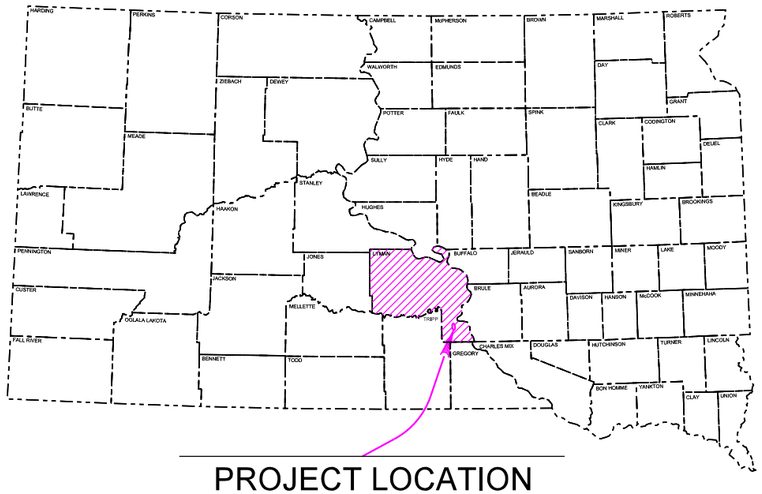



PROJECT LOCATION

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

# PROJECT PT 0047(124)51
# SD HWY 47
# LYMAN COUNTY

EROSION REPAIR, SLIDE REPAIR, & PIPE INSTALLATION

PCN 08QP

| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 1 | 47 |

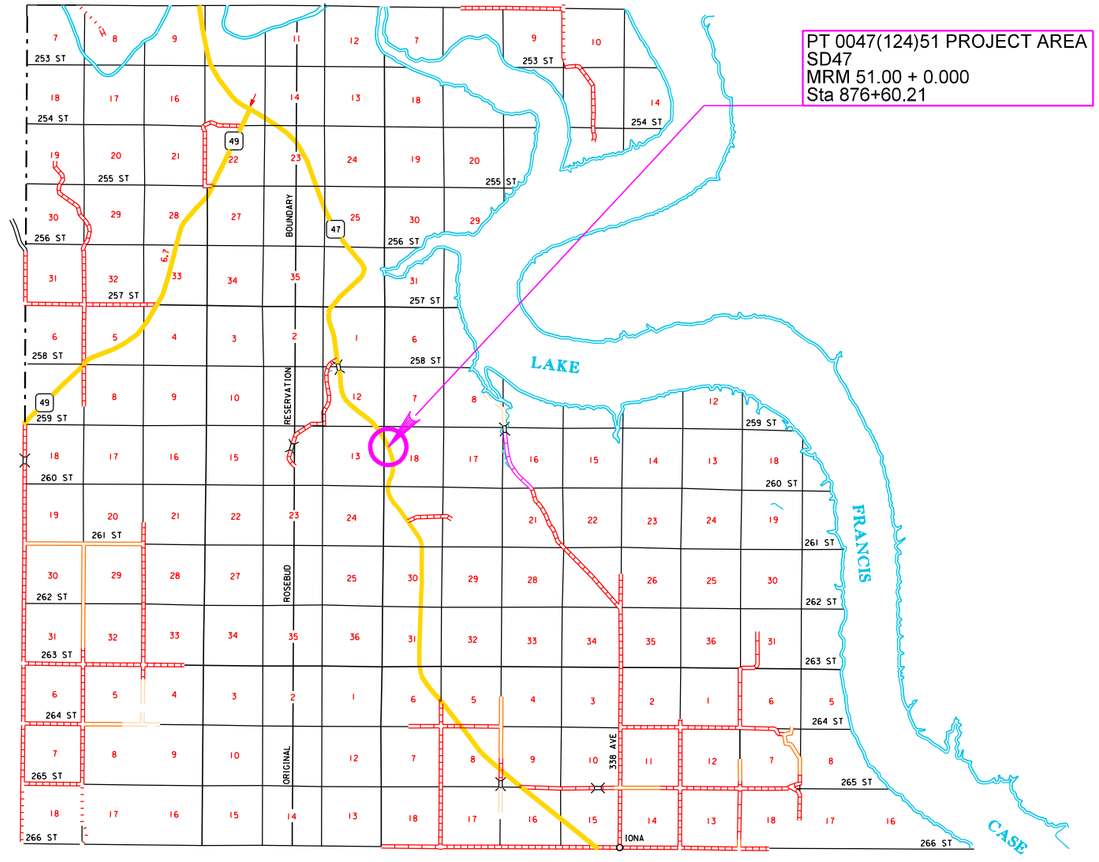
Plotting Date: 07/29/2025

## INDEX OF SHEETS



DESIGN DESIGNATION

| | |
|---|---|
| AADT (2024) | 258 |
| AADT (2044) | 365 |
| DHV | 43 |
| D | 50% |
| DHV T% | 11.0% |
| AADT T% | 24.2% |
| V | 65 mph |




| | | |
|---|---|---|
| PROJECT LENGTH: | ~755.00 FT | ~0.1430 MI |
| LENGTH OF EXCEPTIONS: | 0.00 FT | 0.000 MI |
| NET LENGTH: | ~755.00 FT | ~0.1430 MI |

STORM WATER PERMIT

Major Receiving
Body of Water: Bull Creek
Area Disturbed: 1.49 Acres
Total Project Area: 6.96 Acres
Approx. Lat: 43.640079°
Approx. Long: -99.501954°

9

October 15, 2025

## ESTIMATE OF QUANTITIES

| BID ITEM NUMBER | ITEM | QUANTITY | UNIT |
|---|---|---|---|
| 009E0010 | Mobilization | Lump Sum | LS |
| 009E3200 | Construction Staking | Lump Sum | LS |
| 009E3301 | Engineer Directed Surveying/Staking | 40.0 | Hour |
| 009E4100 | Construction Schedule, Category I | Lump Sum | LS |
| 110E0500 | Remove Pipe Culvert | 202 | Ft |
| 110E0510 | Remove Pipe End Section | 4 | Each |
| 110E0600 | Remove Fence | 734 | Ft |
| 110E1693 | Remove Erosion Control Wattle | 530 | Ft |
| 120E0010 | Unclassified Excavation | 1,351 | CuYd |
| 120E0600 | Contractor Furnished Borrow Excavation | 20,702 | CuYd |
| 120E4100 | Reprofiling Ditch | 1.1 | Sta |
| 120E6100 | Water for Embankment | 0.4 | MGal |
| 230E0020 | Contractor Furnished Topsoil | 226 | CuYd |
| 230E0100 | Remove and Replace Topsoil | Lump Sum | LS |
| 421E1000 | Footing Undercut | 1 | CuYd |
| 450E4788 | 36" CMP 14 Gauge, Furnish | 288 | Ft |
| 450E4790 | 36" CMP, Install | 288 | Ft |
| 450E5025 | 36" CMP Elbow, Furnish | 2 | Each |
| 450E5026 | 36" CMP Elbow, Install | 2 | Each |
| 450E5223 | 36" CMP Flared End, Furnish | 4 | Each |
| 450E5224 | 36" CMP Flared End, Install | 4 | Each |
| 462E0100 | Class M6 Concrete | 0.9 | CuYd |
| 480E0100 | Reinforcing Steel | 96 | Lb |
| 620E0020 | Type 2 Right-of-Way Fence | 734 | Ft |
| 620E0520 | Type 2 Temporary Fence | 1,558 | Ft |
| 620E1030 | 3 Post Panel | 2 | Each |
| 634E0010 | Flagging | 100.0 | Hour |
| 634E0110 | Traffic Control Signs | 128.0 | SqFt |
| 634E0120 | Traffic Control, Miscellaneous | Lump Sum | LS |
| 720E1010 | PVC Coated Bank and Channel Protection Gabion | 12.0 | CuYd |
| 730E0210 | Type F Permanent Seed Mixture | 60 | Lb |
| 732E0100 | Mulching | 5.1 | Ton |
| 734E0154 | 12" Diameter Erosion Control Wattle | 530 | Ft |
| 734E0165 | Remove and Reset Erosion Control Wattle | 133 | Ft |
| 831E0110 | Type B Drainage Fabric | 38 | SqYd |

## SPECIFICATIONS

Standard Specifications for Roads and Bridges, 10-1-25 Version, Required Provisions, and Special Provisions as included in the Proposal. The Standard Specifications for Roads and Bridges are available for download and viewing at https://dot.sd.gov/doing-business/contractors/standard-specifications.

## 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 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 EAGLE

Bald 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 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 100 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.

**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.

**PROJECT SCOPE**

This project consists of replacing two failed CMP culverts and reconstructing two failed check dams in a drainage ditch. The northern CMP does not meet maximum slope requirements and will be reconstructed as a downspout. Permanent erosion control (gabions) will be installed at the outlet end of both pipes. The ditch between the two culverts will need minor grading work.

**SEQUENCE OF OPERATIONS**

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting. If changes to the sequence of operations are proposed during the project, these must be submitted for review at least a week prior to potential implementation. Approval for changes to the 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.

**GENERAL GEOLOGY**

Soils within the project area consist of or are derived from Pierre Shale. The South Dakota Geologic Survey describes the Pierre Shale as outlined below:

The Pierre Shale consists of blue-gray, fissile to blocky shale with persistent beds of bentonite, black organic shale, and light-brown chalky shale. Contains minor sandstone, conglomerate, and abundant carbonate and ferruginous concretions.

**UNSTABLE MATERIAL EXCAVATION**

Prior to check dam embankment construction, Unstable Excavation will be required to excavate displaced or weak compressible soils and other organic materials. Unstable Excavation will be completed from ~Sta. 2+50 to ~Sta. 3+50 on the channel alignment. A 2 ft. nominal depth of compressible material is anticipated to be removed from the embankment footprint prior to construction of the embankment. The depth of unstable excavation may be adjusted by the Engineer to ensure a solid foundation free of organic, soft, and unstable material is prepared. Unstable and/or highly organic material will be stockpiled for use as topsoil or wasted at a site furnished by the Contractor and approved by the Engineer. Estimated quantities of Contractor Furnished Borrow Excavation and Contractor Furnished Topsoil in the plans assume none of this material will be stockpiled and reused.

Field measurement of unstable material excavation will not be made. However, if there are additional areas of unstable material excavation 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.

**CLASSIFICATION OF EXCAVATION**

Most of the material encountered should be able to be excavated using conventional methods associated with normal Unclassified Excavation.

**TABLE OF UNCLASSIFIED EXCAVATION**

| | (CuYd) |
|---|---|
| Excavation of Material for Slope Tie-In (875+19 to 875+64 L) | 189 |
| Excavation of Unstable Material (876+38 to 877+36 L) | 1162 |
| **Total:** | **1351** |

## 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:

Topsoil quantities are not included in the Table of Unclassified Excavation.

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.

## GRADING OPERATIONS

Water for Embankment is estimated at the rate of 15 gallons of water per cubic yard of Embankment minus Waste. The estimated cubic yards of excavation and/or embankment required to construct outlet ditches and ditch blocks are included in the Table of Excavation Quantities by Balances.

The alignment used for channel cross-sections and in the Table of Excavation Quantities is separate from mainline SD47 alignment and will be provided to the Contractor in .xml format.

## EMBANKMENT CONSTRUCTION

Embankment construction will not begin until all compressible materials have been excavated from the embankment footprint to the satisfaction of the Engineer. A suitable embankment foundation consists of compacted soil which does not pump, rut, or otherwise displace when traveled over with construction equipment. Embankment will be benched into the existing slopes in accordance with Section 120.3.B.2 of the Specifications.

## CORRUGATED METAL PIPE

Corrugated metal pipes will have 2 ⅔-inch x ½-inch corrugations for 42-inch and smaller round pipe and 48-inch and smaller arch pipe unless otherwise stated in the plans. Corrugated metal pipes will have 3-inch x 1-inch or 5-inch x 1-inch corrugations for 48-inch and larger round pipe and 54-inch and larger arch pipe unless otherwise stated in the plans.

The gauge of the corrugated metal elbows will match the thickest gauge of corrugated metal pipe it is connected to.

Areas within the project have soils that are highly corrosive to steel. Corrugated metal pipe (CMP) in these areas will be polymer-coated 14-gauge steel. Any required connection bands, elbows, tees, crosses, wyes, reducers, and transitions will also be polymer-coated. The connection bands will be 24 inches wide. All polymer-coated corrugated metal pipe and components will be in conformance with AASHTO M245. Riveted pipe will not be allowed.

All damage to the polymer coating will be repaired in accordance with the manufacturer's recommendations prior to installation of the pipe.

All costs associated with the polymer coating, including repair of polymer coating, will be incidental to the corresponding CMP contract items.

Metal pipe end sections connected to polymer-coated CMP will be aluminum-coated (Type 2) in accordance with AASHTO M36 as specified in the Table of Pipe Quantities. All costs associated with gauge, coating, and connections will be incidental to the corresponding CMP End Section contract items.

## REMOVE AND REPLACE TOPSOIL

Prior to beginning grading operations, a 4" depth of topsoil will be removed or bladed to the respective limits and left in a windrow a maximum of 10' from the edge of the existing highway shoulder. Following completion of construction, the topsoil will be spread evenly over the disturbed areas.

Limits of this work, depth of salvage, and stockpile location will be directed by the Engineer. Following completion of construction, topsoil will be spread evenly over the disturbed areas.

The estimated amount of topsoil to be removed and replaced is **848 CuYd**.

All costs associated with removing and replacing the topsoil along newly graded areas will be incidental to the contract lump sum price for "Remove and Replace Topsoil".

## CONTRACTOR FURNISHED TOPSOIL

It is anticipated that a larger volume of topsoil will be needed for the new grade than can be salvaged from the existing grade. The Contractor will be required to furnish and place 4 inches of topsoil on areas as determined by the Engineer during construction.

Contractor furnished topsoil will be free from stones, coarse gravel, or similar objects larger than 3/4 inch in diameter. Brush, stumps, roots, wood, objectionable weeds, liter, or any other material which may be harmful to plant growth will not be allowed. Organic material will be decomposed.

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

The estimated amount of Contractor furnished topsoil required is **226 CuYd.**

## 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.

## SHRINKAGE FACTOR: Embankment +35%

## TABLE OF PVC COATED BANK AND CHANNEL PROTECTION GABIONS AND DRAINAGE FABRIC

| Station | L/R | PVC Coated Bank and Channel Protection Gabion (CuYd) | Type B Drainage Fabric (SqYd) |
|---|---|---|---|
| 875+40 | L | 6.0 | 19 |
| 880+60 | L | 6.0 | 19 |
| | | | |
| | **Totals:** | **12.0** | **38.0** |

## 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 0.5 ton 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)** |
|---|---|---|
| 875+40 to 879+60 L | New Check Dam | 3.6 |
| 878+80 to 880+19 L | Ditch | 0.2 |
| 880+60 to 881+53 L | New Check Dam | 0.8 |
| N/A | Additional Quantity | 0.5 |
| | | |
| **Total Quantity for Temporary Stabilization:** | | **0.5** |
| **Total Quantity for Permanent Stabilization:** | | **4.6** |
| **Total Quantity:** | | **5.1** |

## PERMANENT SEEDING

The areas to be seeded consist of all newly graded areas within the project limits.

Type F 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 |
| Green Needlegrass | Lodorm, AC Mallard Ecovar | 4 |
| Sideoats Grama | Butte, Pierre | 3 |
| Blue Grama | Bad River | 2 |
| Oats or Spring Wheat: April through May; Winter Wheat: August through November | | 10 |
| | **Total:** | **26** |

## 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.

Erosion control wattles will remain on the project until vegetation has been established and then they will be removed in accordance with the Engineer.

An additional 50' quantity of 12" Diameter Erosion Control Wattles has been added to the Estimate of Quantities for temporary erosion and sediment control in highway ditch channels and as an alternative to low flow or 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) |
|---|---|---|---|
| 874+70 to 875+30 L | North CMP | 12 | 144 |
| 879+26 to 879+36 L | North of Reprofiling Area | 12 | 163 |
| 879+71 to 880+37 L | South CMP | 12 | 173 |
| | Additional Quantity: | 12 | 50 |
| | | **Total:** | **530** |

## 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

## GENERAL TRAFFIC CONTROL

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation. The Contractor is allowed to put up signs on temporary supports in lieu of fixed supports for the duration of the project.

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

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.

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

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".

## FLAGGING

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

It is required that the flaggers 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".

Revised 09/08/2025 JDC

| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 6 | 47 |

## TABLE OF EXCAVATION QUANTITIES BY BALANCES

| | | | Unclassified Excavation | Contractor Furnished Borrow Excavation |
|---|---|---|---|---|
| Station | to | Station | (CuYd) | (CuYd) |
| 0+75 | | 1+00 | | 13.1 |
| 1+00 | | 1+25 | | 16.3 |
| 1+25 | | 1+30 | | 12.9 |
| 1+30 | | 1+50 | | 114.4 |
| 1+50 | | 1+75 | 3.7 | 156.9 |
| 1+75 | | 2+00 | 94.6 | 36.2 |
| 2+00 | | 2+25 | 90.9 | 124.4 |
| 2+25 | | 2+50 | 139.4 | 1476.4 |
| 2+50 | | 2+75 | 256.9 | 3189.3 |
| 2+75 | | 3+00 | 230.2 | 4253.3 |
| 3+00 | | 3+25 | 224.2 | 4173.1 |
| 3+25 | | 3+29 | 33.1 | 539.6 |
| 3+29 | | 3+50 | 170.2 | 2204.1 |
| 3+50 | | 3+75 | 107.4 | 1705.1 |
| 3+75 | | 4+00 | | 1071.1 |
| 4+00 | | 4+25 | | 632.1 |
| 4+25 | | 4+50 | | 330.4 |
| 4+50 | | 4+75 | | 135.6 |
| 4+75 | | 5+00 | | 40.3 |
| 5+00 | | 5+25 | | 34.8 |
| 5+25 | | 5+50 | | 33.2 |
| 5+50 | | 5+75 | | 15.3 |
| 5+75 | | 5+86 | | |
| 5+86 | | 6+00 | | |
| 6+00 | | 6+25 | | |
| 6+25 | | 6+50 | | |
| 6+50 | | 6+75 | | |
| 6+75 | | 6+95 | | |
| 6+95 | | 7+00 | | 27.4 |
| 7+00 | | 7+25 | | 132.8 |
| 7+25 | | 7+50 | | 48.6 |
| 7+50 | | 7+75 | | 115.9 |
| 7+75 | | 7+87 | | 68.7 |
| | | **TOTALS:** | **1351** | **20702** |

## TABLE OF FENCE QUANTITIES

| Station to Station | Side (L/R) | Remove Right-of-Way Fence (Ft) | Right-of-Way Fence Type 2 (Ft) | Temporary Fence Type 2A (Ft) | Post Panels 3PP (Each) |
|---|---|---|---|---|---|
| 875+06.33 to 882+40.53 | L | **734** | **734** | **1558** | **2** |

## ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

| | | CONVENTIONAL ROAD | | | |
|---|---|---|---|---|---|
| SIGN CODE | SIGN DESCRIPTION | NUMBER | SIGN SIZE | SQFT PER SIGN | SQFT |
| W3-4 | BE PREPARED TO STOP | 2 | 48" x 48" | 16.0 | 32.0 |
| W8-6 | TRUCK CROSSING | 2 | 48" x 48" | 16.0 | 32.0 |
| W20-1 | ROAD WORK AHEAD | 2 | 48" x 48" | 16.0 | 32.0 |
| W20-7 | FLAGGER (symbol) | 2 | 48" x 48" | 16.0 | 32.0 |
| | | CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT | | | **128.0** |

| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 7 | 47 |

## 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: 6.96 Acres**
- **5.3 (3b): Total Area to be Disturbed: 1.49 Acres**
- **5.3 (3c): Maximum Area Disturbed at One Time: 1.49 Acres**
- **5.3 (3d): Existing Vegetative Cover (%)**
- **5.3 (3d): Description of Vegetative Cover**
- **5.3 (3e): Soil Properties: Pierre Shale**
- **5.3 (3f) Name of Receiving Water Body/Bodies: Bull Creek**
- **5.3 (3g): Location of Construction Support Activity Areas**

### 5.3 (3h): ORDER OF CONSTRUCTION ACTIVITIES

**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. | |
| Remove and stockpile topsoil. | |
| Stabilize disturbed areas. | |
| Install new culverts. | |
| Install inlet and culvert protection. | |
| Final grading. | |
| 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.

