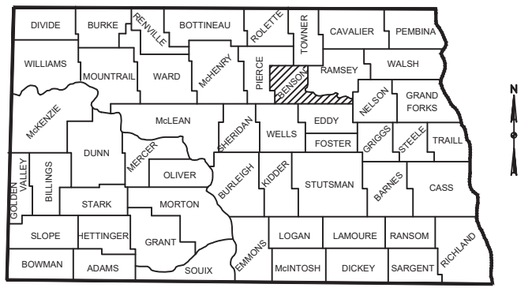
	STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
	ND	HLC-0003(023)	22923	1	1



STATE OF NORTH DAKOTA
SHOWING COUNTIES

SPIRIT LAKE NATION, NORTH DAKOTA
HIGHWAY SAFETY IMPROVEMENT PROGRAM
PLANS FOR FEDERAL
AID PROJECT HLC-0003(023)

BIA ROUTE 6
LEFT TURN LANE INTO CCCC HEAD START

Project is located on BIA Route 6 approximately 2 miles east and 0.5 miles south of Fort Totten.

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

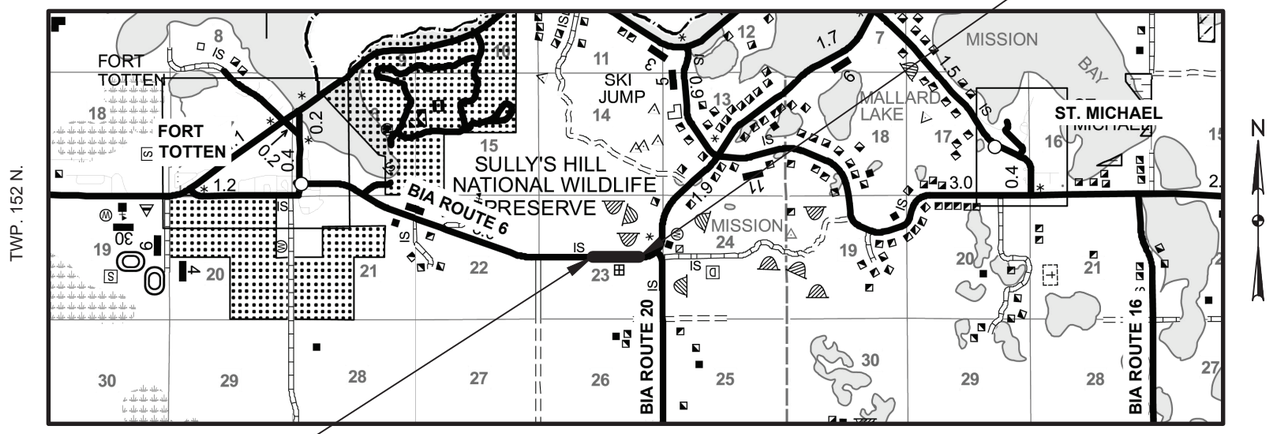
PROJECT LENGTH

PROJECT	GROSS MILES	NET MILES
HLC-0003(023)	0.251	0.251
TOTAL	0.251	0.251

DESIGN DATA

TRAFFIC		AVERAGE DAILY PASSENGER	AVERAGE DAILY TRUCKS	AVERAGE DAILY TOTAL	EST. 30th MAX. HR.
CURRENT TRAFFIC	2022	1105	15	1130	113
TRAFFIC FORECAST	2042	1325	20	1345	135

DESIGN SPEED	50 MPH
MINIMUM SIGHT DISTANCE (STOPPING)	425 FEET



END PROJECT HLC-0003(023)
STA. 13+53 = A POINT 1610 FEET WEST AND 2631 FEET SOUTH OF THE NORTHWEST CORNER OF SEC. 24, TWP. 152 N., RGE. 65 W.

BEGIN PROJECT HLC-0003(023)
STA. 0+34 = A POINT 2346 FEET EAST AND 2661 FEET SOUTH OF THE NORTHWEST CORNER OF SEC. 23, TWP. 152 N., RGE. 65 W.

Surveyed & Designed Date: November 2022 - April 2023

DESIGNER	Charlie Thompson
DESIGNER	Samantha Schoepfer, PE
DESIGNER	-
DESIGNER	-
DESIGNER	-

REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

KLJ
1820 WALNUT ST E. SUITE 6
DEVILS LAKE, ND 58301-3411
(701) 662-1960, FAX (855) 288-8055

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	2	1

TABLE OF CONTENTS

PLAN SECTIONS

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D-101-1, 2, 3, 4	NDDOT Abbreviations
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D-101-30, 31, 32, 33	Symbols
D-704-2	Traffic Control For Coring Of Hot Bituminous Pavement
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
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D-704-13	Barricade And Channelizing Device Details
D-704-14	Construction Sign Punching And Mounting Details
D-704-15	Road Closure Layouts
D-704-17	Sign Layout For One Lane Closure Two Lane Roadway
D-704-19	Road Closure And Lane Closure On A Two Way Road Layouts
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D-704-22	Construction Truck And Temporary Detour Layouts
D-704-24	Shoulder Closures And Bridge Painting Layouts
D-704-26	Miscellaneous Sign Layouts
D-704-27	Mobile Operation (Pavement Marking)
D-704-50	Portable Sign Support Assembly
D-706-1	Bituminous Laboratory
D-762-1	Pavement Marking Message Details
D-762-4	Pavement Marking
D-762-11	Short-Term Pavement Marking

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Number	Description
SP 506(24)	Tribal Employment Rights Ordinance (TERO)
SP 507(24)	Commercial Grade Asphalt
SSP 1	Temporary Erosion and Sediment Best Management Practices
SSP 3	Local Agency Contracts
SSP 4	Longitudinal Joint Density
SSP 8	Federal Prohibition on Certain Technological Hardware

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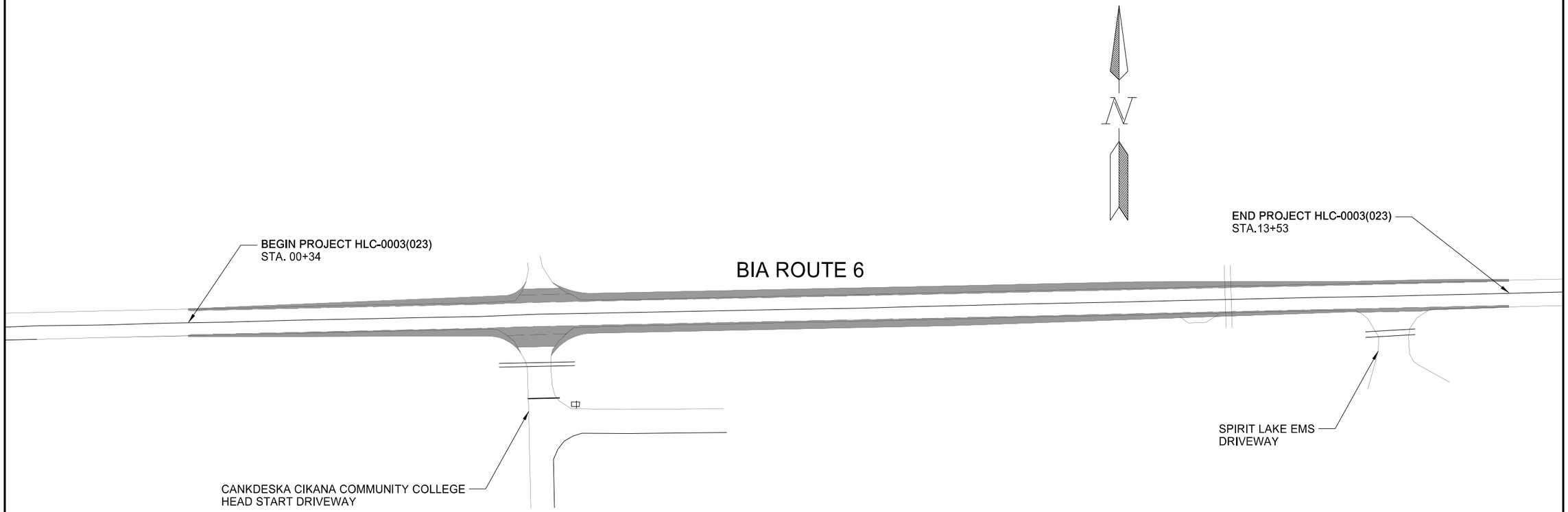

Turn Lane Widening
6" Superpave FAA 43
12" Aggregate Base Course CL 5
Geosynthetic Material Type G

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HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

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SCOPE OF WORK

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

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	ND	HLC-0003(023)	6	1

PLAN NOTES

105-P01 **UTILITIES:** No utility relocations or adjustments are planned. Protect all utilities on the project. They will remain in existing locations. The contractor will be responsible for verifying the locations and notifying all utility and pipeline companies to have locations flagged and marked prior to beginning construction. Any charges by the utility companies for locates will be paid by the Contractor. The Contractor will be liable for any costs resulting from damage to utilities.

107-P01 **MAINTAINING TRAFFIC DROP-OFFS:** If, at the end of the workday, drop-offs greater than 2 inches and less than 18 inches or slopes steeper than 4:1 exist between the edge of a traffic lane and the outside edge of the proposed roadway, construct a traversable wedge in the area of a drop-off or steep slope.

When constructing a wedge, construct a wedge composed of aggregate or earthen materials with a 4:1 slope or flatter along the entire length of the area. Compact the materials using Type C compaction, as specified in 203.04 E.4, “Compaction Control Type C”.

Install stackable vertical panels that meet the requirements of Section 704.03 H, “Stackable Vertical Panels”, along the edge of the driving lane closest to the wedge.

The Engineer will measure the stackable vertical panels as specified in Section 704.05, “Method of Measurement” and will pay for panels as specified in Section 704.06, “Basis of Payment”.

The Engineer will not measure the material used to construct the wedge. Include the cost of materials, equipment, labor, and incidentals required for this operation in the bid price for “Aggregate Base Course CL 5”.

If a wedge with a 4:1 slope or flatter is not installed, provide 24-hour flagging & pilot car operations and associated traffic control at no additional cost to the owner.

The requirements of Section 704.04 O, “Traffic Control for Uneven Pavement” apply to drop-offs created by milling or the placement of hot mix asphalt.

108-P01 **CONSTRUCTION ACTIVITIES:** Conduct work activities during daylight hours only and schedule construction activities to accommodate traffic before dark. Open both lanes during non-working hours and keep one lane open during working hours.

108-500 **TERO COORDINATION:** Invite the Spirit Lake TERO Office to the Preconstruction Conference.

203-P01 **WASTE:** Common Excavation-Waste must be disposed of off the BIA right of way at an approved site.

203-P02 **SHRINKAGE:** 25% percent additional volume is included for shrinkage in earth embankment.

203-P03 **TOPSOIL:** Salvage existing topsoil within the entire construction area. The quantity of topsoil is based upon a 6-inch depth. Any topsoil below the 6-inch depth is included in the Borrow-Excavation quantity. Upon completion of the grading work, spread the topsoil evenly over the areas to be seeded at the minimum 4-inch-depth. Payment for Topsoil will be based on plan quantity. Make arrangements for topsoil storage areas where sufficient room is not available within the existing right of way. The Contractor will not be reimbursed for additional handling of topsoil that must be moved to provide additional excavation area between the plan back slope and the right of way line or temporary construction easement.

704-P01 **CONSTRUCTION SIGNING:** Furnish the necessary signing as required by construction operations. The required traffic control signs and devices are included in the “Traffic Control Devices List” and will be measured and paid at the contract unit price for each device. Payment will not be made for additional devices required to accommodate construction operations.

