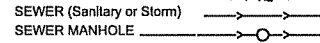
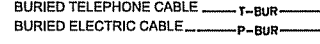
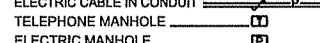
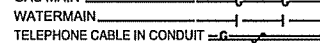
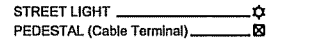
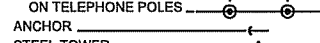
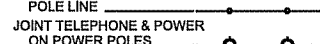
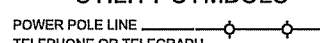
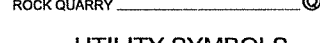
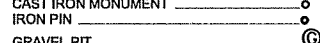
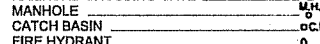
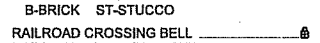
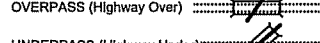
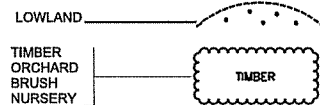


PLAN SYMBOLS

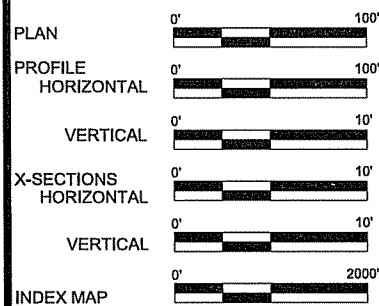
- COUNTY LINE _____
- TOWNSHIP OR RANGE LINE _____
- SECTION LINE _____
- QUARTER LINE _____
- SIXTEENTH LINE _____
- RIGHT OF WAY LINE _____
- SLOPE EASEMENT _____
- EXISTING RIGHT OF WAY _____
- PROPERTY LINE _____
- CORPORATE OR CITY LIMITS _____
- RETAINING WALL _____
- RAILROAD _____
- RAILROAD 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 _____



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



MINNESOTA DEPARTMENT OF TRANSPORTATION

ANOKA COUNTY

CONSTRUCTION PLAN FOR CONCRETE OVERLAY & BITUMINOUS SURFACING

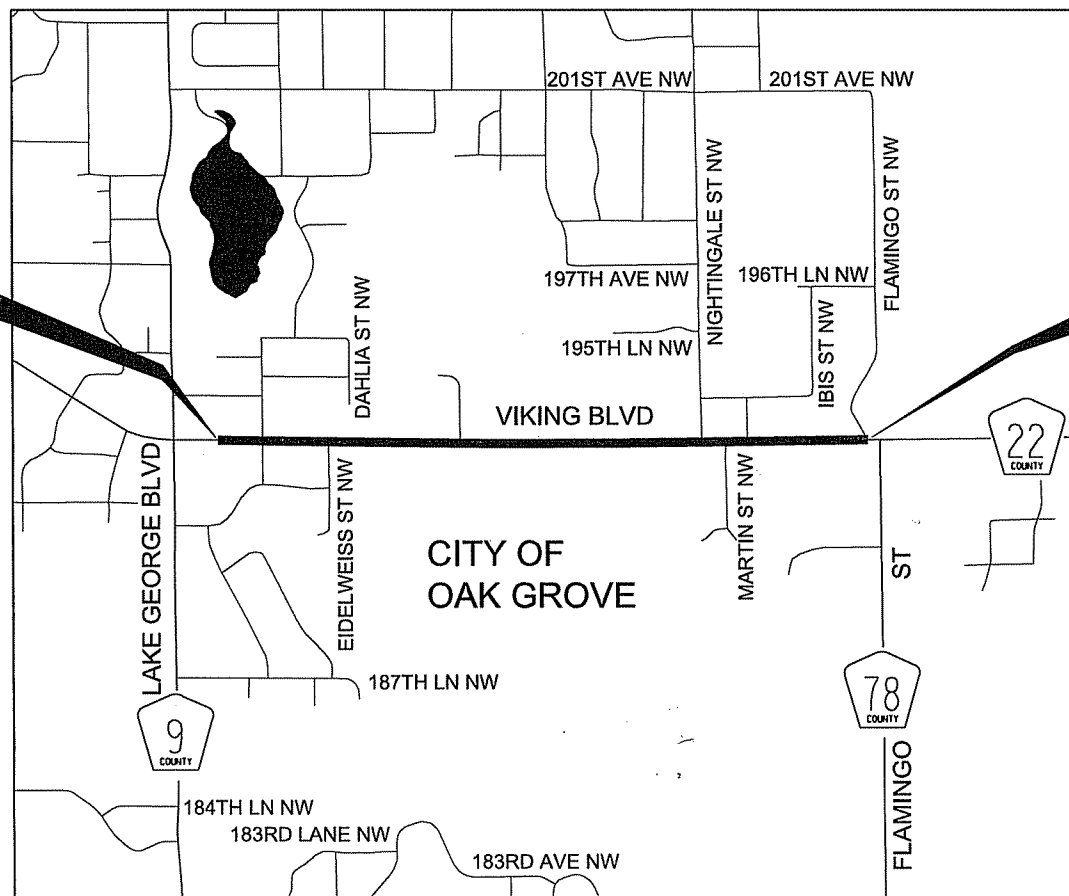
LOCATED ON C.S.A.H. 22 BETWEEN 1000' E OF C.S.A.H 9 AND FLAMINGO ST NW

STATE PROJ. NO. 002-622-033

C.S.A.H. 22

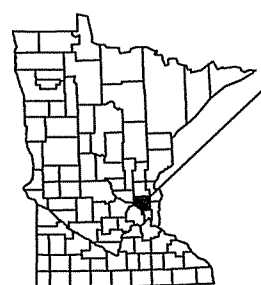
GROSS LENGTH	9189.48	FEET	1.740	MILES
BRIDGES-LENGTH	0.00	FEET	0.000	MILES
EXCEPTIONS-LENGTH	0.00	FEET	0.000	MILES
NET LENGTH	9189.48	FEET	1.740	MILES

THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."



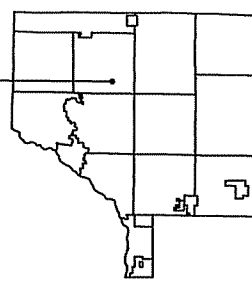
BEGIN S.P. 002-622-033
C.S.A.H. 22 STA. 19+92.90

END S.P. 002-622-033
C.S.A.H. 22 STA. 111+82.38



PROJECT LOCATION

CITY OF OAK GROVE
ANOKA COUNTY
MN/DOT TRANSPORTATION DISTRICT - METRO
SECTION 26,27,28
TOWNSHIP 33 NORTH
RANGE 23 WEST



Functional Classification A MINOR COLLECTOR
No. of Traffic Lanes 2 Shoulder Width 8'
Design Speed 55
Based on Stopping Sight Distance N/A
Height of eye 3.5' Height of object 2.0'
Design Speed not achieved at:
STA. N/A TO STA. N/A MPH N/A

DESIGN DESIGNATION	
CESAL 35	6,082,000
R VALUE	30
ADT (2013) =	6,789
Proj. ADT (2033) =	11,190
Proj. HCADT (2033) =	963
Soil Factor	NA
<u>10</u> TON DESIGN	

MINN PROJ NO. STPM 0213 (279)
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 PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL LAYOUT
3	STATEMENT OF ESTIMATED QUANTITIES
4 - 5	TABULATIONS
6	SOILS AND CONSTRUCTION NOTES
7	EARTHWORK TABULATION & BALANCE
8	ALIGNMENT TABULATION AND PLAN
9 - 10	TYPICAL SECTIONS
11 - 12	TYPICAL SECTIONS & MISCELLANEOUS DETAILS
13 - 16	CONCRETE STANDARD PLANS
17 - 18	DETOUR PLAN AND QUANTITY
19 - 27	TRAFFIC CONTROL STAGING AND QUANTITIES
28 - 36	CONSTRUCTION PLAN / PROFILE
37 - 43	PERMANENT SIGNING AND STRIPING PLAN & TABULATION
44 - 45	SIGNING & STRIPING DETAILS
46	EROSION CONTROL PLAN AND DETAILS
47 - 48	CROSS SECTIONS

THIS PLAN CONTAINS 48 SHEETS

Approved: 6/17/2013
ANOKA COUNTY ENGINEER

Approved: 6/17/2013
CITY OF OAK GROVE ENGINEER

6/19/2013
REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY DISTRICT STATE AID ENGINEER

6/19/2013
APPROVED FOR STATE AID AND / OR FEDERAL FUNDING STATE AID ENGINEER

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_TITLE.dgn 06/14/2013 9:11:00 AM

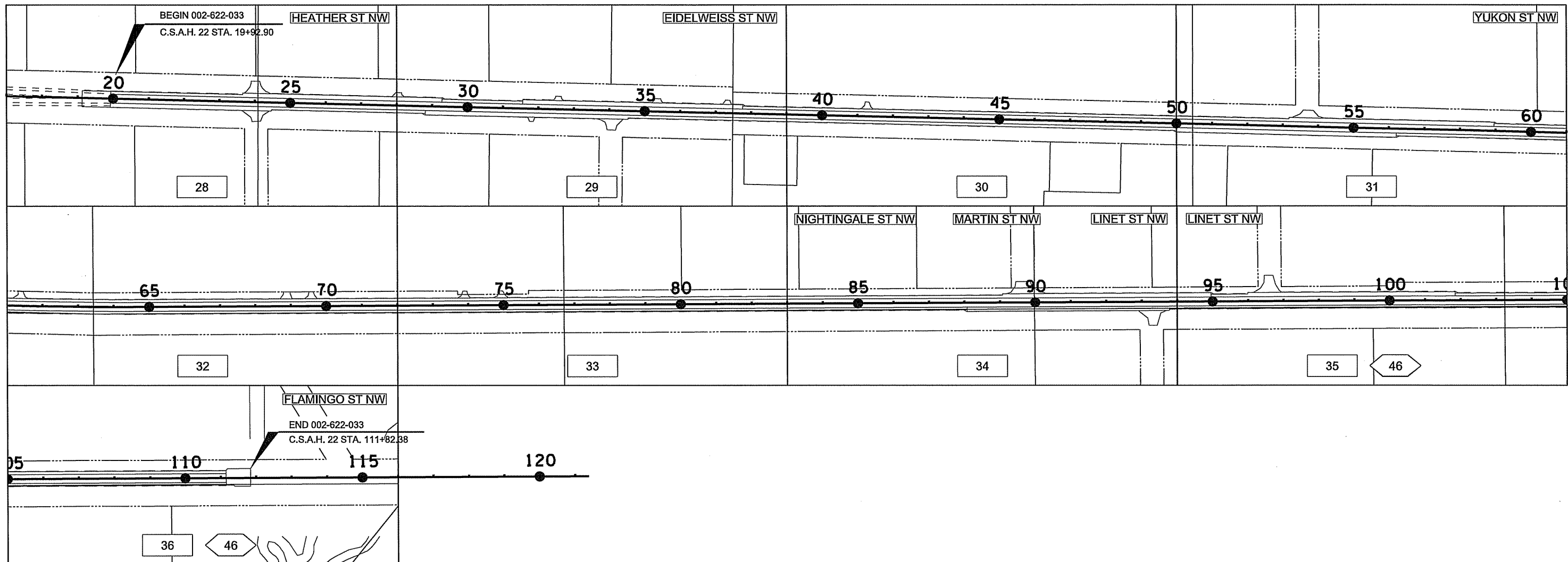
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: ANDREW WITTER
SIGNATURE: 6/13/2013
DATE: 6/13/2013 LICENSE NO. 42757

DRAWN BY NJD DATE 41424
DESIGN BY NJD DATE 41424
CHECKED BY GMP DATE 41422

ANOKA COUNTY
HIGHWAY DEPT.

002-622-033
-
-
-

TITLE SHEET
Sheet 1 of 48 Sheets



LEGEND

- XXX CONSTRUCTION PLAN SHEET NUMBER
- XXX EROSION CONTROL PLAN SHEET NUMBER

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_GEN_P1.dgn 06/14/2013 9:11:02 AM

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: ANDREW WITTER
 SIGNATURE: *Andrew Witter*
 DATE: 6/17/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 41424
 DESIGN BY: NJD DATE: 41424
 CHECKED BY: GMP DATE: 41422

ANOKA COUNTY
HIGHWAY DEPT.

002-622-033
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GENERAL LAYOUT

Sheet 2 of 48 Sheets

TAB / NOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES ESTIMATED	PARTICIPATING
					ANOKA COUNTY 002-622-033 ROADWAY QUANTITIES ESTIMATED
	2021.501	MOBILIZATION	LUMP SUM	1	1
A, F	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	6,347	6,347
[4]	2104.509	REMOVE SIGN TYPE C	EACH	33	33
F	2104.511	SAWING CONCRETE PAVEMENT (FULL DEPTH)	LIN FT	16	16
A, F	2104.513	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	240	240
[1]	2104.523	SALVAGE SIGN TYPE SPECIAL	EACH	6	6
K	2105.501	COMMON EXCAVATION	CU YD	340	340
K	2105.507	SUBGRADE EXCAVATION	CU YD	5,265	5,265
K	2105.522	SELECT GRANULAR BORROW (LV)	CU YD	236	236
F	2211.501	AGGREGATE BASE CLASS 5 (P)	TON	120	120
D	2211.503	AGGREGATE BASE CLASS 5 (P)	CU YD	1,592	1,592
D	2221.501	AGGREGATE SHOULDERING, CLASS 5	TON	279	279
A [3]	2232.501	MILL BITUMINOUS SURFACE (2.0")	SQ YD	22,492	22,492
F	2232.501	MILL BITUMINOUS SURFACE (2.0")	SQ YD	85	85
C	2301.511	STRUCTURAL CONCRETE	CU YD	4,223	4,223
C	2301.602	1" DOWEL BAR	EACH	928	928
C	2301.604	CONCRETE PAVEMENT 6.0"	SQ YD	21,825	21,825
C	2301.604	CONCRETE PAVEMENT 8.0"	SQ YD	3,514	3,514
A	2331.604	BITUMINOUS PAVEMENT RECLAMATION	SQ YD	15,554	15,554
B, F	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	747	747
B	2360.501	TYPE SP 12.5 WEARING COURSE MIX (3,E)	TON	3,587	3,587
F	2360.501	TYPE SP 12.5 WEARING COURSE MIX (4,B)	TON	257	257
B	2360.502	TYPE SP 12.5 NON-WEAR COURSE MIX (3,B)	TON	790	790
F	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	38	38
G	2540.602	MAIL BOX	EACH	12	12
	2563.601	TRAFFIC CONTROL	LUMP SUM	1	1
[5]	2564.531	SIGN PANELS TYPE C	SQ FT	208	208
[4]	2564.550	DELINEATOR TYPE X4-13	EACH	12	12
[4]	2564.552	HAZARD MARKER X4-2	EACH	4	4
E	2573.540	FILTER LOG TYPE WOOD FIBER BIOROLL	LIN FT	2,640	2,640
	2573.601	EROSION CONTROL SUPERVISOR	LUMP SUM	1	1
E	2575.501	SEEDING	ACRE	1	1
E	2575.502	SEED MIXTURE 240	POUND	47	47
E	2575.523	EROSION CONTROL BLANKETS CATEGORY 3	SQ YD	2,902	2,902
E	2575.532	FERTILIZER TYPE 3	POUND	348	348
E	2575.571	RAPID STABILIZATION METHOD 3	M GALLON	4	4
[2]	2582.502	4" SOLID LINE WHITE-EPOXY	LIN FT	24,400	24,400
[2]	2582.502	4" BROKEN LINE WHITE-EPOXY	LIN FT	170	170
[2]	2582.502	4" SOLID LINE YELLOW-EPOXY	LIN FT	2,900	2,900
[2]	2582.502	4" BROKEN LINE YELLOW-EPOXY	LIN FT	1,880	1,880
[2]	2582.502	4" DOUBLE SOLID LINE YELLOW-EPOXY	LIN FT	1,500	1,500

GENERAL NOTES:

TRAFFIC PAVEMENT MARKINGS: CONCRETE SURFACES SHALL BE SAND BLASTED CLEAN TO REMOVE SURFACE TREATMENTS AND / LAITANCE. THIS SHALL BE CONSIDERED INCIDENTAL TO THE PAINT ITEMS. PERMANENT MARKINGS TO BE INPLACE WITHIN 72 HOURS OF FINAL CONCRETE PAVING.

THE CONTRACTOR HAS THE OPTION OF GRINDING THE CONCRETE OR FORMING A GROOVE DURING THE FINISHING OPERATIONS FOR THE STRIPING.

- [1] SEE PAGE 27 OF THESE PLANS FOR TABULATION
- [2] SEE PAGE 37 OF THESE PLANS FOR TABULATION
- [3] VARIABLE MILL UP TO 2".
- [4] SEE PAGE 42 OF THESE PLANS FOR TABULATION
- [5] SEE PAGE 43 OF THE PLANS FOR TABULATION

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

STANDARD PLATES	
PLATE NO.	DESCRIPTION
1150R	CONSTRUCTION OF HEADER JOINTS (2 SHEETS)
7065C	BITUMINOUS CURB
8000I	STANDARD BARRICADES
8150C	INSTALLATION OF CULVERT MARKERS
9350A	MAILBOX SUPPORT (SWING AWAY TYPE)

BASIS OF QUANTITIES		
SPEC NO	DESCRIPTION	RATE
2221.501	AGGREGATE SHOULDERING, CLASS 5	0.55 TONS PER CUBIC YARD
2357.502	BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL / SQ YD / LIFT
2360.501	TYPE SP 12.5 WEARING COURSE MIXTURE	115 LBS / SQ YD / IN
2360.502	TYPE SP 12.5 NON-WEARING COURSE MIXTURE	115 LBS / SQ YD / IN
2575.502	SEED MIXTURE 240	75 LBS / ACRE
2575.532	FERTILIZER TYPE 3	400 LBS / ACRE
2575.571	RAPID STABILIZATION METHOD 3	6 MGAL / ACRE

INDEX OF TABULATION CHARTS		
TAB.	DESCRIPTION	SHEET NO.
A	REMOVALS, SAWING & MILLING	4
B	BITUMINOUS SUMMARY	4
C	CONCRETE	4
D	AGGREGATE	5
E	TURF ESTABLISHMENT AND EROSION CONTROL	4
F	DRIVEWAYS & SIDE STREETS	5
G	MAILBOX	5
	REMOVE, RELOCATE, & INSTALL SIGNS	27
	PERMANENT PAVEMENT MARKINGS	37
K	EARTHWORK TAB & BALANCE	7
AA	UTILITY CONTACTS	6
BB	GAS - CENTERPOINT	6
CC	OH POWER - XCEL	6
DD	TELEPHONE - CENTURYLINK	6
EE	TELEVISION - COMCAST	6

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_ALLTABS.dgn 06/14/2013 9:11:08 AM

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: ANDREW WITTER

SIGNATURE: *Andrew Witter*

DATE: 6/13/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4-15-13

DESIGN BY: NJD DATE: 4-14-13

CHECKED BY: GMP DATE: 4-14-13

ANOKA COUNTY
HIGHWAY DEPT.

002-622-033

STATEMENT OF ESTIMATED QUANTITIES

Sheet 3 of 48 Sheets

REMOVALS, SAWING AND MILLING							A
ALIGNMENT	STATION TO STATION	BITUMINOUS				NOTES	
		SAWING (SPEC. 2104)	RECLAMATION (SPEC. 2231) [2]	REMOVAL (SPEC 2104)	MILLING (SPEC. 2232) [1]		
		BIT. PAVEMENT	BIT. SURFACE		BIT. SURFACE		
		(LIN FT)	(SQ YD)	(SQ YD)	(SQ YD)		
C.S.A.H. 22	17+00 - 28+00	45	1,830		2,242		
C.S.A.H. 22	28+00 - 39+00	0	2,542		3,056		
C.S.A.H. 22	39+00 - 50+00	0	1,956		3,056		
C.S.A.H. 22	50+00 - 61+00	0	2,488		3,056		
C.S.A.H. 22	61+00 - 72+00	0	1,956		3,056		
C.S.A.H. 22	72+00 - 83+00	0	1,956		3,056		
C.S.A.H. 22	83+00 - 94+00	0	2,428		3,056		
C.S.A.H. 22	94+00 - 105+00	0	400	3,110	1,544		
C.S.A.H. 22	105+00 - 116+00	45	0	2,802	373		
PROJECT TOTAL		90	15,554	5,912	22,492		

REMOVALS NOTES:

[1] VARIABLE MILL EXISTING MAINLINE. CONTRACTOR SHALL USE MILLING MACHINE WITH MINIMUM CAPACITY OF 12' PER PASS. MAINLINE. SHALL INCLUDE VARIABLE DEPTH FOR VERTICAL TRANSITION AT END OF PROJECT.

[2] FULL DEPTH RECLAMATION EXISTING BITUMINOUS SHOULDERS AND EXISTING RIGHT TURN LANES. WORK TO BE COMPLETED AFTER CONCRETE MAINLINE PAVING.

CONCRETE						C
ALIGNMENT	STATION		PLACE CONCRETE PAVEMENT 6.0" [1]	PLACE CONCRETE PAVEMENT 8.0" [1]	1.0" DOWEL BAR [EACH]	STRUCTURAL CONCRETE CU YD
	BEGIN	END				
				SQ YD	SQ YD	
C.S.A.H. 22	17+00	28+00	2242			374
C.S.A.H. 22	28+00	39+00	3056			509
C.S.A.H. 22	39+00	50+00	3056			509
C.S.A.H. 22	50+00	61+00	3056			509
C.S.A.H. 22	61+00	72+00	3056			509
C.S.A.H. 22	72+00	83+00	3056			509
C.S.A.H. 22	83+00	94+00	3056			509
C.S.A.H. 22	94+00	98+50	1250			208
C.S.A.H. 22	98+50	111+15		3,514	928	586
PROJECT TOTAL			21,825	3,514	928	4,223

CONCRETE NOTES:

[1] CONCRETE JOINTS SHALL BE SEALED. CONCRETE SEALER MN/DOT SPEC. 3725 HOT POUR. SEALER INCIDENTAL TO CONCRETE PAVEMENT.

BITUMINOUS SUMMARY							B
ALIGNMENT	STATION TO STATION	DESCRIPTION	BITUMINOUS			NOTES	
			2360 TYPE SP 12.5 WEAR (4,E)	2360 TYPE SP 12.5 NON- WEAR (3,B)	2357 BIT. TACK COAT [1]		
			TON	TON	GALLON		
C.S.A.H. 22	19+12.90 - 19+92.90	TRANS.	46	92			
C.S.A.H. 22	17+00 - 28+00	TURN / BYP SHLD	273 111	136	119		
C.S.A.H. 22	28+00 - 39+00	TURN / BYP SHLD	405 135	202	176		
C.S.A.H. 22	39+00 - 50+00	TURN / BYP SHLD	337				
C.S.A.H. 22	50+00 - 61+00	TURN / BYP SHLD	368 154	184	160		
C.S.A.H. 22	61+00 - 72+00	TURN / BYP SHLD	337				
C.S.A.H. 22	72+00 - 83+00	TURN / BYP SHLD	337				
C.S.A.H. 22	83+00 - 94+00	TURN / BYP SHLD	326 174	163	142		
C.S.A.H. 22	94+00 - 105+00	TURN / BYP SHLD	209 233	104	91		
C.S.A.H. 22	105+00 - 111+15	TURN / BYP SHLD	189				
C.S.A.H. 22	111+15 - 111+84	TRANS.	46	92			
PROJECT TOTAL			3,587	790	687		

BITUMINOUS SUMMARY NOTES:

[1] TACK COAT TO BE APPLIED TO BIT STREET APPROACHES ON EXISTING BIT SURFACE AND BETWEEN WEAR/ NON-WEAR COURSES.

CONSTRUCTION OF SAFETY EDGE CONSIDERED INCIDENTAL - SEE MISCELLANEOUS DETAILS FOR MORE INFORMATION

TURF ESTABLISHMENT AND EROSION CONTROL								E	
LOCATION	STATION TO STATION	OFFSET	TEMPORARY EROSION CONTROL		PERMANENT EROSION CONTROL			NOTES	
			RAPID STABILIZATION METHOD 3	FILTER LOG TYPE WOOD FIBER BIOROLL	SEEDING	SEED MIXTURE 240	FERTILIZER TYPE 3		EROSION CONTROL BLANKETS CAT. 3
			MGAL	LIN FT	ACRE	POUND	POUND		1540.4
	105+00 - 116+00	L	2	1320	0.32	24.0	228	1450.8	
	105+00 - 116+00	R	2	1320	0.30	22.5	120	1450.8	
PROJECT TOTAL			4	2,640	1	47	348	2,902	

AGGREGATE					D
STATION TO STATION	AGGREGATE				
	BASE CLASS 5 [2] CU YD	BASE CLASS 5 [1] CU YD	SHOULDER CLASS 5 TON		
C.S.A.H. 22	17+00 - 28+00		36	25	
C.S.A.H. 22	28+00 - 39+00		33	34	
C.S.A.H. 22	39+00 - 50+00		109	34	
C.S.A.H. 22	50+00 - 61+00		34	34	
C.S.A.H. 22	61+00 - 72+00		109	34	
C.S.A.H. 22	72+00 - 83+00		109	34	
C.S.A.H. 22	83+00 - 94+00		56	34	
C.S.A.H. 22	94+00 - 105+00	557	27	34	
C.S.A.H. 22	105+00 - 111+15	523		19	
PROJECT TOTAL		1080	512	279	

AGGREGATE NOTES
 [1] 2" CLASS 5 BASE ADDED TO 8' SHOULDER FOR LEVELING PRIOR TO PAVING SHOULDER. (P)
 [2] BASE QUANTITIES FOR 4" OF CLASS 5 ABOVE THE GRADING GRADE THROUGH RECONSTRUCT SEGMENT. SEE PAGE 12 "RECONSTRUCT PAVEMENT DESIGN" FOR DETAILS

MAILBOXES				G
ALIGN	STATION	OFFSET	MAILBOXES	
CL	31+52	RT	1	
CL	35+10	LT	1	
CL	37+13	LT	1	
CL	41+92	LT	1	
CL	61+73	LT	1	
CL	69+11	LT	1	
CL	74+13	LT	1	
CL	79+66	LT	1	
CL	80+41	LT	1	
CL	83+67	LT	1	
CL	101+92	RT	1	
CL	103+20	RT	1	
PROJECT TOTAL			12	

DRIVEWAYS & SIDE STREETS													F	
CENTERLINE STATION	LOCATION			DESCRIPTION	SAWCUT		MILLING	REMOVE	CONSTRUCT					NOTES
	ALIGNMENT	OFFSET			BIT LIN FT	CONC LIN FT	BIT [3] SQ YD	BIT SQ YD	APRON WIDTH	BITUMINOUS [1],[2] TON	2357 BIT. TACK COAT [9] GALLON	6" CONCRETE DRIVEWAY PAVEMENT SQ YD	AGG CL 5 [8] TON	
		FROM	TO											
24+00	CSAH 22	-24.5	-59.3	HEATHER ST N			11		24	26.7	8		[4]	
24+00	CSAH 22	24.5	54.9	HEATHER ST S			11		25	25.2	7		[4]	
28+04	CSAH 22	-24.5	-36.5	2923 VIKING	16			32	16	3.7			3 [5]	
29+98	CSAH 22	-20.5	-32.5	2923 VIKING					24				7 [6]	
31+81	CSAH 22	24.5	36.5	2852 VIKING	11			21	11	2.4			3 [5]	
32+54	CSAH 22	-24.5	36.5	2847 VIKING	15			27	15	3.1			3 [5]	
34+07	CSAH 22	24.5	55.6	EIDELWEISS ST			11		24	22.8	7		[4]	
35+37	CSAH 22	-24.5	-36.5	2825 VIKING	16			29	16	3.4			3 [5]	
37+33	CSAH 22	-24.5	-36.5	2825 VIKING					12				7 [6]	
37+55	CSAH 22	20.5	40.5	28-33-24-42-0001					11				7 [6]	
41+27	CSAH 22	-20.5	-40.5	28-33-24-13-0001	11			42	11	4.8			3 [5]	
45+05	CSAH 22	20.5	40.5	28-33-24-42-0001					14				7 [6]	
53+71	CSAH 22	-24.5	46.1	DAHLIA ST			13		30	21.1	6		[4]	
54+30	CSAH 22	24.5	44.5	28-33-24-41-0002					20				7 [6]	
61+37	CSAH 22	-20.5	-40.3	2445 VIKING	14			51	14	5.9			3 [5]	
63+27	CSAH 22	-20.5	-40.5	2445 VIKING					21				7 [6]	
64+16	CSAH 22	20.5	40.5	28-33-24-32-0001					17				7 [6]	
68+89	CSAH 22	-20.5	-40.5	2225 VIKING	18			53	18	6.1			3 [5]	
69+57	CSAH 22	-20.5	-40.5	2225 VIKING	12			48	12	5.5			3 [5]	
73+91	CSAH 22	-20.5	-40.5	2255 VIKING	12			43	12	5.0			3 [5]	
74+93	CSAH 22	-20.5	-40.5	2255 VIKING	12			46	12	5.3			3 [5]	
80+03	CSAH 22	-20.5	-40.5	2161 VIKING					18				7 [6]	
80+03	CSAH 22	-20.5	-40.5	2131 VIKING					18				7 [6]	
83+47	CSAH 22	-20.5	-40.5	27+33-24-24-0005		16			16			38	3 [7]	
89+66	CSAH 22	-24.5	-59.3	NIGHTINGALE ST			18		40	41.0	12		[4]	
90+19	CSAH 22	24.5	44.5	19270 MARTIN ST					15				7 [6]	
93+32	CSAH 22	24.5	66.4	MARTIN ST			11		24	32.1	9		[4]	
96+00	CSAH 22	20.5	40.5	19257 MARTIN ST					12				7 [6]	
69+61	CSAH 22	-24.5	-24.3	LINNET ST			11		24	37.8	11		[4]	
102+11	CSAH 22	20.5	40.1	27-33-24-42-0002	13			42	13	4.9			3 [5]	
103+43	CSAH 22	20.5	40.5	1808 VIKING					10				7 [6]	
PROJECT TOTAL					150	16	85	435		256.7	60	38	120.0	

DRIVEWAY NOTES
 [1] 3.0" BITUMINOUS FOR SIDE STREET APPROACHES 2360 TYPE SP 12.5 WEAR (4,B)
 [2] 2.0" BITUMINOUS FOR DRIVEWAYS 2360 TYPE SP 12.5 WEAR (4,B)
 [3] 4.0' WIDE MILLED JOINT (2.0" DEPTH)
 [4] SIDE STREET APPROACH
 [5] BITUMINOUS DRIVEWAYS TO BE SAWCUT / BITUMINOUS REMOVED, LOCATION DETERMINED BY ENGINEER
 [6] AGGREGATE DRIVEWAY
 [7] CONCRETE DRIVEWAYS TO BE SAW CUT / REMOVED AT JOINT, LOCATION DETERMINED BY ENGINEER
 [8] CLASS 5 AGGREGATE TO BE ADDED TO AGGREGATE DRIVEWAYS. ALSO BITUMINOUS AND CONCRETE DRIVEWAYS PRIOR TO REPAVING FOR ADJUSTING TO NEW GRADE. FOR ESTIMATING PURPOSES, 3 TONS PER BITUMINOUS DRIVEWAY AND 7 TONS PER AGGREGATE DRIVEWAY ARE SHOWN. ACTUAL AMOUNT MAY VARY.
 [9] TACK COAT TO BE APPLIED TO BIT STREET APPROACHES ON EXISTING BIT SURFACE AND BETWEEN WEAR / NON-WEAR COURSES.

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: ANDREW WITTER SIGNATURE: <i>[Signature]</i> DATE: 6/13/13 LICENSE NO. 42757					DRAWN BY: NJD DATE: 4/14/24 DESIGN BY: NJD DATE: 4/14/24 CHECKED BY: GMP DATE: 4/14/24		ANOKA COUNTY HIGHWAY DEPT.		002-622-033 - -		TABULATIONS Sheet 5 of 48 Sheets	
NO	DATE	BY	CKD	APPR	REVISION	NAME: P:\02-622-33\Plan\0262233_ALLTAB.dgn 06/14/2013 9:11:20 AM						

UTILITY OWNERS		AA
COMCAST CABLE CONTACT DOUG ZAHN TEL: 651-755-2602	CONNEXUS ENERGY CONTACT MAT RAUSCHENDORFER TEL: 763-323-4259	
CENTURYLINK CONTACT SCOTT KUNZMAN TEL: 769-712-5019	CENTERPOINT ENERGY CONTACT STEVE GUHANICK TEL: 612-321-5421	

GAS - CENTERPOINT ENERGY			BB
STATION		OFFSET	REMARKS
BEGIN	END		
96+85	114+75	53' LEFT	
	102+69	C / L	CROSSING
	103+25	C / L	CROSSING

OVERHEAD POWER - XCEL ENERGY			CC
STATION	OFFSET	REMARKS	
96+33	40' LEFT	POWER POLE	
99+61	45' LEFT	POWER POLE	
102+72	45' LEFT	POWER POLE	
102+92	66' RIGHT	POWER POLE	
102+82	C / L	O / H CROSSING	
105+70	45' LEFT	POWER POLE	
108+77	46' LEFT	POWER POLE	
111+49	46' LEFT	POWER POLE	
112+34 - 112+82	45' LEFT	UNDERGROUND	
114+81	45' LEFT	POWER POLE	

TELEPHONE - CENTURYLINK			DD
STATION	OFFSET	REMARKS	
97+86 - 102+40	60' RIGHT	LEAVE INPLACE	

TELEVISION - COMCAST			EE
STATION	OFFSET	REMARKS	
97+85 - 102+56	50' RIGHT		
102+87	C / L	CROSSING	
103+02	67' RIGHT	SPlice BOX	
102+74	43' LEFT	SPlice BOX	
96+79 - 111+69	30' LEFT		

- 1 AGGREGATE SHOULDERING MATERIAL FOR THIS PROJECT SHALL BE CLASS 5 GRADATION IN ACCORDANCE WITH MN/DOT 2221 AND 3138.
- 2 AGGREGATE BASE MATERIAL SHALL MEET THE REQUIREMENTS OF MN/DOT SPEC. 3138, CLASS 5.
- 3 COMPACTION OF ALL AGGREGATE BASE MATERIAL SHOULD BE IN ACCORDANCE WITH MN/DOT " PENETRATION INDEX METHOD "
- 4 CONTRACTOR SHALL BLADE THE EXISTING AGGREGATE MATERIAL ONTO THE SHOULDER PRIOR TO PLACING THE NEW CLASS 5 AGGREGATE ON THE SHOULDER. BLADING AND COMPACTION OF EXISTING AGGREGATE MATERIAL ON THE SHOULDER SHALL BE INCIDENTAL.
- 5 COMPACTION OF ALL PERMANENT BITUMINOUS MIXTURES SHALL BE THE " MAXIMUM DENSITY METHOD ".
- 6 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 ACCORDENCE WITH SPEC. 2104.3C3.
- 7 USE TACK COAT BETWEEN ALL BITUMINOUS MIXTURES AND PRIOR TO PLACING ANY BITUMINOUS MIXTURES ON EXISTING PAVEMENT. THE BITUMINOUS TACK COAT SHALL BE APPLIED AT A RATE OF 0.03 - 0.05 GALLONS/SQ YD BETWEEN BITUMINOUS LAYERS AND 0.07 - 0.10 GALLONS/SQ YD ON CONCRETE / BITUMINOUS MILLED SURFACE PRIOR TO BEING OVERLAID.
- 8 ANY DEBRIS WHICH MAY BE ENCOUNTERED / CREATED DURING GRADING SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF THE PROJECT R/W IN A SUITABLE DISPOSAL AREA AS APPROVED BY THE ENGINEER.
- 9 UNSUITABLE SOILS NOT USED ON THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND DISPOSED OF OFF THE PROJECT R/W IN A SUITABLE DISPOSAL AREA AS APPROVED BY THE ENGINEER.
- 10 THE MILLED MATERIAL SHALL BE PROCESSED TO PROVIDE A NOMINAL 1" MAXIMUM SIZE. A TOLERANCE TO THE PERCENT RETAINED ON A 1" SIEVE WILL BE PERMITTED, PROVIDED ALL MATERIAL PASSES 1 1/2" SIEVE.
- 11 FILTER LOG TYPE WOOD FIBER MAY ONLY BE OMITTED IN BERM AREAS WHERE RUNOFF FROM CONSTRUCTION WILL NOT TAKE PLACE. THIS WILL BE AT THE DISCRETION OF THE ENGINEER. (FILTER LOG BE PLACED NO FURTHER THAN 48' FROM PROPOSED CL. CLOSEST R/W FROM PROPOSED CL ON PROJECT IS 50')

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_ALLTABS.dgn 06/14/2013 9:11:26 AM

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: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 6/13/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 41424
 DESIGN BY: NJD DATE: 41424
 CHECKED BY: GMP DATE: 41422



ANOKA COUNTY
HIGHWAY DEPT.