# CONTROL DATA

## HORIZONTAL AND VERTICAL CONTROL POINTS

| POINT | STATION | OFFSET | DESCRIPTION | NORTHING | EASTING | ELEVATION |
|---|---|---|---|---|---|---|
| CP2 | 865 + 56.66 | 53.90’ R | REBAR/CAP | 478327.242 | 2187559.836 | 1611.629’ |
| CP2A | 886 + 25.10 | 69.89’ L | REBAR/CAP | 476571.366 | 2188681.954 | 1700.946’ |

## TABLE OF PIPE COORDINATES (PROPOSED)

| LOCATION | Approx. GPS Coordinates of Inlet | | Approx. GPS Coordinates of Upper Elbow Break | | Approx. GPS Coordinates of Lower Elbow Break | | Approx. GPS Coordinates of Outlet | |
|---|---|---|---|---|---|---|---|---|
| MRM (SD47) | Northing | Easting | Northing | Easting | Northing | Easting | Northing | Easting |
| 51.00 + 0.244 | 477488.443 | 2188438.747 | 477497.661 | 2188431.065 | 477607.563 | 2188339.571 | 477624.468 | 2188325.491 |
| 51.00 + 0.343 | 477168.013 | 2188763.436 | - | - | - | - | 477240.811 | 2188705.576 |

The coordinates shown on this sheet are based on the South Dakota State Plane Coordinate System. South Zone (NAD83/4002); Epoch 2010.00; Geoid 18; SF = 0.9998318133. The elevations shown on this sheet are based on NAVD 8.

# LEGEND

| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 12 | 47 |

Plotting Date: 09/15/2020

- Anchor
- Antenna
- Approach
- Assumed Corner
- Azimuth Marker
- BBQ Grill/ Fireplace
- Bearing Tree
- Bench Mark
- Box Culvert
- Bridge
- Brush/Hedge
- Buildings
- Bulk Tank
- Cattle Guard
- Cemetery
- Centerline
- Cistern
- Clothes Line
- 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
- Gutter
- Guy Pole
- Haystack
- 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
- 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 Sign Double Face
- Traffic Sign One Post
- Traffic Sign Two Post
- 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 —
- 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 - TRPR14419

File - C:\Work\Legend.dgn

875+28 L to 876+39 L
Remove 113' Failed CMP
and 2 Flared Ends

875+20 L to 877+16 L (56 ac)
Furnish + Install 194'
Polymer Coated 14 Gauge
36" CMP and 2x 36" CMP Elbows

875+20 L & 877+16 L
Furnish + Install 2x
Aluminum Coated
36" CMP Flared Ends

875+61 L
Install Thrust Block
at Lower CMP Bend

875+20 L
Install PVC-Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric
(19 SqYd)

874+75 L to 879+60 L
Create New Check Dam over
New CMP (Contractor Furnished
Borrow Excavation, 20253 CuYd)
(Contractor Furnished Topsoil, 834 CuYd)
(Water for Embankment, 0.3 MGal)
*See New CMP Profile Sheets

874+75 L to 876+14 L
Remove & Reuse Material to Tie
Into Existing Side Slopes
(Unclassified Excavation,
233 CuYd)
*See Cross Sections

875+19 L to 875+64 L
Excavation for New CMP
(Unclassifed Excavation,
14 CuYd)

876+38 L to 877+36 L
Excavate Unstable Material
(Unclassified Excavation,
920 CuYd)
*See Cross Sections

874+75 L to 879+60 L
Mulch & Seed Newly Graded Area
(Mulching, 3.6 Ton)
(Type F Permanent Seed Mixture,
47 Lbs)

879+60 L to 880+60 L
Ditch Reprofiling (~30'x110')
(1.1 Sta)

879+60 L to 880+60 L
Mulch & Seed Newly Graded Area
(Mulching, 0.2 Ton)
(Type F Permanent Seed Mixture,
2 Lbs)

880+65 L to 881+53 L
Remove 89' Failed CMP
and 2 Flared Ends

880+62 L to 881+53 L (48 ac)
Furnish + Install 94'
Polymer Coated 14 Gauge
36" CMP

880+62 L & 881+53 L
Furnish + Install 2x
Aluminum Coated
36" CMP Flared Ends

882+62 L
Install PVC Coated Bank and Channel
Protection Gabions (6.0 CuYd)
and Type B Drainage Fabric
(19 SqYd)

880+60 L to 881+77 L
Create New Check Dam over
New CMP (Contractor Furnished
Borrow Excavation, 572 CuYd)
(Contractor Furnished Topsoil, 169 CuYd)
(Water for Embankment, 0.1 MGal)
*See New CMP Profile Sheets

880+60 L to 881+77 L
Excavation for New CMP
(Unclassifed Excavation,
96 CuYd)

880+60 L to 881+77 L
Mulch & Seed Newly Graded Area
(Mulching, 0.8 Ton)
(Type F Permanent Seed Mixture,
11 Lbs)

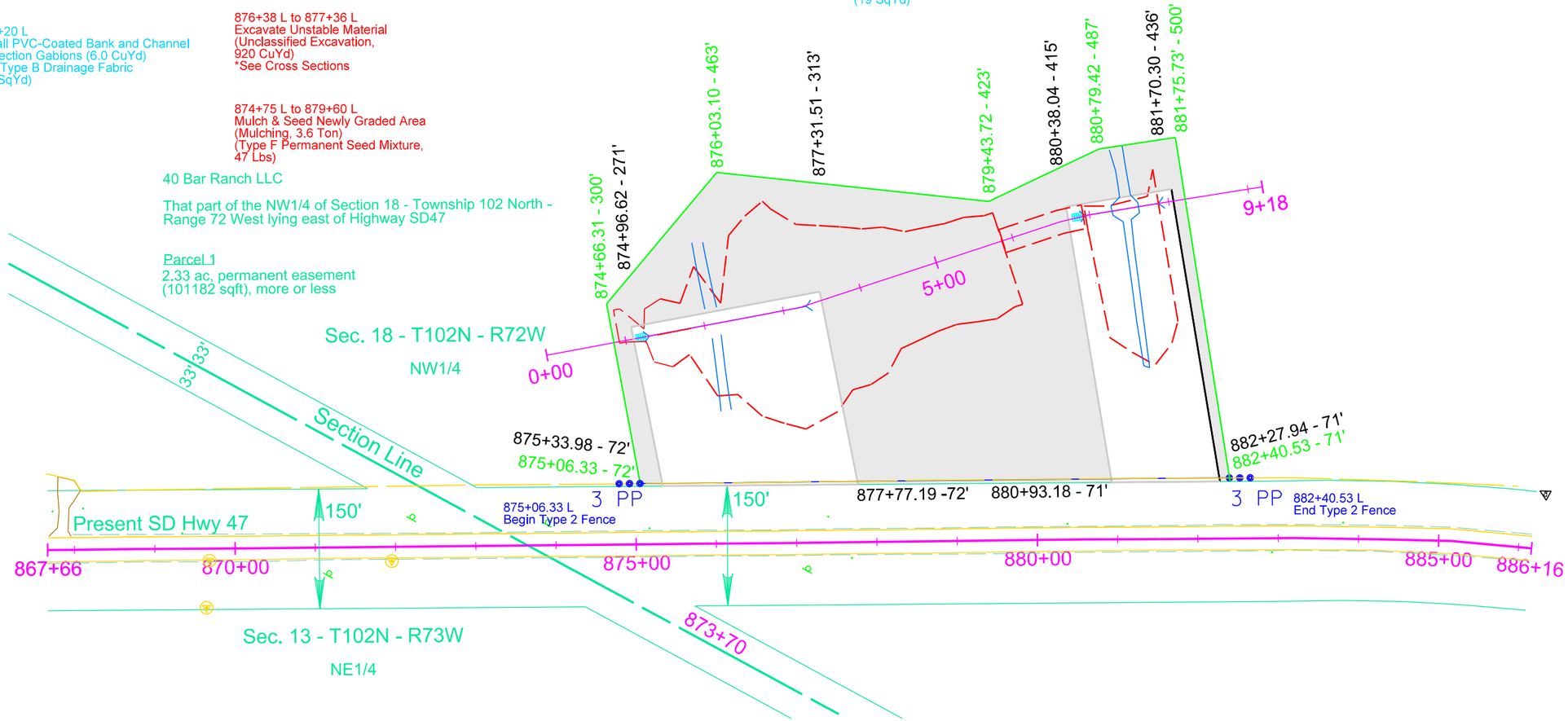
| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 13 | 47 |

Plotting Date: 07/29/2025

40 Bar Ranch LLC

That part of the NW1/4 of Section 18 - Township 102 North - Range 72 West lying east of Highway SD47

Parcel 1
2.33 ac, permanent easement
(101182 sqft), more or less

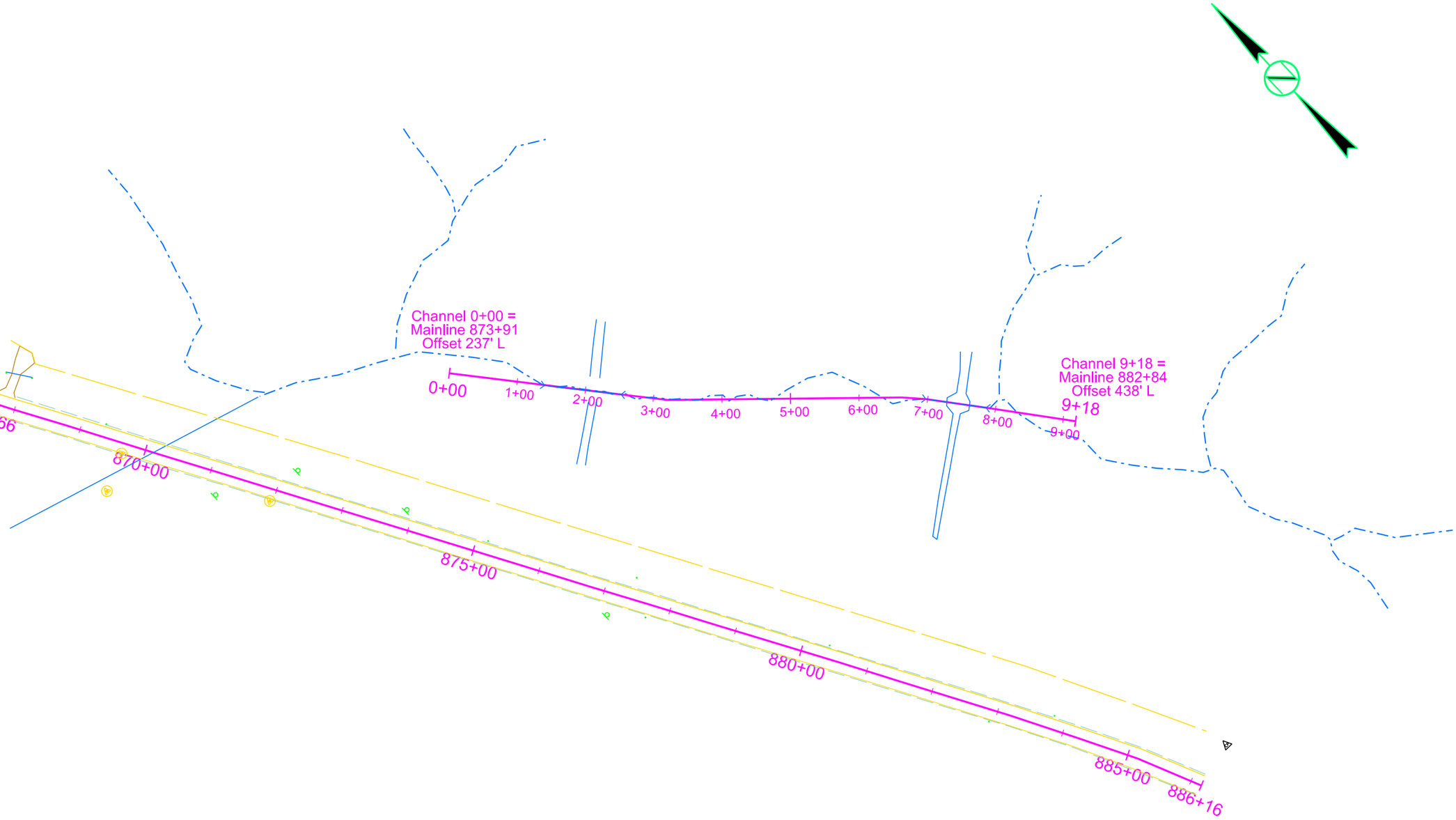



Parcel 1
874+66.31 to 882+40.53 L
Temporary Easement containing
3.89 ac, more or less

# CHANNEL ALIGNMENT

| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 14 | 47 |

Plotting Date: 07/29/2025



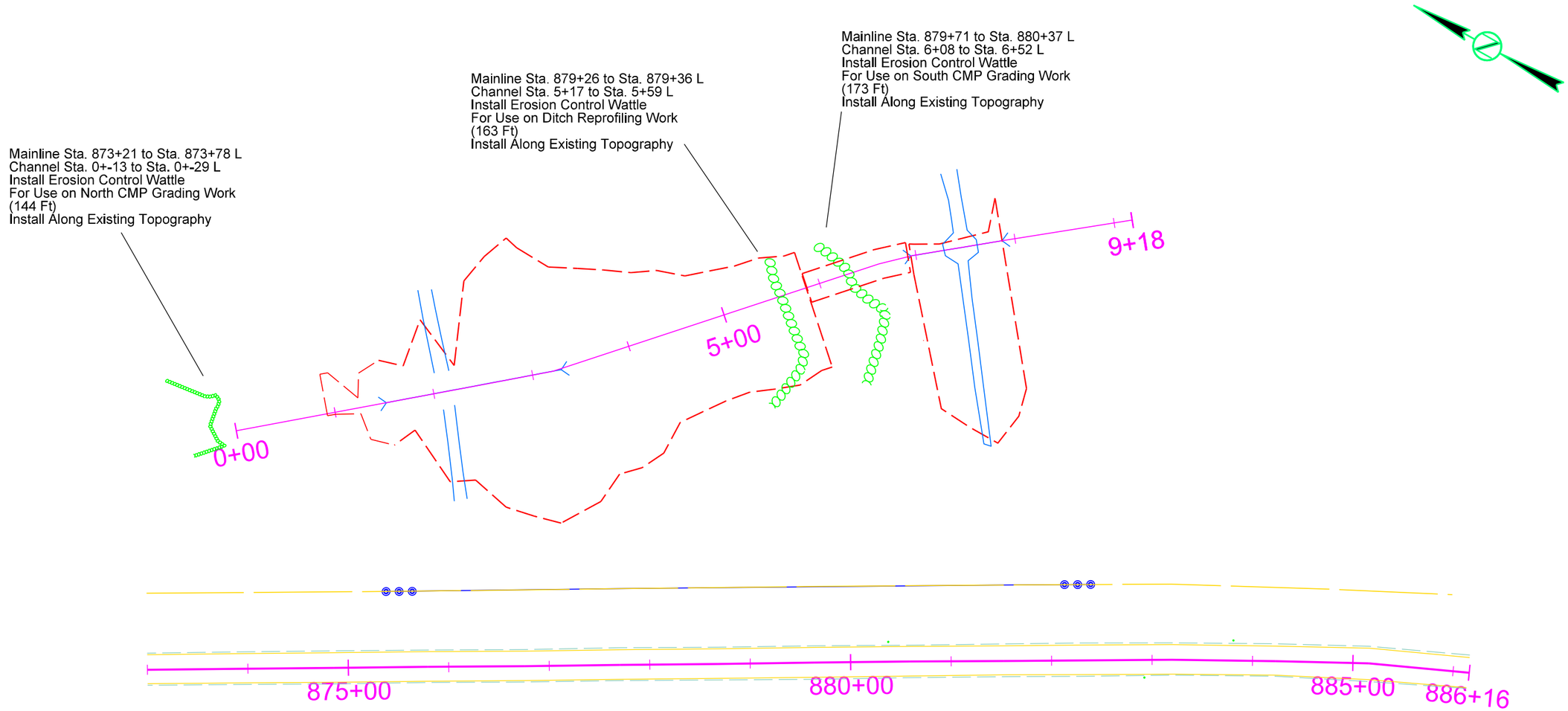

Cross sections as shown on pages 19 - 39 are cut from the channel alignment.

The channel alignment will be provided to the Contractor in .xml format for grading work.

# EROSION CONTROL WATTLE LAYOUT

| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 15 | 47 |

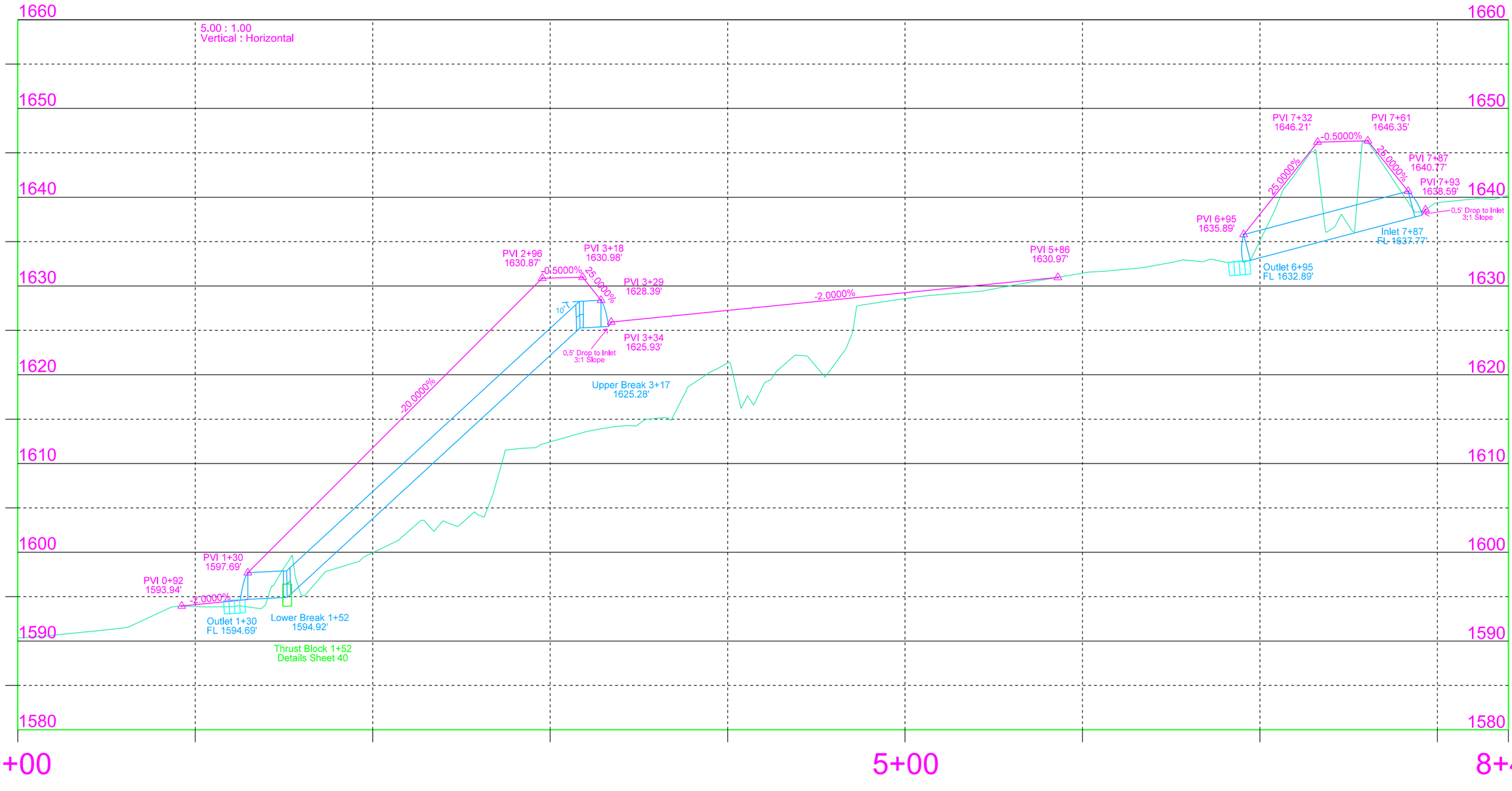
Plotting Date: 07/29/2025



# NEW CHANNEL PROFILE

| STATE OF SOUTH DAKOTA | PROJECT | SHEET | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 16 | 47 |

