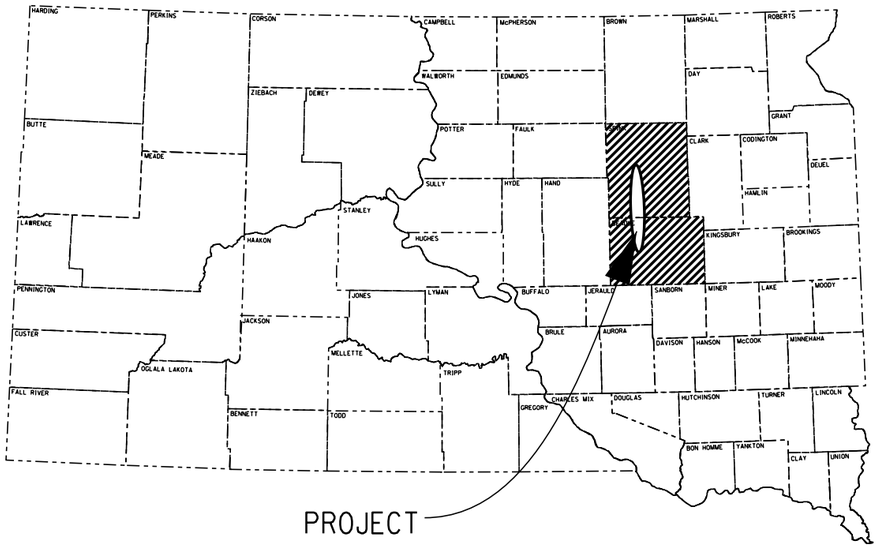
Revised
02/03/2026 9:32:23 AM

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	1	151
Plotting Date: 02/03/2026			

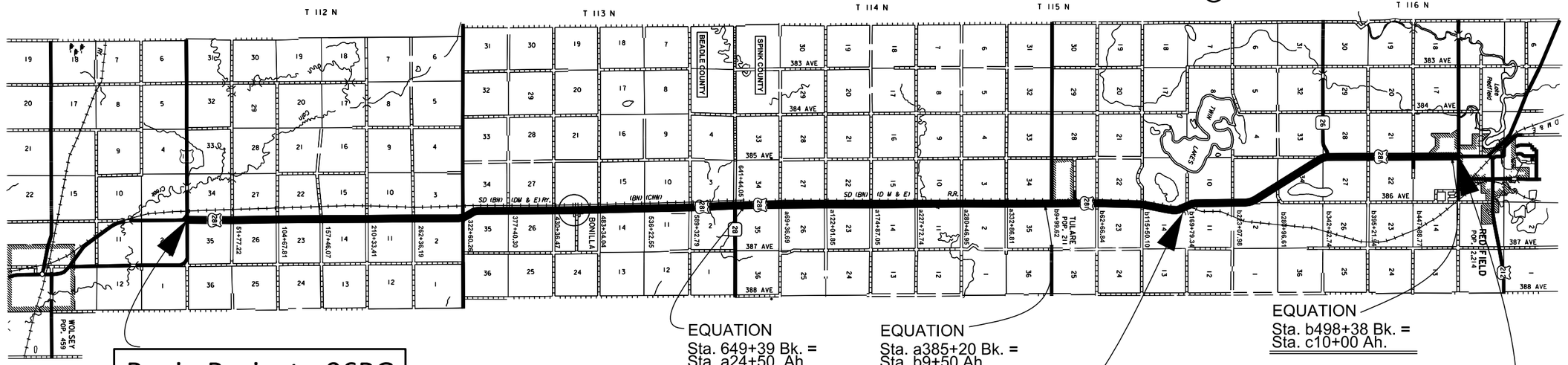


STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

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	149,112.9 FEET	28.370 MILES
LENGTH OF EXCEPTIONS	283.6 FEET	0.054 MILES
NET LENGTH	148,829.3 FEET	28.316 MILES

1

March 18, 2026

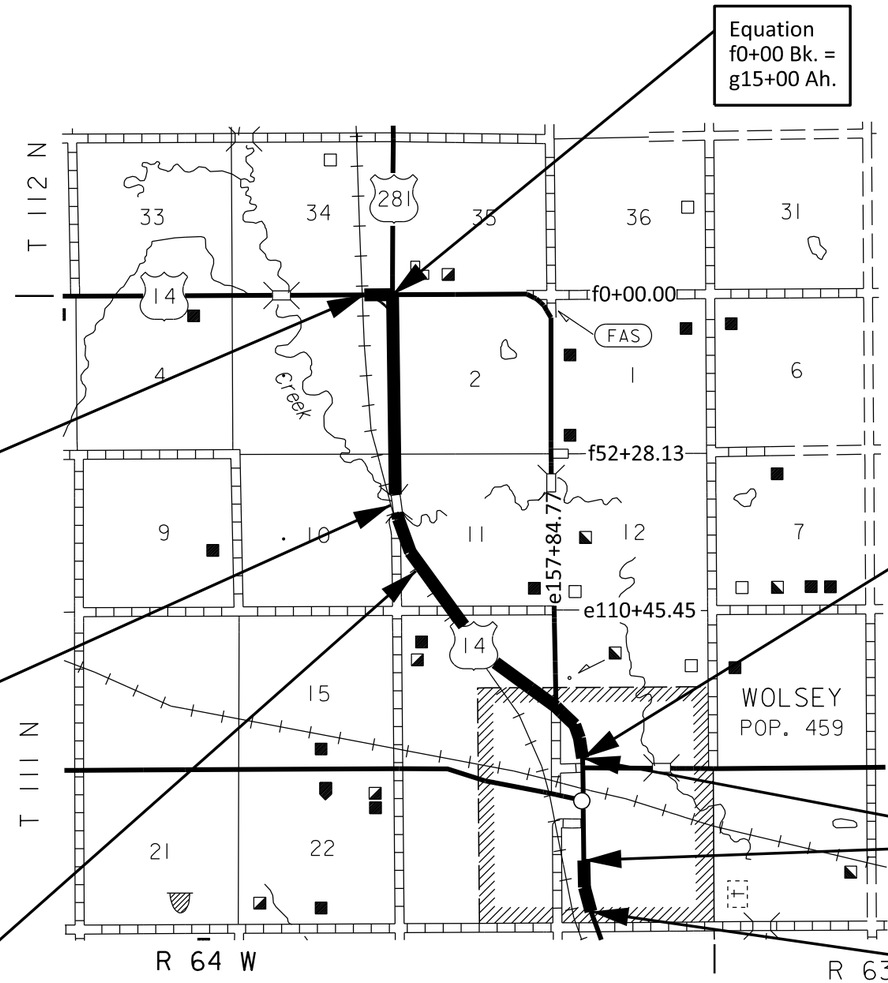
Revised
02/19/2026 7:27:53 AM

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	2	151

Plotting Date: 02/19/2026

PROJECT NH 0014(245)326
U.S. HIGHWAY 14

COLD MILLING, AC RESURFACING, AND LIGHTING
PCN 06CT



End Project
Sta. g6+74
MRM 326.24 +0.025

Str. No. 03-100-133
Sta. f69+14.85 to Sta. f67+30.15
Cont. Concrete Bridge
184.7'=0.035 Miles
MRM 327.69

Equation
e92+66.51 Bk.=
f92+56.72 Ah.

Equation
d72+00 Bk. =
e173+00 Ah.

Surface Exception
Sta. d28+27 to Sta. d69+22

Begin Project
Sta. d13+80
MRM 331.00 +0.184

GROSS LENGTH	23,913.21 FEET	4.529 MILES
LENGTH OF EXCEPTIONS	4279.70 FEET	0.811 MILES
NET LENGTH	19,633.51 FEET	3.718 MILES

DESIGN DESIGNATION

AADT (2019)	2382
AADT (2039)	3159
DHV	509
D	50%
DHV T%	10.5%
AADT T%	23.1%
V - RURAL	65 MPH
V - URBAN	35 MPH

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

Revised
02/11/2026 11:09:04 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	617.9	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	8,706.0	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	5,330	CuYd
120E0100	Unclassified Excavation, Digouts	4,099	CuYd
120E0600	Contractor Furnished Borrow Excavation	4,963	CuYd
120E2000	Undercutting	1,566	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	2,594.6	Ton
260E1030	Base Course, Salvaged	10,950.0	Ton
* 260E6000	Granular Material, Furnish	9,650.0	Ton
270E0110	Salvage and Stockpile Granular Material	10,950.0	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	19,300.0	Ton
320E0032	PG 58H-34 Asphalt Binder	4,879.0	Ton
320E1200	Asphalt Concrete Composite	687.3	Ton
320E1203	CLASS Q3R HOT MIXED ASPHALT CONCRETE	97,572.5	Ton
320E1800	Asphalt Concrete Blade Laid	4,462.4	Ton
320E4000	Hydrated Lime	1,023.7	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	288.6	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	412.7	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	155.4	Ton

GENERAL QUANTITIES – 06PG CONTINUED

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
330E1000	Blotting Sand for Prime	10.0	Ton
330E2000	Sand for Flush Seal	1,577.6	Ton
332E0010	Cold Milling Asphalt Concrete	521,088	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

GENERAL QUANTITIES – 06PG CONTINUED

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
732E0100	Mulching	18.6	Ton
732E0250	Fiber Mulching	27,000	Lb
734E0154	12" Diameter Erosion Control Wattle	400	Ft
734E0602	Low Flow Silt Fence	1,650	Ft
734E0610	Mucking Silt Fence	25	CuYd
734E0620	Repair Silt Fence	150	Ft
900E0010	Refurbish Single Mailbox	10	Each
900E0012	Refurbish Double Mailbox	2	Each
900E1080	Orange Plastic Safety Fence	1,010	Ft
900E1980	Storage Unit	1	Each

*** - Denotes Non-Participating**

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf >

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

COMMITMENT A: AQUATIC RESOURCES

COMMITMENT A1: WETLANDS

All efforts to avoid and minimize wetland impacts from the project have resulted in approximately 0.01 acre(s) of wetlands (includes temporary and permanent) becoming impacted.

Table of Impacted Wetlands

Wetland No.	Station	Perm. Impact Left (Acres)	Perm. Impact Right (Acres)	Temp. Impact Left (Acres)	Temp. Impact Right (Acres)	Total Impact (Acres)
1	466+50	0.00	0.00	0.002	0.002	0.004
2	492+50	0.00	0.00	0.001	0.001	0.002
3	571+49	0.00	0.00	0.00	0.00	0.00
4	613+44	0.00	0.00	0.003	0.003	0.006
5	a130+97	0.00	0.00	0.00	0.002	0.002
6	b303+23	0.00	0.00	0.00	0.00	0.00

Action Taken/Required:

Temporary impacts identified in the Table of Impacted Wetlands will not be mitigated as original contours and elevations will be re-established as designated in the plans. Prior to initiating temporary work in wetlands, the Contractor will submit a plan to the Project Engineer in accordance with Section 7.21 D of the Specifications.

The Contractor will notify the Project Engineer if additional easement is needed to complete work adjacent to any wetland. The Project Engineer will obtain an appropriate course of action from the Environmental Office before proceeding with construction activities that affect any wetlands beyond the work limits and easements shown in the plans.

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B2: WHOOPING CRANE

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

Action Taken/Required:

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

COMMITMENT B4: BALD AND GOLDEN EAGLE

Bald and/or Golden eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

COMMITMENT B5: NORTHERN LONG-EARED AND TRI-COLORED BAT

This project is within the range of suitable habitat for the Northern Long-Eared Bat (NLEB) and/ or the Tri-Colored Bat (TCB) and project work will avoid conflicts with NLEB and/or TCB roosting habitat.

Action Taken/Required:

Ensure all operators, employees, and contractors are aware the project occurs adjacent to NLEB or TCB suitable habitat and tree trimming/clearing is limited to that designated in the plans.

If bats are observed roosting on trees or infrastructure within the project area prior to and/or during construction, the contractor will halt all on-site activities. The contractor will notify the Project Engineer and the Environmental Office (605-773- 3309 or 605-773-5679) of the observed bat presence.

COMMITMENT C: WATER SOURCE

The Contractor will not withdraw water with equipment previously used outside the State of South Dakota or previously used in aquatic invasive species (AIS) positive waters within South Dakota without prior approval from the SDDOT Environmental Office. To prevent and control the introduction and spread of invasive species into the project vicinity, all equipment will be power washed with hot water (≥140 °F) and completely dried for a minimum of 7 days prior to subsequent use. South Dakota administrative rule 41:10:04:02 forbids the possession and transport of AIS; therefore, all attached dirt, mud, debris and vegetation must be removed and all compartments and tanks capable of holding standing water must be drained. This includes, but is not limited to, all equipment, pumps, lines, hoses and holding tanks.

Action Taken/Required:

The Contractor will obtain the necessary permits from the regulatory agencies such as the South Dakota Department of Agriculture and Natural Resources (DANR) and the United States Army Corps of Engineers (USACE) prior to water extraction activities.

Additional information and mapping of water sources impacted by Aquatic Invasive Species in South Dakota can be accessed at:
< https://sdleastwanted.sd.gov/maps/default.aspx >

< South Dakota Administrative Rule 41:10:04 Aquatic Invasive Species:
https://sdlegislature.gov/rules/DisplayRule.aspx?Rule=41:10:04 >

COMMITMENT D: WATER QUALITY STANDARDS

COMMITMENT D1: SURFACE WATER QUALITY

This project may be in the vicinity of multiple streams and wetlands. These waters are considered waters of the state and are protected under Administrative Rules of South Dakota (ARSD) Chapter 74:51. Special construction measures may have to be taken to ensure that this water body is not impacted.

Action Taken/Required:

The Contractor is advised that the South Dakota Surface Water Quality Standards, administered by the South Dakota Department of Agriculture and Natural Resources (DANR), apply to this project. Special construction measures will be taken to ensure the above standard(s) of the surface waters are maintained and protected.

COMMITMENT D2: SURFACE WATER DISCHARGE

The DANR General Permit for Temporary Discharge Activities is required for temporary dewatering and discharges to waters of the state. The effluent limit for total suspended solids will be 90 mg/L 30-day average. The effluent limit applies to discharges to all waters of the state except discharges to waters classified as coldwater permanent fish life propagation waters according to the ARSD 74:51:01:45. For discharges to waters of the state classified as coldwater permanent fish life propagation waters, the effluent limit for total suspended solids will be 53 mg/L daily maximum.

The permittee has the option of completing effluent testing or implementing a pollution prevention plan for compliance with this permit. If the permittee develops a pollution prevention plan instead of total suspended solids sampling, the plan must be developed and implemented prior to discontinuing total suspended solids sampling. Refer to Section 4.0 of the permit. If any pollutants are suspected of being discharged, a sample must be taken for those parameters listed in Section 3.4 of the permit.

Refer to Commitment D1: Surface Water Quality for stream classification.

Action Taken/Required:

If construction dewatering is required and this project is not required to be covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the Contractor will obtain the General Permit for Temporary Discharge Activities from the DANR Water Quality Program, 605-773-3351.
<
https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_TemporaryDischargeNOI2018Fillable.pdf >

If construction dewatering is required and this project is currently covered under a General Permit for Stormwater Discharges Associated with Construction Activities, the contractor will need to submit the dewatering information to the Project Engineer using the following SDDOT Dewatering Info CDX form:

<https://dot.sd.gov/doing-business/environmental/forms/>

COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance and/or work in a waterway.

Action Taken/Required:

The DANR General Permit for Stormwater Discharges Associated with Construction Activities is required for construction activity disturbing one or more acres of earth and work in a waterway. The SDDOT is the owner of this permit and will submit the NOI to DANR 15 days prior to project start in order to obtain coverage under the General Permit. Work can begin once the DANR letter of approval is received.

The Contractor must adhere to the “Special Provision Regarding Storm Water Discharges to Waters of the State.”

The Contractor will complete the DANR Contractor Certification Form prior to the pre-construction meeting. The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the permit for this project. Work may not begin on this project until this form is signed and submitted to DANR.

The form can be found at:
<
https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/docs/DANR_CGPAppendixCCA2018Fillable.pdf >

The Contractor is advised that permit coverage may also be required for off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

Storm Water Pollution Prevention Plan

The Storm Water Pollution Prevention Plan (SWPPP) will be developed prior to the submittal of the NOI and will be implemented for all construction activities for compliance with the permit. The SWPPP must be kept on-site and updated as site conditions change. Erosion control measures and best management practices will be implemented in accordance with the SWPPP.

The DOT 298 Form will be used for site inspections and to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents and retained for a minimum of three years.
The inspection will include disturbed areas of the construction site that have not been finally stabilized, areas used for storage materials, structural control measures, and locations where vehicles enter or exit the site. These areas will be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the SWPPP will be observed to ensure that they are operating correctly, and sediment is not tracked off the site.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT: < https://dot.sd.gov/doing-business/environmental/stormwater >

DANR:<
https://danr.sd.gov/OfficeOfWater/SurfaceWaterQuality/stormwater/default.aspx >

EPA: < https://www.epa.gov/npdes >

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) will be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Agriculture and Natural Resources.

The waste disposal site(s) will not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Environmental Office and the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements will apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials will be buried in a trench separate from wood debris. The final cover over the construction and/or demolition debris will consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public ROW will be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor will control the access to waste disposal sites not within the Public ROW with fences, gates, and placement of a sign or signs at the entrance to the site stating, “No Dumping Allowed”.

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period not to exceed the duration of the project. Prior to project completion, the waste will be removed from view of the ROW or buried, and the waste disposal site reclaimed as noted above.
The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.
Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) will be incidental to the various contract items.

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require a cultural resource review prior to scheduling the pre-construction meeting. This work includes but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor will arrange and pay for a record search and when necessary, a cultural resource survey. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view in which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 150 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

COMMITMENT M: SECTION 4(f)/6(f) RESOURCES

COMMITMENT M1: SECTION 4(f) PROPERTY

Table of Adjacent Section 4(f) Property

Station	Section 4(f) Property
b354+26 – b337+00 R	USFWS Conservation Easement
b165+16 R+L	ESS 1
b139+99 - b150+09 R	ESS 2
b110+83 - b118+46 L	ESS 3
606+45 - 631+34 L	ESS 4
450+89 - 459+18 R+L	ESS 5
451+62 - 467+42 L	ESS 6
86+10 - 111+77 L	ESS 7

Action Taken/Required:

The following measures are required to minimize harm to the above Section 4(f) property:

The contractor will notify the Project Engineer if additional temporary or permanent easement is necessary to construct the project. Temporary occupancy and permanent incorporation of, and restriction of access to, the Section 4(f) property must be avoided unless there are no feasible or prudent alternatives to use of the land and the action includes all possible planning to minimize harm to the property. The Project Engineer will notify the Environmental Office as Section 4(f) use must be approved by the Federal Highway Administration.

COMMITMENT N: SECTION 404 PERMIT

The SDDOT has obtained a Section 404 Permit from the USACE for the permanent actions associated with this project.

Action Taken/Required:

The Contractor will comply with all requirements contained in the Section 404 Permit.

The Contractor will also be responsible for obtaining a Section 404 Permit for any dredge, excavation, or fill activities associated with material sources, storage areas, waste sites, and Contractor work sites outside the plan work limits that affect wetlands, floodplains, or waters of the United States.

COMMITMENT Q: ARCHAEOLOGICAL COORDINATION

As a result of a Cultural Resources Survey, historic properties have been identified within and/or adjacent to the project rights-of-way.

The following historic properties have been identified that require avoidance of construction activities:

Table of Historic Properties

Station	Offset (Ft.)	L/R	Environmental Sensitive Site	Action
b139+99 - b150+09	93'	R	ESS 2	Orange Plastic Safety Fencing

The locations and boundaries of the site(s) for avoidance are shown in the plans.

Action Taken/Required:

If evidence for cultural resources is uncovered during project construction activities, then such activities within 150 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will then consult with the Archaeological Research Center (ARC) and FHWA to determine the appropriate course of action.

All artifacts, features, or other items of interest uncovered by project construction activities will not be displaced unless the landowner and the SHPO consent to it.

Prior to the pre-construction meeting, the Contractor will contact the ARC (Phone: 605-394-1936) to coordinate the installation schedule of orange plastic safety fence around the perimeter of the sensitive site(s) listed in the Table of Historic/Archeological Sites to ensure proper location, quality, and visibility of the orange safety fence. The exact location of the safety fence will be determined later in the field by the ARC representative.

The Contractor will give written notice to the Engineer seven (7) days prior to the commencement of earth disturbing activities near listed sites identified in the Table of Historic/Archaeological Site so the Engineer may notify ARC of the day work will start and schedule the installation of orange safety fence. ARC is to be present during earth disturbing activities to monitor the removal of topsoil, ensure avoidance of the fenced sites, and identify any culturally sensitive sites that may be uncovered.

Work within the vicinity of the site(s) will not begin until the safety fence is installed. All costs associated with furnishing and installing the orange safety fence will be incidental to the contract unit price per foot for “Orange Plastic Safety Fence”. These identified sites cannot be used for material sources, storage areas, waste sites, and/or any other project related activities outside the plan work limits.

SCOPE OF WORK

Work on this project involves pipe work, cold milling, resurfacing of asphalt concrete, modify intersections, lighting, and installing pavement markings on US 281 & US 14.

SEQUENCE OF OPERATIONS

Contractor requests to deviate from the sequence of operations will be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

The Contractor shall perform the work as follows:

1. Install Temporary Traffic Control Signs
2. Install Erosion and Sediment Control
3. Pipe Work
4. Grading for Turn Lanes
    a. Grading work will be completed in one direction before beginning work in the opposite direction
5. Mill Asphalt Concrete
6. Pave Asphalt Concrete
7. Install rumble strip/stripes
8. Install Permanent Pavement Markings
9. Remove Temporary Traffic Control Signs

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

All fixed location signs, signposts, and breakaway bases will be removed within 7 calendar days following pavement marking.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 4:1 within 30 feet of the traveled way.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor's equipment will be repaired at no expense to the Department.

The Contractor will furnish, install, maintain, and remove TRUCK CROSSING (W8-6) signs daily. The TRUCK CROSSING signs will be displayed always when haul vehicles are hauling material. When hauling conditions no longer exist, the signs will be covered or removed from view. The exact number and location will be determined during construction. Payment for additional signs will be based on the contract unit price per square foot for "Traffic Control Signs".

GROOVED PAVEMENT (W8-15) signs with MOTORCYCLE (W8-15P) plaques are required in advance of areas that have been cold milled and are not resurfaced the same day. The GROOVED PAVEMENT sign assemblies will be installed a minimum of 1000 feet in advance of cold milled sections and remain in place until the sections have been resurfaced.

The Contractor will notify businesses/homeowners a minimum of two weeks prior to construction to inform them of upcoming construction and again a minimum of 48 hours prior to any blocked access to make appropriate arrangements.

A mobile work operation will be allowed provided the rumble strip or rumble stripe grooving, flush sealing, and pavement marking can be completed satisfactorily by a continuously moving work operation. A mobile work operation will require approval by the Engineer.

WORK ZONE SPEED REDUCTION

The Department is required to obtain a speed reduction resolution prior to the installation of any SPEED LIMIT (R2-1) signs as shown in the plans. To provide adequate time for the resolution to be enacted, the Contractor will inform the Engineer a minimum of 3 weeks prior to the scheduled installation of any work zone speed reduction signs on the project. The information provided by the Contractor will include the anticipated date of sign installation, the newly reduced speed limit, the location of the work zone, and the anticipated completion date of work requiring the speed reduction.

Work zone speed reduction signs will be installed during the intersection modification work at the intersection of US 281 and SD 26 and the intersection of US 281 and 196th ST.

FLAGGING

Operations will be conducted so that the traveling public will not have to wait longer than 15 minutes at the flagger station.

Additional flagger warning signs and flagger hours have been included in the Estimate of Quantities for use on intersecting roads. These flaggers will be used as directed by the Engineer and will be used primarily during daytime hours. Also included in the Estimate of Quantities are WAIT FOLLOW PILOT CAR signs for use on low volume intersecting roads as determined by the Engineer. WAIT FOLLOW PILOT CAR signs will not block the view of the stop sign.

It is required that the flaggers and pilot car operators be able to communicate with one another. If an emergency vehicle needs to pass through the project, the Contractor will be required to expedite traffic movement. All costs associated with this will be incidental to the contract unit price per hour for "Flagging".

TEMPORARY PAVEMENT MARKING

The total length of no passing zone on this project is estimated to be 32 miles.

It is estimated that 18 DO NOT PASS (R4-1) and 16 PASS WITH CARE (R4-2) signs will be required to mark the no passing zones, should the Contractor elect to use these signs.

Temporary flexible vertical markers (tabs) will be required on the top lift of asphalt concrete surfacing.

Temporary pavement marking paint will not be allowed on the final lift of asphalt surfacing. Temporary pavement marking paint will not be allowed on the chip seal, fog seal, or flush seal. Temporary flexible vertical markers (tabs) must be used on the final lift of asphalt surfacing. The Contractor may use tabs with covers, uncovering them for the chip seal, fog seal, or flush seal. As an alternative, the Contractor may install new tabs for the fog seal or flush seal.

Covers on the tabs will be sufficiently secured to prevent traffic from dislodging the cover and when removed, the covers will be properly disposed of. The Contractor will remove and properly dispose of the tabs after permanent pavement marking is applied. Method of removal will be nondestructive to the road surface and will be accomplished within one week of completion of the permanent pavement marking.

TEMPORARY PAVEMENT MARKING (CONTINUED)

Full reflectivity of all temporary flexible vertical markers (tabs) is required at all times. The Contractor will be required to replace any missing or non-reflective tabs after each installation as detailed below at no additional cost to the State.

Quantities of Temporary Pavement Markings consist of:

One pass on top of the milled surface
One pass on top of blade laid asphalt concrete
One pass on top of the final lift of asphalt concrete
One pass after centerline rumble strips
One pass prior to flush seal, length as determined by the Engineer
One pass after the flush seal

If the Engineer determines that an additional pass prior to the flush seal is not required, this application of the temporary pavement marking will be eliminated. If the flush seal is eliminated for the project, the application of the temporary pavement marking on top of the flush seal as well as the additional pass prior to the flush seal will be eliminated.

No adjustment in the contract unit price for "Temporary Pavement Marking" will be made because of a variation in quantities.

In the absence of a signed lane closure or pilot car operation, FLAGGER (W20-7) symbol signs and flaggers, or a shadow vehicle with rotating yellow lights or strobe lights will be positioned on the shoulder in advance of workers for both directions of traffic during the installation and removal of the temporary flexible vertical markers (tabs). The traffic control device used will be moved intermittently to provide proper warning of the work operation. A ROAD WORK AHEAD (W20-1) sign, a WORKER (W21-1) symbol sign or a BE PREPARED TO STOP (W3-4) sign will be mounted on the rear of the shadow vehicle. The method of traffic control used by the Contractor for this work must be approved by the Engineer.

Prior to nightfall, tabs will be required to mark centerline on segments of roadway where existing centerline markings have been removed and new markings have not been installed.

TRAFFIC CONTROL FOR ASPHALT CONCRETE RESURFACING

The Contractor will need to install LOOSE GRAVEL (W8-7) signs with advisory speed plaques (W13-1P) in areas where loose sand is present during the flush seal operation. LOOSE GRAVEL signs have been included in these plans for this.

REMOVE SIGN FOR RESET AND RESET SIGN

Signs that are scheduled for reset will be dismantled and reassembled to the extent needed by the Contractor to properly reset the sign. Signs will be handled with care so that the existing signs, posts, and bases are not damaged during the relocation process. The Contractor will replace and pay for any reset signs damaged in their care. The Contractor will remove and dispose of any existing posts for all reset signs that require use of new posts as shown in the Table of Permanent Signing.

All costs for removing, dismantling, and disposing of any existing posts will be incidental to the contract unit price per each for "Remove Sign for Reset". All costs for resetting the existing signs will be incidental to the contract unit price per each for "Reset Sign". All quantities for Remove Sign for Reset and Reset Sign will be per assembly at the contract unit price per each.

Any 911 Emergency Number signs within the project work limits will not be stockpiled but temporarily repositioned at a location outside the work limits but within the immediate proximity of the existing location. To complete the project sign work, the 911 Emergency Number signs will be permanently installed at their original locations, or as near as practicable where entrances have been reconfigured by the project. The existing supports will be reused. Cost for removing, temporarily repositioning, and permanently resetting 911 Emergency Number signs will be included in the contract unit price per each for "Remove Sign for Reset" and "Reset Sign".

PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a press release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The SDDOT will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor will provide the Engineer with pertinent information 7 days prior to any phase change or any other major change that affects traffic flow.

UTILITIES

The Contractor will contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It will be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

If utilities are identified near the improvement area through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor will contact the Engineer to determine modifications that will be necessary to avoid utility impacts.

TYPE III FIELD LABORATORY

The Contractor will provide high-speed broadband internet connection to the field lab. The multiport internet connection may be hardwired, through a cellular method, or other approved service that allows Wi-Fi connection. Prior to obtaining the internet connection, the Contractor will submit the internet connection's technical data to the Area Office to check for compatibility with the state's computer equipment. The Contractor's personnel are prohibited from using the internet connection unless pre-approved by the Project Engineer. The internet service will be incidental to the contract unit price per each for "Type III Field Laboratory".

STORAGE UNIT

The Contractor will provide a storage unit such as a portable storage container or a semi-trailer meeting the minimum size requirements from the table below:

Project Total Asphalt Concrete Tonnage	Minimum Internal Size (Cu Ft)	Minimum External Size (L x W x H)
Less than 50,000 ton	1,166	20' x 8' x 8.6' std
More than 50,000 ton	2,360	40' x 8' x 8.6' std
All Gyratory Controlled QC/QA Projects	2,360	40' x 8' x 8.6' std

The storage unit is intended for use only by the Engineer for the duration of the project. The QC lab personnel or the Contractor will not be allowed to use the storage container while it is on the project, without permission of the Engineer.

The storage unit will be on site and operational prior to asphalt concrete production. Upon completion of asphalt concrete production, the Engineer will notify the Contractor when the storage unit can be removed from the project. The storage unit use will not exceed 30 calendar days from the completion of asphalt concrete production. The storage unit will remain the property of the Contractor.

The storage unit will be weather proof and will be set in a level position. The storage unit will be able to be locked with a padlock.

The storage unit will be placed adjacent to the QA lab, as approved by the Engineer.

The following will apply when the storage unit provided on the project is a portable storage container:

1. The portable storage container will be constructed of steel.
2. The portable storage container will be set such that it is raised above the surrounding ground level to keep water from ponding under or around the storage container.

The following will apply when the storage unit provided on the project is a semi-trailer:

1. A set of steps and hand railings will be provided at the exterior door.
2. If the floor of the semi-trailer is 18 inches or more above the ground, a landing will be constructed at the exterior door. The minimum dimensions for the landing will be 4 feet by 5 feet. The top of the landing will be level with the threshold or opening of the doorway.
3. The semi-trailer may be connected to the QA lab by a stable elevated walkway. The walkway will be a minimum of 48 inches wide and contain handrails installed at 32 inches above the deck of the walkway. The walkway will be constructed such that it is stable and the deck does not deform during use and allows for proper door operation. Walkway construction will be approved by the Engineer.

All cost for furnishing, maintaining, and removing the storage unit including labor, equipment, and materials including any necessary walkways, landings, stairways, and handrails will be included in the contract unit price per each for "Storage Unit".

RCP AND RCBC REPAIRS FOR MAINLINE PIPE CULVERTS

The Contractor is encouraged to thoroughly investigate the culvert repair sites prior to bidding. Prior to working on the sites that are inundated with water, a complete dewatering plan will be submitted for approval to the Engineer. No separate payment for dewatering will be made.

Resetting and replacement of RCP will be completed prior to asphalt operations.

All pipe and end treatments designated for removal will become the property of the Contractor for his disposal.

Prior to culvert repair work the Contractor will remove and stockpile all of the in place topsoil from the construction areas. On completion of construction operations this salvaged topsoil will be spread evenly over the newly constructed embankment inslopes. Removal and replacement of topsoil will be incidental to the various culvert contract items.

TABLE OF MAINLINE PIPE CULVERT REPAIR

Pipe culvert lengths shown in the US 281 and US 14 Table of Mainline Culvert Work were obtained from the original grading plans and were not verified in the field.

It is the Contractors responsibility to investigate each pipe culvert pipe repair site to determine the pipe culvert size and length, along with other information needed to prepare a bid.

Locating of culverts may require more than a visual inspection. Metal detectors, probing rods and excavation may be required to locate the culverts. Stationing from grading plans for the culverts and nearby section line roadways are shown in the plans to help locate the culverts, however the exact installation location may not match what was shown in the grading plans.

CLEANOUT PIPE CULVERT

Material in existing pipe culvert will be cleaned out by water flushing or other approved methods.

Material removed from the pipe culvert will become property of the Contractor for disposal.

The Contractor will implement appropriate sediment control measures prior to water flushing to prevent discharges from the project boundaries.

The pipe culvert will be cleaned to the satisfaction of the Engineer.

All costs to dewater, clean pipe, and dispose of removed materials will be incidental to the contract unit price per each for “Cleanout Pipe Culvert”.

INTERSECTING ROADS AND ENTRANCES

In areas where granular material has been placed adjacent to the existing asphalt concrete, the Contractor will be required to remove the granular material to a depth below the existing asphalt concrete to allow for the placement of the new asphalt concrete. New asphalt concrete will be placed flush with the existing asphalt concrete. The existing granular material removed will be placed on the entrances, intersecting roads or other locations as directed by the Engineer.

All costs to remove and place the granular material including labor, equipment and incidentals will be incidental to the various related contract items.

UNCLASSIFIED EXCAVATION, DIGOUTS

The locations and extent of digout areas will be determined in the field by the Engineer. The backfilling material for the digouts will be Asphalt Concrete Composite and Base Course. The depth of asphalt will match the in-place thickness.

Included in the Estimate of Quantities are 50 cubic yards of Unclassified Excavation, Digouts and 75 square yards of Remove Asphalt Concrete Pavement per mile for the removal of asphalt and unstable material for Sections 3 and 8-27.

Included in the Estimate of Quantities are 100 tons of Base Course and 25 tons of Asphalt Concrete Composite per mile for backfill of Unclassified Excavation, Digouts for Sections 3 and 8-27.

Included in the Estimate of Quantities are 25 cubic yards of Unclassified Excavation, Digouts per mile for the removal of unstable material for Sections 1, 2, 4, 5, 6, 7, and 28.

Included in the Estimate of Quantities are 50 tons of Base Course per mile for backfill of Unclassified Excavation, Digouts for Sections 1, 2, 4, 5, 6, 7, and 28.

The digouts will be extended through the shoulder and backfilled with granular material that will daylight to the inslope to allow water to escape the subsurface.

CONTRACTOR FURNISHED BORROW EXCAVATION

The Contractor will provide a suitable site for Contractor furnished borrow excavation material. The Contractor is responsible for obtaining all required permits and clearances for the borrow site. The borrow material will be approved by the Engineer. The plans quantity for “Contractor Furnished Borrow Excavation” as shown in the Estimate of Quantities will be the basis of payment for this item.

Restoration of the Contractor furnished borrow excavation site will be the responsibility of the Contractor.

CONTRACTOR FURNISHED TOPSOIL

Contractor furnished topsoil shall be free from clay lumps, stones, coarse gravel, or similar objects larger than 1/2 inch in diameter. Brush, stumps, roots, wood, objectionable weeds, litter, or any other material which may be harmful to plant growth will not be allowed. Organic material shall be decomposed.

All costs to furnish and place the Contractor furnished topsoil shall be incidental to the contract unit price per cubic yard for “Contractor Furnished Topsoil”.

ROADWAY WIDENING

The elevation of the subgrade under roadway widening will be at or below subgrade elevation under existing adjacent mainline pavement that is to remain in place.

UNDERCUTTING

The existing embankment will be undercut in a manner that allows 2 feet of new embankment to be constructed below the finished subgrade top. The remaining new embankment will be benched into the existing inslope as per Section 120.3 B.2 of the Specifications.

The plan shown quantity will be the basis of payment. However, if there are additional areas of undercut other than what is shown in the plans, the Engineer will direct removal of these areas and the additional areas will be measured according to the Engineer.

TABLE OF UNDERCUTTING LOCATIONS RURAL

Station	to	Station
311+50		334+00
b337+00		b354+50

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”.

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	204	817	2950
b337+00	b354+26	190	759	2013
	Totals:	394	1566	4963

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

TABLE OF UNCLASSIFIED EXCAVATION

	(CuYd)
Excavation	394
Undercut	1566
Topsoil	1970
Salvaged Asphalt Mix and Granular Base Material (from fill sections)	1400
Total:	5330

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”.

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 29,721 tons of cold milled asphalt concrete material. An estimated 20,071 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 will be blended, hauled, and stockpiled according to the Blend, Haul, and Stockpile Granular Material plan 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 and stockpiled at a site furnished by the Contractor and satisfactory to the Engineer.

Salvaged material will be processed to meet the requirements of Section 884.2 D.8 prior to stockpiling. The Contractor will ensure that no vegetation, topsoil, subgrade, or other foreign material is incorporated into the salvaged 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. This estimated quantity was included in the unclassified excavation quantities.

BLEND, HAUL, AND STOCKPILE GRANULAR MATERIAL

Excess salvaged asphalt concrete material estimated at 9,650 tons (for informational purposes only) will be blended with 9,650 tons of Granular Material, Furnish and will be hauled, blended 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.

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.

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

Salvaged asphalt concrete material will be blended with Granular Material, Furnish at a rate of 50% salvaged asphalt mix material and 50% Granular Material, Furnish 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, hauling, stockpiling, and blending salvaged asphalt concrete material and Granular Material, Furnish will be incidental to the contract unit price per ton for “Blend, Haul 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 20,071 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.

ASPHALT CONCRETE COMPOSITE

Section 324 will apply except that Class Q3R Hot Mixed Asphalt Concrete as specified elsewhere in the plans may be used as Asphalt Concrete Composite.

Plans specified locations for Asphalt Concrete Composite will be paid for at the contract unit price per ton for “Asphalt Concrete Composite” regardless of the class of asphalt concrete used at such locations.

The asphalt binder used in the mixture can be PG 58H-34 Asphalt Binder.

ASPHALT CONCRETE BLADE LAID

Included in the Estimate of Surfacing Quantities are 150 tons of Asphalt Concrete Blade Laid, 1.5 tons of Hydrated Lime, and 11.1 tons of PG 58H-34 Asphalt Binder per mile and will be tight bladed on the existing surface 25 feet wide prior to the overlay of Sections 3, 10, 14, 16, 17, 21, 22, 23, 24, 25, and 27. Included in the Estimate of Surfacing Quantities are 225 tons of Asphalt Concrete Blade Laid, 2.3 tons of Hydrated Lime, and 16.7 tons of PG 58H-34 Asphalt Binder per mile and will be tight bladed on the existing surface 37 feet wide prior to the overlay of Sections 19 and 20. Quantities for Asphalt Concrete Blade Laid for Sections 8, 9, 11, 12, 13, 15, 18, and 26 have been included in the Table of Material Quantities. Gaps at centerline will not be permitted.

Mineral Aggregate for tight bladed material will use only the fine aggregate components combined in the same proportions as the Class Q3R Hot Mixed Asphalt Concrete mix. Mineral Aggregate for tight bladed material will meet the gradation requirements of the Job Mix Formula. Fine Aggregate Angularity and Sand Equivalent requirements will be the same as the Class Q3R Hot Mixed Asphalt Concrete mix. Quality testing is not required on the coarse aggregate (+No. 4 sieve) in this mixture.

The Asphalt Concrete Blade Laid Lift will be designed using an N_{design} Gyratory Compactive Effort of 65. The asphalt binder content will be determined so that the air voids of Asphalt Concrete Blade Laid Lift are between 3.0% and 5.0%.

Included in the Estimate of Surfacing Quantities are 182.8 tons of SS-1h or CSS-1h Asphalt for Tack for use prior to the application of the Blade Laid lift. (Rate = 0.09 Gal./SqYd)

ADDITIONAL QUANTITIES

Included in the Table of Material Quantities are 100 tons of Class Q3R Hot Mixed Asphalt Concrete, 1.0 tons of Hydrated Lime, and 4.7 tons of PG 58H-34 Asphalt Binder per mile for spot leveling, strengthening, and repair of the existing surface throughout the project. Also included in the Table of Material Quantities are 7.8 tons of SS-1h or CSS-1h Emulsified Asphalt for Tack for repair and leveling areas throughout the project.

PERFORMANCE GRADED ASPHALT BINDER

Performance Graded Asphalt Binder will conform to Section 890, AASHTO M 332, and the Combined State Binder Group Method of Acceptance for Asphalt Binders, available from the Department’s Bituminous Engineer.

SURFACING THICKNESS DIMENSIONS

The plans shown spread rates will be applied even though the thickness may vary from that shown in the plans.

At those locations where material must be placed to achieve a required elevation, the depth/quantity may be varied to achieve the required elevation.

TABLE OF SUPERELEVATION US 281

STATION TO STATION	REMARKS
Sta. 10+00.00 to Sta. 314+93.63	Normal Crown Section
Sta. 314+93.63 to Sta. 317+63.63	Superelevation Transition
Sta. 317+63.63 to Sta. 327+01.43	1° 30' Curve Lt. 0.060’/’ Superelevation Rate Point of Rotation Centerline
Sta. 327+01.43 to Sta. 329+71.43	Superelevation Transition
Sta. 329+71.43 to Sta. 332+18.27	Normal Crown Section
Sta. 332+18.27 to Sta. 334+88.27	Superelevation Transition
Sta. 334+88.27 to Sta. 345+06.96	1° 30' Curve Rt. 0.046’/’ Superelevation Rate Point of Rotation Centerline
Sta. 345+06.96 to Sta. 347+76.96	Superelevation Transition
Sta. 347+76.96 to Sta. 642+55.38	Normal Crown Section
Sta. b9+50.00 to Sta. b231+02.43	Normal Crown Section
Sta. b231+02.43 to Sta. b233+72.43	Superelevation Transition
Sta. b233+72.43 to Sta. b253+06.12	1° 30' Curve Lt. 0.046’/’ Superelevation Rate Point of Rotation Centerline
Sta. b253+06.12 to Sta. b255+76.12	Superelevation Transition
Sta. b255+76.12 to Sta. b330+29.43	Normal Crown Section
Sta. b330+29.43 to Sta. b332+99.43	Superelevation Transition
Sta. b332+99.43 to Sta. b352+39.76	1° 30' Curve Rt. 0.046’/’ Superelevation Rate Point of Rotation Centerline
Sta. b352+39.76 to Sta. b355+09.76	Superelevation Transition
Sta. b355+09.76 to Sta. b494+14.00	Normal Crown Section

BLOTTING SAND FOR PRIME

Included in the Estimate of Quantities are 10 tons of Blotting Sand for Prime to be used where necessary for maintenance of traffic as directed by the Engineer. (Rate = 10 pounds per square yard)

FLUSH SEAL

Application of flush seal will be completed within 10 working days following completion of the asphalt concrete surfacing.

Application of flush seal may be eliminated by the Engineer. If the paved surface remains tight, the Engineer will notify the Contractor as soon as possible that the flush seal is unnecessary.

SAND FOR FLUSH SEAL

The sand application will be placed at widths shown in the RATES OF MATERIALS section.

MAILBOXES

The Contractor will reset the existing mailboxes on new posts with the necessary support hardware for single or double mailbox assemblies. The local Postmaster will determine the recommended mounting height of the mailboxes throughout the project. The Contractor will coordinate with the Engineer on the proper postal representative to contact.

If large mailboxes are located at double mailbox installations, a single post may need to be used for the large mailbox.

All costs for removing existing mailboxes, providing temporary mailboxes, and resetting mailboxes with new posts and necessary support hardware will be incidental to the contract unit price per each for “Refurbish Single Mailbox” or “Refurbish Double Mailbox”.

Type	Station	R/L
Single	b467+13.74	L
Single	b457+42.22	L
Single	b451+08.62	L
Single	b449+39.66	L
Single	b443+69.42	L
Double	b431+28.62	L
Single	b424+68.86	L
Single	b408+10.70	L
Single	b228+42.86	L
Double	a334+96.12	R
Single	521+29.44	L
Single	184+74.72	L

GRIND RUMBLE STRIPS IN ASPHALT CONCRETE

Asphalt concrete rumble strips will be constructed on the shoulders. Rumble strips will be paid for at the contract unit price per mile for Grind 12" Rumble Strip or Stripe in Asphalt Concrete. It is estimated that 57.4 miles of asphalt concrete rumble strips will be required.

Rumble stripe installation will be completed prior to application of the flush seal and permanent pavement markings. In the event the flush seal is eliminated from the contract, the Contractor will still be required to apply a flush seal to the newly installed 12" rumble strips at a width of 14" and at the same rate as specified in this plan set. No adjustment in payment will be made and SS-1h or CSS-1h Asphalt for Flush Seal will be paid at the contract unit price per ton.

GRIND CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE

Rumble stripes will be constructed on the centerline, as detailed in the plans. Centerline rumble stripe installation will be completed prior to application of the flush seal and permanent pavement markings. Rumble stripes will be paid for at the contract unit price per mile for "Grind Centerline Rumble Stripe in Asphalt Concrete". It is estimated that 25.3 miles of centerline rumble stripes will be required.

Centerline rumble stripes will be constructed according to the details of Standard Plate 320.18 outside the limits shown in the Table of Sinusoidal Centerline Rumble Stripes.

GRIND SINUSOIDAL CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE

Sinusoidal rumble stripes will be constructed on the centerline, as detailed in the plans. Sinusoidal centerline rumble stripe installation will be completed prior to application of the flush seal and permanent pavement markings. Sinusoidal centerline rumble stripes will be paid for at the contract unit price per mile for "Grind Sinusoidal Centerline Rumble Stripe in Asphalt Concrete". It is estimated that 3.7 miles of sinusoidal centerline rumble stripes will be required.

This sinusoidal centerline rumble stripes will be constructed according to the details of Standard Plate 320.40.

TABLE OF SINUSOIDAL CENTERLINE RUMBLE STRIPES

Location of Sinusoidal Rumble Stripes US 281 and US 14	Length (feet)	Length (miles)
Sta. b498+38 to Sta. b396+63	8,975	1.927
Sta. 540+10 to Sta. 528+10	1,200	0.227
Sta. 482+35 to Sta. 460+35	2,200	0.417
Sta. 222+75 to Sta. 188+95	3,380	0.640
Sta. 132+35 to Sta. 111+15	2,120	0.402
Sta. a168+85to Sta. a173+00 – US14	415	0.079
TOTAL	18,290	3.692

CENTERLINE RUMBLE STRIPES – ASPHALT FOR FLUSH SEAL

Asphalt for Flush Seal will be applied after the centerline rumble stripes have been installed and prior to the application of permanent pavement markings. The application width will extend 1 ft beyond the centerline of the roadway in each direction to create a total application rate of 0.10 Gal/SqYd on the centerline rumble stripes.

In the event the flush seal is eliminated from the contract, the Contractor will still be required to apply asphalt for flush seal to the newly installed centerline rumble stripes at a width of 24" and a rate of 0.10 Gal/SqYd. No adjustment in payment will be made and SS-1h or CSS-1h Asphalt for Flush Seal will be paid at the contract unit price per ton.

SAW AND SEAL JOINTS

Longitudinal joints will be sawed and sealed with Hot Poured Elastic Joint Sealer after paving operations in accordance with he details shown in the plans. The joint will conform to the detail provided in the plan set: Standard Plate 320.15.

Cost for sawing and sealing longitudinal joints will be included in the contract unit price per foot for "Saw and Seal Shoulder Joint".

PAVEMENT MARKING PAINT

The Contractor will advise the Engineer a minimum of 3 weeks prior to the application of the permanent pavement marking to allow the State to check and mark the location of no passing zones.

The application of permanent pavement marking will begin no sooner than 7 calendar days following completion of the fog or flush seal. Application of permanent pavement marking will be completed within 14 calendar days following completion of the final surfacing.

COLD APPLIED PLASTIC PAVEMENT MARKING

All materials will be applied as per the manufacturer's recommendations.

Cold Applied Plastic Pavement Markings will be 3M Series 380 AW or an approved equal.

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

All materials will be applied as per manufacturer's recommendations.

Reflective media will consist of glass beads. Reflective media will require a Certificate of Compliance for Certification for each source and lot. Acceptance sampling will not be required.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

Solid 4" line = 22.5 Gals/Mile
Dashed 4" line = 6.2 Gal/Mile
Glass Beads = 8 Lbs/Gal.

All cost for materials, labor, and equipment necessary to furnish and install the pavement markings will be incidental to the contract unit price for the respective High Build Waterborne Pavement Marking Paint items.

RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 14 days and within 42 days of the line application using either a portable or mobile retroreflectometer that conforms to 30-meter geometry. If the Department chooses to take retroreflectivity readings, three retroreflectivity readings will be taken on each line at each test location. The three readings will be averaged and become the reading for that test location.

If the Department chooses to take retroreflectivity readings, three readings will be taken on the edge lines and lane lines in the direction of application. For combination solid yellow and skip yellow lines for turn lanes and for centerline markings on two-way roadways, three readings will be taken in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline markings will be averaged and become the test reading for that test location.

If the Department chooses to take readings, the minimum retroreflectivity values will be 275 mc/m^2/lux for white and 170 mc/m^2/lux for yellow.

MARKINGS WITHIN SINUSOIDAL CENTERLINE RUMBLE STRIPES

Sinusoidal rumble stripes exist on US 281 & US 14.

The sinusoidal centerline rumble stripes are recessed below the pavement surface, so pavement marking grooving will not be required at these locations.

Sinusoidal rumble stripes will receive an asphalt surface treatment to seal the centerline joint and minimize the depth of water held on centerline.

Retroreflectivity readings will not be taken for pavement markings within the sinusoidal rumble stripe. Restriping of pavement markings to meet the specified application rate requirements and to provide a quality retroreflective line will be at the expense of the Contractor with no additional cost to the Department. Sections to be restriped will be determined by the Engineer.

GROOVING FOR COLD APPLIED PLASTIC PAVEMENT MARKING

The Contractor will establish a positive means for the removal of the grinding and/or grooving residue. Residue from dry grooving will be vacuumed. Solid residue will be removed from the pavement surfaces before being blown by traffic action or wind. The Contractor will conduct this work to control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or nuisance to property owners. Residue from wet grooving will not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, will be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state. The cleaning of the residue for grooving will be to the satisfaction of the Engineer and may require more than one pass to adequately remove material. All costs for removal of grinding and/or grooving residue will be included in the contract unit price per each for “Grooving for Cold Applied Plastic Pavement Marking” contract items.

GROOVING FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

The Contractor will establish a positive means for the removal of the grinding and/or grooving residue. Residue from dry grooving will be vacuumed. Solid residue will be removed from the pavement surfaces before being blown by traffic action or wind. The Contractor will conduct this work to control and minimize airborne dust and similar debris that may become a hazard to motor vehicle operation or nuisance to property owners. Residue from wet grooving will not be permitted to flow across lanes being used by public traffic or into gutter or drainage facilities. Residue, whether in solid or slurry form, will be disposed of in a manner that will prevent it from reaching any waterway in a concentrated state. All costs for removal of grinding and/or grooving residue will be included in the contract unit price per foot for “Grooving for Durable Pavement Marking” contract items.

Unless otherwise specified in the plans, the Contractor will groove the surface for High Build Waterborne Pavement Marking Paint as specified in these plans and as per the manufacturer’s instructions.

The grooving will be completed within the following tolerances:

Description	Specification	Tolerance
Depth of Groove	Marking Thickness[1] + 15 mils	+ 5 mils
Width of Groove	5 to 6 inches	
Length of Skip Lines[2]	10 foot 6 inches	± 3 inch
Tapers at ends of lines	6 to 9 inches	
Between Double Lines	4 inches	± 1/2 inch

[1] Marking thickness will include the thickness of marking material and reflective media.
[2] Additional length may be required as specified in the plans.

The equipment will be capable of the following:

- Grooving the total width of the groove in one pass or uniform depths with multiple passes.
- Grooving without causing damage to the pavement joints or joint sealant material.
- Provide uniform alignment and depth.
- Moving continuously to permit a mobile traffic work operation.

If damage occurs, including, but not limited to, joints, joint sealant material, and backer rod, the grooving operation will be stopped and modifications will be made to the grooving operation to prevent further damage. The Contractor will be required to use specially prepared circular diamond blade cutting heads to prevent damage at the joints. Damage caused will be repaired or replaced by the Contractor, as directed by the Engineer. No additional payment will be made for the repair work or any reapplication of the pavement marking in the area of the repair.

OBJECT MARKERS

At locations shown in the Table for Mainline Culvert Work, where Object Markers will be removed for reset, cost for removing the existing Object Markers will be included in the contract unit price per each for Remove Delineator for Reset.

Cost for resetting the existing Object Markers will be included in the contract unit price per each for Reset Delineator.

SHOP DRAWING AND CATALOG CUTS SUBMITTALS

The Contractor will submit shop drawings and catalog cuts in accordance with Section 985 of the Specifications.

PDF submittals will be sent to the following email addresses:

Stacy.Bartlett@state.sd.us
Evelyn.Dalldorf@state.sd.us

SALVAGE LUMINAIRE - WOLSEY

Existing luminaires EL1, EL5-EL8, EL10-EL17, and EL19-EL24 will be salvaged and delivered to the Huron Area Maintenance Shop by the Contractor. The Contractor will notify the SDDOT at least 5 days before the delivery of the salvaged luminaires. The SDDOT contact is Brad Letcher at 605-353-7140, Brad.Letcher@state.sd.us. The poles will be delivered to:

901 Dakota Ave N
Huron, SD 57350-0940

Luminaires damaged during salvaging or delivery will be repaired or replaced by the Contractor at no cost to the State.

All costs for work involved in the salvage and delivery of the existing luminaires will be incidental to the contract unit price per each for “Salvage Luminaire”.

SALVAGE LUMINAIRE - TULARE

Existing luminaires EL25, EL29, EL30, and EL34 will be salvaged and delivered to the Huron Area Maintenance Shop by the Contractor. The Contractor will notify the SDDOT at least 5 days before the delivery of the salvaged luminaires. The SDDOT contact is Brad Letcher at 605-353-7140, Brad.Letcher@state.sd.us. The poles will be delivered to:

901 Dakota Ave N
Huron, SD 57350-0940

Luminaires damaged during salvaging or delivery will be repaired or replaced by the Contractor at no cost to the State.

All costs for work involved in the salvage and delivery of the existing luminaires will be incidental to the contract unit price per each for “Salvage Luminaire”.

LUMINAIRES – WOLSEY

The lighting design for EL1-EL3 used the following parameters to provide 1.2 and greater average maintained foot-candles and uniformity ratios of 3:1 (average maintained to minimum maintained foot-candles) and 5:1 (maximum to minimum maintained foot candles):

Pole Setback:	0 feet
Lamp Loss Factor (LLF):	0.8
Width of Lighted Area:	44 feet
Luminaire Cycle Length:	500 feet
Configuration:	Staggered
Mounting Height:	50 feet
Arm Length	8 feet

The following luminaires, or an approved equal, will be used for this project:

a.) American Electric Lighting: ATB2-P603-MVOLT-R2-4K-P7-PCLL

b.) Solarmax: SMX-190WiE-NV-LL5-PH-4070-T212

The lighting design for EL4-EL9 used the following parameters to provide 1.2 and greater average maintained foot-candles and uniformity ratios of 3:1 (average maintained to minimum maintained foot-candles) and 5:1 (maximum to minimum maintained foot candles):

Pole Setback:	9 feet
Lamp Loss Factor (LLF):	0.8
Width of Lighted Area:	44 feet
Luminaire Cycle Length:	400 feet
Configuration:	Staggered
Mounting Height:	50 feet
Arm Length	8 feet

The lighting design for EL10-EL16 used the following parameters to provide 1.2 and greater average maintained foot-candles and uniformity ratios of 3:1 (average maintained to minimum maintained foot-candles) and 5:1 (maximum to minimum maintained foot candles):

Pole Setback:	0 feet
Lamp Loss Factor (LLF):	0.8
Width of Lighted Area:	76 feet
Luminaire Cycle Length:	310 feet
Configuration:	Staggered
Mounting Height:	50 feet
Arm Length	8 feet

The following luminaires, or an approved equal, will be used for this project:

a.) American Electric Lighting: ATB0-P455-MVOLT-R2-4K-P7-PCLL

b.) Solarmax: SMX-149WiE-NV-LL5-PH-4070-T212

All costs associated with the removal, disposal, and replacement of the existing luminaires will be incidental to price each for “Roadway Luminaire, LED with Photoelectric Cell”.

The lighting design for EL17-EL24 used the following parameters to provide 1.0 and greater average maintained foot-candles and uniformity ratios of 3:1 (average maintained to minimum maintained foot-candles) and 5:1 (maximum to minimum maintained foot candles):

Pole Setback:	9 feet
Lamp Loss Factor (LLF):	0.8
Width of Lighted Area:	44 feet
Luminaire Cycle Length:	255 feet
Configuration:	One-Sided
Mounting Height:	50 feet
Arm Length	8 feet

The following luminaires, or an approved equal, will be used for this project:

a.) American Electric Lighting: ATB0-P452-MVOLT-R2-4K-P7-PCLL

b.) Solarmax: SMX-107WiE-NV-LL5-PH-4070-T212

LUMINAIRES – TULARE

The lighting design for EL25-EL27 and EL32-EL34 used the following parameters to provide 0.8 and greater average maintained foot-candles and a uniformity ratio of 3:1 (average maintained to minimum maintained foot-candles):

Pole Setback:	8 feet
Lamp Loss Factor (LLF):	0.8
Width of Lighted Area:	24 feet
Luminaire Cycle Length:	640 feet
Configuration:	Staggered
Mounting Height:	50 feet
Arm Length	6 feet

The lighting design for EL28 and EL31 used the following parameters to provide 0.9 and greater average maintained foot-candles and a uniformity ratio of 3:1 (average maintained to minimum maintained foot-candles):

Pole Setback:	8 feet
Lamp Loss Factor (LLF):	0.8
Width of Lighted Area:	30 feet
Luminaire Cycle Length:	620 feet
Configuration:	Staggered
Mounting Height:	50 feet
Arm Length	6 feet

The lighting design for EL29 and EL30 used the following parameters to provide 1.1 and greater average maintained foot-candles and a uniformity ratio of 3:1 (average maintained to minimum maintained foot-candles):

Pole Setback:	8 feet
Lamp Loss Factor (LLF):	0.8
Width of Lighted Area:	36 feet
Luminaire Cycle Length:	500 feet
Configuration:	Staggered
Mounting Height:	50 feet
Arm Length	6 feet

The following luminaires, or an approved equal, will be used for this project:

a.) American Electric Lighting: ATB2-P602-MVOLT-R2-4K-P7-PCLL

b.) Solarmax: SMX-168WiE-NV-LL5-PH-4070-T212

All costs associated with the removal, disposal, and replacement of the existing luminaires will be incidental to price each for “Roadway Luminaire, LED with Photoelectric Cell”.

SEDIMENT CONTROL

Sediment control may be required if water is flowing through the pipe culvert at the time of cleaning. Otherwise, sediment control is not anticipated.

The Contractor will implement appropriate sediment control measures prior to water flushing to prevent discharges beyond the project boundaries.

Wattles and Silt Fence have been provided in the Estimate of Quantities and will be used to capture pipe cleanout material. Placement of the wattles and Silt Fence will be as directed by the Engineer.

MYCORRHIZAL INOCULUM

Mycorrhizal inoculum will consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier will provide certification of the fungal species claimed and the live propagule count. The inoculum will include a minimum 25% the fungal species *Rhizophagus intraradices*. The remaining 75% may include other endomycorrhizal fungal species.

All seed will be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. All costs of inoculating the seed will be incidental to the contract unit price per pound for the corresponding permanent seed mixture.

The Mycorrhizal Inoculum provided will be from the approved product list. The approved product list may be viewed at the following internet site:

https://apps.sd.gov/HC60ApprovedProducts/main.aspx

FERTILIZING

The Contractor will apply an all-natural slow release fertilizer prior to seeding or placing sod. The all-natural fertilizer will have a minimum guaranteed analysis of 4-4-4 and be USDA Certified BioBased. It should provide a minimum of 4% (N) nitrogen with a minimum water insoluble nitrogen (WIN) fraction of 2.07%, a minimum of 4% (P2O5) available phosphate, a minimum of 4% (K2O) soluble potash, and a maximum carbon to nitrogen ratio (C:N ratio) of 5:1. The all-natural fertilizer will be free of weed-seed and pathogens accomplished through thermophilic composting, and not mechanical or chemical sterilization, to assure presence of beneficial soil microbiology. The fertilizer will have a near neutral pH, a low salt index, a low biological oxygen demand, contain organic humic and fulvic acids, and have high aerobic organism counts. The fertilizer will also be stable, free of bad odors, and be unattractive as a food source for animals. It should also be in a granular form that is easily spread.

The fertilizer will be applied at a rate of 2,000 pounds per acre in accordance with the manufacturer's recommended method of application.

The Fertilizer provided will be from the approved product list. The approved product list may be viewed at the following internet site:

https://apps.sd.gov/HC60ApprovedProducts/main.aspx

PERMANENT SEEDING

The areas to be seeded consist of all newly graded areas within the project limits except for the top of roadways, temporary easements under cultivation, and areas designated to be sod.

Type G Permanent Seed Mixture will consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana, Walsh	7
Switchgrass	Dacotah, Forestburg, Nebraska 28, Pathfinder, Summer, Sunburst, Trailblazer	3
Indiangrass	Holt, Tomahawk, Chief, Nebraska 54	3
Big Bluestem	Bison, Bonilla, Champ, Sunnyview, Rountree, Bonanza	3
Oats or Spring Wheat: April through May; Winter Wheat: August through November		10
	Total:	26

COVER CROP SEEDING

Cover crop seeding may be used on this project as a temporary erosion control measure. The actual limits and use of cover crop seeding will be determined by the Engineer during construction.

MULCHING (GRASS HAY OR STRAW) FOR TEMPORARY STABILIZATION

Grass Hay or Straw Mulch for temporary stabilization is to be used on this project at locations noted in the table and at locations determined by the Engineer during construction. Two applications of Grass Hay or Straw Mulch on areas that receive temporary Grass Hay or Straw Mulch will not be required if the Engineer determines that there is sufficient Mulch remaining at the time permanent seeding takes place.

An additional 1 tons of Grass Hay or Straw Mulch has been added to the Estimate of Quantities for temporary erosion control on areas determined by the Engineer during construction.

If the Contractor uses a no-till drill, mulch may be applied prior to seeding and the mulch can then be punched into the soil by the no-till drill. If the Contractor uses this process, the no-till drill seeding will be completed immediately following the mulch application and the mulch will be punched into the soil at a 3-inch depth.

TABLE OF MULCHING (GRASS HAY OR STRAW) FOR TEMPORARY STABILIZATION APPLIED AT 2 TONS/ACRE

Station	Location	Quantity (Ton)
311+26 to 333+87 L/R	Inslope	8.2
b337+00 to b354+26 L/R	Inslope	9.4
	Additional Quantity:	1.0
	Total Quantity for Temporary Stabilization:	18.6

FIBER MULCHING

Fiber mulch will be applied in a separate operation following permanent seeding.

An additional 2% by weight of tackifier will be added to the fiber mulch product selected from the approved product list. If the product selected has guar gum tackifier included, then the additional 2% of tackifier will be guar gum. If the product selected has synthetic tackifier included, then the additional 2% of tackifier will be synthetic.

Fiber mulch will be applied at the rate of 3,000 pounds per acre.

The Contractor will allow the fiber mulch to cure a minimum of 18 hours prior to watering or any storm event to ensure proper cohesion between the soil and fiber particles.

All costs for the additional tackifier added to the fiber mulch including labor, equipment, and materials will be incidental to the contract unit price per pound for "Fiber Mulching".

The fiber mulch provided will be from the approved product list. The approved product list for fiber mulch may be viewed at the following internet site:

https://apps.sd.gov/HC60ApprovedProducts/main.aspx

TABLE OF FIBER MULCHING

Station	Location	Quantity (Lb)
311+26 to 333+87 L/R	Inslope	12,400
B337+00 to b354+26 L/R	Inslope	14,100
	Additional Quantity:	500
	Total:	27000

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment will be installed at locations noted in the table and at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

The Contractor will provide certification that the erosion control wattles do not contain noxious weed seeds.

An estimated quantity of erosion control wattles will remain on the project until vegetation has been established. It is estimated that some of the erosion control wattles will remain on the project to decompose.

An additional quantity of 12” Diameter Erosion Control Wattles has been added to the Estimate of Quantities for temporary erosion and sediment control and as an alternative to high flow silt fence at wetland areas adjacent to the highway.

The erosion control wattle provided will be from the approved product list. The approved product list for erosion control wattle may be viewed at the following internet site:

https://apps.sd.gov/HC60ApprovedProducts/main.aspx

TABLE OF EROSION CONTROL WATTLE

Station	Location	Diameter (Inch)	Quantity (Ft)
331+26 L/R	Inslope US 281	12	80
333+87 L/R	Inslope US 281	12	80
b337+00 L/R	Inslope US 281	12	80
b354+26 L/R	Inslope US 281	12	80
	Additional Quantity:	12	80
		Total:	400

LOW FLOW SILT FENCE

The low flow silt fence fabric provided will be from the approved product list. The approved product list for low flow silt fence may be viewed at the following internet site:

http://apps.sd.gov/HC60ApprovedProducts/main.aspx

Low flow silt fence will be placed at the locations that will minimize siltation of adjacent streams, lakes, dams, or drainage areas as determined by the Engineer during construction. Refer to Standard Plate 734.04 for details.

TABLE OF LOW FLOW SILT FENCE

Route and MRM	Location	Quantity (Ft)
US 281 – 149.84 L & R	Grading	500
US 281 – 130.42 L & R	Grading	500
US 281 – 204.04 L & R	Protect Wetland	100
US 281 – 204.05 L & R	Protect Wetland	100
US 281 – 208.35 L & R	Protect Wetland	100
US 281 – 208.39 L & R	Protect Wetland	100
	Additional Quantity:	250
	Total:	1650

TEMPORARY FENCE

The Contractor will verify the location of the temporary fence with the landowner prior to installation of the fence.

BRACE PANELS FOR ROW FENCE

The E-Z Brace or an approved equal may be utilized as an alternate horizontal brace in the brace panels if approved by the Engineer. The E-Z Brace will be attached to each wood post utilizing two 5/16” x 3” lag screws. Holes of appropriate diameter, based on wood post condition, will be drilled before placement of lag screws. The following is the contact regarding the E-Z Brace:

Charlie Mack
Macksteel E-Z Braces
415 20th Ave. SE.
Watertown, SD 57201
605-882-2177

STORMWATER POLLUTION PREVENTION PLAN CHECKLIST

*(The numbers left of the title headings are **reference numbers** to the GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES (Stormwater Permit))*

5.3 (2): STAFF TRAINING/SWPPP IMPLEMENTATION

To promote stormwater management awareness specific for this project, the Contractor's Erosion Control Supervisor should provide correspondence of how the SWPPP will be implemented. The Contractor's Erosion Control Supervisor is responsible for providing this information at the preconstruction meeting, and subsequently completing an attendance log, which should identify site-specific implementation of the SWPPP and the names of the personnel who attended the preconstruction meeting. Documentation of the preconstruction meeting will be filed with the SWPPP documents.

5.3 (3): DESCRIPTION OF CONSTRUCTION ACTIVITIES

- **5.3 (3a): Project Limits** (See Title Sheet)
- **5.3 (3a): Project Description** (See Title Sheet)
- **5.3 (4): Site Map(s)** (See Title Sheet and Plans)
- **Major Soil Disturbing Activities** (check all that apply)
  - ☐ Clearing and grubbing
  - ☒ Excavation/borrow
  - ☒ Grading and shaping
  - ☒ Filling
  - ☐ Other (describe):
- **5.3 (3b): Total Project Area** 582
- **5.3 (3b): Total Area to be Disturbed** 9
- **5.3 (3c): Maximum Area Disturbed at One Time** 4.5
- **5.3 (3d): Existing Vegetative Cover (%)** 80
- **5.3 (3d): Description of Vegetative Cover** Native and Introduced East River Grasses
- **5.3 (3e): Soil Properties:** AASHTO Soil Classification A-6, A-7-6
- **5.3 (3f): Name of Receiving Water Body/Bodies** Unnamed streams
- **5.3 (3g): Location of Construction Support Activity Areas**

5.3 (3h): ORDER OF CONSTRUCTION ACTIVITIES

- **Special sequencing requirements (**see sheet).

The Contractor will enter the Estimated Start Date.

Description	Estimated Start Date
Install stabilized construction entrance(s).	
Install perimeter protection where runoff may exit site.	
Install perimeter protection around stockpiles.	
Install channel and ditch bottom protection.	
Clearing and grubbing.	
Remove and stockpile topsoil.	
Stabilize disturbed areas.	
Install utilities, storm sewers, curb and gutter.	
Install inlet and culvert protection after completing storm drainage and other utility installations.	
Final grading.	
Final paving.	
Removal of protection devices.	
Reseed areas disturbed by removal activities.	

5.3 (5): DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES

All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report. Include the technical reasoning for selecting each control. (check all that apply)

Perimeter Controls (See Detail Plan Sheets)

Description	Estimated Start Date
☐ Natural Buffers (within 50 ft of Waters of State)	
☒ Silt Fence	
☒ Erosion Control Wattles	
☐ Temporary Berm / Windrow	
☐ Floating Silt Curtain	
☐ Stabilized Construction Entrances	
☐ Entrance/Exit Equipment Tire Wash	
☐ Other:	

Structural Erosion and Sediment Controls

Description	Estimated Start Date
☒ Silt Fence	
☒ Temporary Berm/Windrow	
☒ Erosion Control Wattles	
☐ Temporary Sediment Barriers	
☐ Erosion Bales	
☐ Temporary Slope Drain	
☐ Turf Reinforcement Mat	
☐ Riprap	
☐ Gabions	
☐ Rock Check Dams	
☐ Sediment Traps/Basins	
☐ Culvert Inlet Protection	
☐ Transition Mats	
☐ Median/Area Drain Inlet Protection	
☐ Curb Inlet Protection	
☐ Interceptor Ditch	
☐ Concrete Washout Facility	
☐ Work Platform	
☐ Temporary Water Barrier	
☐ Temporary Water Crossing	
☐ Permanent Stormwater Ponds	
☐ Permanent Open Vegetated Swales	
☐ Natural Depressions to allow for Infiltration	
☐ Sequential Systems that combine several practices	
☐ Other:	

Dust Controls

Description	Estimated Start Date
☐ Tarps & Wind impervious fabrics	
☐ Watering	
☐ Stockpile location/orientation	
☐ Dust Control Chlorides	
☐ Other	

Dewatering BMPs

Description	Estimated Start Date
☐ Sediment Basins	
☐ Dewatering bags	
☐ Weir tanks	
☐ Temporary Diversion Channel	
☐ Other:	

Stabilization Practices (See Detail Plan Sheets)

(Stabilization measures will begin the following work day whenever earth disturbing activity on any portion of the site has temporarily or permanently ceased. Temporary stabilization will be completed as soon as practicable but no later than 14 days after initiating soil stabilization activities (**3.18**))

Description	Estimated Start Date
☐ Vegetation Buffer Strips	
☐ Temporary Seeding (Cover Crop Seeding)	
☒ Permanent Seeding	
☐ Sodding	
☐ Planting (Woody Vegetation for Soil Stabilization)	
☐ Mulching (Grass Hay or Straw)	
☒ Fiber Mulching (Wood Fiber Mulch)	
☐ Soil Stabilizer	
☐ Bonded Fiber Matrix	
☐ Fiber Reinforced Matrix	
☐ Erosion Control Blankets	
☒ Surface Roughening (e.g. tracking)	
☐ Other:	

Wetland Avoidance

Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes ☐ No ☒ If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

5.3 (6): PROCEDURES FOR INSPECTIONS

- Inspections will be conducted at least once every 7 days.
- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
- Silt fence will be inspected for depth of sediment and for tears to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches $^1/_3$ of the height of the silt fence.
- Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
- Check dams will be inspected for stability. Sediment will be removed when depth reaches ½ the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
- The SDDOT Project Engineer and Contractor's Erosion Control Supervisor are responsible for inspections. Maintenance and repair activities are the responsibility of the Contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

5.3 (7): POST CONSTRUCTION STORMWATER MANAGEMENT

Stormwater management will be handled by temporary controls outlined in "DESCRIPTION AND MAINTENANCE OF CONTROL MEASURES" above, and any permanent controls needed to meet permanent stormwater management needs in the post construction period will be shown in the plans and noted as permanent.

