

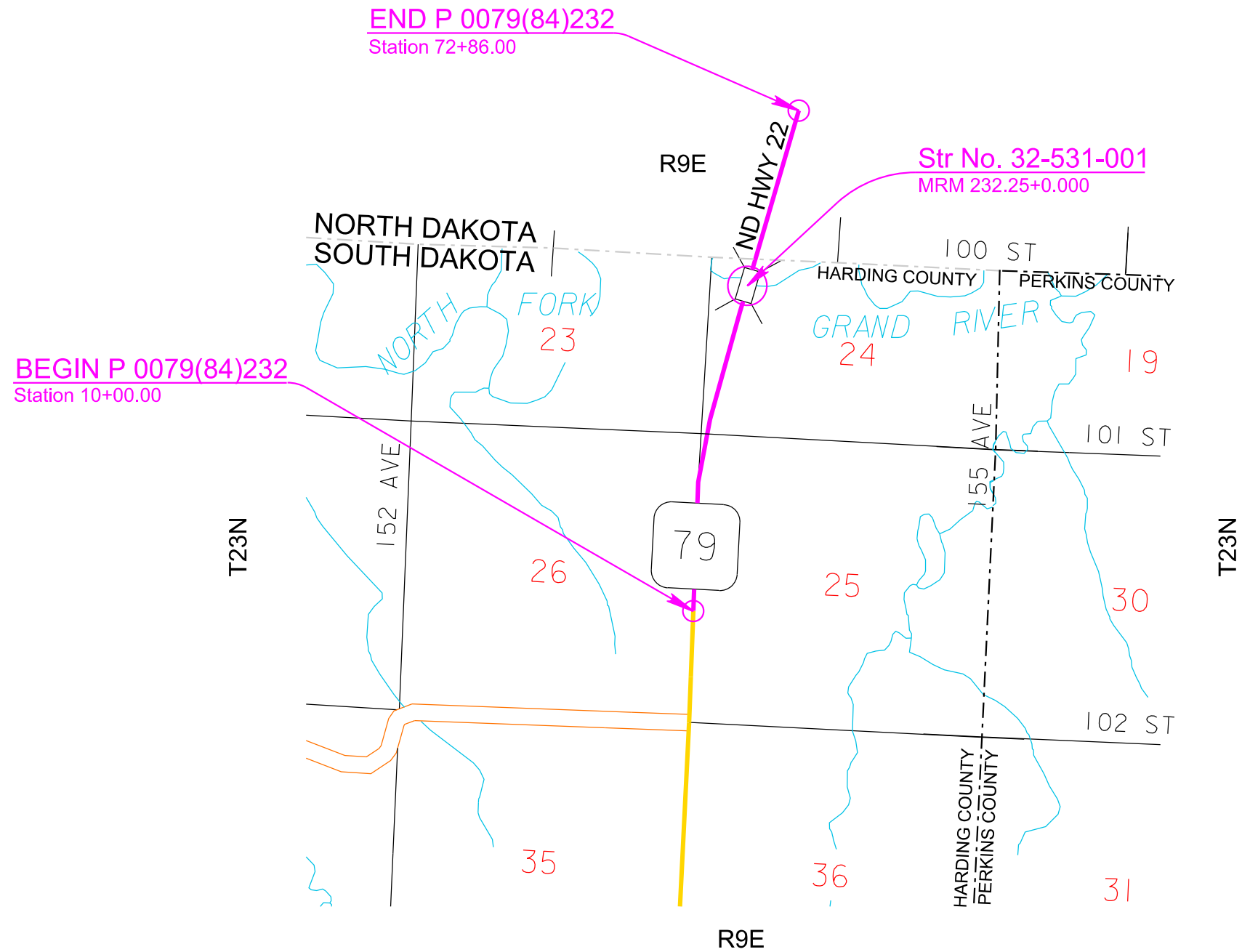
Section F: Surfacing Plans

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0079(84)232	F1	F10

Plotting Date: 07/25/2024

INDEX OF SHEETS

- F1 - General Layout with Index
- F2 - F3 - Estimate of Quantities, Notes, Rates, and Tables
- F4 - F5 - Typical Surfacing Sections
- F6 - F8 - Asphalt Concrete Layouts
- F9 - F10 - Standard Plates



SECTION F ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E6200	Water for Granular Material	228.9	MGal
260E1010	Base Course	19,091.2	Ton
320E3000	Compaction Sample	9	Each
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	2.2	Mile
320E7028	Grind Centerline Rumble Stripe in Asphalt Concrete	1.1	Mile
330E0010	MC-70 Asphalt for Prime	33.5	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	14.6	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	11.8	Ton
330E2000	Sand for Flush Seal	123.8	Ton

SECTION F ESTIMATE OF QUANTITIES – ALTERNATE A

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	344.2	Ton
320E1050	Class E Asphalt Concrete	5,932.8	Ton

SECTION F ESTIMATE OF QUANTITIES – ALTERNATE B

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
320E0008	PG 64-34 Asphalt Binder	304.6	Ton
320E1050	Class E Asphalt Concrete	6,093.0	Ton

SURFACING THICKNESS DIMENSIONS

Plans tonnage will be applied even though the thickness may vary from that shown on the plans.

At those locations where material must be placed to achieve a required elevation, plans tonnage may be varied to achieve the required elevation.

CLASS E ASPHALT CONCRETE

Mineral Aggregate for Class E Asphalt Concrete - Alternate A will conform to the requirements for Class E, Type 1.

Mineral Aggregate for Class E Asphalt Concrete - Alternate B will consist of a minimum of eighty percent crushed limestone ledge rock and will conform to the requirements for Class E, Type 1.

