

# MINNESOTA DEPARTMENT OF TRANSPORTATION ANOKA COUNTY

CONSTRUCTION PLAN FOR GRADING BITUMINOUS SURFACING, BITUMINOUS RECLAMATION, TURN LANE CONSTRUCTION

LOCATED ON CSAH 17 FROM 0.5 MI NORTH OF 190TH LN TO CSAH 22

STATE AID PROJ. NO. 002-617-035  
GROSS LENGTH 10347.54 FEET 1.960 MILES  
EXCEPTIONS-LENGTH 0.00 FEET 0.000 MILES  
NET LENGTH 10347.54 FEET 1.960 MILES

## GOVERNING SPECIFICATIONS

THE 2020 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 LAYOUTS.

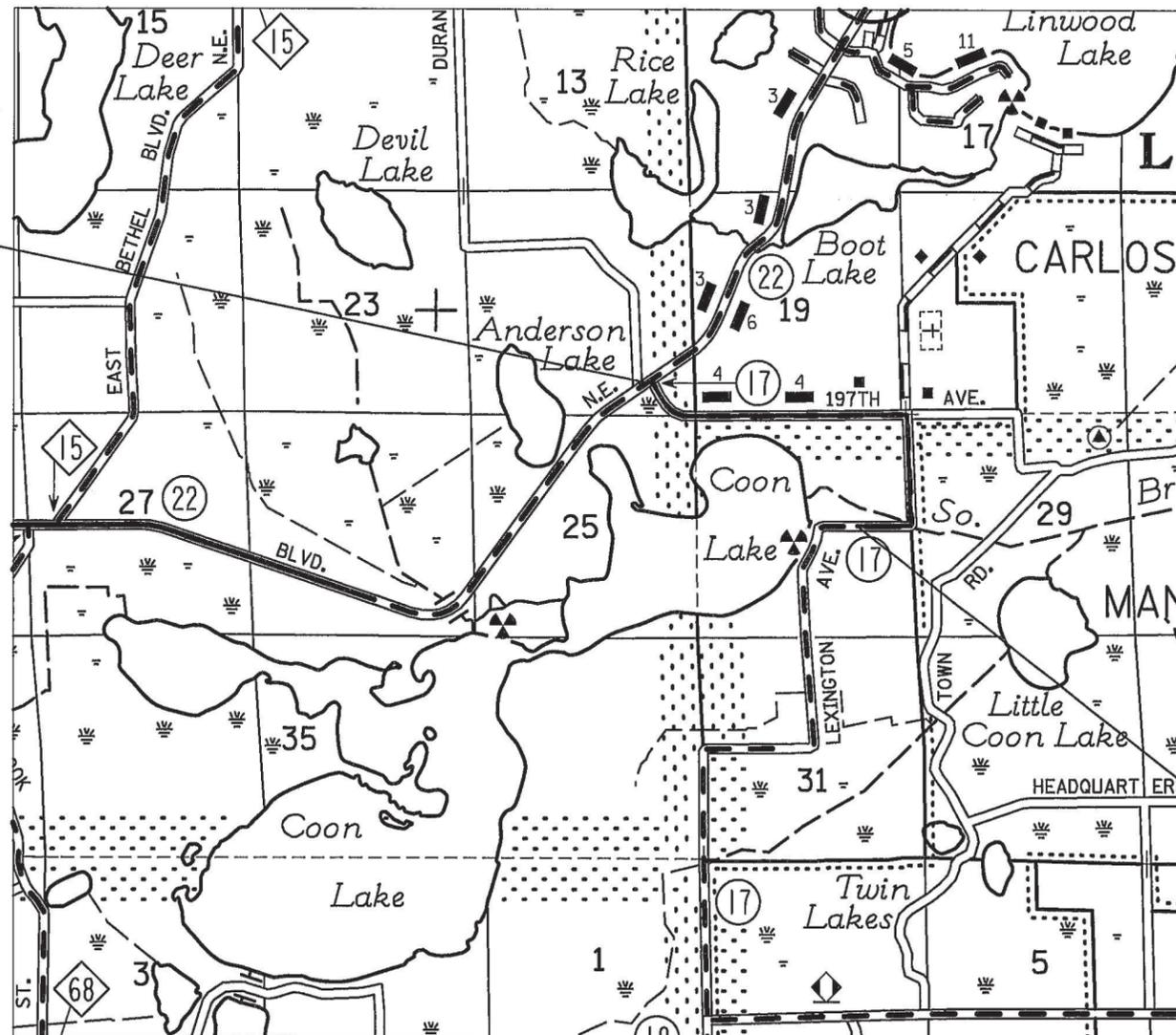
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& PERMANENT STRIPING
- 22 TEMPORARY & PERMANENT SIGNING QUANTITIES

THIS PLAN CONTAINS 22 SHEETS

END S.A.P. 002-617-035  
CSAH 17  
STA. 113+47.54



BEGIN S.A.P. 002-617-035  
CSAH 17  
STA. 10+00.00

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 MINNESOTA.

PRINT NAME: GINA BEERS LIC. NO. 56150

SIGNATURE: *GB*

APPROVED **Brian Bachmeier** Digitally signed by Brian Bachmeier  
DN: C=US, E=Brian.Bachmeier@Bolton-Menk.com, O=Bolton & Menk, CN=Brian Bachmeier  
Reason: I am approving this document  
Date: 2025.03.03 07:44:26-0600  
CITY OF COLUMBUS ENGINEER

APPROVED *[Signature]* 2-28-25  
CITY OF EAST BETHEL ENGINEER

APPROVED *[Signature]* 2-28-25  
CITY OF LINWOOD ENGINEER

APPROVED *[Signature]* 2-27-25  
ANOKA COUNTY ENGINEER

REVIEWED FOR COMPLIANCE WITH STATE AID RULES/POLICY **Dan Erickson** Digitally signed by Dan Erickson  
Date: 2025.03.05 14:42:03 -0600  
DISTRICT STATE AID ENGINEER

APPROVED FOR STATE AID FUNDING **Dan Erickson** Digitally signed by Dan Erickson  
Date: 2025.03.05 14:42:45 -0600  
for STATE AID ENGINEER

DESIGN DESIGNATION (CSAH 17)	
ESAL	212,765
R VALUE	65
ADT (2025)	1801
PROJ. ADT (2045)	1801
PROJ. HCADT (YYYY)	N/A
SOIL FACTOR	N/A
10 TON DESIGN	
FUNCTIONAL CLASSIFICATION	MINOR ARTERIAL
NO. OF TRAFFIC LANES	2'
NO. OF PARKING LANES	0
DESIGN SPEED	50 MPH
STOPPING SIGHT DISTANCE BASED ON:	
HEIGHT OF EYE	3.5'
HEIGHT OF OBJECT	2'
DESIGN SPEED NOT ACHIEVED AT:	
STA.	TO STA. MPH

PROJECT LOCATION  
ANOKA COUNTY  
CITIES OF COLUMBUS, LINWOOD, AND EAST BETHEL  
MNDOT TRANSP. DISTRICT - METRO



PROJECT LOCATION  
COUNTY: ANOKA  
DISTRICT: METRO



TITLE SHEET

SAP 002-617-035

SHEET NO. 1  
TOTAL SHEETS 22

**STATEMENT OF ESTIMATED QUANTITIES**

PARTICIPATING STATE FUNDS

SAP 002-617-035

NOTE	ITEM NO.	ITEM DESCRIPTION	UNIT	TOTAL ESTIMATED QUANTITY
	2021.501	MOBILIZATION	LUMP SUM	1
19	2104.502	REMOVE SIGN PANEL TYPE C	EACH	1
1	2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	672
21	2104.503	REMOVE CURB & GUTTER	LIN FT	60
2	2104.504	REMOVE BITUMINOUS DRIVEWAY PAVEMENT	SQ YD	747
3	2106.602	CONSTRUCT TURN LANES	EACH	1
4	2123.510	MOTOR GRADER	hour	16
5	2130.523	WATER	M GALLON	20
6	2215.504	FULL DEPTH RECLAMATION	SQ YD	29887
7	2215.507	HAUL FULL DEPTH RECLAMATION (LV)	CU YD	20
8	2221.509	SHOULDER BASE AGGREGATE CLASS 5	TON	516
9	2232.604	MILL BITUMINOUS PAVEMENT (SPECIAL)	SQ YD	75
	2357.506	BITUMINOUS MATERIAL FOR TACK COAT	GALLON	1485
10	2360.509	TYPE SP 9.5 WEARING COURSE MIX (3,B)	TON	57
11	2360.509	TYPE SP 12.5 WEARING COURSE MIX (4,C)	TON	7010
21	2531.503	CONCRETE CURB & GUTTER DESIGN B412	LIN FT	60
12	2540.602	MAIL BOX SUPPORT	EACH	35
	2563.601	TRAFFIC CONTROL SUPERVISOR	LUMP SUM	1
13	2563.601	TRAFFIC CONTROL	LUMP SUM	1
	2563.610	FLAGGER	hour	8
14	2563.613	PORTABLE CHANGEABLE MESSAGE SIGN	UNIT DAY	20
19	2564.502	INSTALL SIGN PANEL TYPE C	EACH	1
20	2564.502	INSTALL SIGN TYPE C	EACH	1
	2564.518	SIGN PANELS TYPE C	SQ FT	13
15	2574.507	COMMON TOPSOIL BORROW	CU YD	800
16	2575.508	HYDRAULIC BONDED FIBER MATRIX	POUND	700
17	2581.503	4" REMOVABLE PREFORM PAVEMENT MARKING TAPE	LIN FT	414
18	2582.503	4" SOLID LINE PREF TAPE GR IN (WR)	LIN FT	25416
18	2582.503	4" BROKEN LINE PREF TAPE GR IN (WR)	LIN FT	1772
18	2582.503	4" DBLE SOLID LINE PREF TAPE GR IN (WR)	LIN FT	1481

**CONSTRUCTION NOTES**

1	REFERENCE DETAILS (PAGES 4-5) FOR REMOVAL DETAILS.
2	ITEM FOR BITUMINOUS DRIVEWAYS AND STREET APPROACHES. CONTRACTOR IS RESPONSIBLE FOR CONTACTING PROPERTY OWNER 48 HOURS BEFORE STARTING OPERATION.
3	ITEMS INCLUDED IN THE TURN LANE BY THE EACH ARE - COMMON EXCAVATION, SELECT GRANULAR BORROW, TOPSOIL, AGG BASE CL-5. SHAPING OF SUBGRADE, AGGREGATE BASE AND GRADING OF DITCH IN-SLOPE AND BACK-SLOPE TO PROVIDE POSITIVE DRAINAGE ARE INCIDENTAL TO CONSTRUCT TURN LANES ITEM.
4	ITEM USED TO MOVE EXCESS RECLAIM MATERIAL AT THE RECLAIM AREA LIMITS TO CREATE A SMOOTH TRANSITION BETWEEN THE PROPOSED AND EXISTING PAVEMENT.
5	WATER TO BE USED FOR DUST CONTROL AS DIRECTED BY THE ENGINEER.
6	THIS WORK INCLUDES SPREADING, WATERING, COMPACTING, SHAPING, AND MAINTAINING THE BLENDED RECLAIMED MATERIAL TO THE SPECIFIC PROFILE AND CROSS SECTION.
7	ITEM USED TO HAUL EXCESS RECLAIM FROM TIE-IN POINTS AND REUSED ON SITE.
8	ITEM INCLUDES 7 TONS FOR EACH GRAVEL ENTRANCE AND GRAVEL STREET APPROACH. REMAINING QUANTITY TO BE USED FOR ROADWAY SHOULDER.
9	TO BE USED FOR MILLING STREET APPROACHES AND/OR DETAIL MILLING AREAS AS IDENTIFIED IN THE PLAN.
10	ITEM FOR BITUMINOUS DRIVEWAYS. DRIVEWAYS SHALL BE PAVED AFTER MAINLINE AND BEFORE FINAL STRIPING.
11	STREET APPROACHES SHALL BE PAVED AFTER MAINLINE, AND BEFORE FINAL STRIPING. INCLUDES 46 TONS FOR STREET APPROACHES.
12	MAILBOXES ARE TO BE INSTALLED AT THE EXISTING MAILBOX LOCATION AS DIRECTED BY THE LOCAL POSTAL AUTHORITY. CONTRACTOR IS RESPONSIBLE FOR CONTACTING LOCAL POSTAL AUTHORITY FOR MAILBOX REMOVAL AND ALL MATERIALS ARE INCIDENTAL TO INSTALLATION.
13	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. CONTRACTOR SHALL FURNISH, INSTALL, AND MAINTAIN TEMPORARY SIGNAGE WHENEVER EXISTING SIGNAGE IS REMOVED. TEMPORARY SIGNAGE SHALL BE INCIDENTAL TO TRAFFIC CONTROL.
14	2 MESSAGE BOARDS, ONE ON THE END OF EACH PROJECT, SHALL BE INSTALLED 10 DAYS PRIOR TO ANY CONSTRUCTION. REFERENCE STRIPING PLAN FOR DETAILS.
15	ITEM USED FOR INSLOPE SHAPING FROM GRAVEL SHOULDER TO DITCH BOTTOM AS DIRECTED BY THE ENGINEER.
16	TYPE 3 FERTILIZER AND TYPE 25-121 SEED ARE INCIDENTAL TO THIS ITEM. SEE "BASIS OF PLANNED QUANTITIES" FOR APPLICATION RATES.
17	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.
18	FINAL STRIPING SHALL BE INSTALLED WITHIN 72 HOURS OF COMPLETION OF MAINLINE WEAR COURSE PAVING. CANNOT BE INSTALLED SOONER THAN 48 HOURS.
19	CONTRACTOR TO REMOVE EXISTING RIGHT TURN LANE SIGN PANES AND REPLACE WITH RIGHT LANE MUST TURN RIGHT SIGN.
20	INSTALLATION OF NEW RIGHT LANE MUST TURN RIGHT SIGN FOR ANOKA COUNTY SHOP, ITEM INCLUDES POST ASSEMBLY.
21	FOR WEST-MOST ENTRANCE TO ANOKA COUNTY SHOP.

