MINNESOTA DEPARTMENT OF TRANSPORTATION **ANOKA COUNTY**

CONSTRUCTION PLAN FOR _ BITUMINOUS RECLAMATION AND BITUMINOUS SURFACING BETWEEN 550' WEST OF CR 15 (DURANT STREET) AND CSAH 85 (TYPO CREEK DR. NE) LOCATED ON_ CSAH 26 CSAH 26 GROSS LENGTH EXCEPTIONS-LENGTH **NET LENGTH** Twp County Regions Red R CREEK BEGIN SAP: 002-626-006 CSAH 26, STA: 4+55.00 END SAP: 002-626-006 CSAH 26, STA: 173+67.00

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 MINNESON PRINT NAME

SIGNATURE

PROJECT LOCATION

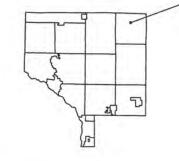
ANOKA COUNTY

HIGHWAY DEPT.

DESIGN DESIGNATION (CSAH 26) ESAL 20 FUNCTIONAL CLASSIFICATION . NO. OF TRAFFIC LANES 2 NO. OF PARKING LANES 0 RVALUE 1650 DESIGN SPEED 50 MPH ADT (2017) 1650 STOPPING SIGHT DISTANCE BASED ON: PROJ. ADT (2037) HEIGHT OF EYE 3.5' HEIGHT OF OBJECT 2.0' 97 PROJ. HCADT (2037) DESIGN SPEED NOT ACHIEVED AT: SOIL FACTOR TON DESIGN

DATE BY CKD APPR REVISION

NAME: P:\17-01-00\CSAH_26_(CR15-CR85)\Base\PROPOSED\PROPOSED-2d.dgr



CITY OF EAST BETHEL / LINWOOD TOWNSHIP ANOKA COUNTY MN/DOT TRANSPORTATION DISTRICT - METRO SECTION 36, 31, 32 & 5 **TOWNSHIP 33 & 34 NORTHWEST** RANGE 22 & 23 WEST

GOVERNING SPECIFICATIONS

THE 2016 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN.

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

THIS PLAN CONTAINS 25 SHEETS

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3 - 4	TYPICAL SECTIONS
5 - 6	DETAILS
7 - 13	CONSTRUCTION PLAN
14 - 25	SIGNING AND STRIPING PLANS

CITY OF EAST BETHEL ENGINEER

DISTRICT STATE AID ENGINEER: REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY

STATE AD ENGINEER: APPROVED FOR STATE AID FUNDING

TITLE SHEET

STATE AID PROJECT ___002-626-006

Sheet 1 of 25 Sheets

	STATEMEN	IT OF ESTIMATED QUANT	TITIES	
ITEM NUMBER	ITEM DESCRIPTION	NOTES	UNIT	TOTAL PROJECT QUANTITIES ESTIMATED
2021.501	MOBILIZATION		LUMP SUM	1
2104.501	REMOVE METAL CULVERT		LNFT	185
2104.505	REMOVE CONCRETE PAVEMENT	6	SQ YD	29
2104.505	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	6	SQ YD	217
2104.505	REMOVE BITUMINOUS PAVEMENT		SQ YD	774
	SAWING CONCRETE PAVEMENT (FULL DEPTH)		LINFT	48
	SAWING BITUMINOUS PAVEMENT (FULL DEPTH)		LINFT	501
2105.602	CONSTRUCT TURN LANE (DURANT ST.)	16	EACH	1
2105.602	CONSTRUCT TURN LANE (JEWEL ST.)	16	EACH	1
	CONSTRUCT TURN LANE (FONTANA ST.)	16	EACH	1
	MOTOR GRADER	9	HOUR	10
2123.509		18	HOUR	15
2130.501			MGAL	322
	AGGREGATE BASE CLASS 5	14	TON	771
2215.501	FULL DEPTH RECLAMATION		SQ YD	46010
	HAUL FULL DEPTH RECLAMATION (LV)	10	CUYD	200
	SHOULDER BASE AGGREGATE CLASS 5	1	TON	1765
	MILL BITUMINOUS SURFACE (2.0")	2	SQ YD	221
	BITUMINOUS MATERIAL FOR TACK COAT		GAL	2652
	TYPE SP 12.5 WEARING COURSE MIX (3,B)	6, 13	TON	228
	TYPE SP 12.5 WEARING COURSE MIX (4,C)		TON	12732
	15" CP PIPE CULVERT (SMOOTH)		LNFT	70
	18" CP PIPE CULVERT (SMOOTH)		LNFT	54
	48" RC PIPE APRON		EACH	2
	48" RC PIPE CULVERT DESIGN 3006 (CLASS V)		LNFT	74
	15" CS SAFETY APRON AND GRATE DESIGN 3128		EACH	4
	18" CS SAFETY APRON AND GRATE DESIGN 3128		EACH	2
	RANDOM RIPRAP CLASS III		CU YD	45
	GEOTEXTILE FILTER TYPE IV		SQ YD	123
2531.507	6" CONCRETE DRIVEWAY PAVEMENT	6	SQ YD	32
	MAIL BOX SUPPORT	3	EACH	50
	TRAFFIC CONTROL	8, 17	LUMP SUM	1
	PORTABLE CHANGEABLE MESSAGE SIGN	7	UDAY	28
	SIGN PANELS TYPE C		SQ FT	25
	SILT FENCE, TYPE MS		LINFT	1650
	COMMON TOPSOIL BORROW (LV)	11	CUYD	160
	EROSION CONTROL BLANKETS CATEGORY 0	12, 15	SQ YD	1800
	REMOVABLE PREFORMED PAVEMENT MARKING TAPE	4	LNFT	1305
	4" SOLID LINE EPOXY	5	LNFT	39250
	4" BROKEN LINE EPOXY	5	LNFT	2770
2582.502	4" DOUBLE SOLID LINE EPOXY	5	LNFT	2590

	CONSTRUCTION NOTES
1	ITEM INCLUDES 7 TONS FOR EACH GRAVEL ENTRANCE AND GRAVEL STREET APPROACH.
2	ITEM INCLUDES 2" DEEP MILL AT BEGINNING AND END OF PROJECT, AND ALL PAVED STREET APPROACHES; SEE DETAILS FOR DIMENSIONS.
3	MAILBOXES ARE TO BE INSTALLED AT THE EXISTING MAILBOX LOCATION OR AS DIRECTED BY THE LOCAL POSTAL AUTHORITY. CONTRACTOR IS RESPONSIBILE FOR CONTACTING THE LOCAL POSTAL AUTHORITY. MAILBOX REMOVAL AND ALL MATERIALS ARE INCIDENTAL TO INSTALLATION.
4	CENTERLINE AND LANE DESIGNATION SKIPS TO BE APPLIED AS SOON AS POSSIBLE ON EACH NEW LIFT OF PAVEMENT; SKIPS MUST BE INPLACE BEFORE THE CONTRACTOR LEAVES FOR THE DAY. CONTRACTOR SHALL REMOVE PRIOR TO FINAL PAINT STRIPING.
5	FINAL STRIPING SHALL BE INSTALLED WITHIN 72 HOURS OF COMPLETION OF MAINLINE WEAR COURSE PAVING.
6	CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE STARTING OPERATION.
7	2 MESSAGE BOARDS, ONE ON THE EACH END OF PROJECT, WILL BE INSTALLED 7 DAYS PRIOR TO ANY CONSTRUCTION AND 7 DAYS PRIOR TO DETOUR; REFERENCE STRIPING PLAN FOR DETAILS.
8	ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO, AND BE INSTALLED IN ACCORDANCE WITH, THE MOST CURRENT REVISION OF THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES." DO NOT PASS, PASS WITH CARE, NO CENTER STRIPE, AND STOP HERE ON RED SIGNS SHALL BE INPLACE WHENEVER PAVEMENT MARKINGS ARE NOT PRESENT.
9	ITEM USED TO MOVE EXCESS RECLAIM MATERIAL AT THE RECLAIM AREA LIMITS TO CREATE A SMOOTH TRANSITION BETWEEN THE PROPOSED AND EXISTING PAVEMEN
10	MATERIAL SHALL BE HAULED TO AND USED FOR PROFILE AND SUPER ELEVATION CORRECTION AREAS. ITEM INCLUDES PLACEMENT, SHAPING, COMPACTION AND MAINTENANCE OF MATERIAL EXCESS MATERIAL SHALL BECOME PROPERTY OF THE CONTRACTOR.
11	ITEM USED AT THE ENGINEER'S DISCRETION FOR RESTORATION OF DISTURBED AREAS ALONG DRIVEWAY AND STREET APPROACHES.
12	TYPE 1 FERTILIZER AND TYPE 25-121 SEED ARE INCIDENTAL TO THIS ITEM.
13	STREET APPROACHES SHALL BE PAVED AFTER MAINLINE PAVING BUT BEFORE FINAL STRIPING.
14	GRAVEL BASE FOR CONCRETE AND BITUMINOUS DRIVEWAYS, BITUMINOUS APPROACHES, AND SUPERELEVATION CORRECTION AREAS.
15	ITEM FOR RESTORATION ALONG PROFILE, CROSS-SLOPE AND / OR TURNLANE AREAS.
16	ITEMS INCLUDED IN THE TURNLANE BY THE EACH ARE - COMMON EXCAVATION, SELECT GRANULAR BORROW, TOPSOIL AND AGG BASE CL-5.
17	DETOUR IS INCIDENTAL TO TRAFFIC CONTROL
18	ITEM USED FOR DITCH GRADING FOLLOWING CONSTRUCTION OF RIGHT TURN LANES. ITEM SHALL BE USED ONLY AS NECESSARY AS DETERMINED BY THE ENGINEER.

