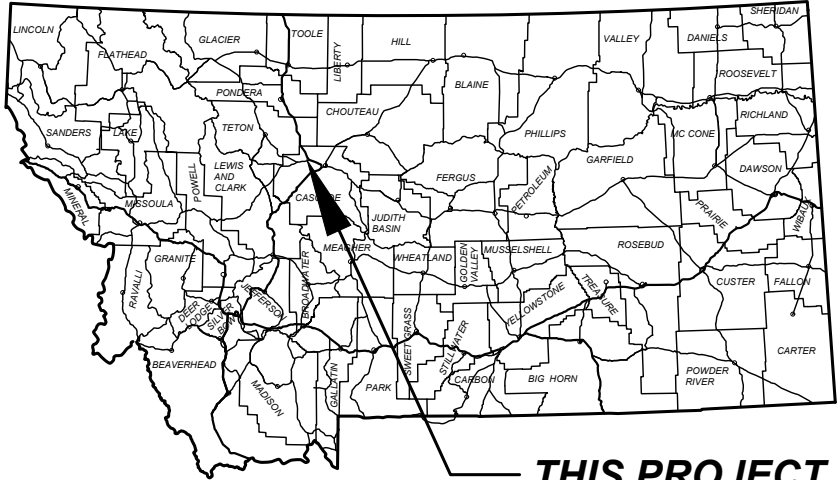


MONTANA DEPARTMENT OF TRANSPORTATION

FEDERAL AID PROJECT NH 3-1(61)0
CRACK SEAL, SEAL & COVER, AND
BRIDGE DECK CRACK SEAL
VAUGHN - WEST
CASCADE COUNTY



THIS PROJECT

PROJECT DESIGN DATA

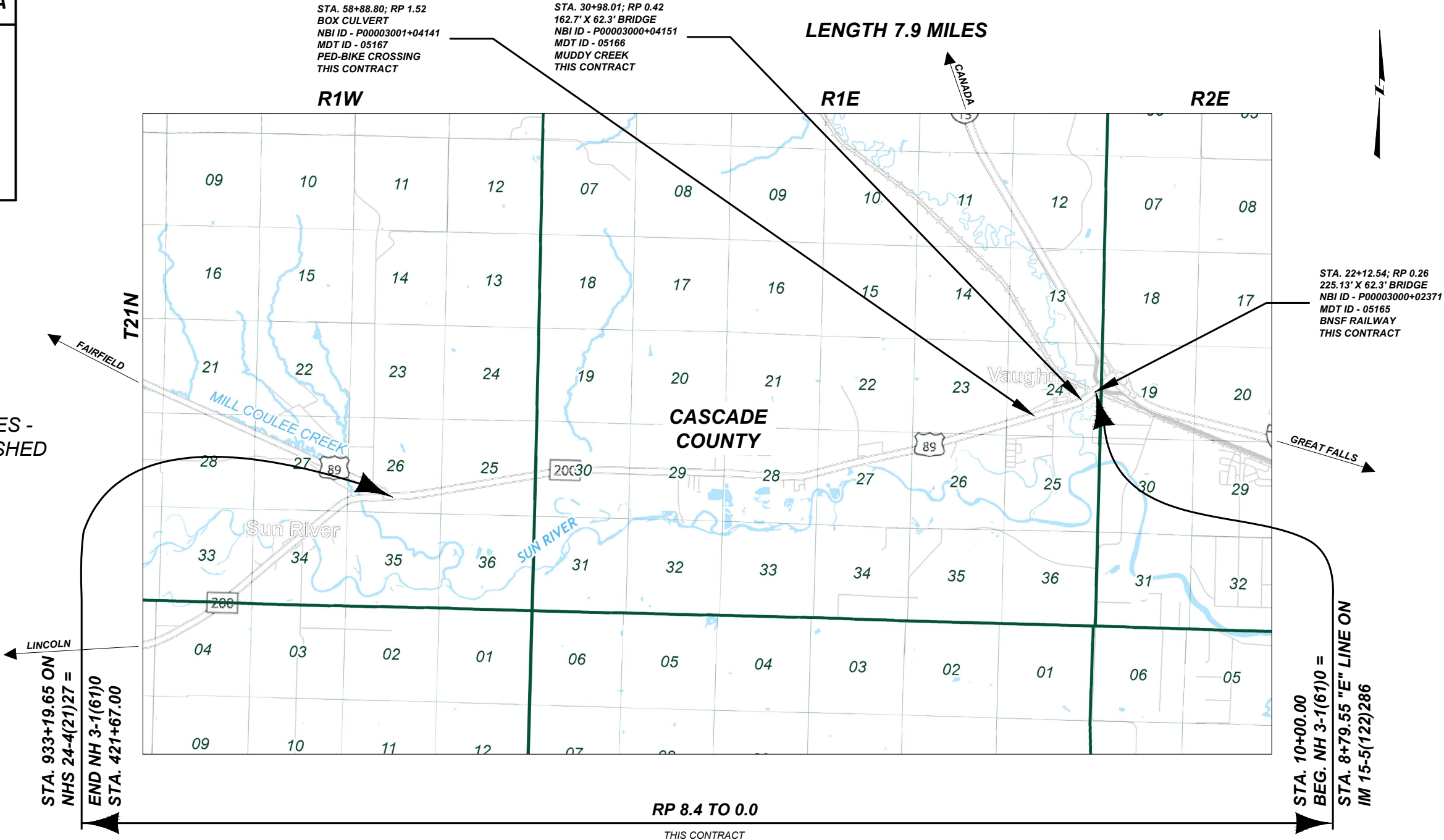
PRESENT	2025	A.D.T. = 4,820
LETTING	2026	A.D.T. = 4,870
DESIGN	2046	A.D.T. = 5,940
		D.H.V. = 580
		TRUCKS = 6.6%
		V. = 50 MPH
		18 KIP ESAL'S = 147 DAILY
		ANNUAL GROWTH RATE = 1.0%

RELATED PROJECTS

STPP 3-1(47)8
IM 15-5(158)291
IM 15-5(154)291
IM 15-5(157)278

SURFACING SOURCES -
CONTRACTOR FURNISHED

NOTE:
THE DISTANCE BETWEEN
RP 0.000 AND RP 1.000
IS 0.542 MILES.



SHEET NO.

01

TITLE SHEET

VAUGHN - WEST

CASCADE

NH 3-1(61)0

10546000

PROJECT NAME

COUNTY

PROJECT ID

UPN

DESIGNED BY

REVIEWED BY

CHECKED BY

10546000RDTTL002.DWG

MONTANA
Department of Transportation

ROAD PLANS

5/26/2026 9:40 AM

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ROAD PLANS

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BASIS OF PLAN QUANTITIES

WETLANDS

TITLE SHEET

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8

BUS PULLOUTS

9-15

(QUANTITIES FOR ESTIMATING PURPOSES ONLY)
BITUMINOUS MATERIAL = 8.5 LBS. PER GAL.
CRACK SEALANT - EXISTING CRACKS = 0.125 LBS. PER LNFT
CRACK SEALANT - NEW CRACKS = 0.50 LBS. PER LNFT
SEAL = 0.42 GAL. PER SQ.YARD
COVER = 25 LBS. PER SQ.YARD

AS-BUILTS

NH-MT 3-1(34)0
NH 3-1(13)2 F
NH 3-1(12)0 F

PROJECT STATIONING

THE PROJECT WAS RESTATIONED FROM AS-BUILTS NH 3-1(12)0 F AND
NH 3-1(13)2 F; ALL LOCATIONS ARE APPROXIMATE

WETLANDS MAY EXIST ADJACENT TO THE ROADWAY AND BEYOND THE
PROJECT LIMITS. A WETLAND DELINEATION HAS NOT BEEN COMPLETED FOR
THIS PROJECT. IMPACTS TO WETLAND AREAS ARE NOT ANTICIPATED IN
ASSOCIATION WITH THE PROPOSED WORK. NO PERMITS HAVE BEEN
OBTAINED. ANY ACTION IMPACTING WETLAND AREAS WITHOUT THE
APPROPRIATE PERMITTING IS THE RESPONSIBILITY OF THE CONTRACTOR.

