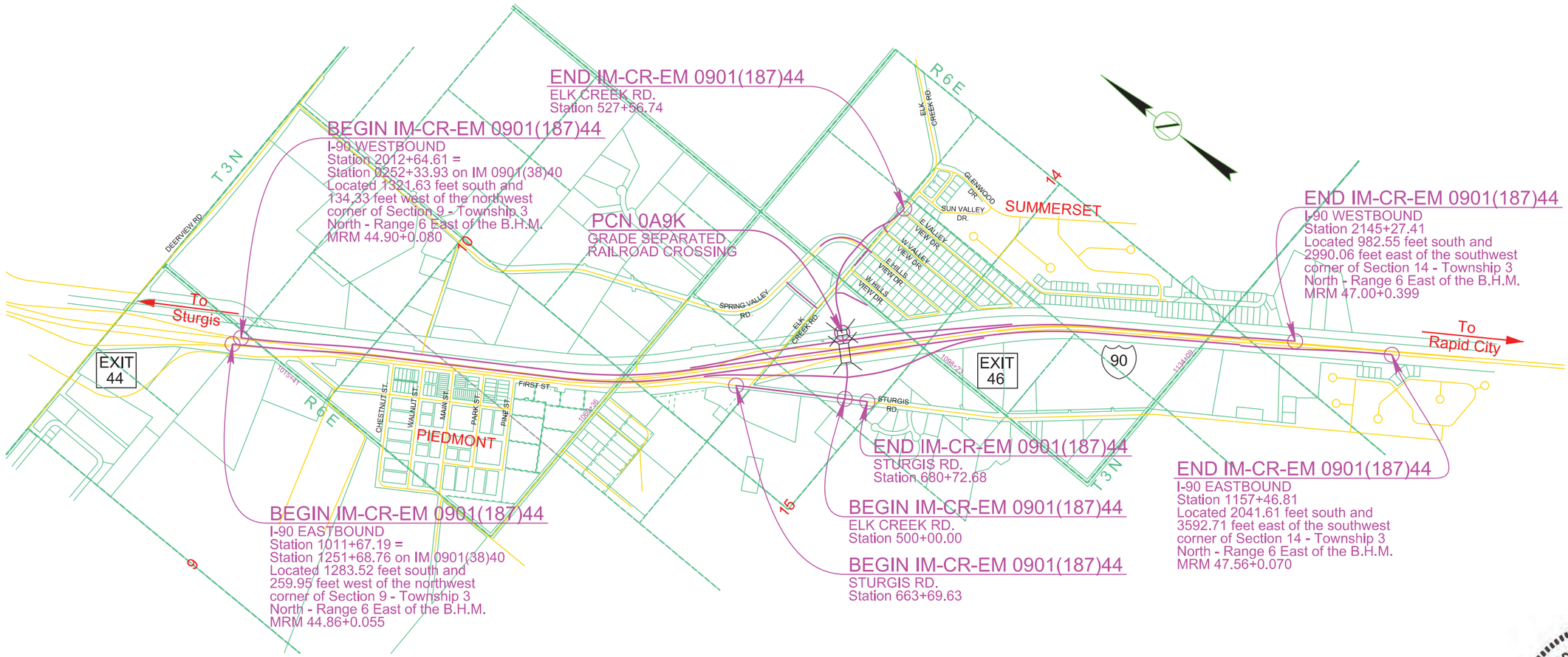
SECTION F: SURFACING PLANS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F1	F95

Plotting Date: 3/6/2026 Rev: 3/6/2025 BAF

INDEX OF SHEETS



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON FRIED
SOUTH DAKOTA
3/4/26

Plot Scale - 1:1400

Plotted From - BrandonFried

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SECTION F – ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E3320	Checker	Lump Sum	LS
110E1100	Remove Concrete Pavement	80,801.4	SqYd
120E6200	Water for Granular Material	1,534.3	MGal
210E2000	Shoulder Shaping	21.000	Mile
260E1010	Base Course	6,672.0	Ton
260E1030	Base Course, Salvaged	68,735.5	Ton
260E2010	Gravel Cushion	53,788.4	Ton
260E2030	Gravel Cushion, Salvaged	43,553.6	Ton
260E2080	Gravel Cushion, Salvaged, State Furnished	10,600.0	Ton
260E6000	Granular Material, Furnish	8,196.2	Ton
270E0220	Blend and Stockpile Granular Material	16,392.4	Ton
320E0005	PG 58-34 Asphalt Binder	1,473.8	Ton
320E1070	Class HR Asphalt Concrete	24,542.4	Ton
320E1200	Asphalt Concrete Composite	192.8	Ton
320E3000	Compaction Sample	54	Each
330E0010	MC-70 Asphalt for Prime	96.0	Ton
330E0100	SS-1h or CSS-1h Asphalt for Tack	49.5	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	14.5	Ton
330E1000	Blotting Sand for Prime	480.9	Ton
330E2000	Sand for Flush Seal	317.5	Ton
380E0100	10.5" Nonreinforced PCC Pavement	12,873.7	SqYd
380E0150	13" Nonreinforced PCC Pavement	82,691.8	SqYd
380E0800	PCC Shoulder Pavement	36,745.8	SqYd
380E6000	Dowel Bar	41,466	Each
380E6110	Insert Steel Bar in PCC Pavement	1,617	Each

CONTROL OF ACCESS

If a Contractor's operations would require access to the interstate ROW in any location not currently designated as public access, prior approval must be obtained from the Department. All requests will be reviewed based on safety and construction sequencing. A Contractor will not assume that all requests will be granted.

The Contractor will be responsible for all safety control and signing measures.

Anytime Contractor operations have ceased for the day, any entrances approved in a control of access area will be closed by the Contractor.

The request for access will be provided in writing to the Engineer two weeks in advance of any proposed break in control of access.

CHECKING SPREAD RATES

The Contractor will be responsible for checking the Base Course; Base Course, Salvaged; Gravel Cushion; Gravel Cushion, Salvaged; and/or Asphalt Concrete 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.

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.

SHOULDER SHAPING

The Contractor will remove all granular material generated from the Construction Haul Road to a separate stockpile site as directed by the Engineer. This material may be reused as Base Course, Salvaged or Gravel Cushion, Salvaged at the discretion of the Engineer.

After removal of the Haul Road material and prior to paving the outside shoulder, the existing Gravel Cushion or Gravel Cushion, Salvaged on the shoulders will be reshaped and compacted with adequate moisture as determined by the Engineer until a uniform, stable surface is obtained.

After Shoulder Shaping is completed, the shoulder granular material will be placed as specified, according to the Base Course, Salvaged or Gravel Cushion, Salvaged requirements.

Included in the Estimate of Quantities are 21.0 miles of Shoulder Shaping for both outside and median shoulders. There are 10.5 miles of median Shoulder Shaping and 10.5 miles of outside Shoulder Shaping.

Included in the Estimate of Quantities is 0.055 MGal of Water for Granular Material per mile for the median shoulders and 0.036 MGal of Water per mile for outside shoulders for compaction of granular material associated with Shoulder Shaping.

All costs associated with removing, hauling, stockpiling, and shaping the granular material will be incidental to the contract unit price per mile for "Shoulder Shaping".

INTERSECTING ROADS AND ENTRANCES

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

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

RECYCLED CONCRETE AGGREGATE (RCA)

Portland cement concrete pavement (RCA) removed from the mainline within the project limits may be crushed and reused as granular material provided it meets the requirements for the granular material it is replacing.

All in-place rebar will be separated and removed from the RCA.

There is an estimated 33,258.2 tons of PCC Pavement on this project that can be crushed and reused. This quantity is based on a unit weight of 118 lbs. per cubic foot for the recycled concrete aggregate.

The Contractor will dispose of the material (including existing rebar) not utilized on the project at a site approved by the Engineer.

Payment for the recycled concrete aggregate will be at the contract unit price per ton for the granular material that it is replacing.

TABLE OF RECYCLED CONCRETE AGGREGATE (RCA)

Location	Recycled Concrete Aggregate Material
Station to Station	**Tons**
I-90 Eastbound Mainline	
1011+67.19 to 1157+46.81	18,381.0
I-90 Westbound Mainline	
2012+64.61 to 2138+47.20	14,877.2
Total =	**33,258.2**

CONSTRUCTION HAUL ROAD

Included in the Estimate of Quantities are 1,000 tons of Gravel Cushion or Gravel Cushion, Salvaged per mile, and 12 MGal of Water for Granular Material per mile for haul road construction. The use of this material will be at the discretion of the Contractor. Any additional construction and removal for the construction haul road will be the Contractor's responsibility. The Contractor will receive no additional compensation for this work.

The Gravel Cushion or Gravel Cushion, Salvaged used to construct the haul road will be compacted in the same manner and to the same specifications as the adjacent material below mainline.

All costs associated with construction of the haul road will be incidental to the "Gravel Cushion" or "Gravel Cushion, Salvaged" quantities provided.

BLEND AND STOCKPILE GRANULAR MATERIAL

An estimated 8,196.2 tons (for informational purposes only) of excess Salvaged Asphalt Mix Material will be blended with 8,196.2 tons of Granular Material, Furnish and stockpiled at the Contractor's furnished stockpile site.

The Contractor will use a portable platform scale, stationary commercial scale, stationary commercial plant, portable plant scale, or a belt scale to control the blending and weighing of the salvage material with Contractor furnished granular material.

The salvaged asphalt mix material will be crushed to meet the requirements of Section 884.2 D.2 prior to blending into the stockpile.

Excess Salvaged asphalt mix material and salvaged granular material will be blended with Granular Material, Furnish at a rate of 50% salvaged asphalt mix material and 50% Granular Material, Furnish to obtain stockpile material. Material will be uniformly blended to the satisfaction of the Engineer.

No further gradation testing of the blended material will be required.

All costs for crushing the salvaged asphalt mix material, stockpiling, and blending the materials will be incidental to the contract unit price per ton for "Blend and Stockpile Granular Material".

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.

The Contractor will ensure the Base Course, Salvaged material contains no more than 50% salvaged asphalt mix material and at least 50% granular material (salvaged or virgin). Blended material will be to the satisfaction of the Engineer.

All other requirements for Base Course, Salvaged will apply.

GRAVEL CUSHION, SALVAGED

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

The Contractor will ensure the Gavel Cushion, Salvaged material contains no more than 50% salvaged asphalt mix material and at least 50% granular material (salvaged or virgin). Blended material will be to the satisfaction of the Engineer.

All other requirements for Gravel Cushion, Salvaged will apply.

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 0.06 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.

Section 324 will apply except that Class HR Asphalt Concrete as specified elsewhere in the plans may be used as Asphalt Concrete Composite. Plans specified locations for Asphalt Concrete Composite will be paid for at the contract unit price per ton for Asphalt Concrete Composite regardless of the class of asphalt concrete used at such locations.

CLASS HR ASPHALT CONCRETE

Virgin mineral aggregate for Class HR Asphalt Concrete will consist of a minimum of 80 percent crushed limestone ledge rock and will conform to the requirements for Class E, Type 1.

An estimated 7,362.7 tons of RAP is needed for the Class HR mixture. The Class HR Asphalt Concrete will include 30 percent RAP in the mixture.

RAP will be obtained from the material produced by cold milling on this project. An estimated 7,362.7 tons will be required for use as RAP.

When directed by the Engineer, the Contractor will saw and remove a total of three undamaged compaction cores 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".

Estimated quantity for "Compaction Sample" based on anticipated areas:

I-90 Eastbound and Westbound shoulders	1 lift
I-90 Eastbound and Westbound Interim connections	4 lifts
Elk Creek Road	3 lifts
Sturgis Road	3 lifts
Steakhouse Access Road	2 lifts

All other requirements for Class HR Asphalt Concrete will apply.

COMPACTION

Location	Compaction With Specified Density	Compaction Without Specified Density
Station to Station	**Ton**	**Ton**
I-90 Eastbound		
1011+67.19 to 1138+50.00	2,033.5	
I-90 Westbound Shoulder		
2021+64.61 to 2138+47.20	2,022.4	
I-90 Eastbound Interim		
38+50.00 to 57+47.53 24' Mainline w/Shoulders	6,365.5	
I-90 Westbound Interim		
38+47.20 to 45+27.43 24' Mainline w/Shoulders	2,688.4	
Sideroads		
West Hills View Drive	142.4	
East Hills View Drive	115.1	
West Valley View Drive	71.6	
East Valley View Drive	24.0	
Steakhouse Access Road	419.9	
Elk Creek Road	3,433.3	
Sturgis Road	7,226.3	
Guardrail		
I-90 Eastbound		25.4
I-90 Eastbound Interim		19.4
Ramp A		30.4
Ramp B		36.5
Elk Creek Road		64.5
Sturgis Road		16.6
Total =	**24,542.4**	**192.8**

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 6' wide on inside shoulders and 22' wide in the interim lanes.

BLOTTING SAND FOR PRIME

Included in the Estimate of Quantities are 480.9 tons of Blotting Sand for Prime to be used where necessary for maintenance of traffic as directed by the Engineer. (Rate = 10 pounds per square yard)

RATES OF MATERIALS

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

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

I-90 RAMPS – EXIT 46

Location	Gravel Cushion or Gravel Cushion, Salvaged	Water for Granular Material	Description
Station to Station	**Ton/sta.**	**MGal/sta.**	
Ramps			
A - 104+27.20 to 119+07.62	125.23	1.50	Ramp A
B - 200+39.50 to 215+97.49	125.23	1.50	Ramp B
C - 300+64.35 to 315+24.52	125.23	1.50	Ramp C
D - 403+02.88 to 417+31.73	125.23	1.50	Ramp D

I-90 EASTBOUND & WESTBOUND MAINLINE

Location	Gravel Cushion or Gravel Cushion, Salvaged	Water for Granular Material	Description
Station to Station	**Ton/sta.**	**MGal/sta.**	
I-90 Eastbound Mainline			
1022+36.61 to 1060+54.86	75.81	0.91	2 Lane
1062+94.19 to 1070+28.57	110.81	1.33	Accel/Decel Lane
1073+94.31 to 1103+82.58	75.81	0.91	2 Lane
1106+36.15 to 1116+19.91	110.88	1.33	Accel/Decel Lane
1122+21.30 to 1138+50.00	75.81	0.91	2 Lane
I-90 Westbound Mainline			
2014+60.22 to 2053+29.58	75.81	0.91	2 Lane
2059+32.38 to 2069+17.89	110.81	1.33	Accel/Decel Lane
2073+17.29 to 2104+54.98	75.81	0.91	2 Lane
2109+83.77 to 2118+58.86	110.81	1.33	Accel/Decel Lane
2120+97.86 to 2138+47.20	75.81	0.91	2 Lane

I-90 EASTBOUND & WESTBOUND SLOUGH WEDGE

Location	Gravel Cushion or Gravel Cushion, Salvaged	Water for Granular Material	Description
Station to Station	**Ton/sta.**	**MGal/sta.**	
I-90 Eastbound Slough Wedge			
1011+67.19 to 1019+39.41	7.98	0.10	Normal Crown
1019+39.41 to 1058+22.68	No Wedge		
1058+22.68 to 1070+28.57	8.68	0.10	Super - High Side
1079+32.23 to 1088+38.77	7.98	0.10	Normal Crown
1089+27.44 to 1103+82.58	7.98	0.10	Normal Crown
1106+36.15 to 1121+21.38	7.63	0.09	Super - Low Side
1121+21.38 to 1138+50.00	7.98	0.10	Normal Crown
I-90 Westbound Slough Wedge			
2012+64.61 to 2021+64.93	9.80	0.12	Normal Crown
2021+64.93 to 2032+36.70	8.40	0.10	Super - High Side
2032+36.70 to 2051+44.45	7.98	0.10	Normal Crown
2051+44.45 to 2069+17.89	7.63	0.09	Super - Low Side
2077+00.00 to 2094+50.00	2.66	0.03	Normal Crown
2094+50.00 to 2104+54.98	7.98	0.10	Normal Crown
2104+54.98 to 2109+83.77	22.10	0.27	Gore
2109+83.77 to 2121+60.85	8.40	0.10	Super - High Side
2121+60.85 to 2138+47.20	7.98	0.10	Normal Crown

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RATES OF MATERIALS (CONTINUED)

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

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

I-90 EASTBOUND & WESTBOUND INTERIM

Location	Base Course or Base Course, Salvaged	Water for Granular Material	Description
Station to Station	Ton/sta.	MGal/sta.	
I-90 Eastbound Interim			
38+50.00 to 57+47.53	257.85	3.09	Base Course
I-90 Westbound Interim			
38+47.20 to 45+27.43	257.85	3.09	Base Course

I-90 EASTBOUND & WESTBOUND PCCP SHOULDER

Location	Gravel Cushion or Gravel Cushion, Salvaged	Water for Granular Material	Description
Station to Station	Ton/sta.	MGal/sta.	
I-90 Eastbound PCCP Shoulder			
1011+67.19 to 1021+27.65	67.56	0.81	Section 33
1058+22.68 to 1070+28.57	70.35	0.84	Section 34
1073+94.31 to 1087+00.00	79.24	0.95	Section 27
1092+00.00 to 1103+64.72	79.24	0.95	Section 27
1106+36.07 to 1121+21.30	66.08	0.79	Section 29
1121+21.30 to 1138+50.00	79.24	0.95	Section 27
I-90 Westbound PCC Shoulder			
2014+26.49 to 2021+64.93	79.24	0.95	Section 27
2021+64.93 to 2032+36.70	80.64	0.97	Section 30
2032+36.70 to 2051+44.45	79.24	0.95	Section 27
2051+44.45 to 2073+43.51	66.01	0.79	Section 35
2077+33.61 to 2095+13.50	76.44	0.92	Section 28
2095+13.50 to 2104+54.98	79.22	0.95	Section 27
2104+54.98 to 2120+58.05	69.02	0.83	Section 30
2120+58.05 to 2138+47.20	79.24	0.95	Section 27

I-90 EASTBOUND & WESTBOUND ASPHALT SHOULDER

Location	Gravel Cushion or Gravel Cushion, Salvaged	Water for Granular Material	Description
Station to Station	Ton/sta.	MGal/sta.	
I-90 Eastbound Asphalt Shoulder			
1011+67.19 to 1051+43.91	120.12	1.44	Normal Crown
1051+43.91 to 1070+28.62	105.84	1.27	Super - Low Side
1070+28.62 to 1103+82.58	119.84	1.44	Normal Crown
1103+82.58 to 1121+21.38	164.64	1.98	Super - High Side
1121+21.38 to 1138+50.00	119.84	1.44	Normal Crown
I-90 Westbound Asphalt Shoulder			
2012+64.61 to 2021+64.93	119.84	1.44	Normal Crown
2021+64.93 to 2032+36.70	103.39	1.24	Super - Low Side
2032+36.70 to 2051+44.45	119.84	1.44	Normal Crown
2051+44.45 to 2073+17.29	164.64	1.98	Super - High Side
2073+17.29 to 2104+54.93	119.84	1.44	Normal Crown
2104+54.93 to 2121+60.85	103.39	1.24	Super - Low Side
2121+60.85 to 2138+47.20	119.84	1.44	Normal Crown

MC-70 Asphalt for Prime at the Rate of 0.30 gallon per square yard applied prior to the bottom lift.

Application Width:	Section 27 - 35:	9 feet for inside shoulder
	Section 36:	54 feet

SS-1h or CSS-1h Asphalt for Tack at the Rate of 0.06 gallon per square yard applied prior to each AC lift.

Application Width:	Section 27 - 35:	8.5 feet for inside shoulder
	Section 36:	53 feet for bottom lift
	Section 36:	49.5 feet for second lift
	Section 36:	46 feet for third lift
	Section 36:	43.5 feet for top lift

SS-1h or CSS-1h Emulsified Asphalt for Flush Seal at the rate of 0.05 gallon per square yard.

Application Width:	Section 27 - 35:	8 feet for inside shoulder
	Section 36:	52 feet

Sand for Flush Seal at the rate of 8 pounds per square yard.

Application Width:	Section 27 - 35:	6 feet for inside shoulder
	Section 36:	22 feet

Rates will not be provided for Sturgis Road, Steakhouse Access Road, and the drives.

CLASS HR ASPHALT CONCRETE – 6’ Median Shoulder

Crushed Aggregate	476 Ton/mile
Salvaged Asphalt Concrete	204 Ton/mile
PG 58-34 Asphalt Binder	22 Ton/mile
Total	702 Ton/mile

Laid 3 inches compacted depth; 8’ bottom, 6’ top

CLASS HR ASPHALT CONCRETE – EB & WB Interim – 1st Lift
(Section 36)

Crushed Aggregate	64.73 Ton/sta.
Salvaged Asphalt Concrete	27.74 Ton/sta.
PG 58-34 Asphalt Binder	3.06 Ton/sta.
Total	95.53 Ton/sta.

Laid 3 inches compacted depth; 52’ bottom, 48.5’ top

CLASS HR ASPHALT CONCRETE – EB & WB Interim – 2nd Lift
(Section 36)

Crushed Aggregate	60.20 Ton/sta.
Salvaged Asphalt Concrete	25.80 Ton/sta.
PG 58-34 Asphalt Binder	2.84 Ton/sta.
Total	88.84 Ton/sta.

Laid 3 inches compacted depth; 48.5’ bottom, 45’ top

CLASS HR ASPHALT CONCRETE – EB & WB Interim – 3rd Lift
(Section 36)

Crushed Aggregate	37.52 Ton/sta.
Salvaged Asphalt Concrete	16.08 Ton/sta.
PG 58-34 Asphalt Binder	1.77 Ton/sta.
Total	55.37 Ton/sta.

Laid 2 inches compacted depth; 45’ bottom, 42.5’ top

CLASS HR ASPHALT CONCRETE – EB & WB Interim – 4th Lift
(Section 36)

Crushed Aggregate	35.40 Ton/sta.
Salvaged Asphalt Concrete	15.17 Ton/sta.
PG 58-34 Asphalt Binder	1.67 Ton/sta.
Total	52.24 Ton/sta.

Laid 2 inches compacted depth; 42.5’ bottom, 40’ top

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

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EXISTING PCC PAVEMENT

Sta. 1030+38.33 to Sta. 1157+46.81 (I-90 Eastbound) &
Sta. 2030+39.08 to Sta. 2145+27.41 (I-90 Westbound)

The existing 9-inch Plain Jointed PCC Pavement for Sections 7-10, 17, and 18, is reinforced with welded wire fabric. The welded wire fabric weighs not less than 60 pounds per 100 square feet, the longitudinal wires are No. 1 gauge and are spaced 6” center to center and the transverse wires are No. 4 gauge and are spaced 12” center to center.

The existing transverse contraction joints are spaced at 46.5 feet. The aggregate in the existing Plain Jointed PCC Pavement is limestone.

Sta. 1011+67.19 to Sta. 1030+38.33 (I-90 Eastbound) &
Sta. 2012+64.61 to Sta. 2030+39.08 (I-90 Westbound)

The existing concrete for Sections 1-6 and 11-16 is Plain Jointed PCC Pavement. The existing transverse joints are perpendicular and are spaced at 20 feet. The aggregate in the existing Plain Jointed PCC Pavement is limestone.

TRIM MATERIAL

Material removed during the trimming operation may be used for the Construction Haul Road or hauled from the roadbed. Material hauled from the roadbed may be placed on shoulders after completion of the nonreinforced concrete pavement. No additional payment will be made for handling, stockpiling, processing, or placement of trim material. Water added by road mix or plant mix methods will be paid at the contract unit price per MGal for “Water for Granular Material”.

TRANSVERSE CONTRACTION JOINTS

Unless specified otherwise in the PCC Pavement Joint Layout Sheets or elsewhere in the plans, the typical joint spacing for the 13” Nonreinforced PCC Pavement and 10.5” Nonreinforced PCC Pavement will be 20’. Joint spacing in the PCC Shoulder Pavement will match adjacent mainline pavement.

See Standard Plate 380.04 for placement of Dowel Bars.

The transverse contraction joints will be perpendicular to the centerline. In multilane areas the transverse contraction joints will be perpendicular to the centerline and be in a straight line across the entire width of pavement. In special situations the Engineer may pre-approve transverse contraction joints that do not meet these requirements. All nonconforming transverse contraction joints will be removed at the Contractor’s expense. Any method of placement that cannot produce these requirements will not be allowed.

In special situations the Engineer may pre-approve Transverse Contraction joints that do not meet these requirements. All nonconforming transverse contraction joints will be removed at the Contractor’s expense. Any method of placement that cannot produce these requirements will not be allowed.

10.5” & 13” NONREINFORCED PCC PAVEMENT

The fine aggregate will be screened over a 1-inch square opening screen just prior to introduction into the concrete paving mix. The Contractor will screen all of the aggregate to prevent the incorporation of foreign materials (i.e. mud balls) into the concrete mix.

The concrete mix will conform to the Special Provision for Contractor Furnished Mix Design for PCC Pavement.

Pavement blockouts may be required at various locations on this project to facilitate traffic during the paving activity.

There will be no direct payment for trimming of the gravel cushion for PCC pavement. The trimming will be considered incidental to the related items required for PCC Pavement. Trimming will be performed as required by Section 380.3 C of the Specifications.

A construction joint will be sawed whenever new concrete pavement is placed adjacent to existing concrete pavement.

The transverse construction joints will be handled in accordance with Standard Plate 380.15.

The location of joints, as shown and designated on the PCC Pavement Joint Layout(s) are only approximate locations to be used as a guide and to afford bidders a basis for estimating the construction cost of the joints. The final locations of the joints are to be designated by the Engineer during construction.

The driving surfaces of the mainline paving will be longitudinally tined from 6” each side of centerline pavement markings to 6” inside the outside pavement markings. All other areas will be textured as directed by the Engineer.

For Asphalt Shoulders, Rumble Strips will be placed 15 inches wide 3 inches from the outside edge of the pavement.

The following locations will be tested for smoothness in accordance with the Special Provision for IRI PCC Pavement Smoothness.

I-90 – Sta. 1011+67.19 to Sta. 1138+50.00 (Driving and Passing Lanes)
I-90 – Sta. 2012+64.61 to Sta. 2138+47.20 (Driving and Passing Lanes)

The following locations will be tested for smoothness with a Contractor furnished and operated 25-foot California style profilograph in accordance with the Special Provision for PI PCC Pavement Smoothness with 0.2 Blanking Band:

I-90 – Sta. 104+27.20 to Sta. 119+07.62 (Ramp A)
I-90 – Sta. 200+39.50 to Sta. 215+97.49 (Ramp B)
I-90 – Sta. 300+64.35 to Sta. 315+24.52 (Ramp C)
I-90 – Sta. 403+02.88 to Sta. 417+31.73 (Ramp D)

All other areas, including Elk Creek Road, must meet 10’ straightedge in accordance with Section 380.3.O.1 of the Specifications.

TABLE OF 10.5” & 13” NONREINFORCED PCC PAVEMENT

Location	13" PCCP	10.5" PCCP
Station to Station	**SqYd**	**SqYd**
I-90 Eastbound Mainline		
1011+67.19 to 1138+50.00	41,549.2	
I-90 Westbound Mainline		
2021+64.61 to 2138+47.20	41,142.6	
Ramps		
A - 104+27.20 to 119+07.62		2,120.7
B - 200+39.50 to 215+97.49		2,802.2
C - 300+64.35 to 315+24.52		2,172.3
D - 403+02.88 to 417+31.73		2,406.9
Elk Creek Road		
500+33.36 to 504+33.11		2,697.0
507+17.86 to 508+00.61		674.6
Total =	**82,691.8**	**12,873.7**

TABLE OF DOWEL BARS

Location	Dowel Bar (Size 1 1/2”)
Station to Station	**Each**
I-90 Eastbound Mainline	
1011+67.19 to 1138+50.00	17,675
I-90 Westbound Mainline	
2012+64.61 to 2138+47.20	17,299
Ramps	
A - 104+27.20 to 119+07.62	1,178
B - 200+39.50 to 215+97.49	1,391
C - 300+64.35 to 315+24.52	1,257
D - 403+02.88 to 417+31.73	1,224
Elk Creek Road	
500+33.36 to 508+00.61	1,163
507+17.86 to 508+00.61	279
Total =	**41,466**

ALKALI SILICA REACTIVITY

Fine aggregate will conform to Section 800.2 D Alkali Silica Reactivity (ASR) Requirements.

Below is a list of known fine aggregate sources and the average corresponding 14-day expansion values (as of 9-18-2024):

Source	Location	Expansion Value
Bachman	Winner, SD	0.335*
Bitterman	Delmont, SD	0.316*
Concrete Materials	Corson, SD	0.146
Concrete Materials - Vellek Pit	Yankton, SD	0.411**
Croell	Hot Springs, SD	0.089
Croell	Wasta, SD	0.212
Emme Sand & Gravel	Oneil, NE	0.217
Fisher S&G – Blair Pit	W of Vale, SD	0.171
Fisher S&G - Mickelson Pit	E of Nisland, SD	0.129
Fisher S&G - Vallery Pit	Nisland, SD	0.110
Fisher S&G	Rapid City, SD	0.092
Fisher S&G	Spearfish, SD	0.053
Fisher S&G	Wasta, SD	0.159
Fuchs	Pickstown, SD	0.275*
Henning – Tilstra Pit	Ash Creek, MN	0.199
Higman	Hudson, SD	0.187
Jensen	Herried, SD	0.276*
L.G. Everist	Akron, IA	0.257*
L.G. Everist	Brookings, SD	0.297*
L.G. Everist – Ode Pit	E Sioux Falls, SD	0.222
L.G. Everist – Nelson Pit	NE Sioux Falls, SD	0.156
L.G. Everist	Hawarden, IA	0.211
L.G. Everist	Summit, SD	0.184
Mark's S&G – Moerke Pit	Underwood, MN	0.165
Morris – Birdsall	Blunt, SD	0.229
Morris - Leesman	Blunt, SD	0.231
Morris - Richards Pit	Onida, SD	0.188
Morris - Shawn's Pit	E of Sturgis, SD	0.186
Northern Concrete Agg.	Rauville, SD	0.113
Northern Concrete Agg.	Luverne, MN	0.154
Opperman - Gunvordahl Pit	Burke, SD	0.363*
Opperman - Cahoy Pit	Herrick, SD	0.307*
Opperman - Jones Pit	Burke, SD	0.321*
Opperman - Randall Pit	Pickstown, SD	0.230
Pete Lien & Sons	Creston, SD	0.158
Pete Lien & Sons	Oral, SD	0.157
Pete Lien & Sons	Wasta, SD	0.255*
Simon Materials - Beltline Pit	Scottsbluff, NE	0.277*
Thorpe Pit	Britton, SD	0.098
Valley S&G – Van Beek Pit	Rock Valley, IA	0.228
Wagner Building Supplies	Pickstown (Wagner), SD	0.251*
Winter Brothers- Whitehead Pit	Brookings, SD	0.197

* These sources will require Type II cement with a fly ash content of 25% in the concrete mix.
** These sources will not be used.

The Department will use the running average of the last three or fewer known expansion test results for determining acceptability of the source. These expansion results are reported in the preceding table. Additional testing,

when requested by the Contractor, will be performed by the Department at the Contractor's expense.

The values listed in the table are intended for use in bidding. If a previously tested pit by SDDOT with a test value less than 0.250 is discovered after letting to be 0.250 or greater, then the Department will accept financial responsibility if higher costs are incurred due to higher percent of fly ash requirement.

POLY-ALPHA METHYLSTYRENE (AMS) MEMBRANE CURING COMPOUND

Provide poly-alpha methylstyrene liquid membrane curing compounds for spray application on portland cement concrete surfaces exposed to the air.

The AMS membrane curing compound will conform to section 821 of the Specifications and the following requirements:

1. The AMS membrane curing compound will be successfully reviewed by the Department before use.
2. Meets the requirements of ASTM C 309 for white pigmented Type 2, Class B.
3. The Engineer will not allow the use of curing compound that is over 1 year from the manufacture date.
4. Resin is 100 percent poly-alpha methylstyrene and formulated to maintain the specified properties of the following Table.

REQUIREMENTS FOR AMS MEMBRANE CURING COMPOUND	
Properties	**Range**
Total solids, % by weight of compound	≥ 42
% reflectance in 72 h (ASTM E 1247)	≥ 65
Loss of Water, kg/sq. m in 24 h (AASHTO T 155)	≤ 0.15
Loss of Water, kg/sq. m in 72 h (AASHTO T 155)	≤ 0.40
Settling Test, ml/100 ml in 72 h *	≤ 2
V.O.C. Content, g/L	≤ 350
Infrared Spectrum, vehicle	100% α methylstyrene
*Test in accordance with MNDOT method.	

The application will be in accordance with section 380.3 M plus the following:

Before application, agitate the curing compound as received in the shipping container to obtain a homogenous mixture. Protect membrane curing compounds from freezing before application. Handle and apply the membrane curing compound in accordance with the manufacturer's recommendations.

1. Apply curing compound homogeneously to provide a uniform, solid, white opaque coverage on all exposed concrete surfaces (equal to a white sheet of typing paper) at the time of application.
2. If the Engineer determines that the initial or corrective spraying result in unsatisfactory curing, the Engineer may require the Contractor to use the blanket curing method, at no additional cost to the Department.

Use the fully-automatic, self-propelled mechanical power sprayer to apply the curing compound:

1. Operate the equipment to direct the curing compound to the surface from two different lateral directions.
2. If puddling, dripping, or non-uniform application occurs, suspend the operation to perform corrections as approved by the Engineer.
3. A re-circulating bypass system that provides for continuous agitation of the reservoir material.
4. Separate filters for the hose and nozzle.
5. Check valve nozzles.
6. Multiple or adjustable nozzle system that provides for variable spray patterns.
7. A spray-bar drive system that operates independently of the wheels or track drive system.

Equipment for hand spraying of odd width or shapes and surfaces exposed by form removal will be:

1. Used from two directions to ensure coverage equal to a white sheet of typing paper as visible from any direction immediately after spraying.
2. A re-circulating bypass system that provides for continuous agitation of the reservoir material.
3. Separate filters for the hose and nozzle.
4. Multiple or adjustable nozzle system that provides for variable spray patterns.

A recommended practice for using AMS membrane curing compound is to clean out the sprayer including tank and nozzles each day after use.

Payment for AMS membrane curing compound, including labor, materials and incidentals will be incidental to the contract unit price per square yard for "10.5" Nonreinforced PCC Pavement", "13" Nonreinforced PCC Pavement", or "PCC Shoulder Pavement".

REGISTERED PROFESSIONAL ENGINEER
REG. NO. 11522
BRANDON FRIED
SOUTH DAKOTA
10/16/25

PCC SHOULDER PAVEMENT

In lieu of an automatic subgrader operating from a preset grade line, a motor grader or other suitable equipment may be used to bring the Gravel Cushion or Gravel Cushion, Salvaged to final grade prior to placement of the concrete.

The outside shoulder may be poured monolithic with the mainline pavement.

Provide a heavy carpet drag finish, a metal-tine finish will not be required on the shoulders. A metal-tine finish may be applied to the shoulders poured monolithic with the mainline.

If the shoulders are poured monolithic with the mainline pavement a sawed joint with tie bars will be constructed between the mainline pavement and the shoulders.

Rumble Strips will be placed 1.5 feet wide 6 inches from the outside edge of the driving lane. Rumble strips will not be placed on the side where curb & gutter is located. Payment for forming rumble strips including labor, materials and incidentals will be incidental to the contract unit price per square yard for "PCC Shoulder Pavement".

TABLE OF PCC SHOULDER PAVEMENT

Location	PCC Shoulder Pavement
Station to Station	**SqYd**
I-90 Eastbound Mainline	
1011+67.19 to 1138+50.00	17,615.5
I-90 Westbound Mainline	
2012+64.61 to 2138+47.20	10,930.5
Ramps	
A - 104+27.20 to 119+07.62	2,090.3
B - 200+39.50 to 215+97.49	1,975.4
C - 300+64.35 to 315+24.52	2,260.6
D - 403+02.88 to 417+31.73	1,873.5
Total =	**36,745.8**

STEEL BAR INSERTION

The Contractor will insert the Steel Bars into drilled holes in the existing concrete pavement. Anchoring of the steel bars in the drilled holes will conform to the Specifications.

The steel bars will be cut to the specified length by sawing or shearing and will be free from burring or other deformations.

Epoxy coated plain round steel bars will be inserted on 12-inch centers in the transverse joint. The first steel bar will be placed a minimum of 3 inches and a maximum of 6 inches from the outside edge of the slab.

Epoxy coated deformed steel bars will be inserted on 48-inch centers in the longitudinal joint and will be placed a minimum of 15 inches from the existing transverse contraction joint.

TABLE OF STEEL BAR INSERTION

See Standard Plates 380.15 and 380.20 for size of bars to use.

Location	1 ½" x 18" Plain Round Dowel Bars	No 5 x 24" Deformed Tie Bar
Station to Station	**Each**	**Each**
I-90 Eastbound Mainline		
1011+67.19	24	
1024+06.81 to 1058+22.68		1,569
I-90 Westbound Mainline		
2021+64.61	24	
Total =	**48**	**1,569**

GRAVEL CUSHION, SALVAGED, STATE FURNISHED

Gravel Cushion, Salvaged, State Furnished estimated at 10,600 tons (for informational purposes only) of granular material will be obtained from the stockpile site located State-owned lot north of present Elk Creek Road and west of present Spring Valley Road.

No gradation testing will be required for the Gravel Cushion, Salvaged, State Furnished material.

The Gravel Cushion, Salvaged, State Furnished is royalty free to the Contractor.

All other requirements for Gravel Cushion, Salvaged, State Furnished will apply.

Gravel Cushion, Salvaged, State Furnished material is available for use in the construction of temporary construction detour roads. All costs associated with hauling and placing the granular material will be incidental to the contract unit bid price per ton for "Gravel Cushion, Salvaged, State Furnished."

