### STPM 02/3 (282) MINNESOTA DEPARTMENT OF TRANSPORTATION MINN, PROJ. NO. .... PLAN SYMBOLS COUNTY LINE \_\_\_\_\_\_TOWNSHIP OR RANGE LINE \_\_\_\_ GOVERNING SPECIFICATIONS ANOKA COUNTY THE 2005 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION OLIARTER LINE "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN, ALL MILLING, RECLAIMING AND BITUMINOUS SURFACING. CONSTRUCTION PLAN FOR \_\_\_\_ TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE TO THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL EXISTING RIGHT OF WAY... DEVICES" (MNMUTCD), AND PART VI. "FIELD MANUAL FOR TEMPORARY TRAFFIC PROPERTY LINE CR 27 LOCATED ON CSAH 7 / CSAH 24 BETWEEN CONTROL ZONE LAYOUTS." CORPORATE OR CITY LIMITS RETAINING WALL RAILROAD RAILROAD RIGHT OF WAY... INDEX SP-002-607-022 SHEET NO. DESCRIPTION STATE PROJ. NO. \_ RIVER OR CREEK 1 TITLE SHEET THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS C.S.A.H. 7 / C.S.A.H. 24 DRAINAGE DITCH UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL 2 STATEMENT OF ESTIMATED QUANTITIES GROSS LENGTH \_\_ WAS DETERMINED ACCORDING TO THE GUIDELINES OF 3-4 TABULATIONS 0.00 FEET 0.00 FEET CI/ASCE 38-02, ENTITLED "STANDARD GUIDELINES FOR BARBED WIRE FENCE. BRIDGES-LENGTH EXCEPTIONS-LENGTH \_\_ THE COLLECTION AND DEPICTION OF EXISTING 5 - 8 TYPICAL SECTIONS CHAIN LINK FENCE .. SUBSURFACE UTILITY DATA. NET LENGTH \_\_ 9 - 11 CONSTRUCTION DETAILS STONE WALL OR FENCE..... 12 - 26 PLAN HEDGE END S.P. 002-607-022 PERMANENT MARKING TABULATION STA, 348+24.00 TEMPORARY SIGNING & STRIPING PLAN ORCHARD BRUSH PERMANENT SIGNING & STRIPING PLAN SIGN REMOVAL AND PERMANENT SIGN MARKER TAB PERMANENT SIGN QUANTITY & TAB OVERPASS (Highway Over) SIGNING & STRIPING DETAILS THIS PLAN CONTAINS 57 SHEETS DESIGN DESIGNATION BUILDING (One Story Frame)... F-FRAME C-CONCRETE S-STONE T-TILE 1-S-F 885.163 ESAL 20 50, FROM CR 27 TO CSAH 22 R VALŪE B-BRICK ST-STUCCO 60, FROM CSAH 22 TO CSAH 24 R VALUE RAILROAD CROSSING BELL RAILROAD CROSSING BELL RAILROAD CROSSING GATE MANHOLE CATCH BASIN ADT (2013) =Proj. $ADT (2033) = _{-}$ CAST IRON MONUMENT Proj. HCADT (2033) = Soil Factor 9 TON DESIGN CR 27 TO CSAH 22 SAND PIT .... 10 TON DESIGN CSAH 22 TO 229TH AVE BORROW PIT ROCK QUARRY B MINOR Functional Classification No. of Traffic Lanes 2 Shoulder Width UTILITY SYMBOLS POWER POLE LINE .... Design Speed 55 MPH (5+00 - 202+38) TELEPHONE OR TELEGRAPH Design Speed 50 MPH (202+38 - 313+76) JOINT TELEPHONE & POWER Design Speed 45 MPH (313+76 - 340+04) ON TELEPHONE POLES. Design Speed 35 MPH (340+04 - 348+24) ANCHOR CITY OF OAK GROVE Based on Stopping Sight Distance STEEL TOWER STREET LIGHT Height of eve 3.5' Height of object PEDESTAL (Cable Terminal). Design Speed not achieved at: GAS MAIN . 8+84 TO STA. 15+16 TELEPHONE CABLE IN CONDUIT -G-TO STA. 20+95 ELECTRIC CABLE IN CONDUIT TELEPHONE MANHOLE 24+74 30+34 ELECTRIC MANHOLE \_\_\_ CITIES OF BURIED ELECTRIC CABLE\_\_\_\_\_P\_BUR-ST FRANCIS, OAK GROVE ------ T-- AE ---SEWER (Sanitary or Storm) RAMSEY SEWER MANHOLE .... BEGIN S.P. 002-607-022 -->---STA, 5+00,00 ANOKA COUNTY SCALES CITY OF ST FRANCIS CITY OF OAK GROVE PLAN CITY OF RAMSEY PROFILE MN/DOT TRANSPORTATION HORIZONTAL **DISTRICT - METRO** OAK GROVE VERTICAL SECTIONS 5,6,7,18,19,30,31 TOWNSHIP 33 NW RANGE 24 W CITY OF RAMSEY HORIZONTAL REVIEWED FOR COMPLIANCE WITH STATE AD AND REDEPAR AD BUILDER FOR LICE. AD AND REDEPAR AD BUILDER FOR LICE. ANDOVER VERTICAL SECTION 6 TOWNSHIP 32 NW RANGE 24 W STATE AID ENGINEER INDEX MAP ANOKA COUNTY DRAWN BY \_\_\_JF \_\_\_ DATE 4/19/2013 LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF TITLE SHEET THE STATE OF MINNESOTA. 002-607-022 PRINT NAME: ANDREW WITTER DESIGN BY \_\_\_JF \_\_ DATE 4/19/2013 HIGHWAY DEPT. CHECKED BY GA DATE 4/22/2013 DATE BY CKD APPR Sheet 1 of 57 Sheets DATE: 677 LICENSE NO. 42757

	MOTE				SP 002-607-022
TAB	NOTE NO.	ITEM NO.	ITEM	UNIT	TOTAL EST. QUANT.
		2021.501	MOBILIZATION	LUMP SUM	1
Α	1	2104.505	REMOVE CONCRETE DRIVEWAY PAVEMENT	SQ YD	24
В	2	2104.505	REMOVE BITUMINOUS PAVEMENT	SQ YD	259
	29	2104.509	REMOVE SIGN TYPE C	EACH	179
С	3	2104.511	SAWING CONCRETE PAVEMENT FULL DEPTH	LINFT	17
D	4	2104.513	SAWING BITUMINOUS PAVEMENT FULL DEPTH	LIN FT	443
Ε	5	2105.525	TOPSOIL BORROW (LV)	CUYD	110
F	6	2123.503	MOTOR GRADER	HOUR	6
G	7	2123.521	PNEUMATIC-TIRED ROLLER	HOUR	6
Н	8	2130.501	WATER	M-GALLON	20
1	9	2211.501	AGGREGATE BASE CLASS 5	TON	140
J	10	2221.501	AGGREGATE SHOULDERING CLASS 5	TON	1048
K	11	2232.501	MILL BITUMINOUS SURFACE ( 0.5" )	SQ YD	57133
L	12	2232.501	MILL BITUMINOUS SURFACE (1.0")	SQ YD	2649
М	13	2232.501	MILL BITUMINOUS SURFACE ( 2.0" )	SQ YD	2179
N	14	2331.604	BITUMINOUS PAVEMENT RECLAMATION	SQ YD	6734
0	15	2331.607	HAUL BIT PAVEMENT RECLAMATION (LV)	CUYD	200
Р	16	2357.502	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	8032
Q	17	2360.501	TYPE SP 12.5 WEARING COURSE MIX (4, B)	TON	80
R	18	2360.501	TYPE SP 12.5 WEARING COURSE MIX (4, E)	TON	18113
S	19	2506.522	ADJUST FRAME & RING CASTING	EACH	2
Т	20	2531.507	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	24
U	21	2535.501	BITUMINOUS CURB	LINFT	190
V	22	2540.602	MAIL BOX SUPPORT	EACH	74
	23	2563.601	TRAFFIC CONTROL	LUMP SUM	1
W	24	2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UNIT DAY	28
	30	2564.531	SIGN PANNELS TYPE C	SQFT	995.4
	31	2564.550	DELINEATOR X4-13	EACH	55
	31	2564.553	CLEARANCE MARKER X4-4	EACH	6
	31	2564.554	SNOW PLOW MARKER	EACH	11
Х	25	2575.523	EROSION CONTROL BLANKETS CATEGORY 00	SQ YD	2620
Υ	26	2581.501	REMOVABLE PREFORMED PLASTIC MARKING	LINFT	1452
	27	2582.502	4" SOLID LINE YELLOW - PAINT	LINFT	7700
	27	2582.502	4" BROKEN LINE YELLOW-PAINT	LIN FT	3960
	27	2582.502	4" DOUBLE SOLID LINE YELLOW - PAINT	LINFT	1200
	28	2582.502	4" SOLID LINE WHITE - EPOXY	LINFT	71600
	28	2582.502	4" BROKEN LINE WHITE-EPOXY	LINFT	80
	28	2582.502	4" SOLID LINE YELLOW- EPOXY	LINFT	7850
	28	2582.502	4" BROKEN LINE YELLOW-EPOXY	LIN FT	5310
	28	2582.502	4" DOUBLE SOLID LINE YELLOW - EPOXY	LINFT	8450

	TAB INDEX
Α	REMOVE CONCRETE DRIVEWAY PAVEMENT
В	REMOVE BITUMINOUS PAVEMENT
С	SAWING CONCRETE PAVEMENT FULL DEPTH
D	SAWING BITUMINOUS PAVEMENT FULL DEPTH
E	TOPSOIL BORROW
F	MOTOR GRADER
G	PNEUMATIC-TIRED ROLLER
Н	WATER
1	AGGREGATE BASE CLASS 5
J	AGGREGATE SHOULDERING CLASS 5
K	MILL BITUMINOUS SURFACE 0.5"
L	MILL BITUMINOUS SURFACE 1.0"
M	MILL BITUMINOUS SURFACE 2.0"
N	BITUMINOUS PAVEMENT RECLAMATION
0	HAUL BITUMINOUS RECLAMATION
Р	BITUMINOUS MATERIAL FOR TACK
Q	TYPE SP 12.5 WEARING COURSE MIX (4, B)
R	TYPE SP 12.5 WEARING COURSE MIX (4, E)
S	ADJUST FRAME & RING CASTING
Т	6" CONCRETE DRIVEWAY PAVEMENT
U	BITUMINOUS CURB
V	MAIL BOX SUPPORT
W	PORTABLE CHANGEABLE MESSAGE BOARD
Х	EROSION CONTROL BLANKETS CATEGORY 00
Υ	REMOVABLE PREFORMED PLASTIC MARKING

BASIS OF QUANTITIES				
ПЕМ	RATE			
TOPSOIL BORROW	LENGTH * END AREA (4.0" TO 0.0" * 6.0')/27 = CU YDS			
WATER	M-GALLON			
AGGREGATE BASE CLASS 5	5 TONS / GRAVEL ENT - F.E.			
AGGREGATE SHOULDERING CLASS 5	LENGTH * WIDTH * DEPTH / 27 = CU YDS * 1.8 (CV)			
BITUMINOUS MATERIAL FOR TACK COAT	0.05 GALLONS / SQ YD			
TYPE SP 12.5 WEARING COURSE MIX (4,B)	SQ YDS * INCHES * 115LBS / 2000 = TONS			
TYPE SP 12.5 WEARING COURSE MIX (4,E)	SQ YDS * INCHES * 115LBS / 2000 = TONS			
SEED MIXTURE 250	70LBS / ACRE			
FERTILIZER TYP 3	350LBS / ACRE			

THE FOLL	OWING STANDARD PLATES APPROVED BY THE FEDERAL					
HIGH	HIGHWAY ADMINISTRATION SHALL APPLY ON THIS PROJECT					
2. 2. 2.	STANDARD PLATES					
PLATE NO. DESCRIPTION						
9350 A	MAILBOX SUPPORT ( SWING AWAY TYPE )					
80001						

	9	5 TONS AGGREGATE BASE CL DRIVEWAYS WITHIN RECLAIM	ASS 5 FOR ALL INPLACE G AREA PRIOR TO REPAVING	RAVEL DRIVEWAYS , AND USED AS NE AT THE DESCRETION OF THE ENGINE	EDED TO RAISE GRADE OF BITUMINOUS ER.			
	10	SHOULDERING CLASS 5 FOR F	FINISHED 1.5' GRVL. SHLDR	(CALC. AT 4" DEPTH) WITHIN RECLAIM	AREA STA. 333+50 - 348+24.			
	11	PROFILE MILL (0.5")DRIVING L	LANES (25' WIDE) FROM STA	A. 125+22 - 333+50.				
	12	EDGE MILL ALONG ALL INPLAC	CE CONCRETE CURB ( 6' WI	DE MILL TAPERING FROM 0.0" TO 1" AT	LIP OF CURB.			
	13	BITUMINOUS DRIVEWAYS AND BITUMINOUS STREET APPROA	BITUMINOUS FLUMES <u>NOT</u> CHES <u>NOT</u> IN RECLAIM ARE	JECT AND ALL PAVED ST APPROACHE IN RECLAIM AREA ARE TO HAVE A 2' W A ARE TO HAVE A 4' WIDE BY 2" DEEP INE WEAR. LOCATION OF JOINT TO BE I	IDE BY 2" DEEP MILL JOINT. MILL JOINT , PAVED IN SAME PROCCESS			
	14	FULL DEPTH RECLAMATION FI	ROM STA 333+50 TO STA. 34	18+24				
	15	EXCESS RECLAIM MATERIAL F INSIDE RECLAIM AREA. MATER		OF RECLAIM FROM TRANSITIONS TO B	E HAULED AND USED AS NEEDED			
	16	BITUMINOUS TACK COAT TO B	E APPLIED TO <u>ALL</u> BITUMIN	OUS SURFACES PRIOR TO PAVING				
	17	WEARING COURSE (4, B) FOR	R STREET APPROACH / BITU	JMINOUS DRIVE WAYS INSIDE RECLAIM	AREA , STA. 333+50 - 348+24.			
	18	WEARING COURSE(4,E) ALL	. WEAR SURFACE. STA. 5+0 DN OF SAFTY EDGE, SEE SI	0 - 348+24 AND BASE COURSE IN RECL HEET 10 FOR DETAIL. REFER TO SPECI	.AIM AREA 333+50 - 348+24. AL PROVISIONS.			
	19	EXISTING SANITARY MANHOLE EXISTING TELE - MANHOLES TO	S TO BE ADJUSTED TO NEV O BE ADJUSTED BY TELE -	W BITUMINOUS SURFACE BY CONTRAC COMPANY, CONTRACTOR TO COORDIN	TOR. IATE WITH TELE. COMPANY.			
	20	CONCRETE DRIVEWAY# 1988 LOCATION OF SAWCUT / REMO	1 TO BE SAWCUT, REMOVE DVAL TO BE DETERMINED E	D AND REPAVED WITH 6" CONCRETE D Y THE ENGINEER.	DRIVEWAY PAVEMENT			
	21	BITUMINOUS CURB IN RECLAIN WIDER IN CURB AREA TO ALLO SEE SHEET 10 FOR BITUMINOU	OW BITUMINOUS CURB TO	LED IN SAME LOCATION. BITUMINOUS E SIT ON AND BE LOCKED IN BY BINDER (	BASE COURSE TO BE PAVED COURSE.			
,	22	NEW MAILBOXES TO BE INSTALLED AT THE EXISTING MAILBOX LOCATION. MAILBOX AND INSTALLATION INCIDENTAL TO ITEM. CONTRACTORS RESPONSIBILITY TO COORDINATE WITH LOCAL POSTAL AUTHORITY.						
	23	" ALL TRAFFIC CONTROL METHODS SHALL CONFORM TO THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES."  DO NOT PASS, PASS WITH CARE, NO CENTER STRIPE AND UN-EVEN LANE SIGNS TO BE INPLACE DURING MILLING, RECLAIMING / PAVING OPERATIONS.						
	24	CONSTRUCTION NOT TO TAKE PLACE PRIOR TO THE WEEK OF 06/07/2013, ST FRANCIS PIONEER DAYS.  4 - MESSAGE BOARDS, ONE ON EACH END OF PROJECT AND 2 BOARDS, 1 -N.B. AND 1 S.B. AT CSAH 22. WILL BE INSTALLED 7-DAYS PRIOR TO ANY CONSTRUCTION. REFERENCE "TRAFFIC CONTROL QUANTITIES" SECTION OF THIS PLAN FOR DETAILS.						
	25	IN RECLAIM AREA , PLACED ON INSLOPE NEW TOPSOIL AND BEHIND BIT CURB. PLACEMENT,SEED AND FERTILIZER INCIDENTAL TO EROSION CONTROL BLANKET CAT 00 SEED MIXTURE 250 ( RATE - 70 LBS PER ACRE ) AND FERTILIZER TYP 3 ( RATE - 350 LBS PER ACRE )						
	26		AS SOON AS POSSIBLE ON	LEACH LIFT ( MUST BE APPLIED BEFOR	RE CONTRACTOR LEAVES FOR THE DAY).			
	27	TEMPORARY CENTER LINE STRIPING TO MATCH INPLACE	RIPING STA. 125+22 - 333+50 CENTERLINE STRIPING, INC	). AFTER 0.5" MAINLINE MILL. LATEX PAI LUDING HAZARDS.	NT & REFLECTIVE GLASS BEADS.			
	28	PERMANENT MARKINGS TO BE	IN PLACE WITHIN 72 HOUR	S OF FINAL MAINLINE PAVING.				
	29	SEE SHEET 54 FOR TABULATIONS.						
	30	PAID AT THE CONTRACT PRICE (INCLUDING CHANNEL POSTS FOR QTY'S, AND SPECIAL PROVIS	) AND COSTS INVOLVED IN	MPENSATION IN FULL FOR ALL WORK, I PERFORMING THE WORK AS SPECIFIE	NSTALLATION,MATERIALS D IN THIS PLAN. SEE SHEETS 54 - 55			
	31	PAID AT THE CONTRACT PRICE (INCLUDING CHANNEL POSTS FOR QTYS, AND SPECIAL PRO	) AND COSTS INVOLVED IN	MPENSATION IN FULL FOR ALL WORK, PERFORMING THE WORK AS SPECIFIE	NSTALLATION,MATERIALS D IN THIS PLAN. SEE SHEETS 54 - 55			
	ANC	KA COUNTY			STATEMENT OF ESTIMATED			
ANOKA	HIGI	HWAY DEPT.	SP	002-607-022	QUANTITIES Sheet 2 of 57 Sheets			
COUNTY	Constitution of the American	and the second of the second s	NAMES AND SOCIETY OF STREET OF STREET PROPERTY AND STREET WAS TO STREET THE STREET OF STREET OF STREET AND STREET OF STREET	e presentation in the secretary and the control of	Sheet 2 of 57 Sheets			

NOTES CONCRETE DR WAY #19881 TO BE SAWCUT, CONCRETE REMOVED, GRVL ADDED AS NESSASARY AND CONCRETE REPAVED.

BITUMINOUS DR WAYS IN RECLAIM AREA TO BE SAWCUT, BITUMINOUS REMOVED, GRVL ADDED AS NESSASARY AND REPAVED.

IN RECLAIM AREA, TOPSOIL TO BE USED TO TIE IN NEW SH-PI TO EXISTING INSLOPE AND BEHIND BIT CURB, AS DIRECTED BY ENGINEER. INCLUDES TIME AND EQUIPMENT TO REMOVE EXCESS RECLAIMED MATERIAL AT BEG. AND END OF RECLAIM AREAS FOR SMOOTH TRANSITION TO EXISTING BITUMINOUS. FINAL SHAPING AND MAINTENANCE OF RECLAIMED ROADWAY INCIDENTAL TO ITEM. INCLUDES TIME AND EQUIPMENT TO COMPACT RECLAIMED MATERIAL AT BEG. AND END OF RECLAIM AREAS FOR SMOOTH TRANSITION TO EXISTING BITUMINOUS. FINAL SHAPING AND MAINTENANCE OF RECLAIMED ROADWAY INCIDENTAL TO ITEM.

BITUMINOUS DR WAYS, BEG. AND END OF RECLAIM AND STREET APPROACHES IN RECLAIM AREA TO BE SAWCUT.

LOCATION OF SAWCUT AND AREA TO BE CONCRETED TO BE DETERMINED BY ENGINEER.

DR WAY# 19881, LOCATION OF CONCRETE SAWCUT TO BE DETERMINED BY ENGINEER.

LOCATION OF SAWCUT AND AREA TO BE PAVED TO BE DETERMINED BY ENGINEER.

WATER TO BE USED AS DUST CONTROL IN RECLAIM AREA , AT THE DESCRETION OF THE ENGINEER.

LOCATION OF SAWCUT TO BE DETERMINED BY ENGINEER.

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NO	DATE	BY	CKD	APPR	REVISION
NAME.	D-\02 607 22\Dlag	nla SEO de	- n		00/02/2012 1/10/12 DM

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:

DATE: 6 1713 S LICENSE NO. 42757

DRAWN BY \_\_\_\_JF \_\_\_ DATE 4/19/2013 DESIGN BY \_\_\_JF \_\_ DATE 4/19/2013 CHECKED BY GA DATE 4/22/2013



Α	REMOVE CONCRETE DRIVEWAY PAVEMENT		
	LOCATION	SQ YDS	
	# 19881	24	
	TOTAL SQ YDS	24	

B REMOVE BITUMIN	OUS PAVEMENT
LOCATION	SQ YDS
MH- SAN	4
22705	17
PARK ENT	39
22733	41
MH- SAN	4
CHURCH	57
22815	28
22855 / 22871	69
TOTAL SQ YDS	259

С	SAWING CONCRETE PAVEMENT FULL DEPTH				
	LOCATION	LIN FT			
	19881	17			
	TOTAL LIN FT	17			

D SAWING BITUM	SAWING BITUMINOUS PAVEMENT FULL DEPTH			
LOCATION	LIN FT			
19881	30			
MAINLINE STA. 333+5	0 45			
CSAH 24	77			
мн	24			
22705	12			
PARK ENT	19			
22733	29			
мн	24			
RUM RIVER BLVD	57			
CHURCH	30			
22815	14			
22855 / 22871	54			
MAINLINE STA. 348+2	4 28			
TOT	ALLIN FT 443			

E	TOPSOIL BORROW				
MAINLINE	STATION	STATION	LENGTH	END AREA 4" - 0" X 6"	CU YDS
LNB	333+50	348+24	1474	1	55
LSB	333+50	348+24	1474	1	55
				TOTAL CU YDS	110

F	MOTOR GRADER		
	LOCATION	HRS	
STA	333+50 - 348+24	6	
	TOTAL HOURS	6	

G	PNEUMATIC-T	IRED ROLLER
	LOCATION	HRS
	STA 333+50 - 348+24	6
	TOTAL HOURS	6

Н	WATER									
MAINLINE	STA	STA	LENGTH	MILES	M-GAL /MILE	M-GAL				
	333+50	348+24	1474.0	0.28	70.0	20				
					TOTAL M-G	AL 20				

ı		AGGREGATE	BASE CLASS 5		
	ADDRESS	STATION	LOC.		TONS
	FE	73+90	RT		5
	4400	77+70	RT		5
	FE	97+90	LT		5
	19130	101+20	RT		5
	FE	104+50	LT		5
	FE	111+20	LT		5
	FE	141+90	RT		5
	FE	159+25	RT		5
	FE	159+50	LT		5
	FE	167+50	RT		5
	20730	192+90	LT		5
	FE	195+00	LT		5
	FE	213+00	RT		5
	21036	218+00	LT		5
	FE	227+00	LT		5
	21231 / 21261	230+40	RT		5
	FE	258+80	RT		5
	21913	281+00	RT		5
	22120	294+10	LT		5
	FE	296+30	RT		5
	22708	337+70	LT		5
	PARK ENT	339+50	LT		5
	22733	339+90	RT		5
	22746	341+00	LT		5
	F.E.	341+75	RT		5
	CHURCH	344+60	LT		5
	22815	344+70	RT		- 5
	22855 / 22871	346+75	RT		5
				TOTAL TONS	140

J	AGGREGA	TE SHOU	JLDERING	CLASS 5		
MAINLINE	STATION	STATION	LENGTH	WIDTH	DEPTH	CU YDS
LNB	5+00	125+22	12022	1.5	0.17	114
LSB	5+00	125+22	12022	1.5	0.17	114
LNB	125+22	333+50	20828	1.5	0.13	150
LSB	125+22	333+50	20828	1.5	0.13	150
LNB	333+50	348+24	1474.0	1.5	0.33	27
LSB	333+50	348+24	1474.0	1.5	0.33	27
				SUB C	U YDS	582
				(CV) FACT	OR X	1.8
				TOTAL	TONS	1048

K	MILL	BITUMINOUS	SURFACE	0.5"	
LOCATION	STATION	STATION	LENGTH	WIDTH	SQ YDS
MAINLINE	125+22	173+13	14791	25	41086
MAINLINE	275+73	333+50	5777	25	16047
				TOTAL SQ YDS	57133

L	MILL BITUMINOUS SURFACE 1.0"								
LOCATION	STATION	STATION	LENGTH	WIDTH	SQ YDS				
LIP CONC CURB	125+00	127+60	260.0	6.0	173				
LIP CONC CURB	133+40	136+38	298.0	6.0	199				
LIP CONC CURB	141+43	143+16	173.0	6.0	115				
LIP CONC CURB	188+00	195+14	714.0	6.0	476				
LIP CONC CURB	206+10	209+13	303.0	6.0	202				
LIP CONC CURB	215+95	218+36	241.0	6.0	161				
LIP CONC CURB	225+39	228+00	261.0	6.0	174				
LIP CONC CURB	229+50	232+65	315.0	6.0	210				
LIP CONC CURB	240+51	242+90	239.0	6.0	159				
LIP CONC CURB	258+21	261+20	299.0	6.0	199				
LIP CONC CURB	278+40	284+20	580.0	6.0	387				
LIP CONC CURB	280+60	283+50	290.0	6.0	193				
				TOTAL SQ YDS	2649				

LOCATION	STATION	LOC.	LENGTH	WIDTH	SQY
CSAH 7	5+00	CENTER	48	4	21
17964	6+50	LT	28	2	6
18055 18090	10+00 11+70	RT LT	21 26	2	5
18021	20+60	LT	20	2 2	6
18213	20+70	RT	20	2	4
183RD AVE	28+10	LT	48	4	21
18305	28+10	RT	26	2	6
18320 18340	29+00 31+10	LT LT	20	2 2	4
18350	32+20	LT	21	2	5
18350	33+10	LT	22	2	5
18400	33+90	LT	22	2	5
18420 18425	36+30 38+50	LT	22	2	5
18435	39+50	RT RT	22	2 2	5
18475	42+50	RT	26	2	6
185TH LN	42+60	LT	44	4	20
185TH LN	45+40	RT	52	4	23
18555 186TH LN	47+30 50+00	RT LT	20 45	2 4	4
18712	56+00	LT	24	2	20 5
18844	66+20	LT	23	2	5
189TH AVE	71+00	RT	51	4	23
18909	72+30	RT	21	2	5
18936 190TH LN	74+20 80+90	LT RT	28	2	6
19059	83+50	RT	52 22	2	23 5
19111	85+50	RT	24	2	5
19420	106+20	LT	20	2	4
19625 .	119+00	RT	23	2	5
19625 CSAH 22	120+00	RT	26	2	6
CSAH 22	125+00 125+00	LT RT	60 42	4 4	27 19
BITFLUME	127+60	LT	6	2	1
19761	129+10	RT	22	2	5
19815	133+70	RT	21	2	5
BIT FLUME BIT FLUME	136+38 141+43	LT	6	2	1
20001	147+25	LT RT	6 37	2 2	1 8
200TH LN	147+50	LT	44	4	20
20232	161+50	LT	19	2	4
20232	162+80	LT	26	2	6
20315 20339	168+00 170+80	LT RT	16	2	4
204TH LN	176+80	RT	51	4	23
204TH LN	176+80	LT	56	4	25
20531 / 20575	184+10	RT	19	2	4
BITFLUME	195+14	RT	6	2	1
208TH AVE 208TH AVE	200+00 200+00	LT RT	59 48	4	26
BITFLUME	209+13	LT	6	2	21
210TH AVE	212+58	LT	51	4	23
BITFLUME	215+95	LT	6	2	1
211THLN	223+50	RT	59	4	26
BIT FLUME BIT FLUME	225+39 228+00	RT RT	6	2 2	1
BITFLUME	232+65	LT	6	2	1
SUNSHINE DR	235+50	RT	49	4	22
BITFLUME	240+51	RT	6	2	1
214TH AVE	240+90	LT	55	4	24
21430 21470	243+00 245+00	LT LT	18	2	4
21470	245+70	LT	21	2 2	5
21517	249+50	RT	18	2	4
21530	249+70	LT	20	2	4
21567	253+20	RT	18	2	4
21617 21658	256+30 258+80	RT LT	16 15	2	4
217TH AVE	260+50	LT	53	4	3 24
BITFLUME	261+20	RT	6	2	1
218TH AVE	267+50	LT	56	4	25
21815	272+00	RT	18	2	4
SEELEY BRIDGE BIT FLUME	273+13 - 275+73 278+40	CENTER	260	45	1300
219TH AVE	279+00	RT LT	6 46	4	20
BITFLUME	280+60	LT	6	2	1
219TH AVE	284+50	RT	49	4	22
22008	286+00	LT	19	2	4
22070 22055	291+10	LT	17	2	4
22070	292+50 293+20	RT LT	24	2	5
22208	299+30	LT	17 23	2 2	5
22231	302+90	RT	22	2	5
22313	307+10	RT	19	2	4
22310	307+40	LT	23	2	5
22340	308+20	LT	22	2	5
224TH AVE 22390	313+80 313+90	RT	49	4	22
22430	315+10	LT LT	20 18	2 2	4
22470	317+90	LT	21	2 2	5
225TH LN	323+10	RT	61	4	27
22590	323+10	LT	54	2	12
22590	327+50	LT	31	2	7
227TH AVE CSAH 24	331+00 348+24	RT	58	4	26
USATI Z4	340+/4	CENTER	30	4	13

1 OF 2

 NO
 DATE
 BY
 CKD
 APPR
 REVISION

 NAME:
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 05/31/2013
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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: LICENSE NO. 42757

 DRAWN BY
 JF
 DATE 4/19/2013

 DESIGN BY
 JF
 DATE 4/19/2013

 CHECKED BY
 GA
 DATE 4/12/2013



ANOKA COUNTY HIGHWAY DEPT.

