STATE	PROJECT NO.	PCN	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	18921	1	1

JOB # 6
NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

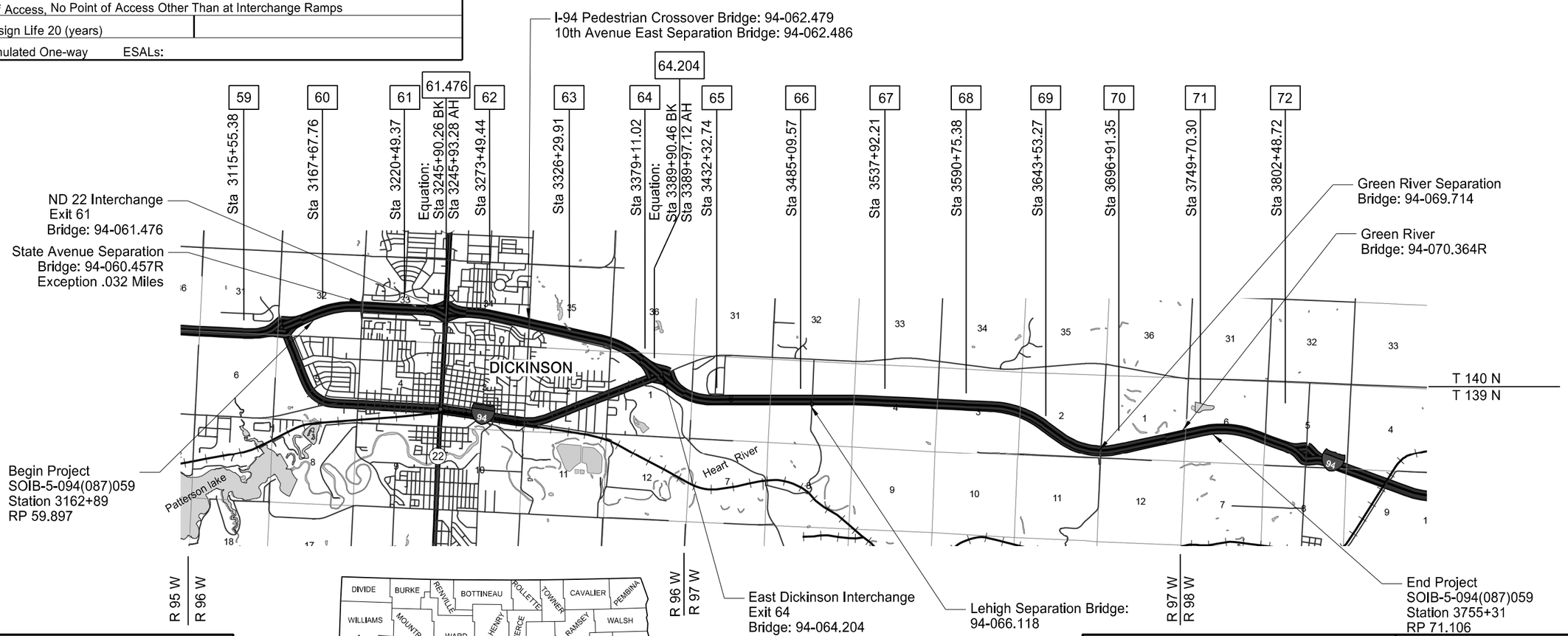
SOIB-5-094(087)059

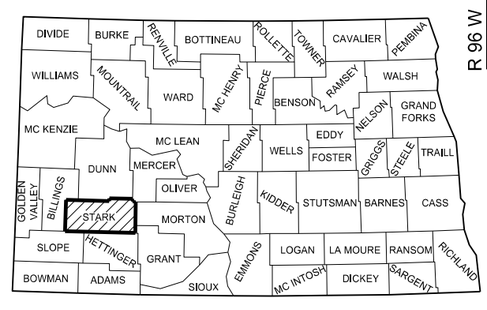
Stark County
West Dickinson Interchange to
RP 71.1 - Eastbound
CPR, HMA Overlay, Microsurfacing,
Guardrail & Structure Improvements

DESIGN DATA				
Traffic	Average Daily: RP 59.485 to RP 61.476			
Current 2014	Pass: 3085	Trucks: 1270	Total: 4355	
Forecast 2034	Pass: 4600	Trucks: 2085	Total: 6685	
Traffic	Average Daily: RP 61.476 to RP 64.204			
Current 2014	Pass: 3000	Trucks: 1250	Total: 4250	
Forecast 2034	Pass: 4470	Trucks: 2050	Total: 6520	
Traffic	Average Daily			
Current 2014	Pass: 4345	Trucks: 1150	Total: 5495	
Forecast 2034	Pass: 6475	Trucks: 1890	Total: 8365	
Clear Zone Dist. Existing		Design Speed: 75		
Minimum Sight Dist. for Stopping: Existing		Bridges:		
Full Control of Access, No Point of Access Other Than at Interchange Ramps				
Pavement Design Life 20 (years)				
Design Accumulated One-way ESALs:				

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

PROJECT NUMBER \ DESCRIPTION	NET MILES	GROSS MILES
SOIB-5-094(087)059	11.21	11.18





STATE COUNTY MAP

DESIGNERS

Conni Schafer

Hafiz Ibrahim

APPROVED DATE 12-2-15

Roger Weigel /s/
OFFICE OF PROJECT DEVELOPMENT
ND DEPARTMENT OF TRANSPORTATION

I hereby certify that the attached plans were prepared by me or under my direct supervision and that I am a duly registered professional engineer under the laws of the state of ND.

APPROVED DATE 12-2-15

James Douglas Rath /s/
NDDOT DESIGN DIVISION

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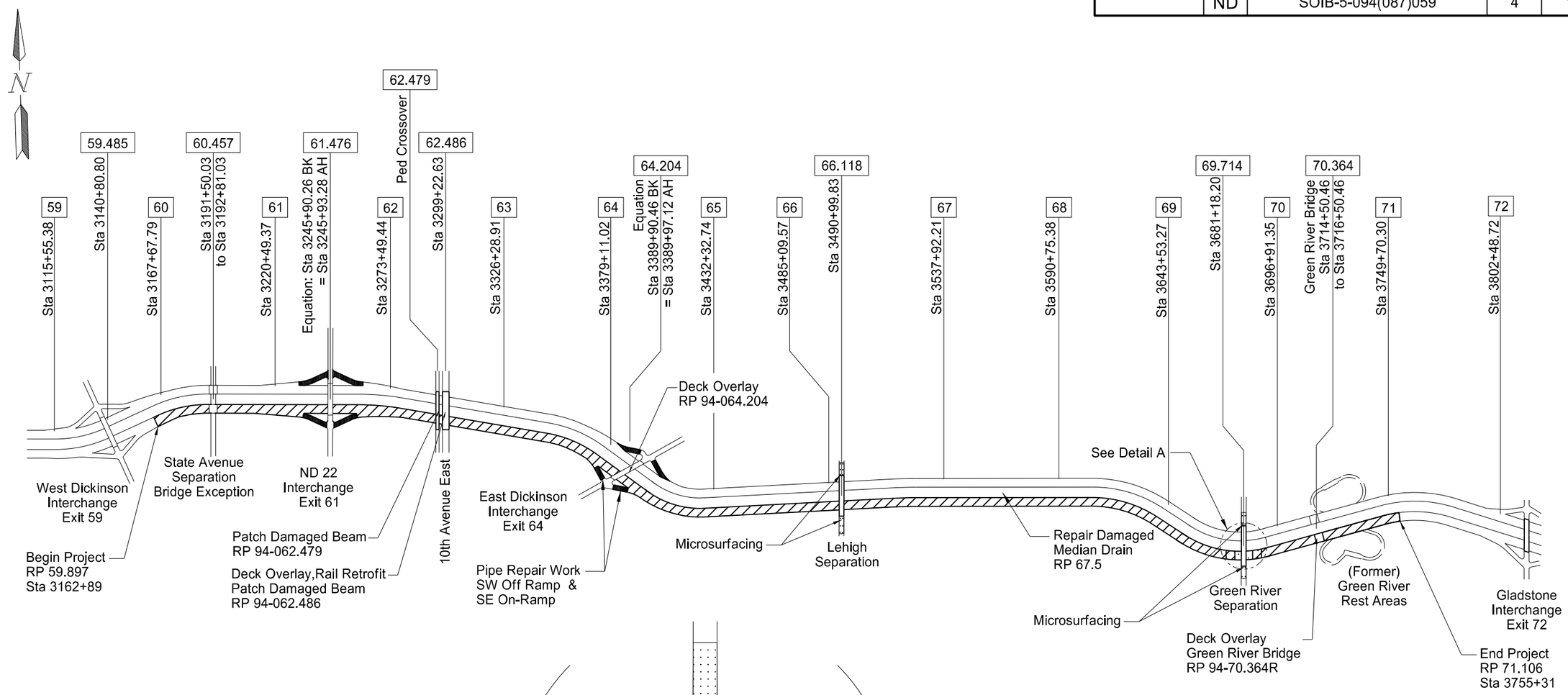

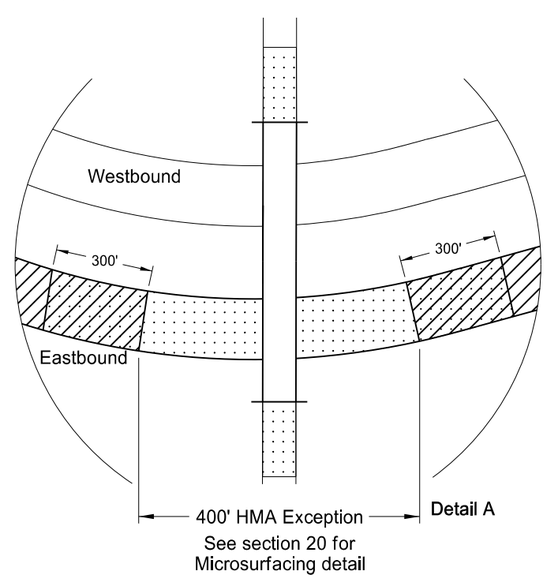

Legend

- CPR & HMA Overlay
- Milling & HMA Overlay
- Microsurfacing

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Scope of Work

West Dickinson Interchange to RP 71.1
Eastbound Roadway

NOTES

100-P01 COORDINATION OF PROJECTS: Another project in the vicinity of this project is under contract during the 2016 construction season. This project is SIM-5-094(088)061 and the work consists of adding turn lanes to Hwy 22 at the Exit 61 interchange in Dickinson.

107-700 HAUL ROADS: The Engineer will not designate paved roads off the state system as haul roads.

107-710 HAUL ROADS: Before submitting a proposal, contact the appropriate State, County, Township, or City officials to determine if there are any roadways that will be designated as "no haul routes".

107-P01 MAINTAINING TRAFFIC – PAVEMENT DROP-OFFS: During construction of the guardrail widening areas, there may be areas where there is a pavement drop off adjacent to the traveled lane. This area shall not have a drop off greater than 2 inches at the end of the working day. If a drop off exceeds 2 inches, the contractor will be required to provide a traversable inslope. A traversable slope is defined as having a cross slope of 4:1 or flatter.

If a traversable taper wedge cannot be provided, the Contractor shall provide 24 hour flagging and traffic control at their expense until the taper wedge can be constructed. The reshaping of the aggregate or embankment required for this operation shall not be paid for separately but shall be included in the price bid for aggregate or embankment items.

230-P01 FORESLOPE RESHAPING: This work consists of placing the imported topsoil, seeding and hydraulic mulching adjacent to the proposed asphalt slough area.

After the HBP overlay has been paved and accepted, place imported topsoil to a 4:1 or flatter slope to provide a smooth transition from the edge of the asphalt overlay slough to the existing foreslope. Seed is not required to be drilled, it may be applied with the hydraulic mulch.

It is estimated quantities are as follows:

- Imported Topsoil = 0.1359 SF * 58,378 LF * 2 sides * 2 (100% shrinkage & compaction) /27 = 1,175 CY
- Seeding Cl II = 3' width * 58,378 LF * 2 sides /43,560 = 8.04 Acres
- Hydraulic Mulching = 3' width * 58,378 LF * 2 sides /43,560 = 8.04 Acres

All costs for this described work shall be included in the price bid for "Foreslope Reshaping". Payment will be made based on the required length as listed on the "Foreslope Reshaping" plan sheet. The Engineer will measure each foreslope on each side of the roadway separately.

411-P01 TEMPORARY ASPHALT WEDGES: Place temporary asphalt wedges at ramp/crossroad intersections prior to allowing traffic across the transition at milled locations.

Include all costs associated with labor, materials, and equipment for the installation and removal of the asphalt wedges in the price bid for "Milling Pavement Surface."

411-P02 MILLING PAVEMENT SURFACE: Use the milled material for the following:

1. 10 tons to each of the emergency median crossovers (40 tons total) located within the project limits.
2. May incorporate into the Aggregate Base Course CL 5 depending on availability and phasing.
3. The remaining milled material shall become property of the contractor.

All costs to perform the above described work shall be included in the price bid for "Milling Pavement Surface."

430-P01 LONGITUDINAL JOINTS: Place the top lift of hot mix asphalt for the outside lane and the adjacent shoulder in a single pass or construct the pavement using a hot seam.

Place pavement with multiple pavers simultaneously and do not allow more than 300 feet between adjacent pavers. Roll the joint so that the seams are joined and as minimally visible as possible.

The requirement to tack the edge of longitudinal joints found in Section 430.04F, "Surface Preparation" will not apply to joints constructed in this manner.

Place the lifts of hot mix asphalt for the passing and driving lanes so the seam of the top lift is at the crown of the roadway.

430-P02 ASPHALT BINDER: Performance Graded PG 64-28 asphalt binder shall meet the following additional PG specifications:

MSCR, TP 70: Heavy Traffic "H" Grade:
Jnr 3.2, max 2.0 kPa – Jnr diff, max 75%, test temp, 64°C.

570-P01 DOWEL BARS AND DOWEL BAR BASKETS: The NDDOT currently owns a stockpile of dowel bar baskets, tie bars and dowel bars (smooth and deformed) at a NDDOT maintenance site north of New Salem. The contractor is required to obtain the following bars at the stockpile site:

○ Dowel Bar Baskets	552 LF (46 baskets - all of the required)
○ #5 x 30" Deformed Tie Bars	280 EA (all of the required)
○ 1-1/4" x 18" Smooth Dowel Bar	677 EA (portion of the 3,993 required)
○ 1-1/4" x 18" Deformed Dowel Bar	717 EA (portion of the 3,432 required)

The site is located 0.3 miles north of the I-94 Exit 127 north interchange ramps. Only the amount of material listed above is available for this project. Additional bars or baskets are to be supplied by the contractor.

At least two weeks before obtaining the bars, notify the Engineer of the date that materials will be obtained. Notify the Engineer 24 hours in advance to verify the time of pickup. Before obtaining the bars, perform an inventory of materials to be received with the Engineer, and document the results. Both parties must sign and date the inventory. Each party must retain a signed copy of the inventory. Provide necessary equipment to load and deliver the bars to the project work site.

Include the cost for this described work in the contract unit price for "9 IN-Concrete Pavement Repair-Full Depth-Dowelled".

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NOTES

570-P02 CONCRETE PAVEMENT REPAIR: An additional 10% is added to the quantities for "9 IN-Concrete Pavement Repair-Full Depth-Dowelled" and “Spall Repair-Partial Depth.”

570-P03 JOINT SEALING: Do not seal any joints that are to be overlaid.

570-P04 CONCRETE PAVEMENT REPAIR: There is 4” of permeable stabilized aggregate base under the concrete pavement. 880 tons of Class 7 has been included in the quantities for replacing any permeable base material that gets damaged while removing the concrete pavement. Minimize damage to permeable base during removals.

704-200 PRECAST CONCRETE MEDIAN BARRIERS – STATE FURNISHED: Obtain 110 barriers from the NDDOT Maintenance Yard in Belfield. Return barriers to the NDDOT Maintenance Yard in Belfield.

Some 4 inch x 4 inch boards are available at the return location. Provide any additional 4 inch x 4 inch boards necessary to stack barriers. The boards will become property of the Department. Include the cost for boards in the contract unit price for "Precast Concrete Median Barrier - State Furnished".

704-450 LANE CLOSURE - SIGNAL CONTROL/FLAGGING CONTROL: Install either the signal controlled lane closure on Standard D-704-16 or the flagging controlled lane closure on Standard D-704-17.

Obtain an electrical source for traffic signals. Solar powered signals may be used. Place generators a minimum of 60 feet from the roadway centerline, unless the generator and signal are part of a trailer mounted unit.

Place utility poles and equipment a minimum of 60 feet from the roadway centerline and place power conductors a minimum of 6 inches below the ground surface. Remove poles after they are no longer necessary.

The Engineer will measure individual traffic control devices, other than the signal system and flaggers, shown on the standards. Payment will be made at the respective contract unit price.

Include the cost of either a traffic signal system or flaggers in the contract unit price for "Lane Closure – Signal Control/Flagging Control".

704-P01 TRAFFIC CONTROL DEVICES: Provide traffic control using the following layouts:

D-704-15, Layout Type A for ramp mill and overlay.
D-704-22, Layouts Type K and Type L for construction trucks hauling material.
D-704-24, Layout Type R: For guardrail embankment and guardrail paving operations at 10th Avenue East. Delineator drums shall be provided in place of tubular markers.
D-704-26, Layouts Type CC, EE, and GG
D-704-27, For pavement marking operations
D-704-49, For construction traffic median crossing
D-704-56, For grinding shoulder rumble strips

The device list and plan sheets have been based on the following 2 phases:

Phase 1: 10th Avenue East Separation: Bridge Deck Overlay

A signal controlled lane closure has been provided for the two lane roadway. A quantity of 30 precast concrete median barriers and two B-35 attenuation devices have been provided for the lane closure. Place signs and devices in accordance with D-704-16 or D-704-17. (Devices have been provided in Phase 1, but the 10th Ave deck overlay can be completed in either phase.)

Phase 1: East Dickinson Interchange: Bridge Deck Overlay

A signal controlled lane closure has been provided for the two lane roadway. A quantity of 30 precast concrete median barriers and two B-45 attenuation devices have been provided for the lane closure. Place signs and devices in accordance with Sec 100 East Dickinson Interchange plan sheet. (Devices have been provided in Phase 1, but the East Dickinson interchange deck overlay can be completed in either phase.)

Phase 1: Green River Eastbound I-94 Bridge: Bridge Deck Overlay

A one–lane closure for the eastbound roadway has been provided for the bridge deck overlay. A quantity of 50 precast concrete median barriers and one B-75 attenuation device have been provided for the lane closure. Place signs and devices in accordance with D-704-18.

Phase 1: CPR & Girder Patching

Two one–lane closures have been provided to perform CPR & Girder Patching. Place signs and devices in accordance with D-704-35 & D-704-49. (Devices have been provided in Phase 1, but the girder patching can be completed in either phase.)

The CPR full-depth removal areas require vertical panels to be placed at 10 foot spacing on the centerline of the roadway until the concrete has been replaced. A minimum of two stackable vertical panels will be used at each full-depth removal area. Type I Barricades will be placed in front of each open area. The barricades shall not encroach onto the traffic lane. The quantity of 50 Stackable Vertical Panels and 25 Type I Barricades have been provided.

The contractor will be limited to 2, three mile long lane closure(s). There will be a minimum of 2 miles between the end of a lane closure and the advanced signing of the next lane closure.

Lane closures will only be allowed in areas where work is being performed and/or areas where concrete has not reached its required strength or curing time. Once the concrete has reached sufficient strength and has reached the required cure time, that portion of the lane closure shall be removed. The contractor shall schedule his activities to assure that all other related work needed to be completed before opening to traffic will be complete by the time that the concrete has reached sufficient strength and has reached the required cure time.

Phase 2: HMA Overlay:

A one–lane closure has been provided to perform the HMA overlay of I-94. Place signs and devices in accordance with D-704-35 & D-704-49 (construction traffic median crossing). The quantities have been based on a six mile long lane closure.

If the lane closure is removed and uneven lanes exist, provide traffic control as specified in Section 704.04 O, "Traffic Control for Uneven Pavement". The Contractor shall maintain the one-

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NOTES

lane closure for the driving or passing lane until the adjacent shoulder has been brought up even to the lane.

Ramp Milling and Paving: Traffic will not be allowed on any milled surface for more than 24 hours. Place signs and devices in accordance with Sec 100 Ramp Mill & Overlay Construction Signing Layout plan sheet. The quantities have been based on signing & devices for 4 ramps.

Shoulder work signing has been provided for the pipe repair locations. Place signs and devices in accordance with D-704-24 Type S.

706-P01 FIELD OFFICE: Provide a field office which meets the following requirements:

1. Minimum total area of 440 square feet
2. Indoor bathroom facilities and supplies.
3. Hookups for heat, electricity, sewer, and potable water.
4. Minimum cabinet space of 32 cubic feet
5. Minimum counter space of 40 square feet
6. Air conditioner with a minimum of 20,000 BTUs
7. Lighting with a minimum of 110 foot-candles
8. Supply a photocopier with enough toner to last the length of the project and with the following capabilities:
    a. Printing;
    b. Scanning; and
    c. Producing 11 x 17 photocopies and prints.

Place the field office on the project, or as close to the project as possible. The Contractor is responsible for the pay for the following:

- Rental fees;
- Heating;
- Electrical;
- Sewer; and
- Potable water.

Make the field office available for occupancy one week before the start of the project. The Engineer will approve the location and the condition of the office. Do not remove the field office until the Engineer releases the field office.

The Engineer is responsible for the following items:

- Furnishing office equipment;
- Supplying paper; and
- Supplying and paying for internet service.

All requirements of the Field Office are subject to approval by the Engineer. Include the costs for the field office in the bid item "Field Office".

Schedule for Payments:

- 25% when set up on site.
- 50% when 30% of the work is complete.
- 75% when 60% of the work is complete.
- 100% when project is complete.

714-P01 PIPE REPAIR: Two locations of pipe repair are needed at the East Dickinson Interchange as shown in Sec 30. The pipe joints are untied and have separated near the culvert ends.

The cost of labor, equipment, and materials to perform the following work at the location of the pipe repairs will be included in the price bid for “Remove & Relay Pipe – All Types & Sizes” and “Remove & Relay End Section – All Types & Sizes”.

1. Strip and stockpile the topsoil to its full depth from the pipe repair areas.
2. Remove and reset the end section and three lengths of pipe.
3. Backfill the pipe in accordance with D-714-27.
4. Add two pipe ties to each pipe joint.
5. Replace the topsoil on the disturbed areas.
6. Seed with Temporary Cover Crop and Class II seed mixture.

714-P02 SLOTTED MEDAIN DRAIN: One median drain repair is needed at RP 67.573 as shown in Sec 30. Replace the damaged slotted pipe median drain by replacing it with a new slotted pipe section

The cost of labor, equipment, and materials to perform the following work at the location of the median drain will be included in the price bid for “Pipe Conc Reinf 18” CL III”.

1. Strip and stockpile the topsoil to its full depth from the median drain repair area.
2. Replace the damaged median drain.
3. Remove and reset pipe plug.
4. Reshape the disturbed area.
5. Replace the topsoil.
6. Seed with Temporary Cover Crop and Class II seed mixture.

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

762-P01 SHORT TERM PAVEMENT MARKING: Allow a 24 hour curing period on slurry seal before the application of “SHORT TERM 4IN LINE – TYPE NR” is installed.

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NOTES

SECTION 130

602-P01 JERSEY BARRIER FORMED OR SLIPFORMED: This work consists of constructing reinforced concrete jersey barriers at the outside bridge piers on the eastbound roadway, as shown in the plans.

Install a guardrail connection plate at the end of each of the barrier installations, as shown in the plans. The pay length is from the beginning to the end of the complete barrier wall installation. Include the reinforced concrete slabs in the contract unit price bid for the item “Jersey Barrier Formed or Slip Formed.”

The price bid for the item “Jersey Barrier Formed or Slip Formed” includes furnishing and installing Class AAE-3 concrete, grade 60 reinforcing steel, guardrail connection plates, mastic, joint sealant materials, and all other materials, equipment and labor required to complete the installations as shown in the plans.

748-P01 CURB & GUTTER – TYPE 1 SPECIAL: Twenty lineal feet of curb and gutter is required at the approach end of the jersey barrier for the outside bridge pier on the eastbound roadway. Install this curb and gutter, including deformed tie bars, at the outside bridge pier as shown in the plan details.

At the 10th Avenue East Separation, RP 62.486, forty lineal feet of curb and gutter is required at the NE, SE, and SW corner of the bridge, and 168 lineal feet of curb and gutter is required at the NW corner. Install this Type 1 curb and gutter as shown in Standard D-748-1, except the maximum allowable curb height at these locations is 3”. One existing curb inlet is located approximately 36 feet from each bridge corner. The curb boxes of these inlets may require adjusting to allow for the installation of the new curb and gutter.

Include all costs for constructing the curb and gutter as described above, including adjustment of curb boxes where required and supplying and installing deformed tie bars, in the contract unit price bid for the item “Curb & Gutter – Type 1 Special.”

764-P01 RESET W-BEAM GUARDRAIL: Portions of the existing W-beam guardrail installations utilize Z-shaped steel posts. Do not use these posts and their associated blocks and mounting bolts in the reset guardrail installations.

At the outside bridge piers on the eastbound roadway, the Contractor will be required to supply and install the following new materials to reset the W-beam guardrail:

(80) 6”X8”X6’-0” timber posts
(80) 6”X8”X14” timber blocks
(80) 5/8”X18” long guardrail bolts

Include these items in the contract unit price bid for the item “Reset W-Beam Guardrail.”

764-P02 REMOVE BOX BEAM GUARDRAIL: The removed box beam rail sections shall be delivered by the contractor to the NDDOT Maintenance Storage Yard at the following address:

DICKINSON NDDOT
1700 3rd Ave W Ste 101
Dickinson, ND 58601-3009

Neatly stack the materials at a location designated by the Engineer. Dispose of the posts and other hardware according to Section 107.17, "Removed Materials.”

Include all costs for delivery of the removed box beam rail sections and for disposal of the remaining box beam guardrail materials in the contract unit price bid for the item "Remove Box Beam Guardrail".

764-P03 EMBANKMENT FOR GUARDRAIL INSTALLATION: The embankment material required for guardrail installation is not available within the highway right of way. It will be the Contractor’s responsibility to obtain embankment material.

Include all costs to locate the embankment material in the contract unit price bid for the item “Guardrail Embankment.”

SECTION 140

770-P01 LED LUMINAIRE:

Light Source	LED
Minimum Lumen output	11,000 Lumens
Color Temperature	4000K to 4500K
Ballast Driver	700mA to 1100mA
Operating Temperature Range	-40 deg C to +40 deg C
Minimum L70 life of LED's at 25 deg C	50,000 hours
Light Distribution	Type II
Maximum luminaire load per light standard	3.0 sq. ft.
Luminaire Housing	die-cast aluminum
Toolless access	Yes

Supply a Category C surge suppressor for the luminaire.

Include a manufacturer’s warranty lasting a minimum of 5 years for the luminaire housing and paint finish, power supply, and LED array.

Submit work drawings for the luminaires according to Section 770.03 B “Work Drawings”.

Include the cost to provide the LED luminaire, internal wiring, and fuse kit in the contract unit price for “Lighting System.”

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NOTES

770-P02 BREAKAWAY LIGHT STANDARD: The base for the light standard shall be of the breakaway transformer type. The breakaway light standard shall be designed for 6' davit mast arms and shall be galvanized. The shaft length shall be 40' from the top of the foundation to the bottom of the luminaire.

772-P03 MULTIPLE UNDERGROUND CABLE: The plans call for using Multiple Underground Cable and Conduit in various locations. In lieu of the Multiple Underground Cable, the Contractor may furnish and install rigid conduit and single RHW conductors of the same size as shown in the plans for the Multiple Underground Cable.

The conduit size shall be as specified in the National Electric Code. If the Contractor chooses to use the conduit and single conductors, the cost to furnish conduit, conductors, and any needed pull boxes shall be included in the item Multiple Underground Cable. The cost of installing conduit with single conductors shall be included in the items “Lighting System”, “Vertical Road Closure Gate – 18 FT”, and Vertical Road Closure Gate – 28 FT”.

980-P01 REMOVE ROAD CLOSURE GATE: Remove the existing road closure gates and deliver to the NDDOT Maintenance Storage Yard in Dickinson. The address of the Storage Yard is:

DICKINSON NDDOT
1700 3rd Ave W Ste 101
Dickinson, ND 58601-3009

Include the cost of removal and delivery to the storage yard in the contract unit price of “Remove Road Closure Gate.”

980-P02 VERTICAL LIFT ROAD CLOSURE GATE: Install the vertical lift road closure gate on the light standard as shown on the Lighting System and Road Closure Gates layouts at the specified locations. Include all costs in the price bid for the items “Vertical Road Closure Gate – 18 FT” and “Vertical Road Closure Gate – 28 FT”.

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ENVIRONMENTAL COMMITMENTS

ENVIRONMENTAL COMMITMENTS: The North Dakota Department of Transportation and the Federal Highway Administration have made environmental commitments to secure approval of this project.

The environmental commitments are as follows:

EC-1: Unavoidable impacts to wetlands will be mitigated onsite, adjacent to the project, or at a NDDOT approved mitigation site or bank.

ACTION REQUIRED/TAKEN: 0.04 acres of temporary impacts will result from construction. Temporary impact areas will be graded to preconstruction contours.

Wetland Impact Table

Wetland Number	Location	Cowardin Class.	Wetland Type	Wetland Size (acres)	Wetland Feature	USACE Jurisdictional Wetlands[1]	Wetland Impacts (acres)		USFWS Easement Impacts (acres)		Wetland Mitigation Mitigation Required		
							Temp.	Perm.	Temp.	Perm.	EO 11990	USACE	USFWS
1a	Sec.19, T146N, R95W	PABF	Mosaic	0.65	Natural	Yes	0.04	0			N	N	N
1b	Sec. 6, T146N, R95W	PABF	Mosaic	0.11	Natural	Yes	0	0	0	0	N	N	N
			Totals	0.76			0.04	0	0	0			

1. The NDDOT assumes Wetlands 1a and 1b to be jurisdictional.
2. All impacts to natural wetlands (natural/jurisdictional and natural/non-jurisdictional), regardless of size, as well as impacts greater than 0.10 acre to artificial/jurisdictional wetlands require mitigation.
3. All artificial/non-jurisdictional, deep water (impacts greater than 6.6 feet), Other Waters less than 300 linear feet (determined by the USACE on a case by case), and temporary impacts do not require mitigation.

Summary Impact Table

Total Permanent Impact Summary		Temporary Impacts and additional information	
Wetland Type	Total (Acres)	Wetland Type	Total (Acres/Lf)
Natural/JD	0.00	Temporary JD	0.04
Natural/Non-JD	0.0	Non-JD Temporary	0.0
Artificial/JD	0.0	Permanent JD > 0.10	0.0
Artificial /Non-JD	0.0	Permanent OW	0.0.
Total	0.0	Temporary OW	0.0

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	8	1

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
103	0100	CONTRACT BOND	L SUM	1	1
202	0130	REMOVAL OF CURB & GUTTER	LF	413	413
202	0137	REMOVAL OF PAVEMENT	SY	5,771	5,771
203	0218	GUARDRAIL EMBANKMENT	EA	6	6
230	0111	FORESLOPE RESHAPING	STA	1,168	1,168
234	0104	HYDRATED LIME	TON	469	469
255	0102	ECB TYPE 2	SY	44	44
261	0112	FIBER ROLLS 12IN	LF	300	300
302	0120	AGGREGATE BASE COURSE CL 5	TON	889	889
302	0129	AGGREGATE BASE COURSE CL 7	TON	880	880
401	0050	TACK COAT	GAL	27,909	27,909
411	0105	MILLING PAVEMENT SURFACE	SY	29,652	29,652
421	0011	AGGREGATE FOR MICROSURFACING TYPE III	TON	72	72
421	0020	ASPHALT EMULSION FOR MICROSURFACING	GAL	2,400	2,400
430	0045	SUPERPAVE FAA 45	TON	46,920	46,920
430	1000	CORED SAMPLE	EA	259	259
430	6428	PG 64-28 ASPHALT CEMENT	TON	2,767	2,767
570	0240	DOWELED CONTRACTION JOINT ASSEMBLY	LF	554	554
570	0711	9IN CONCRETE PAVEMENT REPAIR-FULL DEPTH-DOWELED	SY	4,230	4,230
570	1512	SPALL REPAIR-PARTIAL DEPTH	SF	11,336	11,336
602	0130	CLASS AAE-3 CONCRETE	CY	4.9	4.9
602	1200	JERSEY BARRIER FORMED OR SLIP FORMED	LF	215	215
624	3001	DOUBLE BOX BEAM RAIL RETROFIT-FREE STANDING	LF	468.6	468.6
650	0704	OVERLAY CONCRETE	CY	177	177
650	0720	CLASS 1 REMOVAL	SY	2,647	2,647
650	0721	CLASS 2 REMOVAL	SY	622	622
650	0722	CLASS 2-A REMOVAL	LF	1,119	1,119
650	0723	CLASS 3 REMOVAL	SY	132	132
650	0724	CLASS 4 REMOVAL	SY	26	26
702	0100	MOBILIZATION	L SUM	1	1
704	0100	FLAGGING	MHR	2,500	2,500
704	1000	TRAFFIC CONTROL SIGNS	UNIT	5,609	5,609
704	1018	LANE CLOSURE-SIGNAL CONTROL/FLAGGING CONTROL	EA	2	2

ESTIMATE OF QUANTITIES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	8	2

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
704	1037	ATTENUATION DEVICE-TYPE B-35	EA	2	2
704	1039	ATTENUATION DEVICE-TYPE B-45	EA	2	2
704	1045	ATTENUATION DEVICE-TYPE B-75	EA	1	1
704	1050	TYPE I BARRICADE	EA	25	25
704	1052	TYPE III BARRICADE	EA	16	16
704	1060	DELINEATOR DRUMS	EA	147	147
704	1067	TUBULAR MARKERS	EA	452	452
704	1080	STACKABLE VERTICAL PANELS	EA	50	50
704	1087	SEQUENCING ARROW PANEL-TYPE C	EA	3	3
704	1500	OBLITERATION OF PAVEMENT MARKING	SF	438	438
704	3510	PRECAST CONCRETE MED BARRIER-STATE FURNISHED	EA	110	110
706	0400	FIELD OFFICE	EA	1	1
706	0550	BITUMINOUS LABORATORY	EA	1	1
706	0600	CONTRACTOR'S LABORATORY	EA	1	1
714	0310	PIPE CONC REINF 18IN CL III	LF	6	6
714	9659	REMOVE & RELAY PIPE-ALL TYPES & SIZES	LF	48	48
714	9660	REMOVE & RELAY END SECTION-ALL TYPE & SIZES	EA	2	2
748	0141	CURB & GUTTER-TYPE 1 SPECIAL	LF	388	388
760	0005	RUMBLE STRIPS - ASPHALT SHOULDER	MILE	22	22
762	0112	EPOXY PVMT MK MESSAGE	SF	128	128
762	0113	EPOXY PVMT MK 4IN LINE	LF	14,977	14,977
762	0114	EPOXY PVMT MK 6IN LINE	LF	85	85
762	0115	EPOXY PVMT MK 8IN LINE	LF	436	436
762	0117	EPOXY PVMT MK 24IN LINE	LF	324	324
762	0420	SHORT TERM 4IN LINE-TYPE R	LF	6,440	6,440
762	0426	SHORT TERM 24IN LINE-TYPE R	LF	66	66
762	0430	SHORT TERM 4IN LINE-TYPE NR	LF	83,600	83,600
762	0434	SHORT TERM 8IN LINE-TYPE NR	LF	11,640	11,640
762	0436	SHORT TERM 24IN LINE-TYPE NR	LF	654	654
762	1104	PVMT MK PAINTED 4IN LINE	LF	139,989	139,989
762	1108	PVMT MK PAINTED 8IN LINE	LF	2,910	2,910
764	0131	W-BEAM GUARDRAIL	LF	505	505
764	0145	W-BEAM GUARDRAIL END TERMINAL	EA	9	9

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	8	3

ESTIMATE OF QUANTITIES

SPEC	CODE	ITEM DESCRIPTION	UNIT	MAINLINE	TOTAL
764	0151	REMOVE W-BEAM GUARDRAIL & POSTS	LF	1,213	1,213
764	1050	RESET W-BEAM GUARDRAIL	LF	713	713
764	2080	REMOVE BOX BEAM GUARDRAIL	LF	382	382
764	2081	REMOVE END TREATMENT & TRANSITION	EA	9	9
770	0001	LIGHTING SYSTEM	EA	1	1
930	9534	MODIFY DECK DRAIN	EA	10	10
930	9694	GIRDER PATCHING	L SUM	1	1
980	0806	VERTICAL ROAD CLOSURE GATE-18FT	EA	1	1
980	0811	VERTICAL ROAD CLOSURE GATE-28FT	EA	1	1
980	0820	REMOVE ROAD CLOSURE GATE	EA	2	2

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	10	1

HMA Overlay Mainline I-94 Eastbound	
Stations Sta 3162+89 to Sta 3191+29.7	
Sta 3191+29.7 to Sta 3193+00.7	State Avenue Structure (171 LF Exception)
Sta 3193+00.7 to 3245+90.26 Bk =	Station Equation
Sta 3245+93.28 Ahd to Sta 3389+90.46 B =	Station Equation
Sta 3389+97.12 Ahd to Sta 3679+18	
Sta 3679+18 to Sta 3683+18	HMA Overlay (400 LF Exception)
Sta 3683+18 to Sta 3714+30.54	
Sta 3714+30.54 to Sta 3716+70.54	Green River Structure (240 LF Exception)
Sta 3716+70.54 to Sta 3755+31	
Total Stations	583.778

		Tangent			
Material	Unit	Width (ft)	Area	Qty Per Station	Total
Tack Coat @ .05 Gal/SY (1st Lift)	Gal	38.9		21.61	12616
Superpave FAA 45 @ 2 Ton/CY (1st Lift)	Ton	38.4	4.9	36.30	21189
Tack Coat @ 0.05 Gal/SY (2nd Lift)	Gal	38.4		21.33	12454
Superpave FAA 45 @ 2 Ton/CY (2nd Lift)	Ton	38	4.7	34.81	20324

SUPERPAVE FAA 45 Cored Samples

	A	B	C	D			
Specification Section	Lanes	Lifts	Distance (feet)	Sublots (AxBxC) /2000	Quantity (Dx2)	Quantity (1 per mile)	UNIT
430.04 1.2.b (1) "General"	EB 2	2	58377.80	117	234	N/A	EA
					0		
430.04 1.2.b(2) Pavement thickness Determination Cores	EB				N/A	11	EA
Specification Section	Location	Lifts	Distance (feet)	Sublots (AxBxC) /2000	Quantity (Dx2)	Quantity (1 per mile)	UNIT
430.04 1.2.b (1) "General"	ND 22 Int Ramps	2	3600	4	7	0	EA
	E Dick Int Ramps	2	3485	3	7	0	EA
				Total	248	11	EA

Microsurfacing

	Mainline / Below Green River Separation Sta 3676+18 to 3686+18				Lehigh Separation Crossroad				Green River Crossroad			
Material	Unit	Width	Length	Total	Unit	Width	Length	Total	Unit	Width	Length	Total
Aggregate for Microsurfacing Type III 24 Lbs./SY (24 Lbs/SY x 1Tons/2000Lbs x 1 SY/9 SF)	Ton	38	1000	51	Ton	20	450	12	Ton	20	350	9
Asphalt Emulsion for Microsurfacing @ 14% by weight at (8.43 Lbs/Gal) (0.40/SY x I SY/9 SF)	Gal	38	1000	1689	Gal	20	450	400	Gal	20	350	311
Tack Coat for Microsurfacing 38 LF X 400 LF /9 * 0.05 = 84 Gals	Gal	38	1000	211								

Asphalt Cement
PG 64-28 @ 5.9%

Asphalt Rumble Strips
Length of Proj = 11.21 miles
Length of exceptions=.1535 Miles

EB - 11.21 Miles - .1535 miles = 11.0565 Miles
11.0565 Miles x 2 shldrs = 22.113 Miles

Hydrated Lime

1% HMA
Eastbound
46920 x 1% = 469 Ton

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Basis of Estimate

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	10	2

Permanent Pavement Marking			
Location	Basis	Quantity	
EB Interstate 94: 11.21 Miles			
I-94 Centerline - Epoxy Pvmt Mk 4In Line	Centerline Skips 1,320 LF/mile	14797	LF
Edge Line - Pvmt MK Painted 4IN Line	10,560 LF/Mile	118378	LF
Ramps			
ND 22 Interchange-Eastbound (SW Exit Ramp) *			
8" White Channel Line @ Ramp Gore	D-762-2 - Pvmt MK Painted 8"	580	LF
4" White Dotted Line-Pvmt MK Painted 4IN Line	D-762-2 (2' Line, 6' Skip)	148	LF
4" White Edge Line - Pvmt MK Painted 4IN Line	-	845	LF
4" Yellow Edge Line - Pvmt MK Painted 4IN Line	-	844	LF
*See section 120 for additional quantities-message arrow, centerline, crosswalk line, channel line and stop line.			
ND 22 Interchange-Eastbound (SE Entrance Ramp)			
8" White Channel Line @ Ramp Gore	D-762-2 - Pvmt MK Painted 8"	390	LF
4" White Dotted Line-Pvmt MK Painted 4IN Line	D-762-2 (2' Line, 6' Skip)	258	LF
4" White Edge Line-Pvmt MK Painted 4IN Line	-	864	LF
4" Yellow Edge Line-Pvmt MK Painted 4IN Line	-	863	LF
ND 22 Interchange -Westbound (NE Exit Ramp) *			
8" White Channel Line @ Ramp Gore	D-762-2 - Pvmt MK Painted 8"	580	LF
4" White Dotted Line-Pvmt MK Painted 4IN Line	D-762-2 (2' Line, 6' Skip)	148	LF
4" White Edge Line-Pvmt MK Painted 4IN Line	-	747	LF
4" Yellow Edge Line-Pvmt MK Painted 4IN Line	-	739	LF
*See section 120 for additional quantities-message arrow, centerline, crosswalk line, channel line and stop line.			
ND 22 Interchange -Westbound (NW Entrance Ramp) *			
8" White Channel Line @ Ramp Gore	D-762-2 - Pvmt MK Painted 8"	390	LF
4" White Dotted Line-Pvmt MK Painted 4IN Line	D-762-2 (2' Line, 6' Skip)	258	LF
4" White Edge Line-Pvmt MK Painted 4IN Line	-	775	LF
4" Yellow Edge Line-Pvmt MK Painted 4IN Line	-	772	LF
*See section 120 for additional quantities-message arrow, centerline, crosswalk line, channel line and stop line.			
East Dickinson Interchange - Eastbound (SW Exit Ramp)			
8" White Channel Line @ Ramp Gore	D-762-2 - Pvmt MK Painted 8"	580	LF
4" White Dotted Line-Pvmt MK Painted 4IN Line	D-762-2 (2' Line, 6' Skip)	610	LF
4" White Edge Line-Pvmt MK Painted 4IN Line	-	807	LF
4" Yellow Edge Line-Pvmt MK Painted 4IN Line	-	820	LF
24" White Stop Line-Epoxy Pvmt Mk 24In Line	-	40	LF
East Dickinson Interchange - Eastbound (SE Entrance Ramp)			
8" White Channel Line @ Ramp Gore	D-762-2 - Pvmt MK Painted 8"	390	LF
4" White Dotted Line-Pvmt MK Painted 4IN Line	D-762-2 (2' Line, 6' Skip)	258	LF
4" White Edge Line-Pvmt MK Painted 4IN Line	-	728	LF
4" Yellow Edge Line-Pvmt MK Painted 4IN Line	-	743	LF
East Dickinson Interchange - Westbound (NE Exit Ramp)			
4" White Edge Line-Pvmt MK Painted 4IN Line	-	1069	LF
4" Yellow Edge Line-Pvmt MK Painted 4IN Line	-	1080	LF
24" White Stop Line-Epoxy Pvmt Mk 24In Line	-	142	LF
East Dickinson Interchange - Westbound (NW Entrance Ramp)			
4" White Edge Line-Pvmt MK Painted 4IN Line	-	966	LF
4" Yellow Edge Line-Pvmt MK Painted 4IN Line	-	972	LF

*For additional permanent pavement marking quantities at ND 22 see section 120.

Permanent Marking - Deck Overlays			
Location	Basis	Quantity	
10th Avenue East Separation			
Yellow Barrier Lines-Pvmt MK Painted 4IN Line	10560 LF/Mile	480	LF
Centerline-Epoxy Pvmt Mk 4In Line	Centerline Skips 1,320 LF/mile	100	LF
East Dickinson Interchange			
Yellow Barrier Lines-Pvmt MK Painted 4IN Line	10560 LF/Mile	2400	LF
4" White Edge Line-Pvmt MK Painted 4IN Line	10561 LF/Mile	2400	LF

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Basis of Estimate

West Dickinson Interchange to RP 71.1
Eastbound Roadway

Short Term 8" & 24" Line - Type NR			
Location	Basis	Quantity	
Ramps			
Short Term 8" Line - Type NR			
ND 22 & East Dickinson Inter's	Standard Drawing 762-02		
4 Exit, 4 Entrance			
Channel Line - 3 applications	Exit CL = 580' + Entrance CL = 390'		
Top of Milled Surface	580+390=970 *4 = 3880'	3880	LF
Top of 1st Lift		3880	LF
Top of 2nd lift		3880	LF
Total - Short Term 8" Line		11640	LF
Short Term 24" Line - Type NR			
ND 22 & East Dickinson Inter's	Standard Dwg 762-02		
24" Stop Line Painted	NE Ramp = 98', SW Ramp = 120'		
Top of Milled Surface	98 + 120 = 218 LF	218	LF
Top of 1st Lift		218	LF
Top of 2nd lift		218	LF
Total - Short Term 24" Line		654	LF

Short Term 4" Line - Type NR			
Location	Basis	Quantity	
I-94 Eastbound Roadway	11.134 miles		
Centerline -2 applications			
Top of 1st Lift	Centerline Skips 1,320 LF/mile	14590	LF
Top of 2nd lift		14590	LF
Ramps			
ND 22 & East Dickinson Inter's	Standard Dwg 762-2		
Ramps - 4 Exit & 4 Entrance	Exit Ramp Tapered, 4" White edge line		
Top of Milled Surface	4" Yellow edge line	18140	LF
Top of 1st Lift	Entrance Ramp Tapered, 4" White edge line = 1270 LF	18140	LF
Top of 2nd lift	4" Yellow edge line	18140	LF
	Total 4,535 LF x 4 Ramps = 18,140		
Total - Short Term 4" Line		83600	LF

ACCUMULATED PLAN TOTALS

	BE	ND 22 (Sec 90)				East Dickinson (Sec 90)				Guardrail Surfacing (Sec 20)					10th Ave Crossroad Guardrail Surfacing (Sec 20)				Traffic	Total	
	Mainline	NE Ramp	NW Ramp	SE Ramp	SW Ramp	NE Ramp	NW Ramp	SE Ramp	SW Ramp	ND 22	10th Ave	E Dix	Lehigh Sep	G Riv Sep	NW	NE	SW	SE	Sheets	Quantity	
Removal of Pavement										952	944	943	953	954	215	144	132	292	243	5771	SY
Aggregate Base Course Class 5										156	150	150	144	154	33	29	30	43		889	TON
Tack Coat	25281.13	257	258	510	434	286	258	338	286											27909	GAL
Superpave FAA 45	41513.10	446	446	1264	1005	495	448	577	491	42	41	41	39	42	8	5	5	12		46920	TON
Hydrated Lime	415.1	4.5	4.5	12.6	10.0	5.0	4.5	5.8	4.9	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.0	0.1		469	TON

MILLING ACCUMULATED PLAN TOTALS

Material	ND 22 (Sec 90)				East Dickinson (Sec 90)				Details (Sec 20)					Total Quantity	
	NE Ramp	NW Ramp	SE Ramp	SW Ramp	NE Ramp	NW Ramp	SE Ramp	SW Ramp	Beg of Project	End of Project	Bridge Ends		Below Grn Rvr Sep		
											State Ave	Grn River			
Milling Pavement Surface	2574	2579	5100	4339	2857	2583	3381	2861	422	422	844	844	844	29650	SY

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Basis of Estimate

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	1

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
59-EB													
0.903	3163+23.22	DRIVING							2	x	2	4	
0.903	3163+23.22	PASSING	9	x	13	13	20						
0.904	3163+28.5	DRIVING	6	x	12	8	20						
0.908	3163+49.62	DRIVING							2	x	2	4	
0.908	3163+49.62	PASSING	6	x	16	11	20						
0.922	3164+23.54	PASSING							3	x	2	6	
0.95	3165+71.38	DRIVING							3	x	2	6	
SUBTOTAL						**32**	**60**					**20**	**SUBTOTAL FOR MILE 59**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
60-EB													
0.004	3167+88.91	DRIVING							4	x	4	16	
0.02	3168+73.39	DRIVING							2	x	2	4	
0.023	3168+89.23	DRIVING	6	x	12	8	20						
0.023	3168+89.23	PASSING	6	x	16	11	20						
0.029	3169+20.91	PASSING							2	x	2	4	
0.038	3169+68.43	DRIVING							2	x	2	4	
0.04	3169+78.99	PASSING	6	x	16	11	20						
0.05	3170+31.79	DRIVING	6	x	12	8	20						
0.05	3170+31.79	PASSING	6	x	12	8	20						
0.056	3170+63.47	DRIVING	6	x	12	8	20						
0.06	3170+84.59	PASSING	6	x	12	8	20						
0.062	3170+95.15	DRIVING	8	x	12	11	20						
0.066	3171+16.27	DRIVING							2	x	2	4	
0.068	3171+26.83	DRIVING	6	x	12	8	20						
0.089	3172+37.71	DRIVING	6	x	12	8	20						
0.111	3173+53.87	DRIVING							2	x	3	6	
0.111	3173+53.87	PASSING							2	x	3	6	
0.117	3173+85.55	DRIVING	6	x	12	8	20						
0.117	3173+85.55	PASSING	6	x	16	11	20						
0.12	3174+01.39	PASSING							2	x	3	6	
0.123	3174+17.23	DRIVING	6	x	12	8	20						
0.123	3174+17.23	PASSING	6	x	16	11	20						
0.126	3174+33.07	DRIVING							2	x	2	4	
0.129	3174+48.91	DRIVING	6	x	12	8	20						
0.129	3174+48.91	PASSING	6	x	16	11	20						
0.135	3174+80.59	PASSING							2	x	2	4	
0.144	3175+28.11	DRIVING	9	x	12	12	20						
0.144	3175+28.11	PASSING	6	x	16	11	20						
0.148	3175+49.23	DRIVING	6	x	12	8	20						
0.15	3175+59.79	DRIVING	6	x	12	8	20						
0.154	3175+80.91	DRIVING	6	x	12	8	20						
0.157	3175+96.75	DRIVING	6	x	12	8	20						
0.157	3175+96.75	PASSING	6	x	16	11	20						
0.16	3176+12.59	DRIVING	6	x	12	8	20						
0.16	3176+12.59	PASSING							5	x	4	20	
0.162	3176+23.15	DRIVING	6	x	12	8	20						
0.162	3176+23.15	PASSING	6	x	16	11	20						
0.169	3176+60.11	DRIVING							3	x	3	9	
0.171	3176+70.67	DRIVING	8	x	12	11	20						
0.171	3176+70.67	PASSING							6	x	4	24	
0.174	3176+86.51	DRIVING	7	x	12	9	20						
0.174	3176+86.51	PASSING							6	x	4	24	
0.178	3177+07.63	DRIVING	6	x	12	8	20						
0.178	3177+07.63	PASSING							4	x	4	16	
0.18	3177+18.19	DRIVING	6	x	12	8	20						

* Quantity for informational purpose only. Not a separate pay item.