When directed by the Engineer, the Contractor will saw and remove a total of three undamaged compaction cores (4" dia. min.) per asphalt concrete lift from designated area(s) and repair the hole(s) to the satisfaction of the Engineer. All costs associated with the compaction cores will be incidental to the contract unit price per each for "Compaction Sample".

All other requirements for Class E will apply.

SUMMARY OF CLASS E ASPHALT CONCRETE - ALTERNATE A

Location	With Specified Density Compaction (Ton)	Without Specified Density Compaction (Ton)
Mainline		
Sta. 10+00 to Sta. 10+50	44.60	---
Sta. 10+50 to Sta. 49+47.87	3,654.2	---
Sta. 49+47.87 to Sta.51+47.87	288.80	---
Sta. 53+84.37 to Sta. 55+84.37	288.80	---
Sta. 55+84.37 to Sta.72+86	1,595.4	---
Intersecting Roads & Approaches	---	61.00
Totals:	5,871.80	61.00
Grand Total:	5,932.80	

SUMMARY OF CLASS E ASPHALT CONCRETE - ALTERNATE B

Location	With Specified Density Compaction (Ton)	Without Specified Density Compaction (Ton)
Mainline		
Sta. 10+00 to Sta. 10+50	45.80	---
Sta. 10+50 to Sta. 49+47.87	3,753.0	---
Sta. 49+47.87 to Sta.51+47.87	296.50	---
Sta. 53+84.37 to Sta. 55+84.37	296.50	---
Sta. 55+84.37 to Sta.72+86	1,638.6	---
Intersecting Roads & Approaches	---	62.60
Totals:	6,030.40	62.60
Grand Total:	6,093.00	

STATE OF SOUTH DAKOTA	PROJECT P 0079(84)232	SHEET F2	TOTAL SHEETS F10
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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 11' wide in each lane, leaving 12" on center line free of sand.

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 2.2 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 paid at the contract unit price per ton.

GRIND CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE

Rumble stripes will be constructed on the centerline, as detailed in the plan set. Rumble stripes will be paid for at the contract unit price per mile for "Grind Centerline Rumble Stripe in Asphalt Concrete". It is estimated that 1.1 miles of rumble stripes will be required.

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

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Plot Scale -

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TABLE OF QUANTITIES – ALTERNATE A

LOCATION Station to Station	WATER FOR GRANULAR MATERIAL (MGal)	BASE COURSE (Ton)	CLASS E ASPHALT CONCRETE			PG 64-34 ASPHALT BINDER			ASPHALT FOR PRIME (Ton)	ASPHALT FOR TACK			ASPHALT FOR FLUSH SEAL (Ton)	SAND FOR FLUSH SEAL (Ton)
			1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift		1st Lift	2nd Lift	Top Lift		
			(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)		(Ton)	(Ton)	(Ton)		
Mainline														
10+00.00 to 10+50.00	1.8	147.6	22.3		22.3	1.3		1.3	0.3	0.1		0.1		1.0
10+50.00 to 49+47.87	144.4	12,034.9	1,827.1		1,827.1	106.0		106.0	21.6	4.5		4.5	7.4	76.2
49+47.87 to 51+47.87	6.3	526.6	101.2	93.8	93.8	5.9	5.4	5.4	1.1	0.2	0.2	0.2	0.6	6.0
53+84.37 to 55+84.37	6.3	526.6	101.2	93.8	93.8	5.9	5.4	5.4	1.1	0.2	0.2	0.2	0.6	6.0
55+84.37 to 72+86.00	63.0	5,254.5	797.7		797.7	46.3		46.3	9.4	2.0		2.0	3.2	33.2
Intersecting Roads and Approaches														
Sta. 19+19 L	0.7	60.0												
Sta. 23+54 R	0.5	44.0												
Sta. 46+61 L	1.0	86.0												
Sta. 46+61 R	0.5	45.0												
Sta. 70+56 L	2.4	201.0	30.5			1.8				0.1				0.7
Sta. 70+56 R	2.0	165.0	30.5			1.8				0.1				0.7
Totals:	228.9	19,091.2	5,932.8			344.2			33.5	14.6			11.8	123.8

TABLE OF QUANTITIES – ALTERNATE B

LOCATION Station to Station	WATER FOR GRANULAR MATERIAL (MGal)	BASE COURSE (Ton)	CLASS E ASPHALT CONCRETE			PG 64-34 ASPHALT BINDER			ASPHALT FOR PRIME (Ton)	ASPHALT FOR TACK			ASPHALT FOR FLUSH SEAL (Ton)	SAND FOR FLUSH SEAL (Ton)
			1st Lift	2nd Lift	Top Lift	1st Lift	2nd Lift	Top Lift		1st Lift	2nd Lift	Top Lift		
			(Ton)	(Ton)	(Ton)	(Ton)	(Ton)	(Ton)		(Ton)	(Ton)	(Ton)		
Mainline														
10+00.00 to 10+50.00	1.8	147.6	22.9		22.9	1.1		1.1	0.3	0.1		0.1		1.0
10+50.00 to 49+47.87	144.4	12,034.9	1,876.5		1,876.5	93.8		93.8	21.6	4.5		4.5	7.4	76.2
49+47.87 to 51+47.87	6.3	526.6	103.9	96.3	96.3	5.2	4.8	4.8	1.1	0.2	0.2	0.2	0.6	6.0
53+84.37 to 55+84.37	6.3	526.6	103.9	96.3	96.3	5.2	4.8	4.8	1.1	0.2	0.2	0.2	0.6	6.0
55+84.37 to 72+86.00	63.0	5,254.5	819.3		819.3	41.0		41.0	9.4	2.0		2.0	3.2	33.2
Intersecting Roads and Approaches														
Sta. 19+19 L	0.7	60.0												
Sta. 23+54 R	0.5	44.0												
Sta. 46+61 L	1.0	86.0												
Sta. 46+61 R	0.5	45.0												
Sta. 70+56 L	2.4	201.0	31.3			1.6				0.1				0.7
Sta. 70+56 R	2.0	165.0	31.3			1.6				0.1				0.7
Totals:	228.9	19,091.2	6,093.0			304.6			33.5	14.6			11.8	123.8