SP 002-607-022

TABULATIONS

Sheet 3 of 57 Sheets

N E	BITUMINOUS P.	AVEMENT F	RECLAMATION	1
LOCATION	STATION	STATION		MICRO
MAINLINE	333+50	348+24		6734
			TOTAL SQ YDS	6734

0	HAUL	BITUMINOU	S PAVEME!	NT RECLAMAT	ION
	LOCATION	STATION	STATION		MICRO
	MAINLINE	333+50	348+24		200
			•	TOTAL CU YDS	200

	STA	STA		SQ YDS	GAL/SQYD	GAL
LL	5+00	125+22		56618	0.05	2830.9
EN	125+22	333+50		57856	0.05	2892.8
HL	125+22	333+50		37755	0.05	1887.8
ASE	333+50	348+24		6733	0.05	336.7
	ADDRESS	STA	LOC	SQYDS	GAL/SQYD	GAL
	17964	6+50	LT	15	0.05	8.0
	18055	10+00	RT	15	0.05	8.0
	18090	11+70	LT	18	0.05	0.9
	18021	20+60	LT	16	0.05	8.0
	18213	20+70	RT	14	0.05	0.7
	183RD AVE	28+10	LT	33	0.05	1.7
	18305	28+10	RT	23	0.05	1.2
-	18320	29+00	LT LT	15	0.05	0.8
	18340 18350	31+10 32+20	LT	15	0.05	0.8
	18350	33+10	LT	16	0.05	0.8
	18400	33+90	LT	16	0.05	0.8
	18420	36+30	LT	16	0.05	0.8
	18425	38+50	RT	16	0.05	0.8
	18435	39+50	RT	17	0.05	0.9
	18475	42+50	RT	18	0.05	0.9
	185TH LN	42+60	LT	32	0.05	1.6
	185TH LN	45+40	RT	35	0.05	1.8
	18555	47+30	RT	14	0.05	0.7
	186TH LN	50+00	LT	31	0.05	1.6
	18712	56+00	LT	17	0.05	0.9
	18844 189TH AVE	66+20 71+00	LT RT	16 35	0.05	1.8
	1891HAVE 18909	71+00	RT	14	0.05	0.7
	18936	74+20	LT	21	0.05	1.1
	190TH LN	80+90	RT	35	0.05	1.8
	19059	83+50	RT	15	0.05	0.8
	19111	85+50	RT	17	0.05	0.9
	19420	106+20	LT	15	0.05	0.8
	19625	119+00	RT	15	0.05	8.0
	19625	120+00	RT	17	0.05	0.9
	CSAH 22	125+00	INCUDED IN M			
	CSAH 22	125+00	INCUDED IN M		1 0	
	19761	129+10	RT	15	0.05	0.8
	19815 20001	133+70 147+25	RT RT	15	0.05	1.3
-	200TH LN	147+50	LT	33	0.05	1.7
	20232	161+50	LT	15	0.05	0.8
	20232	162+80	LT	19	0.05	1.0
	20315	168+00	LT	13	0.05	0.7
	20339	170+80	RT	12	0.05	0.6
	204TH LN	176+80	RT	35	0.05	1.8
	204TH LN	176+80	LT	38	0.05	1.9
	20531 / 20575	184+10	RT	14	0.05	0.7
	208TH AVE	200+00	LT	40	0.05	2.0
	208TH AVE	200+00	RT	34	0.05	1.7
	210TH AVE	212+58	LT	35	0.05	1.8
	211TH LN SUNSHINE DR	223+50 235+50	RT RT	40 34	0.05	2.0
	214TH AVE	240+90	LT	34	0.05	1.7
	21430	243+00	LT	14	0.05	0.7
	21470	245+00	LT	15	0.05	0.8
	21470	245+70	LT	16	0.05	0.8
	21517	249+50	RT	13	0.05	0.7
	21530	249+70	LT	15	0.05	8.0
	21567	253+20	RT	14	0.05	0.7
	21617	256+30	RT	11	0.05	0.6
	21658	258+80	LT	11	0.05	0.6
	217TH AVE	260+50	LT	36	0.05	1.8
	218TH AVE	267+50	LT	39	0.05	2.0
	21815	272+00 279+00	RT LT	32	0.05	0.7
	219TH AVE	279+00	RT	34	0.05	1.6
	22008	286+00	LT	14	0.05	0.7
	22070	291+10	LT	15	0.05	0.8
	22055	292+50	RT	17	0.05	0.9
	22070	293+20	LT	13	0.05	0.7
	22208	299+30	LT	17	0.05	0.9
_	22231	302+90	RT	15	0.05	0.8
	22313	307+10	RT	13	0.05	0.7
	22310	307+40	LT	17	0.05	0.9
	22340	308+20	LT	17	0.05	0.9
	224TH AVE	313+80	RT	33	0.05	1.7
	22390	313+90	LT	16	0.05	0.8
	22430	315+10	LT	13	0.05	0.7
	22470	317+90	LT	16	0.05	0.8
	225TH LN	323+10	RT	42	0.05	2.1
	22590	323+10	LT	38	0.05	1.9
	22590	327+50	LT	22	0.05	1.1
	227TH AVE	331+00	RT	39	0.05	2.0

Q		TYPE S	P 12.5 WE	ARING COURSE	MIX (4,B)	
	ADDRESS	STA	LOC	DEPTH"	SQYDS	TONS
	CSAH 24	334+50	LT	4	130	30
	22705	337+70	RT	2	17	2
	PARK ENT	339+50	LT	2	39	4
	22733	339+90	RT	2	41	5
	RUM RIVER BLVD	343+50	RT	4	94	22
	CHURCH	344+60	LT	2	57	7
	22815	344+70	RT	2	28	3
	22855 / 22871	346+75	RT	2	69	8
	(SQY	DS X INCHES	X 115LB ) / 20	00	TOTAL TONS	80

R	(SQ	YDS X INCHES	X 115LB )/2	000		TOTAL TONS	80
				ARING COUR	SE MIY / A		
	CTA CTA	LENGTH	WIDTH	DEPTH"			TONG
_	STA - STA	LENGIA	MIDIL		MICR SQ YDS	SQ YDS	TONS
EN	5+00 - 125+22 125+22 - 333+50	20828	25	2 2	56618	56618 57856	6511.1 6653.4
HL	125+22 - 333+50	20020	25	1.5	37755		
						37755	3256.4
EAR	333+50 - 348+24			2	6565	6565	755.0
ASE	333+50 - 348+24			2	6734	6733	774.4
				1 1	SU	B TOTAL TONS	17950.3
	ADDRESS	STA	LOC	DEPTH "		SQ YDS	TONS
	17964	6+50	LT	2		15	1.7
	18055	10+00	RT	2		15	1.7
	18090	11+70	LT	2		18	2.1
	18021	20+60	LT	2		16	1.8
	18213	20+70	RT	2		14	1.6
	183RD AVE	28+10	LT	2		33	3.8
-							
	18305	28+10	RT	2		23	2.6
	18320	29+00	LT	2		15	1.7
	18340	31+10	LT	2		15	1.7
	18350	32+20	LT	2		16	1.8
	18350	33+10	LT	2		16	1.8
	18400	33+90	LT	2		16	1.8
	18420	36+30	LT	2		16	1.8
	18425	38+50	RT	2		16	1.8
	18435	39+50	RT	2		17	2.0
	18475	42+50	RT	2		18	2.1
	185TH LN	42+60	LT	2		32	3.7
	185TH LN	45+40	RT	2	1 22	35	4.0
	18555	47+30	RT	2		14	1.6
	186TH LN	50+00	LT	2		31	3.6
	18712	56+00	LT	2		17	2.0
-	18844	66+20	LT	2		16	1.8
	189TH AVE	71+00	RT	2		35	4.0
	18909	72+30	RT	2		14	1.6
	18936	74+20	LT	2		21	2.4
	190TH LN	80+90	RT	2		35	4.0
	19059	83+50	RT	2		15	1.7
	19111	85+50	RT	2		17	2.0
	19420	106+20	LT	2		15	1.7
	19625	119+00	RT	2		15	
							1.7
	19625	120+00	RT	2		17	2.0
	CSAH 22	125+00		IN MAINLINE			0.0
	CSAH 22	125+00	INCUDED	IN MAINLINE			0.0
	19761	129+10	RT	1.5		15	1.3
	19815	133+70	RT	1.5		15	1.3
	20001	147+25	RT	1.5		26	2.2
	200TH LN	147+50	LT	1.5		33	2.8
	20232	161+50	LT	1.5		15	1.3
	20232	162+80	LT	1.5		19	1.6
	20315	168+00	LT	1.5		13	1.1
	20339	170+80	RT	1.5		12	1.0
	204TH LN	176+80	RT	1.5		35	3.0
	204TH LN	176+80	LT	1.5		38	3.3
	20531 / 20575	184+10	RT	1.5		14	1.2
	208TH AVE	200+00	LT	1.5		40	3.5
	208TH AVE	200+00	RT	1.5		34	2.9
	210TH AVE	212+58	LT	1.5		35	3.0
	211TH LN	223+50	RT	1.5		40	3.5
	SUNSHINE DR	235+50	RT	1.5		34	2.9
	214TH AVE	240+90	LT	1.5		39	3.4
	21430	243+00	LT	1.5		14	1.2
	21470	245+00	LT	1.5		15	1.3
	21470	245+70	LT	1.5		16	1.4
		249+50					
	21517		RT	1.5		13	1.1
	21530	249+70	LT	1.5		15	1.3
	21567	253+20	RT	1.5		14	1.2
	21617	256+30	RT	1.5		11	0.9
	21658	258+80	LT	1.5		11	0.9
	217TH AVE	260+50	LT	1.5		36	3.1
	218TH AVE	267+50	LT	1.5		39	3.4
	21815	272+00	RT				
				1.5		14	1.2
	219TH AVE	279+00	LT	1.5		32	2.8
7	219TH AVE	284+50	RT	1.5		34	2.9
	22008	286+00	LT	1.5		14	1.2
	22070	291+10	LT	1.5		15	1.3
	22055	292+50	RT	1.5		17	1.5
	22070	293+20	LT	1.5		13	1.1
	22208	299+30	LT				
-				1.5		17	1.5
	22231	302+90	RT	1.5		15	1.3
	22313	307+10	RT	1.5		13	1.1
_	22310	307+40	LT	1.5		17	1.5
	22340	308+20	LT	1.5		17	1.5
	44.540	313+80	RT	1.5		33	2.8
		313100					
	224TH AVE	212:00	LT	1.5		16	1.4
	224TH AVE 22390	313+90		1.5		13	1.1
	224TH AVE 22390 22430	315+10	LT				4.4
	224TH AVE 22390		LT LT	1.5		16	1.4
	224TH AVE 22390 22430	315+10		1.5		16 42	3.6
	224TH AVE 22390 22430 22470 225TH LN	315+10 317+90 323+10	LT RT	1.5		42	3.6
	224TH AVE 22390 22430 22470 225TH LN 22590	315+10 317+90 323+10 323+10	LT RT LT	1.5 1.5		42 38	3.6 3.3
	224TH AVE 22390 22430 22470 225TH LN 22590 22590	315+10 317+90 323+10 323+10 327+50	LT RT LT LT	1.5 1.5 1.5		42 38 22	3.6 3.3 1.9
	224TH AVE 22390 22430 22470 225TH LN 22590	315+10 317+90 323+10 323+10	LT RT LT	1.5 1.5		42 38	3.6 3.3
	224TH AVE 22390 22430 22470 225TH LN 22590 22590	315+10 317+90 323+10 323+10 327+50	LT RT LT LT	1.5 1.5 1.5		42 38 22	3.6 3.3 1.9
	224TH AVE 22390 22430 22470 225TH LN 22590 22590	315+10 317+90 323+10 323+10 327+50	LT RT LT LT	1.5 1.5 1.5		42 38 22	3.6 3.3 1.9
	224TH AVE 22390 22430 22470 225TH LN 22590 22590	315+10 317+90 323+10 323+10 327+50	LT RT LT LT	1.5 1.5 1.5	SI	42 38 22	3.6 3.3 1.9
	224TH AVE 22390 22430 22470 225TH LN 22590 22590	315+10 317+90 323+10 323+10 327+50	LT RT LT LT	1.5 1.5 1.5	SI	42 38 22 39	3.6 3.3 1.9 3.4

S	ADJUST FRAME & RING CASTING								
STRUCTURE	STATION	LOCATION	ADJUSTED	QTY					
MH - TELE	334+50	RT	BYOTHERS	0					
MH-SAN	335+50	RT	CONTRACTOR	1					
MH-SAN	340+50	RT	CONTRACTOR	1					
			2						

T	6" CONCRETE DRIVEWAY PAVEMENT							
	LOCATION	SQ YDS						
	# 19881	24						
	TOTAL SQ YDS	24						

U	BITUMINOUS CURB							
STATION	STATION	LOCATION		LIN FT				
337+75	339+65	RT		190				
			TOTAL LIN FT	190				

11	TOTAL LIN FT 1								
V		BOX SUPPOR							
	ADDRESS	STA.	DR WAY	QTY					
	18055	10+00	RT	1					
	18090	11+70	LT	11					
	18021	20+60	LT	1					
	18213	20+70	RT	11					
	18305	28+10	RT	1					
	18320	29+00	LT	11					
	18340	31+10	LT	1					
	18350	33+10	LT	1					
	18400	33+90	LT	1					
	18420	36+30	LT	11					
	18425	38+50	RT	1					
	18435	39+50	RT	11					
	18475	42+50	RT	2					
	18555	47+30	RT	1					
	18712	56+00	LT	1					
	18909	72+30	RT	1					
	18936	74+20	LT	1					
	19059	83+50	RT	1					
	19111	85+50	RT	1					
	19420	106+20	LT	1					
	19625	120+00	RT	1					
	19710	127+10	LT	1					
	19761	129+10	RT	i					
	19815	133+70	RT	1					
	19820	133+90	LT	1					
	19881	139+20	RT	1					
	19926	141+70	LT	1					
	20001	147+25	RT	1					
	20339 / 20379	170+80	RT	2					
	20531 / 20575								
		184+10	RT	2					
	4271	192+90	LT	2					
	20700 / 20749	192+90	LT	2					
	20912	207+50	LT	1					
	21036	216+50	LT	1					
	21230	230+20	LT	1					
	21231 / 21261	230+20	RT	2					
	21280	232+30	LT	1					
	21417	242+80	RT	1					
	21430	243+00	LT	1					
	21470	245+70	LT	1					
	21517	249+50	RT	1					
	21530	249+70	LT	1					
	21567	253+20	RT	1					
	21617	256+30	RT	1					
	21658	258+80	LT	1					
	21661	260+50	RT	1					
	21815	272+00	RT	1					
	21913	281+00	RT	1					
	21944	281+60	LT	1					
	22008	286+00	LT	1					
	22055	292+50	RT	1 .					
	22070	293+20	LT	1					
	22120	294+10	LT						
	22208	299+30	LT	1					
	22231			1					
		302+90	RT						
	22313	307+10	RT	1					
	22310	307+40	LT	1					
	22340	308+20	LT	11					
	22390	313+90	LT	1					
	22430	315+10	LT	1					
	22470	317+90	LT	1					
	22705	337+70	RT	1					
	22708 / 1254	337+70	LT	2					
	22733	339+90	RT	1					
	22815	344+70	RT	1					
	22855	346+75	RT	1					
	22871	346+75	RT	1					
			UNITS	74					

W PORTABLE CHANGEABLE MESSAGE BOARD
4 UNITS @ 7 DAYS EACH = TOTAL UNIT DAYS | 28

X	EROSION CONTROL BLANKETS CAT 00									
	LOCATION	LENGTH	WIDTH	SQFT	SQ YD					
LNB	RECLAIM AREA	1474	8	11792	1310					
LSB	RECLAIM AREA	1474	8	11792	1310					
				TOTAL SQ YDS	2620					

BEG. STA.	END STA.	LENGTH	DIV BY 50'	X 2'
WEAR 5+00	348+24	34324	686.5	1373
BASE 333+50	348+24	1474	29.5	59

2 OF 2

 
 NO
 DATE
 BY
 CKD
 APPR

 NAME:
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 REVISION 05/31/2013 3:05:20 PM

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

DRAWN BY \_\_\_\_JF \_\_\_ DATE 4/19/2013 DESIGN BY \_\_\_\_JF \_\_\_ DATE \_4/19/2013 CHECKED BY GA DATE 4/22/2013

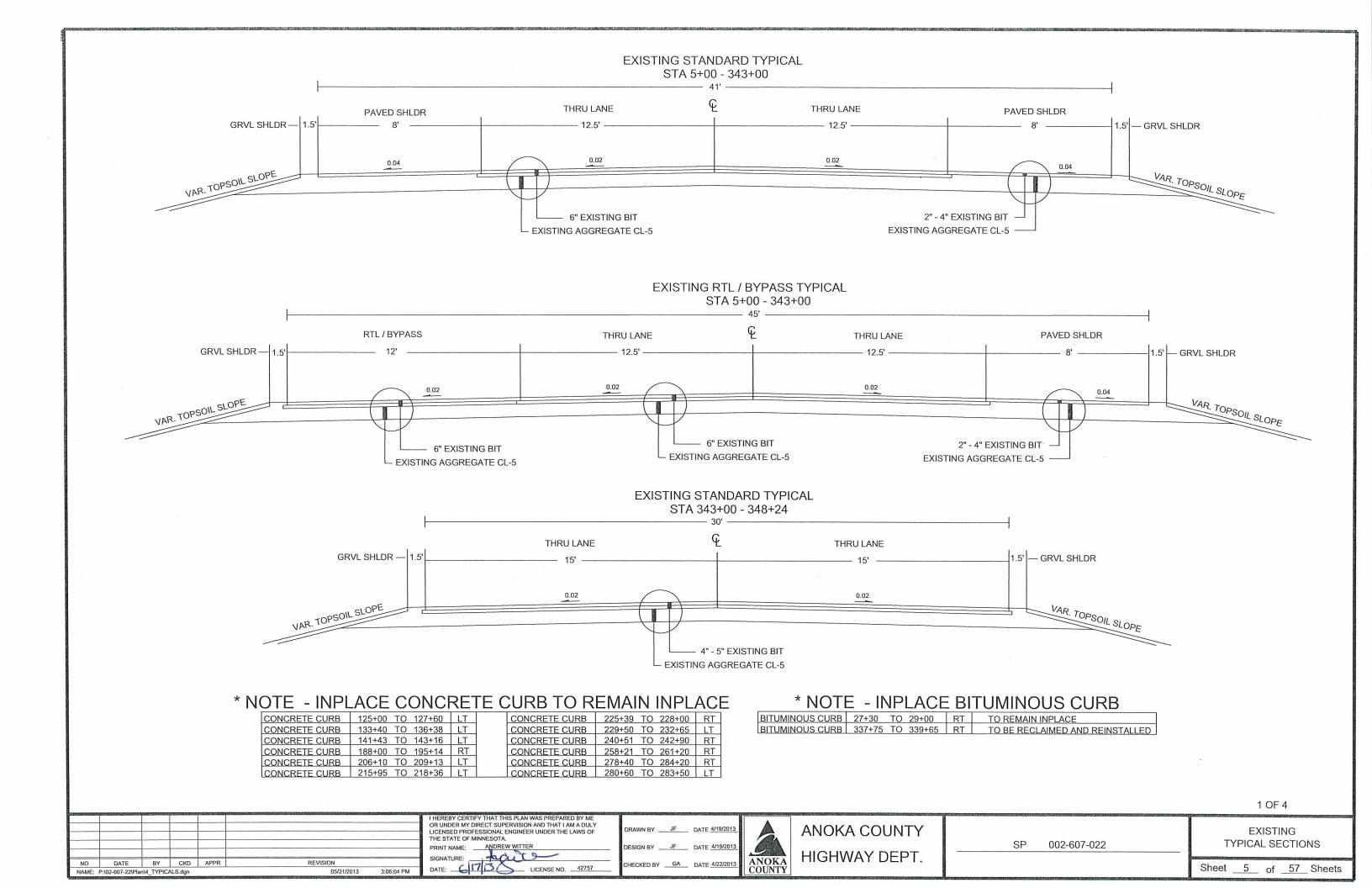


ANOKA COUNTY HIGHWAY DEPT.

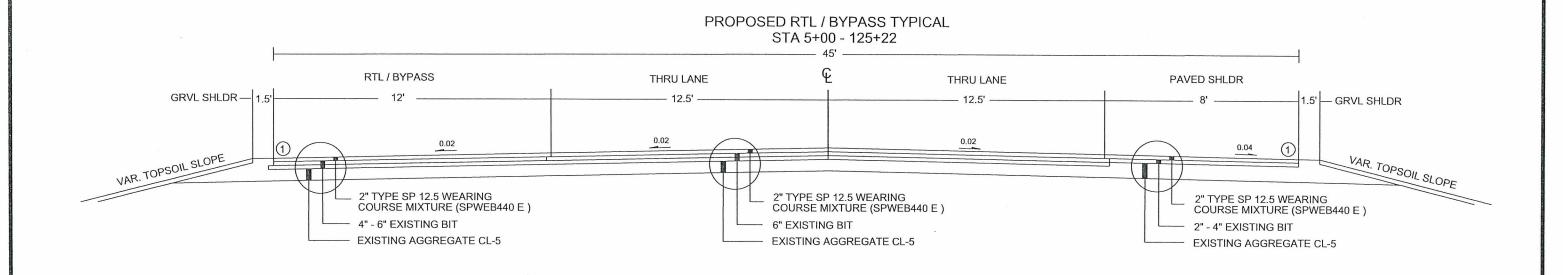
002-607-022

**TABULATIONS** 

Sheet 4 of 57 Sheets



### PROPOSED STANDARD TYPICAL STA 5+00 - 125+22 THRU LANE THRU LANE PAVED SHLDR PAVED SHLDR GRVL SHLDR — 1.5' 12.5' 1.5' — GRVL SHLDR 0.02 VAR. TOPSOIL SLOPE 1 0.04 VAR. TOPSOIL SLOPE 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440 E ) 2" TYPE SP 12.5 WEARING COURSE MIXTURE (SPWEB440 E) 2" - 4" EXISTING BIT 6" EXISTING BIT EXISTING AGGREGATE CL-5 EXISTING AGGREGATE CL-5



# \* NOTE - INPLACE CONCRETE CURB TO REMAIN INPLACE

CONCRETE CURB	125+00 TO 127+60	LT	CONCRETE CURB 225+39 TO 228+00 F	RT
CONCRETE CURB	133+40 TO 136+38	LT	CONCRETE CURB 229+50 TO 232+65 I	LT
CONCRETE CURB	141+43 TO 143+16	LT	CONCRETE CURB 240+51 TO 242+90 I	RT
CONCRETE CURB	188+00 TO 195+14	RT	CONCRETE CURB 258+21 TO 261+20 I	RT
CONCRETE CURB	206+10 TO 209+13	LT	CONCRETE CURB 278+40 TO 284+20 I	RT
CONCRETE CURB	215+95 TO 218+36	LT	CONCRETE CURB   280+60 TO 283+50   1	T

# \* NOTE - INPLACE BITUMINOUS CURB

<b>BITUMINOUS CURB</b>	27+30	TO	29+00	RT	TO REMAIN INPLACE
BITUMINOUS CURB	337+75	TO	339+65	RT	TO BE RECLAIMED AND REINSTALLED

SEE SAFETY EDGE DETAIL SHEET 10

NO DATE BY CKD APPR REVISION

NAME: P:\02-607-22\Plan\4 TYPICALS.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.

3:06:14 PM

05/31/2013

6713 LICENSE NO. 42757

\_\_ DATE 4/19/2013 JF DATE 4/19/2013 CHECKED BY \_\_\_GA \_\_\_ DATE \_4/22/2013



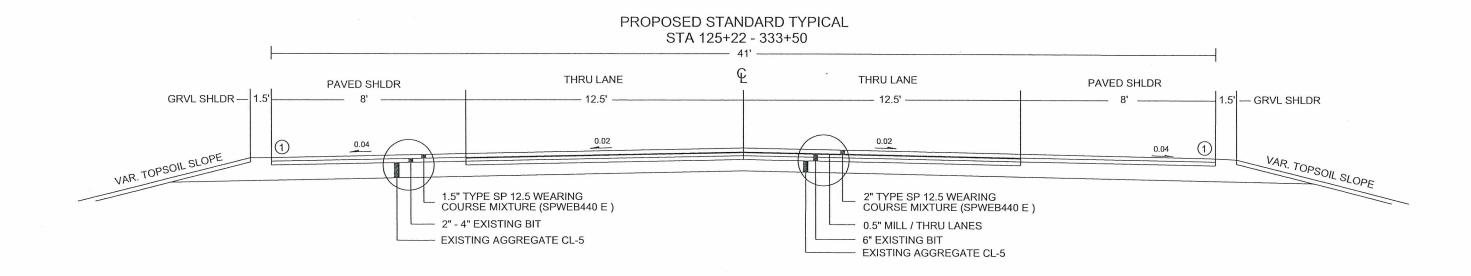
**ANOKA COUNTY** HIGHWAY DEPT.

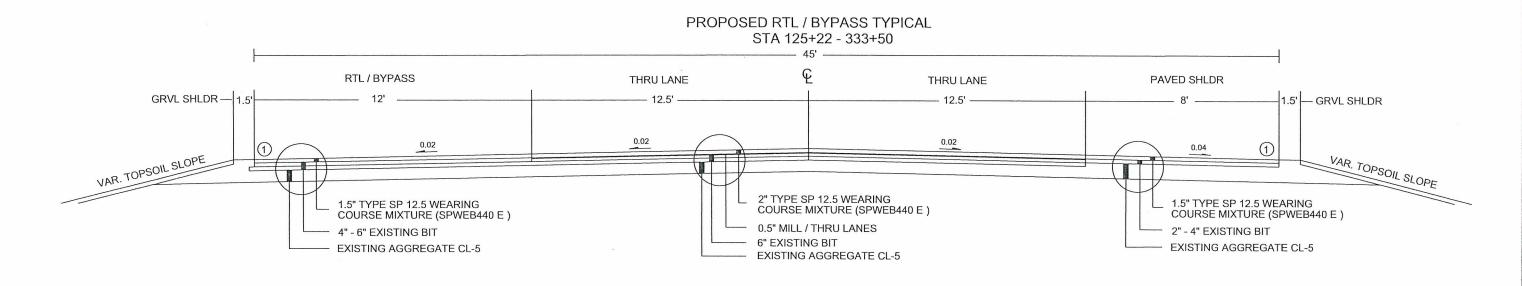
002-607-022

**PROPOSED** TYPICAL SECTIONS

2 OF 4

Sheet 6 of 57 Sheets





# \* NOTE - INPLACE CONCRETE CURB TO REMAIN INPLACE

CONCRETE CURB	125+00 TO 127+60	LT	CONCRETE CURB 225+39 TO 228+00	RT
CONCRETE CURB	133+40 TO 136+38	LT	CONCRETE CURB 229+50 TO 232+65	LT
CONCRETE CURB	141+43 TO 143+16	LT	CONCRETE CURB 240+51 TO 242+90	RT
CONCRETE CURB	188+00 TO 195+14	RT	CONCRETE CURB 258+21 TO 261+20	RT
CONCRETE CURB	206+10 TO 209+13	LT	CONCRETE CURB 278+40 TO 284+20	RT
CONCRETE CURB	215+95 TO 218+36	LT	CONCRETE CURB 280+60 TO 283+50	LT

# \* NOTE - INPLACE BITUMINOUS CURB

BITUMINOUS CURB	27+30	ТО	29+00	RT	TO REMAIN INPLACE
<b>BITUMINOUS CURB</b>	337+75	TO	339+65	RT	TO BE RECLAIMED AND REINSTALLED

SEE SAFETY EDGE DETAIL SHEET 10

3 OF 4

to the state of the	manufactural contents of	F/Almonton a	A SHICKLESS HAVING BE	OF STREET, SALES		PA SECTION
NO	DATE	BY	CKD	APPR	REVISION	
NAME: F	2:\02-607-22\Pla	n¼ TYPIC	ALS.dgn		05/31/2013 3:06:23 F	M

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.