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	2

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
60-EB CONT'D													
0.183	3177+34.03	PASSING							3	x	4	12	
0.183	3177+34.03	DRIVING							4	x	4	16	
0.19	3177+70.99	DRIVING	6	x	12	8	20						
0.202	3178+34.35	DRIVING	6	x	12	8	20						
0.202	3178+34.35	PASSING							4	x	2	8	
0.206	3178+55.47	DRIVING	6	x	12	8	20						
0.206	3178+55.47	PASSING	6	x	16	11	20						
0.209	3178+71.31	DRIVING							2	x	2	4	
0.212	3178+87.15	DRIVING	6	x	12	8	20						
0.212	3178+87.15	PASSING							4	x	4	16	
0.215	3179+02.99	DRIVING							2	x	2	4	
0.218	3179+18.83	DRIVING	6	x	12	8	20						
0.218	3179+18.83	PASSING							2	x	4	8	
0.22	3179+29.39	DRIVING	6	x	12	8	20						
0.22	3179+29.39	PASSING	6	x	12	8	20						
0.226	3179+61.07	DRIVING							2	x	2	4	
0.229	3179+76.91	DRIVING							2	x	2	4	
0.232	3179+92.75	DRIVING							2	x	2	4	
0.242	3180+45.55	PASSING							2	x	2	4	
0.247	3180+71.95	DRIVING							6	x	4	24	
0.247	3180+71.95	PASSING	6	x	16	11	20						
0.25	3180+87.79	DRIVING	6	x	12	8	20						
0.253	3181+03.63	DRIVING							2	x	4	8	
0.256	3181+19.47	DRIVING	6	x	12	8	20						
0.256	3181+19.47	PASSING	6	x	16	11	20						
0.26	3181+40.59	DRIVING							2	x	2	4	
0.262	3181+51.15	DRIVING	6	x	12	8	20						
0.267	3181+77.55	DRIVING							2	x	2	4	
0.27	3181+93.39	DRIVING	6	x	12	8	20						
0.273	3182+09.23	DRIVING	6	x	12	8	20						
0.273	3182+09.23	PASSING							3	x	3	9	
0.276	3182+25.07	DRIVING	6	x	12	8	20						
0.276	3182+25.07	PASSING							3	x	3	9	
0.279	3182+40.91	DRIVING							4	x	4	16	
0.279	3182+40.91	PASSING							2	x	2	4	
0.282	3182+56.75	DRIVING							2	x	4	8	
0.29	3182+98.99	DRIVING	6	x	12	8	20						
0.293	3183+14.83	DRIVING	6	x	12	8	20						
0.3	3183+51.79	DRIVING							4	x	4	16	
0.3	3183+51.79	PASSING							4	x	4	16	
0.303	3183+67.63	DRIVING	6	x	12	8	20						
0.314	3184+25.71	DRIVING	6	x	12	8	20						
0.314	3184+25.71	PASSING							4	x	2	8	
0.32	3184+57.39	DRIVING							3	x	2	6	
0.32	3184+57.39	PASSING							3	x	2	6	
0.323	3184+73.23	DRIVING							2	x	2	4	
0.339	3185+57.71	DRIVING	6	x	12	8	20						
0.343	3185+78.83	DRIVING							3	x	3	9	
0.345	3185+89.39	DRIVING							2	x	2	4	
0.354	3186+36.91	DRIVING	6	x	12	8	20						
0.358	3186+58.03	DRIVING							2	x	2	4	
0.36	3186+68.59	DRIVING	6	x	12	8	20						
0.364	3186+89.71	DRIVING	6	x	12	8	20						
0.367	3187+05.55	DRIVING	6	x	12	8	20						
0.367	3187+05.55	PASSING							4	x	3	12	
0.37	3187+21.39	DRIVING	6	x	12	8	20						
0.378	3187+63.63	DRIVING							2	x	2	4	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	3

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
60-EB CONT'D													
0.388	3188+16.43	DRIVING	6	x	12	8	20						
0.391	3188+32.27	DRIVING							2	x	2	4	
0.409	3189+27.31	DRIVING	6	x	12	8	20						
0.412	3189+43.15	PASSING							2	x	2	4	
0.412	3189+43.15	DRIVING							2	x	2	4	
0.415	3189+58.99	PASSING	6	x	16	11	20						
0.415	3189+58.99	DRIVING	6	x	12	8	20						
0.421	3189+90.67	DRIVING							2	x	2	4	
0.421	3189+90.67	PASSING							2	x	2	4	
0.444	3191+12.11	DRIVING	8	x	12	11	20						
0.444	3191+12.11	PASSING	9	x	12	12	20						
0.446	3191+22.67	DRIVING							1	x	10	10	App slab ties into mainline paving
0.478	3192+91.63	DRIVING	11	x	12	15	20	12					1st panel after app. Slab and slab end
0.478	3192+91.63	PASSING							1	x	12	12	1st panel after app. Slab and slab end
0.507	3194+44.75	PASSING							2	x	2	4	
0.519	3195+08.11	DRIVING							2	x	2	4	
0.519	3195+08.11	PASSING							2	x	2	4	
0.528	3195+55.63	DRIVING							4	x	4	16	
0.528	3195+55.63	PASSING							2	x	2	4	
0.552	3196+82.35	DRIVING							2	x	2	4	
0.61	3199+88.59	DRIVING							2	x	2	4	
0.613	3200+04.43	DRIVING							2	x	2	4	
0.613	3200+04.43	PASSING							2	x	2	4	
0.616	3200+20.27	PASSING							2	x	2	4	
0.662	3202+63.15	PASSING							2	x	2	4	
0.667	3202+89.55	DRIVING							2	x	2	4	
0.683	3203+74.03	DRIVING							2	x	2	4	
0.695	3204+37.39	DRIVING	6	x	12	8	20						
0.697	3204+47.95	DRIVING							1	x	4	4	Along white edge line
0.734	3206+43.31	DRIVING							3	x	3	9	
0.804	3210+12.91	DRIVING							2	x	4	8	
0.81	3210+44.59	DRIVING	7	x	12	9	20						
0.82	3210+97.39	DRIVING	6	x	12	8	20						
0.899	3215+14.51	DRIVING							2	x	2	4	
0.92	3216+25.39	DRIVING	6	x	12	8	20						
0.923	3216+41.23	DRIVING							2	x	3	6	
0.926	3216+57.07	DRIVING	6	x	12	8	20						
0.96	3218+36.59	DRIVING	6	x	12	8	20						
0.963	3218+52.43	DRIVING							2	x	2	4	
0.965	3218+62.99	DRIVING							2	x	2	4	
0.969	3218+84.11	DRIVING							2	x	2	4	
0.984	3219+63.31	DRIVING							2	x	2	4	
SUBTOTAL						**609**	**1380**					**563**	**SUBTOTAL FOR MILE 60**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
61-EB													
0.029	3222+02.49	PASSING							2	X	2	4	
0.042	3222+71.13	DRIVING							6	X	12	72	
0.066	3223+97.85	DRIVING							6	X	12	72	
0.066	3223+97.85	PASSING							6	X	12	72	
0.069	3224+13.69	DRIVING							6	X	12	72	
0.079	3224+66.49	DRIVING							6	X	12	72	
0.085	3224+98.17	DRIVING							2	X	3	6	
0.091	3225+29.85	DRIVING							2	X	2	4	
0.109	3226+24.89	DRIVING	6	x	12	8	20						
0.112	3226+40.73	DRIVING	6	x	12	8	20						

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	4

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
61-EB CONT'D													
0.127	3227+19.93	DRIVING							2	X	2	4	
0.133	3227+51.61	DRIVING							2	X	2	4	
0.142	3227+99.13	DRIVING	6	x	12	8	20						
0.142	3227+99.13	PASSING							3	X	3	9	
0.145	3228+14.97	DRIVING	6	x	12	8	20						
0.151	3228+46.65	DRIVING	6	x	12	8	20						
0.151	3228+46.65	PASSING	6	x	12	8	20						
0.155	3228+67.77	DRIVING	6	x	12	8	20						
0.158	3228+83.61	DRIVING	6	x	12	8	20						
0.161	3228+99.45	DRIVING	6	x	12	8	20						
0.161	3228+99.45	RAMP							5	X	2	10	
0.164	3229+15.29	DRIVING							3	X	3	9	
0.167	3229+31.13	DRIVING							3	X	3	9	
0.17	3229+46.97	DRIVING							3	X	2	6	
0.173	3229+62.81	DRIVING							2	X	2	4	
0.176	3229+78.65	DRIVING							2	X	2	4	
0.179	3229+94.49	DRIVING							2	X	2	4	
0.182	3230+10.33	DRIVING	6	x	12	8	20						
0.185	3230+26.17	DRIVING							2	X	2	4	
0.188	3230+42.01	DRIVING							2	X	4	8	
0.194	3230+73.69	DRIVING	6	x	12	8	20						
0.197	3230+89.53	DRIVING	6	x	12	8	20						
0.2	3231+05.37	DRIVING	6	x	12	8	20						
0.203	3231+21.21	DRIVING	6	x	12	8	20						
0.206	3231+37.05	DRIVING							2	X	2	4	
0.21	3231+58.17	DRIVING							5	X	2	10	
0.213	3231+74.01	DRIVING							2	X	2	4	
0.216	3231+89.85	DRIVING							2	X	2	4	
0.219	3232+05.69	DRIVING	6	x	12	8	20						
0.225	3232+37.37	DRIVING	6	x	12	8	20						
0.228	3232+53.21	DRIVING	6	x	12	8	20						
0.241	3233+21.85	DRIVING	6	x	12	8	20						
0.243	3233+32.41	DRIVING	6	x	12	8	20						
0.246	3233+48.25	DRIVING							2	X	2	4	
0.249	3233+64.09	DRIVING	6	x	12	8	20						
0.255	3233+95.77	PASSING							2	X	2	4	
0.261	3234+27.45	PASSING							112	X	16	1792	
0.267	3234+59.13	DRIVING	6	x	12	8	20						
0.27	3234+74.97	DRIVING	64	x	12	85	20	48					
0.285	3235+54.17	DRIVING	32	x	12	43	20	24					
0.402	3241+71.93	DRIVING							2	X	2	4	
0.417	3242+51.13	DRIVING							2	X	2	4	
0.417	3242+51.13	PASSING							2	X	2	4	
0.448	3244+14.81	DRIVING							2	X	5	10	
0.496	3246+68.25	DRIVING							2	X	2	4	
0.514	3247+63.29	DRIVING	6	x	12	8	20						
0.587	3251+48.73	DRIVING							2	X	2	4	
0.599	3252+12.09	DRIVING							2	X	2	4	
0.627	3253+59.93	DRIVING	6	x	12	8	20						
0.63	3253+75.77	DRIVING	8	x	12	11	20						
0.63	3253+75.77	PASSING	8	x	16	14	20						
0.636	3254+07.45	DRIVING	7	x	12	9	20						
0.648	3254+70.81	DRIVING	48	x	12	64	20	36					
0.657	3255+18.33	PASSING	38	x	16	68	20	24					
0.662	3255+44.73	DRIVING	12	x	12	16	20	12					
0.667	3255+71.13	DRIVING	7	x	12	9	20						
0.67	3255+86.97	DRIVING	7	x	12	9	20						

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	5

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
61-EB CONT'D													
0.679	3256+34.49	DRIVING							2	X	2	4	
0.68	3256+39.77	DRIVING							5	X	1	5	Along white edge line
0.696	3257+24.25	DRIVING							2	X	2	4	
0.702	3257+55.93	DRIVING	6	x	12	8	20						
0.705	3257+71.77	DRIVING	6	x	12	8	20						
0.736	3259+35.45	DRIVING	6	x	12	8	20						
0.736	3259+35.45	PASSING	6	x	16	11	20						
0.742	3259+67.13	DRIVING							2	X	5	10	
0.785	3261+94.17	DRIVING							2	X	4	8	
0.791	3262+25.85	DRIVING							2	X	2	4	
0.809	3263+20.89	DRIVING							2	X	2	4	
0.815	3263+52.57	DRIVING							2	X	4	8	
0.827	3264+15.93	DRIVING	6	x	12	8	20						
0.861	3265+95.45	DRIVING	6	x	12	8	20						
0.861	3265+95.45	DRIVING	6	x	16	11	20						
SUBTOTAL						**574**	**800**	**144**				**2352**	**SUBTOTAL FOR MILE 61**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
62-EB													
0	3273+49.44	DRIVING							2	x	2	4	
0.004	3273+70.56	DRIVING							2	x	2	4	
0.01	3274+02.24	DRIVING							2	x	2	4	
0.013	3274+18.08	DRIVING							2	x	2	4	
0.046	3275+92.32	DRIVING							2	x	2	4	
0.052	3276+24.	DRIVING							2	x	2	4	
0.055	3276+39.84	DRIVING							2	x	2	4	
0.077	3277+56.	PASSING							4	x	2	8	
0.077	3277+56.	DRIVING							2	x	2	4	
0.08	3277+71.84	PASSING							2	x	2	4	
0.083	3277+87.68	PASSING							3	x	2	6	
0.086	3278+03.52	PASSING							2	x	2	4	
0.086	3278+03.52	DRIVING							3	x	2	6	
0.089	3278+19.36	DRIVING							2	x	2	4	
0.095	3278+51.04	DRIVING							2	x	2	4	
0.104	3278+98.56	DRIVING							2	x	2	4	
0.113	3279+46.08	DRIVING							2	x	2	4	
0.122	3279+93.6	DRIVING							2	x	2	4	
0.128	3280+25.28	DRIVING							2	x	2	4	
0.134	3280+56.96	DRIVING							2	x	2	4	
0.143	3281+04.48	DRIVING							2	x	2	4	
0.146	3281+20.32	DRIVING							2	x	2	4	
0.149	3281+36.16	DRIVING							2	x	2	4	
0.156	3281+73.12	DRIVING							2	x	2	4	
0.167	3282+31.2	DRIVING							4	x	2	8	
0.18	3282+99.84	DRIVING							2	x	2	4	
0.295	3289+07.04	DRIVING							2	x	2	4	
0.301	3289+38.72	DRIVING							2	x	2	4	
0.435	3296+46.24	DRIVING							2	x	2	4	
0.626	3306+54.72	PASSING							2	x	2	4	
0.729	3311+98.56	DRIVING							2	x	2	4	
0.75	3313+09.44	DRIVING							2	x	2	4	
0.796	3315+52.32	DRIVING							2	x	2	4	
SUBTOTAL						**0**	**0**					**144**	**SUBTOTAL FOR MILE 62**

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	6

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
63-EB													
0.075	3330+24.91	DRIVING							2	x	2	4	
0.081	3330+56.59	DRIVING							2	x	2	4	
0.108	3331+99.15	PASSING							2	x	2	4	
0.156	3334+52.59	PASSING							2	x	2	4	
0.165	3335+00.11	DRIVING							2	x	2	4	
0.168	3335+15.95	DRIVING							2	x	2	4	
0.247	3339+33.07	DRIVING							2	x	2	4	
0.253	3339+64.75	DRIVING							2	x	2	4	
0.285	3341+33.71	DRIVING	6	x	12	8	20						
0.285	3341+33.71	PASSING	6	x	16	11	20						
0.335	3343+97.71	DRIVING							2	x	2	4	
0.353	3344+92.75	DRIVING							2	x	2	4	
0.362	3345+40.27	DRIVING							2	x	2	4	
0.368	3345+71.95	PASSING							2	x	2	4	
0.371	3345+87.79	PASSING							2	x	2	4	
0.435	3349+25.71	DRIVING							2	x	2	4	
0.438	3349+41.55	DRIVING							2	x	2	4	
0.441	3349+57.39	DRIVING							2	x	2	4	
0.444	3349+73.23	DRIVING							2	x	2	4	
0.447	3349+89.07	DRIVING							2	x	2	4	
0.447	3349+89.07	PASSING							2	x	2	4	
0.456	3350+36.59	DRIVING							2	x	2	4	
0.462	3350+68.27	DRIVING							2	x	2	4	
0.462	3350+68.27	PASSING							2	x	2	4	
0.465	3350+84.11	DRIVING							2	x	2	4	
0.465	3350+84.11	PASSING							2	x	2	4	
0.477	3351+47.47	DRIVING							2	x	2	4	
0.477	3351+47.47	PASSING							2	x	2	4	
0.48	3351+63.31	DRIVING							2	x	2	4	
0.483	3351+79.15	PASSING							2	x	2	4	
0.486	3351+94.99	DRIVING	6	x	12	8	20						
0.493	3352+31.95	DRIVING							2	x	2	4	
0.508	3353+11.15	DRIVING							4	x	2	8	
0.544	3355+01.23	DRIVING							2	x	2	4	
0.547	3355+17.07	DRIVING							2	x	2	4	
0.547	3355+17.07	DRIVING							2	x	2	4	
0.55	3355+32.91	DRIVING							2	x	2	4	
0.559	3355+80.43	DRIVING							2	x	2	4	Edge Line
0.562	3355+96.27	DRIVING							2	x	2	4	Edge Line
0.568	3356+27.95	DRIVING							2	x	2	4	Edge Line
0.586	3357+22.99	DRIVING							2	x	2	4	
0.589	3357+38.83	DRIVING							2	x	2	4	
0.61	3358+49.71	PASSING							2	x	2	4	
0.61	3358+49.71	DRIVING							2	x	2	4	
0.617	3358+86.67	DRIVING	6	x	12	8	20						
0.618	3358+91.95	PASSING	6	x	16	11	20						
0.618	3358+91.95	DRIVING	6	x	12	8	20						
0.619	3358+97.23	DRIVING							2	x	2	4	
0.619	3358+97.23	PASSING							2	x	2	4	
0.622	3359+13.07	DRIVING							2	x	2	4	
0.629	3359+50.03	DRIVING							2	x	2	4	
0.629	3359+50.03	PASSING							2	x	2	4	
0.632	3359+65.87	DRIVING							2	x	2	4	
0.638	3359+97.55	DRIVING							2	x	2	4	Edge Line
0.641	3360+13.39	DRIVING							2	x	2	4	Edge Line
0.645	3360+34.51	DRIVING							2	x	2	4	Edge Line
0.65	3360+60.91	DRIVING							2	x	2	4	Edge Line
0.653	3360+76.75	DRIVING							2	x	2	4	Edge Line

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	7

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
63-EB CONT'D													
0.692	3362+82.67	DRIVING							2	x	2	4	Edge Line
0.771	3366+99.79	DRIVING							2	x	2	4	
0.773	3367+10.35	PASSING							2	x	2	4	
0.819	3369+53.23	DRIVING							2	x	2	4	
0.825	3369+84.91	DRIVING							2	x	2	4	
0.834	3370+32.43	PASSING							4	x	2	8	
0.834	3370+32.43	DRIVING	6	x	12	8	20						
0.858	3371+59.15	DRIVING							6	x	2	12	Edge Line
0.868	3372+11.95	RAMP	6	x	6	4	10						
0.87	3372+22.51	PASSING							4	x	2	8	
0.877	3372+59.47	RAMP	15	x	17	28	20	12					
0.897	3373+65.07	DRIVING							2	x	2	4	
0.913	3374+49.55	DRIVING	6	x	12	8	20						
0.913	3374+49.55	PASSING	6	x	16	11	20						
0.914	3374+54.83	PASSING							2	x	2	4	
0.916	3374+65.39	RAMP	15	x	12	20	20	12					
0.917	3374+70.67	RAMP							2	x	2	4	
0.922	3374+97.07	DRIVING							2	x	2	4	
0.927	3375+23.47	DRIVING	6	x	12	8	20						
0.934	3375+60.43	DRIVING	6	x	12	8	20						
0.949	3376+39.63	PASSING							2	x	2	4	
0.949	3376+39.63	DRIVING							4	x	2	8	
0.955	3376+71.31	DRIVING	6	x	12	8	20						
0.961	3377+02.99	RAMP	15	x	17	28	20	12					
0.967	3377+34.67	DRIVING	6	x	12	8	20						
0.972	3377+61.07	DRIVING							2	x	2	4	Edge Line
0.98	3378+03.31	DRIVING							4	x	2	8	Edge Line
0.981	3378+08.59	DRIVING							2	x	2	4	Edge Line
0.983	3378+19.15	DRIVING							4	x	2	8	Edge Line
0.99	3378+56.11	DRIVING							2	x	2	4	Edge Line
0.992	3378+66.67	DRIVING							2	x	2	4	Edge Line
0.998	3378+98.35	DRIVING							4	x	2	8	
SUBTOTAL						**193**	**330**					**328**	**SUBTOTAL FOR MILE 63**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
64-EB													
0.071	3382+85.9	DRIVING							2	x	2	4	
0.183	3388+77.26	DRIVING	15	x	12	20	20	12					
0.186	3388+93.1	PASSING							2	x	2	4	
0.189	3389+08.94	PASSING	54	x	16	96	20	36					
0.189	3389+08.94	DRIVING	48	x	12	64	20	36					
0.293	3394+58.06	DRIVING							2	x	2	4	
0.32	3396+00.62	PASSING							2	x	2	4	
0.323	3396+16.46	PASSING							2	x	2	4	
0.323	3396+16.46	DRIVING	6	x	12	8	20						
0.326	3396+32.3	DRIVING							2	x	2	4	
0.328	3396+42.86	PASSING							2	x	2	4	
0.331	3396+58.7	DRIVING							2	x	2	4	
0.358	3398+01.26	DRIVING							2	x	2	4	
0.358	3398+01.26	PASSING							2	x	2	4	
0.361	3398+17.1	DRIVING							2	x	2	4	
0.379	3399+12.14	DRIVING							2	x	2	4	Edge Line
0.382	3399+27.98	DRIVING							2	x	2	4	Edge Line
0.385	3399+43.82	DRIVING							2	x	2	4	
0.389	3399+64.94	DRIVING							2	x	2	4	Edge Line
0.392	3399+80.78	DRIVING							2	x	2	4	Edge Line

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	8

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
64-EB CONT'D													
0.407	3400+59.98	RAMP							2	x	2	4	
0.409	3400+70.54	DRIVING							2	x	2	4	Edge Line
0.437	3402+18.38	PASSING							2	x	2	4	
0.461	3403+45.1	DRIVING							2	x	2	4	Edge Line
0.477	3404+29.58	DRIVING							2	x	2	4	Edge Line
0.477	3404+29.58	RAMP	6	x	6	4	10						
0.486	3404+77.1	DRIVING							2	x	2	4	
0.486	3404+77.1	PASSING							2	x	2	4	
0.507	3405+87.98	DRIVING							2	x	2	4	
0.512	3406+14.38	DRIVING							2	x	2	4	Edge Line
0.543	3407+78.06	DRIVING							2	x	2	4	Edge Line
0.547	3407+99.18	PASSING							2	x	2	4	Edge Line
0.559	3408+62.54	DRIVING							2	x	2	4	Edge Line
0.577	3409+57.58	DRIVING							2	x	2	4	
0.595	3410+52.62	DRIVING							2	x	2	4	Edge Line
0.607	3411+15.98	PASSING							2	x	2	4	
0.665	3414+22.22	PASSING							2	x	2	4	
0.795	3421+08.62	DRIVING							2	x	2	4	
0.798	3421+24.46	DRIVING							2	x	2	4	2 OF THEM
0.798	3421+24.46	DRIVING							2	x	2	4	
0.819	3422+35.34	DRIVING							2	x	2	4	
0.852	3424+09.58	DRIVING							2	x	2	4	
0.886	3425+89.1	PASSING							2	x	2	4	
0.961	3429+85.1	PASSING							2	x	2	4	
0.965	3430+06.22	DRIVING							2	x	2	4	
0.977	3430+69.58	DRIVING							2	x	2	4	
0.983	3431+01.26	DRIVING							4	x	2	8	
0.992	3431+48.78	DRIVING							2	x	2	4	
0.998	3431+80.46	DRIVING							2	x	2	4	
SUBTOTAL						**192**	**90**	**72**				**180**	**SUBTOTAL FOR MILE 64**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
65-EB													
0	3432+32.74	DRIVING							2	X	2	4	
0	3432+32.74	PASSING							2	X	2	4	
0.003	3432+48.58	DRIVING							2	X	2	4	
0.003	3432+48.58	PASSING							2	X	2	4	
0.006	3432+64.42	DRIVING							2	X	2	4	
0.006	3432+64.42	PASSING							2	X	2	4	
0.009	3432+80.26	DRIVING							2	X	2	4	
0.009	3432+80.26	PASSING							2	X	2	4	
0.012	3432+96.1	DRIVING							2	X	2	4	
0.012	3432+96.1	PASSING							2	X	2	4	
0.015	3433+11.94	DRIVING							2	X	2	4	
0.015	3433+11.94	PASSING							2	X	2	4	
0.018	3433+27.78	DRIVING							2	X	2	4	
0.021	3433+43.62	PASSING							4	X	2	8	
0.021	3433+43.62	DRIVING							2	X	2	4	
0.024	3433+59.46	DRIVING							3	X	2	6	
0.024	3433+59.46	PASSING							3	X	2	6	
0.027	3433+75.3	DRIVING							2	X	2	4	
0.027	3433+75.3	PASSING							2	X	2	4	
0.03	3433+91.14	DRIVING							2	X	2	4	
0.03	3433+91.14	PASSING							2	X	2	4	
0.033	3434+06.98	DRIVING							4	X	2	8	
0.037	3434+28.1	DRIVING							4	X	2	8	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	9

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
65-EB CONT'D													
0.043	3434+59.78	DRIVING							2	X	2	4	
0.046	3434+75.62	DRIVING							2	X	2	4	
0.049	3434+91.46	DRIVING							4	X	2	8	
0.051	3435+02.02	DRIVING							2	X	2	4	
0.054	3435+17.86	PASSING							2	X	2	4	
0.058	3435+38.98	DRIVING	6	x	12	8	20						
0.061	3435+54.82	DRIVING							2	X	2	4	
0.064	3435+70.66	DRIVING							2	X	2	4	
0.07	3436+02.34	DRIVING							2	X	2	4	
0.073	3436+18.18	DRIVING							2	X	2	4	
0.076	3436+34.02	DRIVING							2	X	2	4	
0.082	3436+65.7	DRIVING							2	X	2	4	
0.085	3436+81.54	DRIVING							2	X	2	4	
0.091	3437+13.22	DRIVING							2	X	2	4	
0.091	3437+13.22	PASSING							2	X	2	4	
0.094	3437+29.06	PASSING							2	X	2	4	
0.094	3437+29.06	DRIVING							3	X	2	6	
0.097	3437+44.9	DRIVING							3	X	2	6	
0.1	3437+60.74	DRIVING							2	X	2	4	
0.1	3437+60.74	PASSING							2	X	2	4	
0.1	3437+60.74	DRIVING							2	X	2	4	EDGE LINE
0.103	3437+76.58	DRIVING							2	X	2	4	EDGE LINE
0.105	3437+87.14	PASSING							2	X	2	4	
0.106	3437+92.42	DRIVING							2	X	2	4	
0.112	3438+24.1	DRIVING							2	X	3	6	
0.115	3438+39.94	PASSING							2	X	2	4	
0.115	3438+39.94	DRIVING							4	X	2	8	
0.118	3438+55.78	PASSING							4	X	2	8	
0.118	3438+55.78	DRIVING	6	x	12	8	20						
0.121	3438+71.62	PASSING	6	x	16	11	20						
0.121	3438+71.62	DRIVING							4	X	2	8	
0.124	3438+87.46	DRIVING							2	X	2	4	
0.127	3439+03.3	DRIVING							2	X	2	4	
0.13	3439+19.14	DRIVING							2	X	2	4	
0.133	3439+34.98	PASSING							4	X	2	8	
0.133	3439+34.98	DRIVING							2	X	2	4	
0.136	3439+50.82	DRIVING							3	X	2	6	
0.136	3439+50.82	PASSING							3	X	2	6	
0.139	3439+66.66	PASSING							4	X	2	8	
0.139	3439+66.66	DRIVING							3	X	2	6	
0.145	3439+98.34	PASSING							4	X	2	8	
0.148	3440+14.18	DRIVING							2	X	2	4	
0.148	3440+14.18	PASSING							2	X	2	4	
0.151	3440+30.02	DRIVING							2	X	2	4	
0.152	3440+35.3	PASSING							6	X	2	12	
0.154	3440+45.86	PASSING							4	X	2	8	
0.156	3440+56.42	PASSING							6	X	2	12	
0.157	3440+61.7	DRIVING							2	X	2	4	
0.157	3440+61.7	PASSING							2	X	2	4	
0.159	3440+72.26	PASSING							6	X	2	12	
0.16	3440+77.54	PASSING							2	X	2	4	
0.16	3440+77.54	DRIVING							2	X	2	4	
0.162	3440+88.1	PASSING							4	X	2	8	
0.163	3440+93.38	PASSING							2	X	2	4	
0.165	3441+03.94	PASSING							6	X	2	12	
0.168	3441+19.78	PASSING							6	X	2	12	
0.171	3441+35.62	PASSING							6	X	2	12	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	10

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
65-EB CONT'D													
0.172	3441+40.9	PASSING							4	X	2	8	
0.172	3441+40.9	DRIVING							2	X	2	4	
0.174	3441+51.46	PASSING							4	X	2	8	
0.176	3441+62.02	DRIVING							2	X	2	4	
0.176	3441+62.02	PASSING							2	X	2	4	
0.177	3441+67.3	PASSING							4	X	2	8	
0.178	3441+72.58	PASSING							2	X	2	4	2 OF THEM
0.178	3441+72.58	PASSING							4	X	2	8	
0.178	3441+72.58	DRIVING							2	X	2	4	
0.18	3441+83.14	PASSING							2	X	2	4	
0.182	3441+93.7	DRIVING							2	X	2	4	
0.183	3441+98.98	PASSING							2	X	2	4	
0.188	3442+25.38	DRIVING							2	X	2	4	
0.188	3442+25.38	PASSING							2	X	2	4	
0.19	3442+35.94	PASSING							2	X	2	4	
0.194	3442+57.06	DRIVING	6	x	12	8	20						
0.194	3442+57.06	PASSING	6	x	16	11	20						
0.197	3442+72.9	DRIVING							2	X	2	4	
0.197	3442+72.9	PASSING							2	X	2	4	
0.2	3442+88.74	DRIVING	6	x	12	8	20						
0.2	3442+88.74	PASSING	6	x	16	11	20						
0.203	3443+04.58	DRIVING							2	X	2	4	
0.203	3443+04.58	DRIVING							4	X	2	8	
0.203	3443+04.58	PASSING							3	X	2	6	
0.206	3443+20.42	PASSING	6	x	16	11	20						
0.206	3443+20.42	DRIVING							2	X	2	4	2 OF THEM
0.206	3443+20.42	DRIVING							2	X	2	4	EDGE LINE
0.209	3443+36.26	DRIVING							4	X	2	8	
0.209	3443+36.26	PASSING	6	x	16	11	20						
0.212	3443+52.1	PASSING	6	x	16	11	20						
0.212	3443+52.1	DRIVING							4	X	2	8	
0.212	3443+52.1	DRIVING							2	X	2	4	
0.215	3443+67.94	DRIVING							3	X	2	6	
0.215	3443+67.94	DRIVING							4	X	2	8	
0.215	3443+67.94	PASSING							2	X	2	4	
0.218	3443+83.78	PASSING	6	x	16	11	20						
0.218	3443+83.78	DRIVING							2	X	2	4	2 OF THEM
0.218	3443+83.78	DRIVING							2	X	2	4	
0.221	3443+99.62	PASSING	6	x	16	11	20						
0.221	3443+99.62	DRIVING							4	X	3	12	
0.224	3444+15.46	PASSING	6	x	16	11	20						
0.224	3444+15.46	DRIVING	6	x	12	8	20						
0.227	3444+31.3	DRIVING							2	X	2	4	
0.227	3444+31.3	DRIVING							4	X	2	8	
0.227	3444+31.3	PASSING							2	X	2	4	
0.23	3444+47.14	PASSING	6	x	16	11	20						
0.233	3444+62.98	PASSING	6	x	16	11	20						
0.233	3444+62.98	DRIVING	6	x	12	8	20						
0.236	3444+78.82	DRIVING	6	x	12	8	20						
0.239	3444+94.66	PASSING	6	x	16	11	20						
0.239	3444+94.66	DRIVING							6	X	2	12	
0.242	3445+10.5	PASSING	6	x	16	11	20						
0.243	3445+15.78	DRIVING							2	X	2	4	
0.245	3445+26.34	DRIVING							4	X	2	8	
0.245	3445+26.34	PASSING							2	X	2	4	
0.248	3445+42.18	DRIVING							2	X	2	4	
0.248	3445+42.18	PASSING							4	X	2	8	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1 Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	11

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
65-EB CONT'D													
0.251	3445+58.02	DRIVING							2	X	2	4	
0.254	3445+73.86	DRIVING							2	X	2	4	
0.257	3445+89.7	PASSING							2	X	4	8	
0.257	3445+89.7	DRIVING							2	X	2	4	
0.26	3446+05.54	PASSING							2	X	2	4	2 OF THEM
0.26	3446+05.54	PASSING							4	X	2	8	
0.26	3446+05.54	DRIVING							2	X	2	4	
0.266	3446+37.22	DRIVING							2	X	2	4	
0.269	3446+53.06	DRIVING							2	X	2	4	
0.272	3446+68.9	DRIVING							2	X	2	4	
0.276	3446+90.02	DRIVING							4	X	2	8	
0.279	3447+05.86	PASSING							2	X	2	4	
0.281	3447+16.42	DRIVING							2	X	2	4	
0.284	3447+32.26	PASSING	6	x	16	11	20						
0.284	3447+32.26	DRIVING							3	X	2	6	
0.287	3447+48.1	PASSING							4	X	2	8	
0.287	3447+48.1	DRIVING							2	X	2	4	
0.287	3447+48.1	DRIVING							3	X	2	6	
0.291	3447+69.22	DRIVING							2	X	2	4	
0.294	3447+85.06	DRIVING							2	X	2	4	
0.294	3447+85.06	PASSING							2	X	2	4	
0.3	3448+16.74	DRIVING							2	X	2	4	
0.303	3448+32.58	PASSING							4	X	2	8	
0.303	3448+32.58	DRIVING							4	X	2	8	
0.306	3448+48.42	PASSING							4	X	2	8	
0.306	3448+48.42	DRIVING	6	x	12	8	20						
0.309	3448+64.26	PASSING	6	x	16	11	20						
0.309	3448+64.26	DRIVING	6	x	12	8	20						
0.312	3448+80.1	DRIVING							4	X	2	8	2 OF THEM
0.312	3448+80.1	DRIVING							2	X	2	4	
0.315	3448+95.94	DRIVING							2	X	2	4	
0.318	3449+11.78	DRIVING							2	X	2	4	
0.318	3449+11.78	PASSING							2	X	2	4	
0.321	3449+27.62	DRIVING							3	X	2	6	
0.327	3449+59.3	DRIVING							2	X	2	4	
0.333	3449+90.98	DRIVING							2	X	2	4	
0.336	3450+06.82	DRIVING							4	X	2	8	
0.336	3450+06.82	PASSING							4	X	2	8	
0.339	3450+22.66	PASSING							2	X	2	4	
0.339	3450+22.66	DRIVING							4	X	2	8	
0.342	3450+38.5	DRIVING							4	X	2	8	2 OF THEM
0.342	3450+38.5	DRIVING							2	X	2	4	2 OF THEM
0.345	3450+54.34	PASSING							6	X	2	12	
0.345	3450+54.34	DRIVING							6	X	2	12	
0.348	3450+70.18	PASSING							4	X	2	8	
0.348	3450+70.18	DRIVING	6	x	12	8	20						
0.351	3450+86.02	DRIVING							2	X	2	4	
0.351	3450+86.02	PASSING							2	X	2	4	
0.354	3451+01.86	PASSING							2	X	2	4	
0.354	3451+01.86	DRIVING							4	X	2	8	
0.357	3451+17.7	DRIVING							2	X	2	4	
0.36	3451+33.54	DRIVING	6	x	12	8	20						
0.36	3451+33.54	PASSING							4	X	2	8	
0.363	3451+49.38	DRIVING							4	X	2	8	
0.363	3451+49.38	PASSING							4	X	2	8	
0.366	3451+65.22	DRIVING							2	X	2	4	
0.369	3451+81.06	DRIVING							2	X	2	4	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	12

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
65-EB CONT'D													
0.372	3451+96.9	DRIVING							4	X	2	8	
0.375	3452+12.74	PASSING							2	X	2	4	
0.375	3452+12.74	DRIVING							4	X	2	8	
0.379	3452+33.86	DRIVING							4	X	2	8	
0.379	3452+33.86	PASSING							4	X	2	8	
0.382	3452+49.7	DRIVING							3	X	2	6	
0.382	3452+49.7	PASSING							3	X	2	6	
0.385	3452+65.54	DRIVING							2	X	2	4	
0.39	3452+91.94	DRIVING							3	X	2	6	
0.39	3452+91.94	DRIVING							2	X	2	4	
0.39	3452+91.94	PASSING							3	X	2	6	
0.394	3453+13.06	DRIVING							4	X	2	8	
0.397	3453+28.9	DRIVING							2	X	2	4	
0.397	3453+28.9	PASSING							2	X	2	4	
0.4	3453+44.74	DRIVING							2	X	2	4	
0.4	3453+44.74	PASSING							2	X	2	4	
0.403	3453+60.58	DRIVING							2	X	2	4	
0.406	3453+76.42	DRIVING							4	X	2	8	
0.406	3453+76.42	PASSING							4	X	2	8	
0.409	3453+92.26	DRIVING							4	X	2	8	
0.412	3454+08.1	DRIVING							4	X	2	8	
0.412	3454+08.1	PASSING							4	X	2	8	
0.415	3454+23.94	PASSING							4	X	2	8	
0.421	3454+55.62	DRIVING							2	X	2	4	
0.424	3454+71.46	DRIVING							2	X	2	4	
0.427	3454+87.3	DRIVING							2	X	2	4	
0.43	3455+03.14	PASSING							3	X	2	6	
0.433	3455+18.98	DRIVING							2	X	2	4	
0.436	3455+34.82	DRIVING							3	X	2	6	
0.442	3455+66.5	DRIVING							3	X	2	6	
0.445	3455+82.34	DRIVING							2	X	2	4	
0.445	3455+82.34	PASSING							2	X	2	4	
0.448	3455+98.18	DRIVING							3	X	2	6	
0.448	3455+98.18	PASSING							63	X	2	126	ALONG CENTER LINE
0.451	3456+14.02	DRIVING							2	X	2	4	
0.451	3456+14.02	PASSING							2	X	2	4	
0.454	3456+29.86	DRIVING							4	X	2	8	
0.454	3456+29.86	PASSING							4	X	2	8	
0.457	3456+45.7	DRIVING							3	X	2	6	
0.46	3456+61.54	DRIVING							3	X	2	6	
0.463	3456+77.38	DRIVING							3	X	2	6	
0.463	3456+77.38	PASSING							16	X	2	32	ALONG CENTER LINE
0.466	3456+93.22	DRIVING							2	X	2	4	
0.466	3456+93.22	DRIVING							4	X	2	8	
0.466	3456+93.22	PASSING							4	X	2	8	
0.469	3457+09.06	DRIVING							2	X	2	4	
0.472	3457+24.9	DRIVING							4	X	2	8	
0.472	3457+24.9	PASSING							4	X	2	8	
0.475	3457+40.74	DRIVING							2	X	2	4	
0.475	3457+40.74	PASSING							2	X	2	4	
0.478	3457+56.58	DRIVING							2	X	2	4	
0.484	3457+88.26	PASSING							4	X	2	8	
0.484	3457+88.26	DRIVING							2	X	2	4	
0.49	3458+19.94	DRIVING							2	X	2	4	
0.49	3458+19.94	PASSING							2	X	2	4	
0.493	3458+35.78	PASSING							2	X	2	4	
0.496	3458+51.62	PASSING							2	X	2	4	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	13

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
65-EB CONT'D													
0.496	3458+51.62	DRIVING							2	X	2	4	
0.505	3458+99.14	DRIVING							2	X	2	4	
0.505	3458+99.14	PASSING							2	X	2	4	
0.508	3459+14.98	DRIVING							2	X	2	4	
0.508	3459+14.98	PASSING							2	X	2	4	
0.516	3459+57.22	DRIVING							2	X	2	4	
0.519	3459+73.06	DRIVING							2	X	2	4	
0.525	3460+04.74	DRIVING							2	X	2	4	
0.525	3460+04.74	PASSING							2	X	2	4	
0.538	3460+73.38	DRIVING							2	X	2	4	
0.541	3460+89.22	DRIVING							2	X	2	4	
0.55	3461+36.74	DRIVING							2	X	2	4	
0.553	3461+52.58	DRIVING							2	X	2	4	
0.556	3461+68.42	DRIVING							2	X	2	4	
0.559	3461+84.26	PASSING							2	X	4	8	
0.559	3461+84.26	DRIVING							2	X	2	4	
0.565	3462+15.94	PASSING							2	X	2	4	
0.565	3462+15.94	DRIVING							2	X	2	4	
0.568	3462+31.78	PASSING							2	X	2	4	
0.57	3462+42.34	PASSING							2	X	2	4	
0.58	3462+95.14	PASSING							2	X	2	4	
0.58	3462+95.14	DRIVING							2	X	2	4	
0.592	3463+58.5	DRIVING							2	X	2	4	
0.592	3463+58.5	PASSING							2	X	2	4	
0.598	3463+90.18	PASSING							2	X	2	4	
0.607	3464+37.7	DRIVING							2	X	3	6	
0.619	3465+01.06	DRIVING							2	X	2	4	
0.622	3465+16.9	DRIVING							2	X	2	4	
0.643	3466+27.78	PASSING							2	X	2	4	
0.65	3466+64.74	DRIVING							2	X	2	4	
0.653	3466+80.58	PASSING							2	X	2	4	
0.663	3467+33.38	PASSING							2	X	2	4	
0.674	3467+91.46	DRIVING							2	X	2	4	
0.689	3468+70.66	DRIVING							2	X	2	4	
0.707	3469+65.7	PASSING							2	X	2	4	
0.715	3470+07.94	DRIVING							2	X	2	4	
0.725	3470+60.74	DRIVING							2	X	2	4	
0.728	3470+76.58	DRIVING							3	X	2	6	
0.734	3471+08.26	DRIVING							2	X	2	4	
0.743	3471+55.78	DRIVING							3	X	2	6	
0.749	3471+87.46	DRIVING							2	X	2	4	
0.755	3472+19.14	DRIVING							2	X	2	4	
0.758	3472+34.98	DRIVING							2	X	2	4	
0.761	3472+50.82	DRIVING							2	X	2	4	
0.773	3473+14.18	DRIVING							2	X	2	4	
0.783	3473+66.98	DRIVING							2	X	2	4	
0.798	3474+46.18	DRIVING							4	X	2	8	
0.807	3474+93.7	DRIVING							6	X	2	12	
0.81	3475+09.54	DRIVING							6	X	2	12	
0.813	3475+25.38	DRIVING							3	X	2	6	
0.816	3475+41.22	DRIVING							4	X	2	8	
0.819	3475+57.06	DRIVING							3	X	2	6	
0.819	3475+57.06	PASSING							2	X	2	4	
0.822	3475+72.9	DRIVING							2	X	2	4	
0.825	3475+88.74	DRIVING							6	X	2	12	
0.828	3476+04.58	DRIVING							4	X	2	8	
0.834	3476+36.26	DRIVING							4	X	2	8	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	14

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
65-EB CONT'D													
0.846	3476+99.62	DRIVING							2	X	2	4	
0.849	3477+15.46	DRIVING							2	X	2	4	
0.852	3477+31.3	DRIVING							3	X	6	18	
0.861	3477+78.82	DRIVING							2	X	2	4	
0.864	3477+94.66	DRIVING							2	X	5	10	
0.867	3478+10.5	DRIVING							2	X	5	10	
0.87	3478+26.34	DRIVING							2	X	2	4	
0.873	3478+42.18	DRIVING							2	X	6	12	
0.876	3478+58.02	DRIVING							2	X	2	4	
0.879	3478+73.86	DRIVING							3	X	4	12	
0.882	3478+89.7	DRIVING							2	X	2	4	
0.885	3479+05.54	DRIVING							2	X	2	4	
0.888	3479+21.38	DRIVING	6	x	12	8	20						
0.888	3479+21.38	PASSING							2	X	6	12	
0.891	3479+37.22	DRIVING							2	X	4	8	
0.894	3479+53.06	DRIVING							2	X	5	10	
0.897	3479+68.9	DRIVING	6	x	12	8	20						
0.897	3479+68.9	PASSING							2	X	2	4	
0.897	3479+68.9	PASSING							2	X	2	4	
0.903	3480+00.58	DRIVING							2	X	5	10	
0.909	3480+32.26	DRIVING	6	x	12	8	20						
0.912	3480+48.1	PASSING							2	X	2	4	
0.912	3480+48.1	DRIVING	6	x	12	8	20						
0.915	3480+63.94	DRIVING							2	X	4	8	
0.919	3480+85.06	DRIVING							2	X	6	12	
0.922	3481+00.9	DRIVING	6	x	12	8	20						
0.928	3481+32.58	DRIVING							2	X	2	4	
0.928	3481+32.58	DRIVING							4	X	2	8	
0.931	3481+48.42	DRIVING							2	X	3	6	
0.934	3481+64.26	DRIVING							2	X	2	4	
0.934	3481+64.26	DRIVING							2	X	2	4	
0.934	3481+64.26	PASSING							2	X	2	4	
0.937	3481+80.1	DRIVING							2	X	6	12	
0.946	3482+27.62	DRIVING	6	x	12	8	20						
0.952	3482+59.3	DRIVING							2	X	3	6	
0.955	3482+75.14	DRIVING							2	X	2	4	
0.955	3482+75.14	DRIVING							2	X	3	6	
0.959	3482+96.26	DRIVING							2	X	2	4	
0.959	3482+96.26	DRIVING							2	X	4	8	
0.961	3483+06.82	DRIVING							2	X	4	8	
0.967	3483+38.5	DRIVING							2	X	4	8	
0.968	3483+43.78	DRIVING							2	X	3	6	
0.971	3483+59.62	DRIVING							2	X	4	8	
0.974	3483+75.46	DRIVING	6	x	12	8	20						
0.978	3483+96.58	DRIVING							2	X	2	4	
SUBTOTAL						**304**	**660**					**1958**	**SUBTOTAL FOR MILE 65**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
66-EB													
0.01	3485+62.37	DRIVING							2	x	2	4	
0.046	3487+52.45	DRIVING	6	x	12	8	20						
0.052	3487+84.13	DRIVING							2	x	3	6	
0.058	3488+15.81	PASSING							2	x	2	4	
0.071	3488+84.45	DRIVING							2	x	2	4	
0.08	3489+31.97	DRIVING							2	x	2	4	
0.092	3489+95.33	DRIVING	6	x	12	8	20						

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	15

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
66-EB CONT'D													
0.113	3491+06.21	DRIVING							2	x	2	4	
0.116	3491+22.05	DRIVING	6	x	12	8	20						
0.134	3492+17.09	DRIVING							2	x	2	4	
0.14	3492+48.77	DRIVING							2	x	2	4	
0.14	3492+48.77	PASSING							2	x	2	4	
0.149	3492+96.29	DRIVING							2	x	2	4	
0.168	3493+96.61	DRIVING							2	x	4	8	
0.18	3494+59.97	PASSING							2	x	2	4	
0.195	3495+39.17	PASSING							2	x	2	4	
0.246	3498+08.45	DRIVING							2	x	2	4	
0.256	3498+61.25	DRIVING	6	x	12	8	20						
0.259	3498+77.09	DRIVING	6	x	12	8	20						
0.262	3498+92.93	DRIVING							2	x	2	4	
0.265	3499+08.77	DRIVING							2	x	4	8	
0.274	3499+56.29	DRIVING							2	x	6	12	
0.277	3499+72.13	PASSING							2	x	2	4	
0.277	3499+72.13	DRIVING	6	x	12	8	20						
0.28	3499+87.97	DRIVING	6	x	12	8	20						
0.283	3500+03.81	DRIVING	6	x	12	8	20						
0.286	3500+19.65	DRIVING							2	x	4	8	
0.286	3500+19.65	DRIVING							2	x	2	4	
0.289	3500+35.49	DRIVING							2	x	2	4	
0.289	3500+35.49	PASSING							2	x	2	4	
0.292	3500+51.33	DRIVING							2	x	4	8	
0.307	3501+30.53	PASSING							2	x	2	4	
0.31	3501+46.37	DRIVING	6	x	12	8	20						
0.313	3501+62.21	DRIVING							2	x	2	4	
0.313	3501+62.21	PASSING							2	x	2	4	
0.316	3501+78.05	DRIVING							2	x	2	4	
0.328	3502+41.41	DRIVING							2	x	2	4	
0.338	3502+94.21	DRIVING							2	x	6	12	
0.341	3503+10.05	DRIVING							2	x	2	4	
0.344	3503+25.89	DRIVING							2	x	2	4	
0.353	3503+73.41	DRIVING							2	x	2	4	
0.356	3503+89.25	DRIVING							2	x	2	4	
0.362	3504+20.93	DRIVING							2	x	2	4	
0.365	3504+36.77	DRIVING	6	x	12	8	20						
0.365	3504+36.77	PASSING	6	x	16	11	20						
0.368	3504+52.61	DRIVING	6	x	12	8	20						
0.368	3504+52.61	PASSING	6	x	16	11	20						
0.371	3504+68.45	DRIVING							2	x	2	4	
0.374	3504+84.29	DRIVING							2	x	3	6	
0.374	3504+84.29	PASSING							2	x	2	4	
0.377	3505+00.13	DRIVING	6	x	12	8	20						
0.38	3505+15.97	DRIVING							2	x	4	8	
0.389	3505+63.49	DRIVING							2	x	2	4	
0.392	3505+79.33	DRIVING							2	x	2	4	
0.395	3505+95.17	DRIVING							2	x	2	4	
0.398	3506+11.01	DRIVING							2	x	2	4	
0.401	3506+26.85	DRIVING							2	x	2	4	
0.416	3507+06.05	DRIVING							2	x	2	4	
0.416	3507+06.05	DRIVING							2	x	3	6	
0.425	3507+53.57	DRIVING							2	x	2	4	
0.428	3507+69.41	DRIVING							2	x	2	4	
0.438	3508+22.21	DRIVING							2	x	4	8	
0.444	3508+53.89	DRIVING							2	x	4	8	
0.447	3508+69.73	DRIVING							2	x	5	10	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
66-EB CONT'D													
0.45	3508+85.57	DRIVING							2	x	5	10	
0.456	3509+17.25	DRIVING							2	x	4	8	
0.459	3509+33.09	DRIVING							2	x	2	4	
0.462	3509+48.93	DRIVING							2	x	6	12	
0.465	3509+64.77	DRIVING							2	x	2	4	
0.465	3509+64.77	DRIVING							2	x	2	4	
0.468	3509+80.61	DRIVING							2	x	6	12	
0.477	3510+28.13	DRIVING							2	x	4	8	
0.489	3510+91.49	DRIVING	6	x	12	8	20						
0.492	3511+07.33	DRIVING							2	x	2	4	
0.492	3511+07.33	DRIVING							2	x	2	4	
0.507	3511+86.53	DRIVING							2	x	2	4	
0.51	3512+02.37	DRIVING							2	x	3	6	
0.513	3512+18.21	DRIVING							2	x	3	6	
0.516	3512+34.05	DRIVING							2	x	2	4	
0.523	3512+71.01	DRIVING							2	x	2	4	
0.526	3512+86.85	PASSING							2	x	2	4	
0.529	3513+02.69	DRIVING							2	x	2	4	
0.535	3513+34.37	DRIVING	6	x	12	8	20						
0.538	3513+50.21	DRIVING							2	x	4	8	
0.541	3513+66.05	DRIVING							2	x	2	4	
0.544	3513+81.89	DRIVING							2	x	2	4	
0.547	3513+97.73	DRIVING							2	x	6	12	
0.55	3514+13.57	DRIVING							2	x	2	4	
0.556	3514+45.25	DRIVING							2	x	6	12	
0.556	3514+45.25	PASSING							2	x	2	4	
0.562	3514+76.93	PASSING							2	x	4	8	
0.568	3515+08.61	DRIVING	6	x	12	8	20						
0.571	3515+24.45	DRIVING							2	x	2	4	
0.574	3515+40.29	PASSING							2	x	2	4	
0.574	3515+40.29	DRIVING	6	x	12	8	20						
0.577	3515+56.13	DRIVING	6	x	12	8	20						
0.58	3515+71.97	DRIVING							2	x	6	12	
0.583	3515+87.81	DRIVING	6	x	12	8	20						
0.586	3516+03.65	DRIVING	6	x	12	8	20						
0.589	3516+19.49	PASSING	6	x	16	11	20						
0.589	3516+19.49	DRIVING							2	x	4	8	
0.595	3516+51.17	DRIVING	6	x	12	8	20						
0.598	3516+67.01	DRIVING	6	x	12	8	20						
0.598	3516+67.01	PASSING	6	x	16	11	20						
0.602	3516+88.13	DRIVING							2	x	5	10	
0.605	3517+03.97	DRIVING							2	x	5	10	
0.608	3517+19.81	DRIVING							2	x	5	10	
0.61	3517+30.37	DRIVING							2	x	5	10	
0.61	3517+30.37	DRIVING							2	x	2	4	
0.613	3517+46.21	DRIVING							2	x	3	6	
0.617	3517+67.33	DRIVING							2	x	4	8	
0.62	3517+83.17	DRIVING	6	x	12	8	20						
0.623	3517+99.01	DRIVING	6	x	12	8	20						
0.623	3517+99.01	PASSING	6	x	16	11	20						
0.626	3518+14.85	DRIVING							2	x	4	8	
0.629	3518+30.69	DRIVING	6	x	12	8	20						
0.632	3518+46.53	DRIVING	6	x	12	8	20						
0.632	3518+46.53	PASSING							2	x	3	6	
0.635	3518+62.37	DRIVING							2	x	4	8	
0.635	3518+62.37	PASSING							2	x	4	8	
0.638	3518+78.21	DRIVING	6	x	12	8	20						

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	17

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
66-EB CONT'D													
0.641	3518+94.05	DRIVING							2	x	6	12	
0.644	3519+09.89	DRIVING							2	x	6	12	
0.644	3519+09.89	PASSING							2	x	3	6	
0.647	3519+25.73	DRIVING	6	x	12	8	20						
0.65	3519+41.57	DRIVING							2	x	3	6	
0.656	3519+73.25	DRIVING	6	x	12	8	20						
0.659	3519+89.09	DRIVING	6	x	12	8	20						
0.662	3520+04.93	DRIVING							2	x	5	10	
0.665	3520+20.77	DRIVING							2	x	5	10	
0.668	3520+36.61	DRIVING							2	x	5	10	
0.671	3520+52.45	DRIVING							2	x	6	12	
0.677	3520+84.13	DRIVING							2	x	6	12	
0.683	3521+15.81	DRIVING							2	x	6	12	
0.686	3521+31.65	DRIVING							2	x	6	12	
0.692	3521+63.33	DRIVING							2	x	3	6	
0.695	3521+79.17	DRIVING							2	x	4	8	
0.698	3521+95.01	DRIVING	6	x	12	8	20						
0.701	3522+10.85	DRIVING							2	x	2	4	
0.704	3522+26.69	DRIVING							2	x	2	4	
0.707	3522+42.53	DRIVING	6	x	12	8	20						
0.71	3522+58.37	DRIVING	6	x	12	8	20						
0.71	3522+58.37	PASSING							2	x	2	4	
0.713	3522+74.21	DRIVING							2	x	5	10	
0.716	3522+90.05	DRIVING							2	x	2	4	
0.72	3523+11.17	DRIVING							2	x	3	6	
0.72	3523+11.17	DRIVING							2	x	2	4	
0.723	3523+27.01	DRIVING							2	x	2	4	
0.725	3523+37.57	DRIVING							2	x	2	4	
0.725	3523+37.57	DRIVING							2	x	2	4	
0.831	3528+97.25	PASSING							2	x	2	4	
0.85	3529+97.57	DRIVING							2	x	2	4	
0.859	3530+45.09	PASSING							2	x	2	4	
0.865	3530+76.77	DRIVING							2	x	2	4	
0.874	3531+24.29	DRIVING							2	x	2	4	
0.913	3533+30.21	DRIVING							2	x	2	4	
0.937	3534+56.93	DRIVING							2	x	2	4	
0.952	3535+36.13	DRIVING							2	x	2	4	
0.955	3535+51.97	DRIVING							2	x	2	4	
0.959	3535+73.09	DRIVING							2	x	2	4	
0.965	3536+04.77	DRIVING							2	x	2	4	
0.971	3536+36.45	DRIVING							2	x	2	4	
0.971	3536+36.45	DRIVING							2	x	2	4	
0.995	3537+63.17	DRIVING							2	x	2	4	
SUBTOTAL						**309**	**740**					**762**	**SUBTOTAL FOR MILE 66**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
67-EB													
0.009	3538+39.73	DRIVING							2	X	2	4	
0.012	3538+55.57	DRIVING							2	X	2	4	
0.021	3539+03.09	PASSING	17	x	16	30	20	12					CRACK JOINT TO JOINT
0.027	3539+34.77	DRIVING							2	X	2	4	
0.03	3539+50.61	DRIVING							2	X	2	4	
0.036	3539+82.29	DRIVING							2	X	2	4	
0.051	3540+61.49	DRIVING							2	X	3	6	
0.054	3540+77.33	DRIVING							2	X	2	4	
0.06	3541+09.01	DRIVING							2	X	3	6	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	18

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
67-EB CONT'D													
0.06	3541+09.01	DRIVING							2	X	3	6	
0.063	3541+24.85	DRIVING							2	X	3	6	
0.094	3542+88.53	DRIVING							2	X	2	4	
0.097	3543+04.37	DRIVING							2	X	2	4	
0.097	3543+04.37	DRIVING							2	X	2	4	
0.106	3543+51.89	DRIVING							2	X	2	4	
0.112	3543+83.57	DRIVING							2	X	2	4	
0.13	3544+78.61	DRIVING							2	X	2	4	
0.132	3544+89.17	DRIVING							2	X	4	8	
0.136	3545+10.29	DRIVING							2	X	2	4	
0.139	3545+26.13	DRIVING							2	X	2	4	
0.139	3545+26.13	PASSING							2	X	2	4	
0.142	3545+41.97	DRIVING							2	X	2	4	
0.142	3545+41.97	PASSING							2	X	2	4	
0.148	3545+73.65	DRIVING							2	X	2	4	
0.187	3547+79.57	DRIVING							2	X	2	4	
0.19	3547+95.41	DRIVING							2	X	2	4	
0.193	3548+11.25	DRIVING							2	X	3	6	
0.205	3548+74.61	DRIVING							2	X	3	6	
0.232	3550+17.17	DRIVING							2	X	2	4	
0.239	3550+54.13	DRIVING							2	X	2	4	
0.244	3550+80.53	DRIVING							2	X	3	6	
0.25	3551+12.21	DRIVING							2	X	2	4	
0.251	3551+17.49	DRIVING							2	X	2	4	
0.263	3551+80.85	DRIVING							2	X	2	4	
0.266	3551+96.69	DRIVING							2	X	2	4	
0.272	3552+28.37	DRIVING							2	X	2	4	
0.275	3552+44.21	DRIVING							2	X	3	6	
0.275	3552+44.21	PASSING							2	X	3	6	
0.278	3552+60.05	DRIVING							2	X	2	4	
0.278	3552+60.05	DRIVING							2	X	2	4	
0.281	3552+75.89	DRIVING	6	x	12	8	20						
0.293	3553+39.25	DRIVING							2	X	2	4	
0.302	3553+86.77	DRIVING							2	X	2	4	
0.302	3553+86.77	PASSING							2	X	2	4	
0.308	3554+18.45	PASSING							2	X	2	4	
0.311	3554+34.29	DRIVING							2	X	2	4	
0.314	3554+50.13	DRIVING							2	X	2	4	
0.341	3555+92.69	DRIVING							2	X	2	4	
0.347	3556+24.37	DRIVING							2	X	2	4	
0.368	3557+35.25	DRIVING							2	X	2	4	
0.395	3558+77.81	DRIVING							2	X	2	4	
0.399	3558+98.93	DRIVING							2	X	2	4	
0.414	3559+78.13	DRIVING							2	X	4	8	
0.429	3560+57.33	DRIVING							2	X	2	4	
0.438	3561+04.85	DRIVING							2	X	2	4	
0.453	3561+84.05	DRIVING							2	X	2	4	
0.462	3562+31.57	DRIVING							2	X	6	12	
0.468	3562+63.25	DRIVING							2	X	2	4	
0.478	3563+16.05	DRIVING							2	X	2	4	
0.481	3563+31.89	DRIVING							2	X	2	4	
0.489	3563+74.13	DRIVING							2	X	4	8	
0.522	3565+48.37	DRIVING							2	X	2	4	
0.541	3566+48.69	DRIVING							2	X	2	4	
0.544	3566+64.53	DRIVING							2	X	4	8	
0.571	3568+07.09	DRIVING							2	X	2	4	
0.604	3569+81.33	DRIVING							2	X	4	8	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	19

