

SECTION 905 -- PROPOSAL (CONTINUED)

I (We) hereby certify by digital signature and electronic submission via Bid Express of the Section 905 proposal below, that all certifications, disclosures and affidavits incorporated herein are deemed to be duly executed in the aggregate, fully enforceable and binding upon delivery of the bid proposal. I (We) further acknowledge that this certification shall not extend to the bid bond or alternate security which must be separately executed for the benefit of the Commission. This signature does not cure deficiencies in any required certifications, disclosures and/or affidavits. I (We) also acknowledge the right of the Commission to require full and final execution on any certification, disclosure or affidavit contained in the proposal at the Commission's election upon award. Failure to so execute at the Commission's request within the time allowed in the Standard Specifications for execution of all contract documents will result in forfeiture of the bid bond or alternate security.

Bidder acknowledges receipt of and has added to and made a part of the proposal and contract documents the following addendum (addenda):

ADDENDUM NO. <u> 1 </u>	DATED <u> 4/19/2021 </u>	ADDENDUM NO. _____	DATED _____
ADDENDUM NO. _____	DATED _____	ADDENDUM NO. _____	DATED _____
ADDENDUM NO. _____	DATED _____	ADDENDUM NO. _____	DATED _____

Number	Description
1	Revised Notice To Bidders No. 3203; Amendment EBSx Download Required.

TOTAL ADDENDA: 1
(Must agree with total addenda issued prior to opening of bids)

Respectfully Submitted,

DATE _____

Contractor

BY _____
Signature

TITLE _____

ADDRESS _____

CITY, STATE, ZIP _____

PHONE _____

FAX _____

E-MAIL _____

(To be filled in if a corporation)

Our corporation is chartered under the Laws of the State of _____ and the names, titles and business addresses of the executives are as follows:

_____ President	_____ Address
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_____ Secretary	_____ Address
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_____ Treasurer	_____ Address
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The following is my (our) itemized proposal.

SP-0003-01(203)/ 108278301000

Jackson County(ies)

Revised 01/26/2016

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3203

CODE: (SP)

DATE: 4/19/2021

SUBJECT: Scope of Work

PROJECT: SP-0003-01(203) / 108278301 – Jackson County

The contract documents do not include an official set of construction plans but may, by reference, include some Standard Drawings when so specified in a Notice to Bidders entitled, “Standard Drawings”. All other references to plans in the contract documents and Standard Specifications for Road and Bridge Construction are to be disregarded.

Work on the project shall consist of milling and overlaying US 90 from SR 57 to the West Pascagoula Bridge as follows.

GENERAL CONDITIONS

- (A) All work requiring a lane closure within the limits of SR 57 and the West Pascagoula Bridge shall be restricted to Sunday through Thursday between the hours of 5:00 PM to 4:30 AM. Changes or variances from these restrictions shall be submitted to the Project Engineer for review and written approval. A lane rental fee of \$1,500.00 per full or partial 5-minute period shall be assessed for closures or obstructions that extend beyond the times mentioned above. No exposed signs shall be viewable to the traveling public prior to or after the above-mentioned times. No part of a closure, including drums or cones, shall be in the roadway prior to or after the above-mentioned times. Work requiring a shoulder or lane closure shall begin within one (1) hour of the completion of the closure setup. Lane closures will be allowed only at times when work requiring a lane closure is underway. Failure to begin working within this 1-hour period will result in the Contractor being assessed a lane rental fee of \$1,500.00 for each full or partial 5-minute period until work has begun.
- (B) Prior to the overlay, centerline alignment shall be determined by the Contractor by measuring the existing roadway at 500-foot intervals in tangent sections and 100-foot intervals in horizontal curves.
- (C) A uniform cross slope of $\pm 2\%$ in tangent sections and correction/maintenance of super elevation in the curves is required. Super-elevation rates shall be in accordance with the super elevation Standard Drawings.
- (D) Temporary stripe along the mainline, as well as temporary detail stop bars of all intersecting local roads shall be placed on the asphalt surface upon the completion of each lift of mainline operations. Temporary and permanent striping shall be placed where existing stripes are located, and shall conform to finished stripe specifications for

alignment, neatness, reflectivity, and straightness. All permanent pavement markings on asphalt are to be hot thermoplastic. Edge lines will be placed so as to maintain the original lane width.

- (E) It will be the responsibility of the Contractor to protect existing structures such as pipes, inlets, bridges, aprons, etc. from damage which might occur during construction. The Contractor shall replace or repair, as directed by the Project Engineer, any structures damaged by the Contractor's operations during the life of the contract. No payment will be made for the replacement or repair of damaged items.
- (F) The Contractor shall erect and maintain construction signing, and provide all signs and traffic handling devices in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
- (G) Incidental work such as removing vegetation, shaping and compaction of shoulder, removing excess asphalt material, project clean-up, and other incidental work necessary to complete the project will not be measured for separate payment, but will be included in other bid items.
- (H) If pavement section marking tape is encountered on this project, it shall be located prior to overlaying and placed back in same location after paving operations have ceased. The section marking shall be 8-inch high performance cold plastic detail stripe and shall be four feet (4') in length. The marking shall be centered across the centerline stripe. The cost of this item shall be absorbed in other bid items.
- (I) The Contractor shall mill around all castings, gratings, and other utility appurtenances to ensure that the newly placed asphalt matches the existing grade.

RESURFACING 6.73 MILES OF US Hwy 90
From SR 57 to West Pascagoula Bridge

Drainage Items

The Contractor shall:

1. Remove debris and sand from 24" and 36" pipes under US 90 East and West bound lanes between Shaw Drive and Guillotte Drive.
2. Video inspect 24" and 36" pipes under US 90 East and West bound lanes.
3. Construct 24" and 36" Cured-In-Place Pipe under US 90 East and West bound lanes.

Pavement Items

Fine Milling Areas

1. Traffic will only be allowed to travel on fine milled surface for a maximum of five (5) days.
2. All milling shall become property of the Contractor.

3. Both the east and west bound lanes shall be fine milled from the BOP through the intersection of US 90 and SR 57 to a depth of 2". This shall include fine milling along SR 57 and around concrete islands. The Contractor shall fine mill a 150-foot long transition from 2" to 0" just east of the intersection. (9,380 SY on US 90, 5,403 SY on SR 57 North, and 5,080 SY on SR 57 South)
4. Both the east and west bound lanes shall be fine milled at the intersection of US 90 and Ladnier Road to a depth of 2". This shall include a 150-foot transition from 0" to 2" before the start of the curb and gutter located on the south side of the east bound lane of US 90. This shall also include a 150-foot transition from 2" to 0" beginning at the end of the island located in the median on the east side of Ladnier Road. The area to be fine milled shall include Ladnier Road. (12,729 SY)
5. The outside shoulders that have curb and gutter from Ladnier Road to the crossover just west of Mary Walker Drive shall be fine milled. The depth of the milling at the edge of the travel lane shall be 0". The depth of the milling located at the curb and gutter shall be 1½".

Location	SY
East Bound Shoulder between Ladnier to Jo Beth Terrace	1,382
East Bound Shoulder between Shaw to passed C&G area	619
West Bound Shoulder between Ladnier to Shamrock Ct	735
West Bound Shoulder between Shamrock Cr to De La Pointe Drive	4,556
West Bound Shoulder between Shaw to Guillotte Drive	1,665
West Bound Shoulder between Guillotte Drive and Crossover west of Mary Walker Drive	1,124

6. The east and west bound lanes including shoulders and crossovers shall be fine milled from the crossover west of Mary Walker Road to the West Pascagoula Bridge to a depth of 2". This shall include a 150-foot transition from 0" to 2" before the start of the curb and gutter located in the first crossover west of Mary Walker Road. (37,948 SY)
7. Channelize intersections and local road tie-ins shall be fine milled to a depth of 1½". (17,403 SY)
8. All service roads shall be fine milled to a depth of 1½". (12,454 SY)

Asphalt Pavement

1. Prior to overlaying US 90 Mainline and SR 57 Mainline, a leveling course of ¾" of Ultra-Thin Asphalt Pavement shall be placed from BOP to EOP. (12,060 tons).
2. US 90 Mainline and SR 57 Mainline shall be overlaid with 1¼" of 9.5-mm, HT, asphalt. (20,100 tons).
3. A 2' wide and 3" deep trench widening shall be placed on both sides of all crossovers that do not have curb and gutter using 9.5-mm, ST, asphalt. The Contractor shall complete the trench widening operation in concurrence with the asphalt lift outlined in part (4)
4. Crossovers shall be overlaid with 1½" of 9.5-mm, ST, asphalt. This lift shall be placed in concurrence with the trench widening as outlined in part (3). (3,780 Tons)

- 5. Turn lanes, shoulders, side roads, driveway pads, and service roads shall be overlaid with 1½” of 9.5-mm, ST, asphalt (Turn Lanes & Shoulders – 6,480 Tons, Side Roads & Driveway Pads – 1,940 Tons, Service Roads – 1,408 Tons)
- 6. Shoulders shall be raised with crushed stone to match new asphalt pavement edge.
- 7. If water stands when project is complete, the Contractor shall correct at no additional cost to the State.

Pavement Marking Items

- 1. Temporary stripe shall be placed after each day’s operation.
- 2. Regardless of the spacing shown on sheet PM-1, raised pavement markers shall be placed along the centerline of roadway at 40-foot intervals. Only flexible adhesive meeting the requirements of Subsection 720.03.7.7 shall be used for placement of raised pavement markers.
- 3. Rumble strips shall be required along US 90 from SR 57 to crossover just east of Shell Landing Blvd.

