	SILT FENCE, TYPE MACHINE SLICED	LIN FT	8,132	8,132	
H	2573.512	TEMPORARY DITCH CHECK TYPE 2	LIN FT	1,016	1,016	
H	2573.602	ROCK DITCH CHECK	EACH	7	7	
H	2573.602	CULVERT PROTECTION	EACH	32	32	
H	2575.501	SEEDING	ACRE	11.2	11.2	
H	2575.502	SEED MIXTURE 280	POUND	224	224	
H	2575.502	SEED MIXTURE 350	POUND	435	435	
H	2575.502	SEED MIXTURE 328	POUND	152	152	
F	2575.505	SODDING TYPE EROSION	SQ YD	123	123	
H	2575.505	SODDING TYPE LAWN	SQ YD	7,713	7,713	
H	2575.511	MULCH MATERIAL TYPE 3	TON	19.3	19.3	
H	2575.519	DISK ANCHORING	ACRE	9.5	9.5	
F, G	2575.523	EROSION CONTROL BLANKETS CATEGORY 1	SQ YD	431	431	
H	2575.523	EROSION CONTROL BLANKETS CATEGORY 3	SQ YD	8,255	8,255	
H	2575.532	FERTILIZER TYPE 3	POUND	3,920	3,920	
H	2575.571	RAPID STABILIZATION METHOD 3	MGAL	67.2	67.2	
O	2581.501	REMOVABLE PREFORM PLASTIC MARKING (WHITE)	LIN FT	10,550	10,550	
O	2581.501	REMOVABLE PREFORM PLASTIC MARKING (YELLOW)	LIN FT	10,550	10,550	
O	2582.501	PAVEMENT MESSAGE (RT ARROW) PAINT	EACH	4	4	
O	2582.501	PAVEMENT MESSAGE (ONLY) PAINT	EACH	4	4	
O	2582.501	PAVEMENT MESSAGE (LT ARROW) PREF. THERMOPLASTIC	EACH	4	4	
O	2582.501	PAVEMENT MESSAGE (RT-THRU ARROW) PREF. THERMOPLAST	EACH	4	4	
O	2582.502	4" SOLID LINE WHITE - PAINT	LIN FT	21,800	21,800	
O	2582.502	4" SOLID LINE YELLOW - PAINT	LIN FT	21,800	21,800	
O	2582.502	4" SOLID LINE WHITE - EPOXY	LIN FT	19,241	19,241	
O	2582.502	4" BROKEN LINE WHITE - EPOXY	LIN FT	80	80	
O	2582.502	4" SOLID LINE YELLOW - EPOXY	LIN FT	2,617	2,617	
O	2582.502	4" BROKEN LINE YELLOW - EPOXY	LIN FT	1,360	1,360	
O	2582.502	4" DOUBLE SOLID LINE YELLOW - EPOXY	LIN FT	2,888	2,888	
O	2582.503	24" SOLID LINE YELLOW - PREF. THERMOPLASTIC	SQ FT	323	323	
O	2582.602	PAVEMENT MESSAGE (RT ARROW) REMOVABLE POLY PREF	EACH	2	2	
O	2582.602	PAVEMENT MESSAGE (ONLY) REMOVABLE POLY PREF	EACH	2	2	

- [1] SEE TRAFFIC CONTROL SHEETS 49 - 69
- [2] SEE DETOUR PLAN SHEETS 47 - 48
- [3] SEE SPECIAL PROVISIONS FOR CONSTRUCTION PLAN SHEET
- [4] SEE TRAFFIC CONTROL LAYOUT PAGES 49-68
- [5] SEE SIGN PANELS TYPE C PAGE 71

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\02-622-28\Plan\0262228_SEQ.dgn					
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: CURT A. KOBIARCSIK

SIGNATURE: 

DATE: 6-21-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: _____

DESIGN BY: NJD DATE: _____

CHECKED BY: JEO DATE: _____



ANOKA COUNTY

HIGHWAY DEPT.

S.A.P. 002-622-028	
-	
-	
-	

THE FOLLOWING STANDARD PLATES APPROVED BY THE DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT.

STANDARD PLATES

PLATE NO.	DESCRIPTION
1070M	SUPPLEMENTAL PAVEMENT REINFORCEMENT
1103K	TYPICAL DOWEL BAR ASSEMBLY (2 SHEETS)
3000L	REINFORCED CONCRETE PIPE (6 SHEETS)
3006G	GASKET JOINT FOR R.C. PIPE (2 SHEETS)
3022C	PRECAST CONCRETE SAFETY APRON (3 SHEETS)
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3139A	RIPRAP AT PRECAST CONCRETE END SECTIONS
4006L	MANHOLE OR CATCH BASIN PRECAST - DESIGNS G AND H
4010H	CONCRETE SHORT CONE & ADJUSTING RING (SECTIONAL CONCRETE)
4011E	PRECAST CONCRETE BASE
4026A	CONCRETE ENCASED CONCRETE ADJUSTING RINGS
4101D	RING CASTING FOR MANHOLE OR CATCH BASIN
4125D	CATCH BASIN FRAME CASTING (FOR SQUARE GRATE) - CASTING NO. 806
4134A	CURB BOX CASTING FOR CATCH BASIN (FOR DESIGN B CURBS)- CASTING NO. 825
4154B	CATCH BASIN GRATE CASTING - CASTING NO. 816
4180J	MANHOLE OR CATCH BASIN STEP
7100H	CONCRETE CURB AND GUTTER (DESIGN B and DESIGN V)
7111J	INSTALLATION OF CATCH BASIN CASTINGS (CONCRETE CURB AND GUTTER)
8000I	STANDARD BARRICADES
9102D	TURF ESTABLISHMENT AREAS (AT PIPE CULVERT ENDS)

BASIS OF QUANTITIES

SPEC NO	DESCRIPTION	RATE
2360.501	TYPE SP12.5 WEARING COURSE MIXTURE	115 LBS / SQ YD / IN
2360.502	TYPE SP12.5 NON-WEARING COURSE MIXTURE	115 LBS / SQ YD / IN
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL / SQ YD / LIFT
2575.502	SEED MIXTURE 280	50 LBS / ACRE
2575.502	SEED MIXTURE 350	84.5 LBS / ACRE
2575.502	SEED MIXTURE 328	88 LBS / ACRE
2575.511	MULCH MATERIAL TYPE 3	2 TONS / ACRE
2575.571	RAPID STABILIZATION METHOD 3	6 M GALLONS / ACRE
2575.532	FERTILIZER TYPE 3	350 LBS / ACRE
2301.000	NO 13 TIE BARS (30" LENGTH) SPACED 3.0' ALONG LONGITUDINAL JOINTS	0.668 LBS / FT
2301.000	1.25" DIAMETER TIE BARS - 11 BARS SPACED AT 12" ALONG JOINT & 15' JOINT SPACING	
	AGGREGATE	1111 LBS/CU YD

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CLEARING & GRUBBING

A

ALIGNMENT	STATION OR STATION TO STATION	OFFSET	CLEARING (TREE)	GRUBBING (TREE)	CLEARING (ACRE)	GRUBBING (ACRE)	NOTES
EB 22	11+47	-39		1			
EB 22	11+90	-54	1	1			
EB 22	12+21	-41	1	1			
EB 22	11+25	-	18+04	RT	0.65	0.65	
EB 22	18+33	-	21+46	RT	0.30	0.30	
EB 22	12+60	-	14+19	LT	0.15	0.15	
EB 22	14+71	-56	1	1			
EB 22	15+37	-64	3	1			
EB 22	15+42	-41	1	1			
EB 22	18+20	-47	1	1			
EB 22	20+98	-29	1	1			
EB 22	21+14	-61	1	1			
EB 22	21+16	-47	5	1			
EB 22	21+24	-55	1	1			
EB 22	21+45	-52	1	1			
EB 22	21+66	-59	1	1			
EB 22	21+88	67	1	1			
EB 22	21+70	65	3	1			
EB 22	21+72	-61	1	1			
EB 22	21+73	-54	3	1			
EB 22	21+79	-55	3	1			
EB 22	21+79	-62	1	1			
EB 22	22+00	-56	3	1			
EB 22	22+18	-53		1			
EB 22	22+39	-43	1	1			
EB 22	23+50	-34	1	1			
EB 22	29+73	-76	1	1			
EB 22	29+90	-76	1	1			
EB 22	32+89	54	1	1			
EB 22	34+49	-	36+26	RT	0.50	0.50	
EB 22	35+00	-	36+17	LT	0.10	0.10	
EB 22	36+99	58	1	1			
EB 22	37+19	60	1	1			
EB 22	37+41	49	1	1			
EB 22	41+25	-61	1	1			
EB 22	41+54	45	1	1			
EB 22	41+58	53	1	1			
EB 22	42+93	51	1	1			
EB 22	48+02	-	49+39	RT	0.50	0.50	
EB 22	49+65	-	53+11	RT	0.10	0.10	
EB 22	48+82	-	49+29	LT	0.10	0.10	
EB 22	56+29	-	57+26	RT	0.10	0.10	
EB 22	62+20	-49	1	1			
EB 22	62+31	-43	1	1			
EB 22	62+45	-44	1	1			
EB 22	62+51	-45	1	1			
EB 22	62+88	-51	1	1			
EB 22	62+45	-69	1	1			
EB 22	62+63	-67	5	1			
EB 22	62+71	-66	1	1			
EB 22	62+72	-59	1	1			
EB 22	63+18	-60	1	1			
EB 22	63+21	-50	1	1			
EB 22	63+27	-46	1	1			
EB 22	63+28	-53	1	1			
SUBTOTAL (A)			62	46	1.70	1.70	

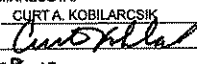
CLEARING & GRUBBING

A

ALIGNMENT	STATION OR STATION TO STATION	OFFSET	CLEARING (TREE)	GRUBBING (TREE)	CLEARING (ACRE)	GRUBBING (ACRE)	NOTES
EB 22	63+33	-58	1	1			
EB 22	63+36	-49	1	1			
EB 22	63+42	-55	1	1			
EB 22	63+63	-47	1	1			
EB 22	62+36	57	5	1			
EB 22	62+48	57	3	1			
EB 22	62+68	52	3	1			
EB 22	62+74	51	3	1			
EB 22	62+81	52	1	1			
EB 22	62+85	25	3	1			
EB 22	63+14	57	1	1			
EB 22	63+20	58	5	1			
EB 22	63+32	57	3	1			
EB 22	63+41	55	3	1			
EB 22	63+49	55	1	1			
EB 22	63+54	53	1	1			
EB 22	63+66	52	1	1			
EB 22	63+89	47		1			
EB 22	63+94	52	1	1			
EB 22	63+94	49	1	1			
EB 22	64+09	50	5	1			
EB 22	64+18	53	3	1			
EB 22	64+70	40	4	1			
EB 22	64+76	44		1			
EB 22	64+85	46	3	1			
EB 22	64+95	47	1	1			
EB 22	64+99	25	4	1			
EB 22	65+04	25	1	1			
EB 22	65+11	24	1	1			
EB 22	65+16	24	3	1			
EB 22	65+21	24	3	1			
EB 22	65+25	24	3	1			
EB 22	65+42	42	1	1			
EB 23	65+46	-57	1	1			
EB 24	66+25	-59	1	1			
EB 22	67+50	43	4	1			
EB 22	69+40	40	1	1			
EB 22	69+96	48	1	1			
EB 22	71+05	37	3	1			
EB 22	71+32	45	1	1			
EB 22	71+34	34	1	1			
EB 22	71+57	39	1	1			
EB 22	72+30	44	1	1			
EB 22	72+66	40	3	1			
EB 22	72+66	43	1	1			
EB 22	83+84	48	1	1			
EB 22	84+71	67	1	1			
EB 22	85+97	35	1	1			
EB 22	85+98	44	1	1			
EB 22	86+11	54	1	1			
EB 22	86+23	27	1	1			
EB 22	86+25	54	1	1			
EB 22	86+40	54	1	1			
EB 22	86+56	45	1	1			
EB 22	86+64	49	1	1			
EB 22	86+69	26	1	1			
EB 22	86+80	41	1	1			
EB 22	87+04	29	1	1			
EB 22	87+12	26	1	1			
EB 22	87+74	47	1	1			
EB 22	96+82	37	1	1			
SUBTOTAL (B)			106	61	0.00	0.00	
GRAND TOTAL (A + B)			168	107	1.70	1.70	

CLEARING & GRUBBING GENERAL NOTES:
TREES WITHIN THE CONSTRUCTION LIMITS WILL BE DESIGNATED FOR REMOVAL BY THE ENGINEER.
REMOVAL OF MISCELLANEOUS SHRUBS AND LANDSCAPING SHALL BE CONSIDERED INCIDENTAL

NO	DATE	BY	CKD	APPR	REVISION
NAME:	p:102-622-28\plan\0262228_SEQ.dgn				
	06/07/2012				1:48:28 PM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBILARCSIK
SIGNATURE: 
DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: _____
DESIGN BY: NJD DATE: _____
CHECKED BY: JEO DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

TABULATIONS

Sheet 4 of 139 Sheets

MAILBOXES				Q
ALIGN	STATION	OFFSET	MAILBOXES	
EB 22	12+75	L	1	
EB 22	15+40	L	1	
EB 22	17+98	R	1	
EB 22	22+73	R	1	
EB 22	23+16	L	1	
EB 22	23+20	L	1	
EB 23	32+96	R	1	
EB 22	37+29	R	1	
EB 22	43+14	L	1	
EB 22	62+77	L	1	
EB 22	64+76	L	1	
EB 22	76+53	R	1	
EB 22	80+25	R	1	
EB 22	85+44	R	1	
EB 22	95+39	L	1	
PROJECT TOTAL			15	

REMOVALS, SAWING AND MILLING						B
ALIGNMENT	STATION TO STATION	SPEC. 2104				NOTES
		REMOVE			SAWING	
		CURB	CONCRETE PAVEMENT	BITUMINOUS PAVEMENT	BITUMINOUS	
		[LIN FT]	[SQ YD]	[SQ YD]	[LIN FT]	
EB 22	10+13 - 22+00			3343	150	
EB 22	22+00 - 35+00			3757	27	
EB 22	35+00 - 48+00			3579	11	
EB 22	48+00 - 61+00			3503		
EB 22	61+00 - 74+00		103	3803	27	
EB 22	74+00 - 87+00	52		5203	146	
EB 22	87+00 - 98+27			6117	93	
PROJECT TOTAL		52	103	29305	454	

CONCRETE PAVEMENT SUMMARY						C
ALIGNMENT	STATION TO STATION	OFFSET	SPEC. 2301		NOTES	
			CONCRETE PAVEMENT (8.5")	1.25" DOWEL BAR		
			[SQ YD]	[EACH]		
EB 22	10+64 - 15+27	L	617	339		
EB 22	10+64 - 22+00	L / R	3282	1818		
EB 22	22+00 - 35+00	L / R	4569	2527		
EB 22	35+00 - 48+00	L / R	3756	2080		
EB 22	48+00 - 61+00	L / R	3756	2080		
EB 22	61+00 - 74+00	L / R	4589	2538		
EB 22	74+00 - 87+00	L / R	7186	3988		
EB 22	87+00 - 98+24	L / R	4553	2541		
PROJECT TOTAL			32306	17911		

BITUMINOUS SUMMARY						D
ALIGNMENT	STATION TO STATION	OFFSET	BITUMINOUS			
			2360 TYPE SP 12.5 WEAR (4,B)	2360 TYPE SP 12.5 NON-WEAR (4,B)	2357 BIT. TACK COAT	
			TON	TON	GALLON	
EB 22	10+64 - 17+82	R	96			[1]
EB 22	16+01 - 22+30	L	84			[1]
EB 22	18+56 - 22+21	R	49			[1]
EB 22	22+94 - 26+74	R	51			[1]
EB 22	23+22 - 29+96	L	90			[1]
EB 22	33+64 - 34+65	R	14			[1]
EB 23	35+38 - 37+24	R	25			[1]
EB 22	35+68 - 41+53	L	79			[1]
EB 22	37+98 - 69+24	R	419			[1]
EB 22	42+27 - 64+67	L	301			[1]
EB 22	65+41 - 72+51	L	95			[1]
EB 22	80+98 - 84+68	R	50			[1]
EB 22	85+39 - 87+64	R	30			[1]
EB 22	89+02 - 95+17	L	82			[1]
EB 22	95+77 - 98+24	L	33			[1]
EB 22	89+06 - 98+24	R	123			[1]
WEST TRANSITION TO EXISTING			97	49	25	
TIGER JIM STREET			58	29	25	
IGUANA STREET			60	30	26	
CSAH 5 SOUTH			107	54	21	
CSAH 5 NORTH			92	46	20	
PROJECT TOTAL			2036	207	117	

BITUMINOUS SUMMARY NOTES:
 [1] QUANTITY FOR 7.0' SHOULDER CONSTRUCTION

DRIVEWAYS													E
APRON CENTERLINE STATION	OFFSET	WEST RADIUS POINT [4]		EAST RADIUS POINT [4]		RADIUS [4]	DRIVEWAY TYPE	APRON WIDTH [4]	AGGREGATE		TYPE SP 12.5 WEARING COURSE MIX (4,B)	6" CONCRETE WALK	NOTES
									AGGREGATE SURFACING CLASS 2	AGGREGATE BASE CLASS 5			
		STATION	OFFSET	STATION	OFFSET	FT		FT	TON	TON	TON	SQ FT	
12+42	L	CONCRETE APRON					AGGREGATE	24	11		2		[1]
15+64	L	15+32.23	45	15+96.23	45	20	AGGREGATE	24	3		29		[1]
18+19	R	17+82.29	45	18+56.29	45	24	AGGREGATE	24	4		27		[1]
22+76	L	22+30.30	45	23+22.35	45	24	AGGREGATE	42	6		38		[1]
22+57	R	22+20.49	50	22+94.49	45	24	AGGREGATE	24	3		27		[1]
27+86	R						FIELD	80			3		
33+27	R	32+90.68	45	33+63.87	45	24	AGGREGATE	24	3		25		[1]
37+04	L						FIELD	80			3		
37+61	R	37+23.97	45	37+97.96	45	24	AGGREGATE	24	1		27		[1]
39+65	R						FIELD	80			3		
41+90	L	41+53.01	45	42+27.01	45	24	BITUMINOUS	24		30	31		[1]
59+45	L						FIELD	80			3		
61+37	R						FIELD	80			3		
63+00	L	CONCRETE APRON					CONCRETE	24				860	[1] [3]
65+03	L	64+66.93	45	65+40.93	45		AGGREGATE	24	3		27		[1]
65+86	L						FIELD				3		
68+98	R						FIELD				3		
76+91	R	76+54.42	50	77+28.42	50	25	BITUMINOUS	24		18	19		[1]
80+51	L	79+97.31	57.9	81+04.21	61.7	30	BITUMINOUS	45		52	48		[2]
80+58	R	80+17.67	50	80+39.91	44.5	25 / 19.5	BITUMINOUS	32		57	53		[2]
84+27	L	83+74.09	68	84+80.06	68	30	BITUMINOUS	50		33	31		[2]
85+03	R	84+67.72	45	85+38.67	45	24	BITUMINOUS	19		41	38		[1]
95+46	L	95+18.14	52.91	40+77.31	40.77	24/14	AGGREGATE	24	5	8	17		[1]
PROJECT TOTAL									38	241	459	860	

DRIVEWAY NOTES
 [1] RESIDENTIAL DRIVEWAY - SEE MISCELLANEOUS DETAILS SHEET 15
 [2] COMMERCIAL DRIVEWAY - SEE MISCELLANEOUS DETAILS SHEET 15
 [3] 3.0" CLASS 5 AGGREGATE INCIDENTAL
 [4] SEE PAGE 15 DETAIL "BITUMINOUS APRON - AGGREGATE / BITUMINOUS DRIVEWAY" FOR LOCATION OF THESE POINTS

NO	DATE	BY	CKD	APPR	REVISION
NAME: p:\02-622-28\plan\0262228_SFQ.dgn					
06/07/2012 1:48:29 PM					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: CURT A. KOBILARCSIK
 SIGNATURE: *[Signature]*
 DATE: 6-8-12 LICENSE NO. 24755

DRAWN BY: NJD DATE: _____
 DESIGN BY: NJD DATE: _____
 CHECKED BY: JEO DATE: _____



ANOKA COUNTY
 HIGHWAY DEPT.

S.A.P. 002-622-028

TABULATIONS

CULVERT SUMMARY

ALIGNMENT	INVERT A [6]		INVERT B [6]		OFFSET	REMOVE (SPEC. 2104) CULVERTS [5] [LIN FT]	INVERT A [6]	INVERT B [6]	SLOPE [%]	18" CS PIPE CULVERT [LIN FT]	24" CS PIPE CULVERT [LIN FT]	24" RC PIPE CULVERT CLASS V [LIN FT]	36" RC PIPE CULVERT CLASS V [LIN FT]	18" METAL APRON [EACH]	24" METAL APRON [EACH]	RANDOM RIPRAP CLASS II [CU YD]	GEOTEXTILE FABRIC TYPE III [SQ YD]	SOD TYPE EROSION [SQ YD]	EROSION CONTROL BLANKETS [3] [SQ YD] [4]	24" RCP APRON [EACH]	36" RCP APRON [EACH]	NOTES	
	STATION	OFFSET	STATION	OFFSET																			
EB 22	12+12.98	43.92	- 12+78.63	44.41	L	29	953.19	951.09	3.21	60				2					22				
EB 22	15+41.45	45.76	- 16+07.32	45.18	L	39	942.77	939.38	5.16	61				2				22					
EB 22	17+97.28	41.73	- 18+51.83	42.63	R	35	934.50	932.83	3.06	49				2					22				
EB 22	21+29.81	42.91	- 23+17.56	43.66	L	33	930.96	929.48	0.79	183				2				11	11				
EB 22	22+21.08	42.74	- 22+95.92	43.44	R	33	930.27	929.71	0.75	70				2				11	11				
EB 22	22+29.81	42.83	- 23+26.99	43.75	L	33	930.21	929.48	0.75	92				2									
EB 22	27+60.65	54.33	- 28+15.54	55.82	R	33	926.22	925.72	0.92	50				2					22				
EB 22	29+96.08	54.97	- 30+87.16	53.28	L	33	924.55	923.98	0.63			84							22	2		TIGER ST	
EB 22	37+28.95	42.88	- 37+97.38	42.65	R	33	925.08	925.06	0.03	63				2				11	11				
EB 22	39+25.43	48.08	- 40+06.31	50.88	R	33	924.15	923.93	0.27		74				2			13	13				
EB 22	41+46.92	44.67	- 42+31.67	45.20	L	33	925.90	926.12	0.30	80								22					
EB 22	59+17.92	45.63	- 59+71.05	46.06	L	33	927.74	927.82	0.21	48				2					22				
EB 22	61+07.90	48.30	- 61+61.34	48.21	R	33	928.09	928.20	0.27	48				2					22				
EB 22	62+64.48	48.64	- 63+34.24	48.81	L	33	928.43	928.55	0.19	65				2					22				
EB 22	64+71.59	46.79	- 65+34.75	45.40	L	33	928.84	928.95	0.19	58				2					22				
EB 22	65+56.09	44.76	- 66+15.28	43.46	L	33	929.02	929.11	0.20	54				2					22				
EB 22	68+69.18	38.89	- 69+26.87	41.36	R	33	929.64	929.77	0.29	53				2					22				
EB 22	72+56.40	43	- 73+26.78	46.25	L	33	930.42	930.52	0.19			64							22	2		IGUANA ST	
EB 22	76+59.36	49	- 77+22.42	48.99	L	33	932.00	932.15	0.29	58				2				22					
EB 22	80+14.28	51	- 80+84.20	55.11	L	33	934.16	934.58	0.73			63		2					22	2			
EB 22	80+21.89	49	- 80+93.78	46.67	R	33	933.09	933.27	0.30			67							22	2			
EB 22	84+60.99	46	- 85+37.72	43.23	R	33	934.40	934.60	0.31	72				2				11	11				
EB 22	95+26.02	52	- 95+87.08	53.86	L	33	933.78	933.50	0.47	56				2									
EB 22	35+85.75	53 L	- 35+64.18	58 R	L / R	100	920.90	917.91	3.08				97			10	6				2	CNTY DITCH 27	
EB 22	88+87.41	40.4 R	- 88+87.30	54.8 L	R / L	77	934.55	934.28	0.31			88							22	2		22 CROSSING	
EB 22	96+23.54	49.4 L	- 96+21.67	46.4 R	L / R	85	933.31	933.00	0.34			90							22	2		22 CROSSING	
PROJECT TOTAL						1025					1218	74	456	97	38	2	10.0	6.0	123	387	12	2	

CULVERT NOTES:

- [1] CONCRETE APRON
- [2] 48 METAL APRONS, 6 CONCRETE APRONS
- [3] EROSION CONTROL BLANKET CATEGORY 1 WOOD FIBER 1S, RD (SEE STD PLATE 9102D)
- [4] SEED MIXTURE 5 PRIOR TO PLACING FIBER BLANKET (INCIDENTAL)
- [5] REMOVAL OF APRONS INCIDENTAL (APRONS INCLUDED IN REMOVAL LENGTH)
- [6] STATION, OFFSET, & ELEVATION OF CENTER LIP OF APRON.

SPECIAL STRUCTURES - DESIGN INFO

ALIGNMENT	STRUCTURE	WEST INVERT		EAST INVERT		NORTH INVERT		CENTER OF STRUCTURE		CENTER OF CASTING		OFFSET	ORIFICE INVERT	ORIFICE DIAMETER	WIER OVERFLOW	WEST INVERT	EAST INVERT	NORTH INVERT	CASTING ELEVATION	WEST SLOPE	EAST SLOPE	NORTH SLOPE	NOTES			
		STATIONS AND OFFSEETS TAKEN AT CENTER OF APRON AT THE TIP								STATION	OFFSET													STATION	OFFSET	
		STATION	OFFSET	STATION	OFFSET	STATION	OFFSET	STATION	OFFSET																	
EB 22	101	34+94.13	54.79	-	35+63.40	54.23	-	N/A	N/A	35+22.53	54.56	-	35+22.53	54.56	L	921.77	6"	926.50	921.90	921.40	N/A	926.60	2.00	0.82	N/A	[3]
EB 22	102	36+46.99	52.13	-	37+50.13	50.07	-	N/A	N/A	37+22.46	50.62	-	37+22.46	50.62	L	922.30	6"	926.00	922.00	922.80	N/A	927.10	0.27	2.40	N/A	[3]
EB 22	103	35+39.42	49.75	-	55+71.68	40.93	-	55+54.80	83.34	55+55.33	54.15	-	55.55.33	54.94	L	927.74	8"	929.20	927.90	927.90	927.01	930.30	0.30	0.30	3.00	[3]

SPECIAL STRUCTURES - QUANTITIES

STRUCTURE	REMOVE (SPEC. 2104) CULVERTS [8] [LIN FT]	18" RC PIPE SEWER DES 3006 [LIN FT]	18" RCP APRON [EACH]	TRASH GUARD FOR 18" APRON [EACH]	CASTING TYPE [4] [5]	48" 4020 PAY HEIGHT [LIN FT]	RANDOM RIPRAP CLASS II [CU YD]	GEOTEXTILE FABRIC TYPE III [SQ YD]	EROSION CONTROL BLANKETS [6] [SQ YD][7]
101	33	41	2	1	A	6.03	3.9	2	11
102	30	86	2	1	A	6.20	3.9	2	11
103	-	54	3	2	B	3.26	3.9	2	22
TOTAL	63	181	7	4	3	15.49	11.7	6.0	44

SPECIAL STRUCTURE NOTES

- [1] SEE SPECIAL STRUCTURE DETAIL SHEET FOR LOCATION OF THIS POINT
- [3] PAID FOR AS CONSTRUCT DRAINAGE STRUCTURE DESIGN SPECIAL 1. PAY ITEM CONSISTS OF CONCRETE STRUCTURE AND BASE, GRATE, STEPS, AND ALL HARDWARE REQUIRED FOR A COMPLETE INSTALLATION. PAY ITEM DOES NOT INCLUDE INLET AND OUTLET PIPE, APRONS, OR RIPRAP.
- [4] CASTING TYPE B SEE STANDARD PLATE 4143 E
- [5] CASTING TYPE A SEE SPECIAL STRUCTURE DETAILS PAGE 46 OF THIS PLAN SET
- [6] EROSION CONTROL BLANKET CATEGORY 1 WOOD FIBER 1S, RD (SEE STD PLATE 9102D)
- [7] SEED MIXTURE 5 PRIOR TO PLACING FIBER BLANKET (INCIDENTAL)
- [8] REMOVAL OF APRONS INCIDENTAL (APRONS INCLUDED IN REMOVAL LENGTH)

[illegible]

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

PRINT NAME: CURT A. KOBLARCSIK

SIGNATURE: *Curt A. Koblarsik*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY NJD DATE 11/15/2000DESIGN BY NJD DATE

CHECKED BY JEO DATE



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

TABULATIONS

Sheet 6 of 139 Sheets

TURF ESTABLISHMENT AND EROSION CONTROL																	H	
				TEMPORARY EROSION CONTROL			PERMANENT EROSION CONTROL											
ALIGNMENT	LOCATION			OFFSET	SILT FENCE TYPE MACHINE SLICED	RAPID STABILIZATION METHOD 3	TEMP. DITCH CHECK TYPE 2	SEEDING	SEED MIXTURE 280	SEED MIXTURE 350	SEED MIXTURE 328	SODDING TYPE LAWN	ROCK DITCH CHECK	MULCH MATERIAL TYPE 3	DISK ANCHORING	FERTILIZER TYPE 3	CULVERT PROTECTION	EROSION CONTROL BLANKETS CAT. 3
	STATION TO STATION				LIN FT	MGAL	LIN FT	ACRE	POUND	POUND	POUND	SQ YD	EACH	TON	ACRE	POUND	EACH	SQ YD
EB 22	10+13	-	12+33	L		0.6	32	0.1		9	3			0.20	0.1	35	1	145
EB 22	12+51	-	15+55	L		0.6	48	0.1		7	2	577		0.20	0.1	35	1	94
EB 22	10+15	-	18+09	R	629	3.0	144	0.5		33	12			0.80	0.4	175	1	659
EB 22	18+31	-	22+47	R	190	1.2	40	0.2		14	4	482		0.30	0.2	70	1	247
EB 22	15+74	-	22+53	L	505		80					2989					1	
EB 22	22+98	-	30+28	L	327	3.6	56	0.6		42	9			1.00	0.5	210	2	494
EB 22	22+68	-	33+19	R	610	4.8	80	0.8		52	14	147		1.20	0.6	280	1	758
EB 22	30+55	-	41+83	L	380	6.6	24	1.1	50		12	201	1	2.00	1.0	385	2	661
EB 22	33+36	-	35+01	R			16					541	2					
EB 22	35+12	-	37+53	R	277	1.2		0.2	11		2		4	0.40	0.2	70		112
EB 22	37+69	-	39+42	R		0.0	24					608					1	
EB 22	39+42	-	61+47	R	1780	9.0	56	1.5	72		6			2.90	1.4	525	1	349
EB 22	61+47	-	76+80	R		6.0	64	1.0	41		20	569		1.60	0.8	350	2	1112
EB 22	41+97	-	62+91	L	1099	9.6	88	1.6	50	20	30	223		2.50	1.2	560	4	1641
EB 22	63+09	-	64+96	L	246	0.6	8	0.1		10	2			0.20	0.1	35	1	94
EB 22	65+11	-	72+78	L		3.6	24	0.6		41	10			1.00	0.5	210	2	537
EB 22	73+05	-	80+26	L		3.0	48	0.5		32	11			0.80	0.4	175	2	586
EB 22	77+02	-	80+41	R	225	1.2	24	0.2		11	3	457		0.30	0.1	70	1	161
EB 22	80+76	-	84+93	R	226	2.4	24	0.4		25	6			0.60	0.3	140	1	309
EB 22	80+75	-	84+00	L		0.6		0.1		11				0.30	0.1	35	1	
EB 22	84+54	-	88+01	L		1.8	16	0.3		22				0.50	0.3	105	1	
EB 22	85+15	-	88+13	R		0.0	16			4		920		0.10			1	
EB 22	88+54	-	95+58	L	478	3.0	32	0.5		42				1.00	0.5	175	2	
EB 22	95+69	-	98+24	L	230	1.2	16	0.2		15	3			0.30	0.2	70	1	148
EB 22	88+57	-	98+24	R	930	3.6	56	0.6		45	3			1.10	0.5	210	1	148
PROJECT TOTAL					8132	67.2	1016	11.2	224	435	152	7713	7	19.3	9.5	3920	32	8255

UTILITY CONTACTS		AA
CITY OF NOWTHEN 3601 THURSTON AVE ANOKA, MN 55303 CONTACT SHANE NELSON CITY ENGINEER TEL: 763-427-5860		CONNEXUS ENERGY 14601 RAMSEY BLVD RAMSEY, MN 55303 CONTACT DOUG CABAK TEL 763-323-2710
CENTURYLINK 425 MONROE ST ANOKA, MN 55303 CONTACT BILL BYERS TEL. 763-712-5002		CENTERPOINT ENERGY 700 WEST LINDEN AVE P.O. BOX 1165 MINNAPOLIS, MN 55440-1165 CONTACT STEVE GUHANICK TEL 612-321-5421

GAS - CENTERPOINT ENERGY					BB
STATION		OFFSET FROM LNB	SIZE & ITEM	DEPTH	REMARK
BEGIN	END				
10+25		CROSSING	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
10+25	18+69	40' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
18+69		CROSSING	DISTRIBUTION	3' MIN	LEAVE AS IS
18+69	67+59	40' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
67+59	69+19	35' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
69+19	73+13	30' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
73+13	75+09	30' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
75+09	77+02	34' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
77+02		CROSSING	DISTRIBUTION	3' MIN	LEAVE AS IS
77+02	78+02	34' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
78+02		CROSSING	DISTRIBUTION	3' MIN	LEAVE AS IS
78+02	78+30	34' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
78+30	84+15	40' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
84+15	86+12	40' L - 50' L	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
86+12	87+94	50' LEFT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
87+94		CROSSING	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS
87+94	36+40	36' RIGHT	4" PLASTIC 50-55 PSIG	3' MIN	LEAVE AS IS

OVERHEAD POWER - CONNEXUS					CC
STATION		OFFSET FROM LNB	SIZE & ITEM	DEPTH	REMARK
BEGIN	END				
10+30	12+96	CROSSING	POLE		LEAVE AS IS
10+30	10+30	CROSSING	POLE		LEAVE AS IS
12+96		48' LEFT	POLE		LEAVE AS IS
19+23		49' LEFT	POLE		LEAVE AS IS
19+23		CROSSING	UNDERGROUND		LEAVE AS IS
23+02		50' LEFT	POLE		LEAVE AS IS
27+73	23+02	CROSSING	POLE		LEAVE AS IS
26+09		49' LEFT	POLE		LEAVE AS IS
29+09		49' LEFT	POLE		LEAVE AS IS
32+05		49' LEFT	POLE		LEAVE AS IS
35+00		47' LEFT	POLE		LEAVE AS IS
34+91	35+00	CROSSING	POLE		LEAVE AS IS
37+27	35+00	CROSSING	POLE		LEAVE AS IS
41+33		47' LEFT	POLE		LEAVE AS IS
44+46		47' LEFT	POLE		LEAVE AS IS
47+57		47' LEFT	POLE		LEAVE AS IS
50+72		46' LEFT	POLE		LEAVE AS IS
53+89		46' LEFT	POLE		LEAVE AS IS
57+02		48' LEFT	POLE		LEAVE AS IS
60+16		47' LEFT	POLE		LEAVE AS IS
63+54		46' LEFT	POLE		LEAVE AS IS
66+62		44' LEFT	POLE		LEAVE AS IS
69+58		44' LEFT	POLE		LEAVE AS IS
72+53		46' LEFT	POLE		LEAVE AS IS
75+46		CROSSING	UNDERGROUND		LEAVE AS IS
75+51		46' LEFT	POLE		LEAVE AS IS
76+96		CROSSING	UNDERGROUND		LEAVE AS IS
78+13		CROSSING	UNDERGROUND		LEAVE AS IS
78+53		48' LEFT	POLE		LEAVE AS IS
81+51		50' LEFT	POLE		LEAVE AS IS
83+49		51' LEFT	POLE		LEAVE AS IS
84+65		65' LEFT	POLE		LEAVE AS IS
88+71		63' LEFT	POLE		LEAVE AS IS
88+80	88+71	CROSSING	POLE		LEAVE AS IS
89+23		61' LEFT	POLE		LEAVE AS IS
92+03		60' LEFT	POLE		LEAVE AS IS
94+84		58' LEFT	POLE		LEAVE AS IS
96+14.85		54' LEFT	POLE		LEAVE AS IS

TELEPHONE - CENTURYLINK					DD
STATION		OFFSET FROM LNB	SIZE & ITEM	DEPTH	REMARK
BEGIN	END				
10+00		RIGHT	SPLICE BOX		LEAVE AS IS
10+00	10+79	40' RIGHT	BURIED CABLE		LEAVE AS IS
10+79	11+28	CROSSING	SPLICE BOX		LEAVE AS IS
10+79	11+29	31' RIGHT	BURIED CABLE		LEAVE AS IS
11+29	15+94	38' RIGHT	BURIED CABLE		LEAVE AS IS
15+94	22+76	42' RIGHT	SPLICE BOX		LEAVE AS IS
22+76	26+90	47' RIGHT	VAULT		LEAVE AS IS
26+90	34+90	49' RIGHT	SPLICE BOX		LEAVE AS IS
34+90	37+37	36' RIGHT	SPLICE BOX		LEAVE AS IS
37+37	57+07	46' RIGHT	VAULT		LEAVE AS IS
57+07	70+98	40' RIGHT	BURIED CABLE		LEAVE AS IS
70+98	72+55	CROSSING	SPLICE BOX		LEAVE AS IS
70+98	76+62	46' RIGHT	SPLICE BOX		LEAVE AS IS
72+55	73+23	45' LEFT	SPLICE BOX		LEAVE AS IS
73+23	81+29	42' RIGHT	SPLICE BOX		LEAVE AS IS
81+29	81+54	45' LEFT	SPLICE BOX		LEAVE AS IS
81+29	87+63	27' RIGHT	VAULT		LEAVE AS IS
81+54	84+62	48' LEFT	SPLICE BOX		LEAVE AS IS
87+63	87+82	25' RIGHT	SPLICE BOX		LEAVE AS IS
87+82	87+91	CROSSING	SPLICE BOX		LEAVE AS IS
87+91	88+87	51' RIGHT	SPLICE BOX		LEAVE AS IS
88+91	88+87	CROSSING	VAULT		LEAVE AS IS
88+87	98+16	53' LEFT	SPLICE BOX		LEAVE AS IS
98+16 R		CROSSING	SPLICE BOX		LEAVE AS IS

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NAME: p:\02-622-28\plan\0262228_SEQ.dgn					
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OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY
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THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBILARCSIK
SIGNATURE: 
DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: _____
DESIGN BY: NJD DATE: _____
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TABULATIONS
Sheet 7 of 139 Sheets

1. TOP OF THE SUBGRADE IS CONSIDERED THE CONTACT GRADE BETWEEN THE AGGREGATE BASE LAYER AND THE UNDERLYING SUBGRADE.
2. SELECT GRANULAR MATERIAL SHALL MEET THE REQUIREMENTS OF MN/DOT SPEC. 3149.2B2.
3. GRANULAR MATERIAL ON THIS PROJECT SHALL MEET THE GRADATION REQUIREMENTS OF MN/DOT SPEC. 3149.2B1
4. ALL TOPSOIL STRIPPING WILL BE CONSIDERED TO BE COMMON EXCAVATION.
5. TOPSOIL SHALL BE DEFINED AS EXISTING SOILS WHICH MEET MN/DOT SPECIFICATION 3877 THAT WOULD BE SUITABLE FOR REUSE.
6. AGGREGATE SHOULDERING MATERIAL FOR THIS PROJECT SHALL BE CLASS 5 GRADATION IN ACCORDANCE WITH MN/DOT 2221 AND 3138.
7. SUITABLE GRADING MATERIAL CONSISTS OF MINERAL SOILS WHICH ARE FREE OF ORGANIC CONTENT AND DEBRIS, ARE NON-EXPANSIVE, AND ARE IN A CONDITION WHICH CAN MEET SPECIFIED COMPACTION LEVELS.
8. IN ALL AREAS OF NEW MAINLINE ROADWAY RECONSTRUCTION (PERMANENT AND TEMPORARY), PROVIDE FOR A MINIMUM 12 INCH SUBCUT EXCAVATION UNLESS OTHERWISE NOTED. BACKFILL WITH SELECT GRANULAR MATERIAL. ANY UNCONTAMINATED SUITABLE GRANULAR MATERIAL REMOVED FROM THE EXISTING SUBGRADE AREA MAY BE USED IN OTHER AREAS DESIGNATED FOR THE SAME MATERIAL.
9. UNLESS OTHERWISE SPECIFICALLY ALLOWED OR REQUIRED BY THE CONTRACT, BITUMINOUS AND CONCRETE ITEMS DISTURBED BY CONSTRUCTION SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE RECYCLED TO THE EXTENT ALLOWED IN BASE AND SURFACING ITEMS OR DISPOSED OF OUTSIDE THE RIGHT-OF-WAY IN ACCORDANCE WITH SPEC. 2104.3C3.
10. WHERE CONNECTING NEW SURFACING ADJACENT TO ANY INPLACE PAVEMENTS TO BE WIDENED, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGN, WHICHEVER IS DEEPER, THEN AT 1:2 SLOPE TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
11. WHERE CONNECTING TO THE INPLACE ROADWAYS AT THE TERMINI OF PROPOSED NEW CONSTRUCTION, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGN, WHICHEVER IS DEEPER, THEN AT A 1:20 TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
12. WHERE MATCHING INTO INPLACE CROSSROADS, CUT VERTICALLY TO THE BOTTOM OF THE INPLACE SURFACING OR TO THE BOTTOM OF THE NEW SURFACING DESIGN, WHICHEVER IS DEEPER, THEN AT A 1:20 TAPER TO THE BOTTOM OF THE RECOMMENDED SUBGRADE EXCAVATION.
13. USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON THE EXISTING PAVEMENT. THE BITUMINOUS TACK COAT MATERIAL SHALL BE APPLIED AT A UNIFORM RATE OF 0.03 TO 0.05 GALLONS/SQ. YD. BETWEEN BITUMINOUS LAYERS AND 0.07 TO 0.10 GALLONS/SQ. YD. ON CONCRETE OR MILLED BITUMINOUS SURFACES PRIOR TO BEING OVERLAID. THE APPLICATION RATES ARE FOR UNDILUTED EMULSIONS (AS SUPPLIED FROM THE REFINERY) OR MC AND RC LIQUID ASPHALTS. THE ASPHALT EMULSION MAY BE FURTHER DILUTED IN THE FIELD IN ACCORDANCE WITH SPECIFICATION 2357.
14. PROVIDE A SAWCUT WHERE PLACING NEW PAVEMENT ADJACENT TO INPLACE PAVEMENT TO ENSURE A UNIFORM JOINT.
15. STRIP ALL TOPSOIL AND INPLACE SLOPE DRESSING WHERE PRESENT IN AREAS TO BE DISTURBED BY CONSTRUCTION AND REUSE AS SLOPE DRESSING. FOR ESTIMATING PURPOSES, THE DEPTH OF TOPSOIL AVAILABLE IS CONSIDERED TO BE 4 INCHES. CONTRACTOR TO VERIFY PRIOR TO PLACING BID
16. EMBANKMENT QUANTITIES SHOWN ON THE EARTHWORK TABULATION REPRESENT ALL EARTHWORK QUANTITIES BELOW THE TOP OF SUBGRADE. QUANTITIES REQUIRED ABOVE THE TOP OF SUBGRADE OR FOR TEMPORARY CONSTRUCTION ARE PROVIDED IN DETAIL ON THE BITUMINOUS AND AGGREGATE SUMMARY TABS.
17. THE CONSTRUCTION LIMITS AS SHOWN IN THE PLANS REPRESENT THE POINT OF INTERSECTION BETWEEN THE REQUIRED FILL OR CUT SLOPE AND THE EXISTING GROUND LINE AS DEPICTED ON THE CROSS SECTIONS. THE CONSTRUCTION LIMITS DO NOT INCLUDE AREAS REQUIRED FOR SLOPE ROUNDING.
18. DITCH BOTTOMS, TOE OF FILL, CUT RUNOUTS AND THE TOP EDGE OF THE BACKSLOPES SHALL BE ROUNDED REGARDLESS OF THE SECTION USED ON THE CROSS SECTION SHEETS.
19. ANY DEBRIS WHICH MAY BE ENCOUNTERED DURING GRADING SHALL BECOME PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF THE PROJECT RIGHT OF WAY IN A SUITABLE DISPOSAL AREA AS APPROVED BY THE ENGINEER.
20. UNSUITABLE SOILS NOT USED ON THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PROJECT AND DISPOSED OF IN ACCORDANCE WITH MN/DOT SPECIFICATIONS.
21. INPLACE BITUMINOUS PAVEMENT RANGES FROM 4" TO 9" THICK. (AVERAGE 5"). FOR INFORMATION ONLY, CONTRACTOR TO VERIFY PAVEMENT DEPTH PRIOR TO PLACING BID. SEE BORING REPORTS
22. AGGREGATE BASE MATERIAL SHALL BE 100% CRUSHED AND MEET THE REQUIREMENTS OF MN/DOT SPEC. 3138, CLASS 5.
23. COMPACTION OF ALL AGGREGATE BASE, GRANULAR, AND SELECT GRANULAR MATERIAL SHOULD BE IN ACCORDANCE WITH MN/DOT "MODIFIED PENETRATION INDEX METHOD"
24. EMBANKMENT CONSTRUCTION SHALL BE PERFORMED AS REQUIRED BY MN/DOT SPECIFICATION 2105
25. COMPACTION OF ALL PERMANENT BITUMINOUS MIXTURES SHALL BE THE "MAXIMUM DENSITY METHOD"

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PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: 

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: _____

DESIGN BY: NJD DATE: _____

CHECKED BY: JEO DATE: _____



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SOILS AND
CONSTRUCTION NOTES

Sheet 8 of 139 Sheets

AGGREGATE					J
	STATION TO STATION		OFFSET	AGGREGATE BASE CLASS 5 TON	
EB 22	10+64	- 15+27	L	74	[1]
EB 22	10+64	- 22+00	L / R	203	[1]
EB 22	22+00	- 35+00	L / R	329	[1]
EB 22	35+00	- 48+00	L / R	232	[1]
EB 22	48+00	- 61+00	L / R	232	[1]
EB 22	61+00	- 74+00	L / R	332	[1]
EB 22	74+00	- 87+00	L / R	593	[1]
EB 22	87+00	- 98+24	L / R	285	[1]
EB 22	10+64	- 17+82	R	137	[2] [3]
EB 22	16+01	- 22+30	L	119	[2] [3]
EB 22	18+56	- 22+21	R	69	[2] [3]
EB 22	22+94	- 26+74	R	72	[2] [3]
EB 22	23+22	- 29+96	L	128	[2] [3]
EB 22	33+64	- 34+65	R	19	[2] [3]
EB 23	35+38	- 37+24	R	36	[2] [3]
EB 22	35+68	- 41+53	L	111	[2] [3]
EB 22	37+98	- 69+24	R	594	[2] [3]
EB 22	42+27	- 64+67	L	426	[2] [3]
EB 22	65+41	- 72+51	L	135	[2] [3]
EB 22	80+98	- 84+68	R	70	[2] [3]
EB 22	85+39	- 87+64	R	43	[2] [3]
EB 22	89+02	- 95+17	L	117	[2] [3]
EB 22	95+77	- 98+24	L	47	[2] [3]
EB 22	89+06	- 98+24	R	174	[2] [3]
WEST END				39	[3] [4] [5]
TIGER ST				24	[3] [4] [5]
IGUANA ST				24	[3] [4] [5]
CSAH 5 NORTH				54	[3] [4] [5]
CSAH 5 SOUTH				43	[3] [4] [5]
PROJECT TOTAL				4759	

AGGREGATE NOTES

- [1] QUANTITY BENEATH CONCRETE PAVEMENT
[2] QUANTITY BENEATH BITUMINOUS SHOULDER
[3] QUANTITY INCLUDES AGGREGATE SHOULDER
[4] ASSUMES 6" AGGREGATE DEPTH
[5] SEE TAB R "ADDITIONAL FILL FOR APRONS" PAGE 10 FOR NECESSARY SELECT GRANULAR FILL QUANTITIES

ADDITIONAL FILL FOR APRONS		R
LOCATION		EMBANKMENT VOLUME SELECT (C.Y.)
WEST END		160
TIGER STREET		60
IGUANA STREET		52
CSAH 5 NORTH		88
CSAH 5 SOUTH		122
TOTAL		482

EARTHWORK BALANCE [L]

AVAILABLE EXCAVATION (CY)			
COMMON (1)	34,566	COMMON	28,128 (EV) / 1.2 = 23,440 (CV) (10)
		EXISTING TOPSOIL	6,438 (EV) / 1.2 = 5,365 (CV)
MUCK (2) (9)	5,604	MUCK	5,604 (EV)
SUBGRADE EXCAVATION (3)	13,928	SUBGRADE	13,928 (EV) / 1.2 = 11,607 (CV) (7)

NEEDED EMBANKMENT (CY)			
COMMON	14,735 (CV)		14,735 (CV)
TOPSOIL	6,233 (CV)		6,233 (CV)
SELECT GRANULAR	23,575 (CV)		23,575 (CV) (8)

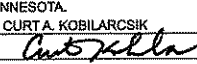
BORROW (CY)			
	NEEDED	AVAILABLE	(12)
COMMON	14,735 (CV)	- 47,665 (CV)	= -32,930 (CV) (11) (13) (12)
TOPSOIL	6,233 (CV)	- 5,365 (CV)	= 868 (CV) (5)
SELECT GRANULAR	23,575 (CV)	- 13,928 (CV)	= 9,647 (CV) (6)

- (1) TOTAL COMMON EXCAVATION FOR PROJECT (INCLUDING TOPSOIL)
(2) TOTAL MUCK EXCAVATION FOR PROJECT
(3) TOTAL SUBGRADE EXCAVATION FOR PROJECT
(5) TOTAL TOPSOIL BORROW FOR THIS PROJECT
(6) TOTAL SELECT GRANULAR BORROW FOR PROJECT
(7) ALL SUBGRADE EXCAVATION ASSUMED TO NOT MEET REQUIREMENTS FOR SELECT GRANULAR, BUT CAN BE USED AS COMMON BORROW
(8) COMBINED SELECT GRANULAR QUANTITY FOR BOTH 1.0' SUBCUT AND MUCK BACKFILL
(9) ALL MUCK MATERIAL TO BE DISPOSED OF OFF SITE BY CONTRACTOR
(10) IT IS ASSUMED THAT NO COMMON EXCAVATION WILL MEET REQUIREMENTS FOR SELECT GRANULAR
(11) TOTAL COMMON EXCAVATION THAT IS SUITABLE FOR EMBANKMENT OUTSIDE THE ROADWAY CORE. EXCESS COMMON EXCAVATION NOT USED ON SITE TO BECOME PROPERTY OF CONTRACTOR AND DISPOSED OF OFF SITE.
(12) A NEGATIVE NUMBER INDICATES AN EXCESS QUANTITY
(13) AVAILABLE COMMON EQUALS COMMON EXCAVATION PLUS SUBGRADE EXCAVATION ASSMUED TO BE COMMON 34,566 + 13,099 = 47,665

EARTHWORK TABULATION

STATION	EXCAVATION TOTALS			EMBANKMENT VOLUMES		
	COMMON	SUBGRADE	MUCK	TOPSOIL	COMMON	SELECT
	(C.Y.)	(C.Y.)	(C.Y.)	(C.Y.)	(C.Y.)	(C.Y.)
	34566	13928	5604	6233	14735	23575

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NAME: p:\02-622-28\Plan\0262228_EW1.dgn					
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PRINT NAME: CURT A. KOBILARCSIK
SIGNATURE: 
DATE: 6-8-12 LICENSE NO. 24756

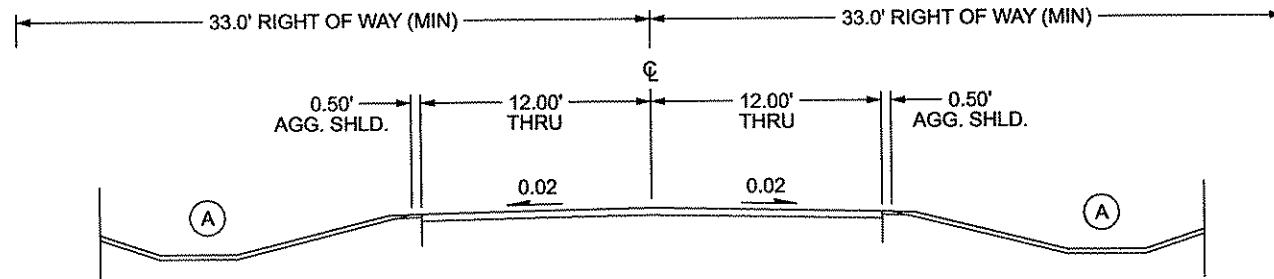
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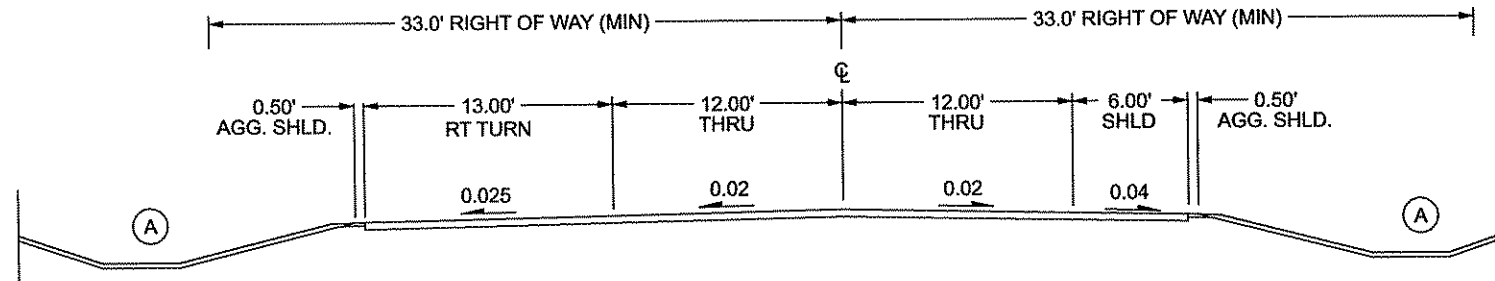
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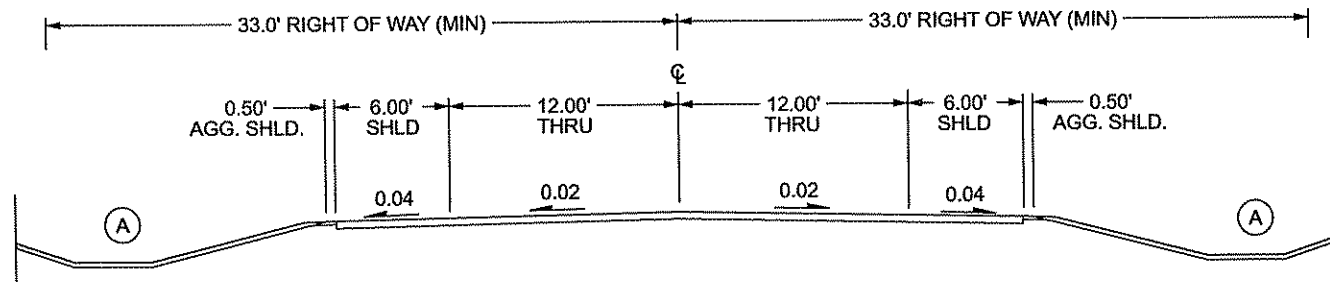
C.S.A.H. 22
STA. 10+09.95 - STA. 88+25.00



C.S.A.H. 22
STA. 88+25.00 - STA. 93+25.00



C.S.A.H. 22
STA. 93+25.00 - STA. 98+24.12



SPECIFIC NOTES:

- (A) DITCH SLOPES VARY 1:1 - 6:1
DITCH DEPTH VARIES 2.0' - 8.0'
DITCH WIDTH VARIES 0.0' - 10.0'

GENERAL NOTES:

- ALL CROSS SLOPES ARE EXPRESSED IN FT / FT
- UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS SLOPES SHALL BE THE SAME AS THE FINISHED SURFACE OF THE MAINLINE.

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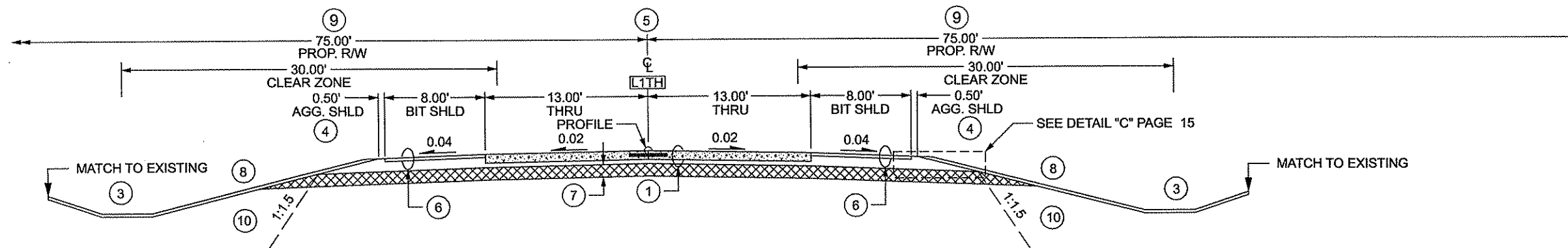
EXISTING TYPICAL SECTIONS

Sheet 11 of 139 Sheets

C.S.A.H. 22

MAINLINE ROADWAY

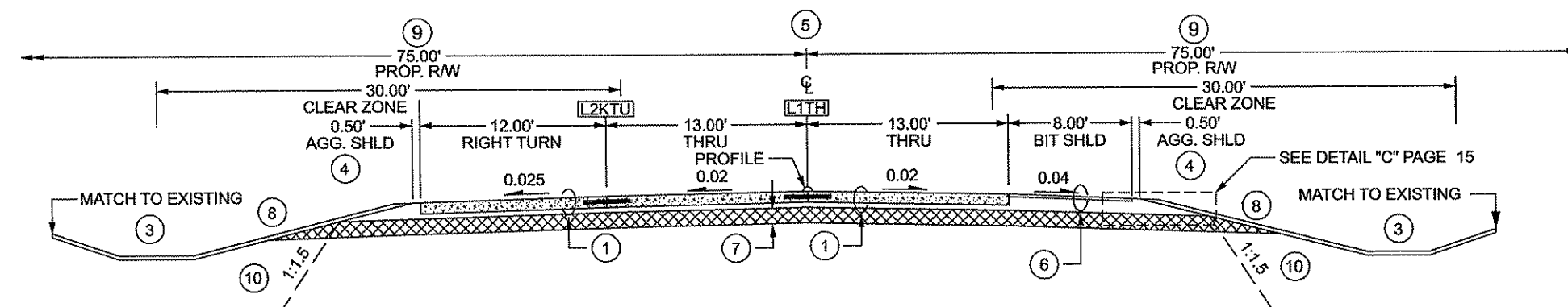
STA. 15+26- STA. 26+74
STA. 35+68 - STA. 69+24
STA. 97+36 - STA. 98+24



C.S.A.H. 22

EB TURN LANE

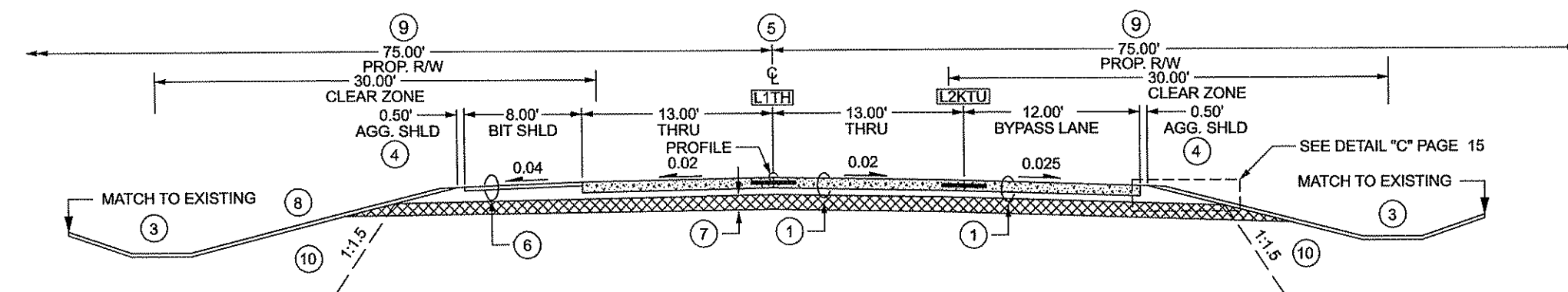
STA. 10+10 - STA. 15+26
STA. 32+84 - STA. 35+68



C.S.A.H. 22

EB BYPASS LANE

STA. 26+74 - STA. 29+96
STA. 69+24 - STA. 72+51



SPECIFIC NOTES:

- ① SEE INSET "A" ON PAGE 15
- ② SUITABLE GRADING MATERIAL
- ③ DITCH WIDTH VARIES (4.0' MINIMUM)
4.0" SLOPE DRESSING MINIMUM
- ④ AGGREGATE SHOULDERING, CLASS 5
MNDOT SPEC. 2221
- ⑤ SEE CONSTRUCTION PLANS AND STRIPING PLANS
FOR LANE WIDTHS AND LOCATIONS
- ⑥ SEE INSET "B" ON PAGE 15
- ⑦ 1.0' SUBGRADE EXCAVATION - PAID FOR AS
ITEM 2105.501 SUBGRADE EXCAVATION
- ⑧ MAINTAIN 1 : 4 SLOPE WITHIN CLEAR ZONE AND
A 1 : 3 SLOPE MINIMUM OUTSIDE CLEAR ZONE UNLESS
OTHERWISE INDICATED IN PLAN
- ⑨ 75' OF RIGHT OF WAY NOT ACHIEVED ALONG ENTIRE LENGTH
OF PROJECT. SEE CONSTRUCTION PLAN FOR PROPOSED
RIGHT OF WAY LOCATION
- ⑩ PLACE SUBGRADE EXCAVATION AND OTHER
EXCAVATED SOILS CONSIDERED AS COMMON EXCAVATION
IN THIS AREA

GENERAL NOTES:

- ALL CROSS SLOPES ARE EXPRESSED IN FT / FT
- UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS
SLOPES SHALL BE THE SAME AS THE FINISHED SURFACE OF THE
MAINLINE.
- CONCRETE LANE WIDTH DIMENSIONS ARE MEASURED FROM
JOINT TO JOINT
- BITUMINOUS AND AGGREGATE DIMENSIONS ARE MEASURED
ACROSS SURFACE WIDTH

1 OF 2

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CHECKED BY: JEO DATE:



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

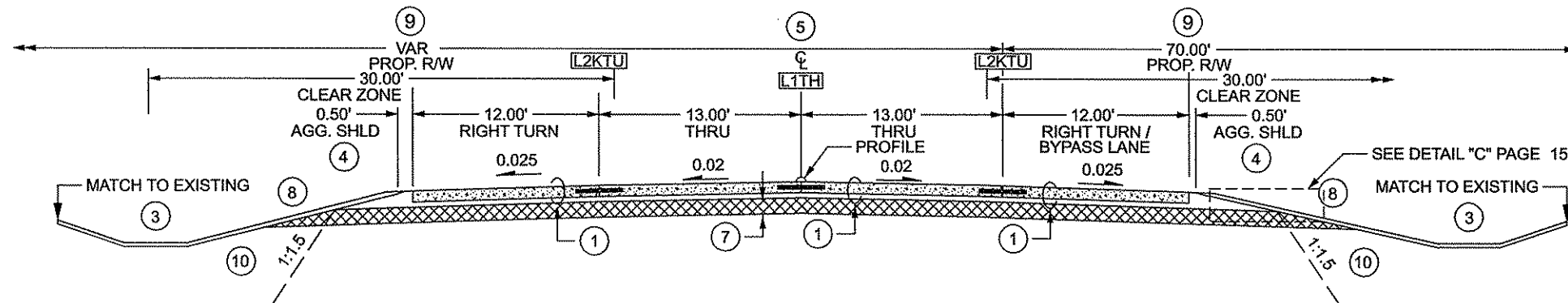
PROPOSED TYPICAL SECTIONS

Sheet 12 of 139 Sheets

C.S.A.H. 22

STA. 29+96 - STA. 32+84 & STA. 72+51 - STA. 79+19

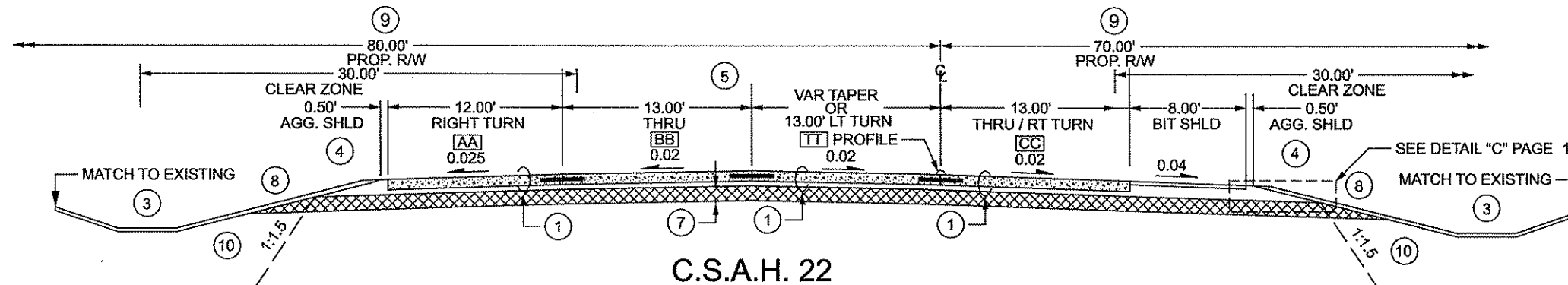
SEE CONSTRUCTION PAVING PLAN FOR LONGITUDINAL JOINT TYPE
STA. 72+51 - STA. 80+17



C.S.A.H. 22

EB LT TURN LANE

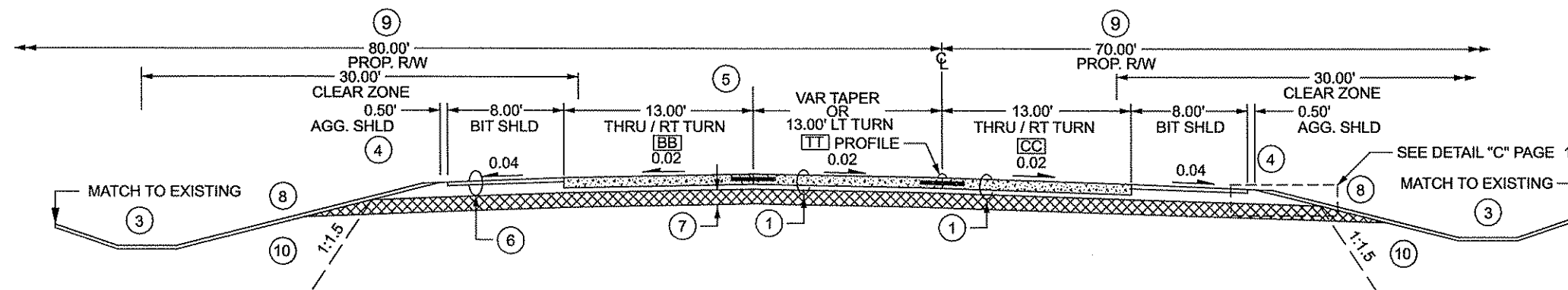
SEE CONSTRUCTION PAVING PLAN FOR LONGITUDINAL JOINT TYPE
STA. 80+17 - STA. 89+03



C.S.A.H. 22

EB LT TURN LANE

SEE CONSTRUCTION PAVING PLAN FOR LONGITUDINAL JOINT TYPE
STA. 89+03 - STA. 97+36



SUPERELEVATION TABLE APPROACHING CSAH 5

LANE NOTE	STATION	CROSS SLOPE	TO	STATION	CROSS SLOPE
AA	86+74.52	-2.50	-	87+52.52	-1.00
	87+52.52	-1.00	-	89+02.49	-1.00
BB	86+74.52	-2.00	-	87+52.52	-0.50
	87+52.52	-0.50	-	89+05.67	-0.50
	80+30.79	-0.50	-	89+83.67	-2.00
CC	79+19.03	-2.00	-	82+78.97	-2.50
	82+78.97	-2.50	-	86+48.52	-2.50
	86+48.52	-2.50	-	87+52.52	-0.50
	87+52.52	-0.50	-	89+05.67	-0.50
	89+05.67	-0.50	-	90+09.67	-2.50
	90+09.67	-2.50	-	93+76.32	-2.50
TT	86+74.52	-2.00	-	87+52.52	-0.50
	87+52.52	-0.50	-	89+05.67	-0.50
	89+05.67	-0.50	-	89+83.67	-2.00

SPECIFIC NOTES:

- SEE INSET "A" ON PAGE 15
- SUITABLE GRADING MATERIAL
- DITCH WIDTH VARIES (4.0' MINIMUM)
4.0" SLOPE DRESSING MINIMUM
- AGGREGATE SHOULDERING, CLASS 5
MNDOT SPEC. 2221
- SEE CONSTRUCTION PLANS AND STRIPING PLANS
FOR LANE WIDTHS AND LOCATIONS
- SEE INSET "B" ON PAGE 15
- 1.0' SUBGRADE EXCAVATION - PAID FOR AS
ITEM 2105.501 SUBGRADE EXCAVATION
- MAINTAIN 1 : 4 SLOPE WITHIN CLEAR ZONE AND
A 1 : 3 SLOPE OUTSIDE CLEAR ZONE UNLESS OTHERWISE
INDICATED IN PLAN
- 75' OF RIGHT OF WAY NOT ACHIEVED ALONG ENTIRE LENGTH
OF PROJECT. SEE CONSTRUCTION PLAN FOR PROPOSED
RIGHT OF WAY LOCATION
- PLACE SUBGRADE EXCAVATION AND OTHER
EXCAVATED SOILS CONSIDERED AS COMMON EXCAVATION
IN THIS AREA

GENERAL NOTES:

- ALL CROSS SLOPES ARE EXPRESSED IN FT / FT
- UNLESS OTHERWISE SPECIFIED, THE GRADING GRADE CROSS
SLOPES SHALL BE THE SAME AS THE FINISHED SURFACE OF THE
MAINLINE.
- CONCRETE LANE WIDTH DIMENSIONS ARE MEASURED FROM
JOINT TO JOINT
- BITUMINOUS AND AGGREGATE DIMENSIONS ARE MEASURED
ACROSS SURFACE WIDTH

2 OF 2

NO	DATE	BY	CHKD	APPR	REVISION
1	06/07/2012				2:28:26 PM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME
OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBILARCSIK
SIGNATURE: *Curt A. Kobilarsik*
DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: _____
DESIGN BY: NJD DATE: _____
CHECKED BY: JEO DATE: _____



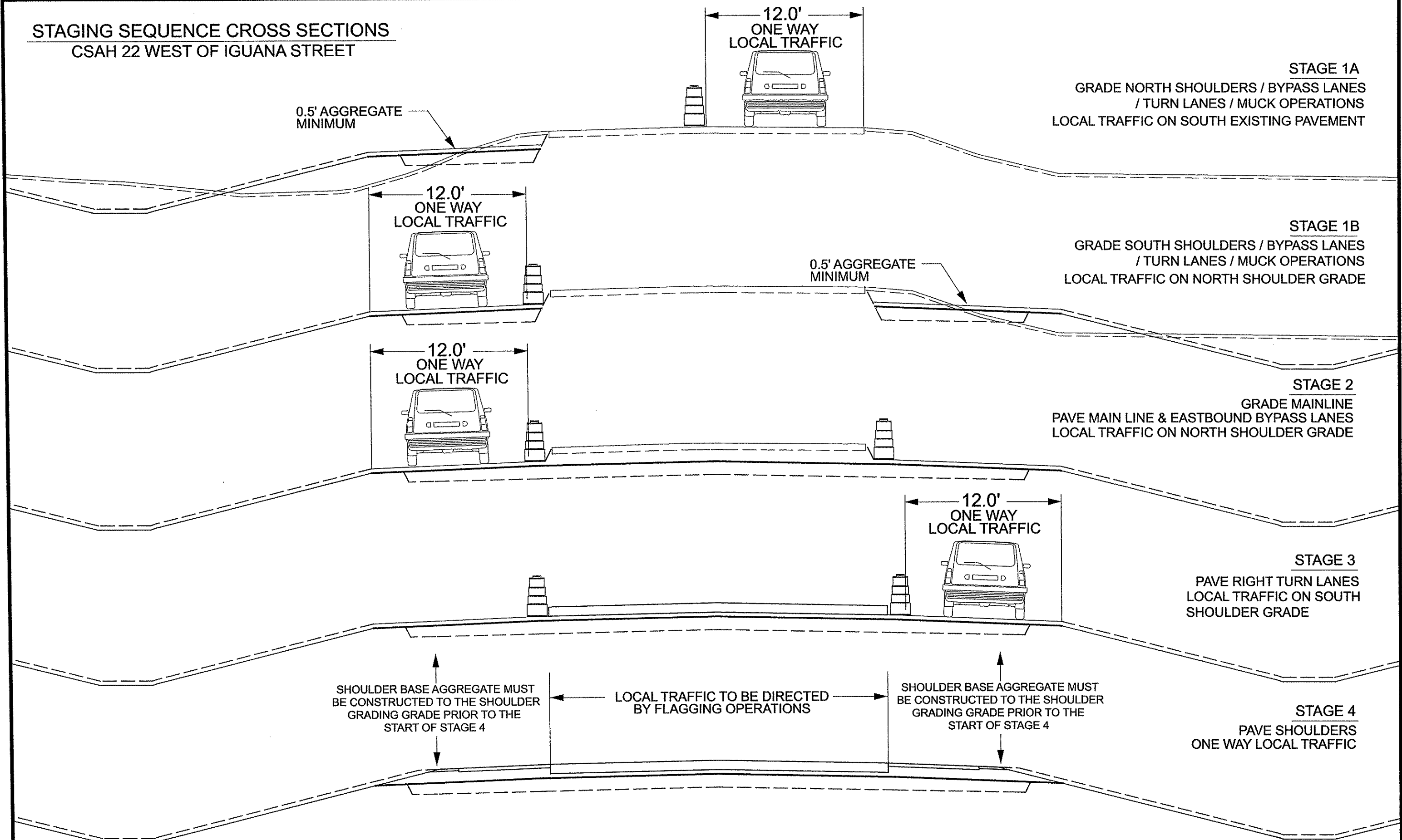
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

PROPOSED TYPICAL SECTIONS

Sheet 13 of 139 Sheets

STAGING SEQUENCE CROSS SECTIONS CSAH 22 WEST OF IGUANA STREET



NO	DATE	BY	CKD	APPR	REVISION

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

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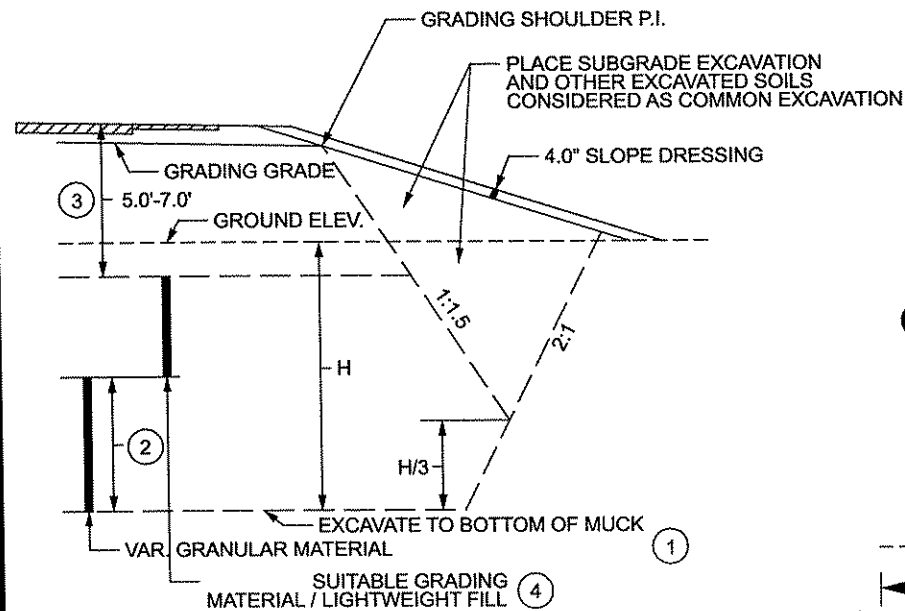
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

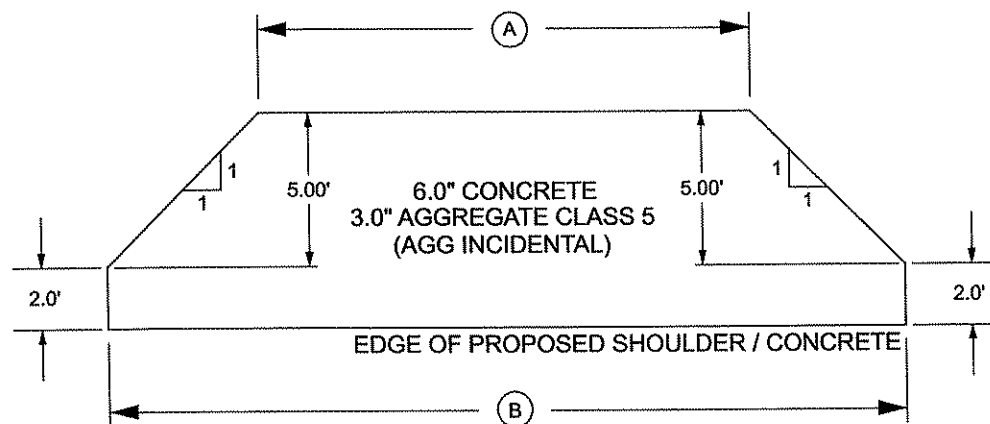
STAGING TYPICAL SECTIONS
BETWEEN BAUGH ST & IGUANA ST

Sheet 14 of 139 Sheets

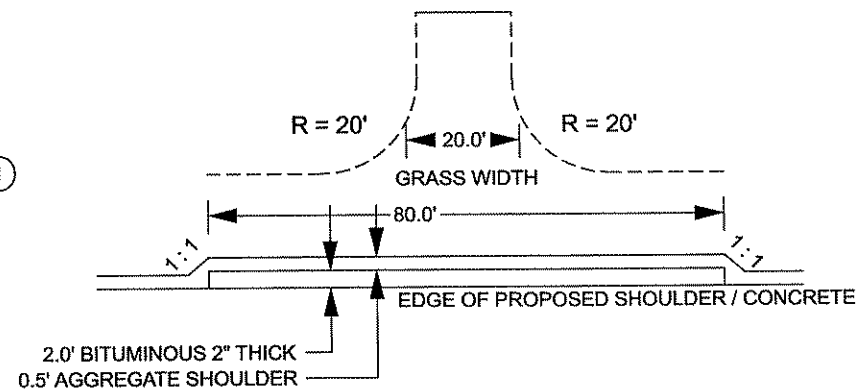
MUCK EXCAVATION



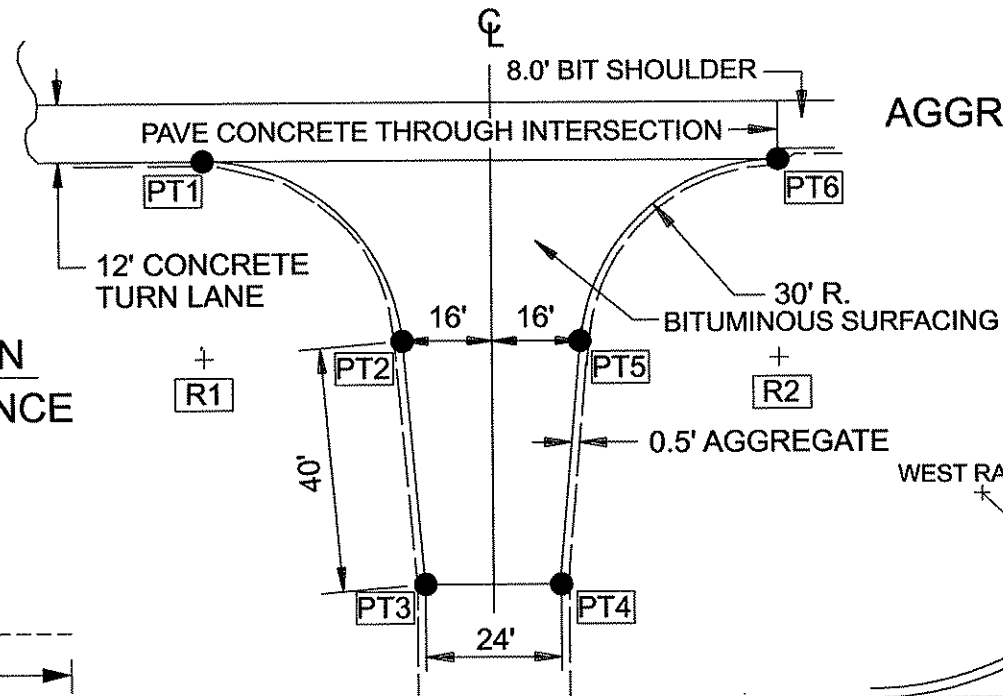
CONCRETE APRON CONCRETE DRIVEWAY



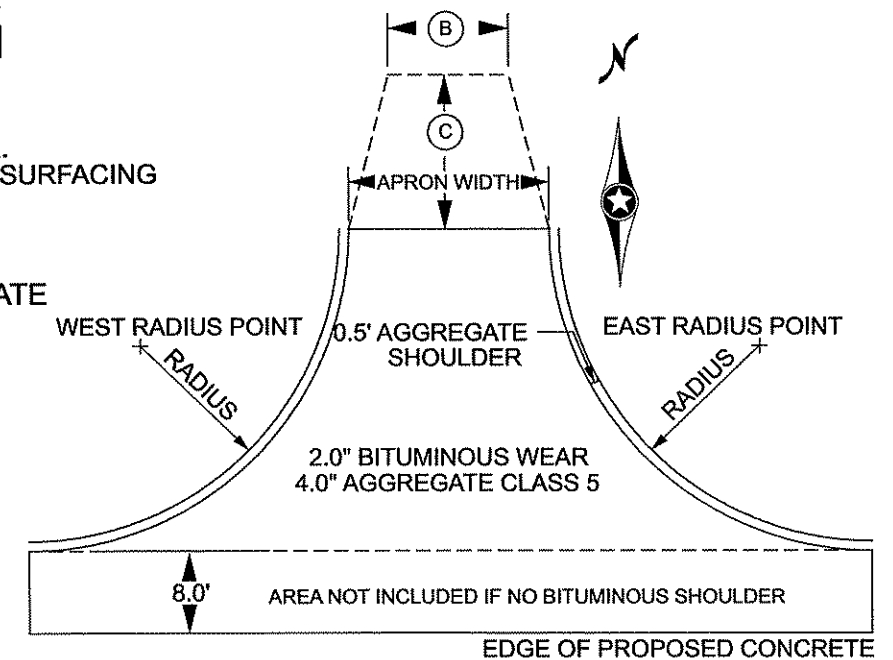
BITUMINOUS APRON GRASS FIELD ENTRANCE



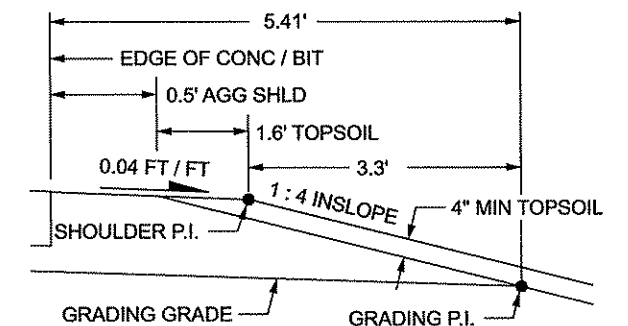
BITUMINOUS APRON CITY STREET



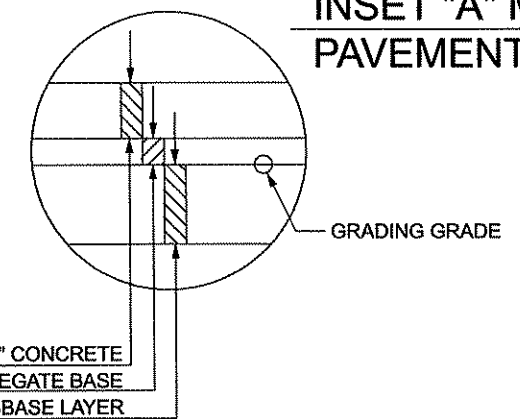
BITUMINOUS APRON AGGREGATE / BITUMINOUS DRIVEWAY



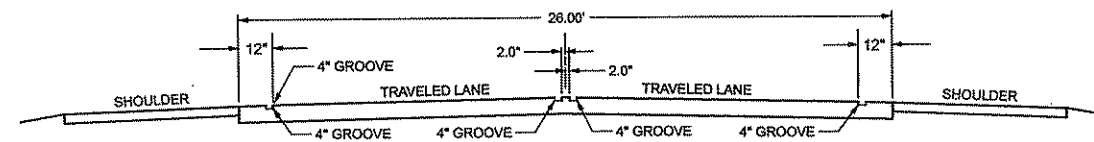
DETAIL "C" SHOULDER / GRADING P.I.



INSET "A" MAINLINE PAVEMENT DESIGN

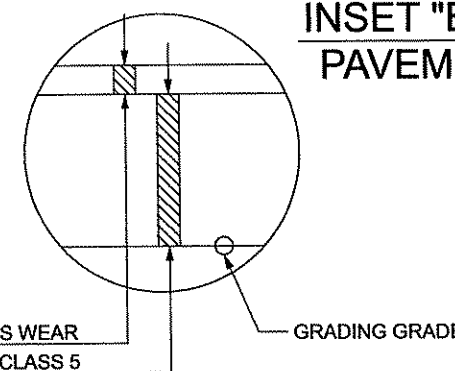


GROOVED PAINT STRIPE DETAIL



- GROOVED PAINT AREA SHALL BE A MINIMUM OF 0.10 INCH TO A MAXIMUM OF 0.20 INCH IN DEPTH.
- CONTRACTOR HAS THE OPTION OF GRINDING THE CONCRETE SURFACE OR FORMING A GROOVE IN THE FINISHING OPERATIONS.
- THE CONTRACTOR SHALL BE REQUIRED TO HALT OPERATIONS AND MAKE ADJUSTMENTS WHEN THE GROOVE DEPTH MEASURES GREATER THAN THE MAXIMUM TOLERANCE OF 0.20 INCH.
- IF CONTRACTOR CHOOSES TO USE A GROOVED FORM, AREAS OUTSIDE OF THE GROOVE TOLERANCE SHALL BE GROUND TO AN ACCEPTABLE DEPTH. DEPTH MEASUREMENT OF GROOVES FOR ACCEPTANCE SHALL BE MADE AFTER THE CONCRETE PAVEMENT HAS CURED.
- THE CONTRACTOR SHALL ELIMINATE CONCRETE EDGELINE GROOVES AT INTERSECTIONS AS DIRECTED BY THE ENGINEER IN THE FIELD.
- CENTERLINE GROOVES WILL BE SEPARATED, ONE ON EACH SIDE OF CENTERLINE.