5.3 (8): POLLUTION PREVENTION PROCEDURES

5.3 (8a): Spill Prevention and Response Procedures

➢ **Material Management**

- Housekeeping
  - Only needed products will be stored on-site by the Contractor.
  - Except for bulk materials the contractor will store all materials under cover and/or in appropriate containers.
  - Products must be stored in original containers and labeled.
  - Material mixing will be conducted in accordance with the manufacturer's recommendations.
  - When possible, all products will be completely used before properly disposing of the container off-site.
  - The manufacturer's directions for disposal of materials and containers will be followed.
  - The Contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
  - Dust generated will be controlled in an environmentally safe manner.

- Hazardous Materials
  - Products will be kept in original containers unless the container is not resealable and provide secondary containment as applicable.
  - Original labels and material safety data sheets will be retained in a safe place to relay important product information.
  - If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
  - Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
  - Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any stormwater system or stormwater treatment system.
  - Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, residuals from concrete saw cutting (either wet or dry), and mixer washout waters will be collected on site and managed to prevent contamination of stormwater runoff.

➢ **Spill Control Practices**

In addition to the previous housekeeping and management practices, the following practices will be followed for spill prevention and cleanup if needed.

- For all hazardous materials stored on site, the manufacturer's recommended methods for spill cleanup will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
- Appropriate cleanup materials and equipment will be maintained by the Contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for cleanup purposes.
- All spills will be cleaned immediately after discovery and the materials disposed of properly.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- After a spill a report will be prepared describing the spill, what caused it, and the cleanup measures taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, as well as clean up instructions in the event of reoccurrences.
- The Contractor's site superintendent, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator.

➢ **Spill Response**

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into stormwater runoff and conveyance systems. If the release has impacted on-site stormwater, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens stormwater or surface water at the site, the spill response procedures outlined below must be implemented in a timely manner to prevent the release of pollutants.

- The Contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the Contractor at the site.
- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The Contractor will use appropriate materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.
- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SDDANR.
- Personnel with primary responsibility for spill response and cleanup will receive training by the Contractor's site superintendent or designee. The training must include identifying the location of the spill kits and other spill response equipment and the use of spill response materials.
- Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

5.3 (8b): WASTE MANAGEMENT PROCEDURES

➢ **Waste Disposal**

- All liquid waste materials will be collected and stored in approved sealed containers. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal and notices stating proper practices will be posted. The Contractor is responsible for ensuring waste disposal procedures are followed.

➢ **Hazardous Waste**

- All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the Contractor will be responsible for seeing that these practices are followed.

➢ **Sanitary Waste**

- Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units which must be secured to prevent tipping and serviced in a timely manner by a licensed waste management Contractor or as required by any local regulations.

5.3 (9): CONSTRUCTION SITE POLLUTANTS

The following materials or substances are expected to be present on the site during the construction period. These materials will be handled as noted under the heading "POLLUTION PREVENTION PROCEDURES" (check all that apply).

- ☐ Concrete and Portland Cement
- ☐ Detergents
- ☒ Paints
- ☐ Metals
- ☒ Bituminous Materials
- ☒ Petroleum Based Products
- ☒ Diesel Exhaust Fluid
- ☐ Cleaning Solvents
- ☐ Wood
- ☐ Cure
- ☐ Texture
- ☐ Chemical Fertilizers
- ☐ Other:

Product Specific Practices

- **Petroleum Products**
  All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

- **Fertilizers**
  Fertilizers will be applied only in the amounts specified by the SDDOT. Once applied, fertilizers will be worked into the soil to limit the exposure to stormwater. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.

- **Paints**
  All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.

- **Concrete Trucks**
  Contractors will provide designated truck washout facilities on the site. These areas must be self-contained and not connected to any stormwater outlet of the site. Upon completion of construction, the area at the washout facility will be properly stabilized.

5.3 (10): NON-STORMWATER DISCHARGES

The following non-stormwater discharges are anticipated during the course of this project (check all that apply).

- ☐ Discharges from water line flushing.
- ☐ Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
- ☐ Uncontaminated ground water associated with dewatering activities.

5.3 (11): INFEASIBILITY DOCUMENTATION

If it is determined to be infeasible to comply with any of the requirements of the Stormwater Permit, the infeasibility determination must be thoroughly documented in the SWPPP.

7.0: SPILL NOTIFICATION

In the event of a spill, the Contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:

- A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to SDDANR immediately **if any one of the following** conditions exists:
  - The release or spill threatens or is able to threaten waters of the state (surface water or ground water)
  - The release or spill causes an immediate danger to human health or safety
  - The release or spill exceeds 25 gallons
  - The release or spill causes a sheen on surface water
  - The release or spill of any substance that exceeds the ground water quality standards of ARSD Chapter 74:54:01
  - The release or spill of any substance that exceeds the surface water quality standards of ARSD Chapter 74:51:01
  - The release or spill of any substance that harms or threatens to harm wildlife or aquatic life
  - The release or spill is required to be reported according to Superfund Amendments and Reauthorization Act (SARA) Title III List of Lists, Consolidated List of Chemicals Subject to Reporting Under the Emergency Planning and Community Right to Know Act, US Environmental Protection Agency.

- To report a release or spill, call SDDANR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central Standard Time). To report the release after hours, on weekends or holidays, call South Dakota Emergency Management at 605-773-3231. Reporting the release to SDDANR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, you must also contact local authorities to determine the local reporting requirements for releases. A written report of the unauthorized release of any regulated substance, including quantity discharged, and the location of the discharge will be sent to SDDANR within 14 days of the discharge.

5.4: SWPPP CERTIFICATIONS

➢ **Certification of Compliance with Federal, State, and Local Regulations**

The Storm Water Pollution Prevention Plan (SWPPP) for this project reflects the requirements of all local municipal jurisdictions for storm water management and sediment and erosion control as established by ordinance, as well as other state and federal requirements for sediment and erosion control plans, permits, notices or documentation as appropriate.

➢ **South Dakota Department of Transportation**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____

Authorized Signature (See the General Permit, Section 7.4 (1))

➢ **Prime Contractor**

This section is to be executed by the General Contractor after the award of the contract. This section may be executed any time there is a change in the Prime Contractor of the project.

I certify under penalty of law that this document and all attachments will be revised or maintained under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

_____

Authorized Signature

CONTACT INFORMATION

The following personnel are duly authorized representatives and have signatory authority for modifications made to the SWPPP:

➢ **Contractor Information**:

- Prime Contractor Name: _____
- Contractor Contact Name: _____
- Address: _____
- _____
- City: _____State: _____Zip: _____
- Office Phone: _____Field: _____
- Cell Phone: _____Fax: _____

➢ **Erosion Control Supervisor**

- Name: _____
- Address: _____
- _____
- City: _____State: _____Zip: _____
- Office Phone: _____Field: _____
- Cell Phone: _____Fax: _____

➢ **SDDOT Project Engineer**

- Name: _____
- Business Address: _____
- Job Office Location: _____
- City: _____State: _____Zip: _____
- Office Phone: _____Field: _____
- Cell Phone: _____Fax: _____

➢ **SDDANR Contact Spill Reporting**
- Business Hours Monday-Friday (605) 773-3296
- Nights and Weekends (605) 773-3231

➢ **SDDANR Contact for Hazardous Materials.**
- (605) 773-3153

➢ **National Response Center Hotline**
- (800) 424-8802.

➢ **SDDANR Stormwater Contact Information**
- SDDANR Stormwater (800) 737-8676
- Surface Water Quality Program (605) 773-3351

5.5: REQUIRED SWPPP MODIFICATIONS

➢ **5.5 (1): Conditions Requiring SWPPP Modification**

The SWPPP must be modified, including the site map(s), in response to any of the following conditions:

- When a new operator responsible for implementation of any part the SWPPP begins work on the site.
- When changes to the construction plans, sediment and erosion control measures, or any best management practices on site that are no longer accurately reflected in the SWPPP. This includes changes made in response to corrective actions triggered by inspections.
- To reflect areas on the site map where operational control has been transferred (including the date of the transfer) or has been covered under a new permit since initiating coverage under this general permit.
- If inspections by site staff, local officials, SDDANR, or U.S. EPA determine that SWPPP modifications are necessary for compliance with the Stormwater Permit.
- To reflect any revisions to applicable federal, state, or local requirements that affect the control measures implemented at the site.
- If approved by the Secretary, to reflect any changes in chemical water treatment systems or controls, including the use of a different water treatment chemical, age rates, different areas, or methods of application.

➢ **5.5 (2): Deadlines for SWPPP Modification**

Any required revisions to the SWPPP must be completed within 7 calendar days following any of the items listed above.

➢ **5.5 (3): Documentation of Modifications to the Plan**

All SWPPP modification records are required to be maintained showing the dates of when the modification occurred. The records must include the name of the person authorizing each change and a brief summary of all changes.

➢ **5.5 (4): Certification Requirements**

All modifications made to the SWPPP must be signed and certified as required in Section 7.4.

➢ **5.5 (5): Required Notice to Other Operators**

If there are multiple operators at the site, the Contractor's Erosion Control Supervisor must notify each operator that may be impacted by the change to the SWPPP within 24 hours.

When modifications as described above occur, the SWPPP will be modified to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP using the DOT 298 form and drawings on the plan will be modified to reflect the needed changes. Copies of the DOT 298 forms and the SWPPP will be retained on site in a designated place for review throughout the course of the project. A copy of the DOT 298 form will be given to the Contractor Erosion Control Supervisor and a copy will be emailed to the SDDOT Environmental Section in accordance with the DOT 298 Form.

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. b348+86 (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)

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

Section 1 and 2: Shoulder Lift, per side
US HWY 14 in Wolsey
Sta. 13+80 to Sta. 23+50
Sta. 70+24 to Sta. 72+00
Sta. 23+50 to Sta. 28+27
Sta. 69+22 to Sta. 70+24 (Reversed)

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	9.88 Tons
Salvaged Asphalt Concrete: 20%.....	2.47 Tons
PG 58H-34 Asphalt Binder.....	0.61 Tons
Total Mix (148 lb/ft^3).....	12.96 Tons
Hydrated Lime: 1.0%.....	0.13 Tons
Total	13.09 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 **0.02** tons applied **8.5** 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 **0.12** tons applied **9.0** feet wide.
(Rate = 0.30 gal./sq.yd.)

Flush Seal

SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **0.02** tons applied **8.0** feet wide.
(Rate = 0.05 gal./sq.yd.)

Section 4, 5, 6, and 7 (Left): Shoulder Lift, per side
US HWY 14
Sta. b15+90 to Sta. b5+72.2 (Stationing Reversed)
Right Side Only
Sta. b5+72.2 to Sta. b0+00
US HWY 14 West of US HWY 281
Sta. x6+74 to Sta. x7+04.7
Sta. x9+06.1 to Sta. x9+87.89
Sta. 7+04.7 to Sta. 9+06.1
Sta. 9+87.89 to Sta. 14+77
US HWY 281
Sta. 0+00 to Sta. 5+80

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	12.35 Tons
Salvaged Asphalt Concrete: 20%.....	3.09 Tons
PG 58H-34 Asphalt Binder.....	0.76 Tons
Total Mix (148 lb/ft^3).....	16.20 Tons
Hydrated Lime: 1.0%.....	0.16 Tons
Total	16.36 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 **10.0** 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 **0.14** tons applied **10.5** feet wide.
(Rate = 0.30 gal./sq.yd.)

Flush Seal

SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **0.02** tons applied **9.5** feet wide.
(Rate = 0.05 gal./sq.yd.)

Section 11: Bottom Widening Lift, per side
US HWY 281
Sta. 311+26 to Sta. 314+93.63
Sta. 347+76.96 to Sta. 354+26

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	12.47 Tons
Salvaged Asphalt Concrete: 20%.....	3.12 Tons
PG 58H-34 Asphalt Binder.....	0.77 Tons
Total Mix (148 lb/ft^3).....	16.36 Tons
Hydrated Lime: 1.0%.....	0.16 Tons
Total	16.52 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 **0.04** tons applied **14.0** 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 **0.2** tons applied **14.5** feet wide.
(Rate = 0.30 gal./sq.yd.)

Section 11: Second Widening Lift, per side
US HWY 281
Sta. 311+26 to Sta. 314+93.63
Sta. 347+76.96 to Sta. 354+26

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	11.68 Tons
Salvaged Asphalt Concrete: 20%.....	2.92 Tons
PG 58H-34 Asphalt Binder.....	0.72 Tons
Total Mix (148 lb/ft^3).....	15.32 Tons
Hydrated Lime: 1.0%.....	0.15 Tons
Total	15.47 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 **0.04** tons applied **13.5** 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 **0.2** tons applied **14.5** feet wide.
(Rate = 0.30 gal./sq.yd.)

RATES OF MATERIALS (CONTINUED)

Section 11: Mainline Lift,
US HWY 281
Sta. 311+26 to Sta. 314+93.63
Sta. 347+76.96 to Sta. 354+26

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	50.58 Tons
Salvaged Asphalt Concrete: 20%.....	12.64 Tons
PG 58H-34 Asphalt Binder.....	3.12 Tons
Total Mix (148 lb/ft^3).....	66.34 Tons
Hydrated Lime: 1.0%.....	0.66 Tons
Total	67.00 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 **0.16** tons applied **56.5** 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 **.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 **0.14** tons applied **57.0** feet wide.
(Rate = 0.05 gal./sq.yd.)

Sand for Flush Seal will be at the rate of **1.47** tons applied **33.0** feet wide.
(Rate = 8 lb./sq.yd.).

Section 12 and 13: Bottom Widening Lift, per side
US HWY 281
Sta. 314+93.63 to Sta. 329+71.43
Sta. 332+18.27 to Sta. 333+87 (Reversed)
Sta. 337+00 to Sta. 347+76.96 (Reversed
Sta. 329+71.43 to Sta. 332+18.27

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	8.29 Tons
Salvaged Asphalt Concrete: 20%.....	2.07 Tons
PG 58H-34 Asphalt Binder.....	0.51 Tons
Total Mix (148 lb/ft^3).....	10.87 Tons
Hydrated Lime: 1.0%.....	0.11 Tons
Total	10.98 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 **10.5** 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 **0.14** tons applied **11.0** feet wide.
(Rate = 0.30 gal./sq.yd.)

Section 12 and 13: Mainline Lift
US HWY 281
Sta. 314+93.63 to Sta. 329+71.43
Sta. 332+18.27 to Sta. 333+87 (Reversed)
Sta. 337+00 to Sta. 347+76.96 (Reversed
Sta. 329+71.43 to Sta. 332+18.27

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	50.92 Tons
Salvaged Asphalt Concrete: 20%.....	12.73 Tons
PG 58H-34 Asphalt Binder.....	3.14 Tons
Total Mix (148 lb/ft^3).....	66.79 Tons
Hydrated Lime: 1.0%.....	0.67 Tons
Total	67.46 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 **0.16** tons applied **56.5** 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 **0.15** tons applied **36.0** 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 **0.14** tons applied **57.0** feet wide.
(Rate = 0.05 gal./sq.yd.)

Sand for Flush Seal will be at the rate of **1.47** tons applied **33.0** 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. b348+86 (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.).

RATES OF MATERIALS (CONTINUED)

Section 24: Mainline Lift
US HWY 281
Sta. b136+92 to Sta. b186+20

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	32.95 Tons
Salvaged Asphalt Concrete: 20%.....	8.24 Tons
PG 58H-34 Asphalt Binder.....	2.03 Tons
Total Mix (148 lb/ft^3).....	43.22 Tons
Hydrated Lime: 1.0%.....	0.43 Tons
Total	43.65 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 **0.11** tons applied **37.0** 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 **36.0** 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 27: Bottom Right Shoulder Lift
US HWY 281
Sta. b442+88 to Sta. b452+88

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	8.93 Tons
Salvaged Asphalt Concrete: 20%.....	2.23 Tons
PG 58H-34 Asphalt Binder.....	0.55 Tons
Total Mix (148 lb/ft^3).....	11.71 Tons
Hydrated Lime: 1.0%.....	0.12 Tons
Total	11.83 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 **0.02** tons applied **7.0** 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 **0.15** tons applied **11.5** feet wide.
(Rate = 0.30 gal./sq.yd.)

Section 27: Top Right Shoulder Lift
US HWY 281
Sta. b442+88 to Sta. b452+88

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	8.93 Tons
Salvaged Asphalt Concrete: 20%.....	2.23 Tons
PG 58H-34 Asphalt Binder.....	0.55 Tons
Total Mix (148 lb/ft^3).....	11.71 Tons
Hydrated Lime: 1.0%.....	0.12 Tons
Total	11.83 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 **11.5** 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.)

Section 27: Top Left Shoulder Lift
US HWY 281
Sta. b442+88 to Sta. b452+88

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	8.70 Tons
Salvaged Asphalt Concrete: 20%.....	2.18 Tons
PG 58H-34 Asphalt Binder.....	0.54 Tons
Total Mix (148 lb/ft^3).....	11.42 Tons
Hydrated Lime: 1.0%.....	0.11 Tons
Total	11.53 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 **0.05** tons applied **11.0** feet wide.
(Rate = 0.09 gal./sq.yd.)

Section 28: Shoulder Lift, per side
US HWY 281 in Redfield
Sta. c10+00 to Sta. c12+00

CLASS Q3R HOT MIXED ASPHALT CONCRETE

Crushed Aggregate: 80%.....	9.53 Tons
Salvaged Asphalt Concrete: 20%.....	2.38 Tons
PG 58H-34 Asphalt Binder.....	0.59 Tons
Total Mix (148 lb/ft^3).....	12.50 Tons
Hydrated Lime: 1.0%.....	0.13 Tons
Total	12.63 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 **0.02** tons applied **8.0** 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 **8.5** feet wide.
(Rate = 0.30 gal./sq.yd.)

Flush Seal

SS-1h or CCS-1h Emulsified Asphalt for Flush Seal will be at the rate of **0.02** tons applied **7.5** feet wide.
(Rate = 0.05 gal./sq.yd.)

TABLE OF ENTRANCES, DRIVEWAYS, AND INTERSECTING ROADS

MRM	DISP		Rt/Lt	DESCRIPTION	PAD TYPE	COMMENTS	BASE COURSE SALVAGED (Ton)	CLASS Q3R HOT MIXED ASPHALT CONCRETE (Ton)	2" COLD MILLING ASPHALT CONCRETE (SqYd)
152.000	0.624	E		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
152.000	0.429	w		Drive	Asphalt	Asphalt to Asphalt		10.2	186
152.000	0.429	e		Field Ent	Asphalt	Asphalt to grass	15	2.8	
152.000	0.259	e		Business	Asphalt	Asphalt to gravel	15	2.8	
152.000	0.333	e		Business	Asphalt	Asphalt to gravel	15	2.8	
152.000	0.333	w		Mail Box	Asphalt	Asphalt to gravel	15	2.8	
152.000	0.273	e		Business	Asphalt	Asphalt to gravel	15	2.8	
152.000	0.133	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
152.000	0.098	e		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
152.000	0.098	w		Mail Box	Asphalt				
151.000	0.919	e		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.919	w		Mail Box	Asphalt	Asphalt to gravel		2.8	
151.000	0.839	e		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.799	e		Farm/House	Asphalt to ROW	Asphalt to gravel		6.9	125
151.000	0.799	w		Mail Box	Asphalt	Asphalt to grass	15	2.8	
151.000	0.764	e		Farm/House	Asphalt to ROW	Asphalt to asphalt		5.0	91
151.000	0.764	w		Mail Box	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.709	e		175th St	Asphalt to ROW	Asphalt to asphalt		7.3	132
151.000	0.709	w		175th St	Asphalt to ROW	Asphalt to asphalt		5.2	94
151.000	0.654	e		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.654	w		Mail Box	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.504	e		Field Ent	Asphalt	Asphalt to grass	15	2.8	
151.000	0.479	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.419	e		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.419	w		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.299	w		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.289	e		Field Ent	Asphalt	Asphalt to grass	15	2.8	
151.000	0.209	e		Field Ent	Asphalt	Asphalt to grass	15	2.8	
151.000	0.199	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
151.000	0.978	w		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
150.000	0.713	e		176th St	Asphalt to ROW	Asphalt to gravel	15	9.4	
150.000	0.713	w		176th St	Asphalt to ROW	Asphalt to gravel	15	7.2	
150.000	0.218	e		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
150.000	0.218	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
149.000	0.834	e		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
149.000	0.834	w		SD 26	Asphalt to ROW	Asphalt to Asphalt		29.2	530
149.000	0.684	w		385th Ave	Asphalt to ROW	Asphalt to gravel	15	8.3	
149.000	0.233	e		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
149.000	0.233	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
149.000	0.078	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
148.000	0.562	w		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
148.000	0.543	e		178th St	Asphalt to ROW	Asphalt to gravel	15	6.5	
147.000	0.937	w		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
147.000	0.791	e		386th Ave	Asphalt	Asphalt to gravel	15	2.8	
147.000	0.791	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
147.000	0.576	w		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
147.000	0.456	e		179th St	Asphalt to ROW	Asphalt to gravel	15	6.1	
147.000	0.456	w		179th St	Asphalt to ROW	Asphalt to gravel	15	8.8	
146.000	0.947	e		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
146.000	0.737	e		Field Ent	Asphalt	Asphalt to grass	15	2.8	

MRM	DISP		Rt/Lt	DESCRIPTION	PAD TYPE	COMMENTS	BASE COURSE SALVAGED (Ton)	CLASS Q3R HOT MIXED ASPHALT CONCRETE (Ton)	2" COLD MILLING ASPHALT CONCRETE (SqYd)
146.000	0.737	w		Field Ent	Asphalt	Asphalt to grass	15	2.8	
146.000	0.627	w		Field Ent	Asphalt	Asphalt to grass	15	2.8	
146.000	0.457	w		180th St	Asphalt to ROW	Asphalt to gravel	15	14.5	
146.000	0.237	e		180th St	Asphalt to ROW	Asphalt to gravel	15	16.1	
145.000	0.420	e		181st St	Asphalt to ROW	Asphalt to gravel	15	8.6	
145.000	0.420	w		181st St	Asphalt to ROW	Asphalt to gravel	15	9.0	
144.000	0.415	e		182nd St	Asphalt to ROW	Asphalt to gravel	15	9.5	
144.000	0.415	w		182nd St	Asphalt to ROW	Asphalt to gravel	15	9.6	
144.000	0.060	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
143.000	0.938	e		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
143.000	0.918	w		Dakota St	Asphalt to ROW	Asphalt to asphalt		7.8	141.0
143.000	0.898	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
143.000	0.823	w		Business	Asphalt	Asphalt to gravel	20	2.8	
143.000	0.663	e		Farm/House	Asphalt	Asphalt to grass	15	2.8	
143.000	0.663	w		Main St	Asphalt	Asphalt to asphalt		10.0	182.0
143.000	0.588	w		Business	Asphalt	Asphalt to gravel	15	2.8	
143.000	0.527	e		Business	Asphalt	Asphalt to gravel	15	2.8	
143.000	0.413	e		183rd St	Asphalt to ROW	Asphalt to asphalt		10.6	193.0
143.000	0.413	w		183rd St	Asphalt to ROW	Asphalt to asphalt		10.8	197.0
143.000	0.382	e		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
143.000	0.198	w		Business	Asphalt	Asphalt to gravel	15	2.8	
143.000	0.117	w		Business	Asphalt	Asphalt to gravel	15	2.8	
142.000	0.913	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
142.000	0.913	w		Business	Asphalt	Asphalt to gravel	15	2.8	
142.000	0.662	w		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
142.000	0.412	e		184th St	Asphalt to ROW	Asphalt to gravel		6.3	115.0
142.000	0.412	w		184th St	Asphalt to ROW	Asphalt to gravel		7.7	140.0
142.000	0.323	e		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
142.000	0.067	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
141.000	0.822	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
141.000	0.802	e		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
141.000	0.422	e		185th St	Asphalt to ROW	Asphalt to gravel	15	8.6	
141.000	0.422	w		185th St	Asphalt to ROW	Asphalt to gravel	15	7.2	
141.000	0.297	e		Business	Asphalt	Asphalt to concrete			
140.000	0.919	e		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
140.000	0.919	w		Field Ent	Asphalt	Asphalt to gravel	15	2.8	
140.000	0.419	e		186th St	Asphalt to ROW	Asphalt to gravel	15	8.4	
140.000	0.419	w		186th St	Asphalt to ROW	Asphalt to gravel	15	7.9	
139.000	0.919	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
139.000	0.919	w		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
139.000	0.415	e		187th St	Asphalt to ROW	Asphalt to gravel	15	9.4	
139.000	0.415	w		187th St	Asphalt to ROW	Asphalt to gravel	15	6.5	
138.000	0.915	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
138.000	0.915	w		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
138.000	0.849	e		Field Entrance	Asphalt	Asphalt to grass	15	2.8	
138.000	0.504	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
138.000	0.414	e		188th St	Asphalt to ROW	Asphalt to gravel	15	5.1	
138.000	0.414	w		188th St	Asphalt to ROW	Asphalt to gravel	15	8.5	
138.000	0.074	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
138.000	0.074	w		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	

TABLE OF ENTRANCES, DRIVEWAYS, AND INTERSECTING ROADS CONTINUED

MRM	DISP		Rt/Lt	DESCRIPTION	PAD TYPE	COMMENTS	BASE COURSE SALVAGED (Ton)	CLASS Q3R HOT MIXED ASPHALT CONCRETE (Ton)	2" COLD MILLING ASPHALT CONCRETE (SqYd)
137.000	0.924	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
137.000	0.863	w		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
137.000	0.713	w		Farm/House	Asphalt	Asphalt to gravel	15	2.8	
137.000	0.418	e		189th St	Asphalt to ROW	Asphalt to gravel	15	7.6	
137.000	0.418	w		189th St	Asphalt to ROW	Asphalt to gravel	15	6.0	
136.420	0.482	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
136.420	0.482	w		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
136.000	0.356	e		SD 28	Asphalt to ROW	Asphalt to asphalt		52.1	948
136.000	0.356	w		SD 28	Asphalt to ROW	Asphalt to asphalt		52.1	948
135.000	0.945	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
135.000	0.716	e		Field Entrance	Asphalt	Asphalt to gravel	15	2.8	
135.000	0.376	e		191st St	Asphalt to ROW	Asphalt to gravel	15	6.2	
135.000	0.376	w		191st St	Asphalt to ROW	Asphalt to gravel	15	5.8	
135.000	0.162	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
134.000	0.956	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
134.000	0.677	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
134.000	0.373	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
134.000	0.373	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
134.000	0.118	e		Farm/House	Asphalt	Aspahlt to gravel	15	2.8	
134.000	0.118	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
133.000	0.882	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
133.000	0.772	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
133.000	0.377	e		193rd St	Asphalt to ROW	Aspahlt to gravel	15	10.2	
133.000	0.377	w		193rd St	Asphalt to ROW	Aspahlt to gravel	15	6.5	
133.000	0.113	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
133.000	0.018	e		Farm/House	Asphalt to ROW	Aspahlt to gravel	15	7.0	
132.000	0.951	e		Farm/House	Asphalt to ROW	Aspahlt to gravel	15	7.2	
132.000	0.881	e		Farm/House	Asphalt to ROW	Aspahlt to gravel	15	7.8	
132.000	0.881	w		Field Entrance	Asphalt	Aspahlt to gravel	15	6.8	
132.000	0.811	e		Farm/House	Asphalt to ROW	Aspahlt to gravel	15	7.4	
132.000	0.383	e		194th St	Asphalt to ROW	Aspahlt to gravel	15	9.1	
132.000	0.383	w		194th St	Asphalt to ROW	Aspahlt to gravel	15	9.2	
131.000	0.878	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
131.000	0.384	e		195th St	Asphalt	Aspahlt to gravel	15	5.8	
131.000	0.384	w		195th St	Asphalt to ROW	Aspahlt to gravel	15	6.2	
130.000	0.864	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
130.000	0.345	e		196th St	Asphalt to ROW	Asphalt to asphalt		15.2	276
130.000	0.345	w		196th St	Asphalt to ROW	Asphalt to asphalt		18.7	340
130.000	0.015	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
130.000	0.015	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
129.000	0.851	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
129.000	0.716	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
129.000	0.716	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
129.000	0.232	e		197th St	Asphalt to ROW	Aspahlt to gravel	15	9.7	
129.000	0.232	w		197th St	Asphalt to ROW	Aspahlt to gravel	15	6.4	
128.000	0.745	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
128.000	0.241	e		198th St	Asphalt to ROW	Aspahlt to gravel	15	8.5	
128.000	0.241	w		198th St	Asphalt to ROW	Aspahlt to gravel	15	8.1	
128.000	0.156	e		Farm/House	Asphalt	Aspahlt to gravel	15	2.8	
127.000	0.940	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	

MRM	DISP		Rt/Lt	DESCRIPTION	PAD TYPE	COMMENTS	BASE COURSE SALVAGED (Ton)	CLASS Q3R HOT MIXED ASPHALT CONCRETE (Ton)	2" COLD MILLING ASPHALT CONCRETE (SqYd)
127.000	0.750	w		Farm/House	Asphalt	Aspahlt to gravel	15	2.8	
127.000	0.740	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
127.000	0.535	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
127.000	0.241	e		199th St	Asphalt to ROW	Aspahlt to gravel	15	7.8	
127.000	0.241	w		199th St	Asphalt to ROW	Aspahlt to gravel	15	7.1	
127.000	0.041	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
127.000	0.041	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
126.000	0.757	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
126.000	0.757	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
126.000	0.382	e		Farm/House	Asphalt	Aspahlt to gravel	15	2.8	
126.000	0.382	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
126.000	0.258	e		200th St	Asphalt to ROW	Aspahlt to gravel	15	9.1	
126.000	0.258	w		200th St	Asphalt to ROW	Aspahlt to gravel	15	7.4	
125.000	0.759	e		Farm/House	Asphalt	Aspahlt to gravel	15	2.8	
125.000	0.759	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
125.000	0.584	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
125.000	0.469	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
125.000	0.255	e		201st St	Asphalt to ROW	Aspahlt to gravel	15	9.3	169.0
125.000	0.255	w		201st St	Asphalt to ROW	Aspahlt to gravel	15	18.1	329.0
124.250	0.511	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
124.250	0.361	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
124.250	0.361	w		Business	Asphalt	Asphalt to asphalt	15	21.6	393.0
124.250	0.245	w		Business	Asphalt	Asphalt to asphalt	15	24.9	452.0
326.520	0.277	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
326.520	0.478	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
326.520	0.478	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
327.000	0.404	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
327.000	0.404	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
327.000	0.842	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
327.000	0.842	w		Field Entrance	Asphalt to ROW	Aspahlt to gravel	15	6.2	
327.000	0.918	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
328.000	0.152	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
328.000	0.510	e		204th St	Asphalt	Aspahlt to gravel	15	2.8	
328.000	0.510	w		204th St	Asphalt	Aspahlt to gravel	15	2.8	
329.000	0.074	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
329.000	0.074	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
329.000	0.295	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
329.000	0.295	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
329.000	0.426	e		387th Ave	Asphalt to ROW	Asphalt to asphalt	15	7.9	
329.000	0.426	w		387th Ave	Asphalt to ROW	Aspahlt to gravel	15	8.5	
329.000	0.482	w		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
330.000	0.154	e		Field Entrance	Asphalt	Aspahlt to gravel	15	2.8	
						Totals	2600	1046.5	5981

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
	347+76.96	to	354+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		
	337+00	to	347+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	4414.02	0.836
	b330+29.43	to	b348+86	1856.6		
	b354+26	to	b355+09.76	83.8		
26	b348+86	to	b355+09.76	623.8	623.76	0.118
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:	169963.40	32.190

Revised
01/15/2026 2:41:24 PM

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	31	151
Plotting Date: 01/15/2026			

PLOT SCALE - 1.9600

PLOT NAME - 4

FILE ...\ASPHALT QUANTITIES 06CT.DGN

PLOTTED FROM - TRAB10200

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	42	83.6	19,863.1	1,001.1	62.7	20.9	125.4	9.3	1.3	114.9	83.6	3.9	0.8	15.8	63.1	1,595.1	74.4	15.9	301.0	1,203.8	3.9	4.7	4.3	43.2	-
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	-	-	32,979.7	1,806.6	3,800.0	-	281.9	20.9	2.8	258.2	-	-	-	-	-	3,719.1	173.0	37.2	701.8	2,807.1	8.6	10.7	7.5	138.8	7.6
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	2,724	8,275.4	676.7	106.6	2,844.1	-	-	-	-	-	-	-	-	-	-	35,541.9	1,655.6	361.7	6,723.6	26,801.1	92.2	-	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	4,099.3	13,544.6	521,088.4	26,512.9	8,706.0	687.3	4,462.4	330.3	44.6	4,087.4	2,749.2	129.2	27.5	518.5	2,074.0	94,823.3	4,419.5	951.6	17,909.0	71,543.0	246.4	166.3	155.4	1,577.6	288.6
Totals	4,265.3	14,162.5	584,628.4	29,721.0	15,616.7	760.8	4,903.2	362.9	49.1	4,491.2	3,043.1	143.0	30.4	573.9	2,295.7	103,187.0	4,808.9	1,033.2	19,488.2	77,856.3	269.5	182.8	171.8	1,729.3	299.3

NABI - Item is not a bid item. Quantity provided for information only.
Transitions and Misc Sections Includes - 8, 9, 15, 15 mainline, 18-21, and 26

TABLE OF MATERIAL QUANTITIES - SHOULDERS

	UNCLASSIFIED EXCAVATION, DIGOUTS	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	1,203	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	1,392	5,814.7			1,815.7	598.0	27.8	6.0	112.8	451.6	1.6		7.9	
13 Bottom Widening Lift	123	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						605.6	28.2	6.2	113.9	457.3		2.6		
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	2,724	8,275.4	676.7	106.6	2,844.1	35,541.9	1,655.6	361.7	6,723.6	26,801.1	87.6	4.7	281.0	0.3
Totals	2,743	8,314.4	676.7	106.6	9,534.4	36,776.5	1,713.0	373.8	6,956.7	27,732.9	89.7	4.7	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	957.1	638.0	125.4
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	38,159.6	-
Table of Additional Quantities	242.8	1,146.5	-
TOTAL	**43,040.4**	**63,189.7**	**4,903.2**

Total Class Q3R Hot Mixed Asphalt Concrete:	106230.1	*Tons*
Total Asphalt Concrete Blade Laid:	4903.2	*Tons*

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

TABLE OF ADDITIONAL QUANTITIES

LOCATIONS:	BASE COURSE, SALVAGED	COLD MILLING ASPHALT CONCRETE	COLD MILLED MATERIAL PRODUCED (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
	Ton	SqYd	Ton	Ton	Ton	Ton	Ton	Ton	Ton
Begin Project 06PG		126.7	6.7	6.7	0.3	0.1	1.3	5.1	0.1
US 281 and SD 26 Intersection Radius	30.0			14.0	0.7	0.1	2.6	10.6	0.1
Str. No. 58-101-321		1,904.4	100.7	100.7	4.7	1.0	19.0	76.0	1.4
US 281 and 196th ST Intersection Radius	175.0			86.0	4.0	0.9	16.2	64.9	0.2
End Project 06PG		222.2	11.8	11.8	0.5	0.1	2.2	8.9	0.2
Begin Project 06CT		253.3	13.3	13.3	0.6	0.1	2.5	10.0	0.2
Str. No. 03-100-133		1,904.4	100.7	100.7	4.7	1.0	19.0	76.0	1.4
End Project 06CT		182.2	9.6	9.6	0.4	0.1	1.8	7.2	0.1
Entrances, Driveways, and Intersecting Roads refer to TABLE OF ENTRANCES, DRIVEWAYS, AND INTERSECTING ROADS - 06CT	285.0	-	-	64.7	3.0	0.6	12.2	48.8	0.3
Entrances, Driveways, and Intersecting Roads refer to TABLE OF ENTRANCES, DRIVEWAYS, AND INTERSECTING ROADS - 06PG	2,315.0	5,981.0	329.0	981.8	45.7	9.8	185.3	741.0	4.5
Total 06CT	285.0	2,339.9	123.6	188.3	8.8	1.9	35.5	142.1	2.1
Total 06 PG	2,520.0	8,234.3	448.2	1,201.0	55.9	12.0	226.6	906.6	6.5
Totals	2,805.0	10,574.2	571.8	1,389.3	64.7	13.9	262.1	1,048.7	8.6

TABLE OF FENCE QUANTITIES

Station to Station		Side L/R	Right-of-Way Fence		Temporary Fence		Post Panels		Fence
			Type 2 (Ft)	Type 3 (Ft)	Type 2 (Ft)	Type 3 (Ft)	2 Post (Each)	3 Post (Each)	Remove (Ft)
327+01.00	328+42.00	R	141	-	141	-	2	-	141
b337+90.00	b340+41.49	L	-	-	-	-	-	-	252
b342+32.86	b345+35.00	R	-	302	-	302	1	1	302
Total			141	302	141	302	3	1	695

US 281 TABLE OF MAINLINE CULVERT WORK

Culvert #	Culvert Inventory #	MRM	+ Disp	Station	Side	Per Original Plans: In Place Culvert Size and Type		Per Original Plans: Culvert Length (Ft)	Per Original Plans: Culvert End Type	Per Original Plans: Direction of Flow	Per Original Plans: Drainage Area Acre	Contractor Furnished Topsoil (CuYd)	Object Marker: Remove Delineator for Reset (Each)	Object Marker: Reset Delineator (Each)	Remove Pipe: End Section (Each)	Remove Pipe: End Section for Reset (Each)	Furnish and Install: 24" RCP (Ft)	Furnish and Install: 24" RCPA Sloped End (Each)	Furnish and Install: 38" RCP Flared End (Each)	Furnish and Install: 24" RCP Sloped End (Each)	Furnish and Install: 30" RCP Sloped End (Each)	Repair Comments	Designer Comments	Survey Rqd ?	ROW Rqd ?	Debris level in culvert	Wetland Present ?	Water Level in Culvert	Debris infiltration through joints under main roadway ?	Should pipe be cleaned and video inspected ?	Roadway Distress over Culvert?	Field Inspection Comments
1	16759	124.25	0.01	0+57	L	24"	RCP	117	Flared	West												Clean Culvert		N	N	6"	N	0	N	N	N	Clean Culvert
					R				Flared															N	N	6"	N	0	N			
18	15680	130.00	0.50	327+91	L	24"	RCP	116	Sloped	East	23		1	1		1	6					Culvert Extension L & R		N	N	0	N	6"	N	N	N	No Issues. Long AC patch through curves.
					R				Sloped				1	1		1	6							N	N	0	N	6"	N			
27	171103	133.00	0.13	466+50	L	30"	RCP	92	Sloped	West?	27											Clean Culvert		N	N	1.5'	Y	1"	N	N	N	Hard packed sediment at west end. Consider cleaning culvert. No other issues.
					R				Sloped															N	N	3"	Y	3/4'	N			
29	172248	133.00	0.63	492+50	L	24"	RCP	80	Sloped	East	4											Clean Culvert		N	N	8"	Y	1"	N	N	N	Hard packed sediment at both end. Consider cleaning culvert. No other issues.
					R				Sloped															N	N	13"	Y	0	N			
33	172252	135.00	0.05	571+49	L	30"	RCP	86	Sloped	East	173		1	1	1						1	Replace West Sloped End.		N	N	0	Y	2"	N	N	N	West Sloped End is damaged. No other issues.
					R				Sloped															N	N	?	Y	4"	N			
37s	172256	135.00	0.93	613+44	L	48"	RCP	80	Flared	East	4.7 SqMi.	5										Place 10 CY Topsoil total around culvert ends on the west side of the roadway and between the culverts on the east side of the roadway.		N	N	0	Y	1'	N	N	N	Erosion around the west flared ends & between the east flared end. 10 CY fill should take care of it. AC Patch over culverts, but not rough.
					R				Flared															N	N	0	Y	1'	N			
37n				613+44	L	48"	RCP	80	Flared	East														N	N	0	Y	1'	N	N	N	
					R				Flared			5													N	N	0	Y	1'	N			
44	172263	138.00	0.60	a 130+97	L	36"	RCP	96	Flared	East	63											Replace East Flared End		N	N	0	N	0	N	N	N	East Flared End is damaged. No other issues.
					R				Flared				1	1	1				1					N	N	0	N	2"	N			
56n	171147	144.00	0.09	b 44+54	L	24"	RCP A	76	Sloped	-	77		1	1	1			1				Replace West Sloped End		N	N	0	N	0	N	N	N	West Sloped End is damaged. No other issues.
					R				Sloped															N	N	0	N	0	N			
57	171148	144.00	0.55	b 69+17	L	24"	RCP	92	Sloped	West	20											Clean Culvert		N	N	?	Y	1'+	N	N	N	Both ends overgrown w/vegetation. 1'+ of water. Can not see in this culvert from either end.
					R				Sloped															N	N	?	Y	1'+	N			
70	172289	148.00	0.99	b 303+23	L	24"	RCP	70	Sloped	East	4		1	1	1						1	Replace West Sloped End		N	N	1"	N	0	N	N	N	Top of West Sloped End is Damaged. No other issues.
					R				Sloped															N	N	2"	N	0	N			
73	172992	149.78	0.14	b 359+79	L	24"	RCP	124	Sloped	West	16											Clean Culvert		N	N	1"	N	0	N	N	N	Dirt pile in west Sloped End, No other issues.
					R				Sloped															N	N	1"	N	0	N			
										TOTAL		10	6	6	4	2	12	1	1	1	1											

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STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	36	151

Plotting Date: 01/15/2026

PERMANENT SIGNING - US 281

MRM	Disp	Width	Height	Dir Face	Side Of Road	Remove Sign for Reset	Reset Sign	Sign Code	Description	Remarks
130	0.214	36	36	South	Right	1	1	W1-4L: LEFT REVERSE CURVE ARROW	Left Rev Curve Arrow	Remove and reset sign assembly for grading operations
130	0.238	24	30	North	Left	1	1	R2-1X: SPEED LIMIT - [SPECIFY SPEED]	SPEED LIMIT --65	Remove and reset sign assembly for grading operations
130	0.328	24	24	NorthWest	Left	1	1	M1-4: ROUTE MARKER (US HIGHWAYS)	281	Remove and reset sign assembly for grading operations
130	0.328	24	12	North	Left			M3-3A: DIRECTIONAL MARKER - SOUTH - US	DIRECTIONAL MARKER - SOUTH	
130.42	0.001	36	36	West	Left	1	1	R1-1: STOP	Stop	Remove and reset sign assembly for grading operations
130.42	0.002	36	36	East	Right	1	1	R1-1: STOP	Stop	Remove and reset sign assembly for grading operations
130.42	0.039	24	24	SouthEast	Right	1	1	M1-4: ROUTE MARKER (US HIGHWAYS)	281	Remove and reset sign assembly for grading operations
130.42	0.039	24	12	SouthEast	Right			M3-1A: DIRECTION MARKER - NORTH - US	ROUTE MARKER north	
130.42	0.492	36	36	North	Left	1	1	W1-4L: LEFT REVERSE CURVE ARROW	Left Rev Curve Arrow	Remove and reset sign assembly for grading operations
149	0.649	84	36	North	Left	1	1	D2-2: DISTANCE BOARD - 2 LINES	Tulare - 6 Jct US 14 - 25	Remove and reset sign assembly for grading operations
149	0.674	48	36	South	Left	1	1	W14-3: NO PASSING ZONE	No Passing Zone	Remove and reset sign assembly for grading operations
149	0.698	30	30	West	Left	1	1	R1-1: STOP	Stop	Remove and reset sign assembly for grading operations
149	0.706	24	24	South	Right	1	1	M1-5: ROUTE MARKER (STATE/COUNTY ROADS)	State Route Marker - 26	Remove and reset sign assembly for grading operations
149	0.706	21	15	South	Right			M2-1A: JUNCTION MARKER - US	JCT	
149	0.743	24	30	North	Left	1	1	R2-1X: SPEED LIMIT - [SPECIFY SPEED]	SPEED LIMIT 65	Remove and reset sign assembly for grading operations
149	0.754	84	36	South	Right	1	1	D1-2: DESTINATION BOARD - 2 LINES W/ ARROW	Arrow up Redfield ------ to Hwy 45	Remove and reset sign assembly for grading operations
149	0.793	24	12	North	Left	1	1	M3-3A: DIRECTIONAL MARKER - SOUTH - US	Directional Marker - South	Remove and reset sign assembly for grading operations
149	0.793	24	30	North	Left			M1-4: ROUTE MARKER (US HIGHWAYS)	ROUTE MARKER (US HIGHWAYS) 281	
149	0.807	24	24	South	Right	1	1	M1-5: ROUTE MARKER (STATE/COUNTY ROADS)	State Route Marker - 26	Remove and reset sign assembly for grading operations
149	0.807	30	24	South	Right			M1-4: ROUTE MARKER (US HIGHWAYS)	US Route Marker -281	
149	0.807	21	15	South	Right			M6-3A: DIR ARROW - VERT SINGLE HEAD - US	Up Arrow	
149	0.807	21	15	South	Right			M6-1A: DIR ARROW - HORIZ SINGLE HEAD - US	Left Arrow------	
149	0.844	48	48	West	Right	1	1	R1-1: STOP	Stop	Remove and reset sign assembly for grading operations
149	0.845	18	12	West	Right	1	1	M6-4A: DIR ARROW - HORIZ DOUBLE HEAD - US		Remove and reset sign assembly for grading operations
149	0.845	24	12	West	Right			R3-9DPB: END MARKER - SD	END	
149	0.845	24	24	West	Right			M1-4: ROUTE MARKER (US HIGHWAYS)	ROUTE MARKER 281	
149	0.845	24	24	West	Right			M1-5: ROUTE MARKER (STATE/COUNTY ROADS)	ROUTE MARKER 26	
149	0.845	48	24	West	Right			W1-7: ARROW - LARGE HORIZ DOUBLE HEAD	DOUBLE ARROW SIGN - SYMBOL	
149.8	0.05	21	15	North	Left	1	1	M6-1B: DIR ARROW - HORIZ SINGLE HEAD - SD	Directional Arrow - Rt.	Remove and reset sign assembly for grading operations
149.8	0.05	30	24	North	Left			M1-4: ROUTE MARKER (US HIGHWAYS)	US Route Marker - 281	
149.8	0.05	24	24	North	Left			M1-5: ROUTE MARKER (STATE/COUNTY ROADS)	State Route Marker - 26	
149.8	0.05	21	15	North	Left			M6-3A: DIR ARROW - VERT SINGLE HEAD - US	Up Arrow	
149.8	0.051	24	12	South	Right	1	1	M3-1A: DIRECTION MARKER - NORTH - US	Directional Marker - North	Remove and reset sign assembly for grading operations
149.8	0.051	30	24	South	Right			M1-4: ROUTE MARKER (US HIGHWAYS)	ROUTE MARKER US 281	
149.8	0.072	60	36	North	Left	1	1	D1-2: DESTINATION BOARD - 2 LINES W/ ARROW	Up Arrow to 14 & ------> to 45	Remove and reset sign assembly for grading operations
149.8	0.122	36	36	North	Left	1	1	W1-2L: LEFT CURVE ARROW	LEFT CURVE ARROW	Remove and reset sign assembly for grading operations
149.8	0.13	78	36	South	Right	1	1	D2-2: DISTANCE BOARD - 2 LINES	Redfield - 3 & Aberdeen - 45	Remove and reset sign assembly for grading operations
150	0.008	36	36	South	Right	1	1	W8-17: SHOULDER DROPOFF (SYM)	Shoulder Drop Off	Remove and reset sign assembly for grading operations
150	0.01	21	15	North	Left	1	1	M2-1B: JUNCTION MARKER - SD	JUNCTION MARKER	Remove and reset sign assembly for grading operations
150	0.01	18	24	North	Left			M1-5: ROUTE MARKER (STATE/COUNTY ROADS)	ROUTE MARKER SD26	
150	0.071	24	30	South	Right	1	1	R2-1K: SPEED LIMIT 65	Speed Limit 65	Remove and reset sign assembly for grading operations
150	0.104	48	36	North	Right	1	1	W14-3: NO PASSING ZONE	No Passing Zone	Remove and reset sign assembly for grading operations
Total						26	26			

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	37	151

TABLE OF CONSTRUCTION STAKING FOR PROJECT NH 0281(127)124

(See Special Provision for Contractor Staking)

Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Grade Staking				Miscellaneous Staking Quantity (Mile)	Slope Staking Quantity (Mile)	Construction Staking Quantity (Mile)
					Length (Mile)	Lane Factor	*Sets of Stakes	**Grade Staking Quantity (Mile)			
US 281 (3 Lanes AC Pavement)	5+80	11+00	3	520	0.098	1.5	1		0.098		0.098
US 281 (Transition from 3 Lanes to 4 Lanes AC Pavement)	11+00	12+50	4	150	0.028	2	1		0.028		0.028
US 281 (4 Lanes AC Pavement)	12+50	24+13	4	1163	0.220	2	1		0.220		0.220
US 281 (Transition from 4 Lanes to 2 Lanes AC Pavement)	24+13	25+33	4	120	0.023	2	1		0.023		0.023
US 281 (2 Lanes AC Pavement)	25+33	311+26	2	28,593	5.415	1	1		5.415		5.415
US 281 (Transition from 2 Lanes to 3 Lanes AC Pavement)	311+26	314+93.63	3	367.63	0.070	1.5	1	0.104	0.070	0.070	0.070
US 281 (3 Lanes AC Pavement)	314+93.63	329+71.43	3	1477.8	0.280	1.5	1	0.420	0.280	0.280	0.280
US 281 (Transition from 3 Lanes to 2 Lanes AC Pavement)	329+71.43	333+87	3	416	0.079	1.5	1	0.118	0.079	0.079	0.079
US 281 (2 Lanes AC Pavement)	333+87	637+12	2	30325	5.743	1	1		5.743		5.743
US 281 (Transition from 2 Lanes to 3 Lanes AC Pavement)	637+12	641+32	3	420	0.080	1.5	1		0.080		0.080
US 281 (3 Lanes AC Pavement)	641+32	642+56	3	124	0.023	1.5	1		0.023		0.023
US 281 (Transition from 3 Lanes to 2 Lanes AC Pavement)	642+56	646+76	3	420	0.080	1.5	1		0.080		0.080
US 281 (2 Lanes AC Pavement)	646+76	649+39	2	263	0.050	1	1		0.050		0.050
US 281 (2 Lanes AC Pavement)	a24+50	a385+20	2	36070	6.831	1	1		6.831		6.831
US 281 (2 Lanes AC Pavement)	b9+50	b163+62.89	2	15412.89	2.919	1	1		2.919		2.919
US 281 (2 Lanes AC Pavement)	b166+46.45	b341+20	2	17473.55	3.309	1	1		3.309		3.309
US 281 (Transition from 2 Lanes to 3 Lanes AC Pavement)	b341+20	b347+76.96	3	656.96	0.124	1.5	1	0.187	0.124	0.124	0.124
US 281 (3 Lanes AC Pavement)	b347+76.96	b353+06	3	529.04	0.100	1.5	1	0.150	0.100	0.100	0.100
US 281 (Transition from 3 Lanes to 2 Lanes AC Pavement)	b353+06	b354+26	3	120	0.023	1.5	1	0.034	0.023	0.023	0.023
US 281 (2 Lanes AC Pavement)	b354+26	b498+38	2	14412	2.730	1	1		2.730		2.730
							Totals:	1.013	28.226	0.676	28.226

TABLE OF CONSTRUCTION STAKING FOR PROJECT NH 0014(245)326

(See Special Provision for Contractor Staking)

Roadway and Description	Begin Station	End Station	Number of Lanes	Length (Ft)	Grade Staking			Miscellaneous Staking Quantity (Mile)	Construction Staking Quantity (Mile)
					Length (Mile)	Lane Factor	*Sets of Stakes		
US 14 (2 Lanes AC Pavement)	e173+00	e92+66.51	2	8,033	1.521	1	1	1.521	1.521
US 14 (2 Lanes AC Pavement)	f92+56.72	f69+14.85	2	2,341.87	0.444	1	1	0.444	0.444
US 14 (2 Lanes AC Pavement)	f67+30.15	f15+90	2	5,140.15	0.974	1	1	0.974	0.974
							Totals:	2.939	2.939

* 1 = Top of Subgrade Blue Top Stakes Only (AC Pavement)

** Grade Staking Quantity = (Length) x (Lane Factor) x (Sets of Stakes)

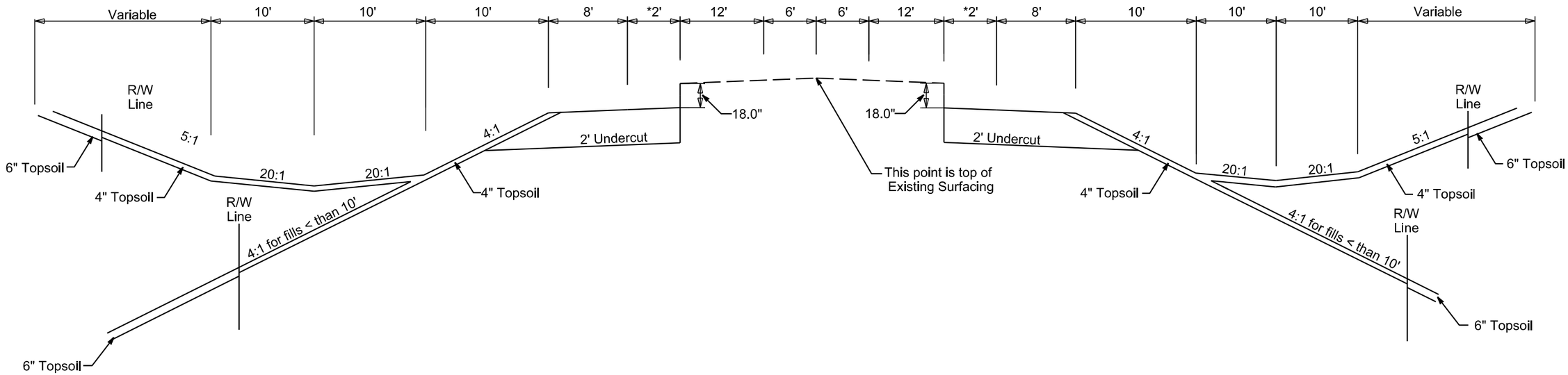
TYPICAL GRADING SECTION

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	38	151

US HIGHWAY 281 & BEADLE CO 8
311+26.00 to 333+87.00

* Transition Center Turnlane (Lt & Rt)

311+26.00 to 315+46.00 - 2' to 8'
310+46.00 to 329+67.00 - 8' to 8'
329+67.00 to 333+87.00 - 8' to 2'



Plot Scale - 1:6
Plotted From - TRAB10200
File - ...\06CT_Typicals_South.dgn

TYPICAL GRADING SECTION

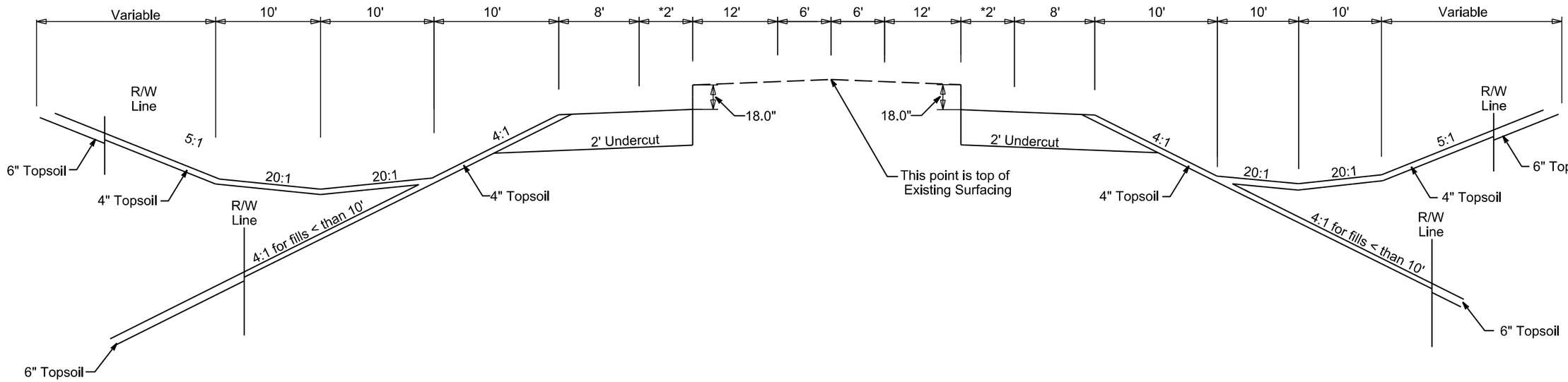
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	39	151

US HIGHWAY 281 & SD HIGHWAY 26
b337+00.00 to b354+26.00

* Transition Center Turnlane (North and South Bound)
* Transition Right Turnlane (South Bound)

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)
b348+70.00 to b350+06.00 - 8' to 8' (Rt)
b350+06.00 to b354+26.00 - 8' to 2' (Rt)

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



Plot Scale - 1:6
Plotted From - TRAB10200
File - ...\06CT_Typicals_North.dgn

TYPICAL SURFACING SECTIONS

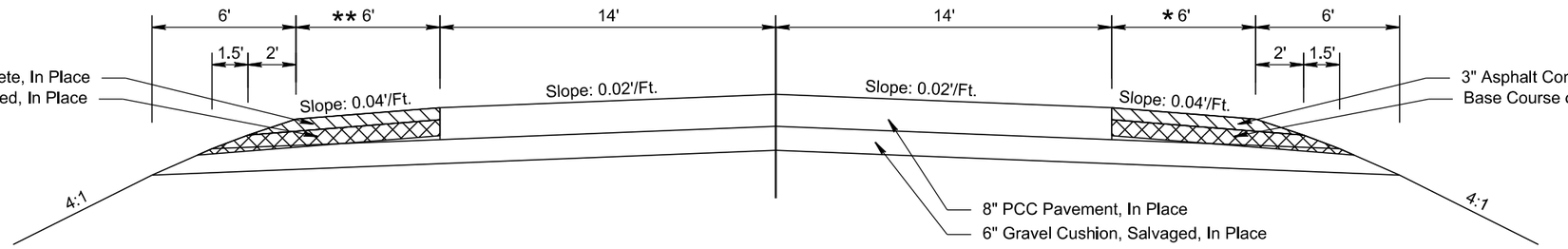
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	40	151

Plotting Date: 01/06/2026

Remove Asphalt Concrete Pavement

4" Shoulder Preparation

Section 1
US HWY 14 in Wolsey
Sta. d13+80 to Sta. d23+50
Sta. d70+24 to Sta. d72+00
In Place & Cold Milling Section



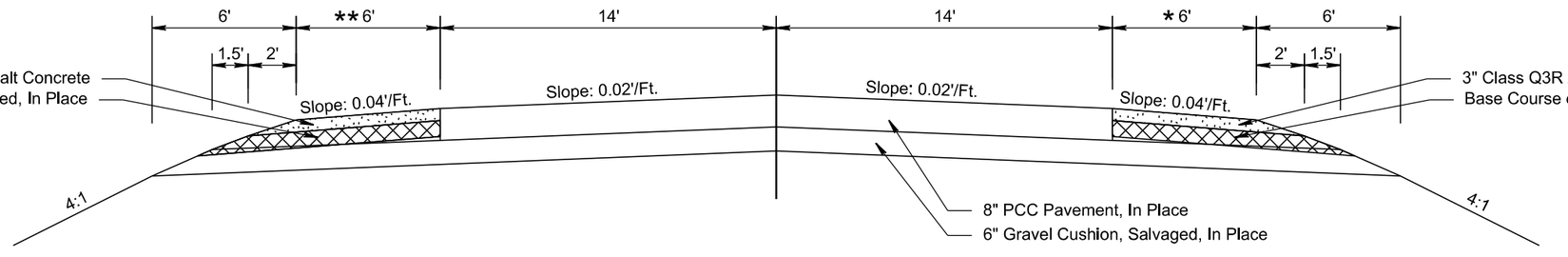
Transitions:

Sta. d21+86 to Sta. d23+50
* 6' to 10.67'

Sta. d70+24 to Sta. d70+86
** 7.8' to 6'

Sta. d70+24 to Sta. d71+88
*10.67' to 6'

Section 1
US HWY 14 in Wolsey
Sta. d13+80 to Sta. d23+50
Sta. d70+24 to Sta. d72+00
Resurfacing Section



Transitions:

Sta. d21+86 to Sta. d23+50
* 6' to 10.67'

Sta. d70+24 to Sta. d70+86
** 7.8' to 6'

Sta. d70+24 to Sta. d71+88
*10.67' to 6'8'

TYPICAL SURFACING SECTIONS

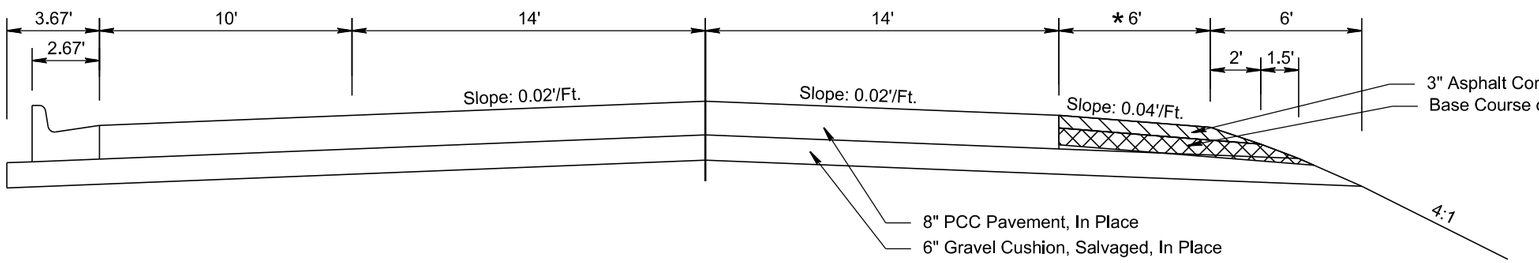
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	41	151

Plotting Date: 01/06/2026

Remove Asphalt Concrete Pavement

4" Shoulder Preparation

Section 2
US HWY 14 in Wolsey
Sta. d23+50 to Sta. d28+27
Sta. d69+22 to Sta. d70+24 (Reversed)
In Place & Cold Milling Section

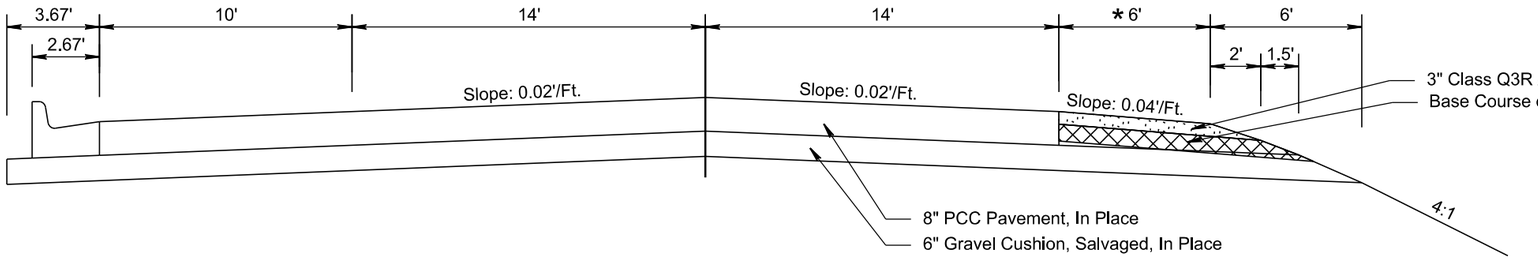


Transitions:

Sta. d27+57 to Sta. d28+27
* 6' to 8'

Sta. d69+22 to Sta. d70+24
* 10.67' to 7.8'

Section 2
US HWY 14 in Wolsey
Sta. d23+50 to Sta. d28+27
Sta. d69+22 to Sta. d70+24 (Reversed)
Resurfacing Section



Transitions:

Sta. d27+57 to Sta. d28+27
* 6' to 8'

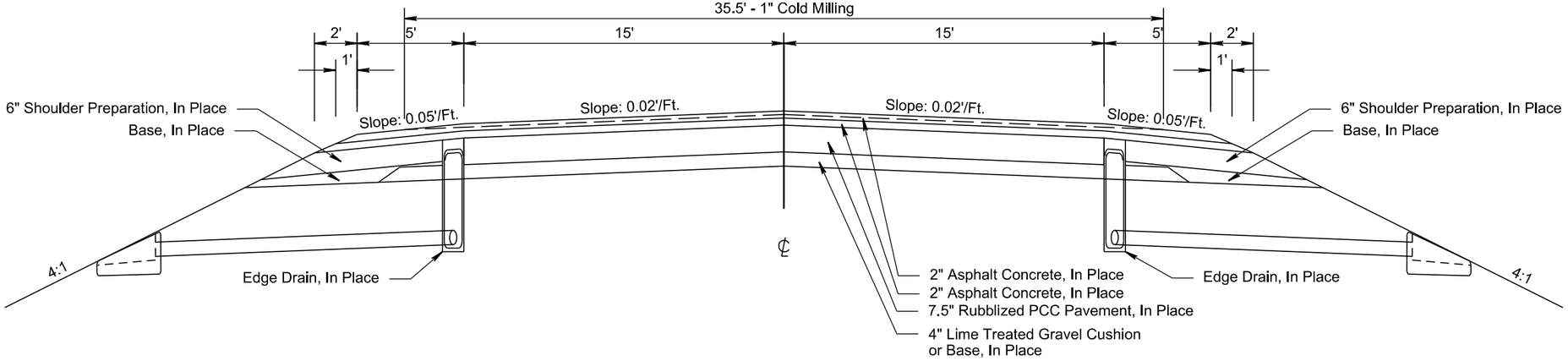
Sta. d69+22 to Sta. d70+24
* 10.67' to 7.8'

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	42	151

Plotting Date: 01/06/2026

Section 3
US HWY 14
Sta. e173+00 to Sta. f15+90 (Stationing Reversed)
In Place & Cold Milling Section
35.5' - 1" Cold Milling



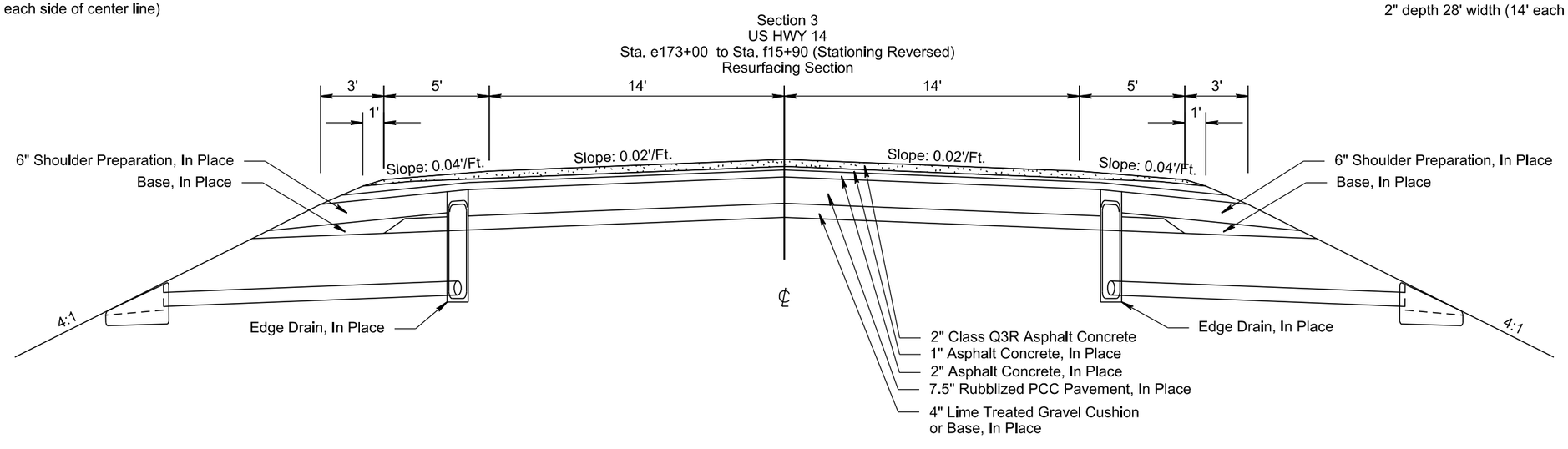
Equation:
Sta. d72+00 Bk. = Sta. e173+00 Ah.
Sta. e92+66.51 Bk. = Sta. f92+56.72 Ah.

