NORTH Dakota | Transportation
Be Legendary.™

November 3, 2020

ADDENDUM 1 – JOB 31

TO: All prospective bidders on Projects SOIB-NH-7-085(110)127, Job No. 31 scheduled for the November 13, 2020 bid opening.

The following plans and request for proposal revision shall be made:

Plan Revisions:
See attached summaries from Kirk J. Hoff, P.E. dated November 3, 2020 for an explanation.

Request for Proposal Revisions:
Remove and replace pages 5 thru 10 of 12 of the Proposal pages located at the beginning of the Request for Proposal with pages revised 11/3/2020.

Bid Item Changes are summarized in the Plan Addendum Summary and Approval.

This addendum is to be incorporated into the bidder's proposal for this project. AASHTOWare Project Bids files should be updated by downloading the addendum file from the Bid Express on-line bidding exchange at http://www.bidx.com/ and load it into the AASHTOWare Project Bids program.

PHILLIP MURDOFF, P.E. – CONSTRUCTION SERVICES ENGINEER
80: jwj
Enclosure

PLAN ADDENDUM SUMMARY AND APPROVAL

PROJECT INFORMATION					
Project:	SOIB-NH-7-085(110)127			**PCN:**	22304
Location:	Horseshoe Bend Slide Repair – North of Long X Bridge				
Date:	11/03/2020	**Lead Designer:**	Jeff Rensch		
Bid Opening Date:	11/13/20	**JOB#:**	31	**Addendum#:**	1

PLAN SHEET CHANGES		
Section	**Sheet**	**Description of Change**
001	1	Eliminated Temp Easement east of US 85 & part of Temp Easement west of US 85.
004	1 & 2	Eliminated Temp Easement east of US 85 & part of Temp Easement west of US 85. Modified Limits of Disturbance Line. Changed width of Temp Access Road and Temp Work Road prior to Station 21+50.
006	5	Eliminated Note 752-P01 TEMPORARY FENCE. Renumbered Note 752-P02 NATIONAL PARK SERVICE (NPS) FENCING to Note 752-P01.
008	1, 2, & 3	Changed quantities for multiple items. Eliminated bid item for Temporary Fence. Added bid item for Corner Assembly Barbed Wire.
010	2	Changed earthwork quantities
030	1 & 2	Changed widths of Typical Sections shown on sheets.
060	1, 2, & 6	Eliminated part of Temp Easement west of US 85. Modified Limits of Disturbance Line. Changed width of Temp Access Road and Temp Work Road prior to Station 21+50. Changed quantities of Traffic Service Aggregate.
070	1 & 3	Eliminated Temp Easement east of US 85 & part of Temp Easement west of US 85. Modified Limits of Disturbance Line.
075	2	Eliminated Temp Easement east of US 85 & part of Temp Easement west of US 85. Modified Limits of Disturbance Line.
076	1 & 4	Eliminated Temp Easement east of US 85 & part of Temp Easement west of US 85. Modified Limits of Disturbance Line. Changed width of Temp Access Road and Temp Work Road prior to Station 21+50. Changed quantities of Temporary Cover Crop and Bonded Fiber Matrix.
077	1	Eliminated Temp Easement east of US 85 & part of Temp Easement west of US 85. Modified Limits of Disturbance Line. Changed quantities of Topsoil, Seeding Class III, Bonded Fiber Matrix, and ECB Type 3.
080	1 & 2	Eliminated Temp Easement east of US 85 & part of Temp Easement west of US 85. Modified Limits of Disturbance Line. Modified fencing east of US 85. Removed pay item for Temporary Fence. Added pay item for Corner Assembly Barbed Wire. Changed quantity of Remove Existing Fence and Fence Barbed Wire 4 Strand.

100	4	Changed width of Temp Access Road and Temp Work Road prior to Station 21+50.
200	1 - 21	Changed cross sections to reflect changes to width of Temp Work Road and modified Limits of Disturbance. Changed Earthwork End Areas.
200	62 – 79	Changed cross sections to reflect changes to width of Temp Work Road and modified Limits of Disturbance. Changed Earthwork End Areas.
Supplemental Design Data		Supplemental Design Data was modified to reflect changes to the width of the Temp Access Road and the Temp Work Platform and the changes to the limits of disturbance.

CHANGES MADE TO BID ITEMS FOR JOB					
Spec	**Code**	**Description**	**Unit**	**Previous Quantity**	**Revised Quantity**
202	0312	Remove Existing Fence	LF	1,341	1,321
203	0102	Common Excavation – Type B	CY	25,325	22,599
203	0109	Topsoil	CY	3,558	3,462
203	0113	Common Excavation – Waste	CY	5,455	7,000
203	0140	Borrow – Excavation	CY	7,914	9,170
251	0300	Seeding Class III	Acre	5.200	5.064
251	2000	Temporary Cover Crop	Acre	7.900	7.918
253	0301	Bonded Fiber Matrix	Acre	9.200	9.163
255	0103	EBC Type 3	SY	18,399	18,122
302	0050	Traffic Service Aggregate	Ton	5,080	4,887
752	0200	Fence Barbed Wire 4 Strand	LF	150	138
752	0905	Temporary Fence	LF	150	0
752	3140	Corner Assembly Barbed Wire	EA	0	1

APPROVAL

Should the revisions described above be processed as a plan addendum?

__X__ Yes _____ No

Kirk J Hoff

Hoff, Kirk J.
11 03 2020

DocuSign

_____ _____

Kirk J. Hoff, P.E. – Design Engineer or Date

Project: SOIB-NH-7-085(110)127 (PCN-22304)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price $$$$$	Unit Price 000	Amount $$$$$	Amount 00
001	103	0100	CONTRACT BOND	L SUM	1.				
002	201	0330	CLEARING & GRUBBING	L SUM	1.				
003	202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	EA	2.				
004	202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES	LF	164.				
005	202	0210	REMOVAL OF MANHOLES	EA	1.				
006	202	0312	REMOVE EXISTING FENCE	LF	1,321.				
007	203	0102	COMMON EXCAVATION-TYPE B	CY	22,599.				
008	203	0109	TOPSOIL	CY	3,462.				
009	203	0113	COMMON EXCAVATION-WASTE	CY	7,000.				
010	203	0140	BORROW-EXCAVATION	CY	9,170.				
011	216	0100	WATER	M GAL	380.				
012	251	0300	SEEDING CLASS III	ACRE	5.064				
013	251	2000	TEMPORARY COVER CROP	ACRE	7.918				
014	253	0301	BONDED FIBER MATRIX	ACRE	9.163				
015	255	0103	ECB TYPE 3	SY	18,122.				
016	255	0201	TRM TYPE 1	SY	120.				

BID ITEMS

Project: SOIB-NH-7-085(110)127 (PCN-22304)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						$$$$$	000	$$$$$	00
017	256	0200	RIPRAP GRADE II	CY	330.				
018	261	0112	FIBER ROLLS 12IN	LF	3,830.				
019	261	0113	REMOVE FIBER ROLLS 12IN	LF	3,830.				
020	302	0050	TRAFFIC SERVICE AGGREGATE	TON	4,887.				
021	302	0251	DRAINAGE AGGREGATE	CY	117.				
022	401	0050	TACK COAT	GAL	1,468.				
023	411	0105	MILLING PAVEMENT SURFACE	SY	16,061.				
024	430	0045	SUPERPAVE FAA 45	TON	3,007.				
025	430	1000	CORED SAMPLE	EA	21.				
026	430	5806	PG 58H-28 ASPHALT CEMENT	TON	180.400				
027	602	0130	CLASS AAE-3 CONCRETE	CY	1,291.100				
028	612	0115	REINFORCING STEEL-GRADE 60	LBS	67,414.				
029	702	0100	MOBILIZATION	L SUM	1.				
030	704	0100	FLAGGING	MHR	80.				
031	704	1000	TRAFFIC CONTROL SIGNS	UNIT	1,060.				
032	704	1048	PORTABLE RUMBLE STRIPS	EA	2.				

BID ITEMS

Project: SOIB-NH-7-085(110)127 (PCN-22304)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price		Amount	
						$$$$$	000	$$$$$	00
033	704	1060	DELINEATOR DRUMS	EA	22.				
034	704	1067	TUBULAR MARKERS	EA	60.				
035	704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	1.				
036	704	1185	PILOT CAR	HR	40.				
037	706	0400	FIELD OFFICE	EA	1.				
038	706	0500	AGGREGATE LABORATORY	EA	1.				
039	706	0550	BITUMINOUS LABORATORY	EA	1.				
040	706	0600	CONTRACTOR'S LABORATORY	EA	1.				
041	709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	501.				
042	709	0161	GEOSYNTHETIC MATERIAL TYPE S1	SY	358.				
043	714	3151	HEADWALL-PRECAST CONCRETE 6IN	EA	4.				
044	714	4125	PIPE CONDUIT 48IN	LF	100.				
045	714	4128	PIPE CONDUIT 48IN-APPROACH	LF	44.				
046	714	4135	PIPE CONDUIT 60IN	LF	158.				
047	714	4140	PIPE CONDUIT 66IN	LF	58.				
048	714	4168	PIPE CONDUIT 60IN-JACKED OR BORED	LF	330.				

Project: SOIB-NH-7-085(110)127 (PCN-22304)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price $$$$$	Unit Price 000	Amount $$$$$	Amount 00
049	714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES	LF	100.				
050	714	9680	PLUG PIPE-ALL TYPES & SIZES	EA	1.				
051	714	9730	UNDERDRAIN PIPE PVC PERFORATED 6IN	LF	760.				
052	714	9771	UNDERDRAIN PIPE PVC NON-PERFORATED 6IN	LF	89.				
053	722	0120	MANHOLE 72IN	EA	1.				
054	722	0130	MANHOLE 84IN	EA	2.				
055	722	0315	MANHOLE CASTING	EA	1.				
056	722	1120	MANHOLE RISER 72IN	LF	20.250				
057	722	1130	MANHOLE RISER 84IN	LF	20.				
058	722	6201	ADJUST MANHOLE SPECIAL	EA	2.				
059	752	0200	FENCE BARBED WIRE 4 STRAND	LF	138.				
060	752	0700	FENCE WOVEN WIRE	LF	1,219.				
061	752	2110	RESET VEHICLE GATE	EA	1.				
062	752	3120	CORNER ASSEMBLY WOVEN WIRE	EA	8.				
063	752	3140	CORNER ASSEMBLY BARBED WIRE	EA	1.				
064	752	4120	DOUBLE BRACE ASSEMBLY WOVEN WIRE	EA	2.				

Project: SOIB-NH-7-085(110)127 (PCN-22304)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price $$$$$	Unit Price 000	Amount $$$$$	Amount 00
065	754	0805	OBJECT MARKERS - CULVERTS	EA	3.				
066	760	0005	RUMBLE STRIPS - ASPHALT SHOULDER	MILE	1.060				
067	760	0007	RUMBLE STRIPS - ASPHALT CENTERLINE	MILE	.530				
068	762	0113	EPOXY PVMT MK 4IN LINE	LF	23,800.				
069	762	0430	SHORT TERM 4IN LINE-TYPE NR	LF	2,100.				
070	902	0400	MACHINE HYGIENE	L SUM	1.				
071	930	3995	5.0FT DIAMETER DRILLED SHAFT	LF	2,784.				
072	930	3996	5.0FT DIAMETER DRILLED SHAFT (MOD)	LF	3,728.				
073	930	3997	6.0FT DIAMETER DRILLED SHAFT	LF	1,961.				
074	930	4150	GROUND ANCHOR	LF	15,455.				
075	930	4155	SACRIFICIAL GROUND ANCHOR LOAD TEST	EA	2.				
076	930	4200	INSTRUMENTATION-INCLINOMETER	LF	450.				
077	930	4210	INSTRUMENTATION-STRAIN GAUGE	EA	16.				
078	930	4221	INSTRUMENTATION-DRILLED SHAFT MOVEMENT SENSOR	LF	432.				
079	930	4225	INSTRUMENTATION-DATA LOGGING EQUIPMENT	L SUM	1.				
080	930	4250	CROSS-HOLE SONIC LOG TEST	EA	13.				

BID ITEMS

Project: SOIB-NH-7-085(110)127 (PCN-22304)

Bidder must type or neatly print unit prices in numerals, make extensions for each item, and total. Do not carry unit prices further than three (3) decimal places.

Item No.	Spec No.	Code No.	Description	Unit	Approx. Quantity	Unit Price $$$$$	Unit Price 000	Amount $$$$$	Amount 00
081	930	4251	CROSS-HOLE SONIC LOG TEST - MOD 1	EA	2.				
082	930	4260	THERMAL INTEGRITY PROFILING TEST	EA	4.				
083	930	4261	THERMAL INTEGRITY PROFILING TEST - MOD 1	EA	1.				
084	930	8230	SHORING	EA	1.				
085	980	0100	CATTLE GUARD 8FT X 28FT	EA	2.				
086	980	0171	REMOVE CATTLE GUARD	EA	2.				
			TOTAL SUM BID						

DESIGN DATA				
Traffic	Average Daily			
Current 2018	Pass: 2,955	Trucks: 1,725	Total: 4,680	
Forecast 2038	Pass: 3,725	Trucks: 2,175	Total: 5,900	
Clear Zone Distance: NA		Design Speed: 65 mph		
Minimum Sight Dist. for Stopping: 645 ft		Bridges: NA		
Sight Dist. for No Passing Zone: 1100 ft				
Pavement Design Life NA (years)				
Design Accumulated One-way Flexible ESALs: NA				

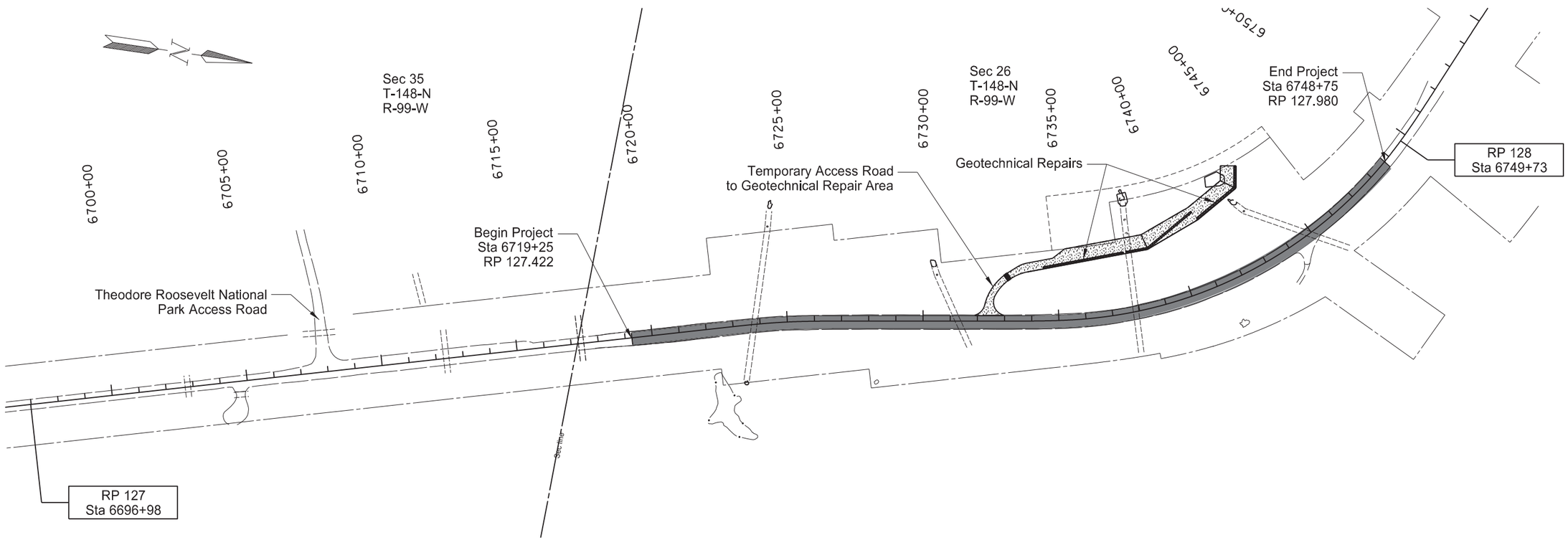
Revised 11/2/20	STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	22304	1	1

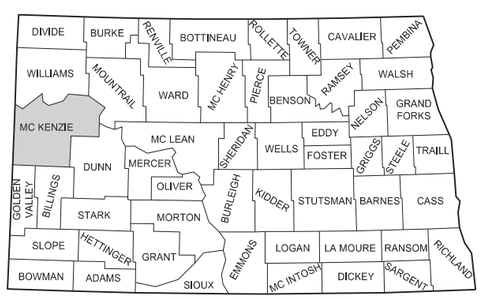
JOB # 31
NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

SOIB-NH-7-085(110)127
McKenzie County
1 Mile North of Long X Bridge at Horseshoe Bend
Geotechnical Repairs Utilizing Drilled Shafts, Ground Anchors, and Slope Grading
Pipe Repairs, Jacked or Bored Pipe, and HMA Mill & Overlay

GOVERNING SPECIFICATIONS:
2020 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
SOIB-NH-7-085(110)127	0.558	0.558





STATE COUNTY MAP

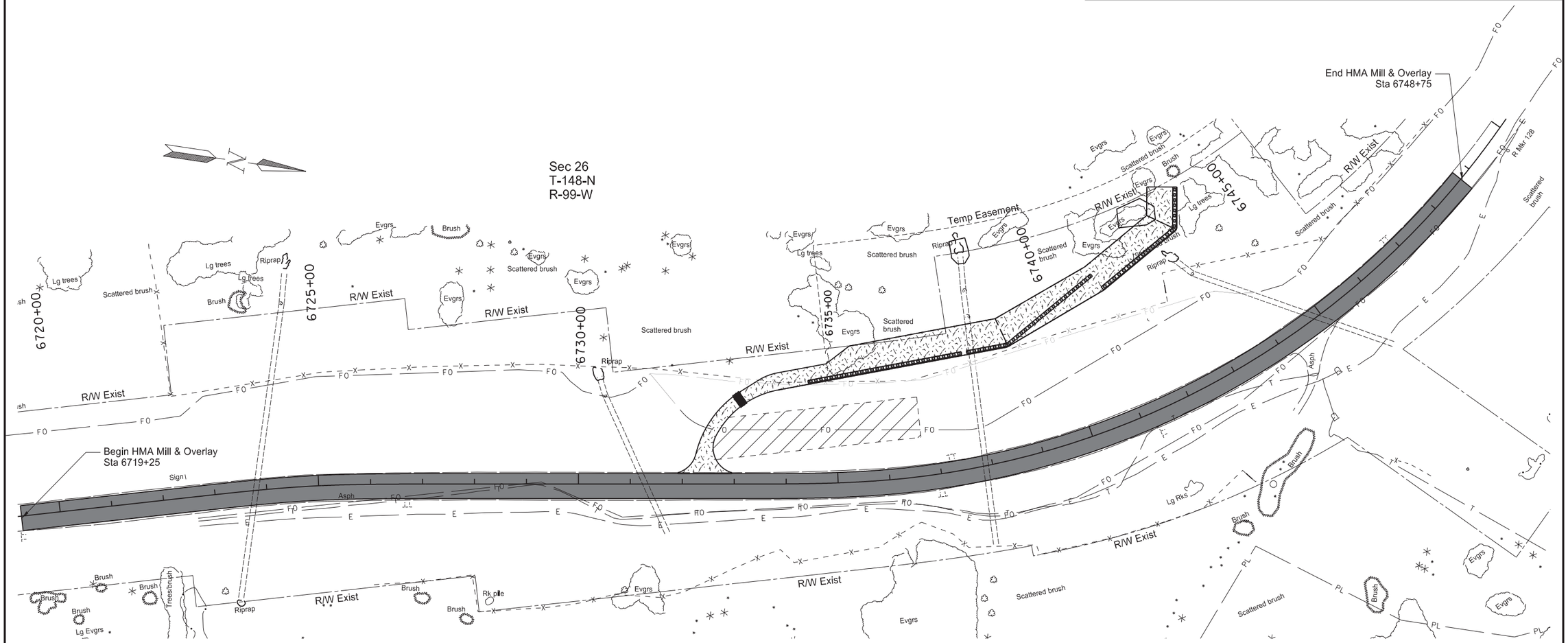
DESIGNER Jeffrey R. Rensch	
DESIGNER	
DESIGNER	

ND DEPARTMENT OF TRANSPORTATION
OFFICE OF PROJECT DEVELOPMENT
Orn, Chad M.
11 02 2020
DocuSign

NDDOT DIV-DIST OR
CONSULTANT FIRM

JAMES DOUGLAS RATH
REGISTERED
PROFESSIONAL
PE-4288
ENGINEER
NORTH DAKOTA
11/02/20

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	4	1



1" Mill / 3" HMA Overlay

Staging Area

Temp Access / Temp Work Road for Geotechnical Repair

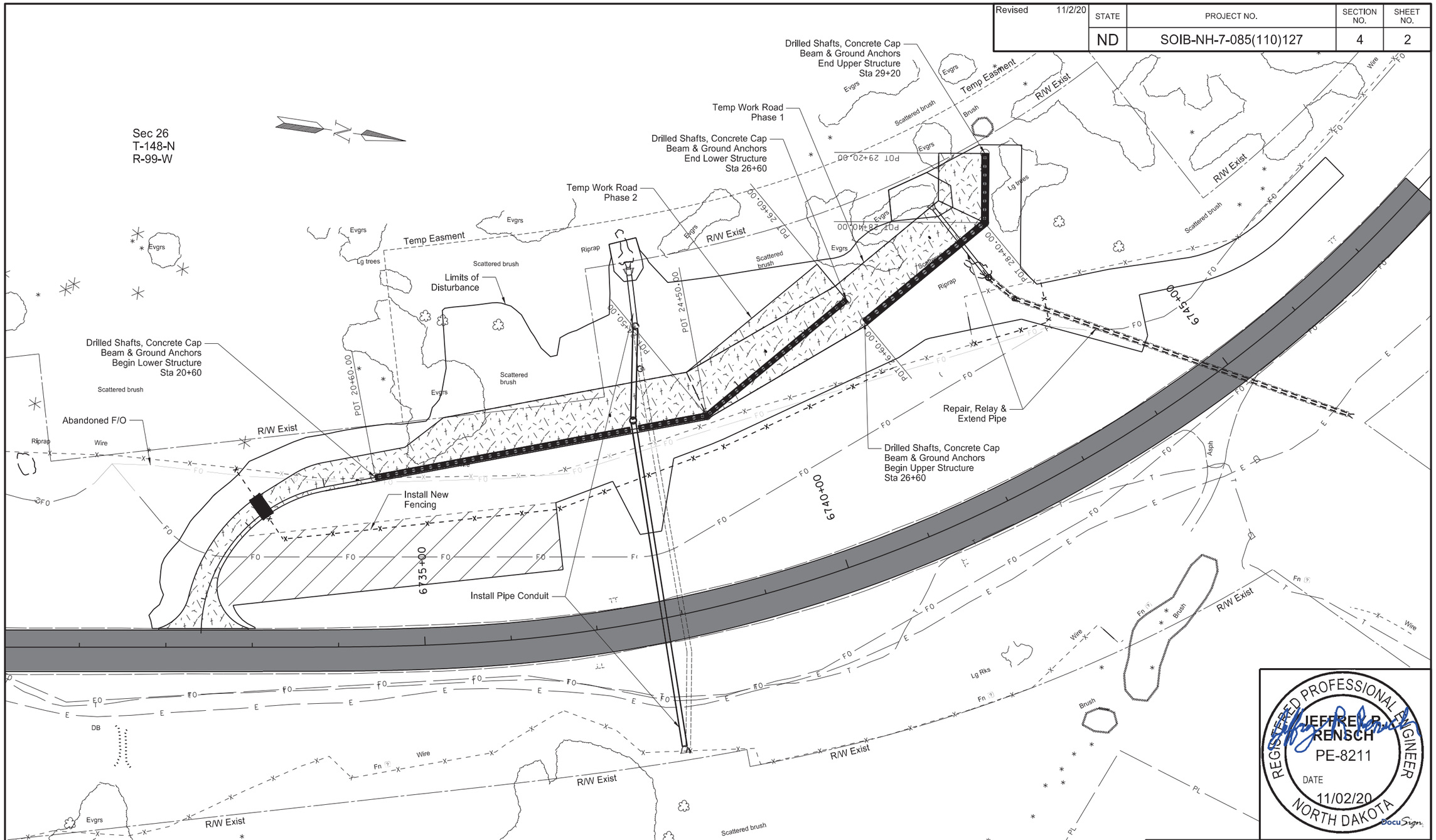
Drilled Shaft & Cap Beam Geotechnical Structure

REGISTERED PROFESSIONAL ENGINEER
JEFFREY P. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

HMA Mill/Overlay Scope of Work

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	4	2



REGISTERED PROFESSIONAL ENGINEER
JEFFREY P. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Geotechnical & Pipe Repair
Scope of Work

NOTES

722-P01 ADJUST MANHOLE SPECIAL: Remove and Salvage the existing manhole casting and covers at two existing manhole locations as shown in the Plans. Perform additional work as noted below:

- Existing 84 IN Manhole: Sta 23+87.73 – 116.68' LT (PR_GEO80_1)

  Core new openings in existing manhole riser to accommodate proposed 60 IN Conduit (east) and proposed 66 IN Conduit (southwest). Plug openings for existing conduits. Fill base of manhole with mortar and slope to drain to proposed manhole invert.

- Existing 60 IN Manhole: Sta 28+10.50 – 89.46' RT (PR_GEO90_1)

  Core new opening in existing manhole riser to accommodate invert adjustment to existing 30 IN Conduit (northeast). Plug the existing opening for the 30 IN Conduit (northeast).

Include all labor, materials, and equipment necessary to complete the modification to the existing manholes in the price bid for "Adjust Manhole Special".

752-P01 NATIONAL PARK SERVICE (NPS) FENCING: The woven wire fencing located on or adjacent to NPS property must remain functional at all times during construction. Phase construction of the new fencing to accommodate work activities. Construct the woven wire fence prior to removing the existing fencing. Include all costs associated with this described work in the price bid for "Fence Woven Wire".

762-050 PAVEMENT MARKING: If the Engineer and Contractor agree, plan quantity will be used as the measurement for payment for pavement marking items.

930-P01 PROTECTION OF INCLINOMETER TUBES: Exercise care in the construction operations to protect the existing inclinometer tubes.

930-P02 SEQUENCING FOR DRILLED SHAFTS AND CONSTRUCTION PLATFORM: Commence drilled shaft construction within two weeks of starting the earthwork for the construction platform. Proceed with drilled shaft installation after placement of the construction bench. Stops in production are not allowed, other than holidays and weekends, without approval from the Engineer.

930-P03 DRILLED SHAFT CONSTRUCTION: Drilled Shaft DS-32 may penetrate the existing 30" RCP at a depth of approximately 20 feet below the work road. The exact location of the RCP is not known. Be prepared with appropriate drill tooling and utilize appropriate drilling techniques to drill through this RCP if encountered. Plug the existing 30" RCP in accordance with Note 714-P03 before installing the drilled shaft.

930-P04 TEMPORARY SHORING: Install temporary shoring from Station 27+14 to Station 27+31 to permit construction of the full width temp work road. Design and construct the temporary shoring to the lines and grades shown in the plans. Remove the temporary shoring when the upper temp work road is removed.

Submit working drawings to the Engineer for review 14 days prior to installing the temporary shoring. Include all costs for designing, constructing and removing the temporary shoring in the unit price bid for "Shoring".