REGISTERED PROFESSIONAL ENGINEER
REG. NO
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SOUTH DAKOTA
3/4/26

Rev: 10/16/2025 BAF

TABLE OF ADDITIONAL QUANTITIES

Location	Water for Granular Material	Gravel Cushion, or Gravel Cushion, Salvaged	Base Course, or Base Course, Salvaged	Class HR Asphalt Concrete	Asphalt Concrete Composite	PG 58-34 Asphalt Binder	MC-70 Asphalt for Prime	SS-1h or CSS-1h Asphalt for Tack	SS-1h or CSS-1h Asphalt for Flush Seal	Sand for Flush Seal
Station to Station	**MGAL**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**
I-90 Eastbound Mainline										
1011+67.19 to 1138+50.00	508.4	46,775.4	18,961.8	2,033.5	0.0	122.1	20.1	4.0	1.8	42.3
I-90 Eastbound Mainline Guardrail										
1057+40.45 to 1058+47.44	1.6	0.0	126.2	0.0	25.4	0.0	0.0	0.0	0.0	0.0
I-90 Eastbound Interim										
38+50.00 to 57+47.53	67.6	0.0	5,627.7	6,365.5	0.0	382.0	12.3	14.2	2.2	51.8
I-90 Eastbound Interim Guardrail										
49+71.66 to 54+49.03	0.9	0.0	73.3	0.0	19.4	0.0	0.0	0.0	0.0	0.0
I-90 Westbound Mainline										
2012+64.61 to 2138+47.20	453.7	41,533.6	17,023.6	2,022.4	0.0	121.4	20.0	4.0	1.8	42.0
I-90 Westbound Interim										
38+47.20 to 45+27.43	20.9	0.0	1,735.5	2,688.4	0.0	161.4	4.5	7.4	0.8	18.6
Ramps										
A 104+27.20 to 119+07.62	30.3	0.0	2,520.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
B 200+39.50 to 215+97.49	33.3	0.0	2,769.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C 300+64.35 to 315+24.52	28.3	0.0	2,353.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
D 403+02.88 to 417+31.73	27.5	0.0	2,285.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ramp Guardrail										
A 116+78.29 to 119+16.61	0.0	0.0	0.0	0.0	18.8	0.0	0.0	0.0	0.0	0.0
A 116+78.28 to 119+16.11	0.0	0.0	0.0	0.0	11.6	0.0	0.0	0.0	0.0	0.0
B 200+32.17 to 202+99.22	0.0	0.0	0.0	0.0	20.5	0.0	0.0	0.0	0.0	0.0
B 200+32.67 to 203+49.58	0.0	0.0	0.0	0.0	16.0	0.0	0.0	0.0	0.0	0.0
Haul Road										
I-90 Eastbound and Westbound	83.2	6,927.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Elk Creek Road										
500+33.36 to 504+55.11	10.3	1,707.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
506+96.66 to 508+00.61	2.4	398.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
508+64.61 to 520+95.68	36.2	0.0	3,005.1	2,259.1	0.0	135.6	6.9	4.5	1.3	29.1
520+95.68 to 527+56.74	17.6	0.0	1,464.9	1,174.2	0.0	70.5	3.6	2.4	0.7	15.2
Elk Creek Guardrail										
503+03.90 to 504+55.11	1.4	0.0	111.7	0.0	17.6	0.0	0.0	0.0	0.0	0.0
503+28.67 to 504+55.11	1.2	0.0	93.9	0.0	9.8	0.0	0.0	0.0	0.0	0.0
508+64.61 to 510+63.22	2.1	0.0	167.9	0.0	26.3	0.0	0.0	0.0	0.0	0.0
508+64.61 to 510+59.20	1.4	0.0	115.7	0.0	10.8	0.0	0.0	0.0	0.0	0.0
Subtotal =	**1,328.3**	**97,342.0**	**58,436.0**	**16,543.1**	**176.2**	**993.0**	**67.4**	**36.5**	**8.6**	**199.0**

TABLE OF ADDITIONAL QUANTITIES (CONTINUED)

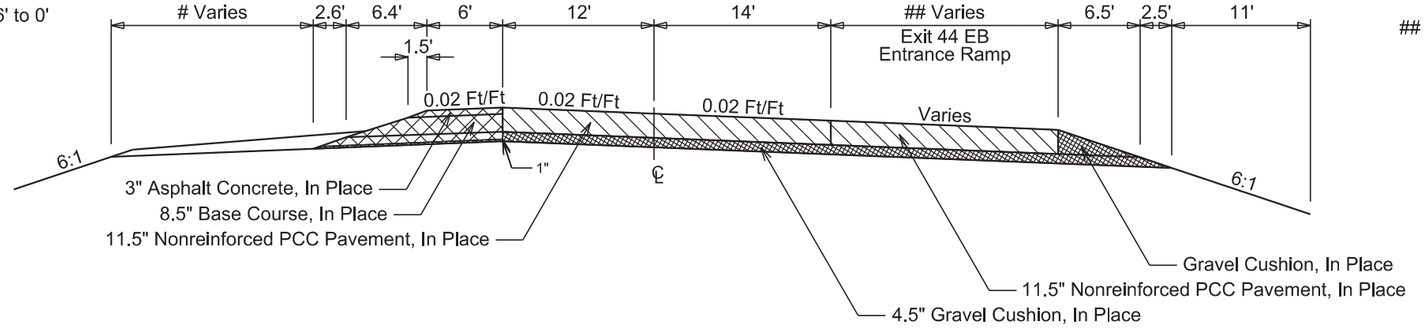
Location	Water for Granular Material	Gravel Cushion, or Gravel Cushion, Salvaged	Base Course, or Base Course, Salvaged	Class HR Asphalt Concrete	Asphalt Concrete Composite	PG 58-34 Asphalt Binder	MC-70 Asphalt for Prime	SS-1h or CSS-1h Asphalt for Tack	SS-1h or CSS-1h Asphalt for Flush Seal	Sand for Flush Seal
Station to Station	**MGAL**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**	**Ton**
Sturgis Road										
604+23.34 to 608+27.17	15.5	0.0	1,289.8	655.4	0.0	39.4	2.2	1.0	0.4	9.1
616+42.59 to 618+70.55	2.5	0.0	201.5	141.7	0.0	8.6	0.5	0.3	0.1	2.0
621+05.76 to 624+99.77	12.1	0.0	1,000.9	574.5	0.0	34.5	1.9	0.9	0.4	8.0
628+06.83 to 628+49.83	0.6	0.0	49.7	31.1	0.0	1.9	0.2	0.1	0.1	0.5
630+11.84 to 634+27.19	11.7	0.0	969.0	577.9	0.0	34.7	1.9	0.9	0.4	8.1
635+57.54 to 636+00.54	0.7	0.0	51.2	31.1	0.0	1.9	0.2	0.1	0.1	0.5
640+47.75 to 641+43.25	2.5	0.0	208.1	112.4	0.0	6.8	0.4	0.2	0.1	1.6
642+01.46 to 642+40.79	1.2	0.0	93.0	55.9	0.0	3.4	0.2	0.1	0.1	0.8
643+06.54 to 643+65.47	1.4	0.0	115.9	60.8	0.0	3.7	0.2	0.1	0.1	0.9
663+69.63 to 680+72.68	77.2	0.0	6,426.5	3,189.3	0.0	191.4	10.5	4.6	1.9	44.3
678+19.44 to 681+98.55	31.3	0.0	2,602.8	1,345.4	0.0	80.8	4.5	2.0	0.8	18.7
684+64.17 to 685+00.00	10.9	0.0	900.3	450.8	0.0	27.1	1.5	0.7	0.3	6.3
Sturgis Road Guardrail										
663+69.63 to 665+88.78	2.4	0.0	193.0	0.0	16.6	0.0	0.0	0.0	0.0	0.0
Spring Valley Road										
707+12.18 to 711+91.69	9.2	0.0	763.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
705+44.84 to 705+98.85	0.7	0.0	53.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lot 9 Access										
49+71.66 to 54+49.03	5.2	0.0	428.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
West Hills View Drive										
2012+64.61 to 2138+47.20	3.7	0.0	300.3	142.4	0.0	8.6	0.8	0.4	0.2	3.3
East Hills View Drive										
38+47.20 to 45+27.43	2.9	0.0	237.2	115.1	0.0	7.0	0.7	0.3	0.2	2.6
West Valley View Drive										
A 104+27.20 to 119+07.62	1.9	0.0	150.4	71.6	0.0	4.3	0.4	0.2	0.1	1.7
East Valley View Drive										
C 300+64.35 to 315+24.52	0.7	0.0	50.4	24.0	0.0	1.5	0.2	0.1	0.1	0.6
Steakhouse Access Road										
I-90 Eastbound and Westbound	10.7	0.0	886.1	419.9	0.0	25.2	2.3	1.0	0.5	9.5
Shoulder Shaping										
Median Shoulders	0.6									
Outside Shoulders	0.4									
Subtotal =	**206.0**	**0.0**	**16,971.5**	**7,999.3**	**16.6**	**480.8**	**28.6**	**13.0**	**5.9**	**118.5**
Total =	**1,534.3**	**97,342.0**	**75,407.5**	**24,542.4**	**192.8**	**1,473.8**	**96.0**	**49.5**	**14.5**	**317.5**

IN PLACE TYPICAL SECTIONS

- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

Section 1
EASTBOUND LANE
1011+67.19 to 1019+38.34

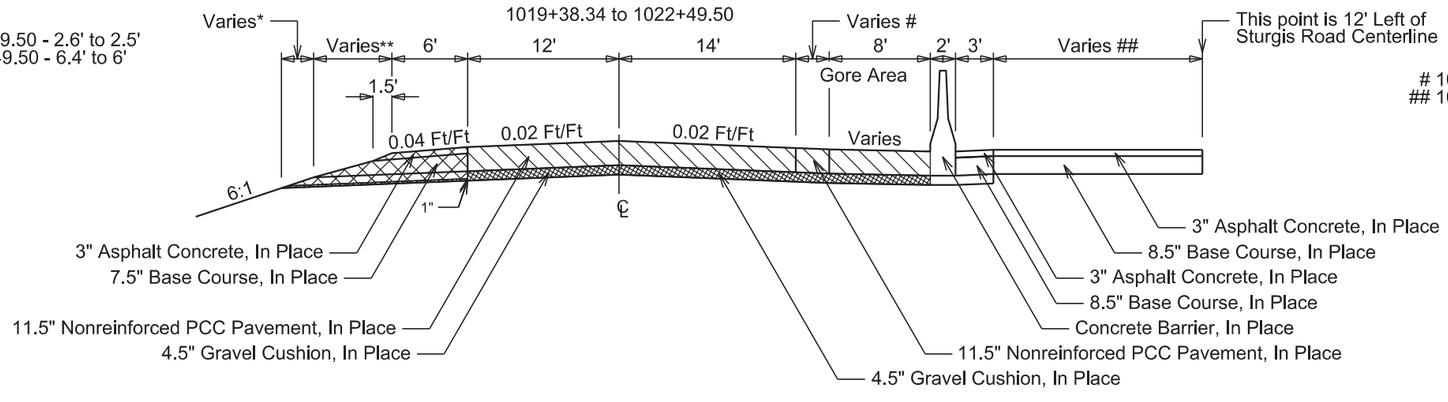
#1012+17.09 to 1012+67.09 - 16' to 0'



1011+67.19 to 1017+03.79 - 18'
1017+03.79 to 1019+38.34 - 18' to 13.3'

Section 2
EASTBOUND LANE
1019+38.34 to 1022+49.50

*1022+11.66 to 1022+49.50 - 2.6' to 2.5'
**1022+11.66 to 1022+49.50 - 6.4' to 6'



1019+38.34 to 1022+11.66 - 5.3' to 0'
1019+39.54 to 1022+49.50 - 25' to 8.1'

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:12
Plotted From - BrandonFried
File - ...\Section FI\Typ_Sec_In-Place.dgn

IN PLACE TYPICAL SECTIONS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
KLJ	IM-CR-EM 0901(187)44	F12	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Remove Concrete Pavement

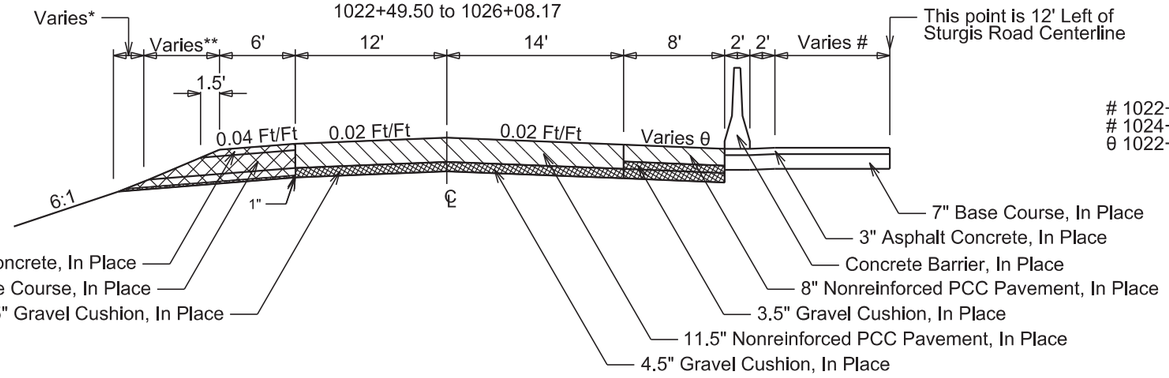
Salvage and Stockpile Asphalt Mix and Granular Base Material

Salvage and Stockpile Asphalt Mix Material

Salvage and Stockpile Granular Material or Salvage Granular Material

Unclassified Excavation

Section 3
EASTBOUND LANE
1022+49.50 to 1026+08.17

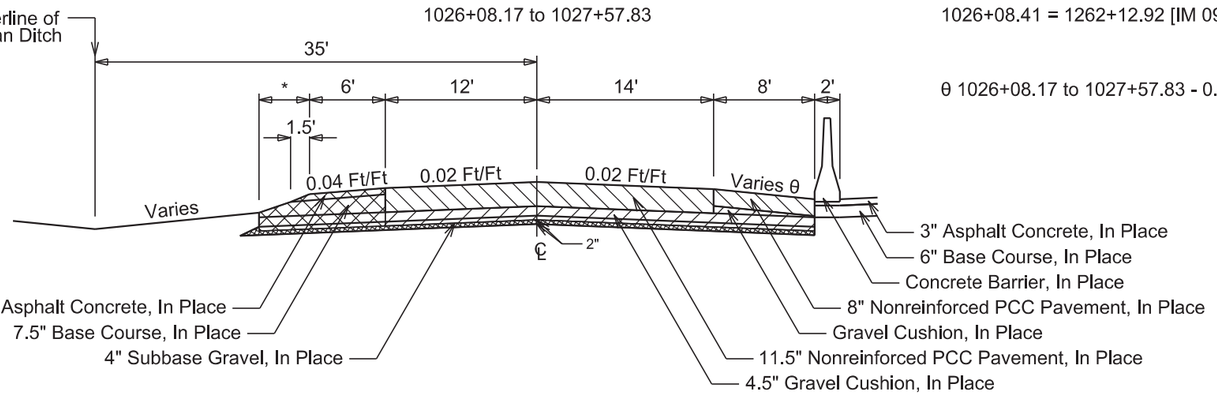


*1022+49.50 to 1024+19.70 - 2.5' to 2.3'
1024+19.70 to 1026+08.17 - 2.3'

**1022+49.50 to 1024+19.70 - 6' to 5.2'
1024+19.70 to 1026+08.17 - 5.2'

1022+49.50 to 1024+52.61 - 9.1' to 1' (Average)
1024+36.23 to 1026+08.17 - 1' (Average)
θ 1022+49.50 to 1024+19.70 - Variable to 0.02 Ft/Ft

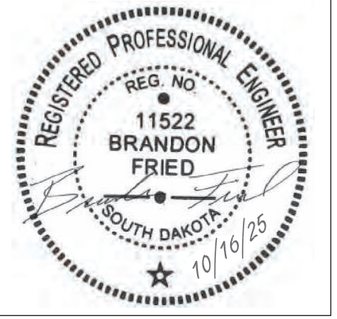
Section 4
EASTBOUND LANE
1026+08.17 to 1027+57.83



*1026+08.17 to 1027+57.83 - 5.2' to 4'

1026+08.41 = 1262+12.92 [IM 0901(38)40]

θ 1026+08.17 to 1027+57.83 - 0.02 Ft/Ft to 0.05 Ft/Ft



Plot Scale - 1:12

Plotted From - BrandonFried

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IN PLACE TYPICAL SECTIONS

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F13	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Remove Concrete Pavement

Salvage and Stockpile Asphalt Mix and Granular Base Material

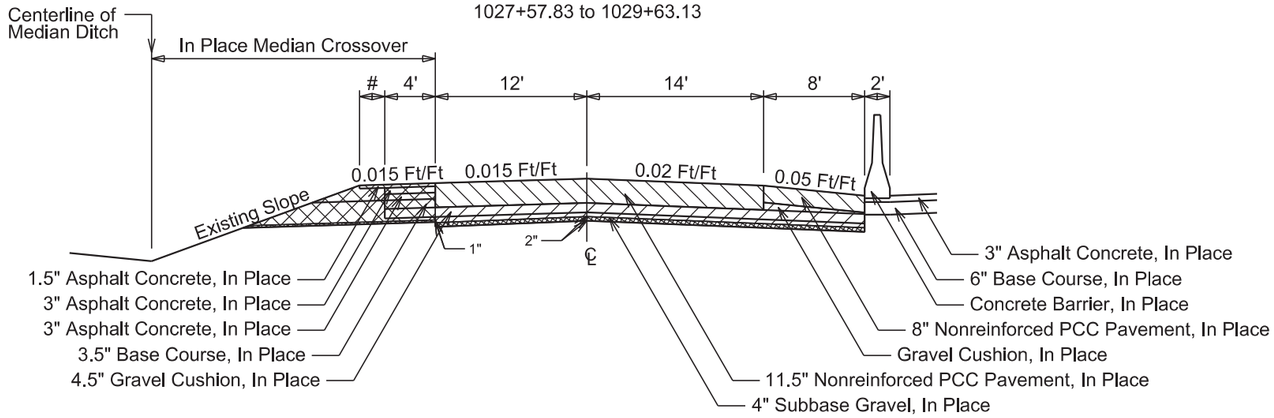
Salvage and Stockpile Asphalt Mix Material

Salvage and Stockpile Granular Material or Salvage Granular Material

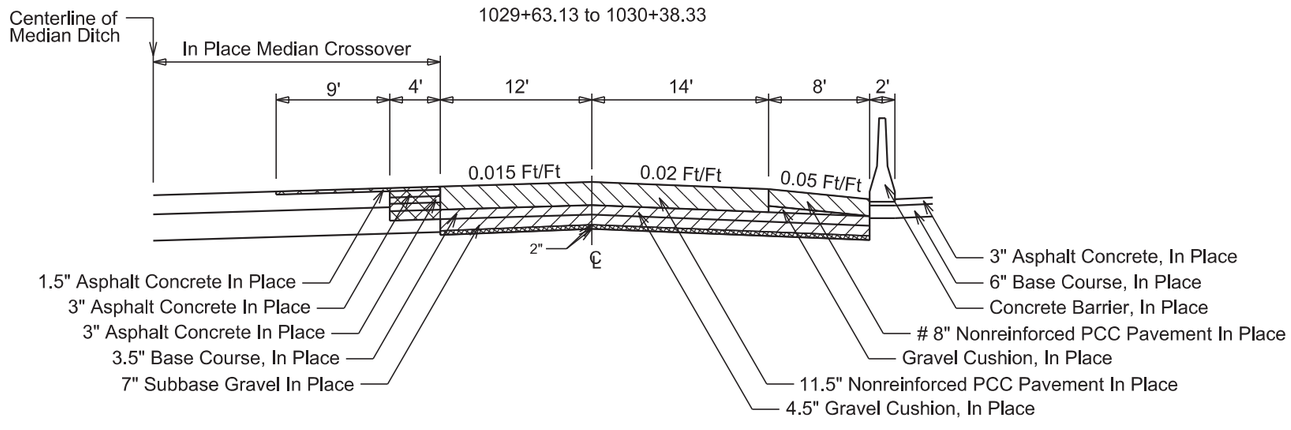
Unclassified Excavation

1027+57.83 to 1029+62.67 - 2' to 9'
1029+62.67 to 1029+63.13 - 9'

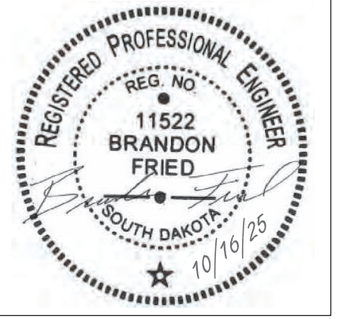
Section 5
EASTBOUND LANE
1027+57.83 to 1029+63.13



Section 6
EASTBOUND LANE
1029+63.13 to 1030+38.33



1030+06.43 to 1030+38.33 - 8" Class HR Asphalt Concrete



Plot Scale - 1:12

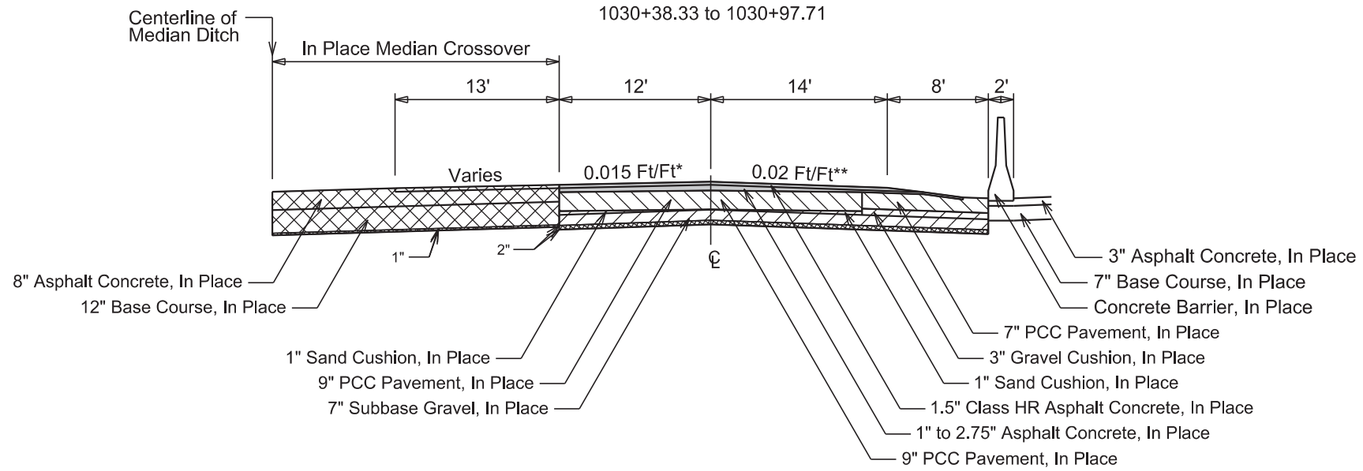
Plotted From - BrandonFried

File - ...\Section FI\Typ_Sec_In-Place.dgn

IN PLACE TYPICAL SECTIONS

- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

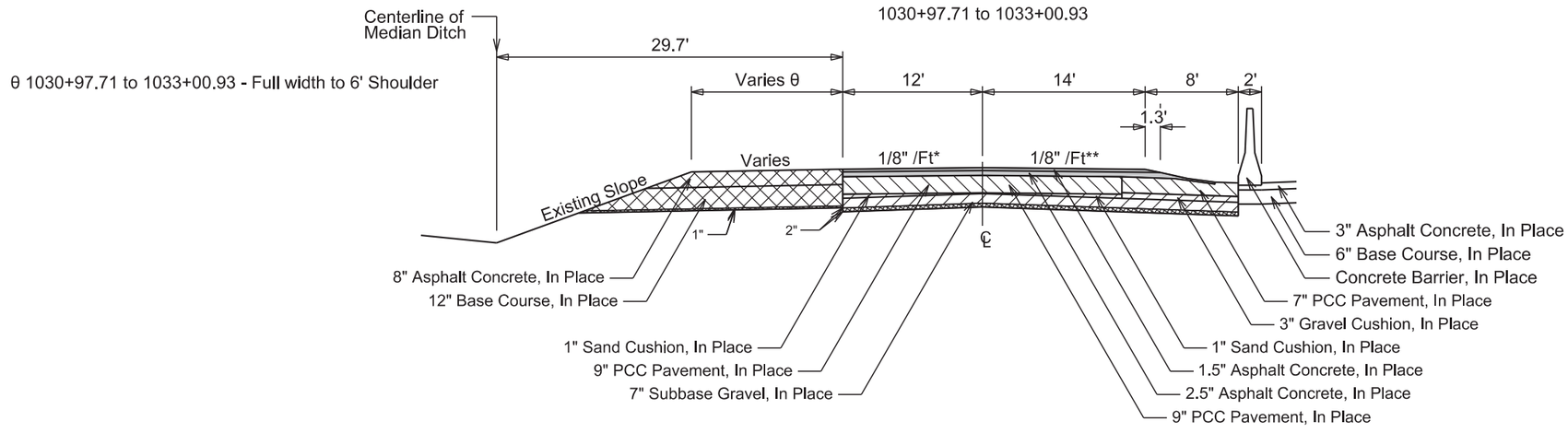
Section 7
EASTBOUND LANE
1030+38.33 to 1030+97.71



*1030+38.33 to 1031+37.67 - 0.015 Ft/Ft tp 1/8" /Ft
1031+37.67 to 1033+00.93 - 1/8" /Ft

**1030+38.33 to 1031+37.67 - 0.02 Ft/Ft to 1/8" /Ft
1031+37.67 to 1033+00.93 - 1/8" /Ft

Section 8
EASTBOUND LANE
1030+97.71 to 1033+00.93



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REG. NO.
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BRANDON FRIED
SOUTH DAKOTA
10/16/25

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Plotted From - BrandonFried
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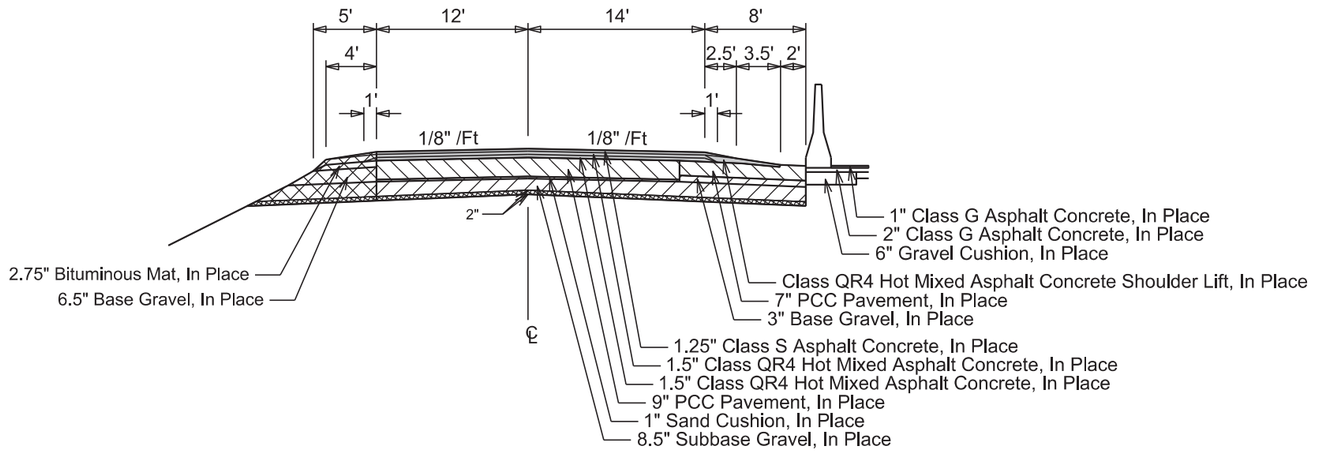
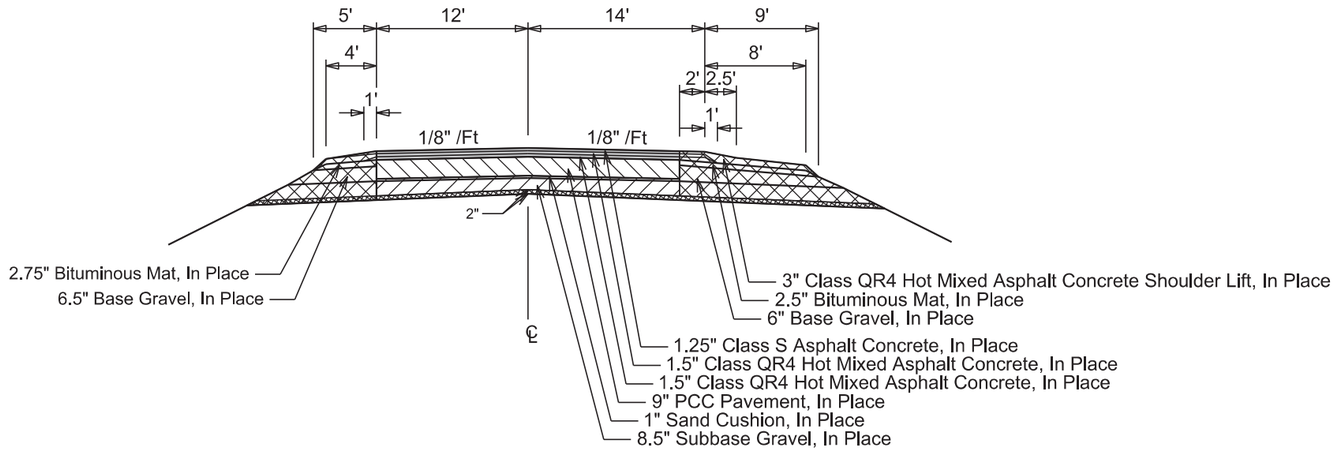
IN PLACE TYPICAL SECTIONS

- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

Section 9
EASTBOUND LANE
1033+00.93 to 1058+28.53



Section 10
EASTBOUND LANE
(WESTBOUND LANE REVERSED)
1058+28.53 to 1157+46.81
(2033+09.33 to 2145+27.41)



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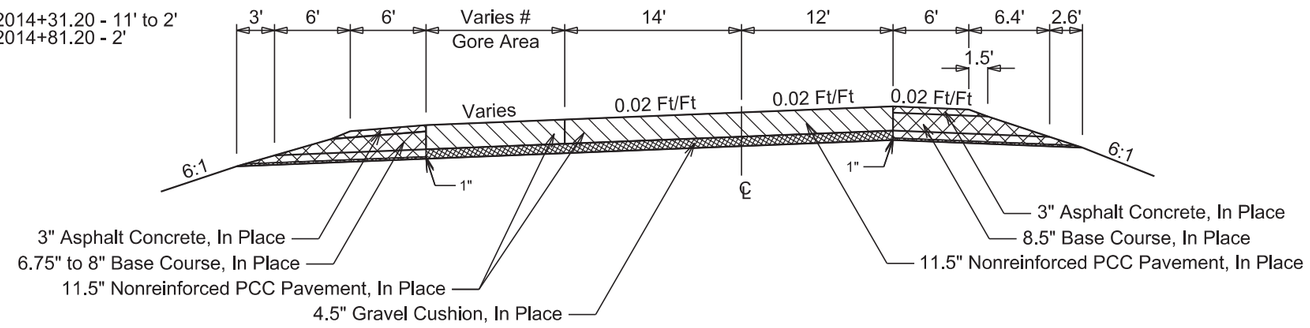
SOUTH DAKOTA
10/16/25

IN PLACE TYPICAL SECTIONS

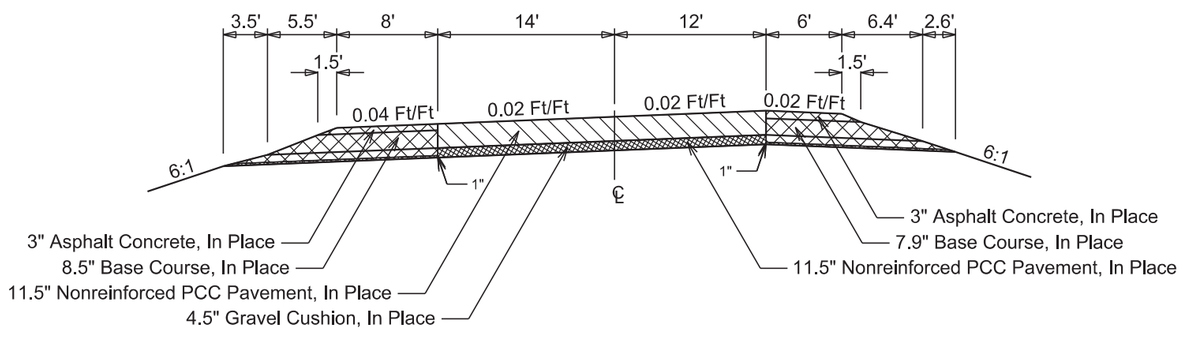
- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

Section 11
WESTBOUND LANE
2012+64.61 TO 2014+81.20

2012+64.61 to 2014+31.20 - 11' to 2'
2014+31.20 to 2014+81.20 - 2'



Section 12
WESTBOUND LANE
2014+81.20 to 2021+30.58



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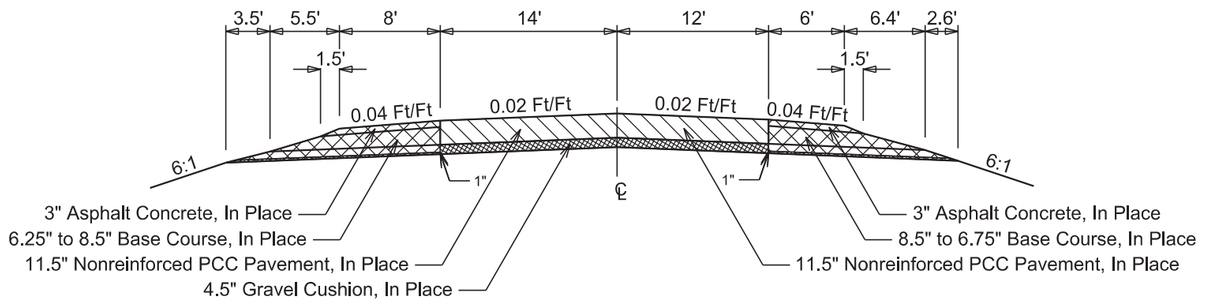
SOUTH DAKOTA
10/16/25

IN PLACE TYPICAL SECTIONS

- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

Section 13
WESTBOUND LANE
2021+30.58 to 2026+08.03

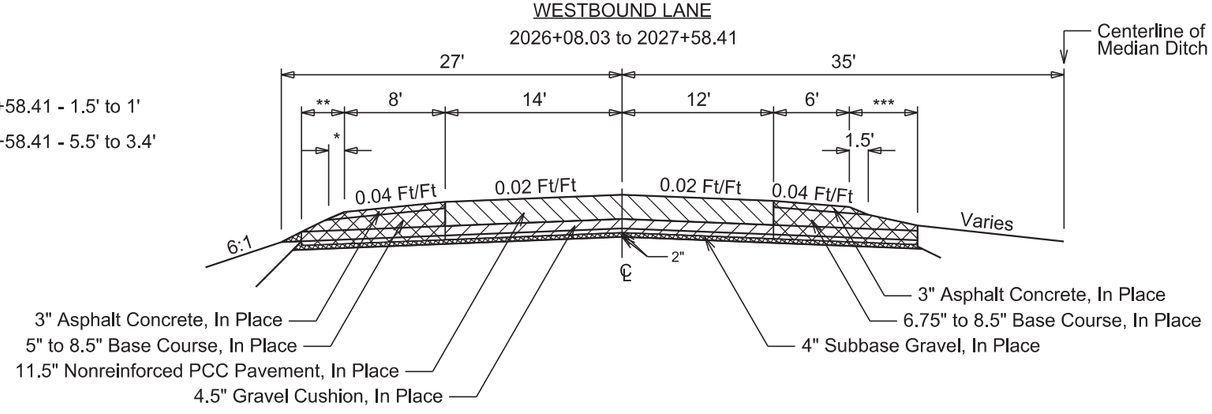


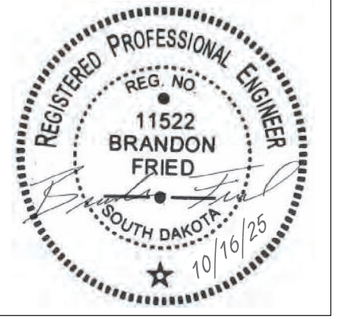
Section 14
WESTBOUND LANE
2026+08.03 to 2027+58.41

*2026+08.03 to 2027+58.41 - 1.5' to 1'

**2026+08.03 to 2027+58.41 - 5.5' to 3.4'

***2026+08.03 to 2027+58.41 - 6.4' to 4.4'

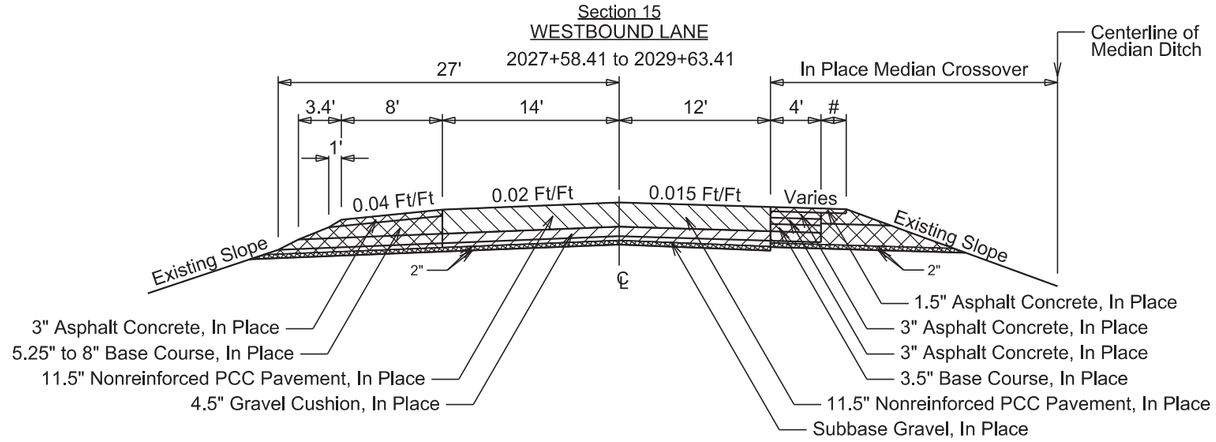




IN PLACE TYPICAL SECTIONS

- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

Section 15
WESTBOUND LANE
2027+58.41 to 2029+63.41

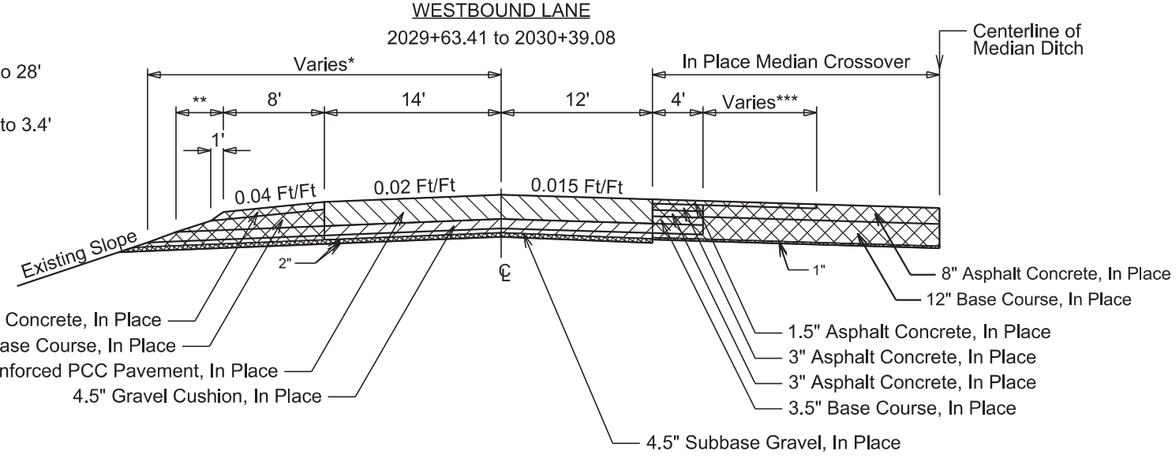


2027+58.41 to 2029+62.59 - 2' to 9'
2029+62.59 to 2030+63.41 - 9'

Section 16
WESTBOUND LANE
2029+63.41 to 2030+39.08

*2027+58.41 to 2029+62.59 - 27' to 28'
2029+62.59 to 2030+37.59 - 28'

**2027+58.41 to 2029+62.59 - 3.5' to 3.4'
2029+62.59 to 2030+37.59 - 3.4'



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BRANDON FRIED
SOUTH DAKOTA
10/16/25

IN PLACE TYPICAL SECTIONS

FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
KLJ	IM-CR-EM 0901(187)44	F19	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Remove Concrete Pavement

Salvage and Stockpile Asphalt Mix and Granular Base Material

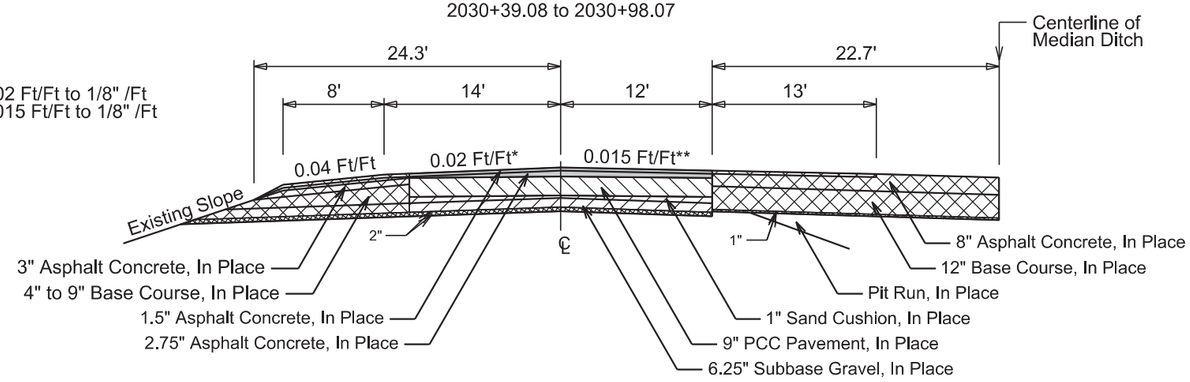
Salvage and Stockpile Asphalt Mix Material

Salvage and Stockpile Granular Material or Salvage Granular Material

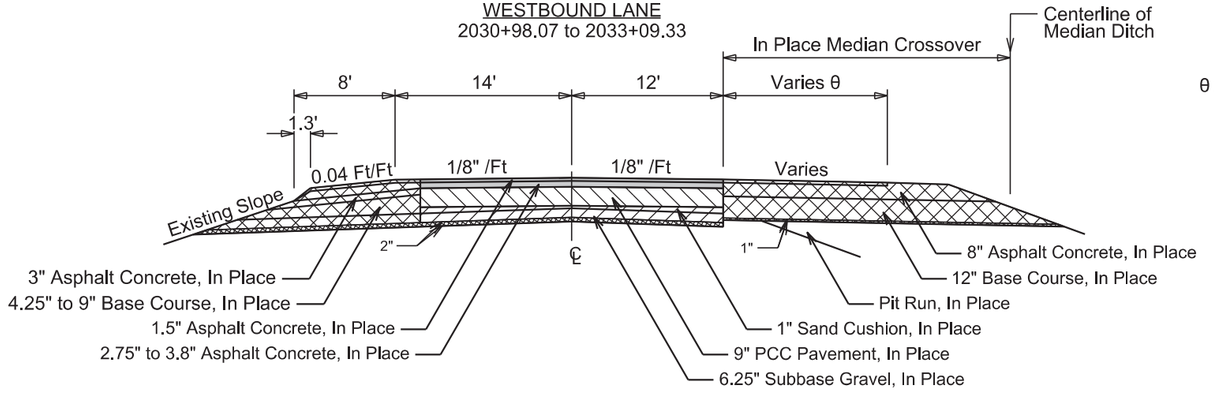
Unclassified Excavation

*2030+39.08 to 2030+98.07 - 0.02 Ft/Ft to 1/8" /Ft
**2030+39.08 to 2030+98.07 - 0.015 Ft/Ft to 1/8" /Ft