UTILITIES

CALL THE UTILITIES UNDERGROUND LOCATION CENTER (811) OR OTHER
NOTIFICATION SYSTEM FOR THE MARKING AND LOCATION OF ALL LINES AND
SERVICES BEFORE EXCAVATING. ALL CLEARANCES OR DEPTHS PROVIDED
FOR UTILITIES ARE FROM EXISTING GROUND LINE.

SHEET NO.

02

TABLE OF CONTENTS &
NOTES

PROJECT NAME
VAUGHN - WEST

COUNTY

CASCADE

PROJECT ID

NH 3-1(61)0

UPN

10546000



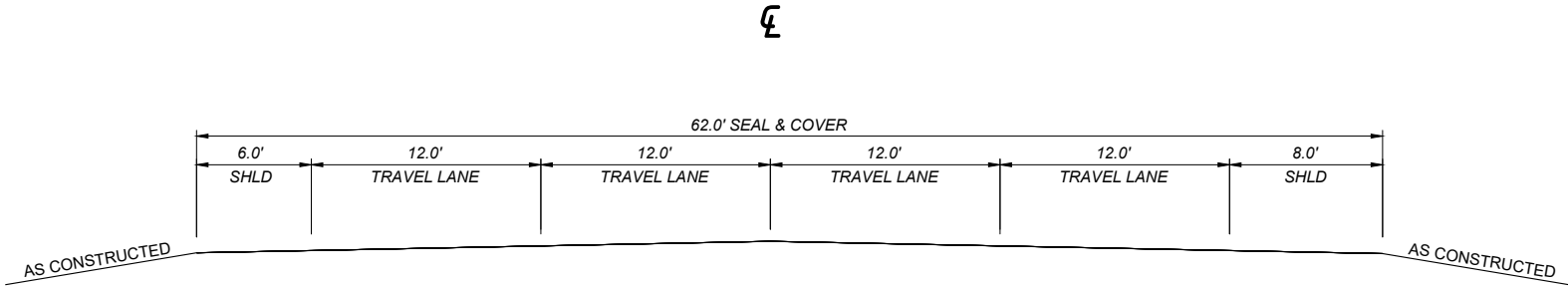
ROAD PLANS

5/26/2026 9:40 AM

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TYPICAL SECTION NO. 1
MAINLINE

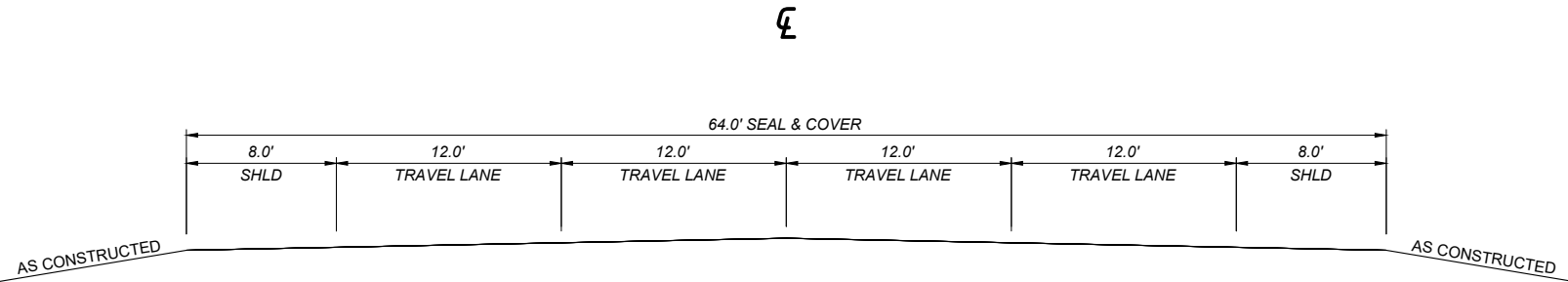
10+00.00 BE TO 14+26.00 B.O.P. CONNECTION - SEE DETAIL
14+26.00 TO 20+99.97 BE THEN TYP. NO. 2



QUANTITIES			
UNIT	AGGREGATE	UNIT	BITUMINOUS MATERIAL
	COVER		SEAL
AREA square feet	689	square yards PER STATION	689
cubic yards PER STATION		tons PER STATION	1.23
tons PER STATION		gals. PER STATION	
square yards PER STATION			

TYPICAL SECTION NO. 2
MAINLINE

23+25.10 BE TO 30+16.64 BE
31+79.37 BE TO 32+29.37
32+29.37 TO 34+01.61 TRANS. TYP. NO. 2 TO TYP. NO. 3



QUANTITIES			
UNIT	AGGREGATE	UNIT	BITUMINOUS MATERIAL
	COVER		SEAL
AREA square feet	711	square yards PER STATION	711
cubic yards PER STATION		tons PER STATION	1.27
tons PER STATION		gals. PER STATION	
square yards PER STATION			

SHEET NO.

03

TYPICAL SECTIONS

PROJECT NAME
VAUGHN - WEST

COUNTY

CASCADE

PROJECT ID

NH 3-1(61)0

UPN

10546000

DESIGNED BY

S. POWELL 02/2026

REVIEWED BY

R. SNYDER 02/2026

CHECKED BY

J. SOLIDAY 04/2026

10546000RDTYP002.DWG

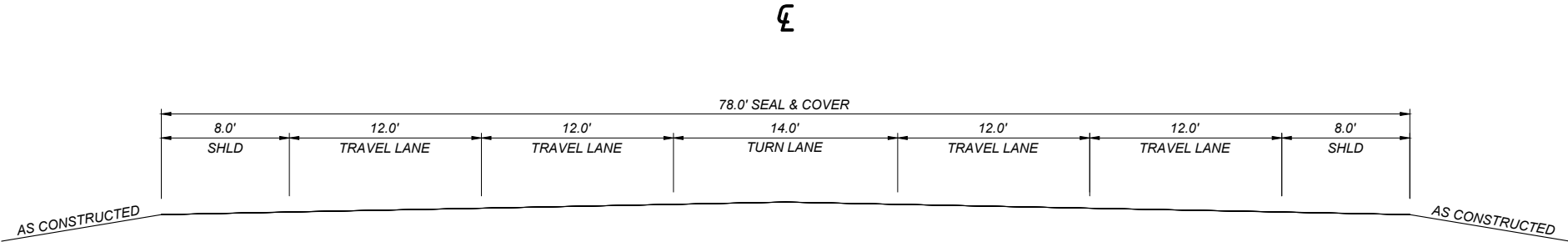


ROAD PLANS

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TYPICAL SECTION NO. 3
MAINLINE

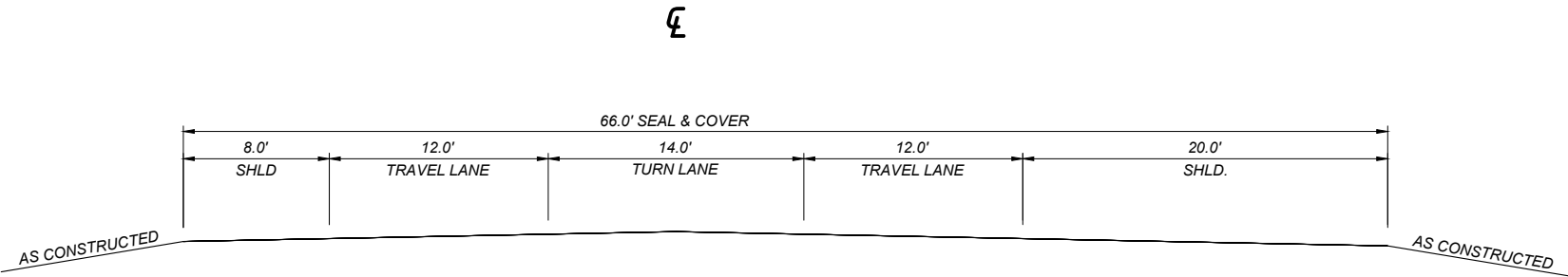
34+01.61 TO 401+55.28
401+55.28 TO 409+82.05 TRANS. TYP. NO. 3 TO TYP. NO. 4



QUANTITIES			
UNIT	AGGREGATE	UNIT	BITUMINOUS MATERIAL
	COVER		SEAL
AREA square feet	867	square yards PER STATION	867
cubic yards PER STATION		tons PER STATION	1.55
tons PER STATION		gals. PER STATION	
square yards PER STATION			

TYPICAL SECTION NO. 4
MAINLINE

409+82.05 TO 414+45.76
414+45.76 TO 418+77.10 TRANS. TYP. NO. 4 TO TYP. NO. 5



QUANTITIES			
UNIT	AGGREGATE	UNIT	BITUMINOUS MATERIAL
	COVER		SEAL
AREA square feet	733	square yards PER STATION	733
cubic yards PER STATION		tons PER STATION	1.31
tons PER STATION		gals. PER STATION	
square yards PER STATION			

SHEET NO.

