

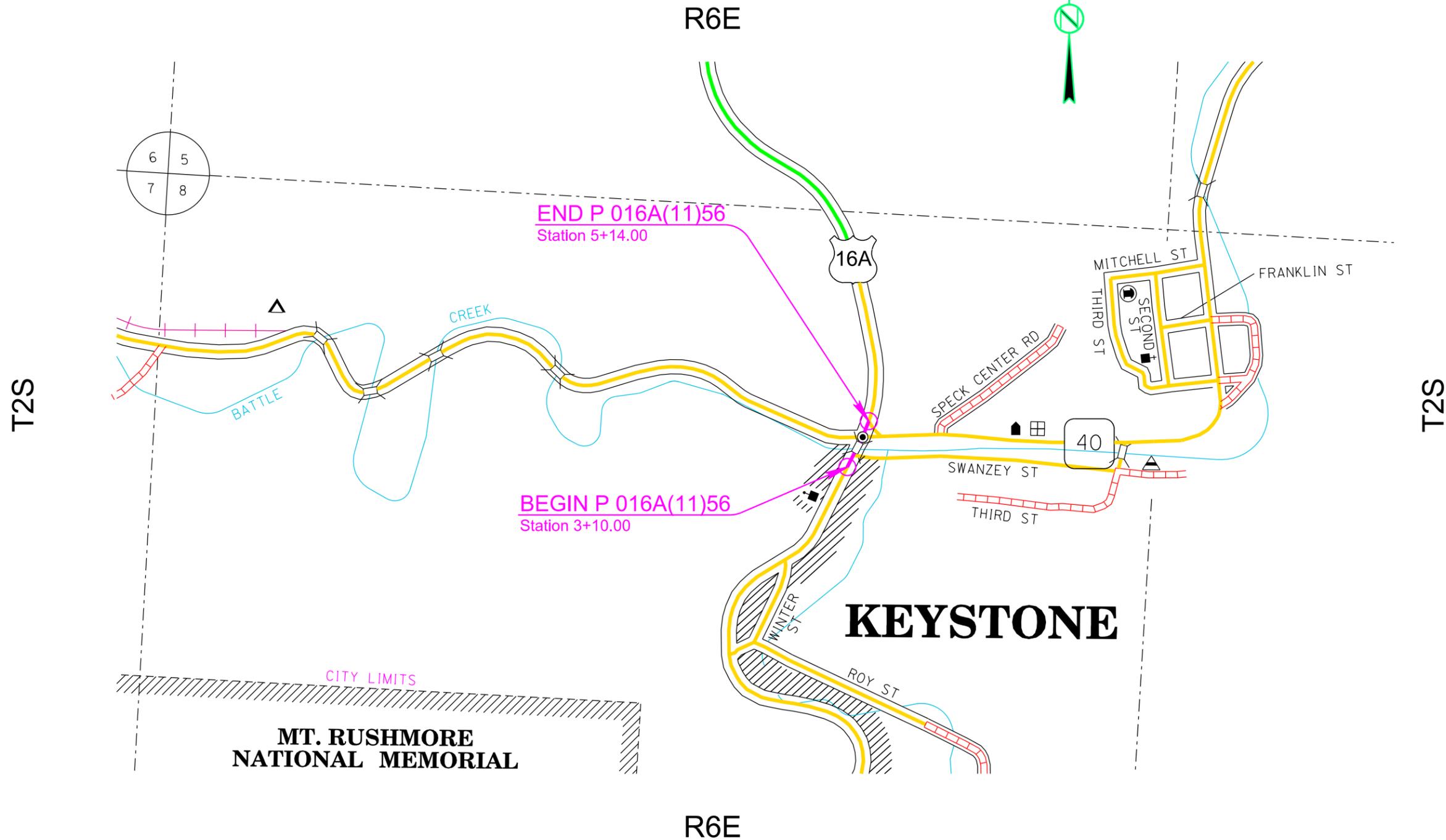
# Section F: Surfacing Plans

STATE OF SOUTH DAKOTA	PROJECT P 016A(11)56	SHEET F1	TOTAL SHEETS F8
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Plotting Date: 01/29/2026

## INDEX OF SHEETS

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- F4 - F5 Typical Surfacing Sections
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**SECTION F – ESTIMATE OF QUANTITIES**

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
260E1010	Base Course	1,343.6	Ton
320E1200	Asphalt Concrete Composite	768.2	Ton
600E0300	Type III Field Laboratory	1	Each

**TYPE III FIELD LABORATORY**

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

**SURFACING THICKNESS DIMENSIONS**

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

**WATER FOR COMPACTION**

The cost of water for compaction of the granular material will be incidental to the various other contract items. A minimum of 4% moisture will be required at the time of compaction unless otherwise directed by the Engineer.