REGISTERED PROFESSIONAL ENGINEER
JEFFREY P. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-NH-7-085(110)127	8	1

REVISED 11/02/2020

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
103	0100	CONTRACT BOND	L SUM	1	1
201	0330	CLEARING & GRUBBING	L SUM	1	1
202	0169	REMOVAL OF END SECTION-ALL TYPES & SIZES	EA	2	2
202	0174	REMOVAL OF PIPE ALL TYPES AND SIZES	LF	164	164
202	0210	REMOVAL OF MANHOLES	EA	1	1
202	0312	REMOVE EXISTING FENCE	LF	1,321	1,321
203	0102	COMMON EXCAVATION-TYPE B	CY	22,599	22,599
203	0109	TOPSOIL	CY	3,462	3,462
203	0113	COMMON EXCAVATION-WASTE	CY	7,000	7,000
203	0140	BORROW-EXCAVATION	CY	9,170	9,170
216	0100	WATER	M GAL	380	380
251	0300	SEEDING CLASS III	ACRE	5.064	5.064
251	2000	TEMPORARY COVER CROP	ACRE	7.918	7.918
253	0301	BONDED FIBER MATRIX	ACRE	9.163	9.163
255	0103	ECB TYPE 3	SY	18,122	18,122
255	0201	TRM TYPE 1	SY	120	120
256	0200	RIPRAP GRADE II	CY	330	330
261	0112	FIBER ROLLS 12IN	LF	3,830	3,830
261	0113	REMOVE FIBER ROLLS 12IN	LF	3,830	3,830
302	0050	TRAFFIC SERVICE AGGREGATE	TON	4,887	4,887
302	0251	DRAINAGE AGGREGATE	CY	117	117
401	0050	TACK COAT	GAL	1,468	1,468
411	0105	MILLING PAVEMENT SURFACE	SY	16,061	16,061
430	0045	SUPERPAVE FAA 45	TON	3,007	3,007
430	1000	CORED SAMPLE	EA	21	21
430	5806	PG 58H-28 ASPHALT CEMENT	TON	180.4	180.4
602	0130	CLASS AAE-3 CONCRETE	CY	1,291.1	1,291.1
612	0115	REINFORCING STEEL-GRADE 60	LBS	67,414	67,414
702	0100	MOBILIZATION	L SUM	1	1
704	0100	FLAGGING	MHR	80	80
704	1000	TRAFFIC CONTROL SIGNS	UNIT	1,060	1,060
704	1048	PORTABLE RUMBLE STRIPS	EA	2	2
704	1060	DELINEATOR DRUMS	EA	22	22

ESTIMATE NUMBER: 20809 ESTIMATE TYPE: FINAL FINALIZED: Y RUN DATE: 11/02/2020 TIME: 11:20:02

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-NH-7-085(110)127	8	2

REVISED 11/02/2020

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
704	1067	TUBULAR MARKERS	EA	60	60
704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	1	1
704	1185	PILOT CAR	HR	40	40
706	0400	FIELD OFFICE	EA	1	1
706	0500	AGGREGATE LABORATORY	EA	1	1
706	0550	BITUMINOUS LABORATORY	EA	1	1
706	0600	CONTRACTOR'S LABORATORY	EA	1	1
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	501	501
709	0161	GEOSYNTHETIC MATERIAL TYPE S1	SY	358	358
714	3151	HEADWALL-PRECAST CONCRETE 6IN	EA	4	4
714	4125	PIPE CONDUIT 48IN	LF	100	100
714	4128	PIPE CONDUIT 48IN-APPROACH	LF	44	44
714	4135	PIPE CONDUIT 60IN	LF	158	158
714	4140	PIPE CONDUIT 66IN	LF	58	58
714	4168	PIPE CONDUIT 60IN-JACKED OR BORED	LF	330	330
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES	LF	100	100
714	9680	PLUG PIPE-ALL TYPES & SIZES	EA	1	1
714	9730	UNDERDRAIN PIPE PVC PERFORATED 6IN	LF	760	760
714	9771	UNDERDRAIN PIPE PVC NON-PERFORATED 6IN	LF	89	89
722	0120	MANHOLE 72IN	EA	1	1
722	0130	MANHOLE 84IN	EA	2	2
722	0315	MANHOLE CASTING	EA	1	1
722	1120	MANHOLE RISER 72IN	LF	20.25	20.25
722	1130	MANHOLE RISER 84IN	LF	20	20
722	6201	ADJUST MANHOLE SPECIAL	EA	2	2
752	0200	FENCE BARBED WIRE 4 STRAND	LF	138	138
752	0700	FENCE WOVEN WIRE	LF	1,219	1,219
752	2110	RESET VEHICLE GATE	EA	1	1
752	3120	CORNER ASSEMBLY WOVEN WIRE	EA	8	8
752	3140	CORNER ASSEMBLY BARBED WIRE	EA	1	1
752	4120	DOUBLE BRACE ASSEMBLY WOVEN WIRE	EA	2	2
754	0805	OBJECT MARKERS - CULVERTS	EA	3	3
760	0005	RUMBLE STRIPS - ASPHALT SHOULDER	MILE	1.06	1.06

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-NH-7-085(110)127	8	3

REVISED 11/02/2020

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
760	0007	RUMBLE STRIPS - ASPHALT CENTERLINE	MILE	0.53	0.53
762	0113	EPOXY PVMT MK 4IN LINE	LF	23,800	23,800
762	0430	SHORT TERM 4IN LINE-TYPE NR	LF	2,100	2,100
902	0400	MACHINE HYGIENE	L SUM	1	1
930	3995	5.0FT DIAMETER DRILLED SHAFT	LF	2,784	2,784
930	3996	5.0FT DIAMETER DRILLED SHAFT (MOD)	LF	3,728	3,728
930	3997	6.0FT DIAMETER DRILLED SHAFT	LF	1,961	1,961
930	4150	GROUND ANCHOR	LF	15,455	15,455
930	4155	SACRIFICIAL GROUND ANCHOR LOAD TEST	EA	2	2
930	4200	INSTRUMENTATION-INCLINOMETER	LF	450	450
930	4210	INSTRUMENTATION-STRAIN GAUGE	EA	16	16
930	4221	INSTRUMENTATION-DRILLED SHAFT MOVEMENT SENSOR	LF	432	432
930	4225	INSTRUMENTATION-DATA LOGGING EQUIPMENT	L SUM	1	1
930	4250	CROSS-HOLE SONIC LOG TEST	EA	13	13
930	4251	CROSS-HOLE SONIC LOG TEST - MOD 1	EA	2	2
930	4260	THERMAL INTEGRITY PROFILING TEST	EA	4	4
930	4261	THERMAL INTEGRITY PROFILING TEST - MOD 1	EA	1	1
930	8230	SHORING	EA	1	1
980	0100	CATTLE GUARD 8FT X 28FT	EA	2	2
980	0171	REMOVE CATTLE GUARD	EA	2	2

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	10	2

PHASE 1 CONSTRUCTION			
Location	EXCAVATION	EMBANKMENT	BORROW (+) / WASTE (-)
	(CY)	(CY)	(CY)
Phase 1 Geotech Work	13,125	22,295	9,170
Earthwork for Phase 1	13,125	22,295	9,170

PHASE 2 CONSTRUCTION			
Location	EXCAVATION	EMBANKMENT	BORROW (+) / WASTE (-)
	(CY)	(CY)	(CY)
Phase 2 Geotech Work	4,703	3,062	-1,641
Earthwork for Phase 2	4,703	3,062	-1,641

PHASE 3 CONSTRUCTION			
Location	EXCAVATION	EMBANKMENT	BORROW (+) / WASTE (-)
	(CY)	(CY)	(CY)
Phase 3 Geotech Work	11,660	6,270	-5,390
Phase 3 US 85 Ditch Regrading	111	142	31
Earthwork for Phase 3	11,771	6,412	-5,359

Construction Phase	EXCAVATION	EMBANKMENT	203-0102 COMMON EXCAVATION - TYPE B	203-0113 COMMON EXCAVATION - WASTE	203-0140 BORROW EXCAVATION
			Pay Item	Pay Item	Pay Item
	(CY)	(CY)	(CY)	(CY)	(CY)
Phase 1	13,125	22,295	13,125	0	9,170
Phase 2	4,703	3,062	3,062	1,641	0
Phase 3	11,771	6,412	6,412	5,359	0
TOTALS	29,599	31,769	22,599	7,000	9,170

Disposal of Drilled Shaft Drilling Spoils	Estimated Quantity
	(CY)
Phase 1	5,027
Phase 2	2,000
Phase 3	0
TOTALS	7,027

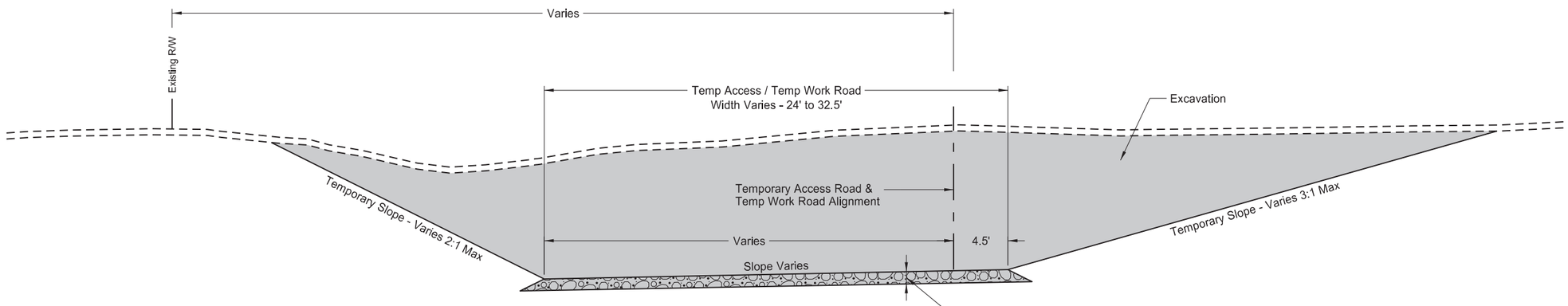
Note: Estimated quantity of Drilling Spoils has not been included in earthwork quantities. Dispose of Drilling Spoils in accordance with SP 3(20) Drilled Shaft.

REGISTERED PROFESSIONAL ENGINEER
JEFFREY D. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

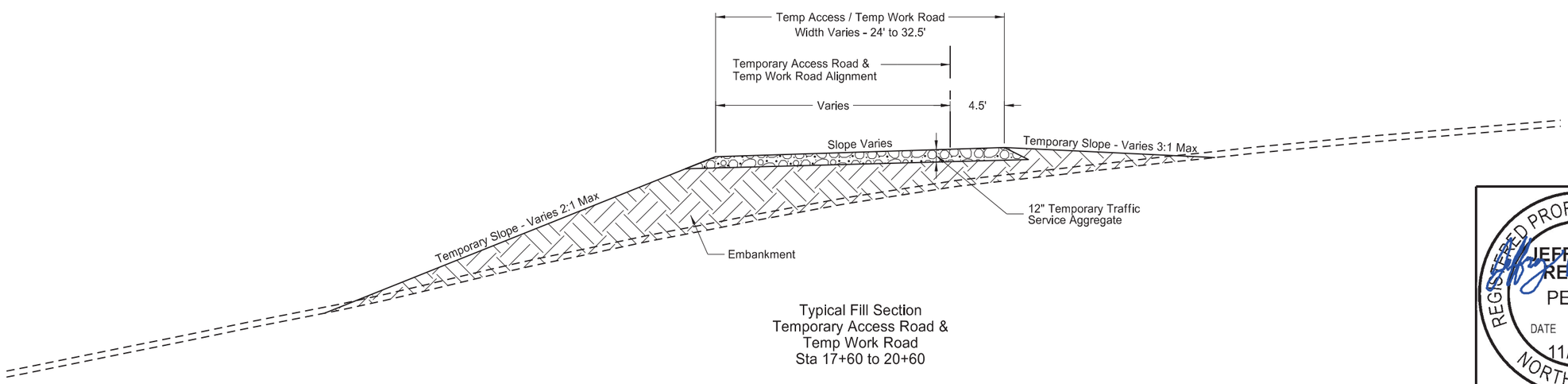
US Hwy 85
Horseshoe Bend Landslide Repair

Basis of Estimate
Earthwork

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	30	1



Typical Cut Section
Temporary Access Road &
Temp Work Road
Sta 17+60 to 20+60



Typical Fill Section
Temporary Access Road &
Temp Work Road
Sta 17+60 to 20+60

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

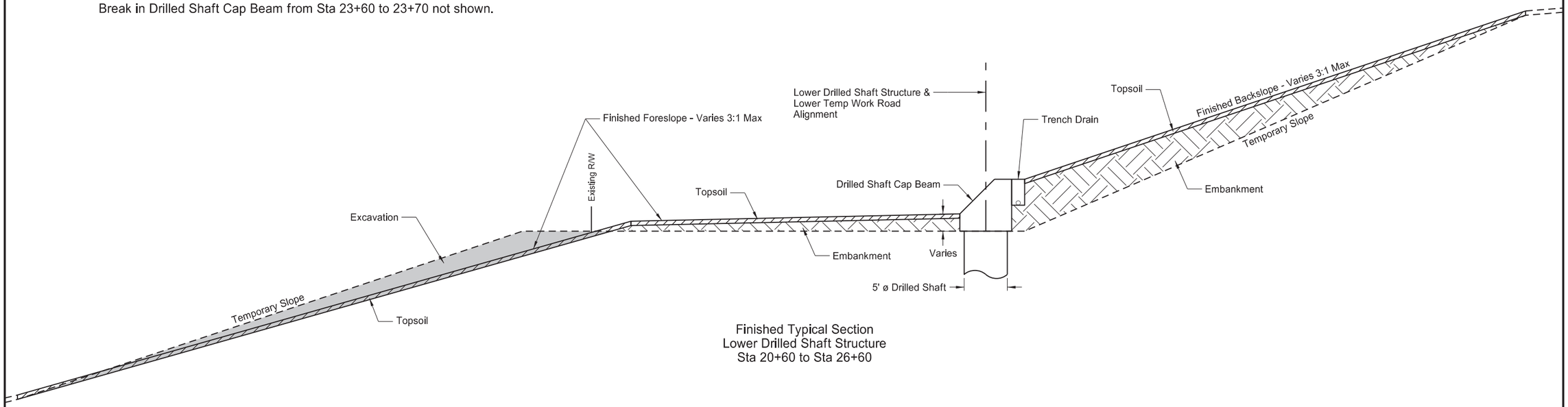
US Hwy 85
Horseshoe Bend Landslide Repair

Typical Sections

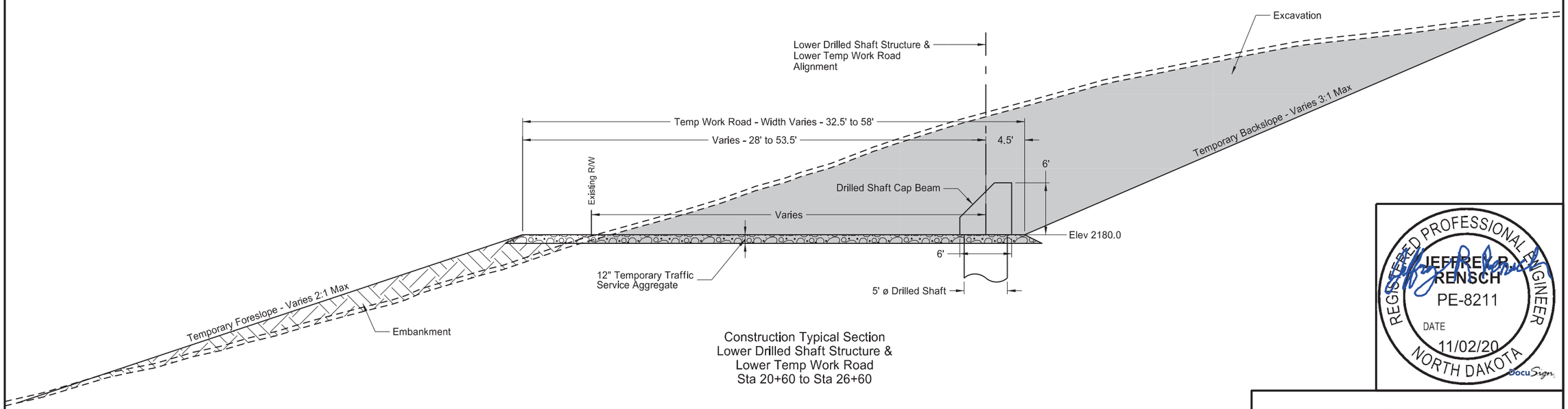
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	30	2

Notes:

Break in Drilled Shaft Cap Beam from Sta 23+60 to 23+70 not shown.



Finished Typical Section
Lower Drilled Shaft Structure
Sta 20+60 to Sta 26+60



Construction Typical Section
Lower Drilled Shaft Structure &
Lower Temp Work Road
Sta 20+60 to Sta 26+60

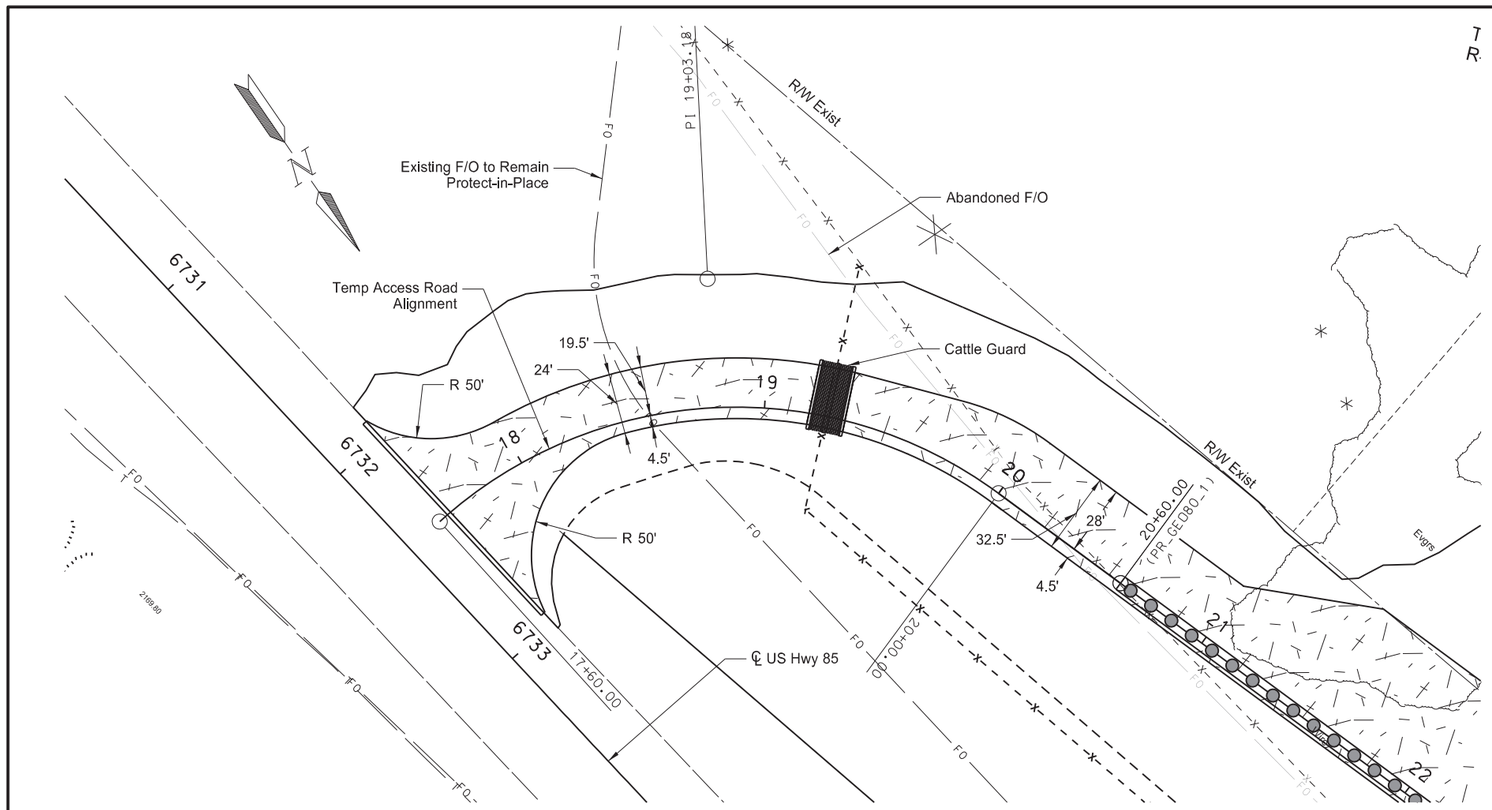
REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

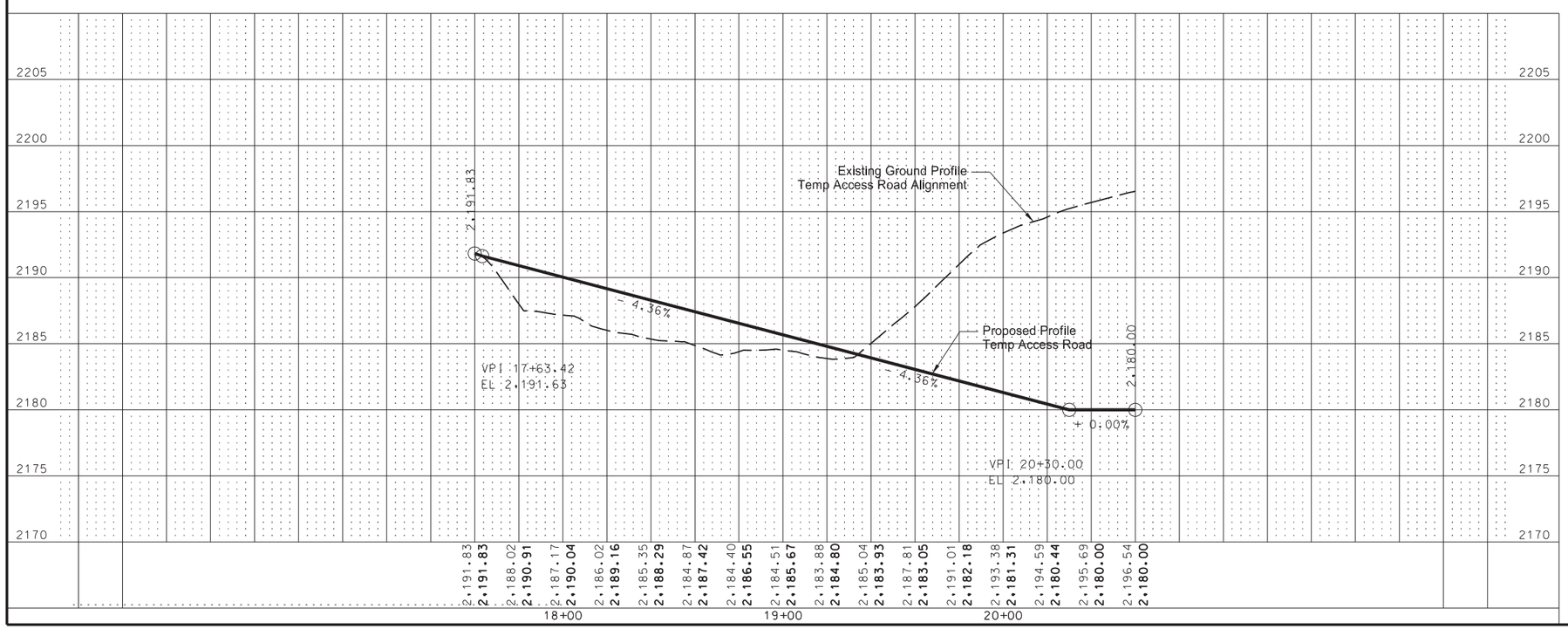
US Hwy 85
Horseshoe Bend Landslide Repair

Typical Sections

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	60	1

SPEC	CODE	BID ITEM	QTY	UNIT
302	0050	TRAFFIC SERVICE AGGREGATE		
		Temp Access Road Sta 17+60 to 20+60	710	TON





Traffic Service Aggregate

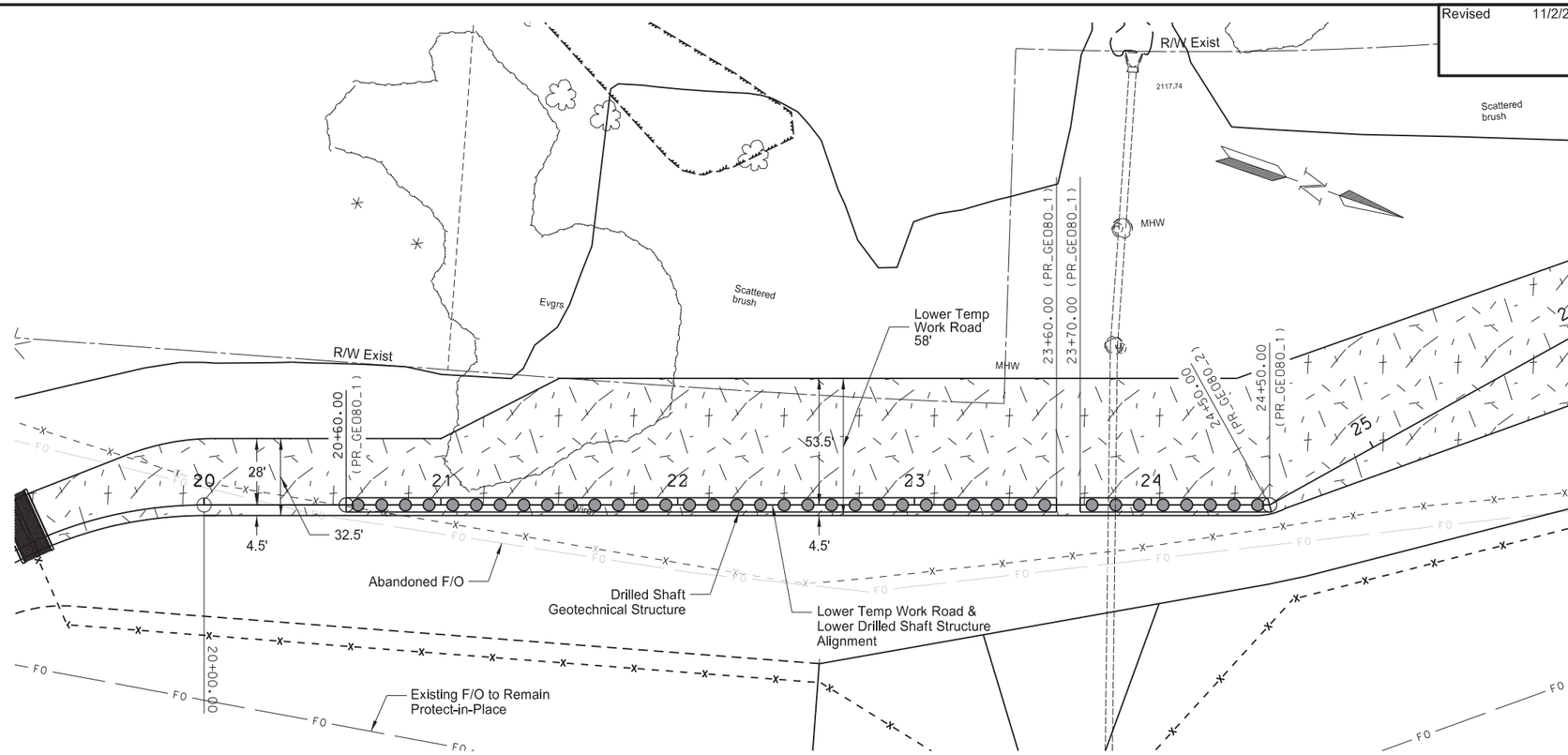
REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