**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
2575	SEED MIXTURE 25-121	61 LBS./ACRE
2574	FERTILIZER TYPE 3	350 LBS./ACRE
2575	HYDRAULIC REINFORCED FIBER MATRIX	3900 LBS./ACRE

**MNDOT STANDARD PLATES**

THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT

PLATE NO.	DESCRIPTION
8000K	TEMPORARY CHANNELIZERS (3 SHEETS)
9350C	MAILBOX SUPPORT - SWING-AWAY TYPE

**RIGHT TURN LANE TAB (1)**

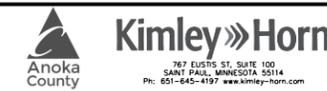
STREET	STATION RANGE	TYPE SP 12.5 WEAR 4,C (TON)	EXCAVATION - COMMON	GRANULAR BORROW (CV) (CU YDS)	TOPSOIL BORROW (CV) (CU YDS)	AGGREGATE BASE CLASS 5 (TON)
ANOKA COUNTY SHOP	STA. 67+06.90 - 70+86.89	129	311	149	35	184
<b>TOTALS:</b>		<b>129</b>	<b>311</b>	<b>149</b>	<b>35</b>	<b>184</b>

**SPECIFIC NOTE**

(1) PAID FOR AS CONSTRUCT TURN LANES

CSAH17\_Reclaim\_est01.dgn  
1:23:47 PM  
3/18/2025

DESIGNED BY: BVC  
DRAWN BY: BVC  
CHECKED BY: GEB  
THESEY 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.  
 CERTIFIED BY: *GEB*  
LICENSED PROFESSIONAL ENGINEER LIC NO: 56150  
 PRINTED NAME: GINA REBS DATE: 03/18/2025

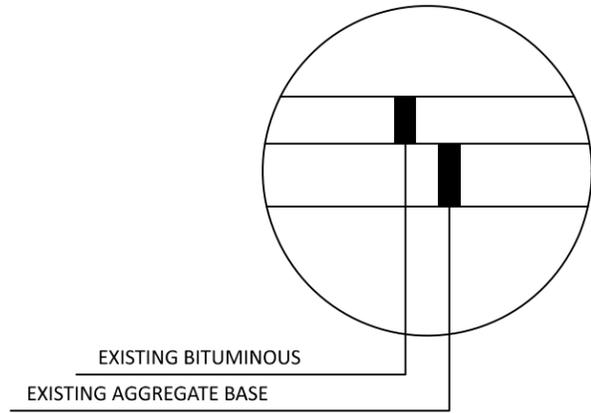


STATEMENT OF ESTIMATED QUANTITIES

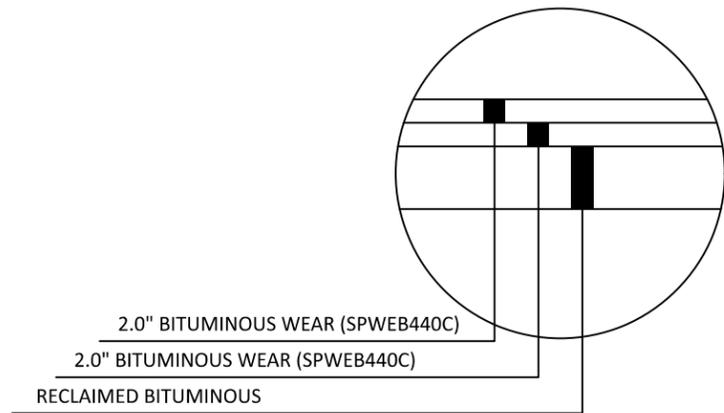
SAP 002-617-035 SHEET NO. 2  
 CSAH 17 (LEXINGTON AVE) TOTAL SHEETS 22

NO.	DATE	DWN	CKD	REVISIONS

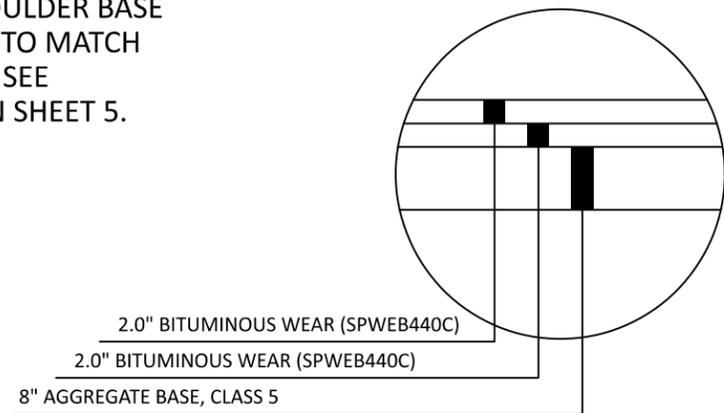
**EXISTING SECTION**



**DESIGN R  
RECLAIM SECTION**



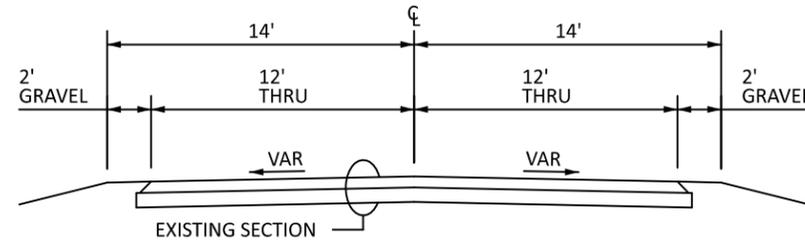
**DESIGN N  
RIGHT TURN LANE**



① **SPECIFIC NOTE:**  
VARIABLE DEPTH SHOULDER BASE  
AGGREGATE CLASS 5 TO MATCH  
OVERLAY PAVEMENT. SEE  
SHOULDER DETAIL ON SHEET 5.

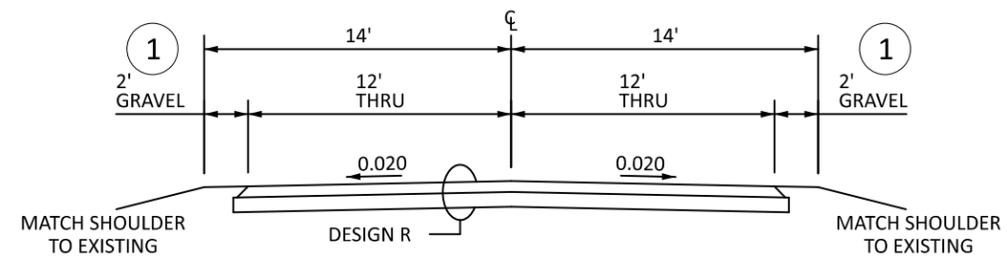
**CSAH 17 (LEXINGTON AVE)**

**EXISTING SECTION  
STA. 10+00.00 TO 113+47.54**



**CSAH 17 (LEXINGTON AVE)**

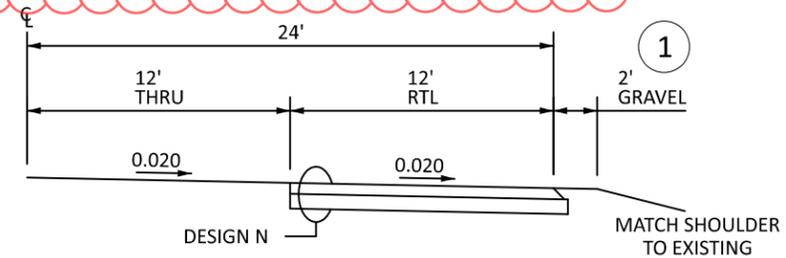
**PROPOSED SECTION  
STA. 10+00.00 TO 113+47.54**



**RIGHT TURN LANE**

**PROPOSED SECTION**

**STA. 67+06.90 TO 70+86.89**



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3/18/2025

NO.	DATE	DWN	CKD	REVISIONS

DESIGNED BY:	BVC	<small>                 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.             </small>
DRAWN BY:	BVC	
CHECKED BY:	GEB	
PRINTED NAME:	GINA REFSO	LIC. NO. 56150
DATE:	03/18/2025	

**Anoka County**

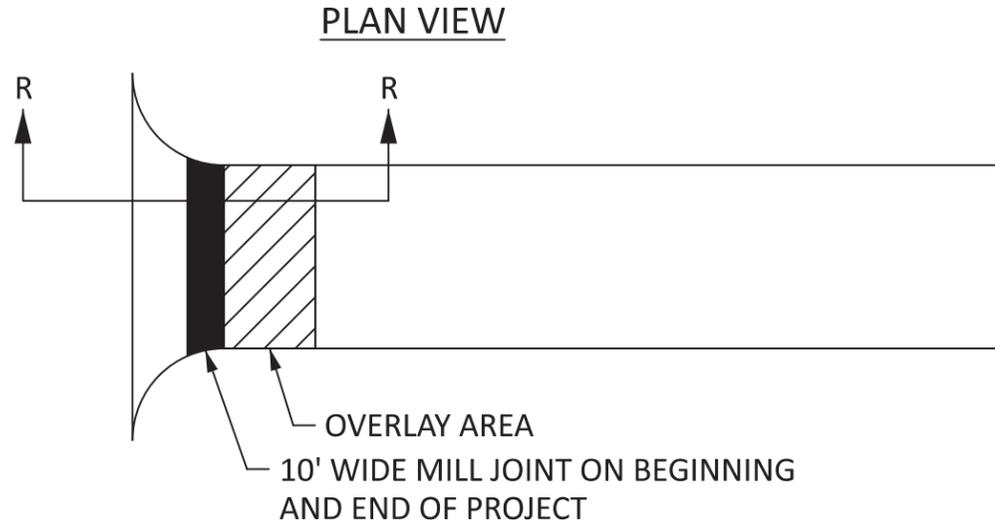
**Kimley»Horn**

787 EUSTIS ST. SUITE 100  
SANT PAUL, MINNESOTA 55114  
Ph: 651-645-4197 www.kimley-horn.com

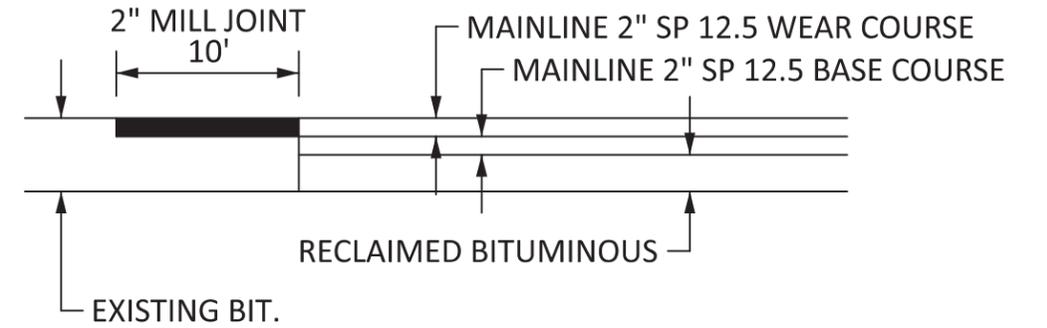
TYPICAL SECTIONS

SAP 002-617-035	SHEET NO. 3
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22

## MAINLINE JOINT DETAIL (RECLAIM)

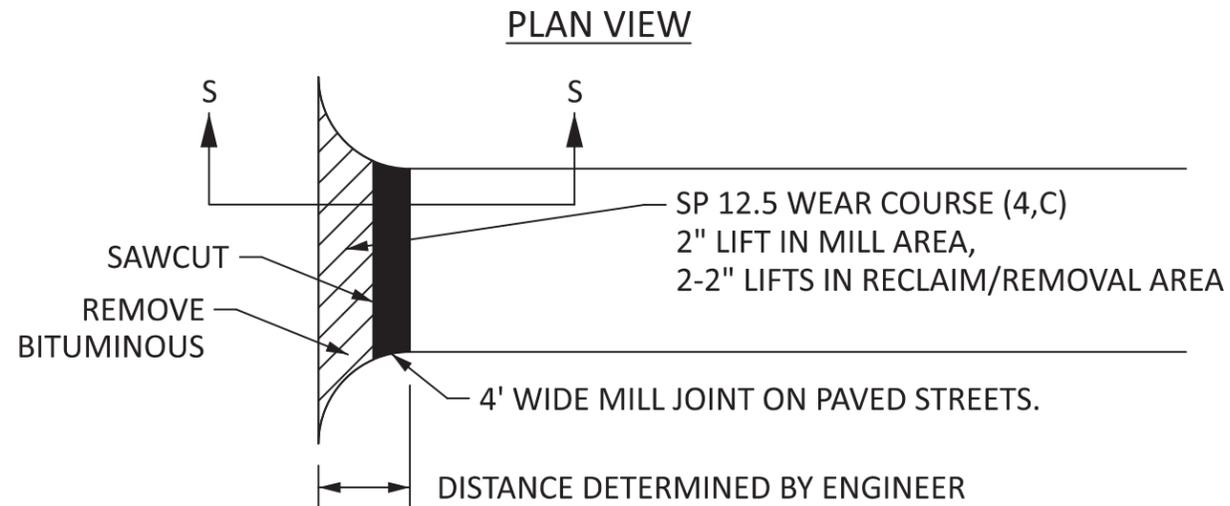


### SECTION R - R

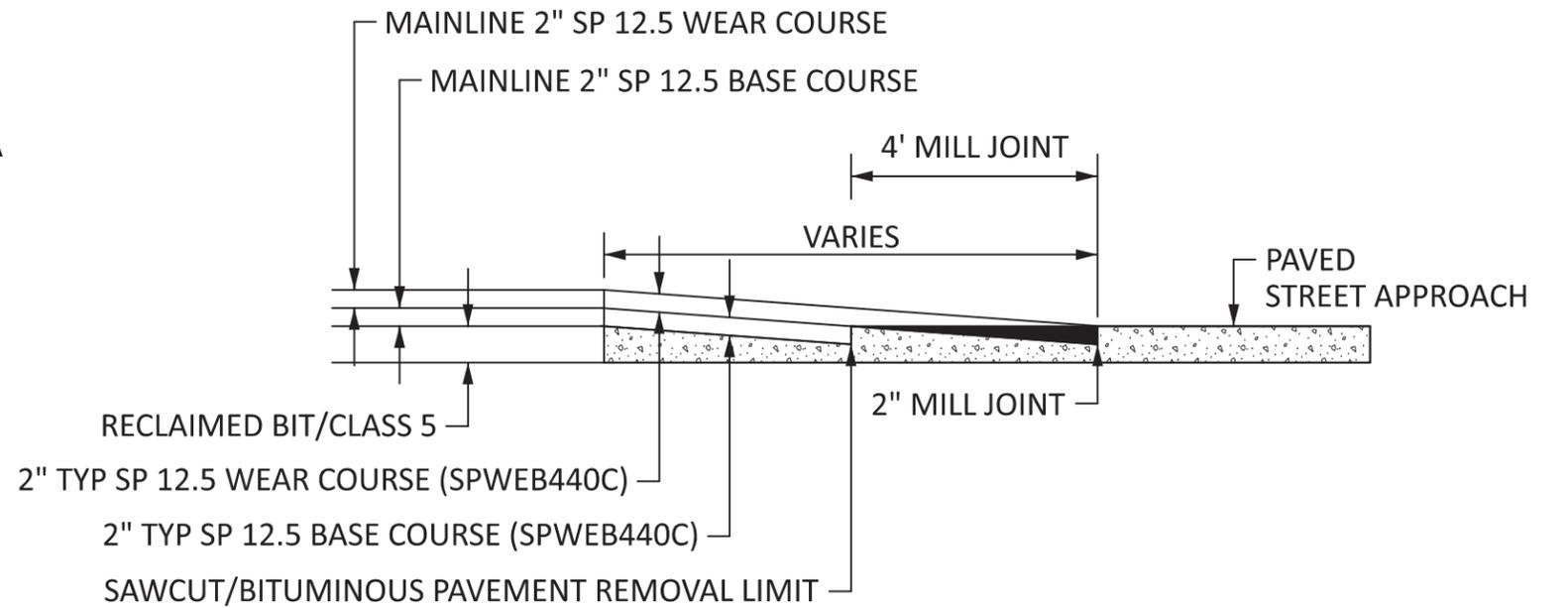


## STREET APPROACH DETAIL (RECLAIM)

BITUMINOUS STREET



### SECTION S - S



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12/5/2024

NO.	DATE	DWN	CKD	REVISIONS

DESIGNED BY: <u>BVC</u>	<small>THESEBY 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.</small>
DRAWN BY: <u>BVC</u>	CERTIFIED BY:
CHECKED BY: <u>GEB</u>	<small>Licensed Professional Engineer LIC NO: 56150 PRINTED NAME: GINA REFS DATE: 12/5/2024</small>

