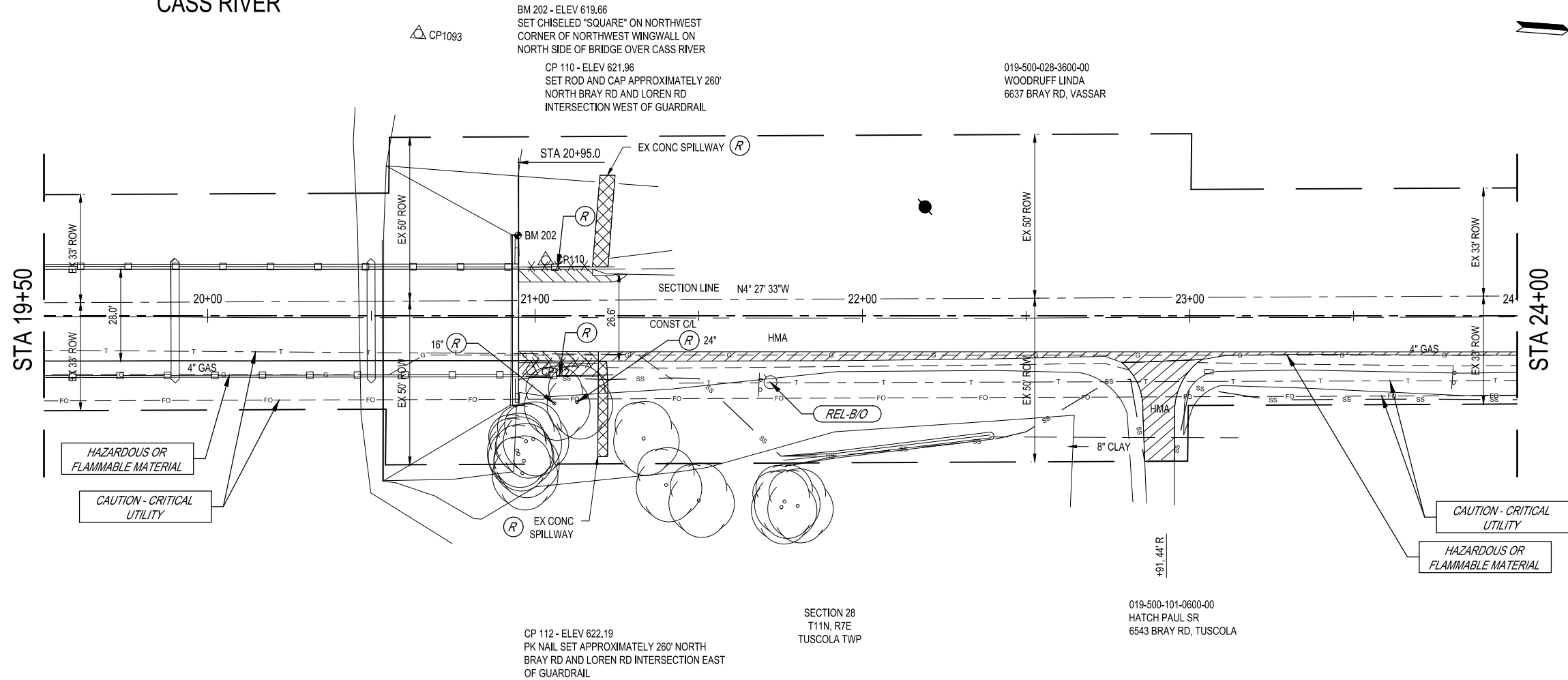


CASS RIVER

SECTION 28
T11N, R7E
TUSCOLA TWP



DRIVEWAY APPROACH QUANTITIES - THIS SHEET

C/L STATION	HMA Surface, Rem (Syd)
22+91 R	40
TOTAL	40

REMOVAL QUANTITIES - THIS SHEET

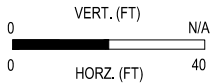
1	Ea	Tree, Rem, 19 inch to 36 inch
1	Ea	Tree, Rem, 6 inch to 18 inch
46	Ft	Curb and Gutter, Rem
54	Ft	Guardrail, Rem
24	Syd	Pavt, Rem
14	Syd	Sidewalk, Rem
3.1	Sta	Trenching, Modified
81	Syd	HMA Surface, Rem

12/17/2021 4:37 PM katherine.pleminger

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SGI PROJECT NO:	128551SG2020
DATE:	DECEMBER, 2021
FILE:	LP_REM.DWG

CS:	
JN:	