INSET "B" SHOULDER PAVEMENT DESIGN



SPECIFIC NOTES:

- SEE PROFILES AND CROSS SECTIONS FOR MUCK EXCAVATION DEPTH
- BACKFILL WITH GRANULAR MATERIAL UP TO LOCAL WATER LEVEL PLUS 2.0'
- MINIMUM COVER FROM TOP OF PROPOSED TO TOP OF LIGHTWEIGHT FILL
- SEE SHEET 8 FOR REQUIRED BACKFILL MATERIAL
- VARIES BASED ON EXISTING DRIVEWAY WIDTH (16.0' MINIMUM)
- VARIES BASED ON EXISTING DRIVEWAY WIDTH
- VARIES BASED ON EXISTING DRIVEWAY WIDTH
0.5' CLASS 5 AGGREGATE TO CONST. LIMITS

PT1 - PT6 SEE INTERSECTION DETAILS PAGE 42 FOR LOCATION OF THESE POINTS

NO	DATE	BY	CKD	APPR	REVISION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBILARCSIK
SIGNATURE: *Curt Kobilarsik*
DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE:
DESIGN BY: NJD DATE:
CHECKED BY: JEO DATE:



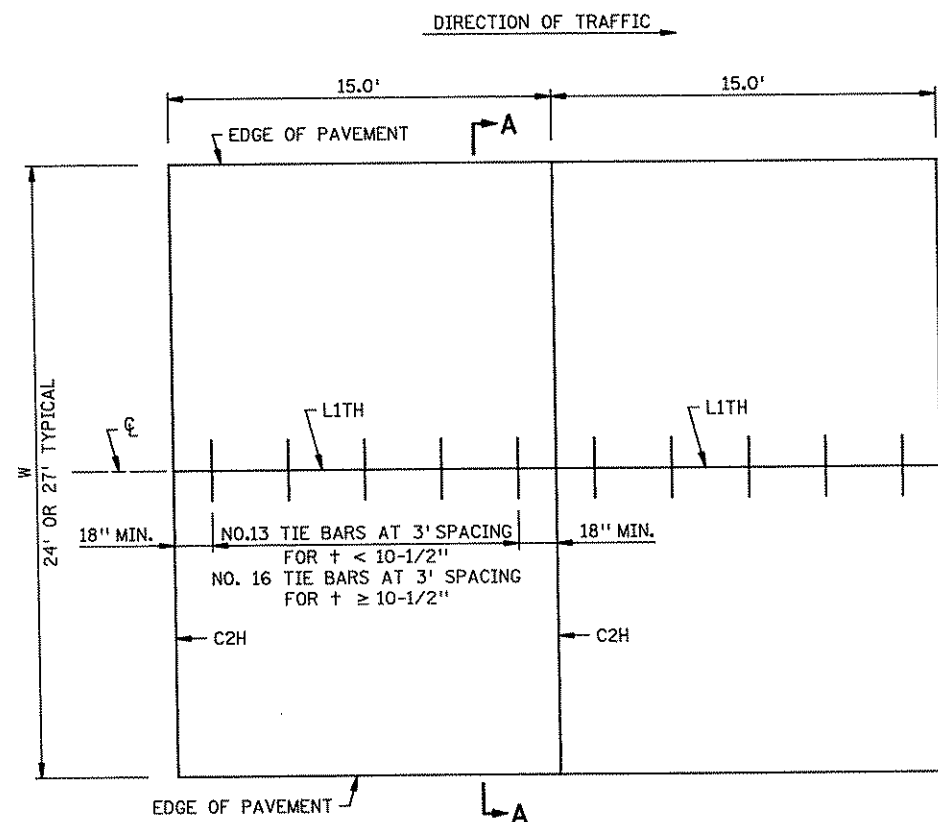
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

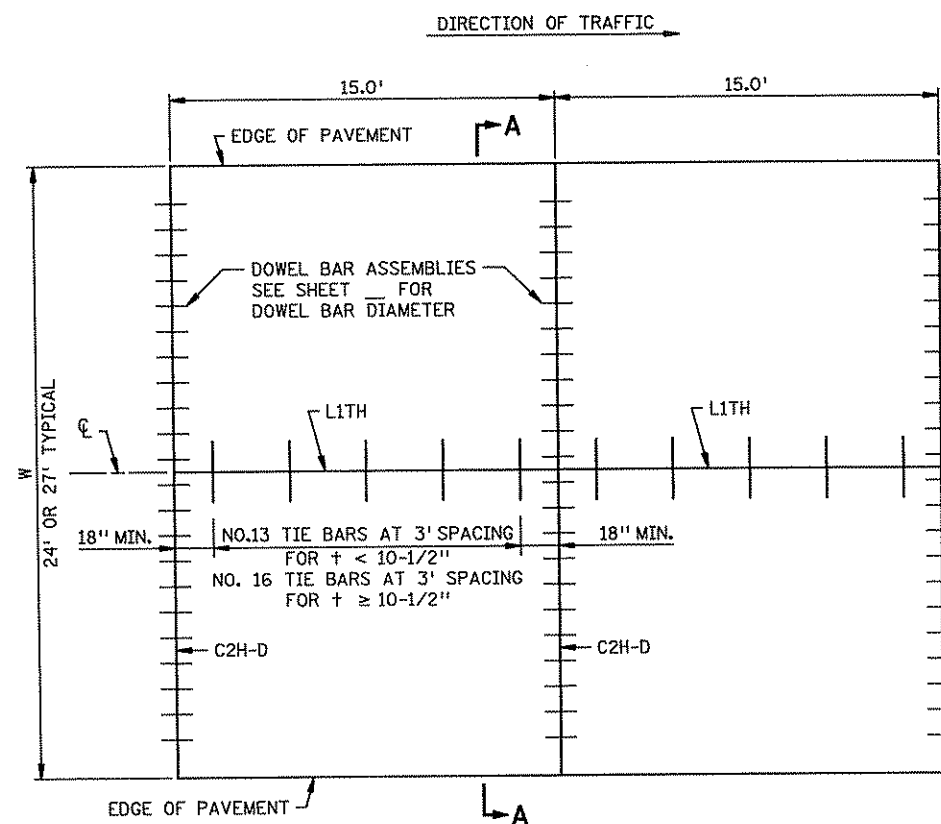
TYPICAL SECTION &
MISCELLANEOUS DETAILS
(NOT TO SCALE)

Sheet 15 of 139 Sheets

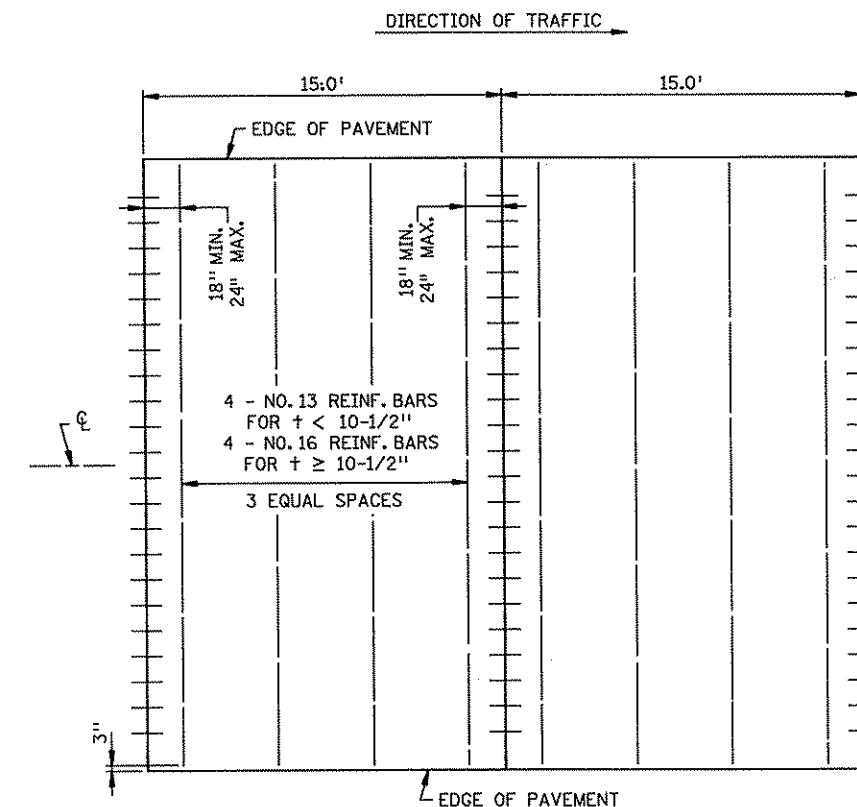
PLOTTED/REVISED:
\$DATE\$



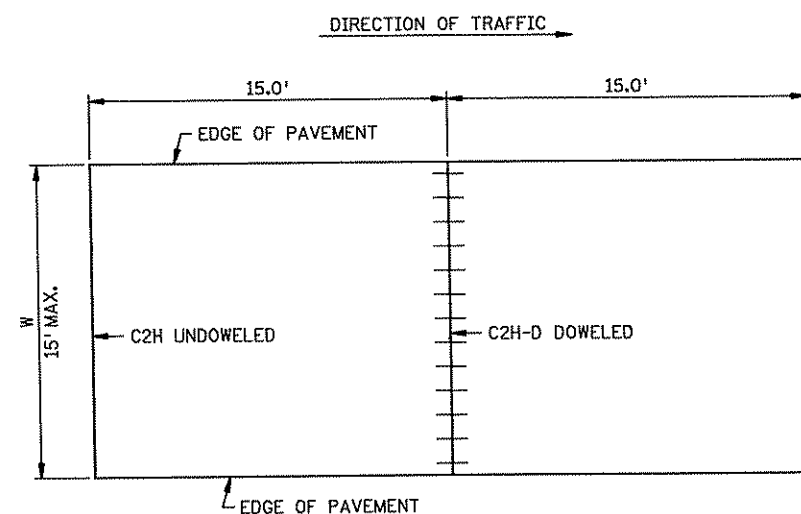
MAINLINE PAVEMENT
UNDOWELED



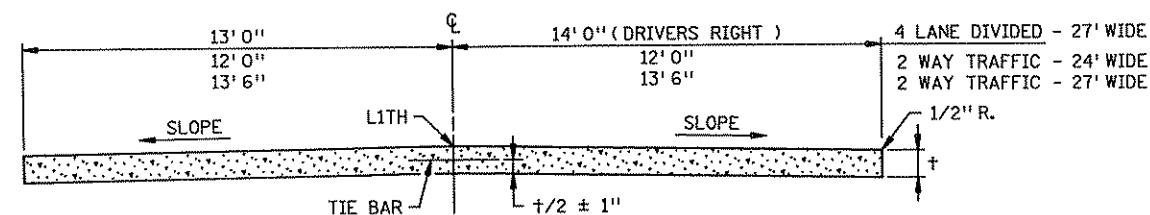
MAINLINE PAVEMENT
DOWELED



PANEL REINFORCEMENT



PAVEMENT 2 FT. THRU 15 FT. WIDTH
UNDOWELED OR DOWELED



SECTION A-A

GENERAL NOTES:

ALL REBARS ARE IN METRIC DESIGNATIONS

SEE TYPICAL SECTIONS AND PLAN SHEETS FOR CROSS SLOPES AND PAVEMENT THICKNESS, t .

DOWEL BAR ASSEMBLIES, WHEN REQUIRED, SHALL BE SIMILAR TO THOSE SHOWN ON STANDARD PLATE 1103.

ALL REINFORCING BARS SHALL BE EPOXY COATED AND COMPLY WITH SPEC 3301.

FOR SUPPLEMENTAL PAVEMENT REINFORCEMENT, SEE STANDARD PLATE 1070.

PANEL REINFORCEMENT:
PLACE IN PANELS WHERE PAVEMENT WIDTH EXCEEDS 15.0' WITHOUT A LONGITUDINAL JOINT. PLACEMENT DEPTH SHALL BE PLANNED $t/2 \pm 1"$. IT IS PREFERRED TO ADD A LONGITUDINAL JOINT RATHER THAN PAVE GREATER THAN 15' IN WIDTH.

STANDARD SHEET NO.
5-297.217 (1 OF 2)
STANDARD APPROVED:
APRIL 14, 2010

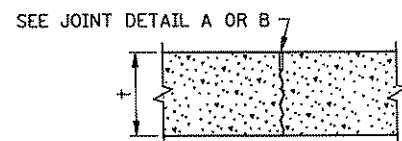
TITLE:

CONCRETE MAINLINE PAVEMENT
15.0 FT. PANEL LENGTH
RURAL

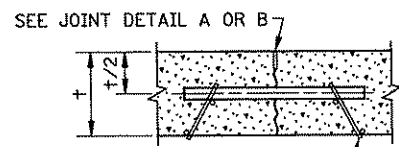
STATE AID PROJ. NO. 002-622-028

SHEET NO. 16 OF 117 SHEETS

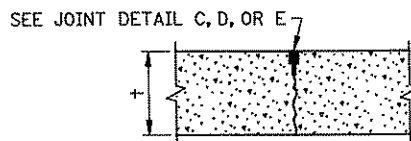
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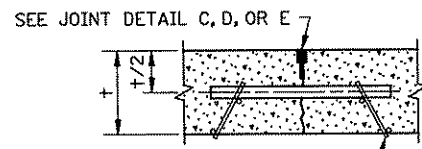
C1U & C2H



C1U-D & C2H-D



C3P, C4S, C5H



C3P-D, C4S-D, C5H-D

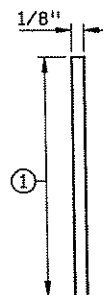
CONTRACTION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE				
JOINT REFERENCE	JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH	
WITHOUT DOWELS	WITH DOWELS			
C1U	C1U-D	A	UNSEALED	1/8"
C2H	C2H-D	B	3725	1/8"
C3P	C3P-D	C	3721	3/8"
C4S	C4S-D	D	3722	3/8"
C5H	C5H-D	E	3725	3/8"

LEGEND
C = CONTRACTION JOINT
NO. = JOINT REFERENCE
U = UNSEALED
H = HOT POURED
P = PREFORMED
S = SILICONE
-D = DOWEL BARS

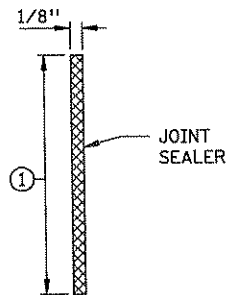
EXAMPLE
C2H-D

DOWEL BAR DIAMETER TABLE

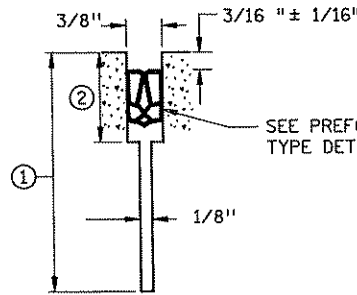
PAVEMENT THICKNESS +	DOWEL BAR DIAMETER
LESS THAN 6"	NONE
6" - 6 1/2"	1"
7" - 10"	1 1/4"
10 1/2" - 14"	1 1/2"



JOINT DETAIL A
SAWED & UNSEALED



JOINT DETAIL B^③
SAWED & SEALED

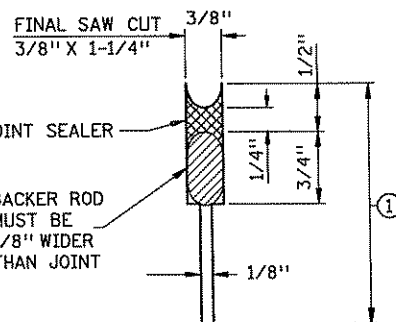


JOINT DETAIL C^③
SAWED AND SEALED

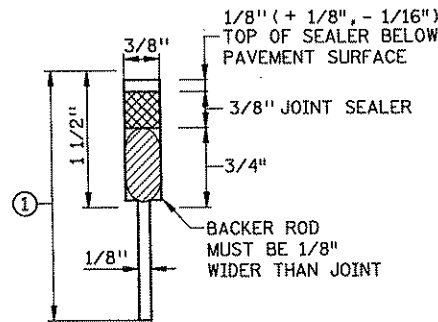
NOTES:

SEE STANDARD PLATE 1103 FOR DOWEL BAR ASSEMBLY.
SEE STANDARD PLATE 1150 FOR CONSTRUCTION OF HEADER JOINTS.
JOINT WIDTH TOLERANCE IS + 1/16" TO - 1/32"
FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
SEE STANDARD PLANS 5-297.217 AND 5-297.219, FOR CONCRETE MAINLINE/RAMP PAVEMENT.
SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATION TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

- JOINT DEPTH SHALL BE:
FOR CONCRETE OVERLAYS - 1/3 THE PAVEMENT THICKNESS
FOR CONCRETE PAVEMENT - 1/4 THE PAVEMENT THICKNESS
- SEE CONTRACTION JOINT SEALER DETAIL.
WHEN USING PREFORMED JOINT SEALER, THE DEPTH SHALL BE 1/4" MORE THAN THE PREFORMED SEALER, WHEN COMPRESSED, TO FIT THE JOINT DESIGN WIDTH.
"a" DIMENSION SHALL APPLY AT ANY POINT THROUGHOUT
"c" DEPTH. SHARP INTERNAL CORNERS WILL NOT BE PERMITTED. ALL CORNERS SHALL BE PROVIDED WITH SUITABLE FILLET.
- WHEN SEALING, THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.
- PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD SHALL BE PLACED SUCH THAT THE TOP OF THE BACKER ROD IS 1/2" BELOW THE SURFACE OF THE PAVEMENT. NON SELF-LEVELING SILICONE SHALL BE TOOLED INTO THE JOINT MAINTAINING A SEAL AND BEAD THICKNESS OF 1/4".
- PRIOR TO SEALING THE JOINT, A 1/2" DIA. CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F. SHALL BE PLACED 1/2" BELOW THE TOP OF PAVEMENT.



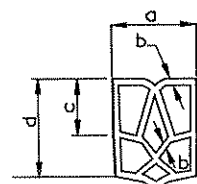
JOINT DETAIL D^{③④}
SAWED AND SEALED



JOINT DETAIL E^{③⑤}
SAWED AND SEALED

REQUIRED DIMENSIONS

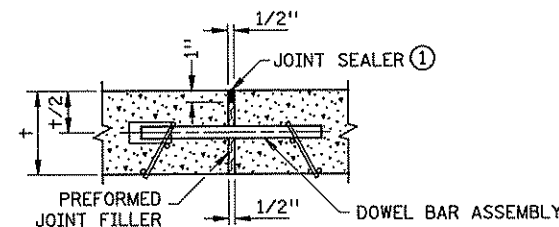
JOINT TYPE	TRANSVERSE
NOMINAL	11/16"
SEALER SIZE	USE IN ALL 3/8" JOINTS
a	0.69" + 0.13" - 0.05"
b	0.08" ± 0.02"
c	0.25" MIN.
d	0.63" MIN.



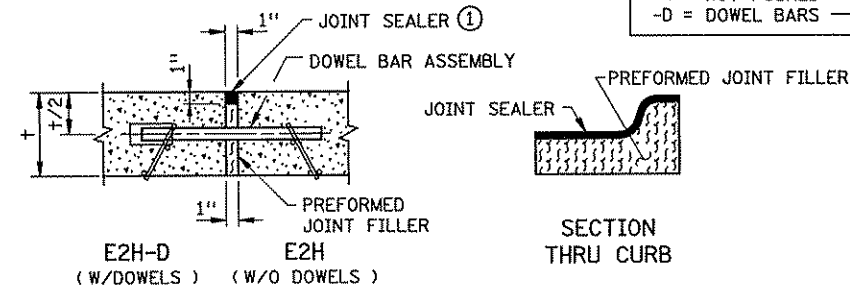
TYPICAL SHAPE FOR
SATISFACTORY INSTALLATION
IN JOINT (5 CELL MIN.)

PREFORMED ELASTOMERIC TYPE DETAIL

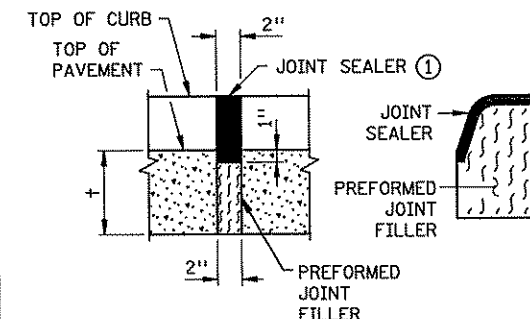
CONTRACTION JOINTS
DESIGN C



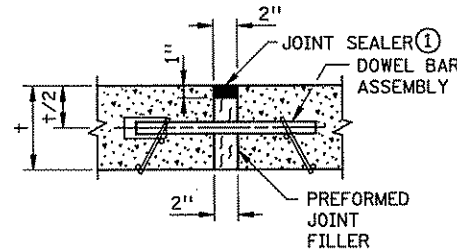
E1H-D E1H
(W/DOWELS) (W/O DOWELS)
JOINT DETAIL A



E2H-D E2H
(W/DOWELS) (W/O DOWELS)
JOINT DETAIL B

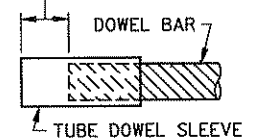


E4H
(W/O DOWELS)
JOINT DETAIL C



E4H-D
(W/DOWELS)
JOINT DETAIL D

SPACE FROM END OF DOWEL BAR
TO END OF SLEEVE TO BE EQUAL
TO EXPANSION JOINT WIDTH (1" MIN.)



DOWEL BAR
SLEEVE DETAIL

NOTES:

- PREFORMED JOINT FILLER MATERIAL, SPEC. 3702.
FOR DOWEL BAR ASSEMBLY, SEE STANDARD PLATE 1103.
① JOINT SEALER SPEC. 3725. THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING. TOP OF SEALER, FLUSH TO 1/8" BELOW TOP OF PAVEMENT SURFACE. MAKE TOP OF SEALER FOR CURB SECTION D JOINTS FLUSH WITH SURFACE ± 1/8".

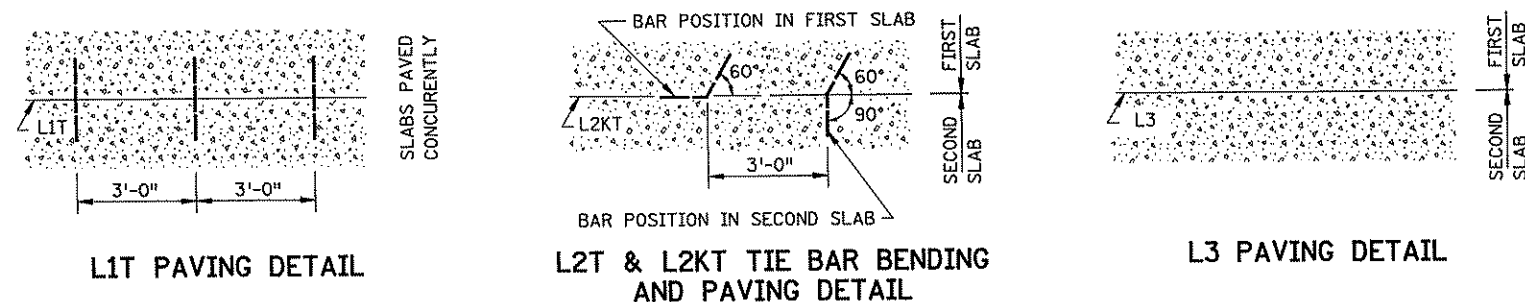
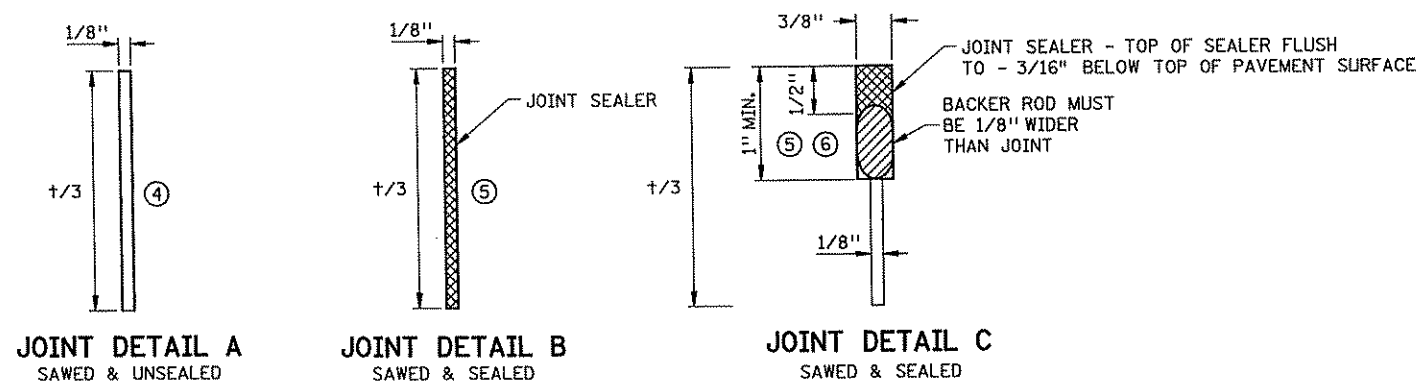
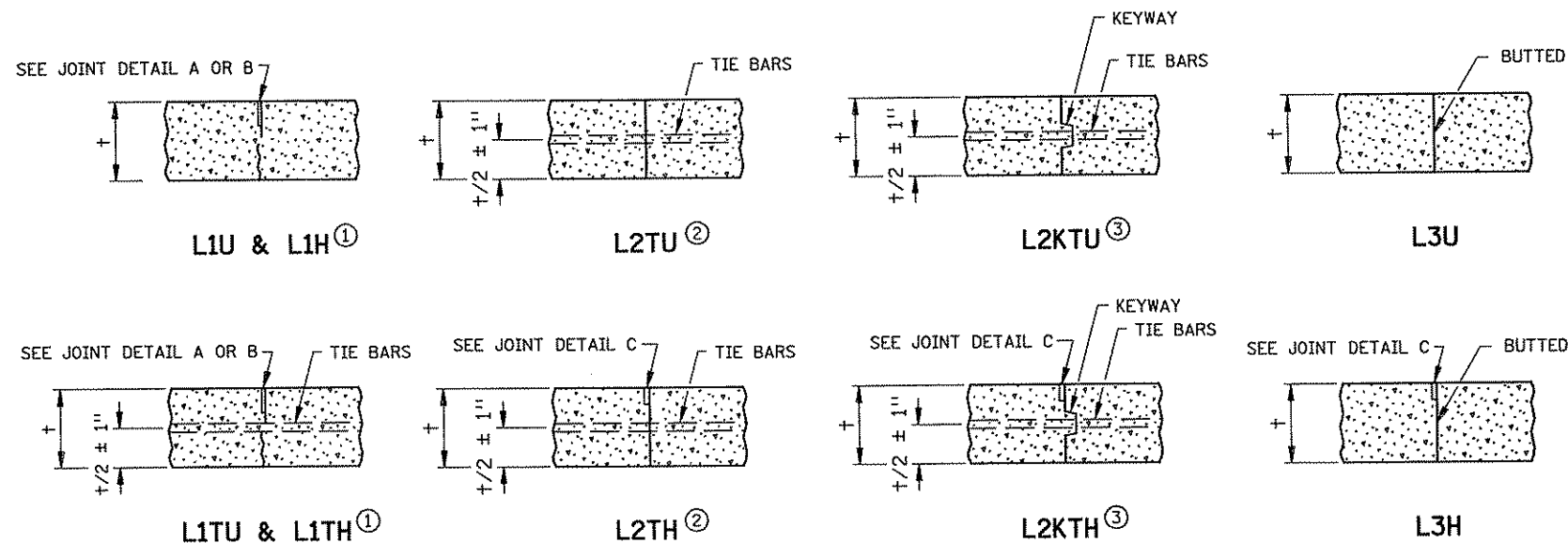
EXPANSION JOINTS
DESIGN E

STANDARD SHEET NO.
5-297.221 (1 OF 2)
STANDARD APPROVED:
APRIL 14, 2010

PAVEMENT JOINTS
CONTRACTION (DESIGN C) AND EXPANSION (DESIGN E)

STATE PROJ. NO. 002-622-028

SHEET NO. 17 OF 117 SHEETS



TIEBAR TABLE

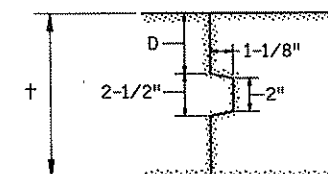
PAVEMENT THICKNESS	TIEBAR SIZE	LENGTH
< 10-1/2"	NO. 13	30"
≥ 10-1/2"	NO. 16	36"
ALL THICKNESS WHEN TYING TO CURB AND GUTTER	NO. 13	30"

ALL REBARS ARE IN METRIC DESIGNATIONS

THE TIE BAR SPACING FOR ALL L2T AND L2KT JOINTS SHALL BE 3'-0" CENTER TO CENTER AND BENT 60° AS SHOWN, EXCEPT WHEN NOTED OTHERWISE IN THE PLANS.

TIE BARS IN THE L2T AND L2KT JOINTS SHALL BE THE SAME SIZE AND LENGTH AS USED FOR THE L1T JOINTS, WHEN TYING PAVEMENT TO PAVEMENT. TIE BARS IN THE L2KT JOINTS SHALL BE NO. 13 X 2' - 6", WHEN TYING CURB & GUTTER TO PAVEMENT.

ALL TIE BARS SHALL BE EPOXY COATED AND COMPLY WITH SPEC. 3301.



PAVEMENT KEYWAY DETAIL

† PAVEMENT THICKNESS	D (TOLERANCE ± 1/4")
< 7"	NO KEYWAY
7" TO 7-1/2"	3"
8" TO 10"	4"
> 10-1/2"	5"

KEYWAY (1-1/8" x 2" x 2-1/2") MAY BE FORMED WITH MOLD OR METAL FORM. OTHER APPROVED KEYWAY SHAPES GIVING EQUIVALENT CONSTRUCTION FEATURES MAY BE USED WITH APPROVAL OF THE ENGINEER.

LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE

JOINT REFERENCE			JOINT DETAIL	JOINT SEALER SPEC	JOINT WIDTH
WITHOUT TIE BARS	WITH TIE BARS	WITH KEYWAY & TIE BARS			
L1U	L1TU		A	UNSEALED	1/8"
L1H	L1TH		B	3725	1/8"
	L2TU	L2KTU	NONE	UNSEALED	
	L2TH	L2KTH	C	3725	3/8"
L3U			NONE	UNSEALED	
L3H			C	3725	3/8"

LEGEND		EXAMPLE
L	= LONGITUDINAL JOINT	
NO.	= JOINT REFERENCE	
1	= PAVED CONSTRUCTION JOINT	
2	= TIED/KEYED CONSTRUCTION JOINT	
3	= BUTT CONSTRUCTION JOINT	
K	= KEYWAY	
T	= TIE BARS	
U	= UNSEALED	
H	= HOT POURED	

NOTES:

NORMALLY, TIED PAVEMENT WIDTHS SHALL NOT EXCEED FOUR LANES, EXCEPT BRIDGE APPROACH PANELS AND PAVEMENT TAPERS.

JOINT WIDTH TOLERANCE IS + 1/16 IN. TO - 1/32 IN.

FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

TIED/KEYED AND BUTTED CONSTRUCTION JOINTS SHALL BE UNSEALED EXCEPT AS OTHERWISE NOTED IN THE PLAN OR REQUIRED BY THE ENGINEER.

SEE STANDARD PLANS 5-297.217 AND 5-297.219 FOR
CONCRETE MAINLINE AND RAMP PAVEMENT.

SEE PAVING LAYOUTS IN THE PLANS FOR JOINT CLASS DESIGNATIONS TO BE USED AND SPECIAL REINFORCEMENT REQUIRED.

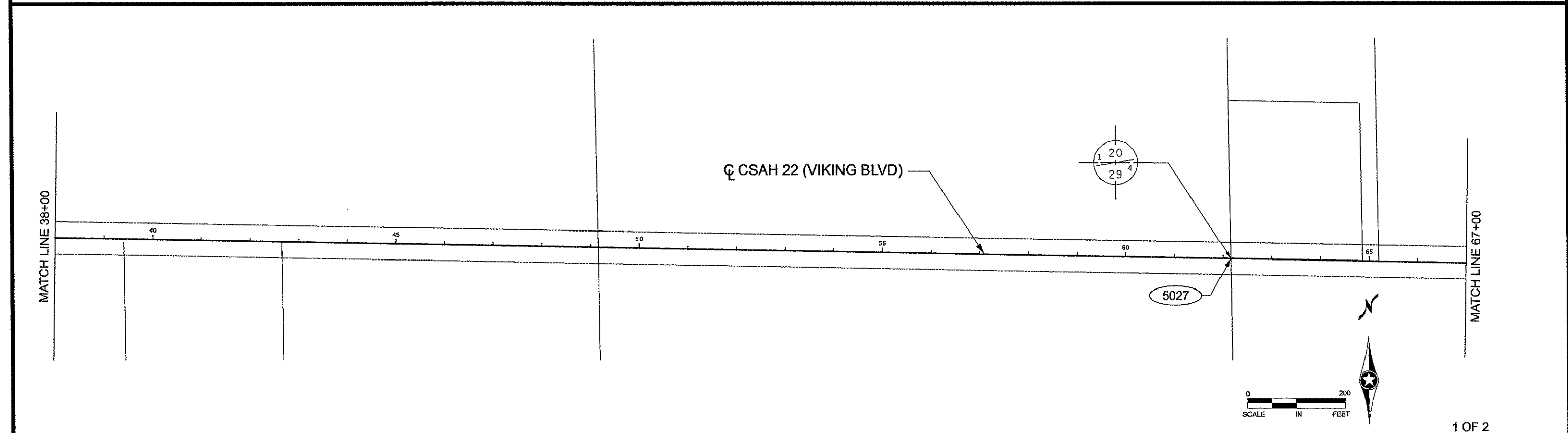
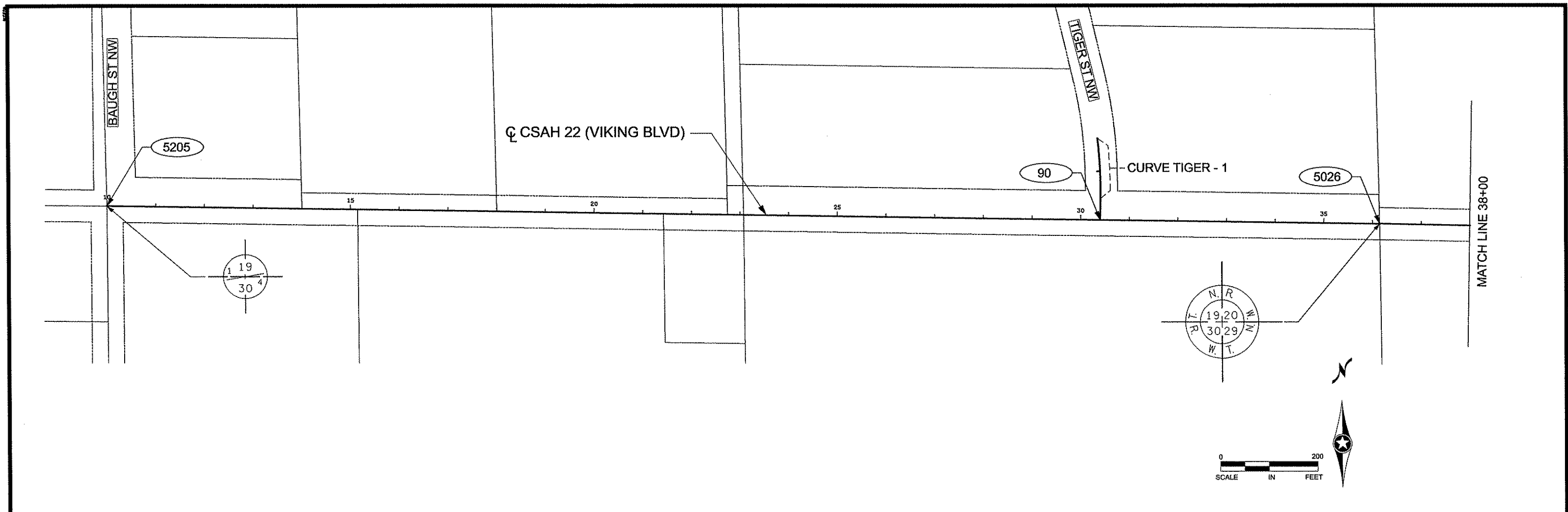
WHEN CURB AND GUTTER IS PLACED ADJACENT TO CONCRETE
MAINLINE, THE TIEBARS SHALL BE PLACED A MINIMUM OF
2" ABOVE THE CURB AND GUTTER GRADE.

- ① SEE THE LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE TO DETERMINE JOINT DETAIL.
- ② CONCRETE PAVEMENTS LESS THAN 7" SHALL USE L2TU AND L2TH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.
- ③ CONCRETE PAVEMENTS GREATER THAN OR EQUAL TO 7" SHALL USE L2KTU AND L2KTH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.
- ④ THE JOINT FACES SHALL BE CLEANED WITH WATER DURING THE SAW CUTTING OPERATION OR BY WATER BLASTING AFTER SAWING.
- ⑤ THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.
- ⑥ PRIOR TO SEALING THE JOINT, A 1/2" DIAMETER CLOSED CELL BACKER ROD CAPABLE OF WITHSTANDING SEALANT TEMPERATURES OF 400 DEGREES F. SHALL BE PLACED 1/2" BELOW THE TOP OF THE PAVEMENT.

STANDARD SHEET NO.	5-297.221 (2 OF 2)
STANDARD APPROVED:	APRIL 14, 2010

TITLE:

PAVEMENT JOINTS
LONGITUDINAL (DESIGN L)



1 OF 2

NO	DATE	BY	CKD	APPR	REVISION

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

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY NJD DATE

DESIGN BY NJD DATE

CHECKED BY JEO DATE



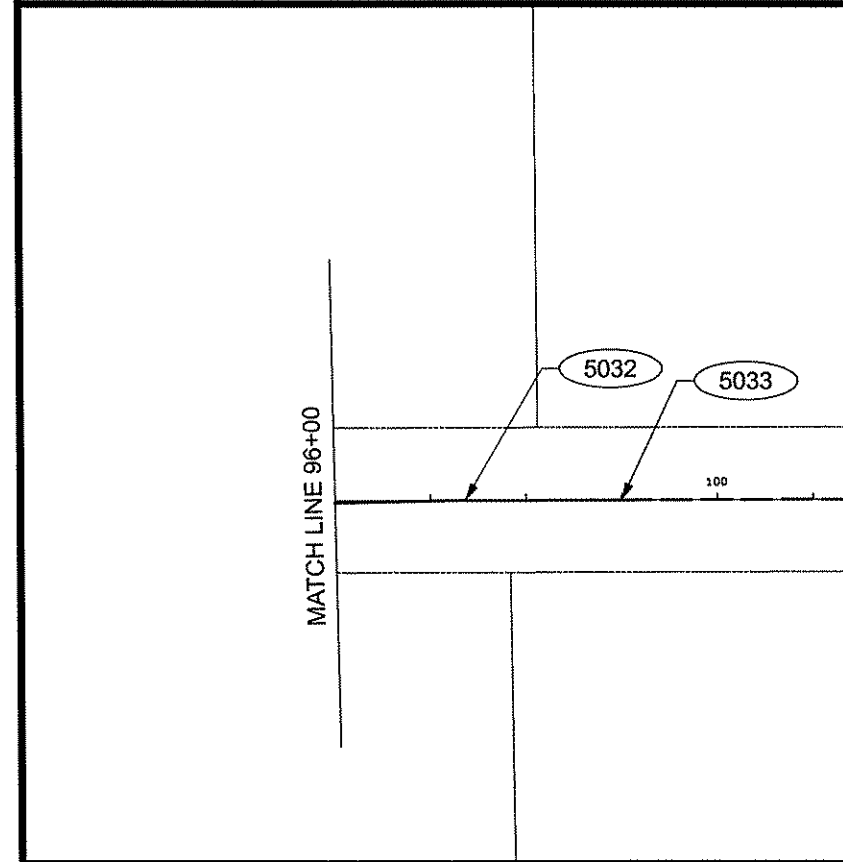
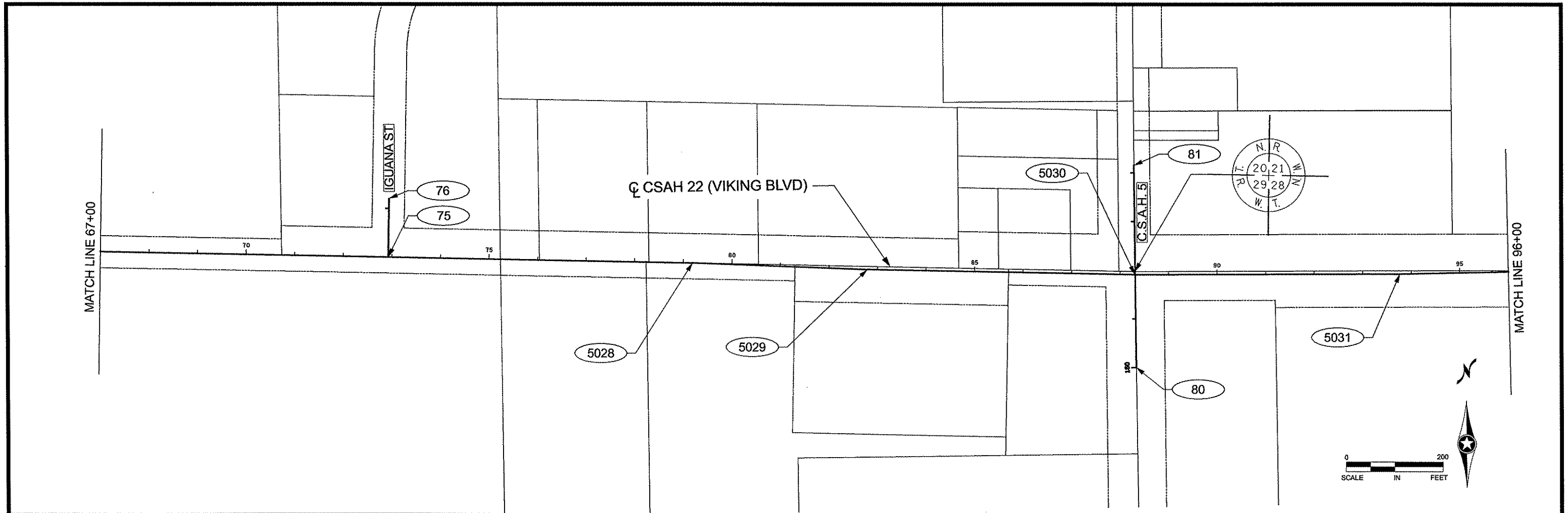
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

ALIGNMENT PLAN

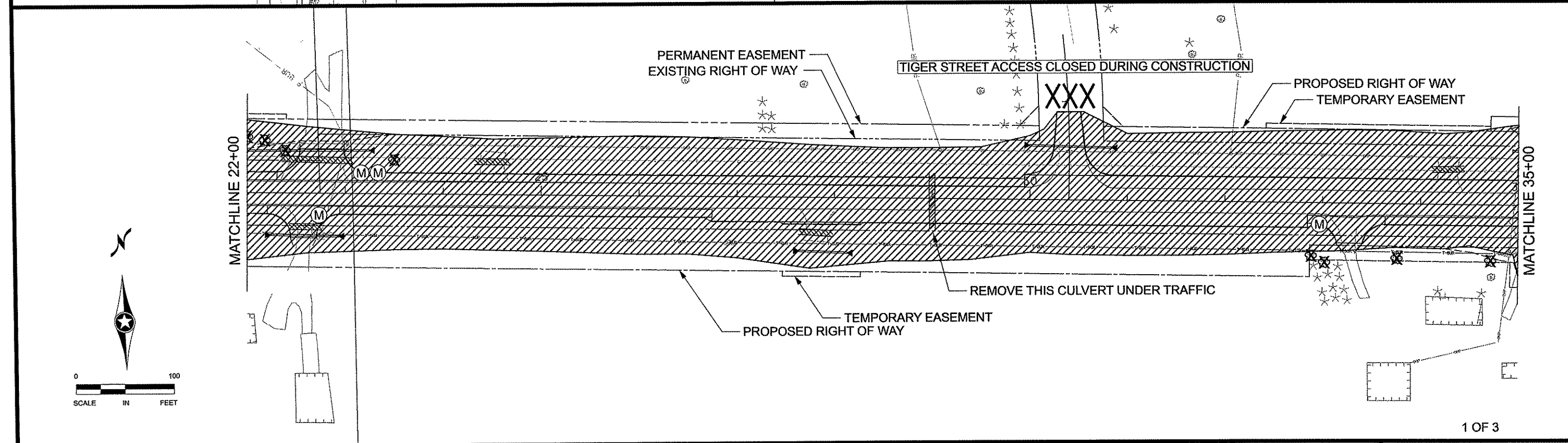
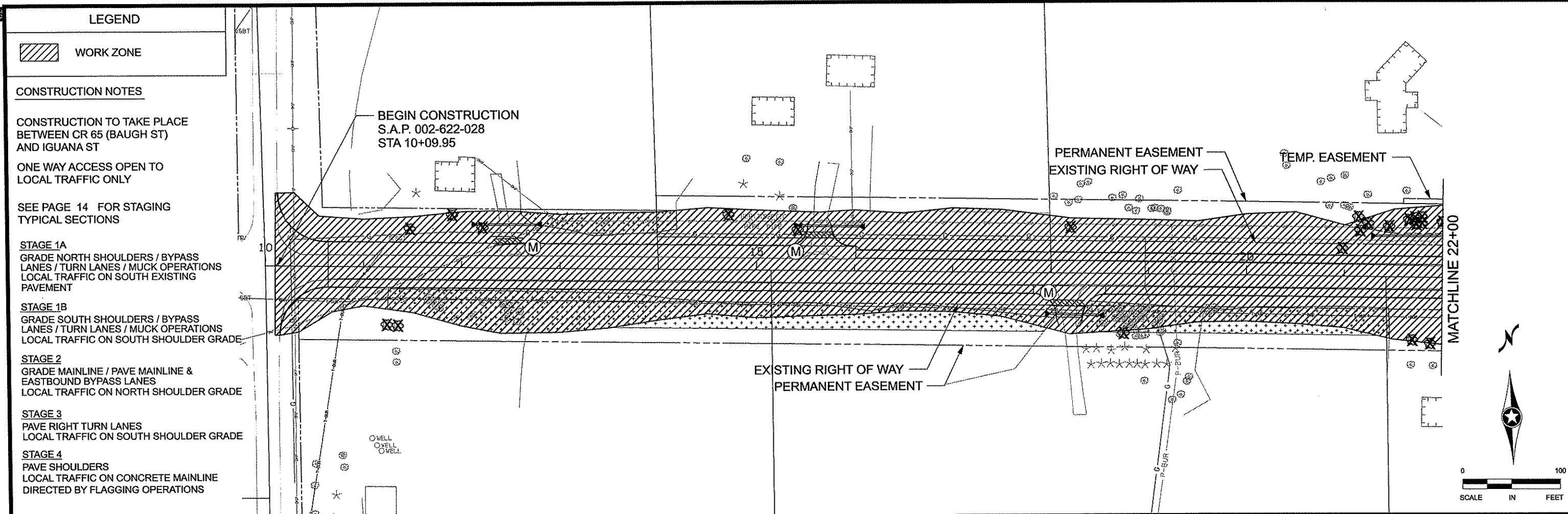
STA 10+00.00 TO 67+00.00

Sheet 19 of 139 Sheets



ALIGNMENT TABULATION										
POINT NUMBER	POINT	ALIGNMENT	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	E	N	
C C.S.A.H. 22 <22E_5B>										
5025	POT	C C.S.A.H. 22	10+00.000					439,805.8960	206,922.3812	
5026	POT		36+14.799					442,420.4220	206,884.5637	
5027	POT		62+16.445					445,021.6404	206,837.3974	
5028	POT		79+18.910					446,723.8069	206,805.5510	
5029	POT		82+78.968					447,083.6223	206,792.3179	
5030	POT		88+30.200					447,634.7570	206,782.0066	
5031	POT		93+76.317					448,180.8733	206,783.1410	
5032	POT		97+36.376					448,540.8590	206,790.3889	
5033	POT		99+00.252					448,704.7353	206,790.7293	
ALIGNMENT TABULATION										
POINT NUMBER	POINT	ALIGNMENT	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	E	N	
C TIGER ST <TIGER>										
		C TIGER ST								
90	POT		150+00.000					441,845.8035	206,892.8752	
	PC		150+44.054					441,846.4407	206,936.9250	N 0° 49' 43.28" E
TIGER-1	PI		151+05.907	6° 59' 49.80" LT	5° 39' 48.27"	1,011.684'	61.852'	441,847.3352	206,998.7707	PI
	OC							440,834.8628	206,951.5569	
	PT		151+67.605					441,840.6891	207,060.2647	N 6° 10' 06.52" W

ALIGNMENT TABULATION										
POINT NUMBER	POINT	ALIGNMENT	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	E	N	
C IGUANA ST <IGUANA>										
75	POT	C IGUANA ST	100+00.000					446,097.3156	206,817.2722	
76	POT		101+20.001					446,099.5604	206,937.2518	
ALIGNMENT TABULATION										
POINT NUMBER	POINT	ALIGNMENT	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	E	N	
C C.S.A.H. 5 <CSAH5>										
80	POT	C C.S.A.H. 5	150+00.000					447,636.9706	206,591.1009	
81	POT		154+15.014					447,633.4416	207,006.0998	



LEGEND

WORK ZONE

CONSTRUCTION NOTES

CONSTRUCTION TO TAKE PLACE
BETWEEN CR 65 (BAUGH ST)
AND IGUANA ST

ONE WAY ACCESS OPEN TO
LOCAL TRAFFIC ONLY

SEE PAGE 14 FOR STAGING
TYPICAL SECTIONS

STAGE 1A
GRADE NORTH SHOULDERS / BYPASS
LANES / TURN LANES / MUCK OPERATIONS
LOCAL TRAFFIC ON SOUTH EXISTING
PAVEMENT

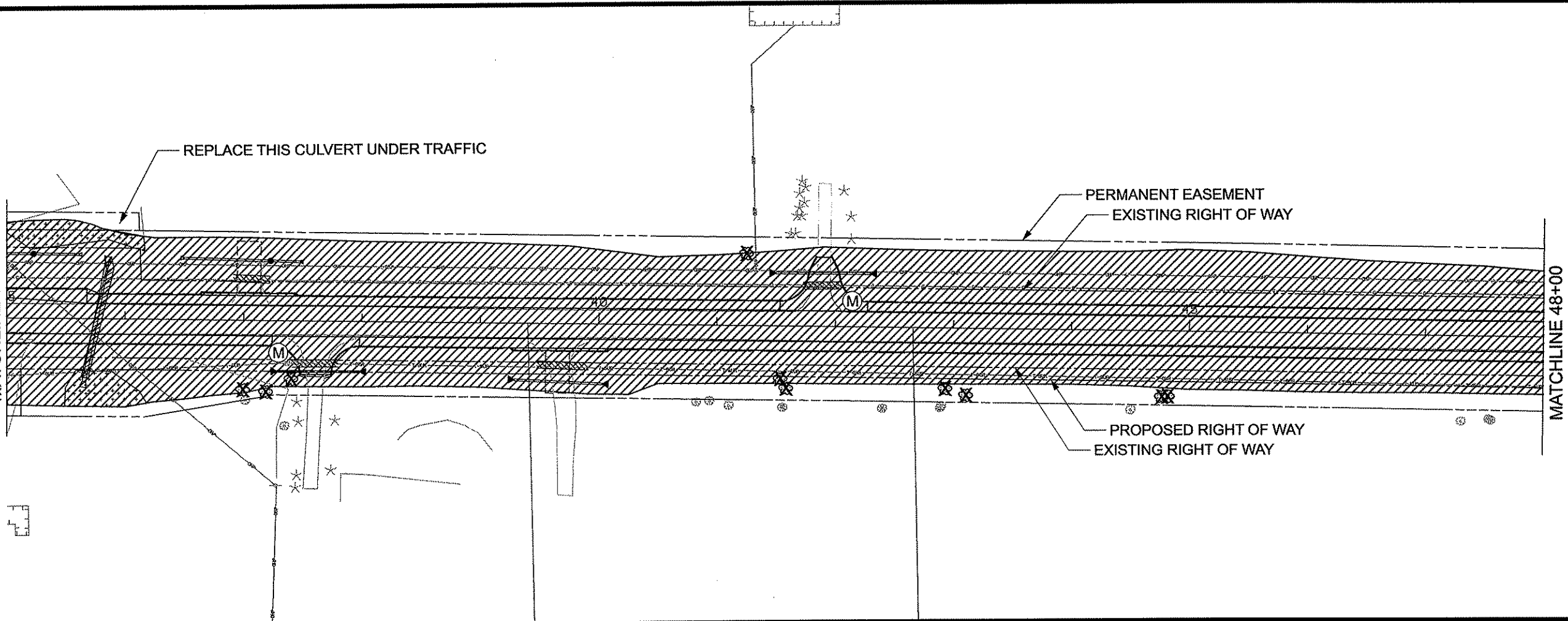
STAGE 1B
GRADE SOUTH SHOULDERS / BYPASS
LANES / TURN LANES / MUCK OPERATIONS
LOCAL TRAFFIC ON SOUTH SHOULDER GRADE

STAGE 2
GRADE MAINLINE / PAVE MAINLINE &
EASTBOUND BYPASS LANES
LOCAL TRAFFIC ON NORTH SHOULDER GRADE

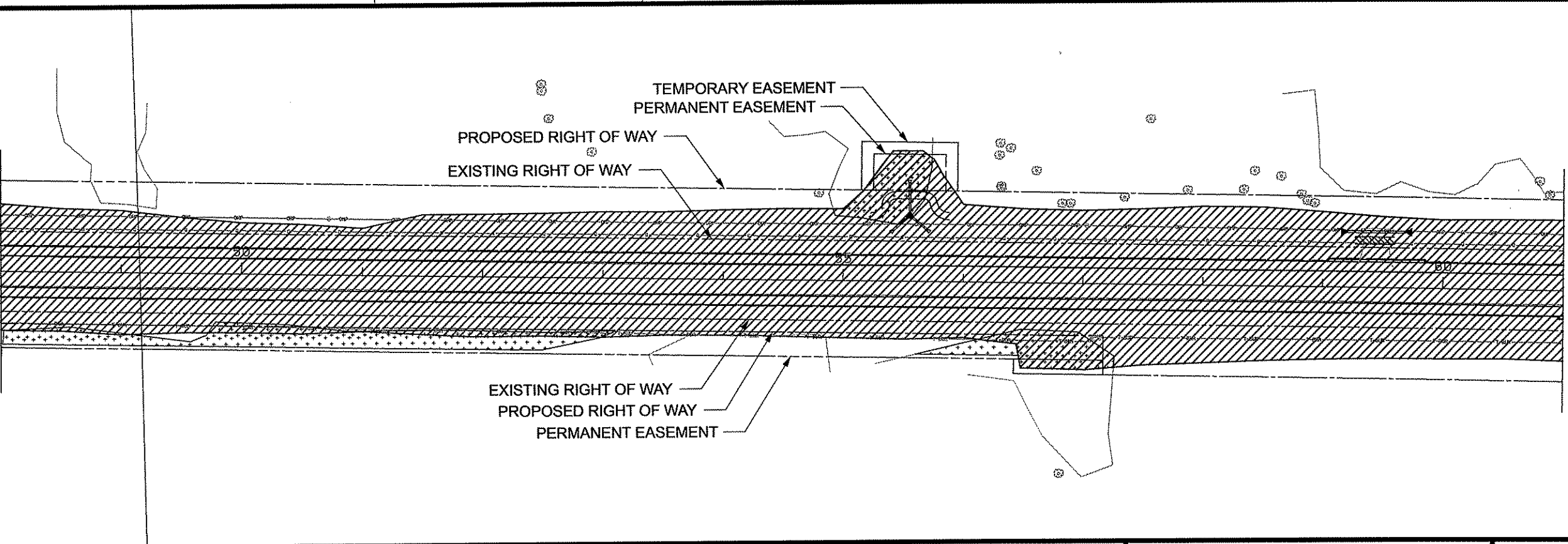
STAGE 3
PAVE RIGHT TURN LANES
LOCAL TRAFFIC ON SOUTH SHOULDER GRADE

STAGE 4
PAVE SHOULDERS
LOCAL TRAFFIC ON CONCRETE MAINLINE
DIRECTED BY FLAGGING OPERATIONS

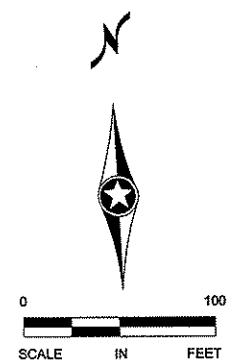
MATCHLINE 35+00



MATCHLINE 48+00



MATCHLINE 61+00



NO	DATE	BY	CHKD	APPR	REVISION
NAME: p:\02-622-28\plan\0262228_STG1_P2.dgn					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME
OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBIARCSIK
SIGNATURE: *[Signature]*
DATE: 6-8-12 LICENSE NO. 24756

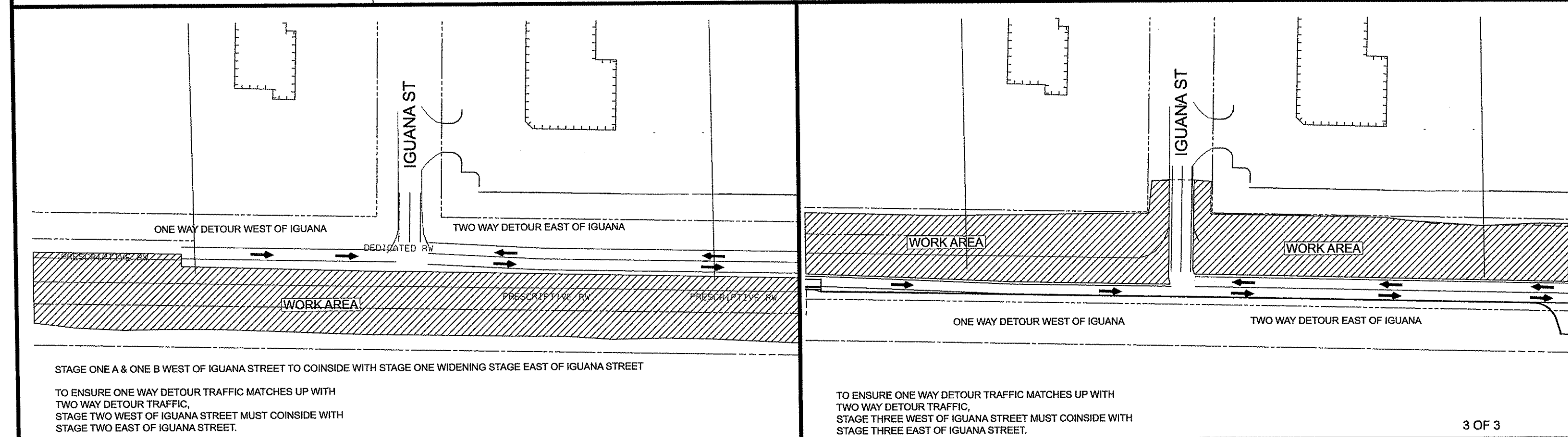
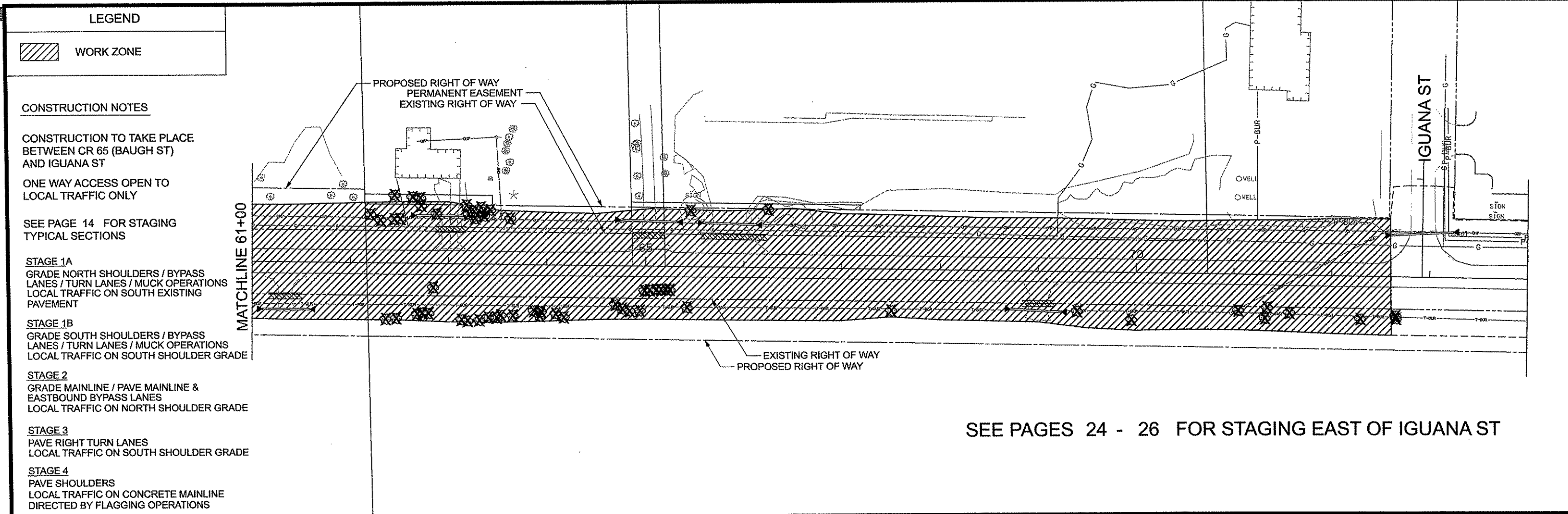
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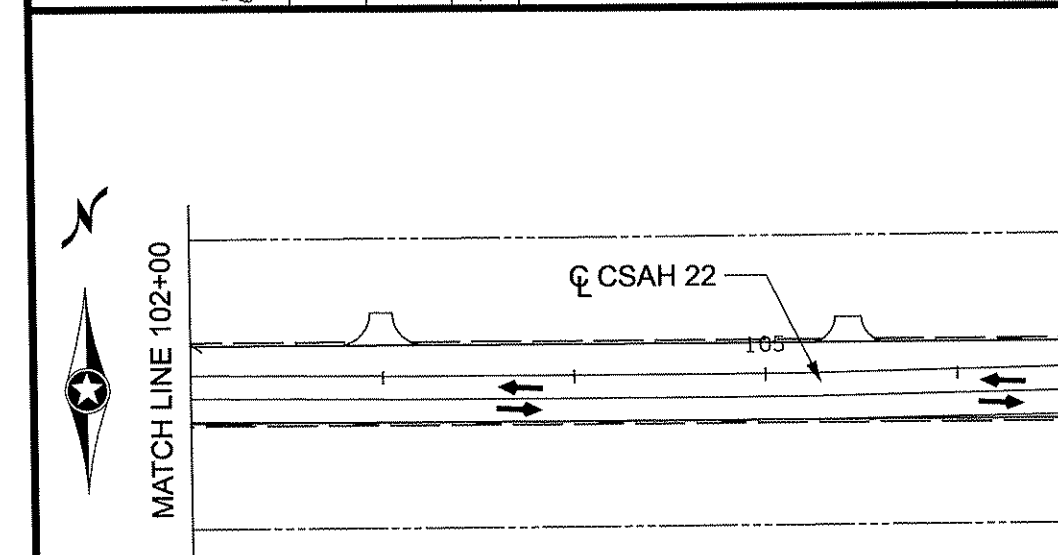
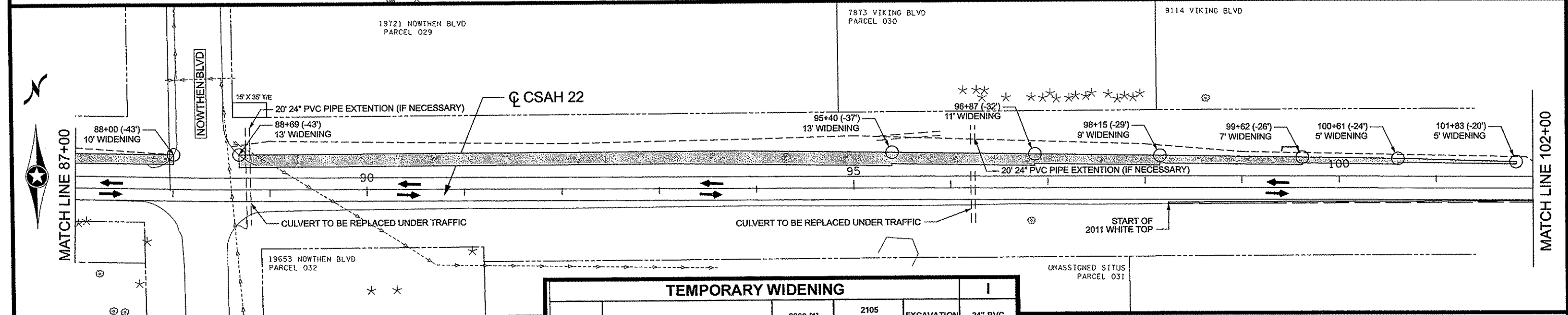
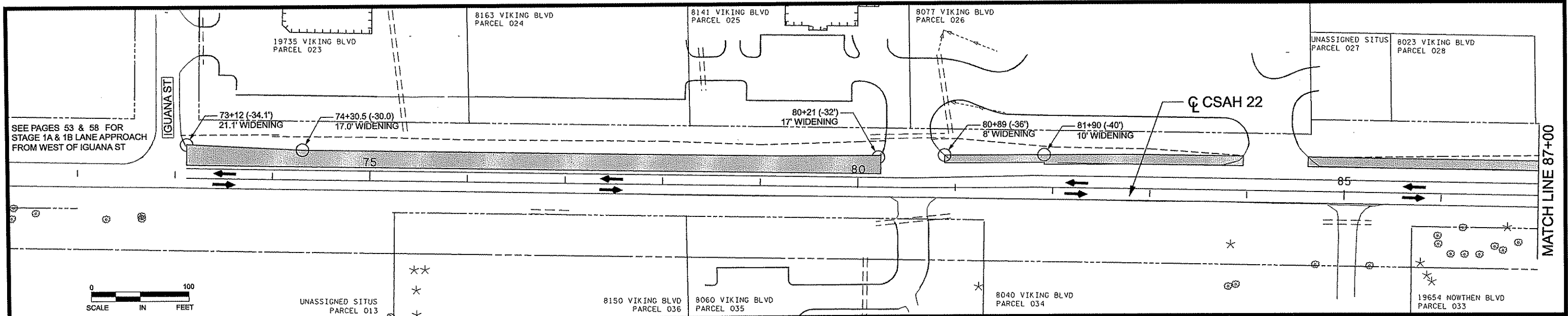


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028
-
-
-

STAGING PLAN
VIKING WEST OF IGUANA
STA 48+00.00 TO 61+00.00
Sheet 22 of 139 Sheets

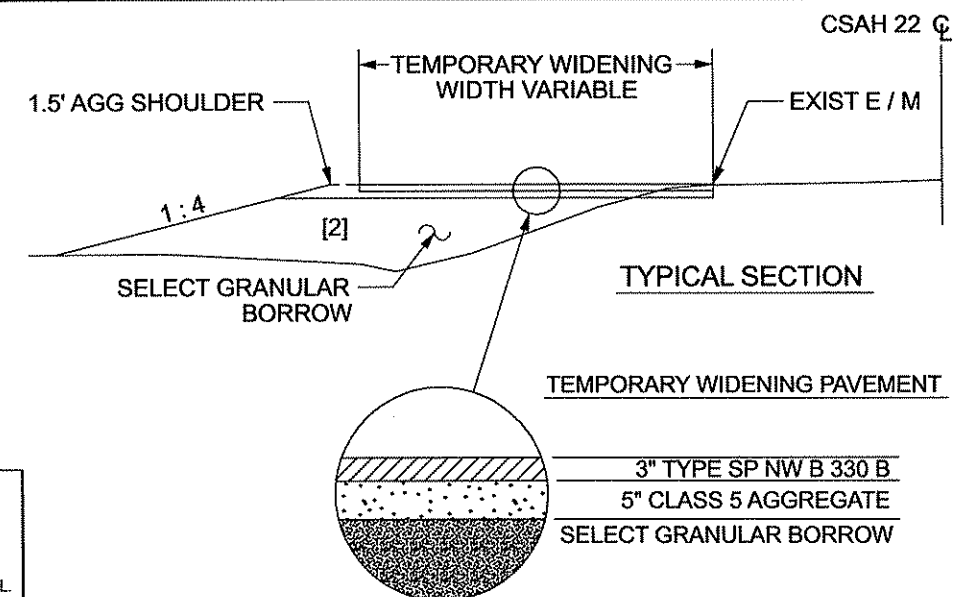




TEMPORARY WIDENING						
ALIGNMENT	STATION	TO	STATION	2360 [1] TYPE SP 12.5 NON - WEAR (3, B) TON	2105 SELECT GRANULAR BORROW [2] CU YD	EXCAVATION SPECIAL 1 [CV] [2] CU YD
STAGE 1 WIDENING						
EB	73+12	-	80+21	231	1707	1707
EB	80+89	-	81+90	16	26	26
EB	81+90	-	88+00	117	158	158
EB	88+69	-	95+40	43	547	547
EB	95+40	-	96+87	31	98	98
EB	96+87	-	98+15	22	43	43
EB	98+15	-	99+62	20	33	33
EB	99+62	-	100+61	10	11	11
EB	100+61	-	101+83	12	14	14
STAGE 2 WIDENING						
EB	93+76	-	97+37	56	80	80
EB	97+37	-	103+68	73	140	140
CULVERT PATCHING [3]						
EB	29+00 - 35-75	-	88+87 - 96+22	15		
PROJECT TOTAL				646	2857	2857

TEMPORARY WIDENING NOTES:

- [1] AGGREGATE BASE AND 1.5' SHOULDER INCIDENTAL
 [2] QUANTITY TO BE REMOVED AFTER STAGE 1 AND REUSED ALONG PROJECT AT ENGINEER'S DISCRETION
 REMOVAL OF TEMPORARY BITUMINOUS AND RE-PLACEMENT OF BORROW MATERIAL INCIDENTAL TO EXCAVATION SPECIAL
 [3] ASSUMED 24' WIDTH X 36' LENGTH X 3" DEPTH VOLUME FOR PATCHING QUANTITY



NO	DATE	BY	CKD	APPR	REVISION
1	06/07/2012				

NAME: p:\02-622-28\plan\0262228_E-STG1_P1.dgn 1:49:18 PM

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: CURT A. KOBLARCSIK
 SIGNATURE: *Curt A. Koblarczik*
 DATE: 6-8-12 LICENSE NO. 24758

DRAWN BY: NJD DATE: DATE
 DESIGN BY: NJD DATE: DATE
 CHECKED BY: JEO DATE: DATE

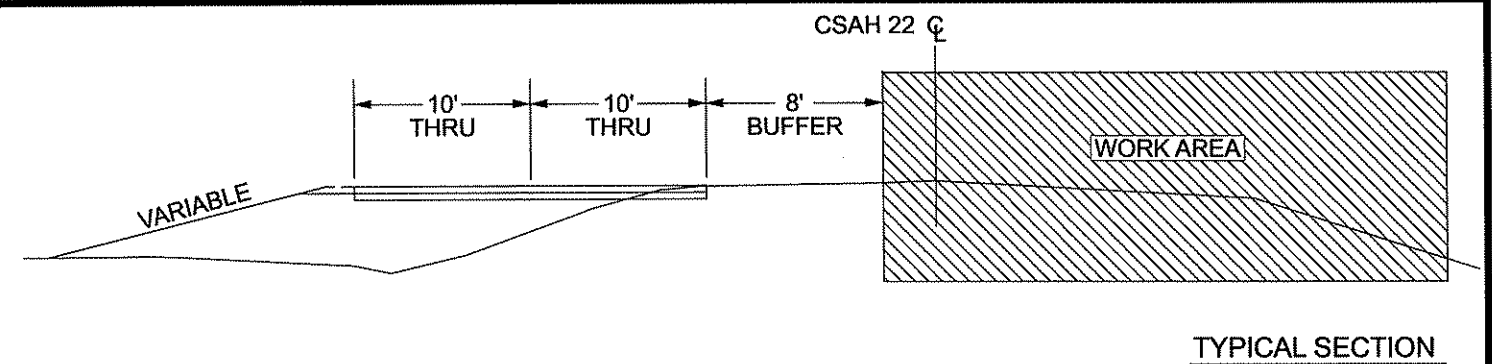
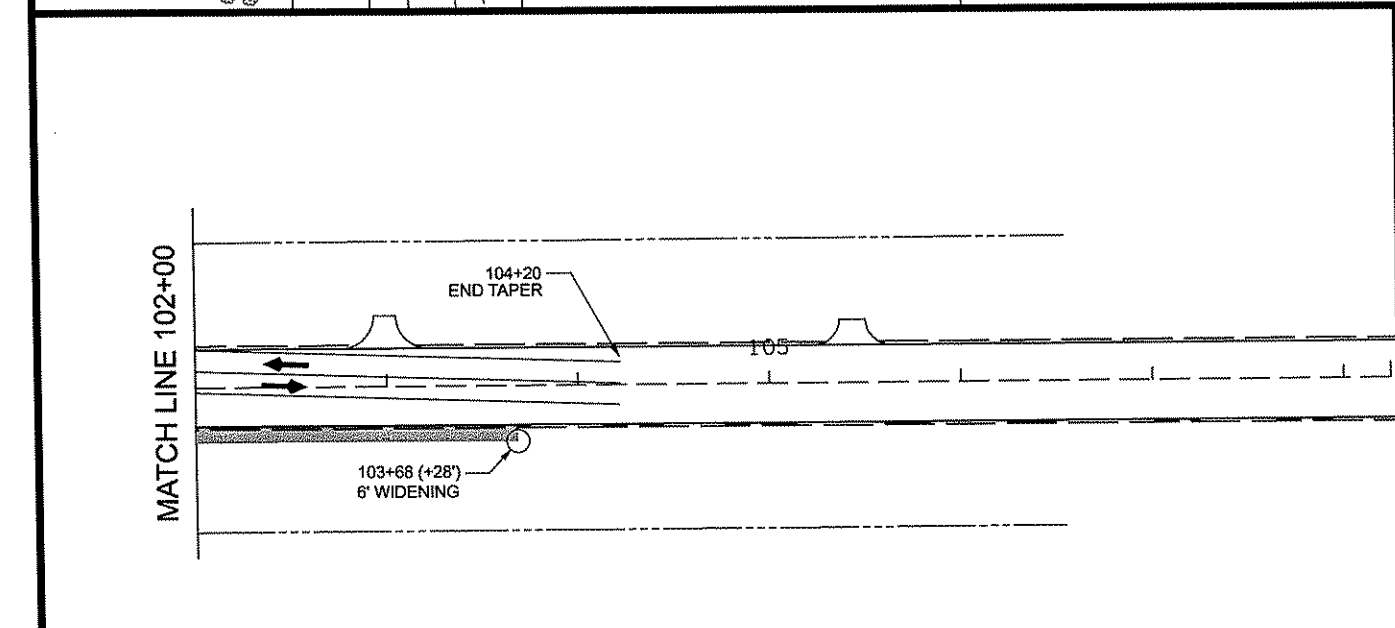
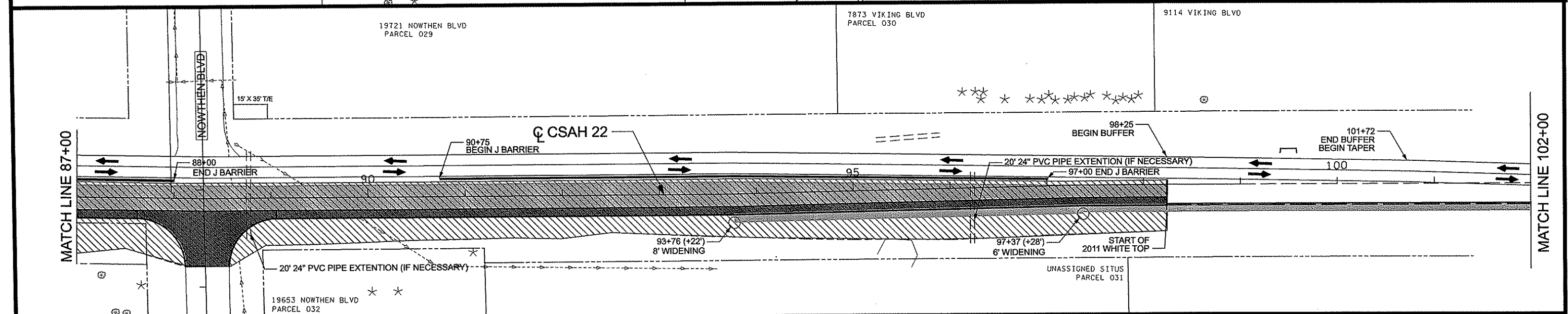
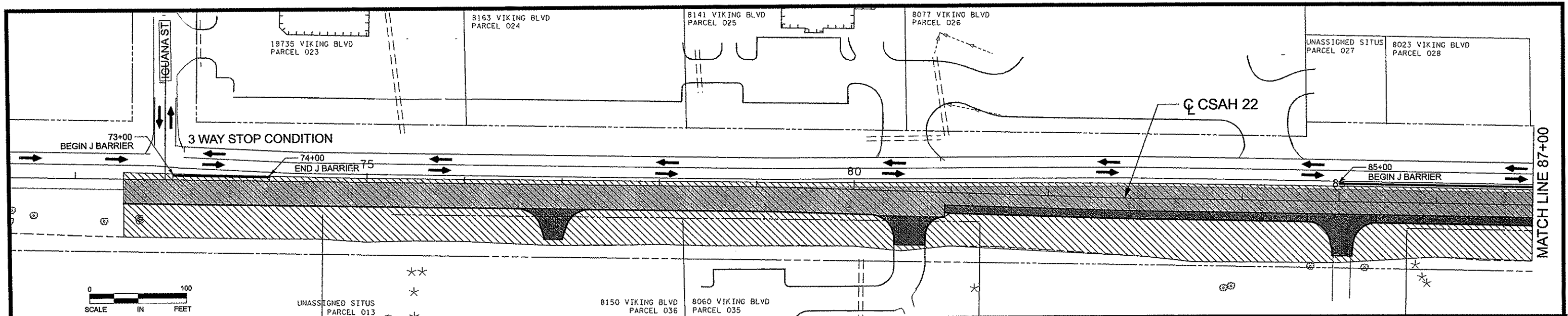


ANOKA COUNTY
 HIGHWAY DEPT.

S.A.P. 002-622-028

STAGE 1
 TEMPORARY WIDENING
 EAST OF IGUANA ST.

Sheet 24 of 139 Sheets



J BARRIER NOTES

PORTABLE J BARRIER MUST BE PLACED BETWEEN THROUGH TRAFFIC AND CONSTRUCTION BASED ON LATERAL OFFSET AND DROP OFF GUIDELINES AS OUTLINED IN THE MN MUTCD SECTION 6F.81

THE J BARRIER RANGES SHOWN IN THE PLAN ARE ESTIMATES BASED ON PROFILE DIFFERENCE BETWEEN THE EXISTING AND PROPOSED GRADE

NO	DATE	BY	CKD	APPR	REVISION
1	06/07/2012				
NAME: p:\02-622-28\plan\0262228_E-STG2_P1.dgn					

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

PRINT NAME: CURT A. KOBIARCSIK

SIGNATURE: *Curt A. Kobiarsik*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: DATE

DESIGN BY: NJD DATE: DATE

CHECKED BY: JEO DATE: DATE

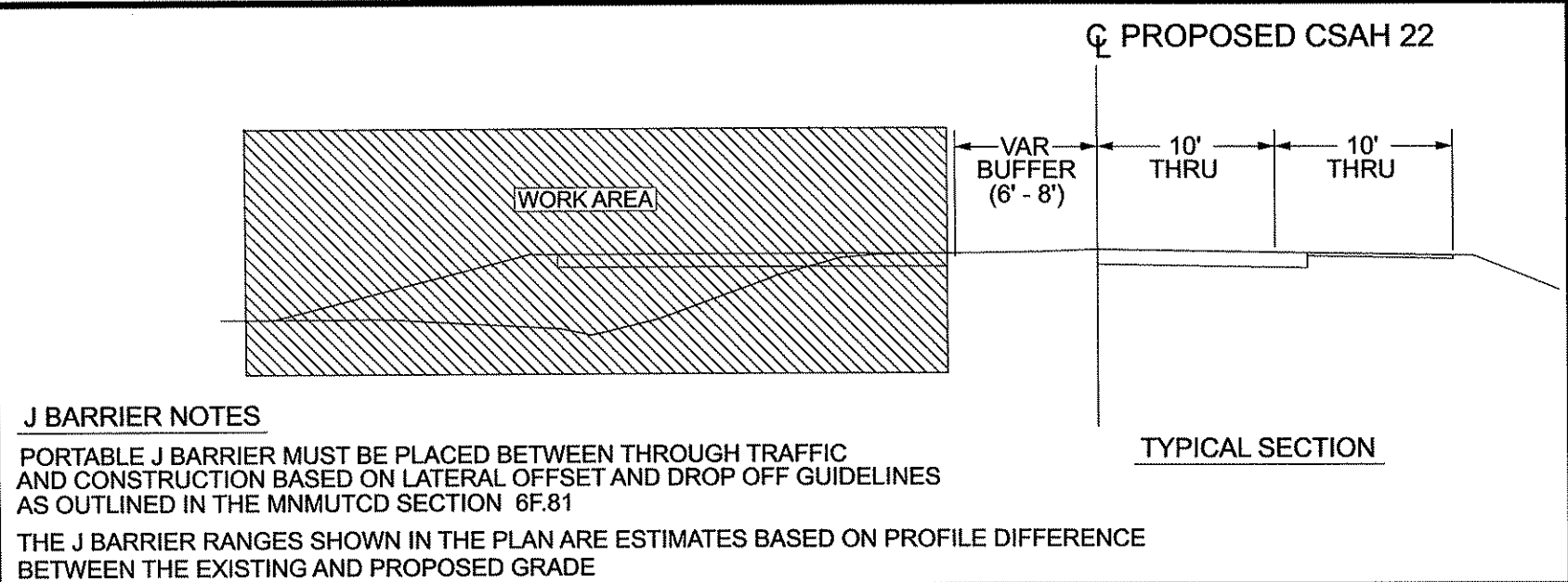
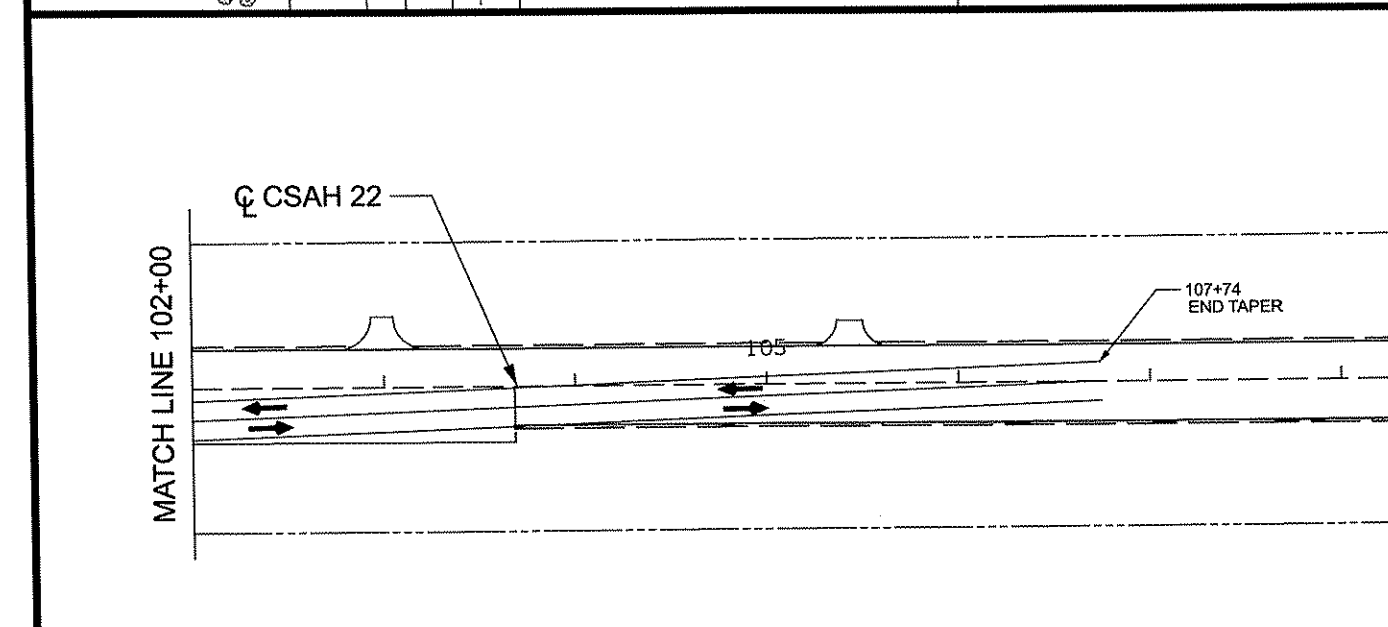
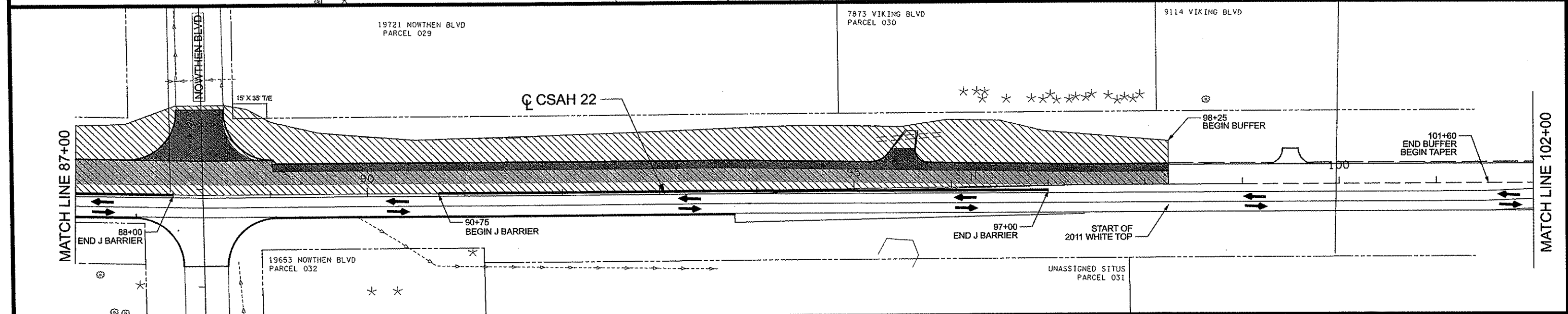
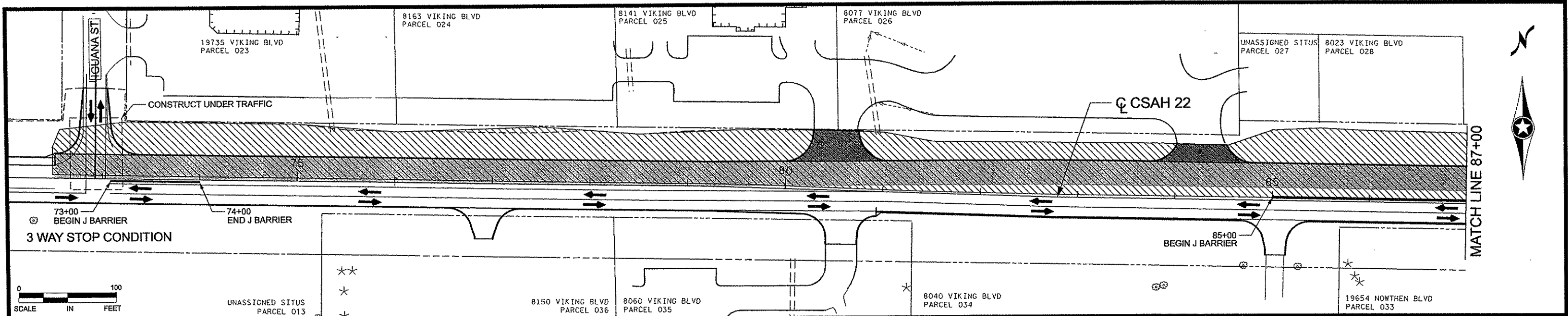


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

STAGE 2
EAST OF IGUANA ST.