LICENSE NO. \_\_42757

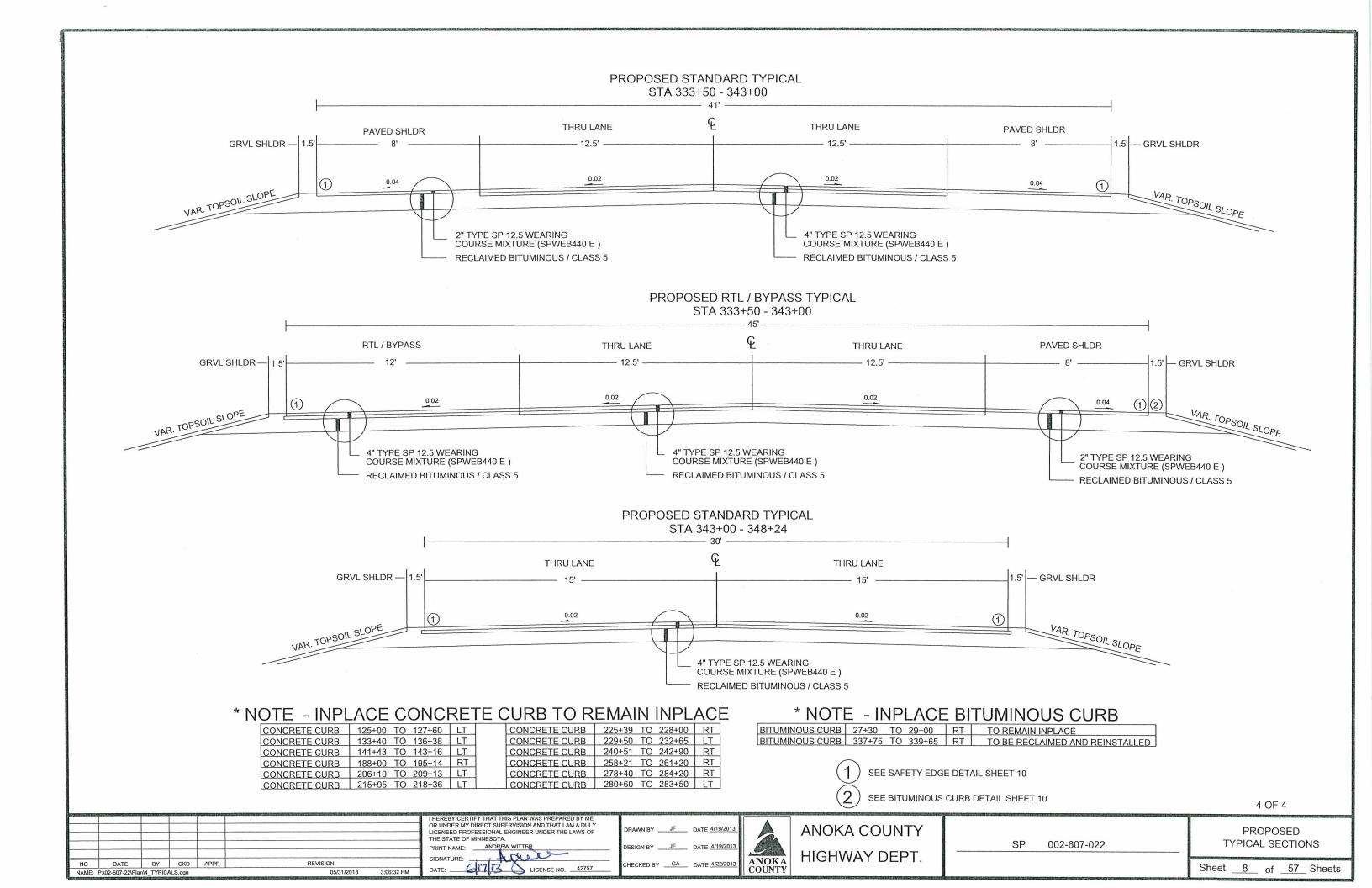


**ANOKA COUNTY** HIGHWAY DEPT.

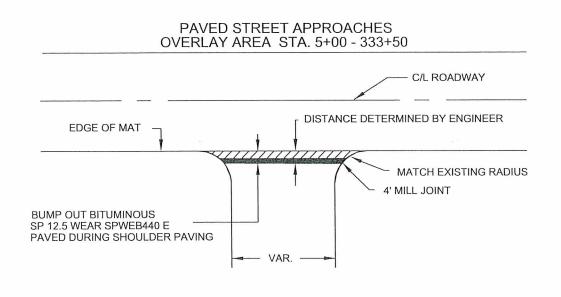
002-607-022

PROPOSED TYPICAL SECTIONS

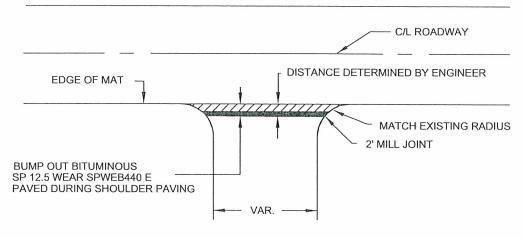
Sheet 7 of 57 Sheets



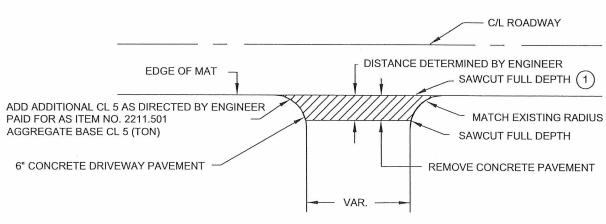
# EDGE OF MAT BUMP OUT PAVING 1.5' 5 TON CL 5 PER ENT. PAID FOR AS ITEM NO. 2211.501 BUMY OUT PAVING RADIUS



## PAVED DR. WAYS OVERLAY AREA STA. 5+00 - 333+50







SAWCUT BITUMINOUS ROAD EDGE PRIOR
TO CONCRETE DRIVEWAY PAVING

1 OF 3

NO DATE BY CKD APPR REVISION

NAME: P:\02-607-22\Plan\5 DETAILS.dgn 05/31/2013 3:07:10 PM

AGGREGATE BASE CL 5 (TON)

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.

THE STATE OF MINNESOTA.

PRINT NAME: ANDREW WITTER

SIGNATURE:

DATE: LICENSE NO. 42757

DRAWN BY \_\_\_JF \_\_\_ DATE 4/19/2013
DESIGN BY \_\_\_JF \_\_\_ DATE 4/19/2013

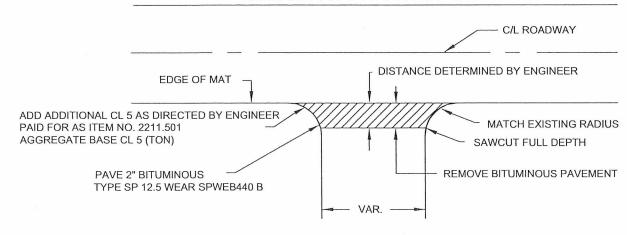
ANOKA COUNTY ANOKA COUNTY HIGHWAY DEPT.

SP 002-607-022

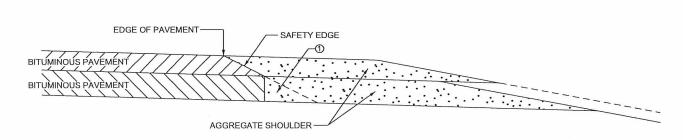
CONSTRUCTION DETAILS

Sheet 9 of 57 Sheets

### PAVED DR. WAYS RECLAIM AREA STA. 333+50 - 348+24



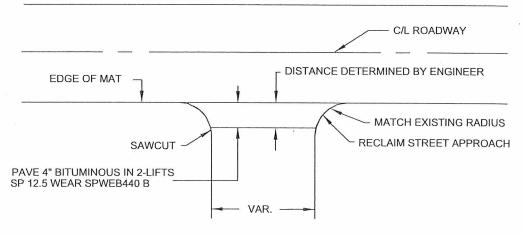
### SAFETY EDGE



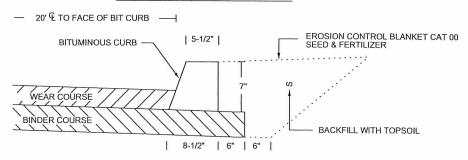
### BITUMINOUS PAVEMENT SAFETY EDGE TO BE USED IN ALL NON-CURB AREAS ON SHOULDER.

① OPTIONAL DESIGN EXTENDS SAFETY EDGE DEEPER THAN 6" AND WIDER THAN 10.5". SEE SPECIAL PROVISIONS.

# PAVED STREET APPROACHES RECLAIM AREA STA. 333+50 - 348+24



### BITUMINOUS CURB DETAIL STA 337+75 - 339+65



2 OF 3

DATE: 61713 LICENSE NO. 42757 3:07:19 PM NAME: P:\02-607-22\Plan\5\_DETAILS.dgn 05/31/2013

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:

\_\_ DATE 4/19/2013 JF DATE 4/19/2013

CHECKED BY GA DATE 4/22/2013

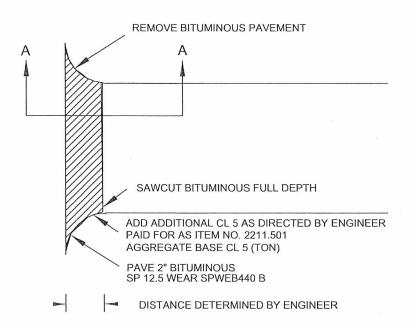
**ANOKA COUNTY** HIGHWAY DEPT.

002-607-022

**CONSTRUCTION DETAILS** 

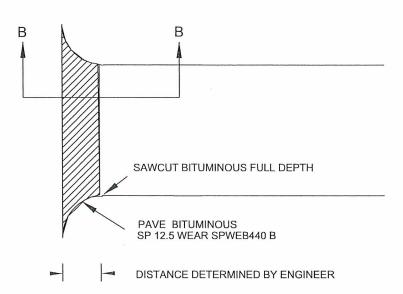
Sheet 10 of 57 Sheets

### PAVED DRIVEWAYS RECLAIM AREA ST. 333+50 - 348+24



### PAVED STREET APPROACH RECLAIM AREA ST. 333+50 - 348+24

# JOINT DETAILS



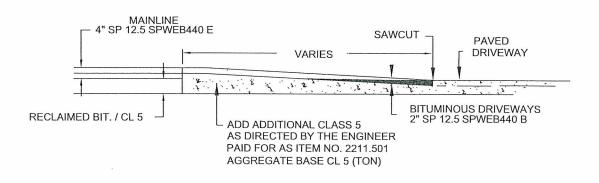
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REVISION

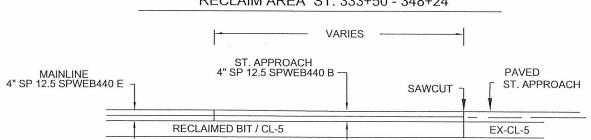
05/31/2013

NAME: P:\02-607-22\Plan\5 DETAILS.dgn

### PAVED DRIVEWAY DETAILS A - A RECLAIM AREA ST. 333+50 - 348+24



# PAVED STREET APPROACH JOINT DETAILS B - B RECLAIM AREA ST. 333+50 - 348+24



3 OF 3

002-607-022 CONSTRUCTION DETAILS

Sheet 11 of 57 Sheets

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:

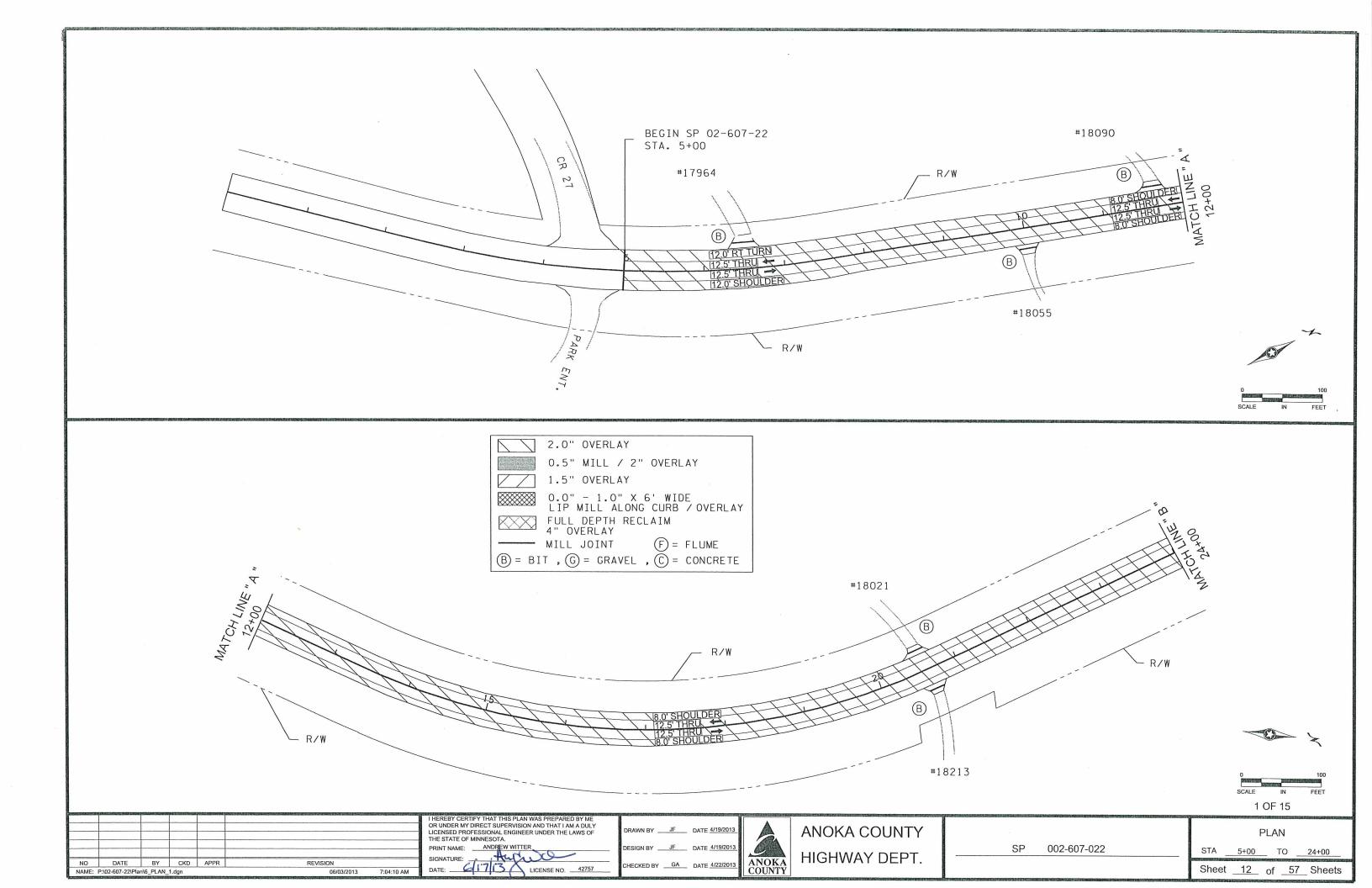
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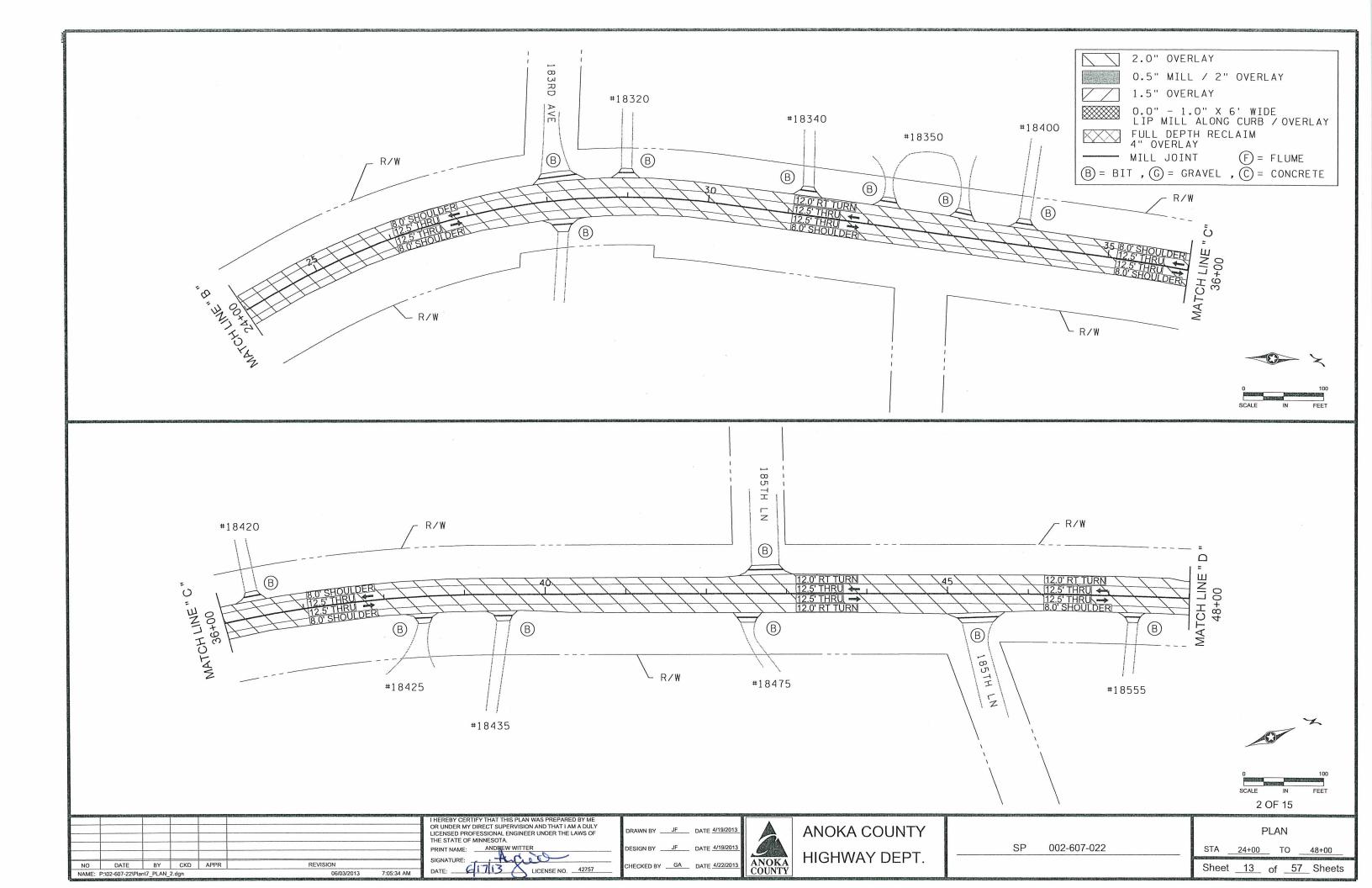
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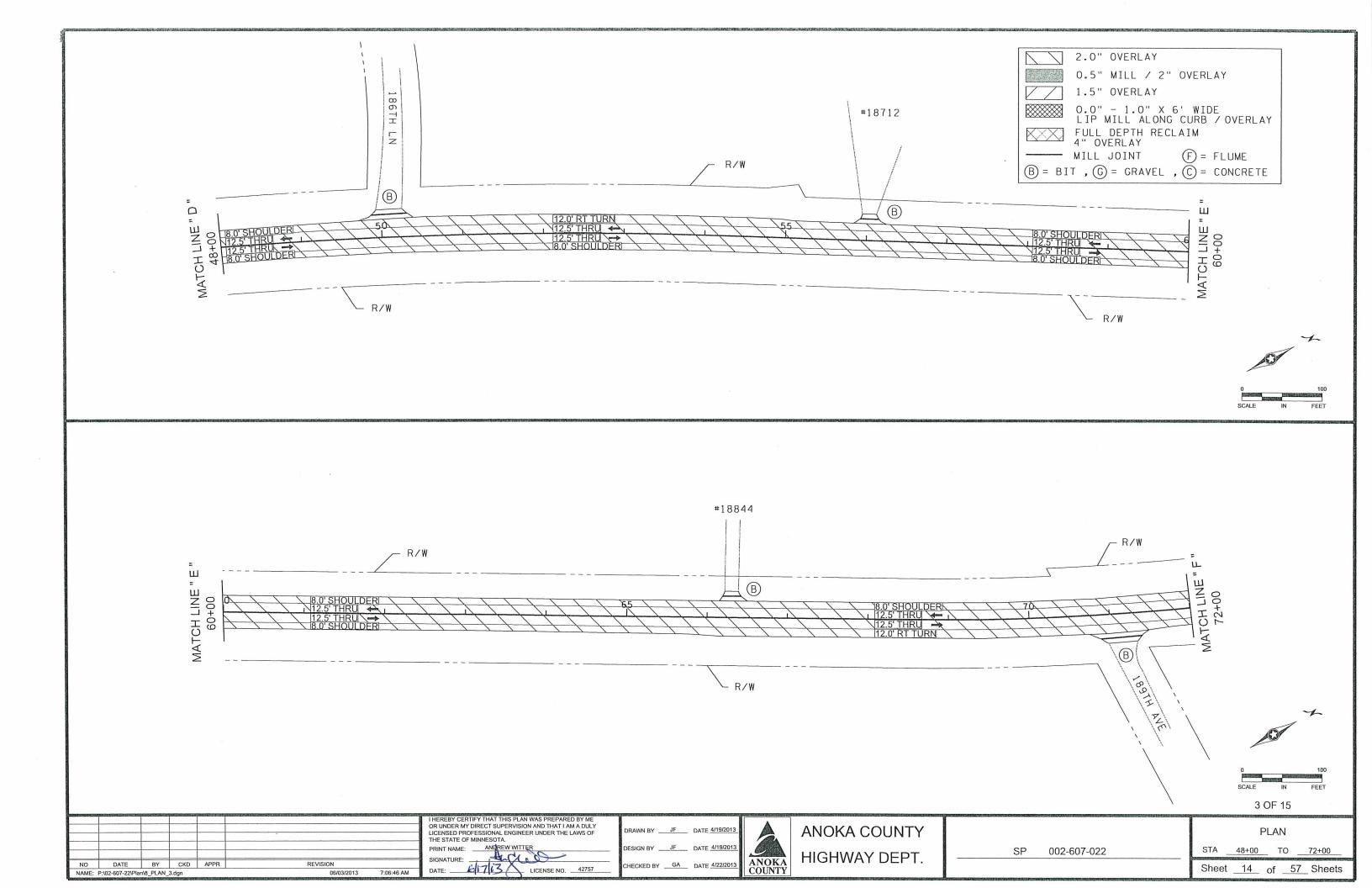
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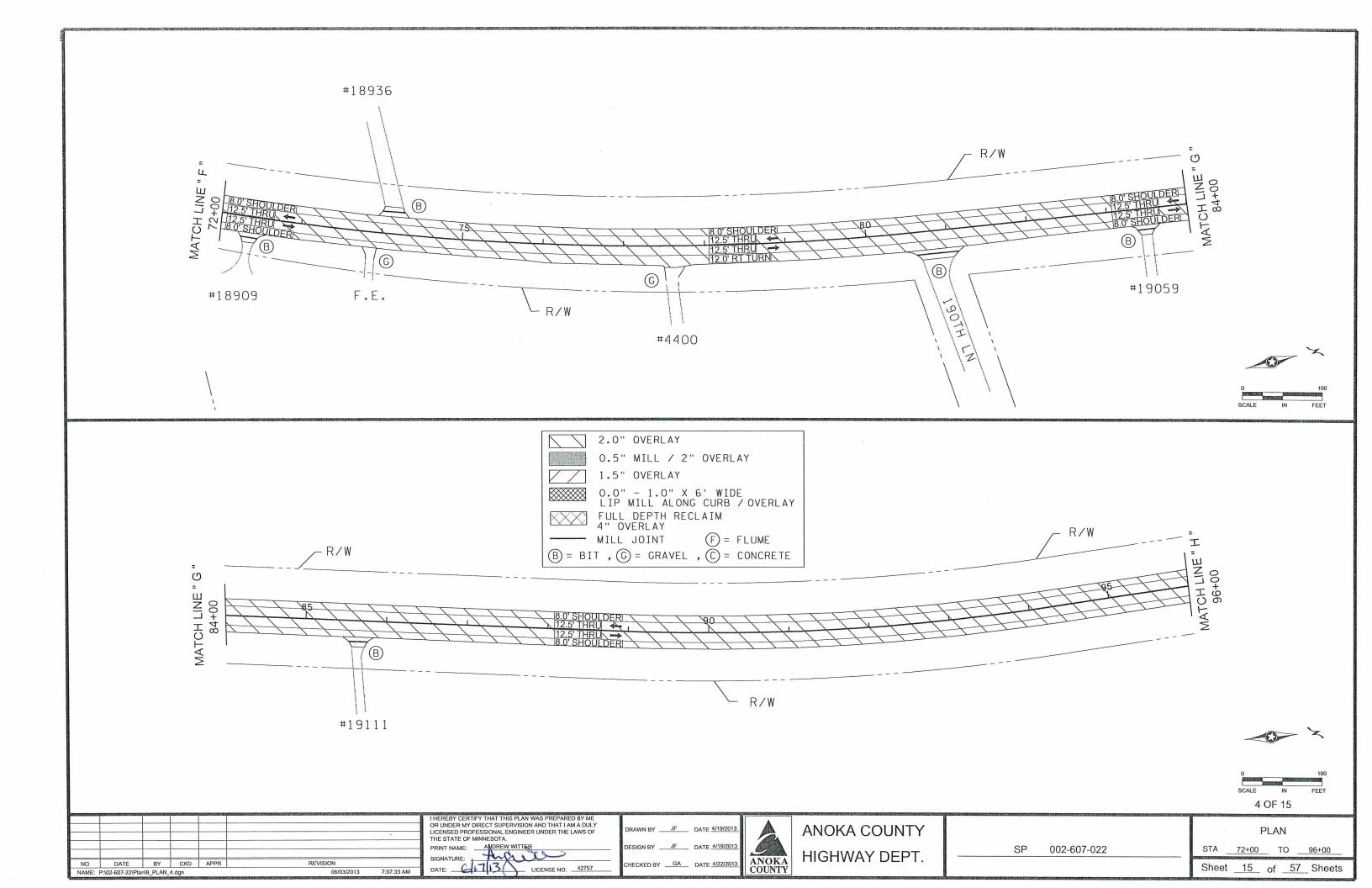
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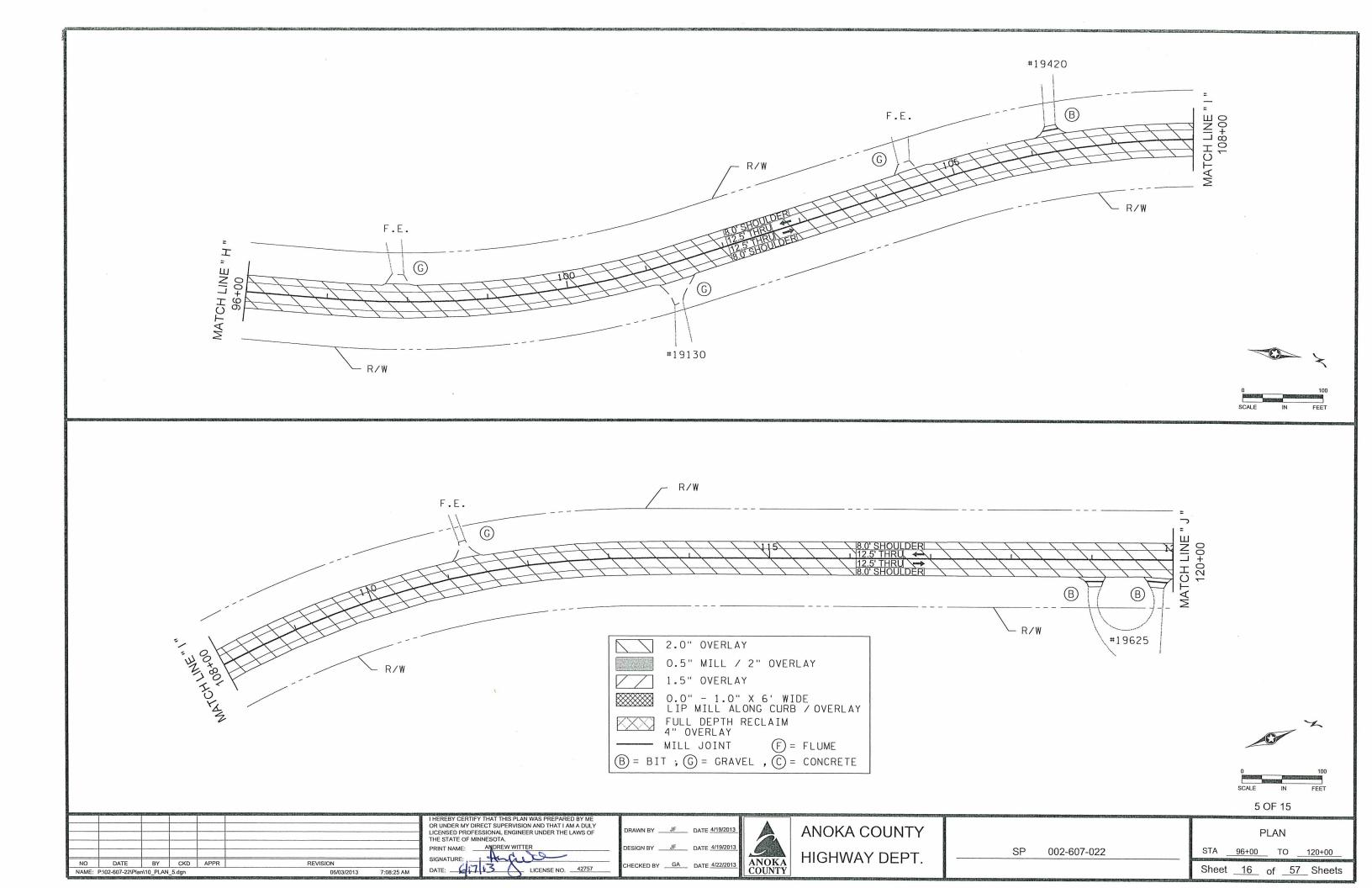
ANOKA COUNTY ANOKA COUNTY HIGHWAY DEPT.