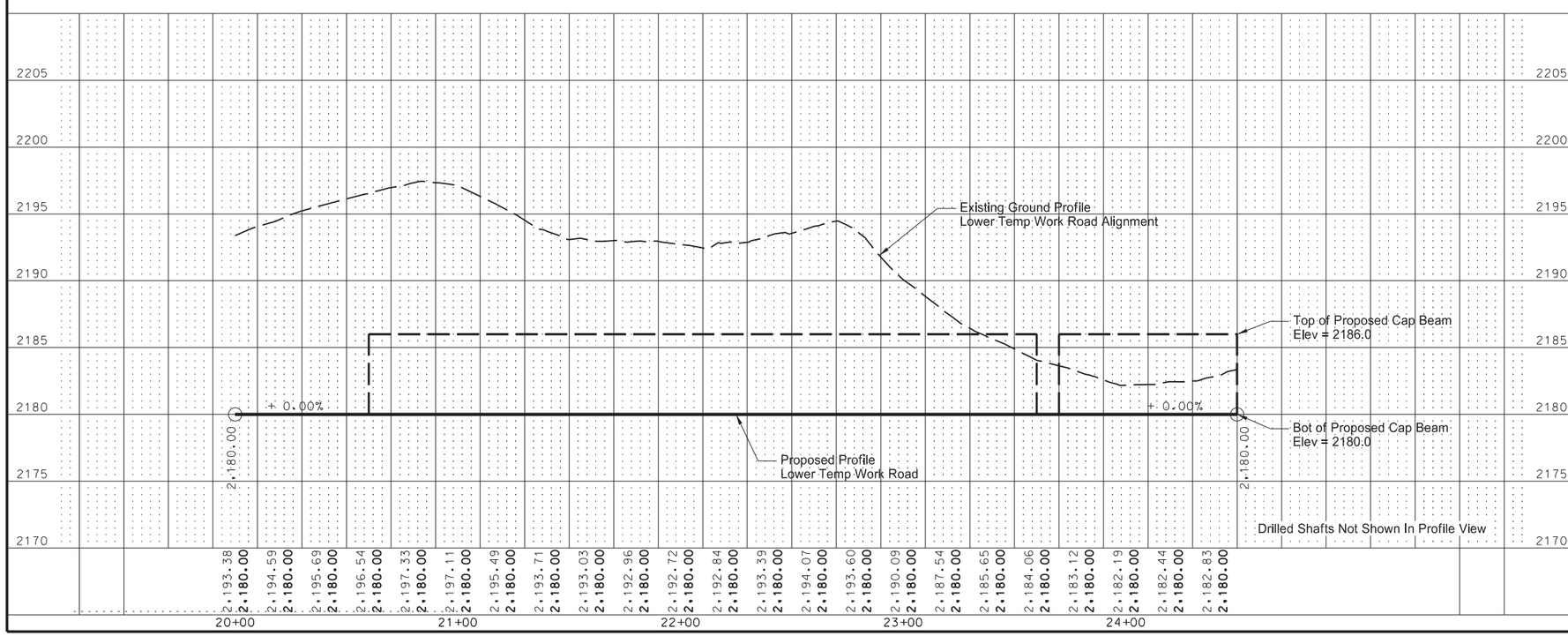
US Hwy 85
Horseshoe Bend Landslide Repair

Plan & Profile
Phase 1 & 2 Construction
Temp Access Road

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	60	2

SPEC	CODE	BID ITEM	QTY	UNIT
302	0050	TRAFFIC SERVICE AGGREGATE		
		Lower Temp Work Road Sta 20+60 to 24+50	1,482	TON





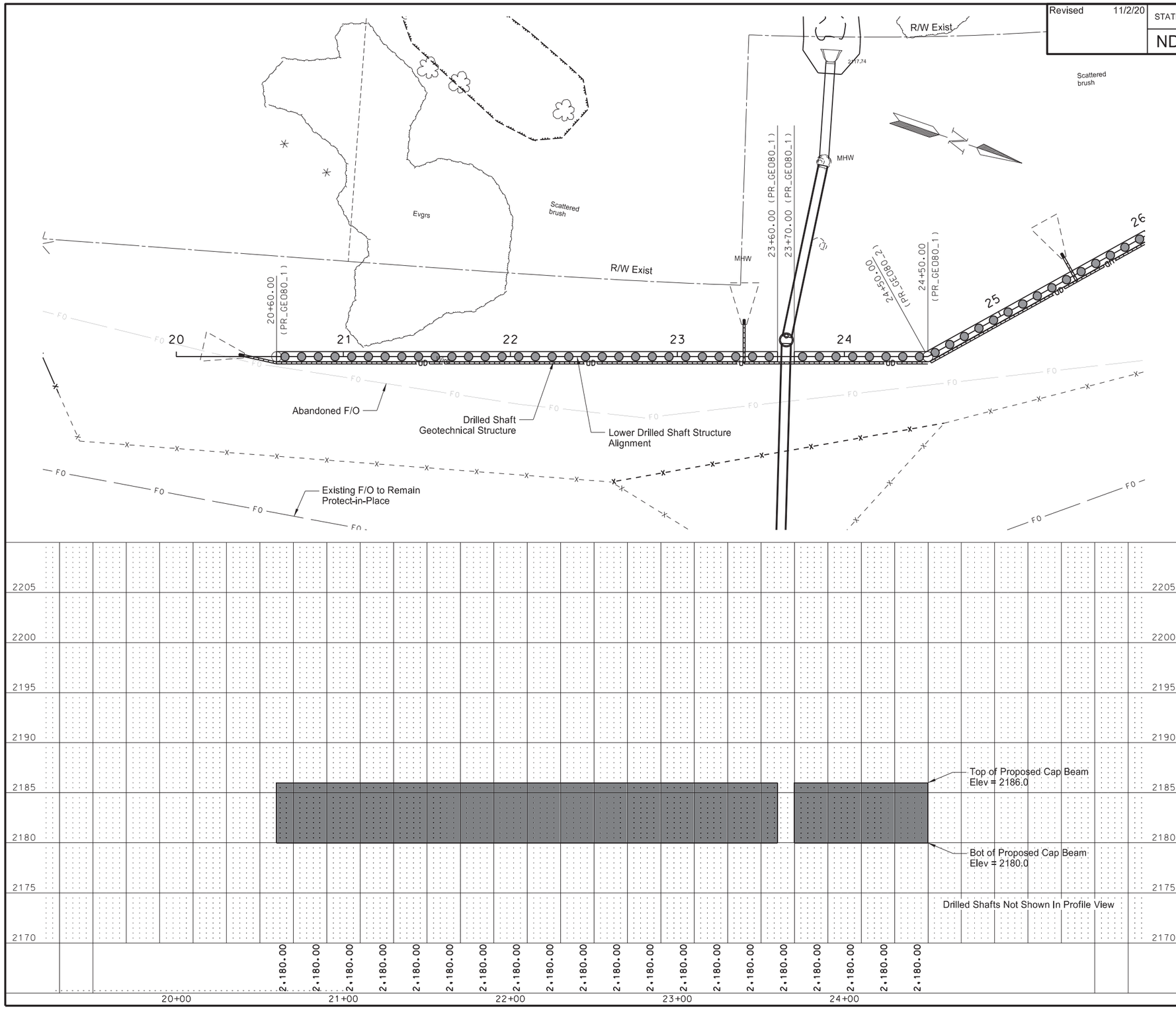
Traffic Service Aggregate

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Plan & Profile
Phase 1 & 2 Construction
Lower Structure & Temp Work Road

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	60	6

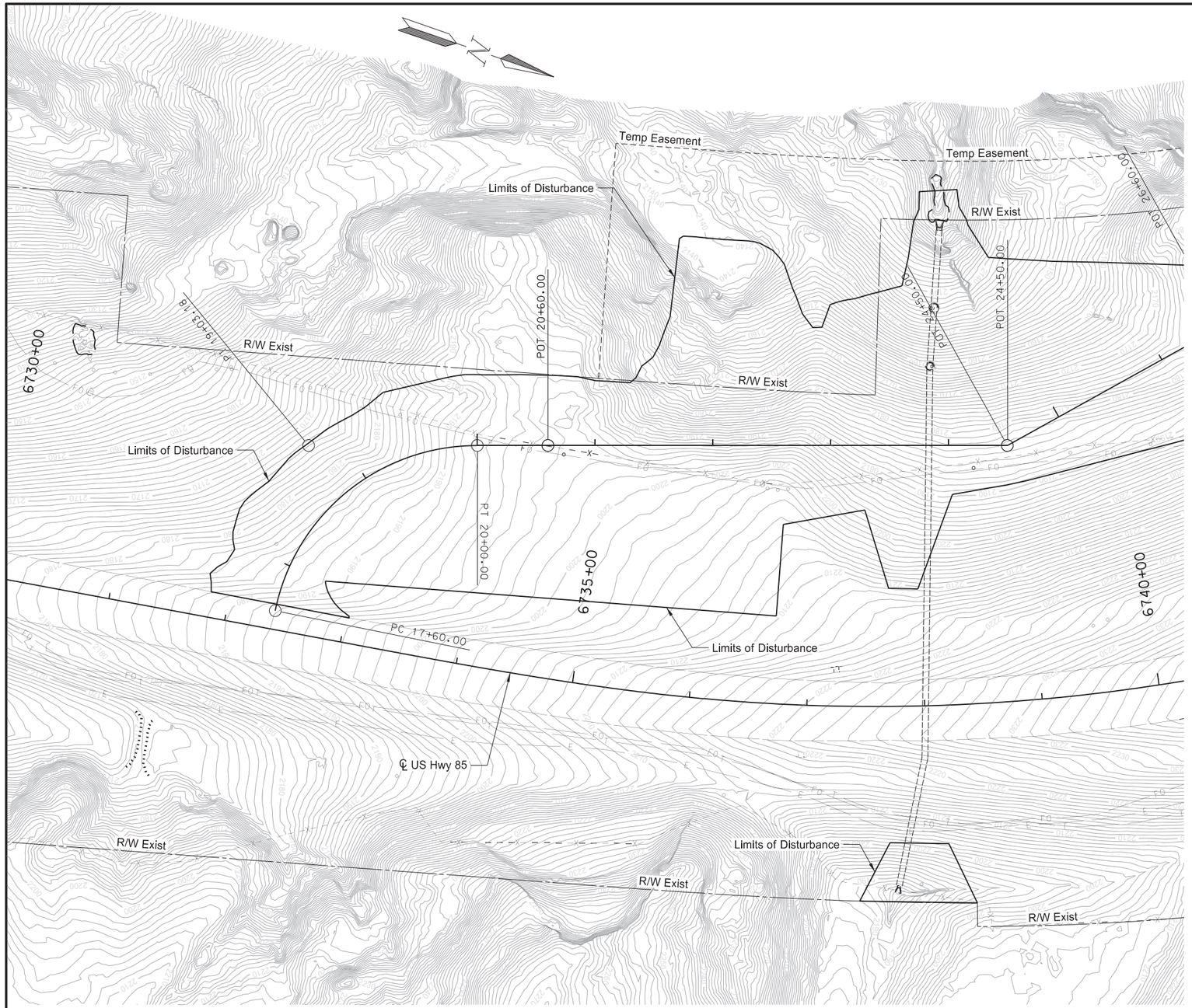


REGISTERED PROFESSIONAL ENGINEER
JEFFREY P. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Plan & Profile
Finished Structure

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	70	1

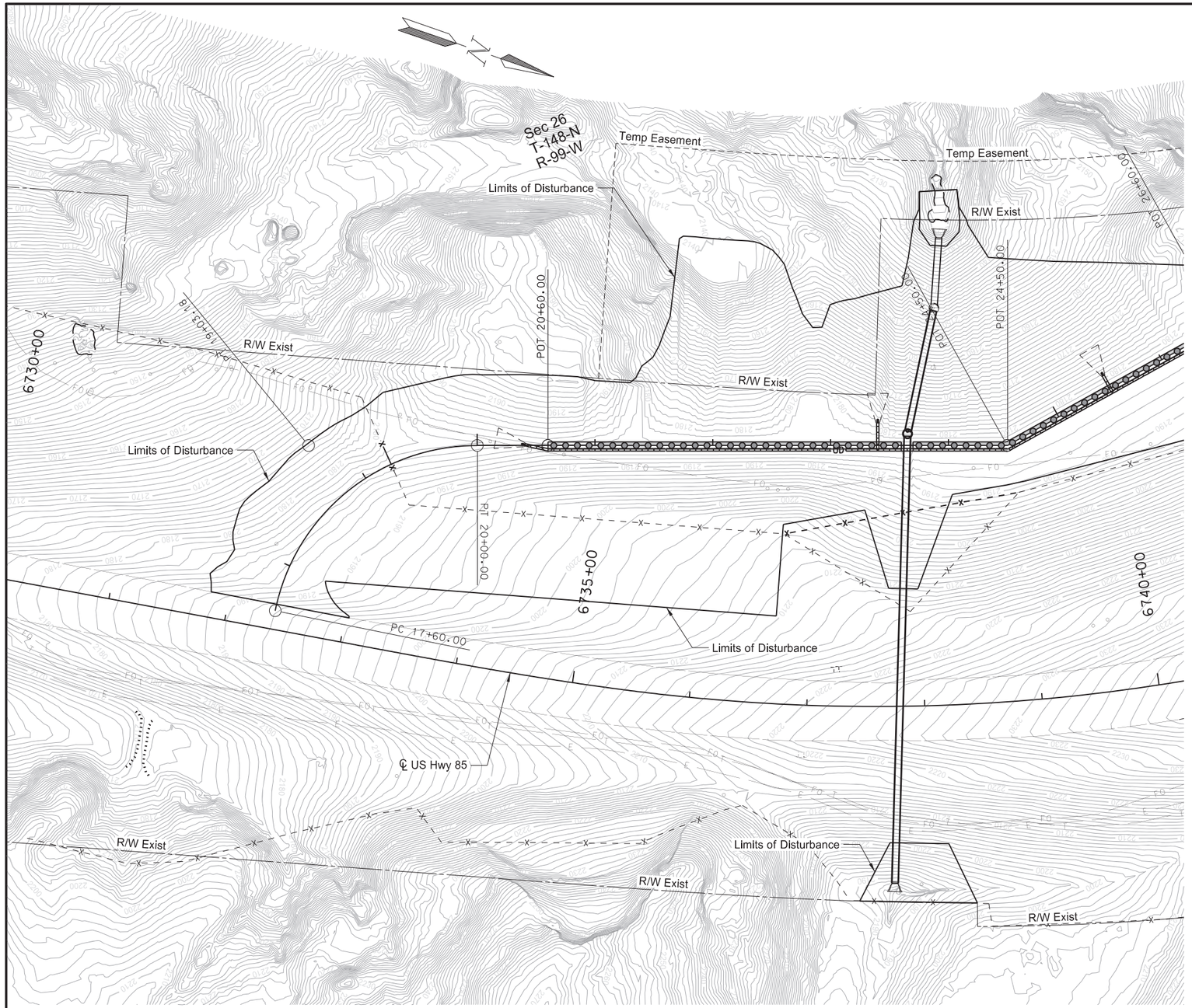


REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Existing Ground Contours

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	70	3

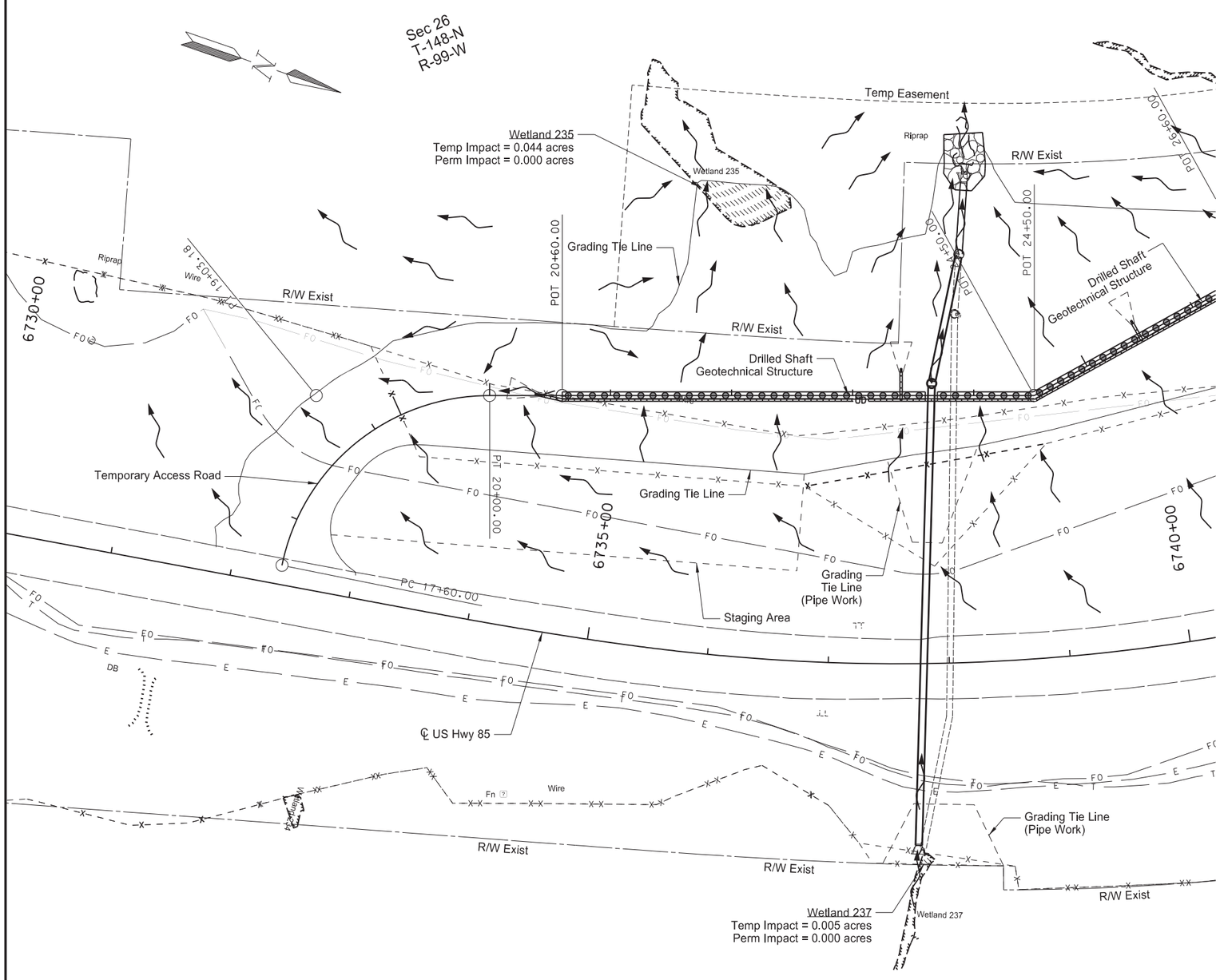


REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Proposed Ground Contours

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	75	2



Permanent Wetland Impact

Temporary Wetland Impact

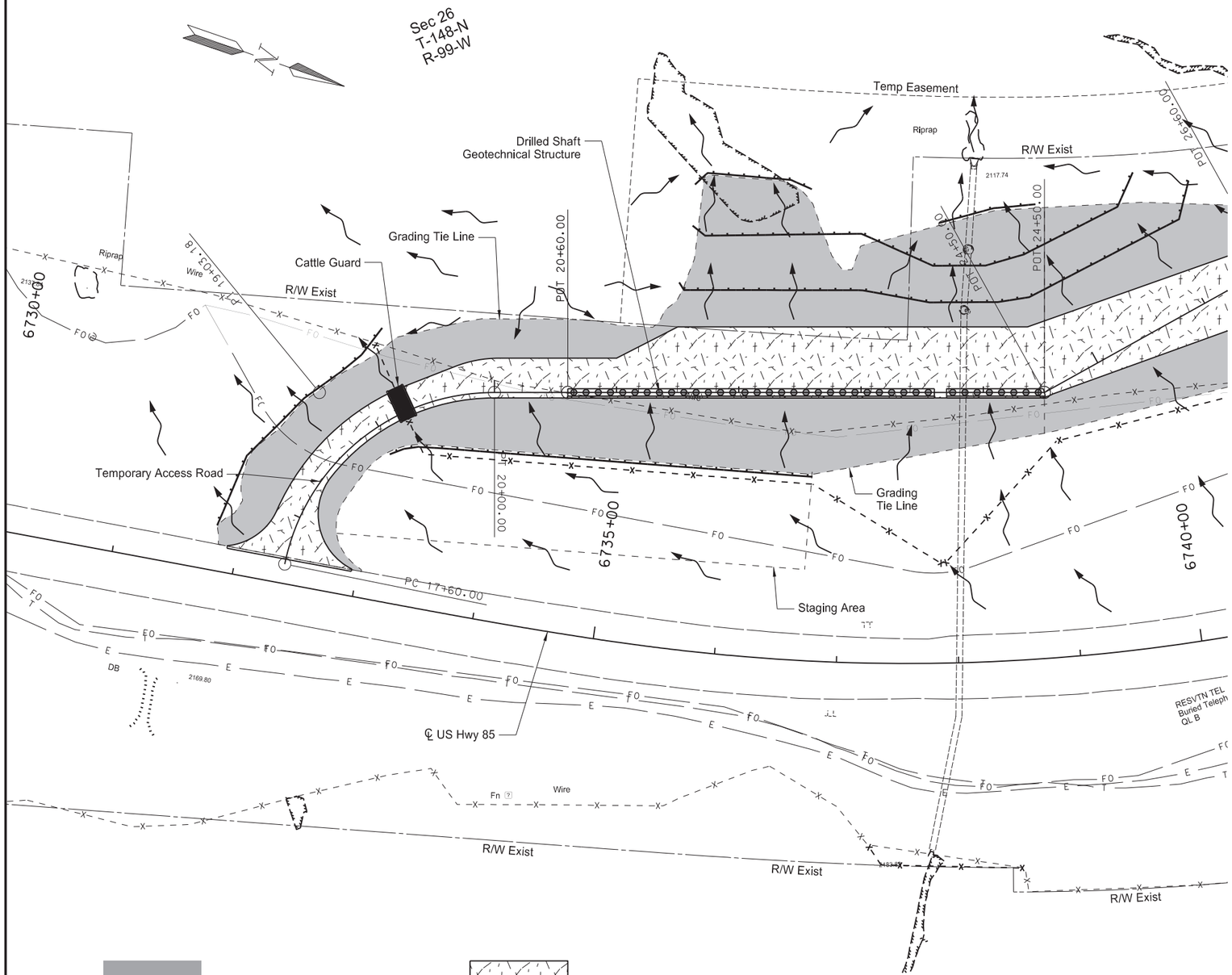
Riprap Grade II

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Wetland Impacts

Revised	11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	SOIB-NH-7-085(110)127	76	1



Temporary Cover Crop
& Bonded Fiber Matrix

Traffic Service Aggregate
(Paid for in Section 60)

Fiber Rolls - 12IN

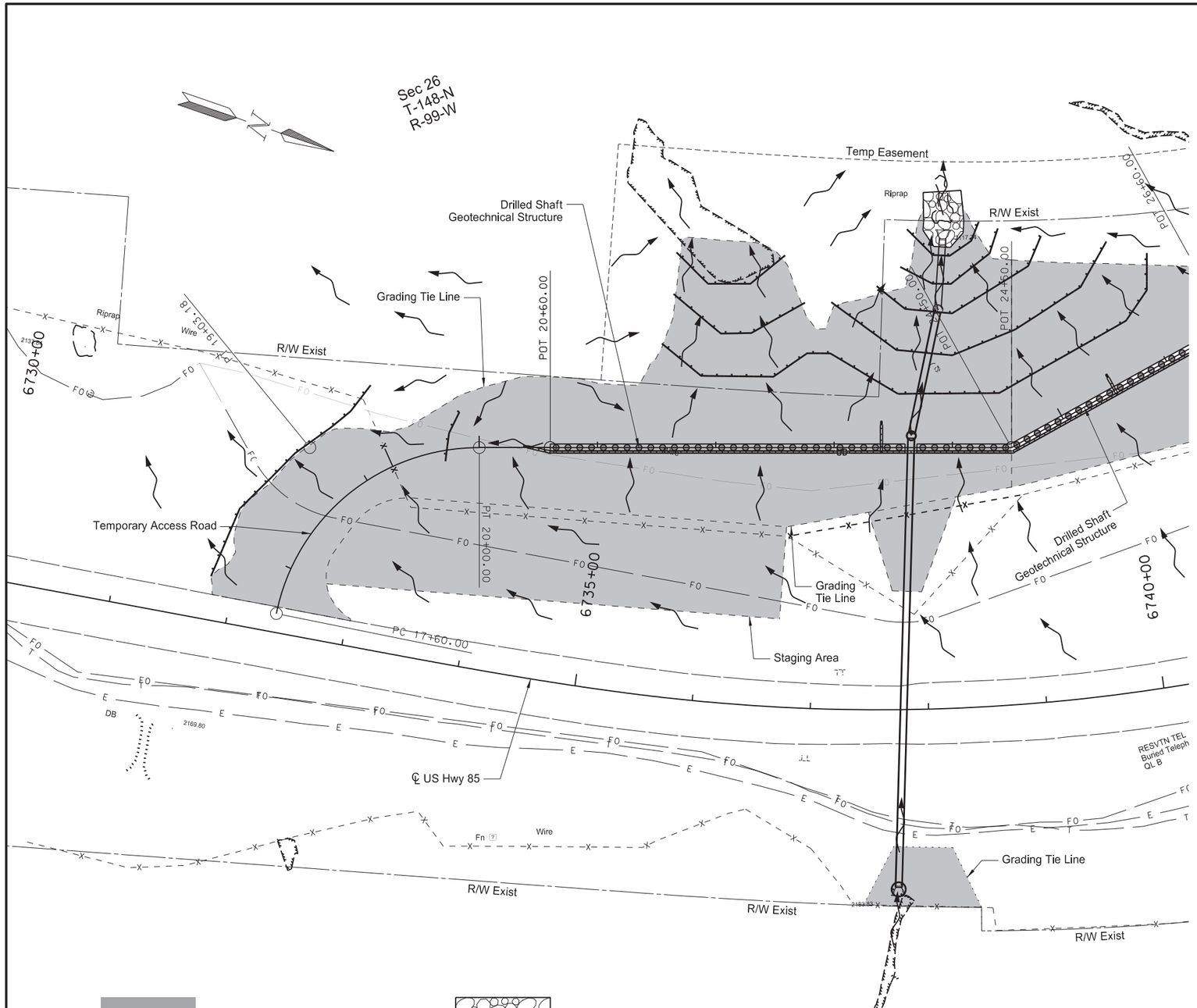
SPEC	CODE	BID ITEM	QTY	UNIT
251	2000	TEMPORARY COVER CROP		
		Temp Access Road & Geotech Structure Sta 17+60 to 24+50	1.561	ACRE
253	0301	BONDED FIBER MATRIX		
		Temp Access Road & Geotech Structure Sta 17+60 to 24+50	1.561	ACRE
261	0112	FIBER ROLLS 12IN		
		Sta 17+60 to 19+30 - Lt	215	LF
		Sta 19+00 to 22+60 - Rt	350	LF
		Sta 21+50 to 24+50 - Lt	305	LF
		Sta 21+60 to 24+50 - Lt	300	LF
		Sta 21+65 to 22+60 - Lt	100	LF
		Sta 23+65 to 24+40 - Lt	80	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Sta 17+60 to 19+30 - Lt	215	LF
		Sta 19+00 to 22+60 - Rt	350	LF
		Sta 21+50 to 24+50 - Lt	305	LF
		Sta 21+60 to 24+50 - Lt	300	LF
		Sta 21+65 to 22+60 - Lt	100	LF
		Sta 23+65 to 24+40 - Lt	80	LF

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Temporary Erosion Control
Phase 1 & 2 Construction

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	76	4



Temporary Cover Crop
& Bonded Fiber Matrix

Riprap Grade II
(Permanent Erosion Control)

