

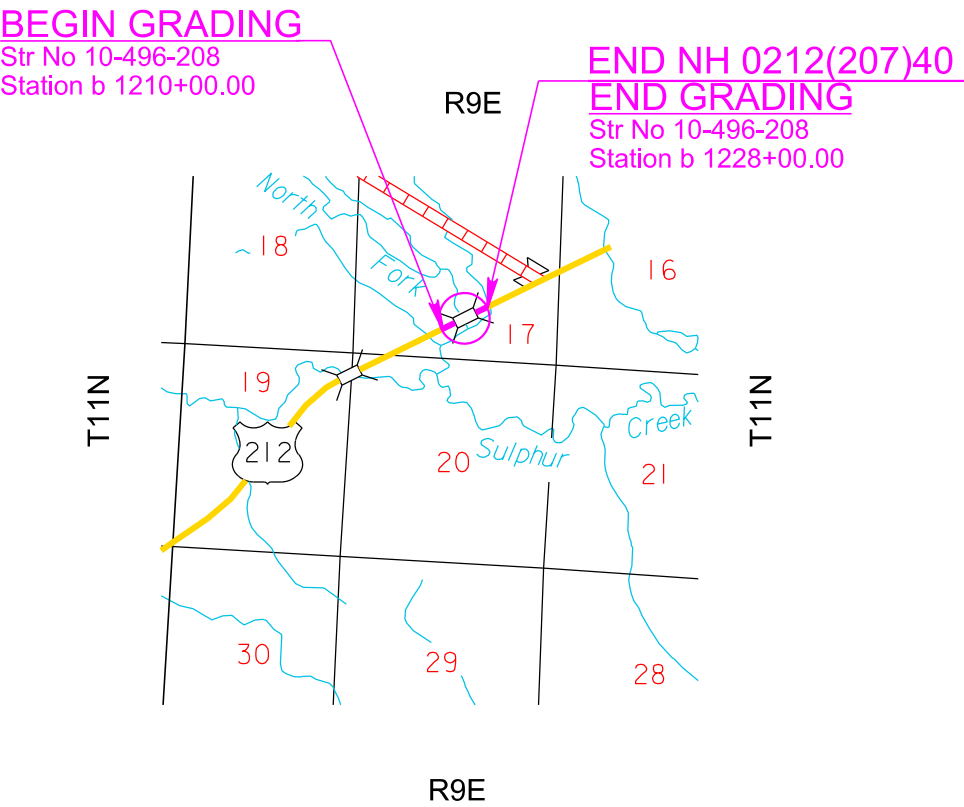
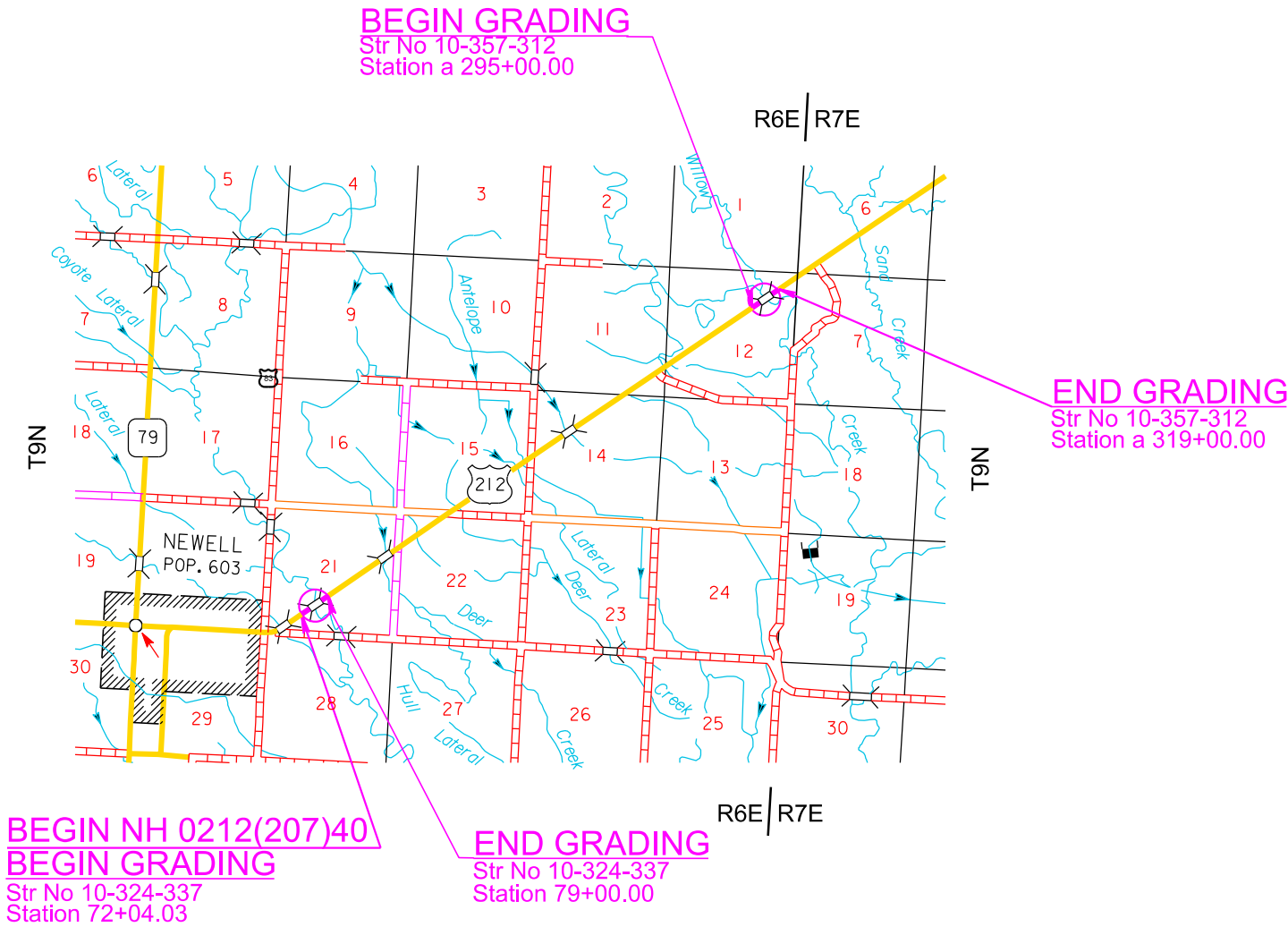
SECTION F: SURFACING PLANS

| STATE OF<br>SOUTH<br>DAKOTA | PROJECT        | SHEET | TOTAL<br>SHEETS |
|-----------------------------|----------------|-------|-----------------|
|                             | NH 0212(207)40 | F1    | F9              |