Section 17
WESTBOUND LANE
2030+39.08 to 2030+98.07



Section 18
WESTBOUND LANE
2030+98.07 to 2033+09.33



θ 2030+98.07 to 2033+09.33 - Full Width to 6' Shoulder

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
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SOUTH DAKOTA
10/16/25

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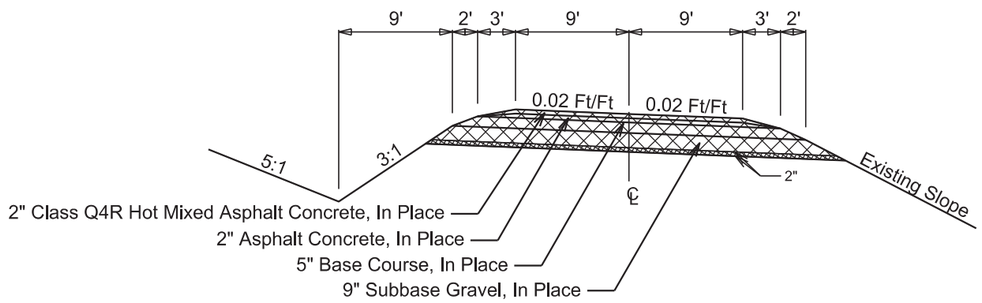
IN PLACE TYPICAL SECTIONS

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F20	F95

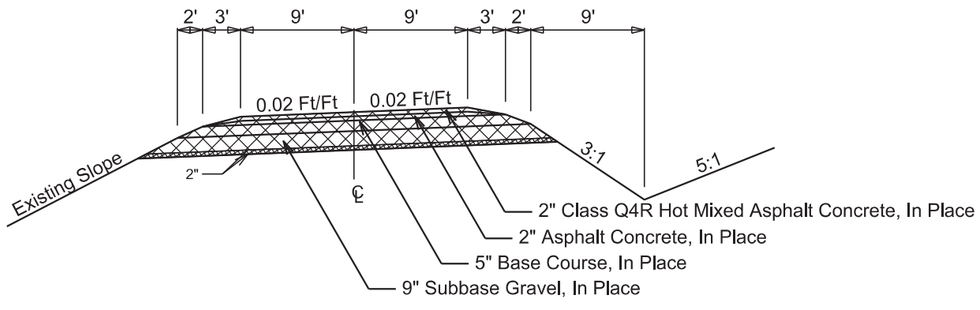
Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

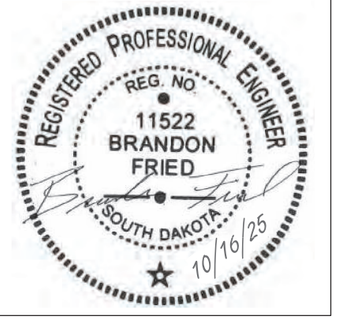
- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

Section 19
EXIT 46 RAMP A & RAMP B
WESTBOUND OFF & ON RAMP



Section 20
EXIT 46 RAMPS C & D
EASTBOUND OFF & ON RAMP





Plot Scale - 1:12

Plotted From - BrandonFried

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IN PLACE TYPICAL SECTIONS

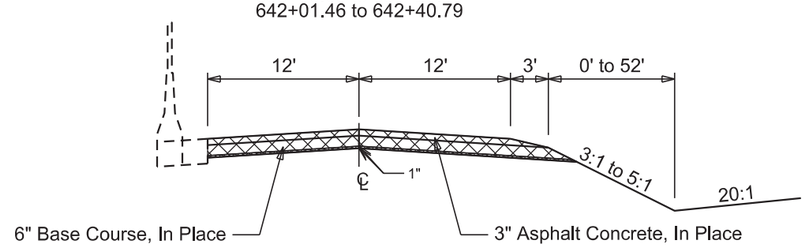
KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F21	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

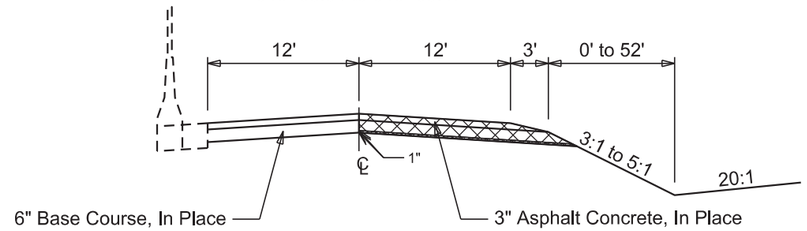
Section 21
STURGIS ROAD

621+05.76 to 624+99.77
630+36.60 to 634+27.19
642+01.46 to 642+40.79



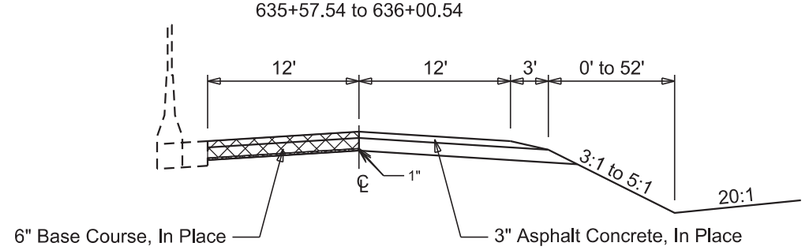
Section 22
STURGIS ROAD

640+47.75 to 641+43.25
643+06.54 to 643+65.47



Section 23
STURGIS ROAD

616+42.59 to 618+70.55
628+06.83 to 628+49.83
630+11.84 to 630+36.60
635+57.54 to 636+00.54



Plot Scale - 1:12
Plotted From - BrandonFried
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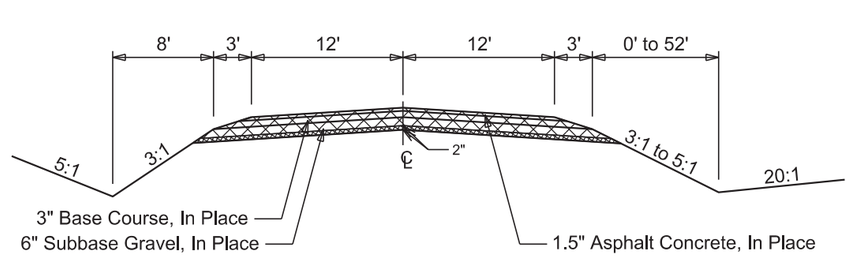
IN PLACE TYPICAL SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
KLJ	IM-CR-EM 0901(187)44	F22	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

Section 24
STURGIS ROAD
604+23.34 to 608+27.17
664+20.00 to 680+72.68



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REG. NO.
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SOUTH DAKOTA
10/16/25

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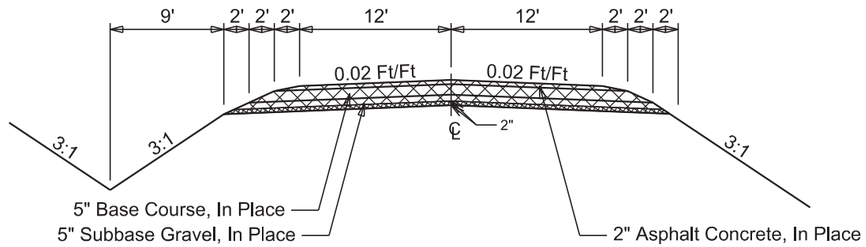
IN PLACE TYPICAL SECTIONS

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F23	F95

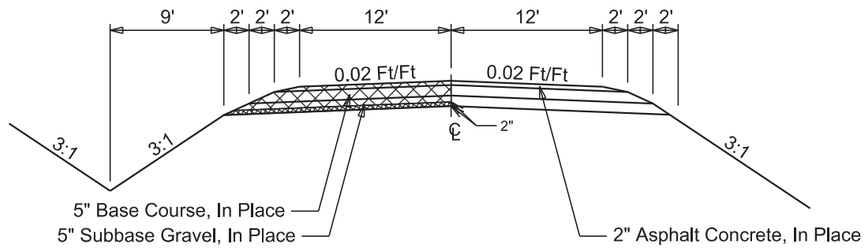
Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

- Remove Concrete Pavement
- Salvage and Stockpile Asphalt Mix and Granular Base Material
- Salvage and Stockpile Asphalt Mix Material
- Salvage and Stockpile Granular Material or Salvage Granular Material
- Unclassified Excavation

Section 25
ELK CREEK ROAD
508+38.68 to 509+27.73
517+72.83 to 527+56.74



Section 26
ELK CREEK ROAD
511+69.78 to 511+89.15



TYPICAL SURFACING SECTIONS

FOR BIDDING PURPOSES ONLY

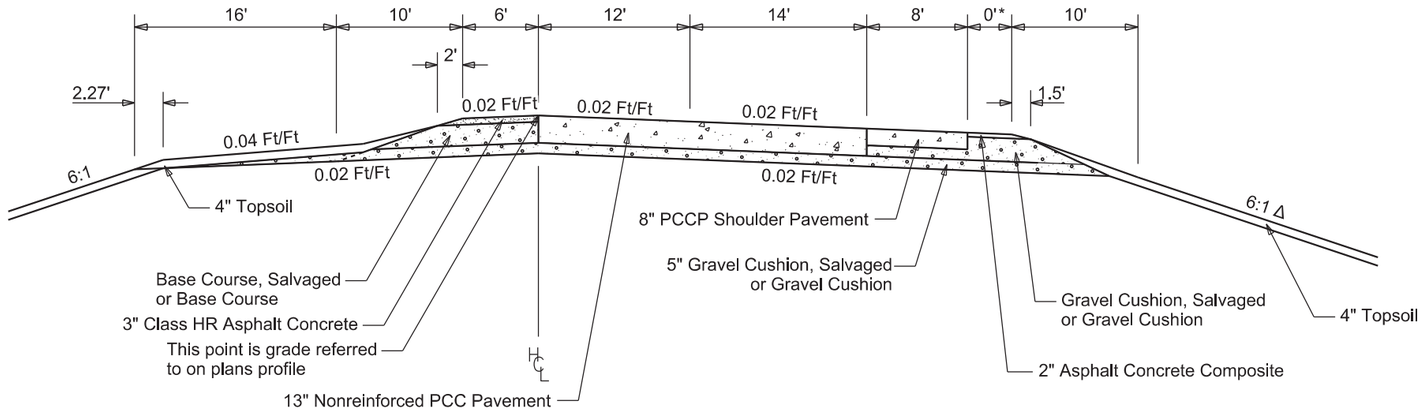
KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F24	F95

Rev: 10/16/2025 BAF

* 1074+55.46 to 1079+32.23 - 0' to 5.0'

Δ 2127+20.00 to 2129+20.00 - 6:1 to 4:1
Δ 2129+20.00 to 2138+47.20 - 4:1

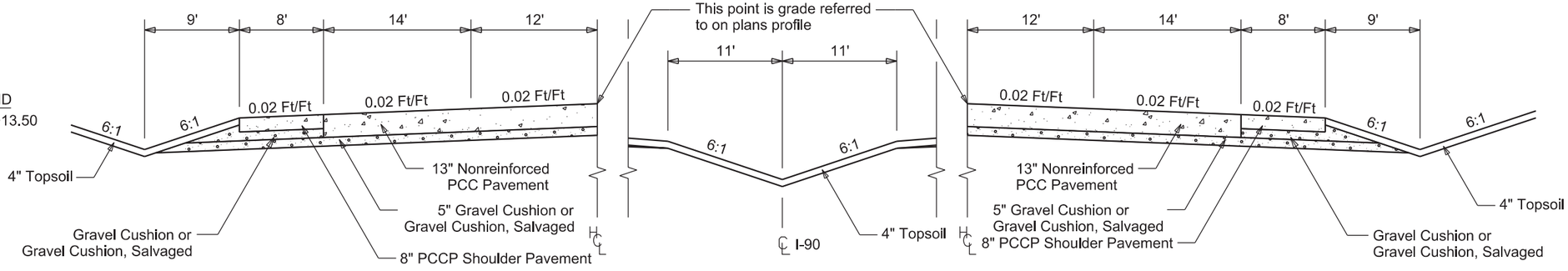
Section 27
I-90 EASTBOUND
I-90 WESTBOUND REVERSED



I-90 EASTBOUND
1073+94.31 to 1087+00.00
1092+00.00 to 1103+65.14
1121+21.30 to 1138+50.00

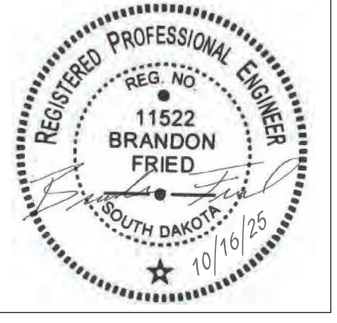
I-90 WESTBOUND
2014+26.49 to 2021+64.93
2032+36.70 to 2051+44.45
2073+44.88 to 2077+33.61
2095+13.50 to 2104+55.45
2120+58.05 to 2138+47.20

Section 28
I-90 MAINLINE



I-90 WESTBOUND
2077+33.61 to 2095+13.50

I-90 EASTBOUND
1087+00.00 to 1092+00.00



Plot Scale - 1:12
Plotted From - BrandonFried
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TYPICAL SURFACING SECTIONS

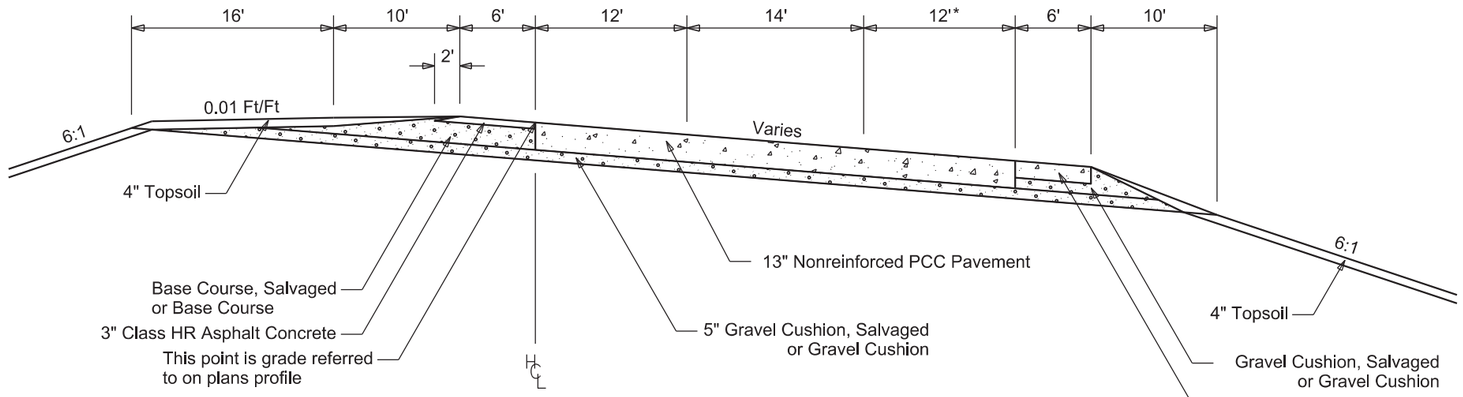
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F25	F95

Rev: 10/16/2025 BAF

Section 29
I-90 EASTBOUND SUPERELEVATION
1106+36.07 to 1121+21.30

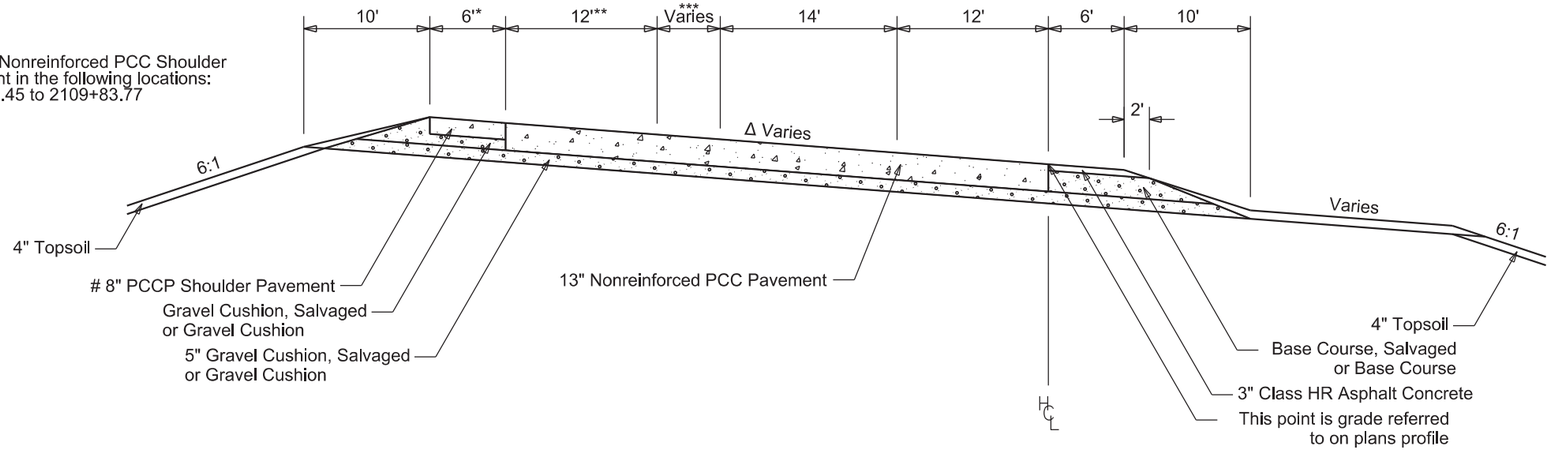
*1116+19.79 to 1121+21.30 - 12' to 2'



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON FRIED
SOUTH DAKOTA
10/16/25

Section 30
I-90 WESTBOUND SUPERELEVATION
2021+64.93 to 2032+36.70
2104+55.45 to 2120+58.05

Use 13" Nonreinforced PCC Shoulder Pavement in the following locations:
2104+55.45 to 2109+83.77



* 2021+64.93 to 2032+36.70 - 8'
* 2104+55.45 to 2107+58.47 - 13'
* 2107+58.47 to 2108+31.88 - 13' to 10.82'
* 2108+31.88 to 2109+83.77 - 10.82' to 6'

** 2021+64.93 to 2032+36.70 - 0'
** 2107+04.65 to 2107+58.47 - 14.14' to 12'
** 2107+58.47 to 2120+58.05 - 12' to 2'

*** 2021+64.93 to 2032+36.70 - 0'
*** 2104+55.45 to 2107+04.65 - 16' to 2'
*** 2107+04.65 to 2120+58.05 - 0'

Δ 2104+55.45 to 2106+55.00 - 6:1 to 4:1
Δ 2114+40.00 to 2115+40.00 - 4:1 to 3:1
Δ 2115+40.00 to 2119+50.00 - 3:1
Δ 2119+50.00 to 2120+50.00 - 3:1 to 4:1

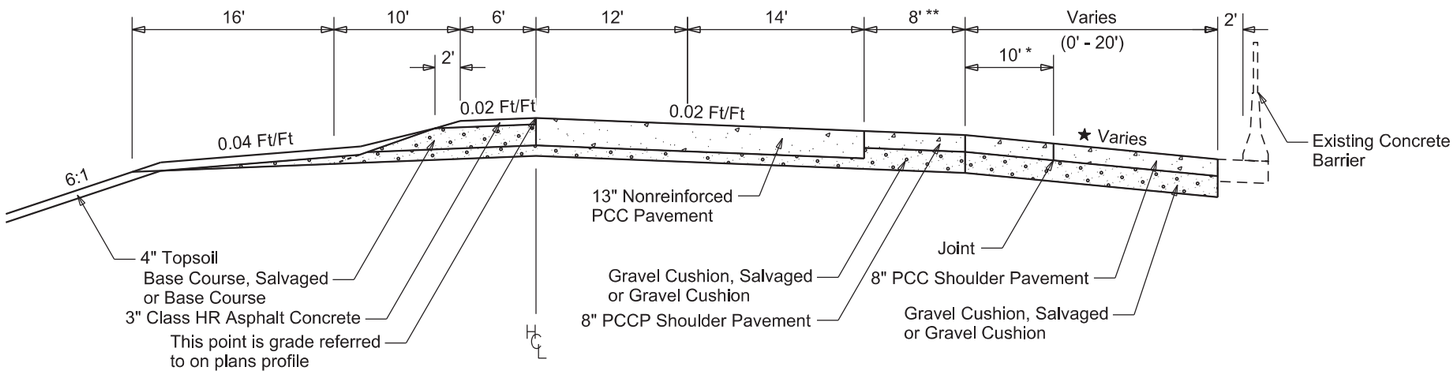
Plot Scale - 1:12
Plotted From - BrandonFried
File - ...\Typ_Sec_ProposedSurfacing.dgn

TYPICAL SURFACING SECTIONS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
KLJ	IM-CR-EM 0901(187)44	F26	F95

Rev: 10/16/2025 BAF

Section 31
I-90 EASTBOUND (WITH BARRIER)
1019+39.54 to 1051+43.91

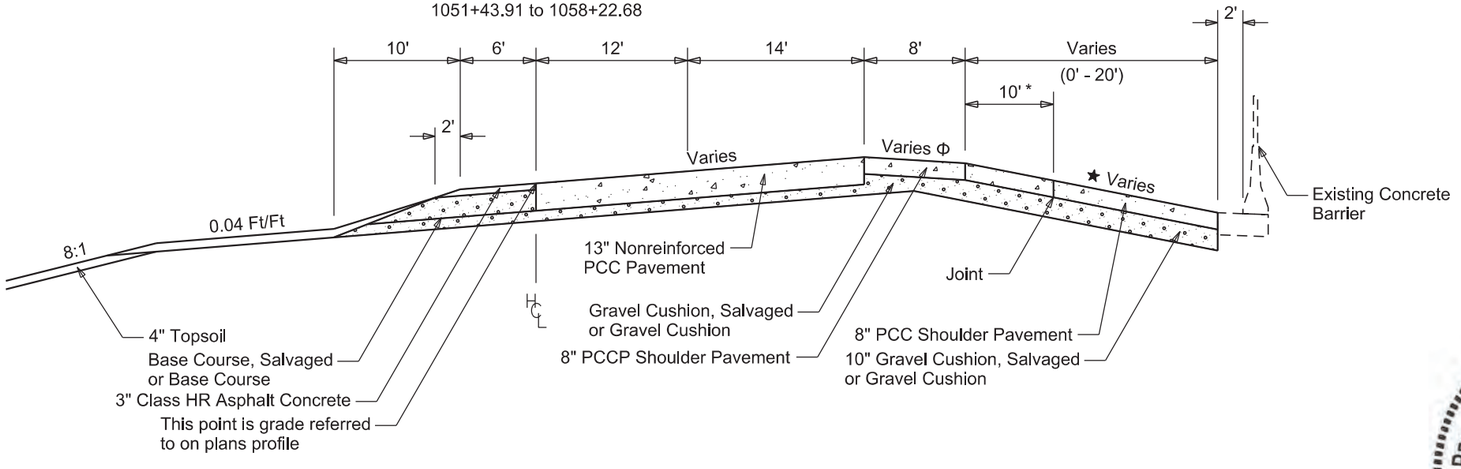


* 1024+06.81 to 1027+06.81 - 0'

** 1021+27.65 to 1024+06.81 - 9.50' to 12'

★ The maximum roll-over algebraic difference shall never exceed 7% between the traveled way and usable shoulder. (See Section B - Special Details)

Section 32
I-90 EASTBOUND SUPERELEVATION (WITH BARRIER)
1051+43.91 to 1058+22.68



Φ 1051+43.91 to 1053+49.91 - 0.02 Ft/Ft to 0.03 Ft/Ft
Φ 1053+49.91 to 1058+22.68 - 0.03 Ft/Ft

* 1056+46.71 to 1058+22.68 - 0'

REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
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SOUTH DAKOTA
10/16/25

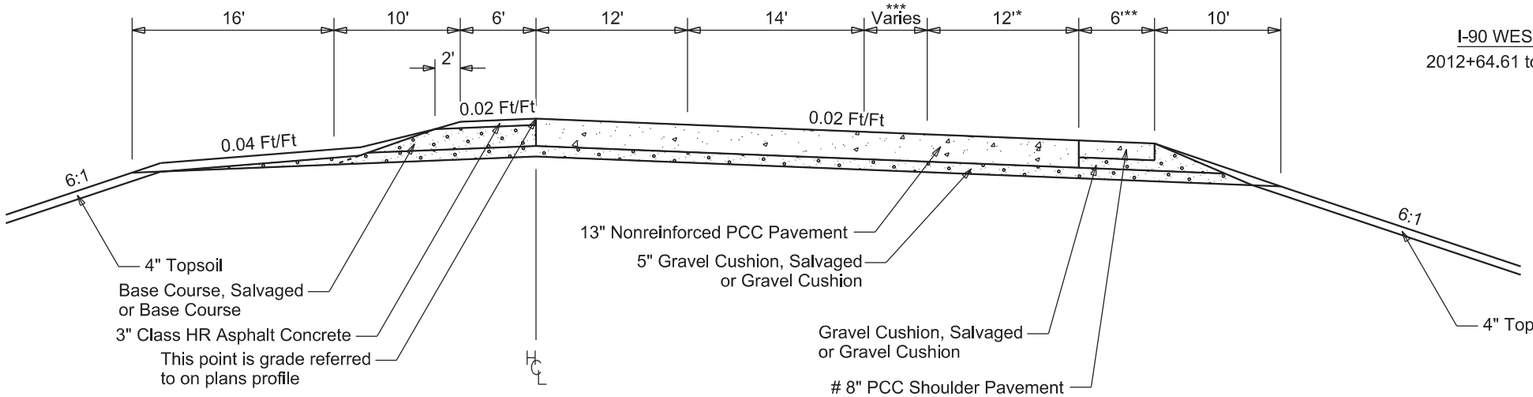
TYPICAL SURFACING SECTIONS

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F27	F95

Rev: 10/16/2025 BAF

Section 33
I-90 EASTBOUND WITH RAMP ACCEL/DECEL LANES
I-90 WESTBOUND WITH RAMP ACCEL/DECEL LANES REVERSED



* 1016+27.53 to 1021+27.65 - 12' to 2'
* 2012+64.61 to 2014+26.49 - 10.82' to 2'

** 1019+39.42 to 1021+27.65 - 6.35' to 7.50'
** 1070+90.91 to 1072+26.28 - 6' to 12.71'
** 1072+26.28 to 1072+40.08 - 12.71' to 13'
** 1072+40.08 to 1073+94.31 - 13'

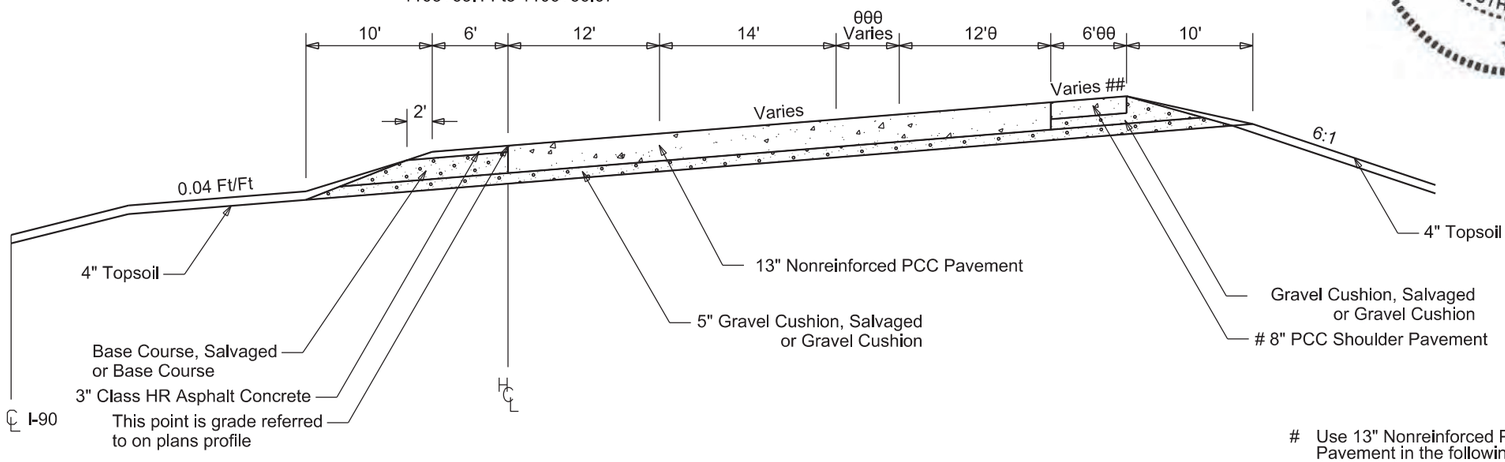
*** 1011+67.19 to 1021+27.65 - 0'
*** 1070+28.57 to 1072+26.64 - 0'
*** 1072+26.64 to 1073+94.31 - 0' to 16'
*** 2012+64.61 to 2014+26.49 - 0'

Use 13" Nonreinforced PCC Shoulder Pavement in the following locations:
1070+86.86 to 1073+94.31

I-90 EASTBOUND
1011+67.19 to 1019+39.54
1070+28.57 to 1073+94.31

I-90 WESTBOUND
2012+64.61 to 2014+26.49

Section 34
I-90 EASTBOUND WITH RAMP ACCEL/DECEL LANES SUPERELEVATION
1058+22.68 to 1070+28.57
1103+65.14 to 1106+36.07



θ 1058+22.68 to 1060+94.99 - 0'
θ 1060+94.99 to 1062+94.19 - 2' to 12'
θ 1104+65.21 to 1105+00.43 - 14.22' to 13.47'
θ 1105+00.43 to 1106+36.07 - 13.47' to 12'

θθ 1058+22.68 to 1060+94.99 - 8'
θθ 1103+82.58 to 1104+66.10 - 13'
θθ 1104+66.10 to 1104+87.47 - 13' to 12.07'
θθ 1104+87.47 to 1106+36.07 - 12.07' to 6'

θθθ 1058+22.68 to 1070+28.57 - 0'
θθθ 1103+65.14 to 1104+70.00 - 12' to 2'

1058+22.68 to 1060+63.01 - -3.00% to 4.00%
1060+63.01 to 1068+22.57 - 4.00%
1068+22.57 to 1070+28.57 - 4.00% to -2.00%

Use 13" Nonreinforced PCC Shoulder Pavement in the following locations:
1103+65.14 to 1106+36.07

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REG. NO.
11522
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10/16/25

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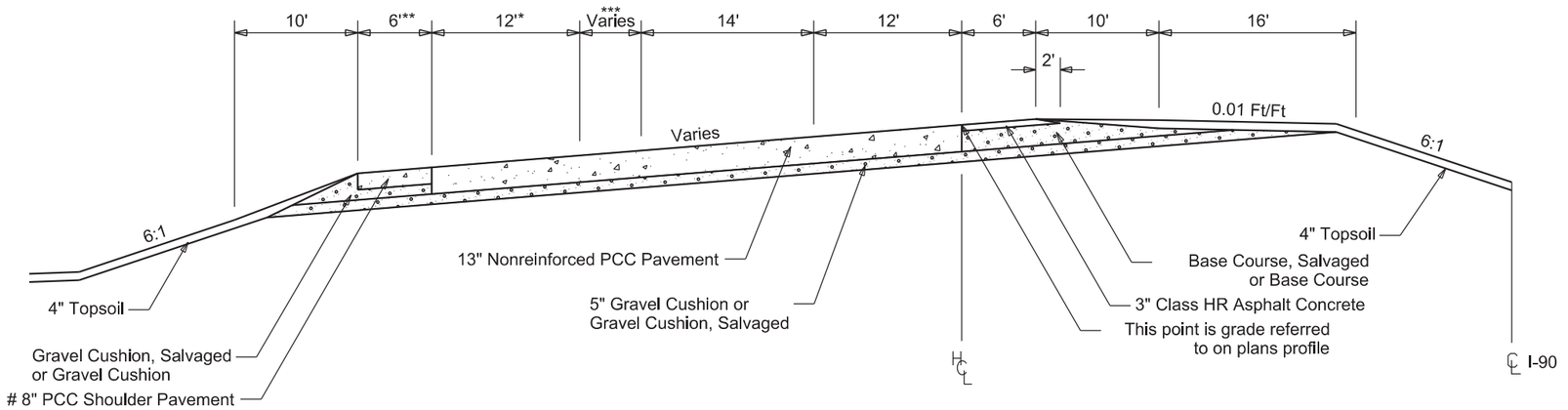
TYPICAL SURFACING SECTIONS

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F28	F95

Rev: 10/16/2025 BAF

Section 35
I-90 WESTBOUND WITH RAMP ACCEL/DECEL LANES SUPERELEVATION
2051+44.45 to 2073+44.88



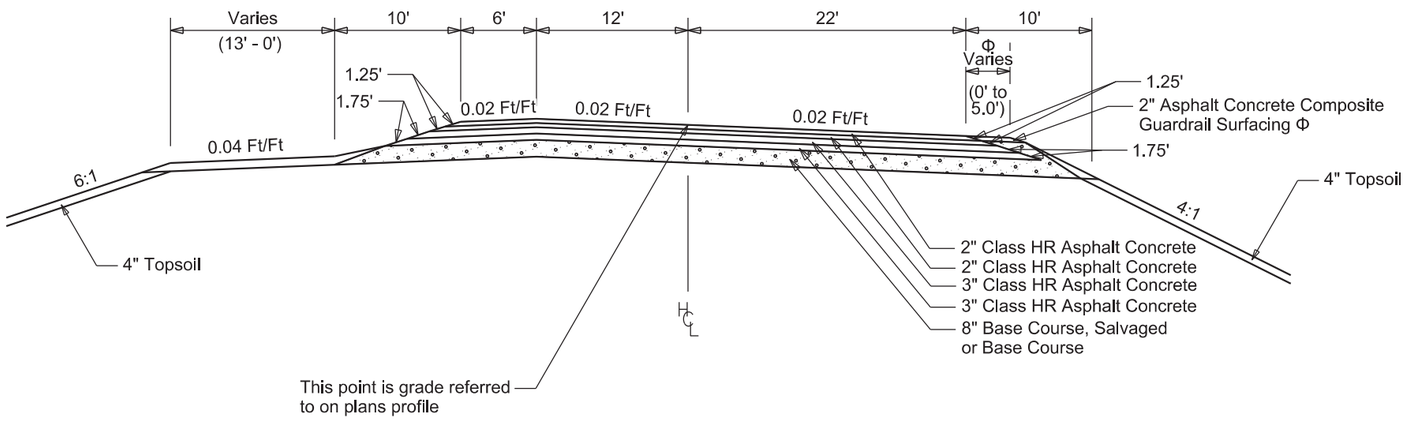
* 2071+31.51 to 2071+83.40 - 12' to 14.18'

** 2051+44.45 to 2054+30.52 - 8'
** 2069+17.89 to 2070+67.58 - 6' to 10.97'
** 2070+67.58 to 2071+31.28 - 10.97' to 13'
** 2071+31.28 to 2073+17.29 - 13'

*** 2051+44.45 to 2071+83.40 - 0'
*** 2071+83.40 to 2073+44.88 - 2' to 12'

\# Use 13" Nonreinforced PCC Shoulder Pavement in the following locations:
2069+17.89 to 2073+44.88

Section 36
I-90 EASTBOUND INTERIM
I-90 WESTBOUND INTERIM REVERSED



I-90 EASTBOUND INTERIM
38+50.00 to 57+47.53

I-90 WESTBOUND INTERIM
38+47.20 to 45+27.43

Φ See Guardrail Layout sheets (Eastbound Only)

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REG. NO
11522
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SOUTH DAKOTA
10/16/25

Plot Scale - 1:12
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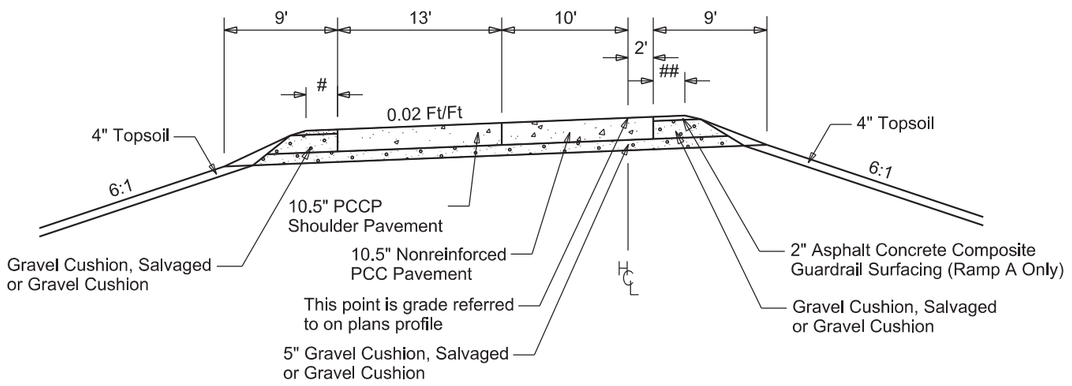
File - ...\Typ_Sec_ProposedSurfacing.dgn

TYPICAL SURFACING SECTIONS

Section 37
EXIT 46 SINGLE LANE RAMPS



RAMP A
104+27.16 to 117+98.72
RAMP B
205+80.41 to 215+97.50
RAMP C (Reversed)
306+58.99 to 315+24.52
RAMP D (Reversed)
403+02.88 to 413+30.44

See Guardrail Layout sheets (Ramps A & B only)

116+78.29 to 117+28.29 - 0' to 3.56' (Ramp A)
117+28.29 to 117+98.72 - 3.56' (Ramp A)

201+45.06 to 201+63.36 - 3.56' (Ramp B)
201+63.36 to 202+13.36 - 3.56' to 5.06' (Ramp B)
202+13.36 to 202+23.36 - 5.06' (Ramp B)
202+23.36 to 202+99.22 - 5.06' to 0.00' (Ramp B)

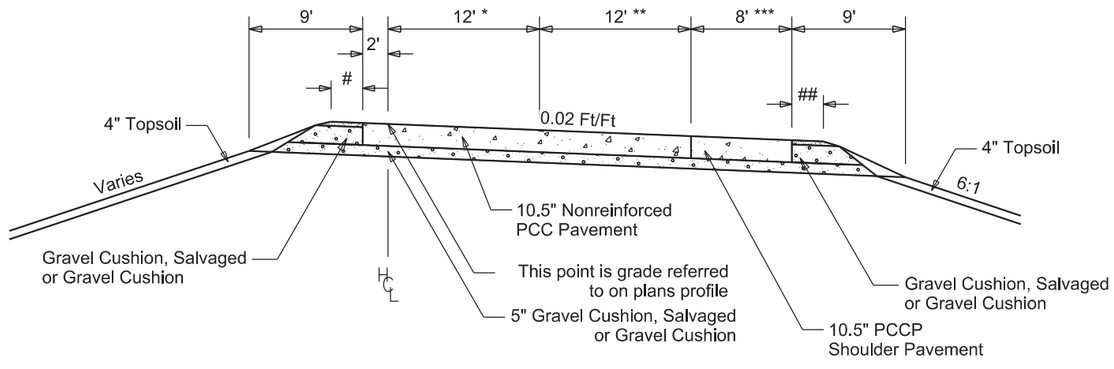
0.00' (Ramps C & D)

116+78.28 to 117+28.28 - 0' to 3.56' (Ramp A)
117+28.28 to 117+98.72 - 3.56' (Ramp A)

201+45.06 to 202+13.72 - 3.56' (Ramp B)
202+13.72 to 202+63.72 - 3.56' to 5.06' (Ramp B)
202+63.72 to 202+73.72 - 5.06' (Ramp B)
202+73.72 to 203+49.58 - 5.06' to 0.00' (Ramp B)

0.00' (Ramps C & D)

