DEPARTMENT OF TRANSPORTATION

Planning & Engineering
Office of Project Development
700 E Broadway Avenue
Pierre, South Dakota 57501-2586
O: 605.773.3275 | F: 605.773.2614
dot.sd.gov

March 16, 2026

ADDENDUM NO. 1

RE: Item #1, March 18, 2026 Letting - NH 0281(127)124, NH 0014(245)326, PCN 06PG, 06CT, Beadle, Spink County - Cold Milling, Asphalt Concrete Resurfacing, Pipe Work, Modify Intersection, Lighting, AC Resurfacing of Shoulders

TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

SPECIAL PROVISIONS: **PEN AND INK CHANGE**, strike out the "Special Provision Regarding Right of Entry/Work Limits", dated 2/17/26 from the Index of Special Provisions.

Please remove the "Special Provision Regarding Right of Entry/Work Limits", dated 2/17/26 from the Special Provisions.

SDEBS BID PROPOSAL: *The electronic bid proposal for this contract has been revised to include the changes associated with this addendum. Bidders must log in to the SDEBS to retrieve and incorporate these changes into their bid.*

Bid Items were added:
Bid Item 270E0220 "Blend and Stockpile Granular Material"

Quantities for Bid Items were changed:
110E1010 "Remove Asphalt Concrete Pavement" changed from 15,616.7 to 15,599.9 SqYd
120E0010 "Unclassified Excavation" changed from 5,330 to 9,540 CuYd
120E0100 "Unclassified Excavation, Digouts" changed from 4265 to 1,537 CuYd
120E0600 "Contractor Furnished Borrow Excavation" changed from 4,963 to 7,015 CuYd
120E2000 "Undercutting" changed from 1,566 to 4,400 CuYd
260E1010 "Base Course" changed from 3,212.5 to 11,335.0 Ton
260E1030 "Base Course, Salvaged" changed from 10,950 to 2,805 Ton
260E6000 "Granular Material, Furnish" changed from 9,650.0 to 1,295.0 Ton
320E0032 "PG 58H-34 Asphalt Binder" changed from 5,314.8 to 5,267.1 Ton
320E1200 "Asphalt Concrete Composite" changed from 760.8 to 755.2 Ton
320E1203 "CLASS Q3R HOT MIXED ASPHALT CONCRETE" changed from 106,230.10 to 105,258.0 Ton
320E1800 "Asphalt Concrete Blade Laid" changed from 4,903.2 to 4,869.5 Ton
320E4000 "Hydrated Lime" changed from 1,112.6 to 1,102.5 Ton
330E0010 "MC-70 Asphalt for Prime" changed from 299.3 to 298.3 Ton
330E0100 "SS-1h or CSS-1h Asphalt for Tack" changed from 452.3 to 448.6 Ton
330E0210 "SS-1h or CSS-1h Asphalt for Flush Seal" changed from 171.8 to 170.0 Ton
330E2000 "Sand for Flush Seal" changed from 1,729.3 to 1,704.7 Ton

330E0010 “Cold Milling Asphalt Concrete” changed from 584,628 to 576,864 Ton

Bid Items were removed:
Bid Item 270E0200 “Blend, Haul, and Stockpile Granular Material”

PLANS: Please destroy sheets 1, 3, 11, 12, 23, 26, 30, 31, 32, 33, 50, 51, 52, 64, 65, 89-92 and replace with the enclosed sheets, dated 3/10/26, 3/12/26, 3/15/26 & 3/16/26.

Sheet 1: INDEX OF SHEETS, GROSS LENGTH and NET LENGTH were revised.

Sheet 3: **GENERAL QUANTITIES – 06CT**

Bid Items were added:
Bid Item 260E1030 “Base Course, Salvaged”

Quantities for Bid Items changed:
Bid Item 260E1010 “Base Course” changed from 617.9 to 332.9 Ton

GENERAL QUANTITIES – 06PG

Bid Items were added:
*Bid Item 270E0220 “Blend and Stockpile Granular Material”

Quantities for Bid Items changed:
Bid Item 110E1010 “Remove Asphalt Concrete Pavement” changed from 8,706.0 to 8,689.2 SqYd
Bid Item 120E0010 “Unclassified Excavation” changed from 5,330 to 9,540 CuYd
Bid Item 120E0100 “Unclassified Excavation, Digouts” changed from 4,099 to 1,371 CuYd
Bid Item 120E0600 “Contractor Furnished Borrow Excavation” changed from 4,963 to 7,015 CuYd
Bid Item 120E2000 “Undercutting” changed from 1,566 to 4,400 CuYd
Bid Item 260E1010 “Base Course” changed from 2,594.6 to 11,002.1 Ton
Bid Item 260E1030 “Base Course, Salvaged” changed from 10,950 to 2,520.0 Ton
*Bid Item 260E6000 “Granular Material, Furnish” changed from 9,650.0 to 1,295.0 Ton
Bid Item 320E0032 “PG 58H-34 Asphalt Binder” changed from 4,879.0 to 4,831.3 Ton
Bid Item 320E1200 “Asphalt Concrete Composite” changed from 687.3 to 681.7 Ton
Bid Item 320E1203 “CLASS Q3R HOT MIXED ASPHALT CONCRETE” changed from 97,572.5 to 96,600.4 Ton
Bid Item 320E1800 “Asphalt Concrete Blade Laid” changed from 4,462.4 to 4,428.7 Ton
Bid Item 320E4000 “Hydrated Lime” changed from 1,023.7 to 1,013.6 Ton
Bid Item 330E0010 “MC-70 Asphalt for Prime” changed from 288.6 to 287.6 Ton
Bid Item 330E0100 “SS-1h or CSS-1h Asphalt for Tack” changed from 412.7 to 409.0 Ton
Bid Item 330E0210 “SS-1h or CSS-1h Asphalt for Flush Seal” changed from 155.4 to 153.6 Ton
Bid Item 330E2000 “Sand for Flush Seal” changed from 1,577.6 to 1,553.0 Ton
Bid Item 330E0010 “Cold Milling Asphalt Concrete” changed from 521,088 to 513,324 Ton

Bid Items were removed:
*Bid Item 270E0200 “Blend, Haul, and Stockpile Granular Material”

Sheet 11: TABLE OF EXCAVATION QUANTIITES BY BALANCES & TABLE OF UNLCASSIFIED EXCAVATION were revised.
SHOUDER PREPARATION note was added.

Sheet 12: COLD MILLING ASPHALT CONCRETE & SALVAGE AND STOCKPILE GRANULAR MATERIAL notes were revised.

BLEND, HAUL, AND STOCKPILE GRANULAR MATERIAL note was removed and BLEND AND STOCKPILE GRANULAR MATERIAL note was added.

Sheet 23: Section 25: Mainline Lift stationing was revised.

Sheet 26: Section 25: Shoulder Lift, per side was revised.

Sheet 30: Section 25 stationing was revised. Section 26 was removed.

Sheet 31: TABLE OF MATERIAL QUANTITIES was revised.

Sheet 32: TABLE OF MATERIAL QUANTITIES – SHOULDERS was revised.

Sheet 33: SUMMARY OF ASPHALT CONCRETE was revised.

Sheets 50-52: Reference to Base Course, Salvaged changed to Base Course in the typical sections.

Sheet 64: Stationing for Section 25 was revised.

Sheet 65: Sheet was omitted.

Sheets 89-92: Pavement Marking dimensioning was added.

Sincerely,

Sam Weisgram
Engineering Supervisor

SW/gp

CC: Mark Peterson, Aberdeen Region Engineer
Brad Letcher, Huron Area Engineer

Revised
03/12/2026 9:36:06 AM

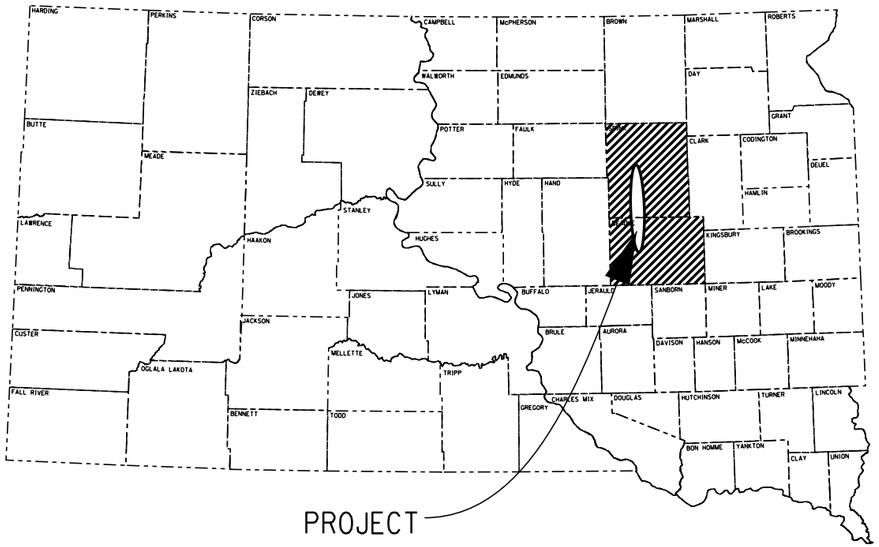
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	1	151

Plotting Date: 03/13/2026

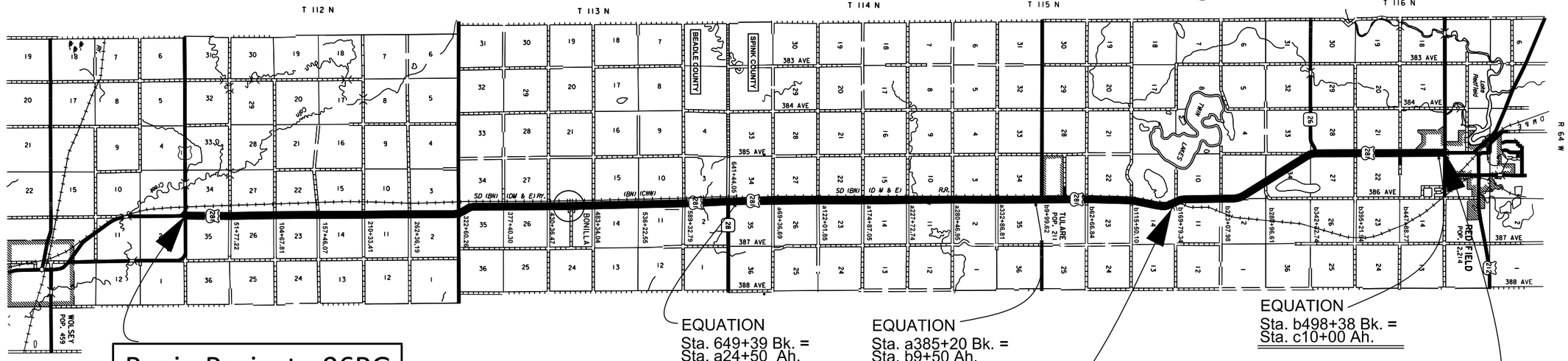
STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT NH 0281(127)124 & NH 0014(245)326
US HIGHWAY 281
BEADLE & SPINK COUNTIES