Plotting Date: 07/16/2026

INDEX OF SHEETS

|         |                                      |
|---------|--------------------------------------|
| F1      | General Layout with Index            |
| F2 - F3 | Estimate with General Notes & Tables |
| F4 - F5 | Typical Surfacing Sections           |
| F6 - F9 | Standard Plates                      |



Plot Scale - 1:200



Plotted From - TRPR13462

1:200  
Plot Scale -

Plotted From -  
TRPR13462

ESTIMATE OF QUANTITIES

| BID ITEM NUMBER | ITEM                                                 | QUANTITY | UNIT |
|-----------------|------------------------------------------------------|----------|------|
| 009E3320        | Checker                                              | Lump Sum | LS   |
| 120E6200        | Water for Granular Material                          | 210.0    | MGal |
| 260E1010        | Base Course                                          | 1,913.3  | Ton  |
| 260E1030        | Base Course, Salvaged                                | 15,599.6 | Ton  |
| 320E1200        | Asphalt Concrete Composite                           | 6,447.7  | Ton  |
| 320E7012        | Grind 12" Rumble Strip or Stripe in Asphalt Concrete | 0.8      | Mile |

SURFACING THICKNESS DIMENSIONS

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

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

SALVAGED MATERIAL

The quantity of salvaged granular material may vary from the plans. The Contractor will be required to use all of the salvaged material on this project, by decreasing or increasing the quantity of Base Course as necessary, or as directed by the Engineer.

TABLE OF SALVAGED MATERIAL UTILIZATION

|                                                              | Base Course, Salvaged | Excess Material | Total    |
|--------------------------------------------------------------|-----------------------|-----------------|----------|
|                                                              | tons                  | tons            | tons     |
| Salvage and Stockpile Asphalt Mix and Granular Base Material | 15,599.6              | 698.0           | 16,297.6 |

CHECKING SPREAD RATES

The Contractor will be responsible for checking the Asphalt Concrete Composite, Base Course and Base Course, Salvaged spread rates and taking the weigh delivery tickets as the surfacing material arrives on the project and is placed onto the roadway.

The Contractor will compute the required spread rates for each typical surfacing section and create a spread chart prior to the start of material delivery and placement. The Engineer will review and check the Contractor's calculations and spread charts. The station to station spread will be written on each ticket as the surfacing material is delivered to the roadway.

At the end of each day's shift, the Contractor will verify the following:

- All tickets are present and accounted for,
- The quantity summary for each item is calculated,
- The amount of material wasted if any,
- Each day's ticket summary is marked with the corresponding 'computed by',
- The ticket summary is initialed and certified that the delivered and placed quantity is correct.

All daily tickets and the summary by item will be given to the Engineer no later than the following morning.

If the checker is not properly and accurately performing the required duties, the Contractor will correct the problem or replace the checker with an individual capable of performing the duties to the satisfaction of the Engineer. Failure to do so will result in suspension of the work.

The Department will perform depth checks. The Contractor will be responsible for placement of material to the correct depth unless otherwise directed by the Engineer. If the placed material is not within a tolerance of ±1/2 inch of the plan shown depth, the Contractor will correct the problem at no additional cost to the Department. Excess material above the tolerance will not be paid for. Achieving the correct depth may require picking up and moving material or other action as required by the Engineer. All costs for providing the Contractor furnished checker and performing all related duties will be incidental to the contract lump sum price for the "Checker". No allowances will be made to the contract lump sum price for Checker due to authorized quantity variations unless the quantities for the material being checked vary above or below the estimated quantities by more than 25 percent. Payment for the Checker will then be increased or decreased by the same proportion as the placed material quantity bears to the estimated material quantity.

BASE COURSE, SALVAGED

Base Course, Salvaged will be obtained from the stockpile site(s) provided by the Contractor and may be used without further gradation testing.

All other requirements for Base Course, Salvaged will apply.

|                             |                |       |                 |
|-----------------------------|----------------|-------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT        | SHEET | TOTAL<br>SHEETS |
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Plotting Date: 07/16/2026  
Revised: 02Sept25, JPC

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, Salvaged or Base Course for the full width of the bottom layer of Asphalt Concrete Composite plus one foot additional on the outside shoulder.

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 plus one-half foot additional on the outside shoulder.

The binder used in the Asphalt Concrete Composite mix will be PG 58-34, PG 64-34, PG 58H-34, or PG 58V-34 Asphalt Binder.

GRIND RUMBLE STRIPS IN ASPHALT CONCRETE

Asphalt concrete rumble strips will be constructed on the shoulders. Rumble strips will be paid for at the contract unit price per mile for Grind 12" Rumble Strip or Stripe in Asphalt Concrete. It is estimated that 0.8 miles of asphalt concrete rumble strips will be required.

Rumble strip installation will be completed prior to application of the flush seal and permanent pavement markings. In the event the flush seal is eliminated from the contract, the Contractor will still be required to apply a flush seal to the newly installed 12" rumble strips at a width of 18" and at the same rate as specified in this plan set. No adjustment in payment will be made and SS-1h or CSS-1h Asphalt for Flush Seal will be incidental to the contract unit price per ton for "Asphalt Concrete Composite".