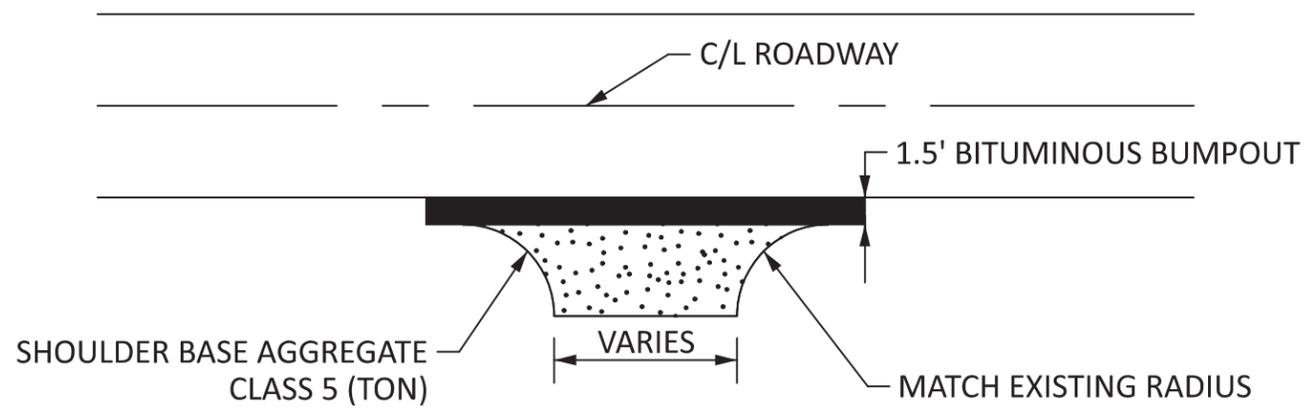
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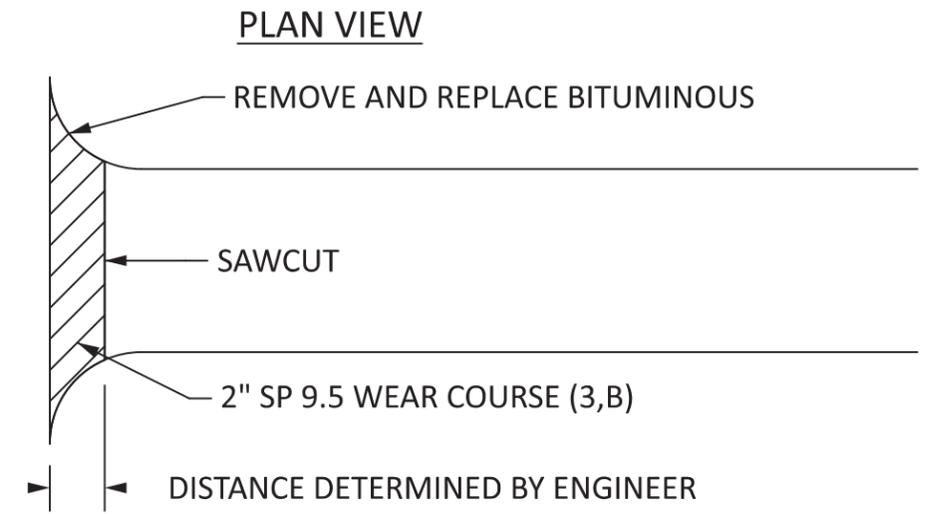
DETAILS

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CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22

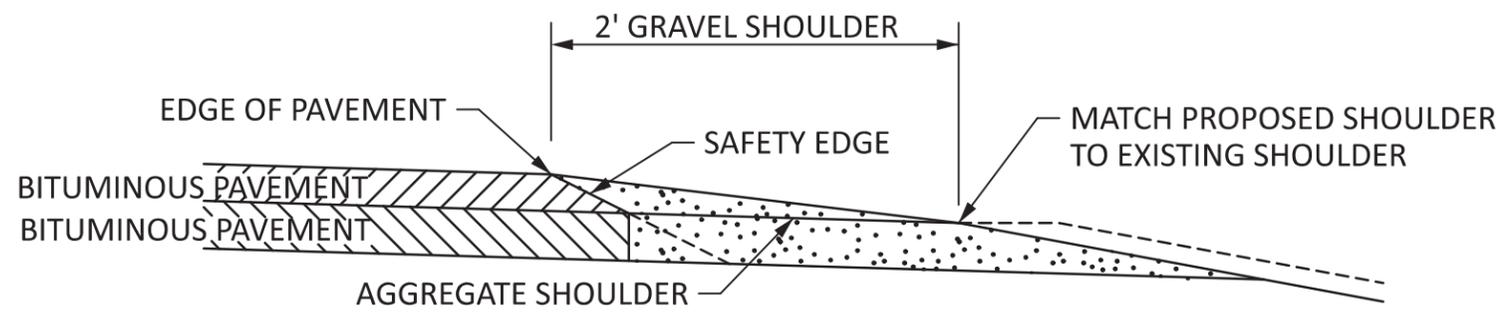
**DRIVEWAY DETAIL**  
GRAVEL / FIELD ENTRANCE



**RECLAIM AREA - DRIVEWAY DETAIL**  
BITUMINOUS

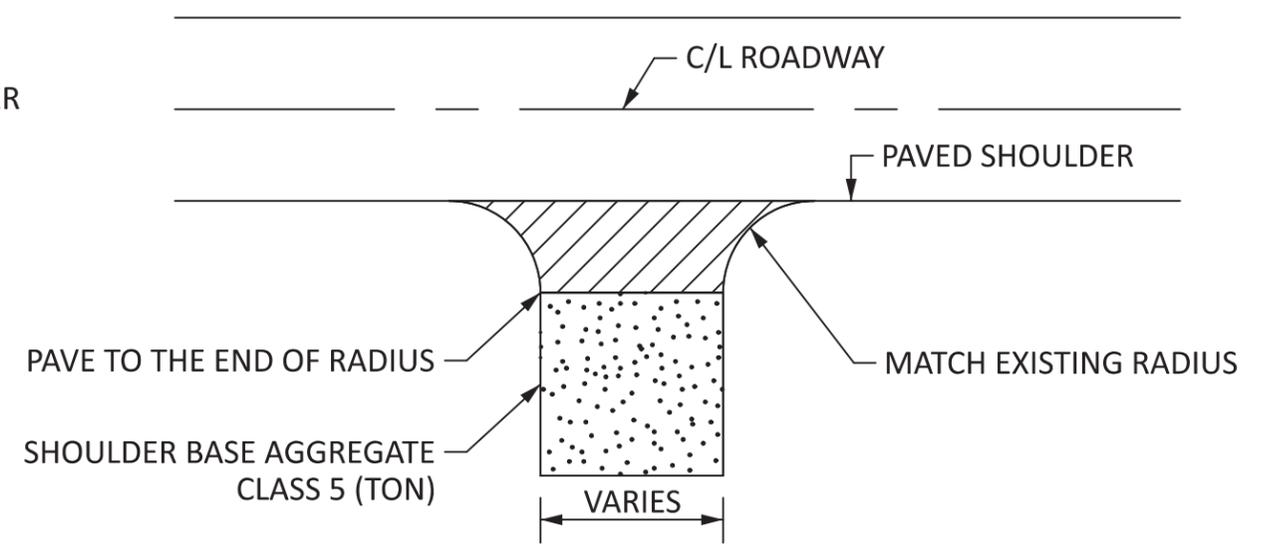


**SHOULDER DETAIL**  
BITUMINOUS SAFETY EDGE  
GRAVEL SHOULDER



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.

**STREET APPROACH DETAIL**  
UNPAVED STREET



UNPAVED STREET APPROACHES, PAVED SEPARATE FROM MAINLINE

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12/5/2024

NO.	DATE	DWN	CKD	REVISIONS

DESIGNED BY:	BVC	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	
DRAWN BY:	BVC	CERTIFIED BY:	<i>GEB</i>
CHECKED BY:	GEB	PRINTED NAME:	GINA REFSO
		LICENSED PROFESSIONAL ENGINEER	LIC NO.: 56150
			DATE: 12/5/2024

**Anoka County**

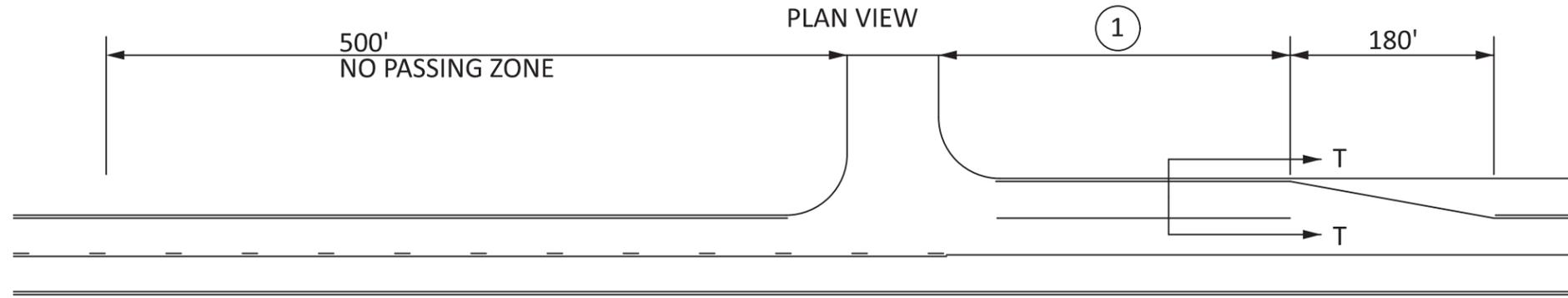
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DETAILS

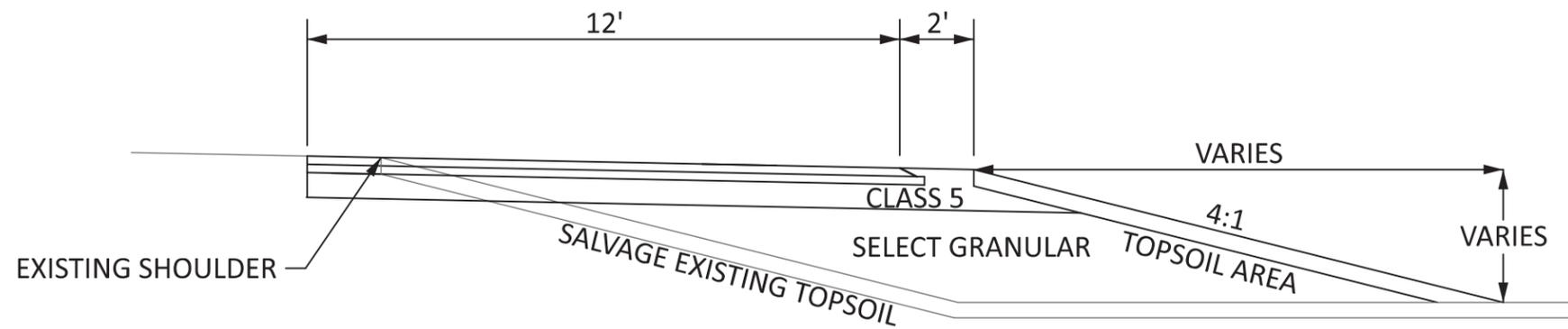
SAP 002-617-035	SHEET NO.	5
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS	22

**RIGHT TURN LANE  
GENERAL LAYOUT  
PLAN VIEW**



① **SPECIFIC NOTE:**  
SEE CONSTRUCTION PLAN FOR  
TURN LANE LENGTH.

**RIGHT TURN LANE  
SECTION T - T**



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NO.	DATE	DWN	CKD	REVISIONS

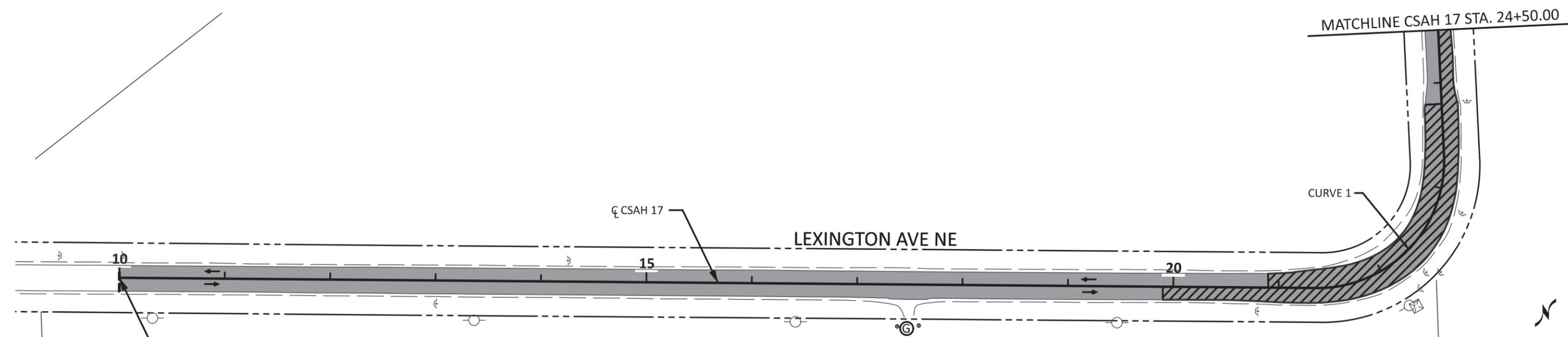
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DRAWN BY:	BVC	CERTIFIED BY:	<i>gfb</i>
CHECKED BY:	GEB	PRINTED NAME:	GINA REFSO
		LIC. NO.:	56150
		DATE:	12/5/2024


**Kimley»Horn**  
787 EUSTIS ST. SUITE 100  
SANT PAVL, MINNESOTA 55114  
Ph: 651-645-4197 www.kimley-horn.com

DETAILS

SAP 002-617-035	SHEET NO.	6
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS	22

MATCHLINE CSAH 17 STA. 24+50.00



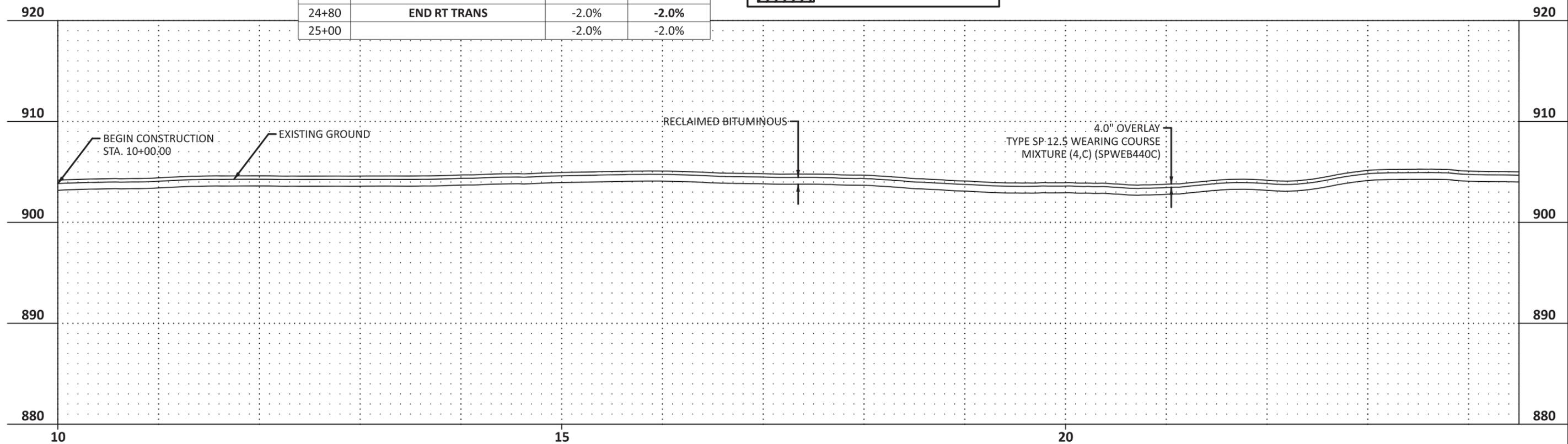
BEGIN CONSTRUCTION  
SAP 002-617-035  
CSAH 17  
STA 10+00.00

SUPERELEVATION CORRECTION TAB CURVE 1			
STATION	POINT	LEFT GRADE	RIGHT GRADE
19+90	BEG RT TRANS	-2.0%	-2.0%
20+40		-2.0%	0.0%
20+90	BEG LT TRANS	-2.0%	2.0%
21+40	PC	-4.0%	4.0%
21+90	BEG FULL SUPER	-6.0%	6.0%
22+40		-6.0%	6.0%
22+90	END FULL SUPER	-6.0%	6.0%
23+30	PT	-4.0%	4.0%
23+80	END LT TRANS	-2.0%	2.0%
24+30		-2.0%	0.0%
24+80	END RT TRANS	-2.0%	-2.0%
25+00		-2.0%	-2.0%

**LEGEND**

- INPLACE ROADWAY
- - - EXISTING RIGHT OF WAY
- - - SAWCUT
- Ⓟ BITUMINOUS    Ⓞ GRAVEL
- TRAFFIC FLOW    □ MB MAILBOX
- MAINLINE (RECLAIM)
- ▨ REMOVE AND REPLACE BITUMINOUS PAVEMENT
- ▧ CONSTRUCT RIGHT TURN LANE
- ▩ SUPER ELEVATION AREA

NOTE: PAVE LOW SIDE OF SUPER 14' WIDE FROM CENTERLINE BETWEEN STATION 21+00 AND 24+00



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12/5/2024

NO.	DATE	DWN	CKD	REVISIONS

DESIGNED BY: BVC  
DRAWN BY: BVC  
CHECKED BY: GEB

THESEBY 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.