04

TYPICAL SECTIONS

PROJECT NAME
VAUGHN - WEST

COUNTY

CASCADE

PROJECT ID

NH 3-1(61)0

UPN

10546000

DESIGNED BY
S. POWELL

02/2026

REVIEWED BY
R. SNYDER

02/2026

CHECKED BY
J. SOLIDAY

04/2026

10546000RDTYP002.DWG

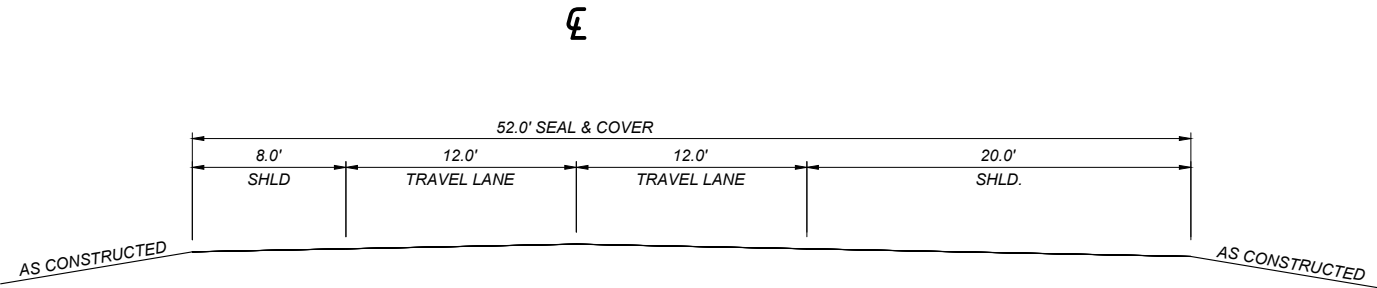


ROAD PLANS

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TYPICAL SECTION NO. 5
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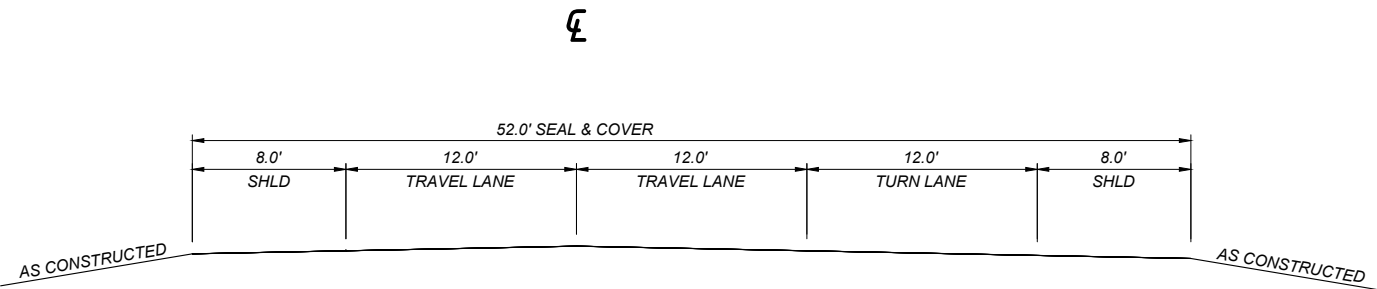
418+77.10 TO 421+67.00 ONLY
TRANS. TYP. NO. 5 TO TYP. NO. 6



QUANTITIES			
UNIT	AGGREGATE	UNIT	BITUMINOUS MATERIAL
	COVER		SEAL
AREA square feet		square yards PER STATION	578
cubic yards PER STATION		tons PER STATION	1.03
tons PER STATION		gals. PER STATION	
square yards PER STATION	578		

TYPICAL SECTION NO. 6
MAINLINE

421+67.00 ONLY



QUANTITIES			
UNIT	AGGREGATE	UNIT	BITUMINOUS MATERIAL
	COVER		SEAL
AREA square feet		square yards PER STATION	578
cubic yards PER STATION		tons PER STATION	1.03
tons PER STATION		gals. PER STATION	
square yards PER STATION	578		

SHEET NO.

05

TYPICAL SECTIONS

PROJECT NAME
VAUGHN - WEST

COUNTY

CASCADE

PROJECT ID

NH 3-1(61)0

UPN

10546000

DESIGNED BY
S. POWELL

02/2026

REVIEWED BY
R. SNYDER

02/2026

CHECKED BY
J. SOLIDAY

04/2026

10546000RDTYP002.DWG



ROAD PLANS

5/26/2026 9:41 AM

SUMMARY FRAMES

PROJECT NAME
VAUGHN - WEST

COUNTY
CASCADE

PROJECT ID
NH 3-1(61)0

UPN
10546000

DESIGNED BY
S. POWELL

REVIEWED BY
R. SNYDER

CHECKED BY
J. SOLIDAY

MONTANA
Department of Transportation

ROAD PLANS

10546000RD\SUM002.DWG

SURFACING									
STATION		linear feet				FOR	AGGREGATE	BITUMINOUS MATERIAL	REMARKS
		GROSS	NET	+	-		sq. yards	tons	
							COVER TYPE II	EMULSIFIED ASPHALT SEAL CHFRS-2P	
FROM	TO								
10+00.00 BE	14+26.00	426.00	426.00				2,642	4.7	SEE DETAIL - AREA MEASURED ON CAD
14+26.00	20+99.97 BE	673.97	673.97				4,643	8.3	TYP. NO. 1
20+99.97 BE	23+25.10 BE	225.13			225.13	BRIDGE			
23+25.10 BE	30+16.64 BE	691.54	691.54				4,917	8.8	TYP. NO. 2
30+16.64 BE	31+79.37 BE	162.73			162.73	BRIDGE			
31+79.37 BE	32+29.37	50.00	50.00				356	0.6	TYP. NO. 2
32+29.37	34+01.61	172.24	172.24				1,359	2.4	TRANS. TYP. NO. 2 TO TYP. NO. 3
34+01.61	401+55.28	36,753.67	36,753.67				318,654	569.7	TYP. NO. 3
401+55.28	409+82.05	826.77	826.77				6,614	11.8	TRANS. TYP. NO. 3 TO TYP. NO. 4
409+82.05	414+45.76	463.71	463.71				3,399	6.1	TYP. NO. 4
414+45.76	418+77.10	431.34	431.34				2,827	5.0	TRANS. TYP. NO. 4 TO TYP. NO. 5
418+77.10	421+67.00	289.90	289.90				1,676	3.0	TRANS. TYP. NO. 5 TO TYP. NO. 6
						ADDITIONAL SURFACING	9,709	17.3	BUS PULLOUTS (14)
TOTAL		41,167.00	40,779.14	~	387.86		356,795	637.8	

* ADDITIONAL SURFACING (INCLUDED IN SURFACING FRAME)									
STATION		linear feet				FOR	AGGREGATE	BITUMINOUS MATERIAL	REMARKS
		GROSS	NET	+	-		sq. yards	tons	
							COVER TYPE II	EMULSIFIED ASPHALT SEAL CHFRS-2P	
FROM	TO								
75+81.55	79+12.56					BUS PULLOUT	572	1.0	LEFT
83+16.78	87+19.84					BUS PULLOUT	719	1.3	RIGHT
100+01.44	103+87.09					BUS PULLOUT	684	1.2	LEFT
106+16.36	109+06.31					BUS PULLOUT	505	0.9	RIGHT
154+95.93	159+48.40					BUS PULLOUT	735	1.3	RIGHT
167+89.84	172+04.50					BUS PULLOUT	746	1.3	LEFT
187+74.20	191+74.05					BUS PULLOUT	598	1.1	LEFT
199+91.20	203+76.25					BUS PULLOUT	699	1.2	RIGHT
204+76.63	207+40.61					BUS PULLOUT	509	0.9	LEFT
217+06.87	220+96.22					BUS PULLOUT	860	1.5	LEFT
228+40.96	230+92.16					BUS PULLOUT	457	0.8	RIGHT
245+96.52	250+29.97					BUS PULLOUT	939	1.7	LEFT
264+23.85	267+34.46					BUS PULLOUT	643	1.1	LEFT
269+04.60	273+97.31					BUS PULLOUT	1,042	1.9	RIGHT
SUBTOTAL		~	~	~	~		9,709	17.3	