PERFORMANCE GRADED ASPHALT BINDER

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

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1:200  
Plot Scale -  
Plotted From -  
TRPR13462

RATES OF MATERIALS

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

US 212 Mainline – Rate A

Sta. 72+04.0 to Sta. 79+00.0  
Sta. a 295+50.0 to Sta. a 302+09.3  
Sta. a 305+16.2 to Sta. a 318+50.0  
Sta. b 1210+50.0 to Sta. b 1215+84.8  
Sta. b 1218+05.8 to Sta. b 1227+50.0

Base Course, Salvaged                    329.00 tons

Water for Granular Material at the rate of 3.95 MGal

Asphalt Concrete Composite                    50.57 tons, 1<sup>st</sup> Lift

Asphalt Concrete Composite                    46.87 tons, 2<sup>nd</sup> Lift

Asphalt Concrete Composite                    46.87 tons, 3<sup>rd</sup> Lift

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

Traffic Diversions – Rate B

Sta. 2+17.6 to Sta. 12+94.4, DIV 76  
Sta. 2+75.0 to Sta. 11+36.4, DIV 303  
Sta. 1+95.8 to Sta. 10+85.0, DIV 1217

Base Course                    67.67 tons

Water for Granular Material at the rate of 0.81 MGal

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

TABLE OF ADDITIONAL QUANTITIES

| LOCATION                     |    |             | WATER FOR GRANULAR MATERIAL | BASE COURSE, SALVAGED | ASPHALT CONCRETE COMPOSITE |
|------------------------------|----|-------------|-----------------------------|-----------------------|----------------------------|
| Station                      | to | Station     | MGal                        | Tons                  | Tons / Lift                |
| US 212 Mainline Transitions  |    |             |                             |                       |                            |
| a 295+00.0                   | to | a 295+50.0  | 1.9                         | 161.0                 | 24.7 / 22.8 / 22.8         |
| a 318+50.0                   | to | a 319+00.0  | 1.9                         | 161.0                 | 24.7 / 22.8 / 22.8         |
| b 1210+00.0                  | to | b 1210+50.0 | 1.9                         | 157.5                 | 24.1 / 22.2 / 22.2         |
| b 1227+50.0                  | to | b 1228+00.0 | 1.9                         | 157.5                 | 24.1 / 22.2 / 22.2         |
| Miscellaneous Areas          |    |             |                             |                       |                            |
| Entrance @ Sta. a 301+41 Rt. |    |             | 0.9                         | 76.2                  |                            |
| Guardrail Surfacing          |    |             |                             |                       |                            |
| Str. # 10-357-312            |    |             |                             |                       |                            |
| Begin Bridge Lt.             |    |             | 1.2                         | 101.2                 | 13.4                       |
| Begin Bridge Rt.             |    |             | 0.6                         | 46.6                  | 6.2                        |
| End Bridge Lt.               |    |             | 3.0                         | 252.6                 | 33.4                       |
| End Bridge Rt.               |    |             | 1.2                         | 102.3                 | 13.5                       |
| Str. # 10-496-208            |    |             |                             |                       |                            |
| Begin Bridge Lt.             |    |             | 1.2                         | 101.2                 | 13.4                       |
| Begin Bridge Rt.             |    |             | 2.7                         | 228.9                 | 30.2                       |
| End Bridge Lt.               |    |             | 2.9                         | 239.4                 | 31.6                       |
| End Bridge Rt.               |    |             | 1.2                         | 101.2                 | 13.4                       |
| TOTAL                        |    |             | 22.5                        | 1,886.6               | 432.7                      |

TABLE OF PROJECT MATERIALS

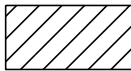
| LOCATION                       | WATER FOR GRANULAR MATERIAL | BASE COURSE, SALVAGED | BASE COURSE | ASPHALT CONCRETE COMPOSITE  |
|--------------------------------|-----------------------------|-----------------------|-------------|-----------------------------|
|                                | MGal                        | Tons                  | Tons        | Tons / Lift                 |
| RATES                          |                             |                       |             |                             |
| Rate A                         | 164.6                       | 13,713.0              |             | 2,107.8 / 1,953.6 / 1,953.6 |
| Rate B                         | 22.9                        |                       | 1,913.3     |                             |
| Table of Additional Quantities | 22.5                        | 1,886.6               |             | 432.7                       |
| TOTAL                          | 210.0                       | 15,599.6              | 1,913.3     | 6,447.7                     |

|                       |                |                                        |              |
|-----------------------|----------------|----------------------------------------|--------------|
| STATE OF SOUTH DAKOTA | PROJECT        | SHEET                                  | TOTAL SHEETS |
|                       | NH 0212(207)40 | F3                                     | F9           |
| Plotting Date:        |                | 07/16/2026<br>Revised: 07/16/2026, JPC |              |

# IN PLACE TYPICAL SECTIONS

|                             |                |       |                 |
|-----------------------------|----------------|-------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT        | SHEET | TOTAL<br>SHEETS |
|                             | NH 0212(207)40 | F4    | F9              |

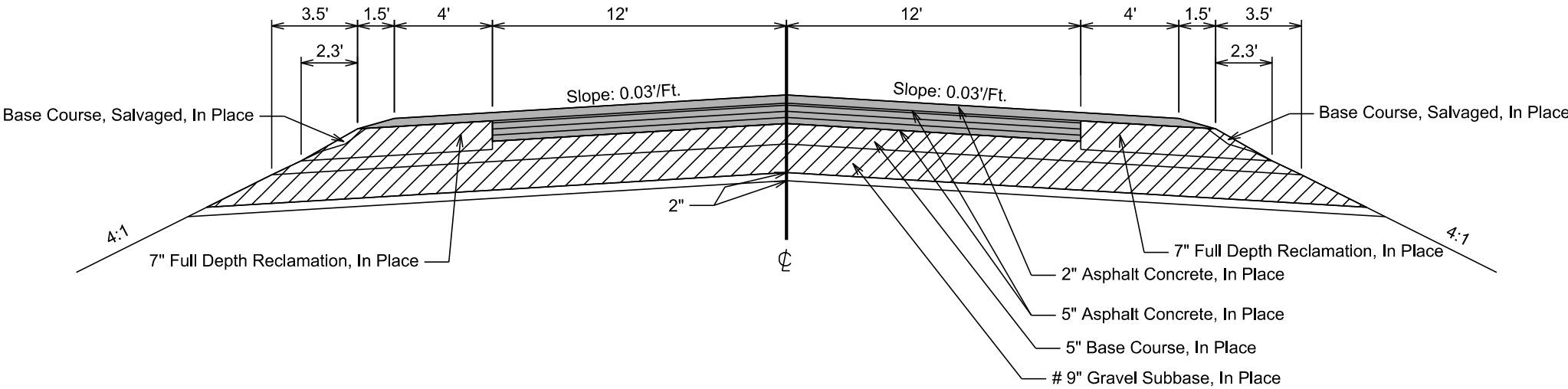
Plotting Date: 07/16/2026

-  Remove Asphalt Concrete Pavement
-  Salvage & Stockpile Granular Material

Bridge Exceptions:  
Sta. 75+44.5 to Sta. 76+96.0  
Sta. a 302+45.25 to Sta. a 304+41.75