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
67-EB CONT'D													
0.604	3569+81.33	DRIVING							2	X	2	4	
0.607	3569+97.17	DRIVING							2	X	2	4	
0.61	3570+13.01	DRIVING	6	x	12	8	20						
0.613	3570+28.85	DRIVING							2	X	2	4	
0.619	3570+60.53	DRIVING	6	x	12	8	20						
0.619	3570+60.53	PASSING							2	X	2	4	
0.622	3570+76.37	DRIVING							2	X	3	6	
0.622	3570+76.37	PASSING							2	X	3	6	
0.628	3571+08.05	DRIVING							2	X	3	6	
0.646	3572+03.09	DRIVING							2	X	2	4	
0.652	3572+34.77	DRIVING							2	X	2	4	
0.652	3572+34.77	DRIVING							2	X	3	6	
0.655	3572+50.61	DRIVING							2	X	3	6	
0.658	3572+66.45	DRIVING							2	X	2	4	
0.661	3572+82.29	DRIVING							2	X	4	8	
0.673	3573+45.65	DRIVING							2	X	2	4	
0.676	3573+61.49	DRIVING							2	X	2	4	
0.679	3573+77.33	DRIVING	6	x	12	8	20						
0.679	3573+77.33	PASSING							2	X	2	4	
0.683	3573+98.45	DRIVING							2	X	3	6	
0.686	3574+14.29	DRIVING	6	x	12	8	20						
0.689	3574+30.13	DRIVING							2	X	2	4	
0.69	3574+35.41	DRIVING							2	X	2	4	
0.69	3574+35.41	PASSING							2	X	2	4	
0.731	3576+51.89	DRIVING							2	X	2	4	
0.767	3578+41.97	DRIVING							2	X	2	4	
0.785	3579+37.01	DRIVING							2	X	2	4	
0.8	3580+16.21	DRIVING							2	X	2	4	
0.837	3582+11.57	DRIVING							2	X	2	4	
0.867	3583+69.97	PASSING							2	X	2	4	
0.892	3585+01.97	DRIVING							2	X	2	4	
0.895	3585+17.81	PASSING							2	X	2	4	
0.895	3585+17.81	DRIVING							2	X	6	12	
0.965	3588+87.41	DRIVING							2	X	2	4	
0.971	3589+19.09	DRIVING							2	X	2	4	
0.992	3590+29.97	DRIVING							2	X	2	4	
SUBTOTAL						**70**	**120**					**454**	**SUBTOTAL FOR MILE 67**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
68-EB													
0.01	3591+28.18	DRIVING							2	x	2	4	
0.02	3591+80.98	DRIVING	6	x	12	8	20						
0.02	3591+80.98	PASSING	6	x	12	8	20						
0.038	3592+76.02	DRIVING							2	x	2	4	
0.041	3592+91.86	DRIVING							2	x	2	4	
0.047	3593+23.54	DRIVING	6	x	12	8	20						
0.047	3593+23.54	PASSING							2	x	6	12	
0.053	3593+55.22	DRIVING							2	x	2	4	
0.065	3594+18.58	DRIVING							2	x	6	12	
0.065	3594+18.58	PASSING							2	x	6	12	
0.069	3594+39.7	DRIVING							2	x	4	8	
0.072	3594+55.54	DRIVING	6	x	12	8	20						
0.074	3594+66.1	DRIVING							2	x	2	4	
0.08	3594+97.78	DRIVING							2	x	2	4	
0.08	3594+97.78	PASSING							2	x	2	4	
0.083	3595+13.62	DRIVING							2	x	2	4	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	20

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
68-EB CONT'D													
0.089	3595+45.3	DRIVING							2	x	2	4	
0.089	3595+45.3	PASSING							2	x	2	4	
0.105	3596+29.78	DRIVING							2	x	4	8	
0.111	3596+61.46	DRIVING	6	x	12	8	20						
0.117	3596+93.14	DRIVING	6	x	12	8	20						
0.12	3597+08.98	DRIVING							2	x	2	4	
0.12	3597+08.98	PASSING							2	x	2	4	
0.123	3597+24.82	DRIVING	6	x	12	8	20						
0.132	3597+72.34	DRIVING	6	x	12	8	20						
0.138	3598+04.02	DRIVING	6	x	12	8	20						
0.138	3598+04.02	PASSING	6	x	12	8	20						
0.141	3598+19.86	DRIVING							2	x	2	4	
0.144	3598+35.7	DRIVING	6	x	12	8	20						
0.147	3598+51.54	DRIVING							2	x	4	8	
0.153	3598+83.22	DRIVING							2	x	4	8	
0.153	3598+83.22	PASSING							2	x	4	8	
0.157	3599+04.34	DRIVING							2	x	2	4	
0.16	3599+20.18	DRIVING	6	x	12	8	20						
0.163	3599+36.02	DRIVING	6	x	12	8	20						
0.169	3599+67.7	DRIVING	6	x	12	8	20						
0.172	3599+83.54	DRIVING							2	x	4	8	
0.175	3599+99.38	PASSING							2	x	2	4	
0.181	3600+31.06	DRIVING	6	x	12	8	20						
0.181	3600+31.06	PASSING	6	x	12	8	20						
0.187	3600+62.74	PASSING							2	x	2	4	
0.187	3600+62.74	DRIVING							2	x	4	8	
0.19	3600+78.58	PASSING							2	x	2	4	
0.19	3600+78.58	DRIVING	6	x	12	8	20						
0.193	3600+94.42	DRIVING	6	x	12	8	20						
0.196	3601+10.26	DRIVING							2	x	4	8	
0.196	3601+10.26	PASSING							2	x	2	4	
0.202	3601+41.94	DRIVING	6	x	12	8	20						
0.202	3601+41.94	PASSING	6	x	12	8	20						
0.205	3601+57.78	DRIVING							2	x	4	8	
0.211	3601+89.46	DRIVING	6	x	12	8	20						
0.224	3602+58.1	DRIVING							2	x	4	8	
0.227	3602+73.94	DRIVING							2	x	4	8	
0.23	3602+89.78	DRIVING							2	x	2	4	
0.233	3603+05.62	PASSING							2	x	2	4	
0.233	3603+05.62	DRIVING							2	x	4	8	
0.236	3603+21.46	DRIVING							2	x	2	4	
0.239	3603+37.3	DRIVING							2	x	4	8	
0.242	3603+53.14	DRIVING	6	x	12	8	20						
0.242	3603+53.14	PASSING	6	x	12	8	20						
0.245	3603+68.98	DRIVING	6	x	12	8	20						
0.269	3604+95.7	DRIVING							3	x	4	12	
0.275	3605+27.38	PASSING							2	x	2	4	
0.275	3605+27.38	DRIVING							2	x	6	12	
0.285	3605+80.18	DRIVING							2	x	4	8	
0.301	3606+64.66	DRIVING							2	x	2	4	
0.301	3606+64.66	DRIVING							2	x	4	8	
0.303	3606+75.22	DRIVING							2	x	4	8	
0.306	3606+91.06	DRIVING							2	x	4	8	
0.314	3607+33.3	DRIVING							2	x	2	4	
0.315	3607+38.58	PASSING							2	x	2	4	
0.318	3607+54.42	DRIVING							2	x	2	4	
0.321	3607+70.26	DRIVING	6	x	12	8	20						

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	21

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
68-EB CONT'D													
0.321	3607+70.26	PASSING	6	x	12	8	20						
0.324	3607+86.1	DRIVING	6	x	12	8	20						
0.324	3607+86.1	PASSING	6	x	12	8	20						
0.327	3608+01.94	PASSING							2	x	2	4	
0.333	3608+33.62	DRIVING							2	x	4	8	
0.333	3608+33.62	PASSING							2	x	2	4	
0.339	3608+65.3	DRIVING							2	x	4	8	
0.341	3608+75.86	PASSING							2	x	2	4	
0.342	3608+81.14	DRIVING	6	x	12	8	20						
0.342	3608+81.14	PASSING	6	x	12	8	20						
0.345	3608+96.98	DRIVING	6	x	12	8	20						
0.345	3608+96.98	PASSING							2	x	4	8	
0.348	3609+12.82	PASSING							2	x	2	4	
0.348	3609+12.82	DRIVING							2	x	4	8	
0.351	3609+28.66	DRIVING							2	x	4	8	
0.354	3609+44.5	DRIVING	6	x	12	8	20						
0.354	3609+44.5	PASSING							2	x	4	8	
0.36	3609+76.18	PASSING	6	x	12	8	20						
0.361	3609+81.46	DRIVING							2	x	2	4	
0.367	3610+13.14	PASSING	6	x	12	8	20						
0.37	3610+28.98	DRIVING							3	x	4	12	
0.373	3610+44.82	PASSING	6	x	12	8	20						
0.373	3610+44.82	DRIVING							2	x	4	8	
0.376	3610+60.66	DRIVING	6	x	12	8	20						
0.376	3610+60.66	PASSING	6	x	12	8	20						
0.379	3610+76.5	DRIVING	6	x	12	8	20						
0.379	3610+76.5	PASSING	6	x	12	8	20						
0.382	3610+92.34	DRIVING	6	x	12	8	20						
0.382	3610+92.34	PASSING							2	x	4	8	
0.385	3611+08.18	PASSING	6	x	12	8	20						
0.385	3611+08.18	DRIVING							2	x	2	4	
0.388	3611+24.02	PASSING	6	x	12	8	20						
0.388	3611+24.02	DRIVING							2	x	4	8	
0.391	3611+39.86	DRIVING							2	x	2	4	
0.391	3611+39.86	PASSING							2	x	2	4	
0.394	3611+55.7	DRIVING							2	x	4	8	
0.397	3611+71.54	DRIVING	6	x	12	8	20						
0.397	3611+71.54	PASSING	6	x	12	8	20						
0.4	3611+87.38	PASSING	6	x	12	8	20						
0.4	3611+87.38	DRIVING							2	x	5	10	
0.403	3612+03.22	PASSING	6	x	12	8	20						
0.403	3612+03.22	DRIVING	6	x	12	8	20						
0.406	3612+19.06	DRIVING							2	x	4	8	
0.406	3612+19.06	PASSING	6	x	12	8	20						
0.409	3612+34.9	DRIVING	6	x	12	8	20						
0.412	3612+50.74	PASSING	6	x	12	8	20						
0.412	3612+50.74	DRIVING							2	x	4	8	
0.415	3612+66.58	DRIVING							2	x	4	8	
0.419	3612+87.7	DRIVING							2	x	4	8	
0.419	3612+87.7	PASSING							2	x	4	8	
0.421	3612+98.26	PASSING	6	x	12	8	20						
0.421	3612+98.26	DRIVING							2	x	4	8	
0.421	3612+98.26	DRIVING							2	x	2	4	
0.425	3613+19.38	DRIVING	6	x	12	8	20						
0.425	3613+19.38	PASSING	6	x	12	8	20						
0.428	3613+35.22	DRIVING	6	x	12	8	20						
0.428	3613+35.22	PASSING	6	x	12	8	20						

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	22

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
68-EB CONT'D													
0.434	3613+66.9	DRIVING							2	x	2	4	
0.44	3613+98.58	PASSING	6	x	12	8	20						
0.44	3613+98.58	DRIVING	6	x	12	8	20						
0.443	3614+14.42	DRIVING	6	x	12	8	20						
0.443	3614+14.42	PASSING	6	x	12	8	20						
0.446	3614+30.26	PASSING							2	x	4	8	
0.449	3614+46.1	DRIVING							2	x	2	4	
0.452	3614+61.94	PASSING							2	x	4	8	
0.452	3614+61.94	DRIVING							2	x	2	4	
0.461	3615+09.46	PASSING	6	x	12	8	20						
0.461	3615+09.46	DRIVING							2	x	2	4	
0.464	3615+25.3	PASSING							2	x	4	8	
0.464	3615+25.3	DRIVING							2	x	4	8	
0.467	3615+41.14	PASSING							2	x	2	4	
0.467	3615+41.14	DRIVING							2	x	2	4	
0.47	3615+56.98	PASSING							2	x	2	4	
0.47	3615+56.98	DRIVING							2	x	4	8	
0.47	3615+56.98	DRIVING							2	x	2	4	
0.473	3615+72.82	DRIVING							2	x	2	4	
0.473	3615+72.82	PASSING	6	x	12	8	20						
0.476	3615+88.66	DRIVING	6	x	12	8	20						
0.476	3615+88.66	PASSING	6	x	12	8	20						
0.485	3616+36.18	DRIVING							2	x	4	8	
0.488	3616+52.02	DRIVING							2	x	4	8	
0.488	3616+52.02	DRIVING							2	x	2	4	
0.491	3616+67.86	DRIVING	6	x	12	8	20						
0.491	3616+67.86	PASSING	6	x	12	8	20						
0.494	3616+83.7	PASSING	6	x	12	8	20						
0.494	3616+83.7	DRIVING							2	x	4	8	
0.494	3616+83.7	DRIVING							2	x	4	8	
0.497	3616+99.54	DRIVING							2	x	4	8	
0.501	3617+20.66	DRIVING	6	x	12	8	20						
0.504	3617+36.5	DRIVING	6	x	12	8	20						
0.504	3617+36.5	PASSING	6	x	12	8	20						
0.507	3617+52.34	DRIVING							2	x	4	8	
0.507	3617+52.34	PASSING	6	x	12	8	20						
0.509	3617+62.9	DRIVING							2	x	2	4	
0.513	3617+84.02	PASSING							2	x	4	8	
0.516	3617+99.86	DRIVING							2	x	2	4	
0.519	3618+15.7	PASSING							2	x	4	8	
0.522	3618+31.54	DRIVING							2	x	2	4	
0.522	3618+31.54	PASSING	6	x	12	8	20						
0.525	3618+47.38	DRIVING							2	x	4	8	
0.525	3618+47.38	PASSING							2	x	6	12	
0.528	3618+63.22	PASSING							2	x	2	4	
0.528	3618+63.22	DRIVING							2	x	2	4	
0.531	3618+79.06	PASSING	6	x	12	8	20						
0.531	3618+79.06	DRIVING							2	x	4	8	
0.534	3618+94.9	DRIVING							2	x	2	4	
0.537	3619+10.74	DRIVING							2	x	2	4	
0.537	3619+10.74	PASSING	6	x	12	8	20						
0.54	3619+26.58	DRIVING							2	x	2	4	
0.54	3619+26.58	PASSING							2	x	2	4	
0.543	3619+42.42	PASSING	6	x	12	8	20						
0.543	3619+42.42	DRIVING							2	x	4	8	
0.546	3619+58.26	DRIVING							2	x	2	4	
0.549	3619+74.1	PASSING	6	x	12	8	20						
0.549	3619+74.1	DRIVING							2	x	3	6	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	23

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
68-EB CONT'D													
0.555	3620+05.78	DRIVING							2	x	2	4	
0.555	3620+05.78	DRIVING							2	x	2	4	
0.558	3620+21.62	PASSING	6	x	12	8	20						
0.558	3620+21.62	DRIVING							2	x	4	8	
0.561	3620+37.46	DRIVING							2	x	2	4	
0.561	3620+37.46	DRIVING							2	x	2	4	
0.564	3620+53.3	DRIVING							2	x	2	4	
0.57	3620+84.98	DRIVING							2	x	2	4	
0.573	3621+00.82	DRIVING							2	x	2	4	
0.573	3621+00.82	PASSING							2	x	2	4	
0.576	3621+16.66	PASSING	6	x	12	8	20						
0.592	3622+01.14	DRIVING							2	x	2	4	
0.604	3622+64.5	DRIVING							2	x	4	8	
0.607	3622+80.34	DRIVING							2	x	2	4	
0.607	3622+80.34	PASSING							2	x	2	4	
0.61	3622+96.18	DRIVING							2	x	4	8	
0.616	3623+27.86	PASSING	6	x	12	8	20						
0.616	3623+27.86	DRIVING							2	x	2	4	
0.622	3623+59.54	PASSING							2	x	4	8	
0.622	3623+59.54	DRIVING							2	x	2	4	
0.625	3623+75.38	DRIVING							2	x	2	4	
0.631	3624+07.06	DRIVING							2	x	2	4	
0.64	3624+54.58	PASSING	6	x	12	8	20						
0.64	3624+54.58	DRIVING							3	x	4	12	
0.646	3624+86.26	PASSING	6	x	12	8	20						
0.646	3624+86.26	DRIVING							3	x	4	12	
0.649	3625+02.1	PASSING							2	x	4	8	
0.655	3625+33.78	PASSING	6	x	12	8	20						
0.661	3625+65.46	DRIVING							2	x	4	8	
0.667	3625+97.14	PASSING	6	x	12	8	20						
0.667	3625+97.14	DRIVING							2	x	2	4	
0.67	3626+12.98	PASSING	6	x	12	8	20						
0.673	3626+28.82	DRIVING	6	x	12	8	20						
0.673	3626+28.82	PASSING	6	x	12	8	20						
0.676	3626+44.66	PASSING	6	x	12	8	20						
0.676	3626+44.66	DRIVING							2	x	4	8	
0.679	3626+60.5	PASSING	6	x	12	8	20						
0.682	3626+76.34	DRIVING							2	x	4	8	
0.685	3626+92.18	DRIVING							2	x	2	4	
0.685	3626+92.18	PASSING							2	x	2	4	
0.688	3627+08.02	PASSING	6	x	12	8	20						
0.691	3627+23.86	PASSING	6	x	12	8	20						
0.695	3627+44.98	PASSING	6	x	12	8	20						
0.698	3627+60.82	PASSING							2	x	4	8	
0.698	3627+60.82	DRIVING							2	x	4	8	
0.701	3627+76.66	DRIVING	6	x	12	8	20						
0.701	3627+76.66	PASSING	6	x	12	8	20						
0.722	3628+87.54	DRIVING							2	x	2	4	
0.722	3628+87.54	PASSING							2	x	2	4	
0.725	3629+03.38	PASSING	6	x	12	8	20						
0.725	3629+03.38	DRIVING							2	x	2	4	
0.731	3629+35.06	PASSING	6	x	12	8	20						
0.74	3629+82.58	DRIVING							2	x	4	8	
0.74	3629+82.58	PASSING	6	x	12	8	20						
0.743	3629+98.42	DRIVING							2	x	2	4	
0.746	3630+14.26	PASSING	6	x	12	8	20						
0.746	3630+14.26	DRIVING							2	x	4	8	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	11	24

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
68-EB CONT'D													
0.752	3630+45.94	DRIVING							2	x	2	4	
0.752	3630+45.94	PASSING	6	x	12	8	20						
0.761	3630+93.46	PASSING	6	x	12	8	20						
0.767	3631+25.14	DRIVING							2	x	4	8	
0.773	3631+56.82	DRIVING	6	x	12	8	20						
0.773	3631+56.82	PASSING	6	x	12	8	20						
0.776	3631+72.66	DRIVING							2	x	2	4	
0.779	3631+88.5	PASSING	6	x	12	8	20						
0.779	3631+88.5	DRIVING							2	x	2	4	
0.782	3632+04.34	DRIVING							2	x	2	4	
0.794	3632+67.7	PASSING							2	x	2	4	
0.816	3633+83.86	PASSING	6	x	12	8	20						
0.816	3633+83.86	DRIVING							2	x	2	4	
0.843	3635+26.42	PASSING	6	x	12	8	20						
0.843	3635+26.42	DRIVING							2	x	2	4	
0.873	3636+84.82	DRIVING							2	x	4	8	
0.909	3638+74.9	PASSING							2	x	4	8	
0.909	3638+74.9	DRIVING							2	x	4	8	
0.937	3640+22.74	DRIVING							2	x	2	4	
0.997	3643+39.54	DRIVING							2	x	2	4	
SUBTOTAL						**824**	**2060**					**980**	**SUBTOTAL FOR MILE 68**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
69-EB													
0.026	3644+90.55	DRIVING							2	x	2	4	
0.032	3645+22.23	DRIVING							2	x	2	4	
0.09	3648+28.47	DRIVING							2	x	2	4	
0.096	3648+60.15	DRIVING							2	x	2	4	
0.147	3651+29.43	DRIVING							2	x	2	4	
0.19	3653+56.47	DRIVING							2	x	2	4	
0.226	3655+46.55	PASSING							2	x	2	4	
0.248	3656+62.71	DRIVING							2	x	2	4	
0.251	3656+78.55	DRIVING							2	x	2	4	
0.263	3657+41.91	PASSING							2	x	2	4	
0.281	3658+36.95	DRIVING							2	x	2	4	
0.285	3658+58.07	DRIVING	6	x	12	8	20						
0.291	3658+89.75	DRIVING							2	x	4	8	
0.294	3659+05.59	DRIVING	6	x	12	8	20						
0.3	3659+37.27	DRIVING							2	x	2	4	
0.303	3659+53.11	DRIVING							2	x	2	4	
0.309	3659+84.79	DRIVING							2	x	2	4	
0.312	3660+00.63	DRIVING							2	x	2	4	
0.324	3660+63.99	PASSING							2	x	4	8	
0.339	3661+43.19	DRIVING							2	x	2	4	
0.364	3662+75.19	DRIVING							2	x	2	4	
0.382	3663+70.23	DRIVING							2	x	2	4	
0.406	3664+96.95	DRIVING							2	x	2	4	
0.47	3668+34.87	DRIVING							2	x	8	16	ON CENTER LINE
0.497	3669+77.43	DRIVING	10	x	12	13	20	12					
0.499	3669+87.99	PASSING	8	x	16	14	20						
0.501	3669+98.55	DRIVING							2	x	2	4	
0.531	3671+56.95	PASSING							2	x	6	12	
0.971	3694+80.15	DRIVING							2	x	2	4	
SUBTOTAL						**44**	**80**					**128**	**SUBTOTAL FOR MILE 69**

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
70-EB													
0	3696+91.35	DRIVING							2	X	2	4	70FT OFF FROM MILE MARKER
0.022	3698+07.51	DRIVING							2	X	2	4	
0.111	3702+77.43	DRIVING							2	X	2	4	
0.12	3703+24.95	PASSING							2	X	2	4	
0.12	3703+24.95	DRIVING							2	X	2	4	
0.13	3703+77.75	PASSING							2	X	4	8	
0.136	3704+09.43	DRIVING							2	X	2	4	
0.181	3706+47.03	DRIVING							2	X	2	4	
0.188	3706+83.99	DRIVING							2	X	2	4	
0.221	3708+58.23	PASSING							2	X	2	4	
0.242	3709+69.11	PASSING							2	X	2	4	
0.337	3714+70.71	PASSING							2	X	2	4	
0.347	3715+23.51	DRIVING	22	x	20	49	20	12					APPROACH PANEL CRACKING
0.351	3715+44.63	DRIVING & PASSING											EXPANSION JOINT SPALLING
0.389	3717+45.27	PASSING	20	x	22	49	20	12					APPROACH PANEL CRACKING
0.392	3717+61.11	PASSING	15	x	16	27	20	12					
0.392	3717+61.11	DRIVING	15	x	12	20	20	12					
0.394	3717+71.67		10	x	10	11	20	12					ON THE WIDE SHOULDER
0.4	3718+03.35	PASSING							2	X	2	4	
0.405	3718+29.75	DRIVING	15	x	12	20	20	12					
0.407	3718+40.31	PASSING	16	x	6	11	10	12					
0.411	3718+61.43	PASSING	30	x	16	53	20	24					
0.414	3718+77.27	DRIVING	8	x	12	11	20						
0.428	3719+51.19	PASSING							2	X	2	4	
0.442	3720+25.11	PASSING	140	x	16	249	20	108					
0.449	3720+62.07	DRIVING	8	x	12	11	20						
0.462	3721+30.71	DRIVING	6	x	12	8	20						
0.467	3721+57.11	DRIVING	15	x	12	20	20	12					
0.468	3721+62.39	DRIVING & PASSING							100	X	2	200	ALONG CENTER LINE
0.479	3722+20.47	PASSING							2	X	2	4	
0.485	3722+52.15	PASSING							2	X	2	4	
0.504	3723+52.47	PASSING							2	X	2	4	
0.502	3723+41.91	DRIVING & PASSING							21	X	2	42	ALONG CENTER LINE
0.516	3724+15.83	DRIVING							2	X	2	4	
0.524	3724+58.07	DRIVING & PASSING							21	X	2	42	ALONG CENTER LINE
0.534	3725+10.87	DRIVING & PASSING							6	X	2	12	ALONG CENTER LINE
0.54	3725+42.55	DRIVING & PASSING							48	X	2	96	ALONG CENTER LINE
0.55	3725+95.35	PASSING	30	x	16	53	20	24					
0.55	3725+95.35	DRIVING	30	x	12	40	20	24					
0.554	3726+16.47	DRIVING & PASSING							127	X	2	254	ALONG CENTER LINE
0.586	3727+85.43	DRIVING & PASSING							450	X	2	900	ALONG CENTER LINE
0.594	3728+27.67	PASSING							2	X	2	4	
0.613	3729+27.99	PASSING							2	X	2	4	
0.634	3730+38.87	PASSING							2	X	2	4	
0.658	3731+65.59	PASSING							2	X	2	4	
0.676	3732+60.63	DRIVING	6	x	12	8	20						
0.682	3732+92.31	DRIVING & PASSING							290	X	2	580	ALONG CENTER LINE
0.686	3733+13.43	DRIVING							2	X	2	4	2 OF THEM
0.686	3733+13.43	DRIVING							2	X	2	4	2 OF THEM
0.701	3733+92.63	DRIVING	6	x	12	8	20						
0.71	3734+40.15	PASSING							2	X	2	4	
0.716	3734+71.83	PASSING							2	X	2	4	
0.743	3736+14.39	DRIVING & PASSING							11	X	2	22	ALONG CENTER LINE
0.758	3736+93.59	DRIVING							2	X	2	4	
0.767	3737+41.11	DRIVING							2	X	2	4	
0.767	3737+41.11	PASSING	6	x	12	8	20						
0.792	3738+73.11	DRIVING							2	X	2	4	
0.807	3739+52.31	DRIVING							2	X	2	4	

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CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

RP	Station	LANE	FULL DEPTH REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	DOWEL BARS *	DOWEL CONTRACTION JOINT ASSEMBLY	SPALL REPAIR DIMENSIONS LENGTH	x	WIDTH	AREA	COMMENTS
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
70-EB CONT'D													
0.813	3739+83.99	PASSING							2	X	2	4	
0.828	3740+63.19	DRIVING							2	X	2	4	
0.828	3740+63.19	PASSING							2	X	4	8	
0.85	3741+79.35	DRIVING							2	X	2	4	
0.85	3741+79.35	PASSING							2	X	2	4	
0.859	3742+26.87	DRIVING							2	X	2	4	
0.865	3742+58.55	PASSING							2	X	2	4	
0.894	3744+11.67	DRIVING							2	X	2	4	
0.909	3744+90.87	DRIVING							2	X	2	4	
0.924	3745+70.07	DRIVING	10	x	12	13	20	12					
0.926	3745+80.63	PASSING	6	x	16	11	20						
0.97	3748+12.95	PASSING							2	X	2	4	
SUBTOTAL						**679**	**390**					**2316**	**SUBTOTAL FOR MILE 70**
RP	Station	Lane	FT	x	FT	SY	EA	LF	FT	x	FT	SF	COMMENTS
71-EB													
0.017	3750+60.06	PASSING							2	X	2	4	
0.031	3751+33.98	PASSING							2	X	2	4	
0.049	3752+29.02	DRIVING							2	X	2	4	
0.064	3753+08.22	PASSING							2	X	2	4	
0.07	3753+39.9	DRIVING	6	x	12	8	20						
0.07	3753+39.9	PASSING	6	x	12	8	20						
0.082	3754+03.26	PASSING							2	X	2	4	
0.082	3754+03.26	DRIVING							2	X	4	8	
0.085	3754+19.1	PASSING							2	X	2	4	
0.088	3754+34.94	PASSING							2	X	4	8	
0.088	3754+34.94	DRIVING							2	X	4	8	2 OF THEM
0.088	3754+34.94	DRIVING							2	X	4	8	2 OF THEM
0.1	3754+98.3	DRIVING							2	X	4	8	2 OF THEM
0.1	3754+98.3	DRIVING							2	X	4	8	2 OF THEM
0.1	3754+98.3	PASSING							2	X	4	8	2 OF THEM
0.1	3754+98.3	PASSING							2	X	4	8	2 OF THEM
0.103	3755+14.14	DRIVING							2	X	4	8	2 OF THEM
0.103	3755+14.14	DRIVING							2	X	4	8	2 OF THEM
0.103	3755+14.14	PASSING							2	X	4	8	2 OF THEM
0.103	3755+14.14	PASSING							2	X	4	8	2 OF THEM
SUBTOTAL						**16**	**40**	**288**				**120**	**SUBTOTAL FOR MILE 71**
TOTAL						**3,845.67**	**6,750.00**	**504**				**10,305.00**	
TOTAL + 10%		**EASTBOUND**				**4,230.23**	**7,425.00**	**554.4**				**11,335.50**	

* Quantity for informational purpose only. Not a separate pay item.

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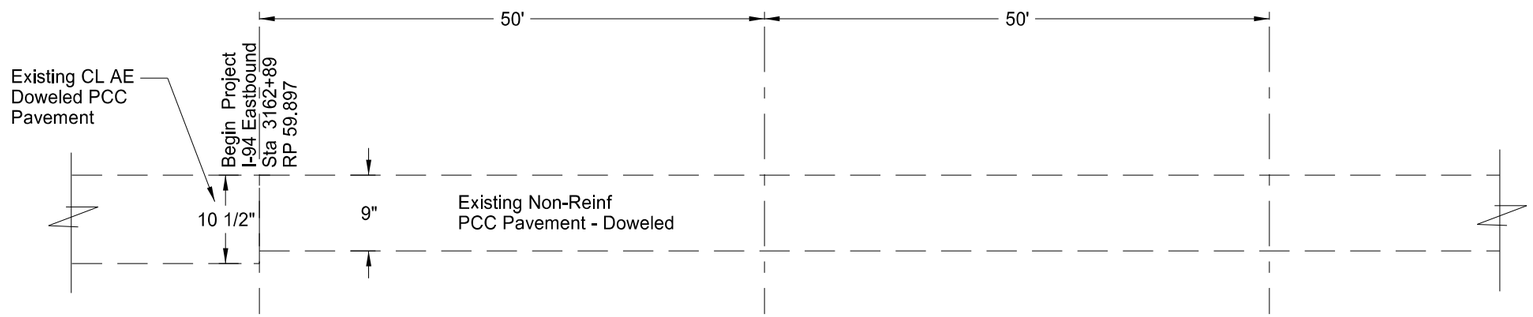
CPR Data Sheet

West Dickinson Interchange to RP 71.1
Eastbound Roadway

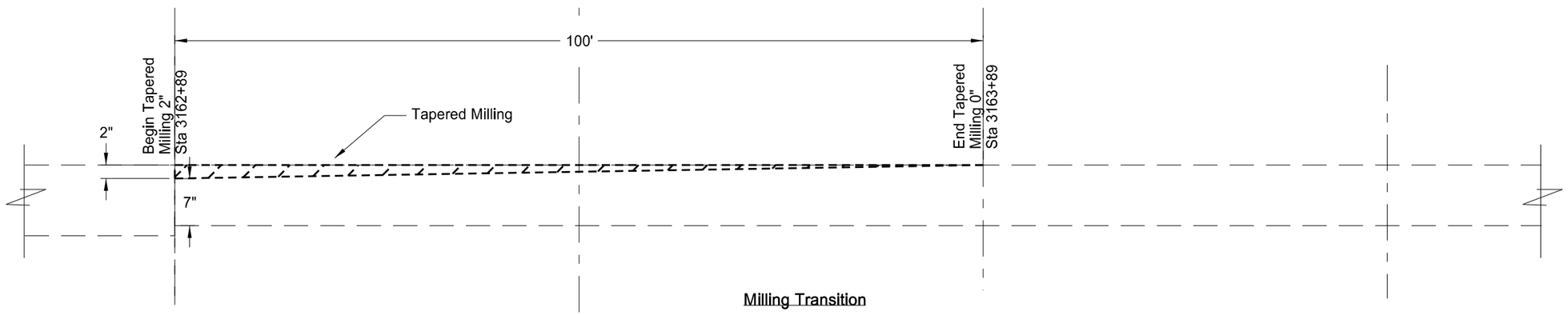
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	1

SPEC	CODE	BID ITEM	UNIT	QUANTITY
411	105	MILLING PAVEMENT SURFACE		
		Sta 3162+89 to 3163+89 (Tapered)	SY	422

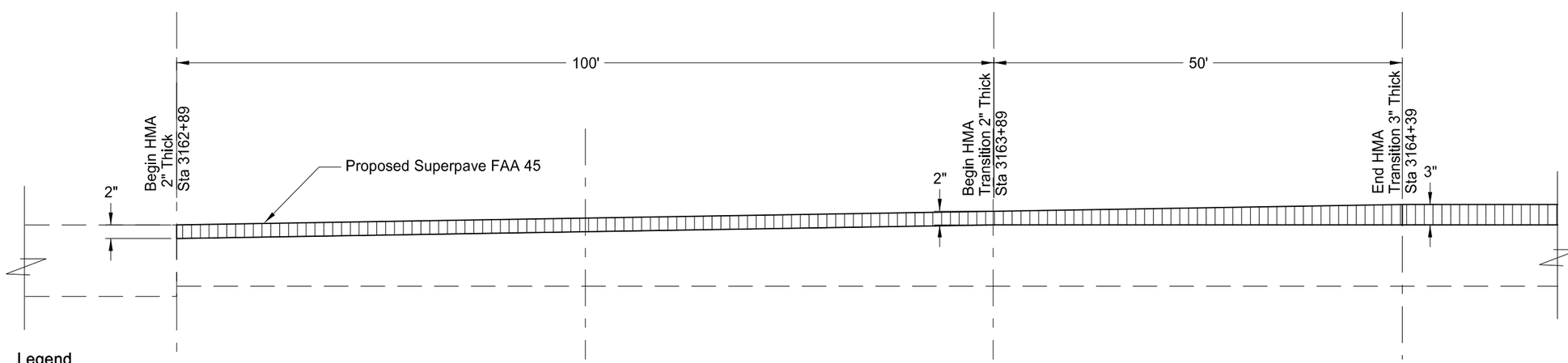
* HMA quantities included in Basis of Estimate



Existing Profile



Milling Transition



Paving Transition

Legend

Tapered Milling

HMA

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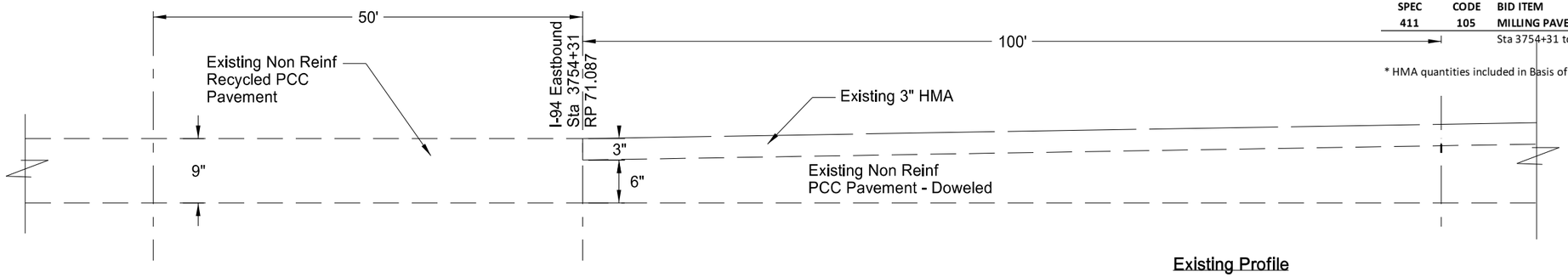
Milling and Paving Transitions
Beginning of Project

West Dickinson Interchange to RP 71.1
Eastbound Roadway

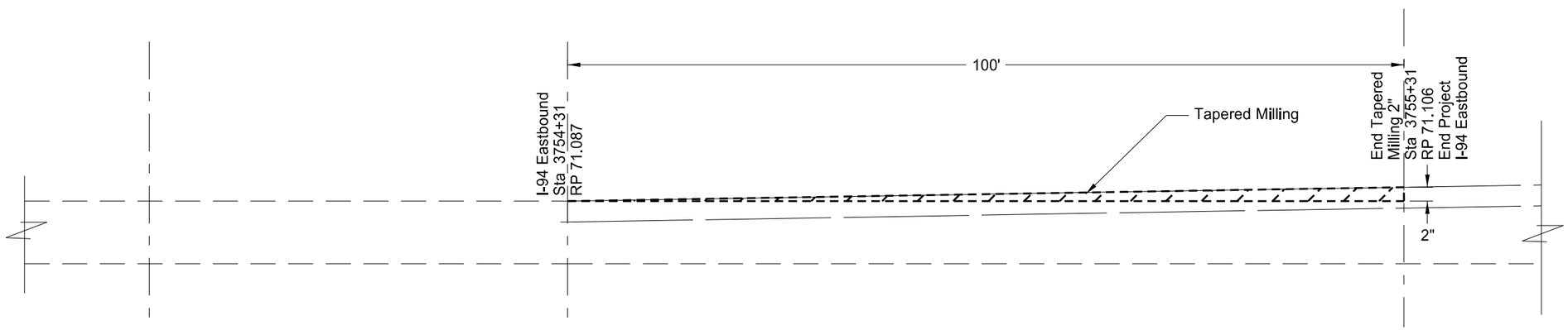
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	2

SPEC	CODE	BID ITEM	UNIT	QUANTITY
411	105	MILLING PAVEMENT SURFACE		
		Sta 3754+31 to 3755+31 (Tapered)	SY	422

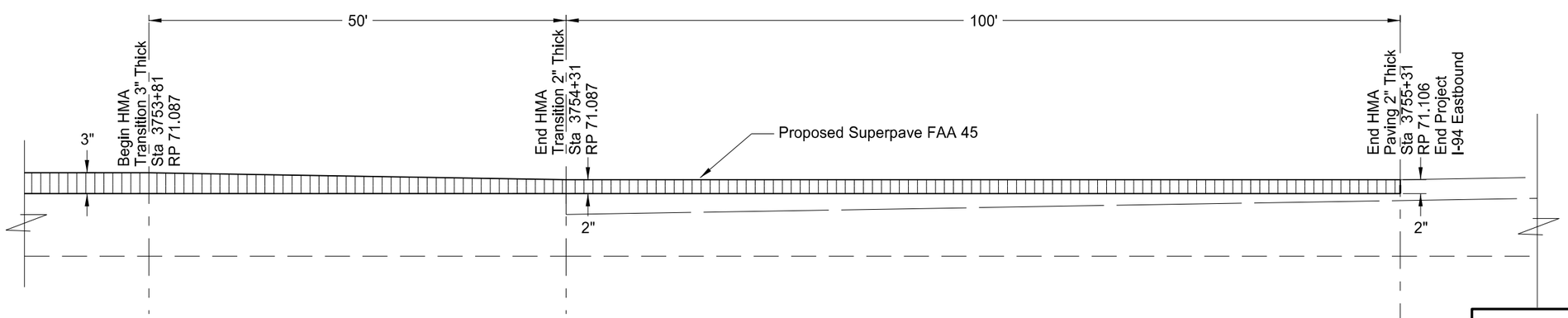
* HMA quantities included in Basis of Estimate



Existing Profile



Milling Transition



Legend

Tapered Milling

HMA

Paving Transition

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Milling and Paving Transitions
End of Project

West Dickinson Interchange to RP 71.1
Eastbound Roadway

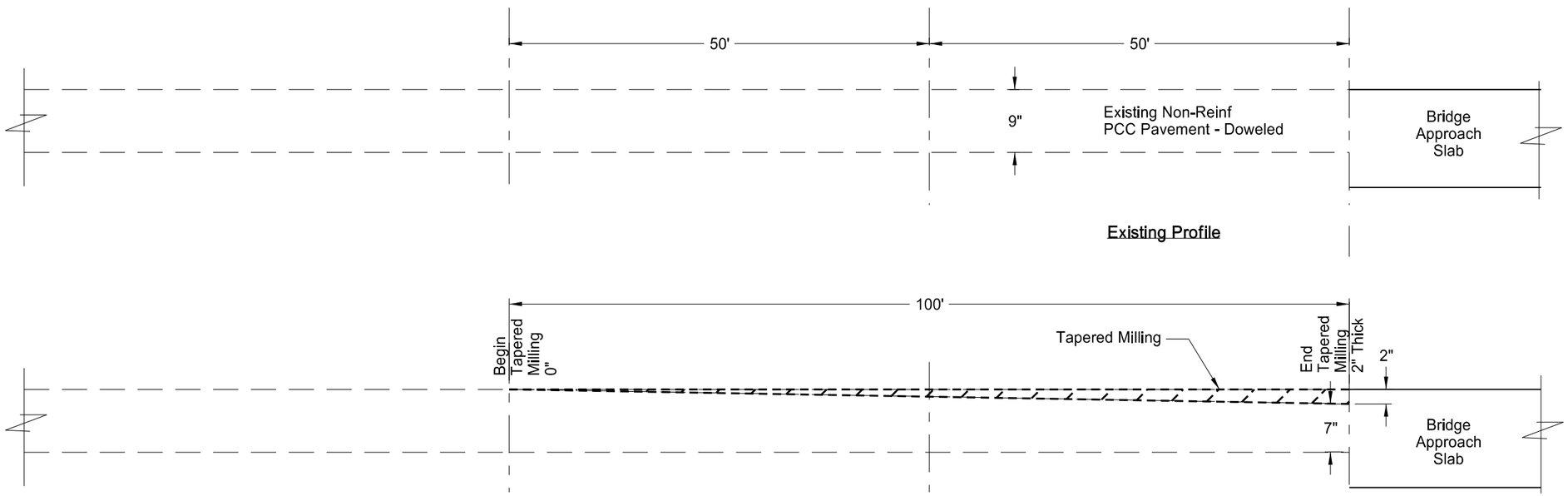
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	3

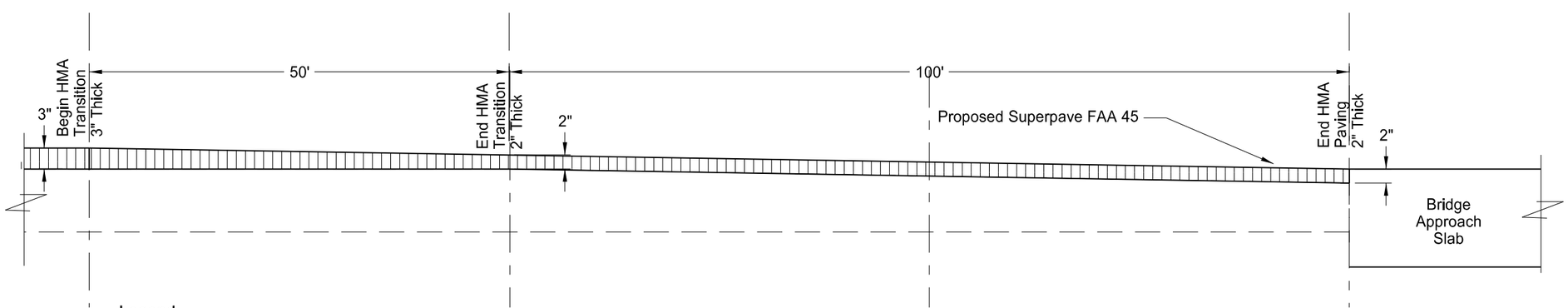
Paving/Milling Transition Table at Bridge Ends

	West of Bridge				East of Bridge		
Location	Begin Paving Transition 3"	End Paving Trans 2"/ Begin Milling Trans 0"	End Milling Transition 2"	BRIDGE	Begin Milling Transition 2"	End Milling Trans 0"/ Begin Milling Trans 2"	End Paving Transition 3"
State Avenue Sep	Sta 3189+80	Sta 3190+30	Sta 3191+31		Sta 3193+01	Sta 3194+01	Sta 3194+51
Green River Structure	Sta 3712+81	Sta 3713+31	Sta 3714+31		Sta 3716+71	Sta 3717+71	Sta 3718+72

SPEC	CODE	BID ITEM	UNIT	QUANTITY
411	105	MILLING PAVEMENT SURFACE		
		State Avenue Structure		
		Sta 3190+30 to 3191+30(West End Bridge) (Tapered)	SY	422
		Sta 3193+01 to 3194+01(East End Bridge) (Tapered)	SY	422
		Green River Structure		
		Sta 3713+31 to 3714+31(West End Bridge) (Tapered)	SY	422
		Sta 3716+71 to 3717+71(East End Bridge) (Tapered)	SY	422

* HMA quantities included in Basis of Estimate





Legend

Tapered Milling

HMA

Paving and Milling Transition at Bridge Ends
West End Shown
East End Symmetrical

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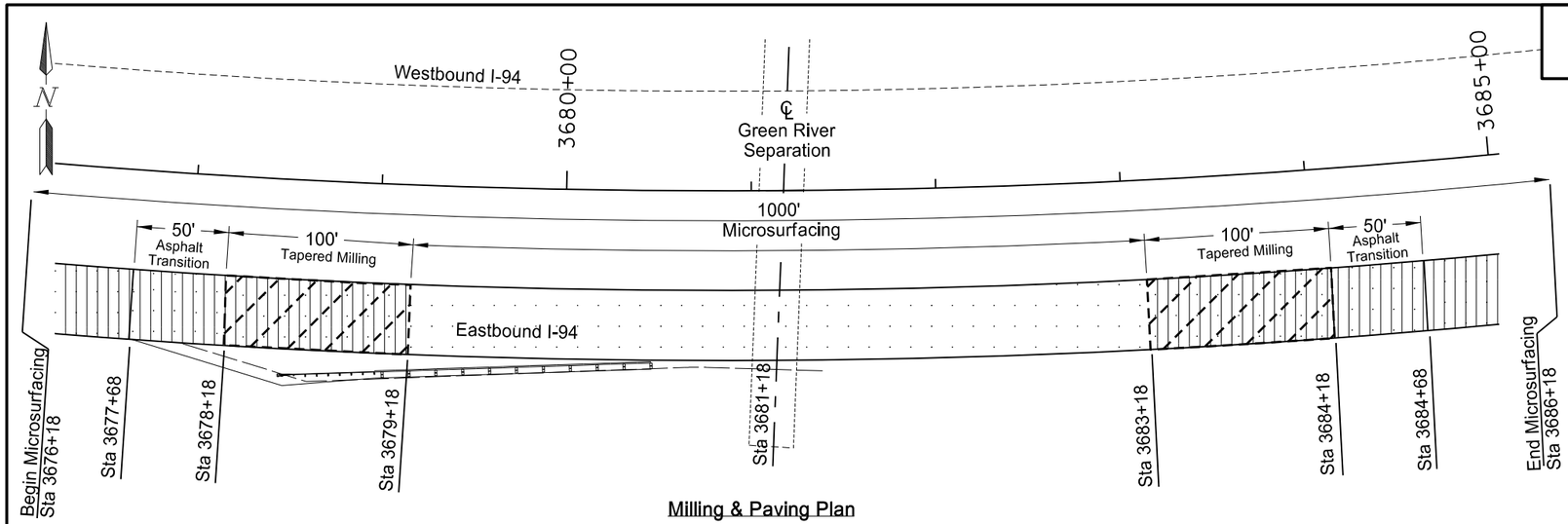
Milling and Paving Transitions
Bridge Ends
State Avenue Separation and Green River Structure

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	4

SPEC	CODE	BID ITEM	UNIT	QUANTITY
411	105	**MILLING PAVEMENT SURFACE**		
		Below Green River Structure		
		Sta 3678+18 to 3679+18 (Tapered)	SY	422
		Sta 3683+18 to 3684+18 (Tapered)	SY	422

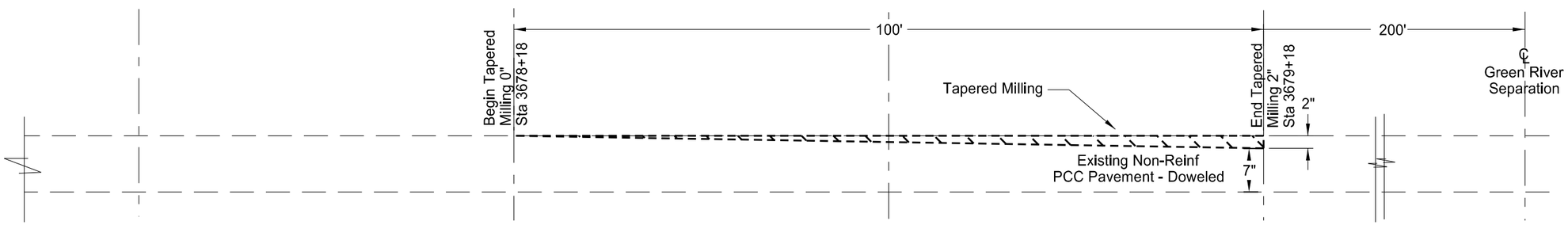
* HMA & Slurry Seal quantities included in Basis of Estimate



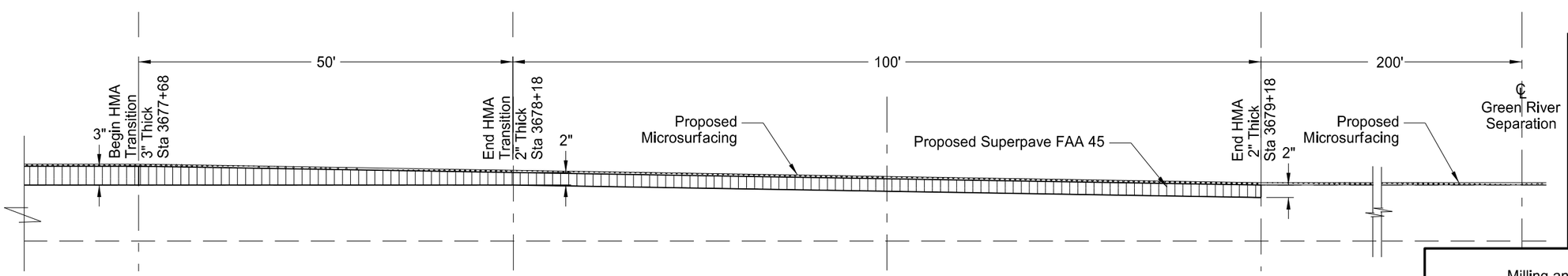
Milling & Paving Plan

Legend

- Tapered Milling
- HMA
- Microsurfacing (No HMA Overlay)



Milling Transition Profile
(West Side of Separation, East Side Symmetrical)



Paving Transition Profile
(West Side of Separation, East Side Symmetrical)

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Milling and Paving Transitions
Green River Separation

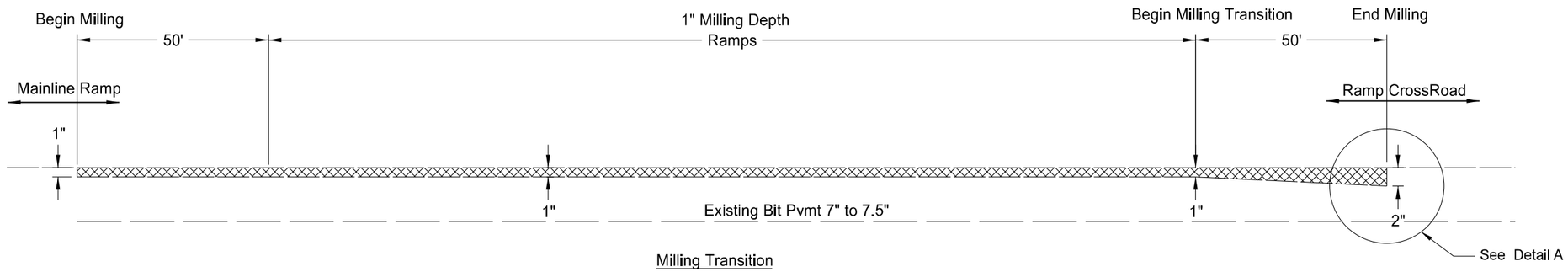
West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	5

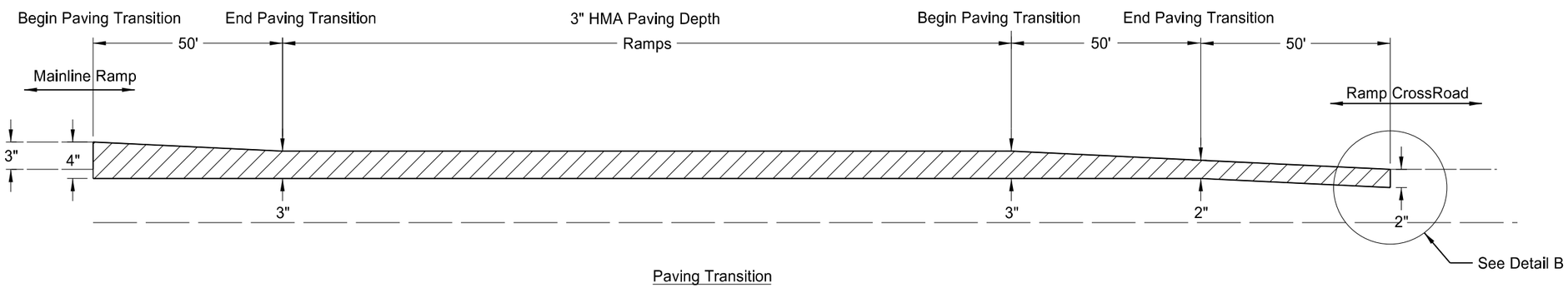
Location

ND 22 Interchange SW & SE Ramps
East Dickinson Interchange SW & SE Ramps

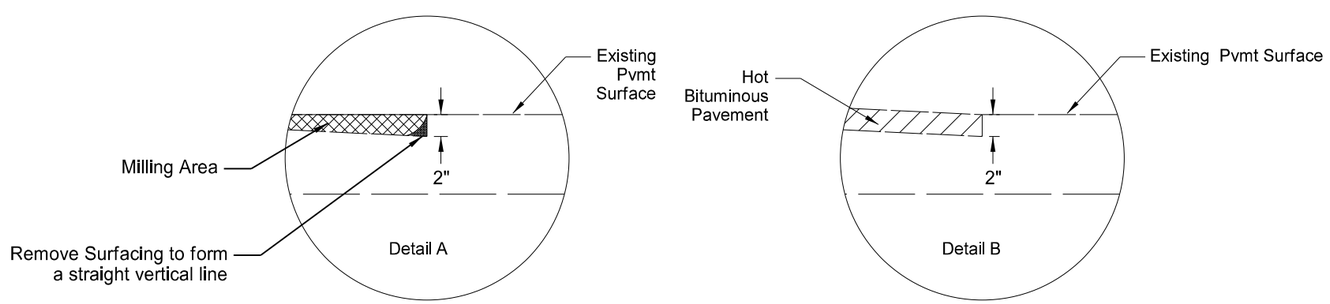
Note



Milling Transition



Paving Transition



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Milling and Paving Transitions
ND 22 Interchange SW & SE Ramps
East Dickinson Interchange SW & SE Ramps

West Dickinson Interchange to RP 71.1
Eastbound Roadway

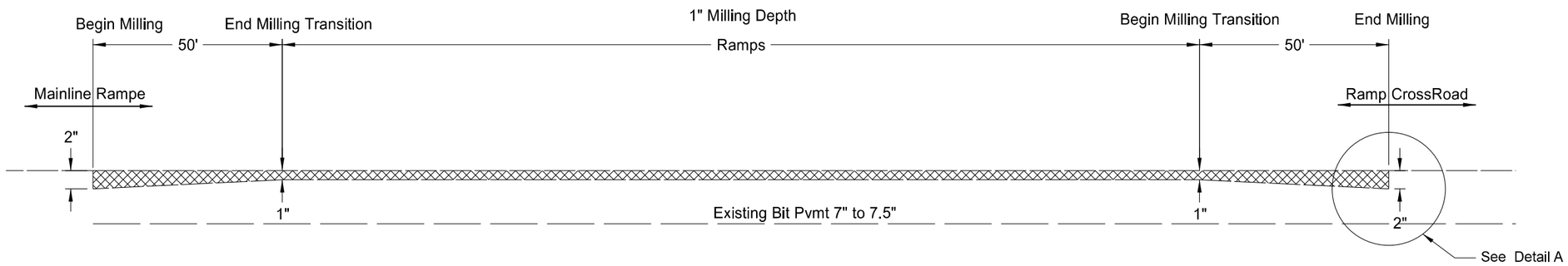
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	6