**ASPHALT CONCRETE COMPOSITE**

Asphalt Concrete Composite will include MC-70 Asphalt for Prime placed at the rate of 0.30 gallons per square yard. The Asphalt for Prime will be applied to the Base Course for the full width of the bottom layer of Asphalt Concrete Composite.

Asphalt for tack SS-1h or CSS-1h will be applied prior to each lift of Asphalt Concrete Composite. Asphalt for tack will be applied at a rate of 0.09 gallons per square yard on existing pavement or milled asphalt concrete surfaces and at a rate of 0.06 gallons per square yard on primed base course or new asphalt concrete pavement. The Asphalt for tack will be applied for the full width of the bottom layer of Asphalt Concrete Composite.

**FLUSH SEAL**

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

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

**SAND FOR FLUSH SEAL**

The sand application will be placed on all newly paved surfaces, leaving 12" on center line and 6" on each edge line free of sand.

**SURFACING FOR TRAFFIC CONTROL**

Temporary surfacing for traffic control and surfacing for maintenance of detours will be Asphalt Concrete Composite.

See Section C for Temporary Surfacing information.

An additional 150 tons of Asphalt Concrete Composite has been added to the estimate to be used as directed by the Engineer for maintenance of detour routes. It is anticipated that patching along the detour route will be necessary at the start of the project to ensure the surface can withstand traffic for the duration of the project.

**TABLE OF SURFACING FOR TRAFFIC CONTROL**

Location	Base Course	Asphalt Concrete Composite
	Tons	Tons
Temporary Surfacing (Section C)	60.0	30.0
Maintenance of Detours		150.0
TOTALS:	60.0	180.0

**TABLE OF QUANTITIES**

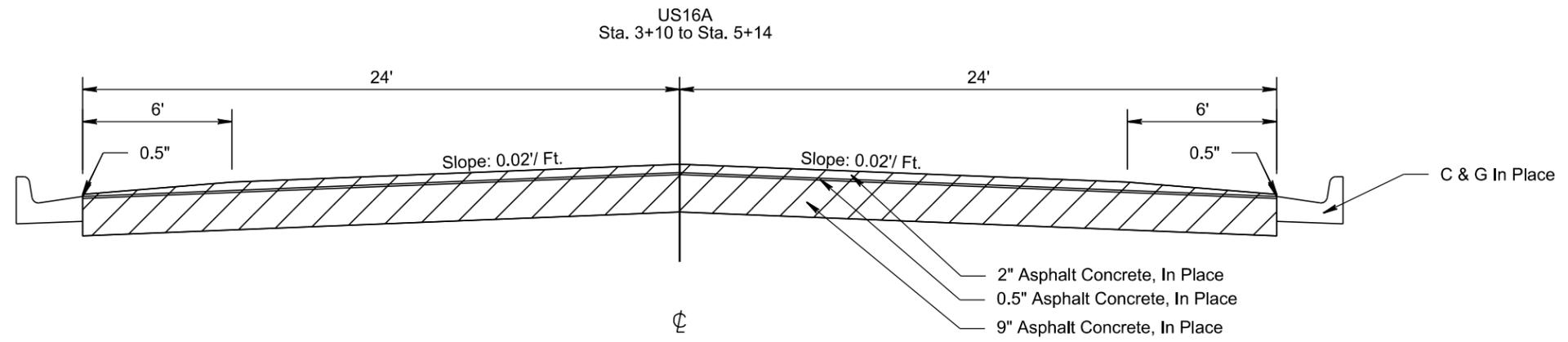
Description	Water for Granular Material (MGal)*	Base Course (Ton)	MC-70 Asphalt for Prime (Ton)*	Blotting Sand for Prime (Ton)*	SS-1h or CSS-1h Asphalt for Tack (Ton)*	Asphalt Concrete Composite (Ton per lift)	SS-1h or CSS-1h Asphalt for Flush Seal (Ton)*	Sand for Flush Seal (Ton)*
* Denotes item for Information Only								
US16A Area	14.7*	1,225.0	2.06*	8.7*	1.33*	193.7 / 193.7 / 193.7	0.37*	6.87*
Parking Area (120 LF)	0.5*	38.8	0.02*		0.01*	1.5 / 1.5 / 1.5	0.01*	0.05*
Guardrail Embankment Area	0.2*	19.8	0.03*		0.01*	2.6	0.01*	
Temporary Surfacing for Traffic Control	0.7*	60.0	0.20*		0.30*	180.0		
<b>TOTALS:</b>	16.1*	1,343.6	2.31*	8.7*	1.65*	768.2	0.39*	6.92*