Sheet 25 of 139 Sheets

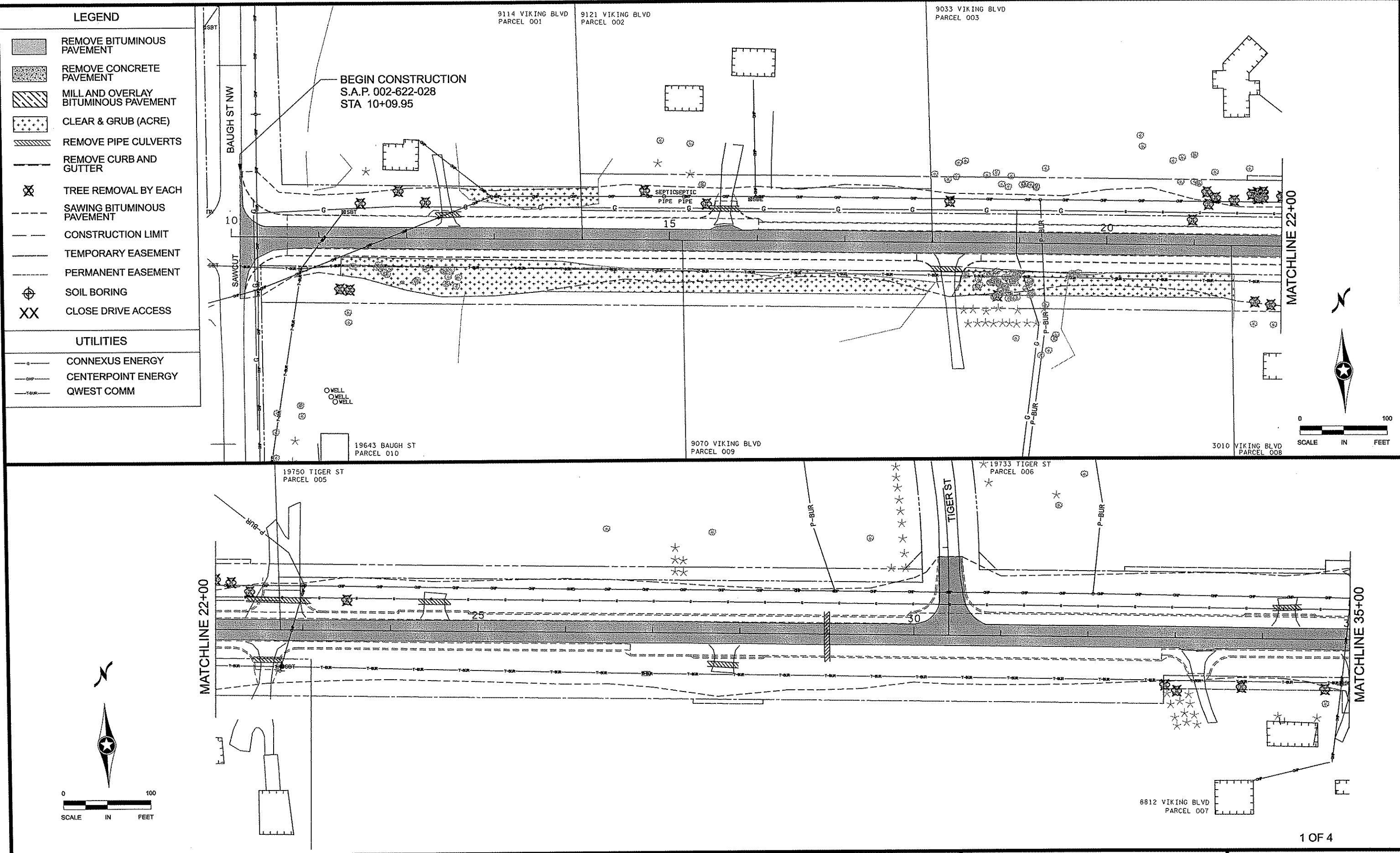


J BARRIER NOTES

PORTABLE J BARRIER MUST BE PLACED BETWEEN THROUGH TRAFFIC AND CONSTRUCTION BASED ON LATERAL OFFSET AND DROP OFF GUIDELINES AS OUTLINED IN THE MNMUTCD SECTION 6F.81

THE J BARRIER RANGES SHOWN IN THE PLAN ARE ESTIMATES BASED ON PROFILE DIFFERENCE BETWEEN THE EXISTING AND PROPOSED GRADE

NO. DATE BY CKD APPR NAME: p:\02-622-28\plan\0262228_E-STG3_P1.dgn					REVISION 06/07/2012 1:49:26 PM		I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>[Signature]</i> DATE: 6-8-12 LICENSE NO. 24756		DRAWN BY: NJD DATE: _____ DESIGN BY: NJD DATE: _____ CHECKED BY: JEO DATE: _____		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		STAGE 3 EAST OF IGUANA ST. Sheet 26 of 139 Sheets	
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LEGEND

REMOVE BITUMINOUS PAVEMENT

REMOVE CONCRETE PAVEMENT

MILL AND OVERLAY BITUMINOUS PAVEMENT

CLEAR & GRUB (ACRE)

REMOVE PIPE CULVERTS

REMOVE CURB AND GUTTER

TREE REMOVAL BY EACH

SAWING BITUMINOUS PAVEMENT

CONSTRUCTION LIMIT

TEMPORARY EASEMENT

PERMANENT EASEMENT

SOIL BORING

XX

CLOSE DRIVE ACCESS

UTILITIES

CONNEXUS ENERGY

CENTERPOINT ENERGY

QWEST COMM

NO	DATE	BY	CKD	APPR	REVISION
NAME: p102-622-28\plan\0262228_REM_P1.dgn					

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

PRINT NAME: CURT A. KOBIARCSIK

SIGNATURE: *[Signature]*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: _____

DESIGN BY: NJD DATE: _____

CHECKED BY: JEO DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

-

-

-

REMOVAL PLAN

STA 10+00.00 TO 35+00.00

Sheet 27 of 139 Sheets

LEGEND

REMOVE BITUMINOUS PAVEMENT

REMOVE CONCRETE PAVEMENT

MILL AND OVERLAY BITUMINOUS PAVEMENT

CLEAR & GRUB (ACRE)

REMOVE PIPE CULVERTS

REMOVE CURB AND GUTTER

TREE REMOVAL BY EACH

SAWING BITUMINOUS PAVEMENT

CONSTRUCTION LIMIT

TEMPORARY EASEMENT

PERMANENT EASEMENT

SOIL BORING

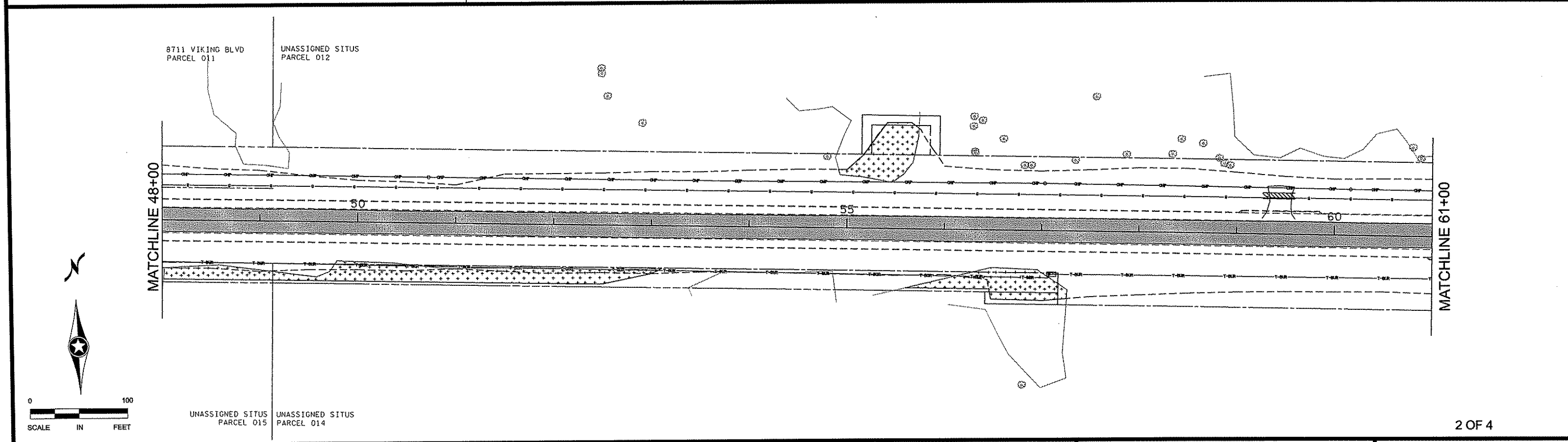
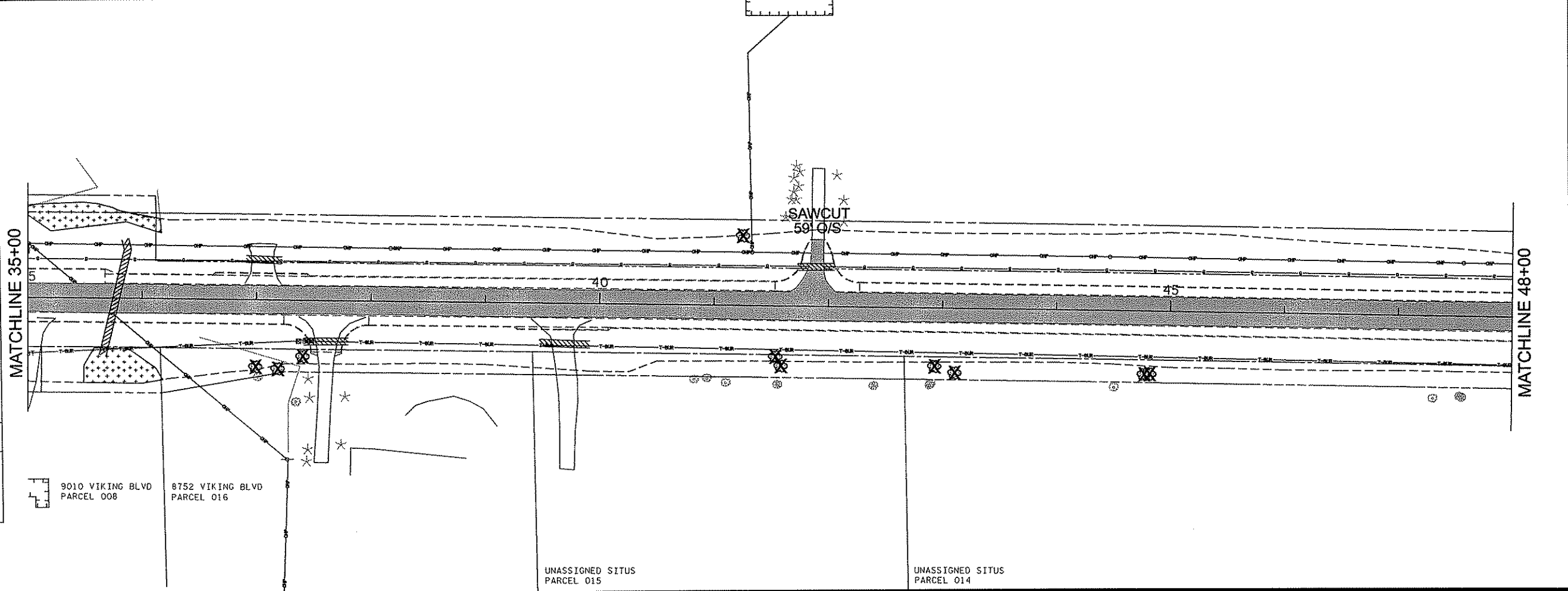
CLOSE DRIVE ACCESS

UTILITIES

CONNEXUS ENERGY

CENTERPOINT ENERGY

QWEST COMM



NO	DATE	BY	CKD	APPR	REVISION

NAME: p102-622-28\plan10262228_REM_P2.dgn

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

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12

LICENSE NO. 24756

DRAWN BY: NJD

DESIGN BY: NJD

CHECKED BY: JEO

DATE:

ANOKA COUNTY

HIGHWAY DEPT.

S.A.P. 002-622-028

REMOVAL PLAN

STA 48+00.00 TO 61+00.00

Sheet 28 of 139 Sheets

2 OF 4

LEGEND

REMOVE BITUMINOUS PAVEMENT

REMOVE CONCRETE PAVEMENT

MILL AND OVERLAY BITUMINOUS PAVEMENT

CLEAR & GRUB (ACRE)

REMOVE PIPE CULVERTS

REMOVE CURB AND GUTTER

TREE REMOVAL BY EACH

SAWING BITUMINOUS PAVEMENT

CONSTRUCTION LIMIT

TEMPORARY EASEMENT

PERMANENT EASEMENT

SOIL BORING

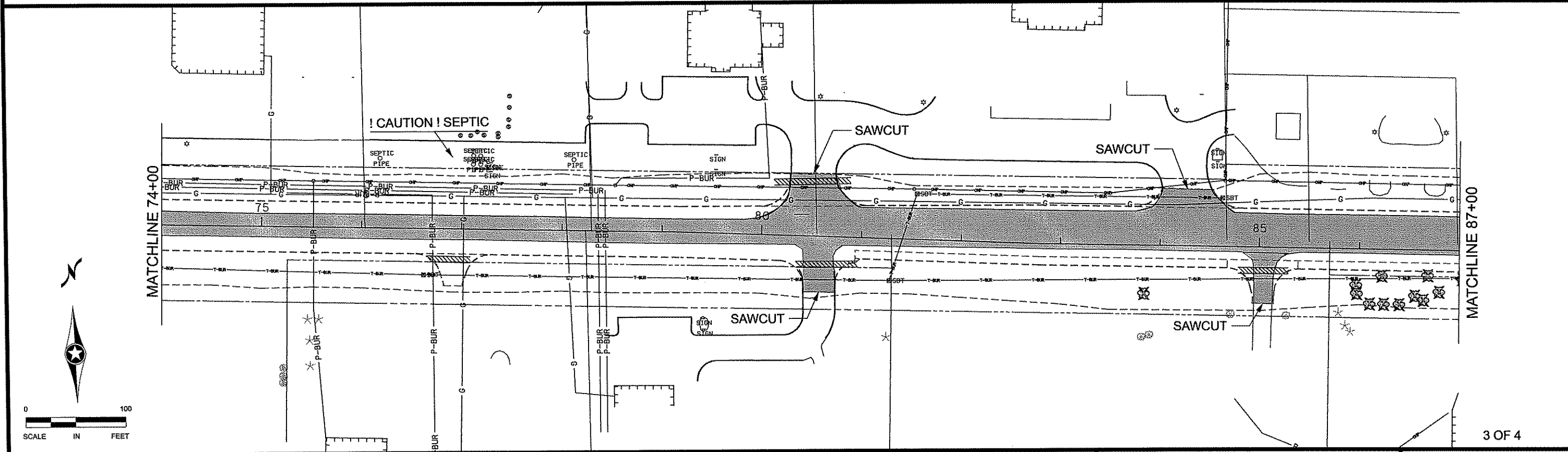
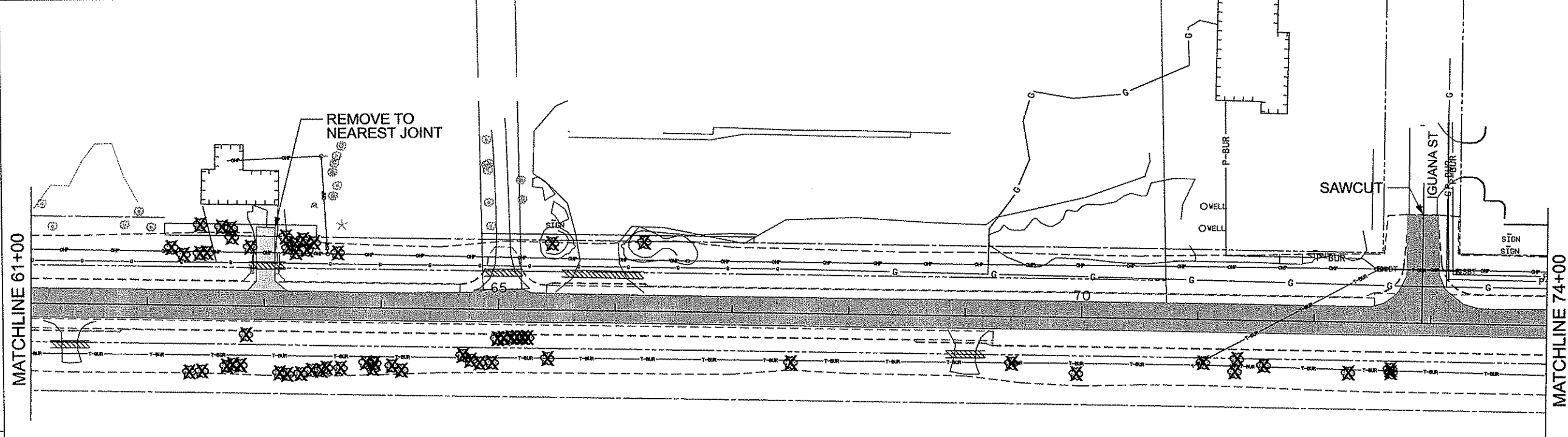
CLOSE DRIVE ACCESS

UTILITIES

CONNEXUS ENERGY

CENTERPOINT ENERGY

QWEST COMM



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NO	DATE	BY	CKD	APPR																						

LEGEND

REMOVE BITUMINOUS PAVEMENT

REMOVE CONCRETE PAVEMENT

MILL AND OVERLAY BITUMINOUS PAVEMENT

CLEAR & GRUB (ACRE)

REMOVE PIPE CULVERTS

REMOVE CURB AND GUTTER

TREE REMOVAL BY EACH

SAWING BITUMINOUS PAVEMENT

CONSTRUCTION LIMIT

TEMPORARY EASEMENT

PERMANENT EASEMENT

SOIL BORING

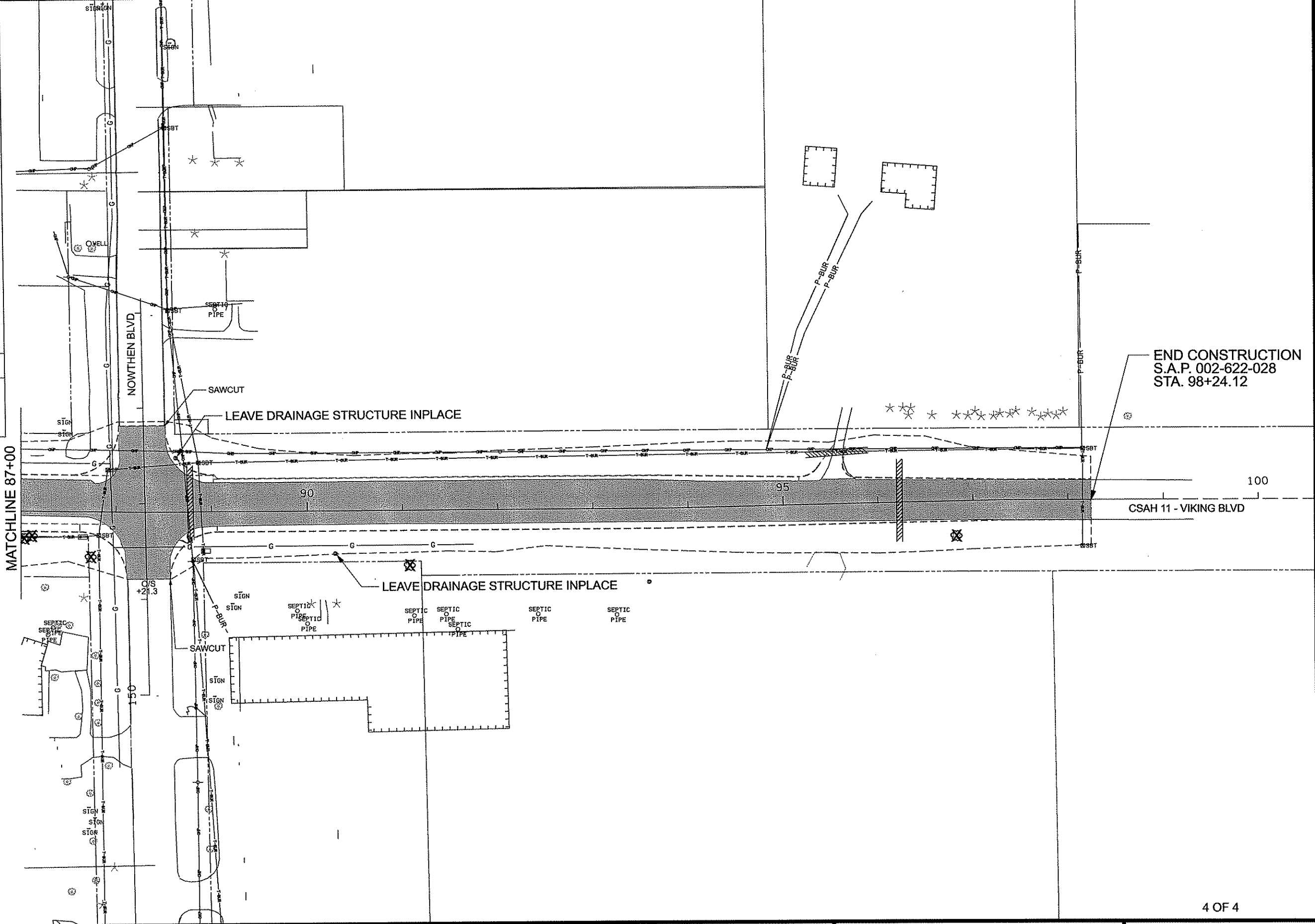
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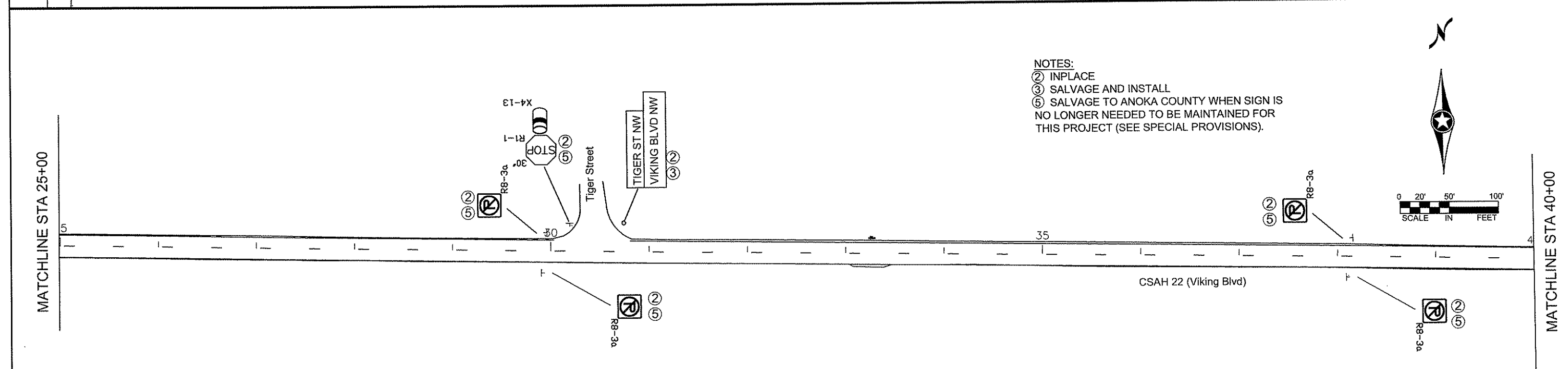
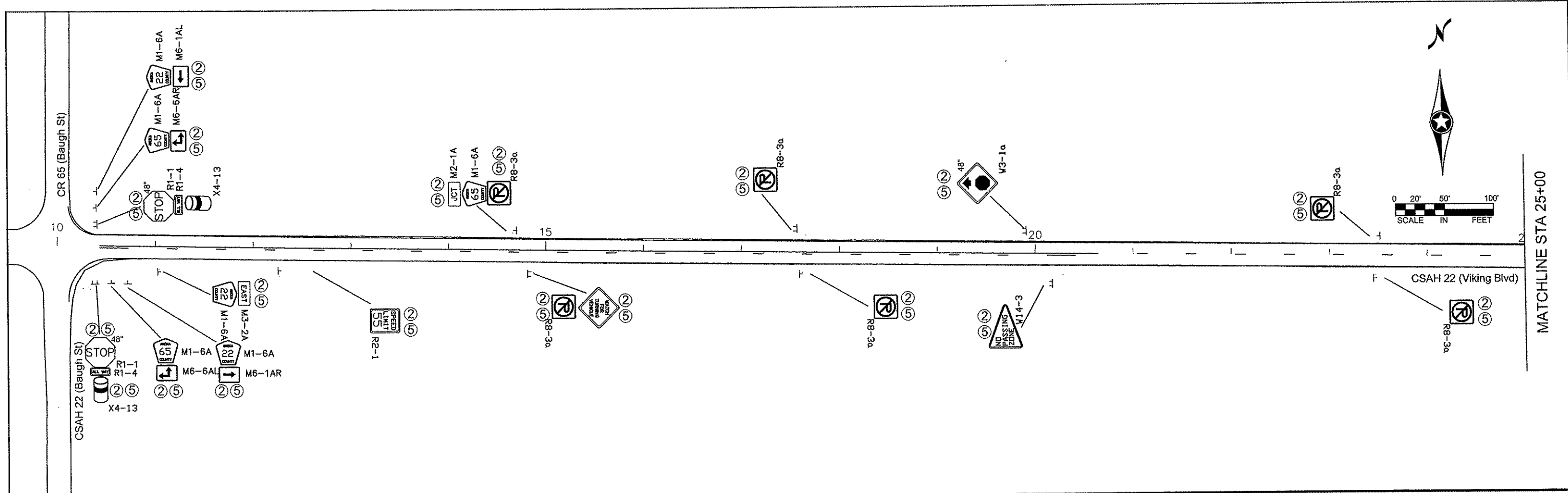
UTILITIES

CONNEXUS ENERGY

CENTERPOINT ENERGY

QWEST COMM





NOTES:
 ② INPLACE
 ③ SALVAGE AND INSTALL
 ⑤ SALVAGE TO ANOKA COUNTY WHEN SIGN IS NO LONGER NEEDED TO BE MAINTAINED FOR THIS PROJECT (SEE SPECIAL PROVISIONS).

NO	DATE	BY	CHKD	APPR	REVISION

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

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarscik*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: MTH DATE 08/19/11

DESIGN BY: MTH DATE 08/15/11

CHECKED BY: JR DATE 02/23/12

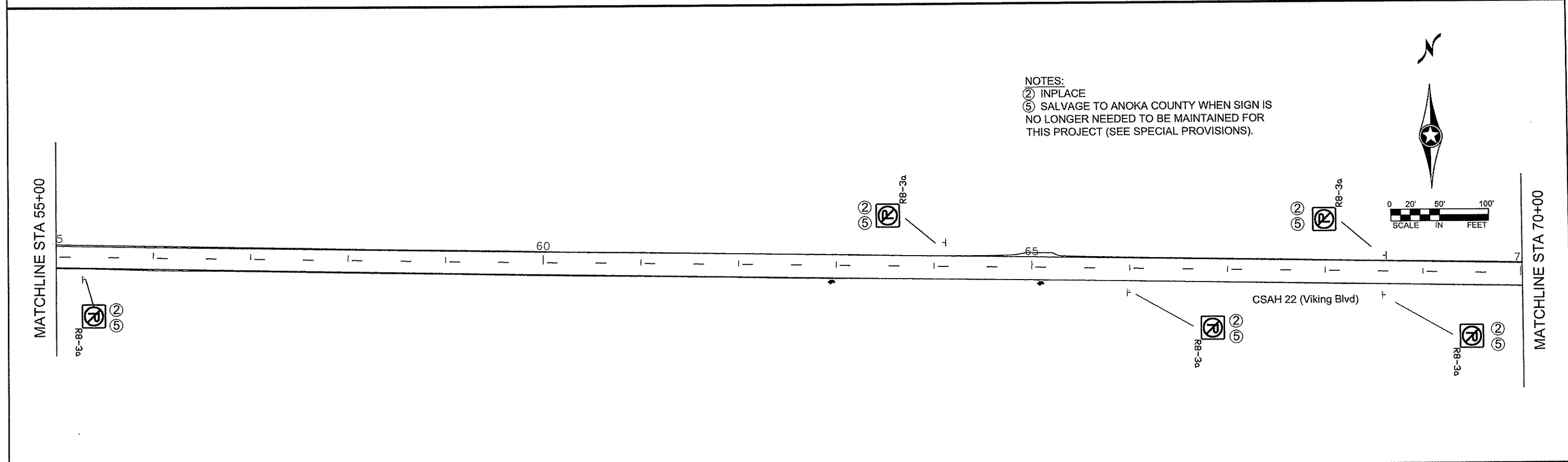
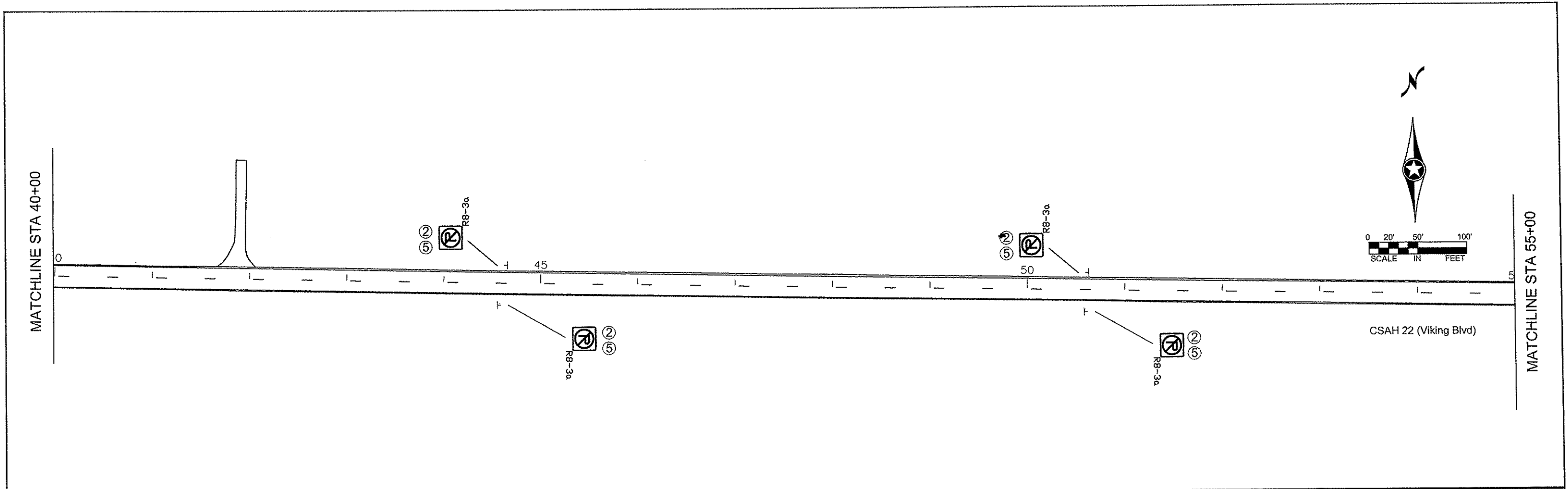


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

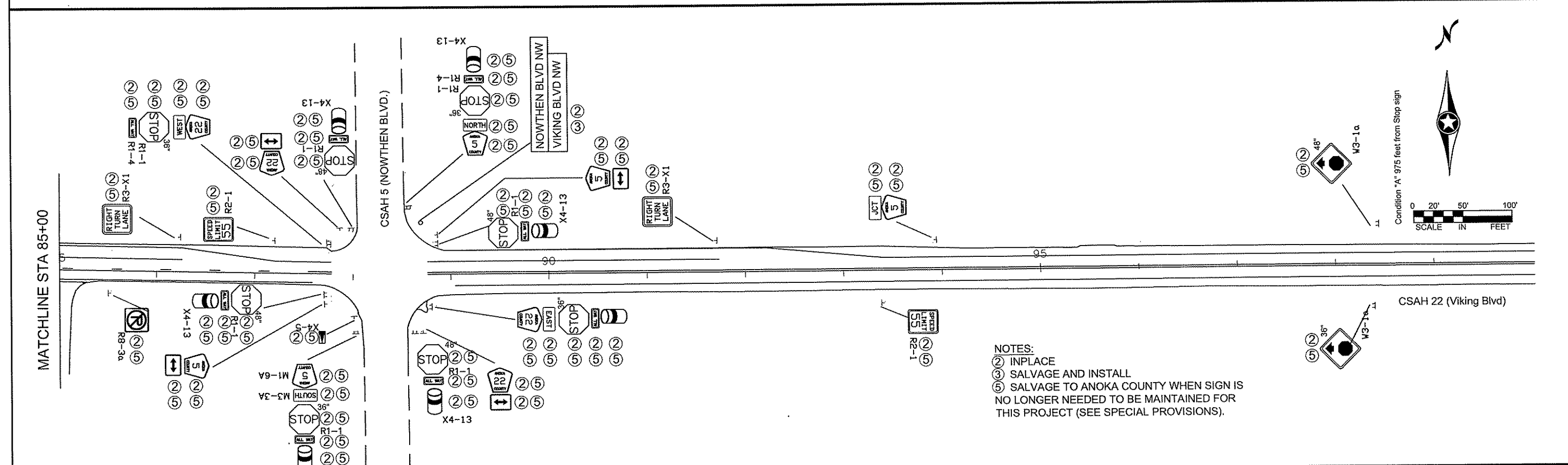
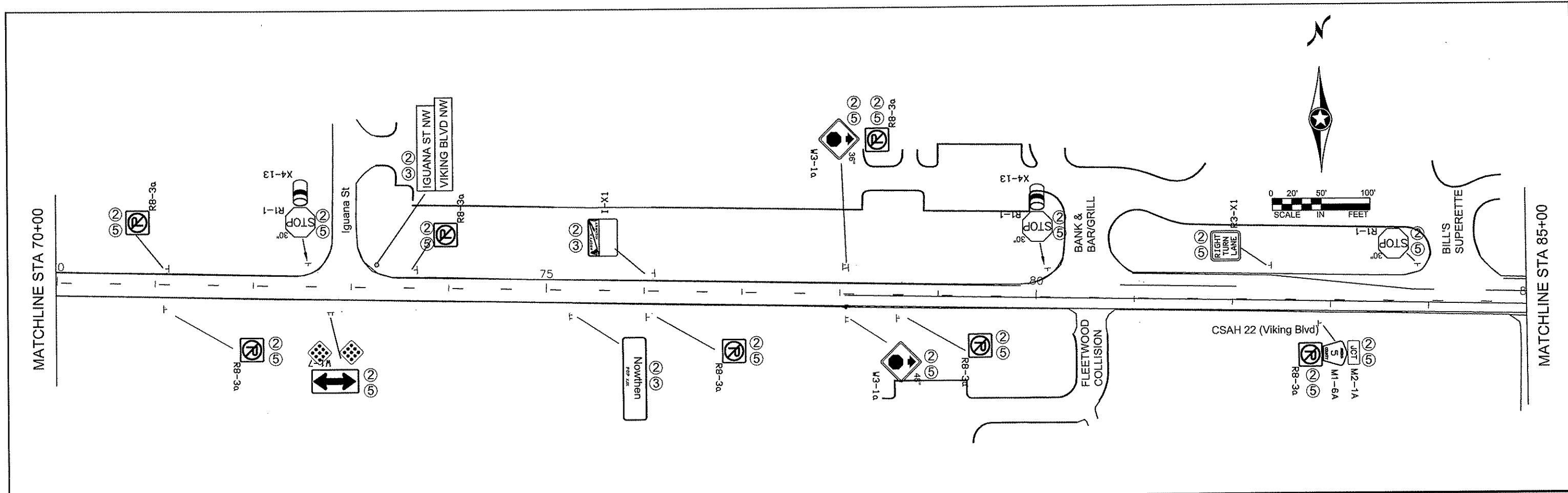
EXISTING SIGNING AND
STRIPING PLAN
STA 10+00 TO 40+00

Sheet 31 of 139 Sheets



NOTES:
 (2) INPLACE
 (5) SALVAGE TO ANOKA COUNTY WHEN SIGN IS
 NO LONGER NEEDED TO BE MAINTAINED FOR
 THIS PROJECT (SEE SPECIAL PROVISIONS).

<table border="1"> <tr> <th>NO</th> <th>DATE</th> <th>BY</th> <th>CHKD</th> <th>APPR</th> <th>REVISION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>					NO	DATE	BY	CHKD	APPR	REVISION																			I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 LICENSE NO. 24756		DRAWN BY: MTH DATE 08/19/11 DESIGN BY: MTH DATE 08/15/11 CHECKED BY: JR DATE 02/23/12		 ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		EXISTING SIGNING AND STRIPING PLAN STA 40+00 TO 70+00 Sheet 32 of 139 Sheets	
NO	DATE	BY	CHKD	APPR	REVISION																																	



NOTES:
 ② INPLACE
 ③ SALVAGE AND INSTALL
 ⑤ SALVAGE TO ANOKA COUNTY WHEN SIGN IS NO LONGER NEEDED TO BE MAINTAINED FOR THIS PROJECT (SEE SPECIAL PROVISIONS).

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>BY</th> <th>CHKD</th> <th>APPR</th> <th>REVISION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>					NO	DATE	BY	CHKD	APPR	REVISION																									I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 LICENSE NO. 24758		DRAWN BY: MTH DATE 08/19/11 DESIGN BY: MTH DATE 08/15/11 CHECKED BY: JR DATE 02/23/12		 ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028 EXISTING SIGNING AND STRIPING PLAN STA 70+00 TO 99+00 Sheet 33 of 139 Sheets	
NO	DATE	BY	CHKD	APPR	REVISION																																					

SIGN REMOVAL TABULATION									
STATION	ADDRESS/ DESCRIPTION (NOTES)	SALVAGE SIGN TYPE C	SALVAGE SIGN TYPE D	SALVAGE SIGN TYPE SPECIAL	INSTALL SIGN TYPE C	INSTALL SIGN TYPE D	INSTALL SIGN TYPE SPECIAL	SIGN NUMBER	SIGN LEGEND
		EACH	EACH	EACH	EACH	EACH	EACH		
CSAH 22 (Viking Blvd) from CR 65 (Baugh Street) to 800 feet east of CSAH 5 (Nowthen Blvd)									
10+30		1						R1-1 48"	ALL WAY
								x4-13 delineator	
10+33		1						M1-6A 65	
								M6-6AR UP/LT ARROW	
10+36		1						M1-6A 22	
								M6-1AL RIGHT ARROW	
10+30		1						R1-1 48"	
								R1-4 ALL WAY	
								x4-13 delineator	
10+30		1						M1-6A 65	
								M6-6AR UP/RT ARROW	
10+30		1						M1-6A 22	
								M6-1AL LEFT ARROW	
11+00		1						M3-2A EAST	
								M1-6A 22	
12+30		1						R2-1 55 MPH	
								M2-1A JCT	
14+60		1						M1-6A 65	
								P8-3a No Parking	
14+70		1						WX-X Watch for Turning Vehicles	
								R8-3a No Parking	
17+60		1						R8-3a No Parking	
17+60		1						R8-3a No Parking	
20+00		1						W3-1 Stop Ahead	
20+00		1						W14-3 No Passing	
23+50		1						R8-3a No Parking	
23+50		1						R8-3a No Parking	
30+00		1						R8-3a No Parking	
30+00		1						R8-3a No Parking	
30+20		1						R1-1 30"	
								x4-13 delineator	
30+75	1			1			1		Tiger St
38+20		1						R8-3a No Parking	
38+20		1						R8-3a No Parking	
44+40		1						R8-3a No Parking	
44+40		1						R8-3a No Parking	
50+50		1						R8-3a No Parking	
50+50		1						R8-3a No Parking	
55+10		1						R8-3a No Parking	
64+15		1						R8-3a No Parking	
66+10		1						R8-3a No Parking	
68+60		1						R8-3a No Parking	
68+60		1						R8-3a No Parking	
71+10		1						R8-3a No Parking	
71+10		1						R8-3a No Parking	
72+60		1						R1-1 30"	
								x4-13 delineator	
63+20	1			1			1		Iguana Street
								W1-7 Double Arrow	
62+80		1						x4-11 9 button	
								x4-11 9 button	
63+70		1						R8-3a No Parking	
75+20			1			1		I2-3a "Nowthen"	
76+05		1						R8-3a No Parking	
76+10		1				1			Adopt a Hwy
78+05		1						W3-1 36"	
								R8-3a No Parking	
78+05		1						W3-1 48"	
78+55		1						R8-3a No Parking	

SIGN REMOVAL TABULATION									
STATION	ADDRESS/ DESCRIPTION (NOTES)	SALVAGE SIGN TYPE C	SALVAGE SIGN TYPE D	SALVAGE SIGN TYPE SPECIAL	INSTALL SIGN TYPE C	INSTALL SIGN TYPE D	INSTALL SIGN TYPE SPECIAL	SIGN NUMBER	SIGN LEGEND
		EACH	EACH	EACH	EACH	EACH	EACH		
CSAH 22 (Viking Blvd) from CR 65 (Baugh Street) to 800 feet east of CSAH 5 (Nowthen Blvd)									
80+10		1						R1-1 x4-13	30" delineator
82+45		1						R3-x1 M2-1A	Right turn lane JCT
82+90		1						M1-6A R8-3a	5 No Parking
83+95		1						R1-1	30"
85+50		1						R8-3a	No Parking
86+25		1						R3-x1	Right turn lane
87+20		1						R2-1 R1-1	55 mph 36"
87+75		1						R1-4 M3-4a M1-6a	ALL WAY WEST 22
87+75		1						R1-1	48"
87+75		1						R1-4 x4-13 M1-6a	ALL WAY delineator 5
87+75		1						M6-4a	Left/Right
88+65	1			1			1		Nowthen Blvd/Viking Blvd
88+80		1						R1-1 R1-4 x4-13 M3-2a M1-6a	36" ALL WAY delineator EAST 22
88+85		1						R1-1 R1-4 x4-13	48" ALL WAY delineator
88+85		1						M1-6a M6-4a	5 Left/Right
91+70		1						R3-x1	Right turn lane
93+40		1						R2-1 M2-1a	55 mph JCT
94+00		1						M1-6a	5
98+50		1						W3-1	36"
98+50		1						W3-1	48"
CSAH 5 (Nowthen Blvd) at CSAH 22 (Viking Blvd)									
88+00		1						x4-5 R1-1	Plow Up 36"
88+00		1						R1-4 x4-13 M3-3a M1-6a	ALL WAY delineator SOUTH 5
88+00		1						R1-1	48"
88+00		1						R1-4 x4-13 M1-6a	ALL WAY delineator 22
88+00		1						M6-4a	Left/Right
88+60		1						R1-1 R1-4 x4-13 M3-1a M1-6a	36" ALL WAY delineator NORTH 5
88+60		1						R1-1	48"
88+60		1						R1-4 x4-13	ALL WAY delineator
88+63		1						M1-6a	22
88+63		1						M6-4a	Left/Right
TOTAL		65	1		3	1	1	3	

CONSTRUCTION NOTES:
1. FOR RELOCATING TRAFFIC SIGNS DURING CONSTRUCTION, AS DIRECTED BY THE ENGINEER. RELOCATION INCIDENTAL TO TRAFFIC CONTROL.

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\02-622-28\Bases\TRAFFIC\7-25\Existing Signing & Striping.dwg					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBILARCSIK
SIGNATURE: 
DATE: 6-8-12 LICENSE NO. 24758

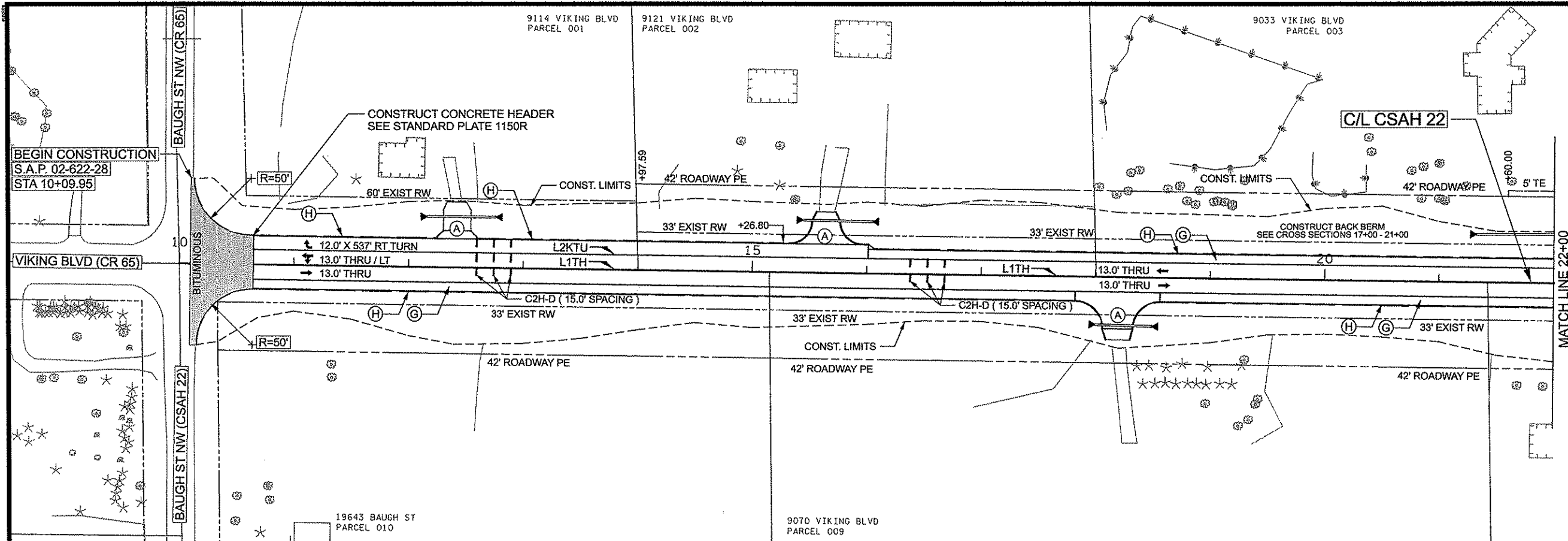
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DESIGN BY: MTH DATE 08/15/11
CHECKED BY: JR DATE 02/23/12



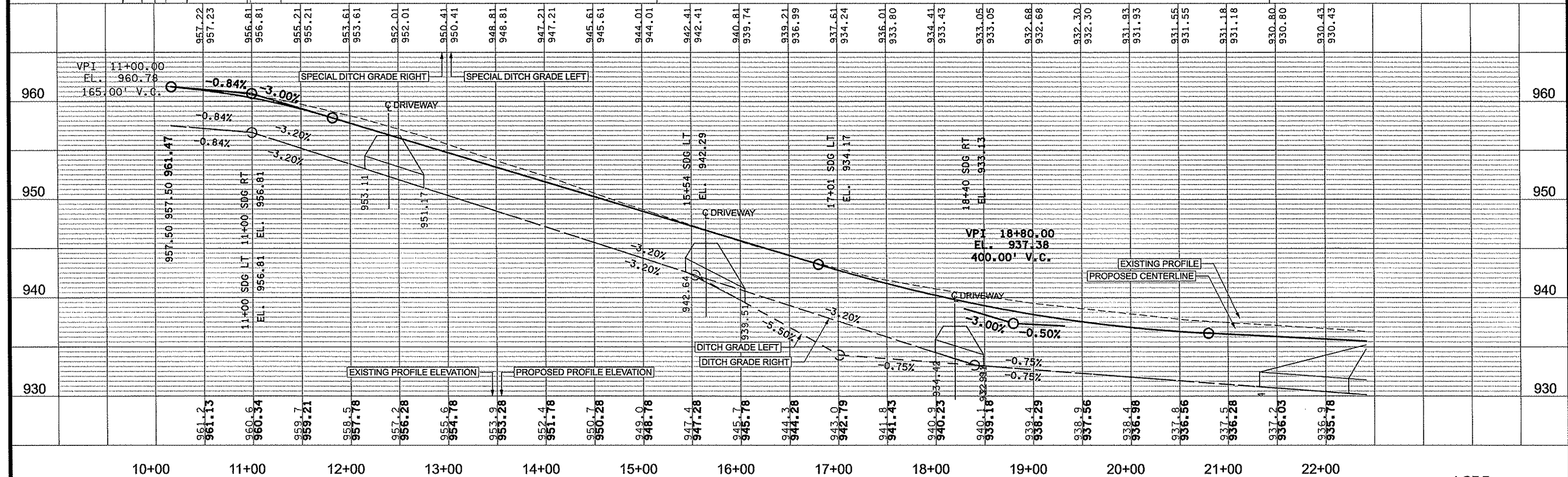
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

SIGN REMOVAL
TABULATION
STA 10+00 TO 99+00
Sheet 34 of 139 Sheets



- CONSTRUCTION NOTES:**
- (A) AGGREGATE DRIVEWAY
SEE PAGE 15 FOR DETAILS
 - (B) BITUMINOUS DRIVEWAY
SEE PAGE 15 FOR DETAILS
 - (C) CONCRETE DRIVEWAY
SEE PAGE 15 FOR DETAILS
 - (D) BLANK
 - (F) FIELD ENTRANCE
 - (G) 8.0' BITUMINOUS SHOULDER
 - (H) 0.5' AGGREGATE SHOULDER
- ALL DIMENSIONS ARE MEASURED BETWEEN JOINTS UNLESS OTHERWISE NOTED. SEE SIGNING & STRIPING PLAN FOR STRIPED LANE WIDTHS

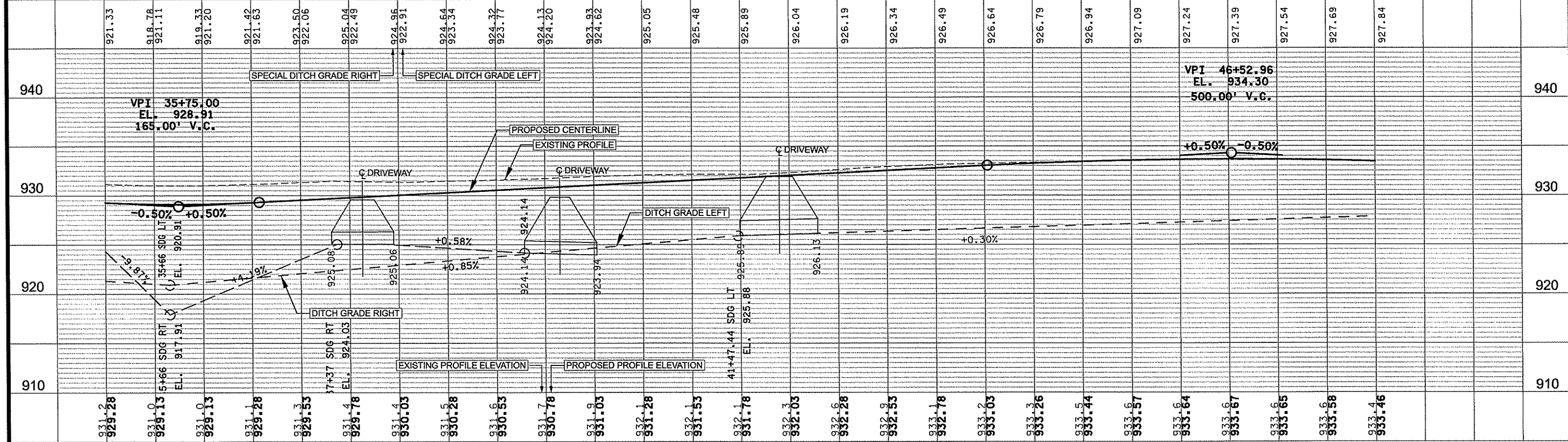
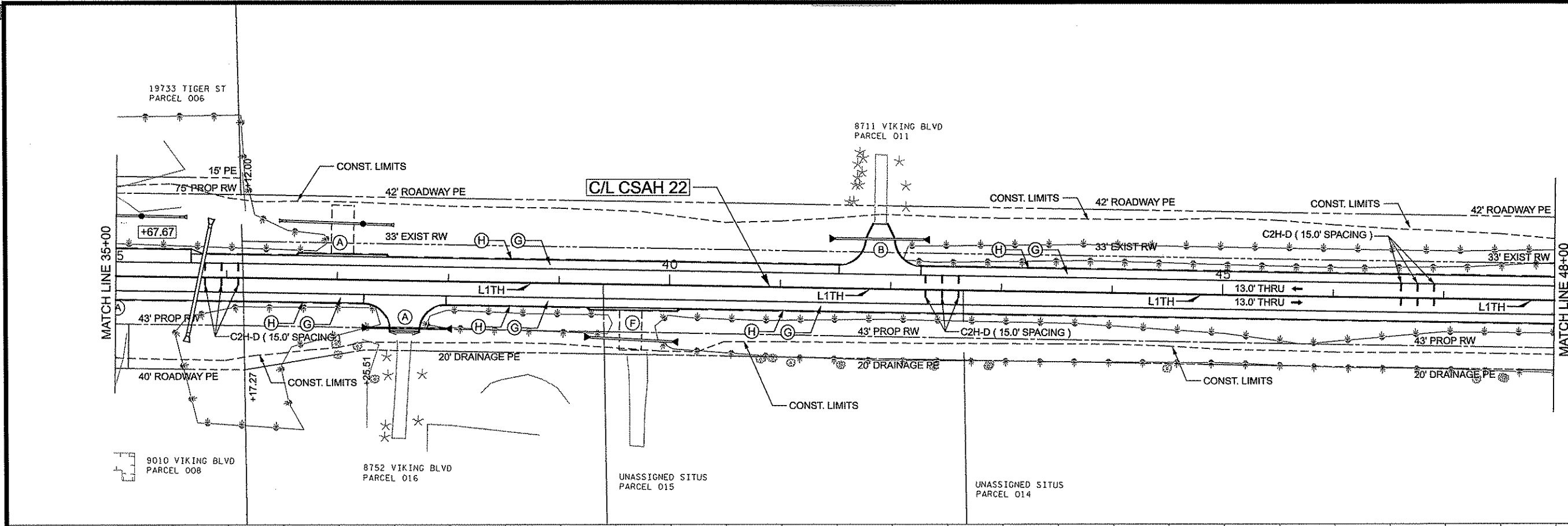
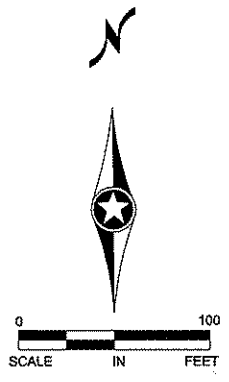


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NO. DATE BY CKD APPR REVISION NAME: P:\02-622-28\Plant\0262228_PP1.dgn 06/07/2012 2:04:52 PM												

CONSTRUCTION NOTES:

- (A) AGGREGATE DRIVEWAY
SEE PAGE 15 FOR DETAILS
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35+00	36+00	37+00	38+00	39+00	40+00	41+00	42+00	43+00	44+00	45+00	46+00	47+00	48+00	
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NO	DATE	BY	CKD	APPR

NAME: P:\02-622-28\Plan\0262228_PP3.dgn

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

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: _____

DESIGN BY: NJD DATE: _____

CHECKED BY: JEO DATE: _____

ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

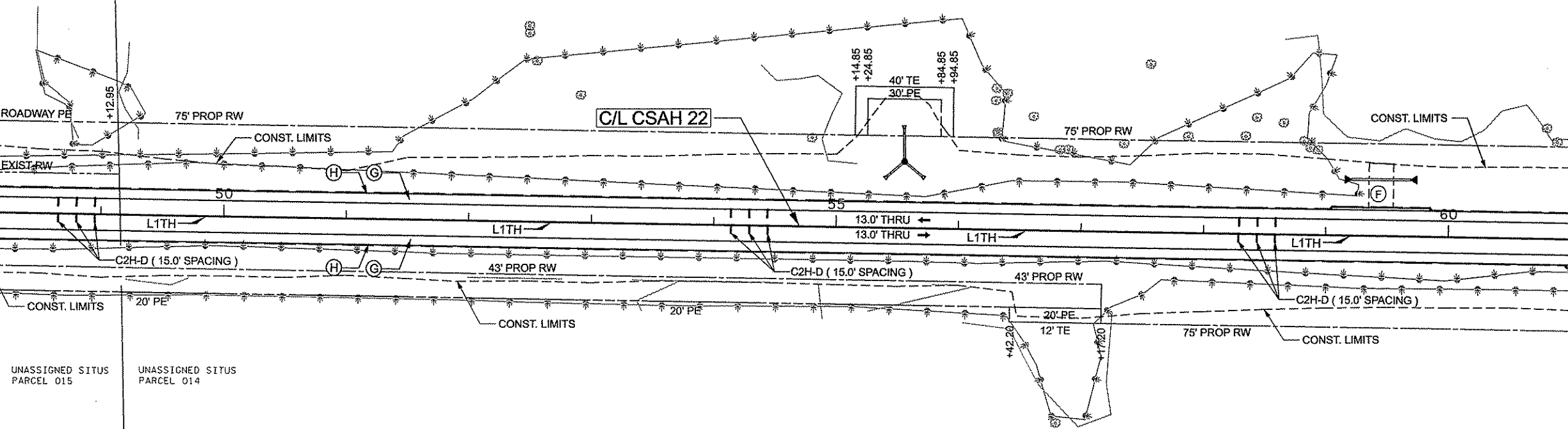
CONSTRUCTION PLAN

STA 35+00.00 TO 48+00.00

Sheet 37 of 139 Sheets

8711 VIKING BLVD
PARCEL 011

UNASSIGNED SITUS
PARCEL 012



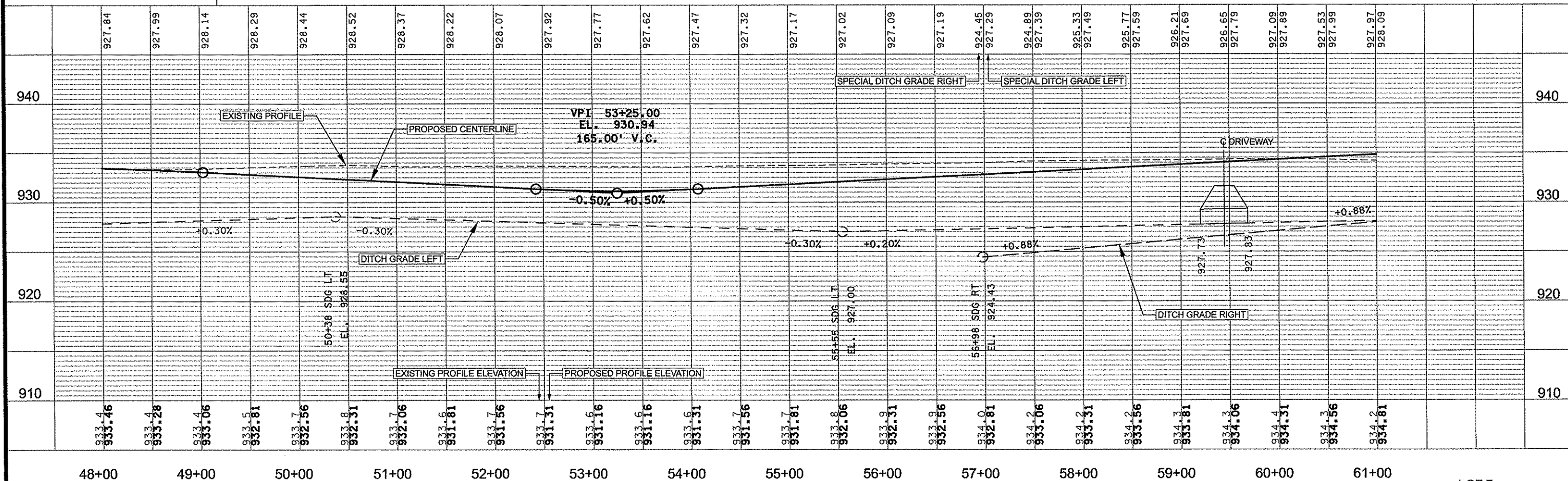
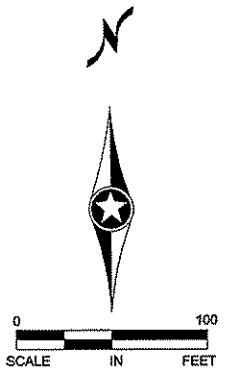
UNASSIGNED SITUS
PARCEL 015

UNASSIGNED SITUS
PARCEL 014

CONSTRUCTION NOTES:

- (A) AGGREGATE DRIVEWAY
SEE PAGE 15 FOR DETAILS
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- (H) 0.5' AGGREGATE SHOULDER

ALL DIMENSIONS ARE MEASURED
BETWEEN JOINTS UNLESS
OTHERWISE NOTED. SEE SIGNING
& STRIPING PLAN FOR STRIPED
LANE WIDTHS



NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\02-622-28\Plan\0262228_PP4.dgn					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME
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THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBLARCSIK
SIGNATURE: *Curt A. Koblarsik*
DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE:
DESIGN BY: NJD DATE:
CHECKED BY: JEO DATE:



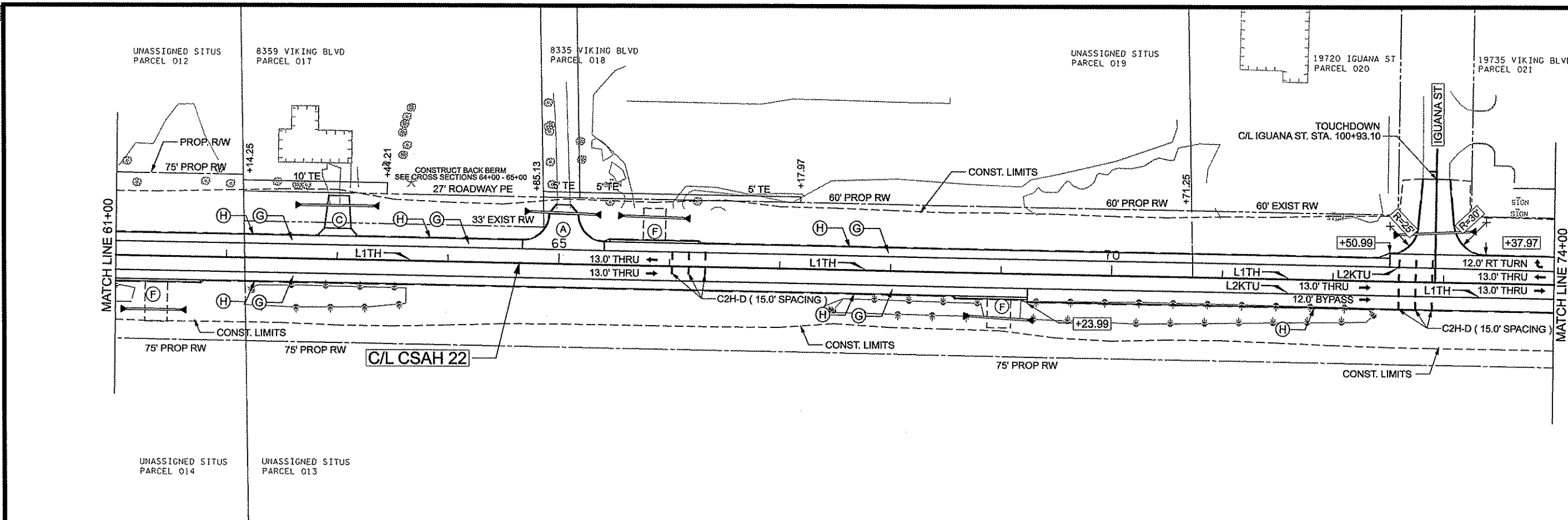
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CONSTRUCTION PLAN

STA 48+00.00 TO 61+00.00

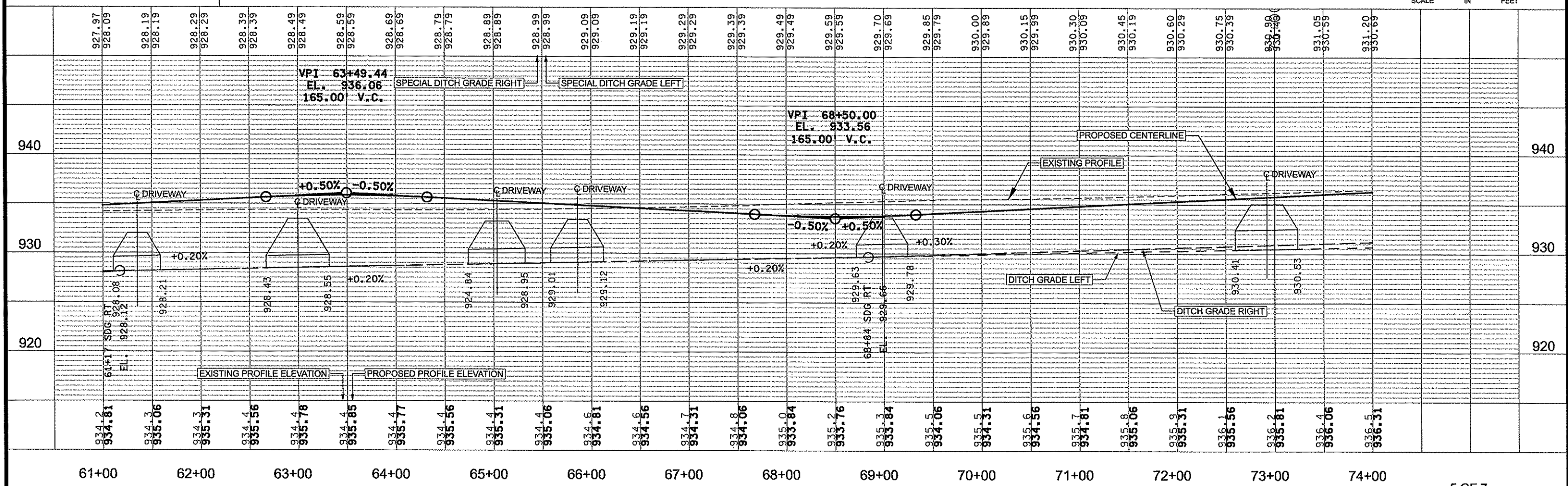
Sheet 38 of 139 Sheets



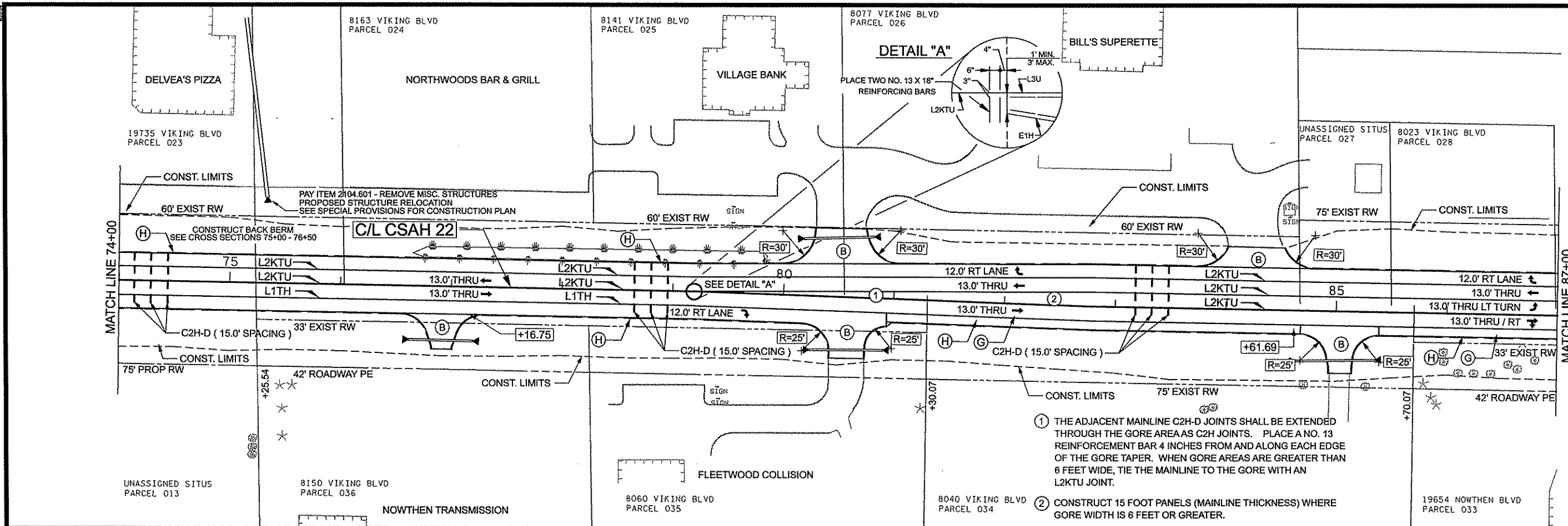
CONSTRUCTION NOTES:

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SEE PAGE 15 FOR DETAILS
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SEE PAGE 15 FOR DETAILS
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ALL DIMENSIONS ARE MEASURED BETWEEN JOINTS UNLESS OTHERWISE NOTED. SEE SIGNING & STRIPING PLAN FOR STRIPED LANE WIDTHS



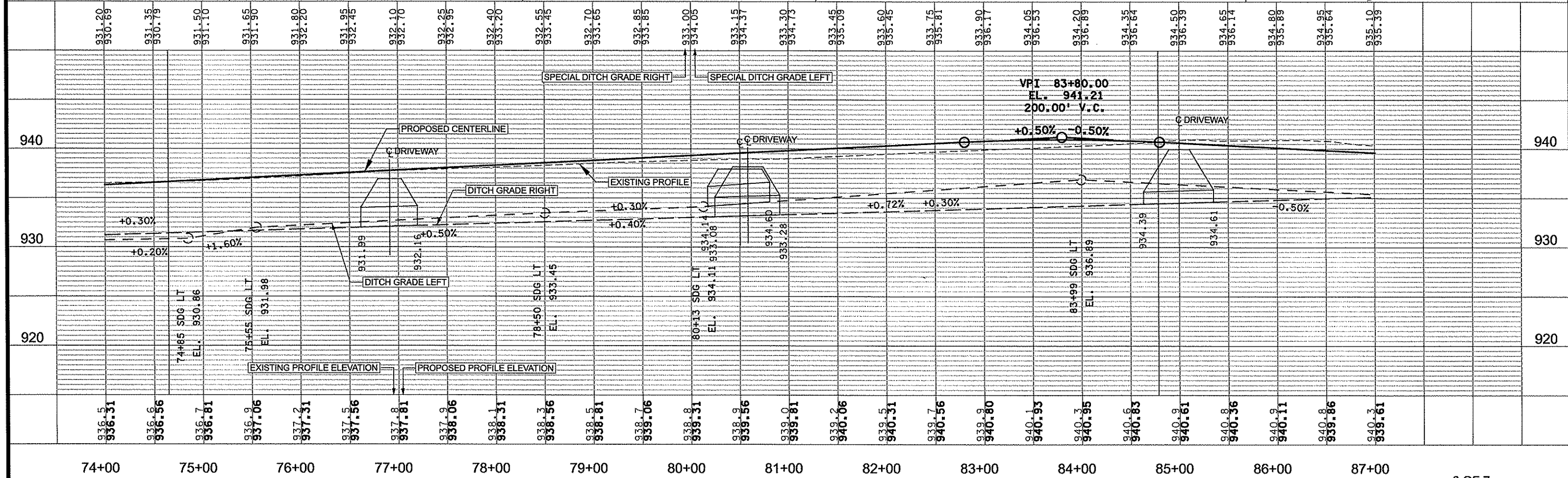
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.						
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DRAWN BY: NJD DATE:		DESIGN BY: NJD DATE:		CHECKED BY: JEO DATE:		
ANOKA COUNTY HIGHWAY DEPT.						
S.A.P. 002-622-028				CONSTRUCTION PLAN		
STA 61+00.00 TO 74+00.00				Sheet 39 of 139 Sheets		



CONSTRUCTION NOTES:

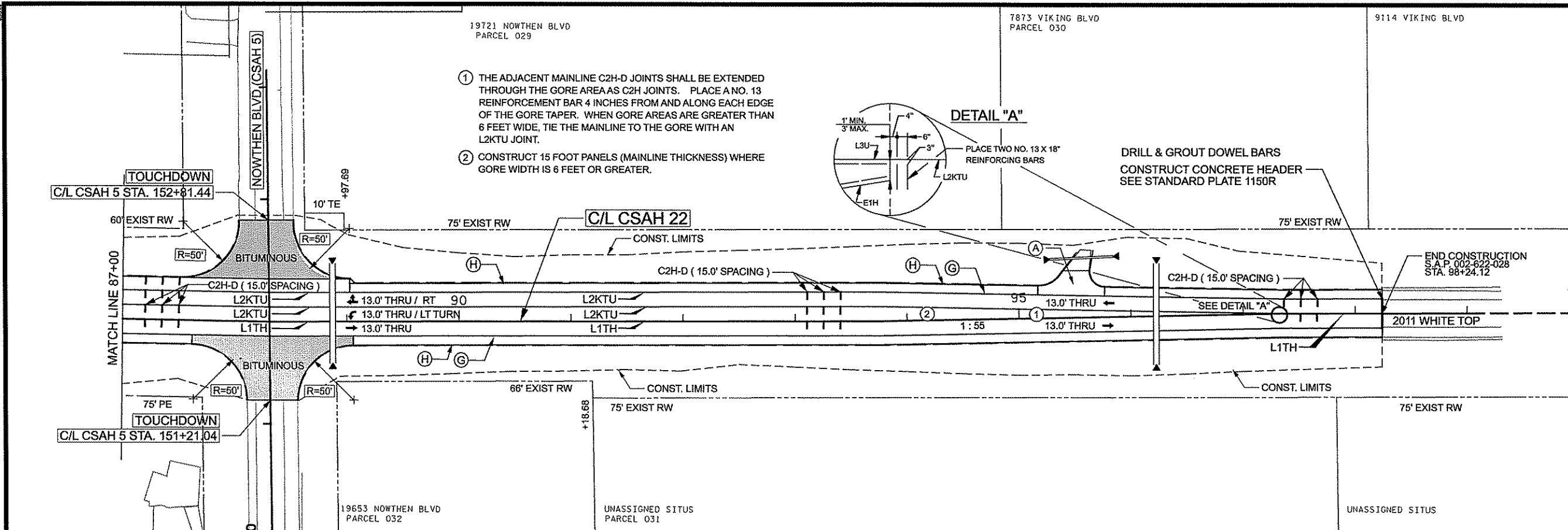
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NO. DATE BY CKD APPR					REVISION		I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		DRAWN BY: <u>NJD</u> DATE: _____			S.A.P. 002-622-028		CONSTRUCTION PLAN	
							PRINT NAME: <u>CURT A. KOBILARCSIK</u>		DESIGN BY: <u>NJD</u> DATE: _____			STA <u>74+00.00</u> TO <u>87+00.00</u>		Sheet <u>40</u> of <u>139</u> Sheets	
NAME: P:\02-622-28\Plan\0262228_PP6.dgn					06/07/2012 2:06:11 PM		SIGNATURE: <u>[Signature]</u>		CHECKED BY: <u>JEO</u> DATE: _____						

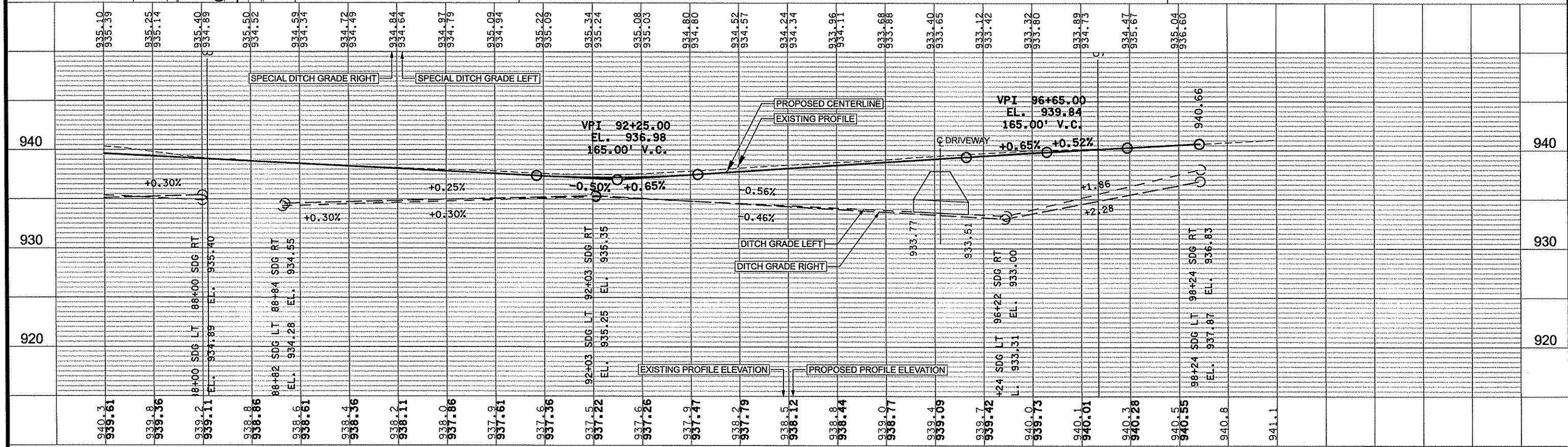
DATE: 6-8-12 LICENSE NO. 24758



CONSTRUCTION NOTES:

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SEE PAGE 15 FOR DETAILS
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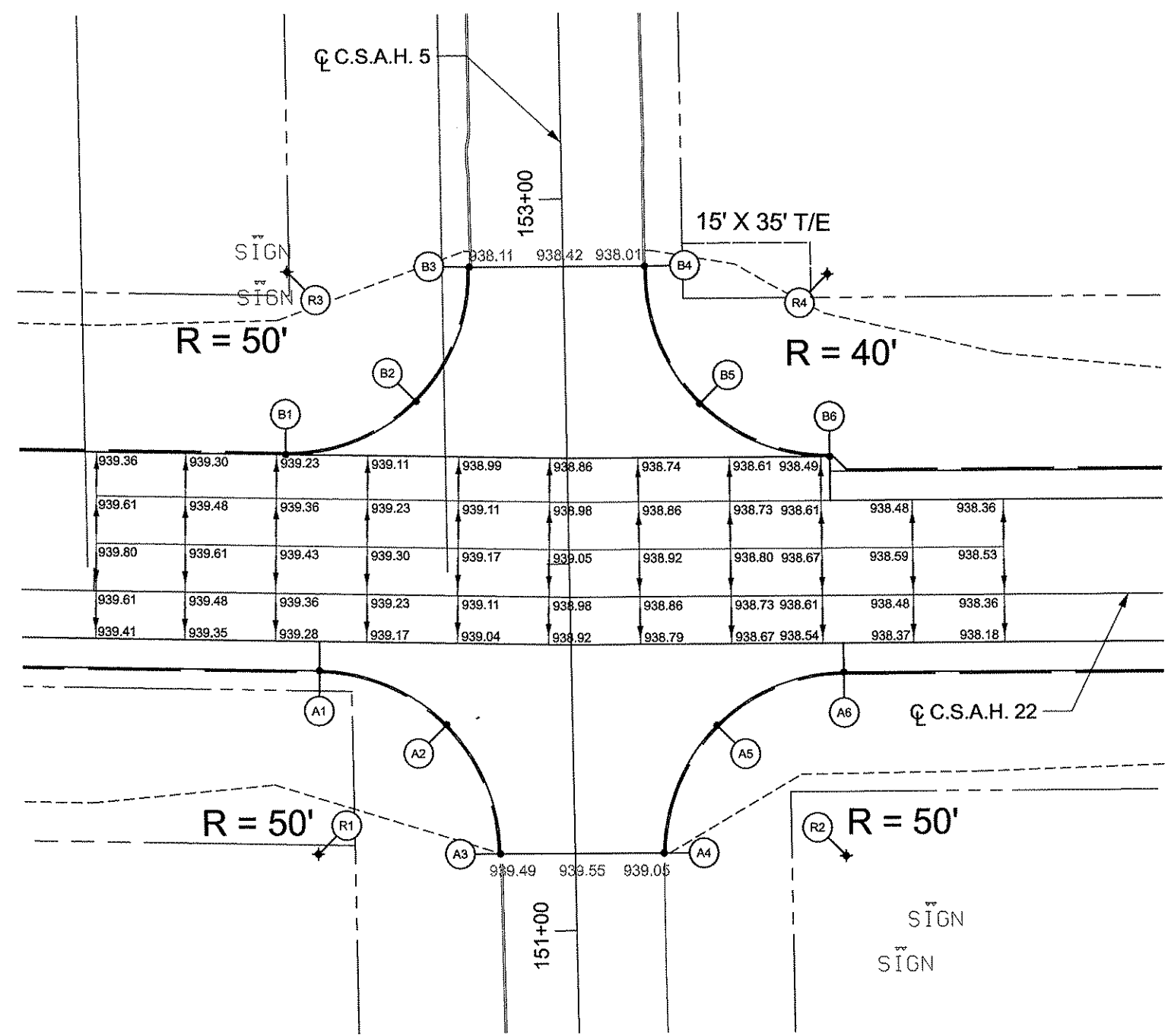
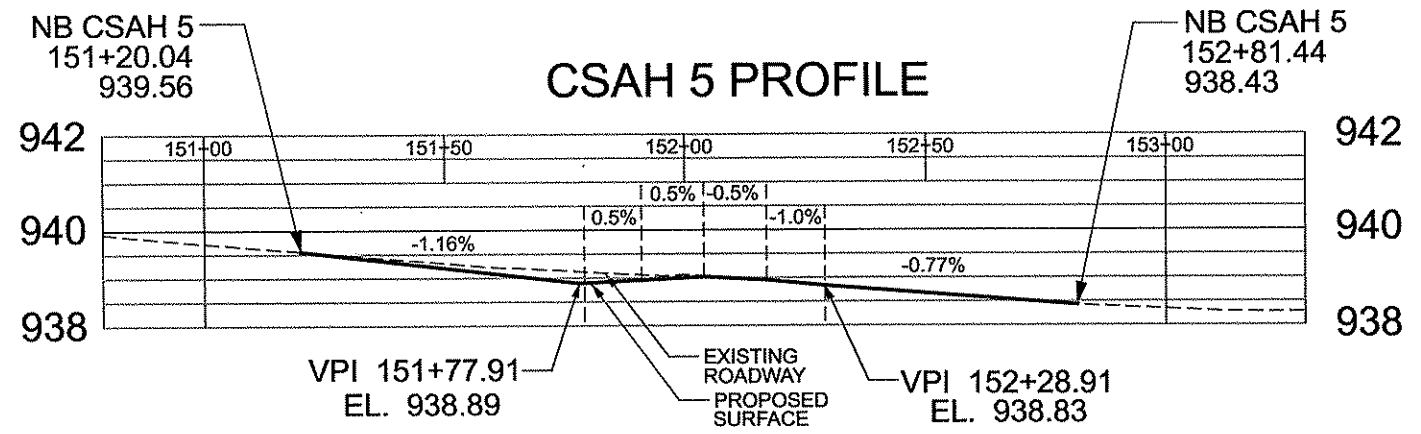


87+00	88+00	89+00	90+00	91+00	92+00	93+00	94+00	95+00	96+00	97+00	98+00	7 OF 7
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NO DATE BY CKD APPR NAME: P:\02-622-28\Plan\0262228_PP7.dgn					I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: DATE: 6-8-12 LICENSE NO. 24758					DRAWN BY: NJD DATE: _____ DESIGN BY: NJD DATE: _____ CHECKED BY: JEO DATE: _____					ANOKA COUNTY HIGHWAY DEPT.					S.A.P. 002-622-028 CONSTRUCTION PLAN STA 87+00.00 TO 98+00.00 Sheet 41 of 139 Sheets				
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999.99 EXISTING SPOT ELEVATION
999.99 PROPOSED SPOT ELEVATION
--- CONSTRUCTION LIMITS
- ELEVATIONS ARE TOP OF FINISHED PAVEMENT

LEGEND



CSAH 22 AT CSAH 5 RADIUS POINTS

POINT	ALIGNMENT	STATION	LOCATION	ELEVATION	SLOPE %	FROM - TO	DESCRIPTION
R1	CSAH 22	87+62.09	71.0' RT	-			RADIUS PT
A1	CSAH 22	87+62.09	21.0' RT	938.91			BEGIN RADIUS
A2	CSAH 22	87+97.10	35.3' RT	939.20	0.38	A1-A2	MIDPOINT
A3	CSAH 22	88+12.08	70.2' RT	939.49	0.38	A2-A3	END RADIUS
R2	CSAH 22	89+05.60	71.0' RT	-			RADIUS PT
A4	CSAH 22	88+55.61	69.9' RT	939.05			BEGIN RADIUS
A5	CSAH 22	88+70.63	35.3' RT	938.78	-0.36	A5-A5	MIDPOINT
A6	CSAH 22	89+05.60	21.0' RT	938.50	-0.36	A5-A6	END RADIUS
R3	CSAH 22	87+52.52	88.0' LT	-			RADIUS PT
B1	CSAH 22	87+52.52	38.0' LT	939.24			BEGIN RADIUS
B2	CSAH 22	87+88.23	53.0' LT	938.68	-0.71	B1-B2	MIDPOINT
B3	CSAH 22	88+02.51	90.0' LT	938.11	-0.71	B2-B3	END RADIUS
R4	CSAH 22	89+02.50	88.0' LT	-			RADIUS PT
B4	CSAH 22	88+52.50	90.5' LT	938.01			BEGIN RADIUS
B5	CSAH 22	88+67.12	52.7' LT	938.26	0.31	B4-B5	MIDPOINT
B6	CSAH 22	89+02.49	38.0' LT	938.50	0.31	B5-B6	END RADIUS

SEE PAGE 15 DETAIL "BITUMINOUS APRON - CITY STREET"
FOR LOCATION OF FOLLOWING DESIGN POINTS

TIGER STREET DESIGN POINTS

POINT	ALIGNMENT	STATION	LOCATION	ELEVATION	SLOPE %	FROM - TO	DESCRIPTION
R1	TIGER ST	150+55.52	45.47' LT	-			RADIUS POINT
PT1	TIGER ST	150+25.00	45.53' LT	931.25			BEGIN RADIUS
PT2	TIGER ST	150+52.41	15.62' LT	930.70	-1.24	PT1-PT2	END RADIUS
PT3	TIGER ST	150+89.32	12.00' LT	930.15	-1.50	PT2-PT3	MATCH POINT
PT4	TIGER ST	150+89.32	12.00' RT	930.33			MATCH POINT
PT5	TIGER ST	150+51.70	15.78' RT	930.56	0.63	PT4-PT5	BEGIN RADIUS
PT6	TIGER ST	150+25.00	45.59' RT	930.79	0.52	PT5-PT6	END RADIUS
R2	TIGER ST	150+54.53	45.64' RT	-			RADIUS POINT

IGUANA STREET DESIGN POINTS

POINT	ALIGNMENT	STATION	LOCATION	ELEVATION	SLOPE %	FROM - TO	DESCRIPTION
R1	IGUANA ST	100+50.00	40.98' LT	-			RADIUS POINT
PT1	IGUANA ST	100+25.00	40.98' LT	935.00			BEGIN RADIUS
PT2	IGUANA ST	100+47.75	16.08' LT	934.86	-0.38	PT1-PT2	END RADIUS
PT3	IGUANA ST	100+93.09	12.00' LT	934.72	-0.31	PT2-PT3	MATCH POINT
PT4	IGUANA ST	100+93.10	12.00' RT	934.58			MATCH POINT
PT5	IGUANA ST	100+51.98	163.95' RT	935.29	1.92	PT4-PT5	BEGIN RADIUS
PT6	IGUANA ST	100+25.00	46.00' RT	936.00	1.56	PT5-PT6	END RADIUS
R2	IGUANA ST	100+55.00	45.00' RT	-			RADIUS POINT

NO	DATE	BY	CKD	APPR	REVISION
NAME: p:\02-622-28\plan\0262228_IN_P1.dgn					

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME
OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBLARCSIK
SIGNATURE: *Curt Koblarcsik*
DATE: 6-8-12 LICENSE NO. 24756