COLD MILLING, AC RESURFACING, PIPE WORK,
INTERSECTION MODIFICATION, LIGHTING
PCN 06PG & 06CT



INDEX OF SHEETS



DESIGN DESIGNATION

AADT (2022)	1473
AADT (2042)	2072
DHV	429
D	50%
DHV T%	11.9%
AADT T%	26.1%
V - RURAL	65 MPH
V - URBAN	50 MPH

STORM WATER PERMIT

Major Receiving
Body of Water: Unnamed Streams
Area Disturbed: 9 Acres
Total Project Area: 582 Acres
Approx. Begin Lat/Long: 44.457700N 98.498969W

GROSS LENGTH	148,489.1 FEET	28.252 MILES
LENGTH OF EXCEPTIONS	283.6 FEET	0.054 MILES
NET LENGTH	148,205.5 FEET	28.198 MILES

PLOT SCALE - 1:13122.1
PLOT NAME - 1
PLOTTED FROM - TRAB10200
FILE - ...\BEAD06CT\06PG_TITLESHEET.DGN

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

Revised 03/16/2026 9:30:22 AM

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	3	151

GENERAL QUANTITIES – 06CT

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3210	Construction Staking	2.939	Mile
009E3250	Miscellaneous Staking	2.939	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement	6,910.7	SqYd
110E5105	Salvage Luminaire	19	Each
120E0100	Unclassified Excavation, Digouts	166	CuYd
120E6200	Water for Granular Material	55.0	MGal
210E1000	Shoulder Preparation	1.412	Mile
260E1010	Base Course	332.9	Ton
260E1030	Base Course, Salvaged	285.0	Ton
320E0032	PG 58H-34 Asphalt Binder	435.8	Ton
320E1200	Asphalt Concrete Composite	73.5	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	8,657.6	Ton
320E1800	Asphalt Concrete Blade Laid	440.8	Ton
320E4000	Hydrated Lime	88.9	Ton
320E5010	Saw and Seal Shoulder Joint	6,438	Ft
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	5.5	Mile
320E7028	Grind Centerline Rumble Stripe in Asphalt Concrete	2.7	Mile
320E7030	Grind Sinusoidal Centerline Rumble Stripe in Asphalt Concrete	0.1	Mile
330E0010	MC-70 Asphalt for Prime	10.7	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	39.6	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	16.4	Ton
330E1000	Blotting Sand for Prime	10.0	Ton
330E2000	Sand for Flush Seal	151.7	Ton
332E0010	Cold Milling Asphalt Concrete	63,540	SqYd
633E1200	High Build Waterborne Pavement Marking Paint, White	39	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	16	Gal
633E3000	Durable Pavement Marking, 4" White	6,101	Ft
633E3010	Durable Pavement Marking, 8" White	483	Ft
633E5050	Surface Preparation for Pavement Marking	6,584	Ft
633E5100	Grooving for Durable Pavement Marking, 4"	10,450	Ft
634E0010	Flagging	500.0	Hour
634E0020	Pilot Car	125.0	Hour
634E0110	Traffic Control Signs	545.2	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0630	Temporary Pavement Marking	22.3	Mile
635E3700	Roadway Luminaire, LED with Photoelectric Cell	24	Each
998E0100	Railroad Protective Insurance	Lump Sum	LS

GENERAL QUANTITIES – 06PG

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3210	Construction Staking	28.226	Mile
009E3230	Grade Staking	1.013	Mile
009E3250	Miscellaneous Staking	28.226	Mile
009E3280	Slope Staking	0.676	Mile
009E3301	Engineer Directed Surveying/Staking	40.0	Hour
009E4200	Construction Schedule, Category II	Lump Sum	LS
110E0510	Remove Pipe End Section	4	Each
110E0600	Remove Fence	695	Ft
110E1010	Remove Asphalt Concrete Pavement	8,689.2	SqYd
110E1690	Remove Sediment	10.0	CuYd
110E1693	Remove Erosion Control Wattle	400	Ft
110E1700	Remove Silt Fence	1,650	Ft
110E5105	Salvage Luminaire	4	Each
110E7150	Remove Sign for Reset	26	Each
110E7152	Remove Delineator for Reset	6	Each
110E7510	Remove Pipe End Section for Reset	2	Each
120E0010	Unclassified Excavation	9,540	CuYd
120E0100	Unclassified Excavation, Digouts	1,371	CuYd
120E0600	Contractor Furnished Borrow Excavation	7,015	CuYd
120E2000	Undercutting	4,400	CuYd
120E6200	Water for Granular Material	415.0	MGal
210E1000	Shoulder Preparation	48.539	Mile
230E0010	Placing Topsoil	1,980	CuYd
230E0020	Contractor Furnished Topsoil	10	CuYd
260E1010	Base Course	11,002.1	Ton
260E1030	Base Course, Salvaged	2,520.0	Ton
* 260E6000	Granular Material, Furnish	1,295.0	Ton
270E0110	Salvage and Stockpile Granular Material	10,950.0	Ton
* 270E0220	Blend and Stockpile Granular Material	18,880.0	Ton
320E0032	PG 58H-34 Asphalt Binder	4,831.3	Ton
320E1200	Asphalt Concrete Composite	681.7	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	96,600.4	Ton
320E1800	Asphalt Concrete Blade Laid	4,428.7	Ton
320E4000	Hydrated Lime	1,013.6	Ton
320E5010	Saw and Seal Shoulder Joint	1,560	Ft
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	51.9	Mile
320E7028	Grind Centerline Rumble Stripe in Asphalt Concrete	22.6	Mile
320E7030	Grind Sinusoidal Centerline Rumble Stripe in Asphalt Concrete	3.6	Mile
330E0010	MC-70 Asphalt for Prime	287.6	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	409.0	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	153.6	Ton

GENERAL QUANTITIES – 06PG CONTINUED

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
330E1000	Blotting Sand for Prime	10.0	Ton
330E2000	Sand for Flush Seal	1,553.0	Ton
332E0010	Cold Milling Asphalt Concrete	513,324	SqYd
450E0142	24" RCP Class 2, Furnish	12	Ft
450E0150	24" RCP, Install	12	Ft
450E2028	36" RCP Flared End, Furnish	1	Each
450E2029	36" RCP Flared End, Install	1	Each
450E2200	24" RCP Sloped End, Furnish	1	Each
450E2201	24" RCP Sloped End, Install	1	Each
450E2204	30" RCP Sloped End, Furnish	1	Each
450E2205	30" RCP Sloped End, Install	1	Each
450E4600	24" RCP Arch Sloped End, Furnish	1	Each
450E4601	24" RCP Arch Sloped End, Install	1	Each
* 450E8900	Cleanout Pipe Culvert	5	Each
450E9001	Reset Pipe End Section	2	Each
600E0300	Type III Field Laboratory	1	Each
620E0020	Type 2 Right-of-Way Fence	141	Ft
620E0030	Type 3 Right-of-Way Fence	302	Ft
620E0520	Type 2 Temporary Fence	141	Ft
620E0530	Type 3 Temporary Fence	302	Ft
620E1020	2 Post Panel	3	Each
620E1030	3 Post Panel	1	Each
632E2100	Reset Delineator	6	Each
632E3500	Reset Sign	26	Each
633E0030	Cold Applied Plastic Pavement Marking, 24"	705	Ft
633E0035	Cold Applied Plastic Pavement Marking, Area	113	SqFt
633E0040	Cold Applied Plastic Pavement Marking, Arrow	52	Each
633E1200	High Build Waterborne Pavement Marking Paint, White	1,296	Gal
633E1205	High Build Waterborne Pavement Marking Paint, Yellow	282	Gal
633E5015	Grooving for Cold Applied Plastic Pavement Marking, 24"	705	Ft
633E5020	Grooving for Cold Applied Plastic Pavement Marking, Area	113	SqFt
633E5025	Grooving for Cold Applied Plastic Pavement Marking, Arrow	52	Each
633E5100	Grooving for Durable Pavement Marking, 4"	299,710	Ft
634E0010	Flagging	1,250.0	Hour
634E0020	Pilot Car	500.0	Hour
634E0110	Traffic Control Signs	1,363.4	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
634E0630	Temporary Pavement Marking	169.9	Mile
635E3700	Roadway Luminaire, LED with Photoelectric Cell	10	Each
730E0100	Cover Crop Seeding	8.8	Bu
730E0212	Type G Permanent Seed Mixture	229	Lb
731E0100	Fertilizing	17,620	Lb

SHRINKAGE FACTOR: Embankment +40%

TABLE OF EXCAVATION QUANTITIES BY BALANCES

Station to	Station	Excavation (CuYd)	* Undercut (CuYd)	* Contractor Furnished Borrow Exc. (CuYd)
311+26	333+87	570	2280	3700
b337+00	b354+26	530	2120	3315
	Totals:	1100	4400	7015

* The quantities for these items are in the Estimate of Quantities under their respective contract items.

TABLE OF UNCLASSIFIED EXCAVATION

	(CuYd)
Excavation	1100
Undercut	4400
Topsoil	1970
Unclassified Excavation US281/SD26	910
Unclassified Excavation US281/196th Street	1160
Total:	9540

PROCEDURES FOR DETERMINING UNCLASSIFIED EXCAVATION QUANTITY

When plan quantities are used for payment, the Unclassified Excavation quantity will be used for final payment and the plans quantity of Topsoil and salvaged surfacing items listed in the Table of Unclassified Excavation will not be adjusted according to field measurements.