	BASIS OF PLANNED QUANTITIES					
2357	BITUMINOUS MATERIAL FOR TACK COAT	0.05 GAL / SQ YD				
2211	AGGREGATE BASE CLASS 5	1.8 TONS / CU YD				
2360	ALL BITUMINOUS PAVEMENT	115 LBS / SQ YD / IN THICKNESS				
2581	REMOVABLE PREFORM PAVEMENT MARKING TAPE	2' AT 50' INTERVALS				

MNDOT STANDARD PLATES					
PLATE NUMBER	DESCRIPTION				
3000L	REINFORCED CONCRETE PIPE (5 SHEETS)				
3006G	GASKET JOINT FOR R.C. PIPE (2 SHEETS)				
3100G	CONCRETE APRON FOR REINFORCED CONCRETE PIPE				
3128H	METAL SAFETY APRON & GRATE (2 SHEETS)				
3133D	RIPRAP AT RCP OUTLETES				
8000J	CHANNELIZERS (3 SHEETS)				
9350A	MAILBOX SUPPORT (SWING-AWAY TYPE)				

	NEW RIG	HT TURN	LANES (BY	THE EACH)		
STREET	STATION RANGE	RTL/ BYPASS	COMMON EXCAVATION (CU YDS)	GRANULAR BORROW (CV) (CU YDS)	TOPSOIL BORROW (LV) (CU YDS)	CLASS (TON)
JEWELL ST	27+17 - 29+00	RTL	123	650	80	192
FONTANA	104+25 - 109+02	RTL	116	753	85	200
DURANT ST.	5+20 - 10+00	RTL	136	781	128	198
	TOTALS:		375	2184	293	590

SUP	ERELEVATION CO	DRRECTION	TAB
STATION	POINT	LEFT GRADE	RIGHT GRADE
126+00	BEGIN SUPER LT	-2.0%	-2.0%
126+50		-1.0%	-2.0%
127+00	BEGIN SUPER RT	0.0%	-2.8%
127+50		0.8%	-3.1%
128+00		1.6%	-4.4%
128+50		3.8%	-5.0%
129+00		4.9%	-5.5%
129+50	BEGIN FULL SUPER	6.0%	-6.0%
130+00		6.0%	-6.0%
130+50		6.0%	-6.0%
131+00		6.0%	-6.0%
131+50		6.0%	-6.0%
132+00		6.0%	-6.0%
132+50		6.0%	-6.0%
133+00		6.0%	-6.0%
133+50		6.0%	-6.0%
134+00		6.0%	-6.0%
134+50		6.0%	-6.0%
135+00		6.0%	-6.0%
135+50		6.0%	-6.0%
136+00	END FULL SUPER	6.0%	-6.0%
136+50		5.2%	-5.8%
137+00		4.0%	-4.7%
137+50		2.8%	-3.7%
138+00		1.3%	-2.5%
138+50	END SUPER RT	0.0%	-2.0%
139+00		-0.7%	-2.0%
139+50		-1.5%	-2.0%
140+00	END SUPER LT	-2.0%	-2.0%
140+50		-2.0%	-2.0%

of the last			
STATION	POINT	LEFT GRADE	RIGHT GRADE
143+00	BEGIN SUPER RT	-2.0%	-2.0%
143+50	BEGIN SUPER LT	-2.0%	-1.0%
144+00		-2.8%	-0.3%
144+50		-3.3%	0.0%
145+00		-4.0%	1.2%
145+50		-4.8%	2.8%
146+00		-5.1%	3.5%
146+50		-5.5%	4.0%
147+00		-5.8%	4.8%
147+50		-6.0%	5.5%
148+00	BEGIN FULL SUPER	-6.0%	6.0%
148+50		-6.0%	6.0%
149+00		-6.0%	6.0%
149+50		-6.0%	6.0%
150+00		-6.0%	6.0%
150+50		-6.0%	6.0%
151+00		-6.0%	6.0%
151+50		-6.0%	6.0%
152+00		-6.0%	6.0%
152+50		-6.0%	6.0%
153+00	END FULL SUPER	-6.0%	6.0%
153+50		-5.8%	5.0%
154+00		-5.0%	4.3%
154+50		-4.3%	3.0%
155+00		-3.8%	2.0%
155+50		-3.0%	1.0%
156+00		-2.3%	0.5%
156+50	END SUPER LT	-2.0%	0.0%
157+00		-2.0%	-0.8%
157+50		-2.0%	-1.7%
158+00	END SUPER RT	-2.0%	-2.0%
158+50		-2.0%	-2.0%

				_			
_							
-							
OV	DATE	BY	CKD	APPR	REVISION	03/30/2017	11:44:24 AM
	DATE	BY	CKD	APPR	REVISION		11:44:24 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 MINNESOTAL

VAL ENGINEER UNDER THE LAWS OF OTAL SEPH L. MACPHERSON DESIGN.

LICENSE NO. __46732

DRAWN BY ____SPH___ DATE _01/13/201

DESIGN BY __SPH __DATE _01/13/2017



ANOKA COUNTY HIGHWAY DEPT. STATEMENT OF ESTIMATED QUANTITIES

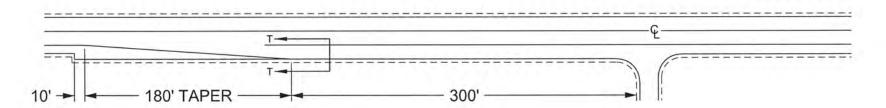
STATE AID PROJECT 002-626-006

Sheet 2 of 25 Sheets

NAME: P:\17-01-00\CSAH 26 (CR15-CR85)\Base\PROPOSED\PROPOSED-2d.dgn

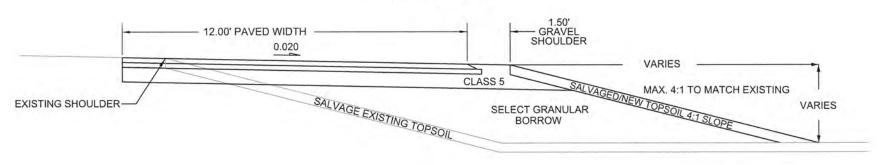
RIGHT TURN

GENERAL LAYOUT
PLAN VIEW



RIGHT TURN LANE

SECTION T - T



NO DATE BY CKD APPR REVISION 03/30/2017 11:44:26 AM

NAME: P:\u00e417-01-00\cSAH_26_(CR15-CR85)\Base\\PROPOSED\\PROPOSED\-2d.dgn

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

SSIONAL EDITITEER UNDER THE LAWS OF NESOTA INSTANCE OF THE LAWS OF NESOTA IN THE LAWS OF

DRAWN BY SPH DATE 01/13/2017

DESIGN BY SPH DATE 01/13/2017



ANOKA COUNTY HIGHWAY DEPT.

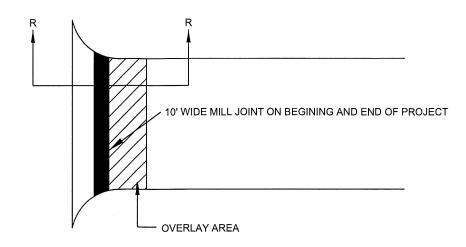
TYPICAL SECTIONS

STATE AID PROJECT ___002-626-006

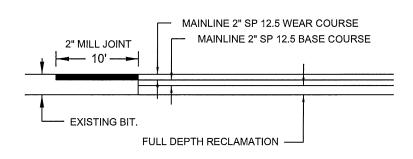
Sheet 4 of 25 Sheets

MAINLINE JOINT DETAIL (RECLAIM)

PLAN VIEW



SECTION R - R

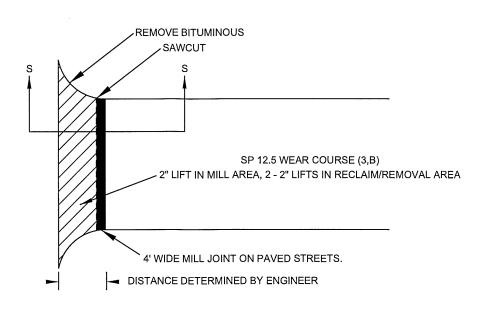


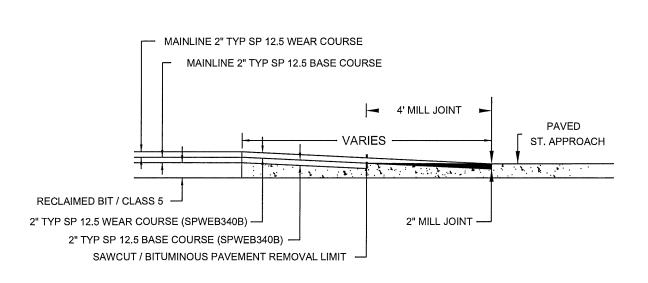
STREET APPROACH DETAIL

BITUMINOUS STREET

PLAN VIEW

SECTION S - S





NO	DATE	BY	CKD	APPR	REVISION	03/08/2017	2:28:44 PM
					OSED\PROPOSED-2d	.dan	

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. ____51639

DRAWN BY ____SPH___DATE_01/13/201

ANOKA COUNTY HIGHWAY DEPT.

DETAILS

STATE AID PROJECT ___002-626-006

Sheet 5 of 25 Sheets

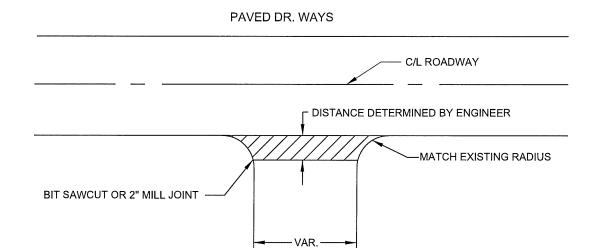
DRIVEWAY DETAIL

GRAVEL / FIELD ENTRANCE

AGGREGATE SHOULDERING CL 5 (TON) On the state of the sta

DRIVEWAY DETAIL

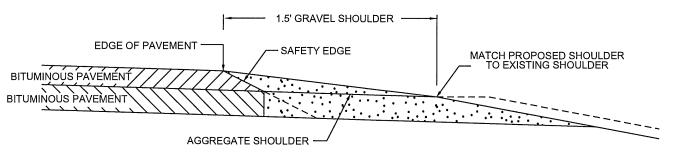
BITUMINOUS DRIVEWAY



DRIVEWAYS BUMPED OUT AND PAVED WITH MAINLINE PAID AS MAINLINE.
DRIVEWAYS PAVED IN DIFFERENT OPERATION FROM MAIN LINE PAVING PAID AS DRIVEWAY OR STREET APPROACH.

SHOULDER DETAIL

BITUMINOUS SAFETY EDGE GRAVEL SHOULDER



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

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

								11
								OF
								LIC
		ļ						TH
								PF
				1				
NO	DATE	BY	CKD	APPR	REVISION	03/08/2017	2:28:48 PM	SI
NAME:		H_26_(CR1	15-CR85)\B	Base\PROP	OSED\PROPOSED-20	d.dgn		DA

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:

MATTHEW J. JOHN

SIGNATURE:

DATE: 3 8 2017 LICENSE NO. 51639

DRAWN BY <u>SPH</u> DATE <u>01/13/2017</u>
DESIGN BY <u>SPH</u> DATE <u>01/13/2017</u>