Bridge:
Sta. f69+14.85 to Sta. f67+30.15

Milling transition:
f65+00 to f65+40
1" to 2" depth full width
f65+40 to f67+30.15
2" depth 28' width (14' each side of center line)

Milling transition:
f71+05 to f71+45
2" to 1" depth full width
f69+14.85 to f71+05
2" depth 28' width (14' each side of center line)

Section 3
US HWY 14
Sta. e173+00 to Sta. f15+90 (Stationing Reversed)
Resurfacing Section



TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	43	151

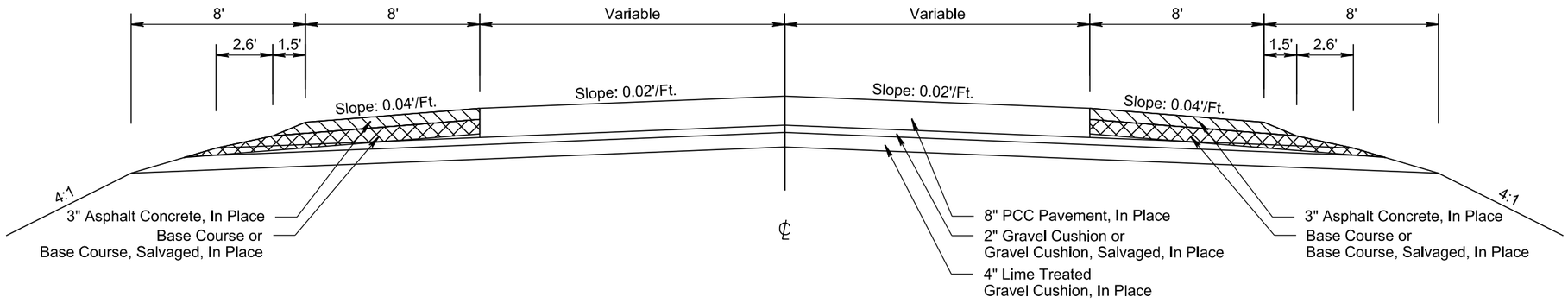
Plotting Date: 01/06/2026

Remove Asphalt Concrete Pavement

4" Shoulder Preparation

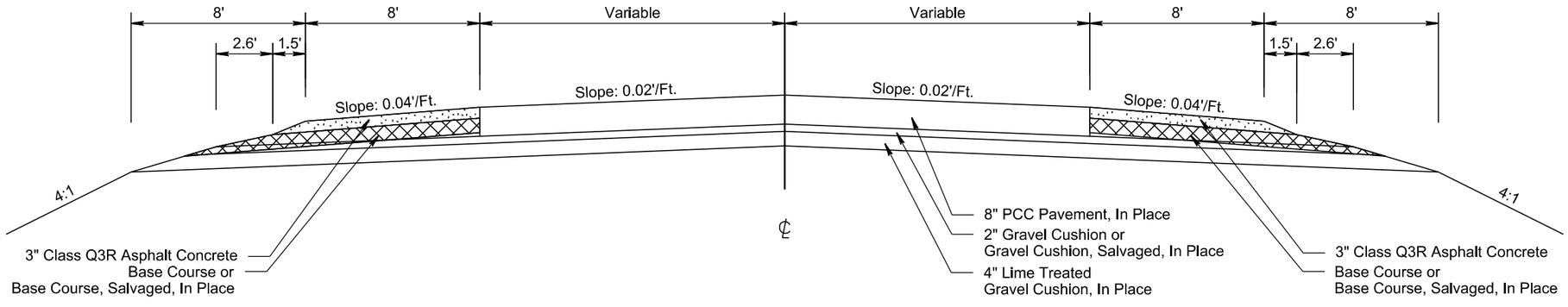
Section 4
US HWY 14
Sta. f15+90 to Sta. f5+72.2 (Stationing Reversed) Right Side Only
Sta. f5+72.2 to Sta. f0+00 (Stationing Reversed)

US HWY 14 West of US HWY 281
Sta. g7+04 .7 to Sta. g6+74 (Stationing Reversed)
Sta. g9+87.89 to Sta. g9+06.1 (Stationing Reversed)
In Place & Cold Milling Section



Section 4
US HWY 14
Sta. f15+90 to Sta. f5+72.2 (Stationing Reversed) Right Side Only
Sta. f5+72.2 to Sta. f0+00 (Stationing Reversed)

US HWY 14 West of US HWY 281
Sta. g7+04 .7 to Sta. g6+74 (Stationing Reversed)
Sta. g9+87.89 to Sta. g9+06.1 (Stationing Reversed)
Resurfacing Section



TYPICAL SURFACING SECTIONS

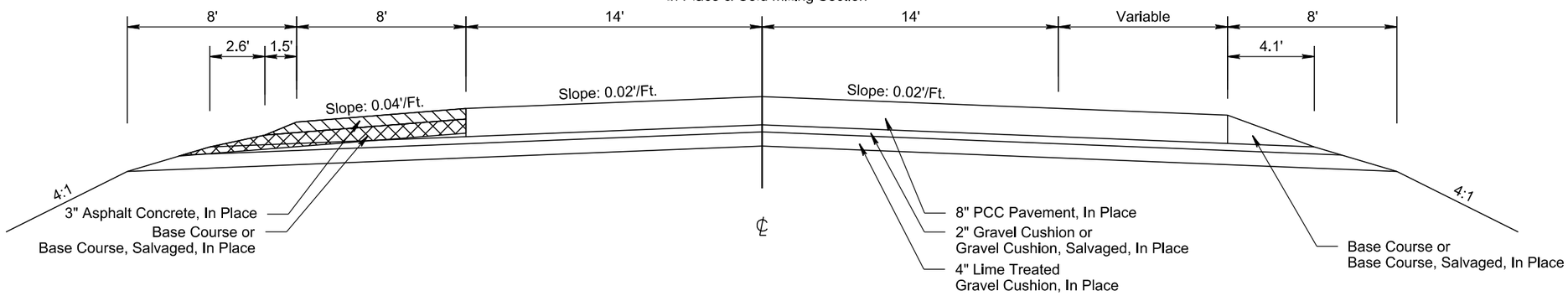
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	44	151

Plotting Date: 01/06/2026

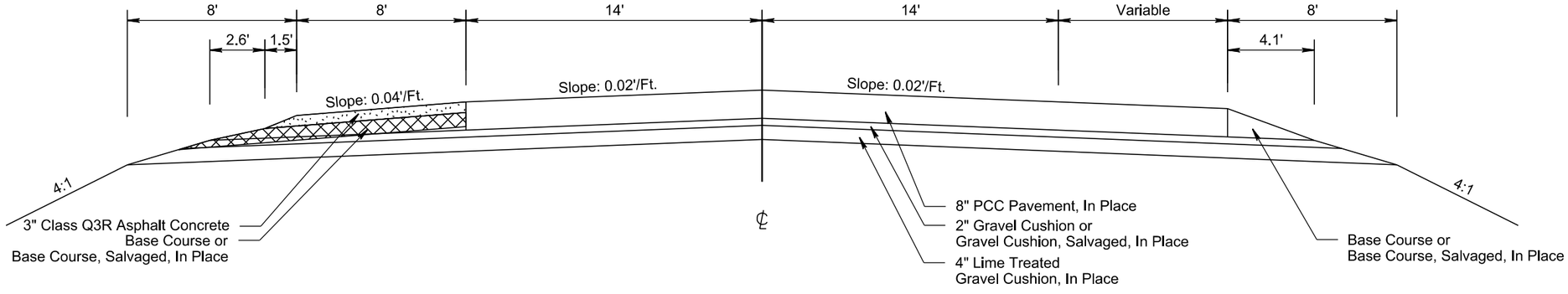
Remove Asphalt Concrete Pavement

4" Shoulder Preparation

Section 5
US HWY 14 West of US281
Sta. g9+06.1 to Sta. g7+04.7 (Stationing Reversed)
In Place & Cold Milling Section



Section 5
US HWY 14 West of US281
Sta. g9+06.1 to Sta. g7+04.7 (Stationing Reversed)
Resurfacing Section



TYPICAL SURFACING SECTIONS

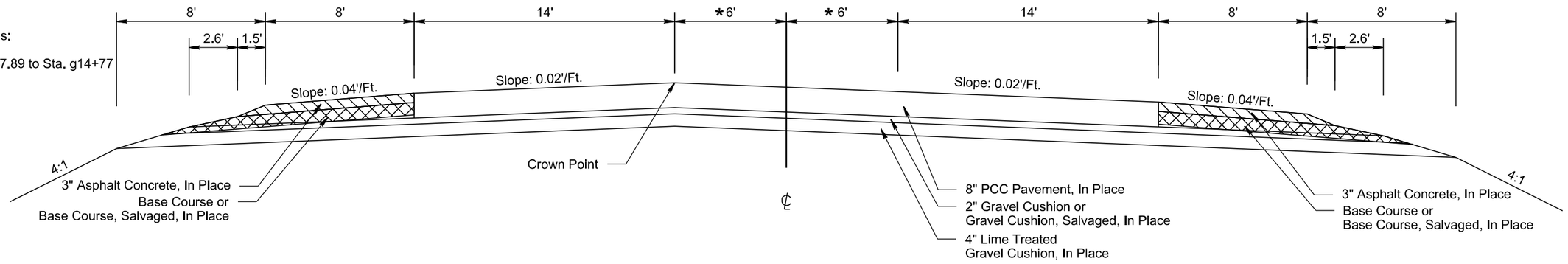
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	45	151

Plotting Date: 01/06/2026

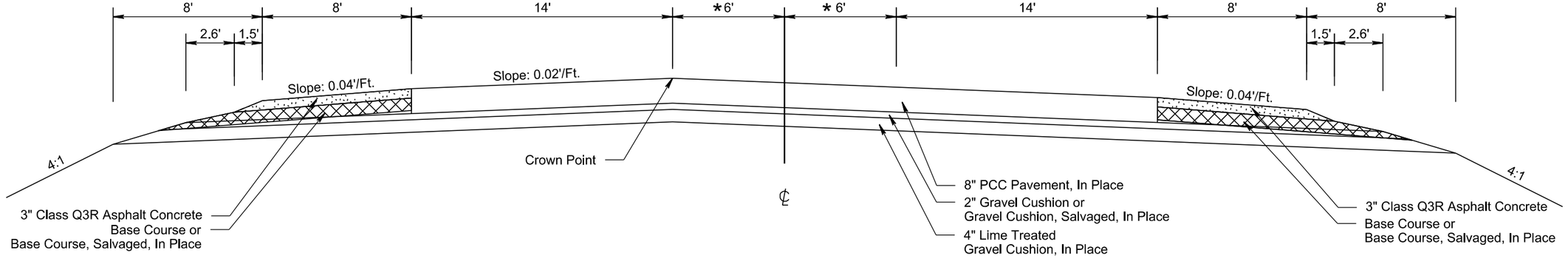
Remove Asphalt Concrete Pavement

4" Shoulder Preparation

Section 6
US HWY 14 West of US281
Sta. g14+77 to Sta. g9+87.89 (Stationing Reversed)
In Place & Cold Milling Section



Section 6
US HWY 14 West of US281
Sta. g14+77 to Sta. g9+87.89 (Stationing Reversed)
Resurfacing Section



TYPICAL SURFACING SECTIONS

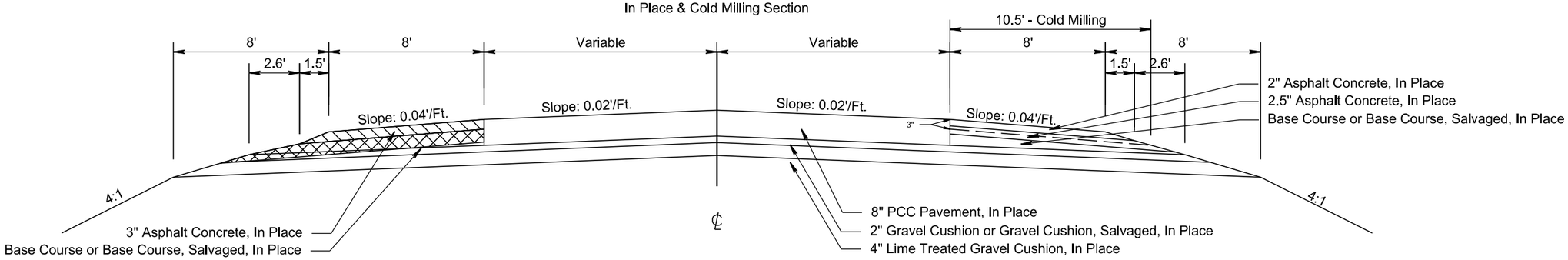
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	46	151

Plotting Date: 01/06/2026

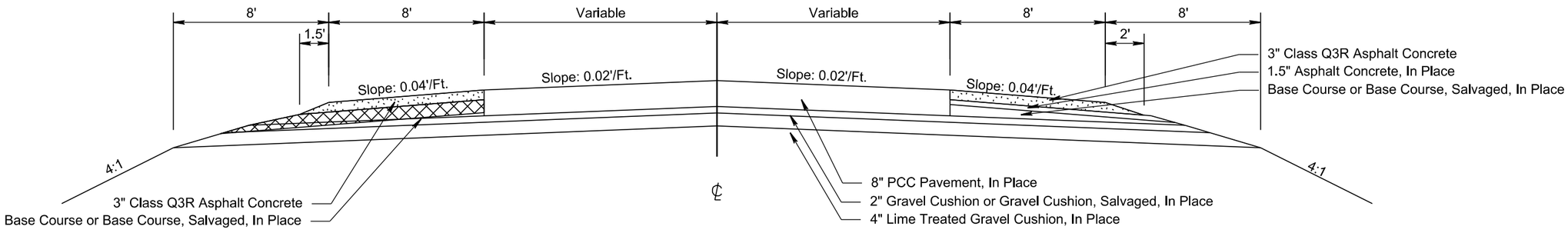
Remove Asphalt Concrete Pavement

4" Shoulder Preparation

Section 7
US HWY 281
Sta. 0+00 to Sta. 5+80
In Place & Cold Milling Section



Section 7
US HWY 281
Sta. 0+00 to Sta. 5+80
Resurfacing Section

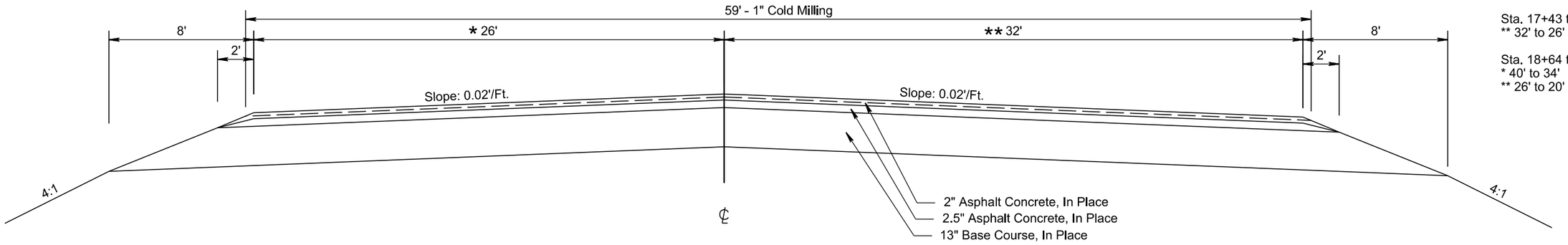


TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	47	151

Plotting Date: 01/06/2026

Section 8
US HWY 281
Sta. 5+80 to Sta. 21+84
In Place & Cold Milling Section



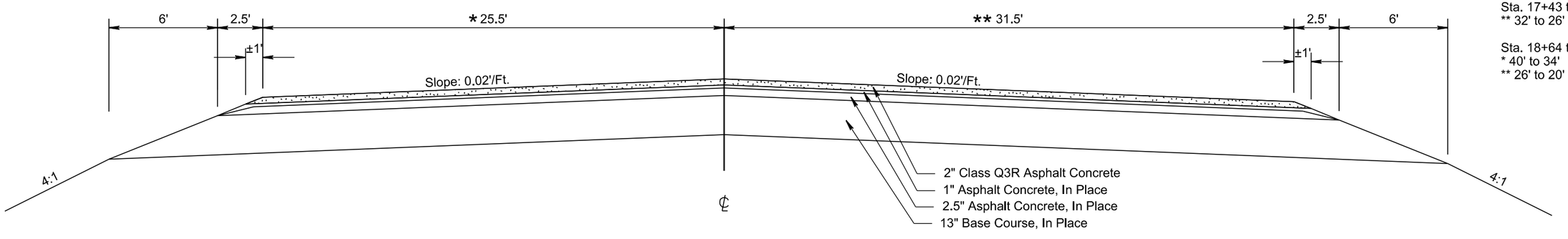
Transitions:

Sta. 11+00 to Sta. 12+50
* 26' to 40'

Sta. 17+43 to Sta. 18+64
** 32' to 26'

Sta. 18+64 to Sta. 21+84
* 40' to 34'
** 26' to 20'

Section 8
US HWY 281
Sta. 5+80 to Sta. 21+84
Resurfacing Section



Transitions:

Sta. 11+00 to Sta. 12+50
* 26' to 40'

Sta. 17+43 to Sta. 18+64
** 32' to 26'

Sta. 18+64 to Sta. 21+84
* 40' to 34'
** 26' to 20'

PLOT SCALE - 1:6.00001

PLOTTED FROM - TRAB10200

PLOT NAME - 8

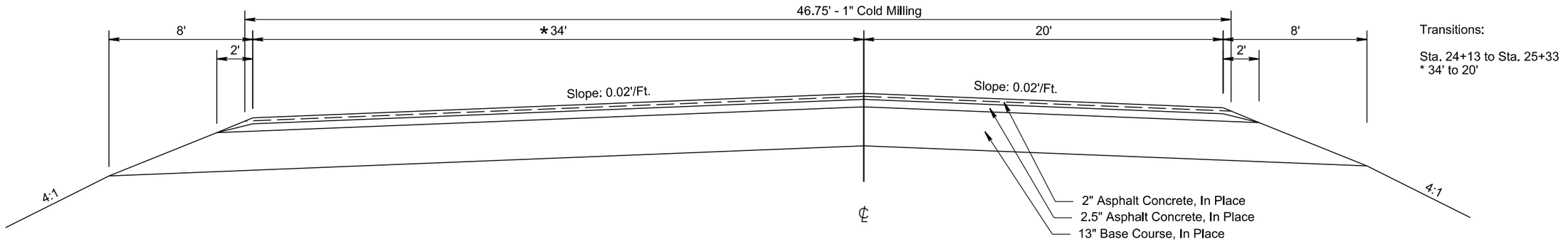
FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	48	151

Plotting Date: 01/06/2026

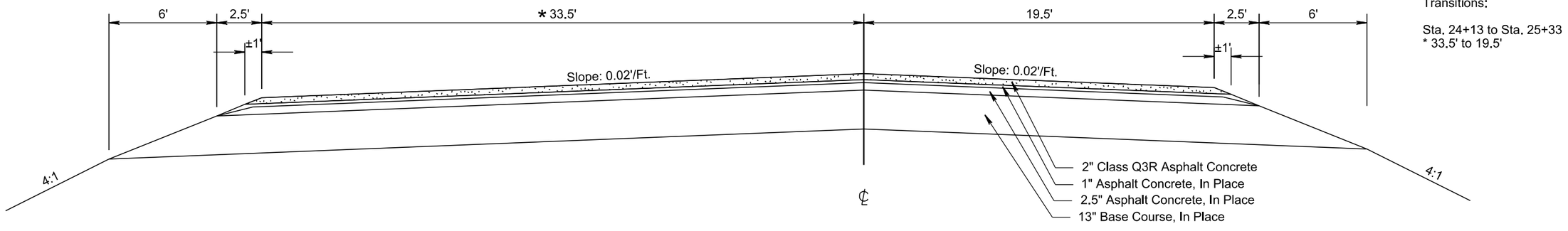
Section 9
US HWY 281
Sta. 21+84 to Sta. 25+33
In Place & Cold Milling Section



Transitions:

Sta. 24+13 to Sta. 25+33
* 34' to 20'

Section 9
US HWY 281
Sta. 21+84 to Sta. 25+33
Resurfacing Section



Transitions:

Sta. 24+13 to Sta. 25+33
* 33.5' to 19.5'

TYPICAL SURFACING SECTIONS

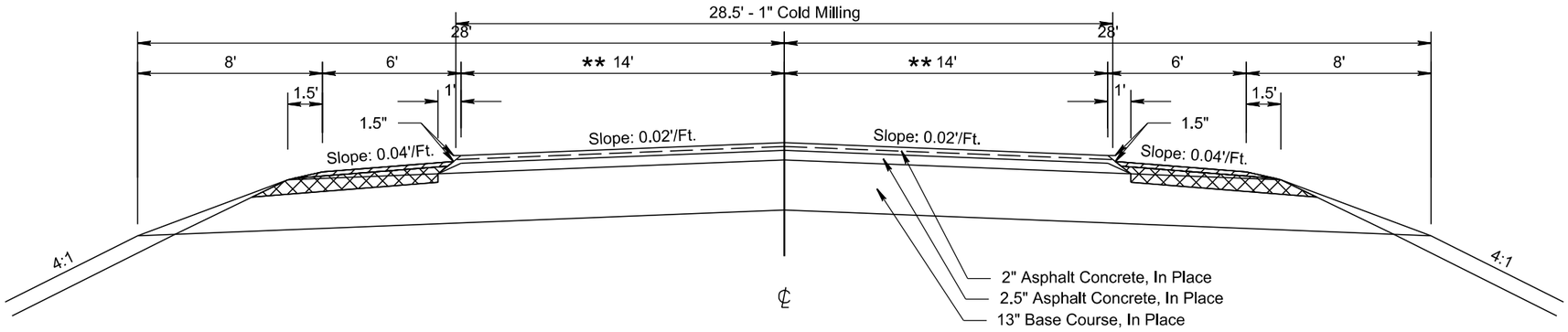
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	49	151

Plotting Date: 01/06/2026

Salvage & Stockpile Granular Material

4" Shoulder Preparation

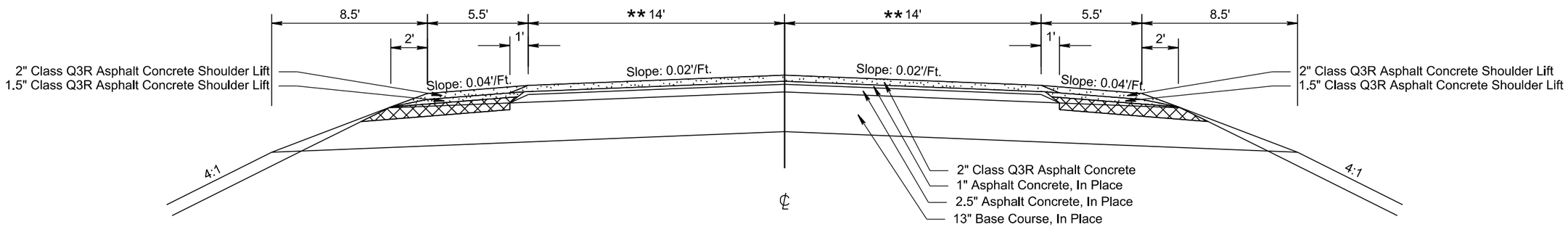
Section 10
US HWY 281
Sta. 25+33 to Sta. 311+26
Sta. 354+26 to Sta. 641+32
In Place & Cold Milling Section



Transition:

Sta. 637+12 to Sta. 641+32
** 14' to 20'

Section 10
US HWY 281
Sta. 25+33 to Sta. 311+26
Sta. 354+26 to Sta. 641+32
Resurfacing Section



TYPICAL SURFACING SECTIONS

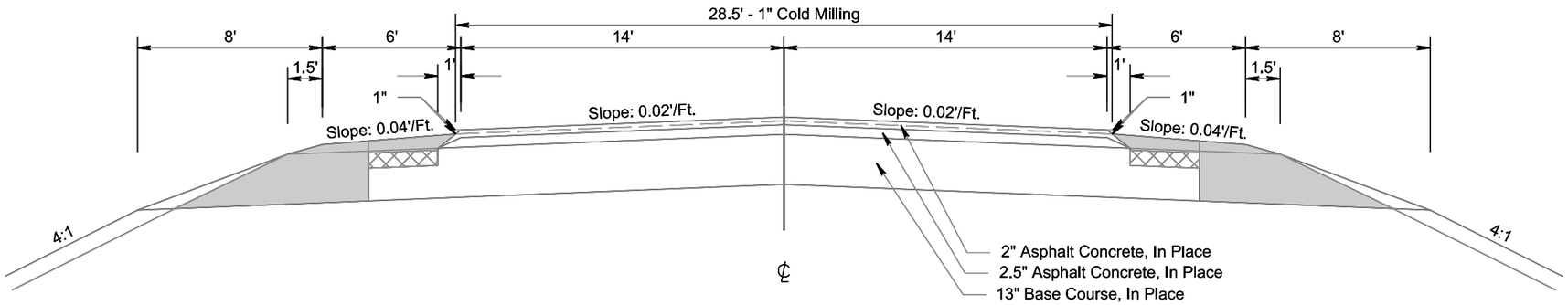
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	50	151

Plotting Date: 01/06/2026

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.)

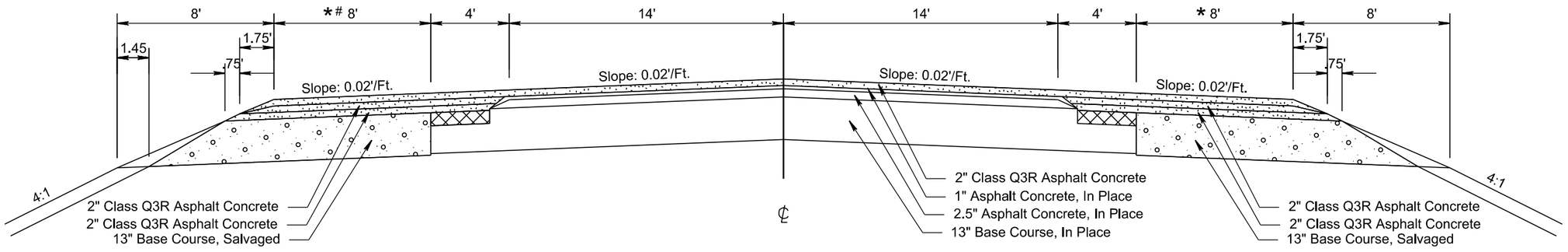
* b341+20.00 to b350+06.00 - 8' to 8' (Rt)
* b350+06.00 to b354+26.00 - 8' to 2' (Rt)

\# 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



PLOT SCALE - 1:6.00001

5894

PLOTTED FROM - TRAB10200

PLOT NAME - 11

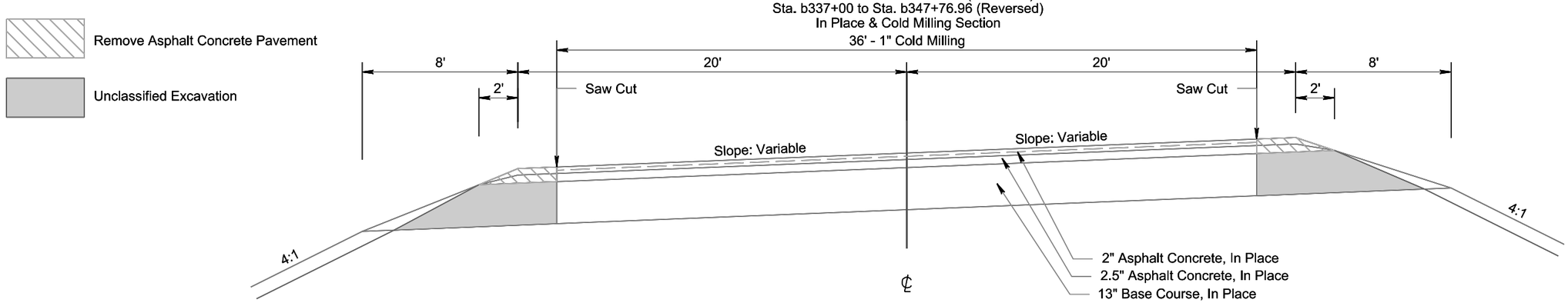
FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

TYPICAL SURFACING SECTIONS

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

Plotting Date: 01/06/2026

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.)

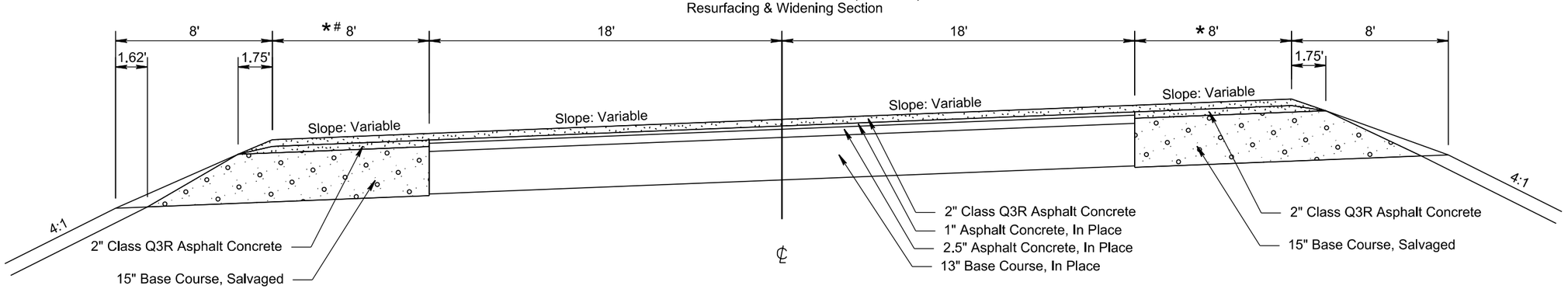
* b337+00.00 to b341+20.00 - 2' to 8' (Rt)
* b341+20.00 to b350+06.00 - 8' to 8' (Rt)

\# 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



TYPICAL SURFACING SECTIONS

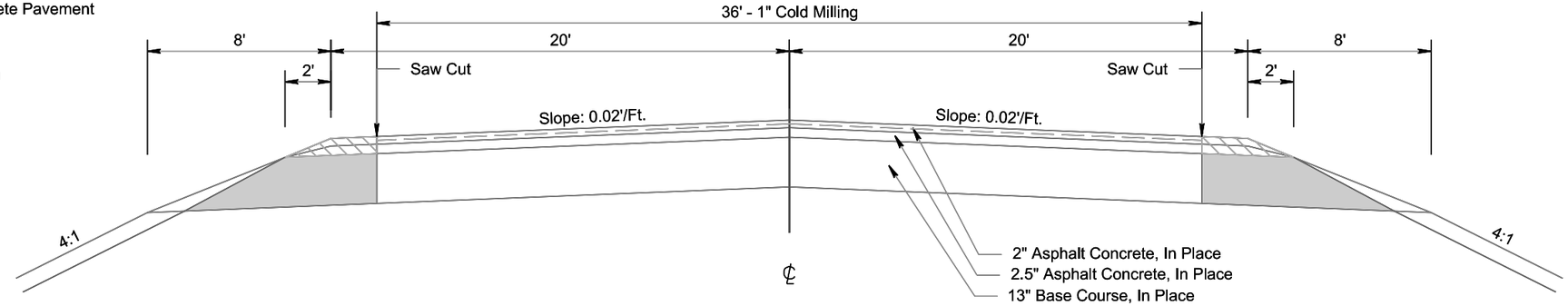
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	52	151

Plotting Date: 01/06/2026

Remove Asphalt Concrete Pavement

Unclassified Excavation

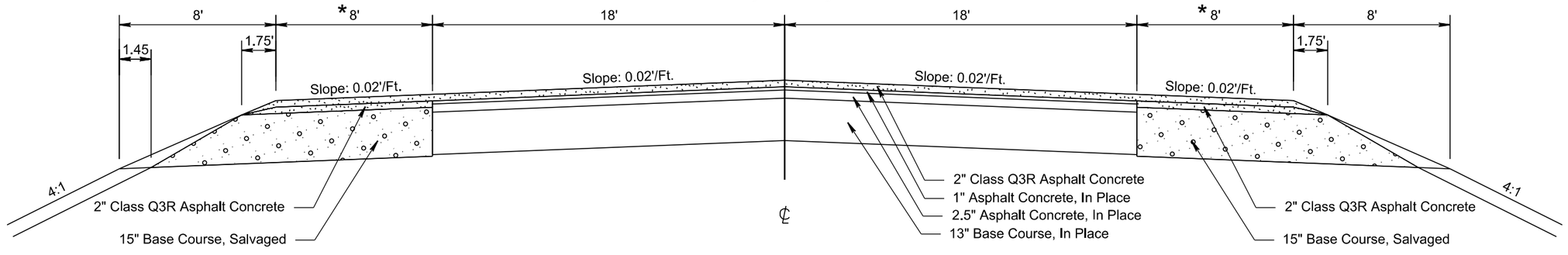
Section 13
US HWY 281
Sta. 329+71.43 to Sta. 332+18.27
In Place & Cold Milling Section



* 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



PLOT SCALE - 1:6.00001

5894

PLOTTED FROM - TRAB10200

PLOT NAME - 13

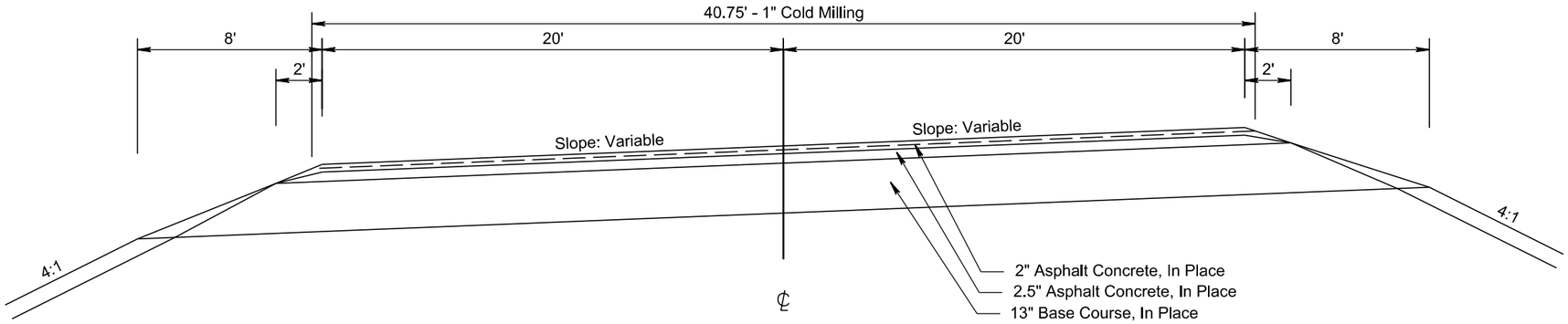
FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

TYPICAL SURFACING SECTIONS

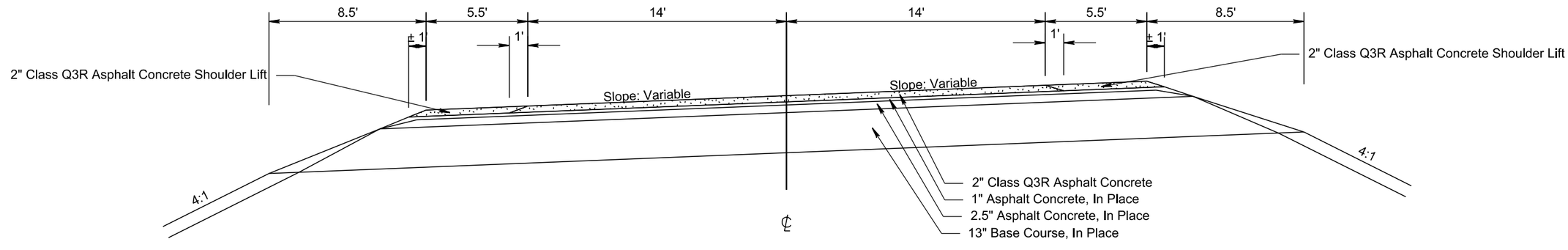
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	53	151

Plotting Date: 01/06/2026

Section 14
US HWY 281
Sta. 333+87 to Sta. 347+76.96 (Reversed)
In Place & Cold Milling Section



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



PLOT SCALE - 1:6.00001
PLOT NAME - 14
FILE - ...\06PG_TYPSECT_TJ03_WORKING.DGN
PLOTTED FROM - TRAB10200

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	54	151

Plotting Date: 01/06/2026

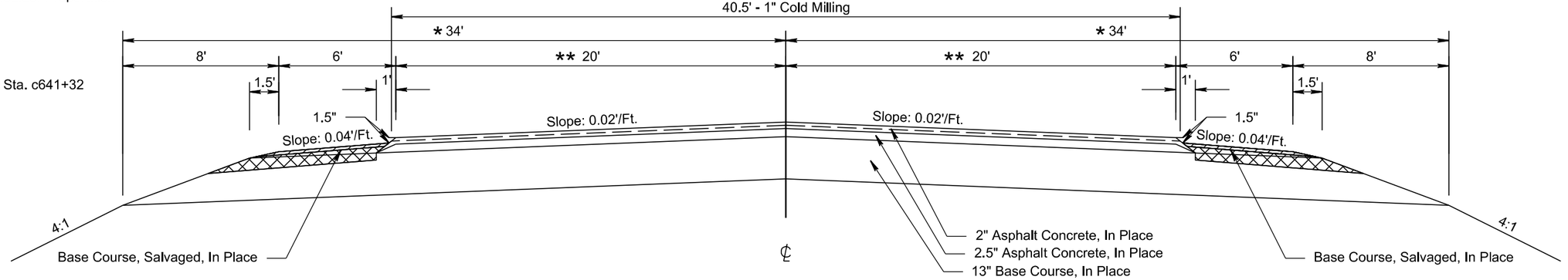
Salvage & Stockpile Granular Material

4" Shoulder Preparation

Transition:

Sta. c637+12 to Sta. c641+32
* 28' to 34'
** 14' to 20'

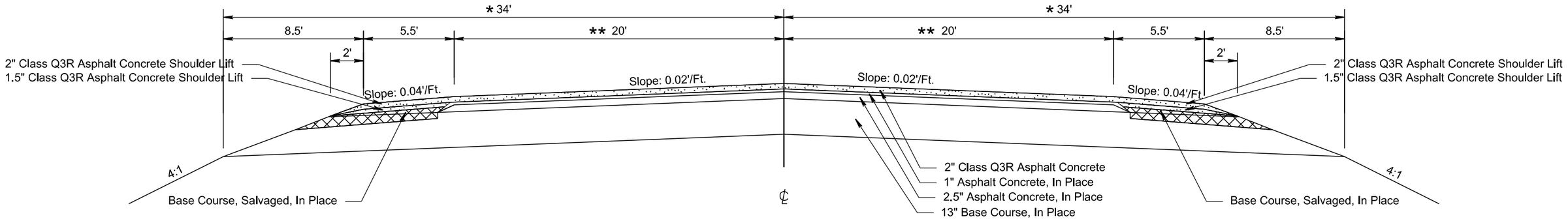
Section 15
US HWY 281
Sta. 641+32 to Sta. 649+39
In Place & Cold Milling Section



Transition:

Sta. 642+56 to Sta. 646+76
*34' to 28'
** 20' to 14'

Section 15
US HWY 281
Sta. 641+32 to Sta. 649+39
Resurfacing Section



TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	55	151

Plotting Date: 01/06/2026

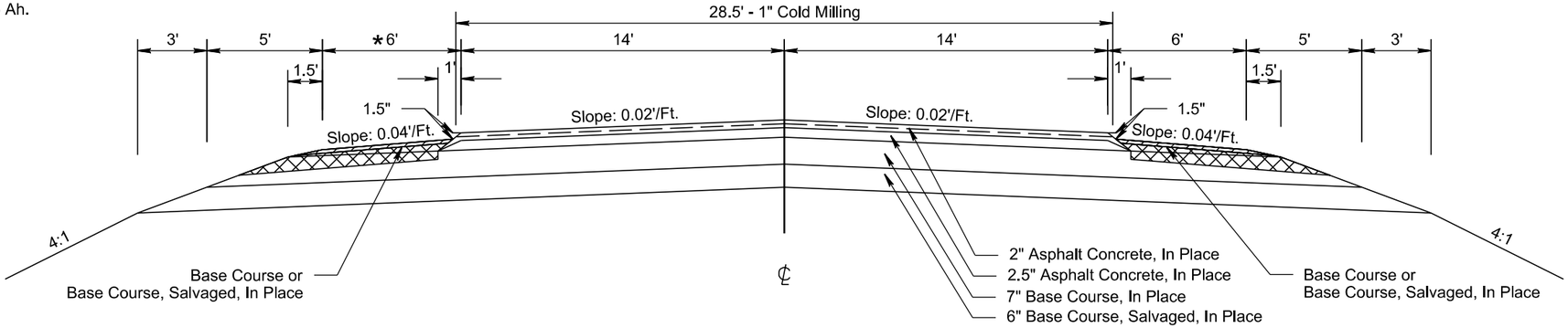
Salvage & Stockpile Granular Material

4" Shoulder Preparation

Equation:

Sta. 649+39 Bk. = Sta. a24+50.05 Ah.

Section 16
US HWY 281
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
In Place & Cold Milling Section

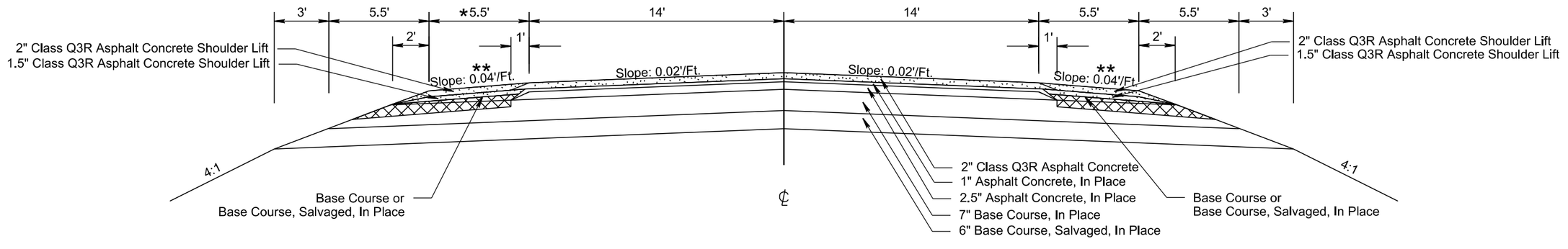


Transition:

* Sta. e442+38 to Sta. e442+88
* Sta. e452+88 to Sta. e453+38

** Sta. b452+88 to Sta. b498+38
Slope: 0.02'/ft.

Section 16
US HWY 281
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
Resurfacing Section



TYPICAL SURFACING SECTIONS

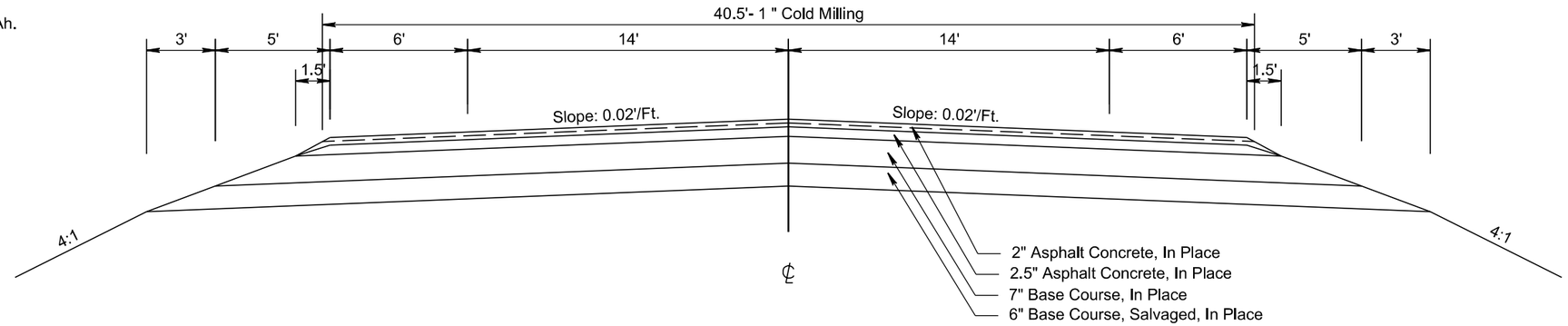
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	56	151

Plotting Date: 01/06/2026

Equation:

Sta. a385+20 Bk. = Sta. b9+50 Ah.

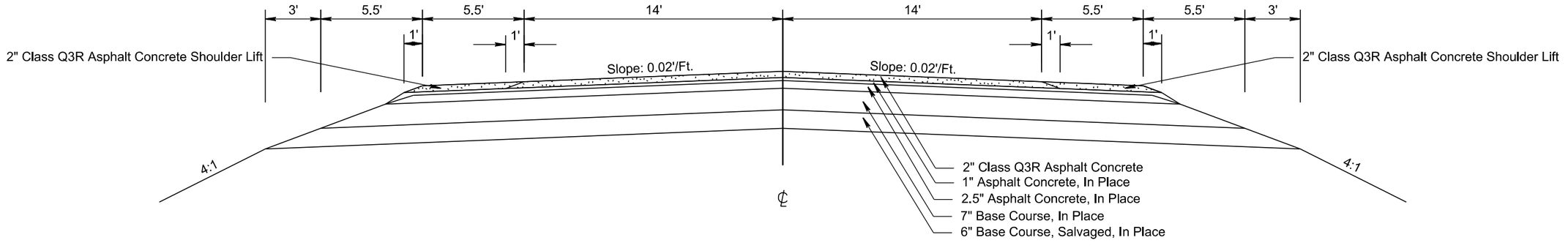
Section 17
US HWY 281
Sta. a380+70 to Sta. a385+20
Sta. b9+50 to Sta. b17+63
In Place & Cold Milling Section



Width Transition:

To be determined by the Designer

Section 17
US HWY 281
Sta. a380+70 to Sta. a385+20
Sta. b9+50 to Sta. b17+63
Resurfacing Section



PLOT SCALE - 1:6.00001

PLOTTED FROM - TRAB10200

PLOT NAME - 17

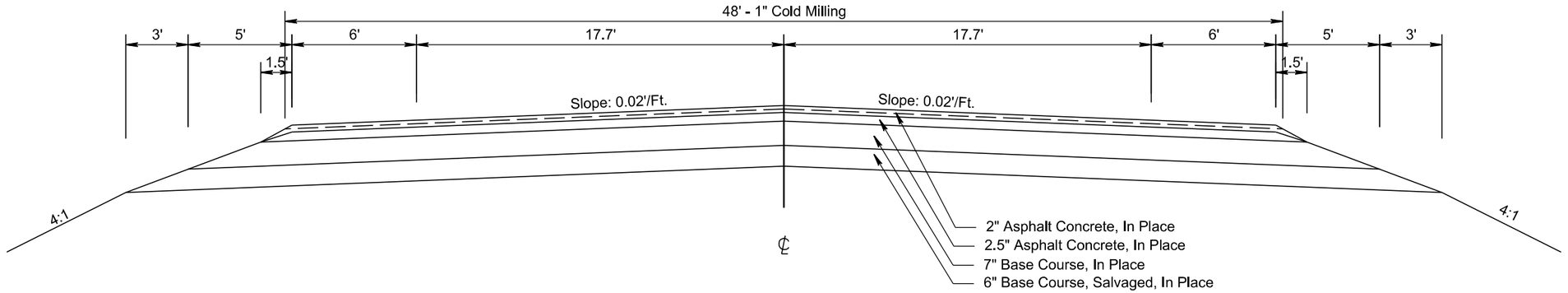
FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

TYPICAL SURFACING SECTIONS

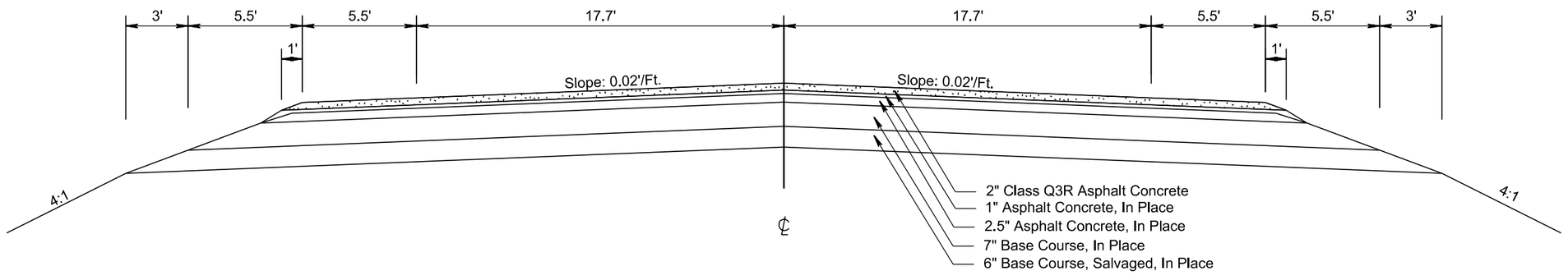
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	57	151

Plotting Date: 01/06/2026

Section 18
US HWY 281
Sta. b17+63 to Sta. b20+21
In Place & Cold Milling Section



Section 18
US HWY 281
Sta. b17+63 to Sta. b20+21
Resurfacing Section



PLOT SCALE - 1:6.00001

PLOTTED FROM - TRAB10200

PLOT NAME - 18

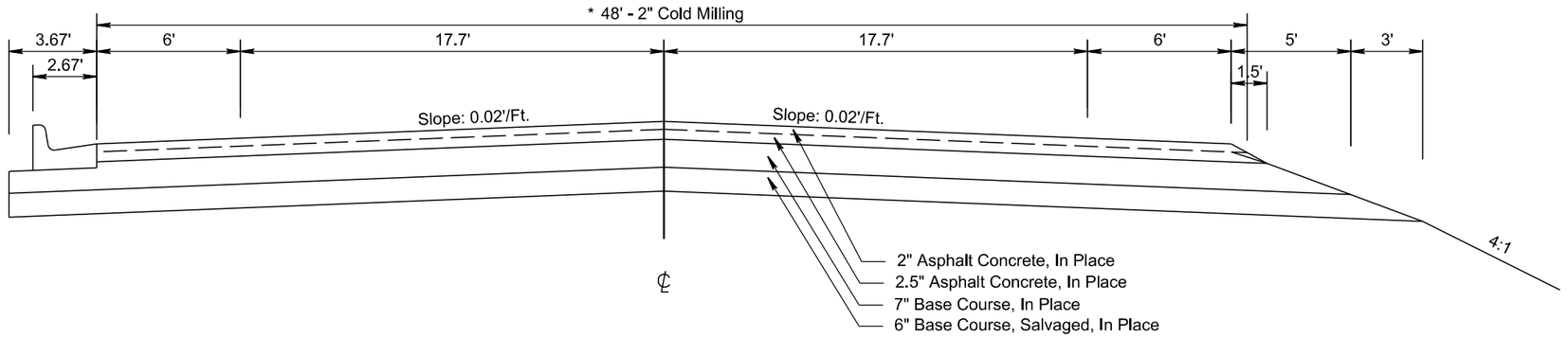
FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	58	151

Plotting Date: 01/06/2026

Section 19
US HWY 281
Sta. b20+21 to Sta. b21+83
In Place & Cold Milling Section

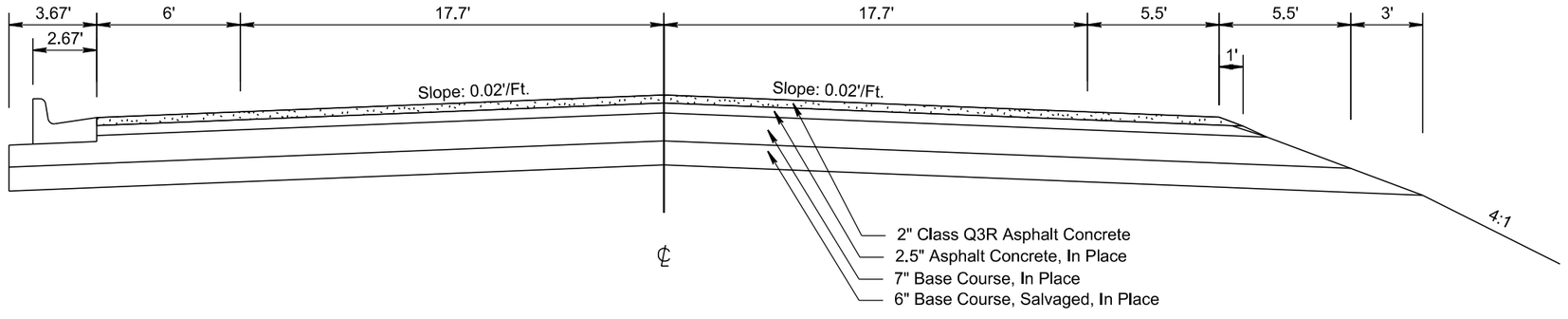


Milling transition:
b19+71 to b20+21
1" to 2" depth

Width Transition:

Sta. 20+21 to Sta. 21+51
*48 to 52.5

Section 19
US HWY 281
Sta. b20+21 to Sta. b21+83
Resurfacing Section



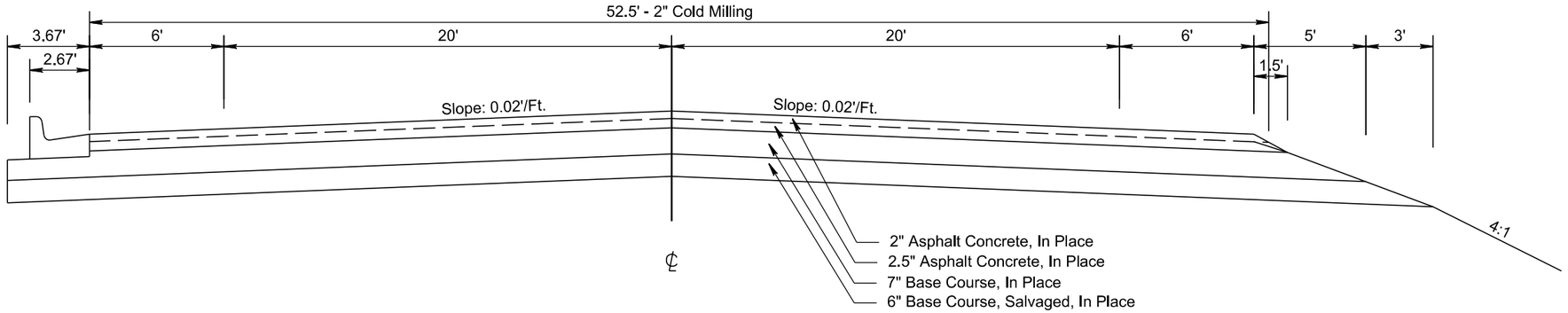
PLOT SCALE - 1:6.00001
PLOTTED FROM - TRAB10200
PLOT NAME - 19
FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

TYPICAL SURFACING SECTIONS

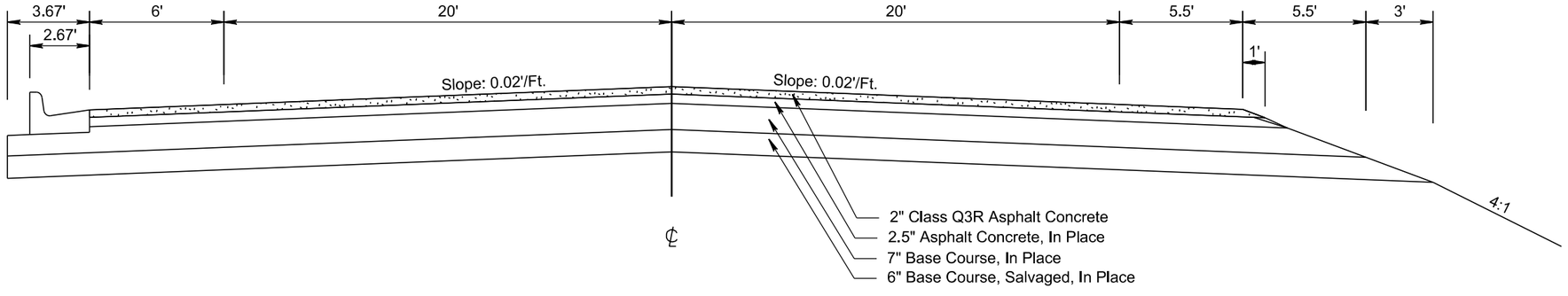
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	59	151

Plotting Date: 01/06/2026

Section 20
US HWY 281
Sta. b21+83 to Sta. b24+25
In Place & Cold Milling Section



Section 20
US HWY 281
Sta. b21+83 to Sta. b24+25
Resurfacing Section

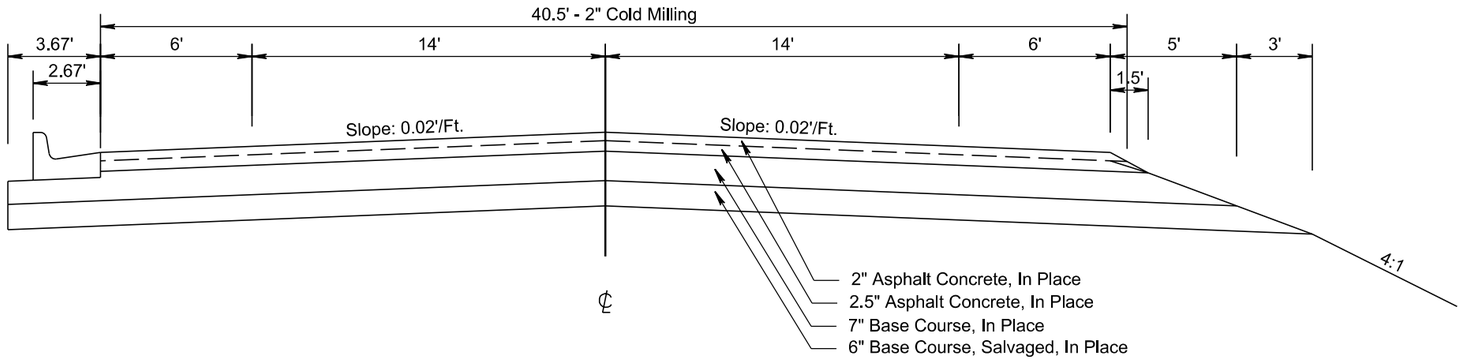


TYPICAL SURFACING SECTIONS

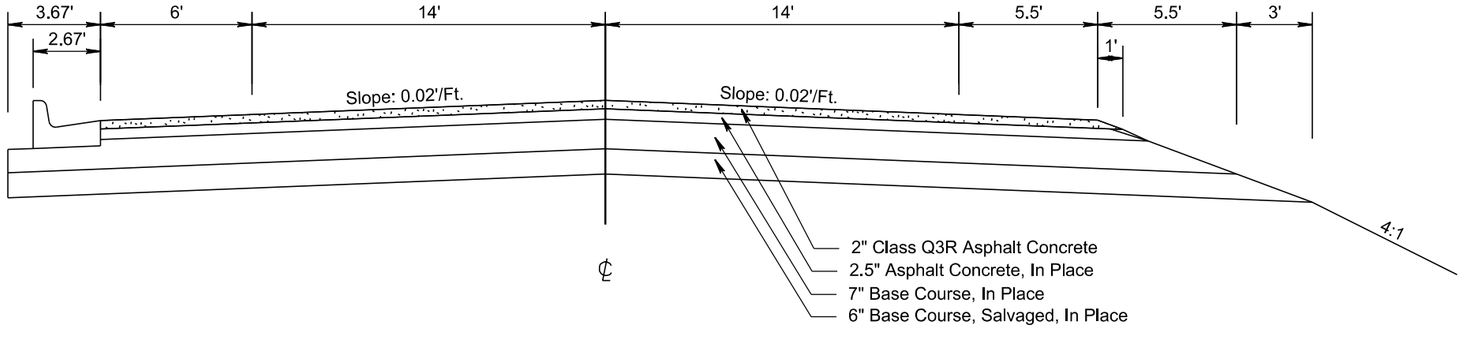
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	60	151

Plotting Date: 01/06/2026

Section 21
US HWY 281
Sta. b24+25 to Sta. b28+45
In Place & Cold Milling Section



Section 21
US HWY 281
Sta. b24+25 to Sta. b28+45
Resurfacing Section

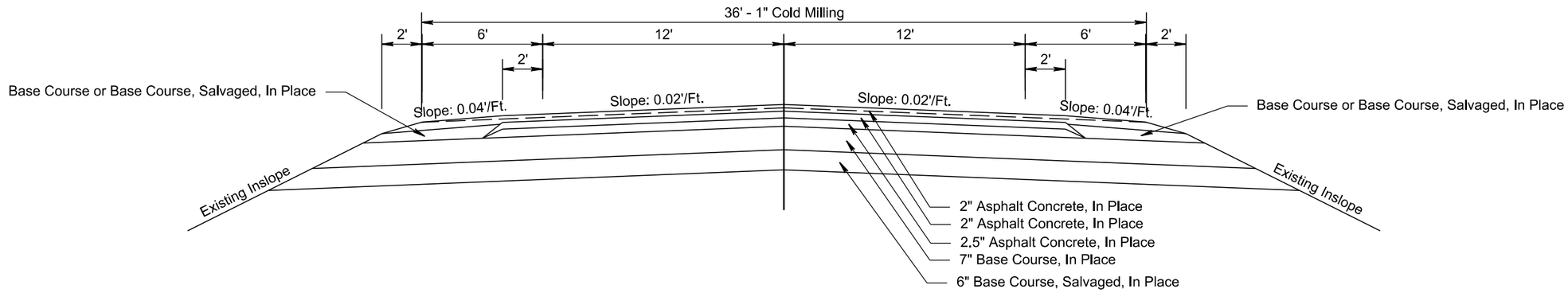


TYPICAL SURFACING SECTIONS

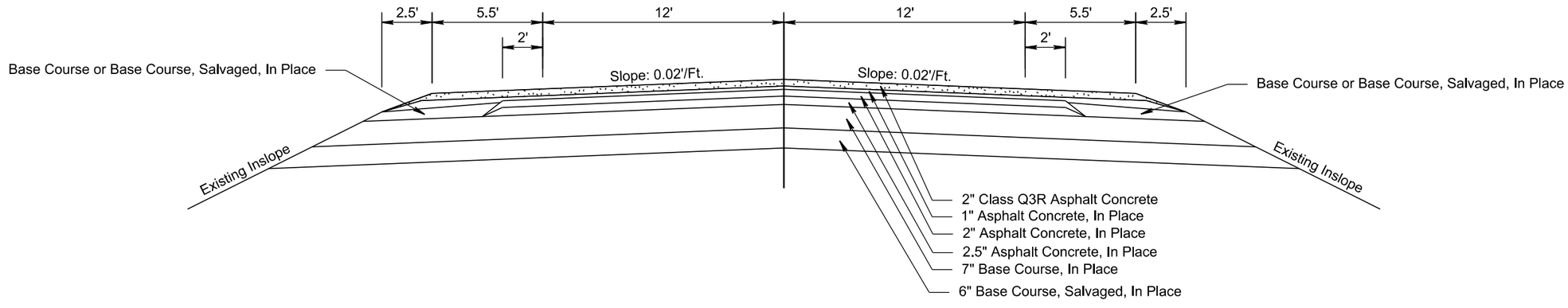
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	61	151

Plotting Date: 01/06/2026

Section 22
US HWY 281
Sta. b99+92 to Sta. b115+50
In Place & Cold Milling Section



Section 22
US HWY 281
Sta. b99+92 to Sta. b115+50
Resurfacing Section

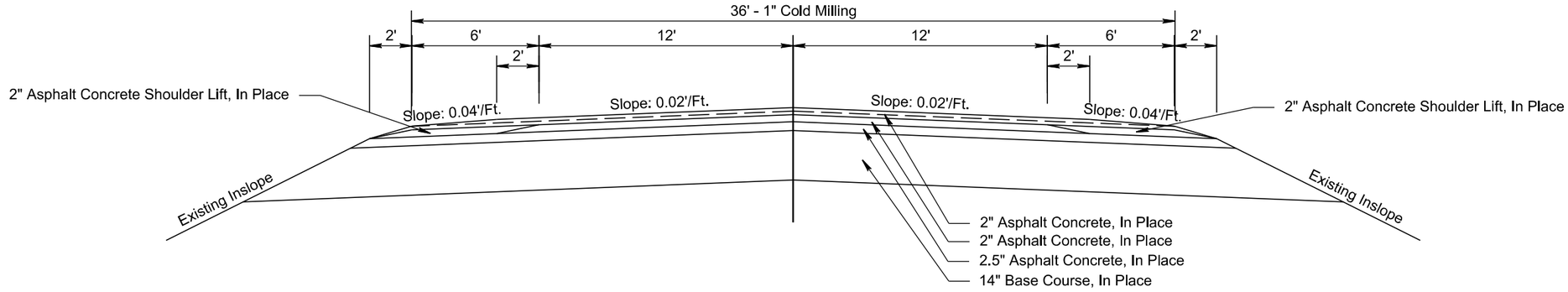


TYPICAL SURFACING SECTIONS

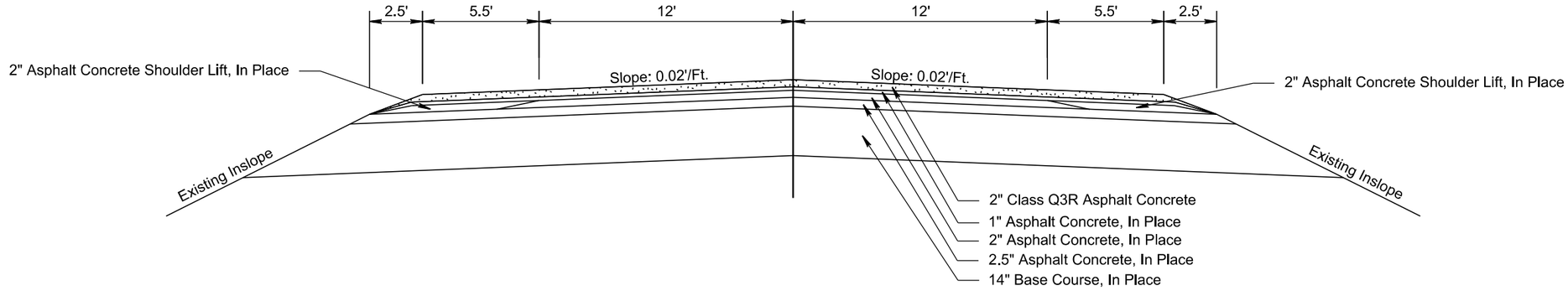
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	62	151

Plotting Date: 01/06/2026

Section 23
US HWY 281
Sta. b115+50 to Sta. b136+92
In Place & Cold Milling Section



Section 23
US HWY 281
Sta. b115+50 to Sta. b136+92
Resurfacing Section



TYPICAL SURFACING SECTIONS

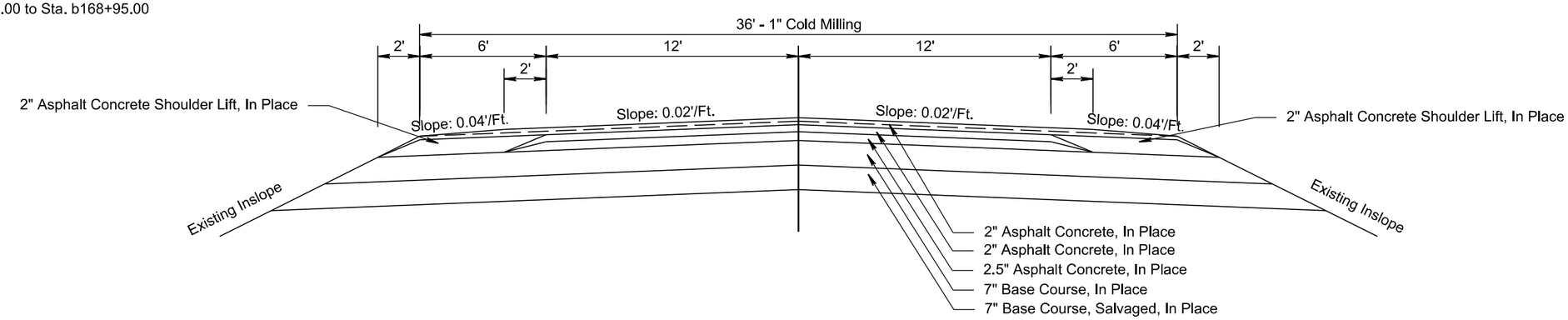
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	63	151

Plotting Date: 01/06/2026

Section 24
US HWY 281
Sta. b136+92 to Sta. b186+20
In Place & Cold Milling Section

Bridge Exception:

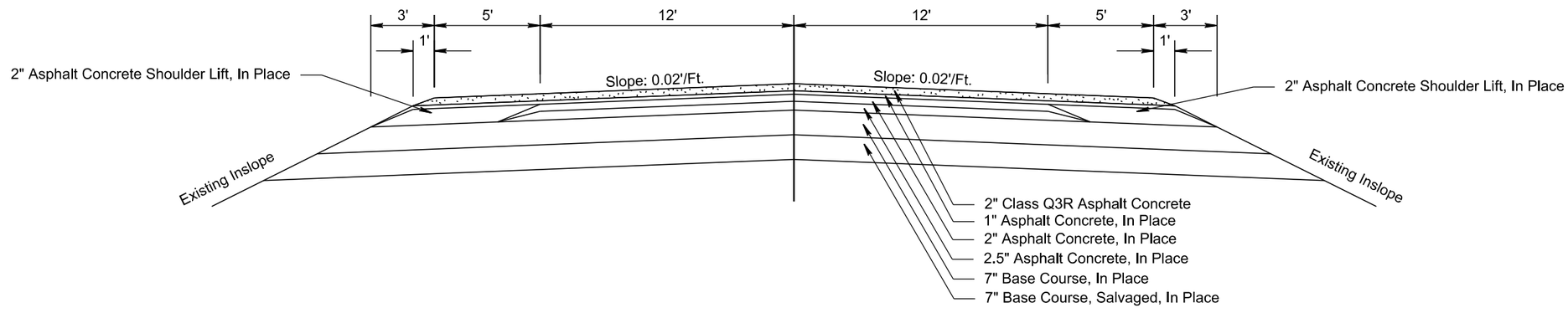
Sta. b161+15.00 to Sta. b168+95.00



Section 24
US HWY 281
Sta. b136+92 to Sta. b186+20
Resurfacing Section

Bridge Exception:

Sta. b161+15.00 to Sta. b168+95.00



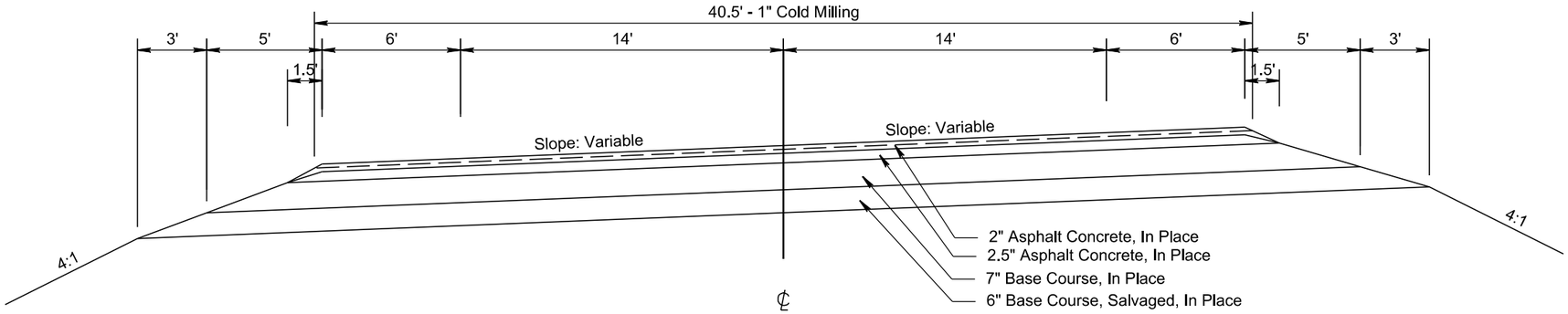
PLOT SCALE - 1:6.00001
5628
PLOTTED FROM - TRAB10200
PLOT NAME - 24
FILE - ...\06PG_TYPSECT_TJD3_WORKING.DGN

TYPICAL SURFACING SECTIONS

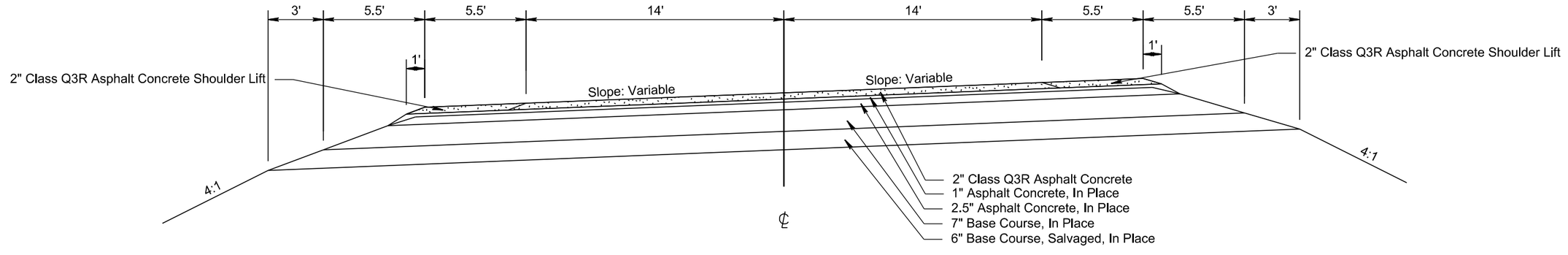
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	64	151

Plotting Date: 01/06/2026

Section 25
US HWY 281
Sta. b231+02.43 to Sta. b255+76.12
Sta. b330+29.43 to Sta. b348+86 (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. b348+86 (Reversed)
Sta. b354+26 to Sta. b355+09.76 (Reversed)
Resurfacing Section

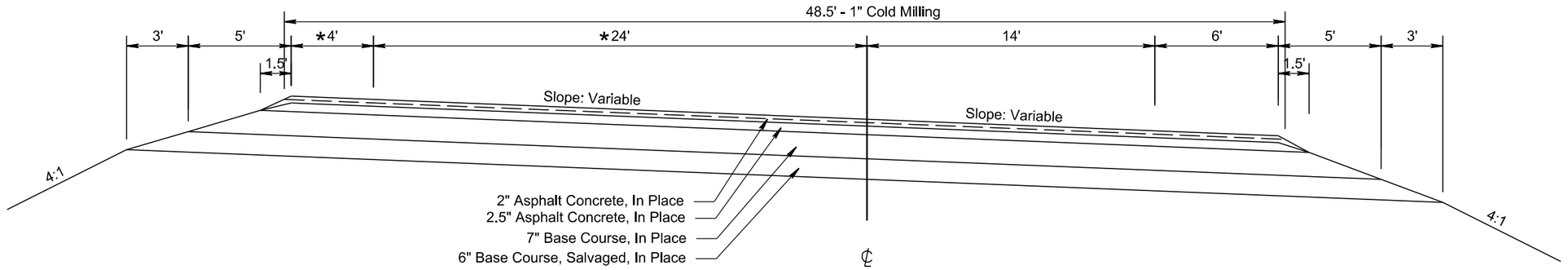


TYPICAL SURFACING SECTIONS

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

Plotting Date: 01/06/2026

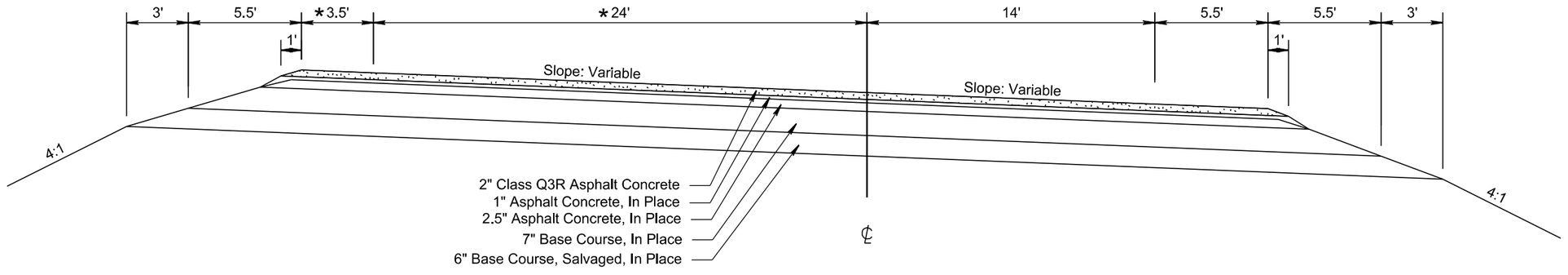
Section 26
US HWY 281
Sta. b348+86 to Sta. b355+09.76
In Place & Cold Milling Section



Transition:

* Sta. e353+06 to Sta. e355+09.76
28' to 17'

Section 26
US HWY 281
Sta. b348+86 to Sta. b355+09.76
Resurfacing Section



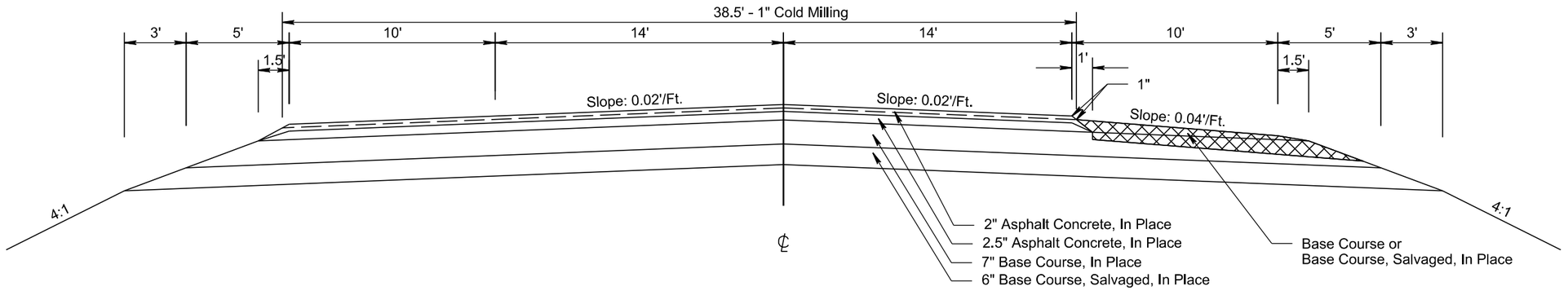
TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	66	151

Plotting Date: 01/06/2026

4" Shoulder Preparation

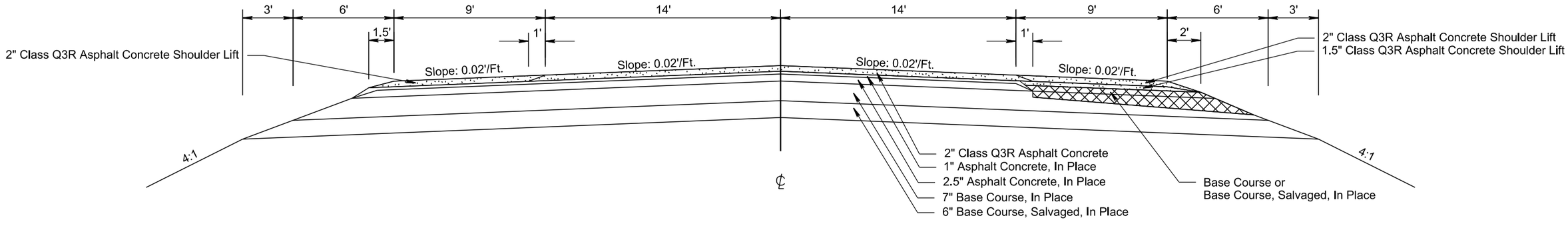
Section 27
US HWY 281
Sta. b442+88 to Sta. b452+88
In Place & Cold Milling Section



Transition:

* Sta. e353+06 to Sta. e355+09.76

Section 27
US HWY 281
Sta. b442+88 to Sta. b452+88
Resurfacing Section



TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	67	151

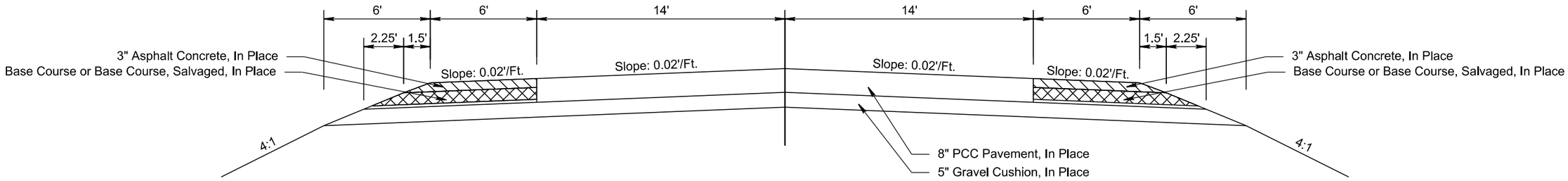
Plotting Date: 01/06/2026

PLOT SCALE - 1:6.00001

Remove Asphalt Concrete Pavement

4" Shoulder Preparation

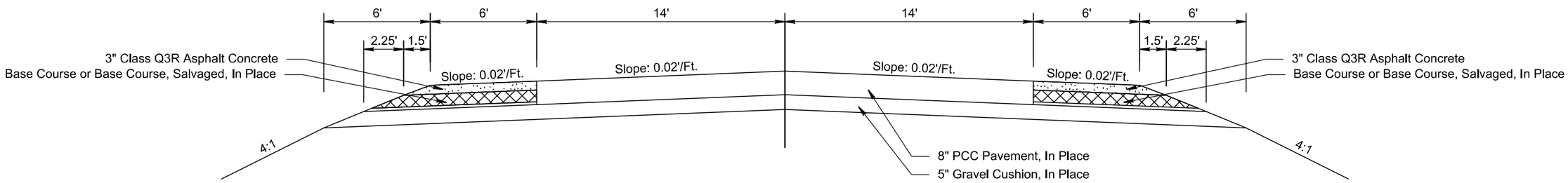
Section 28
US HWY 281 in Redfield
Sta. c10+00 to Sta. c12+00
In Place & Remove Asphalt Concrete Pavement Section



Equation:

Sta. b498+38 Bk. = Sta. c10+00 Ah.