# IN PLACE TYPICAL SECTIONS

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 Remove Asphalt Concrete Pavement  
See Section B



PLOT SCALE - 1+6.00001

PLOT NAME - 2

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# TYPICAL SURFACING SECTIONS

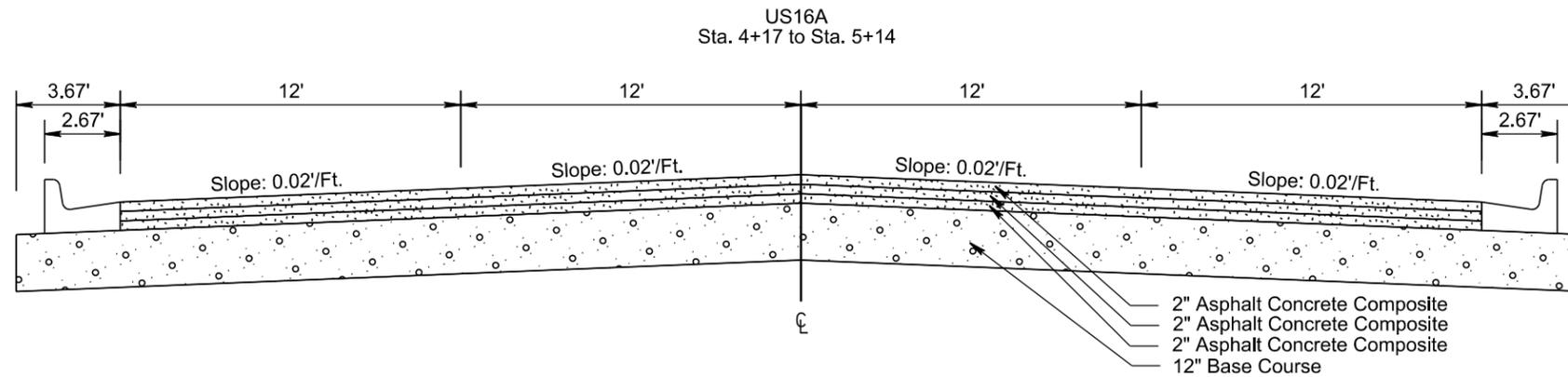
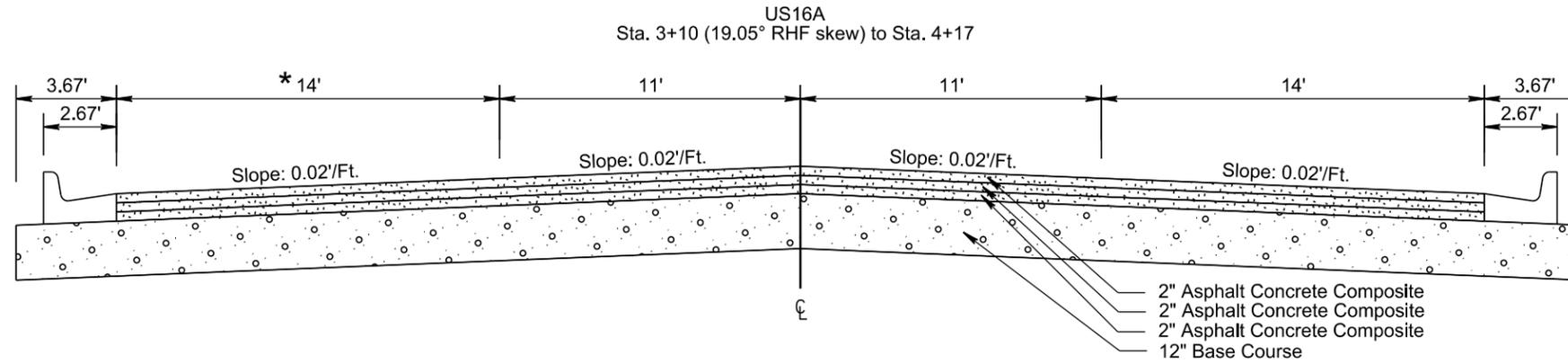
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 016A(11)56	F5	F8

