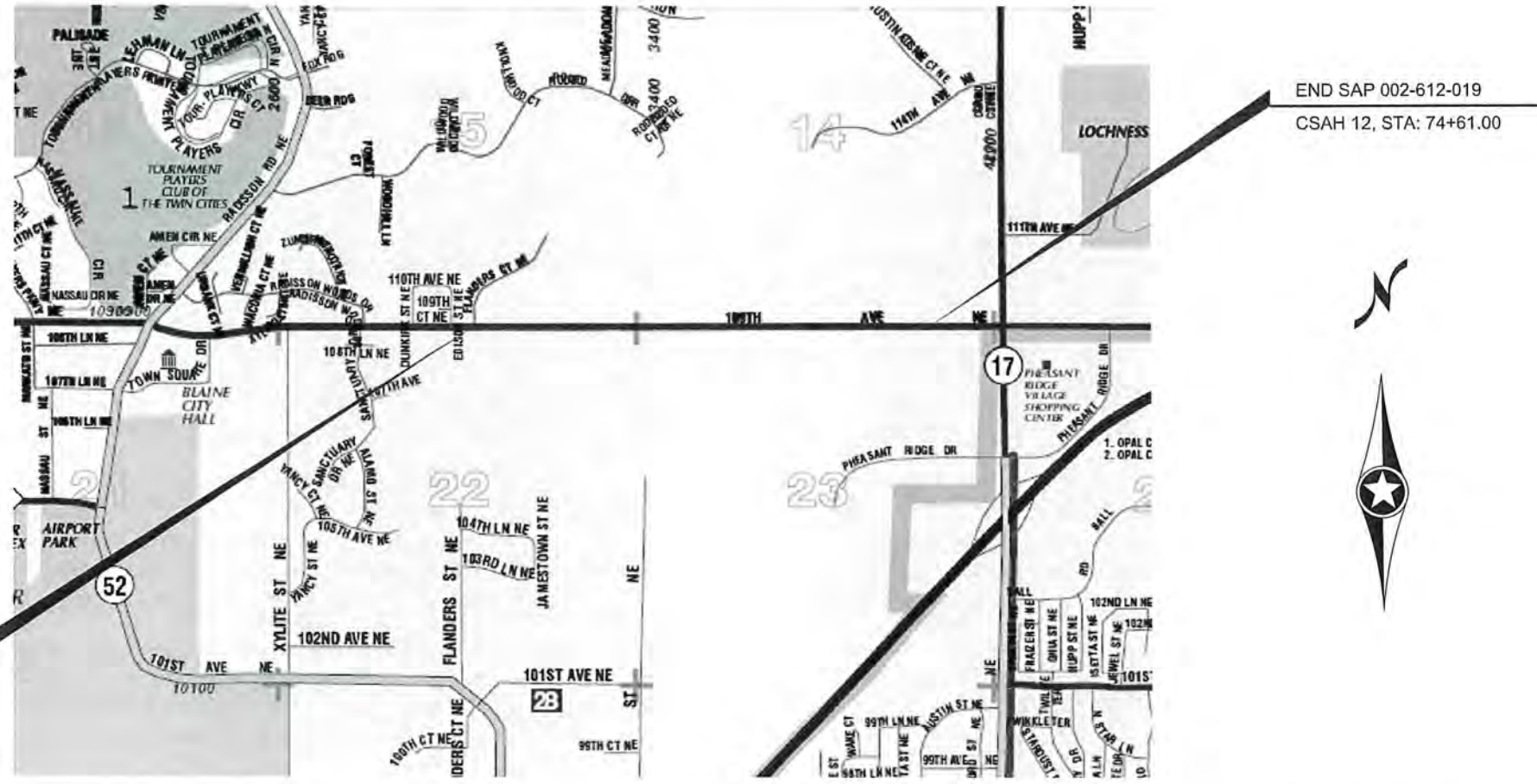


MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

CONSTRUCTION PLAN FOR _____ BITUMINOUS RECLAMATION AND BITUMINOUS SURFACING _____

LOCATED ON CSAH 12 BETWEEN Flanders Ct NE AND CSAH 17

	<u>CSAH 12</u>	
GROSS LENGTH	5684.00 FEET	1.076 MILES
EXCEPTIONS-LENGTH	0.00 FEET	0.000 MILES
NET LENGTH	5684.00 FEET	1.076 MILES



BEGIN SAP 002-612-019
CSAH 12, STA: 17+77.00

END SAP 002-612-019
CSAH 12, STA: 74+61.00

PROJECT LOCATION



CITY OF BLAINE
ANOKA COUNTY
MN/DOT TRANSPORTATION DISTRICT - METRO
SECTION 14, 15, 22, 23
TOWNSHIP 31 NORTH
RANGE 24 WEST

GOVERNING SPECIFICATIONS

THE 2018 EDITION OF THE MINNESOTA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION" SHALL GOVERN. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE WITH THE "MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MNMUTCD), AND PART VI, "FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS."

THIS PLAN CONTAINS 11 SHEETS

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STATEMENT OF ESTIMATED QUANTITIES
3	TYPICAL SECTIONS
4	DETAILS
5-6	CONSTRUCTION PLAN
7	PERMANENT MARKING TABULATION
8-10	TEMPORARY SIGNING, PERMANENT STRIPING

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

DATE _____
STATE AID ENGINEER:
APPROVED FOR STATE AID FUNDING

Approved Daniel Schluender 3.1.2021
CITY OF BLAINE ENGINEER

Approved [Signature] 3-1-2021
ANOKA COUNTY ENGINEER

DESIGN DESIGNATION (CSAH 12)			
ESAL 20	1247881	FUNCTIONAL CLASSIFICATION	A-MINOR EXPANDER
R VALUE	70	NO. OF TRAFFIC LANES	2
ADT (2021)	10563	NO. OF PARKING LANES	0
PROJ. ADT (2041)	10563	DESIGN SPEED	55 MPH
PROJ. HCADT (2041)	623	STOPPING SIGHT DISTANCE BASED ON:	
SOIL FACTOR	N/A	HEIGHT OF EYE	3.5'
		HEIGHT OF OBJECT	2.0'
		DESIGN SPEED NOT ACHIEVED AT:	
		STA. _____ TO STA. _____	MPH _____
			MPH _____

NO	DATE	BY	CKD	APPR	REVISION
	02/24/2021				2:18:48 PM

NAME: P:\20-01-00\CSAH_12_(Flanders-CSAH17)\Base\Proposed\CSAH 12 TITLE.dgn

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
PRINT NAME: GERALD J. AUGER JR.
SIGNATURE: [Signature]
DATE: 02-24-2021 LICENSE NO. 26511

