

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> 6/17/2021 </u>	ADDENDUM NO. _____	DATED _____
ADDENDUM NO. _____	DATED _____	ADDENDUM NO. _____	DATED _____
ADDENDUM NO. _____	DATED _____	ADDENDUM NO. _____	DATED _____

Number	Description
1	Revised NTB No. 3389; 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
_____ Secretary	_____ Address
_____ Treasurer	_____ Address

The following is my (our) itemized proposal.

SP-0008-03(058)/ 108231301000

Hinds County(ies)

Revised 01/26/2016

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3389

CODE: (SP)

DATE: 05/12/2021

SUBJECT: Scope of Work

PROJECT: SP-0008-03(058) / 108231301 -- Hinds 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".

A general description of the work required on the project is as follows:

Mill and overlay approximately 9.5 miles of existing asphalt pavement on US Highway 49 in Hinds County beginning 0.45 miles north of I-220 (BOP Station 59+00) and ending at the Madison County Line (EOP Station 571+25). Details of specific work are mentioned in the following sections.

Project wide work from Station 59+00 (BOP) to Station 571+25 (EOP) North Bound

Prior to beginning the milling and overlay operations, any failed areas in the existing pavement shall be removed full depth (12" to 14" and variable) and repaired full depth using 12.5-mm, HT, Leveling asphalt. Other repairs may be necessary as field conditions require and as directed by the Engineer. After failures have been repaired, milling and leveling at locations listed or as directed will be required for grade profile corrections using 9.5mm, HT, Leveling asphalt. Following pre-leveling operations, the top 1½" of existing asphalt on all mainline lanes and shoulders shall be milled. The mainline lanes shall be overlaid using 1½" of 9.5-mm, HT Polymer Modified, asphalt and the shoulders using 1½" of 9.5-mm, ST, asphalt. Where the cross slope is not equal to two percent (2%), the thickness of the overlay/milling operations shall be adjusted to correct the cross slope.

Project wide work from Station 59+00 (BOP) to Station 571+25 (EOP) South Bound

Prior to beginning the milling and overlay operations, any failed areas in the existing pavement shall be removed full depth (12" to 14" and variable) and repaired with full depth using 12.5-mm, HT, Leveling asphalt. Other repairs may be necessary as field conditions require and as directed by the Engineer. Prior to milling the south bound lanes, which are constructed of a composite Asphalt/Jointed Concrete pavement, any failed JRCP joints shall be repaired full depth to a 3-foot width on either side of the joint (6' total width) by removal of the existing concrete. Failed JRCP shall be repaired full depth using 12.5-mm, HT, Leveling asphalt. After failures have been repaired, milling and leveling at locations listed or as directed will be required for grade profile corrections using 9.5-mm, HT, asphalt. Following pre-leveling operations, the top 1½" of existing asphalt on all mainline lanes and shoulders shall be milled. The mainline lanes shall be overlaid using 1½" of 9.5-mm, HT, Polymer Modified, asphalt and the shoulders

using 1½" of 9.5-mm, ST, asphalt. Where the cross slope is not equal to two percent (2%), the thickness of the overlay/milling operations shall be adjusted to correct the cross slope.

General Notes: These general notes are applicable to all sites.

Milling

The Reclaimed Asphalt Pavement (RAP) material removed by the milling operation shall become the property of the Contractor with the exception of 10,000 tons or 50% of the total anticipated RAP tonnage, whichever is less, shall be stockpiled at the MDOT Clinton Maintenance Facility at 720 Springridge Road, in Clinton. The Contractor will be required to coordinate the efforts with the maintenance office to effectively stockpile the milled material as directed by the Engineer. Anytime that milling is being hauled to MDOT, the Contractor shall provide the necessary equipment and operator(s) at the above mentioned location to stockpile the material. All costs associated with the hauling, placing, and stockpiling of the State-retained material shall be absorbed in other items bid and will not be measured for separate payment.

Where milling is required, the Contractor shall provide outlets in the existing shoulders at sufficient intervals to prevent pooling or standing water on the milled surface. The cost of which shall be absorbed in other items bid.

Milling and paving operations shall be performed such that a -2% slope from centerline is provided in normal crown roadway sections. Superelevation through curves shall be maintained as it currently exists or improved as directed. Where slope correction is required correction will be made by milling, paving, or combination thereof as directed by the engineer.

Milling of driveway pads shall be conducted in a manner to prevent gouging or otherwise affecting the roadway pavement structure and slope. Milling of driveway pads shall not be done in simultaneous path with main line milling.

Traffic will be allowed to run on the milled surface for a maximum of five (5) days. Any surface not covered before the allowable time will result in a fine for any full or partial day exceeding five (5) days. Fine milling shall be performed in accordance with the attached drawings. This work shall be applied on all mainline tie-ins, driveway pads, county roads, and etc. Traffic will be allowed to run on all milled tie-ins not exceeding five (5) days.

Temporary pavement joints (paper joints) shall be at least three (3) paper-widths long shall be used at all milled tie-ins and shall be adequately maintained. Approved mix designs must be on hand prior to milling. Fine milling operations will not commence until such time that, in the opinion of the Engineer, weather conditions have been consistently suitable enough to allow the placement of the asphalt pavement after the milling operations.

Paving

Prior to beginning the milling and overlay operations, any failed areas in the existing pavement shall be removed full depth (12 3/8" to 14 7/8" and variable) and repaired with 12.5-mm, HT, Leveling, asphalt. Other repairs may be necessary as field conditions require and as directed by the Engineer. Payment for removal of failed areas shall be made under pay item 202-B:

Removal of Asphalt Pavement, Failed Areas. Payment for saw cutting of failed areas shall be paid under pay item 503-C: Saw Cut, Full Depth. Milling full depth shall also be an acceptable means of removing failed areas should a Contractor elect not to saw cut. Milling for removal of failed areas shall be paid under pay item 202-B: Removal of Asphalt Pavement, Failed Areas.

If traditional excavation methods are used, the removal area shall first be saw cut full depth including concrete, where applicable, to create a neat line and prevent damage to the adjacent pavement structure. Payment for saw cuts will be made using the appropriate items. If milling techniques are used, the area will not require saw cuts but care should be exercised to create a neat removal line and to prevent damaged to the adjacent pavement structure. If saw cuts are used in conjunction with milling, payment will be made using the appropriate pay items. Payment will not be made for saw cuts that are not performed.

Prior to milling the south bound lanes, which are constructed of a composite HMA/Jointed Concrete pavement, any failed JRCP joints shall be repaired to full depth to a 3-foot width on either side of the joint (6' total width) by removal of the existing concrete. Failed JRCP will be repaired to full depth using 12.5-mm, HT, Leveling, asphalt. A table showing exact locations of the joint repair is attached. No other joint repairs will be required outside of the locations listed in the attached table unless otherwise approved by the District Construction Engineer.

Additionally, prior to mill/overlay operations, all transverse joints in the JRCP shall be cleaned to full depth. Any cracked and broken pieces of existing asphalt within one foot (1') of each side of the joint shall be removed during cleaning, and replaced using 12.5-mm, HT, Leveling, asphalt.

Publicly maintained roads and streets shall be milled and paved to the existing right-of-way. Privately owned entrances shall be paved to the shoulder line as per the included typical drawing. Pads shall be shaped horizontally and vertically to prevent excessive drop-offs. All residential pads exceeding a 2" drop off from the edge of pavement to the pad shall be corrected before the end of the day using paper joints to minimize damage to vehicles.

Intersecting roads and channelized intersections at W. County Line/Kickapoo Road, MacLean Road, Pinehaven Drive, Green's Crossing Road, and Kennebrew Road shall be milled/overlaid accordingly. The Contractor shall mill 1½' to EOM and place 1½" of 9.5-mm, HT, asphalt. RPM's shall be placed on the edge of mainline, along the radius, and along the county roads per policy.

Granular Shoulder Material

Where applicable, the existing shoulders shall be raised to match the new pavement elevation by placing variable depth granular material (Class 5, Group C) on the existing shoulders. Placement of the granular material on the finished asphalt course shall not be permitted. The material shall be bladed, rolled, and compacted to a finished slope of four percent (4%). Placement of this material shall be performed to provide a uniform and compacted shoulder with a minimum depth and width of material placed. Shoulders with adequate shoulder material in place shall be bladed to a slope of four percent (4%). The cost of blading will be an absorbed item and is not to be included in the price of pay items bid.

On a daily basis, the Contractor shall pull shoulder material up to edge of asphalt to maintain 2-inch or less drop off. Granular material (Class 5, Group C) shall be provided around residential pads to prevent shoulder drop-offs as directed and shall be placed in a timely manner. Drop-offs exceeding 2½" shall be corrected within two (2) calendar days of placement of pad. Stabilizer aggregate shall be used as directed by the Engineer.

Removal of the existing shoulder material shall be coincident with the milling/overlaying operation to prevent the possible ponding of water. No payment will be made for blading or removal of the existing shoulder material. Any material excavated from the existing shoulder shall be used to raise the existing shoulder to match the new pavement elevation and any surplus material shall be spread along the edge of the shoulders, fore slopes, or other adjacent areas as directed by the Engineer. The cost associated with surplus material will be absorbed in other items bid. Material which cannot be placed in adjacent areas and deemed to be excess excavation by the Engineer shall be removed under pay item 203-G: Excess Excavation.

Temporary and Permanent Pavement Markings

Temporary traffic stripe will be required immediately after the required overlay/milling and prior to opening area to traffic. Temporary stripe shall be placed in the same location and configuration as the permanent stripe.

If temporary stripe is offset, the Contractor shall conduct operations in a manner to insure the final temporary stripe is placed at the required location of the permanent stripe. If removal of temporary offset stripe is required in order to achieve the correct location and alignment of permanent stripe, the cost of removal will be absorbed in other items bid. Placing double temporary centerline will not be allowed.

Temporary striping shall conform to finished stripe specifications for alignment, neatness, and straightness.

All permanent striping will be double-drop thermoplastic. Edge lines shall be placed to accommodate the lane widths shown on the applicable typical sections unless prevented by field conditions. Thermoplastic pavement marking thickness shall be a minimum of 90 mils for center lines, edge lines, lane lines, gore areas, turnouts, and county roads. All other thermoplastic pavement markings shall be a minimum of 120 mils.

The use of short strips of traffic tape will not be allowed unless approved by the Engineer.

Permanent pavement markers shall be placed in accordance with the attached drawings and Standard Drawings. Two-way yellow markers shall be placed on two-way roads. Two-way clear markers are to be placed on county roads as shown on attached drawings.

Rumble strips shall be placed throughout the project according to standard specifications and per attached drawing. Payment for rumble strips will be made under pay item 423-A: Rumble Stripe, Ground in.

Guardrail

Guard rail pads and shoulders shall be paved with 9.5-mm, HT, asphalt prior to placement of the new guard rail. Guardrail pads shall extend two feet (2') behind the guardrail post at all existing guardrail locations maintaining guardrail height requirements. Prior to placement of the guardrails and asphalt, 3" and variable depth of existing shoulder material shall be removed. Any excess material excavated from the existing shoulder shall be used to raise the existing shoulder to match the new pavement elevation and shall be spread along the edge of the shoulders, fore slopes, or other adjacent areas as directed by the Engineer. The cost associated with this excess material shall be considered an absorbed item.

The existing guard rail and terminal end sections shall be removed and replaced as directed. The new guard rail shall be placed in the same location as the existing railing and the height shall meet the approved departmental standards (Currently 25" to Center). All removed guard rail shall be delivered to Whitfield Maintenance Facility at no additional cost to the State. A 24-hour notice will be required prior to delivery. Any removed metal post, concrete anchors, hardware, and wooden posts shall be disposed of by the Contractor at no additional cost to the State. All holes left by post shall be filled and compacted as directed by the Engineer prior to placing the new asphalt pad. Payment for the removal and replacement of guard rail and terminal end sections shall be made under the appropriate pay items for guard rail and terminal ends.

Guardrail lengths are based on terminal end length of 37.5 feet. If terminal of length other than this is used, an adjustment in w-beam length will be required.

Delineators shall be required on all guardrails within the project. Existing guardrail delineators shall be removed and replaced. The cost of removal shall be included in the price of other items bid.