Section 1  
US HWY212  
Sta. 72+04 to Sta. 79+00  
Sta. a 295+00 to Sta. a 319+00

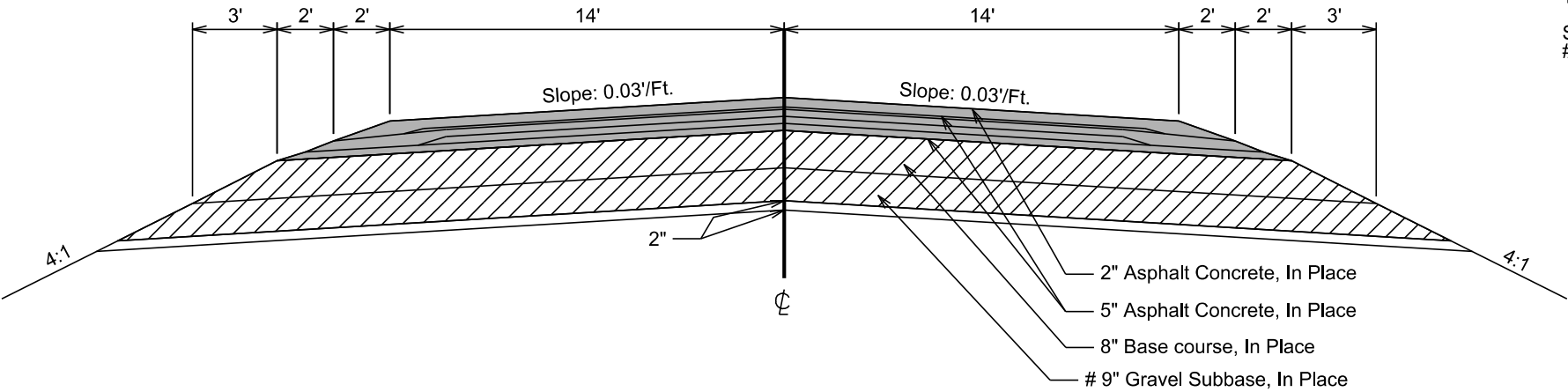
Transition:  
Sta. a 314+75 to Sta. a 319+00  
# 14"



Bridge Exceptions:  
Sta. b 1216+01.25 to Sta. b 1217+98.75

Section 2  
US HWY212  
Sta. b 1210+00 to Sta. b 1228+00

Transition:  
Sta. b 1223+70 to Sta. b 1228+00  
# 14"



PLOT SCALE - 1"=6'

PLOTTED FROM - TRPR13462

PLOT NAME - 4

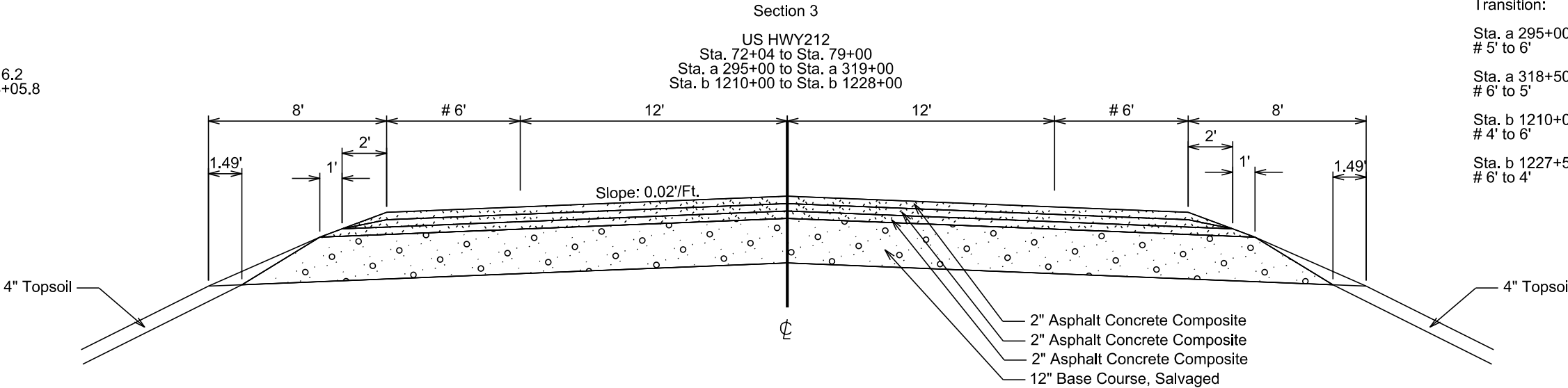
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# TYPICAL SURFACING SECTIONS

|                             |                |       |                 |
|-----------------------------|----------------|-------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT        | SHEET | TOTAL<br>SHEETS |
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Plotting Date: 07/16/2026

Bridge Exceptions:  
Sta. a 302+09.3 to Sta. a 305+16.2  
Sta. b 1215+84.8 to Sta. b 1218+05.8



Transition:

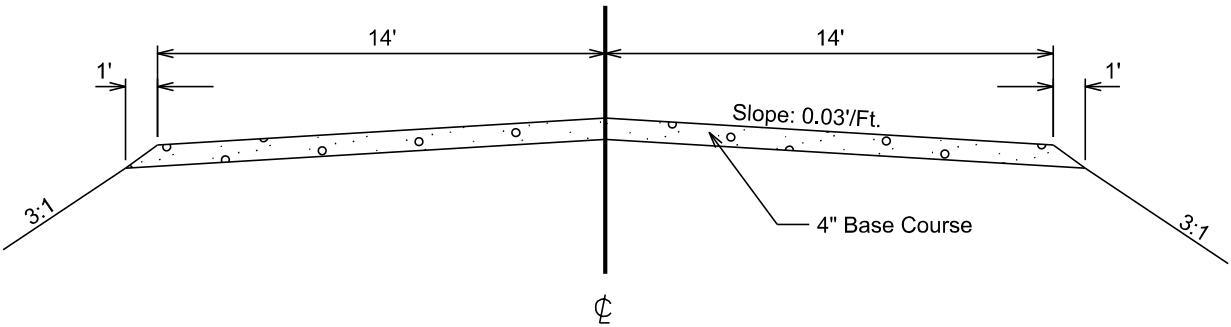
Sta. a 295+00 to Sta. a 295+50  
# 5' to 6'

Sta. a 318+50 to Sta. a 319+00  
# 6' to 5'

Sta. b 1210+00 to Sta. b 1210+50  
# 4' to 6'

Sta. b 1227+50 to Sta. b 1228+00  
# 6' to 4'

Traffic Diversions  
Sta. 2+17.6 to Sta. 12+94.4, DIV 76  
Sta. 2+75.0 to Sta. 11+36.4, DIV a 303  
Sta. 1+95.8 to Sta. 10+85.0, DIV b 1217

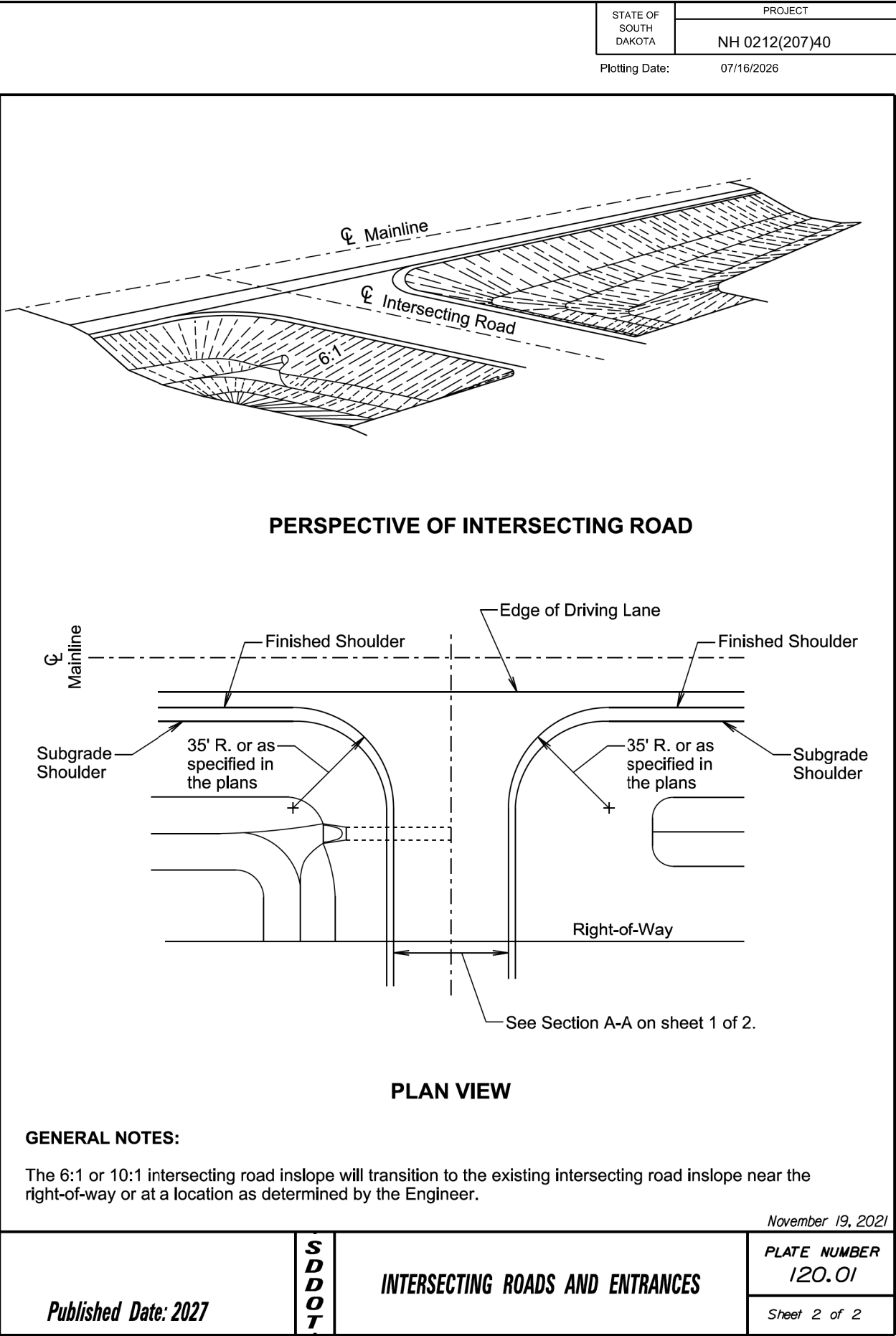
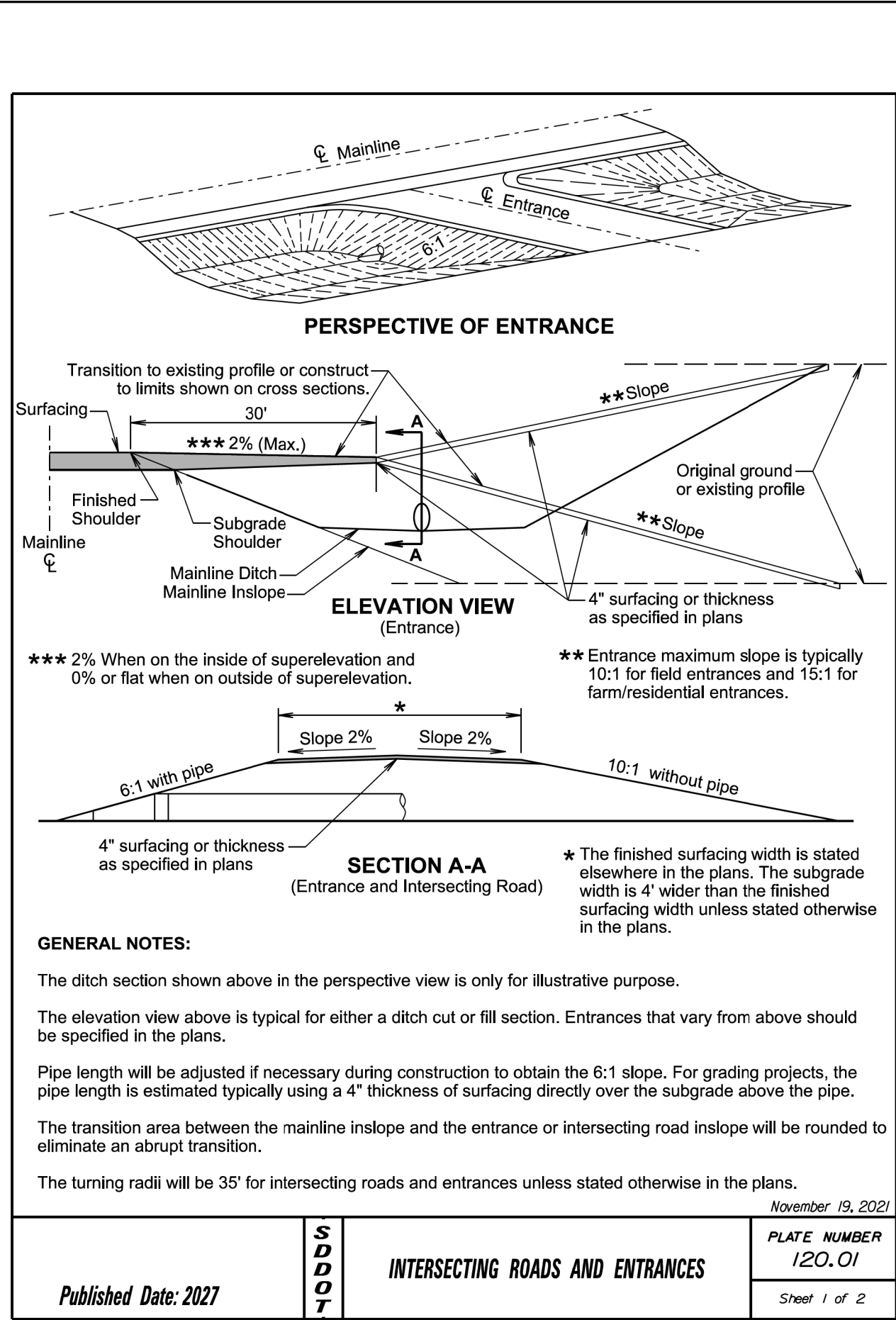