Fiber Rolls - 12IN

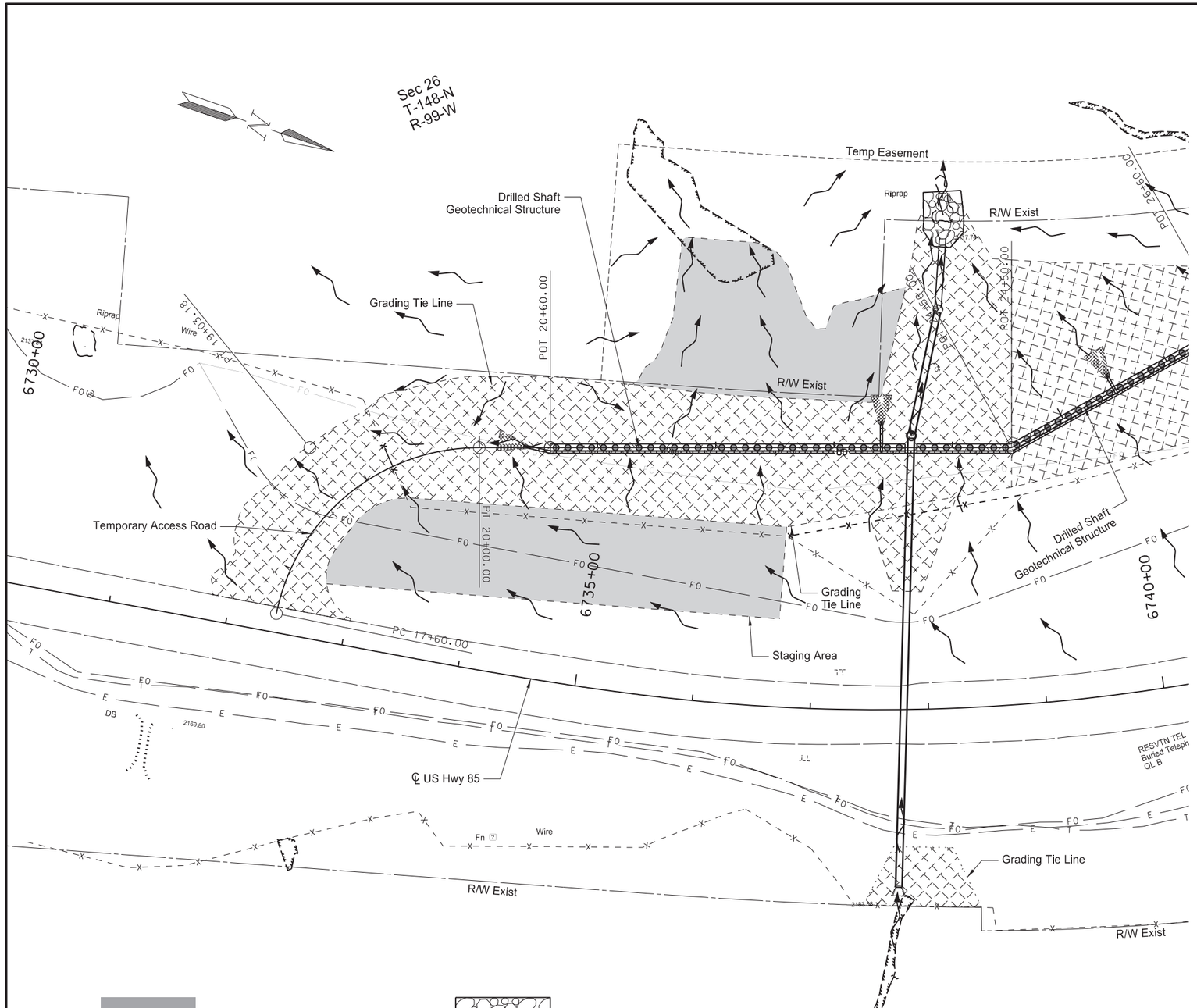
SPEC	CODE	BID ITEM	QTY	UNIT
251	2000	TEMPORARY COVER CROP		
		Temp Access Road, Geotech Structure & Pipe Work Sta 17+60 to 24+50	2.333	ACRE
		Staging Area	0.661	ACRE
		Pipe Installation East of US 85	0.086	ACRE
253	0301	BONDED FIBER MATRIX		
		Temp Access Road, Geotech Structure & Pipe Work Sta 17+60 to 24+50	2.369	ACRE
		Staging Area	0.661	ACRE
		Pipe Installation East of US 85	0.086	ACRE
261	0112	FIBER ROLLS 12IN		
		Sta 17+60 to 19+30 - Lt	215	LF
		Sta 19+80 - Ditch Check	45	LF
		Sta 21+55 to 24+50 - Lt	320	LF
		Sta 21+65 to 22+75 - Lt	130	LF
		Sta 21+65 to 22+60 - Lt	110	LF
		Sta 23+00 to 24+50 - Lt	170	LF
		Sta 23+35 to 24+50 - Lt	130	LF
		Sta 23+55 to 24+40 - Lt	110	LF
		Sta 23+60 to 24+20 - Lt	85	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Sta 17+60 to 19+30 - Lt	215	LF
		Sta 19+80 - Ditch Check	45	LF
		Sta 21+55 to 24+50 - Lt	320	LF
		Sta 21+65 to 22+75 - Lt	130	LF
		Sta 21+65 to 22+60 - Lt	110	LF
		Sta 23+00 to 24+50 - Lt	170	LF
		Sta 23+35 to 24+50 - Lt	130	LF
		Sta 23+55 to 24+40 - Lt	110	LF
		Sta 23+60 to 24+20 - Lt	85	LF

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Temporary Erosion Control
Winter Suspension

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	77	1



SPEC	CODE	BID ITEM	QTY	UNIT
203	0109	**TOPSOIL**		
		Temp Access Road, Geotech Structure & Pipe Work Sta 17+60 to 24+50 within R/W	1557	CY
		Geotech Structure Sta 20+00 to 23+60 outside R/W	375	CY
		Pipe Installation East of US 85	69	CY
251	0300	**SEEDING CLASS III**		
		Temp Access Road, Geotech Structure & Pipe Work Sta 17+60 to 24+50 within R/W	1.931	ACRE
		Geotech Structure Sta 20+00 to 23+60 outside R/W	0.465	ACRE
		Staging Area	0.661	ACRE
		Pipe Installation East of US 85	0.086	ACRE
253	0301	**BONDED FIBER MATRIX**		
		Geotech Structure Sta 20+00 to 23+60 outside R/W	0.548	ACRE
		Staging Area	0.661	ACRE
255	0103	**ECB TYPE 3**		
		Temp Access Road, Geotech Structure & Pipe Repair Sta 17+60 to 24+50 within R/W	8943	SY
		Pipe Installation East of US 85	417	SY
256	0200	**RIPRAP GRADE II**		
		66 IN Pipe Outlet: Sta 23+90 - Lt	110	CY
709	0155	**GEOSYNTHETIC MATERIAL TYPE RR**		
		66 IN Pipe Outlet: Sta 23+90 - Lt	161	SY

Topsoil, Seeding Class III
& Bonded Fiber Matrix

Riprap Grade II

Staging Area
Seeding Class III
& Bonded Fiber Matrix

Topsoil, Seeding Class III
& ECB Type 3

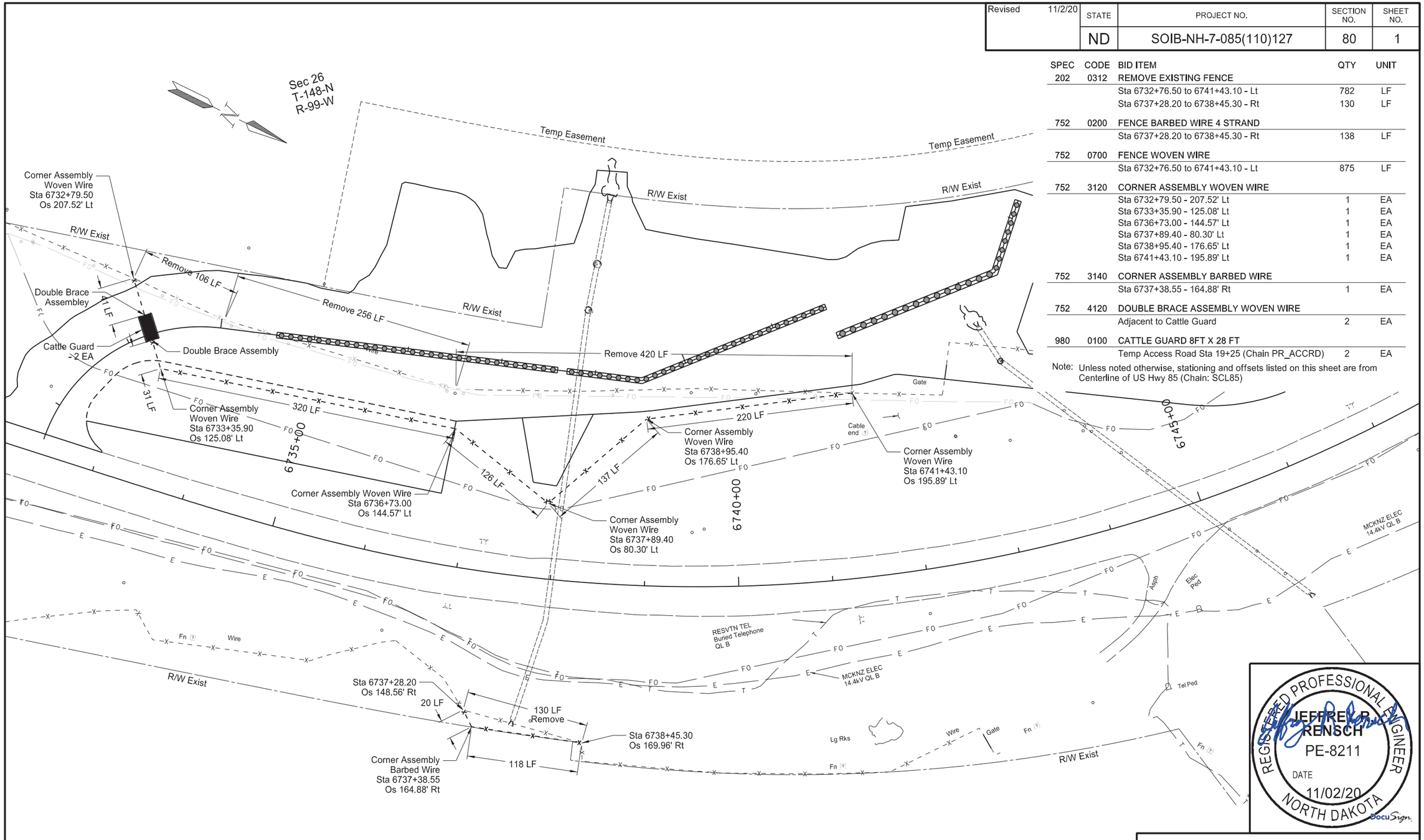
TRM Type 1 at Headwalls
(Paid for in Section 20)

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Permanent Erosion Control

Revised	11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	SOIB-NH-7-085(110)127	80	1



SPEC	CODE	BID ITEM	QTY	UNIT
202	0312	REMOVE EXISTING FENCE		
		Sta 6732+76.50 to 6741+43.10 - Lt	782	LF
		Sta 6737+28.20 to 6738+45.30 - Rt	130	LF
752	0200	FENCE BARBED WIRE 4 STRAND		
		Sta 6737+28.20 to 6738+45.30 - Rt	138	LF
752	0700	FENCE WOVEN WIRE		
		Sta 6732+76.50 to 6741+43.10 - Lt	875	LF
752	3120	CORNER ASSEMBLY WOVEN WIRE		
		Sta 6732+79.50 - 207.52' Lt	1	EA
		Sta 6733+35.90 - 125.08' Lt	1	EA
		Sta 6736+73.00 - 144.57' Lt	1	EA
		Sta 6737+89.40 - 80.30' Lt	1	EA
		Sta 6738+95.40 - 176.65' Lt	1	EA
		Sta 6741+43.10 - 195.89' Lt	1	EA
752	3140	CORNER ASSEMBLY BARBED WIRE		
		Sta 6737+38.55 - 164.88' Rt	1	EA
752	4120	DOUBLE BRACE ASSEMBLY WOVEN WIRE		
		Adjacent to Cattle Guard	2	EA
980	0100	CATTLE GUARD 8FT X 28 FT		
		Temp Access Road Sta 19+25 (Chain PR_ACCRD)	2	EA

Note: Unless noted otherwise, stationing and offsets listed on this sheet are from Centerline of US Hwy 85 (Chain: SCL85)

REGISTERED PROFESSIONAL ENGINEER
JEFFREY R. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Fencing Layout
Phase 1 Layout

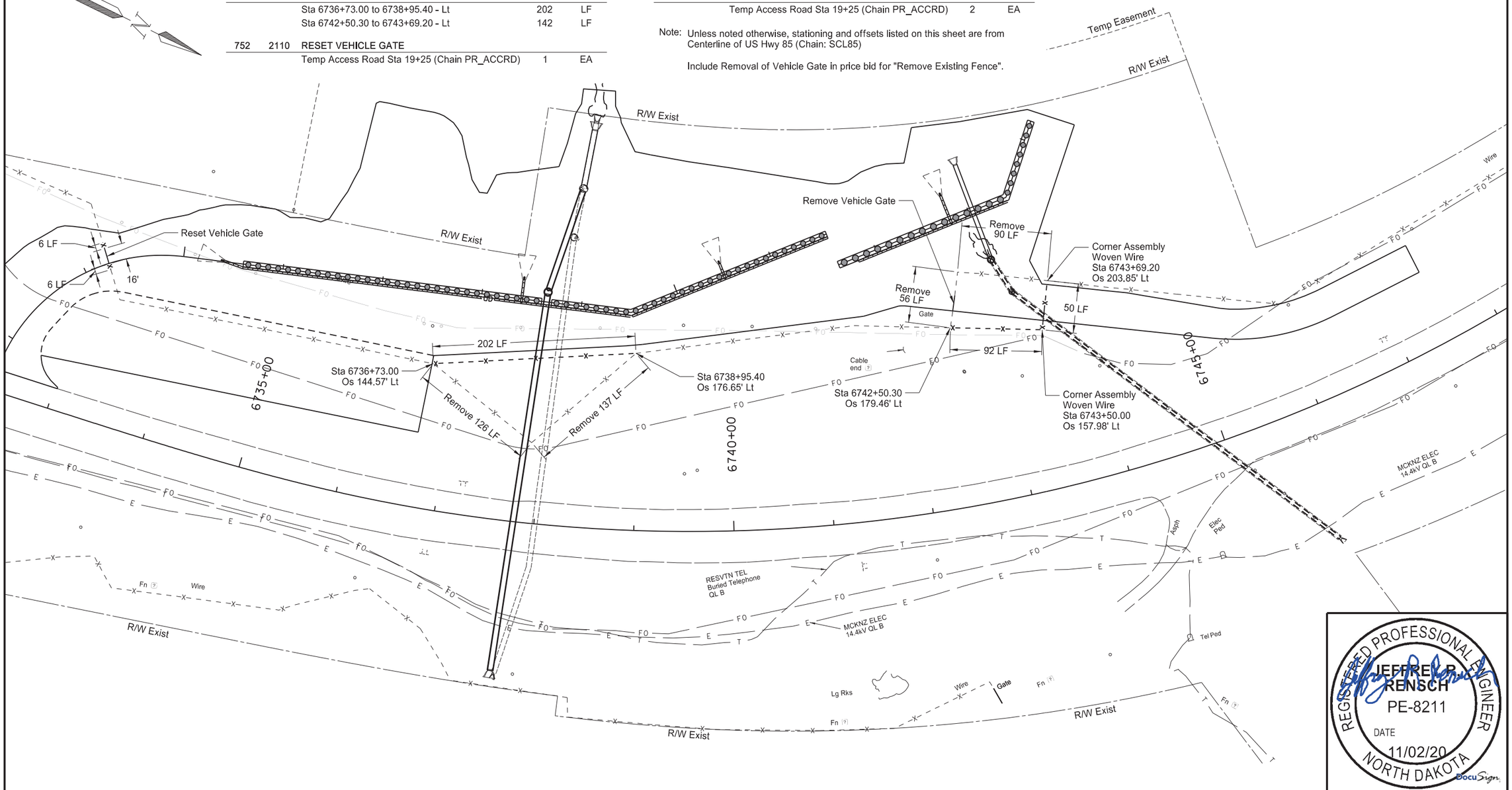
Revised	11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
		ND	SOIB-NH-7-085(110)127	80	2

SPEC	CODE	BID ITEM	QTY	UNIT
202	0312	REMOVE EXISTING FENCE		
		Sta 6736+73.00 to 6738+95.40 - Lt	263	LF
		Sta 6742+50.30 to 6743+69.20 - Lt	146	LF
752	0700	FENCE WOVEN WIRE		
		Sta 6736+73.00 to 6738+95.40 - Lt	202	LF
		Sta 6742+50.30 to 6743+69.20 - Lt	142	LF
752	2110	RESET VEHICLE GATE		
		Temp Access Road Sta 19+25 (Chain PR_ACCRD)	1	EA

SPEC	CODE	BID ITEM	QTY	UNIT
752	3120	CORNER ASSEMBLY WOVEN WIRE		
		Sta 6732+79.50 - 207.52' Lt	1	EA
		Sta 6732+79.50 - 207.52' Lt	1	EA
980	0171	REMOVE CATTLE GUARD		
		Temp Access Road Sta 19+25 (Chain PR_ACCRD)	2	EA

Note: Unless noted otherwise, stationing and offsets listed on this sheet are from Centerline of US Hwy 85 (Chain: SCL85)

Include Removal of Vehicle Gate in price bid for "Remove Existing Fence".

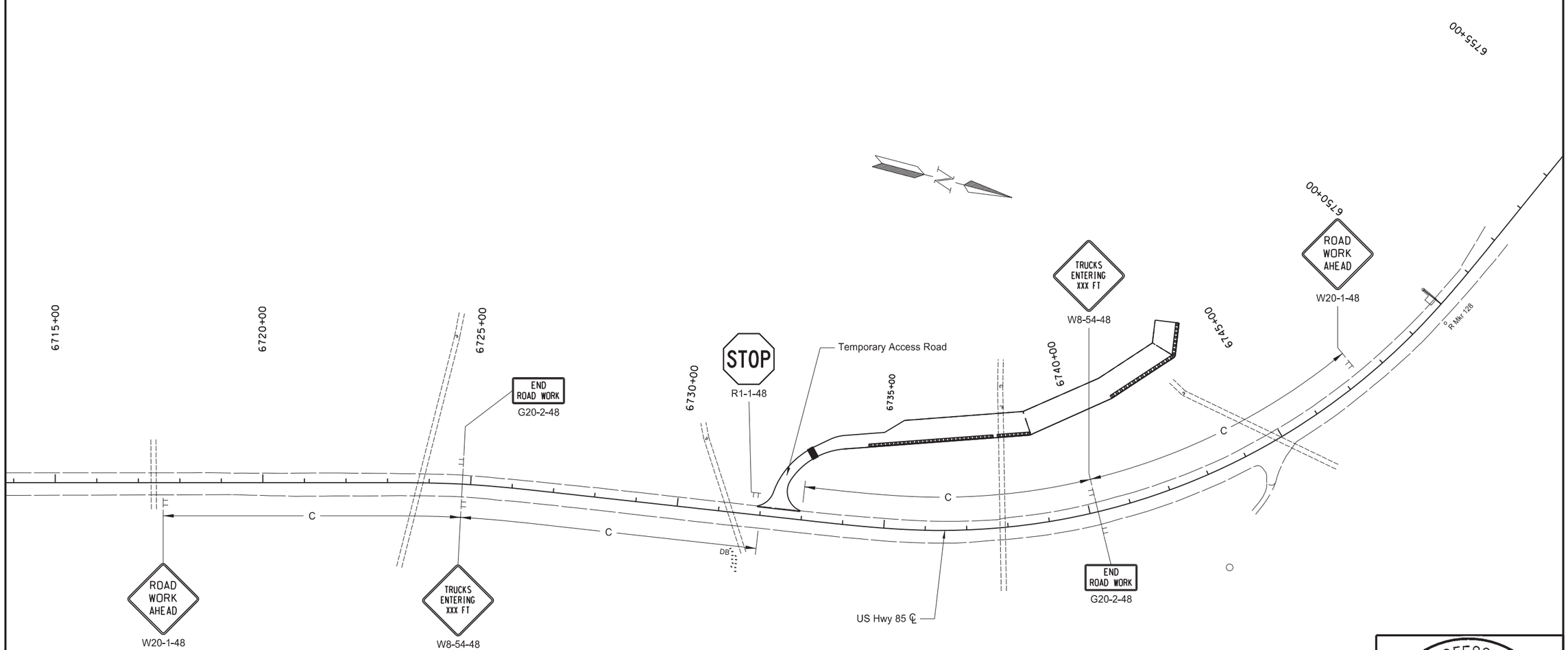


REGISTERED PROFESSIONAL ENGINEER
JEFFREY P. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

US Hwy 85
Horseshoe Bend Landslide Repair

Fencing Layout
Final Layout

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	100	4



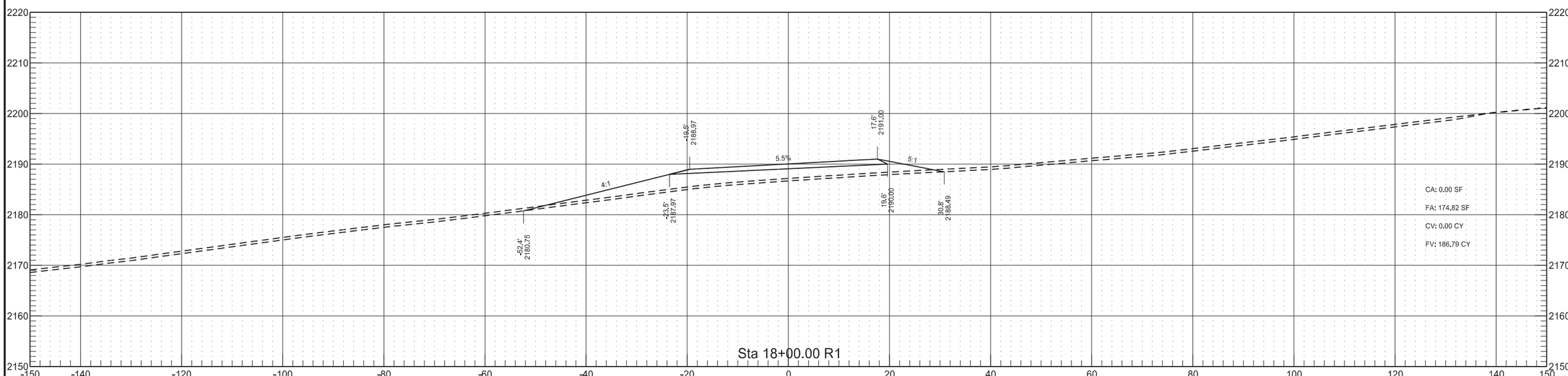
REGISTERED PROFESSIONAL ENGINEER
JEFFREY P. RENSCH
PE-8211
DATE
11/02/20
NORTH DAKOTA
DocuSign

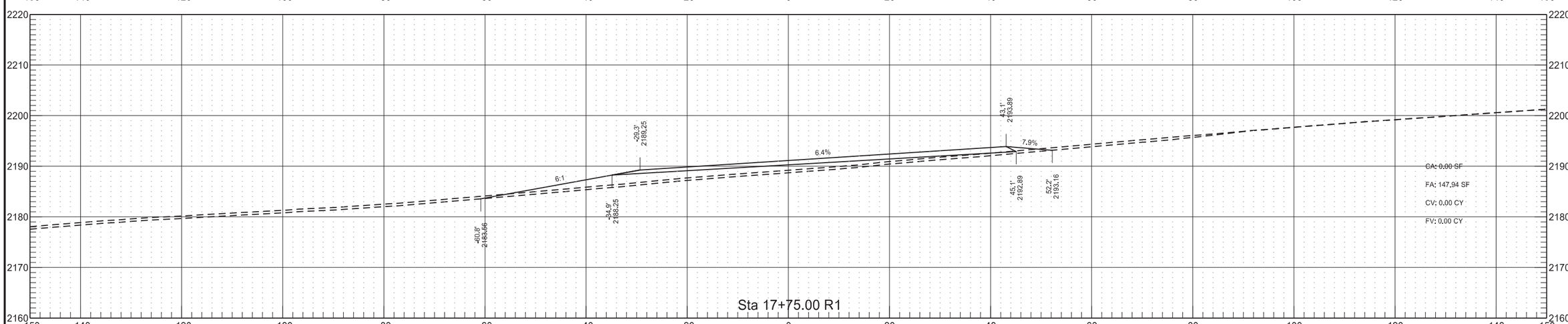
US Hwy 85
Horseshoe Bend Landslide Repair

Work Zone Traffic Control Layout
for Geotechnical Work

Phase 1

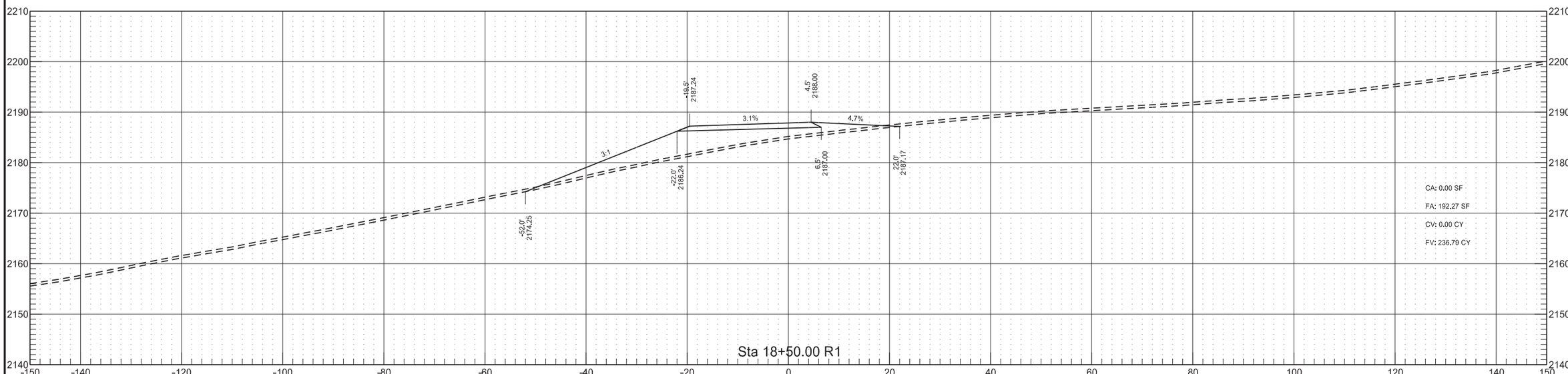
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	1

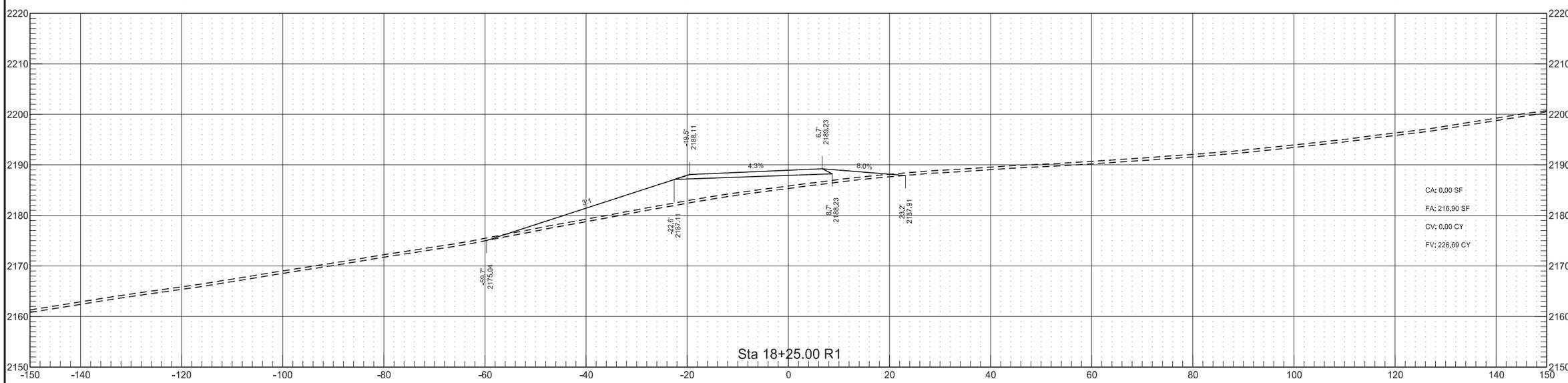




Phase 1

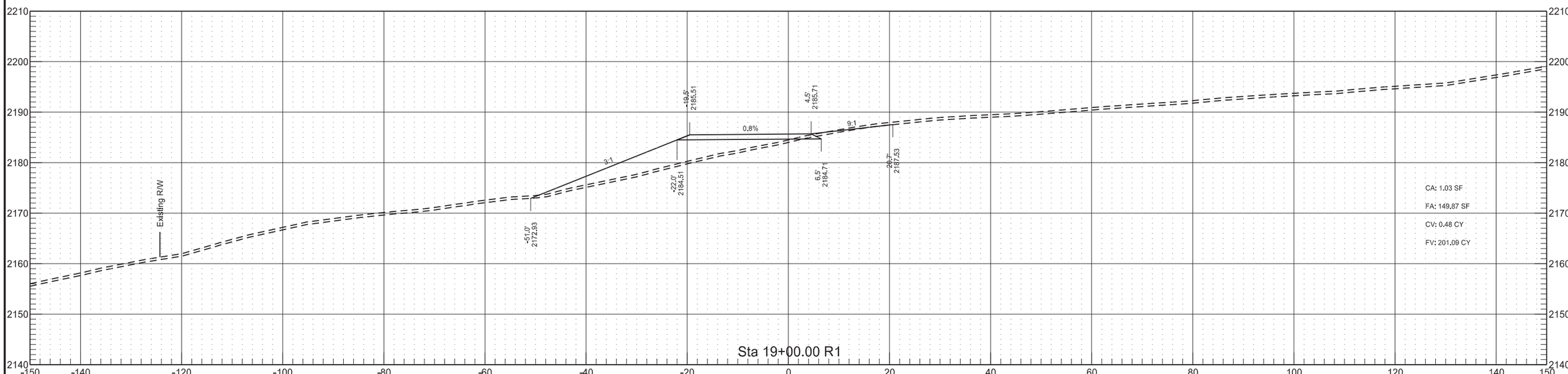
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	2

