

DESIGN DATA				
Traffic	Average Daily			
Current	Pass: 1,865	Trucks: 120	Total: 1,985	
Forecast	Pass: 2,275	Trucks: 150	Total: 2,425	
Clear Zone Distance: NA		Design Speed: NA		
Minimum Sight Dist. for Stopping: NA		Bridges: NA		
Sight Dist. for No Passing Zone: NA				
Pavement Design Life NA (years)				
Design Accumulated One-way		ESALs: NA		

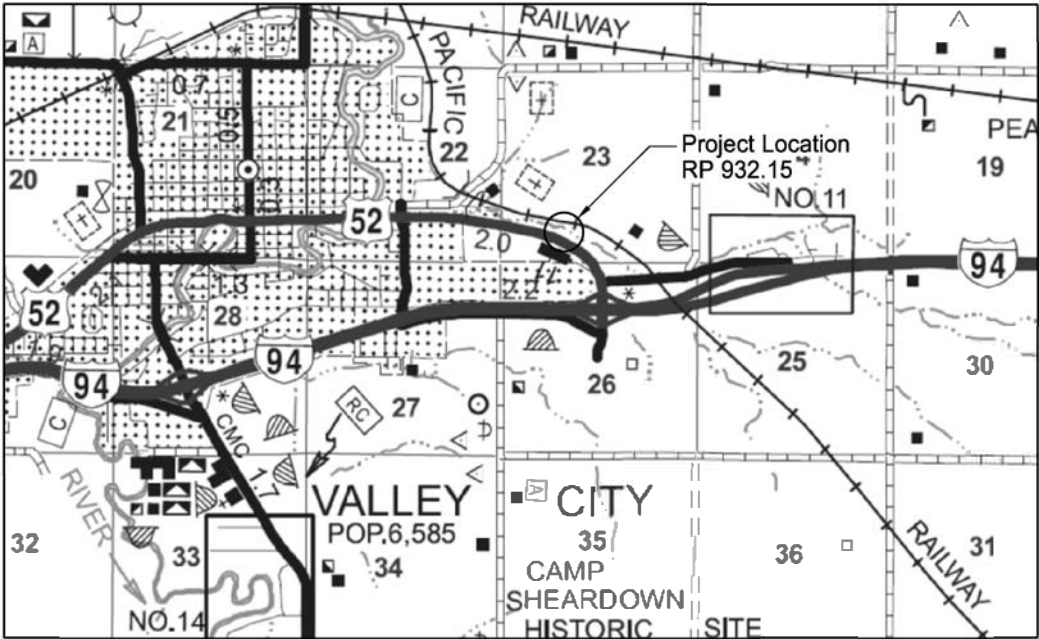
JOB # 2
NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

NHU-2-094(169)932
Barnes
I-94 Business Loop
Slide Repair

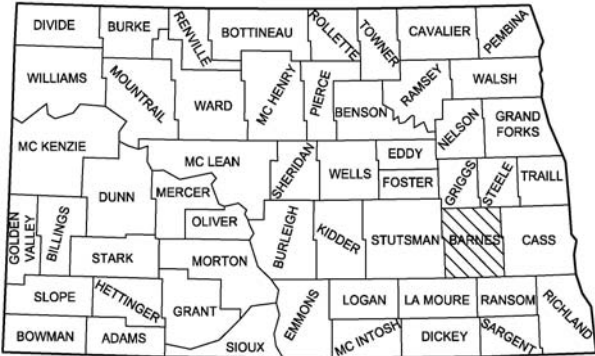
STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
ND	NHU-2-094(169)932	22787	1	1

GOVERNING SPECIFICATIONS:
2014 Standard Specifications adopted by the North Dakota
Department of Transportation and the Supplemental Specifications
effective on the date the project is advertised.

PROJECT NUMBER \ DESCRIPTION	NET MILES	GROSS MILES
NHU-2-094(169)932	.02	.02



R58W



STATE COUNTY MAP

DESIGNER Aaron Murra P.E.
DESIGNER Ryan Swanberg
DESIGNER Austin Barchenger

ND DEPARTMENT OF TRANSPORTATION
OFFICE OF PROJECT DEVELOPMENT
Kirk J Hoff

Hoff, Kirk J.
08 04 2020

DocuSign

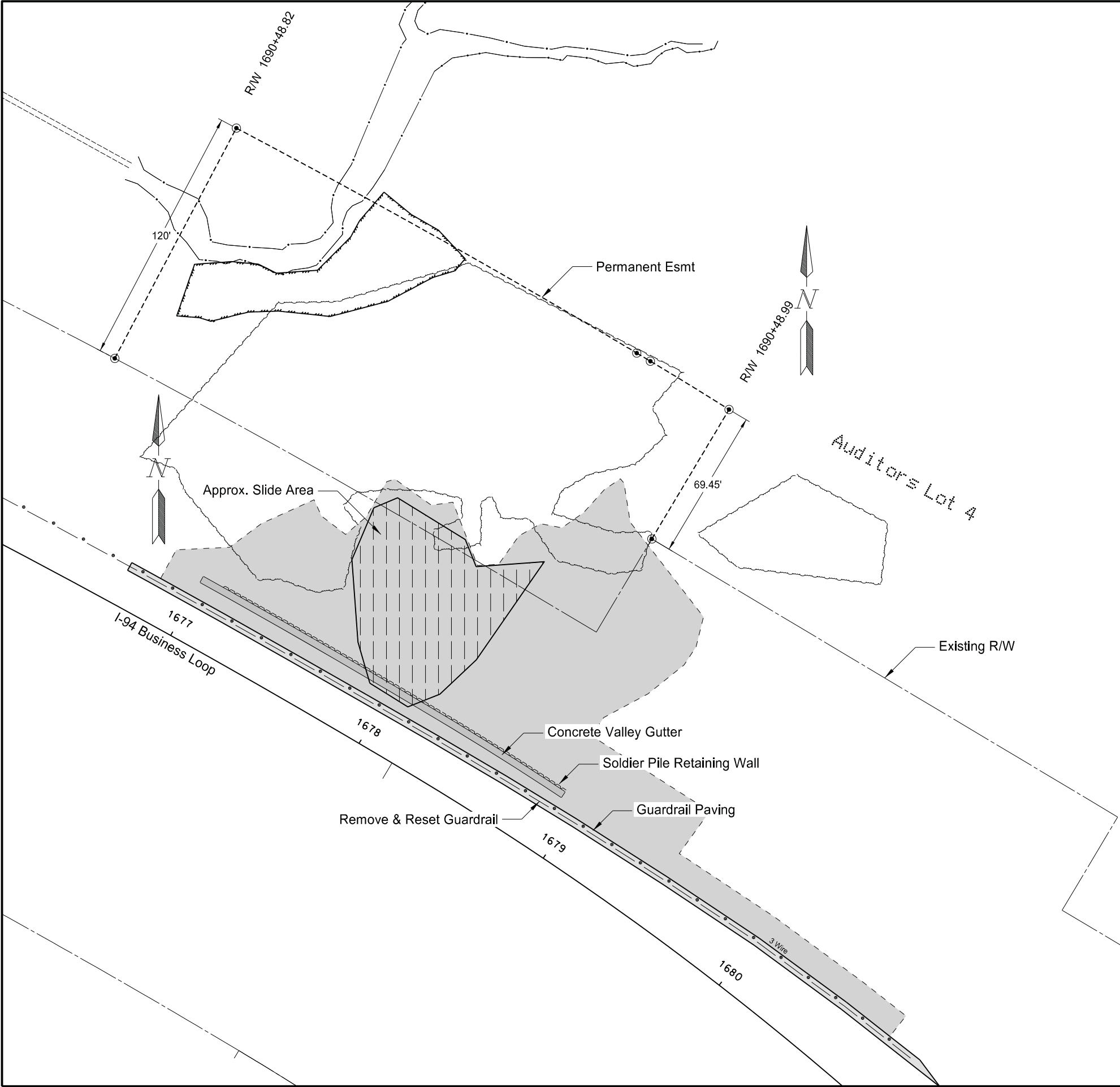
DESIGN DIVISION

JAMES DOUGLAS
REGISTERED
PROFESSIONAL
PE-4288
ENGINEER
NORTH DAKOTA

08/03/20

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1	1	Title Sheet	D-101-1, 2, 3	NDDOT Abbreviations					
2	1	Table of Contents	D-101-10	NDDOT Utility Company and Organization Abbreviations					
4	1	Scope of Work	D-101-20, 21	Line Styles					
6	1	Notes	D-101-30, 31, 32	Symbols					
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8	1	Quantities	D-261-1	Erosion Control - Fiber Roll Placement Details					
10	1	Basis of Estimate	D-704-9	Construction Sign Details - Terminal And Guide Signs					
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20	1	General Details	D-704-11	Construction Sign Details - Warning Signs					
30	1	Typical Sections	D-704-15	Road Closure Layouts					
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70	1	Contours	D-764-32	Three Cable Guardrail					
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Scope of Work

Sta 1676+00 to Sta 1679+50

I-94 Business Loop Slide Repair

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NHU-2-094(169)932	6	1

NOTES

- 104-P01 EXISTING CONDITIONS: The plans are based on survey data taken during project development. The sliding condition being repaired is not static and the surface surveyed is largely representative of what is onsite, but not exact. Sliding in this area continues and will vary from what is shown. If necessary, communicate significant inconsistencies with the Engineer.
- 203-010 SHRINKAGE: 25% percent additional volume is included for shrinkage in earth embankment.
- 203-P01 EXCAVATION REQUIREMENTS: Excavate material from the top down.
- 203-P02 STOCKPILING EXCAVATED MATERIAL: Do not stockpile excavated material onsite at any time. Dispose of all material at an approved location.
- 261-P01 PERMANENT FIBER ROLLS: For permanent fiber rolls use fiber rolls that are composed of netting that meets either of the following:
- Plastic or natural fiber photodegradable netting that has a life expectancy between 12 to 24 months. If the photodegradable netting is plastic, the netting color must be either clear or green. Black plastic netting will not be allowed.
- 100 percent biodegradable jute netting that has a life expectancy between 6 to 12 months.
- 704-200 PRECAST CONCRETE MEDIAN BARRIERS – STATE FURNISHED: Obtain 42 barriers from the NDDOT section yard in Casselton. Return the barriers to the NDDOT section yard in Casselton.
- Casselton Section Yard
15482 37th St SE
Casselton ND, 58102
- Install any missing markers on the barriers before traffic use. Include the cost of the markers in the contract unit price for "Precast Concrete Median Barrier – State Furnished."
- Some 4 inch x 4 inch boards are available at the return location. Provide any additional 4 inch x 4 inch boards necessary to stack barriers. The boards will become property of the Department. Include the cost for boards in the contract unit price for "Precast Concrete Median Barrier - State Furnished."
- 704-P01 TRAFFIC CONTROL: Provide temporary traffic control consisting of Precast Concrete Median Barriers, temporary 3 cable guardrail anchors and lane shifts as shown in the plans. Maintain 12' lanes during construction. The traffic control device list was developed using the layouts in the plans and the following standard drawings:
- D-704-22 Type K for Trucks hauling material
D-704-35 Single lane closure, 1 provided for installing temp barriers
- To operate in a manner different than what is described, provide a complete traffic control layout to the Engineer for review and approval prior to work being performed.
- 704-P02 OBLITERATION OF PAVEMENT MARKING: The contractor has the option to obliterate or mask existing pavement markings as specified in Section 704.03. If the contractor chooses to mask the existing markings cover them with black preformed plastic sheeting with an adhesive coating that allowing for removal at the end of the project. Include the cost of all equipment, material, and labor, including the removal of sheeting, if used, in the price bid for "OBLITERATION OF PAVEMENT MARKING."
- 764-P01 RESET 3-CABLE GUARDRAIL: Reset the 3-cable guardrail, as shown in Section 130, before winter suspension. The Contractor can pave either year 1 or year 2, but will only be paid to remove the guardrail one time as shown in Section 100.