Section 38
EXIT 46 DOUBLE LANE RAMPS



RAMP B - REVERSED
201+45.06 to 205+80.41

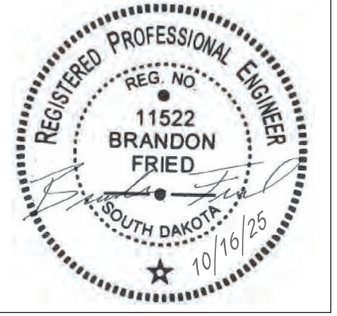
RAMP C
300+71.22 to 306+58.99

RAMP D
413+30.44 to 417+31.73

* 302+08.91 to 306+58.99 - 12.00' to 10.00'
* 413+30.64 to 414+19.05 - 13.00' to 15.71'

** 204+77.38 to 205+80.41 - 16.09' to 13.00'
** 302+01.82 to 302+08.99 - 20.00'
** 302+08.99 to 306+58.99 - 20.00' to 13.00'
** 413+30.44 to 415+09.86 - 10.00' to 12.00'

*** 203+28.30 to 204+77.38 - 8.00' to 2.05'
*** 204+77.38 to 205+80.41 - 0.00'
*** 302+01.82 to 306+58.99 - 0.00'
*** 413+30.44 to 414+19.05 - 0.00'
*** 414+19.05 to 415+09.66 - 3.70' to 8.00'



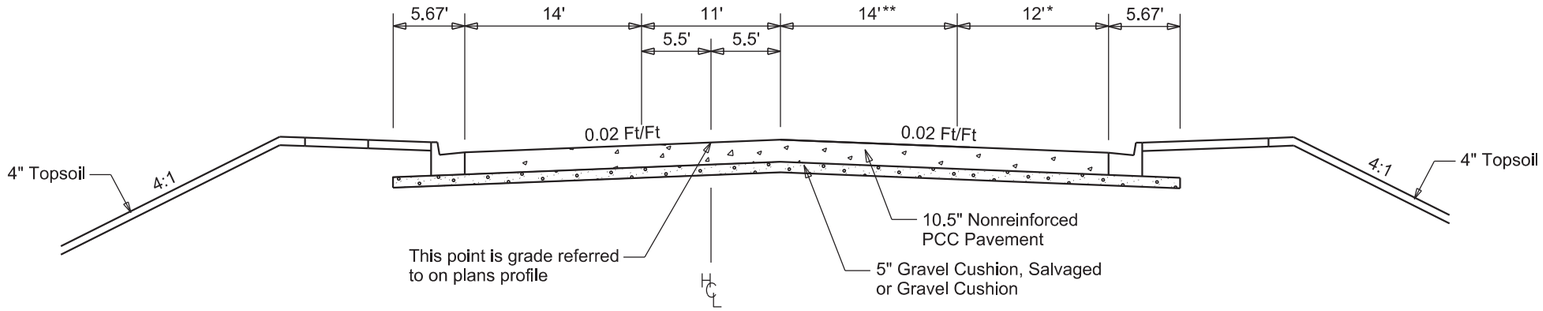
TYPICAL SURFACING SECTIONS

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F30	F95

Rev: 10/16/2025 BAF

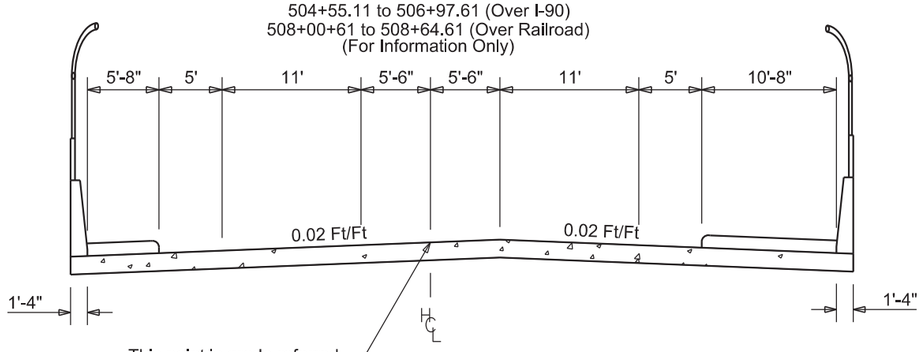
Section 39
ELK CREEK ROAD
500+33.36 to 504+55.11
506+97.61 to 508+00.61



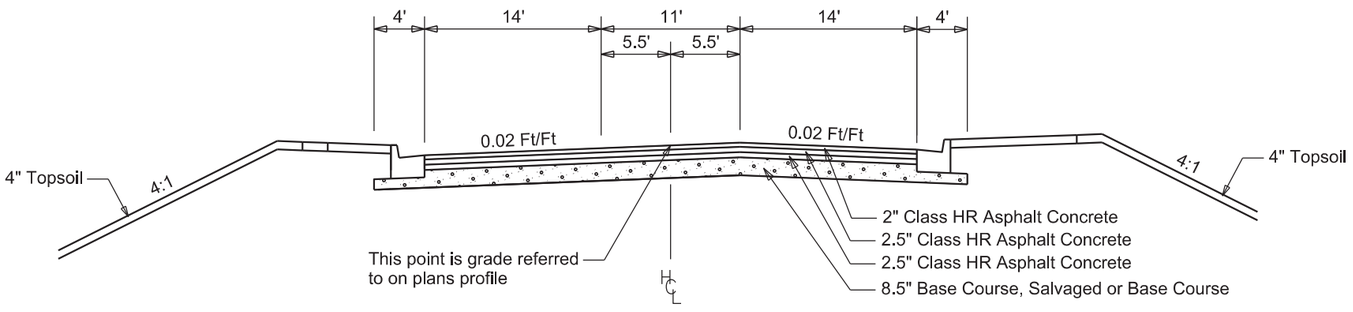
* 500+33.36 to 501+10.72 - 0.00'
* 501+10.72 to 501+60.72 - 0.00' to 12.00'
* 503+16.16 to 503+73.06 - 12.00' to 0.98'
* 503+73.06 to 504+55.11 - 0.00'
* 506+97.61 to 508+00.61 - 0.00'

** 503+73.06 to 504+11.16 - 14.98' to 14.00'

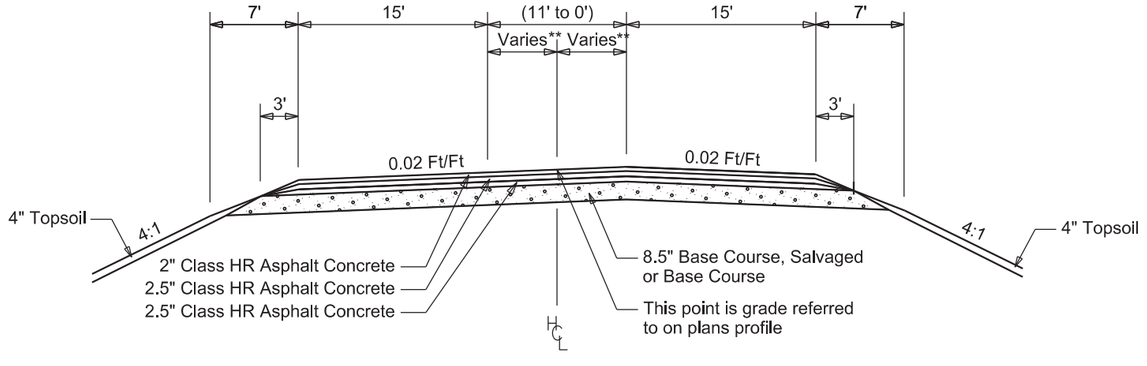
SURFACING EXCEPTION
ELK CREEK ROAD STRUCTURE
504+55.11 to 506+97.61 (Over I-90)
508+00+61 to 508+64.61 (Over Railroad)
(For Information Only)



Section 40
ELK CREEK ROAD
508+64.61 to 520+54.00



Section 41
ELK CREEK ROAD
520+54.00 to 527+56.74



Cross slope begins to vary at Sta. 526+56.74 to match existing

** 520+95.68 to 525+26.49 - 5.5'
** 525+26.62 to 526+76.60 - 5.5' to 0'
** 526+76.60 to 527+56.74 - 0'

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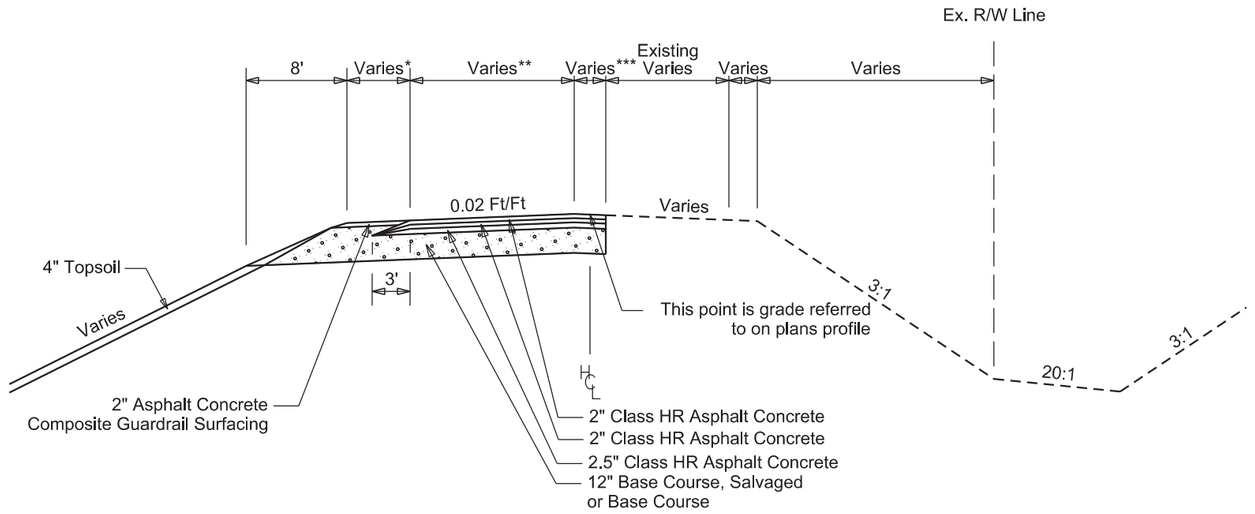
TYPICAL SURFACING SECTIONS

Section 42
STURGIS ROAD
663+69.63 to 664+20.00

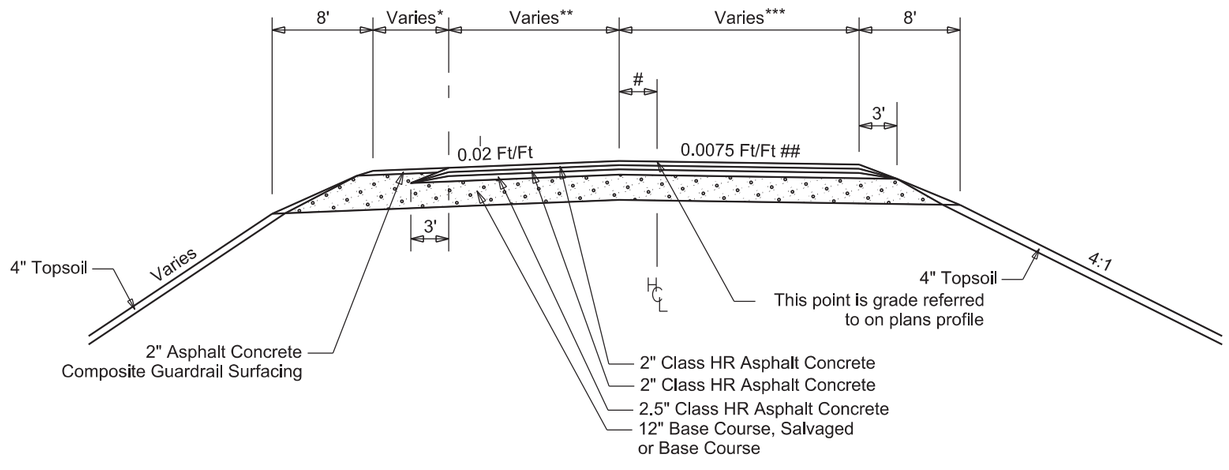


* 663+69.63 to 664+03.87 - 1.26' to 4.69'
* 664+03.87 to 664+20.00 - 4.69' to 5.10'

** 663+69.63 to 664+20.00 - 13.00' to 13.32'

*** 663+69.63 to 664+20.00 - 0.00' to 2.48'

Section 43
STURGIS ROAD
664+20.00 to 665+95.33



* 664+20.00 to 665+04.27 - 5.10' to 7.23'
* 665+04.27 to 665+88.78 - 7.23' to 2.92'
* 665+88.78 to 665+95.33 - 0.00'

** 664+20.00 to 665+86.16 - 13.32' to 14.34'
** 665+86.16 to 665+95.33 - 14.34' to 14.00'

*** 664+20.00 to 665+95.33 - 15.48' to 24.00'

664+20.00 to 665+95.33 - 1.20' to 5.50'

Cross slope begins to vary at Sta. 664+20.00 to match existing

REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

TYPICAL SURFACING SECTIONS

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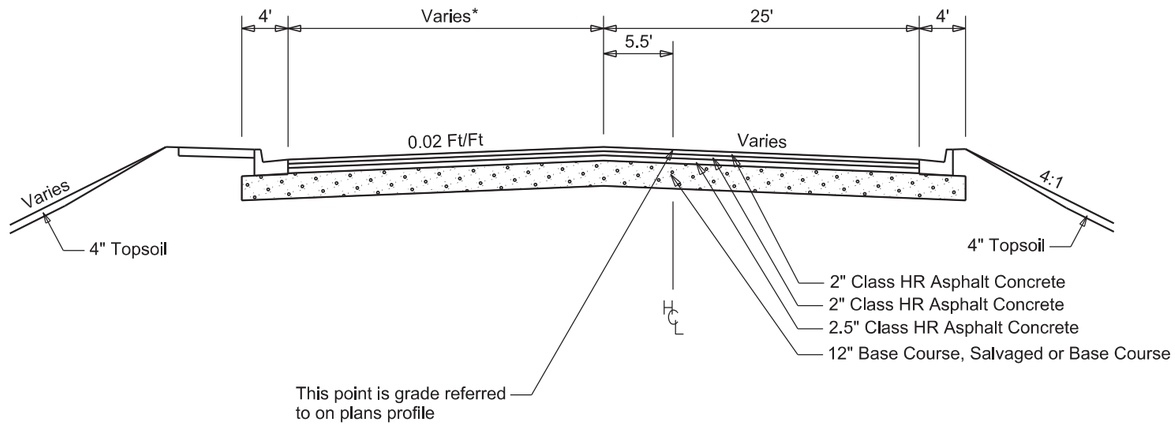
KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F32	F95

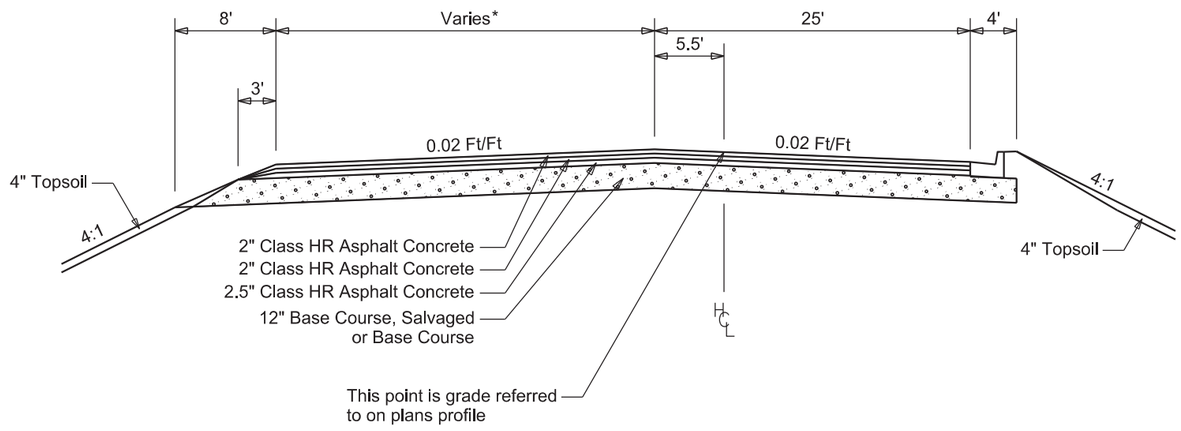
Rev: 10/16/2025 BAF

Section 44
STURGIS ROAD
665+95.33 to 678+51.90



* 665+95.33 to 671+10.50 - 14.00'
* 671+10.50 to 674+10.50 - 14.00' to 25.00'
* 674+10.50 to 676+82.71 - 25.00'
* 676+82.71 to 677+34.57 - 25.00' to 31.84'
* 677+34.57 to 678+51.90 - 28.00'

Section 45
STURGIS ROAD
678+51.90 to 680+72.68



*678+51.90 to 679+53.64 - 30'
*679+53.64 to 680+72.68 - 30' to 19'

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REG. NO
11522
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SOUTH DAKOTA
10/16/25

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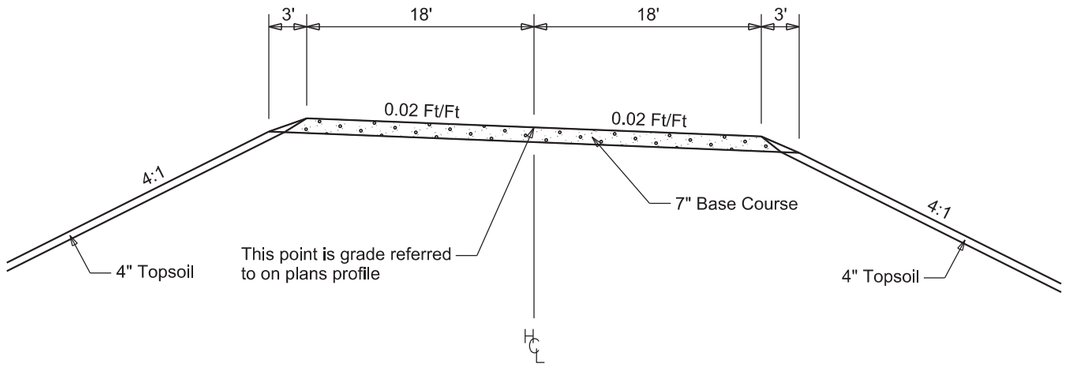
TYPICAL SURFACING SECTIONS

FOR BIDDING PURPOSES ONLY

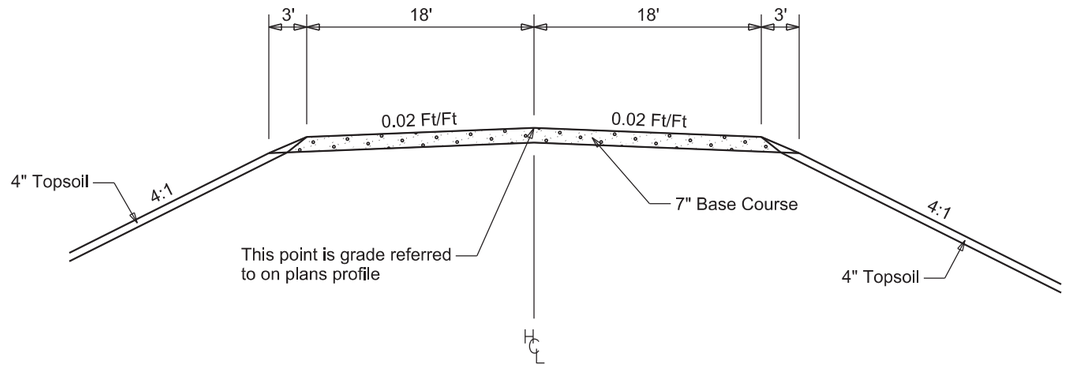
KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F33	F95

Rev: 10/16/2025 BAF

Section 46
SPRING VALLEY ROAD
707+12.18 to 711+83.73



Section 47
SPRING VALLEY ROAD
711+86.73 to 711+91.69



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SOUTH DAKOTA
10/16/25

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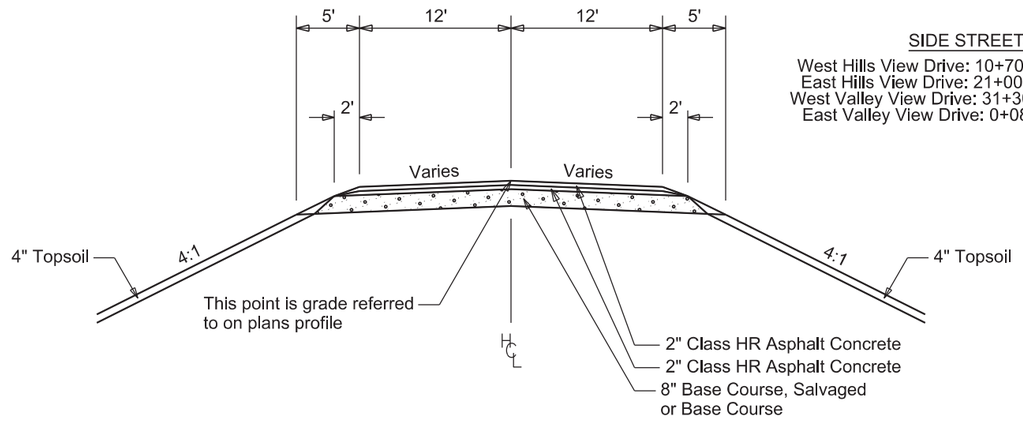
TYPICAL SURFACING SECTIONS

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F34	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

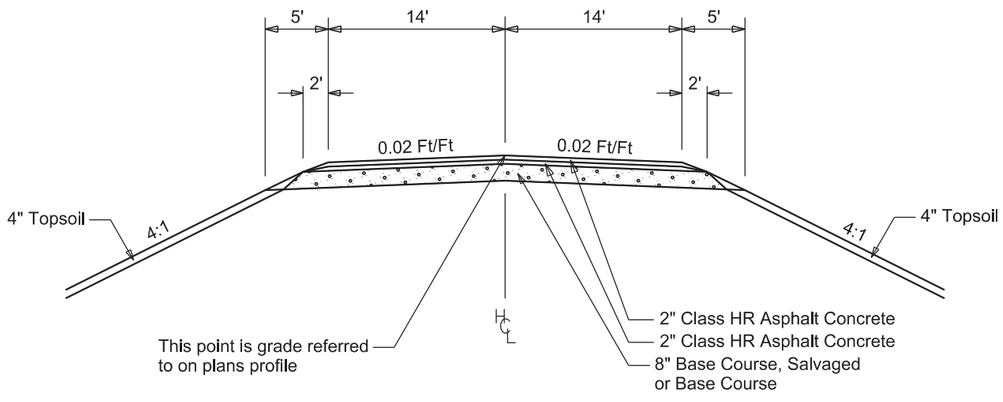
Section 49
WEST HILLS VIEW DRIVE
EAST HILLS VIEW DRIVE
WEST VALLEY VIEW DRIVE
EAST VALLEY VIEW DRIVE



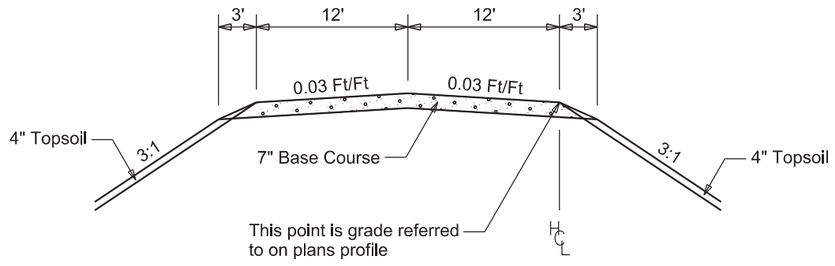
SIDE STREETS

West Hills View Drive: 10+70.37 to 12+92.05
East Hills View Drive: 21+00.00 to 22+36.51
West Valley View Drive: 31+30.00 to 31+91.78
East Valley View Drive: 0+08.19 to 0+09.86

Section 48
STEAKHOUSE ACCESS ROAD
40+13.15 to 46+67.83



Section 50
LOT 9 ACCESS
50+73.59 to 54+62.07



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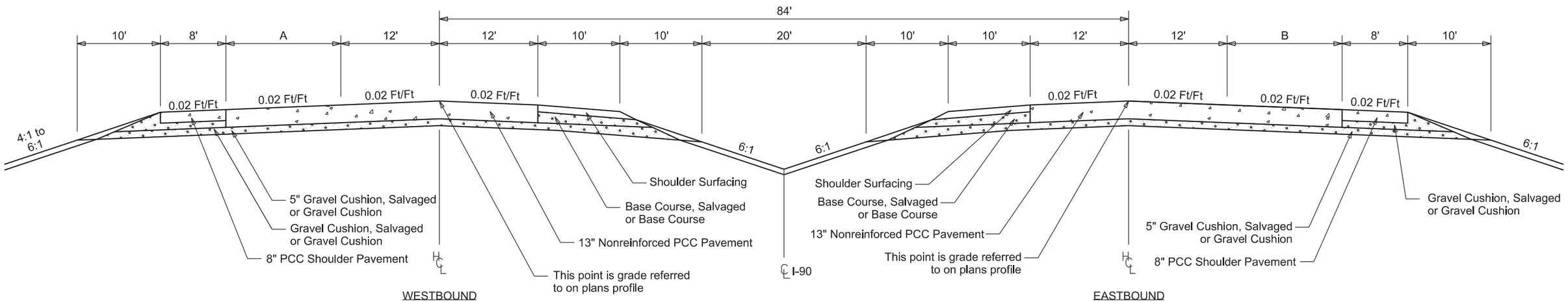
ULTIMATE SURFACING SECTION

Ultimate Surfacing Section to be Completed at a Later Date
Section 51
I-90 MAINLINE
(For Information Only)



Segment	Width	Begin	End
A	14' to 24'	2053+30.48	2059+32.46
	24'	2059+32.46	2069+17.97
	14'	2069+17.97	2109+83.62
	24'	2109+83.62	2118+58.66
	24' to 14'	2118+58.66	2120+57.85

Segment	Width	Begin	End
B	14' to 24'	1060+95.19	1062+94.39
	24'	1062+94.39	1070+90.99
	14'	1070+90.99	1106+36.07
	24'	1106+36.07	1116+19.91
	24' to 14'	1116+19.91	1122+21.30

PCC PAVEMENT JOINT LAYOUT

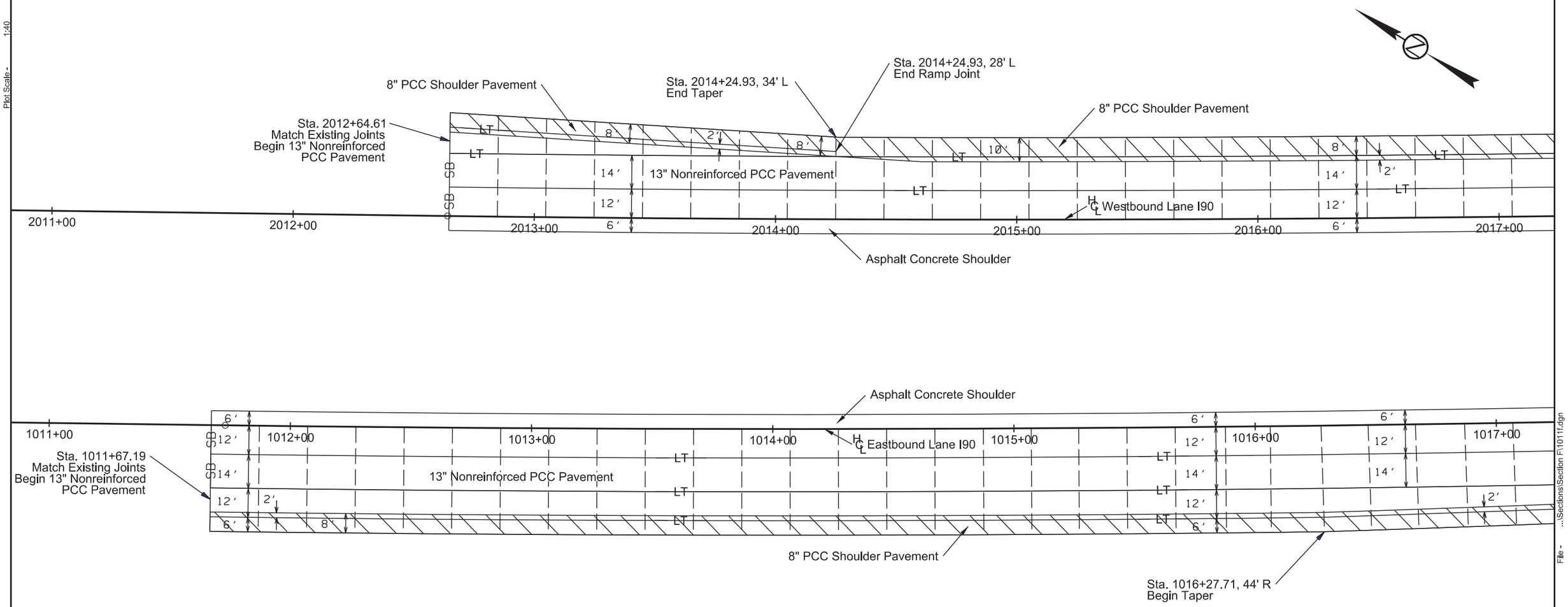
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F36	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Plot Scale - 1:40

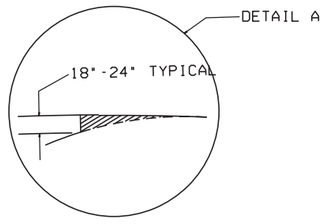
Interstate 90



LEGEND:

LONGITUDINAL JOINT WITHOUT TIE BARS (CONSTRUCTION OR SAWED) ——L——L——
LONGITUDINAL JOINT WITH TIE BARS (CONSTRUCTION OR SAWED) ——LT——LT——
TRANSVERSE CONTRACTION JOINT — — — — — — — — — — — — — — — — — —
STEEL BAR INSTALLATION IN LONGITUDINAL OR TRANSVERSE JOINT ——SB——SB——
AREAS TO BE POURED MONOLITHICALLY WITH ADJACENT SLAB ⊕ (SEE DETAIL A)

TRANSVERSE CONTRACTION JOINTS WITHIN THESE AREAS WILL NOT HAVE DOWEL BAR ASSEMBLIES. ALL OTHER TRANSVERSE CONTRACTION JOINTS WILL HAVE DOWEL BAR ASSEMBLIES.



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10/16/25

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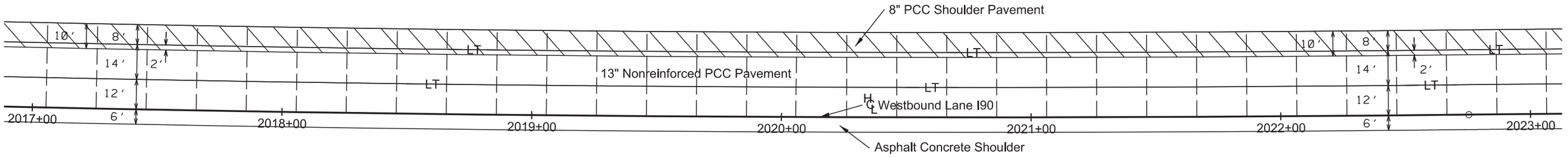
PCC PAVEMENT JOINT LAYOUT

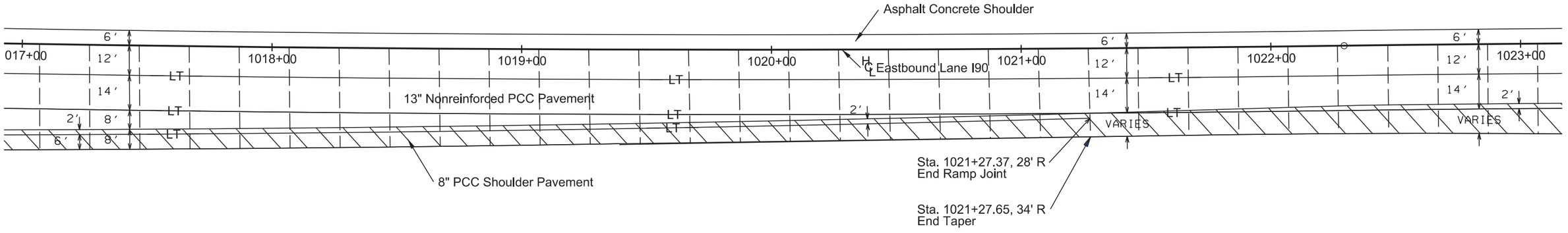
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F37	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





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10/16/25

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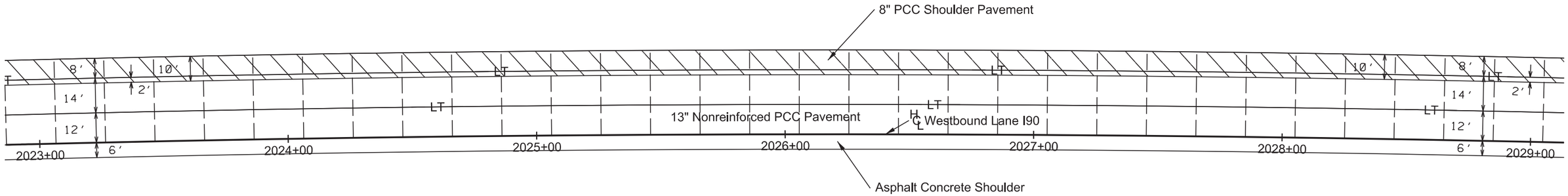
PCC PAVEMENT JOINT LAYOUT

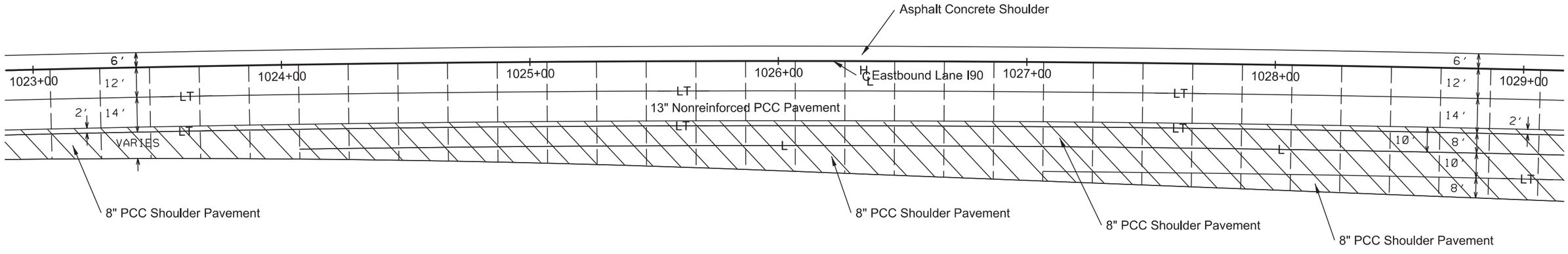
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F38	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\10231.dgn

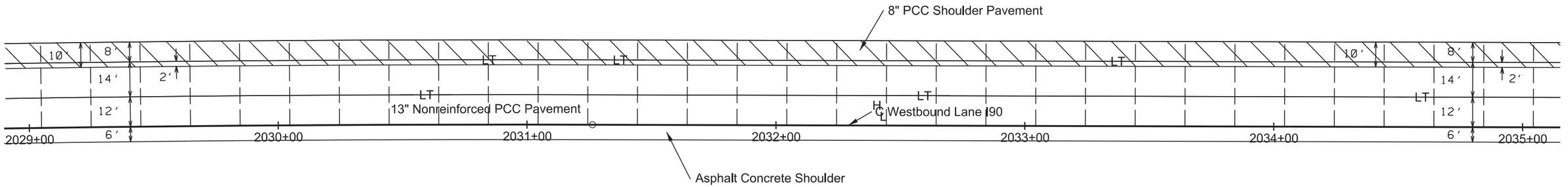
PCC PAVEMENT JOINT LAYOUT

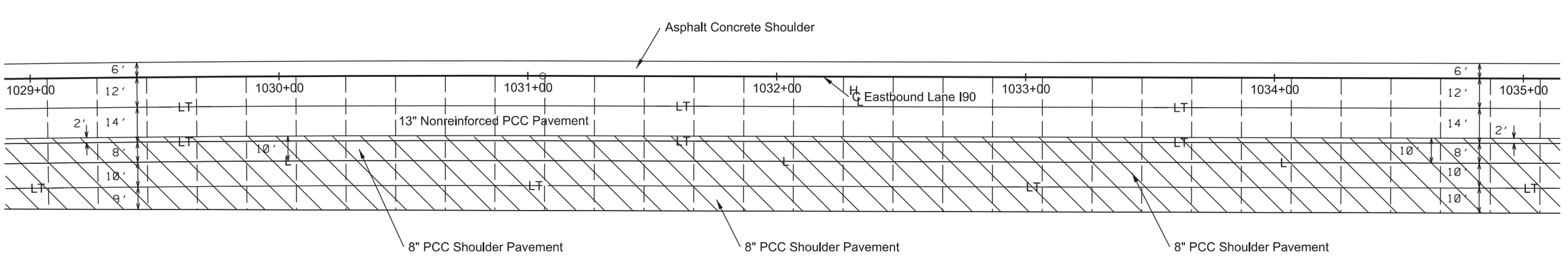
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F39	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\1029f.dgn

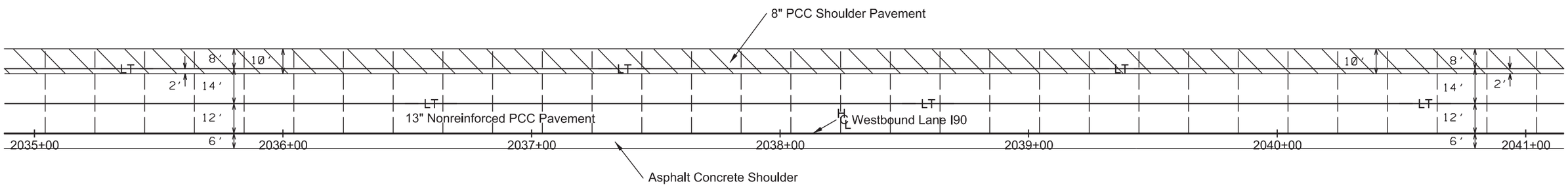
PCC PAVEMENT JOINT LAYOUT

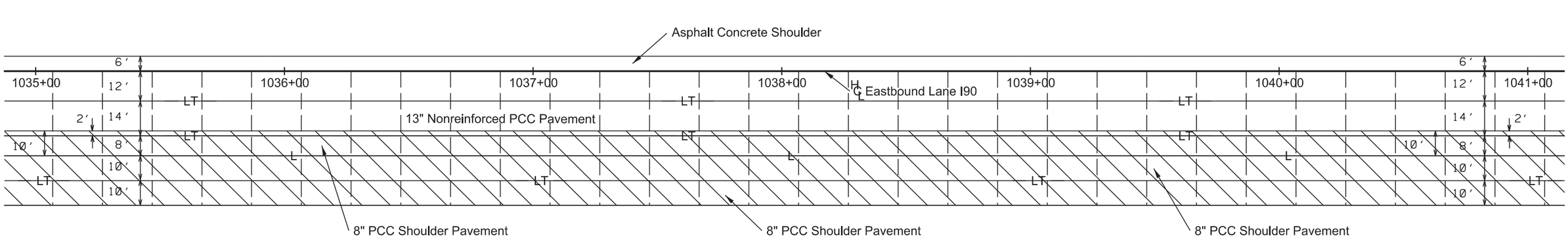
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F40	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11035f.dgn

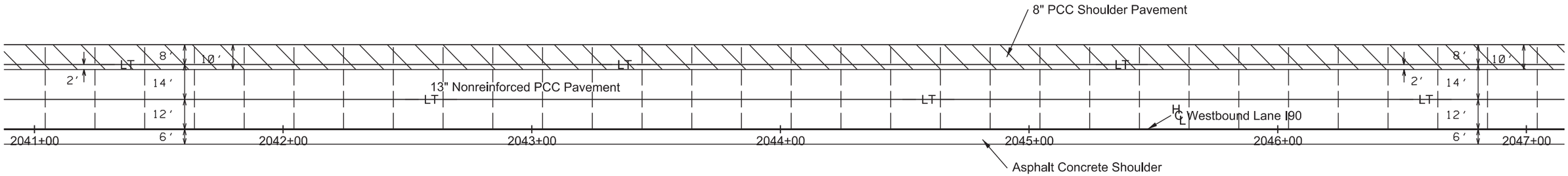
PCC PAVEMENT JOINT LAYOUT

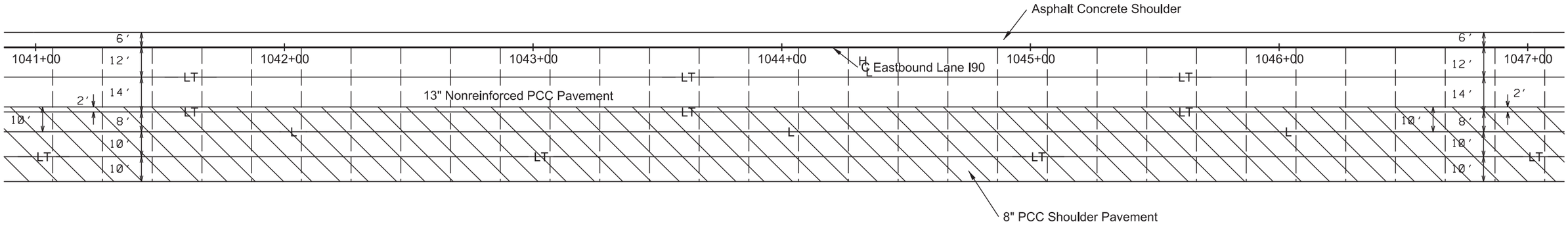
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F41	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\10411f.dgn