Plot Scale - 1:200

Plotted From - TRPR13462


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IN PLACE TYPICAL SECTIONS

STATE OF SOUTH DAKOTA	PROJECT P 0079(84)232	SHEET F4	TOTAL SHEETS F10
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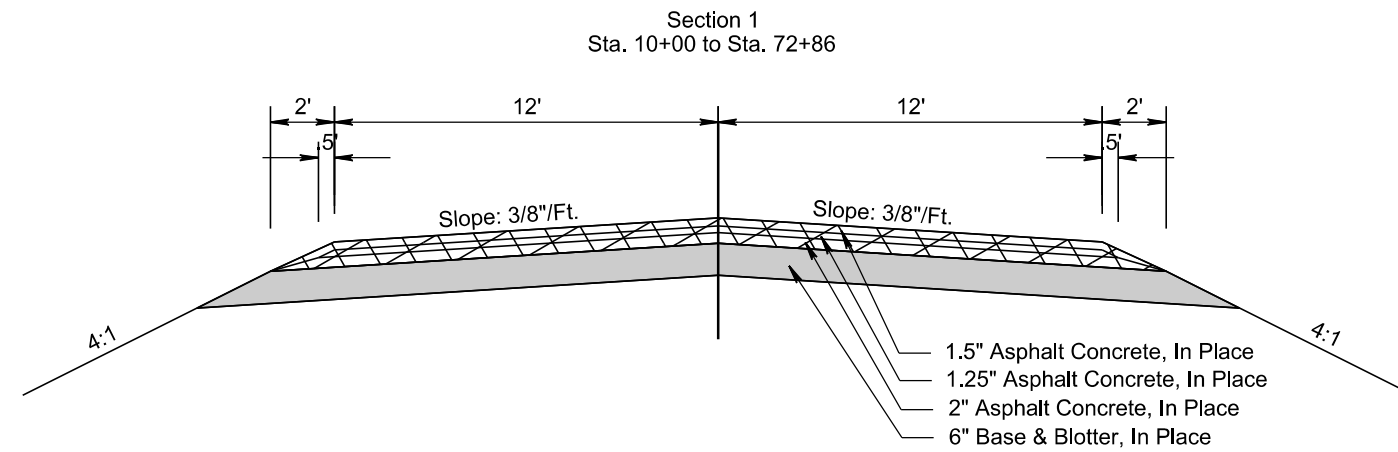
Plotting Date: 07/25/2024

 Remove Asphalt Concrete Pavement

 The in-place granular material will be included in the roadway obliteration

Bridge Exception including Approach Slabs:

Sta. 51+47.87 to Sta. 53+84.37



PLOT SCALE - 1+6.00001

PLOT NAME - 4

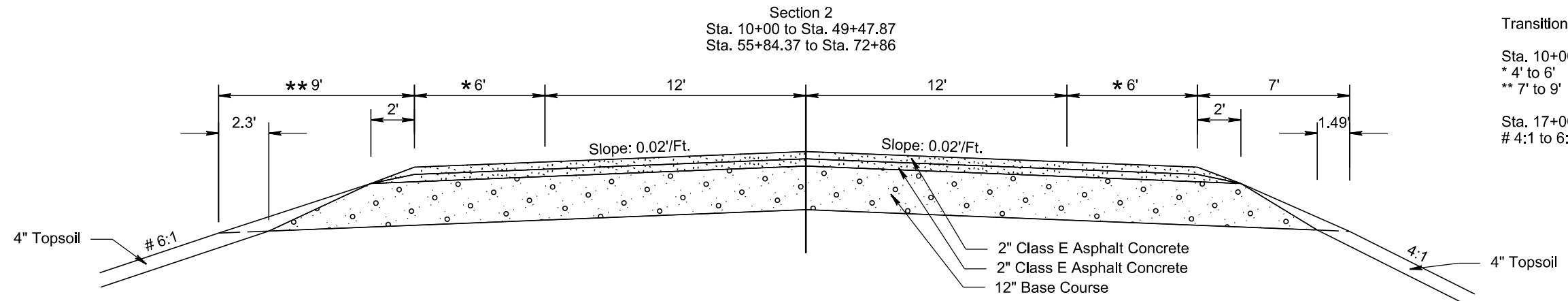
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PLOTTED FROM - TRPR13462

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0079(84)232	F5	F10

Plotting Date: 07/25/2024



Transitions:

Sta. 10+00 to Sta. 10+50
* 4' to 6'
** 7' to 9'