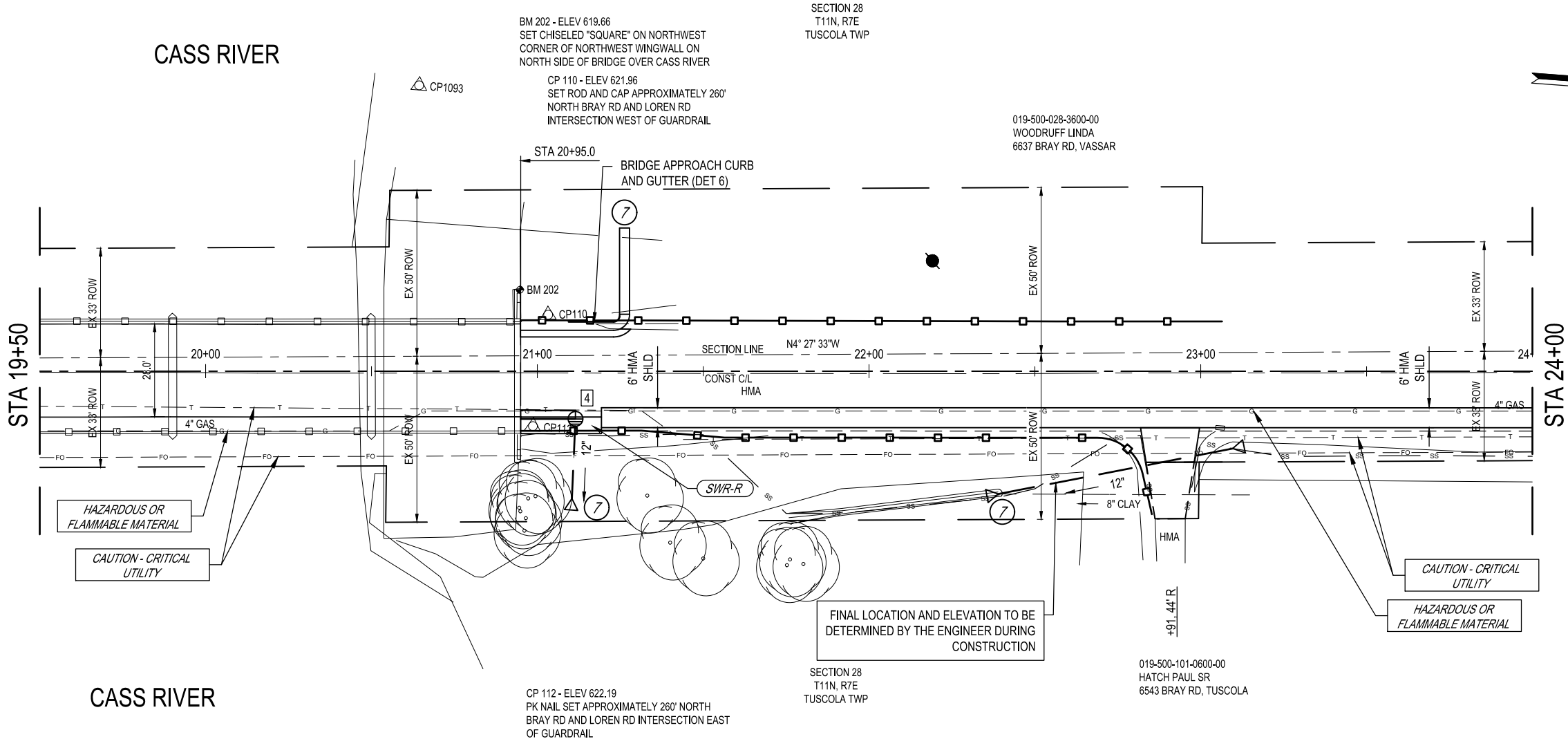
REMOVAL SHEET	
BRAY ROAD	
STA 19+50 TO STA 24+00	

DRAWING	SHEET
REM3	12

1/5/2022 10:21 AM Ryan Sullivan

BRAY RD

CASS RIVER



CASS RIVER

DRAINAGE STRUCTURE TABLE - THIS SHEET

STR NO	Dr Structure, 36 inch dia, Modified (Ea)	Dr Structure Cover, Type K (Ea)	Sewer, CI IV, 12 inch, Tr Det B (Ft)	Culv End Sect, 12 inch (Ea)
4	1	1	24	1
TOTAL	1	1	24	1

DRIVEWAY APPROACH QUANTITIES - THIS SHEET

C/L STATION	HMA Approach (Ton)	Approach, CI I, 8 inch (Syd)	Approach, CI II, 6 inch (Syd)	Culv End Sect, 12 inch (Ea)	Culv, CI F, 12 inch (Ft)
22+91 R	5	19	23	2	72
TOTAL	5	19	23	2	72

CONSTRUCTION QUANTITIES - THIS SHEET

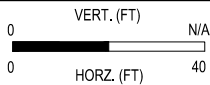
90	Cyd	Subbase, CIP
17	Syd	Aggregate Base, 4 inch
203	Syd	Aggregate Base, 6 inch
30	Syd	Shoulder, CI II, 4 inch
281	Ft	Underdrain, Subbase, 6 inch
16	Ft	Underdrain Outlet, 6 inch
2	Ea	Underdrain, Outlet Ending, 6 inch
5	Ton	Hand Patching
47	Ton	HMA, LVSP
51	Ft	Curb and Gutter, Bridge Approach
26	Ft	Spillway, Conc
120	Sft	Sidewalk Ramp, Conc, 6 inch
263	Ft	Guardrail, Type MGS-8
25	Ft	Guardrail, Curved, Type MGS-8
1	Ea	Guardrail Approach Terminal, Type 2M
1	Ea	Guardrail Departing Terminal, Type MGS
16	Ea	Guardrail Reflector
2	Ea	Guardrail Anch, Bridge, Det M1
22	Syd	Riprap, Plain

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FILE: LP_PLAN.DWG

CS:

JN:

CONSTRUCTION SHEET

BRAY ROAD

STA 19+50 TO STA 24+00

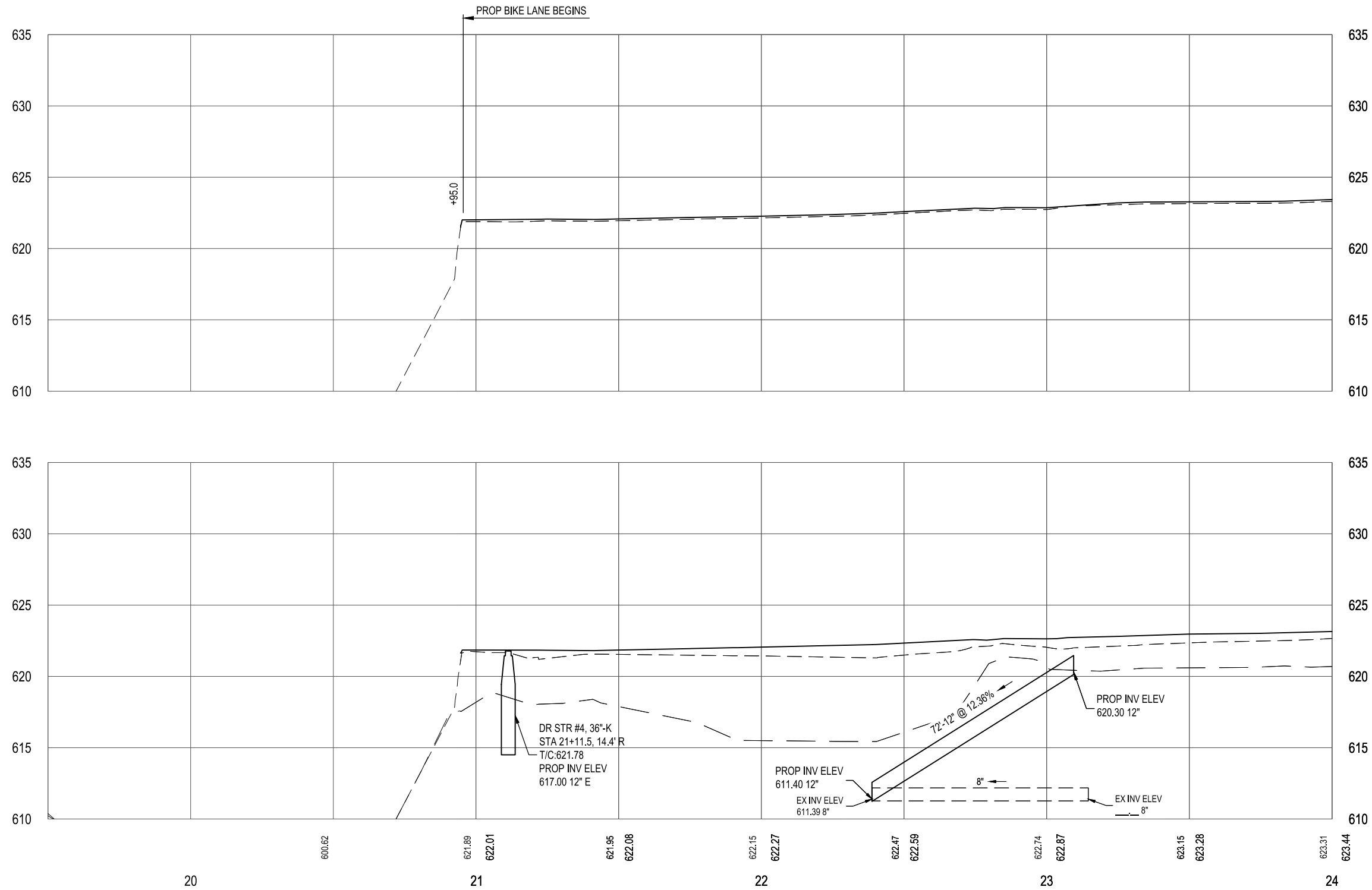
DRAWING

SHEET

PLAN3

13

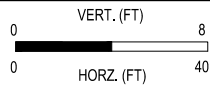
1/5/2022 11:41 AM Ryan Sullivan



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SGI PROJECT NO: 128551SG2020
DATE: JANUARY, 2022
FILE: LP_PROF.DWG

CS:
JN:

PROFILE	
BRAY ROAD	
STA 19+50 TO STA 24+00	

A diagram showing a horizontal line with a circle in the center. A vertical line passes through the circle. To the left of the circle, there is a black arrow pointing left. To the right of the circle, there is a black arrow pointing right, labeled with a capital 'N'.