Traffic Signal Items

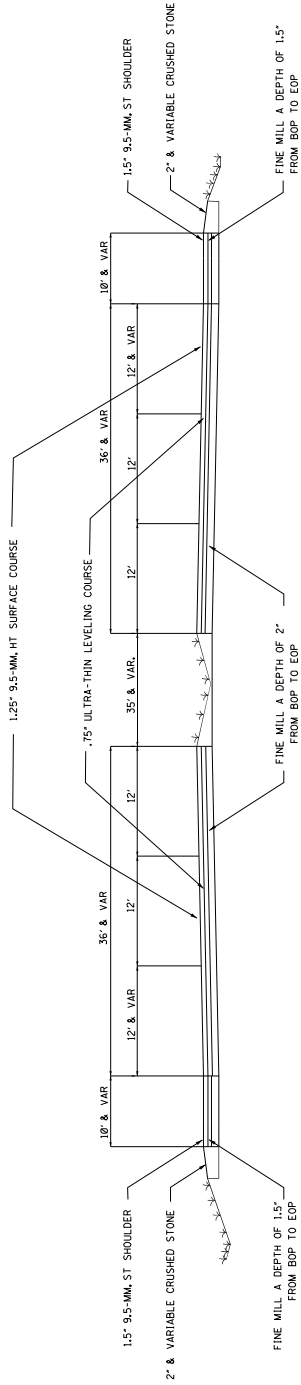
- 1. 6’ x 6’ Vehicle loop assemblies shall be installed at the intersection of US 90 and following.

Intersection	Direction	Loop Size	Number of Loops
SR 57	West Bound	6'x6'	2
SR 57	East Bound	6'x6'	2
Dolphin Drive	West Bound	6'x6'	3
Dolphin Drive	East Bound	6'x6'	2
Mall Entrance	West Bound	6'x6'	3
Mall Entrance	East Bound	6'x6'	3
Gautier-Vancleave Road	West Bound	6'x6'	3
Gautier-Vancleave Road	East Bound	6'x6'	3
Ladnier Road	West Bound	6'x6'	3
Ladnier Road	East Bound	6'x6'	3
Suter Road	West Bound	6'x6'	3
Suter Road	East Bound	6'x6'	3
Oak Street	West Bound	6'x6'	3

SP-0003-01(203) / 108278-301000

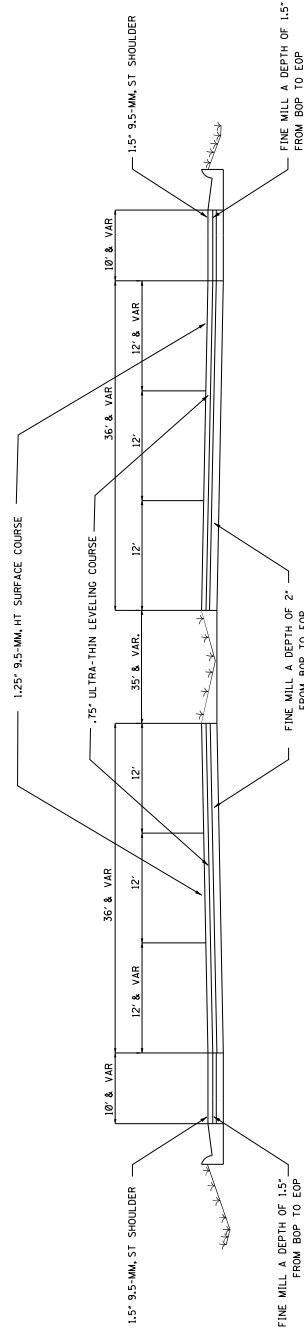
JACKSON COUNTY

US HIGHWAY 90 FROM SR 57 TO WEST PASCAGOULA BRIDGE



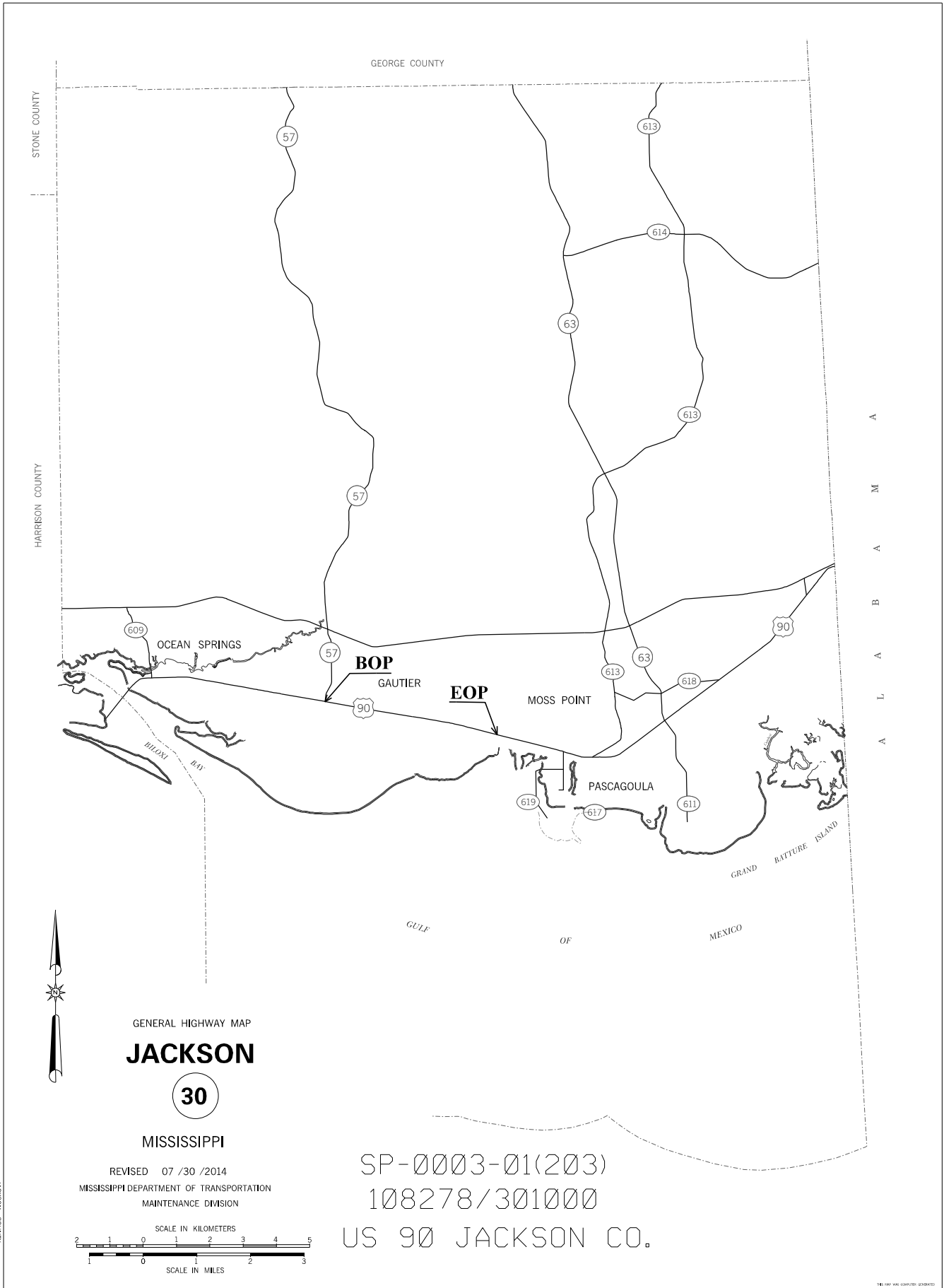
US HIGHWAY 90

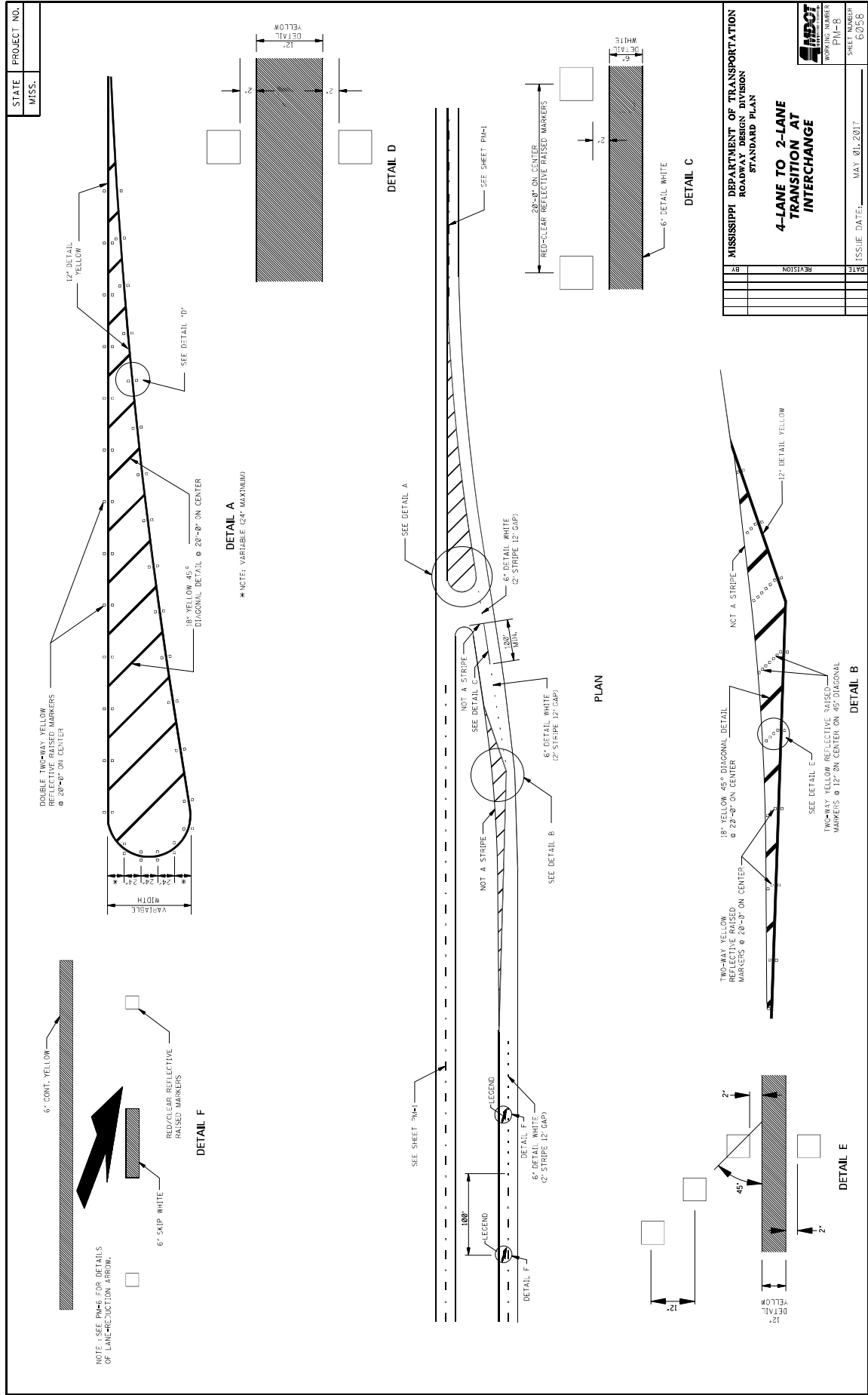
TYPICAL SECTION AT AREAS WITH OUT CURB & GUTTER