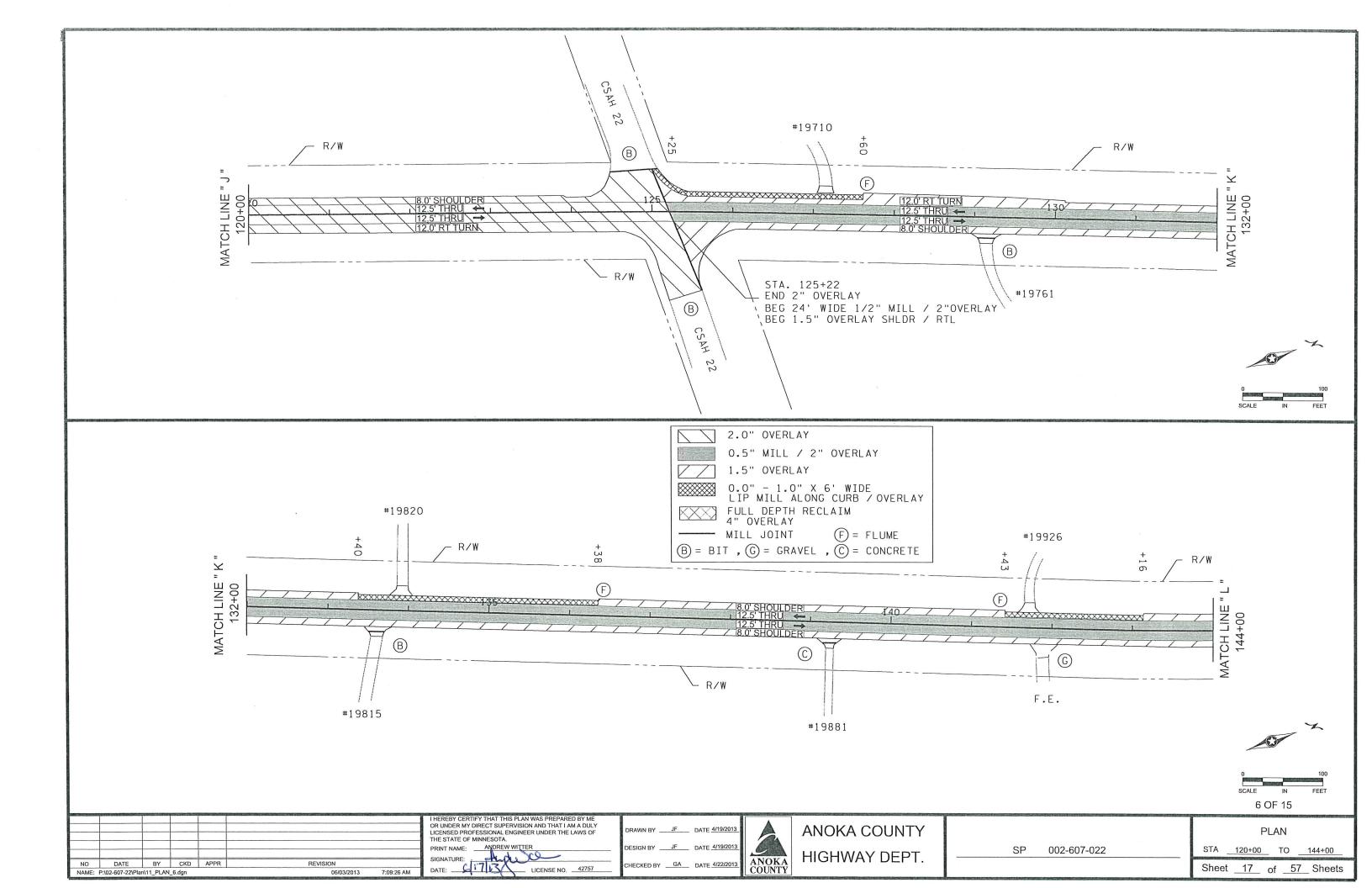


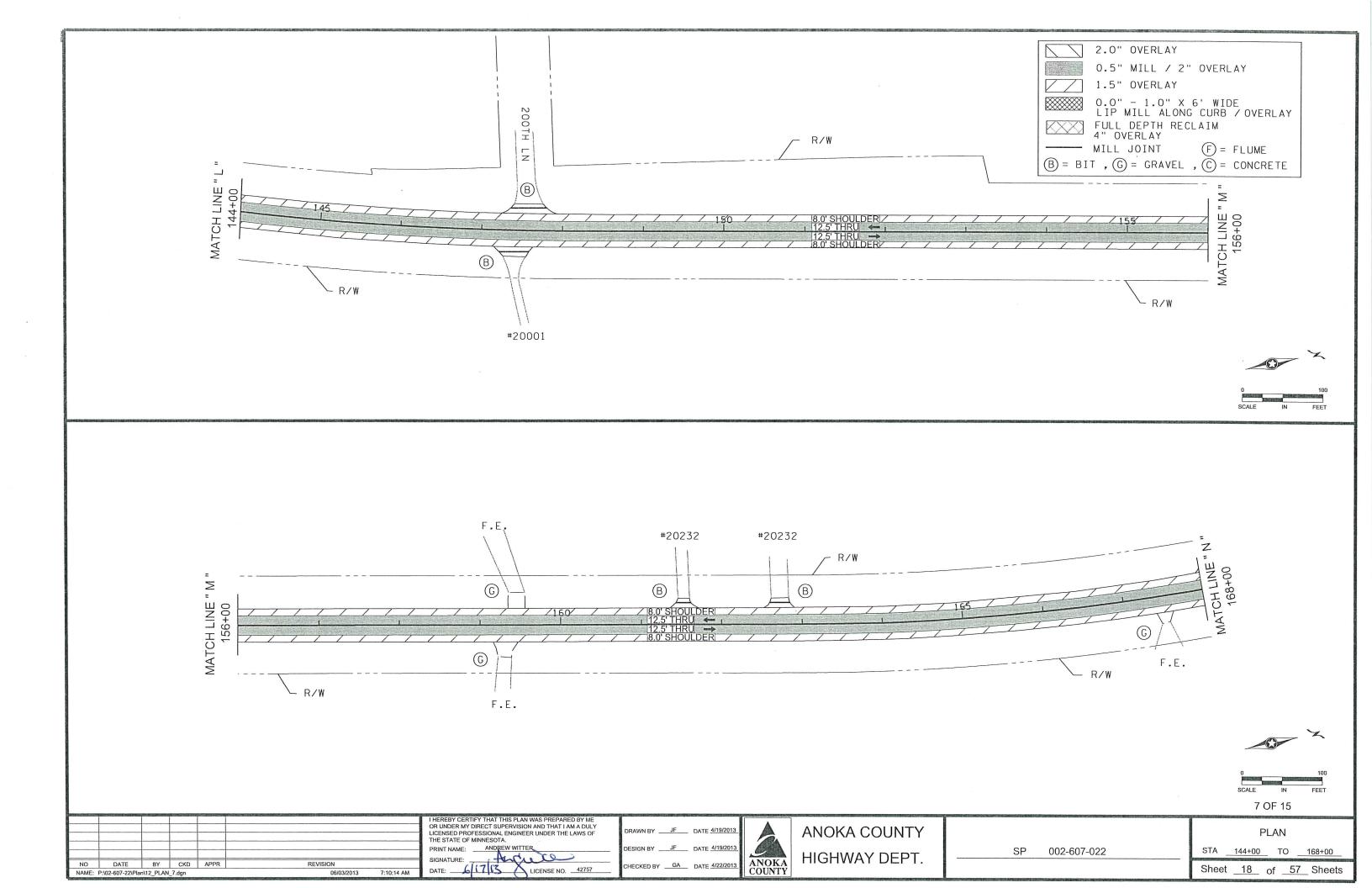


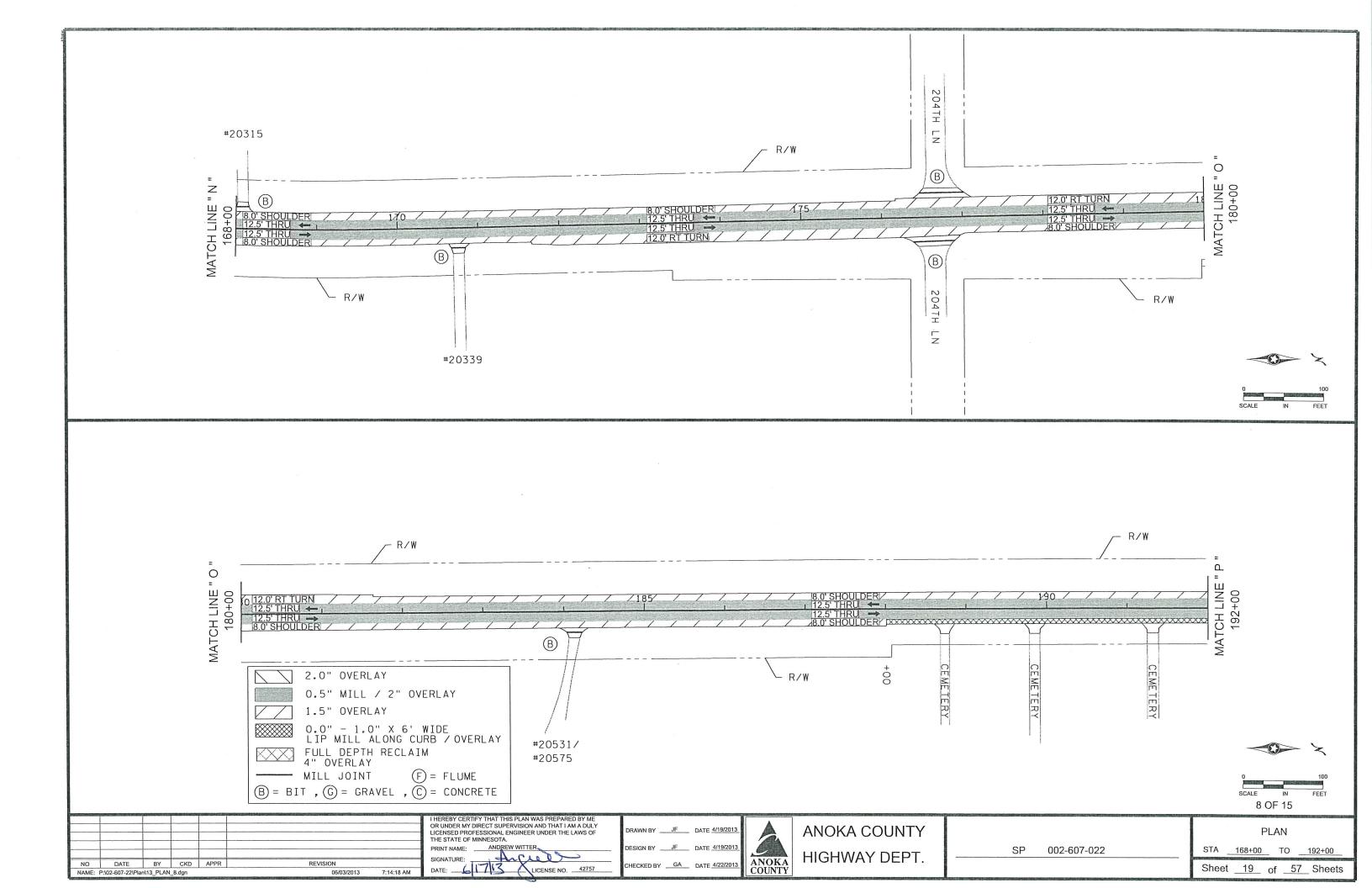


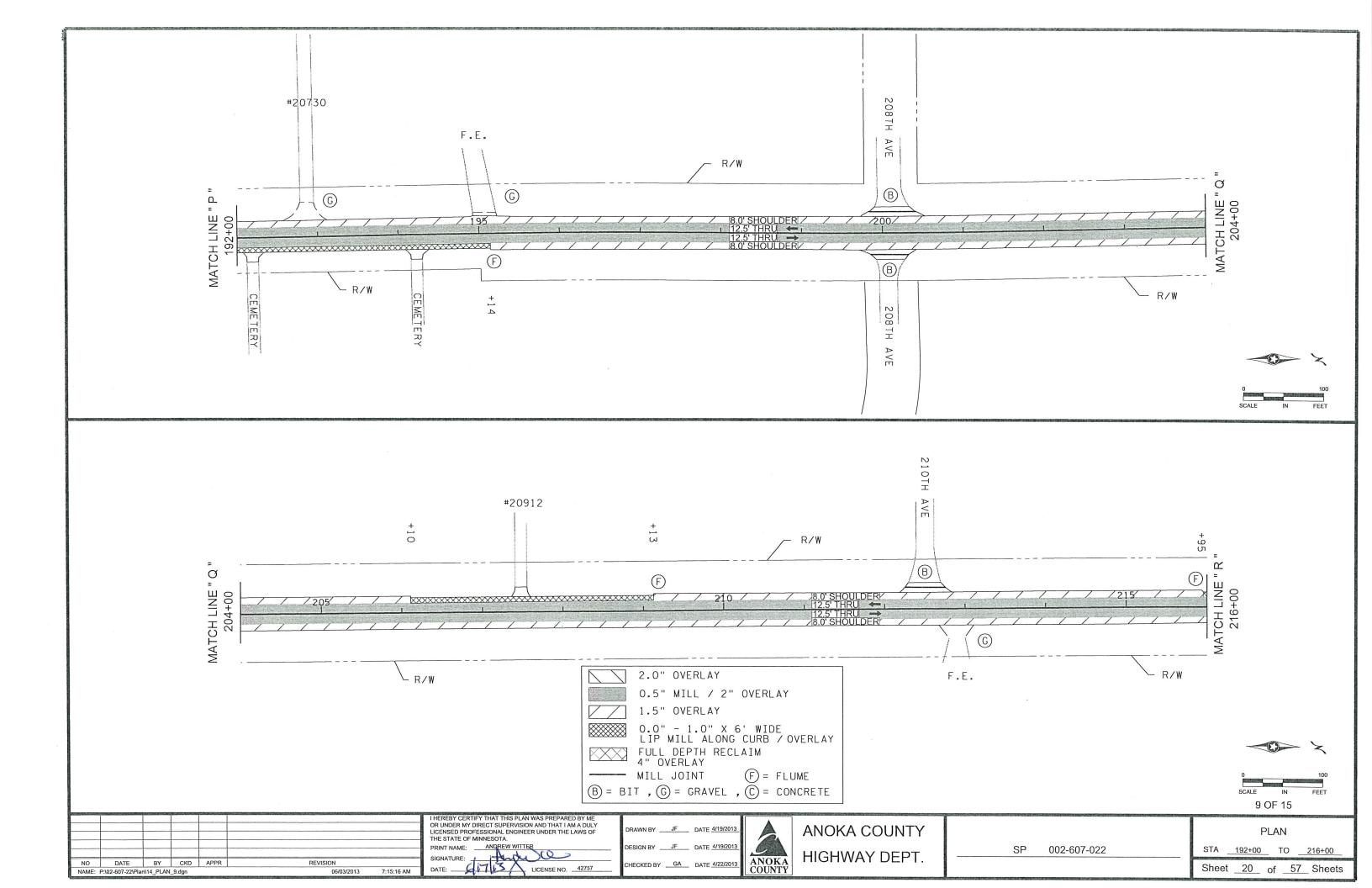


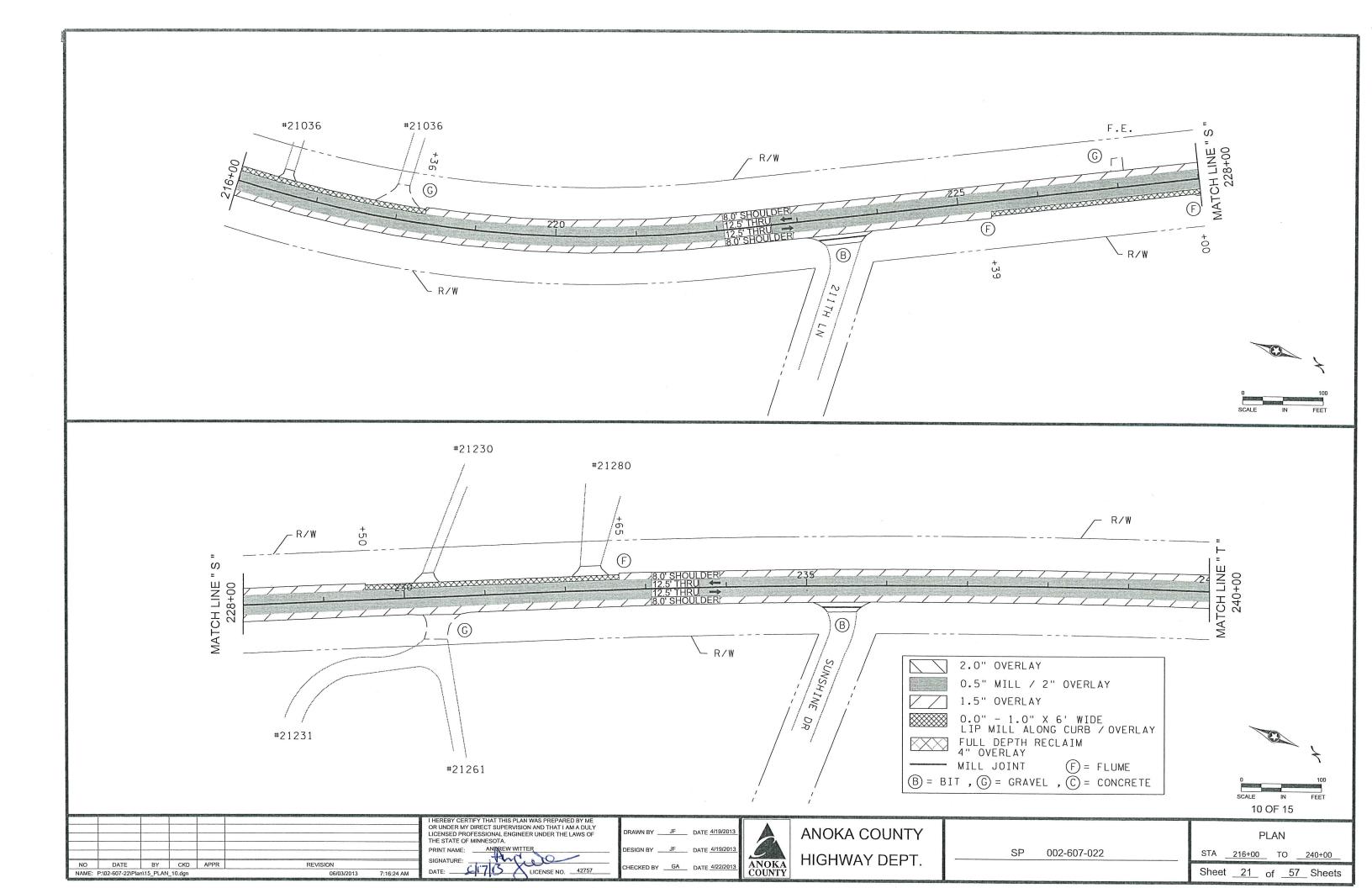


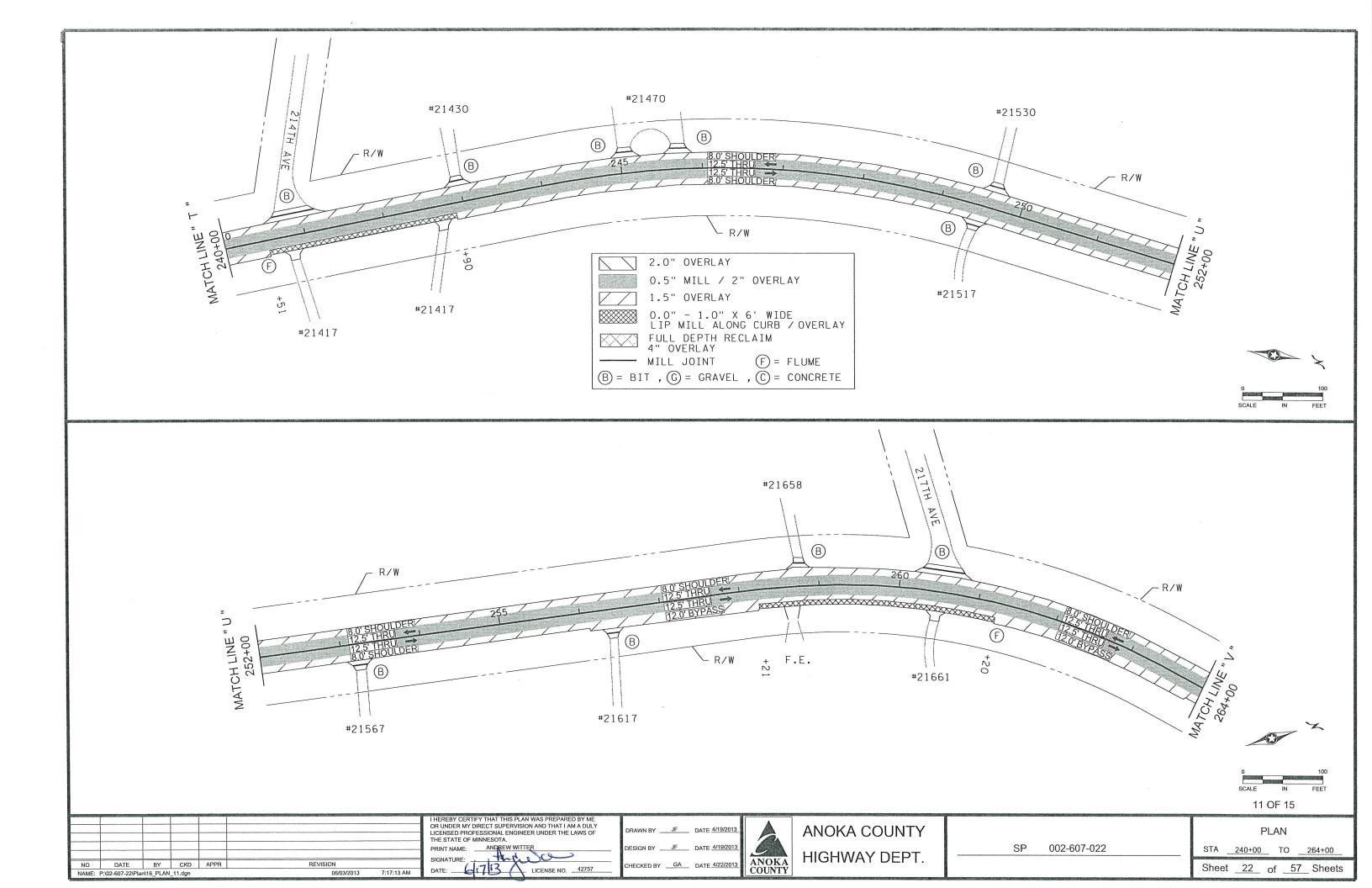


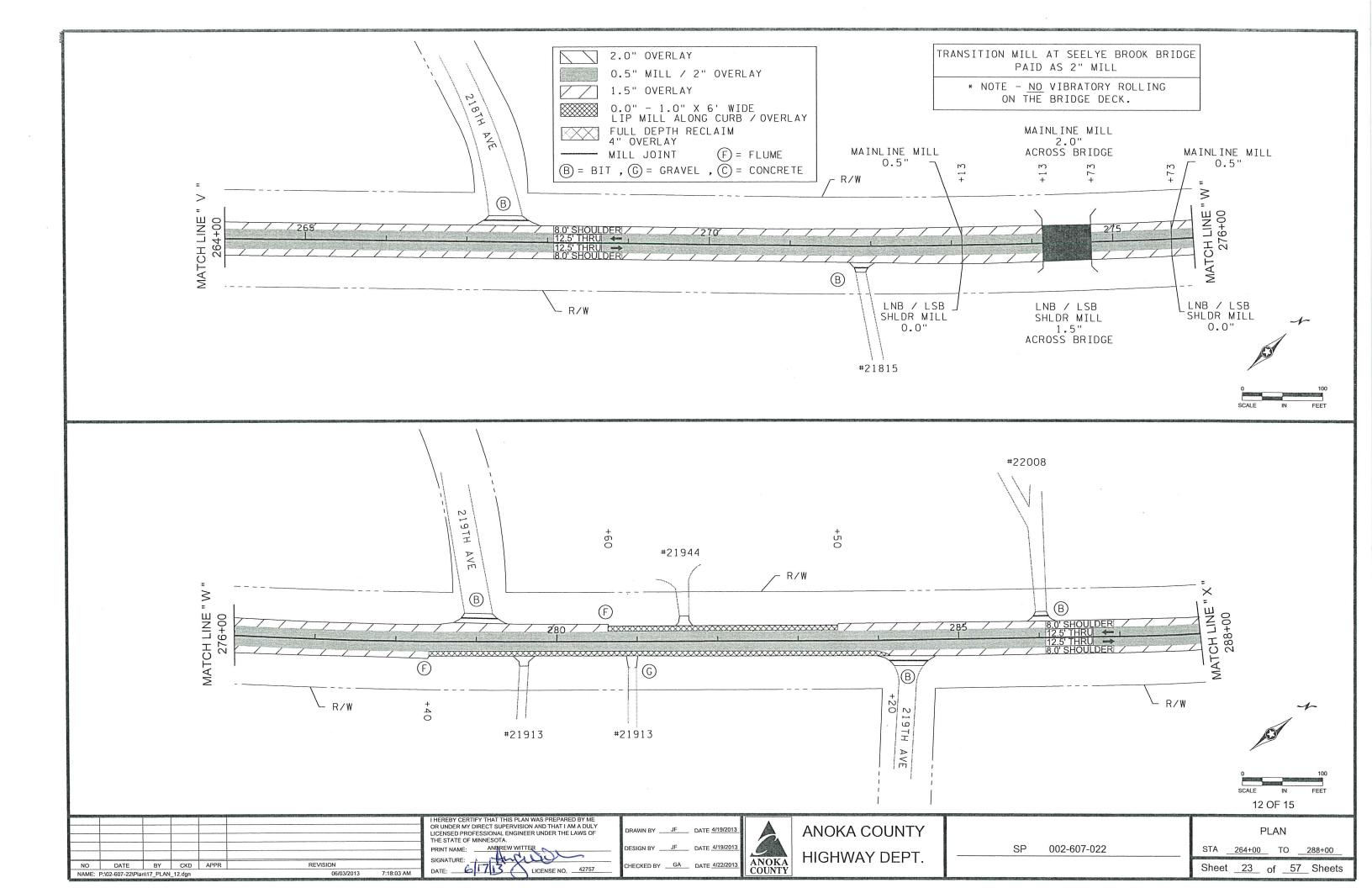


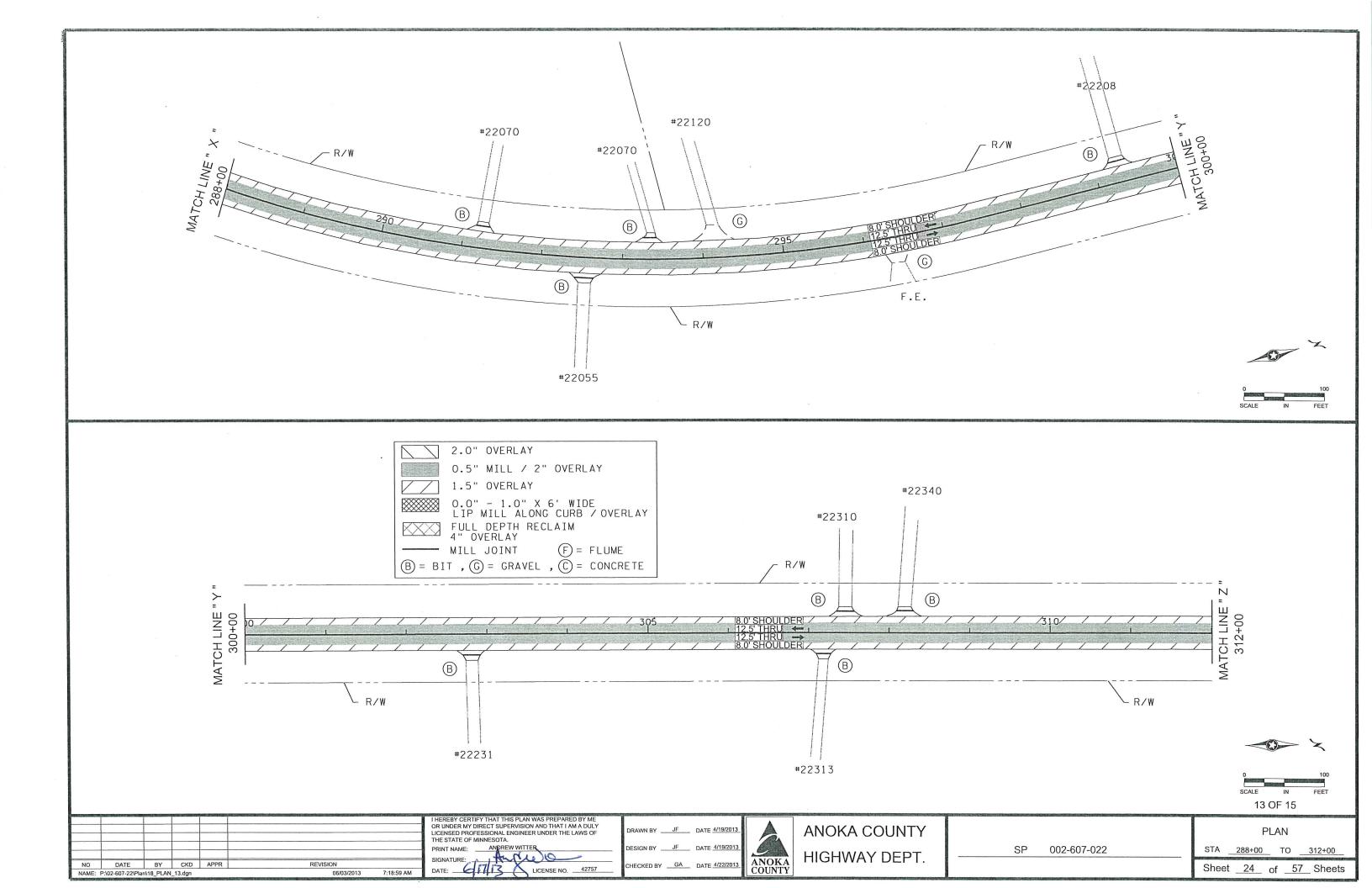


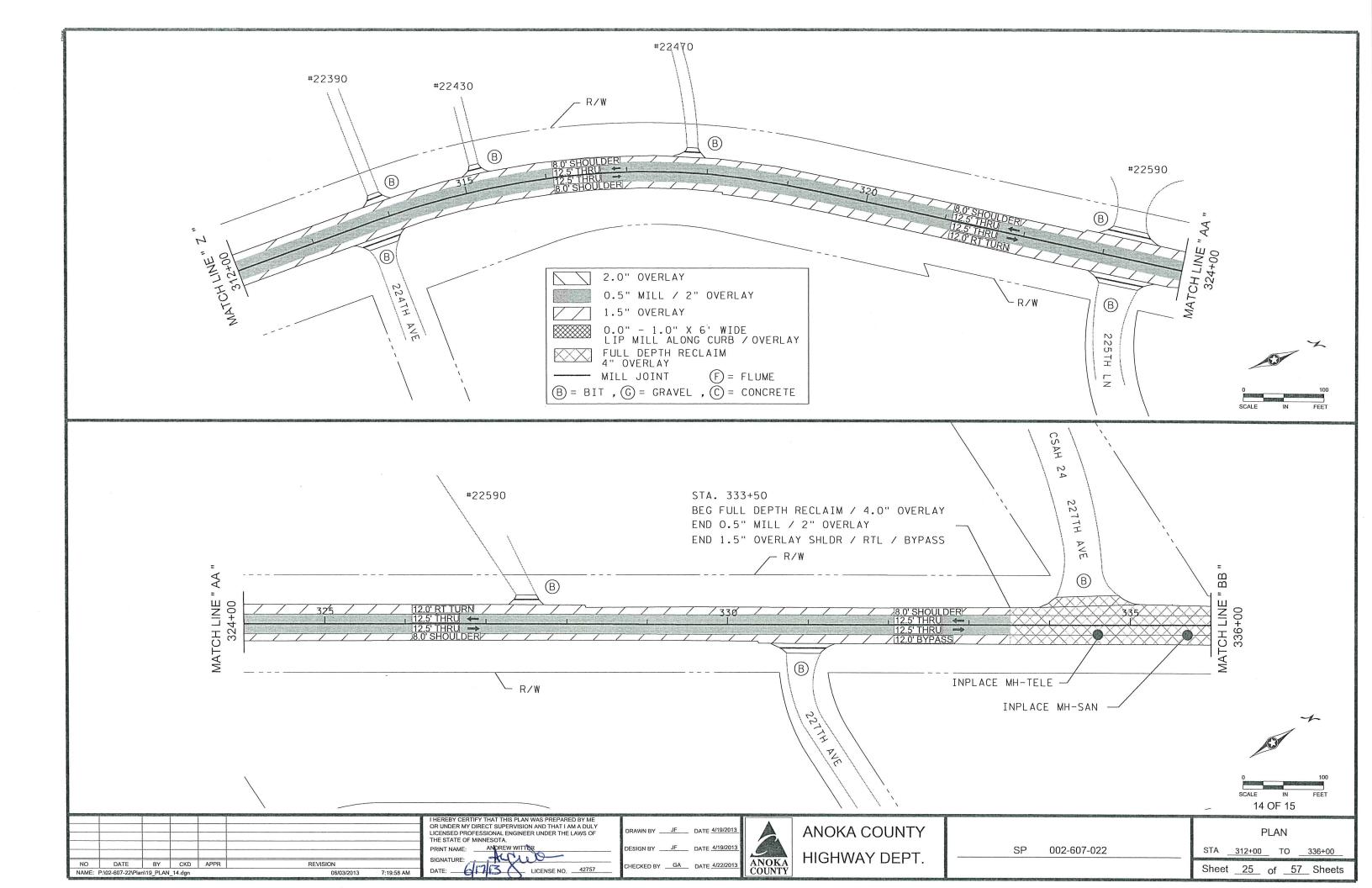


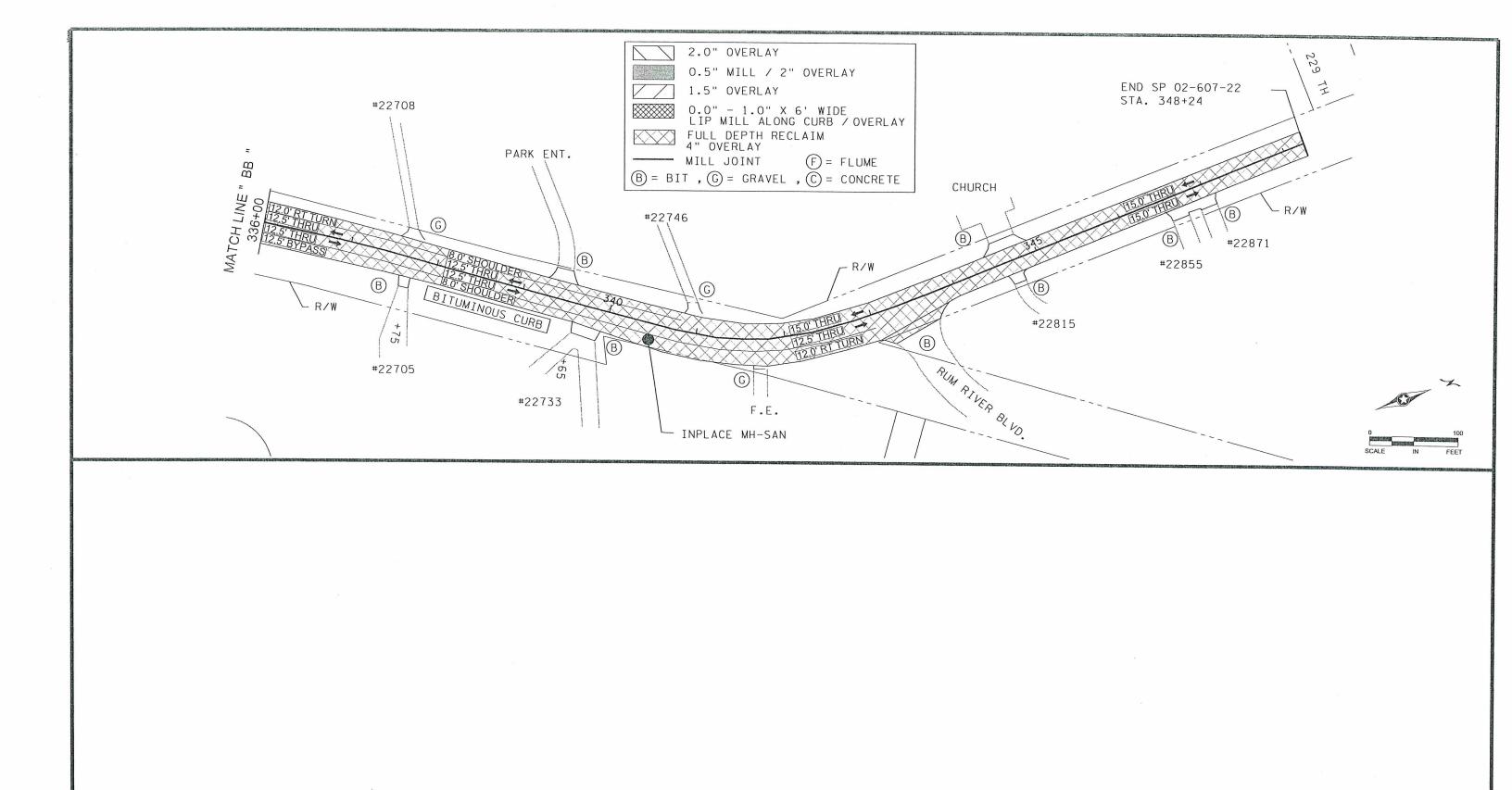












NO DATE BY CKD APPR REVISION

NAME: P:\02-607-22\Pian\20\_PLAN\_15.dgn 06/03/2013 7:20:59 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.