Location

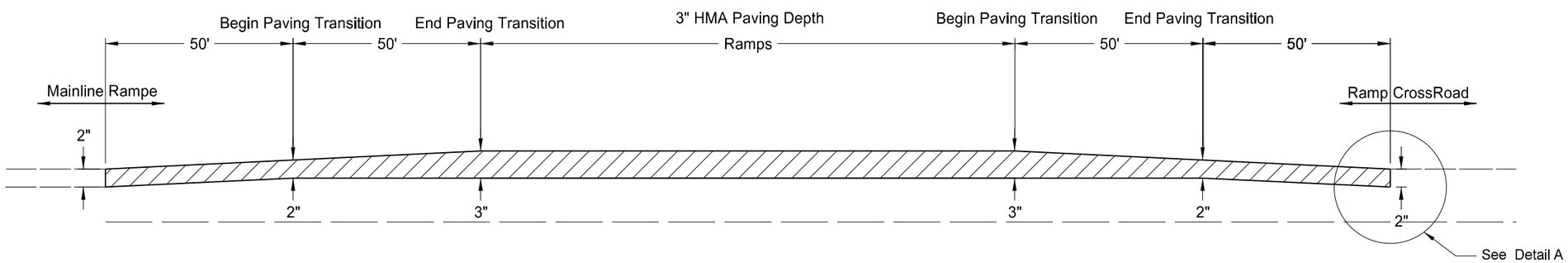
ND 22 Interchange NW & NE Ramps
East Dickinson Interchange NW & NE Ramps

Note

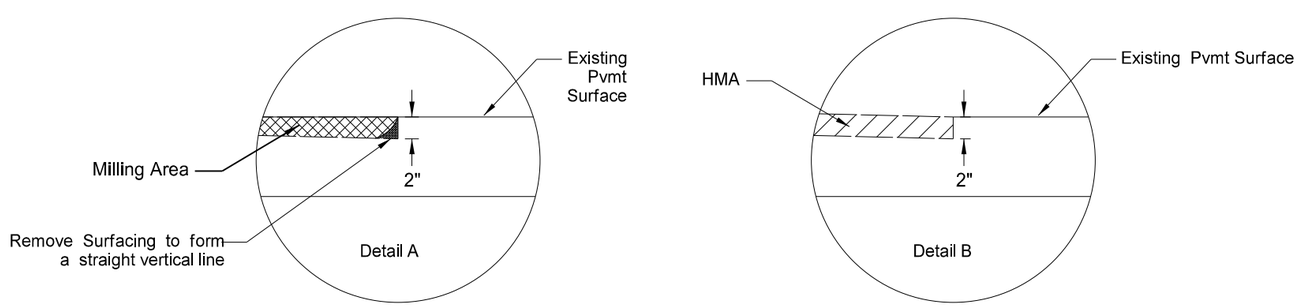
See Section 90 Plan Sheets



Milling Transition



Paving Transition



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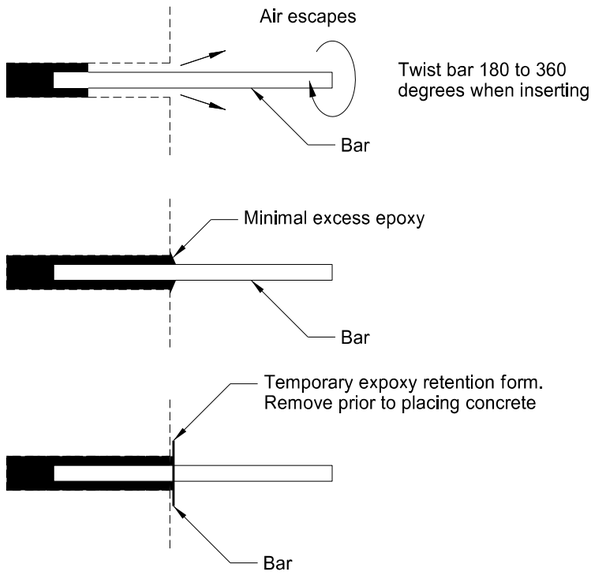
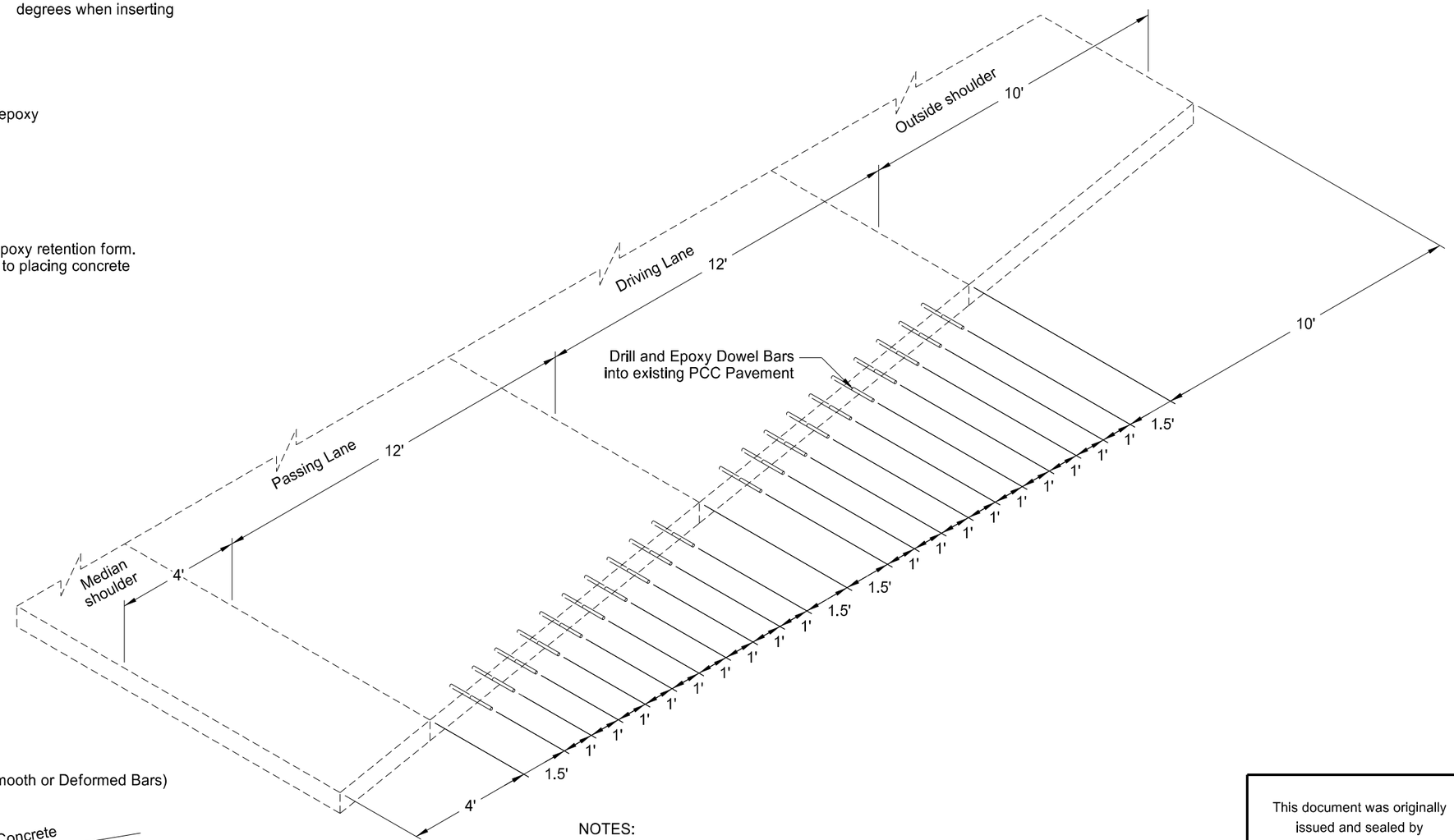
Milling and Paving Transition
ND 22 Interchange NW & NE Ramps
East Dickinson Interchange NW & NE Ramps

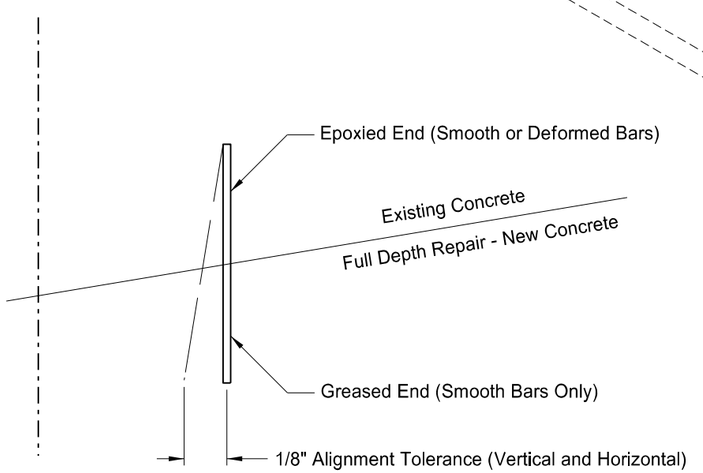
West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	7



Bar and Expoxy Installation
(Smooth or Deformed Bars)





Bar Alignment Tolerance

NOTES:

1. Align deformed bars parallel to the roadway surface and perpendicular to the joint face.
2. Align smooth bars parallel to the roadway centerline and pavement surface.
3. T = Pavement Thickness.
4. Do not place tie bars within 18" of a transverse joint.
5. Do not seal pcc joints.

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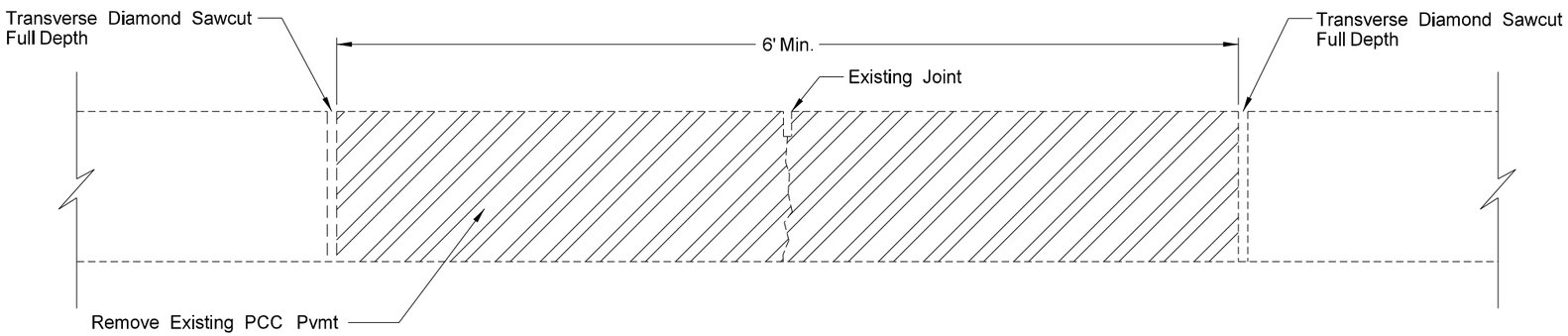
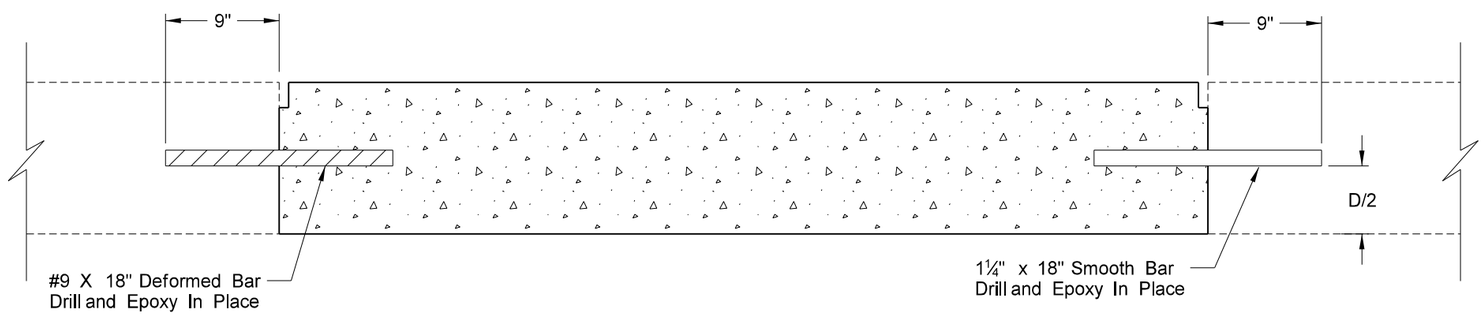
Dowel Bar Placement-Full Depth Repairs
(Smooth or Deformed Bars)

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	8



FULL DEPTH PAVEMENT REMOVAL



FULL DEPTH PAVEMENT REPLACEMENT

Notes:

1. Variables: D = Depth of Pavement
2. Removal and replacement also applies to full depth repairs at cracks.
3. Place smooth dowel bars in repair joint which is farthest away from the next transverse joint or working random crack. If distance is equal for both repair joints, place smooth dowels on approach side of patch.

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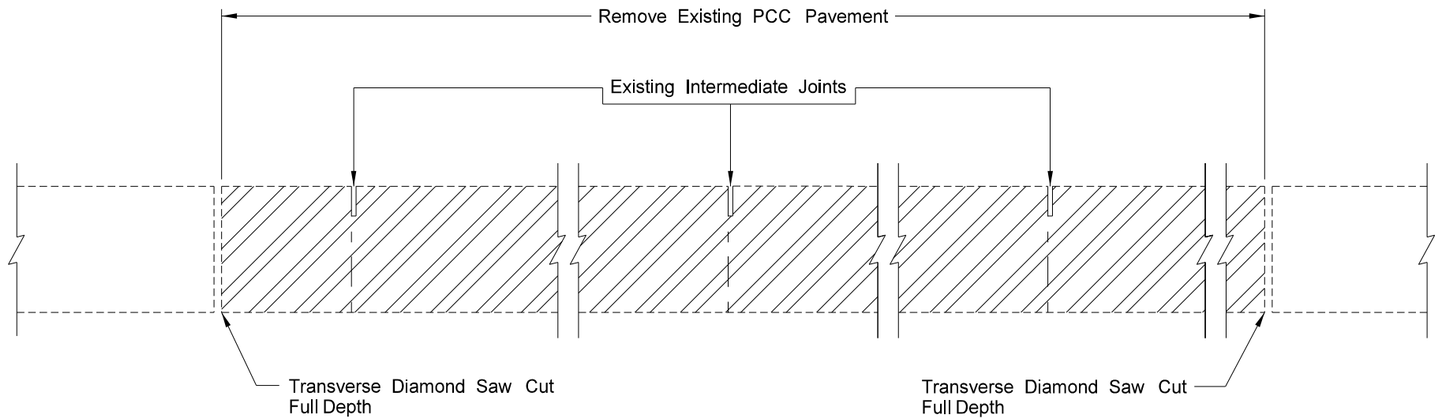
Concrete Pavement Repair
Full-Depth, Non-Reinforced PCC Pavement
(Longitudinal Length Less Than One Panel)

West Dickinson Interchange to RP 71.1
Eastbound Roadway

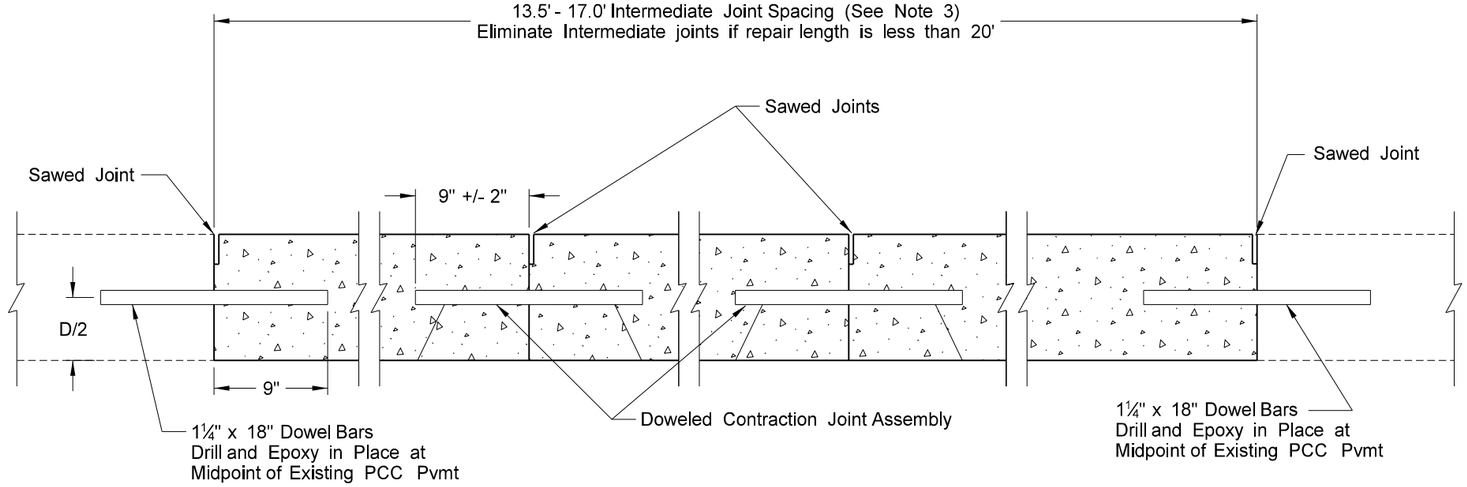
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	9



PCC Pavement Removal

Notes:

1. Variables: D = Pavement Depth
2. Space joints 13.5' to 17.0'. Where repair length does not allow even spacing of this length, use a minimum of 10 foot spacing.
3. In repair areas which are not the entire roadway width, place joints to match the existing pavement wherever possible.
4. Doweled Contraction Joint Assemblies are calculated at the rate of 12 LF/12 foot lane width when installed.



PCC Pavement Replacement

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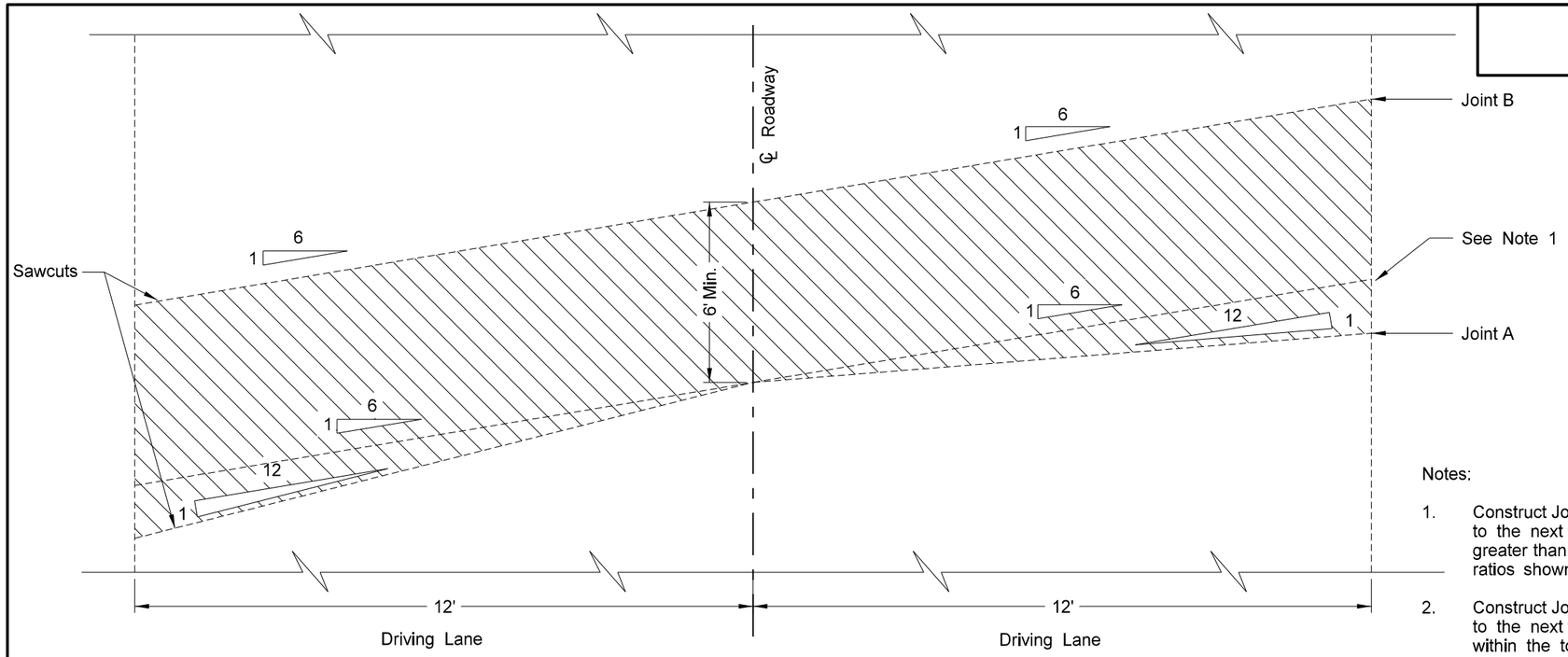
Concrete Pavement Repair
Full-Depth, Non-Reinforced PCC Pavement
(Longitudinal Length One Panel or More)

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	10



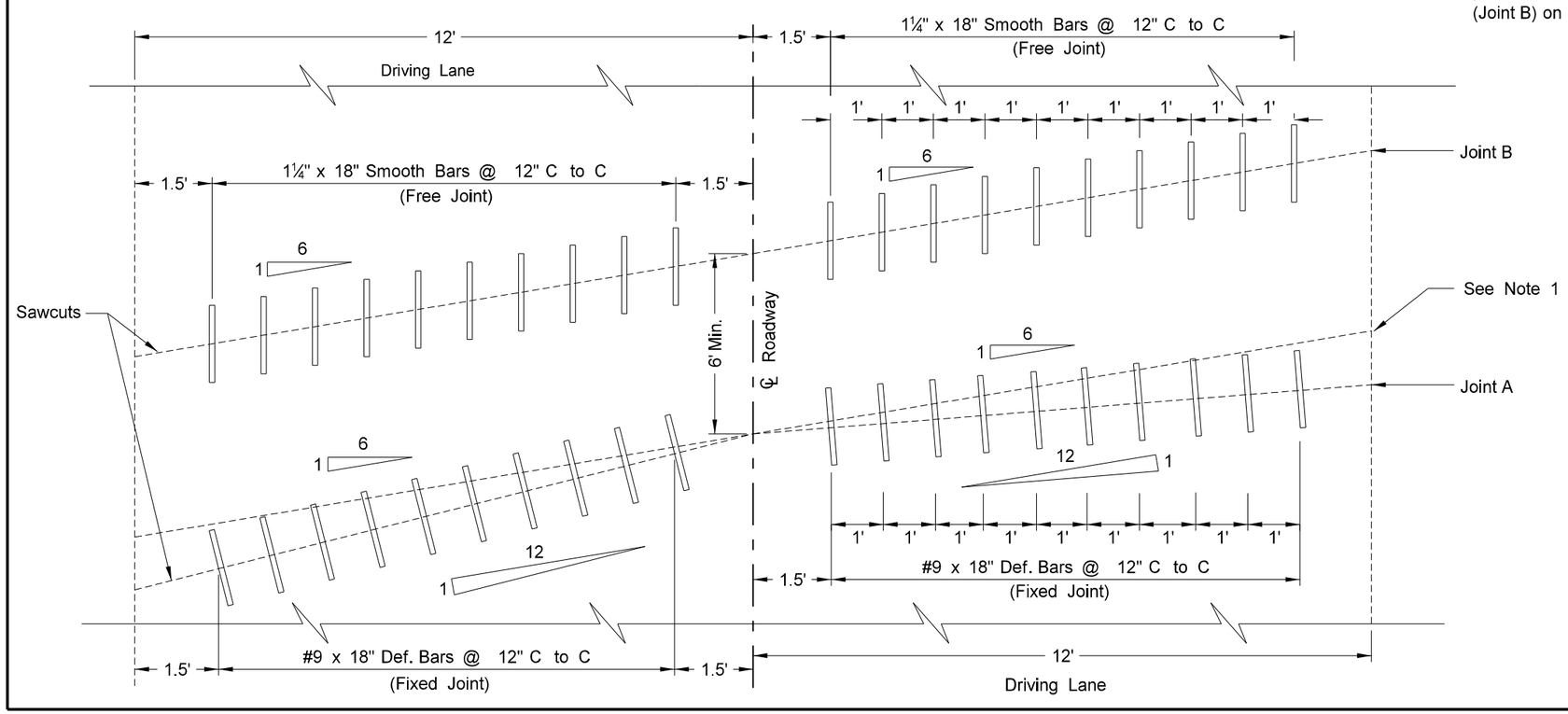
PCC Removal

Notes:

1. Construct Joint A (fixed joint) to be the new joint with the shortest distance to the next transverse joint or working random crack. If the repiar length is greater than 5.5 feet, make the saw a 1 to 6 skew, or at the maximum ratios shown, Place deformed bars perpendicular to the face of the saw cut.

2. Construct Joint B (free joint) to be the new joint with the greatest distance to the next transverse joint or working random crack. Place the smooth bars within the tolerances shown on the "Dowel Bar Placement - Full Depth Repair" detail sheet.

3. If the distance is equal for both repair joints, place the free joint (Joint B) on the approach side of the repair.



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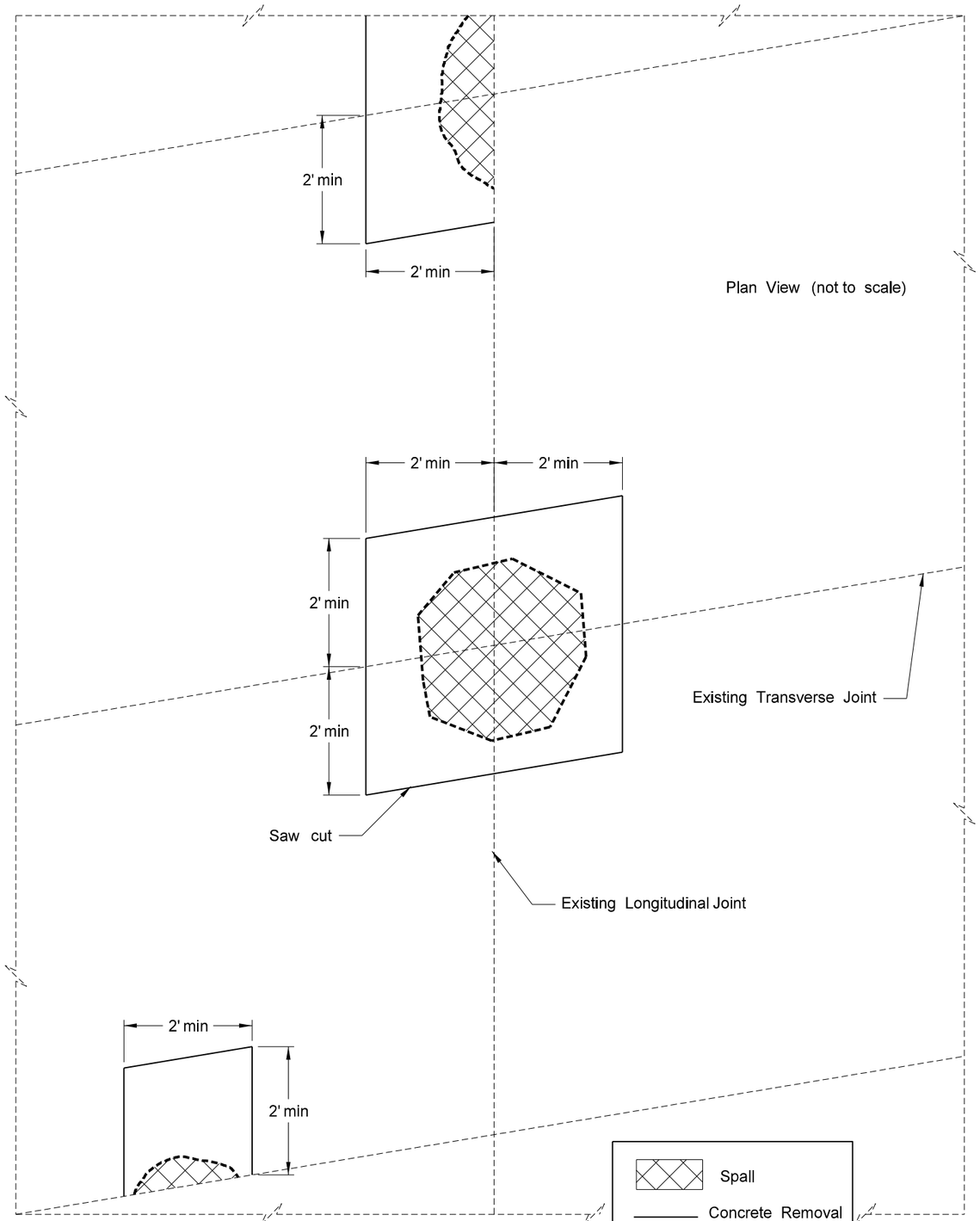
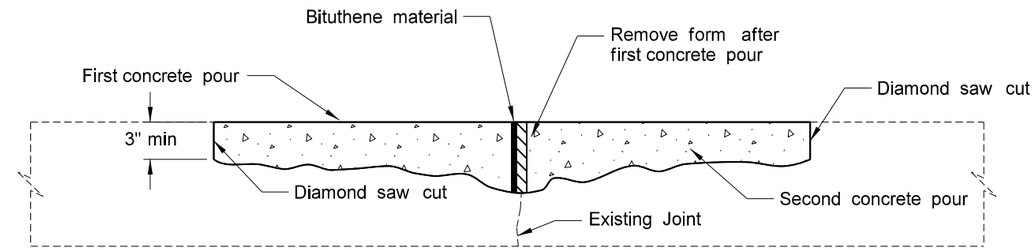
Removal of Concrete & Dowel Bar Placement
Full Depth Repair
(Longitudinal Length Less Than One Panel)

West Dickinson Interchange to RP 71.1
Eastbound Roadway

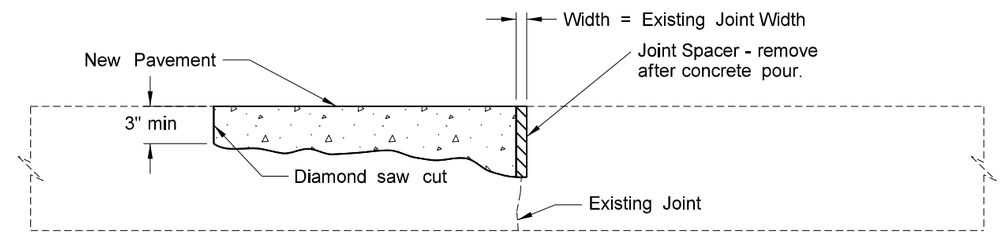
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	11



Spall Repair



Cross Section - Repair Area on Both Sides of the Joint



Cross Section - Repair Area on One Side of the Joint

Note:
Place a spacer material on the transverse joint face to maintain the joint during repair. The spacer material shall have the capability of maintaining a width equal to that of the existing joint and being easily removed after the pour. A bituthene waterproofing material may be used for this purpose. It shall be a minimum of 260 mil (approximately 1#4") thick or equal to the width of the existing joint, whichever is greater. Cut it to fit over the entire face of the existing joint to provide for expansion and prevent water from entering the existing joint through the sides or bottom. Press it into place to conform to the face of the existing joint.

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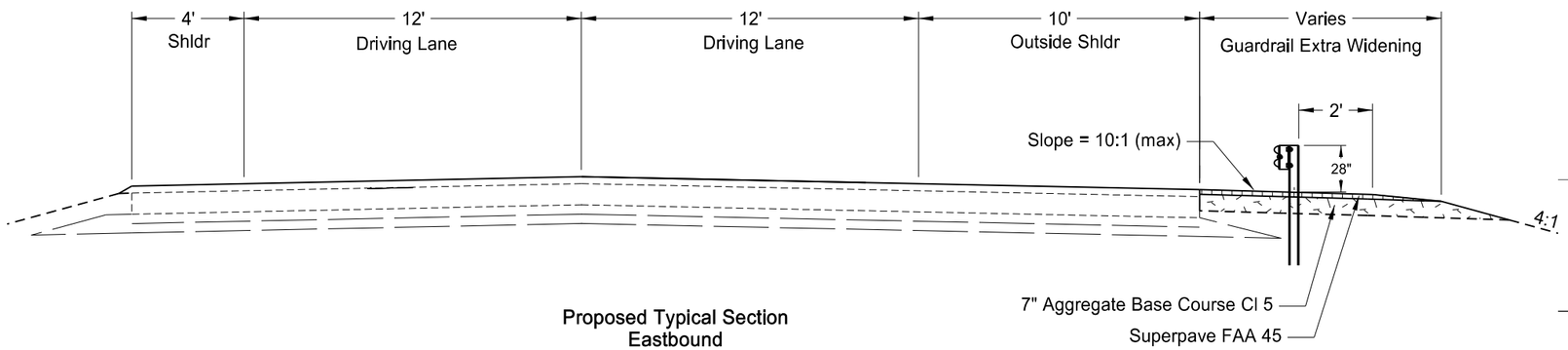
Spall Repair Detail

West Dickinson Interchange to RP 71.1
Eastbound Roadway

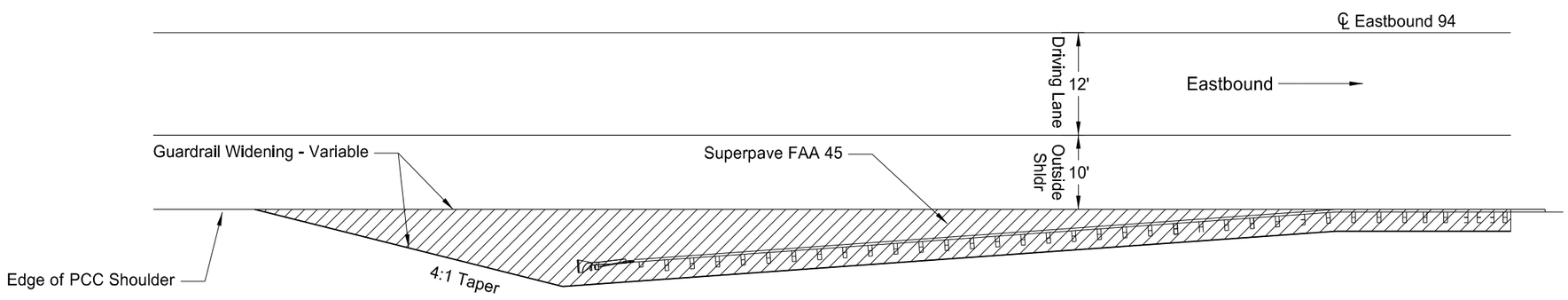
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	12



Proposed Typical Section
Eastbound

SPEC	CODE	BID ITEM	UNIT	QUANTITY
202	137	**REMOVAL OF PAVEMENT**		
		Hwy 22		
		2"Bituminous W/4" Aggregate	SY	952
		10th Avenue East		
		2"Bituminous W/4" Aggregate	SY	944
		East Dickinson Int		
		2"Bituminous W/4" Aggregate	SY	943
		Lehigh Separation		
		2"Bituminous W/4" Aggregate	SY	953
		Green River Sep		
		2"Bituminous W/4" Aggregate	SY	954
302	120	**AGGREGATE BASE COURSE CL 5**		
		Hwy 22	TON	156
		10th Avenue East	TON	150
		East Dickinson Int	TON	150
		Lehigh Separation	TON	144
		Green River Sep	TON	154
430	45	**SUPERPAVE FAA 45**		
		Hwy 22	TON	42
		10th Avenue East	TON	41
		East Dickinson Int	TON	41
		Lehigh Separation	TON	39
		Green River Sep	TON	42

Eastbound Outside Pier Guardrail Locations Below Crossroad			
Name	Location/ RP	Name	**Location/ RP**
Hwy 22 (Below)	94-061.476	Lehigh Separation	94-066.118
Pedestrian Overhead/ 10th Avenue East	94-062.479 94-062.486	Green River Separation	94-069.714
East Dickinson Interchange	94-064.204		



Guardrail Surfacing on Eastbound Outside Pier Locations
Below Crosroads

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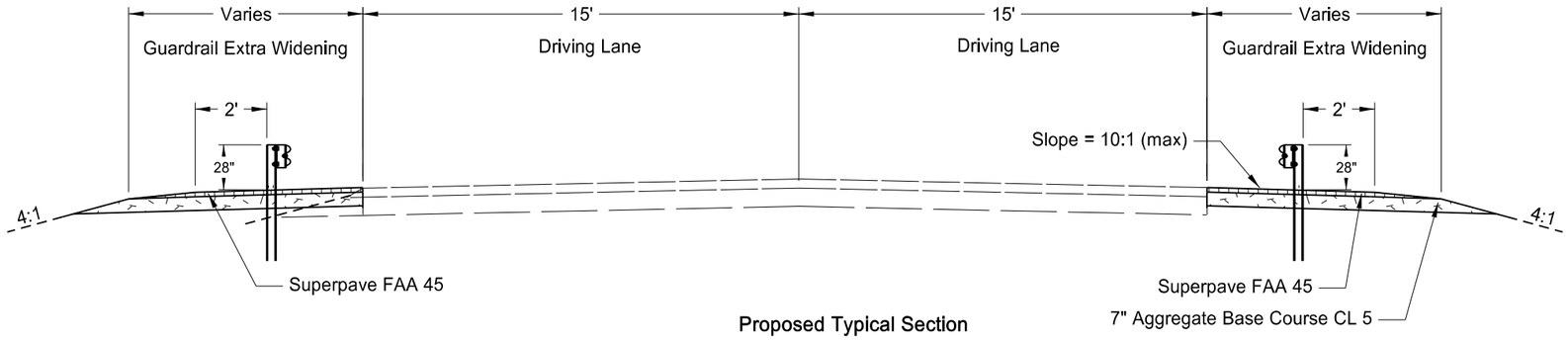
Guardrail Surfacing Details

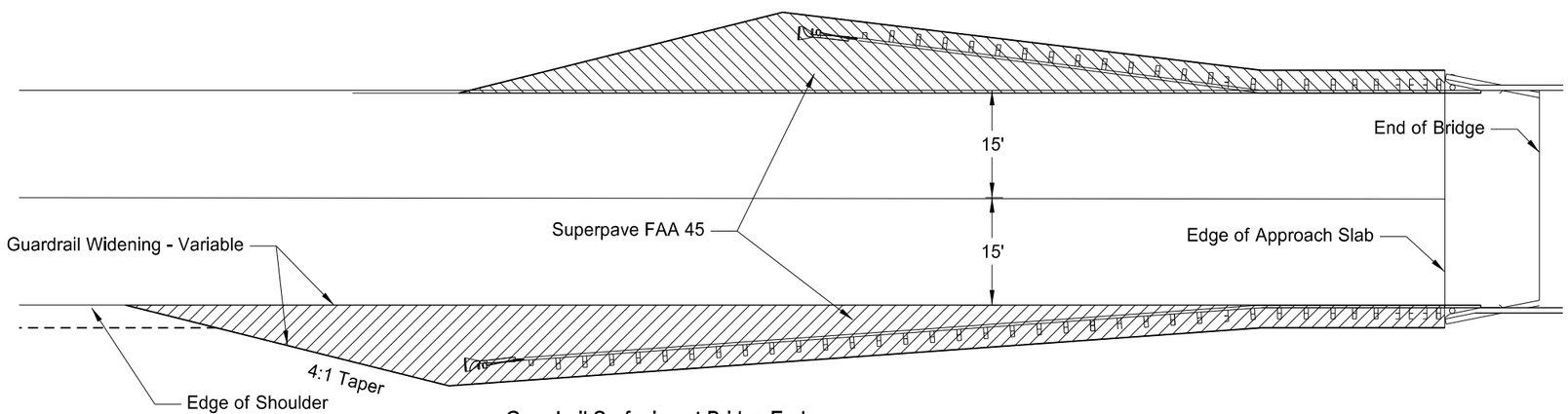
West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	13

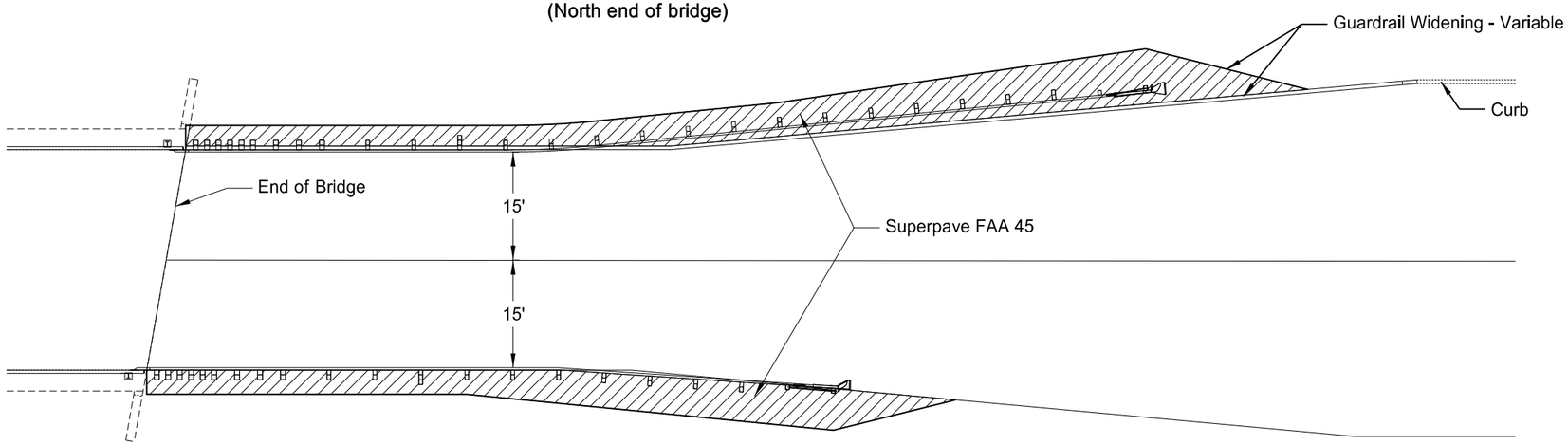


Proposed Typical Section

SPEC	CODE	BID ITEM	UNIT	QUANTITY
202	137	**REMOVAL OF PAVEMENT**		
		10th Avenue East Crossroad Br ends Gdrl		
		NW End 2"Bituminous W/4" Aggregate	SY	215
		NE End 2"Bituminous W/4" Aggregate	SY	144
		SW End 2"Bituminous W/4" Aggregate	SY	132
		SE End 2"Bituminous W/4" Aggregate	SY	292
302	120	**AGGREGATE BASE COURSE CL 5**		
		NW End	TON	33
		NE End	TON	29
		SW End	TON	30
		SE End	TON	43
430	45	**SUPERPAVE FAA 45**		
		NW End	TON	8
		NE End	TON	5
		SW End	TON	5
		SE End	TON	12



Guardrail Surfacing at Bridge Ends
10th Avenue East Crossroad
(North end of bridge)



Guardrail Surfacing at Bridge Ends
10th Avenue East Crossroad
(South end of Bridge)

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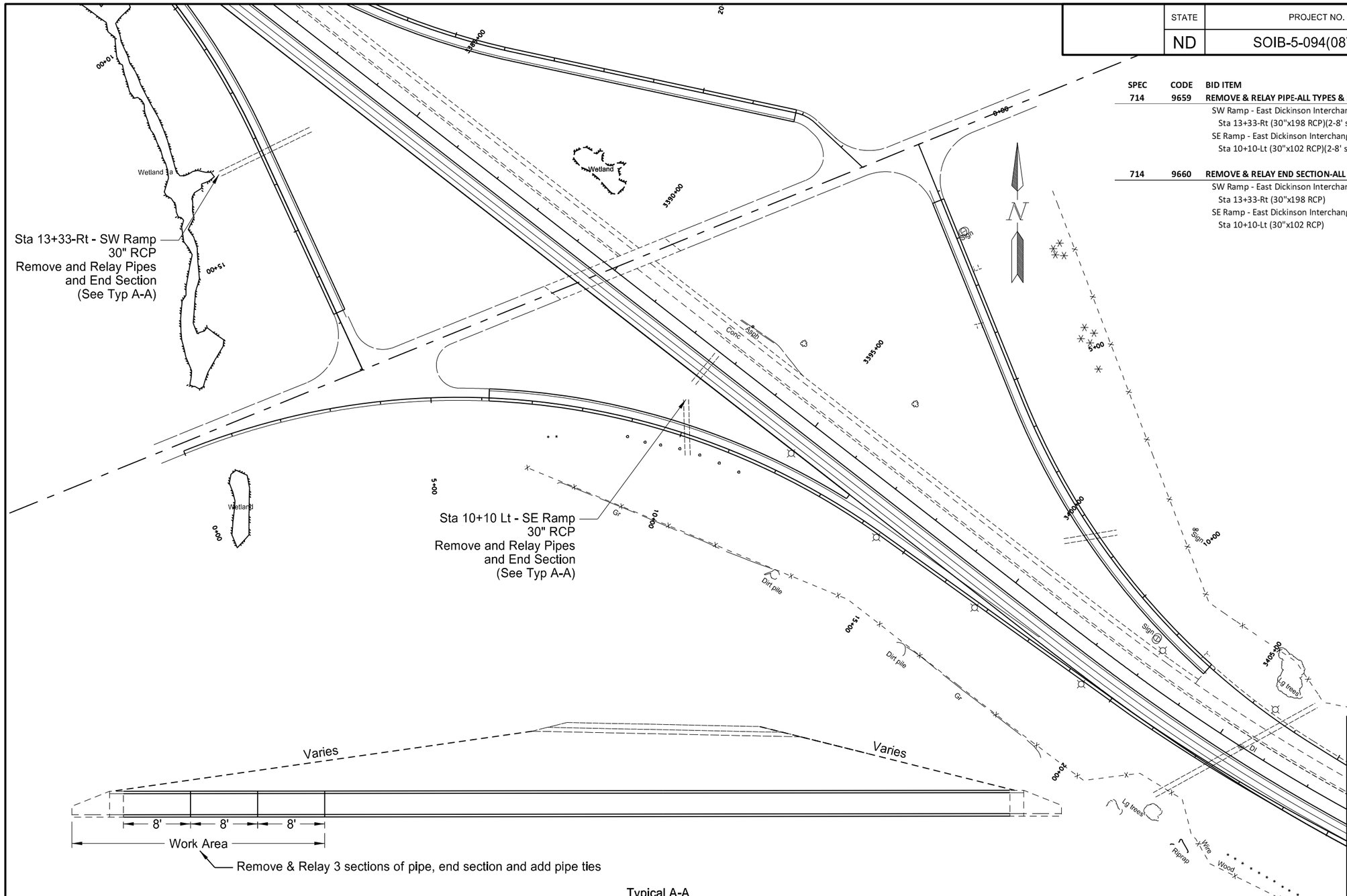
Guardrail Surfacing Details
10th Avenue East Crossroad Bridge Ends

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	14

SPEC	CODE	BID ITEM	UNIT	QUANTITY
714	9659	**REMOVE & RELAY PIPE-ALL TYPES & SIZES**		
		SW Ramp - East Dickinson Interchange		
		Sta 13+33-Rt (30"x198 RCP)(2-8' sections)	LF	24
		SE Ramp - East Dickinson Interchange		
		Sta 10+10-Lt (30"x102 RCP)(2-8' sections)	LF	24
714	9660	**REMOVE & RELAY END SECTION-ALL TYPES & SIZES**		
		SW Ramp - East Dickinson Interchange		
		Sta 13+33-Rt (30"x198 RCP)	EA	1
		SE Ramp - East Dickinson Interchange		
		Sta 10+10-Lt (30"x102 RCP)	EA	1



Typical A-A

Note:
The typical shows work required at station 13+33 SW ramp and station 10+10 SE ramp.

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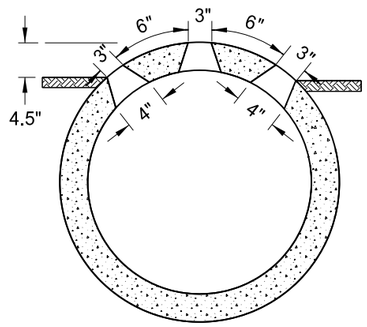
Pipe Work

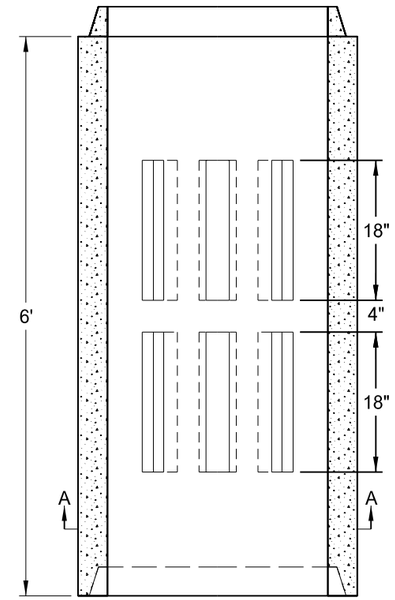
West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	15

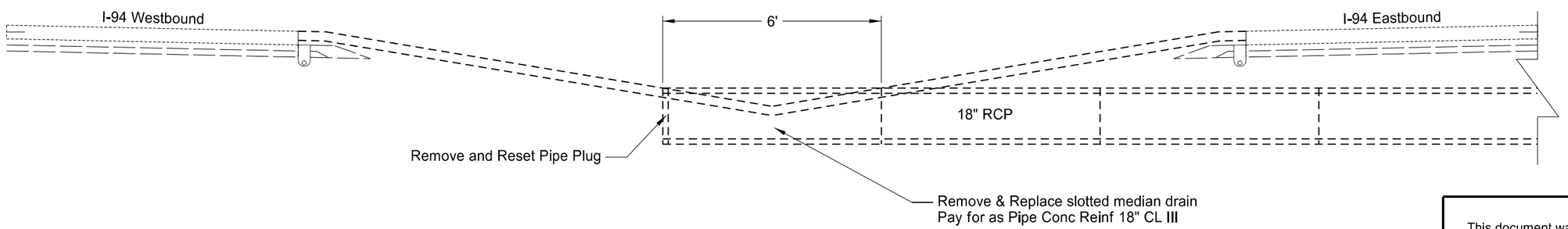
SPEC	CODE	BID ITEM	UNIT	QUANTITY
714	310	PIPE CONC REINF 18" CL III		
		Median Sta 3568+17.93 RP 67.573	LF	6



3 Slot Section
Section A-A



3 Slot Section
Plan View



Sta 3568+17.93
RP 67.573

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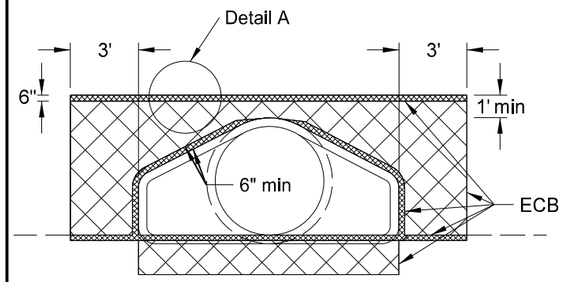
Slotted Drain Median Repair at RP 67.573

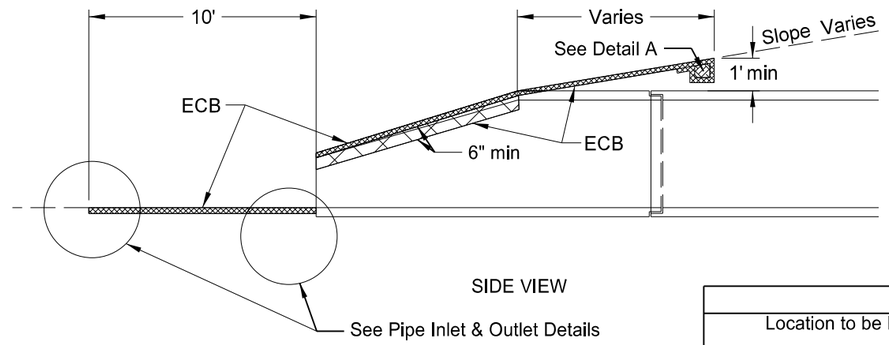
West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	16

SPEC	CODE	BID ITEM	UNIT	QUANTITY
255	102	ECB TYPE 2		
		East Dickinson Interchange		
		SW Ramp 13+33-Rt	SY	22
		SER Ramp 10+10-Lt	SY	22

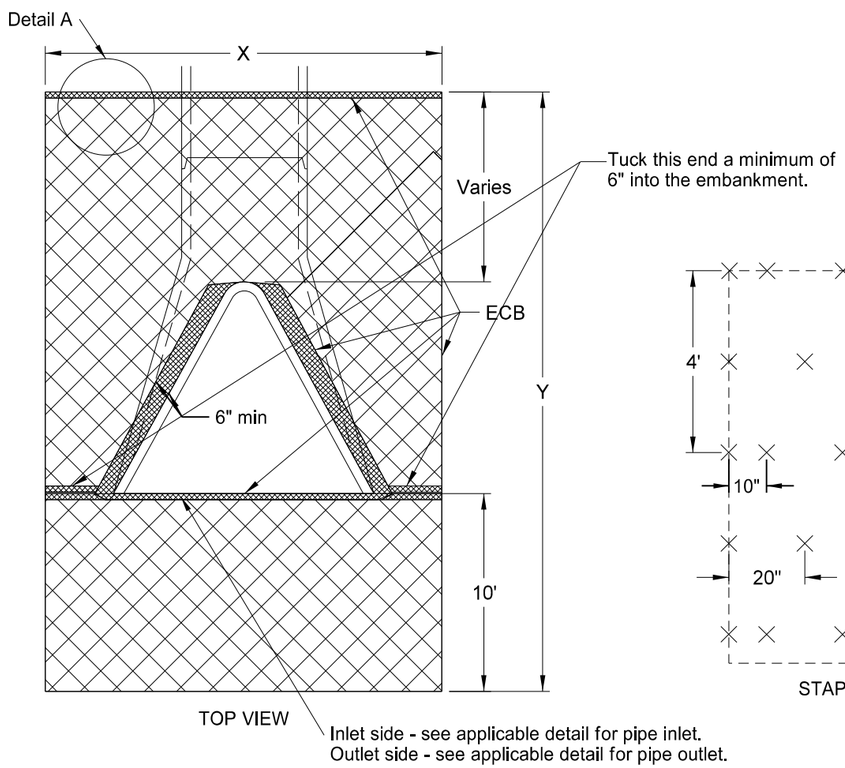


FRONT VIEW

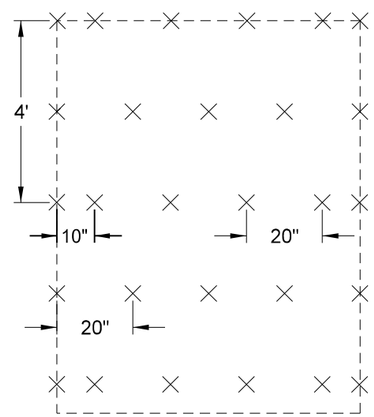


SIDE VIEW

Erosion Control Blanket (ECB)								
Location to be Protected		Culvert Type Appr/CL	Pipe Diam (Inch)	No	Unit Quantity	Total Quantity			
Description	Station				(SY)	Type 1 (SY)	Type 2 (SY)	Type 3 (SY)	Type 4 (SY)
East Dickinson Int(SWRamp)	13+33-Rt	CL	30	1	22	-	22	-	-
East Dickinson Int(SERamp)	10+10-Lt	CL	30	1	22	-	22	-	-
								-	-
Total (SYs)							44		



TOP VIEW

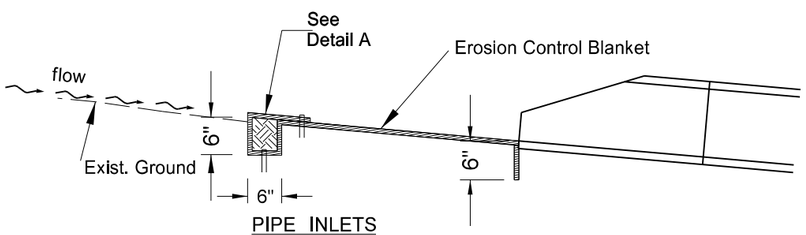


STAPLE PATTERN

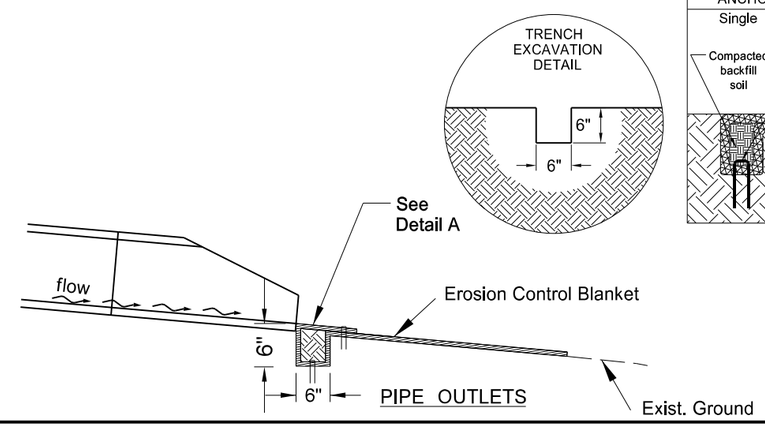
NOTE: Tuck the ECB a minimum of 6" into the embankment (against the flared end section) around the opening of the flared end section.