DRAWN BY KPR DATE 10/30/2020
DESIGN BY KPR DATE 10/30/2020
CHECKED BY CSO DATE 01/21/2021



**ANOKA COUNTY
HIGHWAY DEPT.**

STATE AID PROJECT 002-612-019

TITLE SHEET
Sheet 1 of 11 Sheets

STATEMENT OF ESTIMATED QUANTITIES				
NOTES	ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTAL PROJECT QUANTITIES ESTIMATED
	2021.501	MOBILIZATION	LUMP SUM	1
	2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	105
1	2123.510	MOTOR GRADER	HOUR	33
	2130.523	WATER	M GALLON	225
	2215.504	FULL DEPTH RECLAMATION	SQ YD	32075
	2215.507	HAUL FULL DEPTH RECLAMATION (LV)	CU YD	65
2	2221.509	SHOULDER BASE AGGREGATE CLASS 5	TON	528
	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	1604
	2360.509	TYPE SP 12.5 WEARING COURSE MIX (4;C)	TON	9222
	2563.601	TRAFFIC CONTROL SUPERVISOR	LUMP SUM	1
3	2563.601	TRAFFIC CONTROL	LUMP SUM	1
4	2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UNIT DAY	20
5	2581.503	REMOVABLE PREFORM PAVEMENT MARKING TAPE	LIN FT	455
6	2582.503	4" SOLID LINE MULTI COMP	LIN FT	12030
6	2582.503	4" BROKEN LINE MULTI COMP	LIN FT	1100
6	2582.503	4" DBLE SOLID LINE MULTI COMP	LIN FT	800
6	2582.618	PAVEMENT MARKING SPECIAL	SQ FT	140

CONSTRUCTION NOTES		
1		ITEM USED TO MOVE EXCESS RECLAIM MATERIAL AT THE RECLAIM AREA LIMITS TO CREATE A SMOOTH TRANSITION BETWEEN THE PROPOSED AND EXISTING PAVEMENT
2		ITEM INCLUDES 7 TONS FOR EACH GRAVEL ENTRANCE AND GRAVEL STREET APPROACH.
3		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 PERMANENT PAVEMENT MARKINGS ARE NOT PRESENT.
4		2 MESSAGE BOARDS, ONE ON THE EACH END OF PROJECT, SHALL BE INSTALLED 10 DAYS PRIOR TO ANY CONSTRUCTION; REFERENCE STRIPING PLAN FOR DETAILS.
5		CENTERLINE AND LANE DESIGNATION SKIPS TO BE APPLIED AS SOON AS POSSIBLE ON MILLED SURFACE AND EACH NEW LIFT OF PAVEMENT; SKIPS MUST BE INPLACE BEFORE THE CONTRACTOR LEAVES FOR THE DAY. CONTRACTOR IS TO REMOVE PRIOR TO FINAL STRIPING.
6		FINAL STRIPING SHALL BE INSTALLED WITHIN 72 HOURS OF COMPLETION OF MAINLINE WEAR COURSE PAVING.

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

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


MNDOT STANDARD PLATES	
PLATE NO.	DESCRIPTION
8000J	CHANNELIZERS

NO	DATE	BY	CKD	APPR	REVISION
	02/24/2021				2:18:51 PM

NAME: P:\20-01-00\CSAH_12_(Flanders-CSAH17)\Base\Proposed\CSAH 12 SEQ.dgn

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

PRINT NAME: GERALD J. AUGER JR

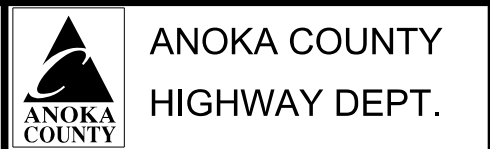
SIGNATURE: 

DATE: 02-24-2021 LICENSE NO. 26511

DRAWN BY: KPR DATE: 10/30/2020

DESIGN BY: KPR DATE: 10/30/2020

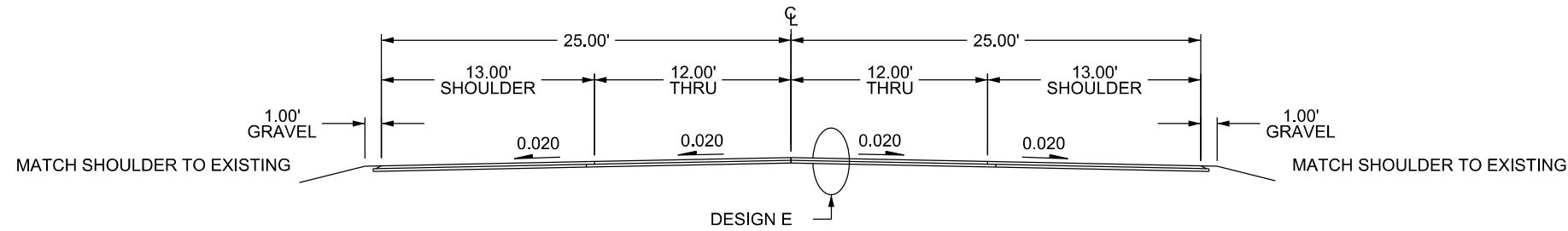
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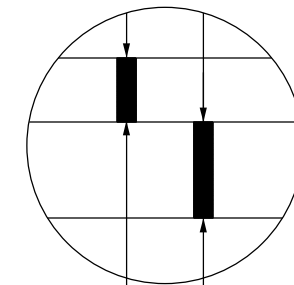
STATE AID PROJECT 002-612-019

CSAH 12 - 109th AVE NE
(EXISTING) SECTION

STATION 17+77.00 - 74+61.00



DESIGN E
EXISTING SECTION

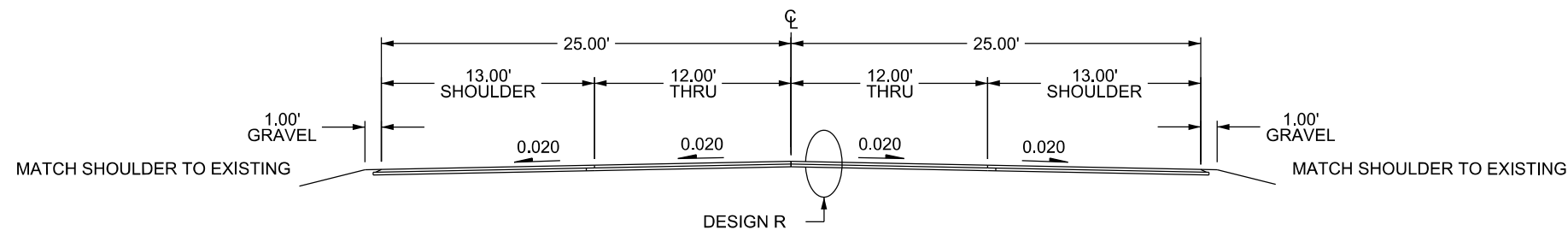


8" EXISTING BITUMINOUS

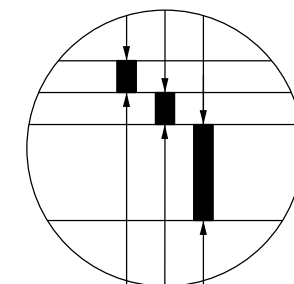
EXISTING AGGREGATE BASE

CSAH 12 - 109th AVE NE
(PROPOSED) SECTION

STATION 17+77.00 - 74+61.00



DESIGN R
PROPOSED SECTION




2.0" BITUMINOUS WEAR(SPWEB440C)