002-622-033
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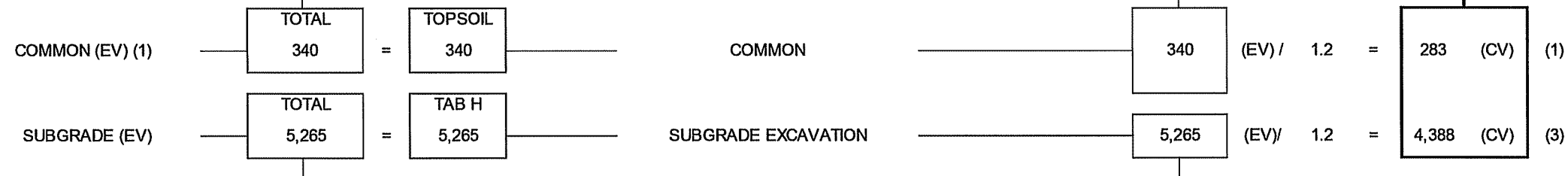
UTILITIES
SOILS & CONST. NOTES

EARTHWORK SUMMARY		K
STATION	EXCAVATION TOTALS	EMBANKMENT VOLUMES
	SUBGRADE	SELECT GRANULAR
	CY	CY
98+50.00		
99+00.00	215	165
100+00.00	431	346
101+00.00	433	330
102+00.00	419	283
103+00.00	402	283
104+00.00	400	307
105+00.00	394	341
106+00.00	409	431
107+00.00	422	478
108+00.00	415	470
109+00.00	417	446
110+00.00	420	357
111+00.00	424	281
111+15.00	64	38
PROJECT TOTAL	5,265	4,556

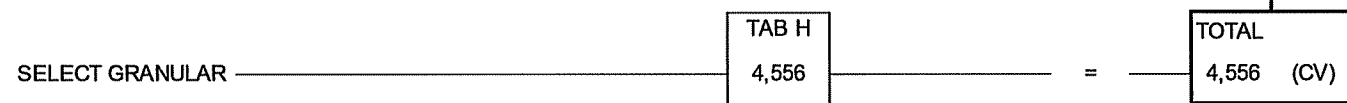
EARTHWORK BALANCE

K

AVAILABLE EXCAVATION (CY)



NEEDED EMBANKMENT (CY)



BORROW (CY)

	<u>NEEDED</u>		<u>AVAILABLE</u>							
SELECT GRANULAR		4,556 (CV)	-	4,388 (CV)	=	169 (CV)	X	1.4	=	236 (LV)(2)

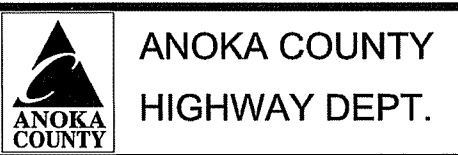
- (1) TOTAL COMMON EXCAVATION FOR PROJECT (INCLUDING TOPSOIL)
- (2) TOTAL SELECT GRANULAR BORROW FOR PROJECT
- (3) SUBGRADE EXCAVATION IS ASSUMED TO MEET REQUIREMENTS FOR SELECT GRANULAR MATERIAL AND CAN THEREFORE BE RE-USED AS EMBANKMENT WITHIN THE PROJECT AS SELECT GRANULAR MATERIAL.

NO	DATE	BY	CKD	APPR	REVISION

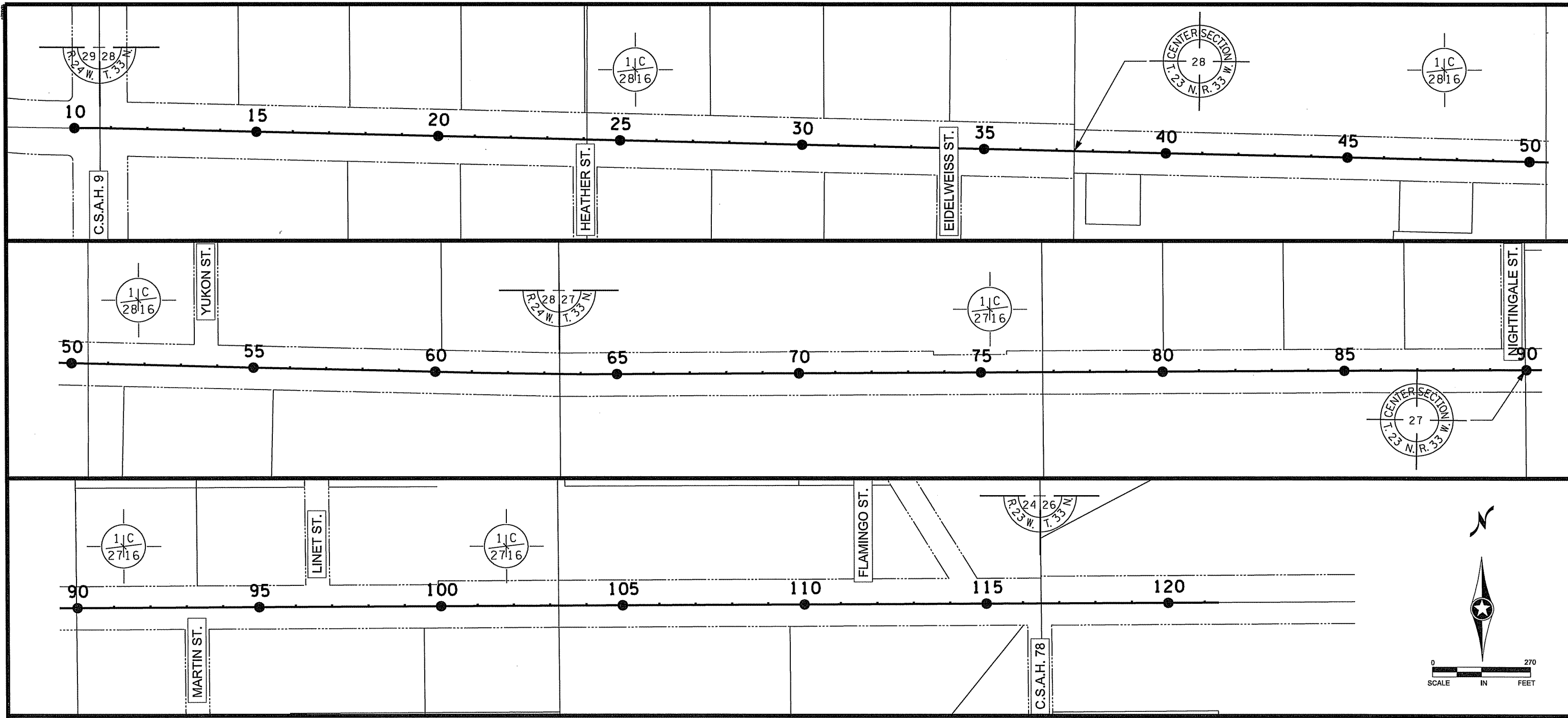
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I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 6/17/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24
 DESIGN BY: NJD DATE: 4/14/24
 CHECKED BY: GMP DATE: 4/14/24



002-622-033
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ALIGNMENT TABULATION										
POINT NUMBER	POINT	ALIGNMENT	CIRCULAR CURVE DATA					COORDINATES		AZIMUTH
			DELTA	DEGREE	RADIUS	TANGENT	LENGTH	E	N	
☉ C.S.A.H. 17 <N17_10>										
1500	POT	☉ C.S.A.H. 22	10+00.000					479,157.8670	203,826.6070	
1501	POT		10+68.077					479,225.9440	203,826.4687	
1502	POT		30+32.770					481,190.0730	203,779.3891	
1503	POT		51+03.616					483,260.3596	203,731.2865	
1504	POT		55+21.850					483,676.4551	203,720.5035	
1505	POT		58+48.882					484,005.4117	203,713.5038	
1506	POT		61+11.870					484,268.3114	203,706.6861	
1507	POT		61+93.914					484,350.3393	203,705.0755	
1508	POT		64+06.271					484,562.6817	203,702.5222	
1509	POT		121+38.486					490,294.8275	203,730.5500	

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_ALL_P1.dgn 06/14/2013 9:11:33 AM

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: ANDREW WITTER

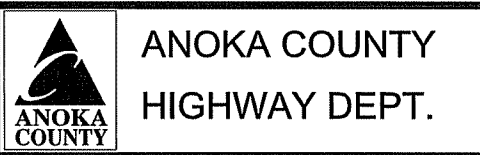
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DATE: 6/17/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24

DESIGN BY: NJD DATE: 4/14/24

CHECKED BY: GMP DATE: 4/14/22



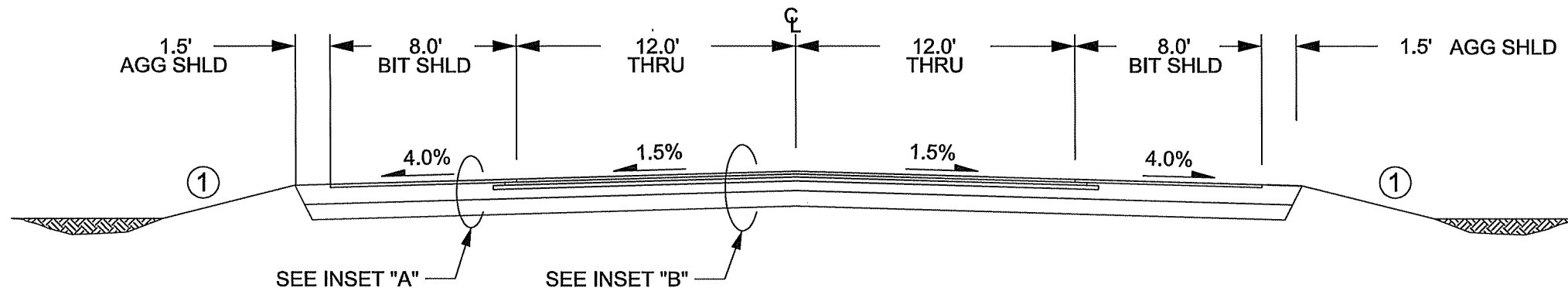
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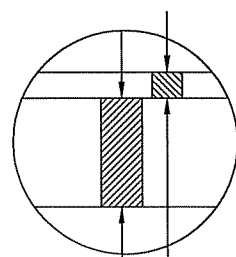
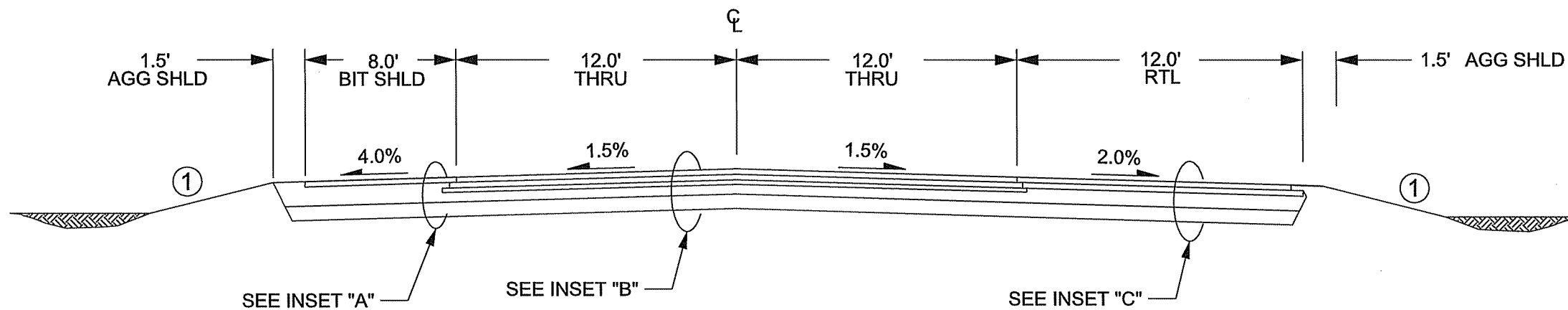
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C.S.A.H. 22 (VIKING BLVD.) EXISTING TYP. SECTION



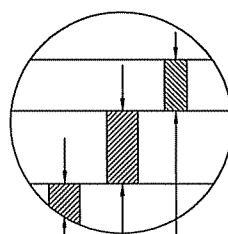
C.S.A.H. 22 (VIKING BLVD.) EXISTING TYP. RTL / BYPASS



INSET "A"

①

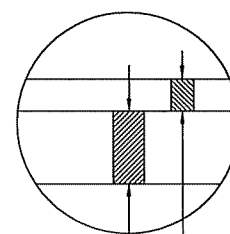
1.5" EXISTING BITUMINOUS
EXIST. VAR. DEPTH GRAVEL BASE



INSET "B"

①

5.0" - 6.0" EXISTING BITUMINOUS
4.0" AGGREGATE BASE
EXIST. VAR. DEPTH SAND



INSET "C"

①

4.0" EXISTING BITUMINOUS
EXIST. VAR. DEPTH GRAVEL BASE

① AGGREGATE BASE AND BITUMINOUS DEPTHS ARE APPROXIMATE. DEPTH SHOWN ARE FROM COUNTY CORES.

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_TYP_P1.dgn
06/14/2013 9:11:33 AM

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: ANDREW WITTER
SIGNATURE: *[Signature]*
DATE: 6/13/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4-3-13
DESIGN BY: NJD DATE: 4-3-13
CHECKED BY: GMP DATE: ***

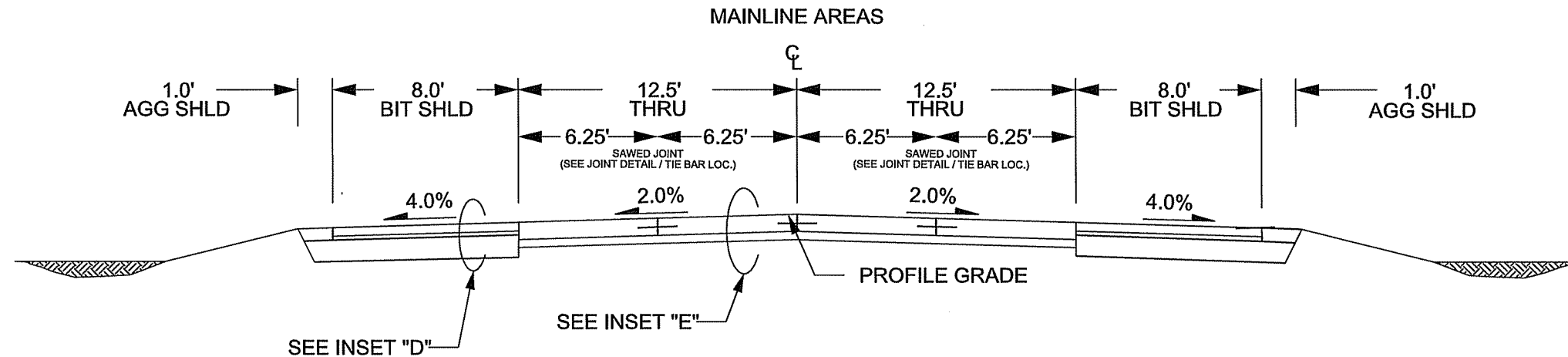


ANOKA COUNTY
HIGHWAY DEPT.

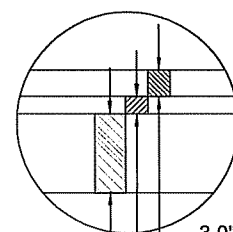
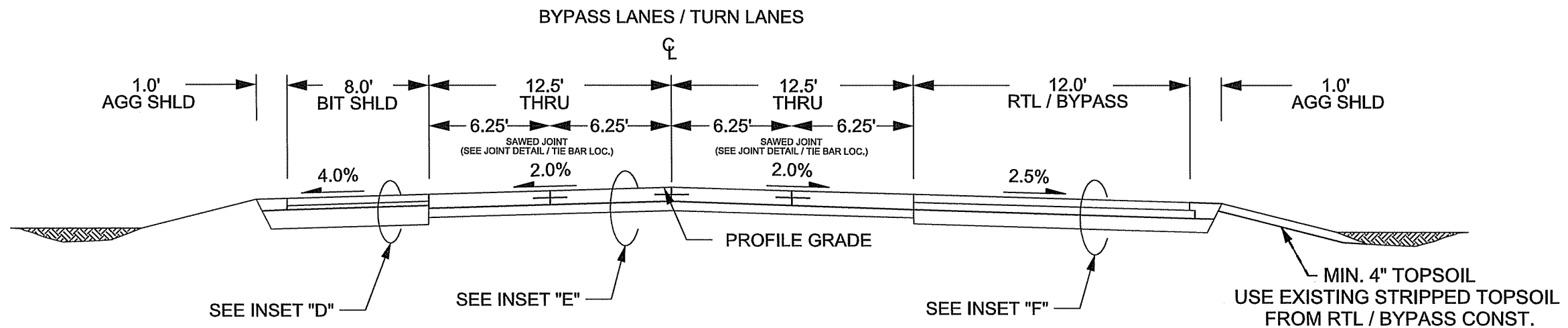
002-622-033

TYPICAL SECTIONS

C.S.A.H. 22 (VIKING BLVD.) PROPOSED TYP. SECTION

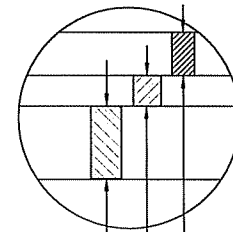


C.S.A.H. 22 (VIKING BLVD.) PROPOSED TYP. SECTION



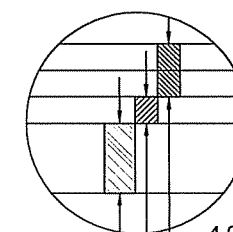
INSET "D"

3.0" TYPE SP 12.5 WEARING COURSE (SPWEB440 E)
2" ADDITIONAL AGGREGATE BASE (CL-5)
RECLAIMED BIT SHLDR



INSET "E"

6" NON-REINFORCED CONCRETE PAVEMENT
4.0" EXISTING BITUMINOUS (AFTER MILL)
EXIST. VAR. GRAVEL BASE



INSET "F"

4.0" (2 - 2" LIFTS) TYPE SP 12.5 WEARING COURSE (SPWEB440 E)
2.0" TYPE SP 12.5 NON-WEARING COURSE (SPNWB430 B)
RECLAIMED BIT SHLDR

- ① AGGREGATE BASE AND BITUMINOUS DEPTHS ARE APPROXIMATE. DEPTH SHOWN ARE FROM COUNTY CORES.
- ② DESIRED MILL DEPTH. NO ADDITIONAL COMPENSATION WILL BE MADE FOR DEPTHS EXCEEDING 2".

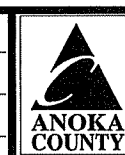
NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_TYP_P1.dgn 06/14/2013 9:11:34 AM

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.

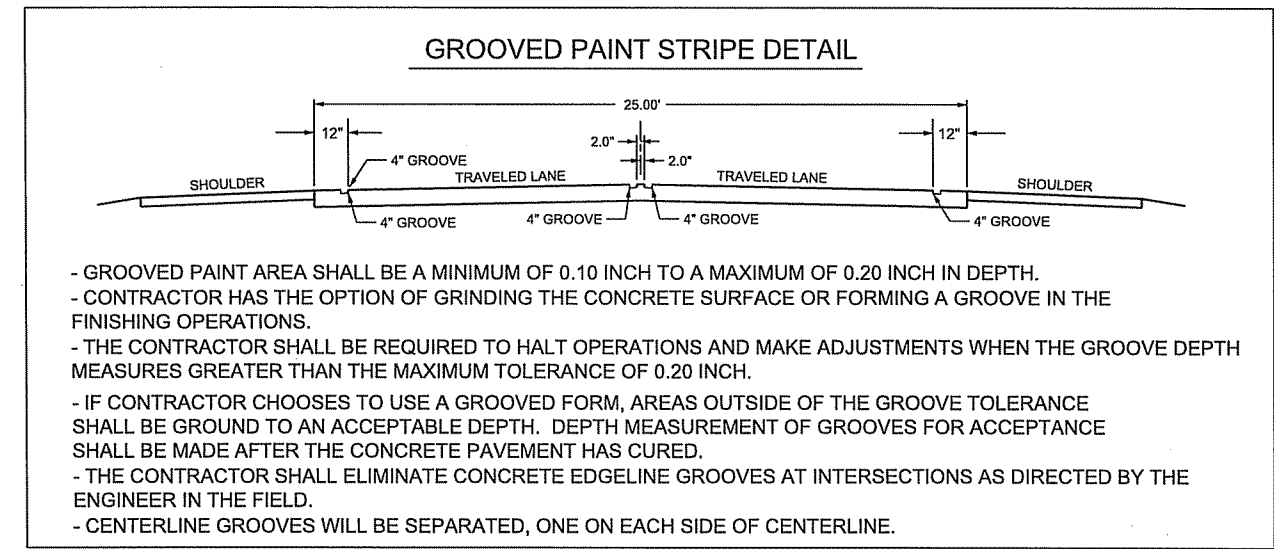
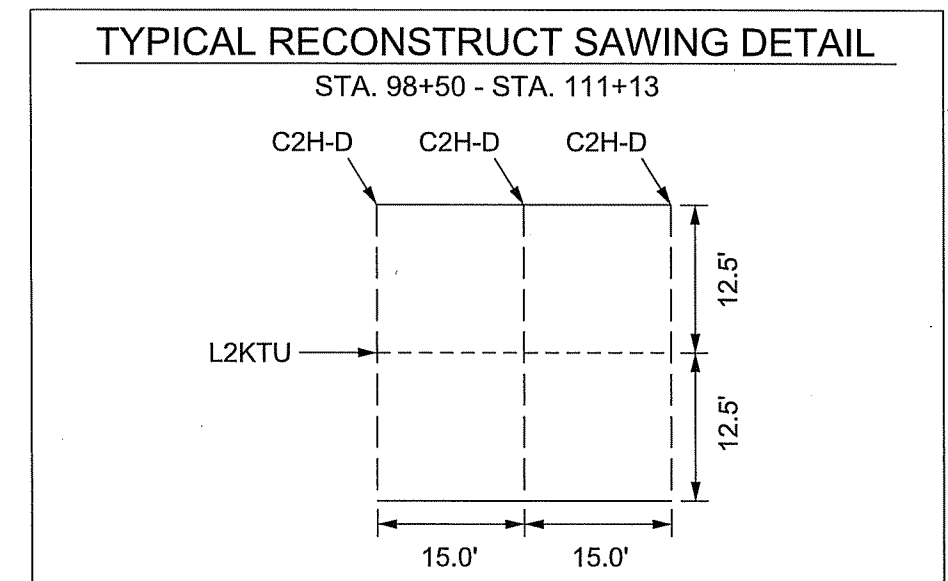
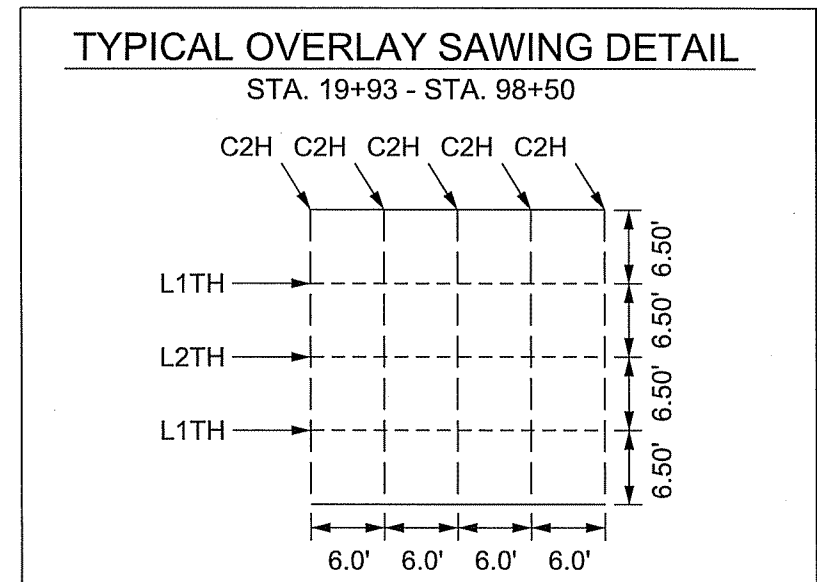
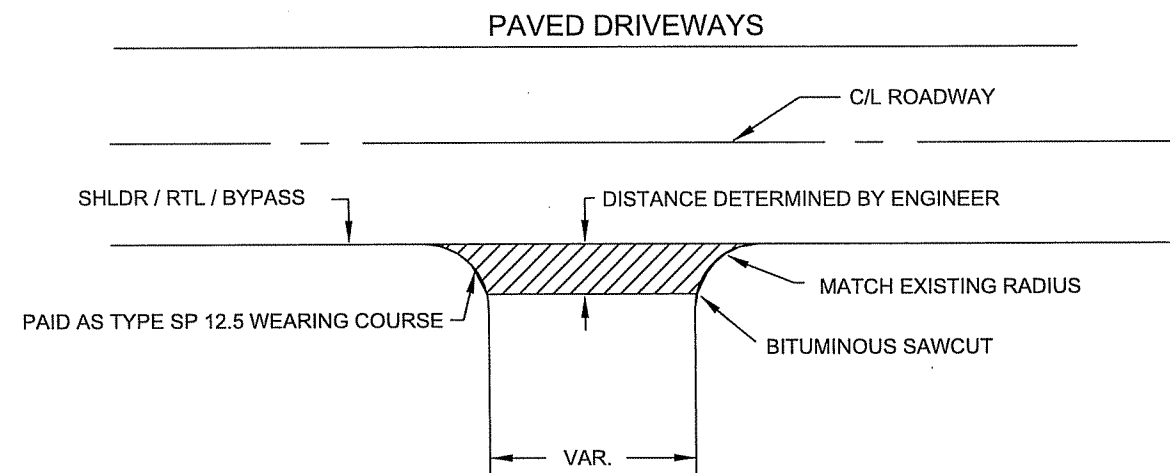
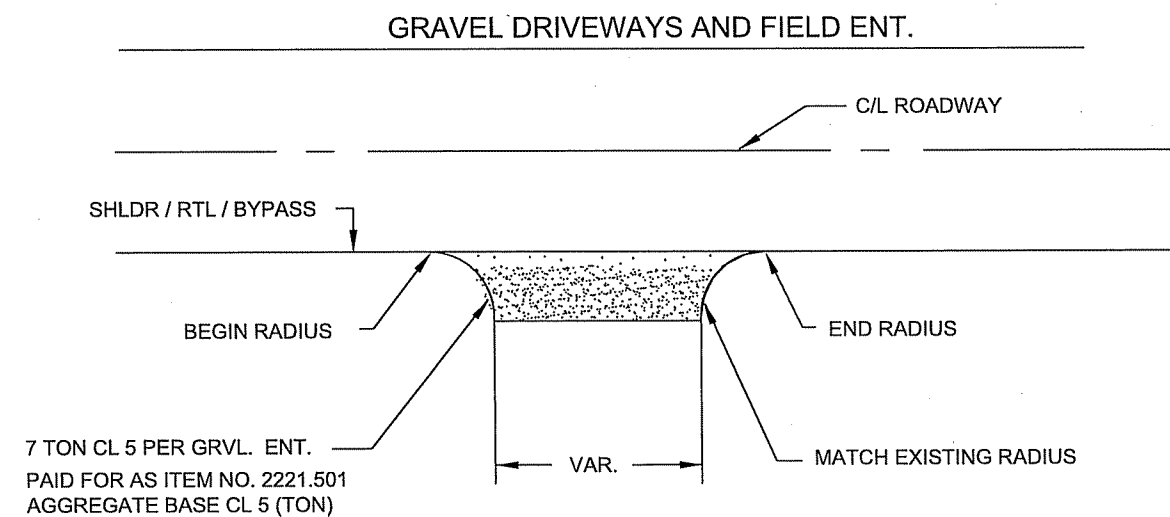
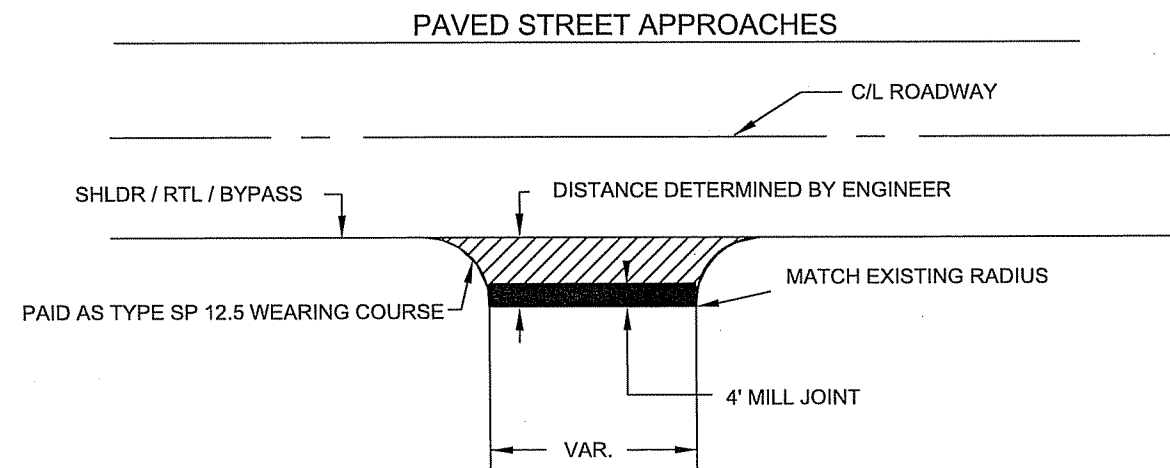
PRINT NAME: ANDREW WITTER
SIGNATURE: *[Signature]*
DATE: *[Date]* LICENSE NO. 42757

DRAWN BY: NJD DATE: 4-3-13
DESIGN BY: NJD DATE: 4-3-13
CHECKED BY: GMP DATE: ***



ANOKA COUNTY
HIGHWAY DEPT.