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HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

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PLAN NOTES

DRWN. BY	CHKD. BY	PROJECT NO.
CT	PB	2211-01400

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	8	1

Estimated Quantities

SPEC	CODE	ITEM DESCRIPTION	UNIT	Mainline						TOTAL
103	0100	CONTRACT BOND	L SUM	1						1
202	0132	REMOVAL OF BITUMINOUS SURFACING	SY	388						388
203	0101	COMMON EXCAVATION-TYPE A	CY	74						74
203	0109	TOPSOIL	CY	773						773
203	0113	COMMON EXCAVATION-WASTE	CY	896						896
216	0100	WATER	M GAL	7						7
251	0200	SEEDING CLASS II	ACRE	0.84						0.84
251	2000	TEMPORARY COVER CROP	ACRE	0.84						0.84
253	0101	STRAW MULCH	ACRE	1.68						1.68
261	0112	FIBER ROLLS 12IN	LF	2549						2549
261	0113	REMOVE FIBER ROLLS 12IN	LF	2549						2549
302	0120	AGGREGATE BASE COURSE CL 5	TON	1210						1210
401	0050	TACK COAT	GAL	276						276
430	0043	SUPERPAVE FAA 43	TON	526						526
430	1000	CORED SAMPLE	EA	4						4
430	5803	PG 58S-28 ASPHALT CEMENT	TON	32						32
702	0100	MOBILIZATION	L SUM	1						1
704	0100	FLAGGING	MHR	240						240
704	1000	TRAFFIC CONTROL SIGNS	UNIT	536						536
704	1067	TUBULAR MARKERS	EA	80						80
704	1080	STACKABLE VERTICAL PANELS	EA	40						40
704	1185	PILOT CAR	HR	120						120
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	2818						2818
706	0550	BITUMINOUS LABORATORY	EA	1						1
706	0600	CONTRACTOR'S LABORATORY	EA	1						1
709	0100	GEOSYNTHETIC MATERIAL TYPE G	SY	1935						1935
762	0103	PVMT MK PAINTED-MESSAGE	SF	32						32
762	0432	SHORT TERM 6IN LINE-TYPE NR	LF	4375						4375
762	1106	PVMT MK PAINTED 6IN LINE	LF	6474						6474
762	1112	PVMT MK PAINTED 12IN LINE	LF	365						365

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
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BASIS OF ESTIMATE

Materials

Removal of Bituminous Surfacing	2.0 Ton/CY
Aggregate Base Course CL 5	1.875 Ton/CY
Tack Coat	0.08 Gal/SY
Superpave FAA 43	2.0 Ton/CY
PG 58S-28 Asphalt Cement	6.0%

Water

25 MGal/Mile for Dust Palliative
20 Gal/Ton for Aggregates
10 Gal/Ton for Embankment

HMA Cored Samples

	A	B		C			
Specification Section	**Distance (FT)÷1000**	**Lanes**	**Joints**	**Lifts**	**Quantity (A x B x C)**	**Quantity (1 per mile)**	**Unit**
430.04 I.2.b(1), "General"	1	2	NA	2	4	NA	EA
				Total	4	NA	EA

Earthwork Summary

Location	Total Excavation	Common Excavation - Type A (Embankment)*	Common Excavation - Waste
	(CY)	(CY)	(CY)
	A	B	C = A - B
Sta. 0+34 to Sta. 13+53	970	74	896

* 25% additional volume is included for shrinkage in earth embankment.
* Common Excavation - Type A is paid for the material reused on site.

Permanent Pavement Markings

Dscription		Unit	Quantiy Per Location
6" Yellow Solid Line (Double Line)			
Sta. 0+34 to Sta. 3+74	LT & RT	LF	1360
Sta. 4+33 to Sta. 7+98	RT	LF	730
Sta. 7+98 to Sta.11+98	LT & RT	LF	1600
Sta. 12+73 to Sta. 13+53	LT & RT	LF	320
Subtotal		**LF**	**4010**
Total 6" Yellow Pavement Marking Paint		**LF**	**4010**
6" White Edge Line			
Sta. 0+34 to Sta. 13+53	LT	LF	1319
Sta. 0+34 to Sta. 3+34	RT	LF	300
Sta. 4+33 to Sta. 11+98	RT	LF	765
Sta. 12+73 to Sta. 13+53	RT	LF	80
Subtotal		**LF**	**2464**
Total 6" White Pavement Marking Paint		**LF**	**2464**
12" White Channel Line			
Sta. 4+33 to Sta. 7+98	LT	LF	365
Subtotal		**LF**	**365**
Total 12" White Pavement Marking Paint		**LF**	**365**
Total 6" Pavement Marking Paint		**LF**	**6474**
Total 12" Pavement Marking Paint		**LF**	**365**

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HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

BASIS OF ESTIMATE

DRWN. BY	CHK'D BY	PROJECT NO.
CT	PB	2211-01400

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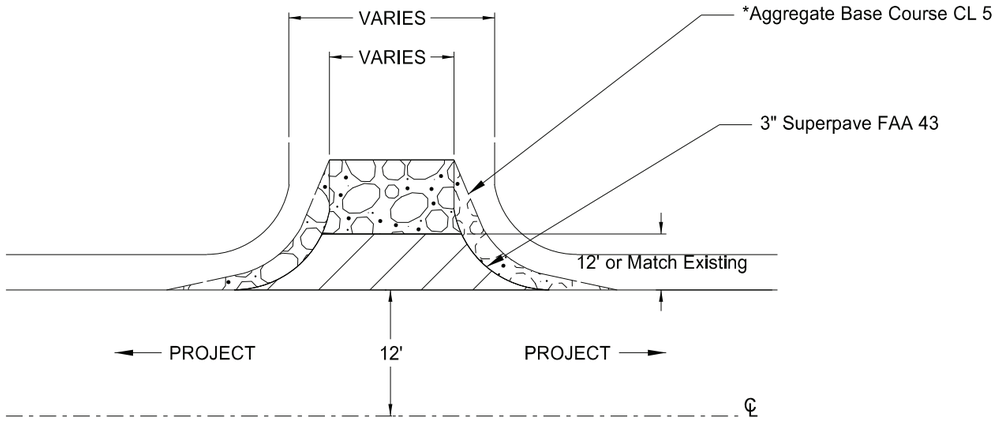
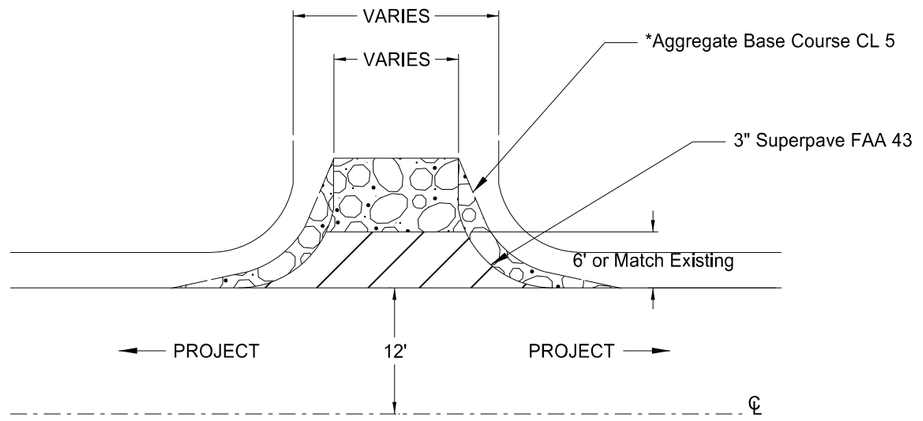


PRIVATE AND SECTION DRIVES



FIELD DRIVES

* Aggregate Base Course CL 5 has been provided to fill in around the drives. This material will be required when sloughs are steeper than 4:1.

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SPIRIT LAKE NATION
BIA ROUTE 6

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GENERAL DETAILS

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

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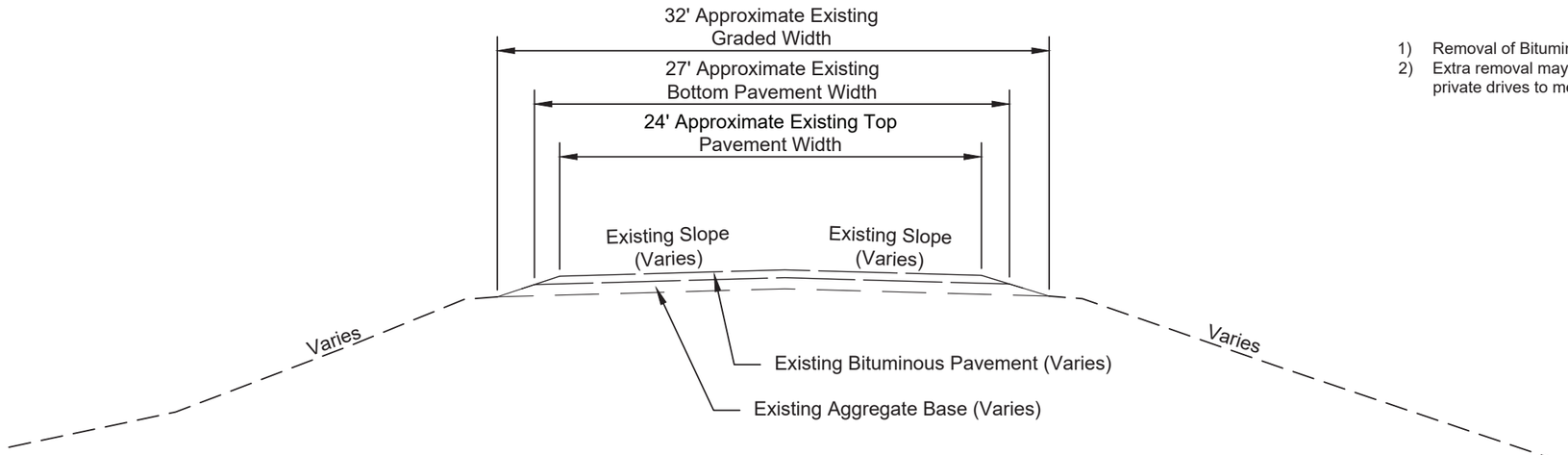
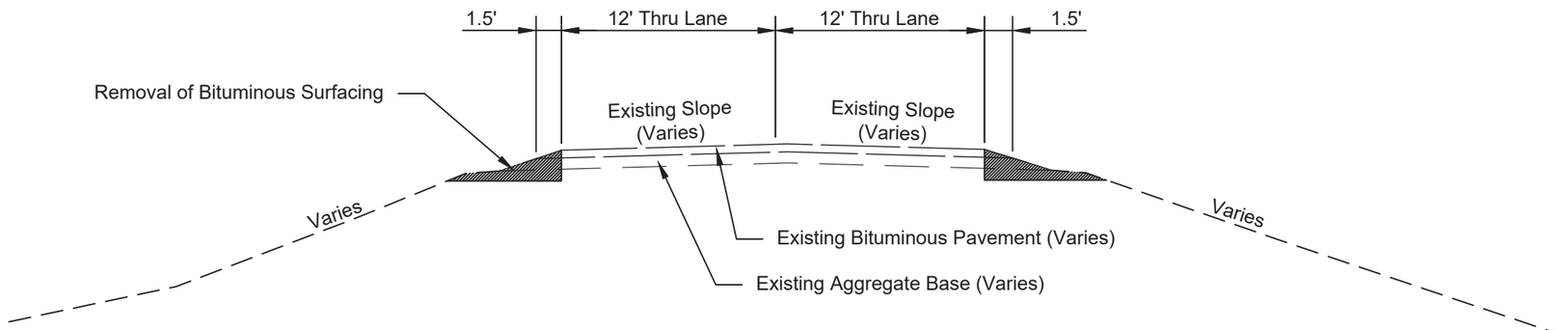
	ND	HLC-0003(023)	30	1



EXISTING TYPICAL SECTION
STA. 0+34 TO STA. 13+53

1) Removal of Bituminous Surfacing includes Aggregate
2) Extra removal may need to be done around field drives and private drives to meet the requirements on Section 20 Sheet 1



REMOVAL TYPICAL SECTION
STA. 0+34 TO STA. 13+53

REGISTERED PROFESSIONAL ENGINEER
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DATE 03/14/25
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HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

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EXISTING AND REMOVAL TYPICAL SECTIONS