The following paragraphs are general earthwork information and information in regard to computing the Unclassified Excavation quantity when final cross sections are taken in the field:

The Topsoil quantity in the Table of Unclassified Excavation is an estimate. When finaling a project, the total quantity of field measured Topsoil will be used in place of the estimated Topsoil quantity. The quantity of Topsoil from the cuts will be paid for twice as Unclassified Excavation, as it will be in both the Excavation and Topsoil quantities. This will be full compensation for Excavation, which includes necessary undercutting to provide space for placement of topsoil.

The Excavation quantities from individual balances and the Table of Unclassified Excavation have been reduced by the volume of in place surfacing that will be removed and/or salvaged.

The volume of in place Concrete Surfacing and Asphalt Surfacing removed and/or cold milled will NOT be paid for as Unclassified Excavation.

The Excavation quantities from individual balances and the table above have been reduced by the volume of in place concrete pavement and asphalt pavement that will be removed.

GRADING OPERATIONS

Water for Embankment is estimated at the rate of 10 gallons of water per cubic yard of Embankment minus Waste.

The estimated cubic yards of excavation and embankment required to construct outlet ditches, ditch blocks, and approaches are included in the earthwork balance notes on the profile sheets. No separate payment will be made for the Water for Embankment and all costs associated will be incidental to the contract unit price per cubic yard of “Unclassified Excavation”.

SHOULDER PREPARATION

Prior to placement of asphalt concrete on the shoulders, it is anticipated that the Contractor will be required to add approximately 50 tons per mile per shoulder of Base Course, Salvaged to the existing shoulders to meet the cross slope and inslope requirements shown in the typical sections. The Contractor will scarify, rework, shape, and blend the upper 4 inches of existing granular material with the Base Course, Salvaged. The blended granular material will be shaped and compacted with 4% moisture or as directed by the Engineer, to the typical sections, and in accordance with Section 260.3 C.

Included in the Estimate of Quantities are 470 MGals of Water for Granular Material for shaping and recompaction.

All costs associated with blending, scarifying, reworking, shaping, and compacting the existing granular material and Base Course, Salvaged will be incidental to the contract unit price per mile for “Shoulder Preparation”.

GENERAL GEOLOGY

The project alignment traverses glacial terrain typical of eastern South Dakota. Included within this terrain may be areas of loess, shale, sand, gravel, glacial till and boulder till. As is the case with most glacial terrain, the materials throughout the project can vary greatly in a short distance.

CLASSIFICATION OF EXCAVATION

Large glacial boulders may be encountered sporadically within the project limits. Very large boulders could require more effort to excavate. Most of the material encountered should be able to be excavated using conventional methods associated with normal Unclassified Excavation.

COLD MILLING ASPHALT CONCRETE

The Los Angeles Abrasion Loss value on the aggregate used for the in-place asphalt concrete was 24 on US14 and 21 on US281 from US14 to SD28. This value was obtained from testing during construction of the in-place asphalt concrete. The Los Angeles Abrasion Loss value is unknown on US281 from SD28 to Redfield.

Cold milling asphalt concrete will be done according to the typical section(s). In areas where maintenance patches have raised and/or widened the road, additional asphalt concrete will be milled to provide a uniform typical section from centerline to the edge of the finished shoulder. These areas also include farm, residential, field entrances and intersecting roads. Milling will be daylighted to the outside edge of the roadway. Any additional costs associated with this additional cold milling will be incidental to the contract unit price per square yard for “Cold Milling Asphalt Concrete”.

The initial/final lift of asphalt paving will be completed within 14 days after the pavement has been cold milled. The blade laid asphalt will be considered the initial lift of asphalt. If any pavement repairs or digouts are required by the Engineer after that time frame they will be repaired by the Contractor at their own expense.

Cold milling asphalt is estimated to produce 29,319 tons of cold milled asphalt concrete material. An estimated 19,879 tons of cold milled asphalt concrete material will be used on this project as RAP in the Class Q3R Hot Mixed Asphalt Concrete mixture. The Contractor is responsible to assure enough asphalt concrete salvage is available for the Class Q3R Hot Mixed Asphalt Concrete.

The remainder of the salvaged asphalt concrete material, estimated to be 9,440 tons, will be hauled to the Redfield Maintenance Yard and blended and stockpiled according to the Blend and Stockpile Granular Material note.

RAP achieved for project use and/or other uses is based on the dimensions given in the typical section(s). Field conditions will vary from that given in the typical section(s). Therefore, the Contractor may be required to adjust the mill depth, as necessary, to provide the quantity of RAP specified by the plans, if approved by the Engineer.

REMOVE ASPHALT CONCRETE PAVEMENT

The Los Angeles Abrasion Loss value on the aggregate used for the in-place asphalt concrete has been provided in the Cold Milling Asphalt Concrete plan note.

An estimated 15,617 Square Yards (1,302 Cubic Yards) of the in-place asphalt concrete surfacing will be removed from the existing highway according to the in-place surfacing typical sections and wasted as directed by the Engineer.

The quantity of removed asphalt material is estimated from the in-place surfacing typical sections. This estimated quantity is not included in the unclassified excavation quantities and will be paid for at the contract unit price per SqYd for “Remove Asphalt Concrete Pavement”.

SALVAGE AND STOCKPILE GRANULAR MATERIAL

An estimated 10,950 tons (5,793 Cubic Yards) of granular base material will be salvaged from the existing highway according to the in-place surfacing typical sections.

An estimated 2,805 tons of salvaged granular material will be stockpiled at a site furnished by the Contractor and satisfactory to the Engineer for use as Base Course, Salvaged on this project. This salvaged material will be processed to meet the requirements of Section 884.2 D.8 prior to stockpiling.

An estimated 8,145 tons of excess salvaged granular material will be hauled to the Redfield Maintenance Yard and blended and stockpiled according to the Blend and Stockpile Granular Material note.

The Contractor will ensure that no vegetation, topsoil, subgrade, or other foreign material is incorporated into the granular base material.

The quantity of salvaged granular base material may vary from the plans.

The quantity of salvageable material is estimated from the in-place surfacing typical sections.

BLEND AND STOCKPILE GRANULAR MATERIAL

Excess salvaged asphalt concrete material estimated at 9,440 ton (for informational purposes only) will be blended with 8,145 tons of excess salvaged granular material, and 1,295 tons of Granular Material, Furnish and stockpiled at the Redfield DOT Maintenance Shop located on the west side of US281, in the northwest quarter of Section 3, Township 116 North, Range 64 West of the 5th P.M, Spink County. The Contractor will have approval from the Engineer of the stockpile location prior to stockpiling the material within the aforementioned site.

The salvaged asphalt concrete material will be crushed to meet the requirements of Section 884.2 D.7 prior to blending into the stockpile.

A computerized scale, portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale along with a scale operator will be provided by the Contractor at the stockpile site to weigh the salvaged material prior to blending.

Salvaged asphalt concrete material will be blended at a rate of 50% salvaged asphalt mix material and 50% salvaged granular material or granular material, furnished to obtain stockpile material. Material will be uniformly blended to the satisfaction of the Engineer.

No further gradation testing of the blended material will be required.

All other costs for crushing, stockpiling, and blending salvaged asphalt concrete material and salvaged granular material or granular material, furnished will be incidental to the contract unit price per ton for “Blend and Stockpile Granular Material”.

BASE COURSE, SALVAGED

The Base Course, Salvaged will be obtained from the stockpile site(s) provided by the Contractor from the salvaged material produced on this project and may be used without further gradation testing.

All other requirements for Base Course, Salvaged will apply.

GRANULAR MATERIAL, FURNISH

Granular material will be furnished by the Contractor for use in blending with the salvaged asphalt mix material from this project.

The granular material will be Base Course meeting the requirements of Section 882.

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Mineral Aggregate:

Asphalt concrete aggregates will consist of reclaimed asphalt pavement (RAP) and virgin aggregate.

Virgin mineral aggregate for Class Q3R Hot Mixed Asphalt Concrete will conform to the requirements of Class Q3.

The Class Q3R Hot Mixed Asphalt Concrete will include 20 percent RAP in the mixture.

RAP will be obtained from the material produced by cold milling on this project. An estimated 19,879 tons will be required for use as RAP.

Mix Design Criteria:

Gyratory Controlled QC/QA Mix Design requirements for the Class Q3R Hot Mixed Asphalt Concrete will conform to the requirements of Class Q3 except as modified by the following:

Gyratory Compactive Effort:

	$N_{initial}$	N_{design}	$N_{maximum}$
Class Q3R	6	50	75

All remaining requirements for Class Q3 will apply.

RATES OF MATERIALS

The Estimate of Quantities is based on the following quantities of materials per mile.

Section 3: Mainline Lift
US HWY 14
Sta. a173+00 to Sta. b15+90 (Stationing Reversed)

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	1783 Tons
Salvaged Asphalt Concrete: 20%.....	446 Tons
PG 58H-34 Asphalt Binder.....	110 Tons
Total Mix (148 lb/ft^3).....	2339 Tons
Hydrated Lime: 1.0%.....	23 Tons
Total	2362 Tons

The exact proportion of these materials will be determined on construction.

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **6.1** tons applied **41.0** feet wide.
(Rate = 0.06 gal./sq.yd.)

Blade Laid

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **5.6** tons applied **25.0** feet wide.
(Rate = 0.09 gal./sq.yd.)

Flush Seal

SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **5.0** tons applied **40.0** feet wide.
(Rate = 0.05 gal./sq.yd.)

Sand for Flush Seal will be at the rate of **51.6** tons applied **22.0** feet wide.
(Rate = 8 lb./sq.yd.).

Section 10 and 16: Bottom Shoulder Lift, per side
US HWY 281
Sta. 25+33 to Sta. 311+26
Sta. 354+26 to Sta. 641+32
Sta. a24+50.05 to Sta. a380+70
Sta. b28+45 to Sta. b99+92
Sta. b186+20 to Sta. b231+02.43
Sta. b255+76.12 to Sta. b330+29.43
Sta. b355+09.76 to Sta. b442+88
Sta. bd452+88 to Sta. b498+38

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	228 Tons
Salvaged Asphalt Concrete: 20%.....	57 Tons
PG 58H-34 Asphalt Binder.....	14 Tons
Total Mix (148 lb/ft^3).....	299 Tons
Hydrated Lime: 1.0%.....	3 Tons
Total	302 Tons

The exact proportion of these materials will be determined on construction

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **1.1** tons applied **7.5** feet wide.
(Rate = 0.06 gal./sq.yd.)