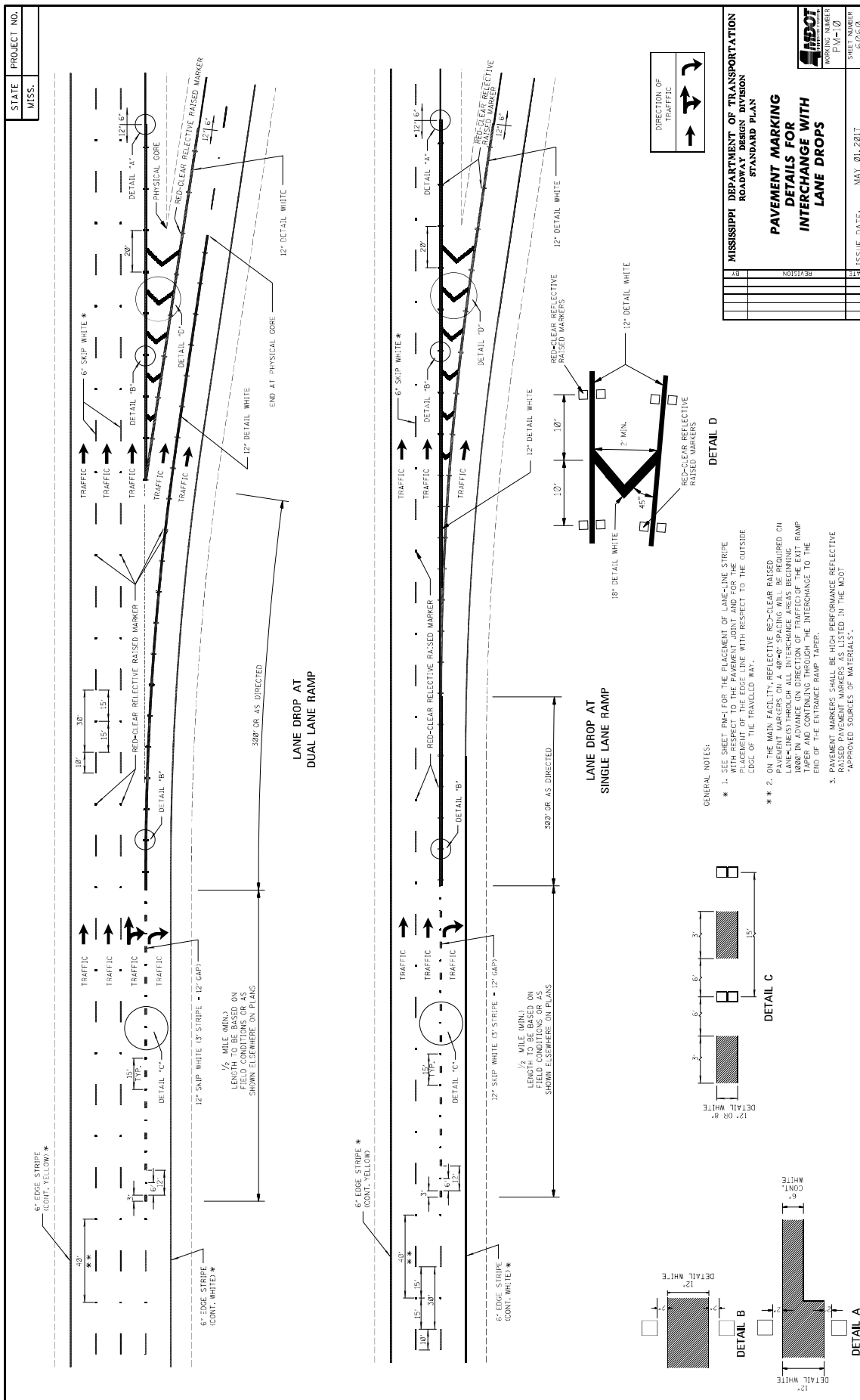


US HIGHWAY 90

TYPICAL SECTION AT CURB & GUTTER AREAS

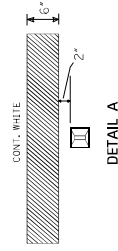
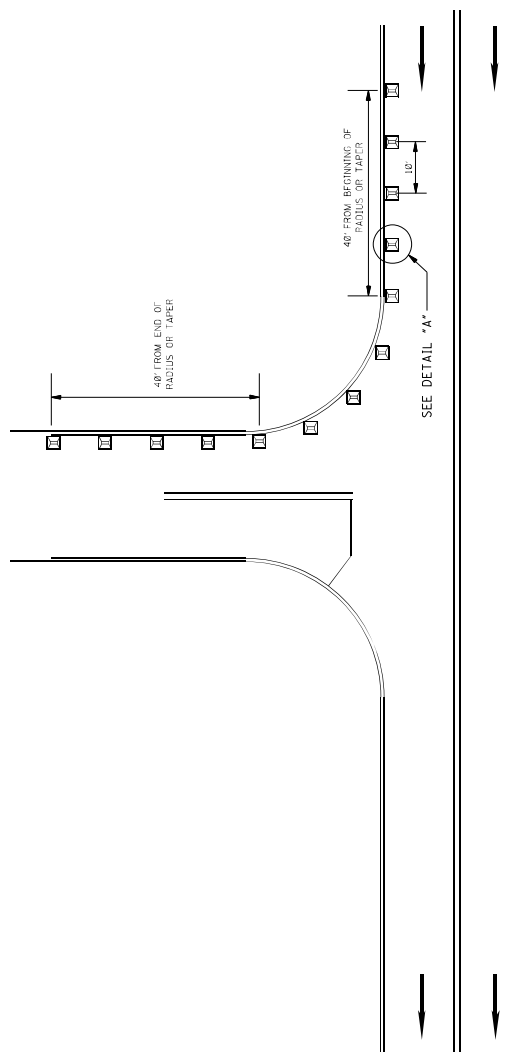






STATE	PROJECT NO.
MISS.	

TYPICAL PLACEMENT OF RAISED PAVEMENT MARKERS ON SIDE ROAD RADIUS
4-LANE, TWO WAY TRAFFIC



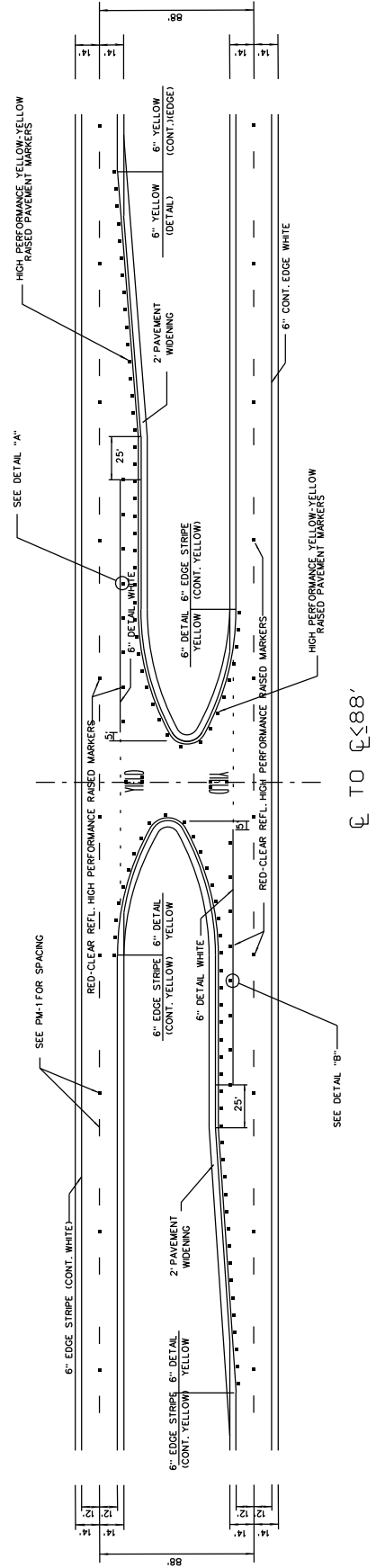
GENERAL NOTES:

1. MARKERS SHALL BE FLACED EVERY 18' FEET.
2. MARKERS SHALL BE VISIBLE FROM THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
3. MARKERS SHALL BE HIGH PERFORMANCE TWO-WAY CLEAR.
4. FIVE (5) MARKERS SHALL BE PLACED ALONG MAINLINE EDGE STRIPE.
5. MARKERS ON COUNTY ROADS SHALL CONTINUE DOWN THE MAINLINE EDGE STRIPE A DISTANCE OF 40' FEET.
6. MARKERS SHALL NOT BE ROTATED WHEN BEING PLACED ALONG RADIUS AND TANGENT SECTIONS OF LOCAL ROAD.
7. MARKERS SHALL BE INSTALLED AT SIMPLE AND CHANNELIZED INTERSECTIONS TO THE LIMITS SHOWN ABOVE.