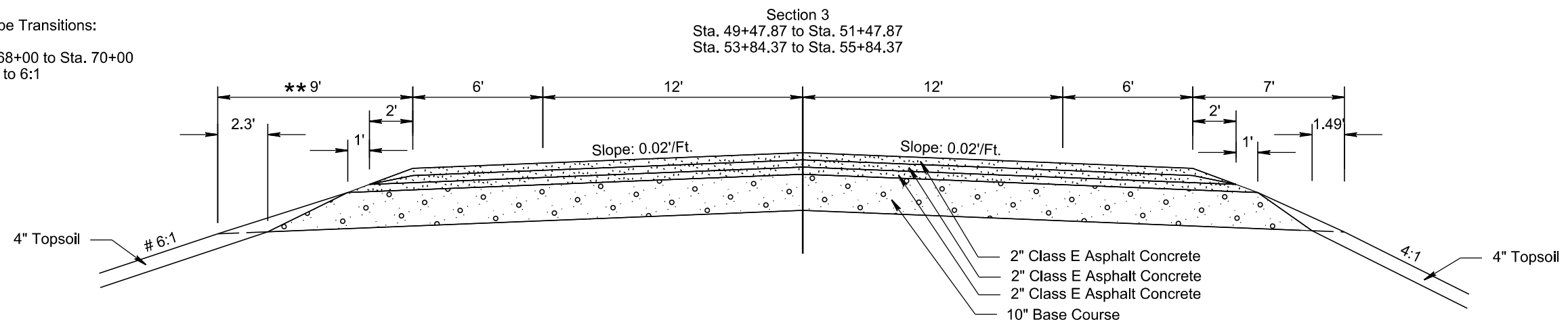
Sta. 17+00 to 19+00
4:1 to 6:1

Bridge Exception including Approach Slabs:

Sta. 51+47.87 to Sta. 53+84.37

Inslope Transitions:

Sta. 68+00 to Sta. 70+00
4:1 to 6:1



PLOT SCALE - 1+6.00001

PLOTTED FROM - TRPR13462

PLOT NAME - 5

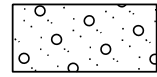
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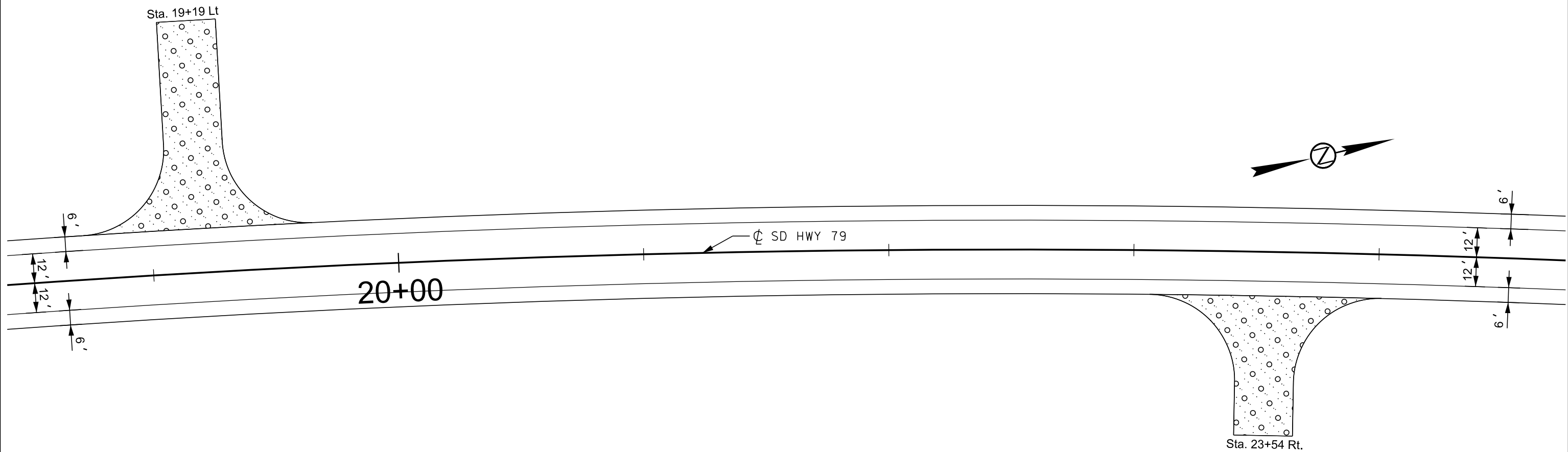
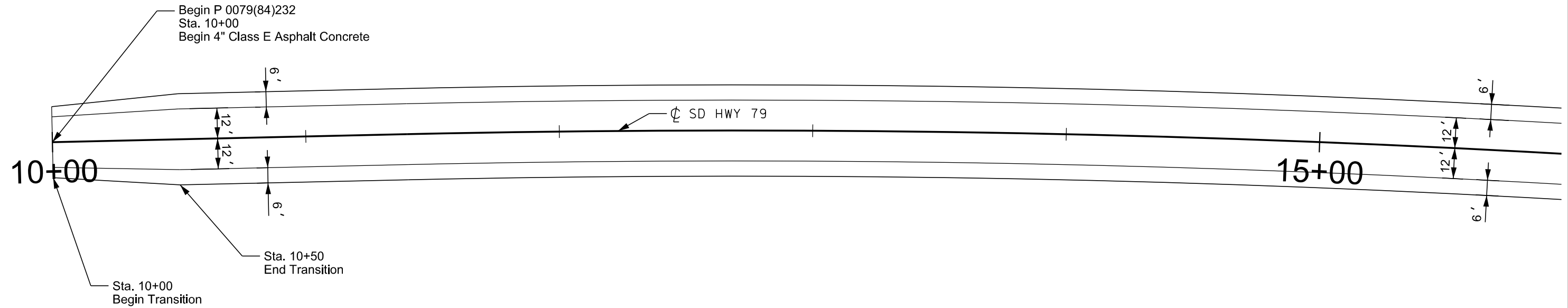
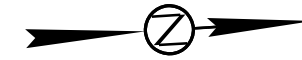
ASPHALT CONCRETE LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0079(84)232	F6	F10

Plotting Date: 07/25/2024

Scale 1 Inch = 40 Feet
Sheet 1 of 3 Sheets

 4" Base Course
(For Intersecting Roads and Entrances)



Plot Scale - 1:40

Plotted From - TRPR13462

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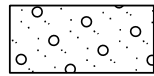
ASPHALT CONCRETE LAYOUTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0079(84)232	F7	F10