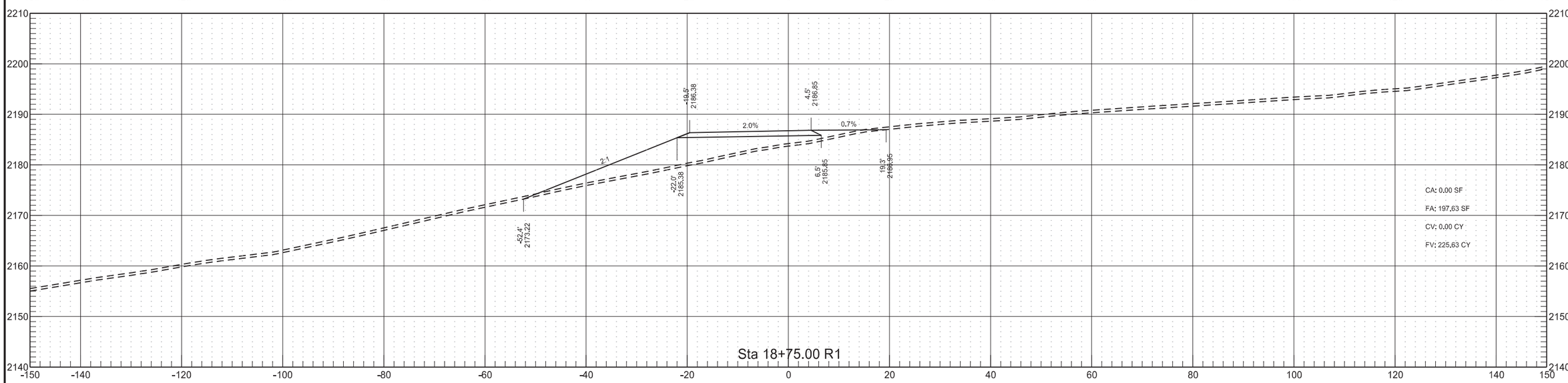




Phase 1

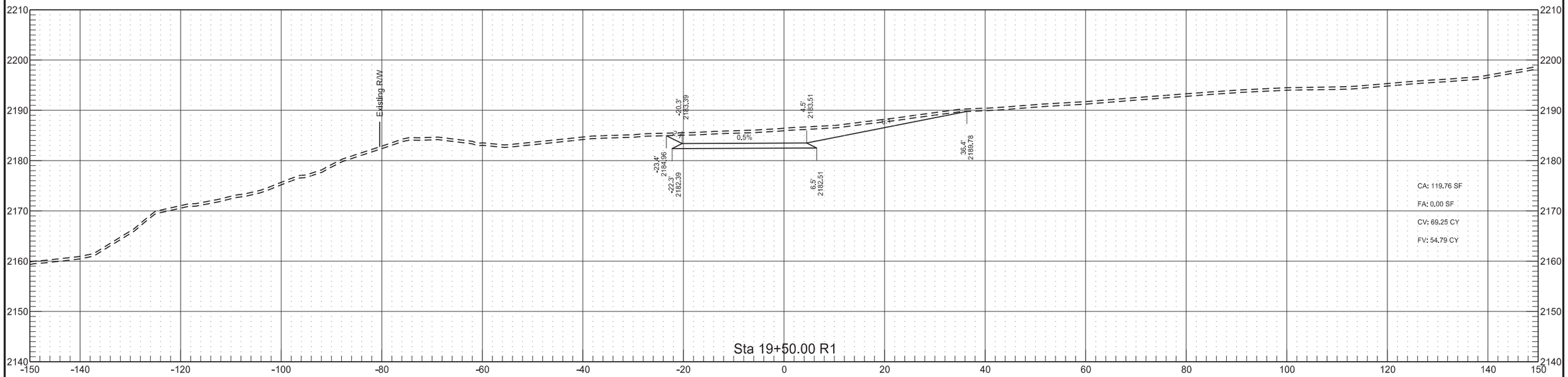
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	3

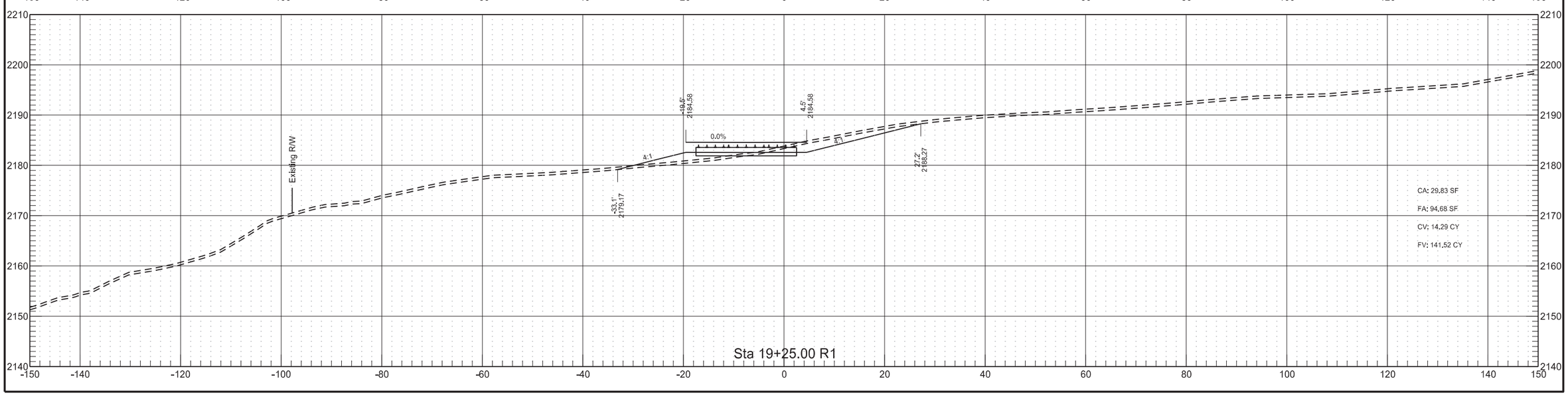




Phase 1

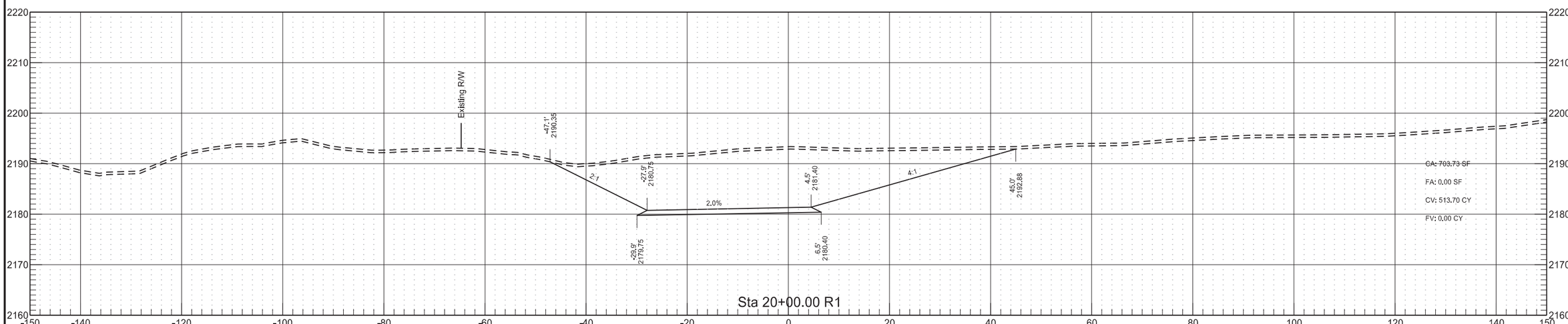
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	4

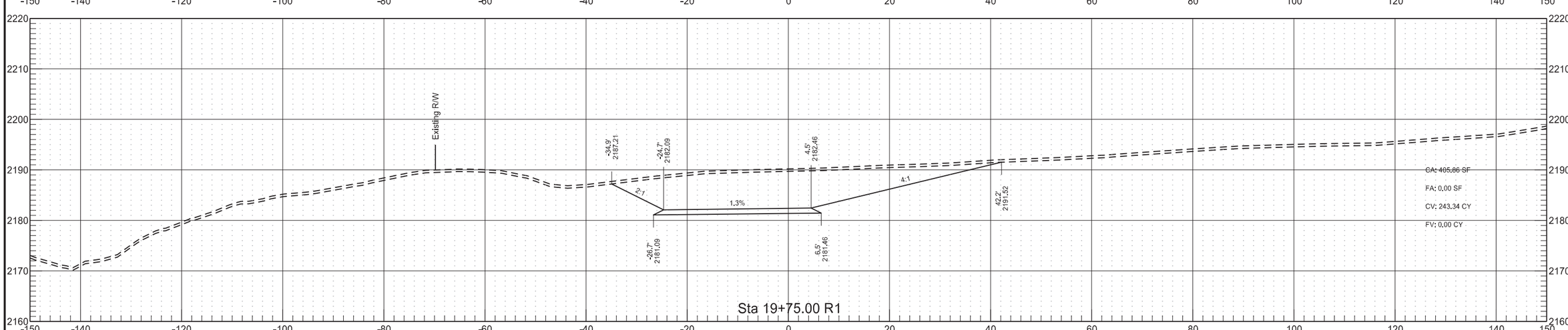




Phase 1

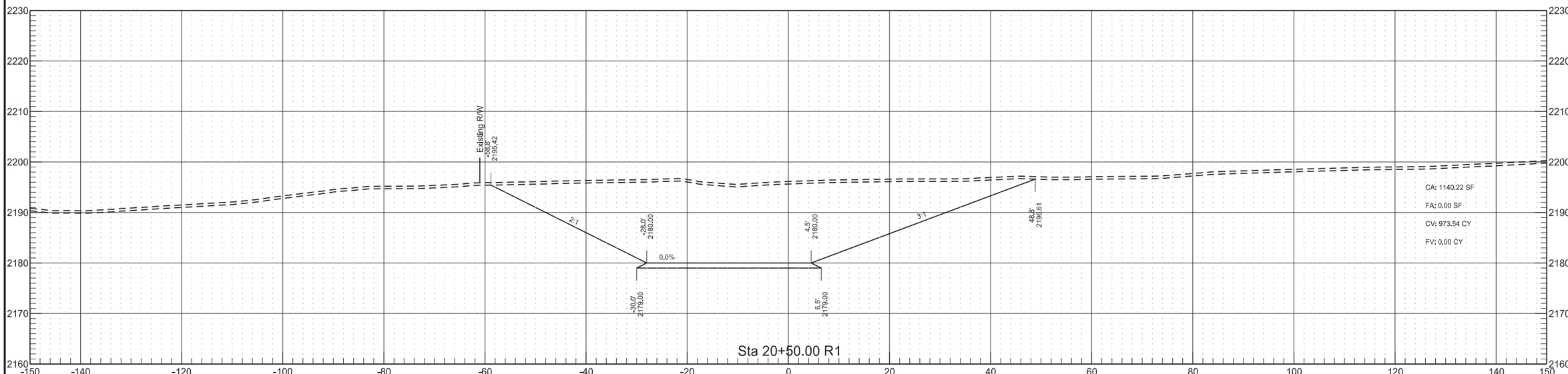
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	5

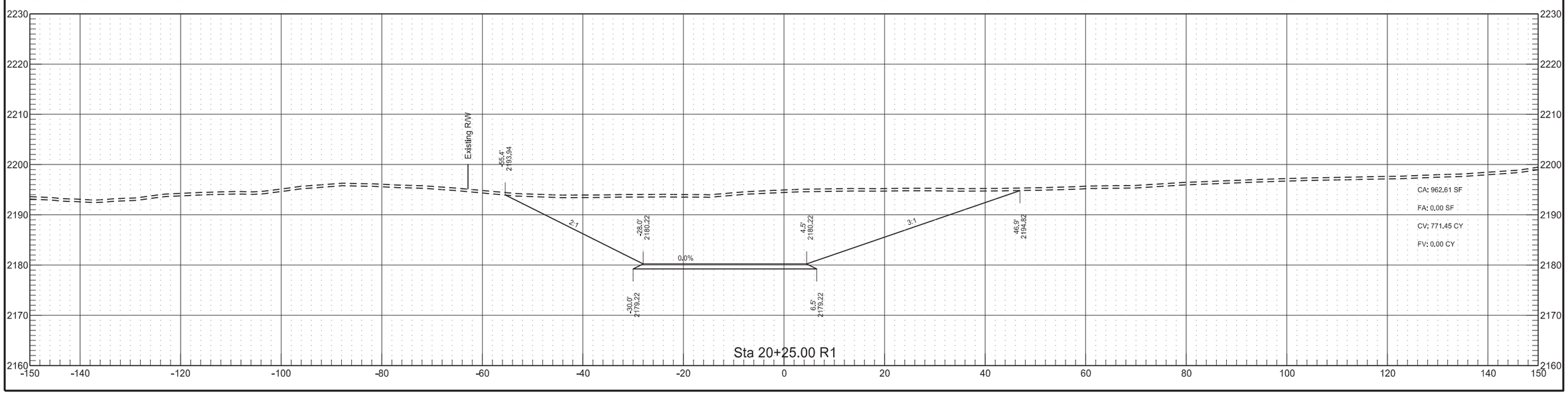




Phase 1

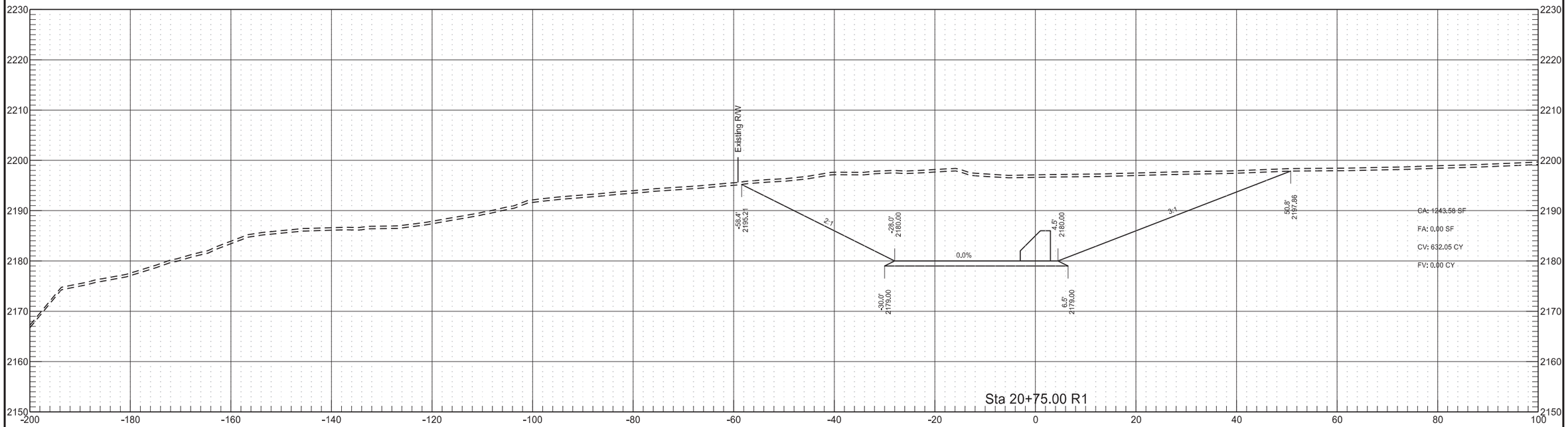
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	6

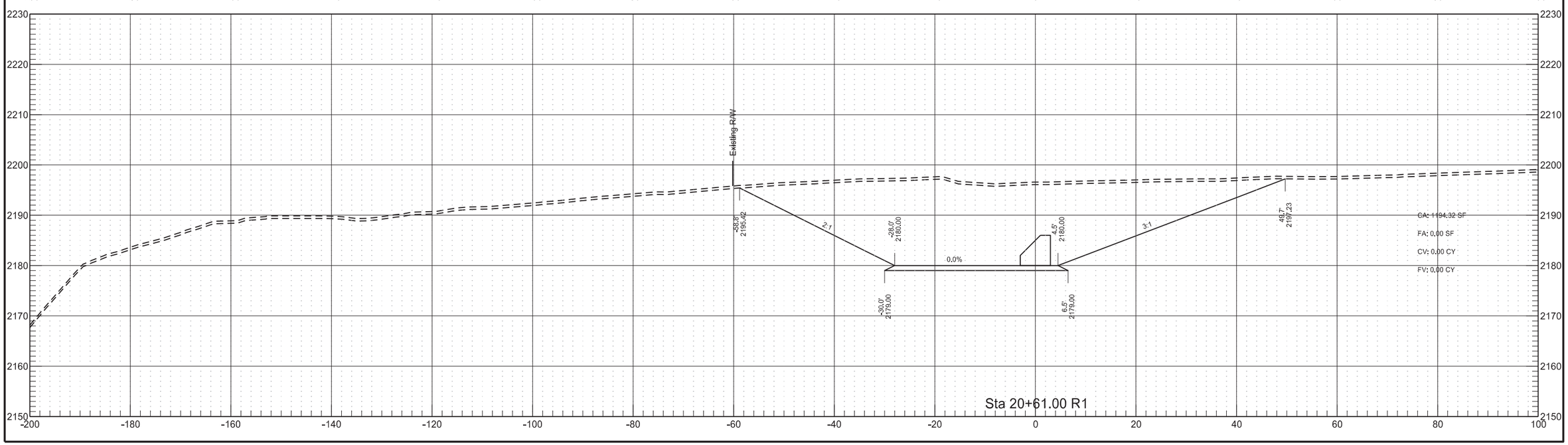




Phase 1

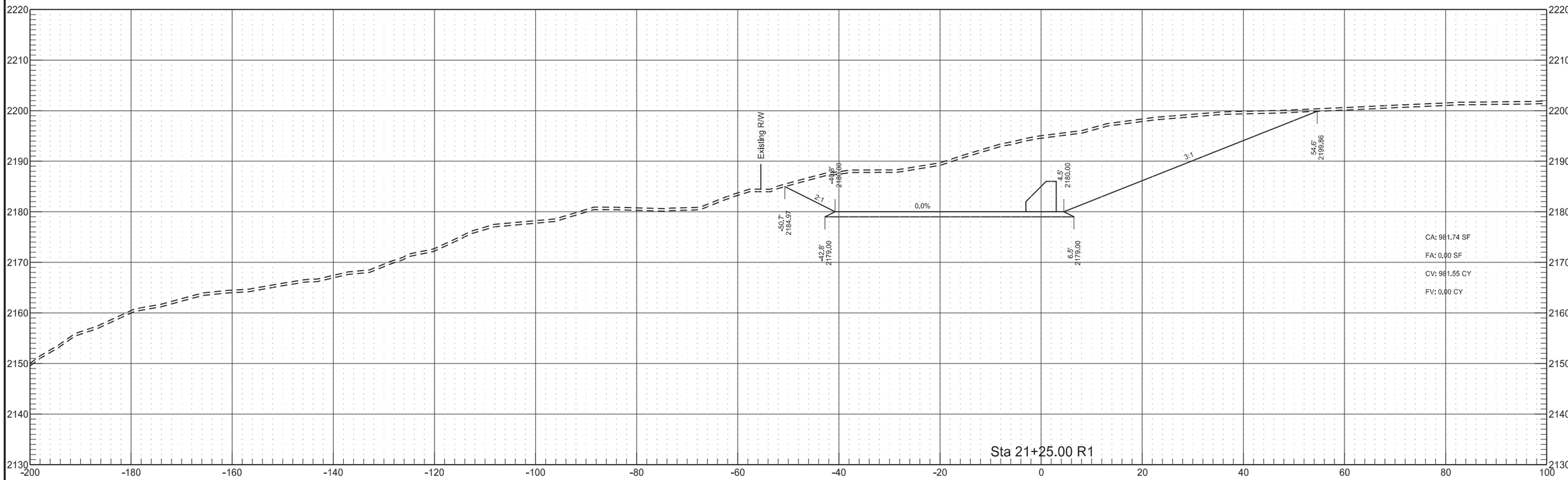
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	7

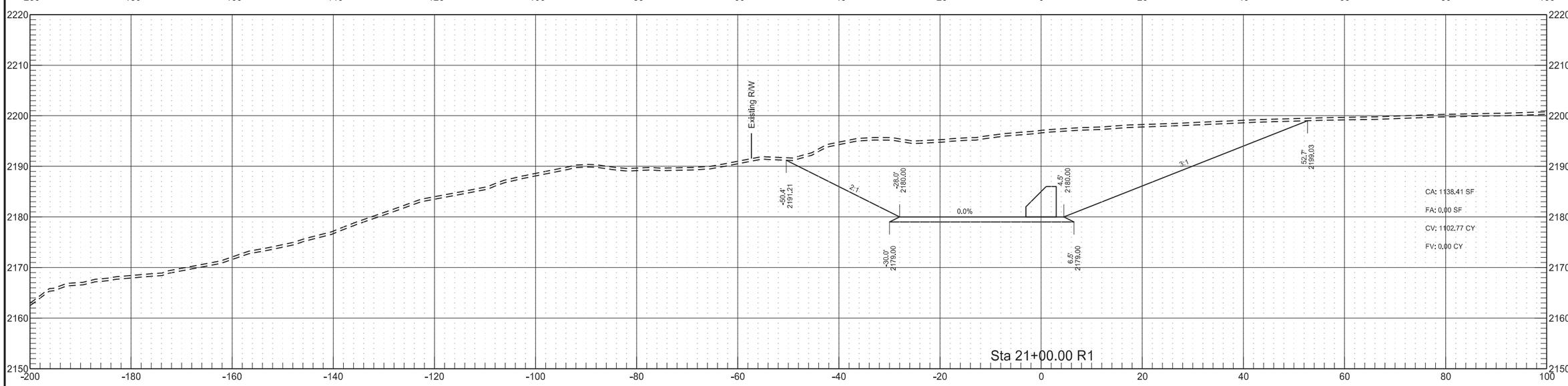




Phase 1

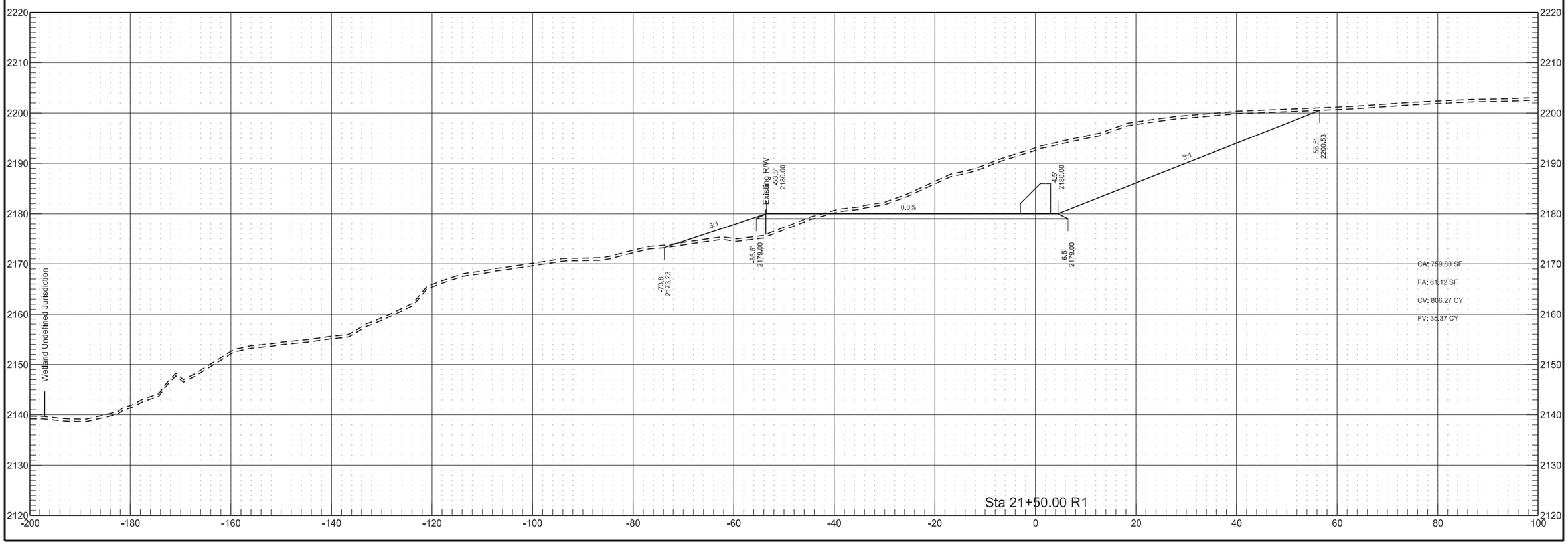
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	8





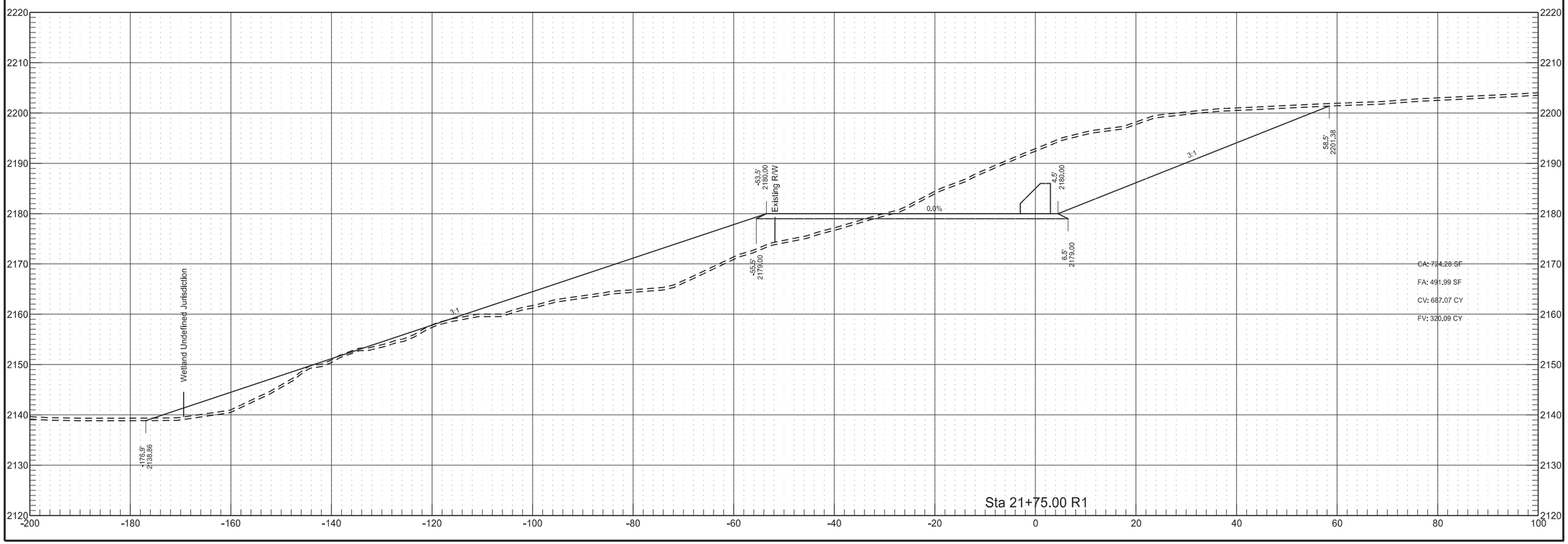
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	9