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ND	NHU-2-094(169)932	6	2

ENVIRONMENTAL NOTES

ENVIRONMENTAL NOTES (EN): The North Dakota Department of Transportation and the Federal Highway Administration have made environmental commitments to secure approval of this project. The following environmental notes are requirements to comply with these commitments

EN-1 NLEB AND TREE REMOVAL: Suitable wooded habitat for the northern long-eared bat (NLEB) is present within the project limits, remove trees during the active season for the species (April 1 – October 31).

These trees will be added to ETS's NDDOT Tree Impact and Mitigation Ledger.



ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NHU-2-094(169)932	8	1

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
----	----	-----	----	-----	-----
103	0100	CONTRACT BOND	L SUM	1	1
201	0352	REMOVAL OF TREES & BRUSH	L SUM	1	1
202	0136	REMOVAL OF PAVEMENT	TON	83	83
202	0312	REMOVE EXISTING FENCE	LF	277	277
203	0113	COMMON EXCAVATION-WASTE	CY	3,320	3,320
203	0119	TOPSOIL-IMPORTED	CY	419	419
251	0200	SEEDING CLASS II	ACRE	0.6	0.6
251	2000	TEMPORARY COVER CROP	ACRE	0.6	0.6
253	0201	HYDRAULIC MULCH	ACRE	1.2	1.2
255	0101	ECB TYPE 1	SY	1,914	1,914
261	0112	FIBER ROLLS 12IN	LF	1,186	1,186
302	0120	AGGREGATE BASE COURSE CL 5	TON	61	61
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT	TON	21	21
702	0100	MOBILIZATION	L SUM	1	1
704	0100	FLAGGING	MHR	120	120
704	1000	TRAFFIC CONTROL SIGNS	UNIT	991	991
704	1039	ATTENUATION DEVICE-TYPE B-45	EA	2	2
704	1052	TYPE III BARRICADE	EA	2	2
704	1060	DELINEATOR DRUMS	EA	17	17
704	1081	VERTICAL PANELS-BACK TO BACK	EA	14	14
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	699	699
704	3510	PRECAST CONCRETE MED BARRIER-STATE FURNISHED	EA	42	42
748	1000	VALLEY GUTTER 36IN	LF	194	194
762	0113	EPOXY PVMT MK 4IN LINE	LF	2,787	2,787
762	0420	SHORT TERM 4IN LINE-TYPE R	LF	2,770	2,770
764	0115	3-CABLE GUARDRAIL	LF	15	15
764	1010	RESET 3-CABLE GUARDRAIL	LF	413	413
764	2020	REMOVE 3-CABLE GUARDRAIL & POSTS	LF	428	428
930	9543	RETAINING WALL	SF	2,432	2,432

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	10	1

SPEC CODE	BID ITEM	QTY	UNIT
762 0113	EPOXY PVMT MK 4IN LINE		
Yellow Centerline	Sta 1675+06 to Sta 1682+04	1387	LF
White Edge of Lane Line	Sta 1675+03 to Sta 1682+02	1400	LF



Basis of Estimate

I-94 Business Loop Slide Repair

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	11	1

Common Excavation Type A (Pay Item)	Aggr Backfill	Topsoil - Imported (Pay Item)
CY	CY	CY
I	J	L
3320	23	419

Station	Excavated Volume	Approx Aggr Backfill
	CY	CY
9+55	0	0
10+00	138.3	1.5
10+20	220	1
10+40	328.3	7.3
10+60	404.8	7.6
10+80	521.2	0.6
11+00	558.2	0
11+20	469.2	0
11+89	679.7	0

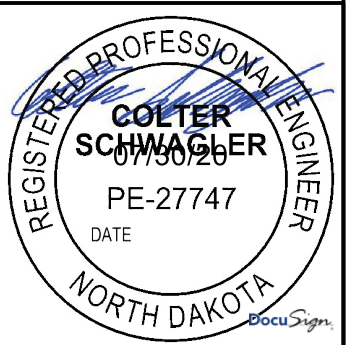
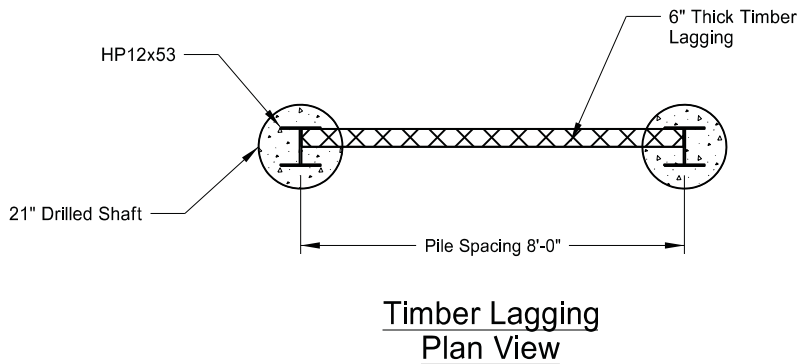
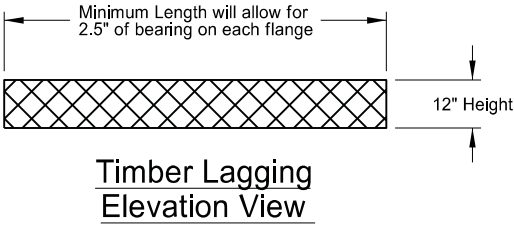
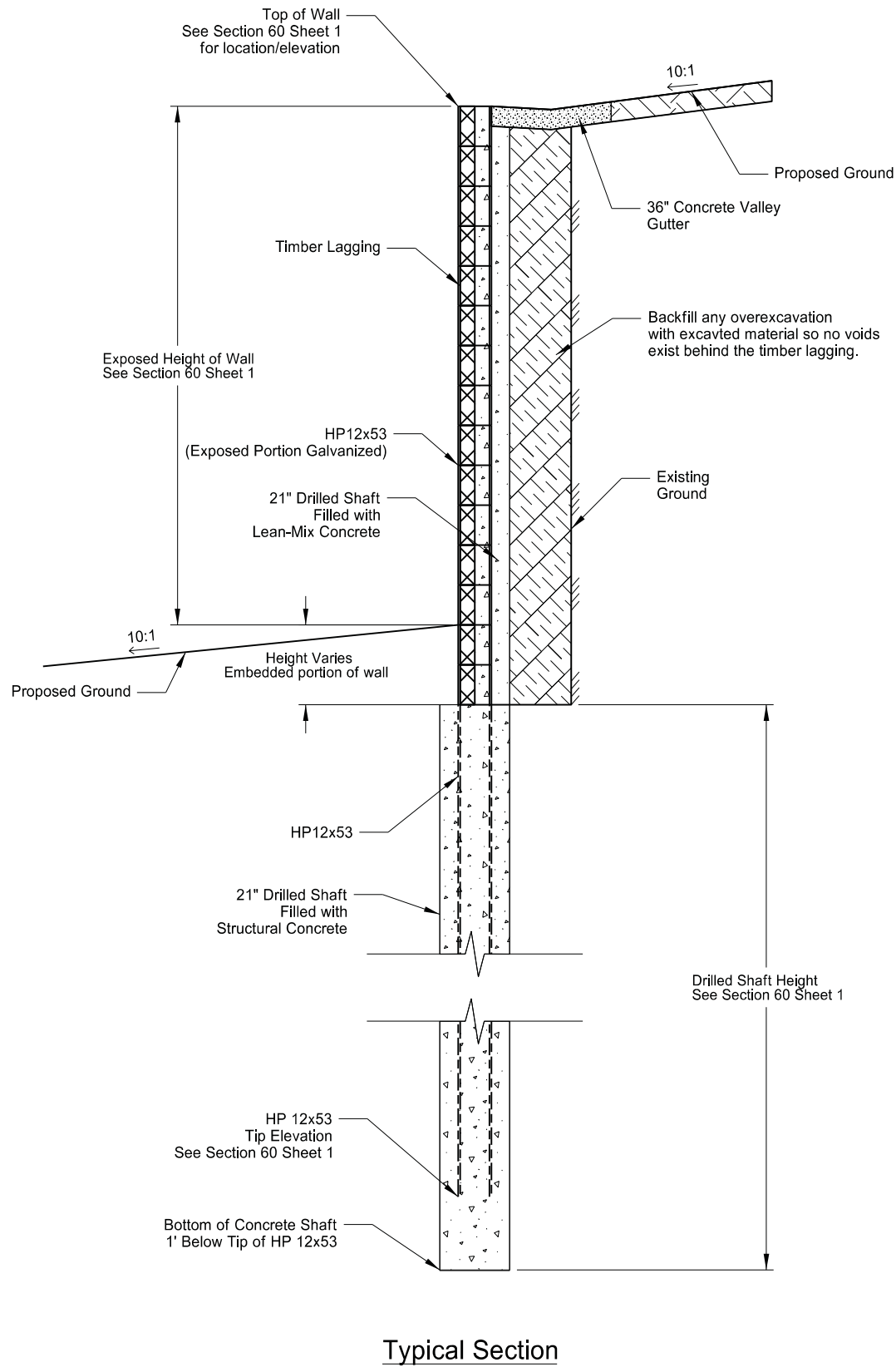
*Stations based on OCL SLD alignment



Earthwork Summary

I-94 Business Loop Slide Repair

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	20	1

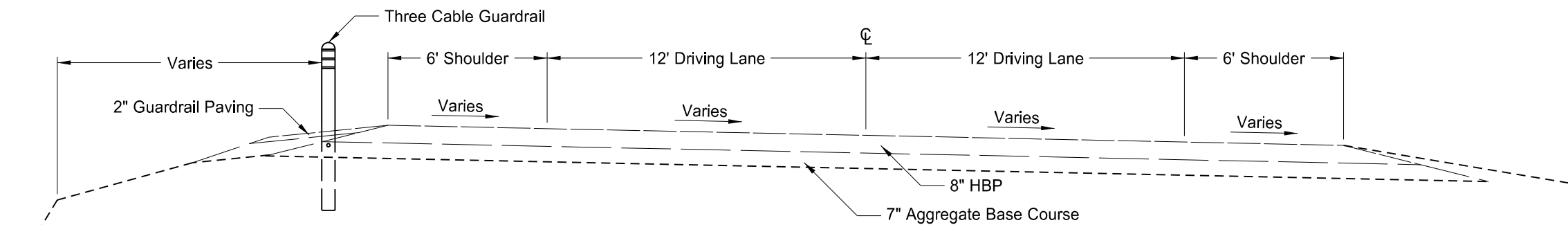


- Notes:
1. Refer to SP 1148(14) Soldier Pile Wall for Construction Details.