Section 28
US HWY 281 in Redfield
Sta. c10+00 to Sta. c12+00
Resurfacing Section

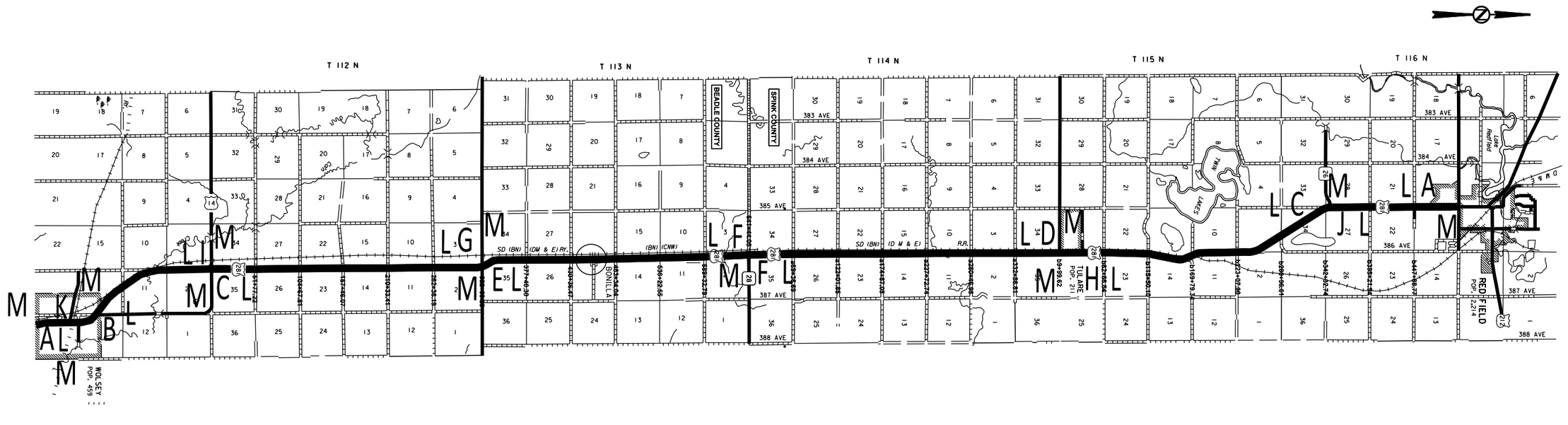


PLOTTED FROM - TRAB10200

PLOT NAME - 28

FILE - ...\06PG_TYPSECT_TJ03_WORKING.DGN

FIXED LOCATION GROUND MOUNTED BREAKAWAY SUPPORT SIGNS



A

ROAD WORK
NEXT 32 MILES

G20-1

B

ROAD WORK
NEXT 31 MILES

G20-1

C

ROAD WORK
NEXT 28 MILES

G20-1

D

ROAD WORK
NEXT 23 MILES

G20-1

E

ROAD WORK
NEXT 22 MILES

G20-1

F

ROAD WORK
NEXT 16 MILES

G20-1

G

ROAD WORK
NEXT 10 MILES

G20-1

H

ROAD WORK
NEXT 9 MILES

G20-1

I

ROAD WORK
NEXT 4 MILES

G20-1

J

ROAD WORK
NEXT 3 MILES

G20-1

K

ROAD WORK
NEXT 1 MILES

G20-1

L

GROOVED PAVEMENT *

W8-15P

Next Miles

W7-3aP

GROOVED PAVEMENT signs must only be visible when the condition exists. Signs will be covered or removed when the grooved road condition is not present.

M

END
ROAD WORK

G20-2

ROAD WORK AHEAD

W20-1 ROAD WORK AHEAD signs will be mounted on portable supports, and will be placed on intersecting roadways as directed by the Engineer. ROAD WORK AHEAD signs will be moved as necessary to keep current with the work activities.

EXACT LOCATION OF SIGNS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

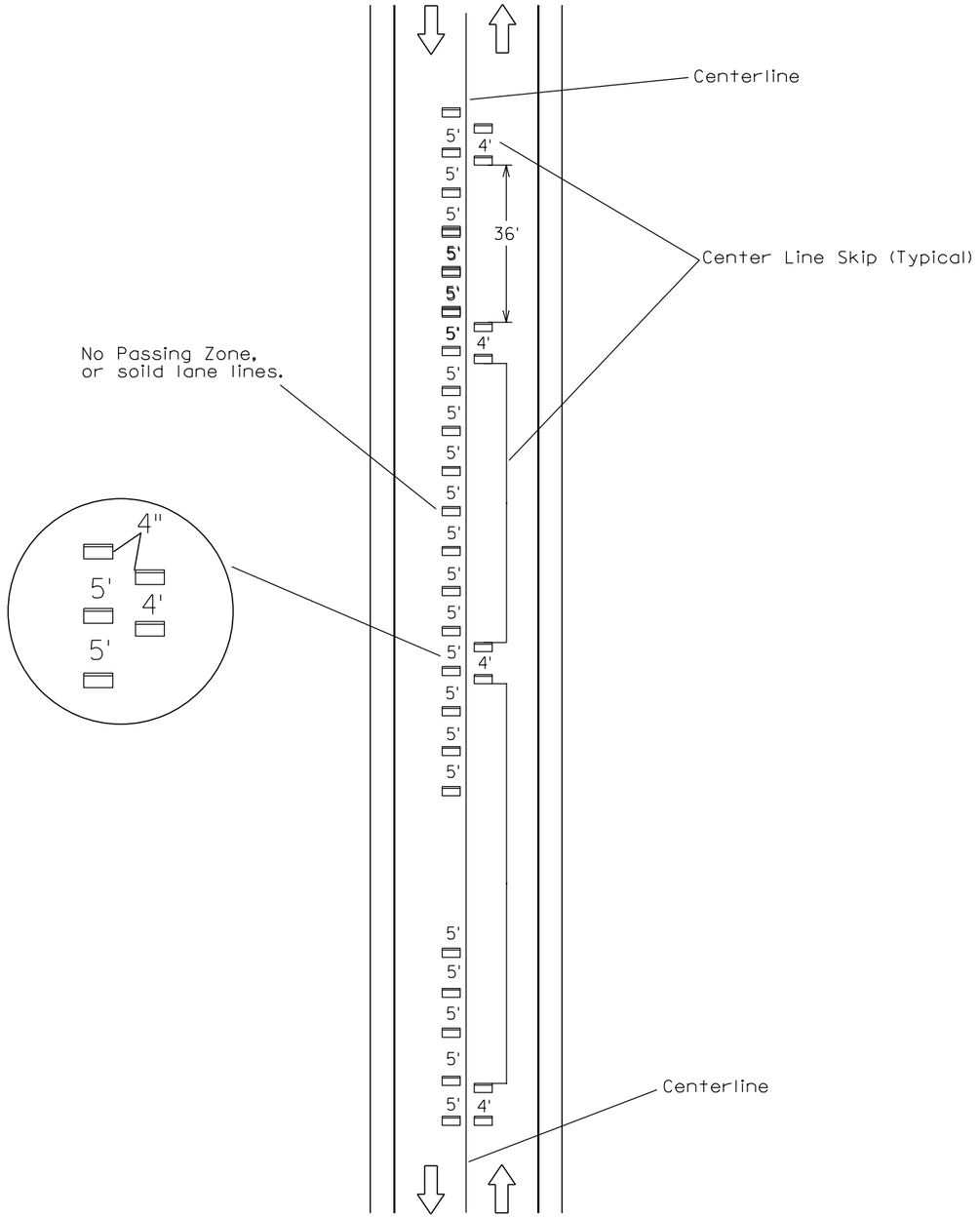
PLOT SCALE - 1:15000

PLOTTED FROM - TRAB10200

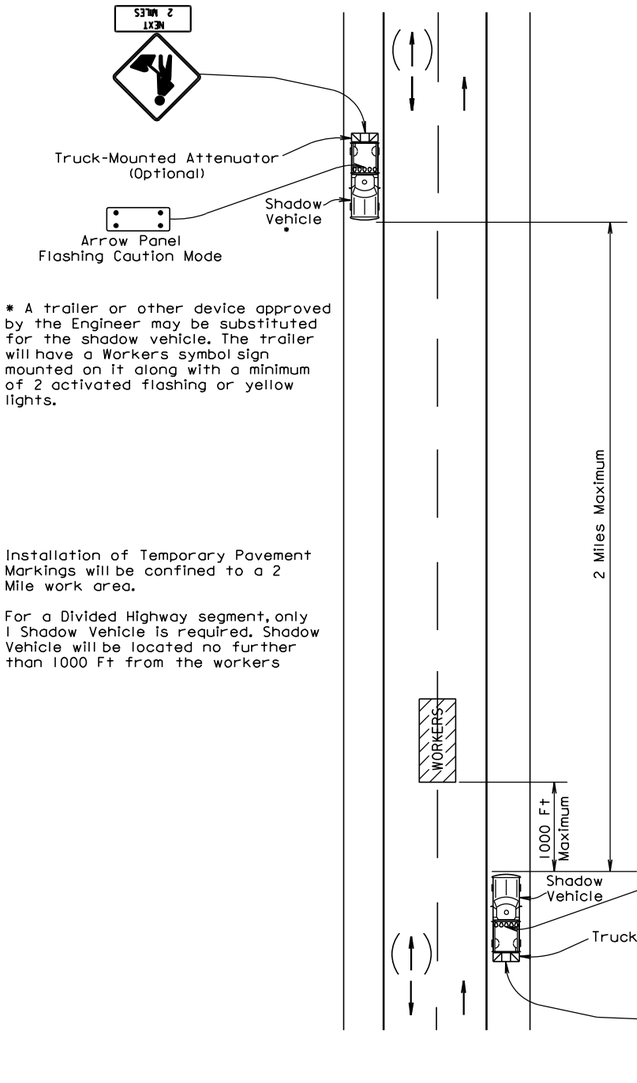
PLOT NAME - 1

FILE - ...\06PG_FIXED_LOCAITON_SIGNS.DGN

GUIDES FOR TRAFFIC CONTROL DEVICES TEMPORARY ROAD MARKER INSTALLATION



GUIDES FOR TRAFFIC CONTROL DEVICES APPLICATION OF TEMPORARY PAVEMENT MARKING TABS



* A trailer or other device approved by the Engineer may be substituted for the shadow vehicle. The trailer will have a Workers symbol sign mounted on it along with a minimum of 2 activated flashing or yellow lights.

Installation of Temporary Pavement Markings will be confined to a 2 Mile work area.

For a Divided Highway segment, only 1 Shadow Vehicle is required. Shadow Vehicle will be located no further than 1000 Ft from the workers

WORK ZONE SPEED REDUCTION FOR UNDIVIDED HIGHWAYS

Sheet 1 of 2

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 65	1000
	(A) (B) (C)
70 - 80	1000 1500 2640

Warning and regulatory sign sequence in opposite direction same as below

** Speed appropriate for location.

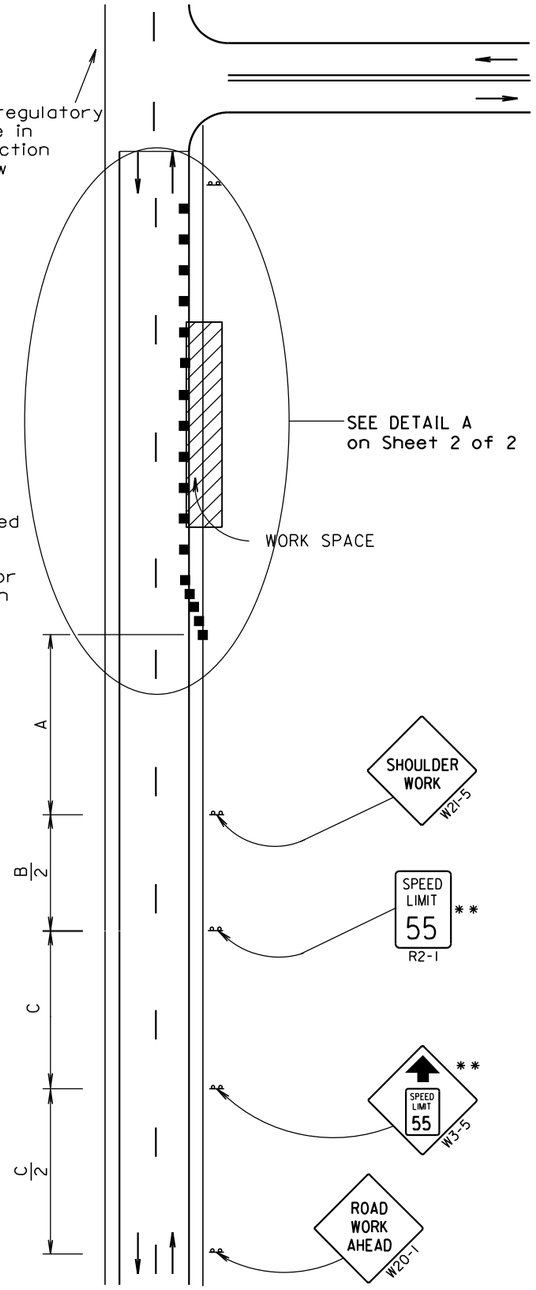
◎ Reflectorized Drum

■ Channelizing Device

ROAD WORK AHEAD sign is only required in advance of the first lane closure.

High speed is defined as having a posted speed limit greater than 45 mph.

The channelizing devices will be drums or 42" cones if traffic control must remain overnight.



WORK ZONE SPEED REDUCTION FOR UNDIVIDED HIGHWAYS

Sheet 2 of 2

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)	Taper Length (Feet) (L)
0 - 30	25	180
35 - 40	25	320
45	25	600
50	50 *	600
55	50 *	660
60 - 65	50 *	780
70 - 80	50 *	960

* Spacing is 40' for 42" cones.

** Speed appropriate for location.

*** Use speed limit designated for the condition when workers are present in the work space. Signs will be covered or removed when workers are not present.

● Flagger (As Necessary)

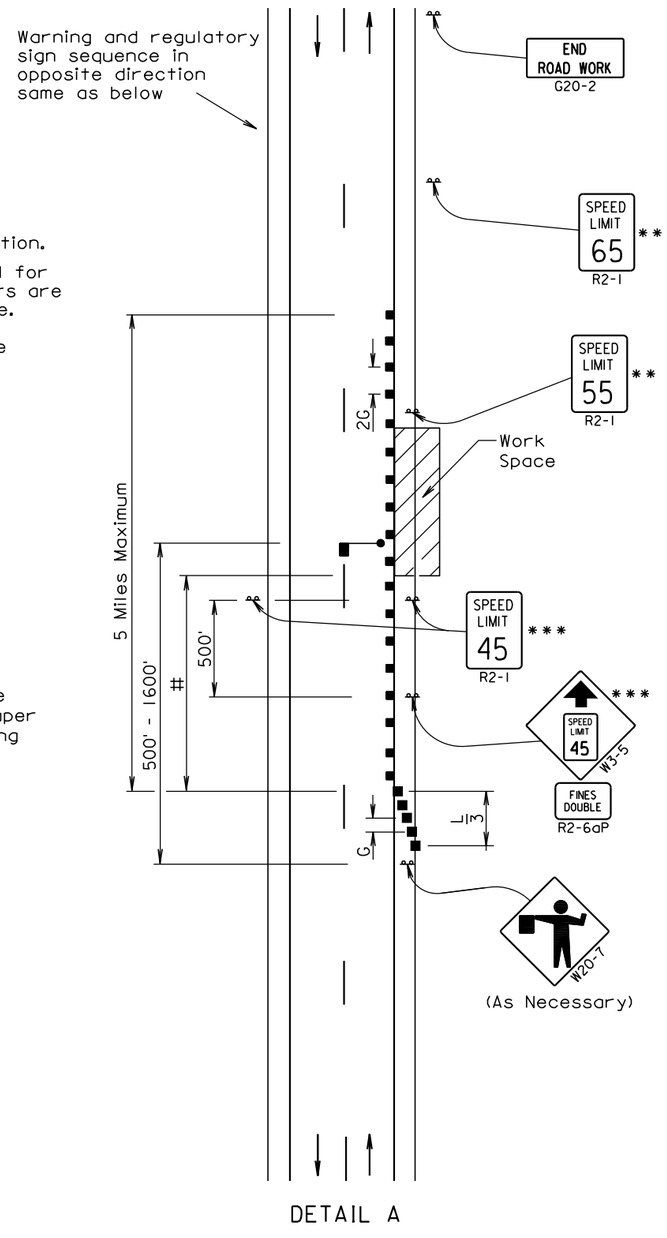
■ Channelizing Device

The Work Space will be a minimum of 500' from the end of the taper.

The FLAGGER sign will be used whenever there is a Flagger present.

The channelizing devices will be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.



DETAIL A

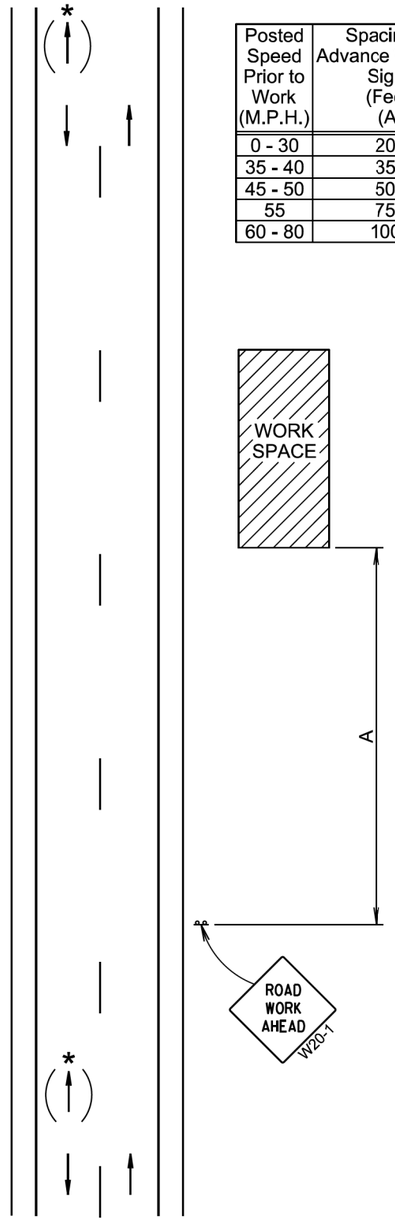
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

The signs illustrated will be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

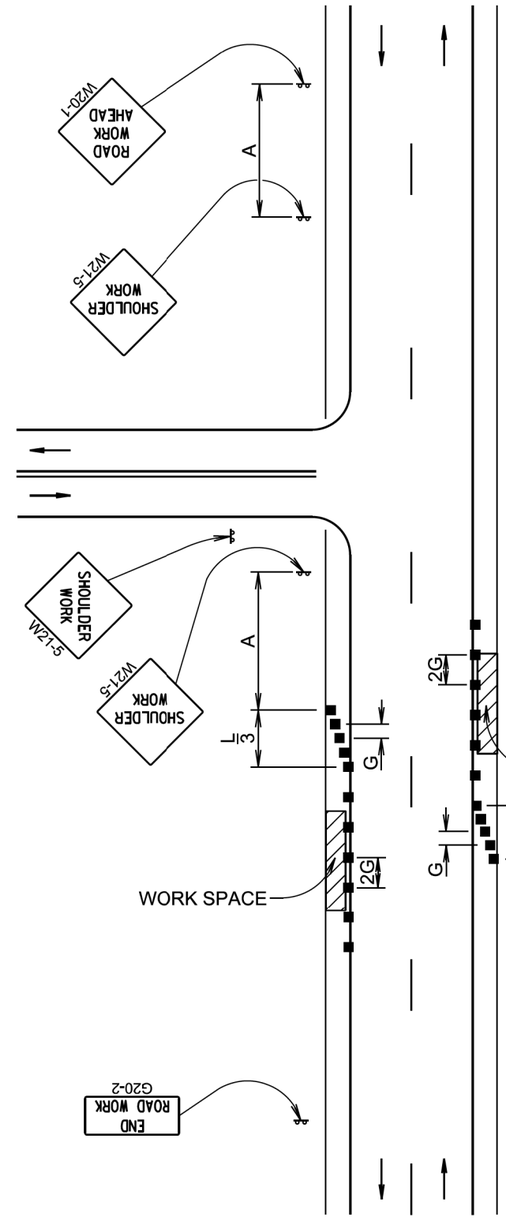
For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 80	1000

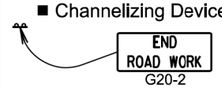
January 22, 2021

Published Date: 2026	SDDOT	WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01
			Sheet 1 of 1



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	750	660	50
60 - 65	1000	780	50

■ Channelizing Device



The channelizing devices will be drums or 42" cones if traffic control must remain overnight.

For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

January 22, 2021

Published Date: 2026	SDDOT	WORK ON SHOULDERS	PLATE NUMBER 634.03
			Sheet 1 of 1

* Messages on signs will vary depending on the operation being conducted.

Vehicle-mounted signs will be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs will be covered or turned from view when work is not in progress.

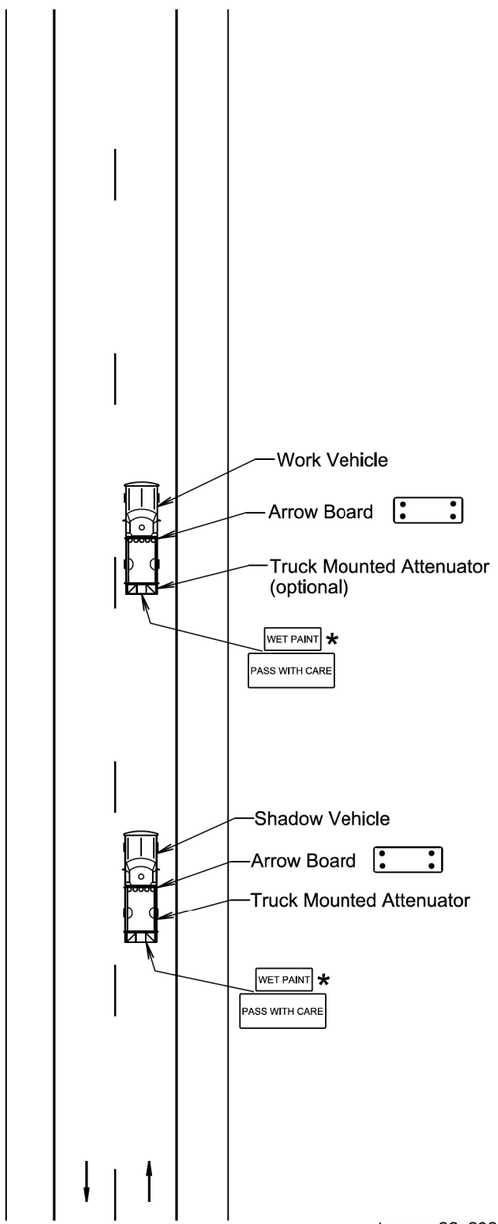
Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

Vehicle hazard warning signals will not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

When an arrow board is used, it will be used in the caution mode. Marching Diamonds are acceptable.

Arrow boards will, as a minimum, be Type B, with a size of 60" x 30".

All costs associated with the traffic control for mobile operation including signs, arrow boards and equipment will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".



January 22, 2021

Published Date: 2026

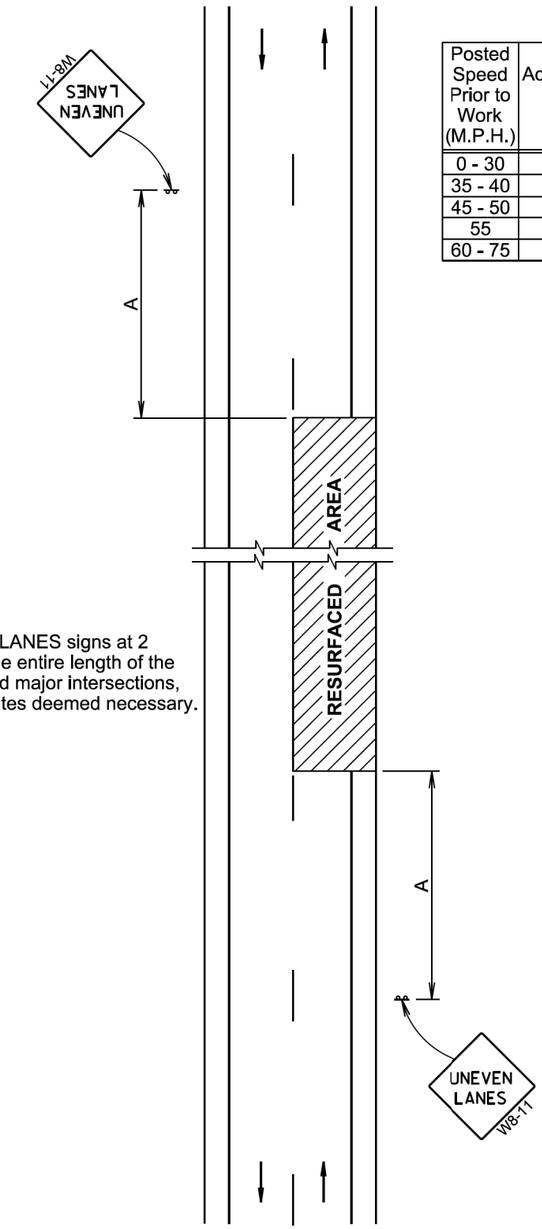
SDDOT

MOBILE OPERATIONS ON 2-LANE ROAD

PLATE NUMBER 634.06

Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 75	1000



Install additional UNEVEN LANES signs at 2 mile intervals throughout the entire length of the uneven area and at affected major intersections, edge of towns, and other sites deemed necessary.

January 22, 2021

Published Date: 2026

SDDOT

UNEVEN ROAD SURFACE

PLATE NUMBER 634.22

Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	25
35 - 40	350	25
45	500	25
50	500	50
55	750	50
60 - 65	1000	50

Flagger

■ Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

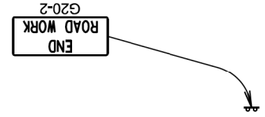
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) will be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices will be drums or 42" cones.

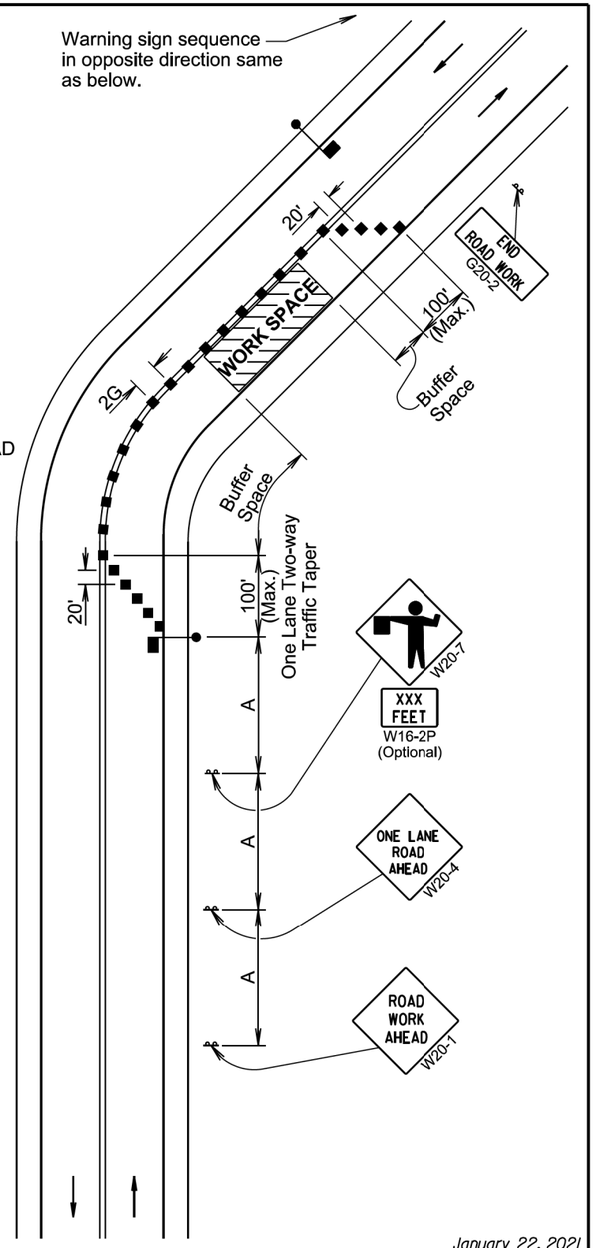
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers will be used at intersecting roads to control intersecting road traffic as required.

The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.



January 22, 2021

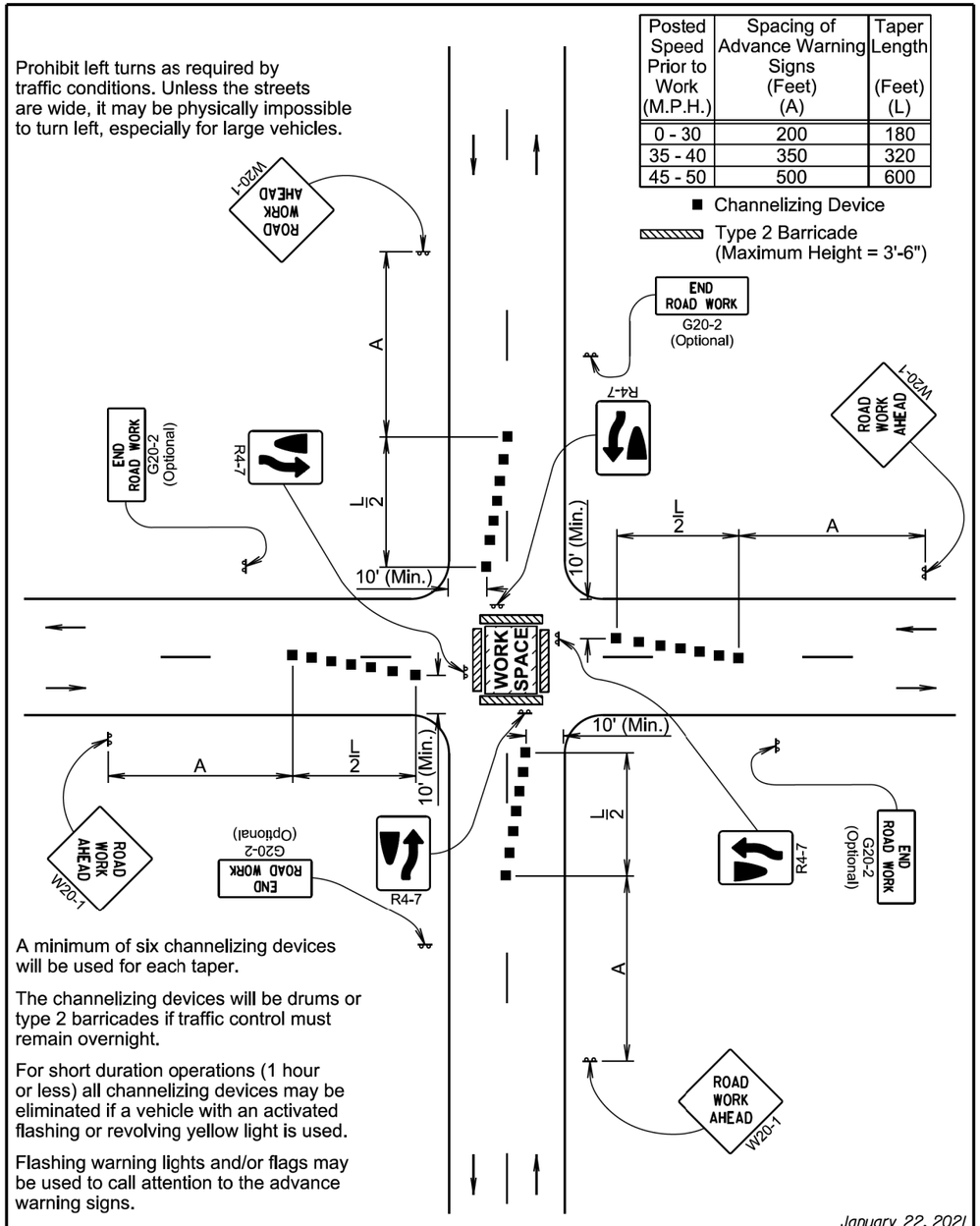
Published Date: 2026	SDDOT	LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1

Prohibit left turns as required by traffic conditions. Unless the streets are wide, it may be physically impossible to turn left, especially for large vehicles.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)
0 - 30	200	180
35 - 40	350	320
45 - 50	500	600

■ Channelizing Device

Type 2 Barricade (Maximum Height = 3'-6")



A minimum of six channelizing devices will be used for each taper.

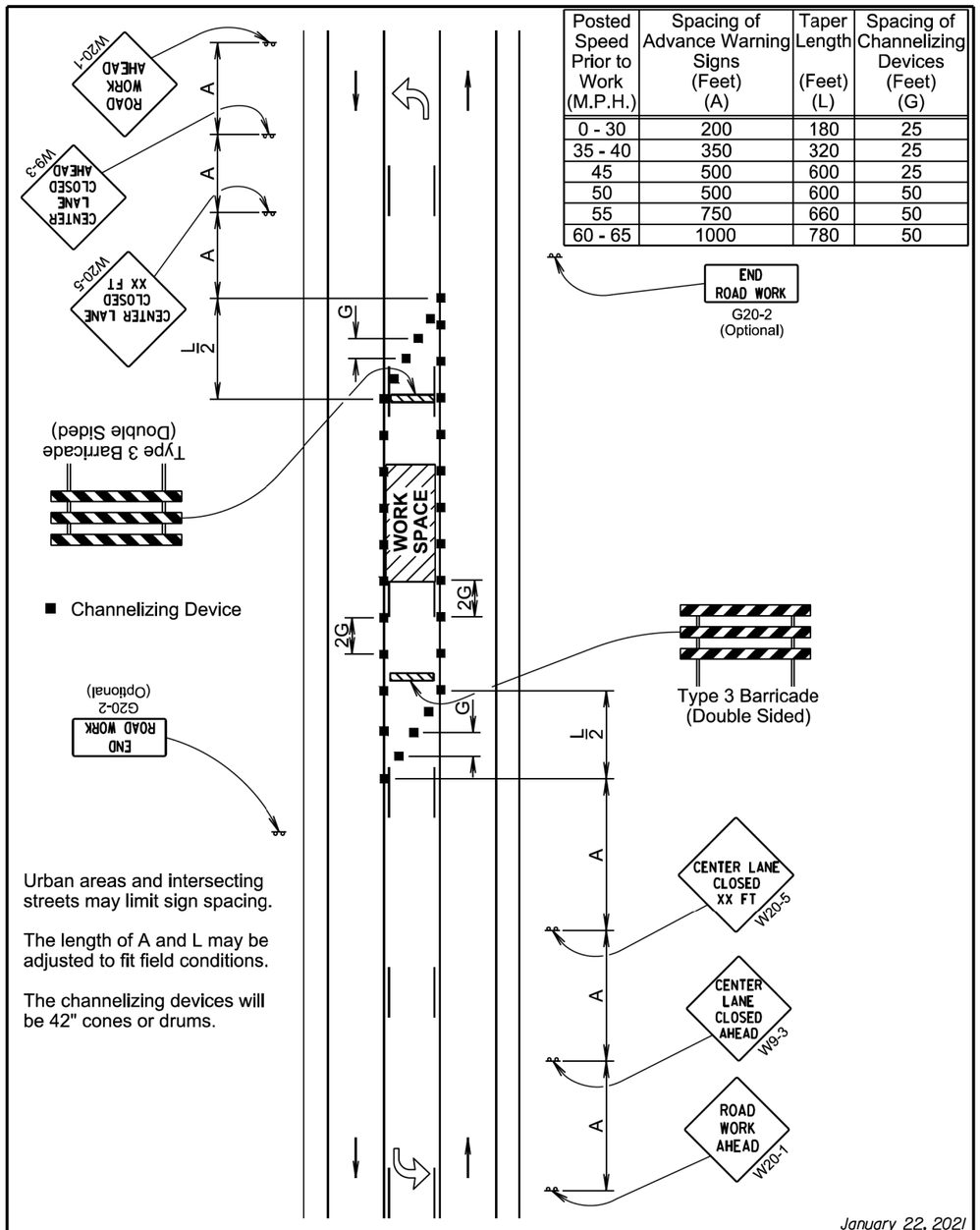
The channelizing devices will be drums or type 2 barricades if traffic control must remain overnight.

For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

January 22, 2021

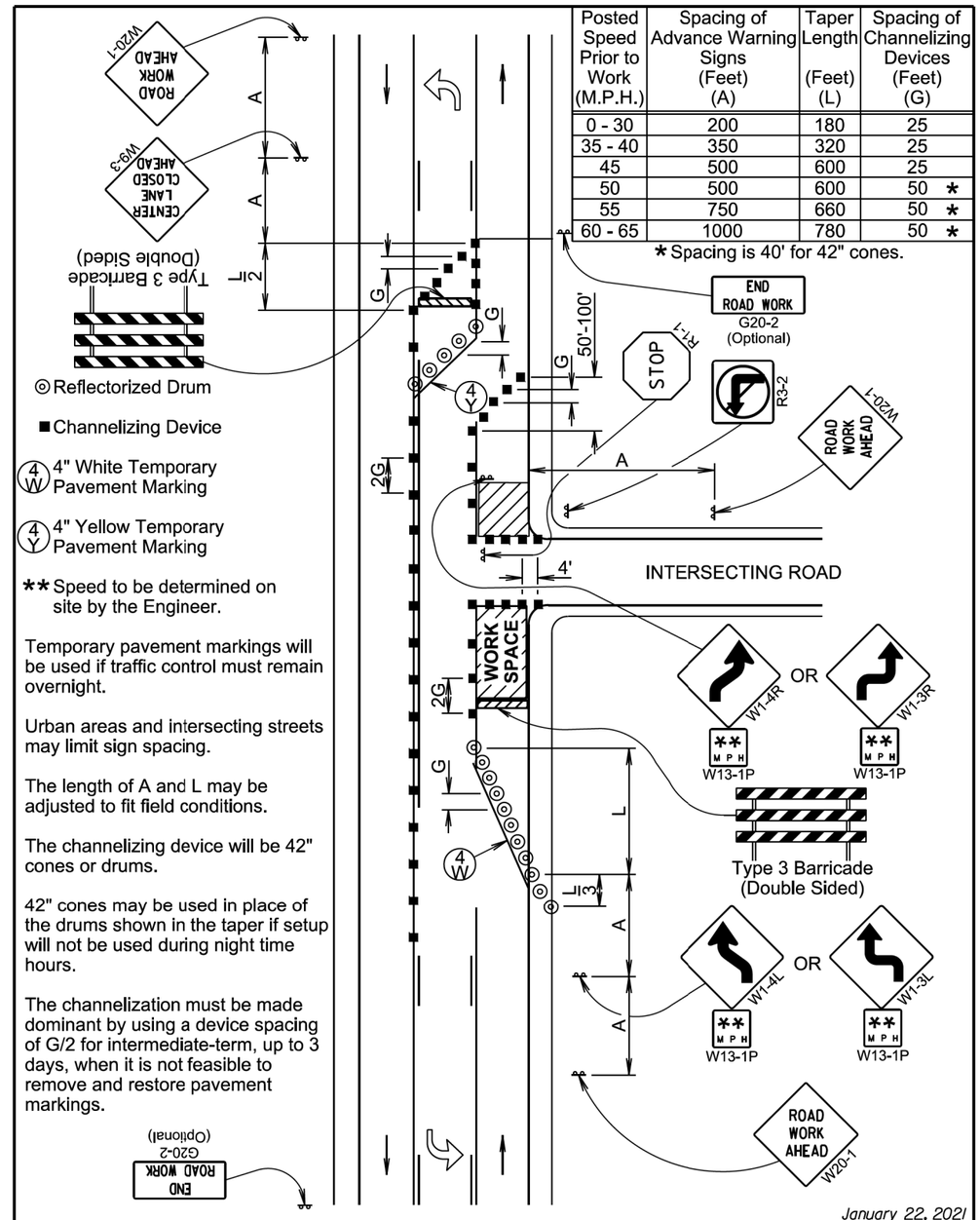
Published Date: 2026	SDDOT	CLOSURE IN CENTER OF INTERSECTION	PLATE NUMBER 634.35
			Sheet 1 of 1



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50
55	750	660	50
60 - 65	1000	780	50

January 22, 2021

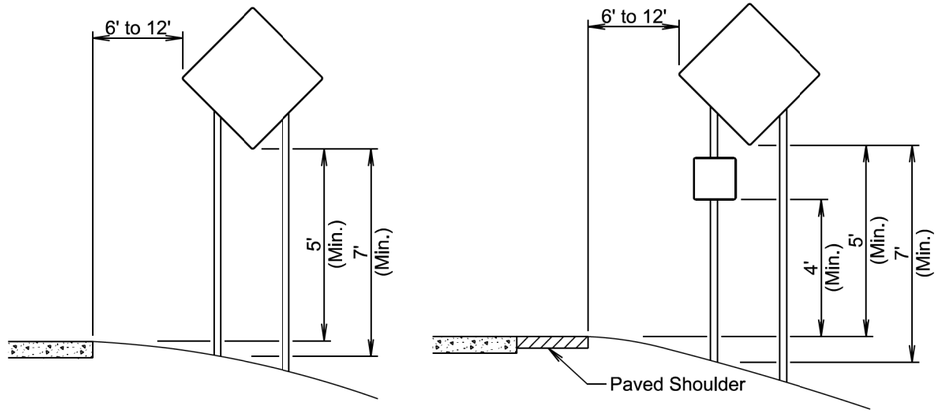
Published Date: 2026	SDDOT	3-LANE, CENTER LANE CLOSED	PLATE NUMBER 634.52 Sheet 1 of 1



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45	500	600	25
50	500	600	50 *
55	750	660	50 *
60 - 65	1000	780	50 *

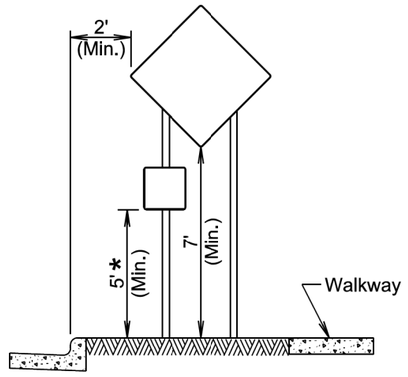
January 22, 2021

Published Date: 2026	SDDOT	3-LANE, OUTSIDE LANE CLOSED	PLATE NUMBER 634.53 Sheet 1 of 1

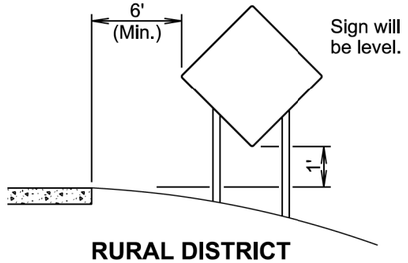


RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

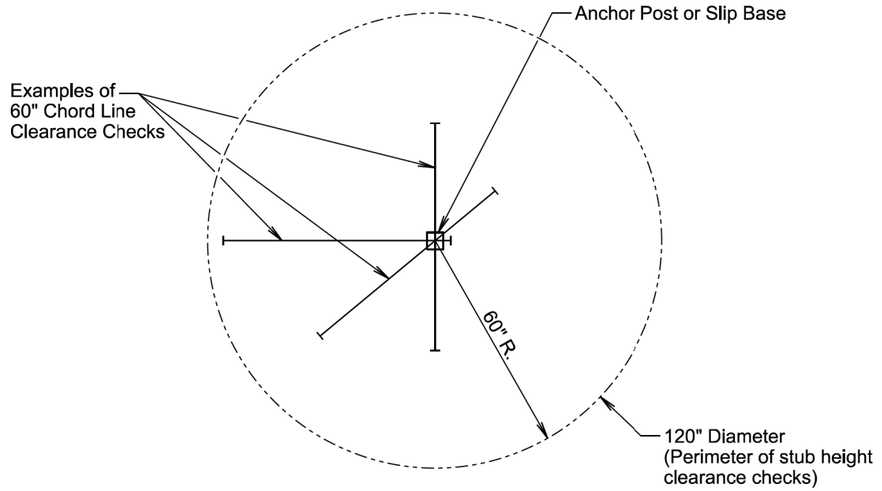


RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

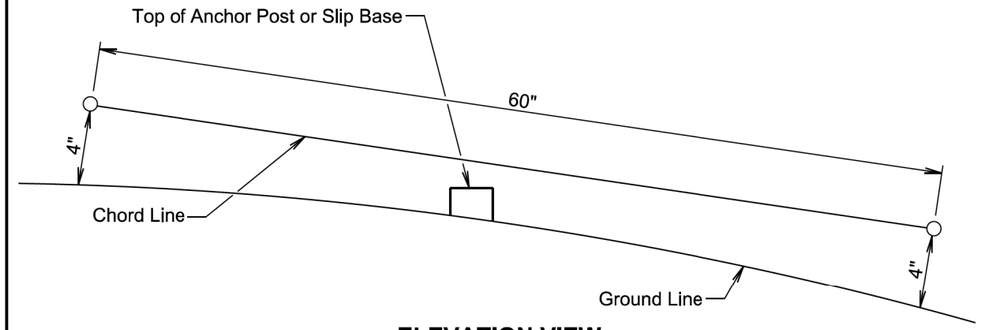
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

January 22, 2021

Published Date: 2026	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases WILL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height will be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

January 22, 2021

Published Date: 2026	SDDOT	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

ITEMIZED LIST FOR 06CT TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W3-4	BE PREPARED TO STOP	4	48" x 48"	16.0	64.0
W7-3aP	NEXT 32 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 31 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 4 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 1 MILES (plaque)	1	36" x 30"	7.5	7.5
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W8-7	LOOSE GRAVEL	2	48" x 48"	16.0	32.0
W8-11	UNEVEN LANES	2	48" x 48"	16.0	32.0
W8-15	GROOVED PAVEMENT	3	48" x 48"	16.0	48.0
W8-15P	MOTORCYCLE (plaque)	3	24" x 18"	3.0	9.0
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-1	WORKERS (symbol)	2	48" x 48"	16.0	32.0
W21-5	SHOULDER WORK	2	48" x 48"	16.0	32.0
W21-5a	LEFT or RIGHT SHOULDER CLOSED	2	48" x 48"	16.0	32.0
W21-5b	LEFT or RIGHT SHOULDER CLOSED AHEAD	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	4	30" x 18"	3.8	15.2
G20-1	ROAD WORK NEXT 32 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 31 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 4 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 1 MILES	1	36" x 18"	4.5	4.5
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			545.2

ITEMIZED LIST FOR 06PG TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	1	30"	5.2	5.2
R2-1	SPEED LIMIT 45	4	24" x 30"	5.0	20.0
R2-1	SPEED LIMIT 55	8	24" x 30"	5.0	40.0
R2-1	SPEED LIMIT 65	4	24" x 30"	5.0	20.0
R2-6aP	FINES DOUBLE (plaque)	4	24" x 18"	3.0	12.0
R3-2	LEFT TURN PROHIBITION (symbol)	1	24" x 24"	4.0	4.0
R4-7c	(Narrow) KEEP RIGHT (symbol)	4	18" x 30"	3.8	15.2
W1-4	REVERSE CURVE (L or R)	2	48" x 48"	16.0	32.0
W3-4	BE PREPARED TO STOP	4	48" x 48"	16.0	64.0
W3-5	SPEED REDUCTION AHEAD (45 MPH)	4	48" x 48"	16.0	64.0
W3-5	SPEED REDUCTION AHEAD (55 MPH)	4	48" x 48"	16.0	64.0
W7-3aP	NEXT 32 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 28 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 23 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 22 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 16 MILES (plaque)	2	36" x 30"	7.5	15.0
W7-3aP	NEXT 10 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 9 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 3 MILES (plaque)	1	36" x 30"	7.5	7.5
W7-3aP	NEXT 2 MILES (plaque)	2	36" x 30"	7.5	15.0
W8-6	TRUCK CROSSING	2	48" x 48"	16.0	32.0
W8-7	LOOSE GRAVEL	4	48" x 48"	16.0	64.0
W8-11	UNEVEN LANES	6	48" x 48"	16.0	96.0
W8-15	GROOVED PAVEMENT	10	48" x 48"	16.0	160.0
W8-15P	MOTORCYCLE (plaque)	10	24" x 18"	3.0	30.0
W8-17	SHOULDER DROP-OFF (symbol)	4	48" x 48"	16.0	64.0
W9-3	CENTER LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
W13-1P	ADVISORY SPEED (plaque)	4	30" x 30"	6.3	25.2
W20-1	ROAD WORK AHEAD	6	48" x 48"	16.0	96.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-1	WORKERS (symbol)	2	48" x 48"	16.0	32.0
W21-5	SHOULDER WORK	2	48" x 48"	16.0	32.0
W21-5a	LEFT or RIGHT SHOULDER CLOSED	2	48" x 48"	16.0	32.0
W21-5b	LEFT or RIGHT SHOULDER CLOSED AHEAD	2	48" x 48"	16.0	32.0
SPECIAL	WAIT FOLLOW PILOT CAR	6	30" x 18"	3.8	22.8
G20-1	ROAD WORK NEXT 32 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 28 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 23 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 22 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 16 MILES	2	36" x 18"	4.5	9.0
G20-1	ROAD WORK NEXT 10 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 9 MILES	1	36" x 18"	4.5	4.5
G20-1	ROAD WORK NEXT 3 MILES	1	36" x 18"	4.5	4.5
G20-2	END ROAD WORK	12	36" x 18"	4.5	54.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			1363.4

Revised
01/15/2026 2:41:24 PM

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	77	151
Plotting Date: 01/16/2026			

HORIZONTAL ALIGNMENT DATA

US 281 (Sta. 263+36.19 to Sta. 333+98.28)

Type	Station			Northing	Easting
PI	263+36.19			257667.678	2359939.222
		TL= 5337.49	N 1°00'56" W		
PC	316+73.68			263004.333	2359844.629
PI	322+46.33	R= 2083.48	Delta= 30°44'12" L	263576.89	2359834.48
PT	327+91.38			264063.83	2359533.128
		TL= 606.90	N 31°45'07" W		
PC	333+98.28			264579.898	2359213.75

US 281 (Sta. b253+96.12 to Sta. b395+21.94)

Type	Station			Northing	Easting
PT	b253+96.12			356218.866	2356317.778
		TL= 7813.31	N 32°40'04" W		
PC	b332+09.43			362796.2251	2352100.416
PI	b342+97.68	R= 3819.72	Delta= 31°48'18" R	363712.3349	2351513.012
PT	b353+29.76			364800.4673	2351496.626
		TL= 4192.18	N 0°51'46" W		
PI	b395+21.94			368992.1742	2351433.504

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone NAD 83(2011); epoch 2010.00; Geoid12B; SF = 1.000000000
The elevations shown on this sheet are based on NAVD 88

CONTROL DATA

HORIZONTAL AND VERTICAL CONTROL POINTS

Point	Description	Northing	Easting	Elevation
3519	Refmrk	364234.1340	2351231.2530	1340.14
3520	Refmrk	263468.1210	2359871.2260	1351.14

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. North Zone NAD 83(2011); epoch 2010.00; Geoid12B; SF = 1.000000000
The elevations shown on this sheet are based on NAVD 88

LEGEND

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	79	151
Plotting Date: 01/22/2024			

- Anchor
- Antenna
- Approach
- Assumed Corner
- Azimuth Marker
- BBQ Grill/ Fireplace
- Bearing Tree
- Bench Mark
- Box Culvert
- Bridge
- Brush
- Buildings
- Bulk Tank
- Cattle Guard
- Cemetery
- Centerline
- Cistern
- Clothes Line
- Commercial Sign Double Face
- Commercial Sign One Post
- Commercial Sign Overhead
- Commercial Sign Two Post
- Concrete Symbol
- Control Point
- Creek Edge
- Curb/Gutter
- Curb
- Dam Grade/Dike/Levee
- Deck Edge
- Ditch Block
- Doorway Threshold
- Drainage Profile
- Drop Inlet
- Edge Of Asphalt
- Edge Of Concrete
- Edge Of Gravel
- Edge Of Other
- Edge Of Shoulder
- Electric Transformer/Power Junction Box
- Fence Barbwire
- Fence Chainlink
- Fence Electric
- Fence Miscellaneous
- Fence Rock
- Fence Snow
- Fence Wood
- Fence Woven
- Fire Hydrant
- Flag Pole
- Flower Bed
- Gas Valve Or Meter
- Gas Pump Island
- Grain Bin
- Guardrail
- Guide Sign One Post
- Guide Sign Two Post
- Gutter
- Guy Pole
- Haystack
- Hedge
- Highway ROW Marker
- Interstate Close Gate
- Iron Pin
- Irrigation Ditch
- Lake Edge
- Lawn Sprinkler
- Mailbox
- Manhole Electric
- Manhole Gas
- Manhole Miscellaneous
- Manhole Sanitary Sewer
- Manhole Storm Sewer
- Manhole Telephone
- Manhole Water
- Merry-Go-Round
- Microwave Radio Tower
- Miscellaneous Line
- Miscellaneous Property Corner
- Miscellaneous Post
- Overhang Or Encroachment
- Overhead Utility Line — OH —
- Parking Meter
- Pedestrian Push Button Pole
- Pipe With End Section
- Pipe With Headwall
- Pipe Without End Section
- Playground Slide
- Playground Swing
- Power And Light Pole
- Power And Telephone Pole
- Power Meter
- Power Pole
- Power Pole And Transformer
- Power Tower Structure
- Propane Tank
- Property Pipe
- Property Pipe With Cap
- Property Stone
- Public Telephone
- Railroad Crossing Signal
- Railroad Milepost Marker
- Railroad Profile
- Railroad ROW Marker
- Railroad Signs
- Railroad Switch
- Railroad Track
- Railroad Trestle
- Rebar
- Rebar With Cap
- Reference Mark
- Regulatory Sign One Post
- Regulatory Sign Two Post
- Retaining Wall
- Riprap
- River Edge
- Rock And Wire Baskets
- Rockpiles
- Satellite Dish
- Septic Tank
- Shrub Tree
- Sidewalk
- Sign Face
- Sign Post
- Slough Or Marsh
- Spring
- Stream Gauge
- Street Marker
- Subsurface Utility Exploration Test Hole
- Telephone Fiber Optics — T/F —
- Telephone Junction Box
- Telephone Pole
- Television Cable Jct Box
- Television Tower
- Test Wells/Bore Holes
- Traffic Signal
- Trash Barrel
- Tree Belt
- Tree Coniferous
- Tree Deciduous
- Tree Stumps
- Triangulation Station
- Underground Electric Line — P —
- Underground Gas Line — G —
- Underground High Pressure Gas Line — HG —
- Underground Sanitary Sewer — S —
- Underground Storm Sewer — S —
- Underground Tank
- Underground Telephone Line — T —
- Underground Television Cable — TV —
- Underground Water Line — W —
- Warning Sign One Post
- Warning Sign Two Post
- Water Fountain
- Water Hydrant
- Water Meter
- Water Tower
- Water Valve
- Water Well
- Weir Rock
- Windmill
- Wingwall
- Witness Corner

- State and National Line
- County Line
- Section Line
- Quarter Line
- Sixteenth Line
- Property Line
- Construction Line
- ROW Line
- New ROW Line
- Cut and Fill Limits
- Control of Access
- New Control of Access
- Proposed ROW (After Property Disposal)

- Drainage Arrow

- Remove Concrete Pavement
- Remove Concrete Driveway Pavement
- Remove Asphalt Concrete Pavement
- Remove Concrete Sidewalk
- Remove Concrete Median Pavement
- Remove Concrete Curb and/or Gutter

- Detectable Warning
- Pedestrian Push Button Pole and 30" x 48" Clear Space with 1.5% slope

Plot Scale - 1:200

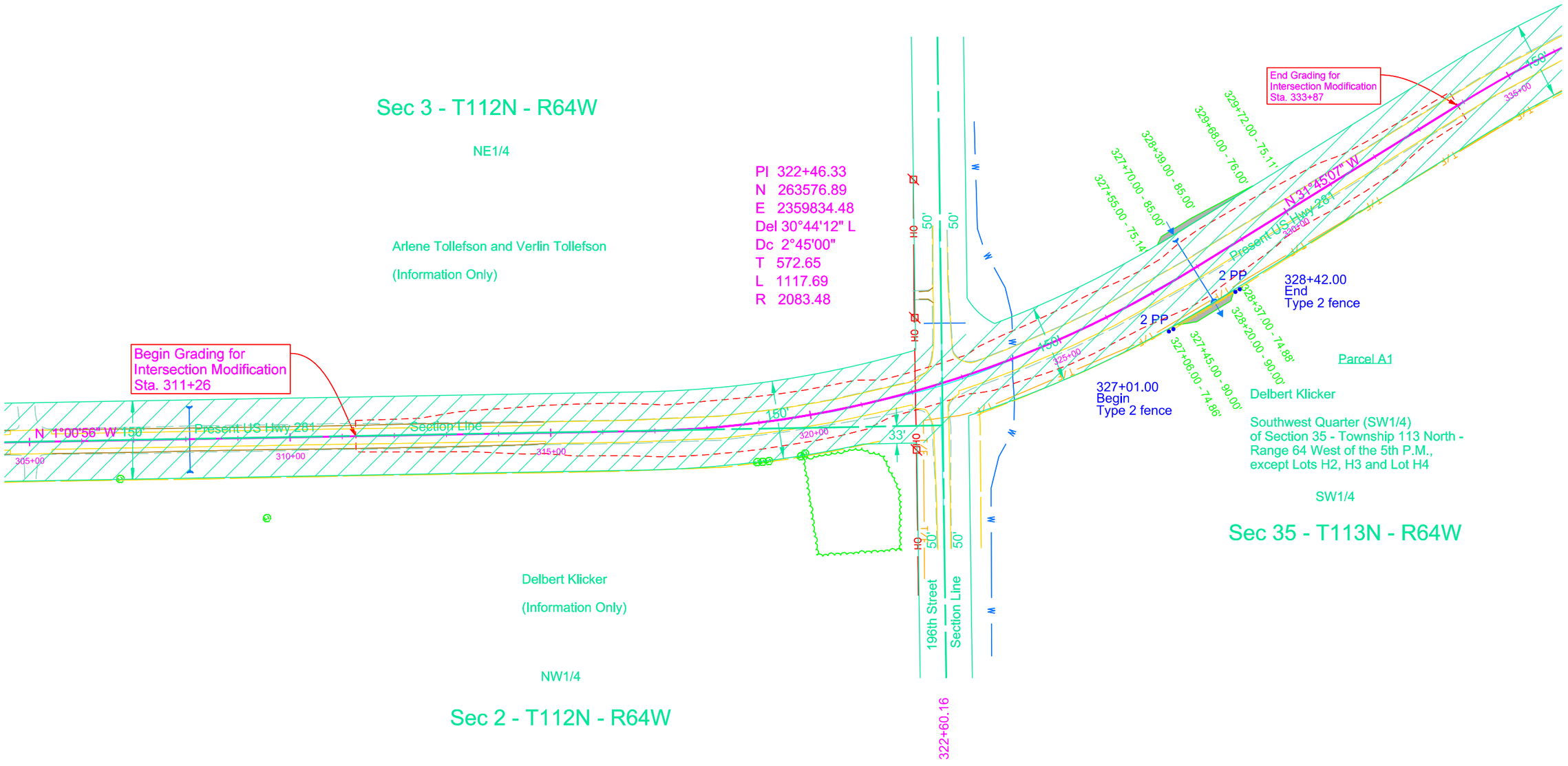
Plotted From - TRAB10200

File - ...\Region Design\legend.dgn

327+91
Retain Existing 24" RCP

327+91 L
Remove for Reset 1 RCP End Section
Install pipe Culvert 24"-6' RCP
Reset 1 RCP End Section

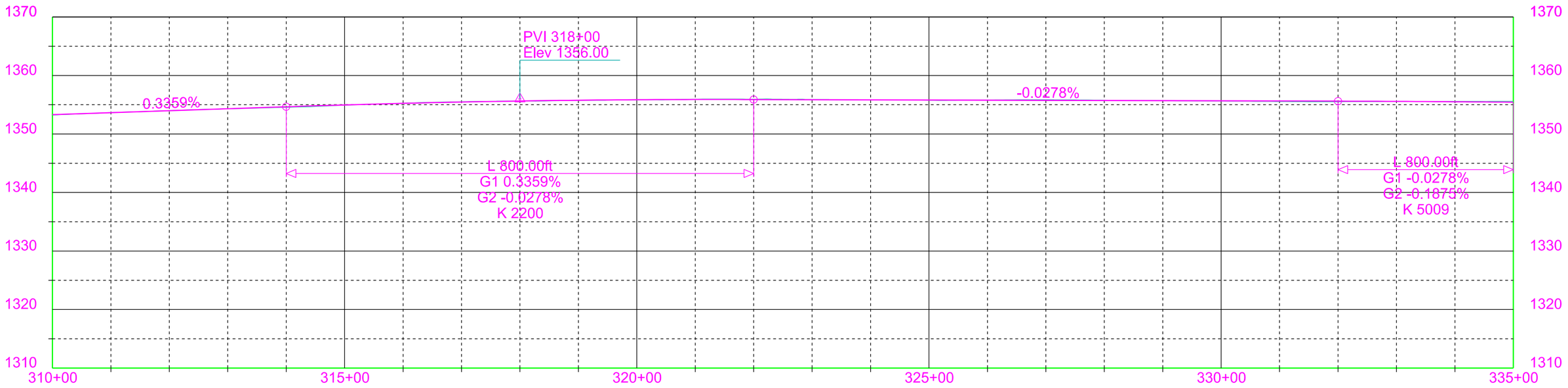
327+91 R
Remove for Reset 1 RCP End Section
Install pipe Culvert 24"-6' RCP
Reset 1 RCP End Section

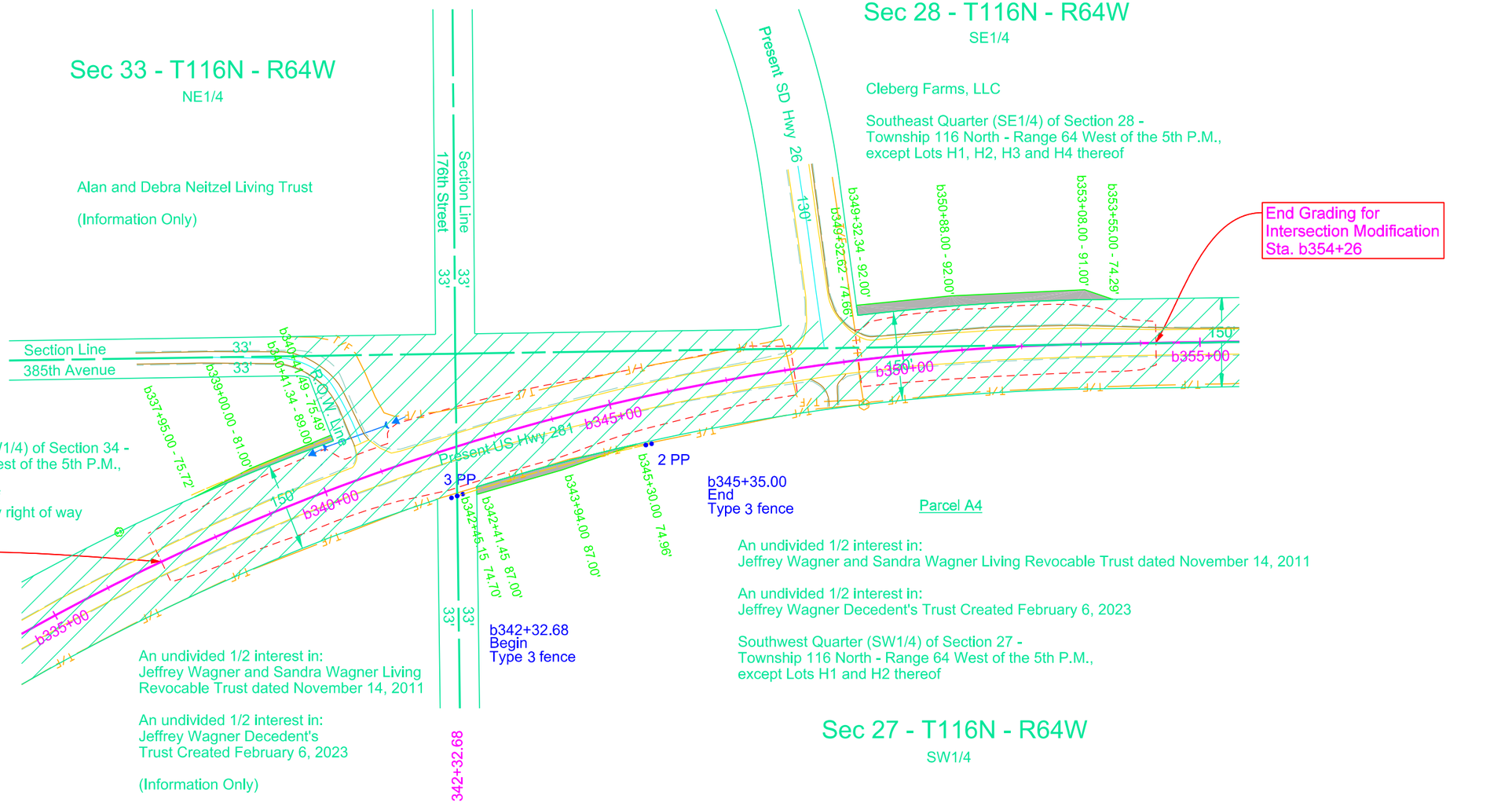


Parcel A1
327+06.00 to 328+37.00 R
Temporary Easement containing
0.1 ac. more or less