The asphalt guardrail pad shall be removed or milled and repaved prior to the placement of the new guardrail. Removal of the guardrail pad shall be paid for using the milling pay item. Guardrail posts shall not be completely surrounded by pavement

Permanent Signs

Permanent signs as listed on the attached tables shall be replaced. Unless otherwise listed in the attached tables, existing posts, anchors, angles/bolts, and other components shall be reused. The Contractor shall use new bolts, screws, washers, nuts, etc. of the required sizes in the installation of signs. New signs shall be installed on the same day the existing sign is removed.

Traffic Signals

Vehicle loop detectors at listed locations shall be replaced with radar detection sensors. Radar units shall be installed per manufacturer's recommendations. The Contractor may remove existing detection loop cable, if necessary. Cable quantities may be adjusted based on radar locations per manufacturer recommendations. Removal of vehicle loop detection cable shall be absorbed into other items bid.

Traffic Control

The Contractor shall erect and maintain construction signing and provide all signs and traffic control devices necessary to safely maintain traffic around and through the work areas in accordance with the Traffic Control Plan and the MUTCD. The cost is to be included in the price bid for pay item 618-A: Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except those designated in the plans to be black legend and border on white background. Standard roadside construction signs and barricades will be paid for using the appropriate pay items.

Roadside construction signs, barrels, etc. shall be placed in accordance with the attached drawings or as directed by the Engineer. W20-1 signs shall be placed on all public road approaches as shown or as directed.

On a daily basis, the Contractor shall remove all debris from within the roadway and a 30-foot clear zone which, in the opinion of the Engineer, is a hazard to the traveling public. This activity shall begin with the beginning of work or the beginning of the contract time, whichever comes first. No direct payment will be made for the debris removal. Debris removal costs shall be included in the prices of other items bid. Failure of the Contractor to remove the debris as prescribed herein shall be just cause for withholding the monthly progress estimate payment or suspending active operations until the debris is satisfactorily removed by the Contractor.

Potholes that may exist shall be patched in a timely manner from the date of Notice to Proceed until the date of the Final Maintenance Release. Cracks of significant depth or depressions in the existing surface which, in the opinion of the Engineer, may cause reflection cracking shall be filled with asphalt pavement immediately prior to overlay operations. Patching of potholes shall be considered an absorbed item.

Temporary asphalt joints (aka paper joints) shall be employed at all locations requiring traffic to traverse an uneven, transverse, pavement joint. Paper joints shall be a minimum of nine feet (9') in length and for the full width of the milled/paved surface. Paper joints shall be adequately maintained.

Miscellaneous Notes

It shall be the responsibility of the Contractor to protect existing structures such as pipes, inlets, aprons, bridges, etc. from damage which might occur during construction. The Contractor shall replace or repair, as directed by the Engineer, any structures damaged by the Contractor during the life of the contract. No payment will be made for replacement or repair of damaged items.

Any signs, mailboxes, etc. that are in conflict with construction of this project shall be removed and relocated by the Contractor as directed by the Engineer. Any costs accrued by these conflicts shall be absorbed in other items bid.

Incidental work such as removing vegetation, shaping and compacting shoulders, removing and resetting signs and/or mailboxes, removing excess asphalt material, project clean-up, and other items of incidental work necessary to complete the project will not be measured for separate payment. Cost for incidental work will be absorbed in the prices of other items bid.

Existing raised pavement markers shall be removed prior to beginning the overlay operation. All costs associated with removing the existing pavement markers shall be included in the price for other items bid.

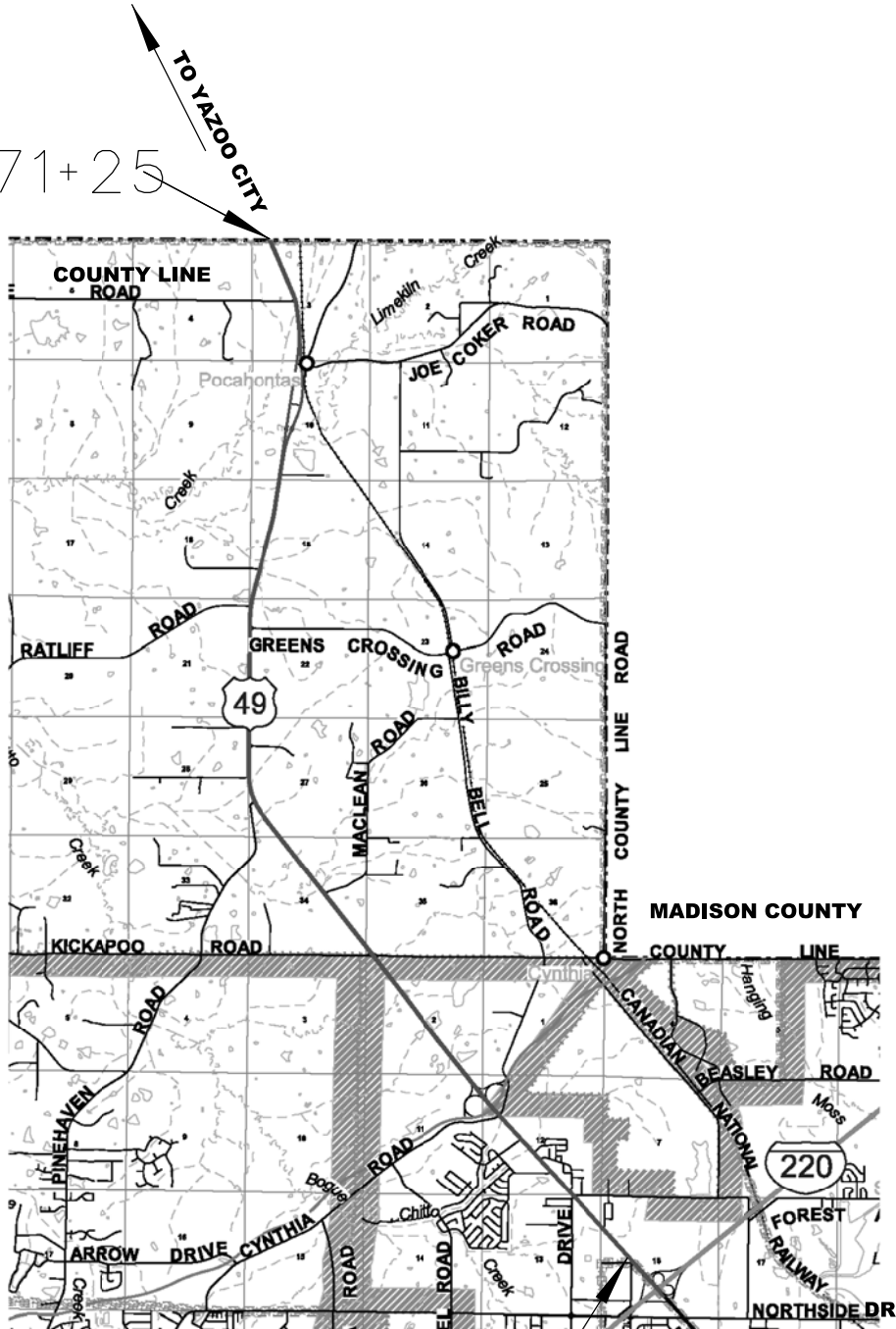
Prior to the final inspection, bridges, islands, and areas with curb shall be swept/cleaned. Care should be taken to prevent milled asphalt, asphalt debris, vegetative/granular debris, etc. from entering drainage structures or clogging other drainage ways. Disposal of material will not be measured for separate payments.

Following the overlaying operation the transverse joints in the pavement shall be sawed and sealed within seven (7) days. The details for sawing and sealing transverse joints for this section are in the Standard Specifications. The width of the sawing and sealing operation will be 14' on each side of centerline, unless otherwise directed by the Engineer, to prevent "sympathy cracking." It is the responsibility of the Contractor to locate and mark all existing joints that are to be sawed and sealed prior to the milling operation. The Contractor shall notify the Department when this is to take place so that they can oversee the work and determine the width that each joint will be sawed and sealed.

The existing pressure relief joints on Bridge 173.0B shall be removed, cleaned and replaced. All cost incurred to remove, clean, and replace these joints shall be paid for under pay item 907-824-PP: Bridge Repair, Pressure Relief Joint.

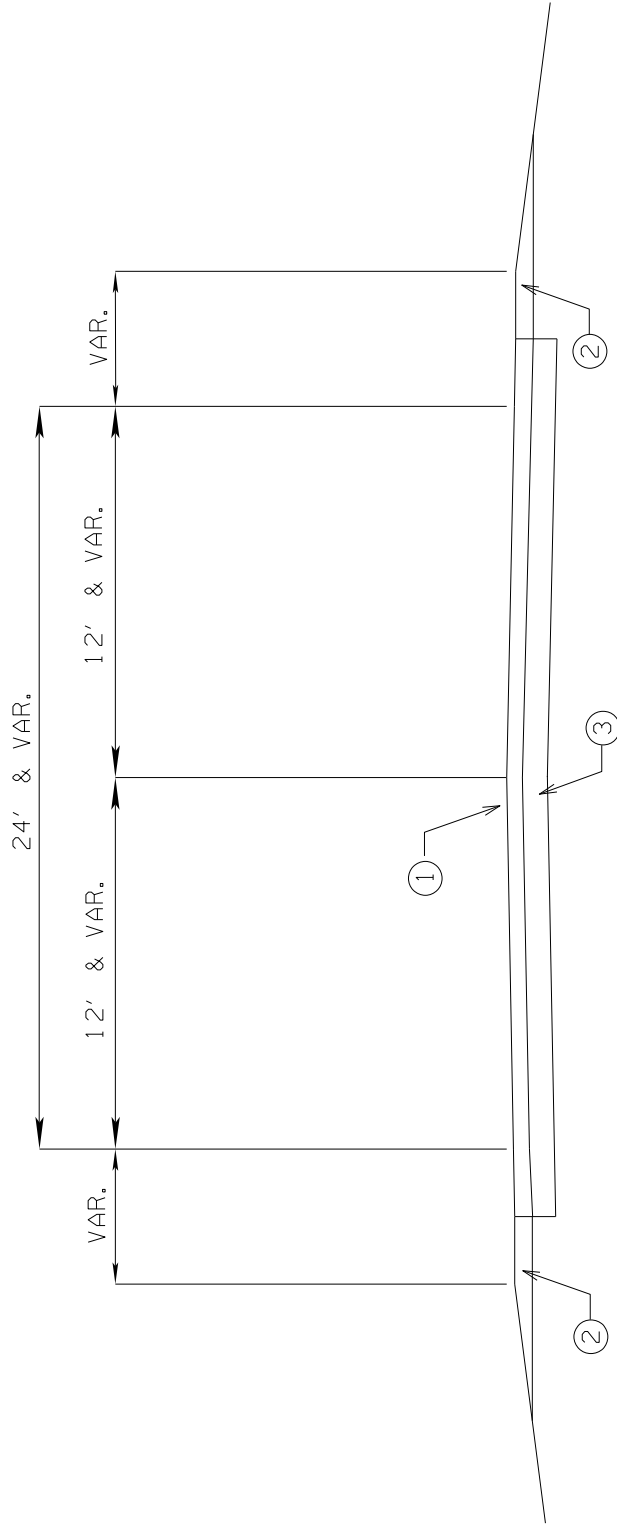
US 49 MILL AND OVERLAY PROJECT
FROM 0.45 MILES NORTH OF I-220
TO MADISON COUNTY LINE
HINDS COUNTY
108231/301000