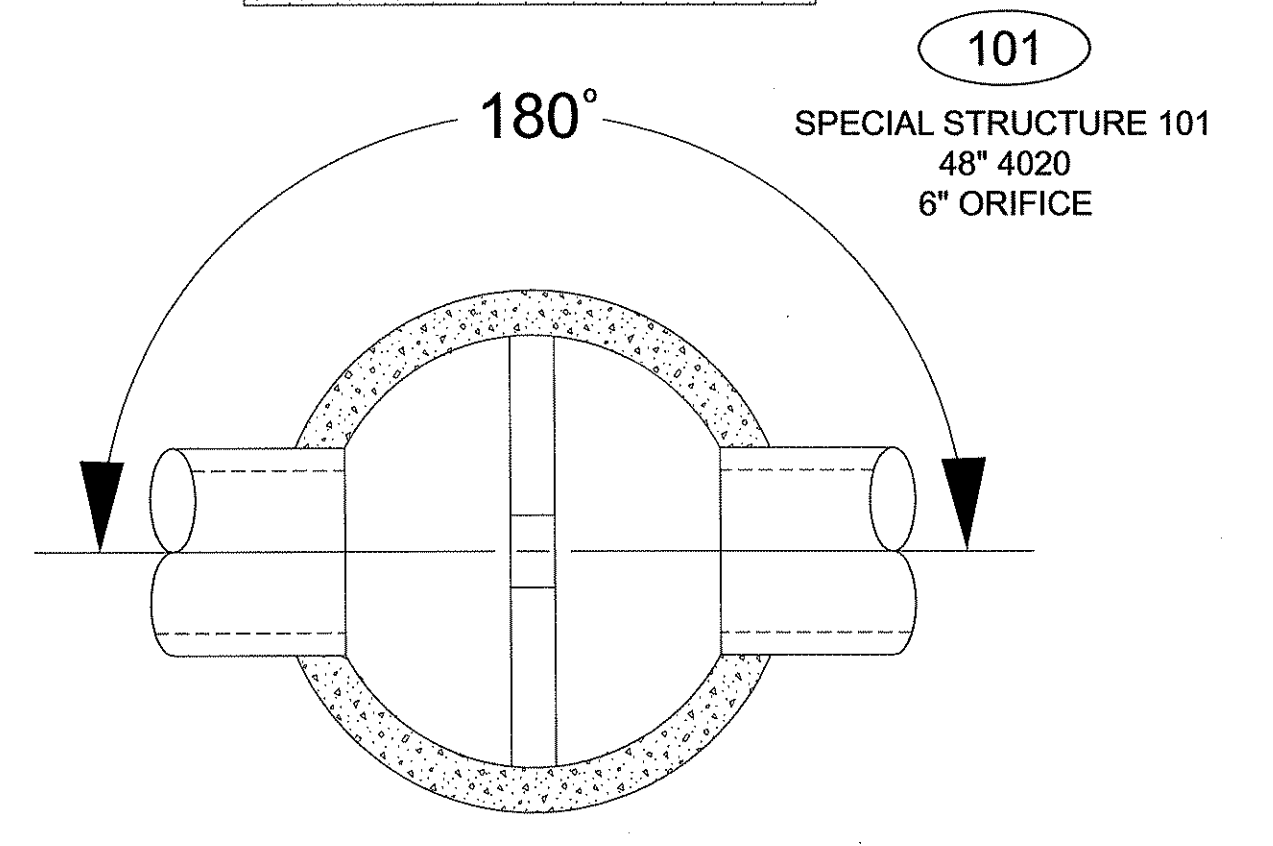
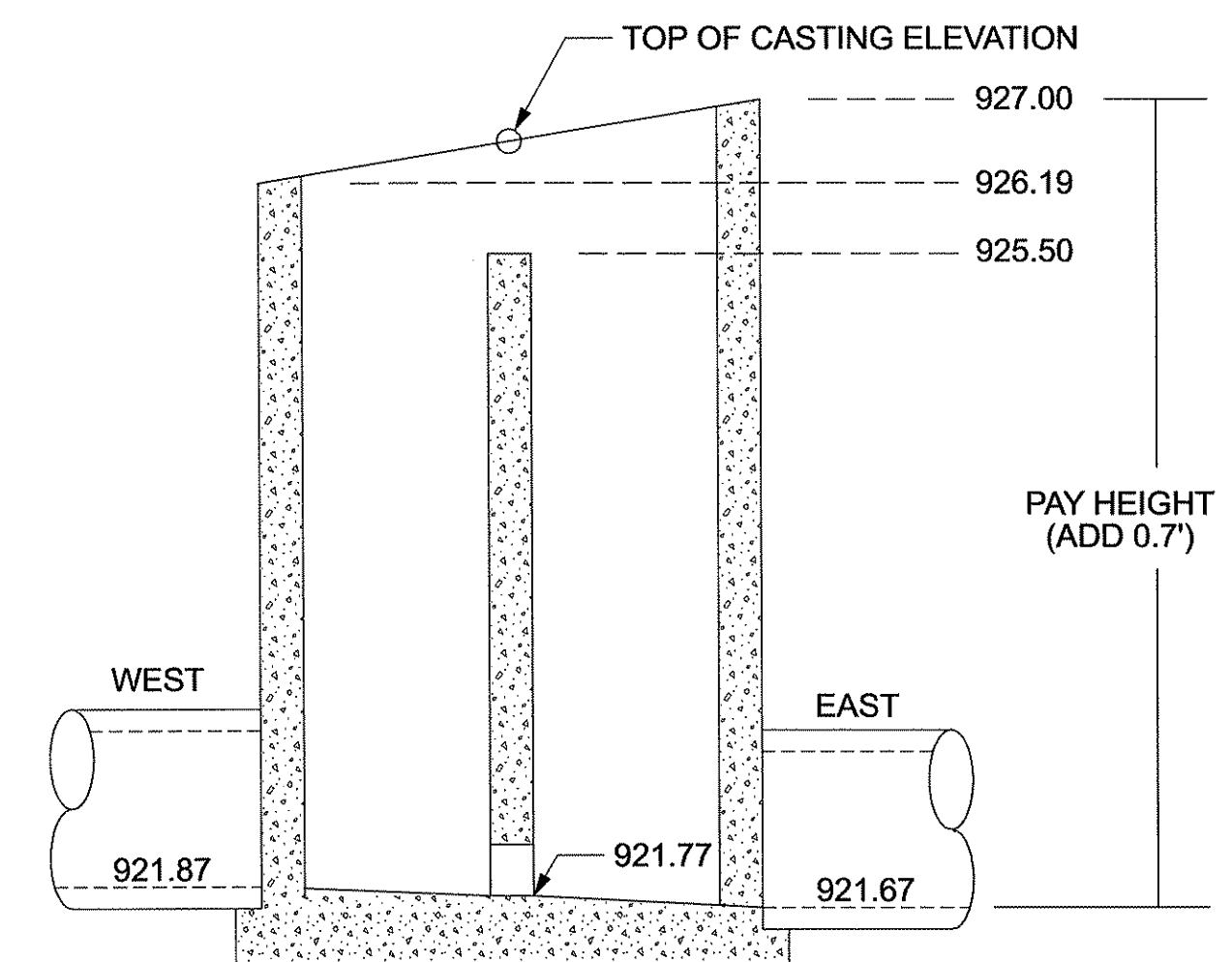
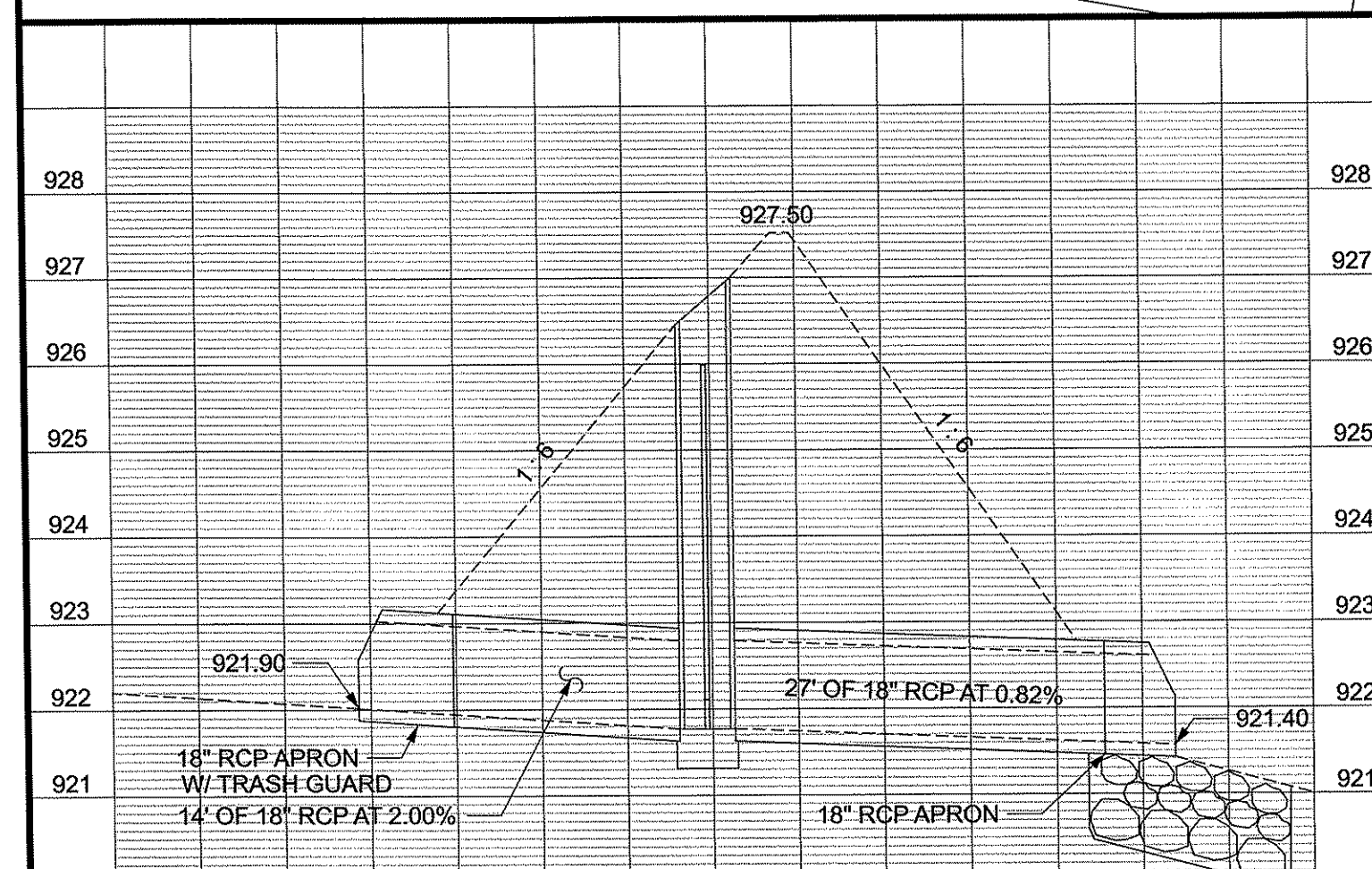
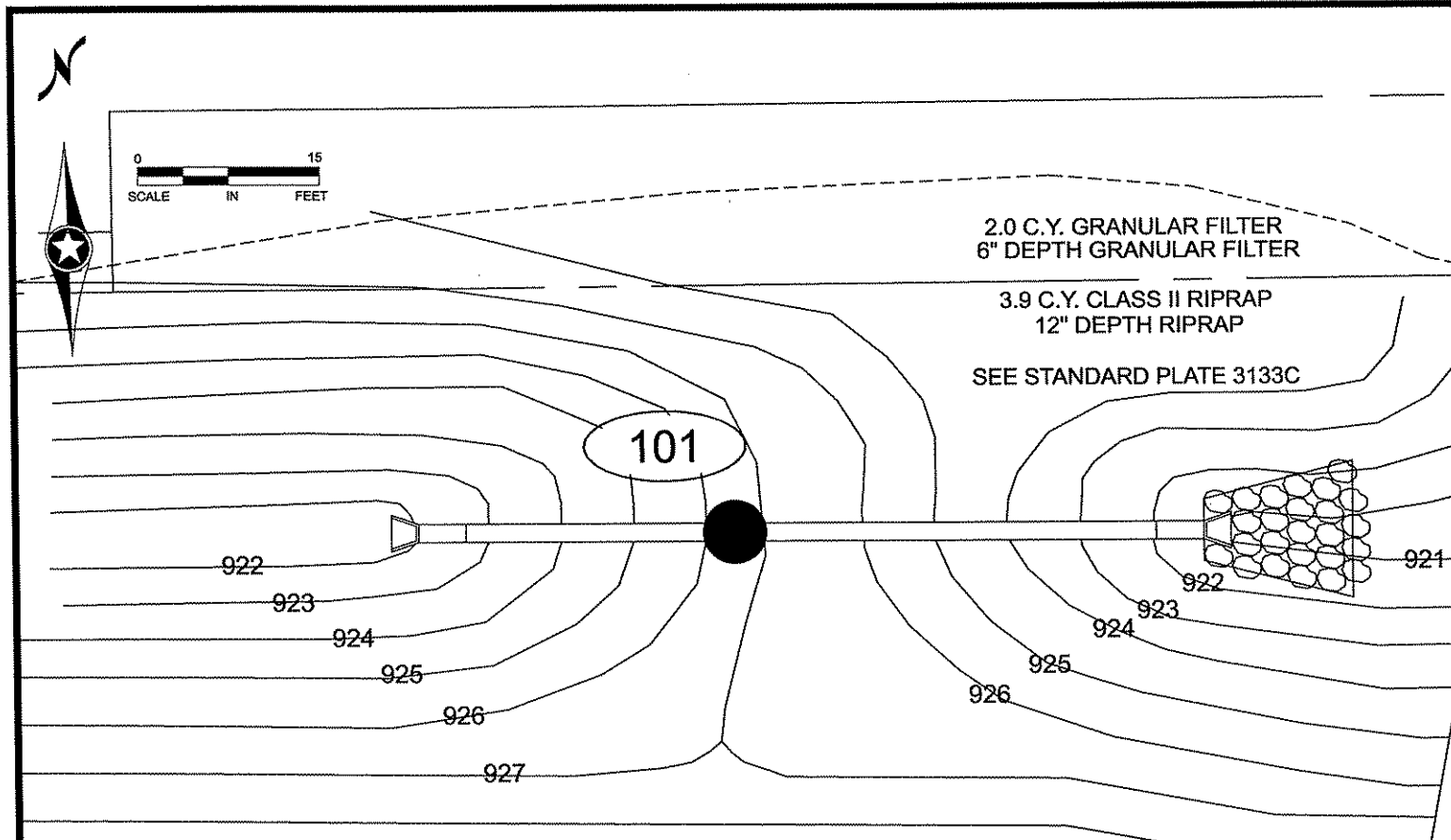
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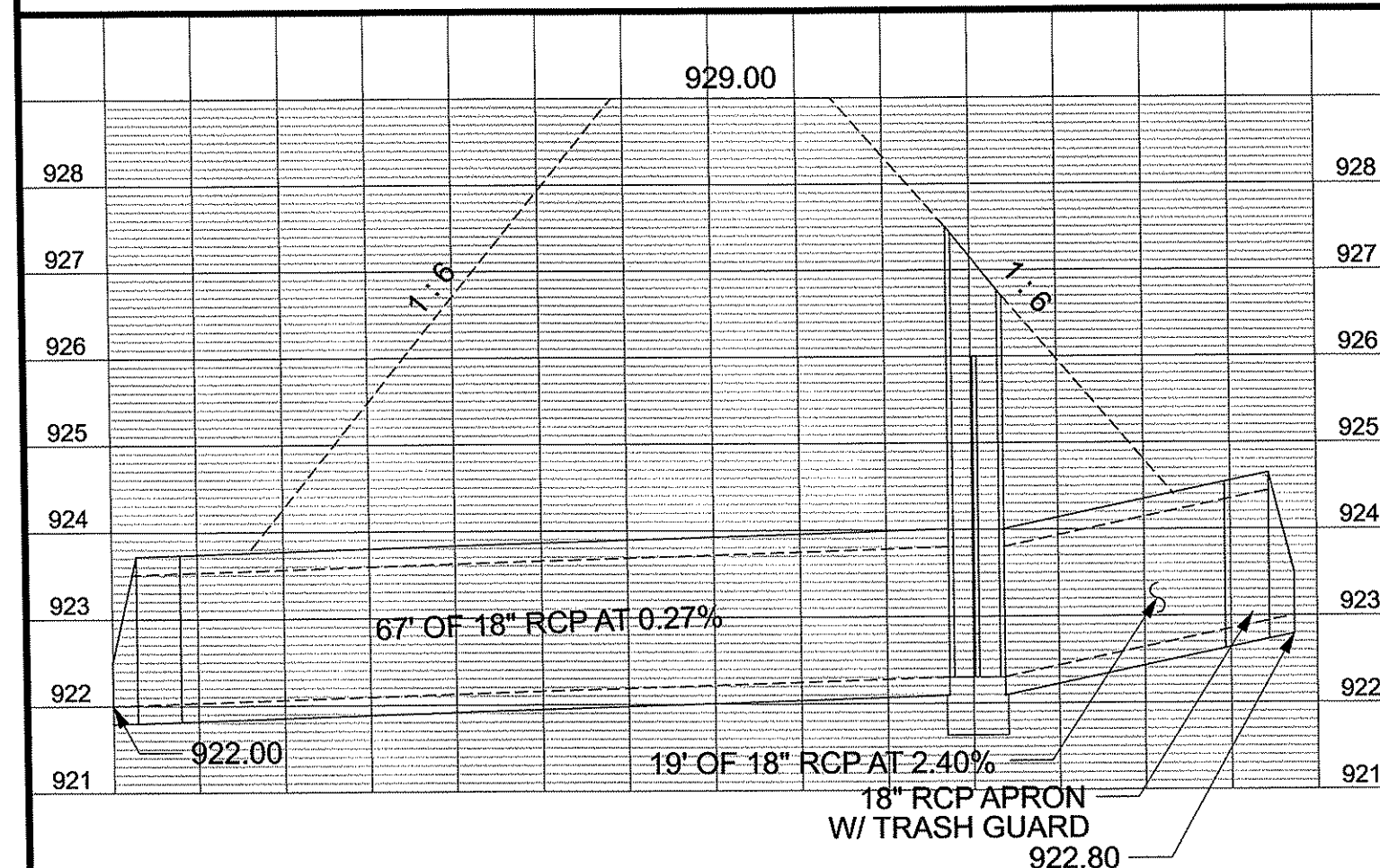
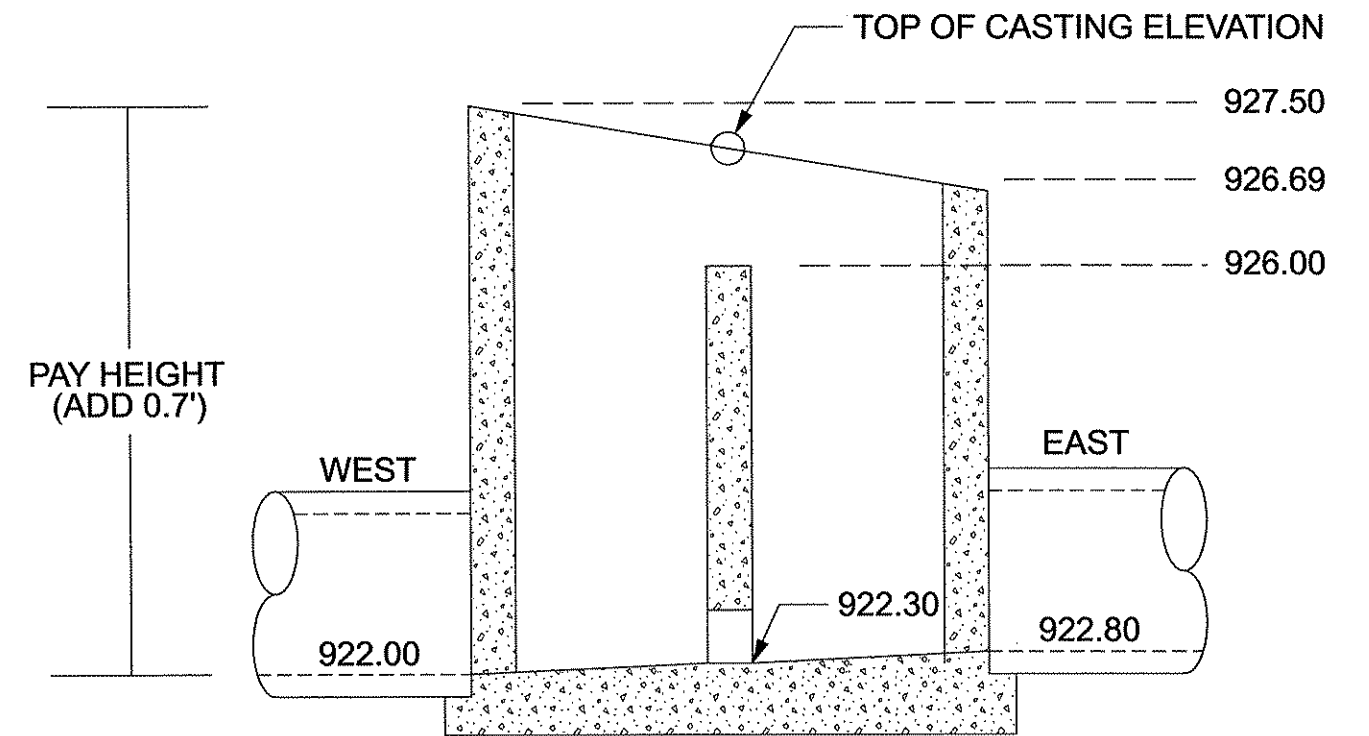
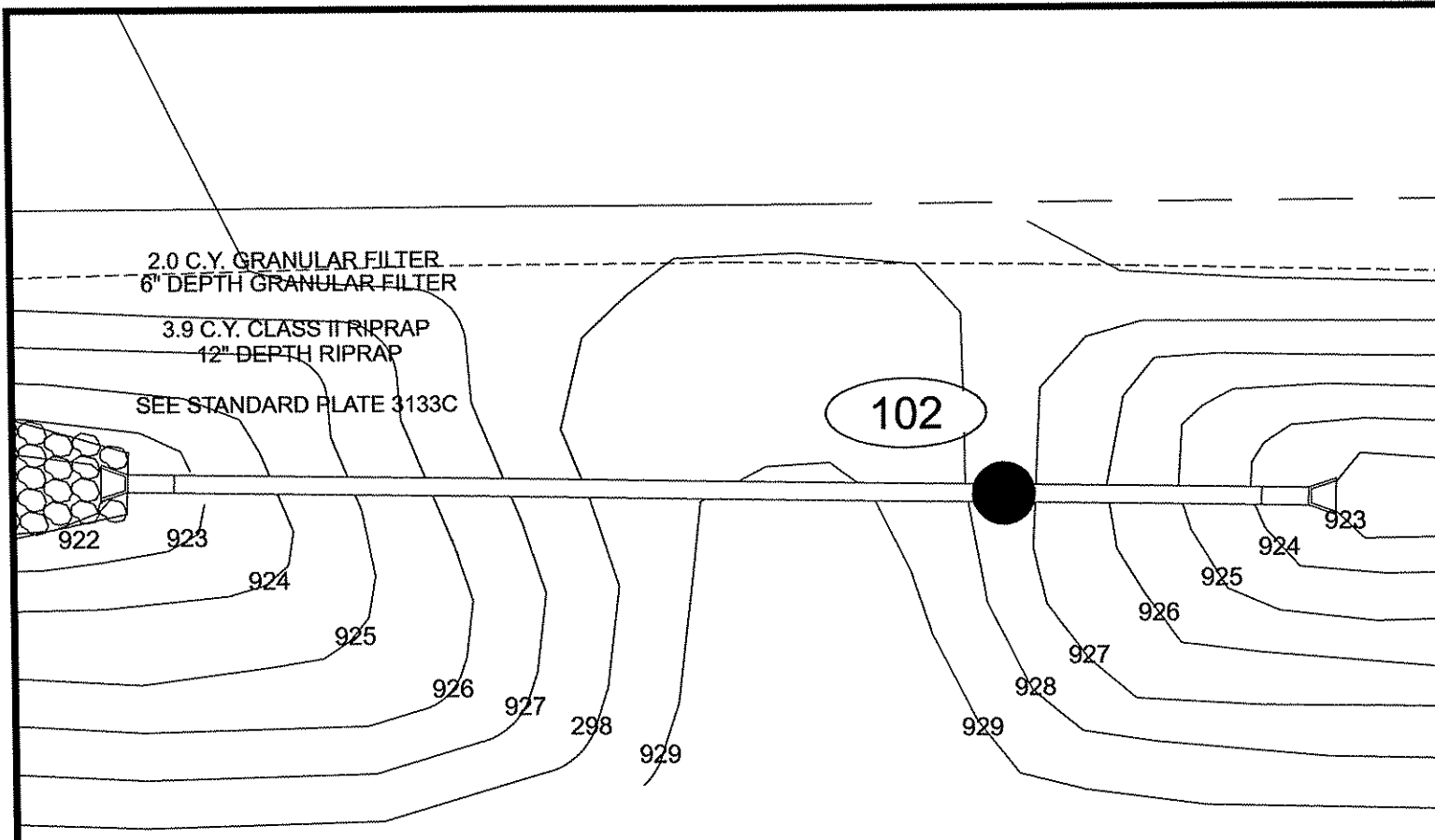


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028
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INTERSECTION DETAILS
Sheet 42 of 139 Sheets



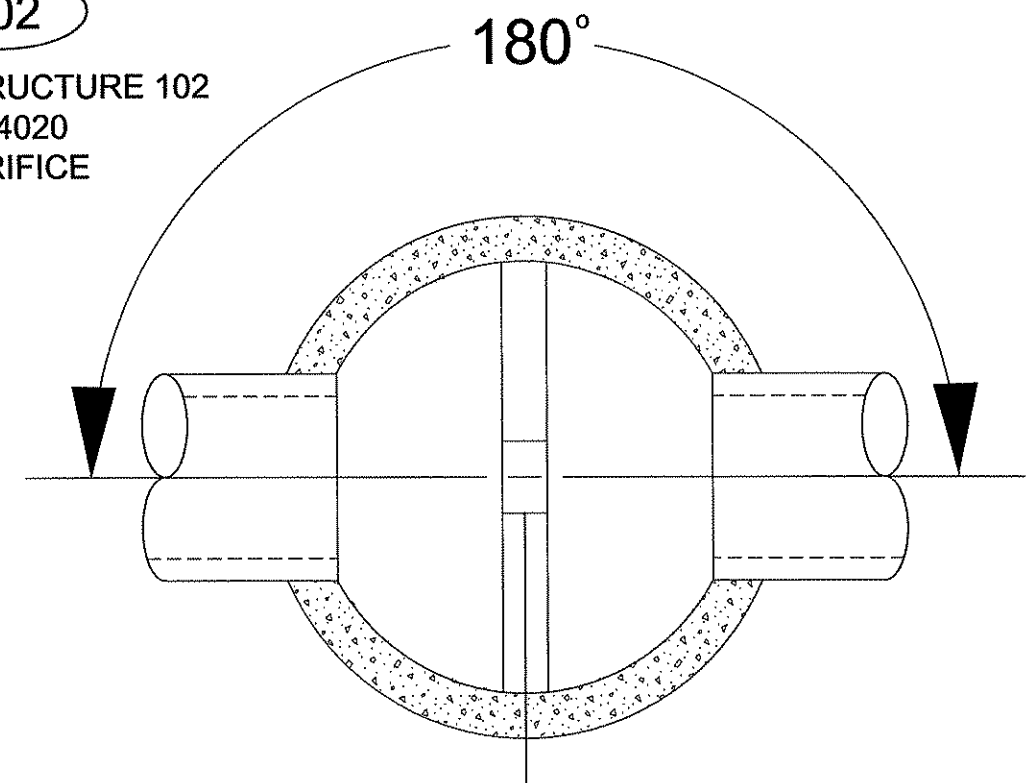


102

SPECIAL STRUCTURE 102

48" 4020

6" ORIFICE



NO	DATE	BY	CKD	APPR	REVISION
NAME: p:\02-622-28\plan\0262228_DR-P1b.dgn					
06/07/2012 1:49:54 PM					

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

PRINT NAME: CURT A. KOBIARCSIK

SIGNATURE: *Curt A. Kobiarcsik*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: DATE

DESIGN BY: NJD DATE: DATE

CHECKED BY: JEO DATE: DATE

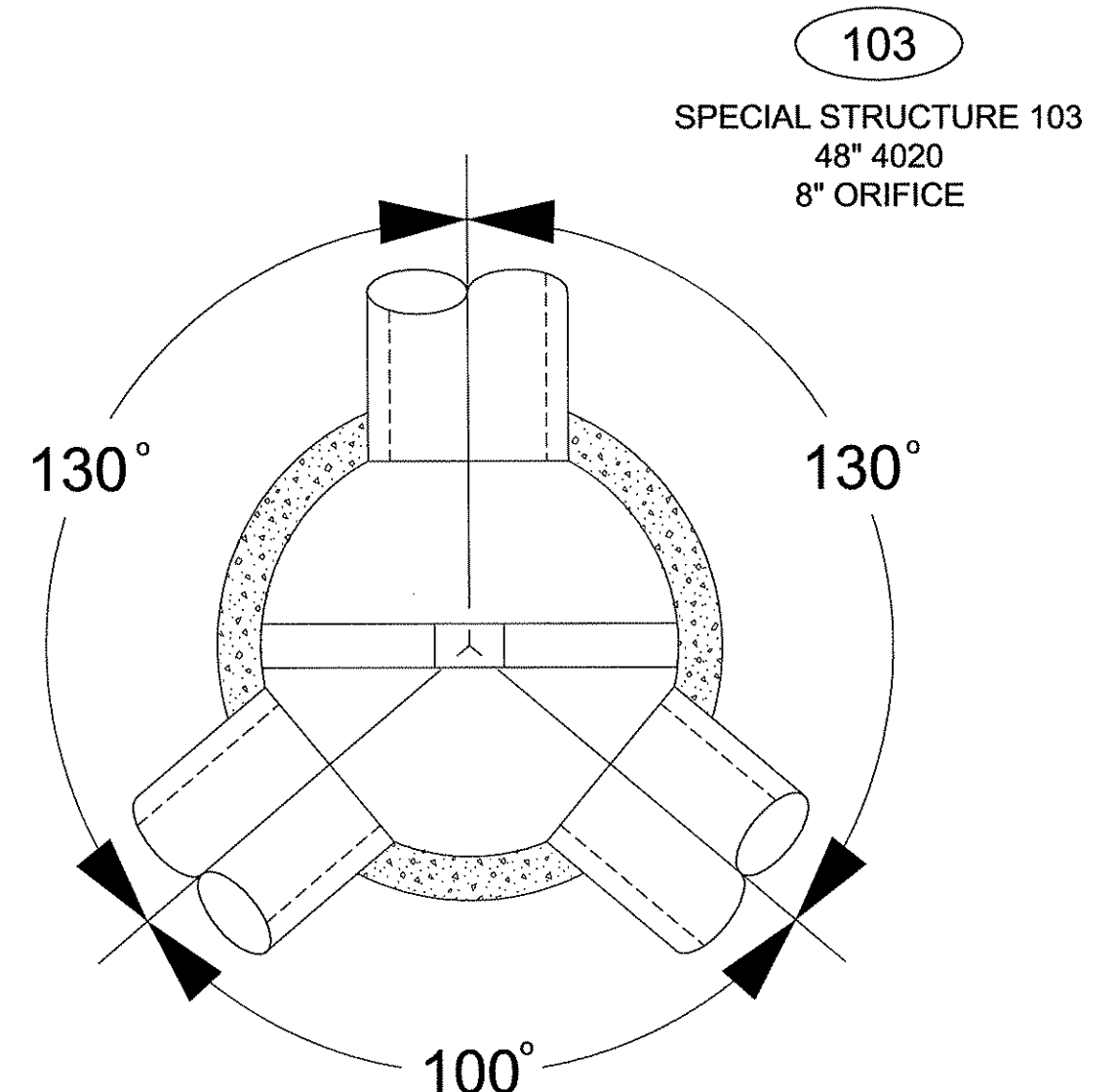
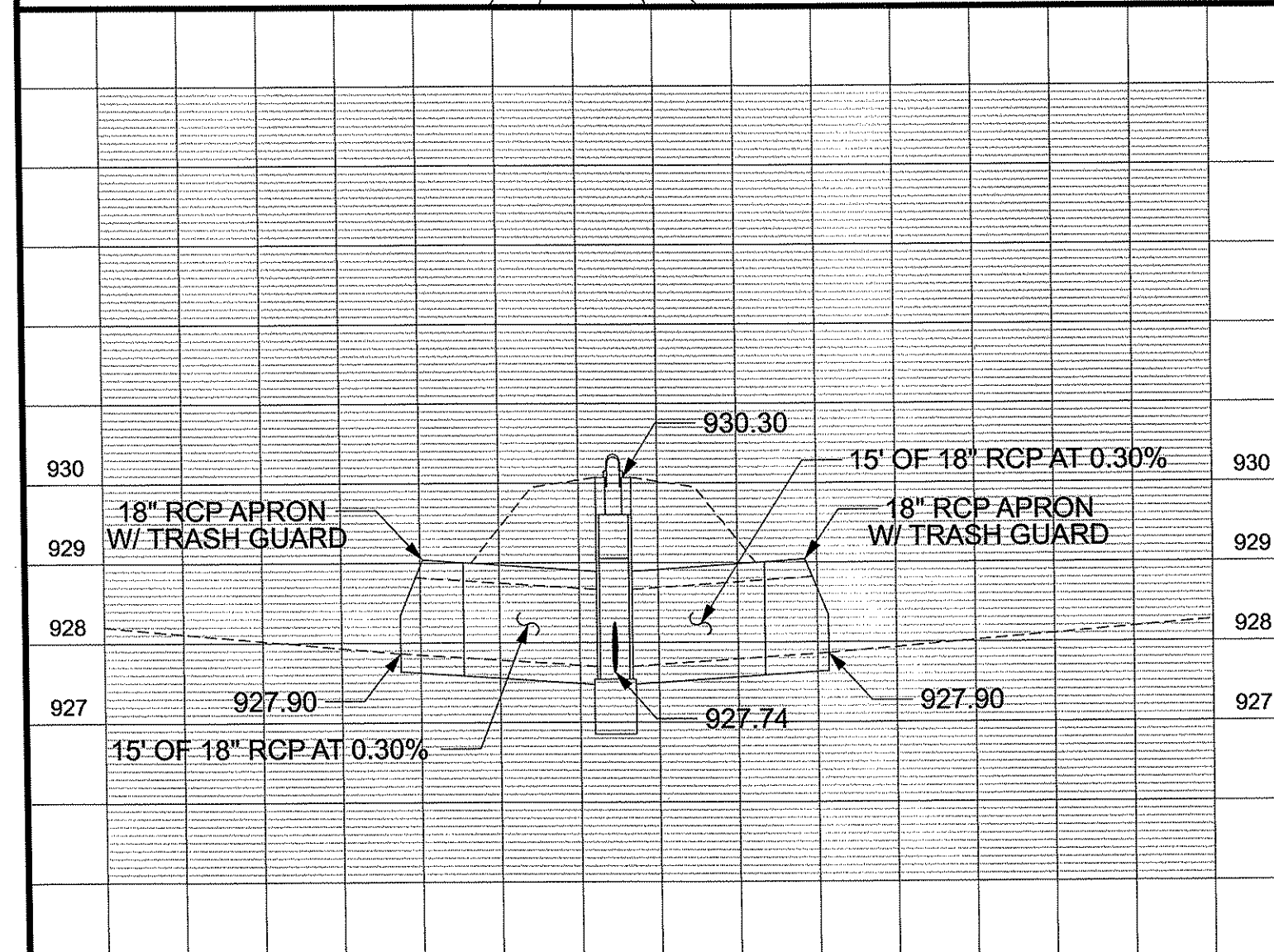
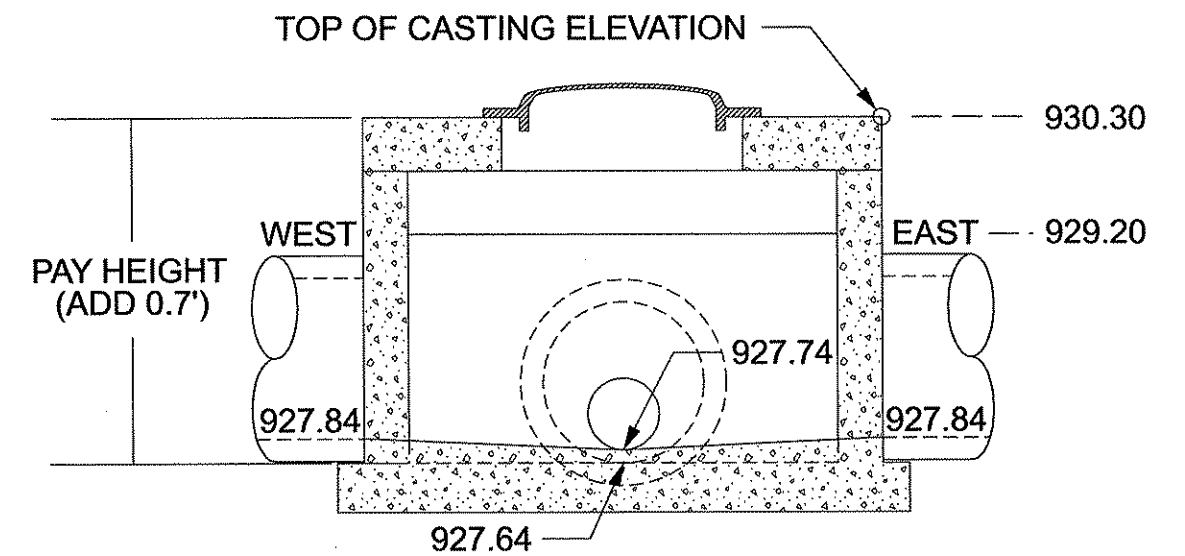
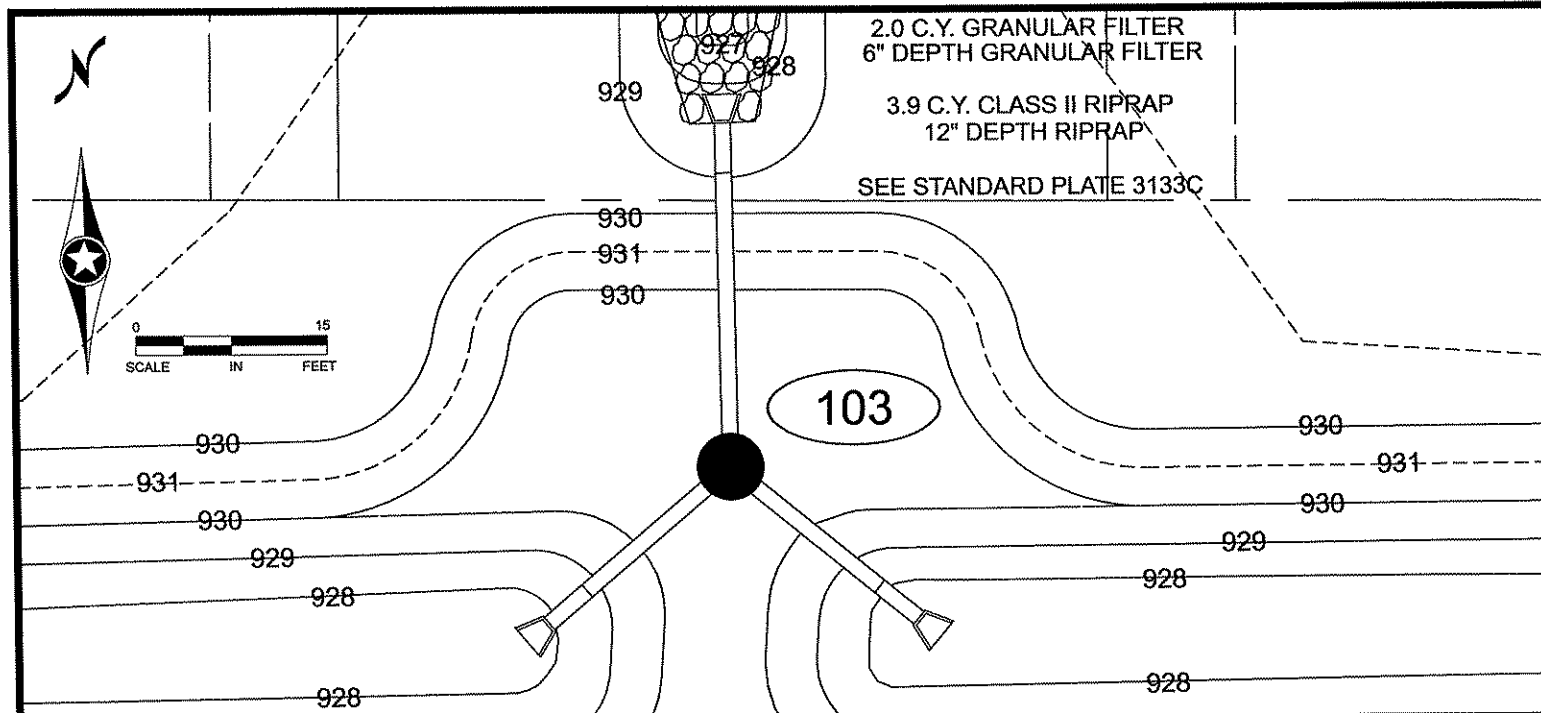


ANOKA COUNTY

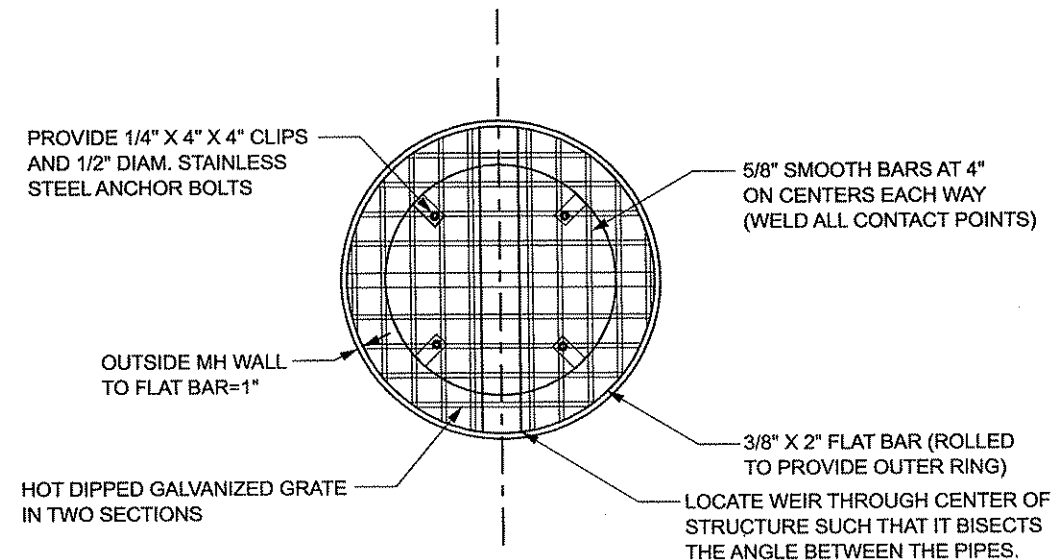
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S.A.P. 002-622-028

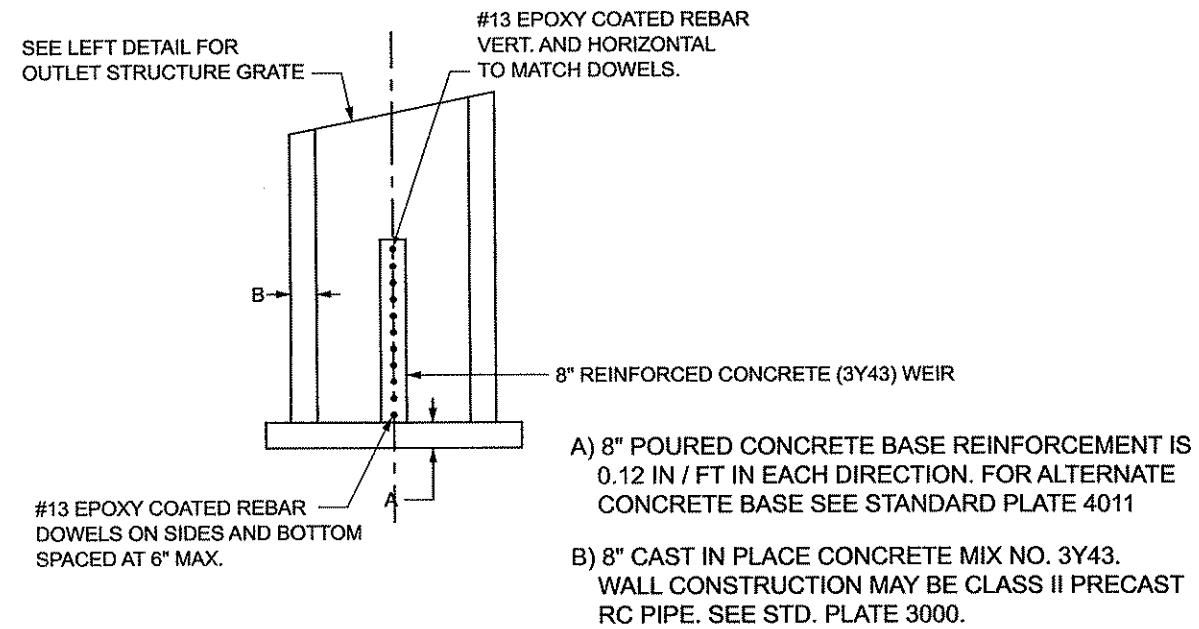
SPECIAL STRUCTURES



CASTING "TYPE A" DETAIL



SPECIAL STRUCTURE DETAIL



SEE PAGE 6 FOR TABULATIONS

NO	DATE	BY	CKD	APPR	REVISION

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

PRINT NAME: CURT A. KOBIARCSIK

SIGNATURE: *Curt A. Kobiarsik*

DATE: 6-8-12 LICENSE NO. 24766

DRAWN BY: NJD DATE: DATE

DESIGN BY: NJD DATE: DATE

CHECKED BY: JEO DATE: DATE

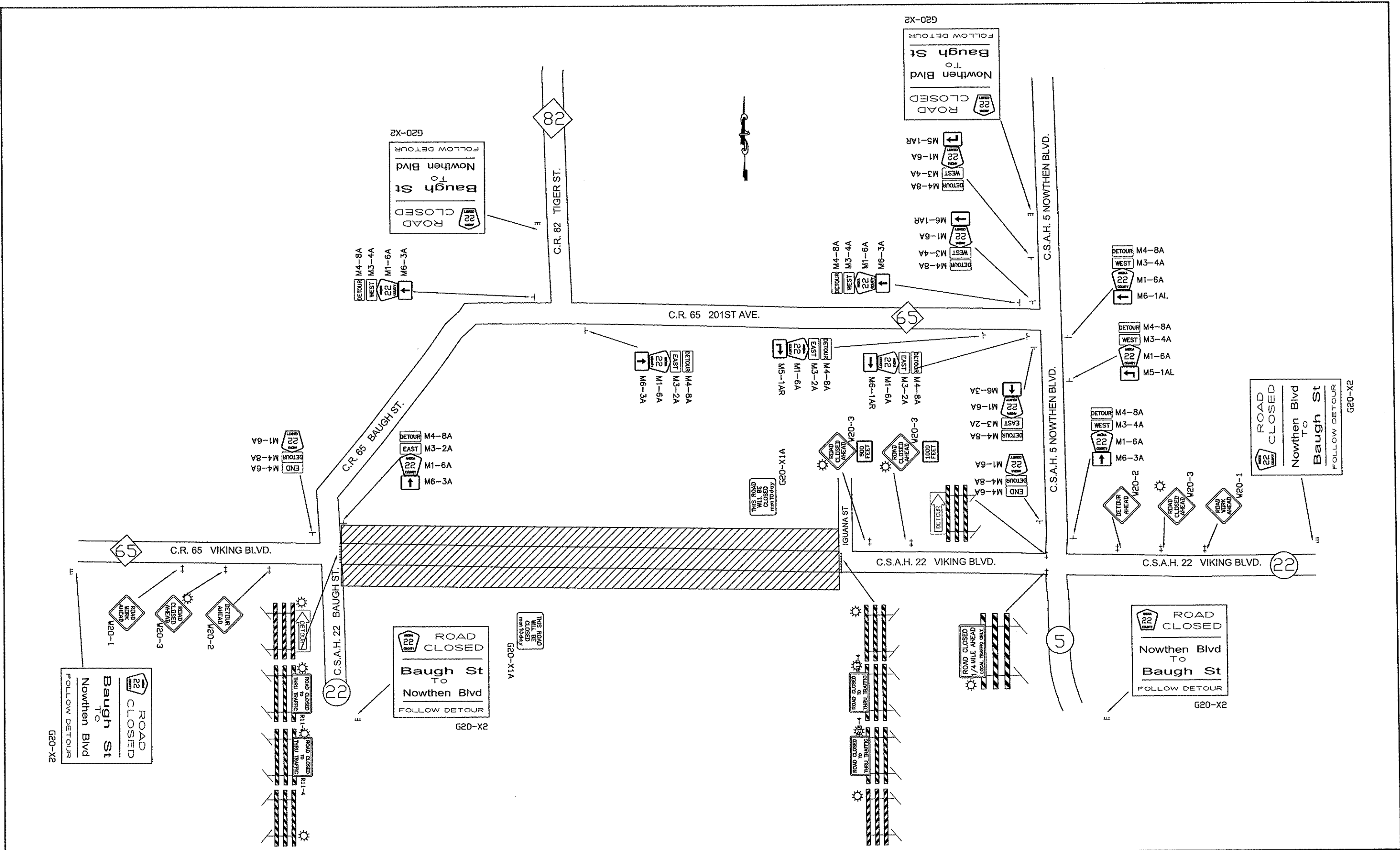


ANOKA COUNTY
HIGHWAY DEPT.

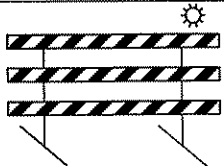
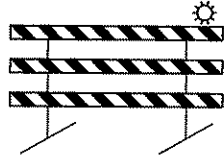
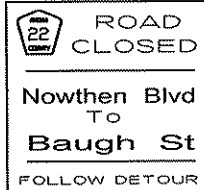
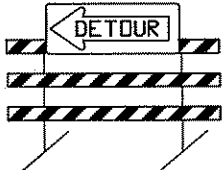
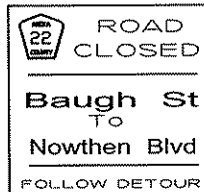
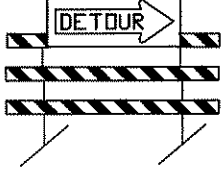
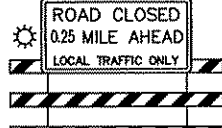
S.A.P. 002-622-028

SPECIAL STRUCTURE
DETAILS

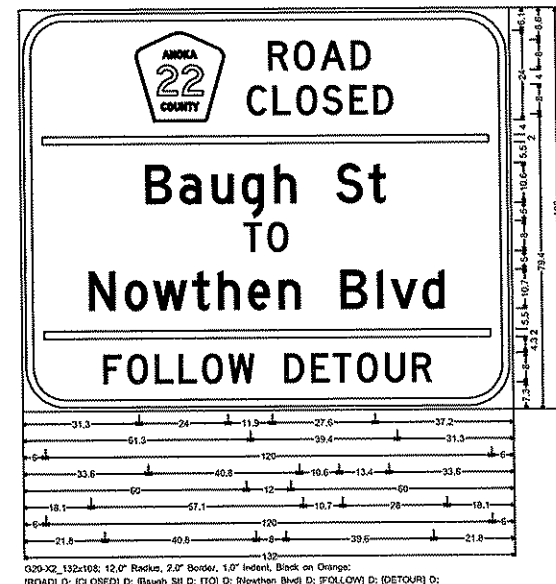
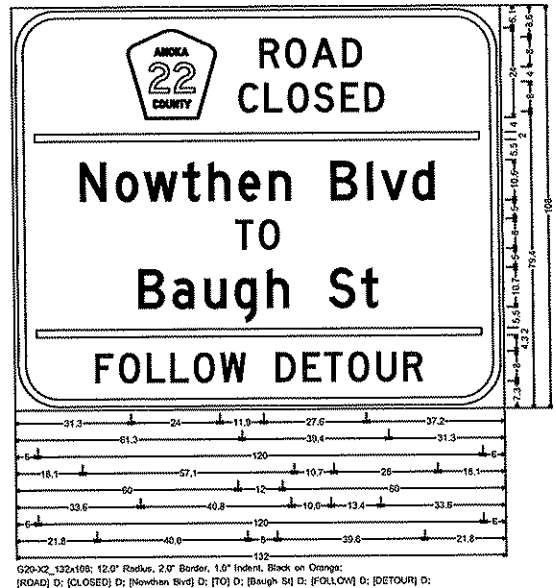
Sheet 46 of 139 Sheets



NO. _____ DATE _____ BY _____ CKD _____ APPR _____ REVISION _____ NAME: P:\02-622-28\Bases\Traffic\detour_02-622-28.dwg					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. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 REG. NO. 24756		DRAWN BY: MTH DATE: 05/23/11 DESIGN BY: MTH DATE: 05/23/11 CHECKED BY: JR DATE: 02/23/12		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		TRAFFIC CONTROL DETOUR Sheet 47 of 139 Sheets	
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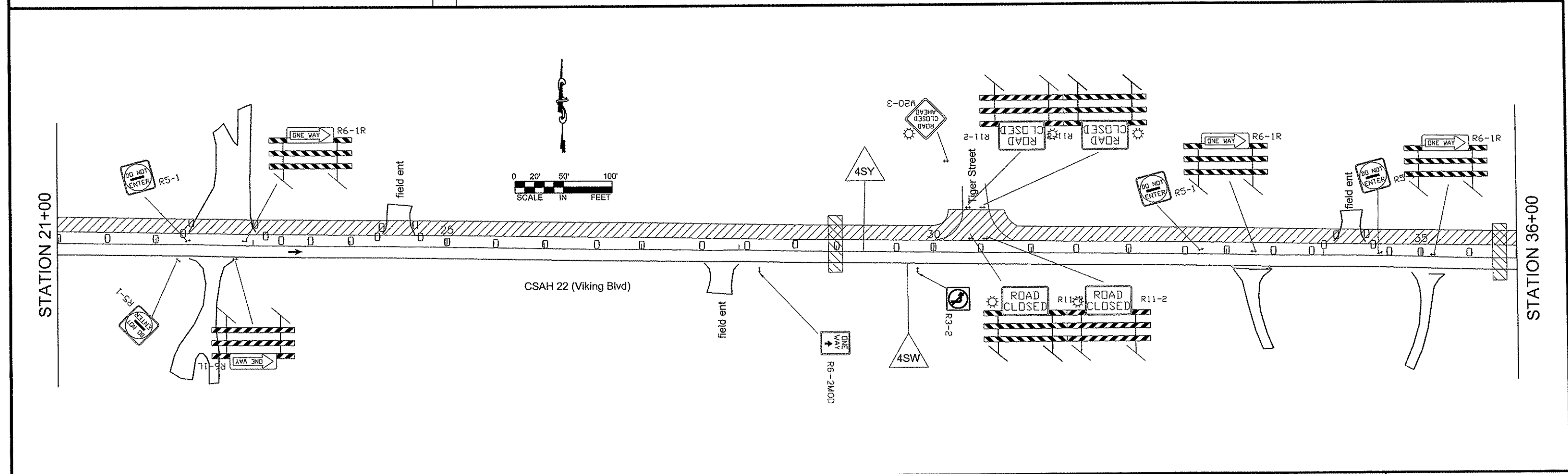
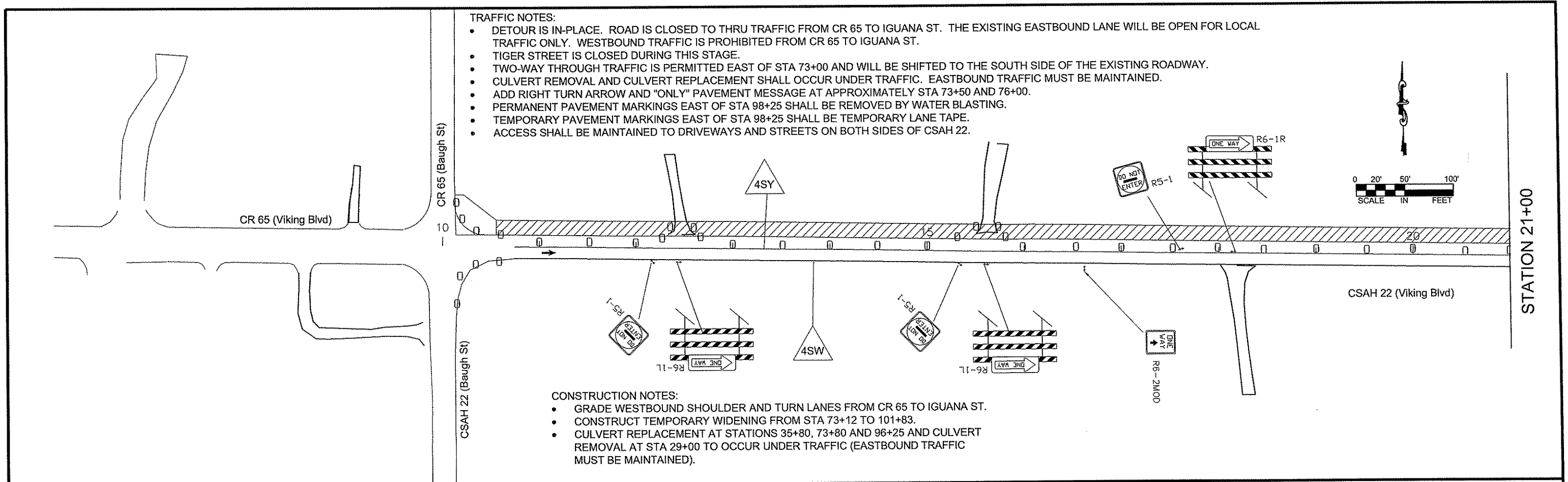
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W20-2	48" x 48"		• 2	TYPE III	8 FOOT		• 4
W20-3	48" x 48"		• 4	G20-X2	132"x 108"		• 3
W20-100P	24" x 18"		• 1				
W20-100P	24" x 18"		• 1				
M4-10R	48" x 18"		SEE NOTE ②	G20-X2	132"x 108"		• 3
TYPE III	8 FOOT		• 1				
M4-10L	48" x 18"		SEE NOTE ②				
TYPE III	8 FOOT		• 1				
R11-2	48" x 30"		SEE NOTE ②	M4-8A	24" x 12"		• 1
TYPE III	8 FOOT		• 4	M3-4A	24" x 12"		• 1
				M1-6A	24" x 24"		• 0
					21" x 15"		• 0
							• 0
							• 3
R11-3	48" x 30"		SEE NOTE ②	M4-8A	24" x 12"		• 1
TYPE III	8 FOOT		• 1	M3-2A	24" x 12"		• 1
				M1-6A	24" x 24"		• 1
					21" x 15"		• 1
							• 1
							• 3
				M4-6A	24" x 12"		
				M4-8A	24" x 12"		• 2
				M1-6A	24" x 24"		
				G20-X1	60" x 48"		• 2

SIGN TO BE INSTALLED A MINIMUM OF SEVEN DAYS PRIOR TO ACTUAL CLOSING DATE OF ROAD CLOSURE AND IMPLEMENTATION OF DETOUR SIGNING. SIGNS TO BE REMOVED AT TIME OF DETOUR INSTALLATION.



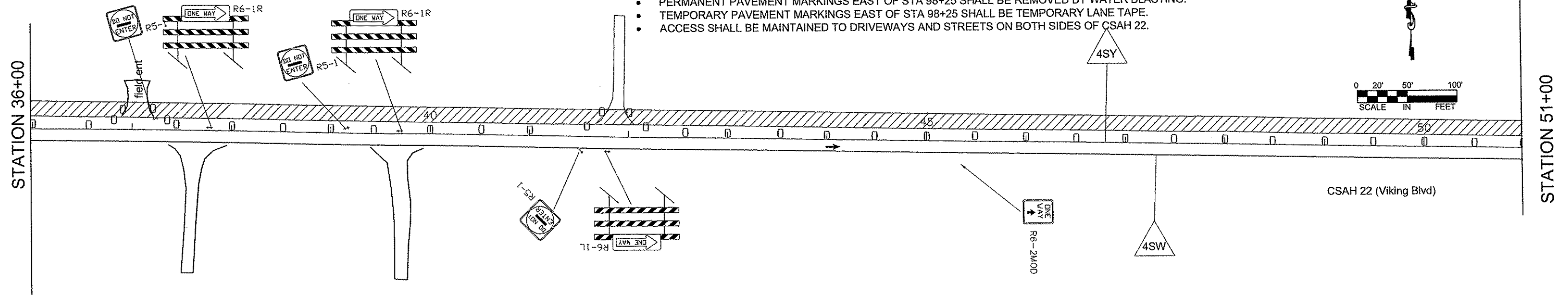
- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS" DATED FEBRUARY, 2011
 - ALL TYPE III BARRICADES SHALL BE REFLECTORIZED ON BOTH SIDES. BARRICADE MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MUTCD.

NO DATE BY CKD APPR REVISION NAME: P:\02-622-28\Bose\Traffic\detour_02-622-28.dwg					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. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE:  DATE: 6-8-12 REG. NO. 24756					DRAWN BY: MTH DATE: 05/23/11 DESIGN BY: MTH DATE: 05/23/11 CHECKED BY: JR DATE: 02/23/12					ANOKA COUNTY HIGHWAY DEPT.					S.A.P. 002-622-028					DETOUR QUANTITY Sheet 48 of 139 Sheets				
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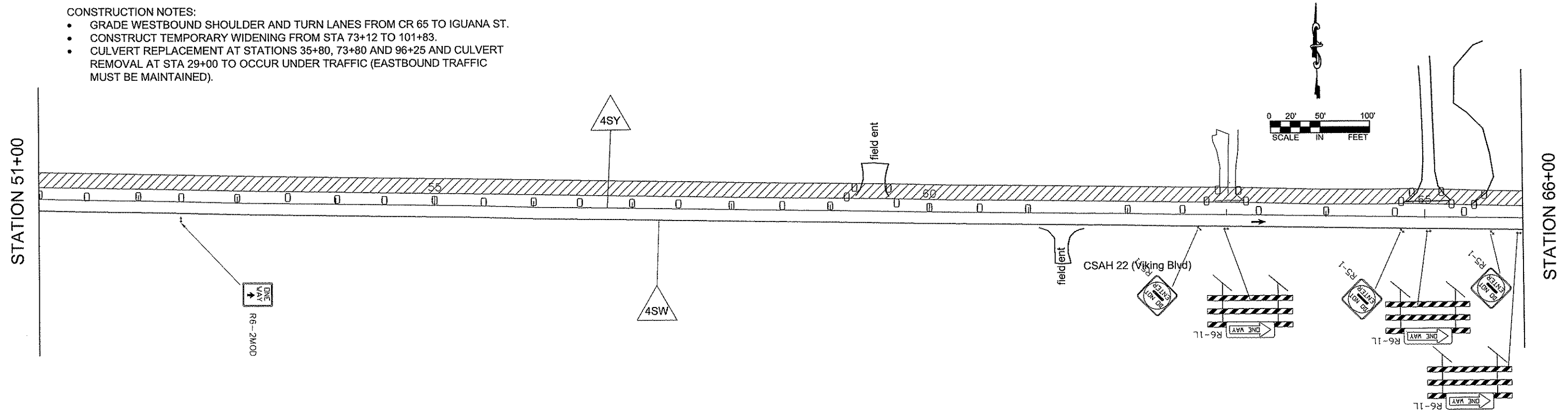
TRAFFIC NOTES:

- DETOUR IS IN-PLACE. ROAD IS CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. THE EXISTING EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. WESTBOUND TRAFFIC IS PROHIBITED FROM CR 65 TO IGUANA ST.
- TIGER STREET IS CLOSED DURING THIS STAGE.
- TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE SHIFTED TO THE SOUTH SIDE OF THE EXISTING ROADWAY.
- CULVERT REMOVAL AND CULVERT REPLACEMENT SHALL OCCUR UNDER TRAFFIC. EASTBOUND TRAFFIC MUST BE MAINTAINED.
- ADD RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STA 73+50 AND 76+00.
- PERMANENT PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE REMOVED BY WATER BLASTING.
- TEMPORARY PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE TEMPORARY LANE TAPE.
- ACCESS SHALL BE MAINTAINED TO DRIVEWAYS AND STREETS ON BOTH SIDES OF CSAH 22.



CONSTRUCTION NOTES:

- GRADE WESTBOUND SHOULDER AND TURN LANES FROM CR 65 TO IGUANA ST.
- CONSTRUCT TEMPORARY WIDENING FROM STA 73+12 TO 101+83.
- CULVERT REPLACEMENT AT STATIONS 35+80, 73+80 AND 96+25 AND CULVERT REMOVAL AT STA 29+00 TO OCCUR UNDER TRAFFIC (EASTBOUND TRAFFIC MUST BE MAINTAINED).



NO	DATE	BY	CKD	APPR	REVISION

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.

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12 REG. NO. 24756

DRAWN BY: MTH DATE 4/19/2012

DESIGN BY: MTH DATE 4/19/2012

CHECKED BY: JR DATE 5/01/2012



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

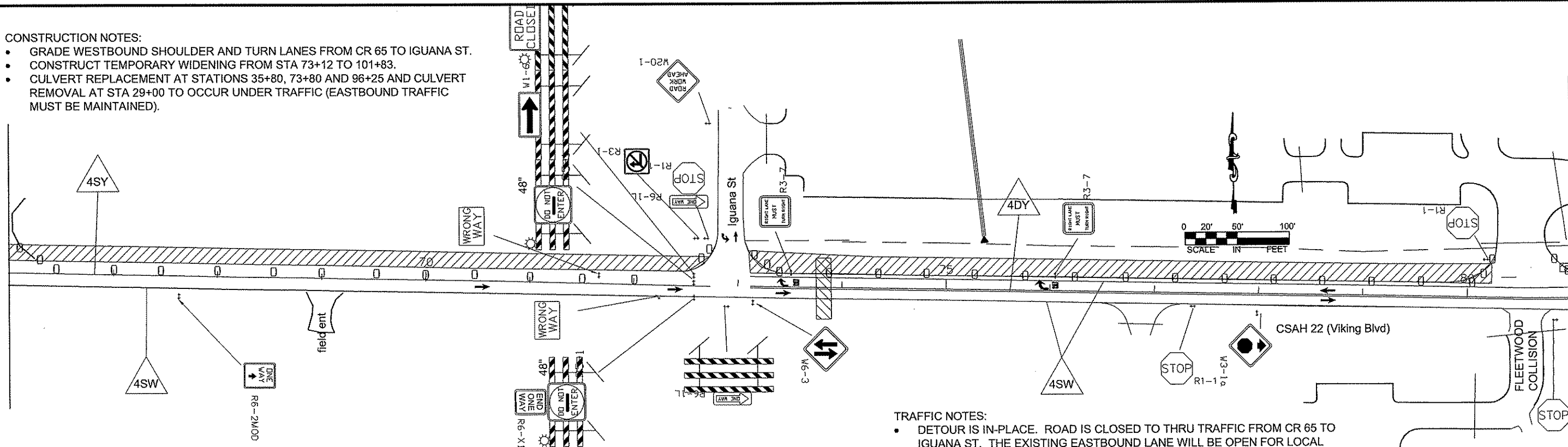
STAGE 1a
TRAFFIC CONTROL
LAYOUT

Sheet 50 of 139 Sheets

CONSTRUCTION NOTES:

- GRADE WESTBOUND SHOULDER AND TURN LANES FROM CR 65 TO IGUANA ST.
- CONSTRUCT TEMPORARY WIDENING FROM STA 73+12 TO 101+83.
- CULVERT REPLACEMENT AT STATIONS 35+80, 73+80 AND 96+25 AND CULVERT REMOVAL AT STA 29+00 TO OCCUR UNDER TRAFFIC (EASTBOUND TRAFFIC MUST BE MAINTAINED).

STATION 66+00

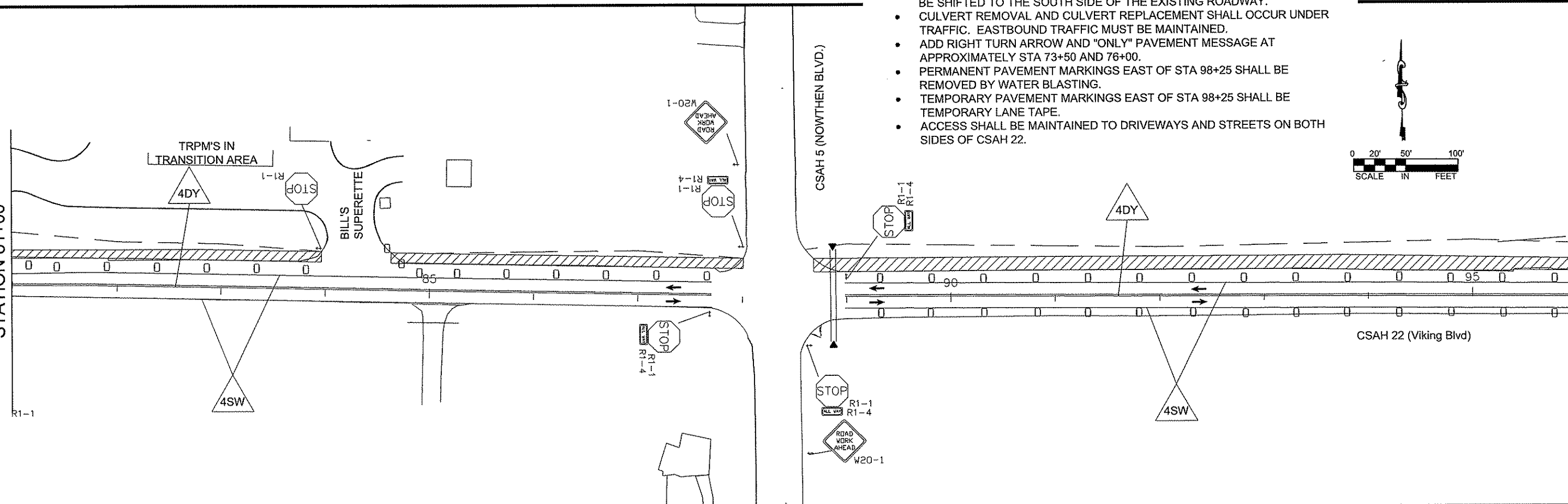


STATION 81+00

TRAFFIC NOTES:

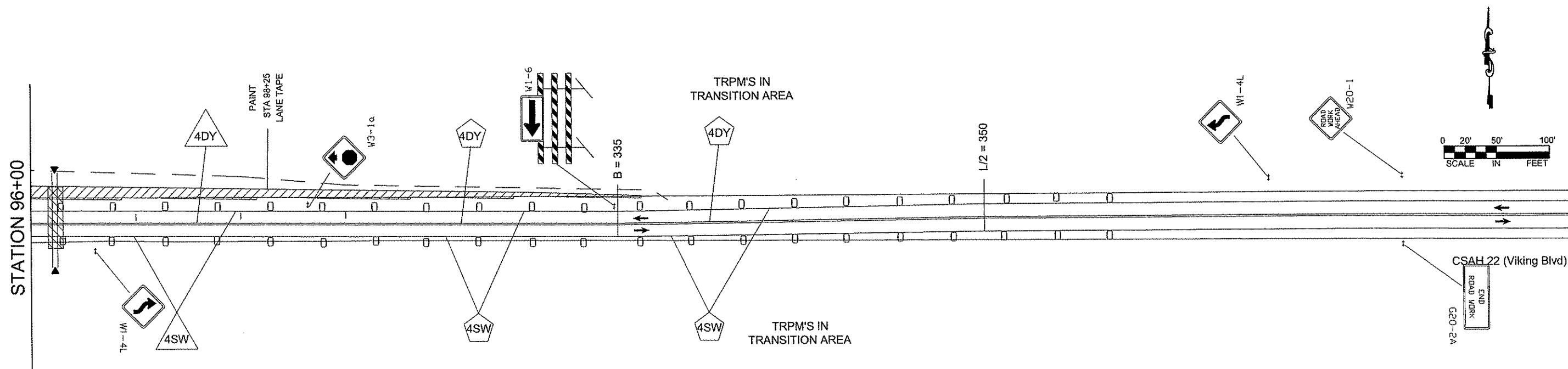
- DETOUR IS IN-PLACE. ROAD IS CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. THE EXISTING EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. WESTBOUND TRAFFIC IS PROHIBITED FROM CR 65 TO IGUANA ST.
- TIGER STREET IS CLOSED DURING THIS STAGE.
- TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE SHIFTED TO THE SOUTH SIDE OF THE EXISTING ROADWAY.
- CULVERT REMOVAL AND CULVERT REPLACEMENT SHALL OCCUR UNDER TRAFFIC. EASTBOUND TRAFFIC MUST BE MAINTAINED.
- ADD RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STA 73+50 AND 76+00.
- PERMANENT PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE REMOVED BY WATER BLASTING.
- TEMPORARY PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE TEMPORARY LANE TAPE.
- ACCESS SHALL BE MAINTAINED TO DRIVEWAYS AND STREETS ON BOTH SIDES OF CSAH 22.

STATION 81+00



STATION 96+00

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. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 REG. NO. 24756					DRAWN BY: MTH DATE 4/19/2012 DESIGN BY: MTH DATE 4/19/2012 CHECKED BY: JR DATE 5/01/2012		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		STAGE 1a TRAFFIC CONTROL LAYOUT	
NO DATE BY CKD APPR REMSION NAME: P:\02-622-28\Bases\TRAFFIC\Stage 1a.dwg											Sheet 51 of 139 Sheets	



CONSTRUCTION NOTES:

- GRADE WESTBOUND SHOULDER AND TURN LANES FROM CR 65 TO IGUANA ST.
- CONSTRUCT TEMPORARY WIDENING FROM STA 73+12 TO 101+83.
- CULVERT REPLACEMENT AT STATIONS 35+80, 73+80 AND 96+25 AND CULVERT REMOVAL AT STA 29+00 TO OCCUR UNDER TRAFFIC (EASTBOUND TRAFFIC MUST BE MAINTAINED).

TRAFFIC NOTES:

- DETOUR IS IN-PLACE. ROAD IS CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. THE EXISTING EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. WESTBOUND TRAFFIC IS PROHIBITED FROM CR 65 TO IGUANA ST.
- TIGER STREET IS CLOSED DURING THIS STAGE.
- TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE SHIFTED TO THE SOUTH SIDE OF THE EXISTING ROADWAY.
- CULVERT REMOVAL AND CULVERT REPLACEMENT SHALL OCCUR UNDER TRAFFIC. EASTBOUND TRAFFIC MUST BE MAINTAINED.
- ADD RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STA 73+50 AND 76+00.
- PERMANENT PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE REMOVED BY WATER BLASTING.
- TEMPORARY PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE TEMPORARY LANE TAPE.
- ACCESS SHALL BE MAINTAINED TO DRIVEWAYS AND STREETS ON BOTH SIDES OF CSAH 22.

NO	DATE	BY	CKD	APPR	REVISION

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.

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12 REG. NO. 24756

DRAWN BY: MTH DATE 4/19/2012

DESIGN BY: MTH DATE 4/19/2012

CHECKED BY: JR DATE 5/01/2012

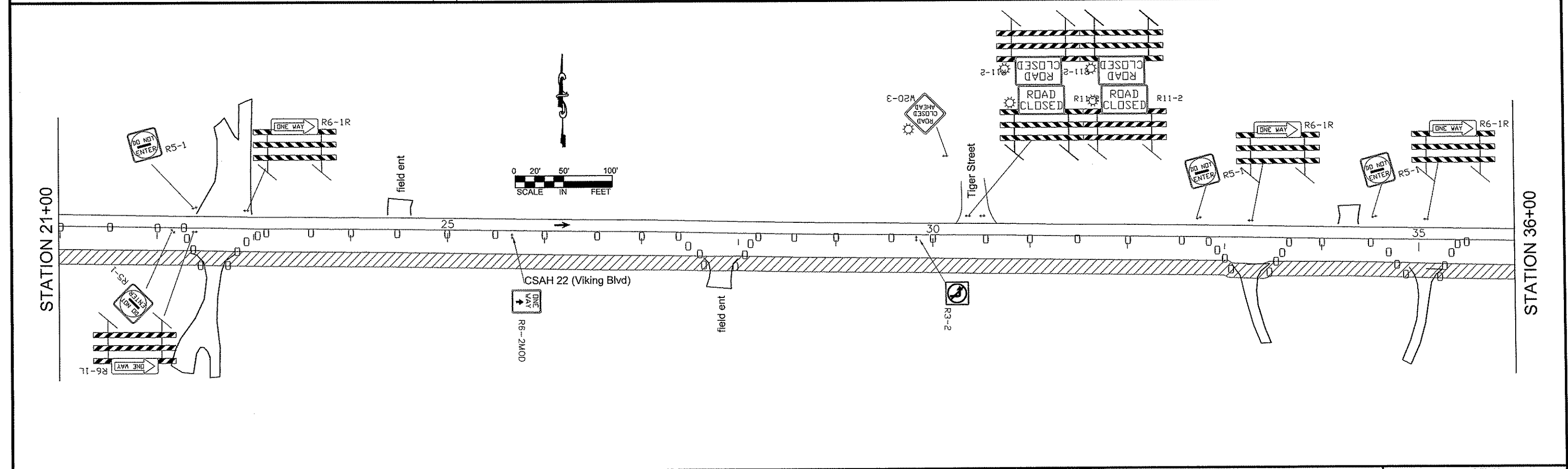
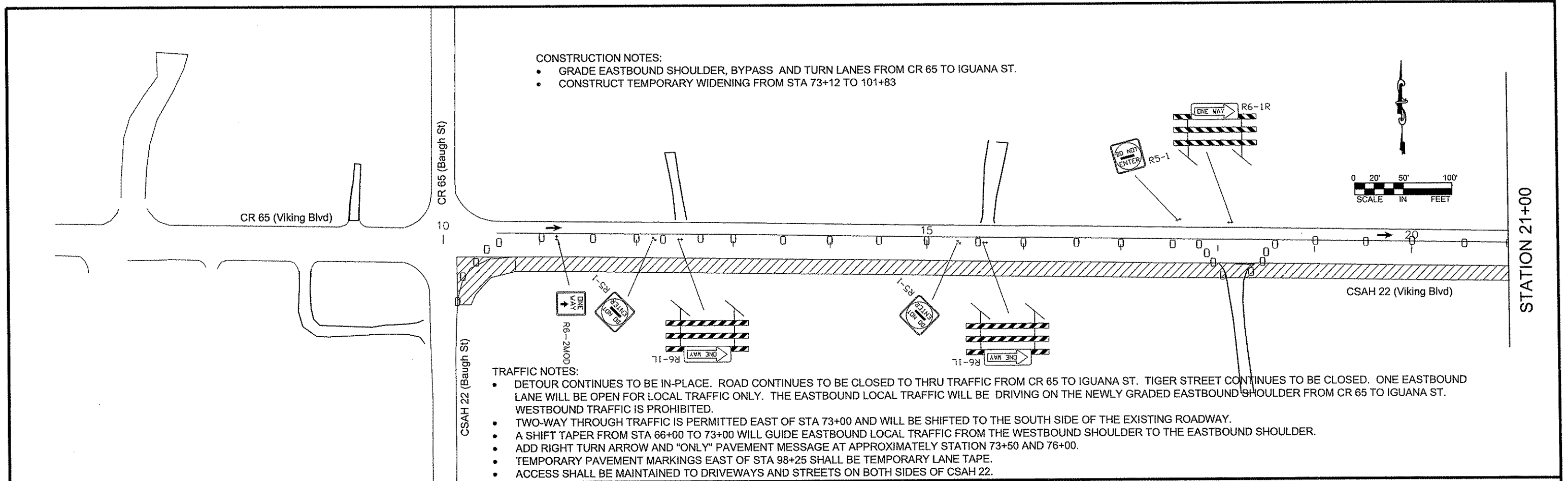


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

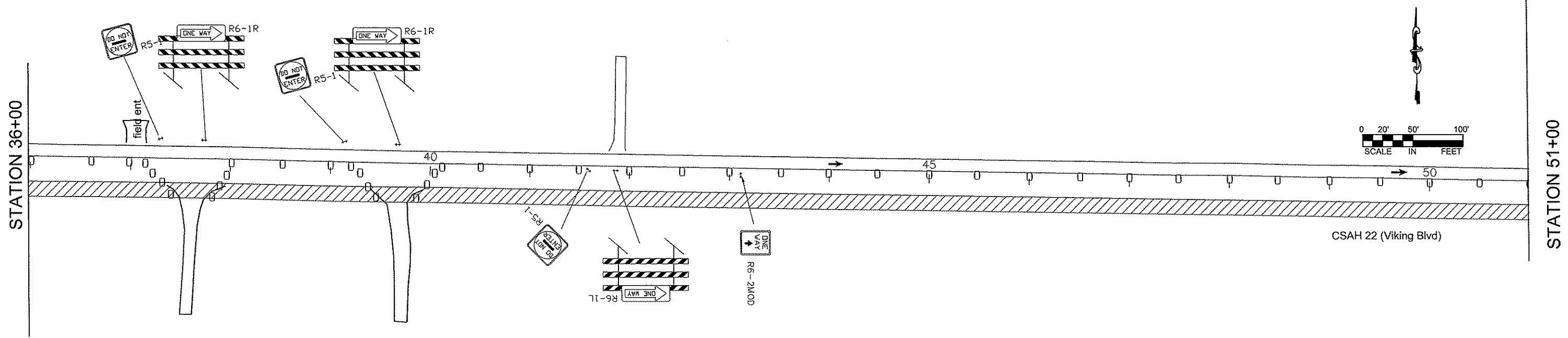
STAGE 1a
TRAFFIC CONTROL
LAYOUT

Sheet 52 of 139 Sheets

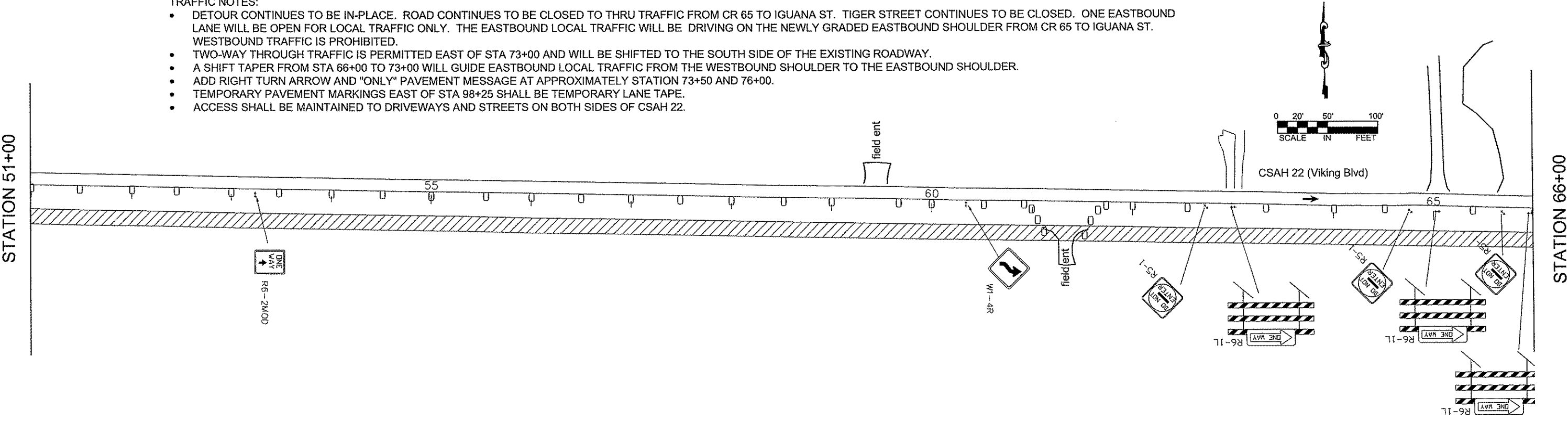


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- CONSTRUCTION NOTES:
- GRADE EASTBOUND SHOULDER, BYPASS AND TURN LANES FROM CR 65 TO IGUANA ST.
 - CONSTRUCT TEMPORARY WIDENING FROM STA 73+12 TO 101+83



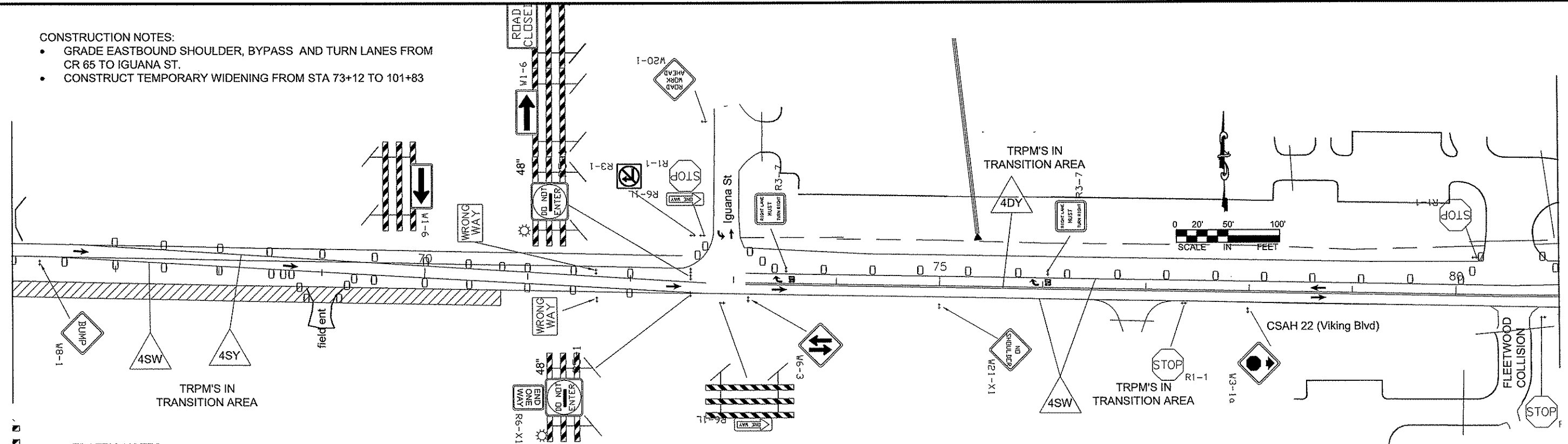
- TRAFFIC NOTES:
- DETOUR CONTINUES TO BE IN-PLACE. ROAD CONTINUES TO BE CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. TIGER STREET CONTINUES TO BE CLOSED. ONE EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. THE EASTBOUND LOCAL TRAFFIC WILL BE DRIVING ON THE NEWLY GRADED EASTBOUND SHOULDER FROM CR 65 TO IGUANA ST. WESTBOUND TRAFFIC IS PROHIBITED.
 - TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE SHIFTED TO THE SOUTH SIDE OF THE EXISTING ROADWAY.
 - A SHIFT TAPER FROM STA 66+00 TO 73+00 WILL GUIDE EASTBOUND LOCAL TRAFFIC FROM THE WESTBOUND SHOULDER TO THE EASTBOUND SHOULDER.
 - ADD RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STATION 73+50 AND 76+00.
 - TEMPORARY PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE TEMPORARY LANE TAPE.
 - ACCESS SHALL BE MAINTAINED TO DRIVEWAYS AND STREETS ON BOTH SIDES OF CSAH 22.



CONSTRUCTION NOTES:

- GRADE EASTBOUND SHOULDER, BYPASS AND TURN LANES FROM CR 65 TO IGUANA ST.
- CONSTRUCT TEMPORARY WIDENING FROM STA 73+12 TO 101+83

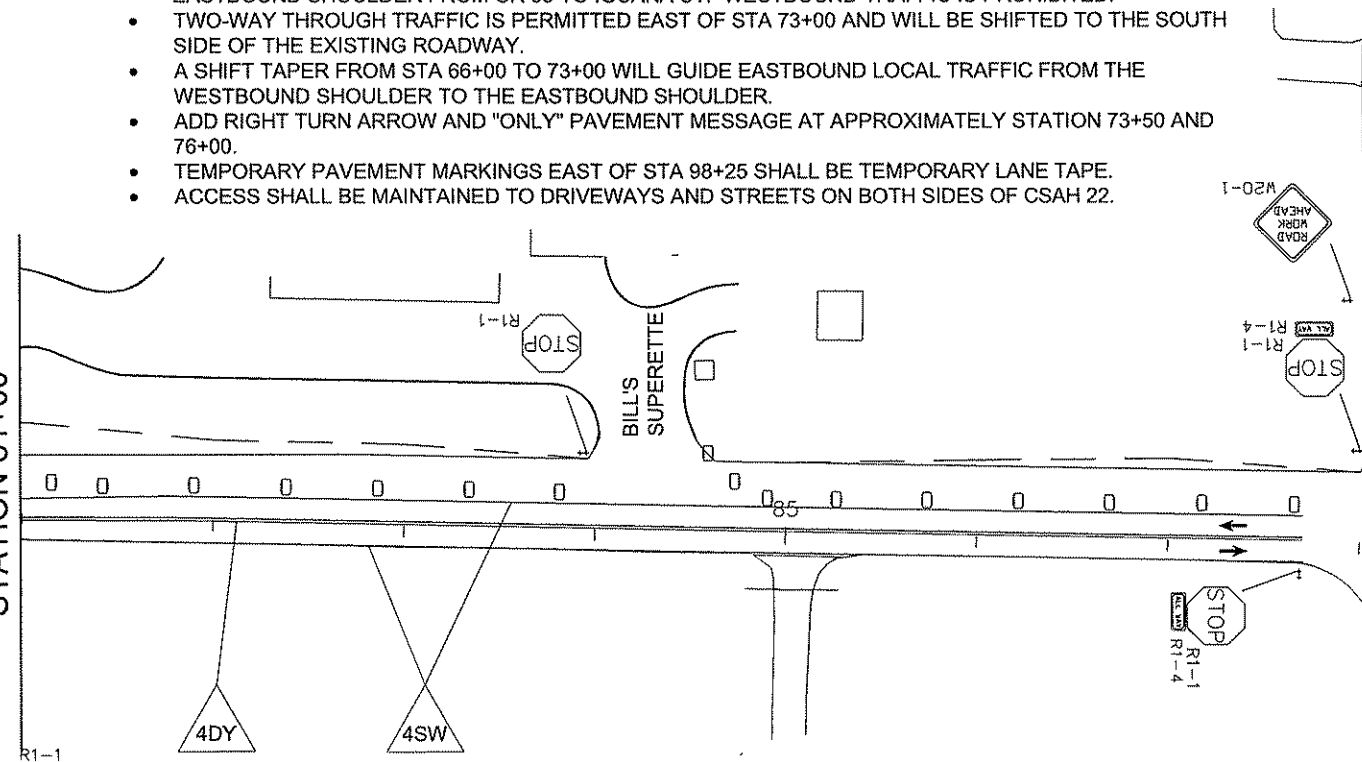
STATION 66+00



TRAFFIC NOTES:

- DETOUR CONTINUES TO BE IN-PLACE. ROAD CONTINUES TO BE CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. TIGER STREET CONTINUES TO BE CLOSED. ONE EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. THE EASTBOUND LOCAL TRAFFIC WILL BE DRIVING ON THE NEWLY GRADED EASTBOUND SHOULDER FROM CR 65 TO IGUANA ST. WESTBOUND TRAFFIC IS PROHIBITED.
- TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE SHIFTED TO THE SOUTH SIDE OF THE EXISTING ROADWAY.
- A SHIFT TAPER FROM STA 66+00 TO 73+00 WILL GUIDE EASTBOUND LOCAL TRAFFIC FROM THE WESTBOUND SHOULDER TO THE EASTBOUND SHOULDER.
- ADD RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STATION 73+50 AND 76+00.
- TEMPORARY PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE TEMPORARY LANE TAPE.
- ACCESS SHALL BE MAINTAINED TO DRIVEWAYS AND STREETS ON BOTH SIDES OF CSAH 22.

STATION 81+00



STATION 96+00

NO	DATE	BY	CKD	APPR	REVISION

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.

PRINT NAME: CURT A. KOBILARCSIK
SIGNATURE: *Curt A. Kobilarsik*
DATE: 6-8-12 REG. NO. 24756

DRAWN BY: MTH DATE 4/19/2012
DESIGN BY: MTH DATE 4/19/2012
CHECKED BY: JR DATE 5/01/2012

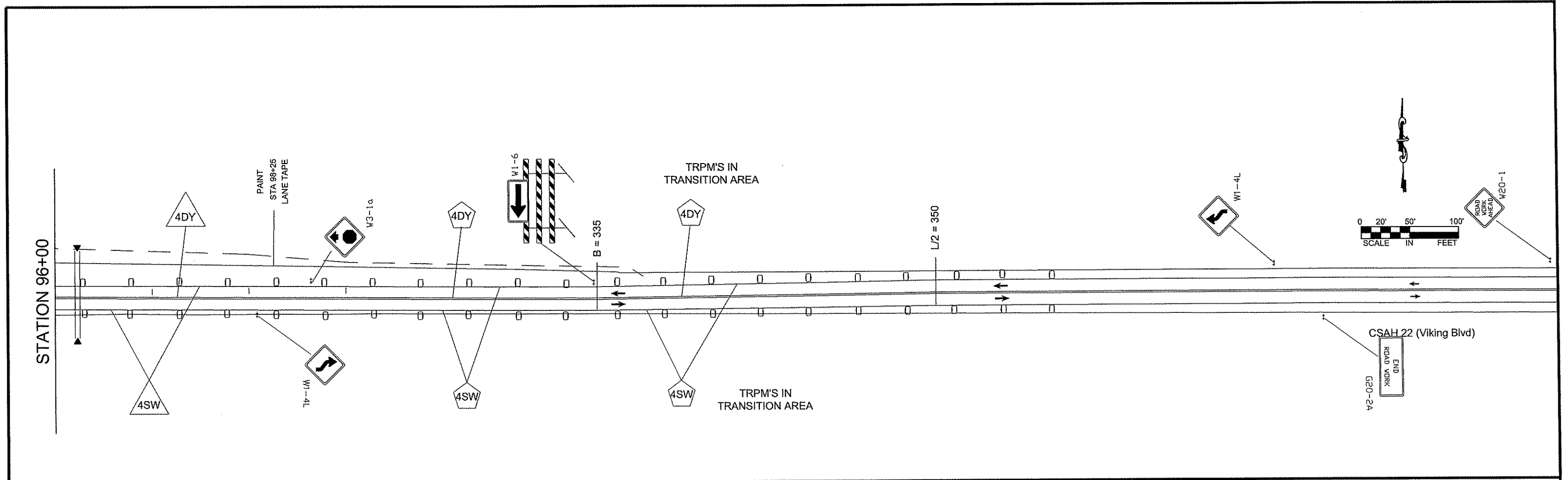


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

STAGE 1b
TRAFFIC CONTROL
LAYOUT

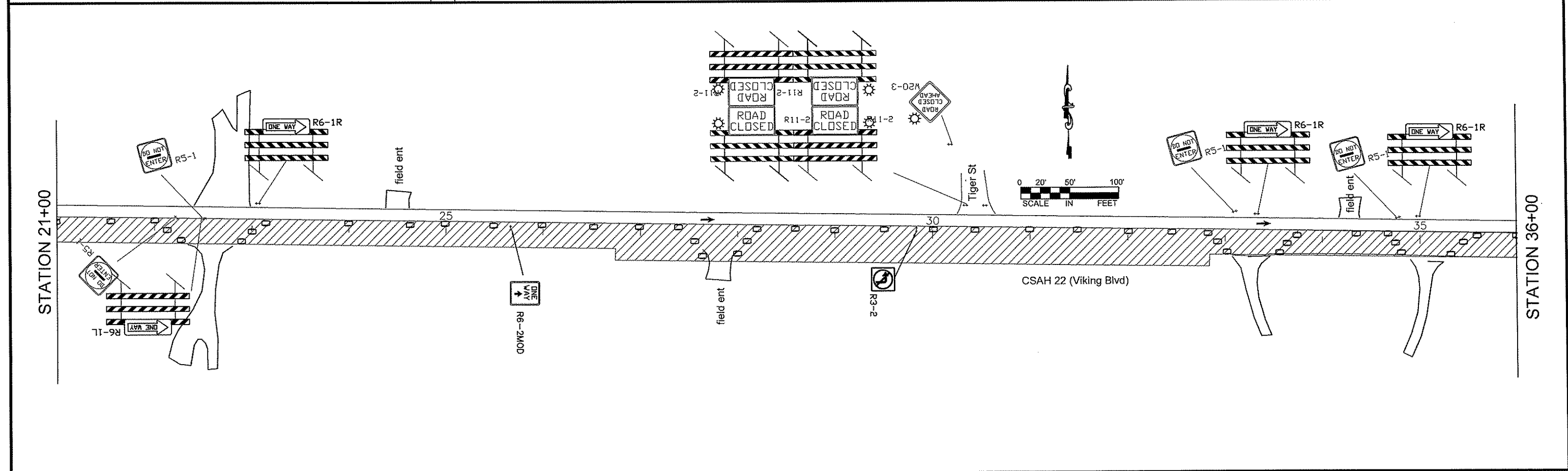
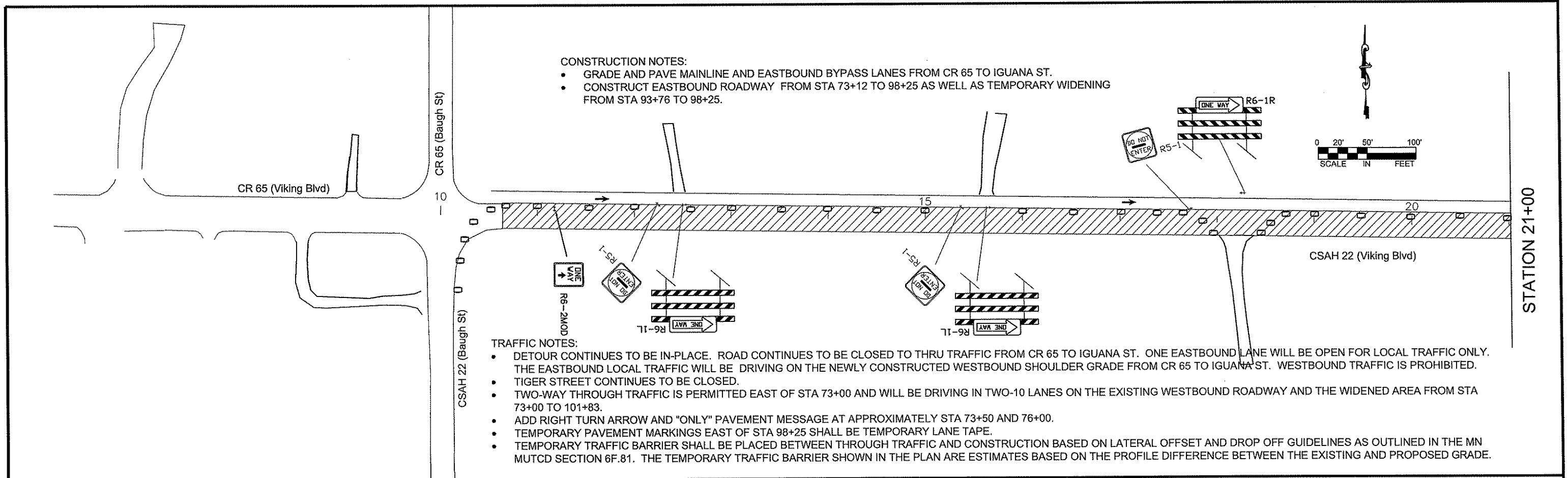
Sheet 55 of 139 Sheets



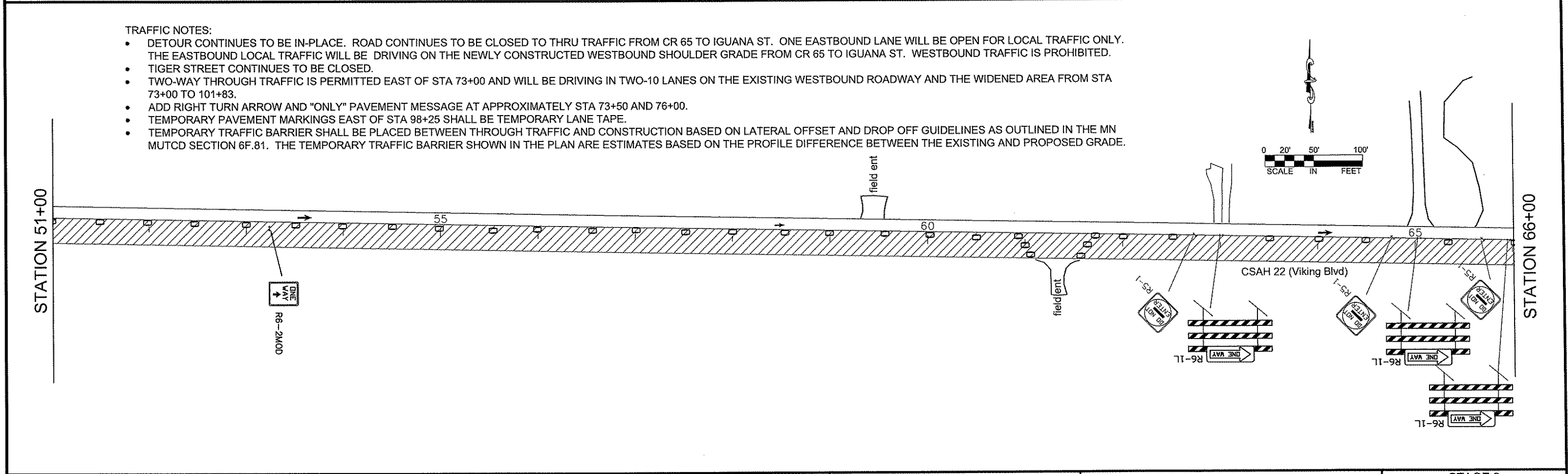
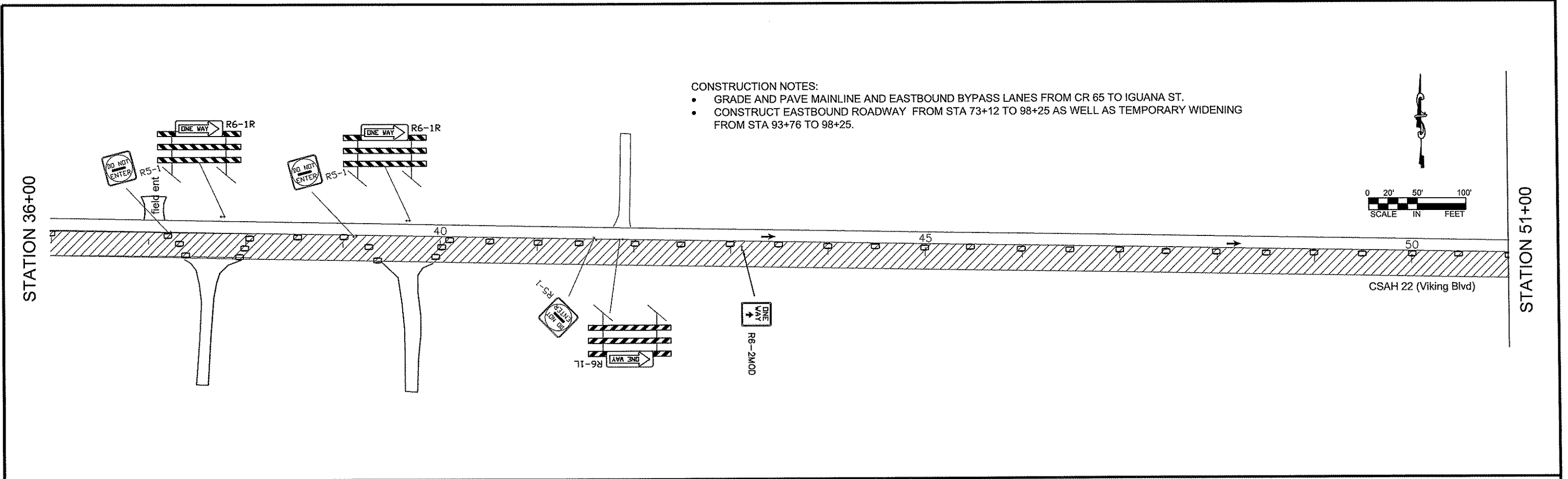
- CONSTRUCTION NOTES:
- GRADE EASTBOUND SHOULDER, BYPASS AND TURN LANES FROM CR 65 TO IGUANA ST.
 - CONSTRUCT TEMPORARY WIDENING FROM STA 73+12 TO 101+83.