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Transitions:

Sta. 2+99.20 to Sta. 3+08.99  
\* 20.27' to 20.24'

Sta. 3+08.99 to Sta. 3+35.05  
\* 20.24' to 14.00'



PLOT SCALE - 1+6.00001

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PLOT NAME - 3

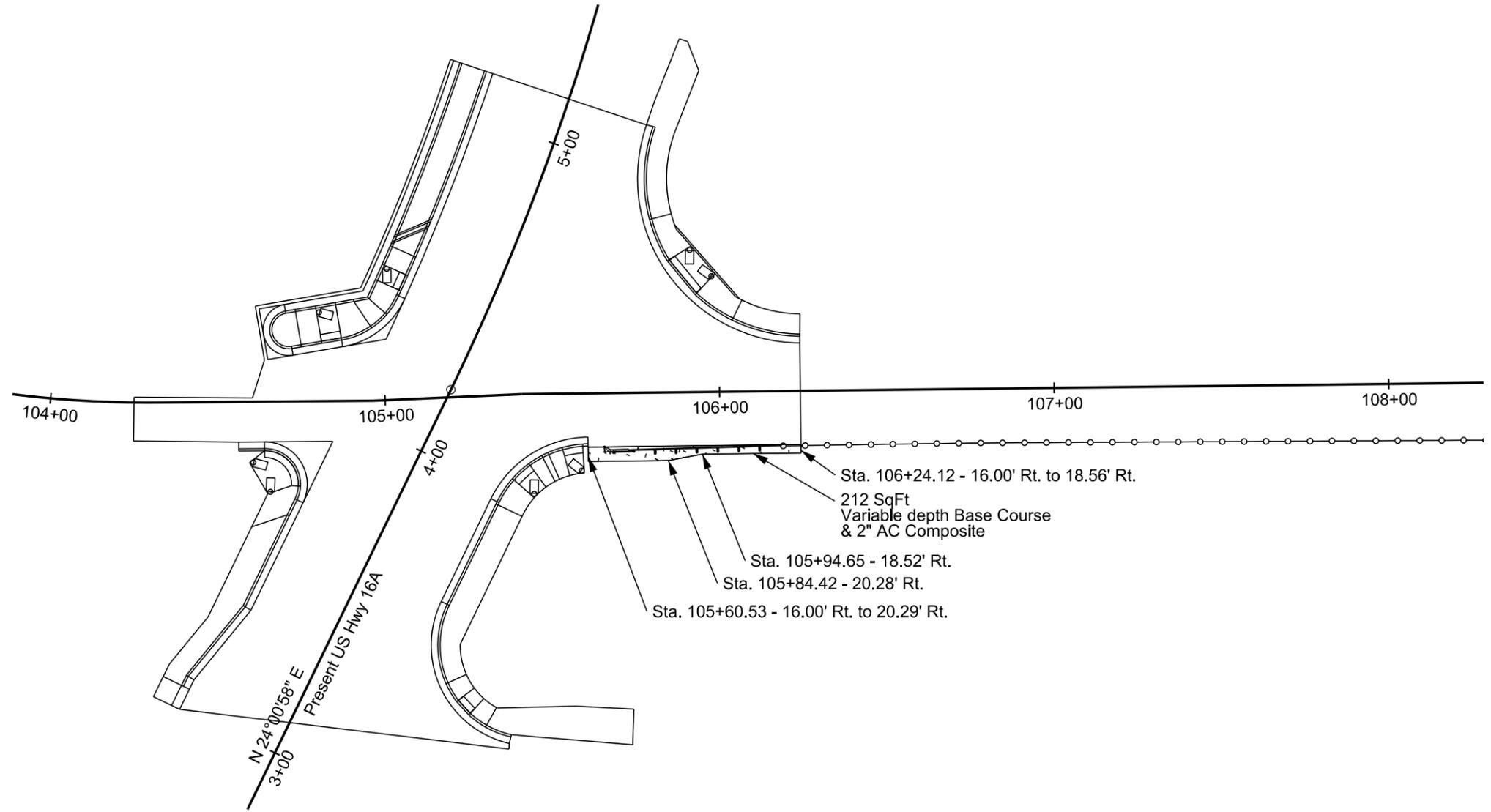
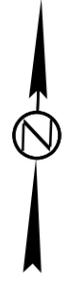
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# GUARDRAIL EMBANKMENT LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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Scale 1 Inch = 40 Feet  
Sheet 1 of 1 Sheets