3.0" BITUMINOUS WEAR(SPWEB440C)

RECLAIMED BITUMINOUS

NO	DATE	BY	CKD	APPR	REVISION	
	02/24/2021					2:18:56 PM

NAME: P:\20-01-00\CSAH_12_(Flanders-CSAH17)\Base\Proposed\CSAH 12 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.
 PRINT NAME: GERARLD J. AUGER JR.
 SIGNATURE: 
 DATE: 02-24-2021 LICENSE NO. 26511

DRAWN BY KPR DATE 10/30/2020
 DESIGN BY KPR DATE 10/30/2020
 CHECKED BY CSO DATE 01/28/2021

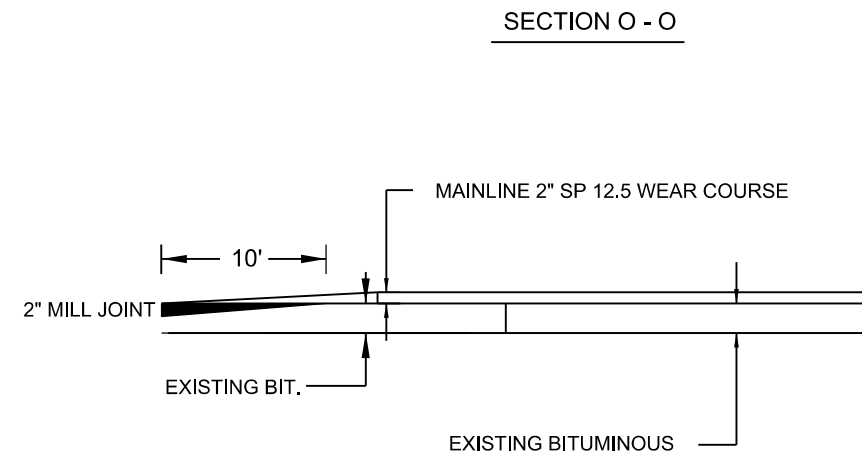
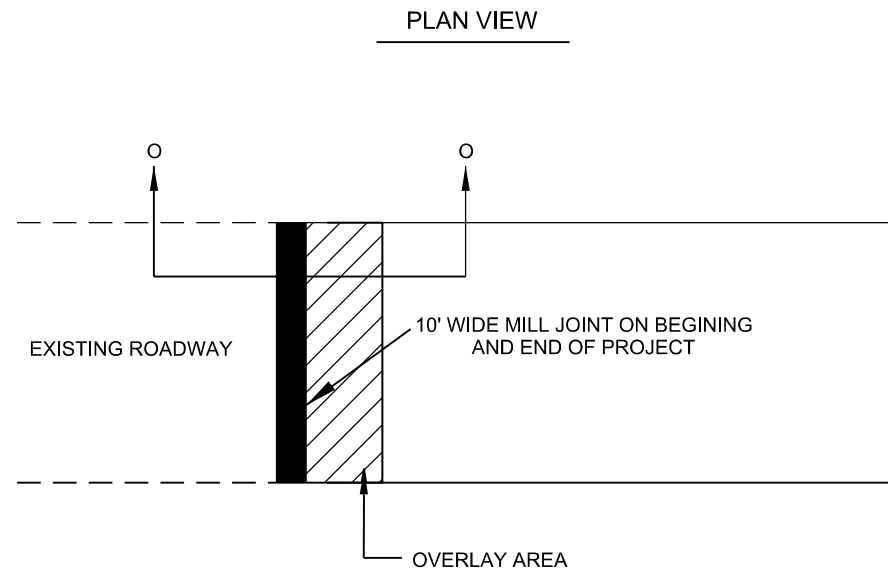


ANOKA COUNTY
HIGHWAY DEPT.

COUNTY PROJECT 002-612-019

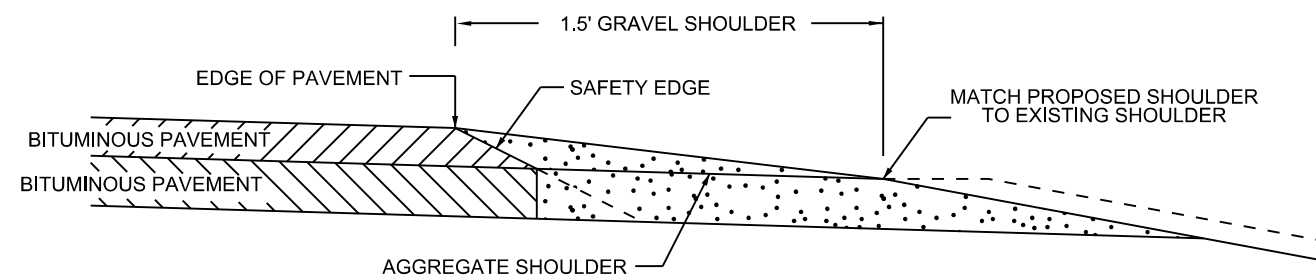
TYPICAL SECTIONS
 Sheet 3 of 11 Sheets

MAINLINE JOINT DETAIL (OVERLAY)



SHOULDER DETAIL

BITUMINOUS SAFETY EDGE
GRAVEL SHOULDER

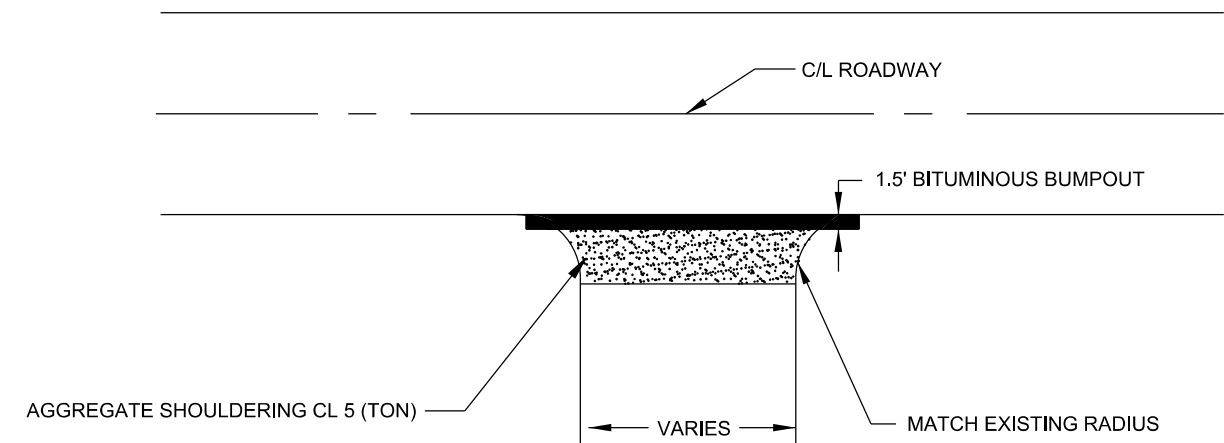


SAFETY EDGE TO BE USED IN ALL NON-CURB AREAS ON SHOULDER.