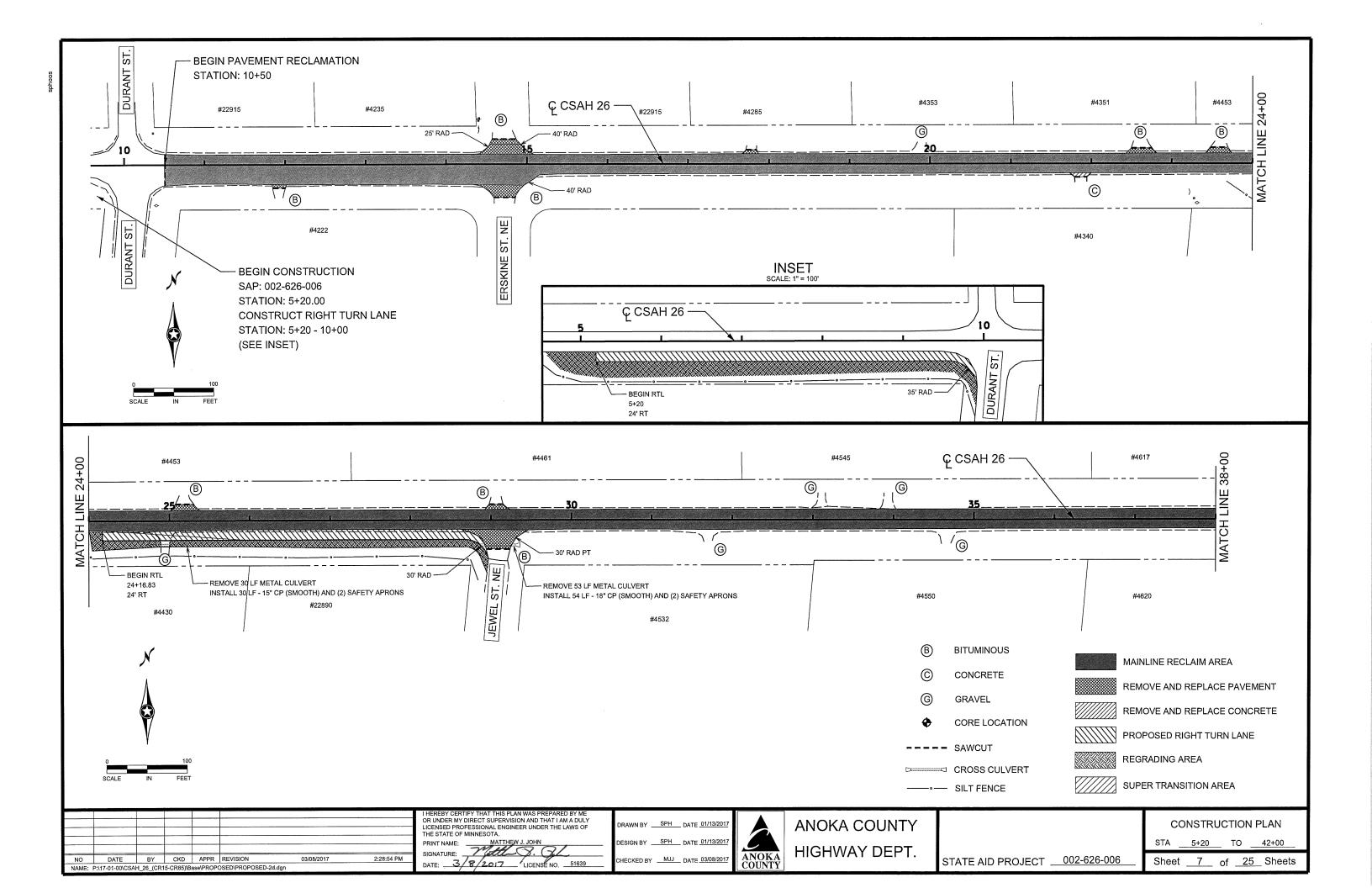


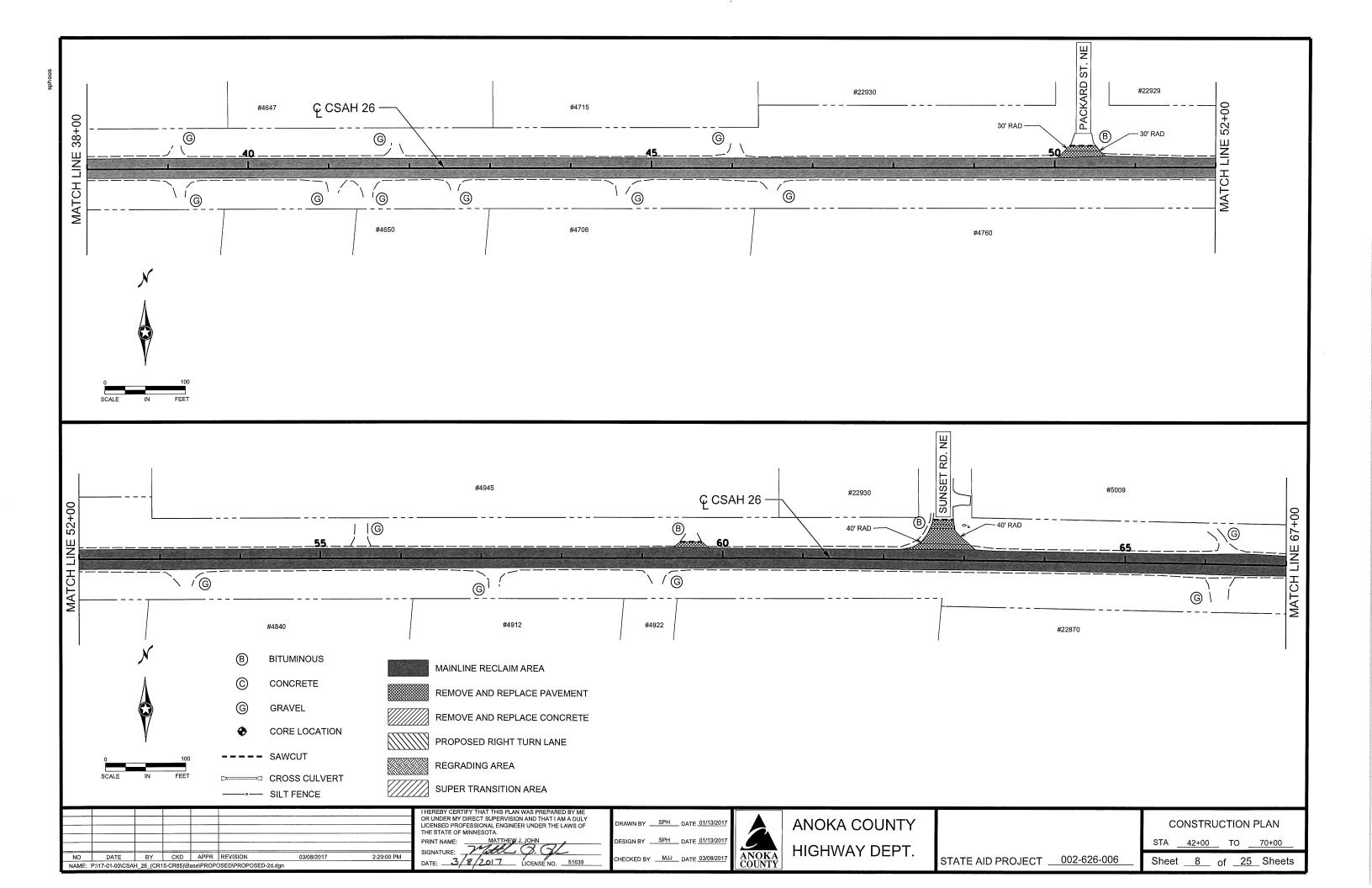
ANOKA COUNTY HIGHWAY DEPT.

