

STATE OF NORTH DAKOTA SHOWING COUNTIES

DESIGN DATA

TRAFFIC		,	EST. 30th		
		PASSENGER	TRUCKS	TOTAL	MAX. HR.
CURRENT TRAFFIC	2025	300	20	320	32
TRAFFIC FORECAST	2045	330	22	350	35

DESIGN SPEED
MINIMUM SIGHT DISTANCE (STOPPING)
DESIGN LOADS FOR STRUCTURE:

25 MPH 155 FEET HL-93

BEGIN PROJECT

RGE. 55 W.

STA. 11+50 = A POINT APPROXIMATELY 1505

FEET NORTH AND 49 FEET WEST OF THE NORTHWEST CORNER

OF SEC. 27, TWP. 163 N.,

PEMBINA COUNTY, NORTH DAKOTA PLANS FOR FEDERAL AID PROJECT

Pembina County Highway 12 (CMC 3411)
Inslope Flattening, Concrete Erosion Control Blanket and Incidentals

CERP-3411(064) SLOPE STABILIZATION

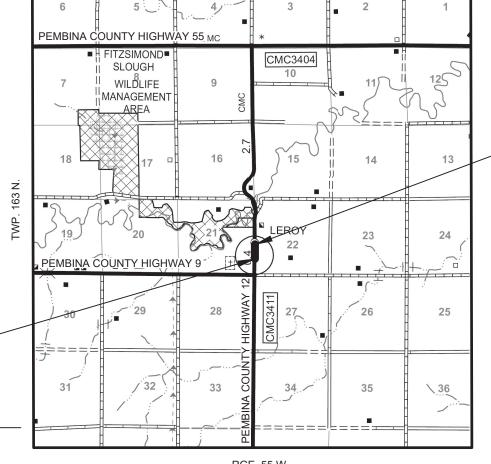
The project is located along Pembina County Highway 12 in Leroy, ND

STATE PROJECT NO.		PCN	SECTION NO.	SHEET NO.
ND	CERP-3411(064)	24087	1	1

GOVERNING SPECIFICATIONS	Date Published and Adopted by the North Dakota Department of Transportation
Standard Specifications	7/1/2024
Supplemental Specifications	NONE

PROJECT LENGTH

PROJECT	GROSS MILES	NET MILES
CERP-3411(064)	0.033	0.033



RGE. 55 W.

FEET NORTH AND 53 FEET WEST OF THE NORTHWEST CORNER OF SEC. 27, TWP. 163 N., RGE. 55 W.

APPROXIMATELY 1680

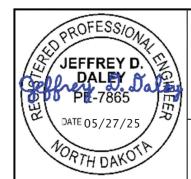
END PROJECT STA. 13+25 = A POINT

PS&E Correction Made

Surveyed & Designed Date

April - May 2025

October 2024 - April 2025





864 WEST 12TH ST GRAFTON, ND 58237-2120 (701) 352-1555, FAX (855) 288-8055

© KLJ 2025

Charlie Thompson	DESIGNER
Samantha Schoepfer, PE	DESIGNER
	DESIGNER
	DESIGNER
	DESIGNER

TABLE OF CONTENTS

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ND	CERP-3411(064)	2	1

PLAN SECTIONS

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2	1	Table of Contents		
4	1	Scope of Work		
6	1	Plan Notes		
6	2	Environmental Notes		
8	1	Estimated Quantities		
10	1	Basis of Estimate		
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76	1	Temporary Erosion Control		
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81	1	Survey Coordinate and Curve Data		
100	1 - 2	Work Zone Traffic Control		
200	1 - 3	Cross-Sections		
	1 2 4 6 6 8 10 20 30 60 75 76 77 81 100	1 1 1 1 2 1 4 1 6 1 6 2 8 1 1 1 2 2 30 1 60 1 75 1 - 2 76 1 77 1 81 1 1 100 1 - 2		

LIST OF STANDARD DRAWINGS

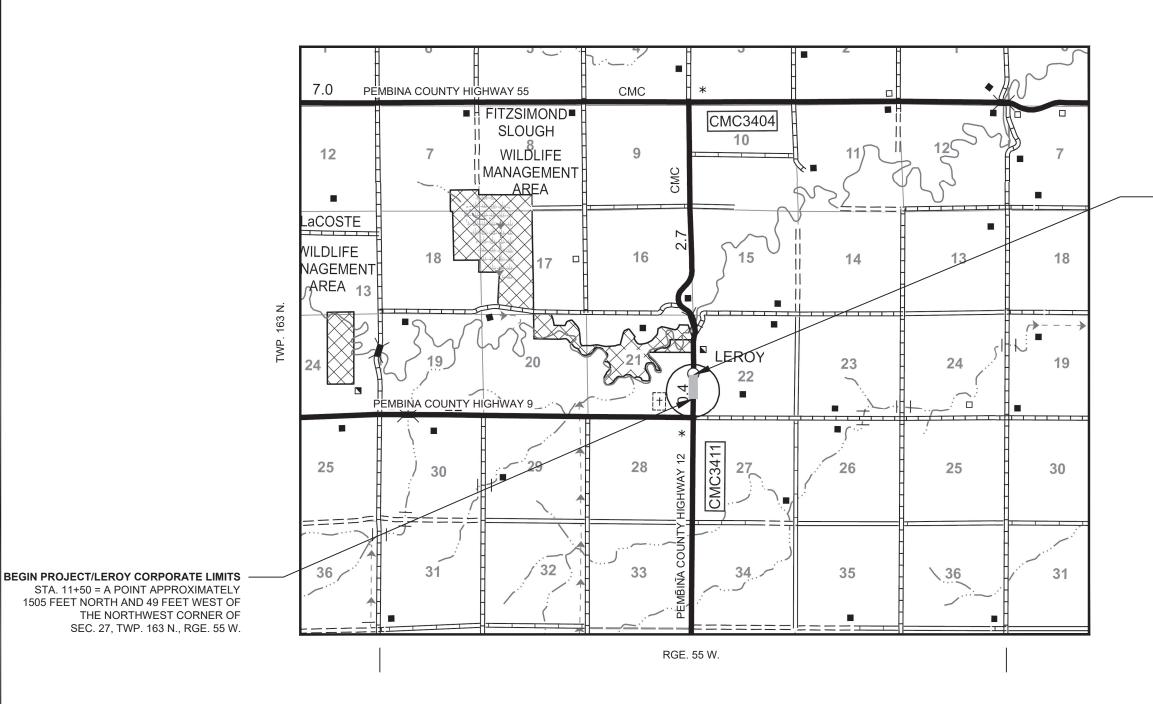
Number	Description
D-101-1, 2, 3, 4	NDDOT Abbreviations
D-101-10	NDDOT Utility Company and Organization Abbreviations
D-101-20, 21	Line Styles
D-101-30, 31, 32, 33	Symbols
D-260-1	Erosion And Siltation Controls - Silt Fence
D-261-1	Erosion Control - Fiber Roll Placement Details
D-704-7	Breakaway Systems For Construction Zone Signs - Perforated Tube
D-704-8	Breakaway Systems For Construction Zone Signs - U-Channel Post
D-704-9	Construction Sign Details - Terminal And Guide Signs
D-704-10	Construction Sign Details - Regulatory Signs
D-704-11, 11A	Construction Sign Details - Warning Signs
D-704-13	Barricade And Channelizing Device Details
D-704-14	Construction Sign Punching And Mounting Details
D-704-17	Sign Layout For One Lane Closure Two Lane Roadway
D-704-26	Miscellaneous Sign Layouts
D-704-50	Portable Sign Support Assembly
D-708-6	Erosion And Siltation Controls - Median Or Ditch Inlet Protection

SPECIAL PROVISIONS

Number	Description
PSP 75(24)	Permits and Environmental Considerations
SP 544(24)	Commercial Grade Hot Mix Asphalt
SP 545(24)	Concrete Erosion Control Blanket
SSP 1	Temporary Erosion and Sediment Best Management Practices
SSP 3	Local Agency Contracts

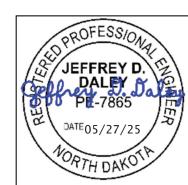
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	CERP-3411(064)	4	1

INSLOPE FLATTENING, CONCRETE EROSION CONTROL BLANKET, AND INCIDENTALS



END PROJECT/LEROY CORPORATE LIMITS

STA. 13+25 = A POINT APPROXIMATELY 1680 FEET NORTH AND 53 FEET WEST OF THE NORTHWEST CORNER OF SEC. 27, TWP. 163 N., RGE. 55 W.