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

DRIVEWAY DETAIL

GRAVEL / FIELD ENTRANCE



NO	DATE	BY	CKD	APPR	REVISION	
	02/24/2021					2:18:58 PM

NAME: P:\20-01-00\CSAH_12_(Flanders-CSAH17)\Base\Proposed\CSAH 12 DETAILS.dgn

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

PRINT NAME: GERALD J. AUGER JR.

SIGNATURE:

DATE: 02-24-2021 LICENSE NO. 26511

DRAWN BY: KPR DATE: 10/30/2020

DESIGN BY: KPR DATE: 10/30/2020

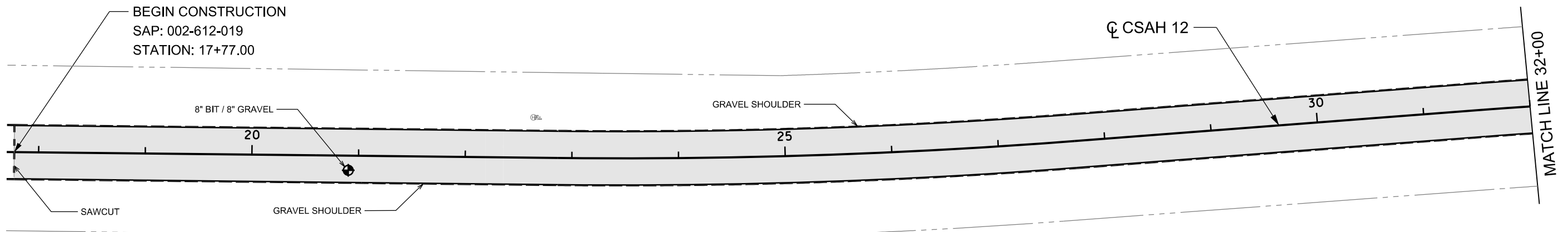
CHECKED BY: CSO DATE: 01/28/2021

ANOKA COUNTY
HIGHWAY DEPT.

COUNTY PROJECT 002-612-019

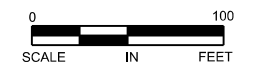
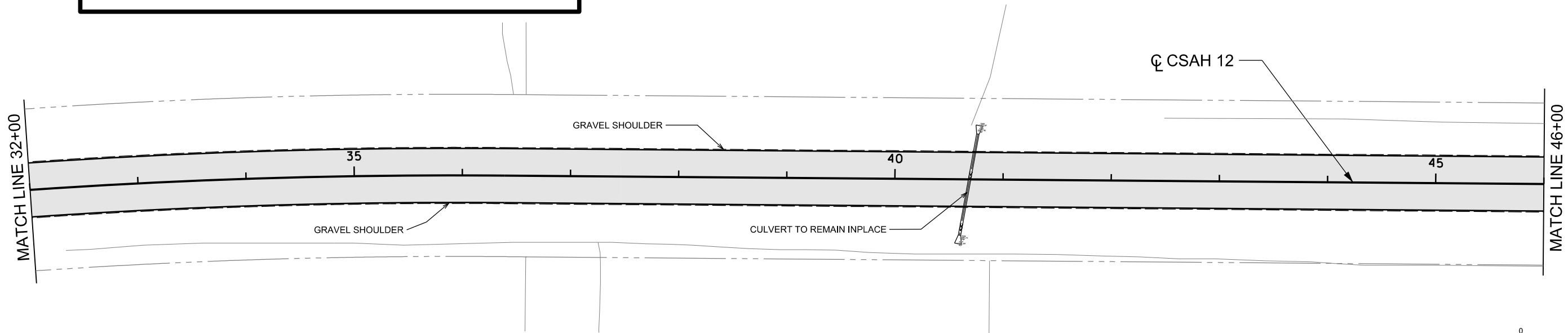
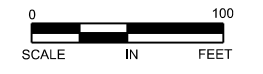
DETAILS

Sheet 4 of 11 Sheets



LEGEND

- ⊙ GRAVEL
- ⊕ CORE LOCATION
- - - SAWCUT
- ▭ CROSS CULVERT
- ▭ RECLAIM AND OVERLAY
- R / W



NO	DATE	BY	CKD	APPR	REVISION	
	02/24/2021					2:19:00 PM

NAME: P:\20-01-00\CSAH_12_(Flanders-CSAH17)\Base\Proposed\CSAH 12 CP1.dgn

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

PRINT NAME: GERALD J. AUGER JR.

SIGNATURE:

DATE: 02-24-2021 LICENSE NO. 26511

DRAWN BY KPR DATE 10/30/2020

DESIGN BY KPR DATE 10/30/2020

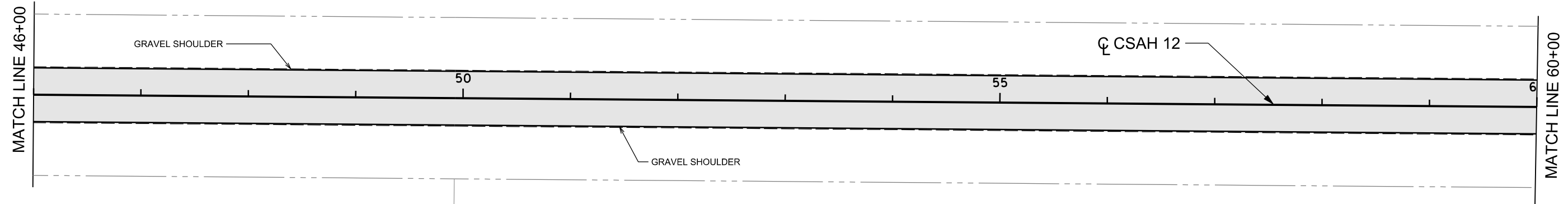
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**ANOKA COUNTY
HIGHWAY DEPT.**

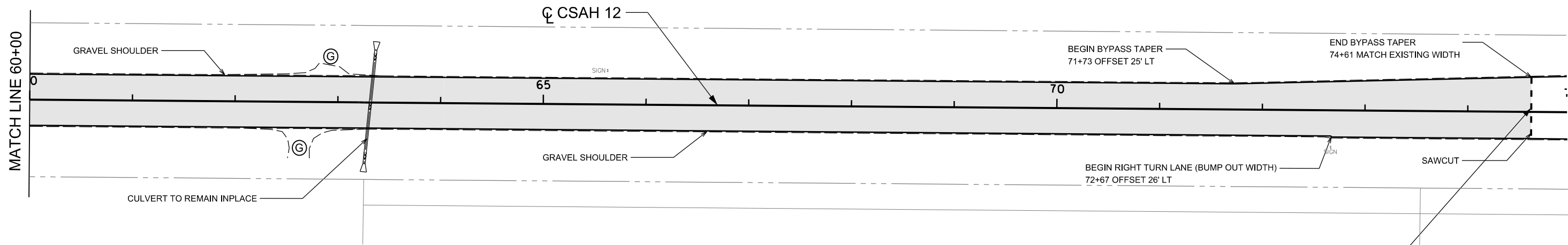
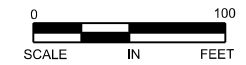
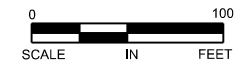
STATE AID PROJECT 002-612-019