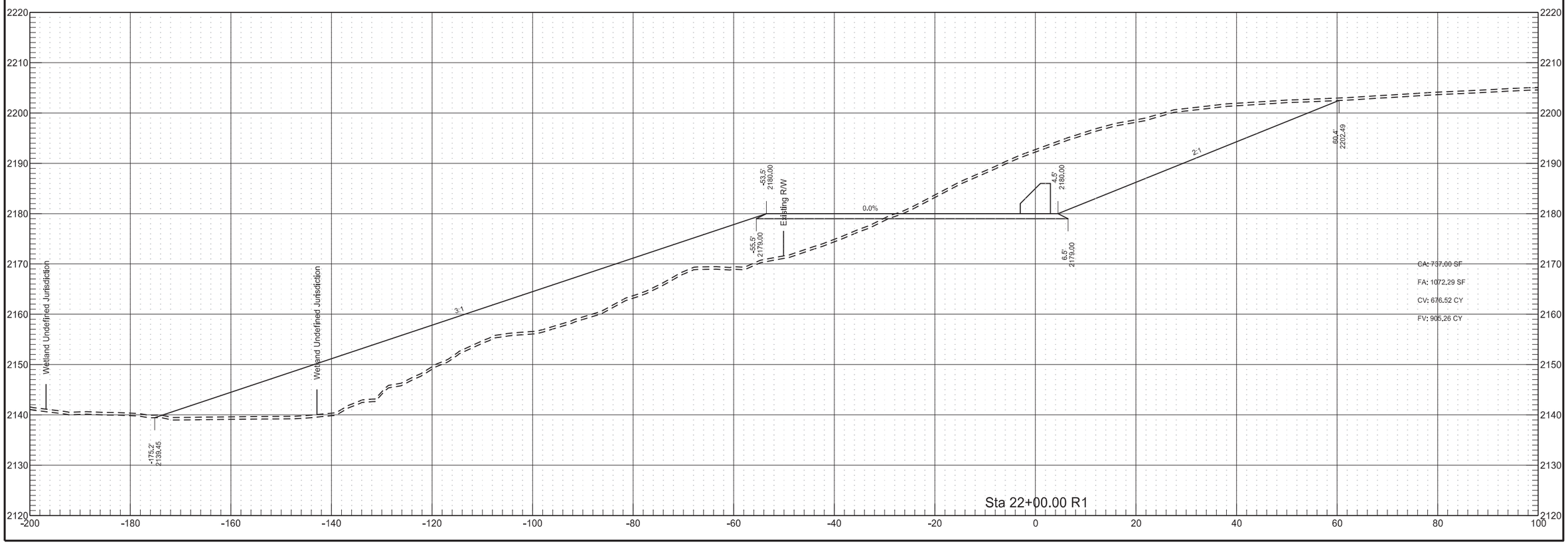
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	10



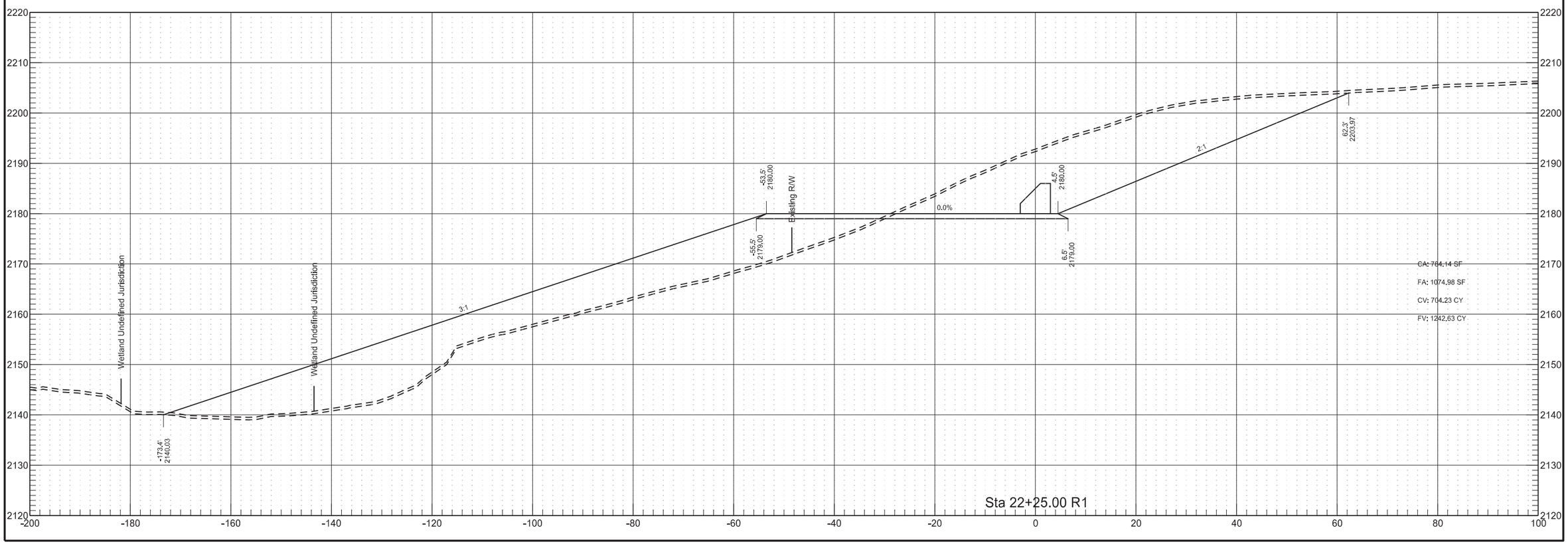
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	11



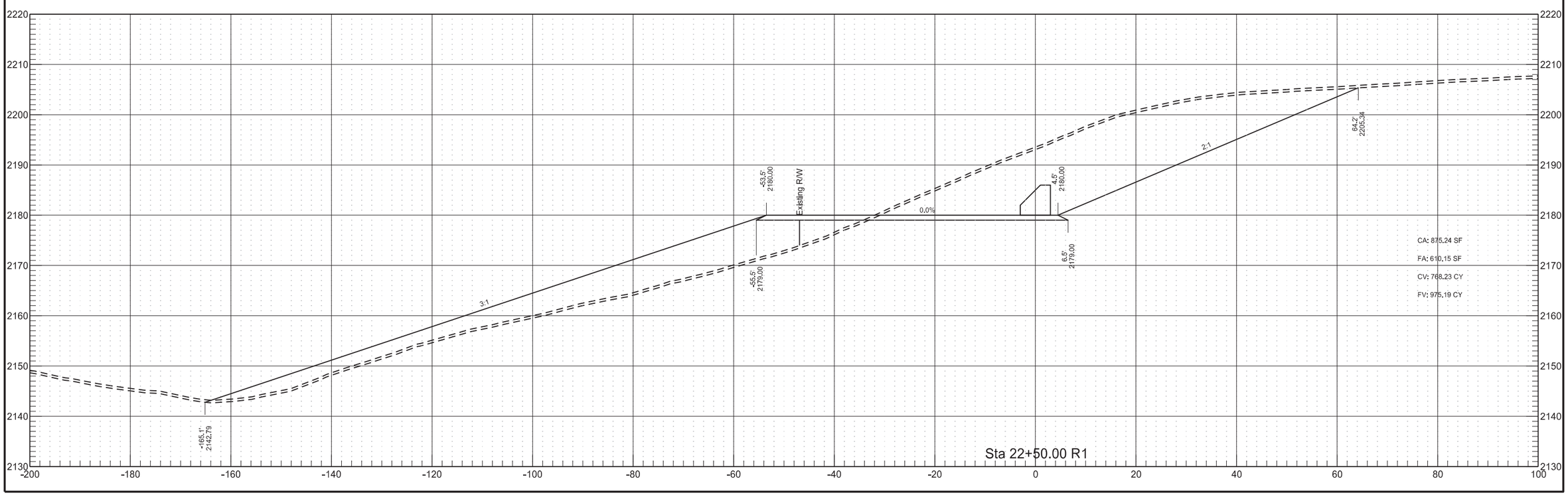
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	12



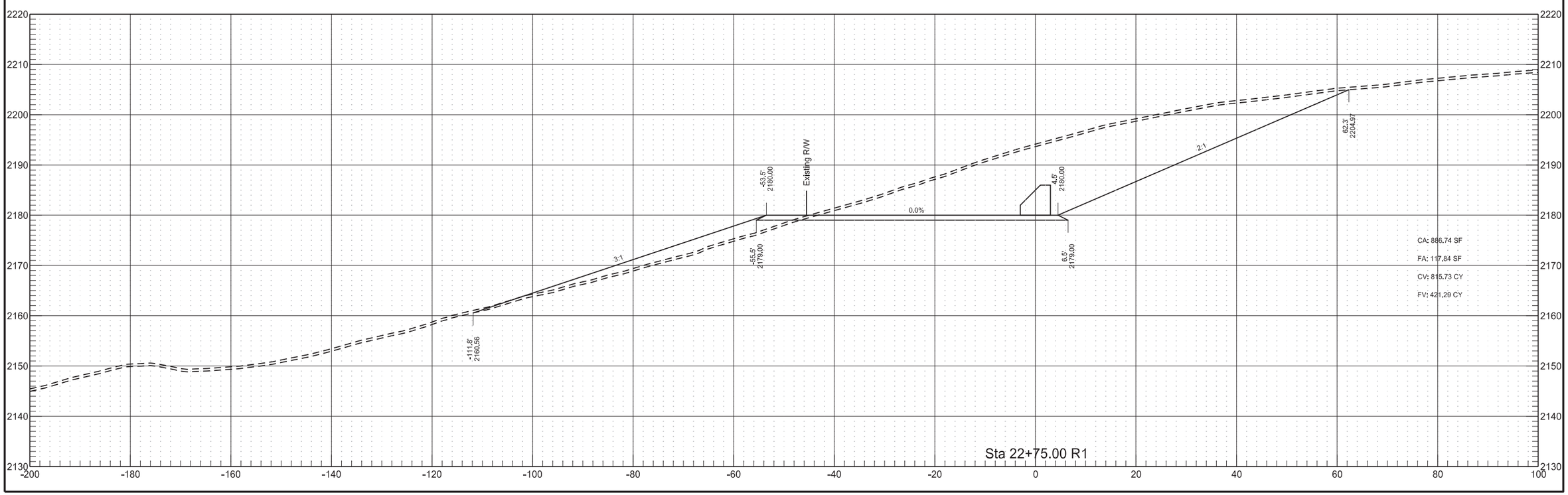
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	13



Phase 1

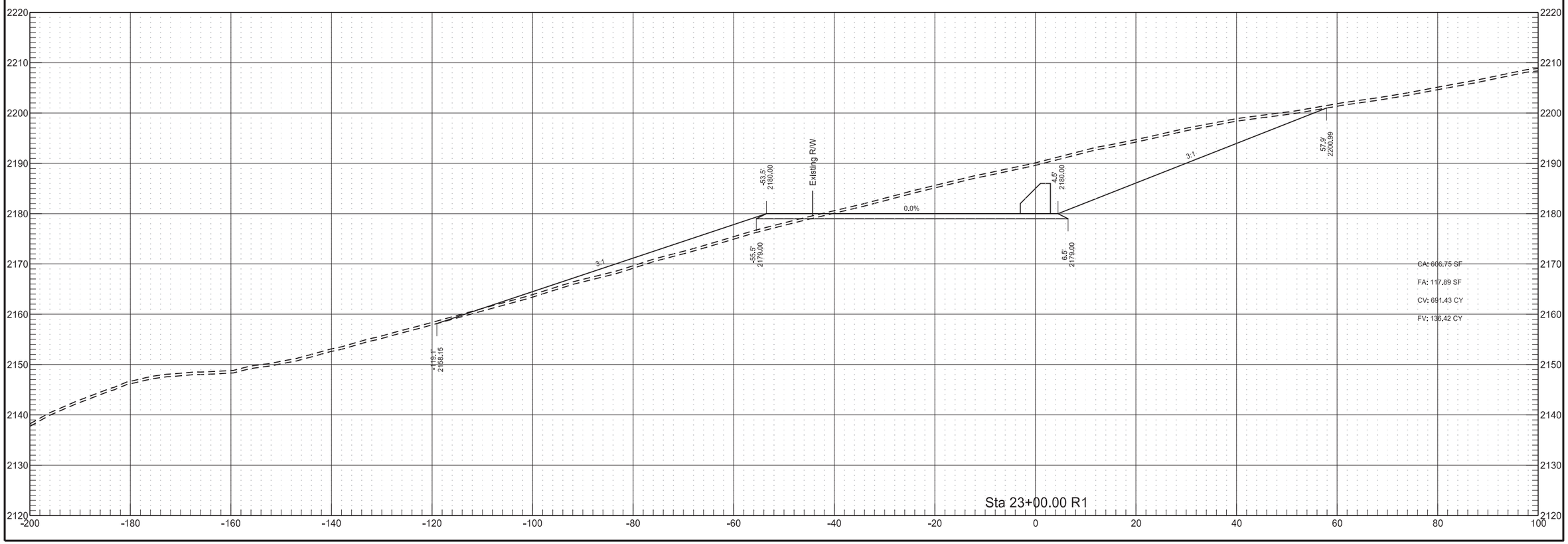
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	14



11/2/2020 1:22:05 PM jrensch R:\project\70085127.110\design\Addendum 1\Sheets\200XS_001_Phase 1.dgn

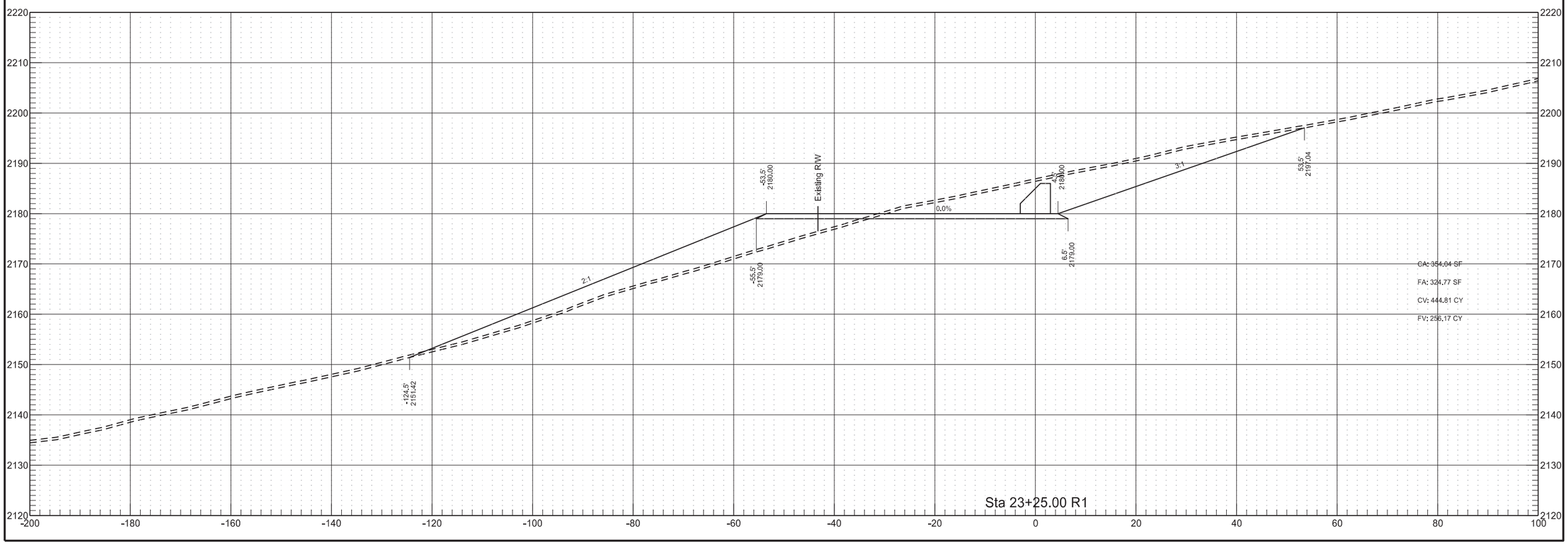
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	15



Phase 1

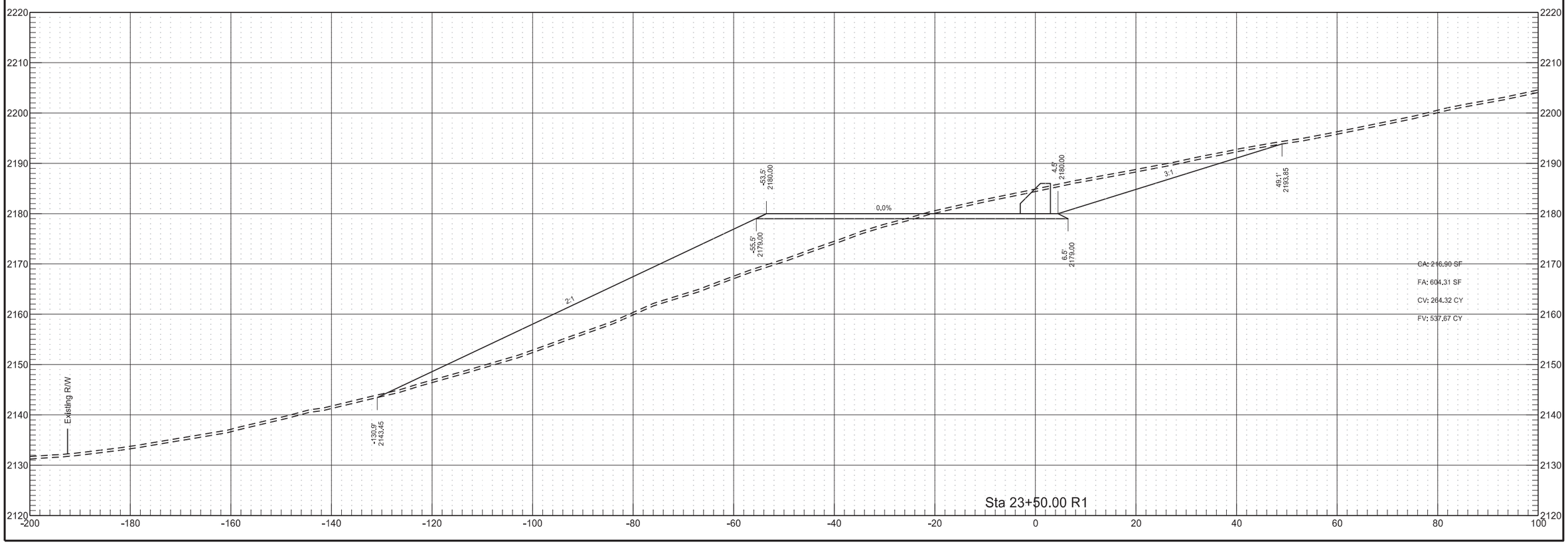
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	16



11/2/2020 1:22:06 PM jrensch R:\project\70085127.110\design\Addendum 1\Sheets\200XS_001_Phase 1.dgn

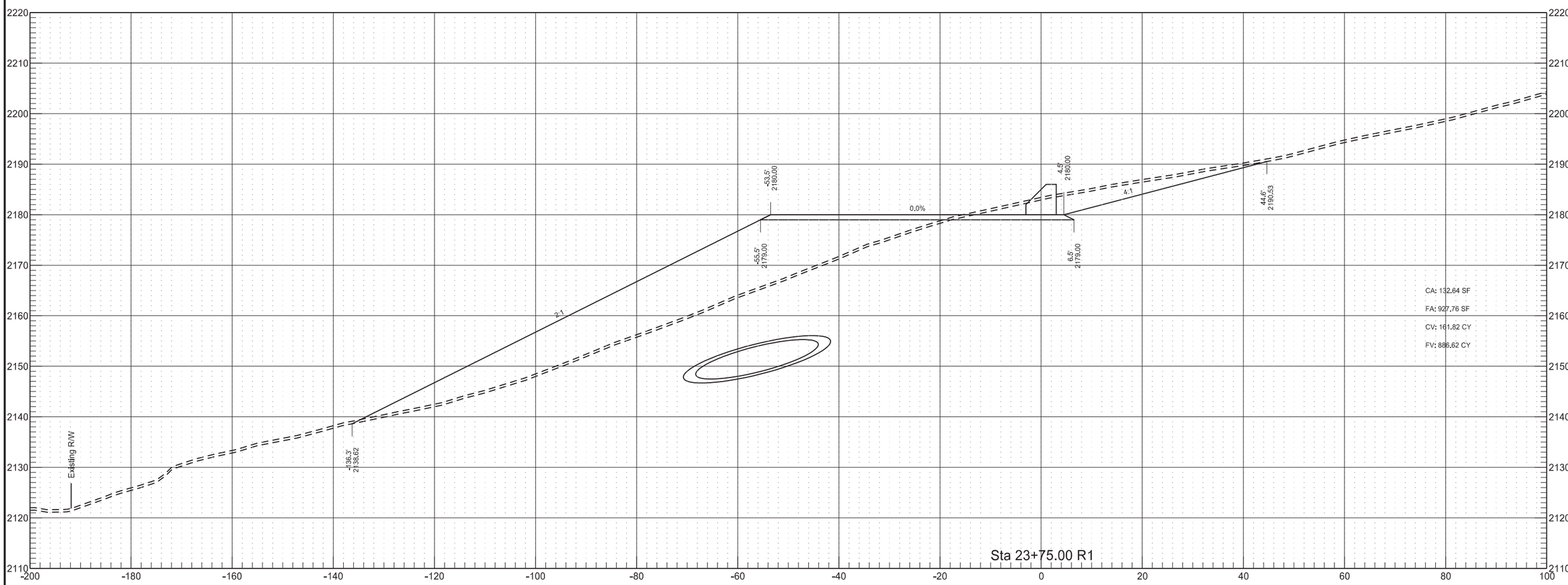
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	17



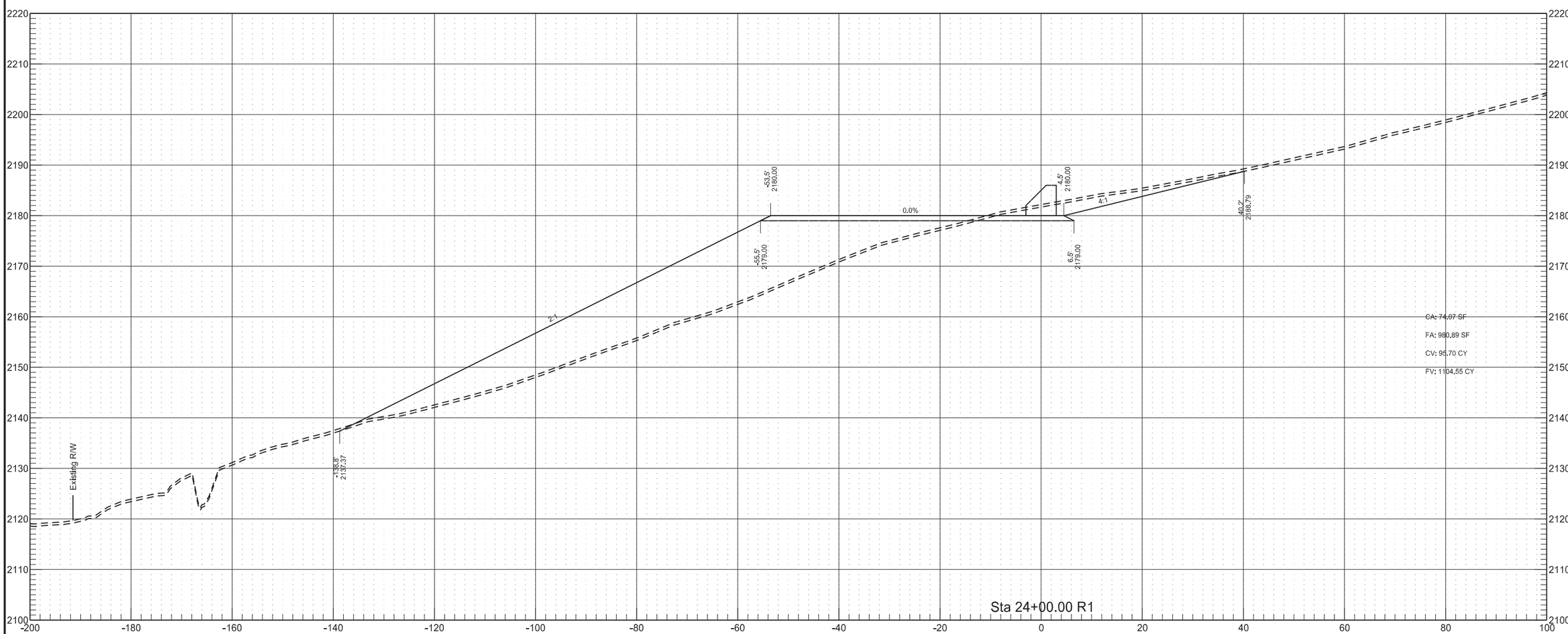
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	18



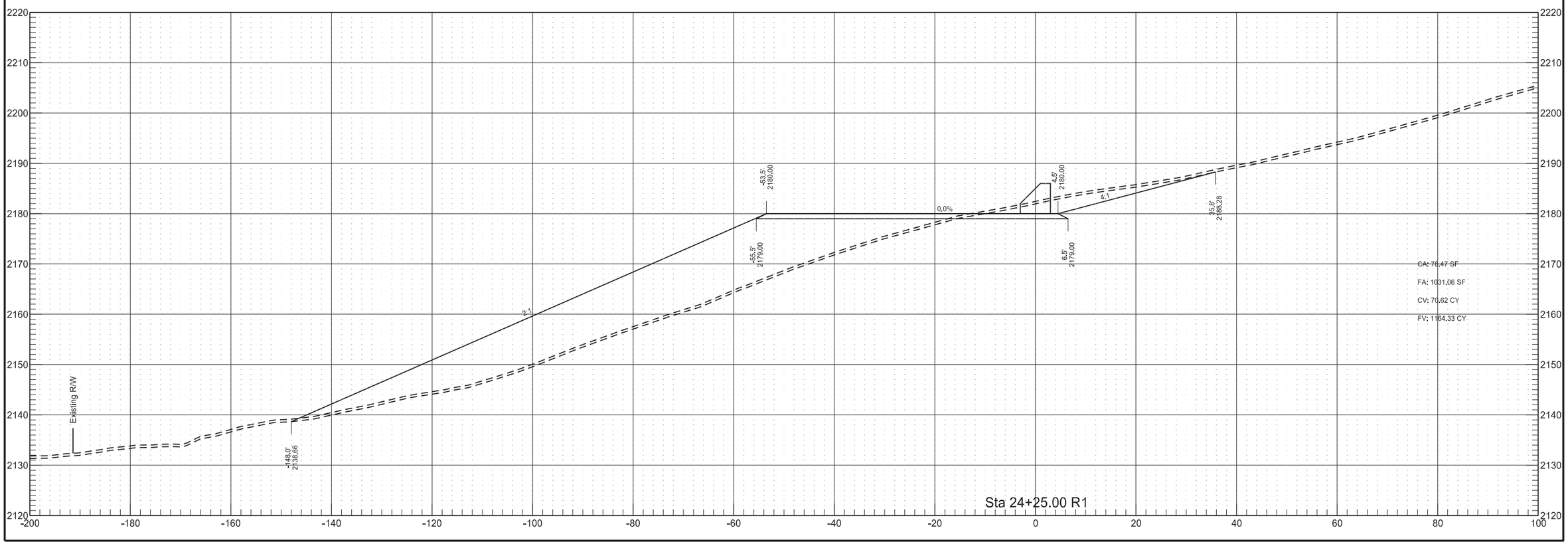
Phase 1

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	19



Phase 1

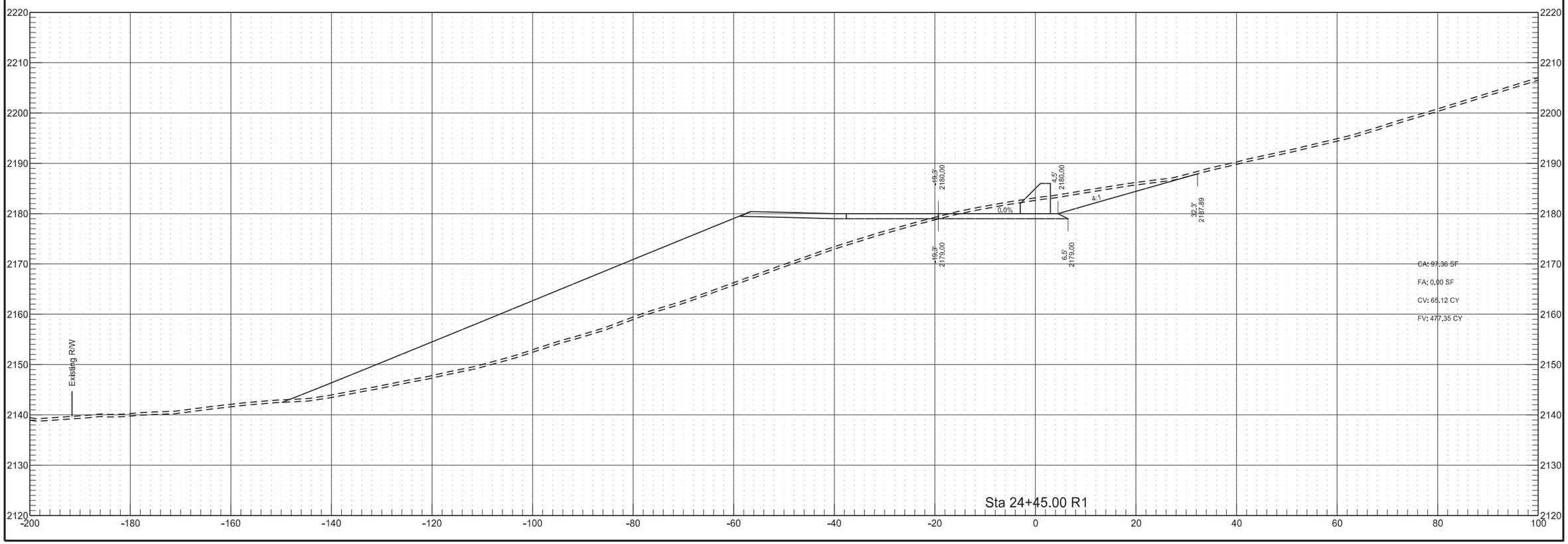
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	20