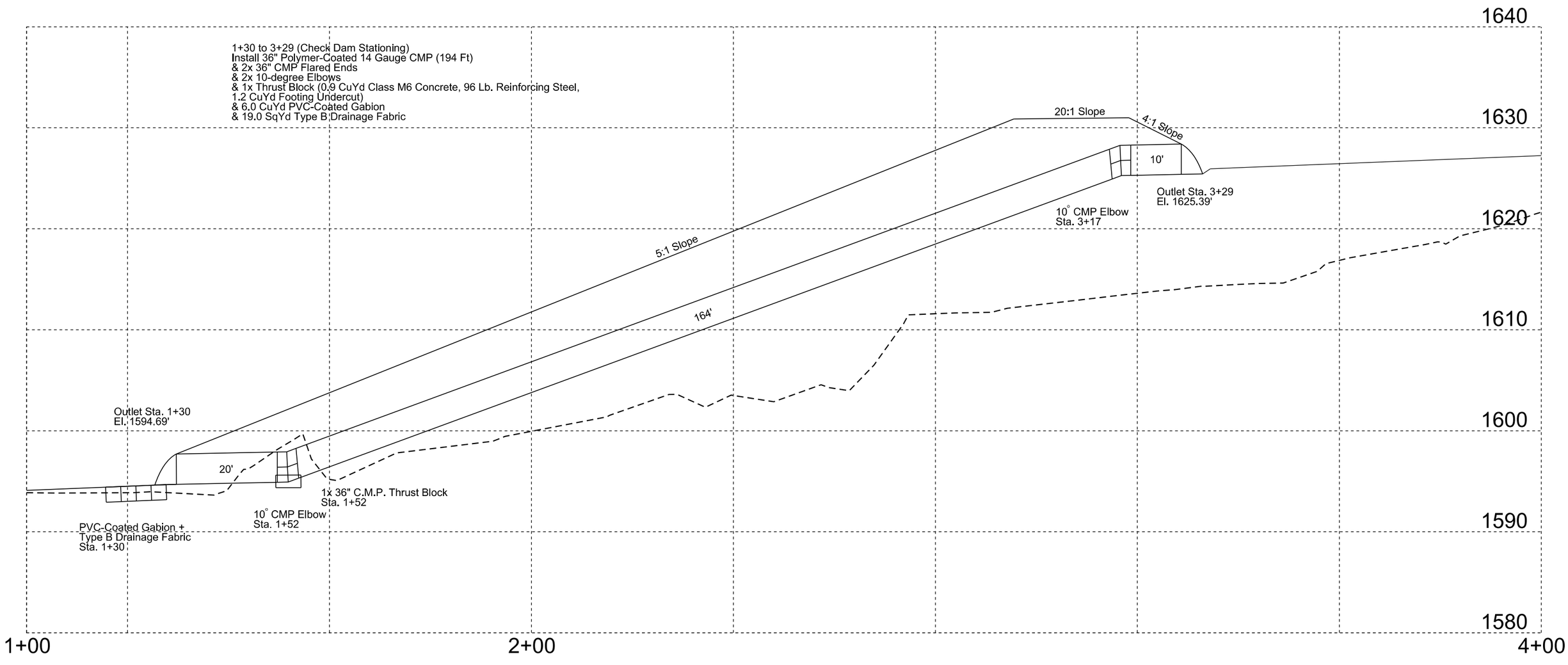
Plotting Date: 07/29/2025



Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 17 | 47 |

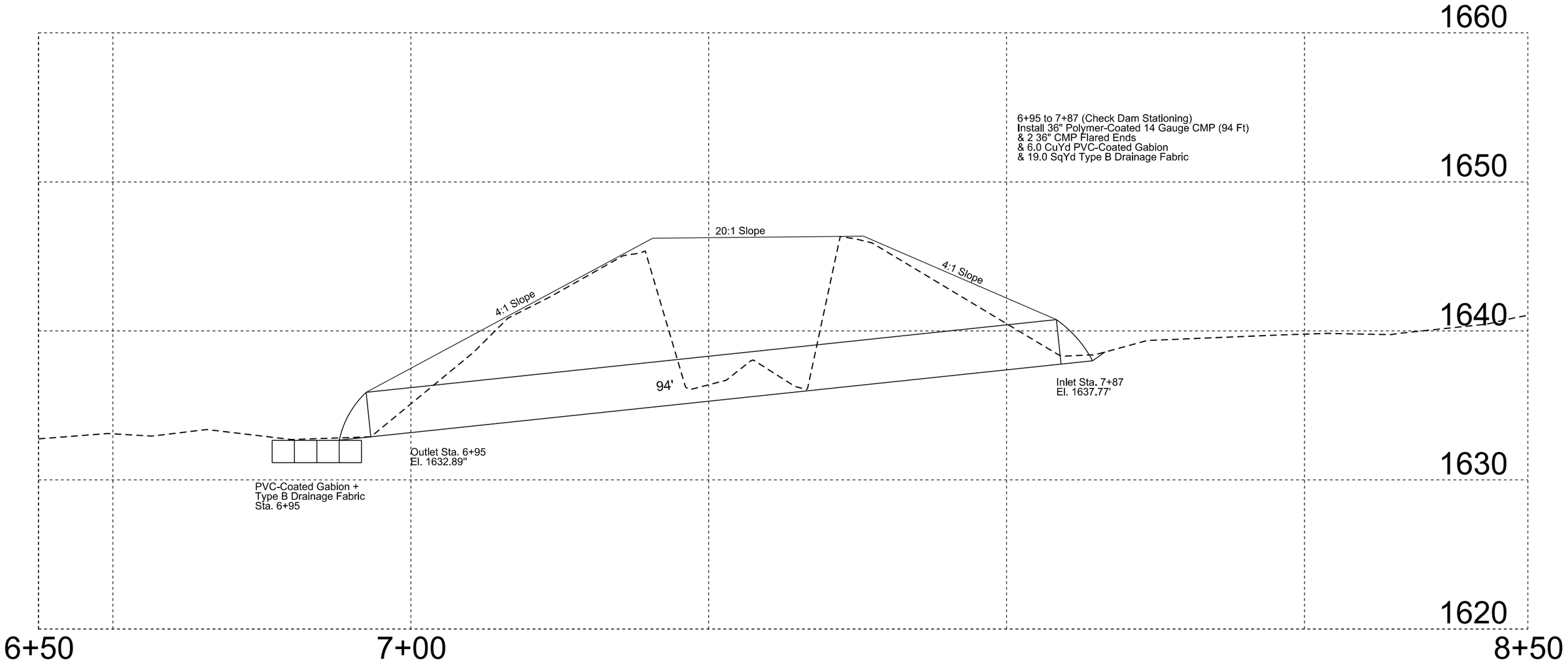
# NORTH CHECK DAM



Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 18 | 47 |

# SOUTH CHECK DAM



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

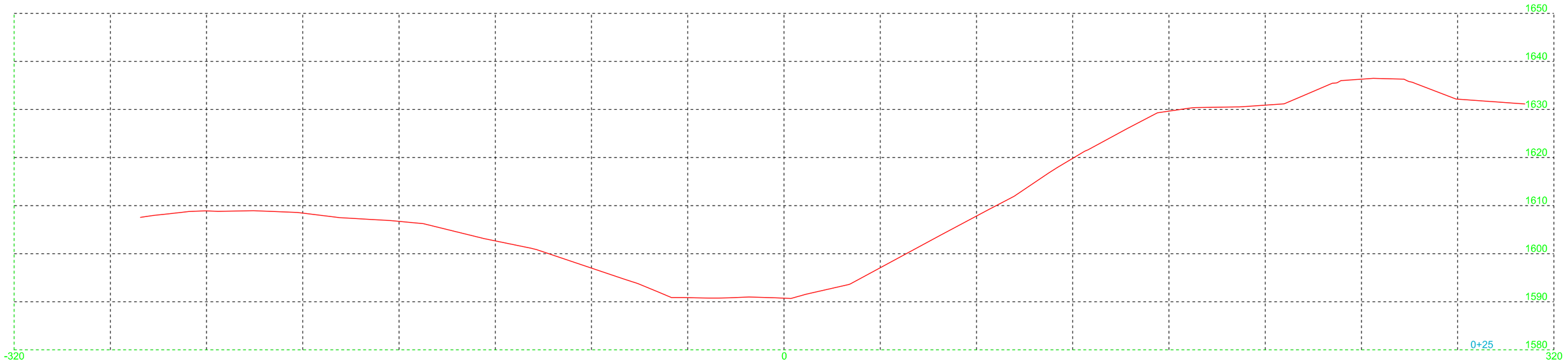
New Topsoil Limit, Contractor Furnished Topsoil

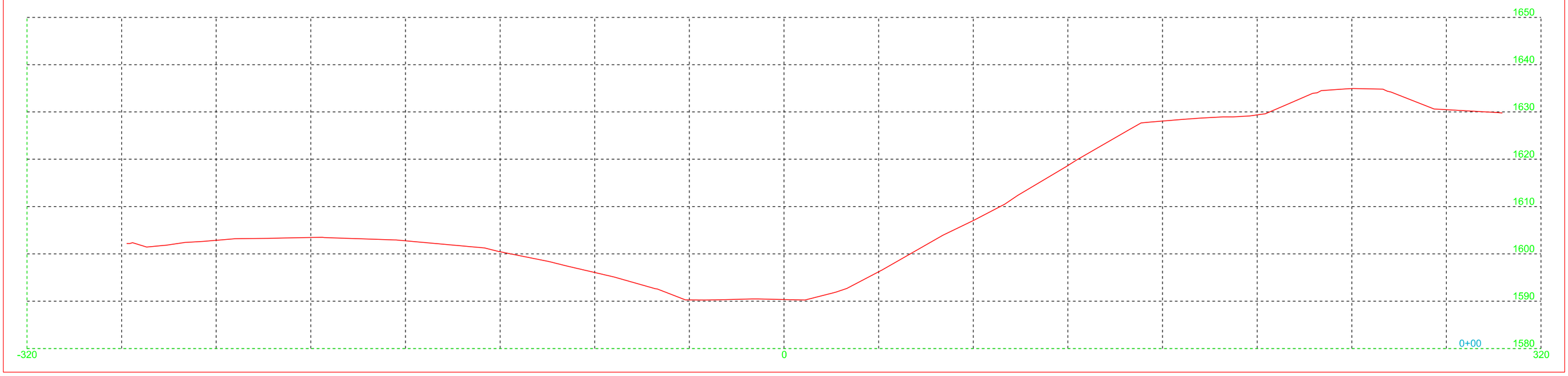
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 19 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

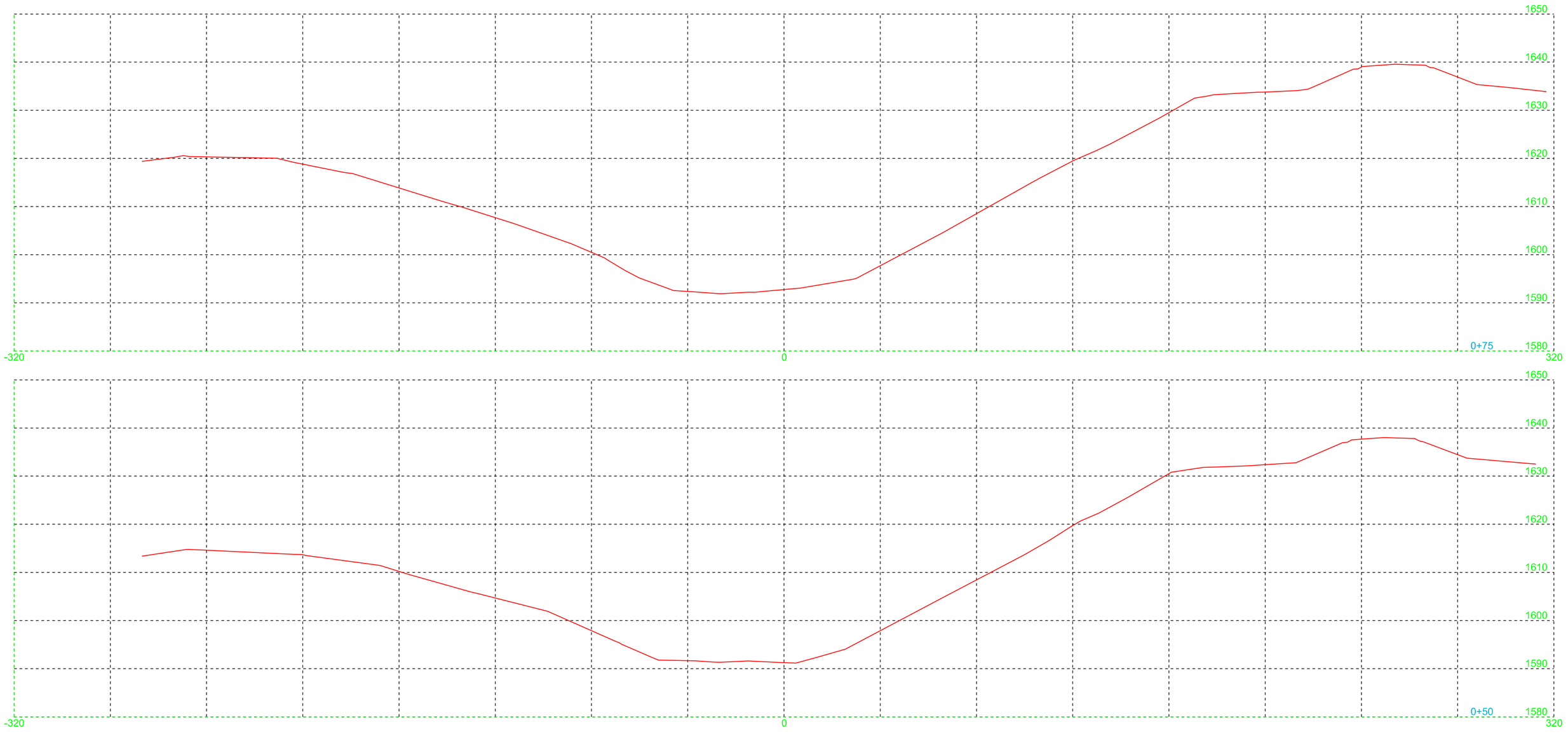
New Topsoil Limit, Contractor Furnished Topsoil

New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 20 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

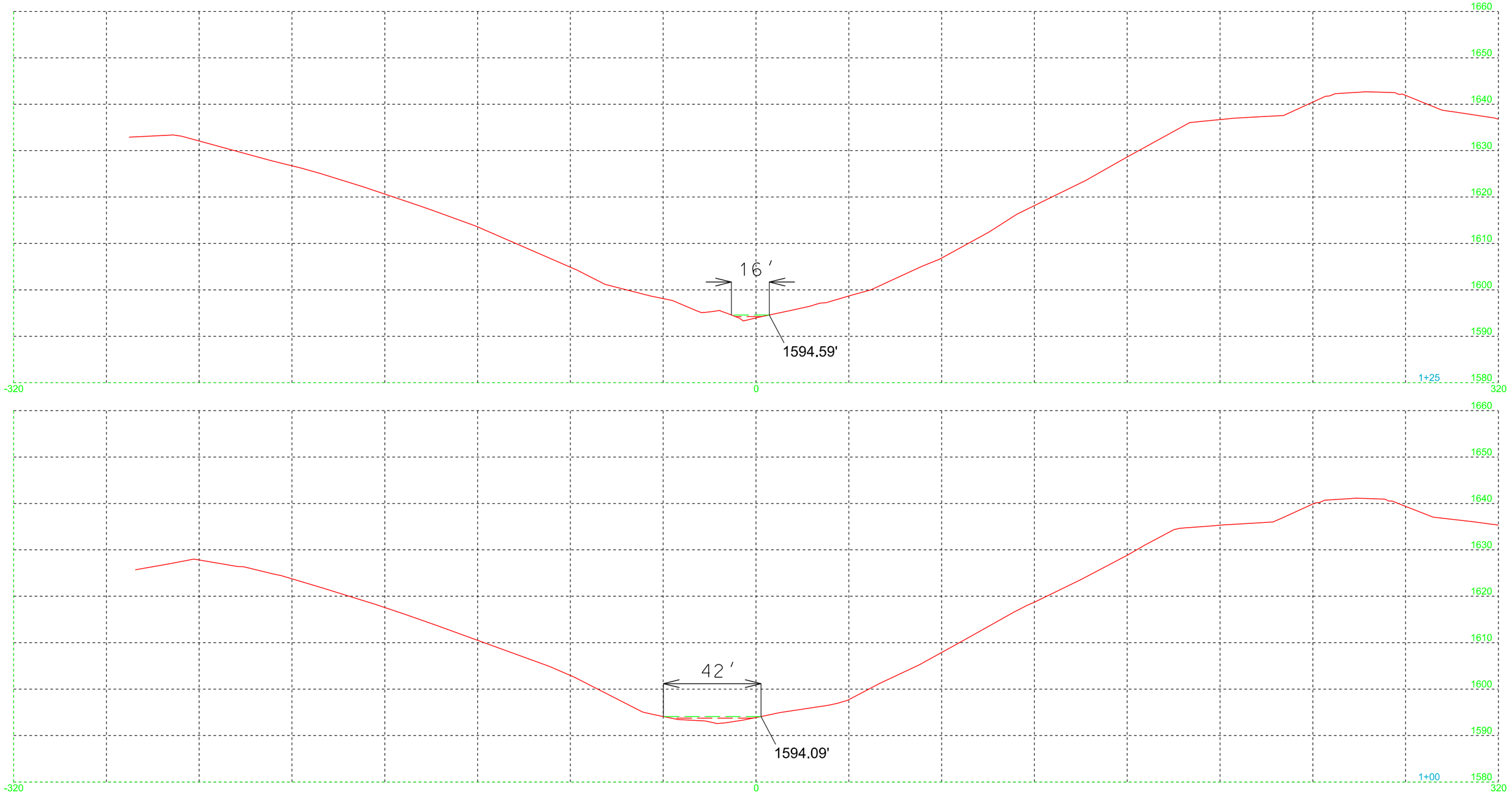
New Topsoil Limit, Contractor Furnished Topsoil

New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 21 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

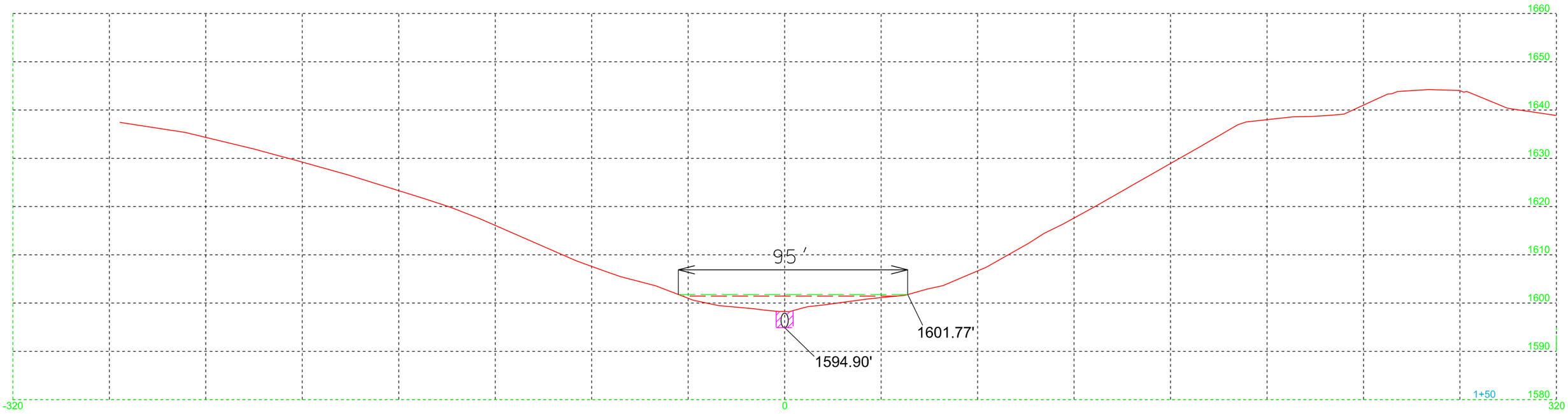
New Topsoil Limit, Contractor Furnished Topsoil

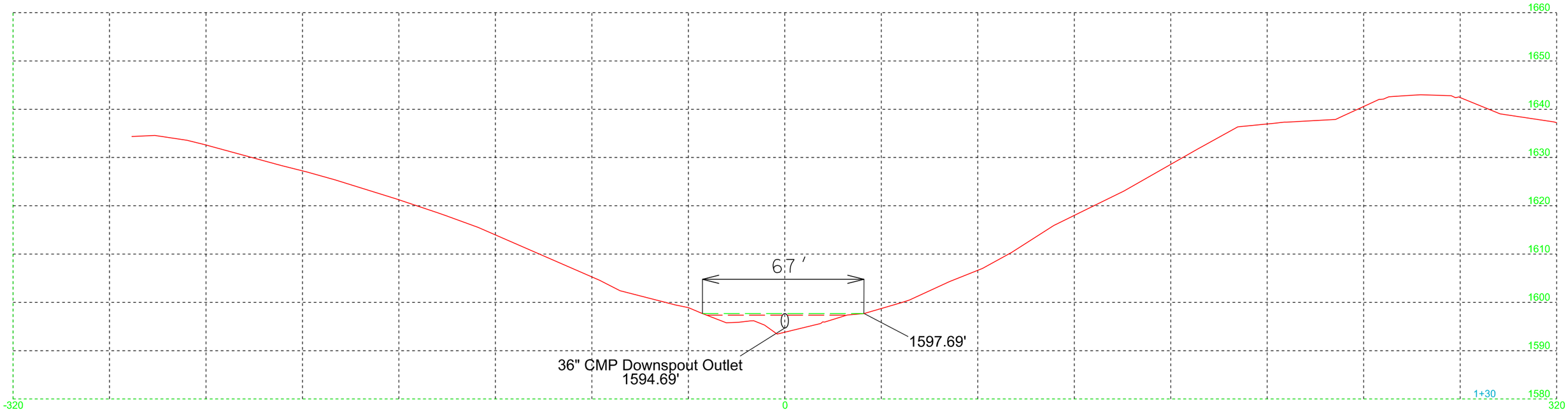
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 22 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