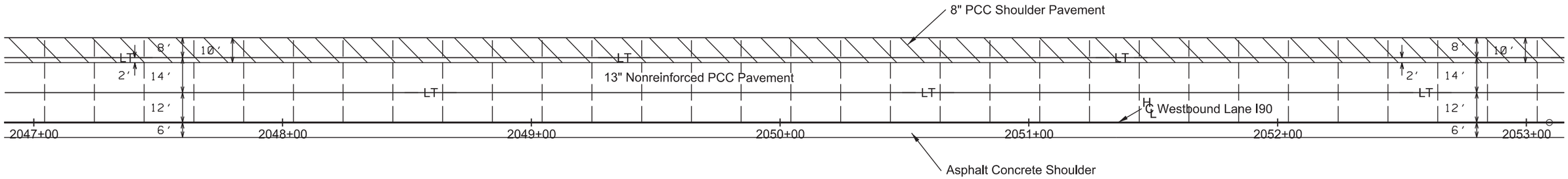
PCC PAVEMENT JOINT LAYOUT

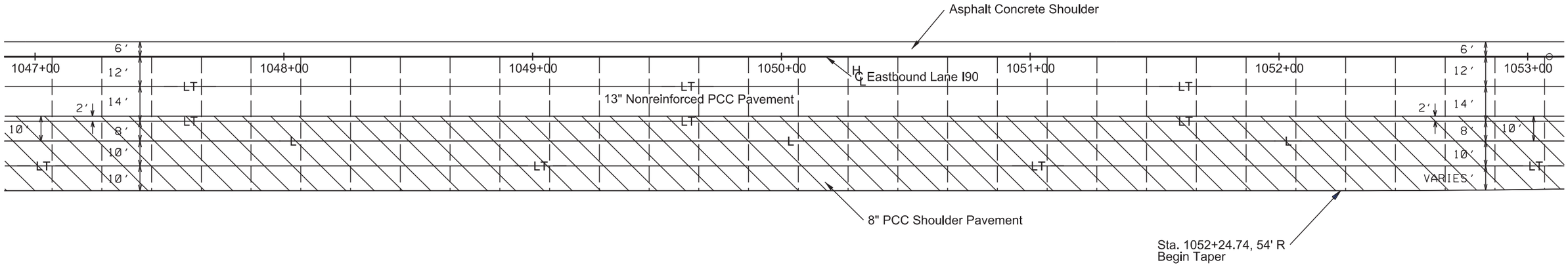
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F42	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\10477.dgn

PCC PAVEMENT JOINT LAYOUT

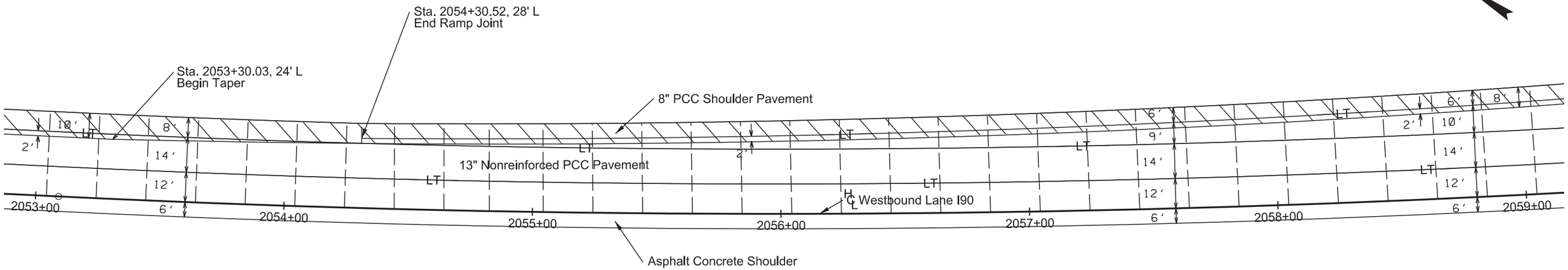
FOR BIDDING PURPOSES ONLY

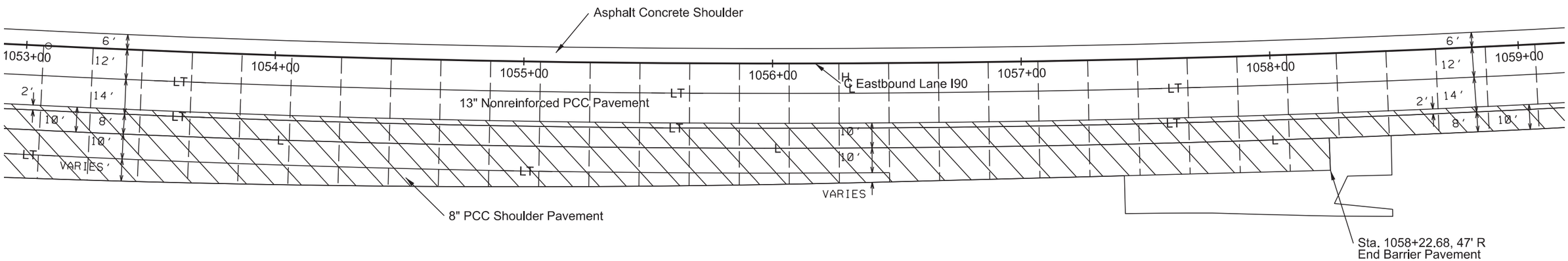
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F43	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\1053f.dgn

PCC PAVEMENT JOINT LAYOUT

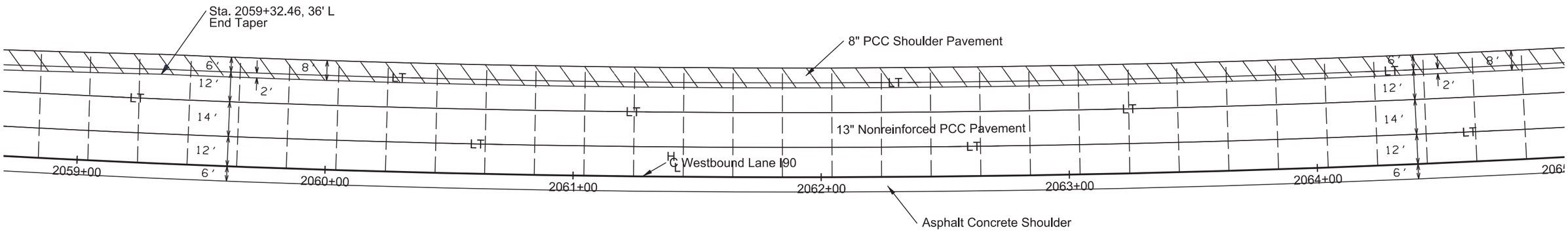
FOR BIDDING PURPOSES ONLY

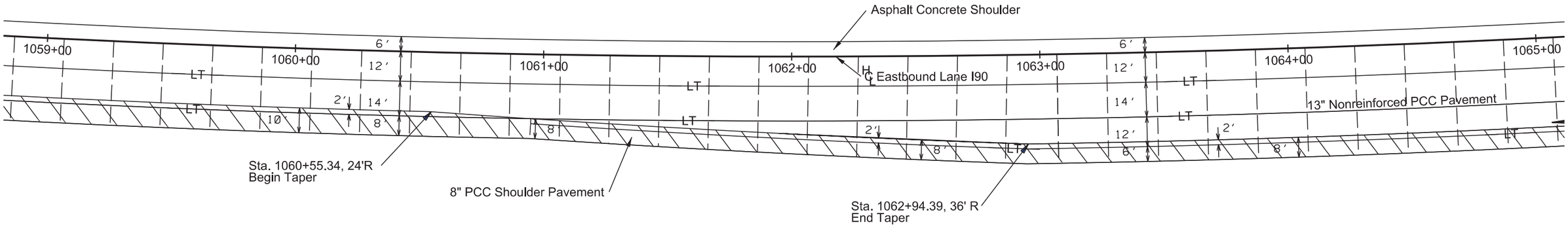
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F44	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11059f.dgn

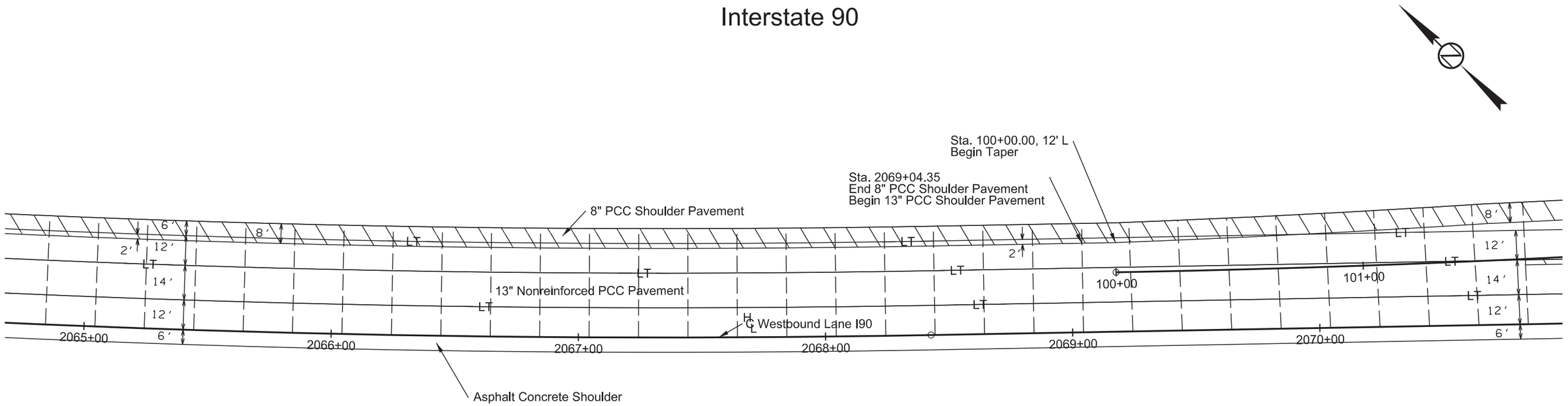
PCC PAVEMENT JOINT LAYOUT

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F45	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11065f.dgn

PCC PAVEMENT JOINT LAYOUT

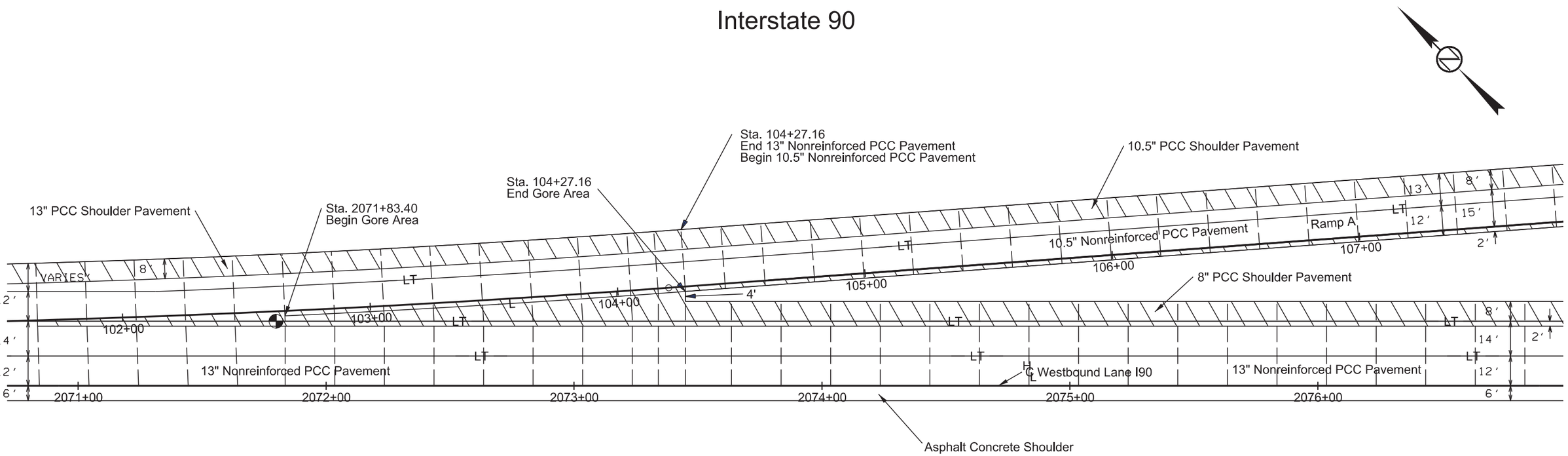
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F46	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\10711f.dgn

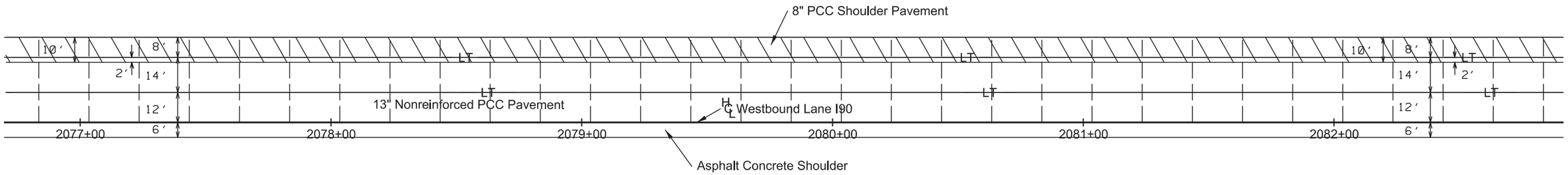
PCC PAVEMENT JOINT LAYOUT

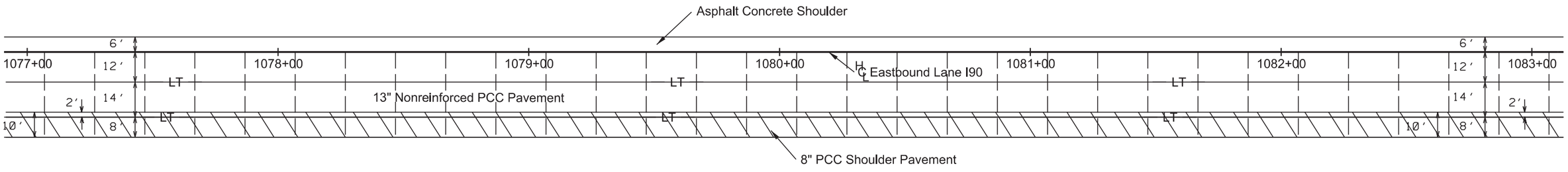
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F47	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\10771.dgn

PCC PAVEMENT JOINT LAYOUT

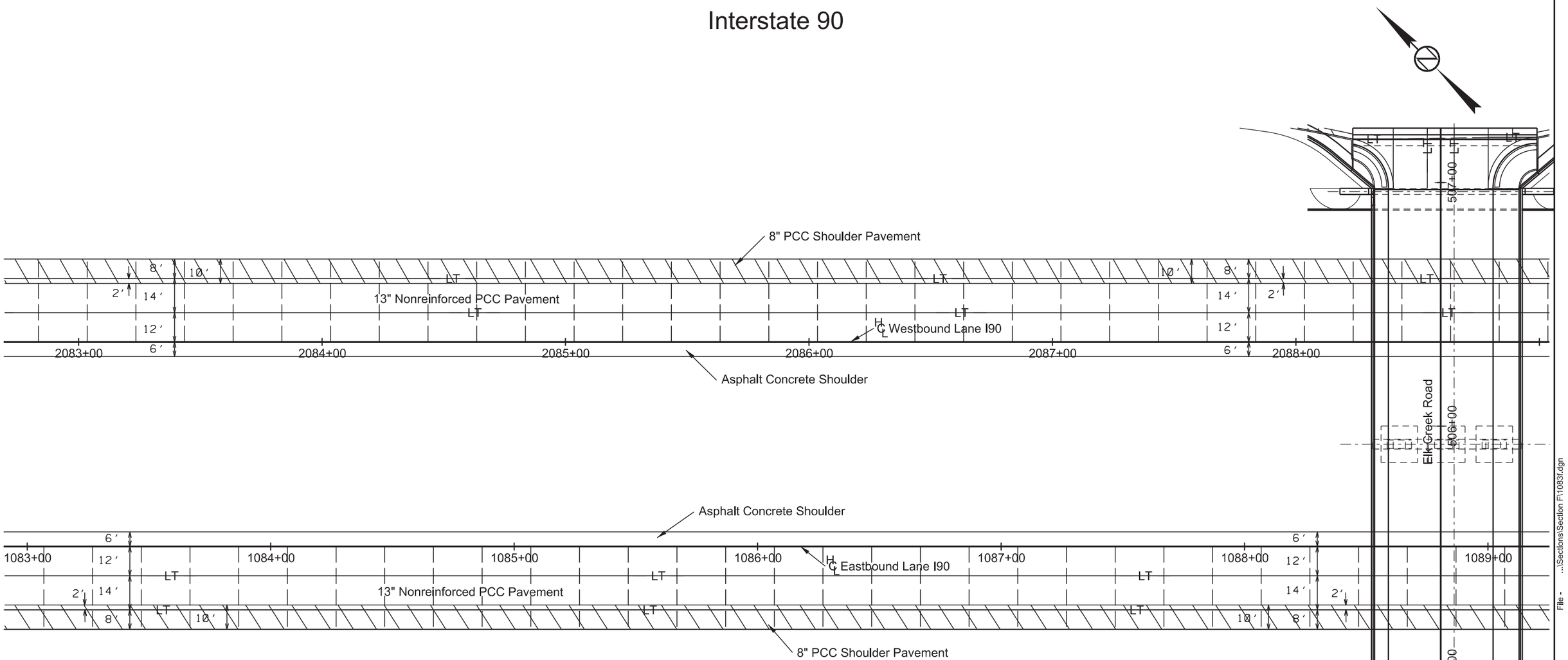
FOR BIDDING PURPOSES ONLY

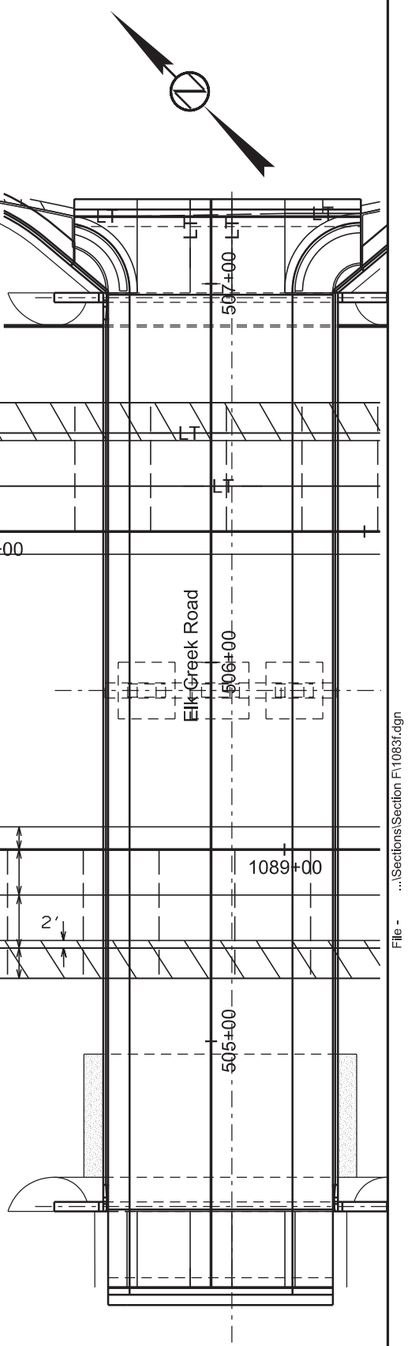
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F48	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\11083f.dgn

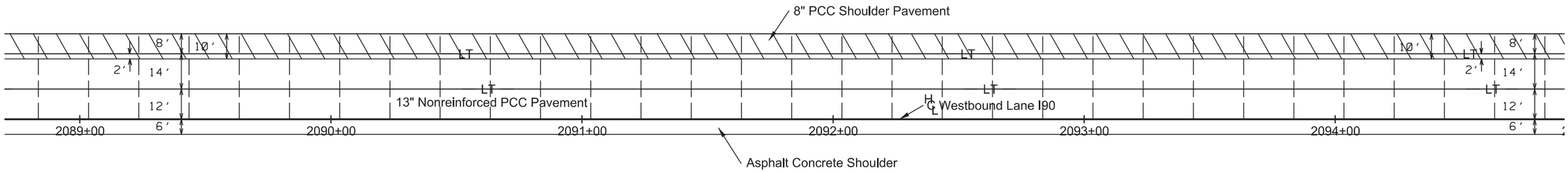
PCC PAVEMENT JOINT LAYOUT

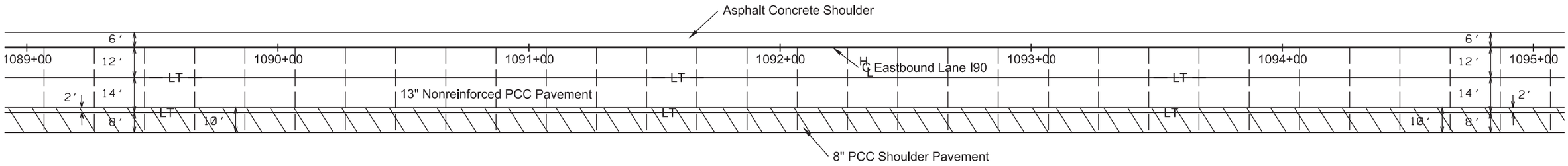
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F49	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\10891.dgn

PCC PAVEMENT JOINT LAYOUT

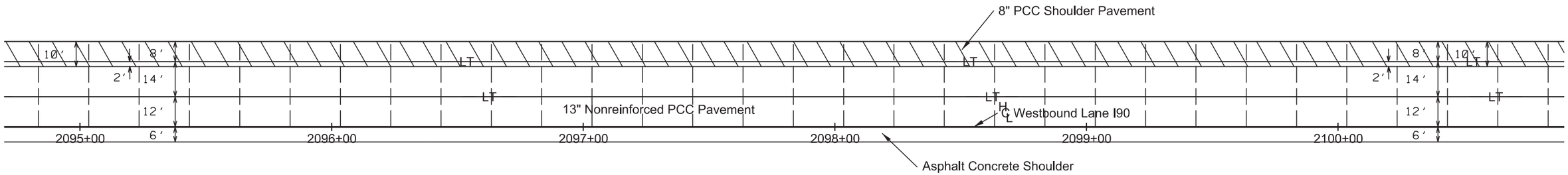
FOR BIDDING PURPOSES ONLY

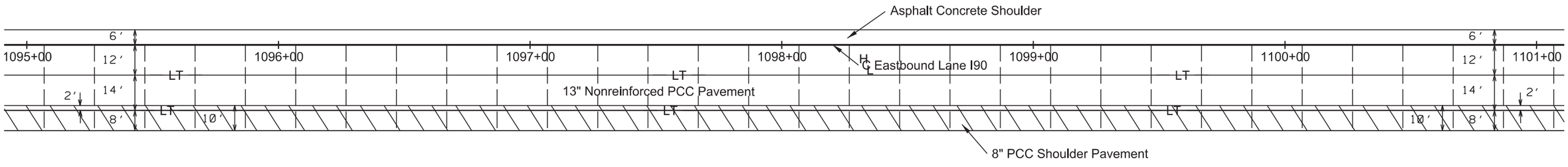
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F50	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\10951.dgn

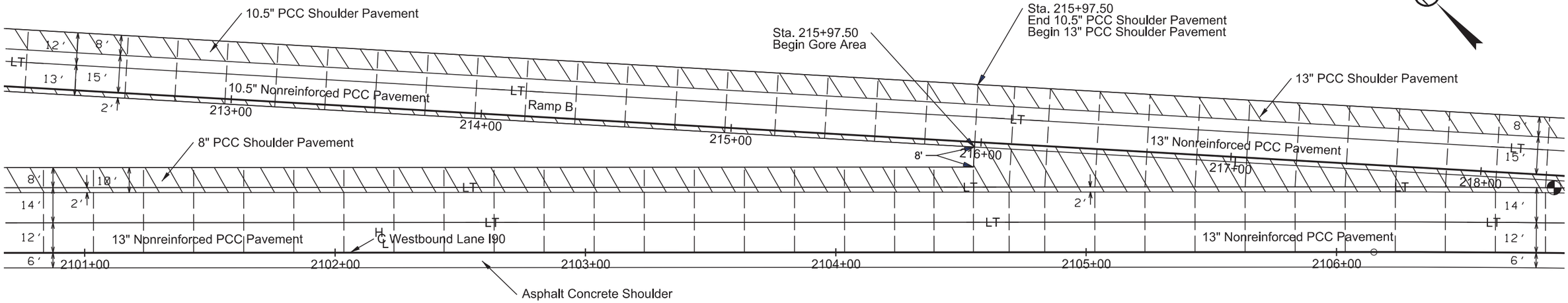
PCC PAVEMENT JOINT LAYOUT

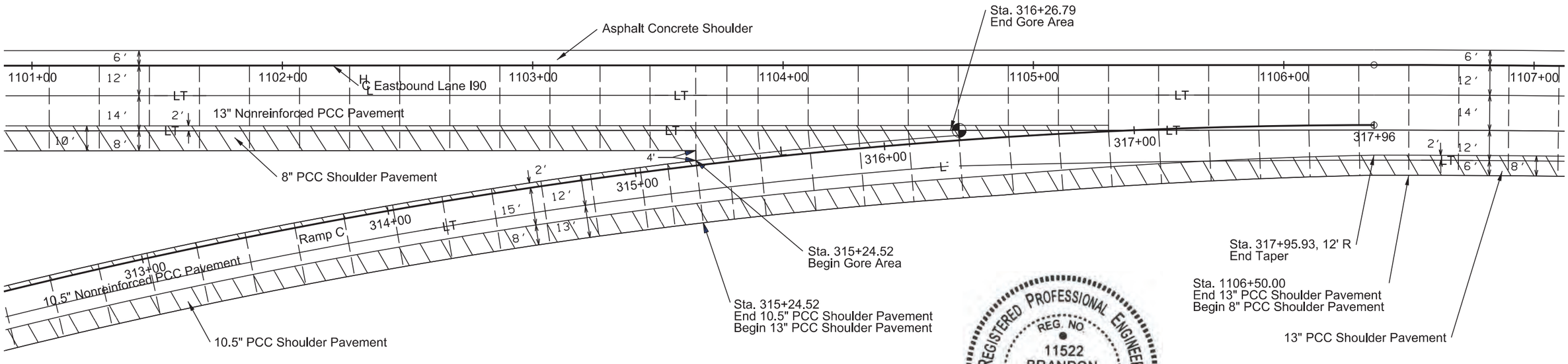
FOR BIDDING PURPOSES ONLY

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
KLJ	IM-CR-EM 0901(187)44	F51	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11101f.dgn

PCC PAVEMENT JOINT LAYOUT

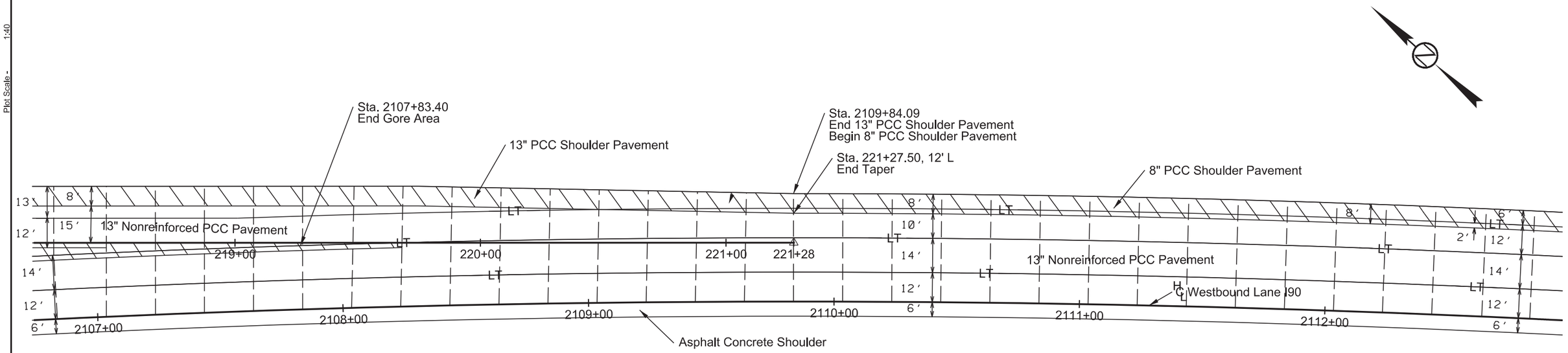
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F52	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F111071.dgn

PCC PAVEMENT JOINT LAYOUT

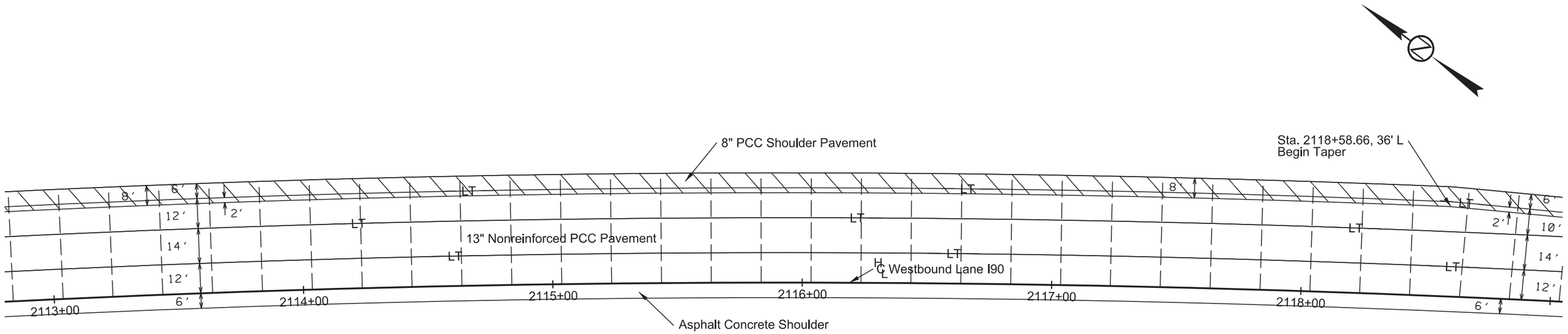
FOR BIDDING PURPOSES ONLY

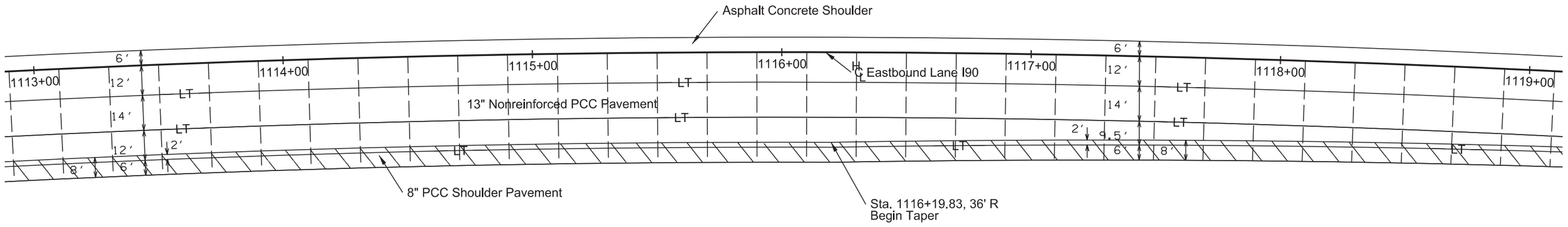
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F53	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11113f.dgn

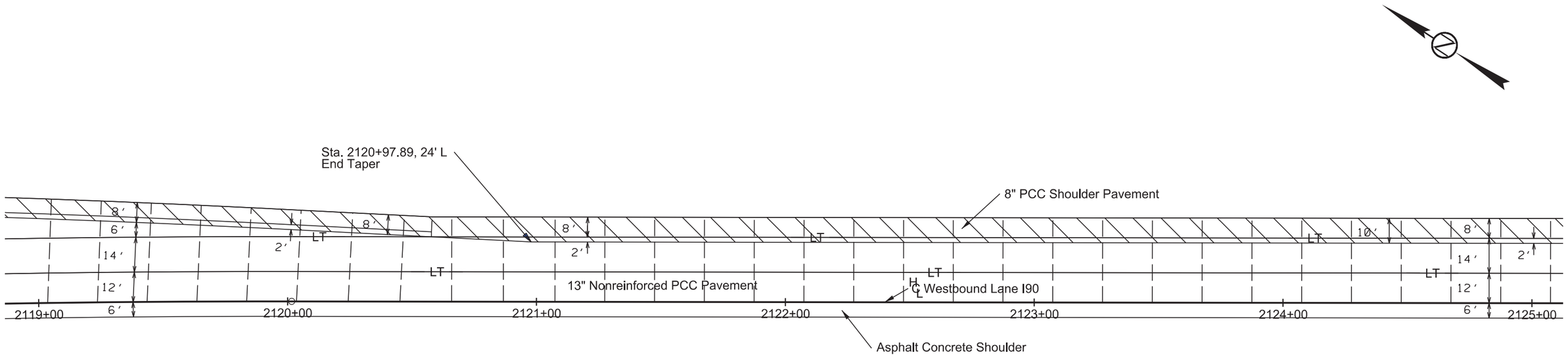
PCC PAVEMENT JOINT LAYOUT

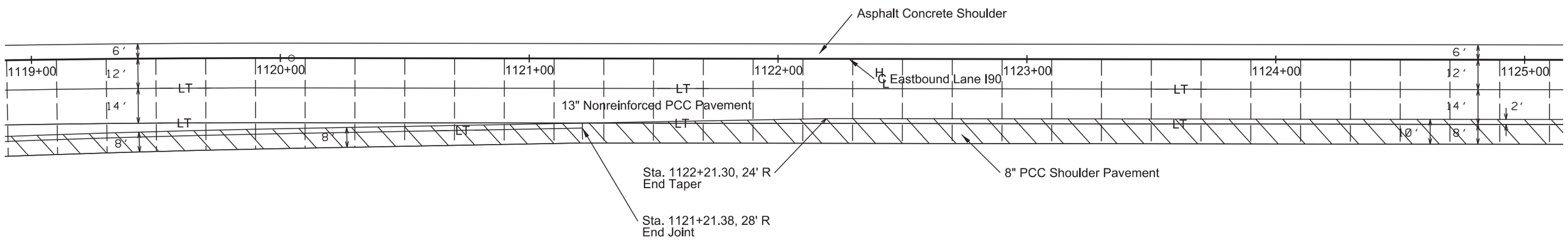
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F54	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11119f.dgn

PCC PAVEMENT JOINT LAYOUT

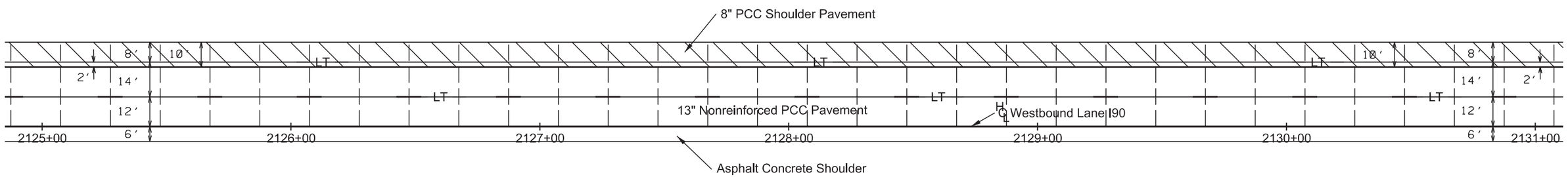
FOR BIDDING PURPOSES ONLY

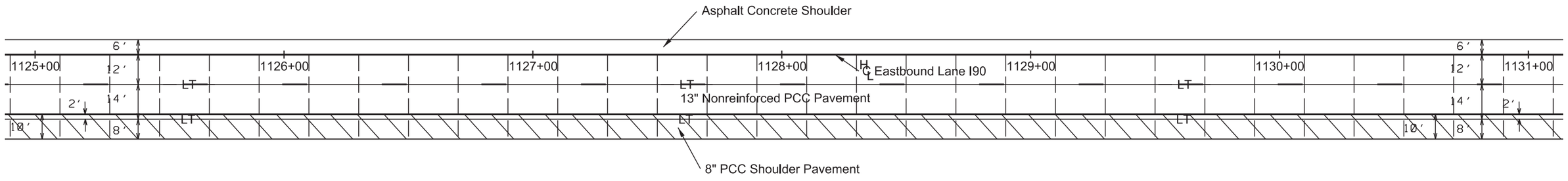
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F55	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11125f.dgn

PCC PAVEMENT JOINT LAYOUT

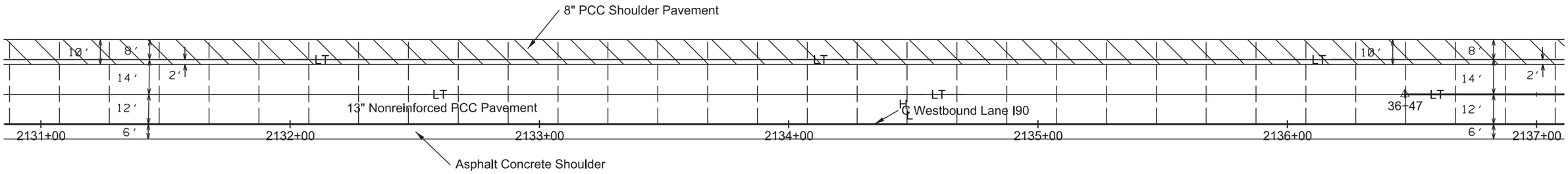
FOR BIDDING PURPOSES ONLY

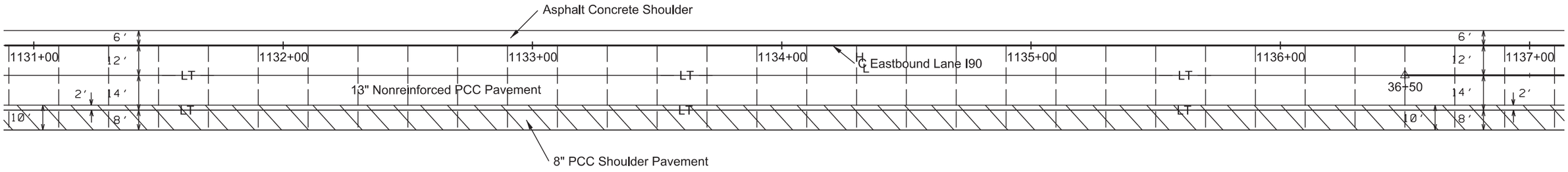
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F56	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11131f.dgn