* SEE DETAILS - AREAS MEASURED ON CAD

CRACK SEALING *						
STATION		TRANSVERSE & LONGITUDINAL CRACK SEALING				REMARKS
		CRACK SEALING				
		NEW	EXISTING	NEW	EXISTING	
FROM	TO	pounds	pounds	linear feet	linear feet	
10+00.00	421+67.00	40,995	180	81,990	1,440	ROADWAY AND BUS TURNOUTS
SUBTOTAL		40,995	180	#	#	
TOTAL		41,175		#	#	

FOR INFORMATION ONLY

BRIDGE QUANTITIES				
MDT STRUCTURE ID	NBI STRUCTURE ID	FEATURE CROSSED	sq. yards	REMARKS
			DECK CRACK SEAL	
05165	P00003000+02371	BNSF RAILWAY	1,663.7	
05166	P00003000+04151	MUDDY CREEK	1,200.0	
TOTAL			2863.7	

PAVEMENT MARKINGS				
ITEM	UNIT	INTERIM APPLICA-TION #	FINAL APPLICA-TION	TOTAL
STRIPING - WHITE PAINT	gallon	363		363
STRIPING - YELLOW PAINT	gallon	350		350
WORDS & SYMBOLS - WHITE PAINT	gallon	25		25
WORDS & SYMBOLS - YELLOW PAINT	gallon	17		17
STRIPING - WHITE EPOXY	gallon		484	484
STRIPING - YELLOW EPOXY	gallon		467	467
WORDS & SYMBOLS - WHITE EPOXY	gallon		32	32
WORDS & SYMBOLS - YELLOW EPOXY	gallon		22	22