↑ DIRECTION OF TRAFFIC

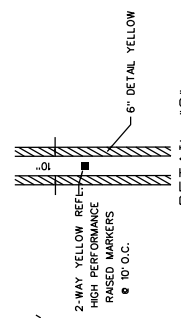
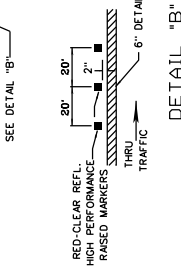
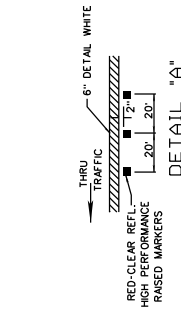
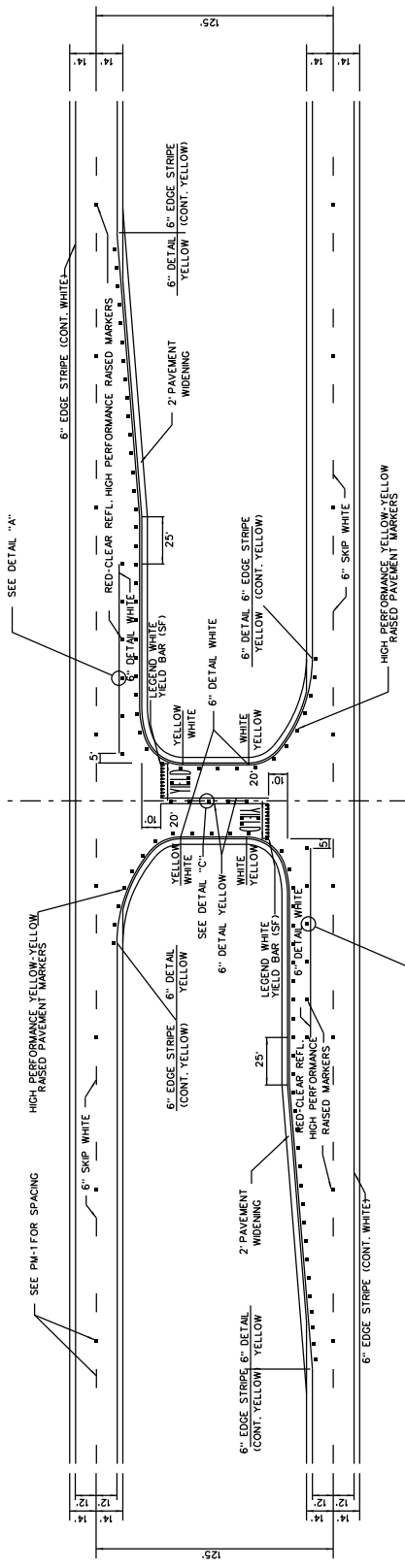
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
2-WAY RAISED PAVEMENT MARKERS AT INTERSECTING ROADS (4-LANE)	
DATE	ISSUE DATE: MAY 20, 2017
BY	SHEET NUMBER P.M. 1-2 69/62
	WORKING NUMBER

STATE	PROJECT NO.
MISS.	



NOTE: FOR WIDER C TO C SPACINGS, REFER TO OTHER SHEETS IN PLANS

NOTE: SEE PM-6 FOR YIELD BAR DETAILS



125' > C TO C > 88'

NOTE: FOR WIDER C TO C SPACINGS, REPLACE YIELD BARS WITH STOP AND STOP BARS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
CROSSOVER DELINEATION	
D6 TYPICAL PAVEMENT MARKING DETAIL FOR MEDIAN CROSSOVERS	
WORKING NUMBER	D6-115
SHEET NUMBER	6035
DATE	
REVISION	
ISSUE DATE:	AUGUST 01, 2017



STATE	PROJECT NO.
MISS.	

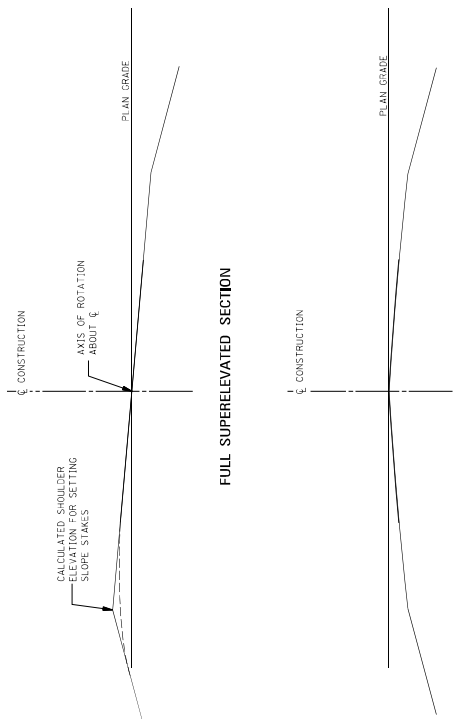
* EXTRA WIDTH TABLE FOR TRAVELED WAY

RADIUS OF CURVE (ft.)	TRAVELED WAY				TRAVELED WAY				TRAVELED WAY			
	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)	DESIGN SPEED (mph)
7000	30	35	40	45	50	55	60	65	50	55	60	65
6500												
6000												
5500												
5000												
4500												
4000												
3500												
3000												
2500												
2000												
1800												
1600												
1400												
1200												
1000												
900												
800												
700												
600												
500												
450												
400												
350												
300												
250												
200												

* NOTE: EXTRA WIDTH TO BE ADDED ON INSIDE OF CURVE. THE SPECIFIED EXTRA WIDTH TO BE ADDED AT UNIFORM RATE THROUGHOUT SUPERELEVATION RUNOFF UNLESS CENTERLINE STRIPE SHOULD EQUALLY DIVIDE SURFACED WIDTH.

e	V = 30 mph		V = 35 mph		V = 40 mph		V = 45 mph	
	R (ft.)	R (ft.)	R (ft.)	R (ft.)	R (ft.)	R (ft.)	R (ft.)	R (ft.)
NC	3130	4100	2950	3770	3230	4130	4630	
0.020	2240	2950	2650	3370	3700	4130	4530	
0.022	2000	2650	2400	3070	3400	3800	4200	
0.024	1730	2300	2100	2700	3000	3400	3800	
0.025	1610	2130	1950	2450	2750	3100	3500	
0.026	1500	1980	1800	2250	2550	2900	3300	
0.028	1250	1520	1360	1720	1900	2150	2450	
0.030	1080	1260	1140	1440	1600	1800	2050	
0.034	712	810	760	930	1020	1150	1300	
0.036	604	684	640	760	820	930	1050	
0.040	464	510	470	540	580	660	750	
0.044	335	364	350	390	410	460	520	
0.046	295	320	300	330	350	390	440	
0.048	255	276	260	288	300	330	370	
0.050	215	232	220	244	250	270	300	
0.054	143	154	140	154	160	170	180	
0.056	115	122	110	118	120	125	130	
0.058	92	96	88	92	94	98	102	
0.064	52	54	50	52	54	56	58	

e = FULL SUPERELEVATION RATE (ft./ft.)
 V = DESIGN SPEED (mph)
 R = RADIUS (ft.)
 NC = NORMAL CROWN



GENERAL NOTES:

1. SE RATE SHOULD BE DETERMINED FROM A RADIUS EQUAL TO OR SLIGHTLY GREATER THAN THE RADIUS OF THE CURVE.
2. THIS SHEET ONLY APPLIES TO LOCAL ROAD FACILITIES IN RESTRICTED LOCATIONS IV & 45 mph.
3. IT IS SUGGESTED THAT BOTH SHOULDER GRADE & FORM GRADE CORRECTIONS FOR SUPERELEVATION RUNOFF BE DETERMINED GRAPHICALLY. USE STANDARD CROSS SECTION SHEET WITH HORIZONTAL SCALE 1"=50' AND VERTICAL SCALE 1"=5'. CORRECTIONS SHOULD BE MADE AT ANY POINTS WHERE CORRECTIONS CAN BE READ AT ANY POINT.
4. STATE AID DIVISION USE STANDARD SA-SE-1.
5. SEE SHEET SE-3A FOR RUNOFF VALUES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**SUPERELEVATION
TRANSITION
FOR LOCAL FACILITIES
(V < / = 45 mph)**

DATE	ISSUE DATE: MAY 01, 2017
REVISION	
DATE	
REVISION	

SHEET NUMBER
SE-1
04/07

STATE	PROJECT NO.
MISS.	

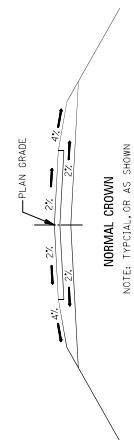
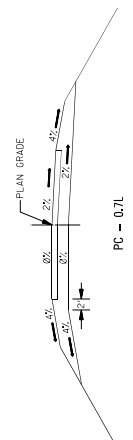
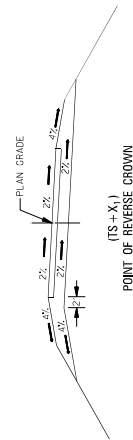
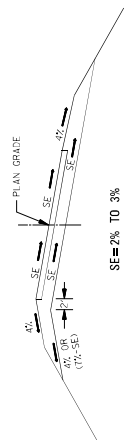
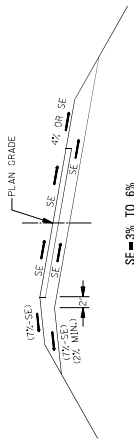
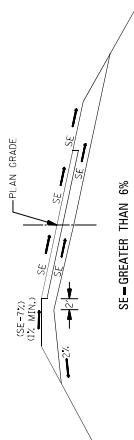
MINIMUM RADII FOR DESIGN SUPERELEVATION RATES, DESIGN SPEEDS, AND $e_{max} = 0.100$