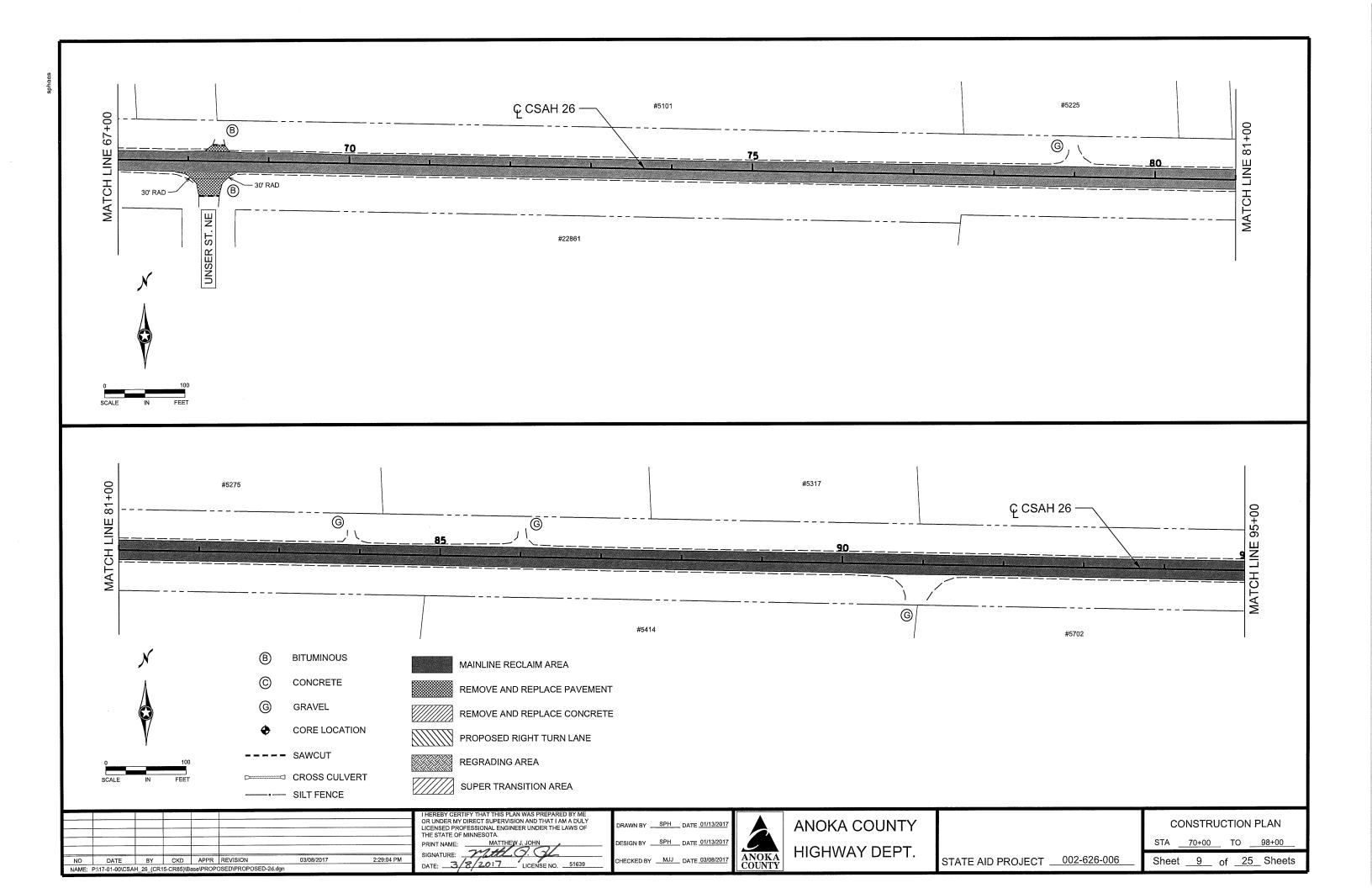
DETAILS

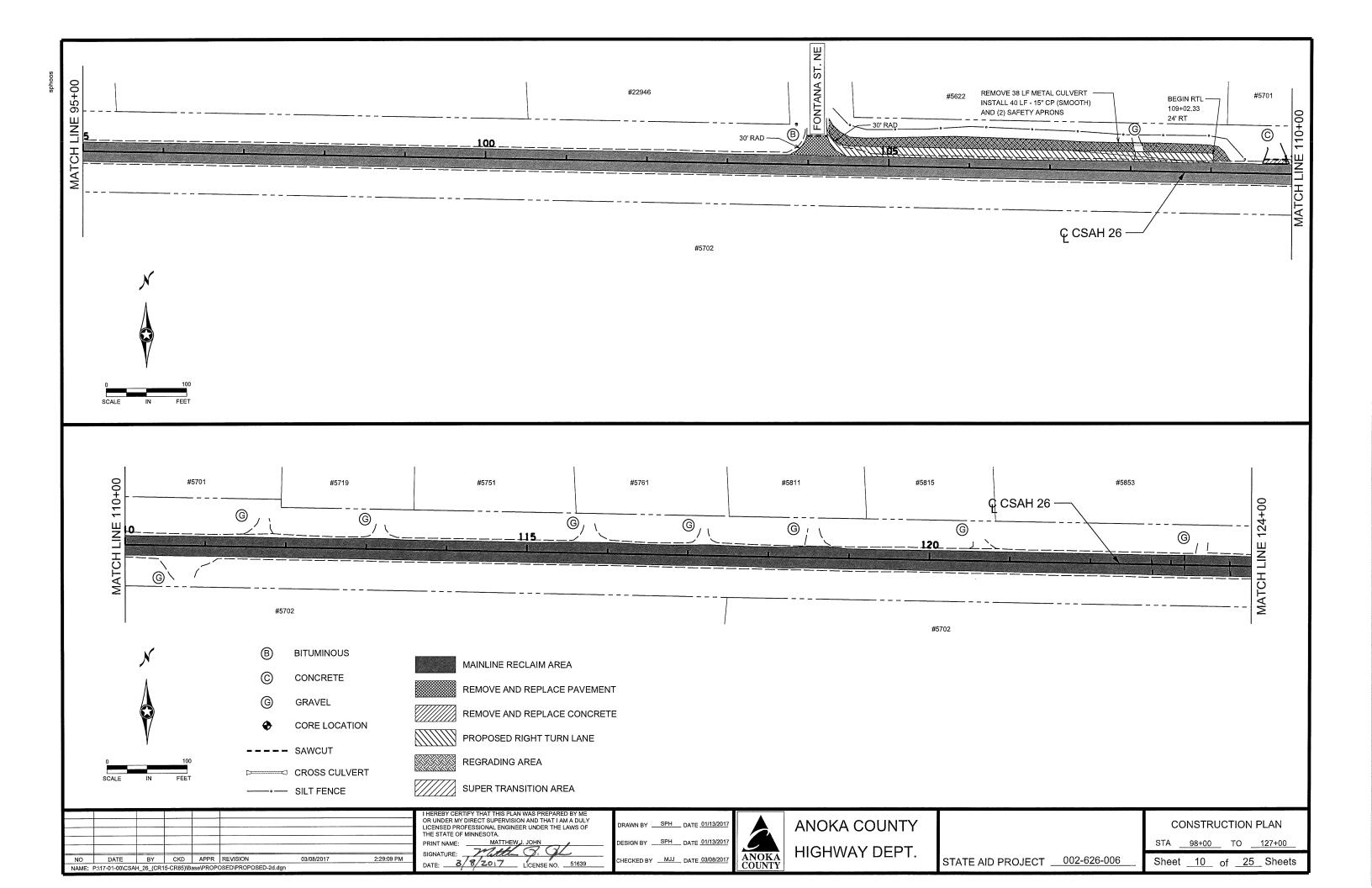
STATE AID PROJECT ___002-626-006

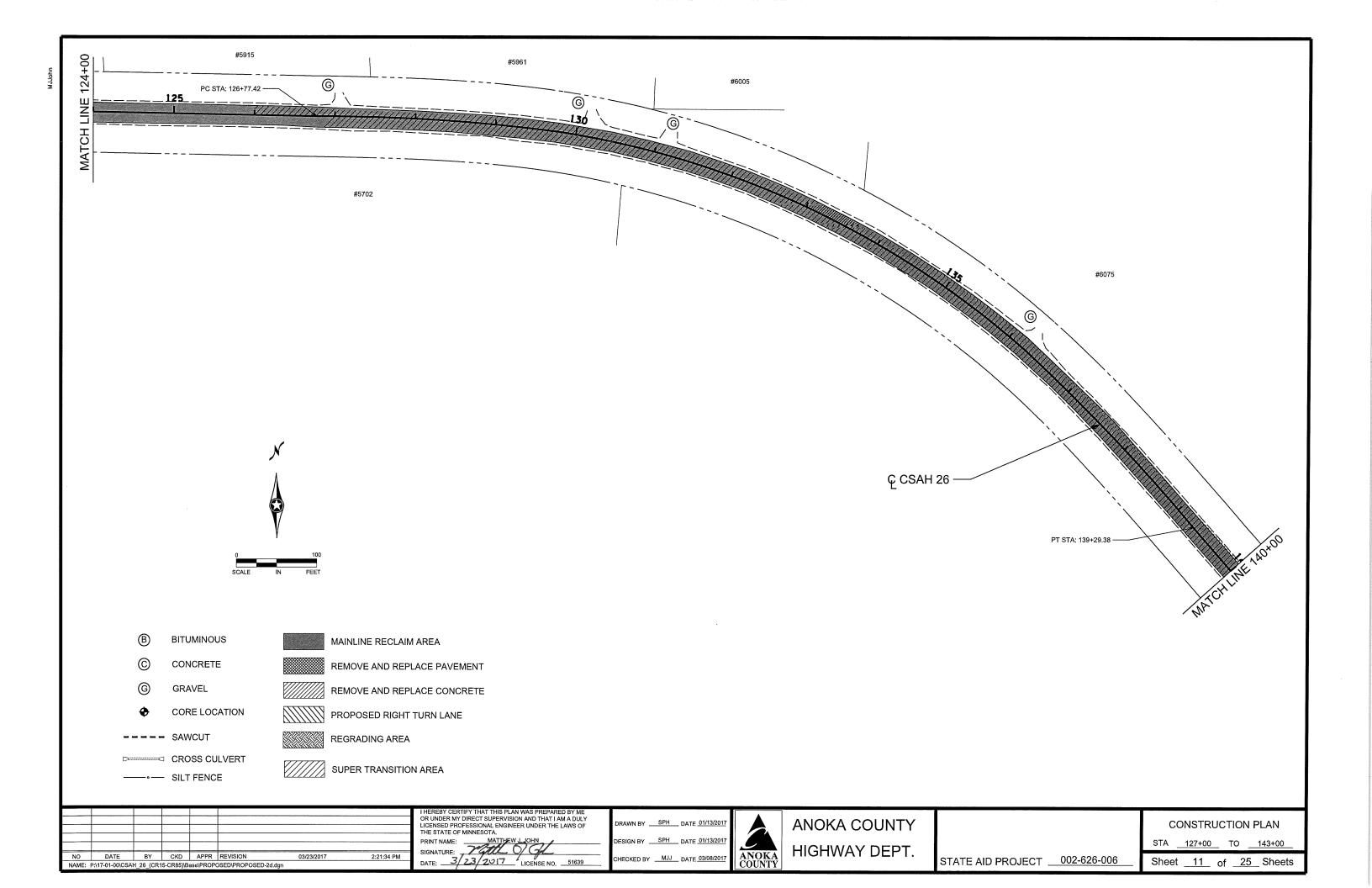
Sheet 6 of 25 Sheets

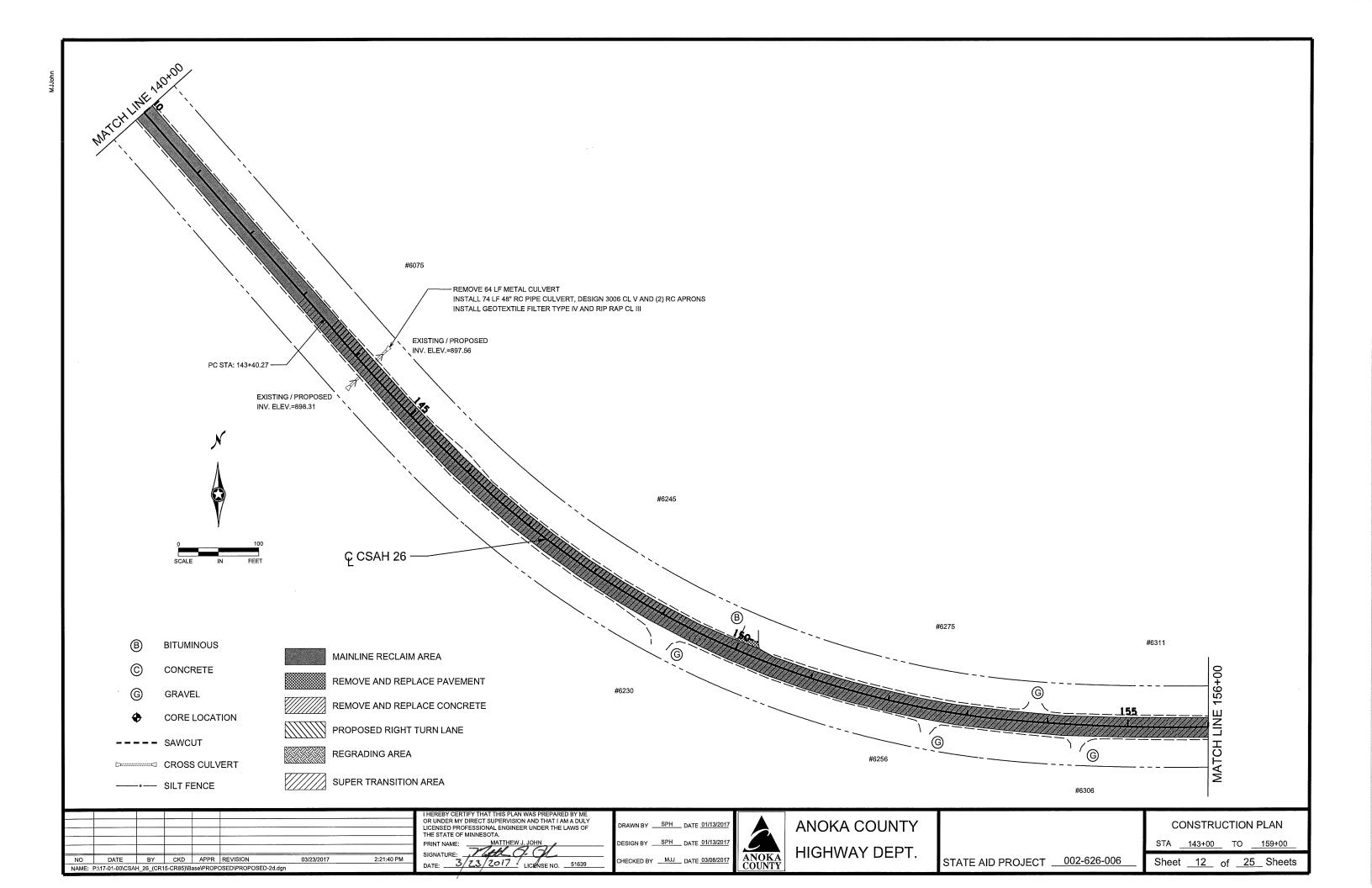


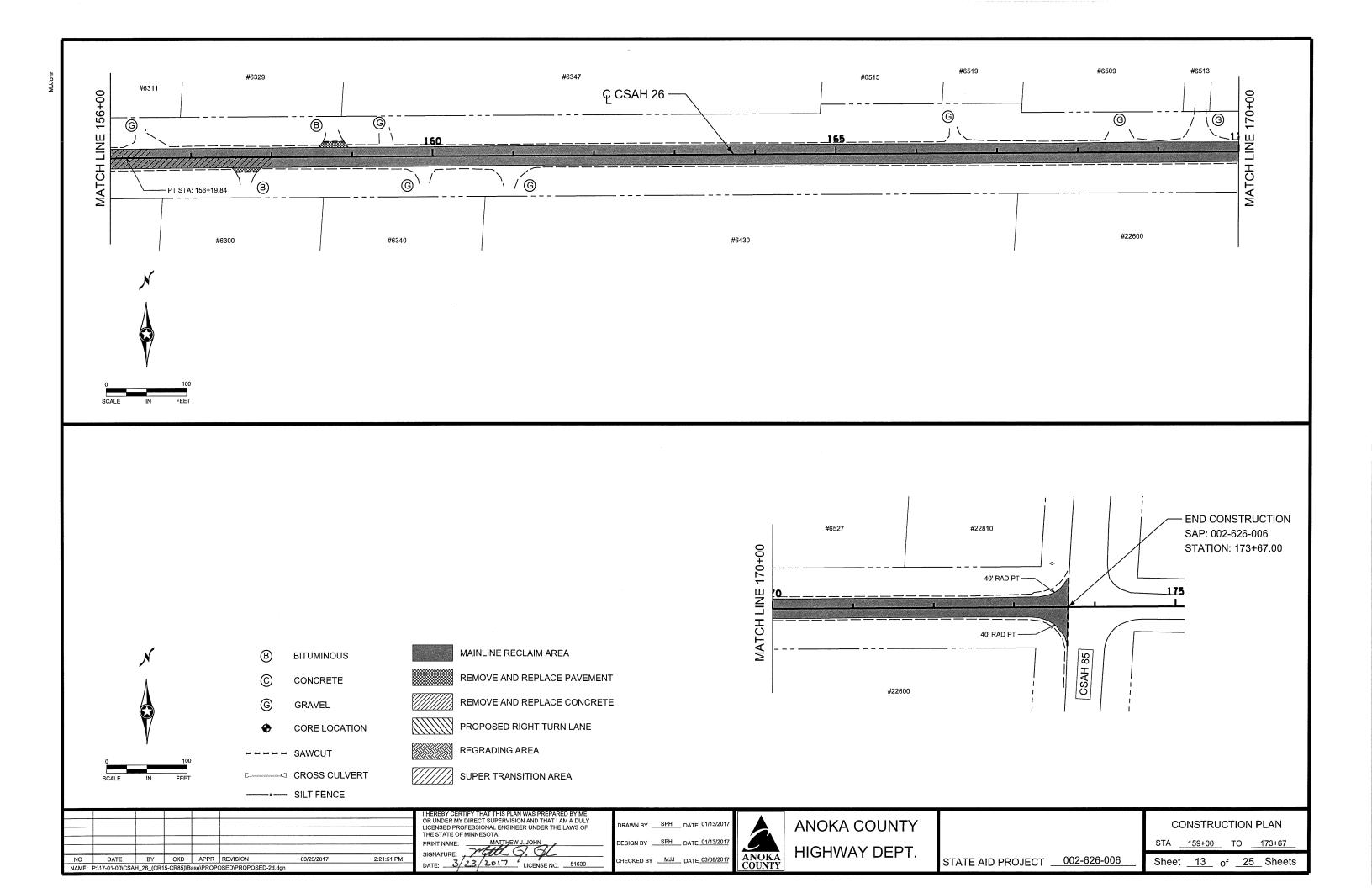












PERMANENT PAVEMENT MARKING PLAN

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 INCH UNDER OR 1 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.

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 APPLICATION IN A MANNER AND TO THE EXTENT REQUIRED BY THE ENGINEER.

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

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

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

O PERMANENT MARKING QUANTITIES		
ITEM	UNIT	TOTAL QUANTITY
4" SOLID LINE WHITE -EPOXY PAINT	LIN FT	34300
4" SOLID LINE YELLOW - EPOXY PAINT	LIN FT	4950