002-622-033



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_MDET_1.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: ANDREW WITTER

SIGNATURE: *Andrew Witter*

DATE: 4/11/2013 LICENSE NO. 42757

DRAWN BY JEF DATE 4/1/2011

DESIGN BY NJD DATE 4/11/2013

CHECKED BY GMP DATE 4/11/2013



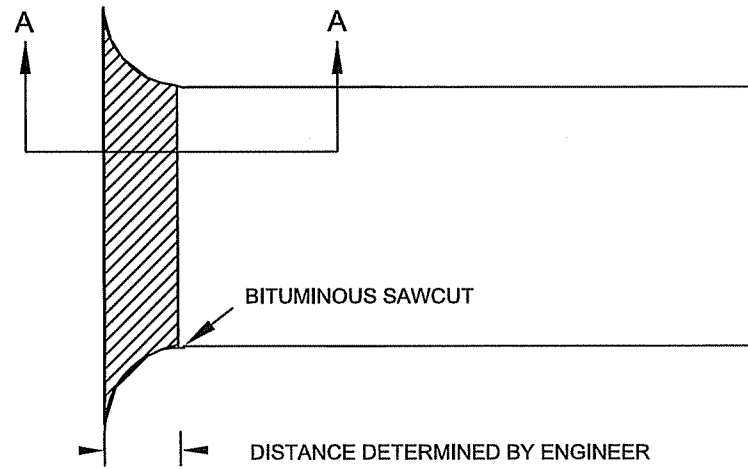
002-622-033

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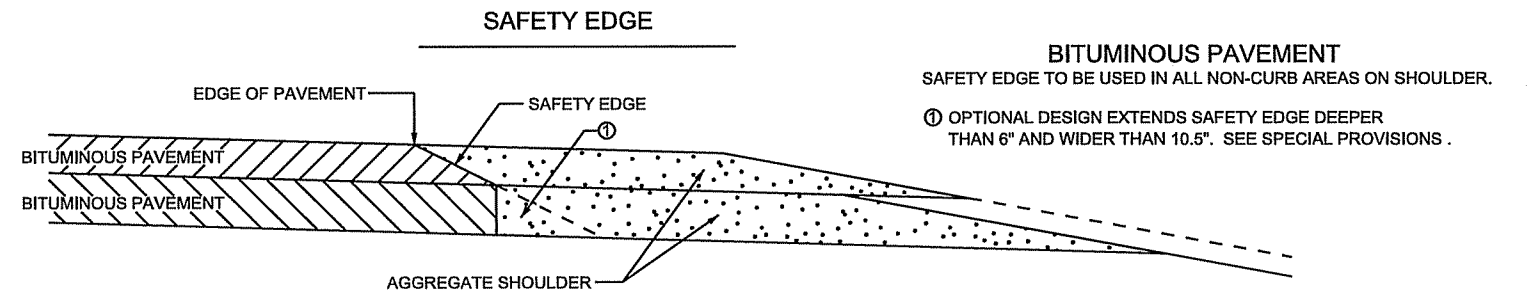
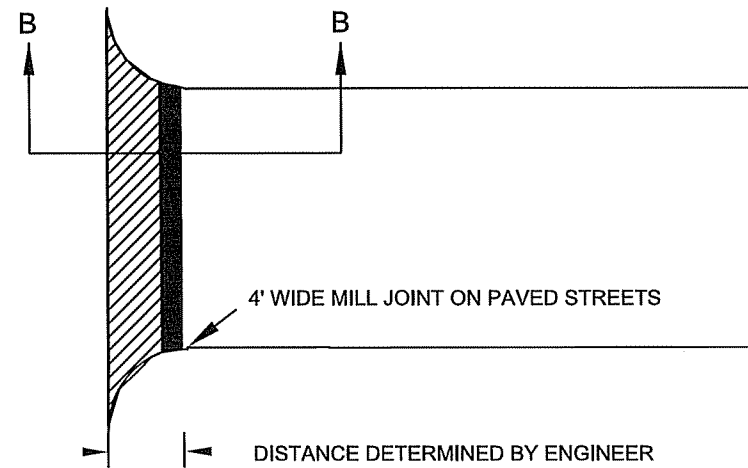
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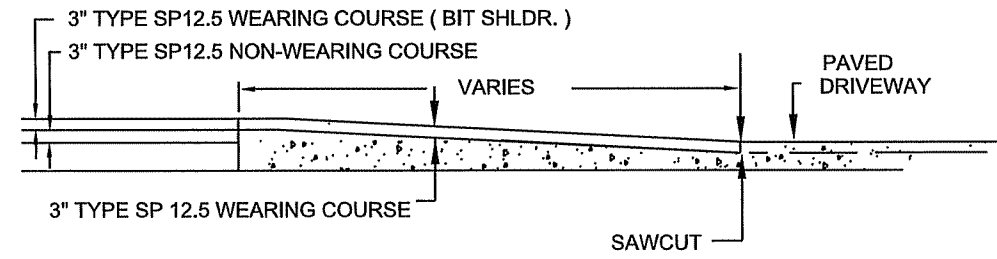
PAVED DRIVEWAYS
JOINT DETAILS



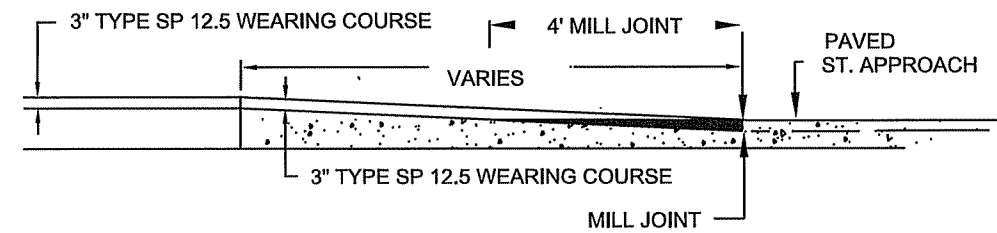
PAVED STREETS
JOINT DETAILS



DRIVEWAY JOINT DETAILS A - A

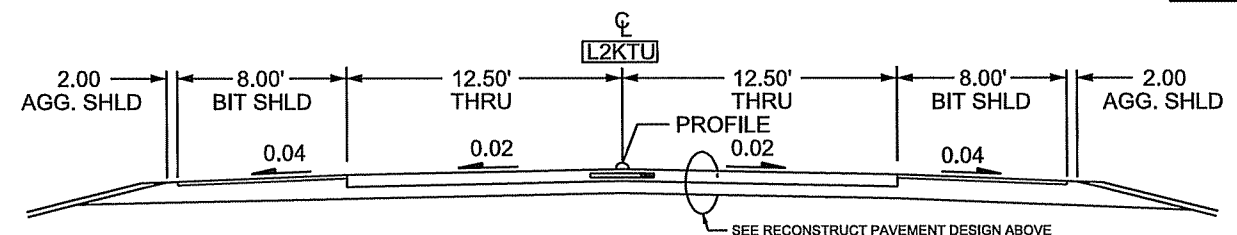
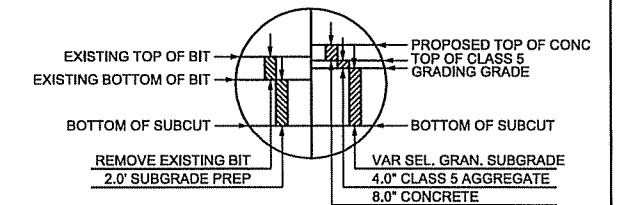


STREET APPROACH JOINT DETAILS B - B



C.S.A.H. 22
RECONSTRUCT SECTION
STA. 98+50- STA. 111+15

RECONSTRUCT
PAVEMENT DESIGN



NO	DATE	BY	CHK	APPR	REVISION
NAME: P:\02-622-33\Plan\0262233_MDET_1.dgn					
06/14/2013 9:17:28 AM					

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: ANDREW WITTER

SIGNATURE: *[Signature]*

DATE: *[Signature]* LICENSE NO. 42757

DRAWN BY JEF DATE 4/1/2011

DESIGN BY NJD DATE 4/11/2013

CHECKED BY GMP DATE 4/11/2013

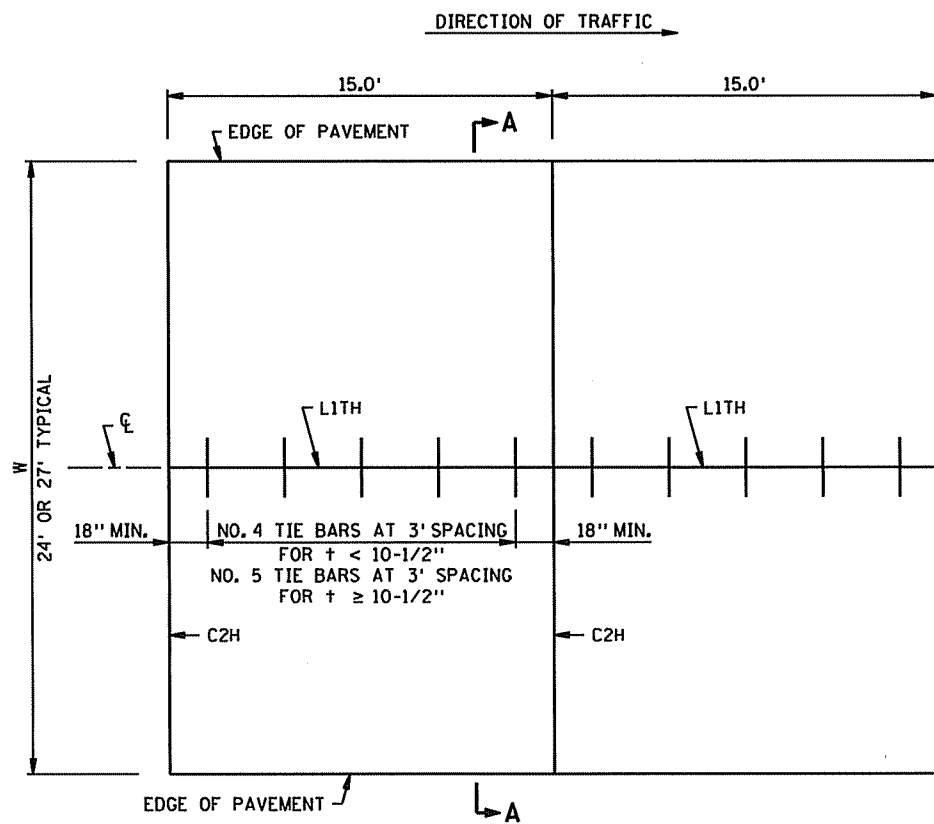


ANOKA COUNTY
HIGHWAY DEPT.

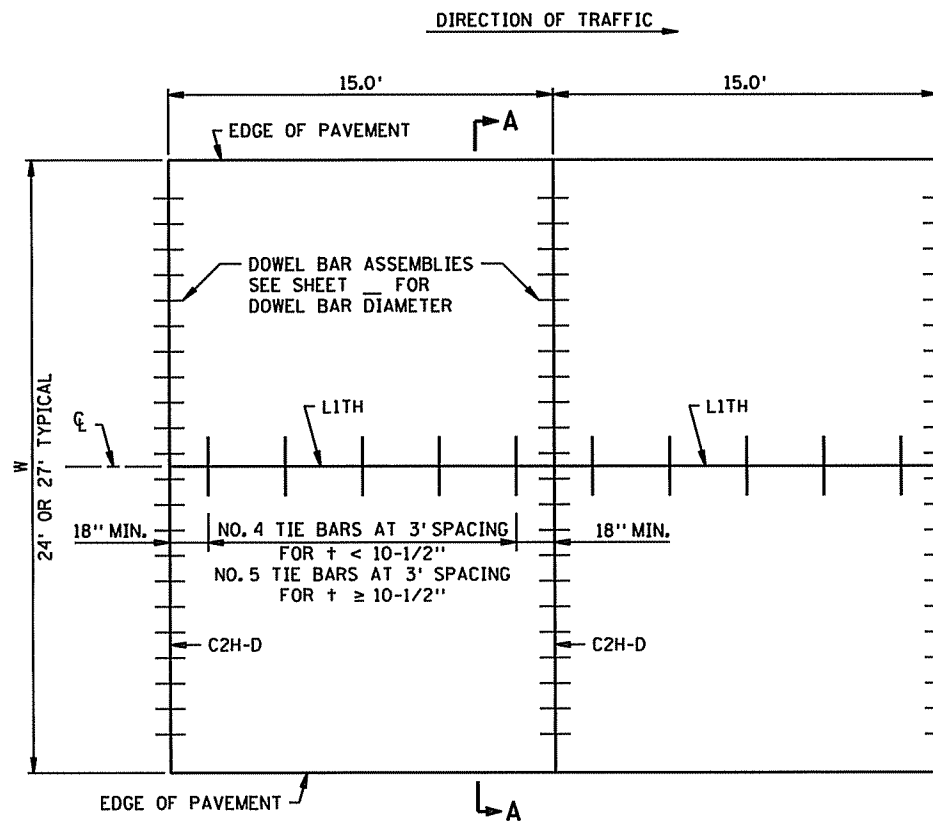
002-622-033

MISC. DETAILS

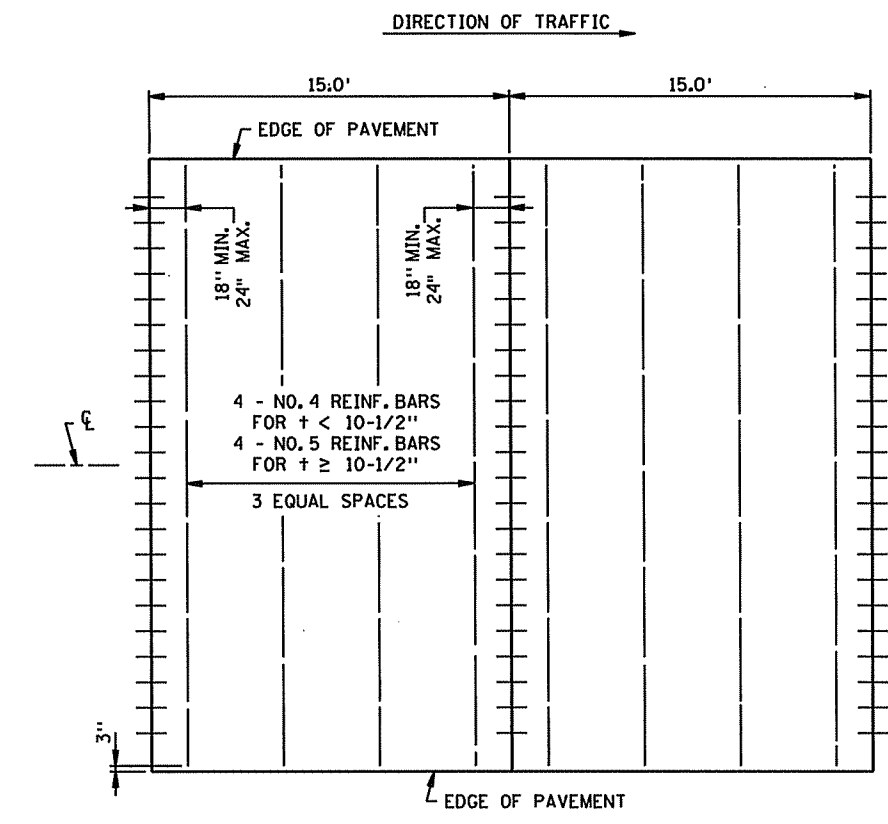
PLOTTED/REVISED:
 \$\$\$@DATE@\$\$\$



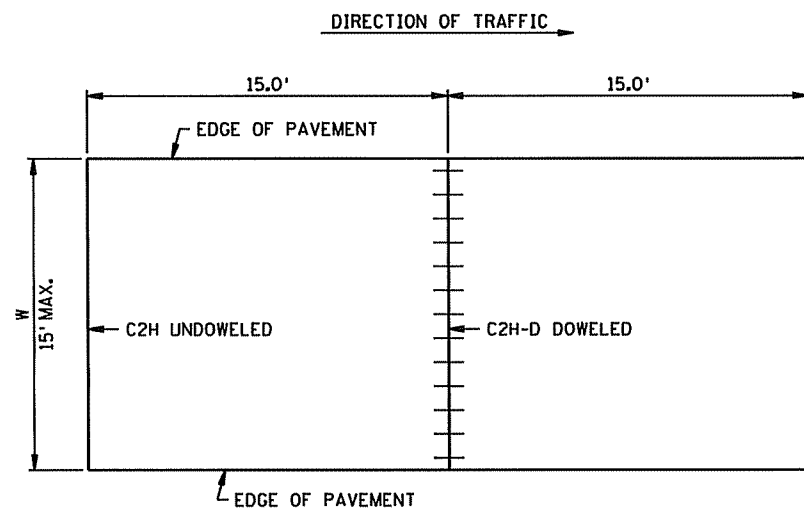
MAINLINE PAVEMENT
 UNDOWELED



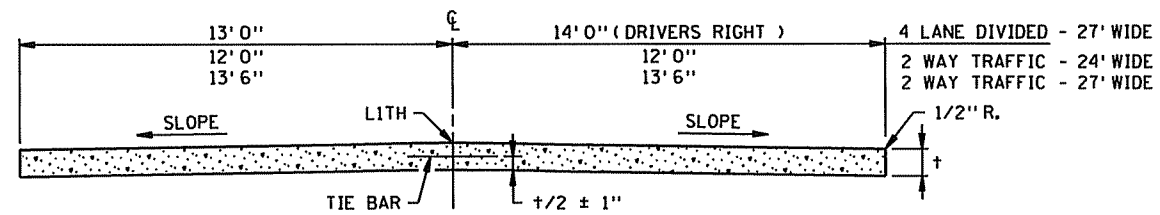
MAINLINE PAVEMENT
 DOWELED



PANEL REINFORCEMENT



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



SECTION A-A

GENERAL NOTES:

- 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.

DISTRICT #: \$@DISTRICT@
 USER NAME: \$\$@USER\$NAME@\$\$
 PATH & FILENAME: \$\$\$@PATH\$FILENAME@\$\$\$

FILE NAME:
 @FILENAME@

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

CONCRETE MAINLINE PAVEMENT
 15.0 FT. PANEL LENGTH
 RURAL

REVISION DATE
 3-22-2013

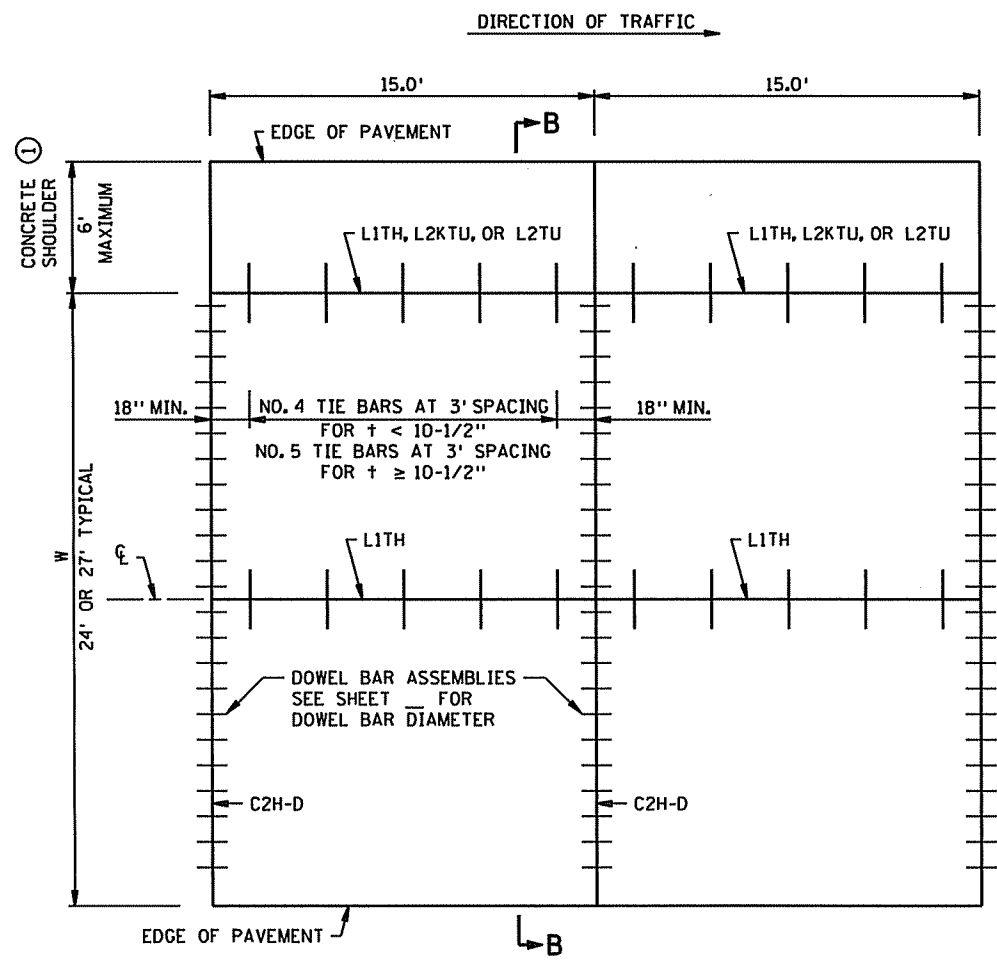
S.P. 002-622-033

SHEET NO. 13 OF 48 SHEETS

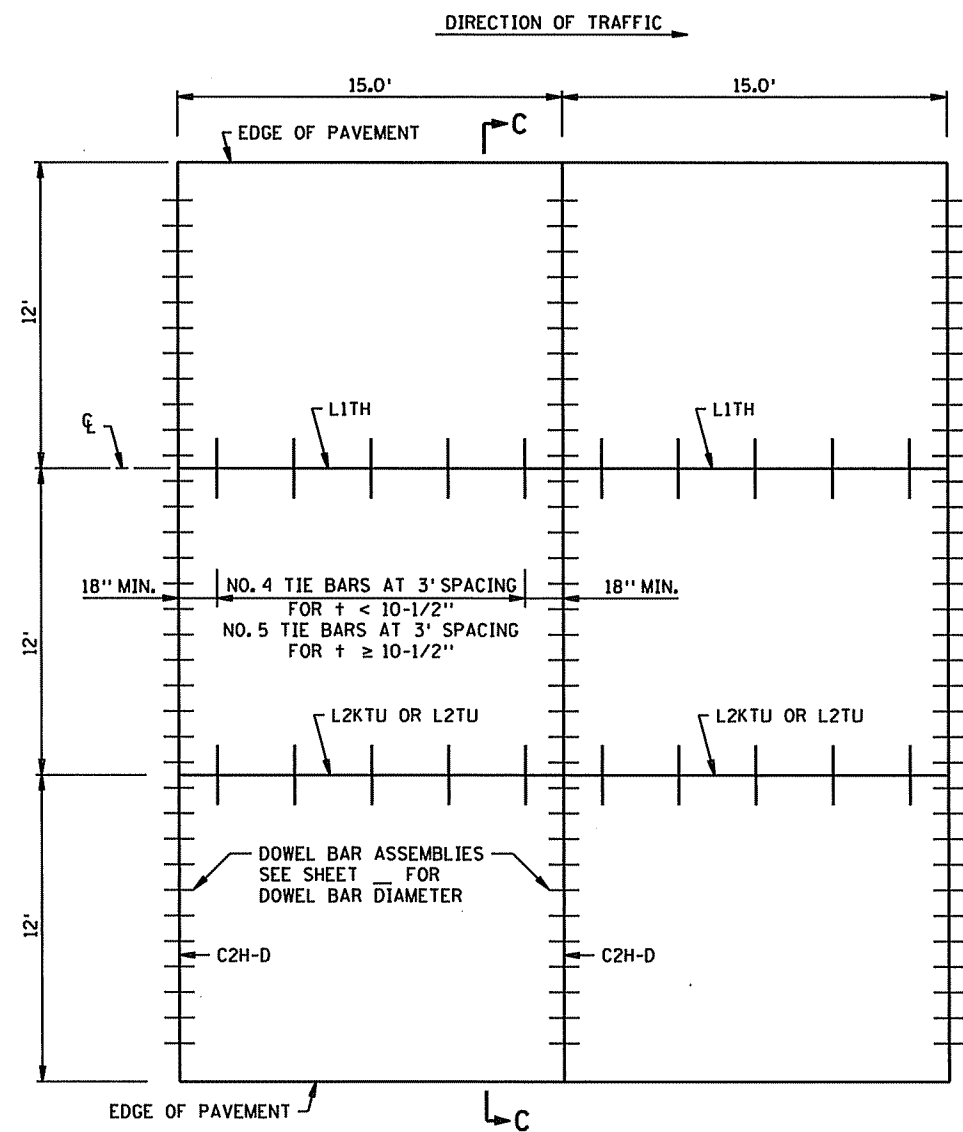
PLOTTED/REVISED:
\$\$\$\$@DATE\$\$\$\$

DISTRICT #: \$@DISTRICT@
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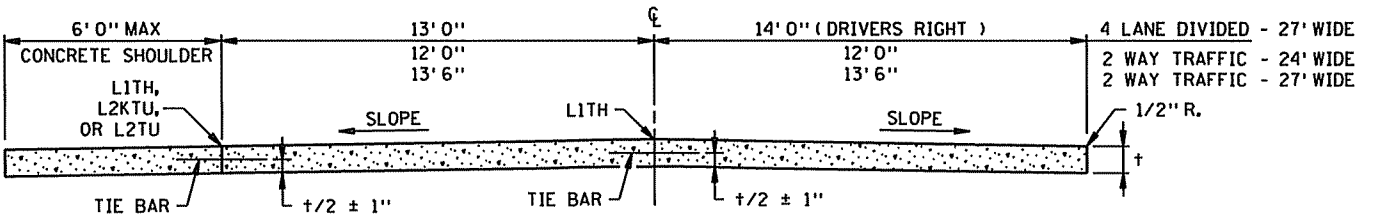
FILE NAME:
@FILENAME@



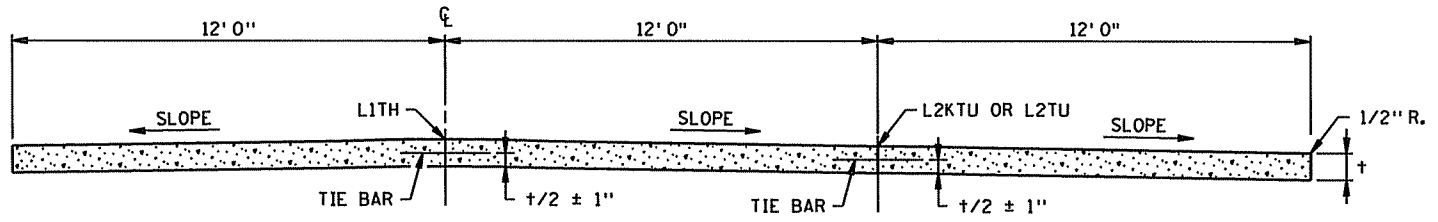
**MAINLINE PAVEMENT WITH
INSIDE CONCRETE SHOULDER**
DOWELED



MAINLINE PAVEMENT URBAN
DOWELED



SECTION B-B



SECTION C-C

GENERAL NOTES:

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.

① CONTACT THE CONCRETE ENGINEER TO DISCUSS WHETHER TIE BARS AND SAWED JOINTS ARE NEEDED BASED ON CONCRETE SHOULDER WIDTH AND DEPTH.

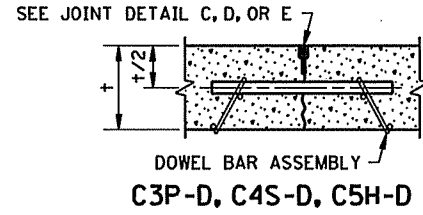
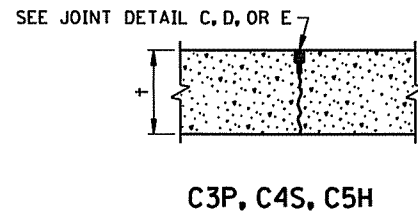
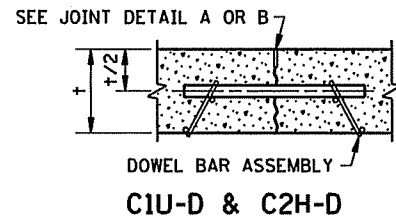
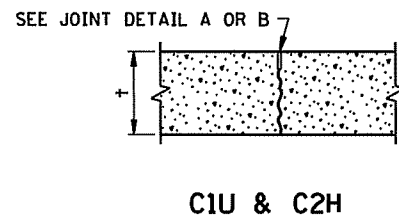
STANDARD SHEET NO. 5-297.217 (2 OF 2)	TITLE:
STANDARD APPROVED: APRIL 14, 2010	

CONCRETE MAINLINE PAVEMENT
15.0 FT. PANEL LENGTH
URBAN OR CONCRETE SHOULDERS

REVISION DATE
3-22-2013

S.P. 002-622-033

SHEET NO. 14 OF 48 SHEETS



CONTRACTION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE

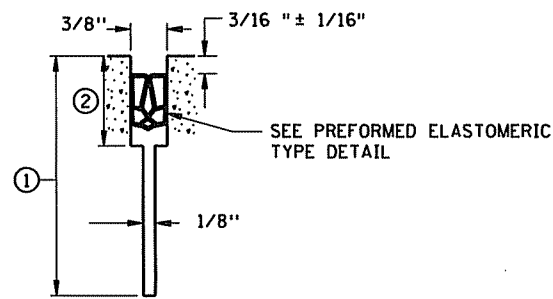
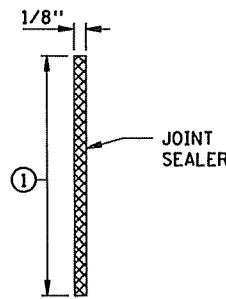
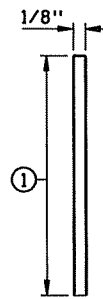
JOINT REFERENCE WITHOUT DOWELS	JOINT REFERENCE WITH DOWELS	JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH
C1U	C1U-D	A	UNSEALED	1/8"
C2H	C2H-D	B	3725	1/8"
C3P	C3P-D	C	3721	3/8"
C4S	C4S-D	D	3722	3/8"
C5H	C5H-D	E	3725	3/8"

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

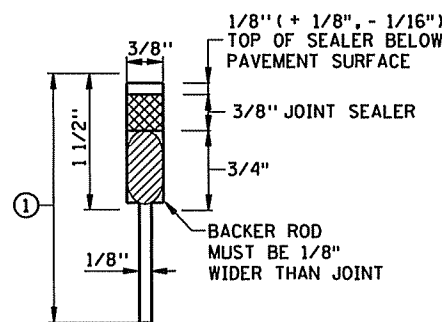
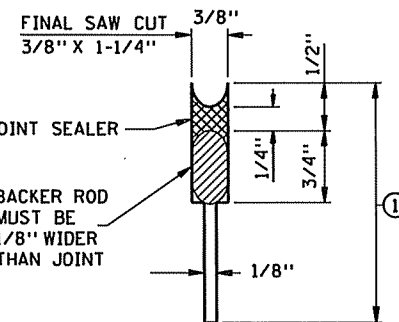
PAVEMENT THICKNESS +	DOWEL BAR DIAMETER
LESS THAN 6"	NONE
6" - 6 1/2"	1"
7" - 10"	1 1/4"
10 1/2" - 14"	1 1/2"



NOTES:

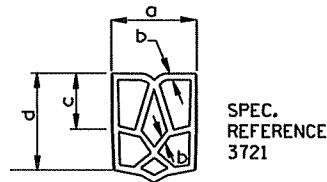
SEE STANDARD PLATE 1103 FOR DOWEL BAR ASSEMBLY.
 SEE STANDARD PLATE 1150 FOR CONSTRUCTION OF HEADER JOINTS.
 JOINT WIDTH TOLERANCE IS + 1/16" TO - 1/32"
 FURNISH AND INSTALL ALL JOINT SEALER IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
 SEE STANDARD PLANS 5-297.217 AND 5-297.219, FOR CONCRETE 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.



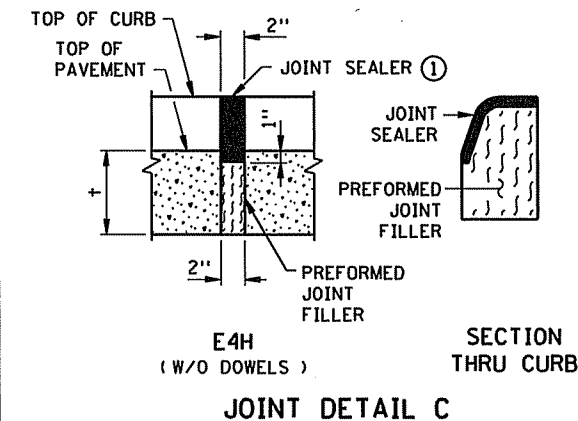
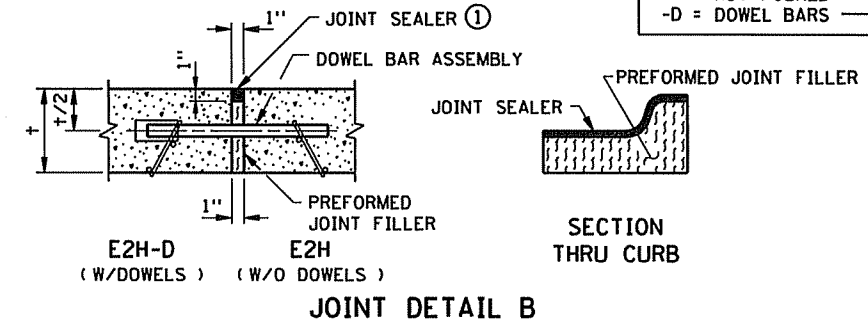
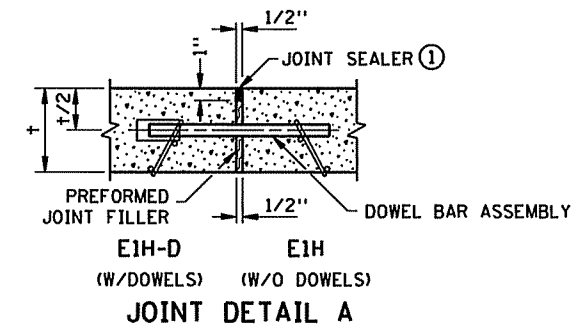
REQUIRED DIMENSIONS

JOINT TYPE	TRANSVERSE NOMINAL SEALER SIZE
a	0.69" + 0.13" - 0.05"
b	0.08" ± 0.02"
c	0.25" MIN.
d	0.63" MIN.



PREFORMED ELASTOMERIC TYPE DETAIL

CONTRACTION JOINTS DESIGN C

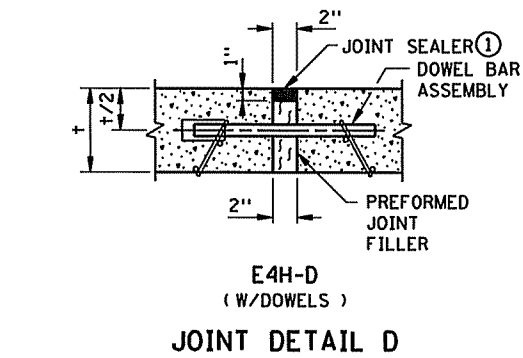
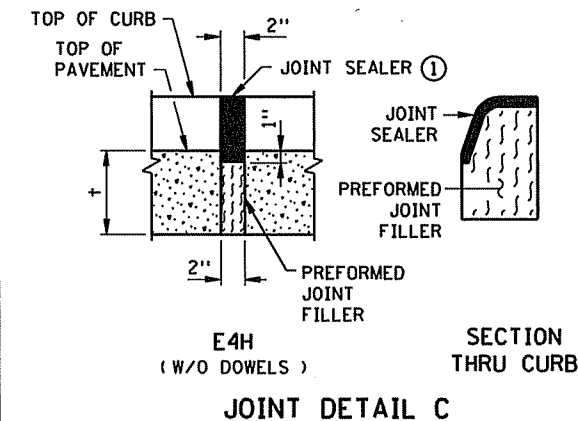
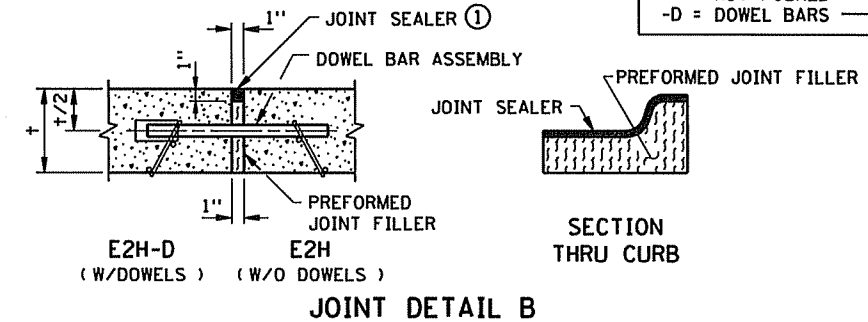


EXPANSION JOINT REFERENCE, DETAIL & SEALER SPEC. TABLE

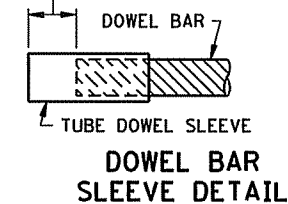
JOINT REFERENCE WITHOUT DOWELS	JOINT REFERENCE WITH DOWELS	JOINT DETAIL	JOINT SEALER SPEC.	JOINT WIDTH
E1H	E1H-D	A	3725	1/2"
E2H	E2H-D	B	3725	1"
E4H		C	3725	2"
	E4H-D	D	3725	2"
E8H		STANDARD PLAN 5-297.229	3725	4"

LEGEND
 E = EXPANSION JOINT
 NO. = JOINT REFERENCE
 H = HOT POURED
 -D = DOWEL BARS

EXAMPLE
 E4H-D



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



NOTES:

- PREFORMED JOINT FILLER MATERIAL, SPEC. 3702.
 FOR DOWEL BAR ASSEMBLY, SEE STANDARD PLATE 1103.
- 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

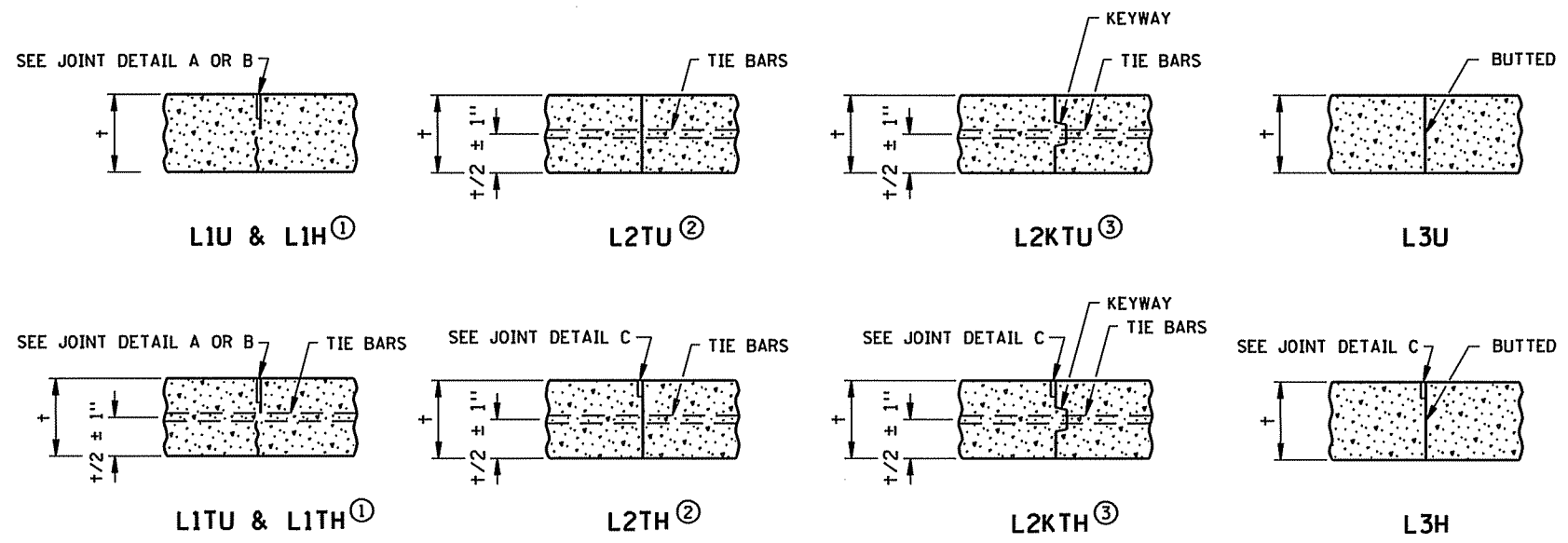
STANDARD SHEET NO. 5-297.221 (1 OF 2)
 STANDARD APPROVED: APRIL 14, 2010

TITLE: **PAVEMENT JOINTS**
 CONTRACTION (DESIGN C) AND EXPANSION (DESIGN E)

PLOTTED/REVISED: \$\$\$@DATE@\$\$\$

DISTRICT #: \$\$\$@DISTRICT@
 USER NAME: \$\$\$@USER#NAME@
 PATH & FILENAME: \$\$\$@PATH#FILENAME@\$\$\$

FILE NAME: @FILENAME@



TIEBAR TABLE

PAVEMENT THICKNESS	TIEBAR SIZE	LENGTH
< 10-1/2"	NO. 4	30"
≥ 10-1/2"	NO. 5	36"
ALL THICKNESS WHEN TYING TO CURB AND GUTTER	NO. 4	30"

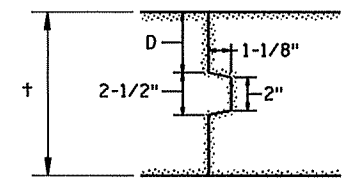
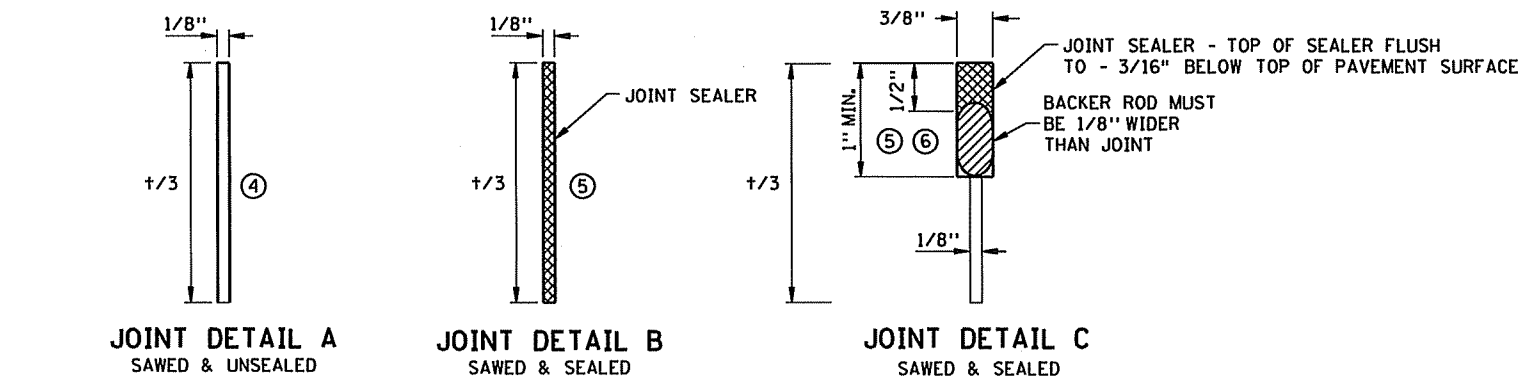
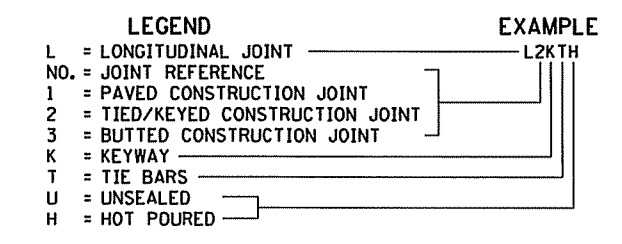
THE TIE BAR SPACING FOR ALL L2T AND L2KT JOINTS SHALL BE 3'-0" CENTER TO CENTER AND BENT 60° AS SHOWN, EXCEPT WHEN NOTED OTHERWISE IN THE PLANS.