BASED ON 1 APPLICATION



MONTANA
Department of Transportation

ROAD PLANS

DESIGNED BY
S. POWELL

REVIEWED BY
R. SNYDER

CHECKED BY
J. SOLIDAY

PROJECT NAME
VAUGHN - WEST

COUNTY
CASCADE

PROJECT ID
NH 3-1(61)0

UPN
10546000

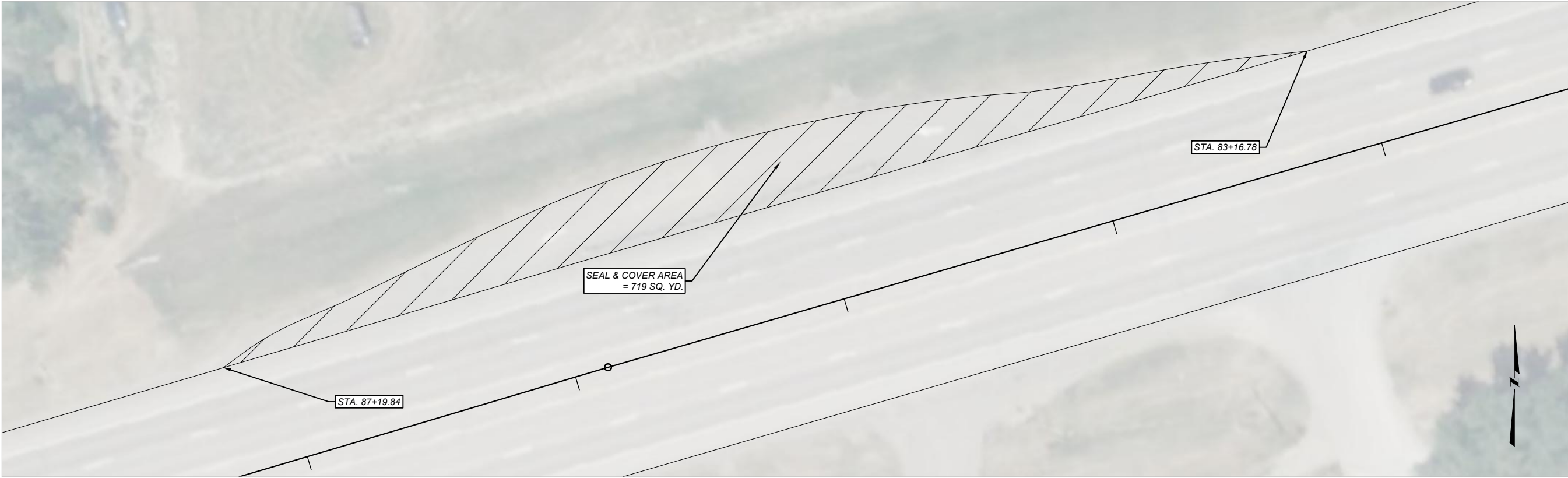
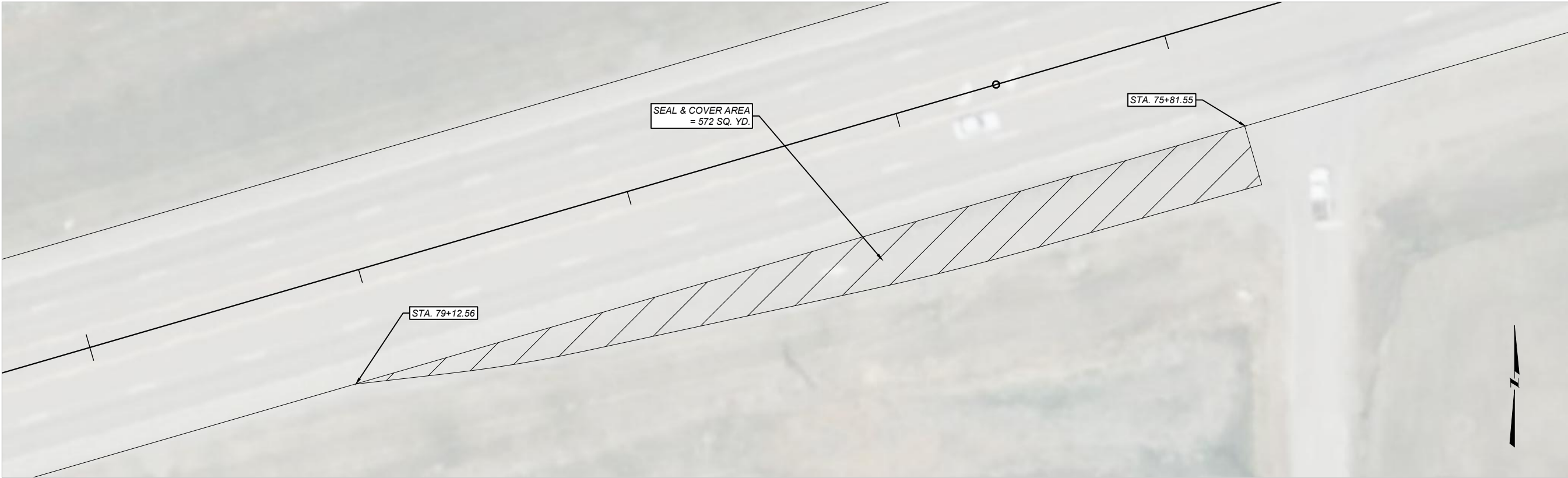
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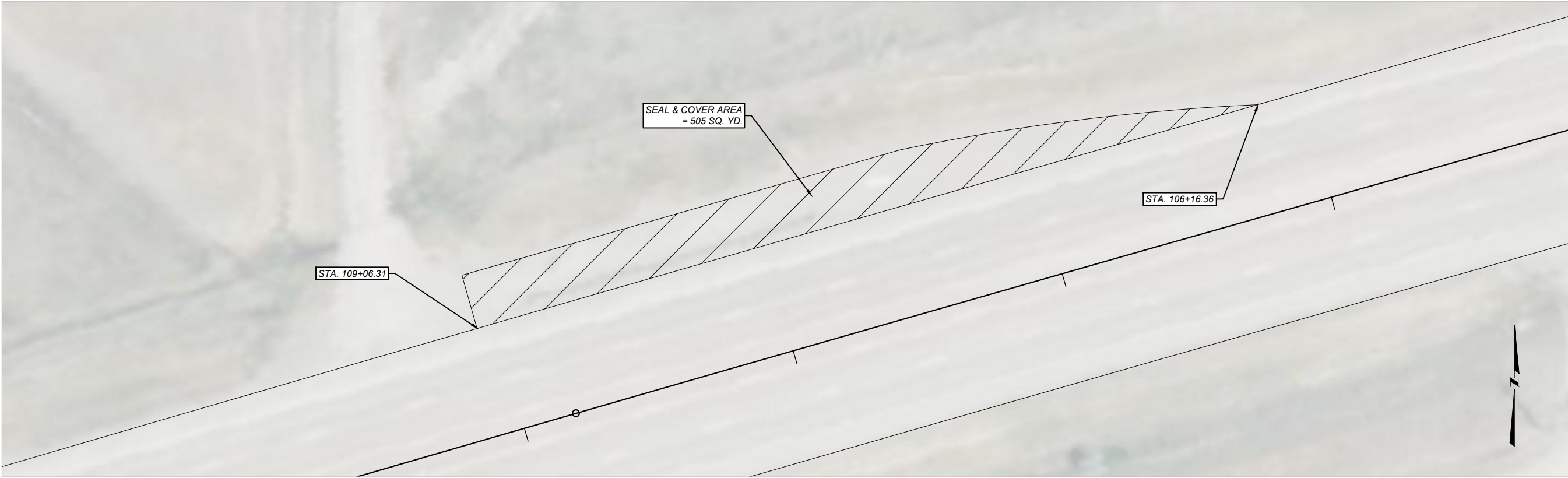
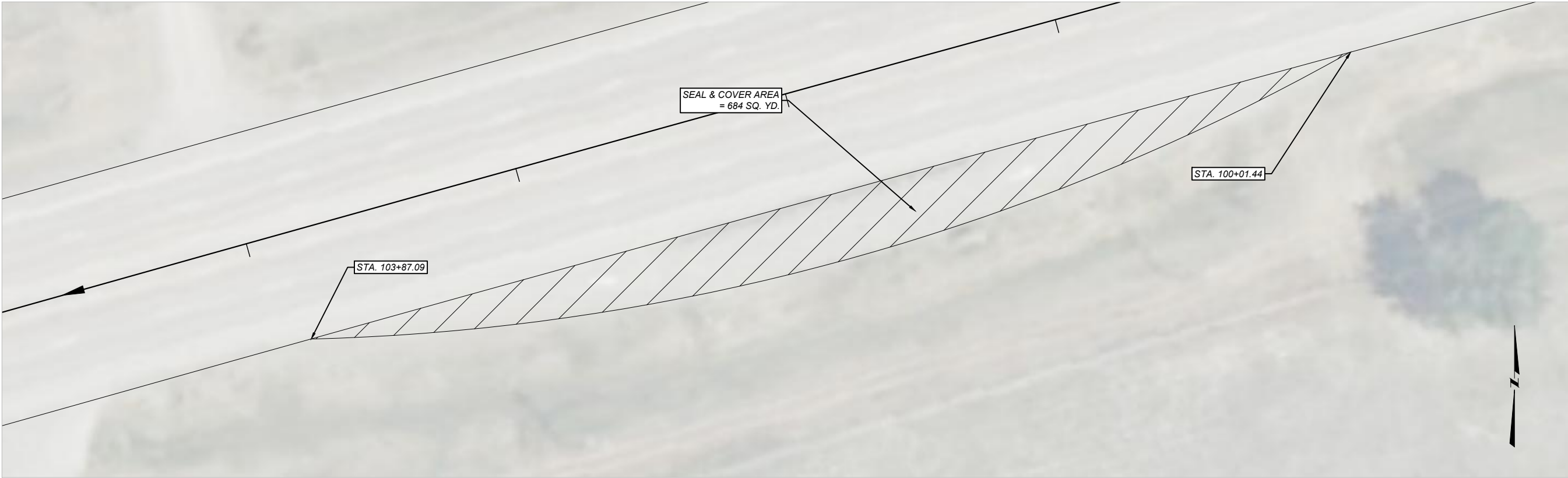
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	REVIEWED BY R. SNYDER		COUNTY CASCADE	
	CHECKED BY J. SOLIDAY		PROJECT ID NH 3-1(61)0	
			UPN 10546000	
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08	
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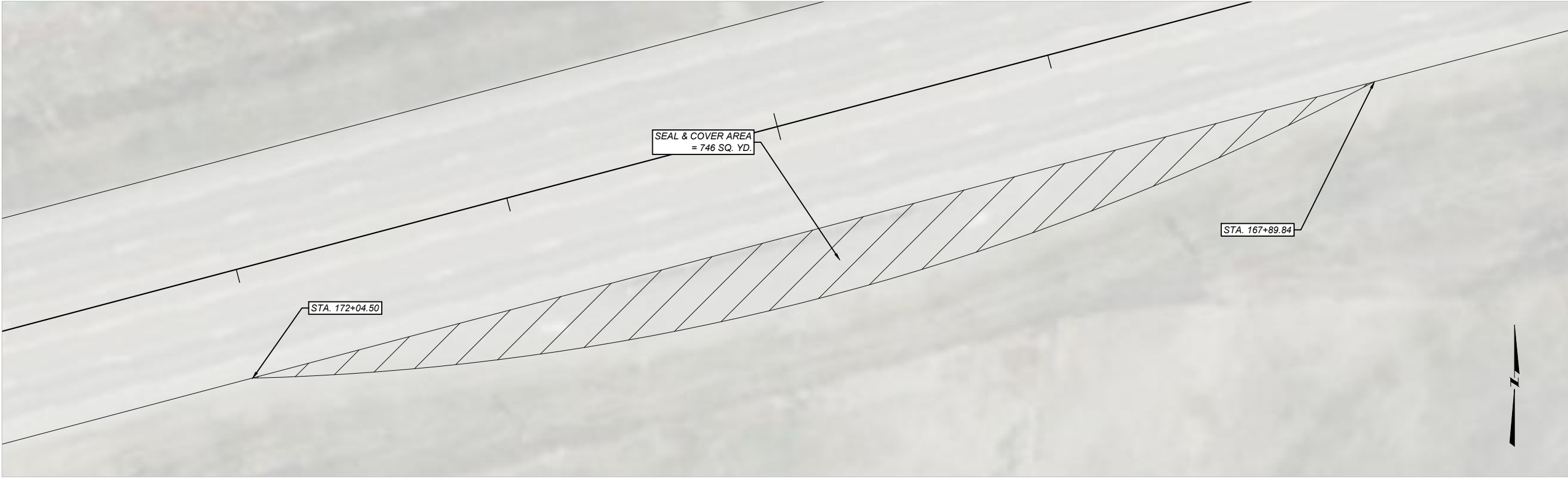
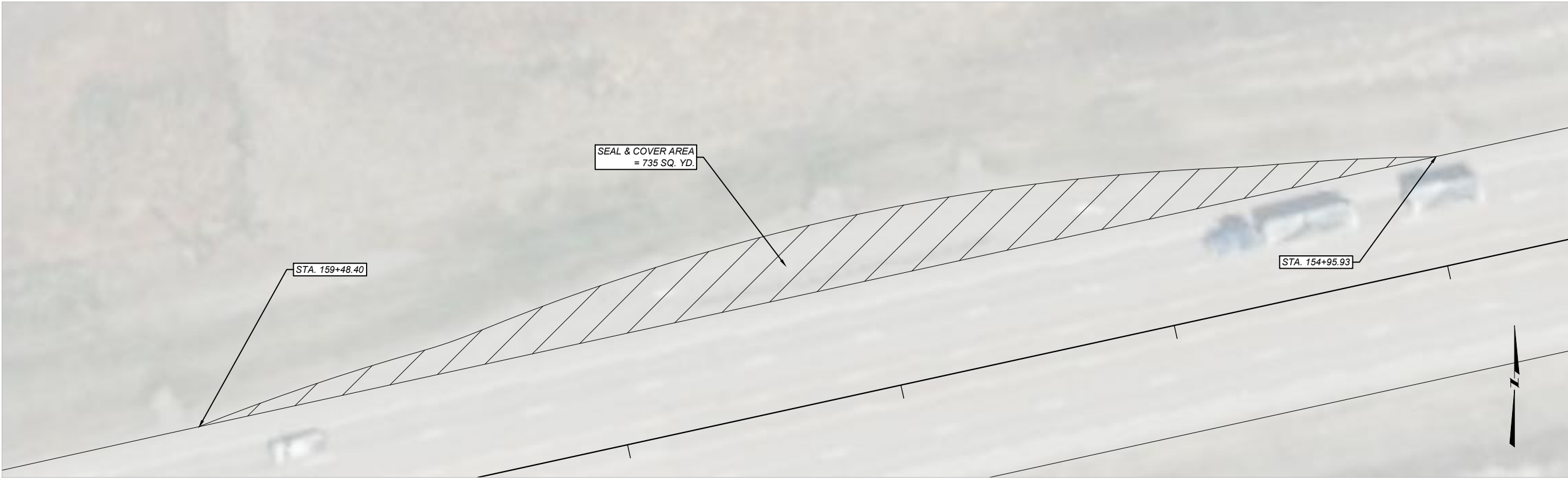