e	V = 30 mph		V = 35 mph		V = 40 mph		V = 45 mph		V = 50 mph		V = 55 mph		V = 60 mph		V = 65 mph		V = 70 mph	
	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)
NC	3320	4350	5520	8280	11700	13100	14700	17000	18700	21000	23000	25000	27000	29000	31000	33000	35000	37000
0.020	2440	3210	4080	5050	6130	7330	8630	10000	11400	12900	14500	16200	18000	20000	22000	24000	26000	28000
0.022	2200	2900	3680	4570	5540	6630	7810	9100	10500	12000	13600	15300	17100	19000	21000	23000	25000	27000
0.024	2000	2640	3350	4160	5050	6050	7130	8300	9500	10800	12300	13900	15600	17400	19300	21300	23300	25300
0.026	1840	2420	3080	3820	4640	5550	6500	7500	8500	9600	10800	12200	13800	15500	17300	19200	21200	23200
0.028	1690	2220	2940	3620	4400	5200	6100	7000	7900	8900	10000	11200	12600	14200	15900	17700	19600	21600
0.030	1570	2060	2750	3400	4150	4900	5700	6500	7300	8200	9200	10300	11500	12900	14500	16200	18000	19900
0.032	1450	1920	2560	3180	3880	4600	5300	6000	6700	7500	8400	9400	10600	11900	13400	15000	16700	18500
0.034	1350	1780	2380	2950	3600	4250	4900	5500	6100	6800	7500	8300	9200	10300	11600	13100	14700	16400
0.036	1270	1680	2250	2780	3380	4000	4500	5000	5500	6100	6700	7300	7900	8600	9400	10300	11400	12600
0.038	1190	1580	2120	2610	3180	3750	4200	4600	5000	5400	5800	6300	6800	7300	7800	8400	9000	9700
0.040	1120	1490	1990	2450	2980	3500	3900	4200	4500	4800	5100	5400	5700	6000	6300	6600	6900	7200
0.042	1060	1400	1820	2240	2740	3200	3500	3700	3900	4100	4300	4500	4700	4900	5100	5300	5500	5700
0.044	994	1330	1700	2120	2530	2930	3100	3200	3300	3400	3500	3600	3700	3800	3900	4000	4100	4200
0.046	940	1260	1610	2020	2400	2760	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900	2900
0.048	890	1190	1530	1920	2340	2680	2760	2760	2760	2760	2760	2760	2760	2760	2760	2760	2760	2760
0.050	844	1130	1460	1830	2240	2580	2660	2660	2660	2660	2660	2660	2660	2660	2660	2660	2660	2660
0.052	802	1080	1390	1740	2130	2480	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560	2560
0.054	762	1030	1330	1660	2040	2390	2460	2460	2460	2460	2460	2460	2460	2460	2460	2460	2460	2460
0.056	724	974	1270	1590	1950	2290	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360	2360
0.058	689	929	1210	1520	1870	2200	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260	2260
0.060	656	886	1160	1460	1790	2100	2160	2160	2160	2160	2160	2160	2160	2160	2160	2160	2160	2160
0.062	624	846	1110	1400	1720	2010	2070	2070	2070	2070	2070	2070	2070	2070	2070	2070	2070	2070
0.064	594	808	1060	1340	1650	1940	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
0.066	564	772	1020	1290	1590	1870	1930	1930	1930	1930	1930	1930	1930	1930	1930	1930	1930	1930
0.068	536	737	971	1230	1530	1800	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860	1860
0.070	509	704	931	1190	1470	1730	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790	1790
0.072	483	671	892	1140	1410	1670	1730	1730	1730	1730	1730	1730	1730	1730	1730	1730	1730	1730
0.074	460	641	855	1100	1360	1620	1670	1670	1670	1670	1670	1670	1670	1670	1670	1670	1670	1670
0.076	437	612	820	1050	1310	1570	1610	1610	1610	1610	1610	1610	1610	1610	1610	1610	1610	1610
0.078	416	585	786	1010	1260	1520	1550	1550	1550	1550	1550	1550	1550	1550	1550	1550	1550	1550
0.080	396	558	754	968	1220	1480	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500
0.082	377	533	722	930	1170	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440	1440
0.084	359	509	692	893	1130	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390	1390
0.086	341	486	662	856	1080	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340	1340
0.088	324	463	633	820	1040	1300	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290	1290
0.090	307	440	604	784	992	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240	1240
0.092	291	418	574	748	948	1190	1190	1190	1190	1190	1190	1190	1190	1190	1190	1190	1190	1190
0.094	274	395	545	710	903	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130	1130
0.096	256	370	513	671	854	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080	1080
0.098	236	343	477	625	798	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010	1010
Block = 0.100	R _{min} = 200	R _{min} = 232	R _{min} = 292	R _{min} = 340	R _{min} = 410	R _{min} = 540	R _{min} = 694	R _{min} = 877	R _{min} = 1090	R _{min} = 1340	R _{min} = 1630							

KEY:
 V = DESIGN SPEED (mph)
 R = RADIUS (ft)
 e = FULL SUPERELEVATION RATE (ft/ft)
 NC = NORMAL CROWN

GENERAL NOTES:

1. SE RATE SHOULD BE DETERMINED FROM A RADIUS EQUAL TO, OR SLIGHTLY SMALLER THAN, THE RADIUS
2. SEE SHEET SE-3A FOR SE ROUNDOFF VALUES.
3. STATE AID DIVISION USE STANDARD SA-SE-1.



NOTE: TYPICAL CR AS SHOWN ELSEWHERE ON PLANS.

DETAILS OF SHOULDER & SUBGRADE TREATMENT

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN

**SUPERELEVATION CASE 1
 ROTATION ABOUT CENTERLINE**

ISSUE DATE: MAY 01, 2017

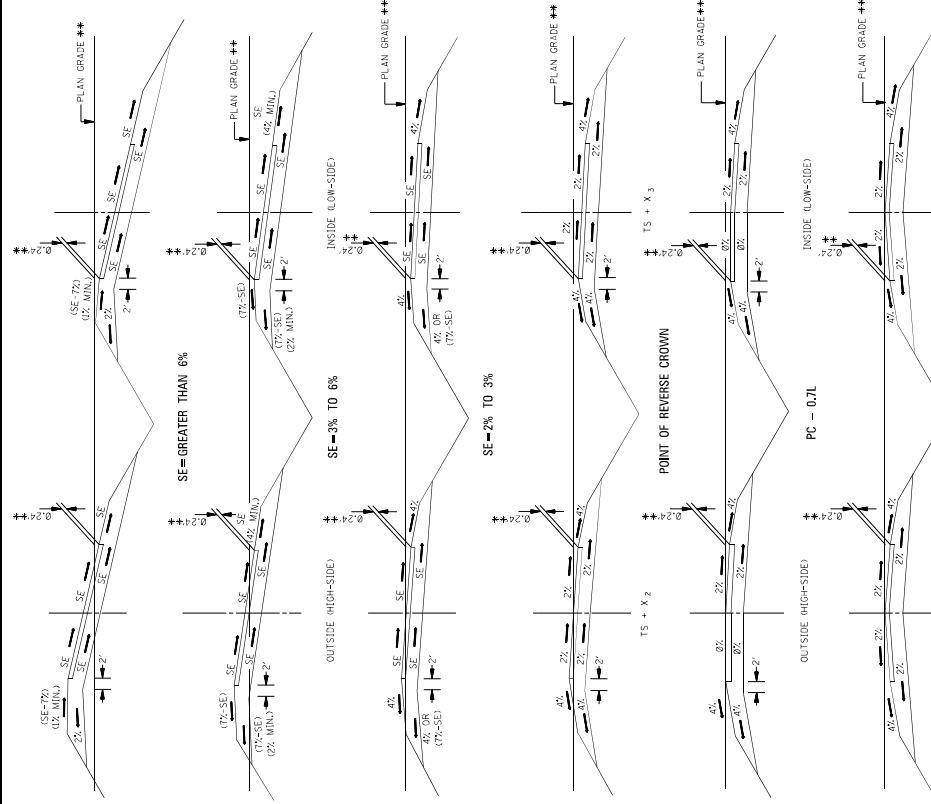
WORKING NUMBER: SE-2A
 SHEET NUMBER: 0406

STATE	PROJECT NO.
MISS.	