CERP-3411(064)

PEMBINA COUNTY, NORTH DAKOTA
PEMBINA COUNTY HIGHWAY 12

≪KLJ

SCOPE OF WORK

RWN. BY CHK'D BY

2302-01707

PLAN NOTES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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100-P02 UTILITIES: Utilities that the Engineer has been made aware of are shown in the plans. Other utilities may exist that are not shown. The horizontal utility locations shown in the plans and specifications are approximate. Plan locations should not be interpreted as exact for bidding or construction purposes. All utilities are to be protected in place.

100-P03 EROSION CONTROL: Bid items Silt Fence and Fiber Rolls are included for use in conjunction with the Contractor's SWPPP. These quantities may be eliminated depending on the Contractor's operation. An estimated quantity has been set up for each item.

203-010 SHRINKAGE: 35 percent additional volume is included for shrinkage in earth embankment.

TOPSOIL: The quantity of topsoil to be removed, salvaged, and respread is based upon an assumed existing depth of 6 inches. Make arrangements for topsoil storage areas if sufficient room is not available within the right of way. No payment will be made for additional handling of topsoil that must be moved to provide additional excavation area between the proposed grading limits and the right of way. Re-spread topsoil evenly over the areas to be seeded. The bid item "TOPSOIL" includes all labor, materials, and equipment associated with stripping, stockpiling, and respreading the existing topsoil. "TOPSOIL" will be paid at plan quantity.

251-P01 SEEDING & MULCHING: Cover all disturbed areas of the right of way, except the roadbed with Seeding CI II and Straw Mulch.

CONCRETE EROSION CONTROL BLANKET: The overhead power pole at Sta. 12+70 and the culverts at Sta. 11+87, 12+02, and 12+18 shall remain in place. Geosynthetic Material Type RR and Concrete Erosion Control Blanket shall be installed to fit around the overhead power pole and the culverts.

411-P01 MILLING PAVEMENT SURFACE: Mill the existing roadway surface (See Milling Typical Section in Section 30, Sheet 1).

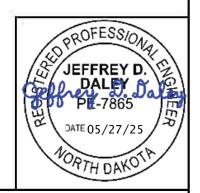
Payment for milling is based on a 12-foot driving lane shown on the typical sections. Sloughs, if present, will not be measured for payment but will be incidental to the respective bid item for milling.

The excess milled material will remain the property of the Owner, Pembina County. "MILLING PAVEMENT SURFACE" includes all labor, material and equipment required to mill, haul, and stockpile the millings at the Pembina County shop, located in Cavalier, ND. Coordinate delivery with the Pembina County Highway Department. The contact is Devin Johnson, (701)-520-4373.

430-P01 COMMERCIAL GRADE HOT MIX ASPHALT: Any costs associated with providing the mix design shall be included in the price bid for "COMMERCIAL GRADE HOT MIX ASPHALT".

430-P02 COMPACTION: Ordinary Compaction, as specified in NDDOT Standard Specification 430.04 I.3, will be used for all hot mix asphalt.

704-P01 TRAFFIC CONTROL: Use the construction signing layout on Section 100, Sheet 2 for the lane closure of Pembina County Highway 12.



CERP-3411(064) PEMBINA COUNTY, NORTH DAKOTA

PEMBINA COUNTY, NORTH DAKOT PEMBINA COUNTY HIGHWAY 12



PLAN NOTES

DRWN. BY CHKD. BY

203-P01

ROJECT NO.

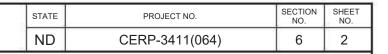
ENVIRONMENTAL NOTES

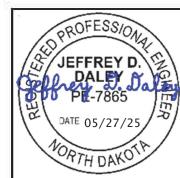
ENVIRONMENTAL NOTES (EN): Pembina County, the North Dakota Department of Transportation, and the Federal Highway Administration have made environmental commitments to secure approval of this project. The following environmental notes are requirements to comply with these commitments:

EN-1 AQUATIC NUISANCE SPECIES (ANS): Equipment that was last used outside of North Dakota or within a Class I infested waterbody (identified on the North Dakota Game and Fish Department (NDGFD) website) requires an inspection by NDGFD. Notify the NDGFD at least 10 business days prior to pumps, watercraft, or any equipment entering a public water to allow the NDGFD sufficient time to inspect any and all such equipment for ANS. Contact the NDGFD ANS Coordinator, Ben Holen by e-mail - bholen@nd.gov for equipment inspections. Supply one of the following to the Engineer as proof of compliance prior to work taking place in the water: (1) the NDGFD inspection report, (2) documented NDGFD correspondence (email or signed letter).

EN-2 TEMPORARY WETLAND IMPACT: Temporary impact areas within wetlands and or other waters are incorporated into the plans for this project. Remove temporary fill placed and sedimentation in wetlands or other waters. Restore these areas to preconstruction contours.

EN-3 TREE REMOVAL: The project is located within suitable habitat (forested/wooded areas/bridges) for the northern long-eared bat. The project will commit to removing trees outside of the northern long-eared bat pup rearing season (June 1 – August 15, inclusive). If any northern long-eared bats are identified within 1 mile of the project, the Contractor will notify the Engineer immediately and cease construction activities in the vicinity until an avoidance area is established. The Engineer will establish an avoidance area that is at least 0.5 mile and immediately coordinate with the USFWS (701-355-8513), FHWA (701-221-9464), and NDDOT Environmental and Transportation Services (701-328-2592). The Contractor will not resume work within the avoidance area until the Engineer has confirmed with the agencies that work may proceed (either the species have left the area, or approved avoidance/minimization measures have been implemented).





CERP-3411(064)

PEMBINA COUNTY, NORTH DAKOTA

PEMBINA COUNTY HIGHWAY 12



ENVIRONMENTAL NOTES

Estimated Quantities

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	CERP-3411(064)	8	1

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
103	0100	CONTRACT BOND	L SUM	0.11	0.11
201	0330	CLEARING & GRUBBING	L SUM	1	1
203	0109	TOPSOIL	CY	86	86
203	0140	BORROW-EXCAVATION	CY	95	95
216	0100	WATER	M GAL	1	1
251	0200	SEEDING CLASS II	ACRE	0.1	0.1
251	2000	TEMPORARY COVER CROP	ACRE	0.02	0.02
253	0101	STRAW MULCH	ACRE	0.12	0.12
255	0300	CONCRETE EROSION CONTROL BLANKET	SY	486	486
260	0200	SILT FENCE SUPPORTED	LF	50	50
260	0201	REMOVE SILT FENCE SUPPORTED	LF	50	50
261	0112	FIBER ROLLS 12IN	LF	310	310
261	0113	REMOVE FIBER ROLLS 12IN	LF	155	155
302	0120	AGGREGATE BASE COURSE CL 5	TON	42	42
411	0105	MILLING PAVEMENT SURFACE	SY	233	233
430	0500	COMMERCIAL GRADE HOT MIX ASPHALT	TON	29	29
702	0100	MOBILIZATION	L SUM	0.11	0.11
704	0100	FLAGGING	MHR	20	20
704	1000	TRAFFIC CONTROL SIGNS	UNIT	450	450
704	1052	TYPE III BARRICADE	EA	10	10
704	1060	DELINEATOR DRUMS	EA	10	10
704	1067	TUBULAR MARKERS	EA	30	30
709	0155	GEOSYNTHETIC MATERIAL TYPE RR	SY	486	486
762	0430	SHORT TERM 4IN LINE-TYPE NR	LF	350	350
762	1104	PVMT MK PAINTED 4IN LINE	LF	525	525

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	CERP-3411(064)	10	1

BASIS OF ESTIMATE

Commercial Grade HMA 2.0 Ton/CY

Aggregate Base Course CL 5 1.875 Ton/CY

Seeding & Mulching All disturbed areas within the right of way and project

limits minus hard surfaces.

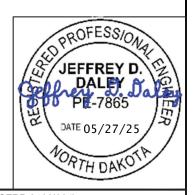
Water 10 Gal/CY for Embankment

Earthwork Summary										
	-	Topsoil								
Spec and Code		203-0102	203-0140		203-0109					
		Common Excavation-	Borrow	Topsoil		Excess				
Location	Embankment ²	Type B	Excavation	Embankment	Topsoil	Topsoil				
	Α	В	C = A - B	D	E	F = E - D				
PEMBINA COUNTY HIGHWAY 12	95	0	95	17	86	69 ¹				

¹⁾ Topsoil quantities based on 6" stripping and 6" respreading. Excess topsoil shall become property of the Contractor. 2) Embankment quantities include 35% for shrinkage.