11/2/2020 1:22:08 PM jrensch R:\project\70085127.110\design\Addendum 1\Sheets\200XS_001_Phase 1.dgn

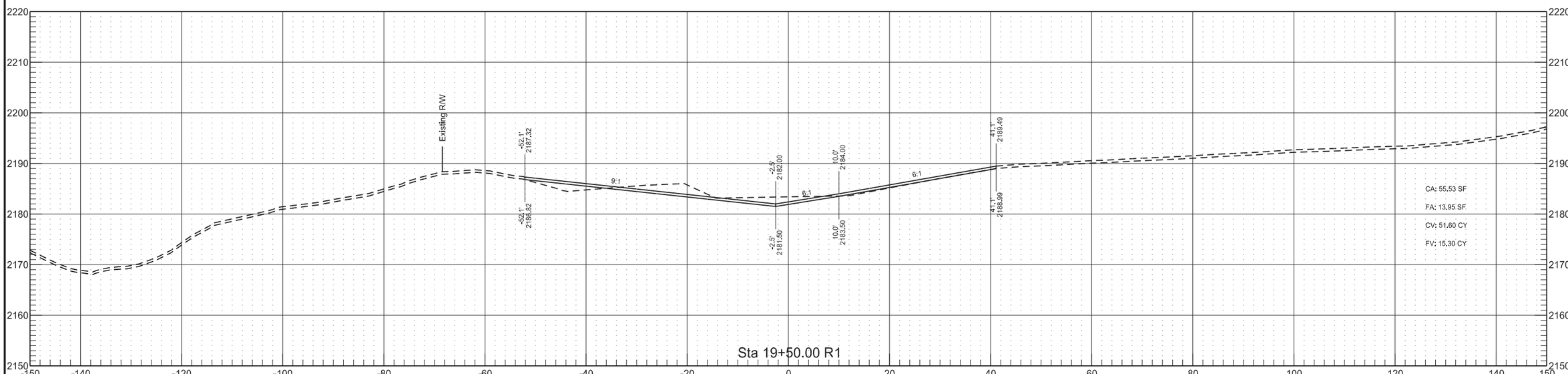
Phase 1

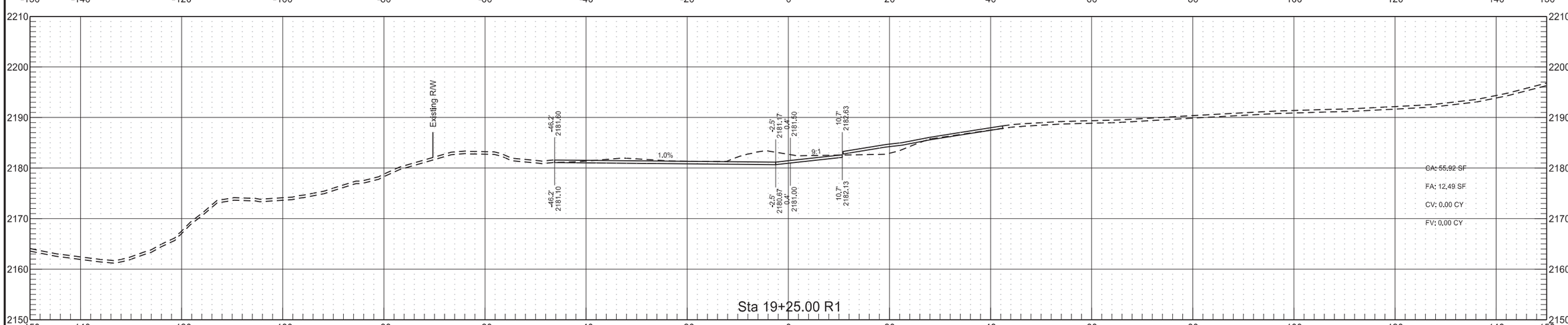
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	21



Finished Grading

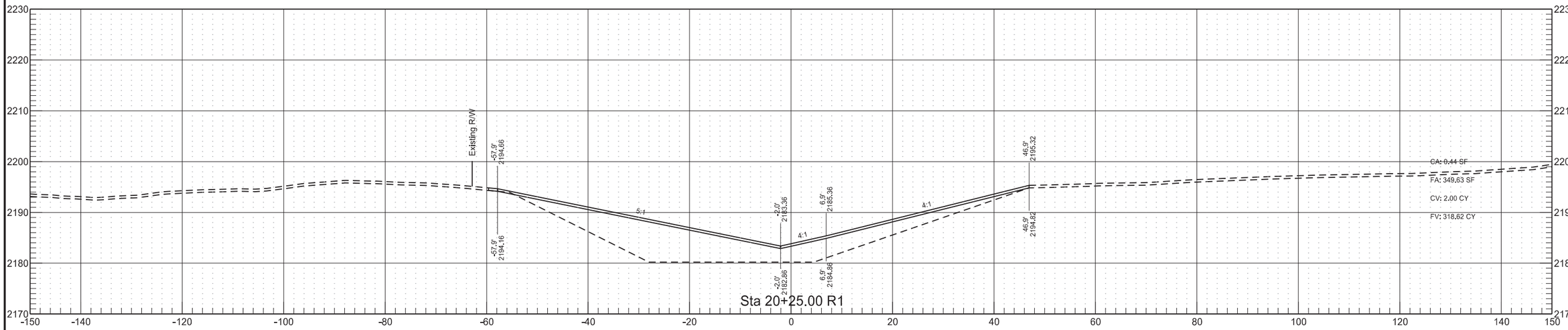
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	62

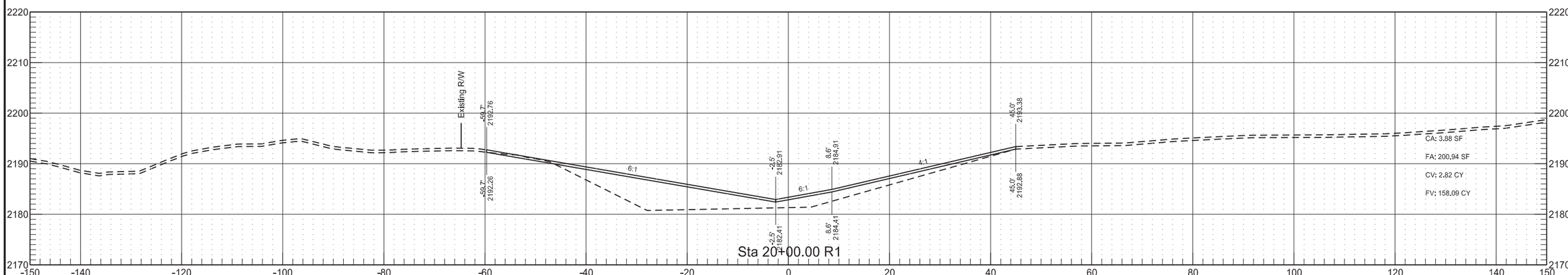


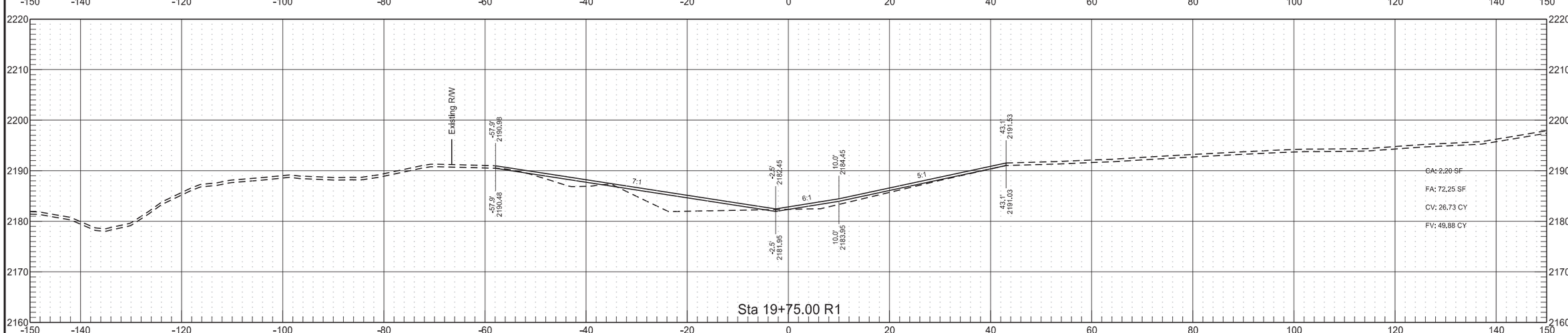


Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	63

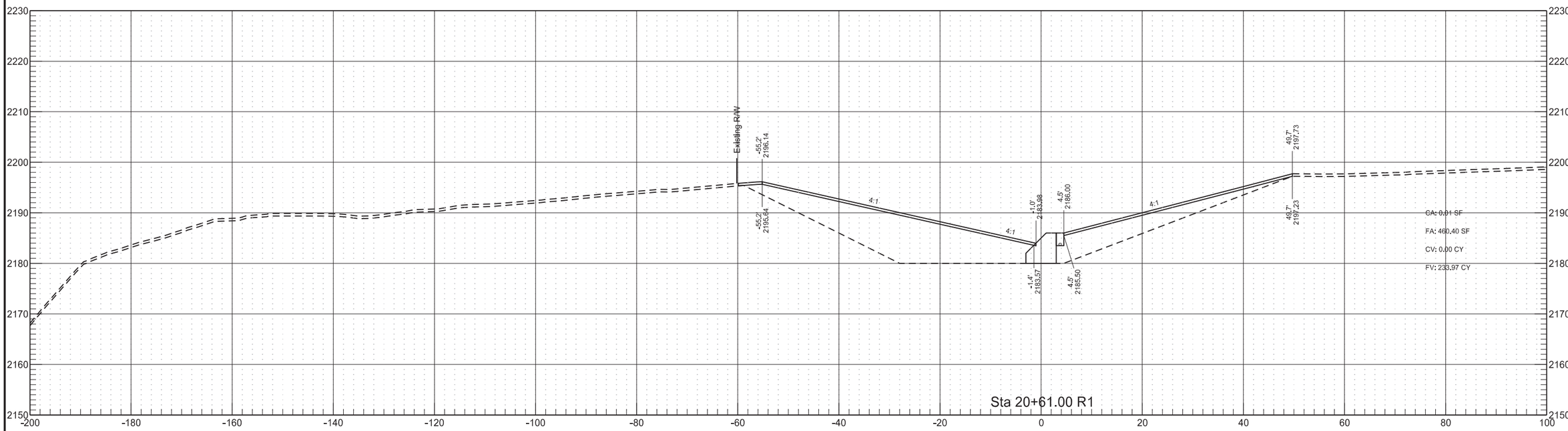


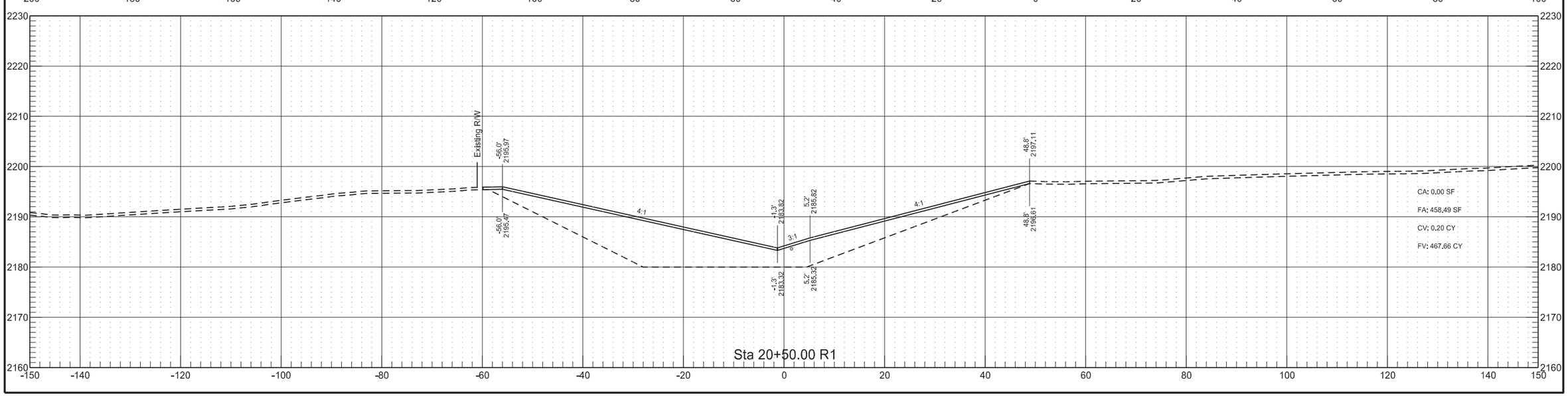




Finished Grading

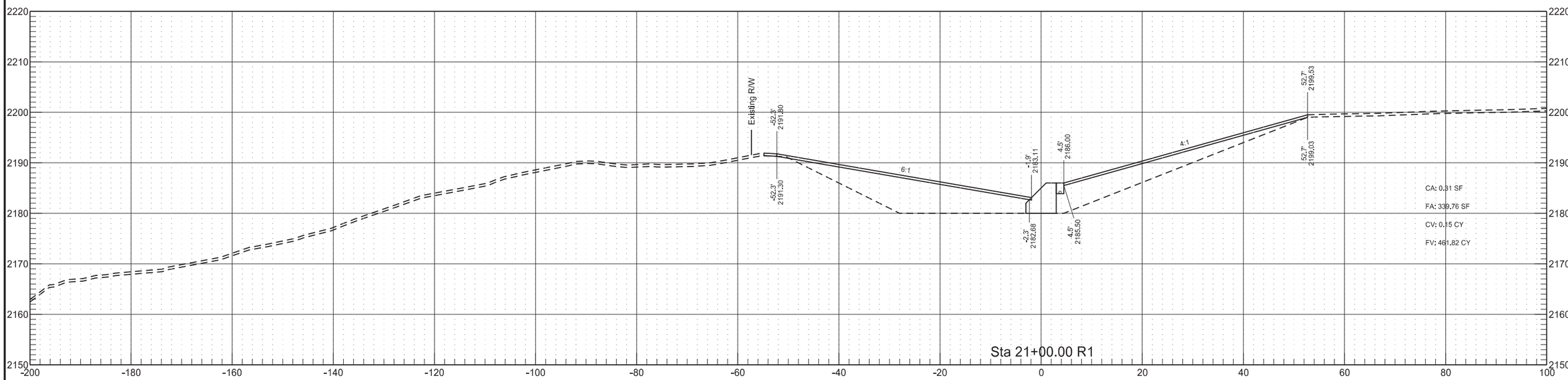
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	64

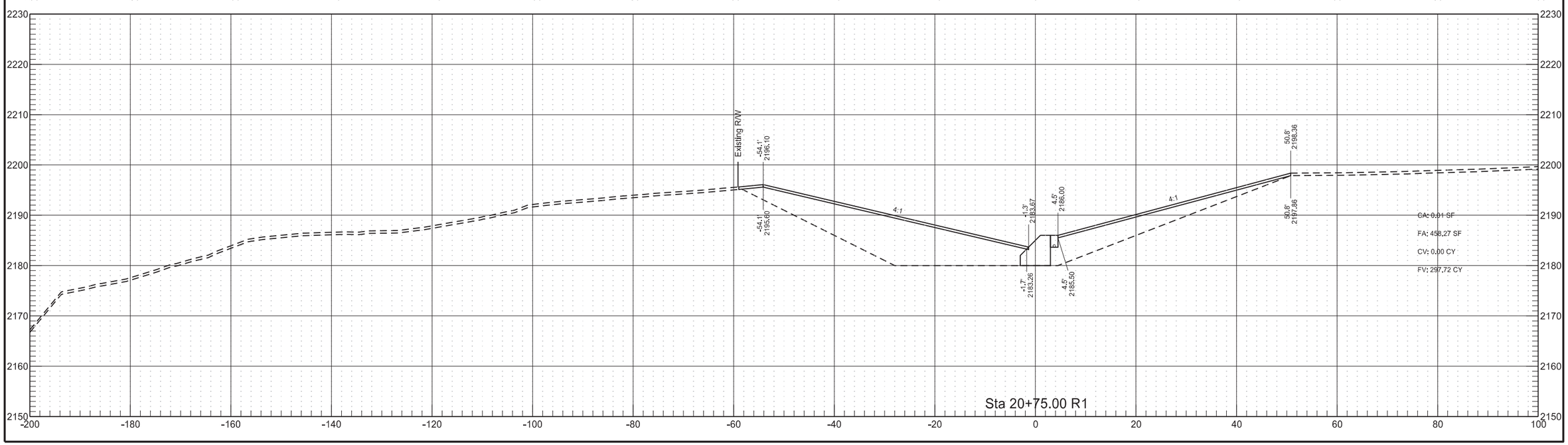




Finished Grading

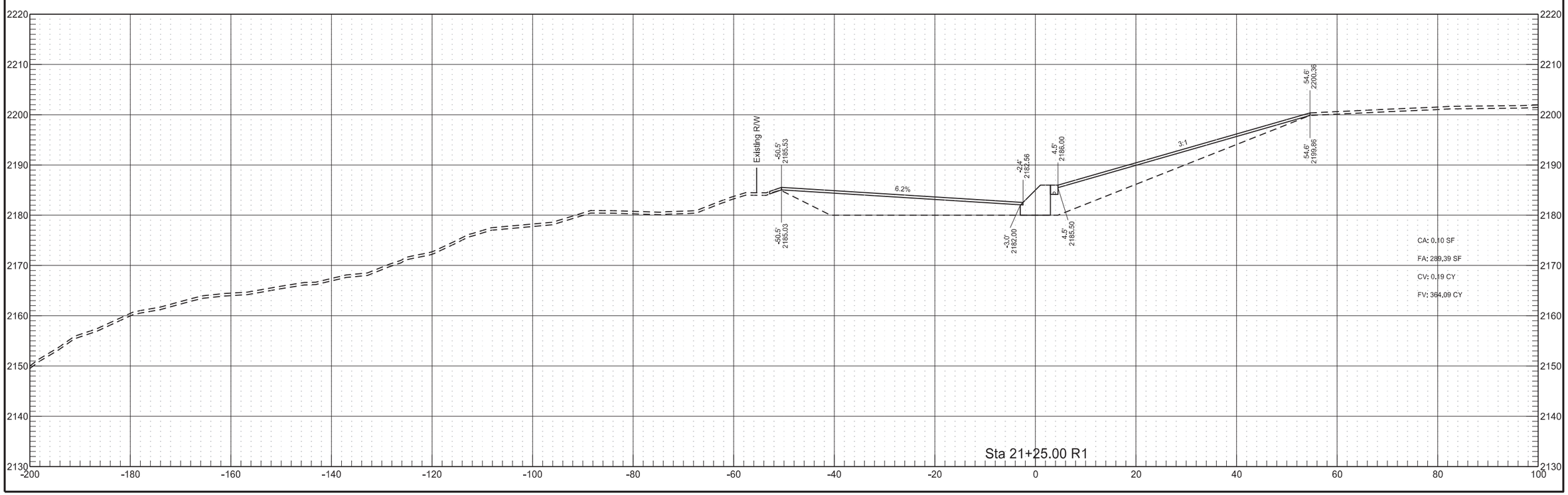
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	65





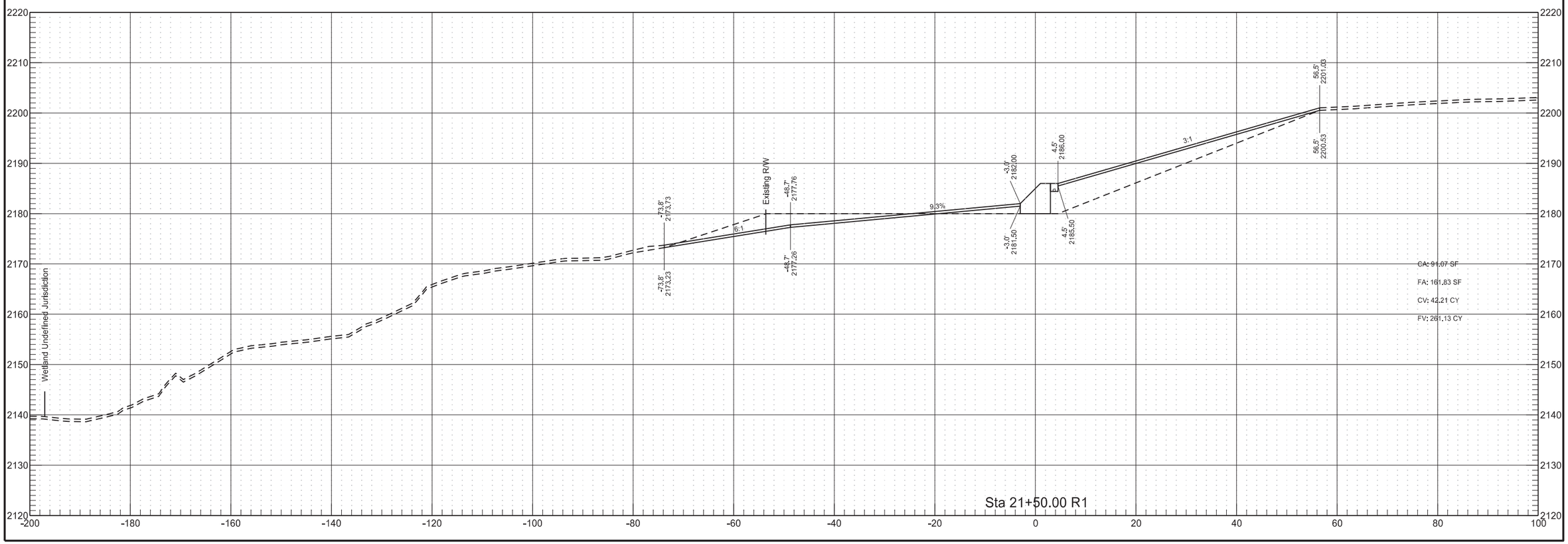
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	66



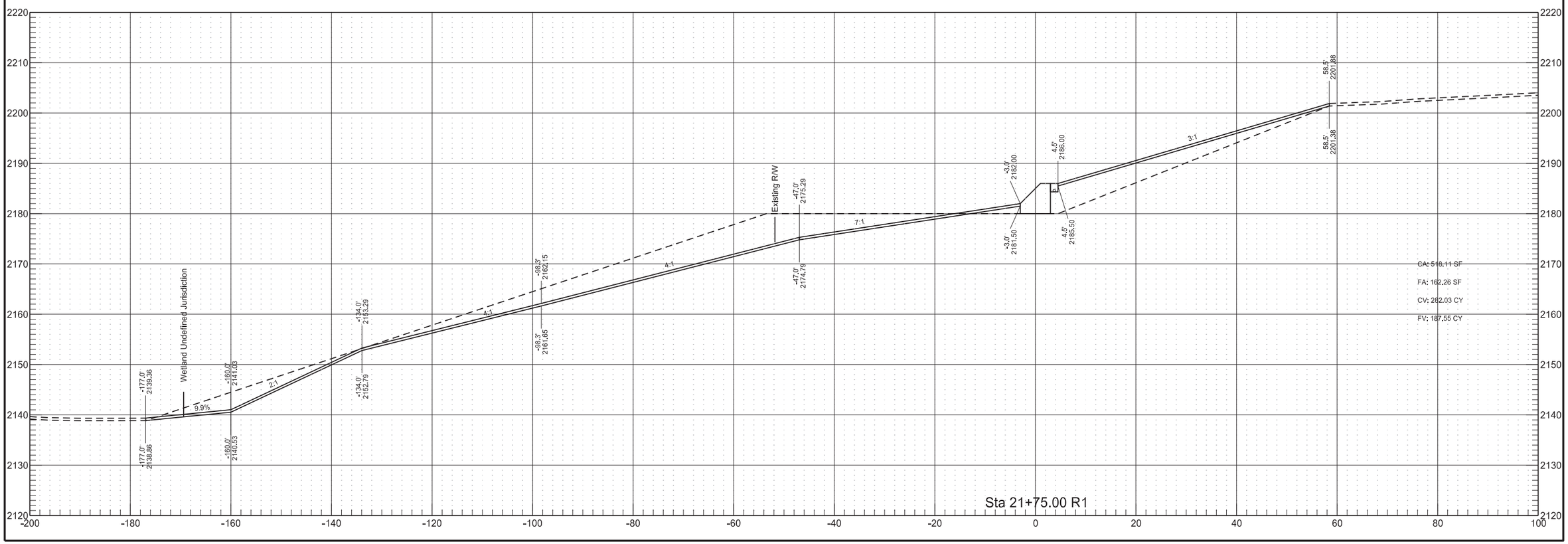
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	67



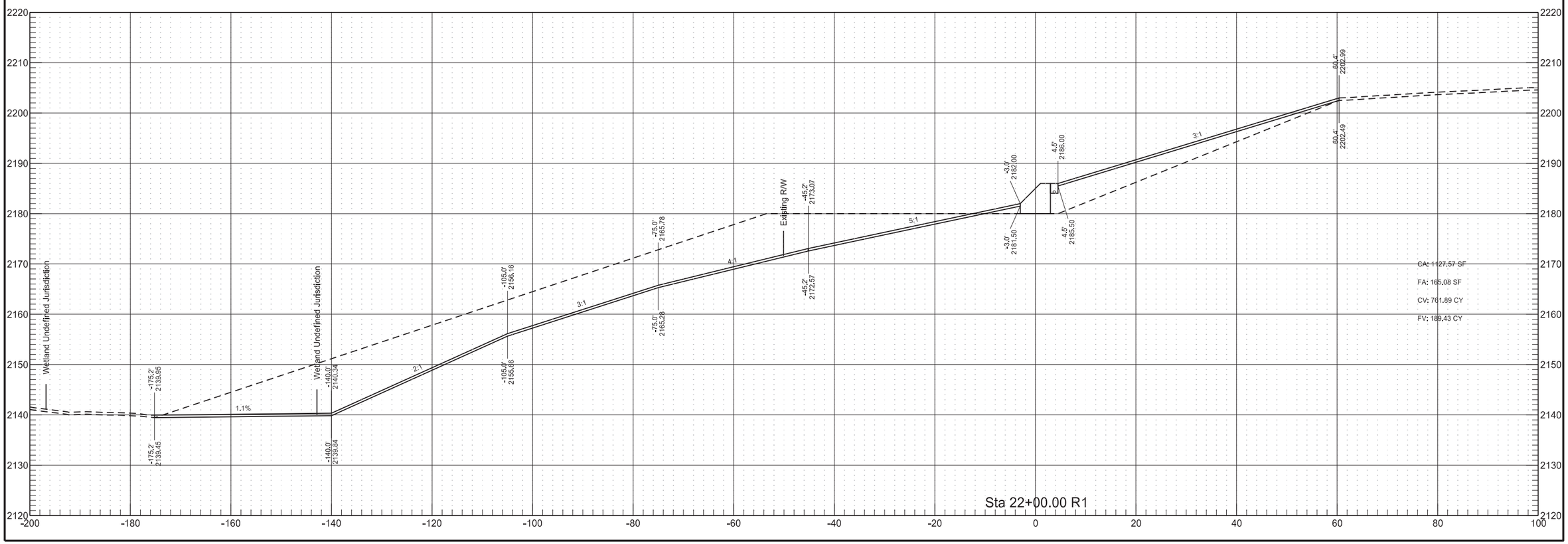
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	68