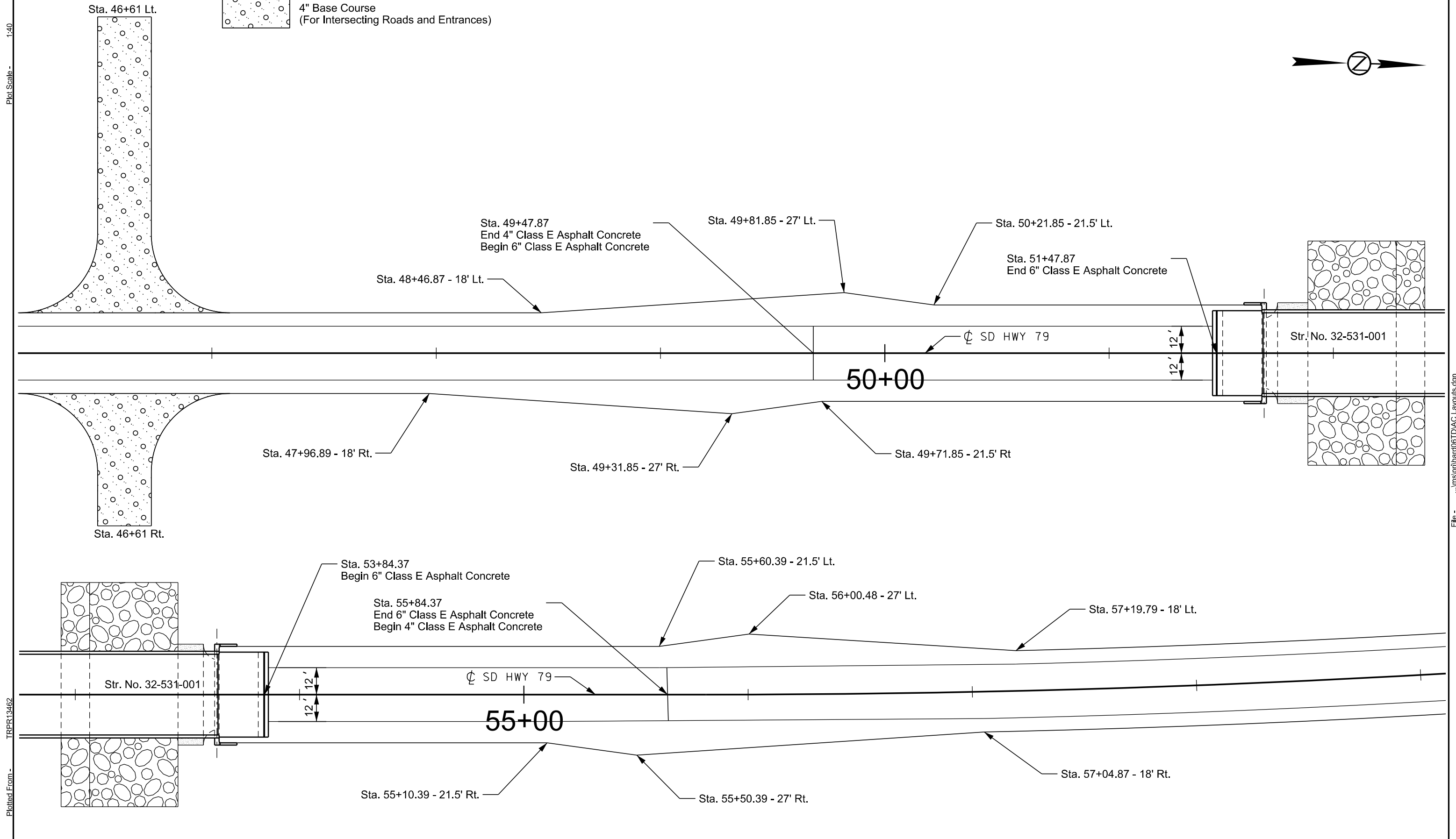
Plotting Date: 07/25/2024

Scale 1 Inch = 40 Feet
Sheet 2 of 3 Sheets

Plot Scale - 1:40



4" Base Course
(For Intersecting Roads and Entrances)



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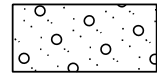
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ASPHALT CONCRETE LAYOUTS

Scale 1 Inch = 40 Feet
Sheet 3 of 3 Sheets

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0079(84)232	F8	F10

Plotting Date: 07/25/2024

 4" Base Course
(For Intersecting Roads and Entrances)