CERTIFIED BY: *GEB*  
PRINTED NAME: GINA REBS  
LIC NO.: 56150  
DATE: 12/5/2024

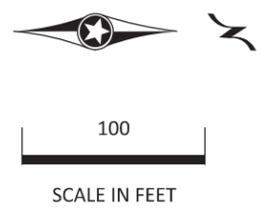
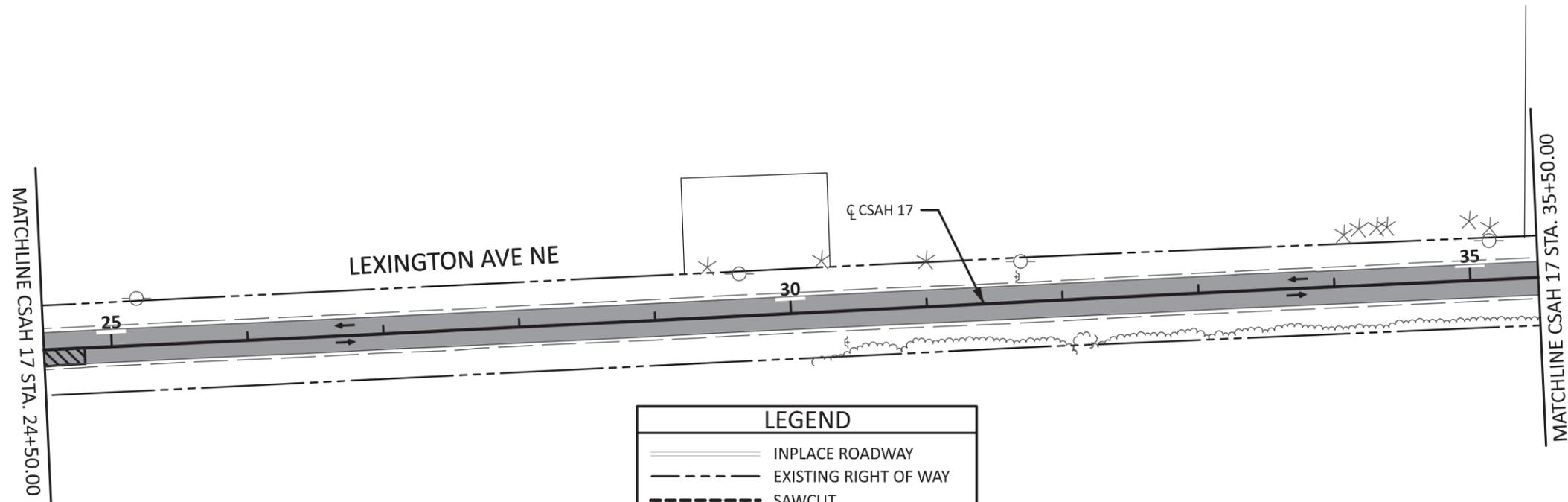
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SANT PAUL, MINNESOTA 55114  
Ph: 651-645-4197 www.kimley-horn.com

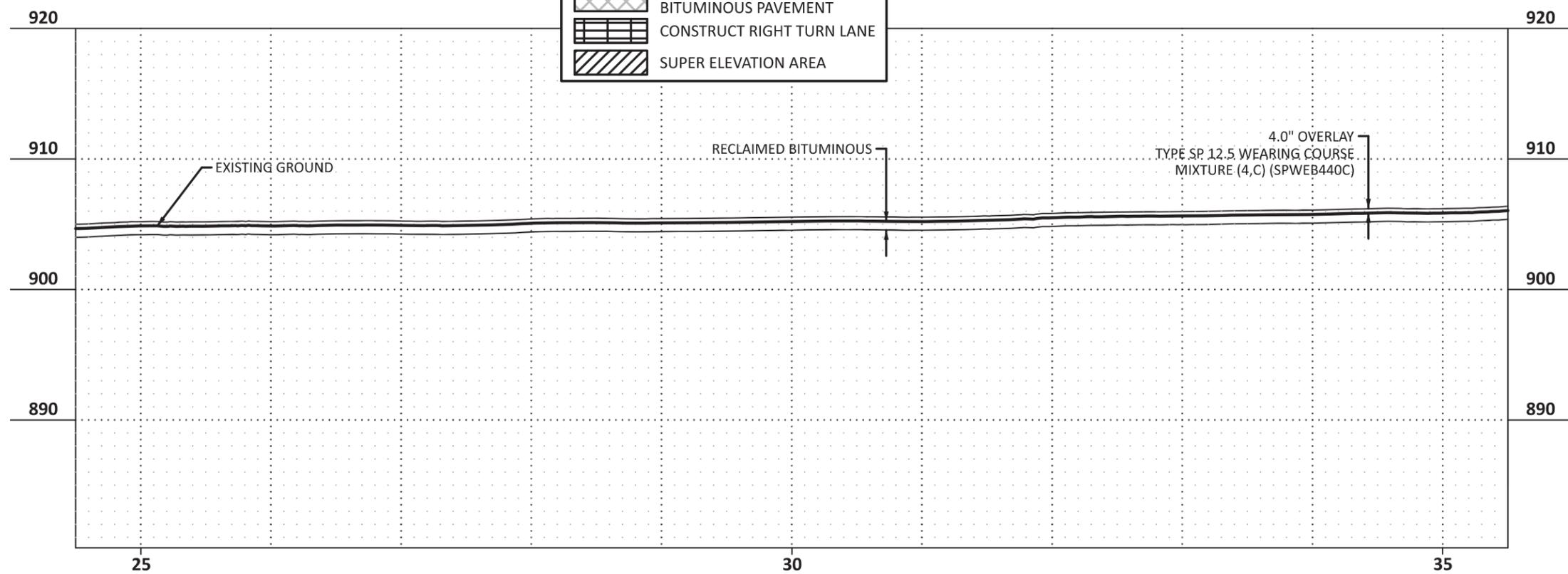
Anoka County

CONSTRUCTION PLANS

SAP 002-617-035	SHEET NO. 7
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22



LEGEND	
	INPLACE ROADWAY
	EXISTING RIGHT OF WAY
	SAWCUT
	BITUMINOUS
	GRAVEL
	TRAFFIC FLOW
	MAILBOX
	MAINLINE (RECLAIM)
	REMOVE AND REPLACE BITUMINOUS PAVEMENT
	CONSTRUCT RIGHT TURN LANE
	SUPER ELEVATION AREA



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4:35:58 PM  
12/5/2024

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 DRAWN BY: BVC  
 CHECKED BY: GEB

THEREBY 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.

CERTIFIED BY: [Signature] LIC NO.: 56150  
 PRINTED NAME: GINA REFSO DATE: 12/5/2024

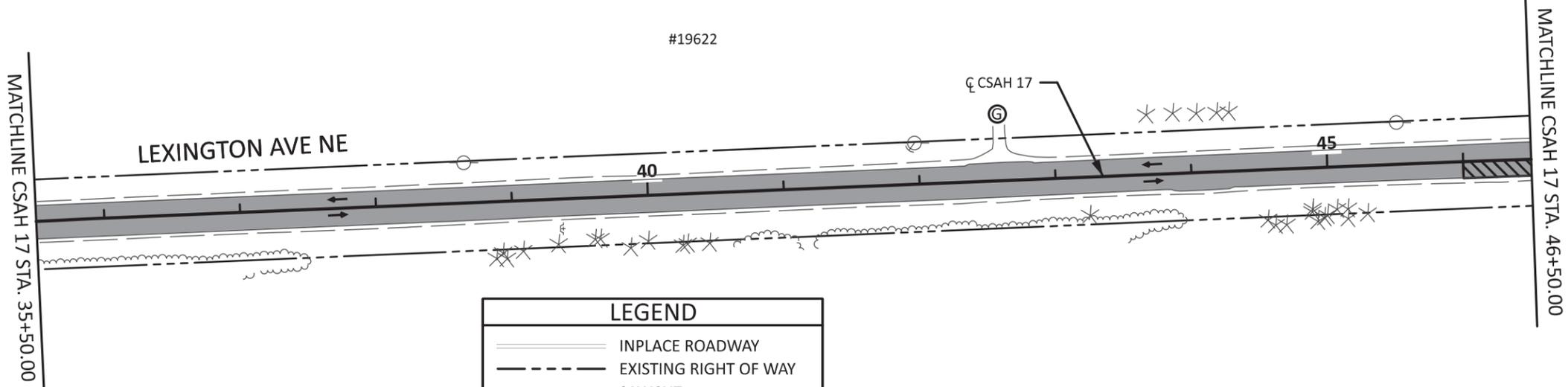


CONSTRUCTION PLAN

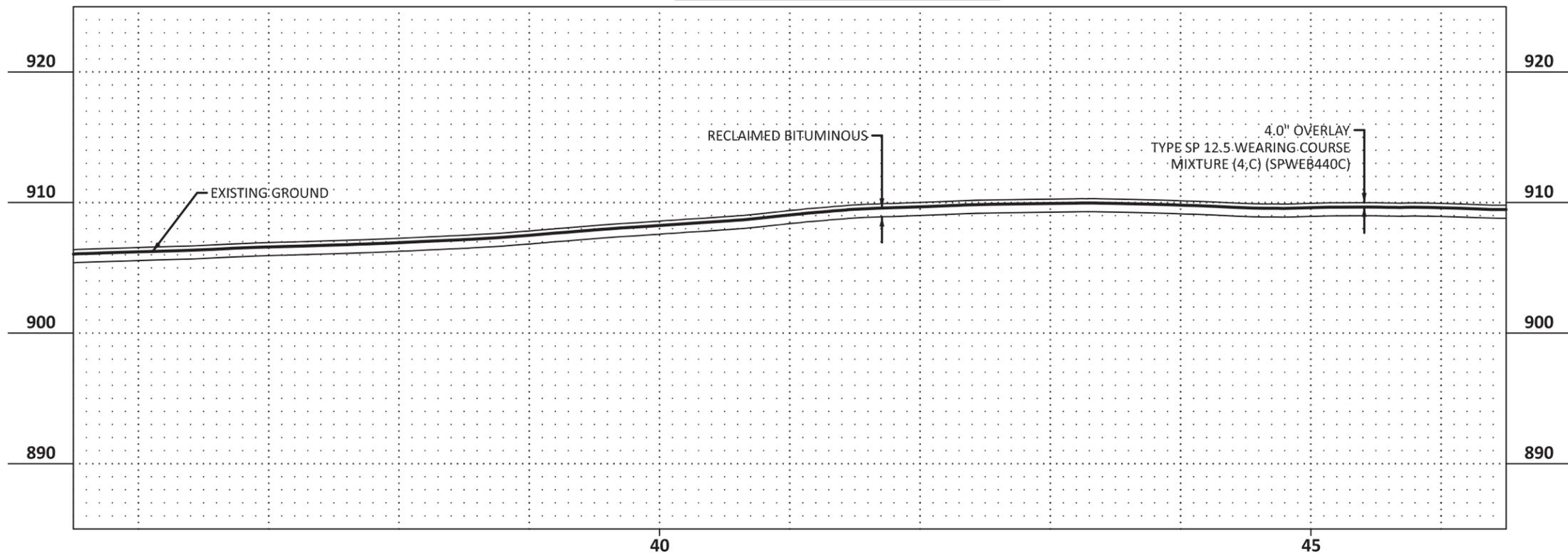
SAP 002-617-035	SHEET NO. 8
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22



100  
SCALE IN FEET



LEGEND	
	INPLACE ROADWAY
	EXISTING RIGHT OF WAY
	SAWCUT
	BITUMINOUS
	GRAVEL
	TRAFFIC FLOW
	MAILBOX
	MAINLINE (RECLAIM)
	REMOVE AND REPLACE BITUMINOUS PAVEMENT
	CONSTRUCT RIGHT TURN LANE
	SUPER ELEVATION AREA



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DRAWN BY:	BVC	
CHECKED BY:	GEB	
CERTIFIED BY:		<small>         LICENSED PROFESSIONAL ENGINEER          PRINTED NAME: GINA REBERS          LIC NO.: 56150          DATE: 12/5/2024       </small>

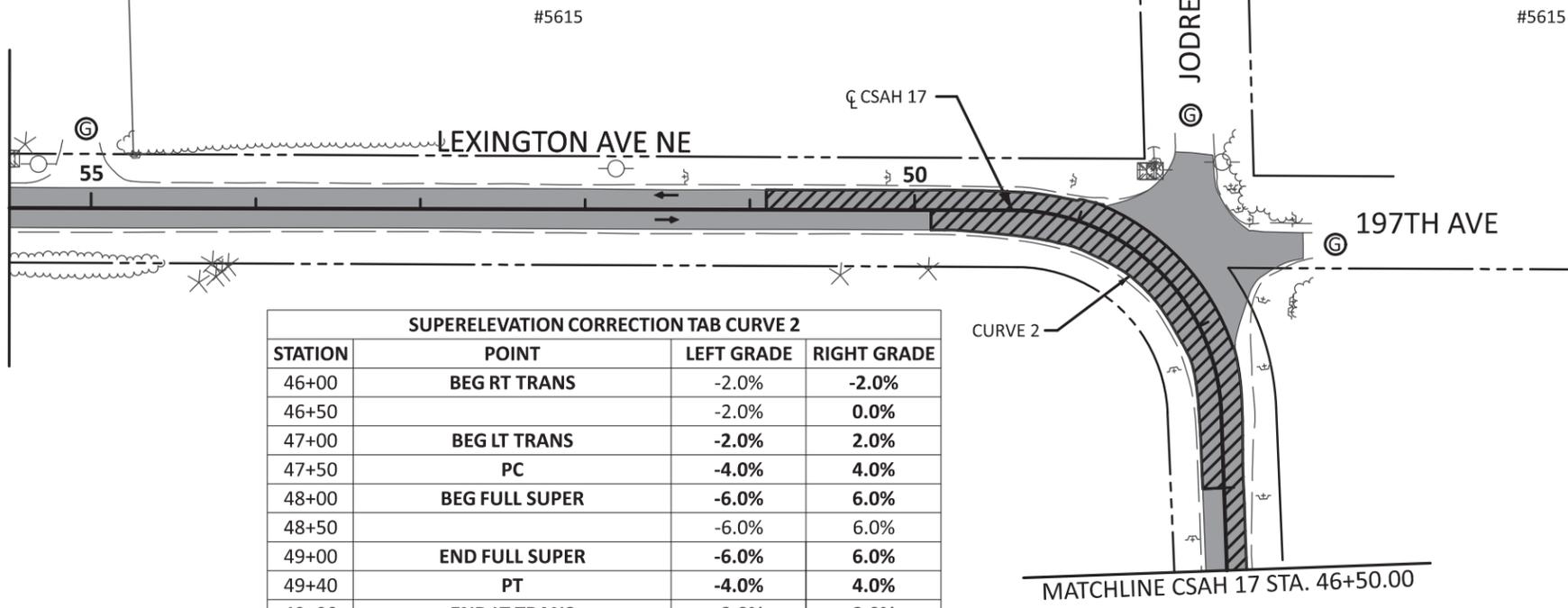
**Kimley»Horn**  
 787 EUSTIS ST. SUITE 100  
 SAINT PAUL, MINNESOTA 55114  
 Ph: 651-645-4197 www.kimley-horn.com

**Anoka County**

CONSTRUCTION PLAN

SAP 002-617-035	SHEET NO. 9
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22