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. 4 X 2' - 6", WHEN TYING CURB & GUTTER TO PAVEMENT.

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

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"

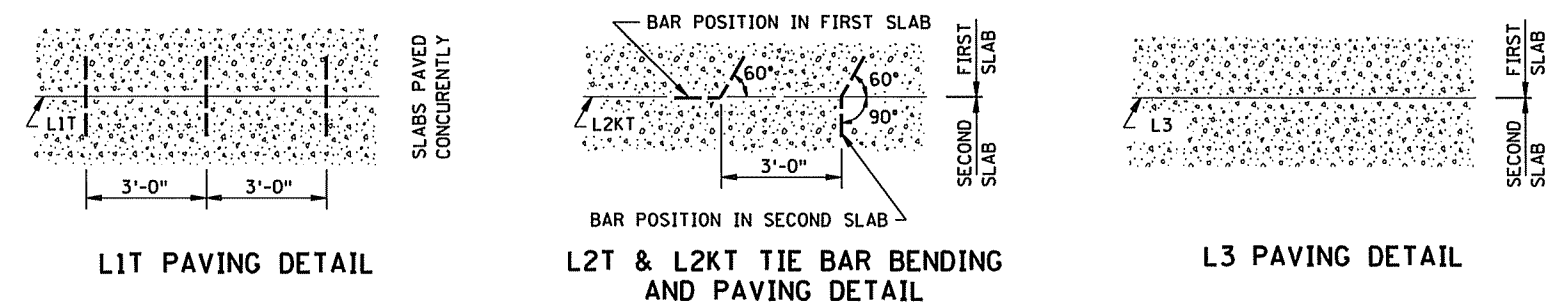


PAVEMENT KEYWAY DETAIL

KEYWAY DIMENSION TABLE

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

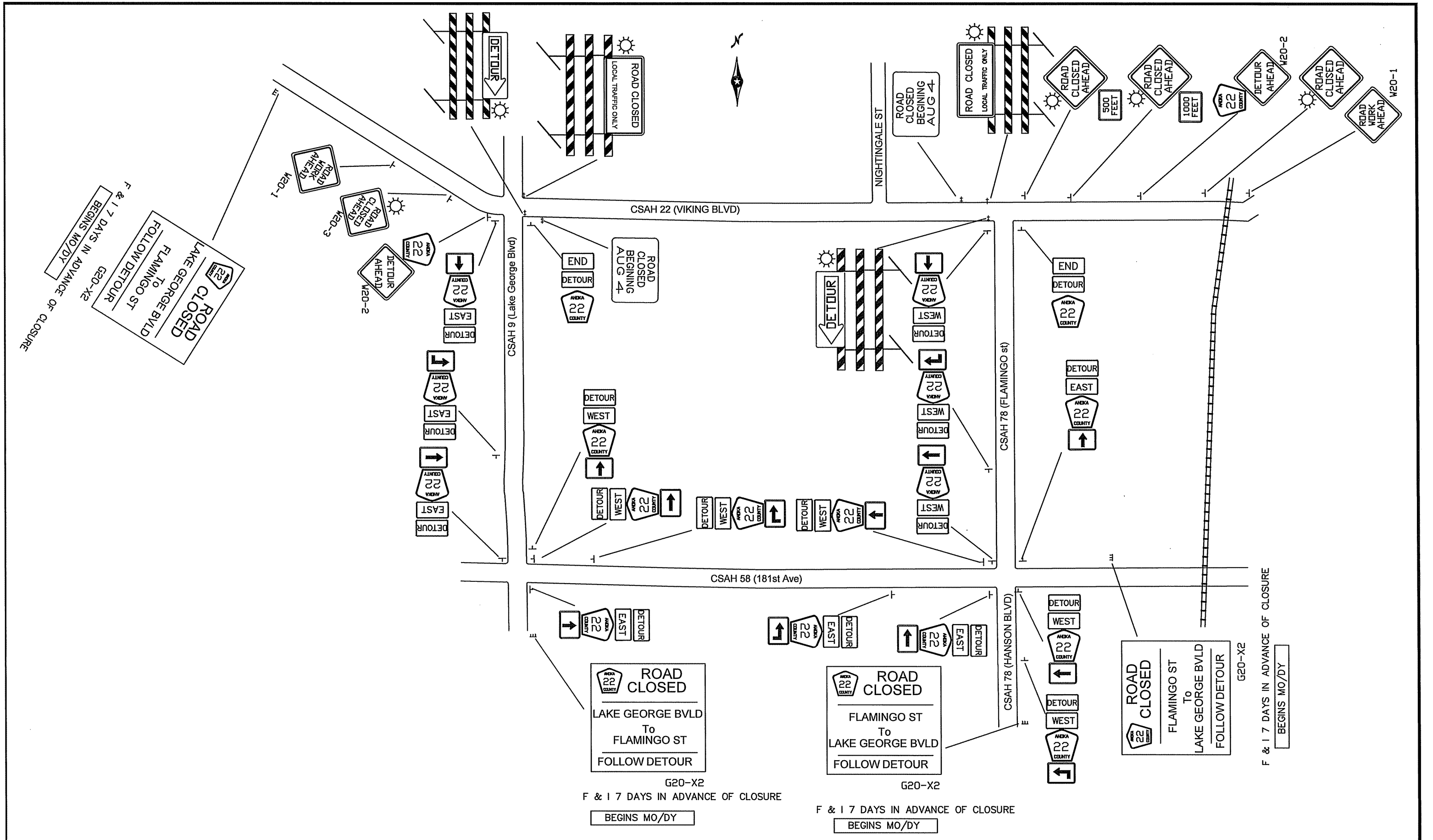
KEYWAY (1-1/8" x 2" x 2-1/2") MAY BE FORMED WITH MOLD OR METAL FORM. OTHER APPROVED KEYWAY SHAPES GIVING EQUIVALENT CONSTRUCTION FEATURES MAY BE USED WITH APPROVAL OF THE ENGINEER.



- 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.
- SEE THE LONGITUDINAL JOINT REFERENCE, DETAIL & SEALER SPECIFICATION TABLE TO DETERMINE JOINT DETAIL.
 - CONCRETE PAVEMENTS LESS THAN 7" SHALL USE L2TU AND L2TH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.
 - CONCRETE PAVEMENTS GREATER THAN OR EQUAL TO 7" SHALL USE L2KTU AND L2KTH JOINTS UNLESS OTHERWISE ALLOWED BY THE ENGINEER.
 - THE JOINT FACES SHALL BE CLEANED WITH WATER DURING THE SAW CUTTING OPERATION OR BY WATER BLASTING AFTER SAWING.
 - THE JOINT FACES SHALL BE CLEANED AND DRIED BY SANDBLASTING AND AIR BLASTING.
 - 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
 REVISION DATE 3-22-2013

TITLE: PAVEMENT JOINTS
 LONGITUDINAL (DESIGN L)
 SHEET NO. 16 OF 48 SHEETS



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: **ANDREW WITTER**
 SIGNATURE: *[Signature]*
 DATE: **3/21/13** LICENSE NO. **42757**

DRAWN BY: **RB** DATE: **3/21/13**
 DESIGN BY: **RB** DATE: **3/21/13**
 CHECKED BY: **JR** DATE: **3/21/13**

ANOKA COUNTY
HIGHWAY DEPT.

S.P. 002-622-033

DETOUR PLAN
 Sheet 17 of 48 Sheets

M.U.T.C.D. CODE	SIZE	INSERT	QUANTITY
M1-6A	24" x 24"		• 2
W20-2	48" x 48"		• 2
W20-3	48" x 48"		• 4
W20-100P	24" x 18"		• 1
W20-100P	24" x 18"		• 1
M4-10R	48" x 18"		• 1
TYPE III	8 FOOT		
M4-10L	48" x 18"		• 1
TYPE III	8 FOOT		
R11-3	48" x 30"		• 1
TYPE III	8 FOOT		
R11-3	48" x 30"		• 1
TYPE III	8 FOOT		
G20-X1	60" x 48"		• 2

G20-X1 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.

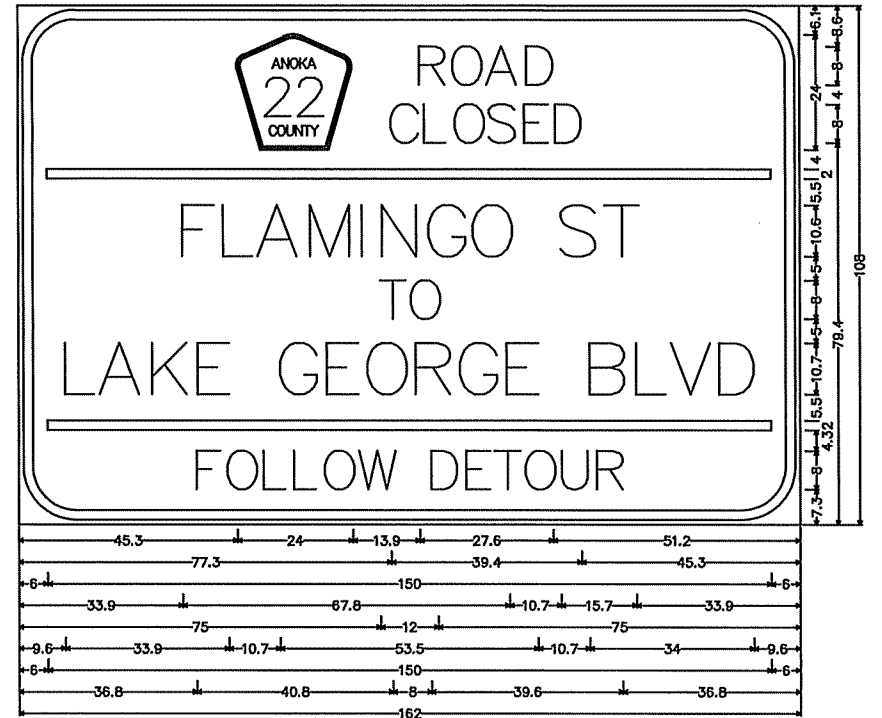
M.U.T.C.D. CODE	SIZE	INSERT	QUANTITY
G20-X2	132" x 108"		• 1
G20-X2	132" x 108"		• 2
M4-8A	24" x 12"		• 0
M3-4A	24" x 12"		• 0
M1-6A	24" x 24"		• 2
	21" x 15"		• 2
			• 2
			• 3
M4-8A	24" x 12"		• 2
M3-2A	24" x 12"		• 2
M1-6A	24" x 24"		• 1
	21" x 15"		• 1
			• 1
			• 3
M4-6A	24" x 12"		• 2
M4-8A	24" x 12"		• 2
M1-6A	24" x 24"		• 2

INSTALL G20-X2 SIGNS 7 DAYS PRIOR WITH "BEGIN/DATE" PLATE; REMOVE PLATE AT START DATE OF CONSTRUCTION SO SIGN READS "FOLLOW DETOUR".

- NOTES:
- 1) ALL BARRICADES SHALL BE PROPERLY WEIGHTED WITH SANDBAGS.
 - 2) ALL BARRICADES SHALL HAVE REFLECTIVE MATERIAL ON BOTH SIDES.
 - 3) ALL BARRICADE MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE FIELD MANUAL DATED JANUARY, 1998
 - 4) 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, 1998
 - 5) ADDITIONS OR CHANGES TO THIS PLAN MAY BE MADE AS DETERMINED BY THE ENGINEER.



G20-X2_132x108; 12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange; [ROAD] D; [CLOSED] D; [LAKE GEORGE BLVD] D; [TO] D; [FLAMINGO ST.] D; [FOLLOW] D; [DETOUR] D;



G20-X2_132x108; 12.0" Radius, 2.0" Border, 1.0" Indent, Black on Orange; [ROAD] D; [CLOSED] D; [FLAMINGO ST] D; [TO] D; [LAKE GEORGE BLVD] D; [FOLLOW] D; [DETOUR] D;

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-622-32\Base\TRAFFIC\0262232 Detour.dwg

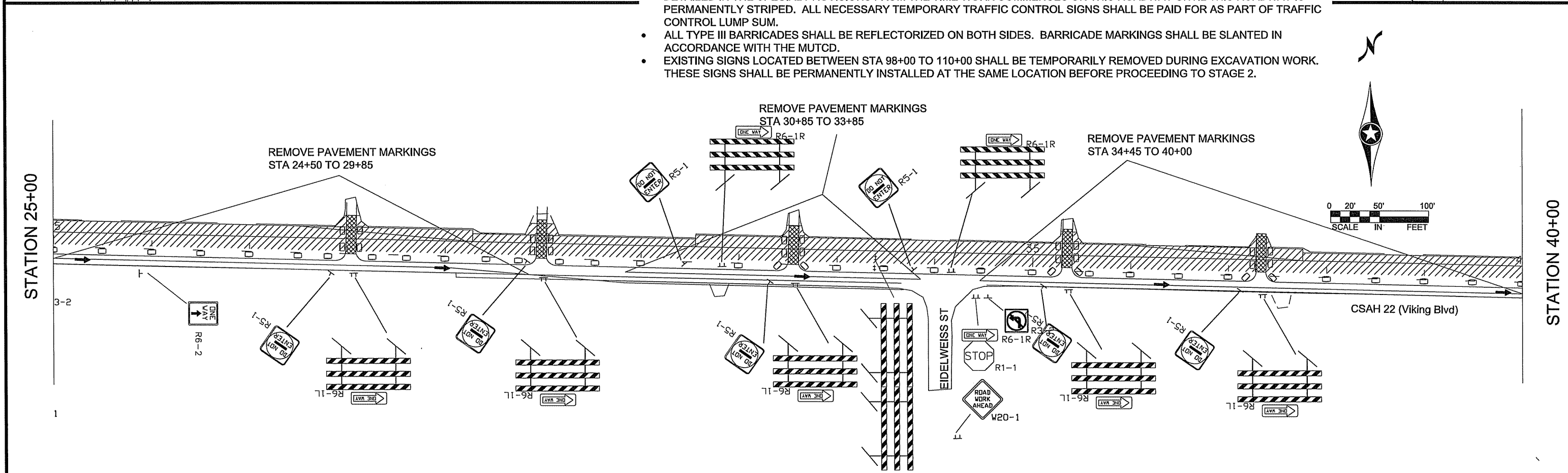
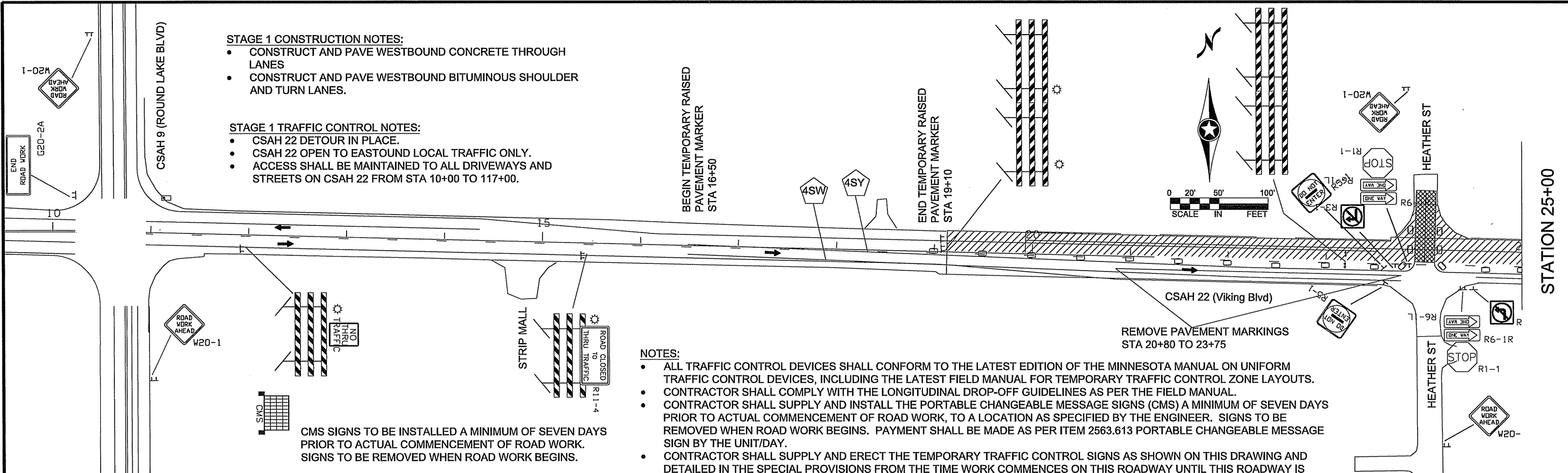
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: ANDREW WITTER
 SIGNATURE:
 DATE: 6/13/13 REG. NO. 42757

DRAWN BY: RB DATE: 3/21/13
 DESIGN BY: RB DATE: 3/21/13
 CHECKED BY: JR DATE: 3/21/13

ANOKA COUNTY
 HIGHWAY DEPT.

S.P. 002-622-033

DETOUR
 QUANTITIES
 Sheet 18 of 48 Sheets



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: <u>ANDREW WITTER</u> SIGNATURE: <u>[Signature]</u> DATE: <u>4/11/13</u> REG. NO. <u>42757</u>					DRAWN BY: <u>MTH</u> DATE: <u>04/12/13</u> DESIGN BY: <u>MTH</u> DATE: <u>04/12/13</u> CHECKED BY: <u>RB</u> DATE: <u>04/22/13</u>		ANOKA COUNTY HIGHWAY DEPT.		STATE PROJECT NO. <u>002-622-033</u>		STAGE 1 TRAFFIC CONTROL	
NO DATE BY CKD APPR REVISION										Sheet <u>19</u> of <u>48</u> Sheets		

STAGE 1 CONSTRUCTION NOTES:

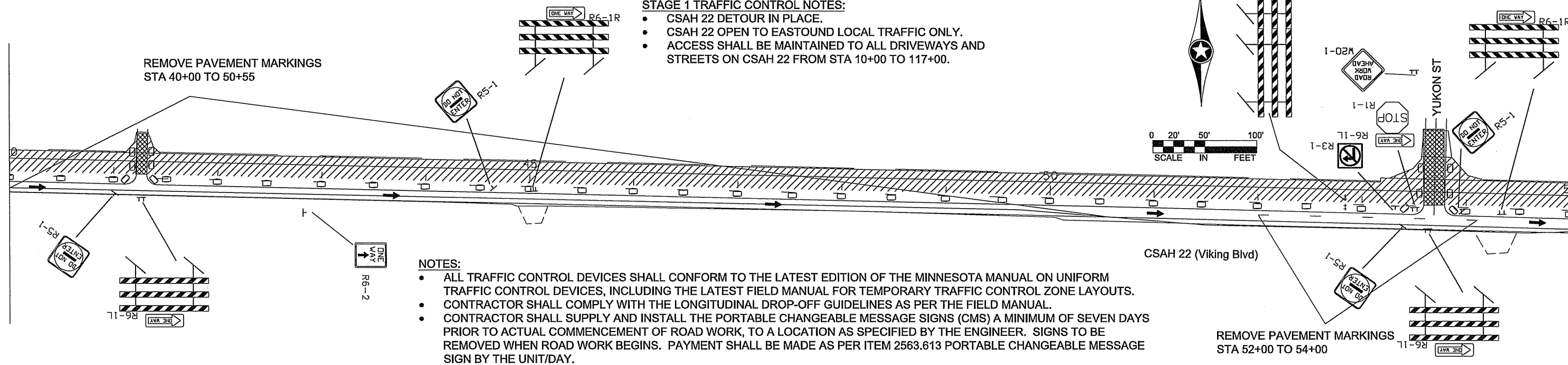
- CONSTRUCT AND PAVE WESTBOUND CONCRETE THROUGH LANES
- CONSTRUCT AND PAVE WESTBOUND BITUMINOUS SHOULDER AND TURN LANES.

STAGE 1 TRAFFIC CONTROL NOTES:

- CSAH 22 DETOUR IN PLACE.
- CSAH 22 OPEN TO EASTBOUND LOCAL TRAFFIC ONLY.
- ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS AND STREETS ON CSAH 22 FROM STA 10+00 TO 117+00.

STATION 40+00

REMOVE PAVEMENT MARKINGS
STA 40+00 TO 50+55



STATION 55+00

CSAH 22 (Viking Blvd)

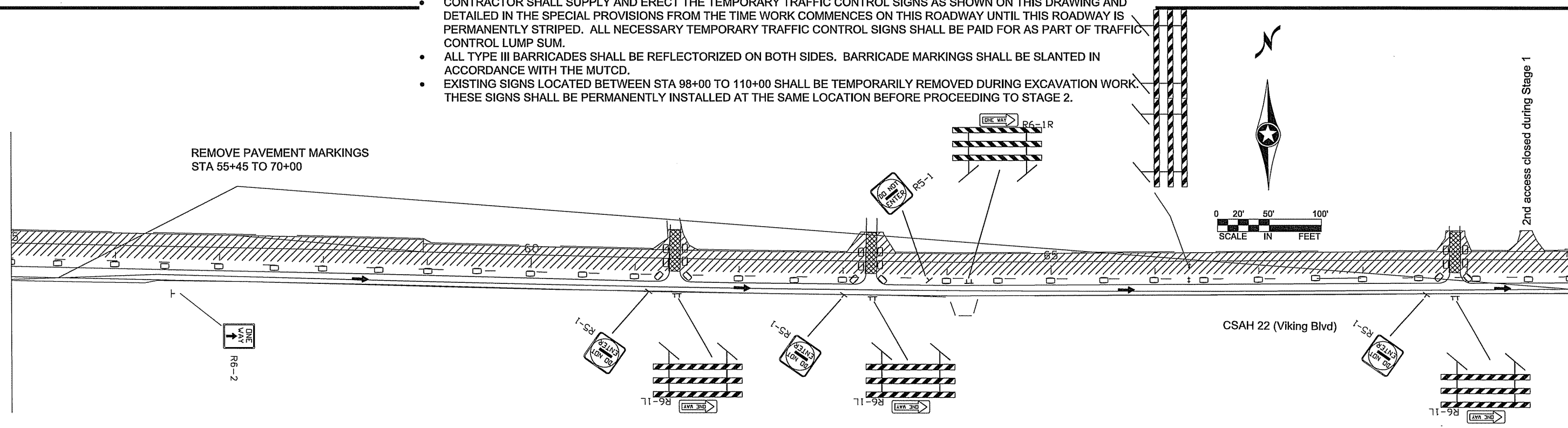
REMOVE PAVEMENT MARKINGS
STA 52+00 TO 54+00

NOTES:

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
- CONTRACTOR SHALL COMPLY WITH THE LONGITUDINAL DROP-OFF GUIDELINES AS PER THE FIELD MANUAL.
- CONTRACTOR SHALL SUPPLY AND INSTALL THE PORTABLE CHANGEABLE MESSAGE SIGNS (CMS) A MINIMUM OF SEVEN DAYS PRIOR TO ACTUAL COMMENCEMENT OF ROAD WORK, TO A LOCATION AS SPECIFIED BY THE ENGINEER. SIGNS TO BE REMOVED WHEN ROAD WORK BEGINS. PAYMENT SHALL BE MADE AS PER ITEM 2563.613 PORTABLE CHANGEABLE MESSAGE SIGN BY THE UNIT/DAY.
- CONTRACTOR SHALL SUPPLY AND ERECT THE TEMPORARY TRAFFIC CONTROL SIGNS AS SHOWN ON THIS DRAWING AND DETAILED IN THE SPECIAL PROVISIONS FROM THE TIME WORK COMMENCES ON THIS ROADWAY UNTIL THIS ROADWAY IS PERMANENTLY STRIPED. ALL NECESSARY TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE PAID FOR AS PART OF TRAFFIC CONTROL LUMP SUM.
- ALL TYPE III BARRICADES SHALL BE REFLECTORIZED ON BOTH SIDES. BARRICADE MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MUTCD.
- EXISTING SIGNS LOCATED BETWEEN STA 98+00 TO 110+00 SHALL BE TEMPORARILY REMOVED DURING EXCAVATION WORK. THESE SIGNS SHALL BE PERMANENTLY INSTALLED AT THE SAME LOCATION BEFORE PROCEEDING TO STAGE 2.

STATION 55+00

REMOVE PAVEMENT MARKINGS
STA 55+45 TO 70+00



STATION 70+00


CSAH 22 (Viking Blvd)

NO	DATE	BY	CKD	APPR	REVISION

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 PRINT NAME: **ANDREW WITTER**
 SIGNATURE: *[Signature]*
 DATE: **4/11/13** REG. NO. **42757**

DRAWN BY: **MTH** DATE: **04/12/13**
 DESIGN BY: **MTH** DATE: **04/12/13**
 CHECKED BY: **RB** DATE: **04/22/13**

ANOKA COUNTY
HIGHWAY DEPT.



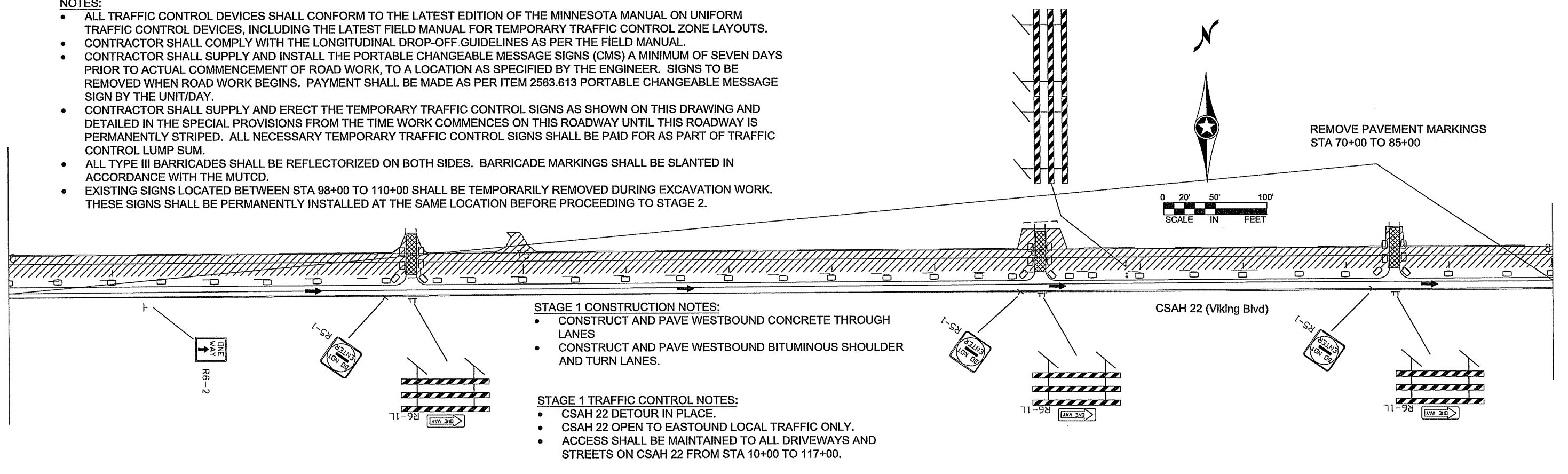
STATE PROJECT NO. **002-622-033**

STAGE 1
TRAFFIC CONTROL
 Sheet **20** of **48** Sheets

NOTES:

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
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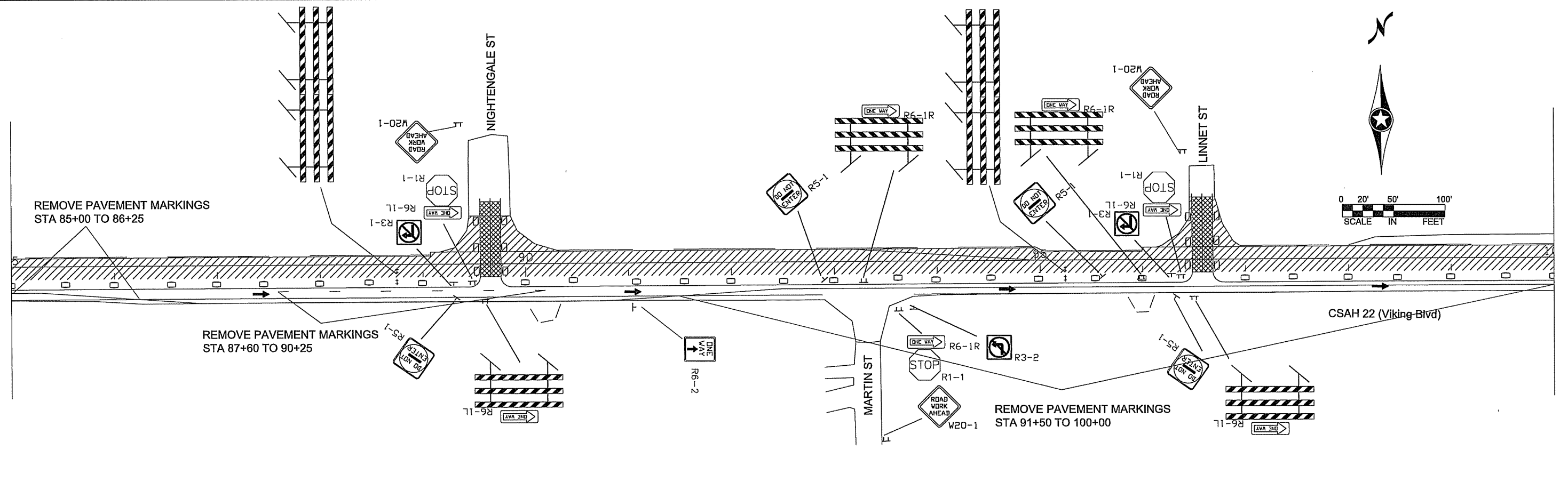
STATION 70+00



STATION 85+00

- STAGE 1 CONSTRUCTION NOTES:**
- CONSTRUCT AND PAVE WESTBOUND CONCRETE THROUGH LANES
 - CONSTRUCT AND PAVE WESTBOUND BITUMINOUS SHOULDER AND TURN LANES.
- STAGE 1 TRAFFIC CONTROL NOTES:**
- CSAH 22 DETOUR IN PLACE.
 - CSAH 22 OPEN TO EASTBOUND LOCAL TRAFFIC ONLY.
 - ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS AND STREETS ON CSAH 22 FROM STA 10+00 TO 117+00.

STATION 85+00



STATION 100+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: **ANDREW WITTER**

SIGNATURE: *[Signature]*

DATE: **6/7/13** REG. NO. **42757**

DRAWN BY: **MTH** DATE: **04/12/13**

DESIGN BY: **MTH** DATE: **04/12/13**

CHECKED BY: **RB** DATE: **04/22/13**

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. **002-622-033**

STAGE 1
TRAFFIC CONTROL

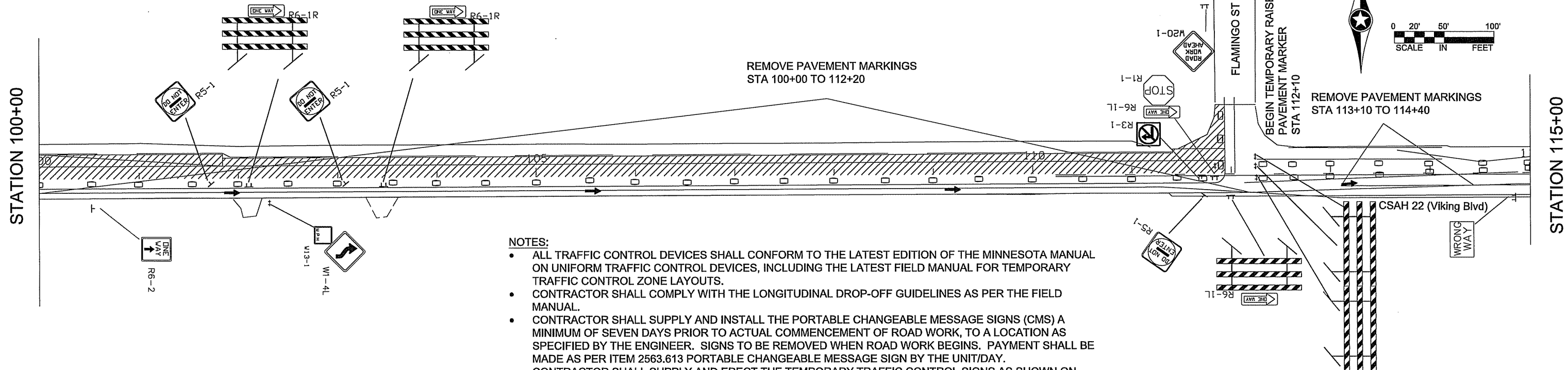
Sheet **21** of **48** Sheets

STAGE 1 CONSTRUCTION NOTES:

- CONSTRUCT AND PAVE WESTBOUND CONCRETE THROUGH LANES
- CONSTRUCT AND PAVE WESTBOUND BITUMINOUS SHOULDER AND TURN LANES.