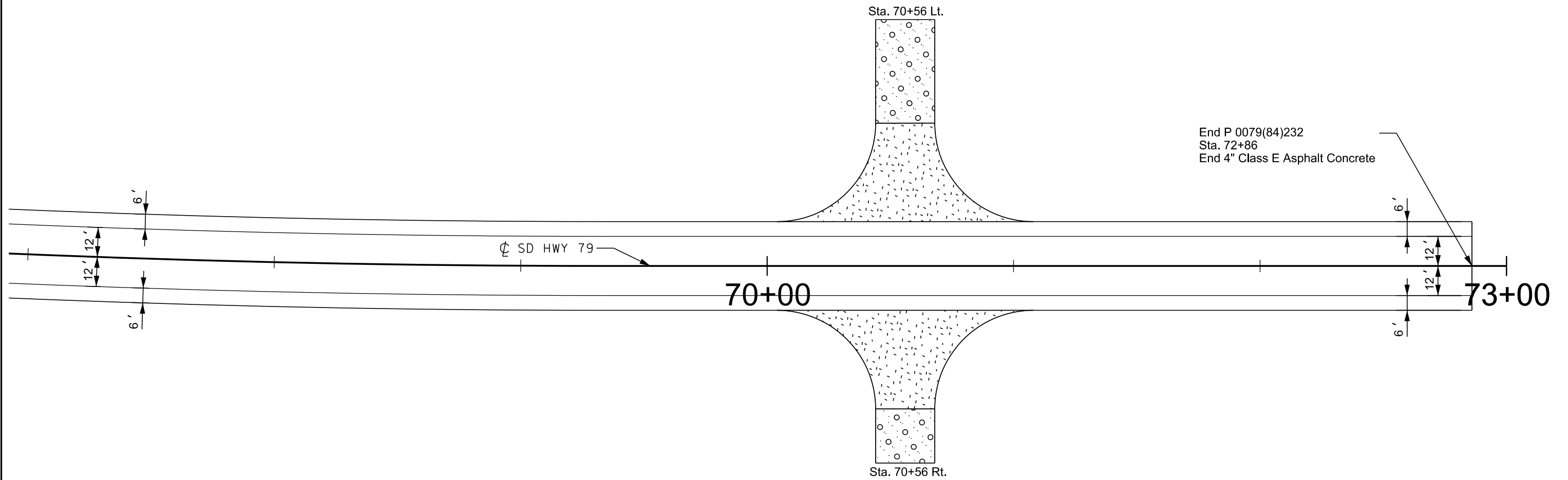
 3" Class E Asphalt Concrete over
13" Base Course
(For Intersecting Roads and Entrances)



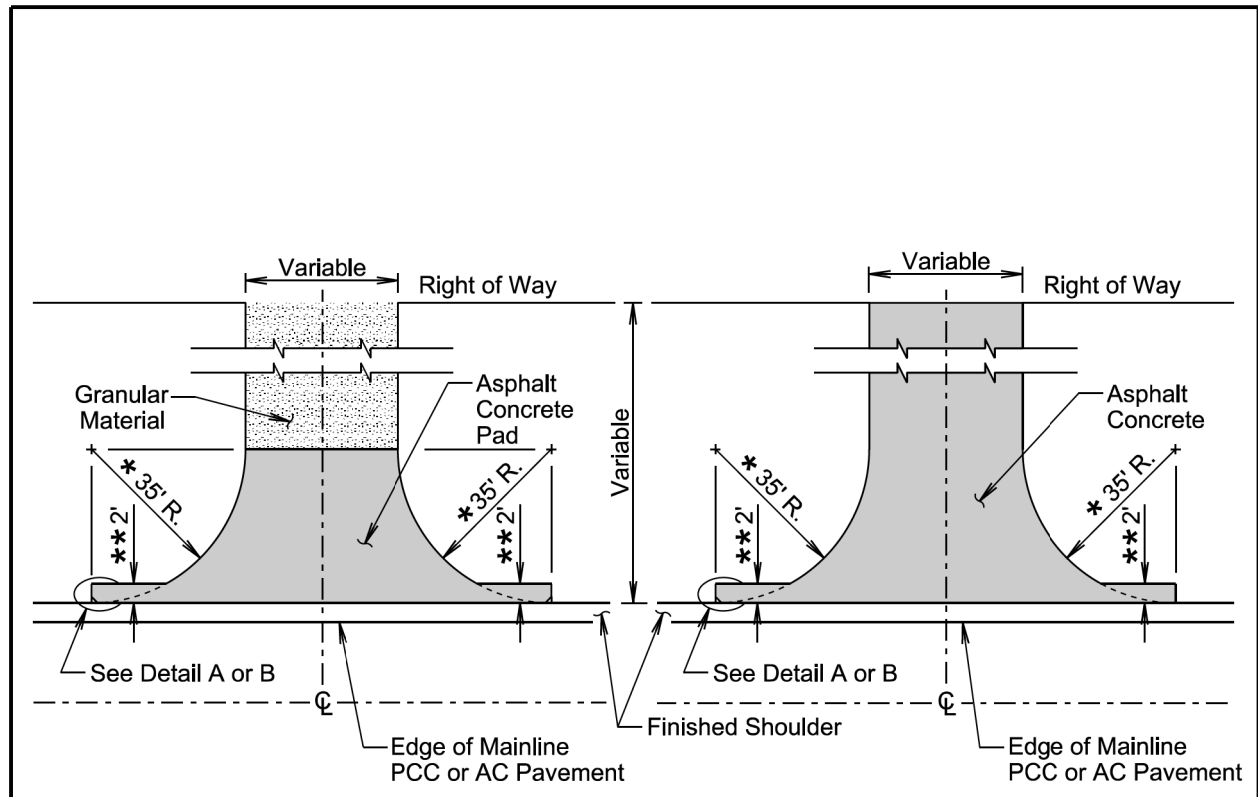
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Plot Scale - 1:200



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.