CONSTRUCTION PLAN
STA 17+77 TO 46+00
Sheet 5 of 11 Sheets



LEGEND


- ⊙ GRAVEL
- ⊕ CORE LOCATION
- - - SAWCUT
- === CROSS CULVERT
- █ RECLAIM AND OVERLAY
- R / W



END CONSTRUCTION
 SAP: 002-612-019
 STATION: 74+61.00

NO	DATE	BY	CKD	APPR	REVISION	
	02/24/2021					2:21:34 PM

NAME: P:\20-01-00\CSAH_12_(Flanders-CSAH17)\Base\Proposed\CSAH 12 CP2.dgn

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: GERALD J. AUGER JR.
 SIGNATURE: 
 DATE: 02-24-2021 LICENSE NO. 26511

DRAWN BY KPR DATE 10/30/2020
 DESIGN BY KPR DATE 10/30/2020
 CHECKED BY CSO DATE 01/28/2021



**ANOKA COUNTY
 HIGHWAY DEPT.**

STATE AID PROJECT 002-612-019

CONSTRUCTION PLAN
 STA 46+00 TO 74+61
 Sheet 6 of 11 Sheets

**PERMANENT PAVEMENT MARKING PLAN
NOTES AND GUIDELINES**

GENERAL INFORMATION:

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

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

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

MULTI COMPONENT (MULTI COMP):

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 MULTI COMP PAVEMENT MARKINGS.

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

A MULTI COMP RESIN LINE SHALL BE APPLIED WITH A MINIMUM THICKNESS OF 20 MILS (WET) AND 4" WIDE. GLASS BEANS SHALL BE APPLIED AT A MINIMUM RATE OF 25LBS POUNDS PER GALLON RATE SUFFICIENT TO ACHIEVE AN ACCEPTABLE NO-TRACK SYSTEM.

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

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

PREFORMED THERMOPLASTIC:

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

PAINT:

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

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

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

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

PAVEMENT MARKING TABULATION		
ITEM	UNIT	TOTAL QUANTITY
4" SOLID LINE WHITE - MULTI COMP	LIN FT	11830
4" BROKEN LINE YELLOW - MULTI COMP	LIN FT	1100
4" SOLID LINE YELLOW - MULTI COMP	LIN FT	200
4" SOLID DOUBLE LINE YELLOW - MULTI COMP	LIN FT	800
24" SOLID LINE YELLOW - THERMOPLASTIC (*PMS)	LIN FT	70

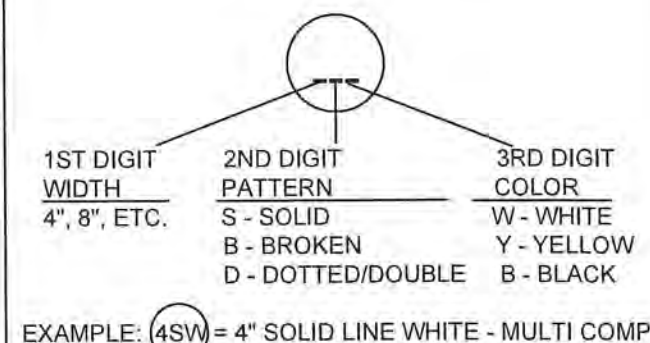
1 10' STRIPE, 40' GAP
* PAVEMENT MARKING SPECIAL

SYMBOLS & MATERIALS LEGEND

- CROSSWALK BLOCK WHITE-POLY PREFORM
- ← PAVEMENT MESSAGE (LEFT ARROW) POLY PREFORM

STRIPING KEY

- CIRCLE - MULTI COMP
- SQUARE - POLY PREFORM THERMOPLASTIC
- △ TRIANGLE - PAINT
- ⬠ PENTAGON - REMOVABLE PREFORMED PLASTIC MARKING



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\121-01-00\CSAH_12_(Flanders-CSAH17)\Base\Traffic\Perm Pvmr Mrkg Guide Notes.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: JOSEPH J. MACPHERSON, P.E.
SIGNATURE: *[Signature]*
DATE: 3-1-21

DRAWN BY: TMV DATE: 09/10/20
DESIGN BY: TMV DATE: 09/10/20
CHECKED BY: _____ DATE: _____



**ANOKA COUNTY
HIGHWAY DEPT.**

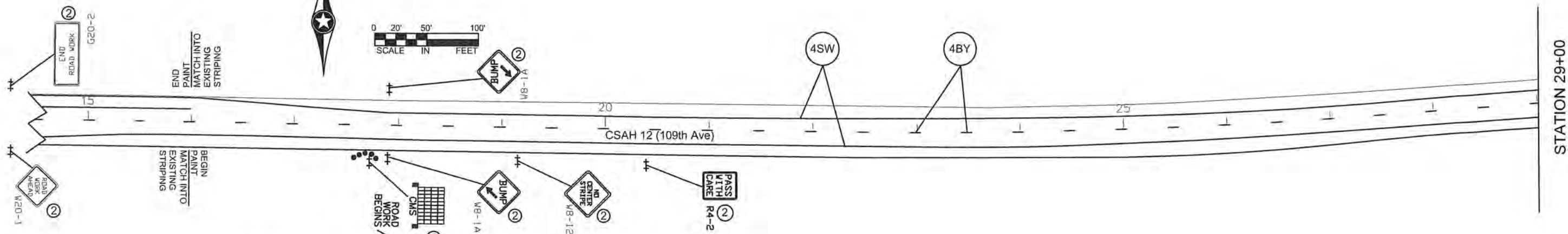
STATE AID PROJECT 002-612-019

PERMANENT MARKING
TABULATION
Sheet 7 of 11 Sheets

SIGN NOTES:
 ② TEMPORARY TRAFFIC CONTROL SIGN

STRIPING KEY

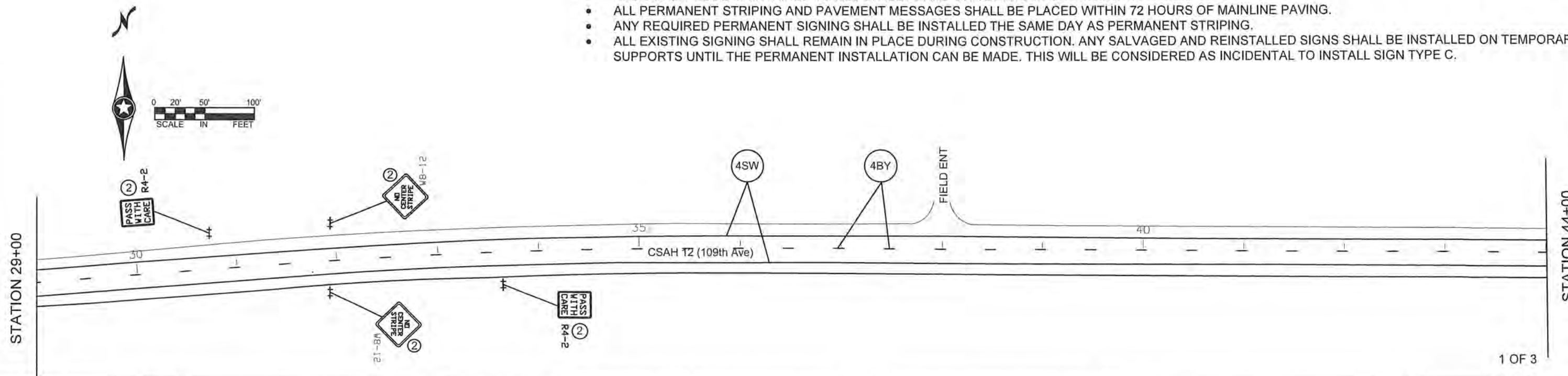
○ CIRCLE - MULTI COMP
 □ SQUARE - POLY PREFORM