Parcel A1
327+55.00 to 329+72.00 L
Temporary Easement containing
0.1 ac. more or less

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	81	151
Plotting Date: 01/22/2024			



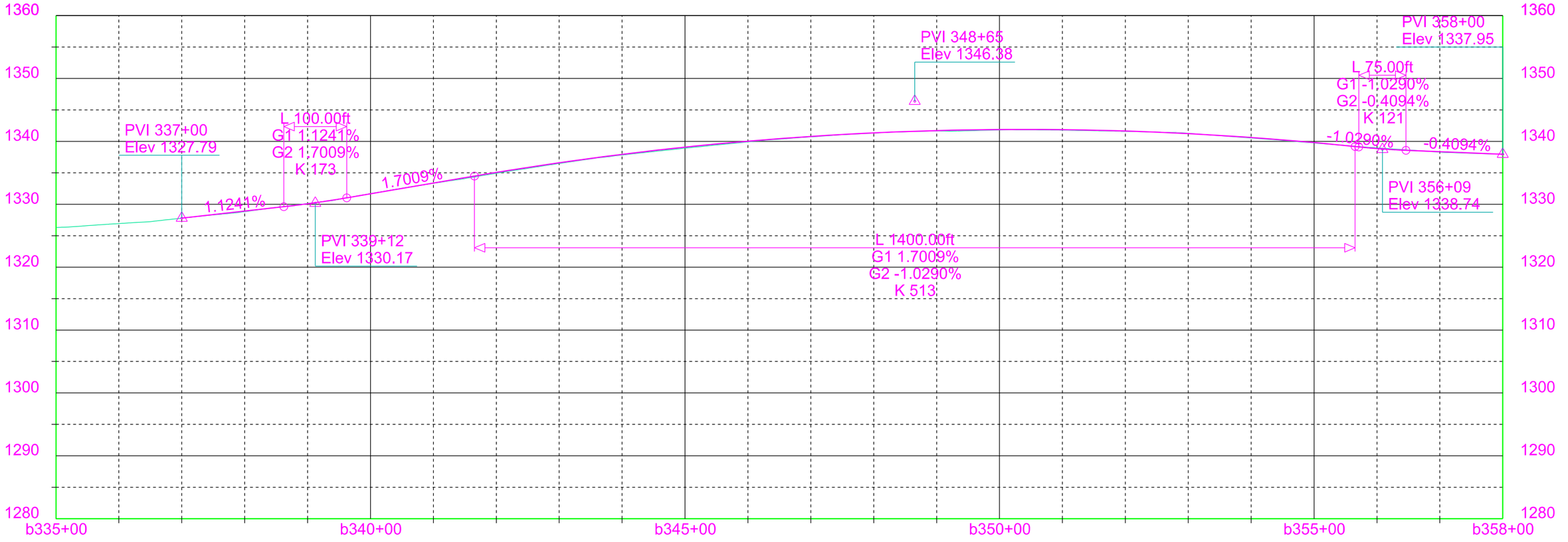


Parcel A2
b337+95.00 to b340+41.49 L
Temporary Easement containing
0.1 ac. more or less

Parcel A3
b349+32.34 to b353+55.00 L
Temporary Easement containing
0.2 ac. more or less

Parcel A4
b342+41.45 to b345+30.00 R
Temporary Easement containing
0.1 ac. more or less

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	83	151
Plotting Date: 06/03/2025			



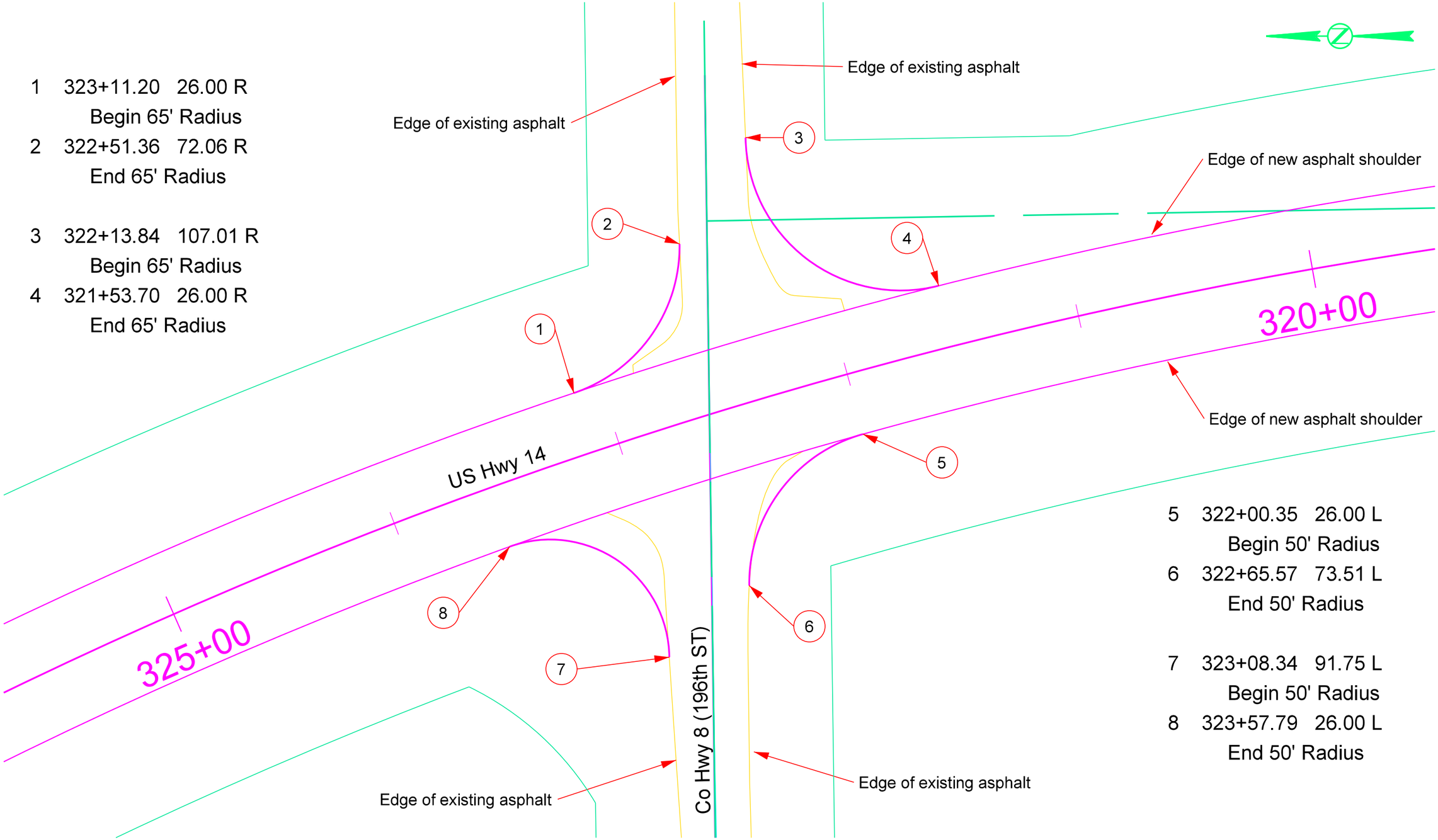
US Hwy 14/Co Hwy 8 (196th ST) Intersection Layout

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	84	151
Plotting Date: 11/19/2025			

Note: Points are on outside edge of asphalt surfacing
(subgrade is 8' outside of this)

1 323+11.20 26.00 R
Begin 65' Radius
2 322+51.36 72.06 R
End 65' Radius

3 322+13.84 107.01 R
Begin 65' Radius
4 321+53.70 26.00 R
End 65' Radius



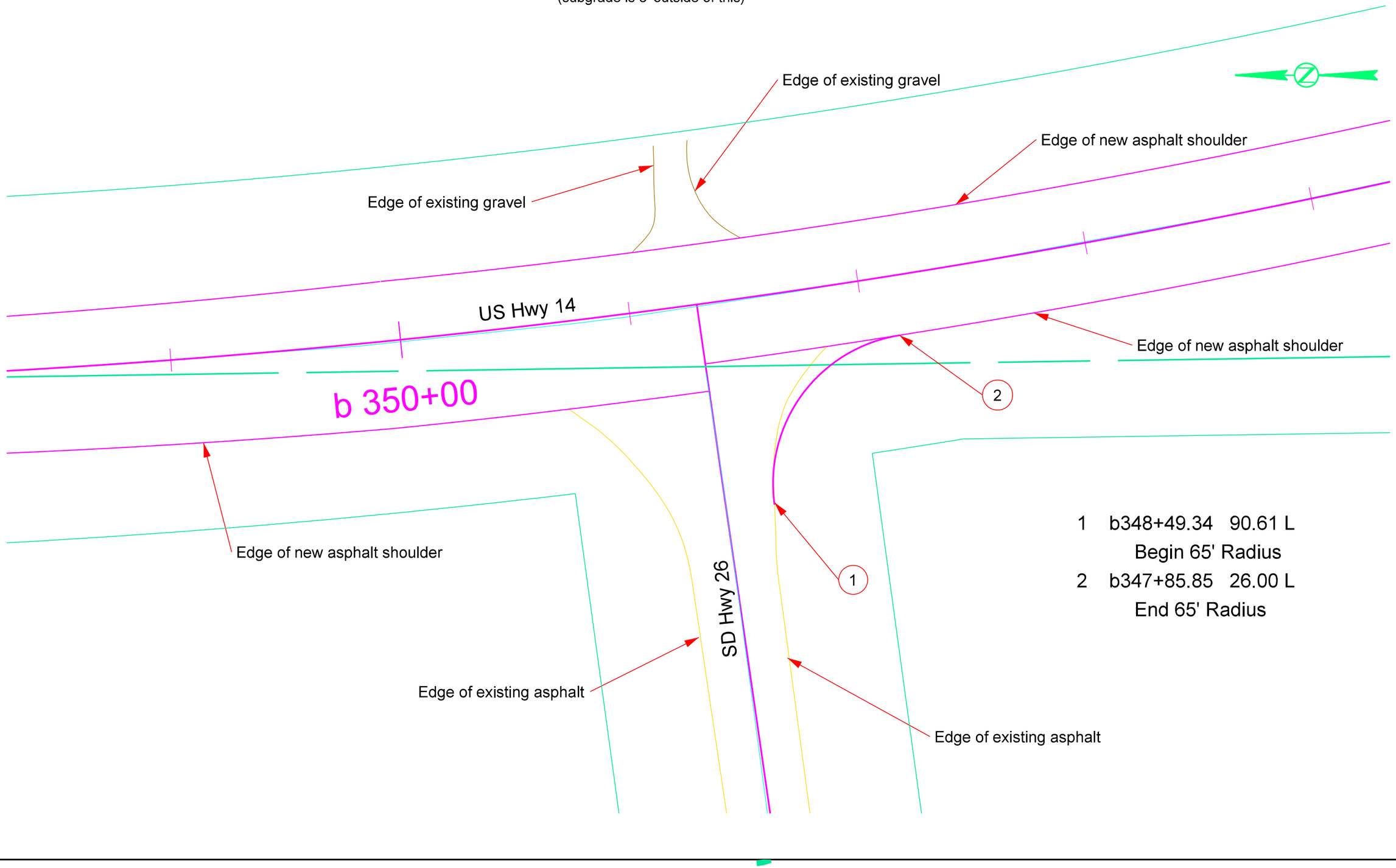
5 322+00.35 26.00 L
Begin 50' Radius
6 322+65.57 73.51 L
End 50' Radius

7 323+08.34 91.75 L
Begin 50' Radius
8 323+57.79 26.00 L
End 50' Radius

US Hwy 14/SD Hwy 26 Intersection Layout

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	85	151
Plotting Date: 11/19/2025			

Note: Points are on outside edge of asphalt surfacing
(subgrade is 8' outside of this)



1 b348+49.34 90.61 L
Begin 65' Radius
2 b347+85.85 26.00 L
End 65' Radius

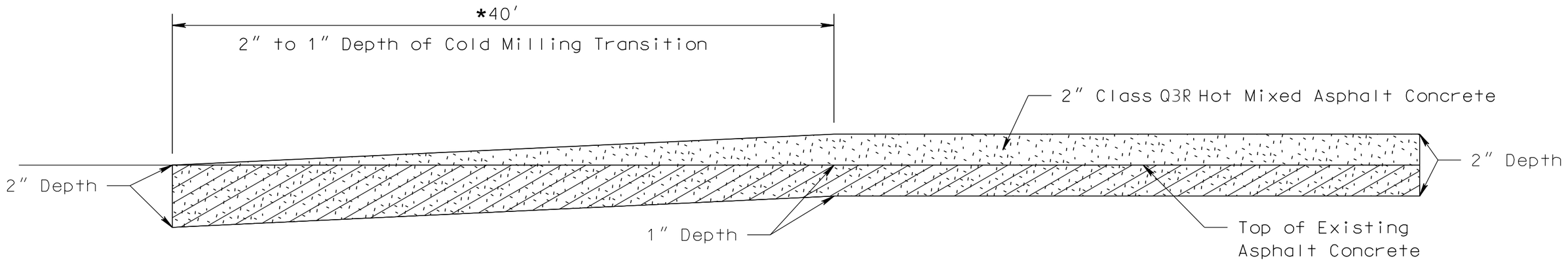
SURFACING TRANSITION LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	86	151

Plotting Date: 11/19/2024

2" Class Q3R Hot Mixed Asphalt Concrete

Cold Milling Asphalt Concrete



* ≤ 65 mph Transition length = 40' per inch of elevation change
> 65 mph Transition length = 60' per inch of elevation change

Use at the following locations:
06PG 5+80
06PG b19+81
06PG b22+23
06PG c10+00

06CT f15+90
06CT e173+00

PLOT SCALE - 1:24

PLOT NAME - 1

FILE - ...\COLD MILLING TRANSITIONS.DGN

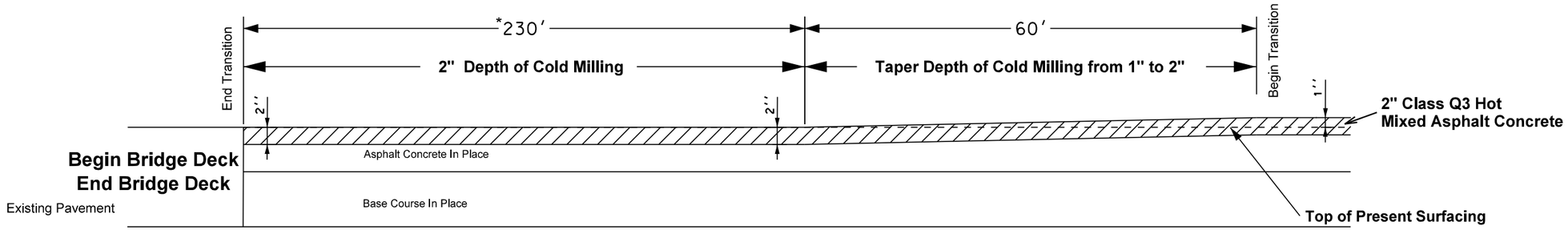
PLOTTED FROM - TRPR19389A

TRANSITION DETAILS FOR BRIDGE ENDS, APPROACHES, AND ENTRANCES WITH CURB AND GUTTER SECTION

TRANSITION SECTION FOR BRIDGE ENDS

Str. No. 03-100-133

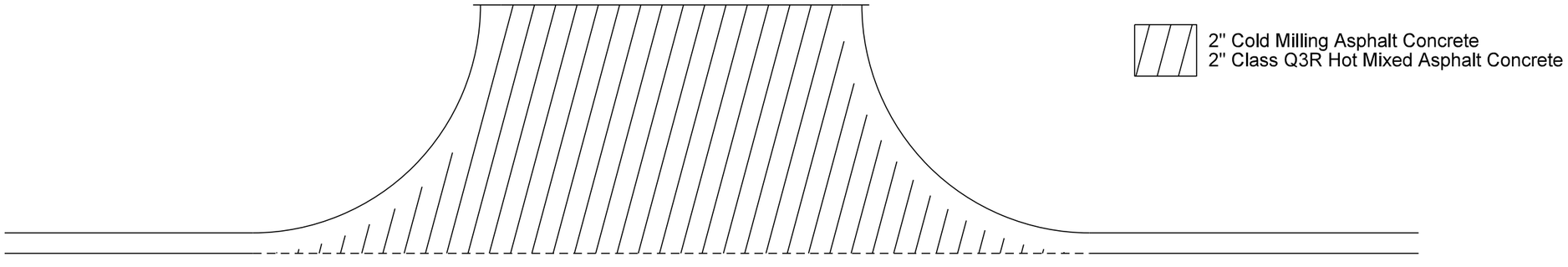
Str. No. 58-101-321



***2" Milling at bridge ends will be completed to a width of 2' outside of white edge line.**
Any damage to existing guardrail will be repaired at the contractors expense.
Hand work may be required.

APPROACHES, ENTRANCES AND INTERSECTING ROADS

Refer to TABLE OF APPROACHES, ENTRANCES AND INTERSECTING ROADS, for locations and additional information



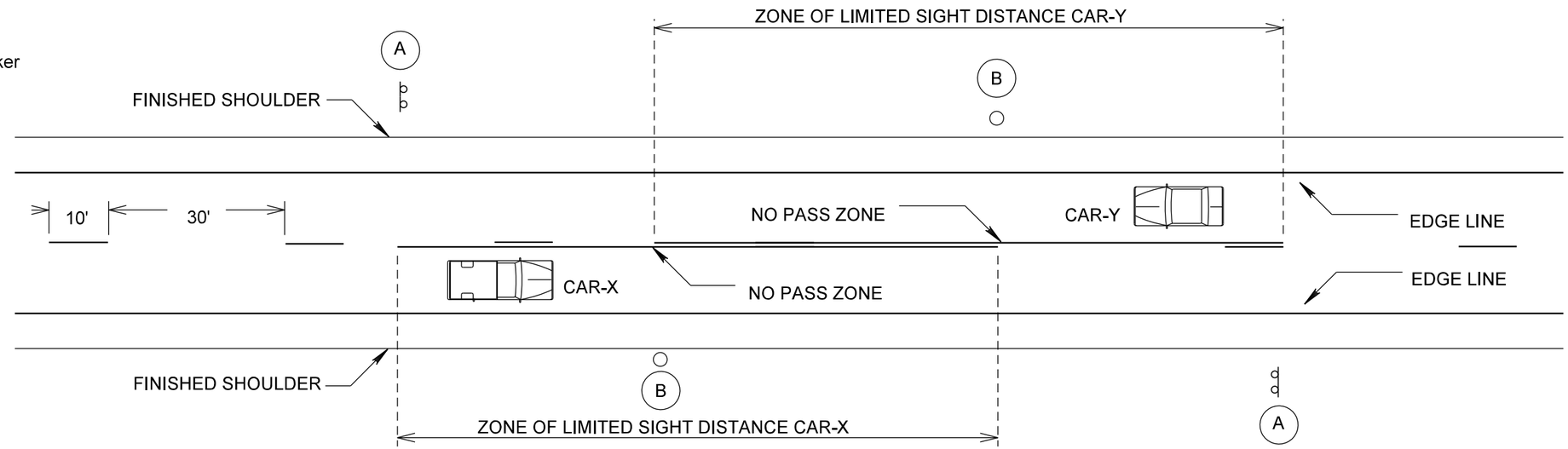
Note: Some locations may have curb and gutter on only one side of entrance.
End of curb and gutter may not be the same on both side of the entrance.

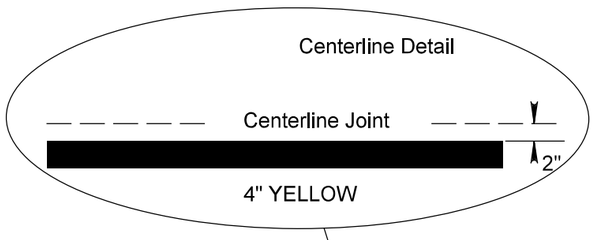
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	88	151

Plotting Date: 12/11/2024

TYPICAL PAVEMENT MARKING LAYOUT

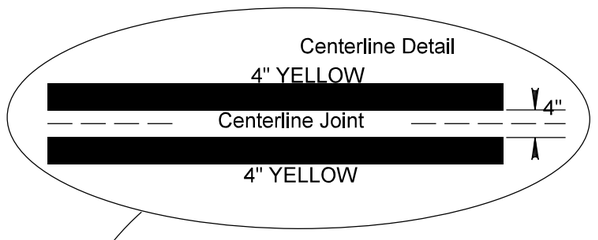
B End of Zone Marker

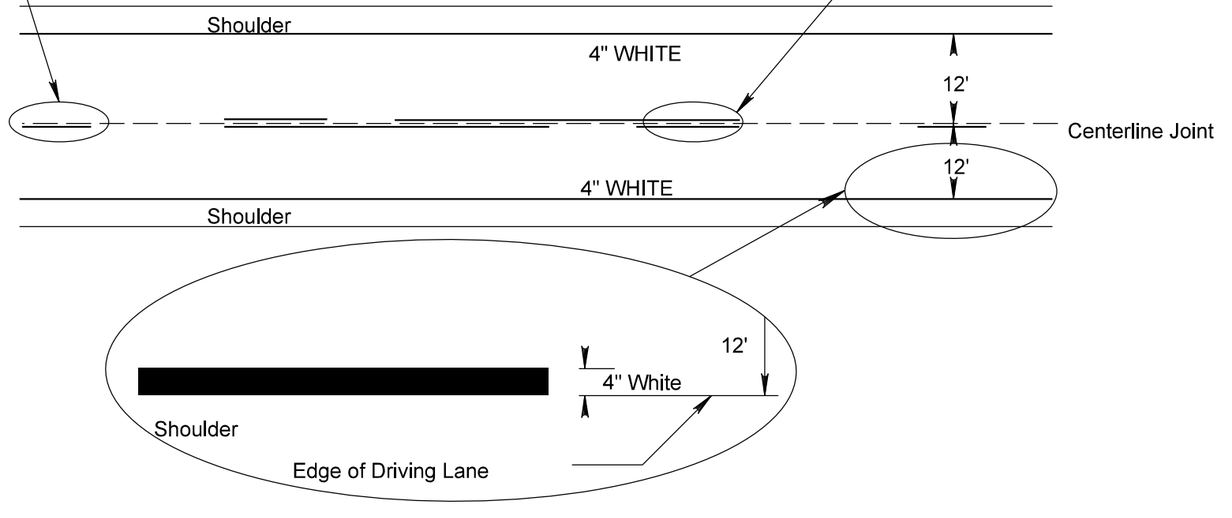




NOTE: A TWO "GUN" SYSTEM WILL BE USED TO OBTAIN THIS PATTERN.

WHEN A SINGLE SKIP LINE EXISTS, THE SKIP WILL BE PLACED TO THE SOUTH OR EAST OF THE CENTERLINE JOINT.





FURNISHING AND APPLYING HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

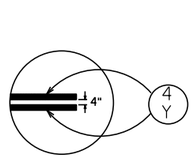
1. The typical pavement markings as shown on this sheet will be applied throughout the entire length of the project.

2. Exact location of the NO PASSING ZONE lines will be determined in the field by the Engineer. A dash of white paint will mark the beginning and end of all no passing zones. NO PASSING ZONE signs and the ending post in fence lines, if present, will not be used as the beginning and ending NO PASSING ZONE lines.

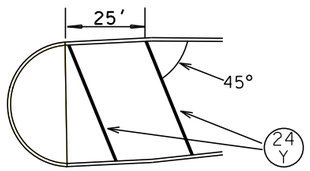
3. Traffic Control will be incidental to the cost of application. The striper and advance or trailing warning vehicle will be equipped with flashing amber lights or advance warning arrow panel.

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	89	151
Plotting Date: 12/30/2025			

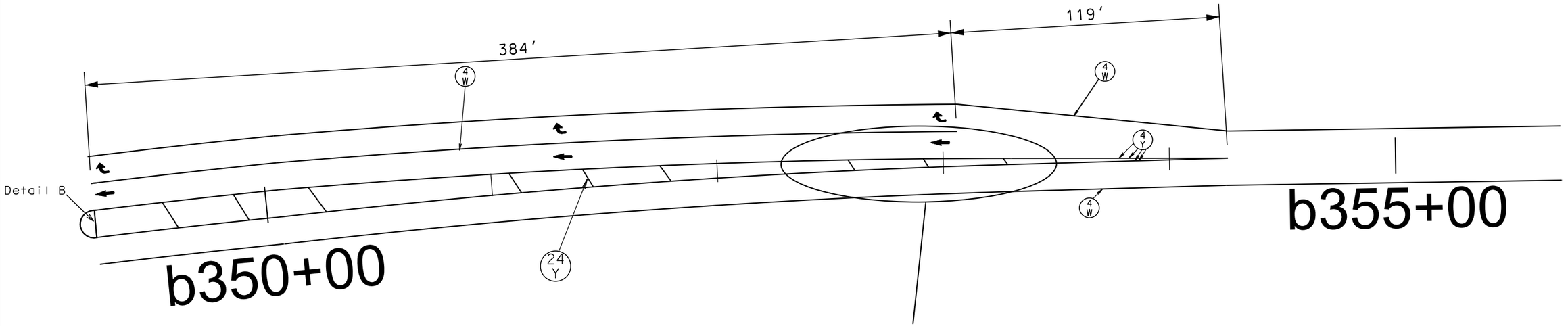
Turn Lane Pavement Marking Detail
US 281 & SD 26 Intersection



Detail A



Detail B



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

PLOT SCALE - 1:69.3308

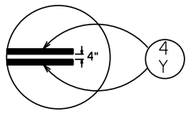
PLOTTED FROM - TRAB10200

PLOT NAME - 1

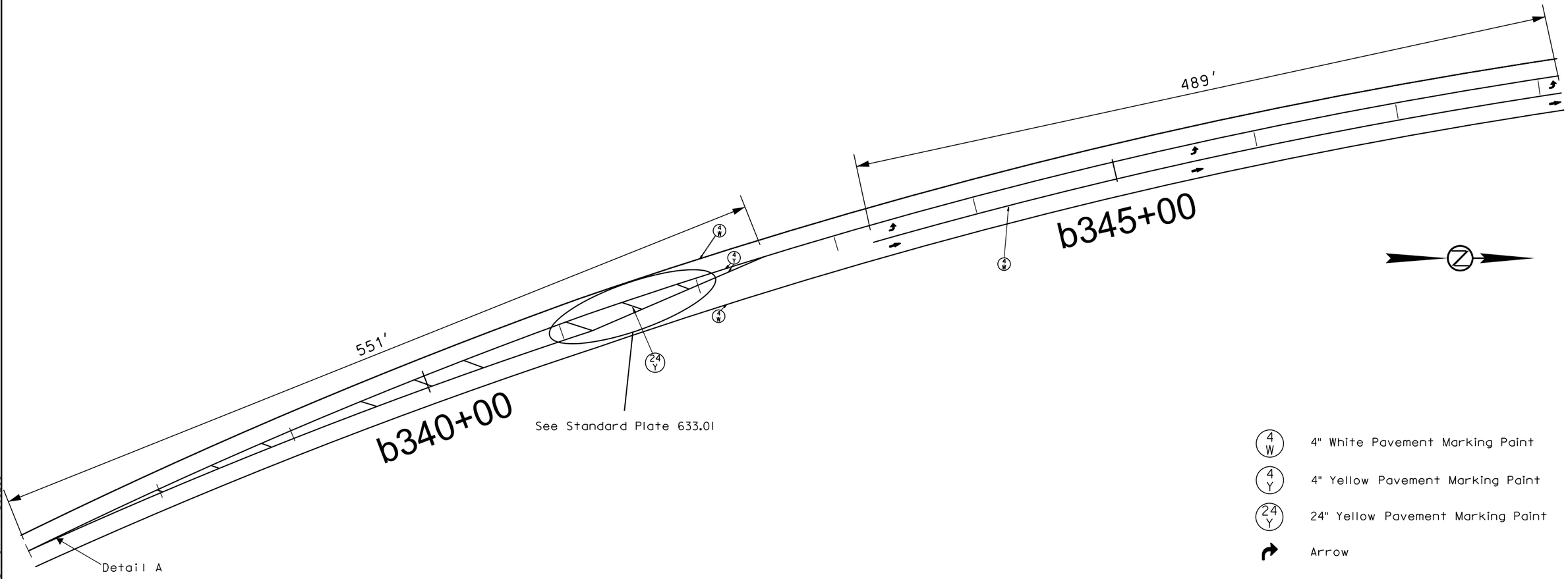
FILE - ...\06CT PAVEMENT MARKING.DGN

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	90	151
Plotting Date: 12/30/2025			

Turn Lane Pavement Marking Detail
US 281 & SD 26 Intersection



Detail A



4 W — 4" White Pavement Marking Paint

4 Y — 4" Yellow Pavement Marking Paint

24 Y — 24" Yellow Pavement Marking Paint

Arrow

PLOT SCALE - 1:69.2715

PLOT NAME - 3

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

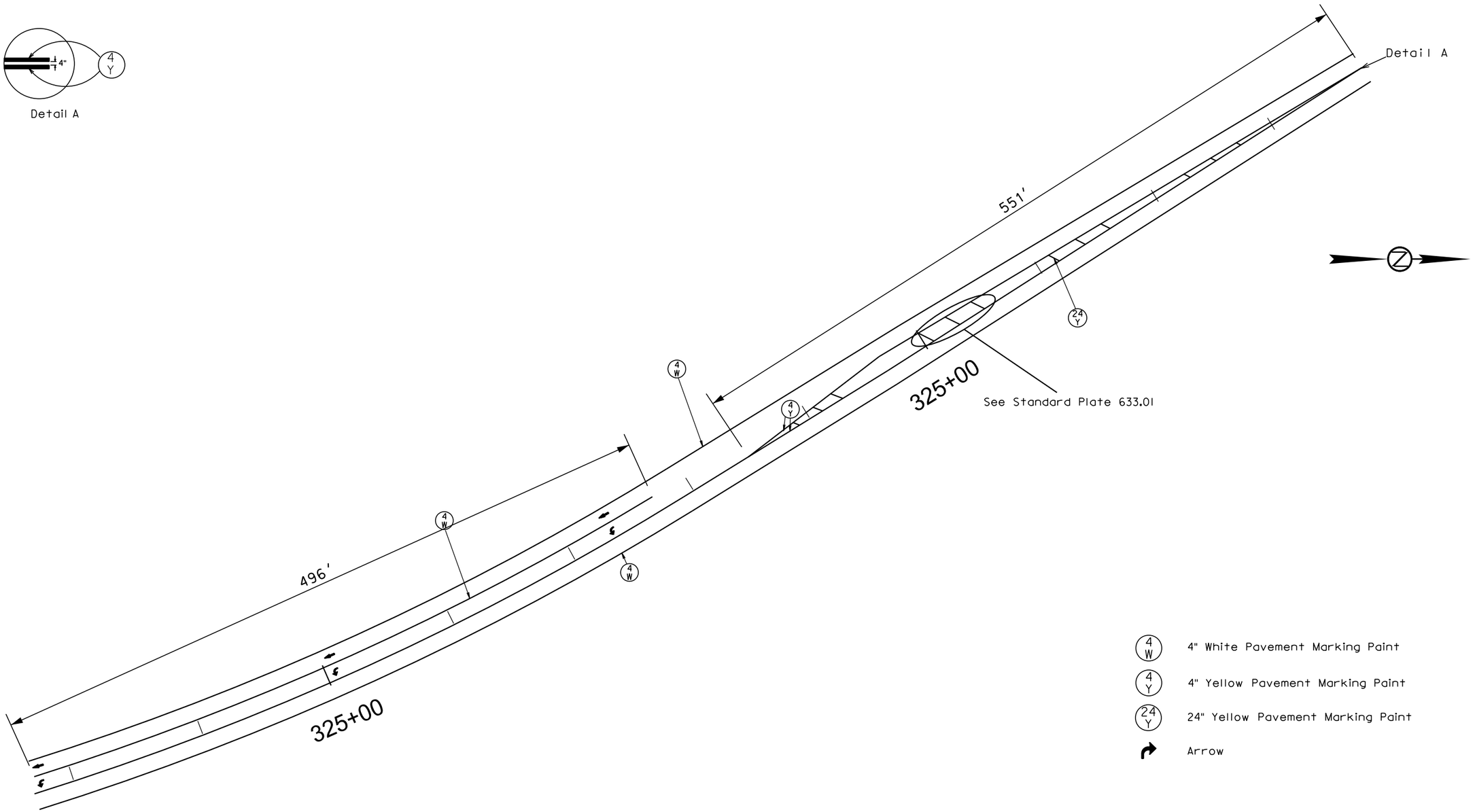
PLOTTED FROM - TRAB10200

Revised
01/15/2026 2:41:24 PM

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	91	151
Plotting Date: 12/30/2025			

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

Detail A



4 W — 4" White Pavement Marking Paint

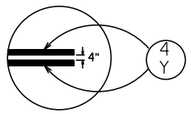
4 Y — 4" Yellow Pavement Marking Paint

24 Y — 24" Yellow Pavement Marking Paint

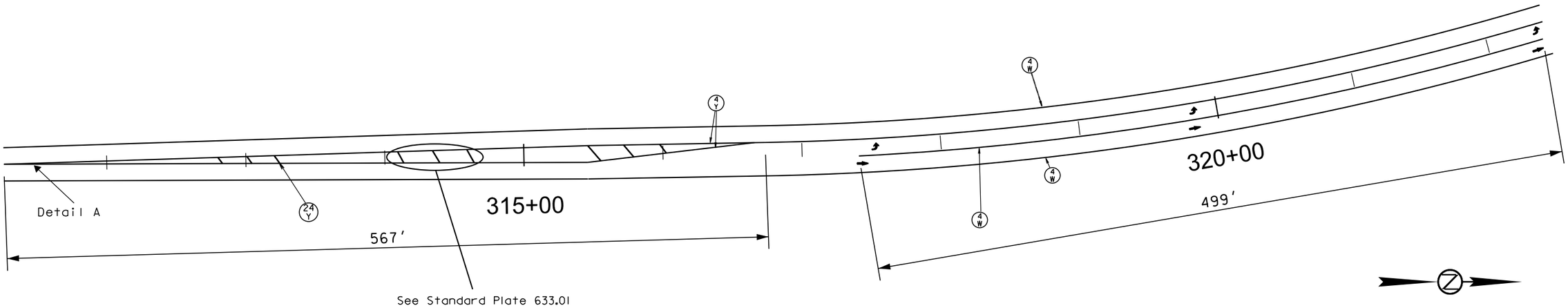
Arrow

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	92	151
Plotting Date: 12/30/2025			

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



Detail A



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 - 4

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

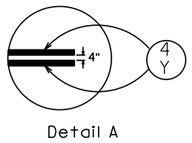
PLOTTED FROM - TRAB10200

PLOT SCALE - 1:131.22

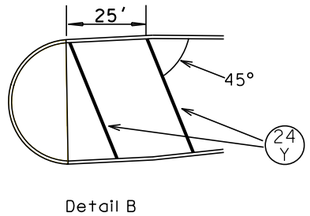
PLOTTED FROM - TRHUINT06

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	93	151
Plotting Date: 12/31/2014			

Pavement Marking Detail
US 281 & Weigh Station Entrance



Detail A



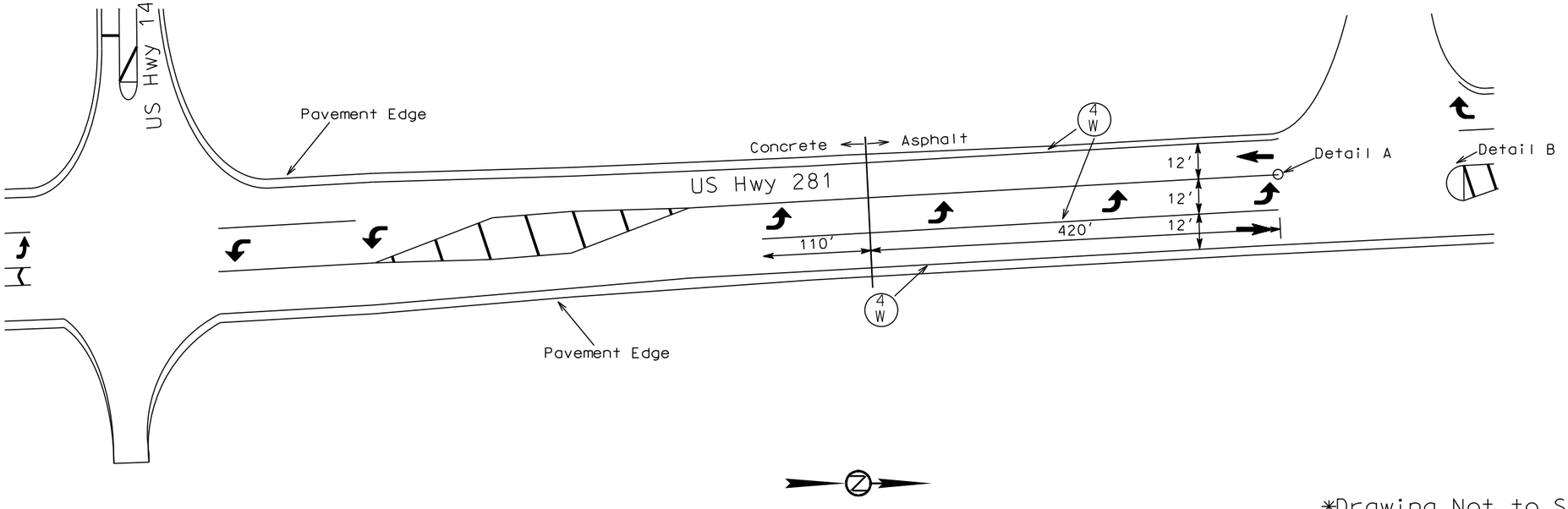
Detail B

4 W — 4" White Pavement Marking Paint

4 Y — 4" Yellow Pavement Marking Paint

SF A — Cold Applied Plastic Pavement Marking, Area

Cold Applied Plastic Pavement Marking Arrow



Pavement markings on PCCP will not be replaced.

Drawing Not to Scale

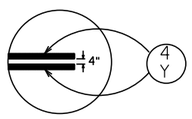
PLOT NAME - 13

FILE - ...\DESIGN\TITLE SHEET.DGN

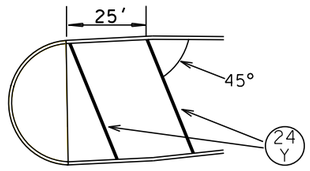
Revised
01/15/2026 2:41:24 PM

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	94	151
Plotting Date: 12/31/2014			

Pavement Marking Detail
US 281 & Weigh Station Entrance

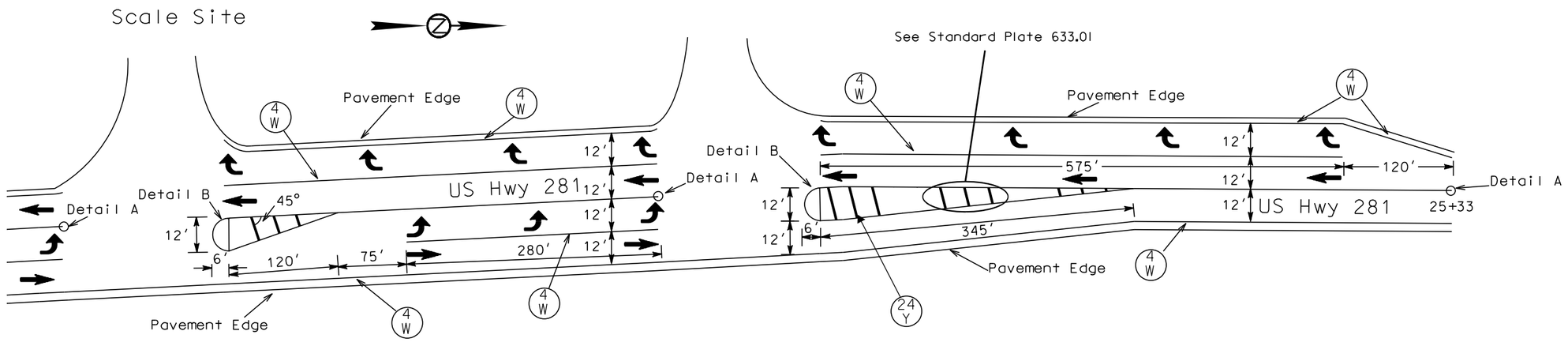


Detail A



Detail B

4 W	4" White Pavement Marking Paint
4 Y	4" Yellow Pavement Marking Paint
8 W	8" White Pavement Marking Paint
24 Y	24" Yellow Cold Applied Plastic Pavement Marking
SF A	Cold Applied Plastic Pavement Marking, Area
	Cold Applied Plastic Pavement Marking Arrow

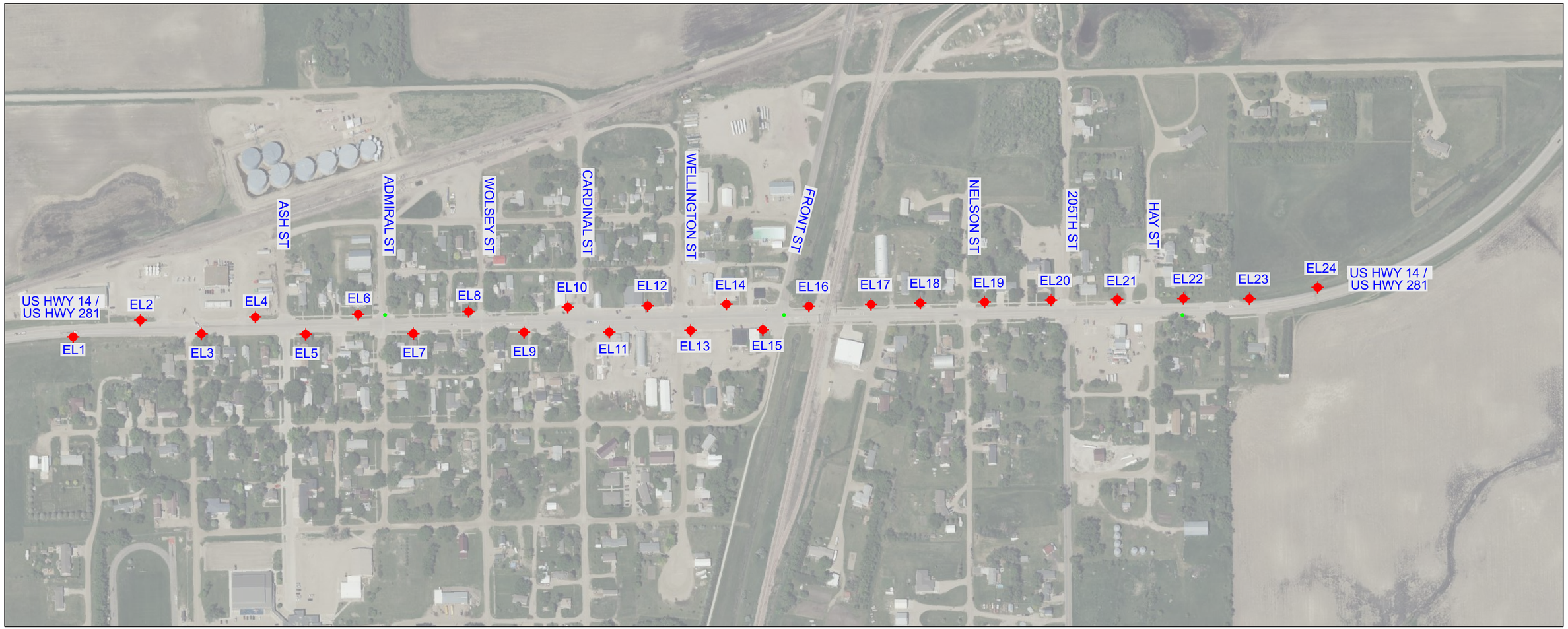


Drawing Not to Scale

PLOT SCALE - 1:131.22
PLOT NAME - 14
FILE - ...\DESIGN\TITLE SHEET.DGN
PLOTTED FROM - TRHUINT06

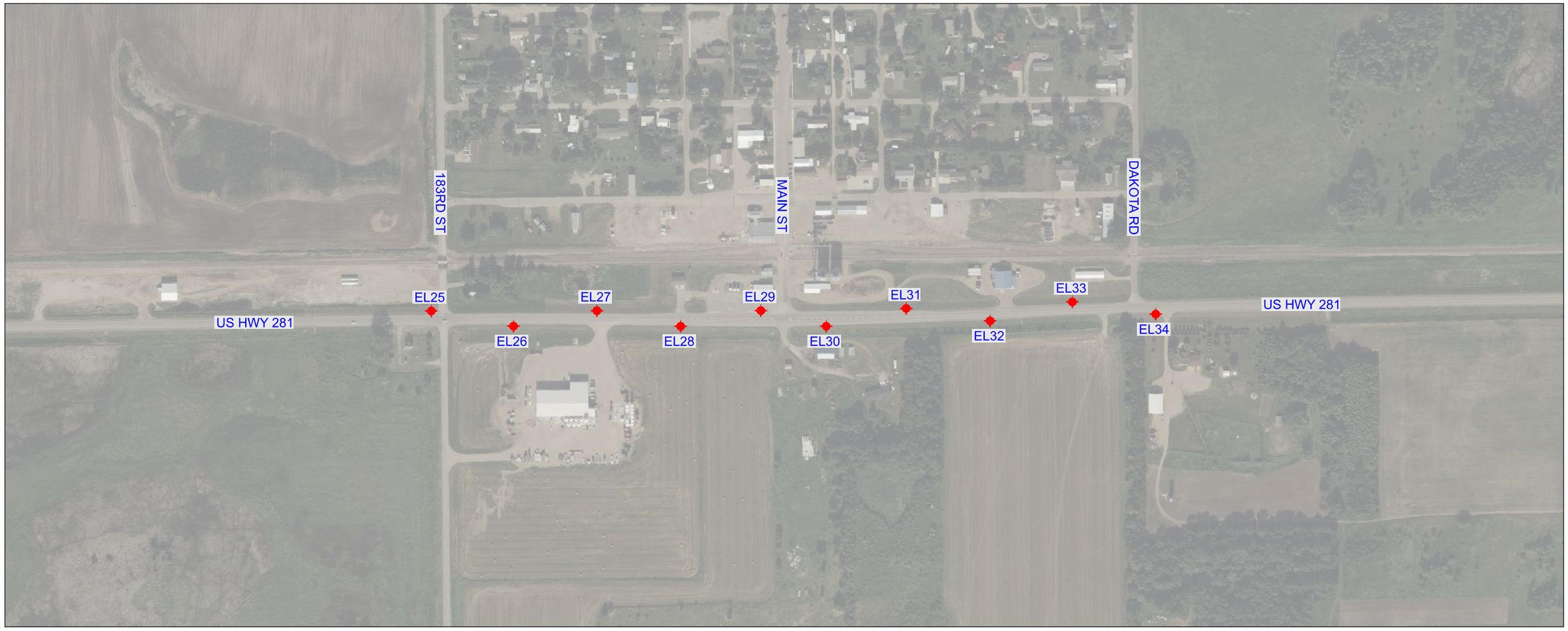
STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	95	151
Plotting Date: 09/16/2021			

OVERVIEW LAYOUT
WOLSEY LIGHTING



STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	96	151
Plotting Date: 09/16/2021			

OVERVIEW LAYOUT
TULARE LIGHTING

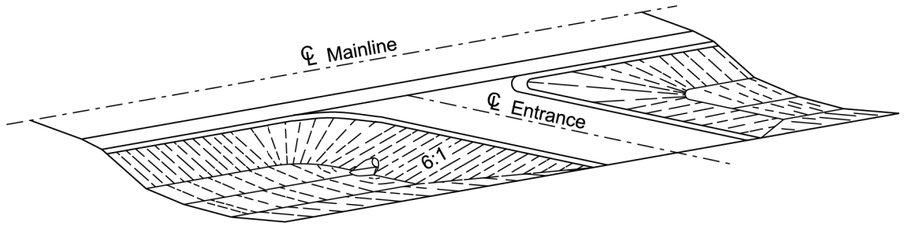


PLOT SCALE - 1:5000

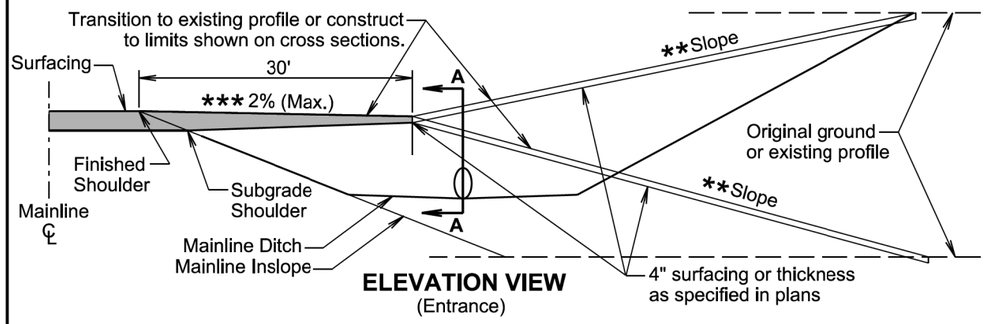
PLOT NAME - 1

FILE - ...\BEAD06CT\06CT TITLE SHEET.DGN

PLOTTED FROM - TRAB17882



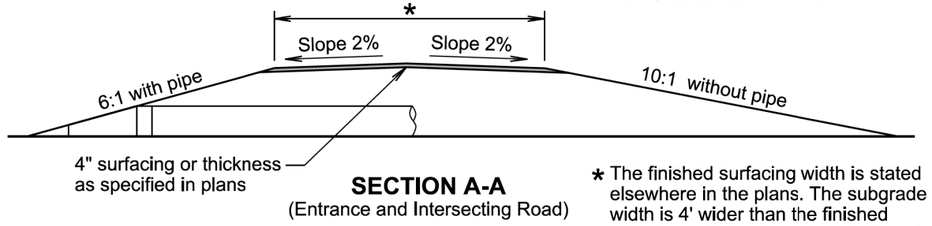
PERSPECTIVE OF ENTRANCE



ELEVATION VIEW
(Entrance)

*** 2% When on the inside of superelevation and 0% or flat when on outside of superelevation.

** Entrance maximum slope is typically 10:1 for field entrances and 15:1 for farm/residential entrances.



SECTION A-A
(Entrance and Intersecting Road)

* The finished surfacing width is stated elsewhere in the plans. The subgrade width is 4' wider than the finished surfacing width unless stated otherwise in the plans.

GENERAL NOTES:

The ditch section shown above in the perspective view is only for illustrative purpose.

The elevation view above is typical for either a ditch cut or fill section. Entrances that vary from above should be specified in the plans.

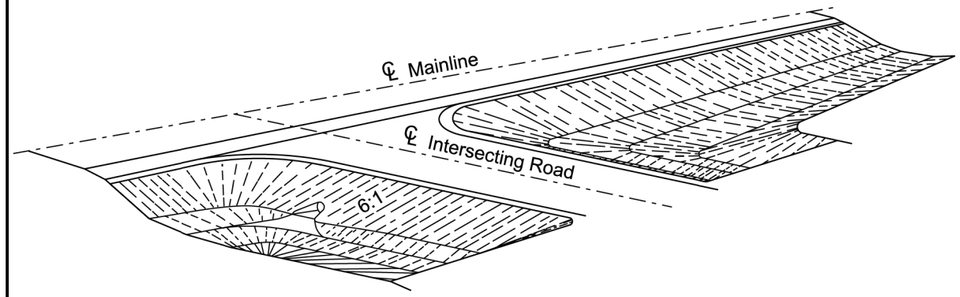
Pipe length will be adjusted if necessary during construction to obtain the 6:1 slope. For grading projects, the pipe length is estimated typically using a 4" thickness of surfacing directly over the subgrade above the pipe.

The transition area between the mainline inslope and the entrance or intersecting road inslope will be rounded to eliminate an abrupt transition.

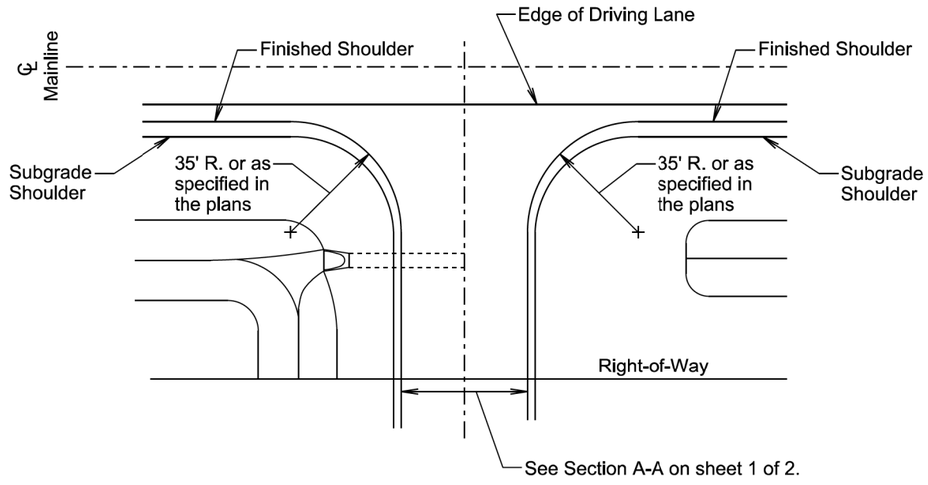
The turning radii will be 35' for intersecting roads and entrances unless stated otherwise in the plans.

November 19, 2021

Published Date: 2026	SDDOT	INTERSECTING ROADS AND ENTRANCES	PLATE NUMBER 120.01
			Sheet 1 of 2



PERSPECTIVE OF INTERSECTING ROAD



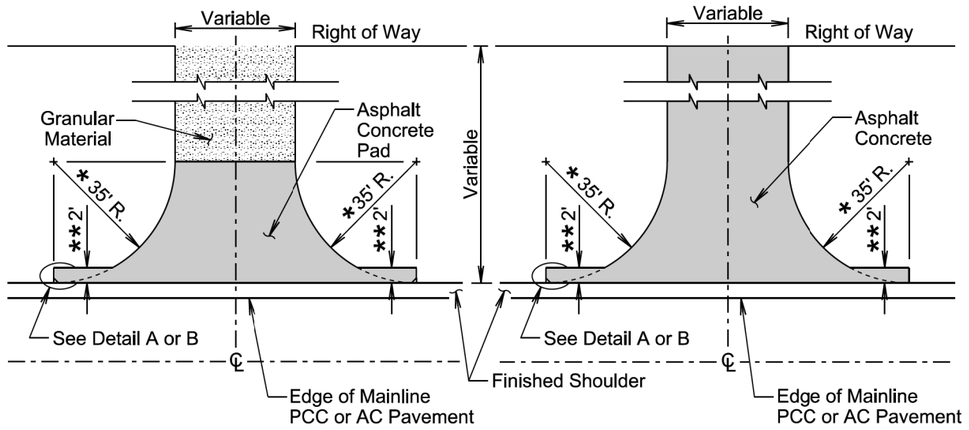
PLAN VIEW

GENERAL NOTES:

The 6:1 or 10:1 intersecting road inslope will transition to the existing intersecting road inslope near the right-of-way or at a location as determined by the Engineer.

November 19, 2021

Published Date: 2026	SDDOT	INTERSECTING ROADS AND ENTRANCES	PLATE NUMBER 120.01
			Sheet 2 of 2



PLAN VIEW
(Intersecting Road)
(No Asphalt Concrete Surfacing Beyond Right of Way)

PLAN VIEW
(Intersecting Road)
(Asphalt Concrete Surfacing Beyond Right of Way)

GENERAL NOTES:

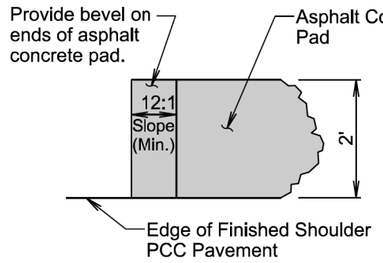
The precise construction limits for situations other than shown above will be determined by the Engineer during construction.

* For new construction, 35' radius typical or as specified in the plans. For resurfacing projects, radius is variable depending on existing conditions.

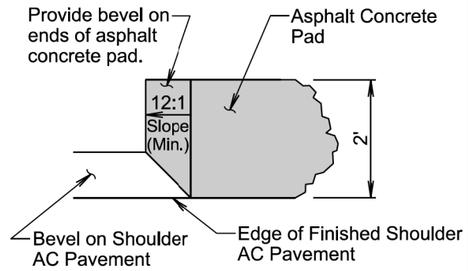
** The Contractor may adjust the screed of the paver during mainline paving operations to provide the 2-foot asphalt concrete pad or the Contractor may provide the 2-foot asphalt concrete pad during paving of the intersecting roads as shown above. The Engineer may eliminate the 2-foot asphalt concrete pads if the Engineer, in the Engineer's sole discretion, determines the pads are infeasible to construct due to site specific reasons including, but not limited to; existing inslope configuration, borrow and material availability, and right-of-way constraints.

August 27, 2020

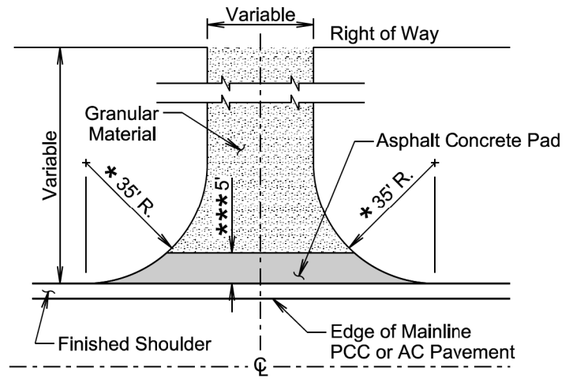
	SDDOT	SURFACING OR RESURFACING OF INTERSECTING ROADS AND ENTRANCES (MAINLINE AND SHOULDERS: PCC OR AC PAVEMENT)	PLATE NUMBER 320.04
Published Date: 2026			Sheet 1 of 2



DETAIL A
(Typ. for Projects with PCC Pavement on Shoulder)



DETAIL B
(Typ. for Projects with AC Pavement on Shoulder)

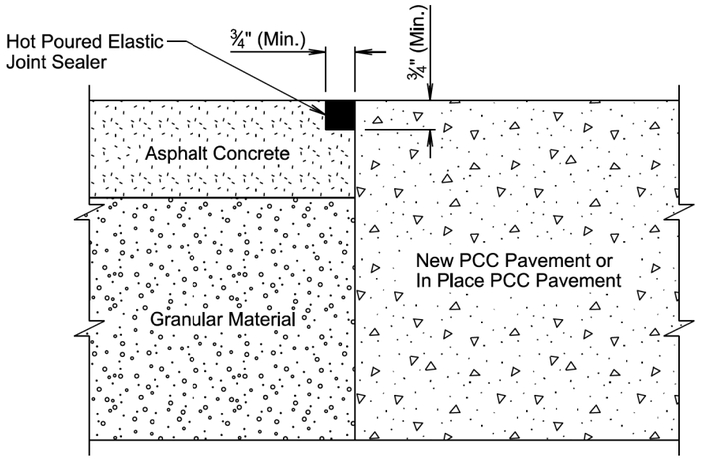


PLAN VIEW
(Entrance)

*** Not required if finished shoulder width is 4' or greater.

August 27, 2020

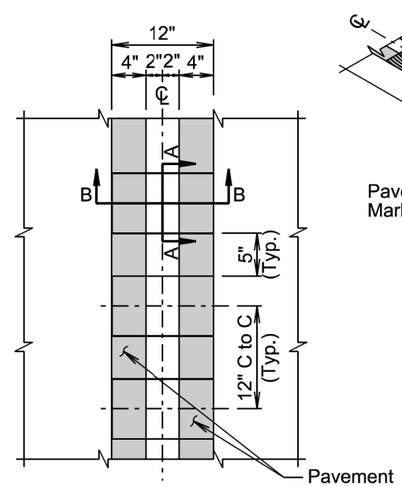
	SDDOT	SURFACING OR RESURFACING OF INTERSECTING ROADS AND ENTRANCES (MAINLINE AND SHOULDERS: PCC OR AC PAVEMENT)	PLATE NUMBER 320.04
Published Date: 2026			Sheet 2 of 2



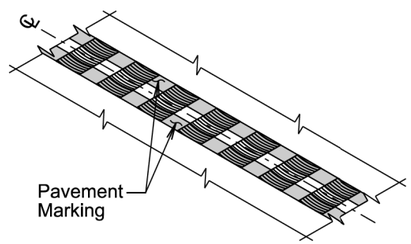
TRANSVERSE SECTION
(Asphalt Concrete Shoulder Joint)

September 14, 2019

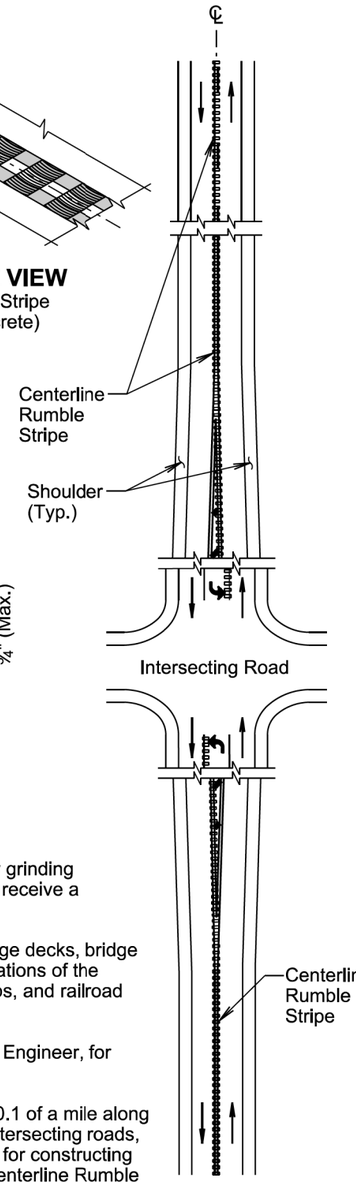
Published Date: 2026	SDDOT	ASPHALT CONCRETE SHOULDER JOINT ADJACENT TO PCC PAVEMENT	PLATE NUMBER 320.15 Sheet 1 of 1



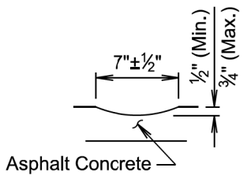
PLAN VIEW
(Typical Rumble Stripe in Asphalt Concrete)



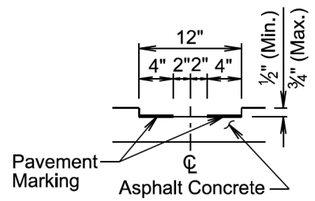
PERSPECTIVE VIEW
(Typical Rumble Stripe in Asphalt Concrete)



PLAN VIEW



SECTION A-A



SECTION B-B

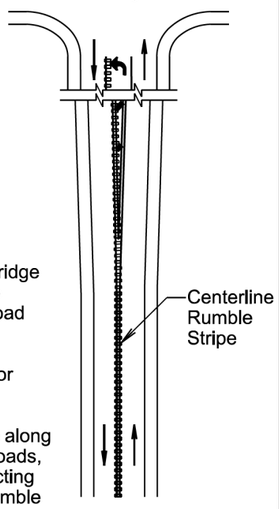
GENERAL NOTES:

A rumble stripe will be constructed on the centerline of the roadway by grinding continuous indentations in the asphalt concrete. The rumble stripe will receive a flush seal or asphalt surface treatment as specified in the plans.

A rumble stripe will not be constructed through intersecting roads, bridge decks, bridge approach slabs, and railroad crossings. The beginning and ending locations of the rumble stripe at intersecting roads, bridge decks, bridge approach slabs, and railroad crossings will be adjusted as approved by the Engineer.

Prior to constructing the rumble stripe the Contractor will submit to the Engineer, for approval, the proposed method of constructing the rumble stripe.

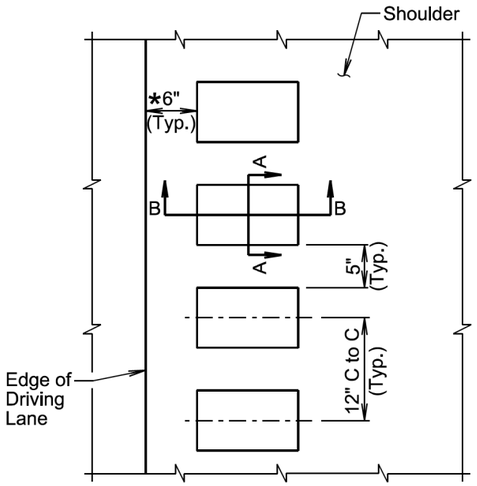
Measurement and payment of the rumble stripe will be to the nearest 0.1 of a mile along the centerline and will include segments without the rumble stripe at intersecting roads, bridge decks, bridge approach slabs, and railroad crossings. Payment for constructing the rumble stripe will be at the contract unit price per mile for "Grind Centerline Rumble Stripe in Asphalt Concrete".



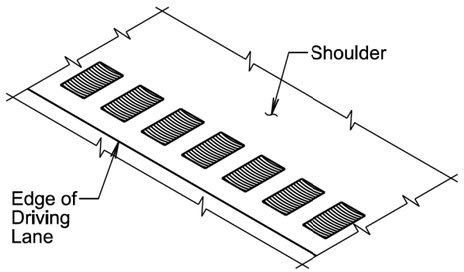
PLAN VIEW

November 19, 2020

Published Date: 2026	SDDOT	12" CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE	PLATE NUMBER 320.18 Sheet 1 of 1

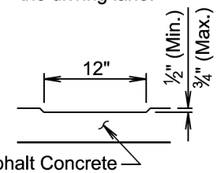


PLAN VIEW
(Typical Rumble Strip in Asphalt Concrete)

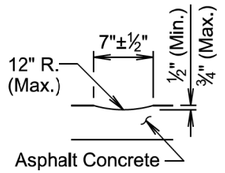


PERSPECTIVE VIEW
(Typical Rumble Strip in Asphalt Concrete)

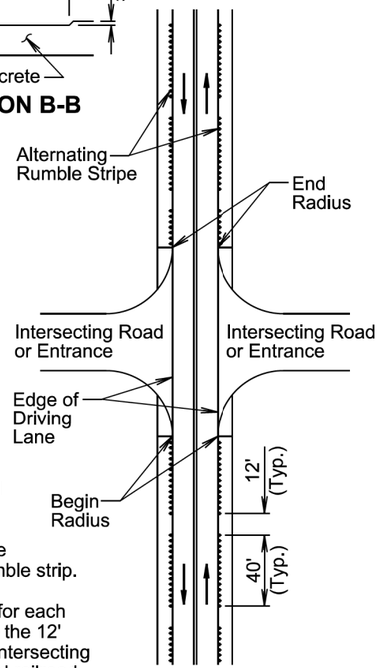
*When PCC pavement width from centerline to edge of pavement is 12', the rumble strip may be placed a maximum of 2' from the edge of the driving lane.



SECTION B-B



SECTION A-A



PLAN VIEW

GENERAL NOTES:

A rumble strip will be constructed on all of the asphalt concrete shoulders by grinding alternating patterns of 40' continuous indentations in the asphalt concrete. The rumble strip will receive a flush seal or asphalt surface treatment as specified in the plans.

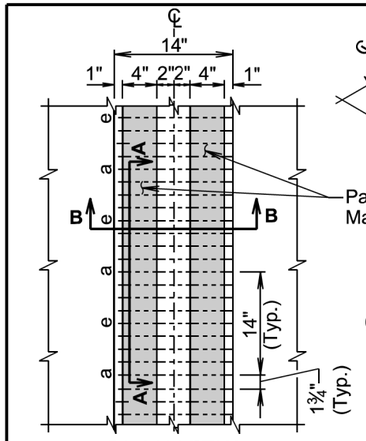
A rumble strip will not be constructed through intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings. The lengths of the 40' segments with continuous indentations and the 12' segments without a rumble strip adjacent to the intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings will be adjusted as approved by the Engineer.

Prior to constructing the rumble strip the Contractor will submit to the Engineer, for approval, the proposed method of constructing the rumble strip.

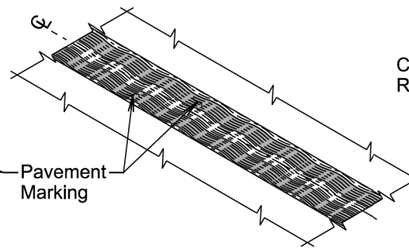
Measurement of the rumble strip will be to the nearest 0.1 of a mile for each shoulder. Measurement and payment of the rumble strip will include the 12' long segments without rumble strips and the segments adjacent to intersecting roads, entrances, turnouts, bridge decks, bridge approach slabs, and railroad crossings without rumble strips. Payment for constructing the rumble strip will be at the contract unit price per mile for "Grind 12" Rumble Strip or Stripe in Asphalt Concrete".

September 14, 2019

Published Date: 2026	SDDOT	12" RUMBLE STRIP IN ASPHALT CONCRETE ON NONDIVIDED HIGHWAY SHOULDERS	PLATE NUMBER 320.24
			Sheet 1 of 1

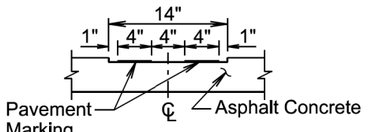


PLAN VIEW
(Typical Rumble Strip in Asphalt Concrete)

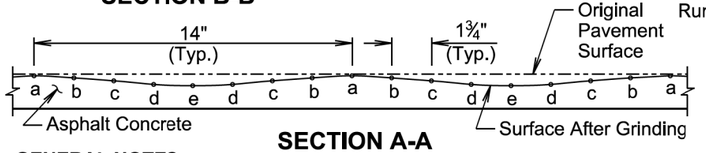


PERSPECTIVE VIEW
(Typical Rumble Strip in Asphalt Concrete)

SINUSOIDAL GRINDING	
Location	* Depth (In.)
a	1/16
b	5/32
c	9/32
d	7/16
e	½



SECTION B-B



SECTION A-A

GENERAL NOTES:

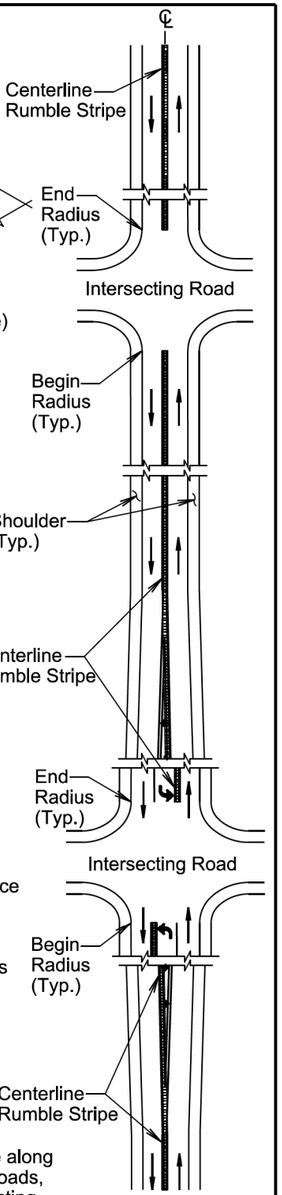
A rumble stripe will be constructed by grinding continuous sinusoidal indentations in the asphalt concrete. The rumble stripe will receive a flush seal or asphalt surface treatment as specified in the plans.

A rumble stripe will not be constructed through intersecting roads, bridge decks, bridge approach slabs, and railroad crossings. The beginning and ending locations of the rumble stripe at intersecting roads, bridge decks, bridge approach slabs, and railroad crossings will be adjusted as approved by the Engineer.

Prior to constructing the rumble stripe the Contractor will submit to the Engineer, for approval, the proposed method of constructing the rumble stripe.

* The sinusoidal rumble stripe construction grinding tolerance will be ± 1/16 inch.

Measurement and payment of the rumble stripe will be to the nearest 0.1 of a mile along the centerline and will include segments without the rumble stripe at intersecting roads, bridge decks, bridge approach slabs, and railroad crossings. Payment for constructing the rumble stripe will be at the contract unit price per mile for "Grind Sinusoidal Centerline Rumble Stripe in Asphalt Concrete".