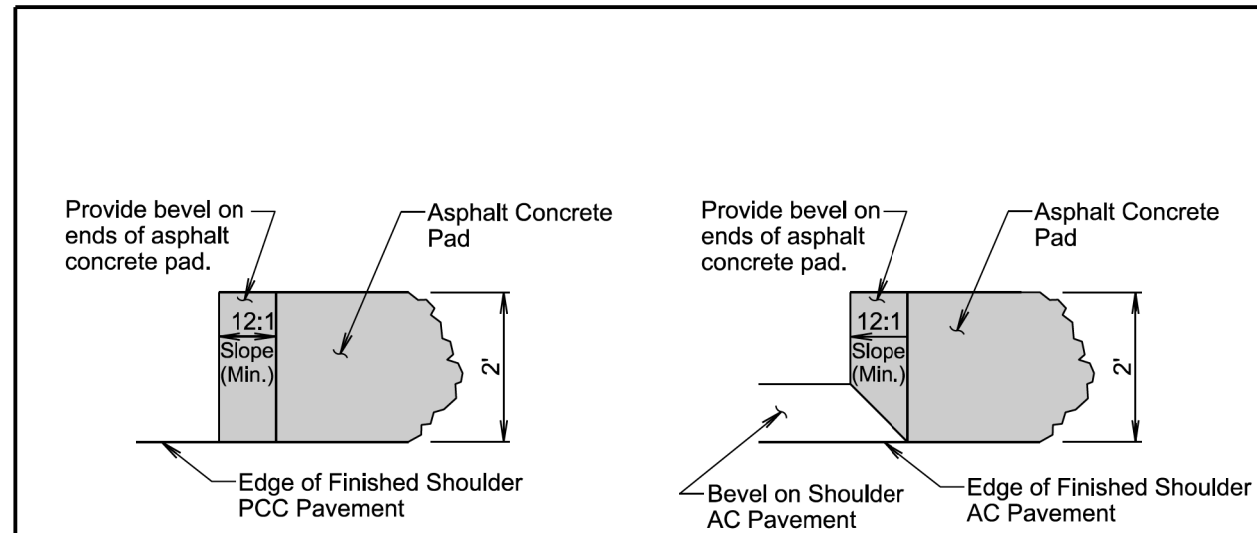
* For new construction, 35' radius typical or as specified in the plans. For resurfacing projects, radius is variable depending on existing conditions.

** 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

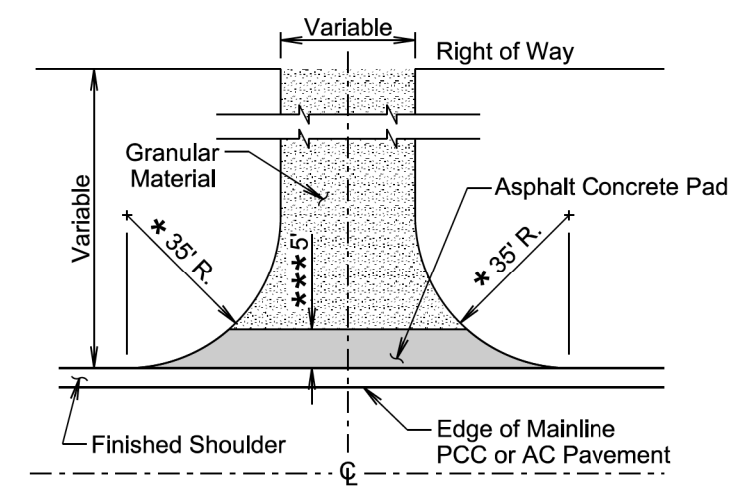
S D D O T	SURFACING OR RESURFACING OF INTERSECTING ROADS AND ENTRANCES (MAINLINE AND SHOULDERS: PCC OR AC PAVEMENT)	PLATE NUMBER 320.04
		Sheet 1 of 2

Published Date: 2025



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

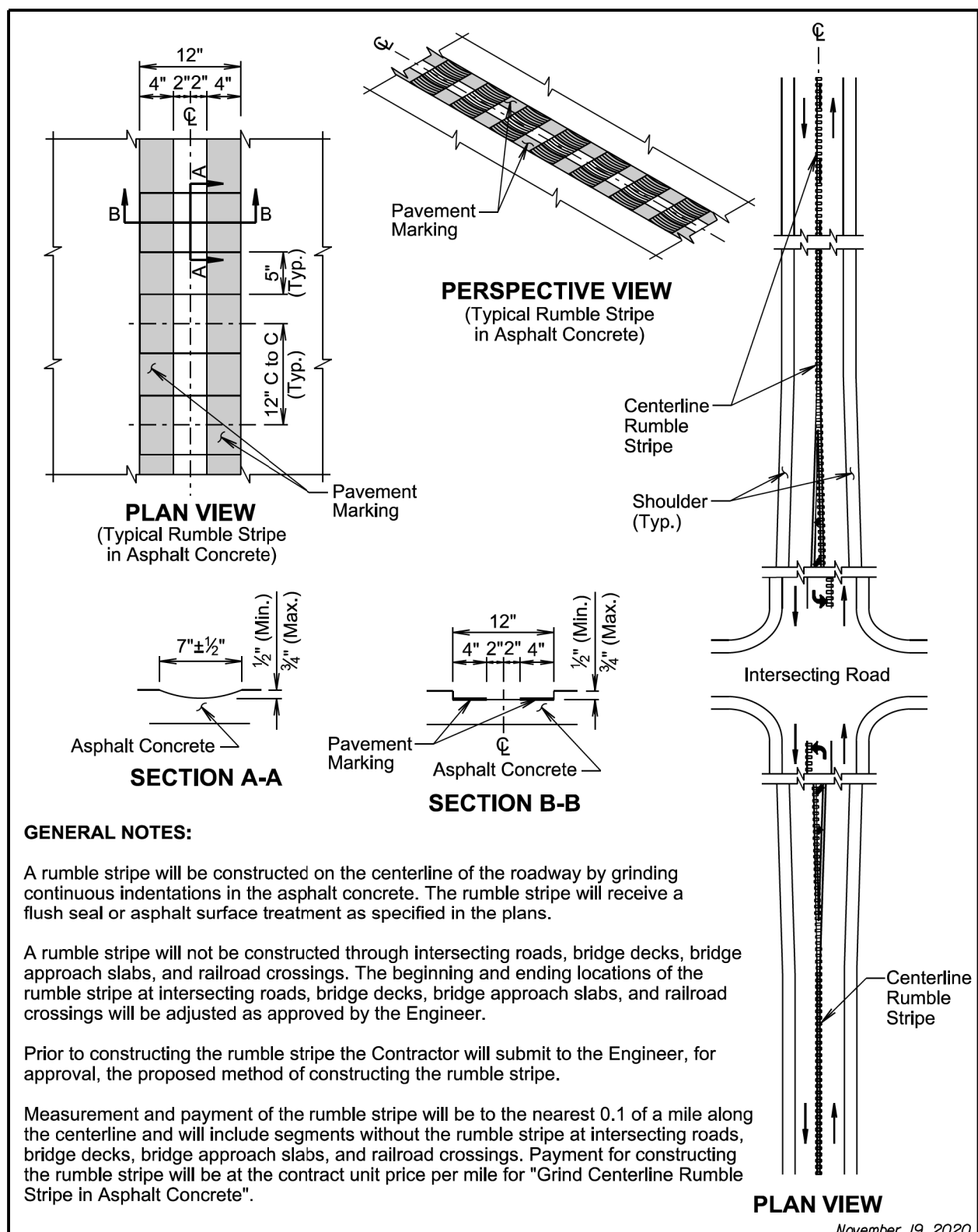
S D D O T	SURFACING OR RESURFACING OF INTERSECTING ROADS AND ENTRANCES (MAINLINE AND SHOULDERS: PCC OR AC PAVEMENT)	PLATE NUMBER 320.04
		Sheet 2 of 2