EOP 571+25



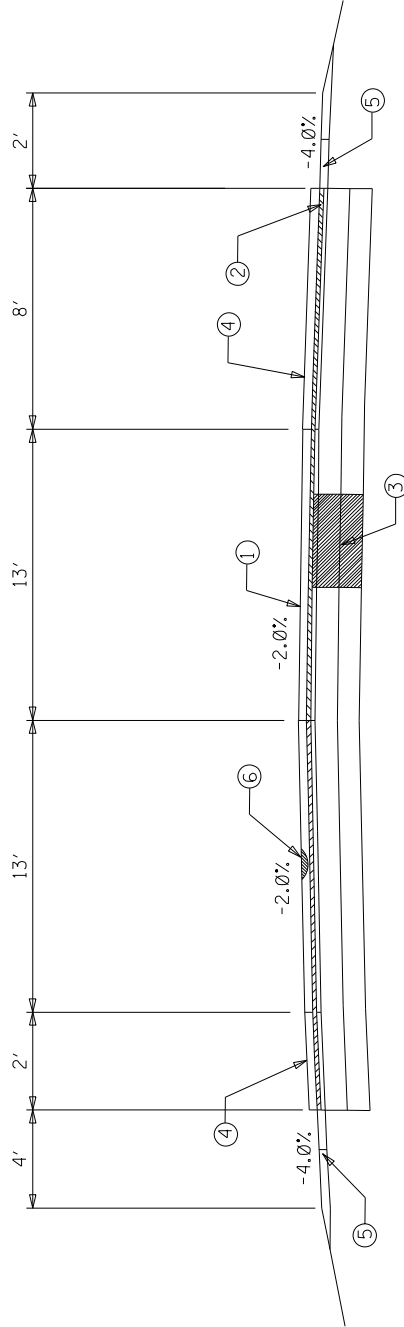
BOP 59+00

**HINDS COUNTY
TYPICAL SECTION
US 49 OVERLAY
108231/301000
COUNTY ROADS**



- ① Mill and Overlay 1 1/2" Asphalt Pavement 9.5mm,HT
- ② C1.5, GRP. C As Required
- ③ Existing Pavement Structure

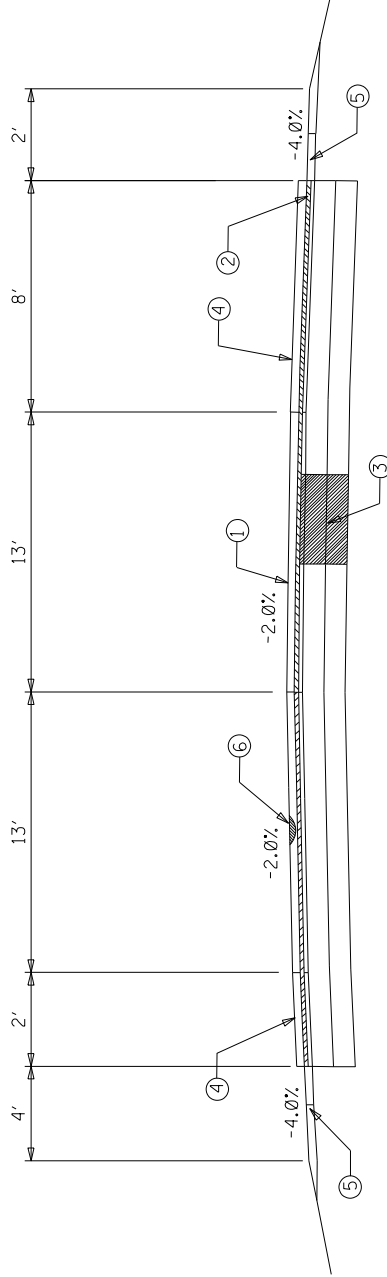
**SP-0008-03(058)
 TYPICAL SECTION
 HINDS COUNTY
 BOP 59+00 TO EOP 571+25
 US 49 OVERLAY**



EXISTING PAVEMENT
 (IN DIRECTION OF TRAFFIC FLOW)
 NORTH BOUND SHOWN

- ① 1.50" FINE MILLING AND REPLACE WITH 1.50" ASPHALT PAVEMENT, (9.5mm HT MIXTURE) (Polymer Modified)
 - ② 1.50" FINE MILLING AND REPLACE WITH 1.50" ASPHALT PAVEMENT, ST (9.5mm MIXTURE)
 - ③ REPAIR ANY FAILED AREAS WITH FULL DEPTH ASPHALT PAVEMENT 12.5MM MIX HT LEVELING
 - ④ RUMBLE STRIPS WILL BE REQUIRED
 - ⑤ VARIABLE DEPTH GRANULAR MATERIAL (CLASS 5 GROUP C)
 - ⑥ SPOT MILLING/LEVELING WITH 9.5mm HT LEVELING MIXTURE AS DIRECTED BY ENGINEER
- *EXISTING PAVEMENT STRUCTURE
 12-14" VAR. ASPHALT PAVEMENT
 8" LIME TREATED BASE

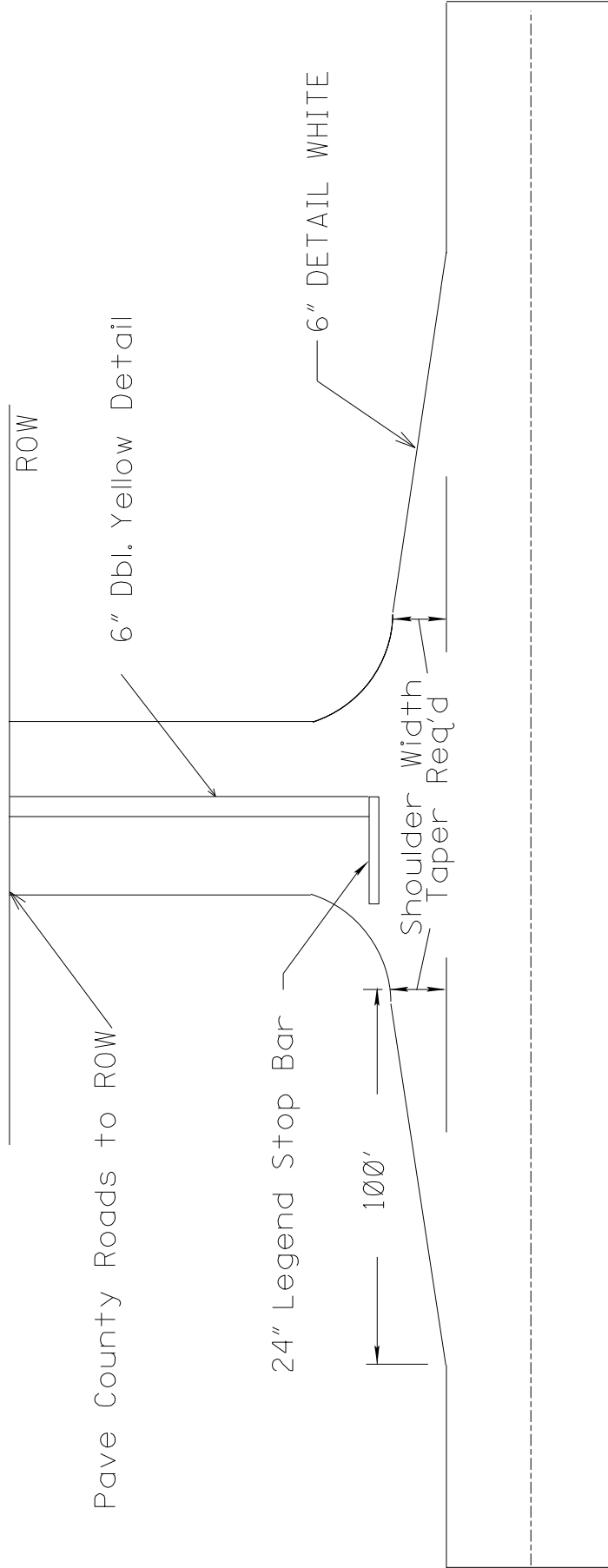
**SP-0008-03(058)
TYPICAL SECTION
HINDS COUNTY
BOP 59+00 TO EOP 571+25
US 49 OVERLAY**



EXISTING PAVEMENT
(IN DIRECTION OF TRAFFIC FLOW)
SOUTH BOUND SHOWN

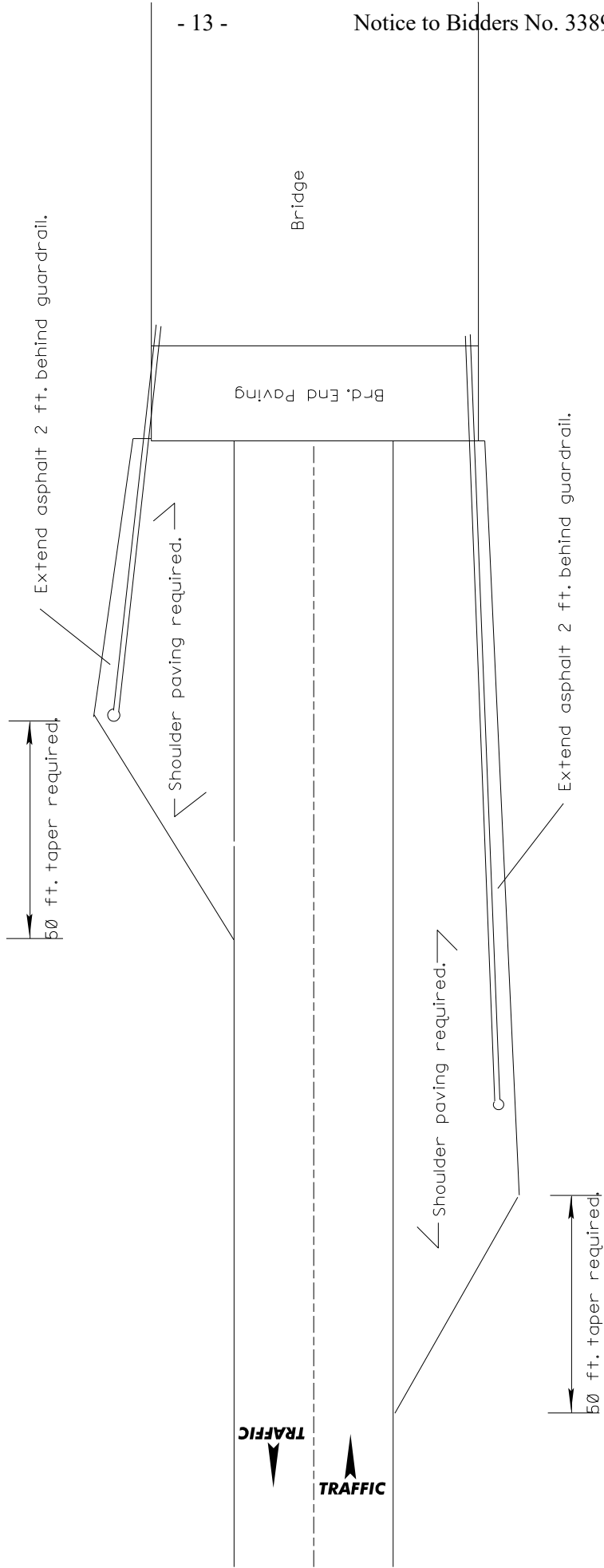
- ① 1.50" FINE MILLING AND REPLACE WITH 1.50" ASPHALT PAVEMENT, (9.5mm HT MIXTURE) (Polymer Modified)
- ② 1.50" FINE MILLING AND REPLACE WITH 1.50" ASPHALT PAVEMENT, ST (9.5mm MIXTURE)
- ③ REPAIR ANY FAILED AREAS / FAILED JRCP JOINTS (MIN 3' EITHER SIDE OF JOINT) WITH FULL DEPTH ASPHALT PAVEMENT 12.5MM HT LEVELING RUMBLE STRIPS WILL BE REQUIRED
- ④ VARIABLE DEPTH GRANULAR MATERIAL (CLASS 5 GROUP C)
- ⑤ SPOT MILLING/LEVELING WITH 9.5mm HT LEVELING MIXTURE AS DIRECTED BY ENGINEER
- *EXISTING PAVEMENT STRUCTURE
 - 4-7" VAR. ASPHALT PAVEMENT
 - 8" JRCP (OR CRCP) PAVEMENT REC MENTIONS CRCP
 - 6" CEMENT TREATED BASE