Asphalt for Prime

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **5.6** tons applied **8.0** feet wide.
(Rate = 0.30 gal./sq.yd.)

Section 10 and 16: Top Shoulder Lift, per side
US HWY 281
Sta. 25+33 to Sta. 311+26
Sta. 354+26 to Sta. 641+32
Sta. a24+50.05 to Sta. a380+70
Sta. b28+45 to Sta. b99+92
Sta. b186+20 to Sta. b231+02.43
Sta. b255+76.12 to Sta. b330+29.43
Sta. b355+09.76 to Sta. b442+88
Sta. bd452+88 to Sta. b498+38

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	290 Tons
Salvaged Asphalt Concrete: 20%.....	73 Tons
PG 58H-34 Asphalt Binder.....	18 Tons
Total Mix (148 lb/ft^3).....	381 Tons
Hydrated Lime: 1.0%.....	4 Tons
Total	385 Tons

The exact proportion of these materials will be determined on construction

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **1.2** tons applied **8.0** feet wide.
(Rate = 0.06 gal./sq.yd.)

Section 10, 16, 17, 25, and 27: Mainline Lift
US HWY 281
Sta. 25+33 to Sta. 311+26
Sta. 354+26 to Sta. 641+32
Sta. a24+50.05 to Sta. a380+70
Sta. b28+45 to Sta. b99+92
Sta. b186+20 to Sta. b231+02.43
Sta. b255+76.12 to Sta. b330+29.43
Sta. b355+09.76 to Sta. b442+88
Sta. b452+88 to Sta. b498+38
Sta. a380+70 to Sta. a385+20
Sta. b9+50 to Sta. b17+63
Sta. b231+02.43 to Sta. b255+76.12
Sta. b330+29.43 to Sta. b337+00 (Reversed)
Sta. b354+26 to Sta. b355+09.76 (Reversed)
Sta. b442+88 to Sta. b452+88

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	1440 Tons
Salvaged Asphalt Concrete: 20%.....	360 Tons
PG 58H-34 Asphalt Binder.....	89 Tons
Total Mix (148 lb/ft^3).....	1889 Tons
Hydrated Lime: 1.0%.....	19 Tons
Total	1908 Tons

The exact proportion of these materials will be determined on construction

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **4.6** tons applied **31.0** feet wide.
(Rate = 0.06 gal./sq.yd.)

Blade Laid

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **5.6** tons applied **25.0** feet wide.
(Rate = 0.09 gal./sq.yd.)

Flush Seal

Section 10 and 16
SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **5.4** tons applied **43.0** feet wide.
(Rate = 0.05 gal./sq.yd.)

Section 17 and 25
SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **5.1** tons applied **41.0** feet wide.
(Rate = 0.05 gal./sq.yd.)

Section 27
SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **6.2** tons applied **49.5** feet wide.
(Rate = 0.05 gal./sq.yd.)

Sand for Flush Seal will be at the rate of **51.6** tons applied **22.0** feet wide.
(Rate = 8 lb./sq.yd.).

RATES OF MATERIALS (CONTINUED)

Section 14: Mainline Lift
US HWY 281
Sta. 333+87 to Sta. 347+76.96 (Reversed)

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	27.29 Tons
Salvaged Asphalt Concrete: 20%.....	6.82 Tons
PG 58H-34 Asphalt Binder.....	1.68 Tons
Total Mix (148 lb/ft^3).....	35.79 Tons
Hydrated Lime: 1.0%.....	0.36 Tons
Total	36.15 Tons

The exact proportion of these materials will be determined on construction.

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **0.09** tons applied **31.0** feet wide.
(Rate = 0.06 gal./sq.yd.)

Blade Laid

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **0.11** tons applied **25.0** feet wide.
(Rate = 0.09 gal./sq.yd.)

Flush Seal

SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **0.10** tons applied **41.0** feet wide.
(Rate = 0.05 gal./sq.yd.)

Sand for Flush Seal will be at the rate of **51.6** tons applied **22.0** feet wide.
(Rate = 8 lb./sq.yd.).

Section 14: Shoulder Lift, per side
US HWY 281
Sta. 333+87 to Sta. 347+76.96 (Reversed)

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	5.15 Tons
Salvaged Asphalt Concrete: 20%.....	1.29 Tons
PG 58H-34 Asphalt Binder.....	0.32 Tons
Total Mix (148 lb/ft^3).....	6.76 Tons
Hydrated Lime: 1.0%.....	0.07 Tons
Total	6.83 Tons

The exact proportion of these materials will be determined on construction.

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **0.03** tons applied **7.0** feet wide.
(Rate = 0.09 gal./sq.yd.)

Section 15: Bottom Shoulder Lift, per side
US HWY 281
Sta. 641+32 to Sta. 649+39

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	4.30 Tons
Salvaged Asphalt Concrete: 20%.....	1.08 Tons
PG 58H-34 Asphalt Binder.....	0.27 Tons
Total Mix (148 lb/ft^3).....	5.65 Tons
Hydrated Lime: 1.0%.....	0.06 Tons
Total	5.71 Tons

The exact proportion of these materials will be determined on construction.

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **0.08** tons applied **28.8** feet wide.
(Rate = 0.06 gal./sq.yd.)

Asphalt for Prime

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **0.11** tons applied **8.0** feet wide.
(Rate = 0.30 gal./sq.yd.)

Section 17 and 25: Shoulder Lift, per side
US HWY 281
Sta. 641+32 to Sta. 649+39
Sta. b9+50 to Sta. b17+63
Sta. b231+02.43 to Sta. b255+76.12
Sta. b330+29.43 to Sta. b337+00 (Reversed)
Sta. b354+26 to Sta. b355+09.76 (Reversed)

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	5.18 Tons
Salvaged Asphalt Concrete: 20%.....	1.29 Tons
PG 58H-34 Asphalt Binder.....	0.32 Tons
Total Mix (148 lb/ft^3).....	6.79 Tons
Hydrated Lime: 1.0%.....	0.07 Tons
Total	6.86 Tons

The exact proportion of these materials will be determined on construction.

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **0.03** tons applied **7.0** feet wide.
(Rate = 0.09 gal./sq.yd.)

Section 22 and 23: Mainline Lift
US HWY 281
Sta. b99+92 to Sta. b115+50
Sta. b115+50 to Sta. b136+92

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	34.56 Tons
Salvaged Asphalt Concrete: 20%.....	8.64 Tons
PG 58H-34 Asphalt Binder.....	2.13 Tons
Total Mix (148 lb/ft^3).....	45.33 Tons
Hydrated Lime: 1.0%.....	0.45 Tons
Total	45.78 Tons

The exact proportion of these materials will be determined on construction.

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **0.12** tons applied **41.0** feet wide.
(Rate = 0.06 gal./sq.yd.)

Blade Laid

SS-1h or CCS-1h Emulsified Asphalt for Tack will be at the rate of **0.11** tons applied **25.0** feet wide.
(Rate = 0.09 gal./sq.yd.)

Flush Seal

SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **0.09** tons applied **40.0** feet wide.
(Rate = 0.05 gal./sq.yd.)

Sand for Flush Seal will be at the rate of **51.6** tons applied **22.0** feet wide.
(Rate = 8 lb./sq.yd.).

TABLE OF PROJECT STATIONING

SECTION	STATION	TO	STATION	LENGTH (Ft)	SECTION LENGTH (Ft)	SECTION LENGTH (Miles)
1 US 14	d13+80	to	d23+50	970.0	1146.00	0.217
	d70+24	to	d72+00	176.0		
2 US 14	d23+50	to	d28+27	477.0	579.00	0.110
	d69+22	to	d70+24	102.0		
3 US 14	e92+66.51	to	e173+00	8033.5	15515.51	2.939
	f69+14.85	to	f92+56.72	2341.9		
	f15+90	to	f67+30.15	5140.2		
4 US 14	f5+72.2	to	f15+90	1017.8	1702.49	0.322
	f0+00	to	f5+72.2	572.2		
	g6+74	to	g7+04.7	30.7		
	g9+06.1	to	g9+87.89	81.8		
5 US 14	g7+04.7	to	g9+06.1	201.4	201.40	0.038
6 US 14	g9+87.89	to	g14+77	489.1	489.11	0.093
7	0+75	to	5+80	505.0	505.00	0.096
8	5+80	to	21+84	1604.0	1604.00	0.304
9	21+84	to	25+33	349.0	349.00	0.066
10	25+33	to	311+26	28593.0	57299.00	10.852
	354+26	to	641+32	28706.0		
11	311+26	to	314+93.63	367.6	1016.67	0.193
	b347+76.96	to	b354+26	649.0		
12	314+93.63	to	329+71.43	1477.8	2723.49	0.516
	332+18.27	to	333+87	168.7		
	b337+00	to	b347+76.96	1077.0		
13	329+71.43	to	332+18.27	246.8	246.84	0.047
14	333+87	to	347+76.96	1390.0	1389.96	0.263

TABLE OF PROJECT STATIONING

SECTION	STATION	TO	STATION	LENGTH (Ft)	SECTION LENGTH (Ft)	SECTION LENGTH (Miles)
15	641+32	to	649+39	807.0	807.00	0.153
16	a24+50.05	to	a380+70	35620.0	68030.93	12.885
	b28+45	to	b99+92	7147.0		
	b186+20	to	b231+02.43	4482.4		
	b255+76.12	to	b330+29.43	7453.3		
	b355+09.76	to	b442+88	8778.2		
	b452+88	to	b498+38	4550.0		
17	a380+70	to	a385+20	450.0	1263.00	0.239
	b9+50	to	b17+63	813.0		
18	b17+63	to	b20+21	258.0	258.00	0.049
19	b20+21	to	b21+83	162.0	162.00	0.031
20	b21+83	to	b24+25	242.0	242.00	0.046
21	b24+25	to	b28+45	420.0	420.00	0.080
22	b99+92	to	b115+50	1558.0	1558.00	0.295
23	b115+50	to	b136+92	2070.0	2070.00	0.392
24	b136+92	to	b161+14.28	2422.3	4147.22	0.785
	b168+95.06	to	b186+20	1724.9		
25	b231+02.43	to	b255+76.12	2473.7	3228.05	0.611
	b330+29.43	to	b337+00	670.6		
	b354+26	to	b355+09.76	83.8		
27	b442+88	to	b452+88	1000.0	1000.00	0.189
28	c10+00	to	c12+00	200.0	200.00	0.038
				TOTAL:	168153.67	31.847