APPROACH CULVERTS				
DIA	X	Y	Surface area to be protected	ECB
In	Ft	Ft	SF	SY
15	9.0	20.0	176.0	20
18	9.5	20.7	190.7	22
21	9.5	21.0	190.9	22
24	10.5	21.6	214.1	24
27	11.0	22.0	226.3	25
30	11.6	22.5	241.5	27
36	12.7	23.3	268.8	30
42	13.3	23.3	279.7	31
48	13.8	24.0	293.2	33
54	14.5	23.4	300.6	34
60	15.0	23.0	307.5	35
66	15.6	24.0	325.6	37
72	16.2	24.5	340.6	38
Note: Quantities based on 8:1 slope.				

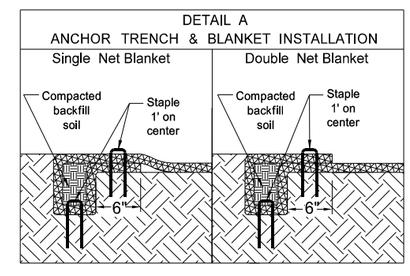
CENTERLINE CULVERTS									
DIA	X	Y	Surface area to be protected	ECB	DIA	X	Y	Surface area to be protected	ECB
In	Ft	Ft	SF	SY	In	Ft	Ft	SF	SY
24	10.5	19.6	193.1	22	24	10.5	27.6	172.1	20
27	11.0	20.0	204.3	23	27	11.0	18.0	182.3	21
30	11.6	20.5	218.3	25	30	11.6	18.5	195.1	22
36	12.7	21.2	242.1	27	36	12.7	19.2	216.7	24
42	13.3	21.2	251.8	28	42	13.3	19.2	225.2	25
48	13.8	22.0	265.6	30	48	13.8	20.0	238.0	27
54	14.5	21.5	273.7	31	54	14.5	19.5	244.7	28
60	15.0	21.0	278.3	31	60	15.0	19.0	248.3	28
66	15.6	22.0	295.7	33	66	15.6	20.0	264.5	30
72	16.2	22.5	309.2	35	72	16.2	20.5	276.8	31
Note: Quantities based on 6:1 slope.					Note: Quantities based on 4:1 slope.				



PIPE INLETS



PIPE OUTLETS



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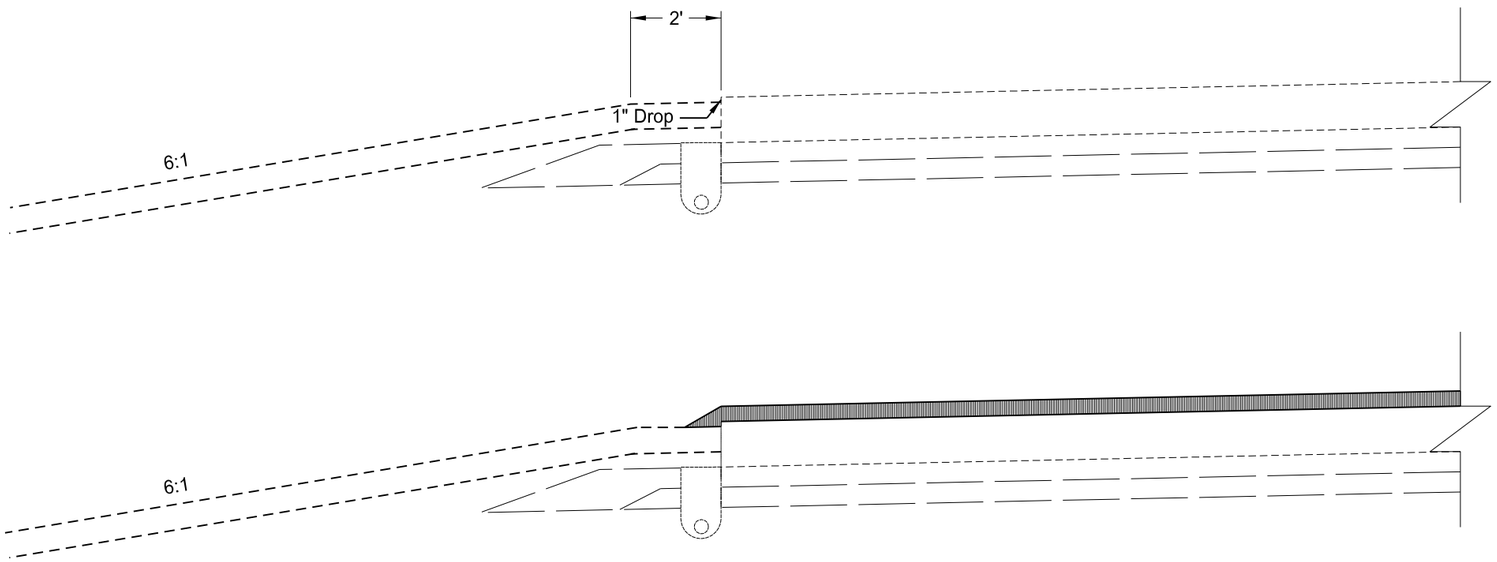
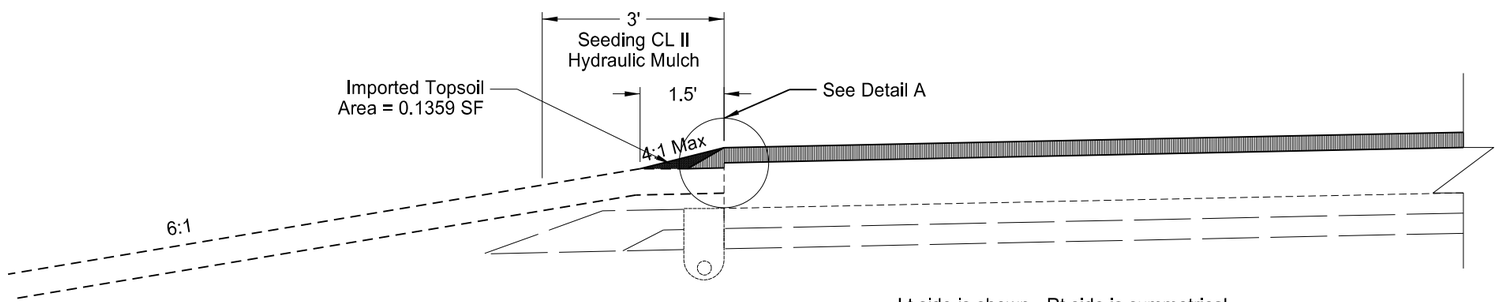
Erosion Control at Culvert Flared End Sections

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	17

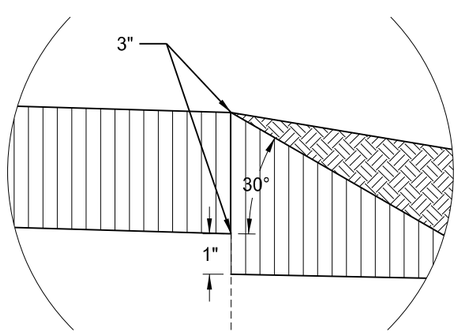
SPEC	CODE	BID ITEM	UNIT	QUANTITY
230	111	**FORESLOPE RESHAPING**		
		I94 Eastbound		
		Right Shoulder	STA	584
		Left Shoulder	STA	584





Lt side is shown - Rt side is symmetrical

Detail A



Sta 3162+89 to Sta 3191+29.7
Sta 3193+00.7 to Sta 3245+90.26 Bk=
Sta 3245+93.28 Ahd to Sta 3389+90.46 Bk=
Sta 3389+97.12 Ahd to Sta 3679+18
Sta 3683+18 to Sta 3714+30.54
Sta 3716+70.54 to Sta 3755+31

State Avenue Structure (171 LF Exception) = Sta 3191+29.7 to Sta 3193+00.7

HMA Overlay (400 LF Exception) = Sta 3679+18 to Sta 3683+18
Green River Structure (240 LF Exception) = Sta 3714+30.54 to Sta 3716+70.54

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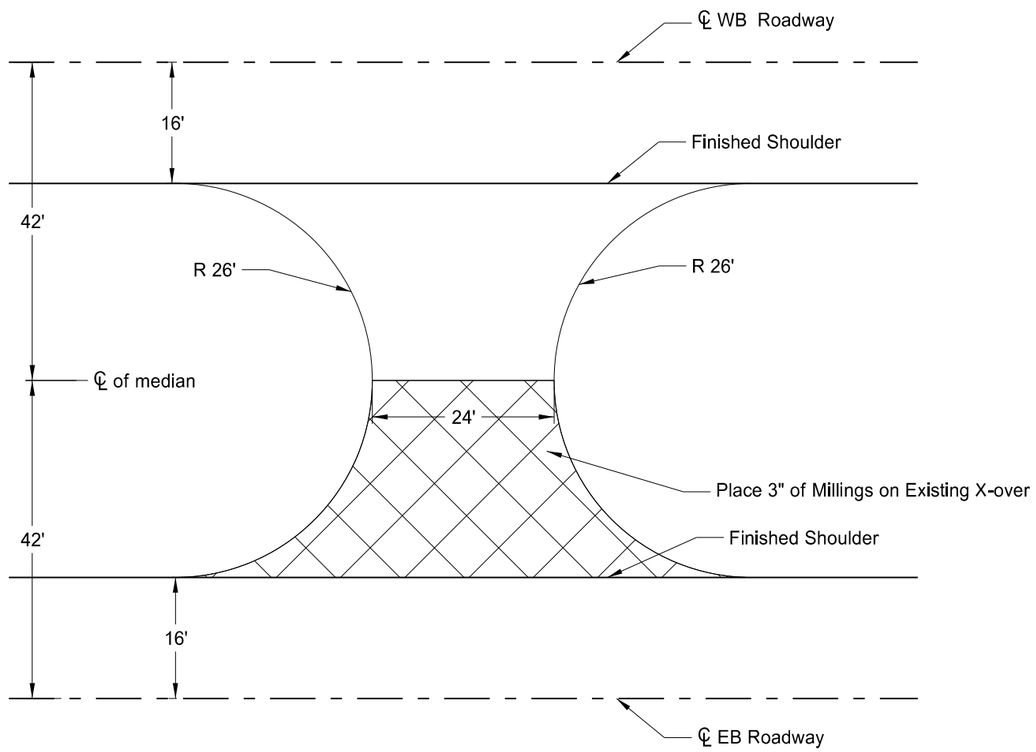
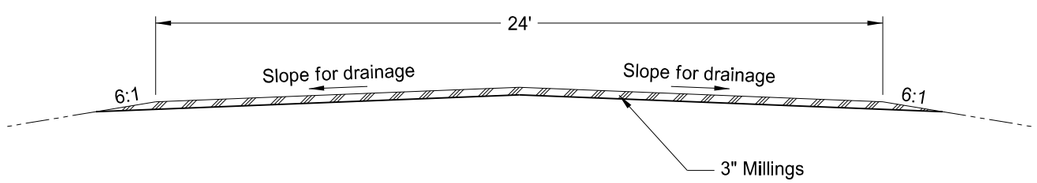
Foreslope Reshaping

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	20	18



Median Crossover



Typical Section

Place and compact milled asphalt material not to exceed 1 1/2" particle size on the existing median crossovers at the following locations:

RP 60.826	10 Tons
RP 62.169	10 Tons
RP 65.401	10 Tons
RP 68.511	10 Tons

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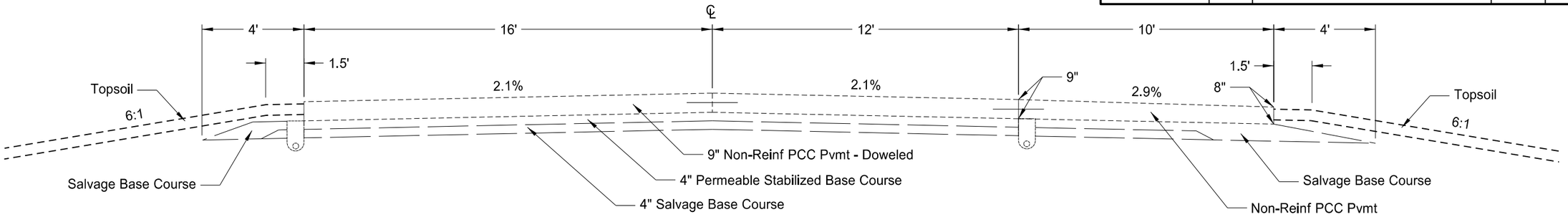
Emergency Median Crossover
Gravel Detail

West Dickinson Interchange to RP 71.1
Eastbound Roadway

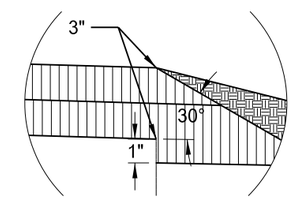
STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	30	1

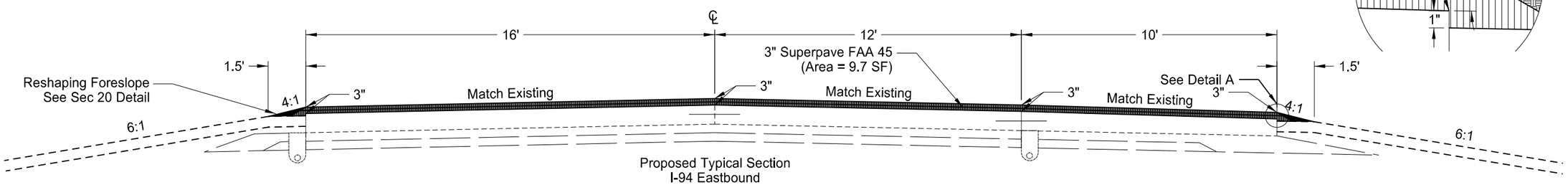


Existing Typical Section
I-94 Eastbound

Sta 3162+89 to Sta 3755+31

Detail A





Proposed Typical Section
I-94 Eastbound

Sta 3162+89 to Sta 3191+29.7
Sta 3193+00.7 to Sta 3245+90.26 Bk=
Sta 3245+93.28 Ahd to Sta 3389+90.46 Bk=
Sta 3389+97.12 Ahd to Sta 3679+18
Sta 3683+18 to Sta 3714+30.54
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State Avenue Structure (171 LF Exception) = Sta 3191+29.7 to Sta 3193+00.7

HMA Overlay (400 LF Exception) = Sta 3679+18 to Sta 3683+18
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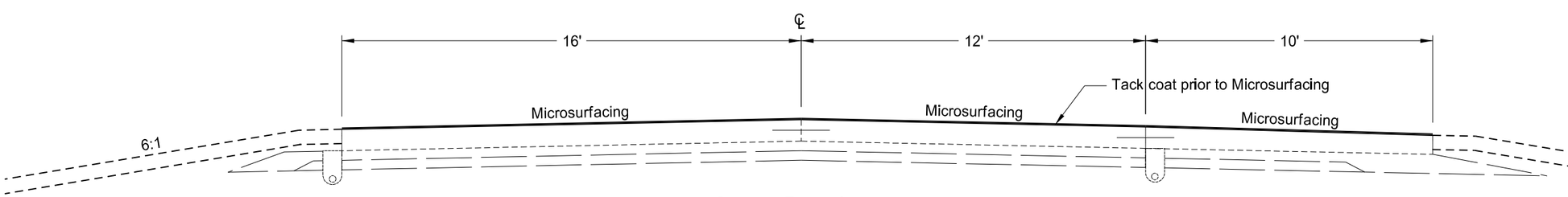

Proposed Typical Section
I-94 Eastbound

Sta 3676+18 to Sta 3686+18
1000 LF under the Green River Separation Structure

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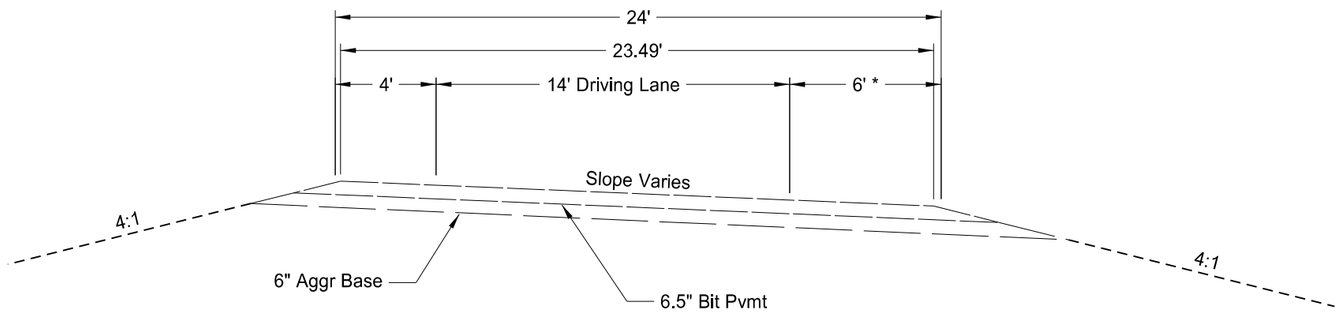
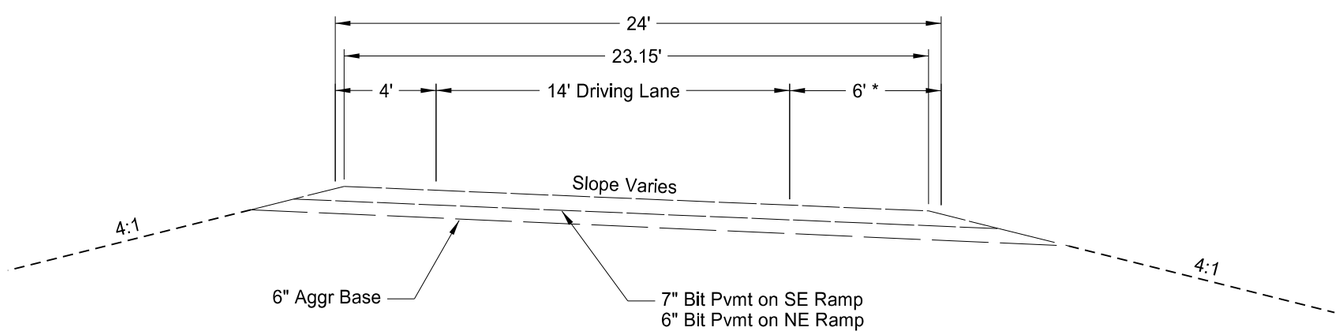
Existing & Proposed Typical Section

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	30	2



Existing ND 22 Interchange
Typical NW & SW Ramp Sections
* Varies from 6' to 14'



Existing ND 22 Interchange
Typical NE & SE Ramp Sections
* Varies from 6' to 14'

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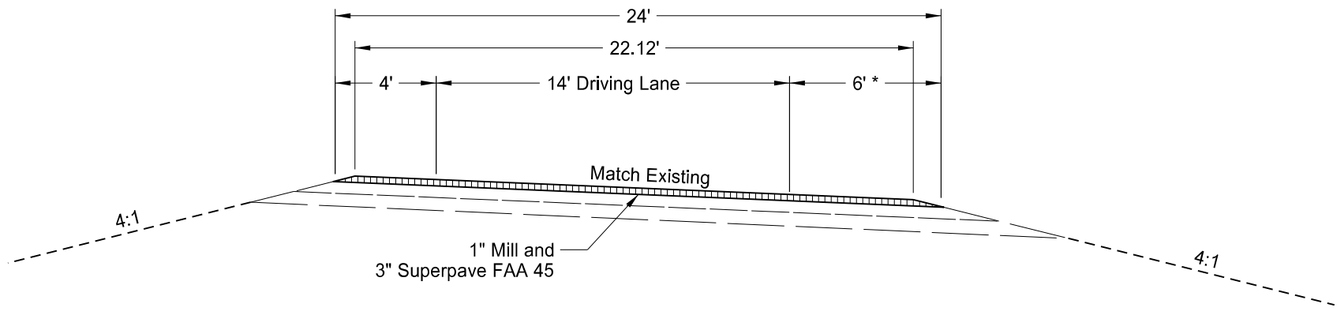
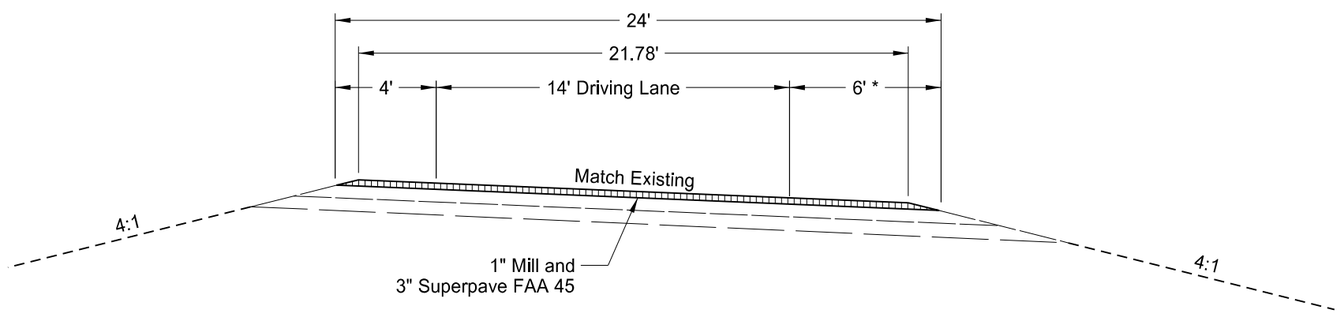
ND 22 Interchange
Existing Ramps

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	30	3



Proposed ND 22 Interchange
Typical NW & SW Ramp Sections
* Varies from 6' to 14'



Proposed ND 22 Interchange
Typical NE & SE Ramp Sections
* Varies from 6' to 14'

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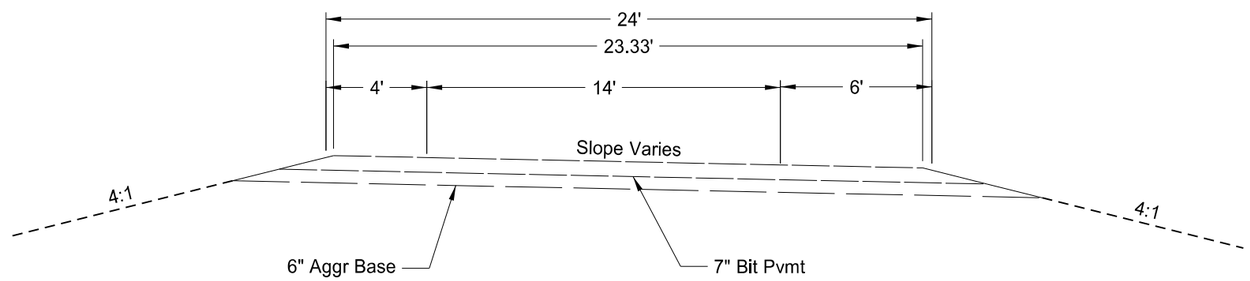
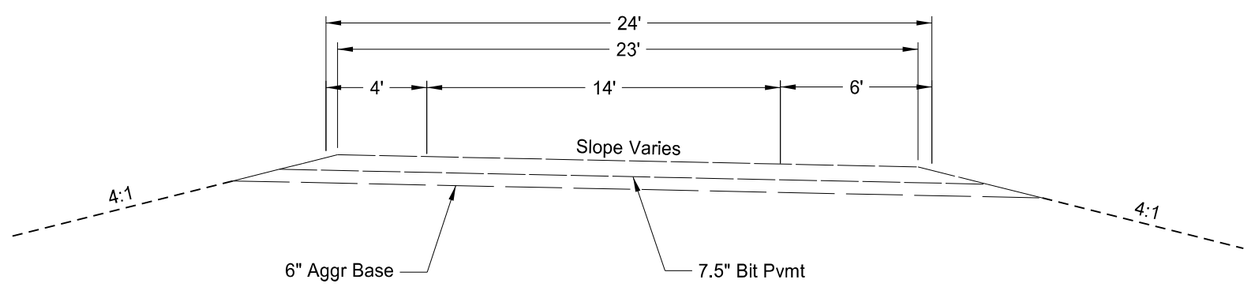
ND 22 Interchange
Proposed Ramps

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	30	4



Existing East Dickinson Interchange
Typical NW & SW Ramp Sections



Existing East Dickinson Interchange
Typical NE & SE Ramp Sections

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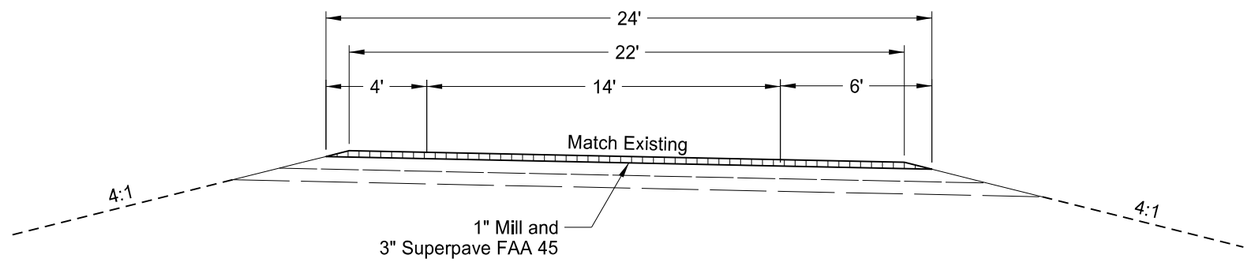
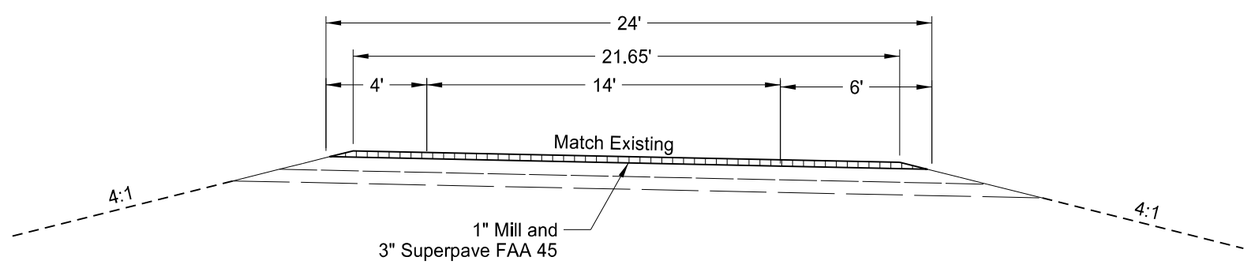
East Dickinson Interchange
Existing Ramps

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	30	5



Proposed East Dickinson Interchange
Typical NW & SW Ramp Sections



Proposed East Dickinson Interchange
Typical NE & SE Ramp Sections

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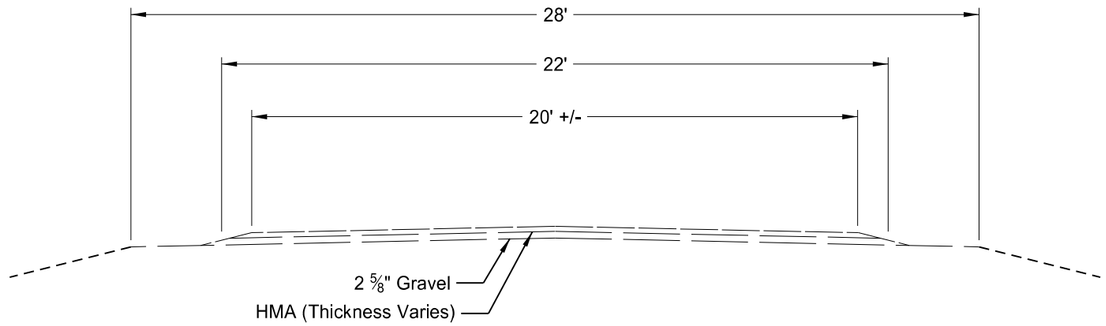
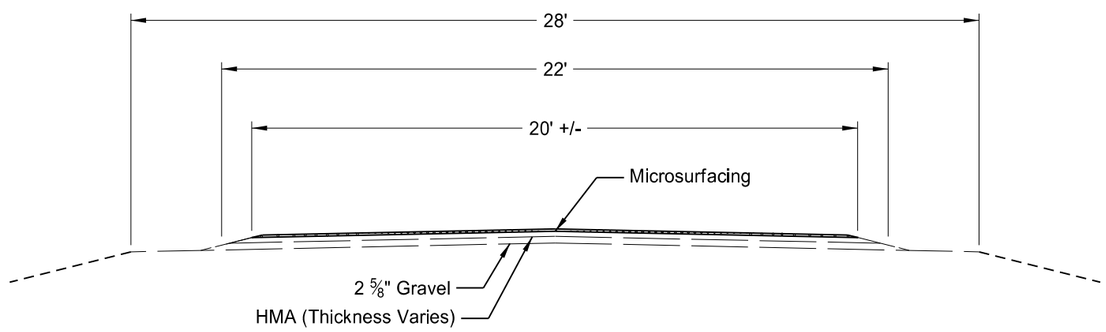
East Dickinson Interchange
Proposed Ramps

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	30	6



Cross Road
Existing Typical Section
Lehigh & Green River Separation



Cross Road
Proposed Typical Section
Lehigh & Green River Separation

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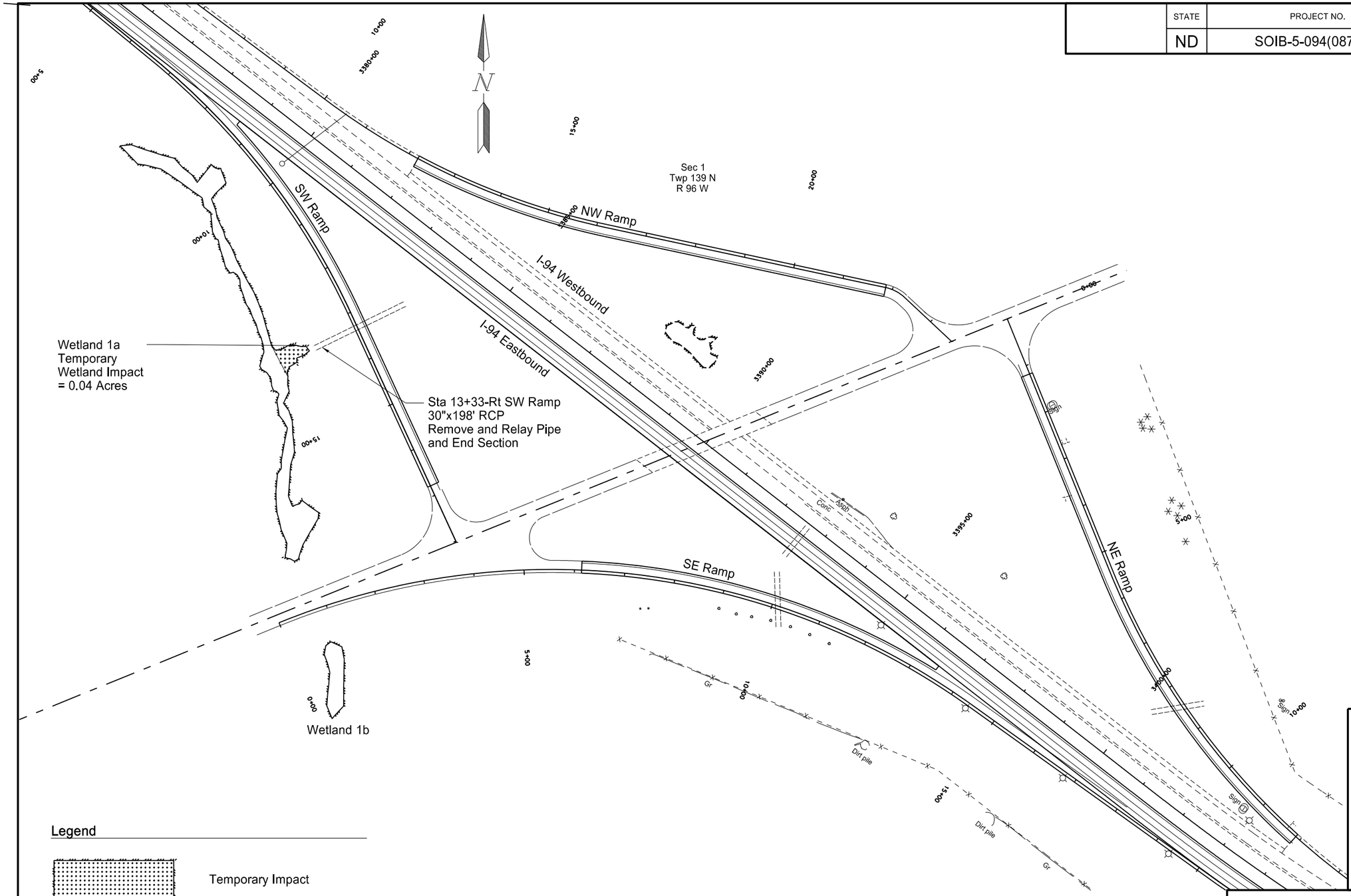
Cross Road Typical Section
Lehigh & Green River Separation

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	75	1



Legend

Temporary Impact

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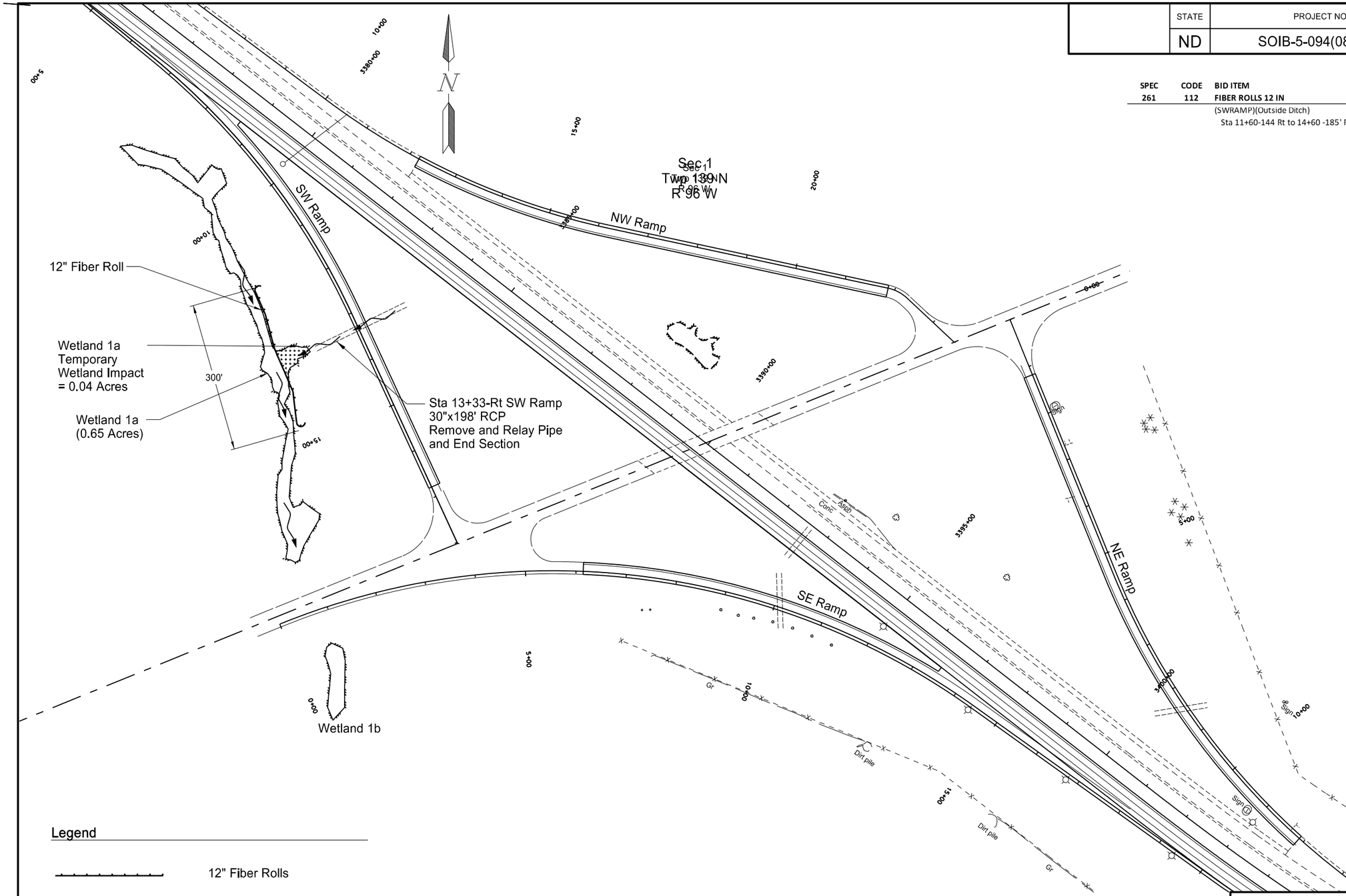
Wetland Impacts

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	76	1

SPEC	CODE	BID ITEM	UNIT	QUANTITY
261	112	FIBER ROLLS 12 IN		
		(SWRAMP)(Outside Ditch)		
		Sta 11+60-144 Rt to 14+60 -185' Rt	LF	300



Legend

12" Fiber Rolls

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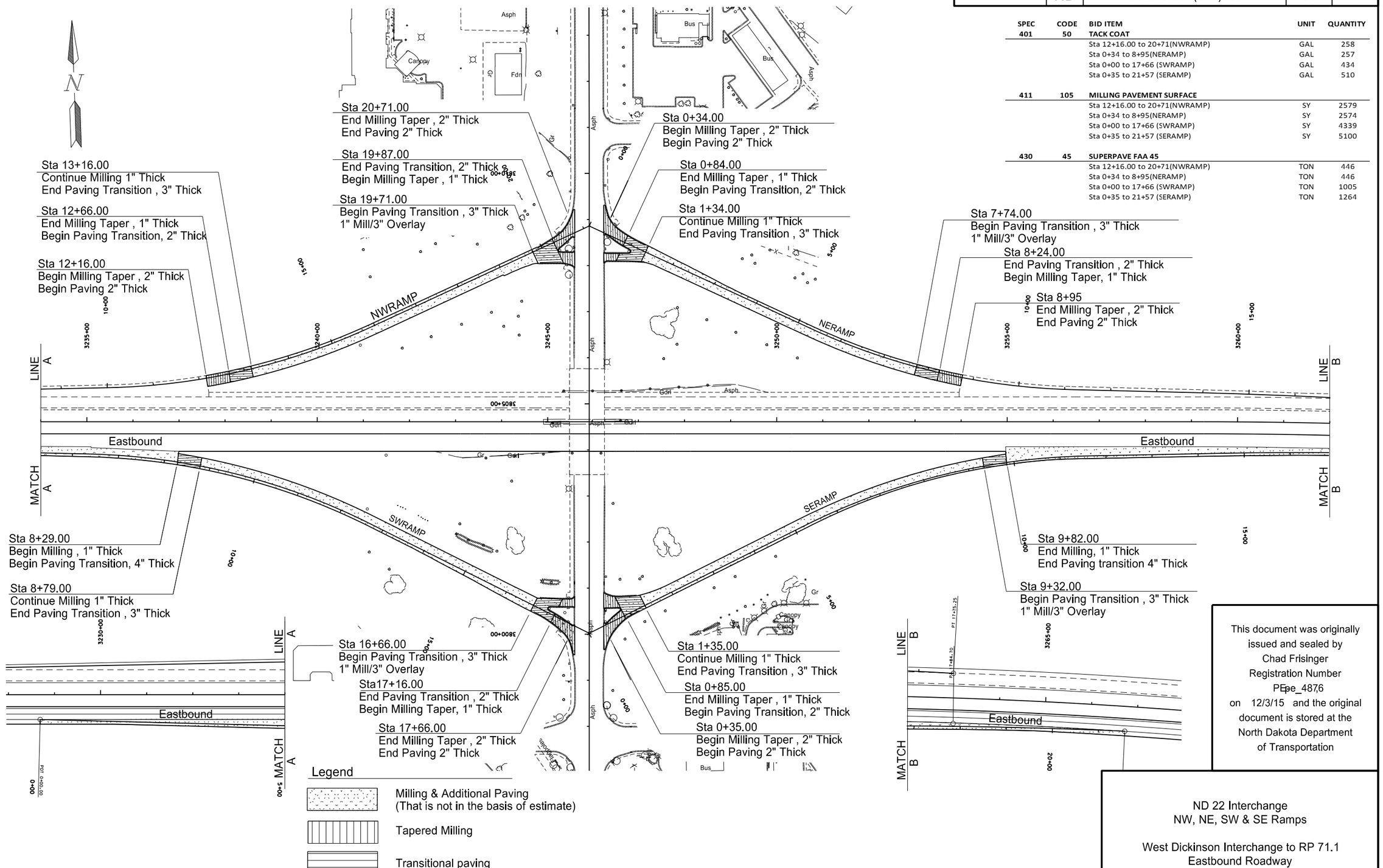
Temporary Erosion Control
@ East Dickinson Interchange
SW Ramp

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	90	1

SPEC	CODE	BID ITEM	UNIT	QUANTITY
401	50	TACK COAT		
		Sta 12+16.00 to 20+71(NWRAMP)	GAL	258
		Sta 0+34 to 8+95(NERAMP)	GAL	257
		Sta 0+00 to 17+66 (SWRAMP)	GAL	434
		Sta 0+35 to 21+57 (SERAMP)	GAL	510
411	105	MILLING PAVEMENT SURFACE		
		Sta 12+16.00 to 20+71(NWRAMP)	SY	2579
		Sta 0+34 to 8+95(NERAMP)	SY	2574
		Sta 0+00 to 17+66 (SWRAMP)	SY	4339
		Sta 0+35 to 21+57 (SERAMP)	SY	5100
430	45	SUPERPAVE FAA 45		
		Sta 12+16.00 to 20+71(NWRAMP)	TON	446
		Sta 0+34 to 8+95(NERAMP)	TON	446
		Sta 0+00 to 17+66 (SWRAMP)	TON	1005
		Sta 0+35 to 21+57 (SERAMP)	TON	1264



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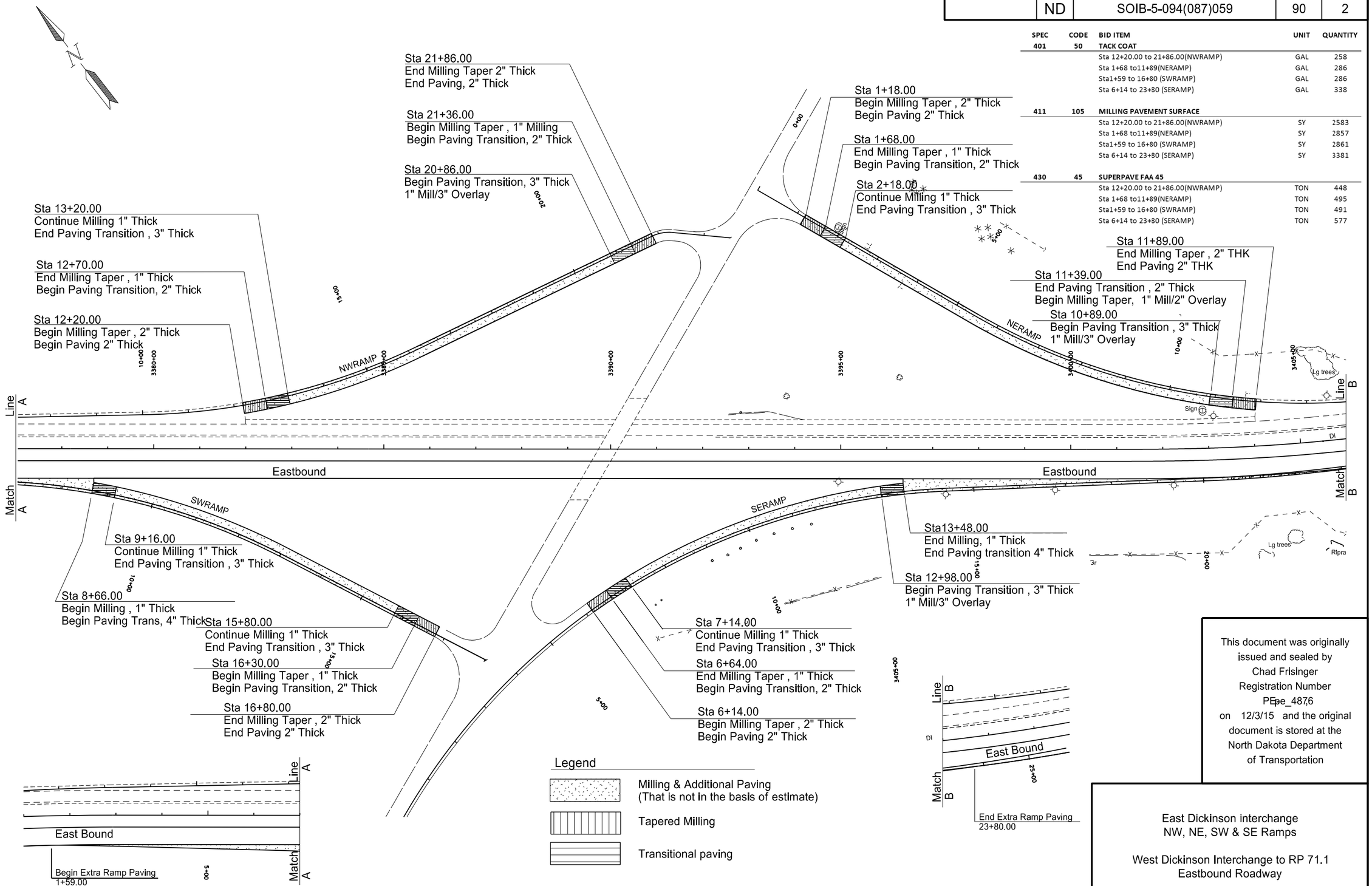
ND 22 Interchange
NW, NE, SW & SE Ramps

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	90	2

SPEC	CODE	BID ITEM	UNIT	QUANTITY
401	50	TACK COAT		
		Sta 12+20.00 to 21+86.00(NWRAMP)	GAL	258
		Sta 1+68 to11+89(NERAMP)	GAL	286
		Sta1+59 to 16+80 (SWRAMP)	GAL	286
		Sta 6+14 to 23+80 (SERAMP)	GAL	338
411	105	MILLING PAVEMENT SURFACE		
		Sta 12+20.00 to 21+86.00(NWRAMP)	SY	2583
		Sta 1+68 to11+89(NERAMP)	SY	2857
		Sta1+59 to 16+80 (SWRAMP)	SY	2861
		Sta 6+14 to 23+80 (SERAMP)	SY	3381
430	45	SUPERPAVE FAA 45		
		Sta 12+20.00 to 21+86.00(NWRAMP)	TON	448
		Sta 1+68 to11+89(NERAMP)	TON	495
		Sta1+59 to 16+80 (SWRAMP)	TON	491
		Sta 6+14 to 23+80 (SERAMP)	TON	577



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East Dickinson interchange
NW, NE, SW & SE Ramps

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	100	1

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED BY PHASE NO. 1	2		TOTAL AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
D3-36	36"x6"	STREET NAME SIGN (Sign and installation only)					6	
E5-1-48	**48"x48"**	**EXIT**	**2**			**2**	**35**	**70**
G20-1-60	**60"x24"**	**ROAD WORK NEXT __ MILES**	**4**	**4**		**4**	**34**	**136**
G20-1b-60	60"x24"	WORK IN PROGRESS/ NO WORK IN PROGRESS (Sign and installation only)					26	
G20-2-48	**48"x24"**	**END ROAD WORK**	**10**	**10**		**10**	**19**	**190**
G20-4-36	36"x18"	PILOT CAR FOLLOW ME (Mounted to back of pilot car)					18	
G20-10-108	**108"x48"**	**CONTRACTOR SIGN**	**1**	**1**		**1**	**64**	**64**
G20-50a-72	72"x36"	ROAD WORK NEXT __ MILES RT & LT ARROWS					37	
G20-52a-72	72"x24"	ROAD WORK NEXT __ MILES RT or LT ARROW					30	
G20-55-96	**96"x48"**	**SPEED LIMIT ENFORCED - MINIMUM FEE $80 WHEN WORKERS PRESENT**	**6**	**6**		**6**	**59**	**354**
M1-1-36	36"x36"	INTERSTATE ROUTE MARKER (Post and installation only)					10	
M1-4-24	24"x24"	U.S. ROUTE MARKER (Post and installation only)					10	
M1-5-24	24"x24"	STATE ROUTE MARKER (Post and installation only)					10	
M3-1-24	24"x12"	NORTH (Mounted on route marker post)					7	
M3-2-24	24"x12"	EAST (Mounted on route marker post)					7	
M3-3-24	24"x12"	SOUTH (Mounted on route marker post)					7	
M3-4-24	24"x12"	WEST (Mounted on route marker post)					7	
M4-8-24	24"x12"	DETOUR (Mounted on route marker post)					7	
M4-9-30	30"x24"	DETOUR ARROW RIGHT or LEFT/AHD AND RT or LT					15	
M4-10-48	48"x18"	DETOUR ARROW RIGHT or LEFT					23	
M5-1-21	21"x15"	ARROW AHD AND RT or LT(Mounted on route marker post)					7	
M5-2-21	21"x15"	ARROW AHD UP & RT or LT (Mounted on route marker post)					7	
M6-1-21	21"x15"	ARROW RT or LT (Mounted on route marker post)					7	
M6-2-21	21"x15"	ARROW UP & RT or LT (Mounted on route marker post)					7	
M6-3-21	21"x15"	ARROW AHD (Mounted on route marker post)					7	
R1-1-48	**48"x48"**	**STOP**	**4**	**4**		**4**	**32**	**128**
R1-1a-18	**18"x18"**	**STOP and SLOW PADDLE Back to Back**	**2**	**3**		**3**	**5**	**15**
R1-2-60	**60"x60"**	**YIELD**	**2**	**2**		**2**	**29**	**58**
R2-1-48	**48"x60"**	**SPEED LIMIT __**	**28**	**10**		**28**	**39**	**1092**
R2-1a-24	**24"x18"**	**MINIMUM FEE $80 (Mounted on Speed Limit post)**	**12**	**3**		**12**	**10**	**120**
R3-7-48	48"x48"	LEFT or RIGHT LANE MUST TURN LEFT or RIGHT					35	
R4-1-48	**48"x60"**	**DO NOT PASS**	**6**	**2**		**6**	**39**	**234**
R4-7-48	48"x60"	KEEP RIGHT SYMBOL					39	
R5-1-48	48"x48"	DO NOT ENTER					35	
R6-1-36	36"x12"	ONE WAY RIGHT or LEFT					13	
R7-1-12	12"x18"	NO PARKING					11	
R10-6-24	**24"x36"**	**STOP HERE ON RED**	**4**			**4**	**16**	**64**
R10-11-36	**36"x36"**	**NO TURN ON RED**	**1**			**1**	**27**	**27**
R11-2-48	48"x30"	ROAD CLOSED					28	
R11-2a-48	48"x30"	STREET CLOSED					28	
R11-3a-60	60"x30"	ROAD CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY					31	
R11-3c-60	60"x30"	STREET CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY					31	
R11-4a-60	60"x30"	STREET CLOSED TO THRU TRAFFIC					31	
W1-3-48	48"x48"	RIGHT or LEFT SHARP REVERSE CURVE ARROW					35	
W1-4-48	**48"x48"**	**RIGHT or LEFT REVERSE CURVE ARROW**	**2**			**2**	**35**	**70**
W1-4b-48	48"x48"	DOUBLE RIGHT or LEFT REVERSE CURVE ARROW					35	
W1-6-48	48"x24"	LARGE ARROW					26	
W3-1-48	48"x48"	STOP AHEAD SYMBOL					35	
W3-3-48	**48"x48"**	**SIGNAL AHEAD SYMBOL**	**6**			**6**	**35**	**210**
W3-4-48	**48"x48"**	**BE PREPARED TO STOP**		**2**		**2**	**35**	**70**
W3-5-48	**48"x48"**	**SPEED REDUCTION AHEAD**	**10**	**2**		**10**	**35**	**350**
W4-2-48	**48"x48"**	**RIGHT or LEFT LANE TRANSITION SYMBOL**	**8**	**2**		**8**	**35**	**280**
W5-1-48	48"x48"	ROAD NARROWS					35	
W5-4-48	**48"x48"**	**RAMP NARROWS**		**4**		**4**	**35**	**140**
W5-8-48	**48"x48"**	**THRU TRAFFIC RIGHT LANE**	**1**			**1**	**35**	**35**
W5-9-48	**48"x48"**	**ROAD WORK TRAFFIC ONLY DOWN & LT or RT ARROW**	**1**			**1**	**35**	**35**
W6-3-48	48"x48"	TWO WAY TRAFFIC SYMBOL					35	
W8-1-48	**48"x48"**	**BUMP**		**4**		**4**	**35**	**140**
W8-3-48	48"x48"	PAVEMENT ENDS					35	
W8-7-48	48"x48"	LOOSE GRAVEL					35	
W8-9a-48	48"x48"	SHOULDER DROP-OFF					35	
W8-11-48	**48"x48"**	**UNEVEN LANES**		**2**		**2**	**35**	**70**
W8-12-48	48"x48"	NO CENTER STRIPE					35	
W8-53-48	48"x48"	TRUCKS ENTERING HIGHWAY					35	
W8-54-48	**48"x48"**	**TRUCKS ENTERING AHEAD or __ FT.**	**2**	**2**		**2**	**35**	**70**
W8-55-48	**48"x48"**	**TRUCKS CROSSING AHEAD or __ FT.**	**2**	**2**		**2**	**35**	**70**
W8-56-48	48"x48"	TRUCKS EXITING HIGHWAY					35	
W9-3a-48	48"x48"	CENTER LANE CLOSED SYMBOL					35	
W12-2-48	48"x48"	LOW CLEARANCE SYMBOL					35	
W13-1-24	**24"x24"**	**__ MPH ADVISORY SPEED PLATE (Mounted on warning sign post)**		**4**		**4**	**11**	**44**
W13-4-30	**36"x30"**	**ON RAMP**		**4**		**4**	**17**	**68**
W13-4-48	**48"x60"**	**RAMP ARROW**	**1**	**4**		**4**	**39**	**156**
W14-3-48	48"x36"	NO PASSING ZONE					23	
W20-1-48	**48"x48"**	**ROAD WORK AHEAD or _FT or _ MILE**	**12**	**6**		**12**	**35**	**420**
W20-2-48	48"x48"	DETOUR AHEAD or __ FT					35	
W20-3-48	48"x48"	ROAD or STREET CLOSED AHEAD or __ FT.					35	
W20-4-48	**48"x48"**	**ONE LANE ROAD AHEAD or __ FT.**	**6**			**6**	**35**	**210**
W20-5-48	**48"x48"**	**RIGHT or LEFT LANE CLOSED AHEAD or __ FT.**	**8**	**2**		**8**	**35**	**280**
W20-7a-48	**48"x48"**	**FLAGGING SYMBOL**	**2**	**3**		**3**	**35**	**105**
W20-7k-24	24"x18"	__ FEET (Mounted on warning sign post)					10	
W20-8-48	48"x48"	STREET CLOSED					35	
W20-51-48	48"x48"	EQUIPMENT WORKING					35	