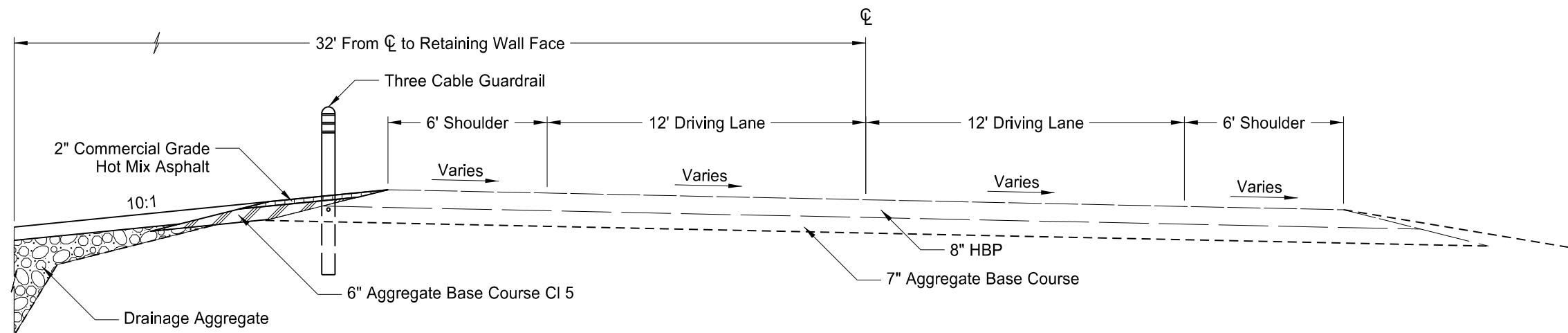
Soldier Pile Wall Detail

I-94 Business Loop Slide Repair

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	30	1



Existing Typical Section
Sta 1674+31 to Sta 1680+89

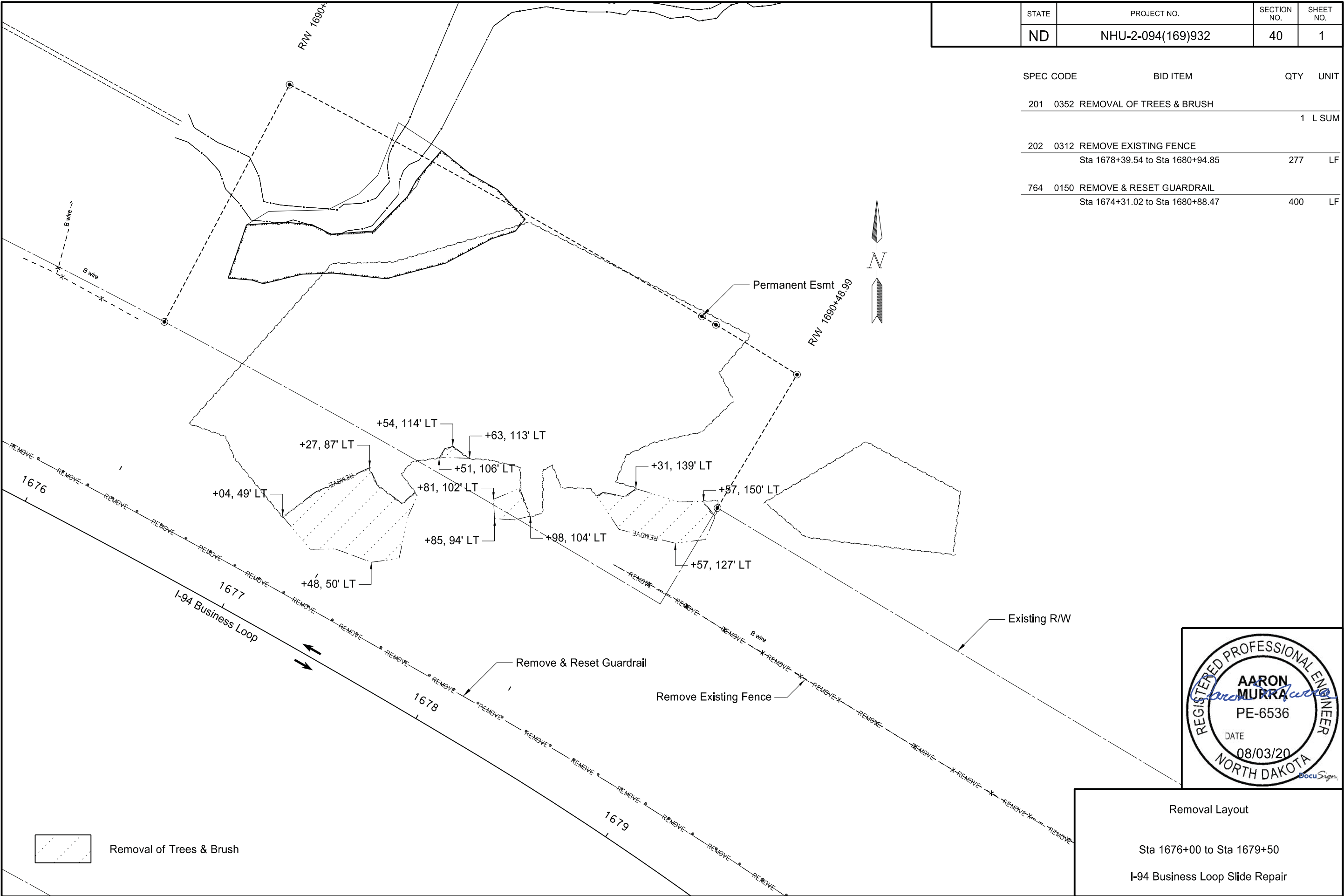


Proposed Typical Section
Sta 1677+06 to Sta 1679+06



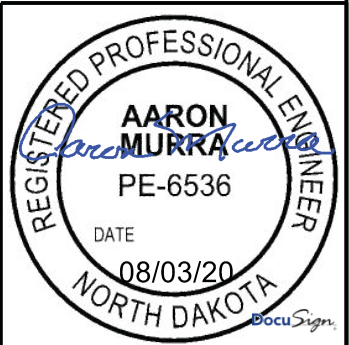
Typical Sections

I-94 Business Loop Slide Repair



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	40	1

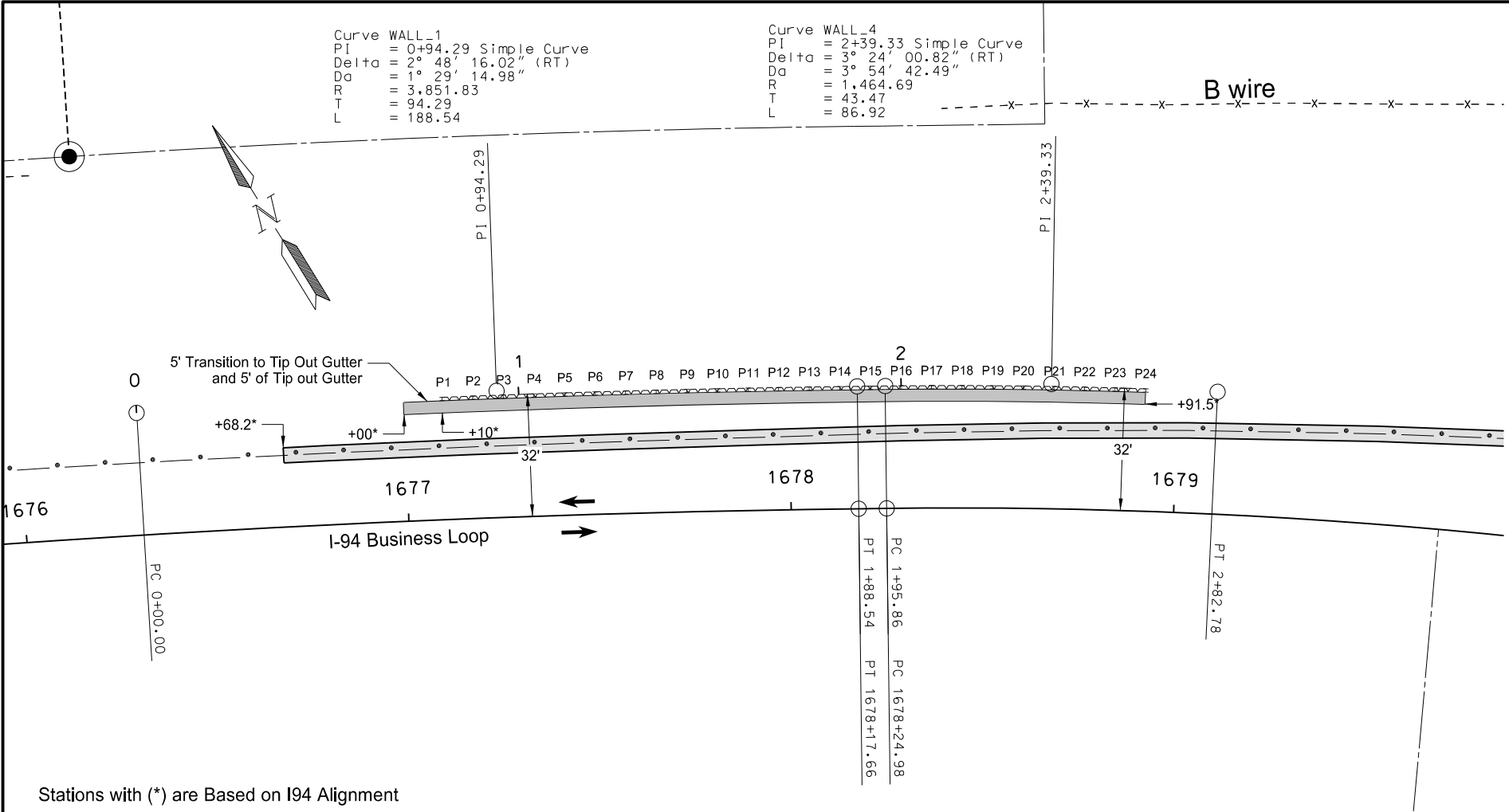
SPEC CODE	BID ITEM	QTY	UNIT
201 0352	REMOVAL OF TREES & BRUSH	1	L SUM
202 0312	REMOVE EXISTING FENCE		
	Sta 1678+39.54 to Sta 1680+94.85	277	LF
764 0150	REMOVE & RESET GUARDRAIL		
	Sta 1674+31.02 to Sta 1680+88.47	400	LF