Typical Section - County Roads



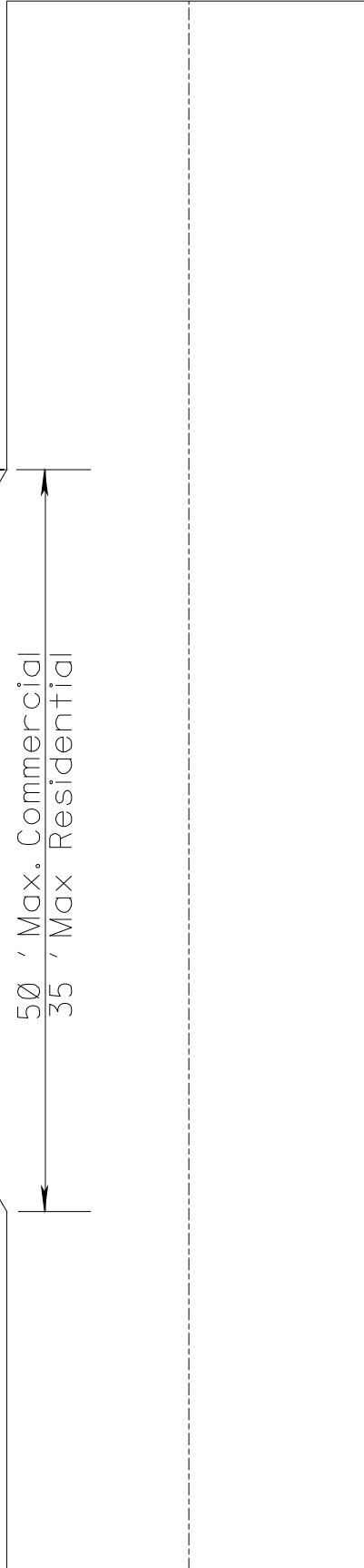
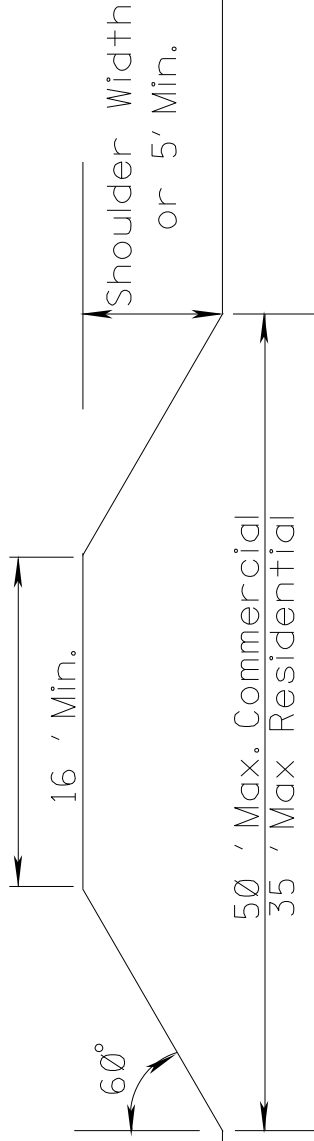
US 49
HINDS COUNTY
108231/301000

Typical Section of Additional Shoulder Paving
Required at Guardrail Locations



GUARDRAILS ARE TO BE REMOVED, THEN PAVED SHOULDERS ARE TO BE MILLED 1-1/2" AND REPAVED WITH 1-1/2" HMA, ST 9.5mm AND NEW GUARDRAILS WILL BE INSTALLED

TYPICAL RAMP/PAD DETAIL



9.5-mm, HT, Asphalt Pavement, Polymer Modified								
403-D007								
Date	Station Number	Direction	LT/RT LN	Length	Width	Quantity (TON)	Theoretical	OR/UR
	59+00-571+25	NB	LT/RT LN	50979.98	28		12936.169	-12936.169
	59+00-571+25	SB	LT/RT LN	50979.98	28		12936.169	-12936.169
Totals							0	25872.338

9.5-mm, HT, Asphalt Pavement		
403-A013		
Location	Size (SF)	Theo.
Crossovers	378090.000	3426.441
Driveway Pads	26892.000	243.709
County Roads	317025.000	2873.039
Misc.	124281.000	1126.297
Total		7669.485

9.5-mm, ST, Asphalt Pavement									
403-A015									
Date	Station Number	Direction	LT/RT LN	Length	Width	Quantity (TON)	Theoretical	OR/UR	
	59+00-571+25	NB	RT Shoulder	50979.98	8		3696.048	-3696.048	
	59+00-571+25	SB	LT Shoulder	50979.98	8		3696.048	-3696.048	
Totals							0	7392.097	

12.5-mm, HT, Asphalt Pavement, Leveling								
403-B001								
Date	Station Number	Direction	LT/RT LN	Length	Width	Quantity (TON)	Theoretical	OR/UR
	Failed Areas			Full Structure Depth			954.885	-954.885
	Punchouts			Full Structure Depth			631.377	-631.377
Totals							0	1586.262

9.5-mm, HT Asphalt Pavement, Leveling								
403-B010								
Date	Station Number	Direction	LT/RT LN	Length	Width	Quantity (TON)	Theoretical	OR/UR
	Leveling			6" Average			2368.575	-2368.575
							0.000	0.000
Totals							0	2368.575

907-823-B001					
Saw Cut, Type 1					
Station	NB/SB	Lane	Length	Width	Quantity (LF)
BR 173.0B	NB	2 End Wall Joints 2 Cuts Each			156.00
BR 173.0B	NB	Pressure Relief Repair			156.00
Total					312.00

503-C010					
Saw Cut, Full Depth					
Station	NB/SB	Lane	Length	Width	Quantity (LF)
570+43	SB	RL/LL	20	26	92.00
391+95	SB	RL/LL	10	26	72.00
349+15	SB	RL/LL	20	26	92.00
326+80	SB	LL	20	13	66.00
326+50	SB	RL	20	13	66.00
312+95-313+50	SB	RL/LL	55	26	162.00
310+65	SB	LL	10	13	46.00
297+10	SB	RL	20	13	66.00
256+95	SB	RL/LL	10	26	72.00
247+85	SB	RL/LL	10	26	72.00
198+45	SB	RL/LL	20	26	92.00
185+75	SB	RL	10	13	46.00
161+75	SB	RL/LL	10	26	72.00
139+00	SB	RL/LL	20	26	92.00
122+90	SB	RL/LL	10	26	72.00
105+25-105+75	SB	RL/LL	50	26	152.00
74+55	SB	RL/LL	20	26	92.00
Total					1424.00
10% for Contingencies					156.4

*** 10% is added for contingencies for repairs as directed by the Engineer.**

Failed Areas						
Station	Direction	Lane	Length	Width	Sqaure Feet	Square Yards
59+00	NB	Shoulder	50	8	400	44.444
169+00-170+00	NB	RL/LL	100	28	2800	311.111
219+00-221+00	NB	RL/LL	200	28	5600	622.222
407+50-408+50	NB	RL/LL	100	28	2800	311.111
Total					11600	1288.889
10% for Contingencies						1417.778

Full-Depth Joint Repair						
Station	Direction	Lane	Length	Width	Sqaure Feet	Square Yards
570+43	SB	RL/LL	20	26	520	57.778
391+95	SB	RL/LL	10	26	260	28.889
349+15	SB	RL/LL	20	26	520	57.778
326+80	SB	LL	20	13	260	28.889
326+50	SB	RL	20	13	260	28.889
312+95-313+50	SB	RL/LL	55	26	1430	158.889
310+65	SB	LL	10	13	130	14.444
297+10	SB	RL	20	13	260	28.889
256+95	SB	RL/LL	10	26	260	28.889
247+85	SB	RL/LL	10	26	260	28.889
198+45	SB	RL/LL	20	26	520	57.778
185+75	SB	RL	10	13	130	14.444
161+75	SB	RL/LL	10	26	260	28.889
139+00	SB	RL/LL	20	26	520	57.778
122+90	SB	RL/LL	10	26	260	28.889
105+25-105+75	SB	RL/LL	50	26	1300	144.444
74+55	SB	RL/LL	20	26	520	57.778
Total					7670	852.222
10% for Contingencies						937.444

*** 10% is added for contingencies for repairs as directed by the Engineer.**

Leveling						
Station	Direction	Lane	Length	Width	Sqaure Feet	Square Yards
564+25-571+25	NB	RL/LL	700	36	25200	2800.000
236+75-243+00	SB	RL/LL	625	36	22500	2500.000
205+50-208+15	SB	RL/LL	265	36	9540	1060.000
155+05-156+05	SB	RL/LL	100	36	3600	400.000
140+75-142+00	SB	RL/LL	125	36	4500	500.000
					0	0.000
Total					65340	7260.000

STANDARD ROADSIDE SIGNS - 0.080" THICKNESS													
STATION	NB/SB	SIGN NUMBER	SIZE (in. x in.)	AREA (sf)	PIPE POSTS (lf)				U POST (lf)		(7/16" x 2-1/2") BARS 3.72 lbs/lf	Class "B" Conc (cy)	REMARKS
					3"	3-1/2"	4"	5"	2 lb/ft	3 lb/ft			
16+00	NB	R1-2	36X36X36	4.5					12				
126+25	NB	S1-1	36x36	6.75					12				Knocked Over
457+25	NB	R2-1	24x30	5					24				
457+25	NB	R2-1	24x30	5					24				
543+95	SB	R1-2	36	4.5					12				Yield onto SB
543+96	SB	R6-3A	30X24	5									Divided HWY on Stop assembly
543+98	SB	R6-1R	36x12	3					12				One way in median on left
478+55	SB	R6-1L	36x12	3					12				Directly across from Entrance
421+90	SB	R1-2	36	4.5					12				Yield onto SB
421+90	SB	R6-1R	36x12	3					12				One way Right
421+90	SB	R6-1L	36x12	3					12				One way Left
421+90	SB	R6-3A	30x24	5									Divided HWY on Stop assembly
405+25	SB	R1-2	36	4.5					12				Yield in Median
405+25	SB	R6-1R	36x12	3					12				One way Right left median
405+25	SB	R6-1R	36x12	3									Stop Assembly
405+25	SB	R6-3A	30X24	5									Stop Assembly
395+50	SB	R6-3A	30X24	5									Divided HWY on Stop assembly
395+50	SB	R6-1L	36x12	3					12				Directly across from Entrance
395+50	SB	R6-1R	36x12	3					12				One way in median
374+00	SB	R6-1R	36x12	3					12				One way in median
374+00	SB	R6-1R	36X12	3									Stop Assembly
374+00	SB	R6-3A	30X24	5									Stop Assembly
351+75	SB	R6-1R	36X12	3									Stop Assembly
351+75	SB	R6-3A	30X24	5									Stop Assembly
343+25	SB	R6-3A	30x24	5									Divided HWY on Stop assembly
329+25	SB	R6-1R	36X12	3									Stop Assembly
329+25	SB	R6-3	30X24	5									Stop Assembly
329+25	SB	R6-1R	36X12	3									Stop Assembly
329+25	SB	R6-3	30X24	5									Stop Assembly
317+75	SB	R6-1R	36X12	3					12				Stop Assembly
317+75	SB	R6-3	30X24	5									Stop Assembly
317+75	SB	R1-2	36	4.5					12				Median
266+50	SB	R1-2	36	4.5					12				
266+50	SB	R6-3	30x24	5					12				
231+45	SB	R6-1R	36x12	3					12				
231+45	SB	R6-1L	36x12	3					12				

STANDARD ROADSIDE SIGNS - 0.100" THICKNESS														
STATION	NB/SB	SIGN NUMBER	SIZE (in. x in.)	AREA (sf)	PIPE POSTS (lf)					U POST (lf)		(7/16" x 2-1/2") BARS 3.72 lbs/lf	Class "B" Conc (cy)	REMARKS
					3"	3-1/2"	4"	5"	2 lb/ft	3 lb/ft	0			
43+00	NB	R5-1	36x36	9		8							0.12	Do not enter
543+97	SB	R5-1	36x36	9	-					12				Do not enter in median
266+50	SB	R5-1	36x36	9	-					12				In Median
266+50	SB	R5-1	36x36	9	-					12				In Median
266+50	SB	R5-1	36x36	9	-					12				
231+45	SB	R5-1	36x36	9	-					12				
Total this sheet =				54	0	8	0	0	0	0	60	0	0	0.12

STANDARD ROADSIDE SIGNS - 0.125" THICKNESS														
STATION	NB/SB	SIGN NUMBER	SIZE (in. x in.)	AREA (sf)	PIPE POSTS (lf)					U POST (lf)		(7/16" x 2-1/2") BARS 3.72 lbs/lf	Class "B" Conc (cy)	REMARKS
					3"	3-1/2"	4"	5"	2 lb/ft	3 lb/ft				
219+00	NB	W3-3	48x48	16		8						5	0.13	
244+75	SB	W3-4	48x48	16		8						5	0.13	When Flashing
244+75	SB	W3-3	48x48	16		8						5	0.13	
544+00	SB	R1-1	48	13.25			12					5	0.13	
421+90	SB	R1-1	48	13.25			12							
405+25	SB	R1-1	48	13.25			12						0.13	Stop Assembly
374+00	SB	R1-1	48	13.25			12						0.13	Stop Assembly
351+75	SB	R1-1	48	13.25			12						0.13	Stop Assembly
329+25	SB	R1-1	48	13.25			12						0.13	Stop Assembly
329+25	SB	R1-1	48	13.25			12						0.13	Stop Assembly
317+75	SB	R1-1	48	13.25			12						0.13	Stop Assembly
113+45	SB	R1-1	48	13.25			12						0.13	Stop Assembly
Total this sheet =				167.25	0	24	108	0	0	0	0	20		
												74.4	1.43	