PLACE CMS 10 DAYS IN ADVANCE OF THE COMMENCEMENT OF WORK

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 PLACE THE PORTABLE CHANGEABLE MESSAGE SIGN (CMS) A MINIMUM TEN 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.
- ACCESS SHALL BE MAINTAINED TO ALL STREETS AND DRIVEWAYS IN CONSTRUCTION AREA.
- 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. ANY 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.



NO	DATE	BY	CKD	APPR	REVISION

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: JOSEPH J. MACPHERSON, P.E.
 SIGNATURE: *[Signature]*
 DATE: 3-1-21 REG. NO. 48732

DRAWN BY: TMV DATE: 08/10/20
 DESIGN BY: TMV DATE: 09/10/20
 CHECKED BY: DATE: _____



ANOKA COUNTY
 HIGHWAY DEPT.

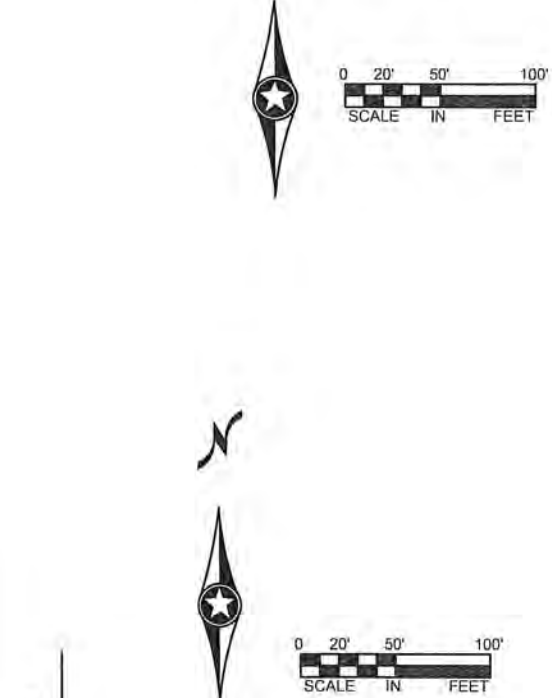
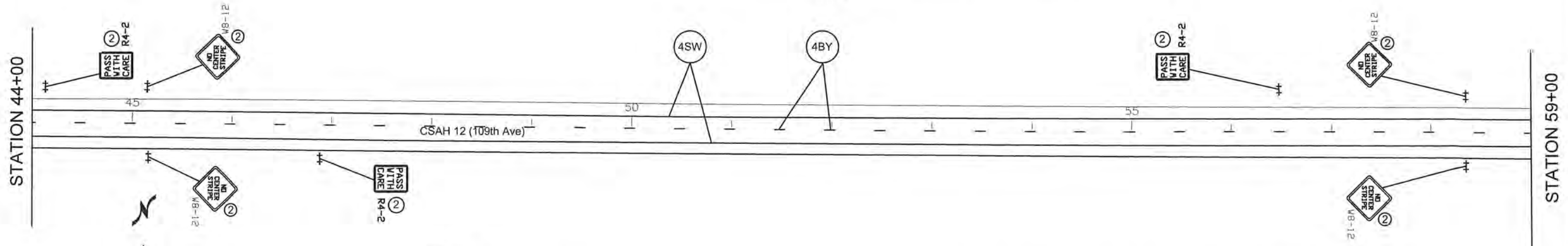
STATE AID PROJECT 002-612-019

TEMPORARY SIGNING,
 PERMANENT STRIPING
 Sheet 8 of 11 Sheets

SIGN NOTES:
 ② TEMPORARY TRAFFIC CONTROL SIGN

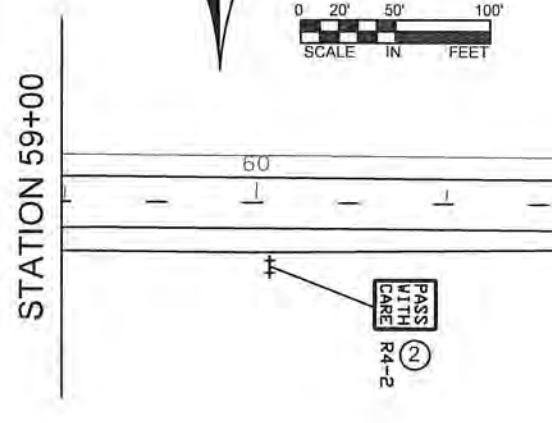
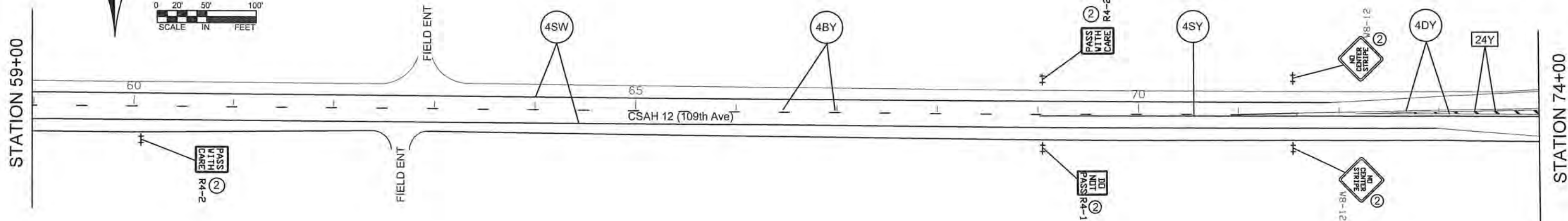
STRIPING KEY

○ CIRCLE - MULTI COMP
 □ SQUARE - POLY PREFORM



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 PLACE THE PORTABLE CHANGEABLE MESSAGE SIGN (CMS) A MINIMUM TEN 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.
- ACCESS SHALL BE MAINTAINED TO ALL STREETS AND DRIVEWAYS IN CONSTRUCTION AREA.
- 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. ANY 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.



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

PRINT NAME: JOSEPH J. MACPHERSON, P.E.