VAN CLEVE RD

**CAUTION - CRITICAL
UTILITY**

STA 24+00

BRAY RD

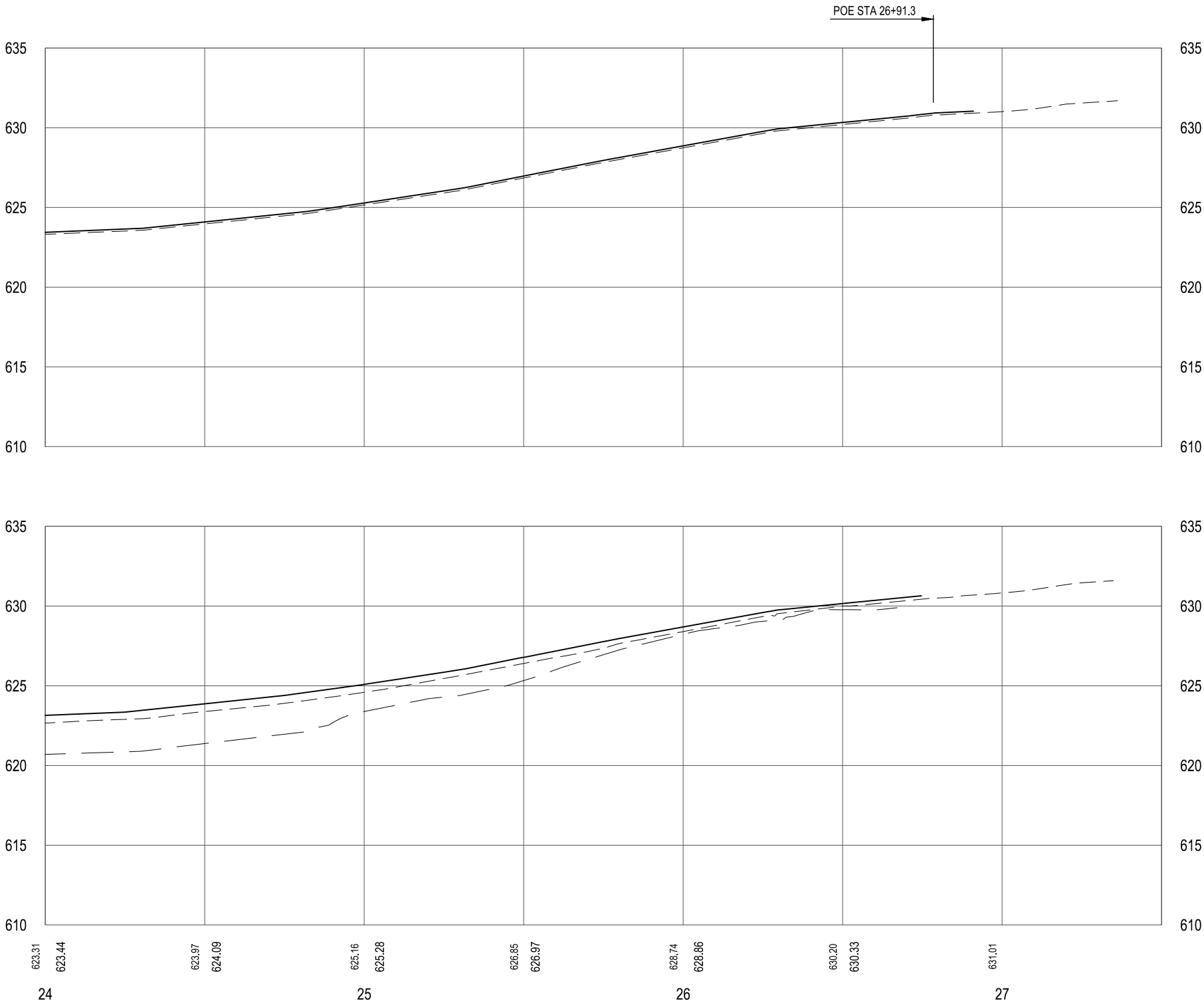
VAN CLEVE RD

REMOVAL QUANTITIES - THIS SHEET		
3	Sta	Trenching, Modified
55	Syd	HMA Surface, Rem

FINAL PLAN REVISIONS				 SAGINAW OFFICE 230 S. Washington Ave. Saginaw, MI 48607 Tel. 989-754-4717 Fax. 989-754-4440 www.SpicerGroup.com	VERT. (FT)		SGI PROJECT NO: 128551SG2020		CS:		REMOVAL SHEET		DRAWING	SHEET
NO.	DATE	AUTH	DESCRIPTION		N/A		DATE: DECEMBER, 2021		JN:		BRAY ROAD		REM4	15
					0		FILE: LP_REM.DWG				STA 24+00 TO STA 26+91.3 (POE)			
					0									

12/10/2021 10:47 AM ryan.sullivan

1/5/2022 11:41 AM Ryan.Sullivan



EX ELEV @ PLAN GRADE
PLAN GRADE

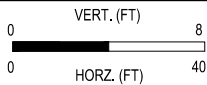
EX ROW 33' RT
EX GROUND 17' RT
PROP RT EDGE OF BIKE PATH

EX EDGE OF HMA
PROP LT EDGE OF BIKE PATH

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DATE:	JANUARY, 2022
FILE:	LP_PROF.DWG

CS:	
JN:	