Removal Layout

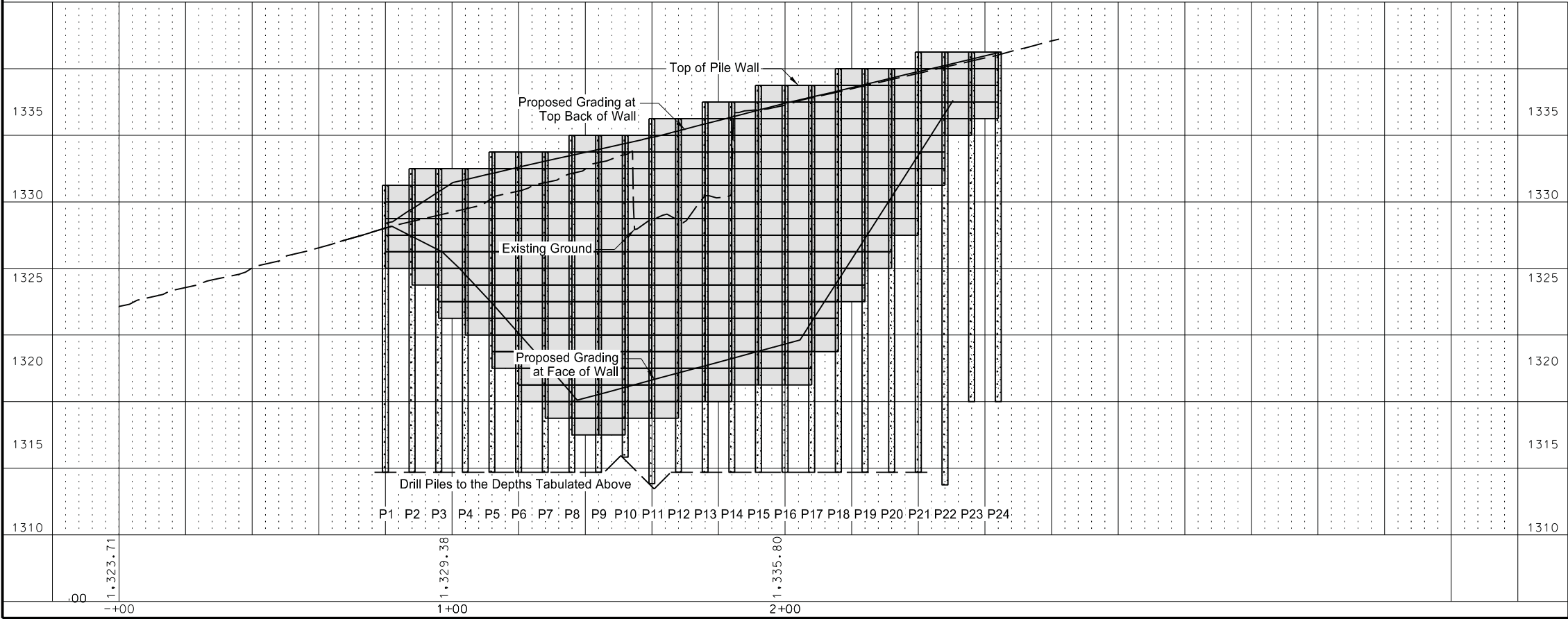
Sta 1676+00 to Sta 1679+50

I-94 Business Loop Slide Repair



Point#	North(Y)	East(X)	Alignment: WALL		Shaft Elevations		
			Sta	OS	Top	Bottom of H-Pile	Bottom
P1	467863.2673	2601536.127	0+80	0.49	1331	1311	1310
P2	467859.3548	2601543.105	0+88	0.49	1332	1307	1306
P3	467855.4278	2601550.075	0+96	0.49	1332	1307	1306
P4	467851.4863	2601557.036	1+04	0.49	1332	1302	1301
P5	467847.5303	2601563.99	1+12	0.49	1333	1298	1297
P6	467843.5599	2601570.935	1+20	0.49	1333	1293	1292
P7	467839.5751	2601577.872	1+28	0.49	1333	1293	1292
P8	467835.5759	2601584.801	1+36	0.49	1334	1289	1288
P9	467831.5623	2601591.721	1+44	0.49	1334	1289	1288
P10	467827.5344	2601598.633	1+52	0.49	1334	1289	1288
P11	467823.492	2601605.537	1+60	0.49	1335	1290	1289
P12	467819.4354	2601612.432	1+68	0.49	1335	1290	1289
P13	467815.3645	2601619.318	1+76	0.49	1336	1291	1290
P14	467811.2792	2601626.197	1+84	0.49	1336	1291	1290
P15	467807.181	2601633.067	1+92	0.49	1337	1292	1291
P16	467803.0756	2601639.934	2+00	0.49	1337	1292	1291
P17	467798.9369	2601646.78	2+08	0.49	1337	1292	1291
P18	467794.7609	2601653.603	2+16	0.49	1338	1293	1292
P19	467790.5477	2601660.404	2+24	0.49	1338	1298	1297
P20	467786.2974	2601667.182	2+32	0.49	1338	1303	1302
P21	467782.0101	2601673.936	2+40	0.49	1339	1309	1308
P22	467777.686	2601680.666	2+48	0.49	1339	1304	1303
P23	467773.3251	2601687.373	2+56	0.49	1339	1319	1318
P24	467768.9277	2601694.056	2+64	0.49	1339	1319	1318

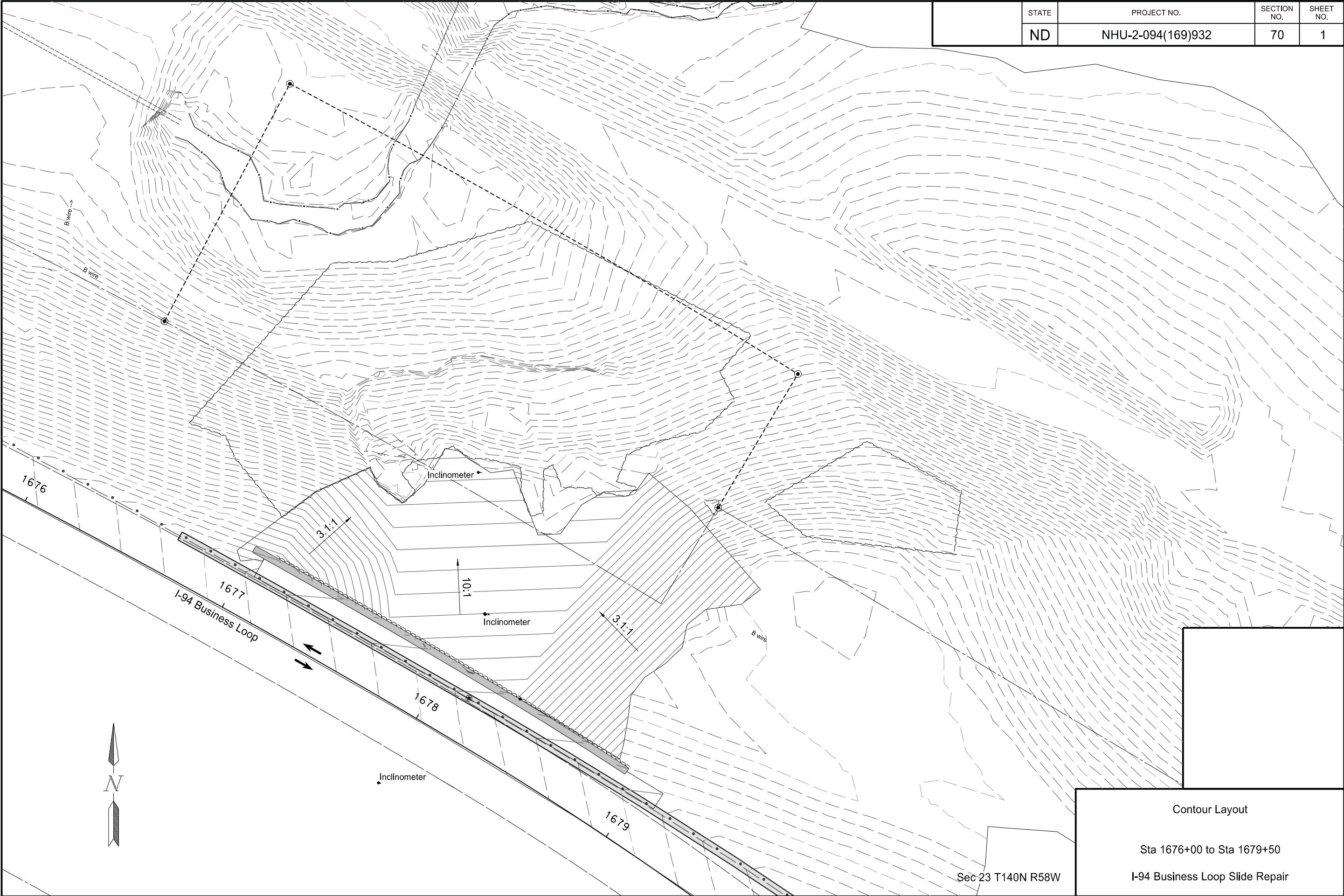
The locations listed are to the center of the pile which is 5.9" from the face of the wall.



Plan and Profile

I-94 Business Loop Slide Repair

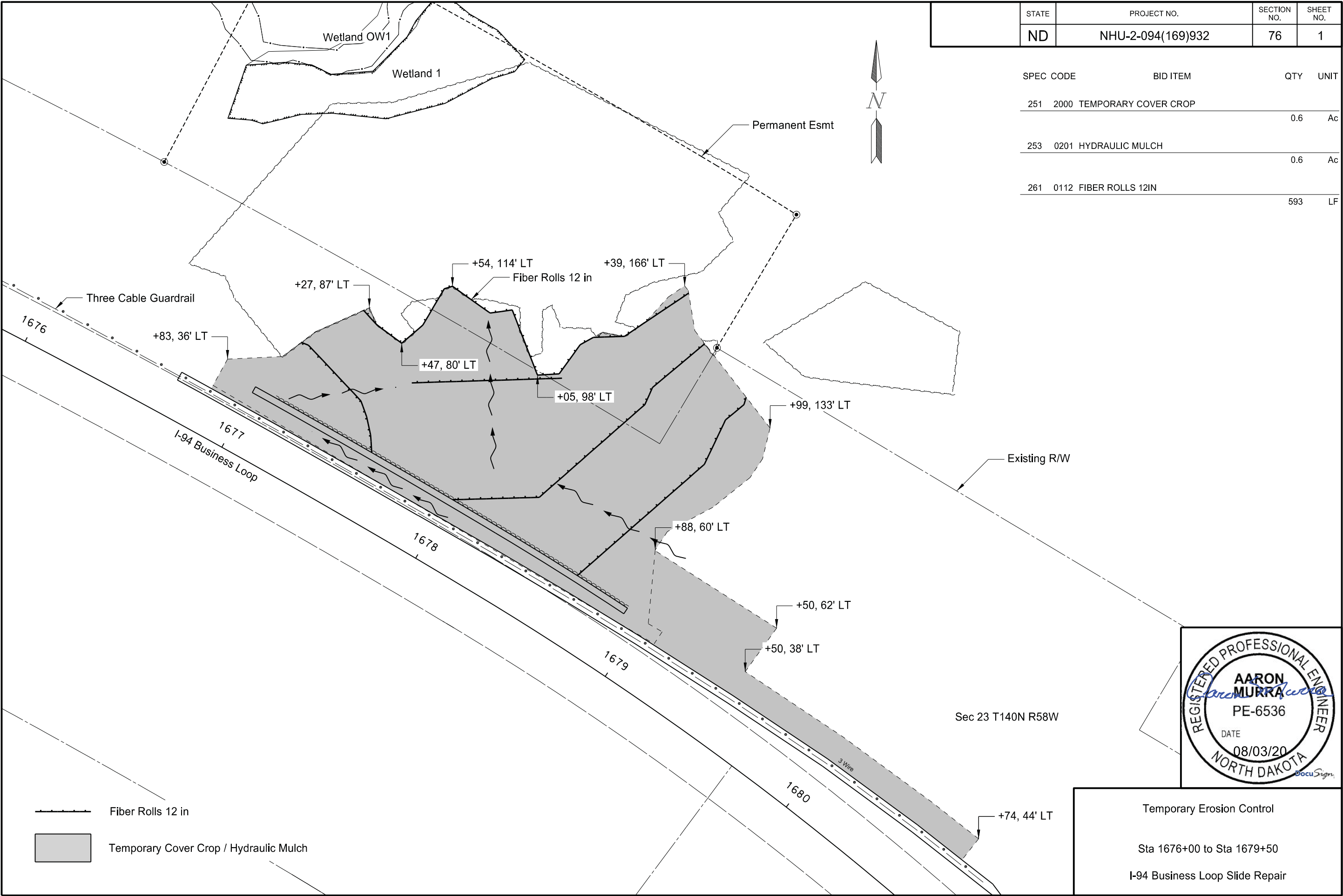
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	70	1