STATION	LOCATION (L/RT)	GUARDRAIL		FLARED TERMINAL END SECT. (EA)	TANGENT TERMINAL END SECT. (EA)	Cable Anchor TYPE I (EA)	BRIDGE END SECTION		DELINEATORS		Type 3 Object Markers (EA)	GUARDRAIL REMOVAL (LF)	REMARKS		
		(W-BEAM) (LF)	THREE BEAM THREE SECT. (LF)				TYPE "A" (EA)	TYPE "D" MOD. (EA)	TYPE "I" (EA)	SPEC. DESIGN BR END CONN. (EA)				WHITE (EA)	YELLOW (EA)
411+25	NB RT	215			1	1					8		290		
415+50	NB RT	125			1	1					8		330		
486+00	NB LT	255			1	1					8		200	173.0B	
486+00	NB RT	125			1						8		200	173.0B	
120+60	SB LT	175			1	1					8		280		
211+40	SB LT	95			1	1					6		170		
227+00	SB LT	150			1	1					8		225		
269+80	SB LT	180			1	1					9		255		
274+90	SB LT	175			1	1					7		280		
415+50	SB LT	175			1	1					8		250		
426+40	SB LT	75			1	1					5		150		
480+50	SB LT	175			1	1					8		250		
477+95	SB LT	155			1	1					8		230	173.0A	
477+95	SB RT	155			1						8		230	173.0A	
492+50	SB RT	280			1	1					11		355		
533+75	SB LT	175			1	1					8		250		
538+65	SB LT	165			1	1					7		240		
TOTAL =		5030 L.F.	0 EA.	0 LF.	17 EA.	13 EA.	2 EA.	2 EA.	0 EA.	0 EA.	106 EA.	27 EA.	5 EA.	4125 L.F.	

* REMOVAL OF ALL GUARDRAIL (BRIDGE END SECTIONS, W-BEAM, TYPE-I CABLE ANCHORAGE, TERMINAL END SECTIONS, ETC.) WILL BE PAID UNDER PAY ITEM 202-B REMOVAL OF GUARDRAIL.

* REMOVAL OF GUARDRAIL DELINEATORS ARE CONSIDERED INCIDENTAL TO THE REMOVAL OF GUARDRAIL AND WILL NOT BE MEASURED AS A SEPARATE PAY ITEM.

* ALL GUARDRAIL (METAL RAIL AND METAL POSTS ONLY) WILL BE RETAINED BY MIDOT. WOODEN POSTS, ALL BLOCKOUTS, CONCRETE ANCHORS, ETC. WILL BE THE PROPERTY OF THE CONTRACTOR.

* TOTAL GUARDRAIL LENGTH IS BASED ON A TERMINAL END SECTION 37.5' LONG. IF A TERMINAL END SECTION OF A DIFFERENT LENGTH IS USED, THE LENGTH OF THE W-BEAM MAY HAVE TO BE ADJUSTED.

TRAFFIC SIGNAL RADAR DETECTION CHART								
Intersection	Detection Zone Location	Phase #	Detection Zone Size	STOPBAR Radar Unit	Advance Radar Unit	Radar Cable (ft)	Existing Controller Type	Existing Pole Configuration
US 49 at Kickapoo Road	SB Left Turn Lane	1	6'X50'	1		160	M50 EPAC (one existing Wavetronix Click 650 unit)	Mast Arm Poles
	SB Thru Lanes	6	330' from STOPBAR		1	160		
	NB Left Turn Lane	5	6'X50'	1		450		
	NB Thru Lanes	2	330' from STOPBAR		1	450		
	WB Lanes	3	6'X50'	1		330		
	EB Lanes	4	Existing Radar					
US 49 at Presidential Dr	SB Thru Lanes	6	6'X50'	1		200	M60 EPAC (existing Wavetronix Click 650 Unit)	Spanwire
	NB Left Turn Lane	5	6'X50'	1		100		
	NB Thru Lanes	2	6'X50'					
	WB Lanes	4	Existing Radar					
	EB Lanes	4	Existing Radar					
US 49 at JFK Dr	SB Thru Lanes	6	6'X50'	1		110	M60 EPAC (existing Wavetronix Click 650 Unit)	Spanwire
	NB Left Turn Lane	5	Existing Radar					
	NB Thru Lanes	2						
	EB Lanes	4	Existing Radar					
US 49 at Country Club/ Forest Ave Ext	SB Thru Lanes	6	6'X50'	1		200	M60 EPAC (existing Wavetronix Click 650 Unit)	Spanwire
	SB Left Turn Lane	1	6'X50'					
	NB Thru Lanes	2	6'X50'	1		100		
	WB Lanes	8	Existing Radar					
	EB Lanes	4	Existing Radar					
			Total	8	2	2260		

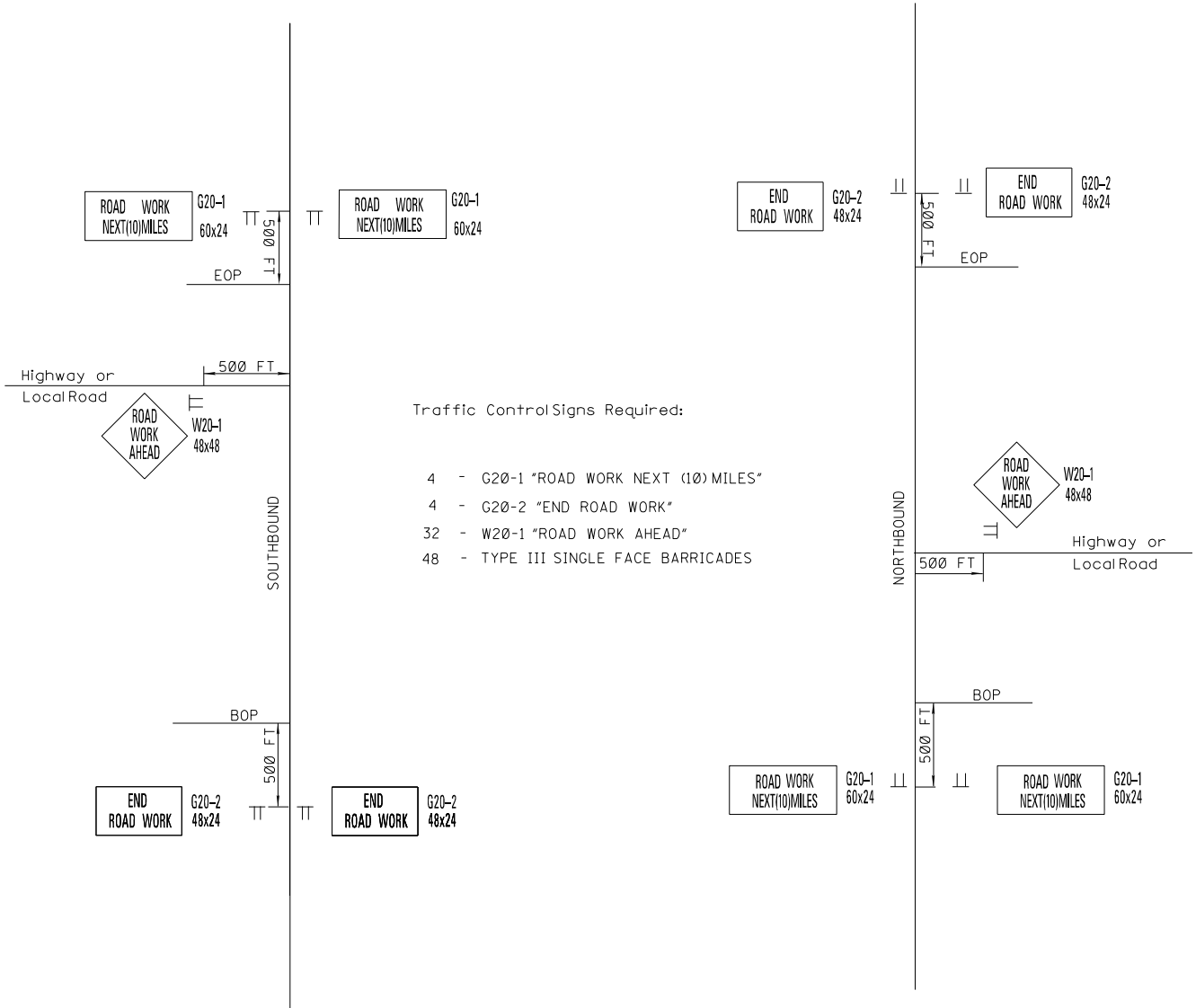
#1 Replace existing EPAC Controllers with new controllers. Existing EPAC controllers to be salvaged to MDOT Signal Shop. Contractor shall be responsible for transferring existing controller data to the new controllers.

#2 Radar units shall be mounted per manufacturer recommendations. Contractor shall be responsible for setting up all new signal controllers and detection units as per manufacturer recommendations

#3 Contractor may remove existing detection loop cable, if necessary.

#4 Cable quantities may be adjusted based on radar locations per manufacturer recommendations

CONSTRUCTION SIGNING DETAIL
 US 49 OVERLAY
 FROM 0.45 MILES NORTH OF I-220
 TO MADISON COUNTY LINE
 HINDS COUNTY
 108231/301000

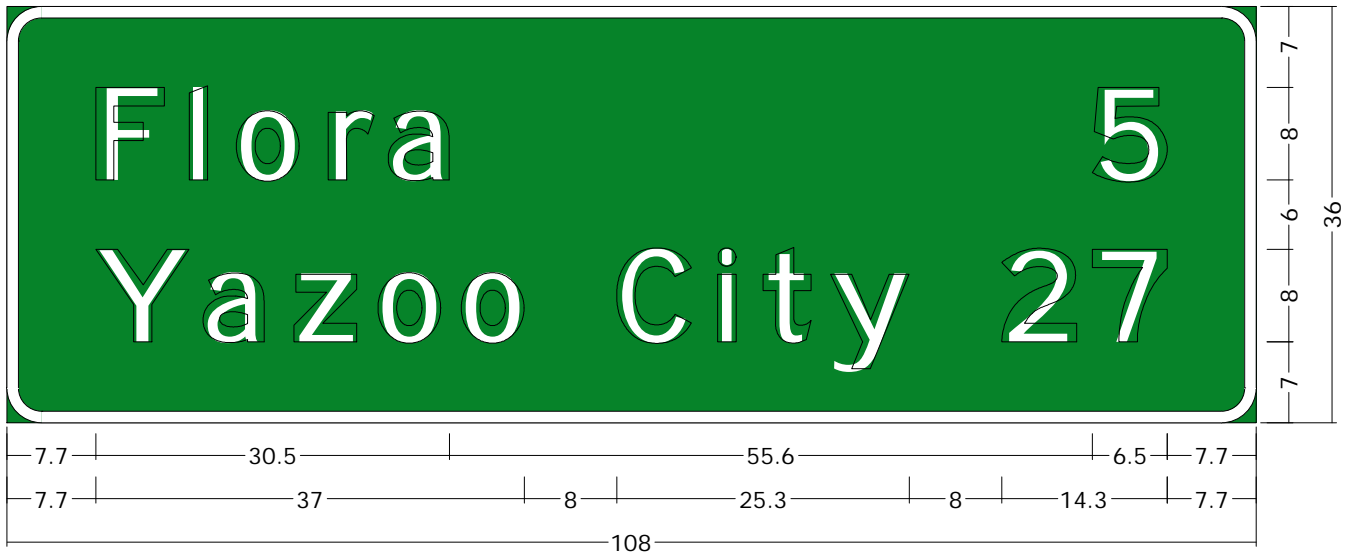


NOTES: One (1) W20-1 "ROAD WORK AHEAD" Sign is Required at each Local Road, Street, Ramps or Highway Entering the Project.