DRWN. BY	CHK'D BY	PROJECT NO.
CT	PB	2211-01400

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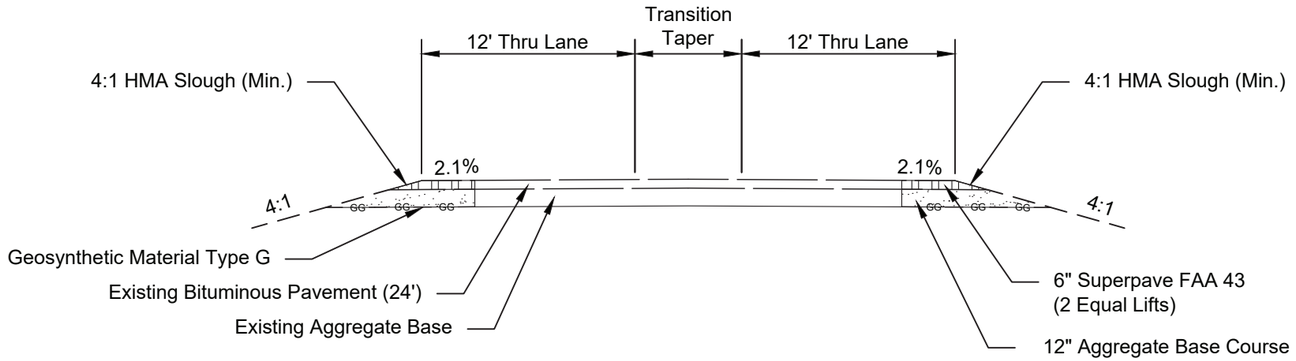
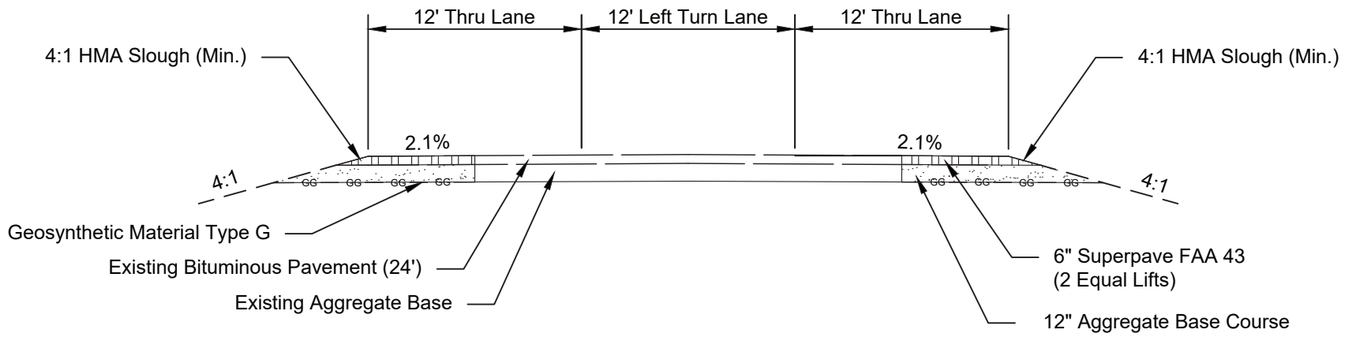
	ND	HLC-0003(023)	30	2



PROPOSED TYPICAL SECTION
STA. 0+34 TO STA. 3+74

At Sta. 0+34 the width of the Transition Taper is 0 feet and at Sta. 3+34 is 12 feet with a uniform taper in between. From Sta. 3+34 to Sta. 3+74 the taper is 12 feet wide.



PROPOSED TYPICAL SECTION
STA. 3+74 TO STA. 7+98

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HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

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PROPOSED TYPICAL SECTION

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CT	PB	2211-01400

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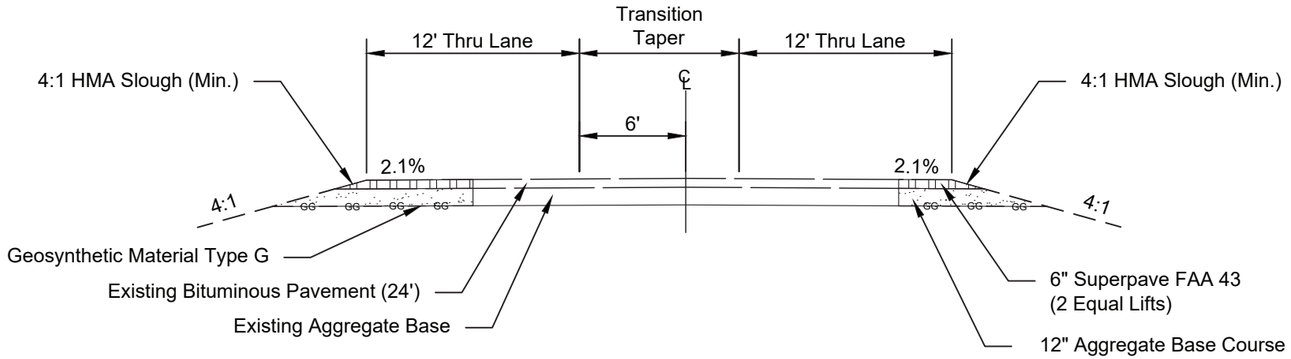
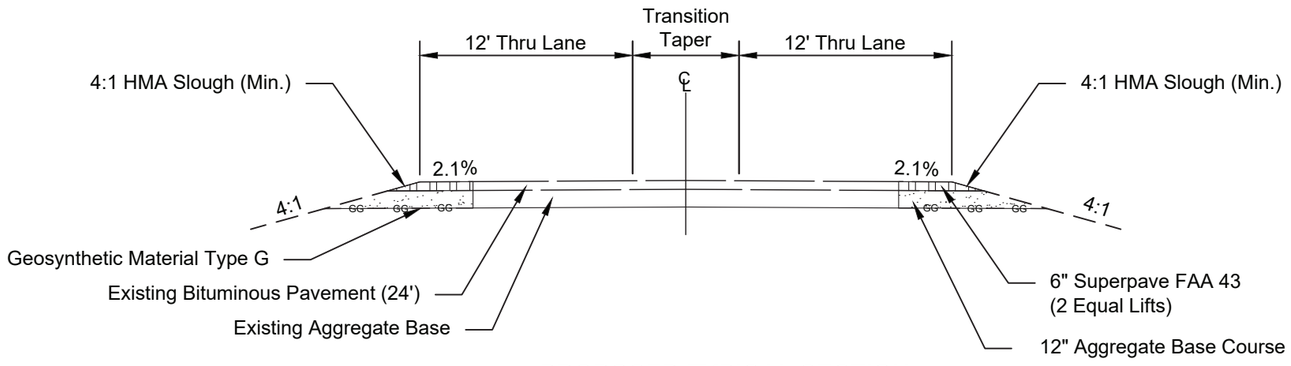
	ND	HLC-0003(023)	30	3



PROPOSED TYPICAL SECTION
STA. 7+98 TO STA. 9+78

The Transition Taper will be 6 feet wide on the left side of the existing roadway centerline. The Transition Taper width on the right side of the existing roadway centerline at Sta. 7+98 is 6 feet and at Sta. 9+78 is 3.75 feet with a uniform taper in between.



PROPOSED TYPICAL SECTION
STA. 9+78 TO STA. 11+98

The Transition Taper width on the left side of the existing roadway centerline at Sta. 9+78 is 6 feet and at Sta. 11+98 is 1.6 feet with a uniform taper in between. The Transition Taper width on the right side of the existing roadway centerline at Sta. 9+78 is 3.75 feet and at Sta. 11+98 is 1 foot with a uniform taper in between.

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PROPOSED TYPICAL SECTION

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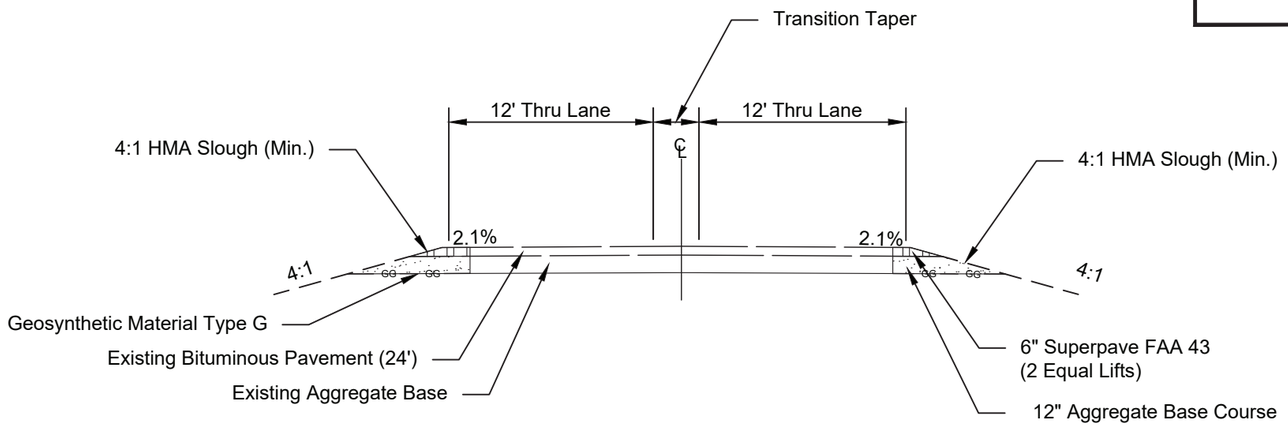
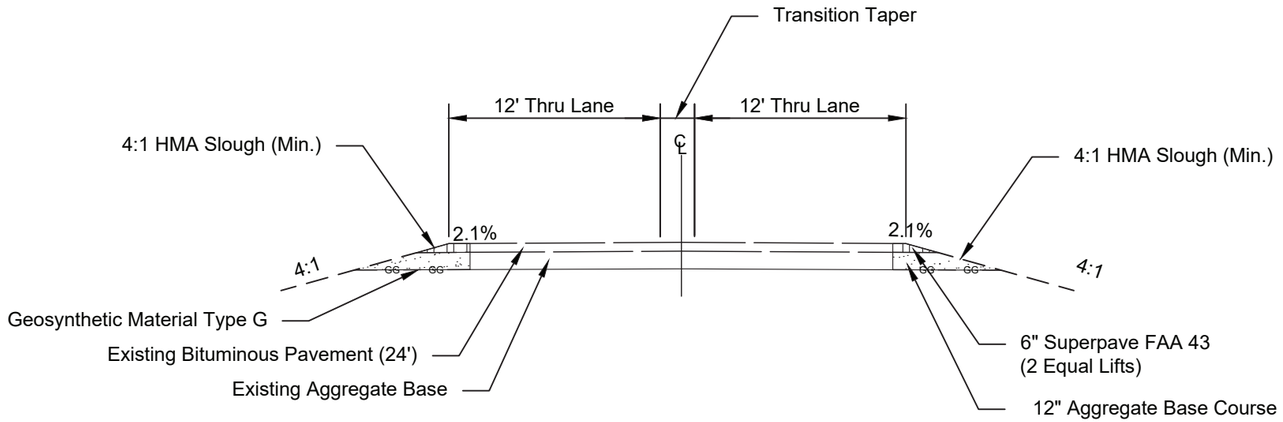
	ND	HLC-0003(023)	30	4



PROPOSED TYPICAL SECTION
STA. 11+98 TO STA. 12+73

The Transition Taper will be 1.6 feet wide on the left side of the existing roadway centerline and 1 foot wide on the right side of the existing roadway centerline.



PROPOSED TYPICAL SECTION
STA. 12+73 TO STA. 13+53

The Transition Taper width on the left side of the existing roadway centerline at Sta. 12+73 is 1.6 feet and at Sta. 13+53 is 0 feet with a uniform taper in between. The Transition Taper width on the right side of the existing roadway centerline at Sta. 12+73 is 1 foot and at Sta. 13+53 is 0 feet with a uniform taper in between.