PLAN VIEW

September 14, 2019

Published Date: 2026	SDDOT	SINUSOIDAL CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE	PLATE NUMBER 320.40
			Sheet 1 of 1

PLOT SCALE - 1:200

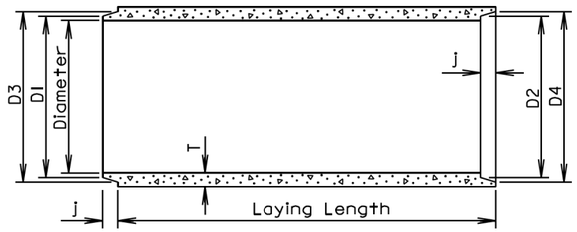
PLOT NAME - 6

FILE - ...\STDPLATEPAGESEED_06CT_SP.DGN

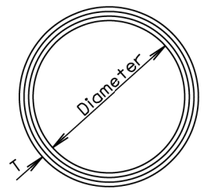
PLOTTED FROM - TRAB10200

TOLERANCES IN DIMENSIONS

Diameter: ±1.5% for 24" Dia. or less and ±1% or 3/8" whichever is more for 27" Dia. or greater.
Diameters at joints: ± 3/16" for 30" Dia. or less and ± 1/4" for 36" or greater.
Length of joint (j): ± 1/4".
Wall thickness (T): not less than design T by more than 5% or 3/16", whichever is greater.
Laying length: shall not underrun by more than 1/2".



LONGITUDINAL SECTION



END VIEW

GENERAL NOTES:

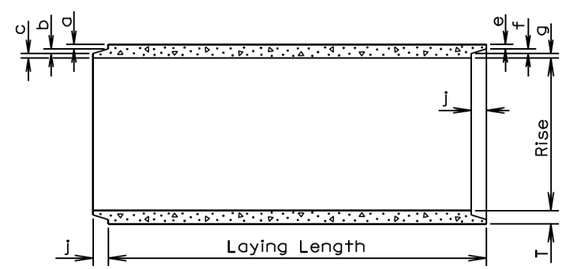
Construction of R. C. P. shall conform to the requirements of Section 990 of the Specifications.

Not more than 2 four-foot sections shall be permitted near the ends of any culvert. Four-foot lengths shall be used only to secure the required length of culvert.

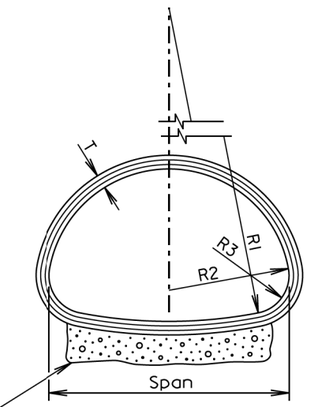
Diam. (in.)	Approx. Wt. /Ft. (lb.)	T (in.)	J (in.)	D1 (in.)	D2 (in.)	D3 (in.)	D4 (in.)
12	92	2	1 3/4	13 1/4	13 5/8	13 7/8	14 1/4
15	127	2 1/4	2	16 1/2	16 7/8	17 1/4	17 5/8
18	168	2 1/2	2 1/4	19 5/8	20	20 3/8	20 3/4
21	214	2 3/4	2 1/2	22 7/8	23 1/4	23 3/4	24 1/8
24	265	3	2 3/4	26	26 3/8	27	27 3/8
27	322	3 1/4	3	29 1/4	29 5/8	30 1/4	30 5/8
30	384	3 1/2	3 1/4	32 3/8	32 3/4	33 1/2	33 7/8
36	524	4	3 3/4	38 3/4	39 1/4	40	40 1/2
42	685	4 1/2	4	45 1/8	45 5/8	46 1/2	47
48	867	5	4 1/2	51 1/2	52	53	53 1/2
54	1070	5 1/2	4 1/2	57 7/8	58 3/8	59 3/8	59 7/8
60	1296	6	5	64 1/4	64 3/4	66	66 1/2
66	1542	6 1/2	5 1/2	70 5/8	71 1/8	72 1/2	73
72	1810	7	6	77	77 1/2	79	79 1/2
78	2098	7 1/2	6 1/2	83 3/8	83 7/8	85 5/8	86 1/8
84	2410	8	7	89 3/4	90 1/4	92 1/8	92 5/8
90	2740	8 1/2	7	95 3/4	96 1/4	98 1/8	98 5/8
96	2950	9	7	102 1/8	102 5/8	104 1/2	105
102	3075	9 1/2	7 1/2	109	109 1/2	111 1/2	112
108	3870	10	7 1/2	115 1/2	116	118	118 1/2

June 26, 2015

Published Date: 2026	SDDOT	REINFORCED CONCRETE PIPE	PLATE NUMBER 450.01 Sheet 1 of 1



LONGITUDINAL SECTION



END VIEW

TOLERANCES IN DIMENSIONS

Radial dimensions at joints: ± 1/8" for 65" span or less and ± 1/4" for longer spans.
Rise and Span: ±2% of tabular values.
Length of Joint (J): ± 1/4".
Wall thickness (T): not less than design T by more than 5% or 3/16", whichever is greater.
Laying length: shall not underrun by more than 1/2".

Gravel Bedding Material shall be supplied for 102" to 169" spans. It shall be placed to a thickness of 6" (Min.) x 85% of the Span x Length of culvert and shall conform to the gradation requirements for gravel surfacing except material may be screened or may be plan provided material.

* Size (in.)	Approx. Wt./Ft. (lb.)	Rise (in.)	Span (in.)	T (in.)	a (in.)	b (in.)	c (in.)	j (in.)	e (in.)	f (in.)	g (in.)	R1 (in.)	R2 (in.)	R3 (in.)
18	170	13 1/2	22	2 1/2	1 3/8	3/8	3/4	2	1 1/8	3/8	1	27 1/2	13 3/4	5 1/4
24	320	18	28 1/2	3 1/2	1 5/8	1/2	1 3/8	3	1 3/8	1/2	1 5/8	40 11/16	14 3/4	4 5/8
30	450	22 1/2	36 1/4	4	1 13/16	5/8	1 9/16	3 1/2	1 9/16	5/8	1 13/16	51	18 3/4	6 1/8
36	600	26 5/8	43 3/4	4 1/2	2	3/4	1 3/4	4	1 3/4	3/4	2	62	22 1/2	6 1/2
42	740	31 5/16	51 1/8	4 1/2	2	3/4	1 3/4	4	1 3/4	3/4	2	73	26 1/4	7 3/4
48	890	36	58 1/2	5	2 1/4	3/4	2	5	2	3/4	2 1/4	84	30	8 7/8
54	1100	40	65	5 1/2	2 1/2	3/4	2 1/4	5	2 1/4	3/4	2 1/2	92 1/2	33 3/8	10
60	1400	45	73 1/2	6	3 5/16	3/4	1 15/16	5	2 3/4	3/4	2 1/2	105	37 1/2	11
72	1900	54	88	7	3 13/16	1	2 3/16	6	3 1/4	1	2 3/4	126	45	13 5/16
84	2500	62	102	8	4 1/8	1	2 7/8	6	3 1/2	1	3 1/2	162 1/2	52	14 1/2
96	3300	78	122 3/8	9	4 1/2	1	3 1/2	7	4	1	4	218	62	20
108	4200	88	138 1/2	10	5	1	4	7	4 1/2	1	4 1/2	269	70	22
120	5100	96 7/8	154	11	5 1/2	1	4 1/2	7	5	1	5	301 3/8	78	24
132	5100	106 1/2	168 3/4	10		1	4	7	4 1/2	1	4 1/2	329	85 5/8	26 7/8

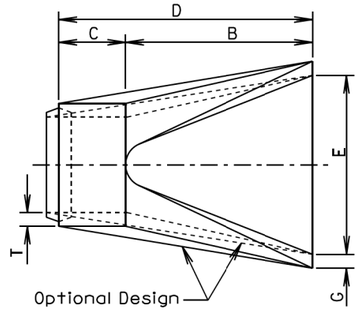
* Equivalent Diameter of Circular R. C. P.

GENERAL NOTES:

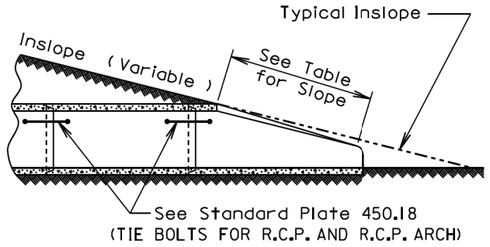
Construction of R.C.P. Arch shall conform to the requirements of Section 990 of the Specifications. Not more than 2 four-foot sections shall be permitted near the ends of any culvert. Four-foot lengths shall be used only to secure the required length of culvert.

June 26, 2015

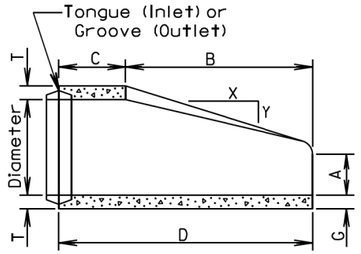
Published Date: 2026	SDDOT	REINFORCED CONCRETE PIPE ARCH	PLATE NUMBER 450.02 Sheet 1 of 1



TOP VIEW



SLOPE DETAIL

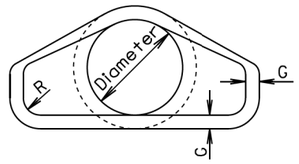


LONGITUDINAL SECTION

GENERAL NOTES:

Lengths of concrete pipe shown on plan sheets are between flared ends only.

Construction of R.C.P. Flared End shall conform to the requirements of Section 990 of the Specifications.

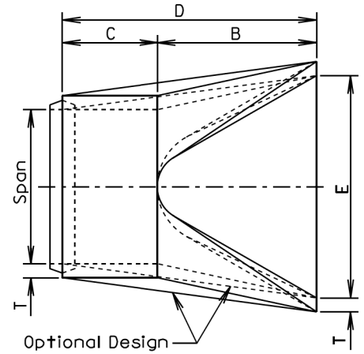


END VIEW

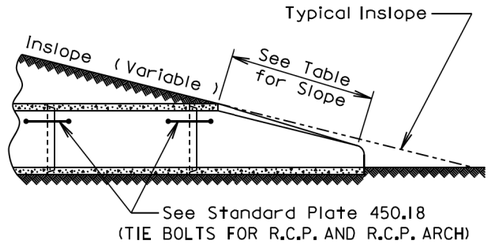
Dia. (in.)	Approx. Wt. of Section (lbs.)	Approx. Slope (X to Y)	T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	G (in.)	R (in.)
12	530	2.4:1	2	4	24	48 7/8	72 7/8	24	2	1 1/2
15	740	2.4:1	2 1/4	6	27	46	73	30	2 1/4	1 1/2
18	990	2.3:1	2 1/2	9	27	46	73	36	2 1/2	1 1/2
21	1280	2.4:1	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	1 1/2
24	1520	2.5:1	3	9 1/2	43 1/2	30	73 1/2	48	3	1 1/2
27	1930	2.5:1	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	1 1/2
30	2190	2.5:1	3 1/2	12	54	19 3/4	73 3/4	60	3 1/2	1 1/2
36	4100	2.5:1	4	15	63	34 3/4	97 3/4	72	4	1 1/2
42	5380	2.5:1	4 1/2	21	63	35	98	78	4 1/2	1 1/2
48	6550	2.5:1	5	24	72	26	98	84	5	1 1/2
54	8240	2:1	5 1/2	27	65	33 1/4	98 1/4	90	5 1/2	1 1/2
60	8730	1.9:1	6	35	60	39	99	96	5	1 1/2
66	10710	1.7:1	6 1/2	30	72	27	99	102	5 1/2	1 1/2
72	12520	1.8:1	7	36	78	21	99	108	6	1 1/2
78	14770	1.8:1	7 1/2	36	90	21	111	114	6 1/2	1 1/2
84	18160	1.6:1	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2
90	20900	1.5:1	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	6

June 26, 2015

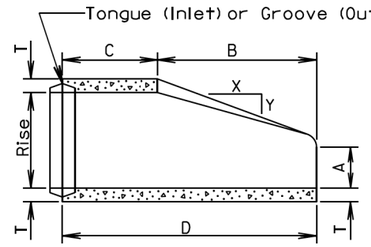
Published Date: 2026	SDDOT	R. C. P. FLARED ENDS	PLATE NUMBER 450.10
			Sheet 1 of 1



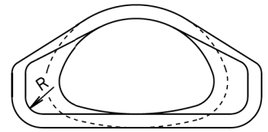
TOP VIEW



SLOPE DETAIL



LONGITUDINAL SECTION



END VIEW

GENERAL NOTES:

Lengths of concrete pipe shown on plan sheets are between flared ends only.

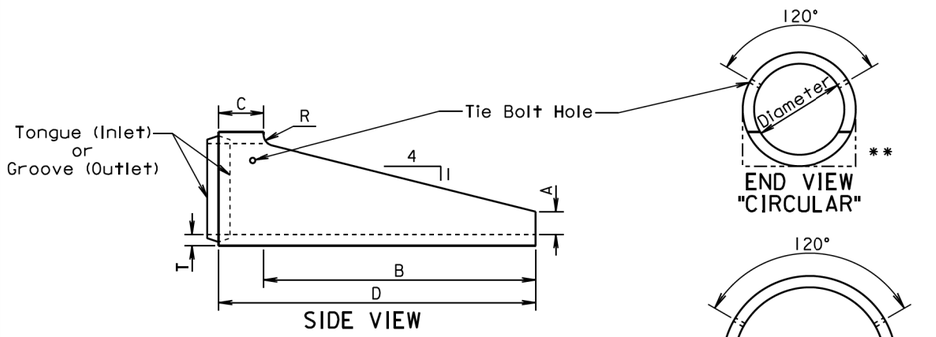
Construction of R.C.P. Arch Flared End shall conform to the requirements of Section 990 of the Specifications.

* Size (in.)	Approximate Weight of Section (lbs.)	Rise (in.)	Span (in.)	Slope (X:Y)	T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	E (in.)	R (in.)
18	1100	13 1/2	22	3:1	2 1/2	7	27	45	72	36	2
24	1750	18	28 1/2	3:1	3 1/2	8 1/2	39	33	72	48	3
30	3300	22 1/2	36 1/4	3:1	4	9 1/2	50	46	96	60	3
36	4350	26 5/8	43 3/4	3:1	4 1/2	1 1 1/8	60	36	96	72	6
42	5250	31 5/16	51 1/8	3:1	4 1/2	15 13/16	60	36	96	78	6
48	6400	36	58 1/2	3:1	5	21	60	36	96	84	6
54	7850	40	65	3:1	5 1/2	25 1/2	60	36	96	90	6
60	9500	45	73 1/2	3:1	6	31	60	36	96	96	6
72	13550	54	88	2:1	7	31	60	39	99	120	6
84	17950	62	102	2:1	8	28 1/2	83	19	102	144	6

*Equivalent Diameter of Circular R. C. P.

June 26, 2015

Published Date: 2026	SDDOT	R. C. P. ARCH FLARED ENDS	PLATE NUMBER 450.11
			Sheet 1 of 1



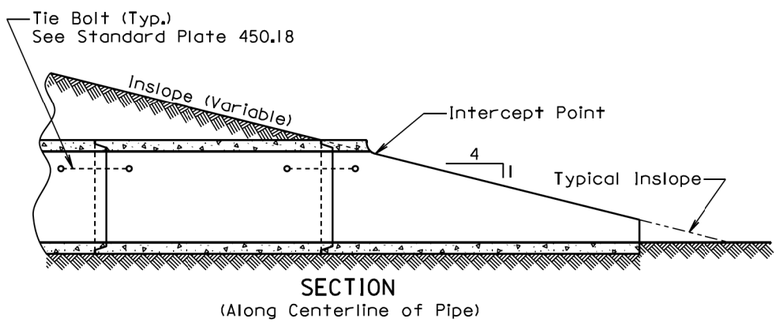
Dia. (in.)	T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	R (in.)
FOR CIRCULAR PIPE						
24	3	6	72	12	84	3
30	3½	7½	90	12	102	3½
FOR ARCH PIPE						
* 24	3	6	48	12	60	3
* 30	3½	7½	60	12	72	3½
* 36	4½	8⅝	66	30	96	0
* 42	4½	10	77¼	18¾	96	0

ALTERNATE

Dia. (in.)	T (in.)	A (in.)	B (in.)	C (in.)	D (in.)	R (in.)
FOR CIRCULAR PIPE						
24	3	9	72	12	84	0
30	3½	11	90	12	102	0
FOR ARCH PIPE						
* 24	3	9	48	12	60	0
* 30	3½	11	60	12	72	0

* Equivalent Diameter of Circular R.C.P.

** Acceptable Flat Bottom Alternate.



SECTION
(Along Centerline of Pipe)

GENERAL NOTE:

The length of concrete pipe shown in the construction plans is between sloped ends.

September 22, 2006

Published Date: 2026	SDDOT	R. C. P. SLOPED ENDS	PLATE NUMBER 450.13 Sheet 1 of 1

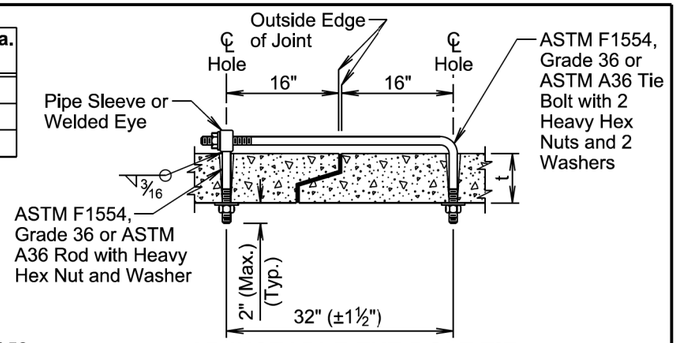
Wall "t" (in.)	Rod Dia. (in.)	Pipe Sleeve Dia. (nominal)
≤ 3¼	⅝	¾
3½-6½	¾	1
≥ 7	1	1¼

GENERAL NOTES:

Tie bolts will conform to ASTM F1554, Grade 36 or ASTM A36. Nuts will be heavy hex conforming to ASTM A563. Washers will conform to ASTM F436.

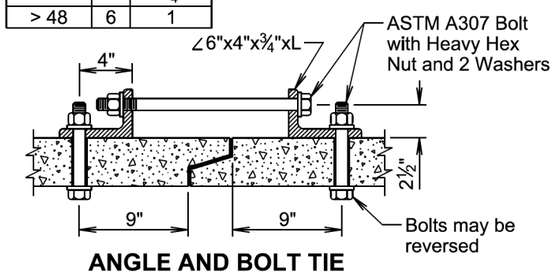
Pipe Sleeve will conform to ASTM A53, Grade B or ASTM A500, Grade B or C.

Galvanize adjustable eye bolt tie assembly in accordance with ASTM A153.



ADJUSTABLE EYE BOLT TIE

Pipe Dia. (in.)	"L" (in.)	Bolt Dia. (in.)
≤ 48	4	¾
> 48	6	1



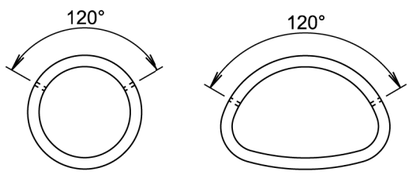
ANGLE AND BOLT TIE

GENERAL NOTES:

Angles will conform to ASTM A36.

Bolts will conform to ASTM A307. Nuts will be heavy hex conforming to ASTM A563. Washers will conform to ASTM F436.

Galvanize angles, bolts, nuts, and washers in accordance with ASTM A153.



END VIEW (Circular)

END VIEW (Arch)

GENERAL NOTES:

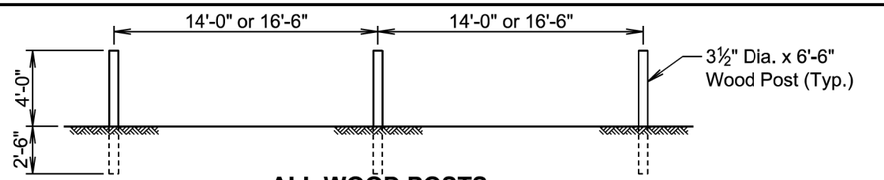
In lieu of the tie bolts detailed above other types of tie bolt connections may be installed as approved by the Office of Bridge Design.

All pipe sections of R.C.P. and R.C.P. Arch will be tied with tie bolts except for pipe located between drop inlets, manholes, and junction boxes. All pipe sections of pipes that only enter or exit drop inlets, manholes, and junction boxes will be tied with tie bolts.

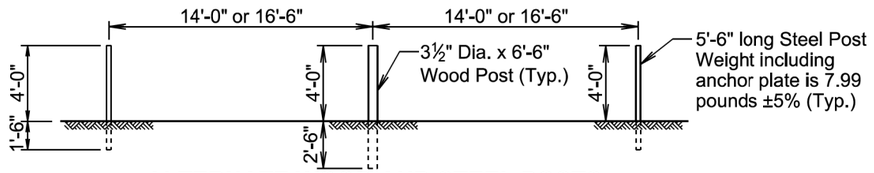
There will be no separate measurement or payment for the tie bolts. The cost for furnishing and installing the tie bolts will be incidental to the contract unit price per foot for the corresponding bid item for R.C.P. or R.C.P. Arch.

April 8, 2025

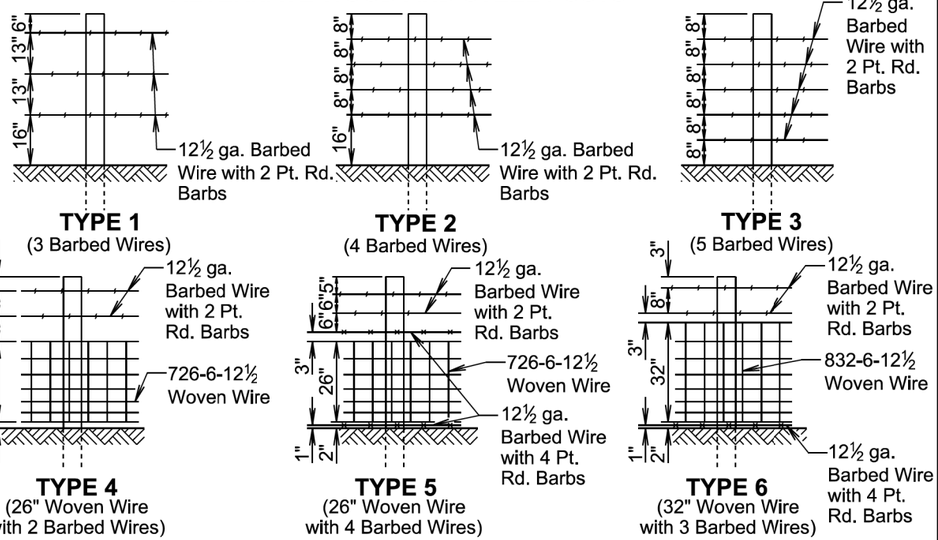
Published Date: 2026	SDDOT	TIE BOLTS FOR R.C.P. AND R.C.P. ARCH	PLATE NUMBER 450.18 Sheet 1 of 1



ALL WOOD POSTS



ALTERNATE WOOD AND STEEL POSTS



TYPE OF FENCE		LINE POST SPACING	BARBED WIRE		WOVEN WIRE
TYPE	DESCRIPTION		WIRE GAGE	NUMBER AND SHAPE OF BARBS	STYLE OR DESIGN NO.
1	3 Barbed Wires	16'-6"	12½	2 Point Round	—
2	4 Barbed Wires	16'-6"	12½	2 Point Round	—
3	5 Barbed Wires	16'-6"	12½	2 Point Round	—
4	26" Woven Wire with 2 Barbed Wires	14'-0"	12½	2 Point Round	726-6-12½
5	26" Woven Wire with 4 Barbed Wires	14'-0"	12½	2 wires with 2 Pt. Rd. 2 wires with 4 Pt. Rd.	726-6-12½
6	32" Woven Wire with 3 Barbed Wires	14'-0"	12½	2 wires with 2 Pt. Rd. 1 wire with 4 Pt. Rd.	832-6-12½

GENERAL NOTES:

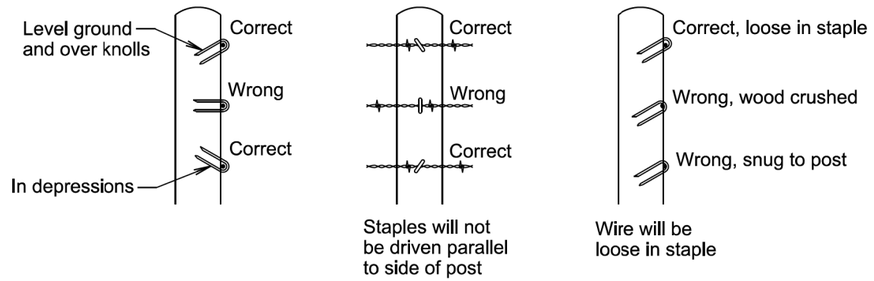
Fence types designated on the plans that are followed by the letter S will have smooth (barbless) wires.

When type 5S or 6S is designated the bottom wire may be barbed, smooth, or left off.

All radius of curvature stated for fence are at centerline of roadway.

April 8, 2025

Published Date: 2026	SDDOT	RIGHT-OF-WAY FENCE	PLATE NUMBER 620.01
			Sheet 1 of 1



STAPLE INSTALLATION

GENERAL NOTES:

The Right-of-Way fence will consist of barbed wire or a combination of woven wire and barbed wire. The barbed wire and/or woven wire will be fastened to all wood posts or fastened to alternating wood and steel posts. Only wood posts will be used for brace panels. Gates will be of the type designated in the plans or as otherwise directed by the Engineer. Fence will be constructed conforming to the details on the standard plates and in the plans unless otherwise directed by the Engineer.

Right-of-Way fence on Interstate Projects will be constructed one foot within the Interstate Right-of-Way lines except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

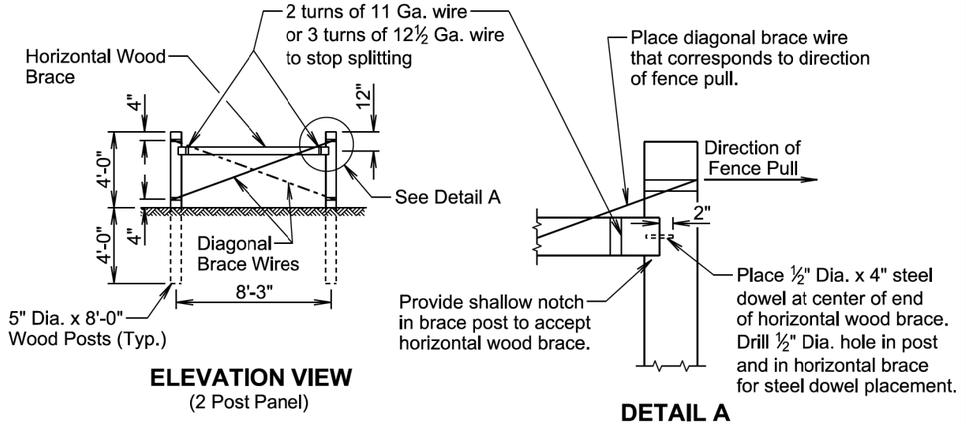
Right-of-Way fence other than on Interstate Projects will be constructed within one foot of the Right-of-Way on the Landowner's side except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

Barbs will be fabricated from zinc coated 14 ga. wire. Two point barbs will be wrapped twice around one main strand at four-inch spacings and the four point barbs will be interlocked and wrapped around both main strands at five-inch spacings.

The gages of wire and wood post lengths and sizes are the minimum acceptable unless otherwise specified in the plans. The tolerances for steel posts will be as stated in AASHTO M281. Woven wire will conform to design and specifications of ASTM A116 and barbed wire will conform to ASTM A121.

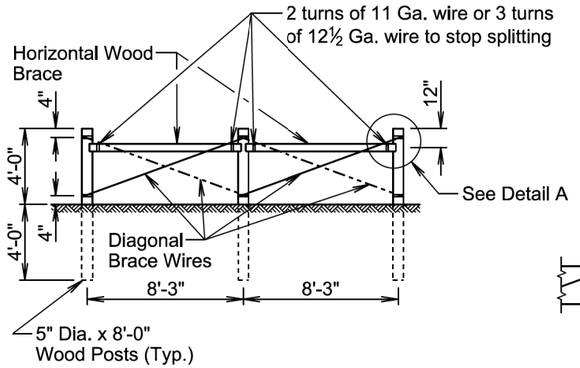
June 26, 2019

Published Date: 2026	SDDOT	STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES	PLATE NUMBER 620.02
			Sheet 1 of 1

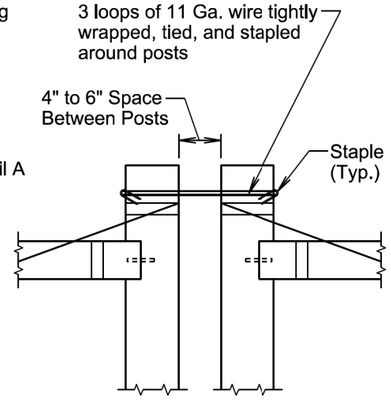


ELEVATION VIEW
(2 Post Panel)

DETAIL A



ELEVATION VIEW
(3 Post Panel)



DETAIL B

GENERAL NOTES:

Two Post Panels will be installed at least every 1320' between corners.

Two Post Panels will be installed at any sharp vertical angle crest points and as directed by the Engineer.

Horizontal wood braces will consist of 4" dia. x 8' wood posts or rough 4" x 4" x 8' timbers.

Diagonal brace wires will be fabricated with 4 strands of 9 Ga. galvanized wire twisted tight. The diagonal brace wires will be installed in accordance with the direction of the fence pull. Two diagonal brace wires are required if fence pull is in both directions.

March 31, 2024

Published Date: 2026	SDDOT	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03
			Sheet 1 of 3

SPACING OF 2 POST PANELS WITHIN CURVES	
RADIUS OF CURVE	SPACING OF 2 POST PANEL
Greater than 1800 Ft.	** 1320'
Less than 1800 Ft.	**At P.C., P.T., and at every 1320' between P.C. and P.T.

** Fence lengths greater than 1320' and less than 2640' place 2 Post Panel approximately at midpoint.

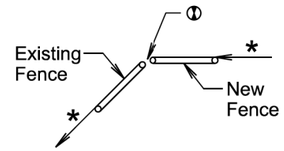
① See Detail B on Sheet 1 of 3.

GENERAL NOTE:

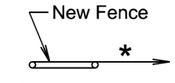
All radius of curvature stated for fence are at centerline of roadway.

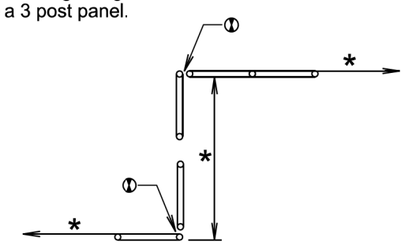
If fence length is less than 600' to next corner use a 2 post panel.

* If fence length is greater than 600' to next corner use a 3 post panel.

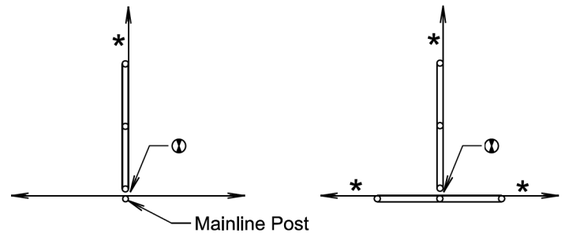


BEGIN OR END FENCE
(Where new fence ties into existing fence)

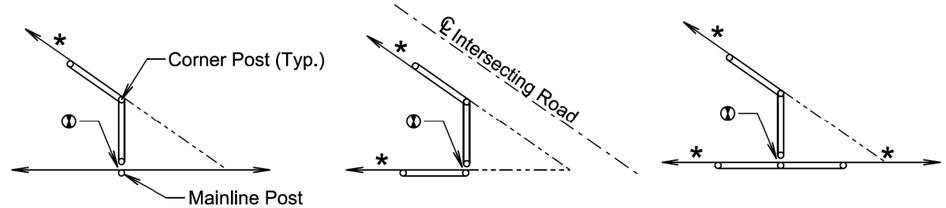




SHORT JOGS IN FENCE



CROSS FENCE



SHARP ANGLES IN CROSS FENCE

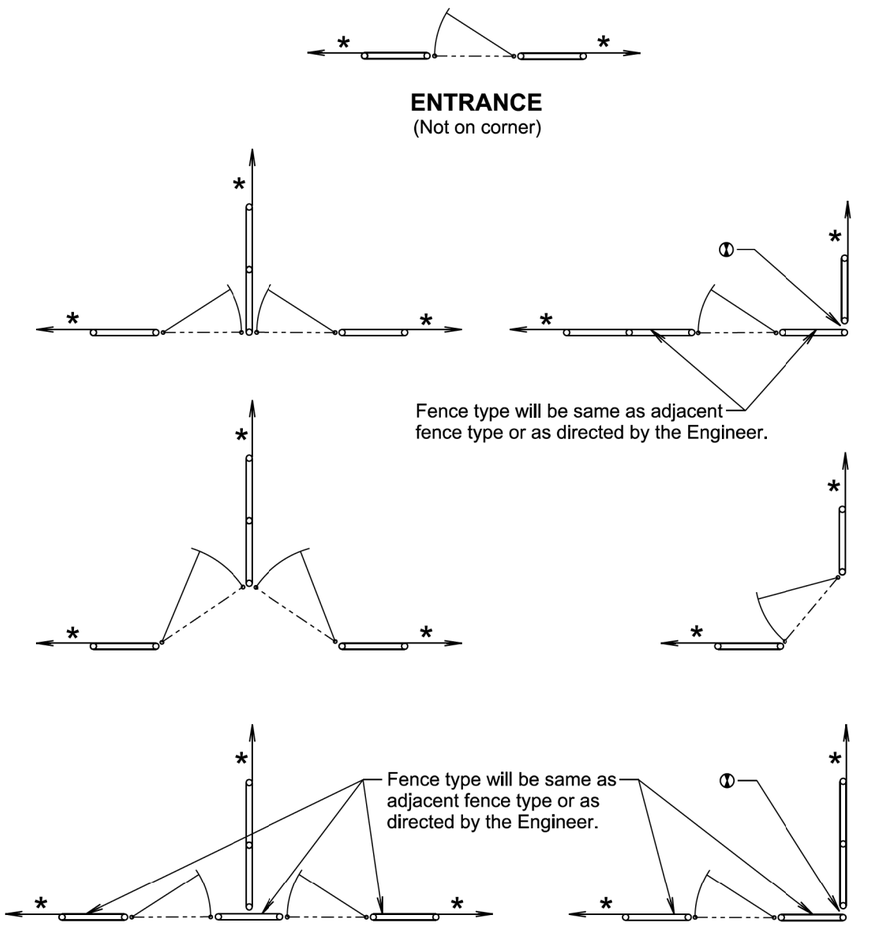
Additional fence panel is NOT required when an angle in the mainline fence is 10° and less.

Additional fence panel is required when an angle in the mainline fence is greater than 10°.

ANGLES IN MAINLINE FENCE

March 31, 2024

Published Date: 2026	SDDOT	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03
			Sheet 2 of 3

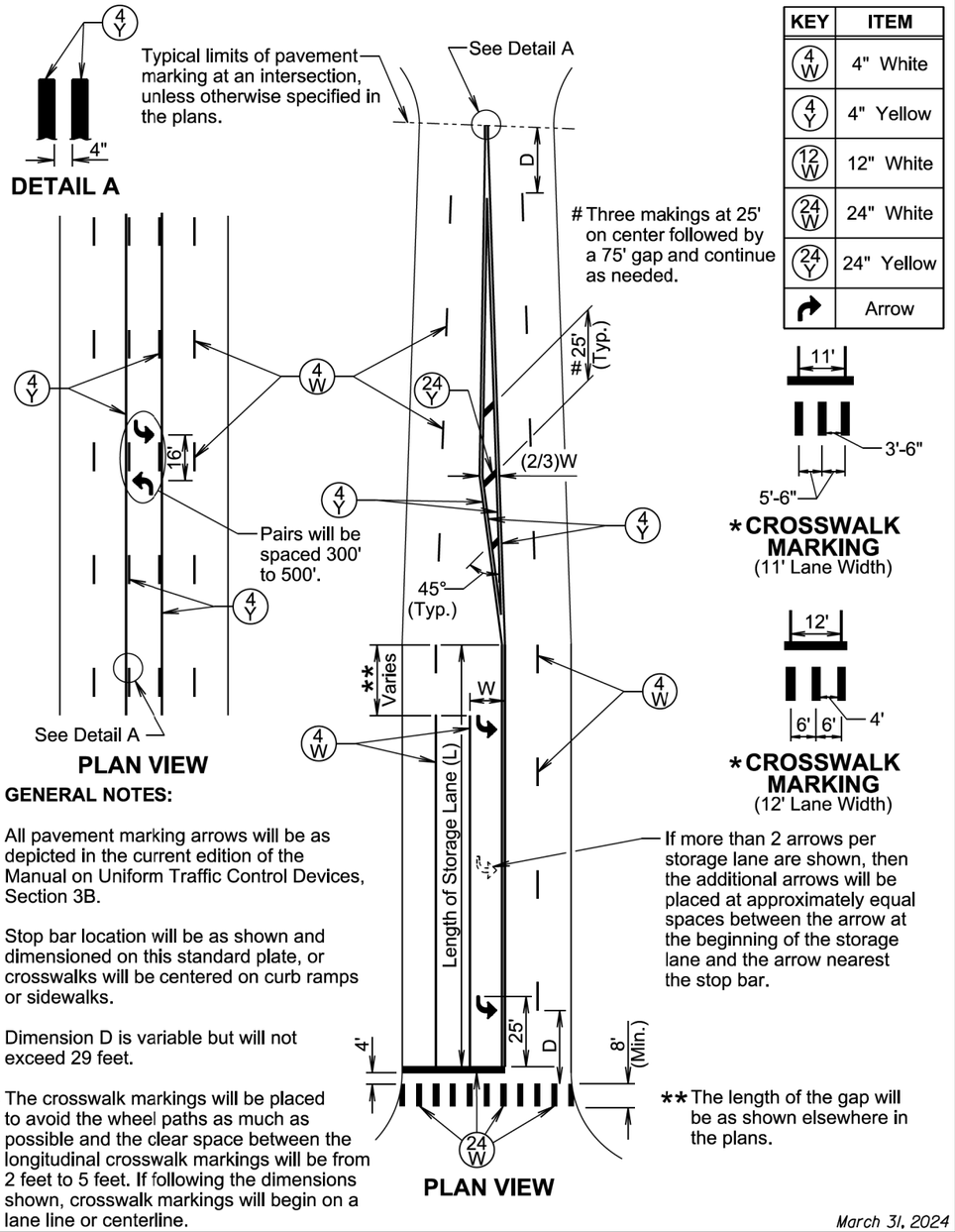


* If fence length is less than 600' to next corner use a 2 post panel.
If fence length is greater than 600' to next corner use a 3 post panel.

① See Detail B on Sheet 1 of 3.

March 31, 2024

Published Date: 2026	SDDOT	BRACE PANELS AND APPLICATIONS OF BRACE PANELS	PLATE NUMBER 620.03
			Sheet 3 of 3



KEY	ITEM
4 W	4" White
4 Y	4" Yellow
12 W	12" White
24 W	24" White
24 Y	24" Yellow
	Arrow

GENERAL NOTES:

All pavement marking arrows will be as depicted in the current edition of the Manual on Uniform Traffic Control Devices, Section 3B.

Stop bar location will be as shown and dimensioned on this standard plate, or crosswalks will be centered on curb ramps or sidewalks.

Dimension D is variable but will not exceed 29 feet.

* The crosswalk markings will be placed to avoid the wheel paths as much as possible and the clear space between the longitudinal crosswalk markings will be from 2 feet to 5 feet. If following the dimensions shown, crosswalk markings will begin on a lane line or centerline.

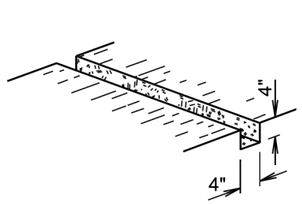
If more than 2 arrows per storage lane are shown, then the additional arrows will be placed at approximately equal spaces between the arrow at the beginning of the storage lane and the arrow nearest the stop bar.

** The length of the gap will be as shown elsewhere in the plans.

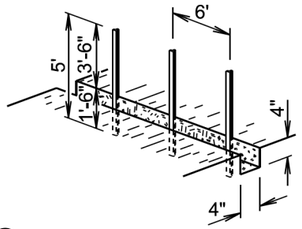
March 31, 2024

Published Date: 2026	SDDOT	PAVEMENT MARKINGS FOR ADJACENT INTERSECTIONS AND CENTER TURN LANE	PLATE NUMBER 633.01
			Sheet 1 of 1

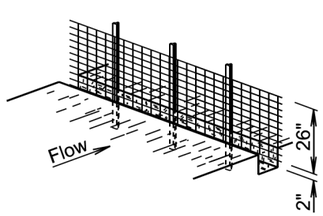
MANUAL LOW FLOW SILT FENCE INSTALLATION



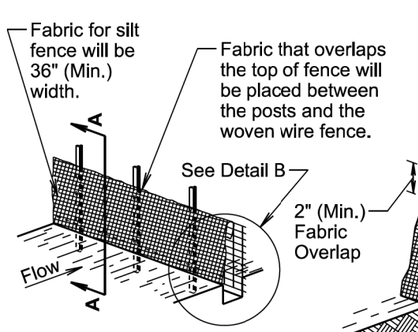
① EXCAVATE TRENCH



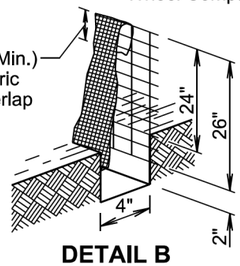
② DRIVE STEEL T FENCE POSTS



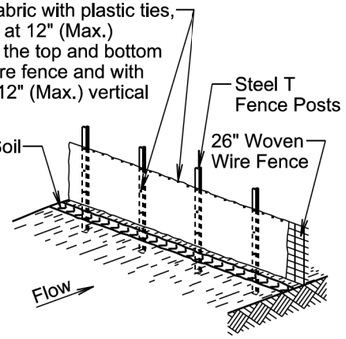
③ ATTACH 26" WOVEN WIRE FENCE TO POSTS



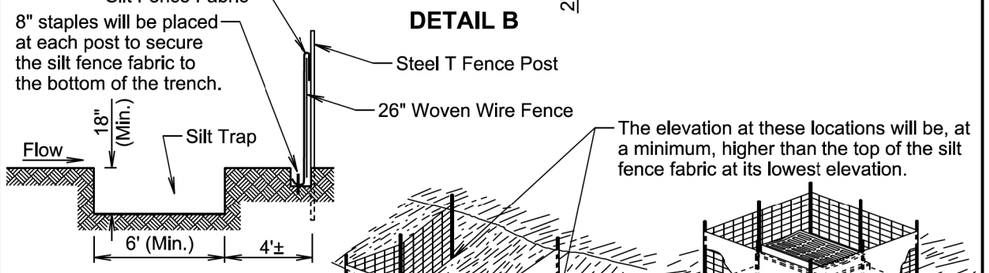
④ ATTACH SILT FENCE FABRIC



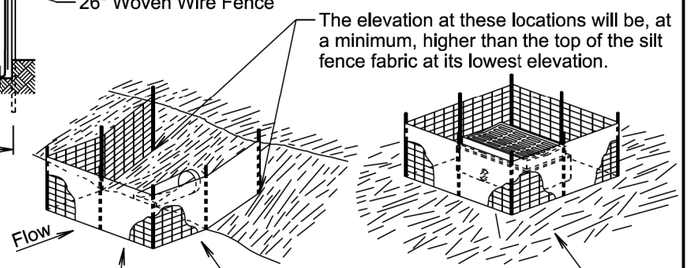
DETAIL B



⑤ BACKFILL TRENCH AND WHEEL COMPACT SOIL



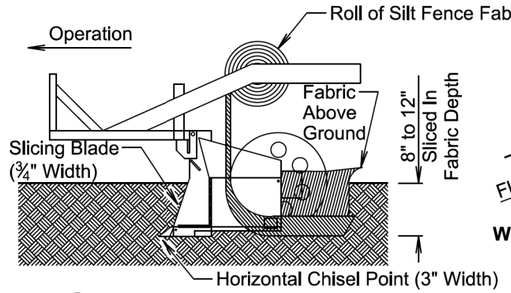
SECTION A-A



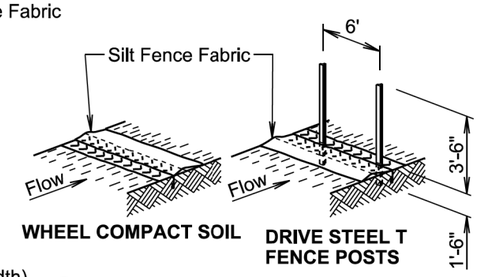
February 14, 2020

Published Date: 2026	SDDOT	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER 734.04
			Sheet 1 of 2

MACHINE SLICED LOW FLOW SILT FENCE INSTALLATION



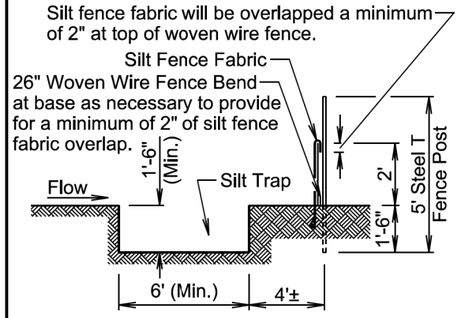
① INSTALL SILT FENCE FABRIC BY MACHINE SLICING METHOD.

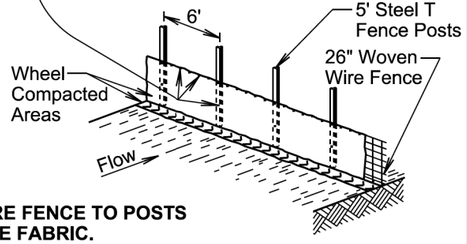


WHEEL COMPACT SOIL

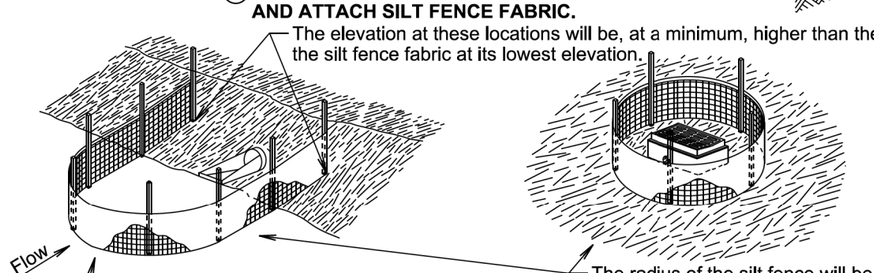
DRIVE STEEL T FENCE POSTS

② WHEEL COMPACT SOIL ABOVE SLICED IN PORTION OF FABRIC AND THEN DRIVE STEEL T FENCE POSTS.





③ ATTACH 26" WOVEN WIRE FENCE TO POSTS AND ATTACH SILT FENCE FABRIC.



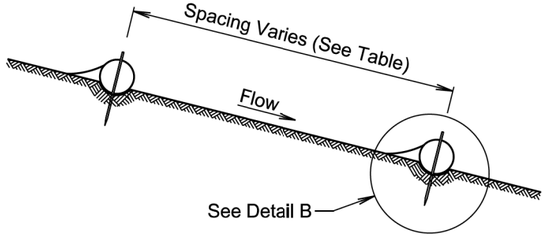
GENERAL NOTES:

A silt trap will be provided when specified by a plan note. All costs for constructing the silt trap will be incidental to the contract unit price per cubic yard for "Silt Trap".

If a trench can not be dug or the silt fence fabric can not be sliced in due to the type of earthen material (such as rock), then a row of 30 to 40 pound sandbags butted end to end will be provided on top of the extra length of silt fence fabric to prevent underflow.

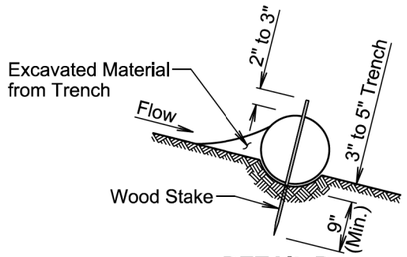
February 14, 2020

Published Date: 2026	SDDOT	LOW FLOW SILT FENCE AND SILT TRAP	PLATE NUMBER 734.04
			Sheet 2 of 2

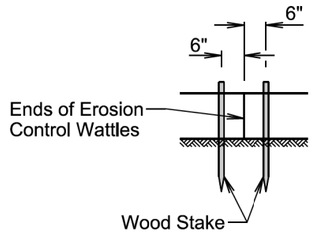


ELEVATION VIEW
(Cut or Fill Slope Installation)

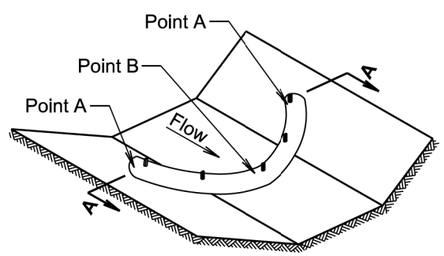
CUT OR FILL SLOPE INSTALLATION	
Slope	Spacing (Ft.)
1:1	10
2:1	20
3:1	30
4:1	40



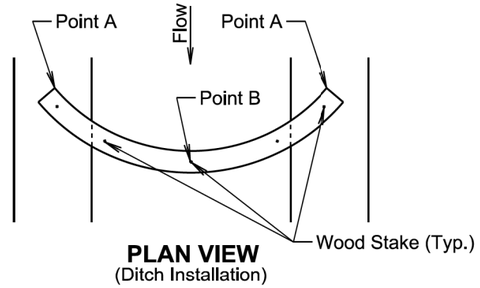
DETAIL B
(Typical of All Installations)



DETAIL C
(See General Notes)

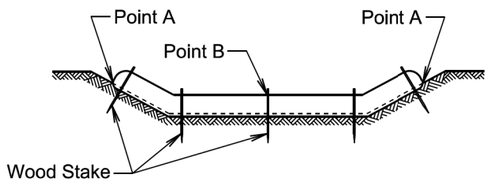


ISOMETRIC VIEW
(Ditch Installation)



PLAN VIEW
(Ditch Installation)

DITCH INSTALLATION	
Grade	Spacing (Ft.)
2%	150
3%	100
4%	75
5%	50



SECTION A-A

February 14, 2020

Published Date: 2026	SDDOT	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 1 of 2

GENERAL NOTES:

At cut or fill slope installations, wattles will be installed along the contour and perpendicular to the water flow.

At ditch installations, point A must be higher than point B to ensure that water flows over the wattle and not around the ends.

The Contractor will dig a 3" to 5" trench, install the wattle tightly in the trench so that daylight can not be seen under the wattle, and then compact the soil excavated from the trench against the wattle on the uphill side. See Detail B.

The stakes will be 1"x2" or 2"x2" wood stakes, however, other types of stakes such as rebar may be used only if approved by the Engineer. The stakes will be placed 6" from the ends of the wattles and the spacing of the stakes along the wattles will be 3' to 4'.

Where installing running lengths of wattles, the Contractor will butt the second wattle tightly against the first and will not overlap the ends. See Detail C.

The Contractor and Engineer will inspect the erosion control wattles in accordance with the storm water permit. The Contractor will remove, dispose, or reshape the accumulated sediment when necessary as determined by the Engineer.

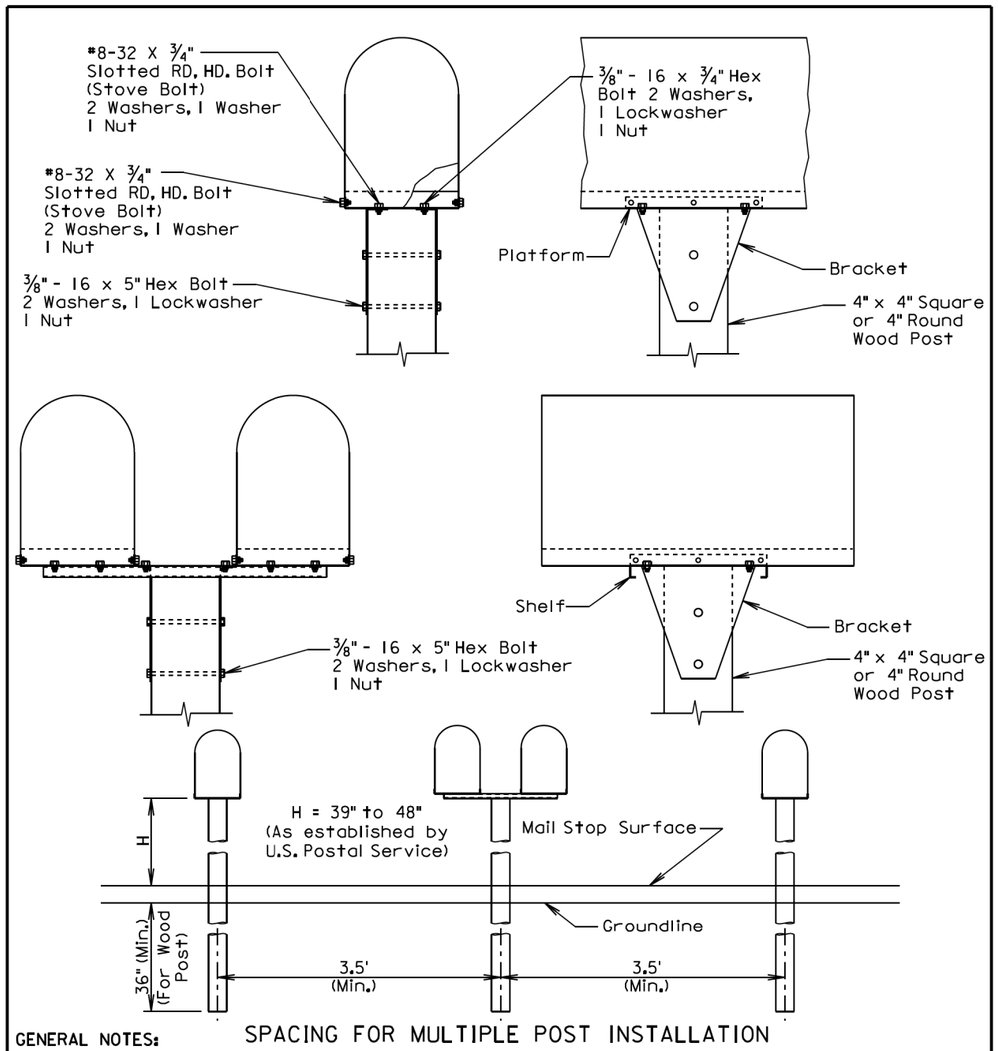
Sediment removal, disposal, or necessary shaping will be as directed by the Engineer. All costs for removing accumulated sediment, disposal of sediment, and necessary shaping will be incidental to the contract unit price per cubic yard for "Remove Sediment".

All costs for furnishing and installing the erosion control wattles including labor, equipment, and materials will be incidental to the contract unit price per foot for the corresponding erosion control wattle contract item.

All costs for removing the erosion control wattle from the project including labor, equipment, and materials will be incidental to the contract unit price per foot for "Remove Erosion Control Wattle".

February 14, 2020

Published Date: 2026	SDDOT	EROSION CONTROL WATTLE	PLATE NUMBER 734.06
			Sheet 2 of 2



SPACING FOR MULTIPLE POST INSTALLATION

GENERAL NOTES:

The post support assemblies provided should be consistant throughout the project.

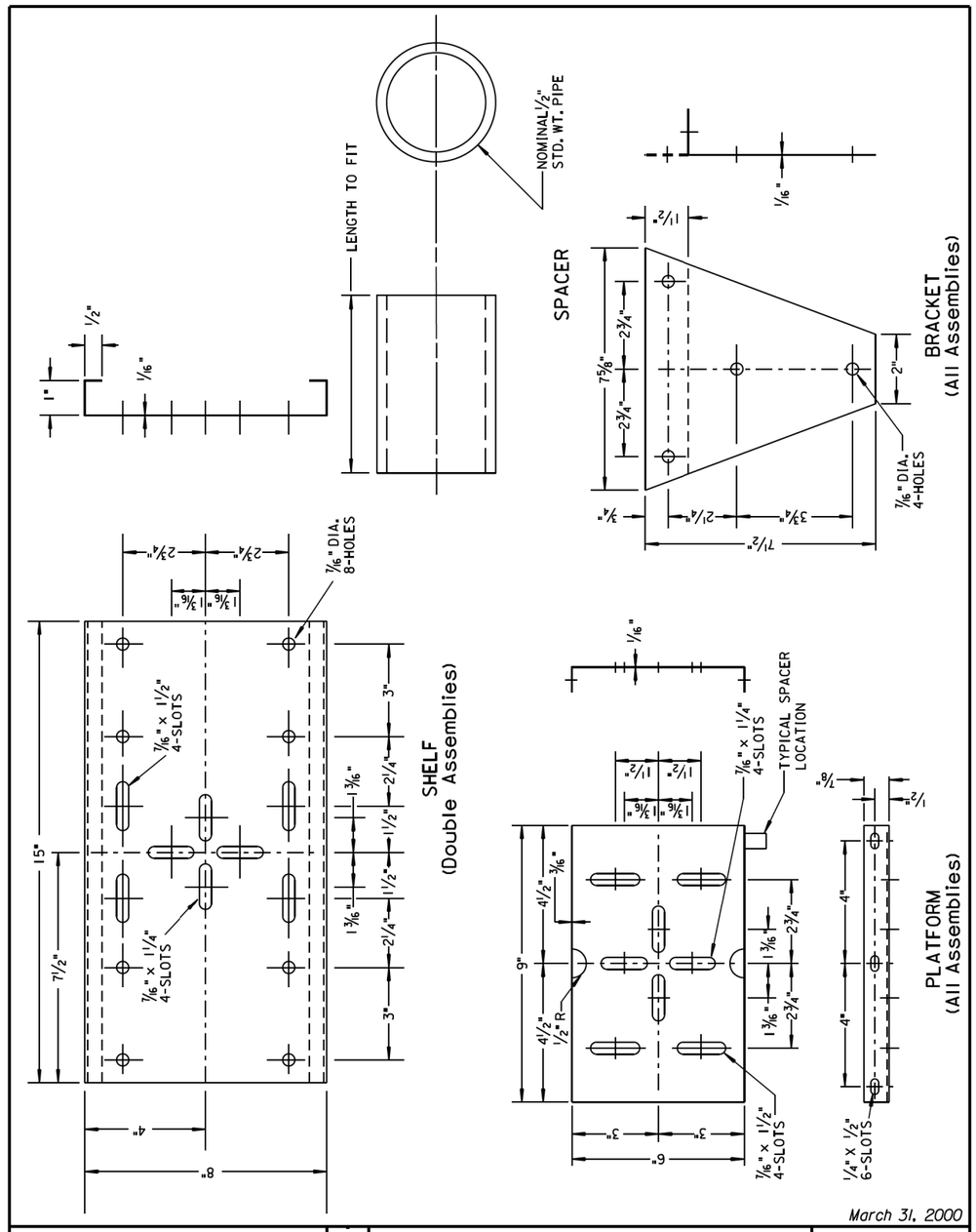
Single and double mailboxes may be in any sequence.

Post support assemblies shall be one from the approved products list, a 4"x4" or 4" round wood post, or an alternate post support assembly that meets the test level 3 crash testing requirements of NCHRP 350 or MASH.

Alternate mailbox support assemblies shall be approved by the Engineer prior to installation. The Contractor shall provide the Engineer written certification that the mailbox support assembly has met the crash testing requirements and will be installed in accordance with the manufacturer's installation instructions.

September 6, 2013

Published Date: 2026	SDDOT	***SINGLE AND DOUBLE MAILBOX ASSEMBLIES***	***PLATE NUMBER*** 900.02 *Sheet 1 of 1*

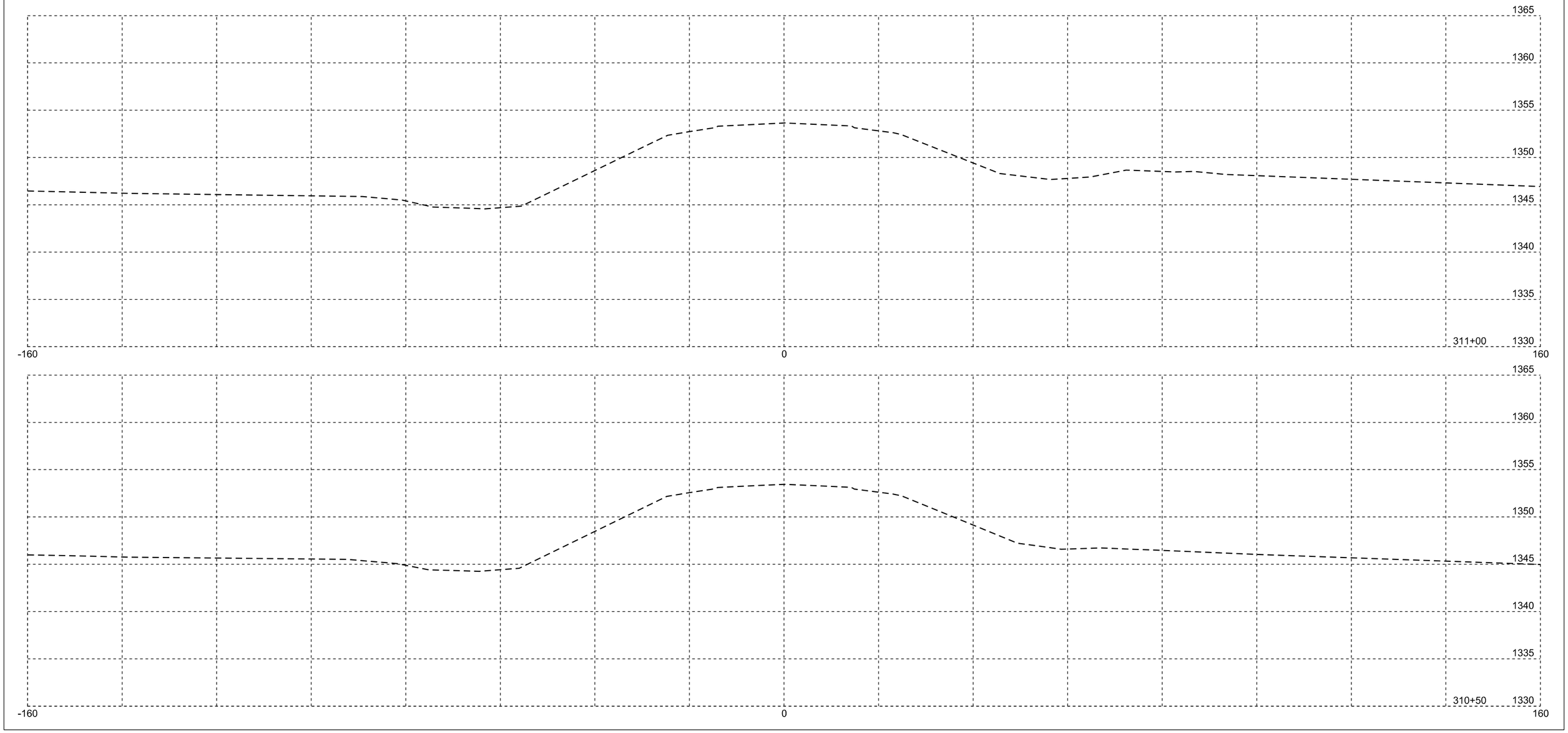


March 31, 2000

Published Date: 2026	SDDOT	***MAILBOX SUPPORT HARDWARE***	***PLATE NUMBER*** 900.03 *Sheet 1 of 1*

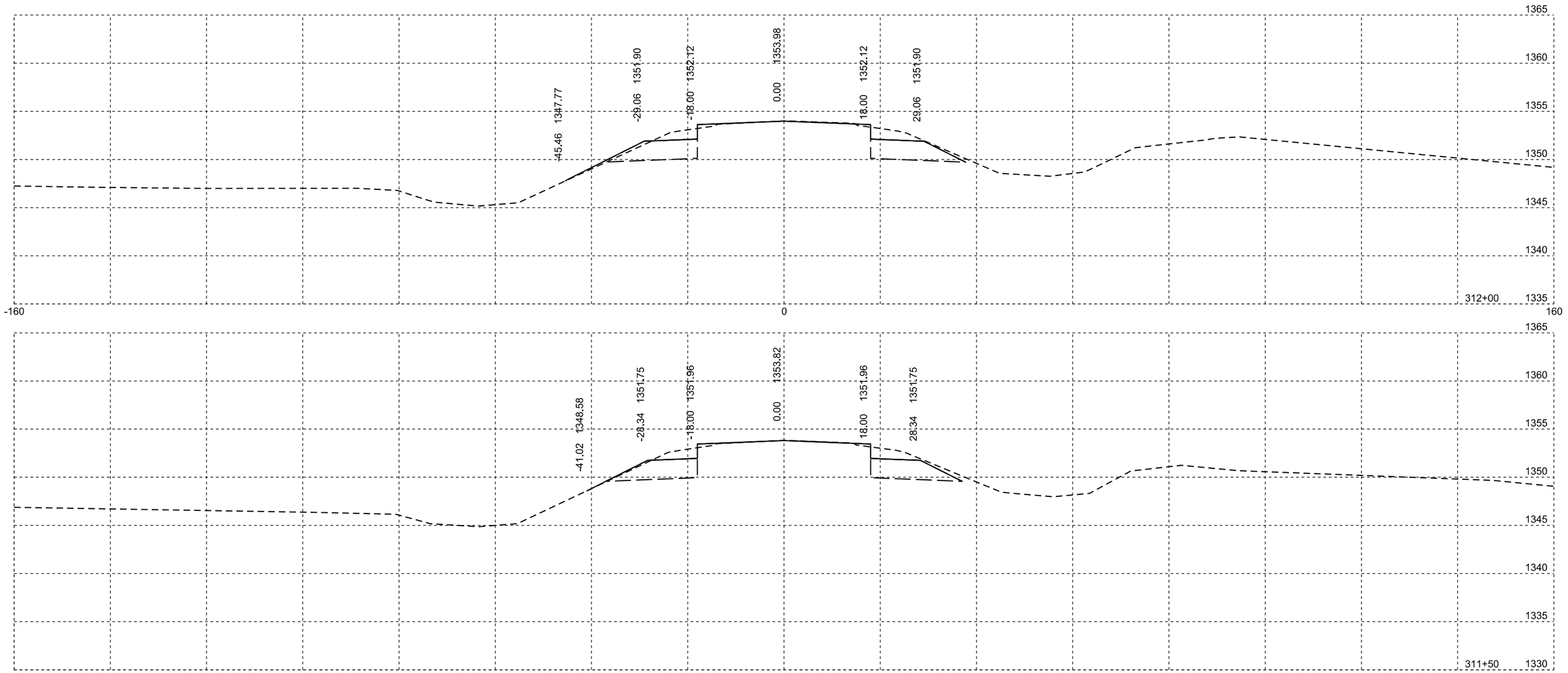
Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	110	151



Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	111	151



Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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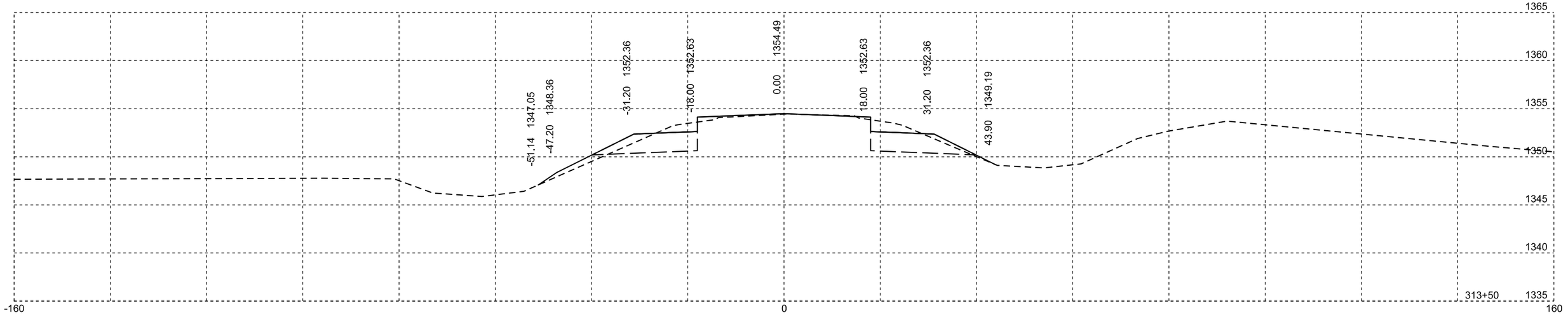
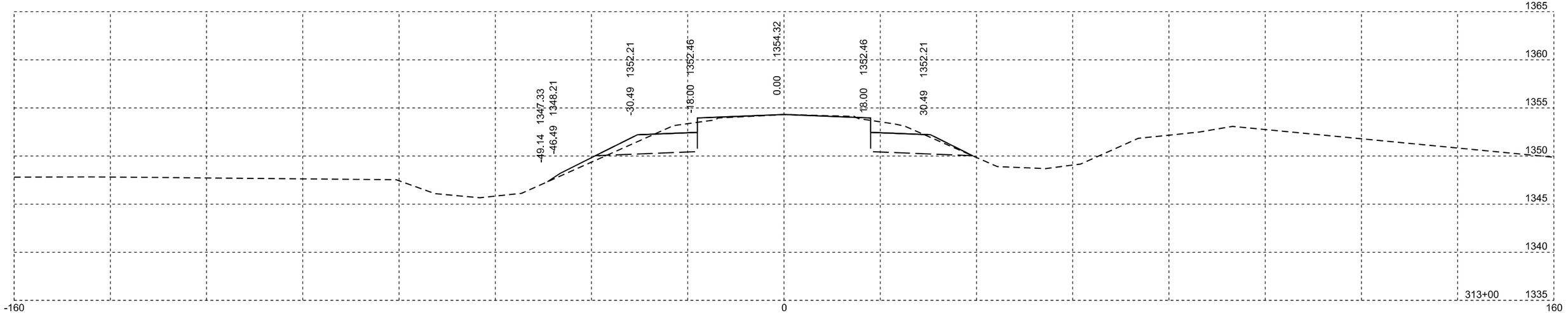
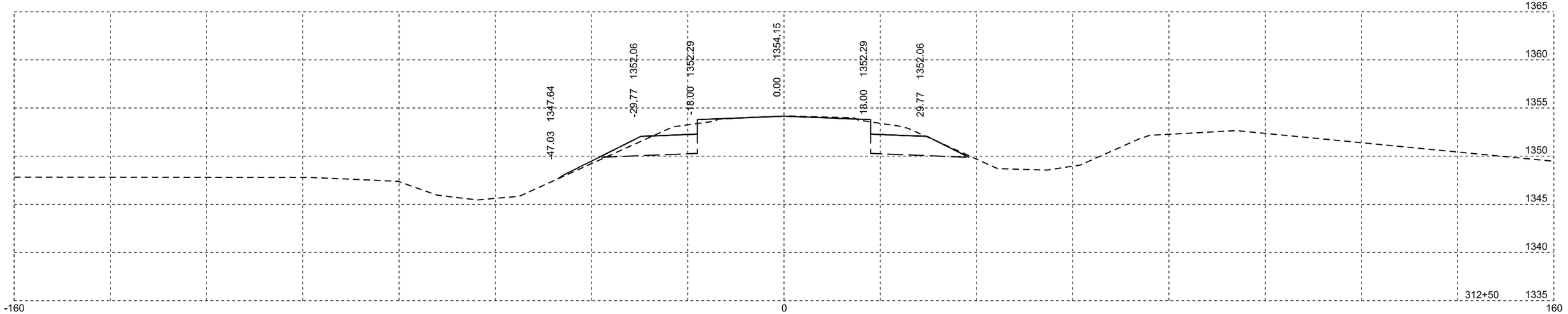
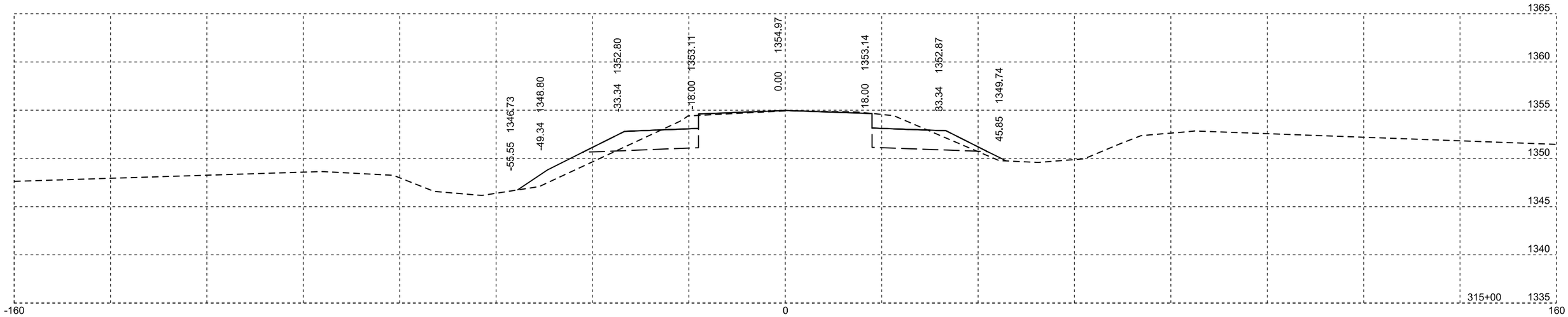