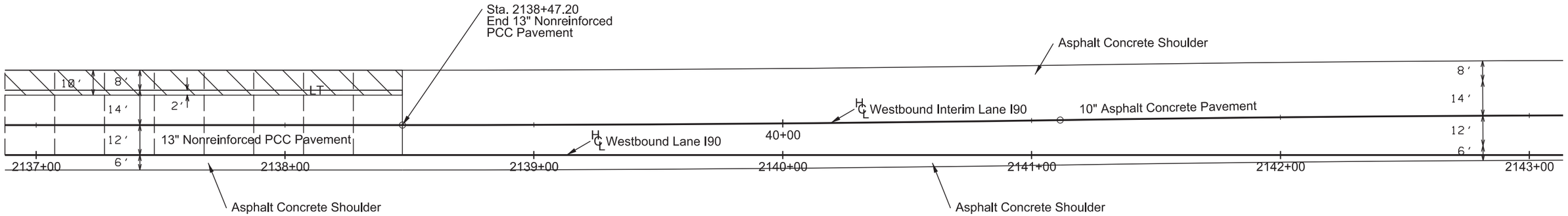
PCC PAVEMENT JOINT LAYOUT

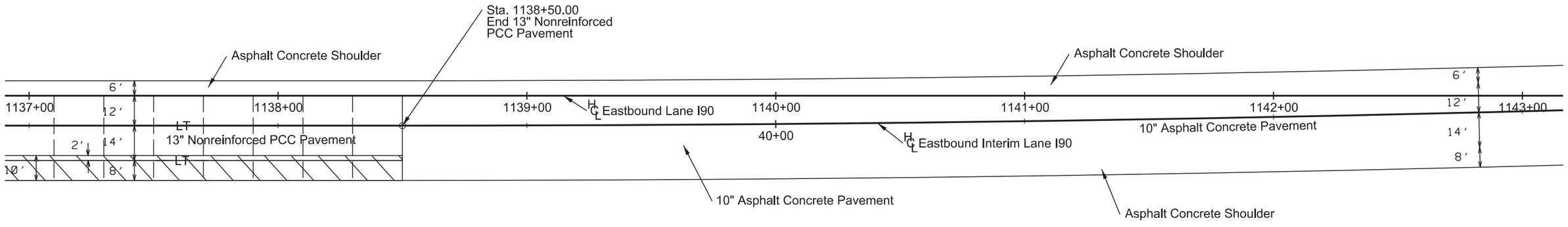
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F57	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11137f.dgn

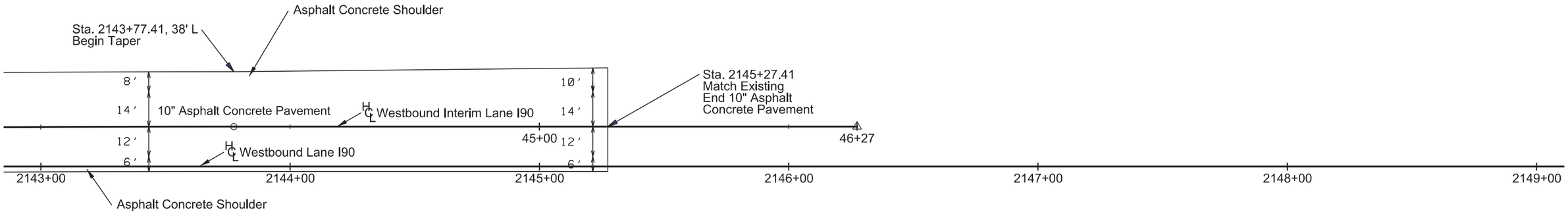
SURFACING LAYOUT

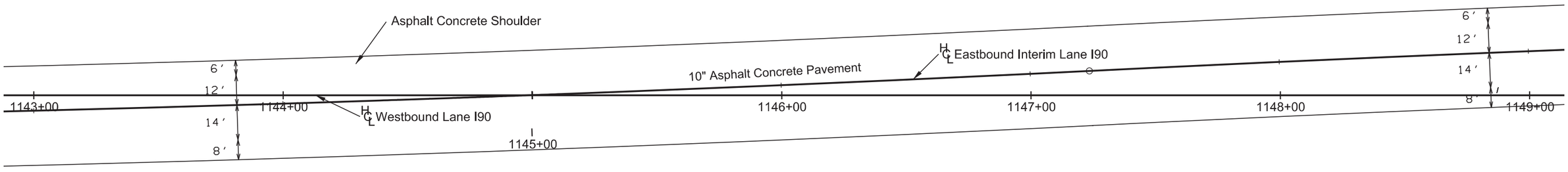
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F58	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11143f.dgn

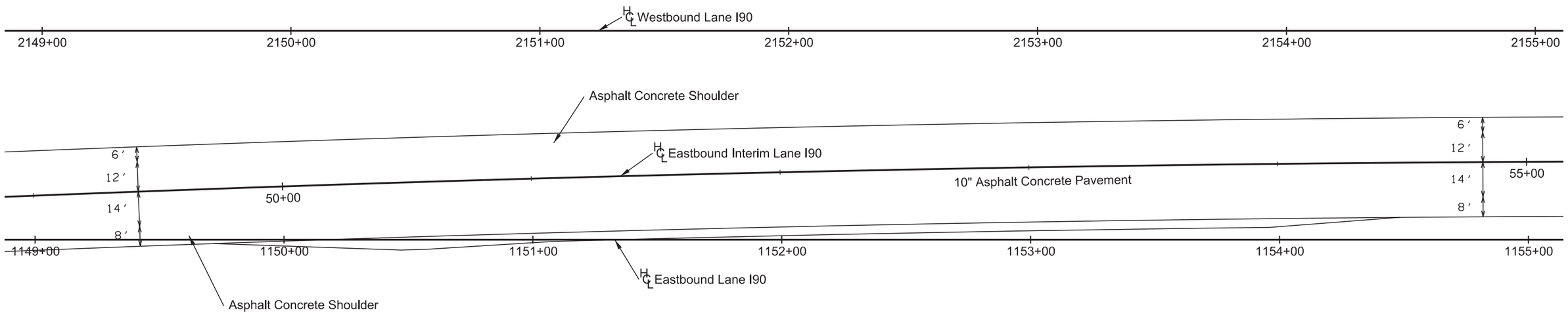
SURFACING LAYOUT

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F59	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11149f.dgn

PCC PAVEMENT JOINT LAYOUT

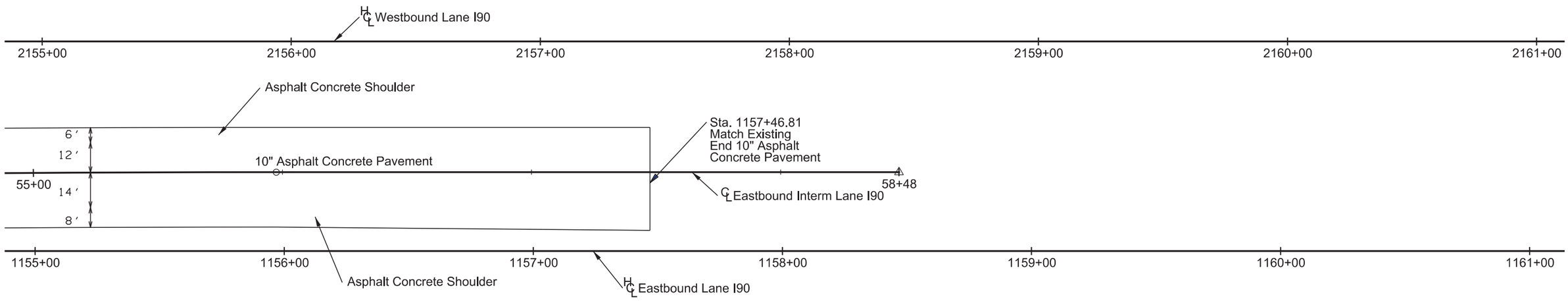
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F60	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F11155f.dgn

PCC PAVEMENT JOINT LAYOUT

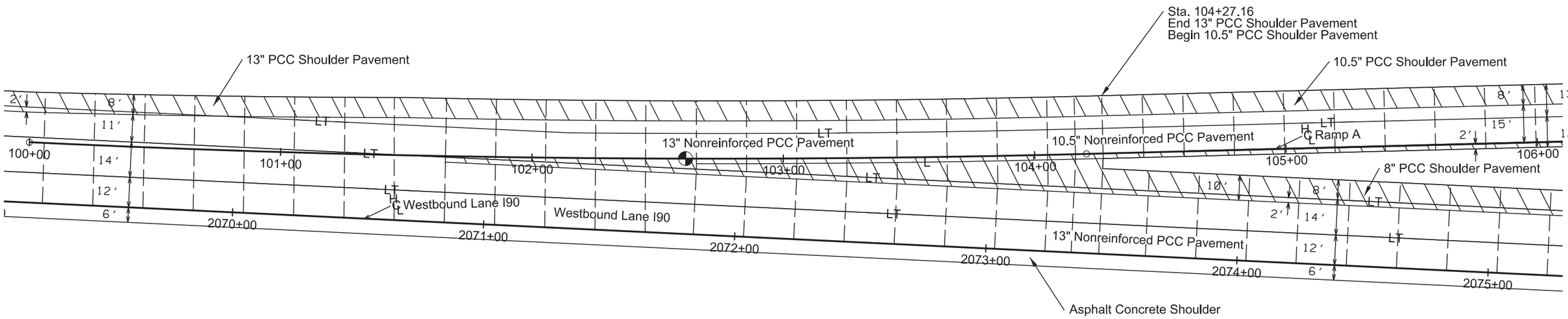
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F61	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp A



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampA100f.dgn

PCC PAVEMENT JOINT LAYOUT

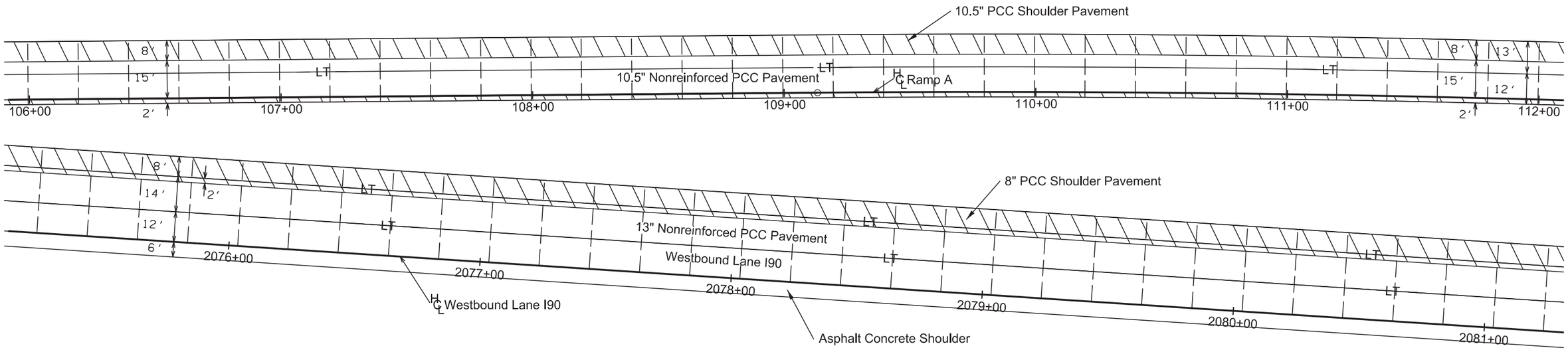
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F62	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp A



REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampA106f.dgn

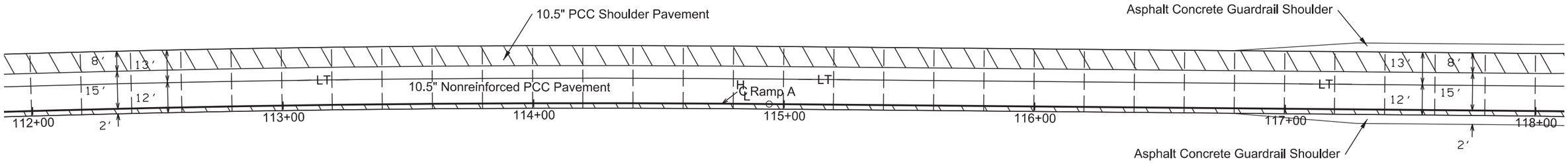
PCC PAVEMENT JOINT LAYOUT

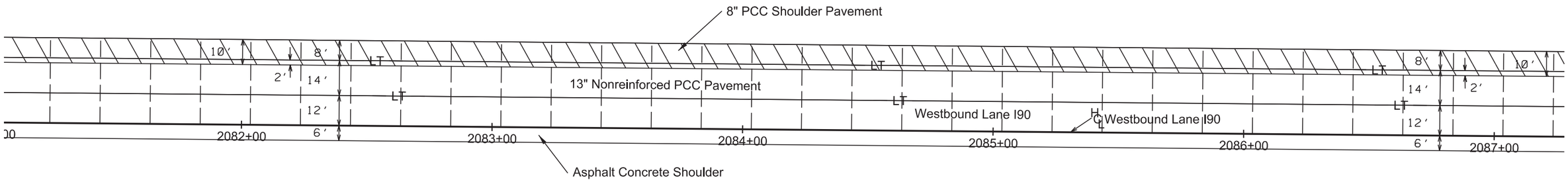
FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F63	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp A





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\Ramp\112f.dgn

PCC PAVEMENT JOINT LAYOUT

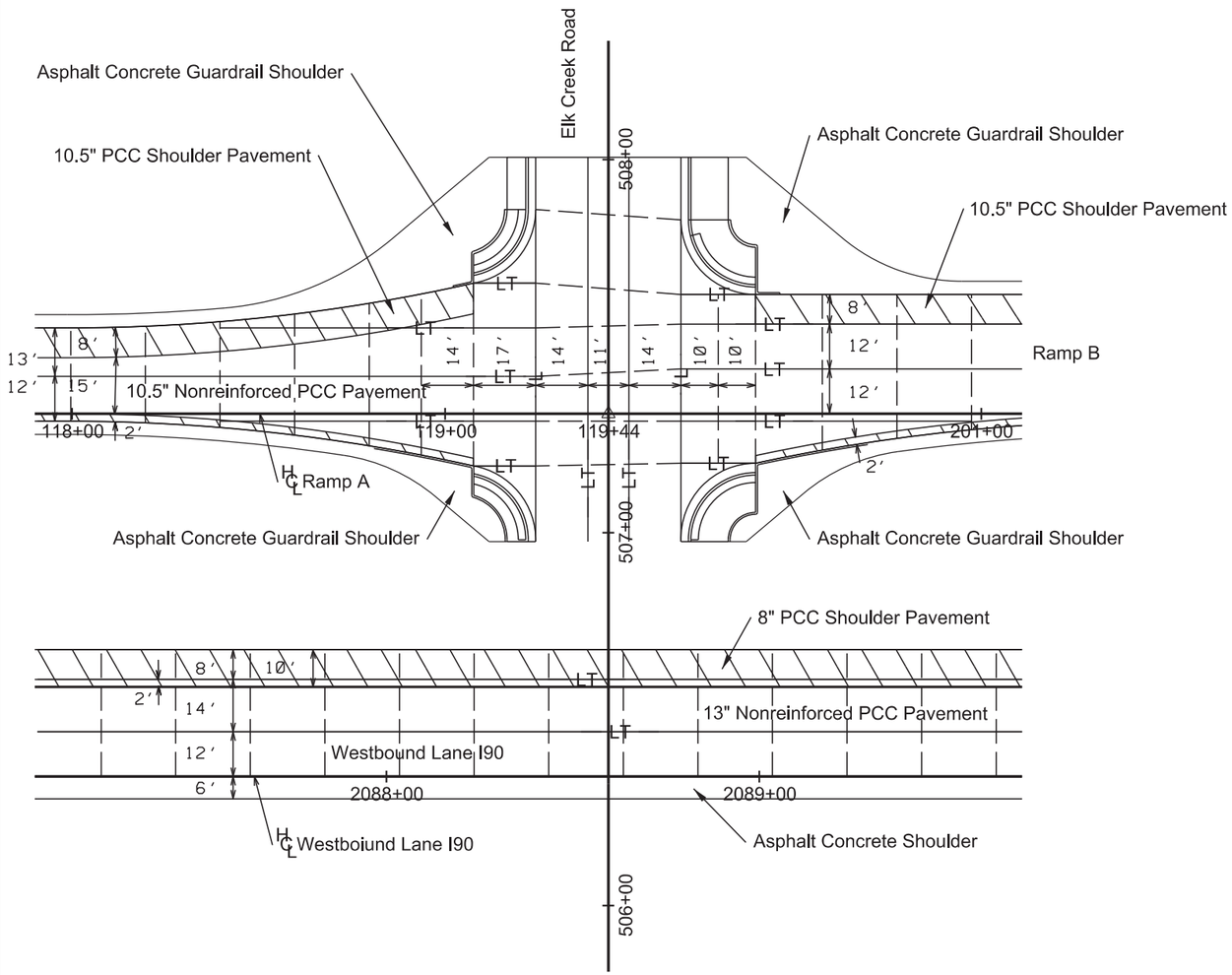
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F64	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp A



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampA116f.dgn

PCC PAVEMENT JOINT LAYOUT

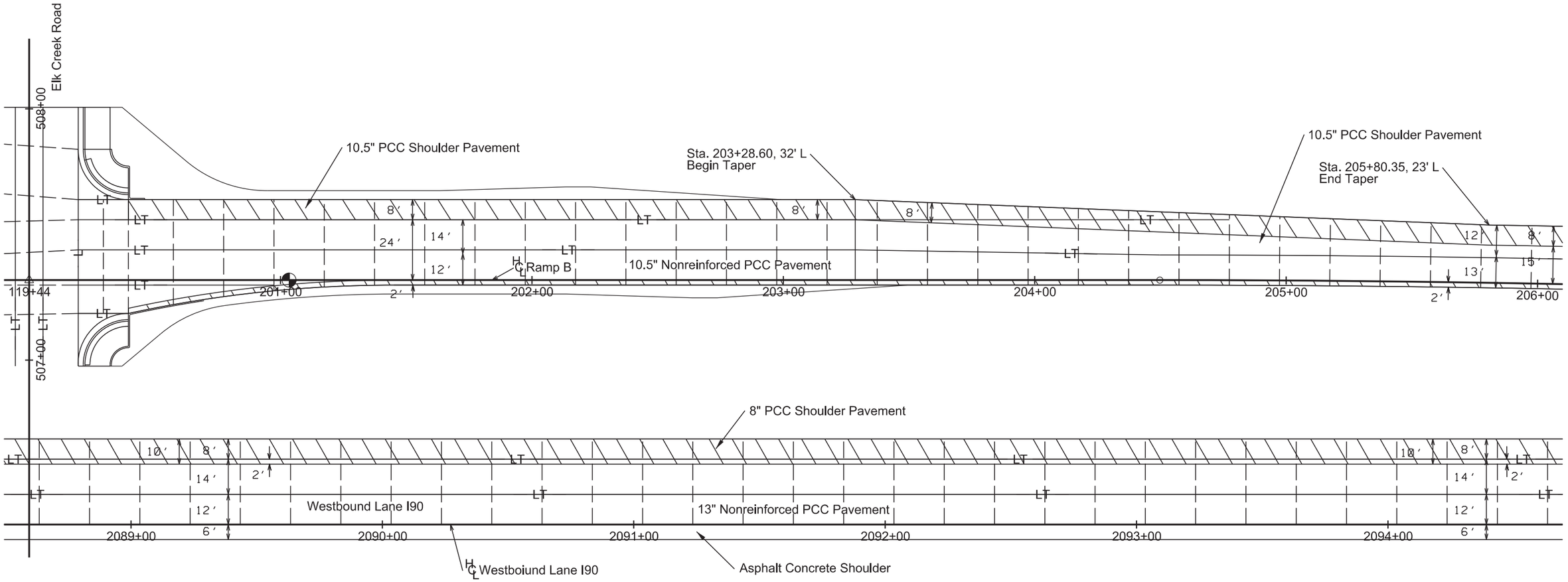
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F65	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp B



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampB20f.dgn

PCC PAVEMENT JOINT LAYOUT

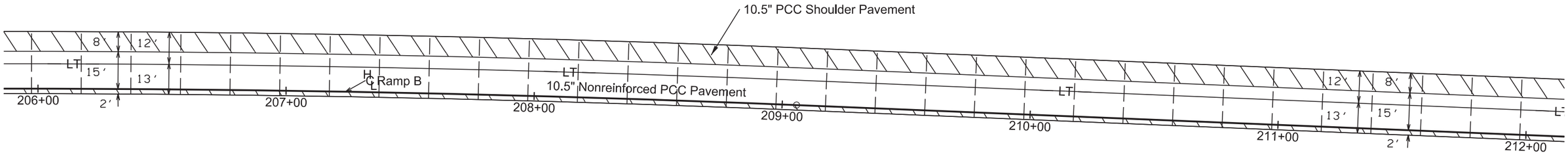
FOR BIDDING PURPOSES ONLY

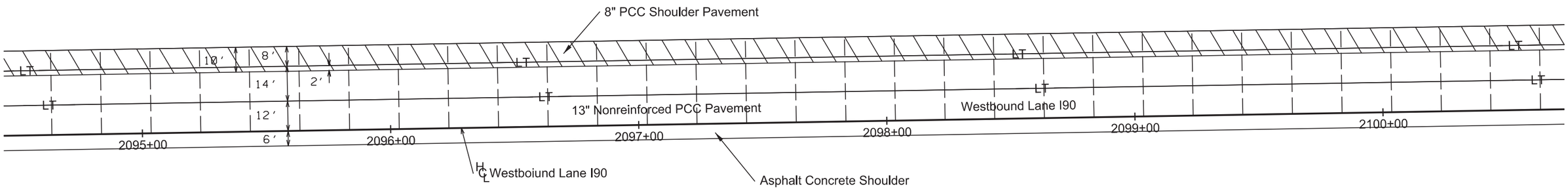
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F66	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp B





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampB206f.dgn

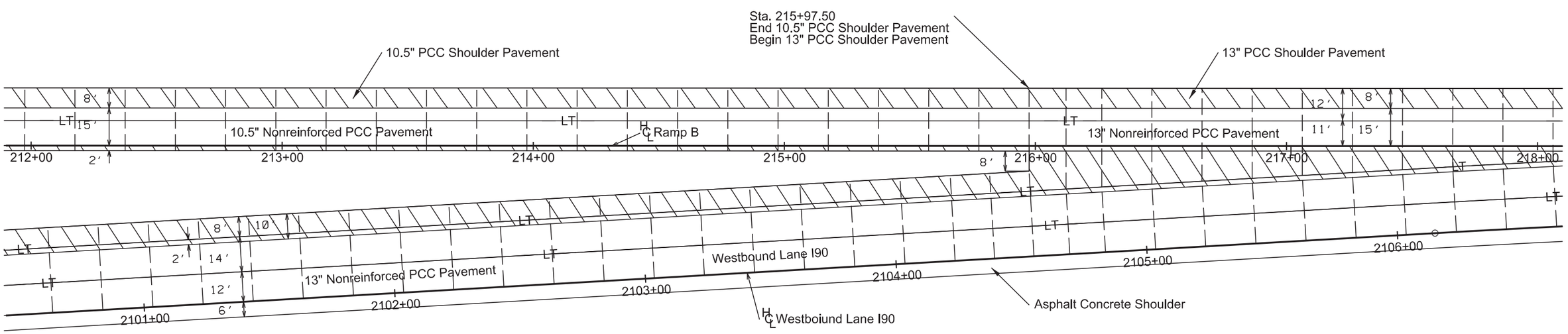
PCC PAVEMENT JOINT LAYOUT

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F67	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp B



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampB212f.dgn

PCC PAVEMENT JOINT LAYOUT

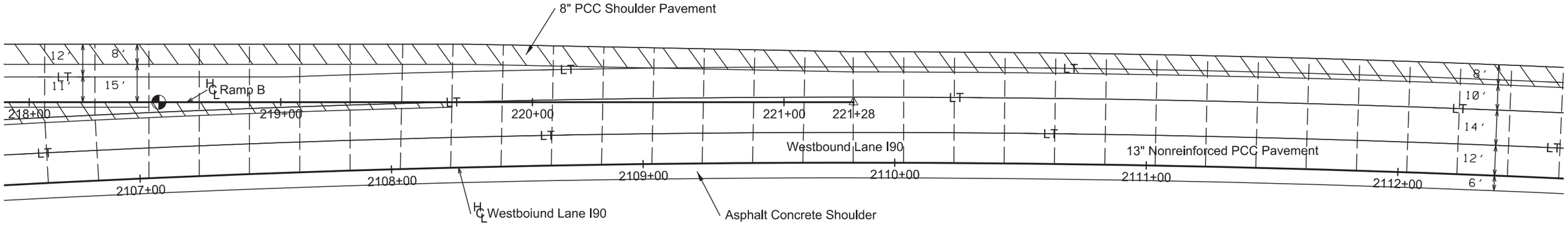
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F68	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp B



REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section FIRampB218f.dgn

PCC PAVEMENT JOINT LAYOUT

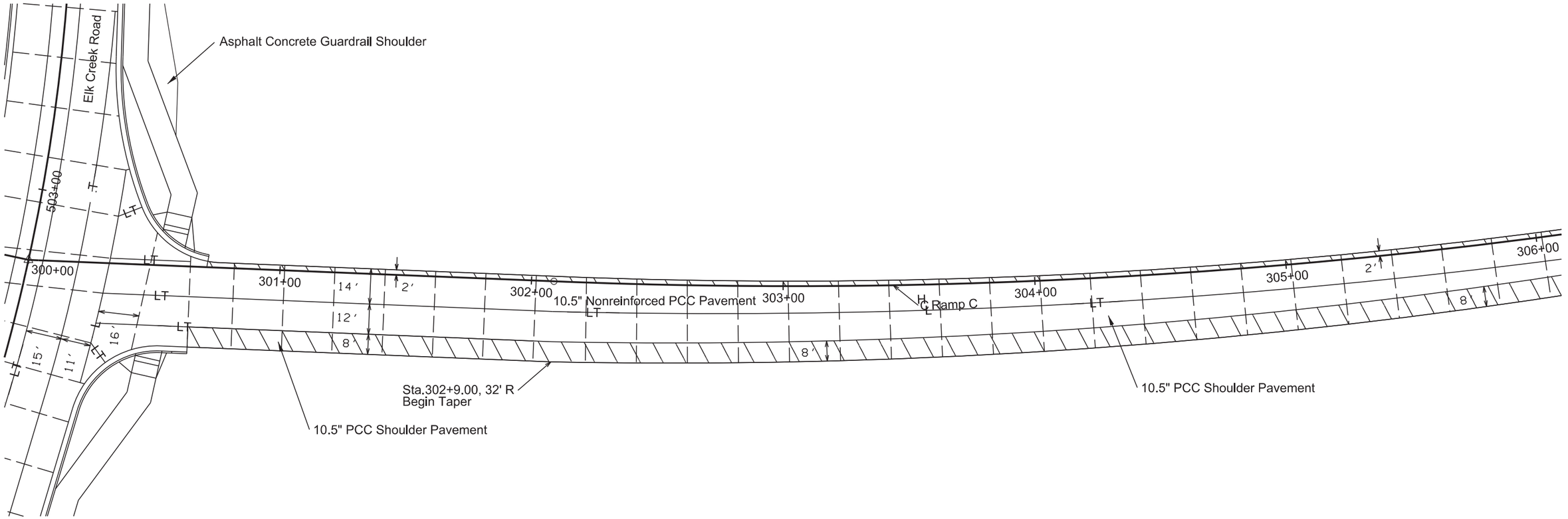
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F69	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp C



REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampC300f.dgn

PCC PAVEMENT JOINT LAYOUT

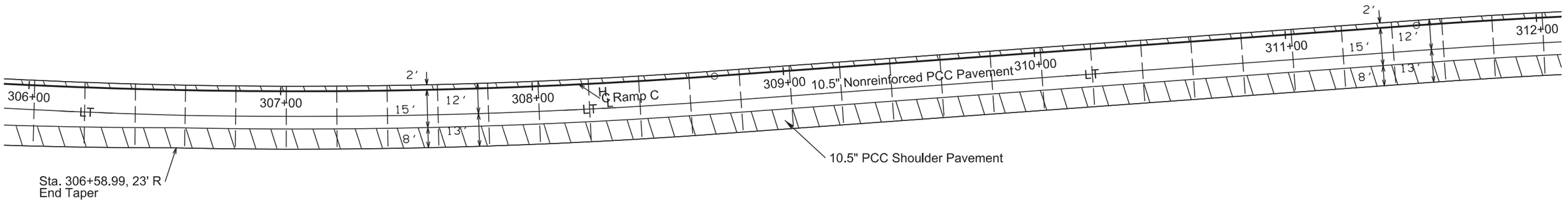
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F70	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp C



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampC306f.dgn

PCC PAVEMENT JOINT LAYOUT

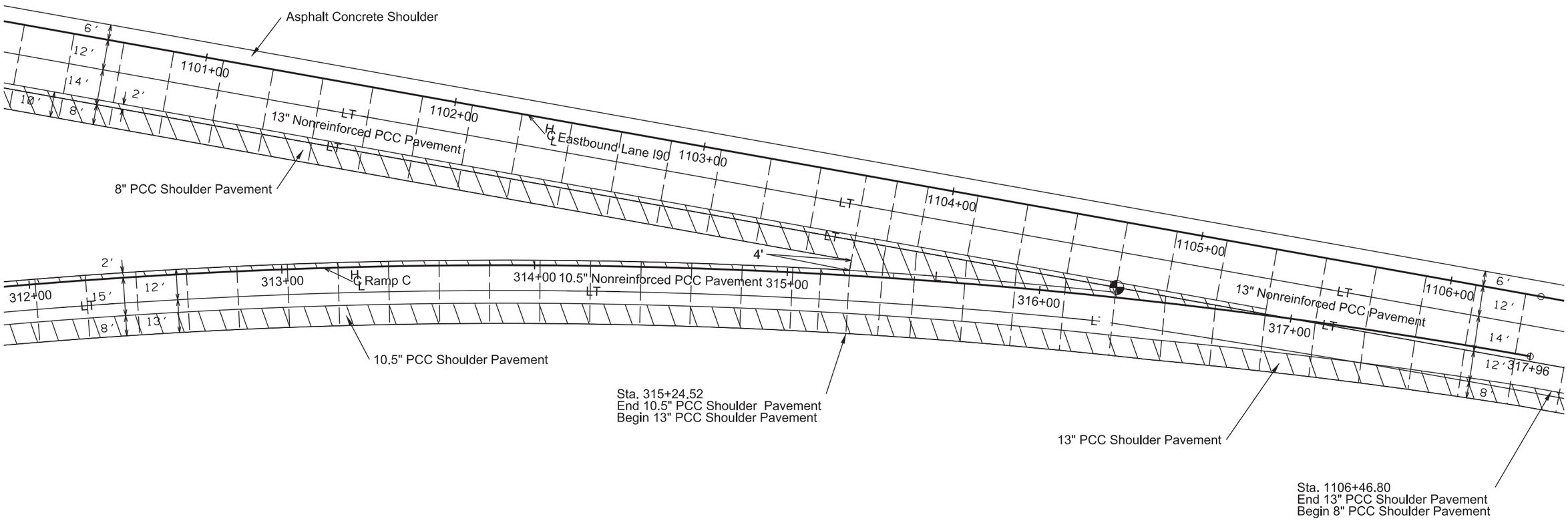
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F71	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp C



REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampC312f.dgn

PCC PAVEMENT JOINT LAYOUT

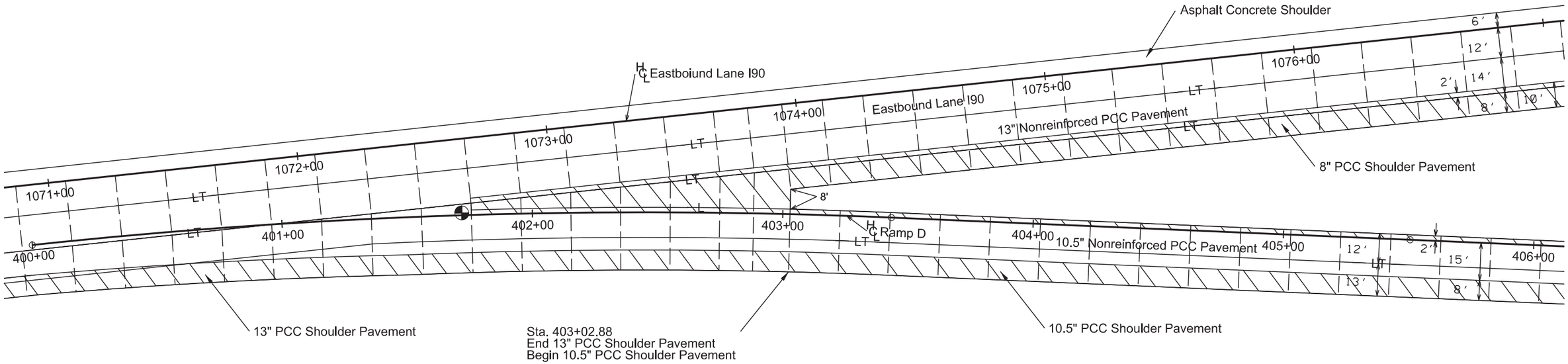
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F72	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp D



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampD400f.dgn

PCC PAVEMENT JOINT LAYOUT

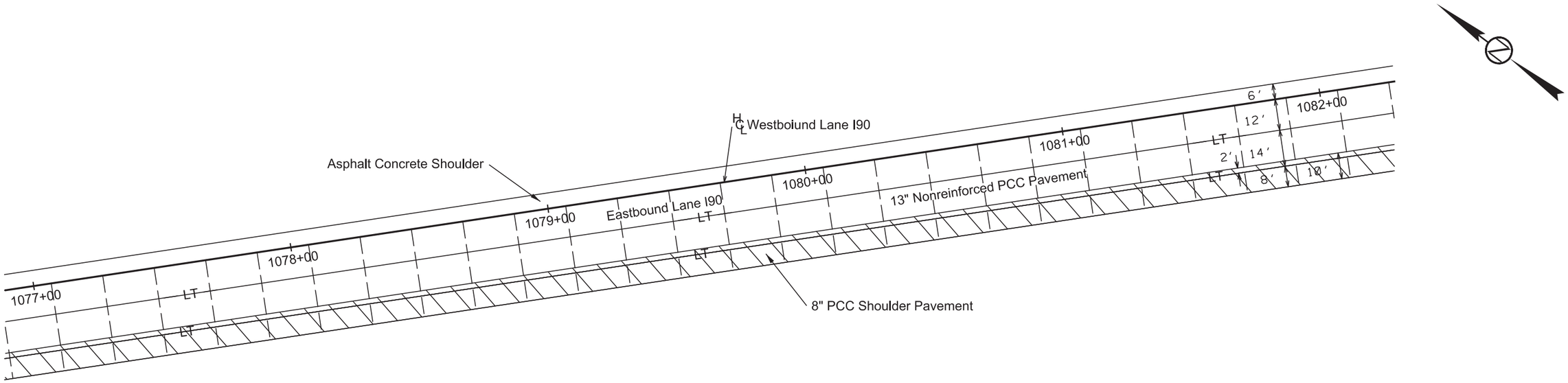
FOR BIDDING PURPOSES ONLY

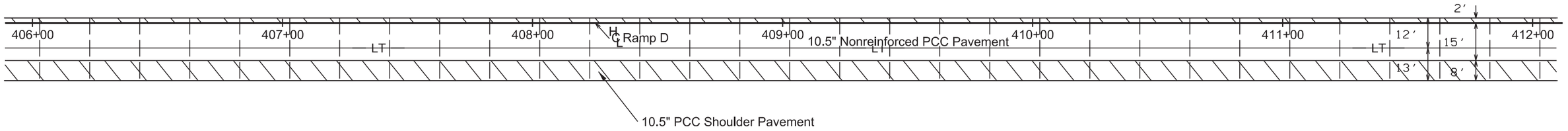
KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F73	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp D





REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampD406f.dgn

PCC PAVEMENT JOINT LAYOUT

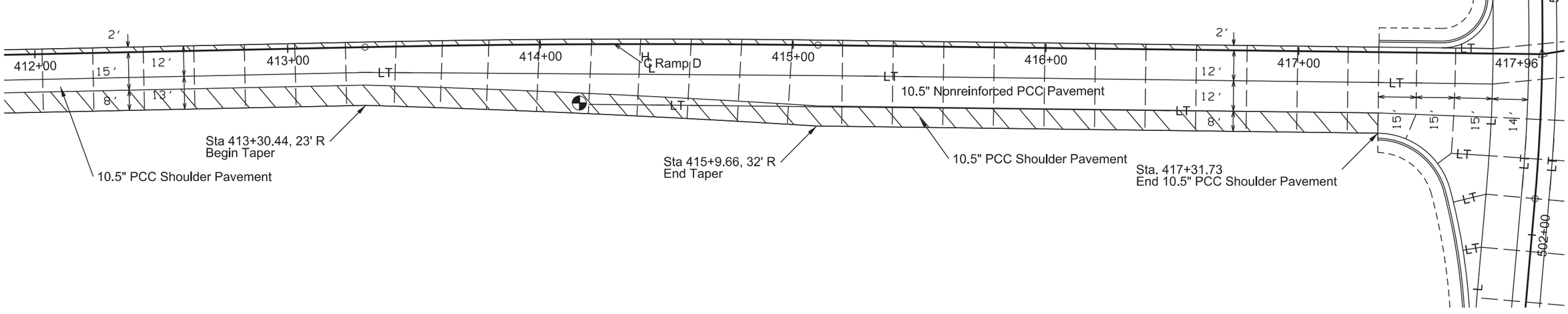
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F74	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Interstate 90 Ramp D



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\RampD412f.dgn

PCC PAVEMENT JOINT LAYOUT

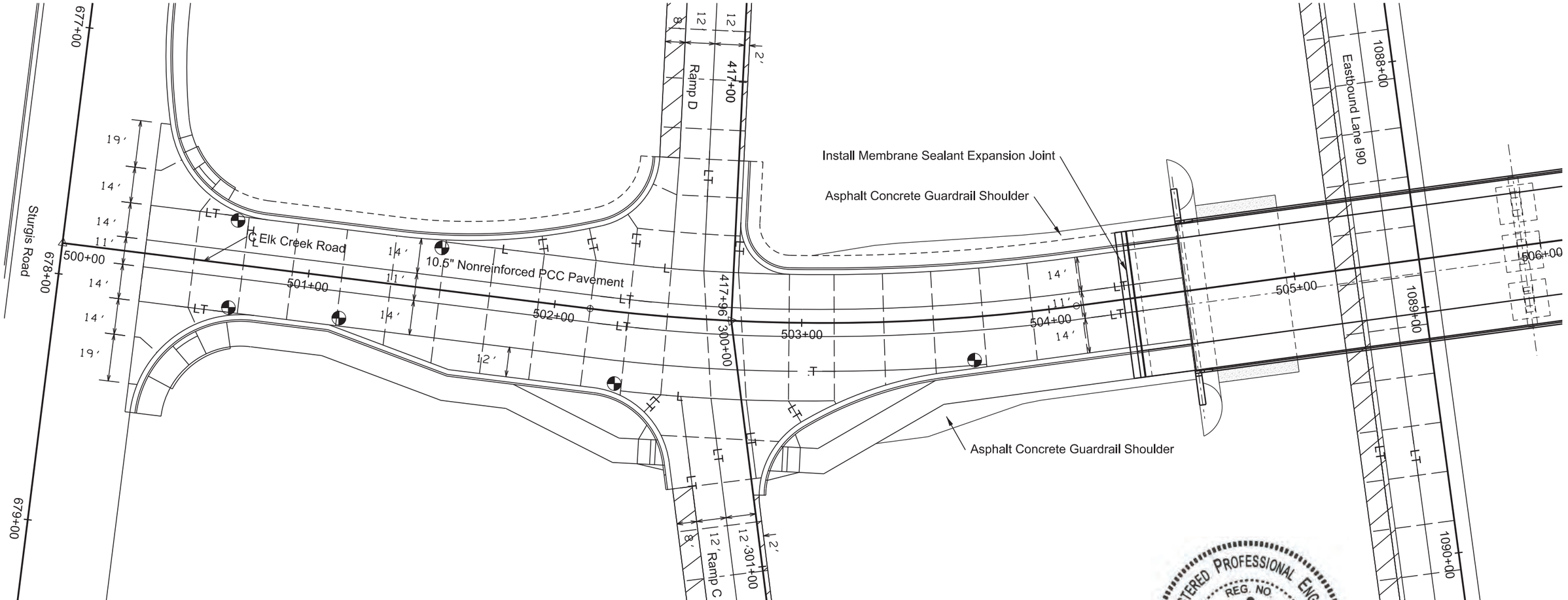
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F75	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Elk Creek Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section FIEC500f.dgn