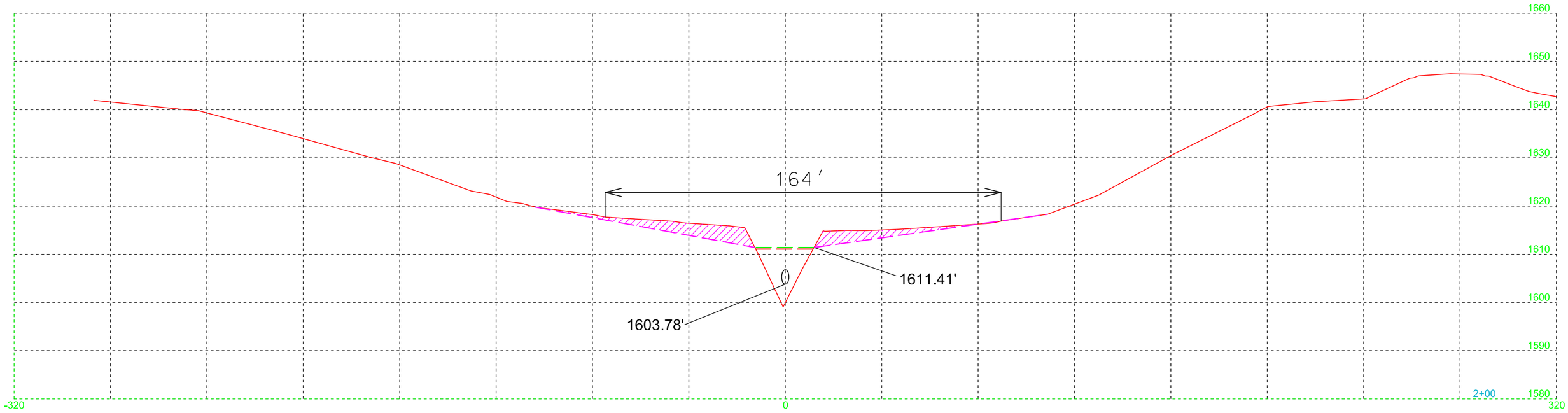
New Topsoil Limit, Contractor Furnished Topsoil

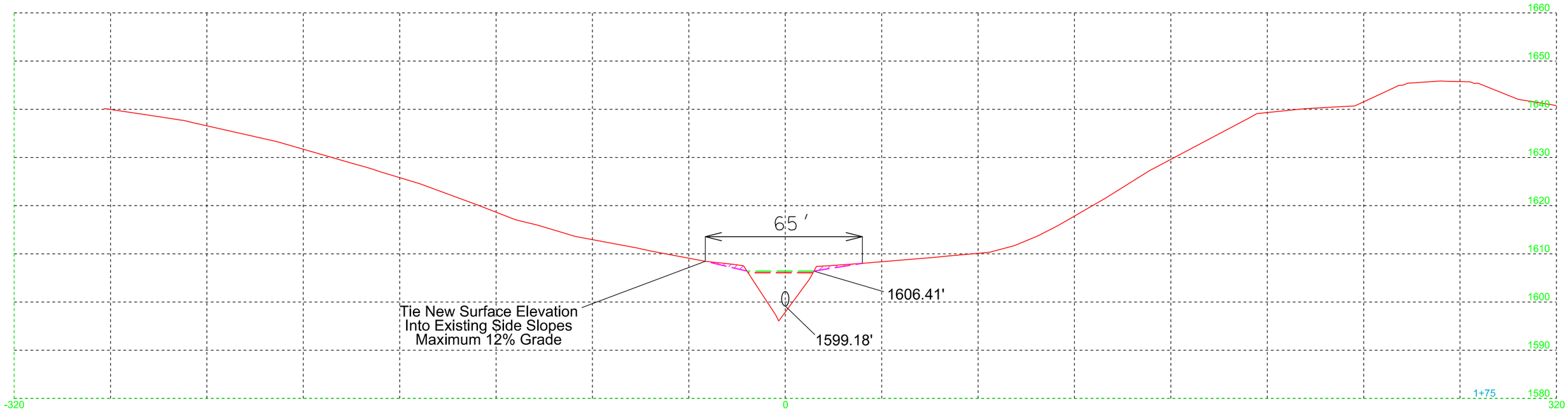
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 23 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

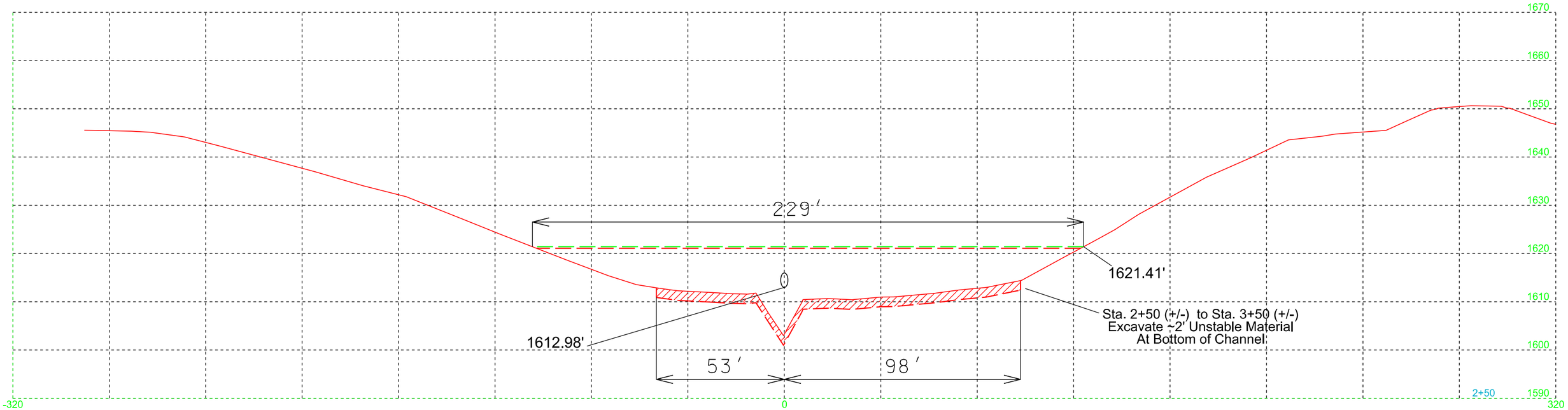
New Topsoil Limit, Contractor Furnished Topsoil

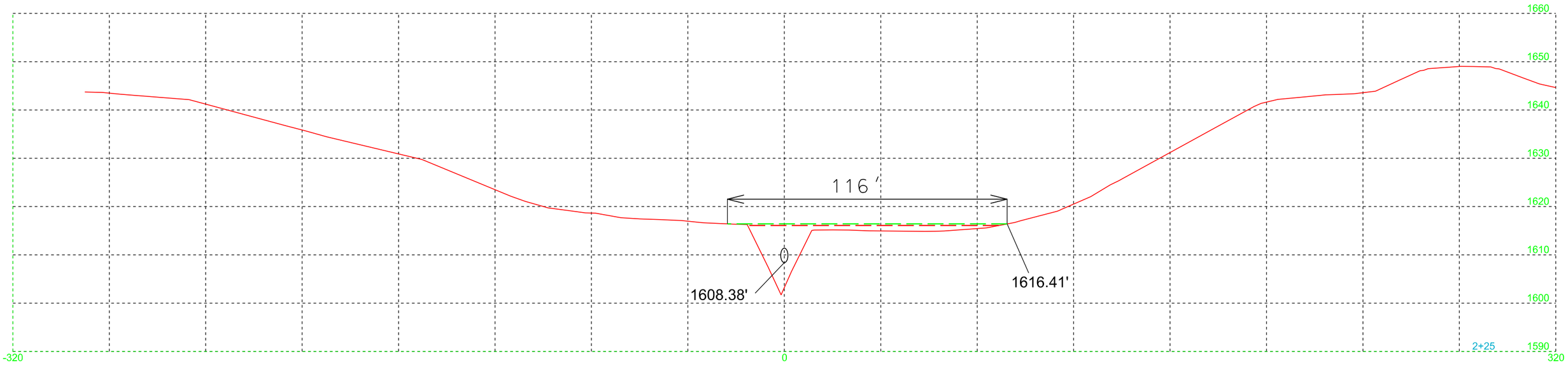
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 24 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

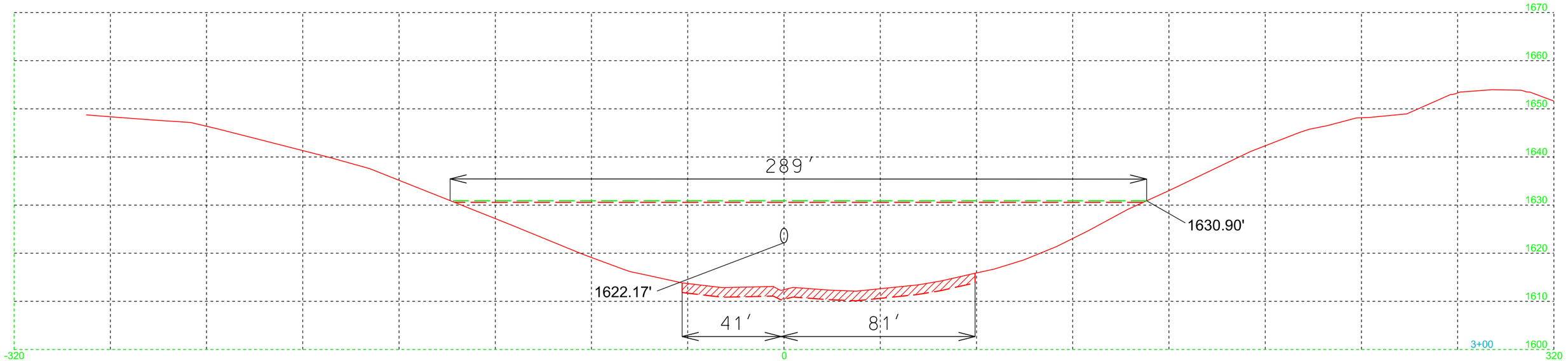
New Topsoil Limit, Contractor Furnished Topsoil

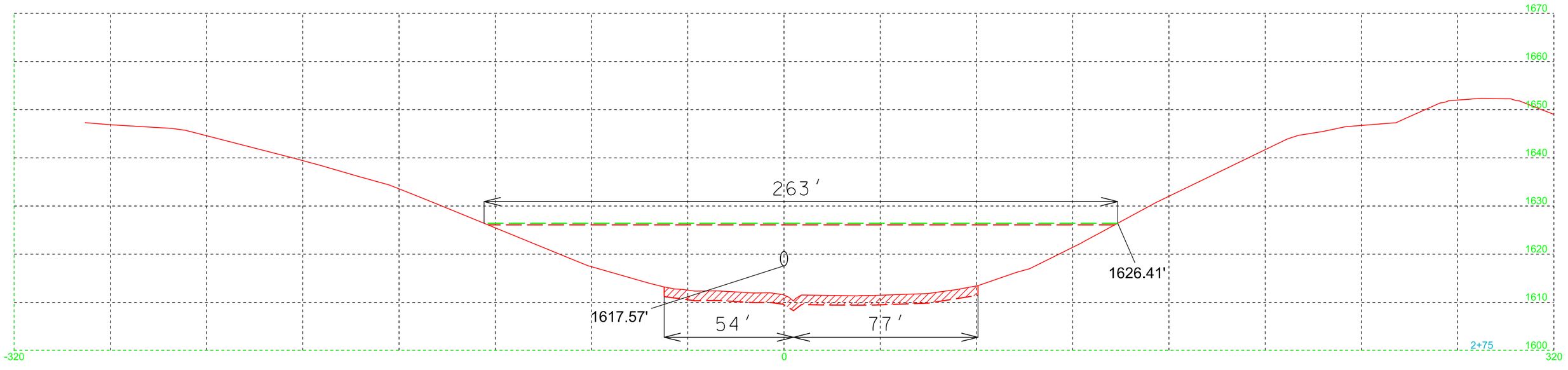
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 25 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

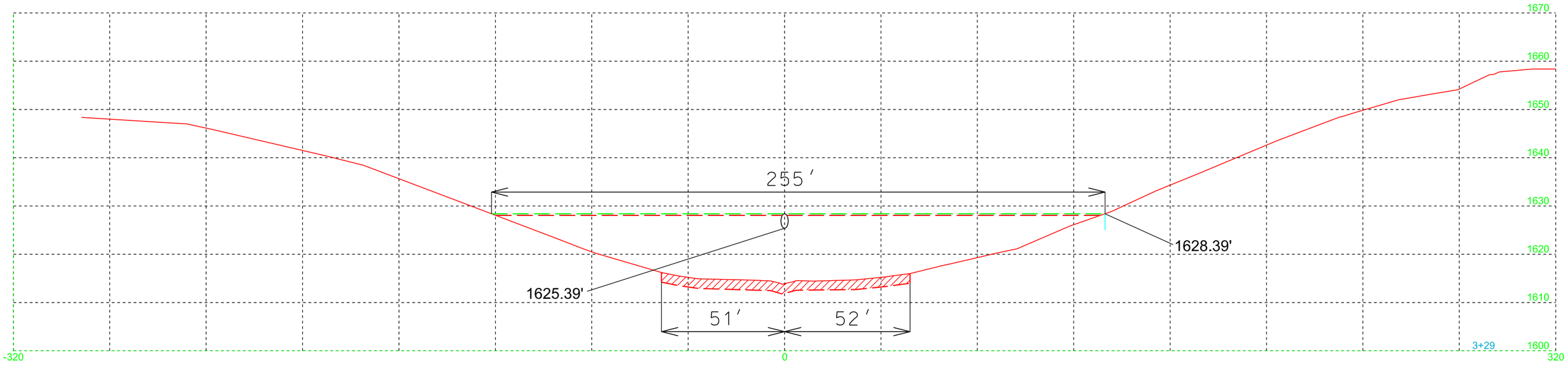
New Topsoil Limit, Contractor Furnished Topsoil

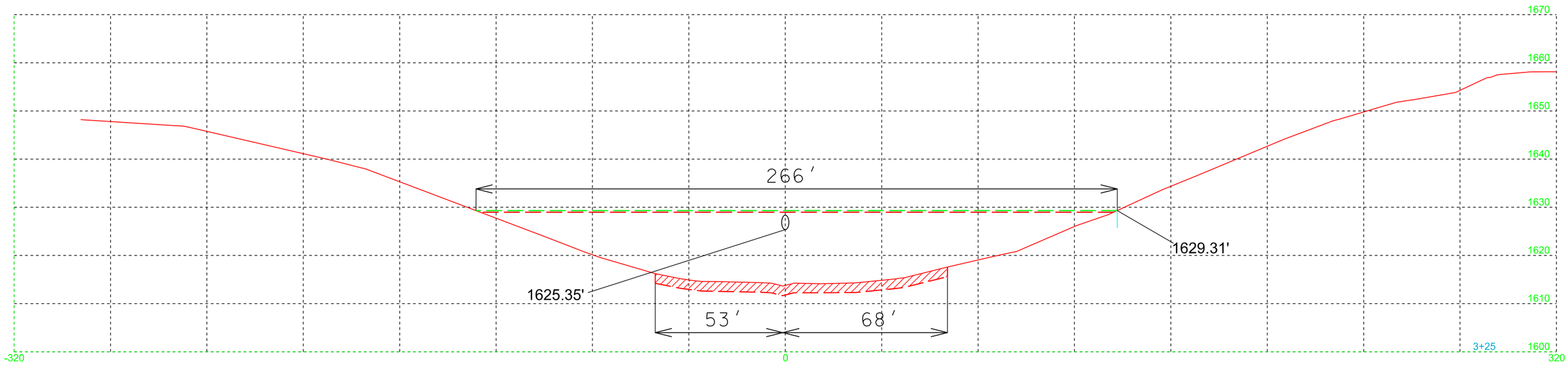
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 26 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

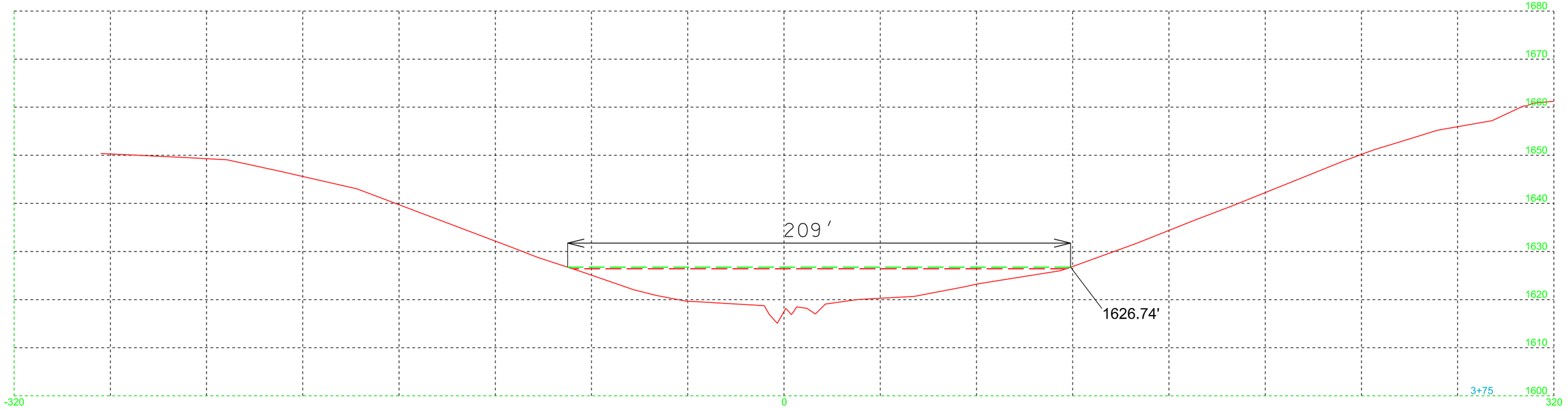
New Topsoil Limit, Contractor Furnished Topsoil

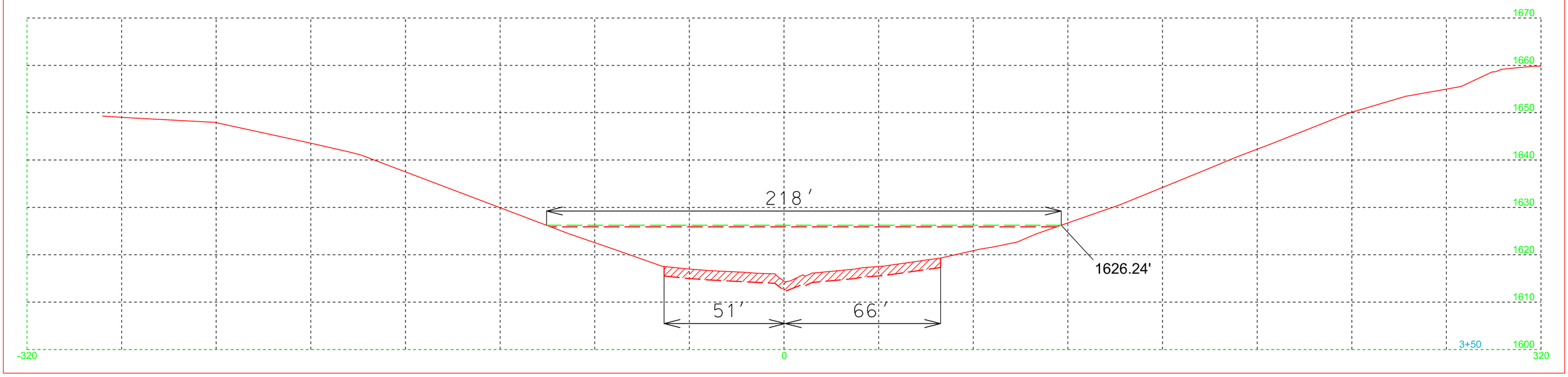
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 27 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