PLOT SCALE - 1+6

PLOTTED FROM - TRPR13462

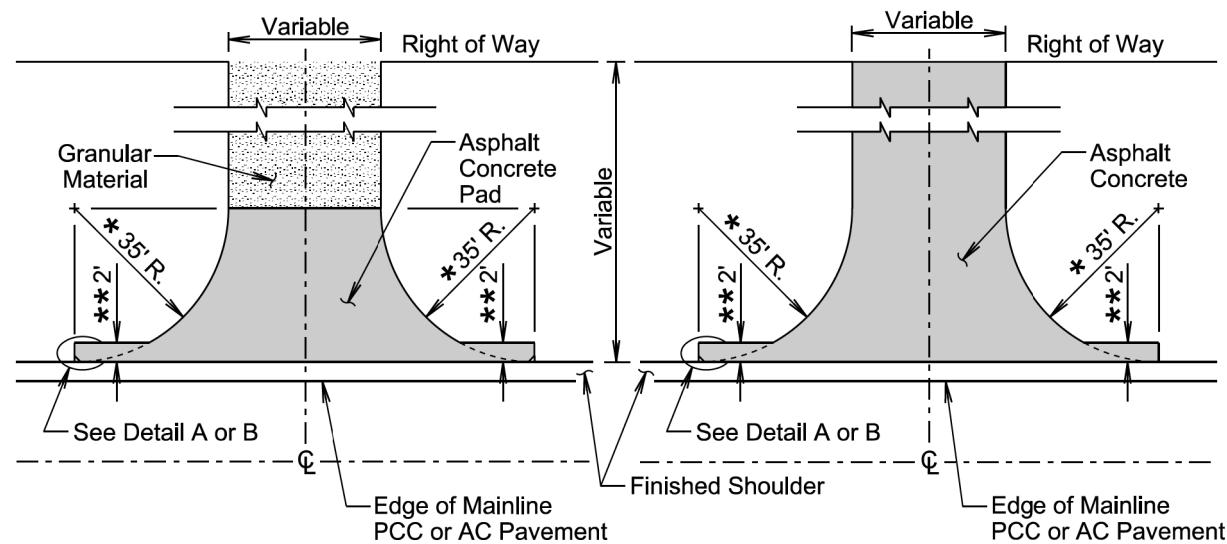
PLOT NAME - 5

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|                             |                |       |                 |
|-----------------------------|----------------|-------|-----------------|
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT        | SHEET | TOTAL<br>SHEETS |
|                             | NH 0212(207)40 | F7    | F9              |