4" BROKEN LINE YELLOW - EPOXY PAINT	LIN FT	2770
4" DOUBLE SOLID LINE YELLOW - EPOXY PAINT	LIN FT	2590

SYMBOLS & MATERIALS LEGEND

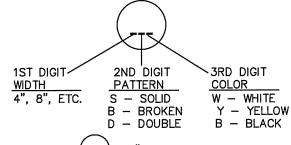
- CROSSWALK BLOCK WHITE PREFORMED THERMOPLASTIC
- PAVEMENT MESSAGE (LEFT ARROW) PREFORMED THERMOPLASTIC

STRIPING KEY

CIRCLE - EPOXY --- | SQUARE PREFORMED **THERMOPLASTIC**

/---\ TRIANGLE - PAINT

\---/PENTAGON - REMOVABLE PREFORMED PLASTIC MARKING



EXAMPLE:

(4SW)= 4" SOLID LINE WHITE — EPOXY

						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: MATTHEW J. JOHN
0	DATE	BY	CKD	APPR	REVISION	SIGNATURE: 51639
ME:	P:\13-01-00\C	SAH 18\E	Base\TRA	FFIC\Peri	n pvmt mrkg guide notes_guidelines.dwg	DATE: 3/8/2017 LICENSE NO. 31039

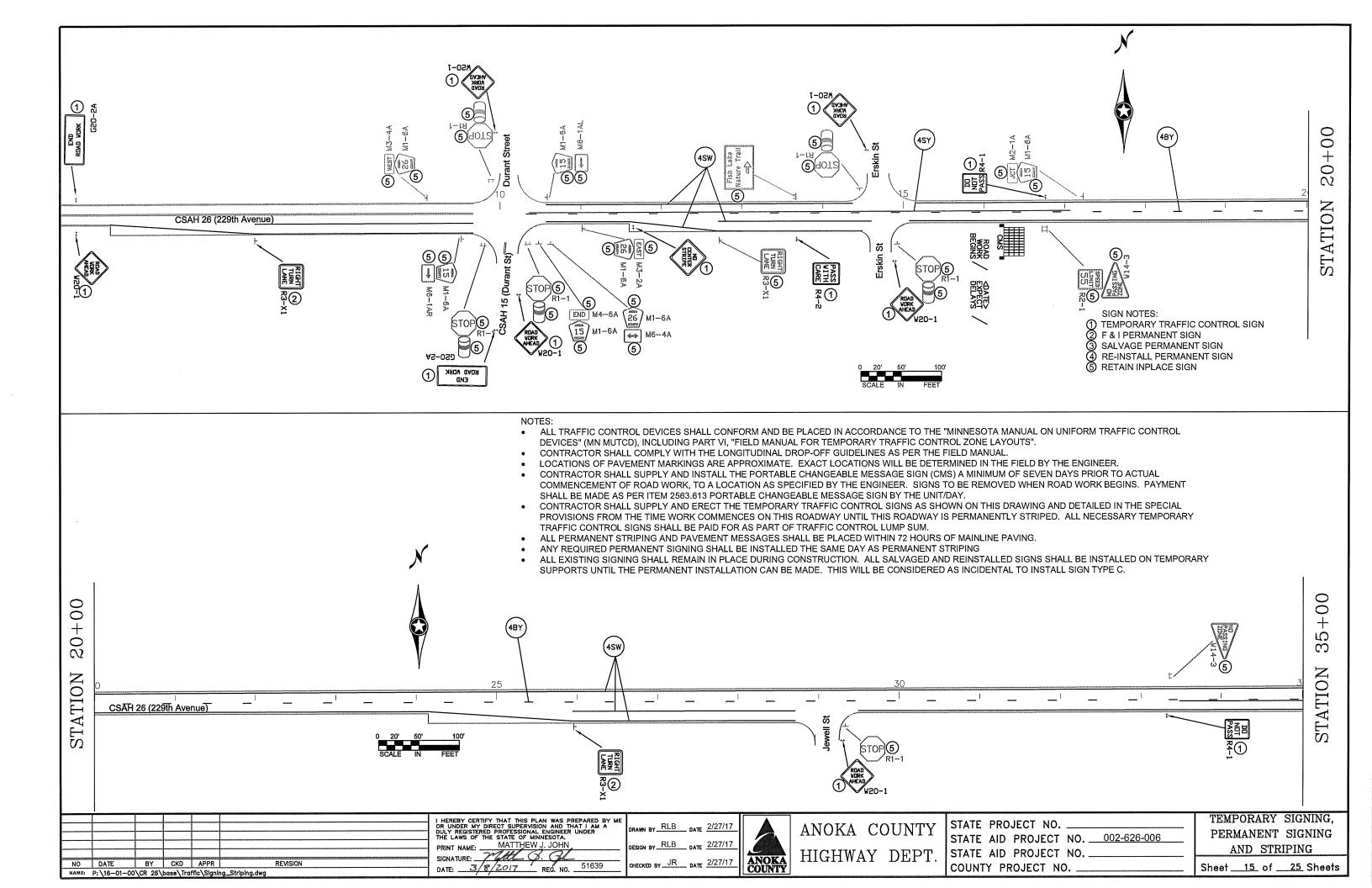
BY_RLB_DATE_1/30/17 DESIGN BY RLB DATE 1/30/17 HECKED BY JR DATE 1/30/17

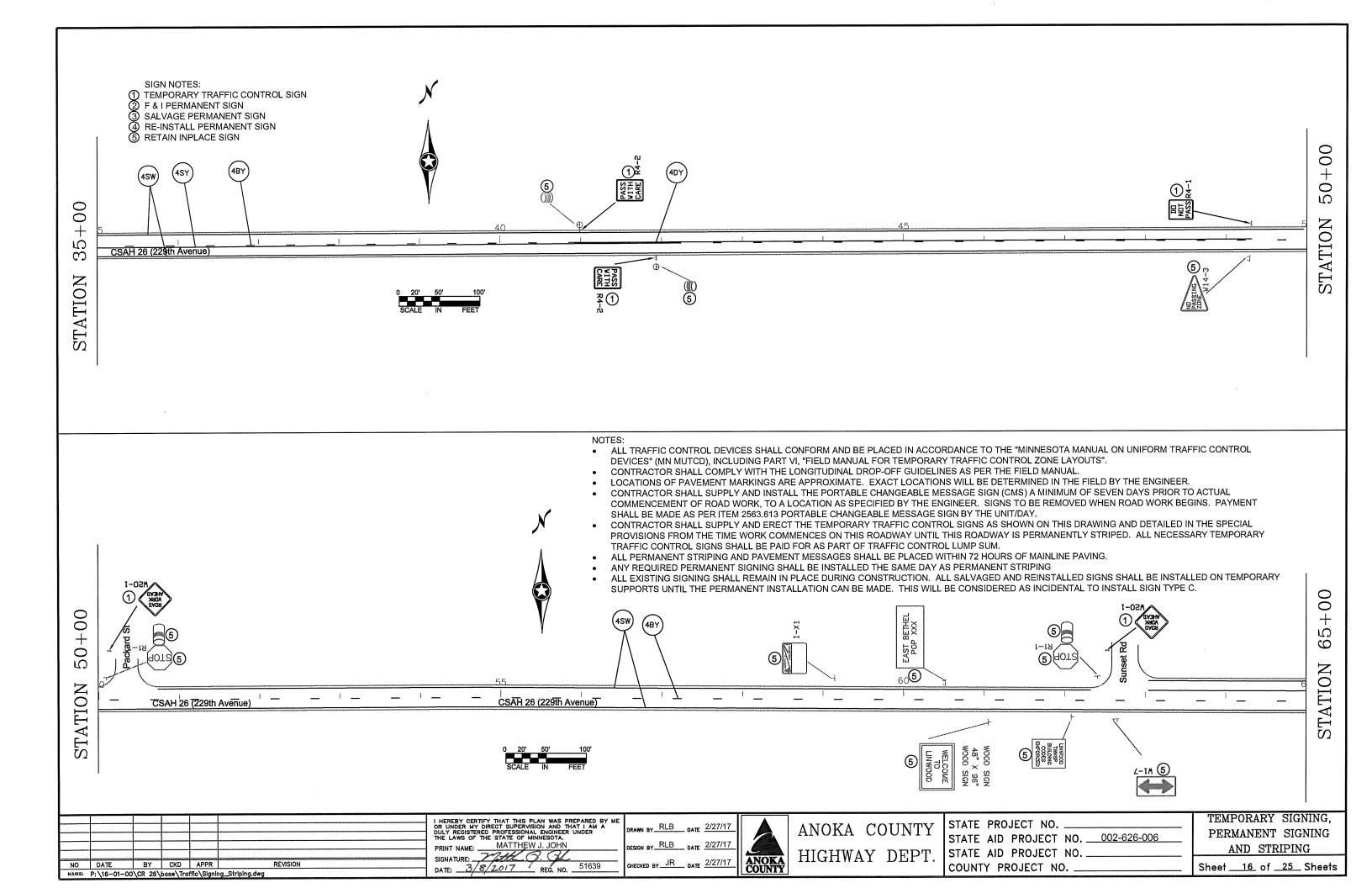
ANOKA COUNTY HIGHWAY DEPT.