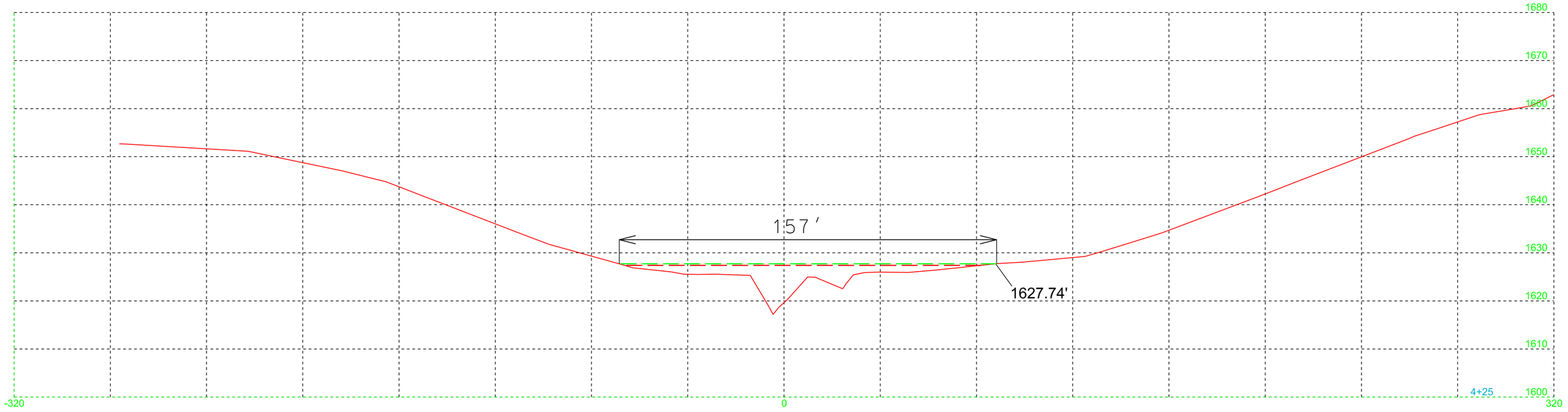
New Topsoil Limit, Contractor Furnished Topsoil

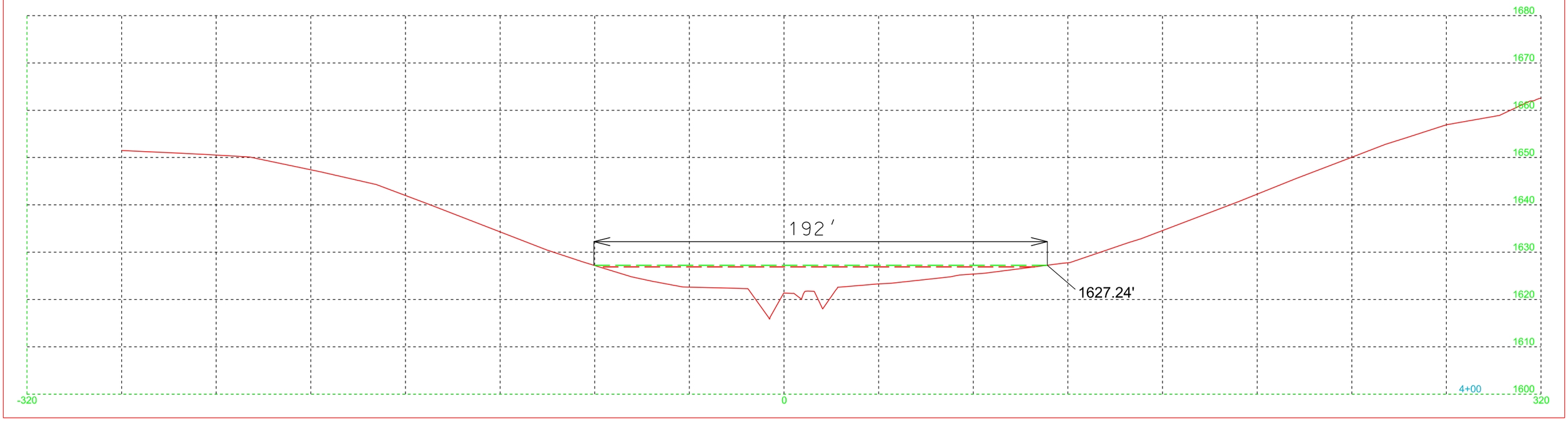
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 28 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

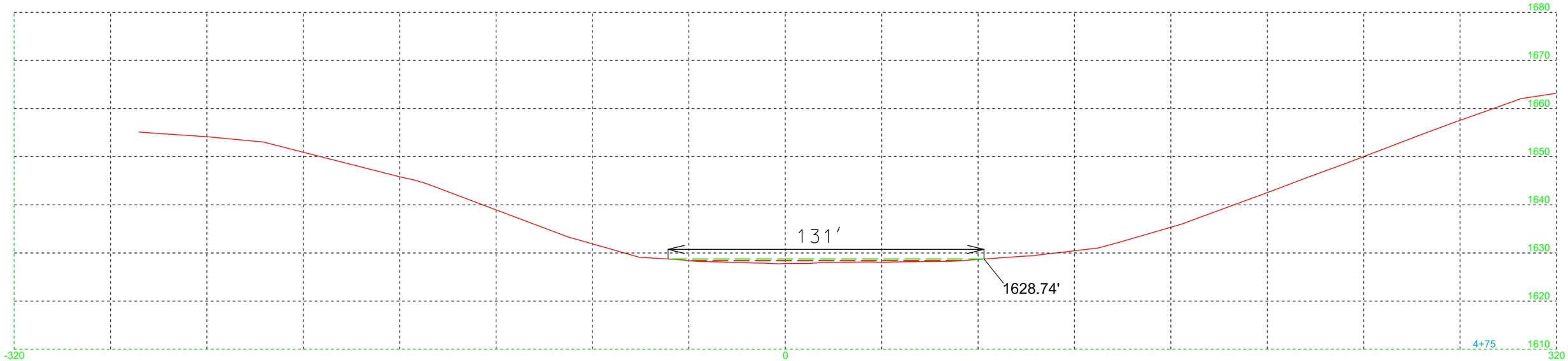
New Topsoil Limit, Contractor Furnished Topsoil

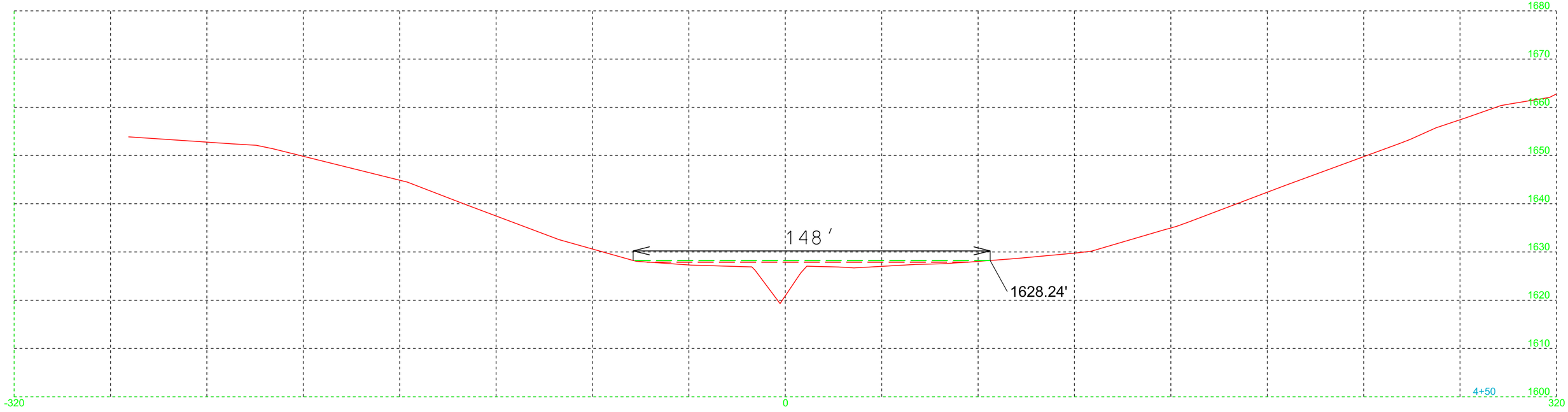
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 29 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

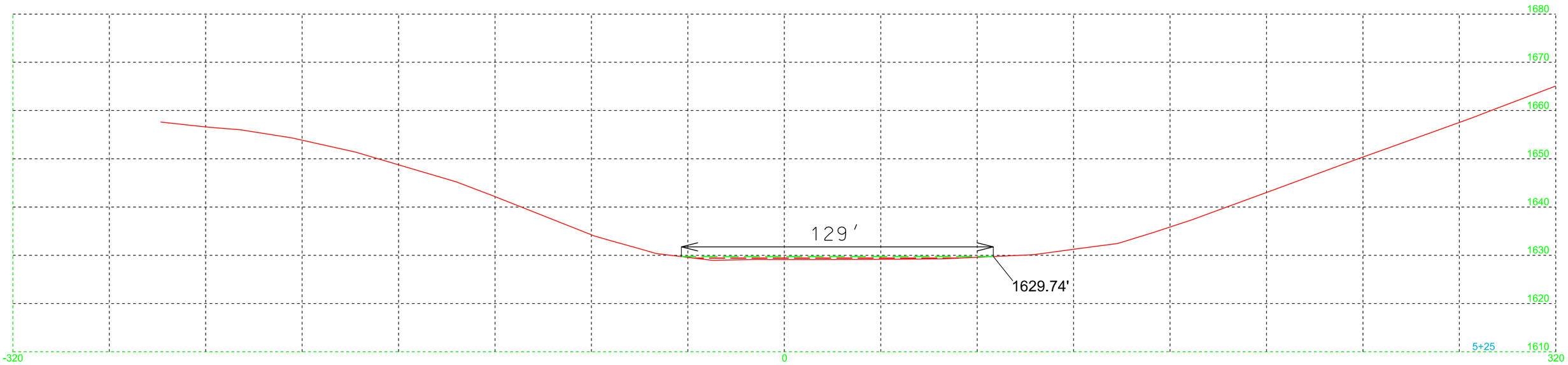
New Topsoil Limit, Contractor Furnished Topsoil

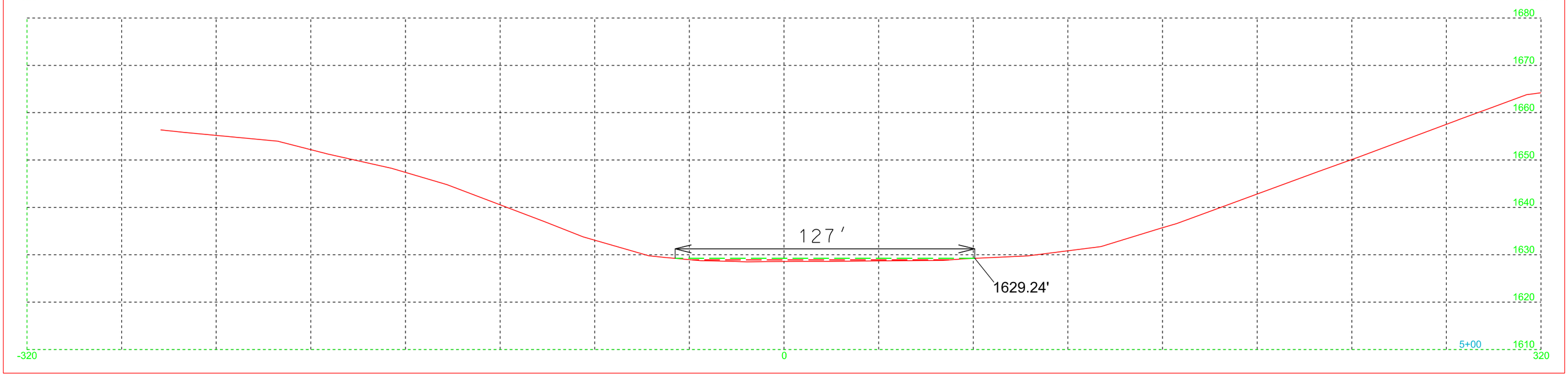
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 30 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

New Topsoil Limit, Contractor Furnished Topsoil

New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 31 | 47 |

# NEW DRAINAGE CHANNEL


Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

New Topsoil Limit, Contractor Furnished Topsoil

New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 32 | 47 |

# NEW DRAINAGE CHANNEL


Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

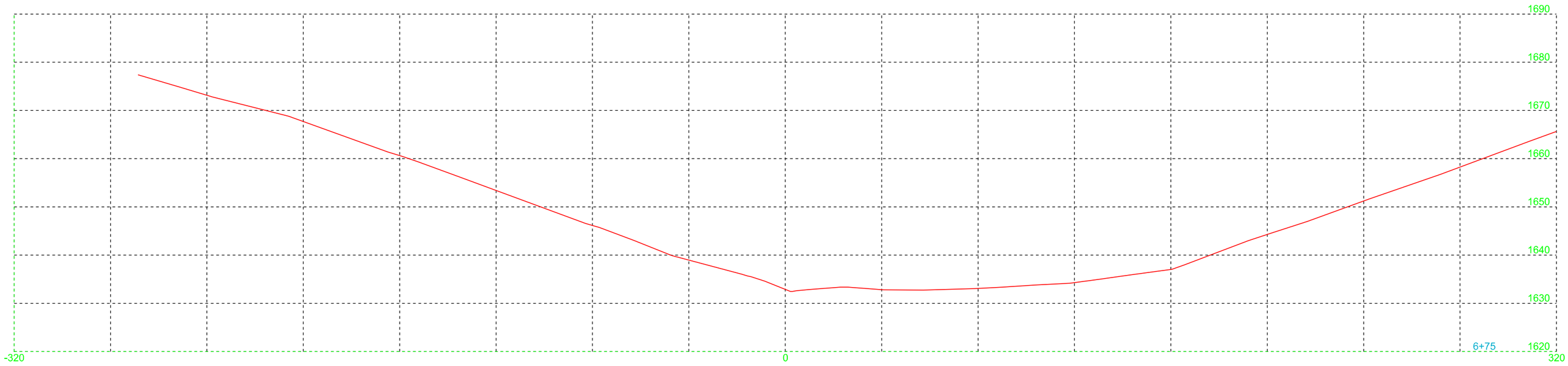
New Topsoil Limit, Contractor Furnished Topsoil

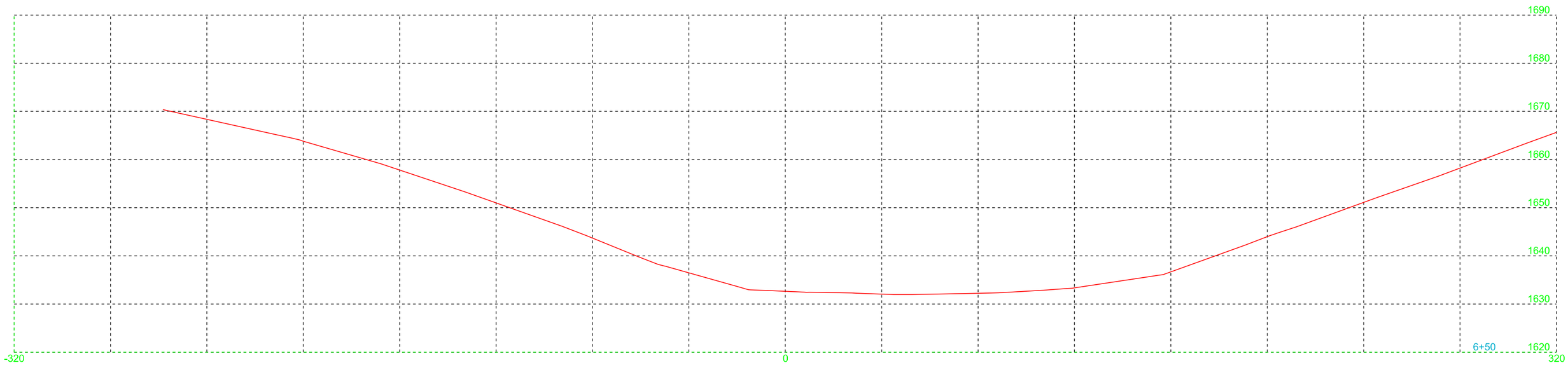
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 33 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

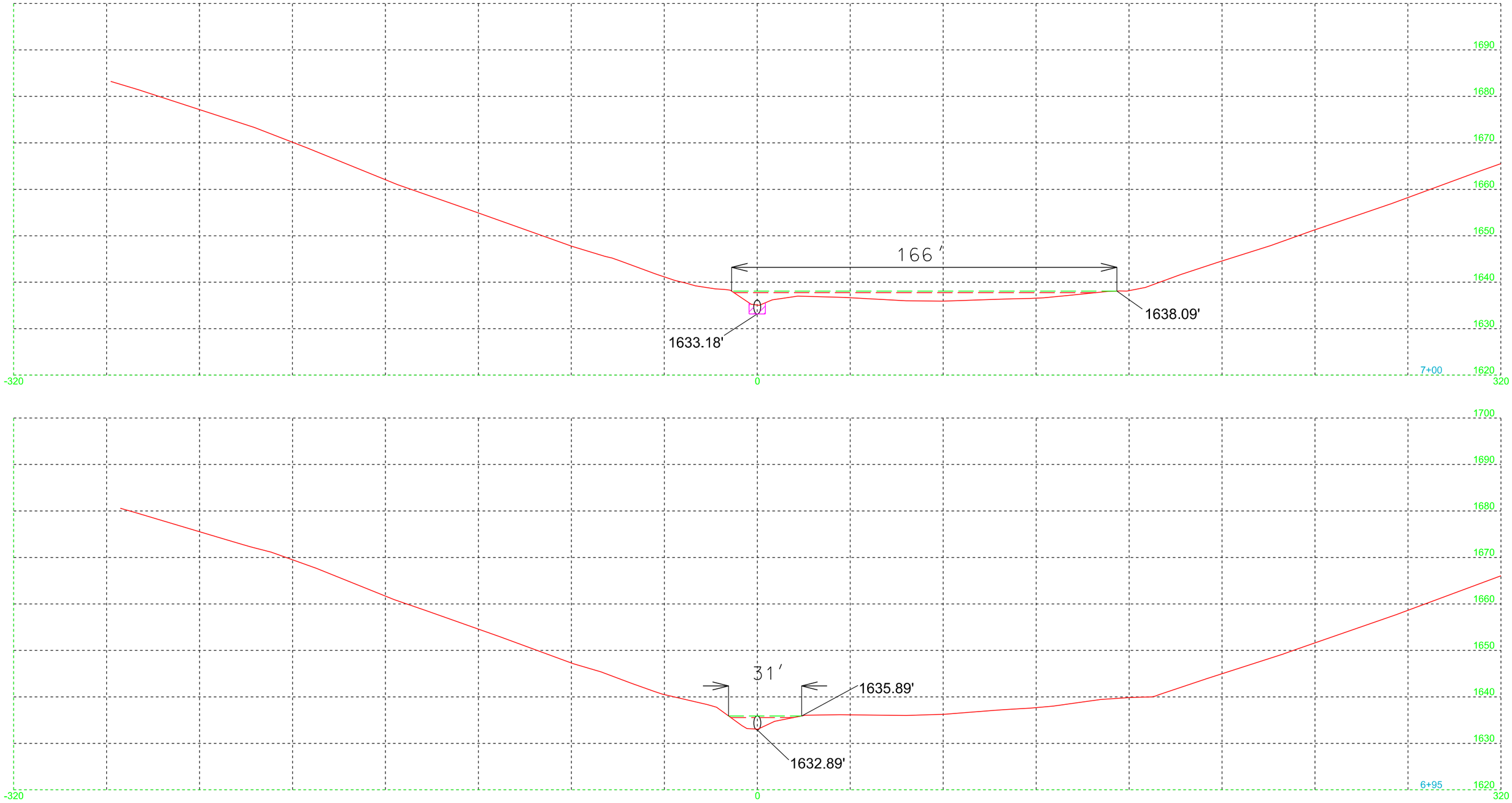
New Topsoil Limit, Contractor Furnished Topsoil

New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 34 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