Contour Layout

Sta 1676+00 to Sta 1679+50

I-94 Business Loop Slide Repair



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	77	1

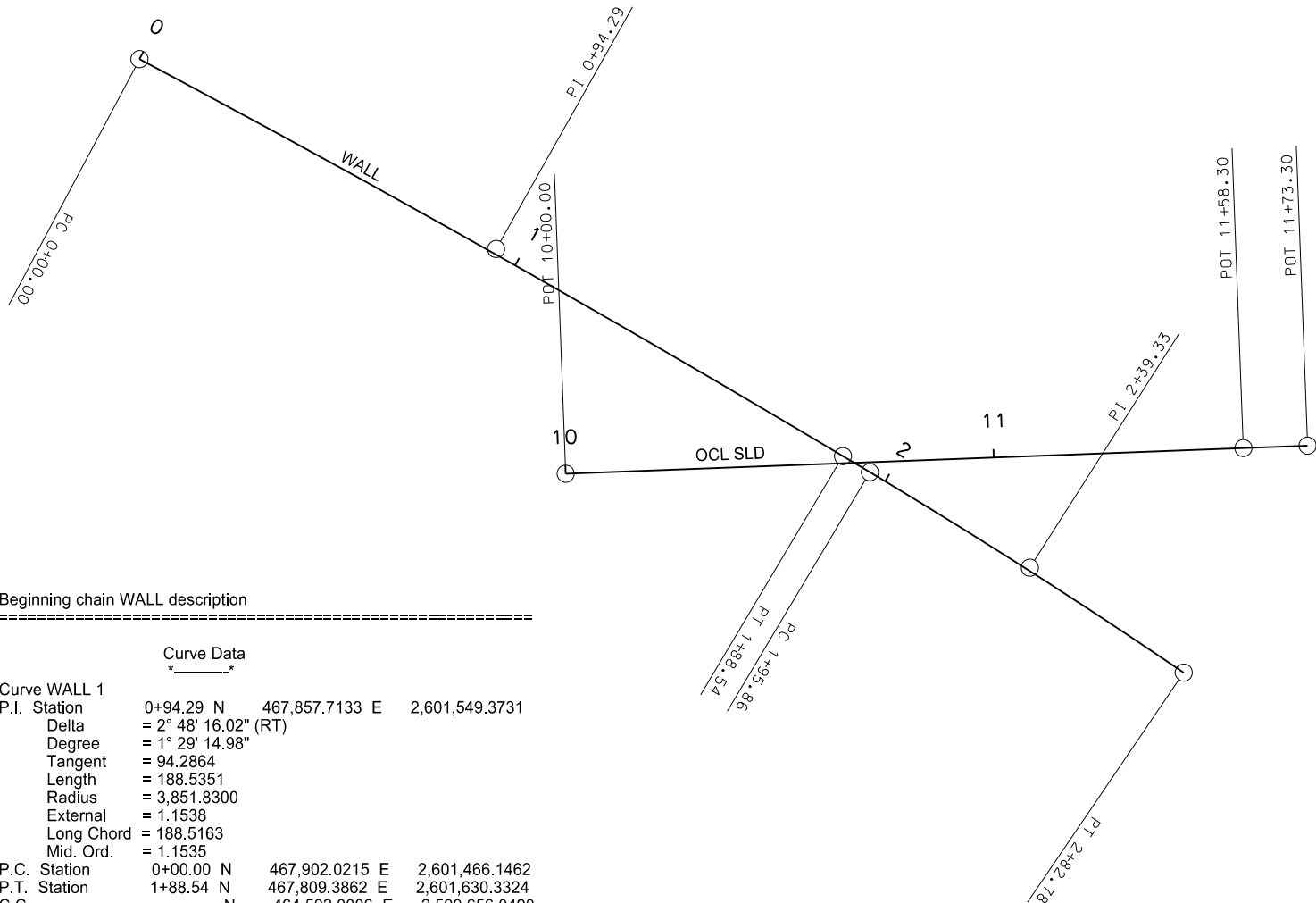
SPEC CODE	BID ITEM	QTY	UNIT
251 0200	SEEDING CLASS II	0.6	Ac
253 0201	HYDRAULIC MULCH	0.6	Ac
255 0101	ECB TYPE 1	1914	SY
261 0112	FIBER ROLLS 12IN	593	LF



Permanent Erosion Control

Sta 1676+00 to Sta 1679+50

I-94 Business Loop Slide Repair



Beginning chain WALL description
=====

Curve Data				

Curve WALL 1				
P.I. Station	0+94.29	N	467,857.7133	E 2,601,549.3731
Delta	= 2° 48' 16.02" (RT)			
Degree	= 1° 29' 14.98"			
Tangent	= 94.2864			
Length	= 188.5351			
Radius	= 3,851.8300			
External	= 1.1538			
Long Chord	= 188.5163			
Mid. Ord.	= 1.1535			
P.C. Station	0+00.00	N	467,902.0215	E 2,601,466.1462
P.T. Station	1+88.54	N	467,809.3862	E 2,601,630.3324
C.C.		N	464,502.0006	E 2,599,656.0490
Back	= S 61° 58' 12.48" E			
Ahead	= S 59° 09' 56.46" E			
Chord Bear	= S 60° 34' 04.47" E			

Course from PT WALL 1 to PC WALL 4 S 59° 09' 56.46" E Dist 7.3200

Curve Data				

Curve WALL 4				
P.I. Station	2+39.33	N	467,783.3514	E 2,601,673.9467
Delta	= 3° 24' 00.82" (RT)			
Degree	= 3° 54' 42.49"			
Tangent	= 43.4739			
Length	= 86.9223			
Radius	= 1,464.6900			
External	= 0.6450			
Long Chord	= 86.9095			
Mid. Ord.	= 0.6448			
P.C. Station	1+95.86	N	467,805.6342	E 2,601,636.6177
P.T. Station	2+82.78	N	467,758.8938	E 2,601,709.8884
C.C.		N	466,547.9737	E 2,600,885.8803
Back	= S 59° 09' 56.46" E			
Ahead	= S 55° 45' 55.64" E			
Chord Bear	= S 57° 27' 56.05" E			

=====

Ending chain WALL description

Beginning chain OCL SLD description
Feature: Alignment 2 S
=====

Point 60	N	467,805.2907	E 2,601,565.6121	Sta 10+00.00
Course from 60 to 61 N 87° 50' 01.88" E Dist 158.2978				
Point 61	N	467,811.2739	E 2,601,723.7968	Sta 11+58.30
Course from 61 to 62 N 87° 50' 01.88" E Dist 15.0000				
Point 62	N	467,811.8409	E 2,601,738.7861	Sta 11+73.30

=====

Ending chain OCL SLD description



Survey Data Layout

I-94 Business Loop Slide Repair

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	NHU-2-094(169)932	100	1

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED		TOTAL AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
			BY PHASE NO.				
			1	2			
E5-1-48	48"x48"	EXIT GORE				35	
G20-1-60	60"x24"	ROAD WORK NEXT MILES				28	
G20-1b-60	60"x24"	NO WORK IN PROGRESS (Sign and installation only)				18	
G20-2-48	48"x24"	END ROAD WORK	2	2	2	26	52
G20-4-36	36"x18"	PILOT CAR FOLLOW ME (Mounted to back of pilot car)				18	
G20-10-108	108"x48"	CONTRACTOR SIGN				70	
G20-50a-72	72"x36"	ROAD WORK NEXT MILES RT & LT ARROWS				43	
G20-52a-72	72"x24"	ROAD WORK NEXT MILES RT or LT ARROW		3	3	36	108
G20-55-96	96"x48"	SPEED LIMIT ENFORCED - MINIMUM FEE \$80 WHEN WORKERS PRESENT	2	2	2	59	118
M1-1-36	36"x36"	INTERSTATE ROUTE MARKER (Post and installation only)				10	
M1-4-24	24"x24"	U.S. ROUTE MARKER (Post and installation only)				10	
M1-5-24	24"x24"	STATE ROUTE MARKER (Post and installation only)				10	
M3-1-24	24"x12"	NORTH (Mounted on route marker post)				7	
M3-2-24	24"x12"	EAST (Mounted on route marker post)				7	
M3-3-24	24"x12"	SOUTH (Mounted on route marker post)				7	
M3-4-24	24"x12"	WEST (Mounted on route marker post)				7	
M4-8-24	24"x12"	DETOUR (Mounted on route marker post)				7	
M4-9-30	30"x24"	DETOUR ARROW RIGHT or LEFT/AHD AND RT or LT				15	
M4-10-48	48"x18"	DETOUR (INSIDE ARROW) RIGHT or LEFT (Mounted on barricade)				7	
M5-1-21	21"x15"	ADVANCE TURN ARROW RT or LT(Mounted on route marker post)				7	
M5-1-30	30"x21"	ADVANCE TURN ARROW RT or LT(Mounted on route marker post)				9	
M6-1-21	21"x15"	DIRECTIONAL ARROW RT or LT (Mounted on route marker post)				7	
M6-1-30	30"x21"	DIRECTIONAL ARROW RT or LT (Mounted on route marker post)				9	
M6-3-21	21"x15"	DIRECTIONAL ARROW UP (Mounted on route marker post)				7	
R1-1-48	48"x48"	STOP				32	
R1-2-60	60"x60"	YIELD				29	
R2-1-36	36"x48"	SPEED LIMIT (Portable only)				30	
R2-1-48	48"x60"	SPEED LIMIT	4	4	4	39	156
R2-1aP-24	24"x18"	MINIMUM FEE \$80 (Mounted on Speed Limit post)	2	2	2	10	20
R3-2-48	48"x48"	NO LEFT TURN				35	
R4-1-48	48"x60"	DO NOT PASS				39	
R4-7-48	48"x60"	KEEP RIGHT				39	
R5-1-48	48"x48"	DO NOT ENTER				35	
R6-1-54	54"x18"	ONE WAY RIGHT or LEFT (Mounted on STOP or DO NOT ENTER post)				14	
R7-1-12	12"x18"	NO PARKING ANY TIME				11	
R10-6-24	24"x36"	STOP HERE ON RED				16	
R11-2-48	48"x30"	ROAD CLOSED (Mounted on barricade)				12	
R11-2a-48	48"x30"	STREET CLOSED (Mounted on barricade)				12	
R11-3a-60	60"x30"	ROAD CLOSED MILES AHEAD LOCAL TRAFFIC ONLY (Mtd on barricade)				15	
R11-3c-60	60"x30"	STREET CLOSED MILES AHEAD LOCAL TRAFFIC ONLY (Mtd on barricade)				15	
R11-4a-60	60"x30"	STREET CLOSED TO THRU TRAFFIC (Mounted on barricade)				15	
W1-3-48	48"x48"	REVERSE TURN RIGHT or LEFT				35	
W1-4-48	48"x48"	REVERSE CURVE RIGHT or LEFT	4		4	35	140
W1-4b-48	48"x48"	TWO LANE REVERSE CURVE RIGHT or LEFT				35	
W1-6-48	48"x24"	ONE DIRECTION LARGE ARROW	2		2	26	52
W3-1-48	48"x48"	STOP AHEAD				35	
W3-3-48	48"x48"	SIGNAL AHEAD				35	
W3-4-48	48"x48"	BE PREPARED TO STOP				35	
W3-5-48	48"x48"	SPEED REDUCTION AHEAD	2	2	2	35	70
W4-2-48	48"x48"	LANE ENDS RIGHT or LEFT				35	
W5-1-48	48"x48"	ROAD NARROWS				35	
W5-8-48	48"x48"	THRU TRAFFIC RIGHT LANE				35	
W5-9-48	48"x48"	ROAD WORK TRAFFIC ONLY DOWN & LT or RT ARROW				35	
W6-3-48	48"x48"	TWO WAY TRAFFIC				35	
W8-1-48	48"x48"	BUMP				35	
W8-3-48	48"x48"	PAVEMENT ENDS				35	
W8-7-48	48"x48"	LOOSE GRAVEL				35	
W8-11-48	48"x48"	UNEVEN LANES				35	
W8-12-48	48"x48"	NO CENTER LINE				35	
W8-17-48	48"x48"	SHOULDER DROP-OFF SYMBOL				35	
W8-53-48	48"x48"	TRUCKS ENTERING HIGHWAY				35	
W8-54-48	48"x48"	TRUCKS ENTERING AHEAD or FT or MILE				35	
W8-55-48	48"x48"	TRUCKS CROSSING AHEAD or FT or MILE				35	
W8-56-48	48"x48"	TRUCKS EXITING HIGHWAY				35	
W9-3a-48	48"x48"	CENTER LANE CLOSED SYMBOL				35	
W12-2-48	48"x48"	LOW CLEARANCE				35	
W13-1P-30	30"x30"	MPH ADVISORY SPEED PLAQUE (Mounted on warning sign post)				14	
W14-3-64	64"x48"	NO PASSING ZONE				28	
W16-2P-30	30"x24"	FEET PLAQUE (Mounted on warning sign post)	2		2	10	20
W20-1-48	48"x48"	ROAD WORK AHEAD or FT or MILE	2	3	3	35	105
W20-2-48	48"x48"	DETOUR AHEAD or FT or MILE				35	
W20-3-48	48"x48"	ROAD or STREET CLOSED AHEAD or FT or MILE				35	
W20-4-48	48"x48"	ONE LANE ROAD AHEAD or FT or MILE	2		2	35	70
W20-5-48	48"x48"	RIGHT or CENTER or LEFT LANE CLOSED AHEAD or FT or MILE				35	
W20-7-48	48"x48"	FLAGGER	2	2	2	35	70
W20-8-18	18"x18"	STOP - SLOW PADDLE Back to Back	2	2	2	5	10
W20-52P-54	54"x12"	NEXT MILES (Mounted on warning sign post)				12	
W21-1-48	48"x48"	WORKERS				35	
W21-2-48	48"x48"	FRESH OIL				35	
W21-3-48	48"x48"	ROAD MACHINERY AHEAD or FT or MILE				35	
W21-5-48	48"x48"	SHOULDER WORK				35	
W21-5a-48	48"x48"	RIGHT or LEFT SHOULDER CLOSED				35	