PAVEMENT MARKING

DESCRIPTION		UNIT	QUANTITY
4" Yellow No Passing Zone (Solid Line)		UNII	LOCATION
Sta. 11+50 to Sta. 13+25	LT & RT	LF	350
Subtotal	LF	350	
Total 4" Yellow Pavement Marking Pair	LF	350	
4" White Edge Lines			
Sta. 11+50 to Sta. 13+25	RT	LF	175
Subtoal		LF	175
Total 4" White Pavement Marking Pain	t	LF	175
			-
Total 4" Pavement Marking Paint		LF	525

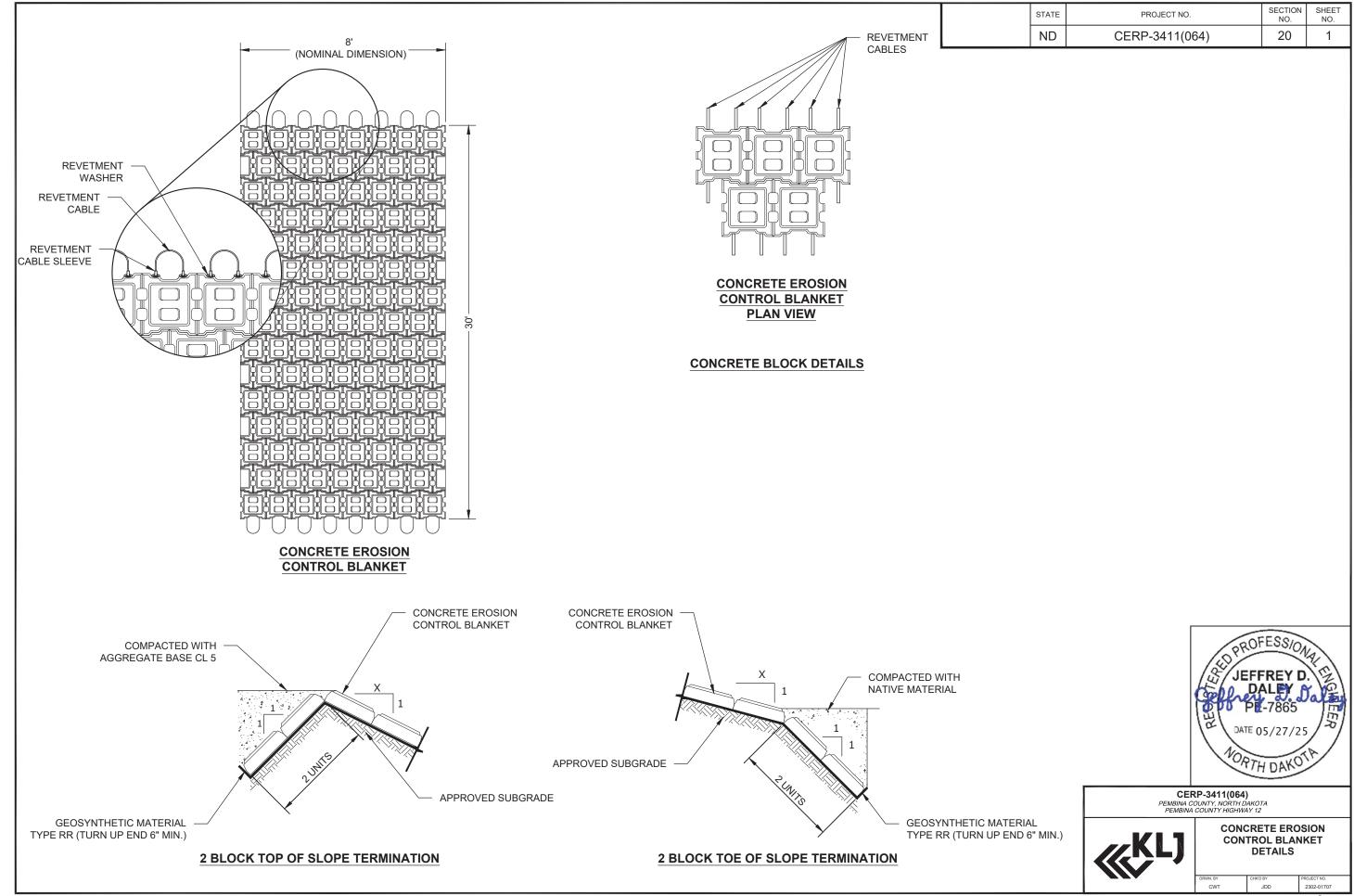


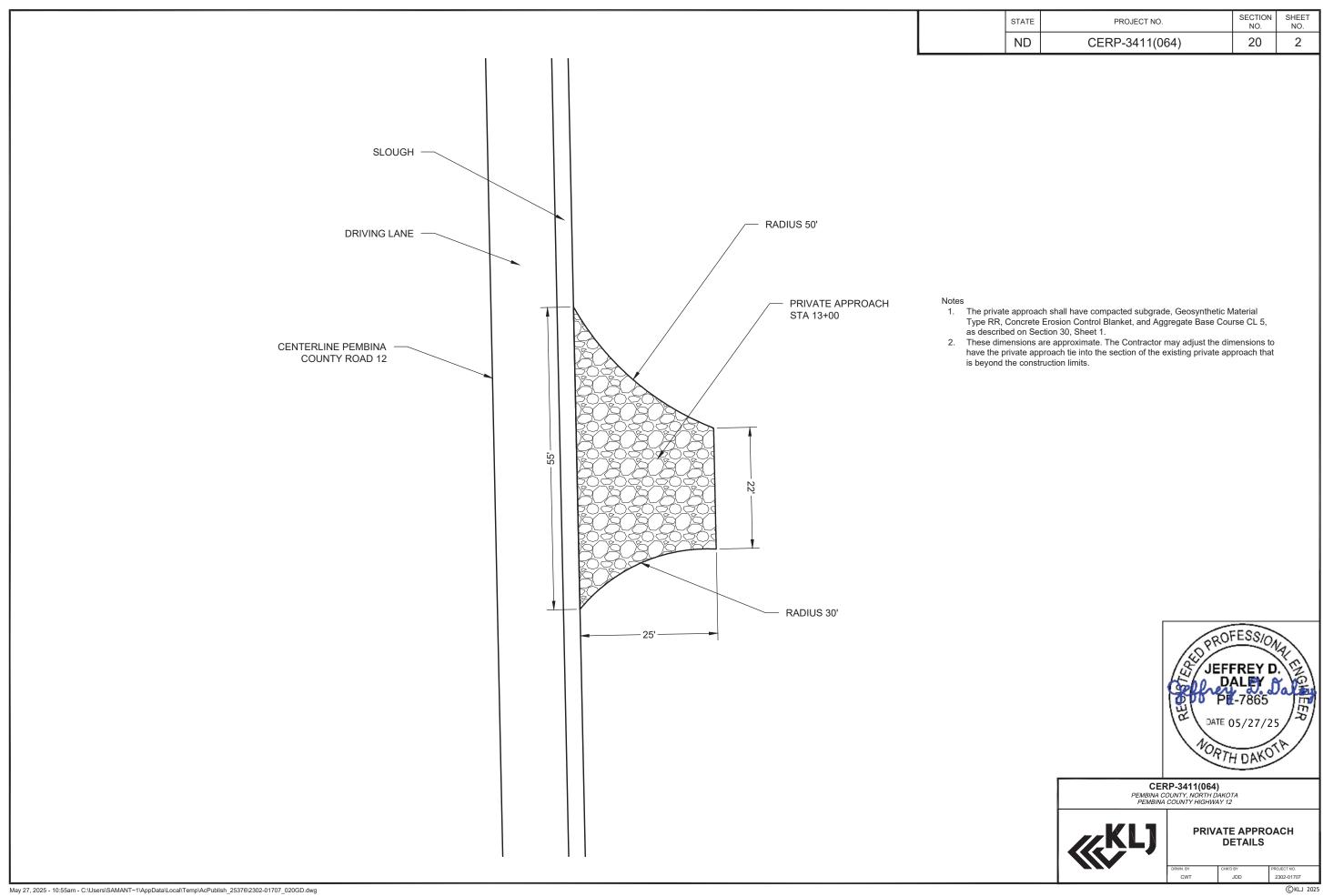
CERP-3411(064)
PEMBINA COUNTY, NORTH DAKOTA
PEMBINA COUNTY HIGHWAY 12