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PROPOSED TYPICAL SECTION

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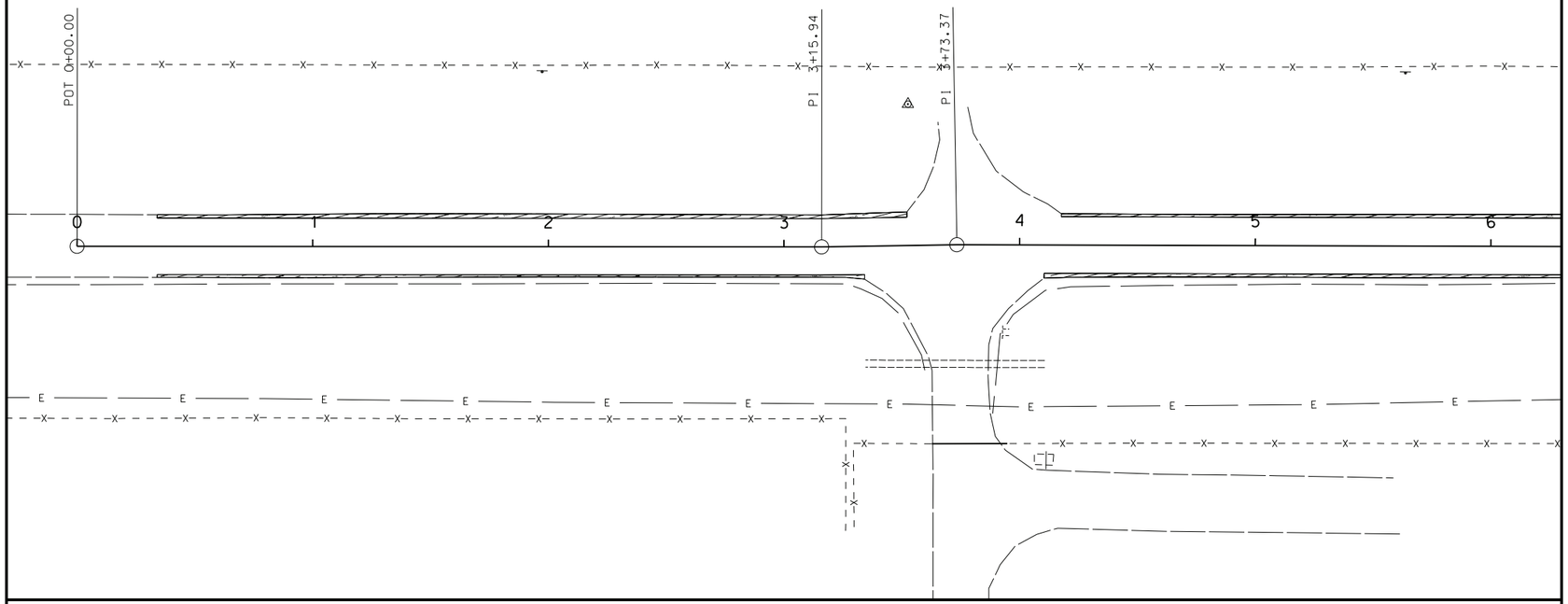
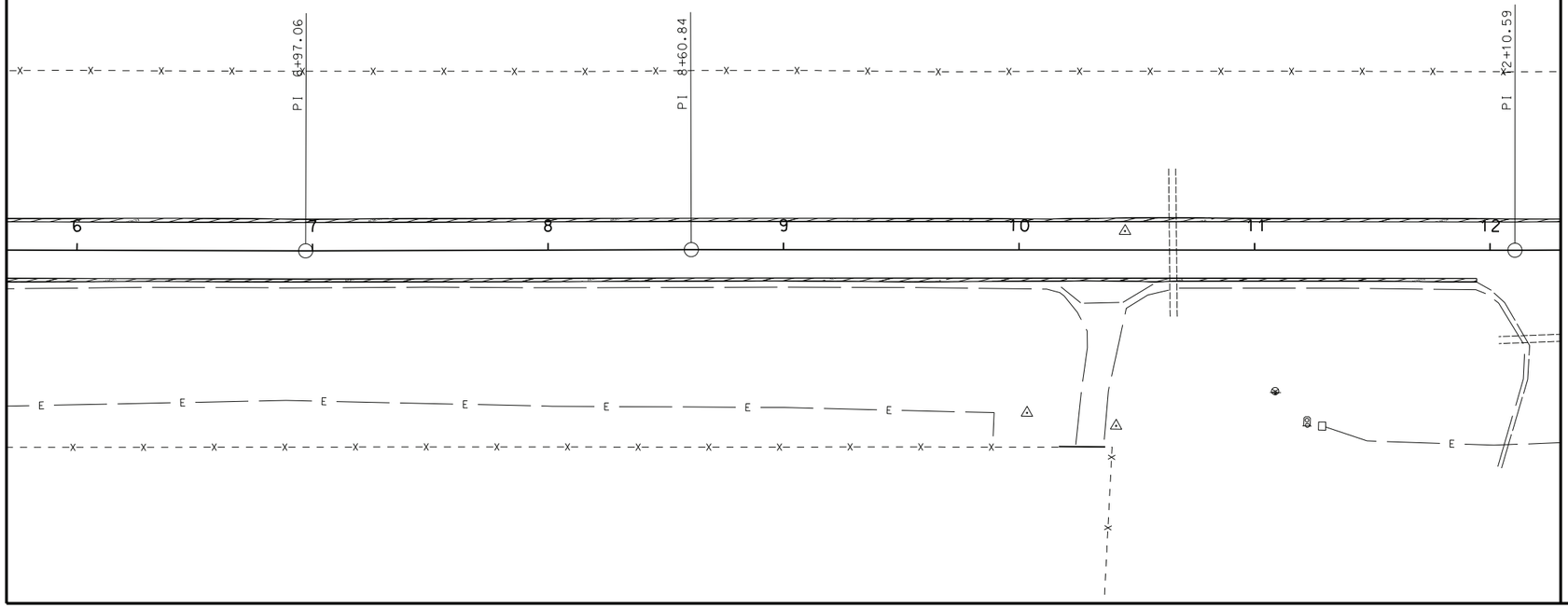
ND	HLC-0003(023)	40	1





SPEC CODE	BID ITEM	QTY	UNIT
202 0132	REMOVAL OF BITUMINOUS SURFACING		
	Sta 0+34 to Sta 6+00	163	SY
	Sta 6+00 to Sta 12+00	188	SY

REMOVE BITUMINOUS SURFACING

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HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

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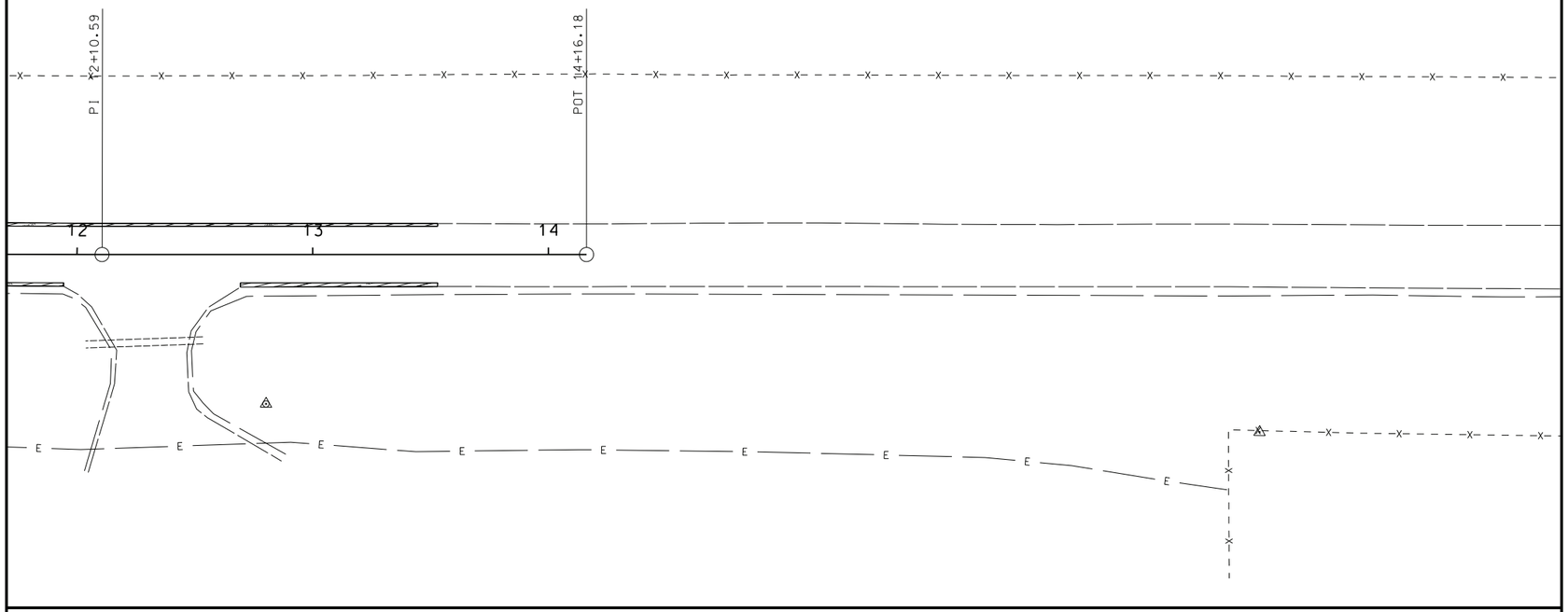
REMOVALS

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	40	2



SPEC CODE	BID ITEM	QTY	UNIT
202 0132	REMOVAL OF BITUMINOUS SURFACING Sta 12+00 to Sta 13+53	37	SY

REMOVE BITUMINOUS SURFACING

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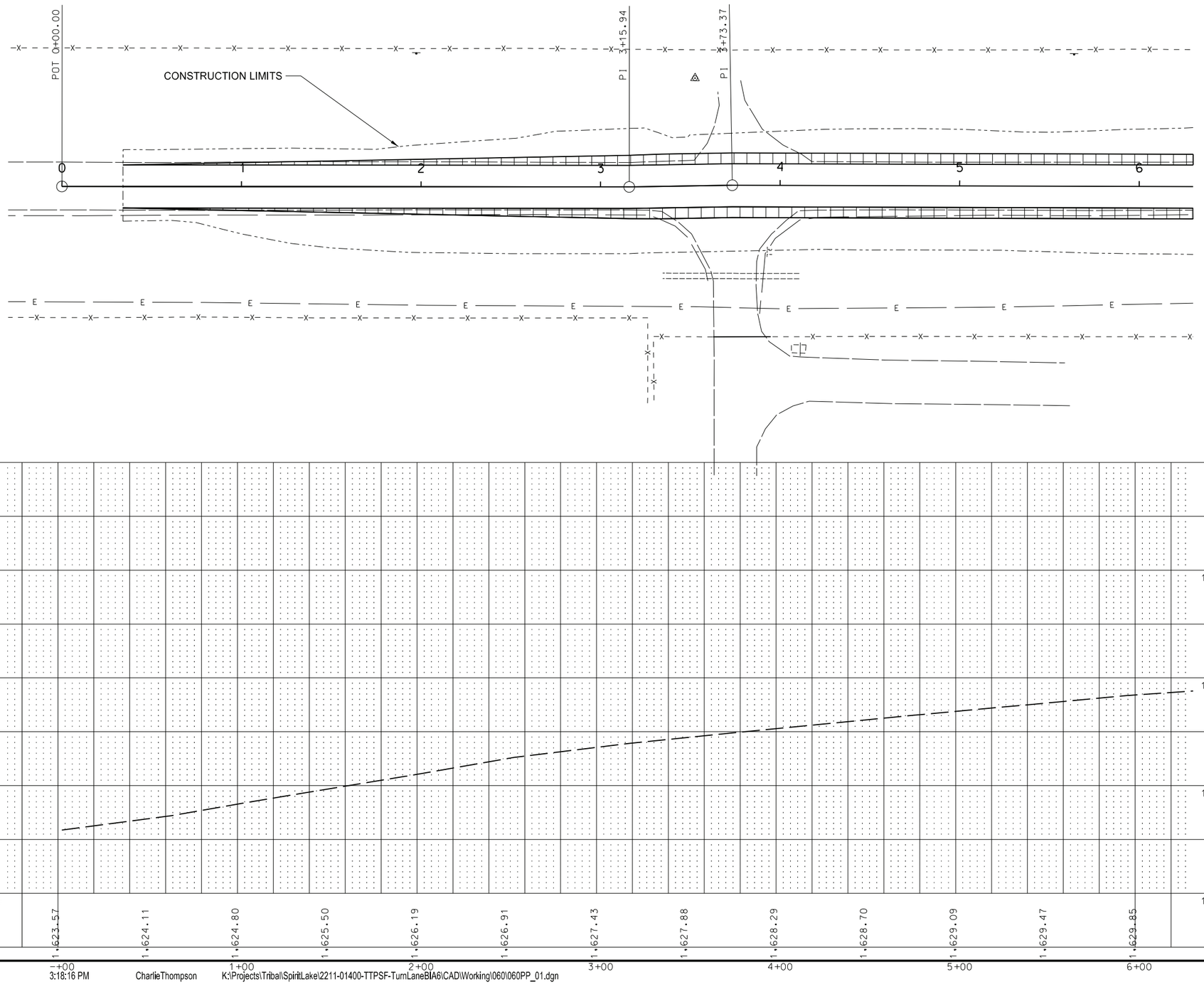
REMOVALS

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	HLC-0003(023)	60	1



SPEC	CODE	BID ITEM	QTY	UNIT
302	0120	AGGREGATE BASE COURSE CL 5		
		Sta. 0+34 to Sta. 6+00	577	TON
401	0050	TACK COAT		
		Sta. 0+34 to Sta. 6+00	128	GAL
430	0043	SUPERPAVE FAA 43		
		Sta. 0+34 to Sta. 6+00	246	TON
430	5803	PG 58S-28 ASPHALT CEMENT		
		Sta. 0+34 to Sta. 6+00	15	TON
709	0100	GEOSYNTHETIC MATERIAL TYPE G		
		Sta. 0+34 to Sta. 6+00	922	SY