MINIMUM RADII FOR DESIGN SUPERELEVATION RATES, DESIGN SPEEDS, AND $e_{max} = 0.100$

e	V = 30 mph		V = 35 mph		V = 40 mph		V = 45 mph		V = 50 mph		V = 55 mph		V = 60 mph		V = 65 mph		V = 70 mph	
	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)	R (ft)
NC	3320	4350	5520	8280	11700	13100	14700	17000	18900	21700	24400	27100	30000	33000	36000	39000	42000	45000
0.020	2440	3210	4080	6130	8580	9730	11000	12500	14300	16300	18500	20900	23500	26300	29200	32200	35300	38500
0.022	2200	2900	3680	5540	7700	8750	10000	11400	13100	15000	17100	19400	21900	24600	27400	30300	33400	36600
0.024	2000	2640	3350	5060	6980	7950	9100	10400	12000	13800	15800	18000	20400	23000	25700	28500	31500	34600
0.026	1840	2420	3080	4640	6320	7200	8200	9300	10700	12400	14300	16400	18700	21200	23800	26600	29500	32500
0.028	1690	2230	2840	4260	5780	6580	7500	8500	9700	11100	12700	14600	16700	19000	21400	24000	26700	29500
0.030	1570	2060	2630	3970	5300	6020	6900	7900	9000	10300	11800	13500	15400	17500	19700	22000	24400	26900
0.032	1450	1920	2450	3640	4840	5480	6300	7200	8200	9400	10700	12300	14100	16000	18000	20100	22300	24600
0.034	1350	1780	2280	3410	4500	5060	5800	6600	7500	8500	9700	11000	12500	14300	16200	18200	20200	22300
0.036	1270	1680	2150	3200	4200	4680	5300	6000	6800	7700	8800	10000	11300	12800	14500	16300	18100	19900
0.038	1190	1580	2020	2970	3880	4280	4800	5400	6100	6900	7900	9000	10200	11600	13200	14800	16400	17900
0.040	1120	1490	1900	2790	3620	3950	4380	4900	5500	6200	7100	8100	9200	10400	11800	13300	14800	16200
0.042	1060	1400	1780	2640	3380	3650	4000	4450	4950	5550	6250	7050	7950	8950	10050	11250	12550	13850
0.044	994	1330	1700	2460	3100	3300	3580	3900	4250	4650	5100	5550	6050	6600	7150	7700	8250	8800
0.046	940	1260	1610	2280	2840	2980	3200	3450	3750	4050	4400	4700	5050	5400	5800	6200	6600	7000
0.048	890	1190	1530	2130	2600	2680	2850	3050	3250	3450	3700	3900	4150	4400	4650	4900	5150	5400
0.050	844	1130	1460	1950	2340	2380	2500	2650	2800	2950	3150	3300	3450	3600	3750	3900	4050	4200
0.052	802	1060	1390	1740	2030	2030	2100	2200	2300	2400	2500	2600	2650	2750	2800	2850	2900	2950
0.054	763	1030	1330	1660	1940	1900	1930	1980	2050	2100	2150	2200	2200	2200	2200	2200	2200	2200
0.056	724	974	1270	1560	1790	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720	1720
0.058	689	929	1210	1460	1640	1530	1490	1460	1430	1400	1370	1340	1310	1280	1250	1220	1190	1160
0.060	656	886	1160	1370	1500	1350	1280	1220	1160	1100	1040	980	920	860	800	740	680	620
0.062	624	846	1110	1300	1390	1210	1110	1030	950	870	790	710	630	550	470	390	310	230
0.064	594	808	1060	1250	1310	1090	970	880	790	700	610	520	430	340	250	160	70	0
0.066	564	772	1020	1200	1230	1000	870	770	670	570	480	390	300	210	120	30	0	0
0.068	536	737	971	1150	1160	930	790	680	570	470	370	280	190	100	10	0	0	0
0.070	509	704	931	1100	1100	870	720	600	490	380	280	190	100	10	0	0	0	0
0.072	483	671	892	1040	1030	800	640	520	410	300	200	110	20	0	0	0	0	0
0.074	460	641	855	1000	980	750	580	460	350	240	140	50	0	0	0	0	0	0
0.076	437	612	820	950	920	690	510	390	280	170	80	0	0	0	0	0	0	0
0.078	416	585	786	910	870	640	450	330	220	110	20	0	0	0	0	0	0	0
0.080	396	558	754	860	810	580	390	270	160	50	0	0	0	0	0	0	0	0
0.082	377	533	722	820	760	530	340	220	110	10	0	0	0	0	0	0	0	0
0.084	359	509	692	780	710	480	290	170	60	0	0	0	0	0	0	0	0	0
0.086	341	486	662	740	670	440	250	130	40	0	0	0	0	0	0	0	0	0
0.088	324	463	633	700	620	390	210	90	30	0	0	0	0	0	0	0	0	0
0.090	307	440	604	660	570	340	170	60	20	0	0	0	0	0	0	0	0	0
0.092	291	418	574	620	520	290	140	40	10	0	0	0	0	0	0	0	0	0
0.094	274	395	545	580	470	240	100	30	0	0	0	0	0	0	0	0	0	0
0.096	256	370	513	530	410	190	70	10	0	0	0	0	0	0	0	0	0	0
0.098	236	343	477	470	340	130	40	0	0	0	0	0	0	0	0	0	0	0
0.100	216	316	440	420	280	80	20	0	0	0	0	0	0	0	0	0	0	0

KEY:
 V = DESIGN SPEED (mph)
 R = RADIUS (ft)
 e = FULL SUPERELEVATION RATE (ft/ft)
 NC = NORMAL CROWN



NOTE: TYPICAL, OR AS SHOWN ELSEWHERE ON THE PLANS.

** THE 0.24 DIFFERENCE IN ELEVATION FROM PLAN GRADE TO THE CENTERLINE OF ROADWAY IS THE RESULT OF THE PLAN GRADE AT THE CENTERLINE OF ROADWAY, ALTHOUGH THE HORIZONTAL LOCATION OF PLAN GRADE AT THE CENTERLINE OF ROADWAY IS VARIABLE (i.e., PLAN GRADE AT THE MEDIAN EDGE OF TRAVEL LANE) AND SHOULD BE VERIFIED ON THE TYPICAL SECTIONS.

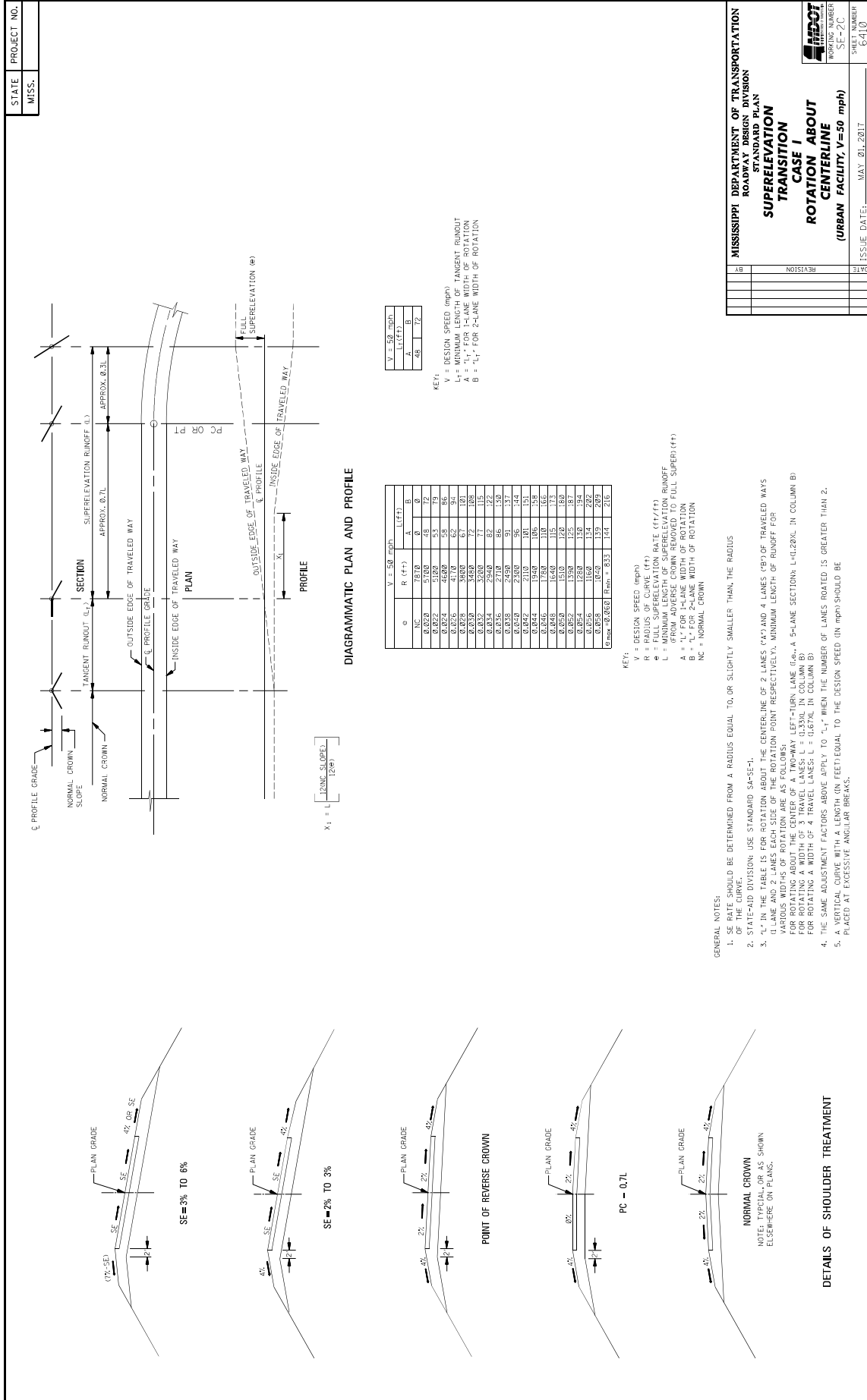
GENERAL NOTES:
 1. SE RATE SHOULD BE DETERMINED FROM A RADIUS EQUAL TO, OR SLIGHTLY SMALLER THAN, THE RADIUS OF THE CURVE.
 2. SEE SHEET SE-3B FOR SE RUNOFF VALUES.

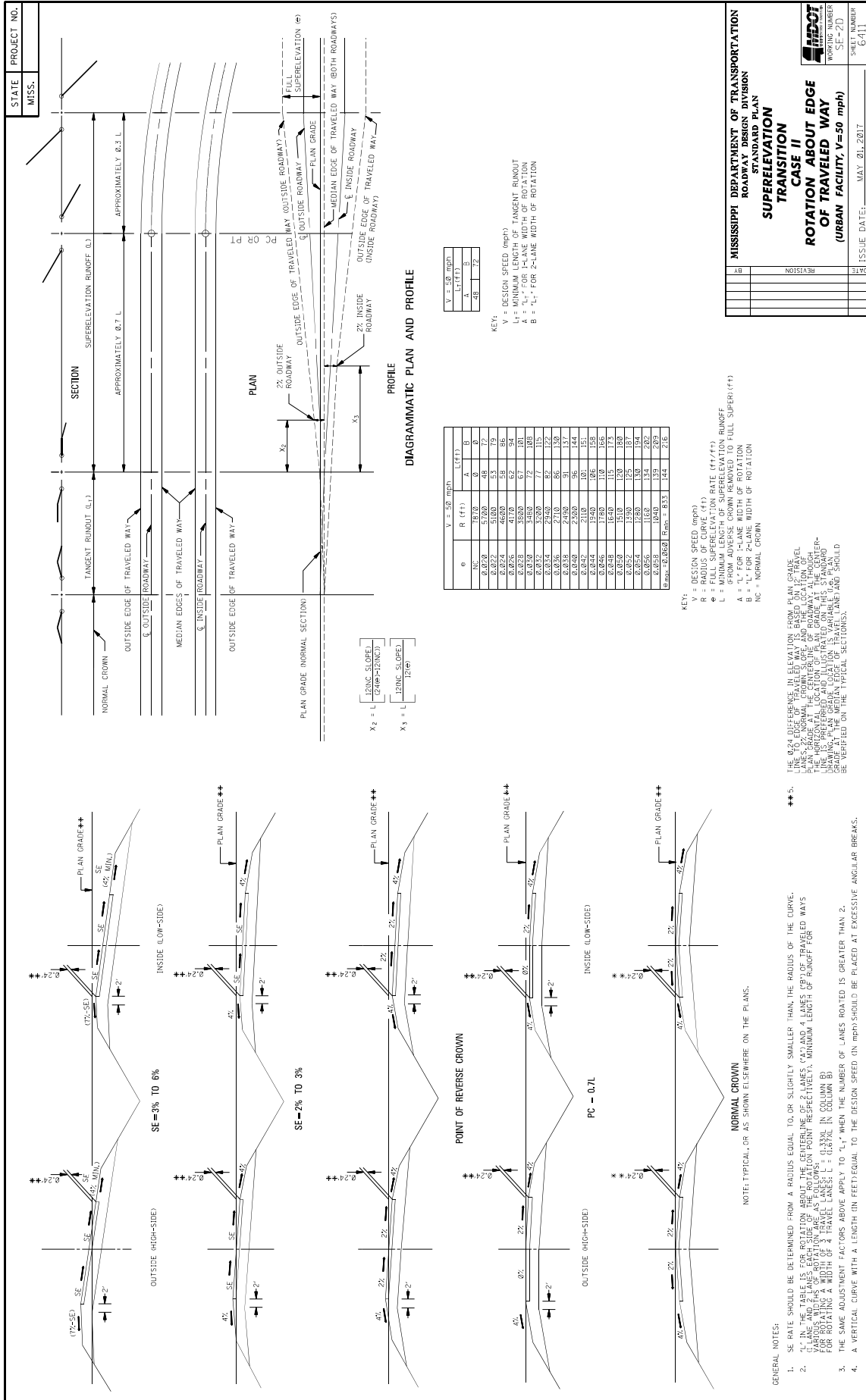
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN