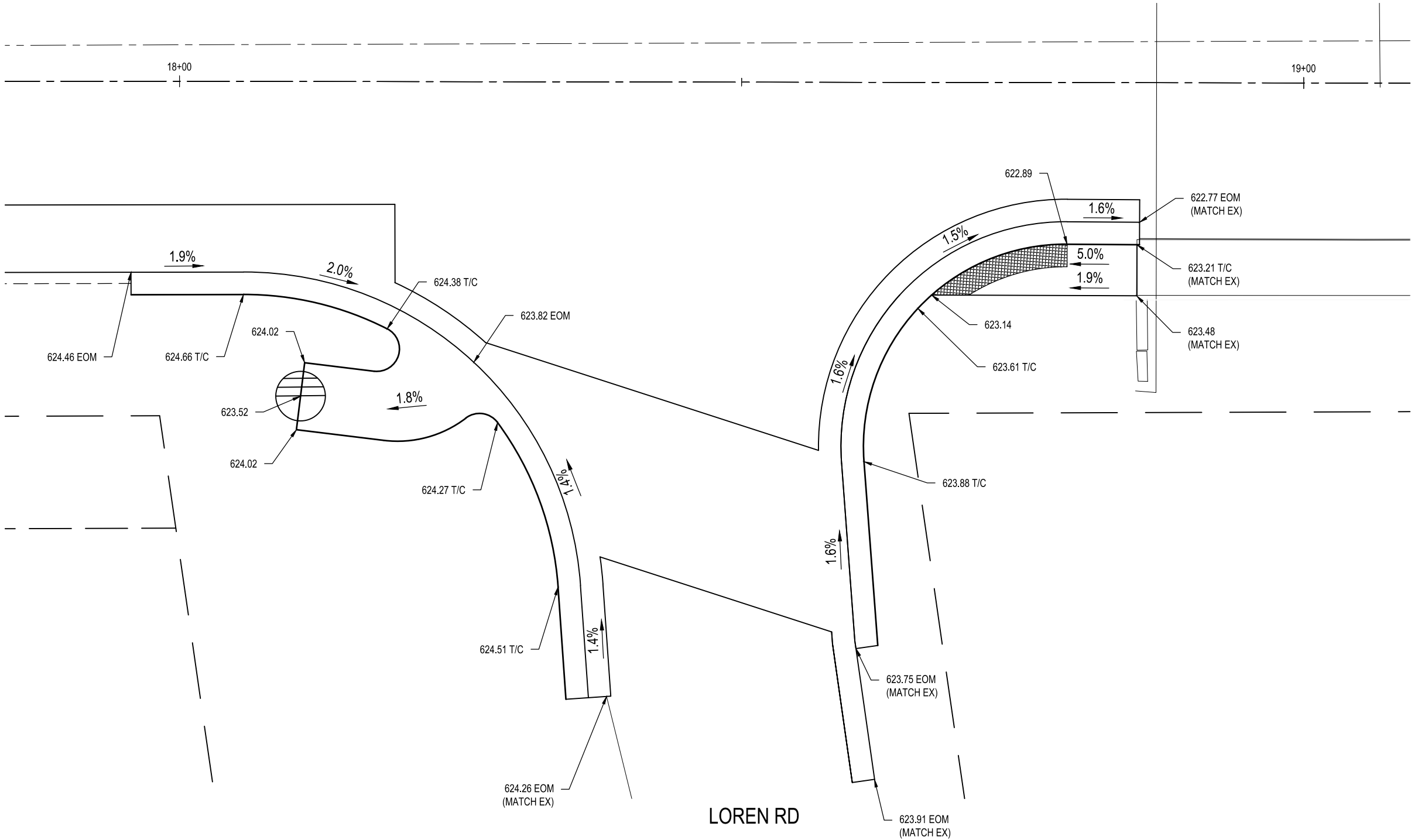
PROFILE	
BRAY ROAD	
STA 24+00 TO STA 26+91.3 (POE)	

DRAWING	SHEET
PROF4	17

12/17/2021 5:42 PM ryan.sullivan

BRAY RD

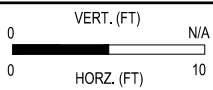
BRAY RD



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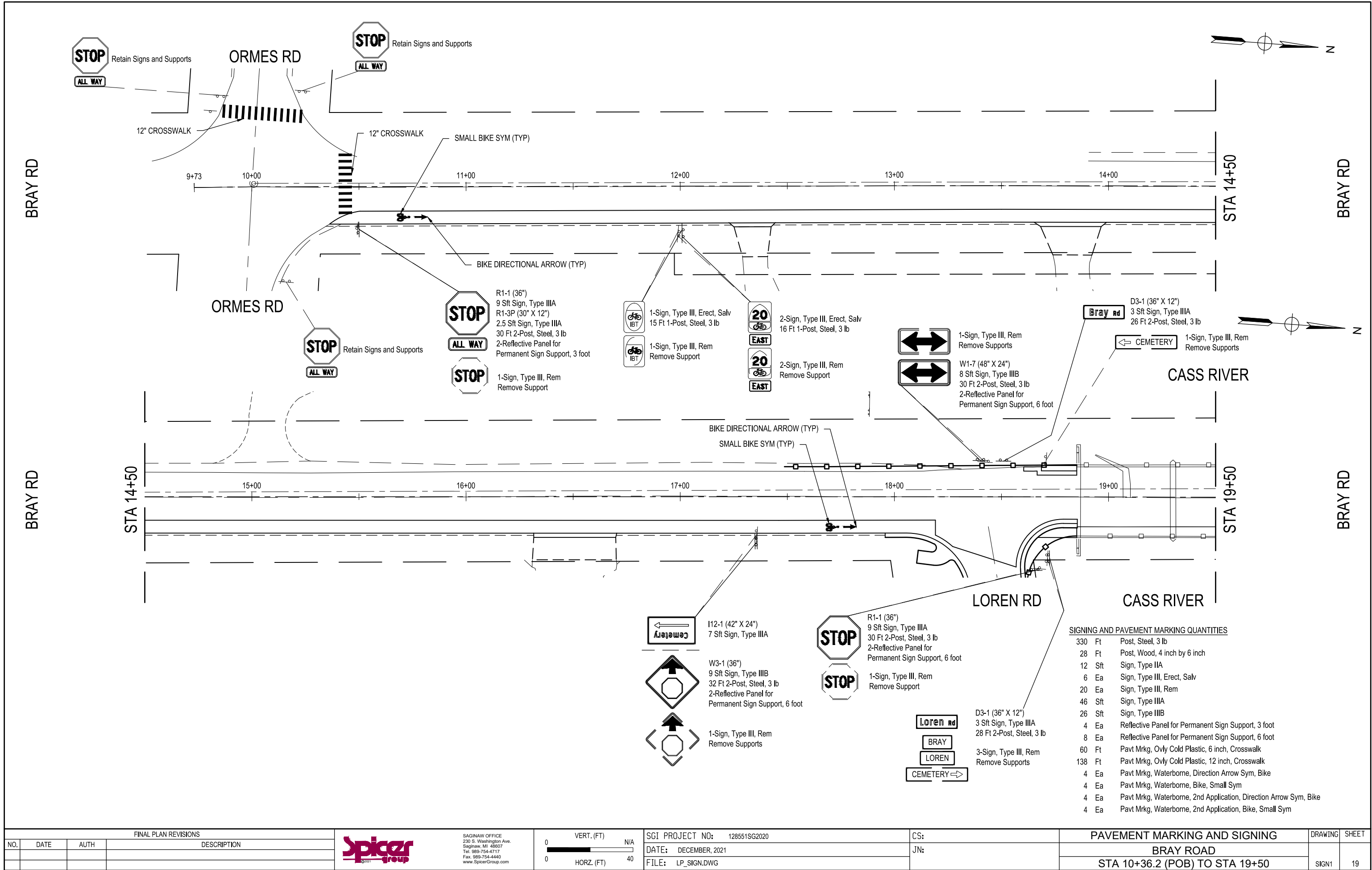
SGI PROJECT NO:	128551SG2020
DATE:	DECEMBER, 2021
FILE:	LP_GRD.DWG