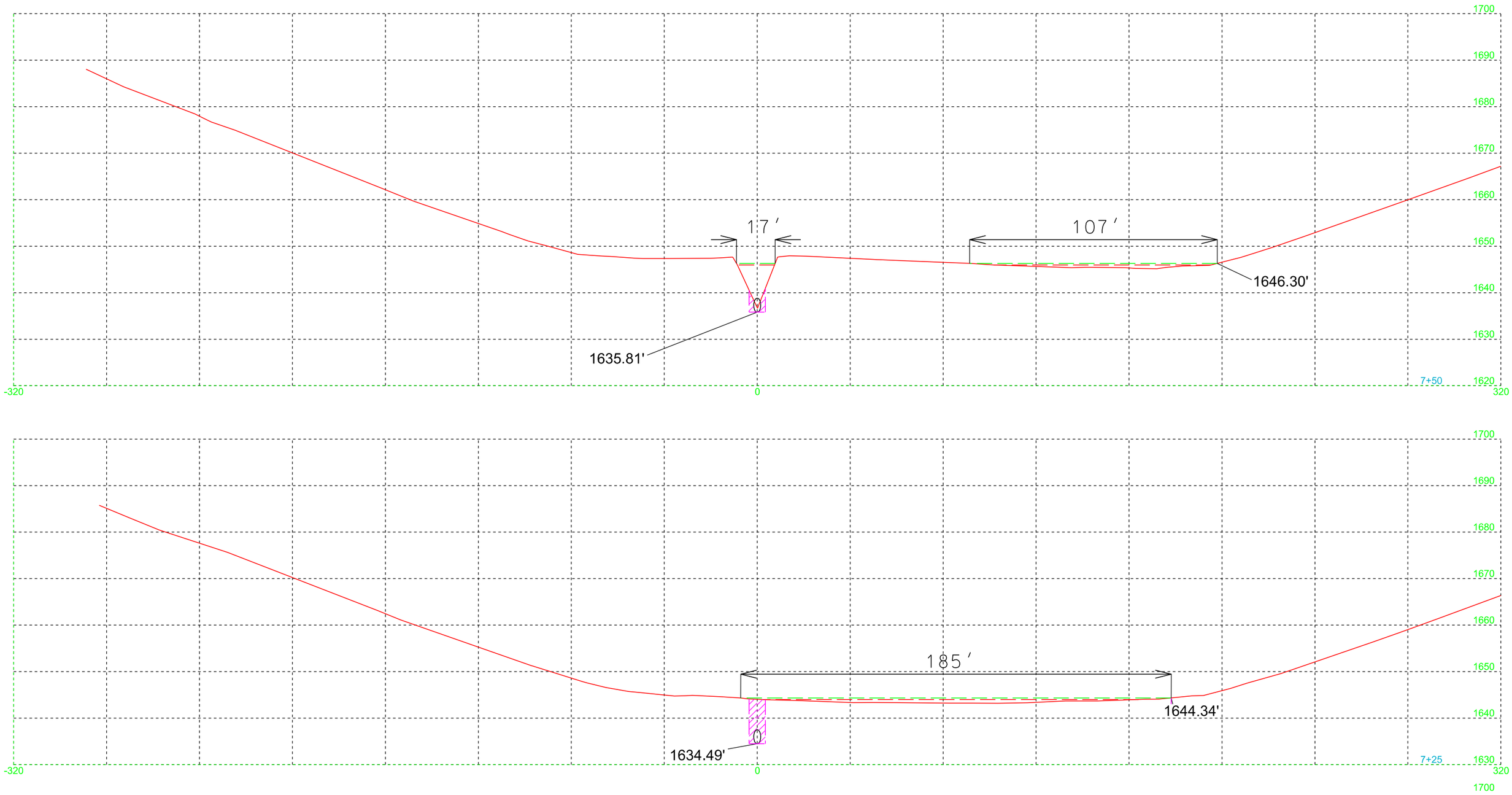
New Topsoil Limit, Contractor Furnished Topsoil

New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 35 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

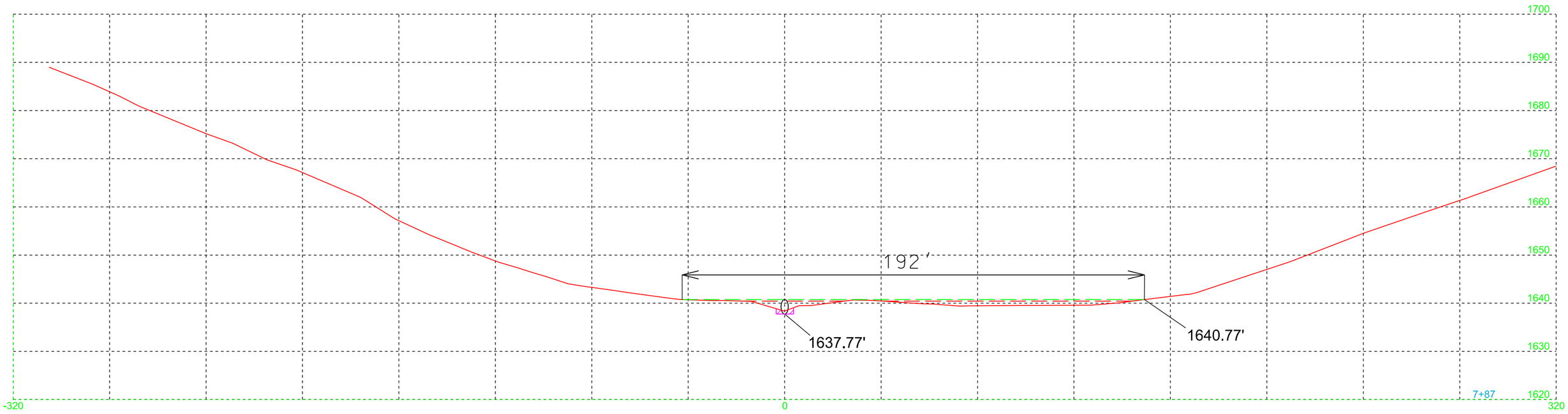
New Topsoil Limit, Contractor Furnished Topsoil

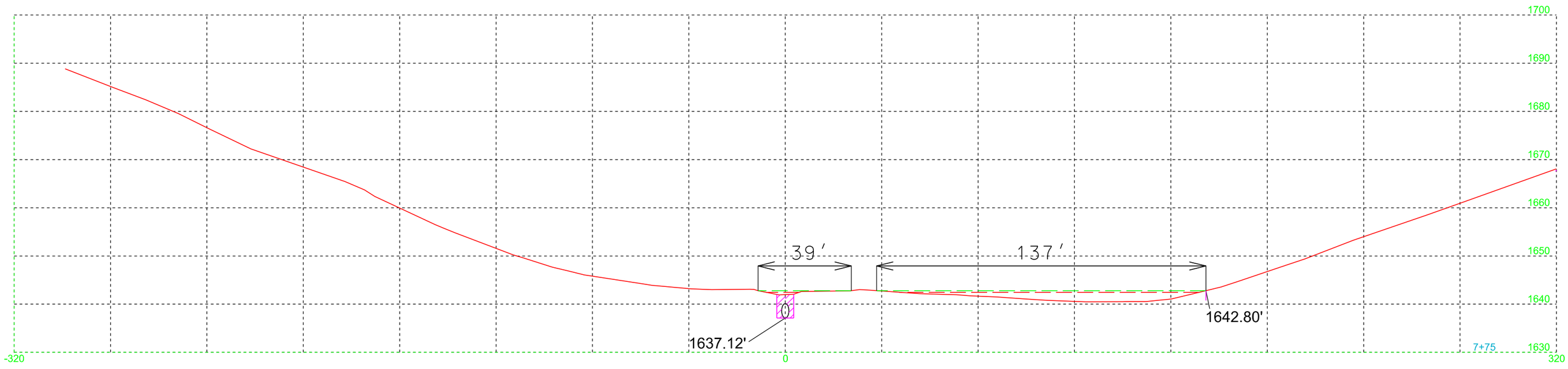
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 36 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

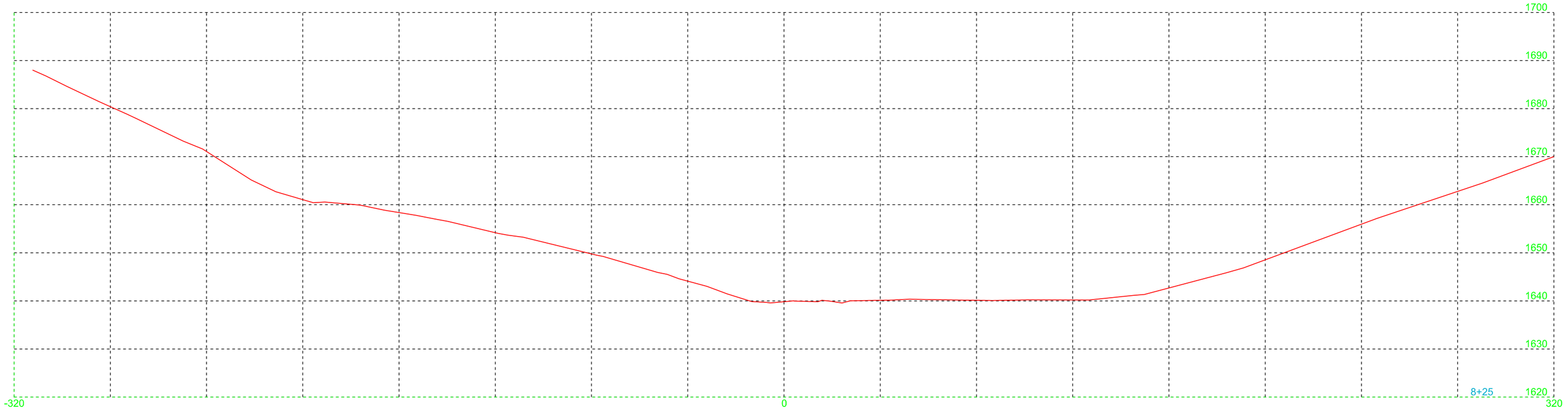
New Topsoil Limit, Contractor Furnished Topsoil

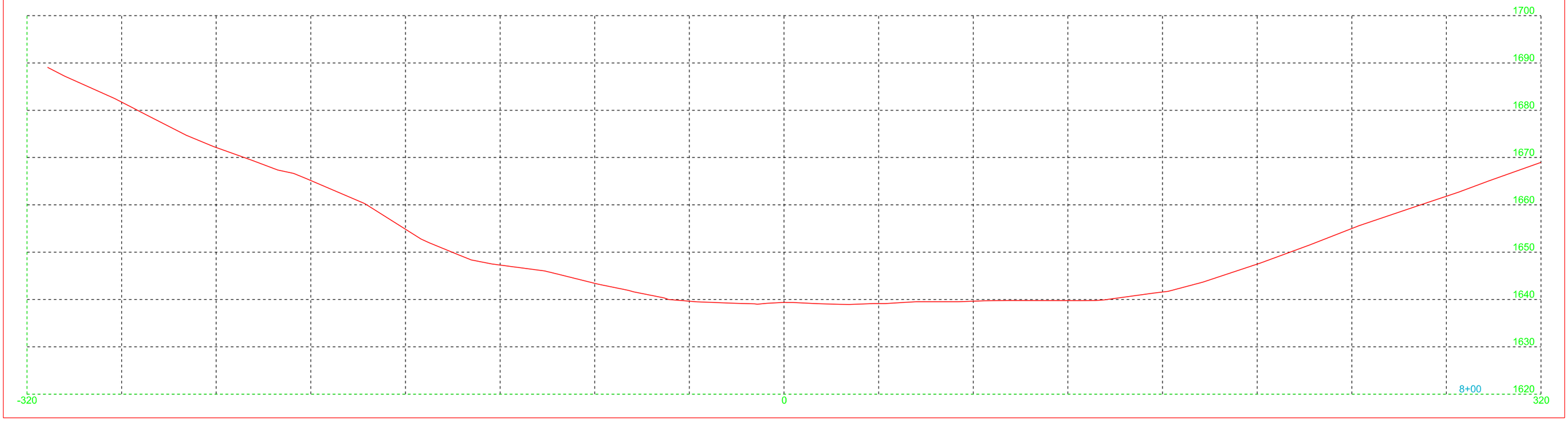
New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 37 | 47 |

# NEW DRAINAGE CHANNEL



Remove & Reuse Material, Unclassifed Exc

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(Backfill w/ Contractor Furnished Borrow Exc)

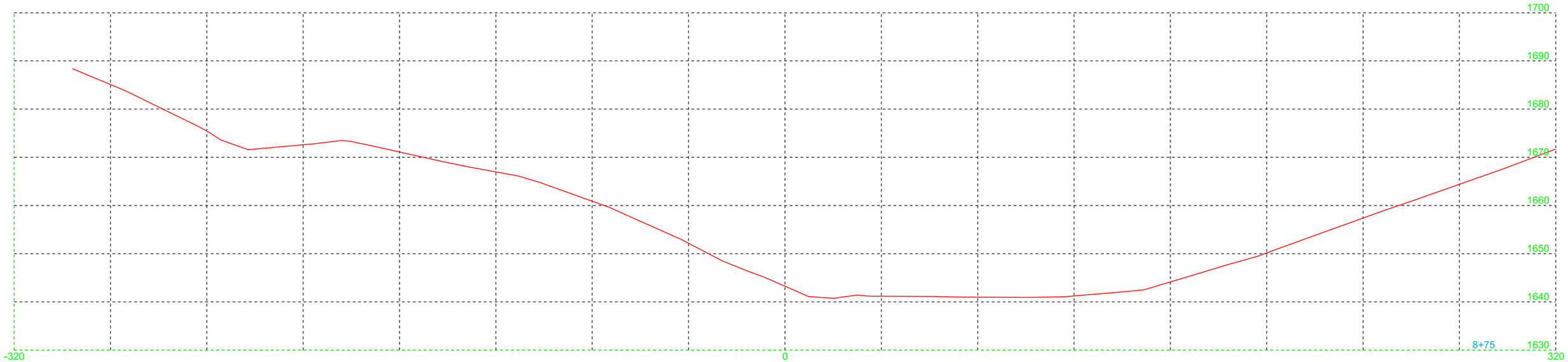
New Topsoil Limit, Contractor Furnished Topsoil

New Fill Limit, Contractor Furnished Borrow Exc

Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 38 | 47 |

# NEW DRAINAGE CHANNEL




Remove & Reuse Material, Unclassifed Exc

Remove Unstable Material, Unclassified Exc
(Backfill w/ Contractor Furnished Borrow Exc)

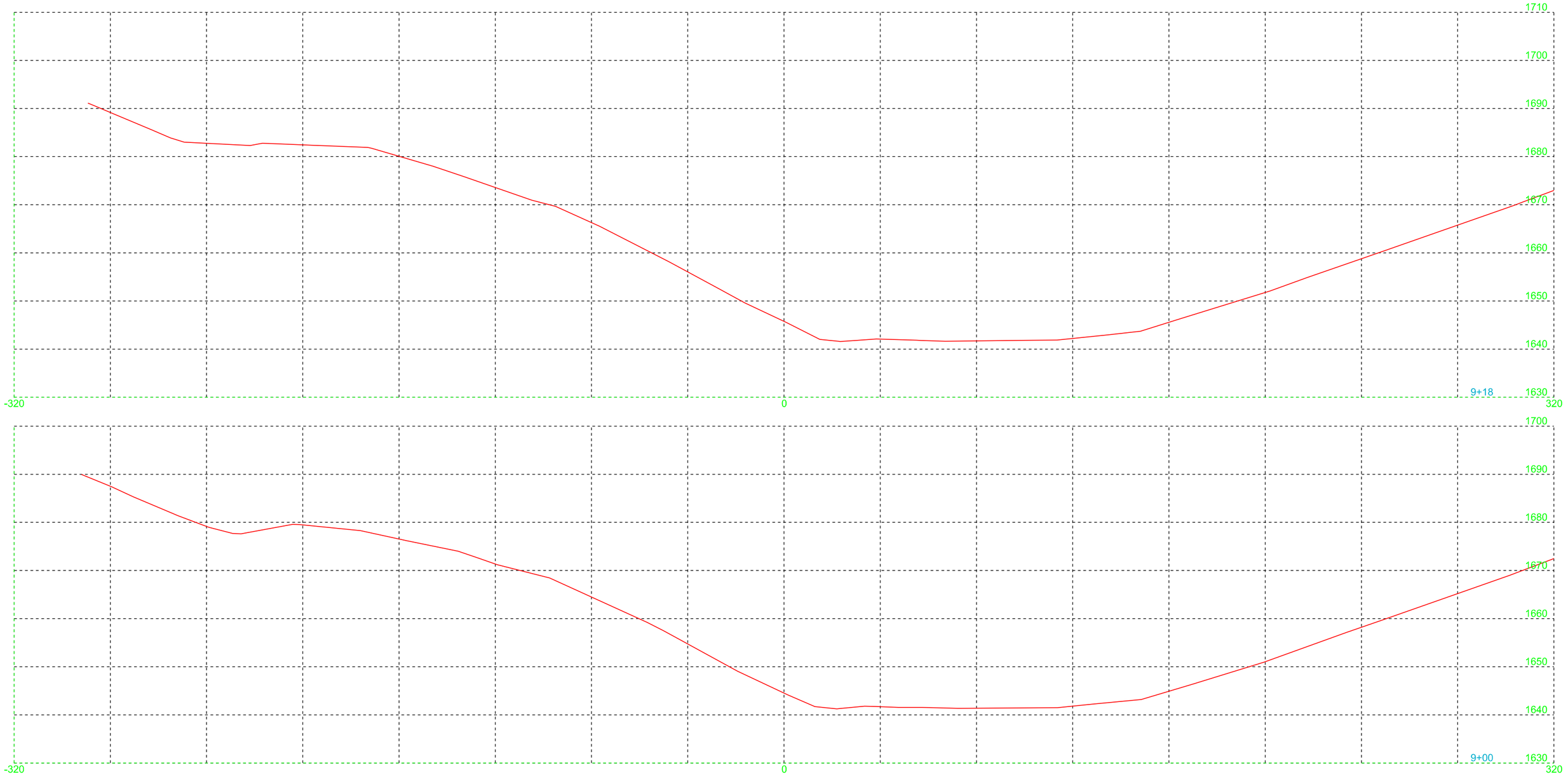
New Topsoil Limit, Contractor Furnished Topsoil

New Fill Limit, Contractor Furnished Borrow Exc

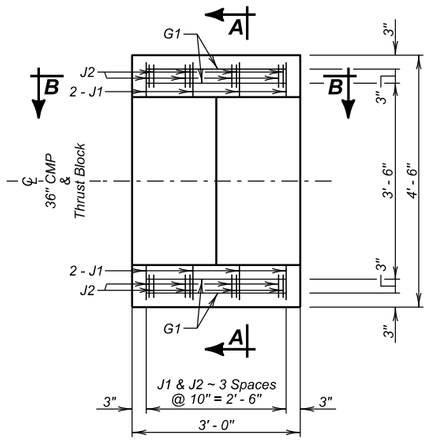
Plotting Date: 07/29/2025

| STATE OF SOUTH DAKOTA | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| | PT 0047(124)51 | 39 | 47 |

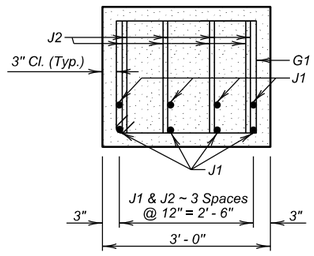
# NEW DRAINAGE CHANNEL



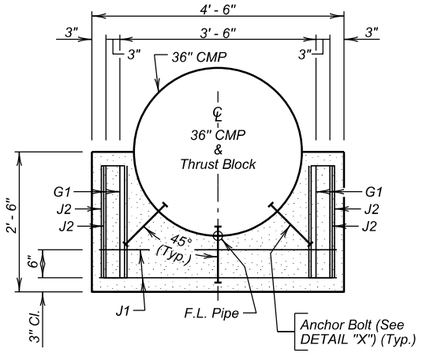
| STATE OF | PROJECT | SHEET NO. | TOTAL SHEETS |
|---|---|---|---|
| S.D. | PT 0047(124)51 | 40 | 47 |




**PLAN**



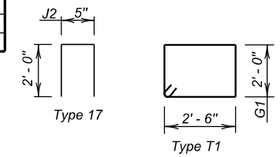

**SECTION B - B**




**SECTION A - A**

## REINFORCING SCHEDULE
(For 1 Thrust Block)

| Mk. | No. | Size | Length | Type | Bending Details |
|---|---|---|---|---|---|
| G1 | 4 | 4 | 9' - 9" | T1 | |
| J1 | 8 | 4 | 4' - 3" | Str | |
| J2 | 16 | 4 | 4' - 5" | 17 | |




NOTE:
All dimensions are out to out of bars.