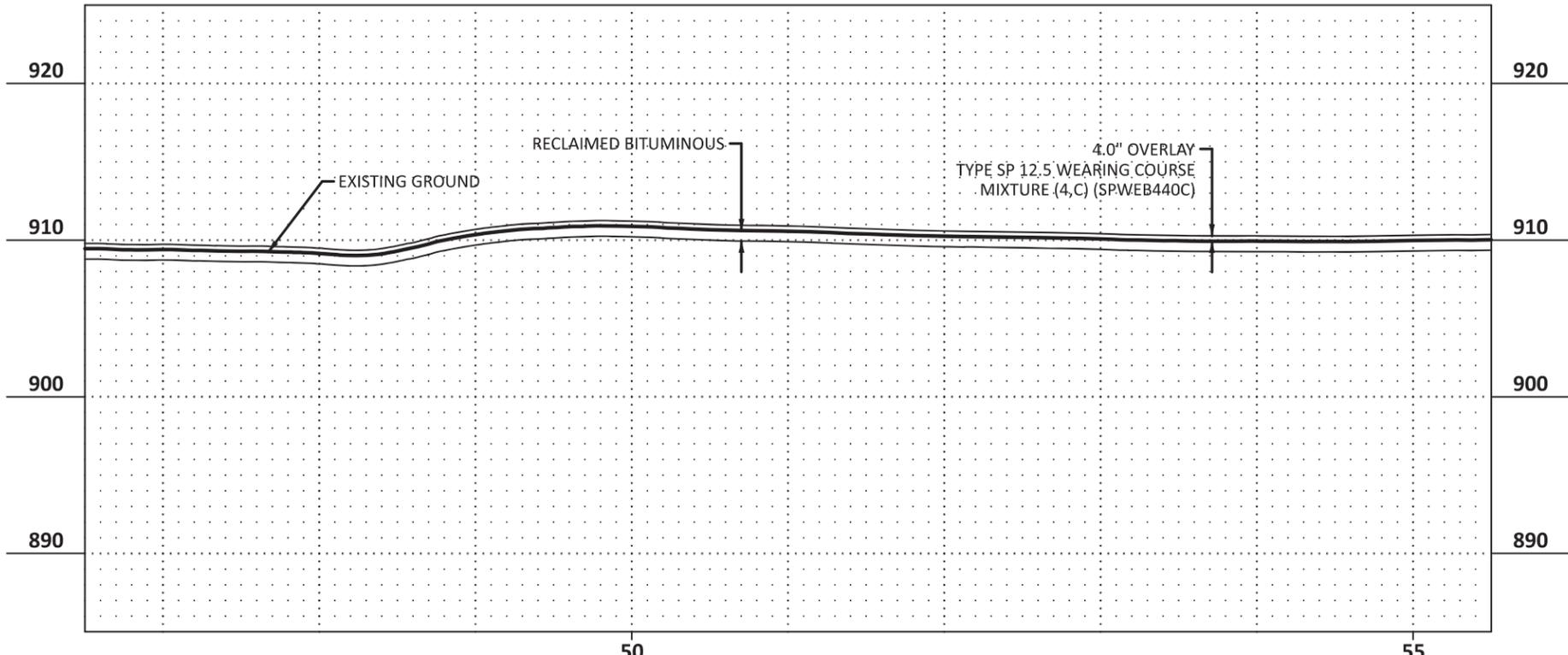
MATCHLINE CSAH 17 STA. 55+50.00



LEGEND	
	INPLACE ROADWAY
	EXISTING RIGHT OF WAY
	SAWCUT
	BITUMINOUS
	GRAVEL
	TRAFFIC FLOW
	MAILBOX
	MAINLINE (RECLAIM)
	REMOVE AND REPLACE BITUMINOUS PAVEMENT
	CONSTRUCT RIGHT TURN LANE
	SUPER ELEVATION AREA

SUPERELEVATION CORRECTION TAB CURVE 2			
STATION	POINT	LEFT GRADE	RIGHT GRADE
46+00	BEG RT TRANS	-2.0%	-2.0%
46+50		-2.0%	0.0%
47+00	BEG LT TRANS	-2.0%	2.0%
47+50	PC	-4.0%	4.0%
48+00	BEG FULL SUPER	-6.0%	6.0%
48+50		-6.0%	6.0%
49+00	END FULL SUPER	-6.0%	6.0%
49+40	PT	-4.0%	4.0%
49+90	END LT TRANS	-2.0%	2.0%
50+40		-2.0%	0.0%
50+90	END RT TRANS	-2.0%	-2.0%
51+00		-2.0%	-2.0%

NOTE: PAVE LOW SIDE OF SUPER 14' WIDE FROM CENTERLINE BETWEEN STATION 47+00 AND 50+00



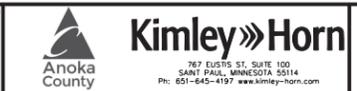
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CERTIFIED BY: [Signature] LIC NO.: 56150  
 PRINTED NAME: GINA REFS DATE: 12/5/2024

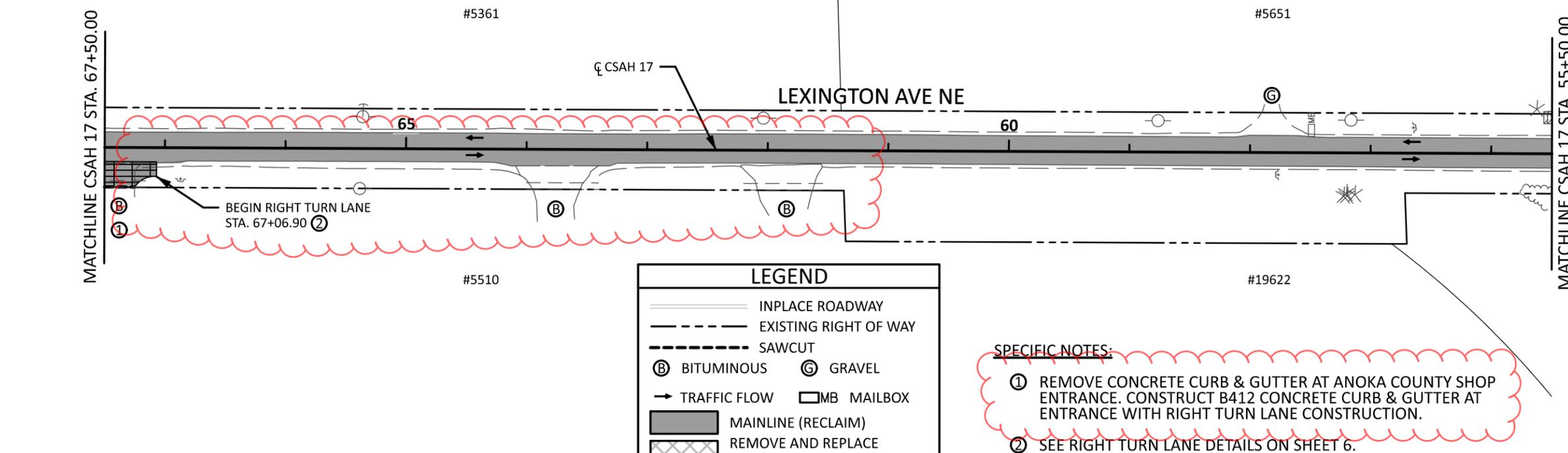


CONSTRUCTION PLAN

SAP 002-617-035	SHEET NO. 10
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22

MATCHLINE CSAH 17 STA. 67+50.00

MATCHLINE CSAH 17 STA. 55+50.00

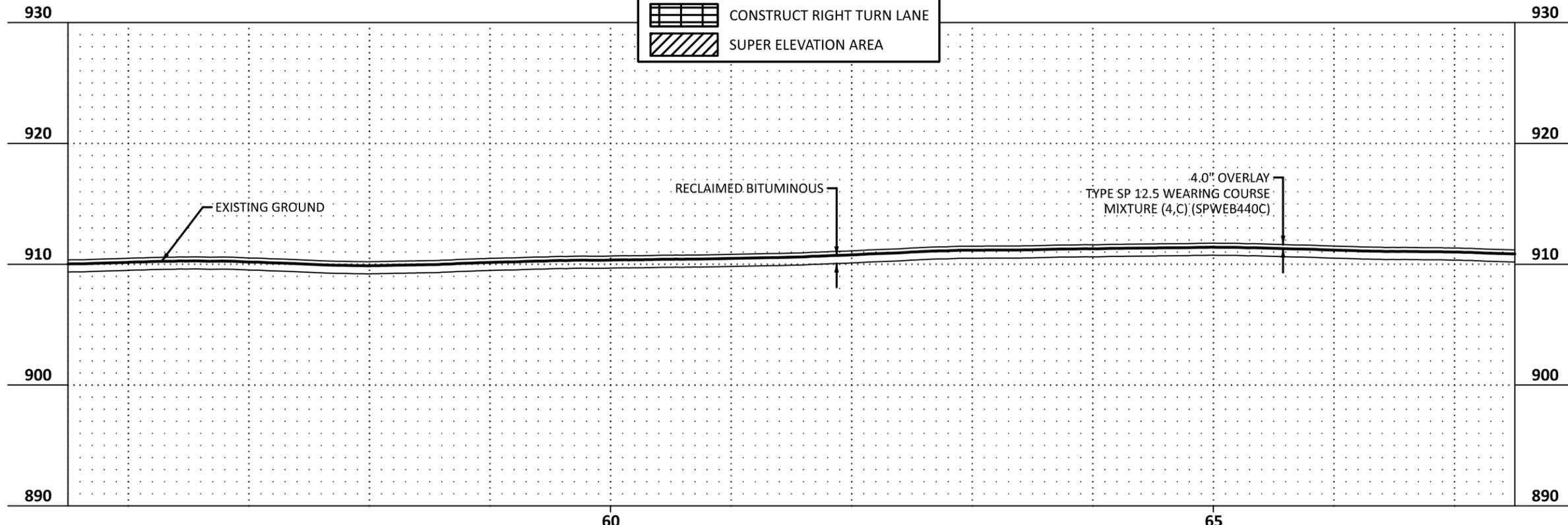


LEGEND	
	INPLACE ROADWAY
	EXISTING RIGHT OF WAY
	SAWCUT
	BITUMINOUS
	GRAVEL
	TRAFFIC FLOW
	MB MAILBOX
	MAINLINE (RECLAIM)
	REMOVE AND REPLACE BITUMINOUS PAVEMENT
	CONSTRUCT RIGHT TURN LANE
	SUPER ELEVATION AREA

**SPECIFIC NOTES:**

① REMOVE CONCRETE CURB & GUTTER AT ANOKA COUNTY SHOP ENTRANCE. CONSTRUCT B412 CONCRETE CURB & GUTTER AT ENTRANCE WITH RIGHT TURN LANE CONSTRUCTION.

② SEE RIGHT TURN LANE DETAILS ON SHEET 6.



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DRAWN BY: <b>BVC</b>	CERTIFIED BY:
CHECKED BY: <b>GEB</b>	PRINTED NAME: <b>GINA REFS</b> LIC NO.: <b>56150</b> DATE: <b>03/18/2025</b>

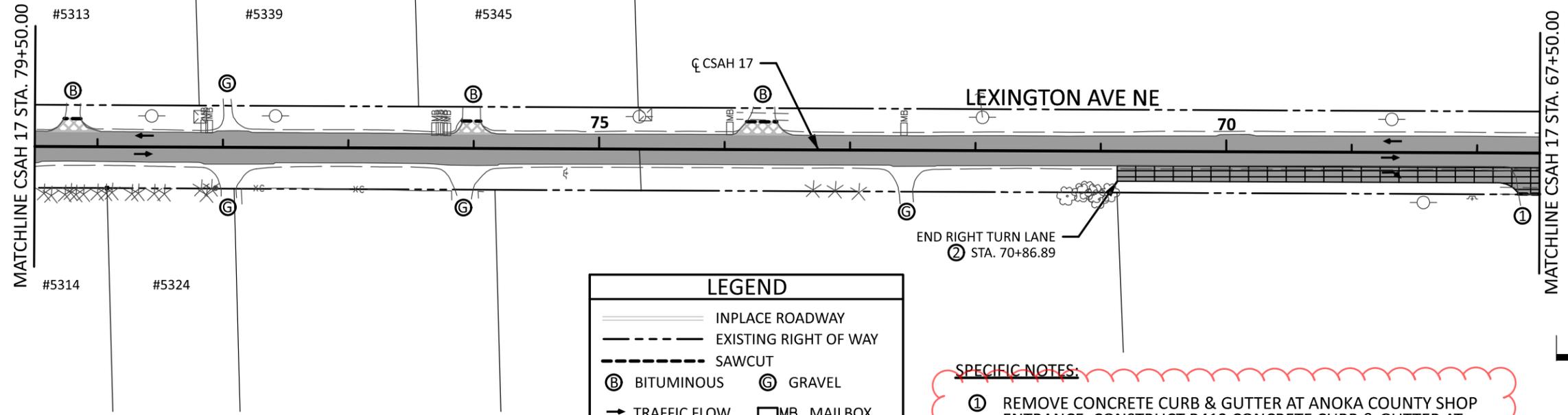
**Anoka County**

**Kimley»Horn**

787 EUSTIS ST. SUITE 100  
SANT PAUL, MINNESOTA 55114  
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CONSTRUCTION PLAN

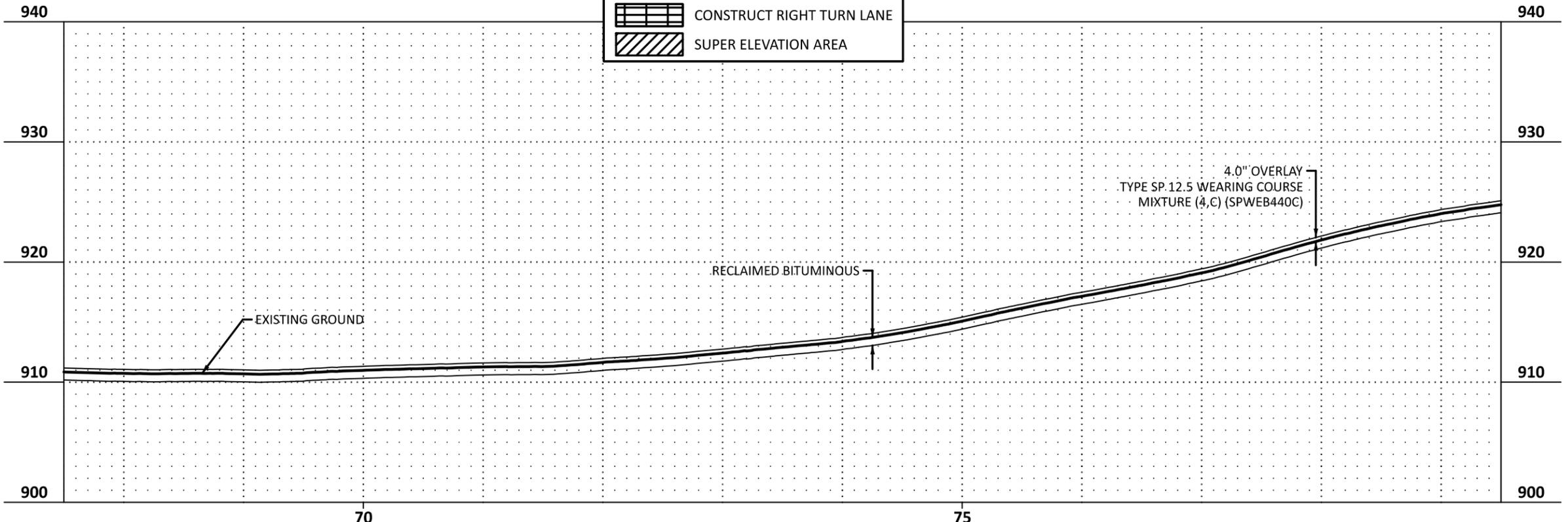
SAP 002-617-035	SHEET NO. 11
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22



LEGEND	
	INPLACE ROADWAY
	EXISTING RIGHT OF WAY
	SAWCUT
	BITUMINOUS
	GRAVEL
	TRAFFIC FLOW
	MAILBOX
	MAINLINE (RECLAIM)
	REMOVE AND REPLACE BITUMINOUS PAVEMENT
	CONSTRUCT RIGHT TURN LANE
	SUPER ELEVATION AREA

**SPECIFIC NOTES:**

- REMOVE CONCRETE CURB & GUTTER AT ANOKA COUNTY SHOP ENTRANCE. CONSTRUCT B412 CONCRETE CURB & GUTTER AT ENTRANCE WITH RIGHT TURN LANE CONSTRUCTION.
- SEE RIGHT TURN LANE DETAILS ON SHEET 6.