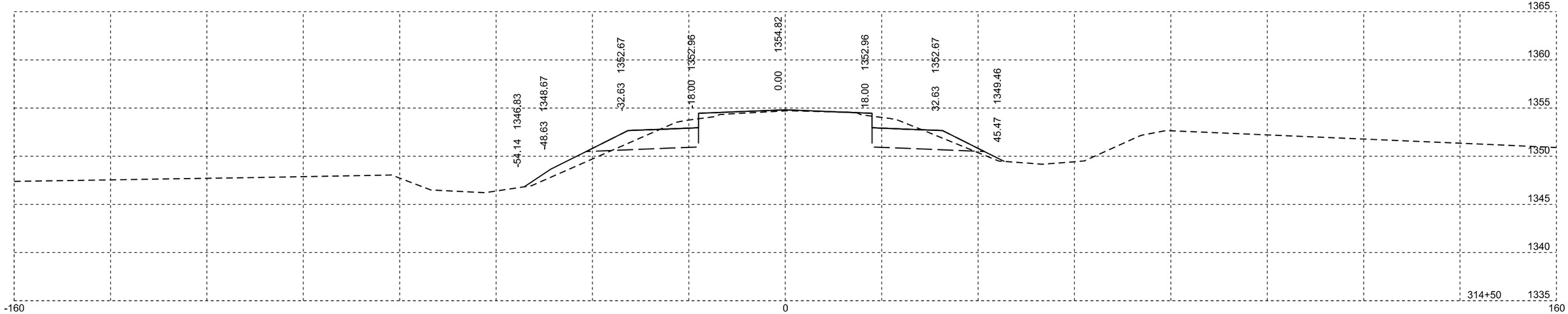


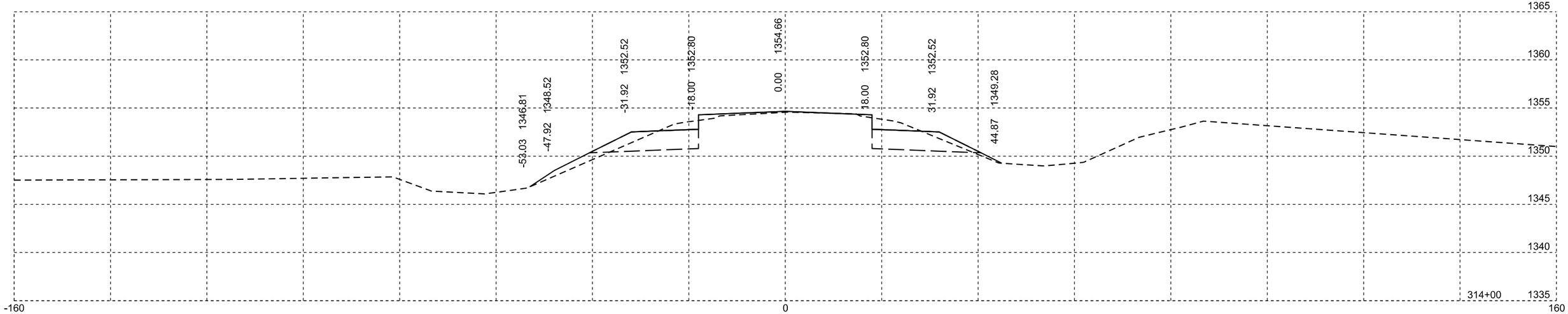


Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	113	151







Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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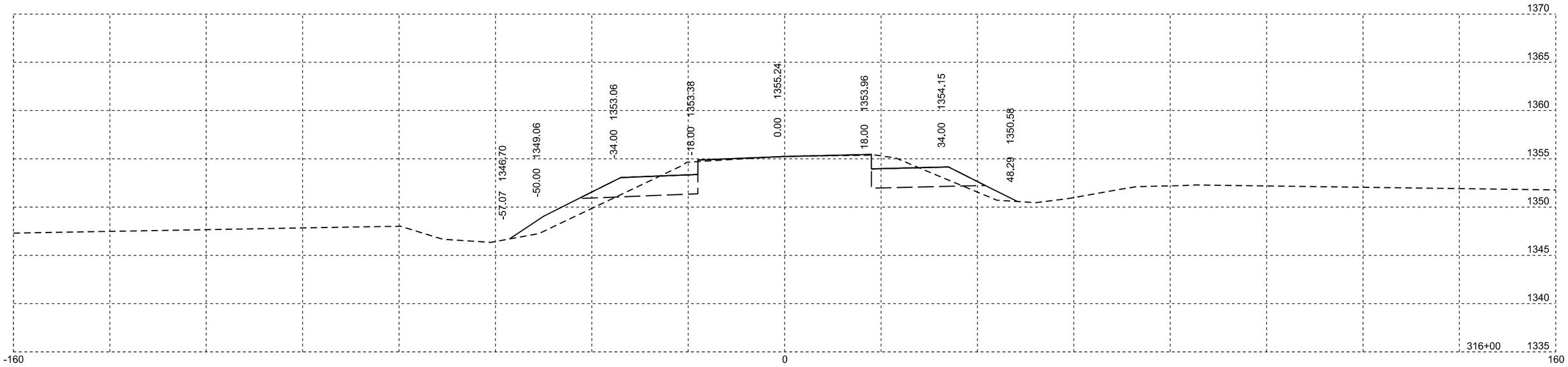

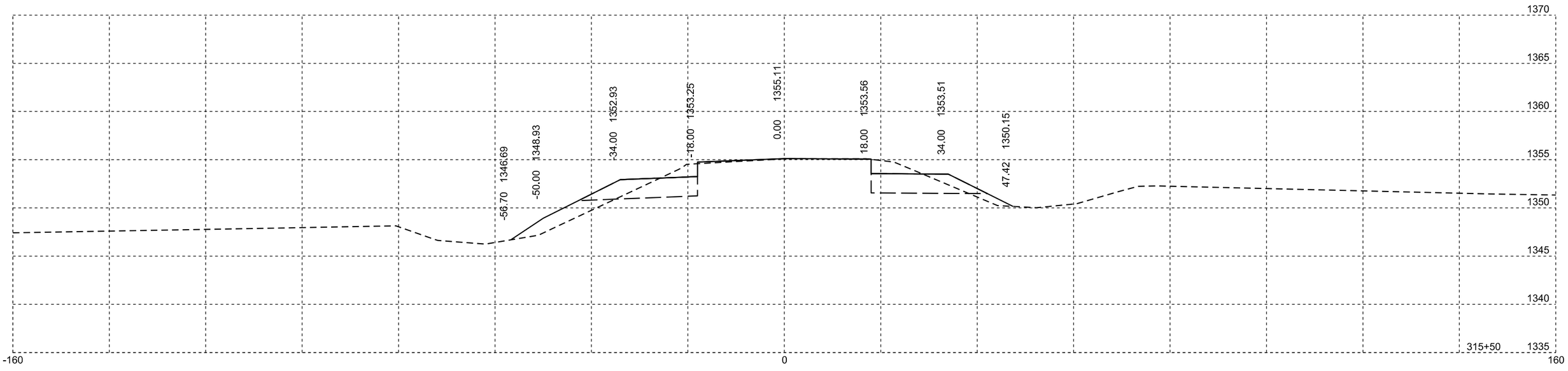

Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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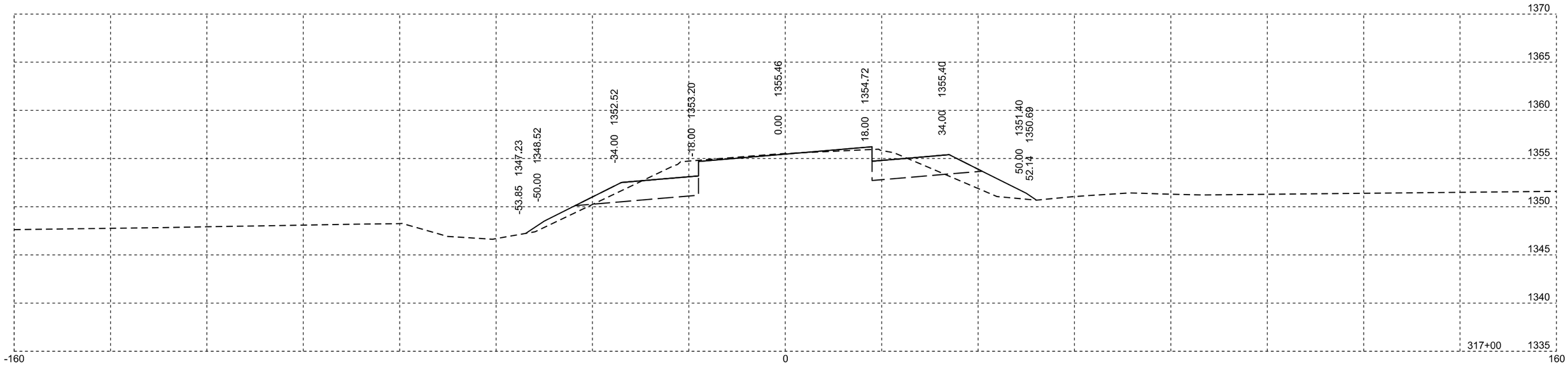

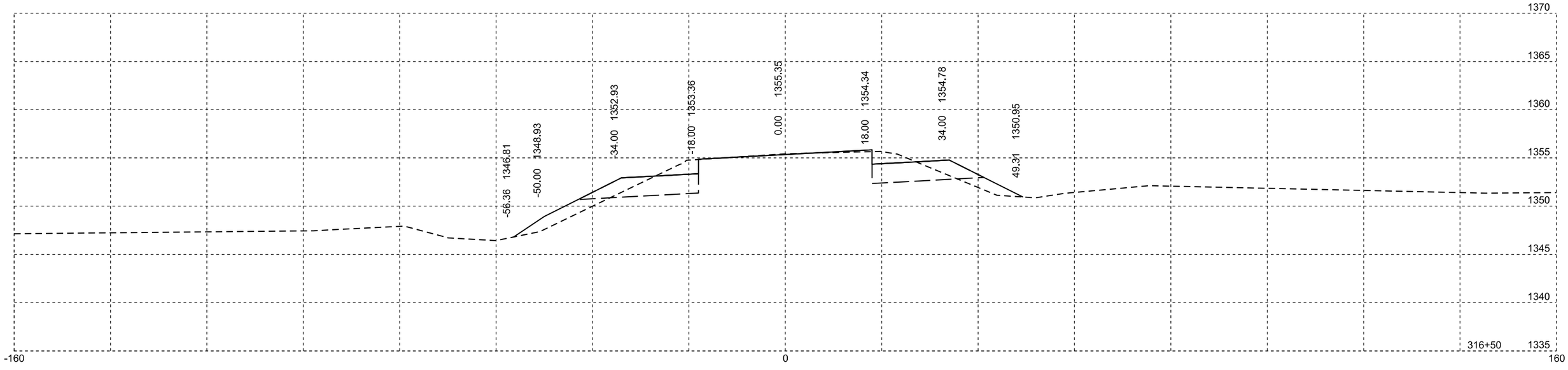

Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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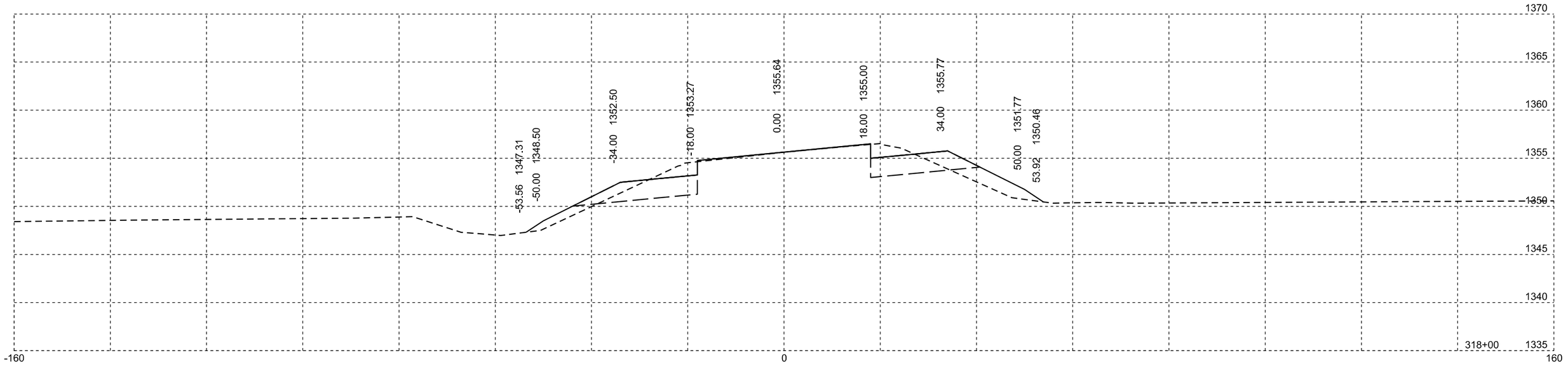

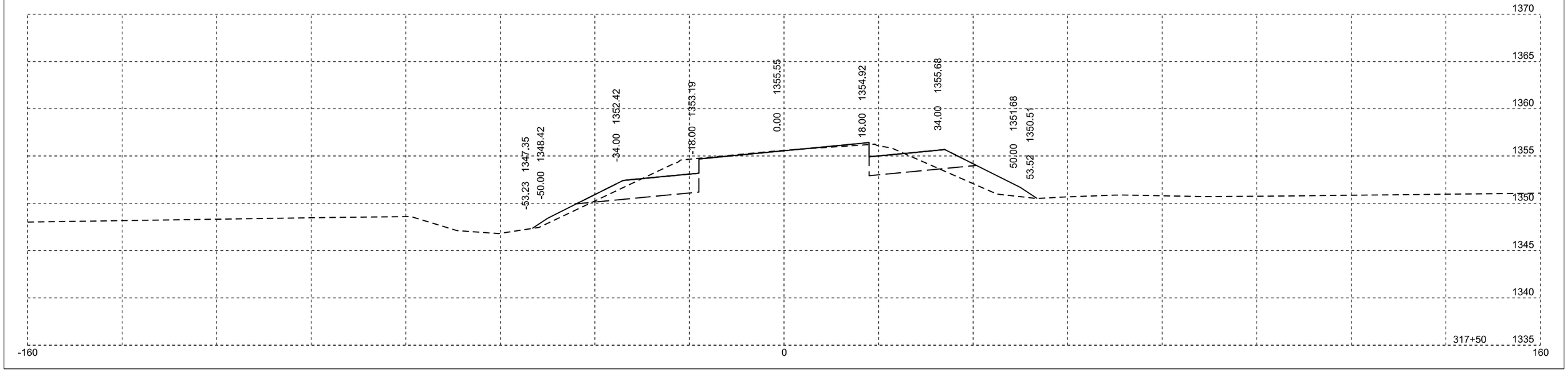

Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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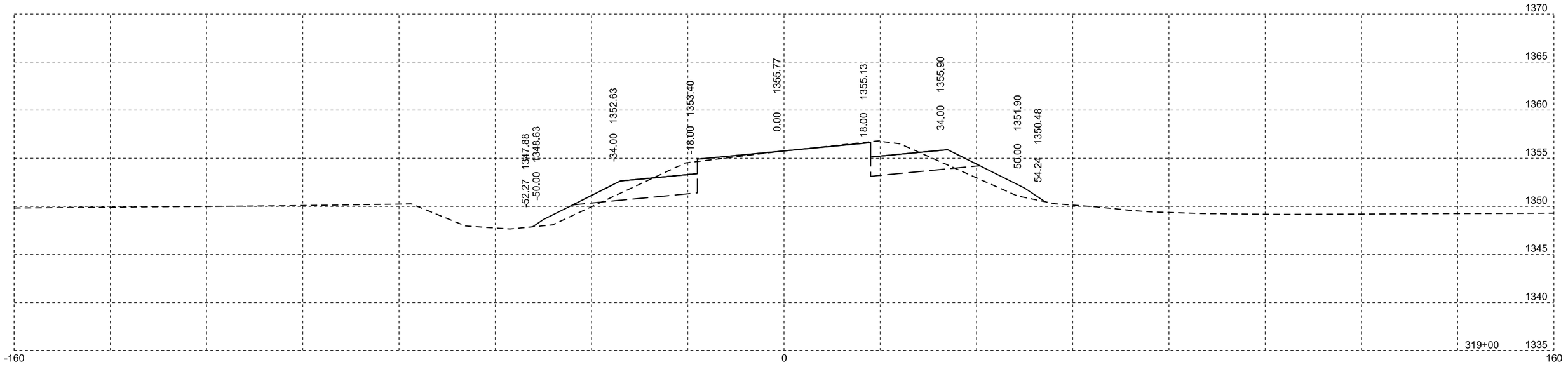
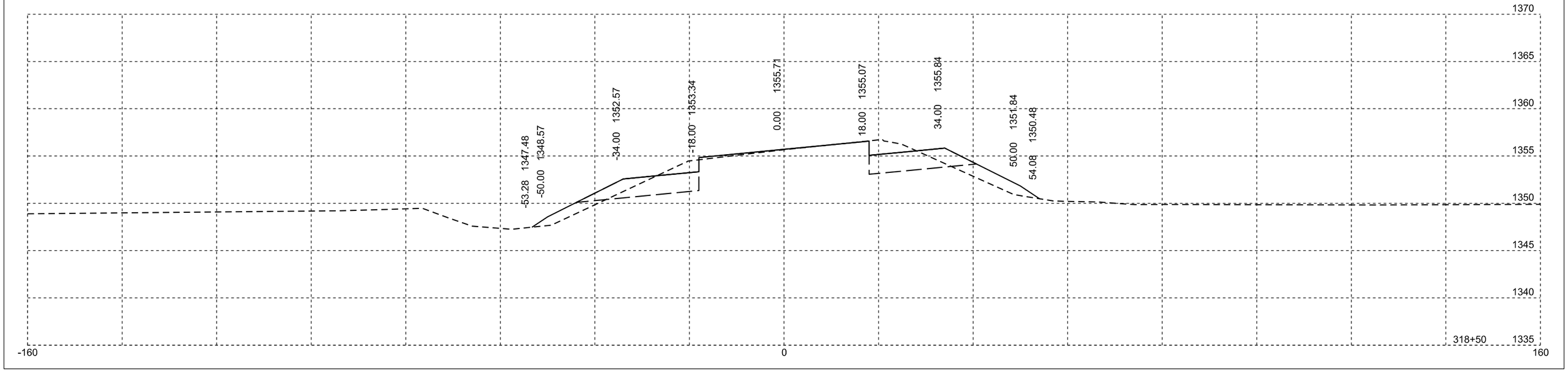
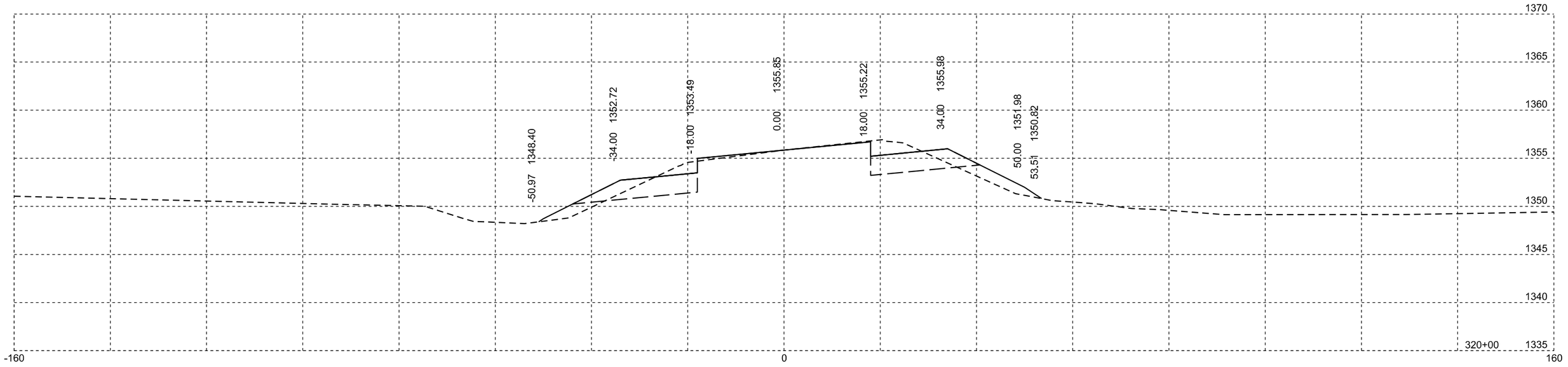
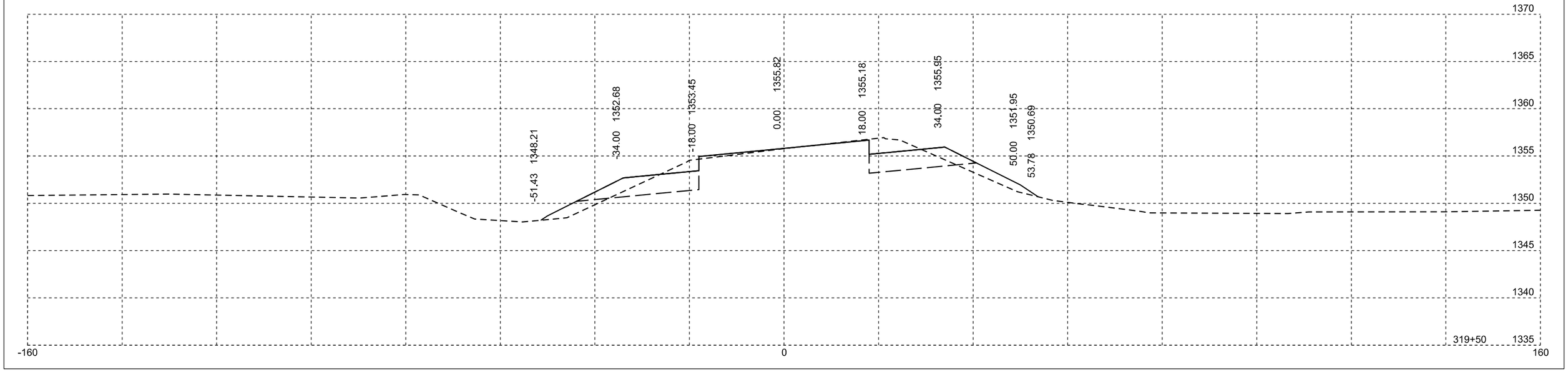




Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	118	151





Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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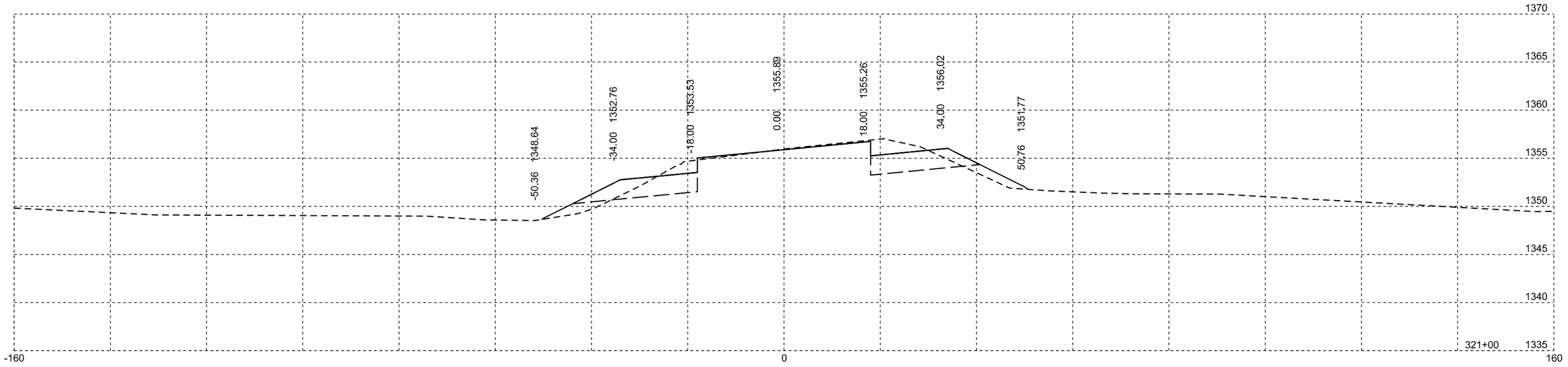
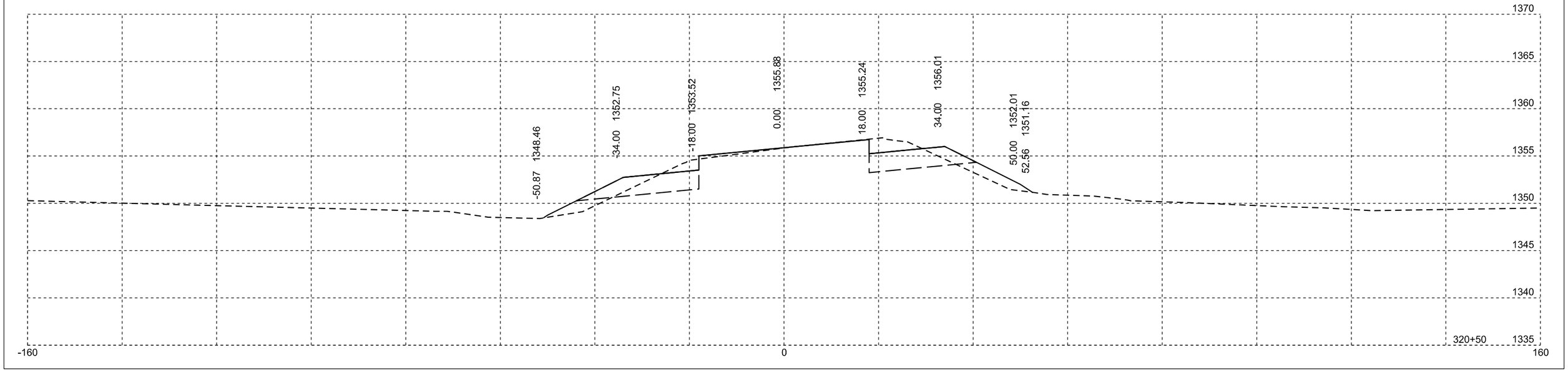
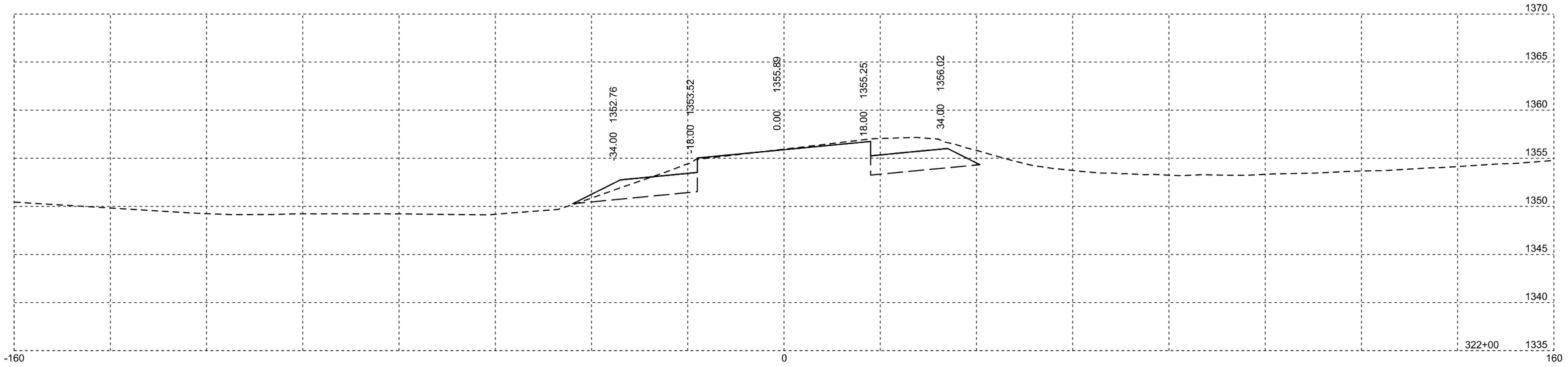


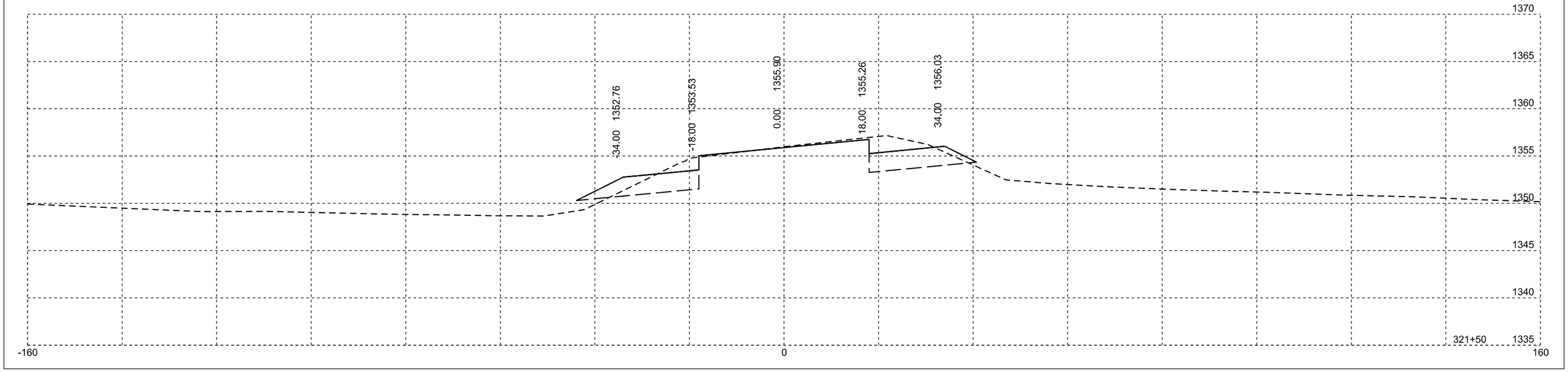


Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	120	151

Intersecting Road - 196th Street

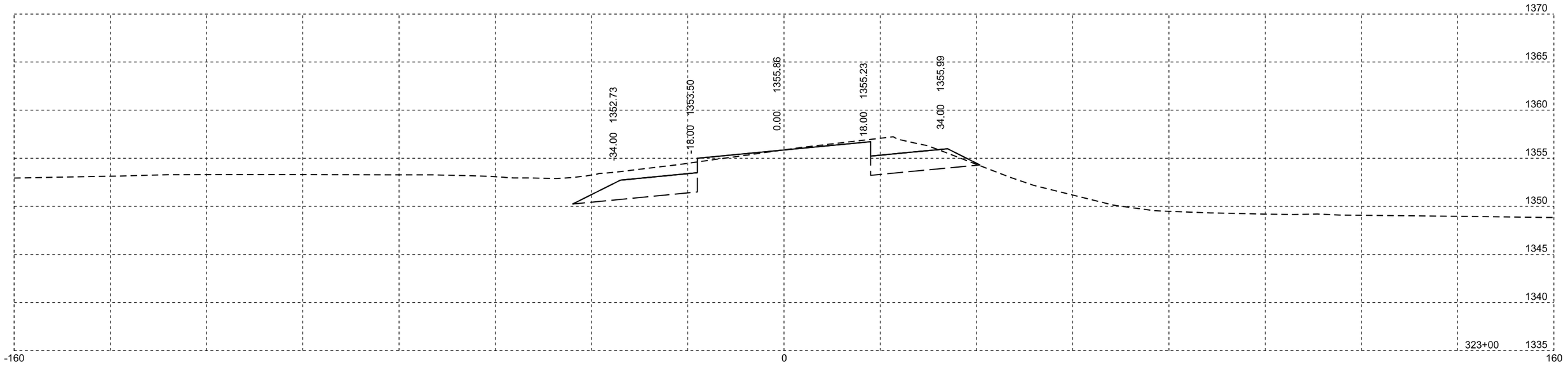


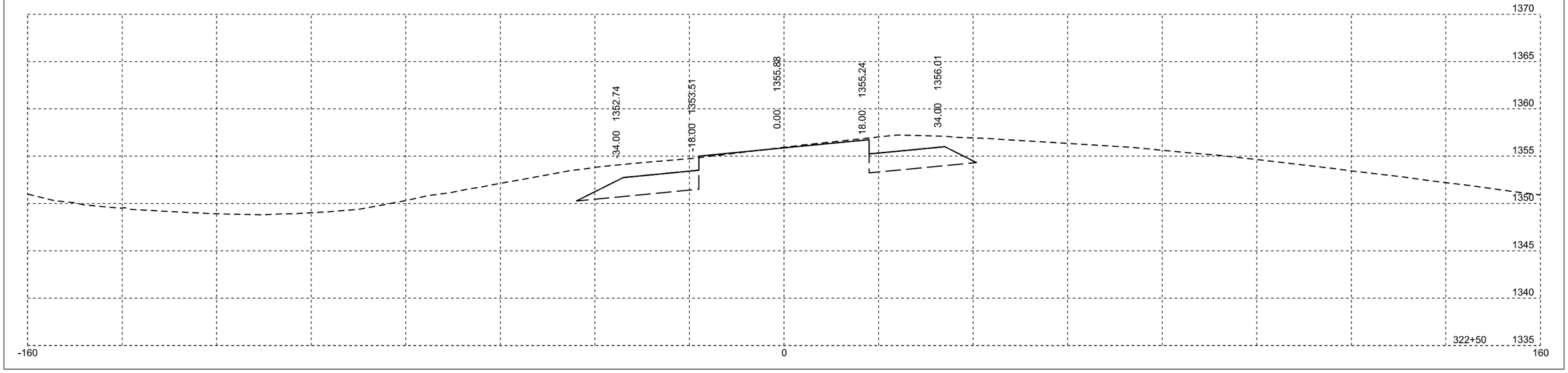


Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	121	151

Intersecting Road - 196th Street





Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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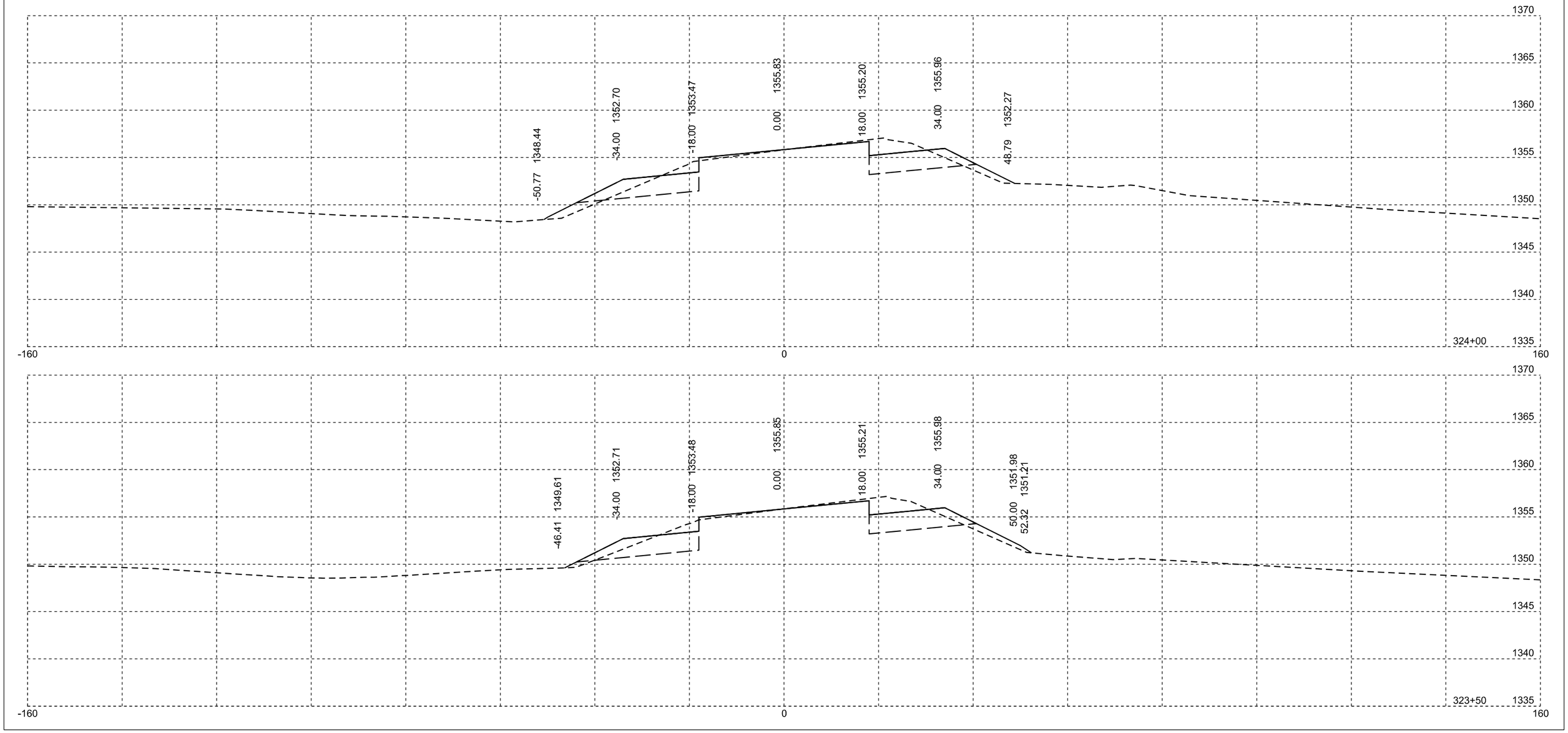

Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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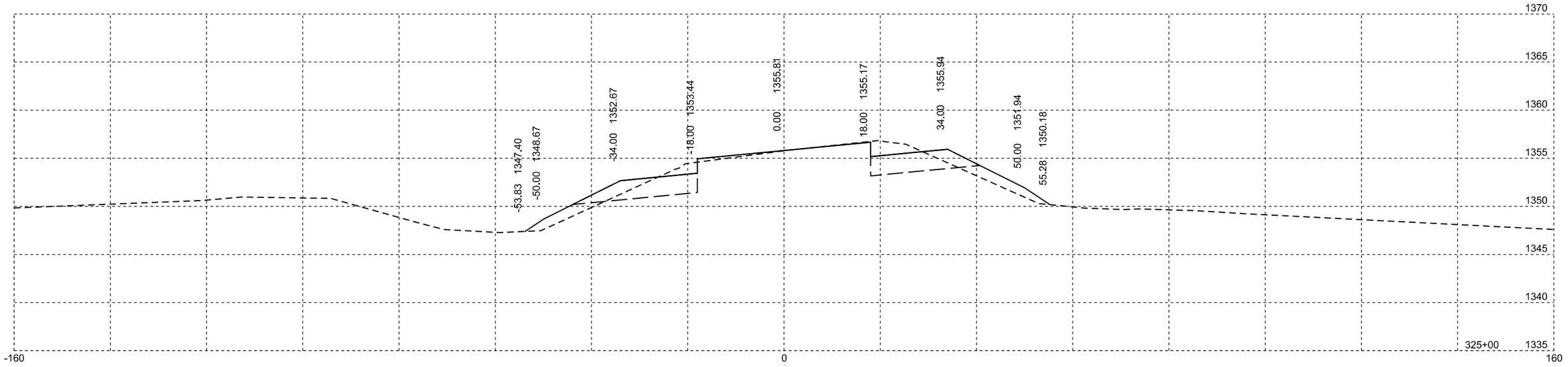

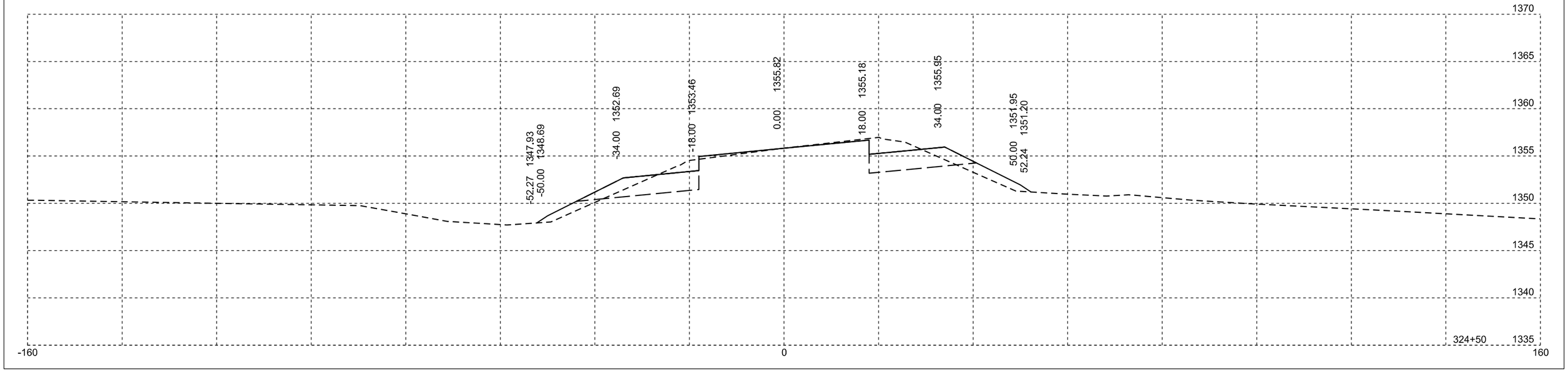

Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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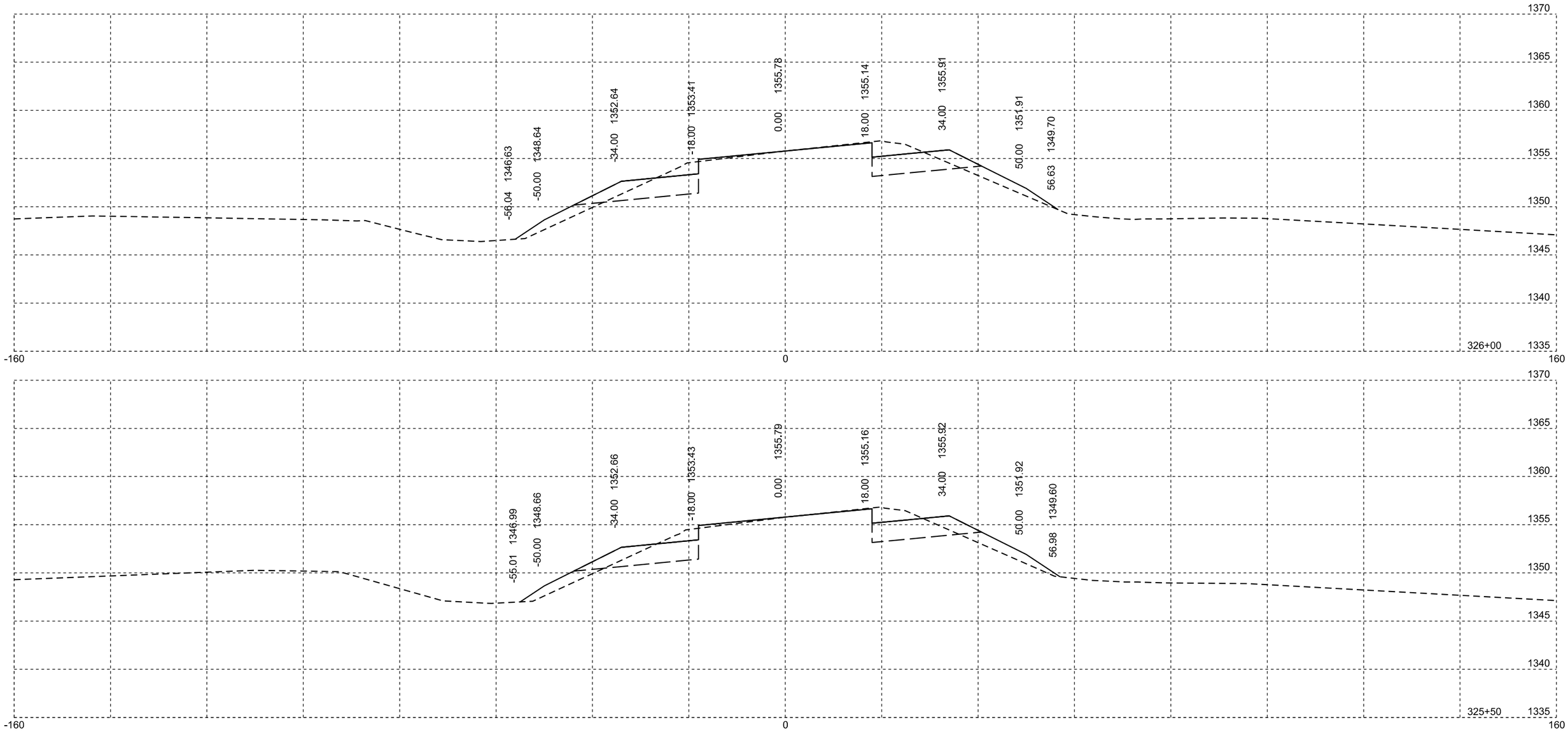
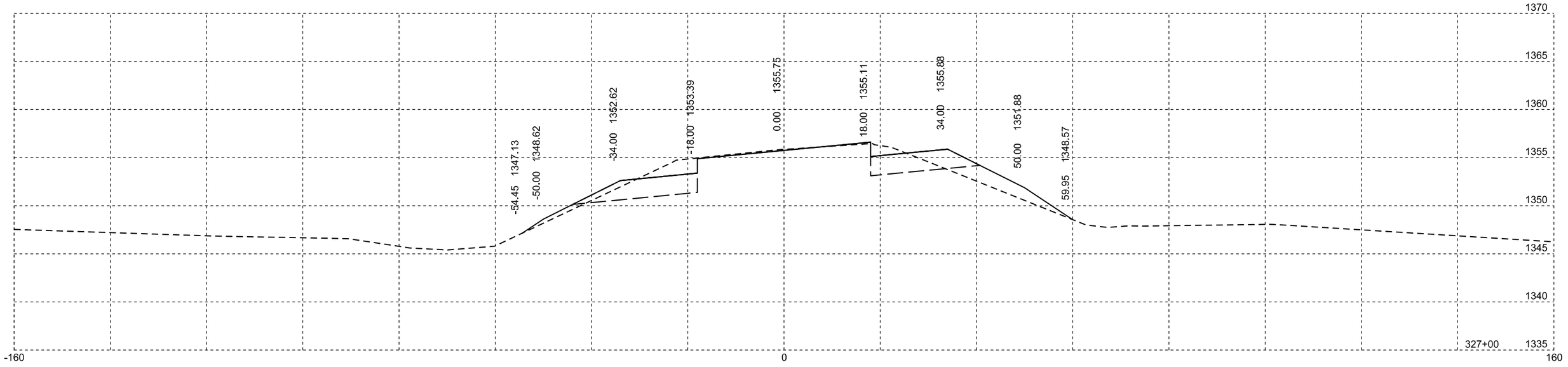
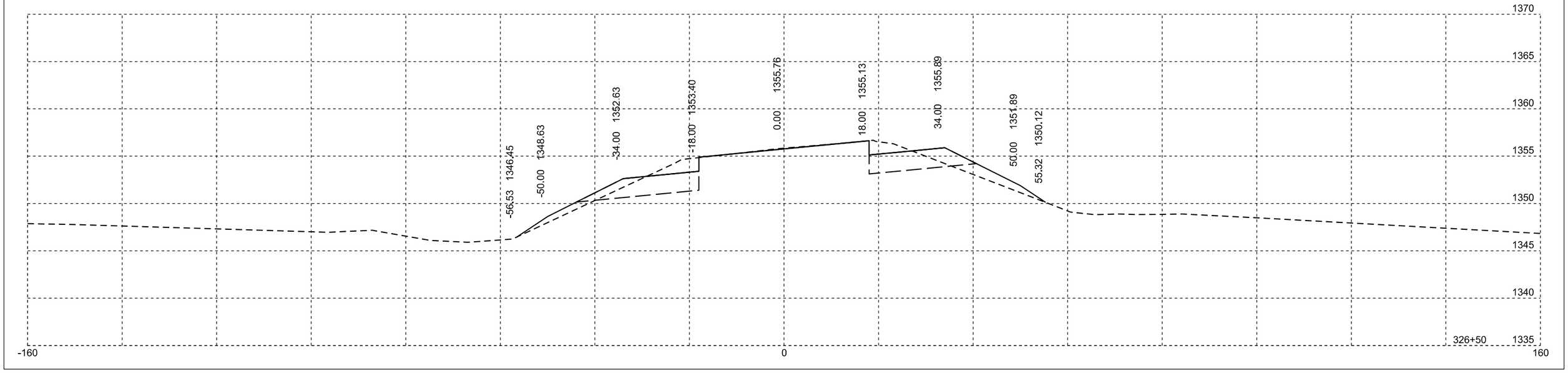


Plotting Date: 11/18/2025

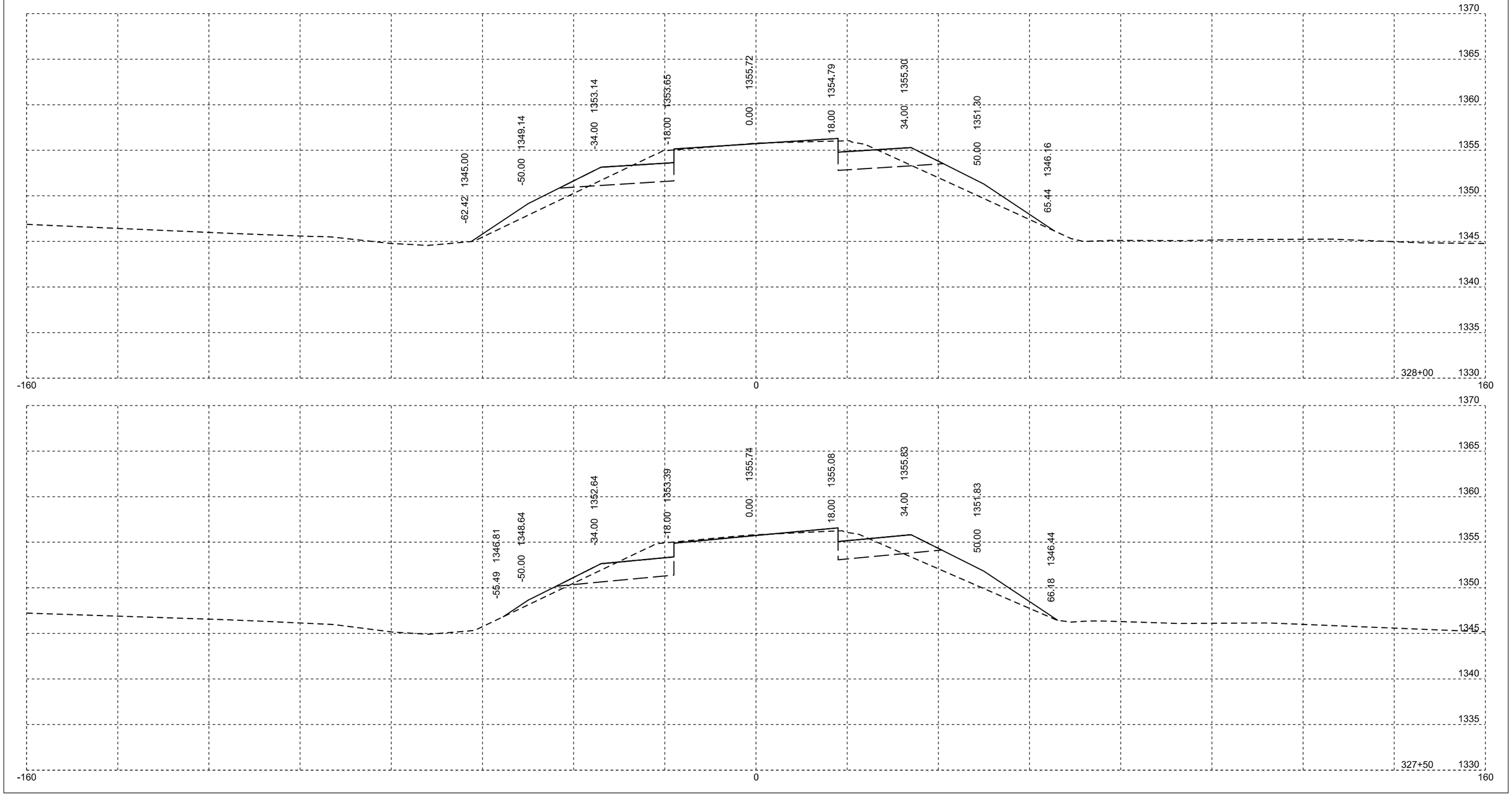
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	125	151





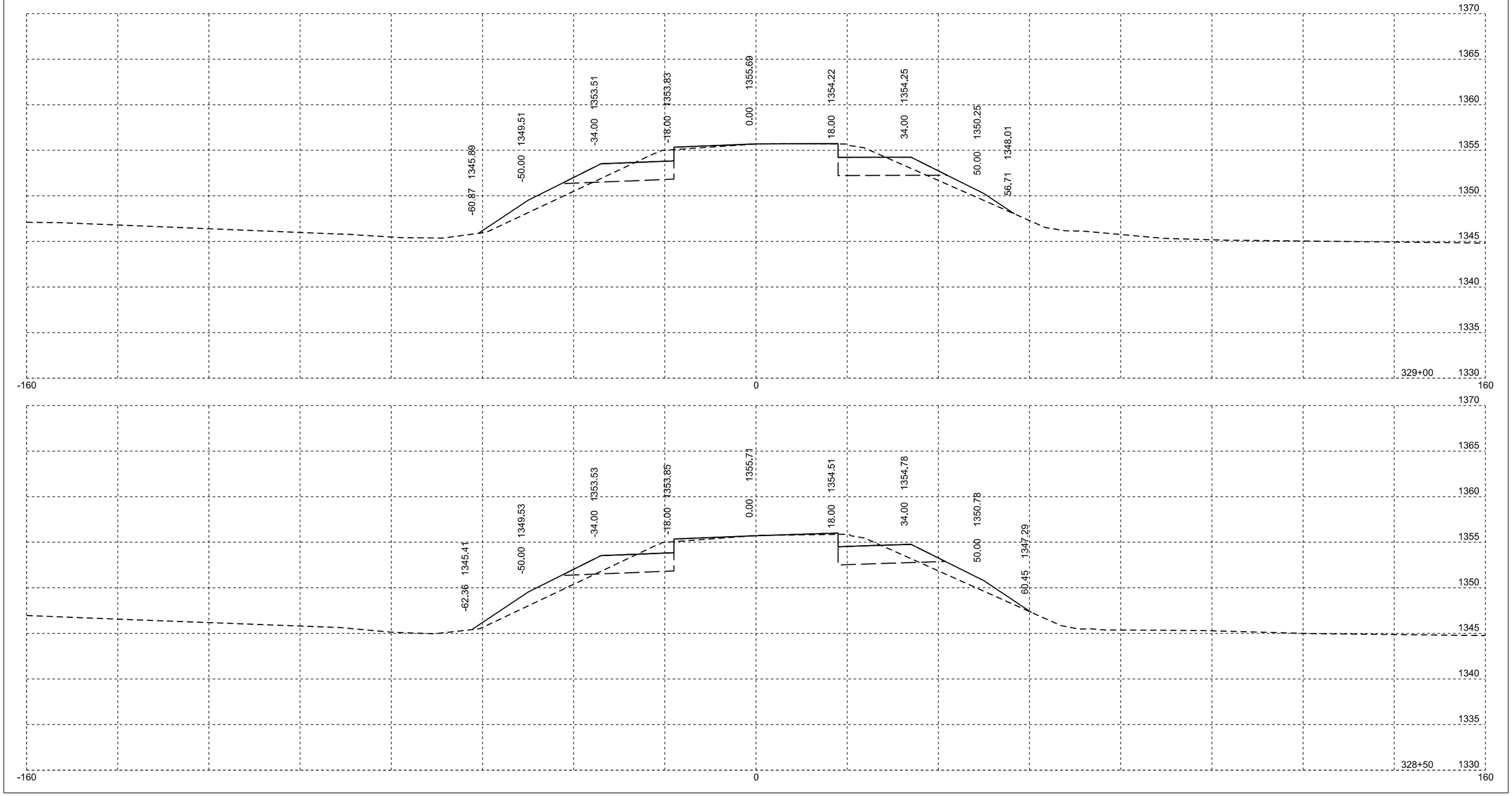
Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	126	151



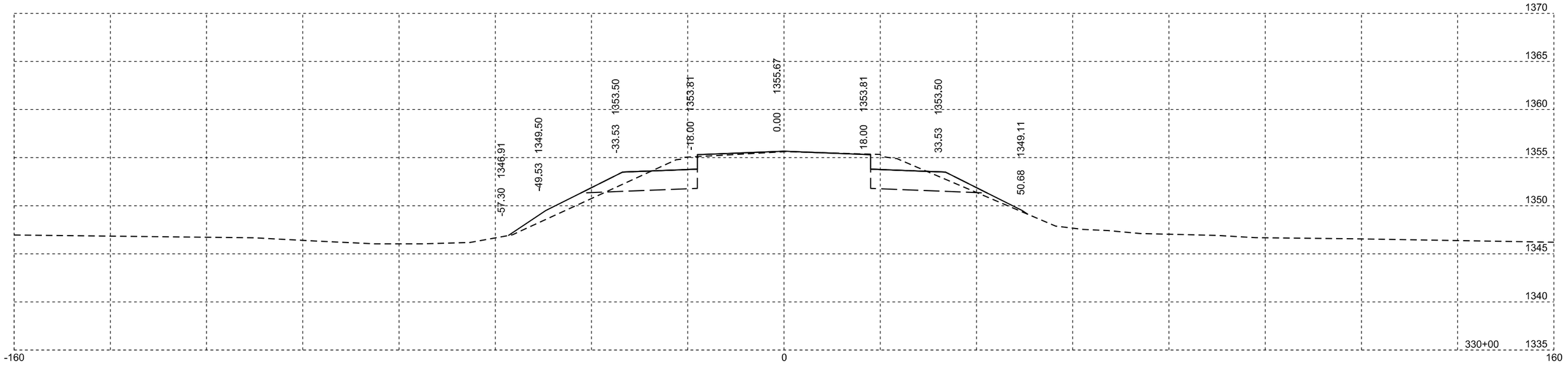
Plotting Date: 11/18/2025

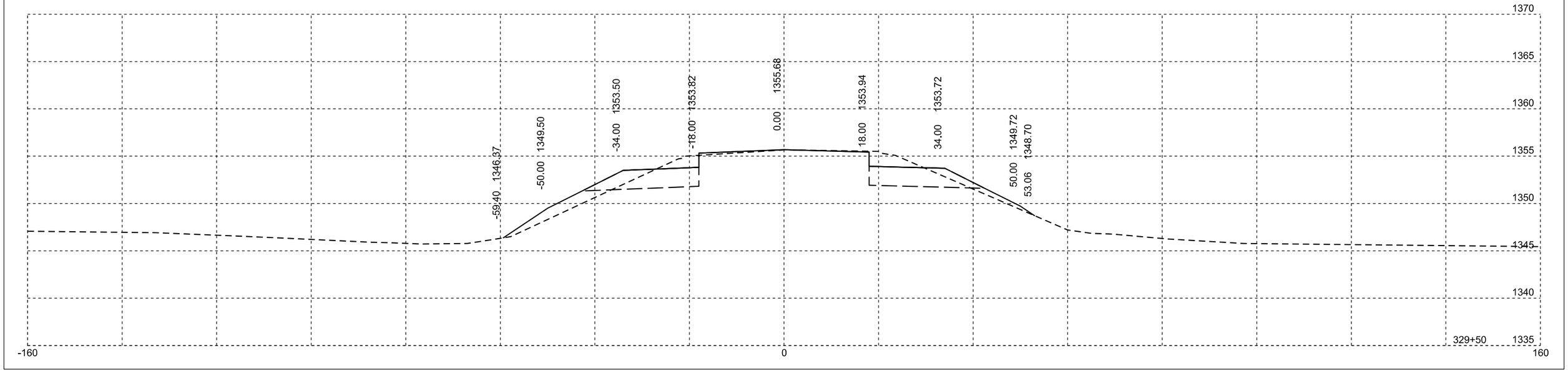
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	127	151



Plotting Date: 11/18/2025

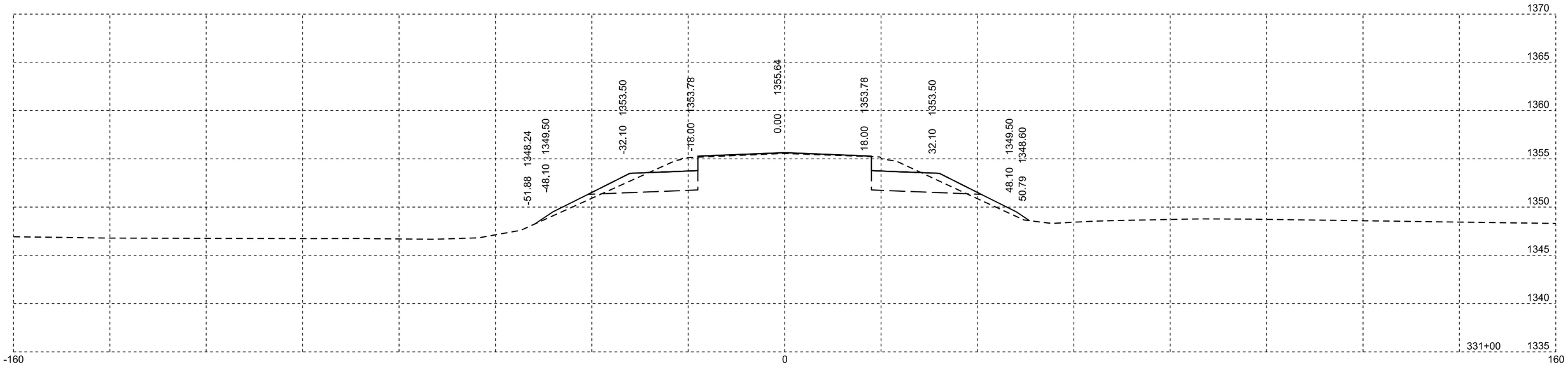
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	128	151

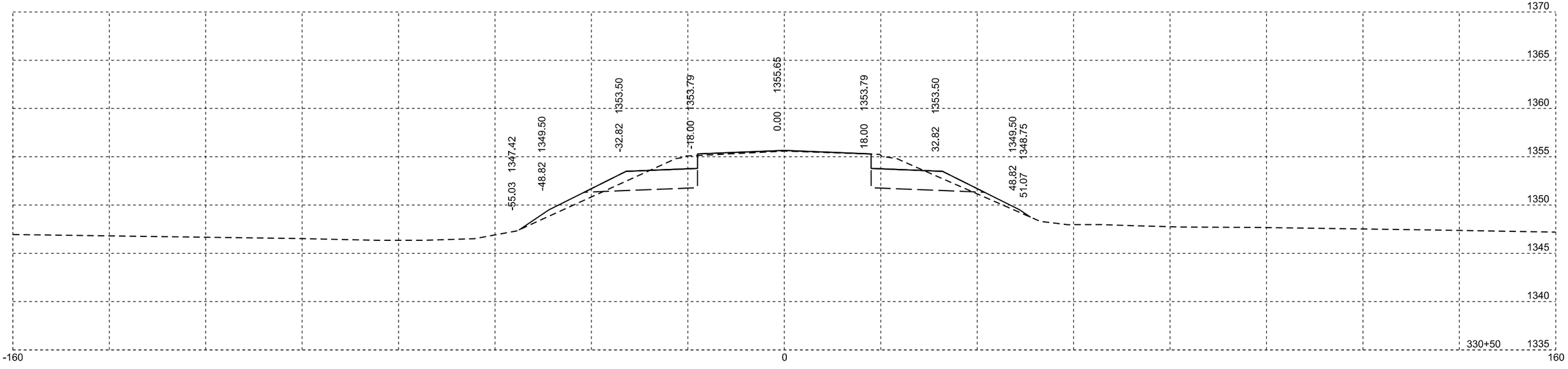




Plotting Date: 11/18/2025

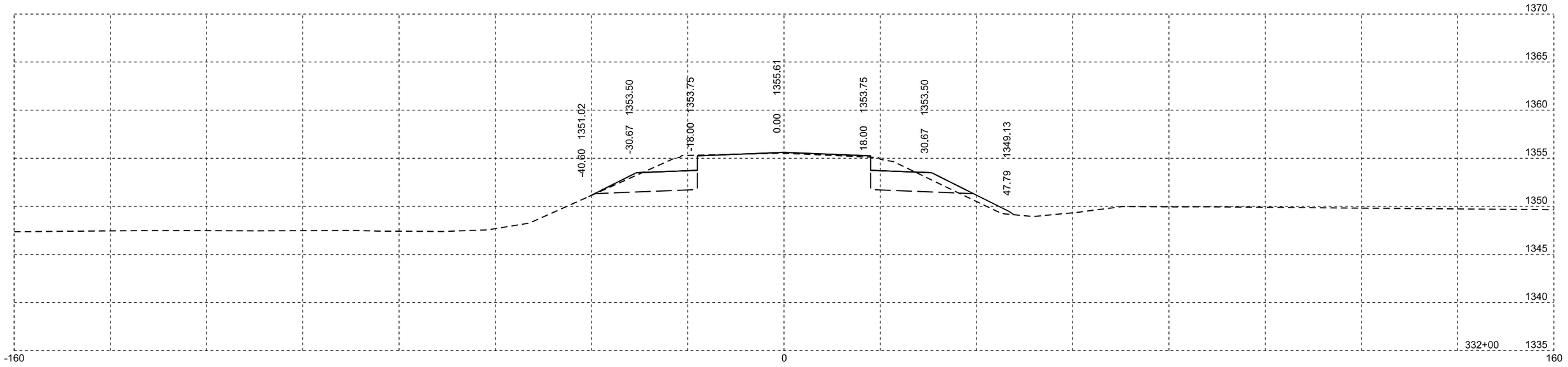
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	129	151

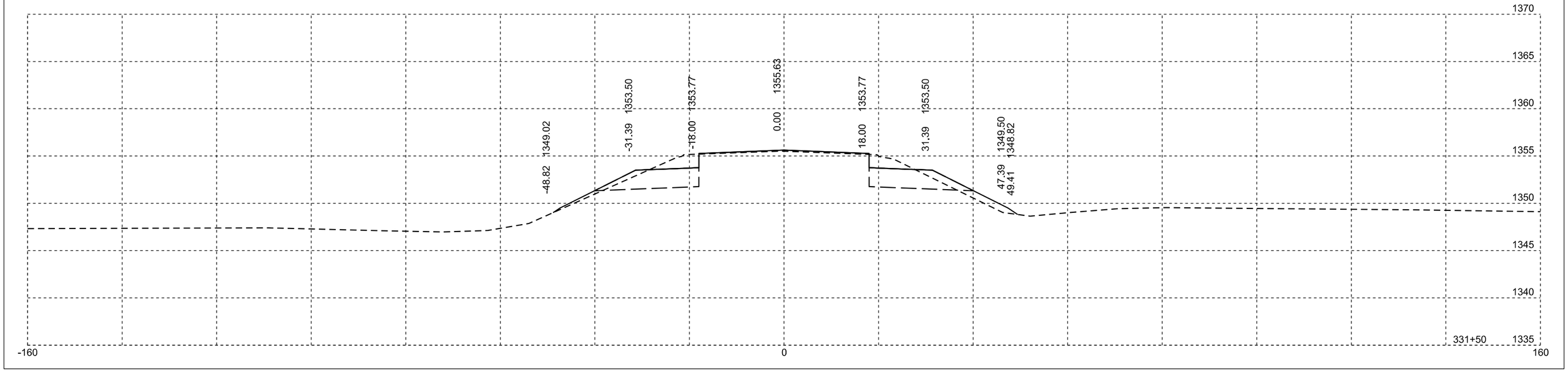




Plotting Date: 11/18/2025

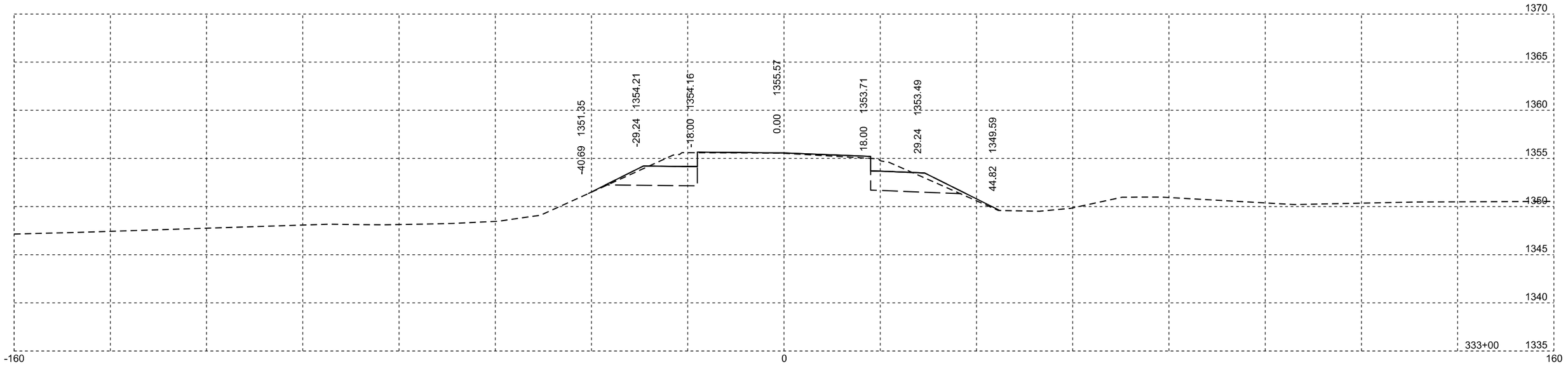
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	130	151