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED BY PHASE NO. 1	2		TOTAL AMOUNT REQUIRED	UNITS PER AMOUNT	UNITS SUB TOTAL
W20-52-54	**54"x12"**	**NEXT __ MILES (Mounted on warning sign post)**		**2**		**2**	**12**	**24**
W21-1a-48	48"x48"	WORKERS SYMBOL					35	
W21-2-48	**48"x48"**	**FRESH OIL**		**4**		**4**	**35**	**140**
W21-3-48	48"x48"	ROAD MACHINERY AHEAD or __ FT					35	
W21-5-48	**48"x48"**	**SHOULDER WORK**	**2**	**2**		**2**	**35**	**70**
W21-5a-48	48"x48"	RIGHT or LEFT SHOULDER CLOSED					35	
W21-5b-48	48"x48"	RIGHT or LEFT SHOULDER CLOSED AHEAD or __ FT.					35	
W21-6a-48	48"x48"	SURVEY CREW AHEAD					35	
W21-50-48	48"x48"	BRIDGE PAINTING AHEAD or __ FT.					35	
W21-51-48	48"x48"	MATERIAL ON ROADWAY					35	
W22-8-48	48"x48"	FRESH OIL LOOSE ROCK					35	
	24"x24"	TAKE TURNS (6" D letters) (Mounted on stop sign post)					11	

SPECIAL SIGNS

NOTE:
If additional signs are required, units will be calculated using the formula from Section III-19.06 of the Design Manual.
http://www.dot.nd.gov/

SPEC & CODE

704-1000	**TRAFFIC CONTROL SIGNS**	**TOTAL UNITS**	**5609**

SPEC & CODE	DESCRIPTION	UNIT	QUANTITY BY PHASE NO. 1	2		TOTAL QUANTITY
704-0100	**FLAGGING**	MHR	**2000**	**500**		**2500**
704-1018	**LANE CLOSURE-SIGNAL CONTROLLER/FLAGGING CONTROL**	EACH	**2**			**2**
704-1037	**ATTENUATION DEVICE-TYPE B-35**	EACH	**2**			**2**
704-1039	**ATTENUATION DEVICE-TYPE B-45**	EACH	**2**			**2**
704-1041	ATTENUATION DEVICE-TYPE B-55	EACH				
704-1043	ATTENUATION DEVICE-TYPE B-65	EACH				
704-1044	ATTENUATION DEVICE-TYPE B-70	EACH				
704-1045	**ATTENUATION DEVICE-TYPE B-75**	EACH	**1**			**1**
704-1050	**TYPE I BARRICADES**	EACH	**25**			**25**
704-1051	TYPE II BARRICADES	EACH				
704-1052	**TYPE III BARRICADES**	EACH	**16**	**12**		**16**
704-1060	**DELINEATOR DRUMS**	EACH	**147**	**48**		**147**
704-1065	TRAFFIC CONES	EACH				
704-1067	**TUBULAR MARKERS**	EACH	**452**	**222**		**452**
704-1070	DELINEATOR	EACH				
704-1072	FLEXIBLE DELINEATORS	EACH				
704-1080	**STACKABLE VERTICAL PANELS**	EACH	**50**			**50**
704-1085	SEQUENCING ARROW PANEL - TYPE A	EACH				
704-1086	SEQUENCING ARROW PANEL - TYPE B	EACH				
704-1087	**SEQUENCING ARROW PANEL - TYPE C**	EACH	**4**	**1**		**4**
704-1088	SEQUENCING ARROW PANEL - TYPE C - CROSSOVER	EACH				
704-1095	TYPE B FLASHERS	EACH				
704-1500	**OBLITERATION OF PVMT MK**	SF	**438**			**438**
704-3501	PORTABLE PRECAST CONCRETE MED BARRIER	LF				
704-3510	**PRECAST CONCRETE MED BARRIER - STATE FURNISHED**	EACH	**110**			**110**
762-0200	RAISED PAVEMENT MARKERS	EACH				
762-0420	**SHORT TERM 4IN LINE - TYPE R**	LF	**7560**			**7560**
762-0426	**SHORT TERM 24IN LINE-TYPE R**	LF	**66**			**66**
762-0430	SHORT TERM 4IN LINE - TYPE NR	LF				
772-2110	FLASHING BEACON - POST MOUNTED	EACH				

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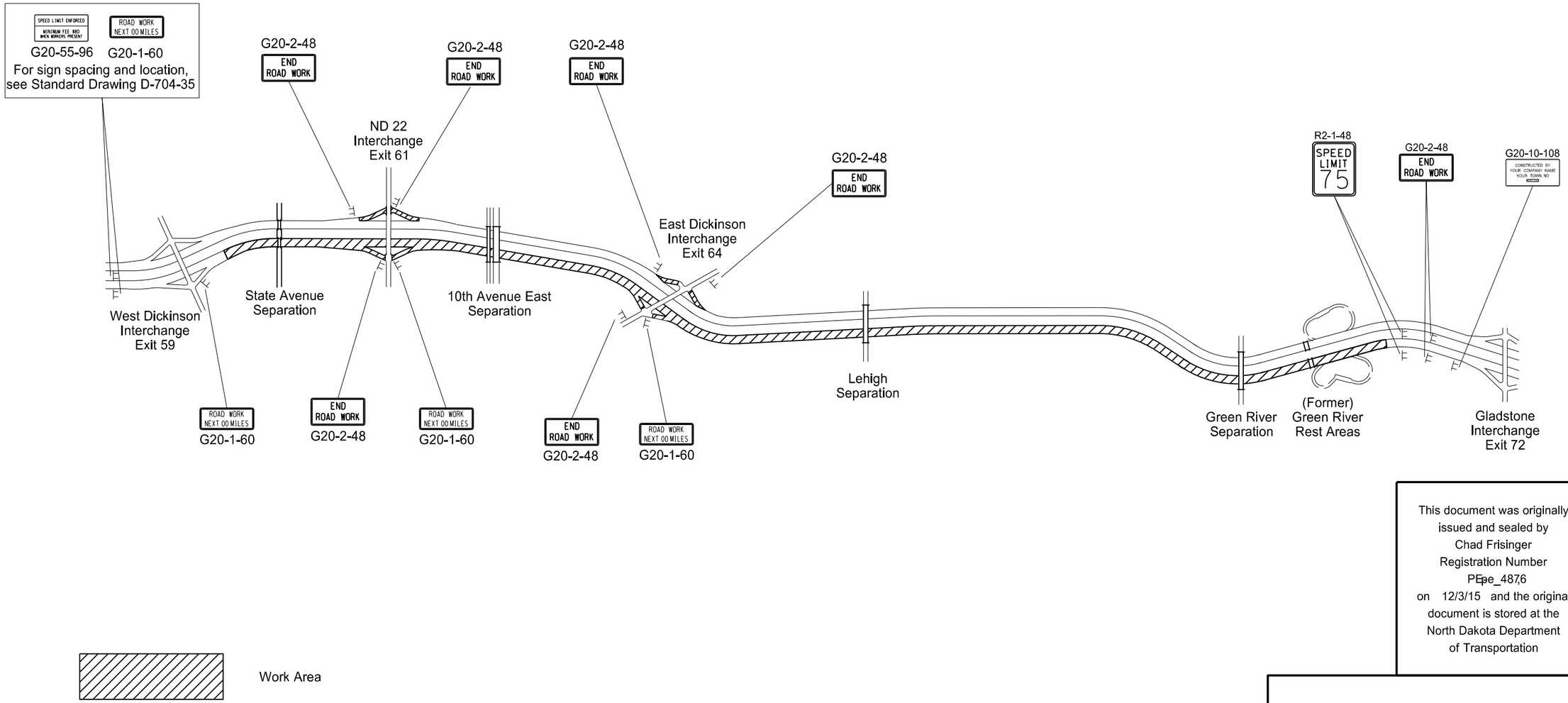
Traffic Control Devices List

West Dickinson Interchange to RP 71.1

Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	100	2



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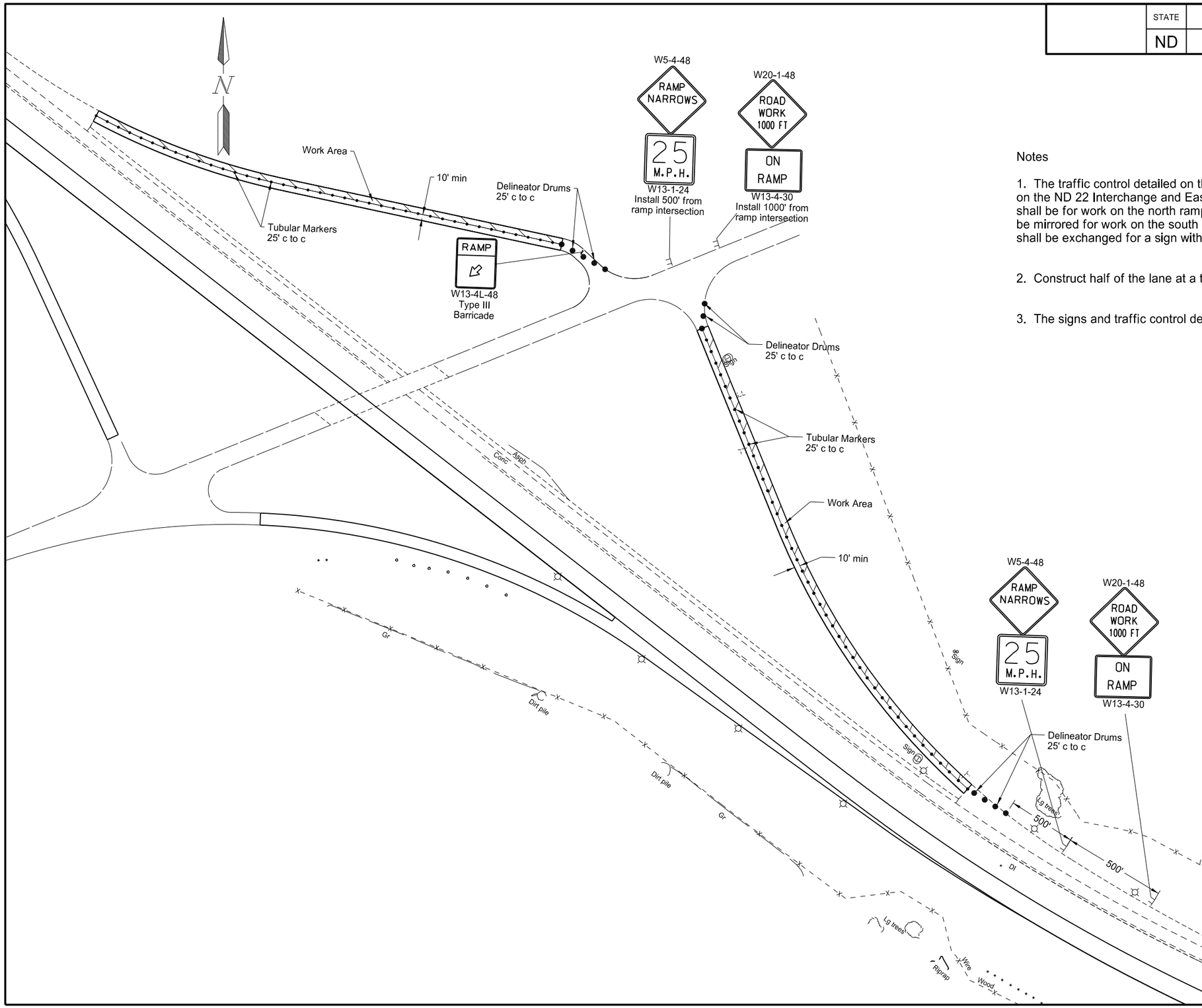
Traffic Control
Phase 1 & 2

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	100	3



Notes

1. The traffic control detailed on this sheet is for the proposed mill and overlay on the ND 22 Interchange and East Dickinson Interchange ramp. This detail shall be for work on the north ramp. The signs and traffic control devices shall be mirrored for work on the south ramp. The ramp arrow sign (W13-4L-48) shall be exchanged for a sign with a right facing arrow (W13-4R-48).

2. Construct half of the lane at a time to allow traffic through.

3. The signs and traffic control devices are provided for four ramps.

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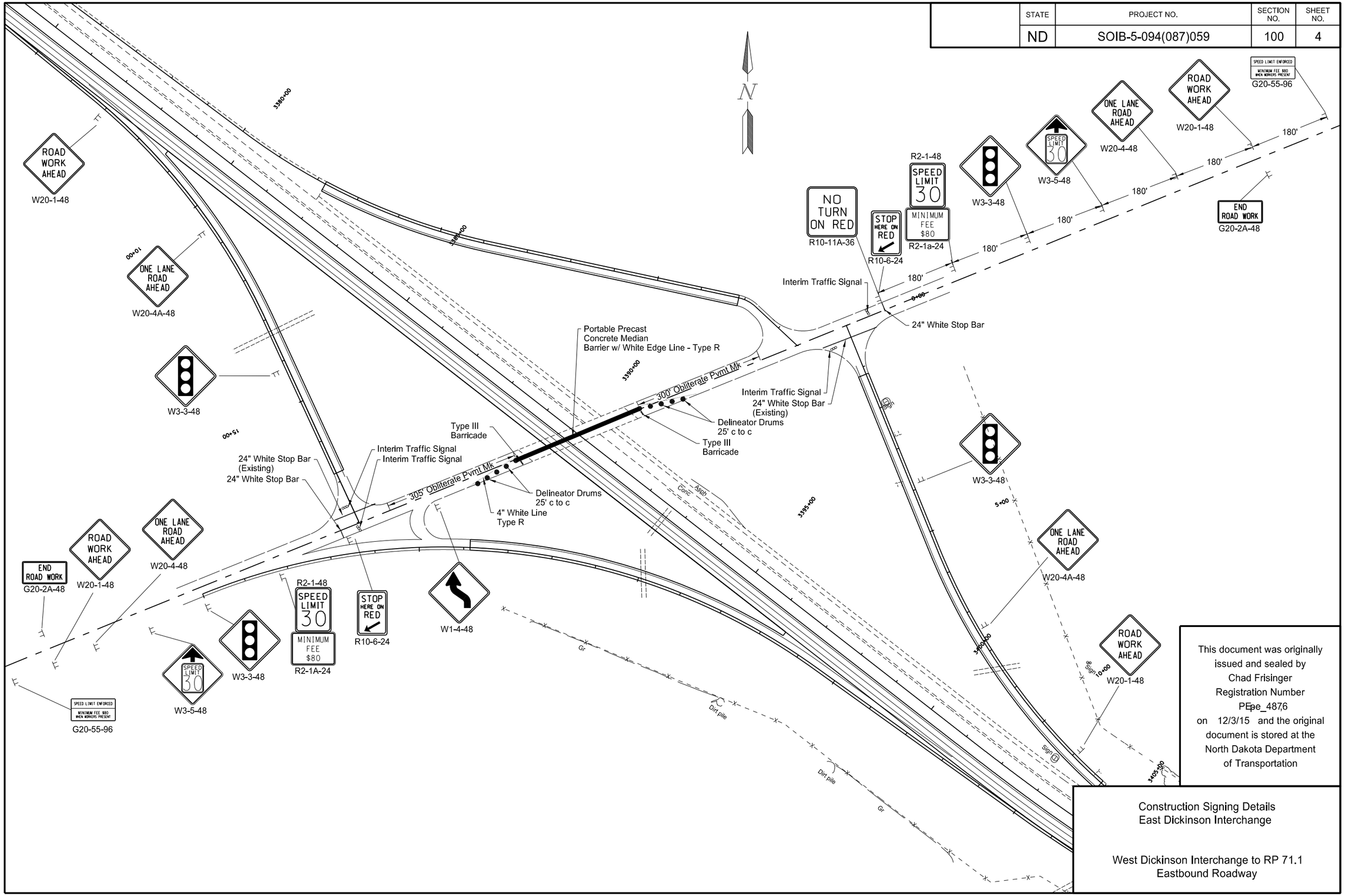
Ramp Mill & Overlay
Construction Signing

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	100	4



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Construction Signing Details
East Dickinson Interchange

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	100	5

Construction Phase

Heads	Phase 1								Phase 2							
	Not Used															
	R/W	Clear To ø							R/W	Clear To ø						
		2	3	4	5	6	7	8		3	4	5	6	7	8	1
EB									G		Y					
SB																
WB																
NB																

Heads	Phase 3								Phase 4							
	Not Used															
	R/W	Clear To ø							R/W	Clear To ø						
		4	5	6	7	8	1	2		5	6	7	8	1	2	3
EB																
SB									G		Y					
WB																
NB																

Heads	Phase 5								Phase 6							
	Not Used															
	R/W	Clear To ø							R/W	Clear To ø						
		6	7	8	1	2	3	4		7	8	1	2	3	4	5
EB																
SB																
WB									G		Y					
NB																

Heads	Phase 7								Phase 8							
	Not Used															
	R/W	Clear To ø							R/W	Clear To ø						
		8	1	2	3	4	5	6		1	2	3	4	5	6	7
EB																
SB																
WB																
NB									G		Y					

Blank Squares Denote a Red Indication.

	Phase 2	Phase 4	Phase 6	Phase 8
Construction Phase	EB	SB Left and Right	WB	NB Left and Right
Green Time	20.0	15.0	20.0	15.0
Yellow Change	3.0	3.5	3.0	3.5
Red Clearance	3.0	41.0	5.0	39.0
Cycle Length = 171 seconds				

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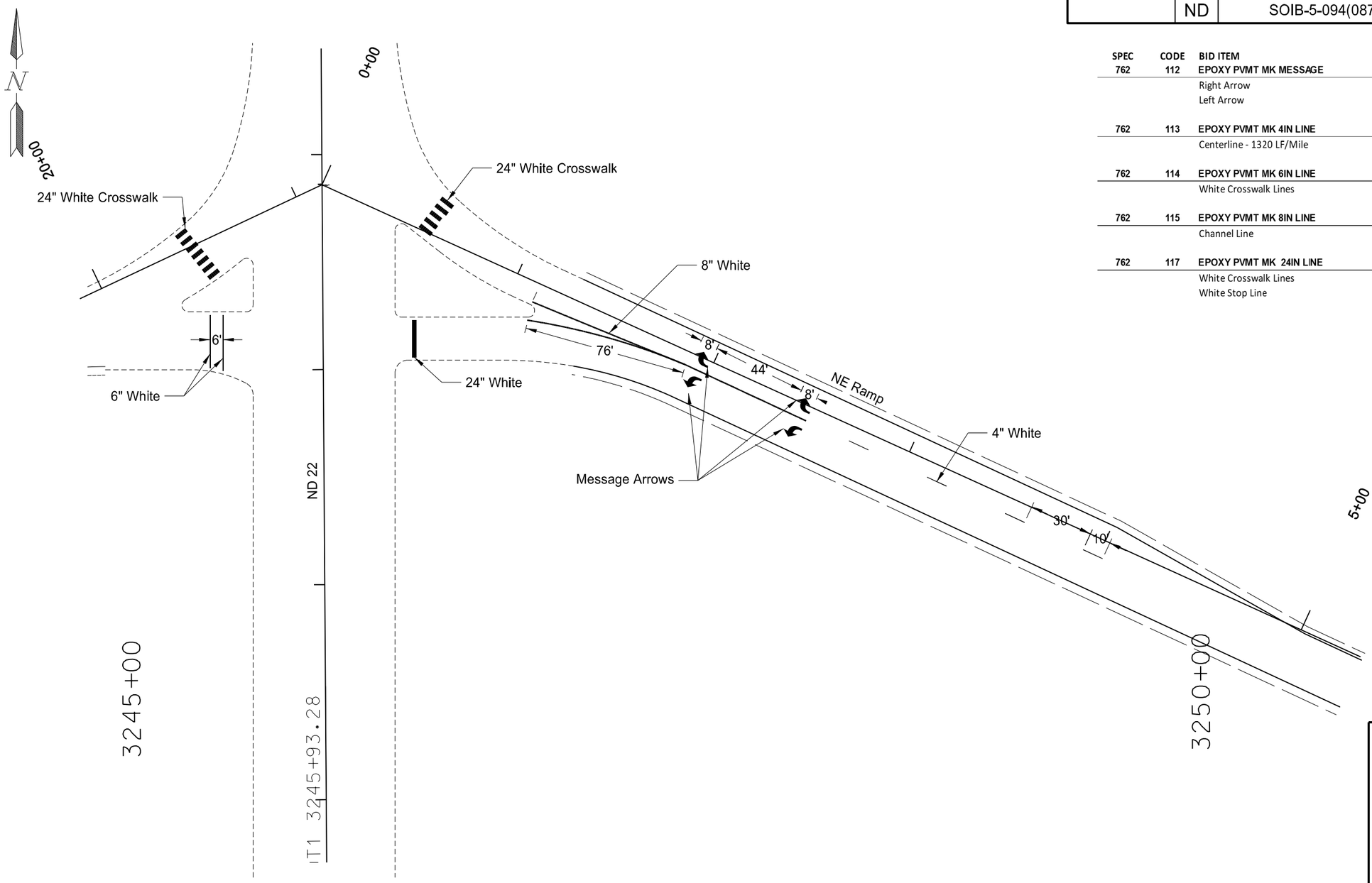
Temporary Traffic Control

Traffic Signal Phasing and Timing

East Dickinson Interchange

Dickinson

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	120	1



SPEC	CODE	BID ITEM	UNIT	QUANTITY
762	112	EPOXY PVMT MK MESSAGE		
		Right Arrow	SF	32
		Left Arrow	SF	32
762	113	EPOXY PVMT MK 4IN LINE		
		Centerline - 1320 LF/Mile	LF	40
762	114	EPOXY PVMT MK 6IN LINE		
		White Crosswalk Lines	LF	51
762	115	EPOXY PVMT MK 8IN LINE		
		Channel Line	LF	215
762	117	EPOXY PVMT MK 24IN LINE		
		White Crosswalk Lines	LF	72
		White Stop Line	LF	17

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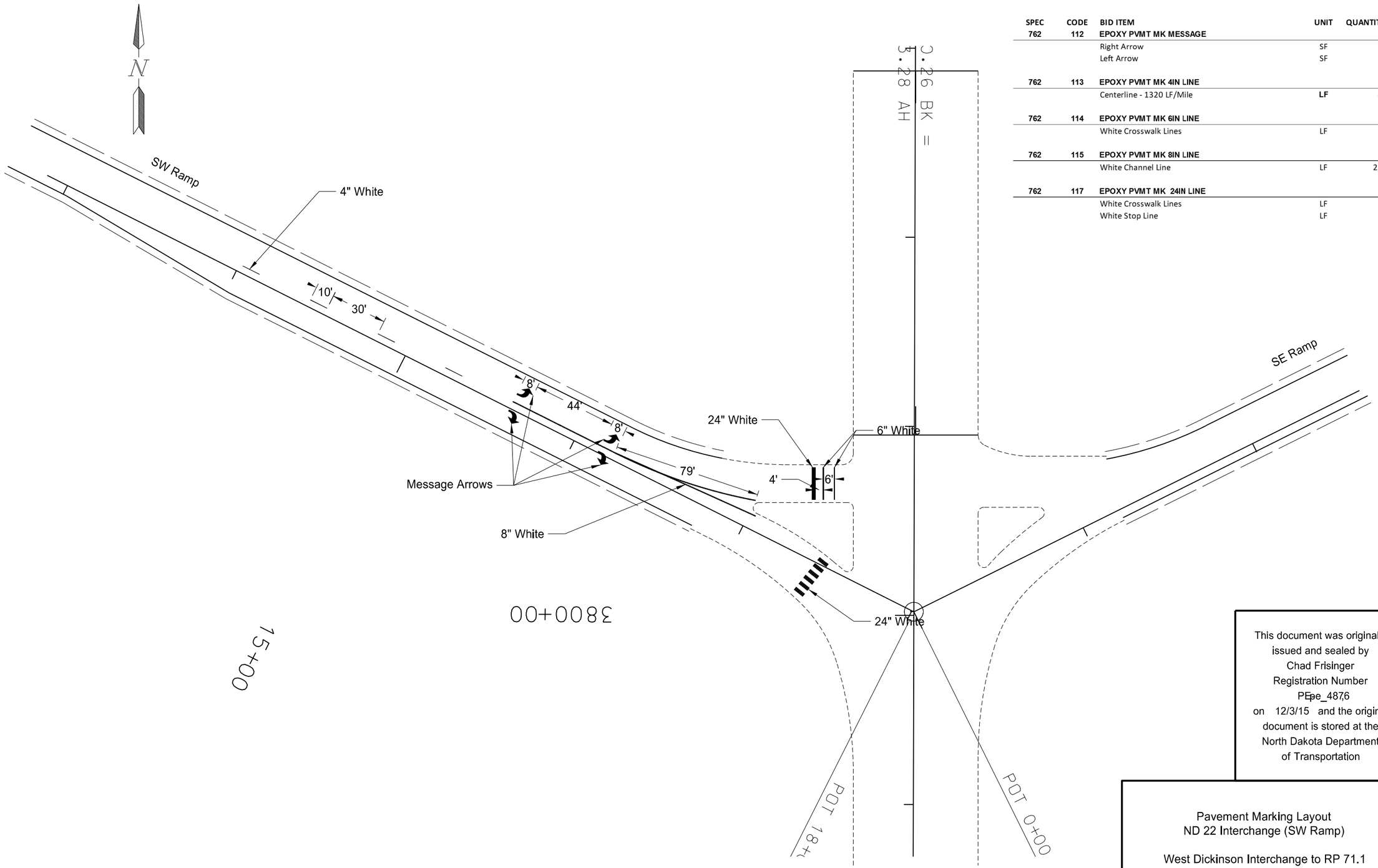
Pavement Marking Layout
ND 22 Interchange (NE Ramp)

West Dickinson Interchange to RP 71.1
Eastbound Roadway

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	120	2



SPEC	CODE	BID ITEM	UNIT	QUANTITY
762	112	EPOXY PVMT MK MESSAGE		
		Right Arrow	SF	32
		Left Arrow	SF	32
762	113	EPOXY PVMT MK 4IN LINE		
		Centerline - 1320 LF/Mile	LF	40
762	114	EPOXY PVMT MK 6IN LINE		
		White Crosswalk Lines	LF	34
762	115	EPOXY PVMT MK 8IN LINE		
		White Channel Line	LF	221
762	117	EPOXY PVMT MK 24IN LINE		
		White Crosswalk Lines	LF	36
		White Stop Line	LF	17

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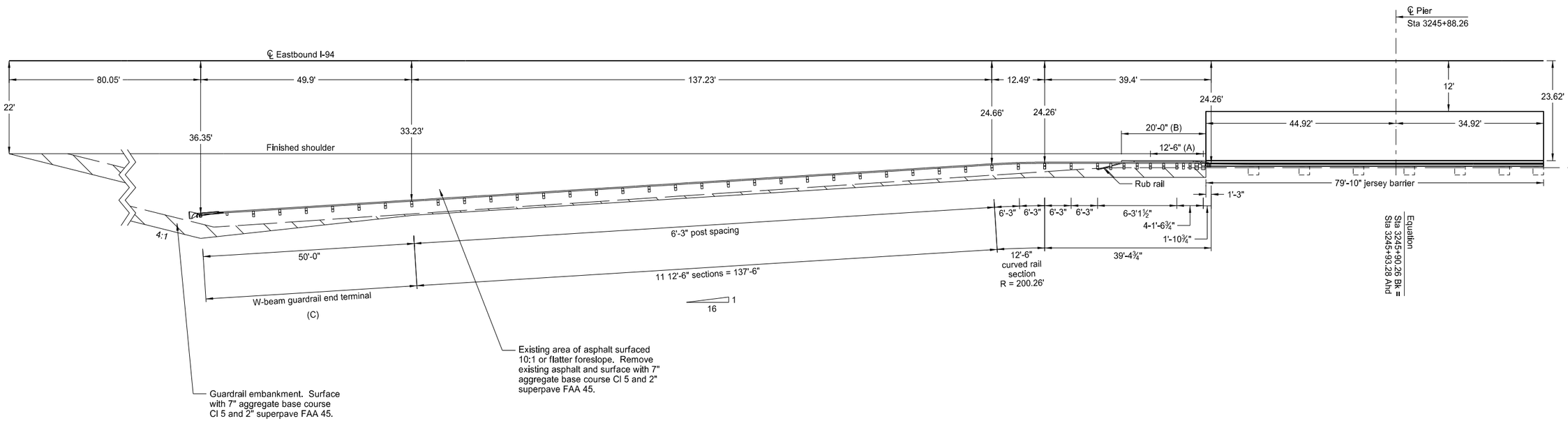
Pavement Marking Layout
ND 22 Interchange (SW Ramp)

West Dickinson Interchange to RP 71.1
Eastbound Roadway

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	1



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(A) 12'-6" double rail section.

(B) Install the curb and gutter as shown on the Jersey Barrier & Curb and Gutter Details.

(C) Install either a FLEAT or a Slotted Rail Terminal at this location.

If a FLEAT is installed, install the end terminal as shown above.

If a Slotted Rail Terminal is installed, install it with the offset as shown on Standard D-764-7. Additional guardrail embankment required is at the contractor's expense.

Jersey Barrier and W-Beam Guardrail Layout

Outside Pier Protection

ND 22 Interchange
RP 61.476
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	2

W-BEAM GUARDRAIL SUMMARY OF QUANTITIES

W-BEAM GUARDRAIL AT OBSTRUCTIONS WITH JERSEY BARRIER

LOCATION	(A) TERMINAL CONNECTOR	(A) 5/8" Ø x 22" LONG GUARDRAIL BOLT	(A) 5/8" Ø x 20" LONG GUARDRAIL BOLT	(A) 7/8" Ø x 9" LONG H.S. HEX HEAD BOLT	(A) 5/8" Ø x 18" LONG GUARDRAIL BOLT	(A) 6"x 8" x 14" WOOD OFFSET BLOCK	(A) 6"x 8" x 6' TIMBER POST	(A) 5/8" Ø x 1 1/4" LONG GUARDRAIL BOLT	(A) 12'-6" DOUBLE RAIL SECTION	(A) 12'-6" STRAIGHT RAIL SECTION	(A) 12'-6" CURVED RAIL SECTION	(A) 5/8" Ø x 11" LONG HEX HEAD BOLT	(A) 1/2" Ø x 4" LONG LAG SCREW	(A) 6" x 8" x 7'-0" TIMBER POSTS	(A) RUB RAIL END SHOE	(A) C 6 x 8.2 x 14'-6 1/4" RUB RAIL SECTION	(A) C 6 x 8.2 x 12'-7" BENT RUB RAIL SECTION	(A) 5/8" Ø x 1 1/2" LONG GUARDRAIL BOLT	(A) 7 3/4" x 4 ½" x 3/8" RUB RAIL SPLICE PLATE	(A) 10"x 10" x 8'-0" TIMBER POST	(A) 10"x 8" x 21" TAPERED TIMBER BLOCK	(A) 6"x 8" x 21" TIMBER BLOCK	(A) 6"x 9 3/4" x 14" TIMBER BLOCK	(A) REFLECTORIZED PLATES	(B) EMBANKMENT
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	CY
Sta 3244+92.71 to 3245+44.60 Rt	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	7	45
TOTAL	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	7	45

W-beam guardrail
Sta 3244+92.71 to 3245+44.60 Rt 51.9 LF

W-beam guardrail end terminal
Sta 3243+05.58 to 3243+55.48 Rt 1 ea

Reset W-beam guardrail
Sta 3243+55.48 to 3244+92.71 Rt 137.5 LF

Guardrail embankment
Sta 3242+25.53 to 3245+43.35 Rt 1 ea

Jersey barrier formed or slip formed
Sta 3245+43.35 to 324+26.20 Rt 79.8 LF

Curb & gutter - type 1 special
Sta 3245+23.35 to 3245+45.35 Rt 20 LF

Remove W-beam guardrail & posts
Sta 3243+65.37 to 3246+43.05 Rt 275 LF

Remove end treatment & transition
Sta 3243+15.48 to 3243+65.37 Rt 1 ea

Removal of pavement
Sta 3245+23.35 to 3246+26.20 Rt 88.7 SY

(A) Include these items in the contract price bid for the item "W-Beam Guardrail".

(B) The volume of embankment (cubic yards) is for informational purposes only.

This document was originally issued and sealed by Douglas A. Schumaker, Registration Number PE-5047, on 12/3/15 and the original document is stored at the North Dakota Department of Transportation

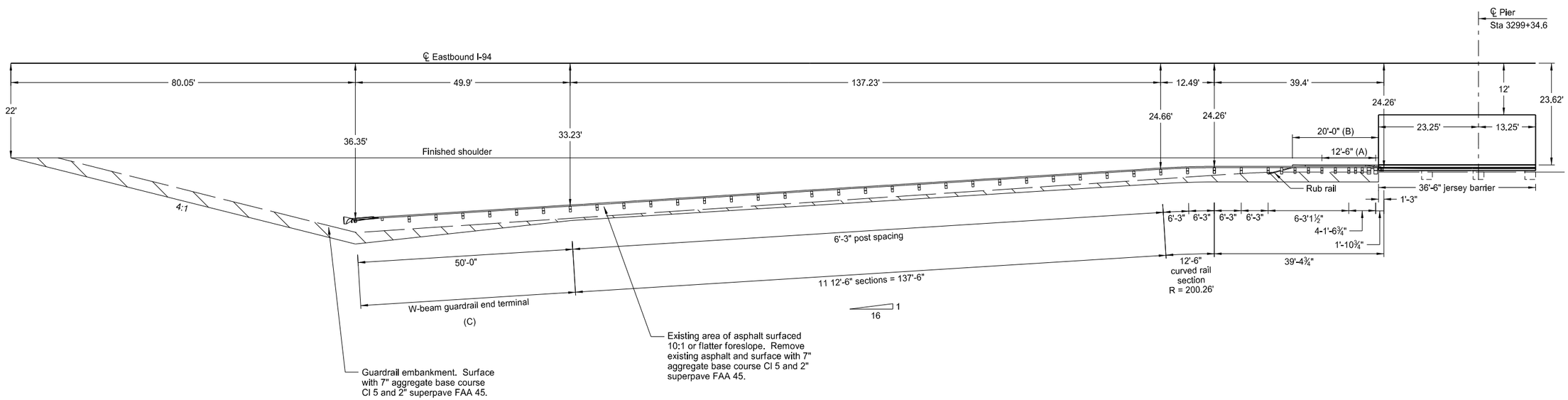
W-Beam Guardrail, Jersey Barrier and Curb & Gutter Quantities

Outside Pier Protection

ND 22 Interchange
RP 61.476
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	3



(A) 12'-6" double rail section.

(B) Install the curb and gutter as shown on the Jersey Barrier & Curb and Gutter Details.

(C) Install either a FLEAT or a Slotted Rail Terminal at this location.

If a FLEAT is installed, install the end terminal as shown above.

If a Slotted Rail Terminal is installed, install it with the offset as shown on Standard D-764-7. Additional guardrail embankment required is at the contractor's expense.

This document was originally issued and sealed by Douglas A. Schumaker, Registration Number PE- 5047, on 12/03/15 and the original document is stored at the North Dakota Department of Transportation

Jersey Barrier and W-Beam Guardrail Layout

Outside Pier Protection

10th Avenue East Separation
RP 64.204
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	4

W-BEAM GUARDRAIL SUMMARY OF QUANTITIES

W-BEAM GUARDRAIL AT OBSTRUCTIONS WITH JERSEY BARRIER

LOCATION	(A) TERMINAL CONNECTOR	(A) 5/8" Ø x 22" LONG GUARDRAIL BOLT	(A) 5/8" Ø x 20" LONG GUARDRAIL BOLT	(A) 7/8" Ø x 9" LONG H.S. HEX HEAD BOLT	(A) 5/8" Ø x 18" LONG GUARDRAIL BOLT	(A) 6"x 8" x 14" WOOD OFFSET BLOCK	(A) 6"x 8" x 6' TIMBER POST	(A) 5/8" Ø x 1 1/4" LONG GUARDRAIL BOLT	(A) 12'-6" DOUBLE RAIL SECTION	(A) 12'-6" STRAIGHT RAIL SECTION	(A) 12'-6" CURVED RAIL SECTION	(A) 5/8" Ø x 11" LONG HEX HEAD BOLT	(A) 1/2" Ø x 4" LONG LAG SCREW	(A) 6" x 8" x 7'-0" TIMBER POSTS	(A) RUB RAIL END SHOE	(A) C 6 x 8.2 x 14'-6 1/4" RUB RAIL SECTION	(A) C 6 x 8.2 x 12'-7" BENT RUB RAIL SECTION	(A) 5/8" Ø x 1 1/2" LONG GUARDRAIL BOLT	(A) 7 3/4" x 4 ½" x 3/8" RUB RAIL SPLICE PLATE	(A) 10"x 10" x 8'-0" TIMBER POST	(A) 10"x 8" x 21" TAPERED TIMBER BLOCK	(A) 6"x 8" x 21" TIMBER BLOCK	(A) 6"x 9 3/4" x 14" TIMBER BLOCK	(A) REFLECTORIZED PLATES	(B) EMBANKMENT
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	CY
Sta 3298+60.71 to 3299+12.60 Rt	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	7	50
TOTAL	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	7	50

W-beam guardrail
Sta 3298+60.71 to 3299+12.60 Rt 51.9 LF

W-beam guardrail end terminal
Sta 3296+73.58 to 3297+23.48 Rt 1 ea

Reset W-beam guardrail (C)
Sta 3297+23.48 to 3298+60.71 Rt 137.5 LF

Guardrail embankment
Sta 3295+95.30 to 3299+11.35 Rt 1 ea

Jersey barrier formed or slip formed
Sta 3299+11.35 to 3299+47.85 Rt 36.5 LF

Curb & gutter - type 1 special
Sta 3289+91.35 to 3299+11.35 Rt 20 LF

Remove W-beam guardrail & posts
Sta 3297+30.46 to 3299+67.62 Rt 237.5 LF

Remove end treatment & transition
Sta 3296+80.57 to 3297+30.46 Rt 1 ea

Removal of pavement
Sta 3298+91.35 to 3299+47.85 Rt 40.6 SY

(A) Include these items in the contract price bid for the item "W-Beam Guardrail".

(B) The volume of embankment (cubic yards) is for informational purposes only.

(C) Resetting this guardrail will require that the contractor supply the following new items:

(22) 6"x8"x6'-0" timber posts
(22) 6"x8"x14" timber blocks
(22) 5/8"x18" long guardrail bolts

Include these items in the contract price bid for the item "Reset W-beam guardrail."

This document was originally issued and sealed by Douglas A. Schumaker, Registration Number PE-5047, on 12/3/15 and the original document is stored at the North Dakota Department of Transportation

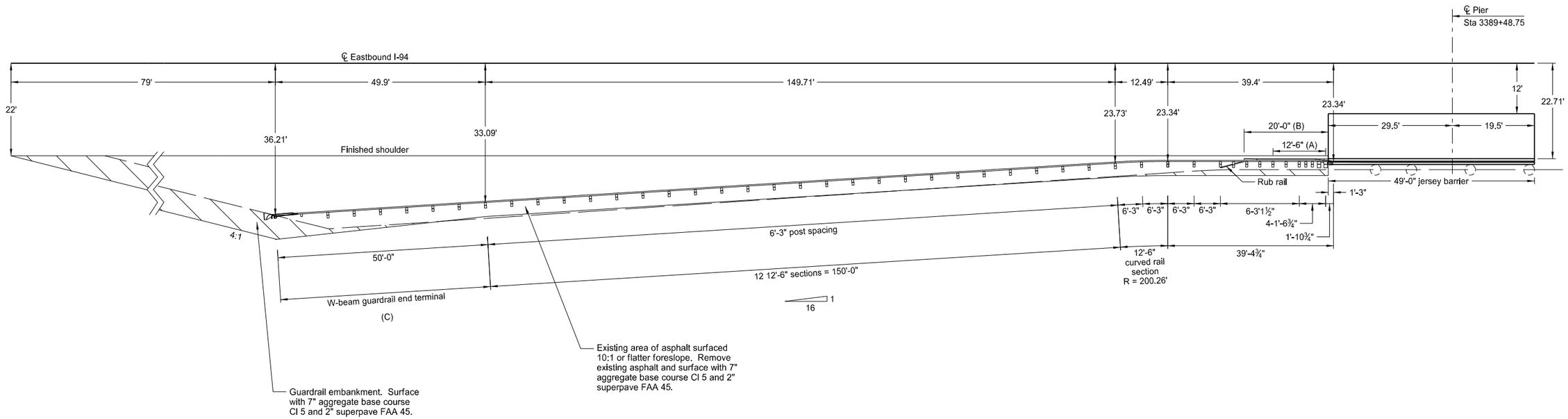
W-Beam Guardrail, Jersey Barrier and Curb & Gutter Quantities

Outside Pier Protection

10th Avenue East Separation
RP 62.486
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	5



(A) 12'-6" double rail section.

(B) Install the curb and gutter as shown on the Jersey Barrier & Curb and Gutter Details.

(C) Install either a FLEAT or a Slotted Rail Terminal at this location.

If a FLEAT is installed, install the end terminal as shown above.

If a Slotted Rail Terminal is installed, install it with the offset as shown on Standard D-764-7. Additional guardrail embankment required is at the contractor's expense.

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Jersey Barrier and W-Beam Guardrail Layout

Outside Pier Protection

East Dickinson Interchange
RP 64.204
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	6

W-BEAM GUARDRAIL SUMMARY OF QUANTITIES

W-BEAM GUARDRAIL AT OBSTRUCTIONS WITH JERSEY BARRIER

LOCATION	(A) TERM-INAL CON-NECTOR	(A) 5/8" Ø x 22" LONG GUARD-RAIL BOLT	(A) 5/8" Ø x 20" LONG GUARD-RAIL BOLT	(A) 7/8" Ø x 9" LONG H.S. HEX HEAD BOLT	(A) 5/8" Ø x 18" LONG GUARD-RAIL BOLT	(A) 6"x 8" x 14" WOOD OFF-SET BLOCK	(A) 6"x 8" x 6' TIMBER POST	(A) 5/8" Ø x 1 1/4" LONG GUARD-RAIL BOLT	(A) 12'-6" DOUBLE RAIL SECTION	(A) 12'-6" STRAIGHT RAIL SECTION	(A) 12'-6" CURVED RAIL SECTION	(A) 5/8" Ø x 11" LONG HEX HEAD BOLT	(A) 1/2" Ø x 4" LONG LAG SCREW	(A) 6" x 8" x 7'-0" TIMBER POSTS	(A) RUB RAIL END SHOE	(A) C 6 x 8.2 x 14'-6 1/4" RUB RAIL SECTION	(A) C 6 x 8.2 x 12'-7" BENT RUB RAIL SECTION	(A) 5/8" Ø x 1 1/2" LONG GUARD-RAIL BOLT	(A) 7 3/4" x 4 ½" x 3/8" RUB RAIL SPLICE PLATE	(A) 10"x 10" x 8'-0" TIMBER POST	(A) 10"x 8" x 21" TAPERED TIMBER BLOCK	(A) 6"x 8" x 21" TIMBER BLOCK	(A) 6"x 9 3/4" x 14" TIMBER BLOCK	(A) REFL-ECTOR-IZED PLATES	(B) EMBANK-MENT
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	CY
Sta 3388+68.61 to 3389+20.50 Rt	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	8	45
TOTAL	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	8	45

W-beam guardrail
Sta 3388+68.61 to 3389+20.50 Rt 51.9 LF

W-beam guardrail end terminal
Sta 3386+69.00 to 3387+18.90 Rt 1 ea

Reset W-beam guardrail (C)
Sta 3387+18.90 to 3388+68.61 Rt 150 LF

Guardrail embankment
Sta 3385+90.00 to 3389+19.25 Rt 1 ea

Jersey barrier formed or slip formed
Sta 3389+19.25 to 3389+68.25 Rt 49 LF

Curb & gutter - type 1 special
Sta 3388+99.25 to 3389+19.25 Rt 20 LF

Remove W-beam guardrail & posts
Sta 3387+38.36 to 3389+88.02 Rt 250 LF

Remove end treatment & transition
Sta 3386+88.47 to 3387+38.36 Rt 1 ea

Removal of pavement
Sta 3388+99.25 to 3389+68.25 Rt 56.0 SY

(A) Include these items in the contract price bid for the item "W-Beam Guardrail".

(B) The volume of embankment (cubic yards) is for informational purposes only.

(C) Resetting this guardrail will require that the contractor supply the following new items:

(12) 6"x8"x6'-0" timber posts
(12) 6"x8"x14" timber blocks
(12) 5/8"x18" long guardrail bolts

Include these items in the contract price bid for the item "Reset W-beam guardrail."

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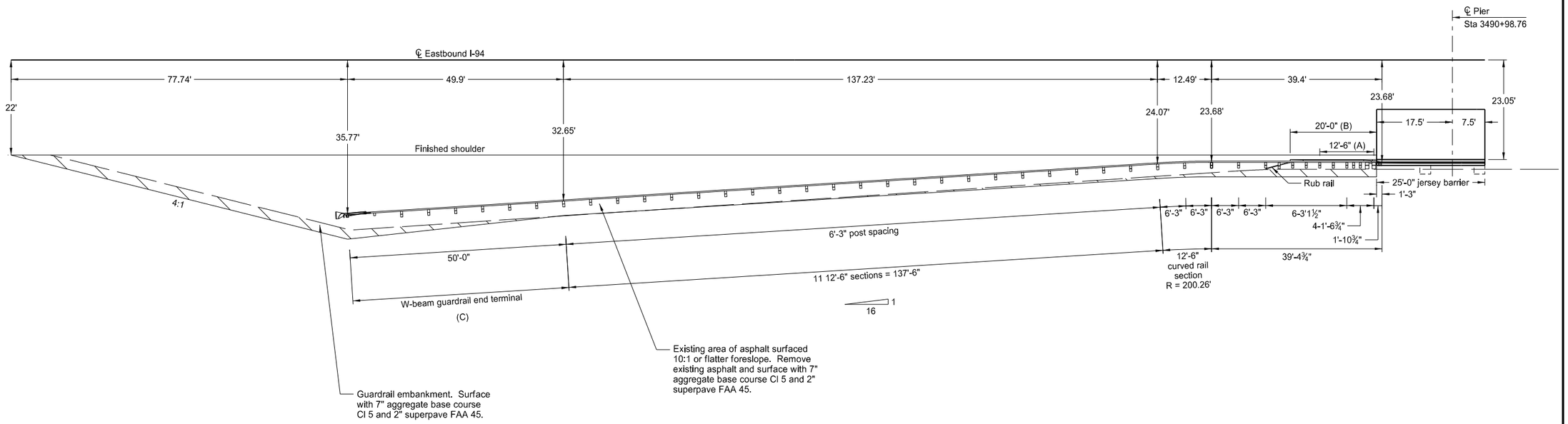
W-Beam Guardrail, Jersey Barrier and Curb & Gutter Quantities

Outside Pier Protection

East Dickinson Interchange
RP 64.204
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	7



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(A) 12'-6" double rail section.

(B) Install the curb and gutter as shown on the Jersey Barrier & Curb and Gutter Details.

(C) Install either a FLEAT or a Slotted Rail Terminal at this location.

If a FLEAT is installed, install the end terminal as shown above.

If a Slotted Rail Terminal is installed, install it with the offset as shown on Standard D-764-7. Additional guardrail embankment required is at the contractor's expense.

Jersey Barrier and W-Beam Guardrail Layout

Outside Pier Protection

Lehigh Separation
RP 66.118
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	8

W-BEAM GUARDRAIL SUMMARY OF QUANTITIES

W-BEAM GUARDRAIL AT OBSTRUCTIONS WITH JERSEY BARRIER

LOCATION	(A) TERMINAL CONNECTOR	(A) 5/8" Ø x 22" LONG GUARDRAIL BOLT	(A) 5/8" Ø x 20" LONG GUARDRAIL BOLT	(A) 7/8" Ø x 9" LONG H.S. HEX HEAD BOLT	(A) 5/8" Ø x 18" LONG GUARDRAIL BOLT	(A) 6"x 8" x 14" WOOD OFFSET BLOCK	(A) 6"x 8" x 6' TIMBER POST	(A) 5/8" Ø x 1 1/4" LONG GUARDRAIL BOLT	(A) 12'-6" DOUBLE RAIL SECTION	(A) 12'-6" STRAIGHT RAIL SECTION	(A) 12'-6" CURVED RAIL SECTION	(A) 5/8" Ø x 11" LONG HEX HEAD BOLT	(A) 1/2" Ø x 4" LONG LAG SCREW	(A) 6" x 8" x 7'-0" TIMBER POSTS	(A) RUB RAIL END SHOE	(A) C 6 x 8.2 x 14'-6 1/4" RUB RAIL SECTION	(A) C 6 x 8.2 x 12'-7" BENT RUB RAIL SECTION	(A) 5/8" Ø x 1 1/2" LONG GUARDRAIL BOLT	(A) 7 3/4" x 4 ½" x 3/8" RUB RAIL SPLICE PLATE	(A) 10"x 10" x 8'-0" TIMBER POST	(A) 10"x 8" x 21" TAPERED TIMBER BLOCK	(A) 6"x 8" x 21" TIMBER BLOCK	(A) 6"x 9 3/4" x 14" TIMBER BLOCK	(A) REFLECTORIZED PLATES	(B) EMBANKMENT
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	CY
Sta 3490+30.62 to 3490+82.51 Rt	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	7	30
TOTAL	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	7	30

W-beam guardrail
Sta 3490+30.62 to 3490+82.51 Rt 51.9 LF

W-beam guardrail end terminal
Sta 3488+43.49 to 3488+93.39 Rt 1 ea

Reset W-beam guardrail (C)
Sta 3488+93.39 to 3490+30.62 Rt 137.5 LF

Guardrail embankment
Sta 3487+65.75 to 3490+81.26 Rt 1 ea

Jersey barrier formed or slip formed
Sta 3490+81.26 to 3491+06.26 Rt 25 LF

Curb & gutter - type 1 special
Sta 3490+61.26 to 3490+81.26 Rt 20 LF

Remove W-beam guardrail & posts
Sta 3489+00.87 to 3491+25.53 Rt 225 LF

Remove end treatment & transition
Sta 3488+50.98 to 3489+00.87 Rt 1 ea

Removal of pavement
Sta 3490+61.26 to 3491+06.26 Rt 28.6 SY

(A) Include these items in the contract price bid for the item "W-Beam Guardrail".

(B) The volume of embankment (cubic yards) is for informational purposes only.

(C) Resetting this guardrail will require that the contractor supply the following new items:

(22) 6"x8"x6'-0" timber posts
(22) 6"x8"x14" timber blocks
(22) 5/8"x18" long guardrail bolts

Include these items in the contract price bid for the item "Reset W-beam guardrail."

This document was originally issued and sealed by Douglas A. Schumaker, Registration Number PE-5047, on 12/3/15 and the original document is stored at the North Dakota Department of Transportation

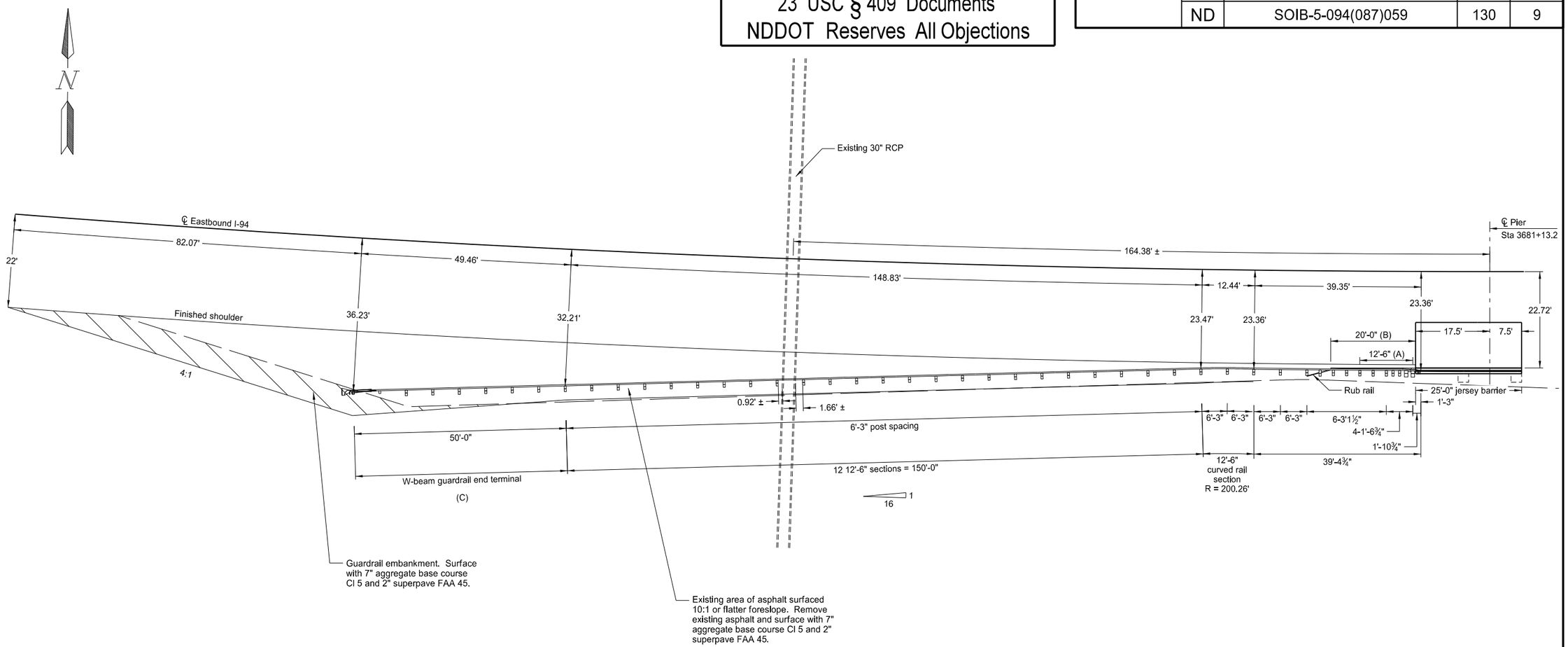
W-Beam Guardrail, Jersey Barrier and Curb & Gutter Quantities

Outside Pier Protection

Lehigh Separation
RP 66.118
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	9



This document was originally issued and sealed by Douglas A. Schumaker, Registration Number PE- 5047, on 12/03/15 and the original document is stored at the North Dakota Department of Transportation

(A) 12'-6" double rail section.

(B) Install the curb and gutter as shown on the Jersey Barrier & Curb and Gutter Details.

(C) Install either a FLEAT or a Slotted Rail Terminal at this location.

If a FLEAT is installed, install the end terminal as shown above.

If a Slotted Rail Terminal is installed, install it with the offset as shown on Standard D-764-7. Additional guardrail embankment required is at the contractor's expense.