STAGE 1 TRAFFIC CONTROL NOTES:

- CSAH 22 DETOUR IN PLACE.
- CSAH 22 OPEN TO EASTBOUND LOCAL TRAFFIC ONLY.
- ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS AND STREETS ON CSAH 22 FROM STA 100+00 TO 117+00.

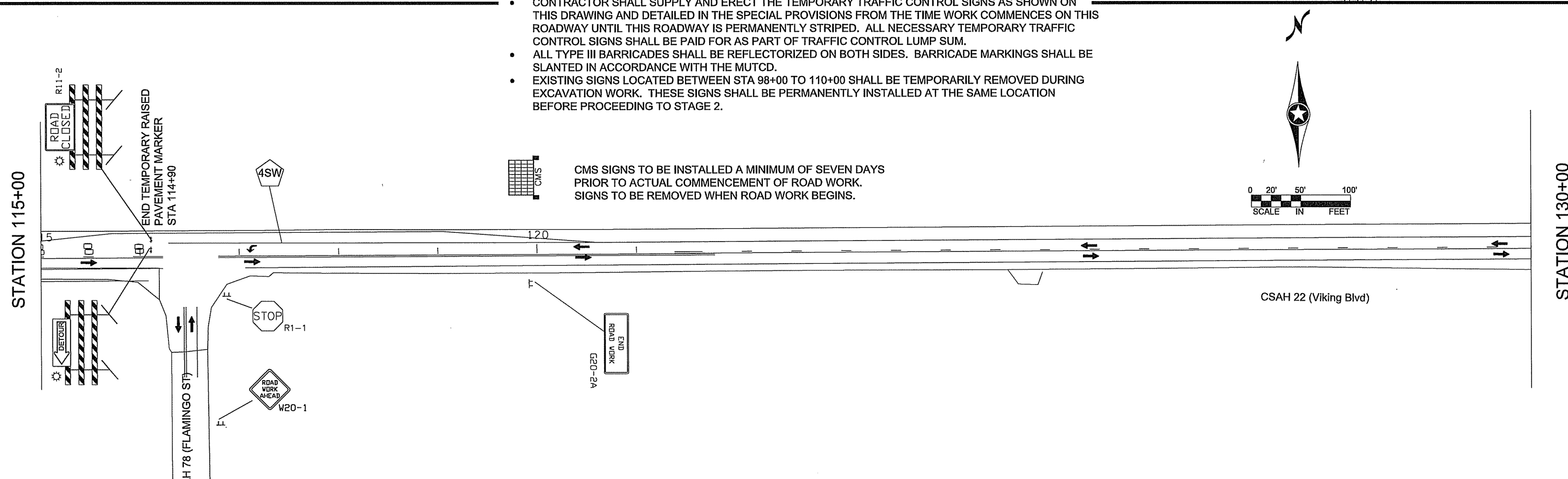


NOTES:

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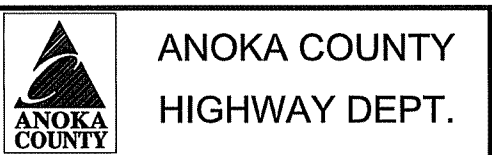
CMS SIGNS TO BE INSTALLED A MINIMUM OF SEVEN DAYS PRIOR TO ACTUAL COMMENCEMENT OF ROAD WORK. SIGNS TO BE REMOVED WHEN ROAD WORK BEGINS.



NO	DATE	BY	CKD	APPR	REVISION

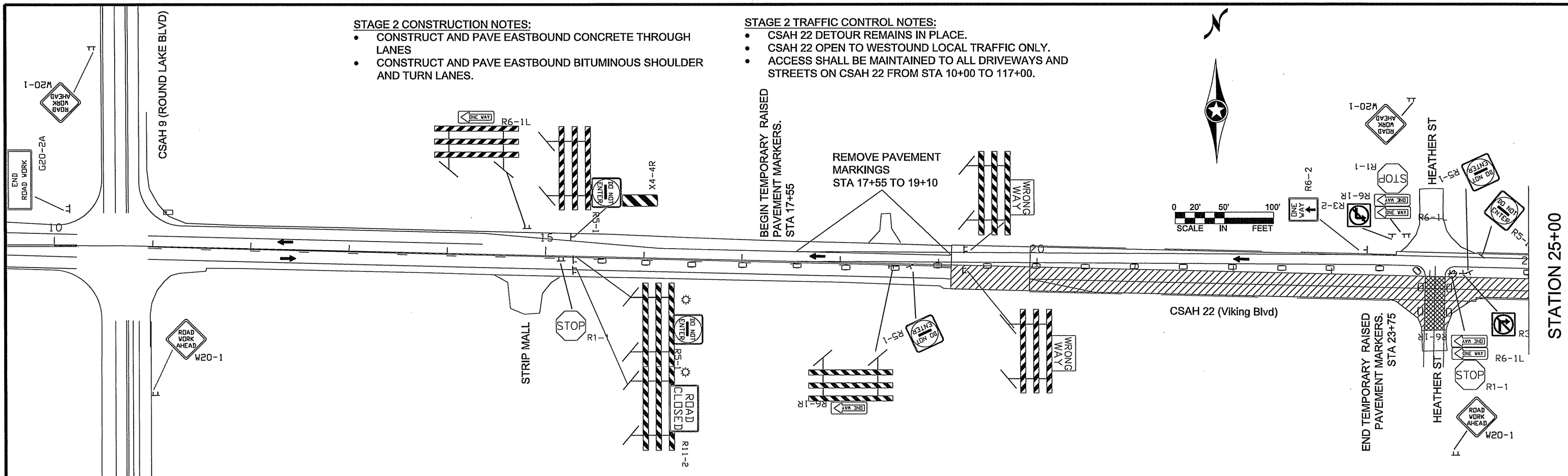
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 PRINT NAME: **ANDREW WITTER**
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DRAWN BY: **MTH** DATE: **04/12/13**
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 CHECKED BY: **RB** DATE: **04/22/13**



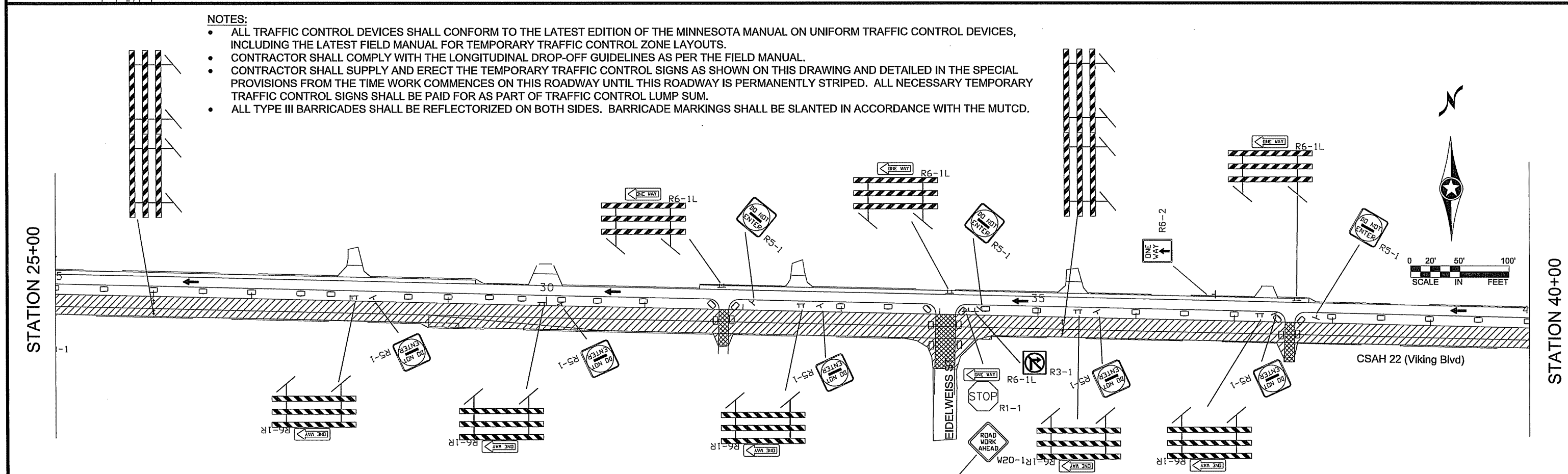
STATE PROJECT NO. **002-622-033**

STAGE 1 TRAFFIC CONTROL
 Sheet **22** of **48** Sheets



NOTES:

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
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 DATE: **6/17/13** REG. NO. **42757**

DRAWN BY: **MTH** DATE: **04/12/13**
 DESIGN BY: **MTH** DATE: **04/12/13**
 CHECKED BY: **JR** DATE: **05/10/13**

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. **002-622-033**

STAGE 2
TRAFFIC CONTROL
 Sheet **23** of **48** Sheets

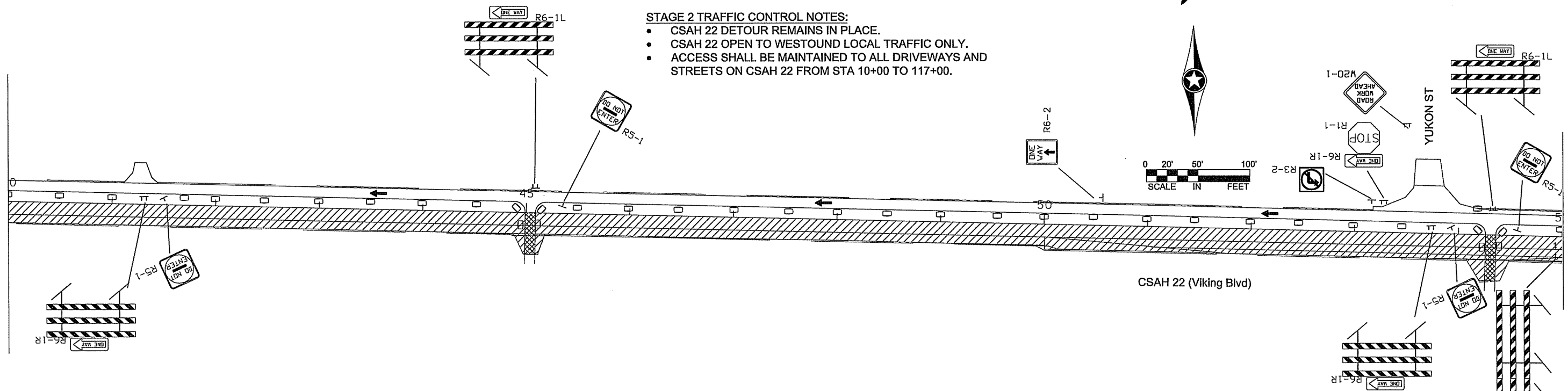
STAGE 2 CONSTRUCTION NOTES:

- CONSTRUCT AND PAVE EASTBOUND CONCRETE THROUGH LANES
- CONSTRUCT AND PAVE EASTBOUND BITUMINOUS SHOULDER AND TURN LANES.

STAGE 2 TRAFFIC CONTROL NOTES:

- CSAH 22 DETOUR REMAINS IN PLACE.
- CSAH 22 OPEN TO WESTBOUND LOCAL TRAFFIC ONLY.
- ACCESS SHALL BE MAINTAINED TO ALL DRIVEWAYS AND STREETS ON CSAH 22 FROM STA 10+00 TO 117+00.

STATION 40+00

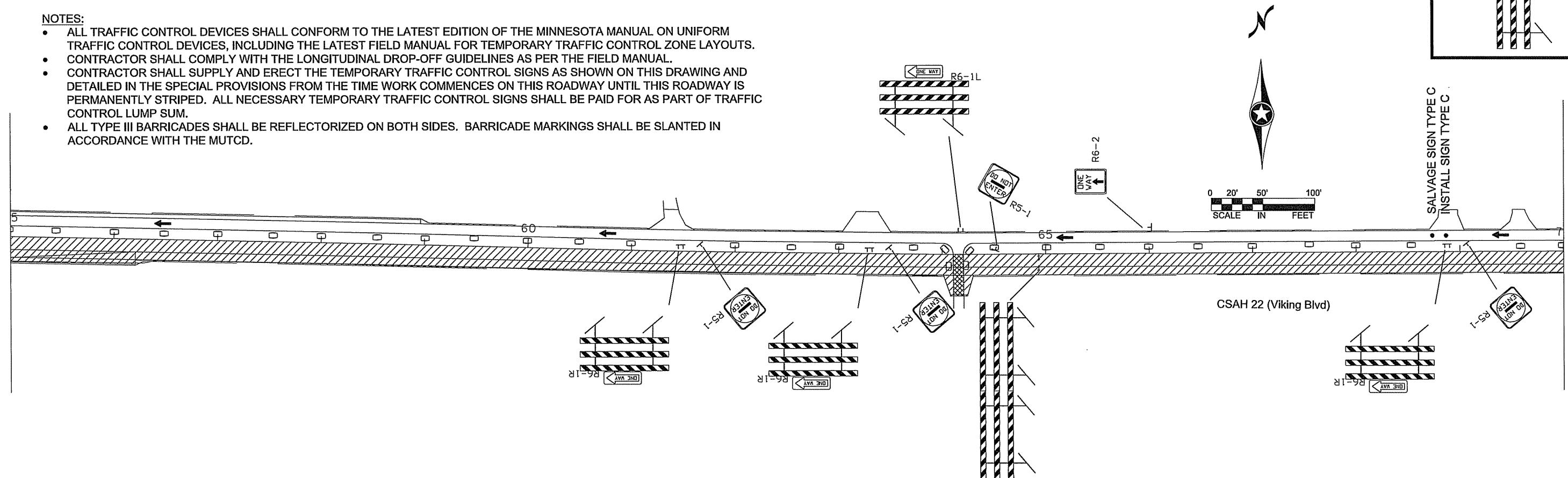


STATION 55+00

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STATION 55+00



STATION 70+00

NO	DATE	BY	CKD	APPR	REVISION

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 PRINT NAME: ANDREW WITTER
 SIGNATURE: [Signature]
 DATE: 6/17/13 REG. NO. 42757

DRAWN BY MTH DATE 04/12/13
 DESIGN BY MTH DATE 04/12/13
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**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. 002-622-033

**STAGE 2
TRAFFIC CONTROL**

NOTES:

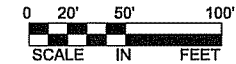
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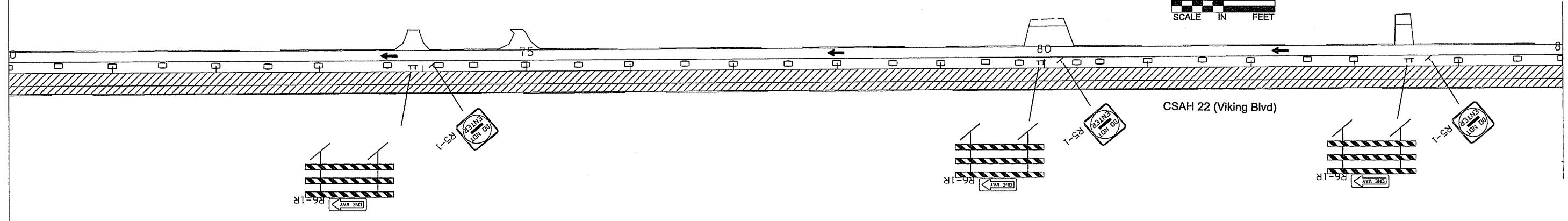
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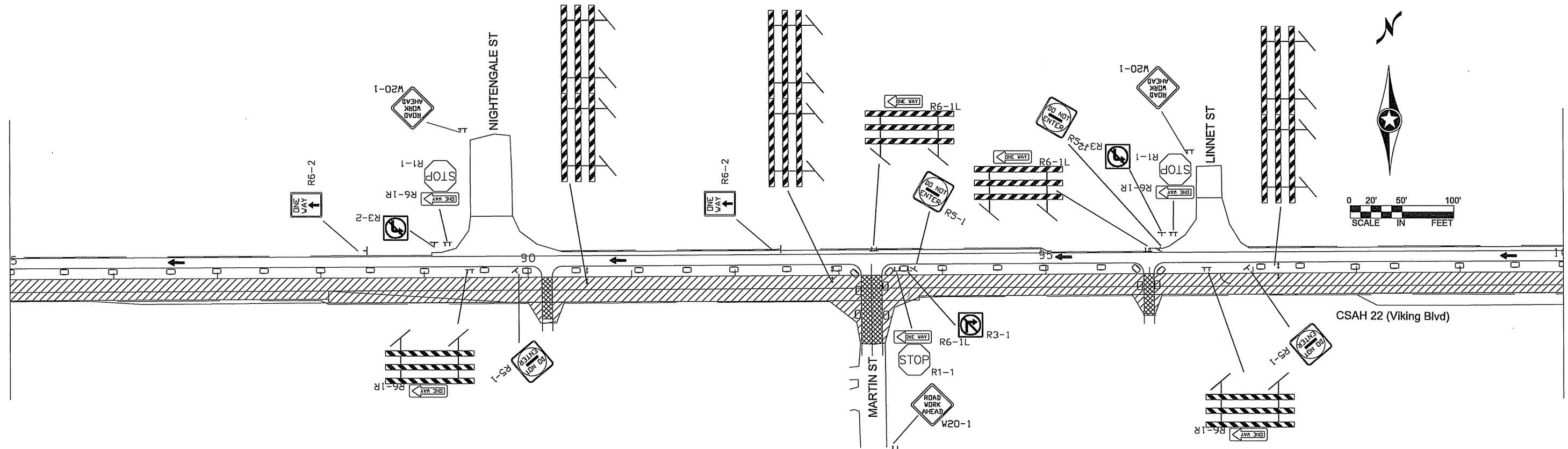


STATION 70+00



STATION 85+00

STATION 85+00



STATION 100+00

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 PRINT NAME: ANDREW WINTER
 SIGNATURE: [Signature]
 DATE: 6/17/13 REG. NO. 42757

DRAWN BY: MTH DATE: 04/12/13
 DESIGN BY: MTH DATE: 04/12/13
 CHECKED BY: JR DATE: 05/10/13

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. 002-622-033

STAGE 2
 TRAFFIC CONTROL
 Sheet 25 of 48 Sheets

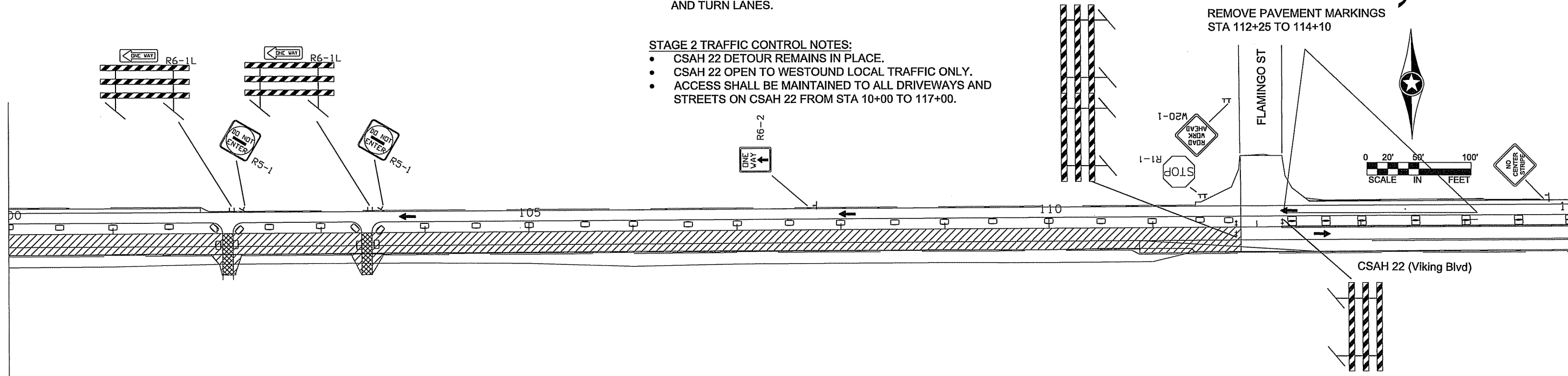
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STATION 100+00

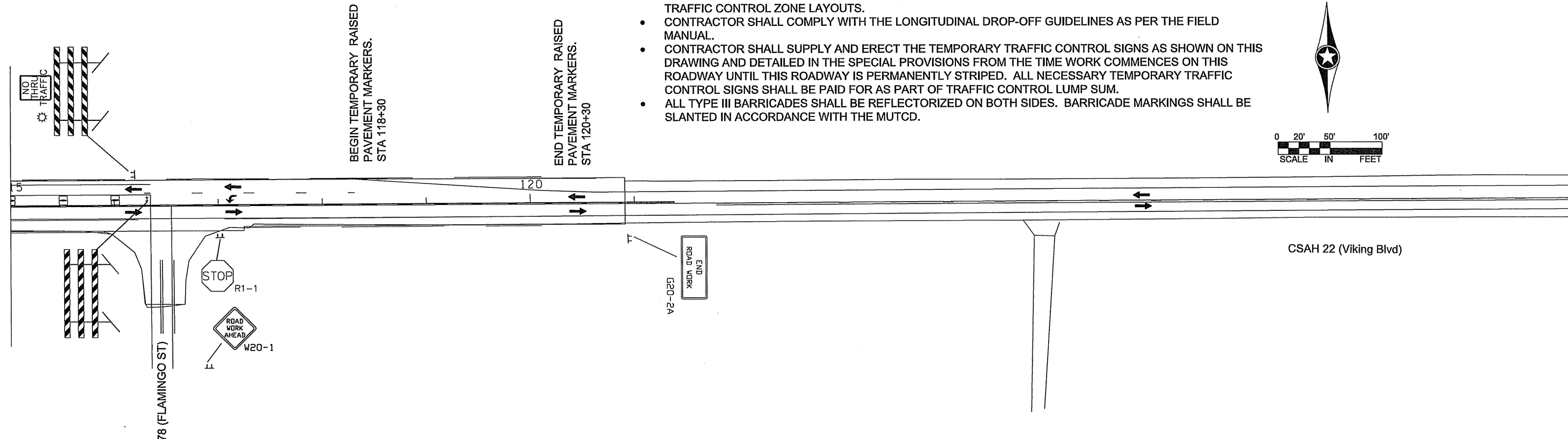


STATION 115+00

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STATION 115+00



STATION 130+00

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\1002-622-033\Bases\TRAFFIC\10262233_STG-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: **ANDREW WITTER**

SIGNATURE: *[Signature]*

DATE: **6/17/13** REG. NO. **42757**

DRAWN BY: **MTH** DATE: **04/12/13**

DESIGN BY: **MTH** DATE: **04/12/13**

CHECKED BY: **JR** DATE: **05/10/13**

ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. **002-622-033**

STATE AID PROJECT NO.

STATE AID PROJECT NO.

COUNTY PROJECT NO.

M.U.T.C.D. CODE	SIZE	INSERT	QTY. STG. 1	QTY. STG. 2
R1-1	48" x 48"		9	11
R3-1	24" x 24"		5	3
R3-2	24" x 24"		3	4
R5-1	30" x 30"		29	30
R5-1	48" x 48"		0	2
R5-1A	36" x 24"		1	2
R5-X4	24" x 30"		1	1
R6-1R	48" x 18"		4	5
R6-1L	48" x 18"		7	4
R6-X1 MOD	24" x 30"		0	0
R6-2 MOD	24" x 30"		6	7
WX-X	48" x 48"		0	0
W8-3	48" x 48"		0	0
W8-7	48" x 48"		0	0
W20-1	48" x 48"		2	2
W20-1	48" x 48"		11	11

M.U.T.C.D. CODE	SIZE	INSERT	QTY. STG. 1	QTY. STG. 2
R6-1R	48" x 18"		11	17
TYPE III	8 FOOT		11	17
R6-1L	48" x 18"		16	12
TYPE III	8 FOOT		16	12
R11-2	48" x 30"		0	0
TYPE III	8 FOOT		0	0
R11-2	48" x 30"		0	1
TYPE III	8 FOOT		0	1
R11-4	60" x 30"		1	0
TYPE III	8 FOOT		1	0
G20-2A	48" x 24"		2	2
W1-4L	48" x 48"		1	0
W13-1	30" x 30"		1	0
W1-4R	48" x 48"		0	2
W13-1	30" x 30"		0	2

M.U.T.C.D. CODE	SIZE	INSERT	QTY. STG. 1	QTY. STG. 2
FLASHER			2	1
TYPE III	8 FOOT		2	1
FLASHER			2	1
TYPE III	8 FOOT		19	19
REFLECTORIZED REBOUNDABLE DRUM			294	249
X4-4R	18" x 48"		0	1
CHANGABLE MESSAGE BOARD			2	2

TEMPORARY PAVEMENT MARKING QUANTITIES		
Item	Quantity	Units
PAVEMENT MARKING REMOVAL	8470	Lin Ft
RAISED PAVEMENT MARKER TEMPORARY	198	EACH
REMOVABLE PREFORMED PLASTIC MARKING	956	Lin Ft

NOTES:

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NO	DATE	BY	CKD	APPR	REVISION

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 PRINT NAME: ANDREW WITTER
 SIGNATURE:

DRAWN BY: MTH DATE: 04/16/13
 DESIGN BY: MTH DATE: 04/16/13
 CHECKED BY: RB DATE: 05/23/13



ANOKA COUNTY
HIGHWAY DEPT.

S.P. 002-622-033

TRAFFIC CONTROL
SIGNING QUANTITIES

PARCEL ID 28-33-24-23-0003

PARCEL ID 28-33-24-23-0002
3055 VIKING BOULEVARD

PARCEL ID 28-33-24-23-0012

PARCEL ID 28-33-24-24-0014

CONSTRUCTION NOTES:

- (A) 1.0' AGGREGATE SHOULDER
- (B) BITUMINOUS SHOULDER
- (C) BITUMINOUS TURN / BYPASS
- (D) AGGREGATE DRIVEWAY
- (E) BITUMINOUS DRIVEWAY

BEGIN CONSTRUCTION
S.P. 002-622-033
STA. 19+10.00

C C.S.A.H. 22

HEATHER ST NW

MILL JOINT

MATCH LINE 28+00

EXISTING R/W

PAVE BITUMINOUS TRANSITION
2 LIFTS

(A)

(B)

(C)

(A)

(B)

(C)

15

SAWCUT

BEGIN MILL
BEGIN CONCRETE OVERLAY
STA. 19+92.90

MILL JOINT

+65.51

+47.50

HEATHER ST NW

VARIABLE MILL (0" - 4") & CONCRETE OVERLAY (6")

BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE

BITUMINOUS SIDE STREET OVERLAY

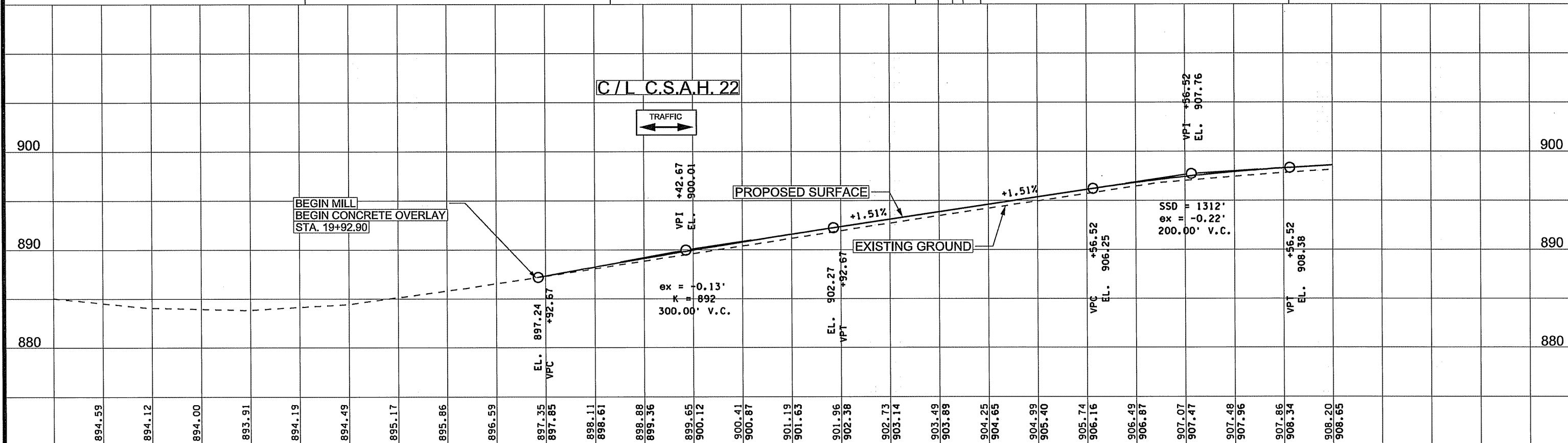
REMOVE BITUMINOUS PAVEMENT

PARCEL ID 28-33-24-32-0010
3146 VIKING BOULEVARD

PARCEL ID 28-33-24-32-0002

PARCEL ID 28-33-24-32-0001
19266 HEATHER ST

PARCEL ID 28-33-24-31-0003
19251 HEATHER ST



16+00

17+00

18+00

19+00

20+00

21+00

22+00

23+00

24+00

25+00

26+00

27+00

28+00

1 OF 9

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: ANDREW WITTER

SIGNATURE: *[Signature]*

DATE: 6/17/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24

DESIGN BY: NJD DATE: 4/14/24

CHECKED BY: GMP DATE: 4/14/22



ANOKA COUNTY
HIGHWAY DEPT.

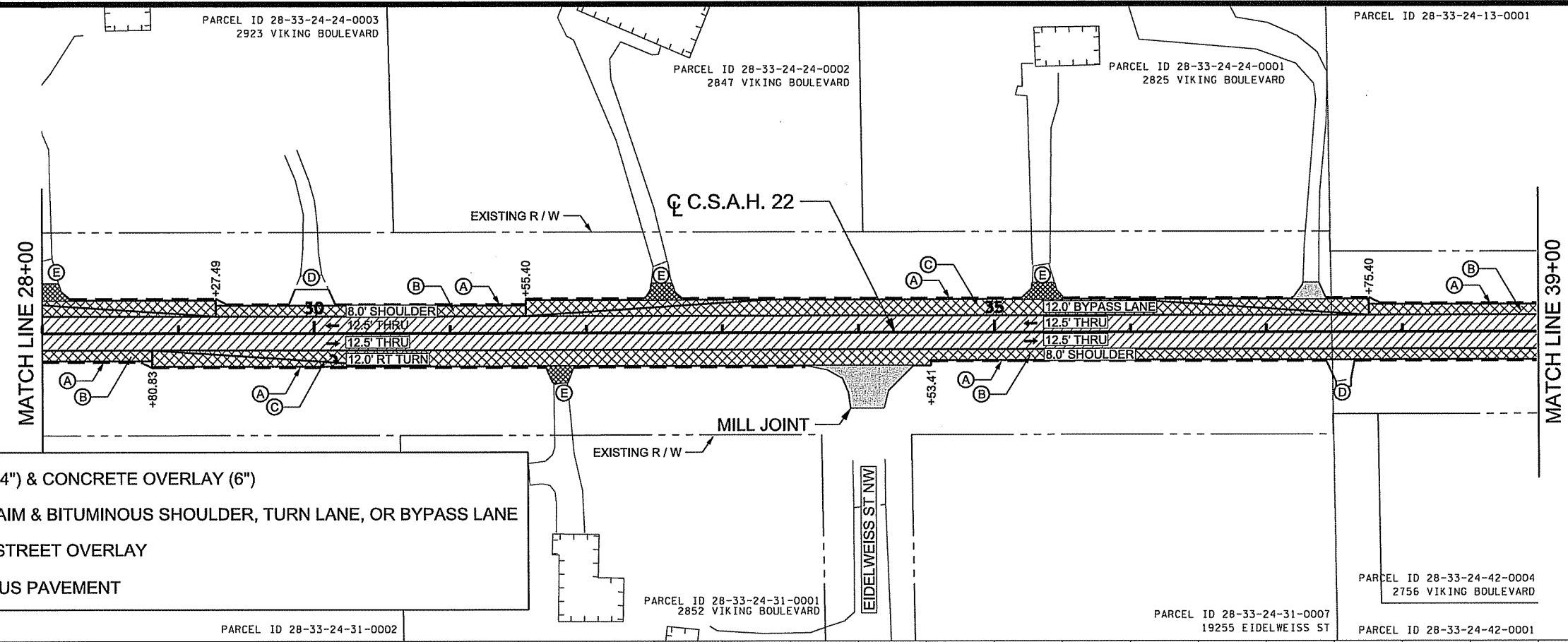
002-622-033

CONSTRUCTION PLAN/
PROFILE

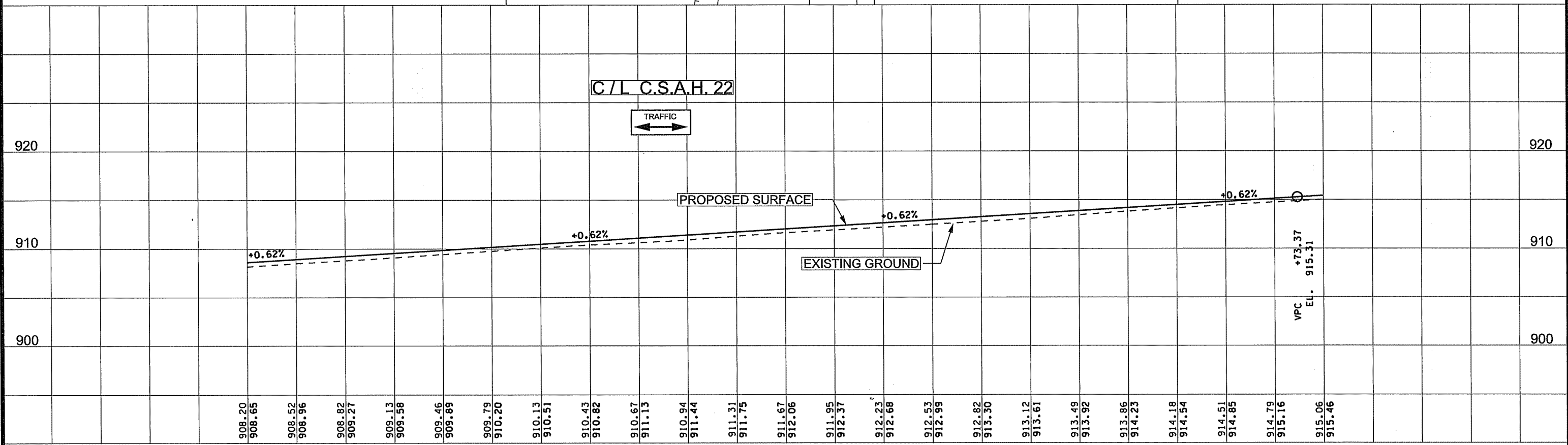
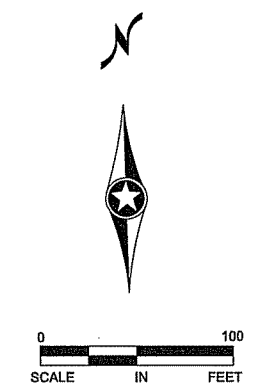
STA 16+00 TO 28+00

Sheet 28 of 48 Sheets

- CONSTRUCTION NOTES:**
- (A) 1.0' AGGREGATE SHOULDER
 - (B) BITUMINOUS SHOULDER
 - (C) BITUMINOUS TURN / BYPASS
 - (D) AGGREGATE DRIVEWAY
 - (E) BITUMINOUS DRIVEWAY



	VARIABLE MILL (0" - 4") & CONCRETE OVERLAY (6")
	BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE
	BITUMINOUS SIDE STREET OVERLAY
	REMOVE BITUMINOUS PAVEMENT



908.20	908.65	908.52	908.96	908.82	909.27	909.13	909.58	909.46	909.89	909.79	910.20	910.13	910.51	910.43	910.82	910.67	911.15	910.94	911.44	911.31	911.75	911.67	912.06	911.95	912.37	912.23	912.68	912.53	912.99	912.82	913.30	913.12	913.61	913.49	913.92	913.86	914.23	914.18	914.54	914.51	914.85	914.79	915.16	915.06	915.46
28+00	29+00	30+00	31+00	32+00	33+00	34+00	35+00	36+00	37+00	38+00	39+00																																		

2 OF 9

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_PP_P2.dgn 06/14/2013 9:11:41 AM

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: ANDREW WITTER

SIGNATURE: *Andrew Witter*

DATE: 6/13/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24

DESIGN BY: NJD DATE: 4/14/24

CHECKED BY: GMP DATE: 4/14/22

ANOKA COUNTY
HIGHWAY DEPT.