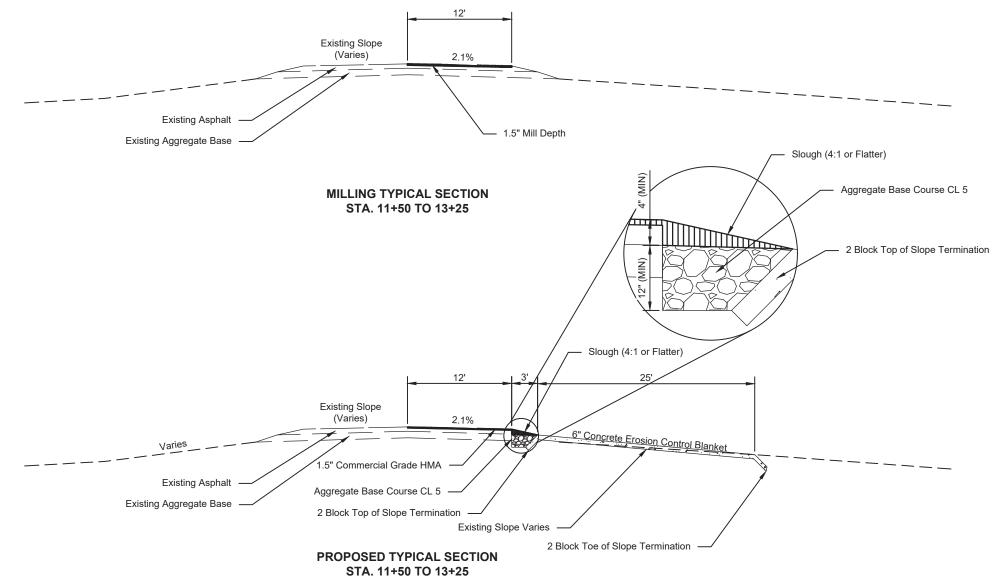
BASIS OF ESTIMATE & EARTHWORK SUMMARY

2302-01707



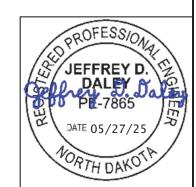






Notes:

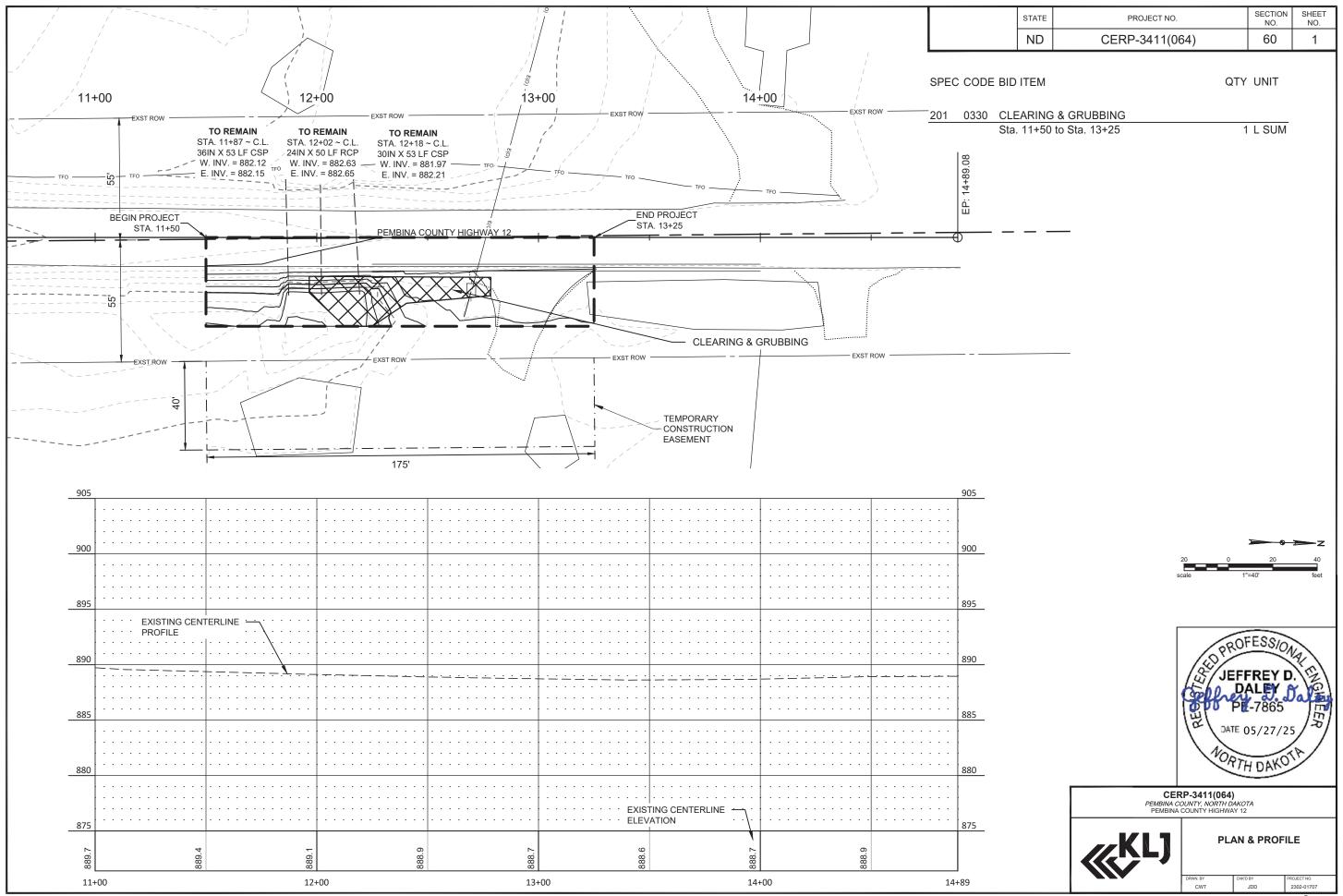
- The Contractor shall install 25 feet of the Concrete Erosion Control Blanket starting from the proposed slough. The Concrete Erosion Control Blanket shall be installed so that the ditch surface matches the existing surface.
- 2) The subgrade used on the inslope must be compacted and approved by the Engineer. Once approved, the Contractor shall install Geosynthetic Material Type RR and the Concrete Erosion Control Blanket per the manufactures specifications. This shall only be done for the 25 feet from the edge of the slough. The rest of the disturbed ground shall be covered with 6 inches of topsoil.
- 3) Topsoil shall be used to fill in all open areas of the Concrete Erosion Control Blanket that are not under the slough or the private approach. Any area of the Concrete Erosion Control Blanket that is under the slough and private approach must be filled with Aggregate Base Course CL 5.
- 4) Full depth removal of asphalt and aggregate shall be limited to only the proposed slough. The full depth removal of asphalt and aggregate at the proposed slough is to allow for proper installation and compaction for the 2 Block Top Slope Termination and shall be limited to the 3 foot width of the proposed slough. If additional asphalt and or aggregate is removed from the driving lane the Contractor shall install 12 inches Aggregate Base Course CL 5 and 4 inches of Commercial Grade HMA at the Contractor's expense.



CERP-3411(060)
PEMBINA COUNTY, NORTH DAKOTA
PEMBINA COUNTY HIGHWAY 12

TYPICAL SECTIONS

DRWN. BY ON'D BY PROJECT NO.
JDD 2302-01707



STATE PROJECT NO. ND CERP-3411(064)	SECTION NO.	SHEET NO.	
ND	CERP-3411(064)	75	1

						W	etland Im	pact Tab	le							
						We	tland Impac	t				V	Netland Miti	gation		
				USACE		Wetland Impac	ets	USFWS Easement Impacts Acre(s)		ent Mitigation Proposed		oosed	USACE/11990 Bank		11990 Bank	
Wetland Number	Location	Wetland Type	Wetland Feature	Jurisdictional Wetlands ¹	Temp.	Perm. (Fill/Drain)	Perm. (Cut)	Temp.	Perm.	EO 11990	USACE	USFWS	Location	Acre(s)	Location	Acre(s)
1	Sec 21 & 22 T-163-N R-55-W	Basin	Natural	Y	0.000	0.000	0.000									
2	Sec 21 & 22 T-163-N R-55-W	Basin	Natural	Y	0.011	0.045	0.000			N	N		N/A		N/A	
				Totals	0.011	0.045	0									

¹Delineated wetlands are assumed to be USACE jurisdictional wetlands for the purpose of Section 404 permitting.