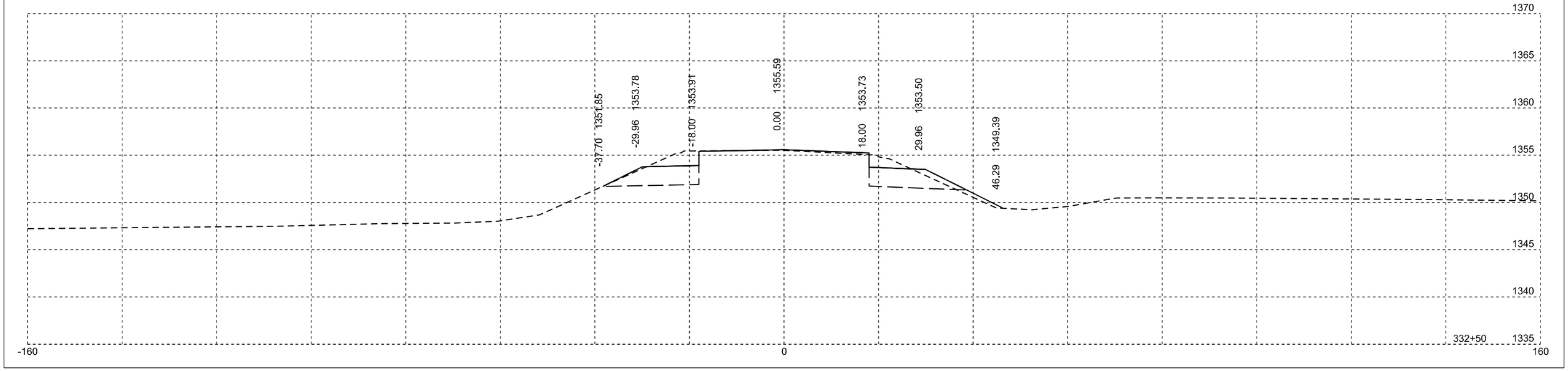




Plotting Date: 11/18/2025

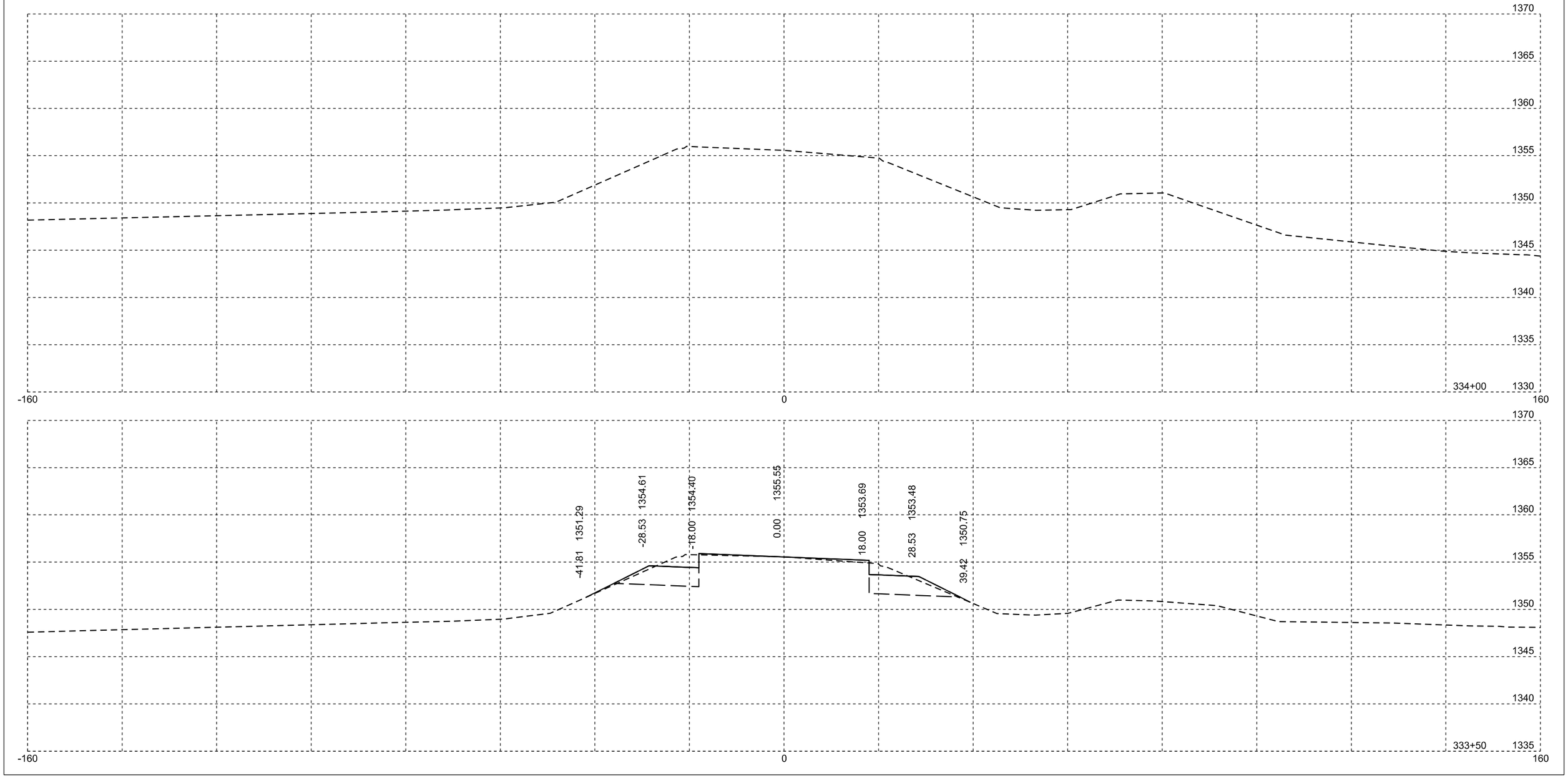
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	131	151





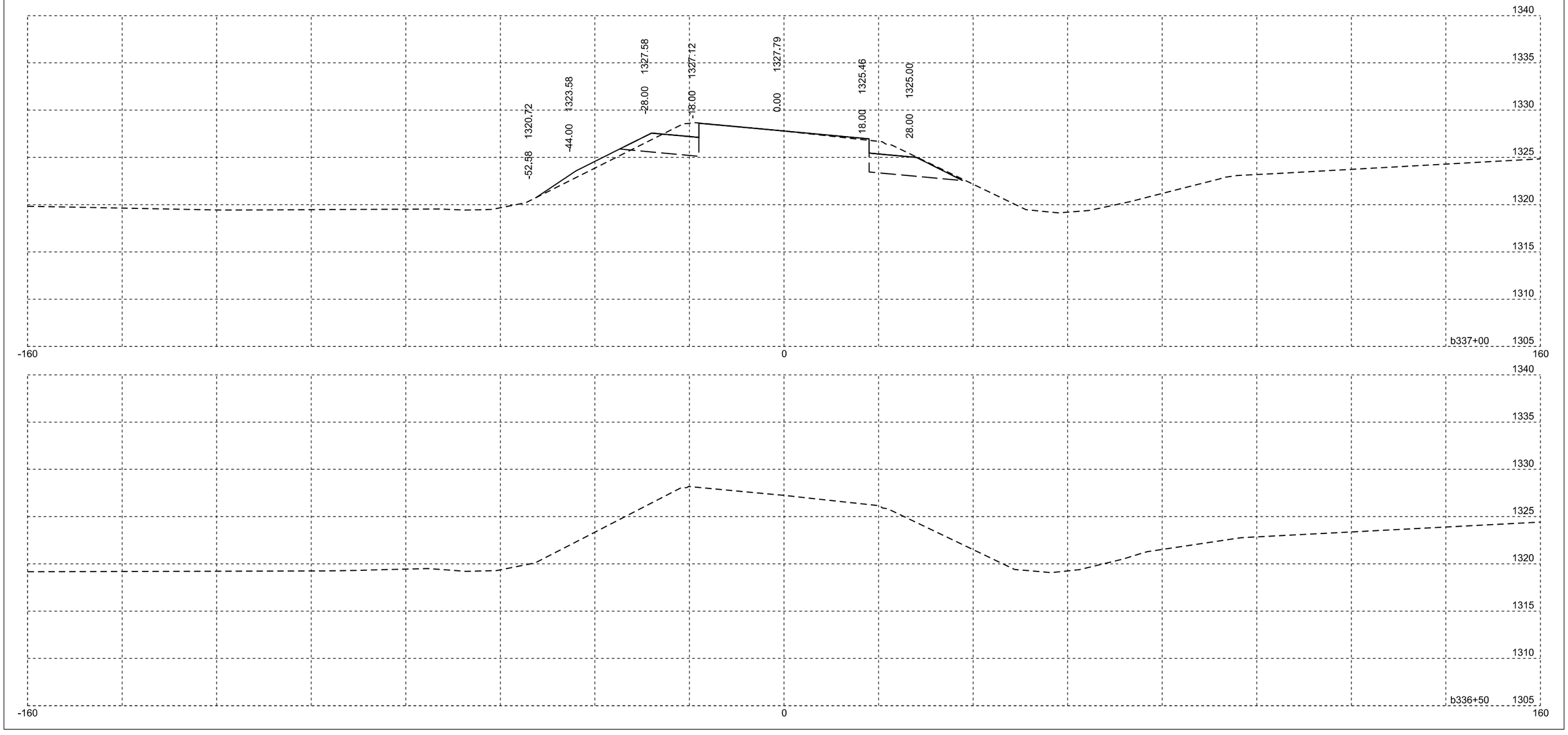
Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	132	151



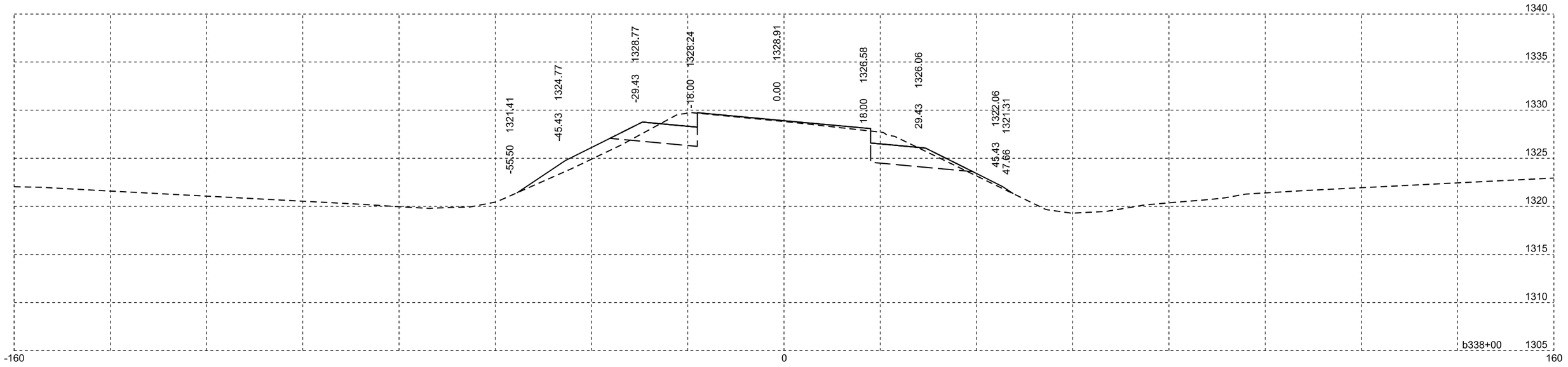
Plotting Date: 11/18/2025

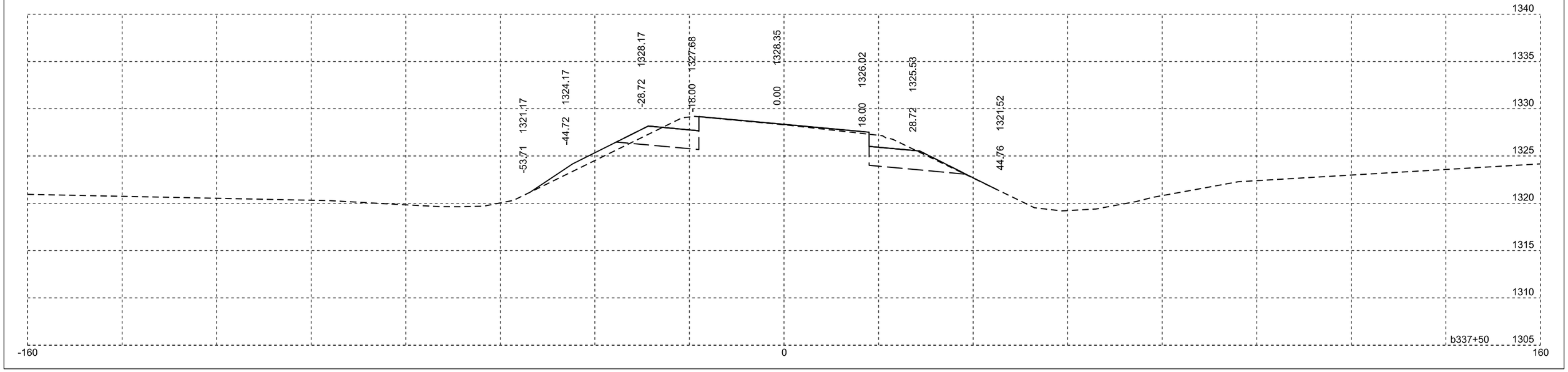
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	133	151



Plotting Date: 11/18/2025

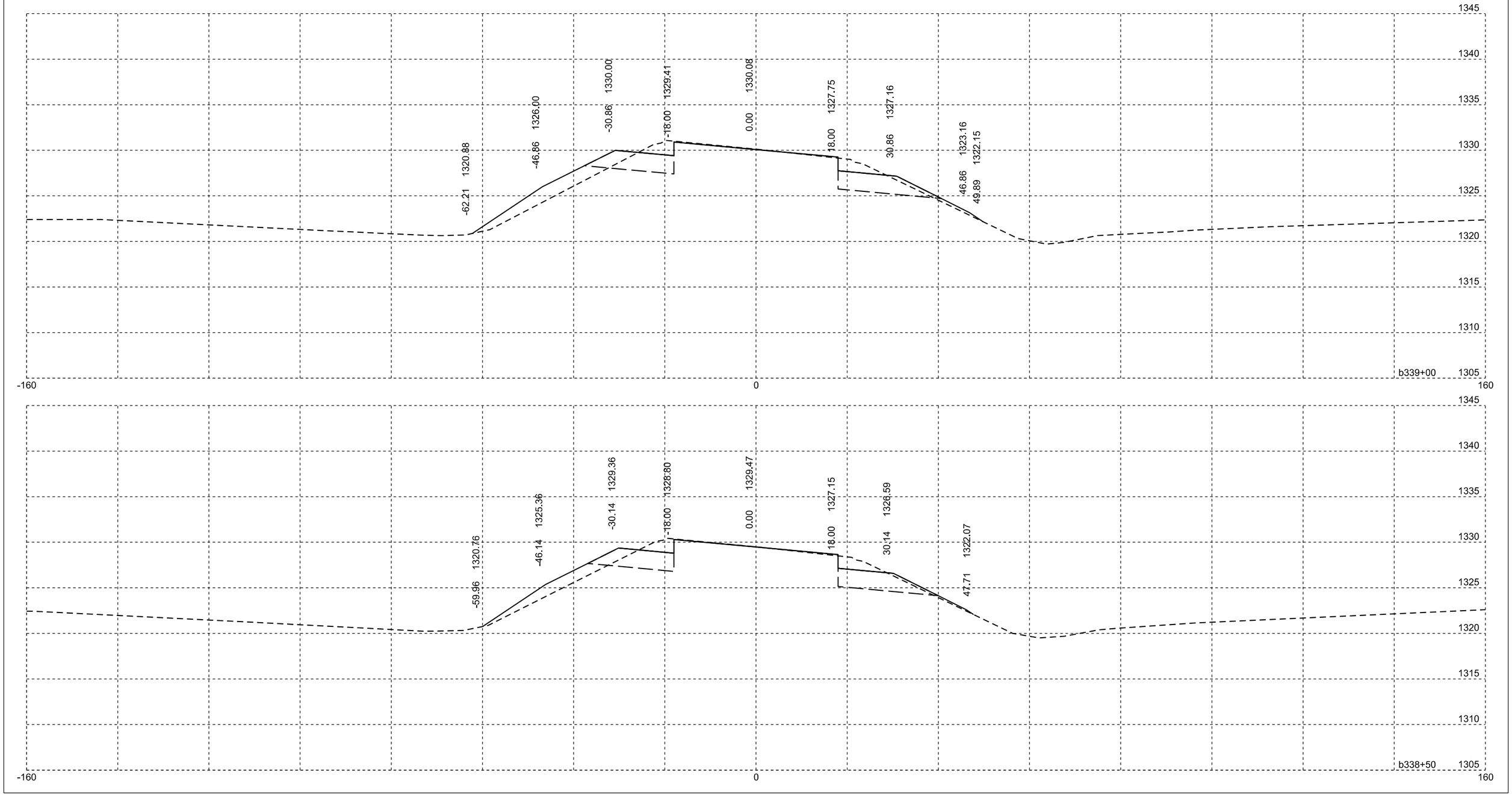
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	134	151





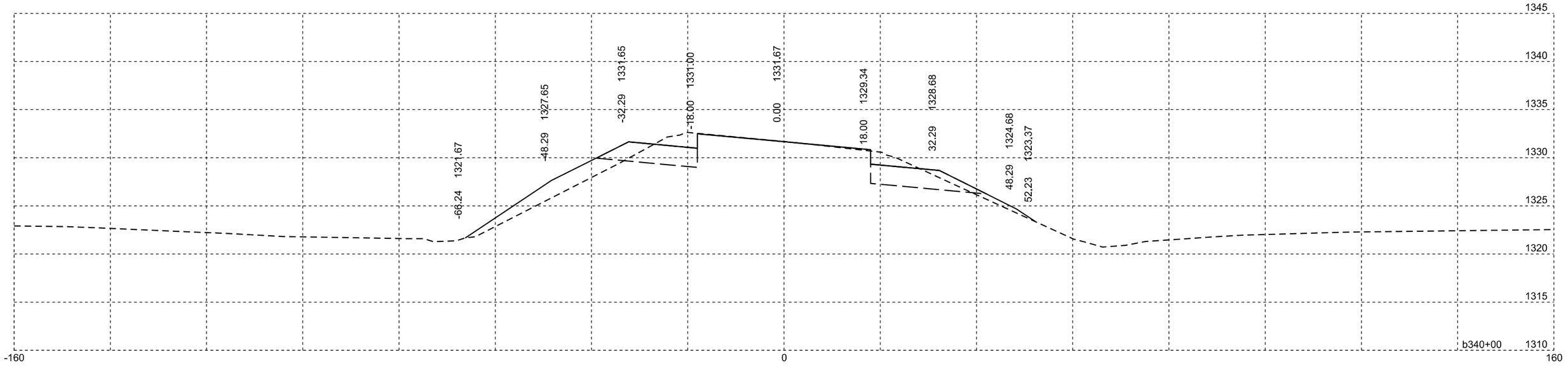
Plotting Date: 11/18/2025

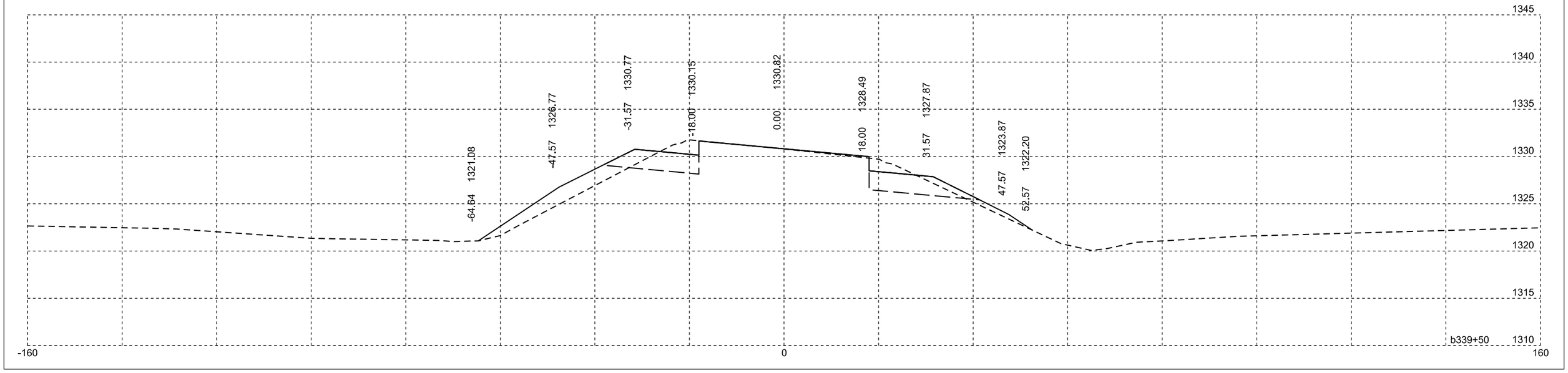
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	135	151



Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	136	151

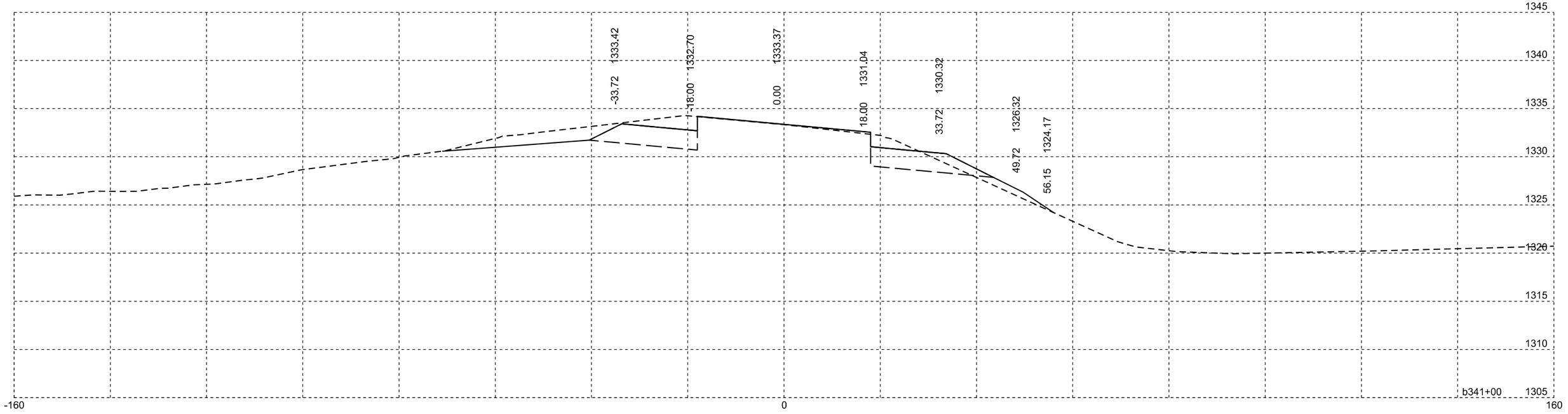


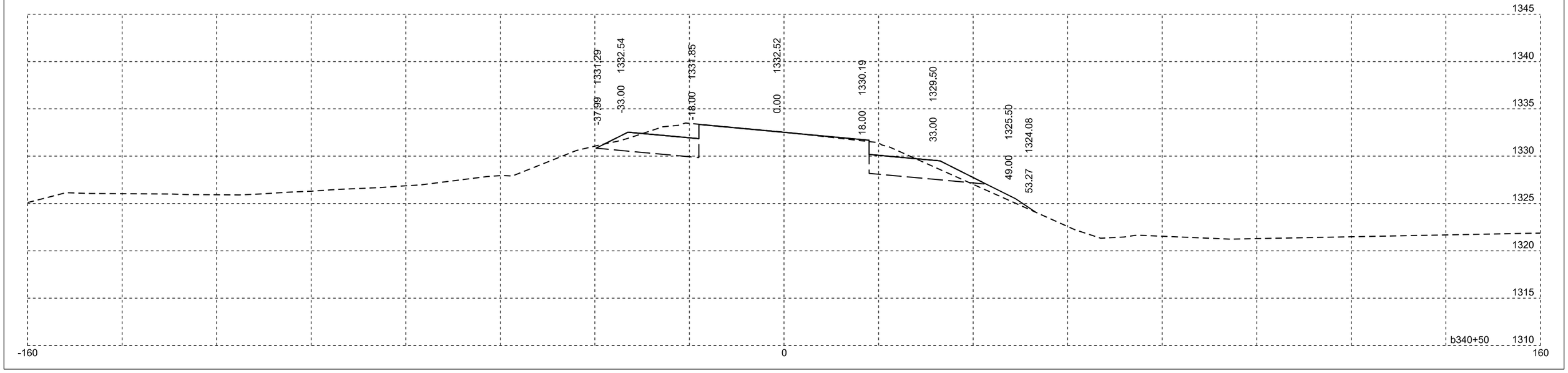


Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	137	151

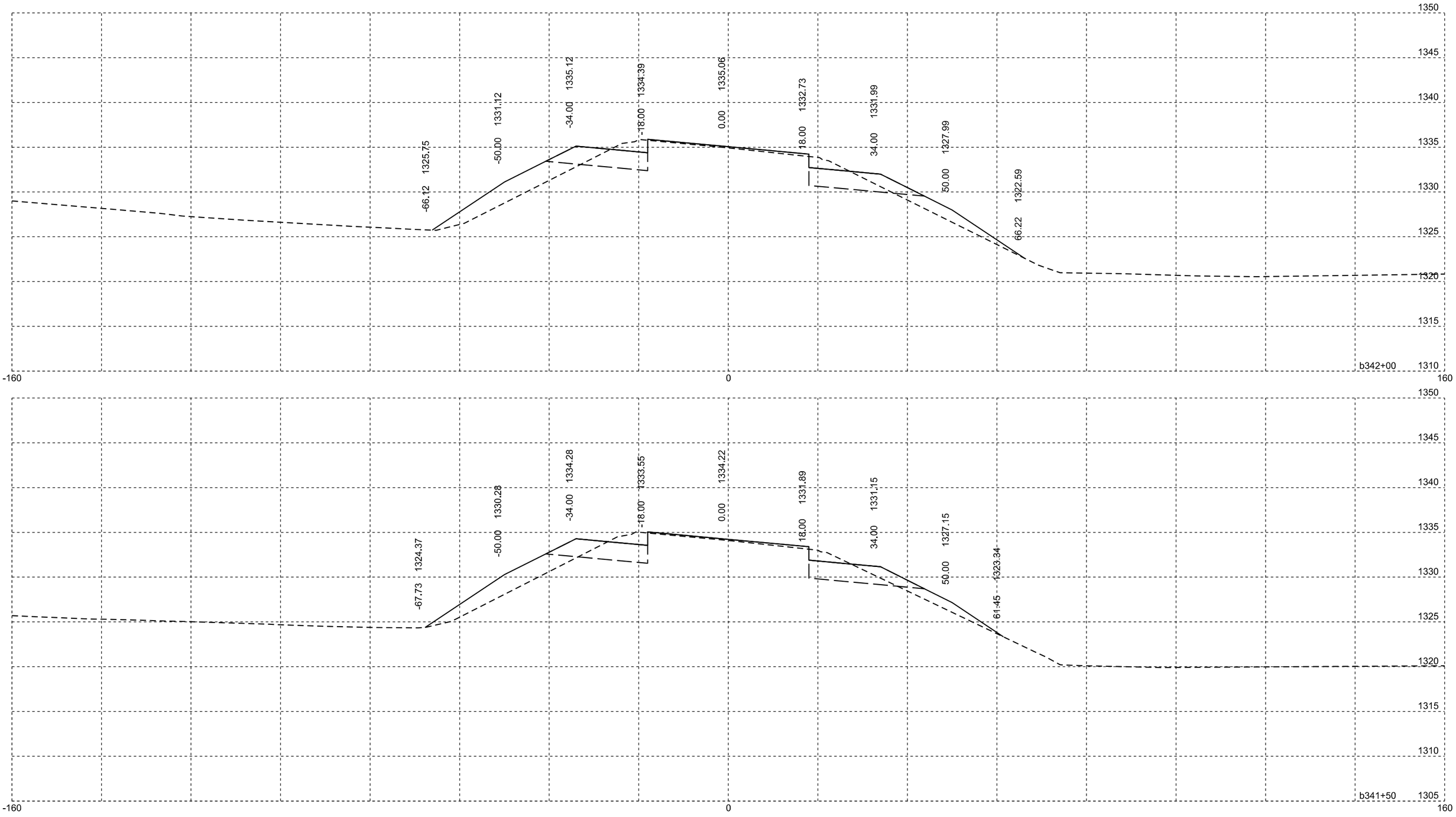
Intersecting Road - SD 26





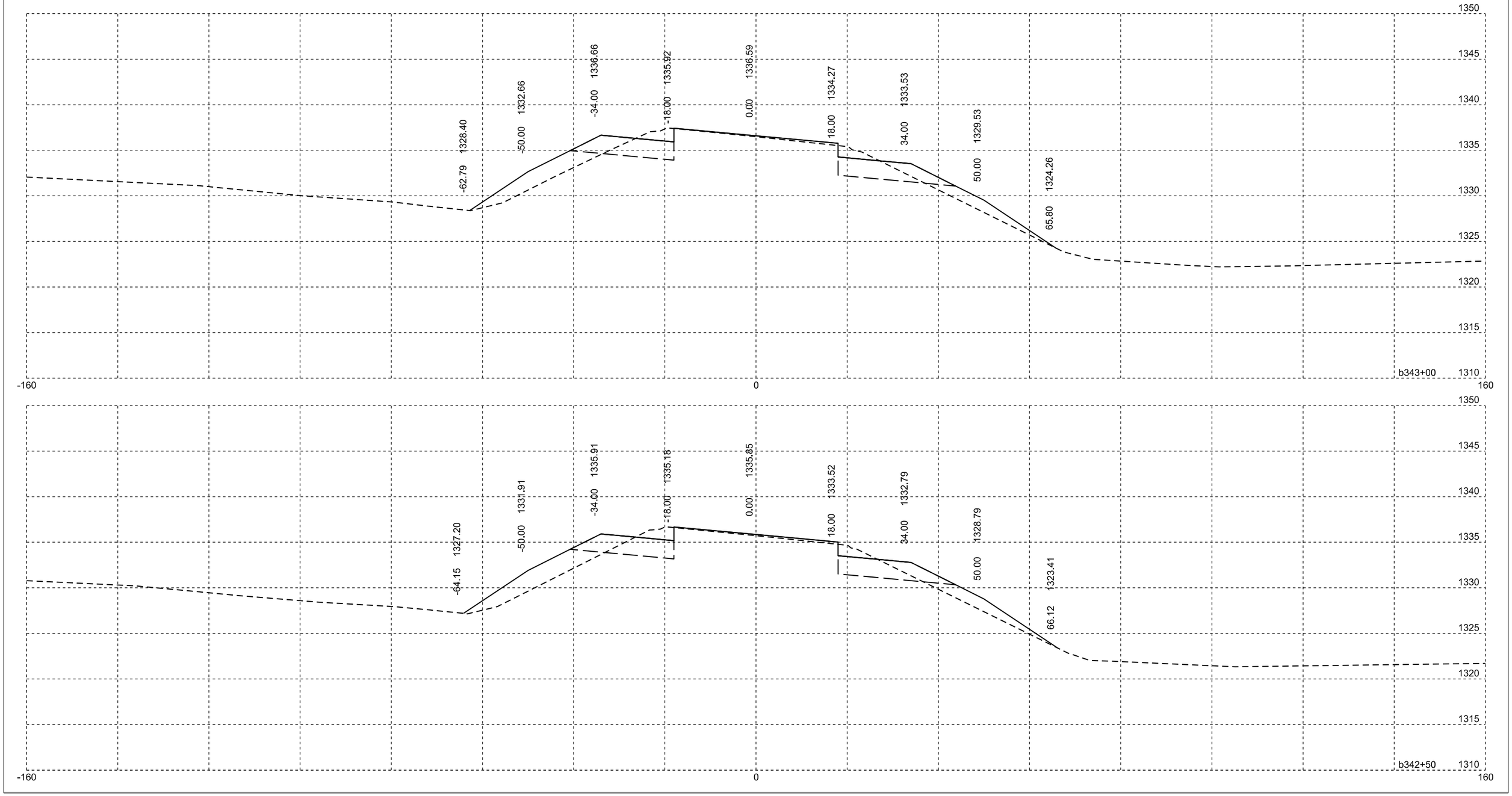
Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	138	151



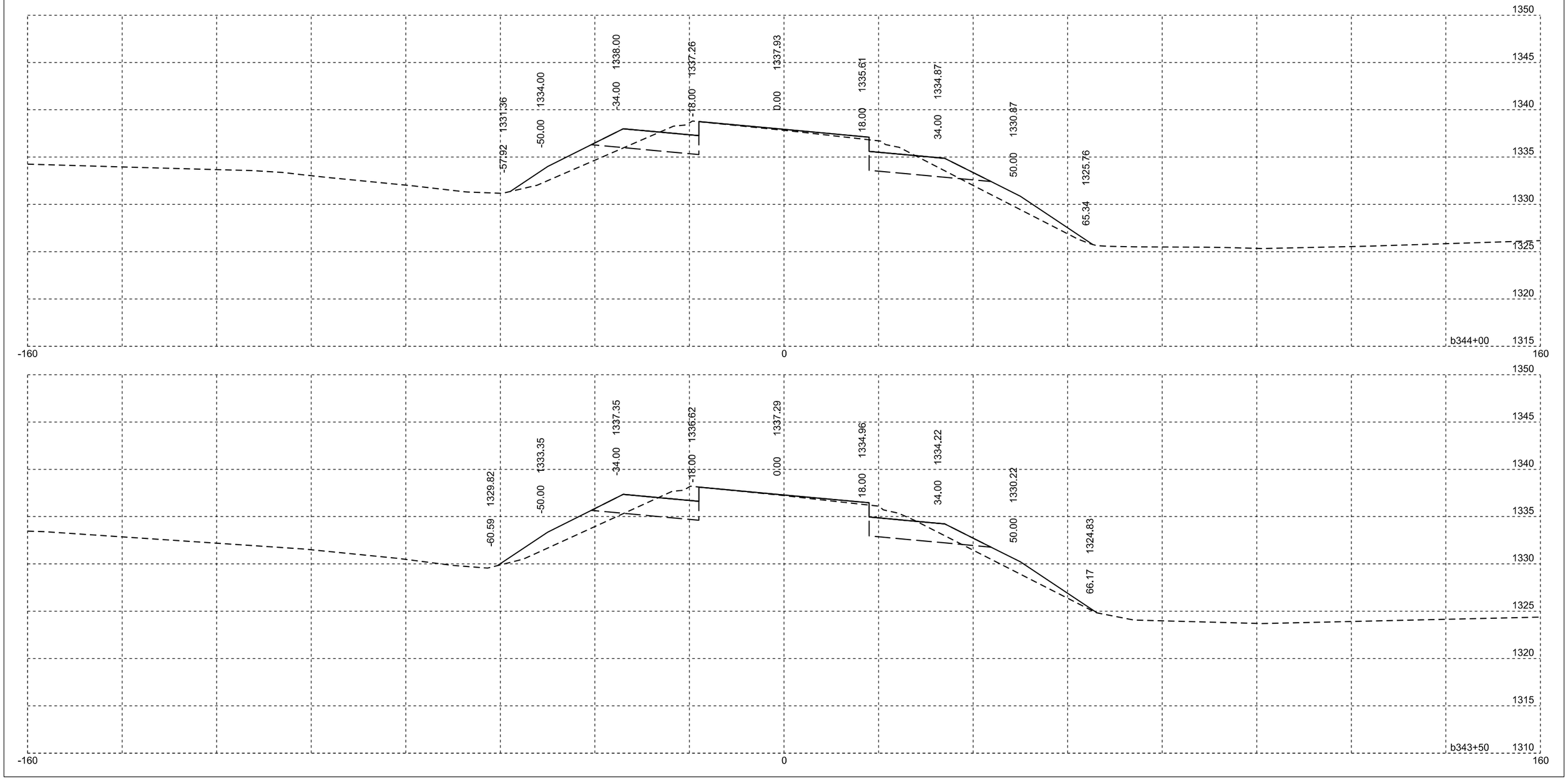
Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	139	151



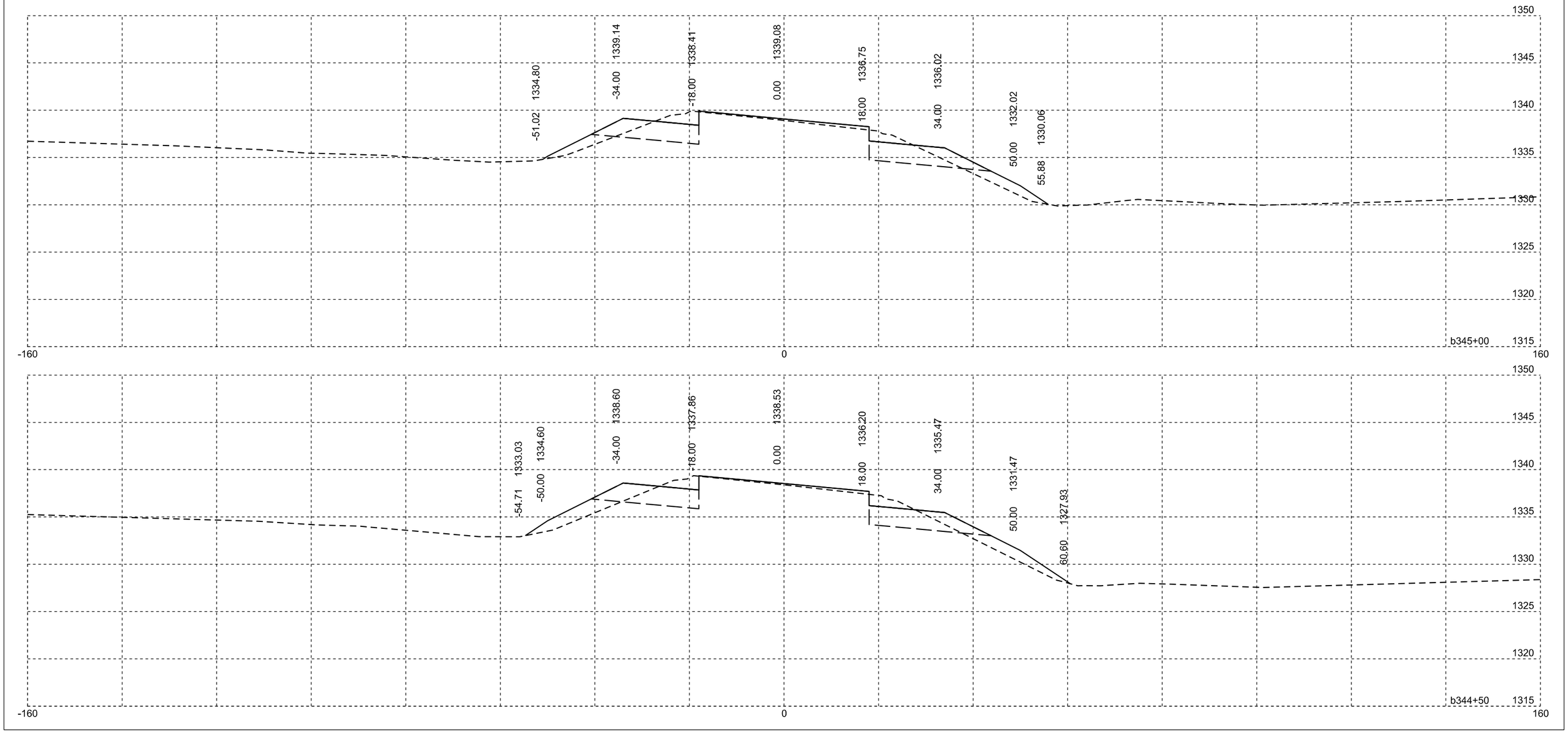
Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	140	151



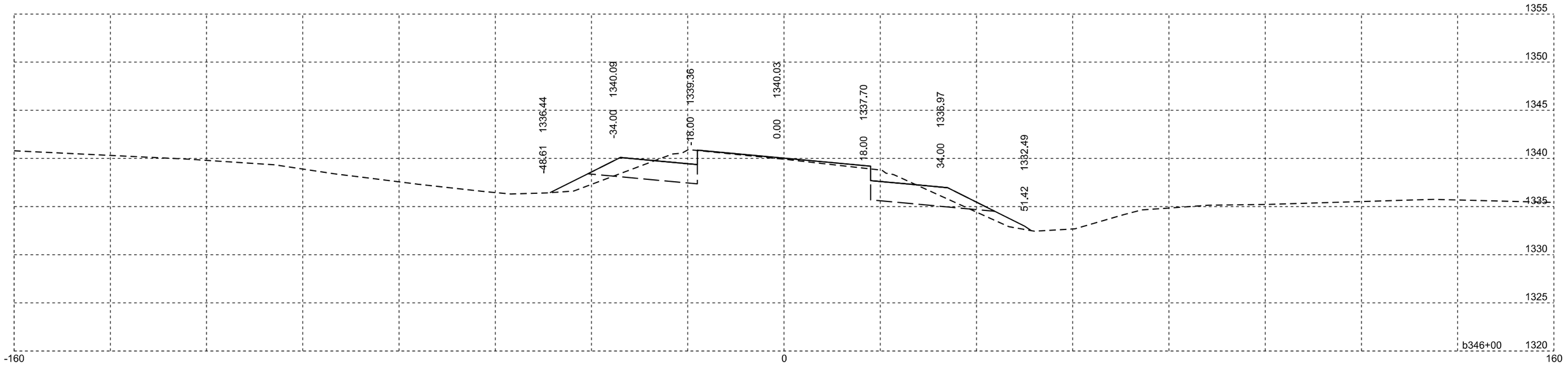
Plotting Date: 11/18/2025

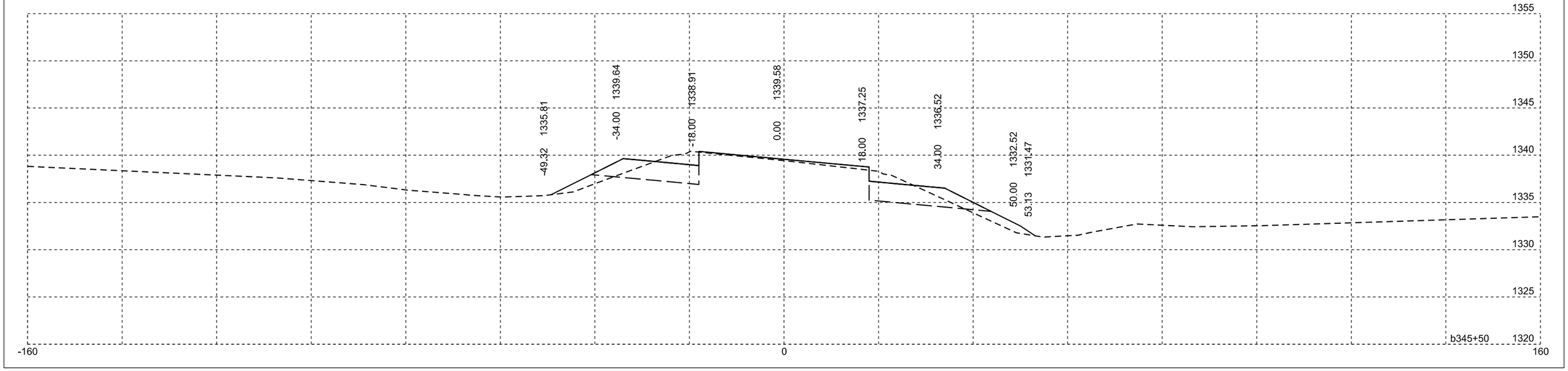
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	141	151



Plotting Date: 11/18/2025

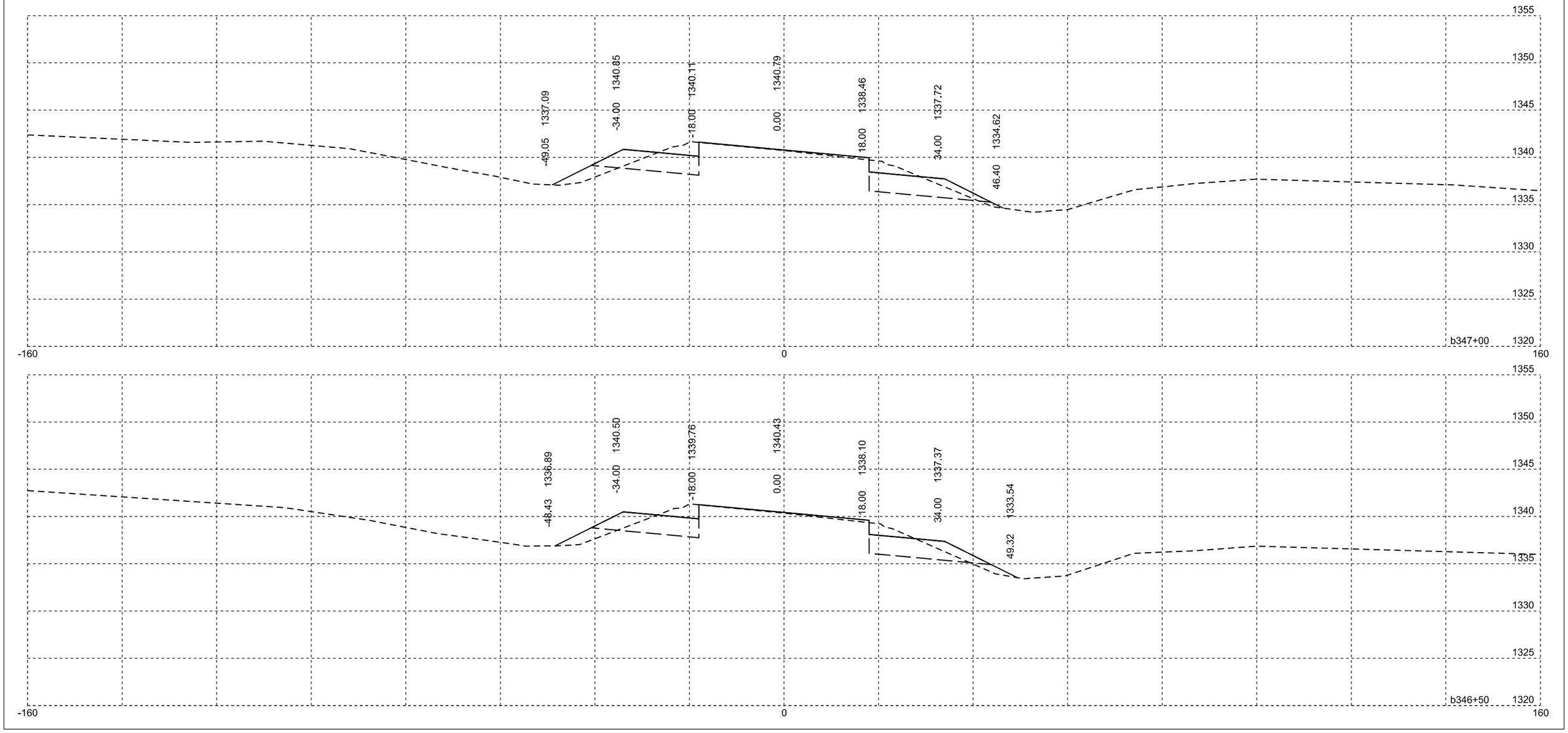
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	142	151





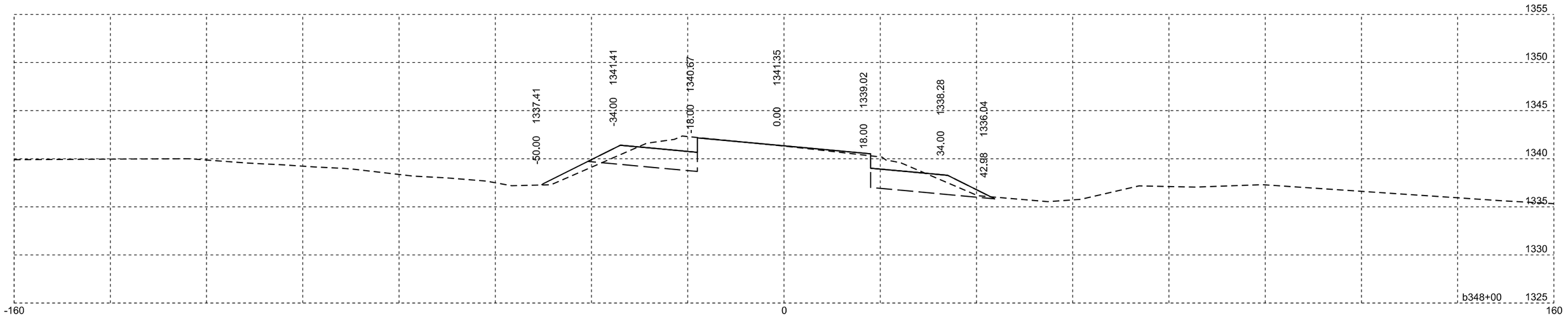
Plotting Date: 11/18/2025

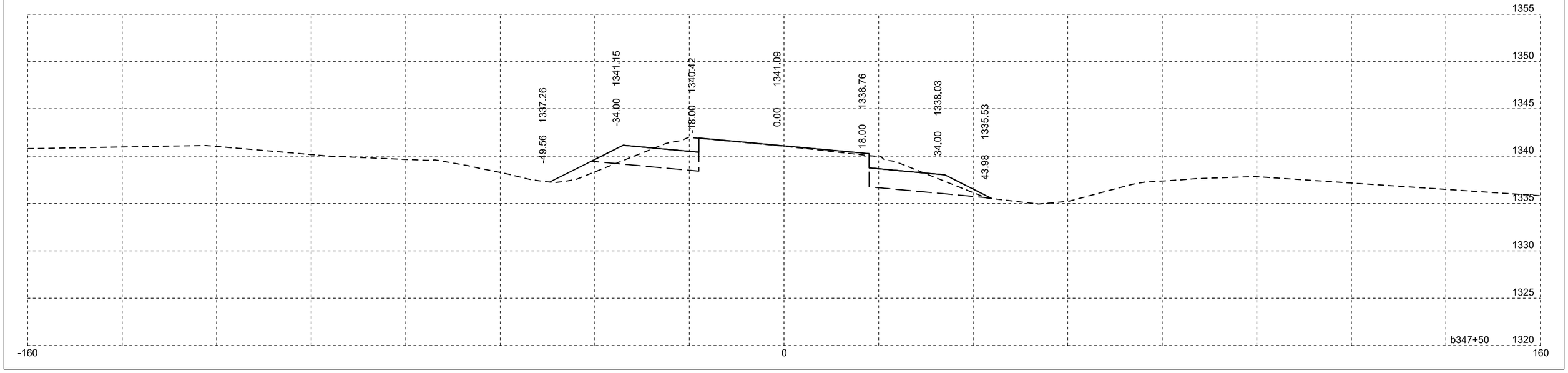
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	143	151



Plotting Date: 11/18/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	144	151

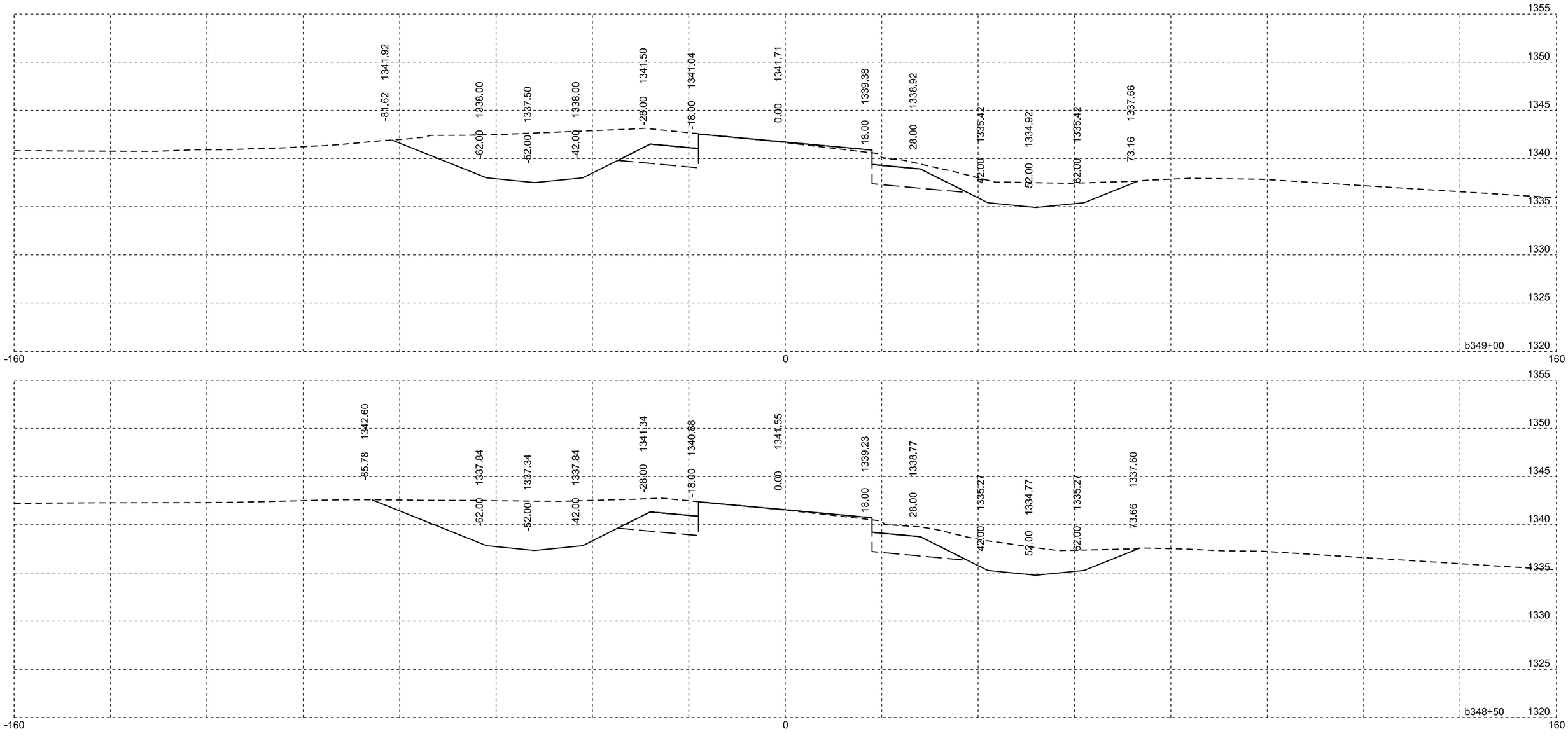




Plotting Date: 11/18/2025

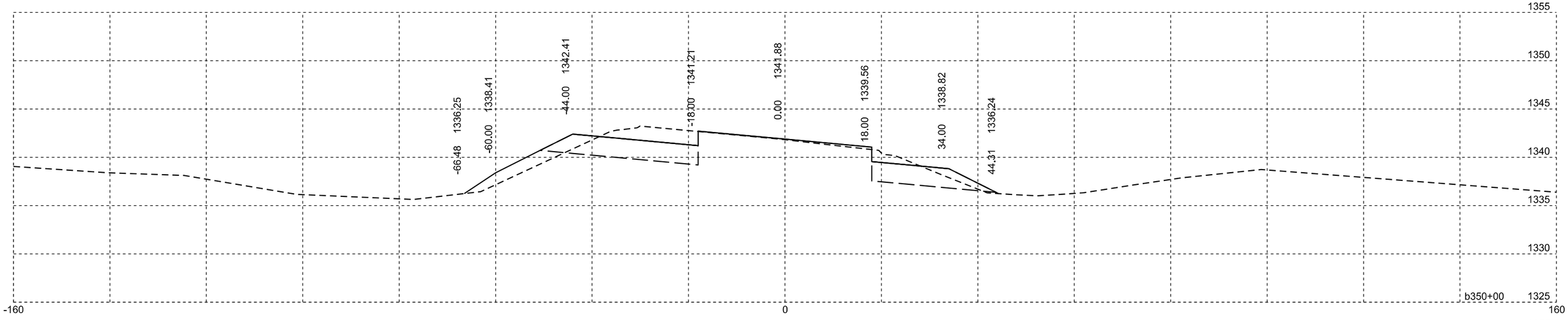
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	145	151

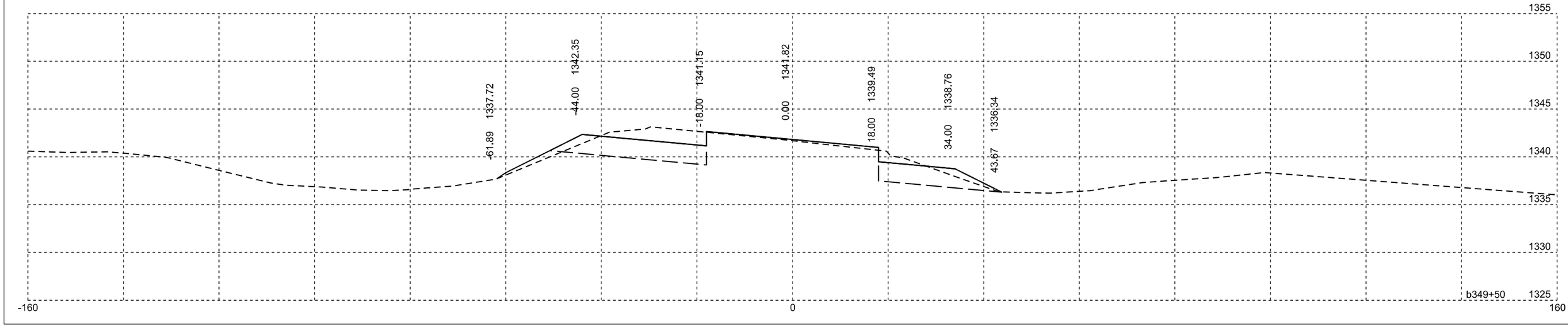
Intersecting Road - 385th Ave



Plotting Date: 11/18/2025

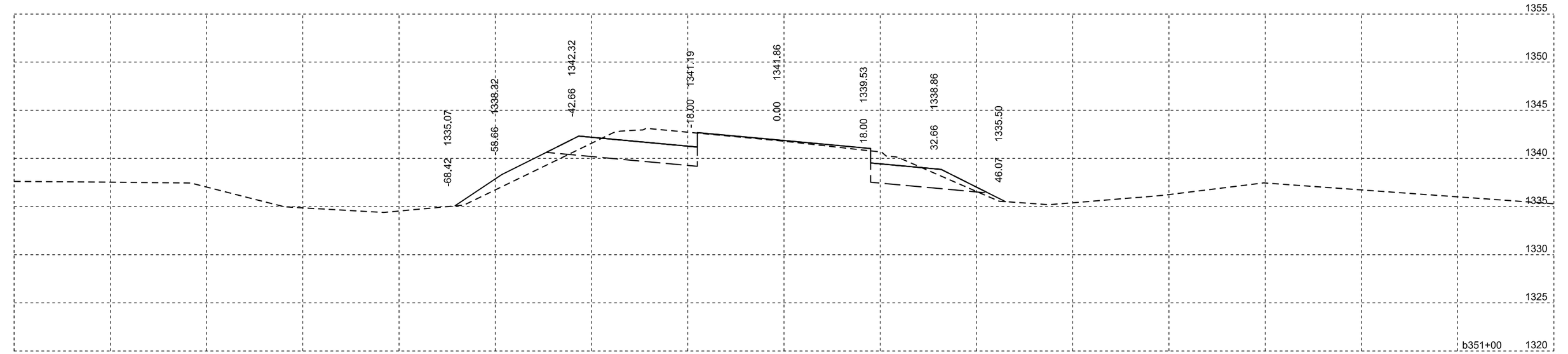
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	146	151

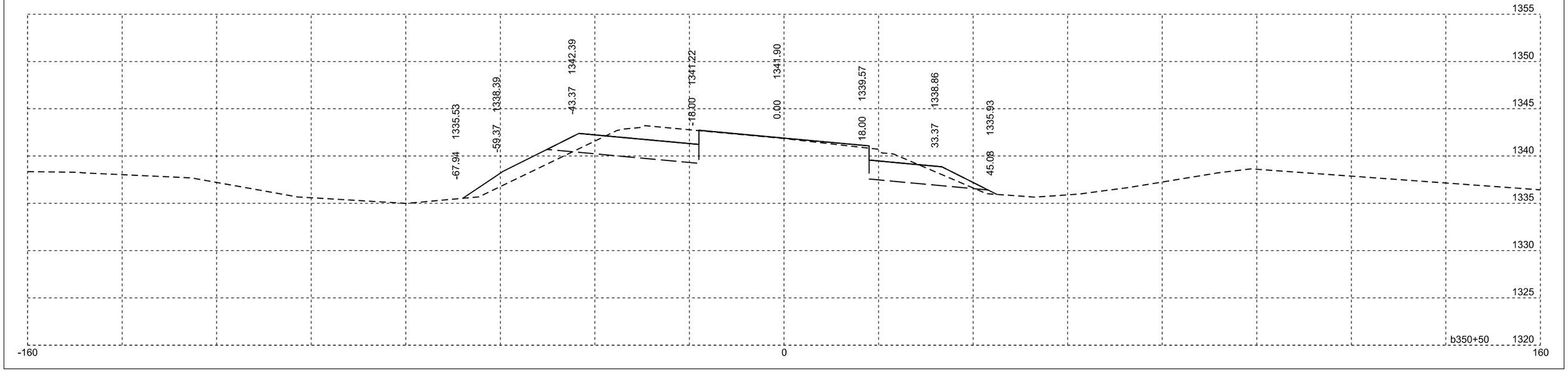




Plotting Date: 11/18/2025

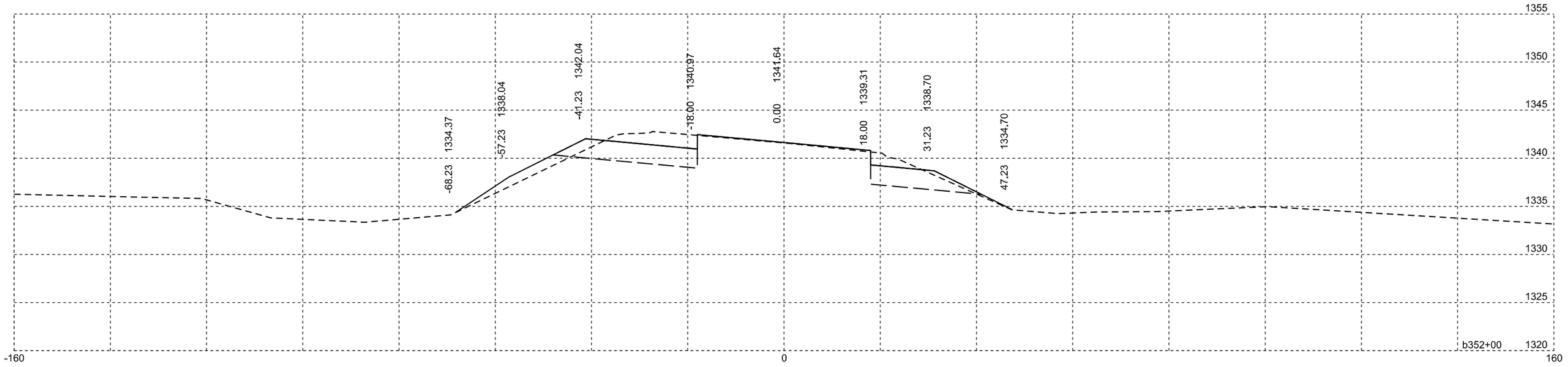
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	147	151

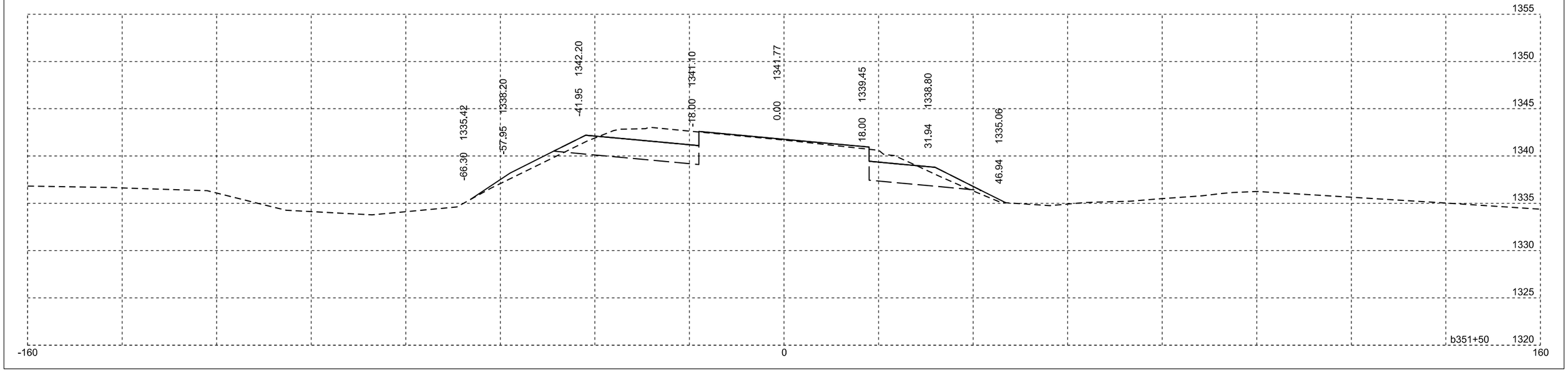




Plotting Date: 11/18/2025

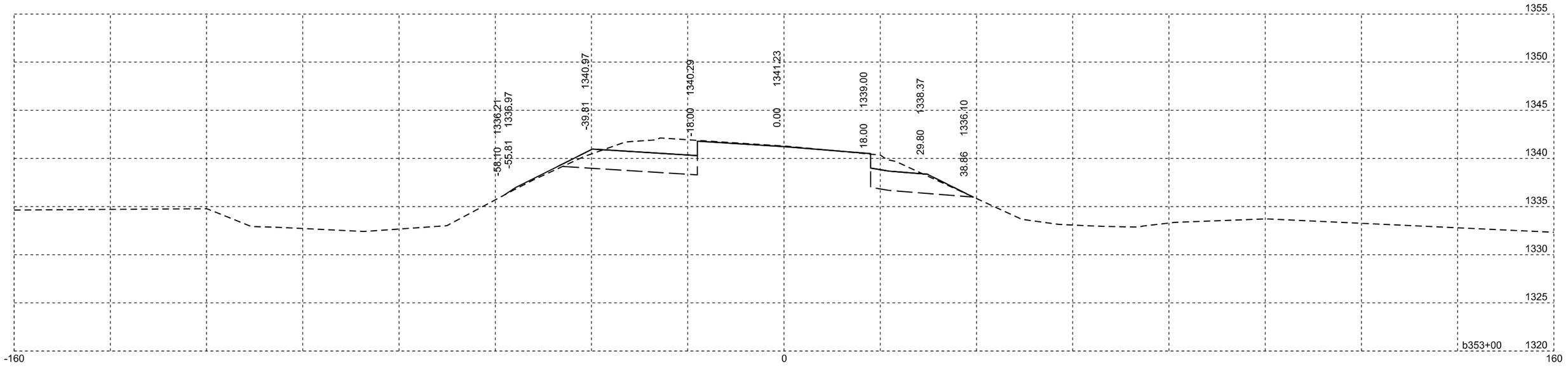
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	148	151

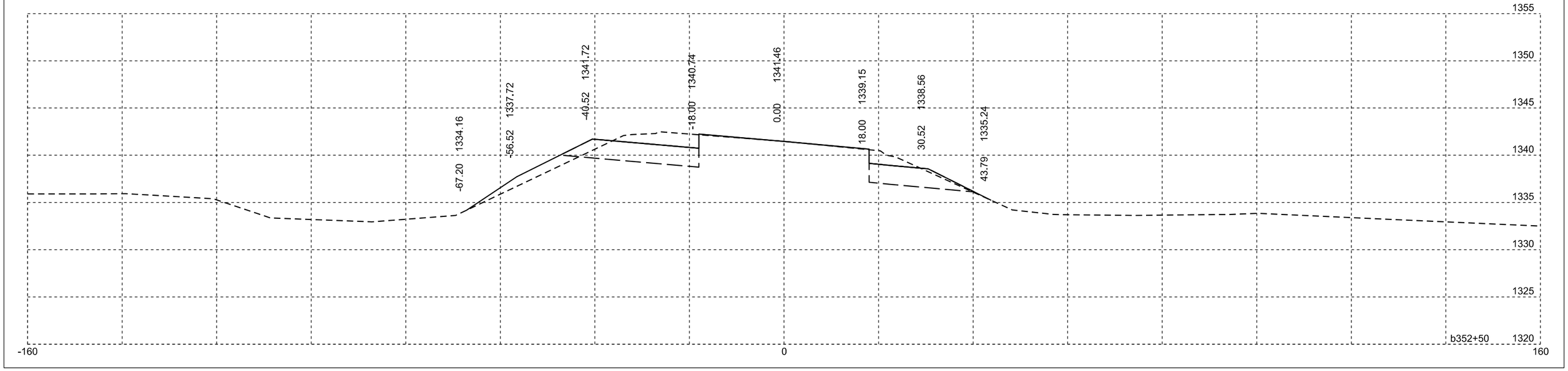




Plotting Date: 11/18/2025

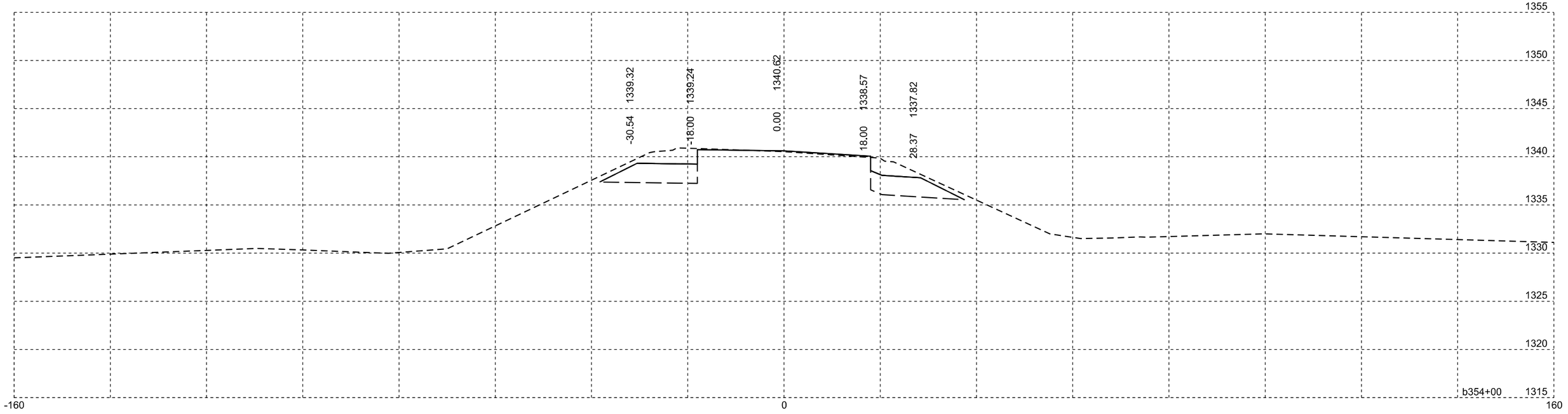
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	149	151

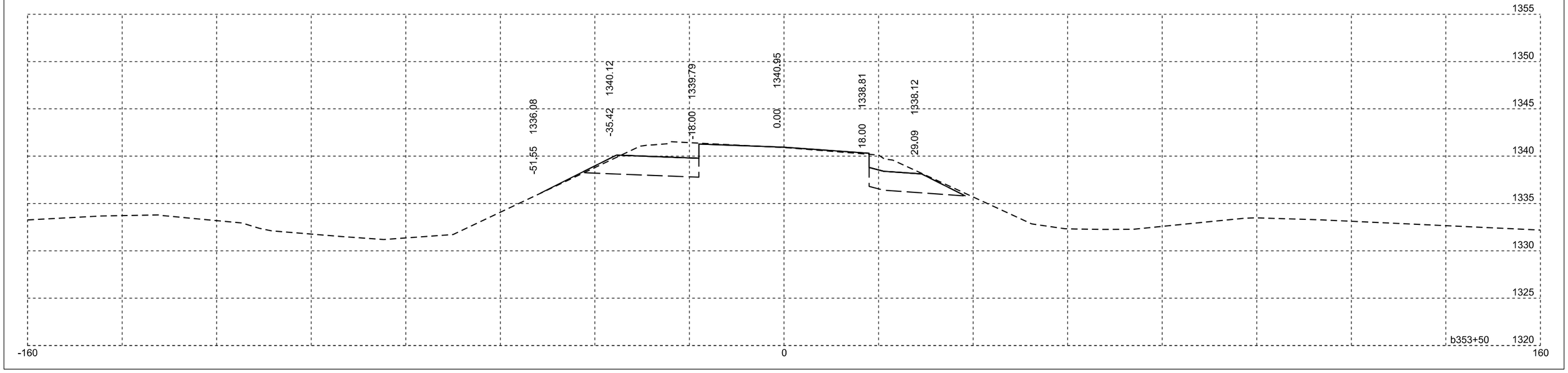




Plotting Date: 12/31/2025

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 281(127)124 NH 0014(245)326	150	151





Plotting Date: 11/18/2025

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