TABLE OF MATERIAL QUANTITIES

	UNCLASSIFIED EXCAVATION, DIGOUTS	BASE COURSE OR BASE COURSE, SALVAGED	COLD MILLING ASPHALT CONCRETE	COLD MILLED MATERIAL PRODUCED (NABI.)	REMOVE ASPHALT CONCRETE PAVEMENT	ASPHALT CONCRETE COMPOSITE	ASPHALT CONCRETE BLADE LAID	PG 58H-34 ASPHALT BINDER	HYDRATED LIME	VIRG. AGGR. (NABI.)	CLASS Q3R HOT MIXED ASPHALT CONCRETE	PG 58H-34 ASPHALT BINDER	HYDRATED LIME	SALVAGED ASPHALT CONCRETE (RAP) (NABI.)	VIRG. AGGR. (NABI.)	CLASS Q3R HOT MIXED ASPHALT CONCRETE	PG 58H-34 ASPHALT BINDER	HYDRATED LIME	SALVAGED ASPHALT CONCRETE (RAP) (NABI.)	VIRG. AGGR. (NABI.)	SS-1h/ CSS-1h ASPH. FOR TACK	SS-1h/ CSS-1h ASPH. FOR TACK BLADE LAID	SS-1h/ CSS-1h ASPH. FOR FLUSH SEAL	SAND FOR FLUSH SEAL	MC-70 ASPHALT FOR PRIME
							<----------Blade Laid---------->				<----------Spot Leveling---------->					<----------Main Line---------->									
SECTION	CuYd	Ton	SqYd	Ton	SqYd	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton
3 - 06CT	147	293.9	61,200.1	3,084.5	220.4	73.5	440.8	32.6	4.4	403.8	293.9	13.8	2.9	55.4	221.7	6,940.8	323.2	67.6	1,310.6	5,239.4	18.0	16.5	14.7	151.7	-
10	543	1,085.2	181,446.8	9,144.9	813.9	271.3	1,627.8	120.5	16.3	1,491.1	1,085.2	51.0	10.9	204.7	818.7	20,705.8	965.8	206.2	3,906.8	15,627.0	50.3	60.9	58.2	560.3	-
11	10	19.3	3,219.5	162.3	14.4	4.8	43.3	3.2	0.4	39.7	19.3	0.9	0.2	3.6	14.6	681.2	31.7	6.7	128.5	514.2	1.6	1.1	1.4	14.9	-
12	26	51.6	10,894.0	549.1	38.7	12.9	116.1	8.6	1.2	106.3	51.6	2.4	0.5	9.7	38.9	1,837.3	85.5	18.2	346.7	1,386.8	4.4	4.2	3.7	39.9	-
13	2	4.7	987.4	49.8	3.5	1.2	10.5	0.8	0.1	9.6	4.7	0.2	0.0	0.9	3.5	166.5	7.8	1.7	31.4	125.7	0.4	0.4	0.3	3.6	-
14	13	26.3	6,293.4	317.2	19.7	6.6	39.5	2.9	0.4	36.2	26.3	1.2	0.3	5.0	19.8	502.5	23.4	5.0	94.8	379.3	1.2	1.5	1.3	13.6	-
16	644	1,288.5	215,431.3	10,857.7	966.3	322.1	1,932.7	143.0	19.3	1,770.4	1,288.5	60.6	12.9	243.0	972.0	24,583.9	1,146.7	244.8	4,638.5	18,553.9	59.8	72.3	69.1	665.2	-
17	12	23.9	5,683.5	286.4	17.9	6.0	35.9	2.7	0.4	32.9	23.9	1.1	0.2	4.5	18.0	456.4	21.3	4.5	86.1	344.5	1.1	1.3	1.2	12.3	-
22	15	29.5	6,232.0	314.1	22.1	7.4	44.3	3.3	0.4	40.5	29.5	1.4	0.3	5.6	22.3	713.3	33.2	7.0	134.6	538.4	1.8	1.7	1.5	15.2	-
23	20	39.2	8,280.0	417.3	29.4	9.8	58.8	4.4	0.6	53.9	39.2	1.8	0.4	7.4	29.6	947.6	44.1	9.3	178.8	715.4	2.4	2.2	2.0	20.2	-
24	39	78.5	16,588.9	836.1	58.9	19.6	117.8	8.7	1.2	107.9	78.5	3.7	0.8	14.8	59.2	1,810.3	84.2	17.8	341.7	1,366.5	4.3	4.4	3.5	40.6	-
25	31	61.1	14,526.2	732.1	45.9	15.3	91.7	6.8	0.9	84.0	61.1	2.9	0.6	11.5	46.1	1,166.5	54.4	11.6	220.1	880.4	2.8	3.4	3.1	31.6	-
27	9	18.9	4,277.8	215.6	14.2	4.7	28.4	2.1	0.3	26.0	18.9	0.9	0.2	3.6	14.3	361.4	16.9	3.6	68.2	272.7	0.9	1.1	1.2	9.8	-
Table of Additional Quantities - 06CT	-	285.0	2,339.9	123.6	-	-	-	-	-	-	-	-	-	-	-	188.3	8.8	1.9	35.5	142.1	2.1	-	-	-	-
Table of Additional Quantities - 06PG	-	2,520.0	8,234.3	448.2	-	-	-	-	-	-	-	-	-	-	-	1,201.0	55.9	12.0	226.6	906.6	6.5	-	-	-	-
Transitions and Misc Sections - 06PG	-	-	30,552.3	1,673.7	3,800.0	-	281.9	20.9	2.8	258.2	-	-	-	-	-	3,360.8	156.4	33.6	634.2	2,536.6	7.8	10.7	6.8	125.8	6.6
Shoulders - 06CT	19	39.0	-	-	6,690.3	-	-	-	-	-	-	-	-	-	-	1,234.6	57.4	12.1	233.1	931.8	2.2	-	1.7	-	10.7
Shoulders - 06PG	7	8,275.4	676.7	106.6	2,844.1	-	-	-	-	-	-	-	-	-	-	35,379.2	1,648.0	360.0	6,693.0	26,678.2	91.5	-	0.3	-	281.0
Spot Leveling	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.8	-	-	-	-
Sub Total 06CT	166.0	617.9	63,540.0	3,208.1	6,910.7	73.5	440.8	32.6	4.4	403.8	293.9	13.8	2.9	55.4	221.7	8,363.7	389.4	81.6	1,579.2	6,313.3	23.1	16.5	16.4	151.7	10.7
Sub Total 06PG	1,371.0	13,522.1	513,324.1	26,111.0	8,689.2	681.7	4,428.7	327.8	44.3	4,056.6	2,726.7	128.2	27.3	514.3	2,057.0	93,873.7	4,375.3	942.0	17,729.9	70,826.2	243.9	165.1	153.6	1,553.0	287.6
Totals	1,537.0	14,140.0	576,864.1	29,319.1	15,599.9	755.2	4,869.5	360.4	48.7	4,460.3	3,020.6	142.0	30.2	569.7	2,278.7	102,237.4	4,764.7	1,023.6	19,309.2	77,139.5	267.0	181.5	169.9	1,704.7	298.3

NABI - Item is not a bid item. Quantity provided for information only.
Transitions and Misc Sections Includes - 8, 9, 15, 15 mainline, 18-21

TABLE OF MATERIAL QUANTITIES - SHOULDERS

	UNCLASSIFIED EXCAVATION, DIGOUTS	BASE COURSE OR BASE COURSE, SALVAGED	COLD MILLING ASPHALT CONCRETE	COLD MILLED MATERIAL PRODUCED (NABI.)	REMOVE ASPHALT CONCRETE PAVEMENT	CLASS Q3R HOT MIXED ASPHALT CONCRETE	PG 58H-34 ASPHALT BINDER	HYDRATED LIME	SALVAGED ASPHALT CONCRETE (RAP) (NABI.)	VIRG. AGGR. (NABI.)	SS-1h/ CSS-1h ASPH. FOR TACK 0.06 gal./sq.yd.	SS-1h/ CSS-1h ASPH. FOR TACK 0.09 gal./sq.yd.	MC-70 ASPHALT FOR PRIME	SS-1h/ CSS-1h ASPH. FOR FLUSH SEAL
						<----------Shoulders---------->								
SECTION	CuYd	Ton	SqYd	Ton	SqYd	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton	Ton
1	5	10.9			1,782.7	300.0	14.0	3.0	56.6	226.4	0.6		2.7	0.4
2	3	5.5			450.3	151.6	7.1	1.5	28.6	114.4	0.3		1.4	0.2
4	8	16.1			3,310.4	557.1	25.9	5.4	105.2	420.5	1.0		4.7	0.8
5	1	1.9			195.8	65.9	3.1	0.6	12.4	49.7	0.1		0.6	0.1
6	2	4.6			951.0	160.0	7.4	1.6	30.2	120.8	0.3		1.4	0.2
7 Left	3	5.5			563.9	94.9	4.4	0.9	17.9	71.6	0.2		0.8	0.1
7 Right	3	5.5	676.7	106.6		94.9	4.4	0.9	17.9	71.6	0.2			0.1
10 Bottom Shoulder						6,554.7	303.9	65.1	1,237.1	4,948.6	12.2		120.7	
10 Top Shoulder						8,356.1	390.7	86.8	1,584.4	6,294.2	13.0			
11 Bottom Widening Lift		1,926.8				336.0	15.7	3.2	63.4	253.6	0.8		3.9	
11 Second Widening Lift						314.6	14.6	3.0	59.4	237.4	0.8			
12 Bottom Widening Lift		5,814.7			1,815.7	598.0	27.8	6.0	112.8	451.6	1.6		7.9	
13 Bottom Widening Lift		521.0			164.6	54.2	2.5	0.6	10.2	41.0	0.1		0.7	
14						189.8	8.9	2.0	35.9	143.2		0.8		
15 Bottom Shoulder Lift						92.2	4.4	1.0	17.4	69.4	0.4		1.7	
16 Bottom Shoulder						7,782.3	360.8	77.3	1,468.8	5,875.4	28.9		143.3	
16 Top Shoulder						9,921.2	463.8	103.1	1,881.2	7,473.1	28.9			
17						173.3	8.1	1.8	32.6	130.8		0.8		
25						442.9	20.7	4.5	83.3	334.4		1.9		
27 Bottom Right Shoulder						89.9	4.2	0.9	17.0	67.8	0.2		1.5	
27 Top Right Shoulder						118.3	5.5	1.2	22.3	89.3	0.3			
27 Top Left Shoulder						115.3	5.4	1.1	21.8	87.0		0.5		
28 Shoulder Lift	1	1.9			300.0	50.6	2.4	0.6	9.5	38.2			0.4	0.1
Total - 06CT	19	39.0	-	-	6,690.3	1,234.6	57.4	12.1	233.1	931.8	2.2	-	10.7	1.7
Total - 06PG	7	8,275.4	676.7	106.6	2,844.1	35,379.2	1,648.0	360.0	6,693.0	26,678.2	87.6	4.0	281.0	0.3
Totals	26	8,314.4	676.7	106.6	9,534.4	36,613.8	1,705.4	372.1	6,926.1	27,610.0	89.7	4.0	291.7	2.1

NABI - Item is not a bid item. Quantity provided for information only.