Impact Summary Table								
Permanent Summ	Impact nary	Temporary Impacts and additional information						
Wetland Type	Total Acre(s)	WaterType	Total Acre(s)					
Natural/JD (Fill/Drain)	0.045	Temporary Wetland JD	0.011					
Natural/Non-JD (Fill/Drain)		Non-JD Wetland Temporary						
Artificial/JD (Fill/Drain)								
Artificial /Non-JD (Fill/Drain))		Permanent OW						
Total		Temporary OW						
JD Natural (Cut)		Permanent OW-d						
JD Artificial (Cut)		Temporary OW-d						
Non-JD Natural (Cut)								
Non-JD Artificial (Cut)								
Total	0.045]						

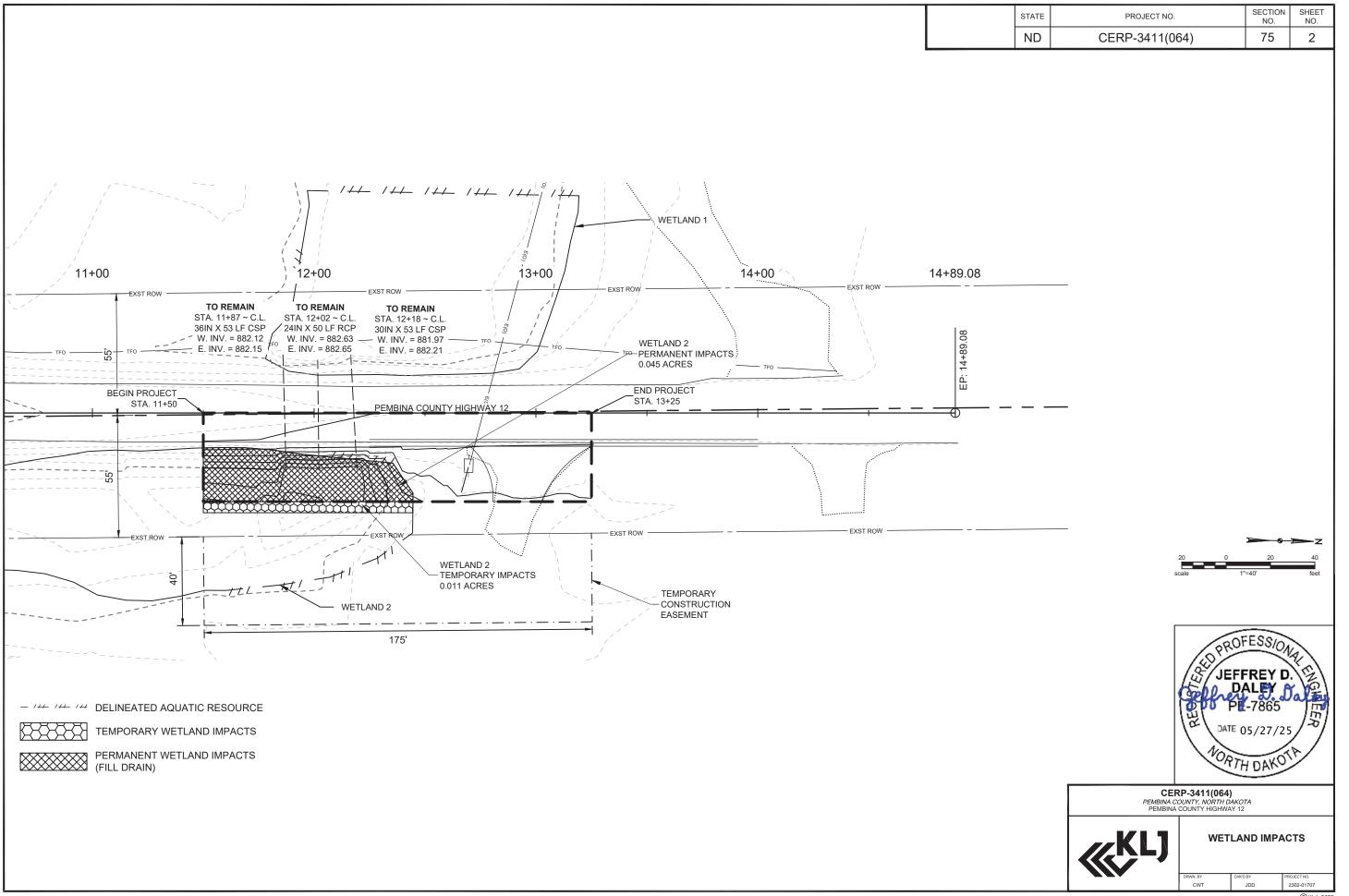
	Mitigation Summary Table										
	Location	Ditch Shift Acre(s)			USACE/11990 Bank Acre(s)	USFWS Bank Acre(s)					
USACE Only	Approved mitigation bank										
EO 11990 Only	N/A										
USACE/11990	N/A										
USFWS	N/A										
	Total	0	0	0	0	0					