 Limits of embankment to be surfaced with  
2" Asphalt Concrete Composite over  
Average 16" Base Course



Plot Scale - 1:40

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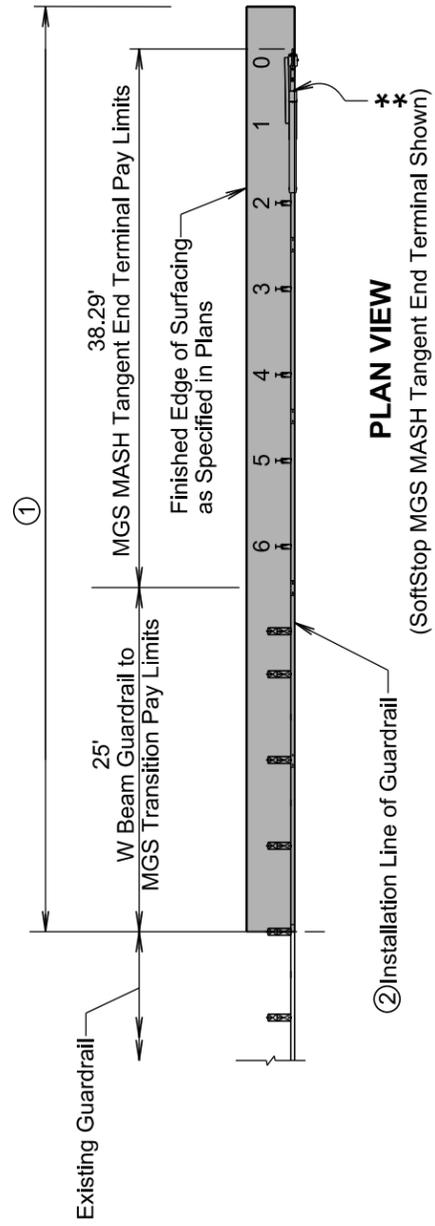
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
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### EMBANKMENT, SURFACING AND PAYMENT LIMITS FOR MGS MASH TANGENT END TERMINAL AND W BEAM GUARDRAIL TO MGS TRANSITION

April 8, 2025



\*\* See standard plate 632.40 for delineation.

2" Asphalt concrete surfacing with variable thickness granular material placed at same slope as roadway cross slope or as approved by the Engineer, but no steeper than a 10:1 slope.

① Inslope as Specified in plans.

② The installation reference line is parallel to the roadway.

**GENERAL NOTES:**

The MGS MASH tangent end terminal will be a Test Level 2 SoftStop Terminal with 8" Composite Blockouts.