SUPERPAVE FAA 43

REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

PLAN AND PROFILE

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

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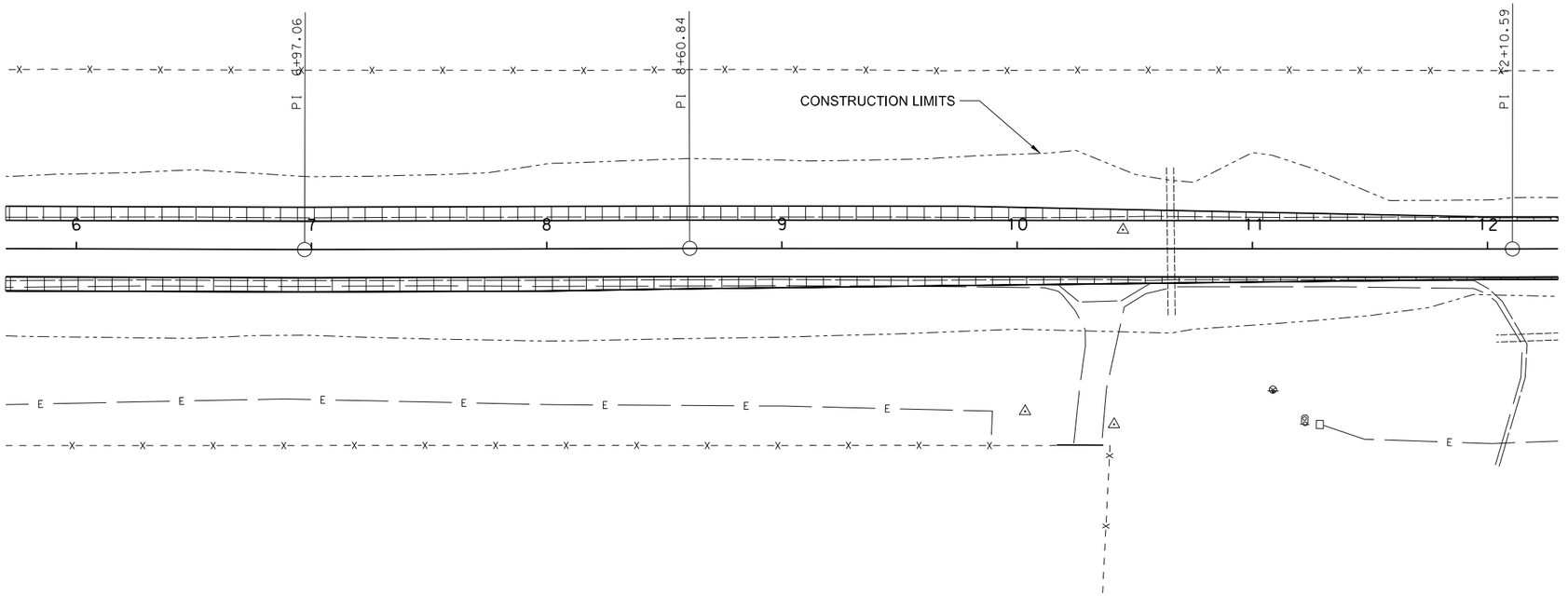
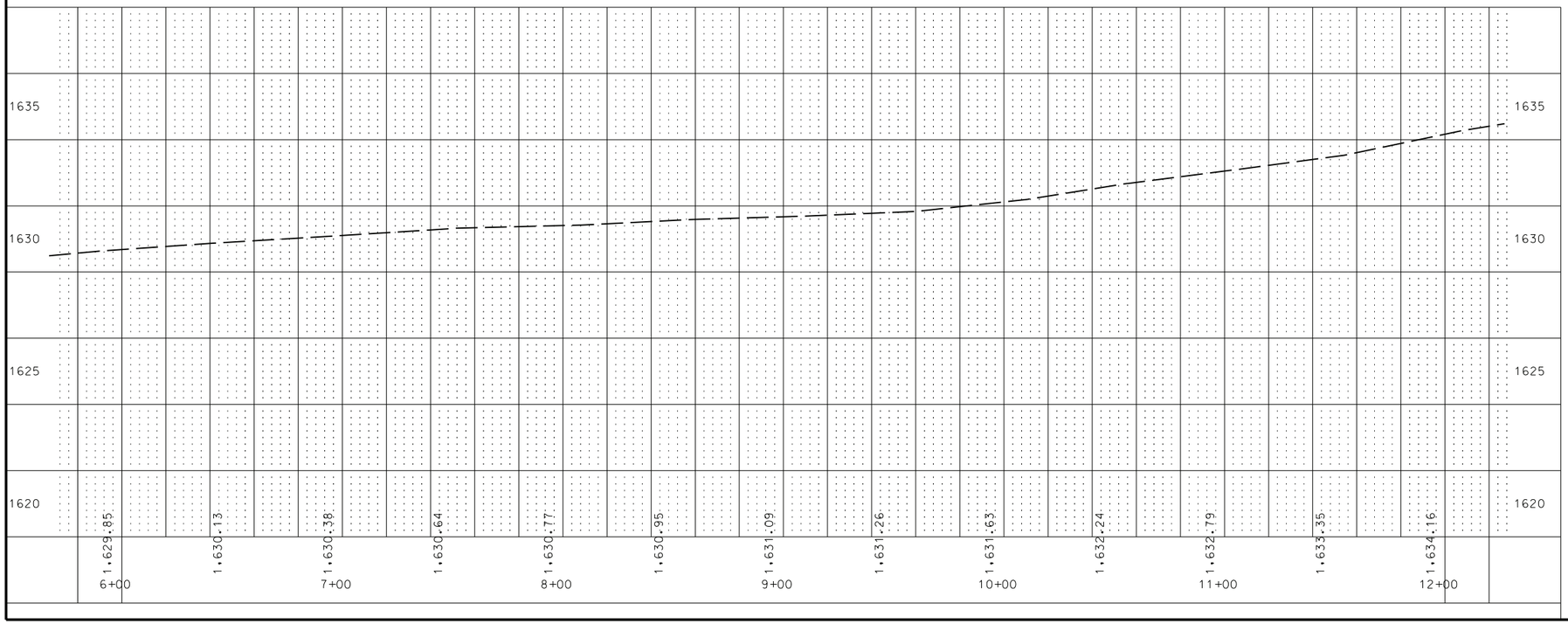
	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	HLC-0003(023)	60	2



SPEC	CODE	BID ITEM	QTY	UNIT
302	0120	AGGREGATE BASE COURSE CL 5		
		Sta 6+00 to Sta 12+00	562	TON
401	0050	TACK COAT		
		Sta 6+00 to Sta 12+00	134	GAL
430	0043	SUPERPAVE FAA 43		
		Sta 6+00 to Sta 12+00	256	TON
430	5803	PG 58S-28 ASPHALT CEMENT		
		Sta 6+00 to Sta 12+00	15	TON
709	0100	GEOSYNTHETIC MATERIAL TYPE G		
		Sta 6+00 to Sta 12+00	900	SY

SUPERPAVE FAA 43



REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

PLAN AND PROFILE

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

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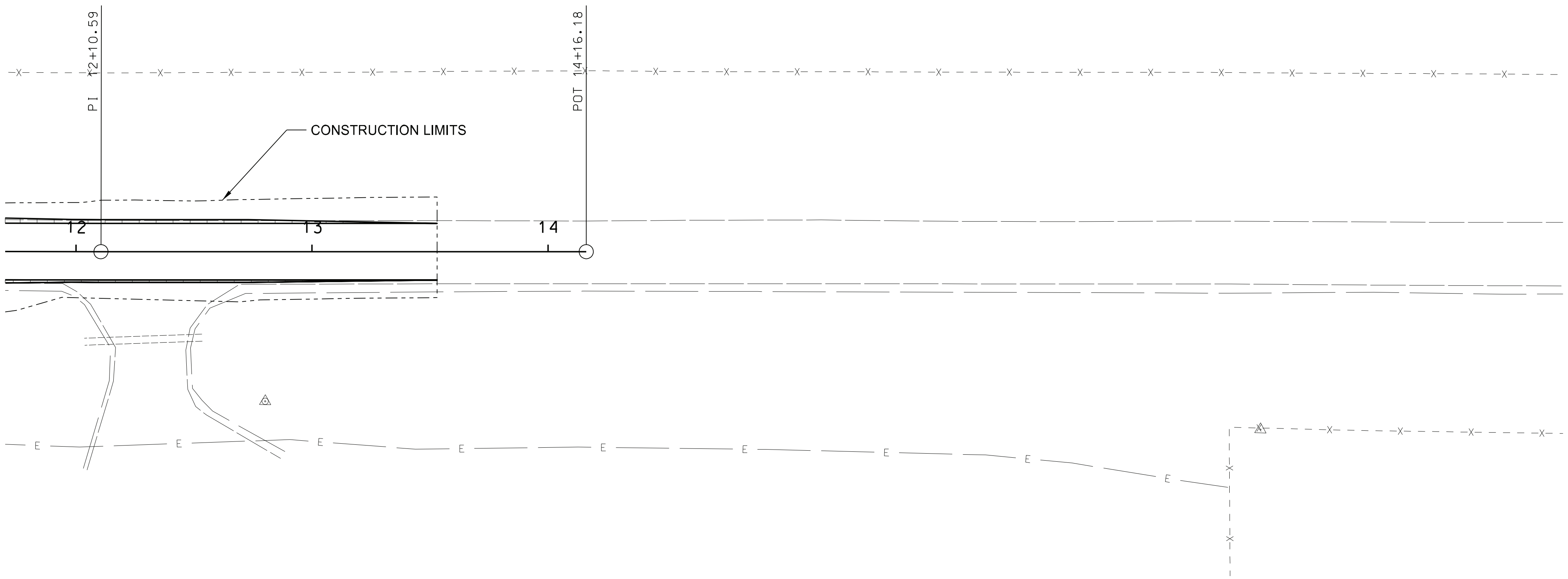
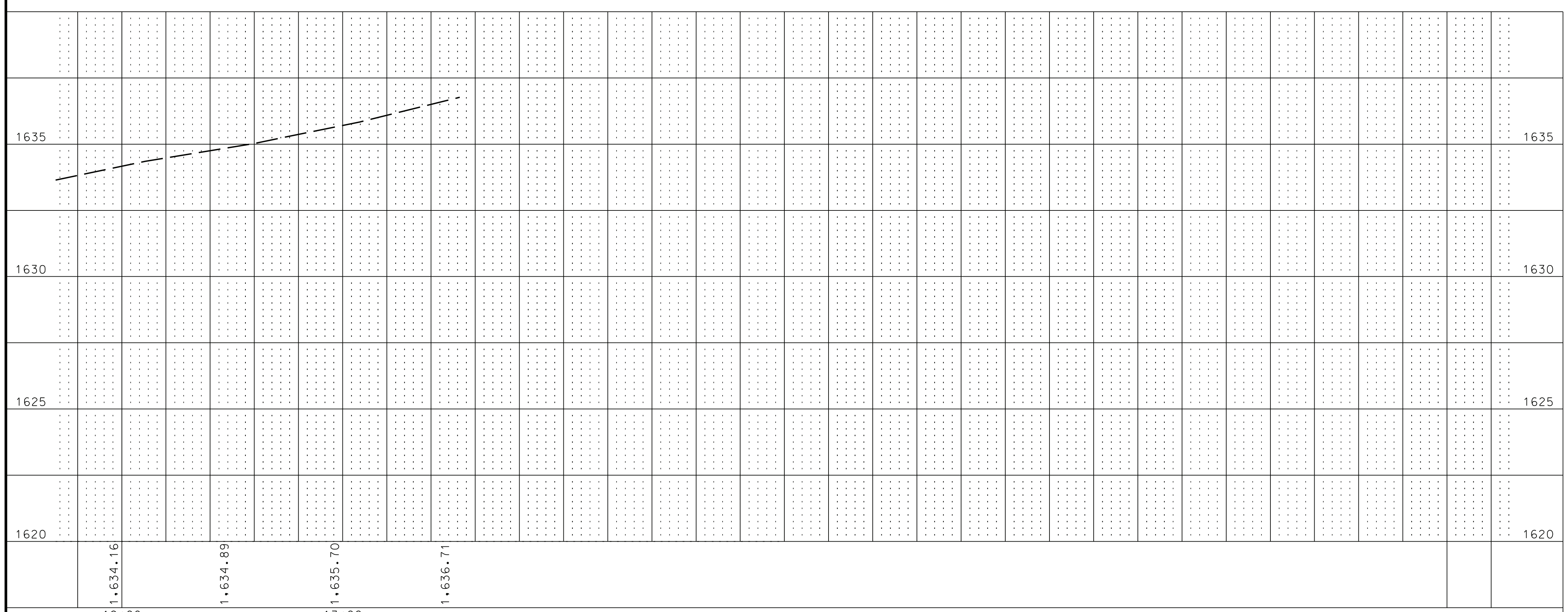
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	60	3