Plotting Date: 07/16/2026



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

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

**GENERAL NOTES:**

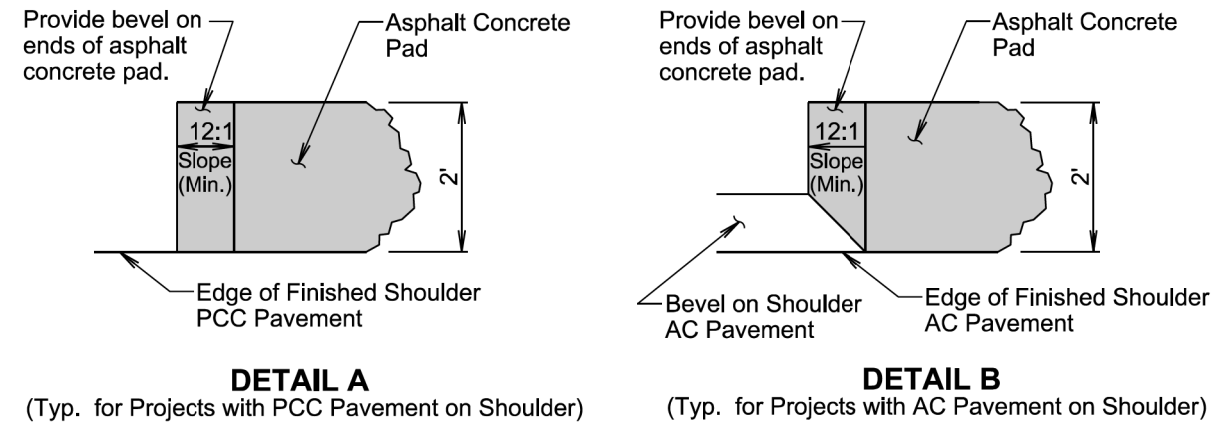
The precise construction limits for situations other than shown above will be determined by the Engineer during construction.

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

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

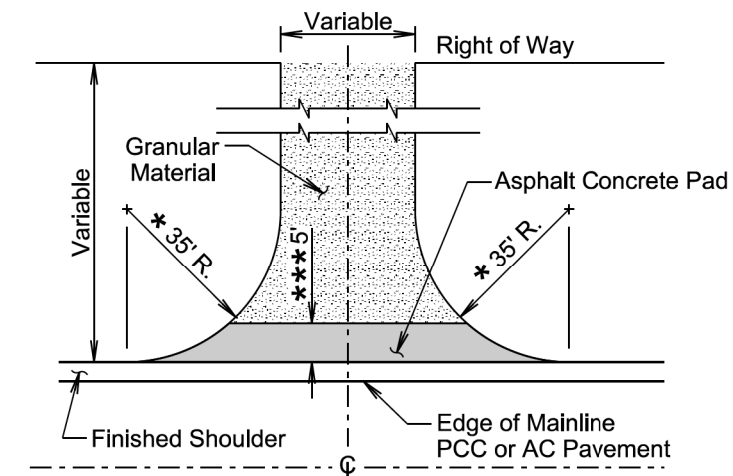
August 27, 2020

|                             |                                  |                                                                                                                          |                        |
|-----------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Published Date: 2027</b> | <b>S<br/>D<br/>D<br/>O<br/>T</b> | <b>SURFACING OR RESURFACING OF INTERSECTING<br/>ROADS AND ENTRANCES (MAINLINE AND<br/>SHOULDERS: PCC OR AC PAVEMENT)</b> | PLATE NUMBER<br>320.04 |
|                             |                                  |                                                                                                                          | Sheet 1 of 2           |



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

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



**PLAN VIEW**  
(Entrance)

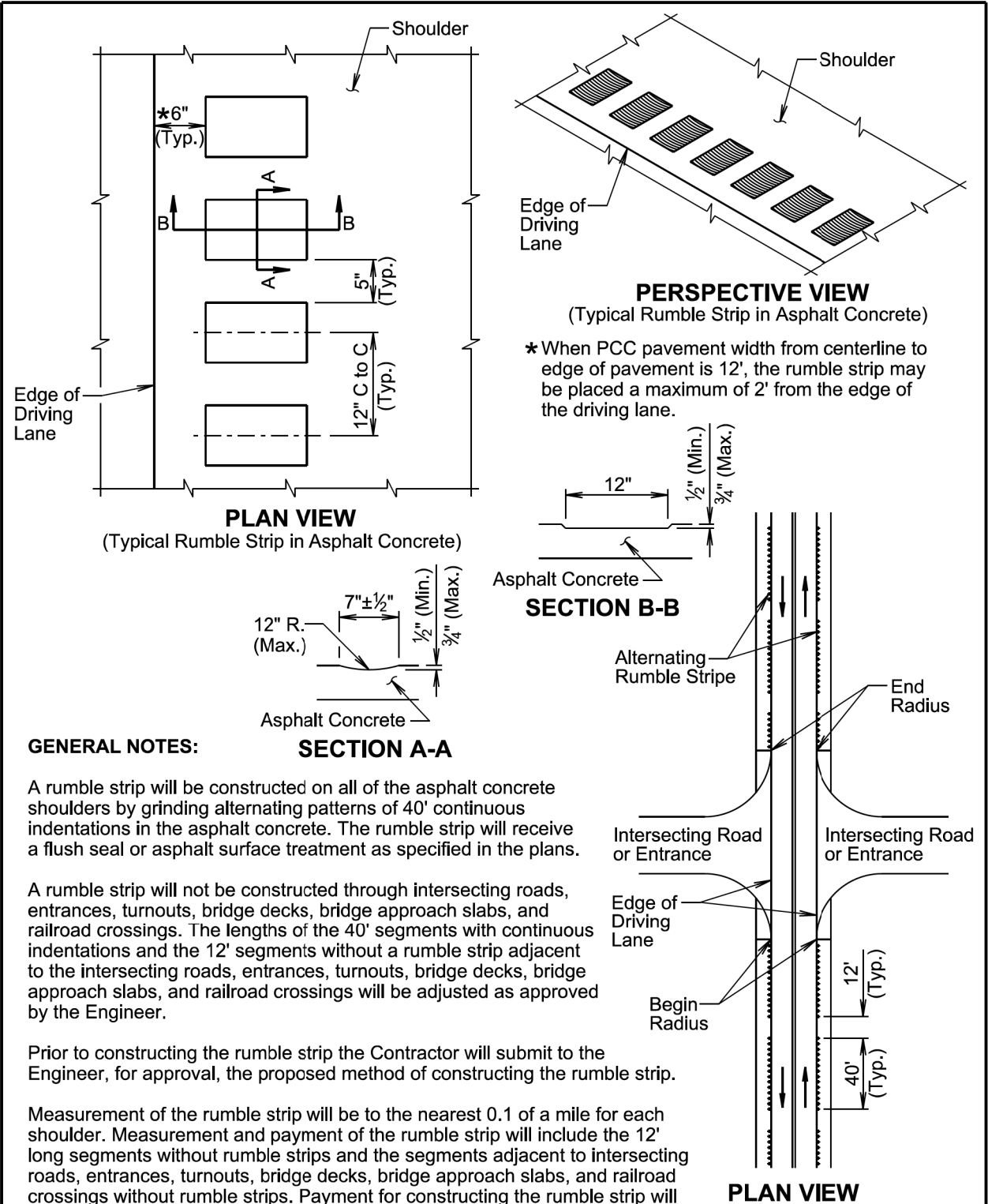
\*\*\* Not required if finished shoulder width is 4' or greater.