THE STATE OF MINNESOTA.

PRINT NAME: ANDREW WITTER

SIGNATURE: LICENSE NO. 42757



ANOKA COUNTY HIGHWAY DEPT.

SP 002-607-022

PLAN

STA 336+00 TO 348+24

Sheet 26 of 57 Sheets

15 OF 15

### 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  $\frac{1}{4}$  INCH UNDER OR  $\frac{1}{4}$  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.

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.

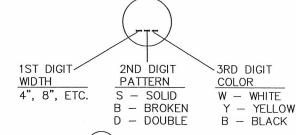
PERMANENT PAVEMENT MARKING TABULATION							
ITEM	Quantity	Units					
4" Solid Line White - Epoxy	71600	Lin Ft					
4" Broken Line White - Epoxy (10 ft stripe / 40 ft gap)	80	Lin Ft					
4" Solid Line Yellow - Epoxy	7850	Lin Ft					
4" Broken Line Yellow - Epoxy (10 ft stripe / 40 ft gap)	5310	Lin Ft					
4" Double Solid Line Yellow - Epoxy	8450	Lin Ft					

### 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



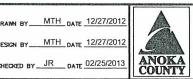


(4SW)= 4" SOLID LINE WHITE - FPOXY

BY CKD APPR NAME: P:\13-01-00\CSAH 28\Base\TRAFFIC\Perm pvmt mrkg guide notes\_guidelines.dwg