[illegible][illegible]

SPEC & CODE			
704-1000	TRAFFIC CONTROL SIGNS	TOTAL UNITS	991

[illegible]

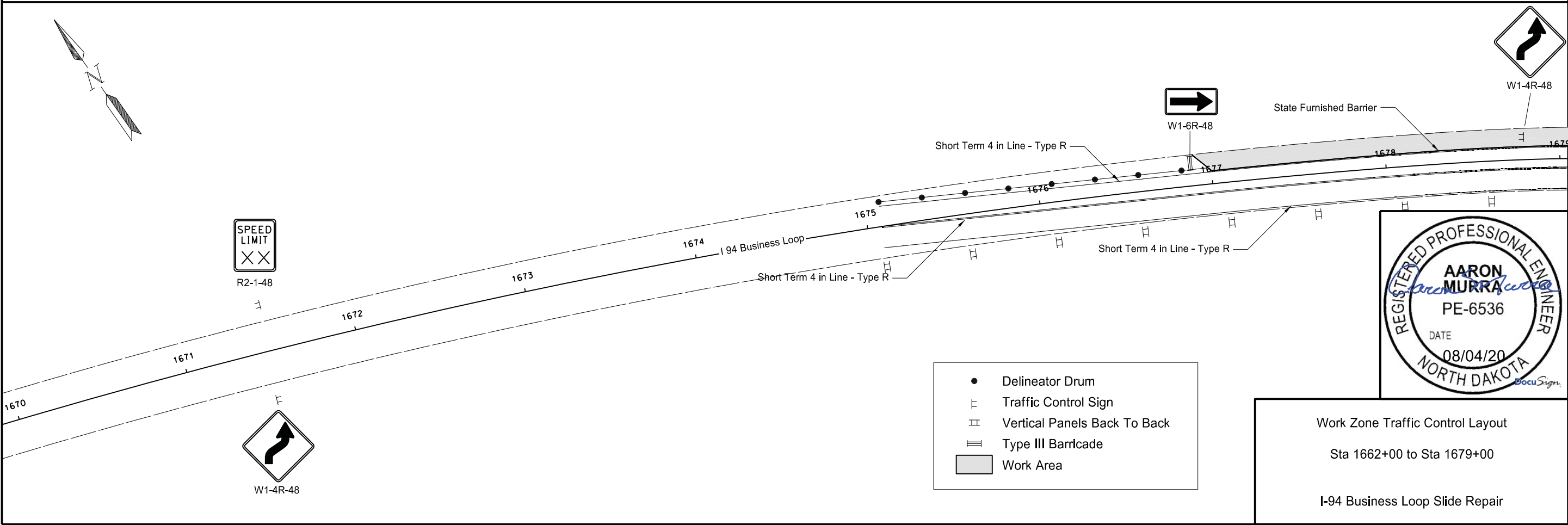
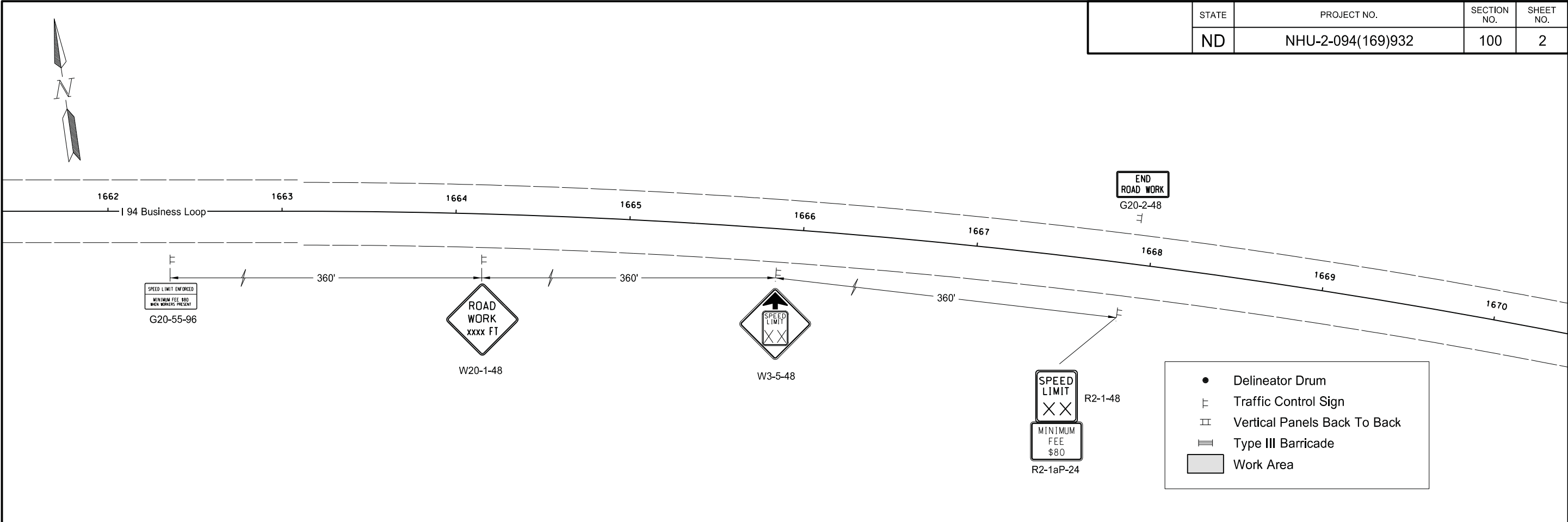
NOTE:
If additional signs are required, units will be calculated using the formula from Section III-18.06 of the Design Manual.
<http://www.dot.nd.gov/>



Traffic Control Devices List

I-94 Business Loop Slide Repair

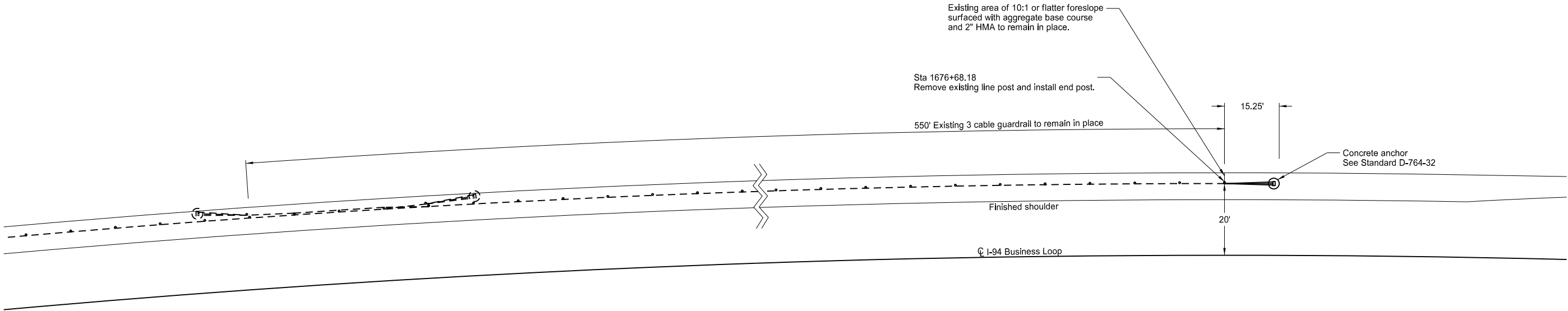
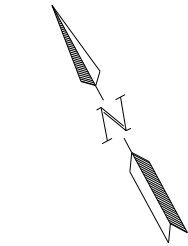
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	ND	NHU-2-094(169)932	100	2



Work Zone Traffic Control Layout
Sta 1662+00 to Sta 1679+00
I-94 Business Loop Slide Repair

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND NHU-2-094(169)932	100	4



SPEC	CODE	BID ITEM	QTY	UNIT	
764	0115	3-CABLE GUARDRAIL			
		Sta 1676+68.18 to 1676+83.43 Lt	15.3	LF	(A)
764	2020	REMOVE 3-CABLE GUARDRAIL & POSTS			
		Sta 1676+68.18 to 1680+75.02 Lt	412.5	LF	

(A) Pay length includes length of the anchor at this location.