Published Date: 2025

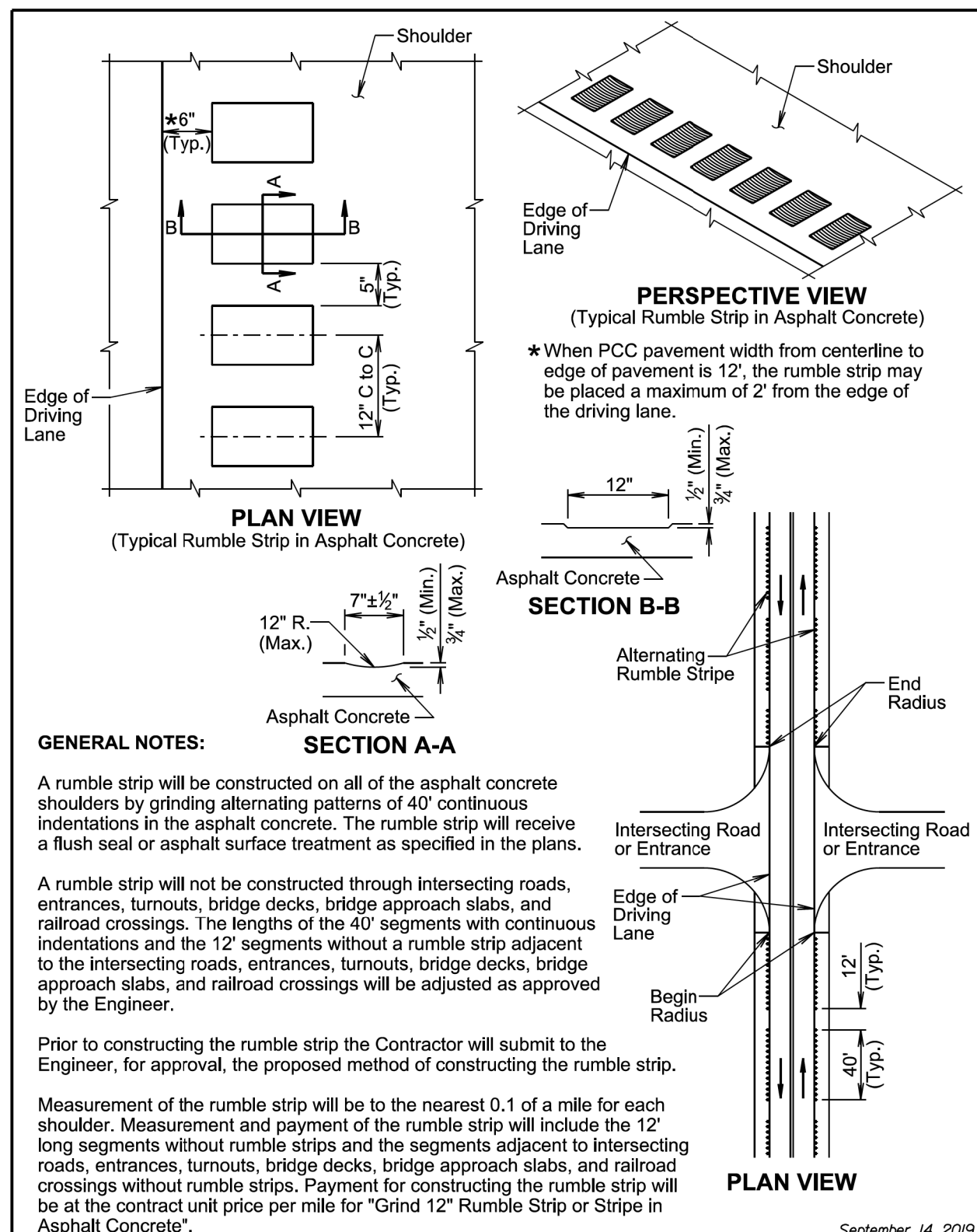
Plotted From: TRPR13462

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Plot Scale - 1:200



S D D O T	12" CENTERLINE RUMBLE STRIPE IN ASPHALT CONCRETE	PLATE NUMBER 320.18
	Published Date: 2025	Sheet 1 of 1



S D D O T	12" RUMBLE STRIP IN ASPHALT CONCRETE ON NONDIVIDED HIGHWAY SHOULDERS	PLATE NUMBER 320.24
	Published Date: 2025	Sheet 1 of 1

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Plotted From - TRPR13462