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3/18/2025

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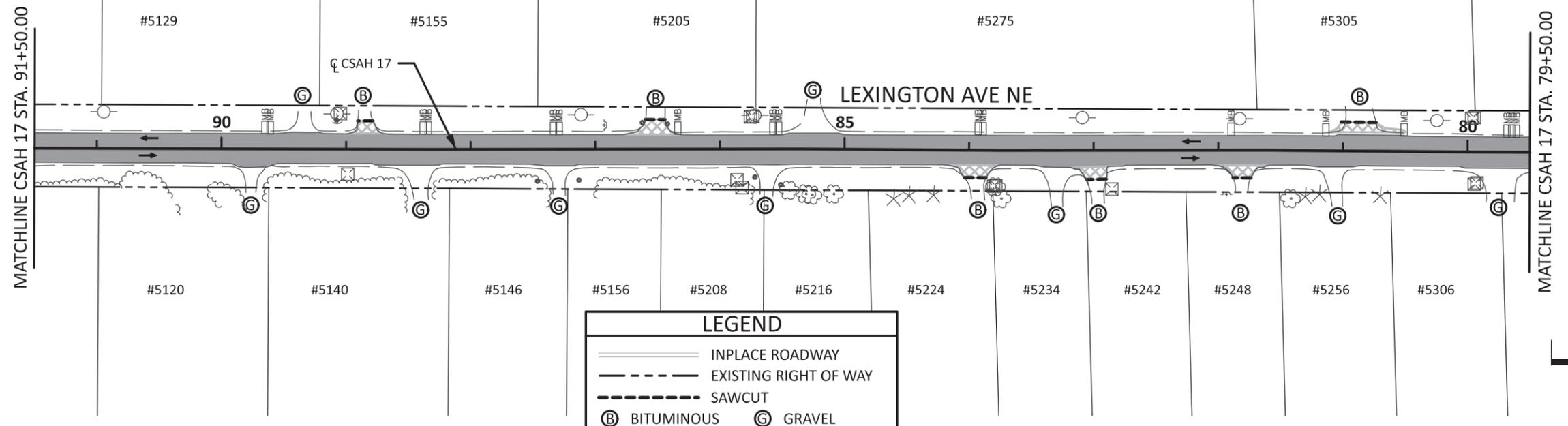
THEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

CERTIFIED BY: *[Signature]* LIC NO.: 56150  
 PRINTED NAME: GINA REFSO DATE: 03/18/2025



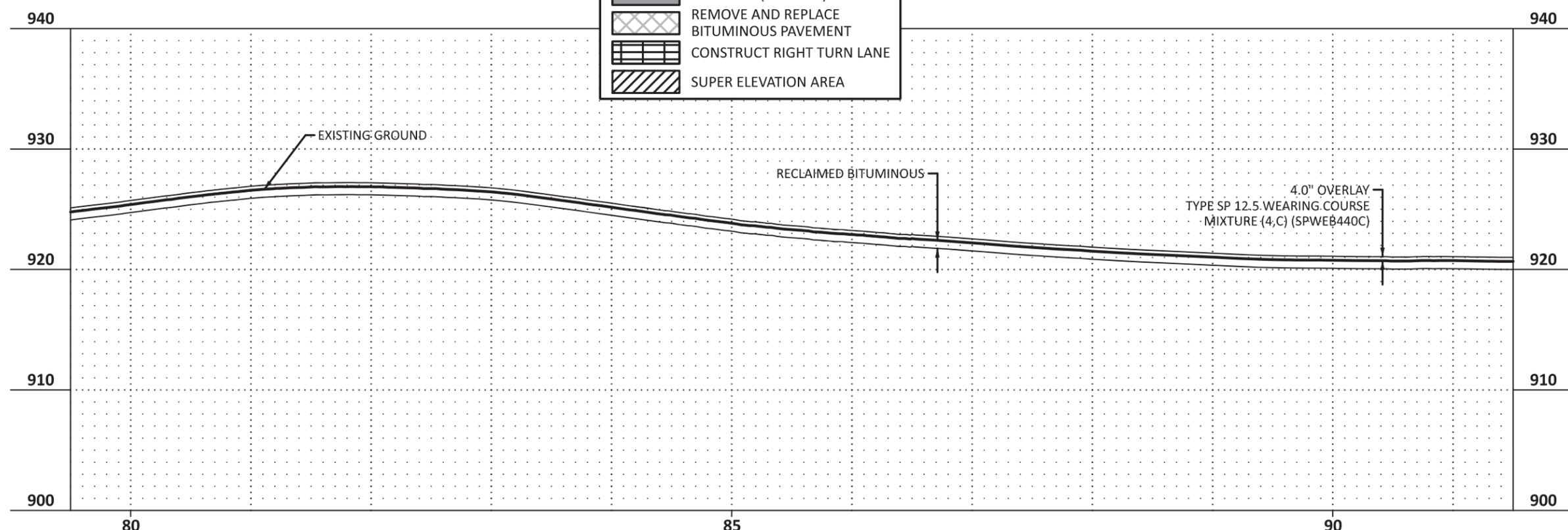
CONSTRUCTION PLAN

SAP 002-617-035	SHEET NO. 12
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22



**LEGEND**

- INPLACE ROADWAY
- EXISTING RIGHT OF WAY
- SAWCUT
- BITUMINOUS
- GRAVEL
- TRAFFIC FLOW
- MB MAILBOX
- MAINLINE (RECLAIM)
- REMOVE AND REPLACE BITUMINOUS PAVEMENT
- CONSTRUCT RIGHT TURN LANE
- SUPER ELEVATION AREA



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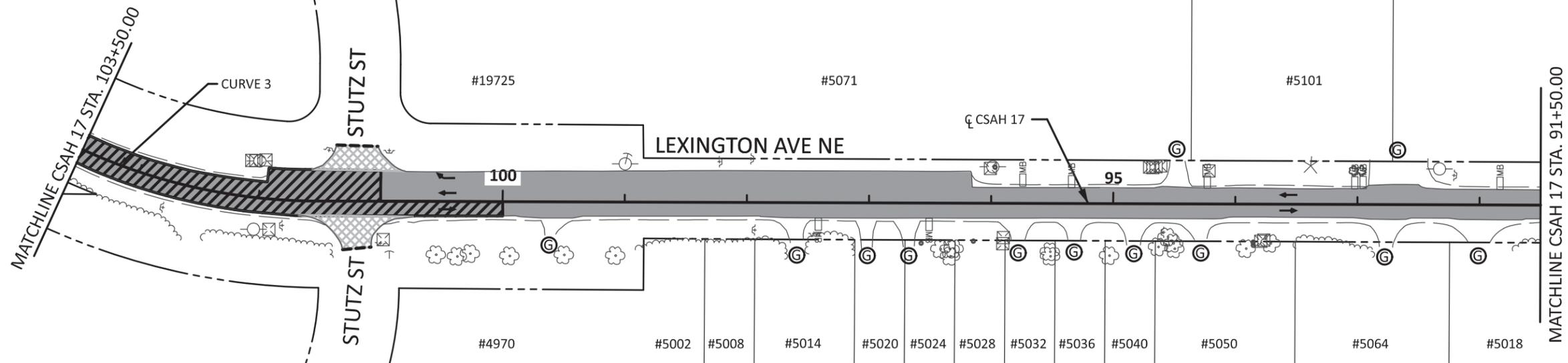
THEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

CERTIFIED BY: [Signature] LIC. NO.: 56150  
 PRINTED NAME: GINA REISS DATE: 12/5/2024



**CONSTRUCTION PLAN**

SAP 002-617-035	SHEET NO. 13
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22



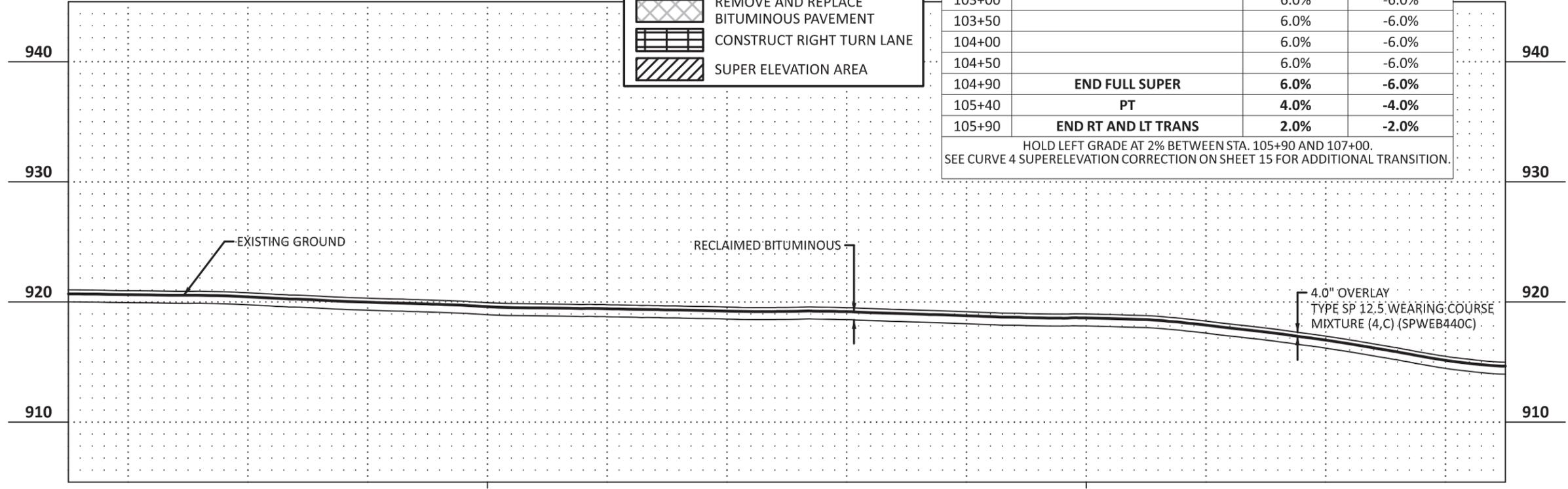
**LEGEND**

- INPLACE ROADWAY
- - - EXISTING RIGHT OF WAY
- - - SAWCUT
- ⓑ BITUMINOUS    ⓐ GRAVEL
- TRAFFIC FLOW    □ MB MAILBOX
- █ MAINLINE (RECLAIM)
- ▨ REMOVE AND REPLACE BITUMINOUS PAVEMENT
- ▧ CONSTRUCT RIGHT TURN LANE
- ▩ SUPER ELEVATION AREA

**SUPERELEVATION CORRECTION TAB CURVE 3**

STATION	POINT	LEFT GRADE	RIGHT GRADE
100+00	BEG LT TRANS	-2.0%	-2.0%
100+50		0.0%	-2.0%
101+00	BEG RT TRANS	2.0%	-2.0%
101+50	PC	4.0%	-4.0%
102+00	BEG FULL SUPER	6.0%	-6.0%
102+50		6.0%	-6.0%
103+00		6.0%	-6.0%
103+50		6.0%	-6.0%
104+00		6.0%	-6.0%
104+50		6.0%	-6.0%
104+90	END FULL SUPER	6.0%	-6.0%
105+40	PT	4.0%	-4.0%
105+90	END RT AND LT TRANS	2.0%	-2.0%

HOLD LEFT GRADE AT 2% BETWEEN STA. 105+90 AND 107+00.  
SEE CURVE 4 SUPERELEVATION CORRECTION ON SHEET 15 FOR ADDITIONAL TRANSITION.



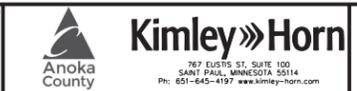
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 PRINTED NAME: GINA REFSO DATE: 12/5/2024



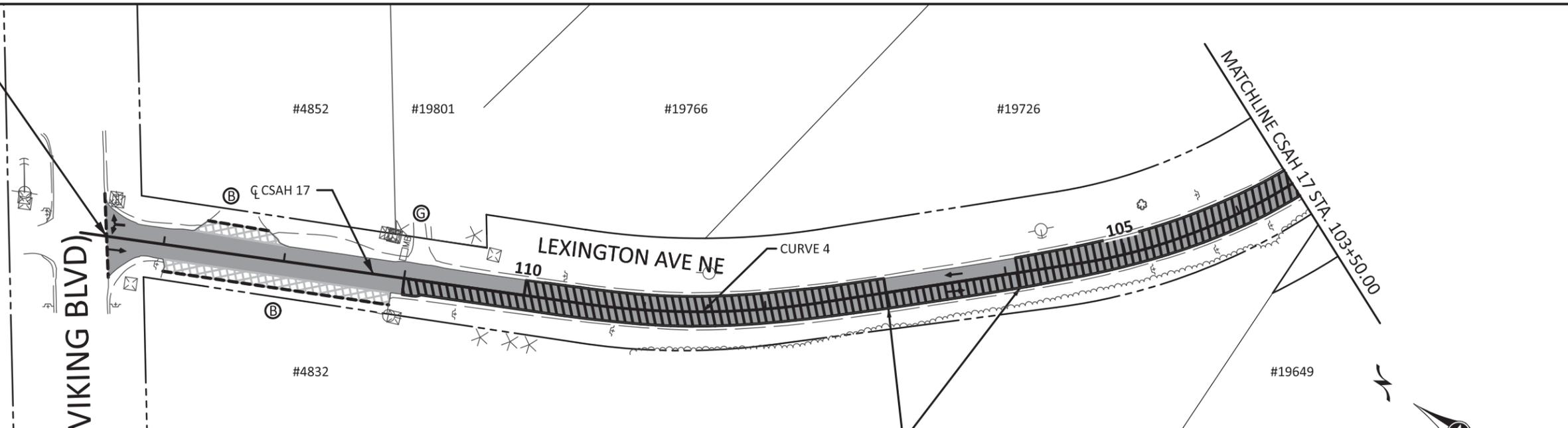
CONSTRUCTION PLAN

SAP 002-617-035  
 CSAH 17 (LEXINGTON AVE)