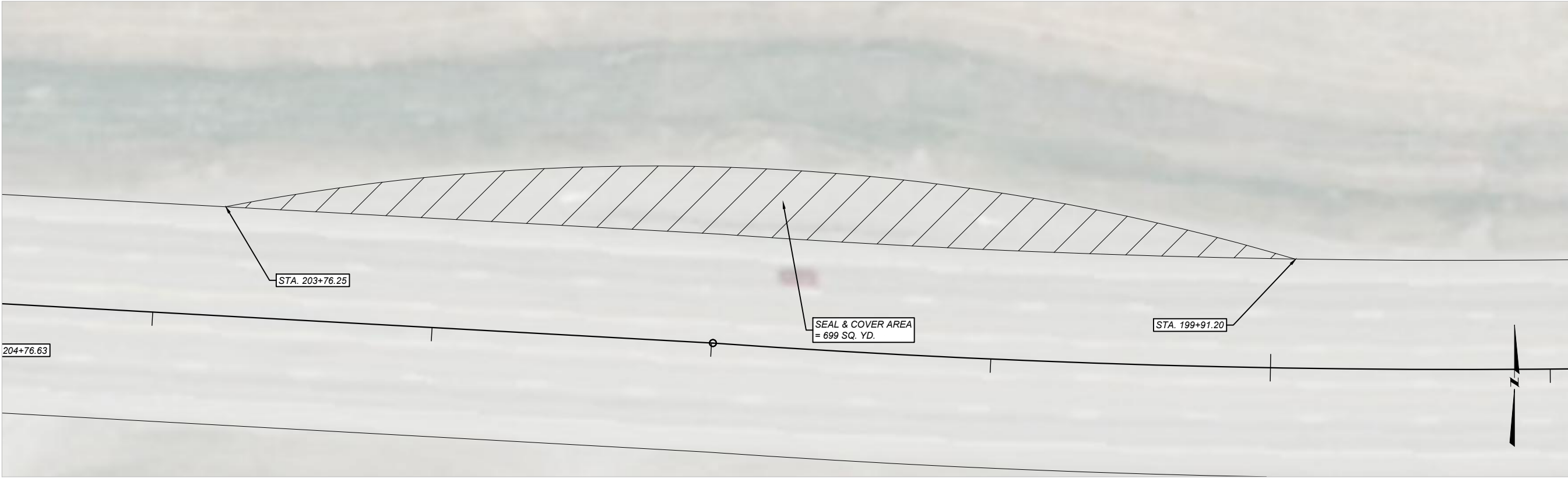
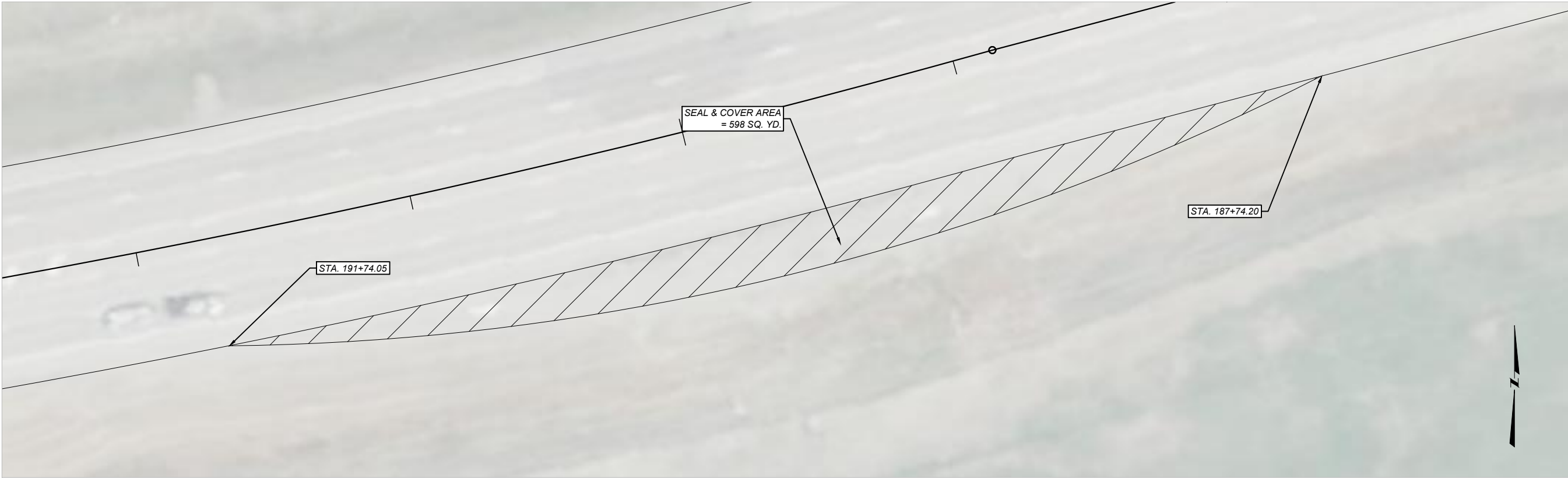
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BUS PULLOUTS DETAIL			
	PROJECT NAME		VAUGHN - WEST
	COUNTY		CASCADE
	PROJECT ID		NH 3-1(61)0
	UPN		10546000
DESIGNED BY		S. POWELL	02/2026
REVIEWED BY		R. SNYDER	02/2026
CHECKED BY		J. SOLIDAY	04/2026
ROAD PLANS		10546000RDET002.DWG	
		4/15/2026 8:20 AM	