**SUPERELEVATION CASE II
 ROTATION ABOUT EDGE
 OF TRAVELED WAY**

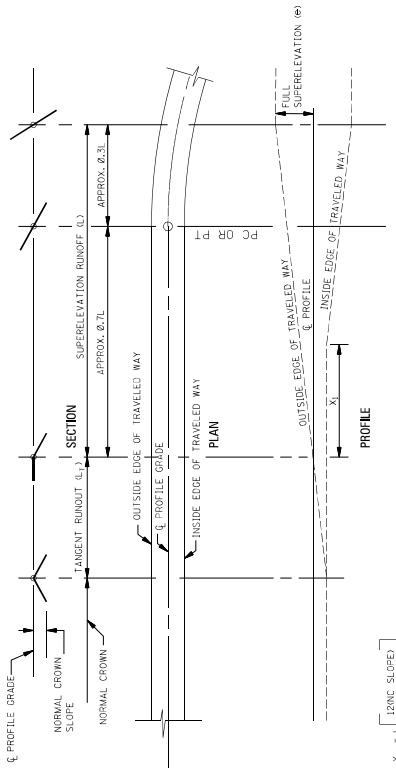
WORKING NUMBER: SE-2B
 SHEET NUMBER: 04/03

ISSUE DATE: MAY 01, 2017





STATE	PROJECT NO.
MISS.	



DIAGRAMMATIC PLAN AND PROFILE

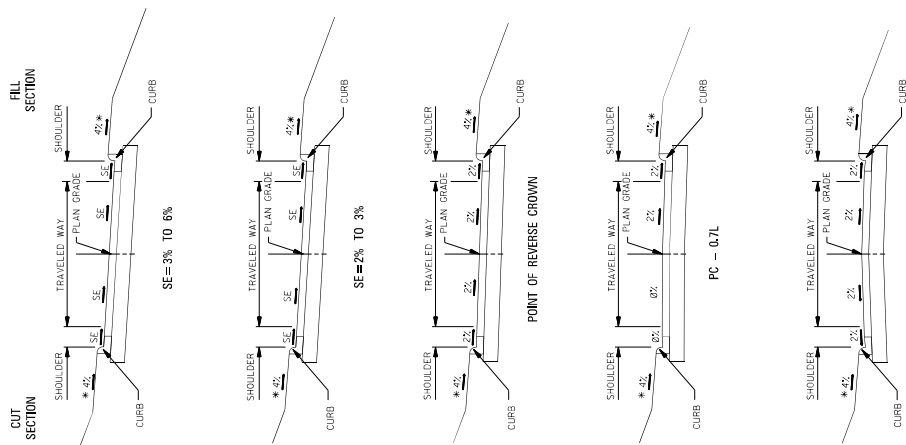
R (ft)	V = 20 mph		V = 25 mph		V = 30 mph		V = 35 mph		V = 40 mph		V = 45 mph	
	A	B	A	B	A	B	A	B	A	B	A	B
80	14.0	3.2	18.0	4.0	24.0	5.3	30.0	6.7	36.0	8.0	42.0	9.3
100	17.5	4.0	22.5	5.0	30.0	6.7	37.5	8.0	45.0	9.3	51.0	11.7
125	21.0	4.8	27.0	6.0	36.0	8.0	45.0	9.3	54.0	11.7	60.0	14.0
150	24.5	5.6	31.5	7.0	42.0	9.3	51.0	11.7	60.0	14.0	69.0	16.3
175	28.0	6.4	36.0	8.0	48.0	10.7	58.5	13.3	69.0	16.3	78.0	18.7
200	31.5	7.2	40.5	9.0	54.0	12.0	66.0	15.0	78.0	18.7	87.0	21.0
225	35.0	8.0	45.0	10.0	60.0	13.3	73.5	16.3	87.0	21.0	96.0	23.3
250	38.5	8.8	49.5	11.0	66.0	14.7	81.0	18.0	96.0	23.3	105.0	25.7
275	42.0	9.6	54.0	12.0	72.0	16.0	88.5	20.0	105.0	25.7	114.0	28.0
300	45.5	10.4	58.5	13.0	78.0	17.3	96.0	21.7	114.0	28.0	123.0	30.3
325	49.0	11.2	63.0	14.0	84.0	18.7	103.5	23.3	123.0	30.3	132.0	32.7
350	52.5	12.0	67.5	15.0	90.0	20.0	111.0	25.0	132.0	32.7	141.0	35.0
375	56.0	12.8	72.0	16.0	96.0	21.3	118.5	26.7	141.0	35.0	150.0	37.3
400	59.5	13.6	76.5	17.0	102.0	22.7	126.0	28.3	150.0	37.3	159.0	39.7
425	63.0	14.4	81.0	18.0	108.0	24.0	133.5	30.0	159.0	39.7	168.0	42.0
450	66.5	15.2	85.5	19.0	114.0	25.3	141.0	31.7	168.0	42.0	177.0	44.3
475	70.0	16.0	90.0	20.0	120.0	26.7	148.5	33.3	177.0	44.3	186.0	46.7
500	73.5	16.8	94.5	21.0	126.0	28.0	156.0	35.0	186.0	46.7	195.0	49.0
525	77.0	17.6	99.0	22.0	132.0	29.3	163.5	36.7	195.0	49.0	204.0	51.3
550	80.5	18.4	103.5	23.0	138.0	30.7	171.0	38.3	204.0	51.3	213.0	53.7
575	84.0	19.2	108.0	24.0	144.0	32.0	178.5	40.0	213.0	53.7	222.0	56.0
600	87.5	20.0	112.5	25.0	150.0	33.3	186.0	41.7	222.0	56.0	231.0	58.3
625	91.0	20.8	117.0	26.0	156.0	34.7	193.5	43.3	231.0	58.3	240.0	60.7
650	94.5	21.6	121.5	27.0	162.0	36.0	201.0	45.0	240.0	60.7	249.0	63.0
675	98.0	22.4	126.0	28.0	168.0	37.3	208.5	46.7	249.0	63.0	258.0	65.3
700	101.5	23.2	130.5	29.0	174.0	38.7	216.0	48.3	258.0	65.3	267.0	67.7
725	105.0	24.0	135.0	30.0	180.0	40.0	223.5	50.0	267.0	67.7	276.0	70.0
750	108.5	24.8	139.5	31.0	186.0	41.3	231.0	51.7	276.0	70.0	285.0	72.3
775	112.0	25.6	144.0	32.0	192.0	42.7	238.5	53.3	285.0	72.3	294.0	74.7
800	115.5	26.4	148.5	33.0	198.0	44.0	246.0	55.0	294.0	74.7	303.0	77.0
825	119.0	27.2	153.0	34.0	204.0	45.3	253.5	56.7	303.0	77.0	312.0	79.3
850	122.5	28.0	157.5	35.0	210.0	46.7	261.0	58.3	312.0	79.3	321.0	81.7
875	126.0	28.8	162.0	36.0	216.0	48.0	268.5	60.0	321.0	81.7	330.0	84.0
900	129.5	29.6	166.5	37.0	222.0	49.3	276.0	61.7	330.0	84.0	339.0	86.3
925	133.0	30.4	171.0	38.0	228.0	50.7	283.5	63.3	339.0	86.3	348.0	88.7
950	136.5	31.2	175.5	39.0	234.0	52.0	291.0	65.0	348.0	88.7	357.0	91.0
975	140.0	32.0	180.0	40.0	240.0	53.3	298.5	66.7	357.0	91.0	366.0	93.3
1000	143.5	32.8	184.5	41.0	246.0	54.7	306.0	68.3	366.0	93.3	375.0	95.7

KEY:

V = DESIGN SPEED (mph)
 L₁ = MINIMUM LENGTH OF TANGENT RUNOFF
 L₂ = MINIMUM LENGTH OF TANGENT RUNOFF
 B = L₁ + L₂ FOR 2-LANE WIDTH OF ROTATION

V = 20 mph	V = 25 mph	V = 30 mph	V = 35 mph	V = 40 mph	V = 45 mph
A	A	A	A	A	A
B	B	B	B	B	B
L ₁ (ft)	L ₁ (ft)	L ₁ (ft)	L ₁ (ft)	L ₁ (ft)	L ₁ (ft)
L ₂ (ft)	L ₂ (ft)	L ₂ (ft)	L ₂ (ft)	L ₂ (ft)	L ₂ (ft)
B	B	B	B	B	B
32	49	64	81	96	112
44	67	88	111	132	156