SUMMARY OF ASPHALT CONCRETE

LOCATIONS:	Class Q3R Hot Mixed Asphalt Concrete with Specified Density Compaction TONS	Class Q3R Hot Mixed Asphalt Concrete without Specified Density Compaction TONS	Asphalt Concrete Blade Laid Project Wide TONS
Section 3 - 24' mainline - 5' shoulder 1' sluff	4,271.3	2,669.5	440.8
Section 10 - 24'-36' mainline - 5.5' shoulder 2' sluff	12,120.5	8,585.3	1,627.8
Section 11 - 36' mainline	681.2	-	43.3
Section 12 - 36' mainline	1,837.3	-	116.1
Section 13 - 36' mainline	166.5	-	10.5
Section 14 - 24' mainline - 5.5' shoulder 1' sluff	301.5	201.0	39.5
Section 16 - 24' mainline - 5.5' shoulder 2' sluff	14,390.6	10,193.3	1,932.7
Section 17 - 24' mainline - 5.5' shoulder 1' sluff	273.8	182.6	35.9
Section 22 - 24' mainline - 5.5' shoulder 2.5' sluff	456.5	256.8	44.3
Section 23 - 24' mainline - 5.5' shoulder 2.5' sluff	606.5	341.1	58.8
Section 24 - 24' mainline - 5.5' shoulder 1' sluff	1,174.2	636.1	117.8
Section 25 - 24' mainline - 5.5' shoulder 1' sluff	699.9	466.6	91.7
Section 27 - 24' mainline - 9' shoulder 1.5' sluff	181.6	179.8	28.4
Transitions and Misc Sections	3,719.1	-	281.9
Spot Leveling, Shoulder, Strengthening, and Repair of Existing Surface	1,660.0	37,616.1	-
Table of Additional Quantities	242.8	1,146.5	-
TOTAL	**42,783.3**	**62,474.7**	**4,869.5**

Total Class Q3R Hot Mixed Asphalt Concrete:	105258.0	*Tons*
Total Asphalt Concrete Blade Laid:	4869.5	*Tons*

Mainline = With specified density
Shoulder and Sluff = Without specified density

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	50	151

Plotting Date: 03/09/2026

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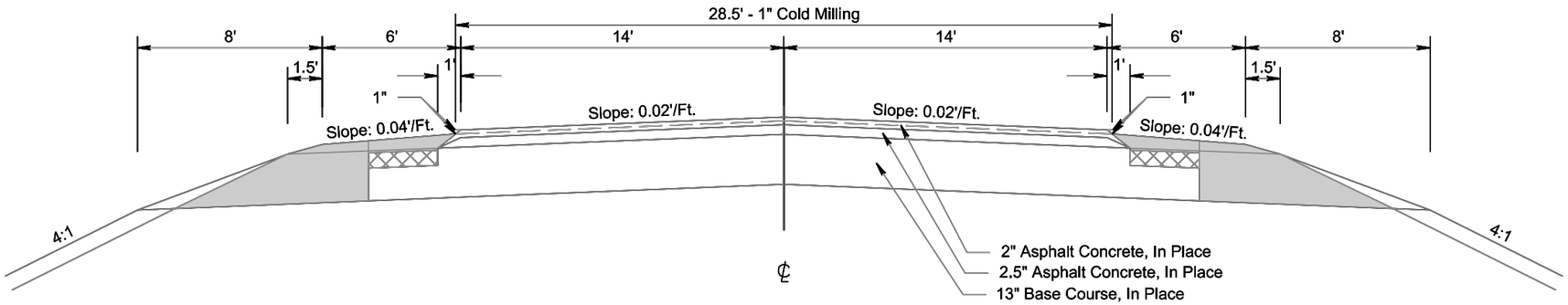
03/10/2026 9:11:01 AM

4" Shoulder Preparation

Unclassified Excavation

Section 11
US HWY 281
Sta. 311+26 to Sta. 314+93.63
Sta. b347+76.96 to Sta. b354+26
In Place & Cold Milling Section



* Transition Center Turnlane (Rt.)
\# Transition Right & Center Turnlane (Lt.)

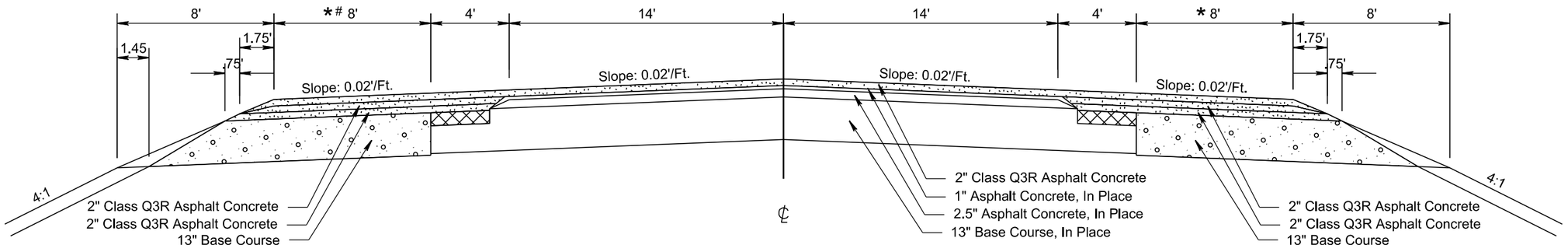
* b341+20.00 to b350+06.00 - 8' to 8' (Rt)
* b350+06.00 to b354+26.00 - 8' to 2' (Rt)

\# b341+20.00 to b348+70.00 - 8' to 8' (Lt)
\# b348+70.00 to b350+06.00 - 18' to 18' (Lt)
\# b350+06.00 to b353+06.00 - 18' to 13.72' (Lt)
\# b353+06.00 to b354+26.00 - 13.72' to 2' (Lt)

* Transition Center Turnlane (Lt & Rt)

311+26.00 to 315+46.00 - 2' to 8'

Section 11
US HWY 281
Sta. 311+26 to Sta. 314+93.63
Sta. b347+76.96 to Sta. b354+26
Resurfacing & Widening Section



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5894

PLOTTED FROM - TRAB10200

PLOT NAME - 11

FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	51	151

Plotting Date: 03/09/2026

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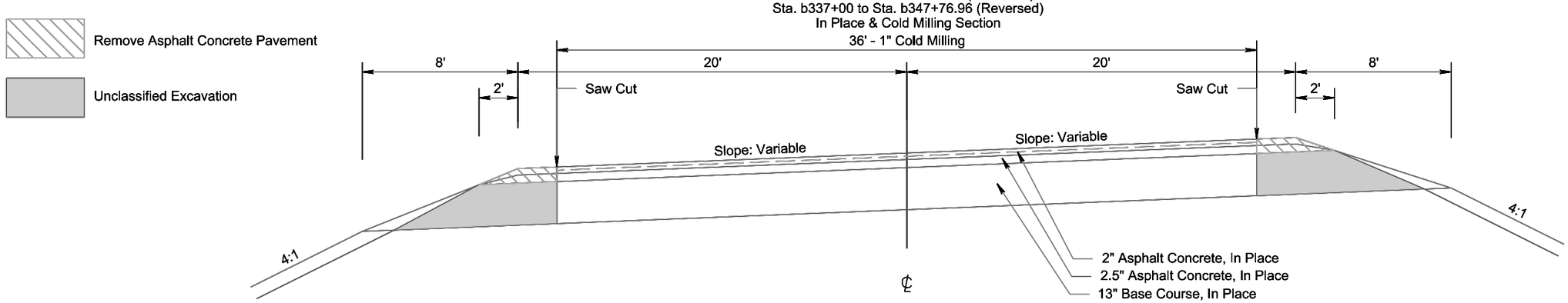
03/10/2026 9:11:12 AM

Section 12
US HWY 281
Sta. 314+93.63 to Sta. 329+71.43
Sta.332+18.27 to Sta. 333+87 (Reversed)
Sta. b337+00 to Sta. b347+76.96 (Reversed)
In Place & Cold Milling Section



* Transition Center Turnlane (Rt.)
\# Transition Right & Center Turnlane (Lt.)