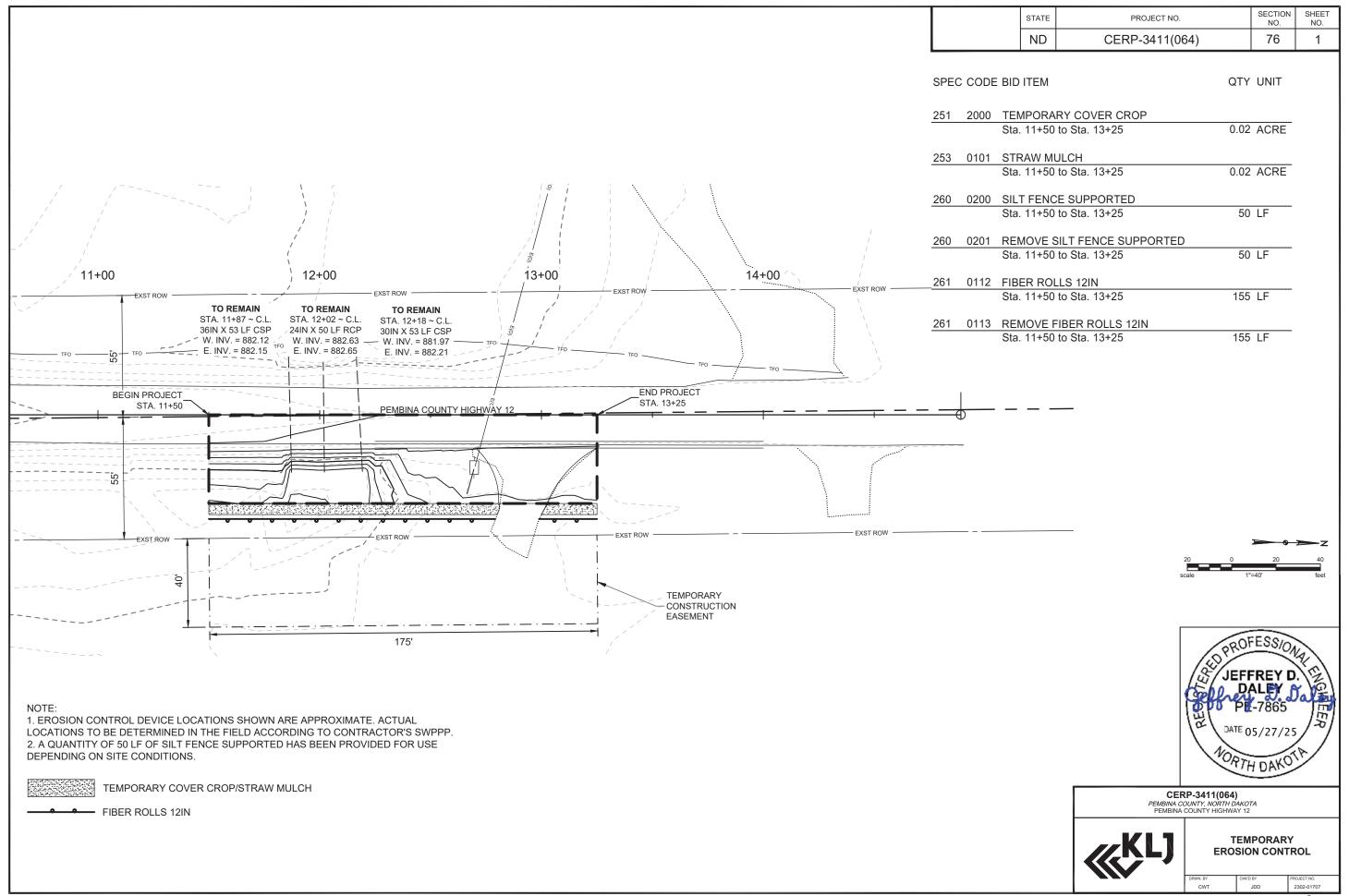


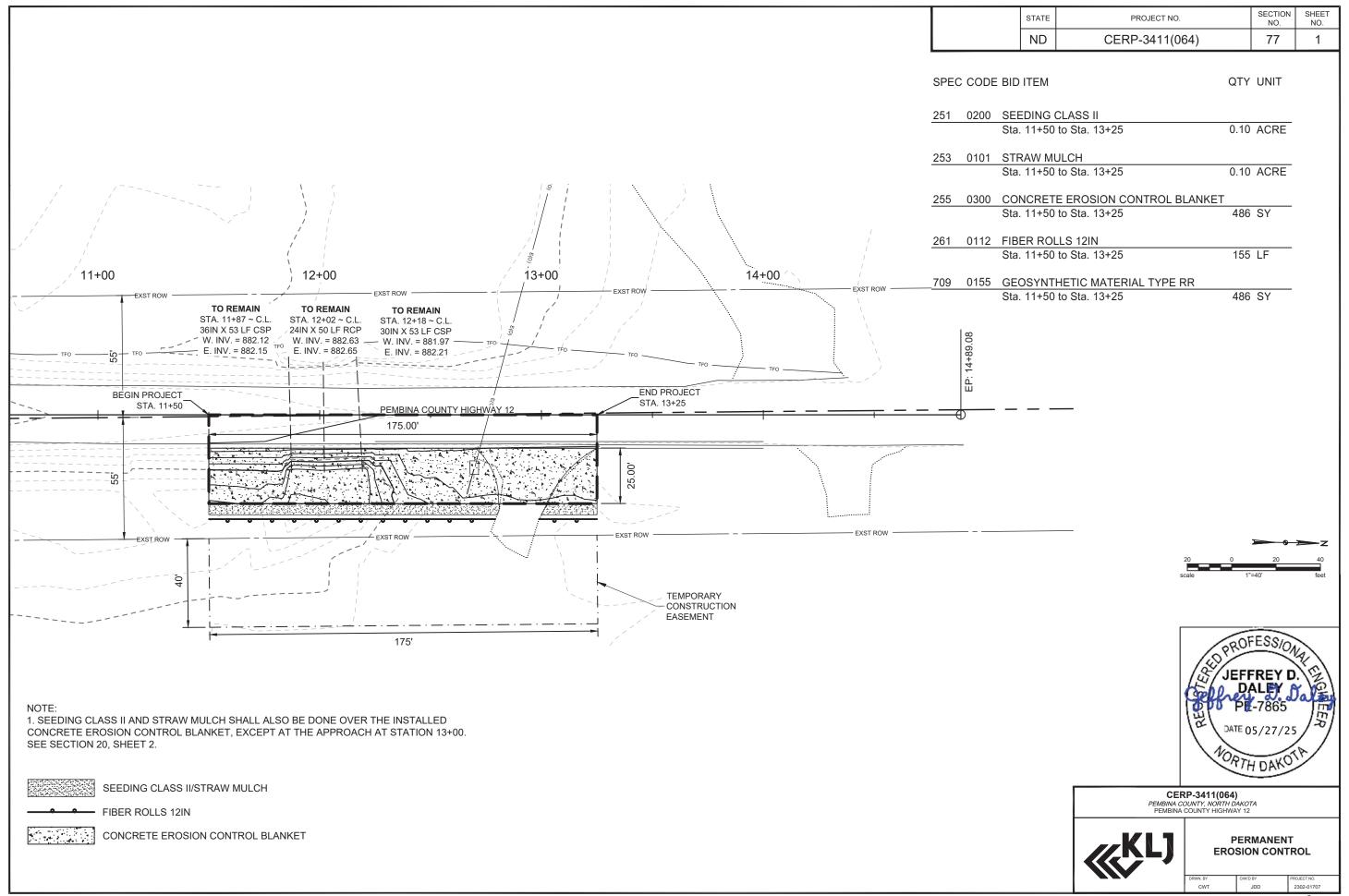
CERP-3411(064)
PEMBINA COUNTY, NORTH DAKOTA
PEMBINA COUNTY HIGHWAY 12

WETLAND IMPACTS
TABLE

DRWN. BY CHICD BY PROJECT NO.
2302-01707







PRELIMINARY SURVEY COORDINATE AND CURVE DATA

STATE	PROJECT NO.	SECTION NO.	SHEE NO.
ND	CERP-3411(064)	81	1

	HORIZO	NTAL ALIGNME	ENT	CURVE DATA	US P	UBLIC LA	ND SURVEY [DATA		SUR	/EY CONTR	OL POI	NTS	
PNT	STATION	NORTHING	EASTING	ARC DEFINITION	CORNER	IRN	NORTHING	EASTING	PNT	NORTHING	EASTING	ELEV	STA	OFFSET
ВОР	11+50.00	713817.08	2628960.25			T-163-N	I R-55-W			. (CONTROL POINT DE	SCRIPTION		
EOP	13+25.00	713992.04	2628956.50		NE Cor Sec 21	7-G	717576.25	2628789.56	1	716245.25	2628805.28	887.16	NA	NA
					E ½ Cor Sec 21	7-H	714916.15	2628927.43	⁵ / ₈ x 18" re	bar with Pink	Plastic CTRL Cap			
					NE Cor Sec 28	7-J	712288.08	2629007.79	2	717638.48	2628394.42	885.02	NA	NA
											Plastic CTRL Cap			
											2628940.01	892.68	NA	NA
									§ X 18" re	bar with Pink	Plastic CTRL Cap)		
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									Internat	ional Foot defir	ition.	1 2 2	125/5	2 8/
										-		NOR	THDAKO	TA
					Assumed Coord	dinates		INITIALIZING BE		к	PEMBINA CO	P-3411(064) UNTY, NORTH DAI OUNTY HIGHWAY	KOTA	
					1_		North Dakota State red from the "North	TVN Ne			T			
NOTES: Su	rvey Control derived from ived above, then OPUS	Trimble VRS Now (TVN) Networ	rk with Antenna Mount Point i gainst VRS values.	in Cavalier. 4 hour RTK & Infill performed on CPs Date Survey Completed 10/15/2024	American Datum Frame; North Da	n of 1983", NAD8 kota North Zone	3, 2011 Reference	NGVD-29			KLJ		COORDI JRVE DAT	
					Scale Factor = 1	.00000		ENGLISH UNIT				DRWN. BY	CHK'D BY	PROJECT NO.
Sheet 1 o	1							METRIC UNITS				CWT	JDD	2302-01707

ND	CERP-3404(060)	100	1
STATE	PROJECT NO.	SECTION NO.	SHEET NO.