ANDREW MITTER

47130 \_\_\_LICENSE NO.\_\_\_\_42757 MTH\_DATE\_12/27/2012

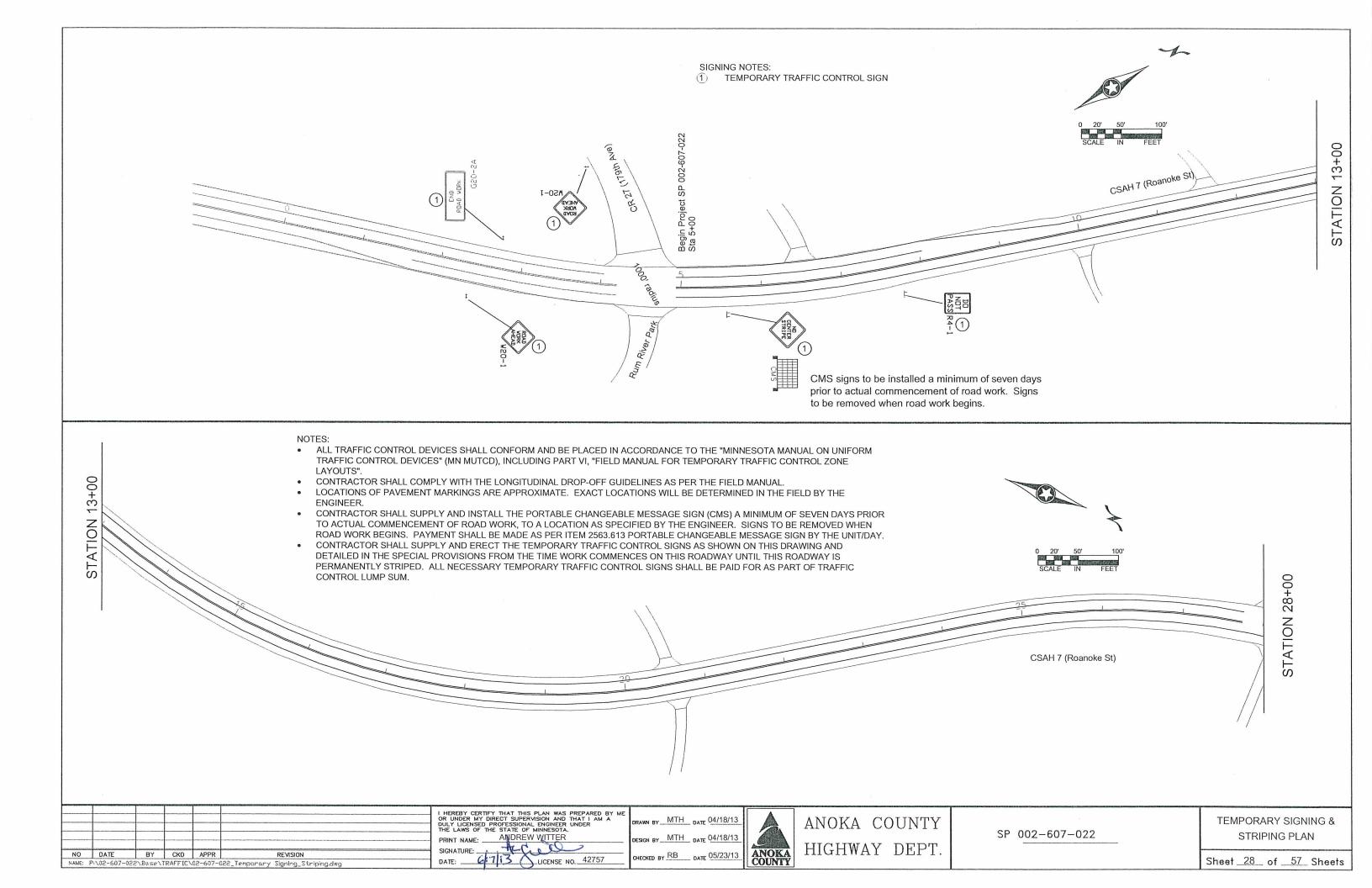


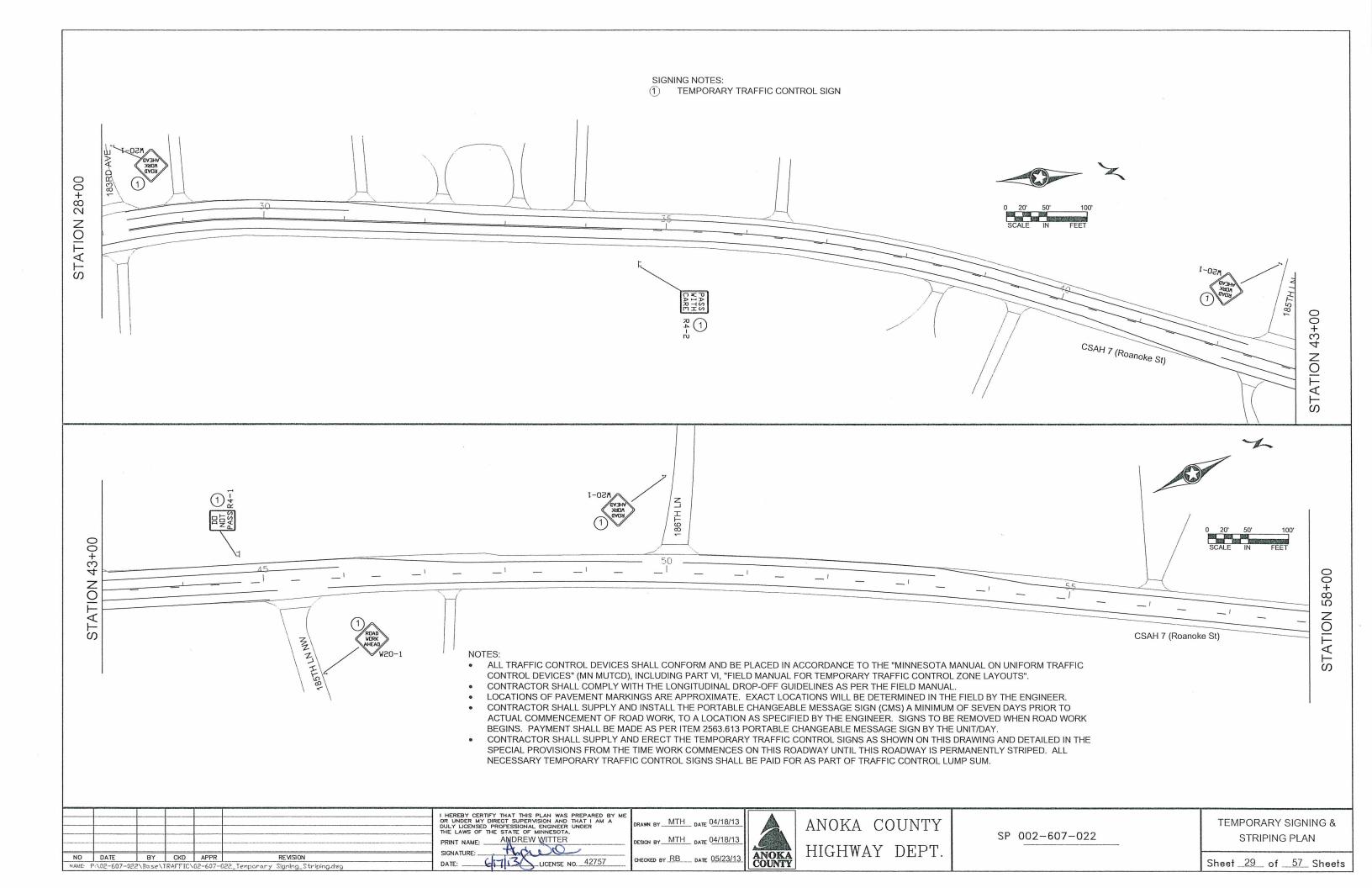
ANOKA COUNTY HIGHWAY DEPT

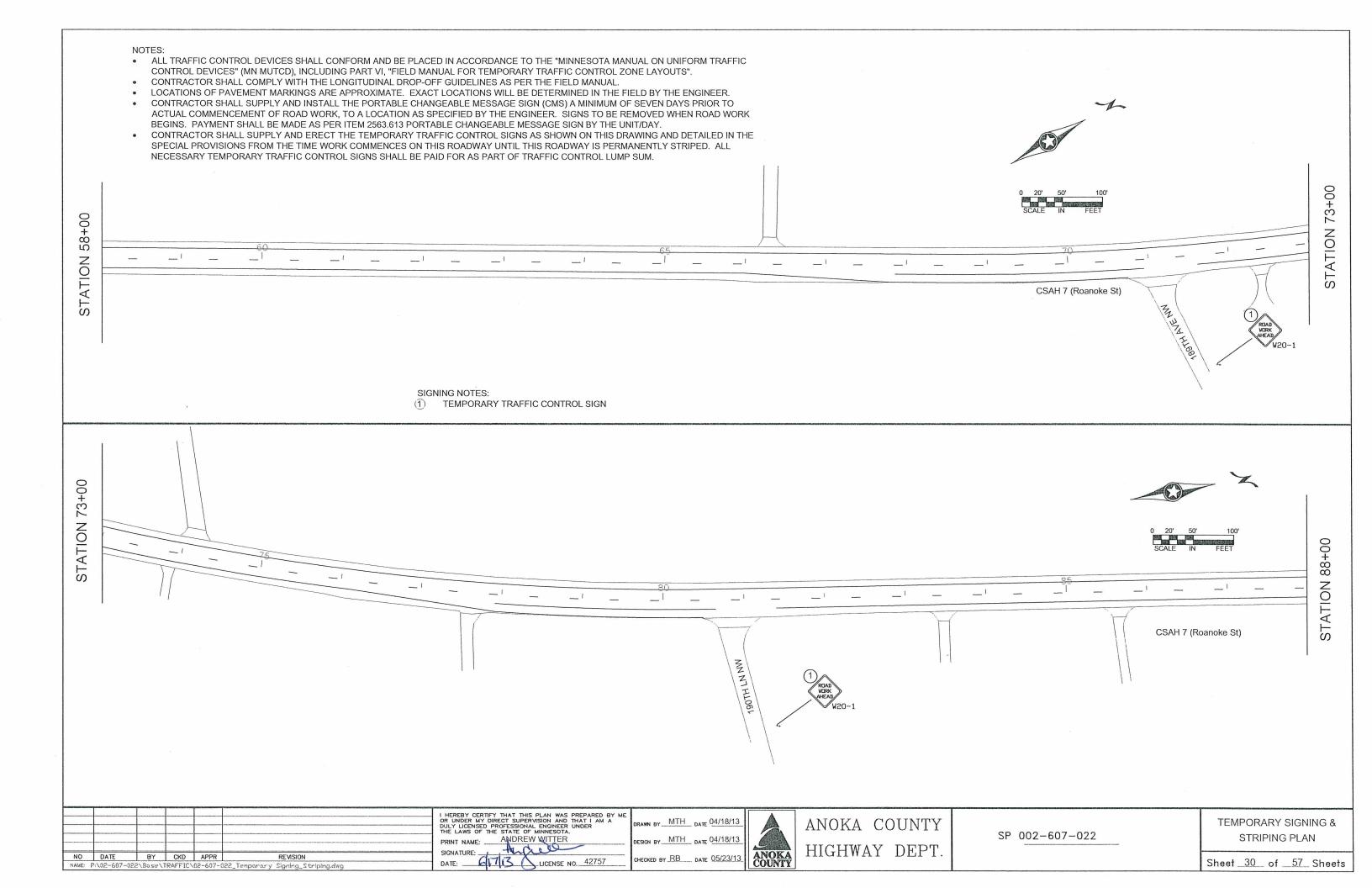
SP 002-607-022

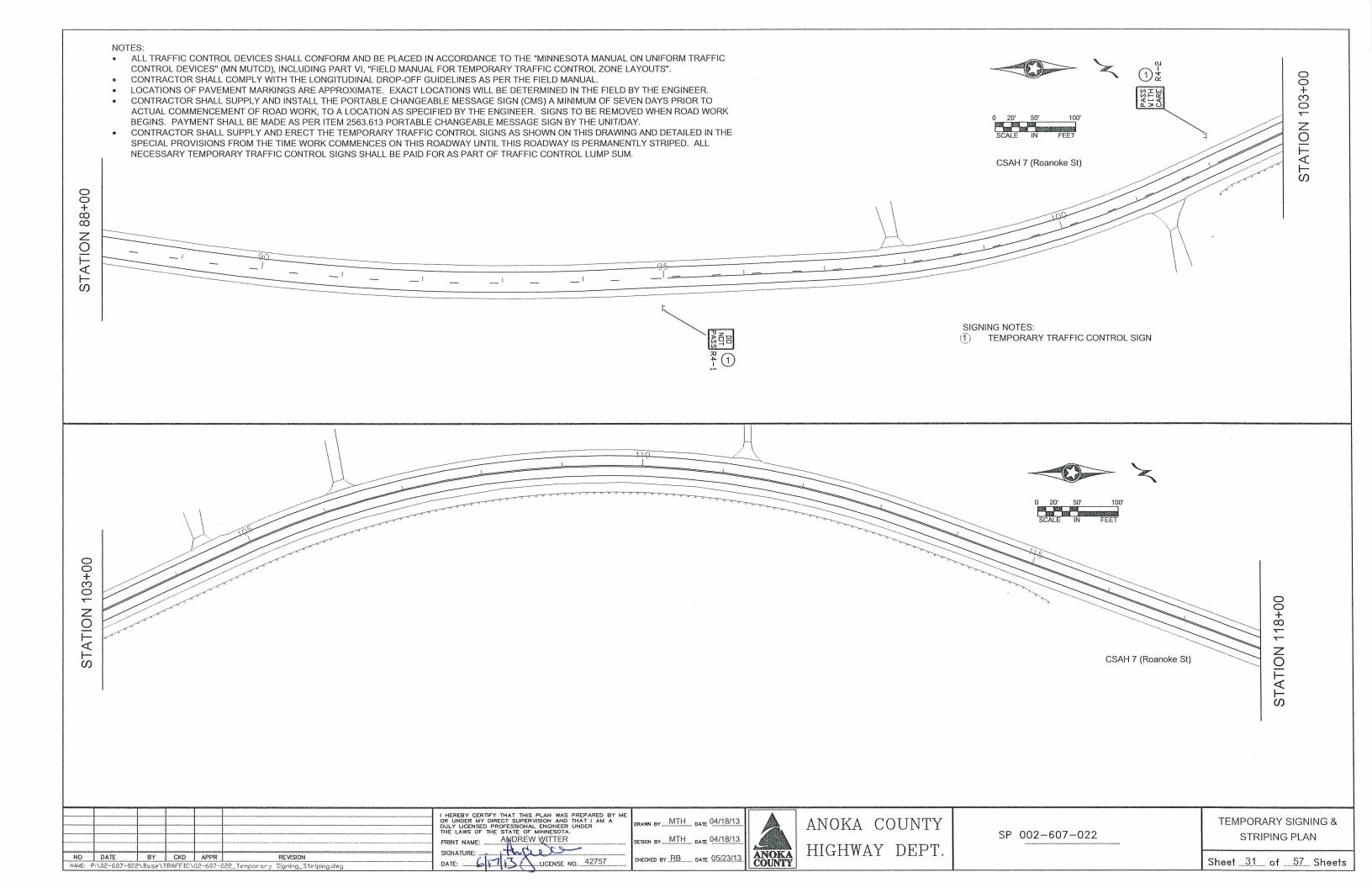
PERMANENT MARKING **TABULATION** 

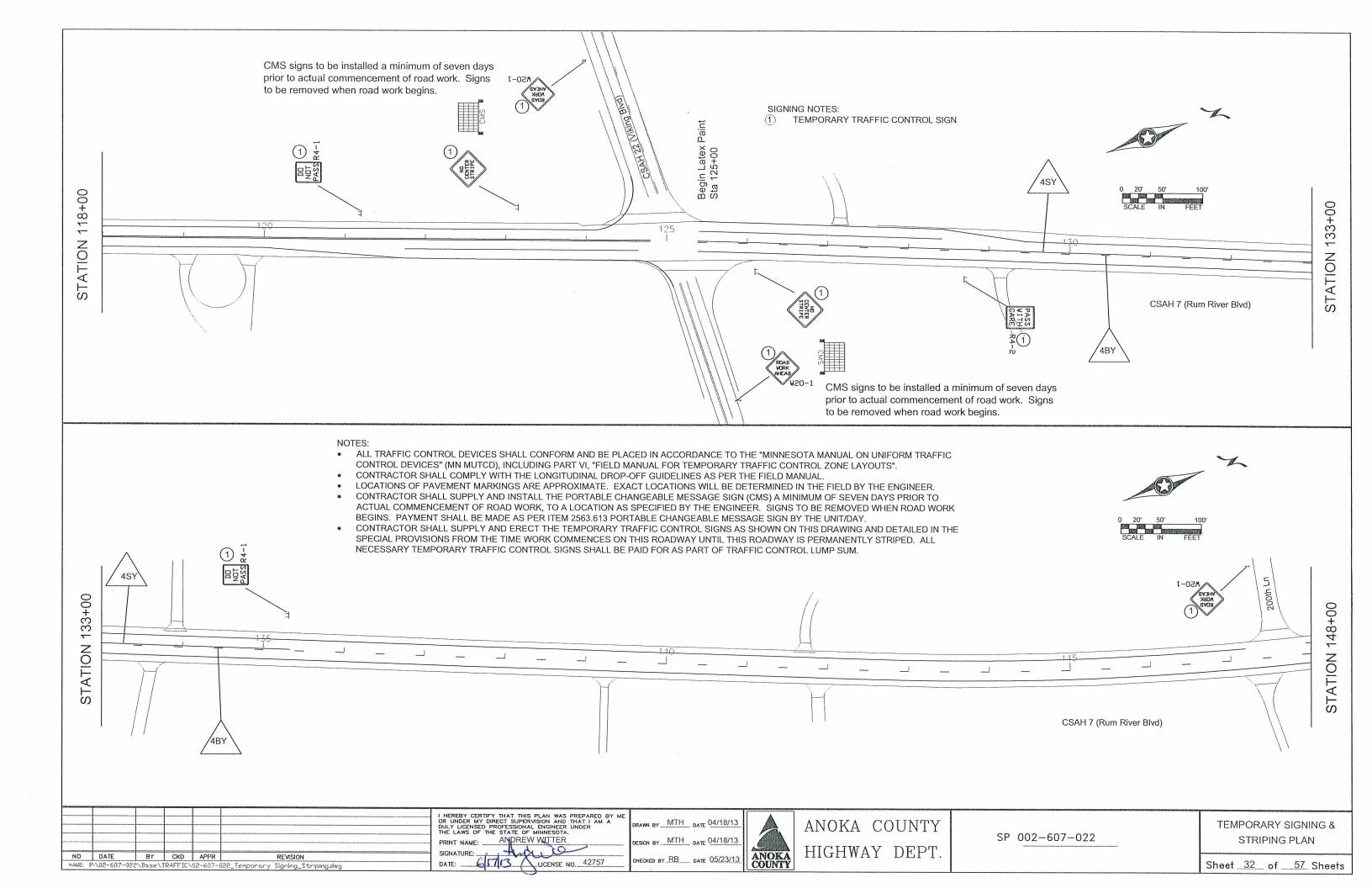
Sheet 27 of 57 Sheets

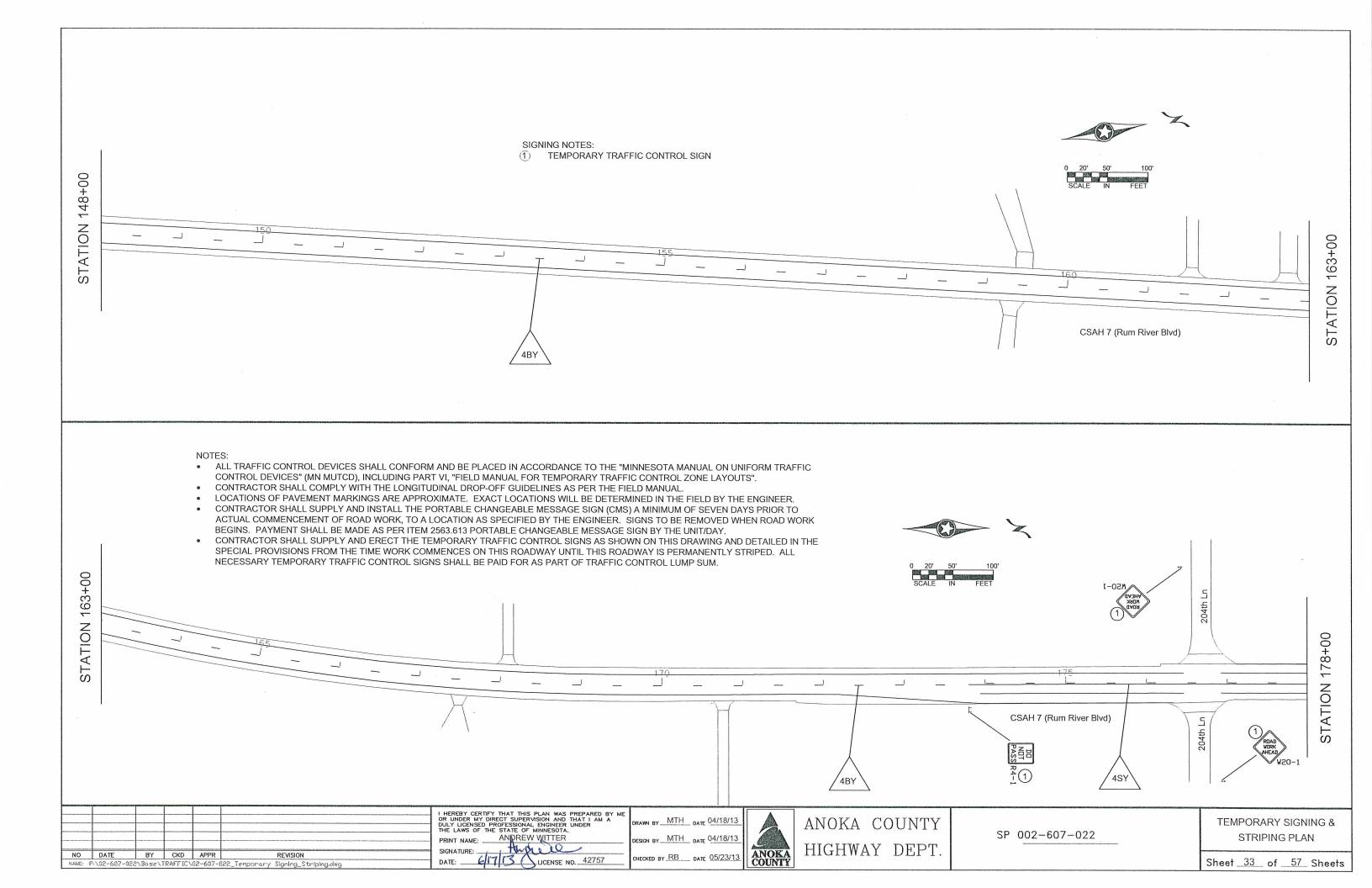


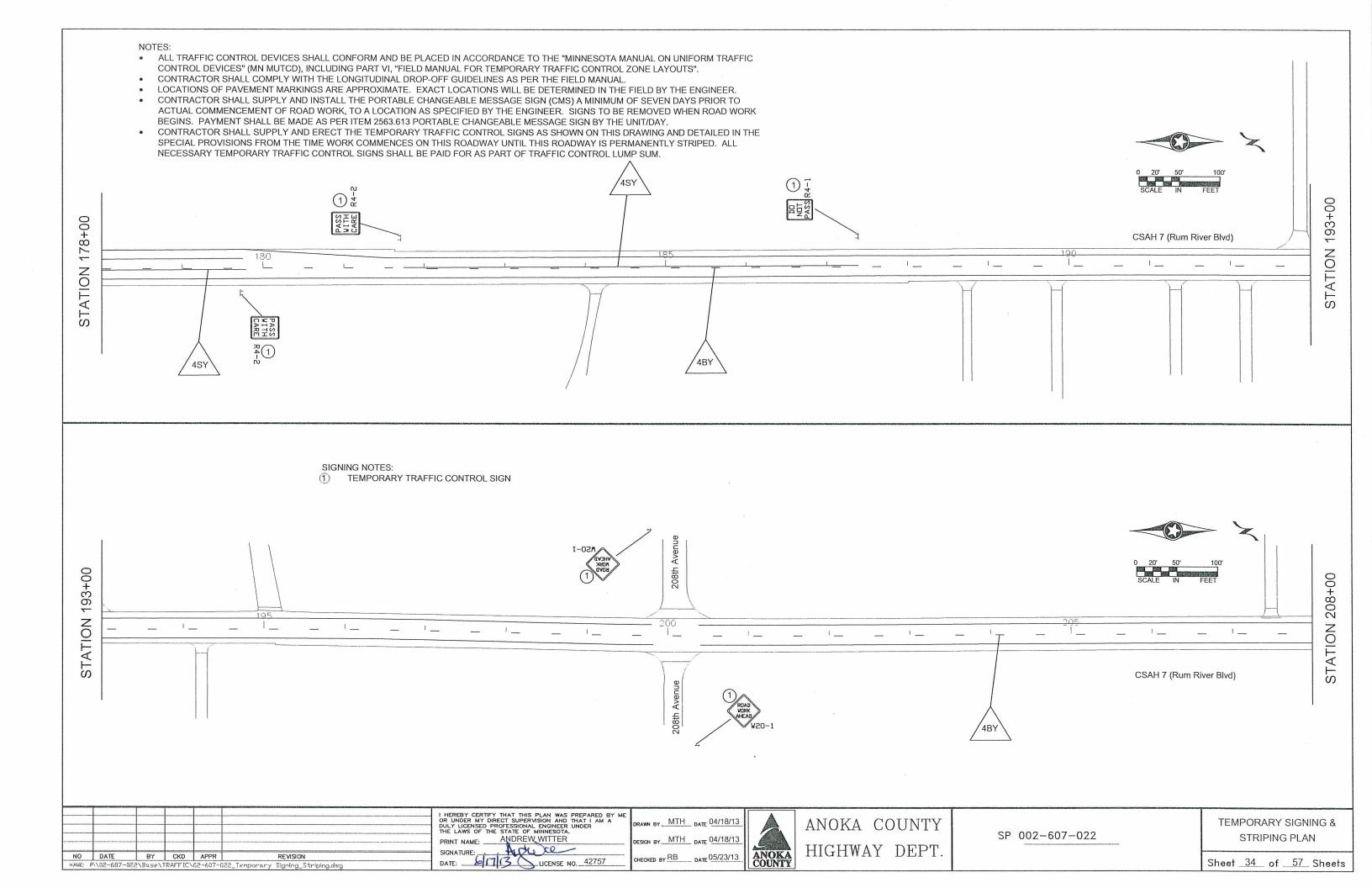


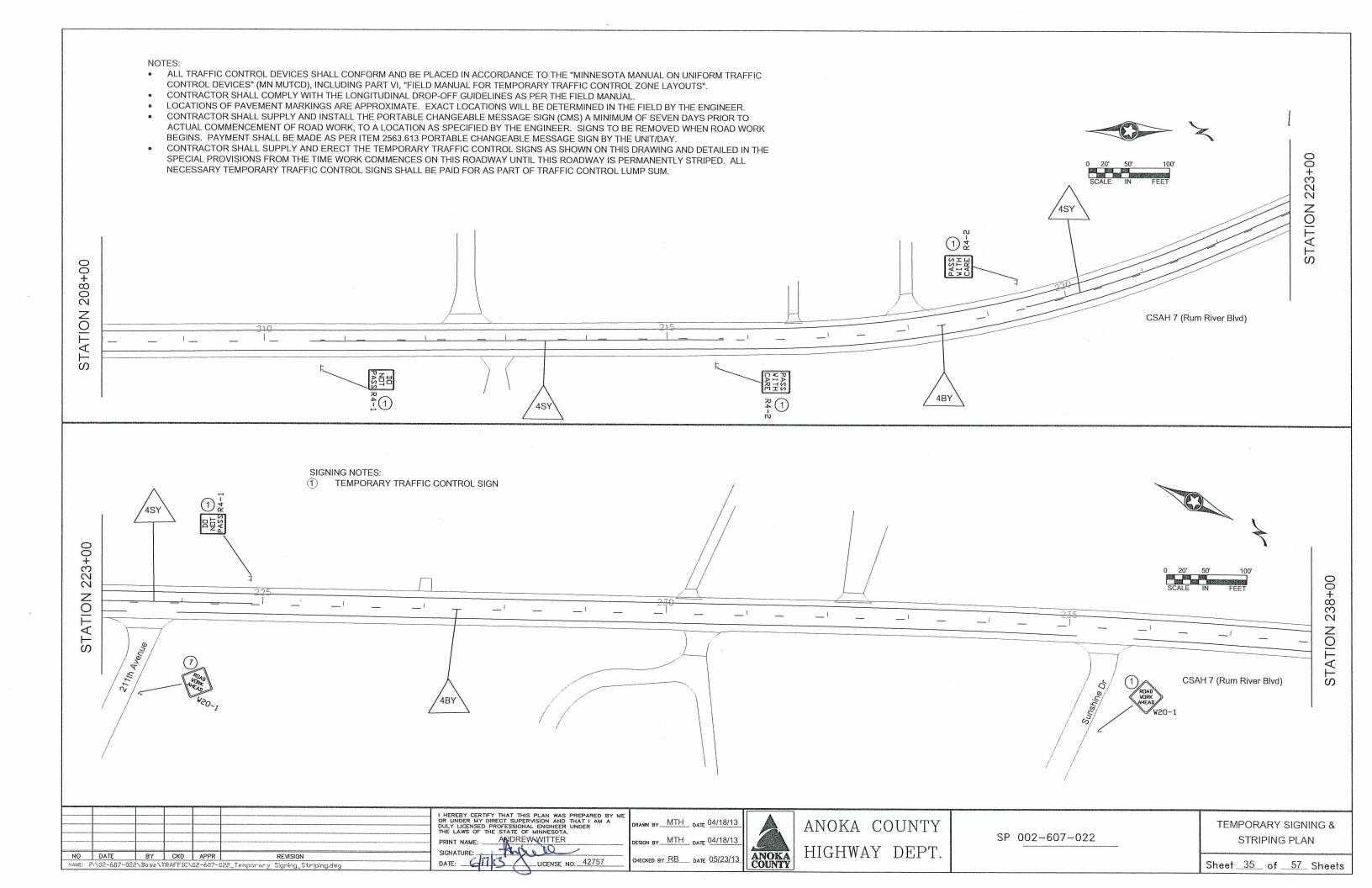


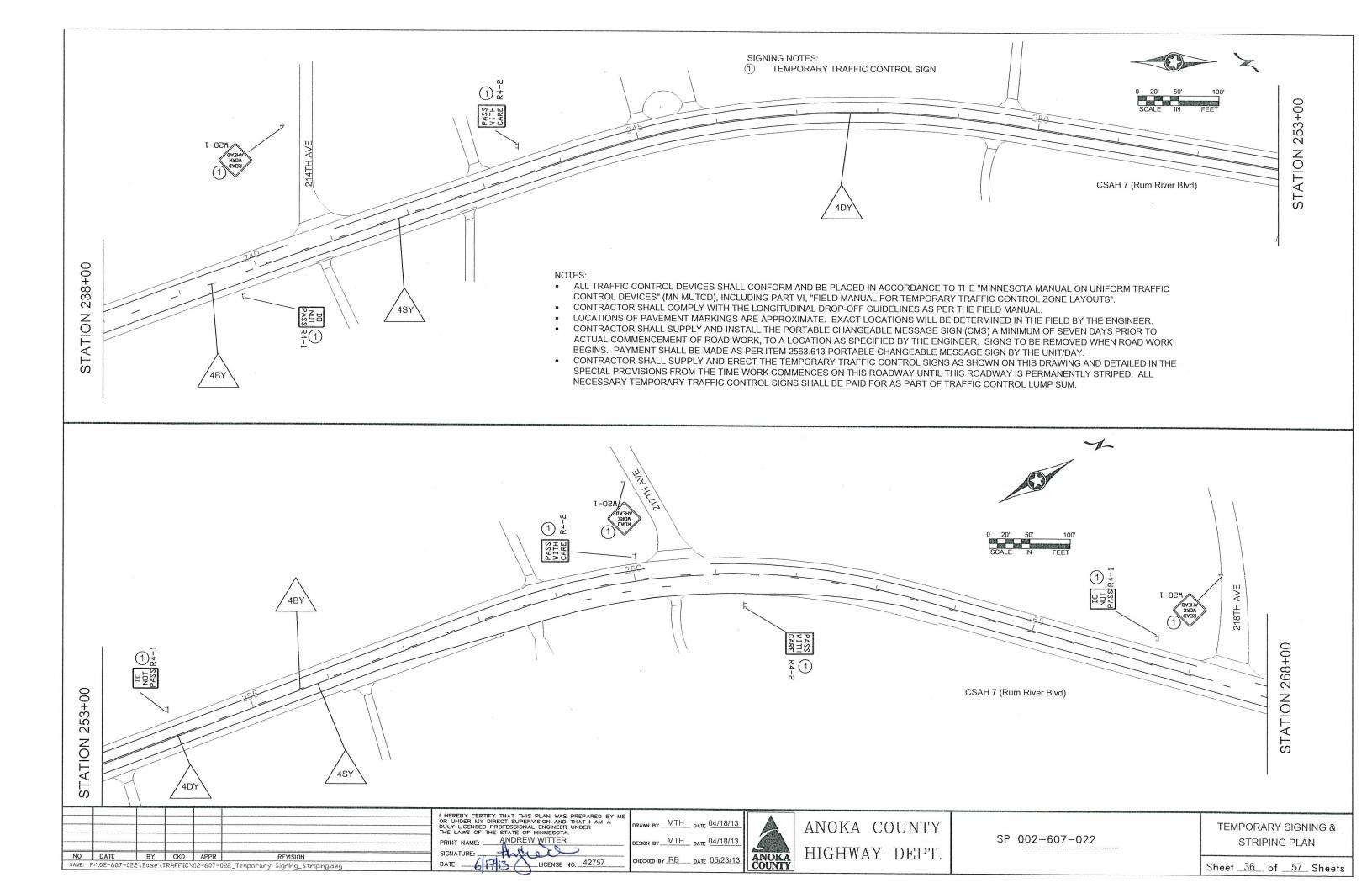


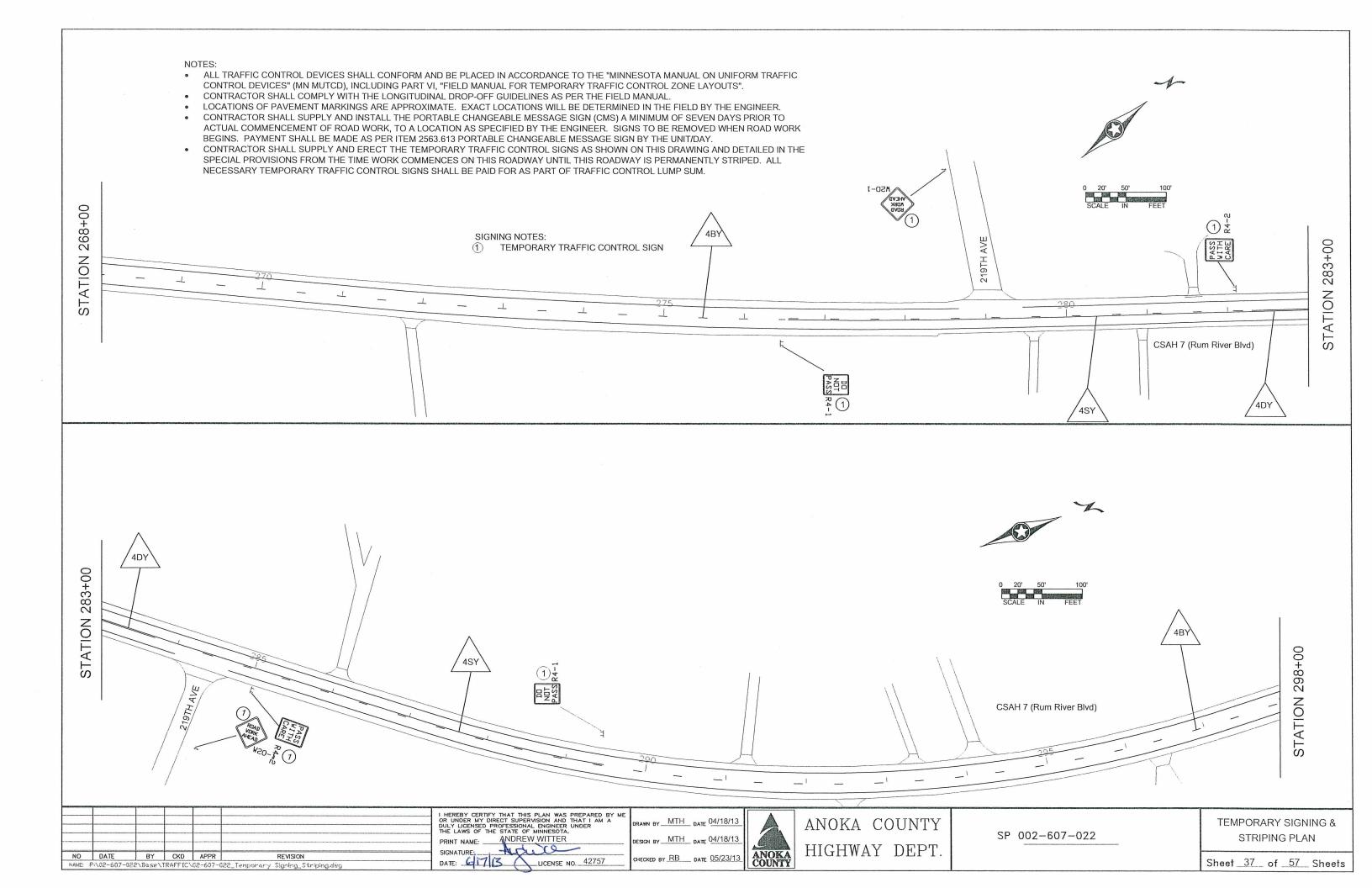


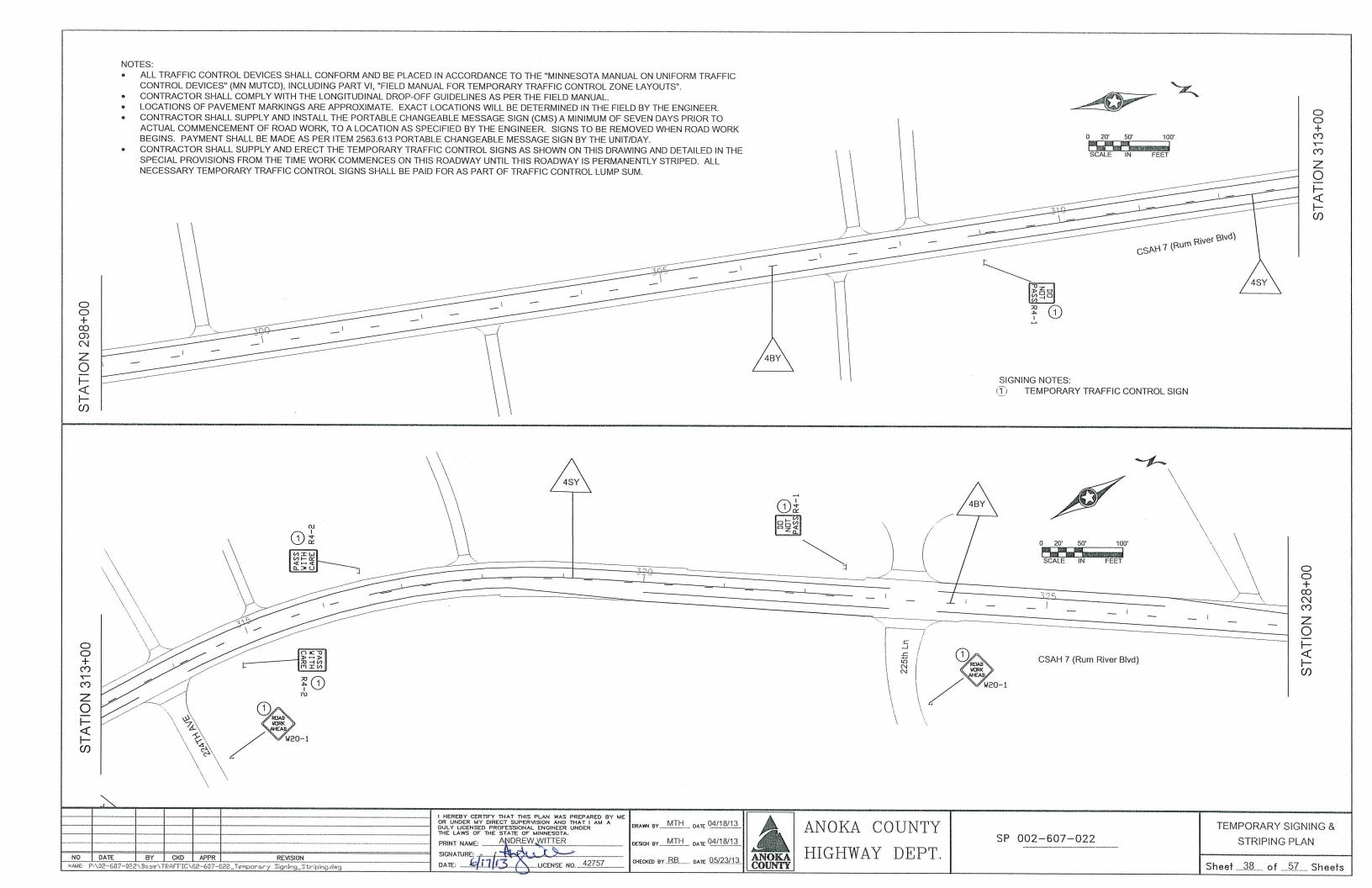


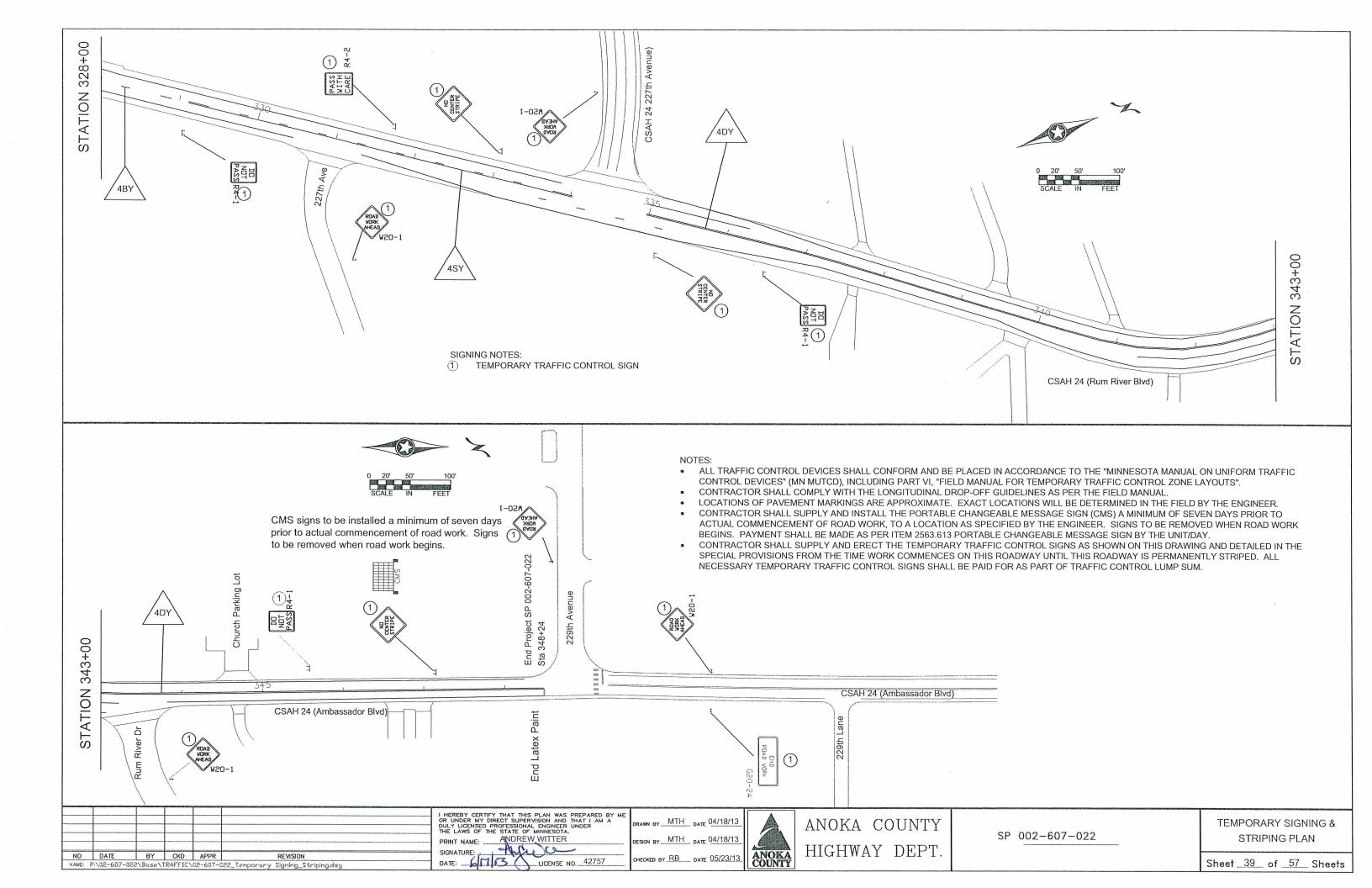


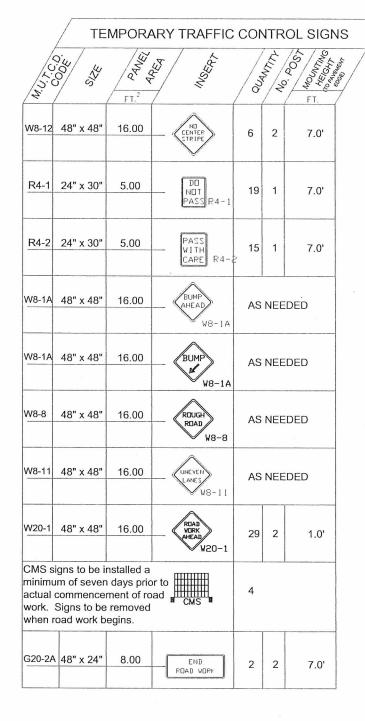












TEMPORARY PAVEMENT MARKING TABULATION									
ITEM	Quantity	Units							
4" Solid Line Yellow - Paint	7700	Lin Ft							
4" Broken Line Yellow - Paint (10 ft stripe / 40 ft gap)	3960	Lin Ft							
4" Double Solid Line Yellow - Paint	1200	Lin Ft							

## 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".
- CONTRACTOR SHALL COMPLY WITH THE LONGITUDINAL DROP-OFF GUIDELINES AS PER THE FIELD MANUAL.
- LOCATIONS OF PAVEMENT MARKINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
- CONTRACTOR SHALL SUPPLY AND INSTALL THE PORTABLE CHANGEABLE MESSAGE SIGN (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.

	OTTO BEAUTY STREET, ST					
						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
NO NAME:	DATE P:\02-607-022	BY Base\	CKD TRAFFIC\	APPR 02-607-0	REVISION 122_Temporary Signing_Striping.dwg	SIGNATURE:  DATE: 17.13 UCENSE NO. 42757

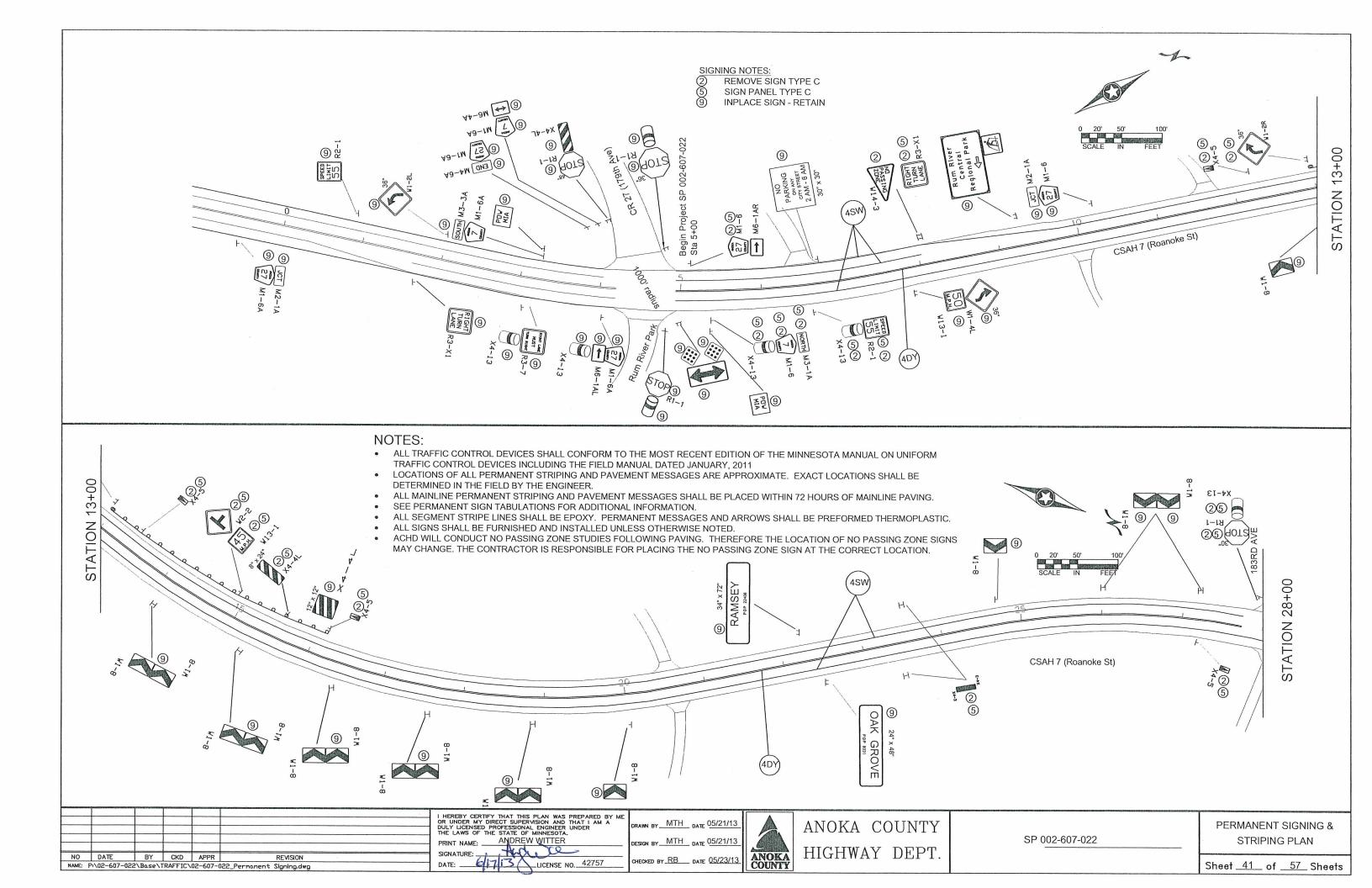
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_	DESIGN BY MTH DATE 04/18/13	
_	CHECKED BY <u>RB</u> DATE <u>05/23/13</u>	