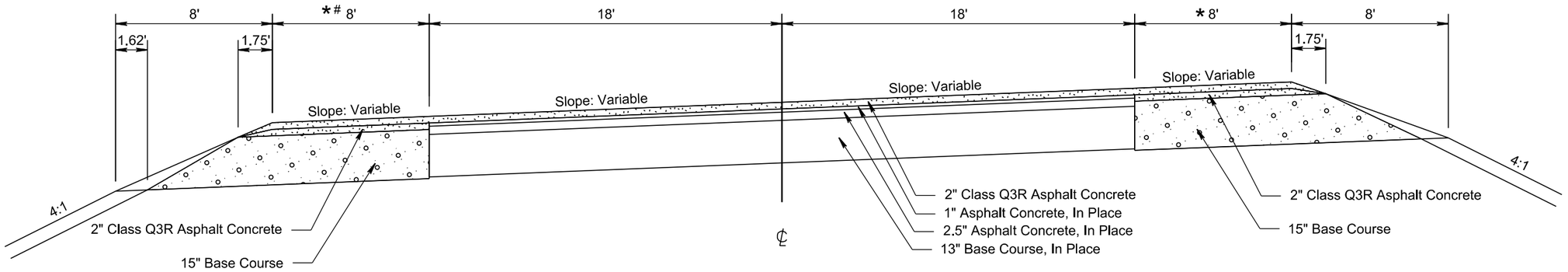
* b337+00.00 to b341+20.00 - 2' to 8' (Rt)
* b341+20.00 to b350+06.00 - 8' to 8' (Rt)

\# b337+00.00 to b341+20.00 - 2' to 8' (Lt)
\# b341+20.00 to b348+70.00 - 8' to 8' (Lt)

* Transition Center Turnlane (Lt & Rt)

311+26.00 to 315+46.00 - 2' to 8'
315+46.00 to 329+67.00 - 8' to 8'
329+67.00 to 333+87.00 - 8' to 2'

Section 12
US HWY 281
Sta. 314+93.63 to Sta. 329+71.43
Sta. 332+18.27 to Sta. 333+87 (Reversed)
Sta. b337+00 to Sta. b347+76.96 (Reversed)
Resurfacing & Widening Section



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PLOT NAME - 12
FILE - ...\06PG_TYPSECT_TJ03_WORKING.DGN

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	52	151

Plotting Date: 03/09/2026

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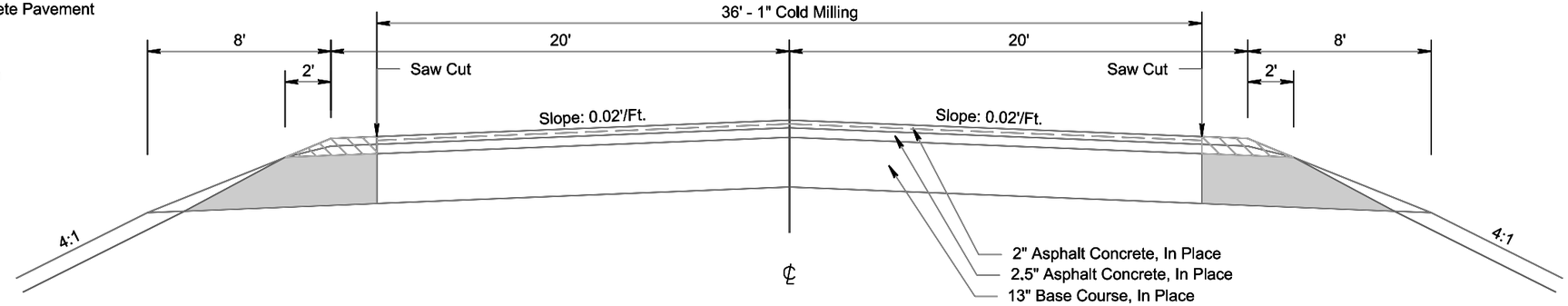
03/10/2026 9:11:17 AM

Remove Asphalt Concrete Pavement

Unclassified Excavation

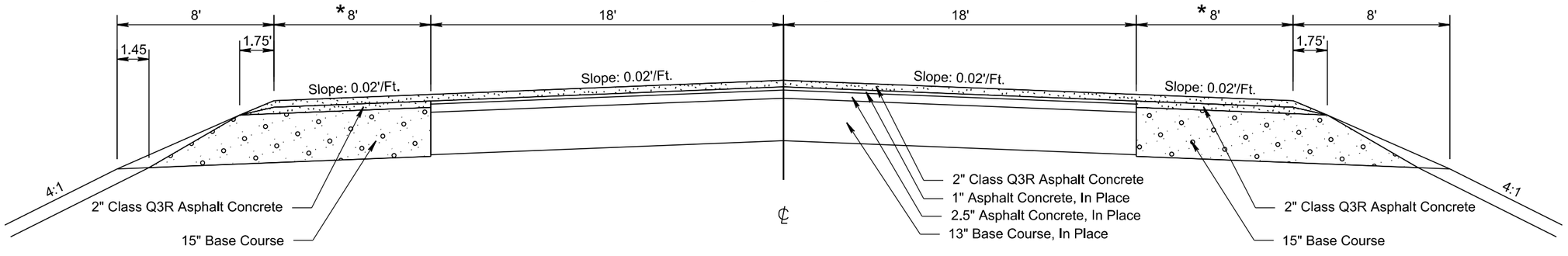
Section 13
US HWY 281
Sta. 329+71.43 to Sta. 332+18.27
In Place & Cold Milling Section



* Transition Center Turnlane (Lt & Rt)

329+67.00 to 333+87.00 - 8' to 2'

Section 13
US HWY 281
Sta. 329+71.43 to Sta. 332+18.27
Resurfacing & Widening Section



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5894

PLOT NAME - 13

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PLOTTED FROM - TRAB10200

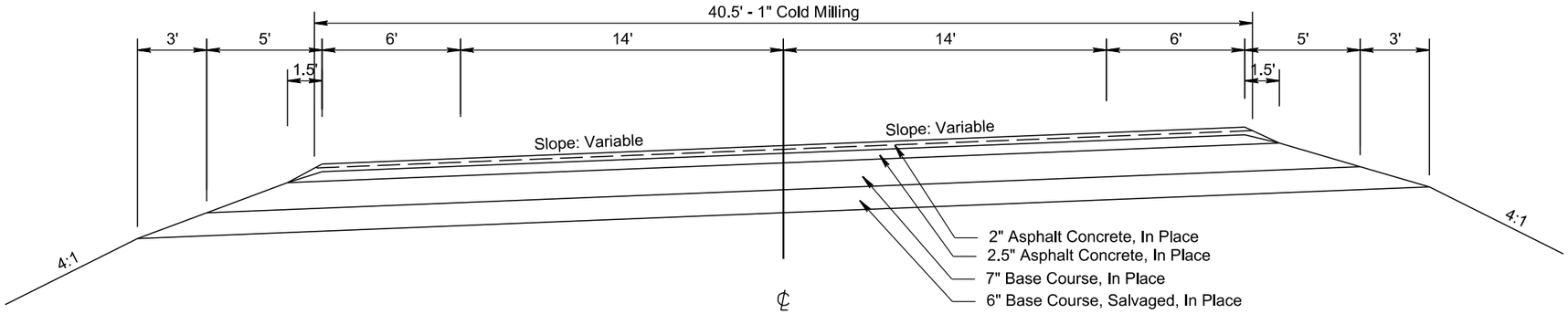
TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	64	151

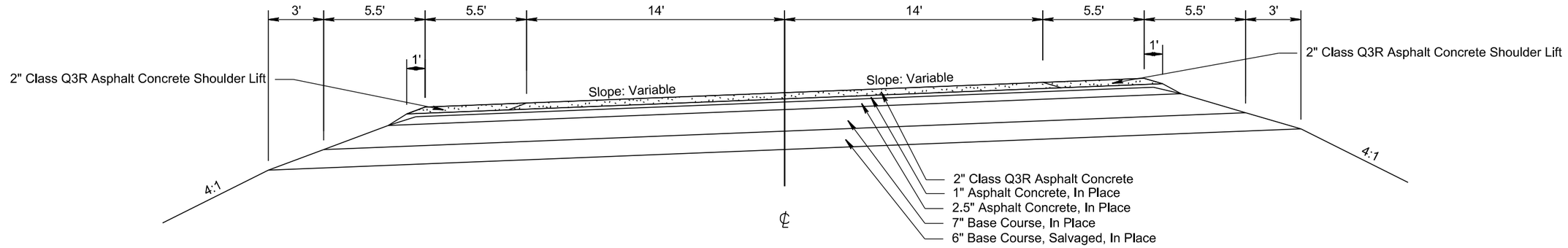
Plotting Date: 03/13/2026

Revised
03/10/2026 9:10:53 AM

Section 25
US HWY 281
Sta. b231+02.43 to Sta. b255+76.12
Sta. b330+29.43 to Sta. b337+00 (Reversed)
Sta. b354+26 to Sta. b355+09.76 (Reversed)
In Place & Cold Milling Section



Section 25
US HWY 281
Sta. b231+02.43 to Sta. b255+76.12
Sta. b330+29.43 to Sta. b337+00 (Reversed)
Sta. b354+26 to Sta. b355+09.76 (Reversed)
Resurfacing Section



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03/15/2026 8:12:54 PM

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	65	151

PLOT SCALE - 1:6.00001

5628

PLOT NAME - 25

FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

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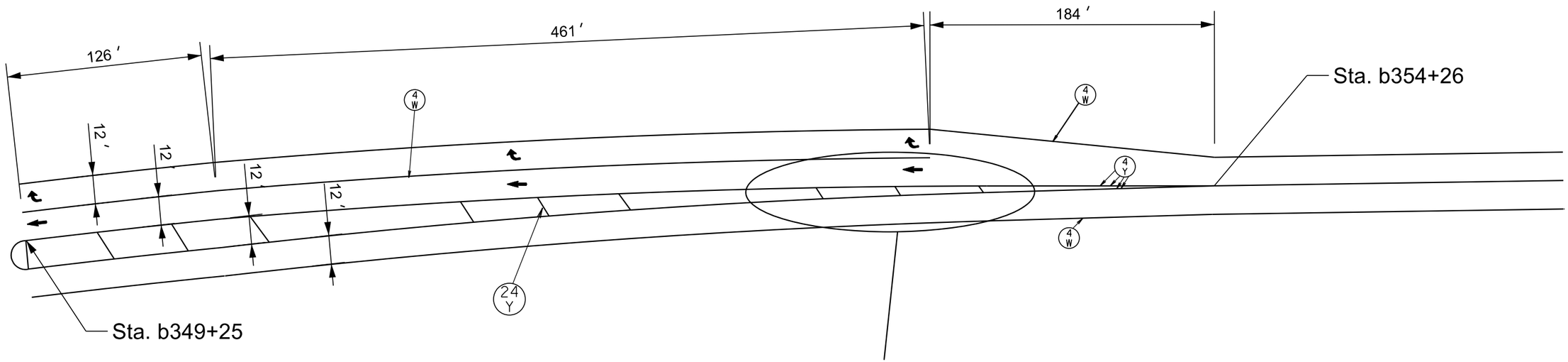
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	89	151
Plotting Date: 03/13/2026			