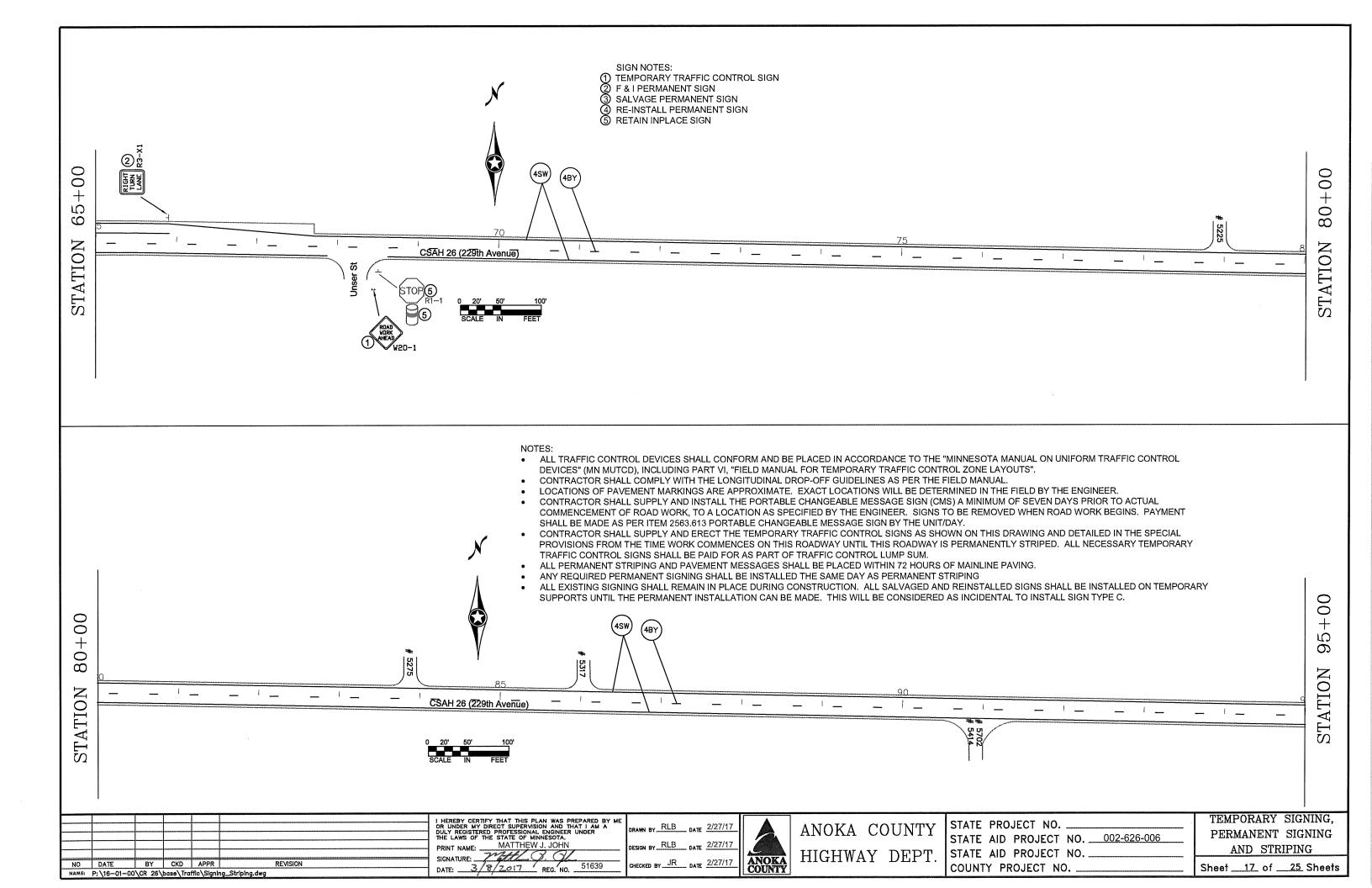
STATE PROJECT NO. __ STATE AID PROJECT NO. 002-626-006 STATE AID PROJECT NO. __ COUNTY PROJECT NO. _