CS:	
JN:	

DETAIL GRADES	
BRAY ROAD	
GRD	18

DRAWING	SHEET
GRD	18

12/17/2021 4:35 PM katherine.pleminger

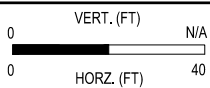


SIGNING AND PAVEMENT MARKING QUANTITIES			
330	Ft	Post, Steel, 3 lb	
28	Ft	Post, Wood, 4 inch by 6 inch	
12	Sft	Sign, Type IIA	
6	Ea	Sign, Type III, Erect, Salv	
20	Ea	Sign, Type III, Rem	
46	Sft	Sign, Type IIIA	
26	Sft	Sign, Type IIIB	
4	Ea	Reflective Panel for Permanent Sign Support, 3 foot	
8	Ea	Reflective Panel for Permanent Sign Support, 6 foot	
60	Ft	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	
138	Ft	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk	
4	Ea	Pavt Mrkg, Waterborne, Direction Arrow Sym, Bike	
4	Ea	Pavt Mrkg, Waterborne, Bike, Small Sym	
4	Ea	Pavt Mrkg, Waterborne, 2nd Application, Direction Arrow Sym, Bike	
4	Ea	Pavt Mrkg, Waterborne, 2nd Application, Bike, Small Sym	

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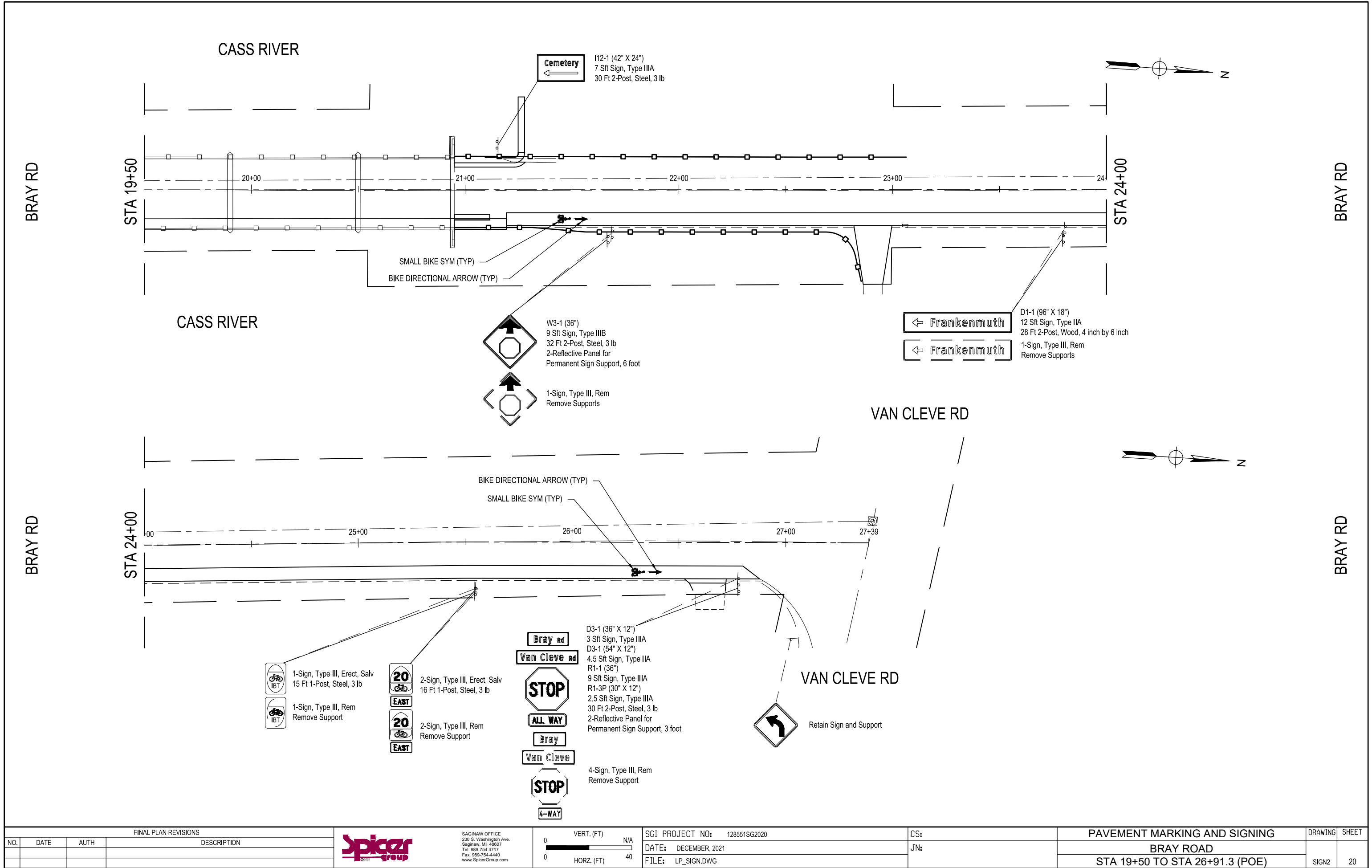