- TRAFFIC NOTES:
- DETOUR CONTINUES TO BE IN-PLACE. ROAD CONTINUES TO BE CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. TIGER STREET CONTINUES TO BE CLOSED. ONE EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. THE EASTBOUND LOCAL TRAFFIC WILL BE DRIVING ON THE NEWLY GRADED EASTBOUND SHOULDER FROM CR 65 TO IGUANA ST. WESTBOUND TRAFFIC IS PROHIBITED.
 - TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE SHIFTED TO THE SOUTH SIDE OF THE EXISTING ROADWAY.
 - A SHIFT TAPER FROM STA 66+00 TO 73+00 WILL GUIDE EASTBOUND LOCAL TRAFFIC FROM THE WESTBOUND SHOULDER TO THE EASTBOUND SHOULDER.
 - ADD RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STATION 73+50 AND 76+00.
 - TEMPORARY PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE TEMPORARY LANE TAPE.
 - ACCESS SHALL BE MAINTAINED TO DRIVEWAYS AND STREETS ON BOTH SIDES OF CSAH 22.

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. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt Kobilarsik</i> DATE: 6-8-12 REG. NO. 24756						DRAWN BY: MTH DATE 4/19/2012 DESIGN BY: MTH DATE 4/19/2012 CHECKED BY: JR DATE 5/01/2012		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		STAGE 1b TRAFFIC CONTROL LAYOUT Sheet 56 of 139 Sheets	
NO	DATE	BY	CKD	APPR	REVISION	NAME: P:\02-622-28\BASE\TRAFFIC\Stage 1b.dwg							



NO DATE BY CKD APPR REVISION NAME: P:\02-622-28\Bases\TRAFFIC\Stage 2.dwg					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. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 REG. NO. 24756		DRAWN BY: MTH DATE 4/19/2012 DESIGN BY: MTH DATE 4/19/2012 CHECKED BY: JR DATE 5/01/2012		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		STAGE 2 TRAFFIC CONTROL LAYOUT Sheet 57 of 139 Sheets	
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NO DATE BY CKD APPR REVISION NAME: P:\02-622-28\Baset\TRAFFIC\Stage 2.dwg					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. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 REG. NO. 24756		DRAWN BY: MTH DATE 4/19/2012 DESIGN BY: MTH DATE 4/19/2012 CHECKED BY: JLR DATE 5/01/2012		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		STAGE 2 TRAFFIC CONTROL LAYOUT Sheet 58 of 139 Sheets	
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TRAFFIC NOTES:

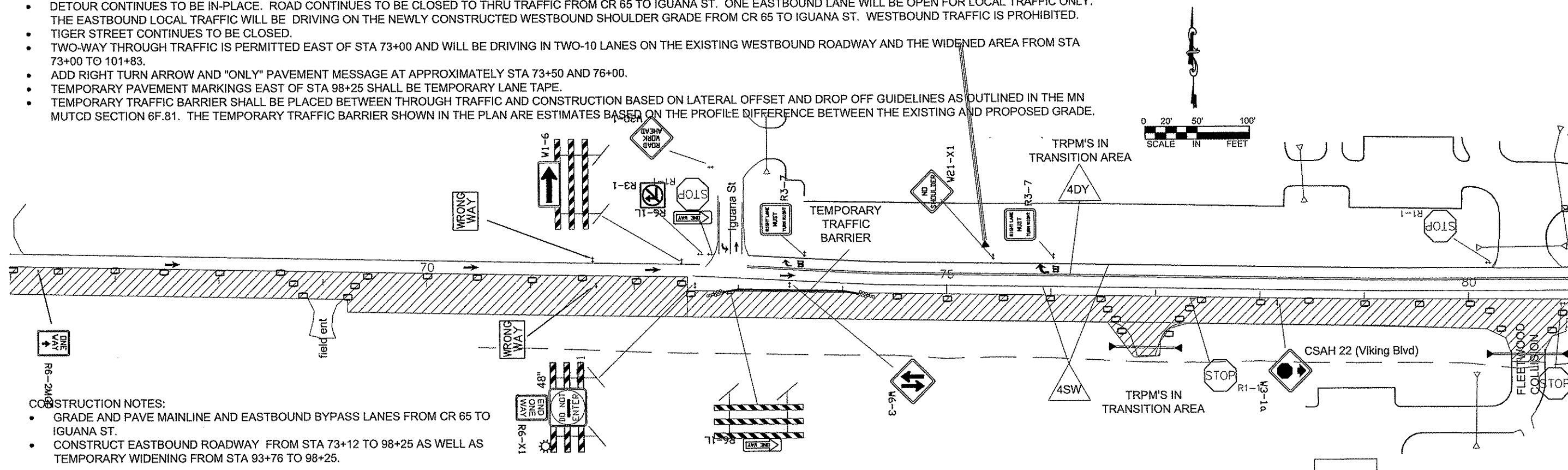
- DETOUR CONTINUES TO BE IN-PLACE. ROAD CONTINUES TO BE CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. ONE EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. THE EASTBOUND LOCAL TRAFFIC WILL BE DRIVING ON THE NEWLY CONSTRUCTED WESTBOUND SHOULDER GRADE FROM CR 65 TO IGUANA ST. WESTBOUND TRAFFIC IS PROHIBITED.
- TIGER STREET CONTINUES TO BE CLOSED.
- TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE DRIVING IN TWO-10 LANES ON THE EXISTING WESTBOUND ROADWAY AND THE WIDENED AREA FROM STA 73+00 TO 101+83.
- ADD RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STA 73+50 AND 76+00.
- TEMPORARY PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE TEMPORARY LANE TAPE.
- TEMPORARY TRAFFIC BARRIER SHALL BE PLACED BETWEEN THROUGH TRAFFIC AND CONSTRUCTION BASED ON LATERAL OFFSET AND DROP OFF GUIDELINES AS OUTLINED IN THE MN MUTCD SECTION 6F.81. THE TEMPORARY TRAFFIC BARRIER SHOWN IN THE PLAN ARE ESTIMATES BASED ON THE PROFILE DIFFERENCE BETWEEN THE EXISTING AND PROPOSED GRADE.

CONSTRUCTION NOTES:

- GRADE AND PAVE MAINLINE AND EASTBOUND BYPASS LANES FROM CR 65 TO IGUANA ST.
- CONSTRUCT EASTBOUND ROADWAY FROM STA 73+12 TO 98+25 AS WELL AS TEMPORARY WIDENING FROM STA 93+76 TO 98+25.

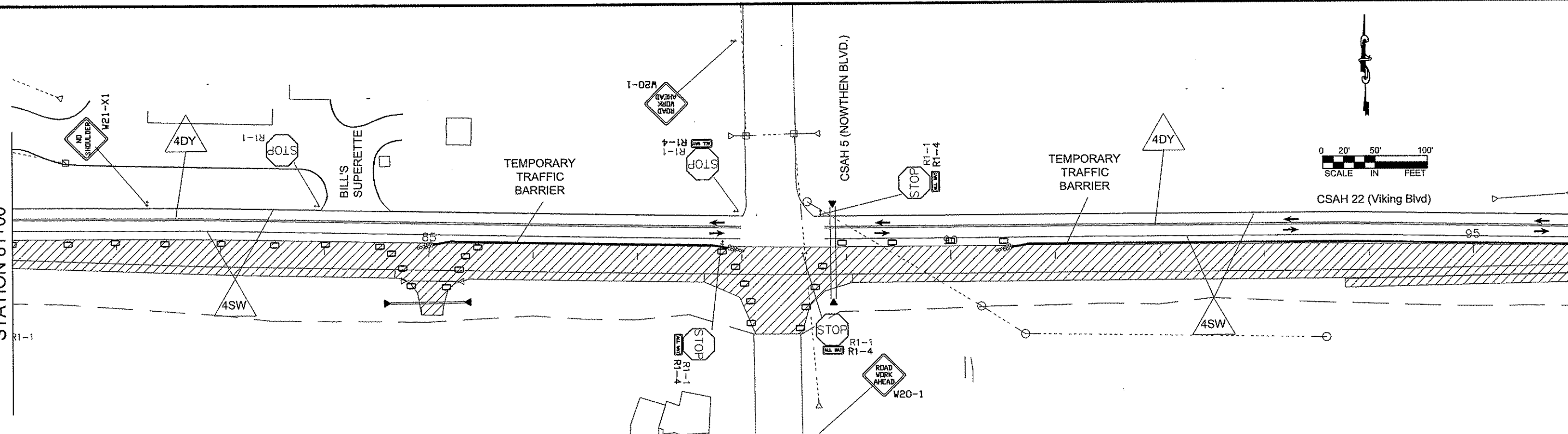
STATION 66+00

STATION 81+00



STATION 81+00

STATION 96+00



NO	DATE	BY	CKD	APPR	REVISION

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PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12 REG. NO. 24756

DRAWN BY: MTH DATE 4/19/2012

DESIGN BY: MTH DATE 4/19/2012

CHECKED BY: JR DATE 5/01/2012

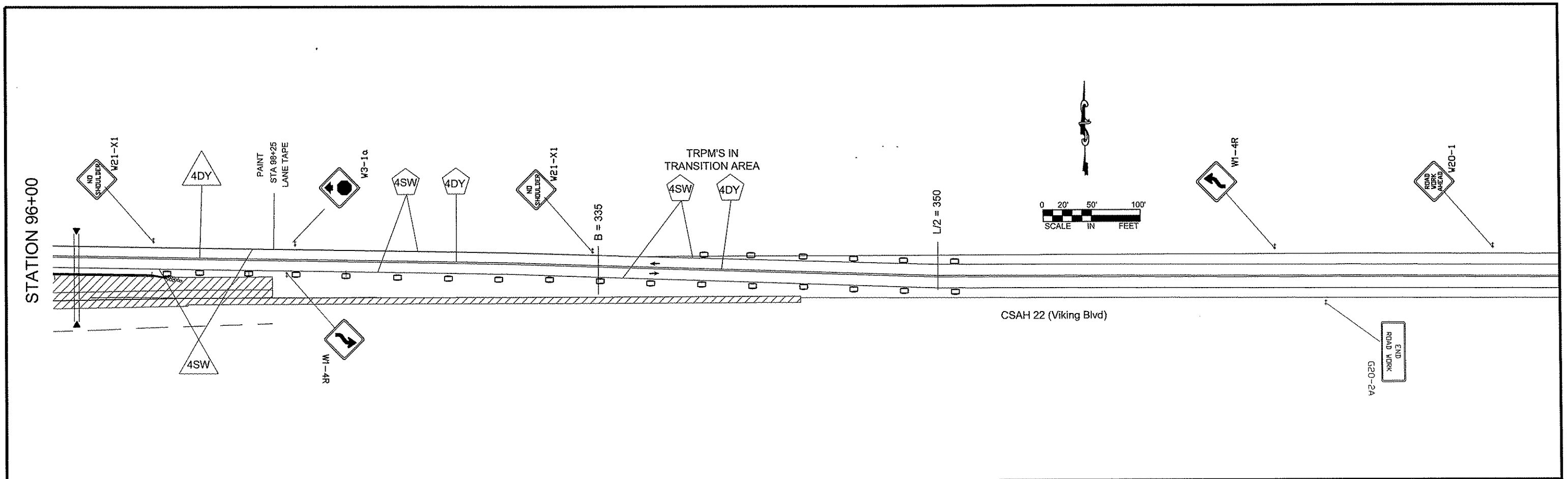


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

STAGE 2
TRAFFIC CONTROL
LAYOUT

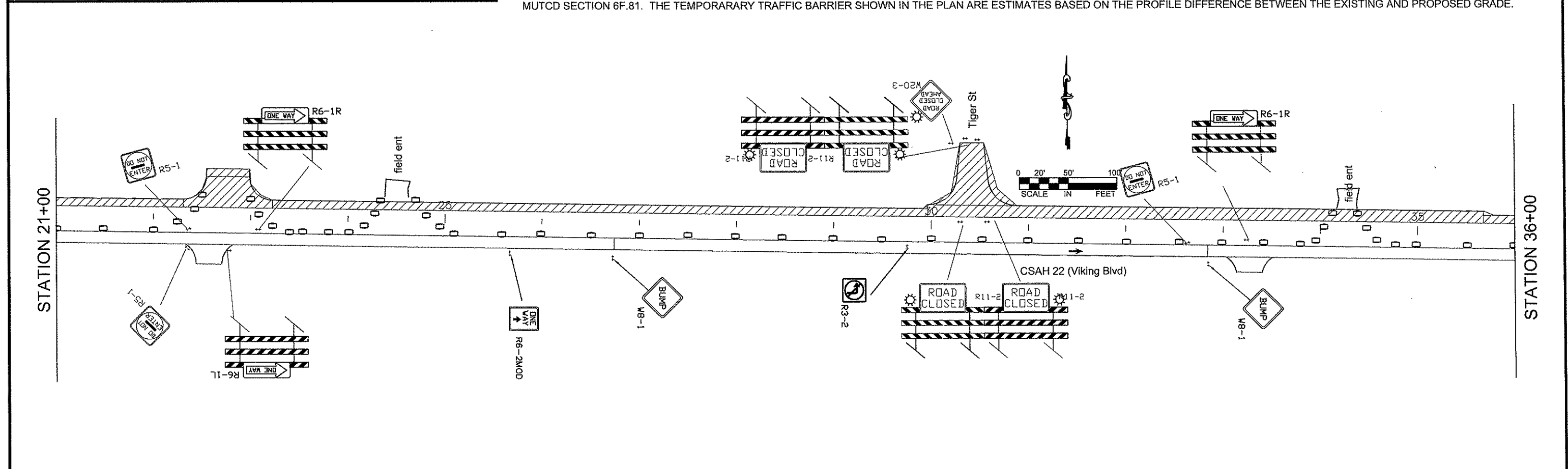
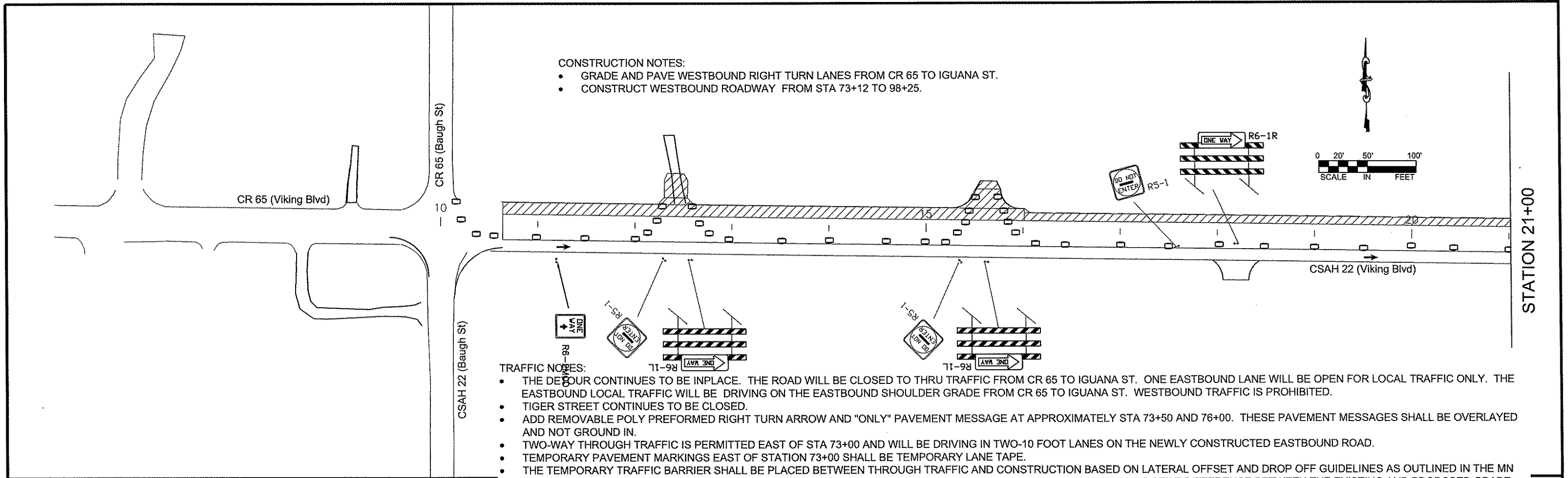
Sheet 59 of 139 Sheets



- CONSTRUCTION NOTES:
- GRADE AND PAVE MAINLINE AND EASTBOUND BYPASS LANES FROM CR 65 TO IGUANA ST.
 - CONSTRUCT EASTBOUND ROADWAY FROM STA 73+12 TO 98+25 AS WELL AS TEMPORARY WIDENING FROM STA 93+76 TO 98+25.

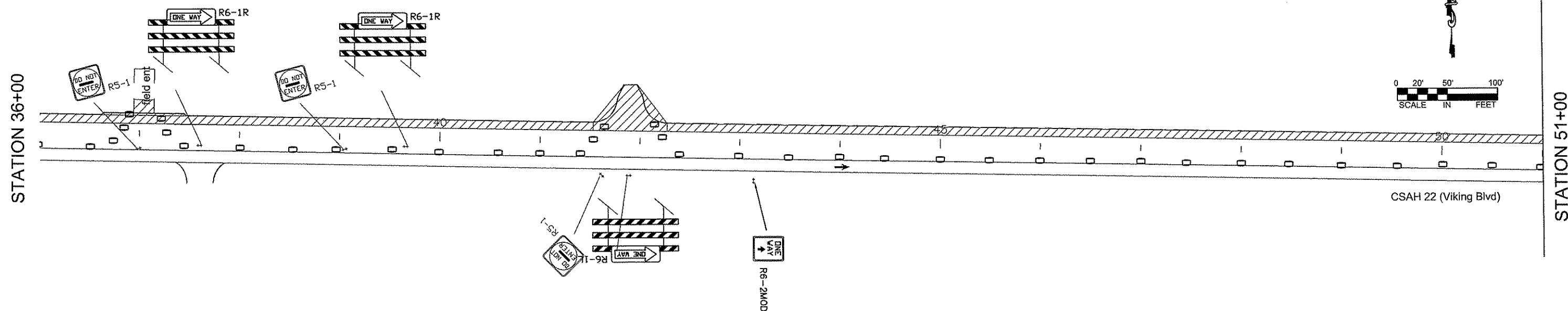
- TRAFFIC NOTES:
- DETOUR CONTINUES TO BE IN-PLACE. ROAD CONTINUES TO BE CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. ONE EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. THE EASTBOUND LOCAL TRAFFIC WILL BE DRIVING ON THE NEWLY CONSTRUCTED WESTBOUND SHOULDER GRADE FROM CR 65 TO IGUANA ST. WESTBOUND TRAFFIC IS PROHIBITED.
 - TIGER STREET CONTINUES TO BE CLOSED.
 - TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE DRIVING IN TWO-10 LANES ON THE EXISTING WESTBOUND ROADWAY AND THE WIDENED AREA FROM STA 73+00 TO 101+83.
 - ADD RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STA 73+50 AND 76+00.
 - TEMPORARY PAVEMENT MARKINGS EAST OF STA 98+25 SHALL BE TEMPORARY LANE TAPE.
 - TEMPORARY TRAFFIC BARRIER SHALL BE PLACED BETWEEN THROUGH TRAFFIC AND CONSTRUCTION BASED ON LATERAL OFFSET AND DROP OFF GUIDELINES AS OUTLINED IN THE MN MUTCD SECTION 6F.81. THE TEMPORARY TRAFFIC BARRIER SHOWN IN THE PLAN ARE ESTIMATES BASED ON THE PROFILE DIFFERENCE BETWEEN THE EXISTING AND PROPOSED GRADE.

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NO	DATE	BY	CKD	APPR	REVISION																						



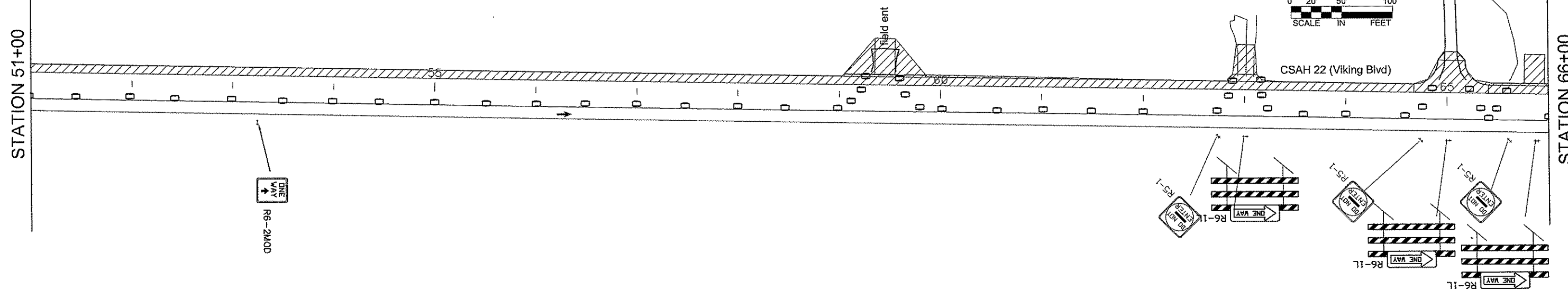
NO DATE BY CKD APPR REVISION NAME: P:\02-622-28\Baset\TRAFFIC\Stage 3.dwg					I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 REG. NO. 24756		DRAWN BY: MTH DATE 4/19/2012 DESIGN BY: MTH DATE 4/19/2012 CHECKED BY: JR DATE 5/01/2012		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		STAGE 3 TRAFFIC CONTROL LAYOUT Sheet 61 of 139 Sheets	
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- CONSTRUCTION NOTES:
- GRADE AND PAVE WESTBOUND RIGHT TURN LANES FROM CR 65 TO IGUANA ST.
 - CONSTRUCT WESTBOUND ROADWAY FROM STA 73+12 TO 98+25.



TRAFFIC NOTES:

- THE DETOUR CONTINUES TO BE INPLACE. THE ROAD WILL BE CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. ONE EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. THE EASTBOUND LOCAL TRAFFIC WILL BE DRIVING ON THE EASTBOUND SHOULDER GRADE FROM CR 65 TO IGUANA ST. WESTBOUND TRAFFIC IS PROHIBITED.
- TIGER STREET CONTINUES TO BE CLOSED.
- ADD REMOVABLE POLY PREFORMED RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STA 73+50 AND 76+00. THESE PAVEMENT MESSAGES SHALL BE OVERLAYED AND NOT GROUND IN.
- TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE DRIVING IN TWO-10 FOOT LANES ON THE NEWLY CONSTRUCTED EASTBOUND ROAD.
- TEMPORARY PAVEMENT MARKINGS EAST OF STATION 73+00 SHALL BE TEMPORARY LANE TAPE.
- THE TEMPORARY TRAFFIC BARRIER SHALL BE PLACED BETWEEN THROUGH TRAFFIC AND CONSTRUCTION BASED ON LATERAL OFFSET AND DROP OFF GUIDELINES AS OUTLINED IN THE MN MUTCD SECTION 6F.81. THE TEMPORARY TRAFFIC BARRIER SHOWN IN THE PLAN ARE ESTIMATES BASED ON THE PROFILE DIFFERENCE BETWEEN THE EXISTING AND PROPOSED GRADE.



NO	DATE	BY	CHKD	APPR	REVISION

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.

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12 REG. NO. 24756

DRAWN BY: MTH DATE 4/19/2012

DESIGN BY: MTH DATE 4/19/2012

CHECKED BY: JR DATE 5/01/2012



ANOKA COUNTY
HIGHWAY DEPT.

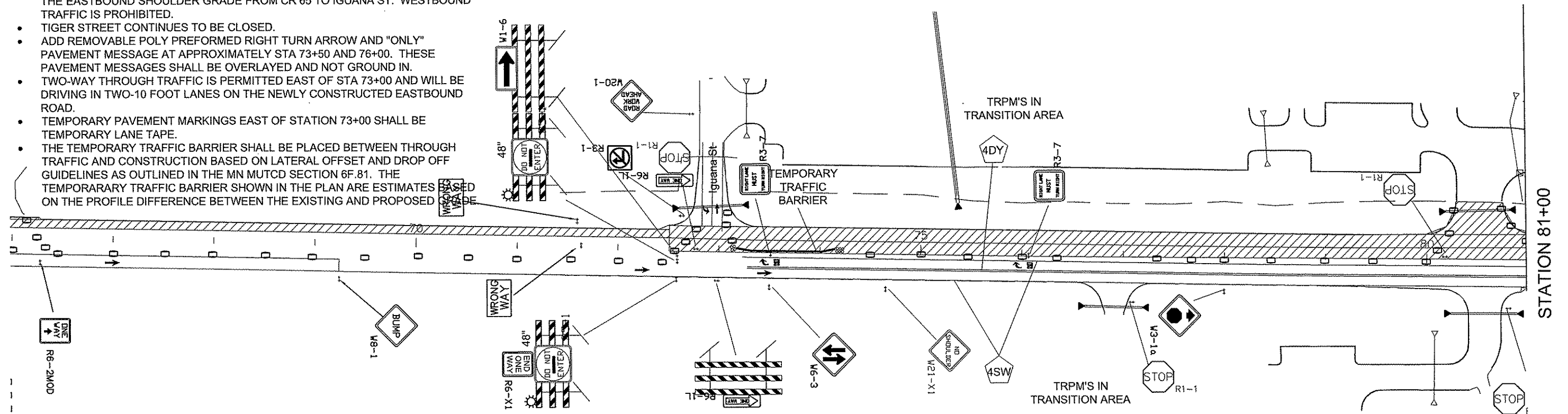
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STAGE 3
TRAFFIC CONTROL
LAYOUT

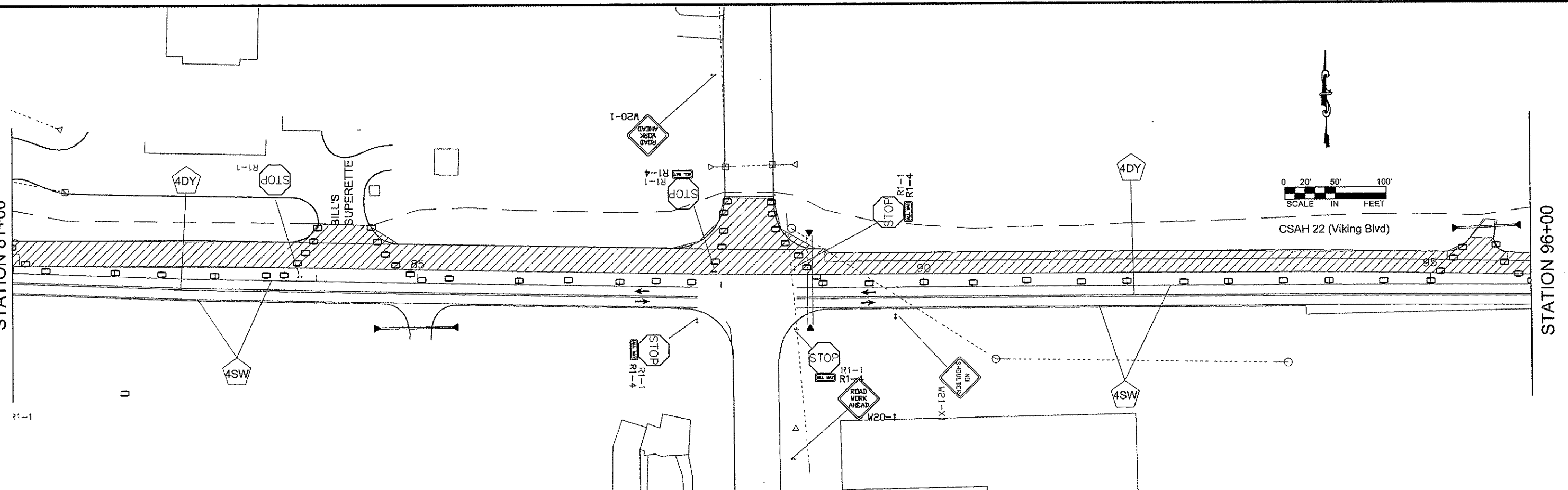
Sheet 62 of 139 Sheets

- THE DETOUR CONTINUES TO BE INPLACE. THE ROAD WILL BE CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. ONE EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. THE EASTBOUND LOCAL TRAFFIC WILL BE DRIVING ON THE EASTBOUND SHOULDER GRADE FROM CR 65 TO IGUANA ST. WESTBOUND TRAFFIC IS PROHIBITED.
- TIGER STREET CONTINUES TO BE CLOSED.
- ADD REMOVABLE POLY PREFORMED RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STA 73+50 AND 76+00. THESE PAVEMENT MESSAGES SHALL BE OVERLAYED AND NOT GROUND IN.
- TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE DRIVING IN TWO-10 FOOT LANES ON THE NEWLY CONSTRUCTED EASTBOUND ROAD.
- TEMPORARY PAVEMENT MARKINGS EAST OF STATION 73+00 SHALL BE TEMPORARY LANE TAPE.
- THE TEMPORARY TRAFFIC BARRIER SHALL BE PLACED BETWEEN THROUGH TRAFFIC AND CONSTRUCTION BASED ON LATERAL OFFSET AND DROP OFF GUIDELINES AS OUTLINED IN THE MN MUTCD SECTION 6F.81. THE TEMPORARY TRAFFIC BARRIER SHOWN IN THE PLAN ARE ESTIMATES BASED ON THE PROFILE DIFFERENCE BETWEEN THE EXISTING AND PROPOSED GRADE.

- GRADE AND PAVE WESTBOUND RIGHT TURN LANES FROM CR 65 TO IGUANA ST.
- CONSTRUCT WESTBOUND ROADWAY FROM STA 73+12 TO 98+25.



STATION 81+00



STATION 96+00

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME
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DULY REGISTERED PROFESSIONAL ENGINEER UNDER
THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: CURT A. KOBLARCSIK

SIGNATURE: *Curt A. Koblarsik*

DATE: 6-8-72 REG. NO. 24756

DRAWN BY MTH DATE 4/19/2012
DESIGN BY MTH DATE 4/19/2012
CHECKED BY JR DATE 5/01/2012

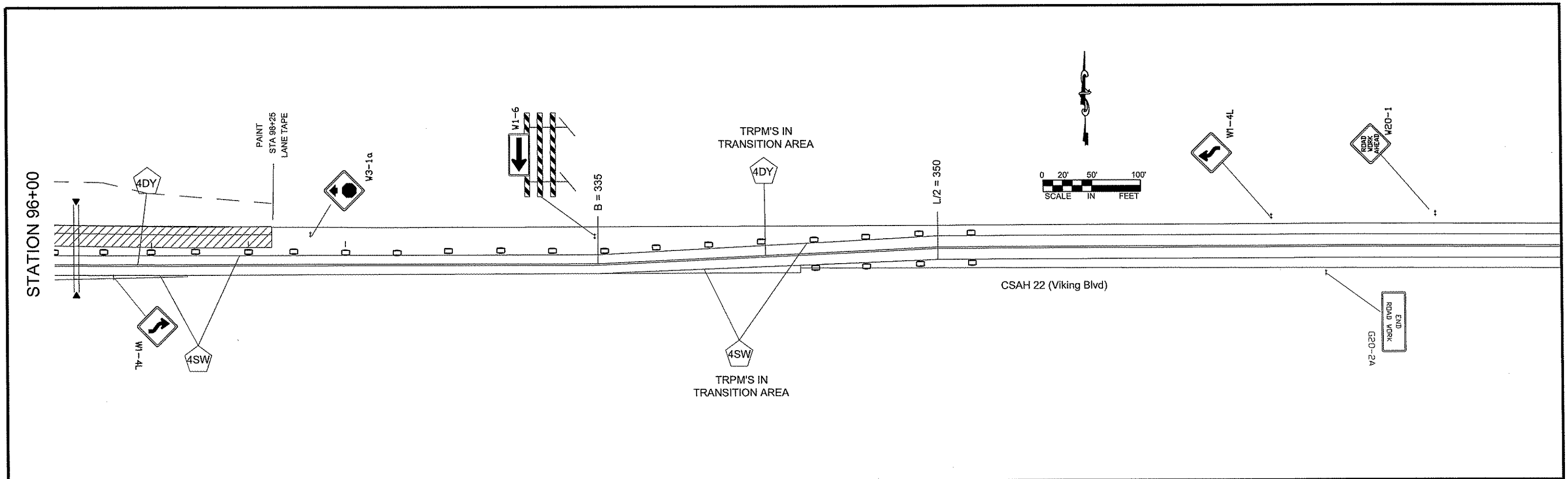


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

STAGE 3 TRAFFIC CONTROL LAYOUT

Sheet 63 of 139 Sheets



CONSTRUCTION NOTES:

- GRADE AND PAVE WESTBOUND RIGHT TURN LANES FROM CR 65 TO IGUANA ST.
- CONSTRUCT WESTBOUND ROADWAY FROM STA 73+12 TO 98+25.

TRAFFIC NOTES:

- THE DETOUR CONTINUES TO BE INPLACE. THE ROAD WILL BE CLOSED TO THRU TRAFFIC FROM CR 65 TO IGUANA ST. ONE EASTBOUND LANE WILL BE OPEN FOR LOCAL TRAFFIC ONLY. THE EASTBOUND LOCAL TRAFFIC WILL BE DRIVING ON THE EASTBOUND SHOULDER GRADE FROM CR 65 TO IGUANA ST. WESTBOUND TRAFFIC IS PROHIBITED.
- TIGER STREET CONTINUES TO BE CLOSED.
- ADD REMOVABLE POLY PREFORMED RIGHT TURN ARROW AND "ONLY" PAVEMENT MESSAGE AT APPROXIMATELY STA 73+50 AND 76+00. THESE PAVEMENT MESSAGES SHALL BE OVERLAYED AND NOT GROUND IN.
- TWO-WAY THROUGH TRAFFIC IS PERMITTED EAST OF STA 73+00 AND WILL BE DRIVING IN TWO-10 FOOT LANES ON THE NEWLY CONSTRUCTED EASTBOUND ROAD.
- TEMPORARY PAVEMENT MARKINGS EAST OF STATION 73+00 SHALL BE TEMPORARY LANE TAPE.
- THE TEMPORARY TRAFFIC BARRIER SHALL BE PLACED BETWEEN THROUGH TRAFFIC AND CONSTRUCTION BASED ON LATERAL OFFSET AND DROP OFF GUIDELINES AS OUTLINED IN THE MN MUTCD SECTION 6F.81. THE TEMPORARY TRAFFIC BARRIER SHOWN IN THE PLAN ARE ESTIMATES BASED ON THE PROFILE DIFFERENCE BETWEEN THE EXISTING AND PROPOSED GRADE.

NO	DATE	BY	CKD	APPR	REVISION

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.

PRINT NAME: CURT A. KOBIARCSIK

SIGNATURE: *Curt A. Kobiarsik*

DATE: 6-8-12 REG. NO. 24756

DRAWN BY: MTH DATE 4/19/2012

DESIGN BY: MTH DATE 4/19/2012

CHECKED BY: JR DATE 5/01/2012

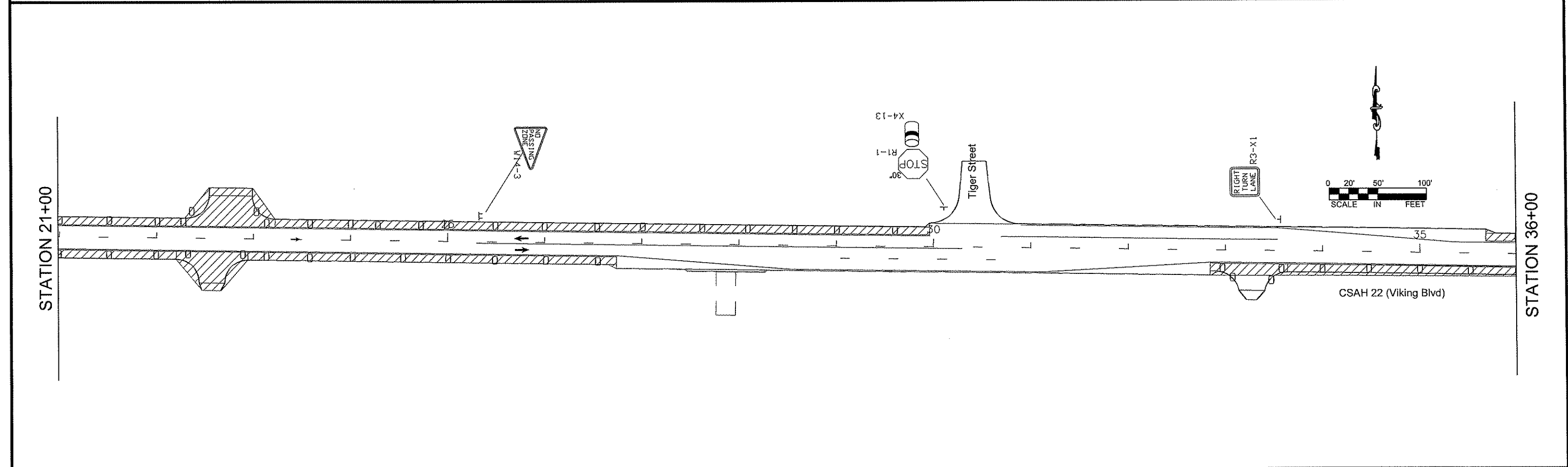
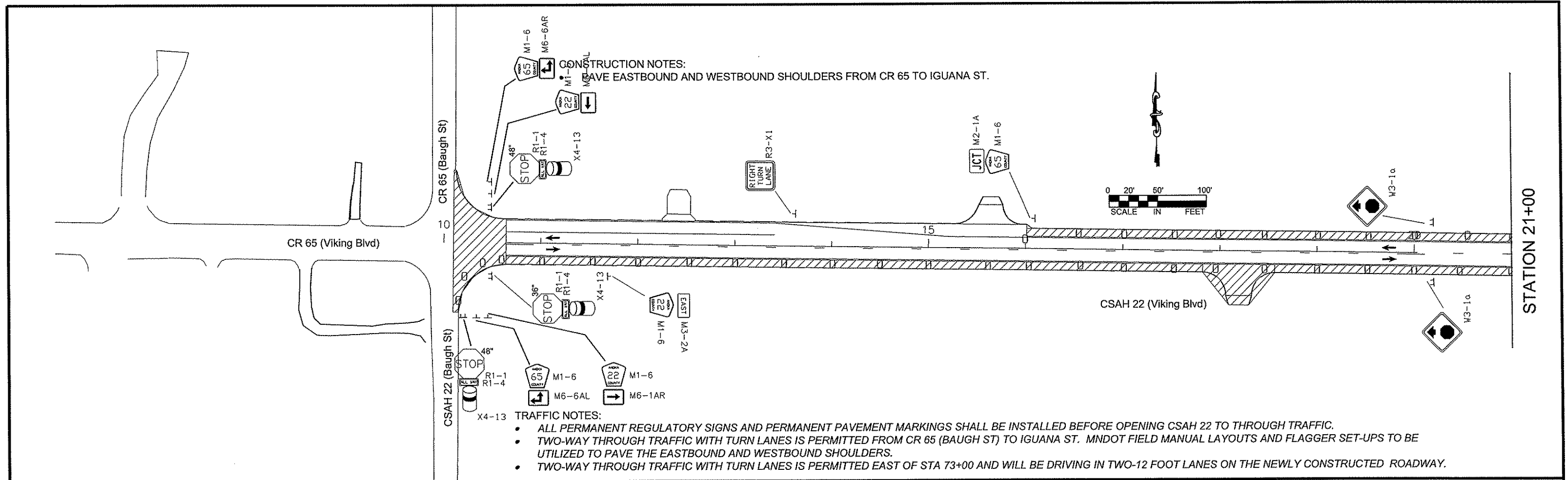


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

STAGE 3
TRAFFIC CONTROL
LAYOUT

Sheet 64 of 139 Sheets



NO. DATE BY CKD APPR REVISION NAME: P:\02-622-28\Baset\TRAFFIC\Stage 4.dwg						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. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 REG. NO. 24756		DRAWN BY: MTH DATE 4/19/2012 DESIGN BY: MTH DATE 4/19/2012 CHECKED BY: JR DATE 5/01/2012		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		STAGE 4 TRAFFIC CONTROL LAYOUT Sheet 65 of 139 Sheets	
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- PAVE EASTBOUND AND WESTBOUND SHOULDERS FROM CR 65 TO IGUANA ST.



- ALL PERMANENT REGULATORY SIGNS AND PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE OPENING CSAH 22 TO THROUGH TRAFFIC.
- TWO-WAY THROUGH TRAFFIC WITH TURN LANES IS PERMITTED FROM CR 65 (BAUGH ST) TO IGUANA ST. MNDOT FIELD MANUAL LAYOUTS AND FLAGGER SET-UPS TO BE UTILIZED TO PAVE THE EASTBOUND AND WESTBOUND SHOULDERS.
- TWO-WAY THROUGH TRAFFIC WITH TURN LANES IS PERMITTED EAST OF STA 73+00 AND WILL BE DRIVING IN TWO-12 FOOT LANES ON THE NEWLY CONSTRUCTED ROADWAY.



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.

PRINT NAME: CURT A. KOBLARCSIK

SIGNATURE: *Curt A. Koblarsik*

DATE: 6-8-12 REG. NO. 24756

DRAWN BY MTH DATE 4/19/2012
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CHECKED BY JR DATE 5/01/2012



ANOKA COUNTY
HIGHWAY DEPT.

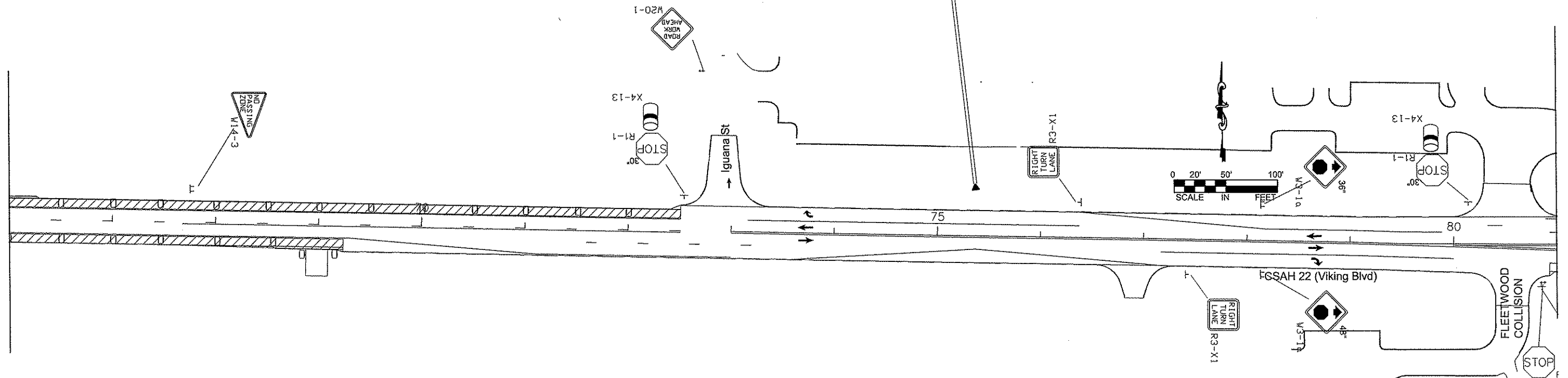
S.A.P. 002-622-028

STAGE 4 TRAFFIC CONTROL LAYOUT

Sheet 66 of 139 Sheets

- CONSTRUCTION NOTES:
- PAVE EASTBOUND AND WESTBOUND SHOULDERS FROM CR 65 TO IGUANA ST.

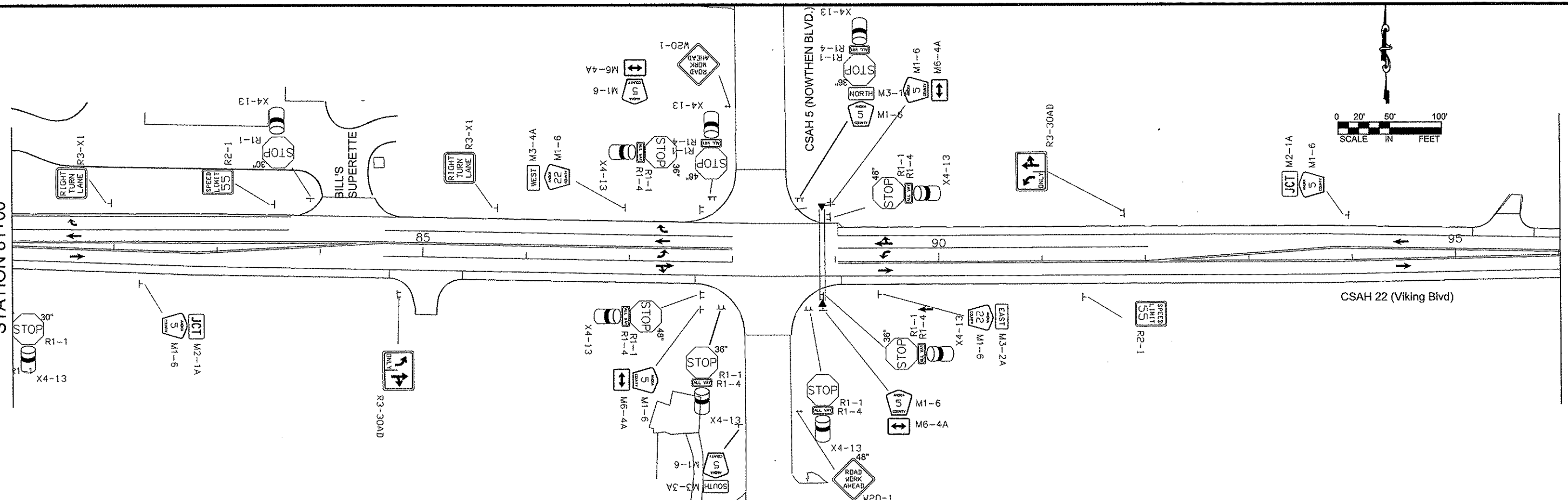
STATION 66+00



STATION 81+00

- TRAFFIC NOTES:
- ALL PERMANENT REGULATORY SIGNS AND PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE OPENING CSAH 22 TO THROUGH TRAFFIC.
 - TWO-WAY THROUGH TRAFFIC WITH TURN LANES IS PERMITTED FROM CR 65 (BAUGH ST) TO IGUANA ST. MNDOT FIELD MANUAL LAYOUTS AND FLAGGER SET-UPS TO BE UTILIZED TO PAVE THE EASTBOUND AND WESTBOUND SHOULDERS.
 - TWO-WAY THROUGH TRAFFIC WITH TURN LANES IS PERMITTED EAST OF STA 73+00 AND WILL BE DRIVING IN TWO-12 FOOT LANES ON THE NEWLY CONSTRUCTED ROADWAY.

STATION 81+00



STATION 96+00

NO	DATE	BY	CKD	APPR	REVISION

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.

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12 REG. NO. 24756

DRAWN BY: MTH DATE 4/19/2012

DESIGN BY: MTH DATE 4/19/2012

CHECKED BY: JR DATE 5/01/2012

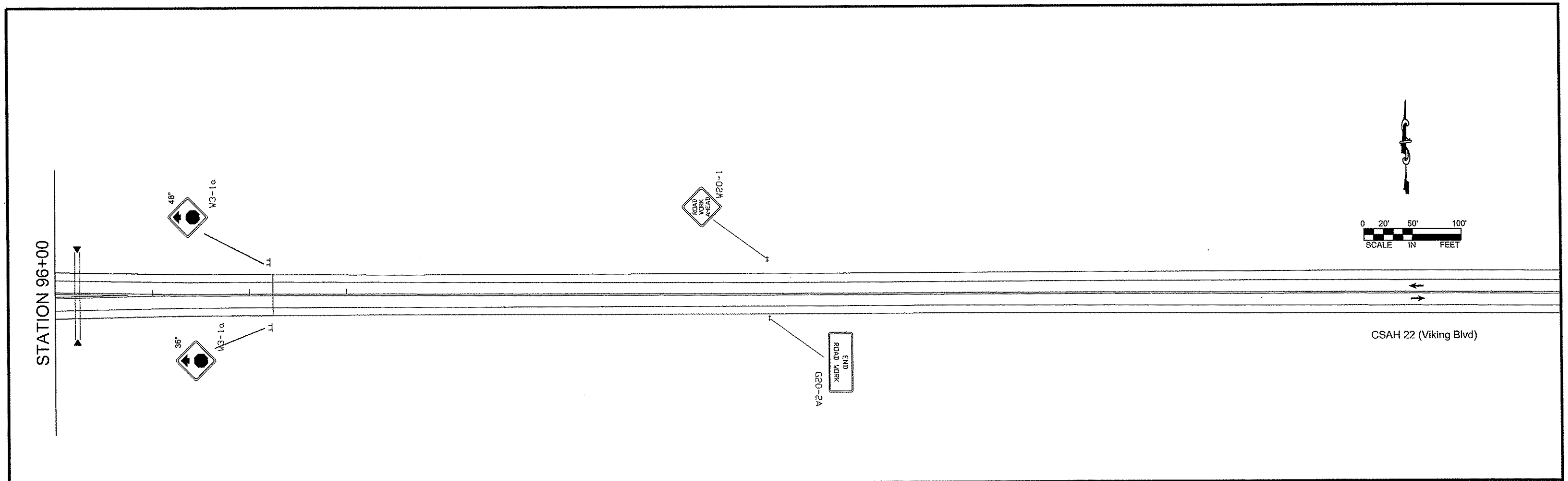


ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

STAGE 4
TRAFFIC CONTROL
LAYOUT

Sheet 67 of 139 Sheets

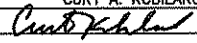


CONSTRUCTION NOTES:

- PAVE EASTBOUND AND WESTBOUND SHOULDERS FROM CR 65 TO IGUANA ST.

TRAFFIC NOTES:

- ALL PERMANENT REGULATORY SIGNS AND PERMANENT PAVEMENT MARKINGS SHALL BE INSTALLED BEFORE OPENING CSAH 22 TO THROUGH TRAFFIC.
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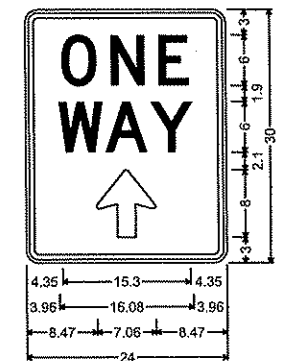
						I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		DRAWN BY: MTH DATE: 4/19/2012			ANOKA COUNTY HIGHWAY DEPT.	S.A.P. 002-622-028	STAGE 4 TRAFFIC CONTROL LAYOUT	
						PRINT NAME: CURT A. KOBILARCSIK		DESIGN BY: MTH DATE: 4/19/2012					Sheet 68 of 139 Sheets	
						SIGNATURE: 		CHECKED BY: JR DATE: 5/01/2012						
						DATE: 6-8-12 REG. NO. 24756								
NO	DATE	BY	CKD	APPR	REVISION	NAME: P:\02-622-28\Bases\TRAFFIC\Stage 4.dwg								

M.U.T.C.D. CODE	SIZE	INSERT	QTY. STG. 1a	QTY. STG. 1b	QTY. STG. 2	QTY. STG. 3	QTY. STG. 4
R1-1	48" x 48"		9	9	9	9	0
R1-4	18" x 6"		4	4	4	4	0
R3-1	24" x 24"		1	1	1	1	0
R3-2	24" x 24"		1	1	1	1	0
R3-7	30" x 30"		2	2	2	2	0
R5-1	30" x 30"		13	13	13	12	0
R5-1A	36" x 24"		2	2	2	2	0
R6-1R	48" x 18"		0	0	0	0	0
R6-1L	36" x 12"		1	1	1	1	0
R6-2	24" x 30"		5	4	5	5	0
R6-X1	24" x 30"		1	1	1	1	0
G20-2A	48" x 24"		1	1	1	1	1
W20-3	48" x 48"		1	1	1	1	0

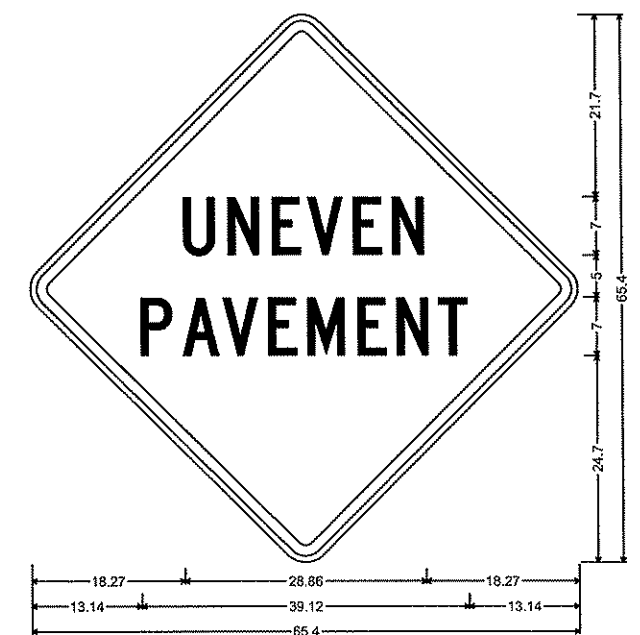
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W1-4L	48" x 48"		2	2	0	2	0
W3-1A	48" x 48"		2	2	2	2	0
W6-3	48" x 48"		1	1	1	1	0
W8-X3	48" x 48"		0	0	0	0	0
W20-1	48" x 48"		4	4	4	4	4
W21-X1	48" x 48"		0	1	4	2	0
W8-1	48" x 48"		0	1	0	3	0
R11-2	48" x 30"		3	2	2	2	0
TYPE III	8 FOOT		3	2	2	2	0
R11-2	48" x 30"		2	3	2	2	0
TYPE III	8 FOOT		2	3	2	2	3

M.U.T.C.D. CODE	SIZE	INSERT	QTY. STG. 1a	QTY. STG. 1b	QTY. STG. 2	QTY. STG. 3	QTY. STG. 4
W1-6	48" x 24"		1	2	1	1	0
TYPE III	8 FOOT		1	2	1	1	0
W1-6	48" x 24"		1	1	0	1	0
TYPE III	8 FOOT		1	1	0	1	0
FLASHER	48" x 48"		2	2	1	2	0
TYPE III	8 FOOT		2	2	1	2	0
FLASHER	48" x 48"		0	0	0	0	0
TYPE III	8 FOOT		0	0	0	0	0
R6-1R	48" x 18"		6	6	6	5	0
TYPE III	8 FOOT		6	6	6	5	0
R6-1L	48" x 18"		8	8	8	8	0
TYPE III	8 FOOT		8	8	8	8	0
FLASHER	48" x 48"		0	0	0	0	0
TYPE III	8 FOOT		0	0	0	0	0
FLASHER	48" x 48"		0	0	0	0	0
TYPE III	8 FOOT		0	0	0	0	0
REFLECTORIZED REBOUNDABLE DRUM			275	305	230	280	215
CHANGEABLE MESSAGE SIGN			0	0	0	0	0

CUSTOM SIGN DETAILS



R6-2_MOD;
1.50" Radius, 0.63" Border, 0.38" Indent, Black on White;
[ONE] D specified length;
[WAY] D;
Arrow Custom - 8.00" 90°;



W8-X3_MOD;
48.00" across sides 3.00" Radius, 1.25" Border, 0.75" Indent, Black on Orange;
[UNEVEN] C; [PAVEMENT] C;

NOTES:

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
- ALL TYPE III BARRICADES SHALL BE REFLECTORIZED ON BOTH SIDES. BARRICADES MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MN MUTCD.

NO	DATE	BY	CKD	APPR	REVISION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBIARCSIK
SIGNATURE:
DATE: 6-8-12 REG. NO. 24756

DRAWN BY: MTH DATE 4/19/2012
DESIGN BY: MTH DATE 4/19/2012
CHECKED BY: JR DATE 4/XX/2012



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

STAGING
SIGN QUANTITIES

Sheet 69 of 139 Sheets

PERMANENT & TEMPORARY PAVEMENT MARKING PLAN
NOTES AND GUIDELINES

GENERAL INFORMATION:

THE ENGINEER'S INVOLVEMENT IN THE APPLICATION OF THE MATERIAL SHALL BE LIMITED TO FIELD CONSULTATION AND INSPECTION. ANOKA COUNTY HIGHWAY DEPARTMENT WILL PLACE NECESSARY "SPOTTING" AT APPROPRIATE POINTS TO PROVIDE HORIZONTAL CONTROL FOR STRIPING AND TO DETERMINE NECESSARY STARTING AND CUTOFF POINTS, LONGITUDINAL JOINTS, PAVEMENT EDGES AND EXISTING MARKINGS MAY SERVE AS HORIZONTAL CONTROL WHEN SO DIRECTED.

EDGE LINES AND LANE LINES ARE TO BE BROKEN ONLY AT INTERSECTIONS WITH PUBLIC ROADS AND AT PRIVATE ENTRANCES IF THEY ARE CONTROLLED BY A YIELD SIGN, STOP SIGN OR TRAFFIC SIGNAL. THE BREAK POINT IS TO BE AT THE START OF THE RADIUS FOR THE INTERSECTION OR AT MARKED STOP LINES OR CROSSWALKS.

A TOLERANCE OF 1/4 INCH UNDER OR 1/4 INCH OVER THE SPECIFIED WIDTH WILL BE ALLOWED FOR STRIPING PROVIDED THE VARIATION IS GRADUAL AND DOES NOT DETRACT FROM THE GENERAL APPEARANCE. BROKEN LINE SEGMENTS MAY VARY UP TO ONE-HALF FOOT FROM THE SPECIFIED LENGTHS PROVIDED THE OVER AND UNDER VARIATIONS ARE REASONABLY COMPENSATORY. ALIGNMENT DEVIATIONS FROM THE CONTROL GUIDE SHALL NOT EXCEED 1 INCH. MATERIAL SHALL NOT BE APPLIED OVER LONGITUDINAL JOINTS, ESTABLISHMENT OF APPLICATION TOLERANCES SHALL NOT RELIEVE THE CONTRACTOR OF THEIR RESPONSIBILITY TO COMPLY AS CLOSELY AS PRACTICABLE WITH THE PLANNED DIMENSIONS.

EPOXY:

THE ROAD SURFACE SHALL BE CLEANED AT THE DIRECTION OF THE ENGINEER JUST PRIOR TO APPLICATION. PAVEMENT CLEANING SHALL CONSIST OF AT LEAST BRUSHING WITH A ROTARY BROOM (NON-METALLIC) OR AS RECOMMENDED BY THE MATERIAL MANUFACTURER AND ACCEPTABLE TO THE ENGINEER. NEW PORTLAND CEMENT CONCRETE SURFACES SHALL BE SANDBLAST CLEANED TO REMOVE ANY SURFACE TREATMENT AND/OR LAITANCE ON LOW SPEED (SPEED LIMIT 35 MPH OR LESS) URBAN PORTLAND CEMENT CONCRETE ROADWAYS. SANDBLAST CLEANING SHALL BE USED FOR ALL EPOXY PAVEMENT MARKINGS.

THE EPOXY MARKING APPLICATION SHALL IMMEDIATELY FOLLOW THE PAVEMENT CLEANING. GLASS BEANS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE EPOXY RESIN LINE TO PROVIDE AN IMMEDIATE NO-TRACK SYSTEM.

AN EPOXY RESIN LINE 4" WIDE AND 15 MILL THICKNESS (WET), REQUIRES AN APPLICATION RATE OF ONE (1) GALLON OF COMPONENTS FOR 320 FEET OF LINE. GLASS BEADS SHALL BE APPLIED AT A POUND PER GALLON RATE SUFFICIENT TO ACHIEVE AN ACCEPTABLE NO-TRACK SYSTEM.

OPERATIONS SHALL BE CONDUCTED ONLY WHEN THE ROAD PAVEMENT SURFACE TEMPERATURES ARE 50 DEGREES FAHRENHEIT OR GREATER.

PERMANENT PAVEMENT MARKINGS SHALL NOT BE PLACED OVER TEMPORARY TAPE MARKINGS.

PREFORMED THERMOPLASTIC:

THE PREFORMED THERMOPLASTIC MARKINGS SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS ON CLEAN AND DRY SURFACES. SEE SPECIAL PROVISIONS FOR PREFORMED THERMOPLASTIC MARKING SPECIFICATIONS.

PAINT:

AT THE TIME OF APPLYING THE MARKING MATERIAL, THE APPLICATION AREA SHALL BE FREE OF CONTAMINATION. THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE PRIOR TO THE LINE APPLICATION IN A MANNER AND TO THE EXTENT REQUIRED BY THE ENGINEER.

GLASS BEADS SHALL BE APPLIED IMMEDIATELY AFTER APPLICATION OF THE PAINT LINE.

EXCEPT WHEN USED AS A TEMPORARY MARKING, PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR TEMPERATURE IS 50 DEGREES FARHENHEIT OR HIGHER AND SHALL NOT BE APPLIED WHEN THE WIND OR OTHER CONDITIONS CAUSE A FILD OR DUST TO BE DEPOSITED ON THE PAVEMENT SURFACE AFTER CLEANING AND BEFORE THE MARKING MATERIAL CAN BE APPLIED.

THE FILLING OF TANKS, POURING OF MATERIALS OR CLEANING OF EQUIPMENT SHALL NOT BE PERFORMED ON UNPROTECTED PAVEMENT SURFACES UNLESS ADEQUATE PROVISIONS ARE MADE TO PREVENT SPILLAGE OF MATERIAL.

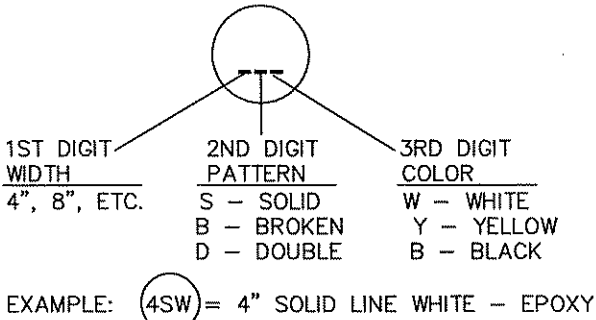
O PERMANENT & TEMPORARY PAVEMENT MARKING TABULATION		
ITEM	UNIT	TOTAL QUANTITY
PAVEMENT MARKING REMOVAL	LIN FT	12700
RAISED PAVEMENT MARKER TEMPORARY	EACH	230
REMOVABLE PREFORM PLASTIC MARKING (WHITE)	LIN FT	10550
REMOVABLE PREFORM PLASTIC MARKING (YELLOW)	LIN FT	10550
PAVEMENT MESSAGE (RT ARROW) PAINT	EACH	4
PAVEMENT MESSAGE (ONLY) PAINT	EACH	4
PAVEMENT MESSAGE (LT ARROW) PREFORMED THERMOPLASTIC	EACH	4
PAVEMENT MESSAGE (RT-THRU ARROW) PREFORMED THERMOPLASTIC	EACH	4
24" SOLID LINE YELLOW - PREFORMED THERMOPLASTIC	LIN FT	323
4" SOLID LINE WHITE - PAINT	LIN FT	21800
4" SOLID LINE YELLOW - PAINT	LIN FT	21800
4" SOLID LINE WHITE - EPOXY	LIN FT	19241
4" SOLID LINE YELLOW - EPOXY	LIN FT	2617
4" BROKEN LINE WHITE - EPOXY (10' STRIPE, 40' SKIP)	LIN FT	80
4" BROKEN LINE YELLOW - EPOXY (10' STRIPE, 40' SKIP)	LIN FT	1360
4" DOUBLE SOLID LINE YELLOW - EPOXY	LIN FT	2888
PAVEMENT MESSAGE (RT ARROW) REMOVABLE POLY PREFORM	EACH	2
PAVEMENT MESSAGE (ONLY) REMOVABLE POLY PREFORM	EACH	2

SYMBOLS & MATERIALS LEGEND

- CROSSWALK BLOCK WHITE PREFORMED THERMOPLASTIC
- ← PAVEMENT MESSAGE (LEFT ARROW) PREFORMED THERMOPLASTIC

STRIPING KEY

- CIRCLE - EPOXY □ SQUARE - PREFORMED THERMOPLASTIC
- △ TRIANGLE - PAINT
- ⬠ PENTAGON - REMOVABLE PREFORMED PLASTIC MARKING



NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\02-622-28\Bases\TRAFFIC\Perm pmt mrkg guide notes_guidelines.dwg					

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

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *Curt A. Kobilarsik*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: MTH DATE: 08/15/11

DESIGN BY: MTH DATE: 08/15/11

CHECKED BY: JR DATE: 02/23/12



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

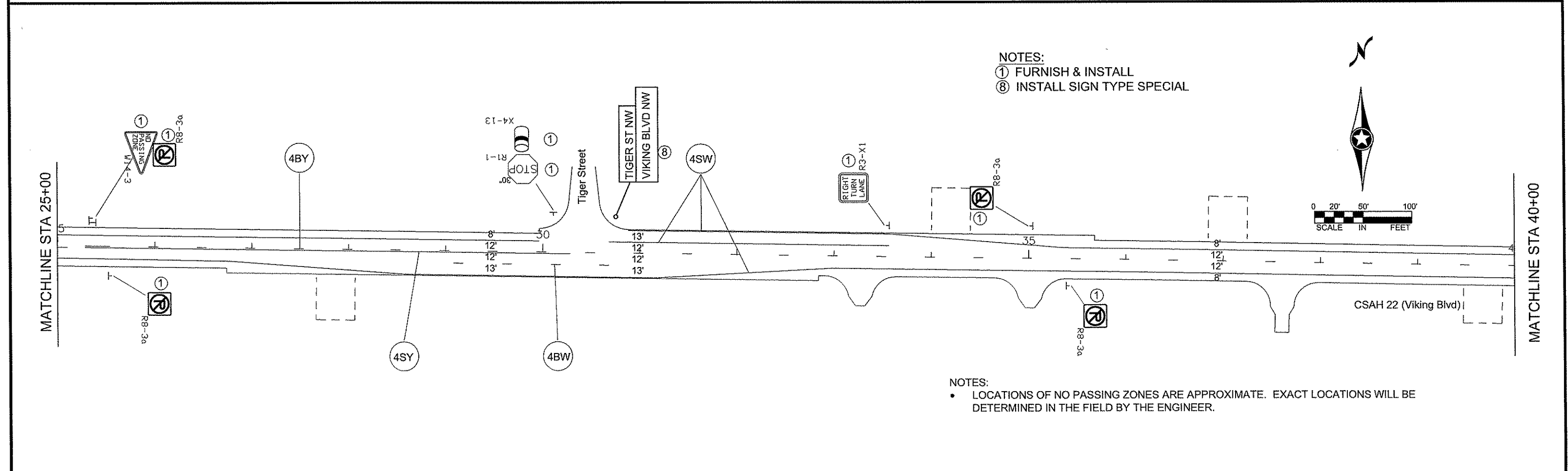
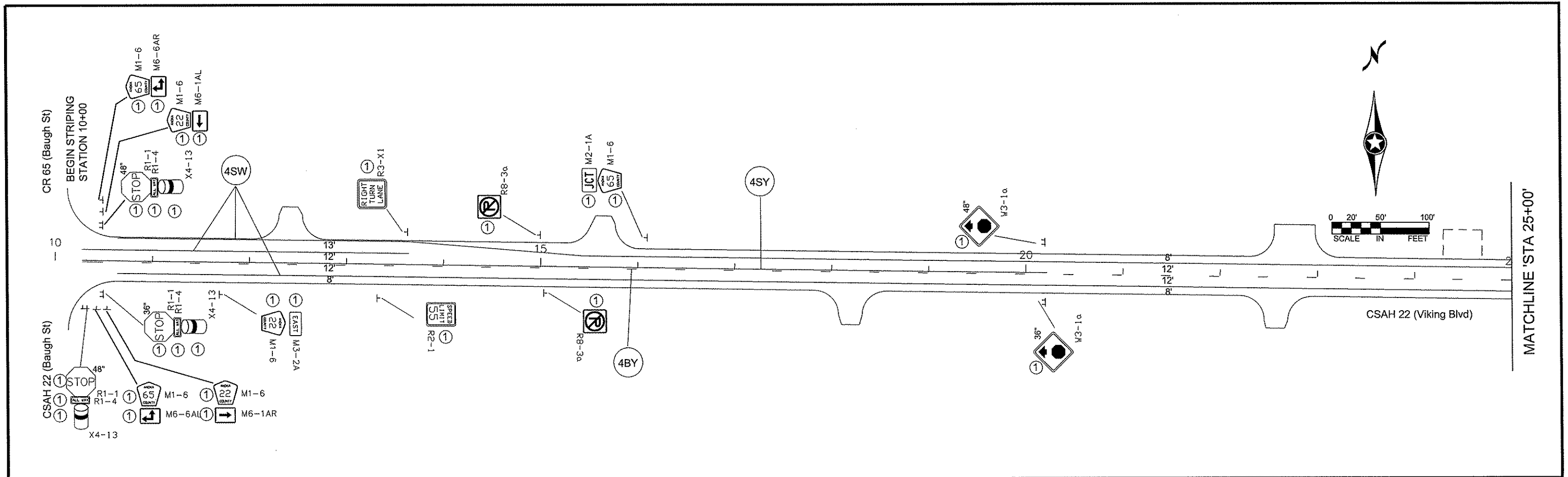
PERMANENT &
TEMPORARY MARKING
TABULATION

Sheet 70 of 139 Sheets

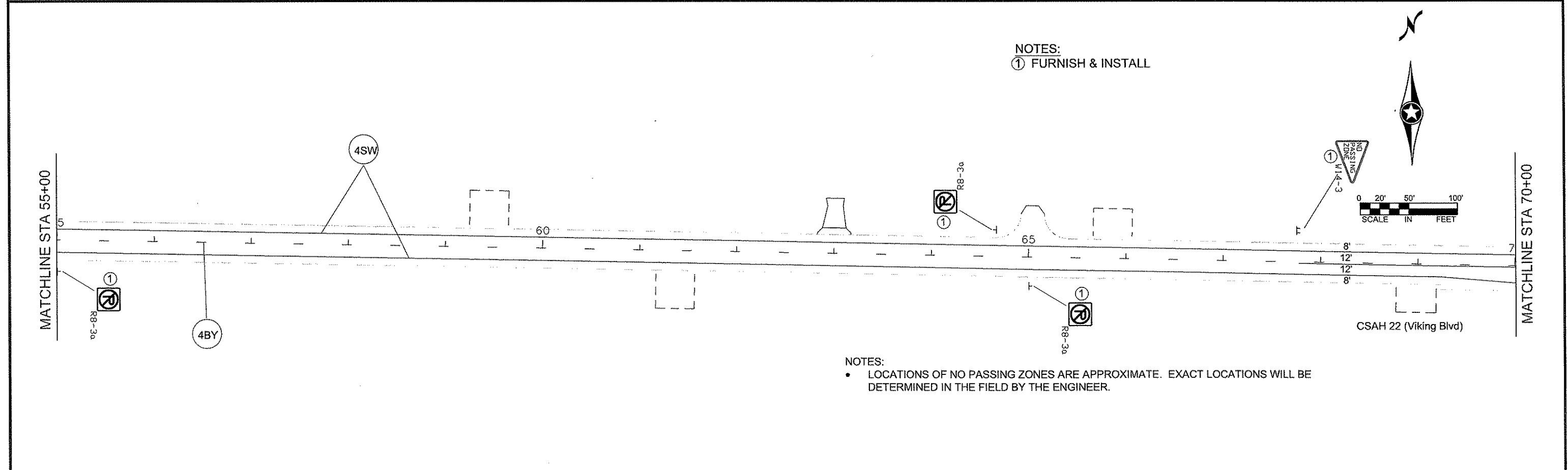
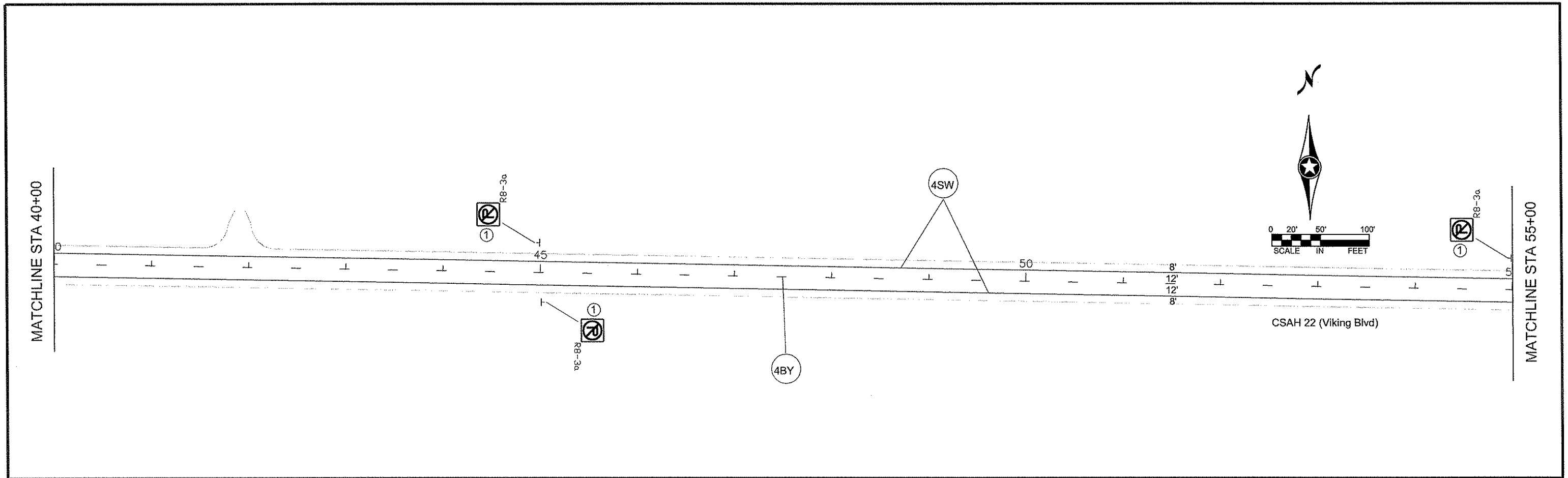
SIGN PANELS TYPE C							
M.U.T.C.D. CODE	SIZE	INSERT	QUANTITY	SQ FT PANEL AREA	SQ FT TOTAL AREA	MOUNTING POST PER INSTALLATION	MOUNTING HEIGHT
R1-1	30" x 30"	 R1-4	5	6.25	31.25	1	7.0'
R1-1	36" x 36"		5	9.00	45.00	2	7.0'
R1-1	48" x 48"		6	16.00	96.00	2	7.0'
R1-4	18" x 6"		11	0.75	8.25		
X4-13	8" diameter x 12"		16	1.31	0		
R2-1	24" x 36"		3	6.00	18.00	1	7.0'
R3-X1	24" x 36"		5	6.00	30.00	1	7.0'
R3-30AD	36" x 30"		2	7.5	15.00	2	7.0'
R8-3a	24" x 24"		14	4.00	100.00	1	7.0'
W1-7	48" x 24"		0	8.00	0.00	1	7.0'
W3-1	36" x 36"		3	9.00	18.00	2	7.0'
W3-1	48" x 48"		3	16.00	54.00	2	7.0'
W14-3	48" x 36"		2	6.00	12.00	2	7.0'

SIGN PANELS TYPE C							
M.U.T.C.D. CODE	SIZE	INSERT	QUANTITY	SQ FT PANEL AREA	SQ FT TOTAL AREA	MOUNTING POST PER INSTALLATION	MOUNTING HEIGHT
M2-1	21" x 15"		1	2.19	2.19		
M1-6	24" x 24"		3	4.00	12.00	1	7.0'
M6-6AR	21" x 15"		1	2.19	2.19		
M6-6AL	21" x 15"		1	2.19	2.19		
M2-1	21" x 15"		2	2.19	4.38		
M3-1	24" x 12"		1	2.00	2.00		
M3-3	24" x 12"		1	2.00	2.00		
M1-6	24" x 24"		6	4.00	24.00	1	7.0'
M6-4A	21" x 15"		2	2.19	4.38		
M3-4	24" x 12"		1	2.00	2.00		
M3-2	24" x 12"		2	2.00	4.00		
M1-6	24" x 24"		7	4.00	28.00	1	7.0'
M6-4A	21" x 15"		2	2.19	4.38		
M6-1AR	21" x 15"		1	2.19	2.19		
M6-1AL	21" x 15"		1	2.19	2.19		
TOTAL			107		484.56	85	

- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES INCLUDING THE FIELD MANUAL DATED JANUARY, 2011
 - LOCATIONS OF ALL PERMANENT STRIPING AND PAVEMENT MESSAGES ARE APPROXIMATE. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - ALL MAINLINE PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
 - SEE PERMANENT SIGN TABULATIONS FOR ADDITIONAL INFORMATION.
 - ALL SEGMENT STRIPE LINES SHALL BE EPOXY. PERMANENT MESSAGES AND ARROWS SHALL BE PREFORMED THERMOPLASTIC.
 - ALL SIGNS SHALL BE FURNISHED AND INSTALLED UNLESS OTHERWISE NOTED.