PCC PAVEMENT JOINT LAYOUT

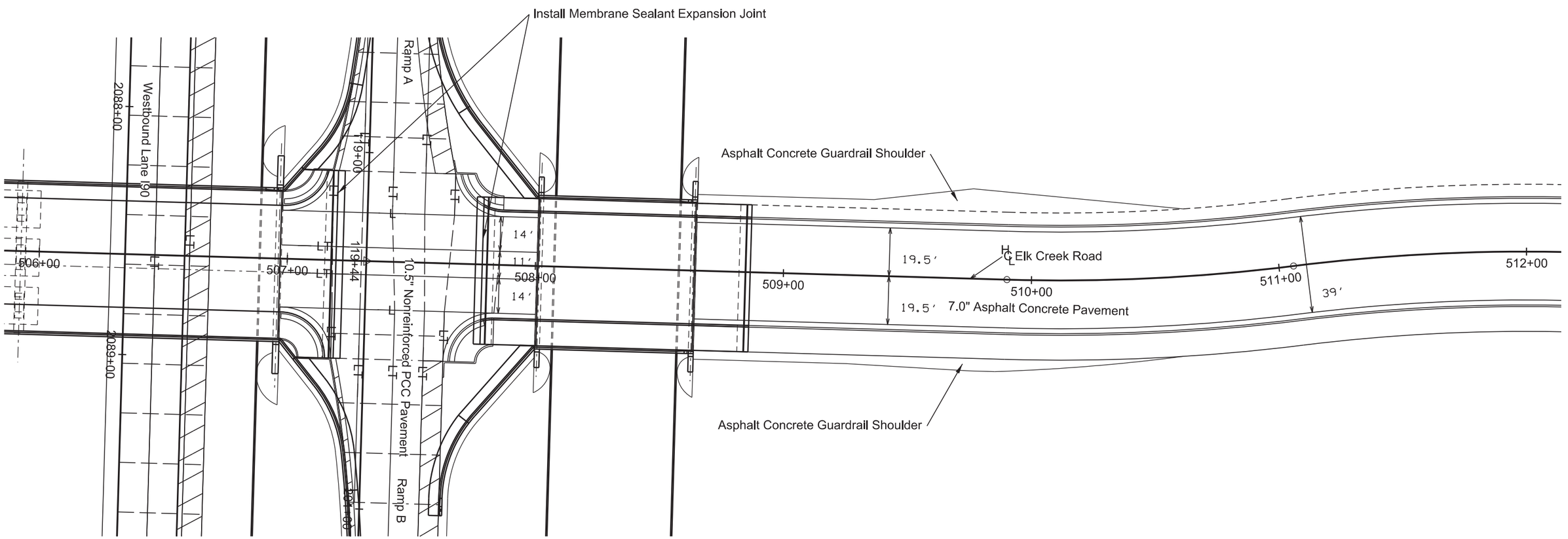
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F76	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Elk Creek Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section FIEC506f.dgn

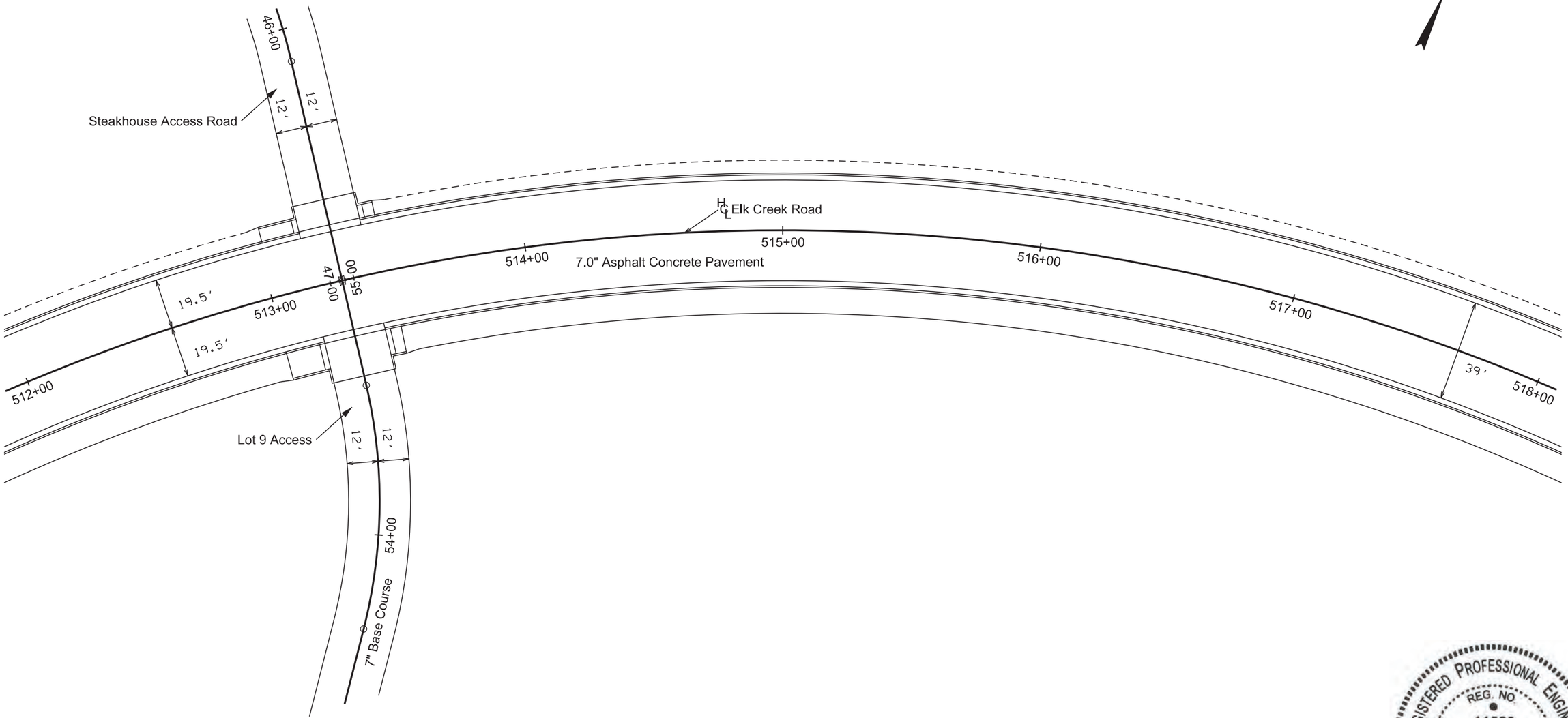
SURFACING LAYOUT

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F77	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Elk Creek Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section FIEC512f.dgn

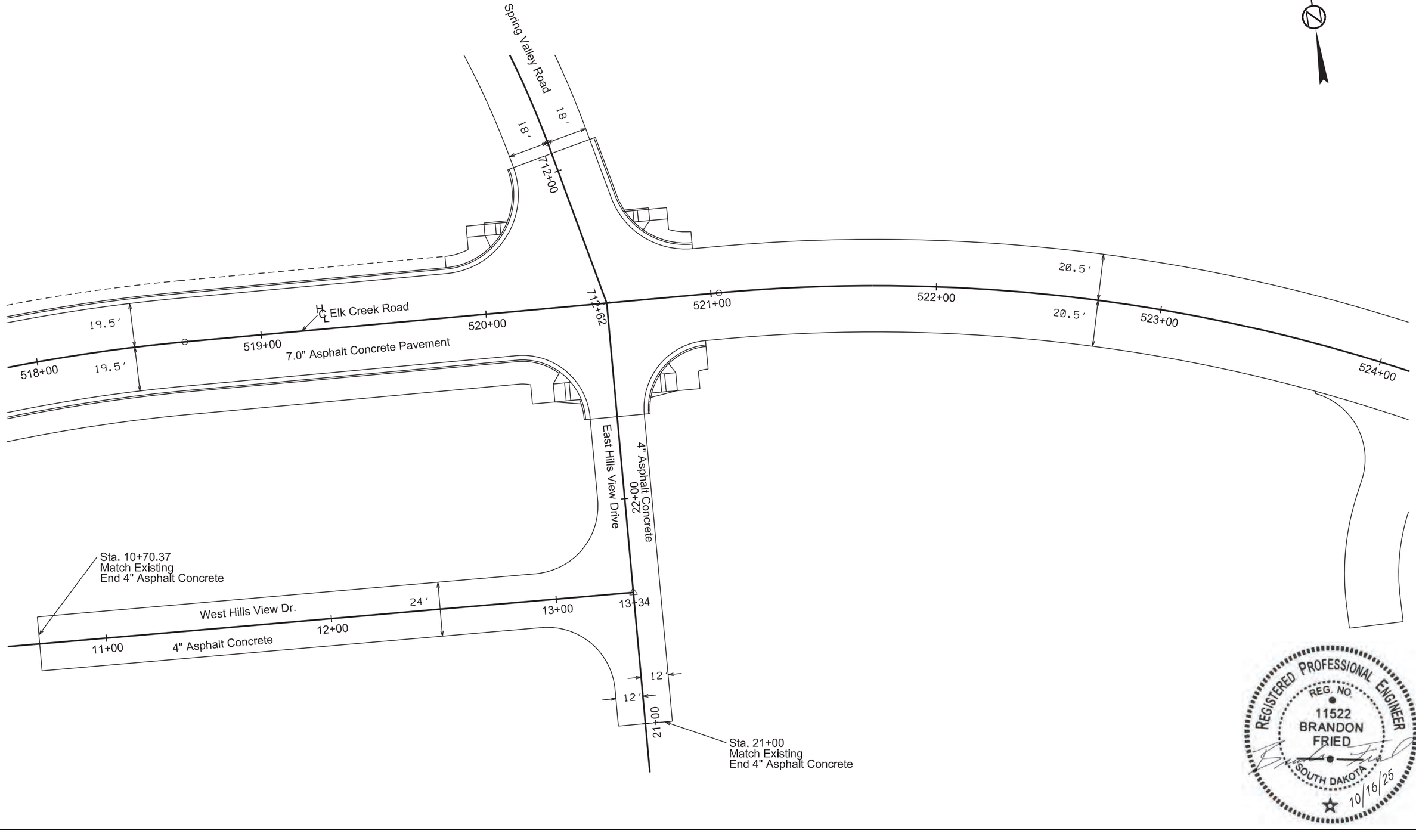
SURFACING LAYOUT

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F78	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Elk Creek Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section FILE\518f.dgn

SURFACING LAYOUT

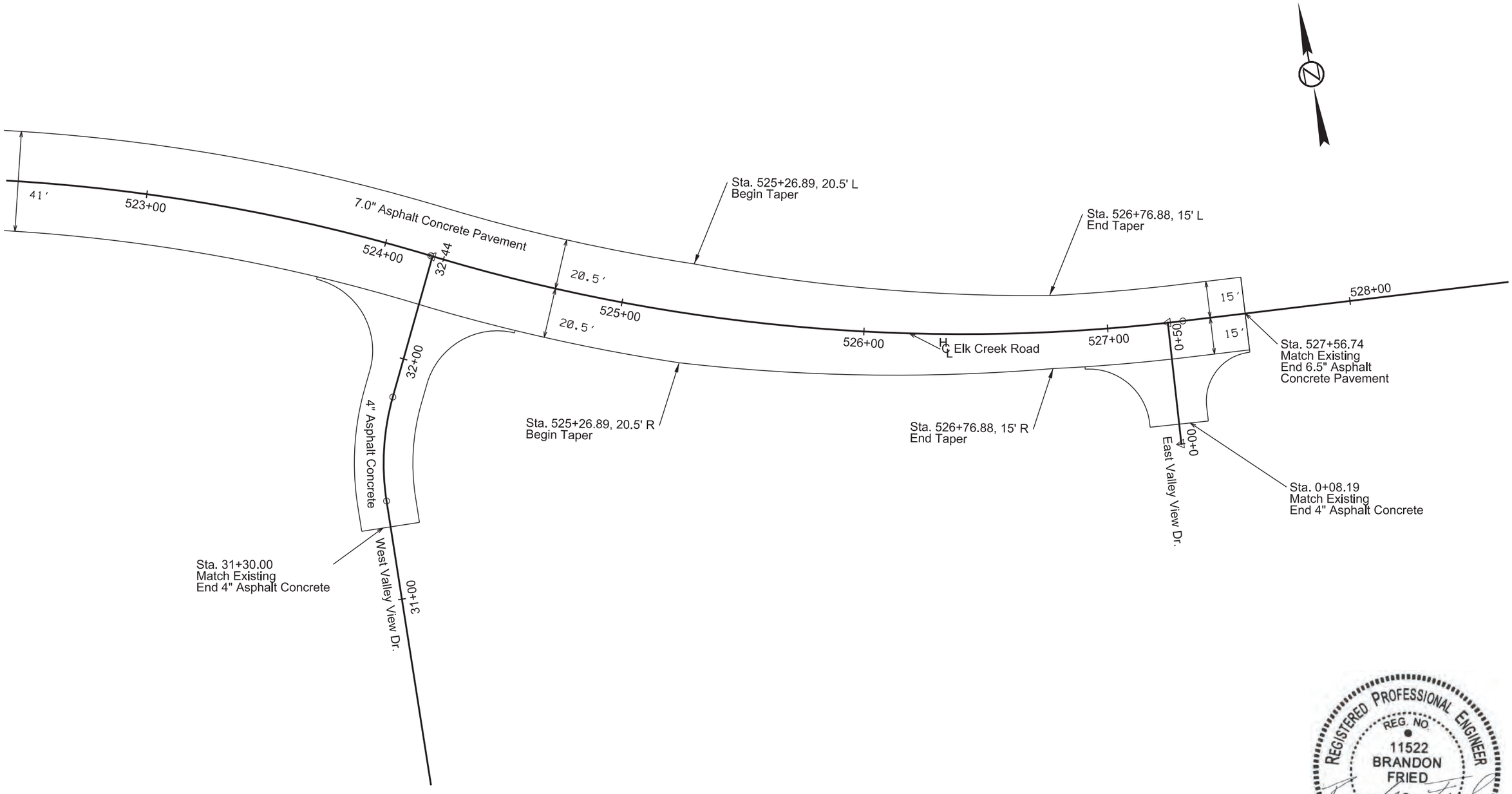
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F79	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Elk Creek Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section FIEC524f.dgn

SURFACING LAYOUT

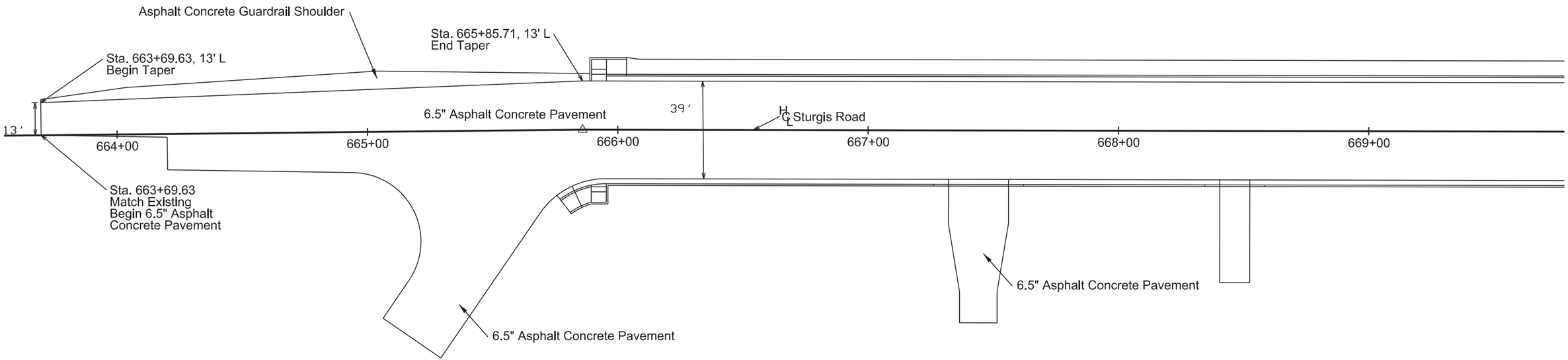
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F80	F95

Plotting Date: 10/16/2025 _____Rev: 10/16/2025 BAF

Sturgis Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\Stur664f.dgn

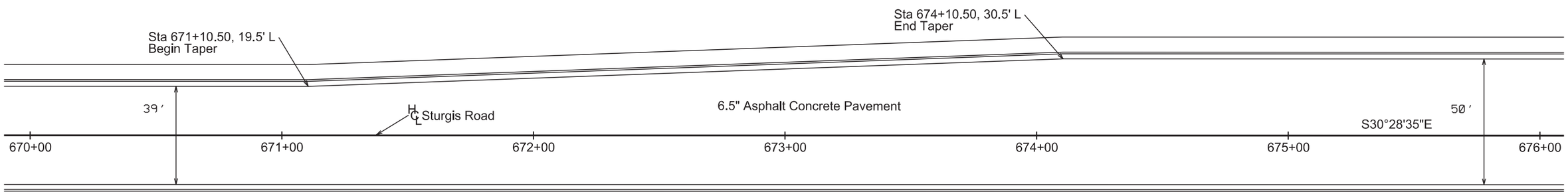
SURFACING LAYOUT

FOR BIDDING PURPOSES ONLY

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F81	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Sturgis Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section F\Stur670f.dgn

SURFACING LAYOUT

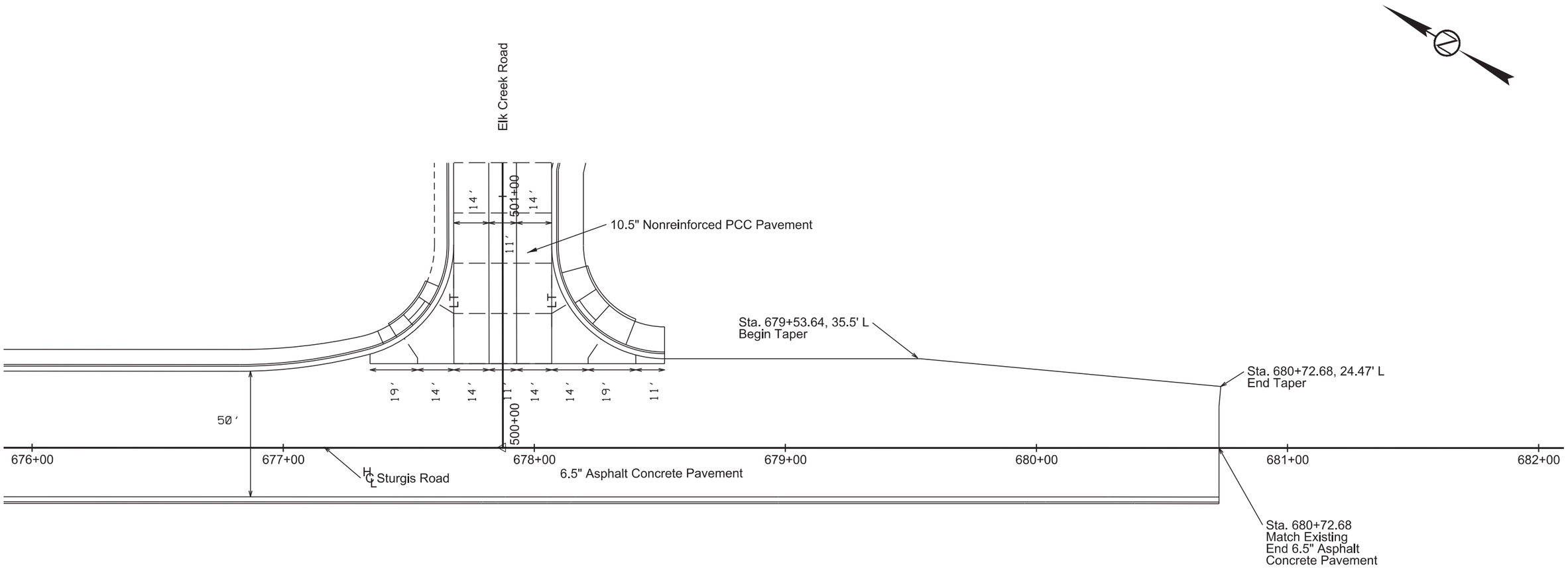
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F82	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Sturgis Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

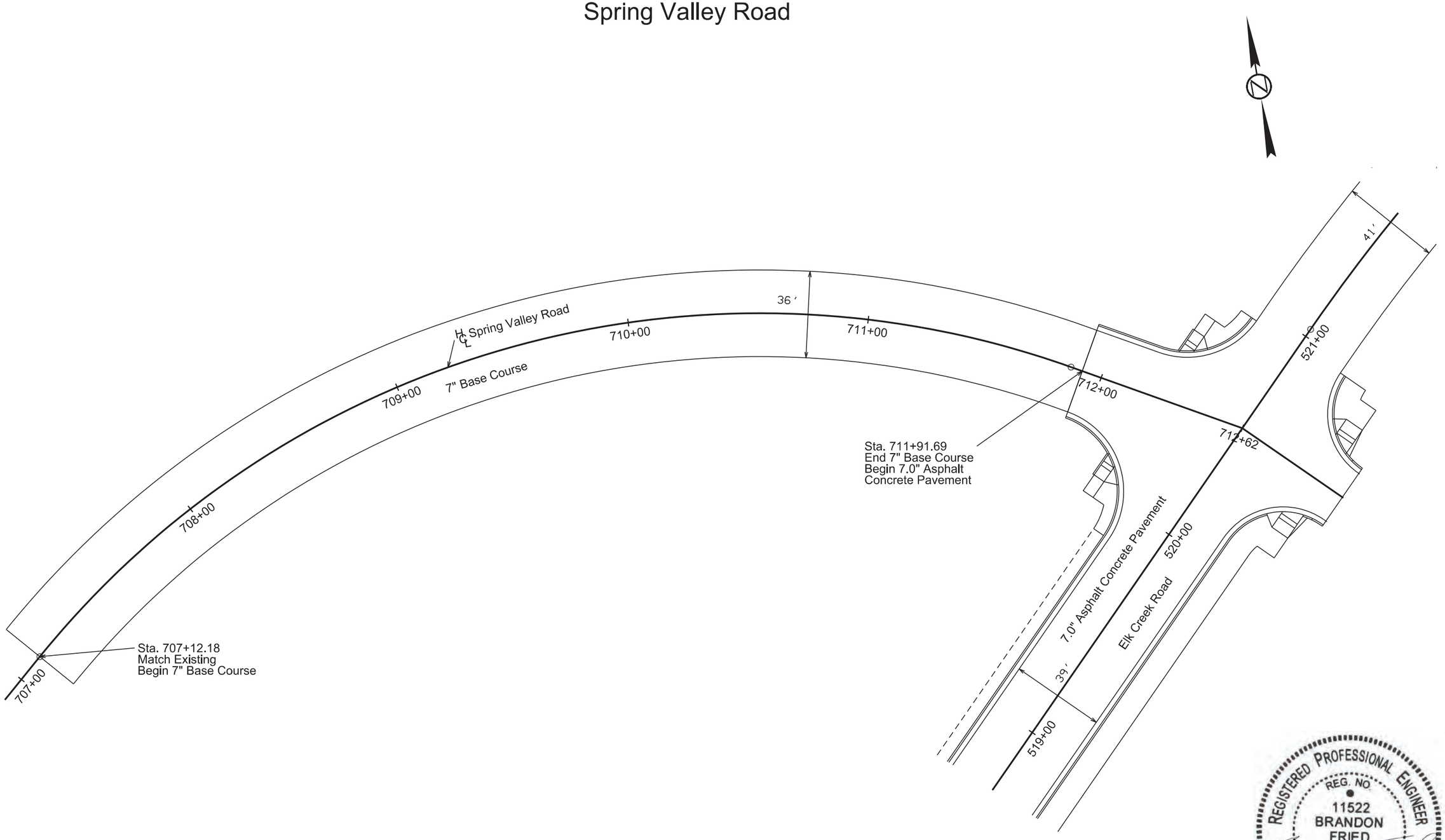
File - ...\Section F\Stur676f.dgn

SURFACING LAYOUT

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F83	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Spring Valley Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO.
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section FS\V708f1.dgn

SURFACING LAYOUT

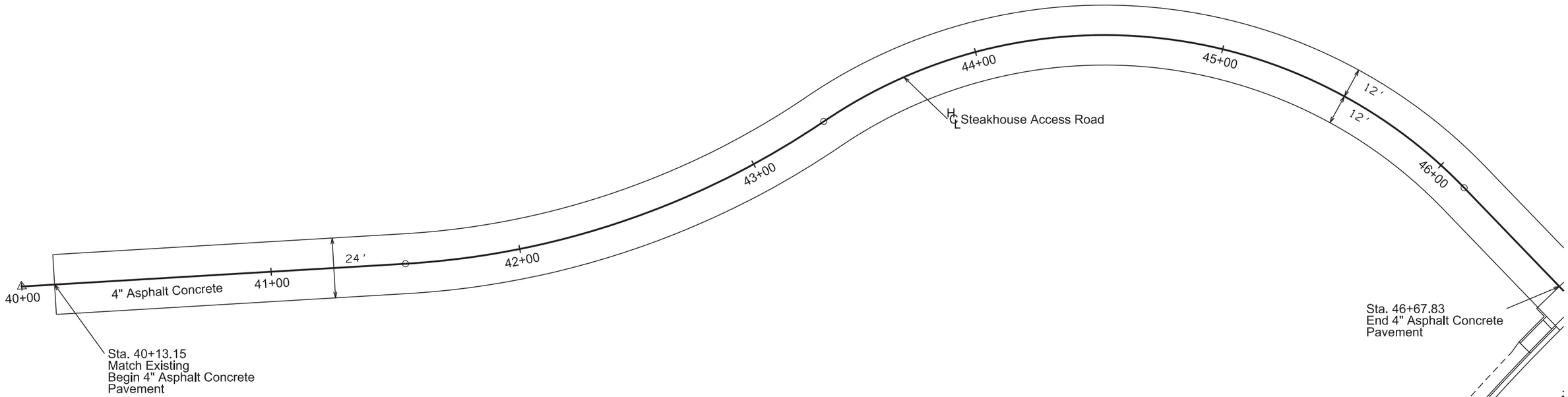
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F84	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Steakhouse Access Road



REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Sections\Section F\SHA040f.dgn

SURFACING LAYOUT

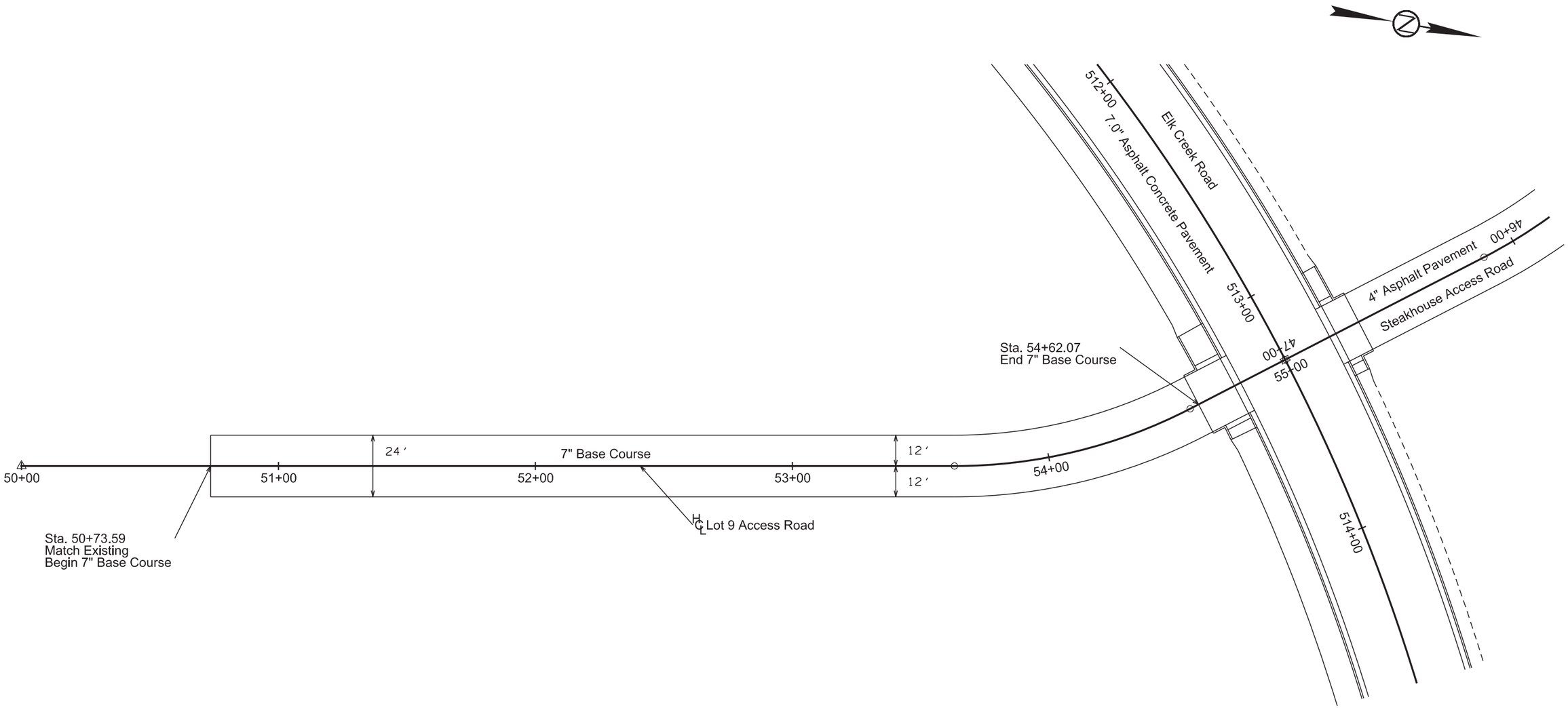
FOR BIDDING PURPOSES ONLY

KLJ

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM-CR-EM 0901(187)44	F85	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF

Lot 9 Access Road

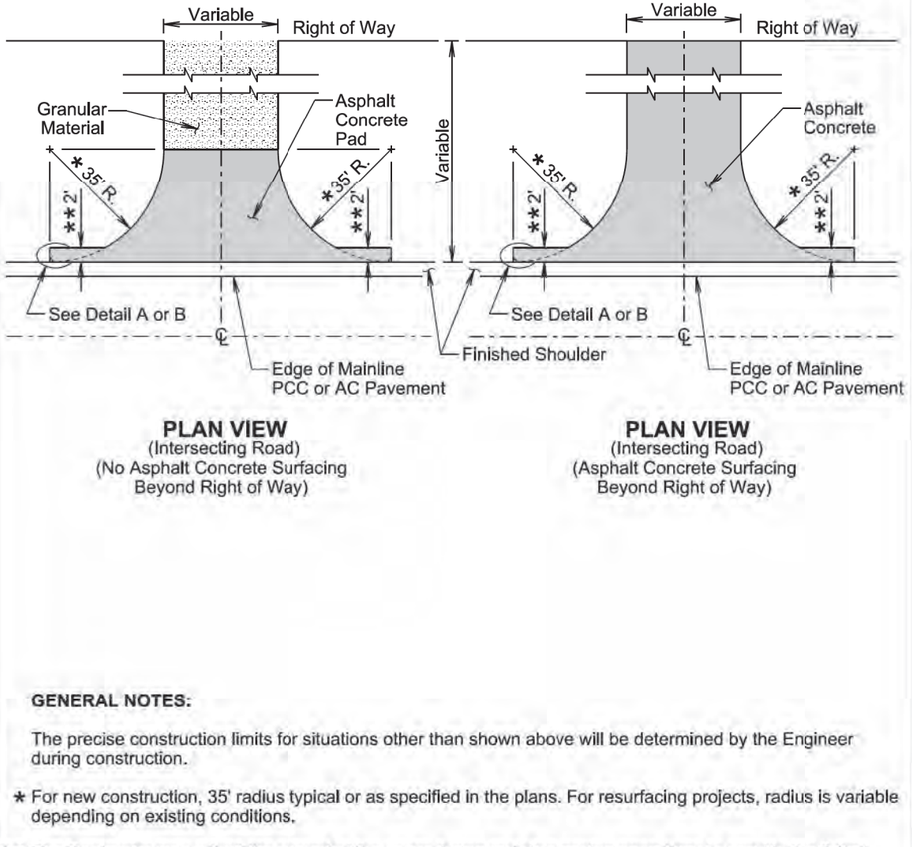


REGISTERED PROFESSIONAL ENGINEER
REG. NO
11522
BRANDON
FRIED
SOUTH DAKOTA
10/16/25

Plot Scale - 1:40

Plotted From - BrandonFried

File - ...\Section FILOT9_050f.dgn



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:

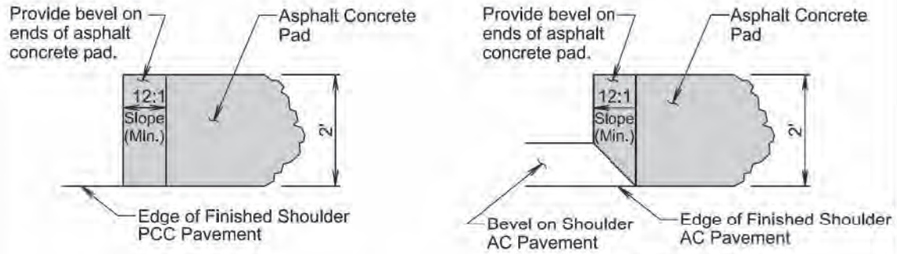
The precise construction limits for situations other than shown above will be determined by the Engineer during construction.

* 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.

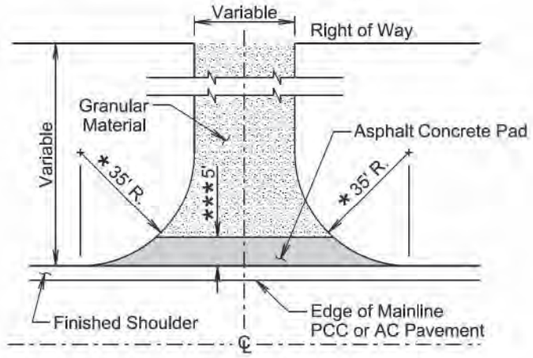
August 27, 2020

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

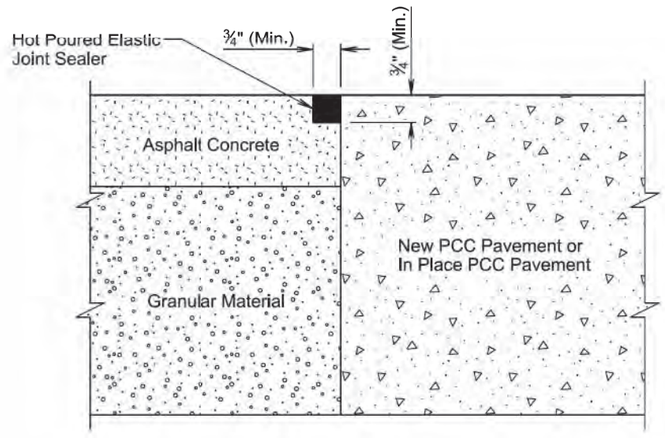


PLAN VIEW
(Entrance)

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

August 27, 2020

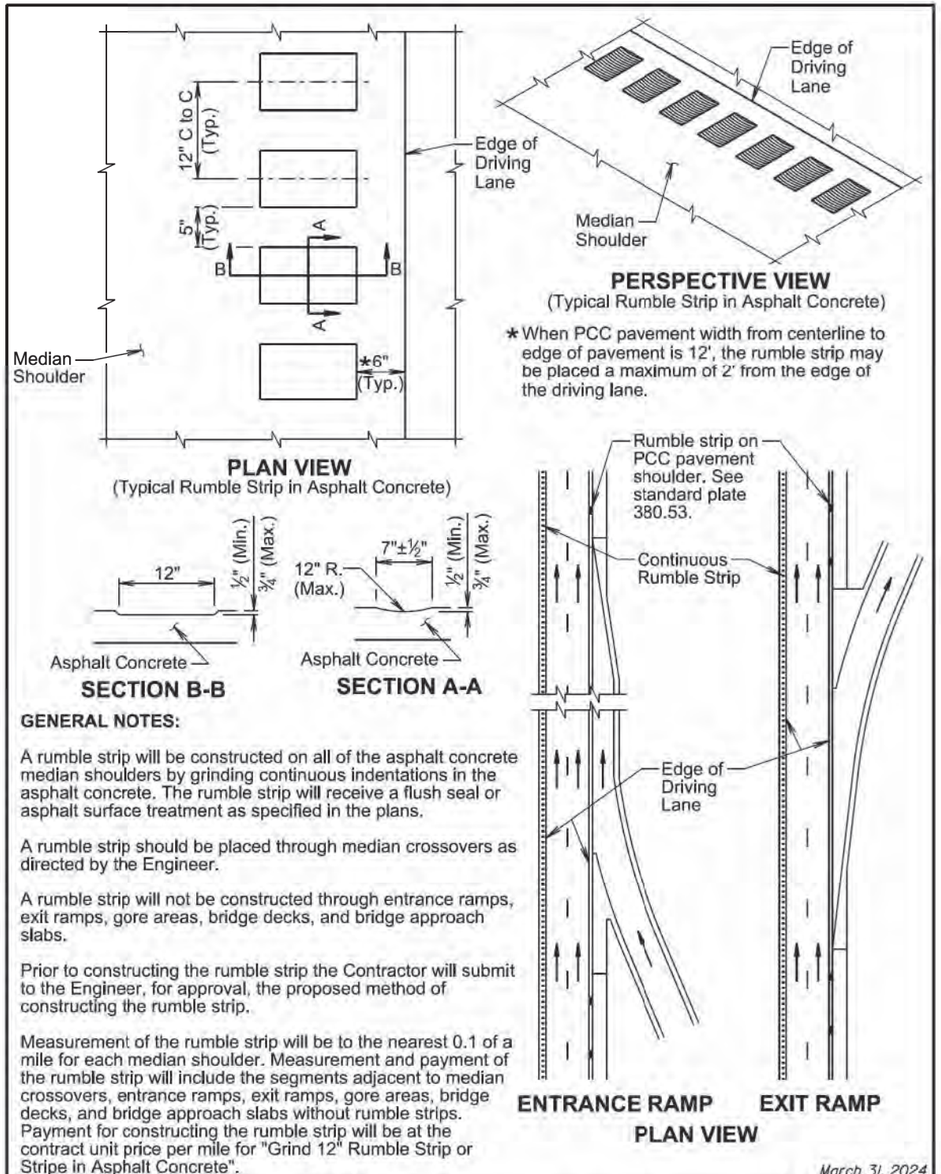
Published Date: 2026	SDDOT	SURFACING OR RESURFACING OF INTERSECTING ROADS AND ENTRANCES (MAINLINE AND SHOULDERS: PCC OR AC PAVEMENT)	PLATE NUMBER 320.04 Sheet 2 of 2



TRANSVERSE SECTION
(Asphalt Concrete Shoulder Joint)

September 14, 2019

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



PLAN VIEW
(Typical Rumble Strip in Asphalt Concrete)

PERSPECTIVE VIEW
(Typical Rumble Strip in Asphalt Concrete)

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

SECTION B-B

SECTION A-A

GENERAL NOTES:

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

A rumble strip should be placed through median crossovers as directed by the Engineer.

A rumble strip will not be constructed through entrance ramps, exit ramps, gore areas, bridge decks, and bridge approach slabs.

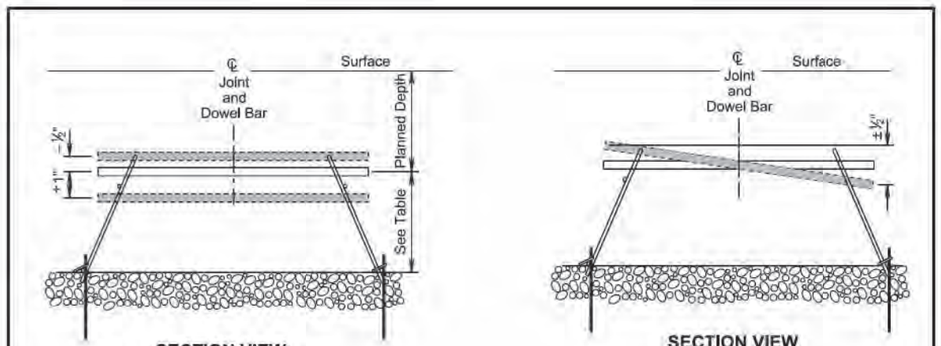
Prior to constructing the rumble strip the Contractor will submit to the Engineer, for approval, the proposed method of constructing the rumble strip.

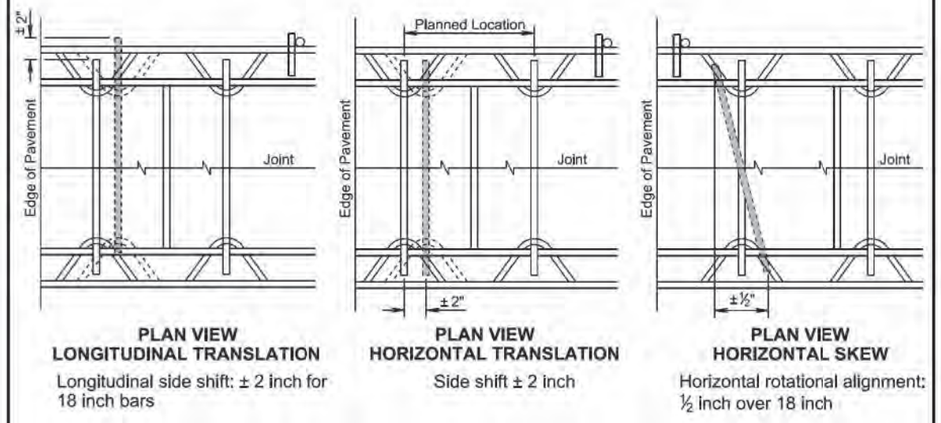
Measurement of the rumble strip will be to the nearest 0.1 of a mile for each median shoulder. Measurement and payment of the rumble strip will include the segments adjacent to median crossovers, entrance ramps, exit ramps, gore areas, bridge decks, and bridge approach slabs without rumble strips. Payment for constructing the rumble strip will be at the contract unit price per mile for "Grind 12" Rumble Strip or Stripe in Asphalt Concrete".