SGI PROJECT NO:	128551SG2020
DATE:	DECEMBER, 2021
FILE:	LP_SIGN.DWG

CS:	
JN:	

PAVEMENT MARKING AND SIGNING		DRAWING	SHEET
BRAY ROAD			
STA 10+36.2 (POB) TO STA 19+50		SIGN1	19

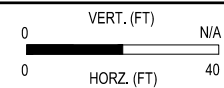
12/17/2021 4:46 PM katherine.pleminger



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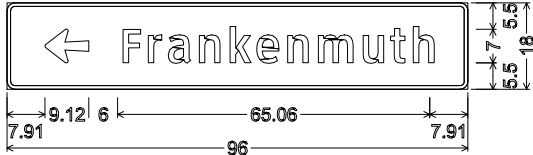


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DATE:	DECEMBER, 2021
FILE:	LP_SIGN.DWG

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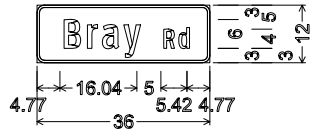
PAVEMENT MARKING AND SIGNING		DRAWING	SHEET
BRAY ROAD			
STA 19+50 TO STA 26+91.3 (POE)		SIGN2	20

2/10/2021 8:59 AM katherine.pfenninger



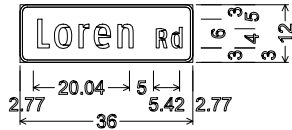
D1-1 40 mph or more;
1.63" Radius, 0.75" Border, White on, Green;
Arrow A-7 - 9.13" 180°;
"Frankenmuth", ClearviewHwy-3-W;
Table of widths and spaces

7.91		←		9.12																												
6.00	F	3.72	1.58	2.89	1.27	a	4.70	1.78	n	4.43	2.02	k	4.43	1.11	e	4.66	1.78	n	4.43	2.06	m	7.31	1.94	w	4.35	1.47	t	3.00	1.70	h	4.43	7.91



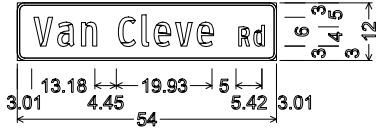
D3-1 (12 inch);
1.50" Radius, 0.50" Border, White on, Green;
"Bray", ClearviewHwy-2-W;
"Rd", ClearviewHwy-2-W;
Table of widths and spaces

4.77	B	3.49	1.39	r	2.10	0.99	a	3.52	0.99	y	3.56
	5.00	R	2.28	0.86	d	2.28	4.77				



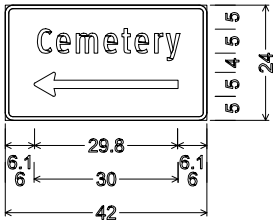
D3-1 (12 inch);
1.50" Radius, 0.50" Border, White on, Green;
"Loren", ClearviewHwy-2-W;
"Rd", ClearviewHwy-2-W;
Table of widths and spaces

2.77	L	2.48	1.05	o	3.66	1.46	r	2.10	1.05	e	3.49	1.46	n	3.29
		R			d									
	5.00	2.28	0.86		2.28	2.77								



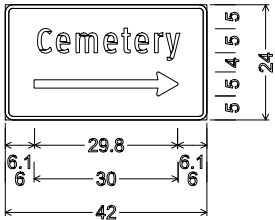
D3-1 (12 inch);
1.50" Radius, 0.50" Border, White on, Green;
"Van Cleve", ClearviewHwy-2-W;
"Rd", ClearviewHwy-2-W;
Table of widths and spaces

3.01	v	3.93	0.98	a	3.53	1.46	n	3.28							
	C	4.45	3.66	1.22	l	1.49	1.08	e	3.49	0.99	v	3.52	0.99	e	3.49
	R	5.00	2.28	0.86	d	2.28	3.01								



I12-1;
1.63" Radius, 0.75" Border, White on, Green;
"Cemetery", ClearviewHwy-2-W;
Arrow Custom - 30.00" 180°;
Table of widths and spaces

6.10	C	3.05	0.88	e	2.91	1.24	m	4.60	1.16	e	2.91	0.88	t	1.80	0.91	e	2.91	1.21	r	1.75	0.63	y	2.96	6.10
6.00	←	30.00	6.00																					



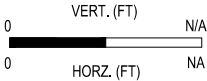
I12-1;
1.63" Radius, 0.75" Border, White on, Green;
"Cemetery", ClearviewHwy-2-W;
Arrow Custom - 30.00" 0°;
Table of widths and spaces

6.10	c	3.05	0.88	e	2.91	1.24	m	4.60	1.16	e	2.91	0.88	t	1.80	0.91	e	2.91	1.21	r	1.75	0.63	y	2.96	6.10
6.00																								