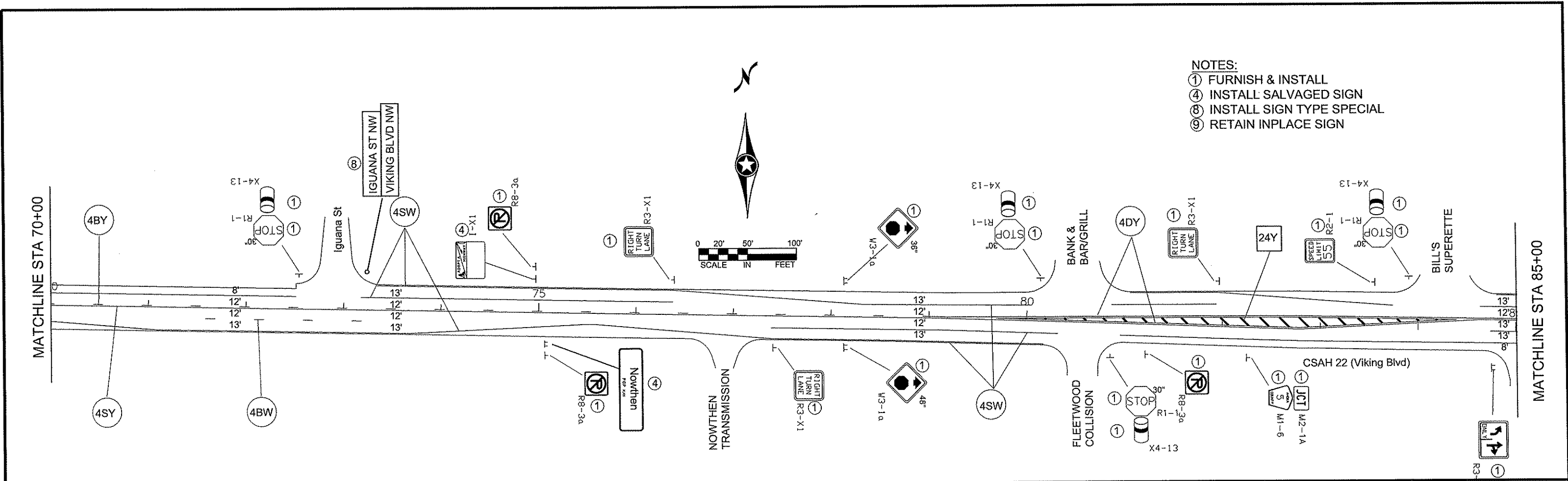
NO DATE BY CKD APPR REVISION NAME: P:\02-622-28\Base\TRAFFIC\7-25\Permanent Signing & Striping.dwg					I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 REG. NO. 24756		DRAWN BY: MTH DATE 08/19/11 DESIGN BY: MTH DATE 08/15/11 CHECKED BY: JR DATE 02/23/12		ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		PERMANENT SIGNING AND STRIPING PLAN STA 10+00 TO 40+00 Sheet 72 of 139 Sheets	
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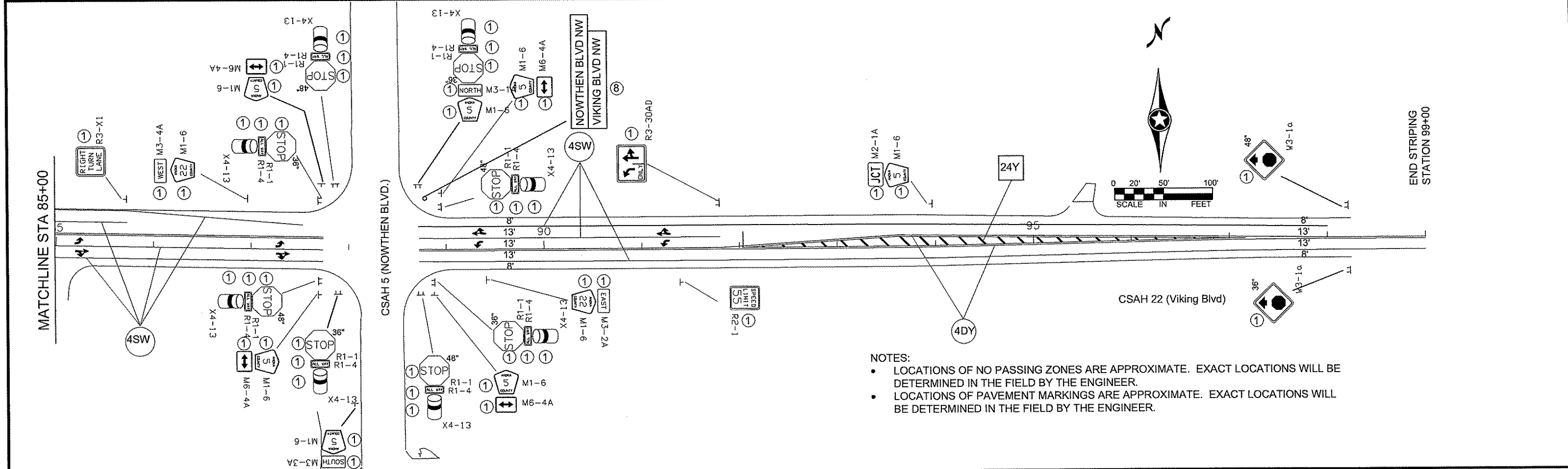
NOTES:
 ① FURNISH & INSTALL

NOTES:
 • LOCATIONS OF NO PASSING ZONES ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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NO	DATE	BY	CKD	APPR	REVISION																									



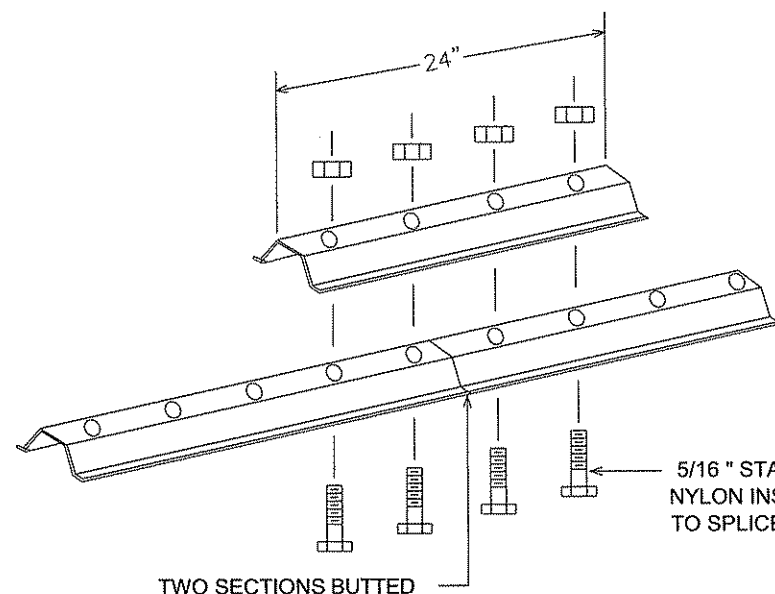
- NOTES:
- ① FURNISH & INSTALL
 - ④ INSTALL SALVAGED SIGN
 - ⑧ INSTALL SIGN TYPE SPECIAL
 - ⑨ RETAIN INPLACE SIGN



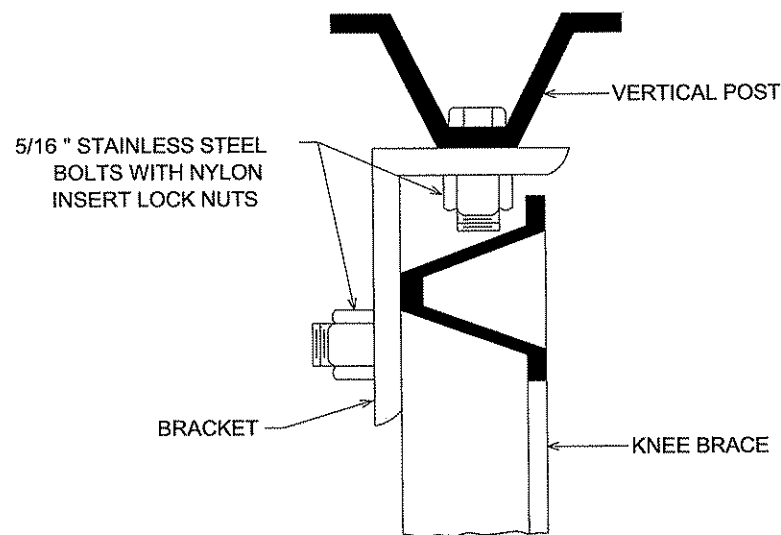
- NOTES:
- LOCATIONS OF NO PASSING ZONES ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>NO</th> <th>DATE</th> <th>BY</th> <th>CKD</th> <th>APPR</th> <th>REVISION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					NO	DATE	BY	CKD	APPR	REVISION							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. PRINT NAME: <u>CURT A. KOBILARCSIK</u> SIGNATURE: <u><i>Curt Kobilarsik</i></u> DATE: <u>6-8-12</u> REG. NO. <u>24756</u>		DRAWN BY: <u>MTH</u> DATE: <u>08/15/11</u> DESIGN BY: <u>MTH</u> DATE: <u>08/15/11</u> CHECKED BY: <u>JR</u> DATE: <u>02/23/12</u>		 ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028		PERMANENT SIGNING AND STRIPING PLAN STA 70+00 TO 99+00 Sheet <u>74</u> of <u>139</u> Sheets	
NO	DATE	BY	CKD	APPR	REVISION																					

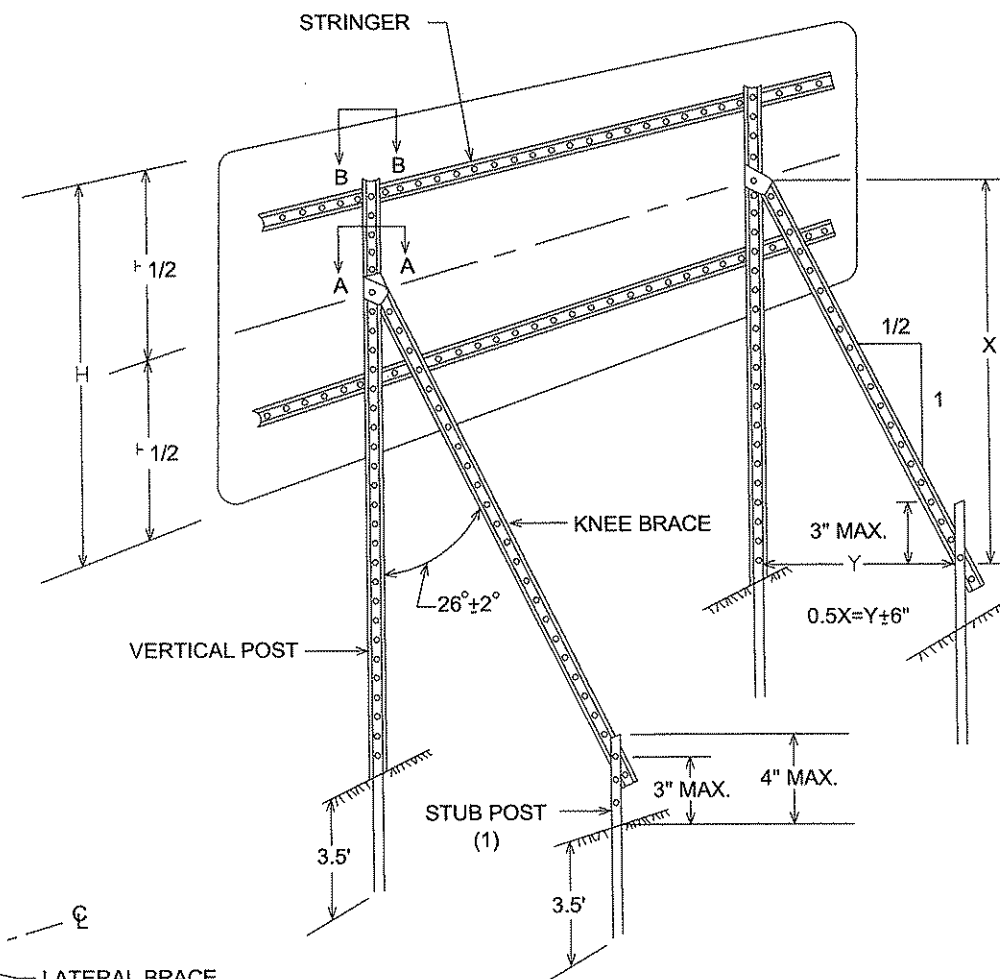
NAME: P:\02-622-28\Bose\TRAFFIC\7-25\Permanent Signing & Striping.dwg



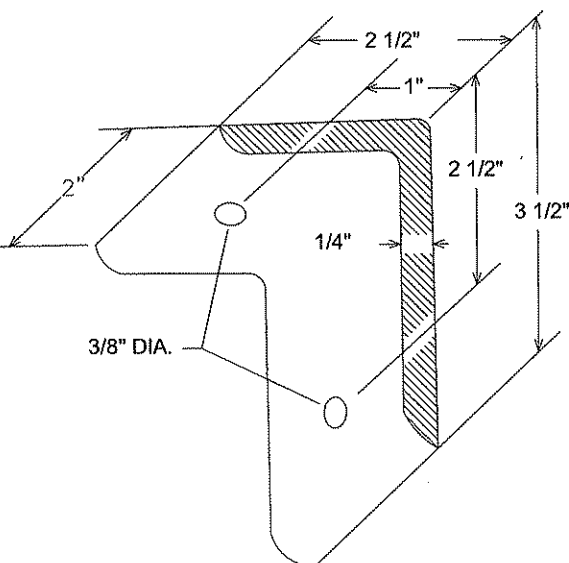
**LATERAL BRACE OR STRINGER
SPLICE DETAIL (EXPLODED VIEW)**



SECTION A-A

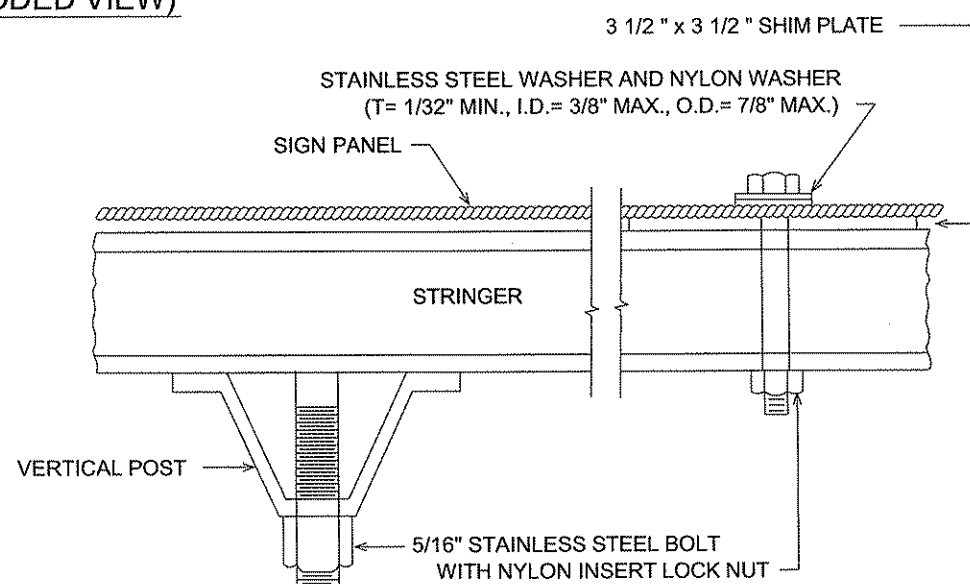


**TYPICAL "A-FRAME" INSTALLATION
TYPE "D" SIGNS**

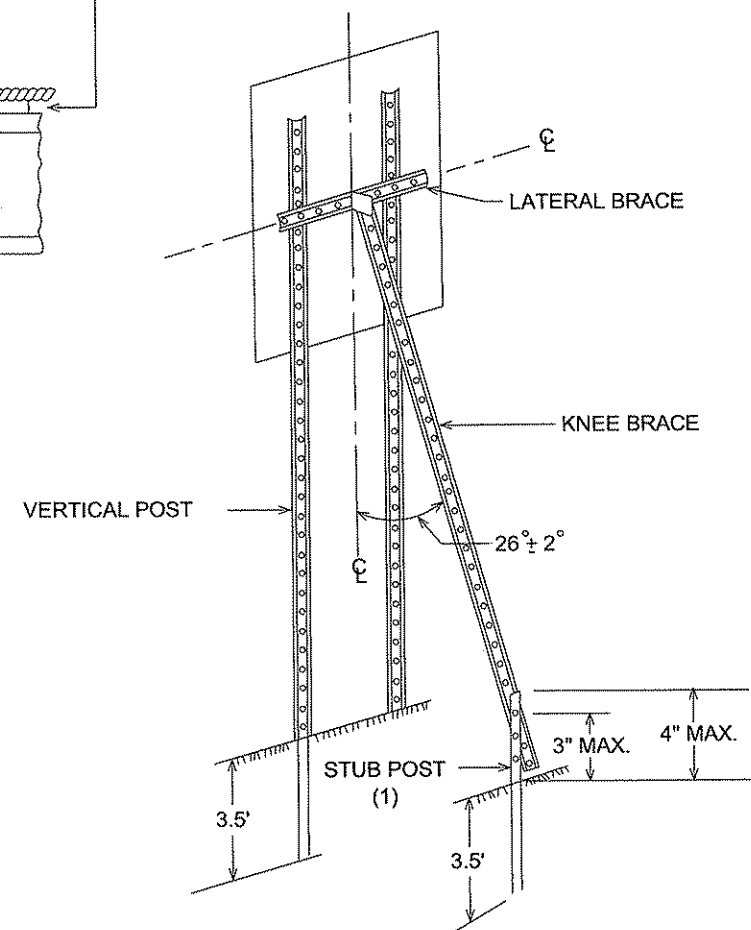


A-FRAME BRACKET

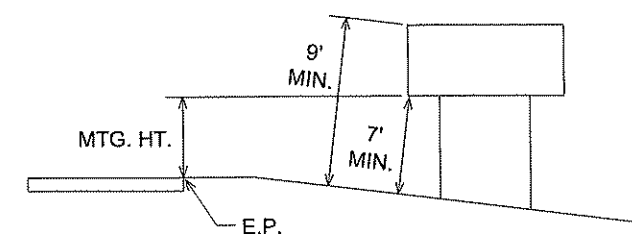
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



SECTION B-B



**TYPICAL "A-FRAME" INSTALLATION
TYPE "C" SIGNS**



TYPICAL MOUNTING

(1) OFFSET STUB POST 1' TOWARD ROADWAY
RELATIVE TO VERTICAL POST.

**TYPE C & D SIGN
STRUCTURAL DETAILS**

NO	DATE	BY	CHKD	APPR	REVISION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME
OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF
THE STATE OF MINNESOTA.
PRINT NAME: CURT A. KOBILARCSIK
SIGNATURE: *Curt A. Kobilarsik*
DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY MTH DATE 9-30-11
DESIGN BY MTH DATE 9-30-11
CHECKED BY JR DATE 2-23-12



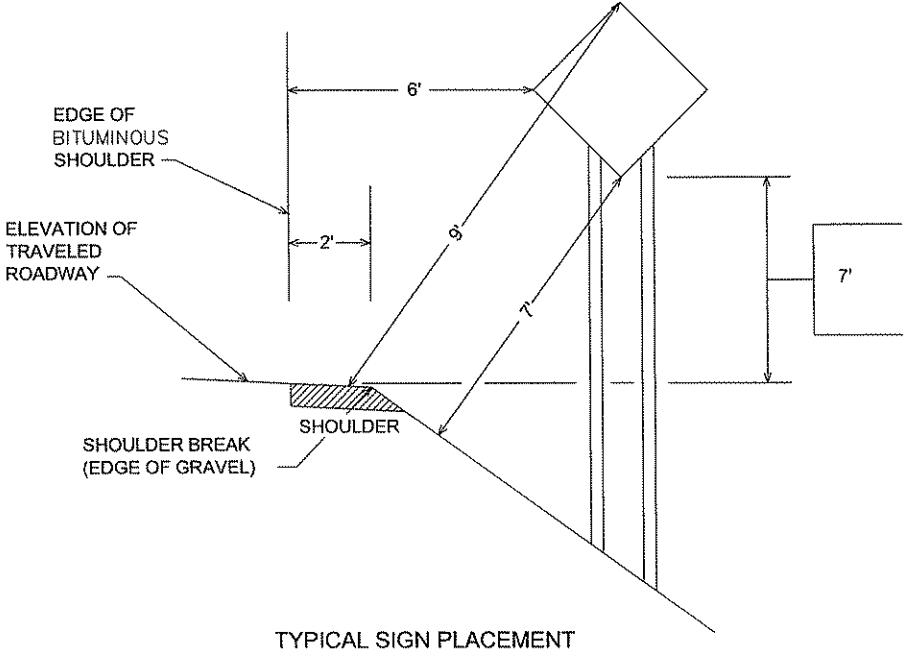
**ANOKA COUNTY
HIGHWAY DEPT.**

S.A.P. 002-622-028

SIGNING DETAILS

Sheet 75 of 139 Sheets

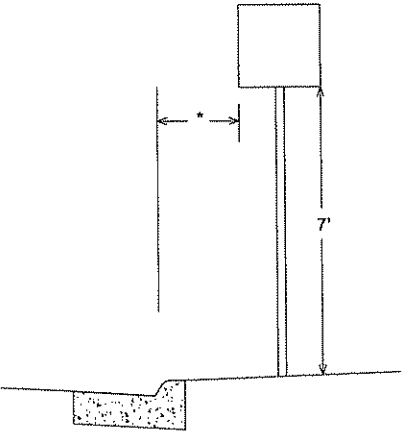
RURAL



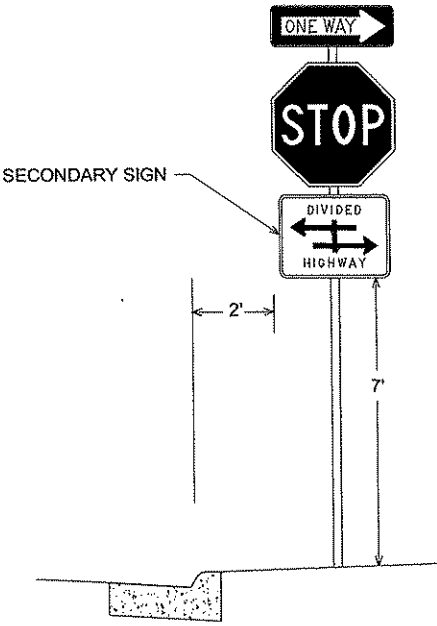
TYPICAL SIGN PLACEMENT

URBAN

* 2' - NARROW BOULEVARD (< 8' WIDE)
6' - WIDE BOULEVARD

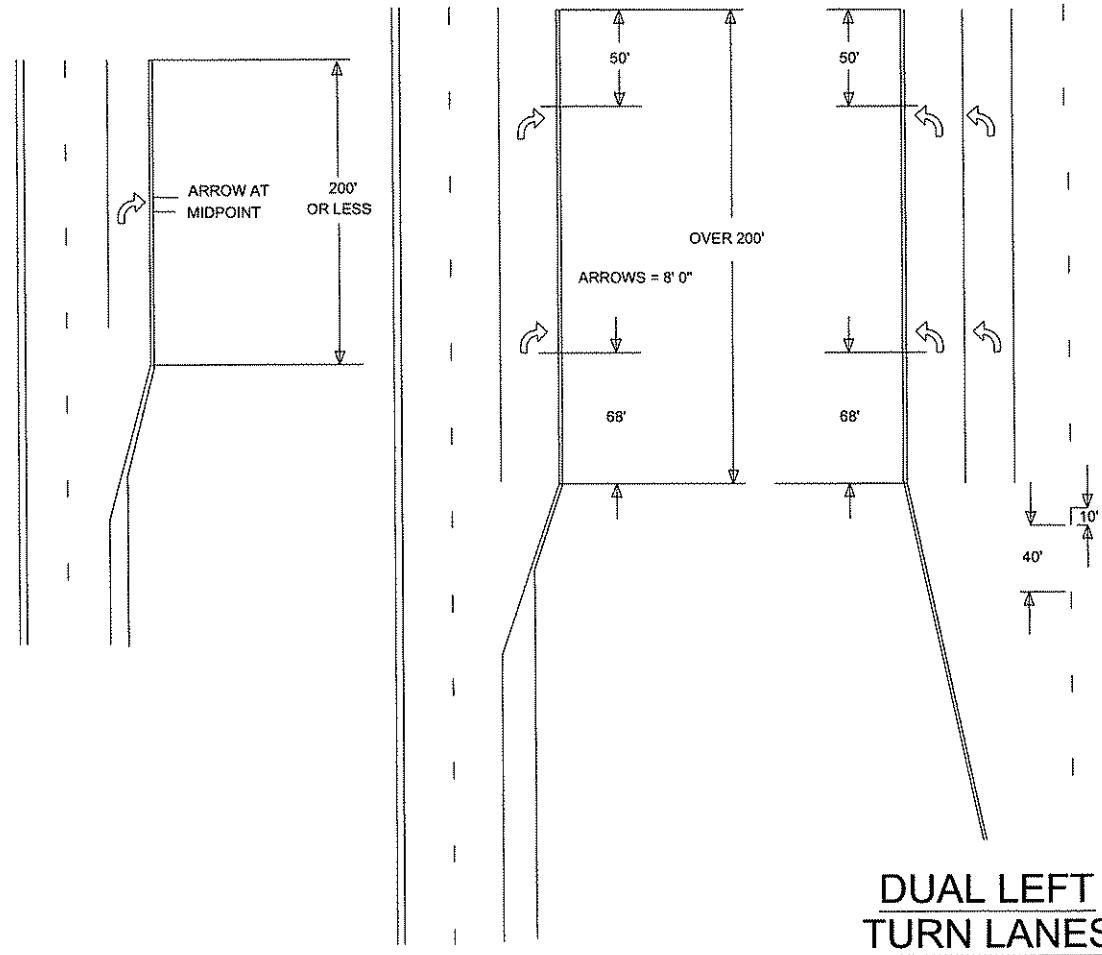


TYPICAL SIGN PLACEMENT

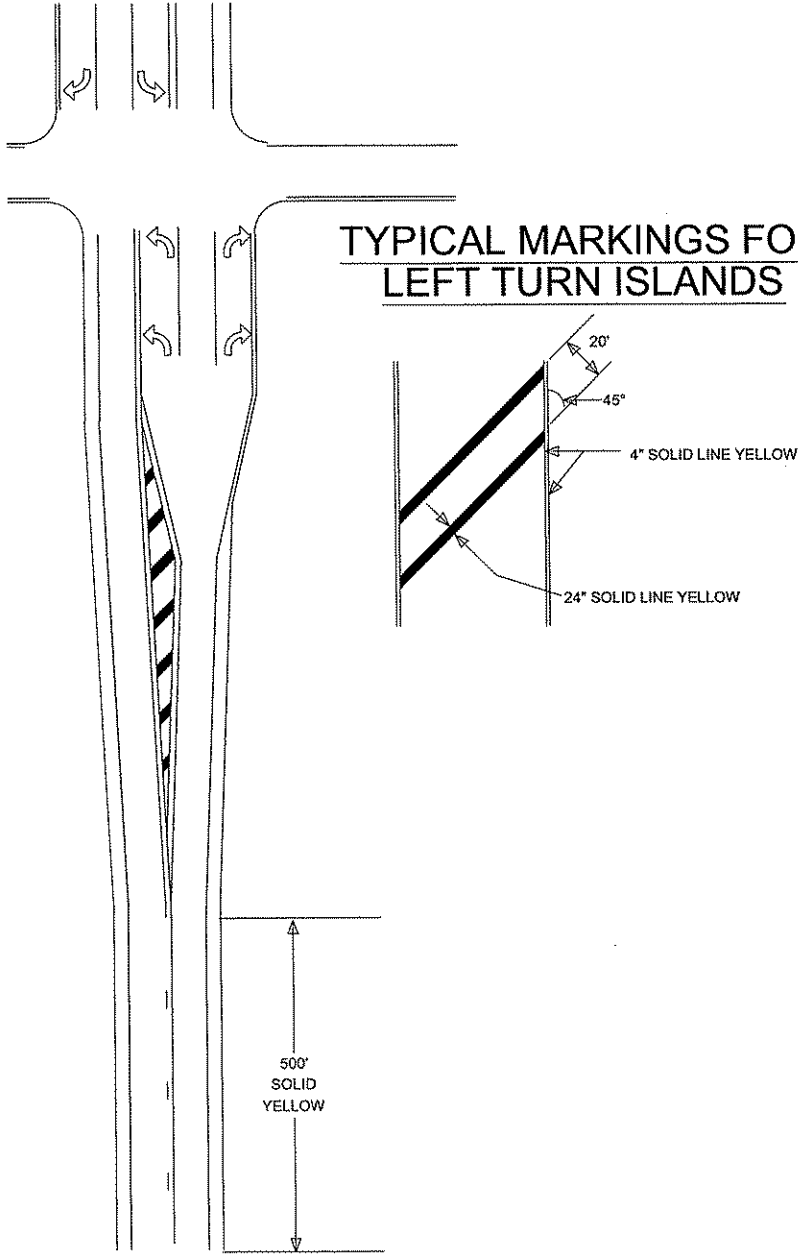


- NOTE:
- ALL DIMENSIONS ARE MINIMUMS
 - MAINTAIN 2' CLEAR FROM SIGNS TO BITUMINOUS TRAIL

TYPICAL MESSAGE PLACEMENT FOR TURN LANES



TYPICAL MARKINGS FOR LEFT TURN ISLANDS



STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

Training

Individual revising or amending the SWPPP and individuals performing inspections must fill in the following table.

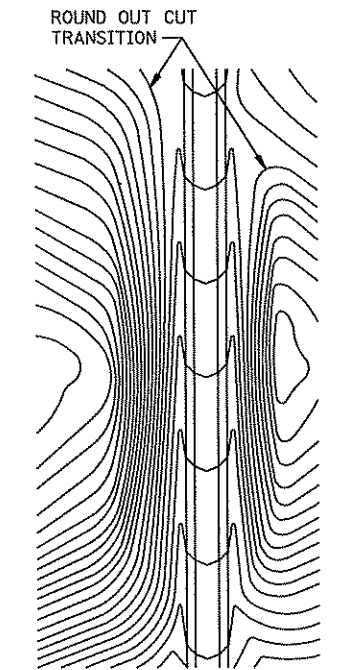
Name of on-site personel trained	
Dates of training	
Name of instructor(s)	
Entity providing training	
Content of training course or workshop	

Amending the SWPPP

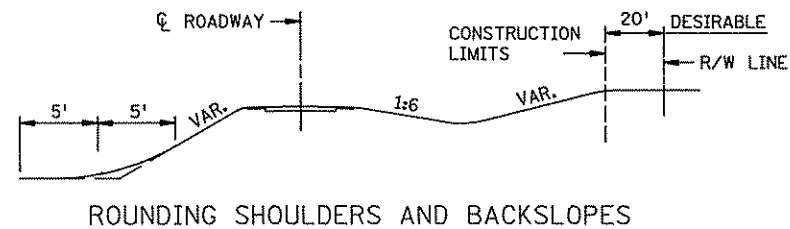
Amending the SWPPP
The SWPPP must be amended to record changes or modifications to permanent BMP's or other storm water treatment systems and removals of temporary BMP's. Changes to temporary BMP's may be recorded on this sheet. Include a brief description of the problem, location, nature of alteration, and comments. This record is to be retained for three years after project completion.

[illegible]

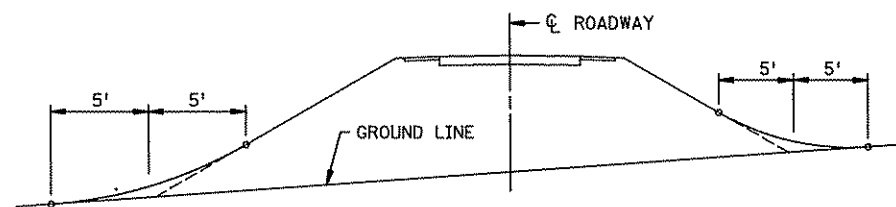
										I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: <u>CURT A. KOBILARCSIK</u> SIGNATURE: <u><i>Curt A. Kobilarsik</i></u> DATE: <u>6-8-12</u> LICENSE NO. <u>24756</u>										DRAWN BY <u>NJD</u> DATE <u>DATE</u> DESIGN BY <u>NJD</u> DATE <u>DATE</u> CHECKED BY <u>JEO</u> DATE <u>DATE</u>										 ANOKA COUNTY HIGHWAY DEPT.										S.A.P. 002-622-028 - - -										SWPPP Sheet <u>79</u> of <u>139</u> Sheets									
<table><tr><td>NO</td><td>DATE</td><td>BY</td><td>CHK</td><td>APPR</td><td>REVISION</td></tr><tr><td colspan="6">NAME: p:\02-622-20\plant\0262228_SWPPP.dgn</td></tr><tr><td colspan="6">06/07/2012 1:50:04 PM</td></tr></table>										NO	DATE	BY	CHK	APPR	REVISION	NAME: p:\02-622-20\plant\0262228_SWPPP.dgn						06/07/2012 1:50:04 PM																																					
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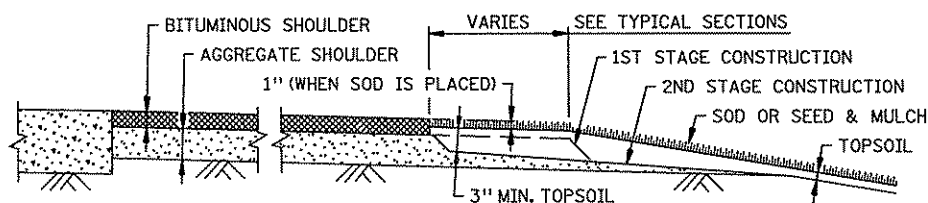
CONTOURING ROAD CUTS



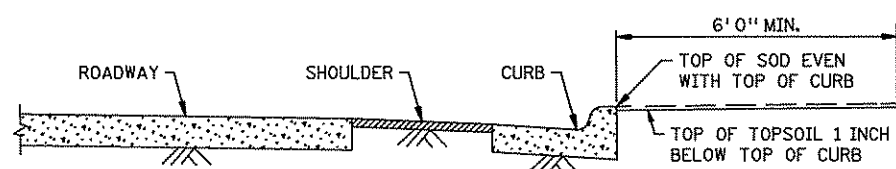
ROUNDING SHOULDERS AND BACKSLOPES



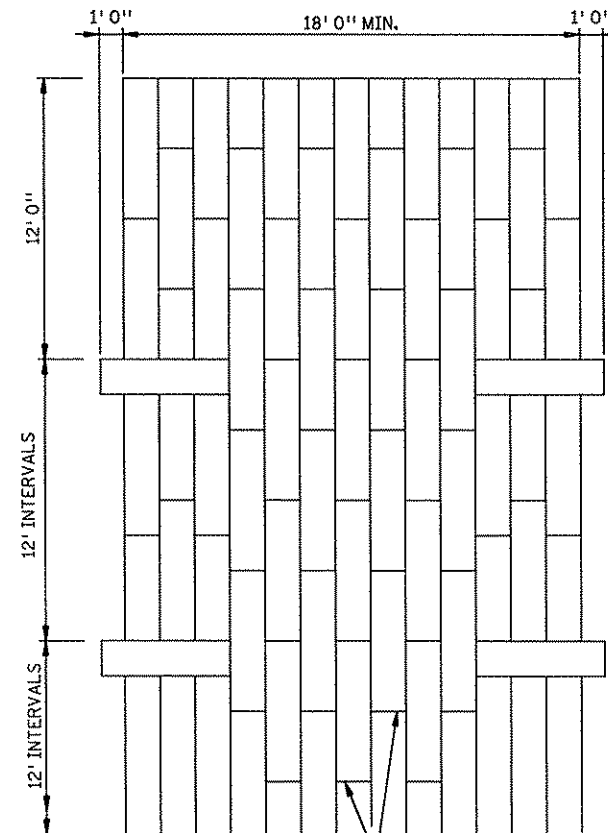
SHAPING FOR DRAINAGE ALONG THE TOE OF FILL SLOPES



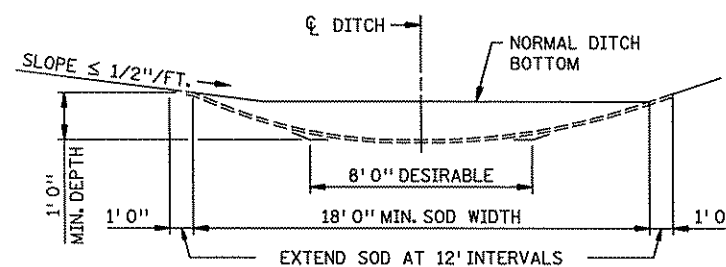
SHAPING AND TOPSOILING INSLOPES



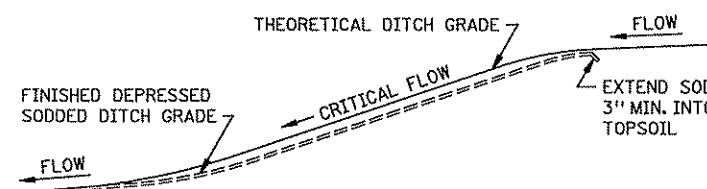
SHAPING ADJACENT TO CURBS WHEN SOD IS PLACED



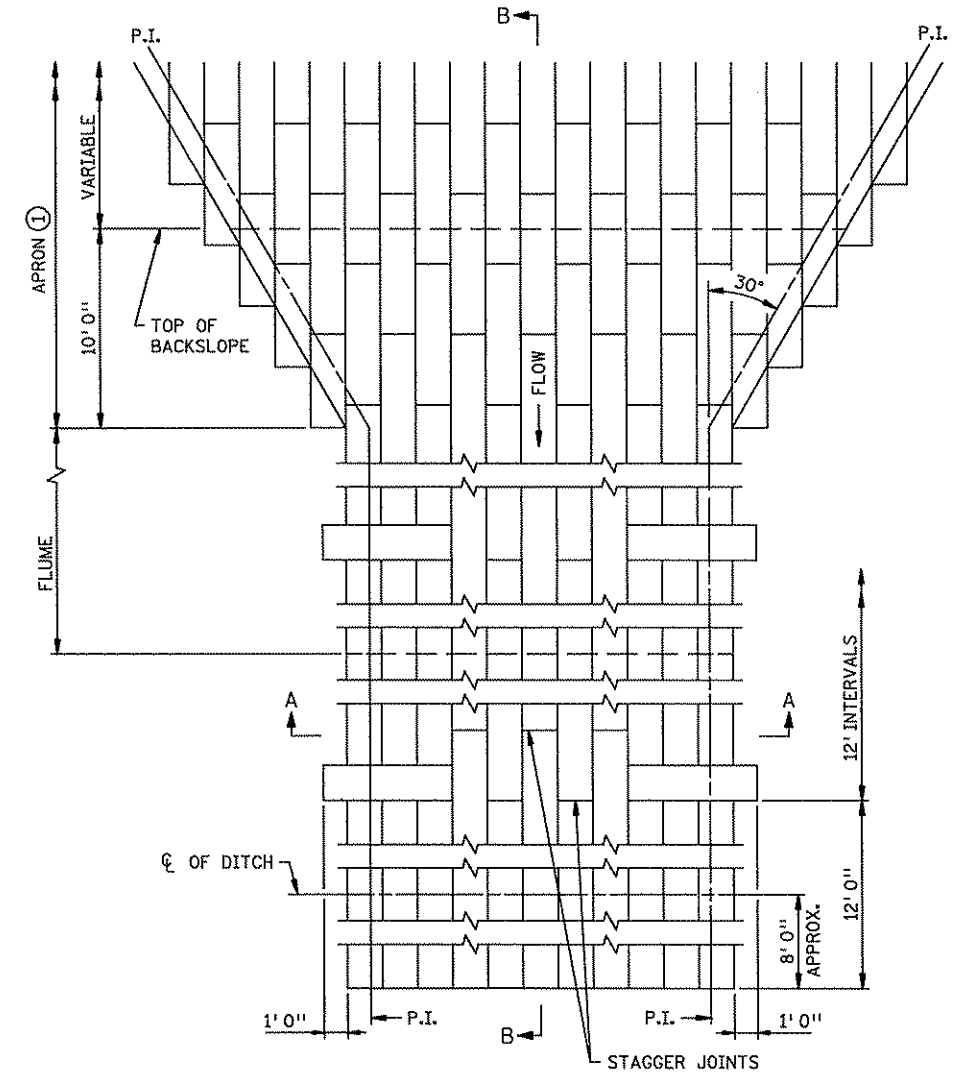
STAGGER JOINTS
PLAN VIEW



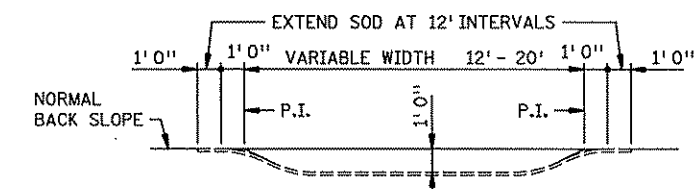
SODDED DITCH CROSS SECTION
WHERE FRONT OR BACK SLOPE IS FLAT (LESS THAN 1/2"/FT.),
FIRST NOTCH DITCH AND THEN PROVIDE ROUNDING.



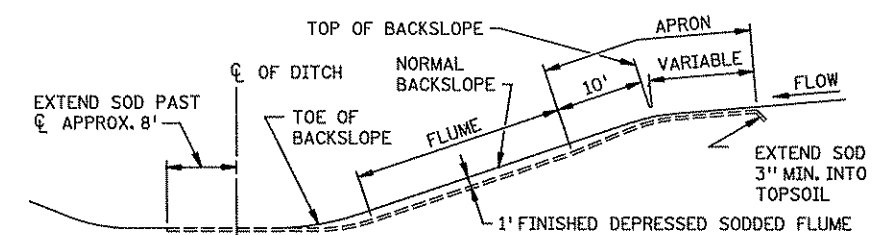
DITCH PROFILE
SODDED DITCH DETAILS



PLAN VIEW



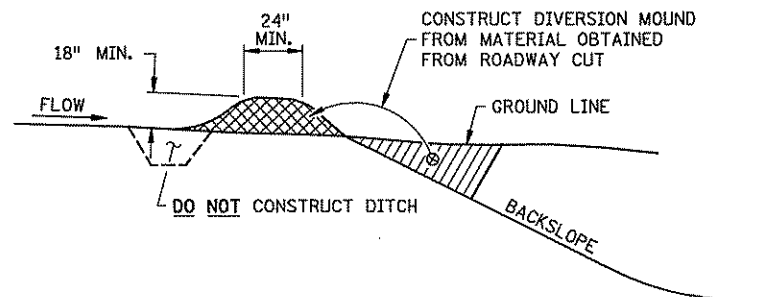
SECTION A-A



SECTION B-B
SODDED FLUME DETAILS

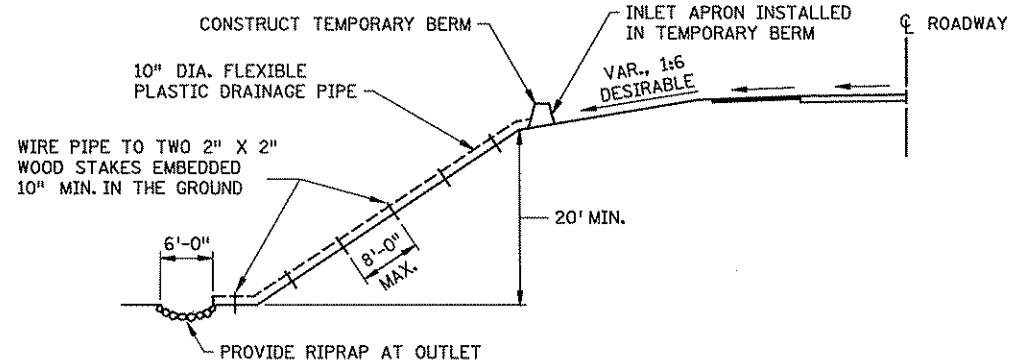
NOTES:
SEE SPEC. 2575.3 FOR ADDITIONAL INFORMATION.
① CONSTRUCT TAPER AS DIRECTED BY THE ENGINEER.

STANDARD SHEET NO. 5-297.404	TITLE: PERMANENT EROSION CONTROL ALONG ROADWAYS, DITCHES AND FLUMES
STANDARD APPROVED: NOVEMBER 20, 2002	
S.A.P. 02-622-28	SHEET NO. 80 OF 42 SHEETS



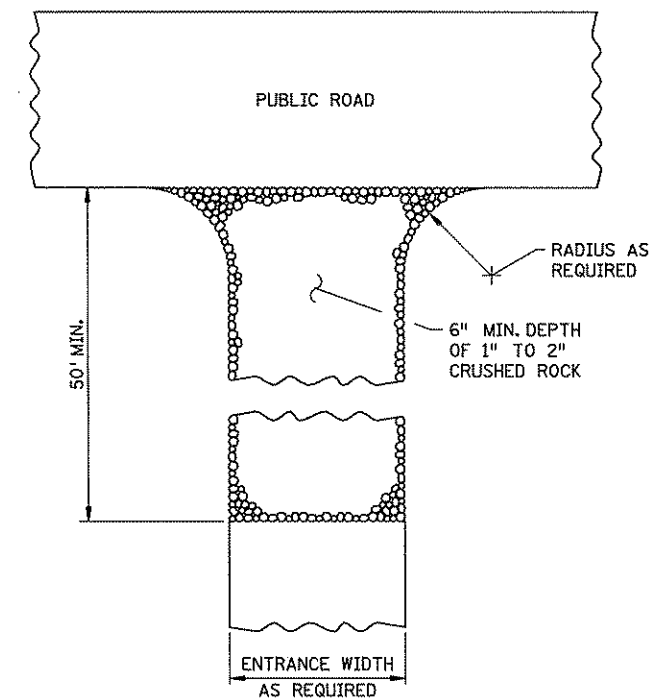
DIVERSION MOUND

DESIGN GUIDELINES:
 STORM FREQUENCY: 10 YEAR - 24 HOUR
 MAXIMUM DRAINAGE AREA: 5 ACRES
 MAXIMUM DIVERSION: GRADE 5%

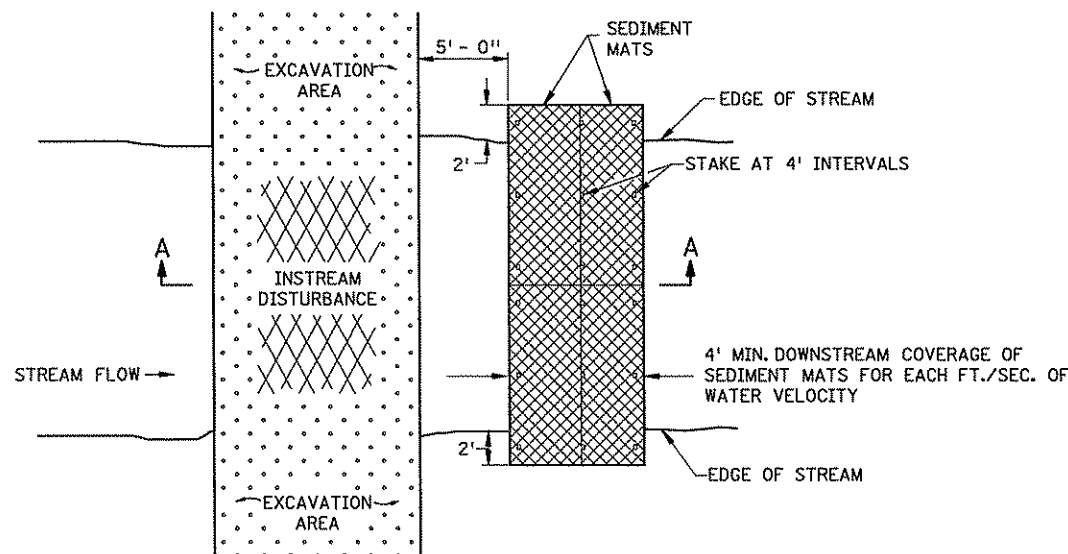


TEMPORARY DOWN DRAIN ON FILL SLOPE

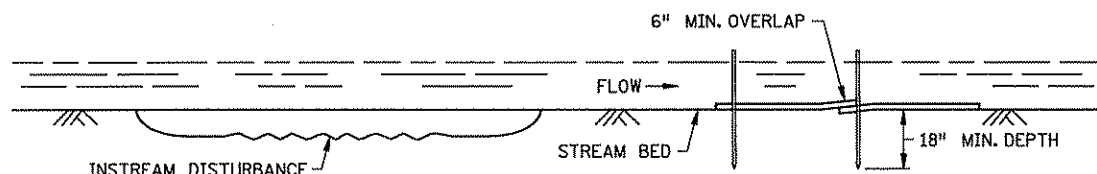
DESIGN GUIDELINES:
 STORM FREQUENCY: 2 YEAR - 24 HOUR
 MAXIMUM DRAINAGE AREA: 3 ACRES



ROCK CONSTRUCTION ENTRANCE ①



PLAN VIEW

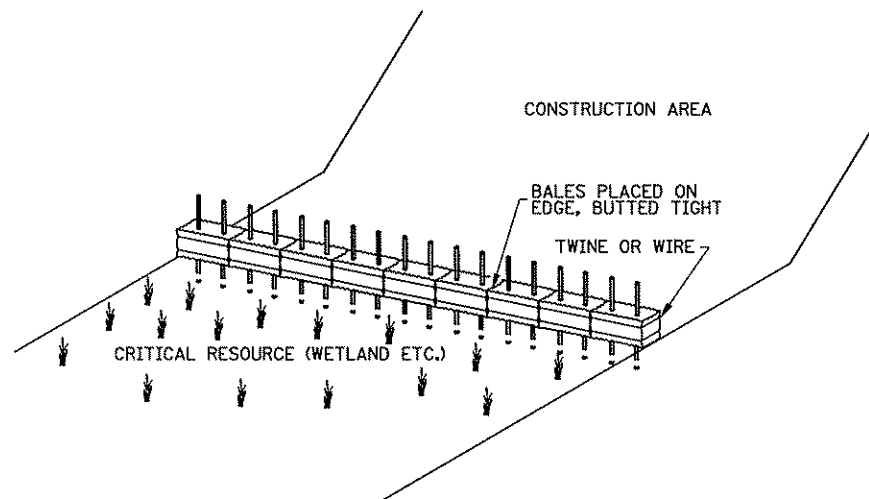


SECTION A-A

SEDIMENT MAT ⑥

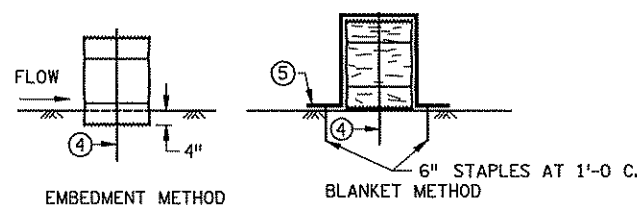
TYPICAL STREAM BED INSTALLATION

DESIGN GUIDELINES:
 MAXIMUM FLOW VELOCITY: 5 FT./SEC.
 MAXIMUM FLOW DEPTH: 2 FT.



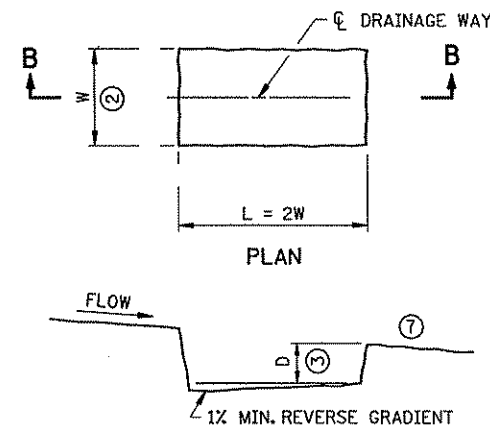
BALE BARRIERS

TO BE USED FOR CRITICAL PERIMETER CONTROL AREAS



BALE BARRIER DETAIL

APPROX. BALE SIZE: 14" X 18" X 36" LONG



SECTION B-B SEDIMENT TRAP DETAIL

NOTES:

SEE SPECS. 2573, 3892, & 3894.

- ① ROCKS AT ENTRANCE CLEAN WORKSITE MUD OFF OF TRUCK TIRES BEFORE TRUCKS ENTER MAIN ROAD. KEEPING MUD OFF THE ROAD WILL PREVENT AUTO DAMAGE AND KEEP CONSTRUCTION SEDIMENT OUT OF DRAINAGE SYSTEMS AND WETLANDS. GEOTEXTILE MAY BE PLACED UNDER THE ROCK TO KEEP ROCKS SEPARATE FROM SOIL.
- ② W = 10 FT. MIN., 20 FT. MAX.
- ③ D = 2 FT.
- ④ TWO 2 IN. X 2 IN. WOOD STAKES OR REINFORCING BARS IN EACH BALE EMBEDDED 10 INCHES MINIMUM IN THE GROUND.
- ⑤ PLACE A CATEGORY 3 EROSION CONTROL BLANKET, 6 FT. WIDE MINIMUM, OVER THE BALE INSTEAD OF TRENCHING.
- ⑥ THIS DETAIL MAY NOT BE ACCEPTABLE FOR WORK ON PUBLIC WATERS, SEE GENERAL PUBLIC WATERS PERMIT (GP) 2004-0001.
- ⑦ LOCATION OF DOWNSTREAM TEMPORARY SEDIMENT CONTROL DEVICE.

STANDARD SHEET NO.
 5-297.405 (2 OF 4)

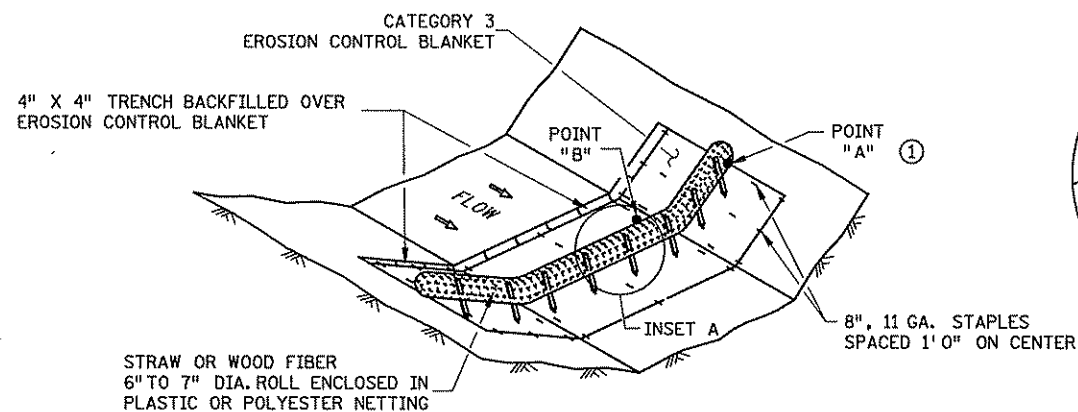
STANDARD APPROVED:
 MARCH 29, 2012

S.A.P. 02-622-28

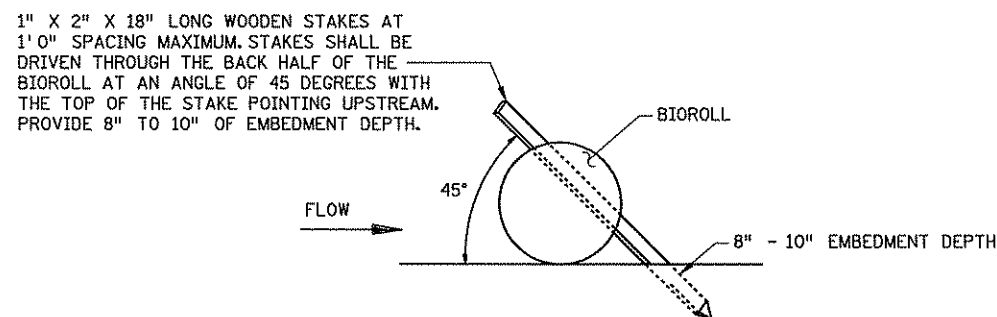
TITLE:

TEMPORARY SEDIMENT CONTROL
 MISCELLANEOUS DETAILS

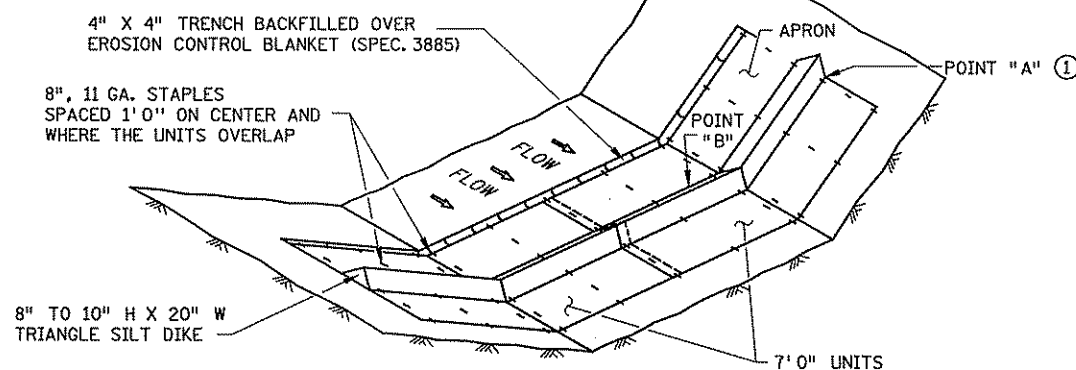
SHEET NO. 81 OF 42 SHEETS



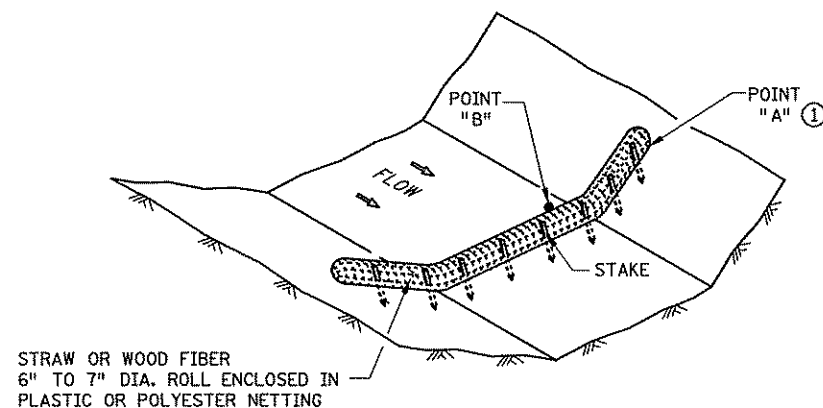
TYPE 3: BIOROLL BLANKET SYSTEM DITCH CHECK



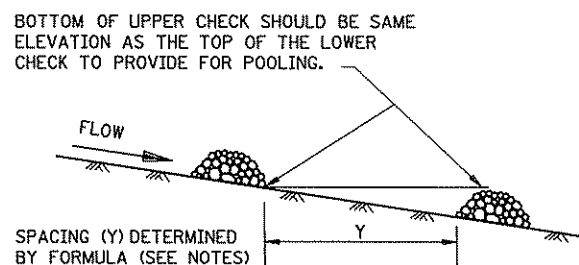
BIOROLL STAKING DETAIL



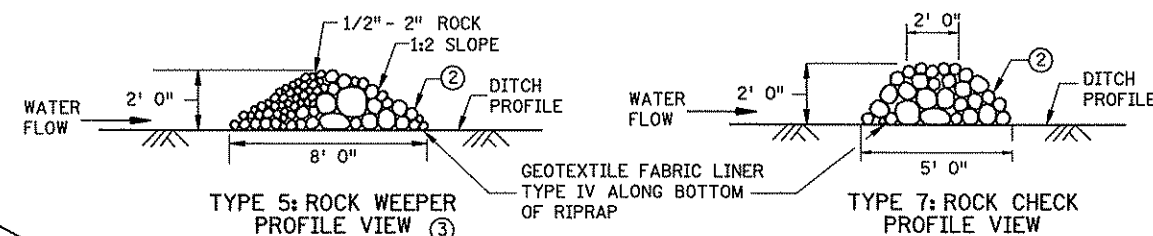
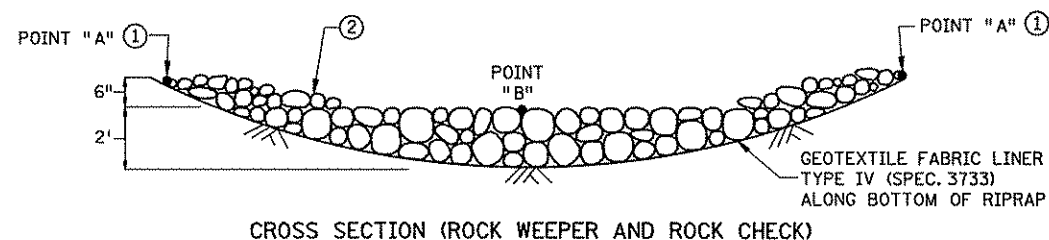
TYPE 6: GEOTEXTILE TRIANGULAR DIKE DITCH CHECK



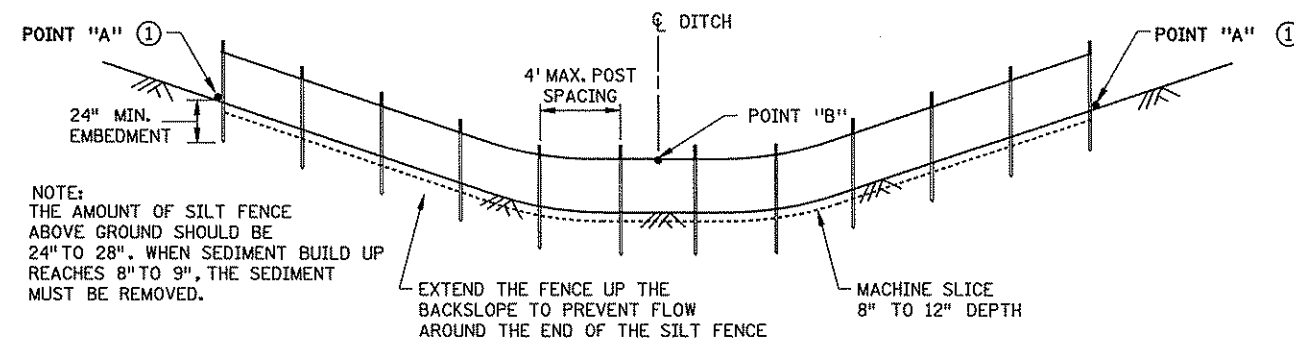
TYPE 2: BIOROLL DITCH CHECK
USE ON ROUGH GRADED AREAS



DITCH CHECK SPACING ④



TYPE 5: ROCK WEEPER AND
TYPE 7: ROCK CHECK DITCH CHECKS ④
USE ON ROUGH GRADED AREAS



TYPE 1: SLICED IN SILT FENCE DITCH CHECK

NOTES:

SEE SPECS. 2573, 3601, 3733, 3885, 3886 & 3889.

APPROXIMATE SPACING BETWEEN EACH DITCH CHECK SHOULD BE DETERMINED FROM THE FOLLOWING SPACING FORMULA:

$$\text{APPROXIMATE SPACING OF DITCH CHECKS (FT.)} = Y = \frac{\text{DITCH CHECK HEIGHT (FT)}}{\% \text{ CHANNEL SLOPE}} \times 100$$

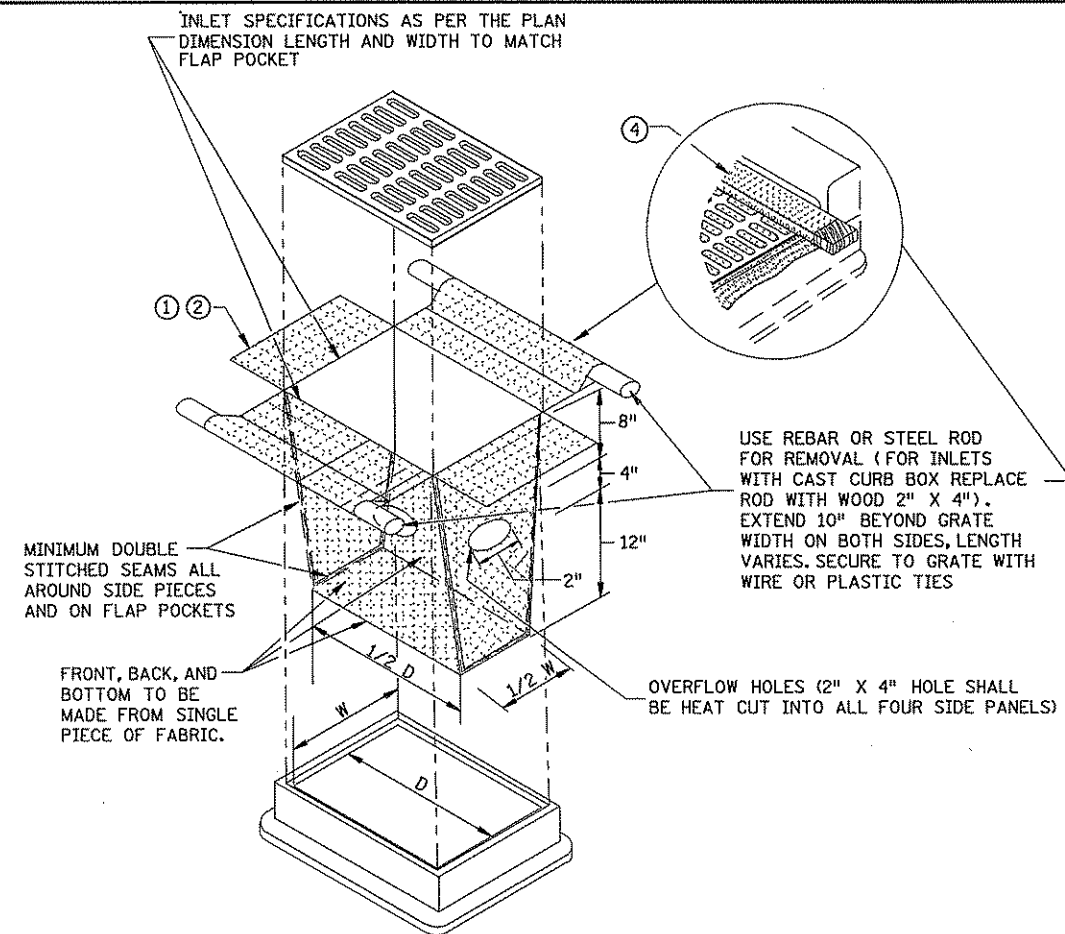
- ① POINT "A" MUST BE A MINIMUM OF 6 INCHES HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.
- ② CLASS I - IV RIPRAP (SPEC. 3601) WITH GEOTEXTILE FABRIC LINER, TYPE IV (SPEC. 3733).
- ③ THE ROCK WEEPER FILTERS SEDIMENT OUT OF THE WATER BETTER THAN THE OTHER DITCH CHECKS. THE ROCK WEEPER COULD BE USED AS A PERMANENT WATER FILTERING FEATURE.
- ④ PERMANENT ROCK DITCH CHECKS PLACED WITHIN THE CLEAR ZONE WILL NEED TO BE 18" OR LESS IN HEIGHT. A 1:6 APPROACH AND DEPARTURE SLOPE SHALL BE PROVIDED.

GENERAL DESIGN GUIDELINES						
DITCH CHECK TYPE	SILT FENCE	BIOROLL	BIOROLL BLANKET	TRIANGULAR DIKE	ROCK WEEPER	ROCK CHECK
STORM FREQUENCY:	2 YR. - 24 HR.	2 YR. - 24 HR.	2 YR. - 24 HR.	2 YR. - 24 HR.	5 YR. - 24 HR.	5 YR. - 24 HR.
MAX. FLOW VELOCITY:	< 1 FT./SECOND	1.5 FT./SECOND	4.5 FT./SECOND	1.5 FT./SECOND	12 FT./SECOND	12 FT./SECOND
MAX. DITCH GRADE:	0% - 0.5%	1.5% - 3%	1.5% - 3%	1.5% - 2.0%	3% - 5%	3% - 5%
MAX. DRAINAGE AREA:	1 ACRE	2 ACRE	2 ACRE	4 ACRE	4+ ACRE	4+ ACRE

STANDARD SHEET NO.
5-297.405 (3 OF 4)
STANDARD APPROVED:
MARCH 29, 2012
S.A.P. 02-622-28

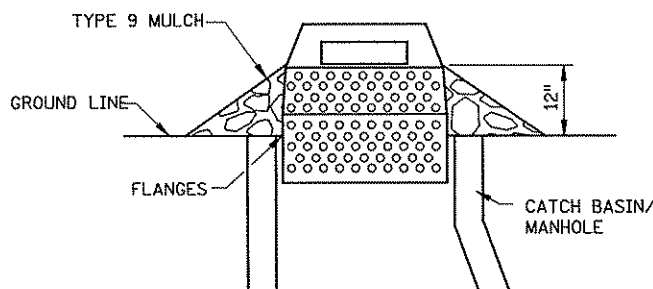
TEMPORARY SEDIMENT CONTROL
DITCH CHECK/BARRIER

SHEET NO. 82 OF 42 SHEETS



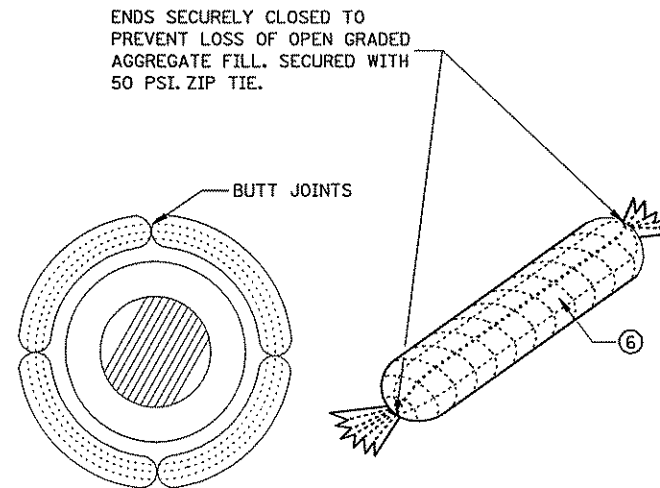
FILTER BAG INSERT ③

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX)

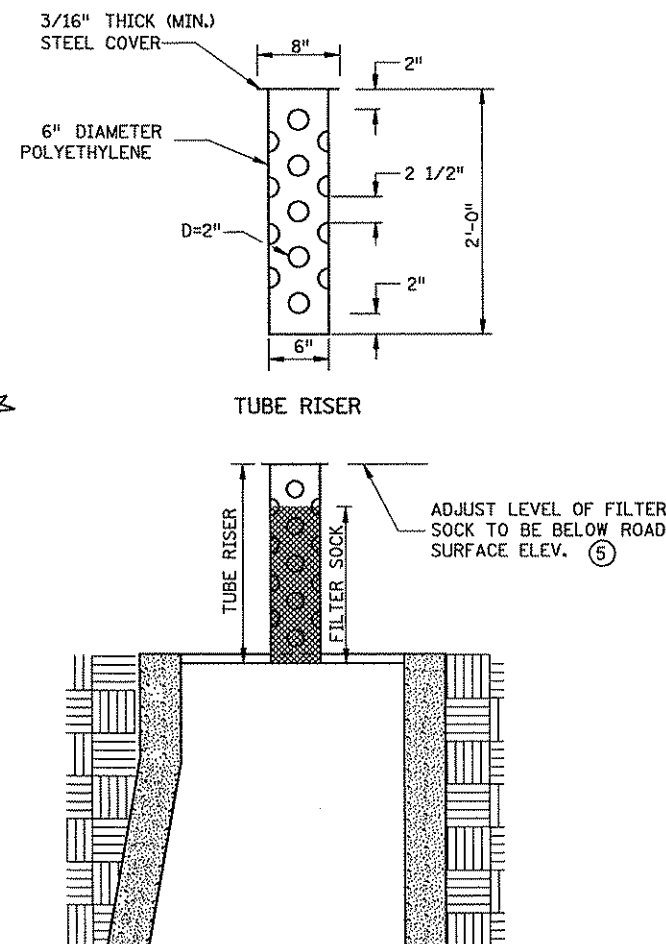


SEDIMENT CONTROL INLET HAT

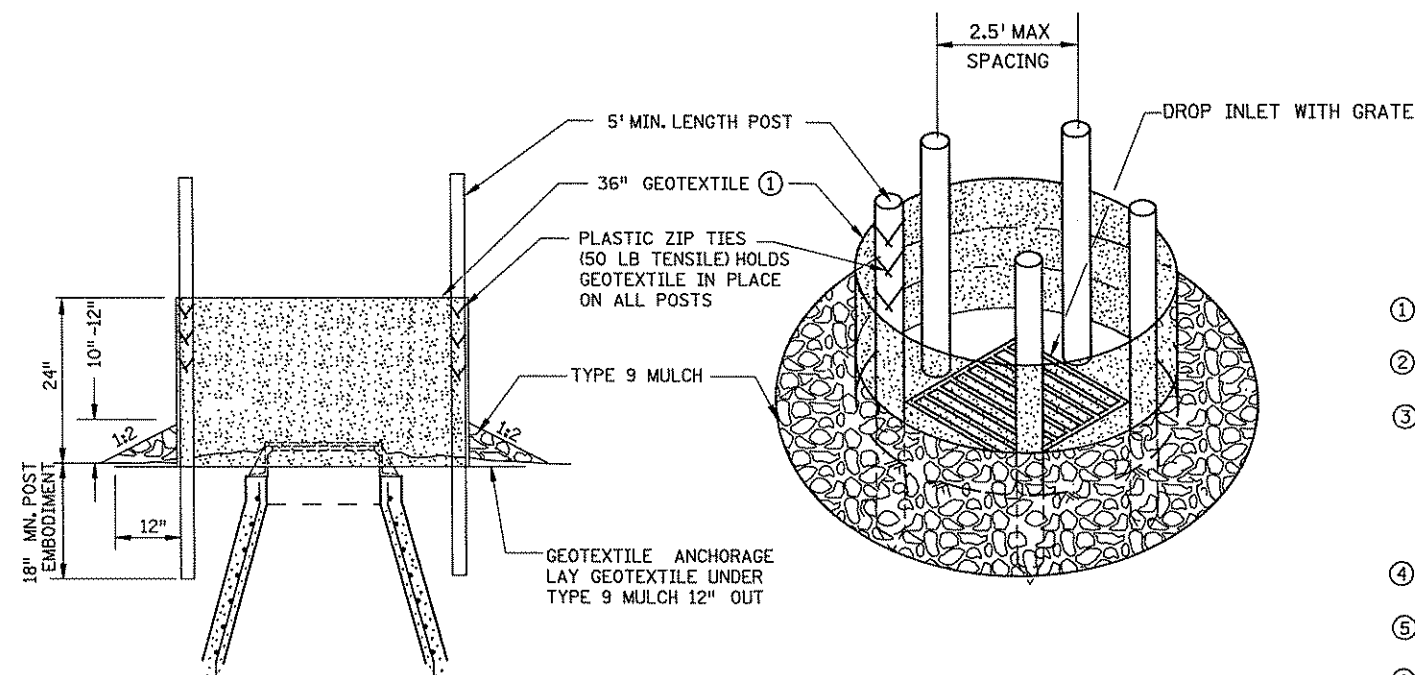
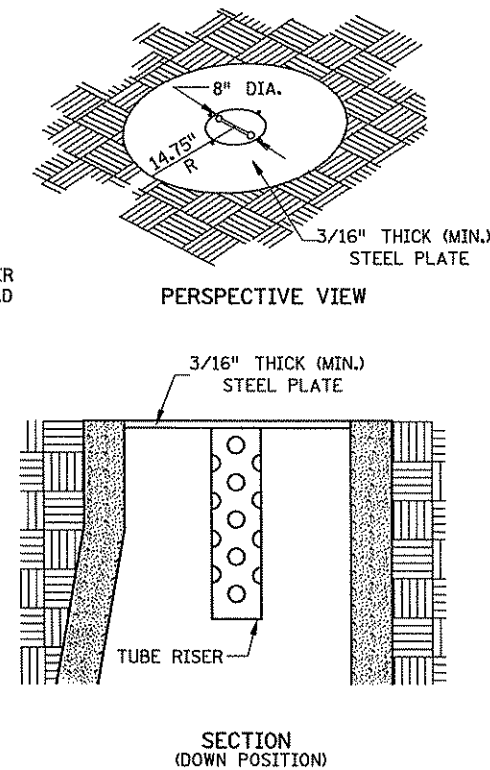
NOTE:
THE SEDIMENT CONTROL BARRIER SHALL BE A METAL OR PLASTIC/POLYETHYLENE RISER SIZED TO FIT INSIDE THE CATCH BASIN/MANHOLE; HAVE PERFORATIONS TO ALLOW FOR WATER INFILTRATION; HAVE AN OVERFLOW OPENING, FLANGES AND A LID/COVER.



ROCK LOG/COMPOST LOG



POP-UP HEAD



SILT FENCE RING AND ROCK FILTER BERM
USE WHERE INLET DRAINS IN AN AREA WITH SLOPES AT 1:3 OR LESS

NOTES:

SEE SPECS. 2573, 3137, 3886 & 3891.

MANUFACTURED ALTERNATIVES LISTED ON Mn/DOT'S APPROVED PRODUCTS LIST MAY BE SUBSTITUTED.

- ① ALL GEOTEXTILE USED FOR INLET PROTECTION SHALL BE MONOFILAMENT IN BOTH DIRECTIONS, MEETING SPEC. 3886.
- ② FINISHED SIZE, INCLUDING POCKETS WHERE REQUIRED SHALL EXTEND A MINIMUM OF 10 INCHES AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ③ INSTALLATION NOTES:
DO NOT INSTALL FILTER BAG INSERT IN INLETS SHALLOWER THAN 30 INCHES, MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE. THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE OF 3 INCHES BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES. WHERE NECESSARY THE CONTRACTOR SHALL CLINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3 INCH SIDE CLEARANCE.
- ④ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2 INCH X 4 INCH OR USE A ROCK SOCK OR SAND BAGS IN PLACE OF THE FLAP POCKETS.
- ⑤ SOCK HEIGHT MUST NOT BE SO HIGH AS TO SLOW DOWN WATER FILTRATION TO CAUSE FLOODING OF THE ROADWAY.
- ⑥ GEOTEXTILE SOCK BETWEEN 4-10 FEET LONG AND 4-6 INCH DIAMETER. SEAM TO BE JOINED BY TWO ROWS OF STITCHING WITH A PLASTIC MESH BACKING OR PROVIDE A HEAT BONDED SEAM (OR APPROVED EQUIVALENT). FILL ROCK LOG WITH OPEN GRADED AGGREGATE CONSISTING OF SOUND DURABLE PARTICLES OF COARSE AGGREGATE CONFORMING TO SPEC. 3137 TABLE 3137-1; CA-3 GRADATION.

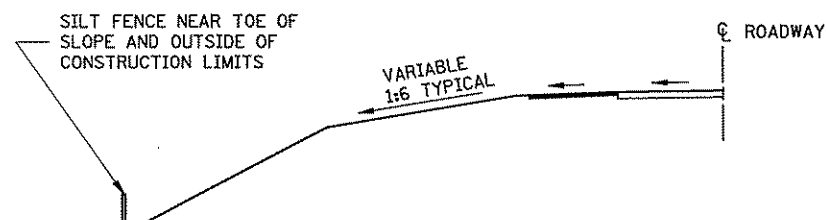
STANDARD SHEET NO.
297.405 (4 OF 4)
STANDARD APPROVED:
MARCH 29, 2012

TEMPORARY SEDIMENT CONTROL
STORM DRAIN INLET PROTECTION

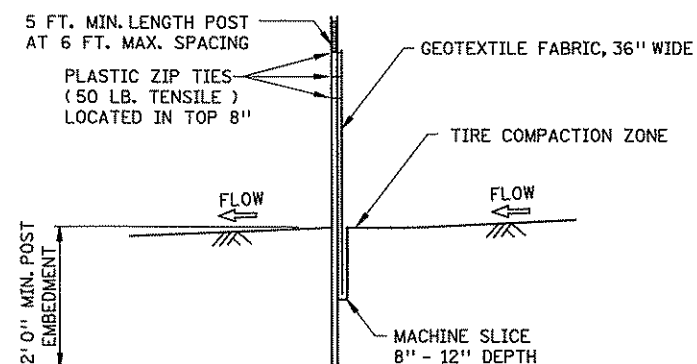
S.A.P. 02-622-28

SHEET NO. 83 OF 42 SHEETS

PLOTTED/REVISED:
06/07/2012

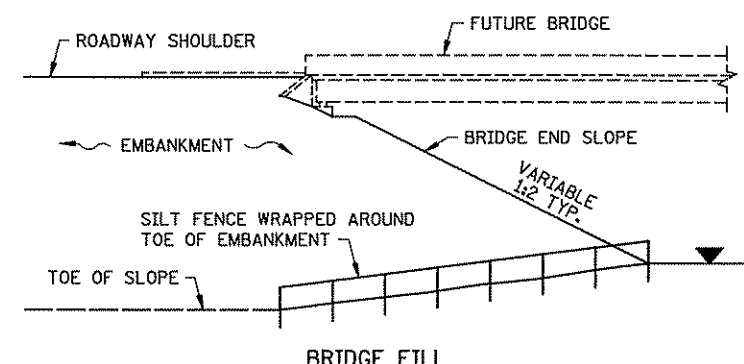


LOCATION OF SILT FENCE
AT TOE OF ROADWAY EMBANKMENT



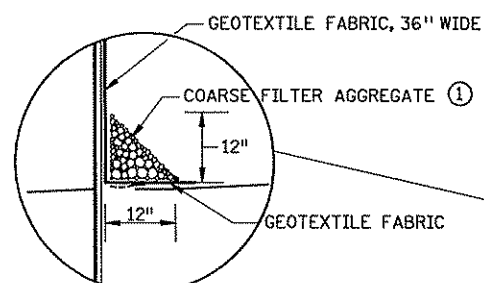
SILT FENCE, MACHINE SLICED

DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.

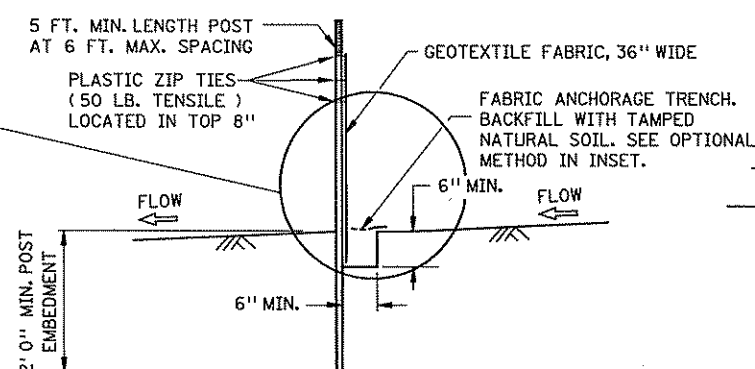


DESIGN GUIDELINES:

WATER COURSE FLOW VELOCITY: STAGNANT
CONTRIBUTING SLOPE AREA: 1/2 ACRE

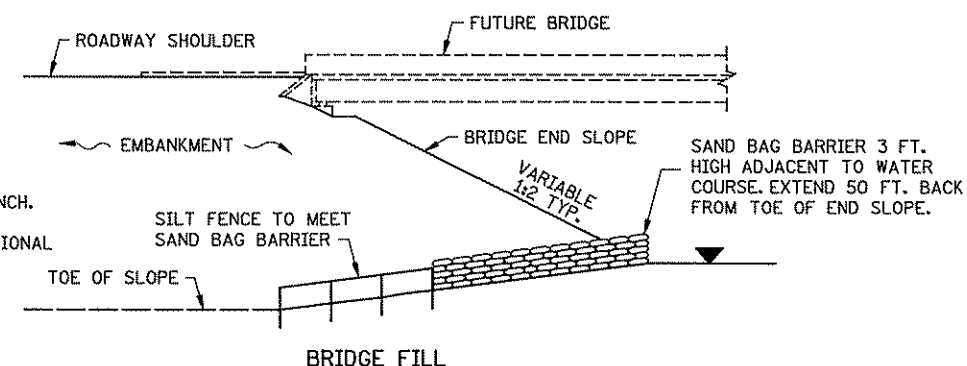


OPTIONAL METHOD
FOR SILT FENCE, HEAVY DUTY



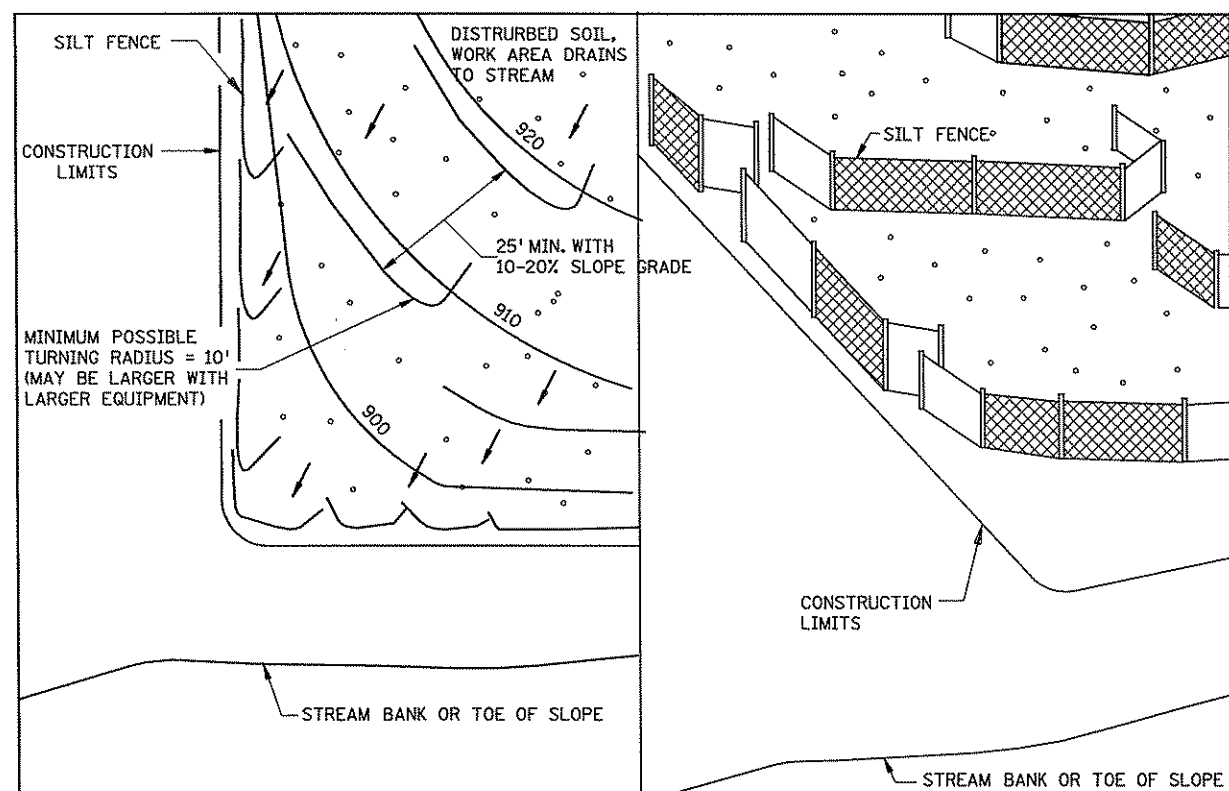
**SILT FENCE, HEAVY DUTY
(HAND INSTALLED)**

DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



DESIGN GUIDELINES:

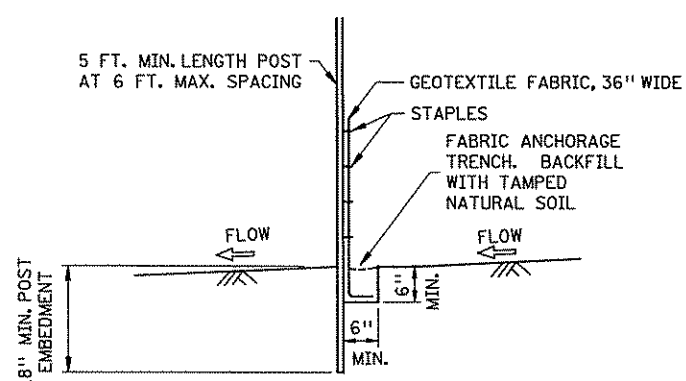
WATER COURSE FLOW VELOCITY: 1 TO 7 FT./SEC.
CONTRIBUTING SLOPE AREA: 1 ACRE



PLAN VIEW

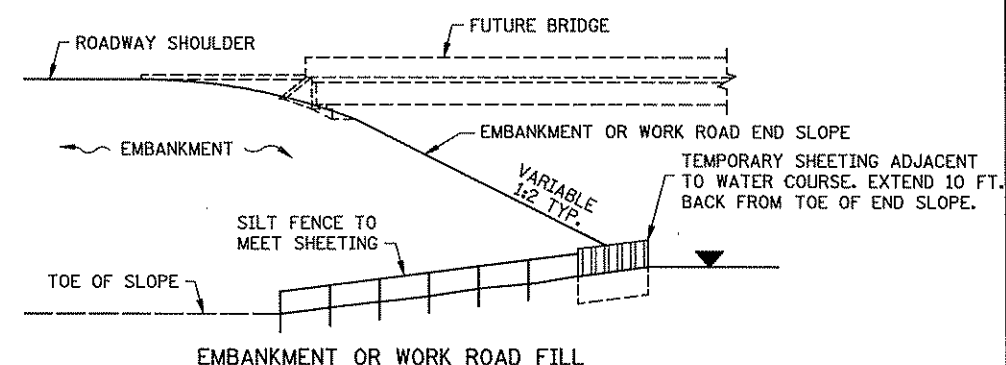
SIDE VIEW

SILT FENCE, J-HOOK INSTALLATION



SILT FENCE, PREASSEMBLED

DESIGN GUIDELINES:
TO PROTECT AREAS FROM SHEET FLOW.
MAXIMUM CONTRIBUTING AREA: 1 ACRE.



SILT FENCE AT BRIDGE EMBANKMENT ADJACENT TO WATER

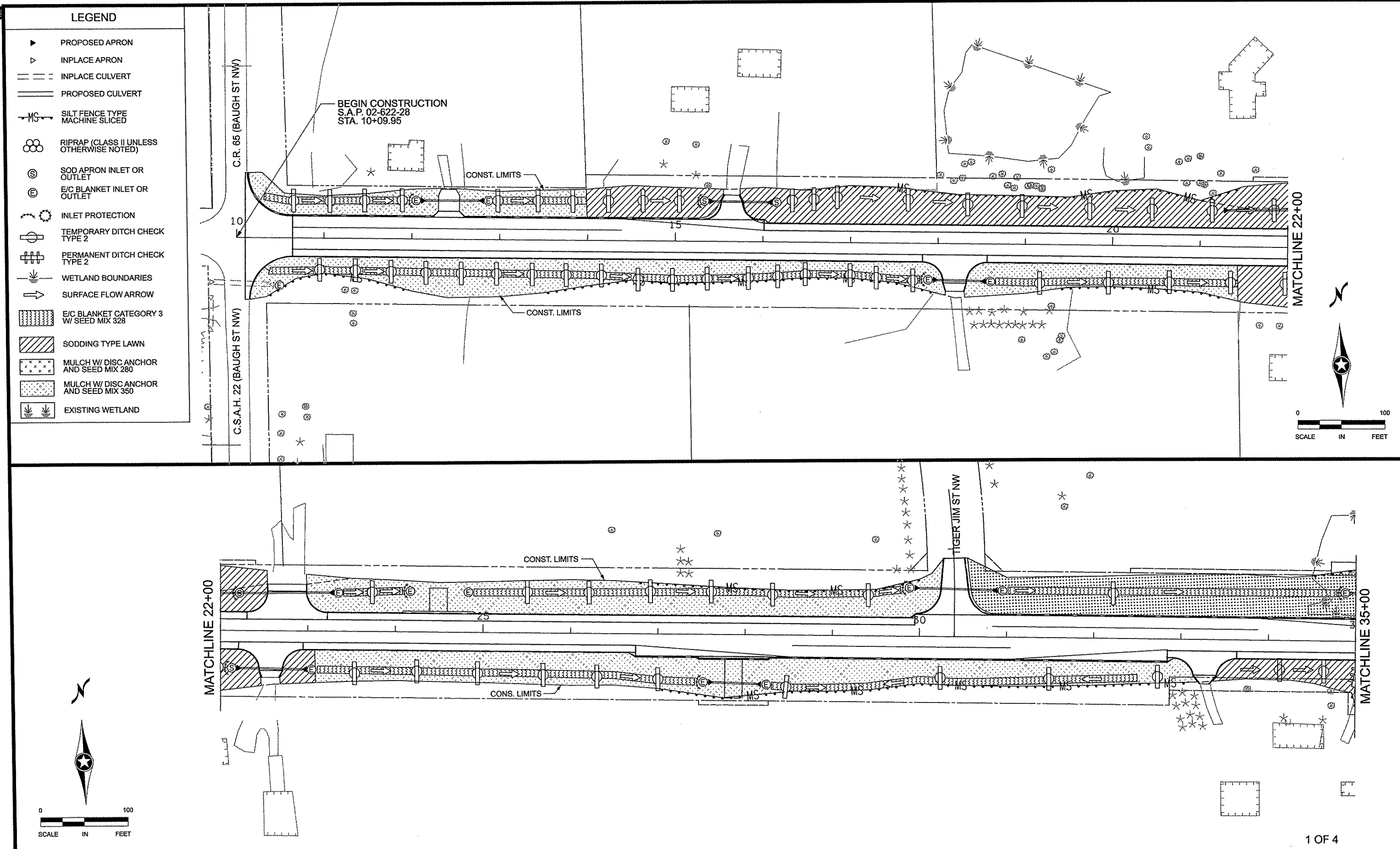
NOTES:

SEE SPECS. 2573, 3149 & 3886.

① COARSE FILTER AGGREGATE (SPEC. 3149) SHALL BE INCIDENTAL.