Turn Lane Pavement Marking Detail
US 281 & SD 26 Intersection



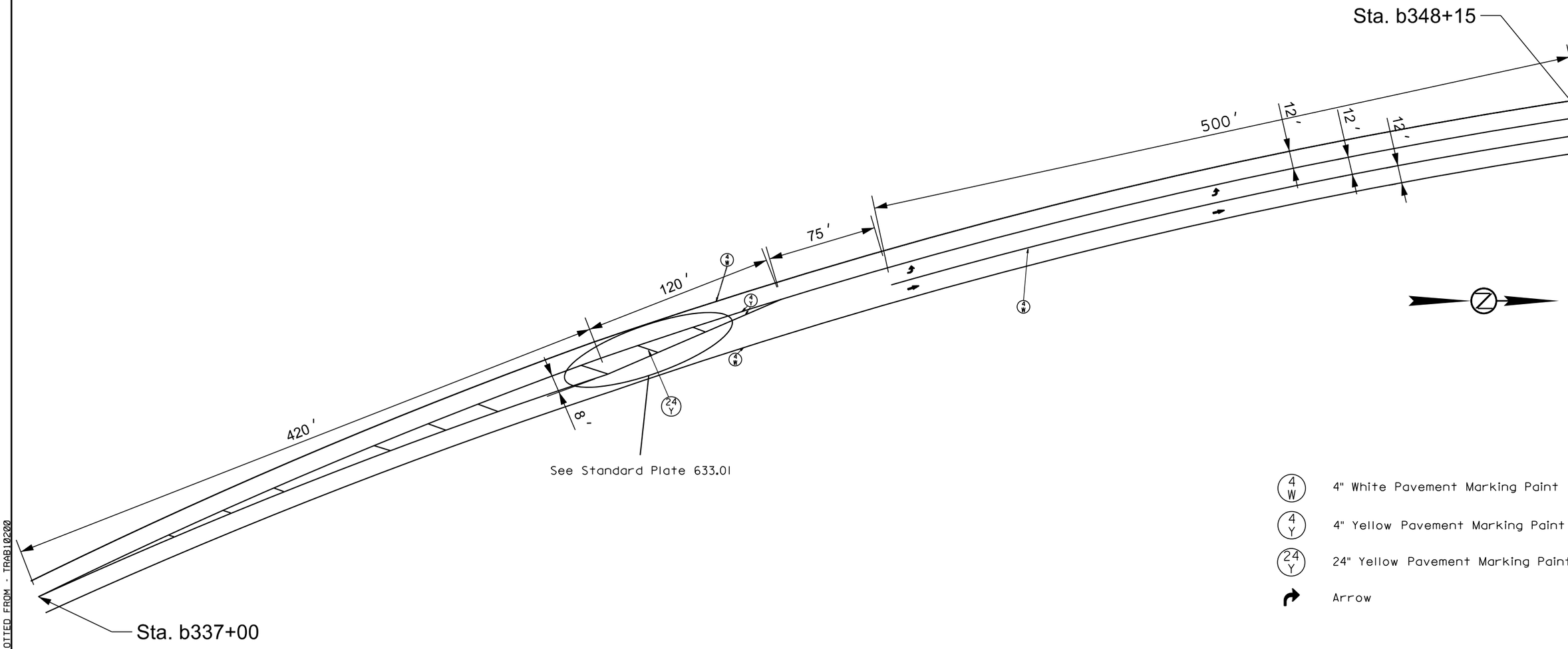
See Standard Plate 633.01

4 W	4" White Pavement Marking Paint
4 Y	4" Yellow Pavement Marking Paint
24 Y	24" Yellow Pavement Marking Paint
	Arrow

Revised
03/10/2026 9:10:53 AM

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	90	151
Plotting Date: 03/13/2026			

Turn Lane Pavement Marking Detail
US 281 & SD 26 Intersection



4 W — 4" White Pavement Marking Paint

4 Y — 4" Yellow Pavement Marking Paint

24 Y — 24" Yellow Pavement Marking Paint

Arrow

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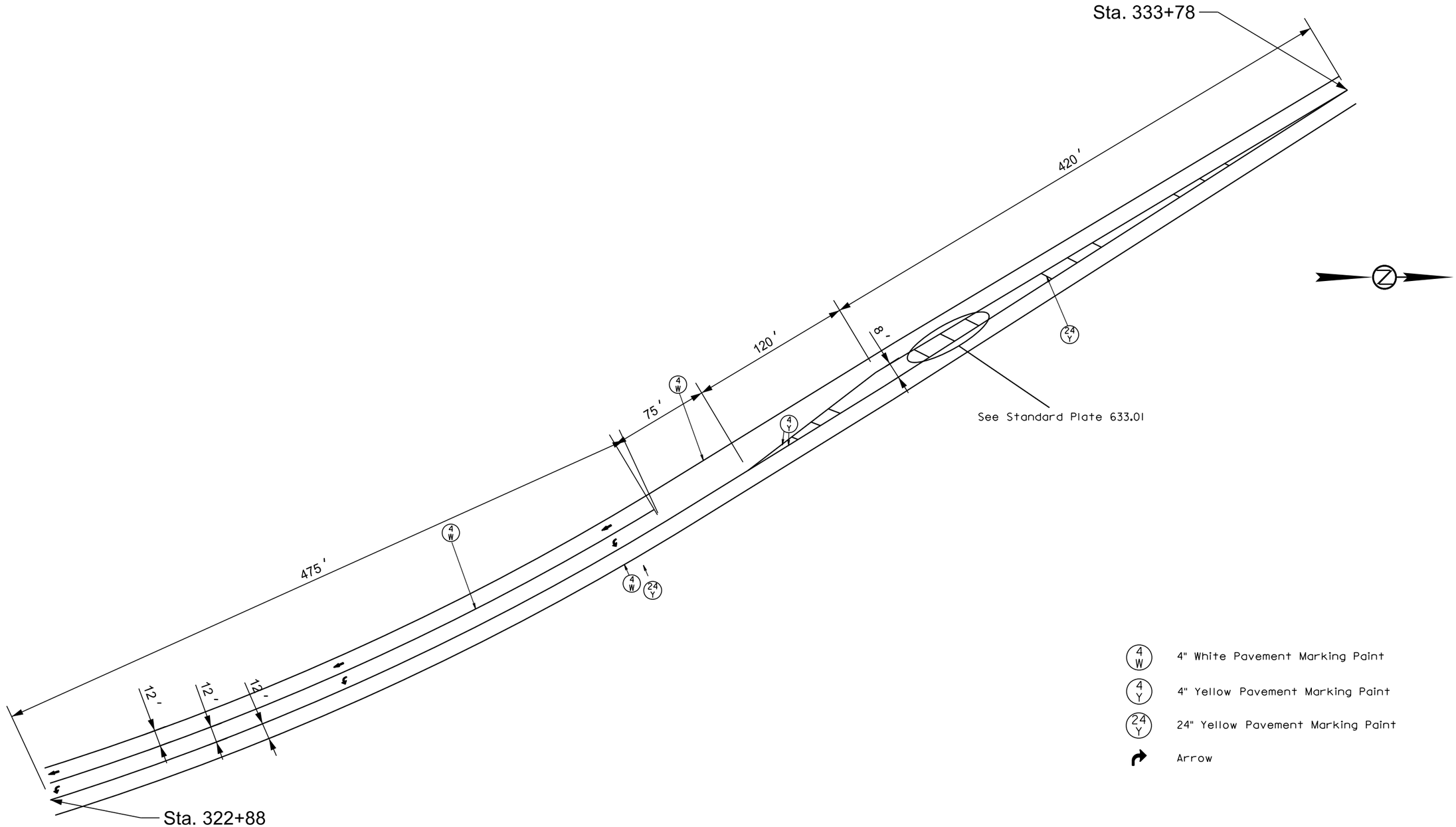
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	91	151
Plotting Date: 03/13/2026			

Turn Lane Pavement Marking Detail
US 281 & 196th St. Intersection



4 W	4" White Pavement Marking Paint
4 Y	4" Yellow Pavement Marking Paint
24 Y	24" Yellow Pavement Marking Paint
	Arrow

PLOT SCALE - 1:75.2471

PLOT NAME - 2

FILE - ...\06CT PAVEMENT MARKING.DGN

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Revised
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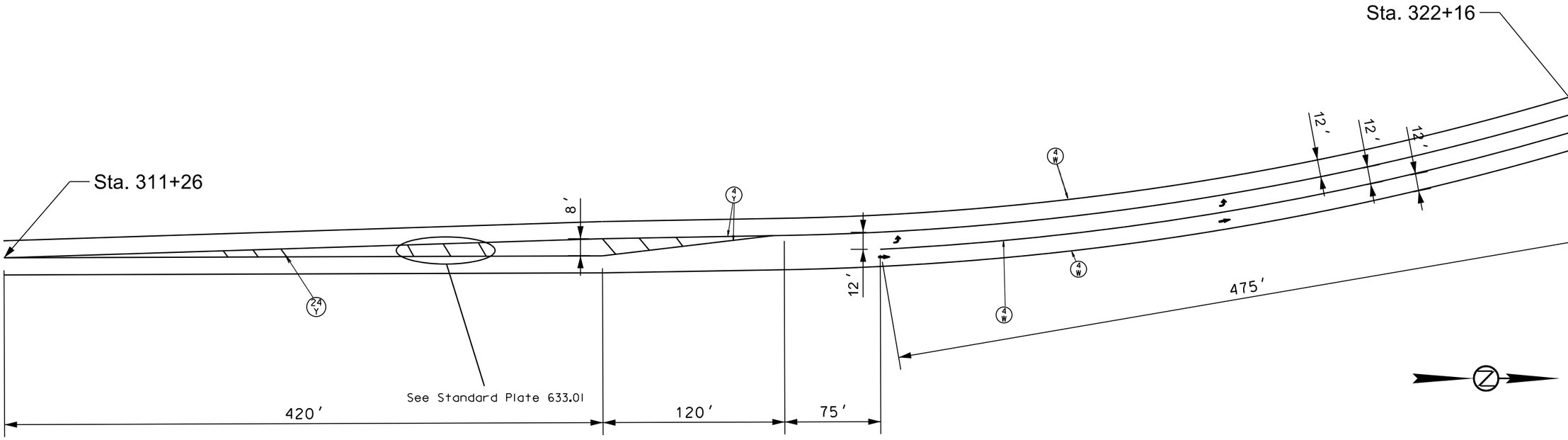
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	92	151
Plotting Date: 03/13/2026			

Turn Lane Pavement Marking Detail
US 281 & 196th St. Intersection



4 W — 4" White Pavement Marking Paint

4 Y — 4" Yellow Pavement Marking Paint

24 Y — 24" Yellow Pavement Marking Paint

Arrow