Jersey Barrier and W-Beam Guardrail Layout

Outside Pier Protection

Green River Separation
RP 69.714
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	10

W-BEAM GUARDRAIL SUMMARY OF QUANTITIES

W-BEAM GUARDRAIL AT OBSTRUCTIONS WITH JERSEY BARRIER

LOCATION	(A) TERM-INAL CON-NECTOR	(A) 5/8" Ø x 22" LONG GUARD-RAIL BOLT	(A) 5/8" Ø x 20" LONG GUARD-RAIL BOLT	(A) 7/8" Ø x 9" LONG H.S. HEX HEAD BOLT	(A) 5/8" Ø x 18" LONG GUARD-RAIL BOLT	(A) 6"x 8" x 14" WOOD OFF-SET BLOCK	(A) 6"x 8" x 6' TIMBER POST	(A) 5/8" Ø x 1 1/4" LONG GUARD-RAIL BOLT	(A) 12'-6" DOUBLE RAIL SECTION	(A) 12'-6" STRAIGHT RAIL SECTION	(A) 12'-6" CURVED RAIL SECTION	(A) 5/8" Ø x 11" LONG HEX HEAD BOLT	(A) 1/2" Ø x 4" LONG LAG SCREW	(A) 6" x 8" x 7'-0" TIMBER POSTS	(A) RUB RAIL END SHOE	(A) C 6 x 8.2 x 14'-6 1/4" RUB RAIL SECTION	(A) C 6 x 8.2 x 12'-7" BENT RUB RAIL SECTION	(A) 5/8" Ø x 1 1/2" LONG GUARD-RAIL BOLT	(A) 7 3/4" x 4 ½" x 3/8" RUB RAIL SPLICE PLATE	(A) 10"x 10" x 8'-0" TIMBER POST	(A) 10"x 8" x 21" TAPERED TIMBER BLOCK	(A) 6"x 8" x 21" TIMBER BLOCK	(A) 6"x 9 3/4" x 14" TIMBER BLOCK	(A) REFL-ECTOR-IZED PLATES	(B) EMBANK-MENT
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	CY
Sta 3680+45.16 to 3680+96.95 Rt	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	8	130
TOTAL	1	2	10	4	12	5	10	40	1	2	1	2	1	3	1	1	1	4	1	2	2	7	1	8	130

W-beam guardrail
Sta 3680+45.16 to 3680+96.95 Rt 51.9 LF

W-beam guardrail end terminal
Sta 3678+45.87 to 3678+95.33 Rt 1 ea

Reset W-beam guardrail (C)
Sta 1678+95.33 to 3680+45.16 Rt 150 LF

Guardrail embankment
Sta 3677+63..80 to 3680+95.70 Rt 1 ea

Jersey barrier formed or slip formed
Sta 3680+95.70 to 3681+20.70 Rt 25 LF

Curb & gutter - type 1 special
Sta 3680+75.70 to 3680+95.70 Rt 20 LF

Remove W-beam guardrail & posts
Sta 3679+15.31 to 3681+39.97 Rt 225 LF

Remove end treatment & transition
Sta 3678+65.42 to 3679+15.31 Rt 1 ea

Removal of pavement
Sta 3680+75.70 to 3681+20.70 Rt 29.3 SY

(A) Include these items in the contract price bid for the item "W-Beam Guardrail".

(B) The volume of embankment (cubic yards) is for informational purposes only.

(C) Resetting this guardrail will require that the contractor supply the following new items:

(24) 6"x8"x6'-0" timber posts
(24) 6"x8"x14" timber blocks
(24) 5/8"x18" long guardrail bolts

Include these items in the contract price bid for the item "Reset W-beam guardrail."

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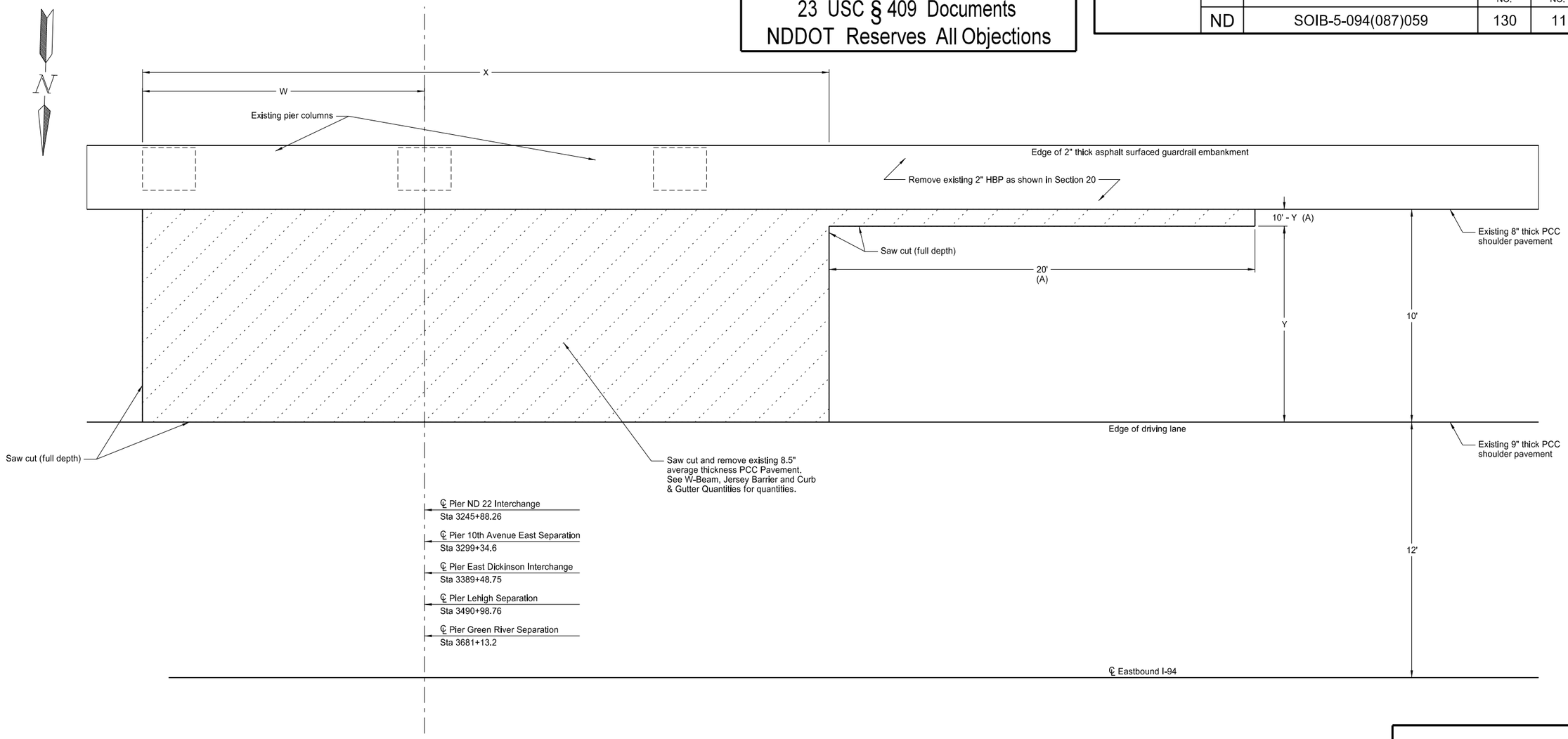
W-Beam Guardrail, Jersey Barrier and Curb & Gutter Quantities

Outside Pier Protection

Green River Separation
RP 69.714
Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	11



(A) At locations where Y is greater than 10' there is no concrete removal, or saw cut, required for the curb at this location.

LOCATION	W	X	Y
ND 22 Interchange RP 61.476	34.92'	79.83'	10.21'
10th Avenue East Separation RP 62.486	13.25'	36.5'	10.21'
East Dickinson Interchange RP 64.204	19.5'	49'	9.29'
Lehigh Separation RP 66.118	7.5'	25'	9.63'
Green River Separation RP 69.714	7.5'	25'	9.31'

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Removal of Shldr Pavement at Jersey Barrier Installations
Outside Pier Protection

ND 22 Interchange, RP 61.476
10th Avenue East Separation, RP 62.486
East Dickinson Interchange, RP 64.204
Lehigh Separation, RP 66.118
Green River Separation, RP 69.714

Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

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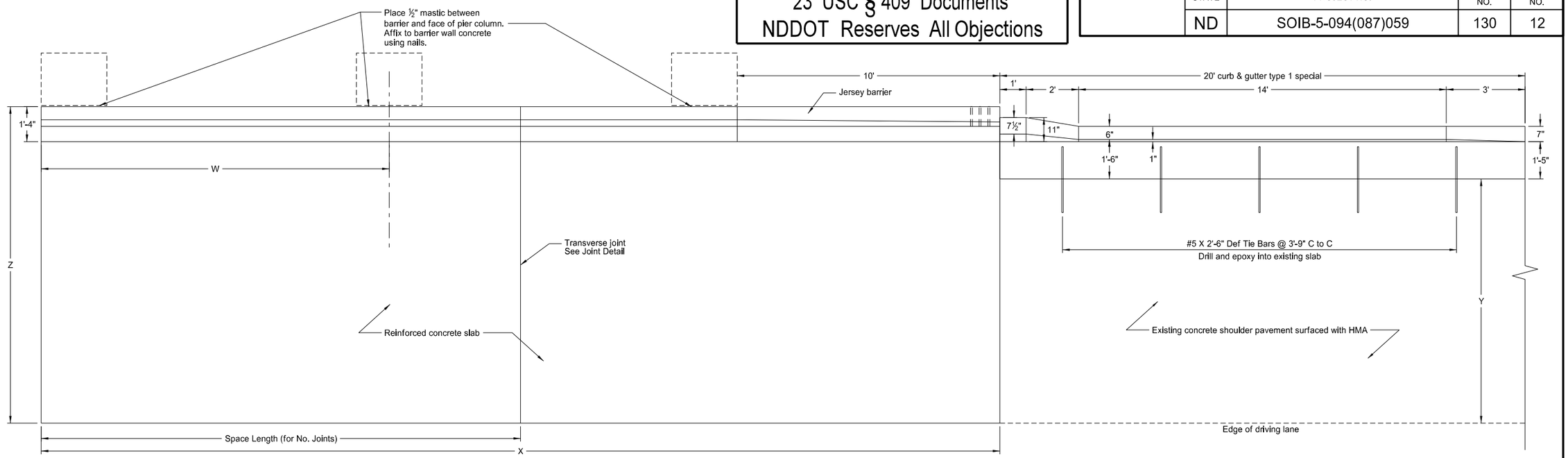
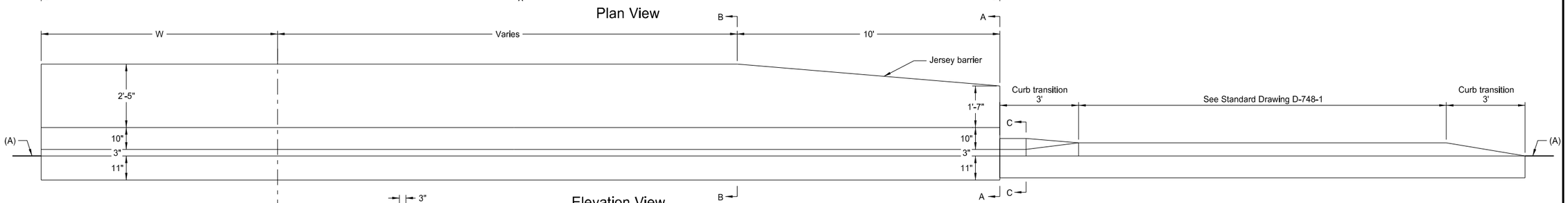
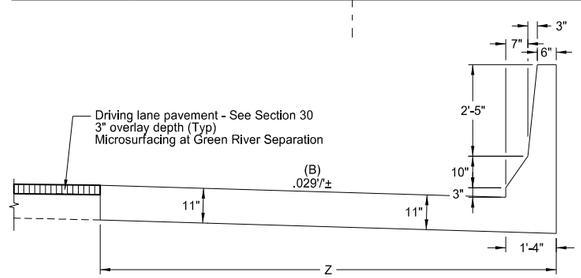
ND	SOIB-5-094(087)059	130	12



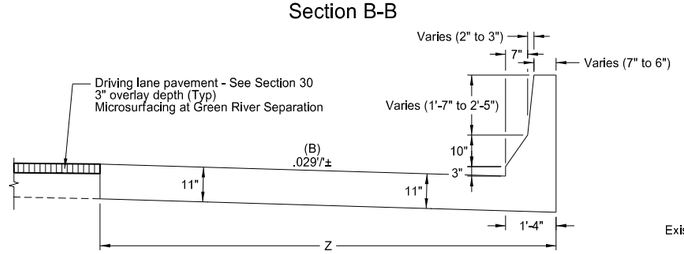
Plan View



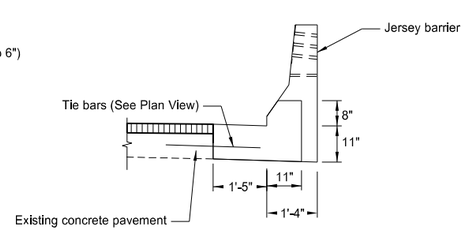
Elevation View
Facing South



Section B-B



Section A-A



Section C-C

LOCATION	W	X	Y	Z	Space Length	No. Joints
ND 22 Interchange RP 61.476	34.92'	79.83'	10.21'	12.96'	13.31'	5
10th Avenue East Separation RP 62.486	13.25'	36.5'	10.21'	12.96'	12.17'	2
East Dickinson Interchange RP 64.204	19.5'	49'	9.29'	12.04'	12.25'	3
Lehigh Separation RP 66.118	7.5'	25'	9.63'	12.38'	12.5'	1
Green River Separation RP 69.714	7.5'	25'	9.31'	12.06'	12.5'	1

(A) Finished shoulder

(B) The cross slope of the slab shall match the shoulder cross slope as near as possible. However, minor adjustment of the cross slope may be required to maintain drainage of the shoulder along the face of the barrier and curb.

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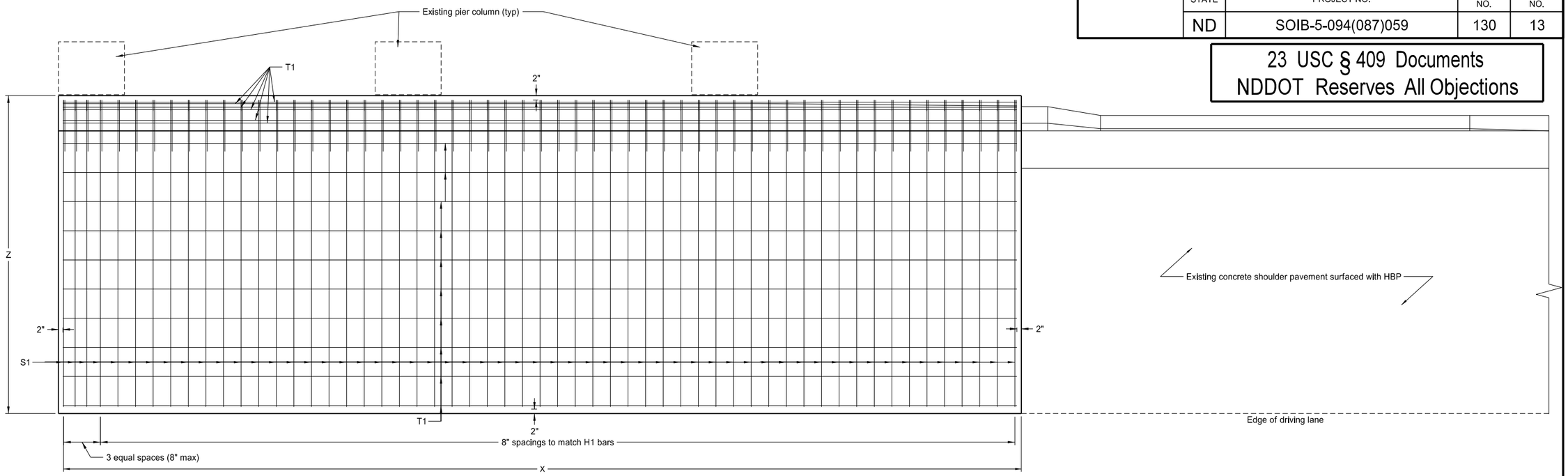
Jersey Barrier and Curb & Gutter Details
Outside Pier Protection

ND 22 Interchange, RP 61.476
10th Avenue East Separation, RP 62.486
East Dickinson Interchange, RP 64.204
Lehigh Separation, RP 66.118
Green River Separation, RP 69.714

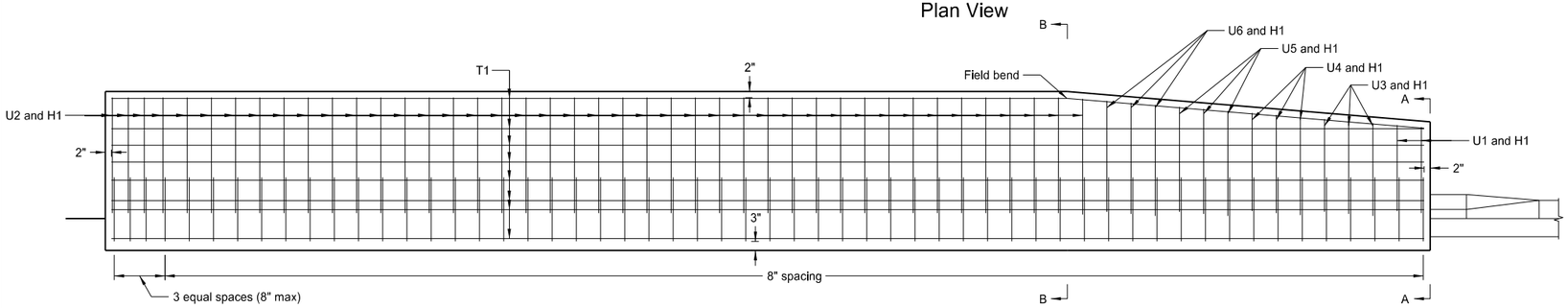
Eastbound I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	13

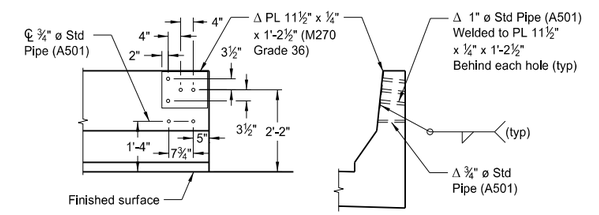
23 USC § 409 Documents
NDDOT Reserves All Objections



Plan View



Elevation View
Facing South



Δ Galvanize after fabrication.

Guardrail Connection Plate Details
At west end of barrier
(showing front face)

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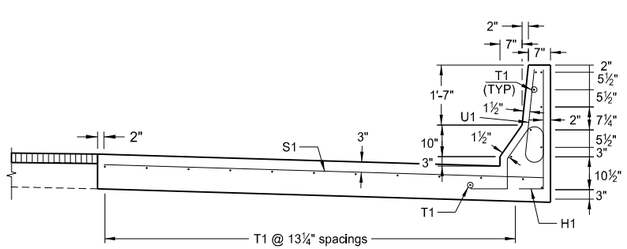
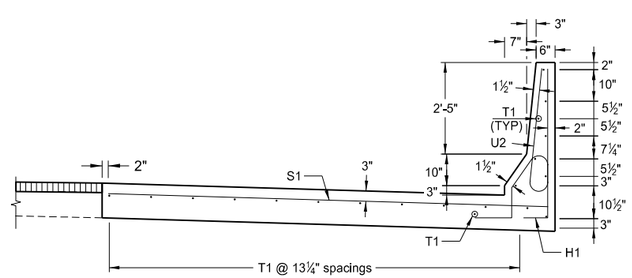


Section A-A



Section B-B

LOCATION	X	Z
ND 22 Interchange RP 61.476	79.83'	12.96'
10th Avenue East Separation RP 62.486	36.5'	12.96'
East Dickinson Interchange RP 64.204	49'	12.04'
Lehigh Separation RP 66.118	25'	12.38'
Green River Separation RP 69.714	25'	12.06'

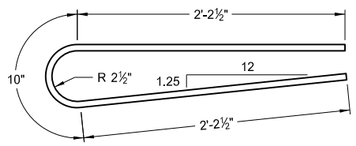
Jersey Barrier Details - Reinforcing Steel Layout
Outside Pier Protection

ND 22 Interchange, RP 61.476
10th Avenue East Separation, RP 62.486
East Dickinson Interchange, RP 64.204
Lehigh Separation, RP 66.118
Green River Separation, RP 69.714

Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	14



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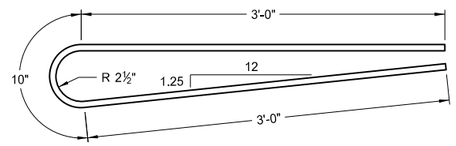

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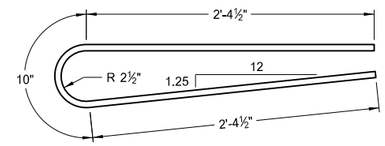

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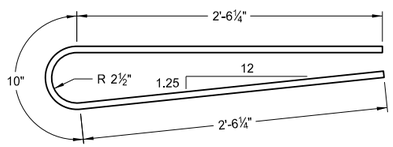

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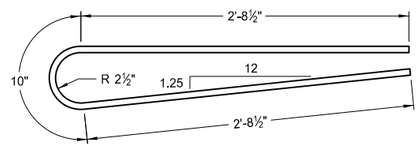

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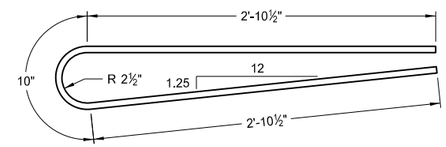
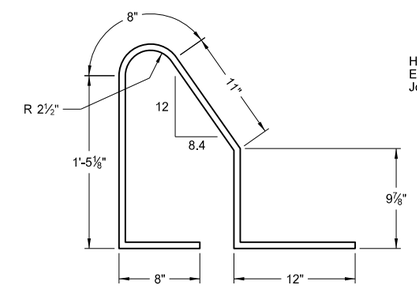
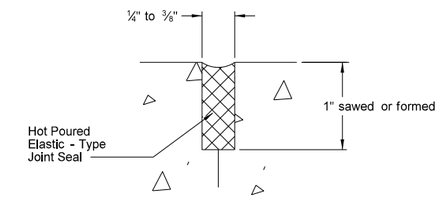


U6

BENT BAR DETAILS



H1



SLAB TRANSVERSE JOINT DETAIL

Construction notes:

1. Construct barriers according to the provisions of Section 602.04 G, except no deflection joints are required. Make ¾" V-grooves in all faces of the barriers to match transverse slab joints.
2. Dimensions of bent bars are given out to out. The length of bent bars listed is the sum of the detailing dimensions. All radii are given to the inside of the bend.
3. Use grade 60 reinforcing steel and Class AAE-3 concrete
4. Surface finish "D" is required for all exposed surfaces of the barrier.

ND 22 Interchange
RP 61.476

BAR LIST (B)				
MARK	SIZE	NO.	LENGTH	SHAPE
H1	5	121	5'-6"	BENT
S1	6	121	12'-7½"	STRAIGHT
T1	5	21	79'-6"	STRAIGHT
U2	5	107	6'-10"	BENT

10th Avenue East Separation
RP 62.486

BAR LIST				
MARK	SIZE	NO.	LENGTH	SHAPE
H1	5	56	5'-6"	BENT
S1	6	56	12'-7½"	STRAIGHT
T1	5	21	36'-2"	STRAIGHT
U2	5	42	6'-10"	BENT

East Dickinson Interchange
RP 64.204

BAR LIST				
MARK	SIZE	NO.	LENGTH	SHAPE
H1	5	75	5'-6"	BENT
S1	6	75	11'-8⅜"	STRAIGHT
T1	5	1	48'-8"	STRAIGHT
U2	5	61	6'-10"	BENT

COMMON BAR LIST - ONE BARRIER (A)				
MARK	SIZE	NO.	LENGTH	SHAPE
U1	5	2	5'-3"	BENT
U3	5	3	5'-7"	BENT
U4	5	3	5'-10½"	BENT
U5	5	3	6'-3"	BENT
U6	5	3	6'-7"	BENT

(A) The reinforcing quantities shown are common for each location and are for one barrier installation only. Five barrier installations are required.

Lehigh Separation
RP 66.118

BAR LIST				
MARK	SIZE	NO.	LENGTH	SHAPE
H1	5	39	5'-6"	BENT
S1	6	39	12'-0½"	STRAIGHT
T1	5	21	24'-8"	STRAIGHT
U2	5	25	6'-10"	BENT

Green River Separation
RP 69.714

BAR LIST				
MARK	SIZE	NO.	LENGTH	SHAPE
H1	5	39	5'-6"	BENT
S1	6	39	11'-8⅝"	STRAIGHT
T1	5	21	24'-8"	STRAIGHT
U2	5	25	6'-10"	BENT

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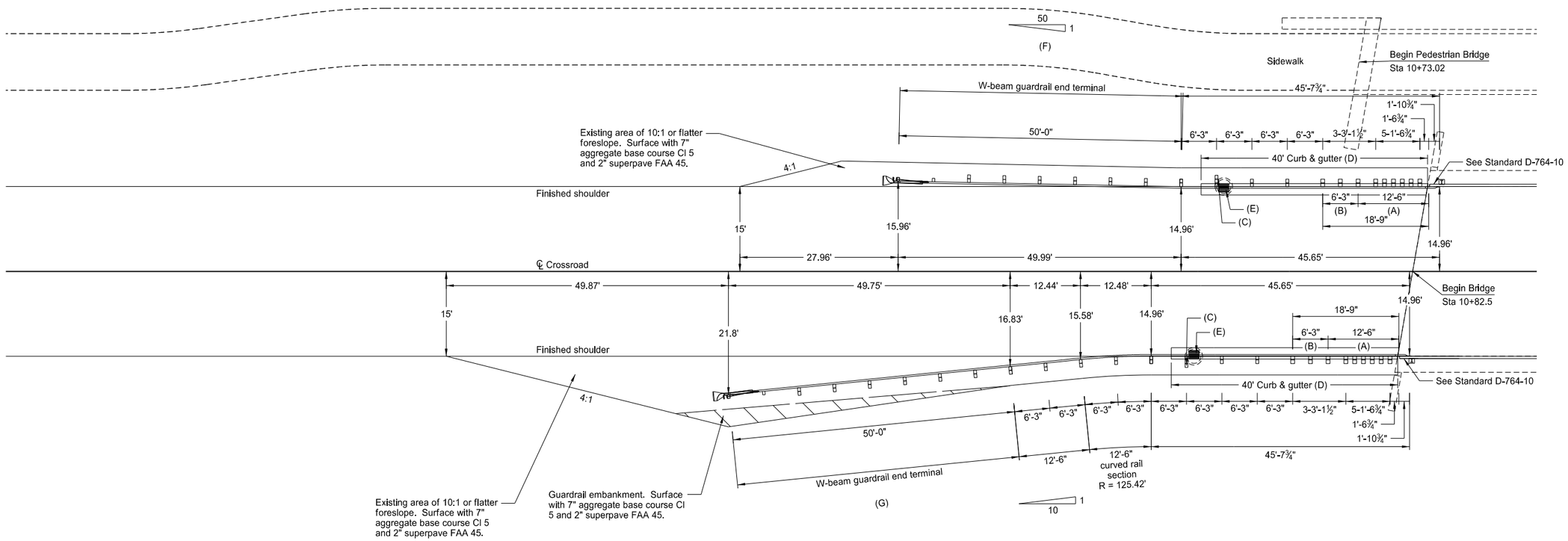
Jersey Barrier Details - Bent Bar Details and Bar List
Outside Pier Protection

ND 22 Interchange, RP 61.476
10th Avenue East Separation, RP 62.486
East Dickinson Interchange, RP 64.204
Lehigh Separation, RP 66.118
Green River Separation, RP 69.714

Eastbound I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	15



(A) Thrie beam rail section (double thickness)

(B) W-Thrie beam transition section (double thickness)

(C) An additional 6" x 8" x 14" blockout and ⅝" x 26" long guardrail bolt is required to provide clearance between the guardrail post and the existing inlet.

(D) Install type 1 curb & gutter as shown on Standard D-748-1, except the maximum allowable curb height is 3".

(E) Adjust existing inlet.

(F) Install either a SKT or FLEAT end terminal at this location.

If the SKT is installed, use a 50:1 taper rate.

If the FLEAT is installed use the taper rate shown on Standard D-764-6.

(G) Install a FLEAT at this location.

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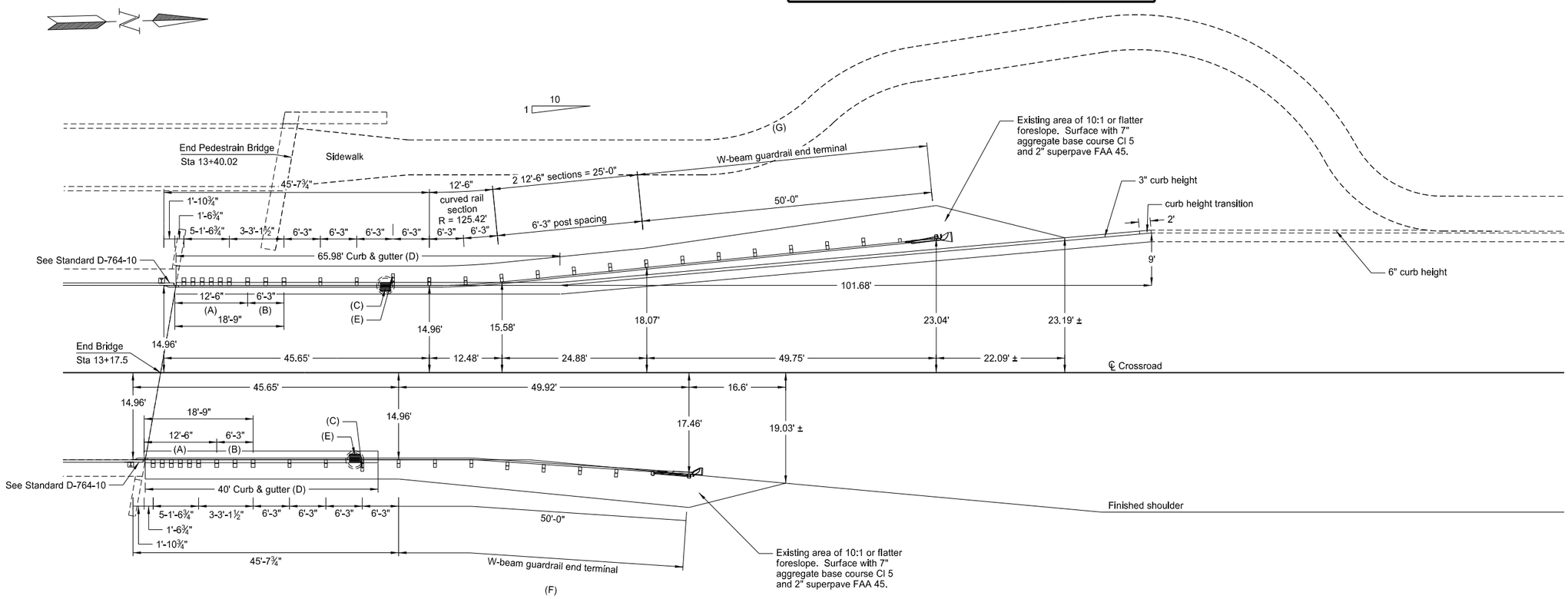
Thrie/W-Beam Guardrail Layout
At Beginning of Bridge

10th Avenue East Separation Crossroad
RP 62.486

I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	16



(A) Thrie beam rail section (double thickness)

(B) W-Thrie beam transition section (double thickness)

(C) An additional 6" x 8" x 14" blockout and ⅝" x 26" long guardrail bolt is required to provide clearance between the guardrail post and the existing inlet.

(D) Install type 1 curb & gutter as shown on Standard D-748-1, except the maximum allowable curb height is 3".

(E) Adjust existing inlet.

(F) Install a FLEAT with a 2'-6" flare as shown on Standard D-764-6.

(G) Install a FLEAT at this location.

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Thrie/W-Beam Guardrail Layout
At End of Bridge

10th Avenue East Separation Crossroad
RP 62.486

I-94

23 USC § 409 Documents
NDDOT Reserves All Objections

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	130	17

W-BEAM GUARDRAIL SUMMARY OF QUANTITIES

THRIE/W-BEAM GUARDRAIL AT BRIDGE ENDS

LOCATION	(A) (C) 5/8" Ø x 18" LONG GUARD-RAIL BOLT	(A) 6" x 8" x 6'-0" TIMBER POST	(A) (C) 6" x 8" x 14" TIMBER BLOCK	(A) 5/8" Ø x 1 1/4" LONG GUARD-RAIL BOLT	(A) 12'- 6" STRAIGHT W-BEAM RAIL SECTION	(A) 12'- 6" CURVED W-BEAM RAIL SECTION	(A) REFL-ECTOR-IZED PLATES	(A) 8"x 8" x 6' WOOD POST	(A) 8"x 8" x 22" WOOD OFF-SET BLOCK	(A) 8"x 8" x 18" WOOD OFF-SET BLOCK	(A) 8"x 8" x 14" WOOD OFF-SET BLOCK	(A) 6'-3" DOUBLE W-THRIE BEAM TRANS-ITION SECTION	(A) 12'-6" DOUBLE THRIE BEAM SECTION	(A) 2'-6" THRIE BEAM TERM-INAL CON-NECTOR	(A) 7/8" Ø x VAR-IABLE LONG. BOLT	(A) 3/4" Ø x 2-1/2" LONG POST BOLT	(B) EMBANK-MENT
	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	CY
Sta 10+11.39 to 10+81.96 Rt	28	12	13	80	5	1	6	9	7	1	1	1	1	1	5	2	55
Sta 10+41.59 to 10+87.24 Lt	20	4	5	48	2		5	9	7	1	1	1	1	1	5	2	
Sta 13+12.76 to 13+58.41 Rt	20	4	5	48	2		5	9	7	1	1	1	1	1	5	2	
Sta 13+18.04 to 14+01.05 Lt	30	14	15	88	6	1	7	9	7	1	1	1	1	1	5	2	
TOTAL	98	34	38	264	15	2	23	36	28	4	4	4	4	4	20	8	55

W-beam guardrail

Sta 10+11.39 to 10+81.96 Rt	70.7 LF
Sta 10+41.59 to 10+87.24 Lt	45.7 LF
Sta 13+12.76 to 13+58.41 Rt	45.7 LF
Sta 13+18.04 to 14+01.05 Lt	83.2 LF
Total	245.3 LF

W-beam guardrail end terminal

Sta 9+61.64 to 10+11.39 Rt	1 ea
Sta 9+91.60 to 10+41.59 Lt	1 ea
Sta 13+58.41 to 14+08.40 Rt	1 ea
Sta 14+01.05 to 14+50.80 Lt	1 ea
Total	4 ea

Remove box beam guardrail

Sta 9+50.91 to 10+81.86 Rt	131.5 LF
Sta 10+27.94 to 10+87.14 Lt	59.5 LF
Sta 13+12.86 to 13+72.06 Rt	59.5 LF
Sta 13+18.14 to 14+49.09 Lt	131.5 LF
Total	382 LF

Guardrail embankment - type C

Sta 9+53.53 to 10+11.34 Rt	1 ea

Remove end treatment & transition

Sta 9+14.21 to 9+50.91 Rt	1 ea
Sta 9+91.24 to 10+27.94 Lt	1 ea
Sta 13+72.06 to 14+08.76 Rt	1 ea
Sta 14+49.09 to 14+85.79 Lt	1 ea
Total	4 ea

Removal of curb & gutter

Sta 10+39.86 to 10+79.86 Rt	40 LF
Sta 10+45.14 to 10+85.14 Lt	40 LF
Sta 13+14.86 to 14+79.27 Rt	165 LF
Sta 13+20.14 to 14+87.80 Lt	168 LF
Total	413 LF

Curb & gutter - type 1 special

Sta 10+39.86 to 10+79.86 Rt	40 LF
Sta 10+45.14 to 10+85.14 Lt	40 LF
Sta 13+14.86 to 13+54.86 Rt	40 LF
Sta 13+20.14 to 14+87.80 Lt	168 LF
Total	288 LF

(A) Include these items in the contract price bid for the item "W-Beam Guardrail".

(B) The volume of embankment (cubic yards) is for informational purposes only.

(C) A total of four additional 6" x 8" x 14" blocks have been included in the table for providing clearance between the guardrail post at the existing inlets.

A total or four 5/8" Ø x 26" long guardrail bolts are required.

Include these items in the contract price bid for the item "W-Beam Guardrail".

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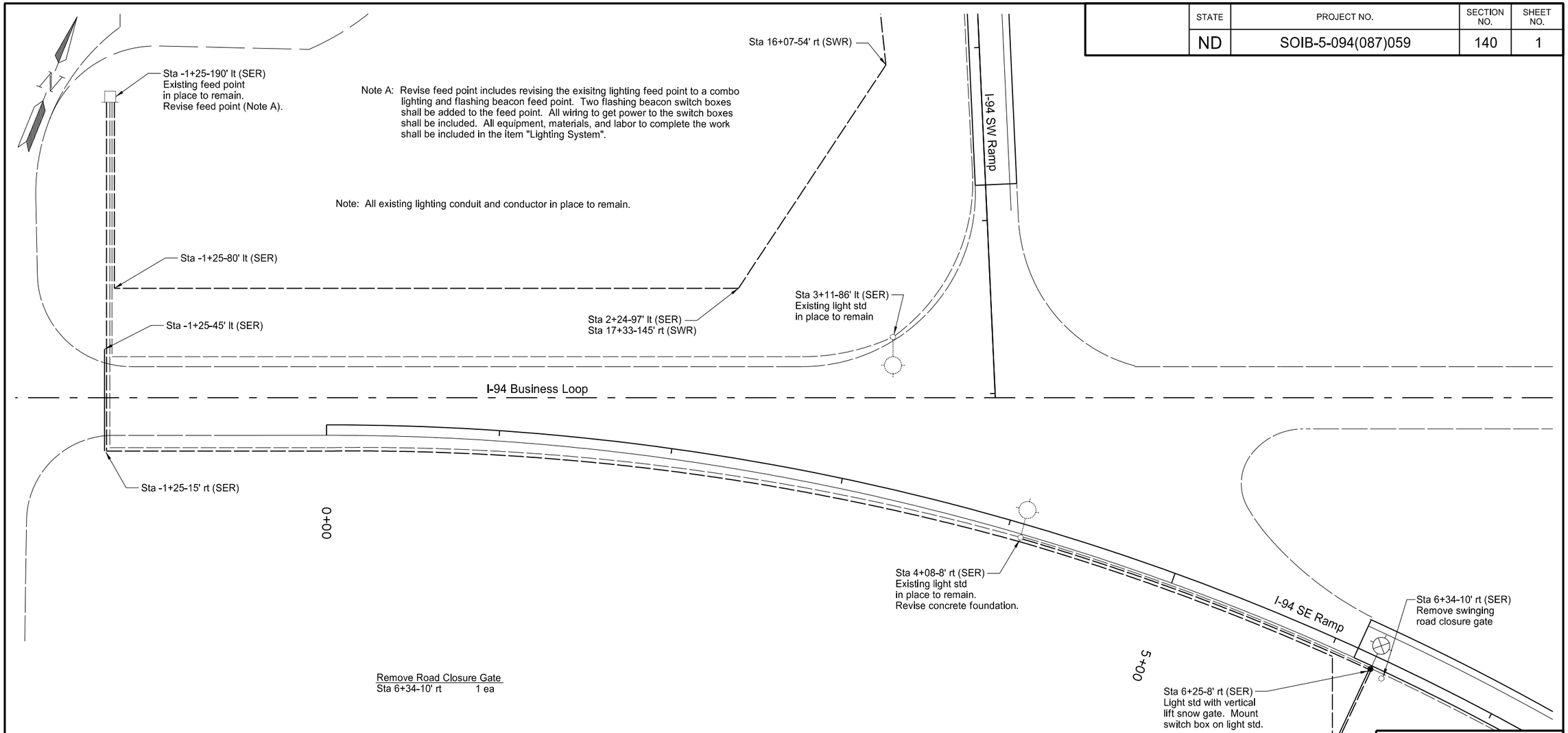
Thrie/W-Beam Guardrail Quantities

10th Avenue East Separation Crossroad
RP 62.486

I-94

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	140	1



Note A: Revise feed point includes revising the exisitng lighting feed point to a combo lighting and flashing beacon feed point. Two flashing beacon switch boxes shall be added to the feed point. All wiring to get power to the switch boxes shall be included. All equipment, materials, and labor to complete the work shall be included in the item "Lighting System".

Note: All existing lighting conduit and conductor in place to remain.

Remove Road Closure Gate
Sta 6+34-10' rt 1 ea

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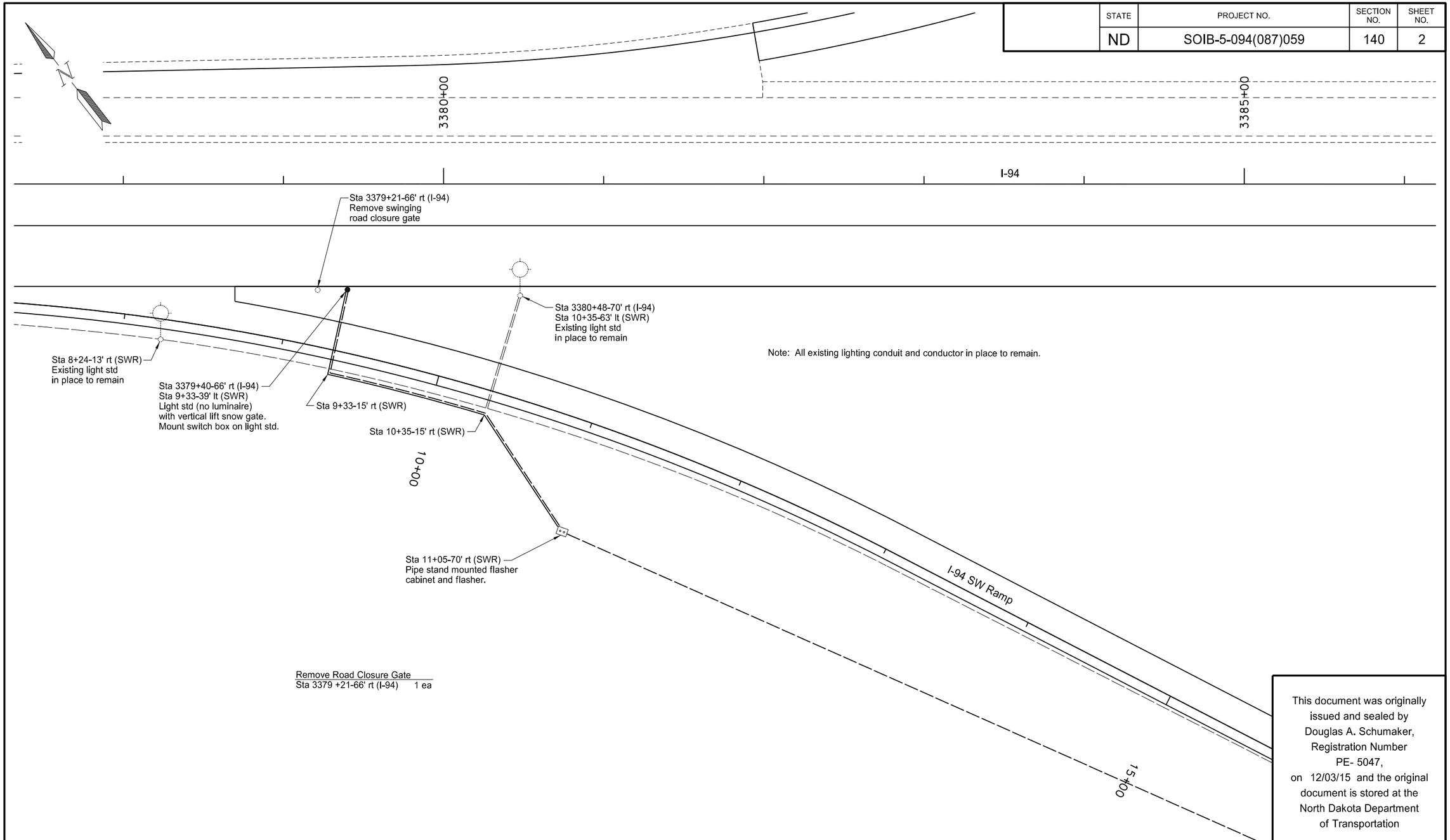
Lighting System and Road Closure Gate

Lighting and Road Closure Gate Layout

East Dickinson Interchange

Dickinson

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	140	2



Note: All existing lighting conduit and conductor in place to remain.

Remove Road Closure Gate
Sta 3379 +21-66' rt (I-94) 1 ea

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Road Closure Gate

Road Closure Gate Layout

East Dickinson Interchange

Dickinson

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	140	3

Lighting System

STATION	CABLE TRENCH	CABLE RUNS	
	LF	LF	Type
4+08-8' rt (SER) to 6+25-8' rt (SER)	215	225	3 No. 6 USE

Light Standard						
No.	Station	Wattage	Circuit	Distribution	Pole Ht.	Mast Arm
1	6+25-8' rt (SER)	135-145	Existing	2	40' (D)	6'
1	9+33-39' lt (SWR)	None	None	None	40' (D)	6'

(D) Breakaway

QUANTITIES (A)

Concrete Foundation - Highway Lighting	Cable Trench - Type II	Multiple Underground Cable 3 No 6 Style USE	Light Std 6 FT MA 40' Pole Breakaway	LED Luminaire	Revise Concrete Foundation	Revise Feed Point	Switch Box		Lighting System
EA	LF	LF	EA	EA	EA	EA	EA		EA
2	215	225	2	1	1	1	2		1

(A) Include these items in the contract unit price for "Lighting System".

Vertical Lift Road Closure Gate - 28 FT Arm

STATION	CONDUIT RUNS		CABLE TRENCH	CABLE RUNS	
	LF	DIA	LF	LF	Type
-1+25-190' lt (SER) to -1+25-80' lt (SER) to 17+33-145' rt (SWR) to 16+07-54' rt (SWR) to 11+05-70' rt (SWR)			110 363 155 493	1141	3 No. 6 USE
11+05-70' rt (SWR) to 10+35-15' rt (SWR) to 9+33-15' rt (SWR) to 9+33-39' lt (SWR) = 3379+40-66' rt (I-94)	88 101 54	2" 2" 2"		259	No. 14 AWG 5

QUANTITIES (B)

Station of Gate	2" Dia Rigid Conduit	Cable Trench - Type II	Multiple Underground Cable 3 No 6 Style USE	No. 14 AWG 5 Conductor Cable	Vertical Lift Road Closure Gate - 28 FT Arm	Pipe Stand	Flasher Cabinet and Flasher	Switch Box			Vertical Road Closure Gate - 28 FT
	LF	LF	LF	LF	EA	EA	EA	EA			EA
Sta 9+33-39' lt (SWR)	243	1121	1041	259	1	1	1	1			1

(B) Include these items in the contract unit price for "Vertical Road Closure Gate - 28 FT".

Vertical Lift Road Closure Gate - 18 FT Arm

STATION	CONDUIT RUNS		CABLE TRENCH	CABLE RUNS	
	LF	DIA	LF	LF	Type
-1+25-190' lt (SER) to -1+25-45' lt (SER) to -1+25-15' rt (SER) to 6+25-60' rt (SER)	60'	2"	144 785	1010	3 No. 6 USE
6+25-60' rt (SER) to 6+25-8' rt (SER)	50	1"		72	No. 14 AWG 5

QUANTITIES (C)

Station of Gate	1" Dia Rigid Conduit	2" Dia Rigid Conduit	Cable Trench - Type II	Multiple Underground Cable 3 No 6 Style USE	No. 14 AWG 5 Conductor Cable	Vertical Lift Road Closure Gate - 18 FT Arm	Pipe Stand	Flasher Cabinet and Flasher	Switch Box		Vertical Road Closure Gate - 18 FT
	LF	LF	LF	LF	LF	EA	EA	EA	EA		EA
Sta 6+25-8' rt (SER)	50	60	929	1010	72	1	1	1	1		1

(C) Include these items in the contract unit price for "Vertical Road Closure Gate - 18 FT".

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Lighting System and Road Closure Gates

Cable Runs and Quantities

East Dickinson Interchange

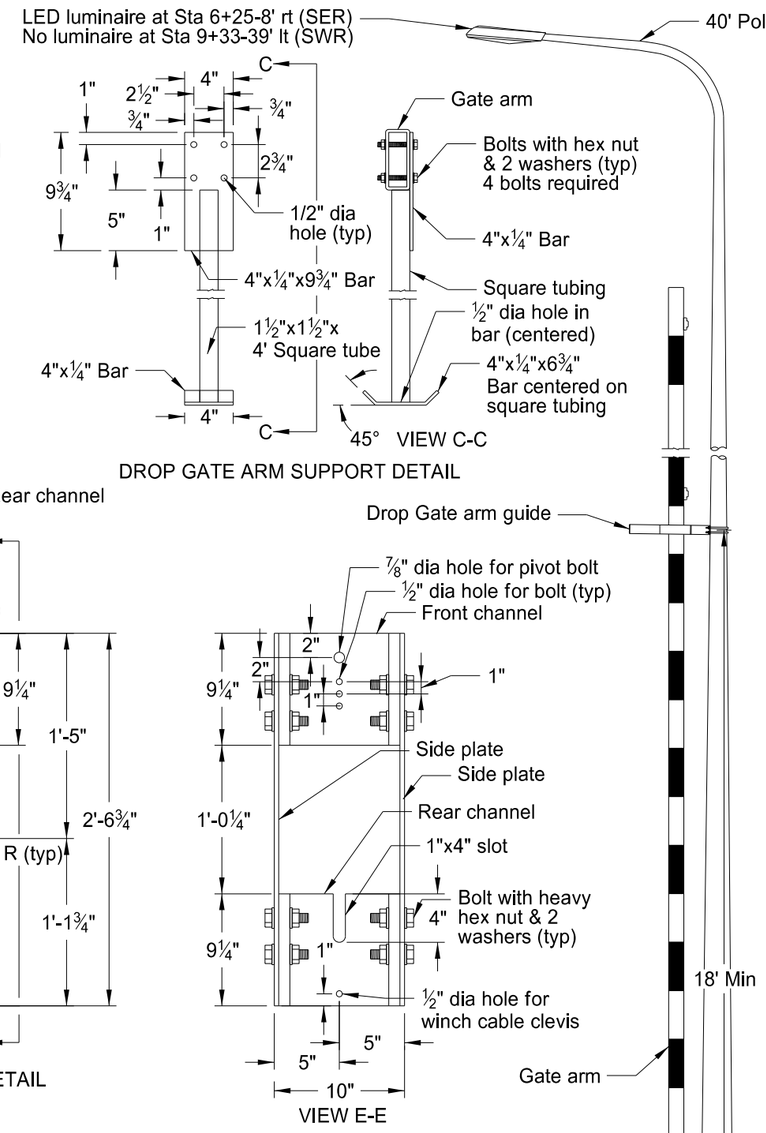
Dickinson

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	140	4

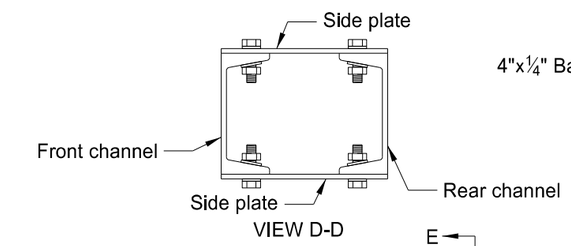
NOTE: Provide and install light standard in accordance with Section 770 of the NDDOT Standard Specifications.

*See Standard D-770-1 for additional Light & Signal Standard Foundation details

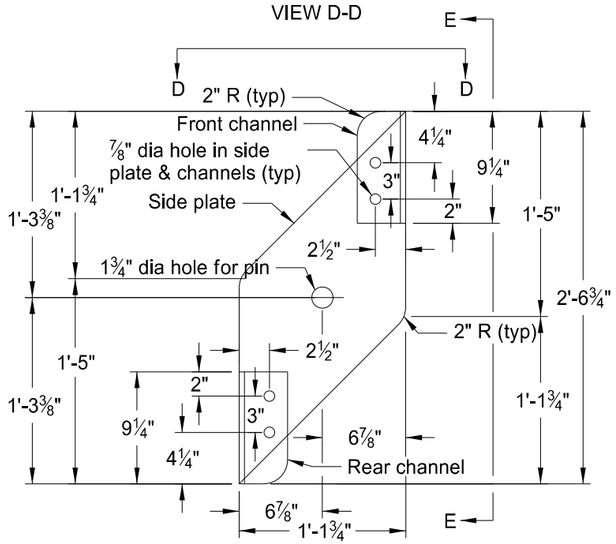
**Supply fiberglass/aluminum gate arm and cast adapter from Safetran, or equivalent.