STANDARD SHEET NO. 5-297.408 (1 OF 2)	TITLE: TEMPORARY SEDIMENT CONTROL SILT FENCE
STANDARD APPROVED: SEPTEMBER 27, 2006	
S.A.P. 02-622-28	SHEET NO. 84 OF 42 SHEETS

FILE NAME:
06/07/2012

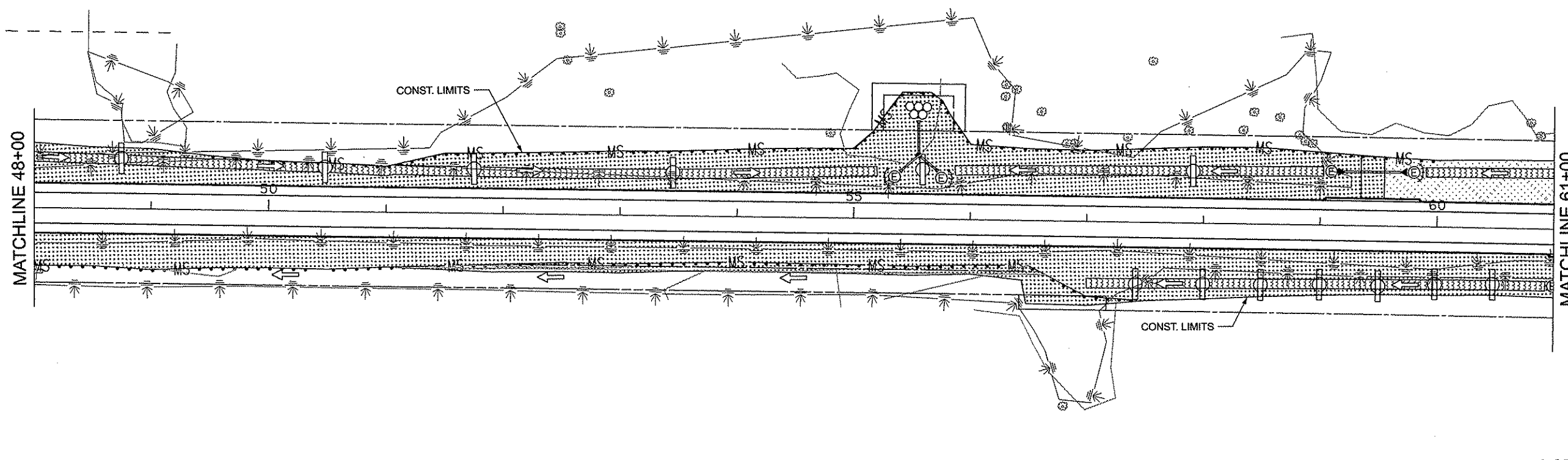
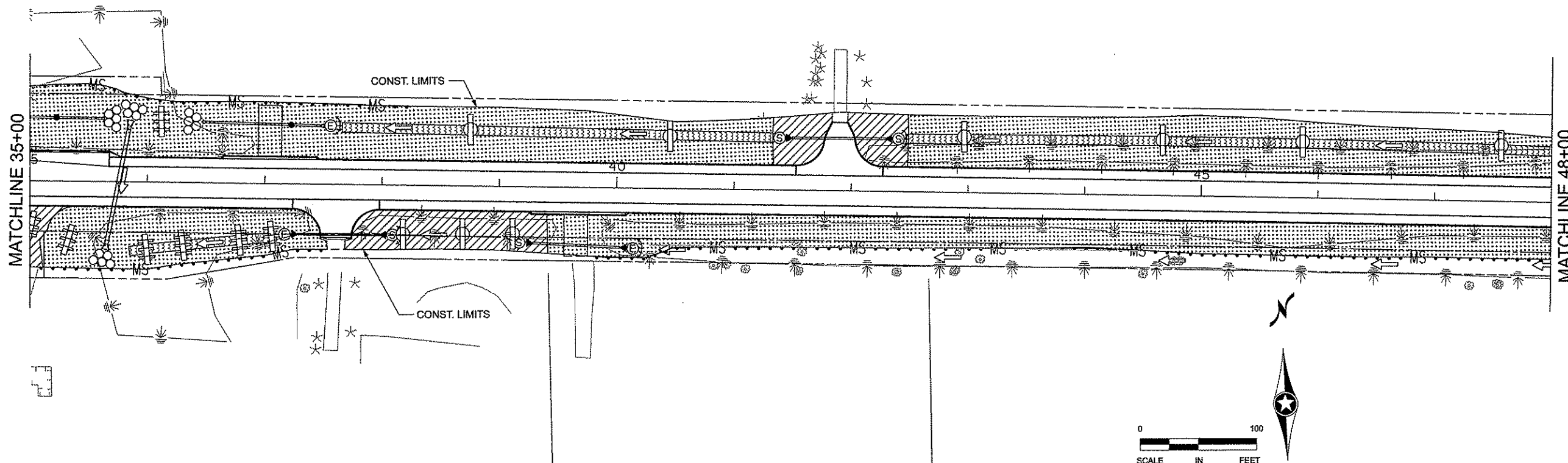


NO DATE BY CKD APPR REVISION 1:50:18 PM						I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: CURT A. KOBILARCSIK SIGNATURE: <i>Curt A. Kobilarsik</i> DATE: 6-8-12 LICENSE NO. 24756		DRAWN BY NJD DATE DESIGN BY NJD DATE CHECKED BY JEO DATE		 ANOKA COUNTY HIGHWAY DEPT.		S.A.P. 002-622-028 - - -		PERMANENT EROSION CONTROL PLAN STA 10+00.00 TO 35+00.00 Sheet 85 of 139 Sheets	
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NAME: p:\02-622-28\plan\0262228_EC_P1.dgn

LEGEND

- ▶ PROPOSED APRON
- ▷ INPLACE APRON
- == INPLACE CULVERT
- ==== PROPOSED CULVERT
- MS SILT FENCE TYPE MACHINE SLICED
- ⊙ RIPRAP (CLASS II UNLESS OTHERWISE NOTED)
- ⊙ SOD APRON INLET OR OUTLET
- ⊙ E/C BLANKET INLET OR OUTLET
- ⊙ INLET PROTECTION
- ⊙ TEMPORARY DITCH CHECK TYPE 2
- ⊙ PERMANENT DITCH CHECK TYPE 2
- WETLAND BOUNDARIES
- ➔ SURFACE FLOW ARROW
- E/C BLANKET CATEGORY 3 W/ SEED MIX 328
- SODDING TYPE LAWN
- MULCH W/ DISC ANCHOR AND SEED MIX 280
- MULCH W/ DISC ANCHOR AND SEED MIX 350
- EXISTING WETLAND



2 OF 4

NO	DATE	BY	CKD	APPR	REVISION	

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

PRINT NAME: CURT A. KOBIARCSIK

SIGNATURE: *Curt A. Kobiarsik*

DATE: 6-8-12 LICENSE NO. 24755

DRAWN BY NJD DATE

DESIGN BY NJD DATE

CHECKED BY JEO DATE



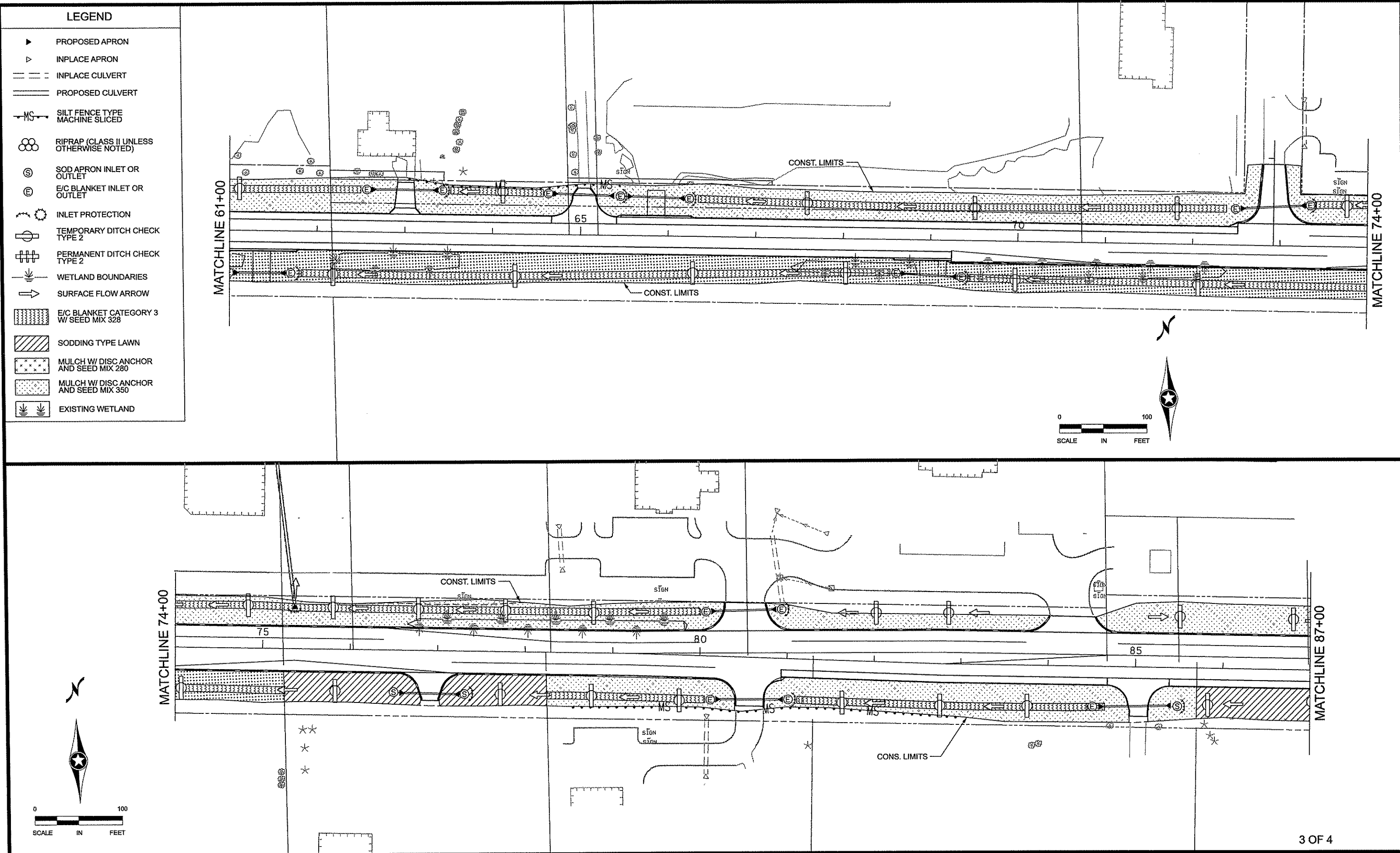
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

PERMANENT EROSION
CONTROL PLAN

STA 35+00.00 TO 61+00.00

Sheet 86 of 139 Sheets



NO	DATE	BY	CKD	APPR	REVISION
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *[Signature]*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE: _____

DESIGN BY: NJD DATE: _____

CHECKED BY: JEO DATE: _____



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

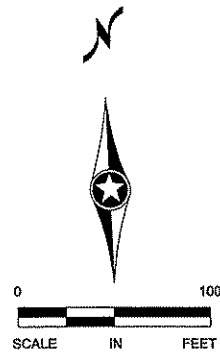
PERMANENT EROSION
CONTROL PLAN

STA 61+00.00 TO 87+00.00

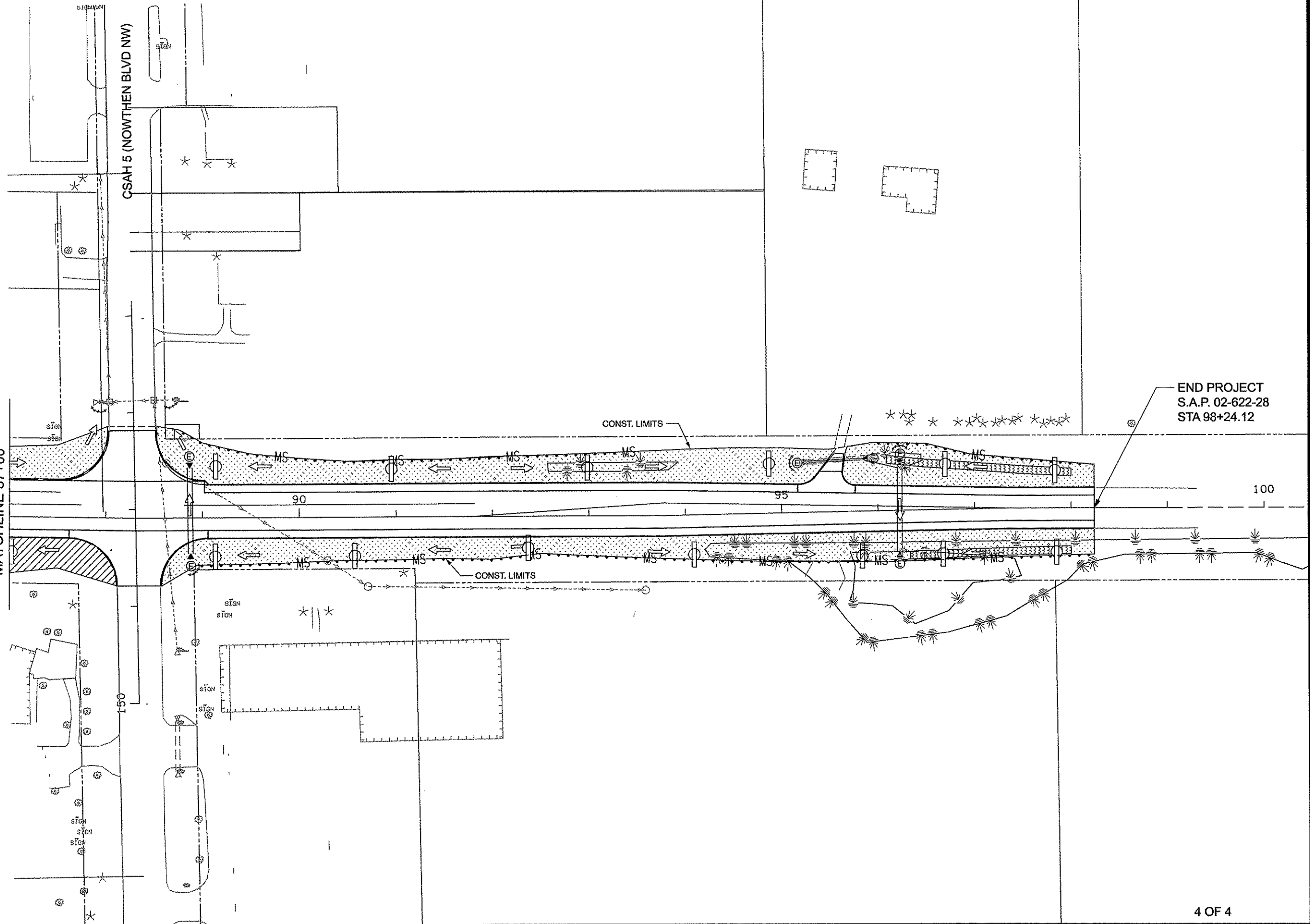
Sheet 87 of 139 Sheets

LEGEND

- ▶ PROPOSED APRON
- ▷ INPLACE APRON
- == INPLACE CULVERT
- PROPOSED CULVERT
- MS SILT FENCE TYPE MACHINE SLICED
- ⊙ RIPRAP (CLASS II UNLESS OTHERWISE NOTED)
- ⊙ SOD APRON INLET OR OUTLET
- ⊙ E/C BLANKET INLET OR OUTLET
- ⊙ INLET PROTECTION
- ⊙ TEMPORARY DITCH CHECK TYPE 2
- ⊙ PERMANENT DITCH CHECK TYPE 2
- ⊙ WETLAND BOUNDARIES
- SURFACE FLOW ARROW
- ⊙ E/C BLANKET CATEGORY 3 W/ SEED MIX 328
- ⊙ SODDING TYPE LAWN
- ⊙ MULCH W/ DISC ANCHOR AND SEED MIX 280
- ⊙ MULCH W/ DISC ANCHOR AND SEED MIX 350
- ⊙ EXISTING WETLAND



MATCHLINE 87+00



END PROJECT
S.A.P. 02-622-28
STA 98+24.12

4 OF 4

NO	DATE	BY	CKD	APPR	REVISION

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

PRINT NAME: CURT A. KOBILARCSIK

SIGNATURE: *[Signature]*

DATE: 6-8-12 LICENSE NO. 24756

DRAWN BY: NJD DATE:

DESIGN BY: NJD DATE:

CHECKED BY: JEO DATE:



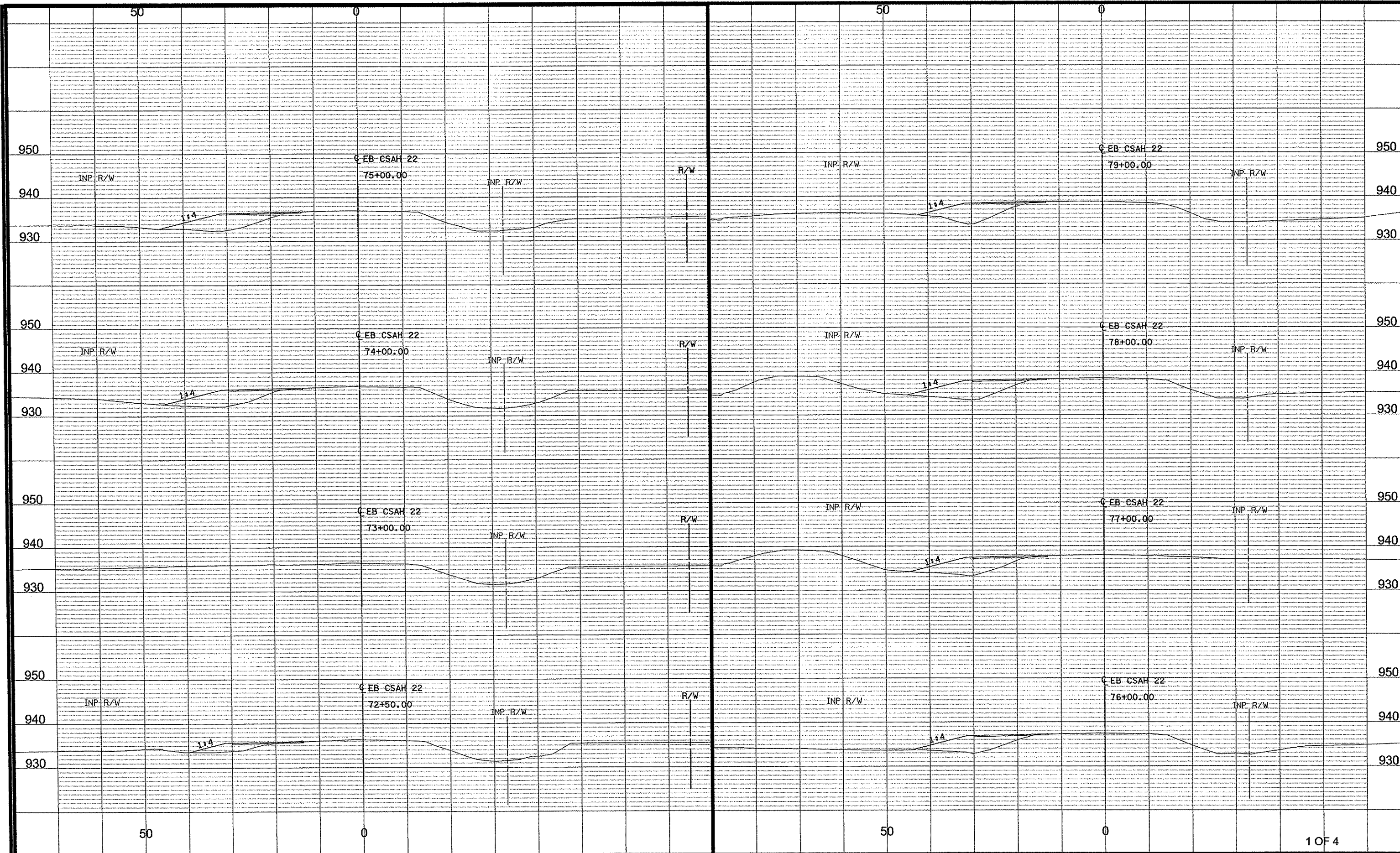
ANOKA COUNTY
HIGHWAY DEPT.

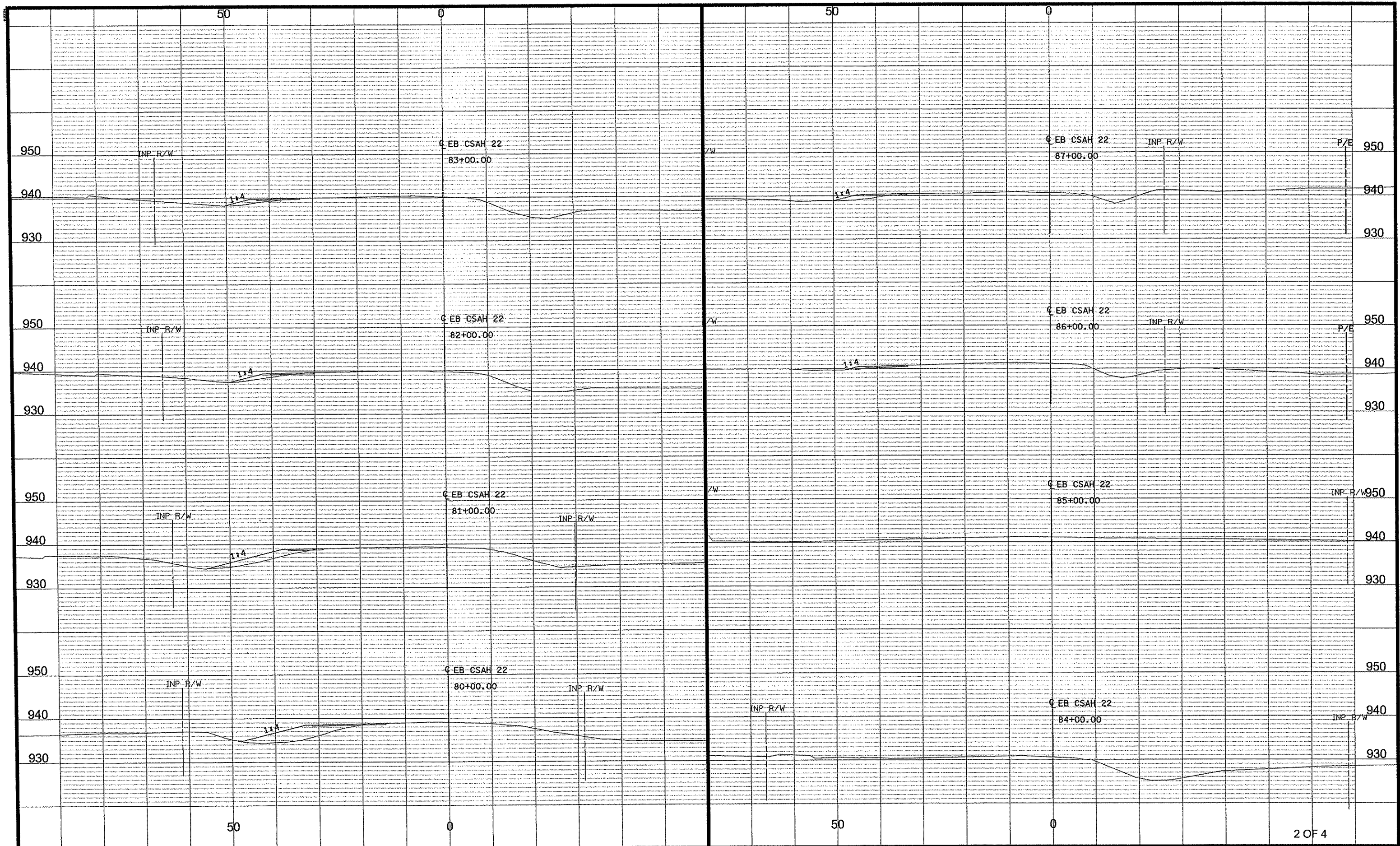
S.A.P. 002-622-028

PERMANENT EROSION CONTROL PLAN

STA 87+00.00 TO 98+00.00

Sheet 88 of 139 Sheets





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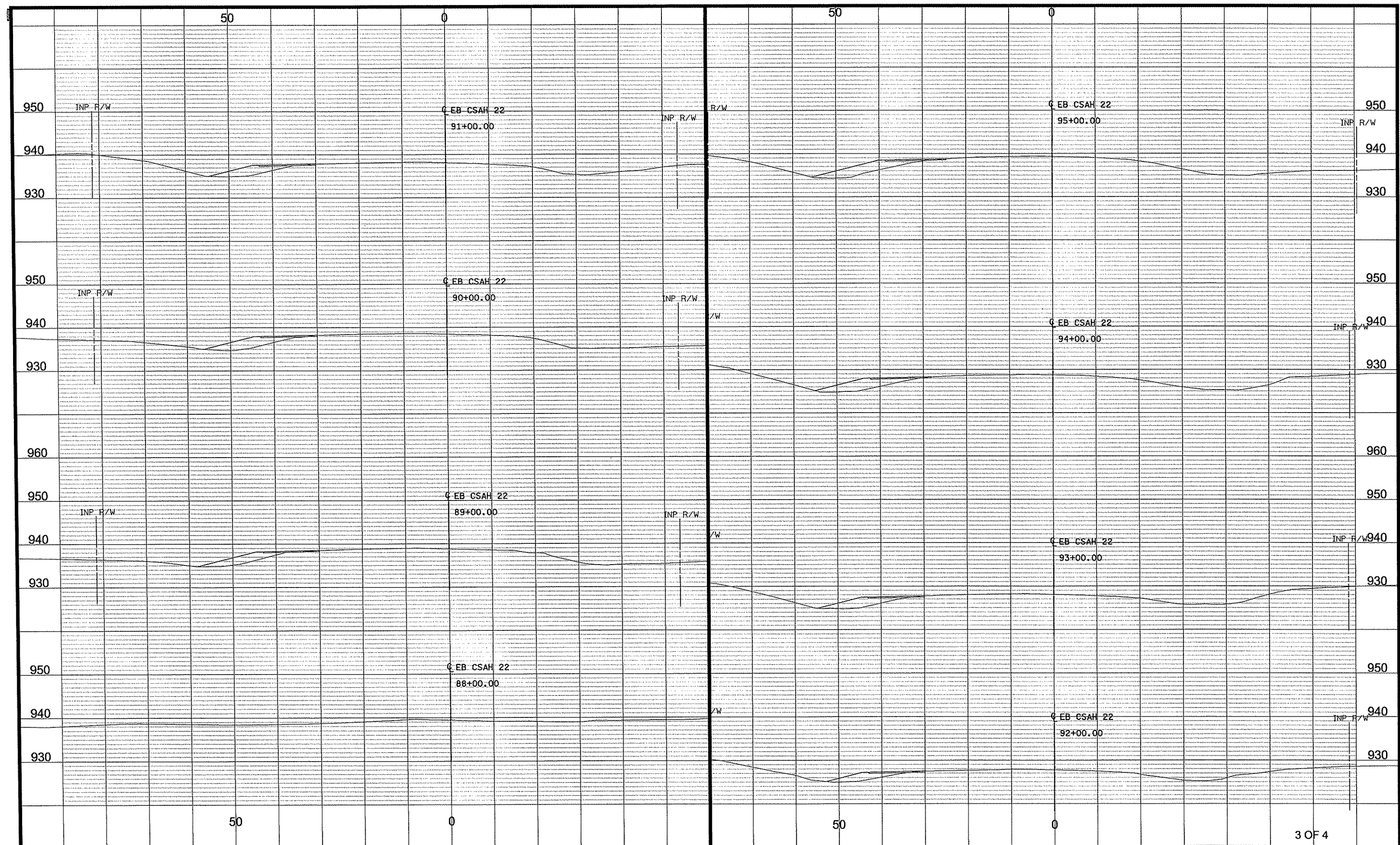
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

STAGE CROSS SECTIONS
STA 80+00 TO 87+00
Sheet 90 of 139 Sheets

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CHECKED BY JEO DATE DATE



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

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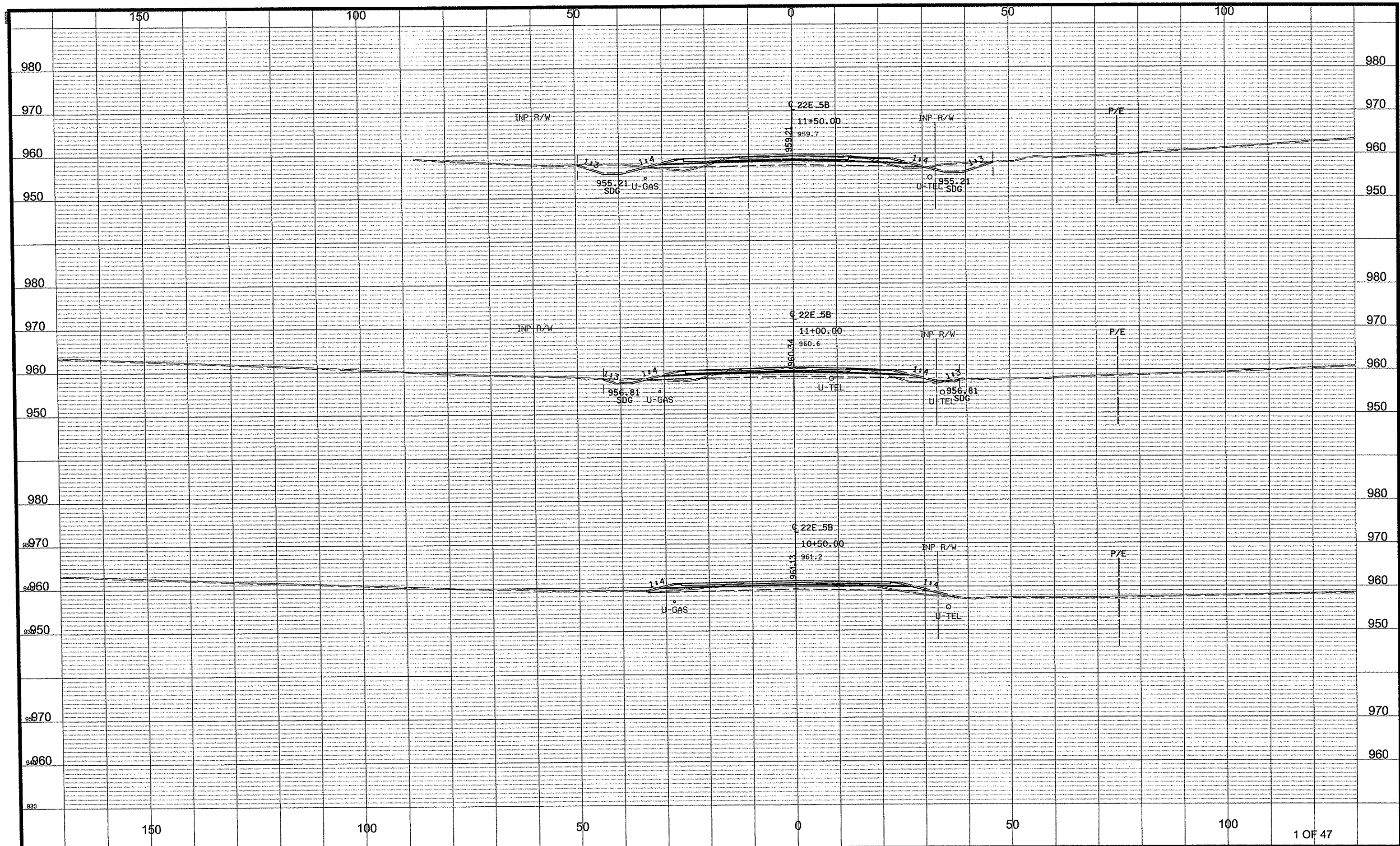
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STAGE CROSS SECTIONS

STA 88+00 TO 95+00

Sheet 91 of 139 Sheets



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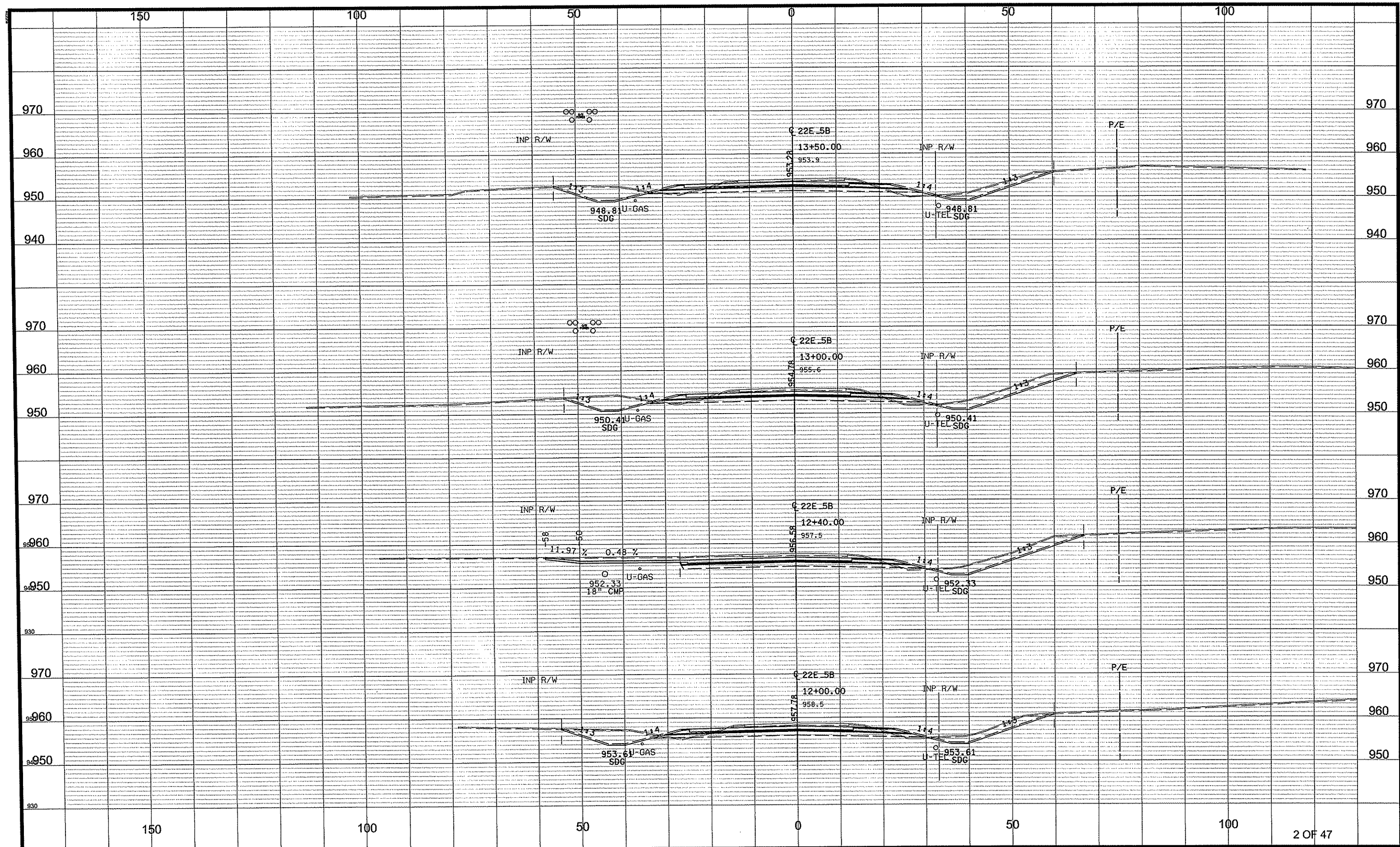
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 11+00.00 TO 11+50.00
Sheet 93 of 139 Sheets



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CHECKED BY JEO DATE DATE

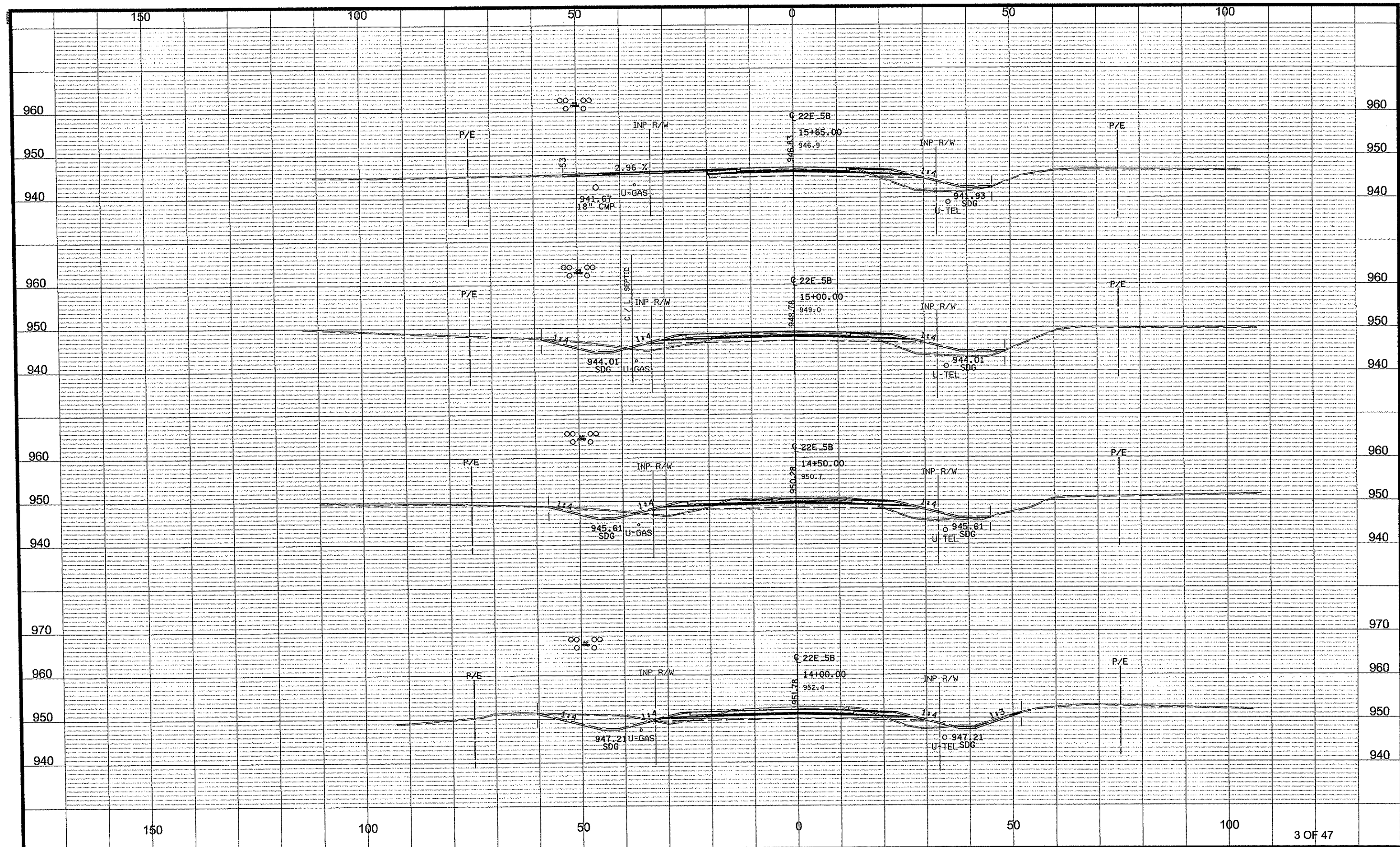


ANOKA COUNTY
HIGHWAY DEPT.

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CROSS SECTIONS
STA 12+00.00 TO 13+50.00
Sheet 94 of 139 Sheets

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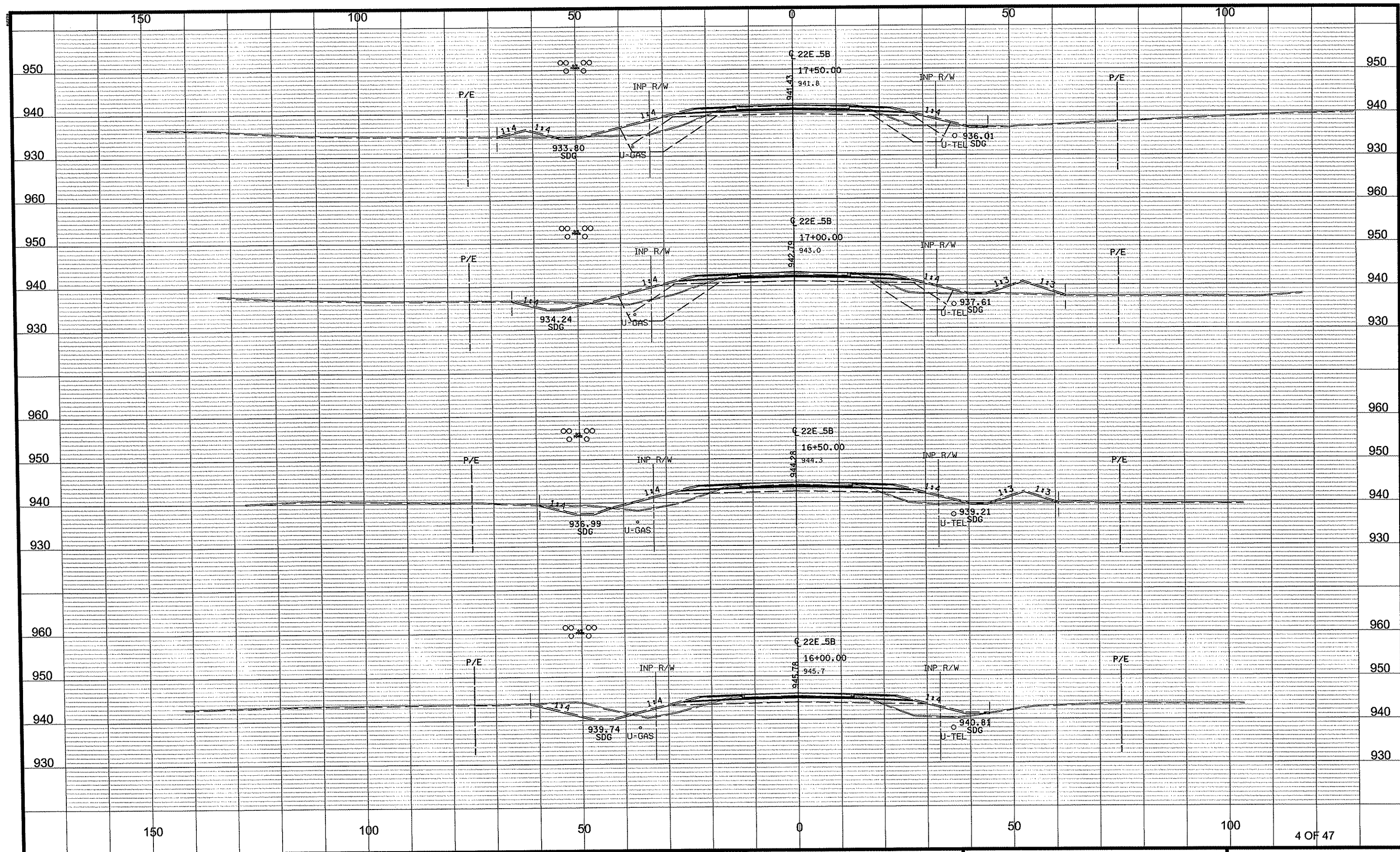
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 14+00.00 TO 15+65.00
Sheet 95 of 139 Sheets



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ANOKA COUNTY
HIGHWAY DEPT.

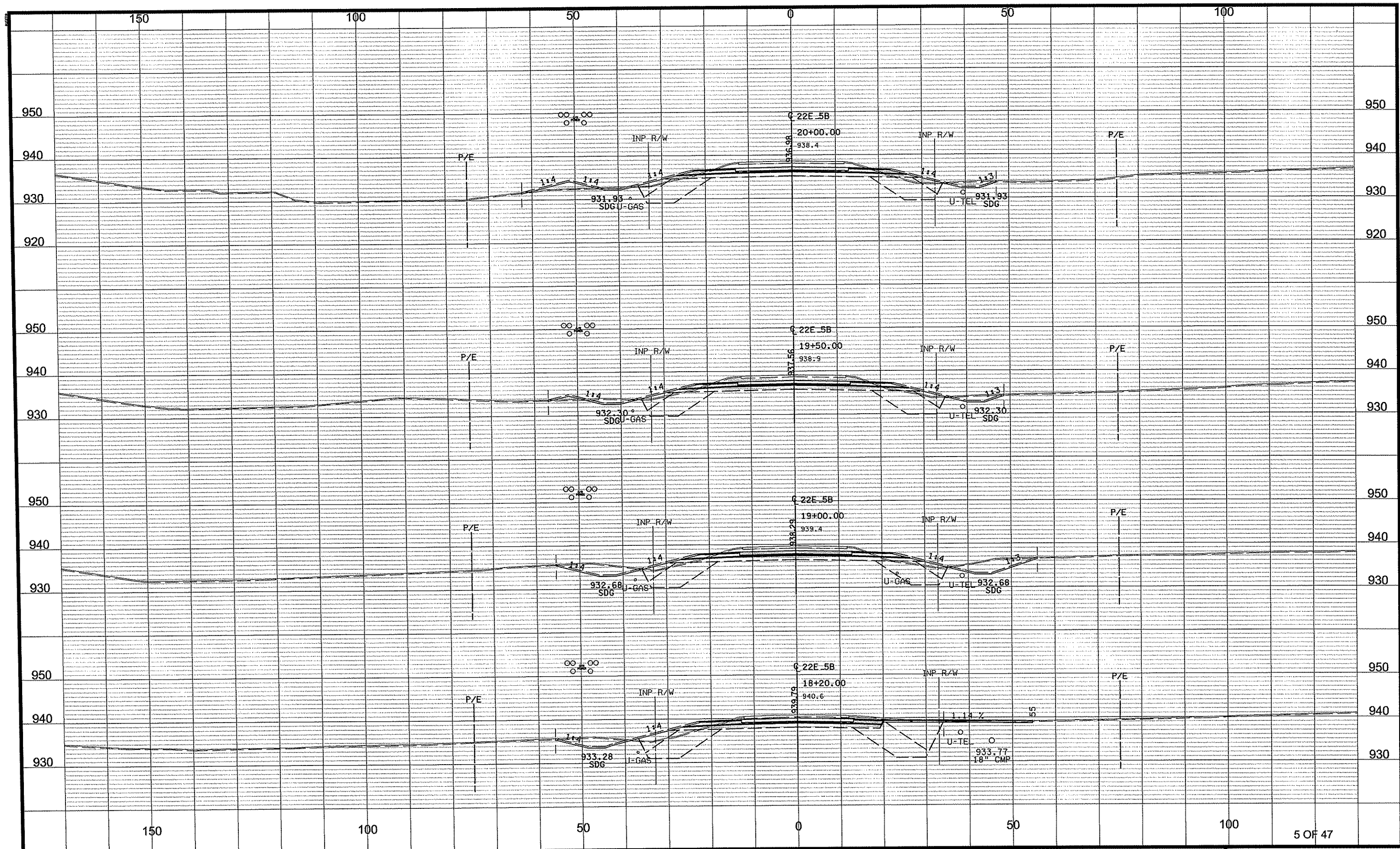
S.A.P. 002-622-028

CROSS SECTIONS

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Sheet 96 of 139 Sheets

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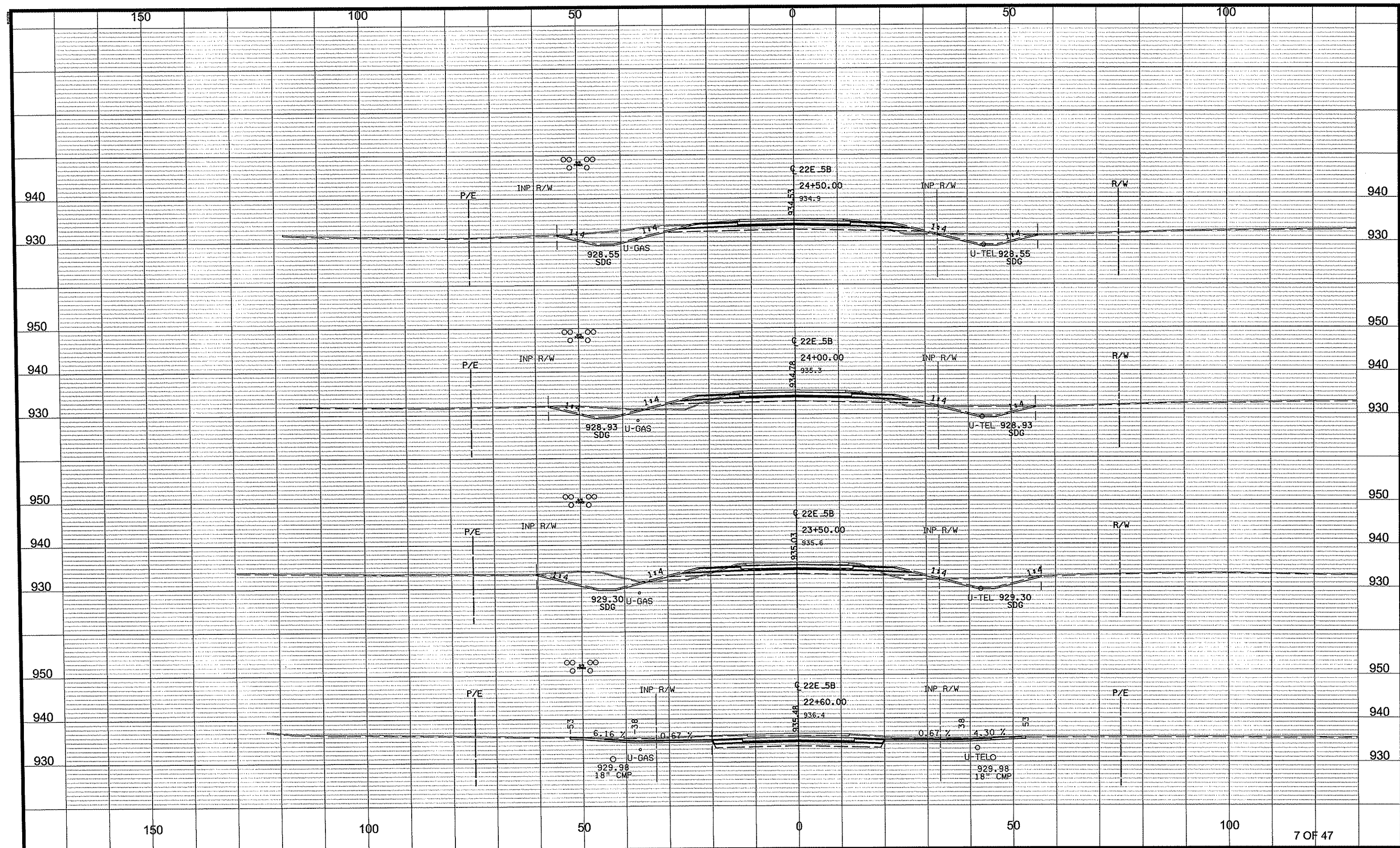
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS

STA 18+20.00 TO 20+00.00

Sheet 97 of 139 Sheets



ANOKA COUNTY
HIGHWAY DEPT.

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CROSS SECTIONS

STA 22+60.00 TO 24+50.00

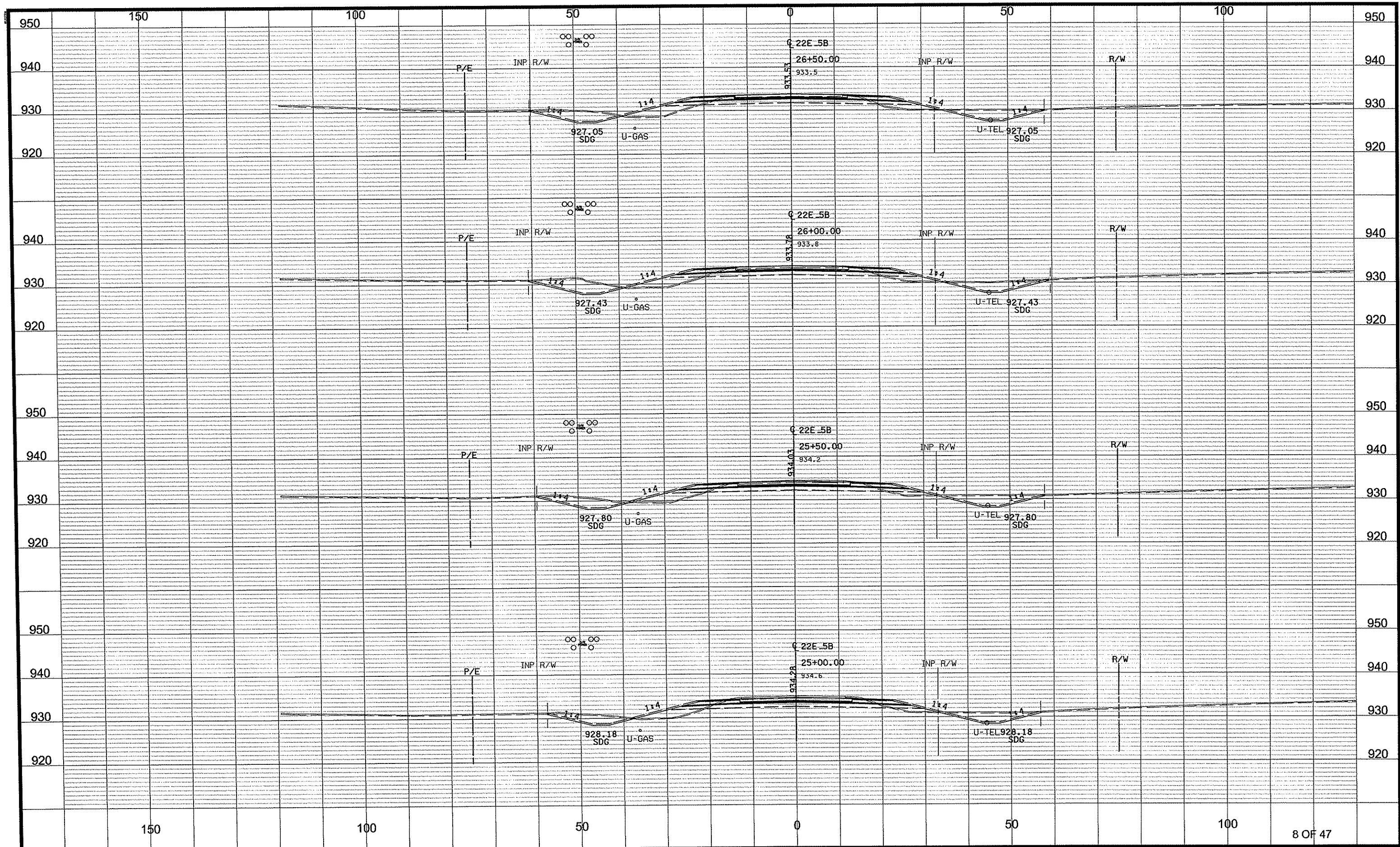
Sheet 99 of 139 Sheets

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REVISION

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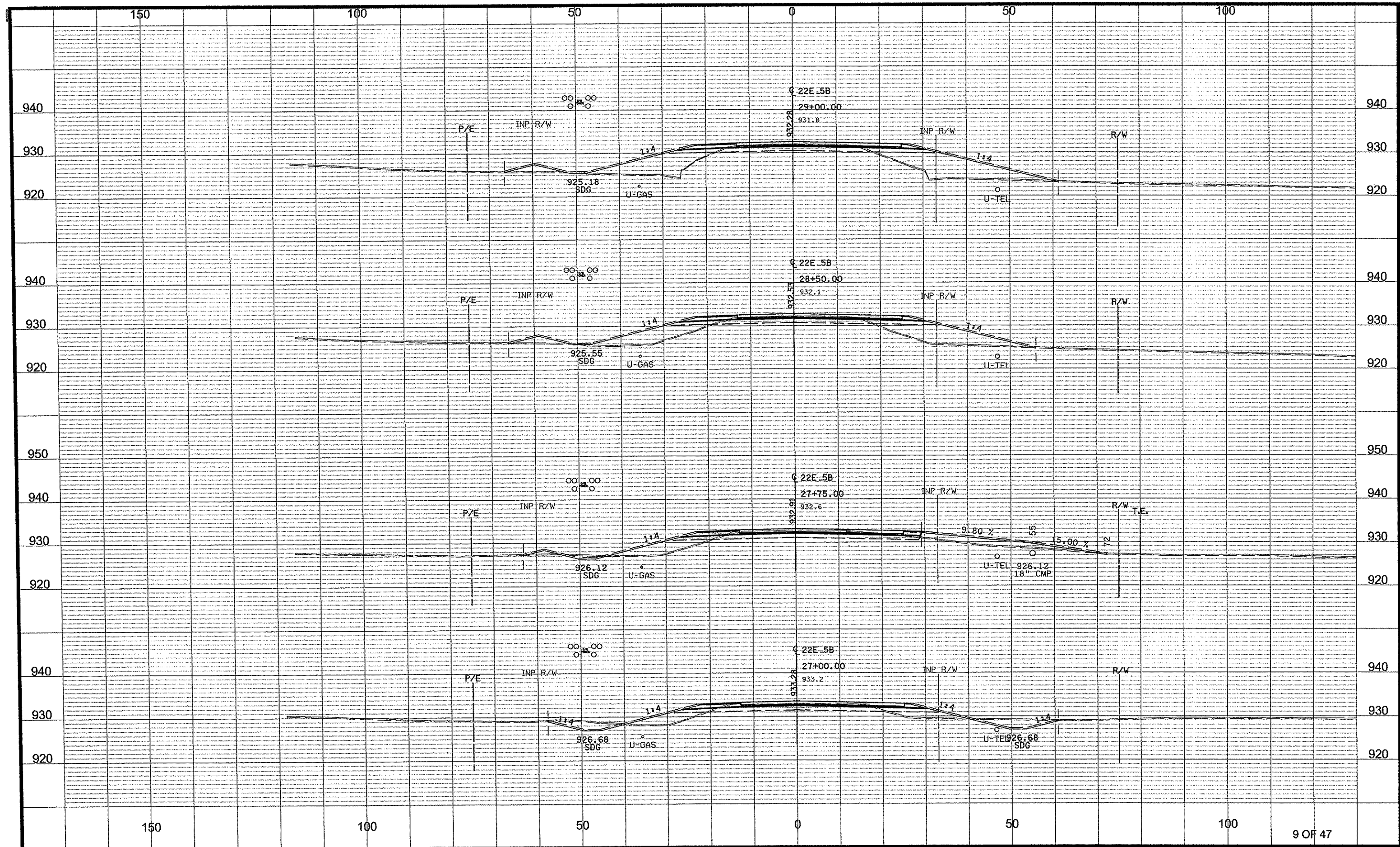
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

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Sheet 100 of 139 Sheets



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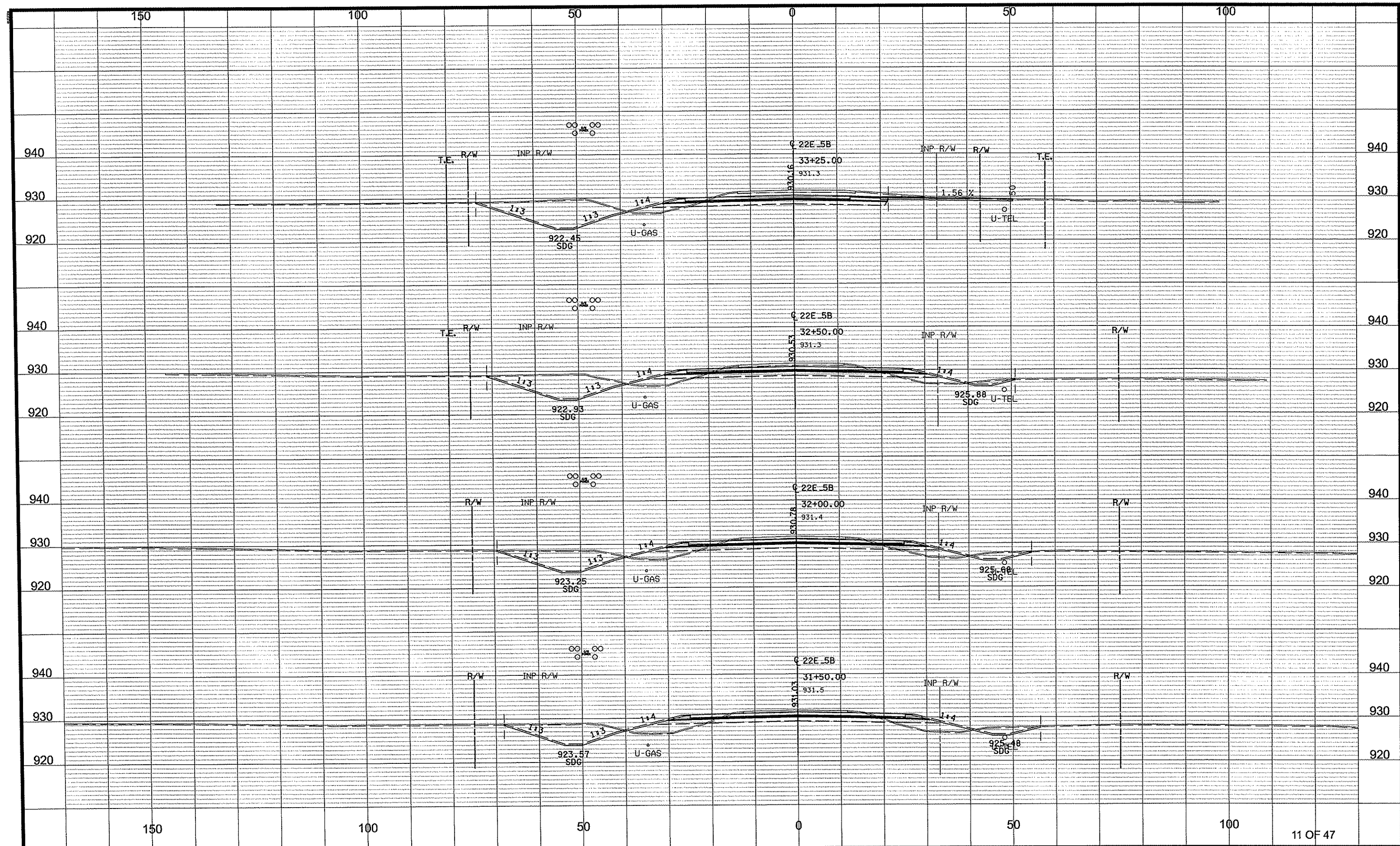
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

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Sheet 101 of 139 Sheets



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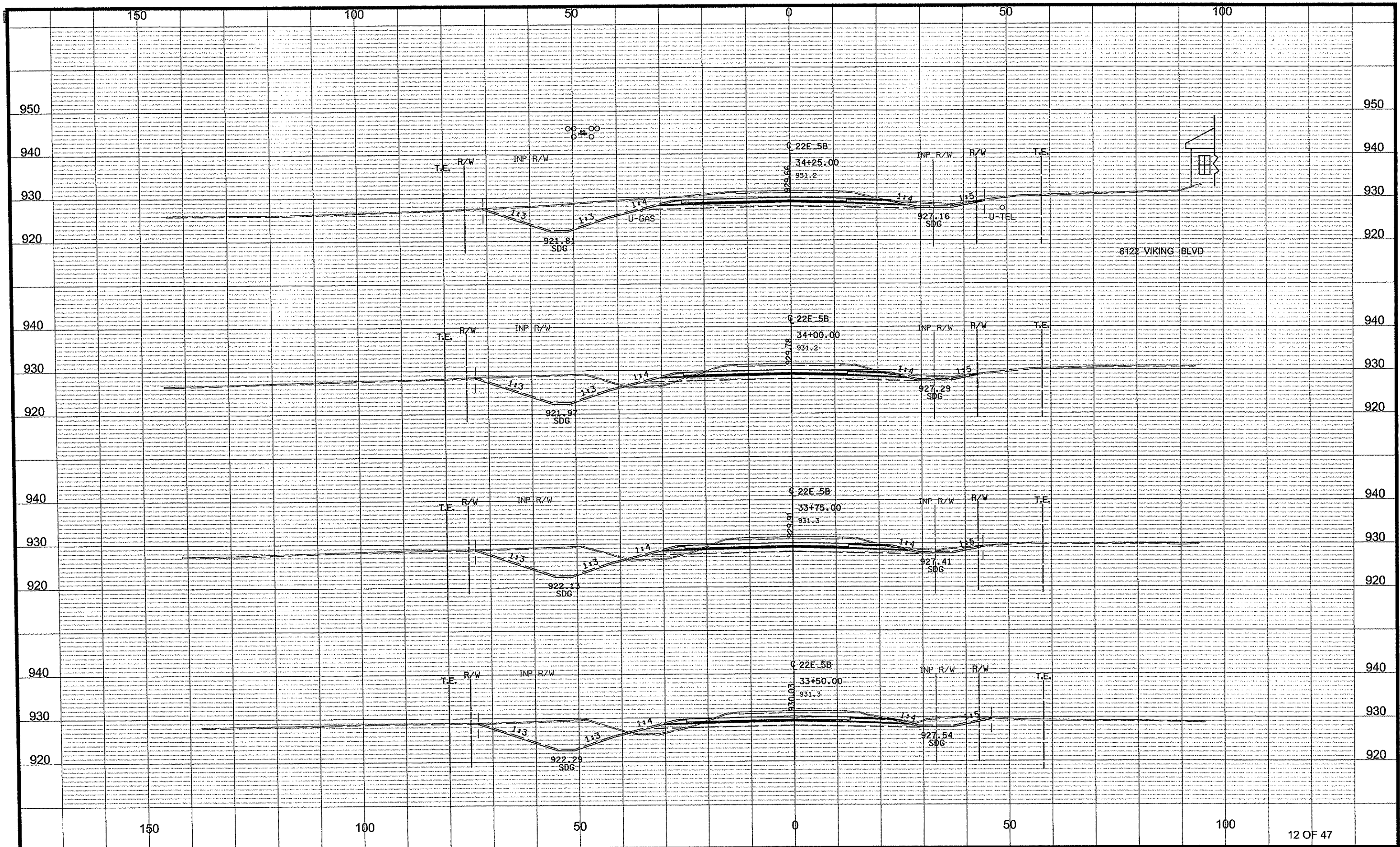
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

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Sheet 103 of 139 Sheets



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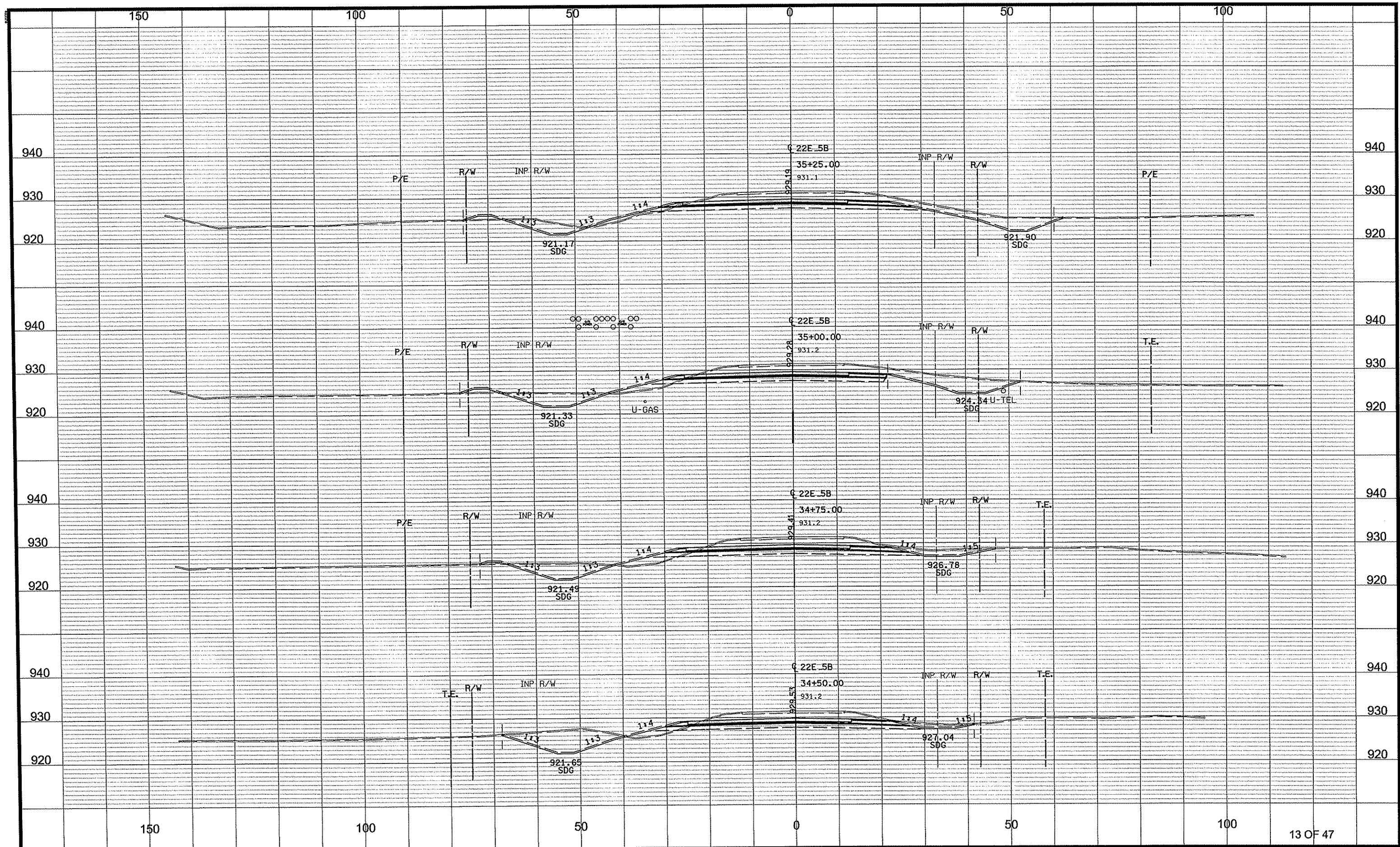
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 33+50.00 TO 34+25.00
Sheet 104 of 139 Sheets



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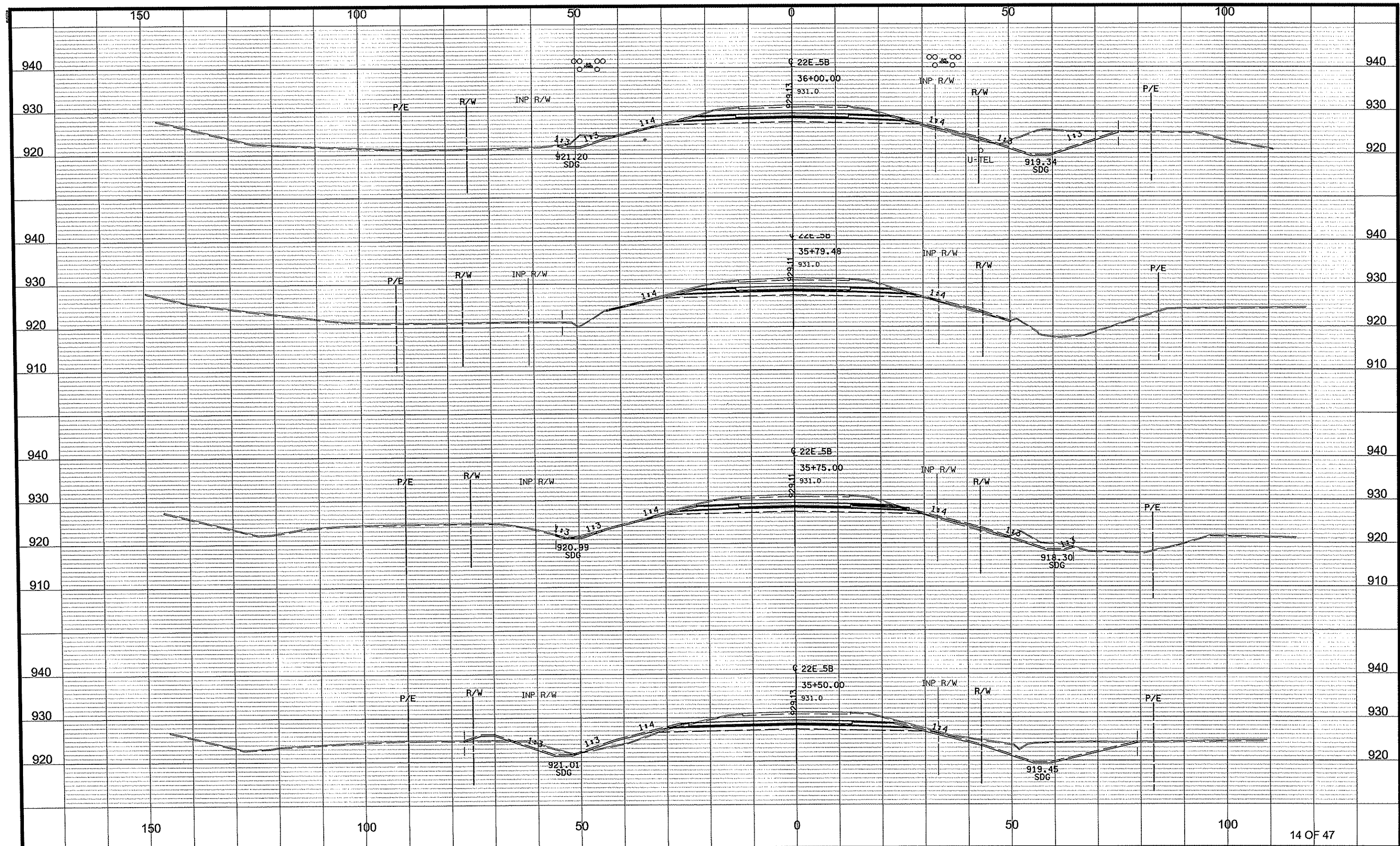
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 34+50.00 TO 35+25.00
Sheet 105 of 139 Sheets



14 OF 47

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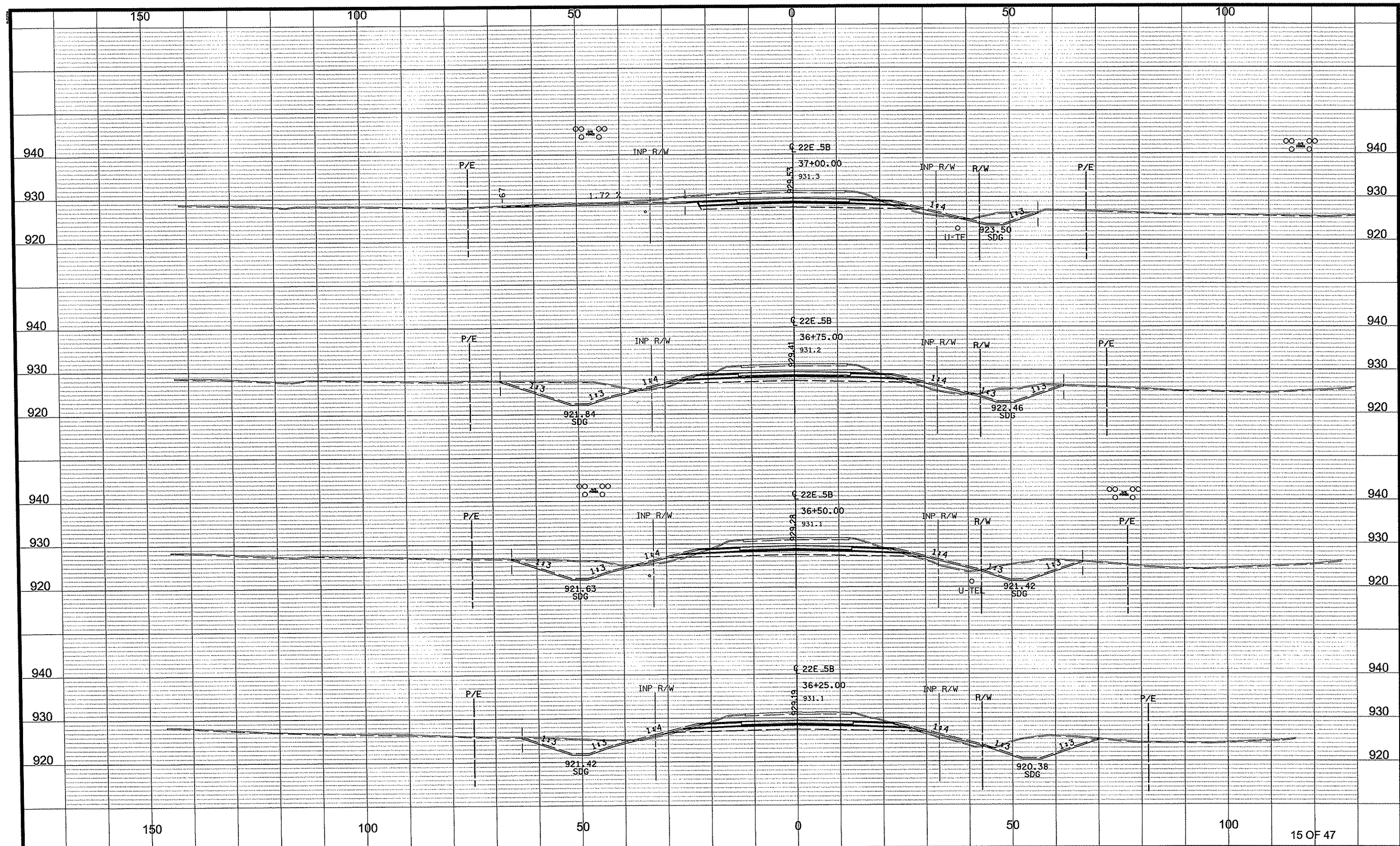
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS

STA 35+50.00 TO 36+00.00

Sheet 106 of 139 Sheets



15 OF 47

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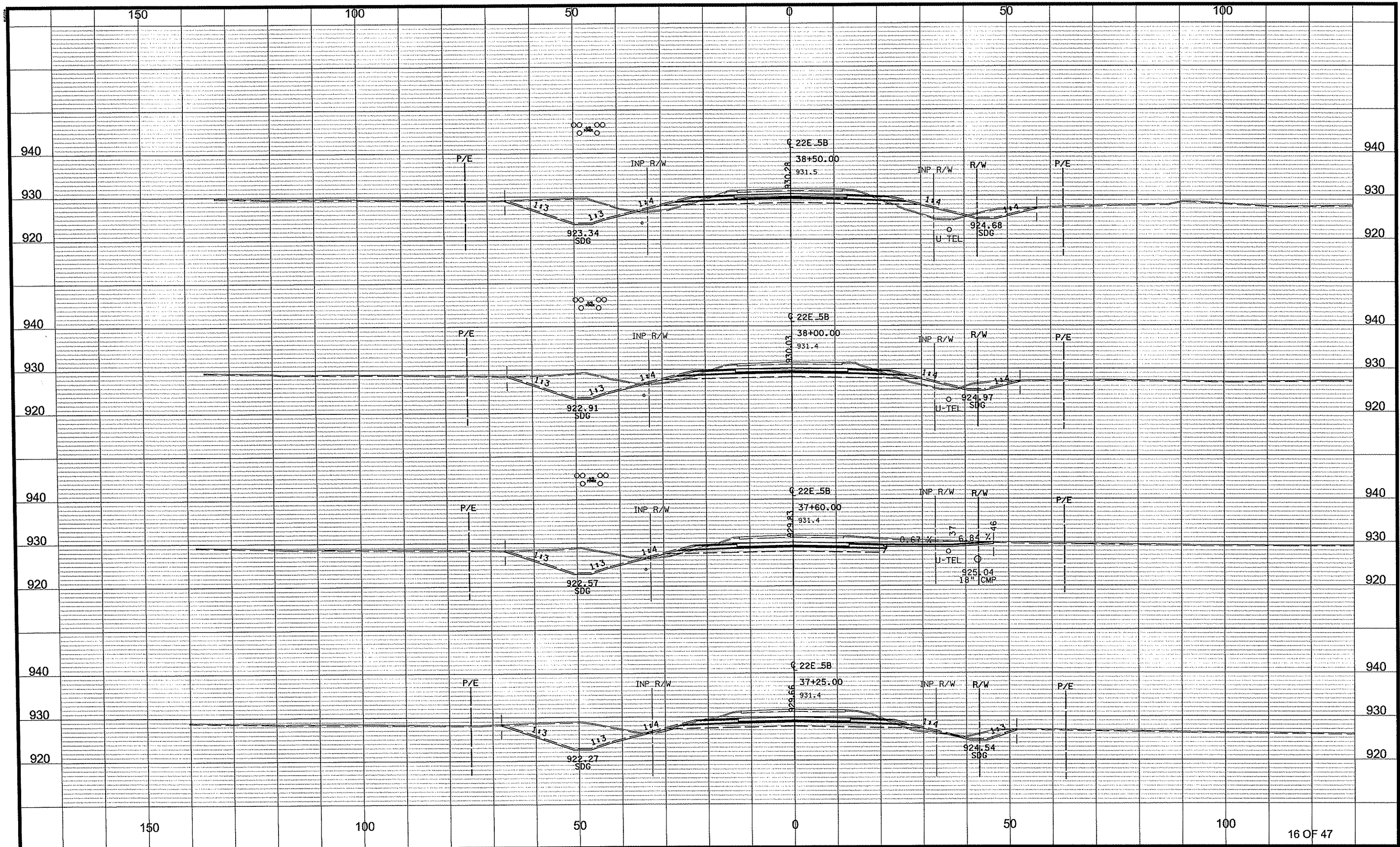
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 36+25.00 TO 37+00.00
Sheet 107 of 139 Sheets



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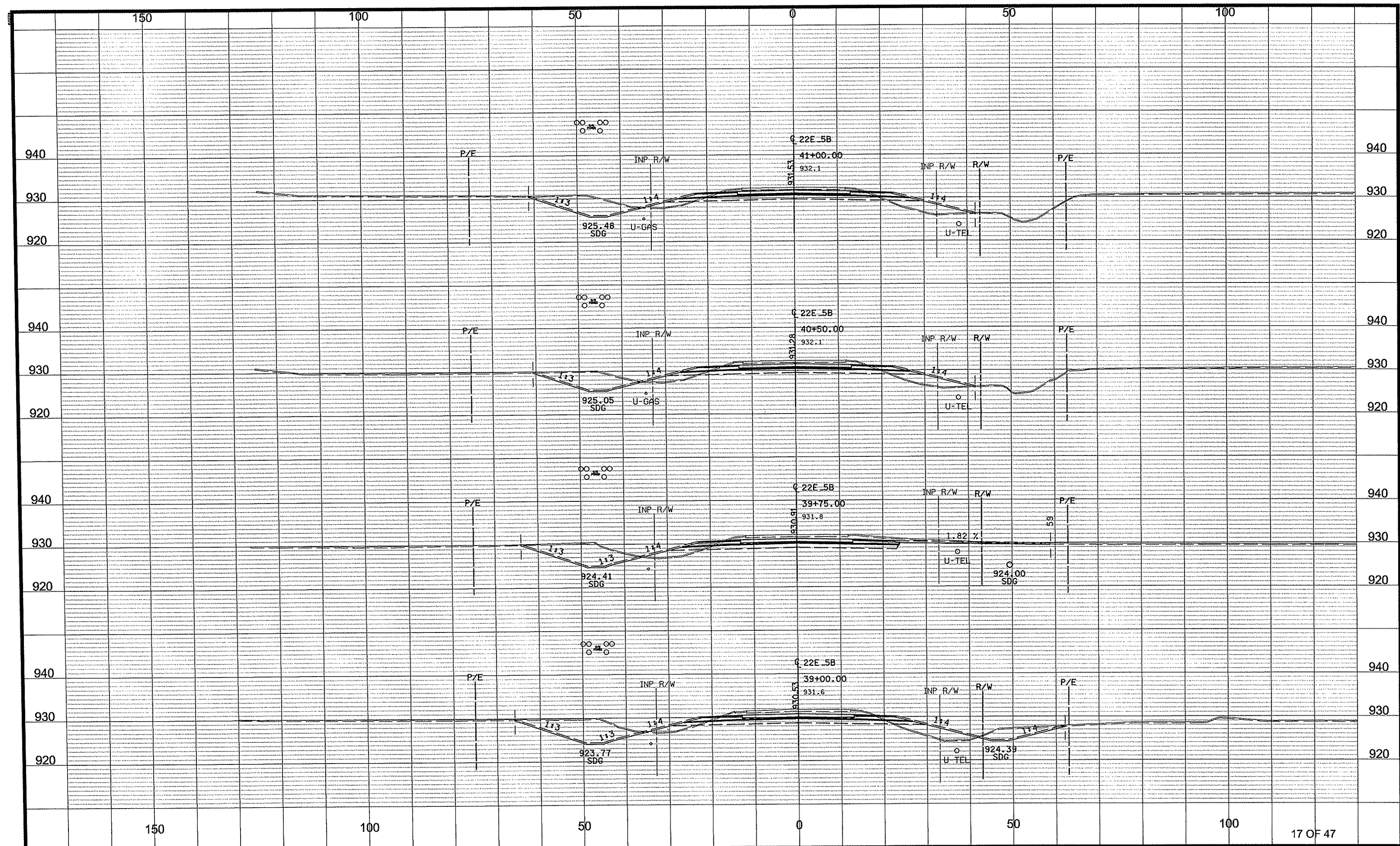
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 37+25.00 TO 38+50.00
Sheet 108 of 139 Sheets



ANOKA COUNTY
HIGHWAY DEPT.