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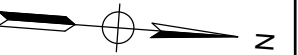
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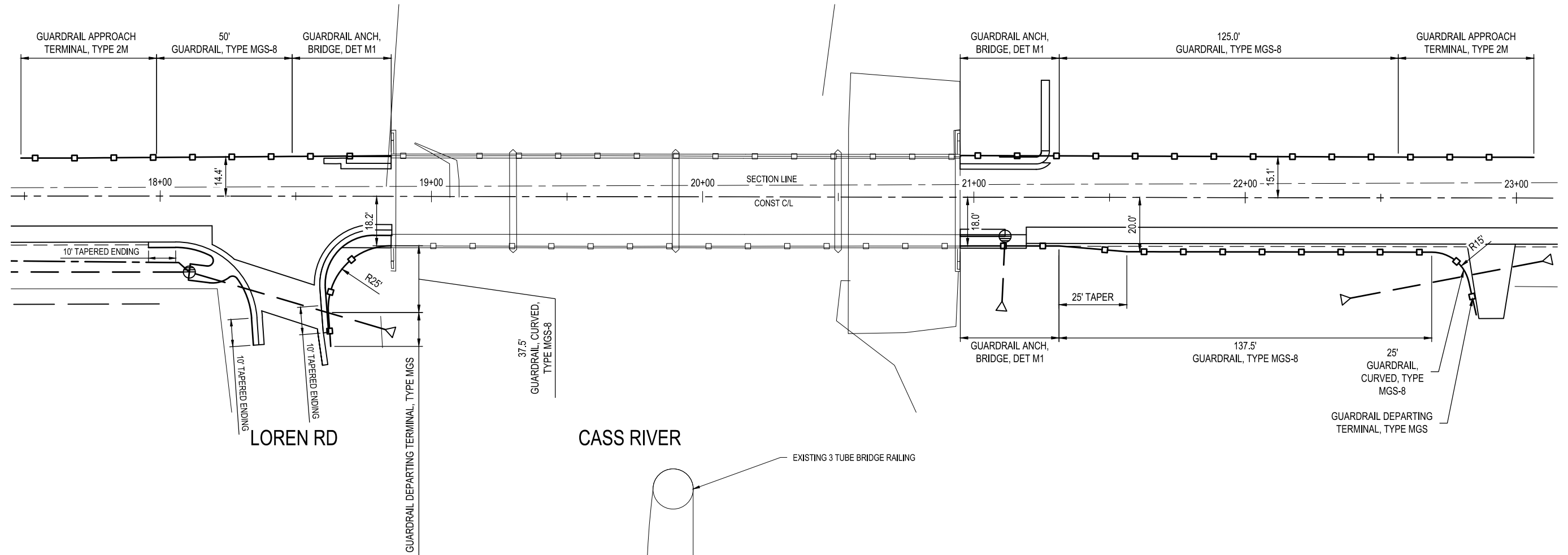
PAVEMENT MARKING AND SIGNING		DRAWING	SHEET
BRAY ROAD		SIGN3	21
PERMANENT SIGN DETAILS			

12/17/2021 5:41 PM ryan.sullivan

CASS RIVER



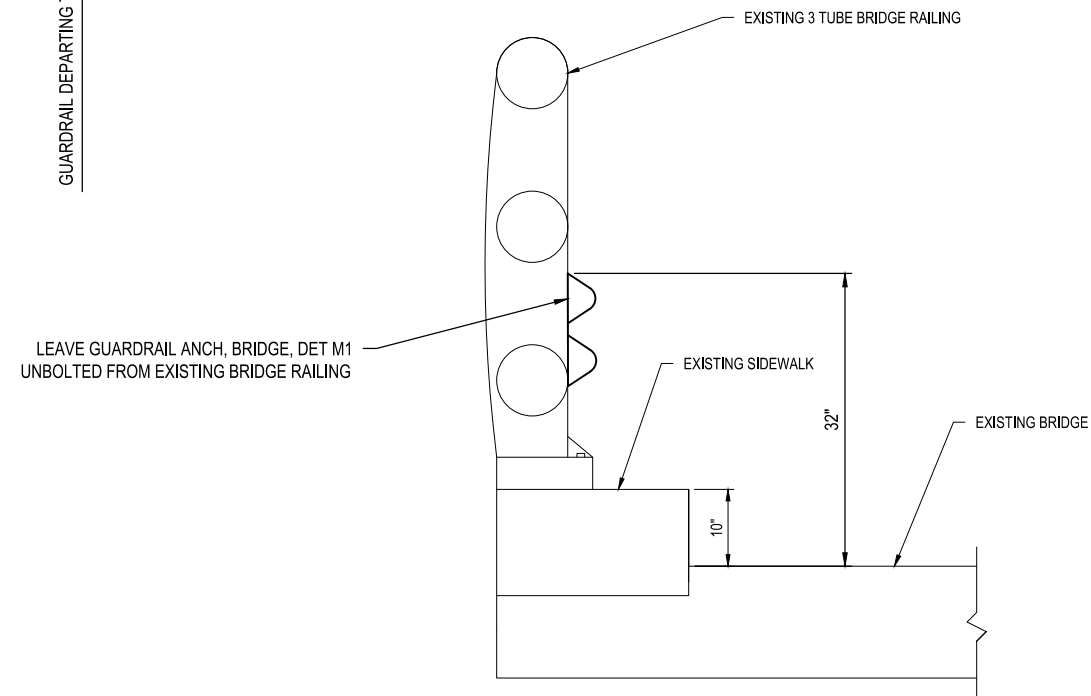
BRAY RD



BRAY RD

LOREN RD

CASS RIVER

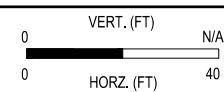


PROPOSED TYPICAL SECTION AT BRIDGE RAILING POST

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FILE:	LP_GRDETS.DWG

CS:	
JN:	

GUARDRAIL DETAIL SHEET		DRAWING	SHEET
BRAY ROAD			
BRIDGE OVER CASS RIVER		GRDETS	22