SIGNATURE: *[Signature]*

DATE: 3-1-21 REG. NO. 46732

DRAWN BY: TMV DATE 09/10/20

DESIGN BY: TMV DATE 09/10/20

CHECKED BY: DATE



ANOKA COUNTY
 HIGHWAY DEPT.

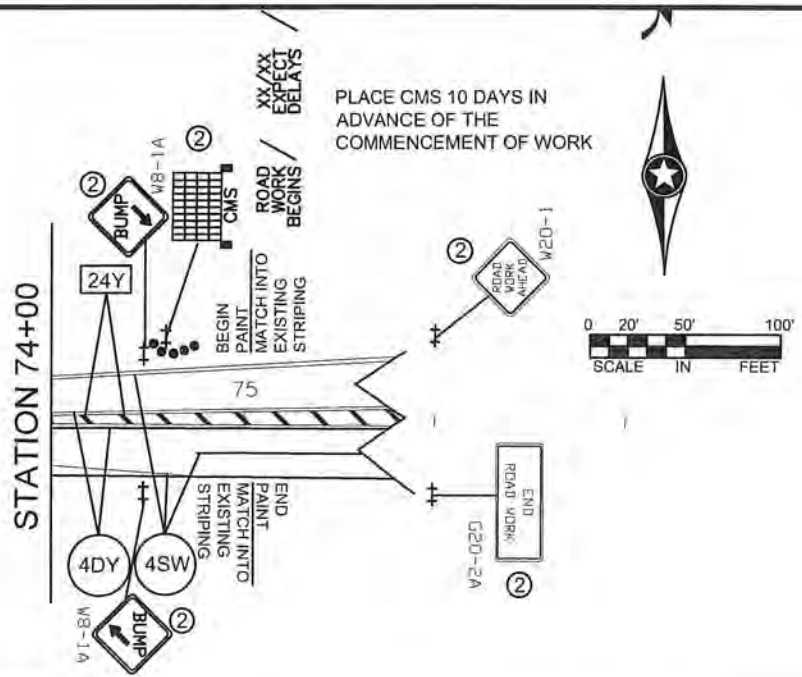
STATE AID PROJECT 002-612-019

TEMPORARY SIGNING,
 PERMANENT STRIPING

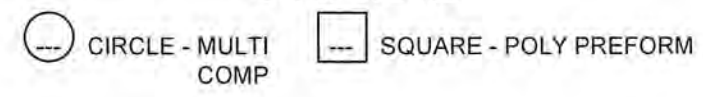
Sheet 9 of 11 Sheets

NO	DATE	BY	CHKD	APPR	REVISION

NAME: P:\21-01-00\CSAH_12_(Flanders-CSAH17)\Base\Traffic\Sign&Stripe.dwg



STRIPING KEY



SIGN NOTES:
 ② TEMPORARY TRAFFIC CONTROL SIGN

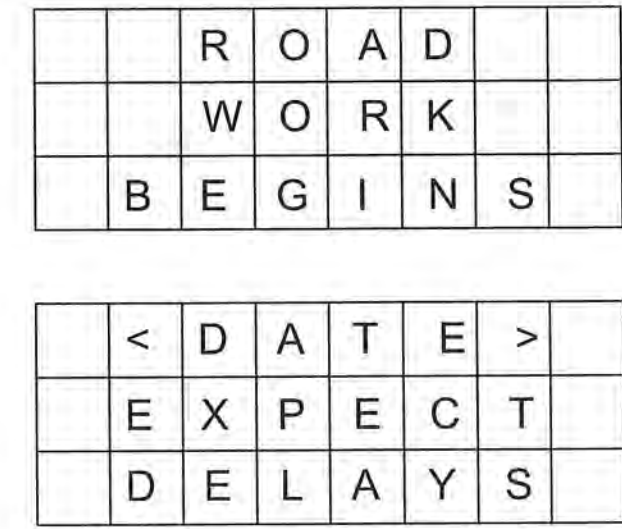
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TEMPORARY TRAFFIC CONTROL SIGNS						
M.U.T.C.D. CODE	SIZE	INSERT	QUANTITY		MOUNTING HEIGHT TO PAVEMENT EDGE (FT.)	
			No.	POST		
W8-12	48" x 48"		9	2	7.0'	
R4-1	24" x 30"		1	1	7.0'	
R4-2	24" x 30"		8	1	7.0'	
G20-2	36" x 18"		2	2	7.0'	
W8-1A	48" x 48"		4	2	7.0'	
W8-1	48" x 48"		AS NEEDED			
W8-8	48" x 48"		AS NEEDED			

TEMPORARY TRAFFIC CONTROL SIGNS						
M.U.T.C.D. CODE	SIZE	INSERT	QUANTITY		MOUNTING HEIGHT TO PAVEMENT EDGE (FT.)	
			No.	POST		
W8-9	48" x 48"		AS NEEDED			
	48" x 48"		AS NEEDED			
W8-11	48" x 48"		AS NEEDED			
W20-1	48" x 48"		AS NEEDED (ESTIMATED 2)			
			AS NEEDED (ESTIMATED 10)			
			2 AT 10 DAYS EA			

CHANGEABLE MESSAGE BOARD - MESSAGE SEQUENCE LAYOUT



CMS SIGN TO BE PLACED A MINIMUM OF TEN DAYS PRIOR TO ACTUAL COMMENCEMENT OF ROAD WORK. SIGNS TO BE REMOVED WHEN ROAD WORK BEGINS.

NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\21-01-00\CSAH_12_(Flanders-CSAH17)\BaseTrafficSign&Stripe.dwg

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
 PRINT NAME: JOSEPH J. MACPHERSON, P.E.
 SIGNATURE:
 DATE: 1-1-20 REG. NO. 46732