DROP GATE ARM SUPPORT DETAIL

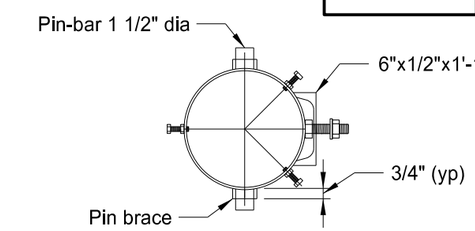


VIEW D-D

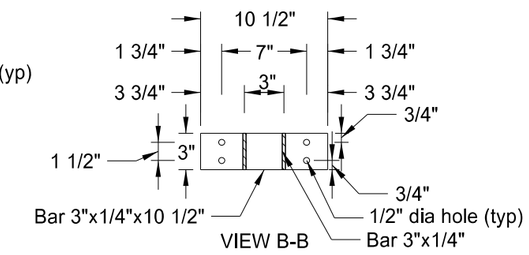


DROP GATE ARM PIVOT SIDE PLATE DETAIL

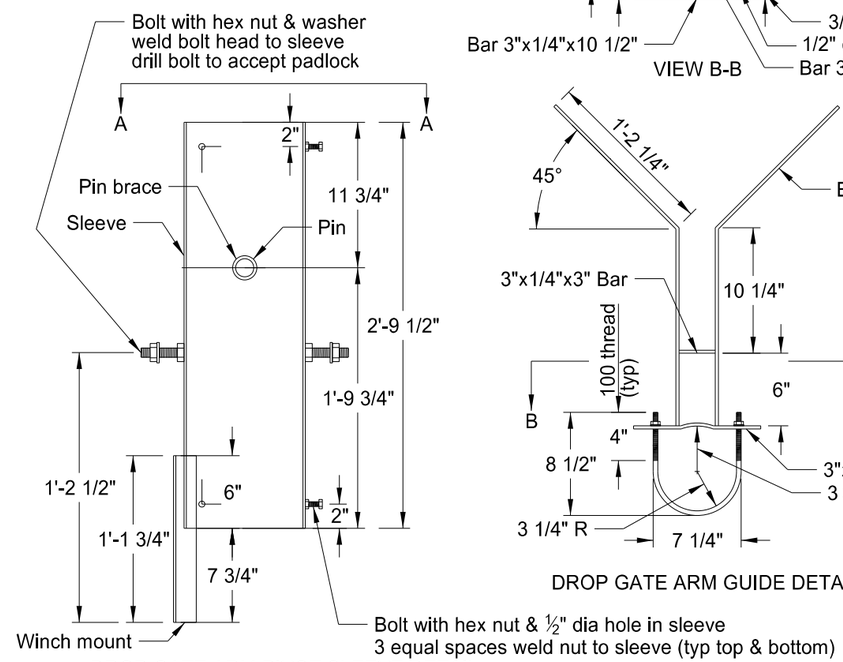
VIEW E-E



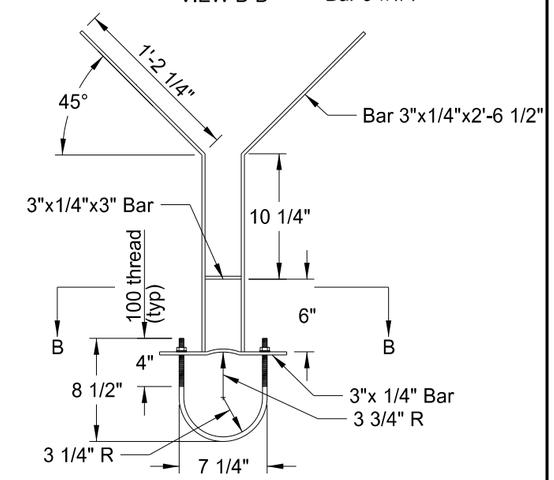
VIEW A-A



VIEW B-B

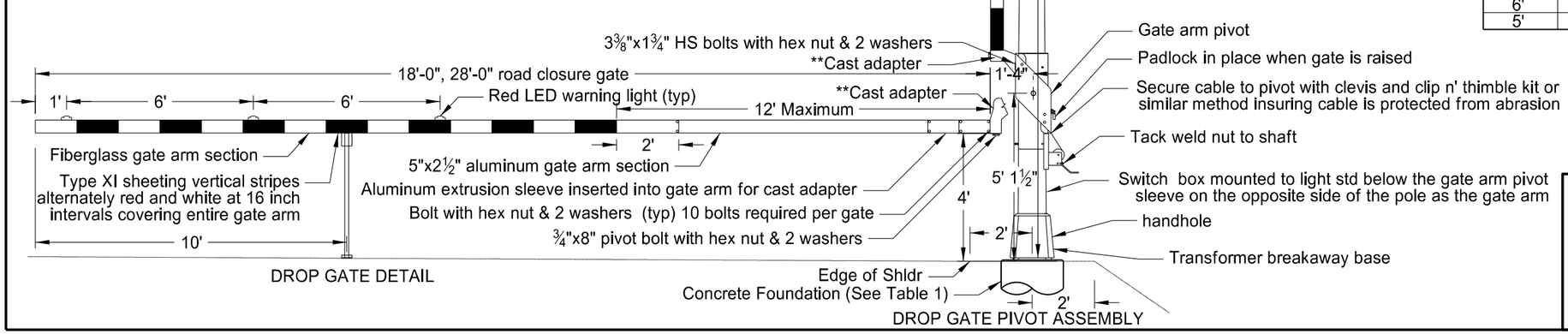


DROP GATE ARM PIVOT SLEEVE DETAIL



DROP GATE ARM GUIDE DETAIL

TABLE 1	
Concrete Foundation*	
Depth	Diameter
6'	24" or 30"
5'	36" or 42"



DROP GATE DETAIL

DROP GATE PIVOT ASSEMBLY

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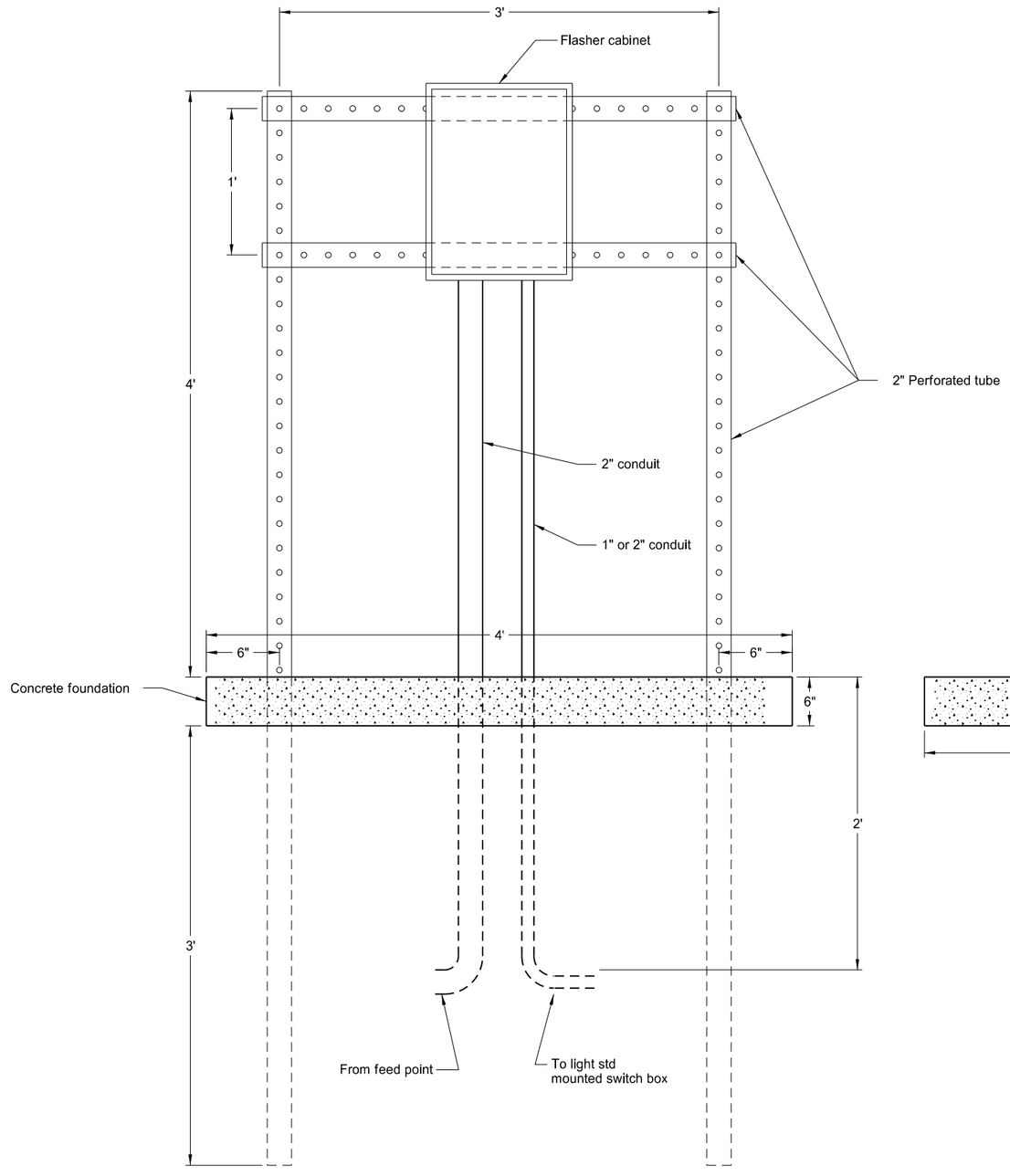
Vertical Lift Road Closure Gate

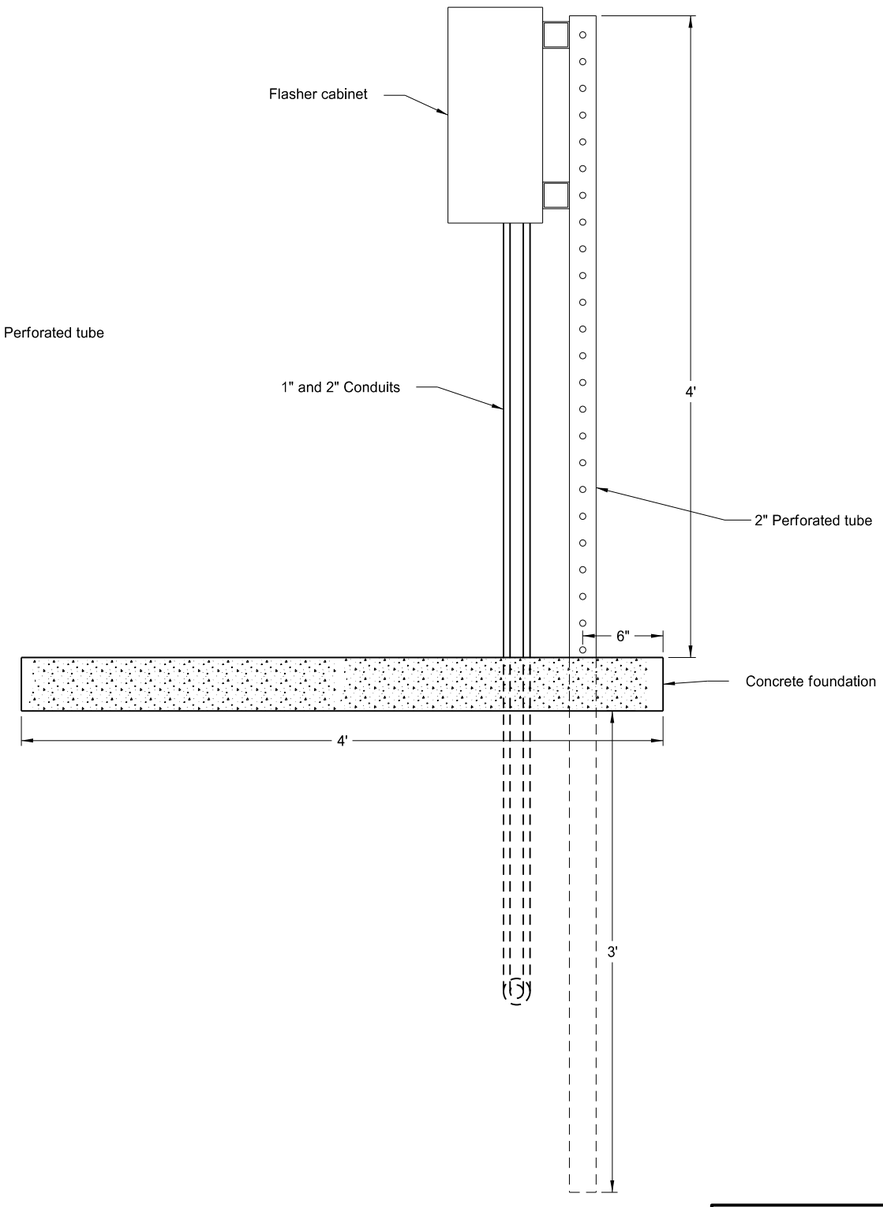
East Dickinson Interchange

Dickinson

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	140	5



Front View



Side View

Pipe Stand Mounted Flasher Cabinet Detail

Sta 11+05-70' rt (SWR)
Sta 6+25-60' rt (SER)

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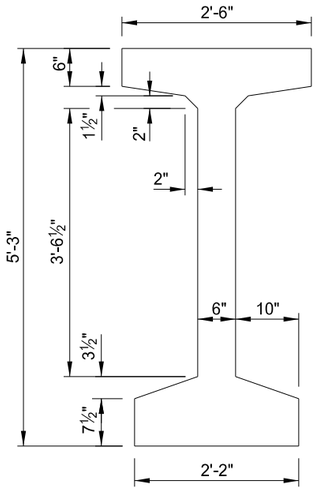
Road Closure Gate

Pipe Stand Mounted Flasher Cabinet Detail

East Dickinson Interchange

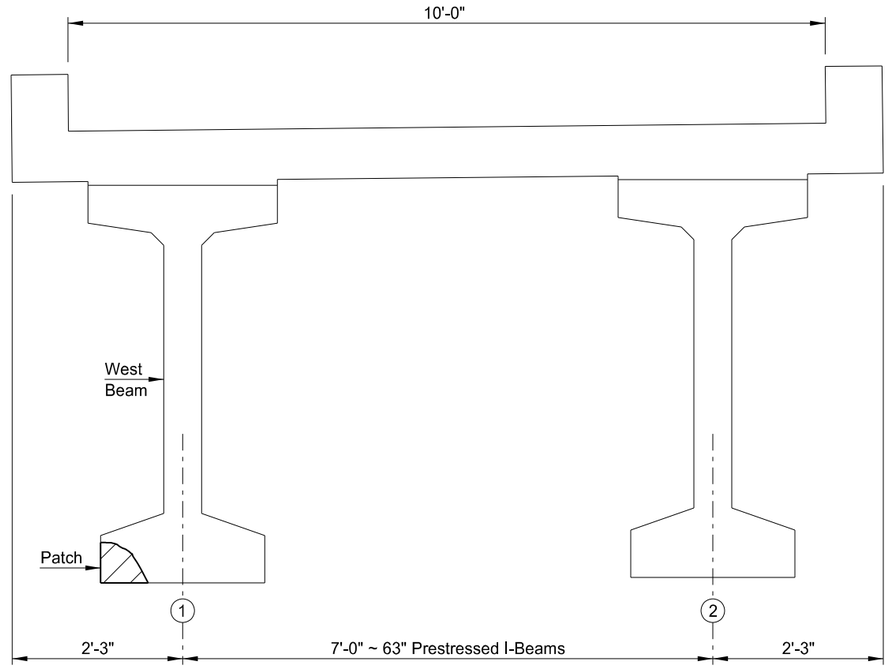
Dickinson

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	1

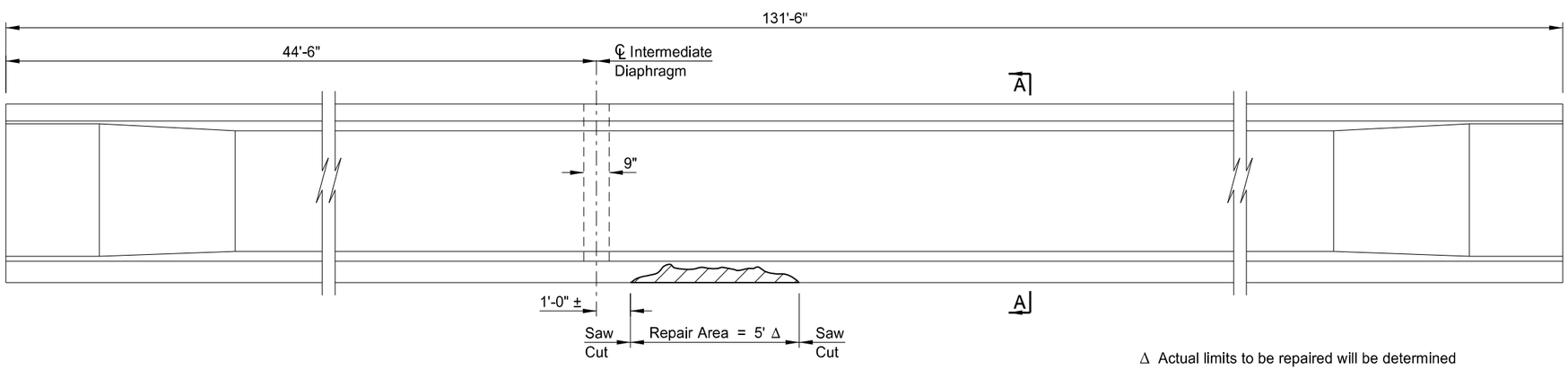


(SHOWING DIMENSIONS)

A-A



TYPICAL DECK SECTION



Δ Actual limits to be repaired will be determined by the Engineer in the field.

(SHOWING OUTSIDE FACE ~ LOOKING EAST)

BEAM 1 ELEVATION ~ SPAN OVER EASTBOUND I-94

NOTES:

100 SCOPE OF WORK: Work at this site consists of patching a damaged prestressed beam.

930 PATCHING CONSTRUCTION SEQUENCE (Beam 1):

1. Use a 15 pound maximum size chipping hammer to remove any unsound concrete. For the edges of the repair area produce sharp neat lines, one inch deep, by saw cutting or other means approved by the Engineer. Use care in the removal process so that no damage is done to the prestressing steel or reinforcing steel.

2. After all unsound concrete is removed, clean the existing surface by light sandblasting or high pressure water blasting. After the surface has dried and just before the patch material is placed, coat the surface with an epoxy bonding agent.

3. Restore the beam to its original cross section with concrete material that is specifically intended for patching concrete. This material may be SIKATOP 122 Repair Mortar, Tamms Duraltop Gel, ThoRoc HB2 (ChemRox Incorporated), or an approved equal. It is important to minimize the shrinkage in the patch material, therefore cure the material as recommended by the manufacturer.

4. Include all labor, equipment and materials required to remove all unsound concrete and patch the damaged area on Beam 1 in the bid item "Girder Patching."

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BRIDGE BID ITEMS

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
930	9694	GIRDER PATCHING	L SUM	0.5

NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

I-94 PEDESTRIAN CROSSOVER

PRESTRESSED CONCRETE GIRDER PATCHING DETAILS

PROJECT: SOIB-5-094(087)059

STARK COUNTY

12/01/15 — DATE

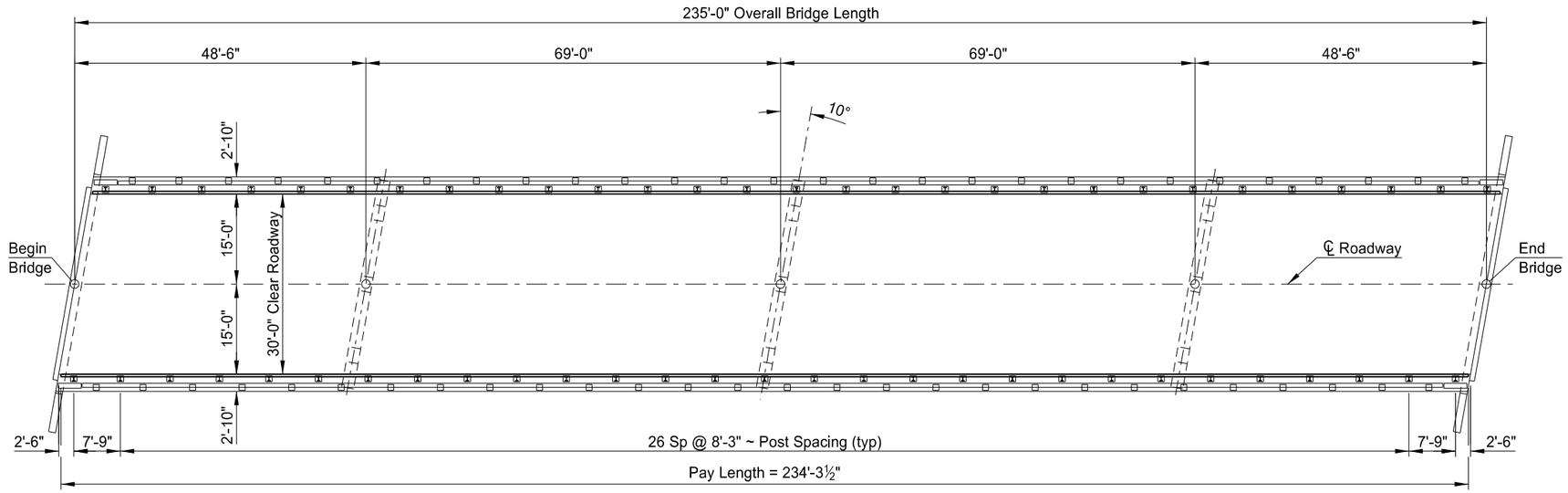
Terrence R. Udland — BRIDGE ENGINEER

23 U.S.C. 409
NDDOT Reserves All Objections

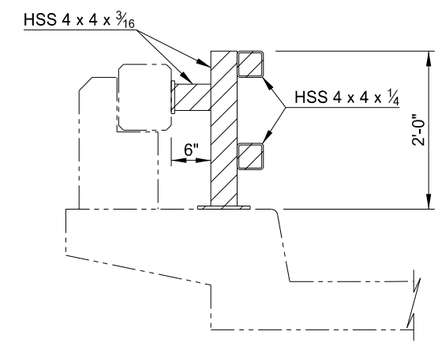
STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	2

NOTE:

100 SCOPE OF WORK: Work at this site consists of placing a deck overlay, removing an existing rail retrofit, installing double box beam rail retrofit and patching a damaged prestressed beam.



PLAN



Hatched area indicates existing double box beam steel rail retrofit to be removed. Include the removal of the existing rail retrofit in the contract unit price for "Double Box Beam Rail Retrofit-Free Standing."

(SHOWING REMOVAL)

EXISTING CURB & RAILING SECTION

BRIDGE BID ITEMS

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
602	0130	CLASS AAE-3 CONCRETE	CY	1.4
624	3001	DOUBLE BOX BEAM RAIL RETROFIT-FREE STANDING	LF	468.6
650	0704	OVERLAY CONCRETE	CY	43
650	0720	CLASS 1 REMOVAL	SY	783
650	0721	CLASS 2 REMOVAL	SY	249
650	0722	CLASS 2-A REMOVAL	LF	448
650	0723	CLASS 3 REMOVAL	SY	39
650	0724	CLASS 4 REMOVAL	SY	8
930	9694	GIRDER PATCHING	L SUM	0.5

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NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

I-94/10TH AVENUE EAST SEPARATION

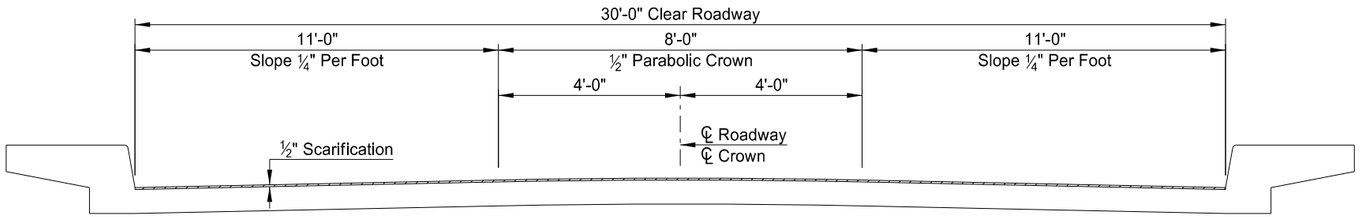
BRIDGE LAYOUT

PROJECT: SOIB-5-094(087)059

STARK COUNTY

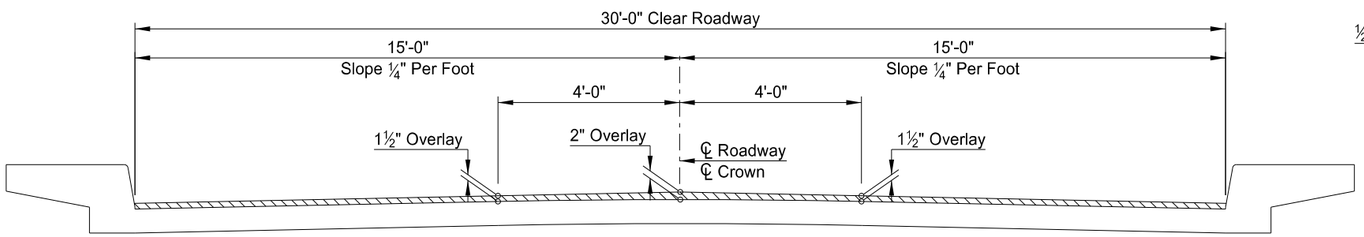
12/01/15 — Terrence R. Udland
DATE — BRIDGE ENGINEER

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	3



(SHOWING REMOVAL)

TYPICAL DECK SECTION



(SHOWING OVERLAY)

TYPICAL DECK SECTION

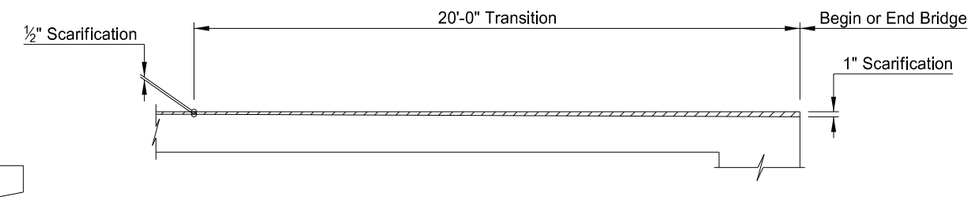
NOTES:

602 CONCRETE: Provide aggregate for concrete that meets the requirements of Section 802.01 C.2, "Coarse Aggregate" and Section 802.01 C.3, "Fine Aggregate."

650 OVERLAY CONCRETE: Use size 5 coarse aggregate composed of crushed stone. Use crushed stone that has at least one fractured face on 75 percent of the particles retained on the number 4 sieve.

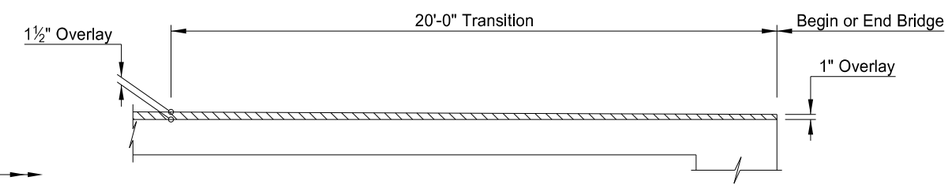
Placement of overlay concrete after September 15 requires authorization by the Bridge Engineer.

650 CLASS 2-A REMOVAL: Class 2-A removal is paid for the top bar in the top mat of reinforcing only. If a bar that is identified for 2-A is in an area that becomes Class 3 or Class 4, it will not be paid for as 2-A removal.



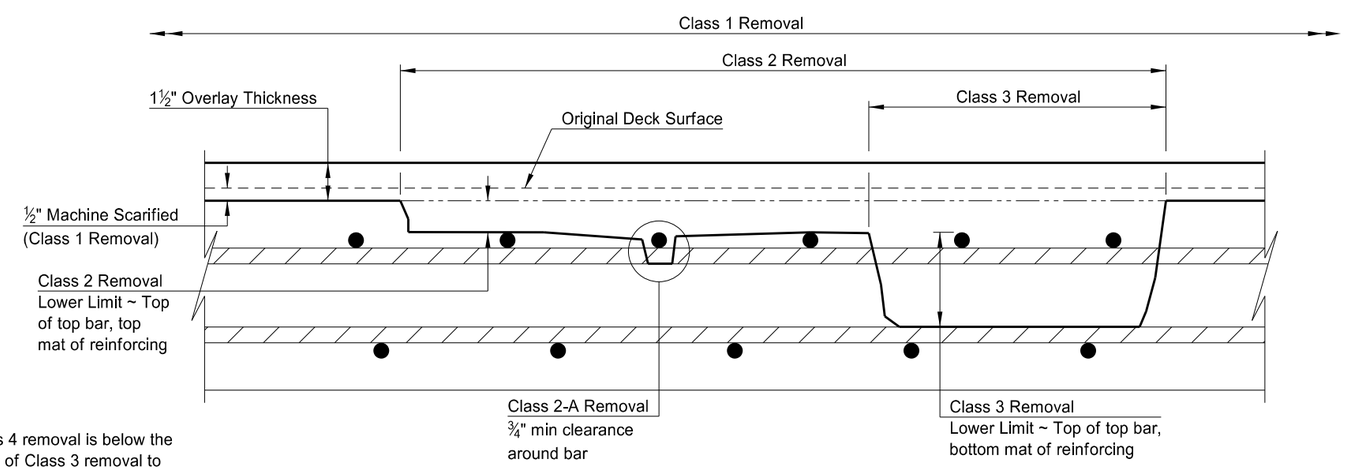
(SHOWING REMOVAL AT BRIDGE ENDS)

DECK ELEVATION



(SHOWING OVERLAY AT BRIDGE ENDS)

DECK ELEVATION



Class 4 removal is below the limits of Class 3 removal to full depth of deck.

(OVERLAY CLASSIFICATIONS)

BRIDGE DECK SECTION

QUANTITIES	
CLASS AAE-3 CONCRETE	1.4 CY
OVERLAY CONCRETE	43 CY
CLASS 1 REMOVAL	783 SY
CLASS 2 REMOVAL	249 SY
CLASS 2-A REMOVAL	448 LF
CLASS 3 REMOVAL	39 SY
CLASS 4 REMOVAL	8 SY

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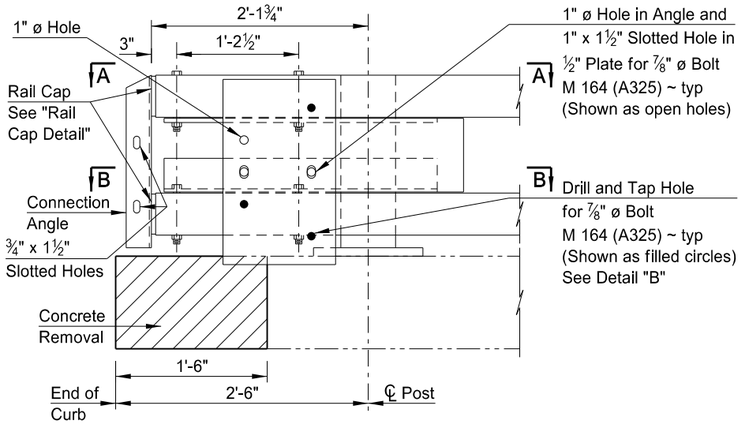
I-94/10TH AVENUE EAST SEPARATION

DECK OVERLAY DETAILS

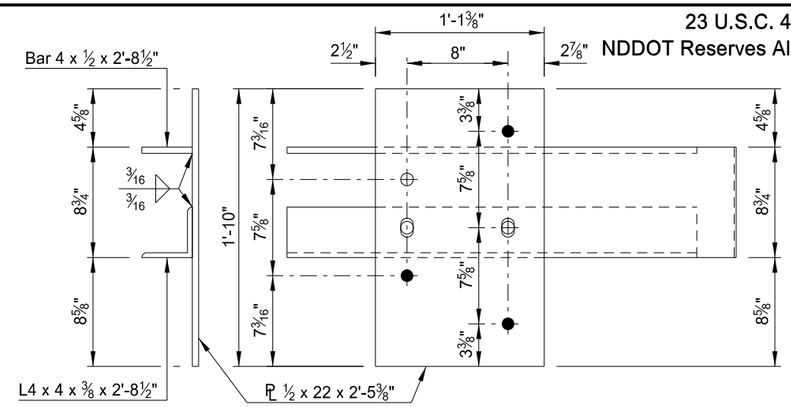
23 U.S.C. 409
NDOT Reserves All Objections

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	4



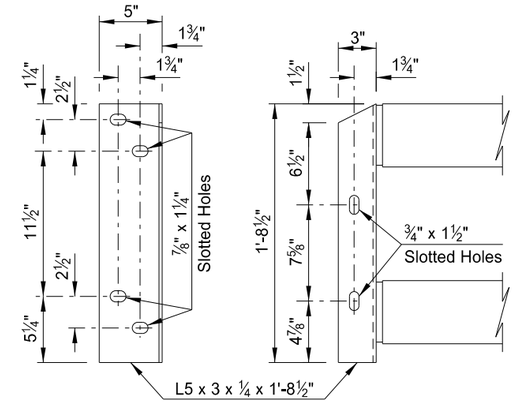
(TYP AT EACH END)

END POST CONNECTION DETAIL



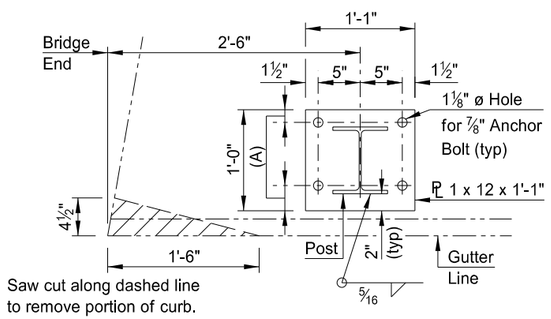
(4 REQUIRED)

GUARDRAIL CONNECTION PLATE DETAILS



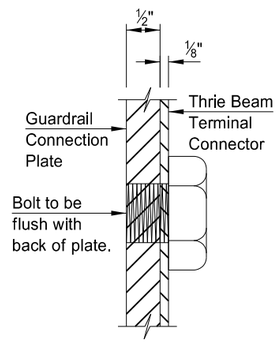
(4 REQUIRED)

CONNECTION ANGLE DETAILS

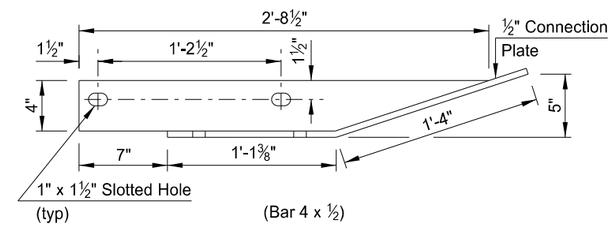


(A) Variable 1½" to 3"

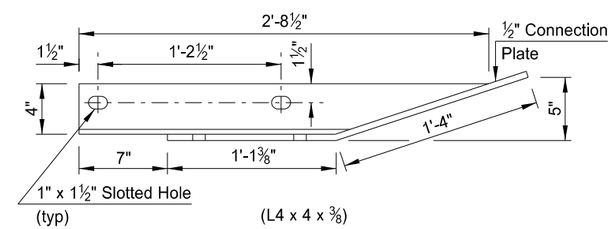
BASE PLATE DETAIL



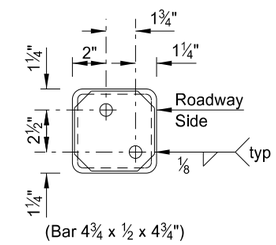
DETAIL "B"



A-A

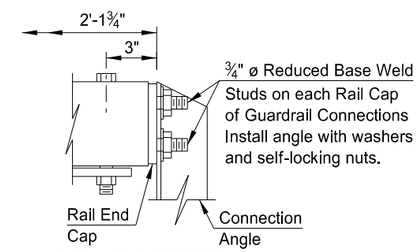


B-B

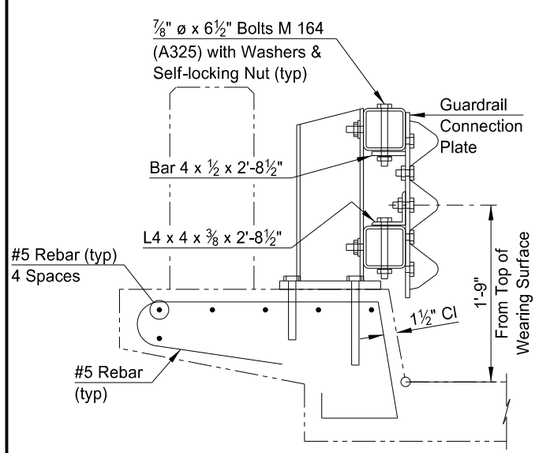


Cope corners 1" to provide zinc drains.

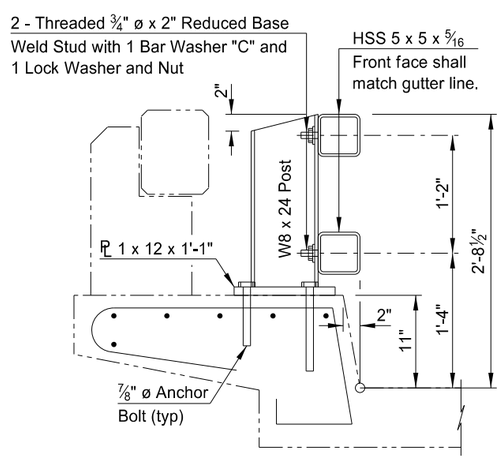
RAIL CAP END VIEW

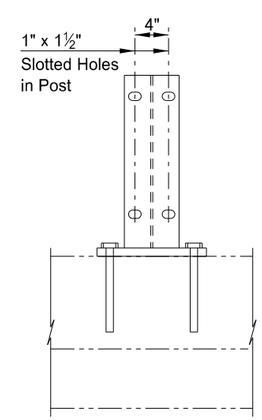


RAIL CAP DETAIL

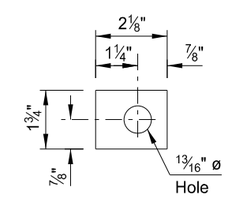


CONNECTION DETAILS



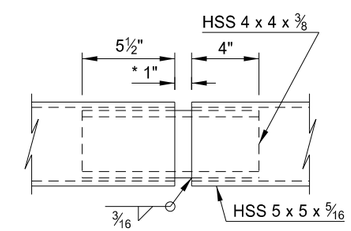


CURB MOUNT POST DETAILS



Position washers to completely cover slotted holes.

¼" BAR WASHER "C"



* 2" at expansion joints.

RAIL SPLICE DETAIL

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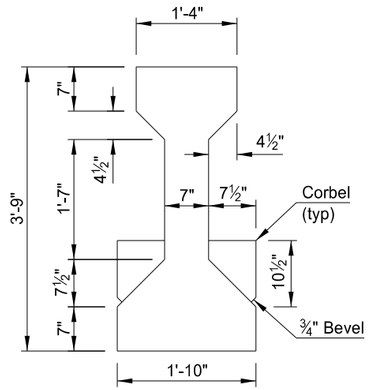
QUANTITIES	
RAIL RETROFIT - FREE STANDING	468.6 LF

I-94/10TH AVENUE EAST SEPARATION

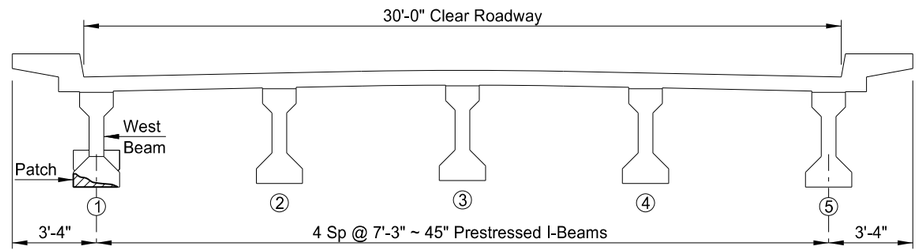
DOUBLE BOX BEAM RAIL RETROFIT DETAILS (FREE STANDING)

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	5

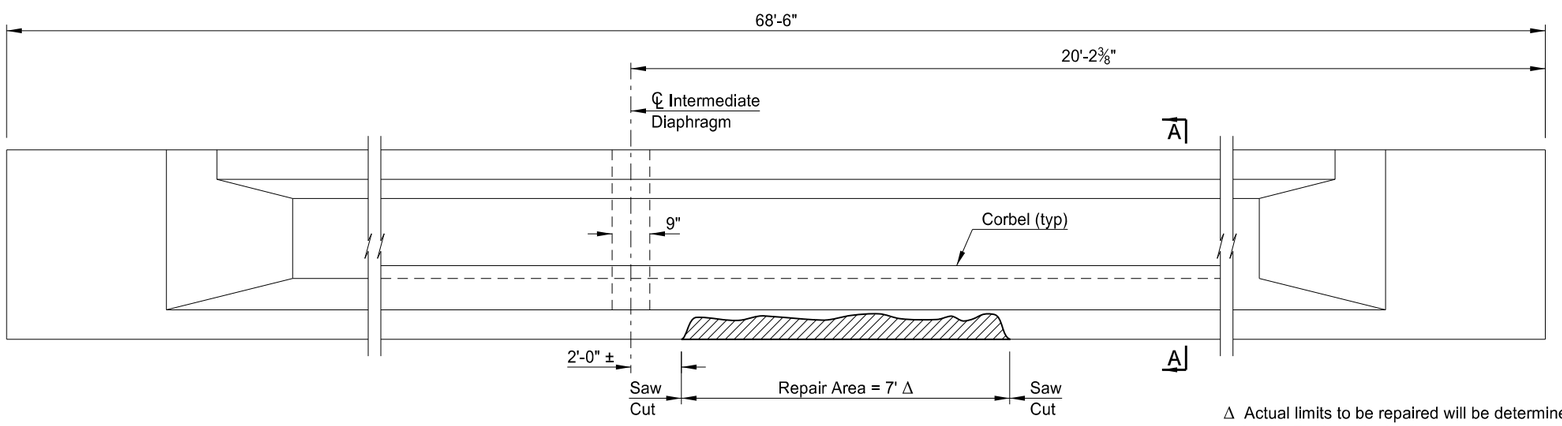


(SHOWING DIMENSIONS)

A-A



TYPICAL DECK SECTION



Δ Actual limits to be repaired will be determined by the Engineer in the field.

(SHOWING OUTSIDE FACE ~ LOOKING EAST)

BEAM 1 ELEVATION ~ SPAN OVER EASTBOUND I-94

NOTE:

930 PATCHING CONSTRUCTION SEQUENCE (Beam 1):

1. Use a 15 pound maximum size chipping hammer to remove any unsound concrete. For the edges of the repair area produce sharp neat lines, one inch deep, by saw cutting or other means approved by the Engineer. Use care in the removal process so that no damage is done to the prestressing steel or reinforcing steel.

2. After all unsound concrete is removed, clean the existing surface by light sandblasting or high pressure water blasting. After the surface has dried and just before the patch material is placed, coat the surface with an epoxy bonding agent.

3. Restore the beam to its original cross section with concrete material that is specifically intended for patching concrete. This material may be SIKATOP 122 Repair Mortar, Tamms Duraltop Gel, ThoRoc HB2 (ChemRox Incorporated), or an approved equal. It is important to minimize the shrinkage in the patch material, therefore cure the material as recommended by the manufacturer.

4. Include all labor, equipment and materials required to remove all unsound concrete and patch the damaged area on Beam 1 in the bid item "Girder Patching."

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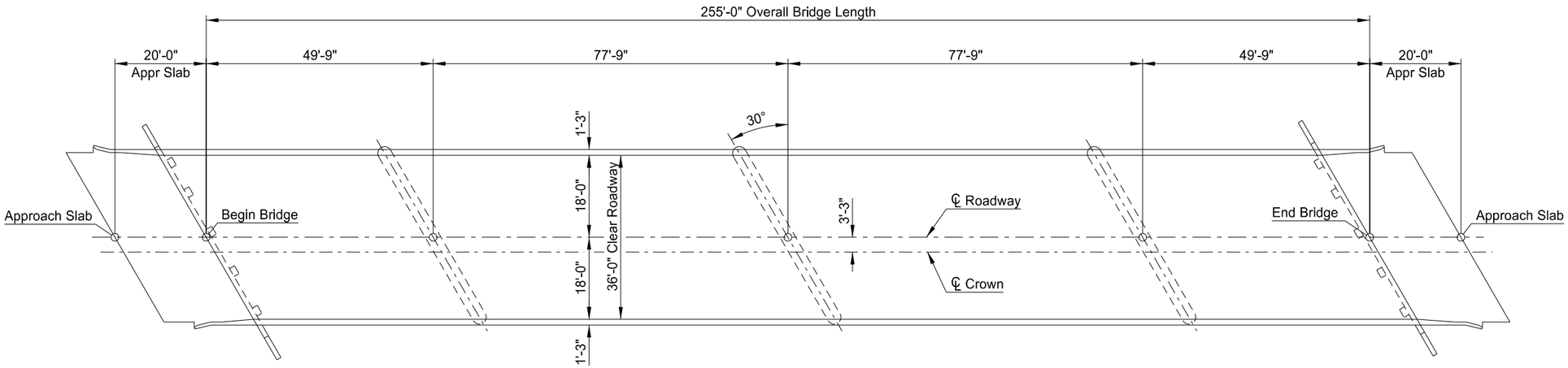
I-94/10TH AVENUE EAST SEPARATION

PRESTRESSED CONCRETE GIRDER PATCHING DETAILS

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	6

NOTE:

100 SCOPE OF WORK: Work at this site consists of placing a deck overlay.



PLAN

BRIDGE BID ITEMS

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
602	0130	CLASS AAE-3 CONCRETE	CY	2.0
650	0704	OVERLAY CONCRETE	CY	73
650	0720	CLASS 1 REMOVAL	SY	1020
650	0721	CLASS 2 REMOVAL	SY	204
650	0722	CLASS 2-A REMOVAL	LF	367
650	0723	CLASS 3 REMOVAL	SY	51
650	0724	CLASS 4 REMOVAL	SY	10

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NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

I-94/EAST DICKINSON INTERCHANGE

BRIDGE LAYOUT

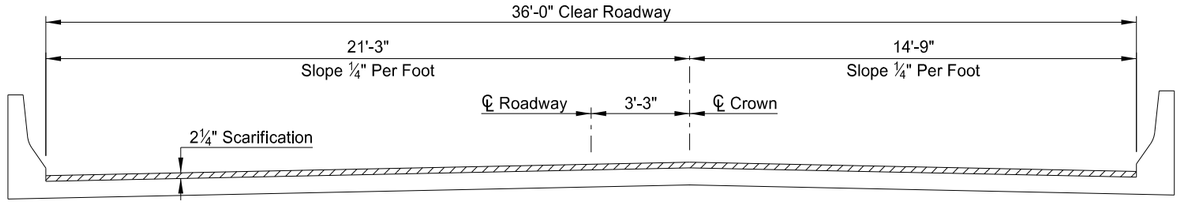
PROJECT: SOIB-5-094(087)059

STARK COUNTY

12/01/15 — DATE

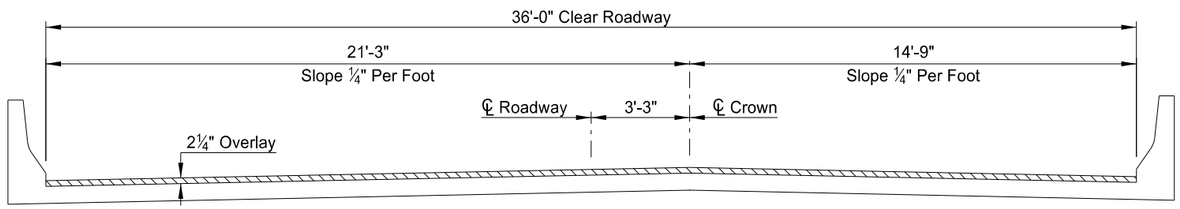
Terrence R. Udland — BRIDGE ENGINEER

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	7



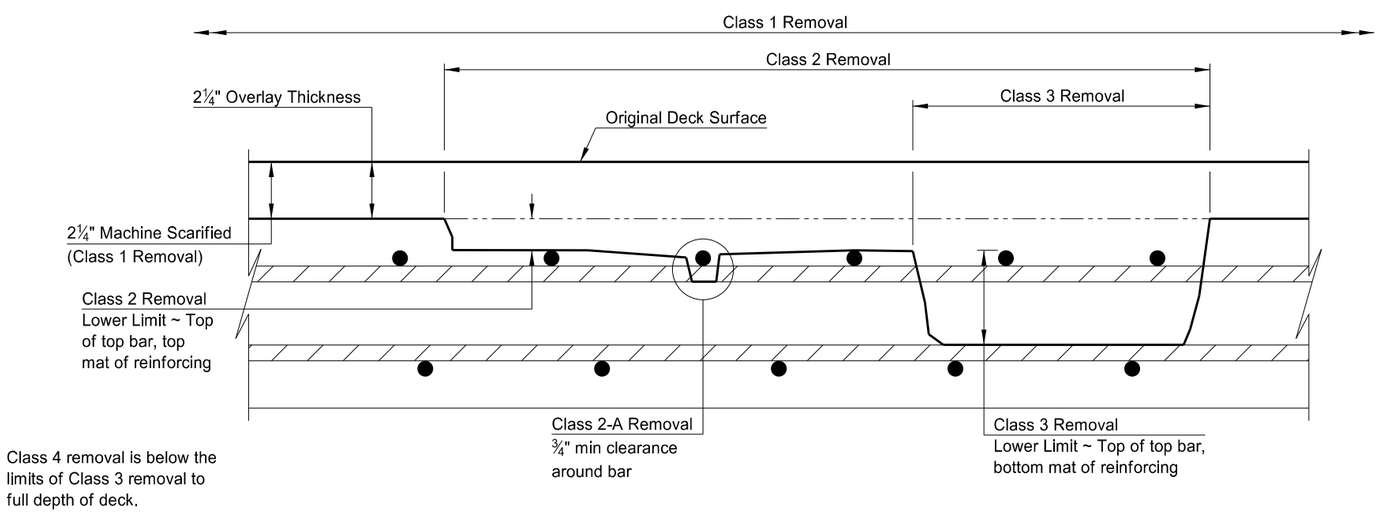
(SHOWING REMOVAL)

TYPICAL DECK SECTION



(SHOWING OVERLAY)

TYPICAL DECK SECTION



(OVERLAY CLASSIFICATIONS)

BRIDGE DECK SECTION

NOTES:

602 CONCRETE: Provide aggregate for concrete that meets the requirements of Section 802.01 C.2, "Coarse Aggregate" and Section 802.01 C.3, "Fine Aggregate."

650 OVERLAY CONCRETE: Use size 5 coarse aggregate composed of crushed stone. Use crushed stone that has at least one fractured face on 75 percent of the particles retained on the number 4 sieve.

Placement of overlay concrete after September 15 requires authorization by the Bridge Engineer.

650 CLASS 1 REMOVAL: Class 1 removal consists of removing a previous overlay to a depth of 2¼".

650 CLASS 2-A REMOVAL: Class 2-A removal is paid for the top bar in the top mat of reinforcing only. If a bar that is identified for 2-A is in an area that becomes Class 3 or Class 4, it will not be paid for as 2-A removal.

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QUANTITIES	
CLASS AAE-3 CONCRETE	2.0 CY
OVERLAY CONCRETE	73 CY
CLASS 1 REMOVAL	1020 SY
CLASS 2 REMOVAL	204 SY
CLASS 2-A REMOVAL	367 LF
CLASS 3 REMOVAL	51 SY
CLASS 4 REMOVAL	10 SY

I-94/EAST DICKINSON INTERCHANGE

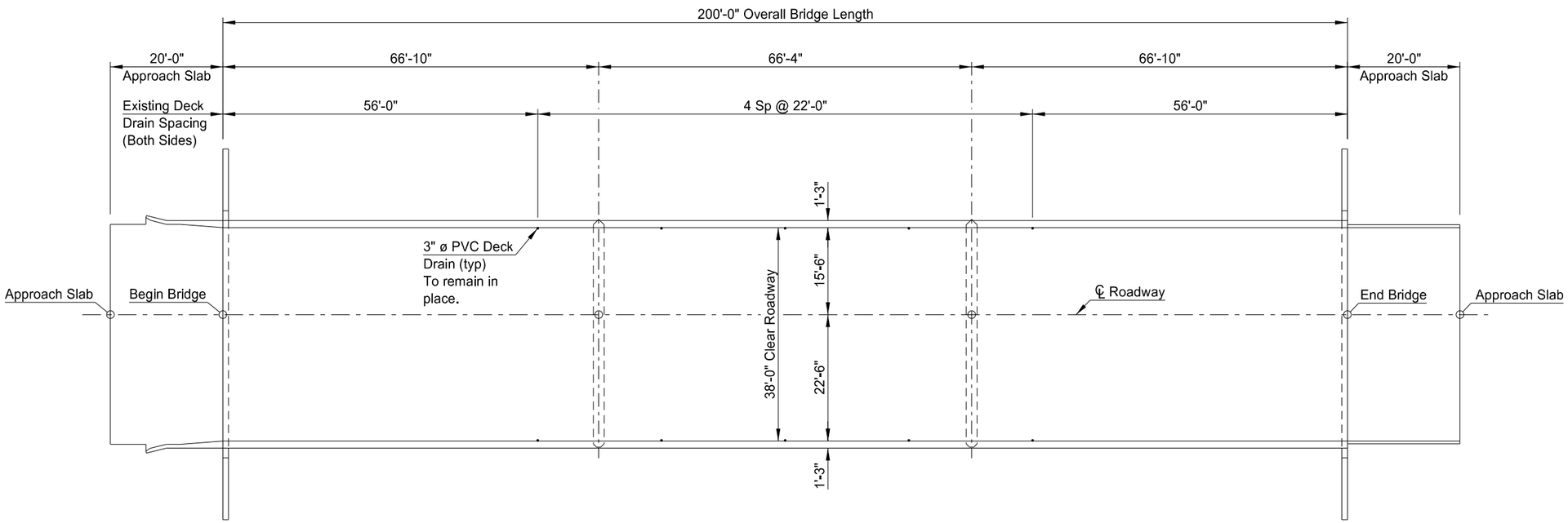
DECK OVERLAY DETAILS

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	8

N

NOTE:

100 SCOPE OF WORK: Work at this site consists of placing a deck overlay and extending the existing deck drains.



PLAN

BRIDGE BID ITEMS

SPEC	CODE	ITEM DESCRIPTION	UNIT	QUANTITY
602	0130	CLASS AAE-3 CONCRETE	CY	1.5
650	0704	OVERLAY CONCRETE	CY	61
650	0720	CLASS 1 REMOVAL	SY	844
650	0721	CLASS 2 REMOVAL	SY	169
650	0722	CLASS 2-A REMOVAL	LF	304
650	0723	CLASS 3 REMOVAL	SY	42
650	0724	CLASS 4 REMOVAL	SY	8
930	9534	MODIFY DECK DRAIN	EA	10

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SPECIAL PROVISIONS	
SP 4(14)	MIGRATORY BIRD TREATY ACT

NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION

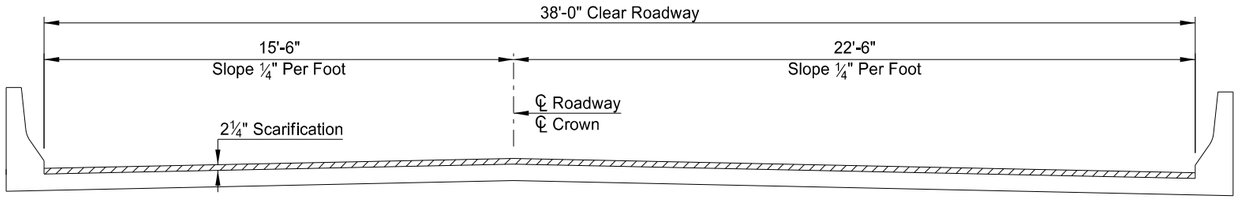
GREEN RIVER
EASTBOUND BRIDGE
BRIDGE LAYOUT

PROJECT: SOIB-5-094(087)059

STARK COUNTY

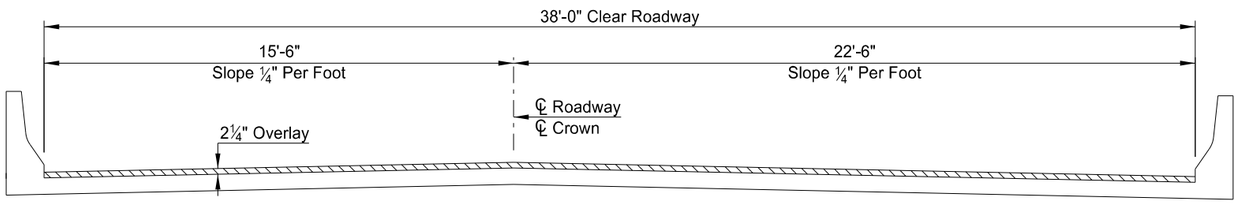
12/01/15 — Terrence R. Udland
DATE — BRIDGE ENGINEER

STATE	PROJECT NUMBER	SECTION NO.	SHEET NO.
ND	SOIB-5-094(087)059	170	9



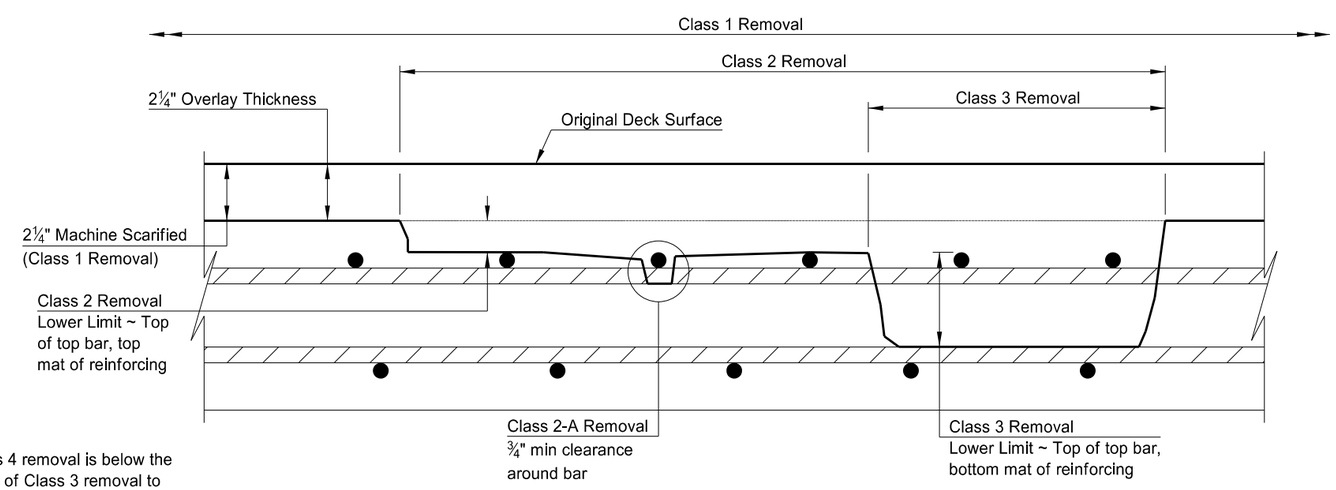
(SHOWING REMOVAL)

TYPICAL DECK SECTION



(SHOWING OVERLAY)

TYPICAL DECK SECTION



Class 4 removal is below the limits of Class 3 removal to full depth of deck.

(OVERLAY CLASSIFICATIONS)

BRIDGE DECK SECTION

NOTES:

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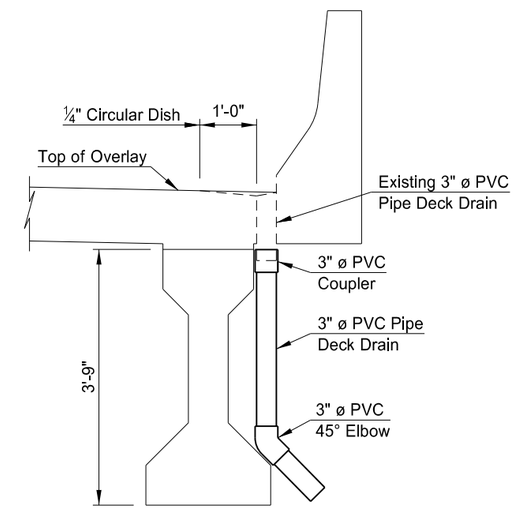

DECK DRAIN DETAIL

QUANTITIES	
CLASS AAE-3 CONCRETE	1.5 CY
OVERLAY CONCRETE	61 CY
CLASS 1 REMOVAL	844 SY
CLASS 2 REMOVAL	169 SY
CLASS 2-A REMOVAL	304 LF
CLASS 3 REMOVAL	42 SY
CLASS 4 REMOVAL	8 SY

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GREEN RIVER

EASTBOUND BRIDGE

DECK OVERLAY DETAILS