002-622-033

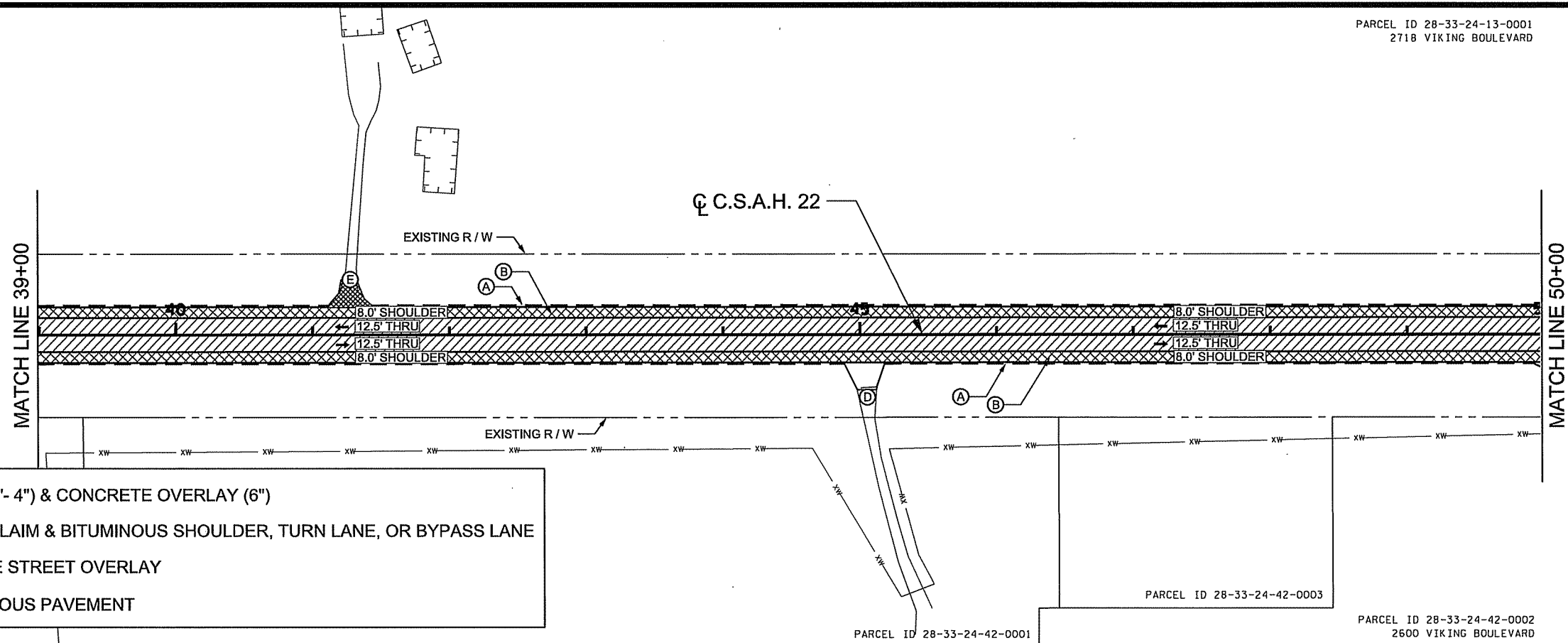
CONSTRUCTION PLAN/
PROFILE

STA 28+00 TO 39+00

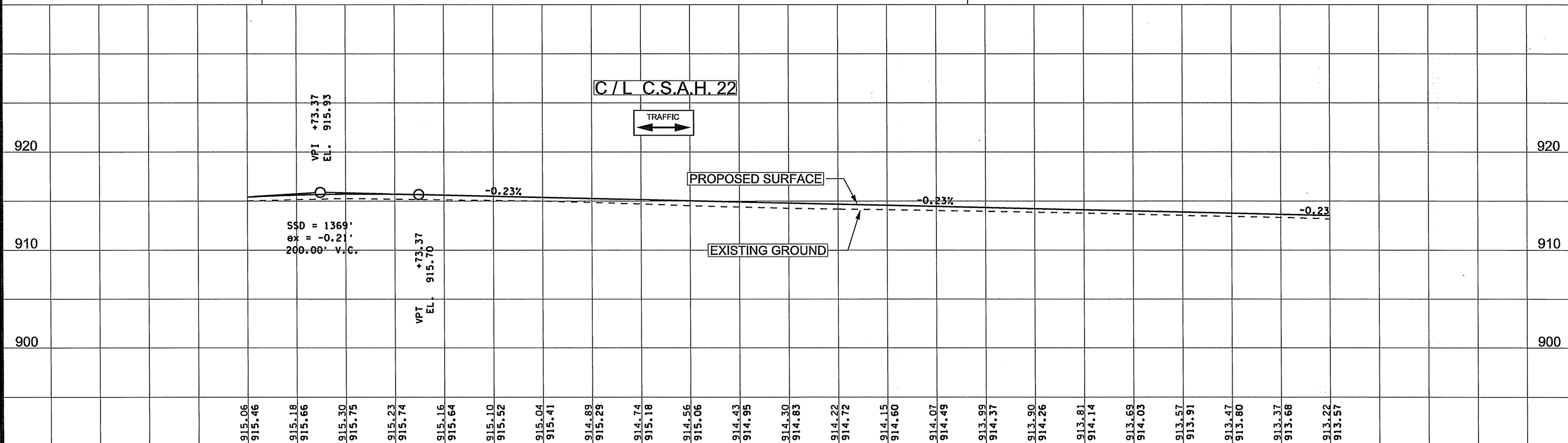
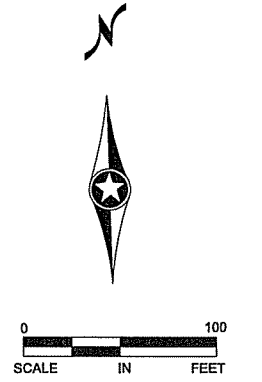
Sheet 29 of 48 Sheets

CONSTRUCTION NOTES:

- (A) 1.0' AGGREGATE SHOULDER
- (B) BITUMINOUS SHOULDER
- (C) BITUMINOUS TURN / BYPASS
- (D) AGGREGATE DRIVEWAY
- (E) BITUMINOUS DRIVEWAY



	VARIABLE MILL (0"- 4") & CONCRETE OVERLAY (6")
	BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE
	BITUMINOUS SIDE STREET OVERLAY
	REMOVE BITUMINOUS PAVEMENT



915.06	915.46	915.18	915.66	915.30	915.75	915.23	915.74	915.16	915.64	915.10	915.52	915.04	915.41	914.89	915.29	914.74	915.18	914.56	915.06	914.43	914.95	914.30	914.83	914.22	914.72	914.15	914.60	914.07	914.49	913.99	914.37	913.90	914.26	913.81	914.14	913.69	914.03	913.57	913.91	913.47	913.80	913.37	913.68	913.22	913.57
39+00	40+00	41+00	42+00	43+00	44+00	45+00	46+00	47+00	48+00	49+00	50+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 LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 6/13/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 41424
 DESIGN BY: NJD DATE: 41424
 CHECKED BY: GMP DATE: 41422

**ANOKA COUNTY
HIGHWAY DEPT.**

002-622-033
 -
 -
 -

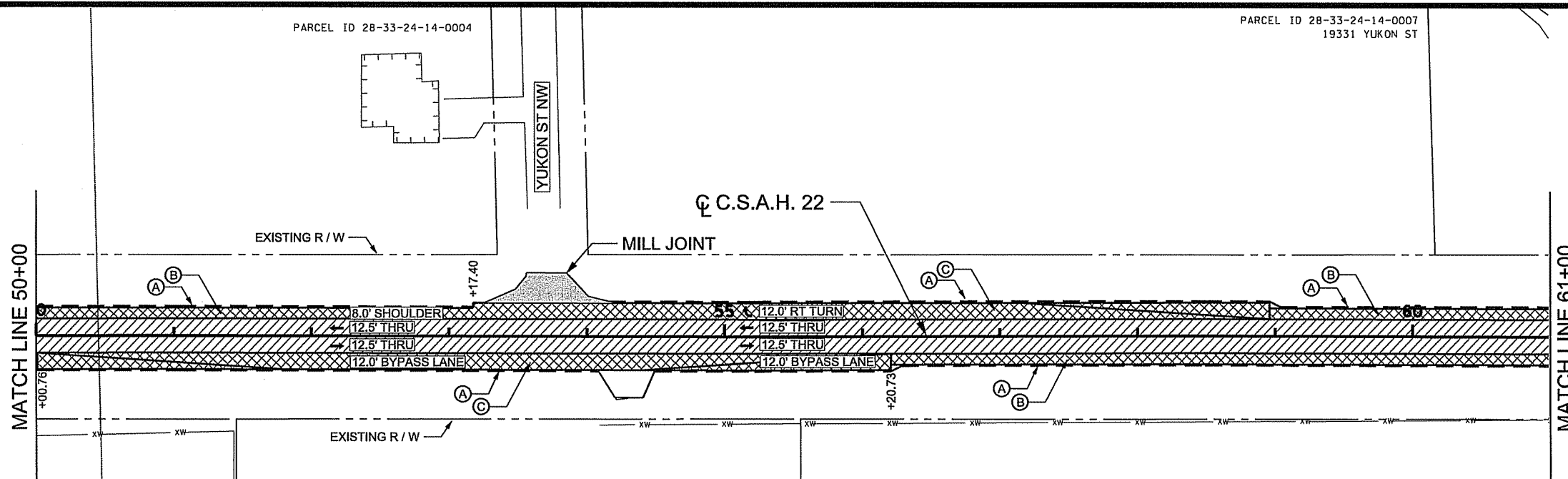
**CONSTRUCTION PLAN/
PROFILE**
 STA 39+00 TO 50+00
 Sheet 30 of 48 Sheets

PARCEL ID 28-33-24-14-0004

PARCEL ID 28-33-24-14-0007
19331 YUKON ST

CONSTRUCTION NOTES:

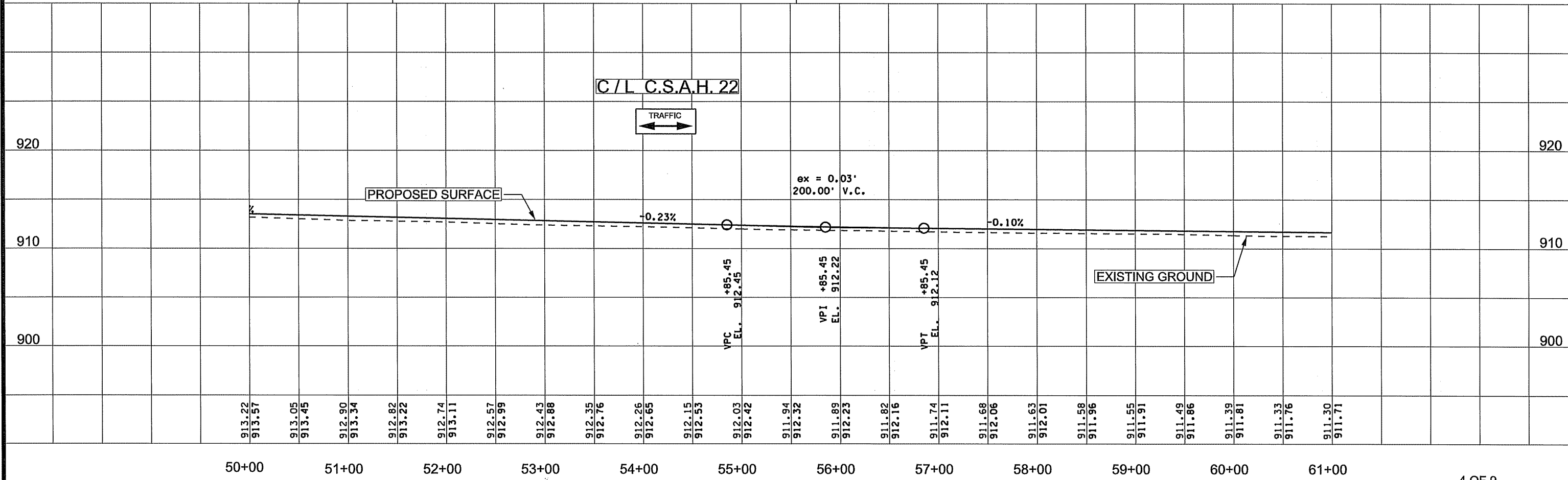
- (A) 1.0' AGGREGATE SHOULDER
- (B) BITUMINOUS SHOULDER
- (C) BITUMINOUS TURN / BYPASS
- (D) AGGREGATE DRIVEWAY
- (E) BITUMINOUS DRIVEWAY



	VARIABLE MILL (0" - 4") & CONCRETE OVERLAY (6")
	BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE
	BITUMINOUS SIDE STREET OVERLAY
	REMOVE BITUMINOUS PAVEMENT

PARCEL ID 28-33-24-41-0002

PARCEL ID 28-33-24-41-0003



NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_PP_P4.dgn 06/14/2013 9:11:42 AM

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: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 6/11/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24
 DESIGN BY: NJD DATE: 4/14/24
 CHECKED BY: GMP DATE: 4/14/22

ANOKA COUNTY
HIGHWAY DEPT.

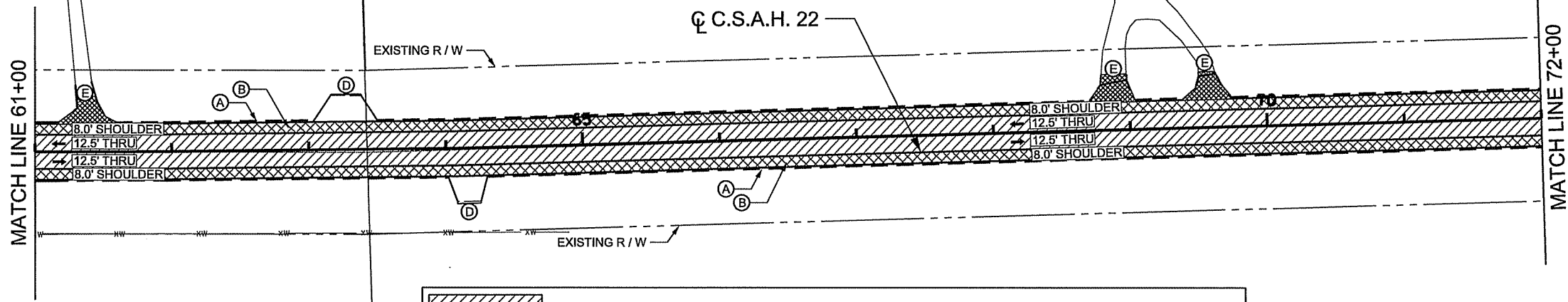
002-622-033
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 -
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CONSTRUCTION PLAN/
 PROFILE
 STA 50+00 TO 61+00
 Sheet 31 of 48 Sheets

PARCEL ID 28-33-24-14-0002
2445 VIKING BOULEVARD

PARCEL ID 27-33-24-23-0003
2225 VIKING BOULEVARD

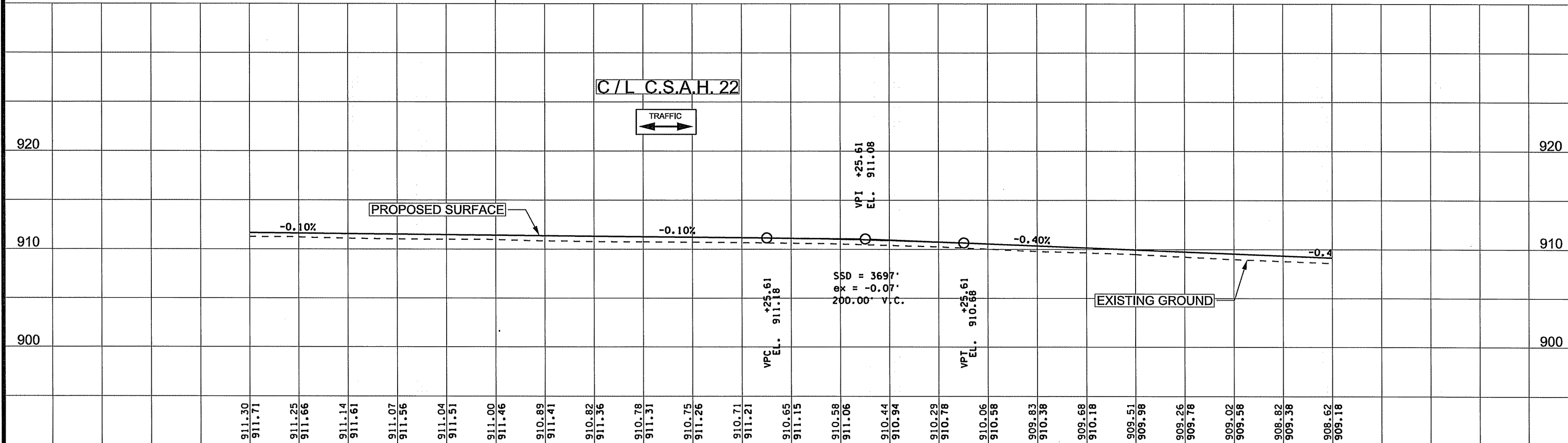
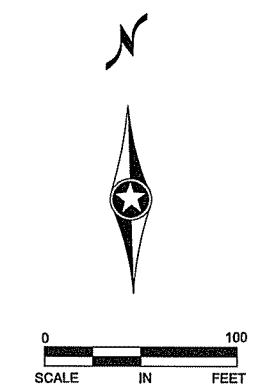
- CONSTRUCTION NOTES:**
- (A) 1.0' AGGREGATE SHOULDER
 - (B) BITUMINOUS SHOULDER
 - (C) BITUMINOUS TURN / BYPASS
 - (D) AGGREGATE DRIVEWAY
 - (E) BITUMINOUS DRIVEWAY



	VARIABLE MILL (0"- 4") & CONCRETE OVERLAY (6")
	BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE
	BITUMINOUS SIDE STREET OVERLAY
	REMOVE BITUMINOUS PAVEMENT

PARCEL ID 28-33-24-41-0003

PARCEL ID 28-33-24-32-0001



911.30	911.71	911.25	911.66	911.14	911.61	911.07	911.56	911.04	911.51	911.00	911.46	910.89	911.41	910.82	911.36	910.78	911.31	910.75	911.26	910.71	911.21	910.65	911.15	910.58	911.06	910.44	910.94	910.29	910.78	910.06	910.58	909.83	910.38	909.68	910.18	909.51	909.98	909.26	909.78	909.02	909.58	908.82	909.38	908.62	909.18
61+00		62+00		63+00		64+00		65+00		66+00		67+00		68+00		69+00		70+00		71+00		72+00																							

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_PP_P5.dgn 06/14/2013 9:11:44 AM

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.

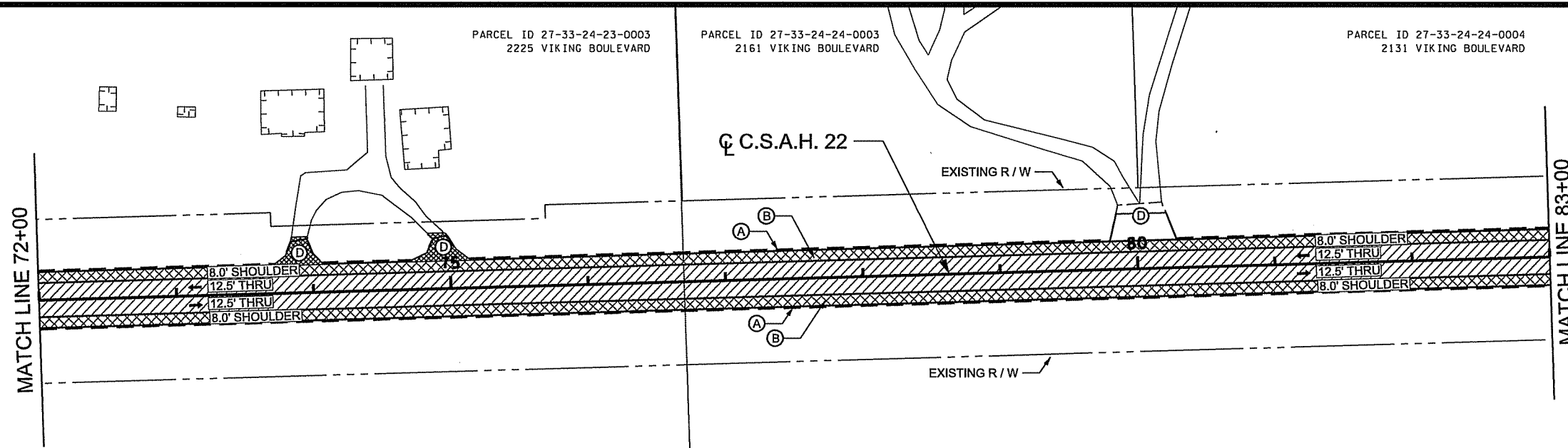
PRINT NAME: ANDREW WITTER
SIGNATURE: *[Signature]*
DATE: 6/11/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24
DESIGN BY: NJD DATE: 4/14/24
CHECKED BY: GMP DATE: 4/14/22

ANOKA COUNTY
HIGHWAY DEPT.

002-622-033

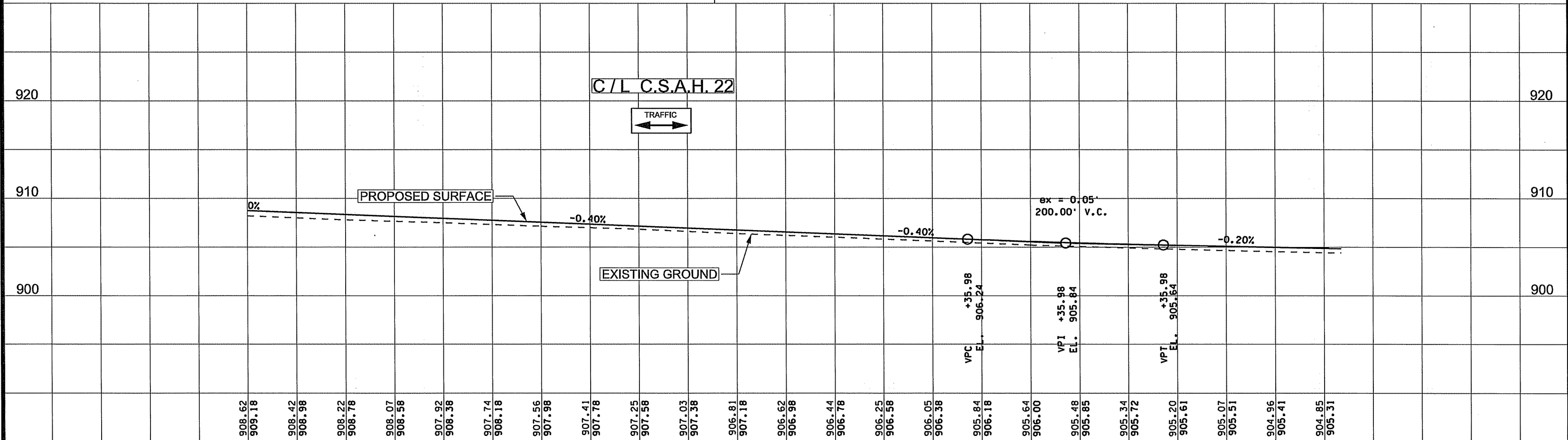
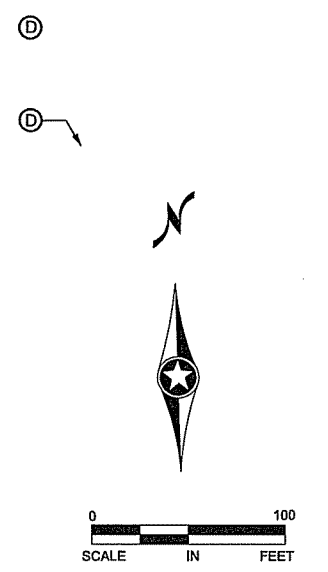
CONSTRUCTION PLAN/PROFILE
STA 61+00 TO 72+00
Sheet 32 of 48 Sheets



- CONSTRUCTION NOTES:**
- (A) 1.0' AGGREGATE SHOULDER
 - (B) BITUMINOUS SHOULDER
 - (C) BITUMINOUS TURN / BYPASS
 - (D) AGGREGATE DRIVEWAY
 - (E) BITUMINOUS DRIVEWAY

	VARIABLE MILL (0"- 4") & CONCRETE OVERLAY (6")
	BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE
	BITUMINOUS SIDE STREET OVERLAY
	REMOVE BITUMINOUS PAVEMENT

ID 27-33-24-32-0001



72+00	73+00	74+00	75+00	76+00	77+00	78+00	79+00	80+00	81+00	82+00	83+00
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6 OF 9

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_PP_P6.dgn 06/14/2013 9:11:44 AM

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: ANDREW WITTER

SIGNATURE: *Andrew Witter*

DATE: 6/17/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24

DESIGN BY: NJD DATE: 4/14/24

CHECKED BY: GMP DATE: 4/14/22

ANOKA COUNTY
HIGHWAY DEPT.

002-622-033

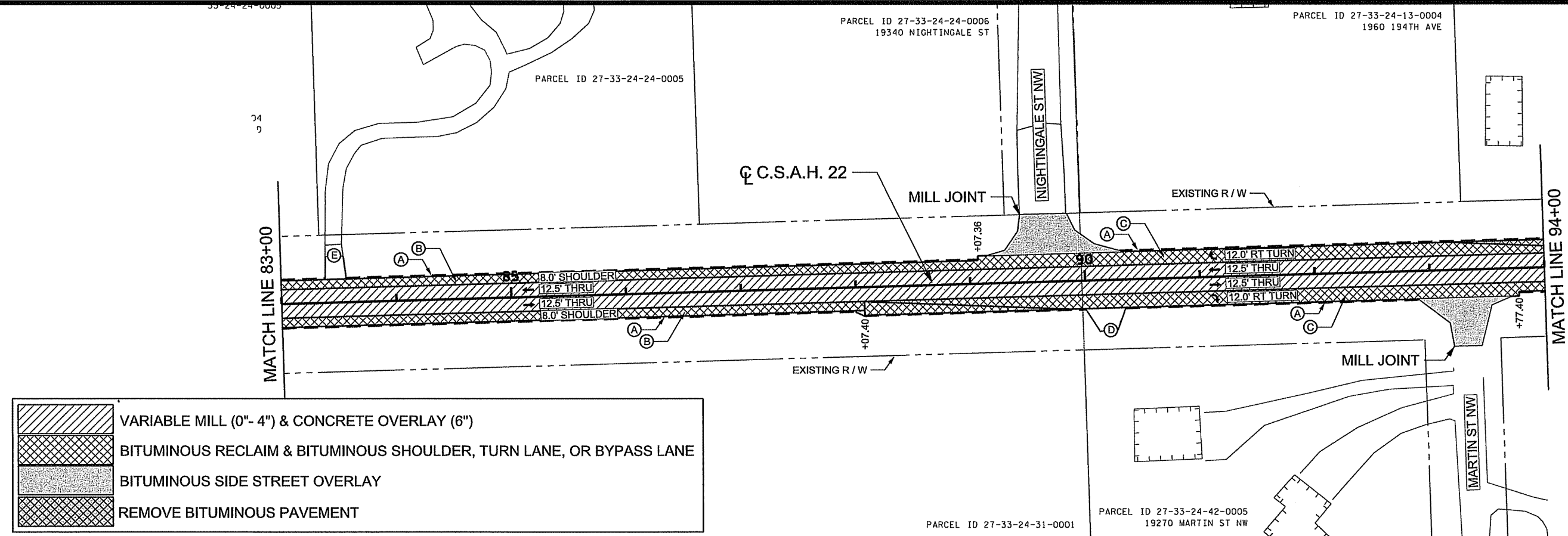
**CONSTRUCTION PLAN/
PROFILE**

STA 72+00 TO 83+00

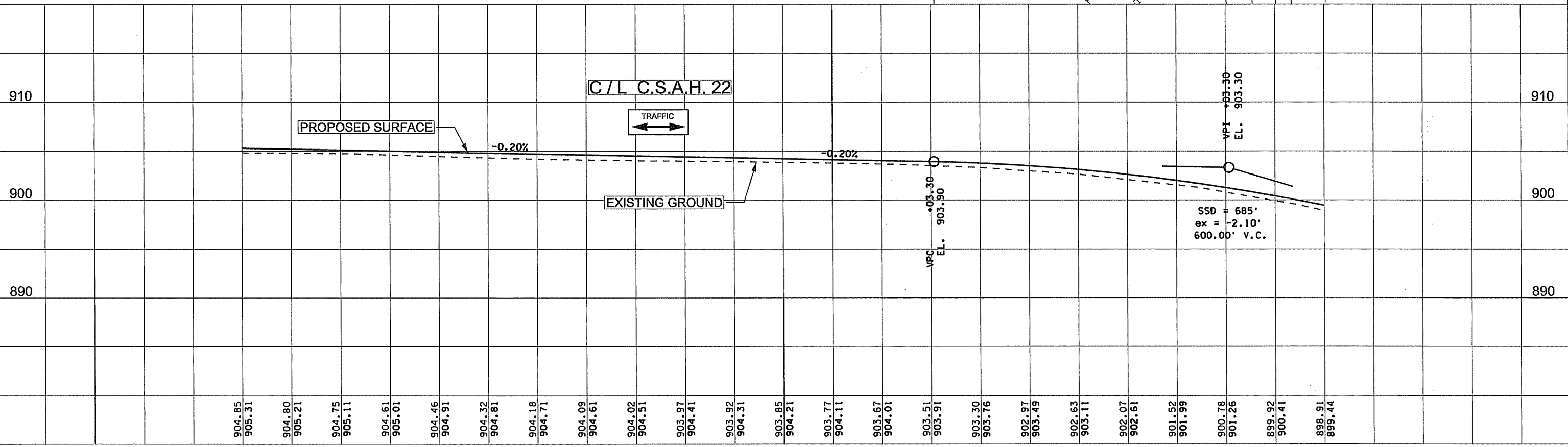
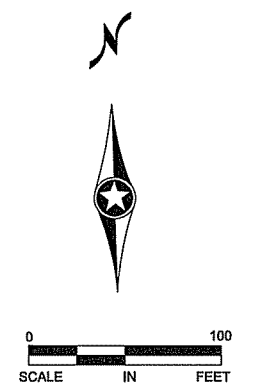
Sheet 33 of 48 Sheets

CONSTRUCTION NOTES:

- (A) 1.0' AGGREGATE SHOULDER
- (B) BITUMINOUS SHOULDER
- (C) BITUMINOUS TURN / BYPASS
- (D) AGGREGATE DRIVEWAY
- (E) BITUMINOUS DRIVEWAY



	VARIABLE MILL (0" - 4") & CONCRETE OVERLAY (6")
	BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE
	BITUMINOUS SIDE STREET OVERLAY
	REMOVE BITUMINOUS PAVEMENT



904.85	905.31	904.80	905.21	904.75	905.11	904.61	905.01	904.46	904.91	904.32	904.81	904.18	904.71	904.09	904.61	904.02	904.51	903.97	904.41	903.92	904.31	903.85	904.21	903.77	904.11	903.67	904.01	903.51	903.91	903.30	903.76	902.97	903.49	902.63	903.11	902.07	902.61	901.52	901.99	900.78	901.26	899.92	900.41	898.91	899.44
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NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_PP_P7.dgn
 06/14/2013 9:11:45 AM

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: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 6/13/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24
 DESIGN BY: NJD DATE: 4/14/24
 CHECKED BY: GMP DATE: 4/14/22

ANOKA COUNTY
HIGHWAY DEPT.