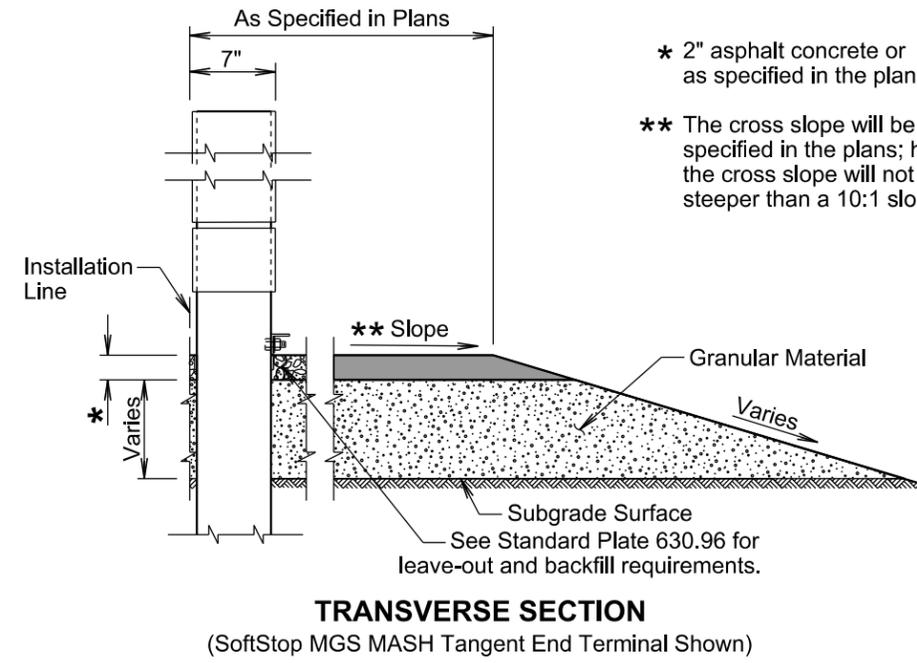
Asphalt concrete will be the same type used elsewhere on the project.

Granular material will be the same type used elsewhere on the project.