## ESTIMATED QUANTITIES

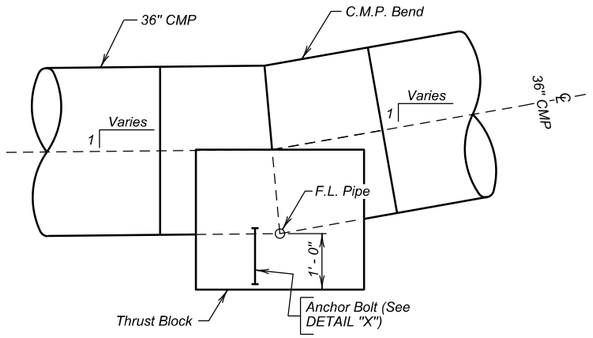
| ITEM | Class M6 Concrete | Reinforcing Steel | Footing Undercut |
|---|---|---|---|
| UNIT | Cu. Yd. | Lb. | Cu. Yd. |
| 1 - 36" C.M.P. Thrust Block | 0.9 | 96 | 1.2 |

## SPECIFICATIONS

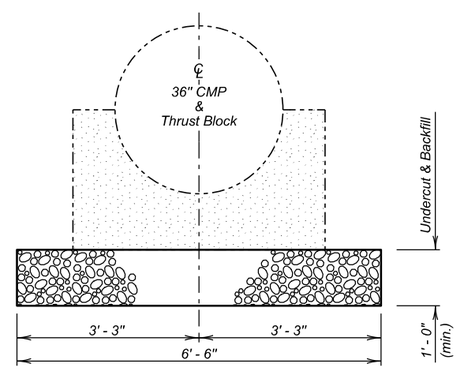
1. Design Specification: AASHTO LRFD Bridge Design Specifications, 10th Edition.
2. Construction Specifications: South Dakota Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

## GENERAL NOTES

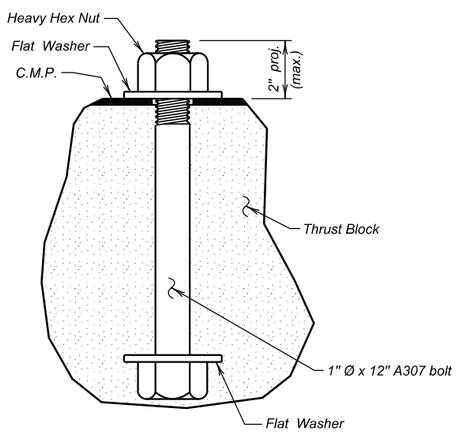
1. Concrete will be Class M6 in conformance with Section 462.
2. All reinforcing steel will conform to ASTM A615 Grade 60.
3. All exposed edges will be chamfered ¾".
4. Thrust block must be cast around corrugated metal downspout.
5. Anchor Bolts shall be 1" Ø x 12" A307 bolts with heavy hex nuts and 2 washers. Bolts, nuts and washers will be galvanized in accordance with ASTM F2329. Three (3) bolts or equivalent as approved by the Engineer, are required for each thrust block. Embed bolts in concrete thrust block as detailed.
6. All costs for furnishing and installing the galvanized Anchor Bolts will be incidental to the other contract items.
7. Material for backfilling the undercut area will conform to the gradation requirements of either Base Course in Section 882.
9. Backfill material will be placed in layers not to exceed 6 inches loose depth and compacted to 95% or greater of the maximum dry density as determined by the Specific Density Method.



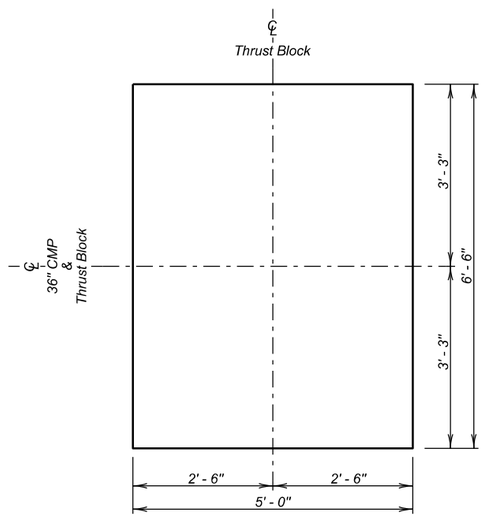

**THRUST BLOCK DETAIL**




**TYPICAL SECTION**
(For Limits of Undercut)




**DETAIL "X"**




**UNDERCUT LAYOUT**

**GENERAL DRAWING AND QUANTITIES**

FOR

# 36" C.M.P. THRUST BLOCK

STA. 875 + 61.00 - 72' LT. PT 0047(124)51

PCN 08QP

LYMAN COUNTY

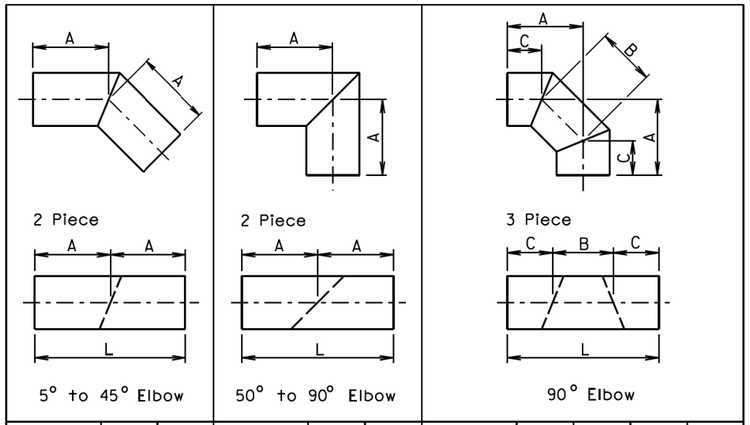
S. D. DEPT. OF TRANSPORTATION

JUNE 2025

1 OF 1

PLANS BY :
OFFICE OF BRIDGE DESIGN, SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

| DESIGNED BY | CK. DES. BY | DRAFTED BY | |
|---|---|---|---|
| JH | CL | JH | Steve A Johnson BRIDGE ENGINEER |
| LYMN08QP | 08QPH01 | | |




| Diameter | A | L | Diameter | A | L | Diameter | A | B | C | L |
|---|---|---|---|---|---|---|---|---|---|---|
| Inches | Feet | Feet | Inches | Feet | Feet | Inches | Inches | | | Feet |
| 12 | 1 | 2 | 12 | 2 | 4 | 12 | 25½ | 11 | 18½ | 4 |
| 15 | 1 | 2 | 15 | 2 | 4 | 15 | 26½ | 12 | 18 | 4 |
| 18 | 1 | 2 | 18 | 2 | 4 | 18 | 27 | 14 | 17 | 4 |
| 21 | 2 | 4 | 21 | 2 | 4 | 21 | 27 | 15 | 16½ | 4 |
| 24 | 2 | 4 | 24 | 2 | 4 | 24 | 27½ | 16 | 16 | 4 |
| 27 | 2 | 4 | 27 | 2 | 4 | 27 | 27½ | 17 | 15½ | 4 |
| 30 | 2 | 4 | 30 | 3 | 6 | 30 | 40 | 19 | 26½ | 6 |
| 33 | 2 | 4 | 33 | 3 | 6 | 33 | 40 | 20 | 26 | 6 |
| 36 | 2 | 4 | 36 | 3 | 6 | 36 | 40½ | 21 | 25½ | 6 |
| 42 | 2 | 4 | 42 | 3 | 6 | 42 | 41 | 23 | 24½ | 6 |
| 48 | 2 | 4 | 48 | 4 | 8 | 48 | 53½ | 26 | 35 | 8 |
| 54 | 3 | 6 | 54 | 4 | 8 | 54 | 54 | 28 | 34 | 8 |
| 60 | 3 | 6 | 60 | 4 | 8 | 60 | 54½ | 31 | 32½ | 8 |
| 66 | 3 | 6 | 66 | 4 | 8 | 66 | 54 | 33 | 31½ | 8 |
| 72 | 3 | 6 | 72 | 5 | 10 | 72 | 67½ | 36 | 42 | 10 |
| 78 | 3 | 6 | 78 | 5 | 10 | 78 | 68 | 39 | 40½ | 10 |
| 84 | 3 | 6 | 84 | 5 | 10 | 84 | 68½ | 41 | 39½ | 10 |
| 90 | 3 | 6 | 90 | 6 | 12 | 90 | 70 | 46 | 37 | 10 |
| 96 | 3 | 6 | 96 | 6 | 12 | 96 | 82 | 46 | 49 | 12 |

## FABRICATED ELBOW LENGTHS FOR ALL CORRUGATIONS

**GENERAL NOTES:**

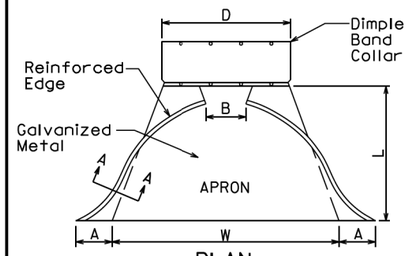
All dimensions shown are nominal.

L = Linear Feet of C.M.P. required to fabricate fitting.

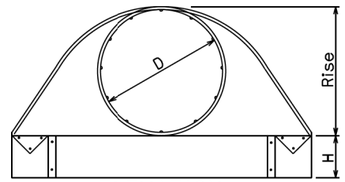
*June 26, 2001*

| Published Date: 2026 | SDDOT | C.M.P. FABRICATED LENGTHS FOR ELBOWS | PLATE NUMBER 450.32 |
|---|---|---|---|
| | | | Sheet 1 of 1 |

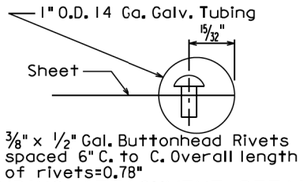
Alternate Type Connector Sections may be used with approval of the Engineer.




PLAN




ELEVATION

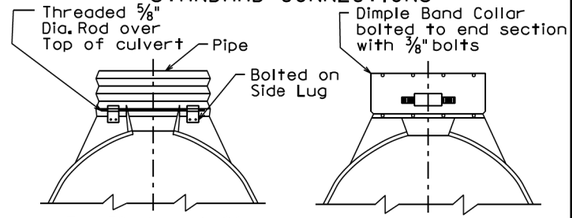



⅜" x ½" Gal. Buttonhead Rivets spaced 6" C. to C. Overall length of rivets=0.78"

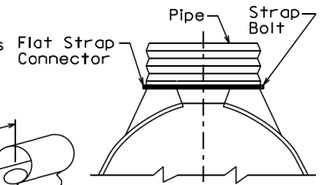
TUBING ATTACHMENT DETAILS

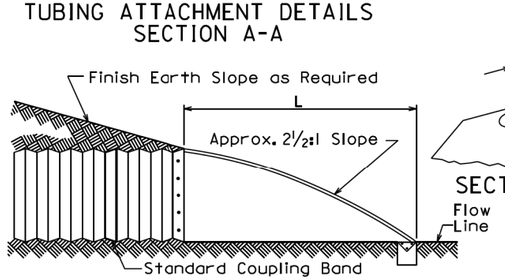
| Dia. D (in.) | Ga. | DIMENSIONS (in.) A | B | H | L | W | Approx. Slope | Body |
|---|---|---|---|---|---|---|---|---|
| 12 | 16 | 6 | 6 | 6 | 21 | 24 | 2½:1 | 1 Pc. |
| 15 | 16 | 7 | 8 | 6 | 26 | 30 | 2½:1 | 1 Pc. |
| 18 | 16 | 8 | 10 | 6 | 31 | 36 | 2½:1 | 1 Pc. |
| 21 | 16 | 9 | 12 | 6 | 36 | 42 | 2½:1 | 1 Pc. |
| 24 | 16 | 10 | 13 | 6 | 41 | 48 | 2½:1 | 1 Pc. |
| 30 | 14 | 12 | 16 | 8 | 46 | 60 | 2½:1 | 1 Pc. |
| 36 | 14 | 14 | 19 | 9 | 51 | 72 | 2½:1 | 2 Pc. |
| 42 | 12 | 16 | 22 | 11 | 60 | 84 | 2½:1 | 2 Pc. |
| 48 | 12 | 18 | 27 | 12 | 69 | 90 | 2¼:1 | 2 Pc. |
| 54 | 12 | 18 | 30 | 12 | 78 | 102 | 2:1 | 3 Pc. |
| 60 | 12 | 18 | 33 | 12 | 84 | 114 | 1¾:1 | 3 Pc. |
| 66 | 12 | 18 | 36 | 12 | 87 | 120 | 1½:1 | 3 Pc. |
| 72 | 12 | 18 | 39 | 12 | 87 | 126 | 1⅓:1 | 3 Pc. |
| 78 | 12 | 18 | 42 | 12 | 87 | 132 | 1¼:1 | 3 Pc. |
| 84 | 12 | 18 | 45 | 12 | 87 | 138 | 1⅙:1 | 3 Pc. |

## STANDARD CONNECTIONS

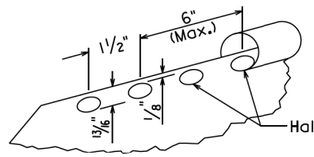



NOTE:
Tubing is slipped over the sheet and rivets or lugs prior to forming operations of the apron.

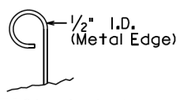



TYPICAL CROSS-SECTION




SECTION A-A (alternate)




SECTION A-A (alternate)

**GENERAL NOTES:**

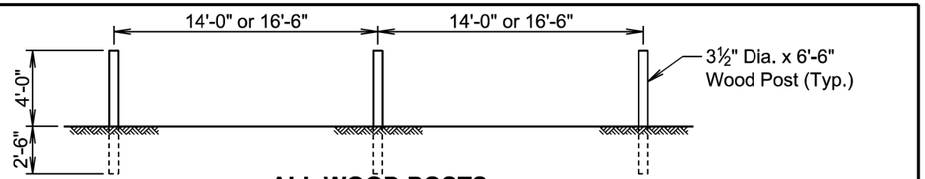
All 3 pc. bodies shall have 12 Ga. sides and 10 Ga. center panels. Width of center panels shall be greater than 20% of the pipe periphery. Multiple panel bodies to have lap seams tightly joined by ⅜" Dia. galvanized rivets or bolts.

For 60" through 84" sizes, reinforced edges shall be supplemented with galvanized stiffener angles. The angles will be 2" x 2" x ¼" for 60" through 72" diameters and 2½" x 2½" x¼" for 78" and 84" diameters. The angles shall be attached by ⅜" diameter galvanized nuts and bolts.

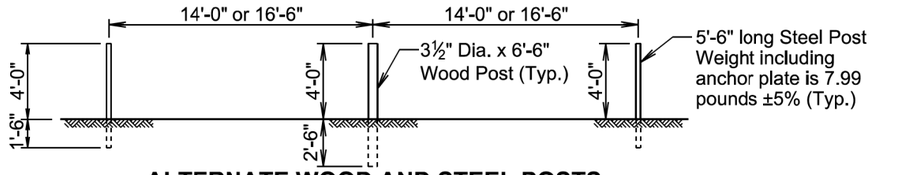
Rivets and Bolts shall be ⅜" Dia. Min. for 10 Ga. and 12 Ga. sheet, and 5/16" Dia. Min. for 14 Ga. and 16 Ga. sheets. Tighten nuts with torque wrench to 25 lbs. torque.

*March 31, 2000*

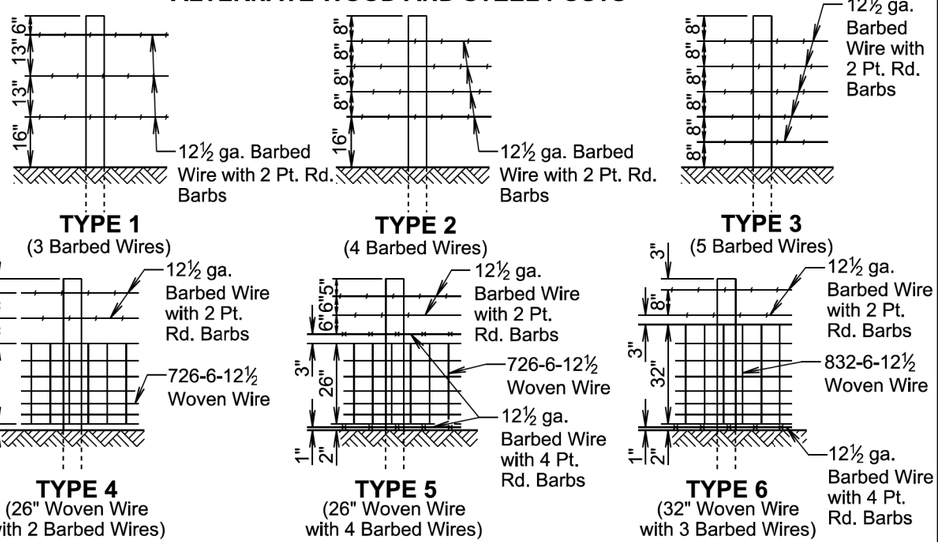
| Published Date: 2026 | SDDOT | C.M.P. FLARED ENDS | PLATE NUMBER 450.35 |
|---|---|---|---|
| | | | Sheet 1 of 1 |




**ALL WOOD POSTS**




**ALTERNATE WOOD AND STEEL POSTS**




| TYPE OF FENCE | | LINE POST SPACING | BARBED WIRE | | WOVEN WIRE |
|---|---|---|---|---|---|
| | | | WIRE GAGE | NUMBER AND SHAPE OF BARBS | STYLE OR DESIGN NO. |
| TYPE | DESCRIPTION | | | | |
| 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.<br>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.<br>1 wire with 4 Pt. Rd. | 832-6-12½ |

**GENERAL NOTES:**

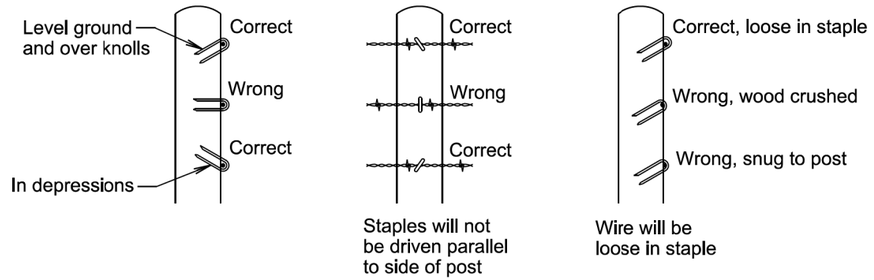
Fence types designated on the plans that are followed by the letter S will have smooth (barbless) wires.

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.

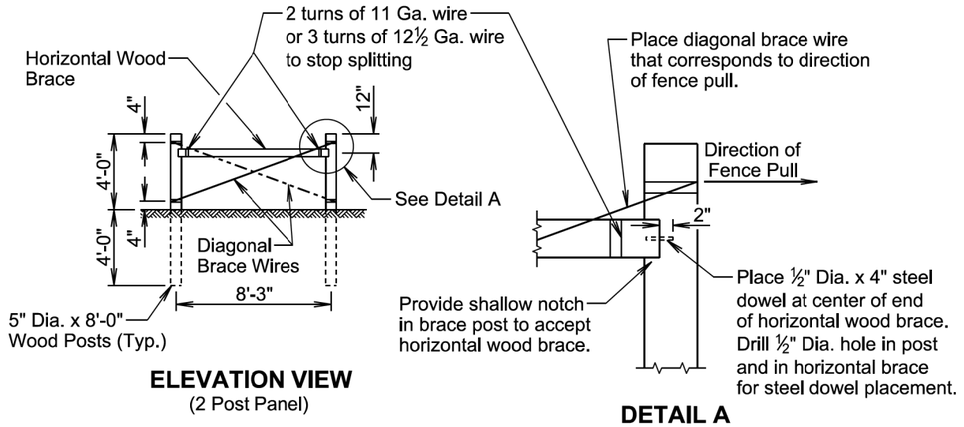
Right-of-Way fence other than on Interstate Projects will be constructed within one foot of the Right-of-Way on the Landowner's side except at bridge openings, cattle passes, and as otherwise directed by the Engineer.

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*

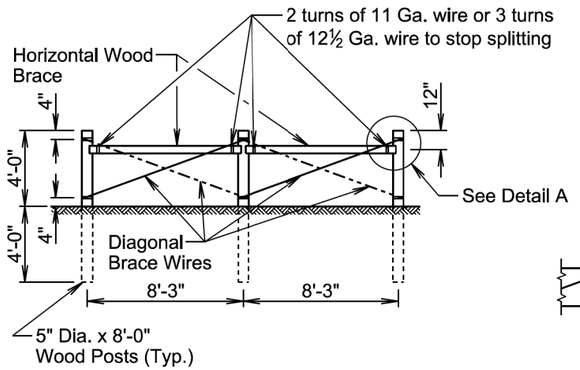
| Published Date: 2026 | SDDOT | STAPLE INSTALLATION AND GENERAL RIGHT-OF-WAY FENCE NOTES | PLATE NUMBER 620.02 |
|---|---|---|---|
| | | | Sheet 1 of 1 |



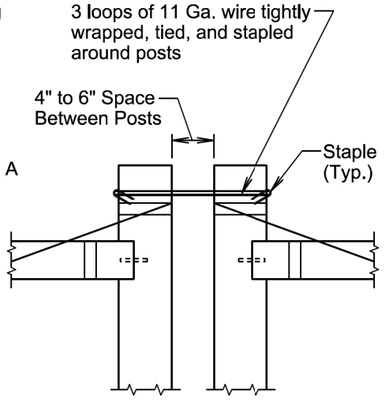

**ELEVATION VIEW**
(2 Post Panel)




**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.

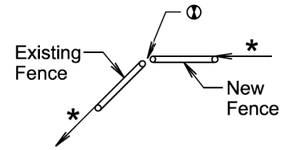
① See Detail B on Sheet 1 of 3.