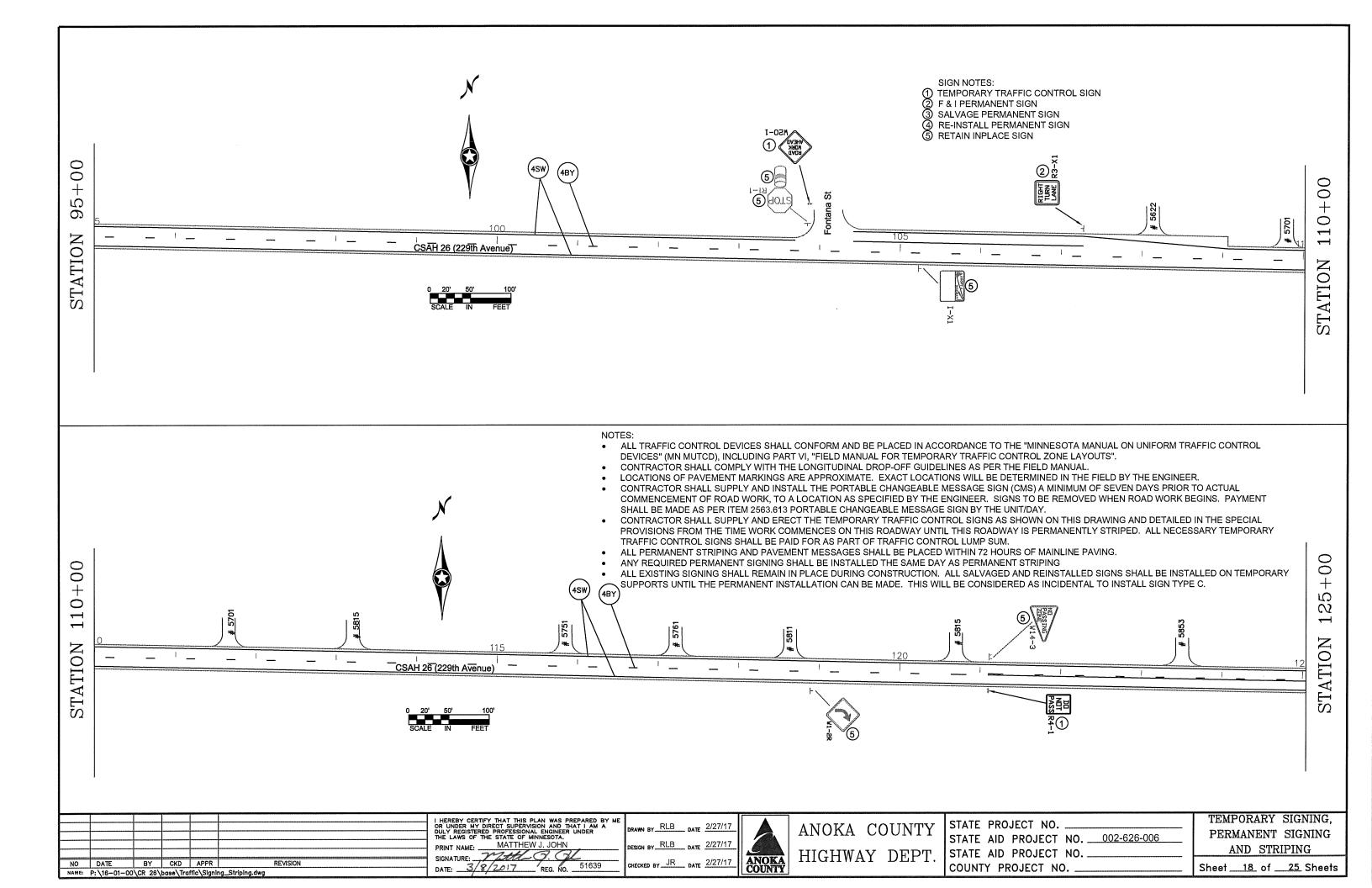
PERMANENT MARKING **TABULATION**

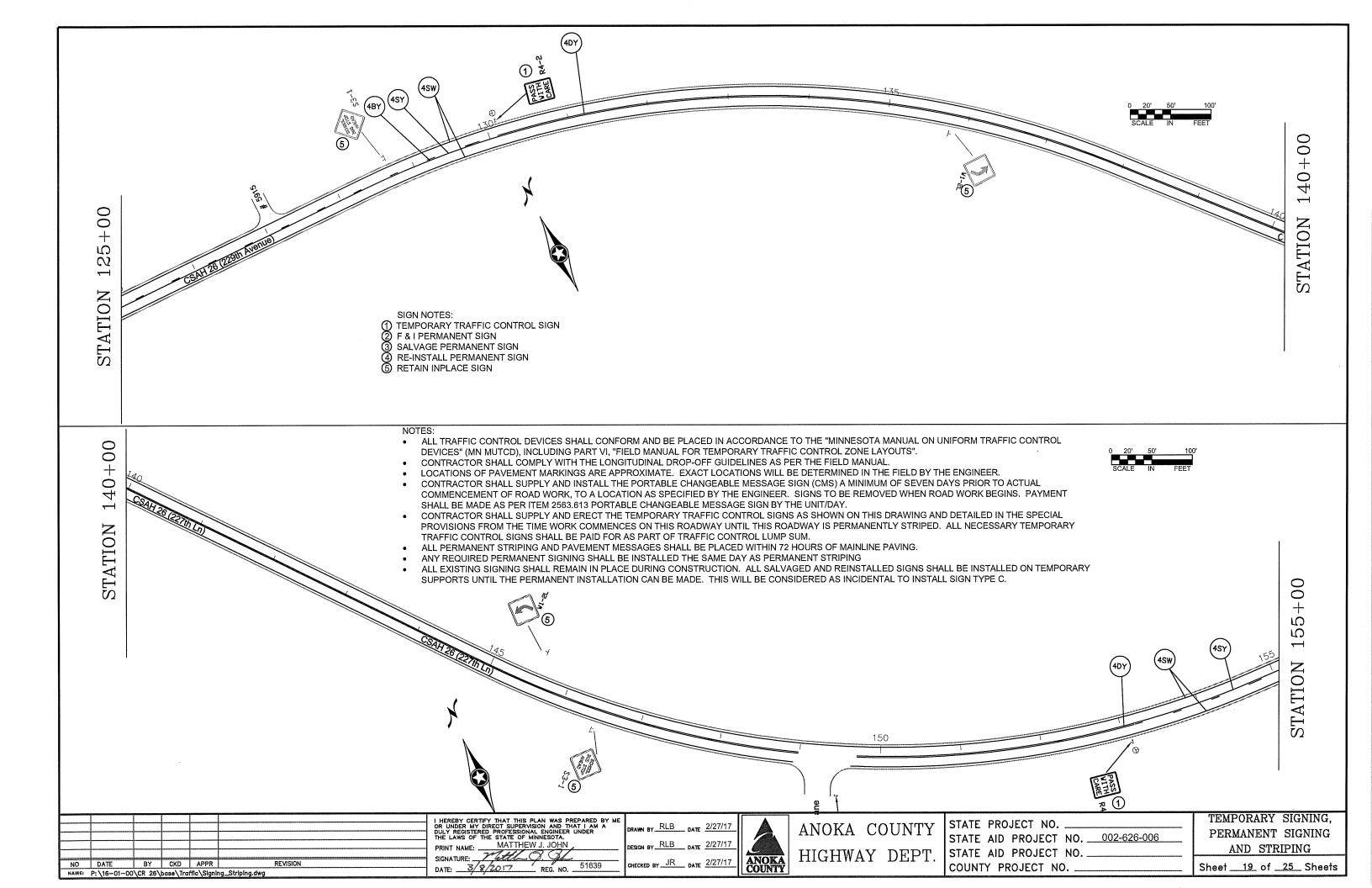
Sheet 14 of 25 Sheets

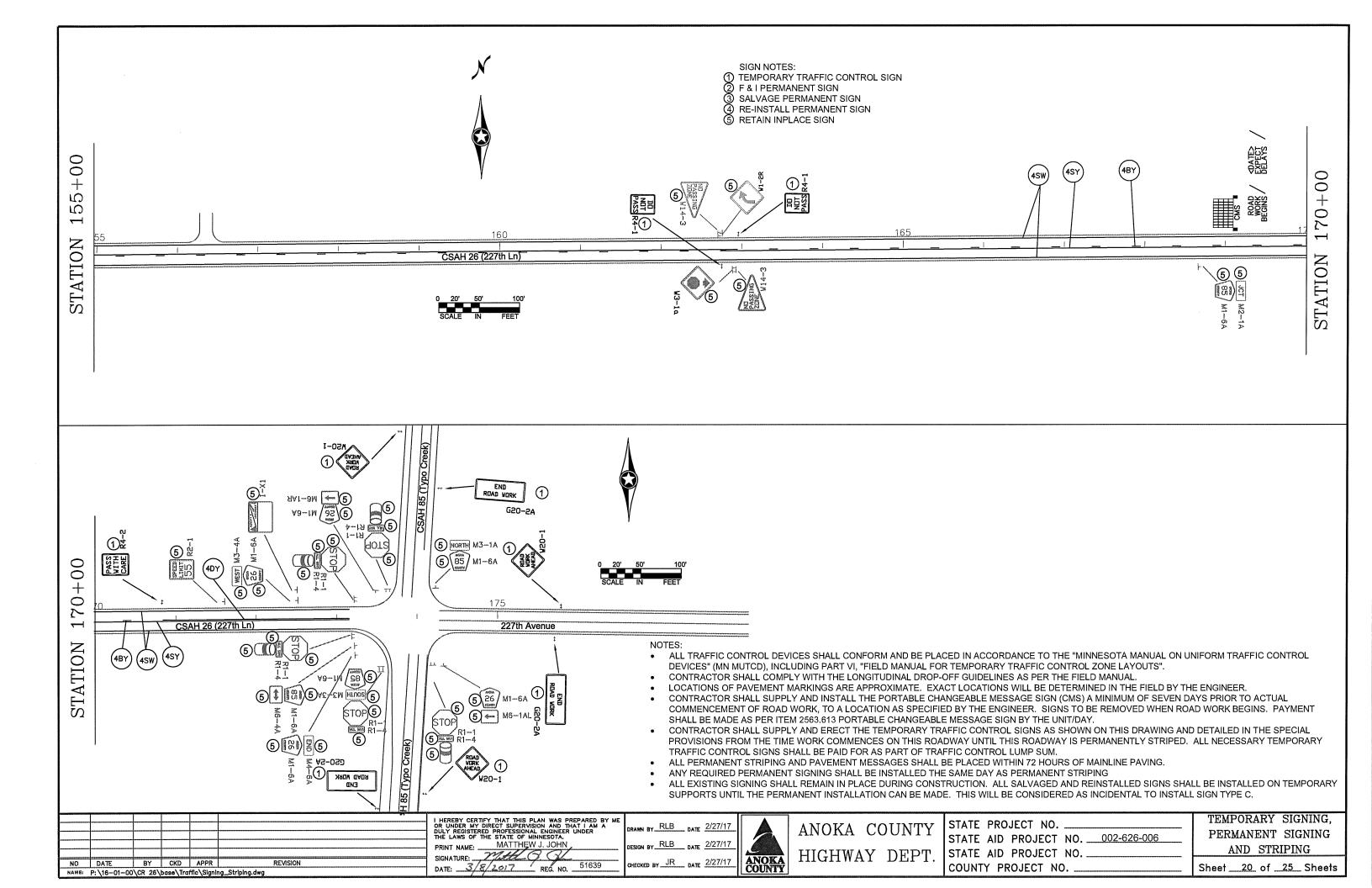


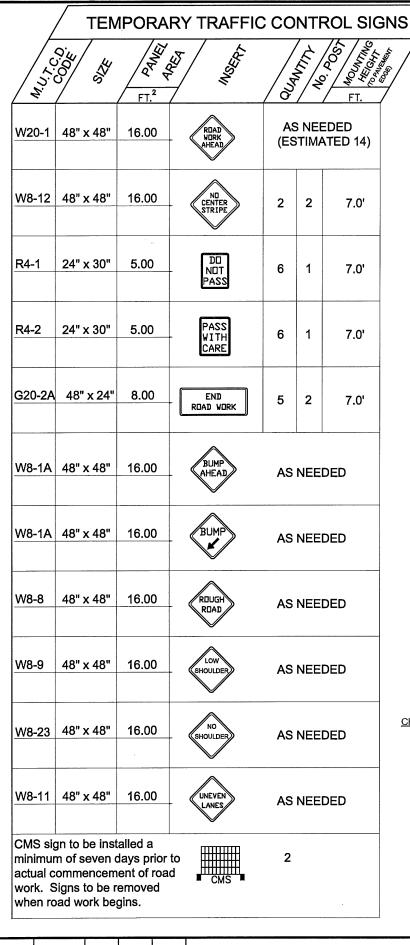












SIGN PANELS TYPE C								
M.U.T.C.D. CODE	SIZE	INSERT	QUANTITY	SQ FT PANEL AREA	SQ FT TOTAL AREA	MOUNTING POST PER INSTALLATION	MOUNTING HEIGHT	
R3-X1	30" x 30"	RIGHT TURN LANE	4	6.25	25.00	1	7.0'	

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.
- ALL PERMANENT STRIPING AND PAVEMENT MESSAGES SHALL BE PLACED WITHIN 72 HOURS OF MAINLINE PAVING.
- ANY REQUIRED PERMANENT SIGNING SHALL BE INSTALLED THE SAME DAY AS PERMANENT STRIPING
- ALL EXISTING SIGNING SHALL REMAIN IN PLACE DURING CONSTRUCTION. ALL SALVAGED AND REINSTALLED SIGNS SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE. THIS WILL BE CONSIDERED AS INCIDENTAL TO INSTALL SIGN TYPE C.

CHANGEABLE MESSAGE BOARD - MESSAGE SEQUENCE LAYOUT

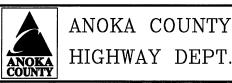
		R	0	Α	D		
		W	0	R	К		
	В	Е	G	1	N	S	

	<	D	Α	T	E	>	
	E	Х	Р	E	С	Т	
	D	Е	L	Α	Υ	s	

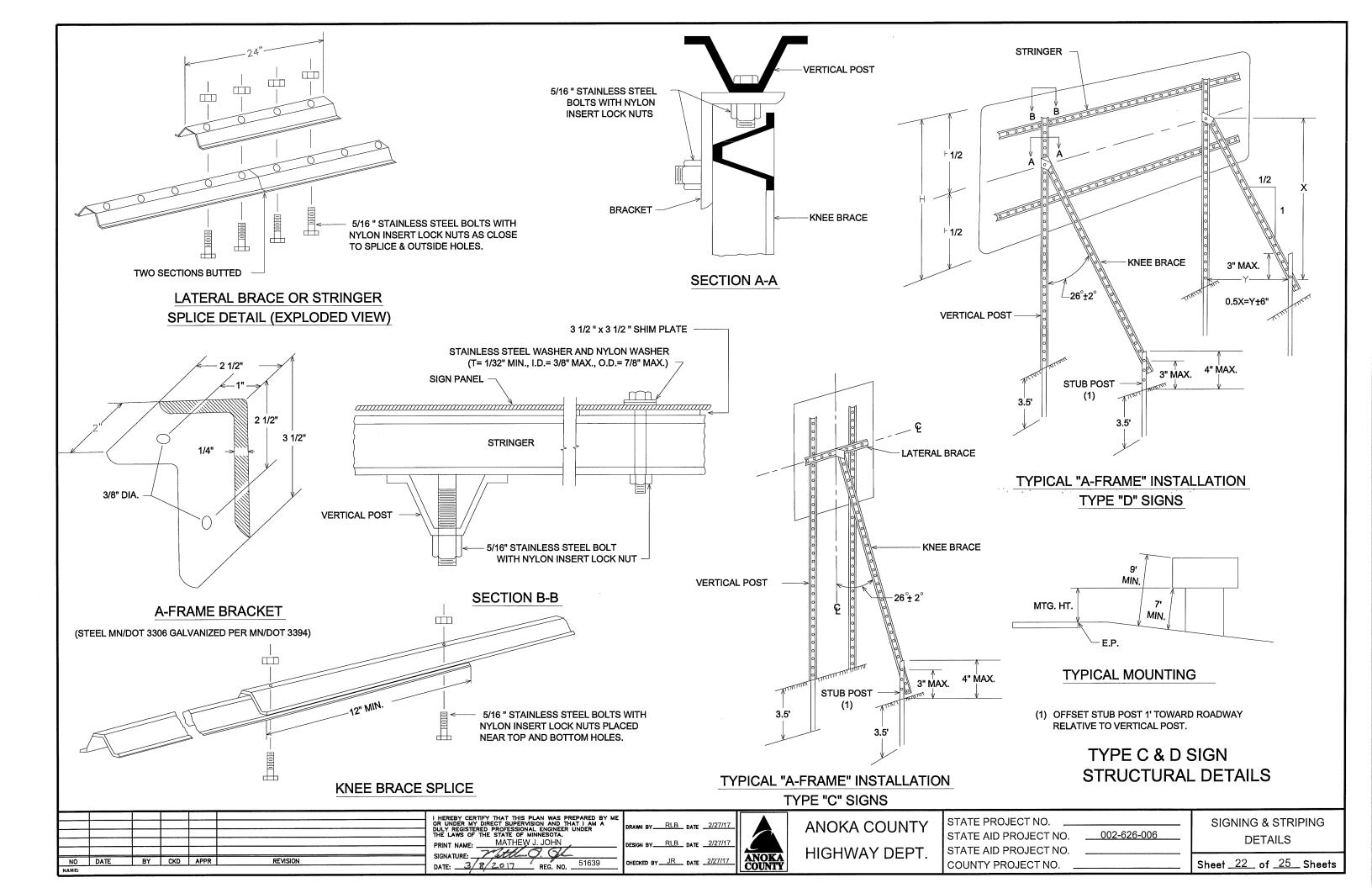
CMS sign to be installed a minimum of seven days prior to actual commencement of road work. Signs to be removed when road work begins.