- GENERAL NOTES:
- SE RATE SHOULD BE DETERMINED FROM A RADIUS EQUAL TO, OR SLIGHTLY SMALLER THAN, THE RADIUS OF THE CURVE.
 - 1 LANE AND 2 LANE SECTIONS FOR ROTATION ABOUT THE CENTERLINE OF 2 LANES (1+1) AND 4 LANES (2+2) OF TRAVELED WAYS VARIOUS WIDTHS OF ROTATION ARE AS FOLLOWS:
 FOR ROTATING ABOUT THE CENTER OF A TWO-WAY LEFT-TURN LANE (i.e., A 5-LANE SECTION): L=(L₁+2L₂)/3 IN COLUMN (B)
 FOR ROTATING A WIDTH OF 3 TRAVELED LANES: L = 0.33W IN COLUMN (B)
 FOR ROTATING A WIDTH OF 2 TRAVELED LANES: L = 0.33W IN COLUMN (B)
 FOR ROTATING A WIDTH OF 1 LANE: L = 0.33W IN COLUMN (B)
 - THE SAME ADJUSTMENT FACTORS ABOVE APPLY TO L₂ WHEN THE NUMBER OF LANES ROTATED IS GREATER THAN 2.
 - PLACEMENT OF CURBS WITH A LEANING INLET SHOULD BE EQUAL TO THE DESIGN SPEED (IN MPH) SHOULD BE
 - THE MAXIMUM CROSS SLOPE ALLOWED WILL BE 1.5% WHERE A SIDEWALK IS REQUIRED.



DETAILS OF SHOULDER TREATMENT

NOTE: TYPICAL, OR AS SHOWN ELSEWHERE ON PLANS.

SE = 3% TO 6%

SE = 2% TO 3%

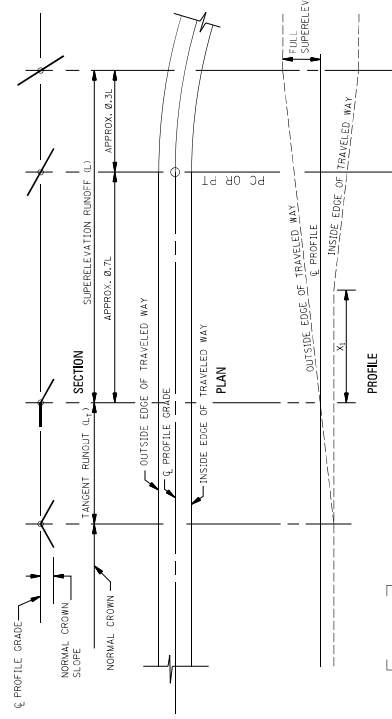
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN
**SUPERELEVATION
 TRANSITION ABOUT
 ROTATION ABOUT
 CENTERLINE**
 (URBAN FACILITY, V <= 45 mph)

WORKING NUMBER: SE-ZE
 SHEET NUMBER: 0412
 ISSUE DATE: MAY 21, 2017

STATE	PROJECT NO.
MISS.	

SUPERELEVATION RUNOFF (L) FOR HORIZONTAL CURVES

e	V = 30 mph		V = 35 mph		V = 40 mph		V = 45 mph		V = 50 mph		V = 55 mph		V = 60 mph		V = 65 mph		V = 70 mph	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
0.0220	36	55	39	58	41	67	44	67	44	67	51	77	53	80	56	84	60	90
0.0222	40	60	43	64	46	68	49	73	53	79	56	84	59	88	61	92	66	99
0.0224	44	65	46	70	50	74	53	80	58	86	61	92	64	96	67	100	72	108
0.0226	47	71	50	75	54	81	58	87	64	94	66	100	69	104	73	109	76	117
0.0228	51	76	54	81	58	87	62	93	67	100	71	107	75	112	78	117	84	126
0.0230	55	82	58	87	62	93	67	100	72	108	77	115	80	120	84	126	90	135
0.0232	58	87	62	93	66	99	71	107	77	115	82	123	85	128	89	134	96	144
0.0234	62	93	66	99	70	106	76	115	82	122	87	130	91	136	95	142	102	153
0.0236	65	98	70	106	74	112	80	120	86	130	92	138	96	144	100	151	108	162
0.0238	69	104	74	110	79	118	84	127	91	137	97	146	102	152	106	156	114	171
0.0240	73	109	77	116	83	124	89	133	96	144	102	153	107	160	112	167	120	180
0.0242	76	115	81	122	87	130	93	140	101	151	107	161	112	168	117	176	126	189
0.0244	80	120	85	128	91	137	98	147	106	158	112	169	117	176	123	184	132	198
0.0246	84	125	89	134	95	143	102	153	110	166	117	176	123	184	128	193	138	207
0.0248	87	131	93	139	99	149	107	160	115	173	123	184	128	192	134	201	144	216
0.0250	91	136	97	145	103	155	111	167	120	180	128	191	133	200	140	209	150	225
0.0252	95	142	101	151	108	161	116	173	125	187	133	199	139	208	145	218	156	234
0.0254	98	147	105	157	112	168	120	180	130	194	138	207	144	216	151	226	162	243
0.0256	102	153	108	163	116	174	124	187	134	202	143	214	149	224	156	234	168	252
0.0258	105	158	112	168	120	180	129	193	139	209	148	222	155	232	162	243	174	261
0.0260	109	164	116	174	124	186	133	200	144	216	153	230	160	240	167	251	180	270
0.0262	113	169	120	180	128	192	138	207	149	223	158	237	165	248	173	260	186	279
0.0264	116	175	124	186	132	199	142	213	154	230	163	245	171	256	179	268	192	288
0.0266	120	180	128	192	137	205	147	220	158	238	163	253	176	264	184	276	198	297
0.0268	124	185	132	197	141	211	151	227	163	245	174	260	181	272	190	285	204	306
0.0270	127	191	135	203	145	217	156	233	168	252	179	268	187	280	195	293	210	315
0.0272	131	196	139	209	149	223	160	240	173	259	186	276	192	288	201	301	216	324
0.0274	135	202	143	215	153	230	164	247	178	266	189	283	197	296	207	310	222	333
0.0276	138	207	147	221	157	236	169	253	182	274	194	291	203	304	212	318	228	342
0.0278	142	213	151	226	161	242	173	260	187	281	199	299	208	312	218	327	234	351
0.0280	145	218	155	232	166	248	178	267	192	288	204	306	213	320	223	335	240	360
0.0282	149	224	159	238	170	254	182	273	197	295	209	314	219	328	229	343	246	369
0.0284	153	229	163	244	174	261	187	280	202	302	214	322	224	336	234	352	252	378
0.0286	156	235	166	250	178	267	191	287	206	310	220	329	229	344	240	360	258	387
0.0288	160	240	170	255	182	273	196	293	211	317	225	337	235	352	246	368	264	396
0.0290	164	245	174	261	186	279	200	300	216	324	230	345	240	360	251	377	270	405
0.0292	167	251	178	267	190	286	204	307	221	331	235	352	245	368	257	385	276	414
0.0294	171	256	182	273	194	292	209	313	226	338	240	360	251	376	262	393	282	423
0.0296	175	262	186	279	199	298	213	320	230	346	245	368	256	384	268	402	288	432
0.0298	178	267	190	285	203	304	218	327	235	353	250	375	261	392	273	410	294	441
0.0300	182	273	194	290	207	310	222	333	240	360	255	383	267	400	279	419	300	450



DIAGRAMMATIC PLAN AND PROFILE

KEY:

- V = DESIGN SPEED (mph)
- e = FULL SUPERELEVATION RATE (ft/ft)
- L = MINIMUM LENGTH OF SUPERELEVATION RUNOFF
- L_t = TANGENT RUNOUT LENGTH OF FULL SUPER (ft)
- A = "L" FOR 1-LANE WIDTH OF ROTATION
- B = "L" FOR 2-LANE WIDTH OF ROTATION

TANGENT RUNOUT (L_T) FOR HORIZONTAL CURVES

V = 30 mph	V = 35 mph		V = 40 mph		V = 45 mph		V = 50 mph		V = 55 mph		V = 60 mph		V = 65 mph		V = 70 mph		
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
36	55	39	58	41	62	44	67	48	72	51	77	53	80	56	84	60	90

- GENERAL NOTES:**
- STATE AID DIVISION: USE STANDARD SA-SE-1.
 - "L" IN THE TABLE IS FOR ROTATION ABOUT THE CENTERLINE OF 2 LANES (A) AND 4 UNDIVIDED LANES (B) OF TRAVELED WAYS (1 LANE AND 2 LANES EACH SIDE OF THE ROTATION POINT RESPECTIVELY). MINIMUM LENGTH OF RUNOFF FOR ROTATING A WIDTH OF 2.5 TRAVEL LANES (L = 0.280L IN COLUMN B) ASSUMING AXIS OF ROTATION ABOUT THE CENTERLINE OF 5-LANE SECTION FOR ROTATING A WIDTH OF 3 TRAVEL LANES (L = 0.330L IN COLUMN B) ASSUMING AXIS OF ROTATION ABOUT THE CENTERLINE OF 5-LANE SECTION FOR ROTATING A WIDTH OF 4 TRAVEL LANES (L = 0.374L IN COLUMN B).
 - THE SAME ADJUSTMENT FACTORS ABOVE APPLY TO "L_t" WHEN THE NUMBER OF LANES ROTATED IS GREATER THAN 2.
 - SEE SHEET SE-2A, SE-2C OR SE-2E FOR SE RATES.
 - PLACE AT EXCESSIVE ANGULAR BREAKS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

SUPERELEVATION RUNOFF CASE I ROTATION ABOUT CENTERLINE

DATE	ISSUE DATE:	MAY 20, 2017
BY	REVISION	

WORKING NUMBER: SE-3A
SHEET NUMBER: 0713