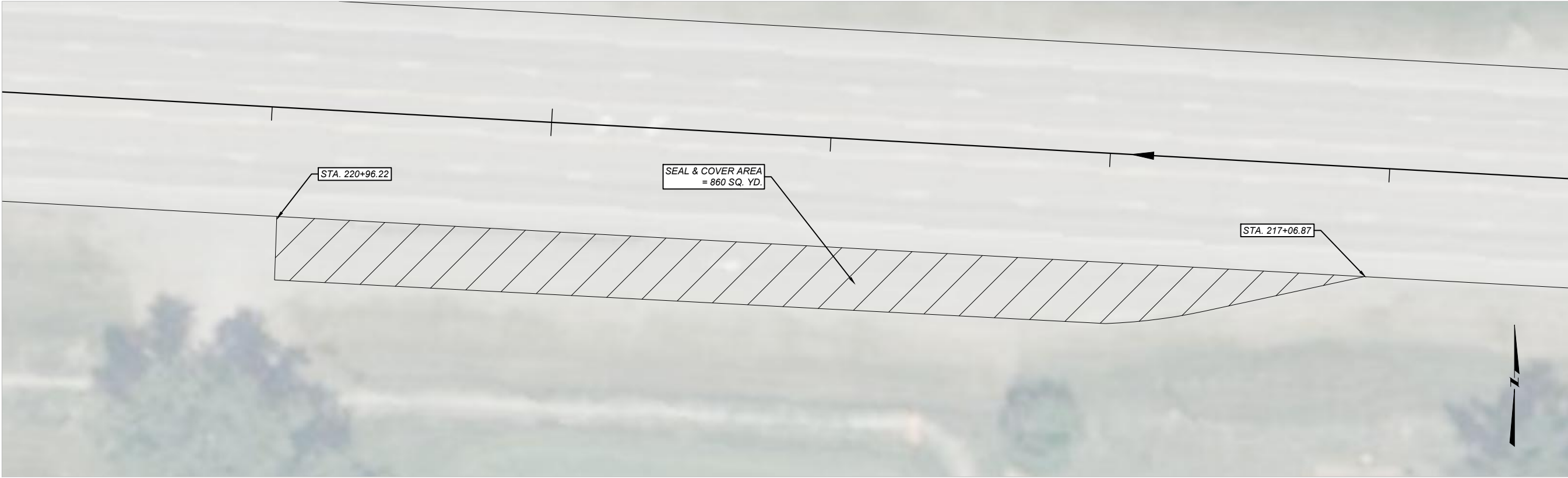
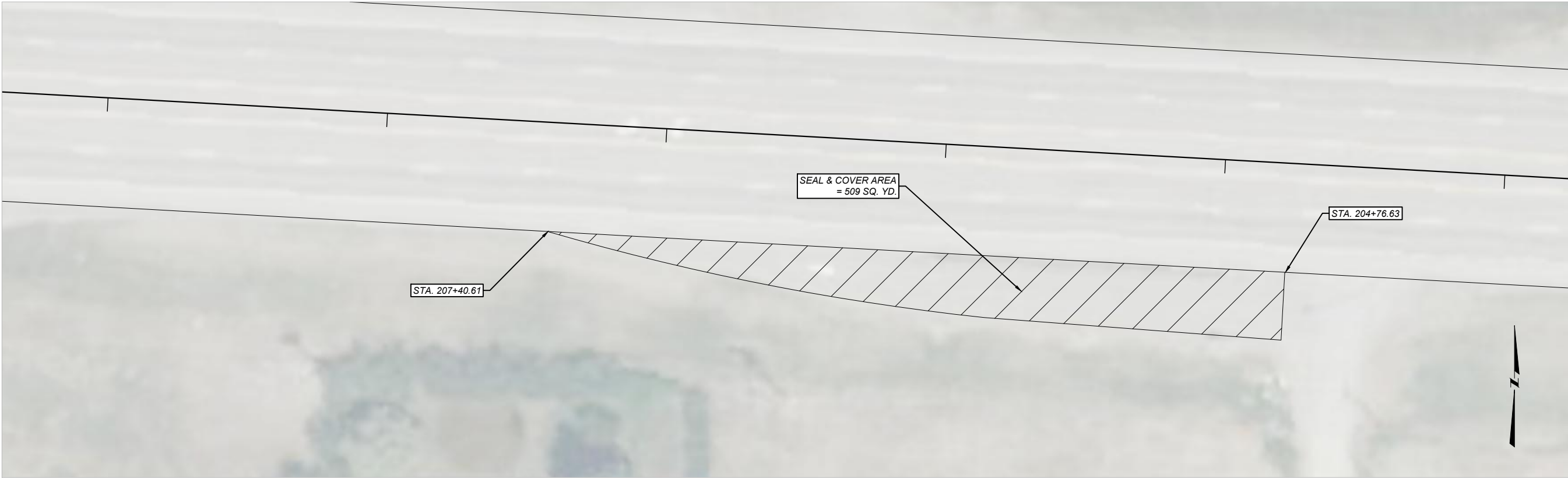
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		COUNTY	CASCADE
		PROJECT ID	NH 3-1(61)0
		UPN	10546000
		10546000RDET002.DWG	
		4/15/2026 8:20 AM	
DESIGNED BY	S. POWELL	02/2026	
REVIEWED BY	R. SNYDER	02/2026	
CHECKED BY	J. SOLIDAY	04/2026	



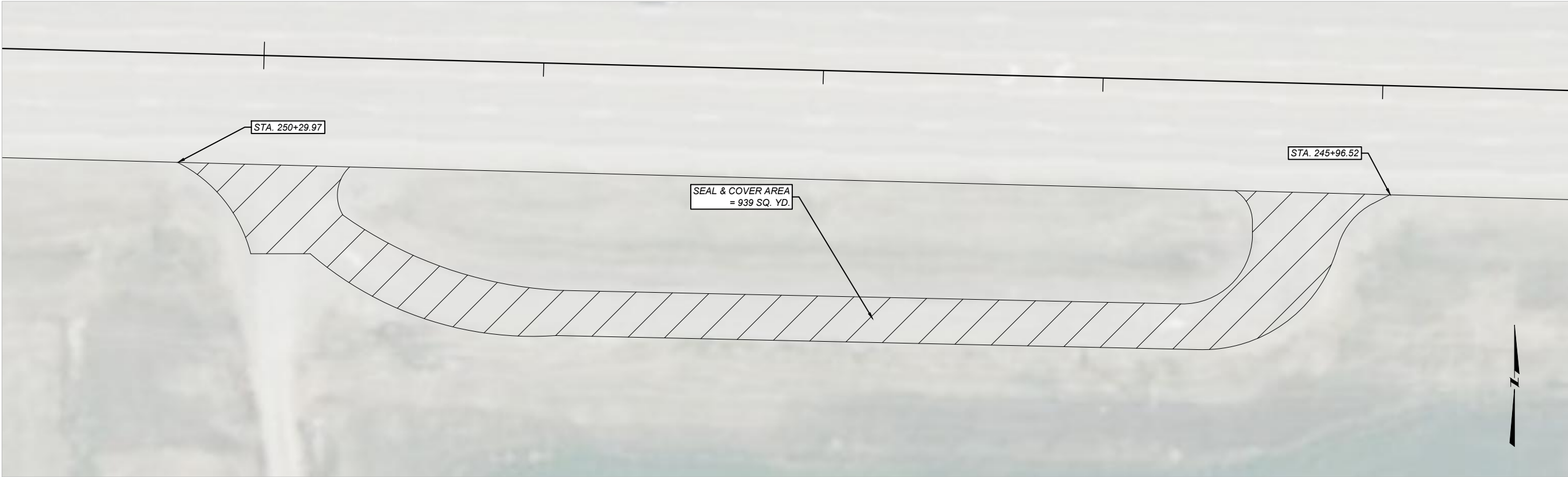
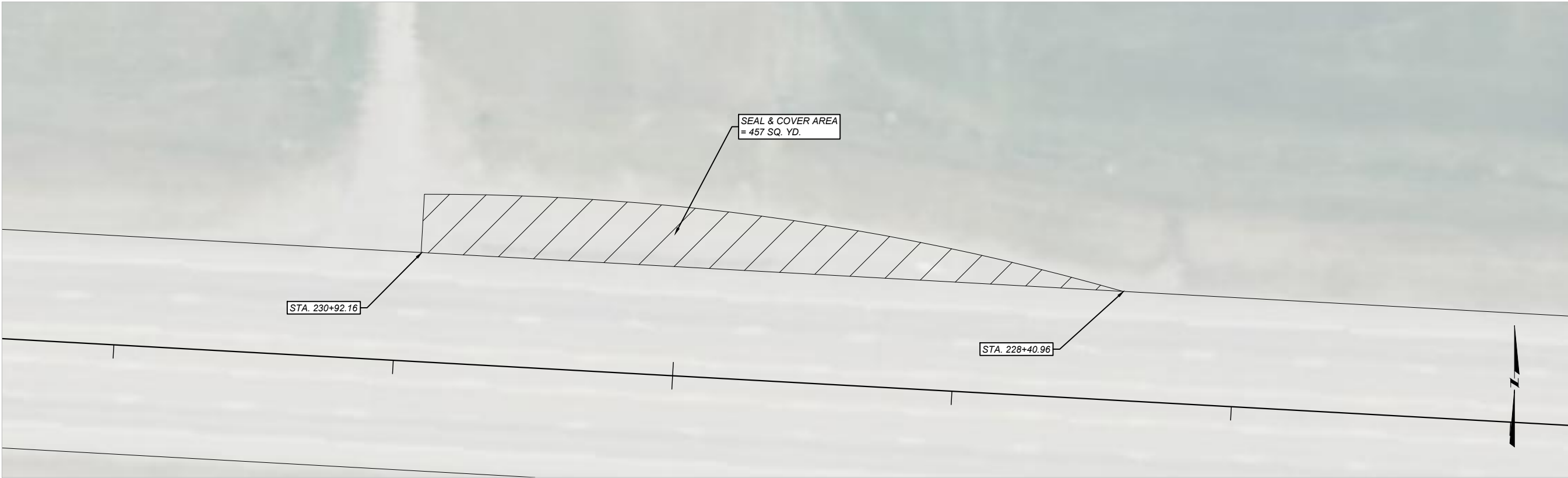
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ROAD PLANS		S. POWELL	02/2026	VAUGHN - WEST	
		R. SNYDER	02/2026	COUNTY	
		PROJECT ID			
		CHECKED BY		NH 3-1(61)0	
		J. SOLIDAY	04/2026	UPN	
		10546000RDETT002.DWG		10546000	
4/15/2026 8:20 AM					