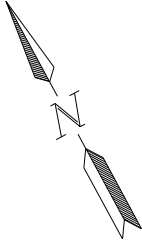
Note: Backfill the hole at each post that is removed.

Leave the existing concrete anchors in place.



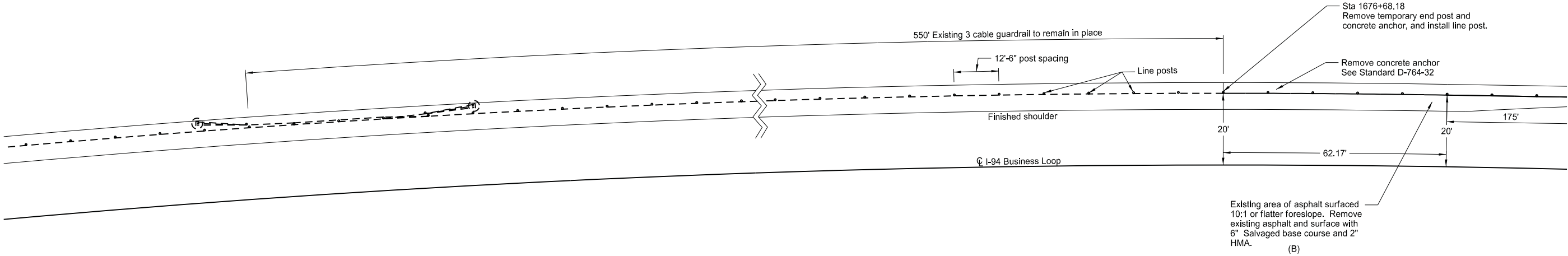
3-Cable Guardrail Layout
For Work Zone Traffic

Steep Embankment
RP 931.897
I-94 Business Loop
Valley City



23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.		SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	130	1



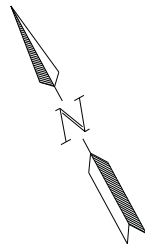
SPEC	CODE	BID ITEM	QTY	UNIT
764	2020	REMOVE 3-CABLE GUARDRAIL & POSTS		
		Sta 1676+68.18 to 1676+83.43 Lt	15.3	LF (A)

- (A) Pay length includes length of the anchor at this location.
- (B) Install the guardrail before winter suspension.
- The Contractor can pave either year 1 or year 2, but will only be paid to remove the guardrail once.



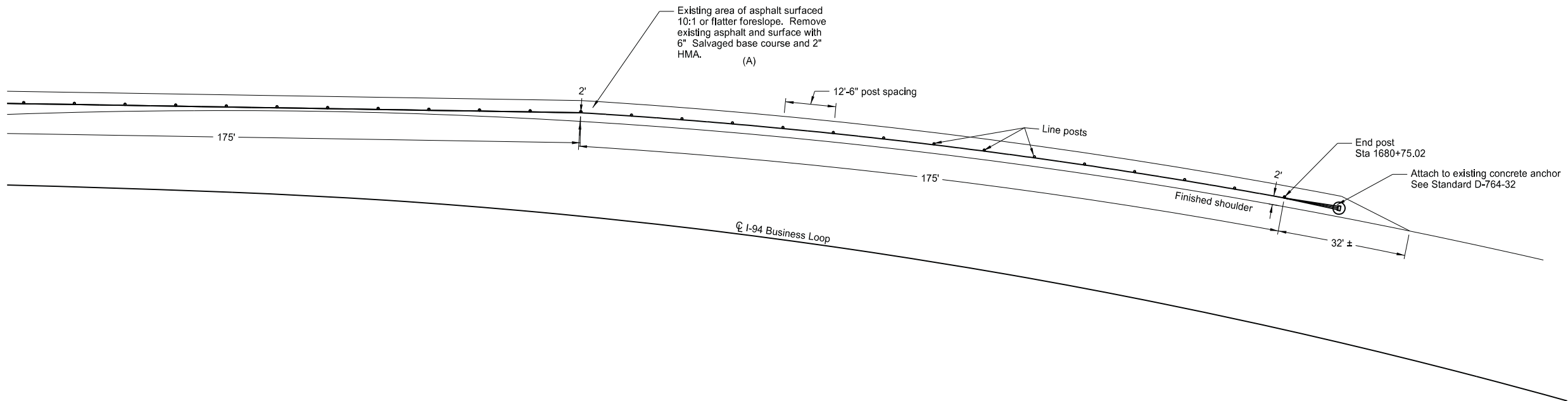
3-Cable Guardrail Layout

Steep Embankment
RP 931.897
I-94 Business Loop
Valley City



23 USC § 409 Documents
NDDOT Reserves All Objections

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	130	2



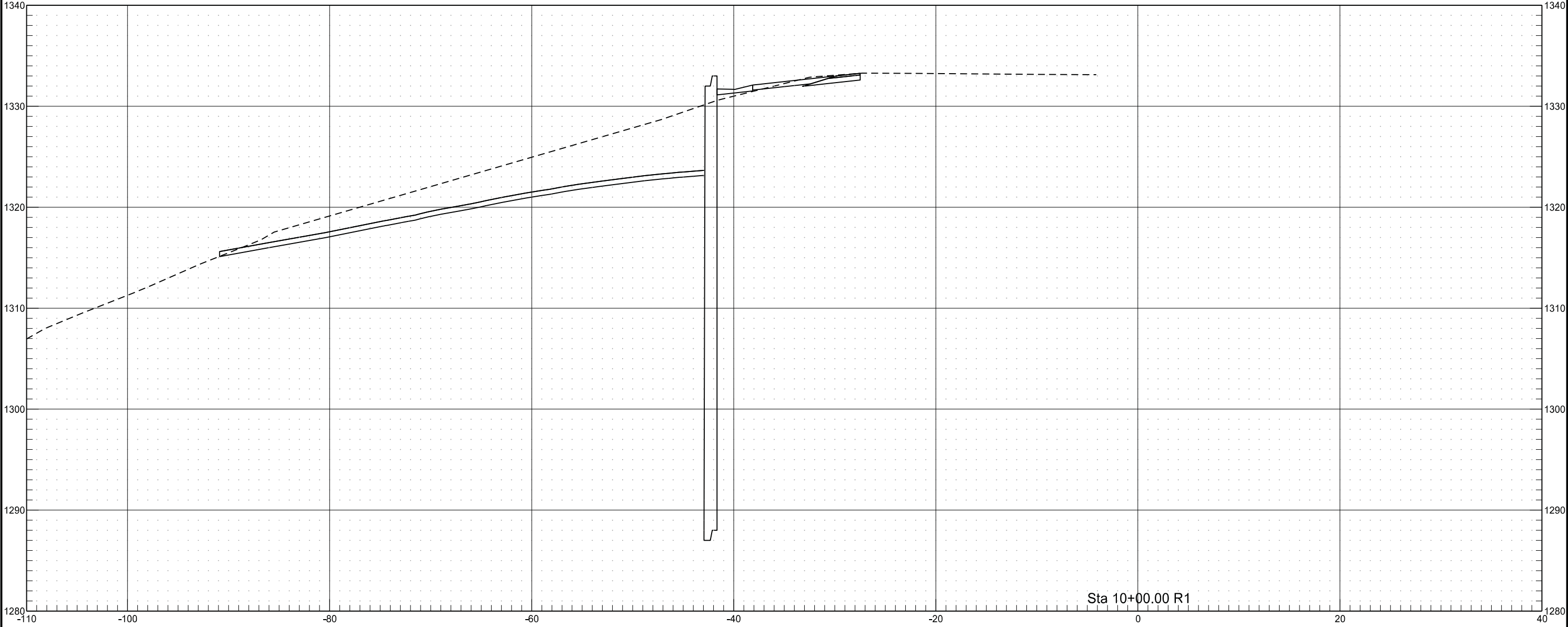
SPEC	CODE	BID ITEM	QTY	UNIT
764	1010	RESET 3-CABLE GUARDRAIL		
		Sta 1676+68.18 to 1680+75.02 Lt	412.5	LF

(A) Install the guardrail before winter suspension.
The Contractor can pave either year 1 or year 2, but will only be paid to remove the guardrail once.