002-622-033
 -
 -
 -

CONSTRUCTION PLAN/
 PROFILE
 STA 83+00 TO 94+00
 Sheet 34 of 48 Sheets

PARCEL ID 27-33-24-13-0007
19322 LINNET ST

PARCEL ID 27-33-24-13-0008
19323 LINNET ST NW

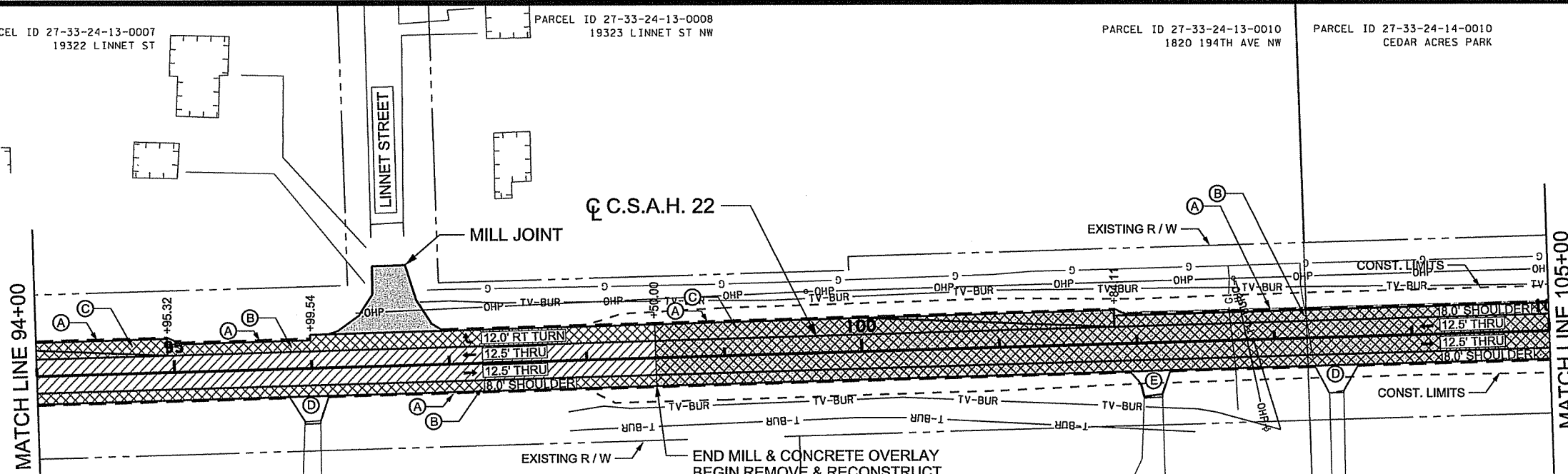
PARCEL ID 27-33-24-13-0010
1820 194TH AVE NW

PARCEL ID 27-33-24-14-0010
CEDAR ACRES PARK

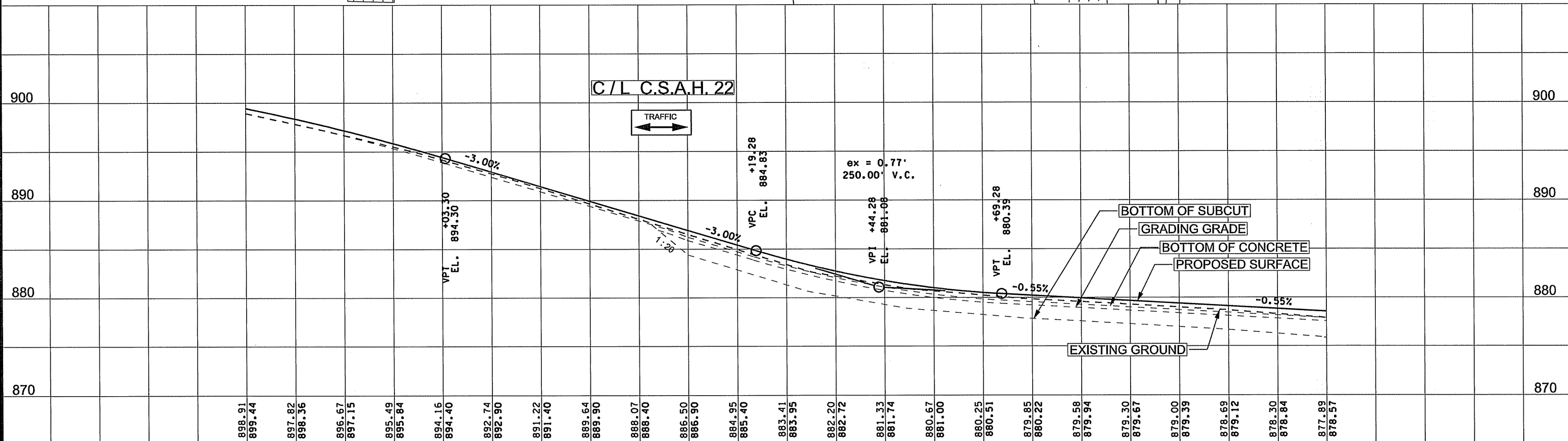
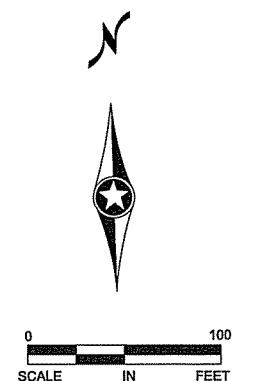
CONSTRUCTION NOTES:

- (A) 1.0' AGGREGATE SHOULDER
- (B) BITUMINOUS SHOULDER
- (C) BITUMINOUS TURN / BYPASS
- (D) AGGREGATE DRIVEWAY
- (E) BITUMINOUS DRIVEWAY

- QWEST
- OHP XCEL
- TV-BUR COMCAST
- T-BUR CENTURYLINK



	VARIABLE MILL (0" - 4") & CONCRETE OVERLAY (6")
	BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE
	BITUMINOUS SIDE STREET OVERLAY
	REMOVE BITUMINOUS PAVEMENT



898.91	899.44	897.82	898.36	896.67	897.15	895.49	895.84	894.16	894.40	892.74	892.90	891.22	891.40	889.64	889.90	888.07	888.40	886.50	886.90	884.95	885.40	883.41	883.95	882.20	882.72	881.33	881.74	880.67	881.00	880.25	880.51	879.85	880.22	879.58	879.94	879.30	879.67	879.00	879.39	878.69	879.12	878.30	878.84	877.89	878.57
83+00	84+00	85+00	86+00	87+00	88+00	89+00	90+00	91+00	92+00	93+00	94+00																																		

NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\02-622-33\Plan\0262233_PP_P8.dgn					
06/14/2013 9:11:47 AM					

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: ANDREW WITTE
 SIGNATURE: *[Signature]*
 DATE: 6/17/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24
 DESIGN BY: NJD DATE: 4/14/24
 CHECKED BY: GMP DATE: 4/14/22

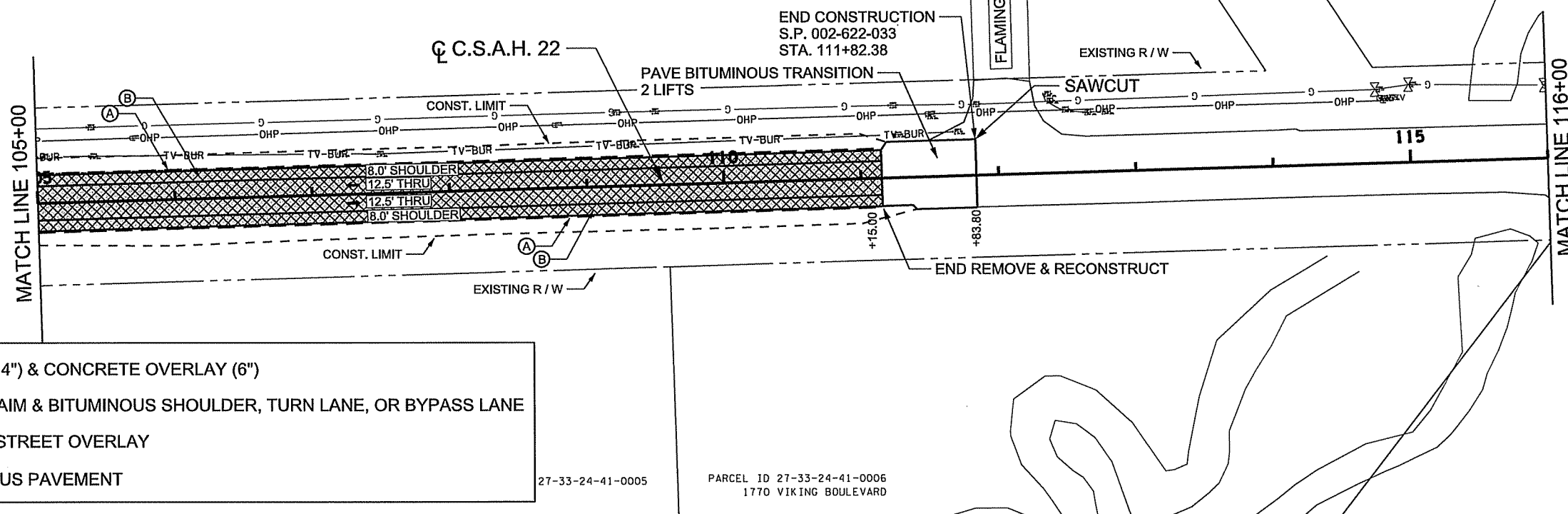
ANOKA COUNTY
HIGHWAY DEPT.

002-622-033
 -
 -
 -

**CONSTRUCTION PLAN/
 PROFILE**
 STA 94+00 TO 105+00
 Sheet 35 of 48 Sheets

PARCEL ID 27-33-24-14-0010
CEDAR ACRES PARK

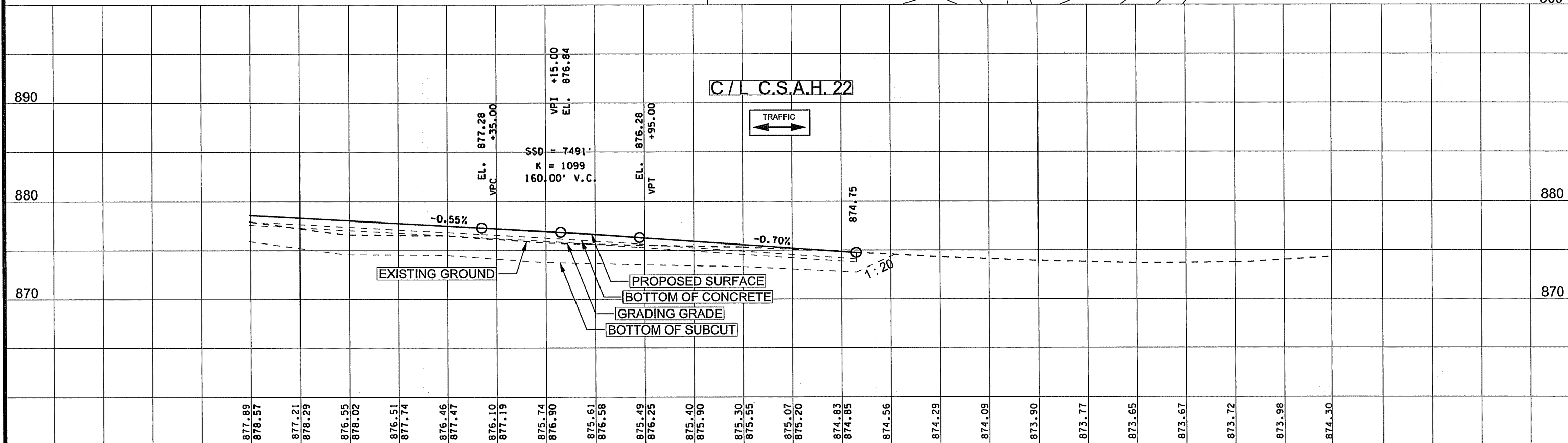
PARCEL ID 27-33-24-14-0007
19401 FLAMINGO ST



- CONSTRUCTION NOTES:**
- (A) 1.0' AGGREGATE SHOULDER
 - (B) BITUMINOUS SHOULDER
 - (C) BITUMINOUS TURN / BYPASS
 - (D) AGGREGATE DRIVEWAY
 - (E) BITUMINOUS DRIVEWAY

- G QWEST
- OHP XCEL
- TV-BUR COMCAST
- T-BUR CENTURYLINK

	VARIABLE MILL (0" - 4") & CONCRETE OVERLAY (6")
	BITUMINOUS RECLAIM & BITUMINOUS SHOULDER, TURN LANE, OR BYPASS LANE
	BITUMINOUS SIDE STREET OVERLAY
	REMOVE BITUMINOUS PAVEMENT



877.89	878.57	877.21	878.29	876.55	878.02	876.51	877.74	876.46	877.47	876.10	877.19	875.74	876.90	875.61	876.58	875.49	876.25	875.40	875.90	875.30	875.55	875.07	875.20	874.83	874.85	874.56	874.29	874.09	873.90	873.77	873.65	873.67	873.72	873.98	874.30
105+00	106+00	107+00	108+00	109+00	110+00	111+00	112+00	113+00	114+00	115+00	116+00																								

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02-622-33\Plan\0262233_PP_P9.dgn 06/14/2013 9:11:48 AM

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: ANDREW WITTER

SIGNATURE: *[Signature]*

DATE: 6/11/13 LICENSE NO. 42757

DRAWN BY: NJD DATE: 4/14/24

DESIGN BY: NJD DATE: 4/14/24

CHECKED BY: GMP DATE: 4/14/22

ANOKA COUNTY
HIGHWAY DEPT.

002-622-033

9 OF 9

**CONSTRUCTION PLAN/
PROFILE**

STA 105+00 TO 116+00

Sheet 36 of 48 Sheets

**PERMANENT 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 EPOLY 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 APPLICAITON 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.

SYMBOLS & MATERIALS LEGEND

■ CROSSWALK BLOCK WHITE PREFORMED THERMOPLASTIC

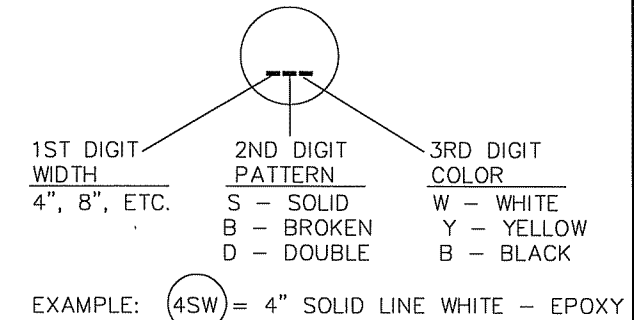
↩ PAVEMENT MESSAGE (LEFT ARROW) PREFORMED THERMOPLASTIC

STRIPING KEY

○ CIRCLE - EPOXY □ SQUARE PREFORMED THERMOPLASTIC

△ TRIANGLE - PAINT

⬠ PENTAGON - REMOVABLE PREFORMED PLASTIC MARKING



PERMANENT PAVEMENT MARKING QUANTITIES		
Item	Quantity	Units
4" SOLID LINE WHITE EPOXY	24400	Lin Ft
4" BROKEN LINE WHITE EPOXY	170	Lin Ft
4" SOLID LINE YELLOW EPOXY	2900	Lin Ft
4" BROKEN LINE YELLOW EPOXY	1880	Lin Ft
4" DOUBLE LINE YELLOW EPOXY	1500	Lin Ft

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-622-033\Base\TRAFFIC\Perm pvmt mrkg guide notes_guidelines.dwg

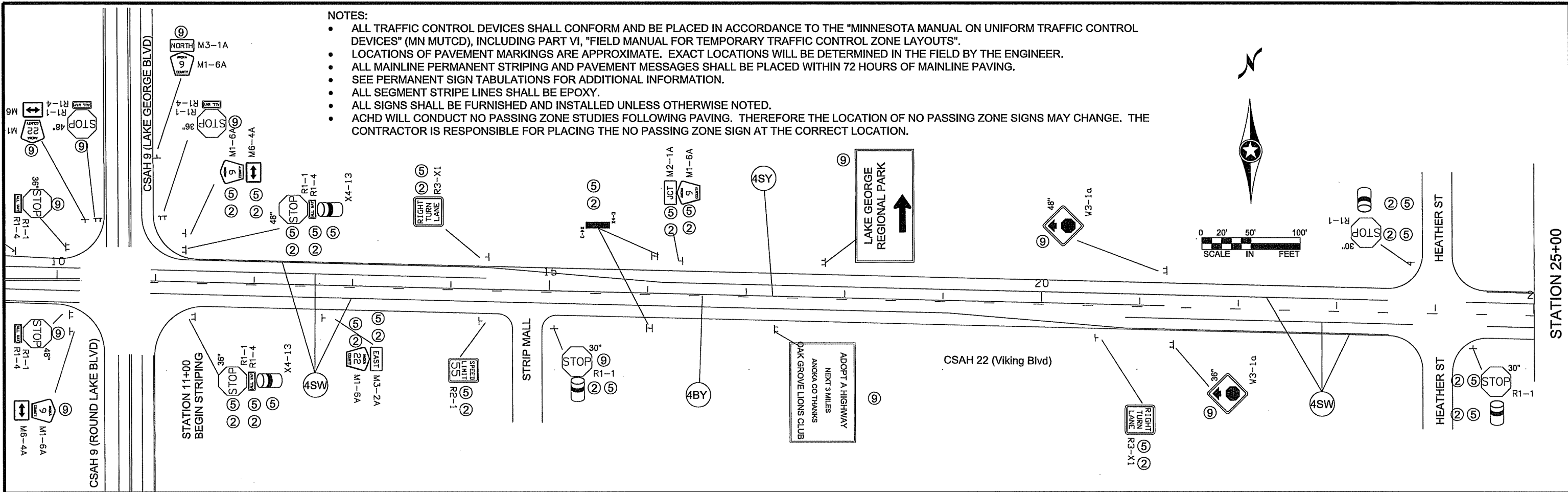
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: ANDREW WITTER
 SIGNATURE: *[Signature]*
 DATE: 6/17/13 LICENSE NO. 42757

DRAWN BY: MTH DATE: 4/17/2013
 DESIGN BY: MTH DATE: 4/17/2013
 CHECKED BY: RB DATE: 05/23/2013

ANOKA COUNTY
HIGHWAY DEPT.

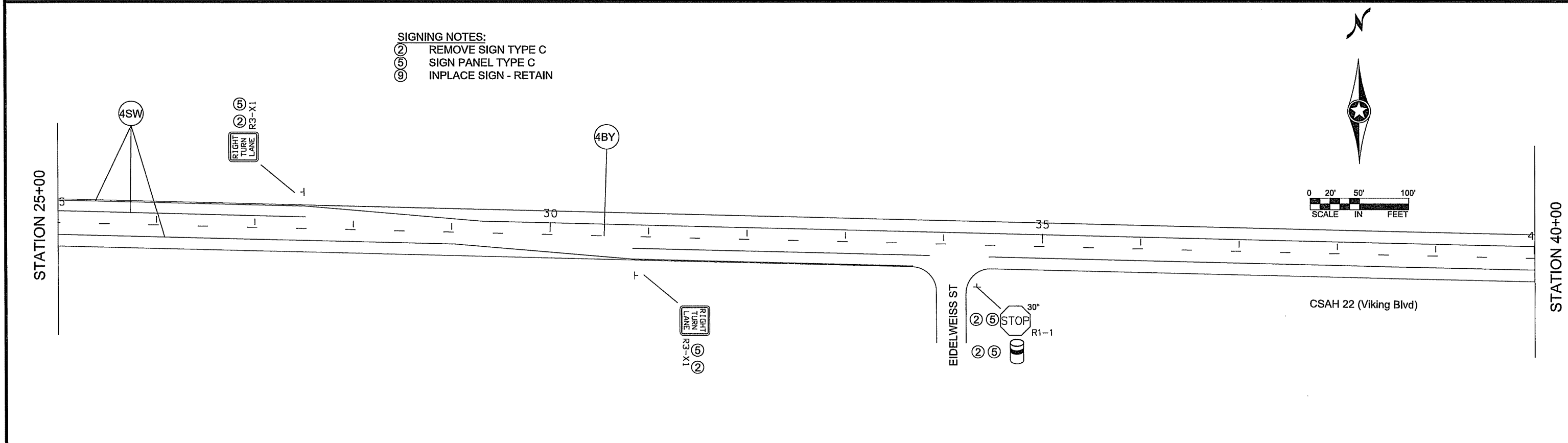
STATE PROJECT NO. 002-622-033

PERMANENT MARKING TABULATION
 Sheet 37 of 48 Sheets



- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
 - LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL 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.
 - ALL SIGNS SHALL BE FURNISHED AND INSTALLED UNLESS OTHERWISE NOTED.
 - ACHD WILL CONDUCT NO PASSING ZONE STUDIES FOLLOWING PAVING. THEREFORE THE LOCATION OF NO PASSING ZONE SIGNS MAY CHANGE. THE CONTRACTOR IS RESPONSIBLE FOR PLACING THE NO PASSING ZONE SIGN AT THE CORRECT LOCATION.

- SIGNING NOTES:
- ② REMOVE SIGN TYPE C
 - ⑤ SIGN PANEL TYPE C
 - ⑨ INPLACE SIGN - RETAIN



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02622033\Bose\TRAFFIC\02622033 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 LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: **ANDREW WITTER**

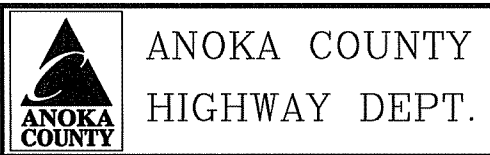
SIGNATURE: *[Signature]*

DATE: **6/17/13** LICENSE NO. **42757**

DRAWN BY: **MTH** DATE: **05/20/13**

DESIGN BY: **MTH** DATE: **05/20/13**

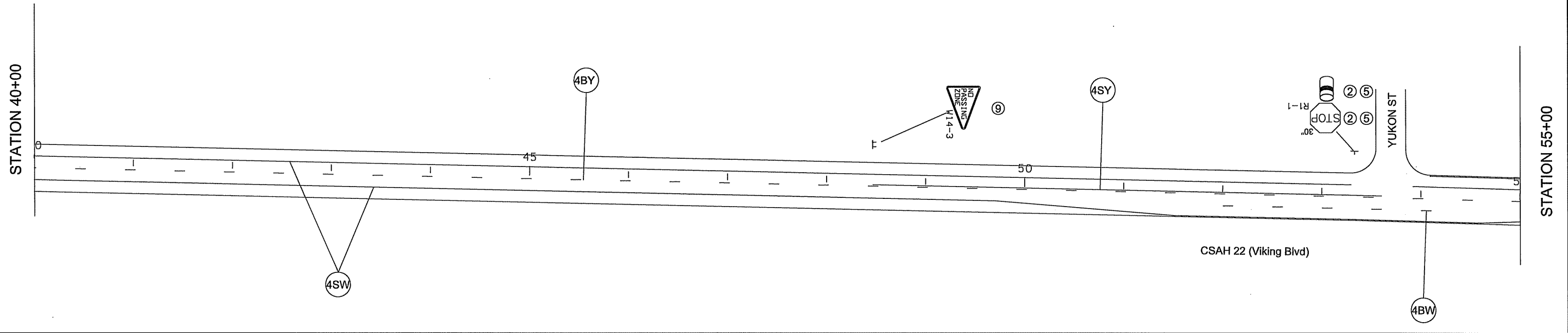
CHECKED BY: **RB** DATE: **05/23/13**



S.P. 002-622-033

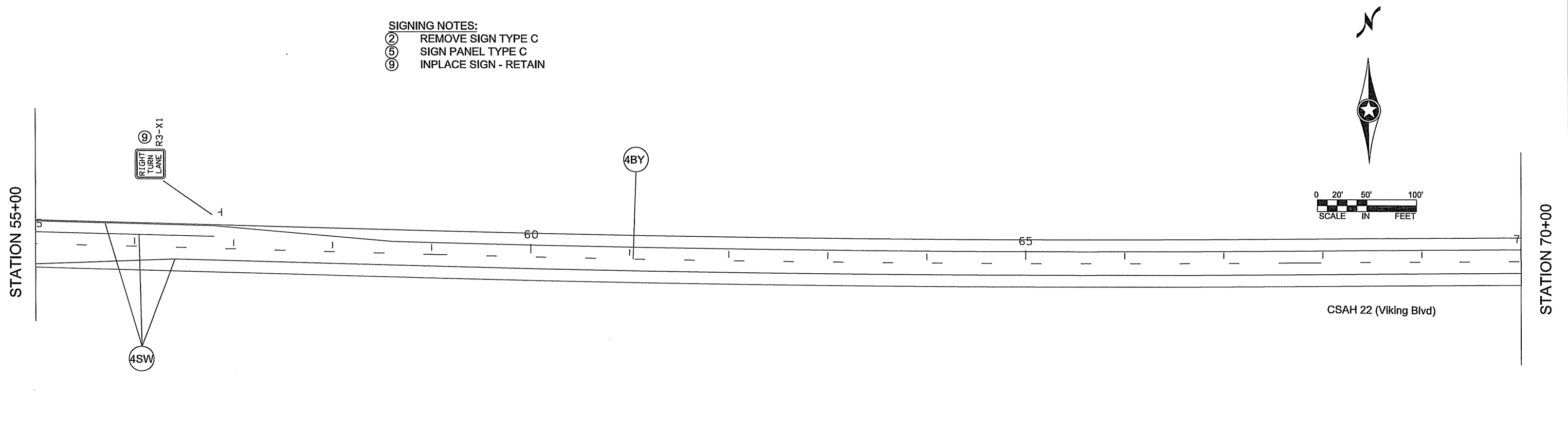
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 PRINT NAME: ANDREW WITTER
 SIGNATURE: *Andrew Witter*
 DATE: 6/7/13 LICENSE NO. 42757

DRAWN BY: MTH DATE 05/20/13
 DESIGN BY: MTH DATE 05/20/13
 CHECKED BY: RB DATE 05/23/13



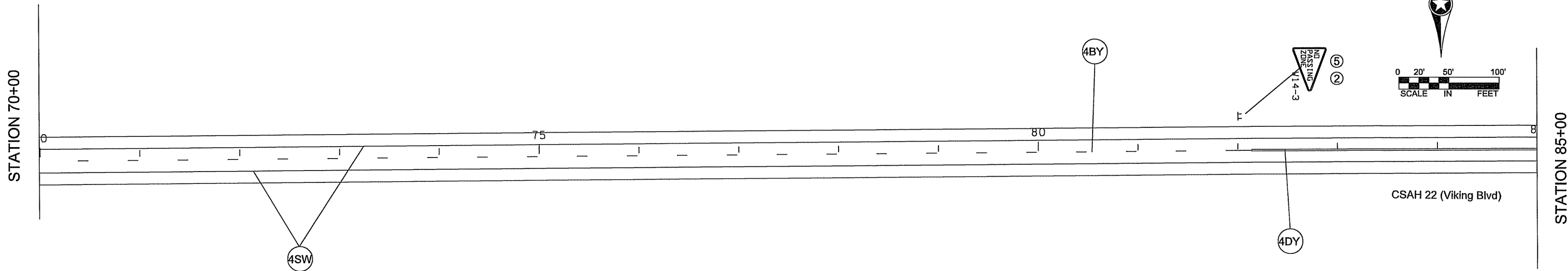
ANOKA COUNTY
 HIGHWAY DEPT.

S.P. 002-622-033

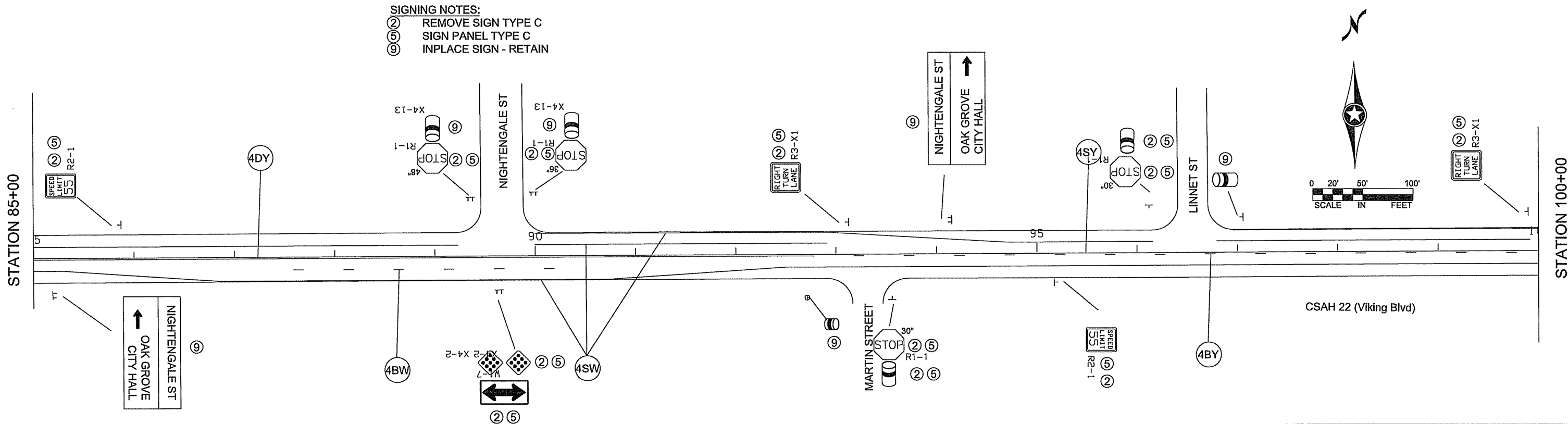
PERMANENT SIGNING &
 STRIPING PLAN

Sheet 39 of 48 Sheets

- NOTES:
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE PLACED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MN MUTCD), INCLUDING PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS".
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 - ⑤ SIGN PANEL TYPE C
 - ⑨ INPLACE SIGN - RETAIN



NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\02622033\Base\TRAFFIC\0262233 PERMANENT SIGNING & STRIPING.dwg

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PRINT NAME: **ANDREW WITTER**

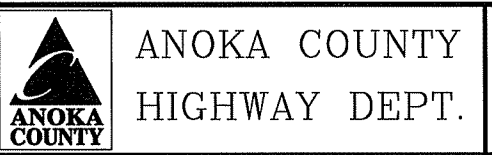
SIGNATURE: *Andrew Witter*

DATE: **6/1/13** LICENSE NO. **42757**

DRAWN BY: **MTH** DATE: **05/20/13**

DESIGN BY: **MTH** DATE: **05/20/13**

CHECKED BY: **RB** DATE: **05/23/13**



ANOKA COUNTY
HIGHWAY DEPT.

S.P. 002-622-033

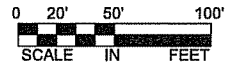
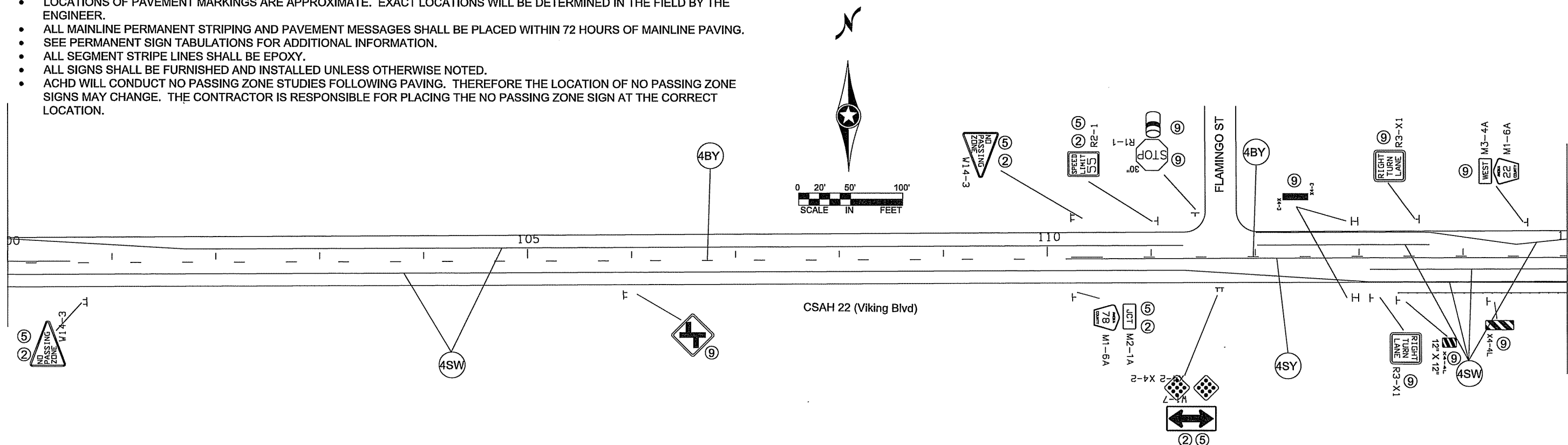
PERMANENT SIGNING &
STRIPING PLAN

Sheet **40** of **48** Sheets

NOTES:

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STATION 100+00

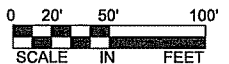
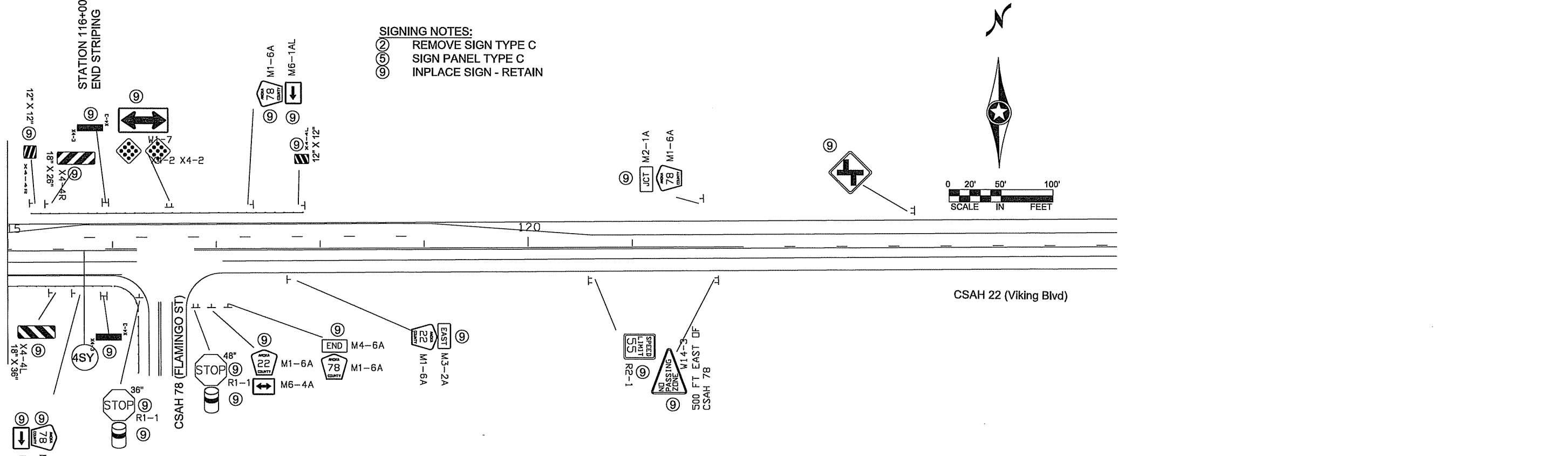


STATION 115+00

SIGNING NOTES:

- ② REMOVE SIGN TYPE C
- ⑤ SIGN PANEL TYPE C
- ⑨ INPLACE SIGN - RETAIN

STATION 115+00



NO	DATE	BY	CKD	APPR	REVISION

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 PRINT NAME: **ANDREW WITTER**
 SIGNATURE: *Andrew Witter*
 DATE: **6/17/13** LICENSE NO. **42757**

DRAWN BY: **MTH** DATE: **05/20/13**
 DESIGN BY: **MTH** DATE: **05/20/13**
 CHECKED BY: **RB** DATE: **05/23/13**

ANOKA COUNTY
 HIGHWAY DEPT.

S.P. 002-622-033

PERMANENT SIGNING & STRIPING PLAN
 Sheet **41** of **48** Sheets

SIGN REMOVAL AND PERMANENT MARKER SIGNS TABULATION							
STATION		REMOVE SIGN TYPE C	INSTALL DELINEATOR TYPE X4-13	INSTALL HAZARD MARKER X4-2	INSTALL CLEARANCE MARKER X4-4	INSTALL SNOW PLOW MARKER X4-5	SIGN NUMBER
		EACH	EACH	EACH	EACH	EACH	
11+40	Rt	1					R1-1
							R1-4
			1				X4-13
11+30	Lt	1					R1-1
							R1-4
			1				X4-13
11+30	Lt	1					M1-6A
							M6-4A
12+70	Rt	1					M3-2A
							M1-6A
14+30	Rt	1					R2-1
14+40	Lt	1					R3-X1
15+00	Rt	1					R1-1
			1				X4-13
16+00	Rt	1					X4-3
							X4-3
16+00	Lt	1					X4-3
							X4-3
16+30	Lt	1					M2-1A
							M1-6A
20+50	Rt	1					R3-X1
23+70	Lt	1					R1-1
			1				X4-13
24+40	Rt	1					R1-1
			1				X4-13
27+50	Lt	1					R3-X1
30+90	Rt	1					R3-X1
34+50	Rt	1					R1-1
			1				X4-13
53+40	Lt	1					R1-1
			1				X4-13
82+00	Lt	1					W14-3
85+90	Lt	1					R2-1
89+40	Lt	1					R1-1
			1				X4-13
89+60	Rt	1					W1-7
					1		X4-2
					1		X4-2

SIGN REMOVAL AND PERMANENT MARKER SIGNS TABULATION							
STATION		REMOVE SIGN TYPE C	INSTALL DELINEATOR TYPE X4-13	INSTALL HAZARD MARKER X4-2	INSTALL CLEARANCE MARKER X4-4	INSTALL SNOW PLOW MARKER X4-5	SIGN NUMBER
		EACH	EACH	EACH	EACH	EACH	
89+90	Lt	1					R1-1
			1				X4-13
93+20	Lt	1					R3-X1
93+60	Rt	1					R1-1
			1				X4-13
95+10	Rt	1					R2-1
96+20	Lt	1					R1-1
			1				X4-13
99+90	Lt	1					R3-X1
100+70	Rt	1					W14-3
110+30	Lt	1					W14-3
110+30	Rt	1					M2-1A
							M1-6A
111+10	Lt	1					R2-1
111+40	Lt	1					R1-1
			1				X4-13
111+70	Rt	1					W1-7
					1		X4-2
							X4-2
TOTAL		33	12	4	0	0	

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02622033\Bose\TRAFFIC\0262233 PERMANENT SIGNING & STRIPING.dwg

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PRINT NAME: ANDREW WITTER


SIGNATURE: [Signature]

DATE: 6/17/13 LICENSE NO. 42757

DRAWN BY: MTH DATE: 05/20/13

DESIGN BY: MTH DATE: 05/20/13

CHECKED BY: RB DATE: 05/23/13



ANOKA COUNTY
HIGHWAY DEPT.