ENTRANCE RAMP **EXIT RAMP**
PLAN VIEW

March 31, 2024

Published Date: 2026	SDDOT	12" RUMBLE STRIP IN ASPHALT CONCRETE ON INTERSTATE MEDIAN SHOULDER	PLATE NUMBER 320.30 Sheet 1 of 1





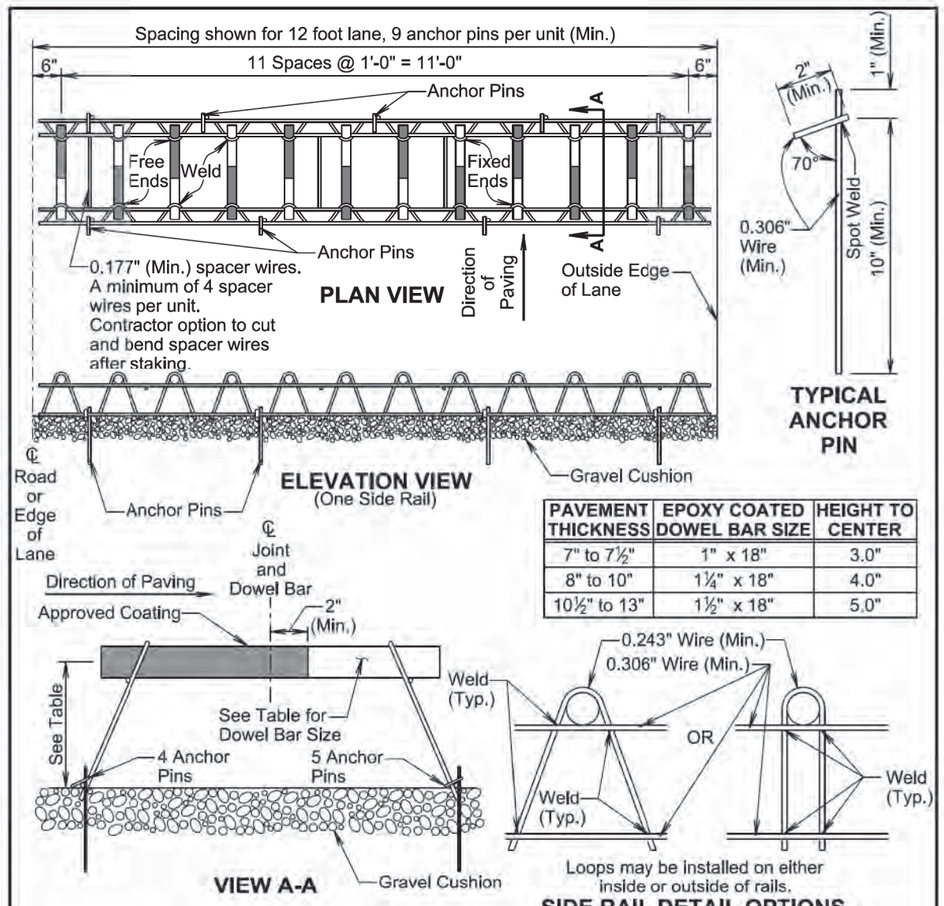
PAVEMENT THICKNESS	EPOXY COATED DOWEL BAR SIZE	HEIGHT TO CENTER
7" to 7½"	1" x 18"	3.0"
8" to 10"	1¼" x 18"	4.0"
10½" to 13"	1½" x 18"	5.0"

GENERAL NOTE:

The tolerances shown above represent the maximum deviation for acceptance of dowel bar placement.

November 19, 2022

Published Date: 2026	SDDOT	PCC PAVEMENT DOWEL BAR ALIGNMENT TOLERANCES	PLATE NUMBER 380.01 Sheet 1 of 1



PAVEMENT THICKNESS	EPOXY COATED DOWEL BAR SIZE	HEIGHT TO CENTER
7" to 7½"	1" x 18"	3.0"
8" to 10"	1¼" x 18"	4.0"
10½" to 13"	1½" x 18"	5.0"

GENERAL NOTES:

Longitudinal joint tie bars will be placed a minimum of 15 inches from the transverse contraction joint.

The transverse contraction joints will be sawed perpendicular to the centerline of the roadway. The transverse sawed joint will be centered over the dowel bars.

Supporting devices as shown on this sheet, or equivalent as approved by the Engineer, will be used to maintain proper horizontal and vertical alignment of the dowel bars.

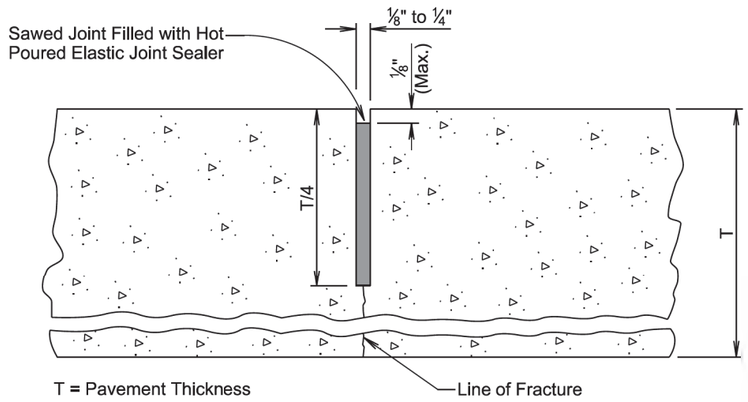
All dowel bar alignment tolerances will be as shown in the PCC Pavement Dowel Bar Alignment Tolerances standard plate.

November 19, 2022

Published Date: 2026	SDDOT	PCC PAVEMENT DOWEL BAR ASSEMBLY FOR TRANSVERSE CONTRACTION JOINTS 12 Bar Assembly on Granular Base Material	PLATE NUMBER 380.04 Sheet 1 of 1

KLJ	STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
		IM-CR-EM 0901(187)44	F89	F95

Plotting Date: 10/16/2025 Rev: 10/16/2025 BAF



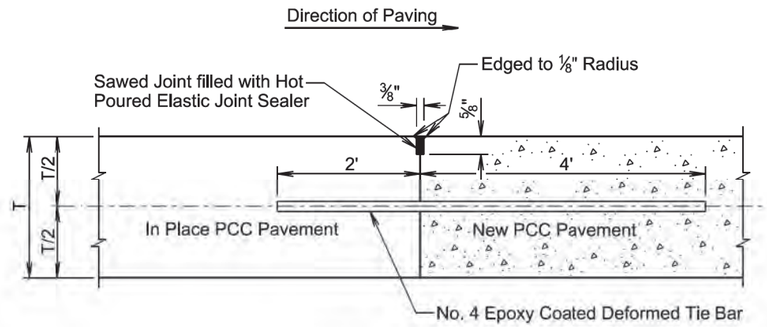
GENERAL NOTES:

If an early entrance saw cut does not develop the full transverse crack, then the saw cut to control cracking will be a minimum ¼ of the thickness of the pavement.

All hot poured elastic joint sealer material spilled on the surface of the concrete pavement will be removed as soon as the material has cooled. The extent of removal of material will be to the satisfaction of the Engineer. All costs for removal of the spilled joint sealer material will be borne by the Contractor.

November 19, 2022

Published Date: 2026	SDDOT	PCC PAVEMENT TRANSVERSE CONTRACTION JOINT WITH OR WITHOUT DOWEL BAR ASSEMBLY	PLATE NUMBER 380.12 Sheet 1 of 1



GENERAL NOTES:

No. 4 epoxy coated deformed tie bars will be spaced 12 inches center to center and will be a minimum of 3 inches and a maximum of 6 inches from the pavement edges.

The minimum distance between a transverse construction joint with tie bars and an adjacent transverse contraction joint will be 5 feet.

When a transverse construction joint is made, paving will not be allowed in this area for 12 hours.

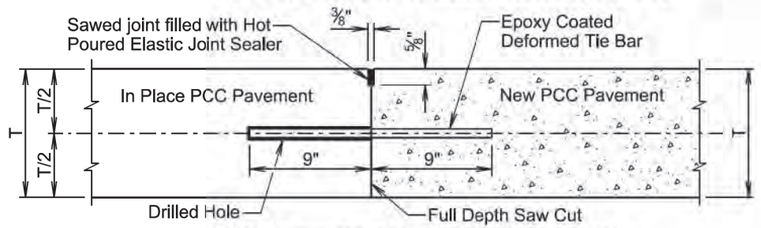
The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on the current project.

March 31, 2024

Published Date: 2026	SDDOT	PCC PAVEMENT MID PANEL TRANSVERSE CONSTRUCTION JOINT	PLATE NUMBER 380.14 Sheet 1 of 1

Plot Scale - 1:200
Plotted From - BrandonFried
File - ...\Section Fls\38012_s38014.dgn

DETAIL A
TRANSVERSE CONSTRUCTION JOINT WITH TIE BARS



T = In Place PCC Pavement and New PCC Pavement Thickness

GENERAL NOTES:

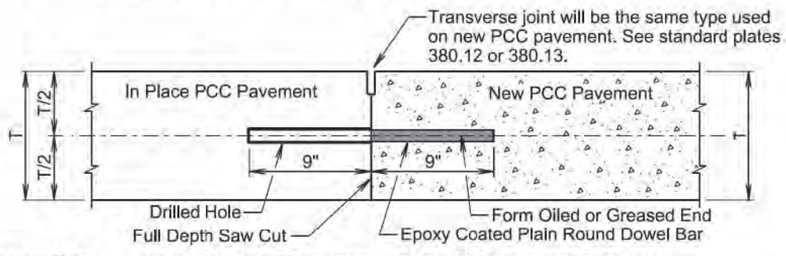
The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project.

See sheet 2 of 2 of this standard plate to determine if Detail A will be used.

The tie bars will be embedded a minimum depth of 9 inches into the in place PCC pavement and anchored with an epoxy resin adhesive or a non-shrink grout.

No. 9 epoxy coated deformed tie bars will be used in 10 inch thickness and less PCC Pavement and No. 11 epoxy coated deformed tie bars will be used in 10.5 inch thickness and greater PCC Pavement. The tie bar spacing will be 18 inches center to center and will be a minimum of 3 inches and a maximum of 9 inches from the pavement edges.

DETAIL B
TRANSVERSE CONSTRUCTION JOINT WITH DOWEL BARS



GENERAL NOTES: T = In Place PCC Pavement and New PCC Pavement Thickness

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project or current project.

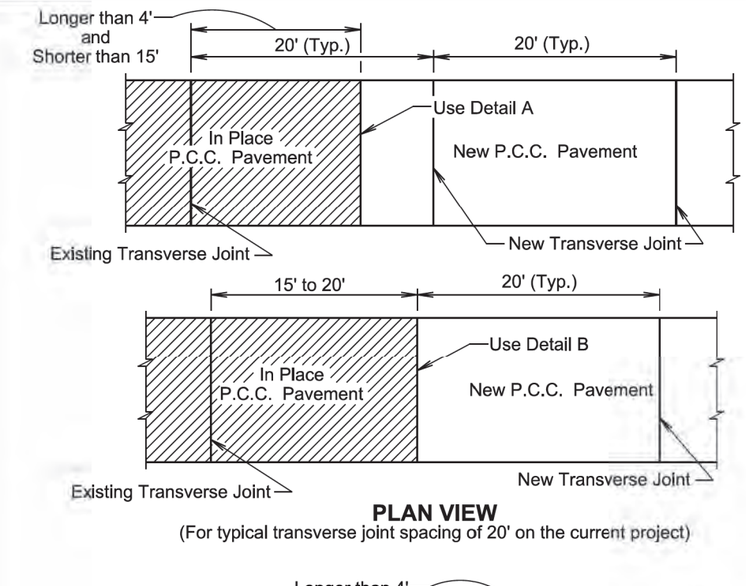
See sheet 2 of 2 of this standard plate to determine if Detail B will be used.

The plain round dowel bars will be embedded a minimum depth of 9 inches into the in place PCC pavement and anchored with an epoxy resin adhesive or a non-shrink grout.

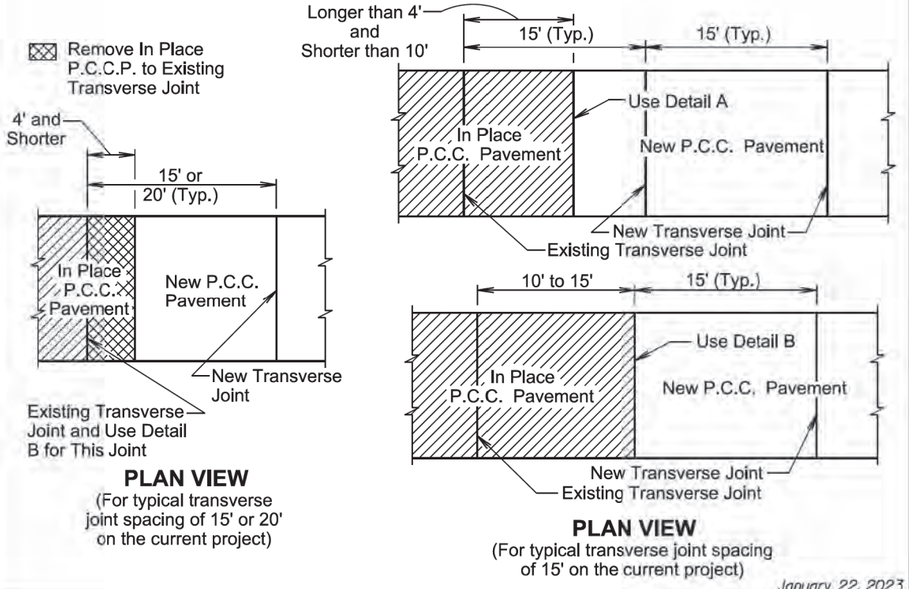
The epoxy coated plain round dowel bar size, number, and spacing will be the same as detailed on the corresponding dowel bar assembly standard plate (380.04, 380.05, 380.06, or 380.07). The epoxy coated plain round dowel bars will be a minimum of 3 inches and a maximum of 6 inches from the pavement edges.

January 22, 2023

Published Date: 2026	SDDOT	PCC PAVEMENT TRANSVERSE CONSTRUCTION JOINTS WITH TIE BARS OR DOWEL BARS	PLATE NUMBER 380.15
			Sheet 1 of 2



PLAN VIEW
(For typical transverse joint spacing of 20' on the current project)



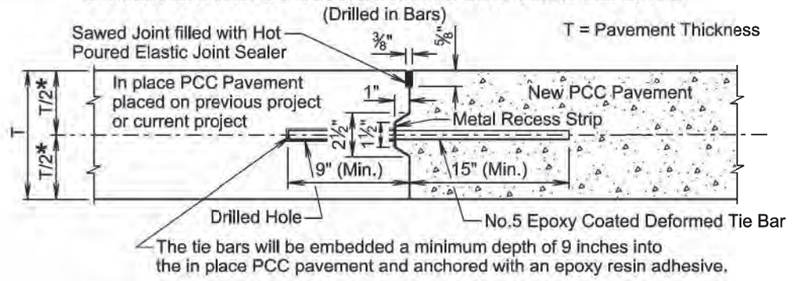
PLAN VIEW
(For typical transverse joint spacing of 15' or 20' on the current project)

PLAN VIEW
(For typical transverse joint spacing of 15' on the current project)

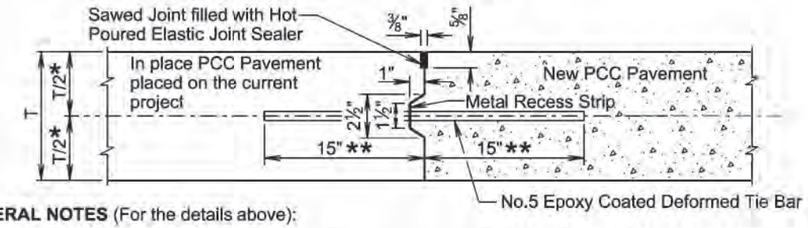
January 22, 2023

Published Date: 2026	SDDOT	PCC PAVEMENT TRANSVERSE CONSTRUCTION JOINTS WITH TIE BARS OR DOWEL BARS	PLATE NUMBER 380.15
			Sheet 2 of 2

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
(Drilled in Bars)



LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS
(Inserted or Formed in Bars)



GENERAL NOTES (For the details above):

The epoxy coated deformed tie bars will be spaced in accordance with the following tables:

TIE BAR SPACING 48" MAXIMUM	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

TIE BAR SPACING 30" MAXIMUM	
Transverse Contraction Joint Spacing	Number of Tie Bars
5' to 7'	2
7.5' to 9.5'	3
10' to 12'	4
12.5' to 14.5'	5
15' to 17'	6
17.5' to 19.5'	7
20' to 22'	8

The tie bars will be placed a minimum of 15 inches from transverse contraction joints.

The required number of tie bars as shown in the table will be uniformly spaced within each panel. The uniformly spaced tie bars will be spaced a maximum of 48 inches center to center for a female keyway and will be spaced a maximum of 30 inches center to center for a vertical face and male keyway. The maximum tie bar spacing will apply to tie bars within each panel.

The keyway illustrated in the above details depict a female keyway.

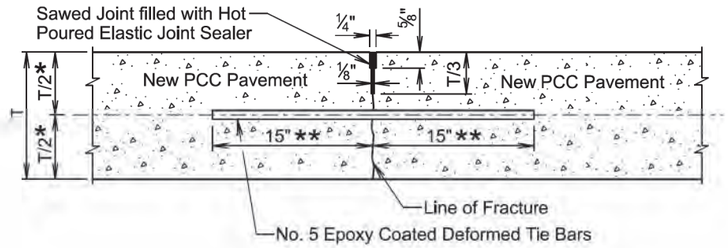
The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip will be used. When concrete pavement is slip formed, a metal recess strip is not required.

* The vertical placement tolerance for any part of the tie bar will be ± T/6.
** The transverse placement (side shift) tolerance will be ± 3 inches when measured perpendicular to the longitudinal joint line.

November 19, 2022

Published Date: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.20 Sheet 1 of 2

SAWED LONGITUDINAL JOINT WITH TIE BARS
(Poured Monolithically)



T = Pavement Thickness

GENERAL NOTES (For the detail above):

The epoxy coated deformed tie bars will be spaced in accordance with the following table:

TIE BAR SPACING 48" MAXIMUM	
Transverse Contraction Joint Spacing	Number of Tie Bars
6.5' to 10'	2
10.5' to 14'	3
14.5' to 18'	4
18.5' to 22'	5

The tie bars will be placed a minimum of 15 inches from the transverse contraction joints.

The required number of tie bars as shown in the table will be uniformly spaced within each panel with a maximum space of 48 inches center to center. The maximum tie bar spacing will apply to tie bars within each panel.

The first saw cut to control cracking will be a minimum of 1/3 the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer is necessary.

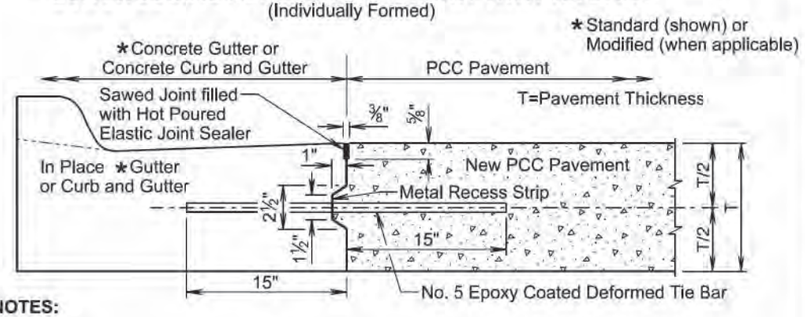
* The vertical placement tolerance for any part of the tie bar will be ± T/6.
** The transverse placement (side shift) tolerance will be ± 3 inches when measured perpendicular to the longitudinal joint line.

November 19, 2022

Published Date: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITH TIE BARS	PLATE NUMBER 380.20 Sheet 2 of 2

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS

(Individually Formed)



GENERAL NOTES:

No. 5 epoxy coated deformed tie bars will be spaced 48 inches center to center. The tie bars will be placed a minimum of 15 inches from existing transverse contraction joints. The keyway shown above is a female keyway.

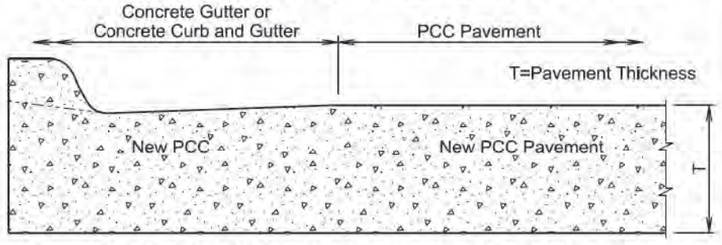
The keyway is optional and is not required. When concrete pavement is formed and a keyway is provided, a metal recess strip will be used. When concrete pavement is slip formed, a metal recess strip is not required.

The transverse contraction joints in the concrete gutter or concrete curb and gutter will be placed at each mainline PCC pavement transverse contraction joint. The transverse contraction joints in the concrete gutter or the concrete curb and gutter will be 1½ inches deep if formed in fresh concrete using a suitable grooving tool. If a saw is used to cut the transverse contraction joints, then the depth of the joint will be at least ¼ the thickness of the concrete gutter or concrete curb and gutter.

Standard curb and gutter may not be placed monolithically with PCC pavement if the mainline lane width is greater than 12 feet.

The term "In Place ★Gutter or Curb and Gutter" in the above drawing indicates that the in place ★concrete gutter and concrete curb and gutter was placed on the current project.

POURED MONOLITHICALLY (Standard Concrete Curb and Gutter)



GENERAL NOTES:

The mainline curb and gutter may be placed monolithically with the PCC pavement if the mainline lane width is less than or equal to 12 feet. If this method of construction is used, the tie bars and the sawed joint between the curb and gutter and the PCC pavement will be eliminated.

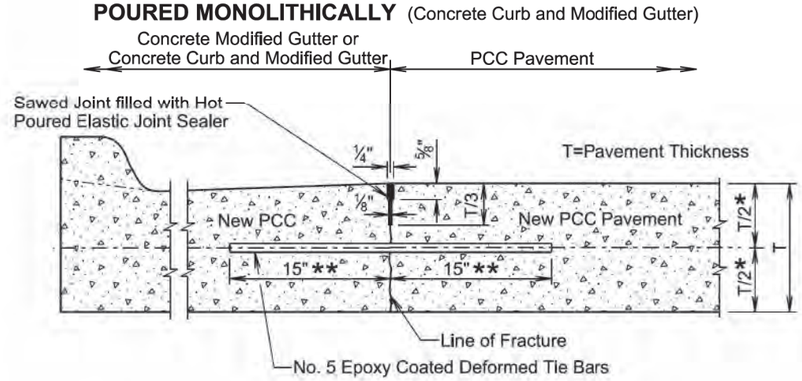
The gutter or curb and gutter will be sawed transversely at each mainline transverse contraction joint. The transverse contraction joints in the gutter or curb and gutter will be sawed and sealed same as the transverse contraction joints in the PCC pavement.

The slope of the gutter will be the slope designated for the type of gutter or curb and gutter to be constructed. The bottom slope of the gutter or curb and gutter will be constructed at the same slope as the mainline concrete pavement.

March 31, 2024

Published Date: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL CONSTRUCTION JOINTS WITH CONCRETE GUTTER OR CONCRETE CURB AND GUTTER	PLATE NUMBER 380.21 Sheet 1 of 2

POURED MONOLITHICALLY (Concrete Curb and Modified Gutter)



GENERAL NOTES:

No. 5 epoxy coated deformed tie bars will be spaced 48 inches center to center.

The tie bars will be placed a minimum of 15 inches from existing transverse contraction joints.

The mainline curb and modified gutter may be placed monolithically with the PCC pavement if the mainline lane width is less than or equal to 14 feet.

The first saw cut to control cracking will be a minimum of 1/3 the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer is necessary.

The gutter or curb and gutter will be sawed transversely at each mainline transverse contraction joint. The transverse contraction joints in the gutter or curb and gutter will be sawed and sealed same as the transverse contraction joints in the PCC pavement.

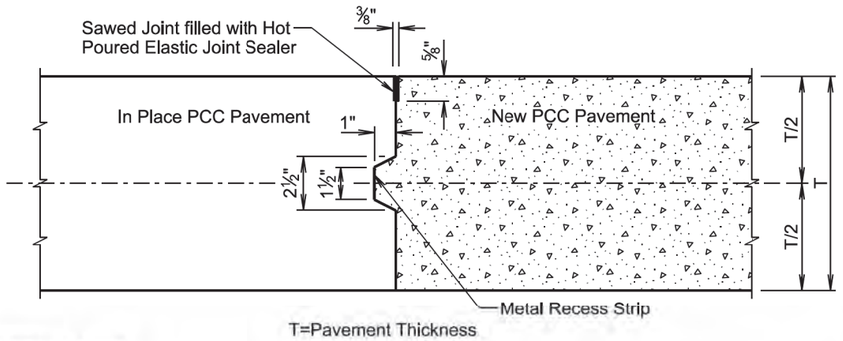
The slope of the gutter will be the slope designated for the type of gutter or curb and gutter to be constructed. The bottom slope of the gutter or curb and gutter will be constructed at the same slope as the mainline concrete pavement.

★ The vertical placement tolerance for any part of the tie bar will be ± T/6.
★★ The transverse placement (side shift) tolerance will be ± 3 inches when measured perpendicular to the longitudinal joint line.

March 31, 2024

Published Date: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL CONSTRUCTION JOINTS WITH CONCRETE GUTTER OR CONCRETE CURB AND GUTTER	PLATE NUMBER 380.21 Sheet 2 of 2

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS



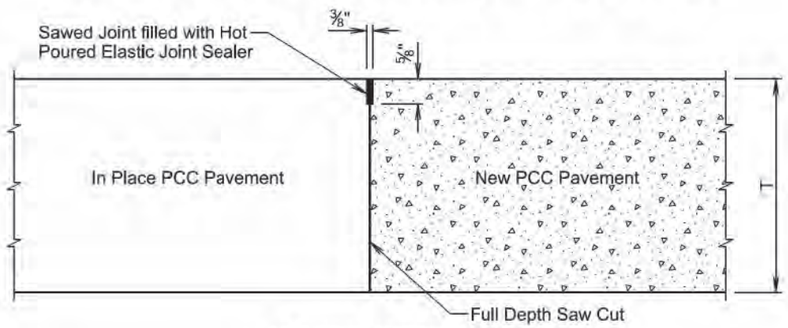
T=Pavement Thickness

GENERAL NOTES:

When concrete pavement is formed and a keyway is provided, a metal recess strip will be used. When concrete pavement is slip formed, a metal recess strip is not required.

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on the current project.

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS



T=Pavement Thickness

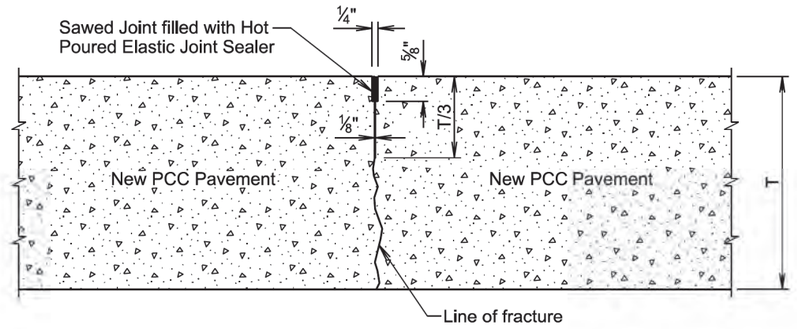
GENERAL NOTE:

The term "In Place PCC Pavement" in the above drawing indicates that the in place PCC pavement was placed on a previous project.

November 19, 2022

Published Date: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITHOUT TIE BARS	PLATE NUMBER 380.22
			Sheet 1 of 2

SAWED LONGITUDINAL JOINT WITHOUT TIE BARS



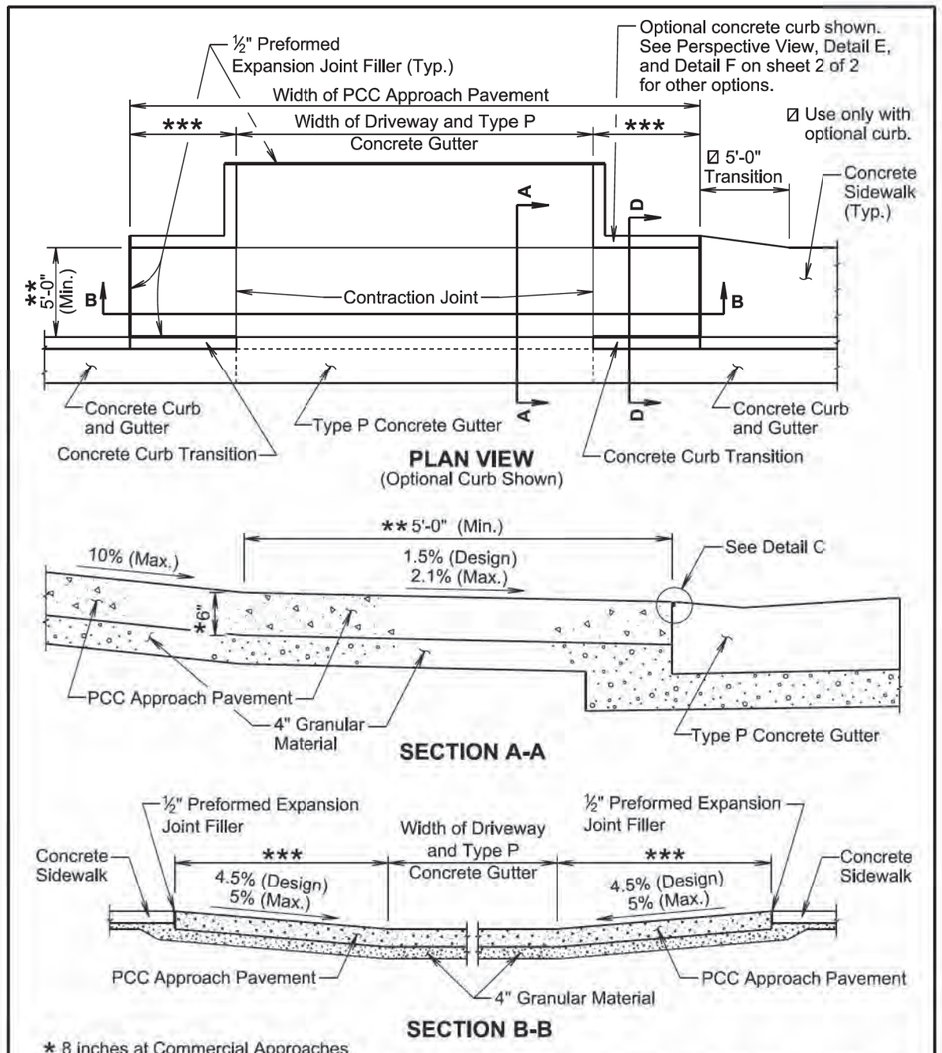
T=Pavement Thickness

GENERAL NOTE:

The first saw cut to control cracking will be a minimum of ⅓ the thickness of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot poured elastic joint sealer will be necessary.

November 19, 2022

Published Date: 2026	SDDOT	PCC PAVEMENT LONGITUDINAL JOINTS WITHOUT TIE BARS	PLATE NUMBER 380.22
			Sheet 2 of 2



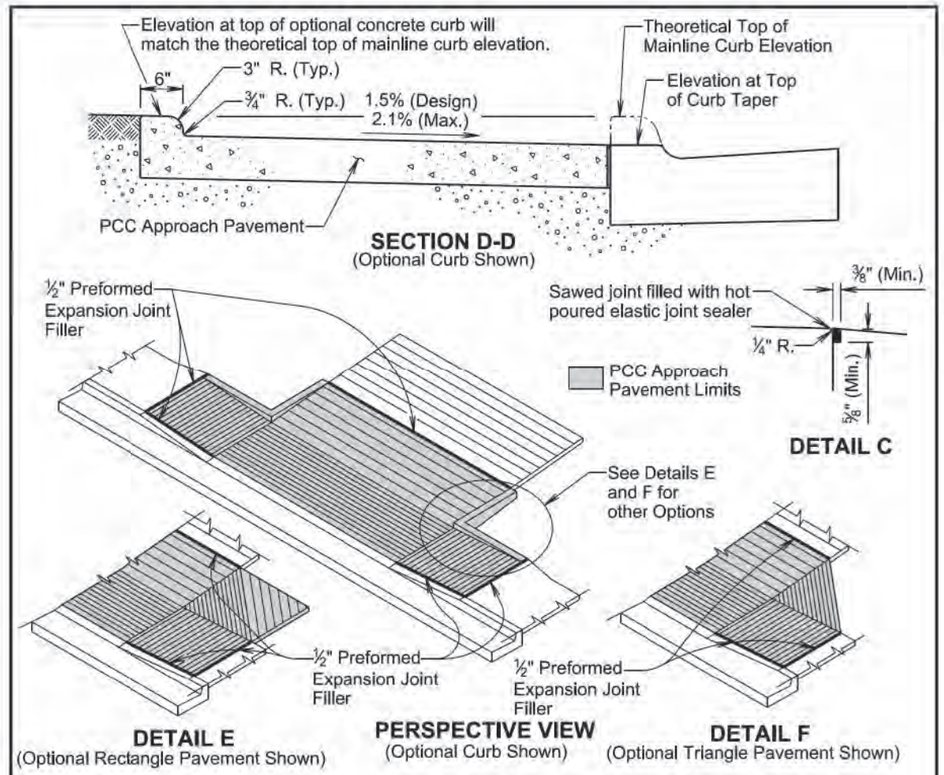
* 8 inches at Commercial Approaches

** Sidewalk width is 5 feet unless specified otherwise in the plans. The cross slope of the sidewalk is designed at 1.5% and will not be steeper than 2.1% unless specified otherwise in the plans.

*** The slope of the type B PCC approach pavement in these areas will match the slope of the concrete curb transition. The slope is designed at 4.5% and will not be steeper than 5% unless specified otherwise in the plans.

April 8, 2025

Published Date: 2026	SDDOT	TYPE B PCC APPROACH PAVEMENT	PLATE NUMBER 380.41
			Sheet 1 of 2



GENERAL NOTES:

Use the plan specified option for the pavement adjacent to the driveway and sidewalk. The options are shown above in the Perspective View, Detail E, and Detail F.

The concrete for the type B PCC approach pavement and adjacent driveway will comply with the requirements of the Specifications for class M6 concrete unless otherwise stated in the plans.

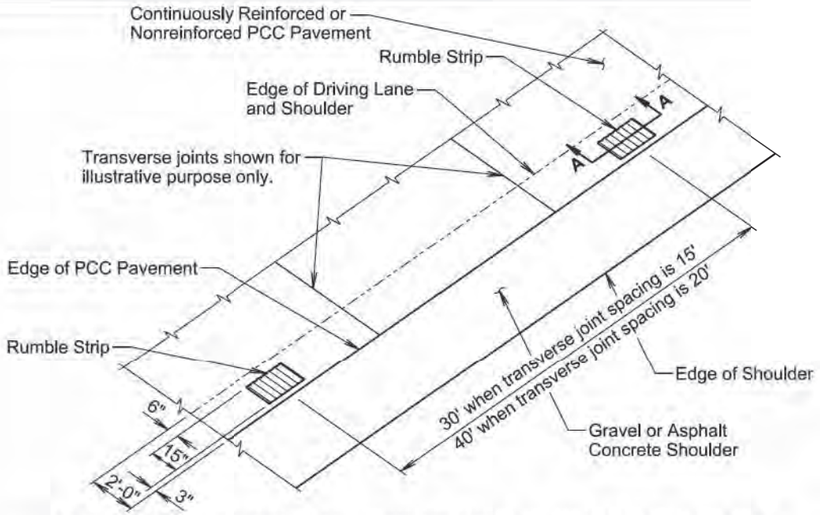
Contraction joints in the type B PCC approach pavement will be 1½ inches deep if formed in the fresh concrete using a suitable grooving tool. If a saw is used to cut the contraction joints, then the depth of the joint will be at least ¼ the thickness of the approach pavement. Additional contraction joints not shown in the Plan View will be spaced as follows:

One joint at the center of the approach for driveways 16 feet to 24 feet wide.
Two joints spaced at equal intervals for driveways greater than 24 feet to 40 feet wide.

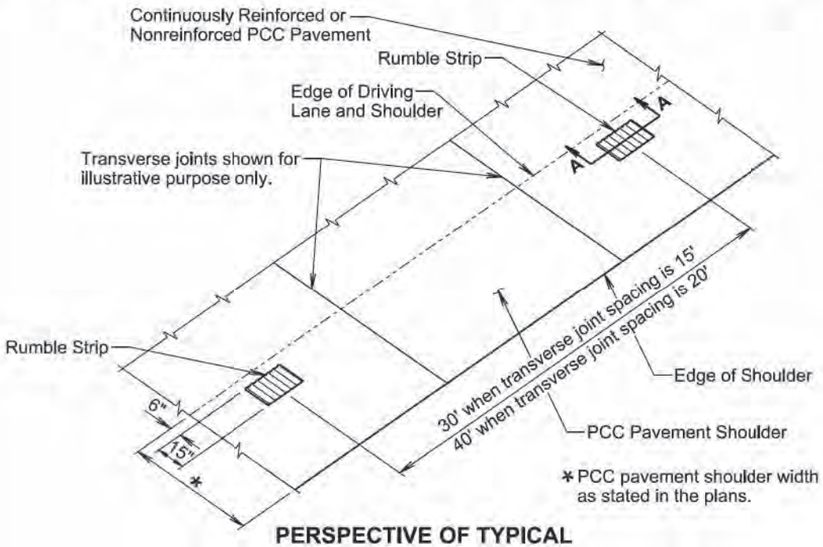
All costs for furnishing and placing the type B PCC approach pavement and constructing the expansion and contraction joints including labor, equipment, excavation, and materials including the earthen backfill and granular material will be incidental to the contract unit price per square yard for the corresponding PCC Approach Pavement contract item.

April 8, 2025

Published Date: 2026	SDDOT	TYPE B PCC APPROACH PAVEMENT	PLATE NUMBER 380.41
			Sheet 2 of 2



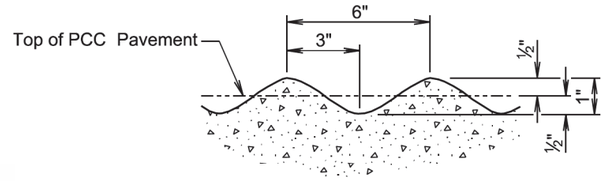
PERSPECTIVE OF TYPICAL RUMBLE STRIPS ON PCC PAVEMENT SHOULDER ADJACENT TO GRAVEL OR ASPHALT CONCRETE SHOULDER



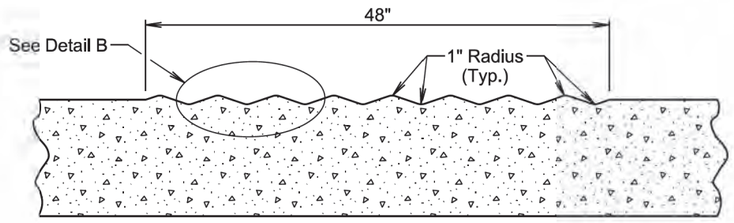
PERSPECTIVE OF TYPICAL RUMBLE STRIPS ON PCC PAVEMENT SHOULDER

November 19, 2022

Published Date: 2026	SDDOT	RUMBLE STRIP ON PCC PAVEMENT SHOULDER	PLATE NUMBER 380.53
			Sheet 1 of 2



DETAIL B



SECTION A-A

GENERAL NOTES:

The rumble strips will be evenly spaced and will not coincide with any transverse contraction joints.

The rumble strips will NOT be placed along areas adjacent to entrance ramps, exit ramps, and gore areas.

Payment for constructing the PCC Pavement Rumble Strips will be incidental to the contract unit price per square yard for the corresponding PCC Pavement contract item.

November 19, 2022

Published Date: 2026	SDDOT	RUMBLE STRIP ON PCC PAVEMENT SHOULDER	PLATE NUMBER 380.53
			Sheet 2 of 2