SPEC	CODE	BID ITEM	QTY	UNIT
302	0120	AGGREGATE BASE COURSE CL 5		
		Sta 12+00 to Sta 13+53	71	TON
401	0050	TACK COAT		
		Sta 12+00 to Sta 13+53	14	GAL
430	0043	SUPERPAVE FAA 43		
		Sta 12+00 to Sta 13+53	24	TON
430	5803	PG 58S-28 ASPHALT CEMENT		
		Sta 12+00 to Sta 13+53	2	TON
709	0100	GEOSYNTHETIC MATERIAL TYPE G		
		Sta 12+00 to Sta 13+53	113	SY

SUPERPAVE FAA 43



REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

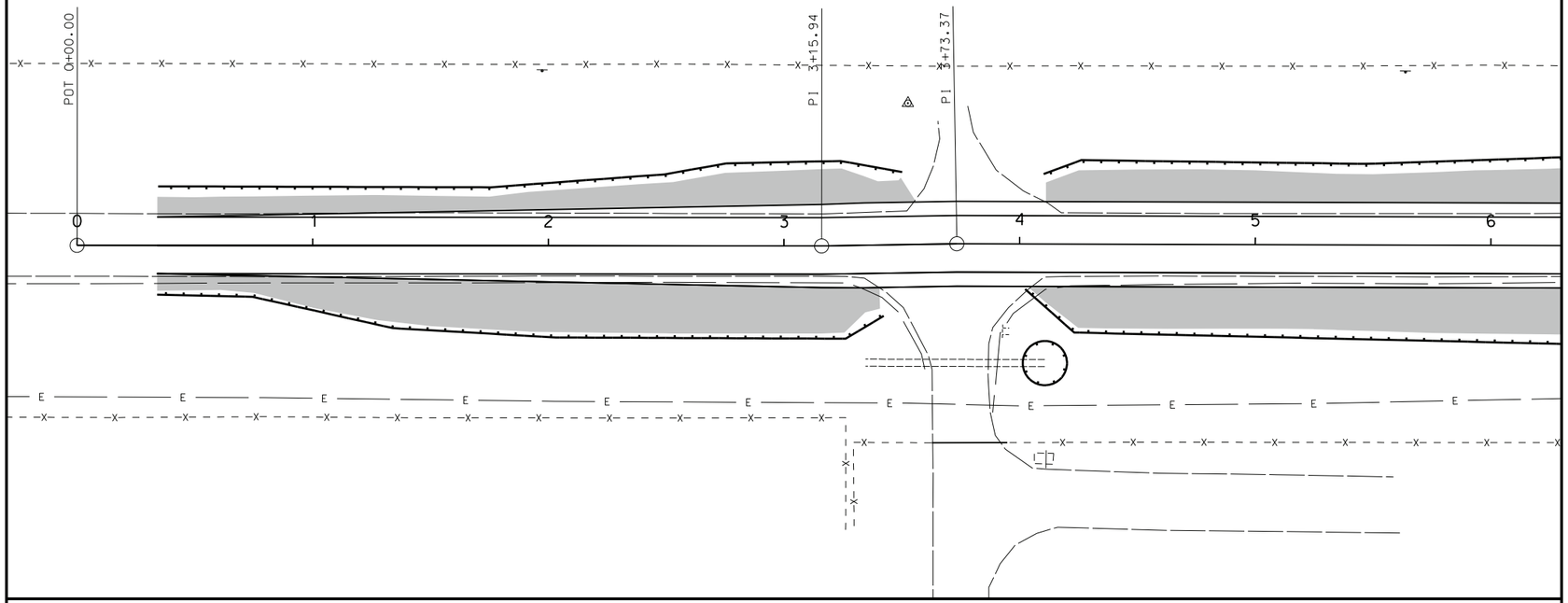
HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

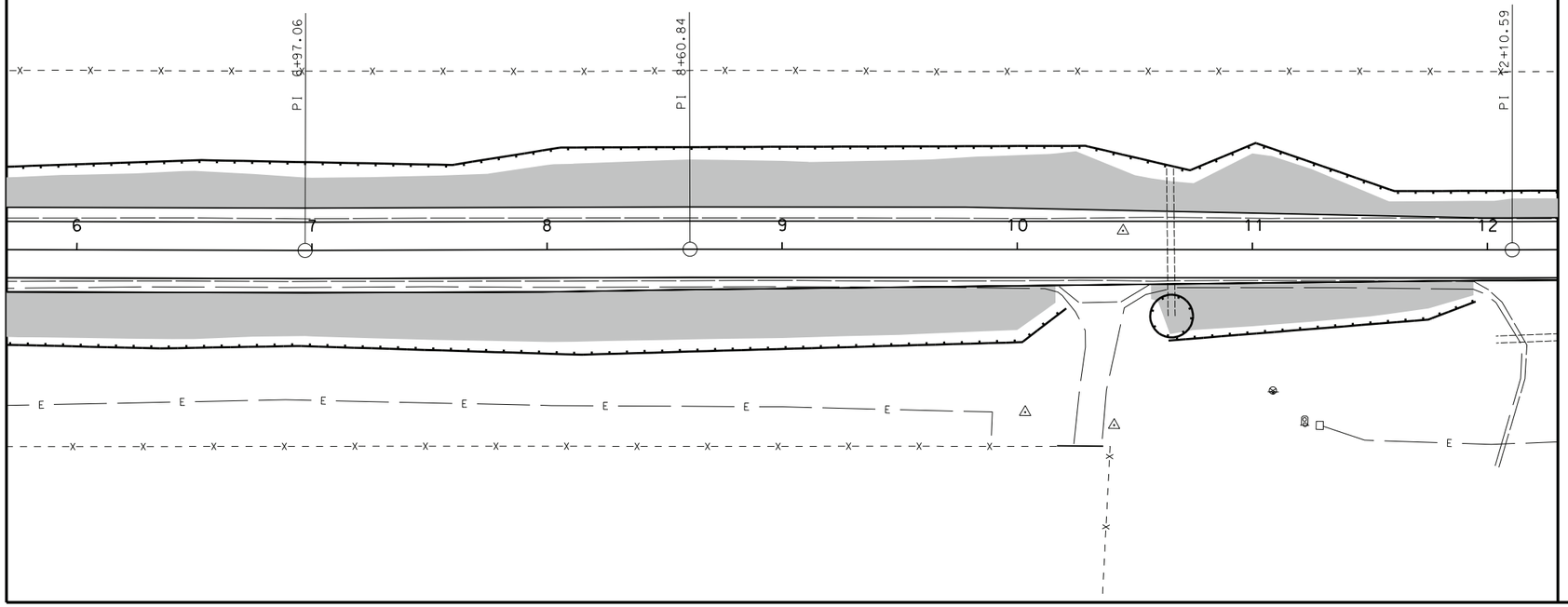
KLJ

PLAN AND PROFILE

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	76	1





SPEC	CODE	BID ITEM	QTY	UNIT
251	2000	TEMPORARY COVER CROP		
		Sta 0+34 to Sta 6+00	0.32	ACRE
		Sta 6+00 to Sta 12+00	0.47	ACRE
253	0101	STRAW MULCH		
		Sta 0+34 to Sta 6+00	0.32	ACRE
		Sta 6+00 to Sta 12+00	0.47	ACRE
261	0112	FIBER ROLLS 12IN		
		Sta 0+34 to Sta 6+00	1,065	LF
		Sta 6+00 to Sta 12+00	1,226	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Sta 0+34 to Sta 6+00	1,065	LF
		Sta 6+00 to Sta 12+00	1,226	LF

NOTE:
EROSION CONTROL DEVICE LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED IN THE FIELD ACCORDING TO CONTRACTOR'S SWPPP.

TEMPORARY COVER CROP & STRAW MULCH

12IN FIBER ROLLS

REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

TEMPORARY EROSION CONTROL

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

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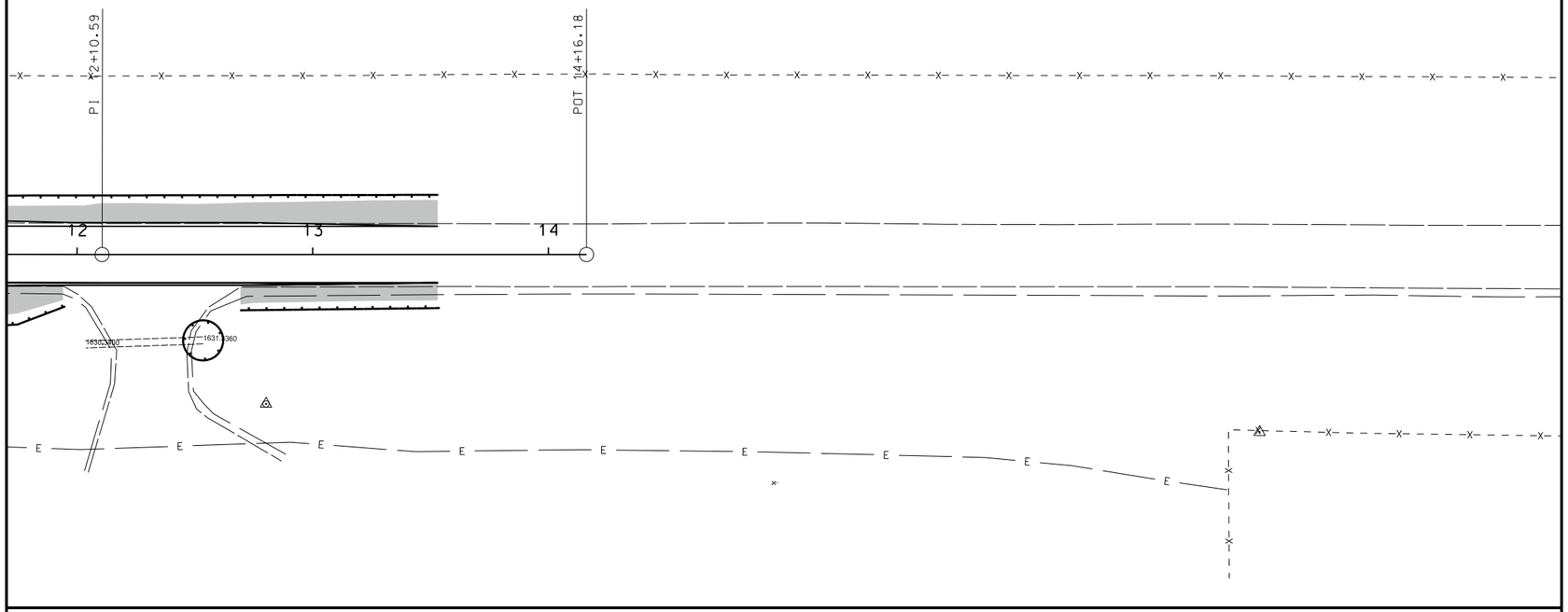
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	76	2



SPEC	CODE	BID ITEM	QTY	UNIT
251	2000	TEMPORARY COVER CROP		
		Sta 12+00 to Sta 13+53	0.05	ACRE
253	0101	STRAW MULCH		
		Sta 12+00 to Sta 13+53	0.05	ACRE
261	0112	FIBER ROLLS 12IN		
		Sta 12+00 to Sta 13+53	258	LF
261	0113	REMOVE FIBER ROLLS 12IN		
		Sta 12+00 to Sta 13+53	258	LF

NOTE:
EROSION CONTROL DEVICE LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED IN THE FIELD ACCORDING TO CONTRACTOR'S SWPPP.