G20-1 and G20-2 signs mounted on Type III Single Faced Barricade.

108231/301000 HINDS COUNTY

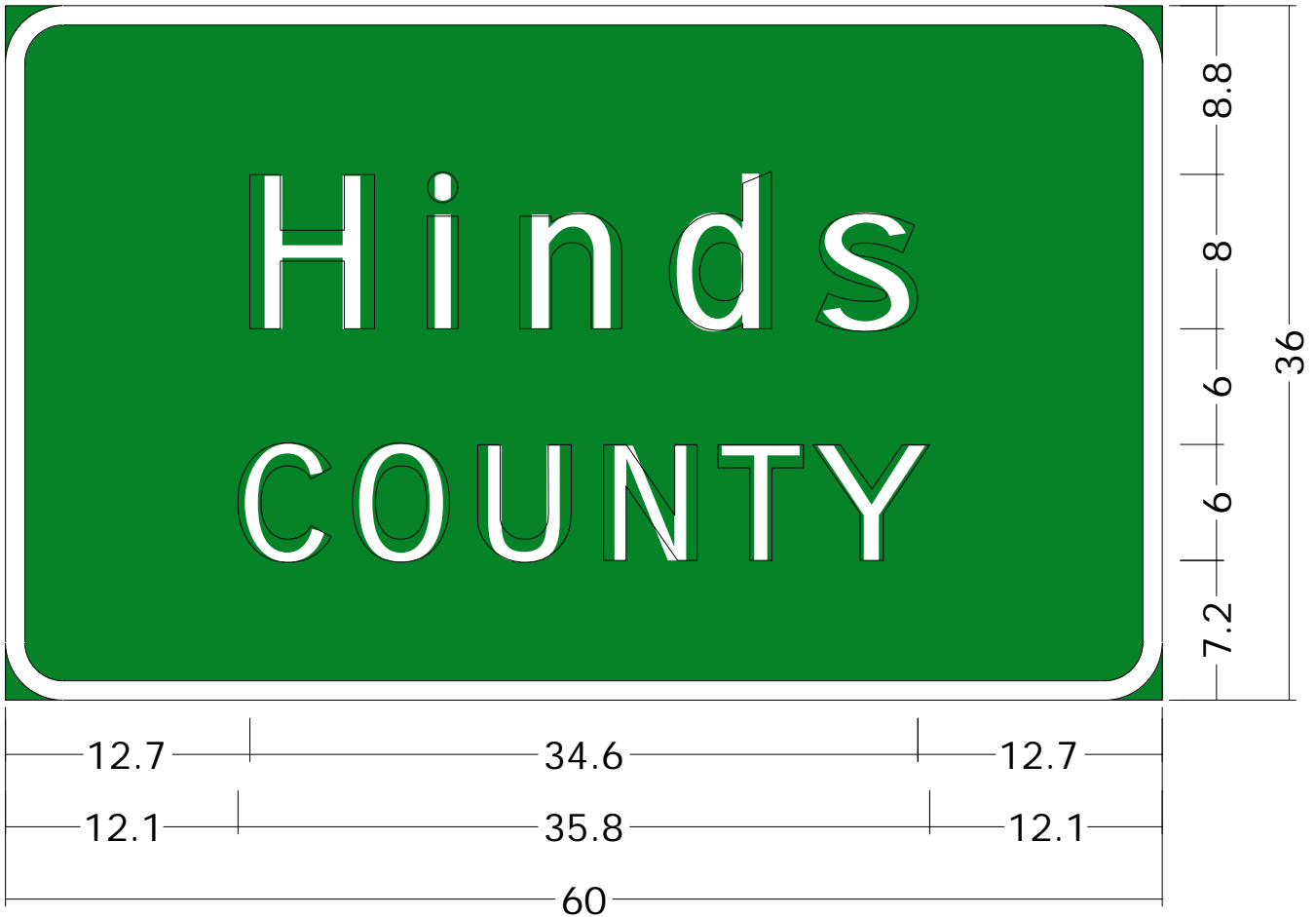
518+75 NB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Flora", E Mod 2K; "5", E Mod 2K; "Yazoo City", E Mod 2K; "27", E Mod 2K;

108231/301000 HINDS COUNTY

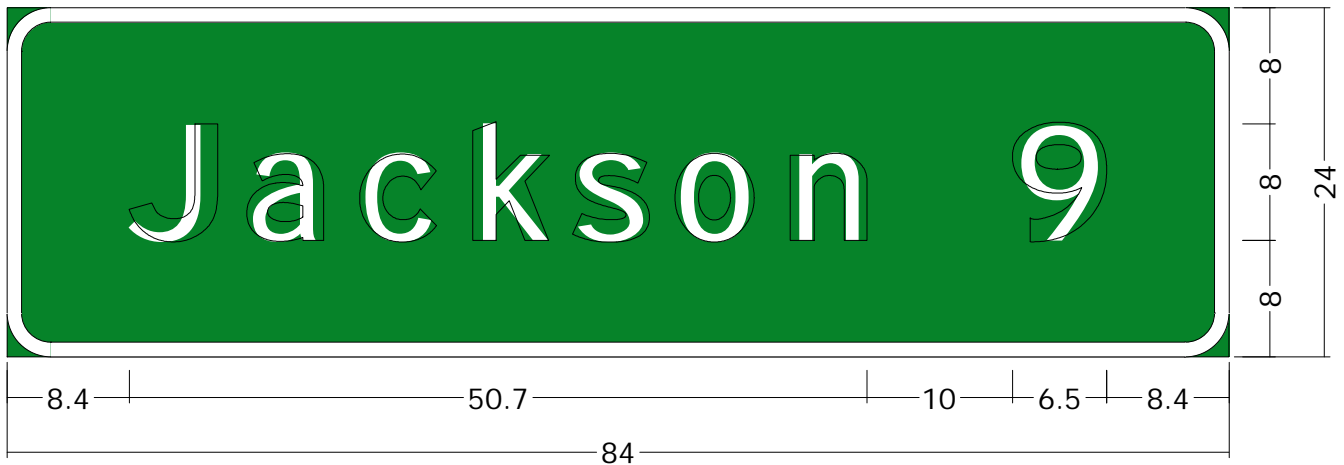
571+25 SB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Hinds", E Mod 2K; "COUNTY", E Mod 2K;

108231/301000 HINDS COUNTY

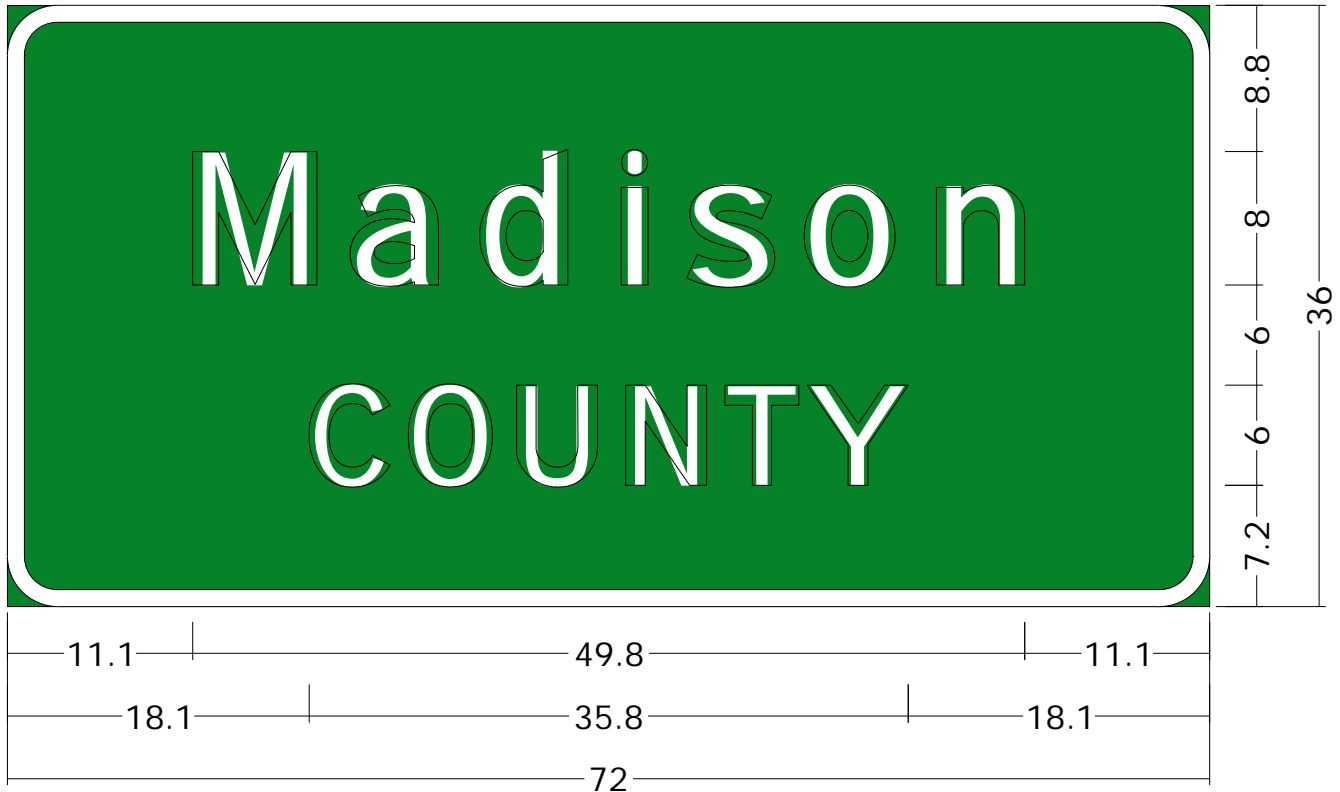
508+20 SB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Jackson", E Mod 2K; "9", E Mod 2K;

108231/301000 HINDS COUNTY

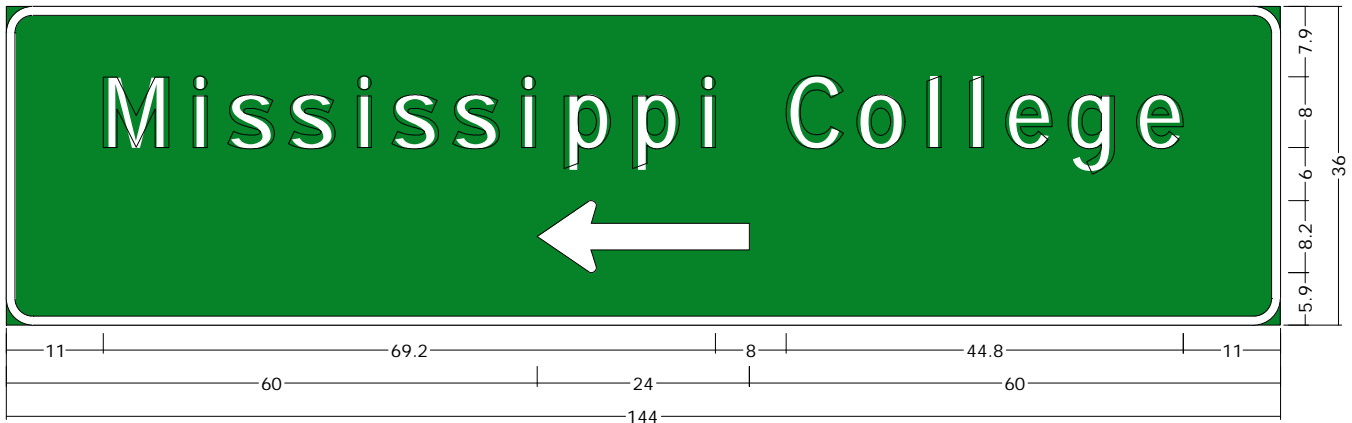
571+25 NB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Madison", E Mod 2K; "COUNTY", E Mod 2K;