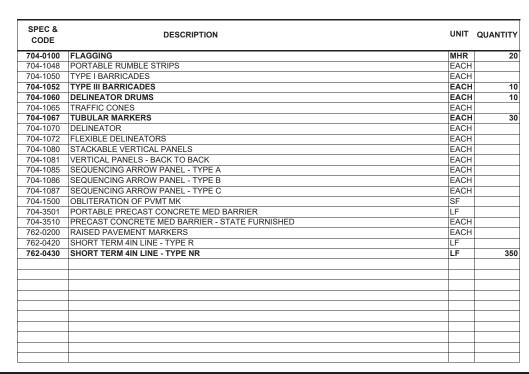
SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTA
E5-1-48	48"x48"	EXIT GORE		35	
G20-1-60	60"x24"	ROAD WORK NEXT MILES		28	
G20-1b-60	60"x24"	NO WORK IN PROGRESS (Sign and installation only)		18	
320-2-48	48"x24"	END ROAD WORK	2	26 18	
320-4-36 320-4b-36	36"x18" 36"x30"	PILOT CAR FOLLOW ME (Mounted to back of pilot car) WAIT FOR PILOT CAR		18	
320-40-30 320-50a-72	72"x36"	ROAD WORK NEXT MILES RT & LT ARROWS		43	
320-50a-72 320-52a-72	72"x24"	ROAD WORK NEXT MILES RT or LT ARROW		36	
320-55-96	96"x48"	SPEED LIMIT ENFORCED - MINIMUM FEE \$80 WHEN WORKERS PRESENT		59	
V1-1-36	36"x36"	INTERSTATE ROUTE MARKER (Post and installation only)		11	
V1-4-24	24"x24"	U.S. ROUTE MARKER (Post and installation only)		10	
V1-5-24	24"x24"	STATE ROUTE MARKER (Post and installation only)		10	
И3-1-24	24"x12"	NORTH (Mounted on route marker post)		7	
И3-2-24	24"x12"	EAST (Mounted on route marker post)		7	
И3-3-24	24"x12"	SOUTH (Mounted on route marker post)		7	
И3-4-24	24"x12"	WEST (Mounted on route marker post)		7	
И4-8-24	24"x12"	DETOUR (Mounted on route marker post)		7	
И4-9-30	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	
И5-1-21	21"x15"	ADVANCE TURN ARROW RT or LT(Mounted on route marker post)		7	
VI5-1-30	30"x21"	ADVANCE TURN ARROW RT or LT(Mounted on route marker post)		9	
Л6-1-21	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	
И6-3-21	21"x15"	DIRECTIONAL ARROW UP (Mounted on route marker post)		7	
R1-1-48	48"x48"	STOP		32	
R1-2-60	60"x60"	YIELD OPER LIMIT (Particular and a		29	
22-1-36	36"x48"	SPEED LIMIT (Portable only)		30	
R2-1-48	48"x60"	SPEED LIMIT		39	
R2-1aP-24 R3-2-48	24"x18"	MINIMUM FEE \$80 (Mounted on Speed Limit post)		10	
	48"x48" 48"x60"	NO LEFT TURN DO NOT PASS		35 39	
R4-1-48 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)	4	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)	4	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	
N1-3-48	48"x48"	REVERSE TURN RIGHT or LEFT		35	
N1-4-48	48"x48"	REVERSE CURVE RIGHT or LEFT		35	
W1-4b-48	48"x48"	TWO LANE REVERSE CURVE RIGHT or LEFT		35	
N1-6-48	48"x24"	ONE DIRECTION LARGE ARROW		26	
N3-1-48	48"x48"	STOP AHEAD		35	
V3-3-48	48"x48"	SIGNAL AHEAD		35	
V3-4-48	48"x48"	BE PREPARED TO STOP		35	
V3-5-48	48"x48"	SPEED REDUCTION AHEAD		35	
V4-2-48	48"x48"	LANE ENDS RIGHT or LEFT		35	
V5-1-48	48"x48"	ROAD NARROWS		35	
V5-8-48	48"x48"	THRU TRAFFIC RIGHT LANE		35	
V5-9-48	48"x48"	ROAD WORK TRAFFIC ONLY DOWN & LT or RT ARROW		35	
V6-3-48	48"x48"	TWO WAY TRAFFIC		35	
V8-1-48	48"x48"	BUMP		35	
V8-3-48	48"x48"	PAVEMENT ENDS		35	
V8-7-48	48"x48"	LOOSE GRAVEL		35	
V8-11-48	48"x48"	UNEVEN LANES		35	
/8-12-48	48"x48"	NO CENTER LINE		35	
/8-17-48	48"x48"	SHOULDER DROP-OFF SYMBOL		35	
/8-53-48	48"x48"	TRUCKS ENTERING HIGHWAY		35	
/8-54-48	48"x48"	TRUCKS ENTERING AHEAD or FT or _ MILE		35	
V8-55-48	48"x48"	TRUCKS CROSSING AHEAD or FT or _ MILE		35	
/8-56-48	48"x48"	TRUCKS EXITING HIGHWAY CENTER LANE CLOSED SYMBOL		35	
/9-3a-48 /13-1P-30	48"x48" 30"x30"	MPH ADVISORY SPEED PLAQUE (Mounted on warning sign post)		35 14	
/13-1P-30 /14-3-64	64"x48"	NO PASSING ZONE		28	
/14-3-64 /16-2P-30	30"x24"	FEET PLAQUE (Mounted on warning sign post)		10	
/16-2P-30 /20-1-48	48"x48"	ROAD WORK AHEAD or _FT or _ MILE	2	35	
/20-1 -46 /20-2-48	46 x46 48"x48"	DETOUR AHEAD OF FT OF MILE		35	
V20-2-48 V20-3-48	48"x48"	ROAD or STREET CLOSED AHEAD or FT or MILE		35	
/20-3-46 /20-4-48	46 X46 48"x48"	ONE LANE ROAD AHEAD or FT or _ MILE	2	35	
V20-4-48 V20-5-48	48"x48"	RIGHT or CENTER or LEFT LANE CLOSED AHEAD or FT or MILE		35 35	
V20-5-48 V20-7-48	48"x48"	FLAGGER	2	35 35	
V20-7-48 V20-8-18	18"x18"	STOP - SLOW PADDLE Back to Back	2	5	
V20-8-18 V20-52P-54		NEXT MILES (Mounted on warning sign post)		12	
/20-52P-54 /21-1-48	48"x48"	WORKERS (Mounted on warning sign post)		35	
V21-1-48 V21-2-48	48"x48"	FRESH OIL		35	
	48"x48"	ROAD MACHINERY AHEAD or FT or MILE		35	
			2	35 35	
/21-3-48	10"-10"				
/21-5-48 /21-5a-48	48"x48" 48"x48"	SHOULDER WORK RIGHT or LEFT SHOULDER CLOSED		35	

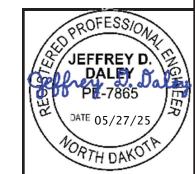
SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
N21-6-48	48"x48"	SURVEY CREW		35	
N21-50-48	48"x48"	BRIDGE PAINTING AHEAD or FT		35	
N21-51-48	48"x48"	MATERIAL ON ROADWAY		35	
N21-52-48	48"x48"	PAVEMENT BREAKS		35	
N21-53-48	48"x48"	RUMBLE STRIPS AHEAD		35	
N22-8-48	48"x48"	FRESH OIL LOOSE ROCK		35	
N24-1-48	48"x48"	DOUBLE REVERSE CURVE		35	

SPECIAL SIGNS					

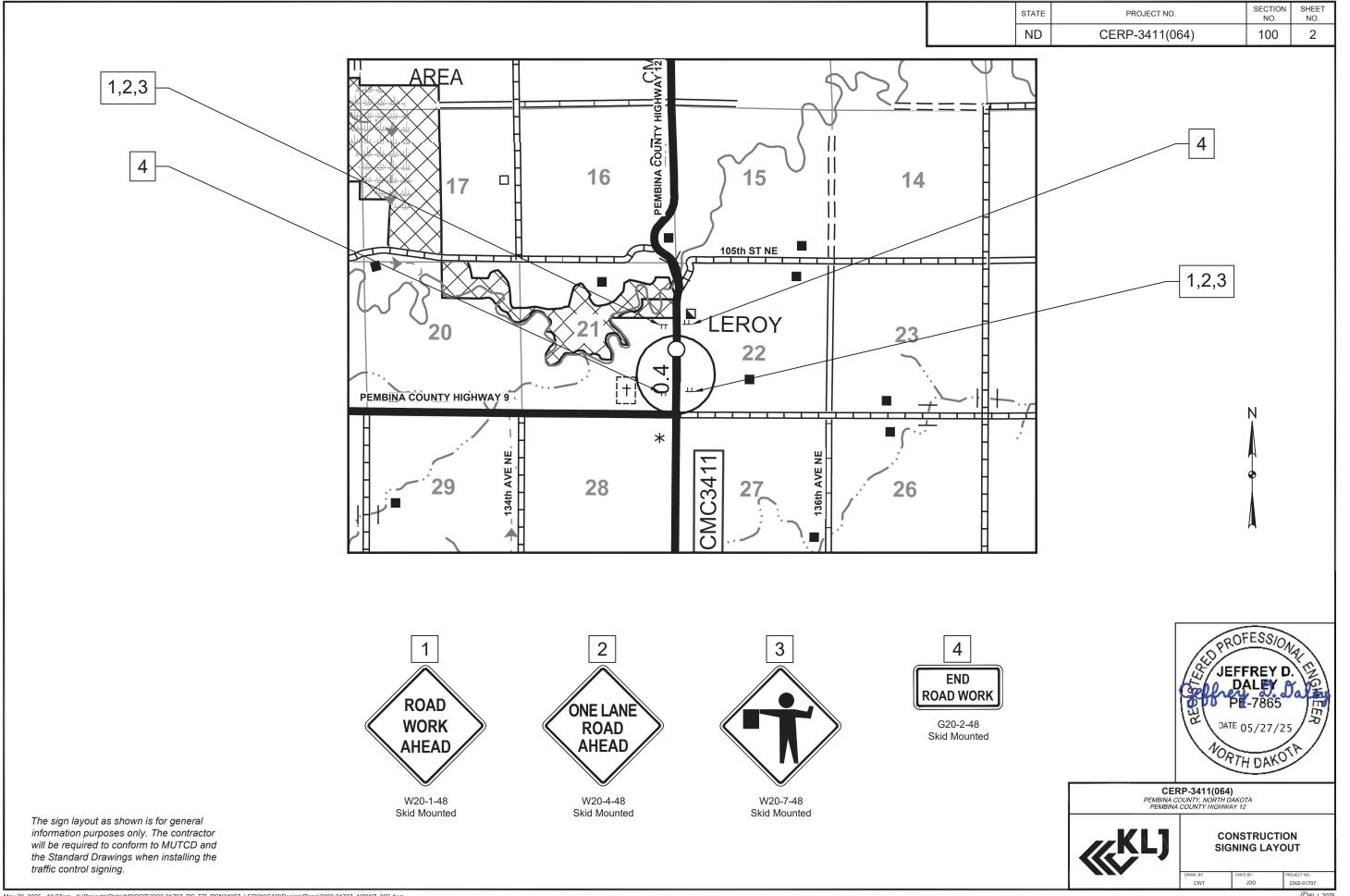
 SPEC & CODE
 704-1000
 TRAFFIC CONTROL SIGNS
 TOTAL UNITS