SHEET NO. 14  
 TOTAL SHEETS 22

END CONSTRUCTION  
SAP 002-617-035  
CSAH 17  
STA 113+47.54

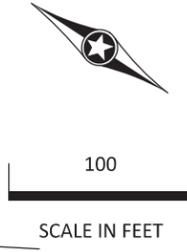
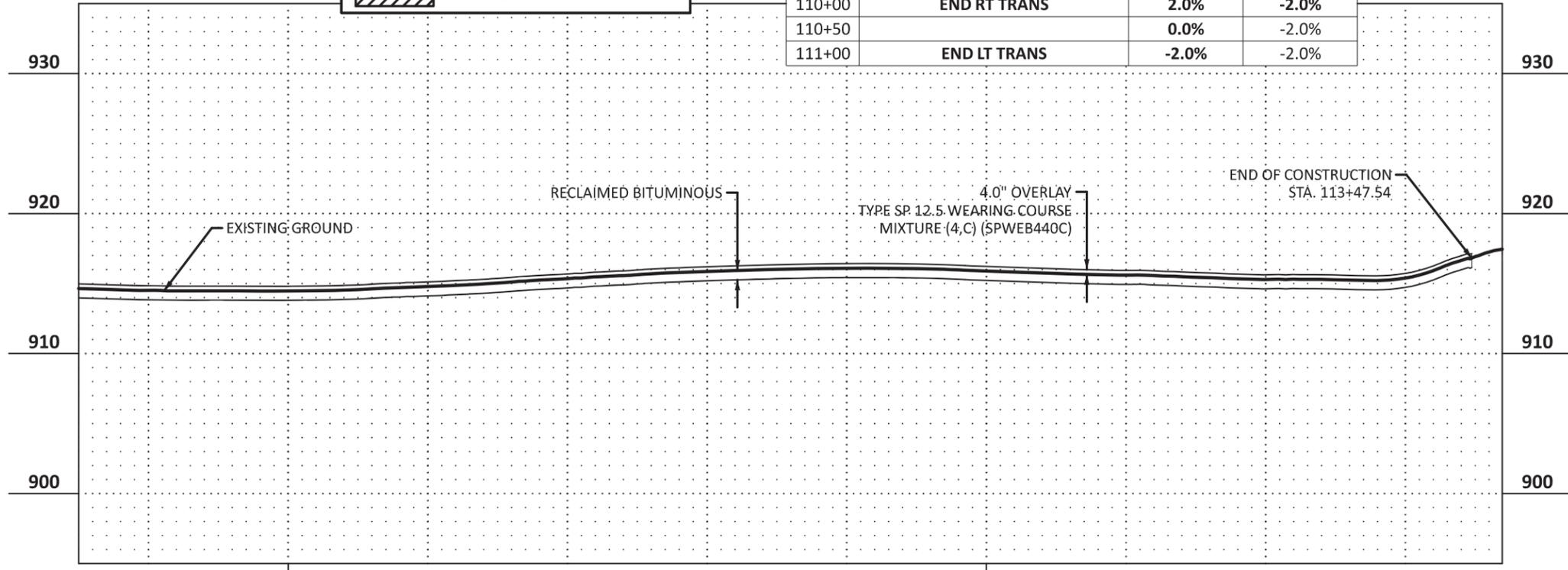
CSAH 22 (VIKING BLVD)



LEGEND	
	INPLACE ROADWAY
	EXISTING RIGHT OF WAY
	SAWCUT
	BITUMINOUS
	GRAVEL
	TRAFFIC FLOW
	MAILBOX
	MAINLINE (RECLAIM)
	REMOVE AND REPLACE BITUMINOUS PAVEMENT
	CONSTRUCT RIGHT TURN LANE
	SUPER ELEVATION AREA

HOLD LEFT GRADE AT 2.0% BETWEEN STA 105+90.00 TO 107+00.00

SUPERELEVATION CORRECTION TAB CURVE 4			
STATION	POINT	LEFT GRADE	RIGHT GRADE
106+00		2.0%	-2.0%
106+50		2.0%	-2.0%
107+00	BEG RT AND LT TRANS	2.0%	-2.0%
107+50	PC	4.0%	-4.0%
108+00	BEG FULL SUPER	6.0%	-6.0%
108+50		6.0%	-6.0%
109+00	END FULL SUPER	6.0%	-6.0%
109+50	PT	4.0%	-4.0%
110+00	END RT TRANS	2.0%	-2.0%
110+50		0.0%	-2.0%
111+00	END LT TRANS	-2.0%	-2.0%



CSAH17\_Reclaim\_cp09.dgn  
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DATE: 12/5/2024

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SANT PAUL, MINNESOTA 55114  
Ph: 651-645-4197 www.kimley-horn.com

CONSTRUCTION PLAN

SAP 002-617-035	SHEET NO. 15
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22

**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.

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.

**PREFORMED TAPE, GROUND IN (WR)**

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.

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.

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.

EXCEPT WHEN USED AS A TEMPORARY MARKING, PAVEMENT MARKINGS SHALL ONLY BE APPLIED IN SEASONABLE WEATHER WHEN AIR TEMPERATURE IS 50 DEGREES FAHRENHEIT 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.

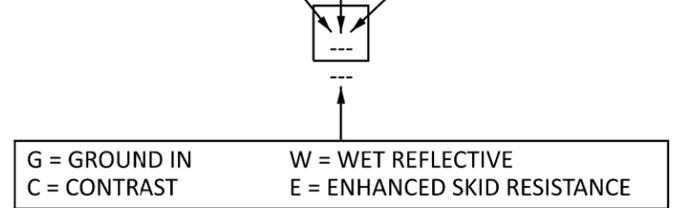
PAVEMENT MARKING TABULATION			
ITEM	UNIT	TOTAL QUANTITY	NOTES
4" SOLID LINE PREF TAPE GR IN (WR) (WHITE)	LIN FT	20592	
4" SOLID LINE PREF TAPE GR IN (WR) (YELLOW)	LIN FT	4824	
4" BROKEN LINE PREF TAPE GR IN (WR) (YELLOW)	LIN FT	1772	1
4" DOUBLE SOLID LINE PREF TAPE GR IN (WR) (YELLOW)	LIN FT	1481	

NOTE 1: 10' STRIPE, 40' GAP

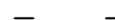
**STRIPING KEY**

 SQUARE - PREFORM TAPE

1ST DIGIT WIDTH	2ND DIGIT PATTERN	3RD DIGIT COLOR
4", 8", ETC.	S - SOLID B - BROKEN T - DOTTED D - DOUBLE SOLID	W - WHITE Y - YELLOW B - BLACK



EXAMPLE:  = 4' SOLID LINE WHITE - PREFORM TAPE  
 GROUND IN, WET REFLECTIVE

 - - - - BROKEN LINE - 50' CYCLE (10' LINE, 40' GAP)  
 - - - - DOTTED LINE - 15' CYCLE (3' LINE, 12' GAP)  
UNLESS SHOWN OTHERWISE IN THE PLAN

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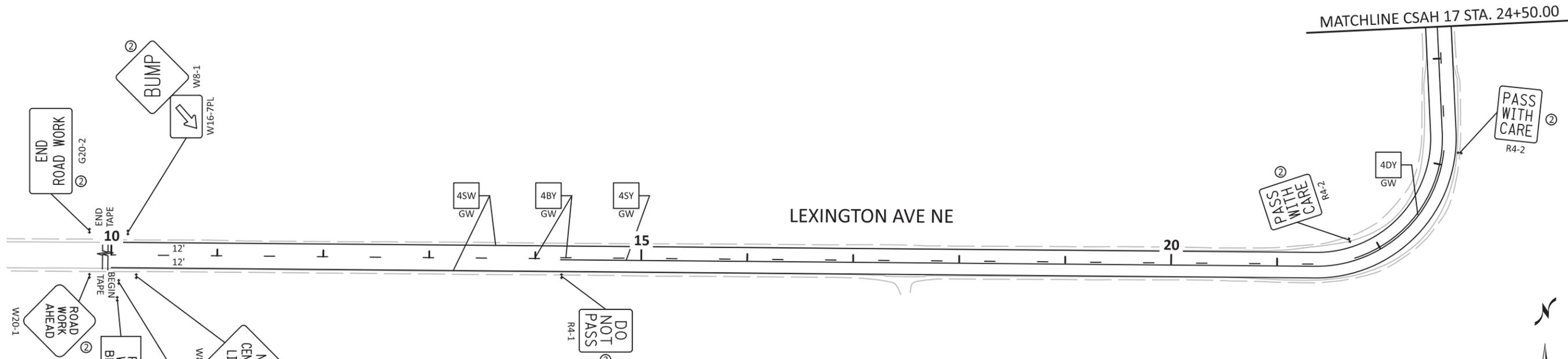
PRINTED NAME: GINA REES  
DATE: 03/18/2025

 **Kimley»Horn**

707 EUSTIS ST. SUITE 100  
SANTY PAUL, MINNESOTA 55114  
Ph: 651-645-4197 www.kimley-horn.com

PERMANENT PAVEMENT  
MARKING PLAN DETAILS

SAP 002-617-035	SHEET NO. 16
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22

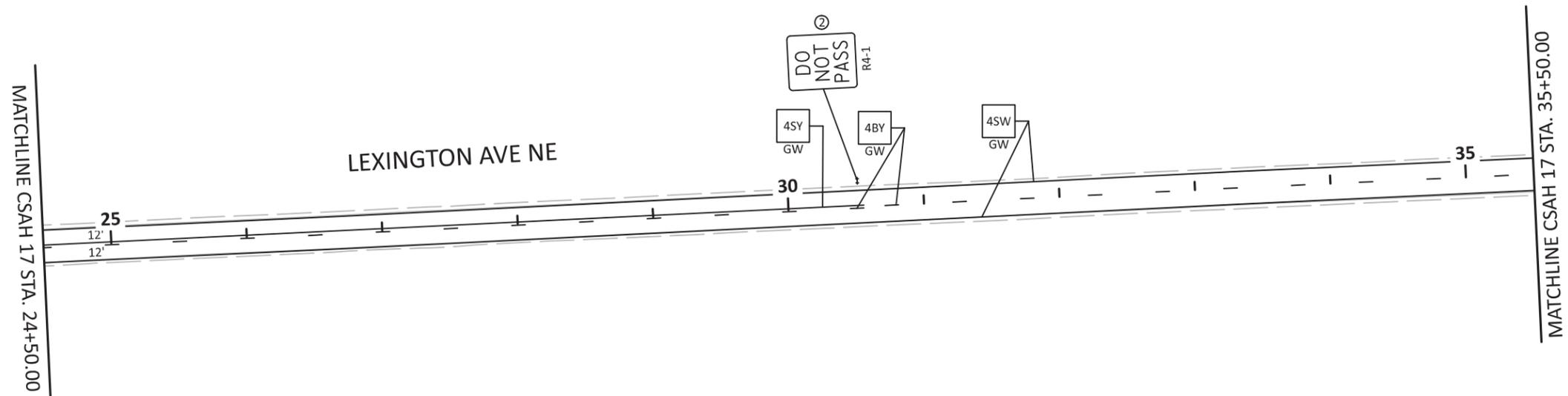


**NOTES:**

- 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 A 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 SIGNS SALVAGED AND REINSTALLED DUE TO CONSTRUCTION OPERATIONS SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE. THIS WILL BE CONSIDERED AS INCIDENTAL TO TRAFFIC CONTROL.

**STRIPING KEY:**  
 SQUARE - PREF TAPE, GROUND IN (WR): GW

**SIGN NOTES:**  
 PERMANENT SIGN INSTALLATION: ①  
 TEMPORARY TRAFFIC CONTROL SIGN: ②



CSAH17\_Reclaim\_tp01.dgn  
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12/5/2024

NO.	DATE	DWN	CKD	REVISIONS

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 DRAWN BY: BVC  
 CHECKED BY: GEB

PRINTED NAME: GINA REFS  
 DATE: 12/5/2024

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 Anoka County  
 787 EUSTIS ST. SUITE 100  
 SAINT PAUL, MINNESOTA 55114  
 Ph: 651-645-4197 www.kimley-horn.com

TEMPORARY SIGNING,  
 PERMANENT SIGNING,  
 & PERMANENT STRIPING

SAP 002-617-035  
 CSAH 17 (LEXINGTON AVE)

SHEET NO. 17  
 TOTAL SHEETS 22



100  
SCALE IN FEET

MATCHLINE CSAH 17 STA. 35+50.00

LEXINGTON AVE NE

4SW GW  
4BY GW  
4SY GW

40

45

DO NOT PASS R4-1

MATCHLINE CSAH 17 STA. 46+50.00

**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 A 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 SIGNS SALVAGED AND REINSTALLED DUE TO CONSTRUCTION OPERATIONS SHALL BE INSTALLED ON TEMPORARY SUPPORTS UNTIL THE PERMANENT INSTALLATION CAN BE MADE. THIS WILL BE CONSIDERED AS INCIDENTAL TO TRAFFIC CONTROL.

**STRIPING KEY:**

SQUARE - PREF TAPE, GROUND IN (WR):



**SIGN NOTES:**

PERMANENT SIGN INSTALLATION:



TEMPORARY TRAFFIC CONTROL SIGN:



MATCHLINE CSAH 17 STA. 55+50.00

LEXINGTON AVE NE

4SW GW  
4BY GW  
4SY GW

55

50

JODRELL DR NE

PASS WITH CARE R4-2

W20-1

ROAD WORK AHEAD

W8-1

BUMP

W16-7PL

ROAD WORK AHEAD

197TH AVE

BUMP

W8-1

W16-7PL

4DY GW

PASS WITH CARE R4-2

MATCHLINE CSAH 17 STA. 46+50.00



100  
SCALE IN FEET

CSAH17\_Reclaim\_tp02.dgn  
4:37:39 PM  
12/5/2024

NO.	DATE	DWN	CKD	REVISIONS

DESIGNED BY:	BVC	I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.	
DRAWN BY:	BVC	CERTIFIED BY:	
CHECKED BY:	GEB	PRINTED NAME:	GINA REBERS
		LIC NO.:	56150
		DATE:	12/5/2024

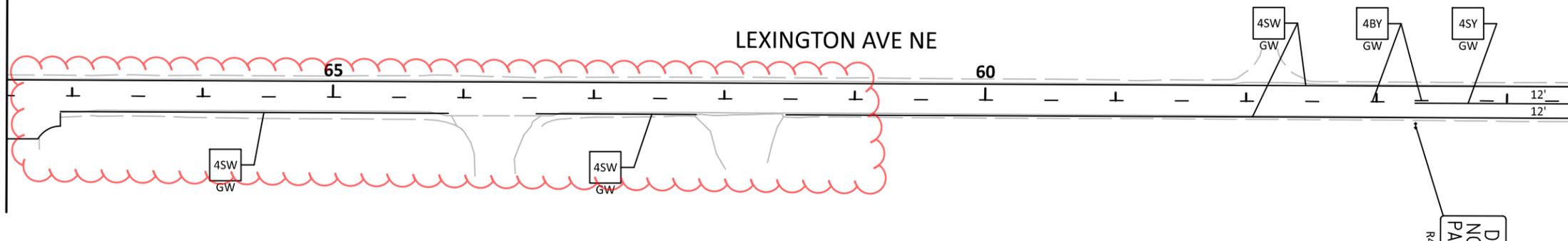
**Kimley»Horn**  
787 EUSTIS ST. SUITE 100  
SANT PAUL, MINNESOTA 55114  
PH: 651-645-4197 www.kimley-horn.com

Anoka County

TEMPORARY SIGNING,  
PERMANENT SIGNING,  
& PERMANENT STRIPING

SAP 002-617-035	SHEET NO.	18
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS	22

MATCHLINE CSAH 17 STA. 67+50.00



MATCHLINE CSAH 17 STA. 55+50.00

**NOTES:**

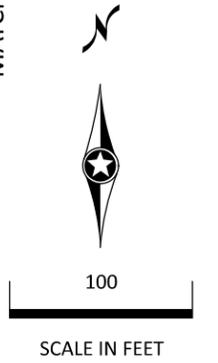
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**STRIPING KEY:**