### EMBANKMENT, SURFACING, AND PAYMENT LIMITS FOR MGS MASH TANGENT END TERMINAL AND W BEAM GUARDRAIL TO MGS TRANSITION

April 8, 2025

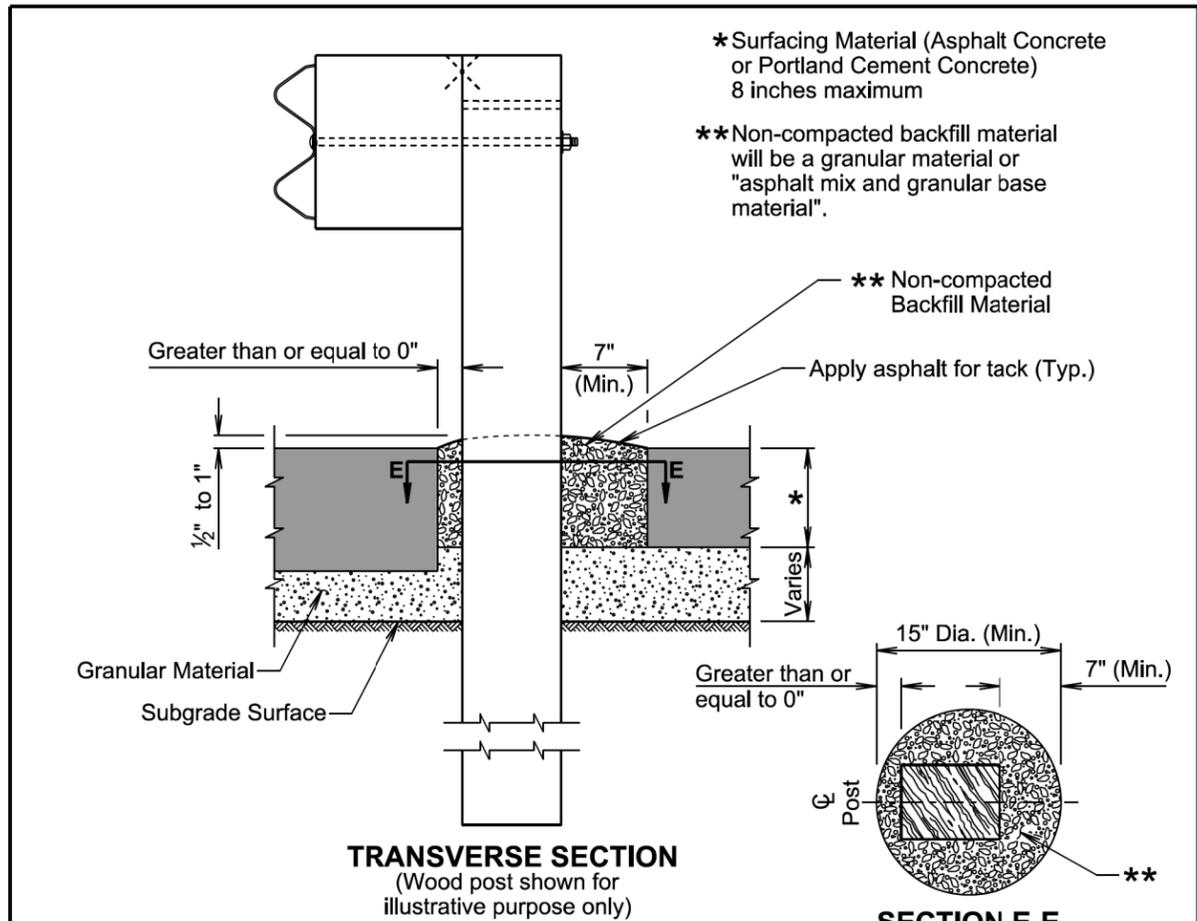
Sheet 2 of 2



\* 2" asphalt concrete or as specified in the plans.

\*\* The cross slope will be as specified in the plans; however, the cross slope will not be steeper than a 10:1 slope.

Plot Scale - 1:200



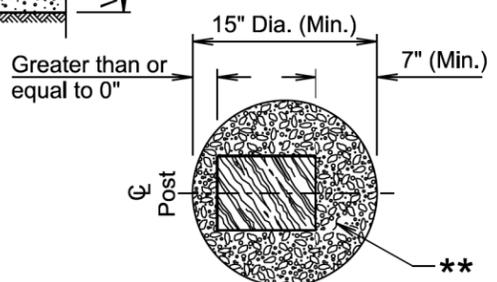
**TRANSVERSE SECTION**  
(Wood post shown for illustrative purpose only)

\* Surfacing Material (Asphalt Concrete or Portland Cement Concrete) 8 inches maximum

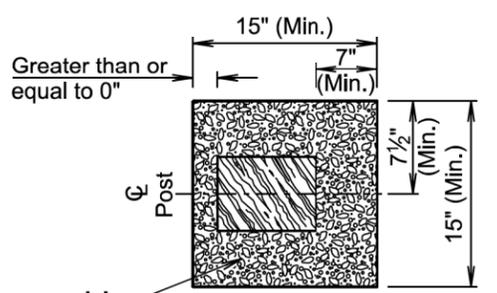
\*\* Non-compacted backfill material will be a granular material or "asphalt mix and granular base material".

\*\* Non-compacted Backfill Material

Apply asphalt for tack (Typ.)



**SECTION E-E**  
(Round option for leave-out and backfill limits)  
(Wood post shown for illustrative purpose only)



**SECTION E-E**  
(Square option for leave-out and backfill limits)  
(Wood post shown for illustrative purpose only)

**GENERAL NOTES:**

The leave-out limits may be increased to accommodate construction equipment and tolerances.

When posts are installed in augured or dug holes, the backfill material will be compacted to the bottom of the pavement surfacing material to the satisfaction of the Engineer. The backfill material for the thickness of the pavement surfacing material will be non-compacted.

The backfill material will be mounded 1/2 inch to 1 inch above the top of the adjacent surfacing as illustrated above.

Asphalt for tack will be applied to the surface of the backfill material at the rate of 0.15 to 0.20 gallons per square yard.

All costs for constructing the leave-out including labor, equipment, and materials which includes the backfill material and tack coat will be incidental to the contract unit price for the respective guardrail contract item.

November 19, 2021

<b>S D D O T</b>	<b>GUARDRAIL POST INSTALLED IN ASPHALT CONCRETE OR PORTLAND CEMENT CONCRETE</b>	<b>PLATE NUMBER 630.96</b>
	<i>Published Date: 2026</i>	Sheet 1 of 1

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