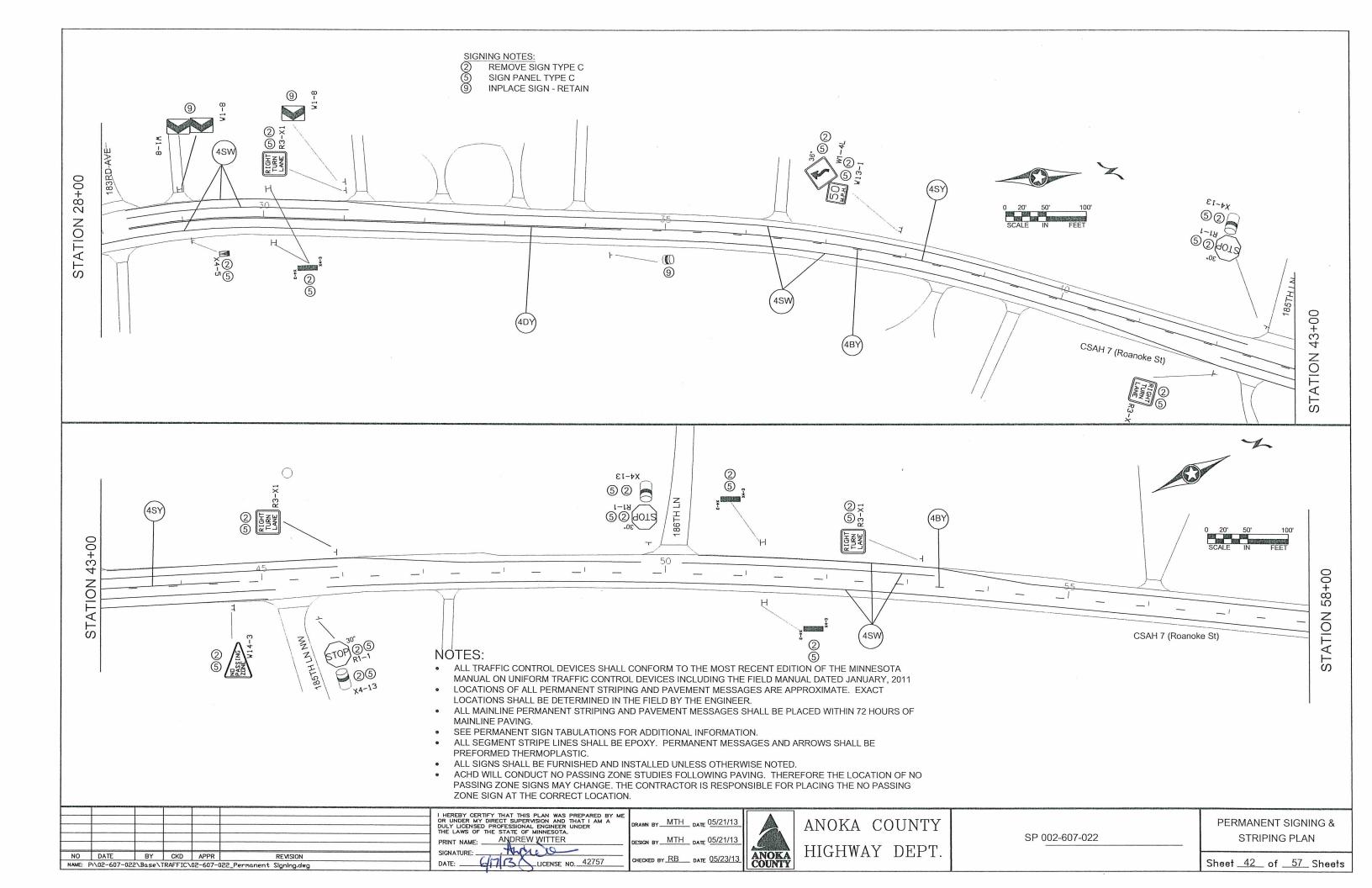
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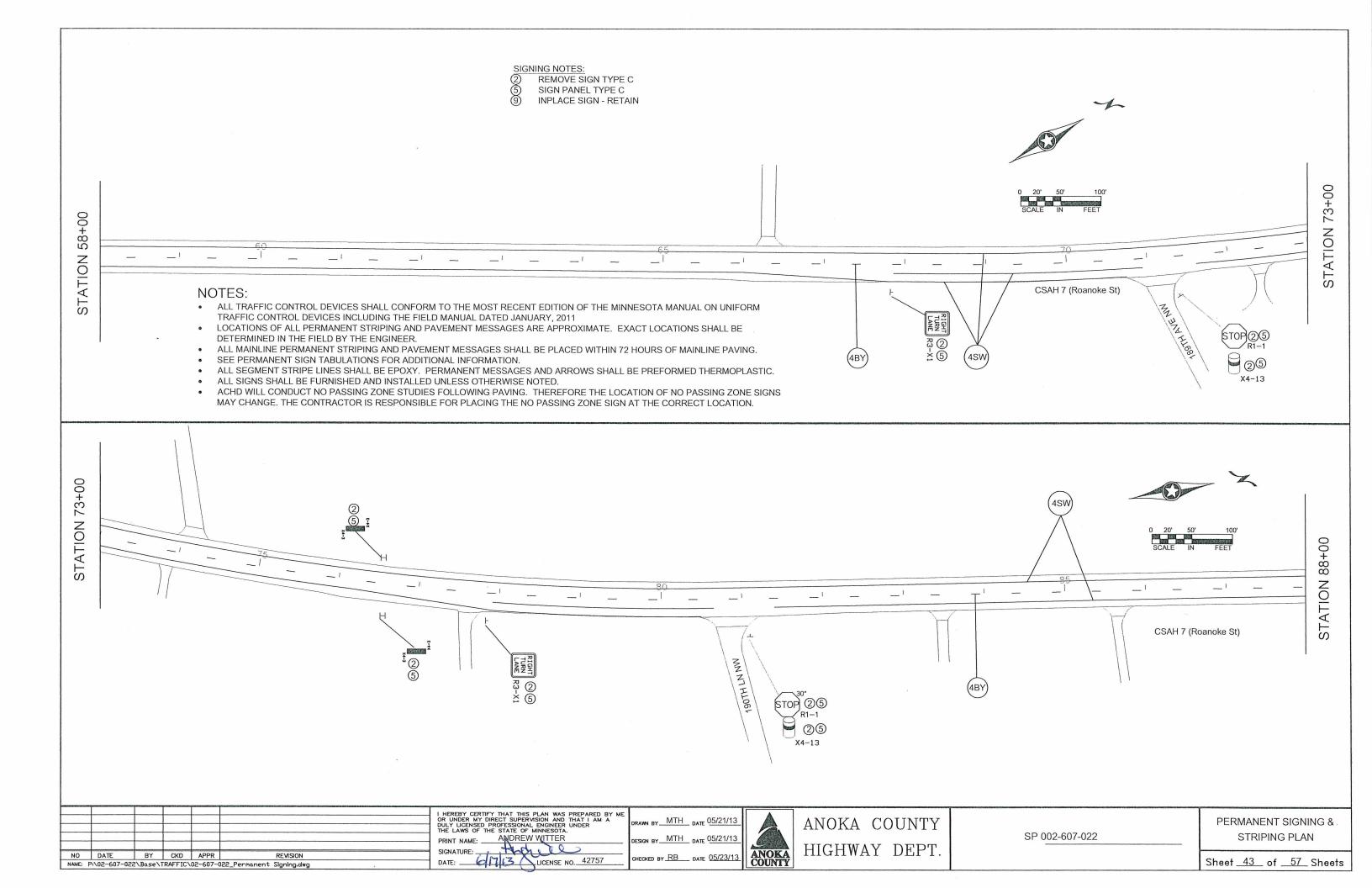
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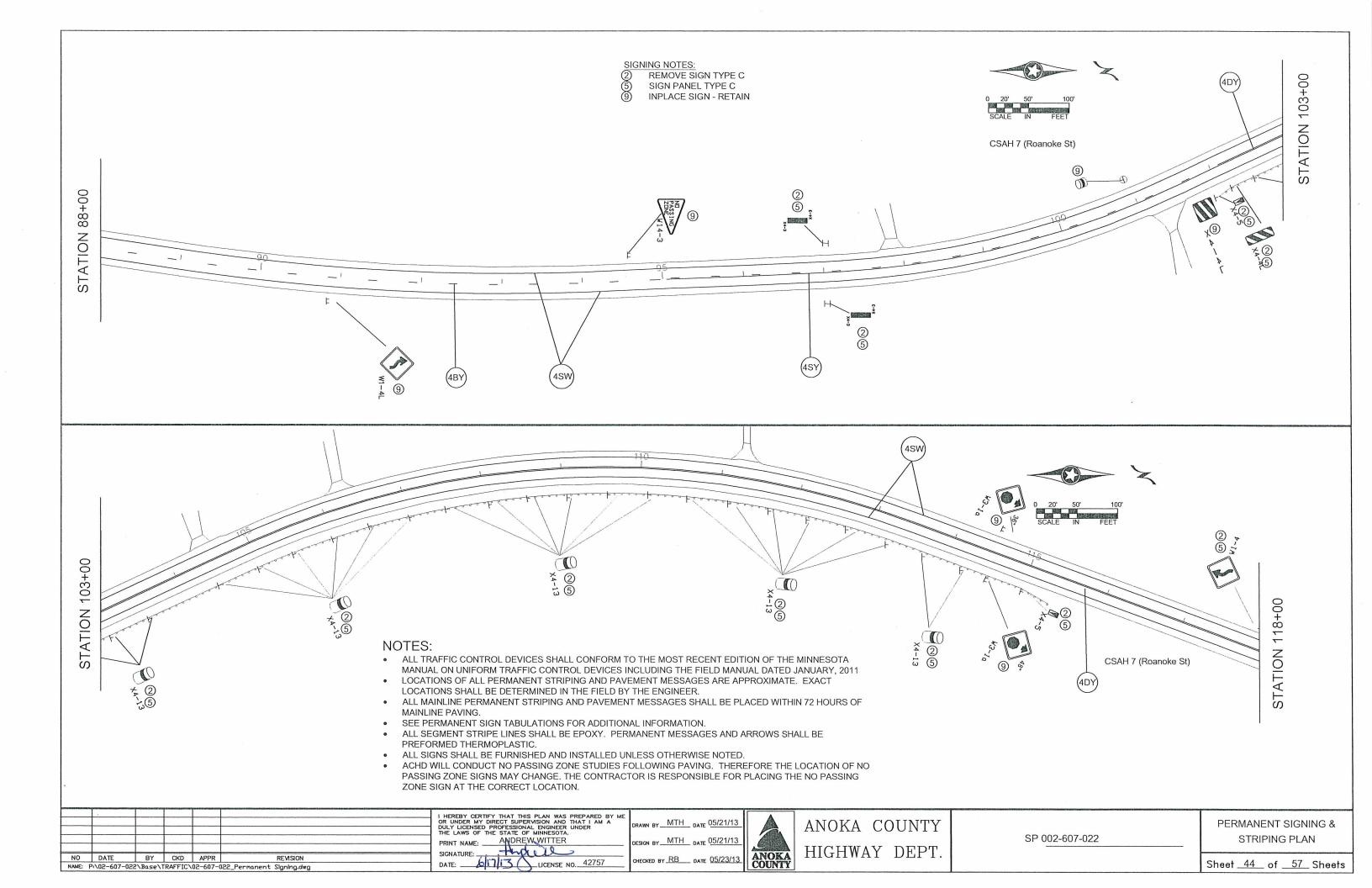
TEMPORARY SIGNING & STRIPING PLAN