**GENERAL NOTE:**

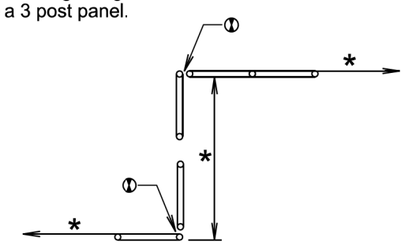
All radius of curvature stated for fence are at centerline of roadway.

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

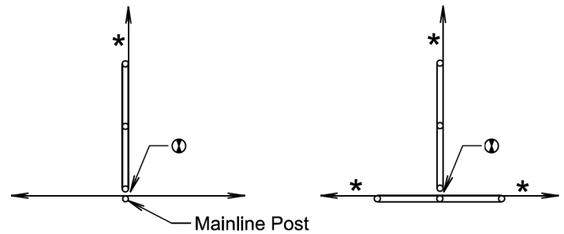
* If fence length is greater than 600' to next corner use a 3 post panel.



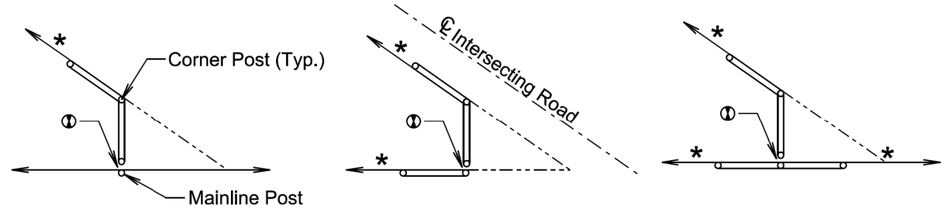

**BEGIN OR END FENCE**
(Where new fence ties into existing fence)


**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

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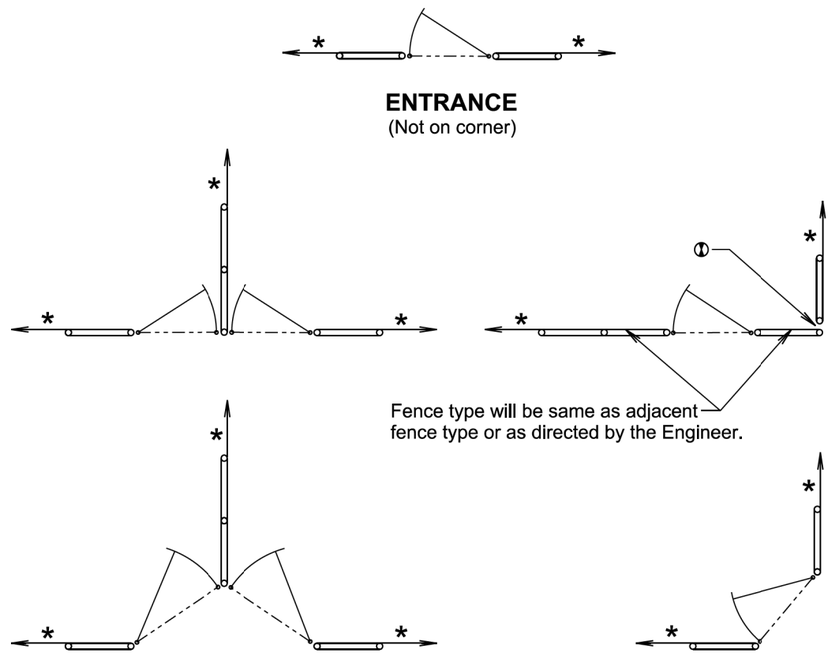
|---|---|---|---|




* 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

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| | | | Sheet 3 of 3 |

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.

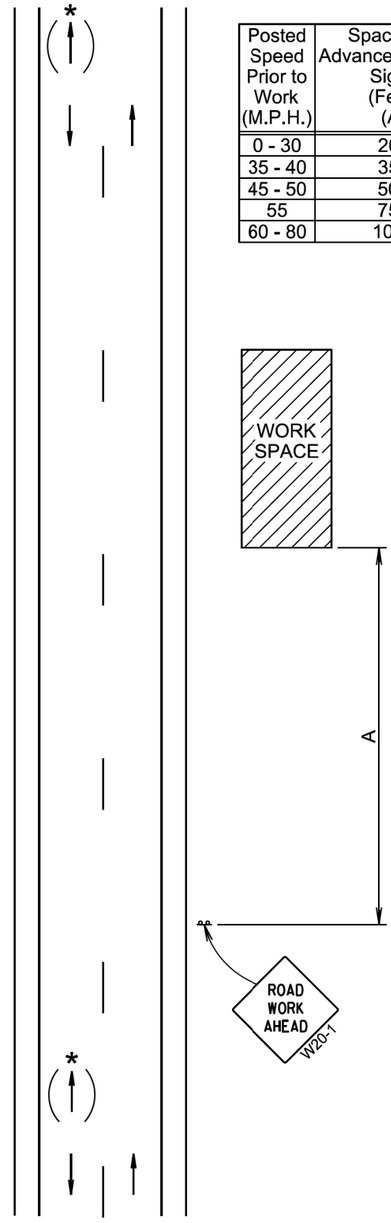
The signs illustrated will be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

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.

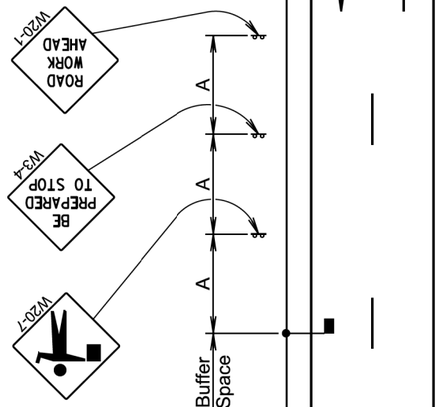
For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

| 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 |




Conditions represented are for work that requires closings during daytime hours only.

This application is intended for a planned temporary closing not to exceed 15 to 20 minutes.

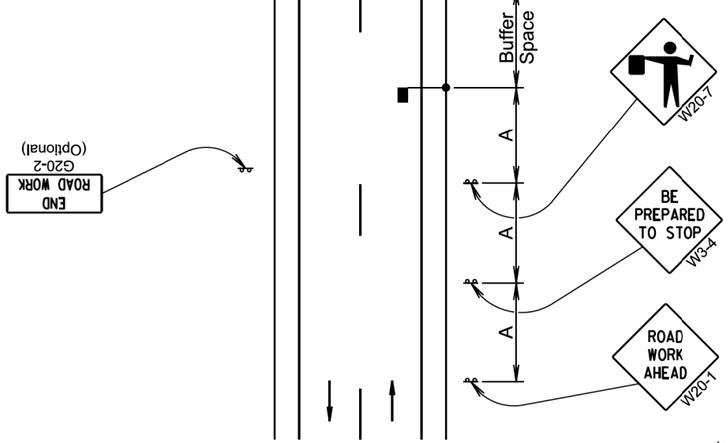
| Posted Speed Prior to Work (M.P.H.) | Spacing of Advance Warning Signs (Feet) (A) |
|---|---|
| 0 - 30 | 200 |
| 35 - 40 | 350 |
| 45 - 50 | 500 |
| 55 | 750 |
| 60 - 65 | 1000 |

Flagger

END ROAD WORK
G20-2
(Optional)

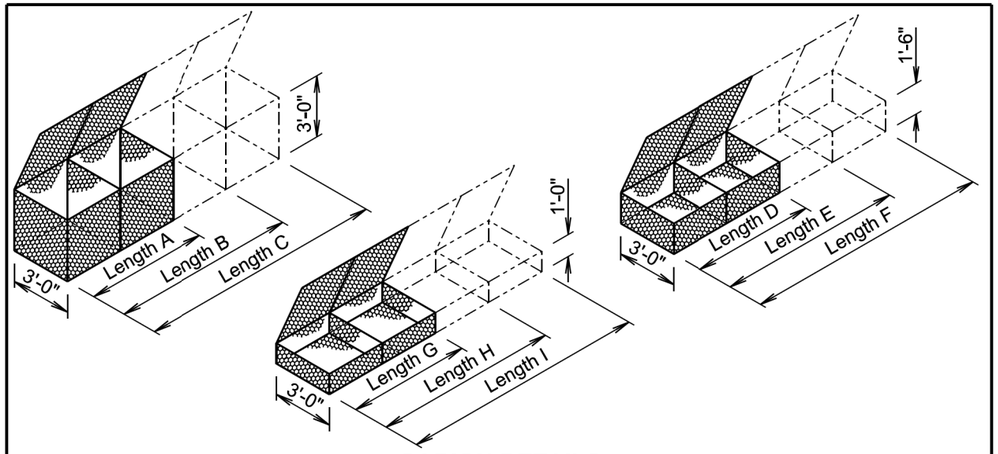
| Posted Speed Prior to Work (M.P.H.) | Length of Longitudinal Buffer Space (Feet) |
|---|---|
| 20 | 115 |
| 25 | 155 |
| 30 | 200 |
| 35 | 250 |
| 40 | 305 |
| 45 | 360 |
| 50 | 425 |
| 55 | 495 |
| 60 | 570 |
| 65 | 645 |

Buffer space dependent on work site limitations.




January 22, 2021

| Published Date: 2026 | SDDOT | TEMPORARY ROAD WORK | PLATE NUMBER 634.30 |
|---|---|---|---|
| | | | Sheet 1 of 1 |




## GABION DETAILS

| STANDARD SIZES | | | | | |
|---|---|---|---|---|---|
| SIZE | LENGTH | WIDTH | HEIGHT | NUMBER OF CELLS | CAPACITY (Cu. Yd.) |
| A | 6'-0" | 3'-0" | 3'-0" | 2 | 2.0 |
| B | 9'-0" | 3'-0" | 3'-0" | 3 | 3.0 |
| C | 12'-0" | 3'-0" | 3'-0" | 4 | 4.0 |
| D | 6'-0" | 3'-0" | 1'-6" | 2 | 1.0 |
| E | 9'-0" | 3'-0" | 1'-6" | 3 | 1.5 |
| F | 12'-0" | 3'-0" | 1'-6" | 4 | 2.0 |
| G | 6'-0" | 3'-0" | 1'-0" | 2 | 0.7 |
| H | 9'-0" | 3'-0" | 1'-0" | 3 | 1.0 |
| I | 12'-0" | 3'-0" | 1'-0" | 4 | 1.3 |

Above dimensions subject to mill tolerances.

**GENERAL NOTES:**

Lacing and internal connecting wire will be 0.0866 inch diameter steel wire ASTM A641, Class 3 soft temper measured after galvanizing and for PVC coated gabions will be 0.0866 inch diameter steel wire measured after galvanizing but before PVC coating.

The lacing procedure is as follows:

1. Cut a length of lacing wire approximately 1½ times the distance to be laced but not exceeding 5 feet.
2. Secure the wire terminal at the corner by looping and twisting.
3. Proceed lacing with alternating single and double loops at a spacing not to exceed 6 inches.
4. Securely fasten the other lacing wire terminal.

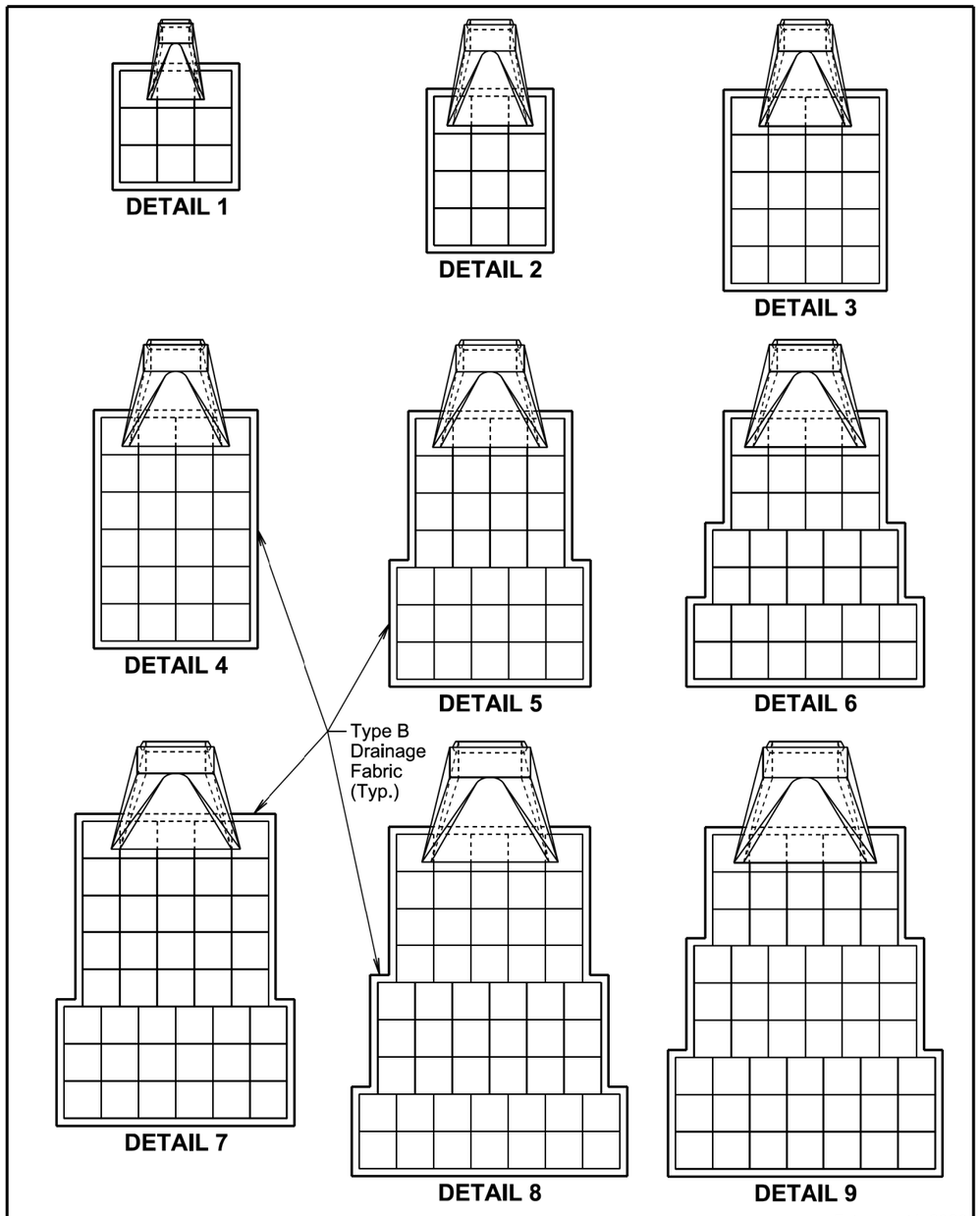
Wire lacing or interlocking type fasteners will be used for gabion assembly and final construction of gabion structures. Interlocking fasteners for galvanized gabions will be high tensile 0.120 inch diameter galvanized steel wire measured after galvanizing. The galvanizing will conform to ASTM A641-92, Class 3 coating. Fasteners will also be in accordance with ASTM A764, Class II, Type III.

Interlocking fasteners for PVC coated gabions will be high tensile 0.120 inch diameter stainless steel wire conforming to ASTM A313, Type 302, Class 1. The spacing of the interlocking fasteners during all phases of assembly and construction will not exceed 6 inches.

All fasteners will be placed where the mesh weaves around the selvage wire at the vertical and horizontal joints.

February 14, 2020

| Published Date: 2026 | SDDOT | BANK AND CHANNEL PROTECTION GABIONS | PLATE NUMBER 720.01 |
|---|---|---|---|
| | | | Sheet 1 of 1 |




February 14, 2020

| Published Date: 2026 | SDDOT | BANK AND CHANNEL PROTECTION GABION PLACEMENT UNDER PIPE END SECTIONS | PLATE NUMBER 720.03 Sheet 1 of 2 |
|---|---|---|---|

*** ESTIMATED QUANTITIES**

| | Detail | Pipe Diameter (Inches) | Gabion (Cu. Yd.) | Type B Drainage Fabric (Sq. Yd.) |
|---|---|---|---|---|
| RCP, RCP Arch, CMP, and CMP Arch | 1 | 12, 18, and 24 | 4.5 | 15 |
| | 2 | 30 and 36 | 6.0 | 19 |
| | 3 | 42 | 10.0 | 29 |
| | 4 | 48 and 54 | 12.0 | 34 |
| | 5 | 60 | 15.5 | 43 |
| | 6 | 66 | 17.0 | 47 |
| | 7 | 72 | 21.5 | 57 |
| | 8 | 78 | 26.0 | 68 |
| | 9 | 84 | 27.0 | 70 |

**GENERAL NOTES:**

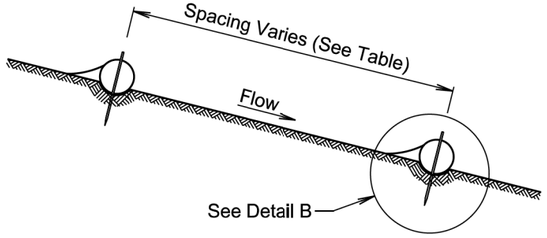
Gabions at outlets of CMP and RCP will be placed under the end section a distance of 2 feet from the outlet end. For CMP end section installations, the upper fabric of the gabions will be modified to accommodate the metal end section as approved by the Engineer.

* Gabion and type B drainage fabric quantities on this standard plate are based on standard gabion sizes D, E, and F as depicted on standard plate 720.01.

Type B drainage fabric will be placed under the gabions and around the exterior sides (perimeter) of the gabions as approved by the Engineer. The type B drainage fabric will be in conformance with Section 831 of the Specifications. Measurement and payment of the type B drainage fabric will be in conformance with Section 720 of the Specifications.

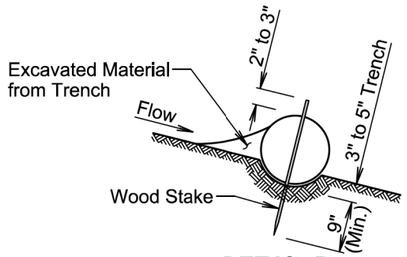
February 14, 2020

| Published Date: 2026 | SDDOT | BANK AND CHANNEL PROTECTION GABION PLACEMENT UNDER PIPE END SECTIONS | PLATE NUMBER 720.03 Sheet 2 of 2 |
|---|---|---|---|

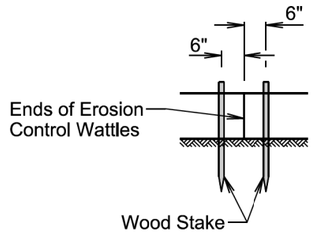



**ELEVATION VIEW**
(Cut or Fill Slope Installation)

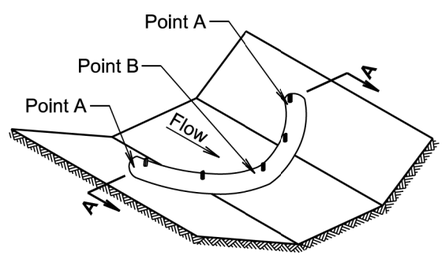
| CUT OR FILL SLOPE INSTALLATION | |
|---|---|
| Slope | Spacing (Ft.) |
| 1:1 | 10 |
| 2:1 | 20 |
| 3:1 | 30 |
| 4:1 | 40 |



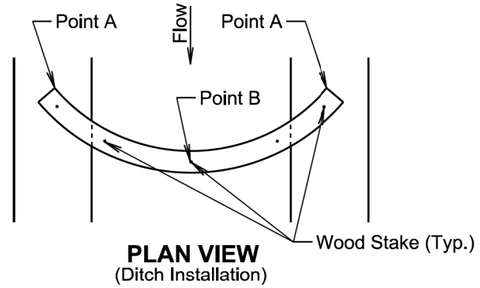

**DETAIL B**
(Typical of All Installations)




**DETAIL C**
(See General Notes)

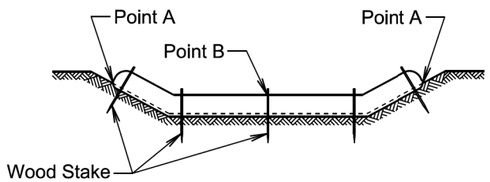



**ISOMETRIC VIEW**
(Ditch Installation)




**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 |