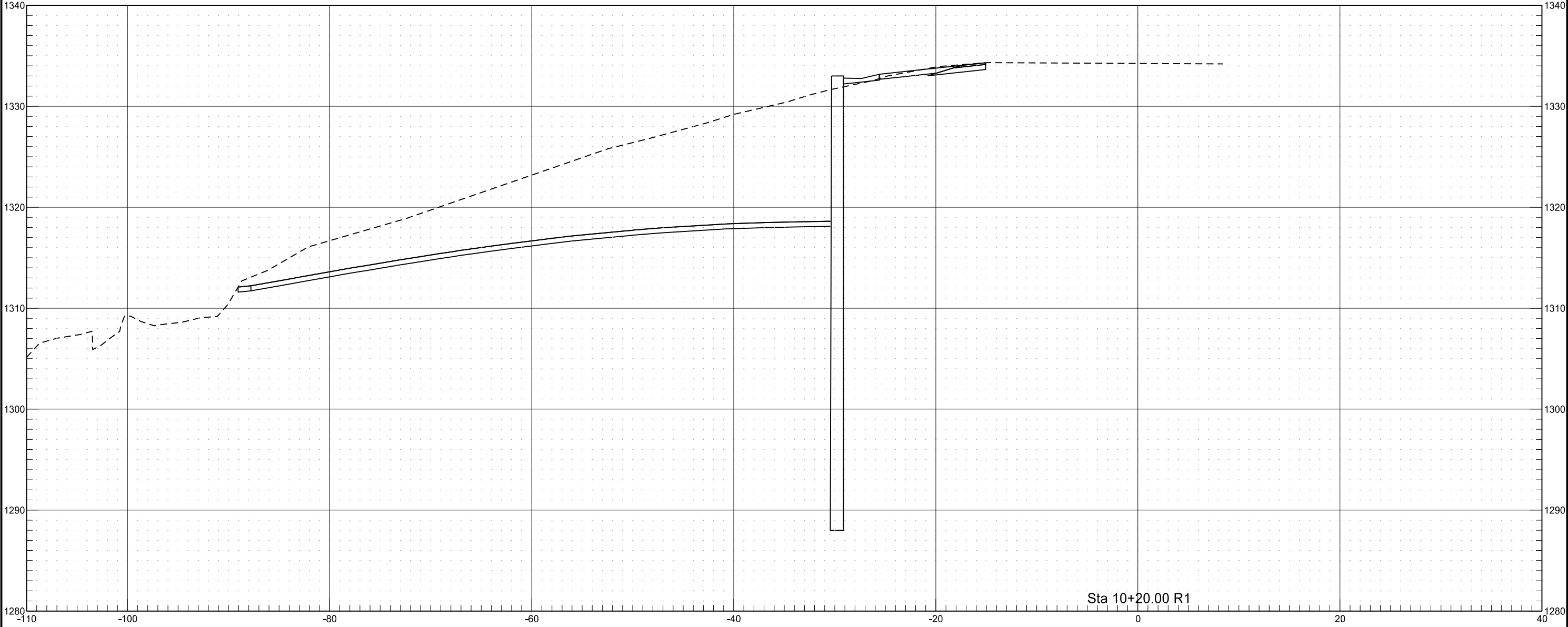
3-Cable Guardrail Layout

Steep Embankment
RP 931.897
I-94 Business Loop
Valley City

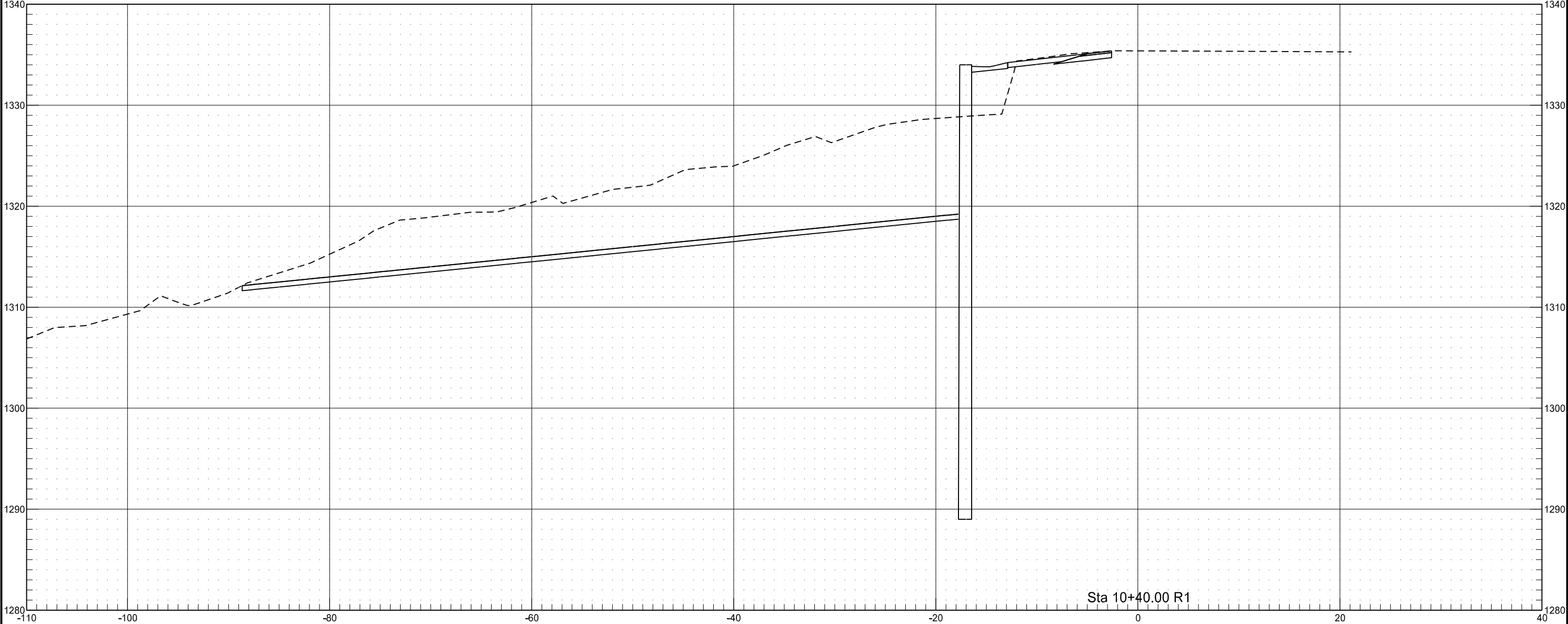
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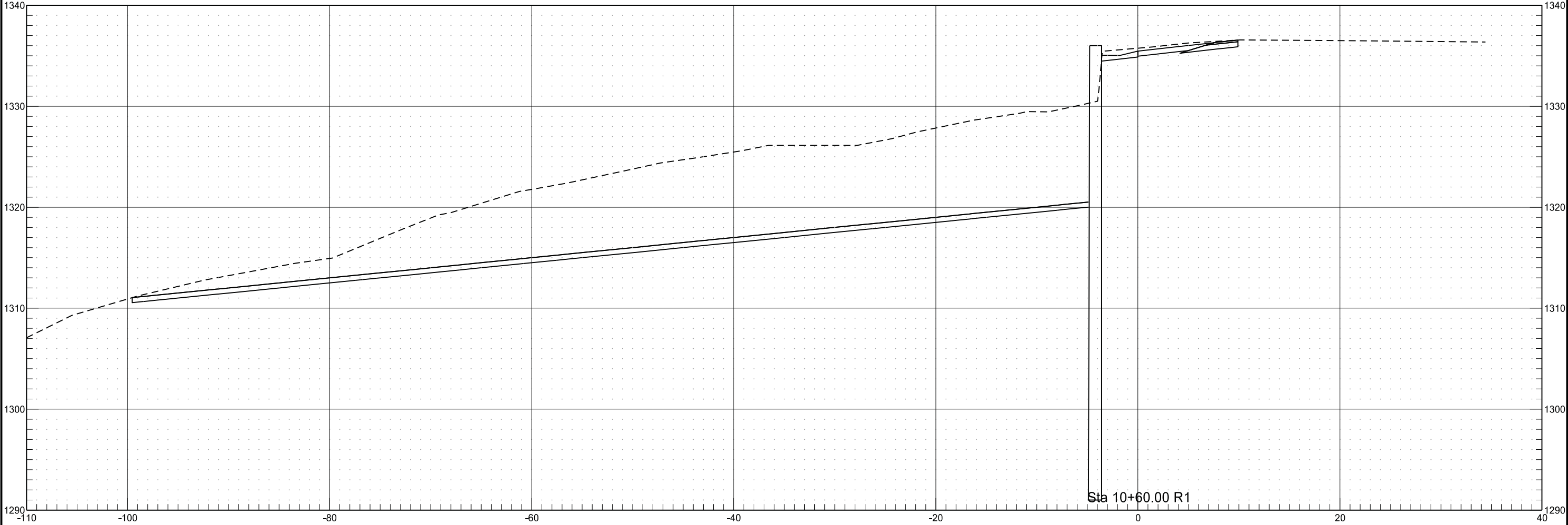
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	ND	NHU-2-094(169)932	200	2



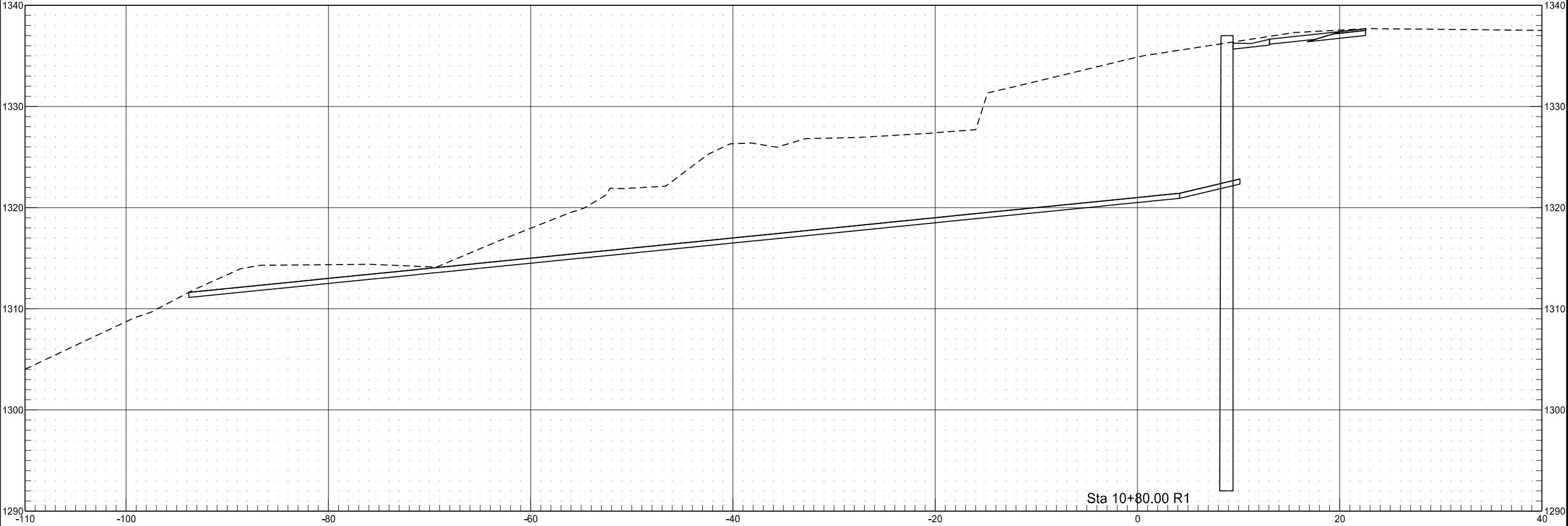
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	ND	NHU-2-094(169)932	200	3



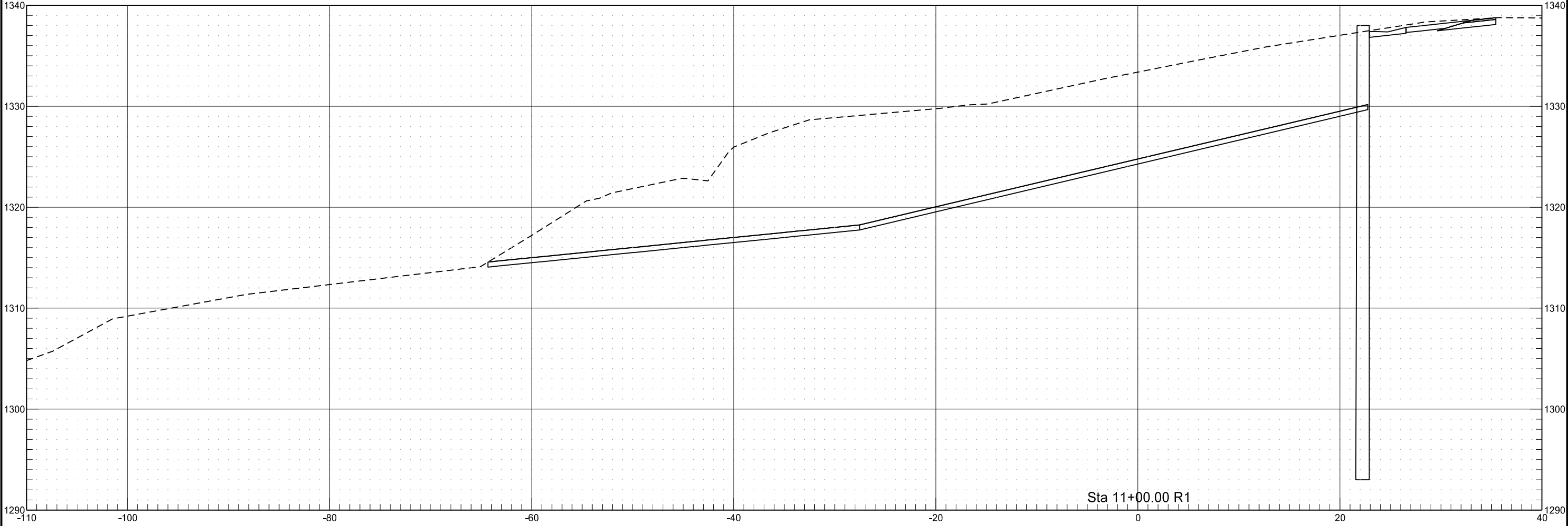
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	200	4



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	200	5



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	200	6



	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	NHU-2-094(169)932	200	7