108231/301000 HINDS COUNTY

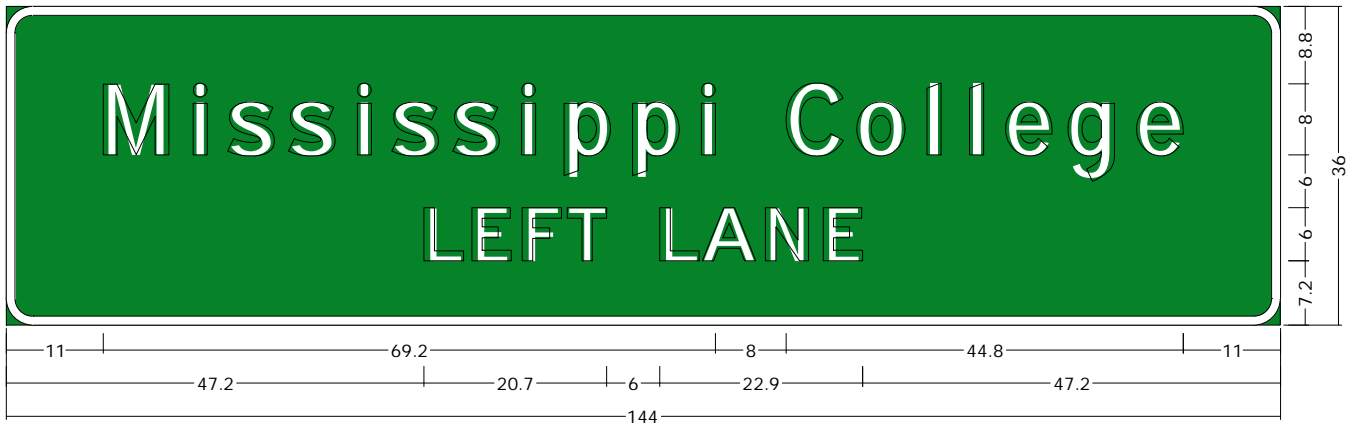
302+00 NB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Mississippi College", E Mod 2K; Standard Arrow Custom 24.0" X 8.1" 180';

108231/301000 HINDS COUNTY

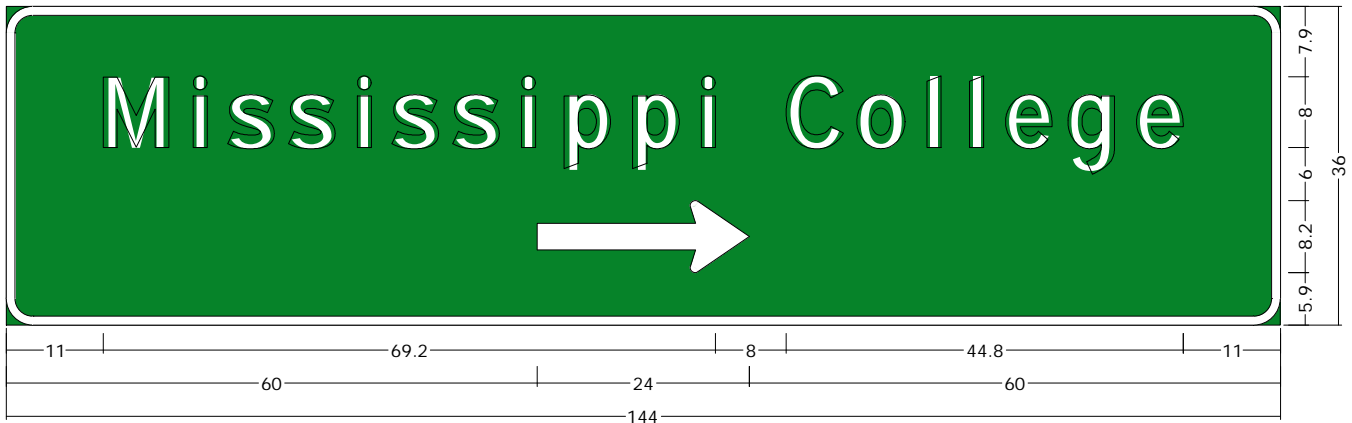
314+75 NB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Mississippi College", E Mod 2K; "LEFT LANE", E Mod 2K;

108231/301000 HINDS COUNTY

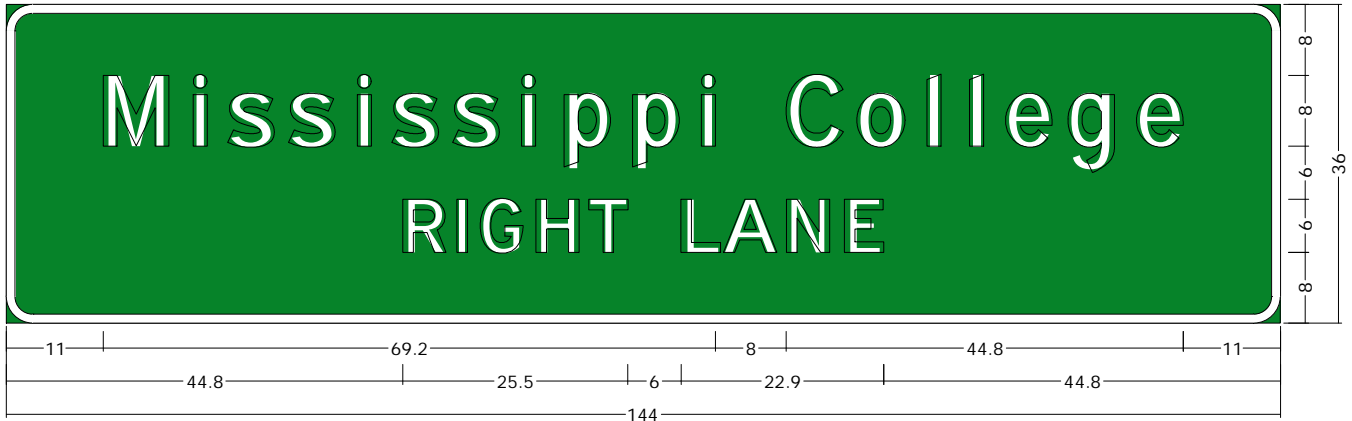
320+75 SB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Mississippi College", E Mod 2K; Standard Arrow Custom 24.0" X 8.1" 0";

108231/301000 HINDS COUNTY

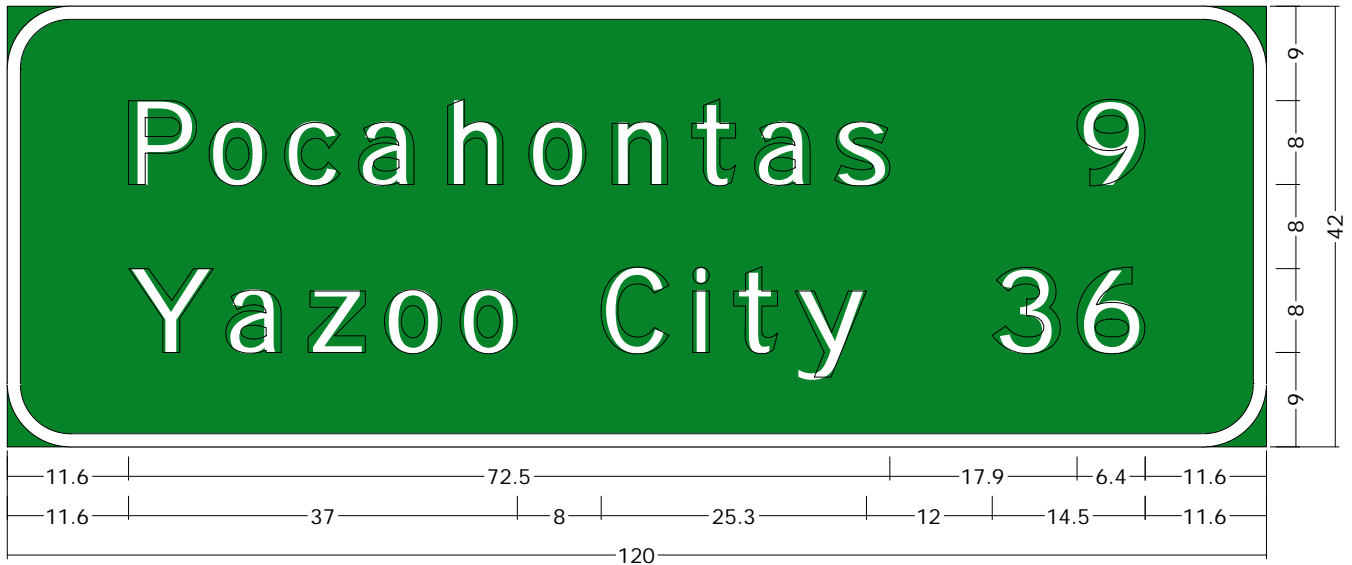
325+50 SB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Mississippi College", E Mod 2K; "RIGHT LANE", E Mod 2K;

108231/301000 HINDS COUNTY

558+44 NB RIGHT SHOULDER

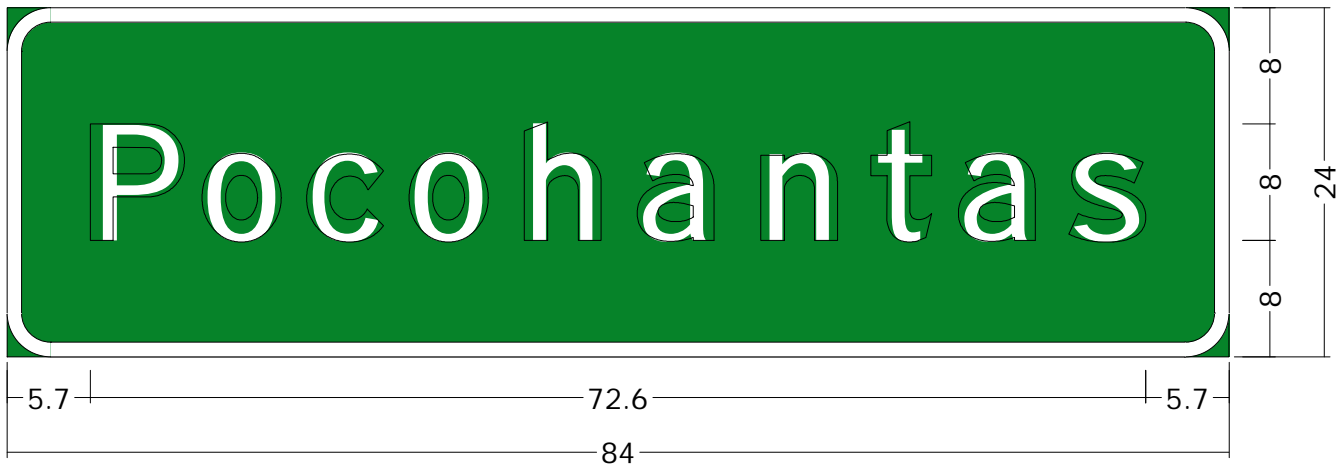


6.0" Radius, 1.3" Border, White on, Green;

"Pocahontas", E Mod 2K; "9", E Mod 2K; "Yazoo City", E Mod 2K; "36", E Mod 2K;

108231/301000 HINDS COUNTY

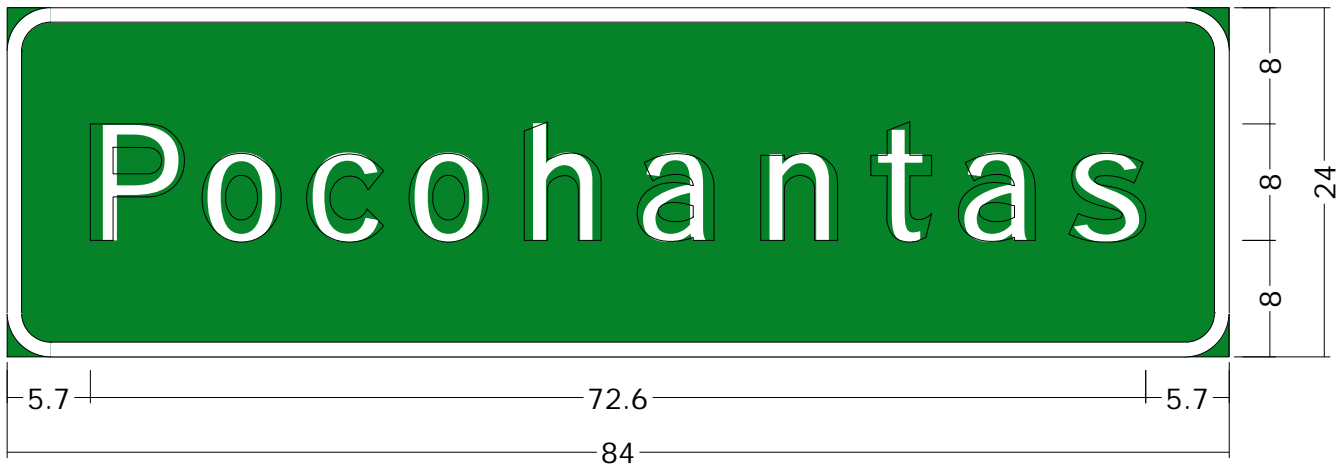
501+10 NB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Pocohantas", E Mod 2K;