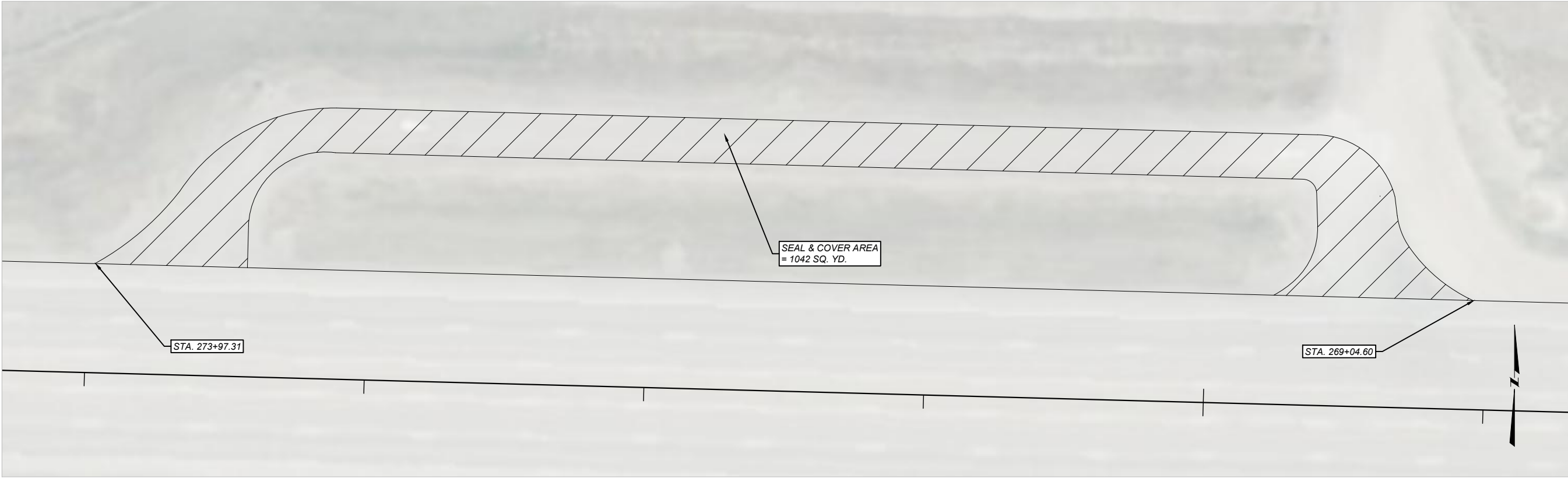
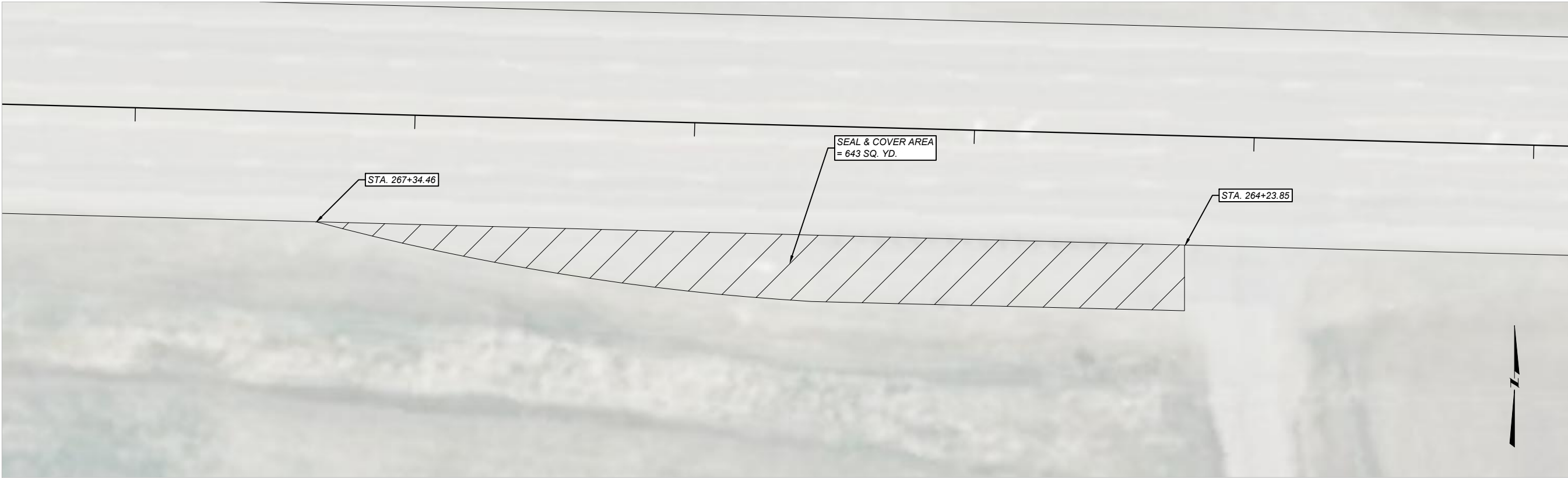
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		PROJECT NAME	VAUGHN - WEST
		COUNTY	CASCADE
ROAD PLANS		PROJECT ID	NH 3-1(61)0
4/15/2026 8:20 AM		UPN	10546000
		DESIGNED BY	S. POWELL
		REVIEWED BY	R. SNYDER
10546000RDET002.DWG		CHECKED BY	J. SOLIDAY
		DATE	04/2026



 MONTANA Department of Transportation				DESIGNED BY		PROJECT NAME		BUS PULLOUTS DETAIL	13	SHEET NO.
ROAD PLANS		S. POWELL	02/2026	VAUGHN - WEST						
		COUNTY								
		PROJECT ID								
		UPN								
4/15/2026 8:20 AM		J. SOLIDAY	04/2026	10546000						
		R. SNYDER	02/2026	NH 3-1(61)0		10546000				
		CHECKED BY		10546000RDE002.DWG						



SHEET NO.		14	
BUS PULLOUTS DETAIL			
	PROJECT NAME		VAUGHN - WEST
	COUNTY		CASCADE
	PROJECT ID		NH 3-1(61)0
	UPN		10546000
DESIGNED BY		S. POWELL	02/2026
REVIEWED BY		R. SNYDER	02/2026
CHECKED BY		J. SOLIDAY	04/2026
ROAD PLANS		10546000RDET002.DWG	
		4/15/2026 8:20 AM	



 MONTANA Department of Transportation				DESIGNED BY		PROJECT NAME		BUS PULLOUTS DETAIL
ROAD PLANS		S. POWELL	02/2026	VAUGHN - WEST				
		REVIEWED BY		COUNTY				
		R. SNYDER	02/2026	CASCADE				
		CHECKED BY		PROJECT ID				
		J. SOLIDAY	04/2026	NH 3-1(61)0				
4/15/2026 8:20 AM		10546000RDET002.DWG		UPN		10546000		