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/





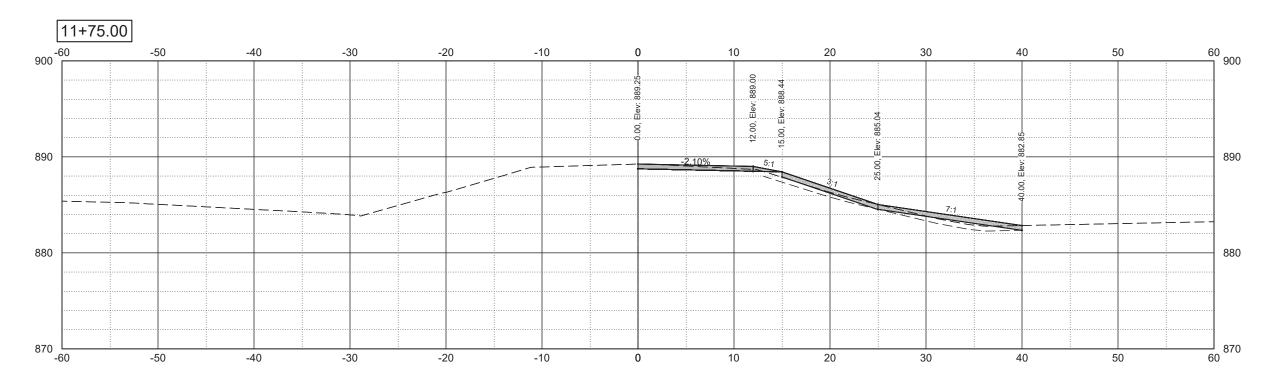
Traffic Control Devices List

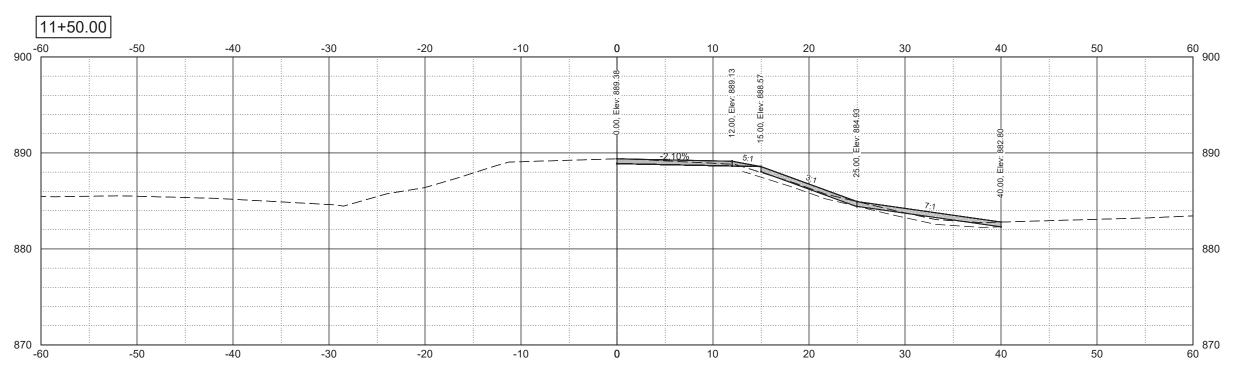


CROSS-SECTIONS



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	CERP-3411(064)	200	1

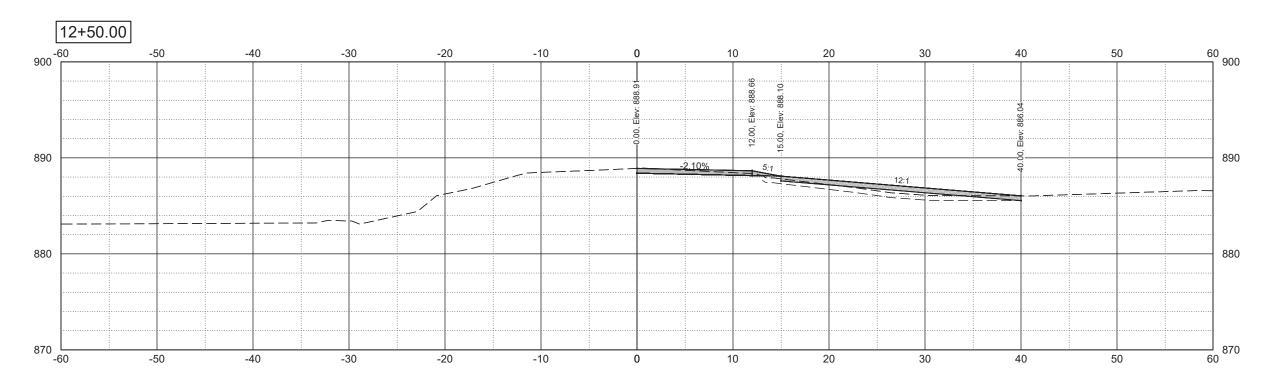


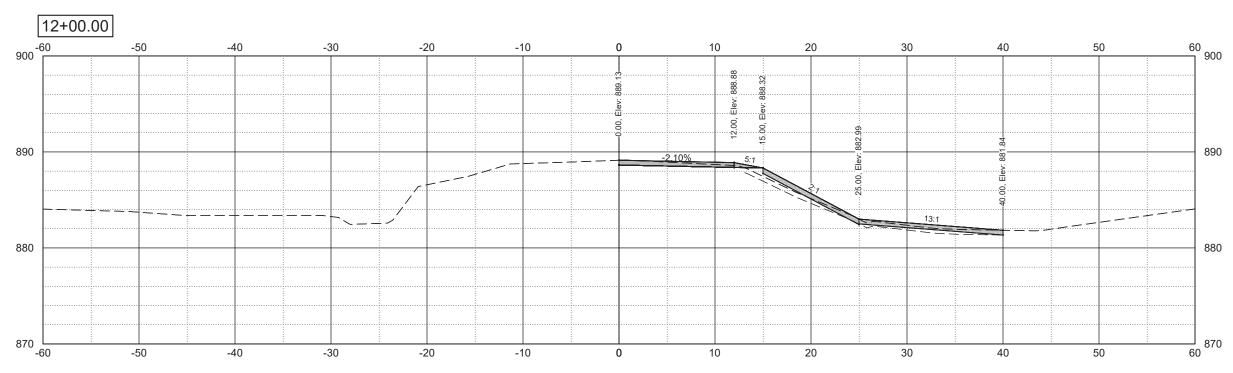


CROSS-SECTIONS



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	CERP-3411(064)	200	2





CROSS-SECTIONS



STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	CERP-3411(064)	200	3