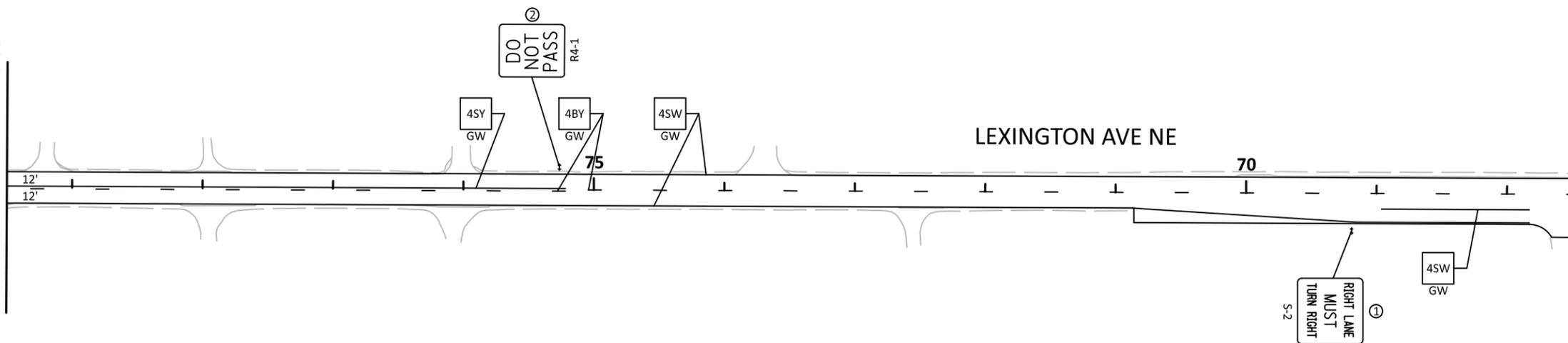
SQUARE - PREF TAPE, GROUND IN (WR): GW

**SIGN NOTES:**

PERMANENT SIGN INSTALLATION: ①  
TEMPORARY TRAFFIC CONTROL SIGN: ②



MATCHLINE CSAH 17 STA. 79+50.00



MATCHLINE CSAH 17 STA. 67+50.00



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NO.	DATE	DWN	CKD	REVISIONS

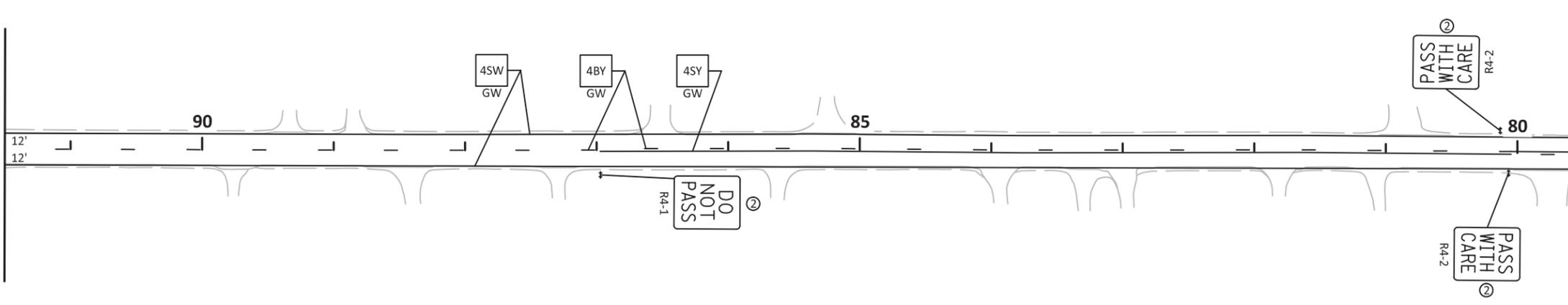
DESIGNED BY: BVC	THESEBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DRAWN BY: BVC	CERTIFIED BY:
CHECKED BY: GEB	PRINTED NAME: GINA REZES DATE: 03/18/2025

**Kimley»Horn**  
787 EUSTIS ST. SUITE 100  
SAINT PAUL, MINNESOTA 55114  
Ph: 651-645-4197 www.kimley-horn.com

TEMPORARY SIGNING,  
PERMANENT SIGNING,  
& PERMANENT STRIPING

SAP 002-617-035	SHEET NO. 19
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22

MATCHLINE CSAH 17 STA. 91+50.00



MATCHLINE CSAH 17 STA. 79+50.00

**NOTES:**

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**STRIPING KEY:**

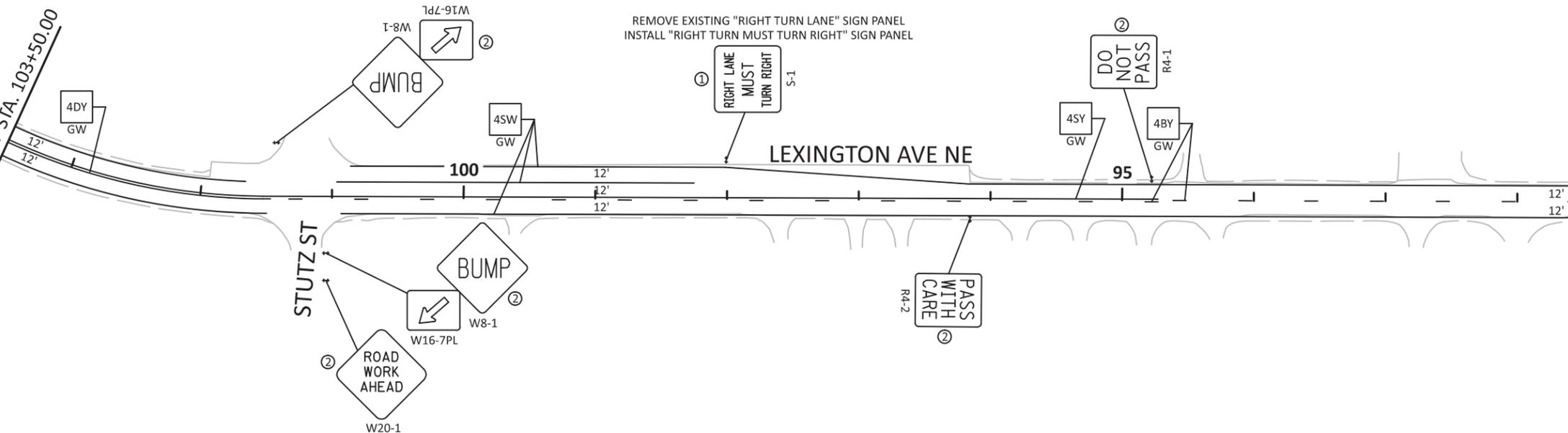
SQUARE - PREF TAPE, GROUND IN (WR):  GW

**SIGN NOTES:**

PERMANENT SIGN INSTALLATION:  ①  
 TEMPORARY TRAFFIC CONTROL SIGN:  ②



MATCHLINE CSAH 17 STA. 103+50.00



MATCHLINE CSAH 17 STA. 91+50.00



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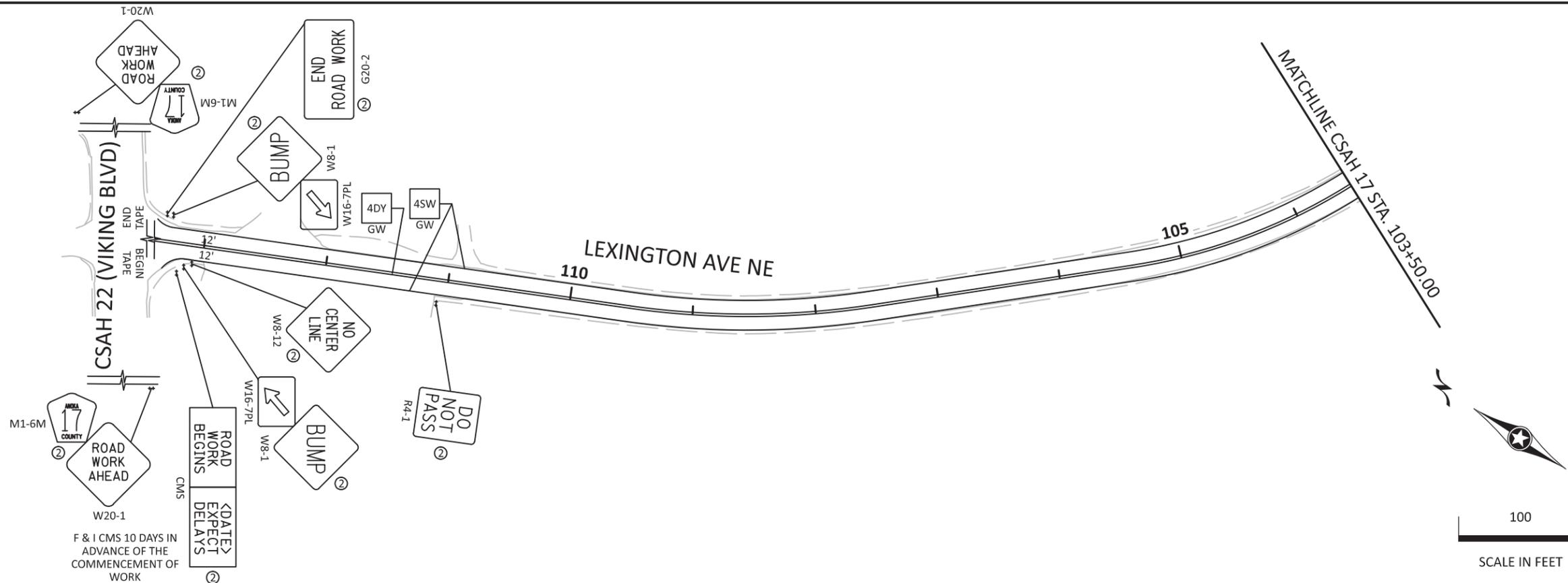
NO.	DATE	DWN	CKD	REVISIONS

DESIGNED BY:	BVC	<small>                 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.             </small>
DRAWN BY:	BVC	
CHECKED BY:	GEB	

  
 787 LUSTIG ST. SUITE 100  
 SAINT PAUL, MINNESOTA 55114  
 Ph: 651-645-4197 www.kimley-horn.com

TEMPORARY SIGNING,  
 PERMANENT SIGNING,  
 & PERMANENT STRIPING

SAP 002-617-035	SHEET NO.	20
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS	22



**STRIPING KEY:**  
 SQUARE - PREF TAPE, GROUND IN (WR):   
 GW   
**SIGN NOTES:**  
 PERMANENT SIGN INSTALLATION: ①  
 TEMPORARY TRAFFIC CONTROL SIGN: ②

- NOTES:**
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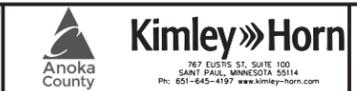
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12/5/2024

NO.	DATE	DWN	CKD	REVISIONS

DESIGNED BY: BVC  
 DRAWN BY: BVC  
 CHECKED BY: GEB

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.

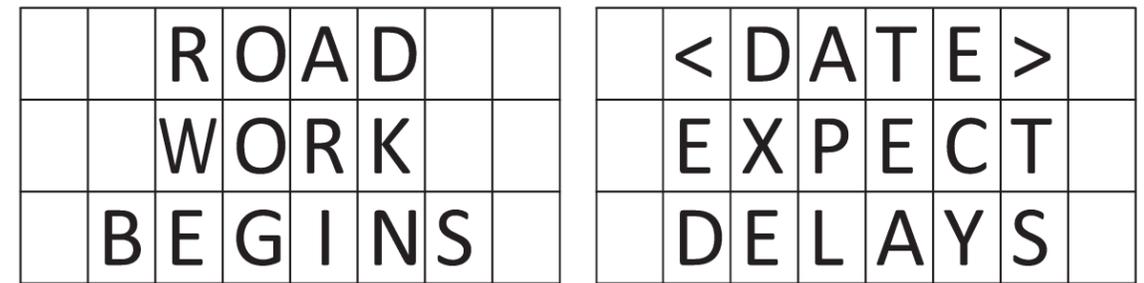
CERTIFIED BY: [Signature] LIC NO.: 56150  
 PRINTED NAME: GINA REZES DATE: 12/5/2024



TEMPORARY SIGNING,  
 PERMANENT SIGNING,  
 & PERMANENT STRIPING

SAP 002-617-035	SHEET NO.	21
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS	22

CHANGEABLE MESSAGE BOARD - MESSAGE SEQUENCE LAYOUT

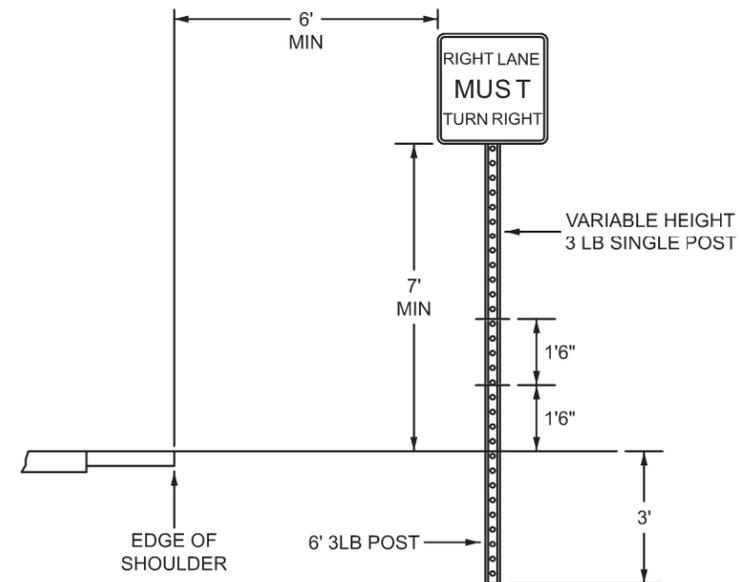


CMS SIGN TO BE PLACED A MINIMUM OF TEN DAYS PRIOR TO ACTUAL COMMENCEMENT OF ROAD WORK. SIGNS TO BE REMOVED WHEN ROAD WORK BEGINS.

**PERMANENT SIGNING**

PERMANENT SIGNING TABULATION										
SIGN NUMBER	PANEL				SUPPORT		REMOVE SIGN PANEL TYPE C	INSTALL SIGN PANEL TYPE C	INSTALL SIGN TYPE C	SIGN PANEL TYPE C
	CODE	LEGEND	SIGN (W X H)	MOUNTING HEIGHT	TYPE (1)	NUMBER OF POSTS	EACH	EACH	EACH	SQ FT
			INCHES	FEET						
S-1	R3-7R	RIGHT LANE MUST TURN RIGHT	30 X 30	7			1 (2)	1		6.25
S-2	R3-7R	RIGHT LANE MUST TURN RIGHT	30 X 30	7	U-SOIL	1			1	6.25
TOTAL =							1	1	1	12.50

**PERMANENT SIGN INSTALLATION TYPICAL**



**NOTES:**

- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE LATEST EDITION OF THE MINNESOTA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, INCLUDING THE LATEST FIELD MANUAL FOR TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS.
- ALL TYPE III BARRICADES SHALL BE REFLECTORIZED ON BOTH SIDES. BARRICADE MARKINGS SHALL BE SLANTED IN ACCORDANCE WITH THE MUTCD.

**SPECIFIC NOTES:**

- (1) U-CHANNEL 3LBS PER FOOT BLACK POST.
- (2) APPLIES TO EXISTING "RIGHT TURN LANE" PANEL.

TEMPORARY TRAFFIC CONTROL SIGNS			
M.U.T.C.D CODE	SIZE	INSERT	QUANTITY
W8-12	48" X 48"		2
R4-1	24" X 30"		8
R4-2	24" X 30"		7
G20-2	36" X 18"		2
W8-1	48" X 48"		8
W16-7PL	30" X 18"		8
W3-4	48" X 48"		AS NEEDED
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
W8-9	48" X 48"		AS NEEDED
W8-11	48" X 48"		AS NEEDED
W8-23	48" X 48"		AS NEEDED
M1-6M	24" X 24"		2
W20-1	48" X 48"		AS NEEDED (ESTIMATED 6)
W20-4	48" X 48"		AS NEEDED
W20-7	48" X 48"		AS NEEDED (ESTIMATED 2)
REFLECTORIZED REBOUNDABLE DRUM			AS NEEDED (ESTIMATED 10)
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.		 	2 AT 10 DAYS EA

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12/5/2024

NO.	DATE	DWN	CKD	REVISIONS

DESIGNED BY: <u>BVC</u>	<small>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.</small>  <small>Licensed Professional Engineer GINA REBERS</small>	LIC NO.: <u>56150</u>
DRAWN BY: <u>BVC</u>		DATE: <u>12/5/2024</u>
CHECKED BY: <u>GEB</u>		

**Kimley»Horn**  
367 EUSTIS ST. SUITE 100  
SANT PAVL, MINNESOTA 55114  
Ph: 651-645-4197 www.kimley-horn.com

TEMPORARY AND PERMANENT  
SIGNING QUANTITIES

SAP 002-617-035	SHEET NO. 22
CSAH 17 (LEXINGTON AVE)	TOTAL SHEETS 22