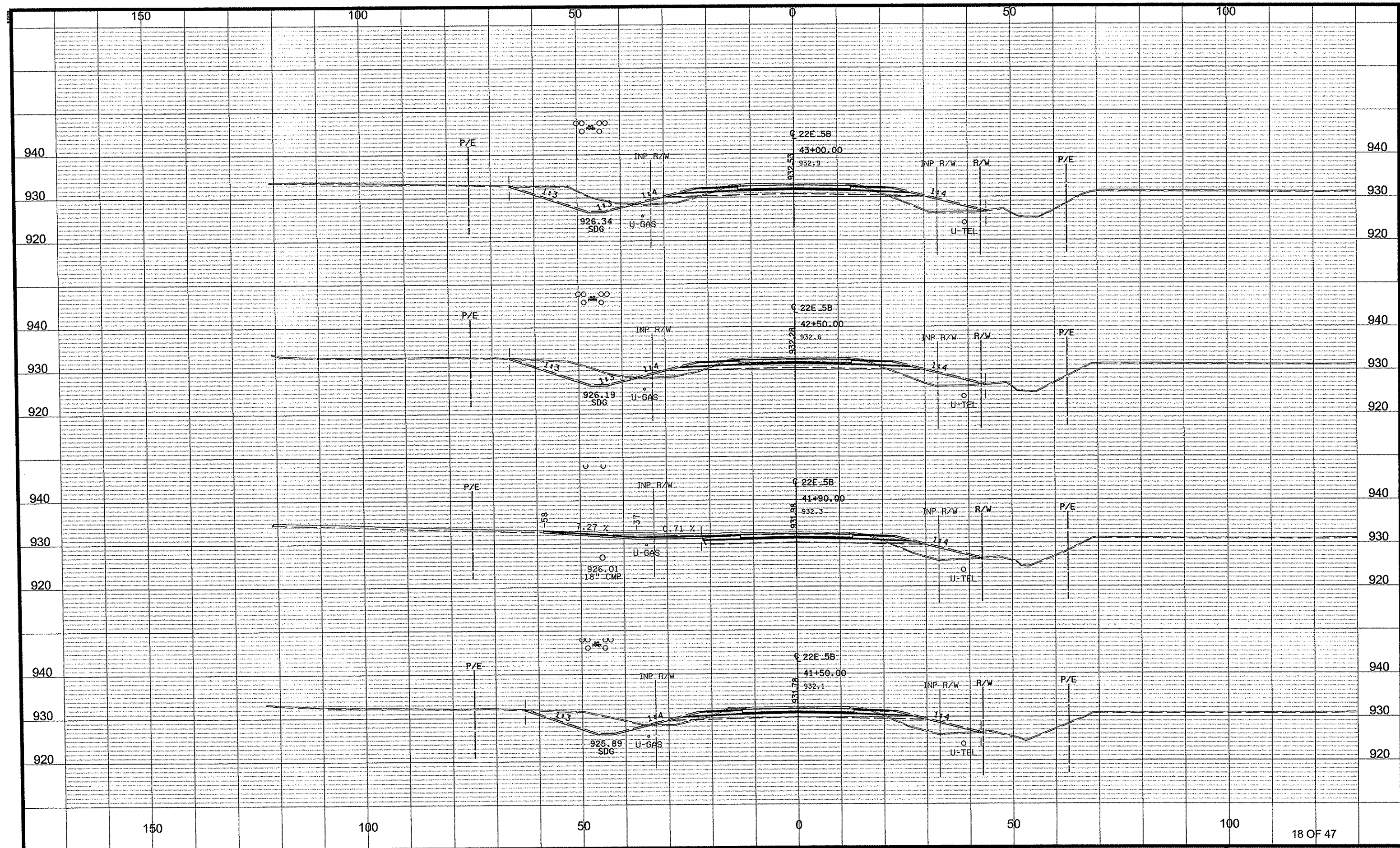
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CROSS SECTIONS

STA 39+00.00 TO 41+00.00

Sheet 109 of 139 Sheets

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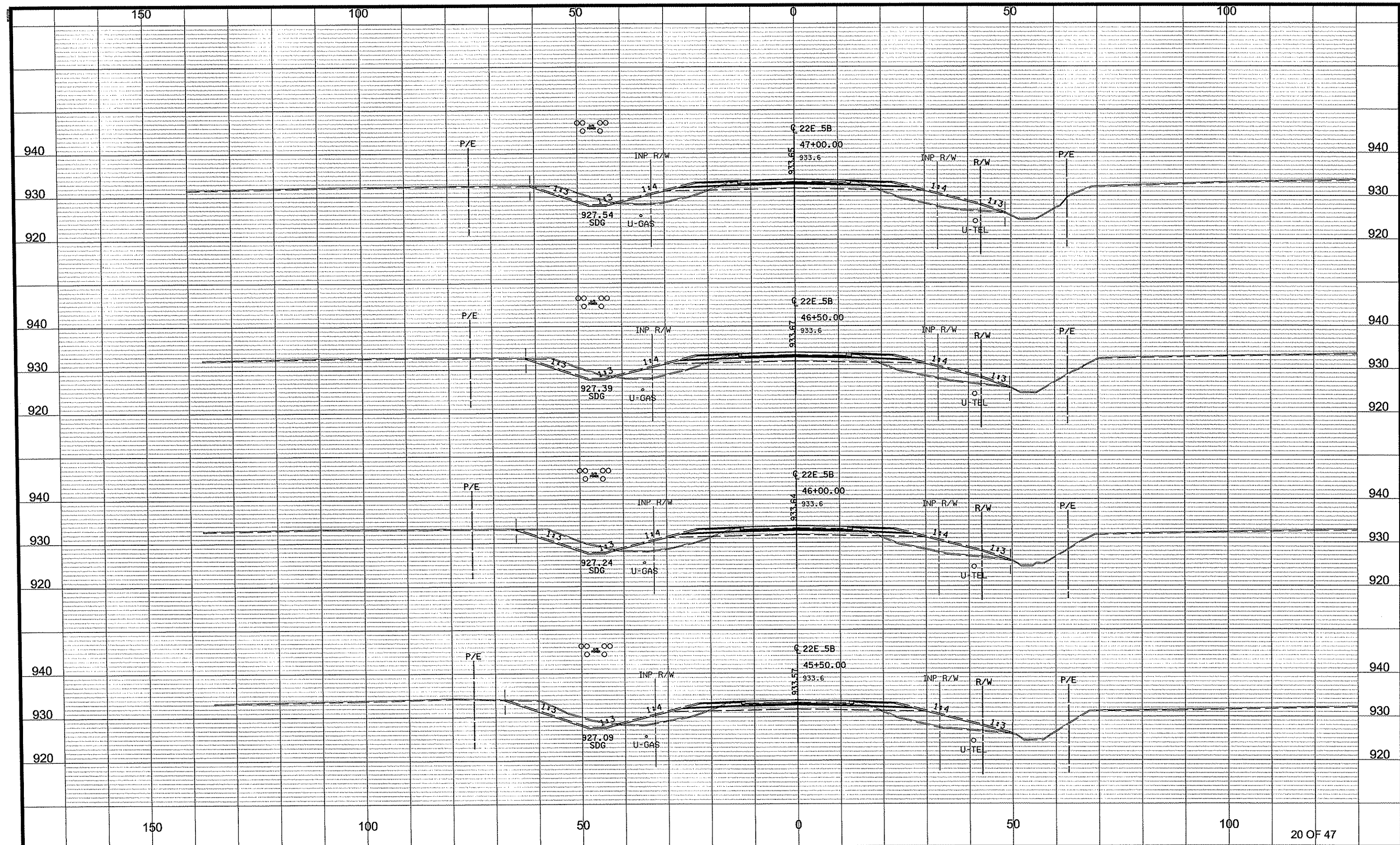
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 41+50.00 TO 43+00.00
Sheet 110 of 139 Sheets



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CHECKED BY JEO DATE DATE



ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

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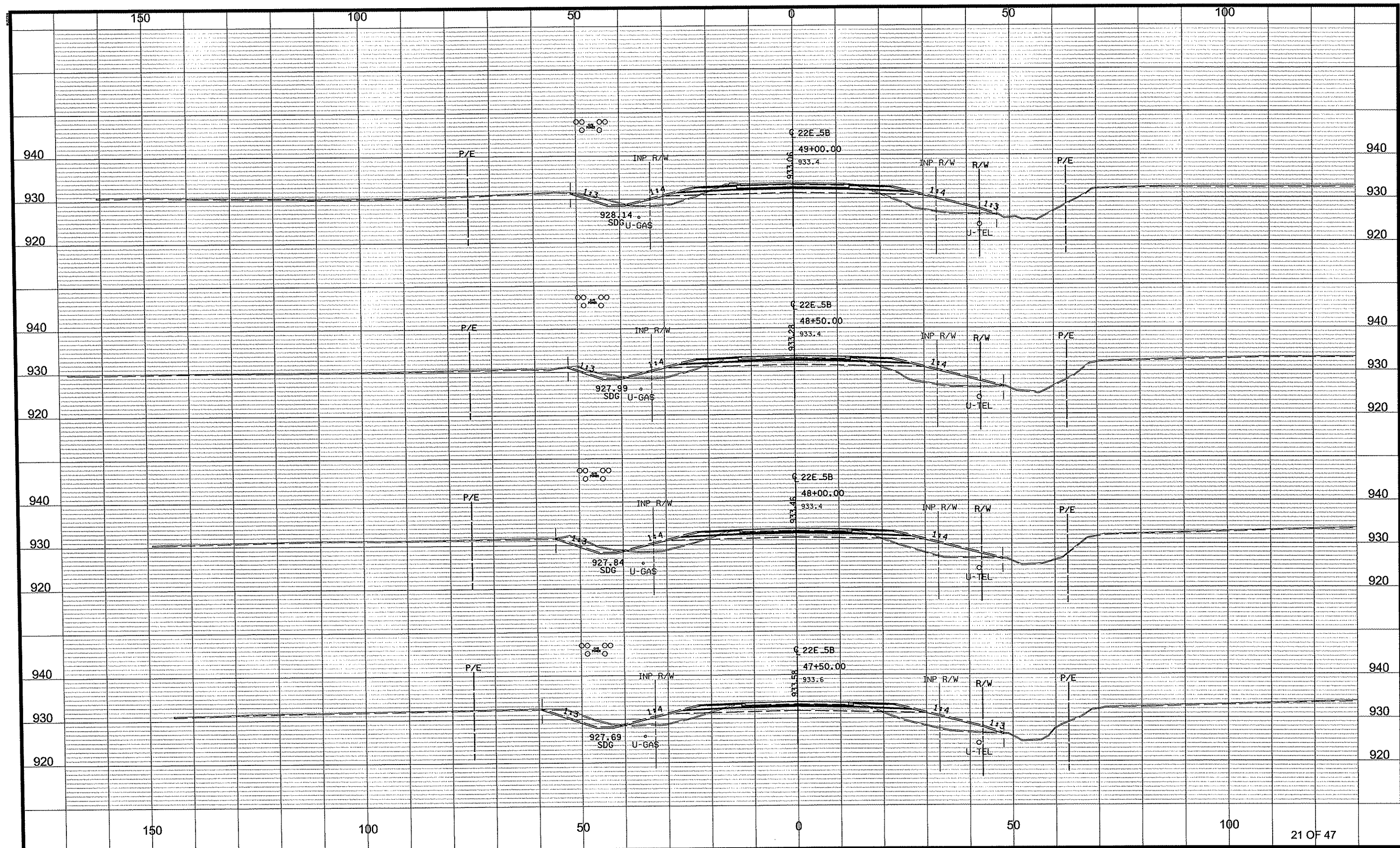
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Sheet 112 of 139 Sheets

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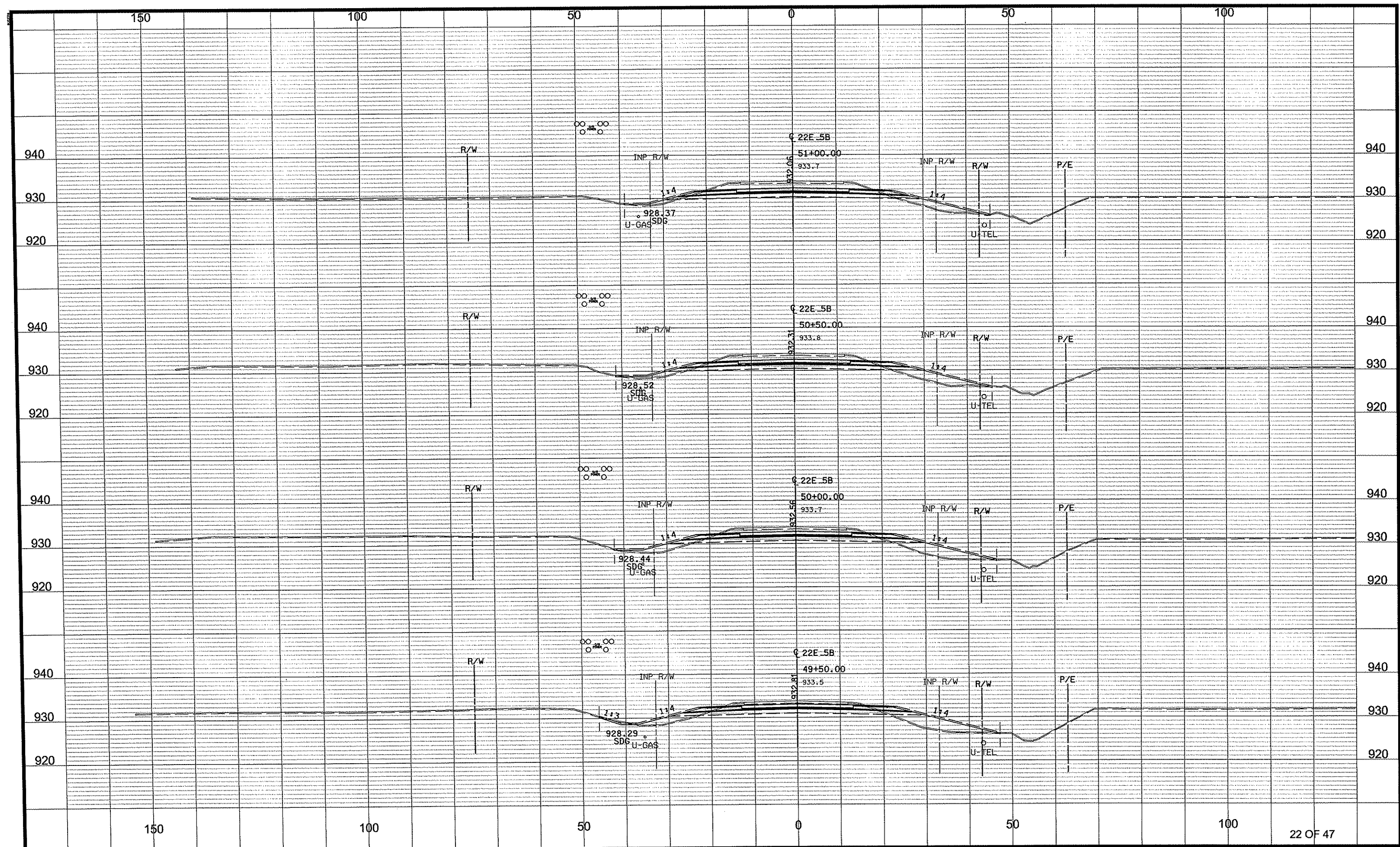
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 47+50.00 TO 49+00.00
Sheet 113 of 139 Sheets

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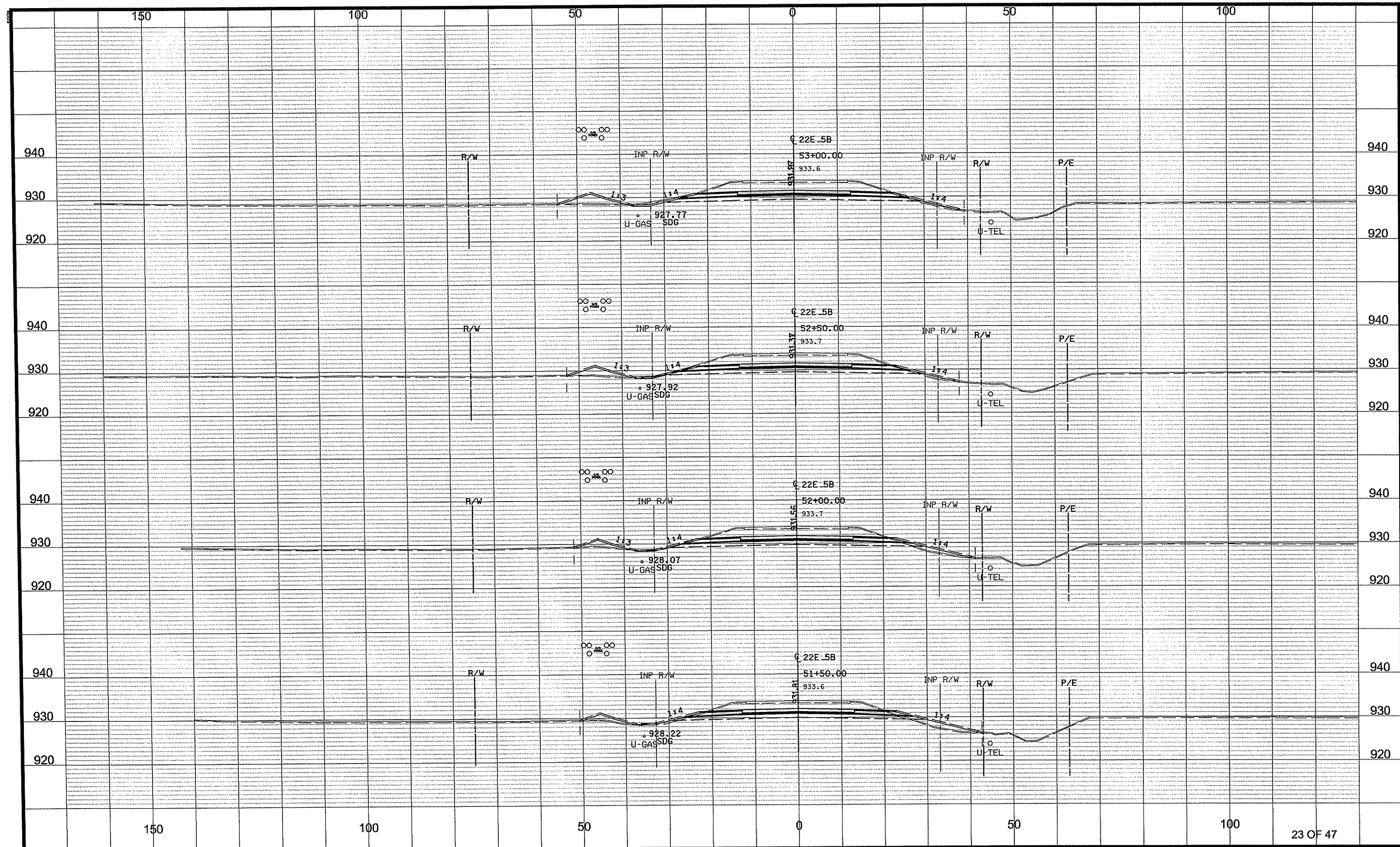
ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS

STA 49+50.00 TO 51+00.00

Sheet 114 of 139 Sheets



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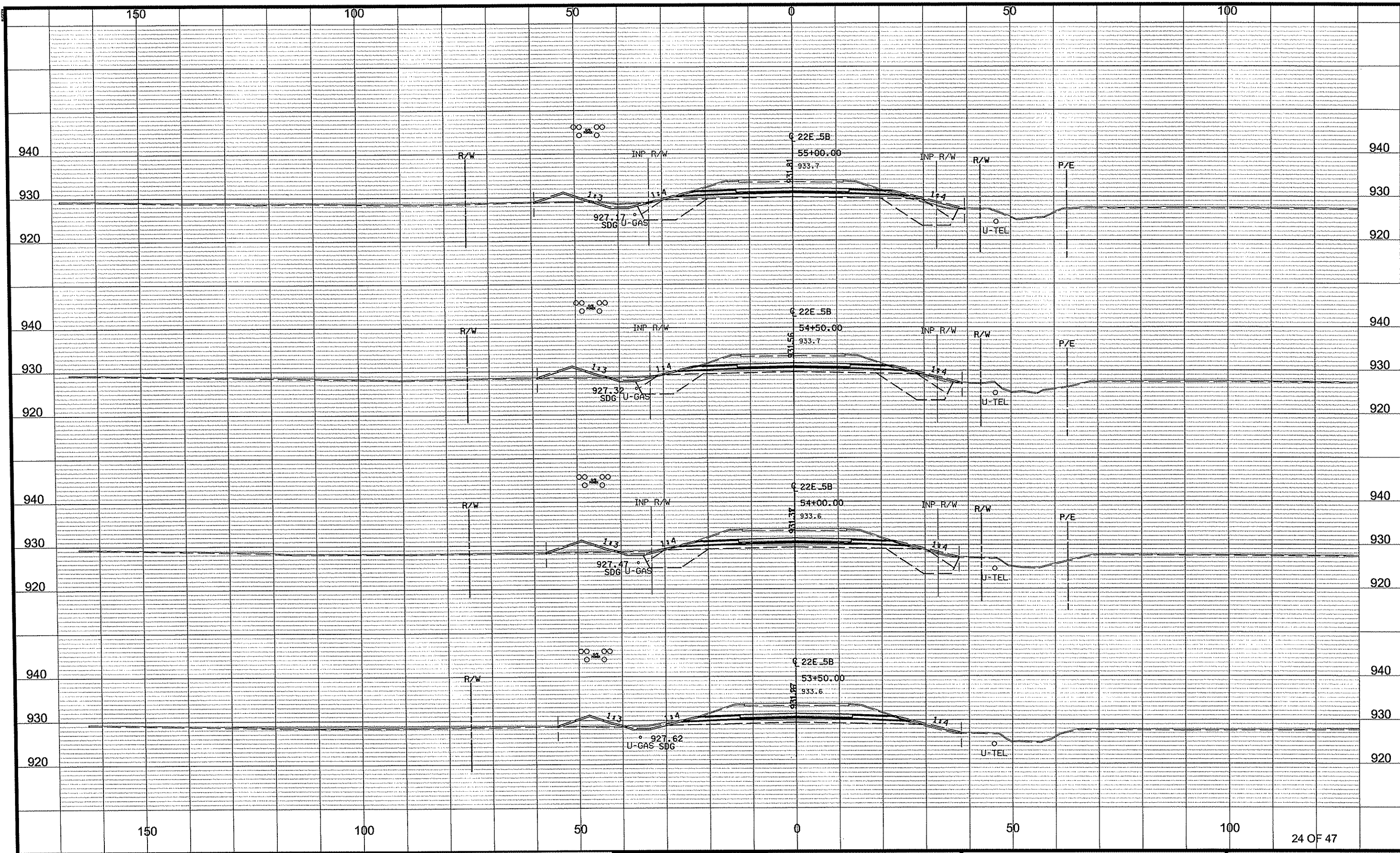
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ANOKA COUNTY
HIGHWAY DEPT.

S.A.P. 002-622-028

CROSS SECTIONS
STA 51+50.00 TO 53+00.00
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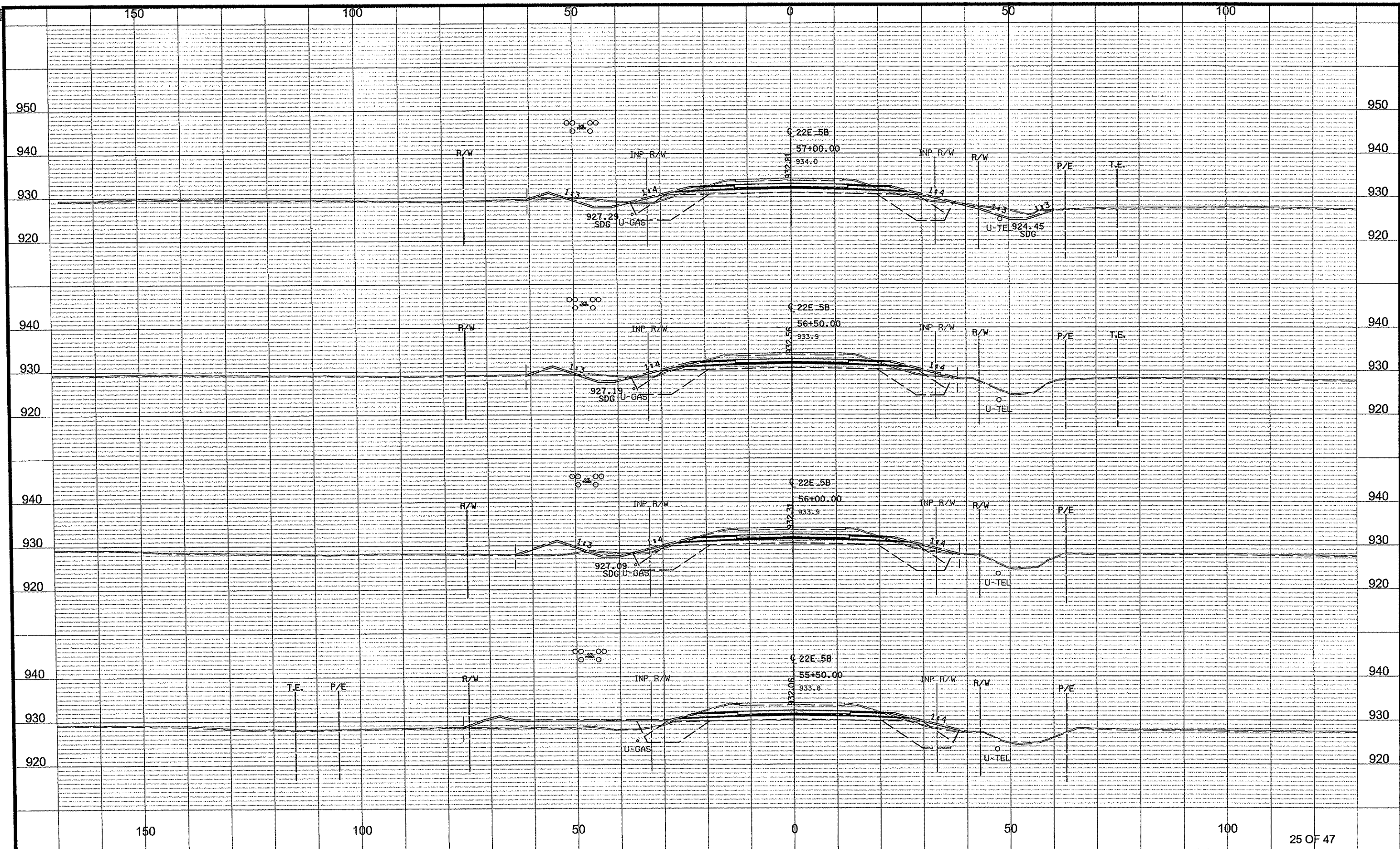
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CROSS SECTIONS
STA 53+50.00 TO 55+00.00
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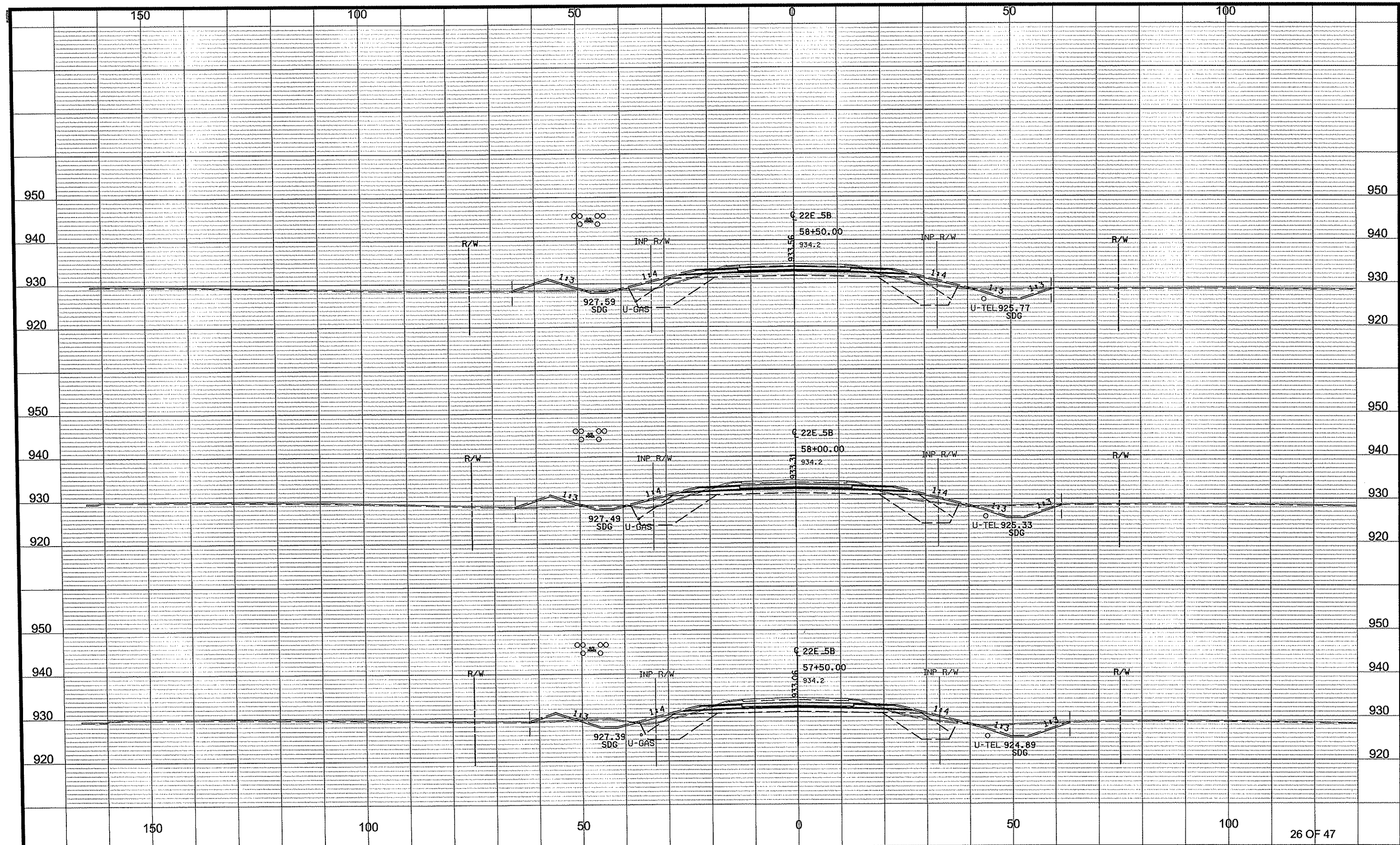
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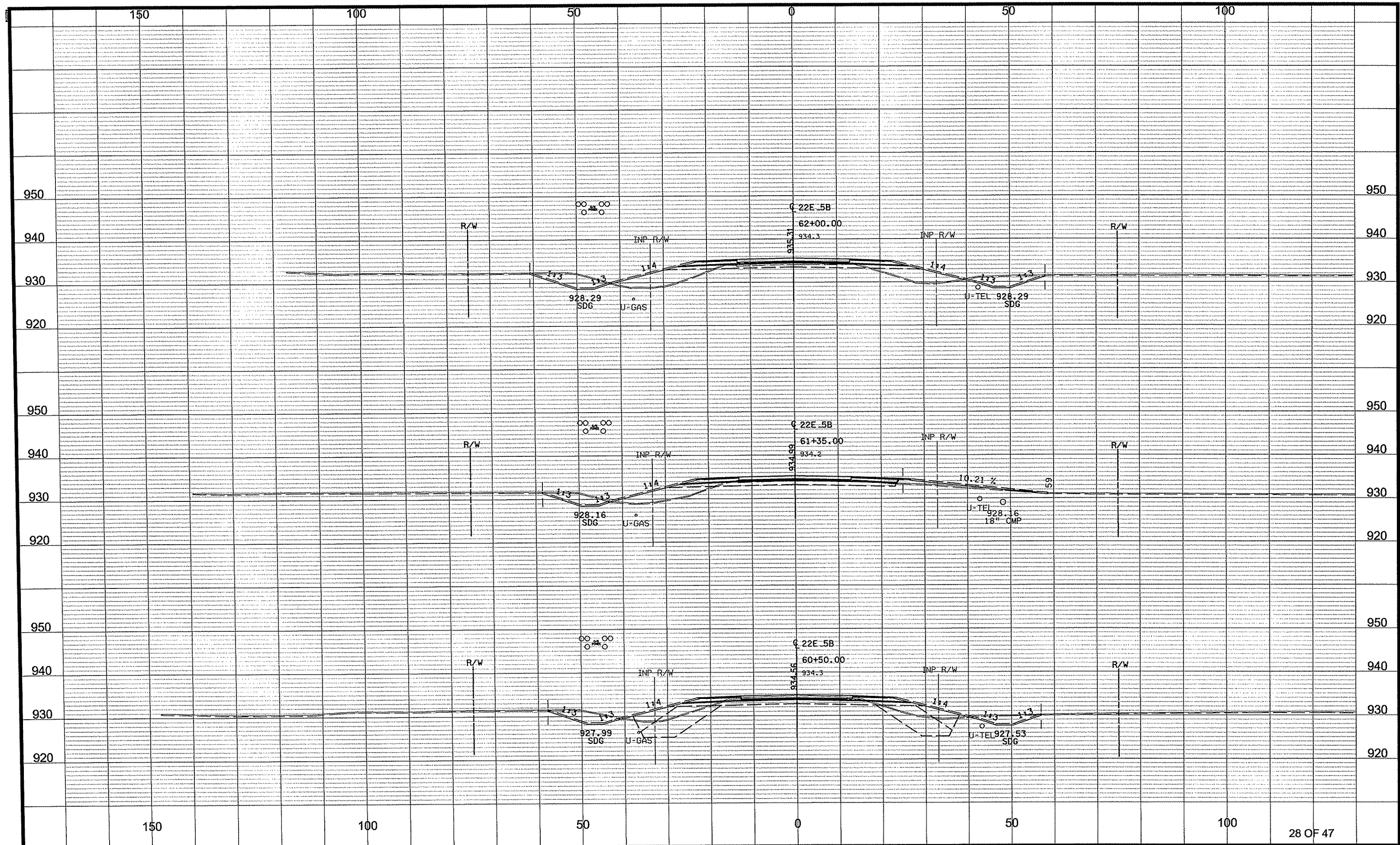
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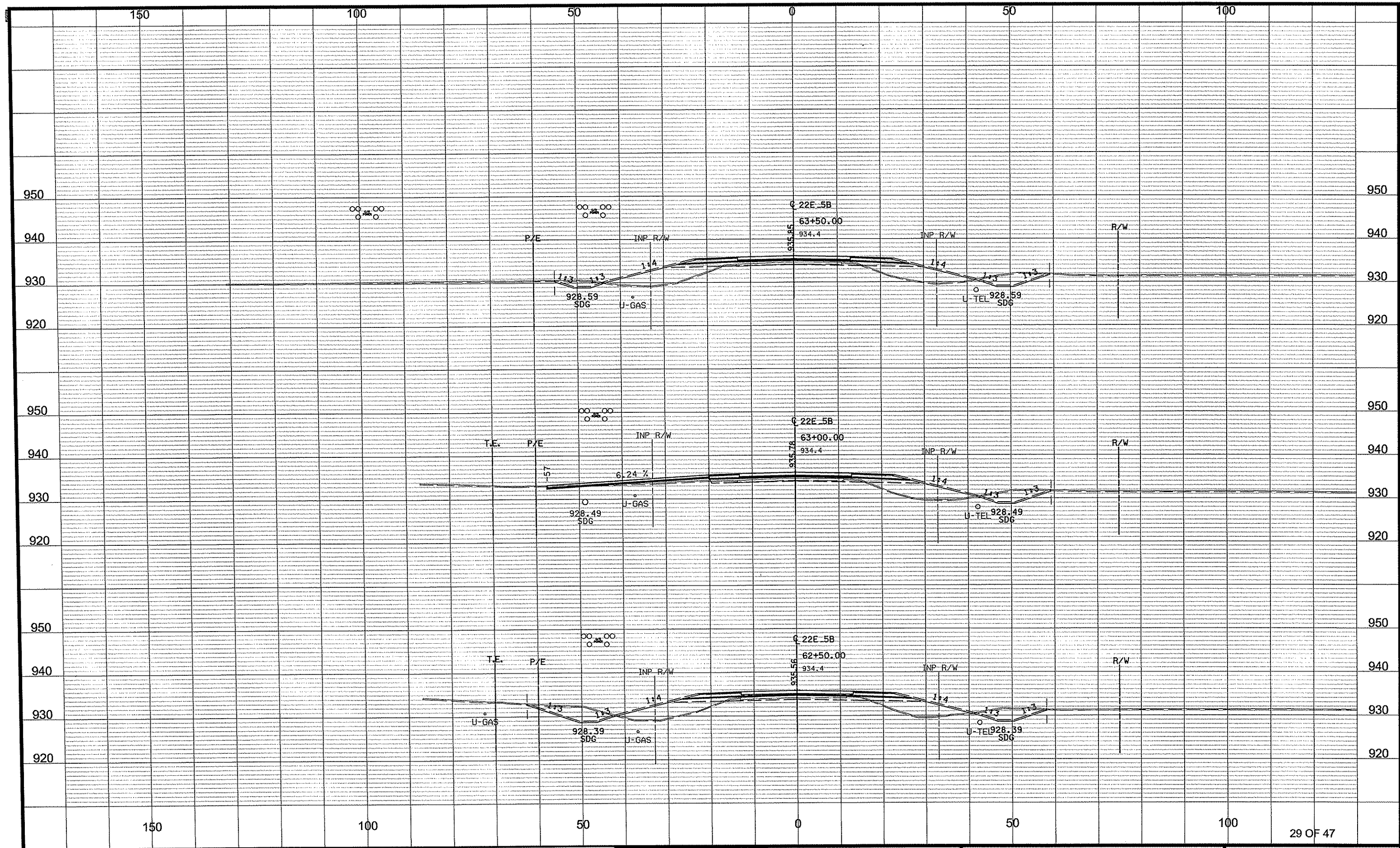
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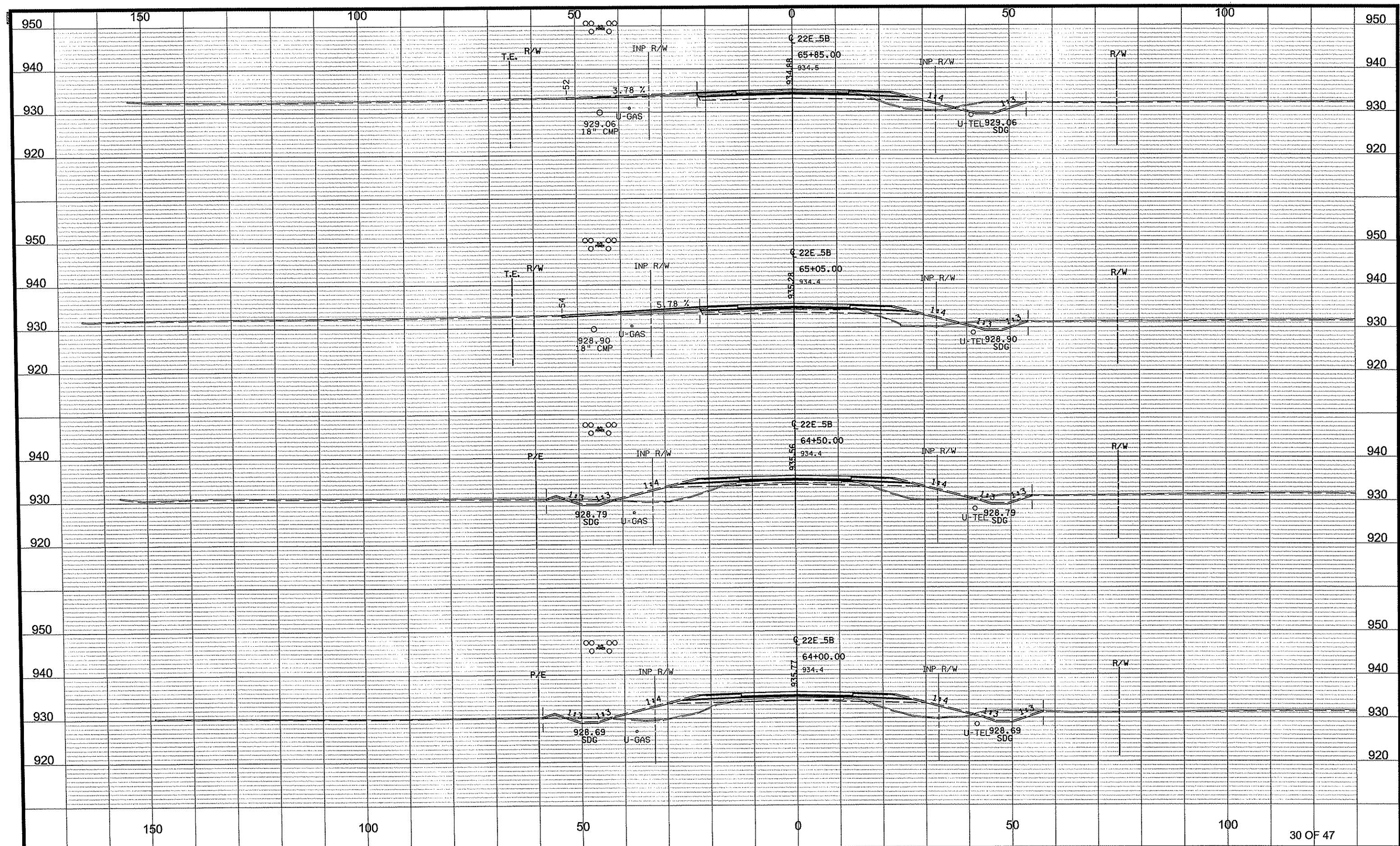
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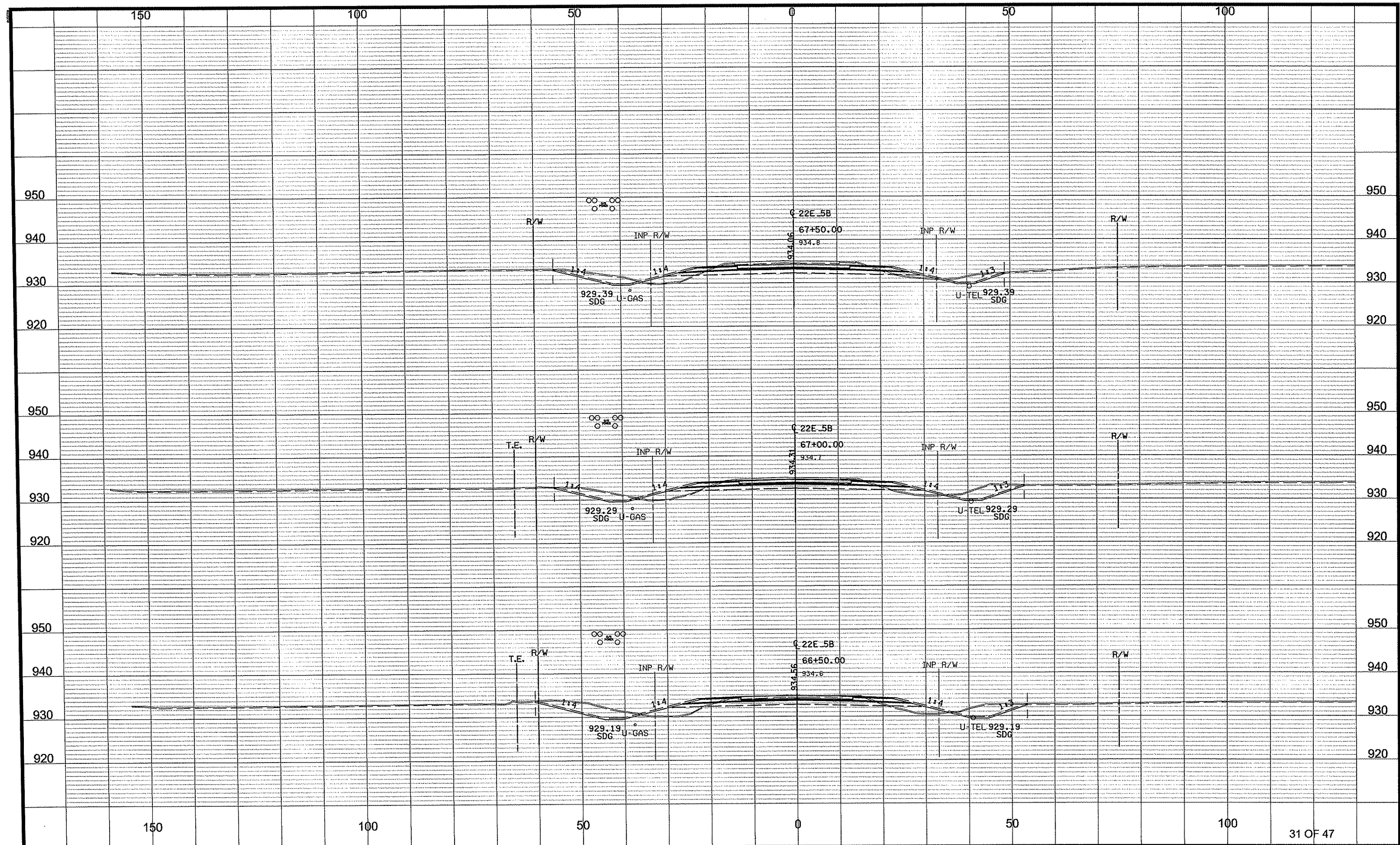
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CROSS SECTIONS

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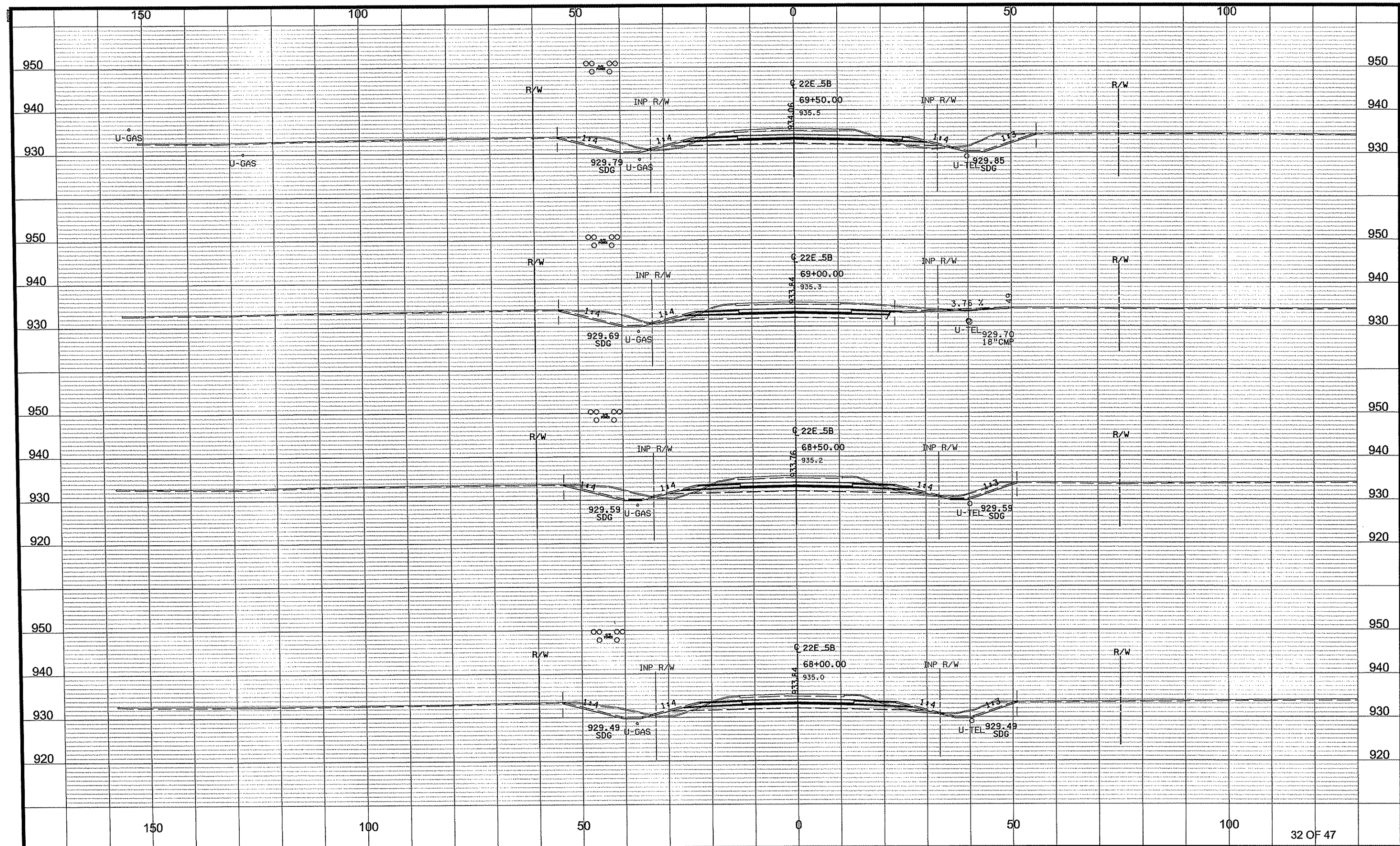
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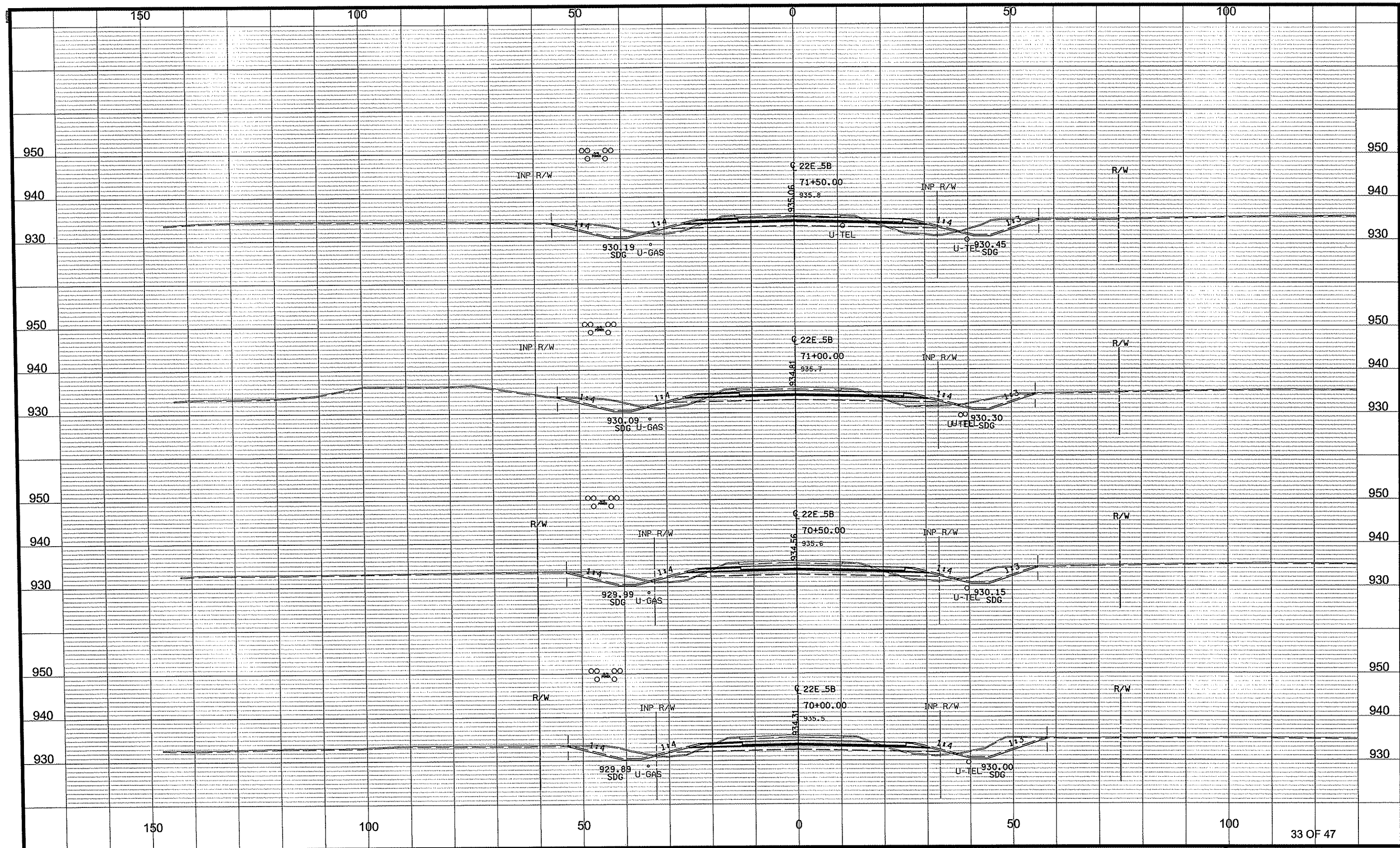
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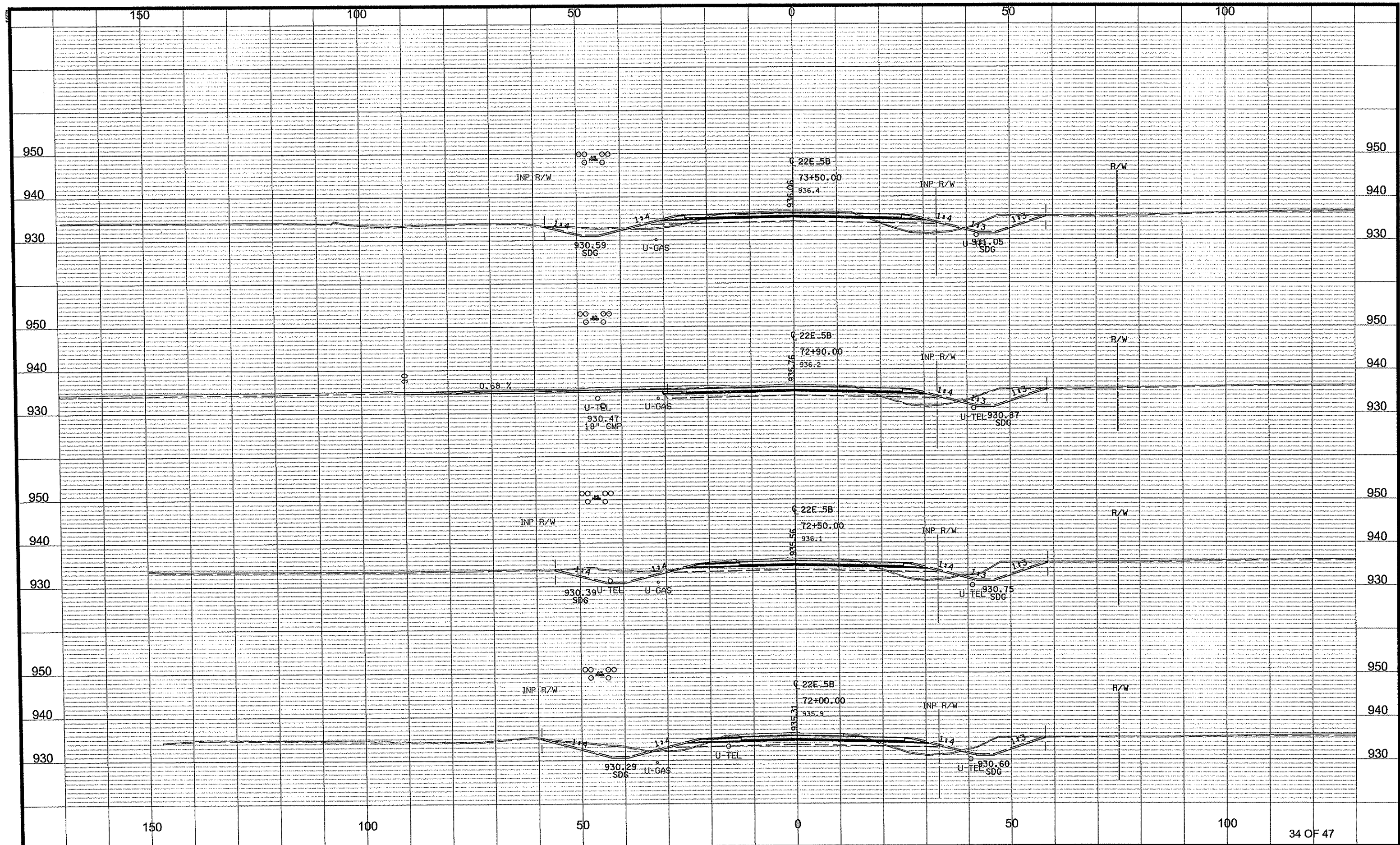
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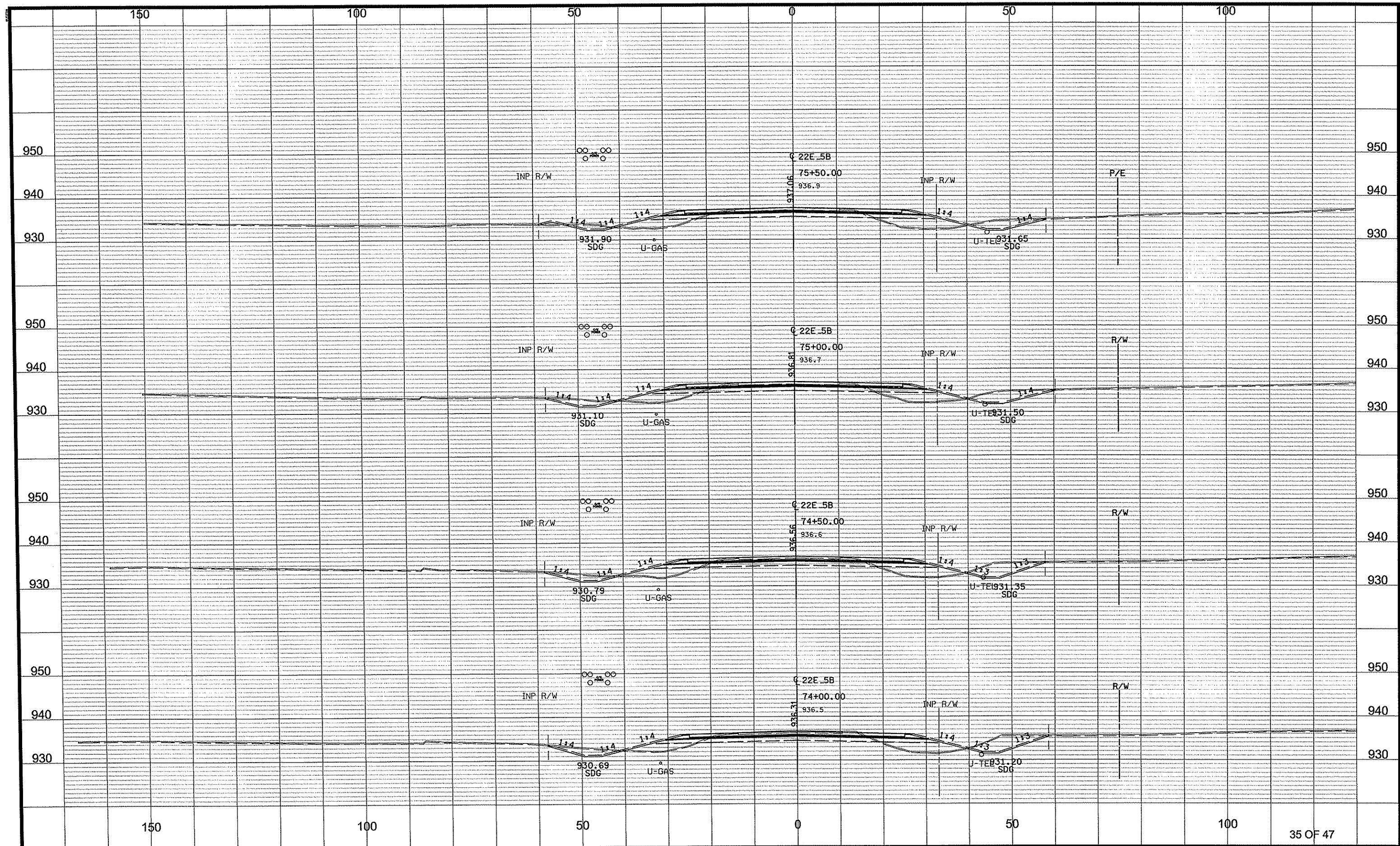
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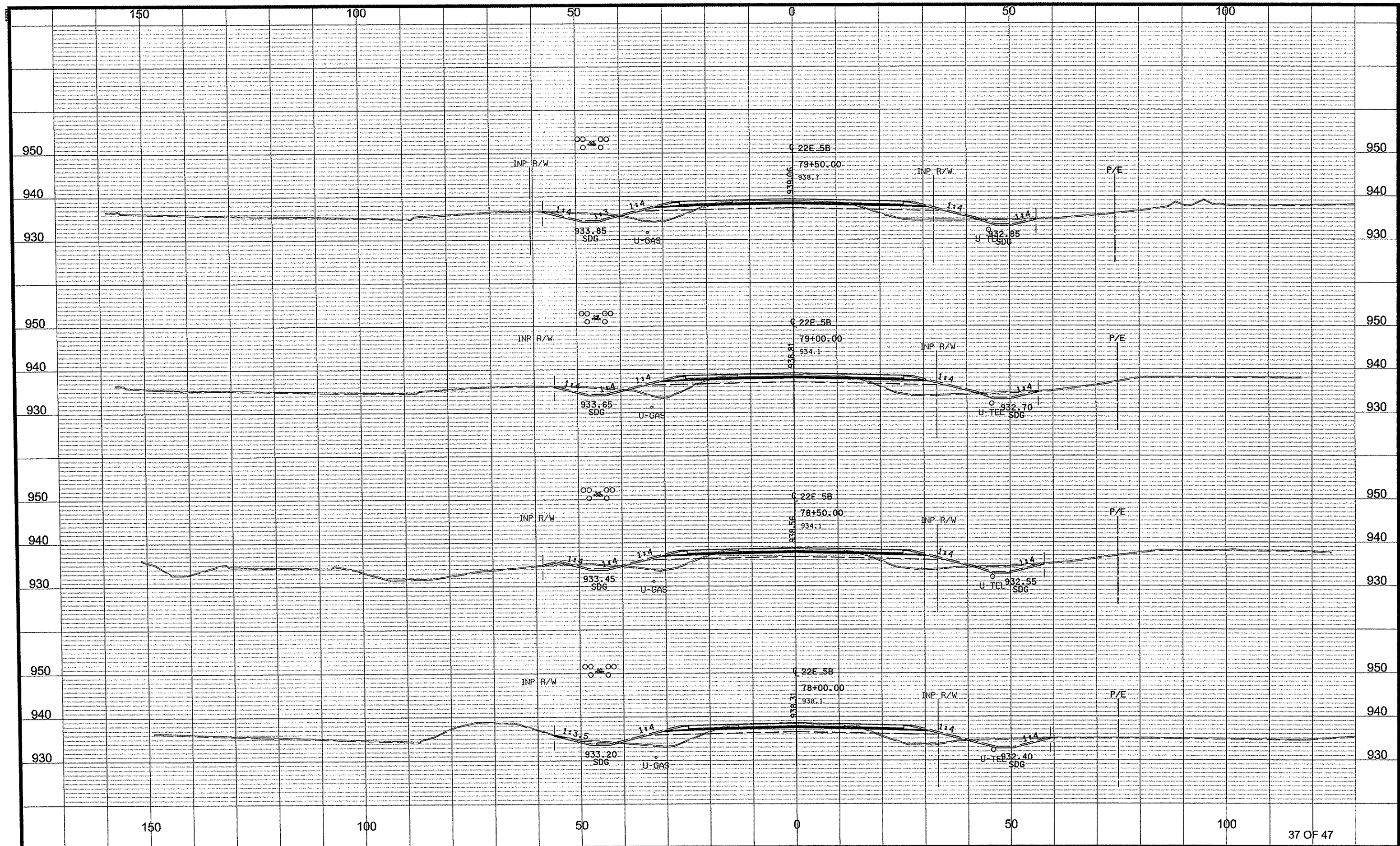


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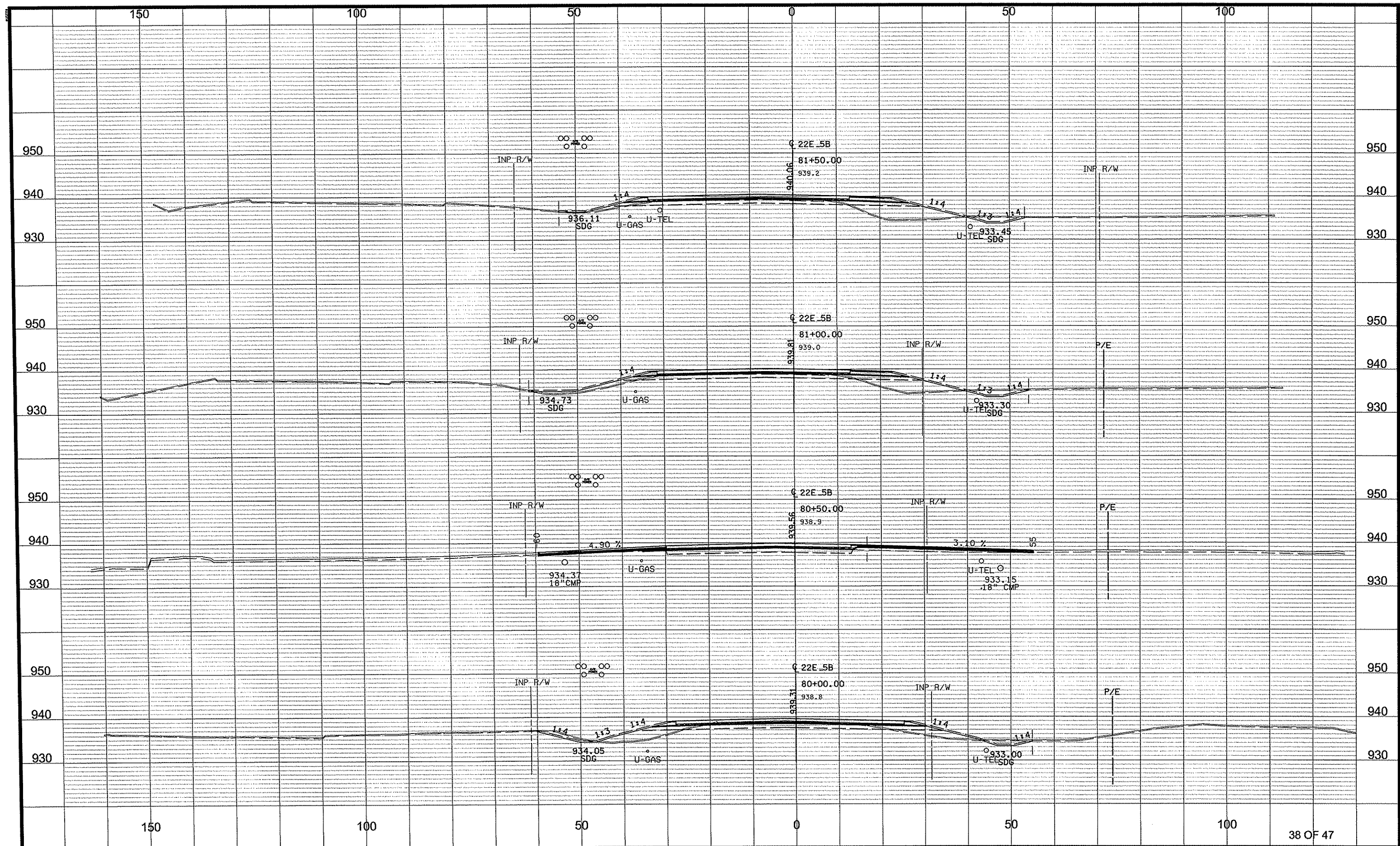
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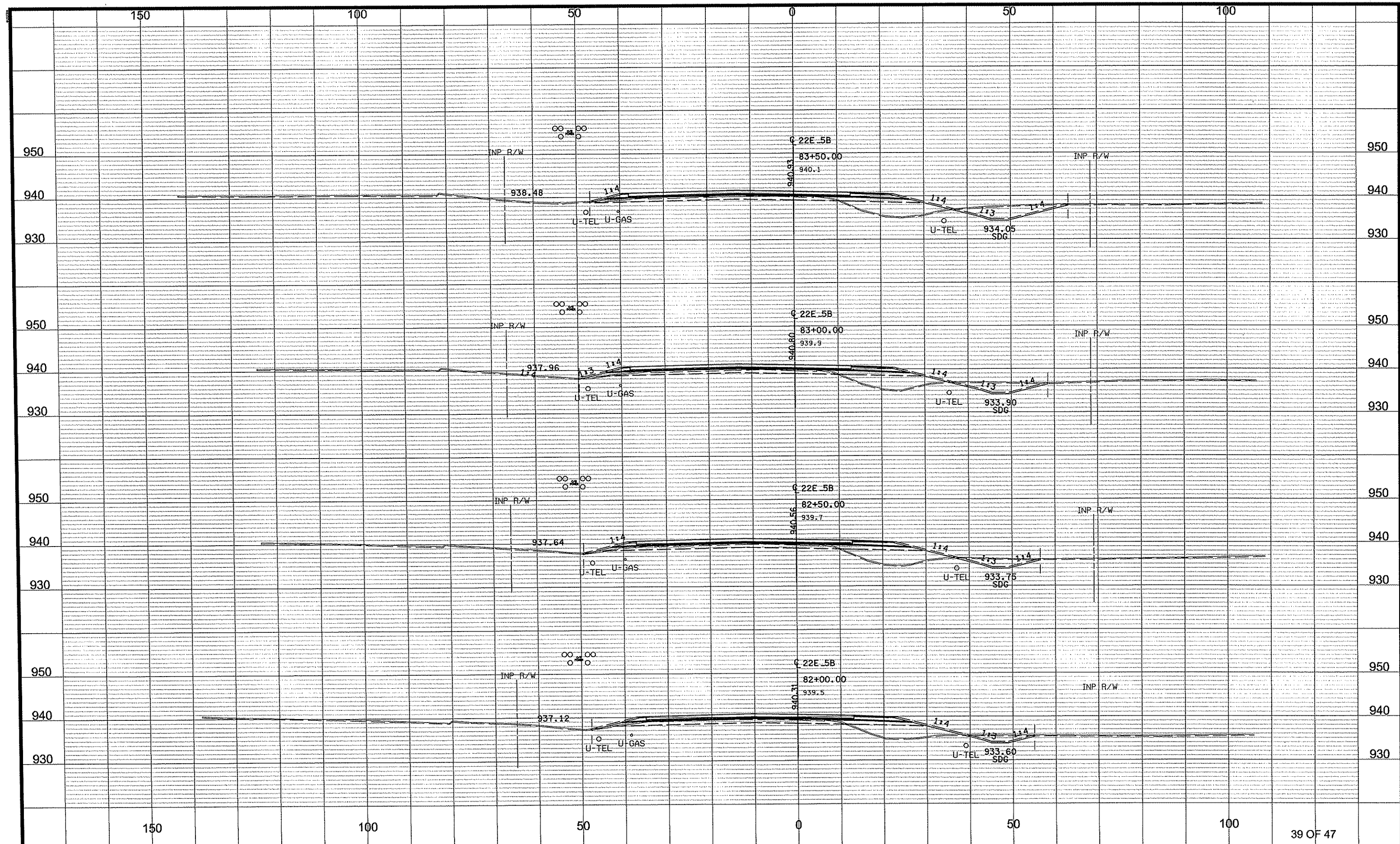


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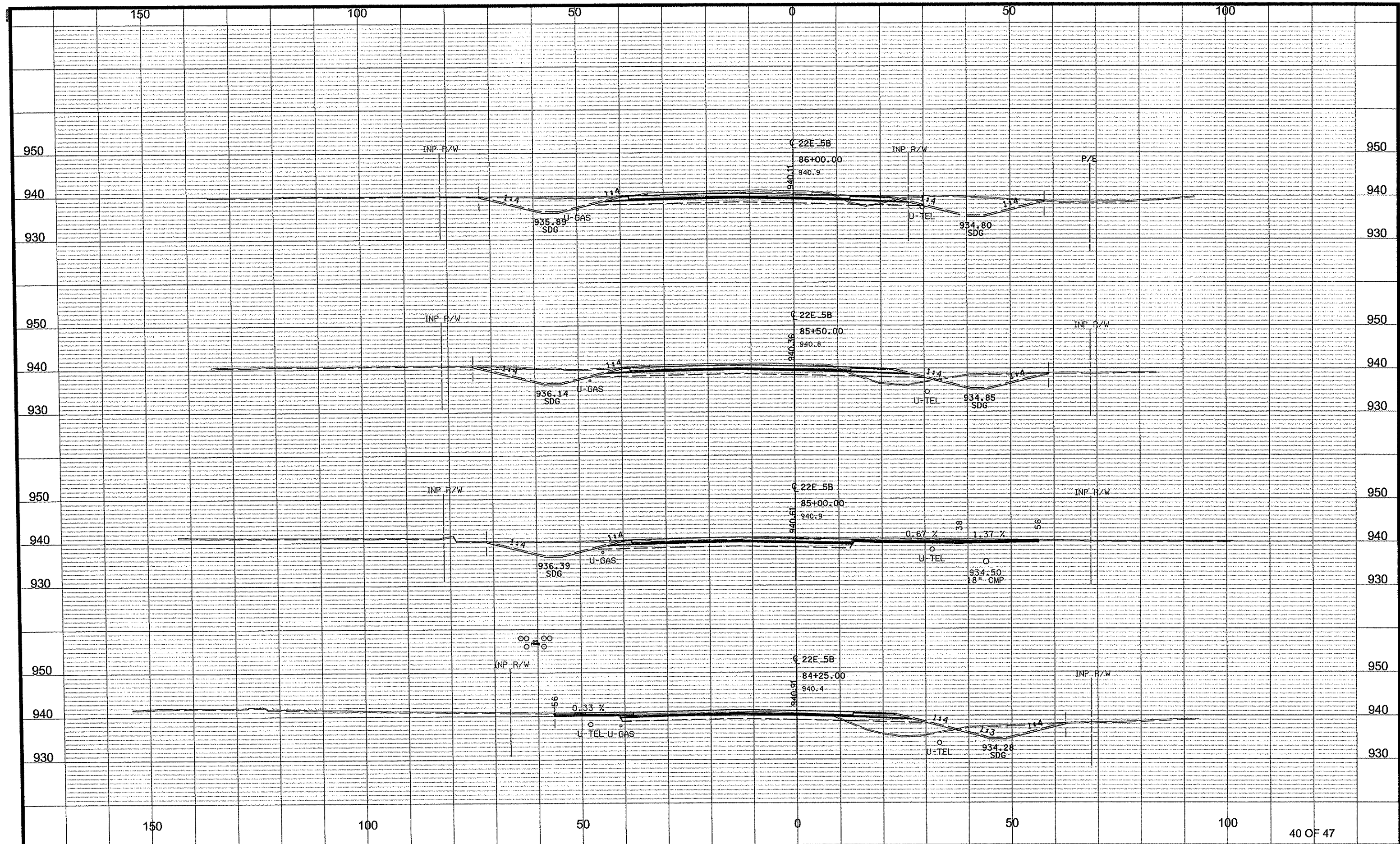
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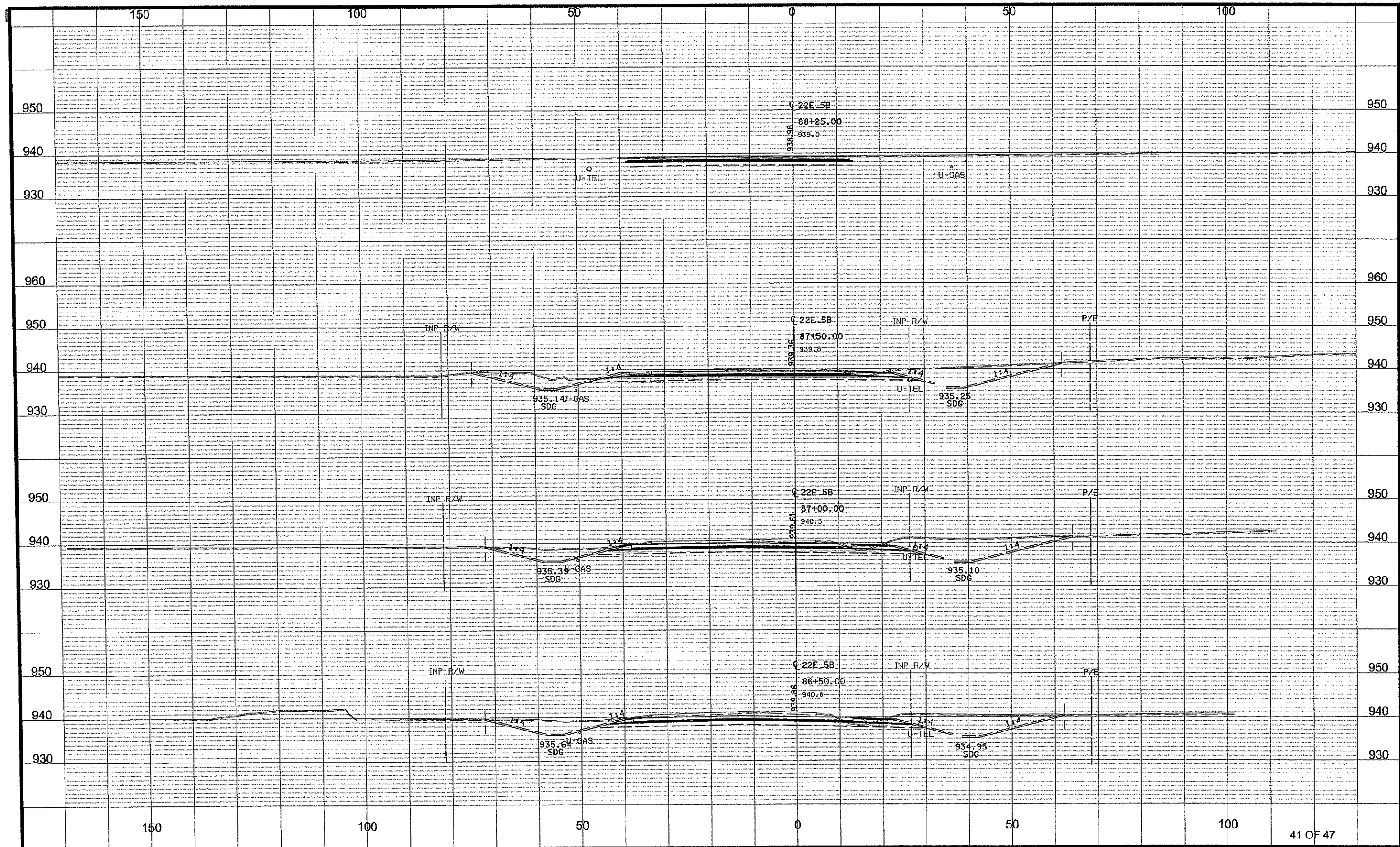
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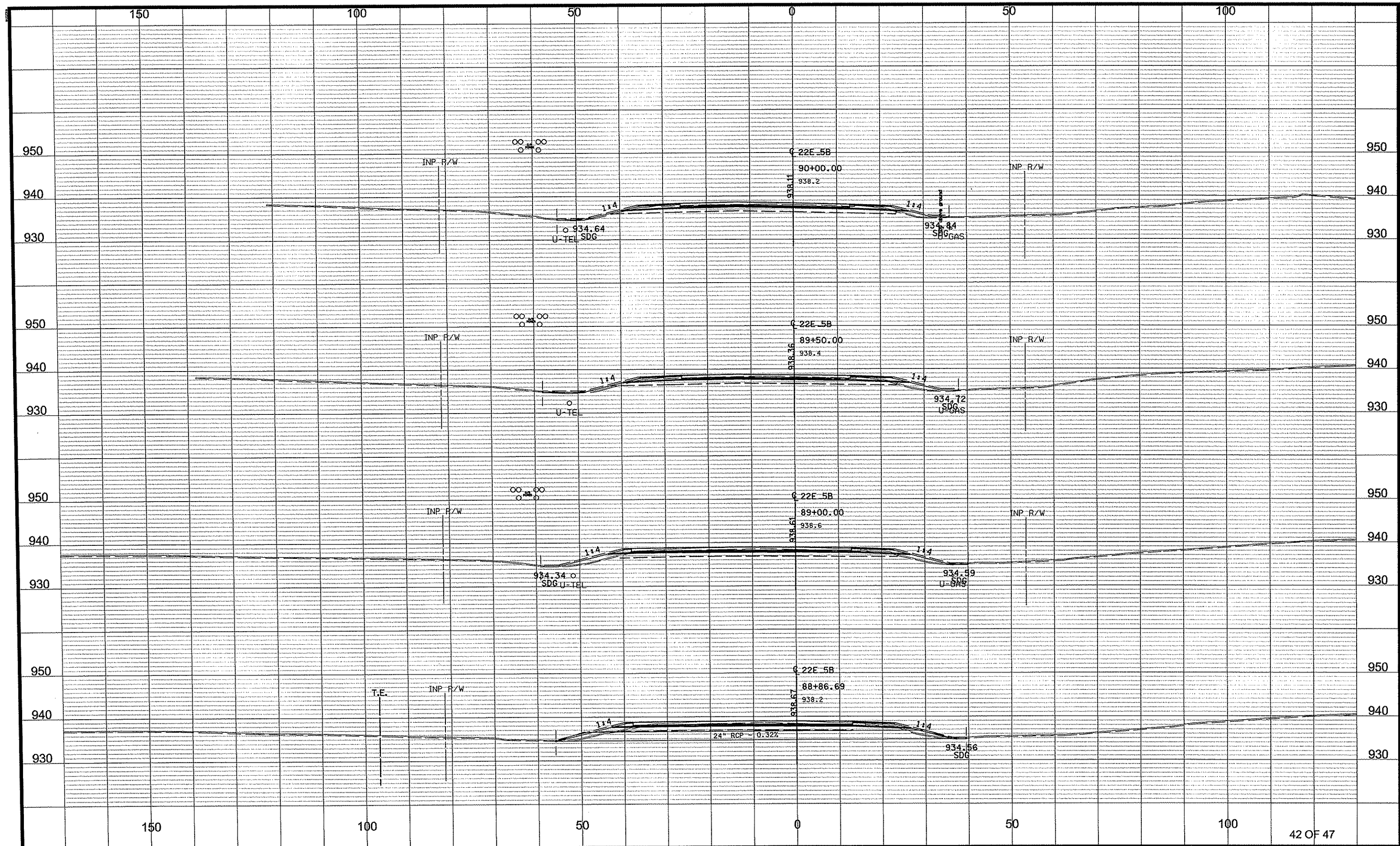
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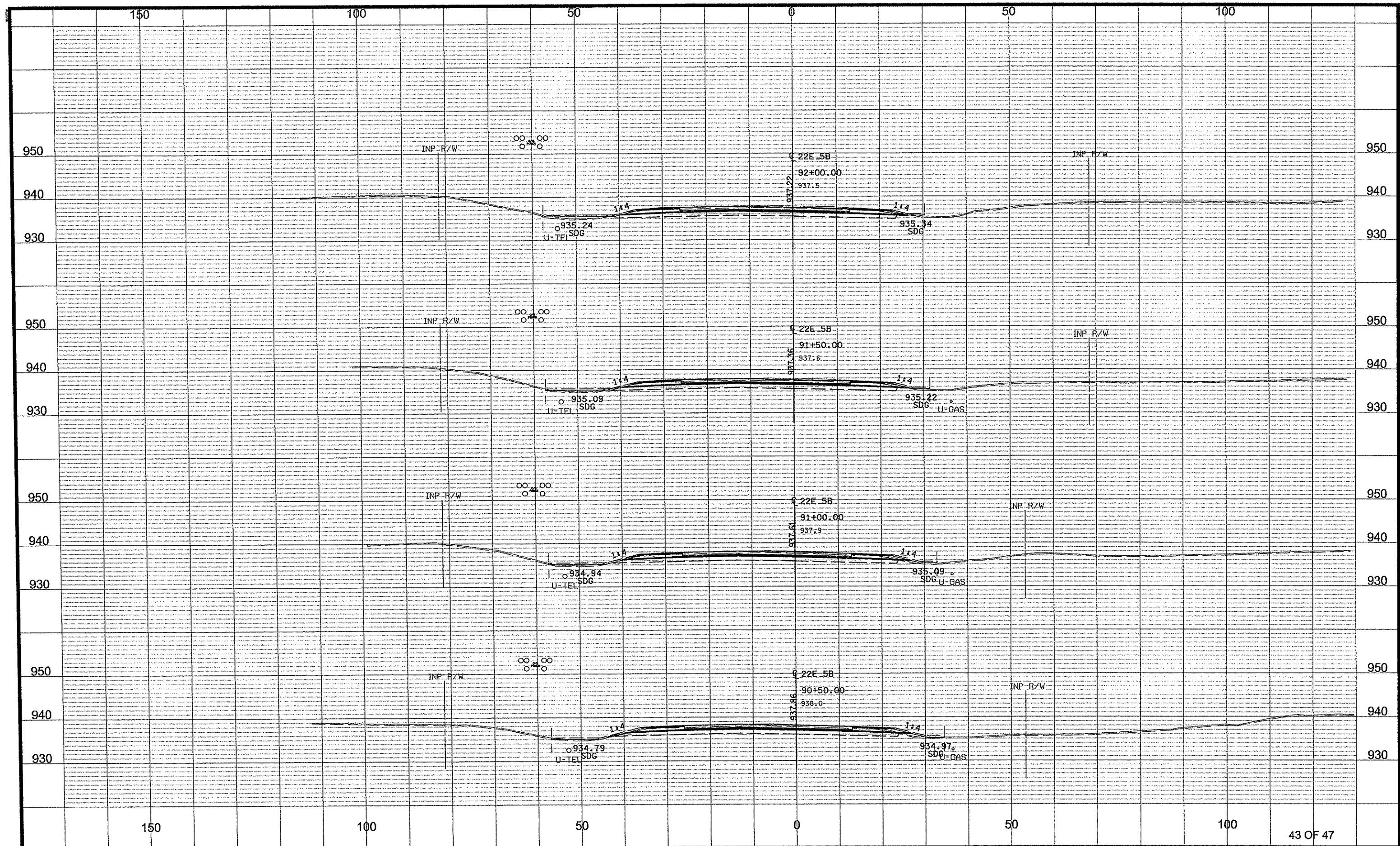
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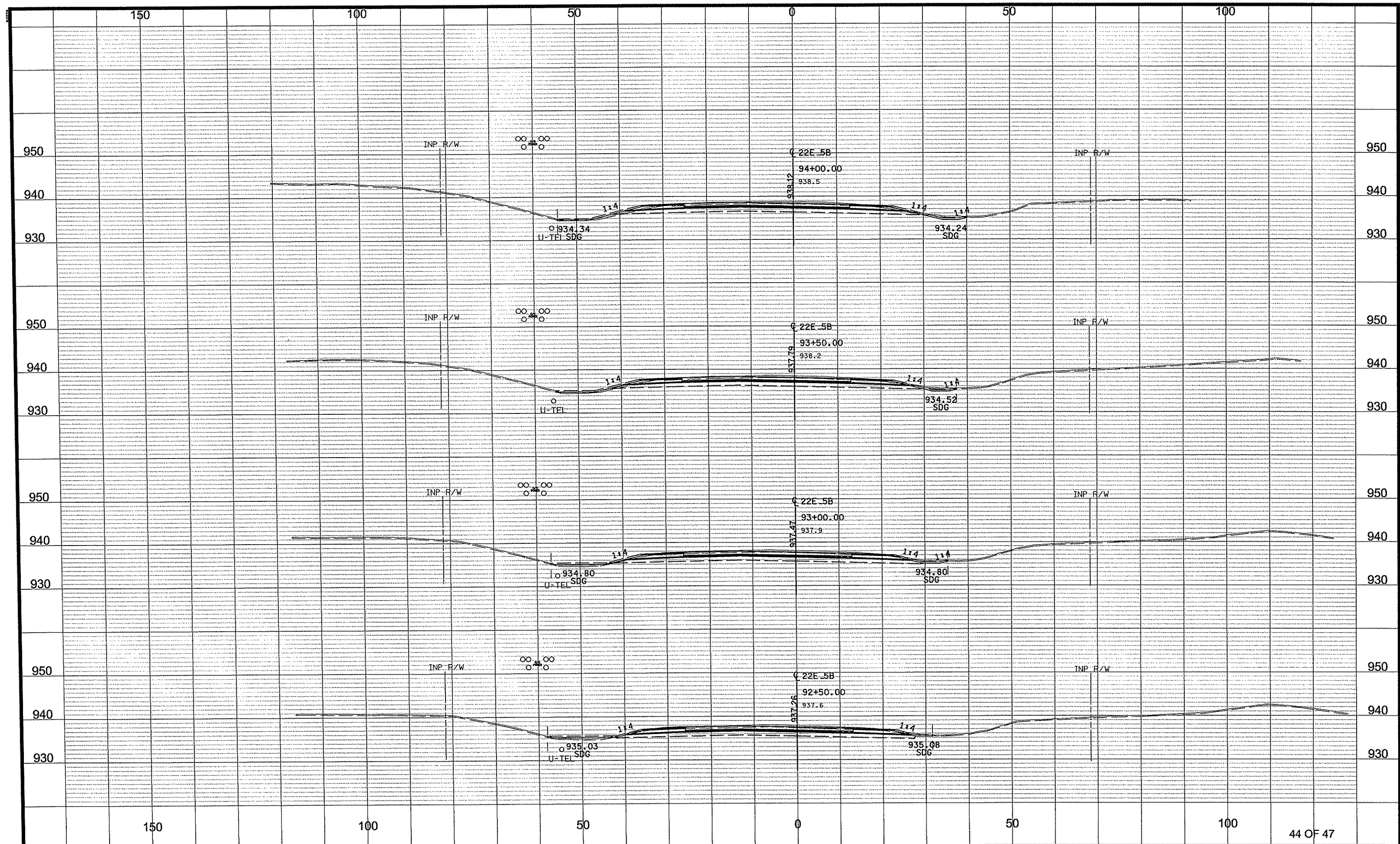


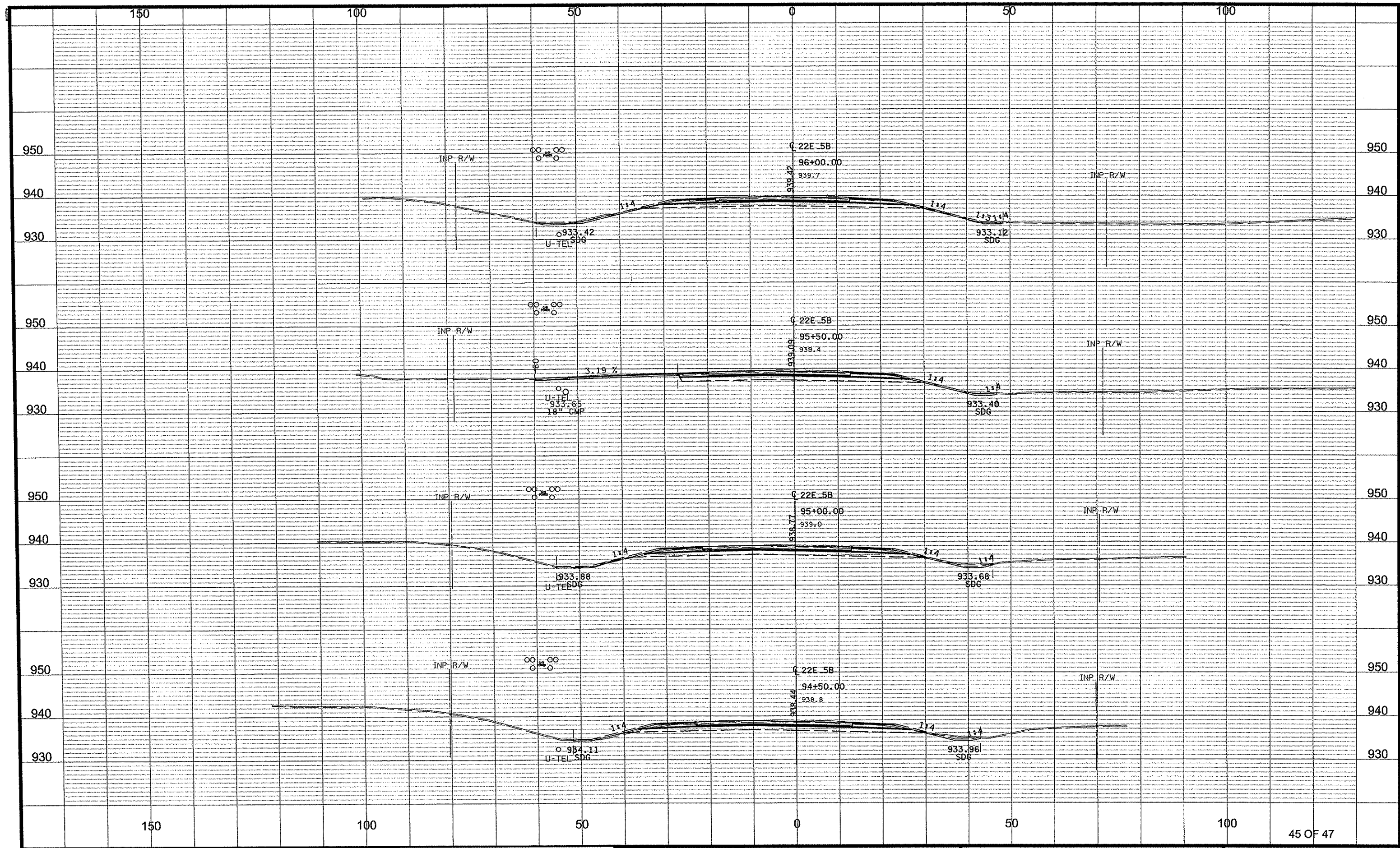
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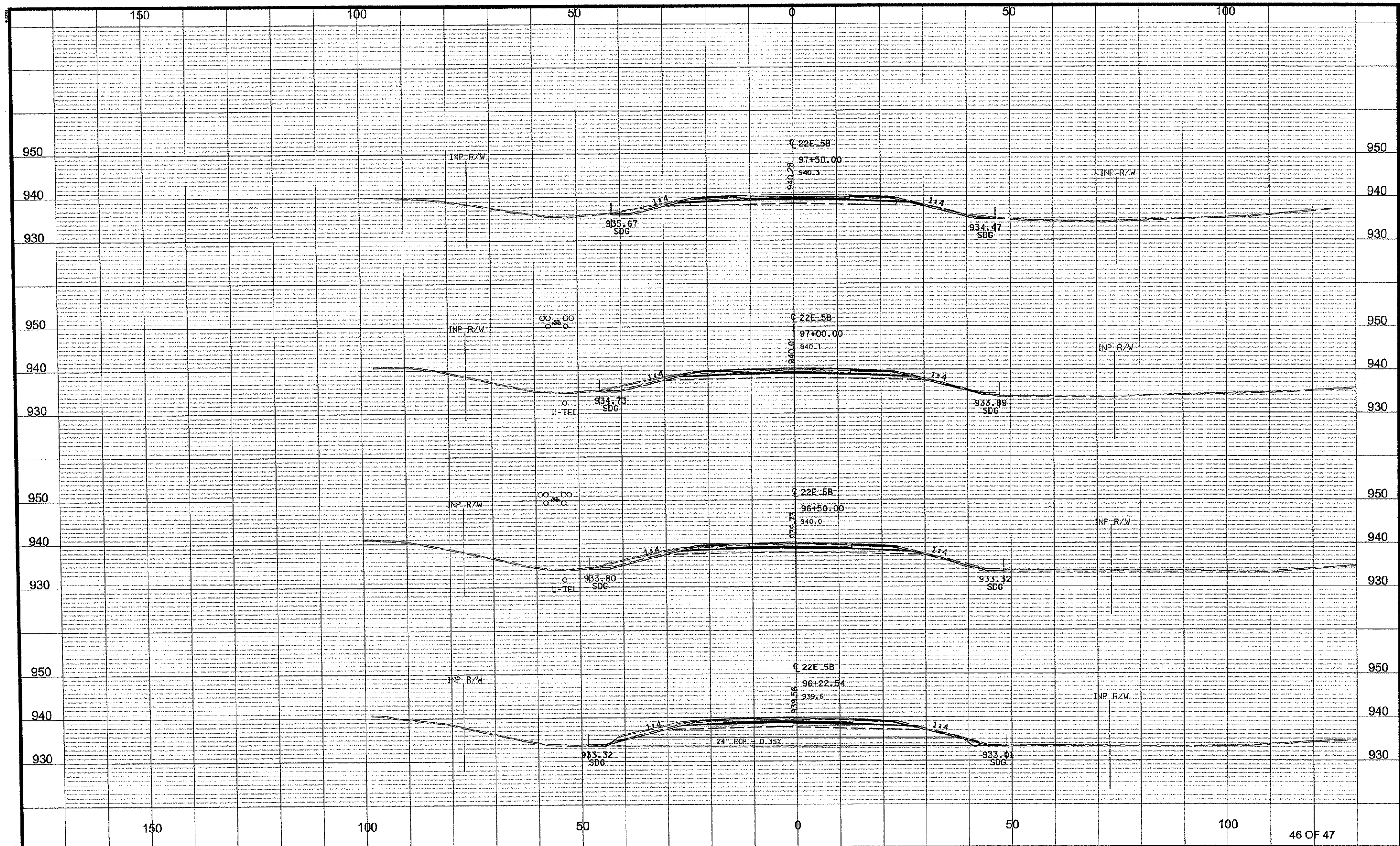
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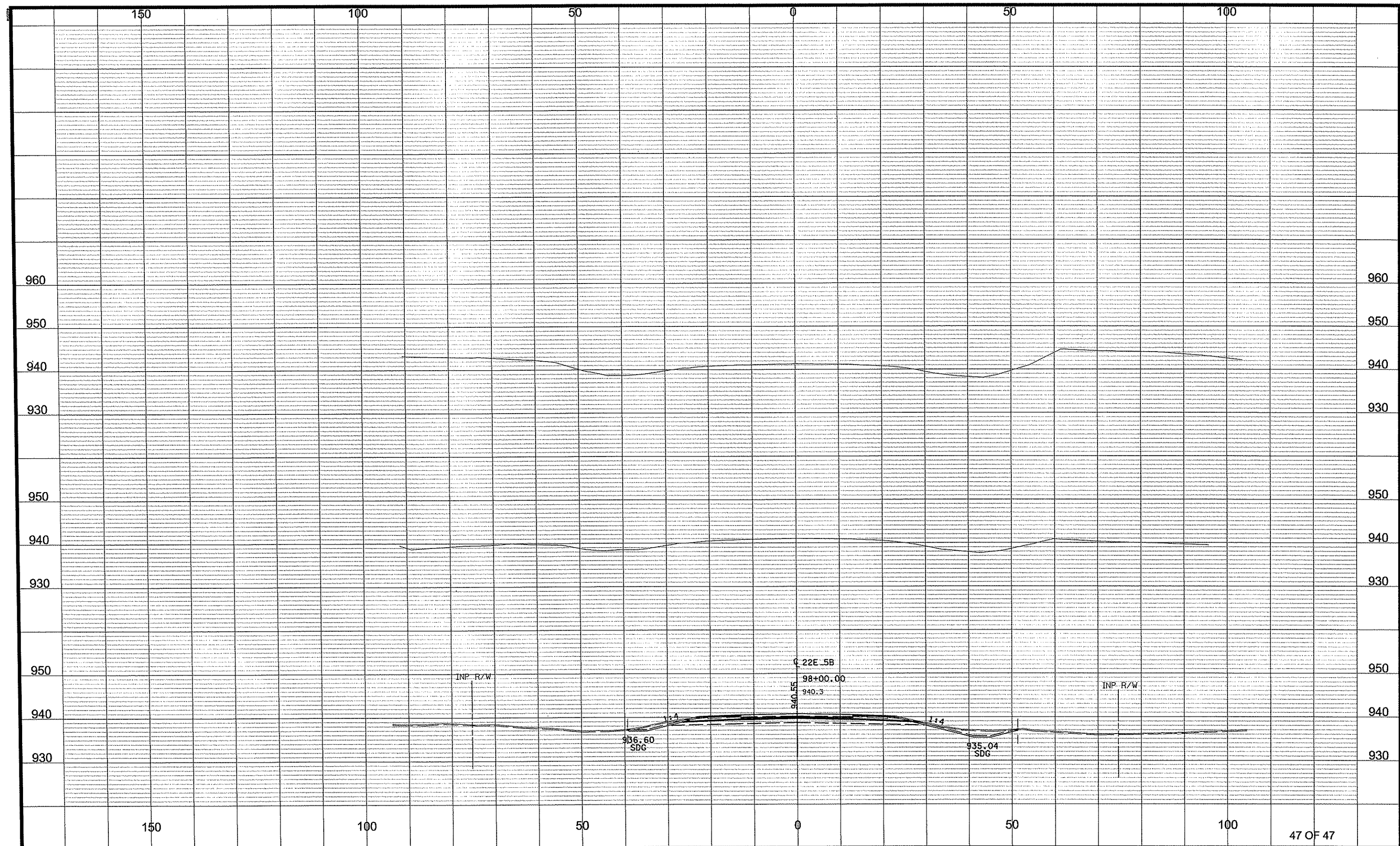


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