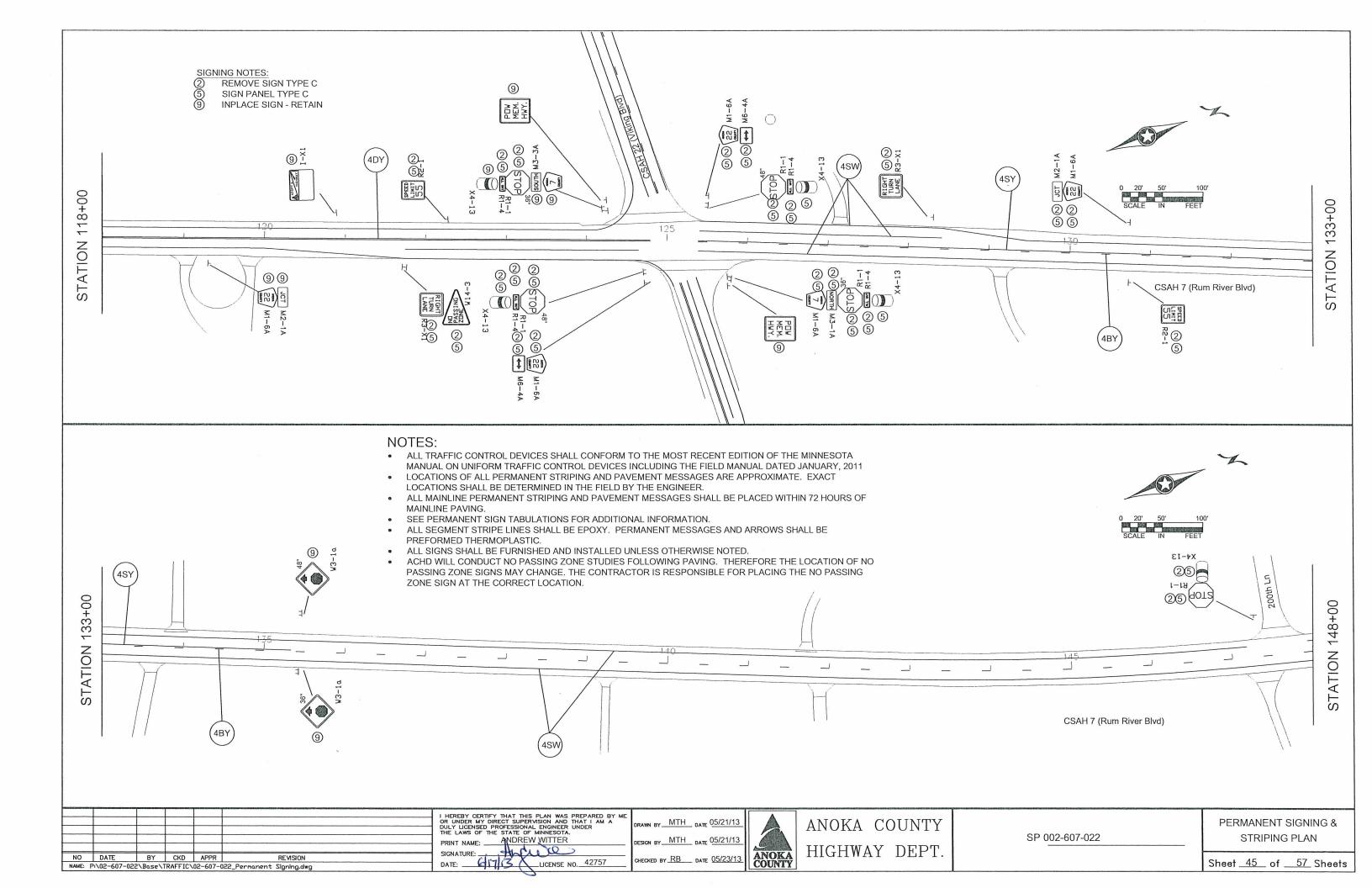
Sheet 40 of 57 Sheets

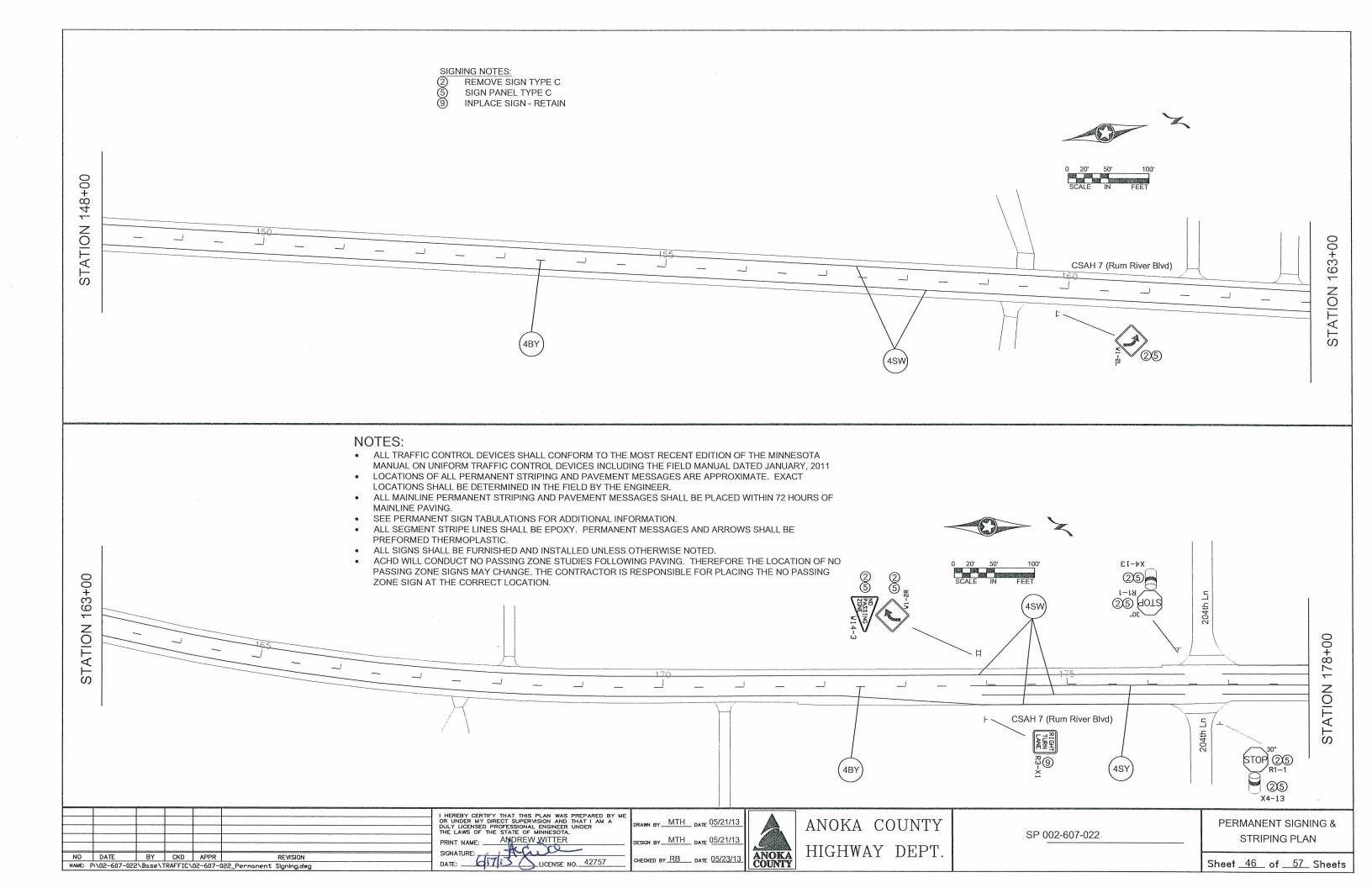


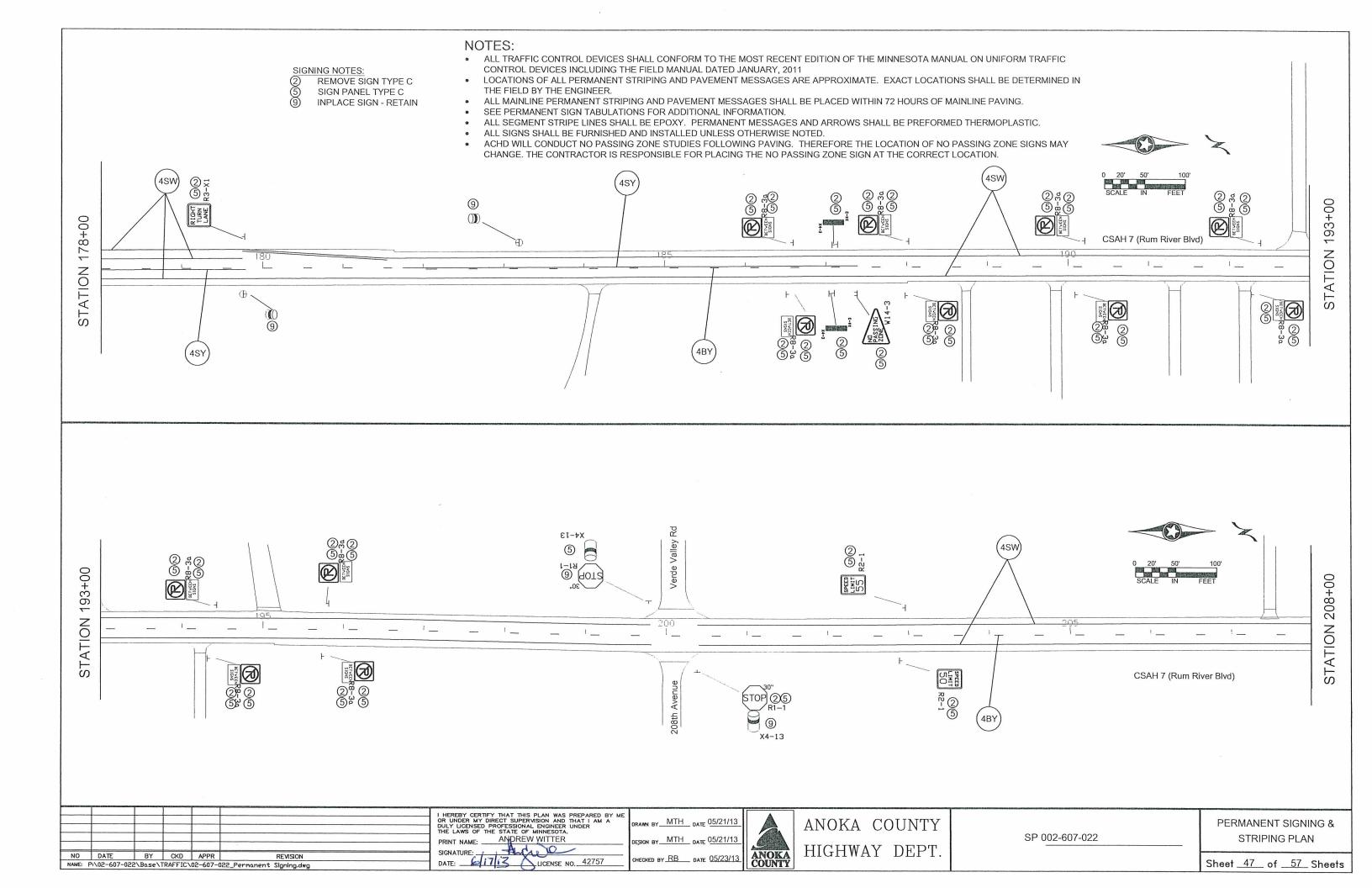


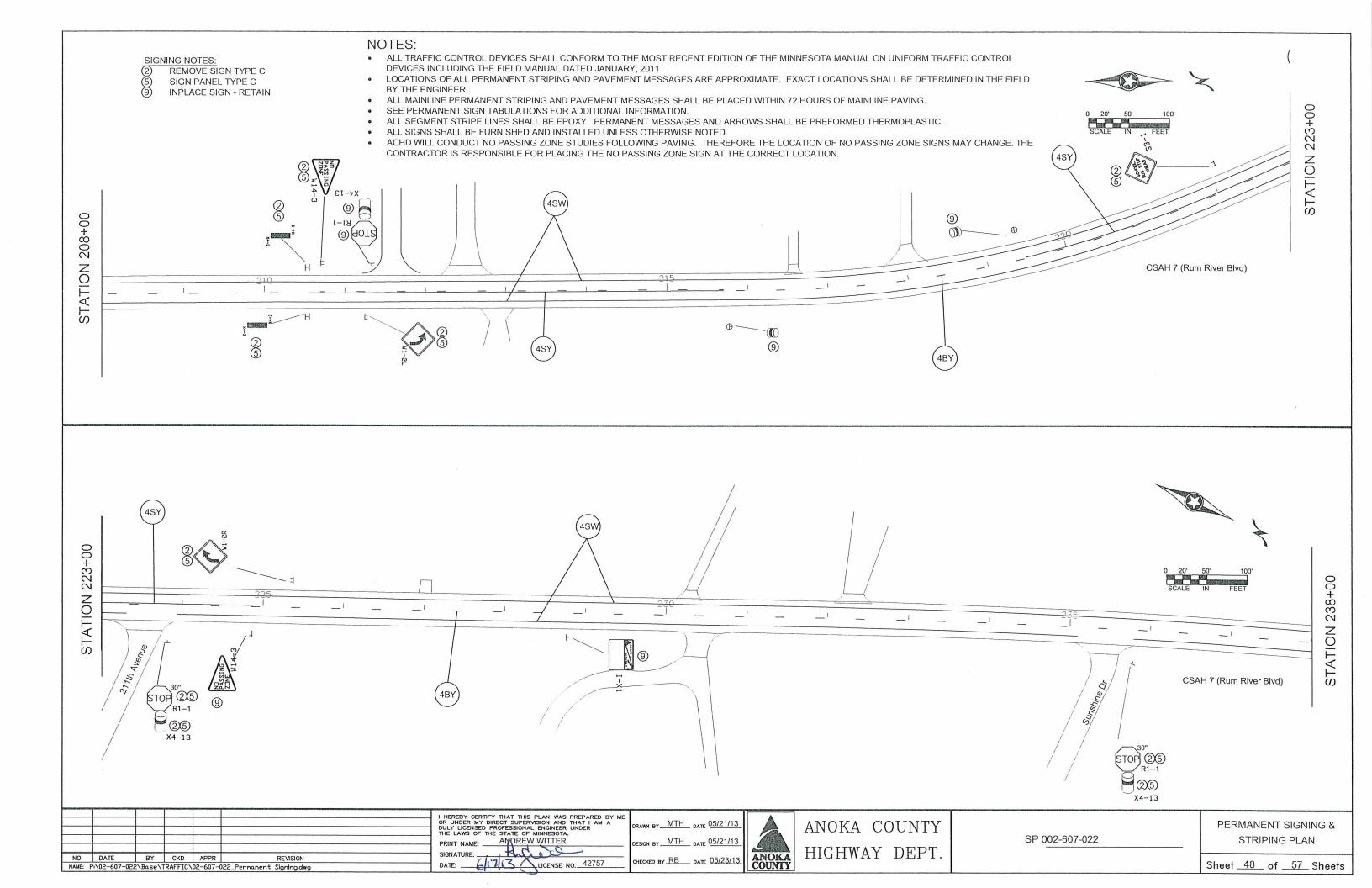


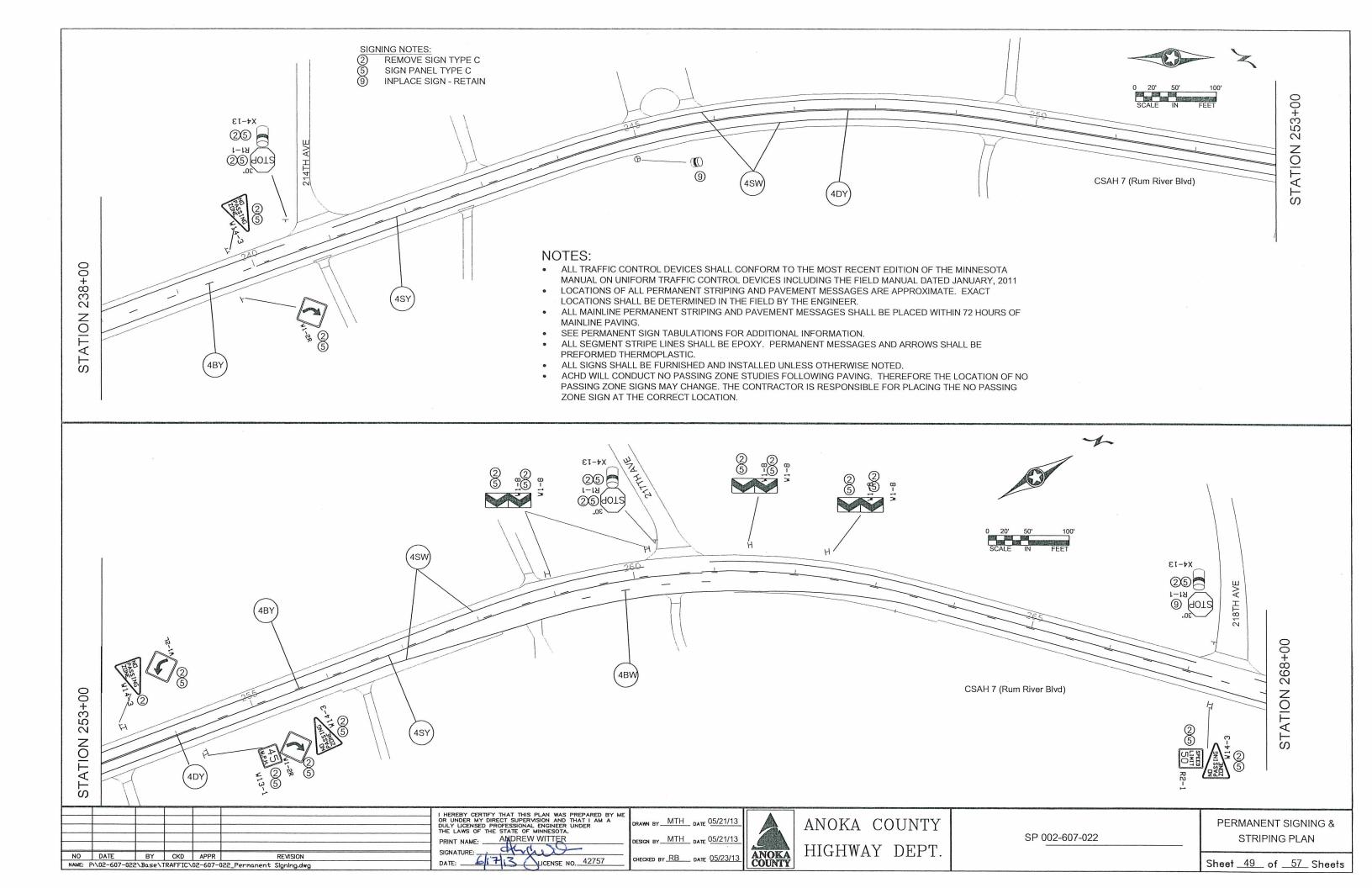


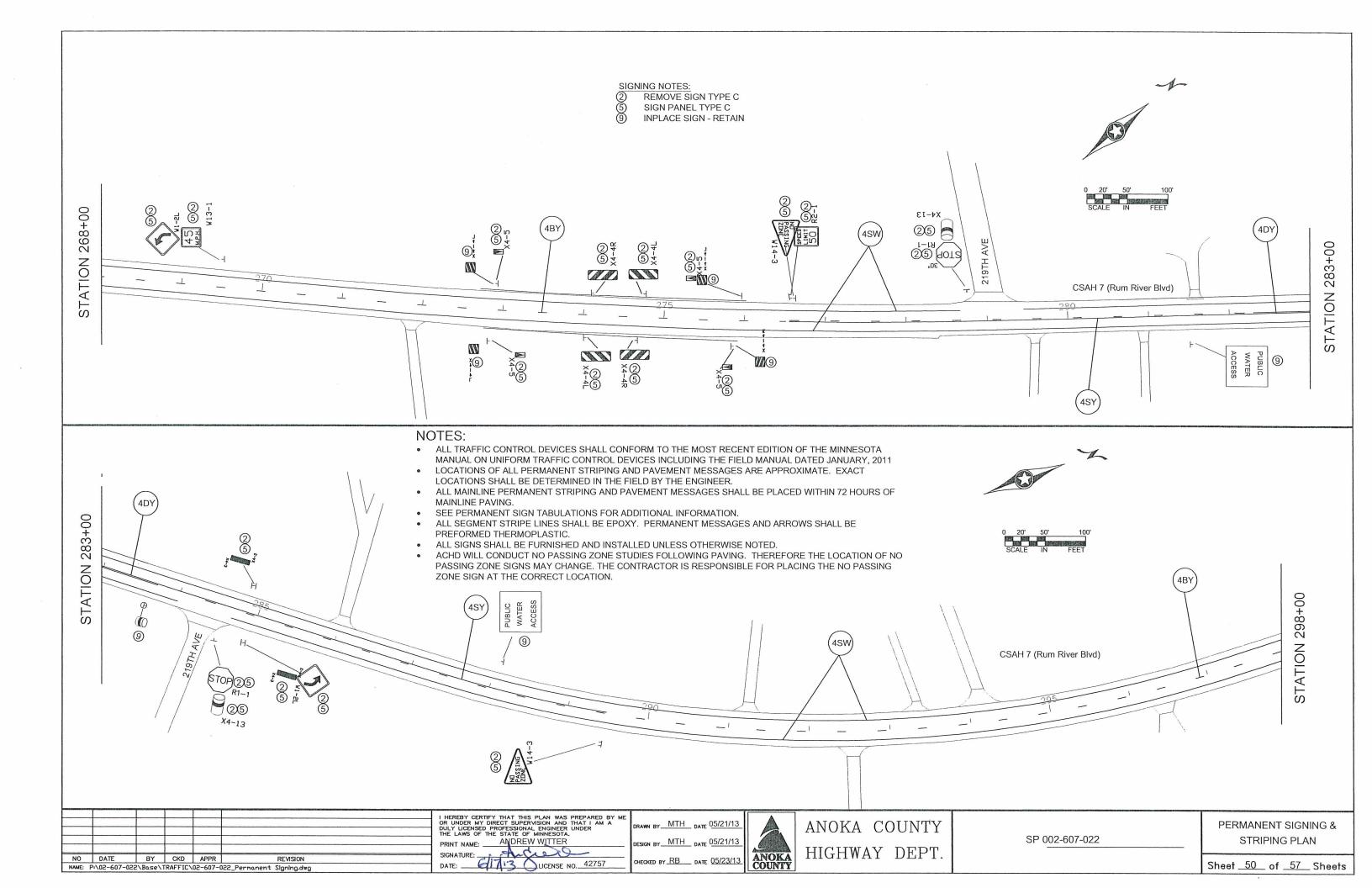


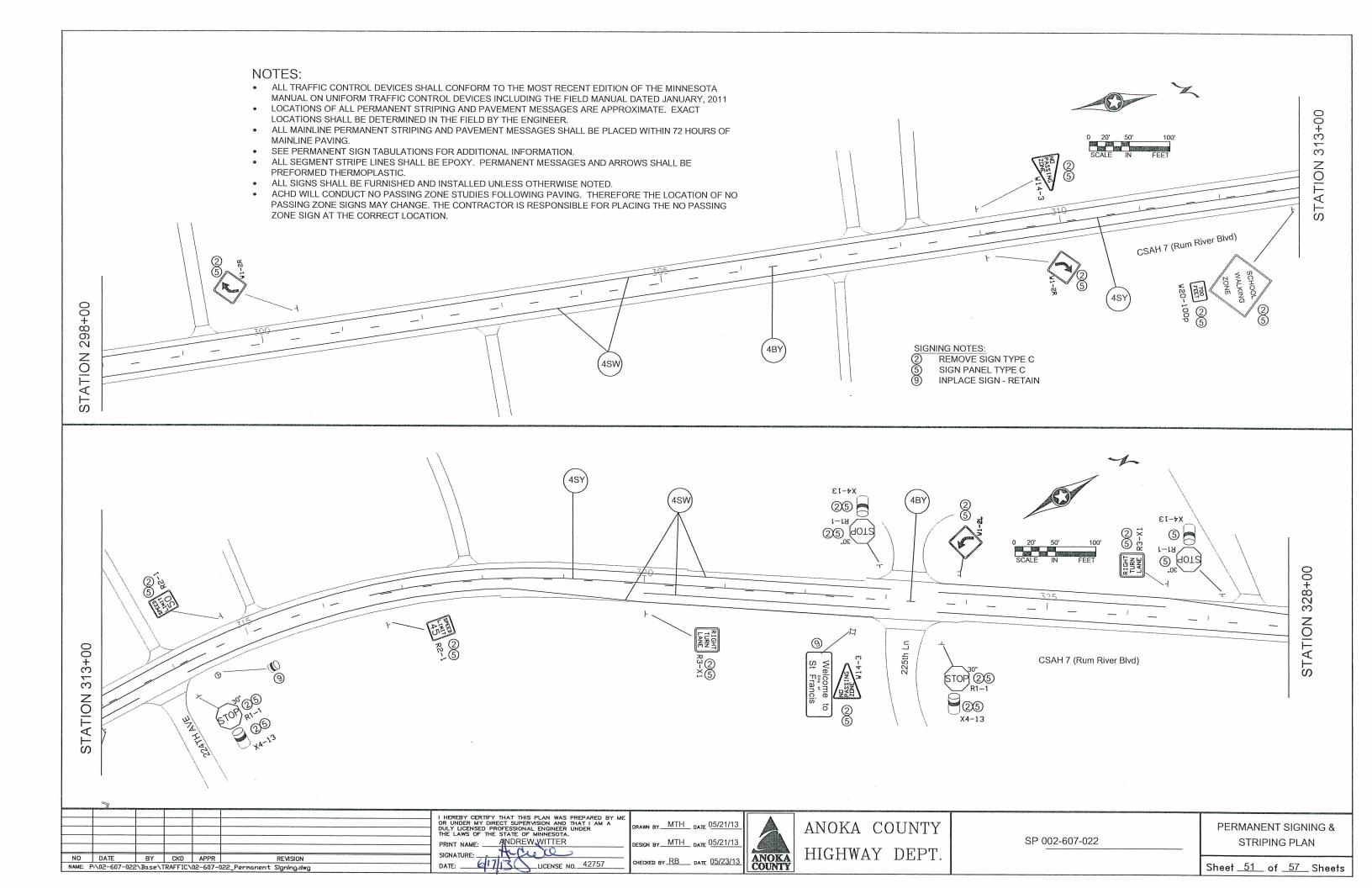


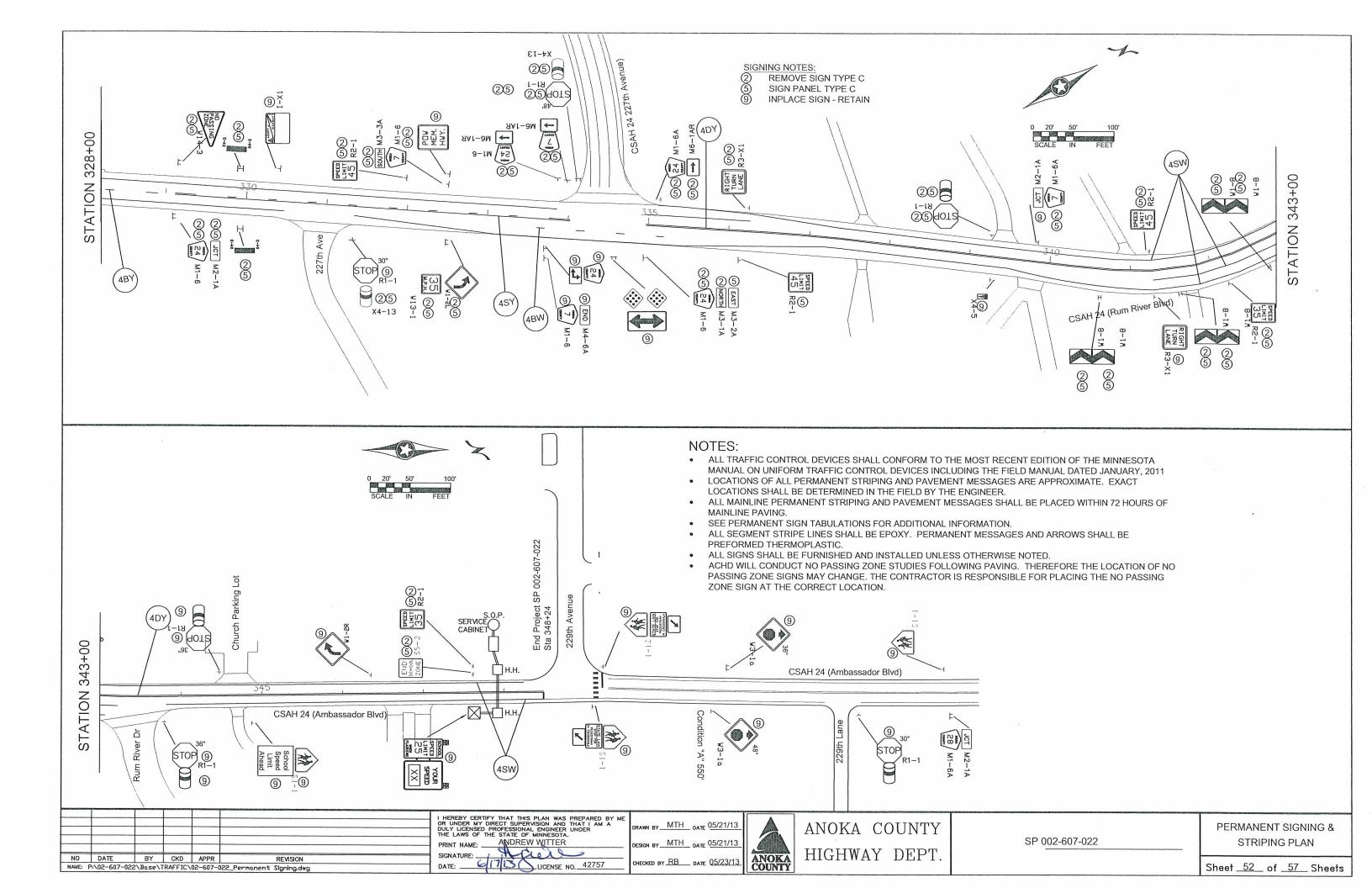












SIGN RE	MOVAL A	ND INSTALI	L PERMANEN	MARKER S		BULATION
STATION		REMOVE SIGN TYPE C	INSTALL DELINEATOR TYPE X4-13	INSTALL CLEARANCE MARKER X4-4	INSTALL SNOW PLOW MARKER X4-5	SIGN NUMBER
		EACH	EACH	EACH	EACH	
5+20	Lt	1				M1-6
	277.0					M6-1AR
						M3-1A
5+40	Rt	1				M1-6
			1			delineator
6+60	Rt	1				R2-1
			1			delineator
8+10	Lt	1			K	W14-3
		·				F3-X1
12+30	Lt	1			1	X4-5
13+00	Lt	1				W1-2R
13+50	Lt	1			1	X4-5
15+00	Lt	1				W2-2
		·				W13-1
15+60	Lt	1		1 .		X4-4L
16+20	Lt	1			1	X4-5
23+30	Rt	1				X4-3
25.30	14					X4-3
23+50	Lt	1				X4-3
25.50	Li	,				X4-3
27+20	Rt	1			1	x4-5
28+00	Lt	1				R1-1
20.00			1			delineator
29+00	Rt	1			1	X4-5
30+10	Rt	1				X4-3
						X4-3
30+10	Lt	1				X4-3
						X4-3
31+00	Lt	1				F3-X1
38+00	Lt	1				W1-4L
		·				W13-1
42+00	Rt	1				R3-X1
42+50	Lt	1				R1-1
			1			delineator
44+60	Rt	1				W14-3
45+70	Rt	1				R1-1
12 205			1			delineator
46+00	Lt	1				R3-X1
49+80	Lt	1				R1-1
			1			delineator
51+20	Rt	1				X4-3
2. 20						X4-3
51+20	Lt	1				X4-3
31.20	L					X4-3
53+20	Lt	1				F3-X1
67+80	Rt	1				F3-X1
71+40	Rt	1				R1-1
, , , , , ,	14	'	1			delineator

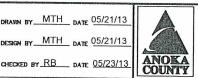
STATION		REMOVE SIGN TYPE C	INSTALL DELINEATOR TYPE X4-13	INSTALL CLEARANCE MARKER X4-4	INSTALL SNOW PLOW MARKER X4-5	SIGN NUMBER
		EACH	EACH	EACH	EACH	
76+50	Rt	1				X4-3
70.30	ru.	1				X4-3
76+50	Lt	1				X4-3
						X4-3
77+70	Rt	1				R3-X1
81+10	Rt	1				R1-1
		·	1			delineator
97+00	Rt	1				X4-3
						X4-3
97+00	Lt	1				X4-3
						X4-3
102+00	Rt	1			1	X4-5
102+20	Rt	1		1		X4-4L
102+40	· Rt	1	1			X4-13
103+00	Rt	1	1			X4-13
103+50	Rt	1	1			X4-13
104+40	Rt	1	1			X4-13
105+00	Rt	1	1			X4-13
105+50	Rt	1	1			X4-13
106+00	Rt	1	1			X4-13
106+50	Rt	1	1			X4-13
107+00	Rt	1	1			X4-13
107+50	Rt	1	1			X4-13
108+00	Rt	1	1			X4-13
108+50	Rt	1	1			X4-13
109+00	Rt	1	1			X4-13
109+50	Rt	1	1			
110+00	Rt	1	1			X4-13
110+50	Rt	1	1			X4-13
111+00	Rt	1	1			X4-13
111+50	Rt	1	1			X4-13
112+00	Rt	1	1			X4-13
112+60	Rt	1	1			X4-13
113+20	Rt	1	1			X4-13
113+70	Rt	1	1			X4-13
114+20	Rt	1	1			X4-13
115+00	Rt	1				X4-13
118+00	Lt	1			1	X4-5
, 10.00	Rt	1				W1-4L
121+70	FU	1 -				R3-X1
122+30	1.1	1				W14-3
122730	Lt	1				R2-1
124+40	Lt	1 -				R1-1
						R1-4
						R1-1
124+70	Rt	1				R1-4
			1			X4-13
124+70	Rt	1		KI .		M1-6A
						M6-4A

STATION		REMOVE SIGN TYPE C	INSTALL DELINEATOR TYPE X4-13	INSTALL CLEARANCE MARKER X4-4	INSTALL SNOW PLOW MARKER X4-5	SIGN NUMBER
		EACH	EACH	EACH	EACH	
						R1-1
125+50	Lt	1				R1-4
			1			X4-13
125+50	Lt	1				M1-6A
						M6-4A
1			-			M3-1A
	NET-CO.	1				M1-6A
125+70	Rt					R1-1
						R1-4
100.00			1			X4-13
128+30	Lt	1				R3-X1
130+70	Rt	1				R2-1
130+70	Lt	1				M2-1A
						M1-6A
147+30	Lt	1				R1-1
150,00			1			X4-13
159+90	Rt	1				W1-2L
173+90	Lt	1				W14-3
						W1-2R
176+30	Lt	1				R1-1
			1			X4-13
176+80	Rt	1				R1-1
179+80	Lt	1	1			X4-13
175.00						R3-X1
186+50	Rt	1				R8-3a
						R8-3ap
186+60	Lt	1				R8-3a
						R8-3ap
187+00	Rt	1				X4-3
						X4-3
187+00	Lt	1				X4-3
187+40	Rt	1				X4-3
						W14-3
188+00	Rt	1				R8-3a
						R8-3ap
188+00	Lt	1				R8-3a
						R8-3ap R8-3a
190+00	Rt	1 -				R8-3ap
100.00						R8-3a
190+00	Lt	1				R8-3ap
102.22	_					R8-3a
192+20	Rt	1				R8-3ap
102.40						R8-3a
192+40	Lt	1				R8-3ap
104120						R8-3a
194+20	Rt	1  -				R8-3ap

SP 002-607-022

						I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY 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
NO	DATE	BY	CKD	APPR	REVISION	SIGNATURE:
NAME:	P:\02-607-02	2\Base\7	RAFFIC\	02-607-022_Pe	ermanent Signing.dwg	DATE:

RAWN BY MTH DATE 05/21/13 ESIGN BY MTH DATE 05/21/13



ANOKA COUNTY HIGHWAY DEPT.

SIGN REMOVAL AND PERMANENT SIGN MARKER TABULATION

Sheet <u>53</u> of <u>57</u> Sheets

STATION		REMOVE SIGN TYPE C	INSTALL DELINEATOR TYPE X4-13	INSTALL CLEARANCE MARKER X4-4	INSTALL SNOW PLOW MARKER X4-5	SIGN NUMBER
		EACH	EACH	EACH	EACH	
194+40	Lt	1				R8-3a
101110						R8-3ap
195+70	Rt	1 1				R8-3a
						R8-3ap
195+70	Lt	1				R8-3a
199+70	Lt		1			R8-3ap
200+30	Rt	1	· · · · · · · · · · · · · · · · · · ·			X4-13
203+00	Rt	1				R1-1
203+00	Lt	1				R2-1
						R2-1
210+50	Rt	1				X4-3 X4-3
210+50	Lt	1				X4-3
210.30	Li	' [				X4-3
210+70	Lt	1				W14-3
211+20	Rt	1				W1-2L
222+20	Lt	1				S3-1
223+70	Rt	1	,			R1-1
223.70	750	'	1			X4-13
225+40	Lt	1				W1-2R
235+70	Rt	1	1			R1-1
239+70	Rt	1				X4-13
239+70	Lt	1				W1-2R
239+70		'				W14-3
240+50	Lt	1	1			R1-1
						X4-13
253+30	Lt	1				W14-3
						W1-2L
254+30	Rt	. 1				W1-2R
201.00	110	'				W13-1
						W14-3 W1-8
259+00	Lt	1				
						W1-8
260+20	Lt	1				W1-8 W1-8
						R1-1
260+30	Lt	1	1			X4-13
						W1-8
261+40	Lt	1				W1-8
262+40	Lt	1				W1-8
						W1-8
267+20	Lt	1	1			X4-13
267+30	Rt	1				R2-1
						W14-3
269+50	Lt	1				W1-2L
979.5						W13-1
272+80	Rt	1			1	X4-5

CICITILE	VAL /		L PERMANEN	INMAKERS	INSTALL	TULATIO
STATION		REMOVE SIGN TYPE C	INSTALL DELINEATOR TYPE X4-13	INSTALL CLEARANCE MARKER X4-4	SNOW PLOW MARKER X4-5	SIGN NUMBE
		EACH	EACH	EACH	EACH	
274+00	Rt	1		1		X4-4L
274+10	Lt	1		1		X4-4R
274+60	Rt	1		1		X4-4R
274+70	Lt	1		1		X4-4L
275+80	Rt	1			1	X4-5
276+00	Lt	1			1	X4-5
276+60	Lt	1				W14-3
		·				R2-1
278+80	Lt	1 1				R1-1
			1			X4-13
284+60	Rt	1				R1-1
			1			X4-13
204.00	_	1				W1-2L
284+90	. Pt	1				X4-3
						X4-3
284+90	Lt	1 1				X4-3
200.50						X4-3
289+50	Rt	1				W14-3
300+50	Lt	1				W1-2R
309+00	Rt	1				W1-2R
309+00	Lt	1				W14-3
312+80	Rt	1 1			SCHOOL WAT	KING ZON
		-				W20-100p
314+00	Rt	1 1				R1-1
314+80	Lt	1				X4-13
316+70	Rt	1				R2-1
320+00	Rt	1				R2-1
322+50	Rt	1				R3-X1
		· ·				W14-3
322+90	Lt	1 1	1			R1-1
						X4-13
323+70	Rt	1 -	1			R1-1
323+80	Lt	1	·			X4-13
326+50	Lt	1				W1-2L
			-			R3-X1
327+20	Lt	1  -	1			R1-1
						X4-13
329+10	Rt	1				M2-1A
329+10	Lt	1				M1-6A
						W14-3
329+90	Rt	1				X4-3
						X4-3
329+90	Lt	1				X4-3
331+30	Rt	1	1			X4-3
332+00	Lt	1				X4-13 R2-1

SIGN RE	MOVAL A	ND INSTAL	L PERMANEN	T MARKER S	IGNS TAE	ULATIO
STATION		REMOVE SIGN TYPE C	INSTALL DELINEATOR TYPE X4-13	INSTALL CLEARANCE MARKER X4-4	INSTALL SNOW PLOW	SIGN NUMBER
		EACH	EACH	EACH	EACH	
332+50	Rt	1				W1-2L
						W13-1
332+50	Lt	1				M3-3A
						M1-6A
334+10	Lt	1				M1-6A
					*	M6-1AR
334+13	Lt	1				M1-6A
						M6-1AR
334+20	Lt	1				R1-1
			1			X4-13
334+90	Rt	1				M3-1A
						M1-6A
335+10	Lt	1				M1-6A
						M6-1AR
336+70	Lt	1				R3-X1
339+30	Lt	1				R1-1
			1			X4-13
339+80	Lt	1				M1-6A
340+70	Rt	1				W1-8
						W1-8
341+20	Lt	1				R2-1
341+50	Rt	1				W1-8
						W1-8
342+10	Rt	1				R2-1
342+70	Rt	1				W1-8
						W1-8
347+70	Lt	1				S5-2
347+70	Lt	1				R2-1
TOTAL		170	51	6	11	

SP 002-607-022

l						THE RESIDENCE OF THE PARTY OF T	PARTICULAR DE SANCORA PARTICULAR DE SANCORA						
							OF						
							DL TI-						
							PI						
	NO	DATE	BY	CKD	APPR	REVISION	SI						
	NAME: F	D/											

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: LICENSE NO. 42757

RAWN BY MTH DATE 05/21/13 DESIGN BY MTH DATE 05/21/13 снескей ву <u>RB</u> рате <u>05/23/13</u>



ANOKA COUNTY HIGHWAY DEPT.

SIGN REMOVAL AND PERMANENT MARKER SIGN **TABULATION** 

Sheet <u>54</u> of <u>57</u> Sheets

SIGN PANELS TYPE C 30" X 30" 6.25 7.0 36" X 36" 9.00 STOP R1-7.0' 48" X 48" 16.00 7.0 18" X 6" 6.25 ALL INT R1-7.0' 4" X 13" X4-13 X4-13 35 LIMIT 45 50 55 7.0' 7.0' 7.0' 24" X 30" 5.00 R2-1 7.0' RIGHT TURN LANE R3-X1 13 R3-X1 30" X 30" 7.0' 24" X 24" 7.0' R8-3aP 12" X 24" 2.00 7.0' W1-2R 36" X 36" 9.00 7.0' W1-2L 36" X 36" 9.00 7.0' W1-4R 36" X 36" 9.00 7.0' 36" X 36" 9.00 W1-4L 7.0' 35 7.0' 7.0' 7.0' W13-1 24" X 24" 4.00 45 50 W1-7 24" X 48" 8.00 7.0' 18" X 24" 3.00 7.0' W2-2 36" X 36" 7.0' W13-1 24" X 24" 4.00 45 м.р.н. 7.0' W13-1 W14-3 48" X 36" 7.0

	7						
/				SIGN PANELS	STYP		
	NO. T. S. W.		PAWE,	WSERY WEEK	/%	TELME /	50 SILVION FT.
ı			FT.2	(	_	_	
	M3-1A	24" X 12"	2.00	NORTH	2		7.0'
	M3-3A		2.00	SOUTH	1		7.0'
	M1-6a	24" X 24"	4.00	7	4	1	7.0'
	M6-1A	R 21" X 15"	2.19	<b>→</b>	1		7.0'
	M2-1a	21" X 15"	2.19	JCT	1		7.0'
	M1-6a	24" X 24"	4.00	22	3	1	7.0'
	M6-4A	21" X 15"	2.19	_ <b>↔</b>	2		7.0'
	M2-1a	21" X 15"	2.19	JCT			7.01
	M3-2A	24" X 12"	2.00	EAST	1		7.0' 7.0'
	M1-6a	24" X 24"	4.00	24)	4	1	7.0'
	M6-1A	R 21" X 15"	2.19	CEARTY/	1		7.0'
	M6-1A	21" X 15"	2.19		1		7.0'
ŀ							7.0
	M1-6a	24" X 24"	4.00	27)	1	1	7.0'
	M6-1A	R 21" X 15"	2.19	<u>→</u>	1		7.0'
	SX-X	36" X 36"	9.00	SCHOOL	1	2	7.0'
	<u>W20-10</u>	о <sub>р</sub> 24" X 18"	3.00	ZINE SX-1	1		7.0'
	S5-2	24" X 30"	5.00	END school ZONE	1	1	7.0'
	<u>x4-2</u>	18" X 18"	2.25	- <b>⋄</b> x4-	-2	1	7.0'
	x4-3	6" X 12"	0.50	X4-3	36	1	7.0'
	X4-4R	18" X 36"	4.50	X4-4	2	1	7.0'
	X4-4L	18" X 36"	4.50	X4-4	4	1	7.0'
	X4-5	6" X 12"	0.50	— A	12	1	7.0'

	SIGN PANELS TYPE C					
SIGN			Total			
DESIGNATIO		SIZE AREA	Installation	Total Area	Posts per	
N	SIGN SIZE	(FT <sup>2</sup> )	S	(ft²)	Installation	Notes
R1-1	30" x 30"	6.25	22	137.5	1	
R1-1	36" x 36"	9	2	18	2	
R1-1	48" x 48"	16	3	48	2	
R1-4	18" x 6"	0.75	4	3		Α
x4-13	4" x 15"	1.31	51			B, G
R2-1	24" x 30"	5	14	70	1	
R3-X1	24" x 36"	6	13	78	1	
R8-3a	24" x 24"	4	12	48	1	
R8-3a P	12" x 24"	2	12	24	0	
W1-2R	36" x 36"	9	7	63	2	
W1-2L	36" x 36"	9	6	54	2	
W1-4R	48" x 48"	16	3	48	2	
W13-1	24" x 24"	4	5	20		
W1-7	24" x 48"	4	1	4	2	
W1-8	24" x 24"	8	14	112	2	
W2-2	36" x 36"	9	1	9	2	
W14-3	48" x 36"	6	13	78	2	
M1-6A	24" x 24"	4	10	40	1	
M2-1A	21" x15"	2.19	1	2.19		D
M3-1A	24" x 12"	2	2	4		D
M3-2A	24" x 12"	2	1	2		D
M3-3A	24" x 12"	2	2	4		D
M6-1AL	21" x15"	2.19	1	2.19		E
M6-1AR	21" x15"	2.19	3	6.56		Ε
M6-4A	21" x15"	2.19	1	2.19		E
SX-X	36" x 36"	9	1	9	2	
W20-100p	24" x 18"	3	1	3		D
S5-2	24" x 30"	5	1	5	1	
X4-3	6" x 12"	0.5	36	18		
X4-4R	18" x 36"	4.5	2			Н
X4-4L	18" x 36"	4.5	4			Н
X4-5	6" x 12"	0.5	12			1
Project To	tals		261	912.63		

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

- Sign mounted below R1-1 Sign Post Assembly
- Paid for by the EACH 2564.550 Delineator type X4-13
- Sign mounted above M1-6A sign post assembly
- Sign mounted below M1-6A sign post assembly
- Sign mounted below R4-7 Sign Post Assembly
- Delineator mounted below R1-1 sign post assembly
- Paid for by the EACH 2564.553 clearance marker X4-4
- Paid for by the EACH 2564.554 snow plow marker X4-5

						I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY OR UNDER MY DIRECT SUPERMSION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.  PRINT NAME: ANDREW WITTER
NO	DATE	BY	CKD	APPR	REVISION	SIGNATURE:
NAME: F	Pi\02-607-022	\Base\	RAFFIC\	DATE: 42757 UCENSE NO. 42757		

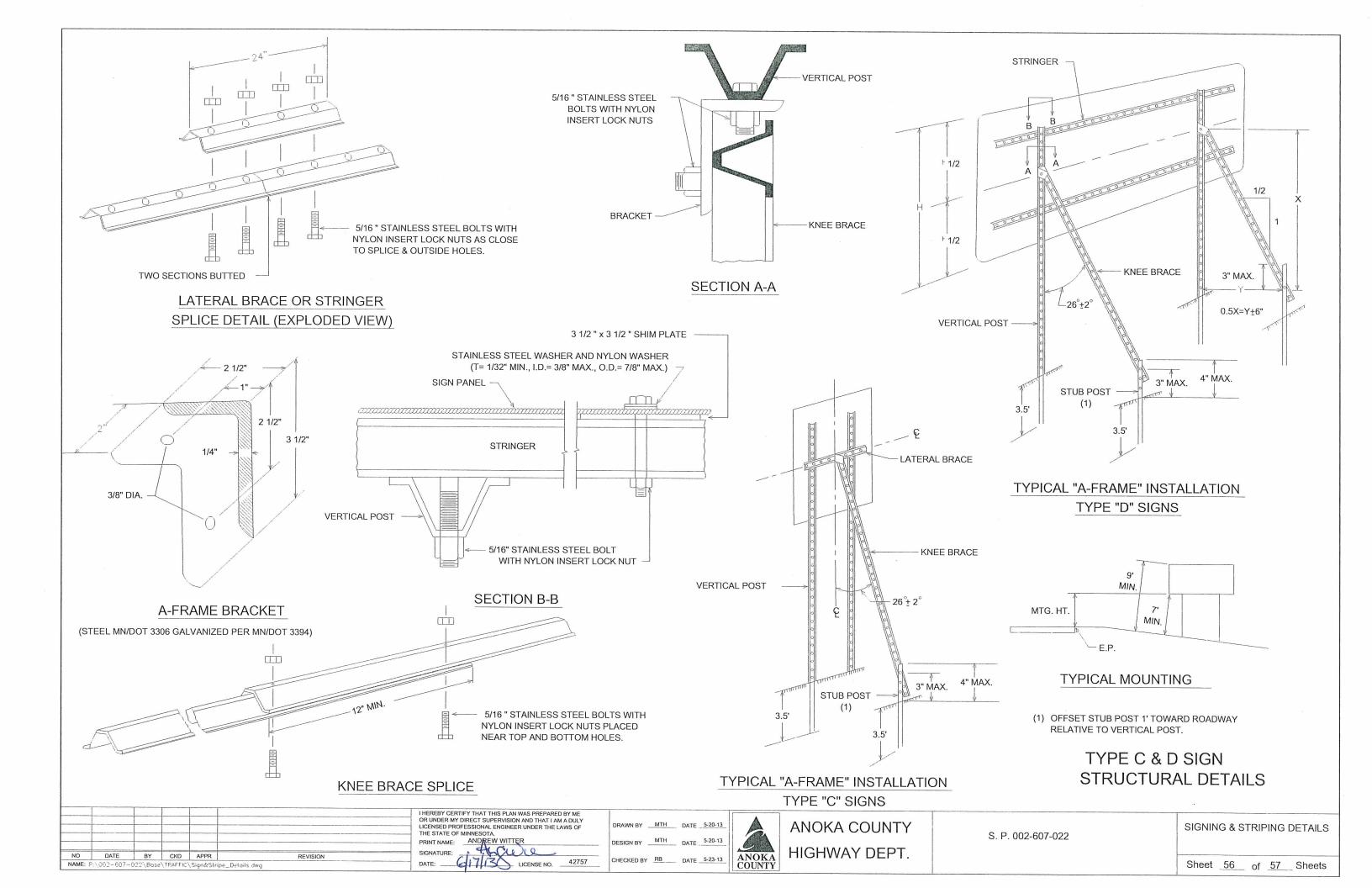
RAWN BY MTH DATE 05/21/13 ESIGN BY MTH DATE 05/21/13 CHECKED BY <u>RB</u> DATE <u>05/23/13</u>

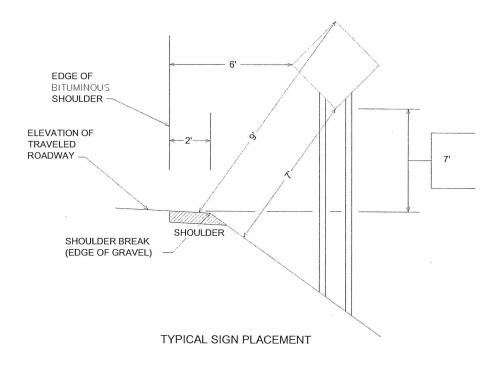


ANOKA COUNTY HIGHWAY DEPT.

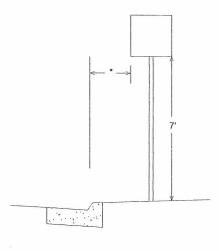
PERMANENT SIGN QUANTITY SP 002-607-022 & TABULATION

Sheet <u>55</u> of <u>57</u> Sheets

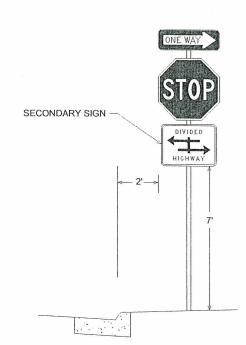




• 2' - NARROW BOULEVARD ( < 8' WIDE) 6' - WIDE BOULEVARD



TYPICAL SIGN PLACEMENT



## NOTE:

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

		1			
NO	DATE	BY	CKD	APPR	REVISION
NAME: P:\002-607-022\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:

DATE: 617/3 LICENSE NO. 42757

DRAWN BY MTH DATE 5-20-13 DATE \_\_5-20-13

CHECKED BY RB DATE 05-23-12

**ANOKA COUNTY** HIGHWAY DEPT.

S. P. 002-607-022

SIGNING & STRIPING DETAILS

Sheet 57 of 57 Sheets