August 27, 2020

|                             |                                  |                                                                                                                          |                        |
|-----------------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Published Date: 2027</b> | <b>S<br/>D<br/>D<br/>O<br/>T</b> | <b>SURFACING OR RESURFACING OF INTERSECTING<br/>ROADS AND ENTRANCES (MAINLINE AND<br/>SHOULDERS: PCC OR AC PAVEMENT)</b> | PLATE NUMBER<br>320.04 |
|                             |                                  |                                                                                                                          | Sheet 2 of 2           |

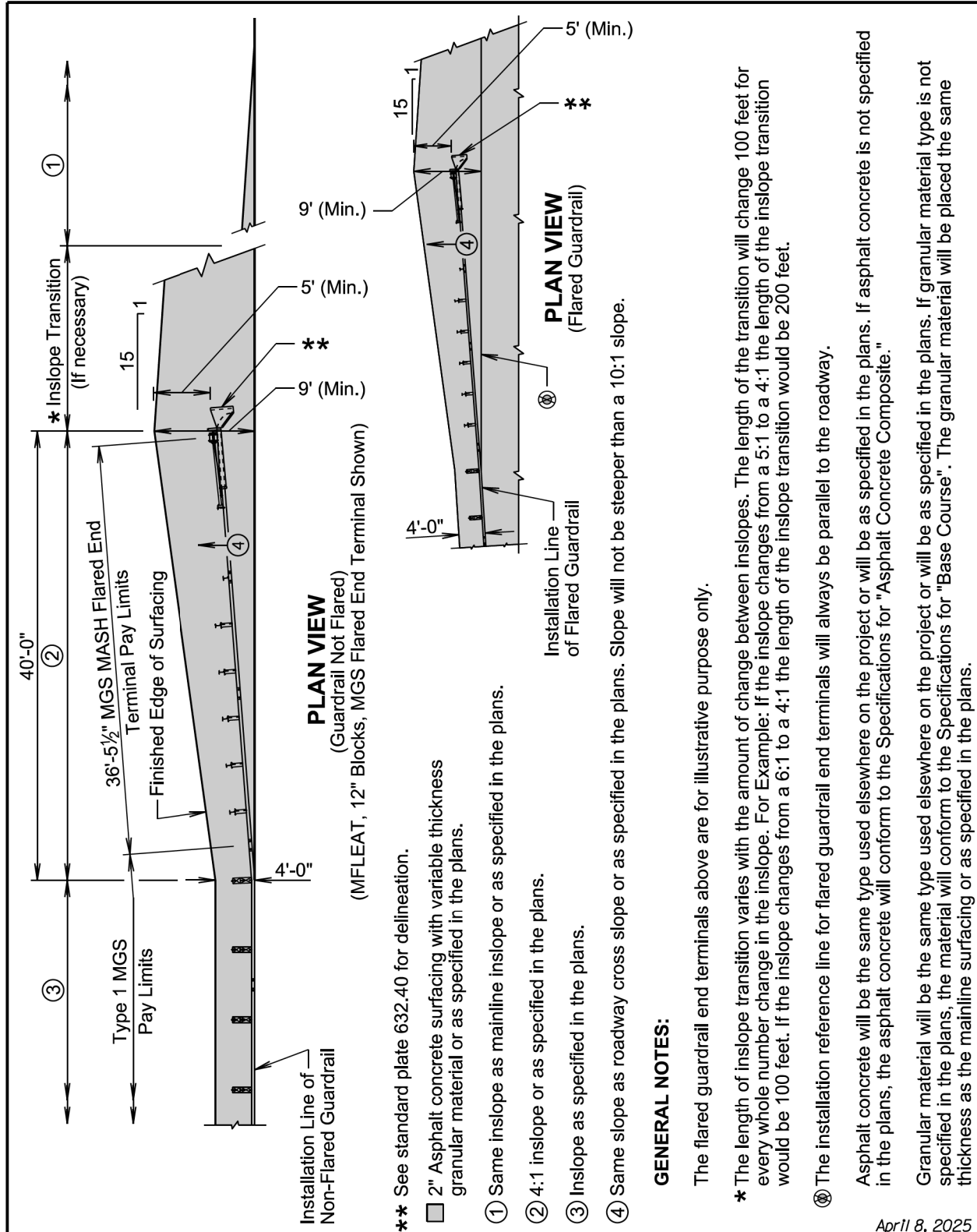
| STATE OF<br>SOUTH<br>DAKOTA | PROJECT        | SHEET | TOTAL<br>SHEETS |
|-----------------------------|----------------|-------|-----------------|
|                             | NH 0212(207)40 | F8    | F9              |

Plotting Date: 07/16/2026



September 14, 2019

|                      |                       |                                                                         |                        |
|----------------------|-----------------------|-------------------------------------------------------------------------|------------------------|
| Published Date: 2027 | S<br>D<br>D<br>O<br>T | 12" RUMBLE STRIP IN ASPHALT CONCRETE<br>ON NONDIVIDED HIGHWAY SHOULDERS | PLATE NUMBER<br>320.24 |
|                      |                       |                                                                         | Sheet 1 of 1           |



April 8, 2025

|                      |                       |                                                                               |                        |
|----------------------|-----------------------|-------------------------------------------------------------------------------|------------------------|
| Published Date: 2027 | S<br>D<br>D<br>O<br>T | EMBANKMENT, SURFACING, AND PAYMENT<br>LIMITS FOR MGS MASH FLARED END TERMINAL | PLATE NUMBER<br>630.87 |
|                      |                       |                                                                               | Sheet 1 of 2           |