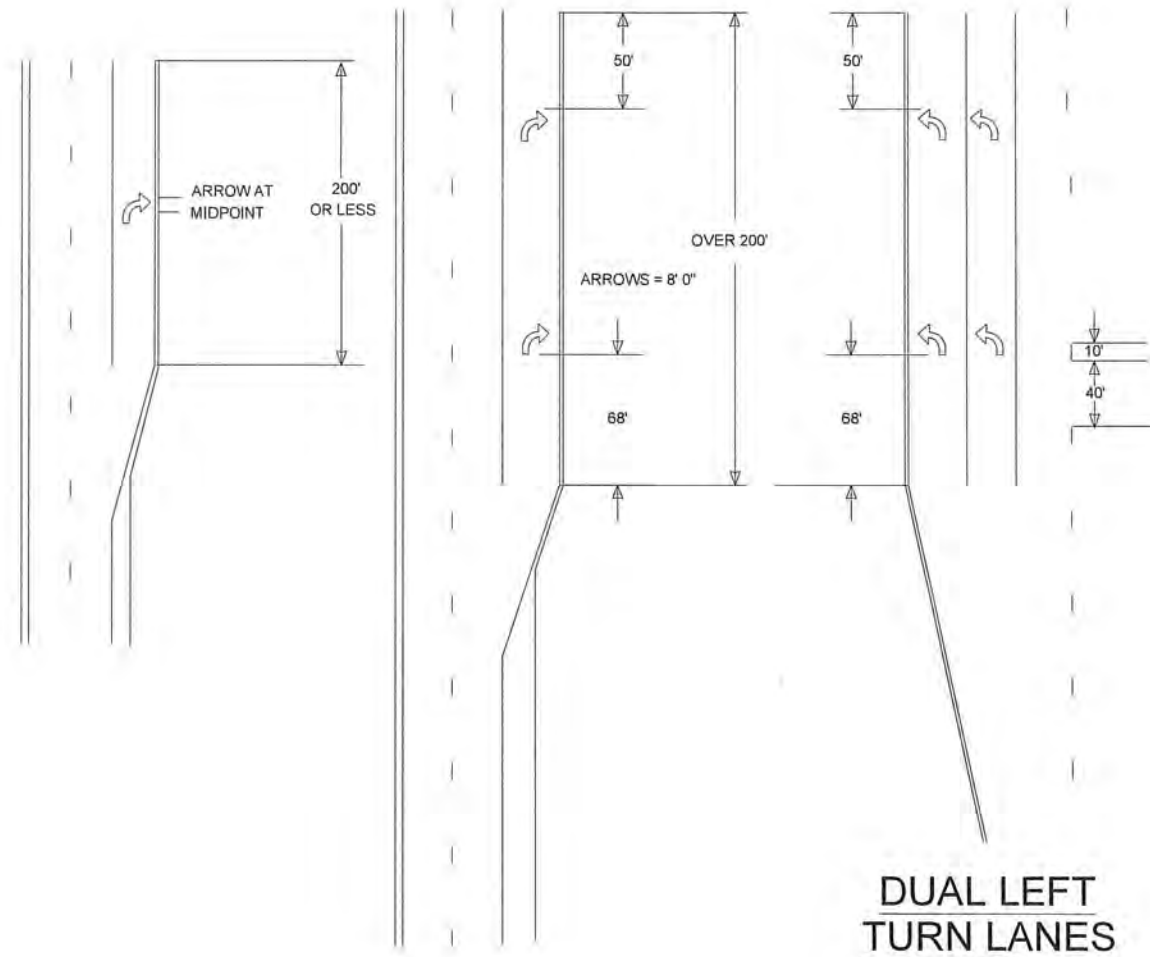
DRAWN BY: TMV DATE: 09/10/20
 DESIGN BY: TMV DATE: 09/10/20
 CHECKED BY: DATE:

ANOKA COUNTY HIGHWAY DEPT.

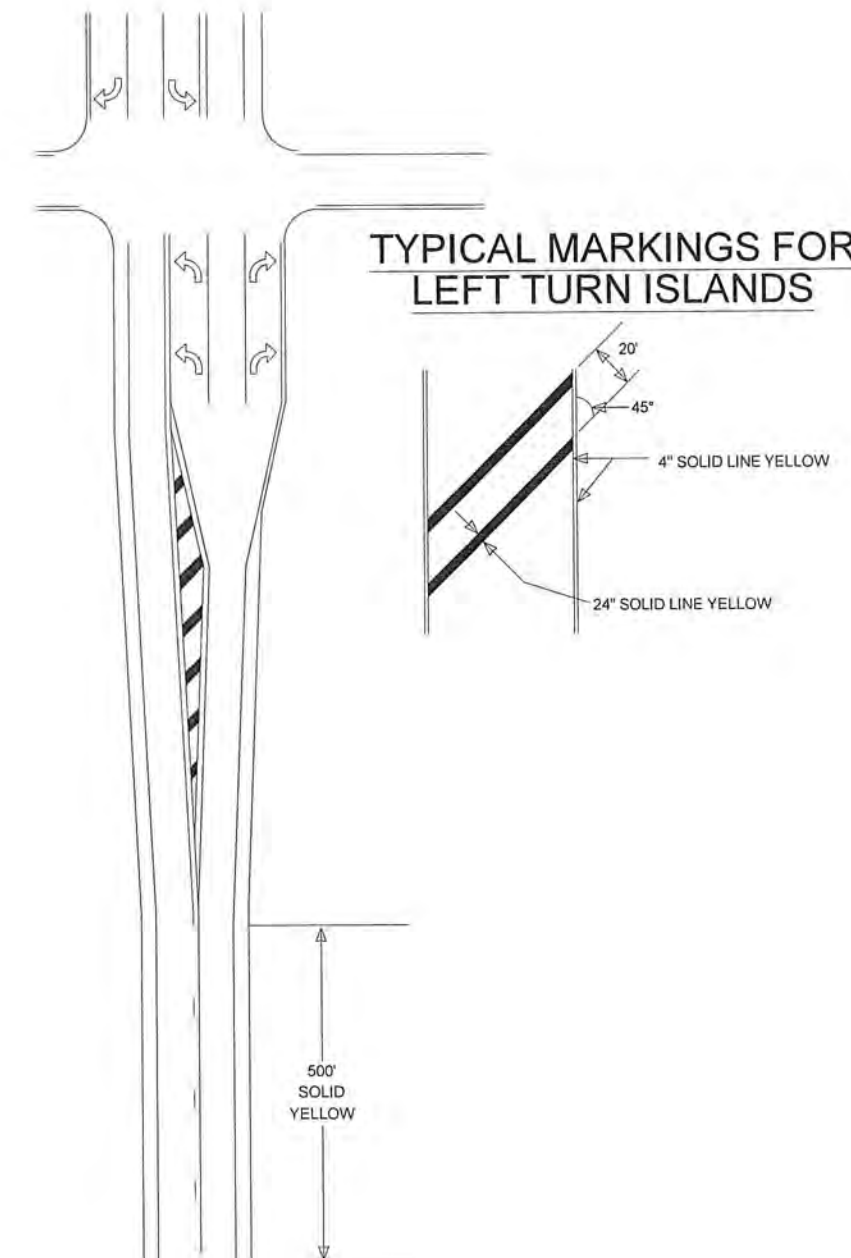
STATE AID PROJECT 002-612-019

TEMPORARY SIGNING, PERMANENT STRIPING, TEMPORARY SIGNING QUANTITIES
 Sheet 10 of 11 Sheets

**TYPICAL MESSAGE PLACEMENT
FOR TURN LANES**



**TYPICAL MARKINGS FOR
LEFT TURN ISLANDS**



NO	DATE	BY	CKD	APPR	REVISION

NAME: P:\21-01-00\CSAH_12 (Flanders-CSAH17)\Base\Traffic\Sign&Stripe_Details2019.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: JOSEPH J. MACPHERSON, P.E.

SIGNATURE: *[Signature]*

DATE: 3-1-21 LICENSE NO. 46732

DRAWN BY: IMV DATE: 09/10/20

DESIGN BY: IMV DATE: 09/10/20

CHECKED BY: DATE:



**ANOKA COUNTY
HIGHWAY DEPT.**

STATE AID PROJECT 002-612-019

**SIGNING & STRIPING
DETAILS**

Sheet 11 of 11 Sheets