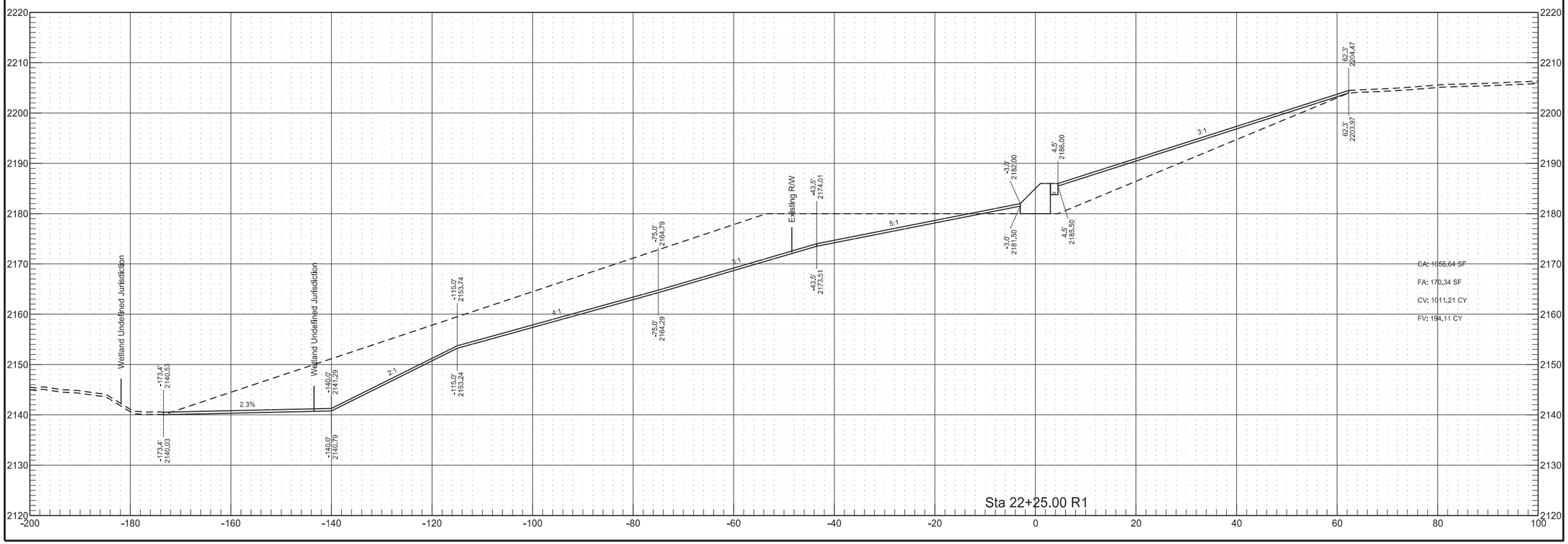
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	69



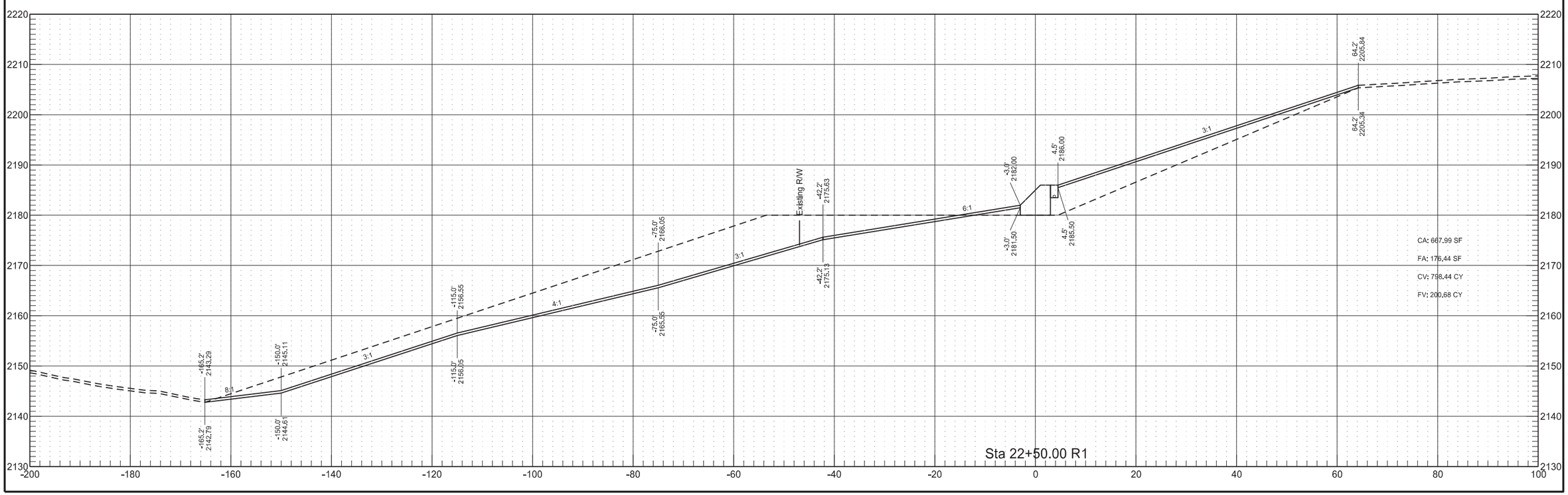
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	70



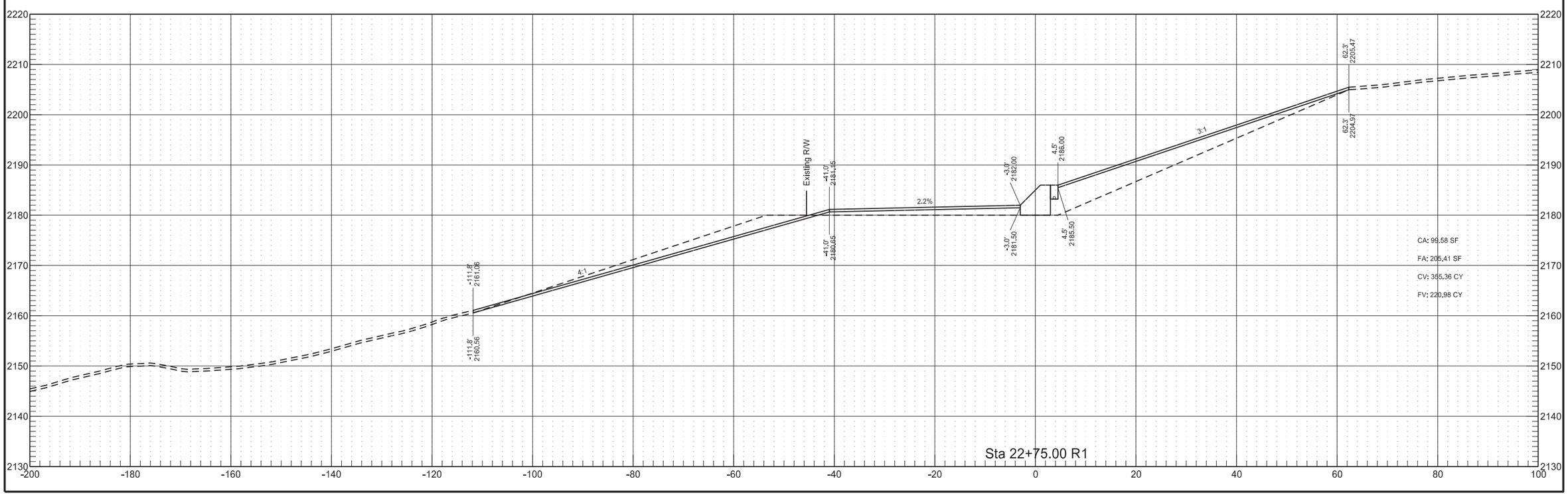
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	71



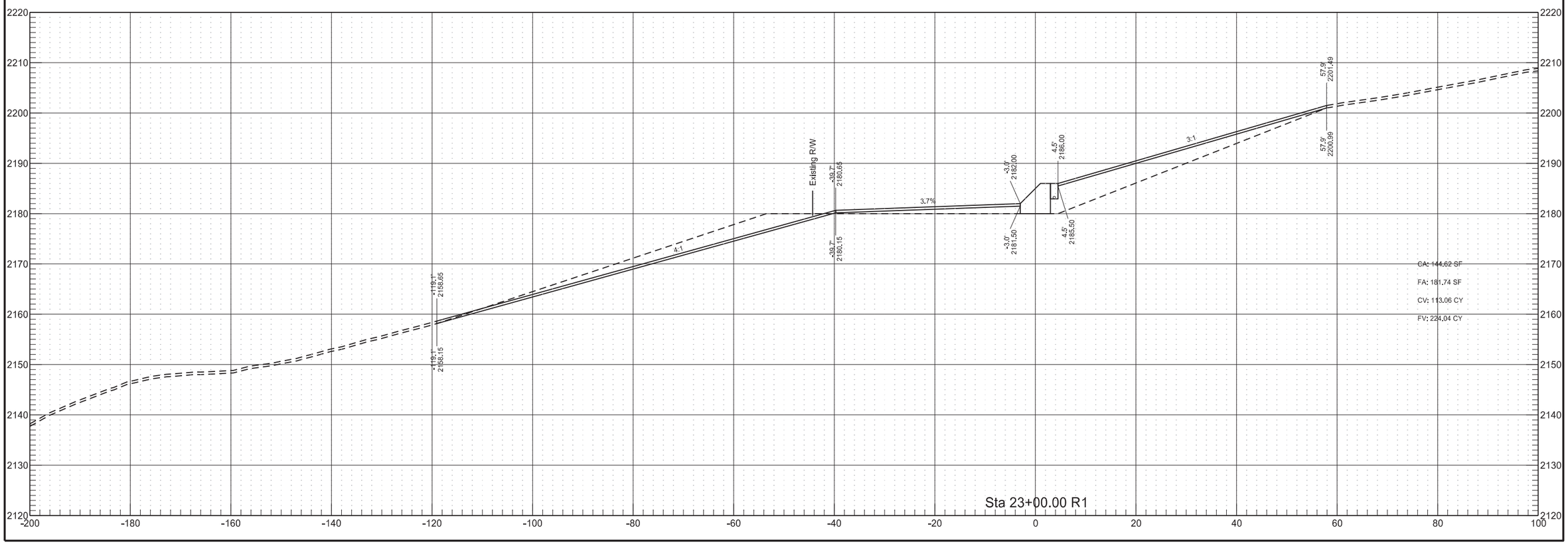
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	72



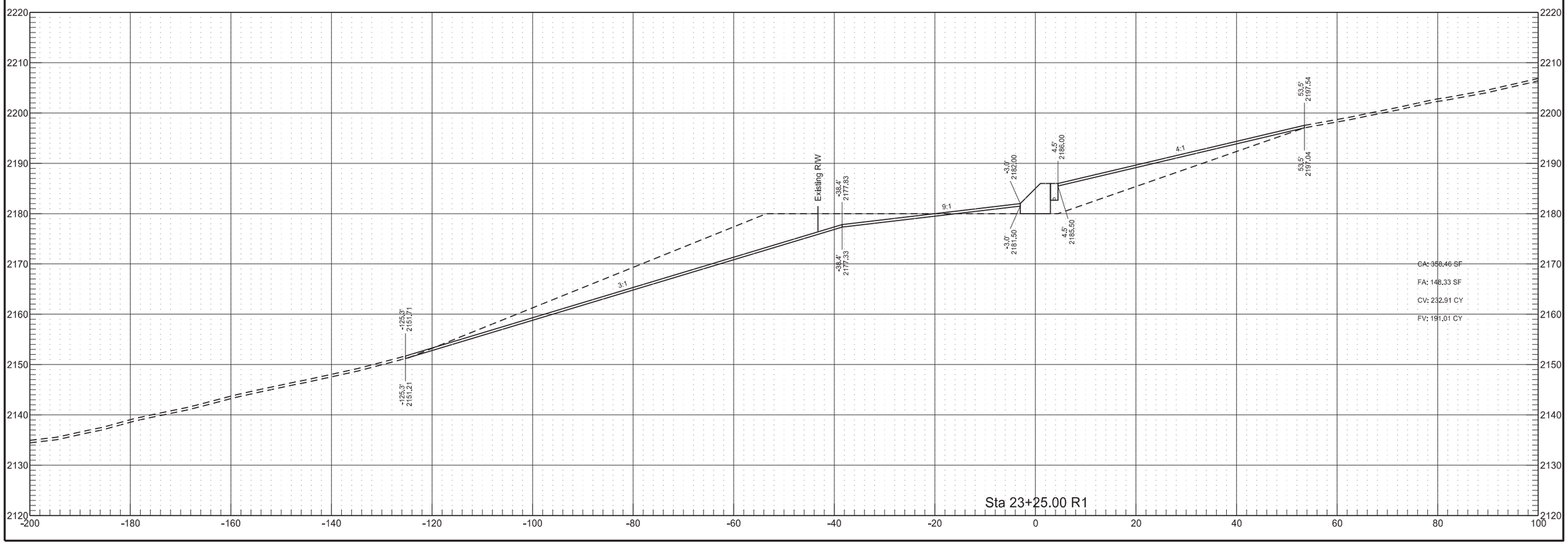
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	73



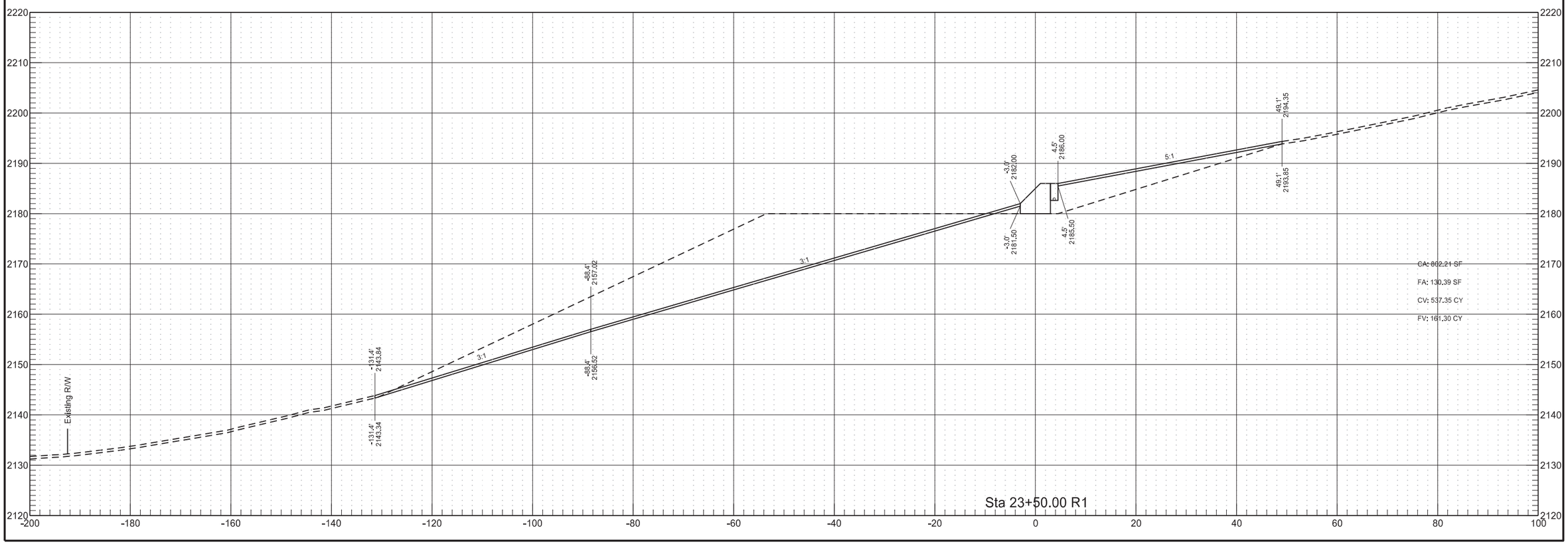
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	74



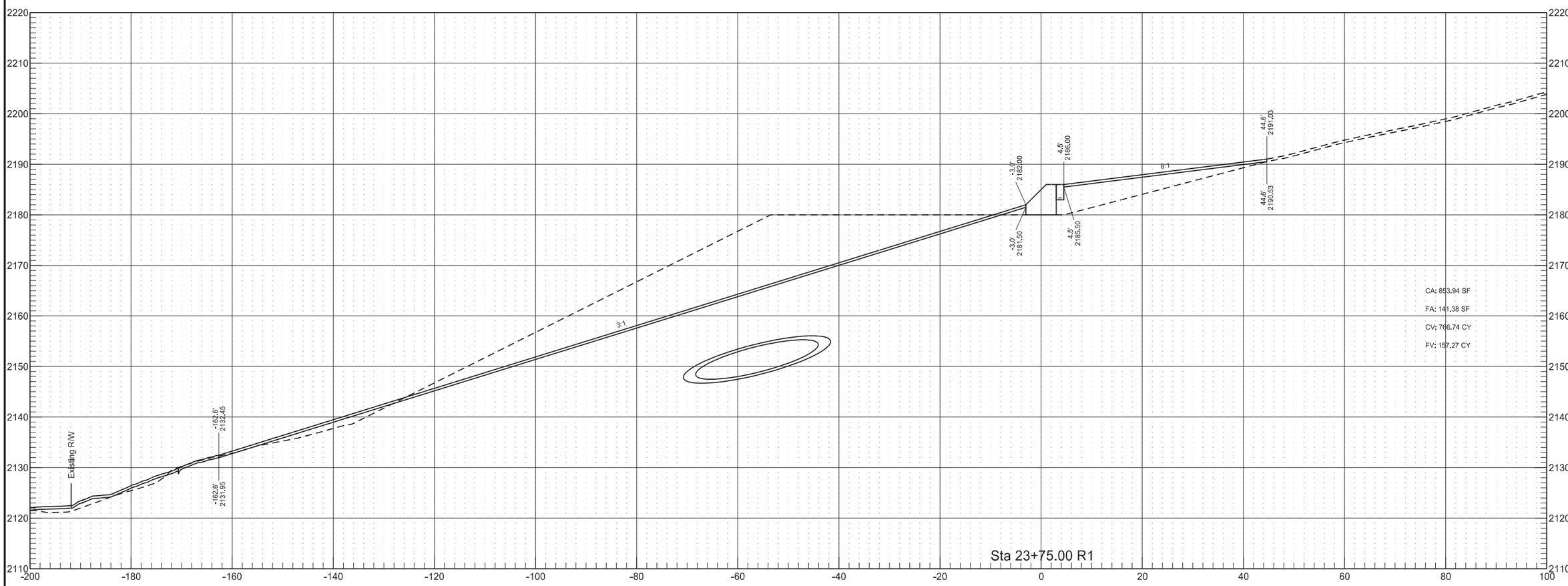
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	75



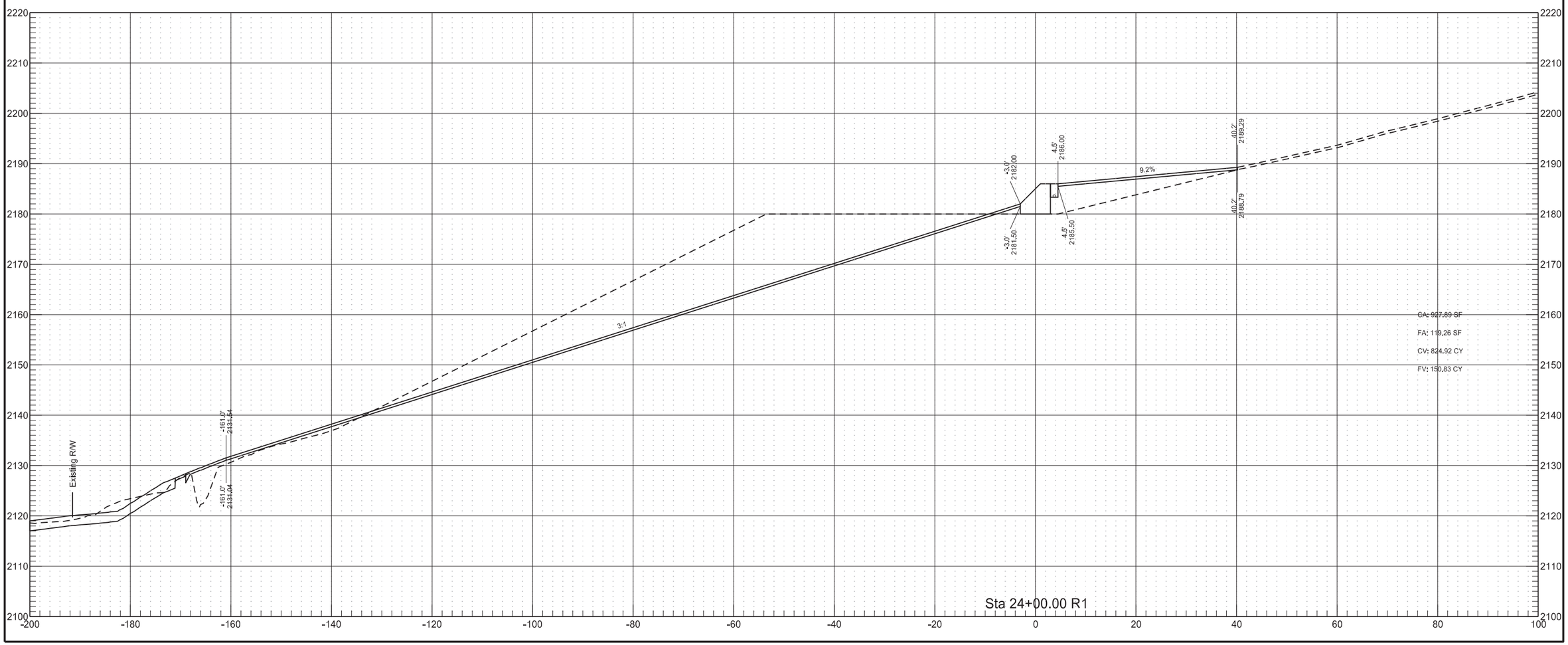
Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	76



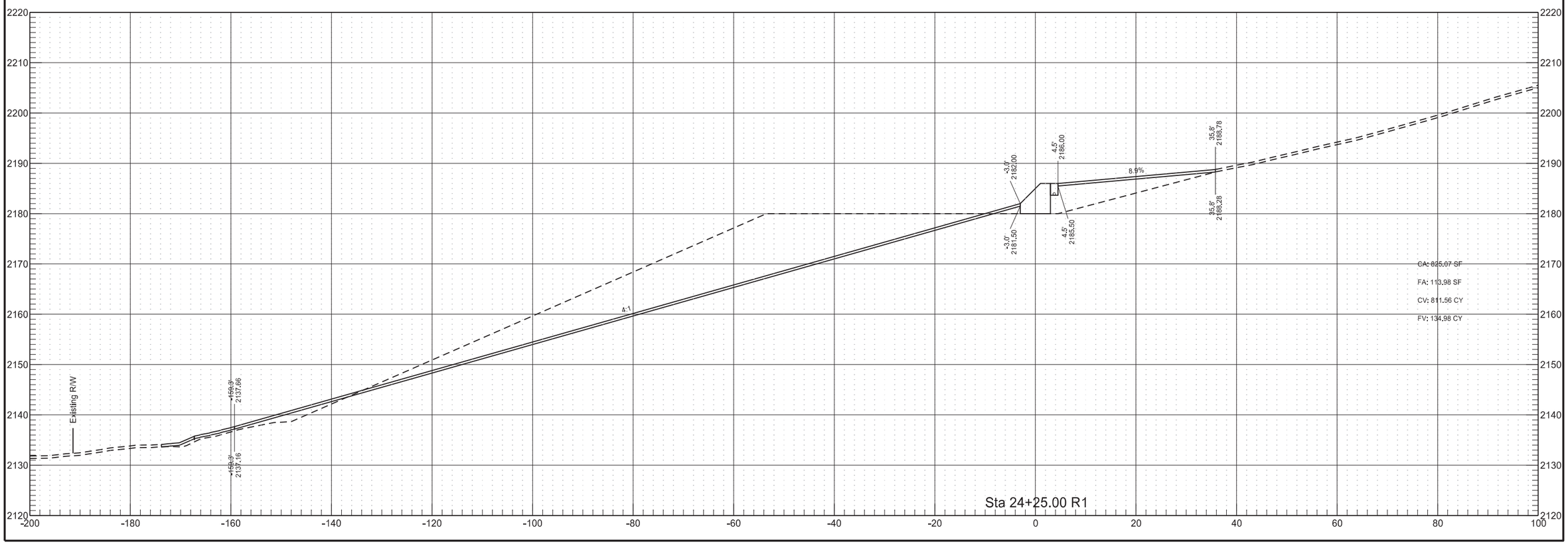
Finished Grading

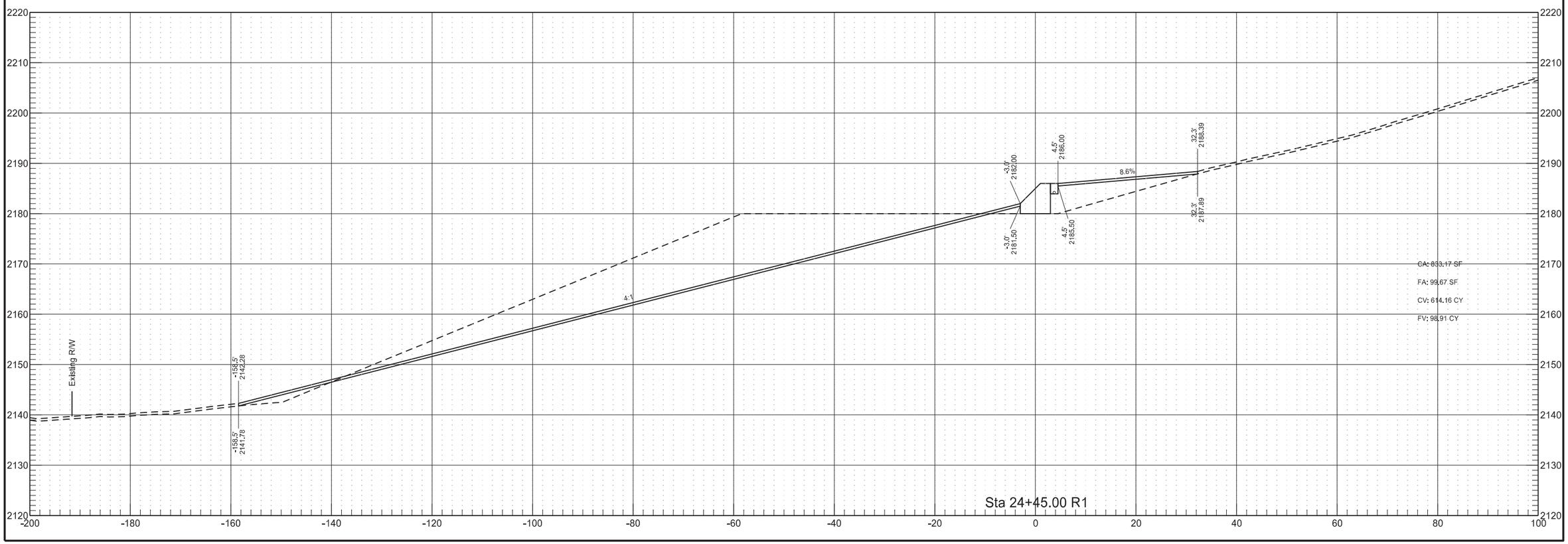
Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	77



Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	78



Finished Grading

Revised 11/2/20	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	SOIB-NH-7-085(110)127	200	79