S.P. 002-622-033

SIGN PANELS TYPE C						
M.U.T.C.D. CODE	SIZE	PANEL AREA FT. ²	INSERT	QUANTITY	No. POST	MOUNTING HEIGHT To Top of Post FT.
R1-1	30" X 30"	6.25		6	1	7.0'
R1-1	36" X 36"	9.00	STOP	2	2	7.0'
R1-1	48" X 48"	16.00	R1-1	2	2	7.0'
R1-4	18" X 6"	6.25	R1-4	2		7.0'
X4-13	4" X 13"		X4-13	12		
R2-1	24" X 30"	5.00	SPEED LIMIT 55	4	1	7.0'
R3-X1	30" X 30"	6.25	RIGHT TURN LANE	6	1	7.0'
W1-7	24" X 48"	8.00	← →	2	2	7.0'
x4-2	18" X 18"	2.25	◆	4	1	7.0'
W14-3	48" X 36"	6.00	NO PASSING ZONE	3	2	7.0'
M2-1a	21" X 15"	2.19	JCT	1		7.0'
M1-6a	24" X 24"	4.00	INCA 9 COUNTY	2	1	7.0'
M6-4A	21" X 15"	2.19	← →	1		7.0'
M3-2A	24" X 12"	2.00	EAST	1		7.0'
M1-6a	24" X 24"	4.00	INCA 22 COUNTY	2	1	7.0'
M2-1a	21" X 15"	2.19	JCT	1		7.0'
M1-6a	24" X 24"	4.00	INCA 78 COUNTY	1	1	7.0'
x4-3	6" X 12"	0.50	X4-3	8	1	7.0'
X4-4R	18" X 36"	4.50	X4-4R	0	1	7.0'
X4-4L	18" X 36"	4.50	X4-4L	0	1	7.0'

SIGN PANELS TYPE C						
SIGN DESIGNATION	SIGN SIZE	SIZE AREA (FT ²)	Total Installations	Total Area (ft ²)	Posts per Installation	Notes
R1-1	30" x 30"	6.25	6	37.5	1	
R1-1	36" x 36"	9	2	18	2	
R1-1	48" x 48"	16	2	32	2	
R1-4	18" x 6"	0.75	2	1.5		A
X4-13	4" x 15"	1.31	12			F, G
R2-1	24" x 30"	5	4	20	1	
R3-X1	24" x 36"	6	6	36	1	
W1-7	24" x 48"	8	2	16	2	
W14-3	48" x 36"	6	3	18	2	
M1-6A	24" x 24"	4	4	16	1	
M2-1A	21" x 15"	2.19	2	4.38		D
M3-2A	24" x 12"	2	1	2		D
M3-4A	24" x 12"	2	0	0		D
M6-1AR	21" x 15"	2.19	0	0.00		E
M6-4A	21" x 15"	2.19	1	2.19		E
X4-2	18" x 18"	2.25	6			B, F
X4-3	6" x 12"	0.5	8	4	1	C
X4-4	18" x 36"	4.5	0		1	F
Project Totals			61	207.56		

NOTES: This table illustrates quantities for F&I new type "C" signs only.

- A Sign mounted below R1-1 Sign Post Assembly
- B Sign mounted below W1-7.
- C Sign mounted back to back
- D Sign mounted above M1-6A sign post assembly
- E Sign mounted below M1-6A sign post assembly
- F Paid for by the EACH
- G Delineator mounted below R1-1 sign post assembly
- H Sign mounted below W10-1

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02622033\Bose\TRAFFIC\0262233 PERMANENT SIGNING & STRIPING.dwg

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PRINT NAME: ANDREW WITTER

SIGNATURE: *Andrew Witter*

DATE: 6/11/13 LICENSE NO. 42757

DRAWN BY: MTH DATE 05/20/13

DESIGN BY: MTH DATE 05/20/13

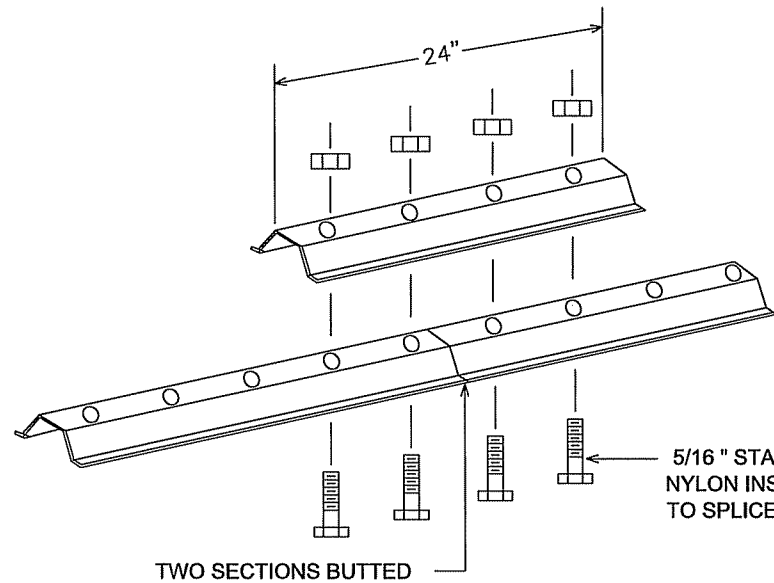
CHECKED BY: RB DATE 05/23/13



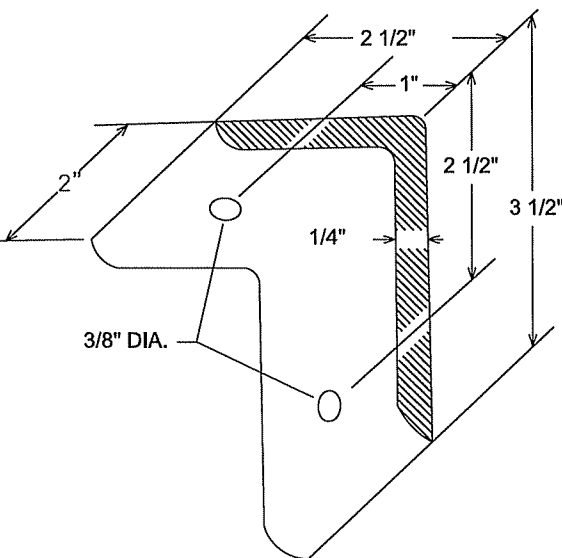
ANOKA COUNTY
HIGHWAY DEPT.

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PERMANENT SIGNING
TABULATION

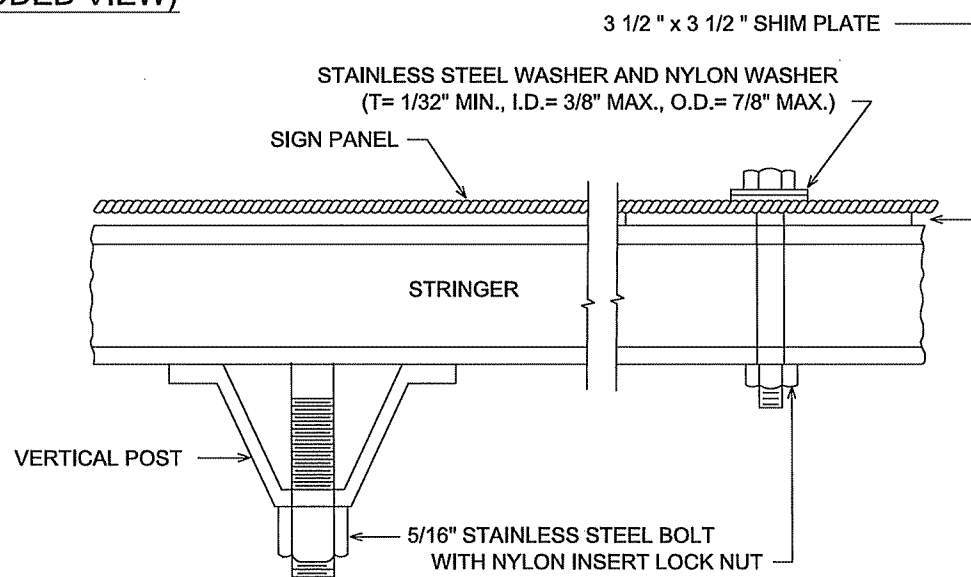


**LATERAL BRACE OR STRINGER
SPLICE DETAIL (EXPLODED VIEW)**

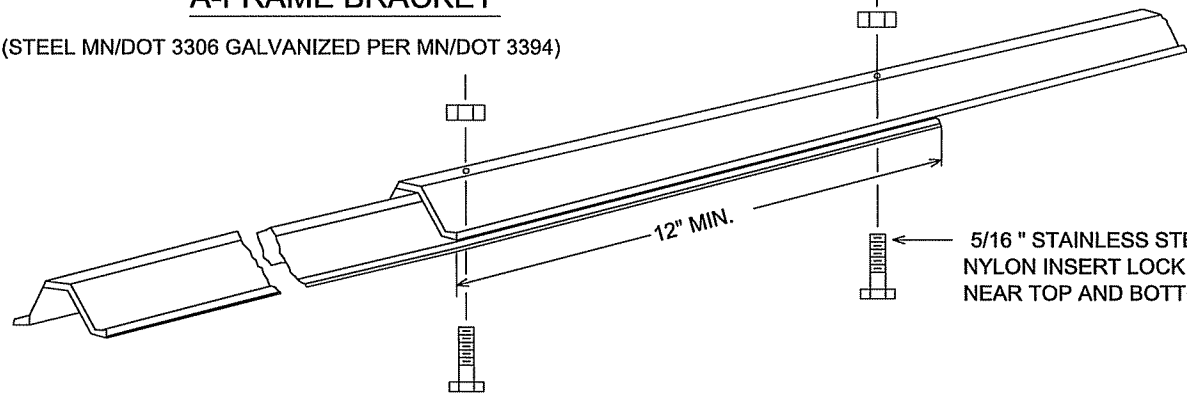


A-FRAME BRACKET

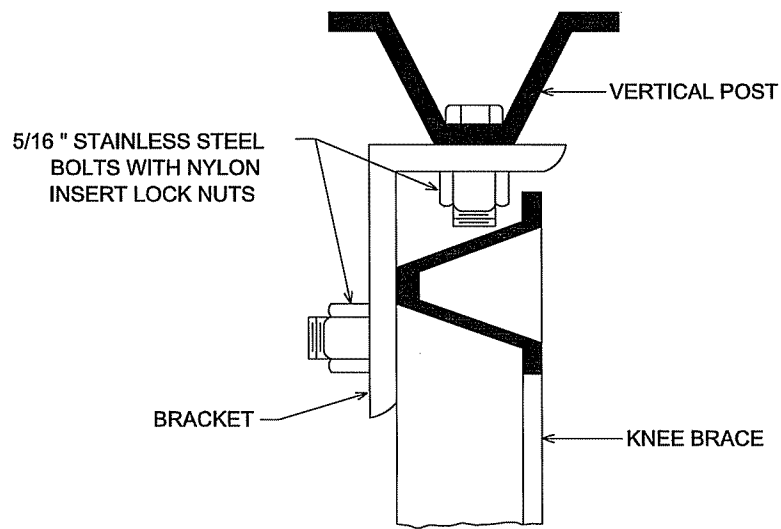
(STEEL MN/DOT 3306 GALVANIZED PER MN/DOT 3394)



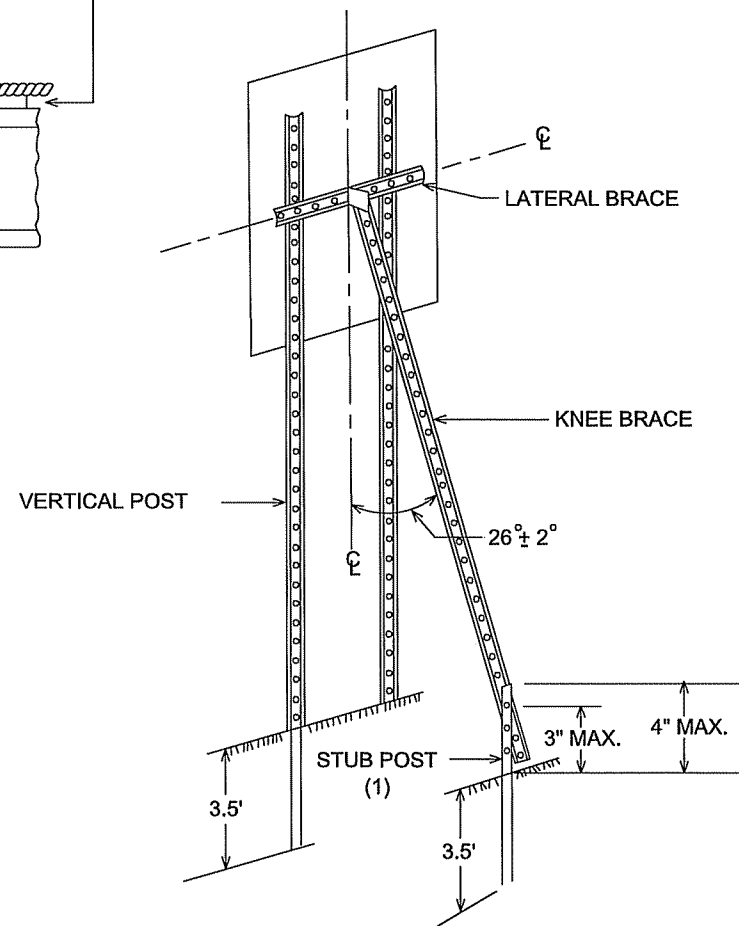
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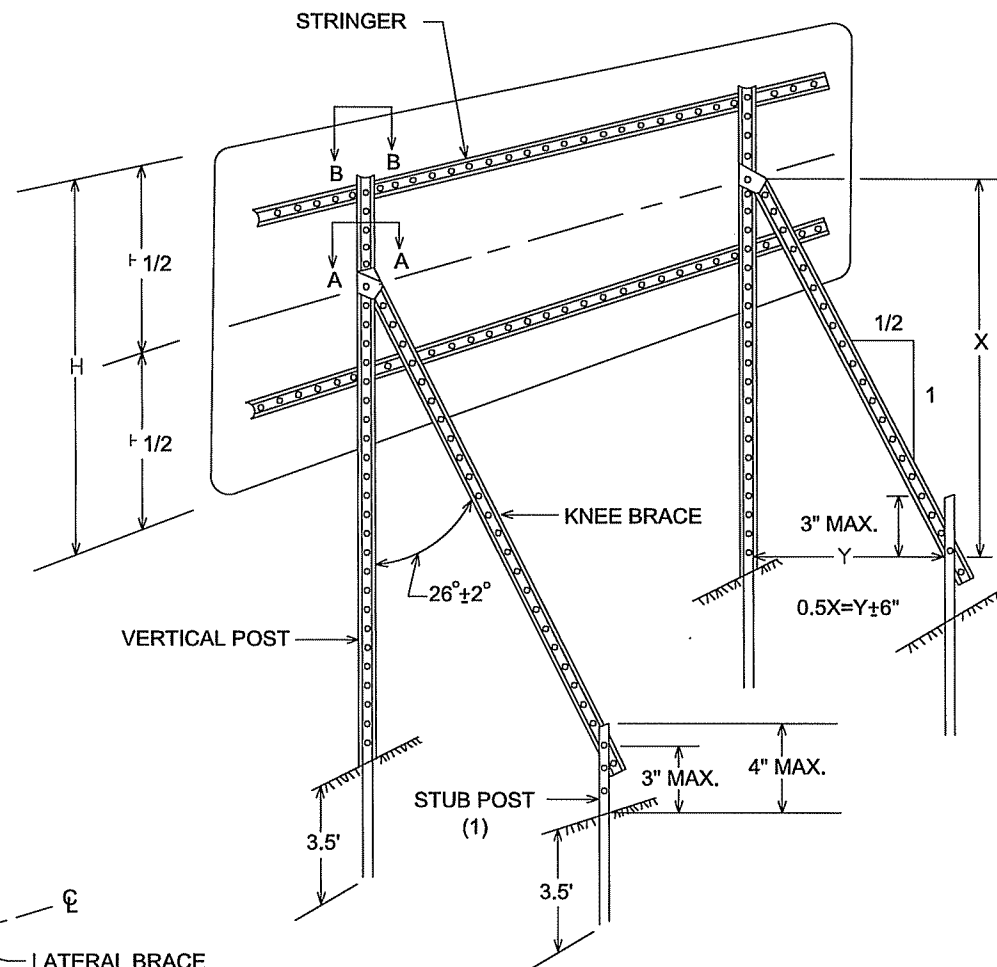
KNEE BRACE SPLICE



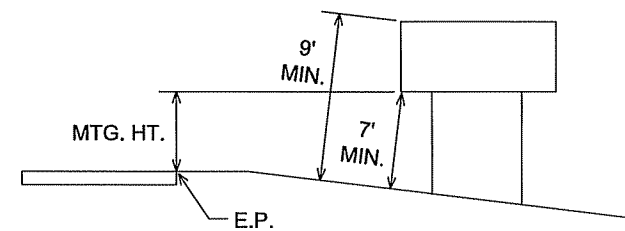
SECTION A-A



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



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



TYPICAL MOUNTING

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

**TYPE C & D SIGN
STRUCTURAL DETAILS**

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-622-033\Base\Traffic\Sign&Stripe_Details.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: ANDREW WITTER
 SIGNATURE: *Andrew Witter*
 DATE: 5/13/13 LICENSE NO. 42757

DRAWN BY MTH DATE 4-17-13
 DESIGN BY MTH DATE 4-17-13
 CHECKED BY RB DATE 5-23-13

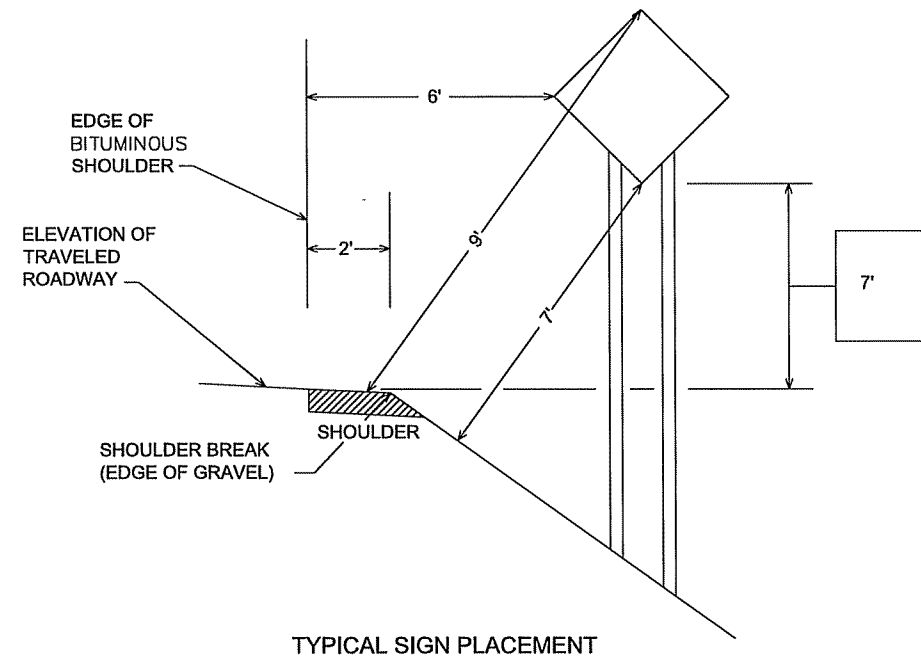


**ANOKA COUNTY
HIGHWAY DEPT.**

STATE PROJECT NO. _____
 STATE PROJECT NO. _____
 STATE PROJECT NO. 002-622-033
 COUNTY PROJECT NO. _____

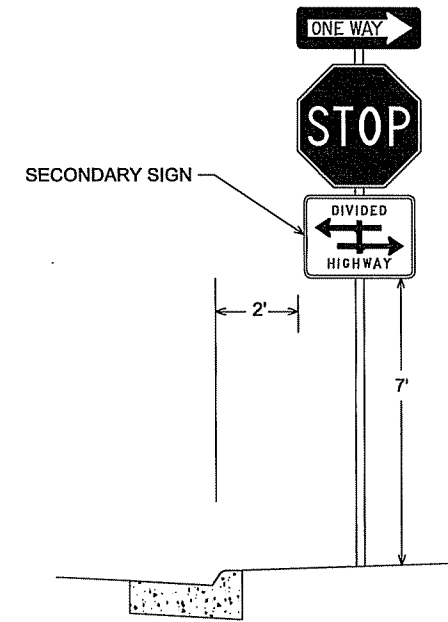
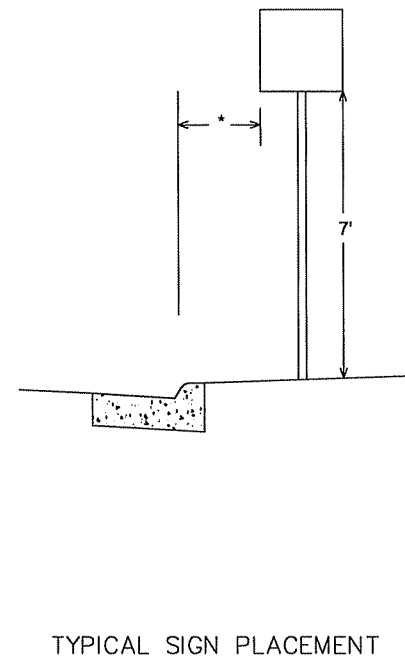
SIGNING & STRIPING DETAILS
 Sheet 44 of 48 Sheets

RURAL



URBAN

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



NOTE:

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

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\02-622-033\Bose\Traffic\Sign&Stripe_Details.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: ANDREW WITTER

SIGNATURE: *[Signature]*

DATE: 4/17/13 LICENSE NO. 42757

DRAWN BY MTH DATE 4-17-13

DESIGN BY MTH DATE 4-17-13

CHECKED BY RB DATE 5-23-13



ANOKA COUNTY
HIGHWAY DEPT.

STATE PROJECT NO. _____

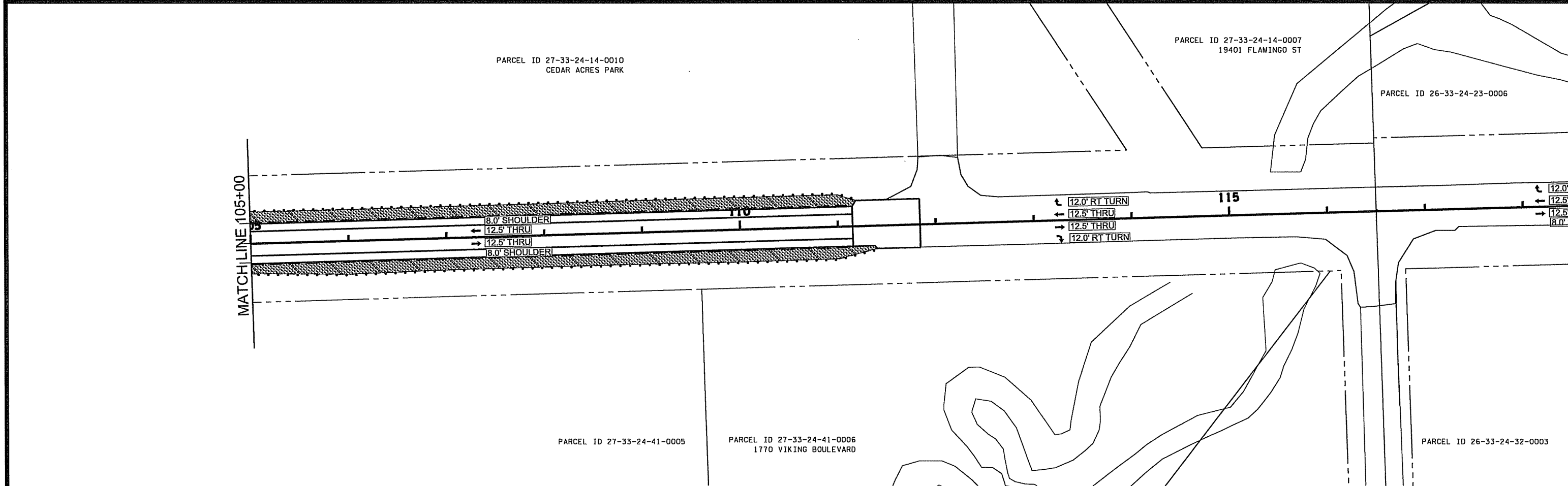
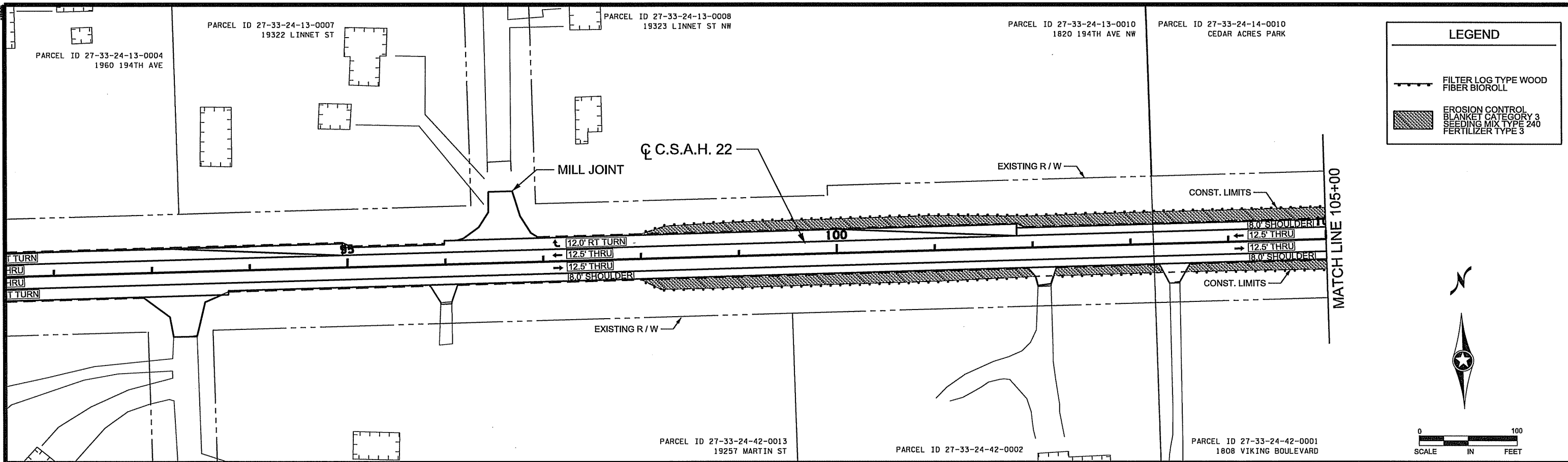
STATE PROJECT NO. _____

STATE PROJECT NO. 002-622-033

COUNTY PROJECT NO. _____

SIGNING & STRIPING DETAILS

Sheet 45 of 48 Sheets



LEGEND	
	FILTER LOG TYPE WOOD FIBER BIOROLL
	EROSION CONTROL BLANKET CATEGORY 3 SEEDING MIX TYPE 240 FERTILIZER TYPE 3



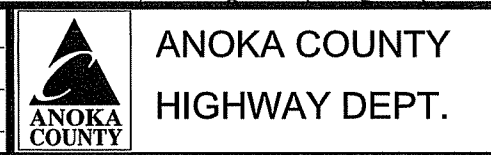
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NAME: P:\02-622-33\Plan\0262233_EC_P1.dgn 06/14/2013 9:11:49 AM

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: ANDREW WITTER
 SIGNATURE: *Andrew Witter*
 DATE: *6/14/13* LICENSE NO. 42757

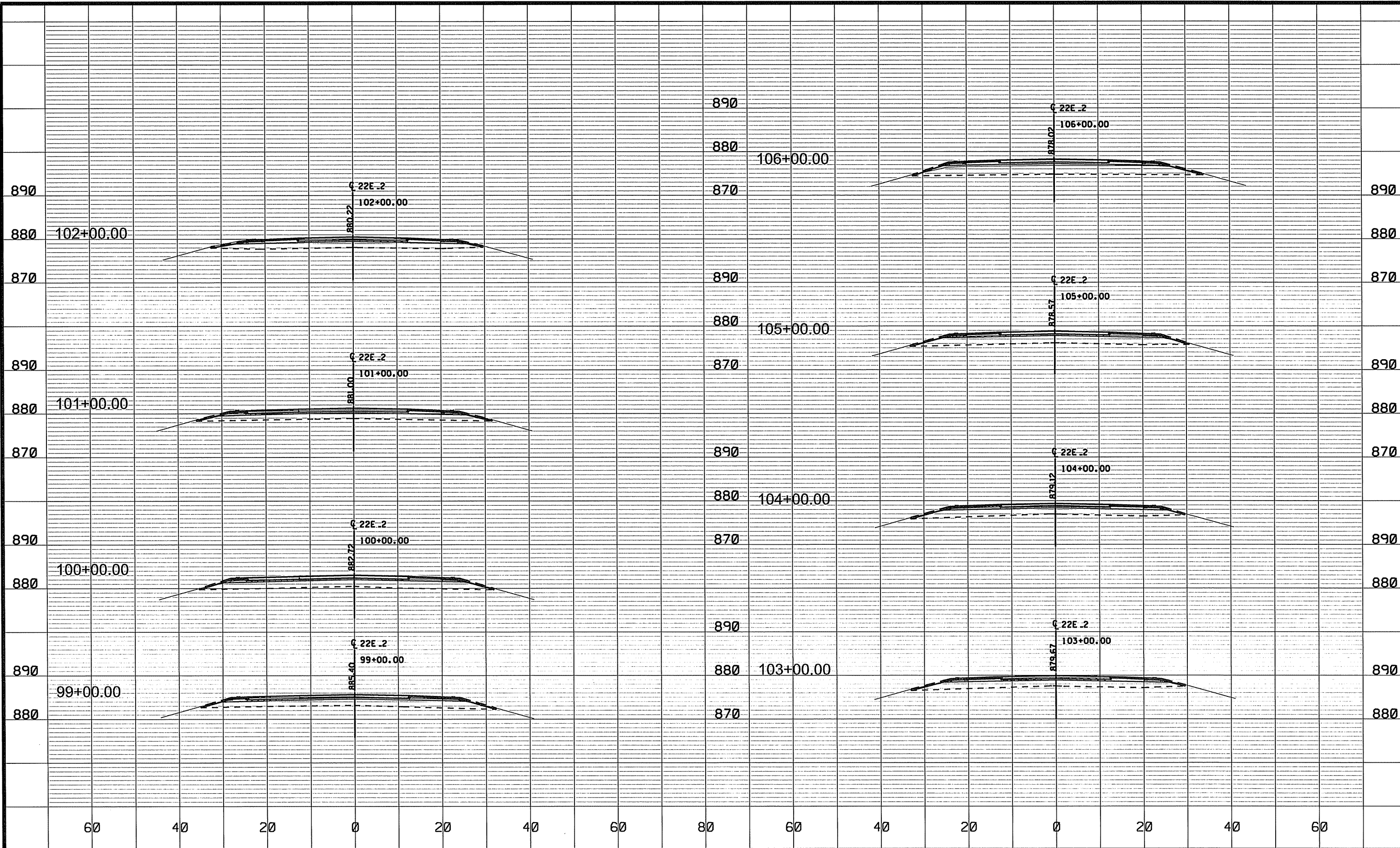
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002-622-033

EROSION CONTROL PLAN

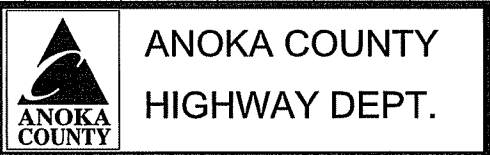
Sheet 46 of 48 Sheets



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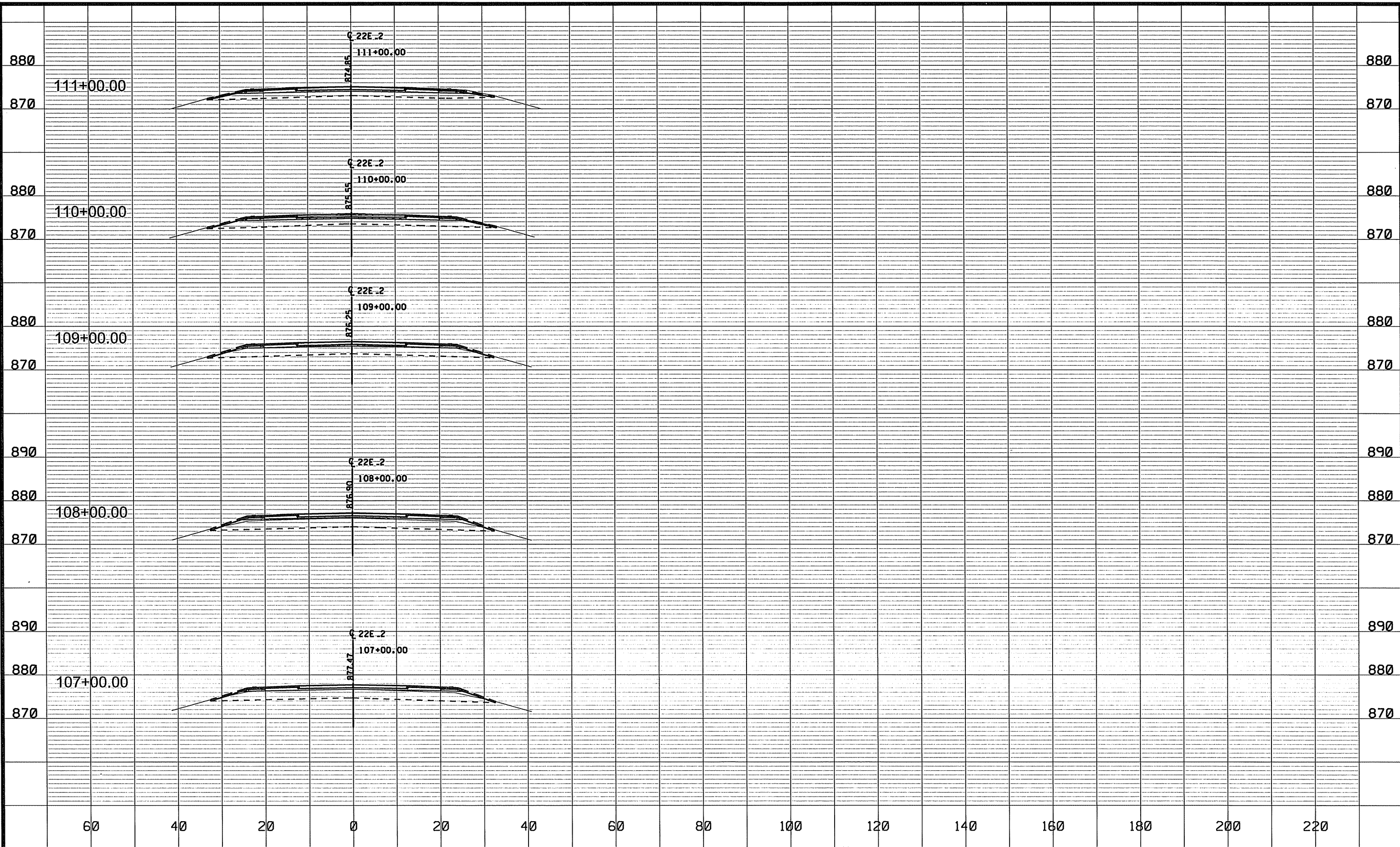
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ANOKA COUNTY
HIGHWAY DEPT.



002-622-033
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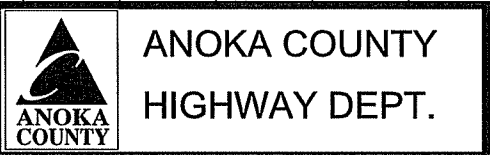
CROSS SECTIONS
STA 99+00.00 TO 106+00.00
Sheet 47 of 48 Sheets



NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\02-622-33\Plan\0262233_XS_P1.dgn					
05/31/2013 7:14:49 AM					

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DRAWN BY NJD DATE 41424
 DESIGN BY NJD DATE 41424
 CHECKED BY GMP DATE 41422



002-622-033
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CROSS SECTIONS
 STA 107+00.00 TO 111+00.00
 Sheet 48 of 48 Sheets