TEMPORARY COVER CROP & STRAW MULCH

12IN FIBER ROLLS

REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

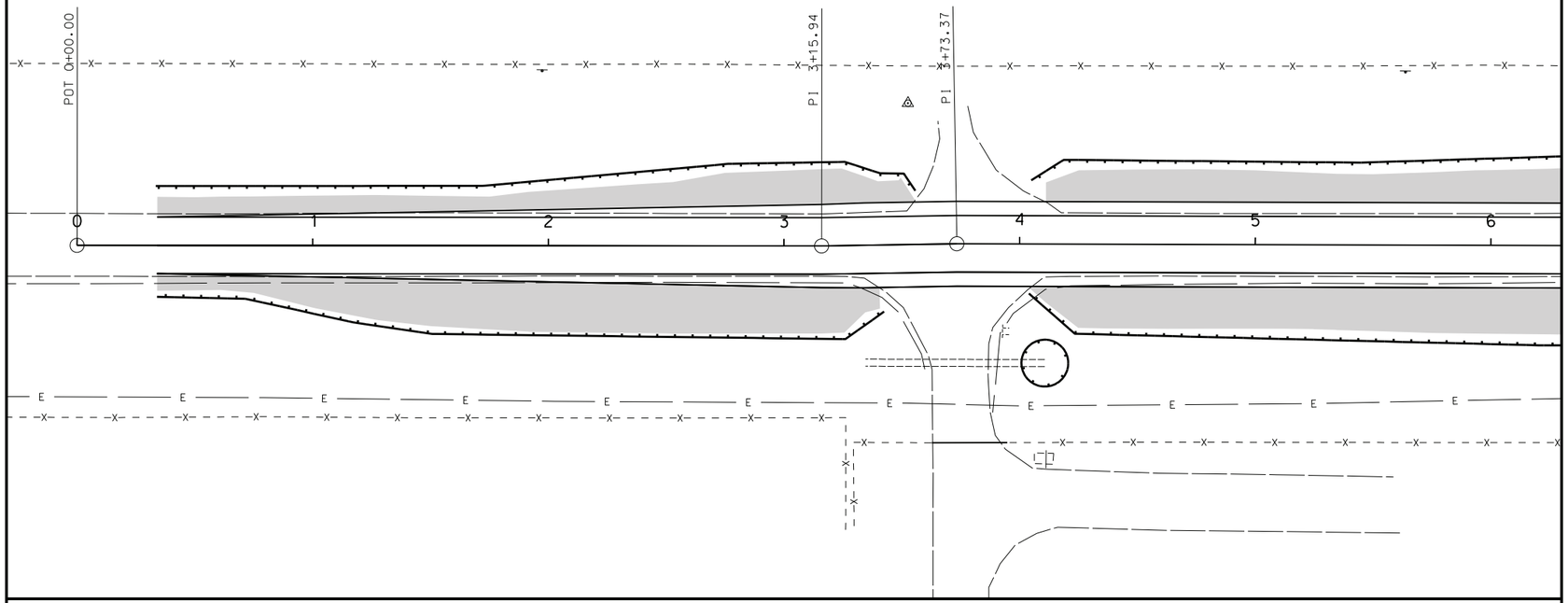
HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

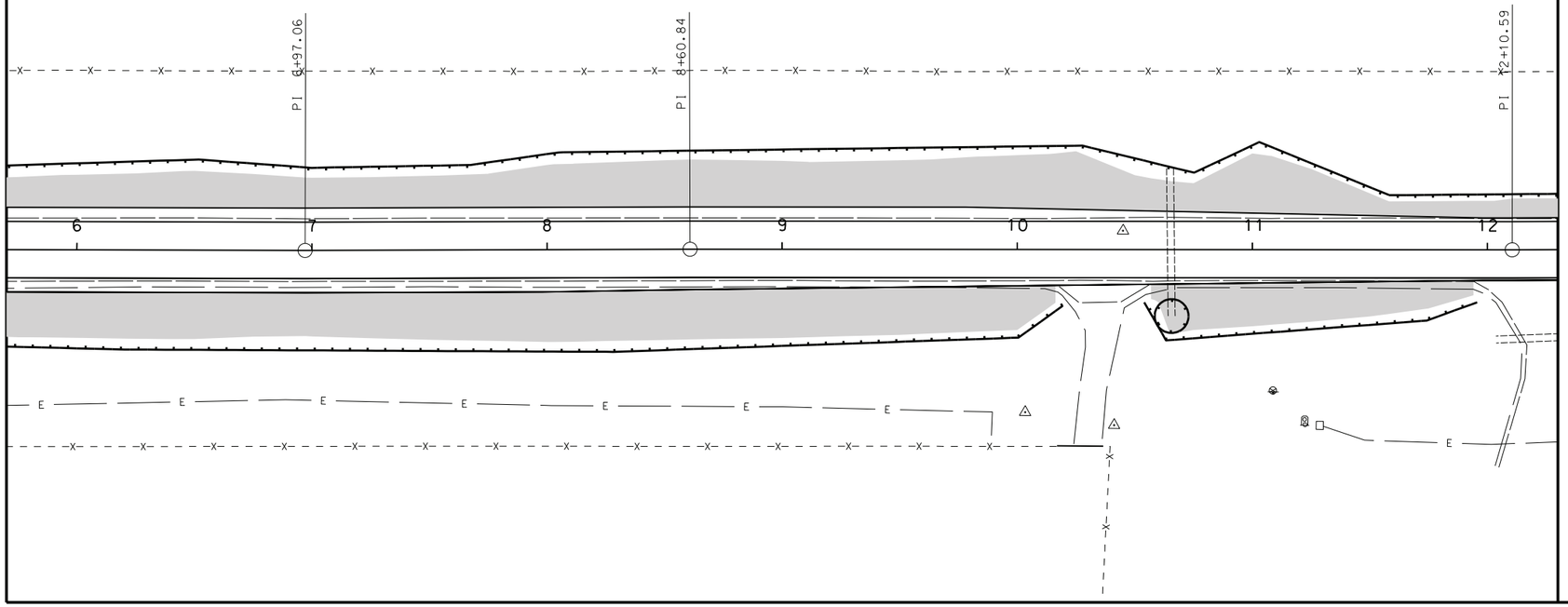
KLJ

TEMPORARY EROSION CONTROL

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	77	1





SPEC	CODE	BID ITEM	QTY	UNIT
251	0200	SEEDING CLASS II		
		Sta 0+34 to Sta 6+00	0.32	ACRE
		Sta 6+00 to Sta 12+00	0.47	ACRE
253	0101	STRAW MULCH		
		Sta 0+34 to Sta 6+00	0.32	ACRE
		Sta 6+00 to Sta 12+00	0.47	ACRE
261	0112	FIBER ROLLS 12IN		
		Sta 0+34 to Sta 6+00	1,065	LF
		Sta 6+00 to Sta 12+00	1,226	LF

NOTE:
EROSION CONTROL DEVICE LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED IN THE FIELD ACCORDING TO CONTRACTOR'S SWPPP.

SEEDING CLASS II & STRAW MULCH

12IN FIBER ROLLS

REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

PERMANENT EROSION CONTROL

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

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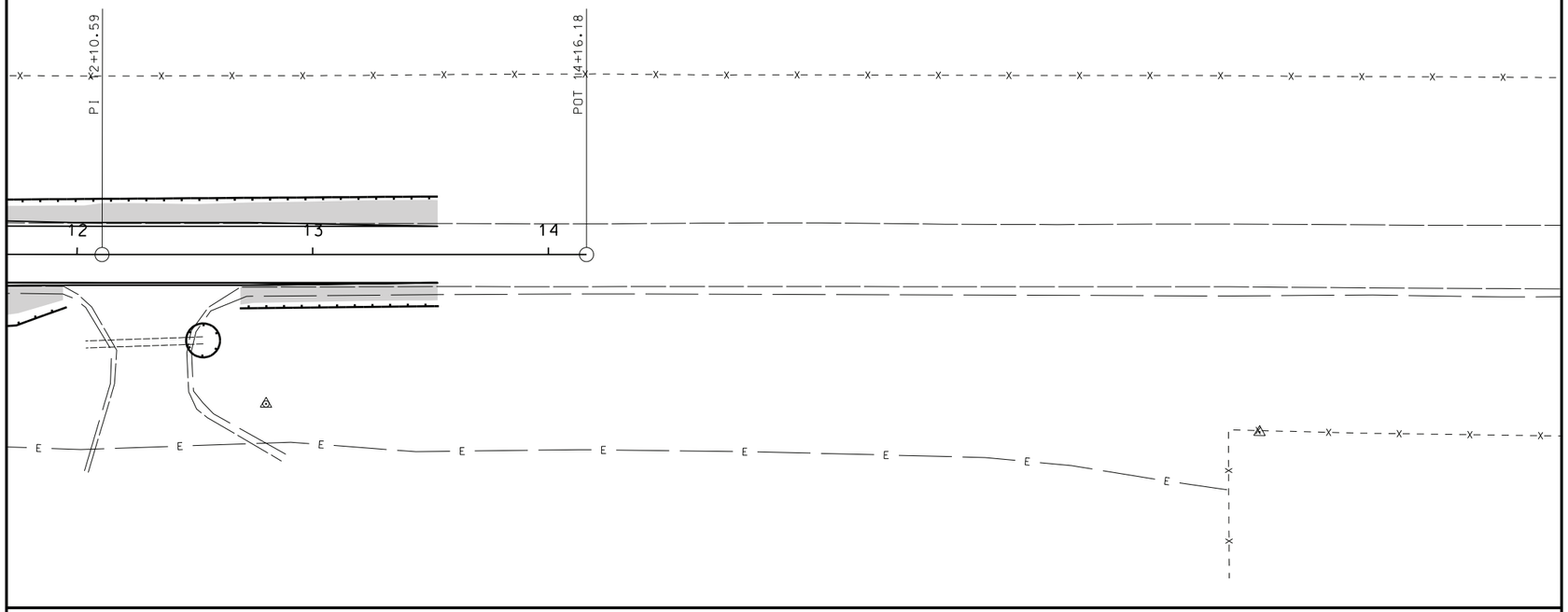
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	77	2



SPEC	CODE	BID ITEM	QTY	UNIT
251	0200	SEEDING CLASS II		
		Sta 12+00 to Sta 13+53	0.05	ACRE
253	0101	STRAW MULCH		
		Sta 12+00 to Sta 13+53	0.05	ACRE
261	0112	FIBER ROLLS 12IN		
		Sta 12+00 to Sta 13+53	258	LF

NOTE:
EROSION CONTROL DEVICE LOCATIONS SHOWN ARE APPROXIMATE. ACTUAL LOCATIONS TO BE DETERMINED IN THE FIELD ACCORDING TO CONTRACTOR'S SWPPP.

SEEDING CLASS II & STRAW MULCH

12IN FIBER ROLLS

REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

PERMANENT EROSION CONTROL

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

PRELIMINARY SURVEY COORDINATE AND CURVE DATA

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	81	1

HORIZONTAL ALIGNMENT

PNT	STATION	NORTHING	EASTING
PI	0+00.00	358013.90	2349696.31
PI	3+15.94	358020.59	2350012.18
PI	3+73.37	358022.81	2350069.56
PI	6+97.06	358028.99	2350393.19
PI	8+60.84	358033.12	2350556.92
PI	12+10.59	358040.57	2350906.59
PI	14+16.18	358045.42	2351112.13

CURVE DATA

ARC DEFINITION

US PUBLIC LAND SURVEY DATA

DESC.	SEC-TWP-RGE	NORTHING	EASTING
WQCOR	Sec 23 T-152 R-65	357975.69	2347424.84
EQCOR	Sec 23 T-152 R-65	358086.56	2352723.32
SESEC	Sec 23 T-152 R-65	355442.56	2352778.40
SQCOR	Sec 23 T-152 R-65	355387.28	2350130.02
NQCOR	Sec 23 T-152 R-65	360375.20	2350014.17
NESEC	Sec 23 T-152 R-65	360730.44	2352668.23

SURVEY CONTROL POINTS

PNT	NORTHING	EASTING	ELEV	STA	OFFSET	CONTROL POINT DESCRIPTION
CP1	363433.60	2336633.70	1460.24	NA	NA	#5 Rebar
CP2	357978.82	2350977.65	1634.53	NA	NA	#5 Rebar
CP3	358081.97	2350047.48	1624.93	NA	NA	#5 Rebar

NOTES:

Date Survey Completed 10/31/2022

☐ Assumed Coordinates

☒ All coordinates on this sheet are North Dakota State Plane Coordinates.They are derived from the "North American Datum of 1983", NAD83, 2011 Reference Frame; North Dakota North Zone;

Scale Factor = 1.00000

INITIALIZING BENCH MARK OPUS

☒ NAVD-88 GEOID 18

☐ NGVD-29

☒ ENGLISH UNITS

☐ METRIC UNITS

All coordinates and measurements on this document derived from the International Foot definition.

REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR
CARL P. OLSON
PE-4687
LS-4687
DATE 03/14/25
NORTH DAKOTA

HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

SURVEY COORDINATE & CURVE DATA

DRWN. BY	CHK'D BY	PROJECT NO.
CT	PB	2211-01400

Mar 14, 2025 - 12:29pm - K:\Projects\Tribal\SpiritLake\2211-01400-TTPSF-TurnLaneBIA6\CAD\Working\2211-01400_081CD.dwg

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	HLC-0003(023)	100	1

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
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**	**26**	**52**
G20-4-36	**36"x18"**	**PILOT CAR FOLLOW ME (Mounted to back of pilot car)**	**1**	**18**	**18**
G20-4b-36	36"x30"	WAIT FOR PILOT CAR		18	
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		36	
G20-55-96	96"x48"	SPEED LIMIT ENFORCED - MINIMUM FEE $80 WHEN WORKERS PRESENT		59	
M1-1-36	36"x36"	INTERSTATE ROUTE MARKER (Post and installation only)		11	
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 __**	**2**	**39**	**78**
R2-1aP-24	**24"x18"**	**MINIMUM FEE $80 (Mounted on Speed Limit post)**	**2**	**10**	**20**
R3-2-48	48"x48"	NO LEFT TURN		35	
R4-1-48	**48"x60"**	**DO NOT PASS**	**2**	**39**	**78**
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		35	
W1-4b-48	48"x48"	TWO LANE REVERSE CURVE RIGHT or LEFT		35	
W1-6-48	48"x24"	ONE DIRECTION LARGE ARROW		26	
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**	**2**	**35**	**70**
W3-5-48	**48"x48"**	**SPEED REDUCTION AHEAD**	**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	
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)		10	
W20-1-48	**48"x48"**	**ROAD WORK AHEAD or _FT or _ MILE**	**2**	**35**	**70**
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		35	
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**	**35**	**70**
W20-8-18	**18"x18"**	**STOP - SLOW PADDLE Back to Back**	**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	
W21-5b-48	48"x48"	RIGHT or LEFT SHOULDER CLOSED AHEAD or __ FT or _ MILE		35	

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
W21-6-48	48"x48"	SURVEY CREW		35	
W21-50-48	48"x48"	BRIDGE PAINTING AHEAD or __ FT		35	
W21-51-48	48"x48"	MATERIAL ON ROADWAY		35	
W21-52-48	48"x48"	PAVEMENT BREAKS		35	
W21-53-48	48"x48"	RUMBLE STRIPS AHEAD		35	
W22-8-48	48"x48"	FRESH OIL LOOSE ROCK		35	
W24-1-48	48"x48"	DOUBLE REVERSE CURVE		35	

SPECIAL SIGNS

SPEC & CODE

704-1000	**TRAFFIC CONTROL SIGNS**	**TOTAL UNITS**	**536**

SPEC & CODE	DESCRIPTION	UNIT	QUANTITY
704-0100	**FLAGGING**	**MHR**	**240**
704-1048	PORTABLE RUMBLE STRIPS	EACH	
704-1050	TYPE I BARRICADES	EACH	
704-1052	TYPE III BARRICADES	EACH	
704-1060	DELINEATOR DRUMS	EACH	
704-1065	TRAFFIC CONES	EACH	
704-1067	**TUBULAR MARKERS**	**EACH**	**80**
704-1070	DELINEATOR	EACH	
704-1072	FLEXIBLE DELINEATORS	EACH	
704-1080	**STACKABLE VERTICAL PANELS**	**EACH**	**40**
704-1081	VERTICAL PANELS - BACK TO BACK	EACH	
704-1085	SEQUENCING ARROW PANEL - TYPE A	EACH	
704-1086	SEQUENCING ARROW PANEL - TYPE B	EACH	
704-1087	SEQUENCING ARROW PANEL - TYPE C	EACH	
704-1185	**PILOT CAR**	**HR**	**120**
704-1500	**OBLITERATION OF PVMT MK**	**SF**	**2818**
704-3501	PORTABLE PRECAST CONCRETE MED BARRIER	LF	
704-3510	PRECAST CONCRETE MED BARRIER - STATE FURNISHED	EACH	
762-0200	RAISED PAVEMENT MARKERS	EACH	
762-0420	SHORT TERM 4IN LINE - TYPE R	LF	
762-0430	SHORT TERM 4IN LINE - TYPE NR	LF	
762-0432	**SHORT TERM 6IN LINE-TYPE NR**	**LF**	**4375**

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/

REGISTERED PROFESSIONAL ENGINEER
PAUL BJORNSON
PE-8764
DATE 03/14/25
NORTH DAKOTA

Traffic Control Devices List

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	HLC-0003(023)	100	2

W20-1-48
POST MOUNTED =A

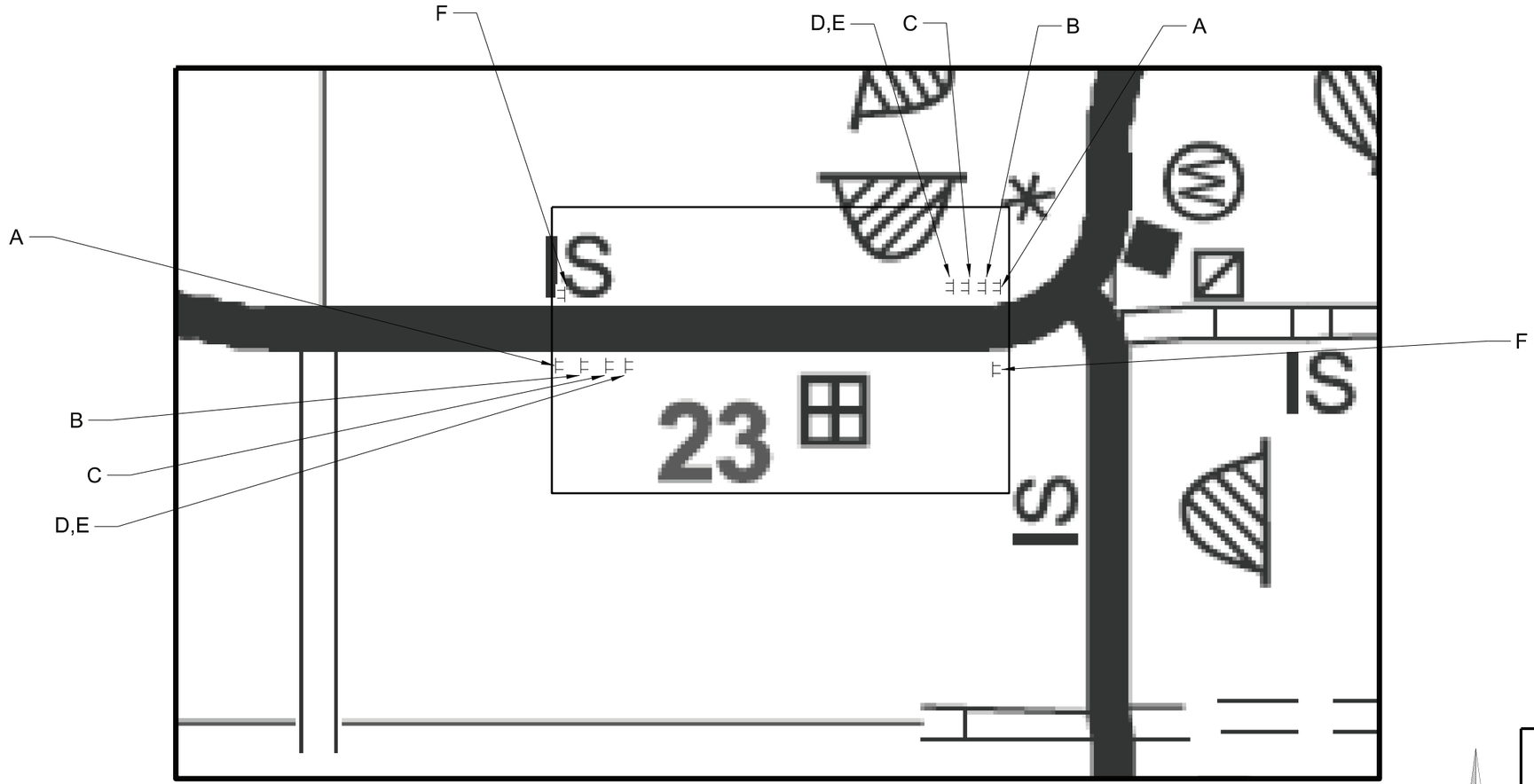
R4-1-48
POST MOUNTED =B

W3-5-48
POST MOUNTED =C

R2-1-48
POST MOUNTED =D

R2-1aP-24
POST MOUNTED =E

G20-2-48
POST MOUNTED =F



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HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

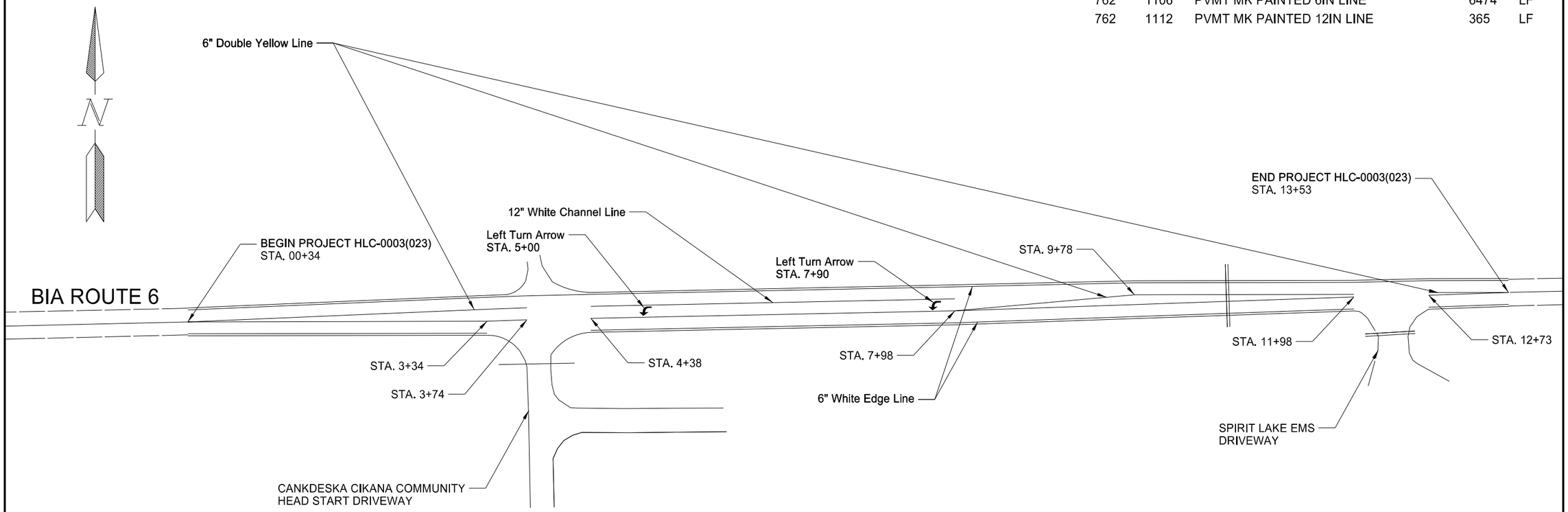
TRAFFIC CONTROL SINGING LAYOUT

DRWN. BY	CHK'D. BY	PROJECT NO.
RB	PB	2211-01400

The sign layout shown is for general information puposoes only. The Contractor will be required to conform to the MUTCD and the Standard Drawings when installing the traffic control signs

	STATE	PROJECT NO.	SECTION NO.	SHEET NO.
	ND	HLC-0003(023)	120	1

SPEC	CODE	BID ITEM	QTY	UNIT
762	0103	PVMT MK PAINTED MESSAGE	32	SF
762	1106	PVMT MK PAINTED 6IN LINE	6474	LF
762	1112	PVMT MK PAINTED 12IN LINE	365	LF



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HLC-0003(023)
SPIRIT LAKE NATION
BIA ROUTE 6

KLJ

PAVEMENT MARKINGS

DRWN. BY	CHK'D. BY	PROJECT NO.
CT	PB	2211-01400

3/10/2025 1:55:10 PM CharlieThompson K:\Projects\Tribal\SpiritLake\2211-01400-TTPSF-TurnLaneBIA6\CAD\Working\2211-01400_120PM.dgn