						I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY I OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE STATE OF MINNESOTA. DRINT NAME. MATTHEW J. JOHN
						PRINT NAME: IVIA I THE VV J. JUHN
						SIGNATURE: THE SIGNATURE:
NO	DATE	BY	CKD	APPR	REVISION	51630
NAME:	P: \16-01-00	\CR 26\	base\Tra	ffic\Signir	g_Striping.dwg	DATE: 3/8/201/ REG. NO. 31039

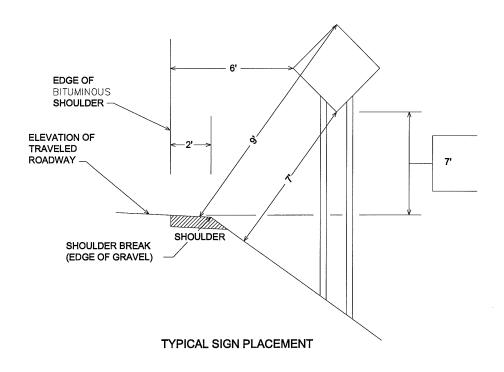
ME	DRAWN BY RLB	_ DATE 2/27/17
_	DESIGN BY RLB	DATE 2/27/17
_	CHECKED BY JR	DATE 2/27/17



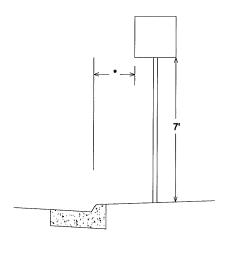
STATE PROJECT NO. ______ TRAFFIC CONTROL
STATE AID PROJECT NO. _____ QUANTITY
STATE AID PROJECT NO. _____ Sheet _21_ of _25_ Sheets



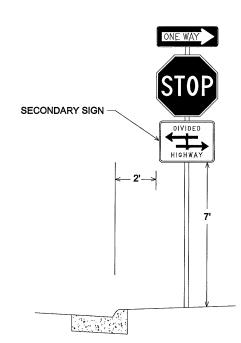
URBAN







TYPICAL SIGN PLACEMENT



NOTE:

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

NO	DATE	BY	CKD	APPR	REVISION	
NAME:				-		

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

PRINT NAME: MATHEW J. JOHN

SIGNATURE: 7

DATE: 3/8/2017 REG. NO. 51639

CHECKED BY JR

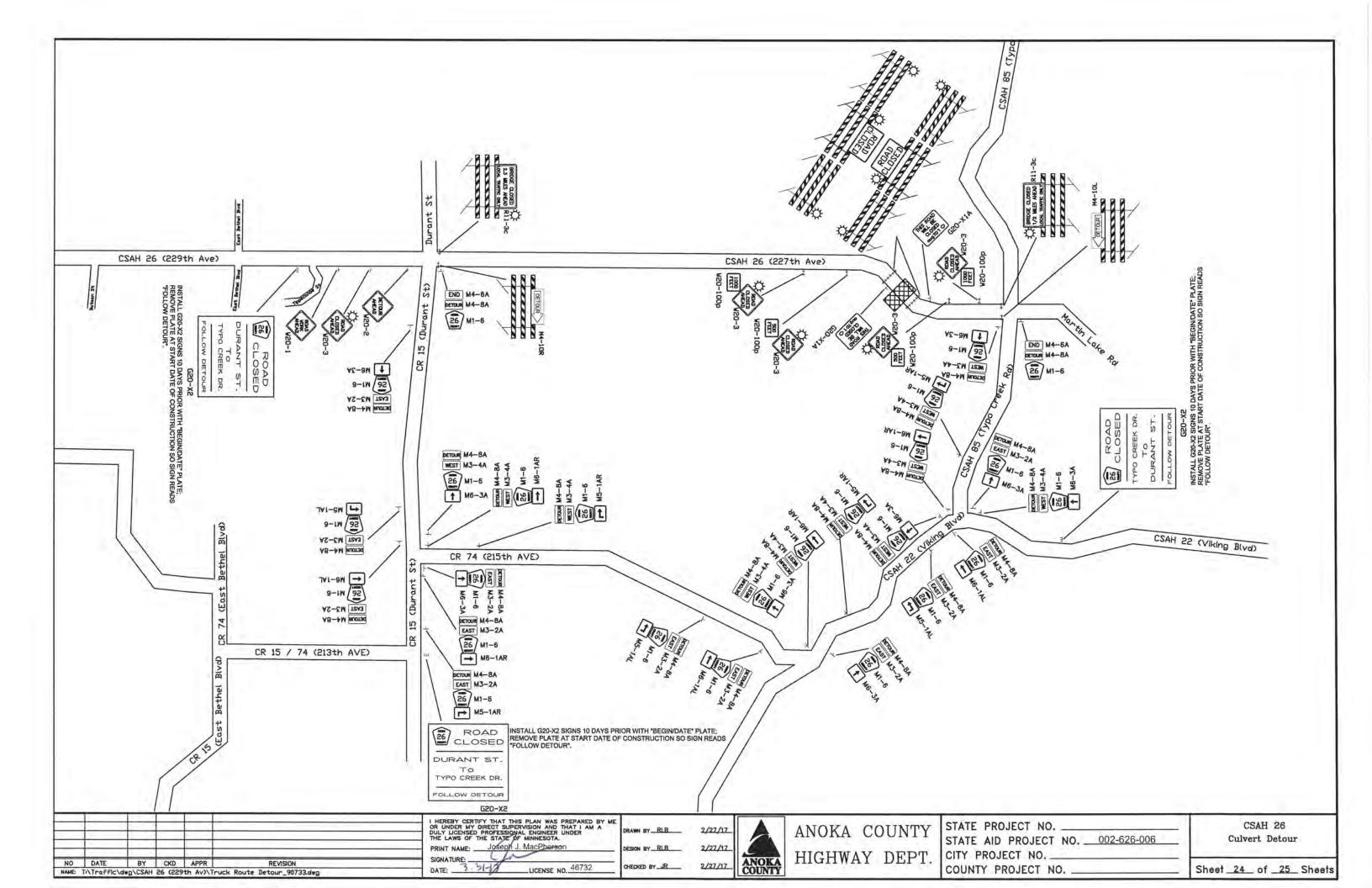


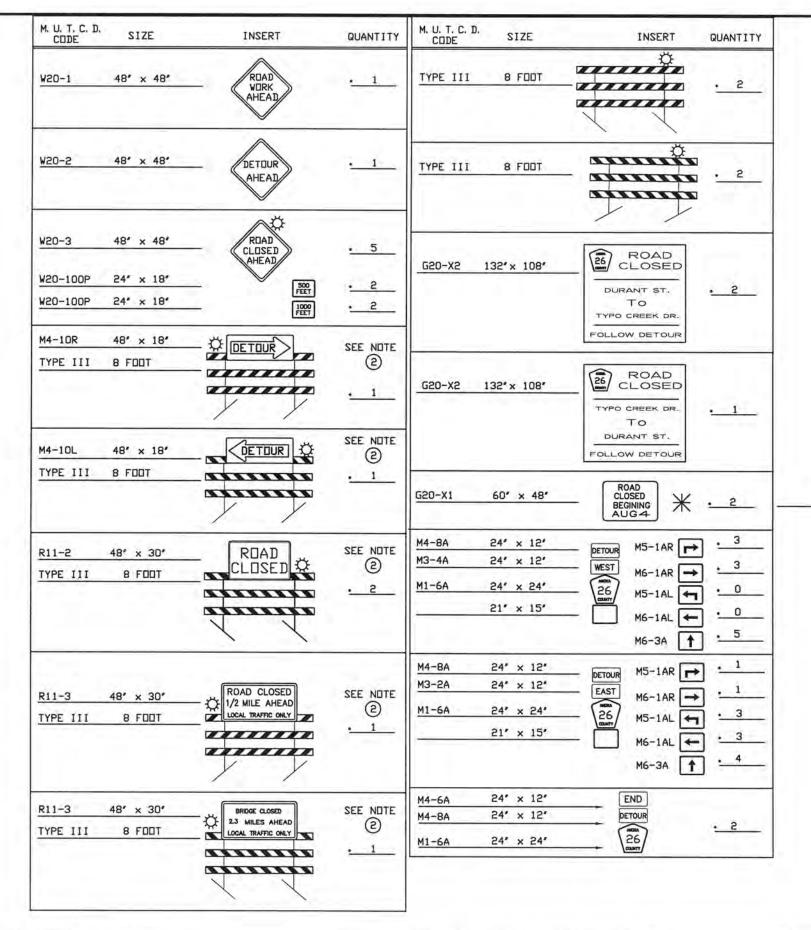
ANOKA COUNTY HIGHWAY DEPT.

STATE PROJECT NO. 002-626-006 STATE AID PROJECT NO. STATE AID PROJECT NO. COUNTY PROJECT NO.

SIGNING & STRIPING **DETAILS**

Sheet 23 of 25 Sheets





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

NOTES

- 1) 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, 2014.
- 2) ALL TYPE III BARICADES SHALL BE REFLECTORIZED DM BOTH SIDES, BARRICADES MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE M. U. T. C. 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: JØSEPN J. MacPherson
DATE Ti\Traffic\	BY dwg\CSAH	CKD 26 (229	APPR th Av>\Truck R	REVISION Route Detour_90733.dwg	SIGNATURE:

DRAWN BY_RLB__ 2/27/17 2/27/17 2/27/17 CHECKED BY JR___



ANOKA COUNTY HIGHWAY DEPT STATE PROJECT NO. STATE AID PROJECT NO. 002-626-006 CITY PROJECT NO. COUNTY PROJECT NO.

CSAH 26 Culvert Detour

Sheet 25 of 25 Sheets