108231/301000 HINDS COUNTY

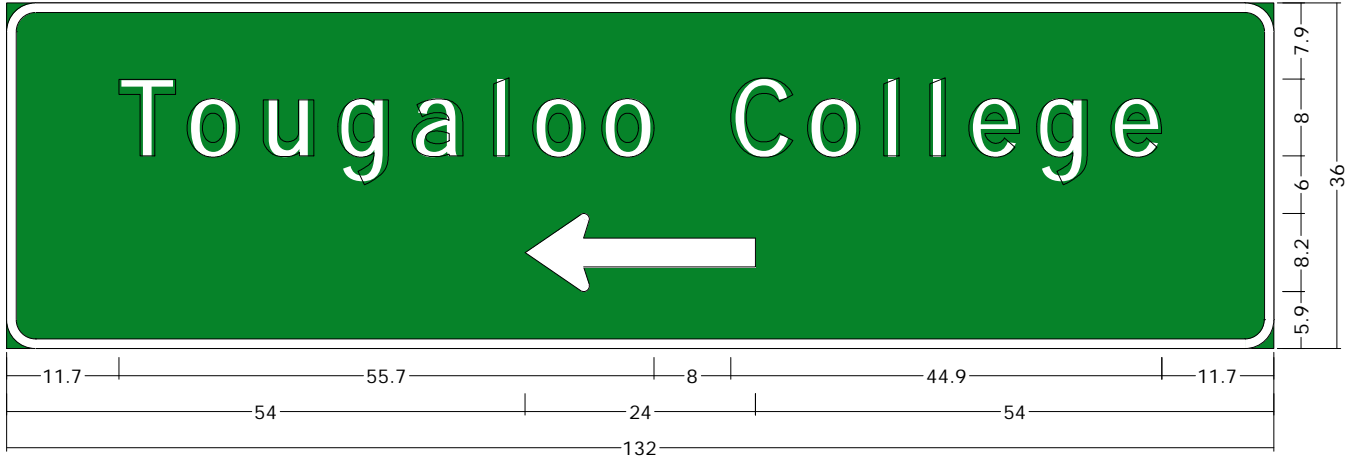
518+90 SB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Pocohantas", E Mod 2K;

108231/301000 HINDS COUNTY

234+45 SB RIGHT SHOULDER

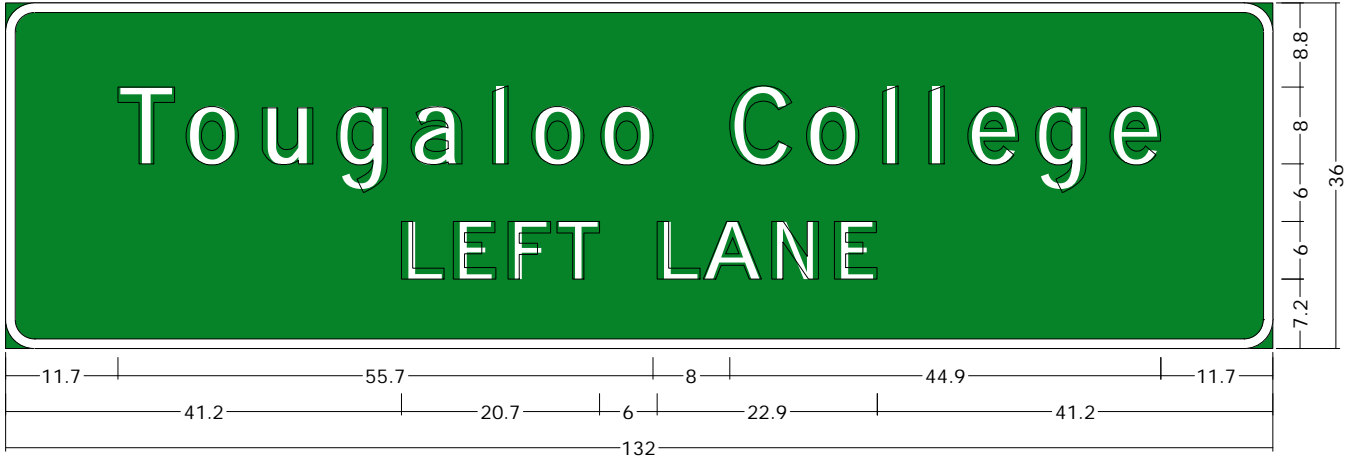


3.0" Radius, 1.0" Border, White on, Green;

"Tougaloo College", E Mod 2K; Standard Arrow Custom 24.0" X 8.1" 180';

108231/301000 HINDS COUNTY

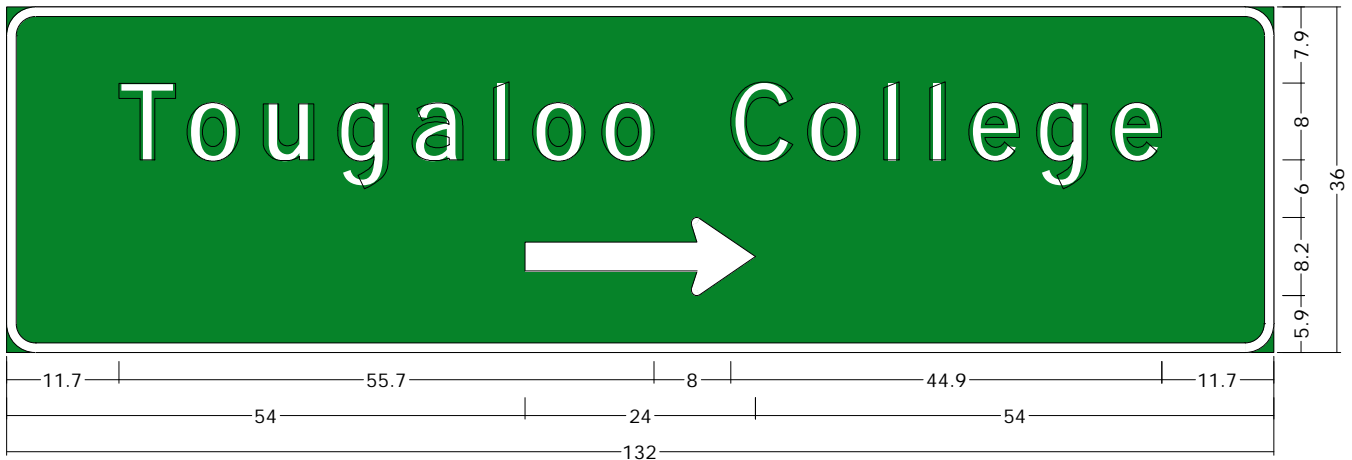
255+45 SB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Tougaloo College", E Mod 2K; "LEFT LANE", E Mod 2K;

108231/301000 HINDS COUNTY

270+45 NB RIGHT SHOULDER

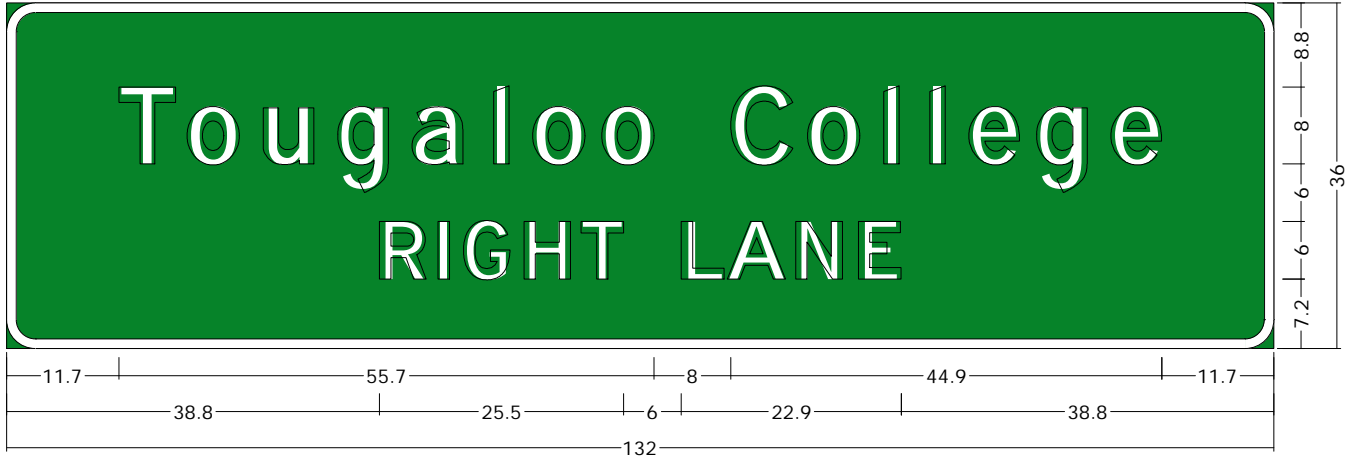


3.0" Radius, 1.0" Border, White on, Green;

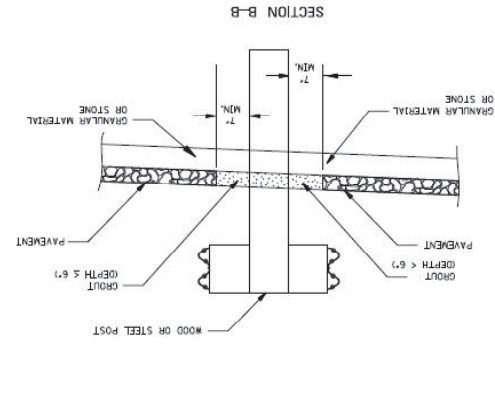
"Tougaloo College", E Mod 2K; Standard Arrow Custom 24.0" X 8.1" 0";

108231/301000 HINDS COUNTY

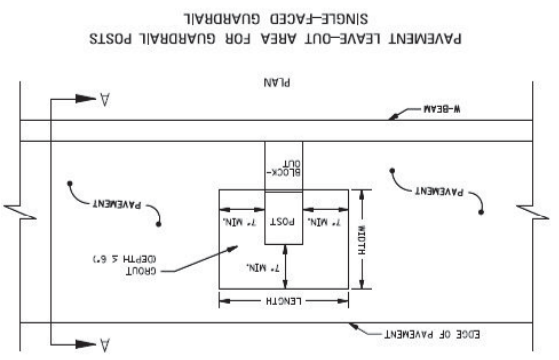
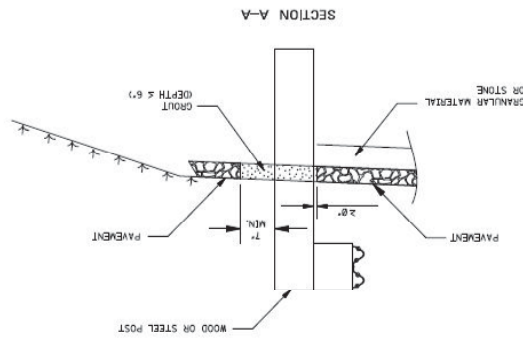
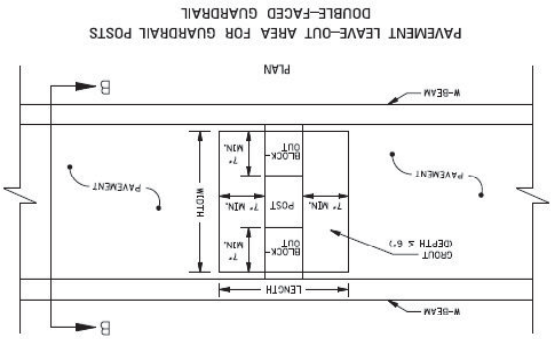
220+45 NB RIGHT SHOULDER



3.0" Radius, 1.0" Border, White on, Green;
"Tougaloo College", E Mod 2K; "RIGHT LANE", E Mod 2K;

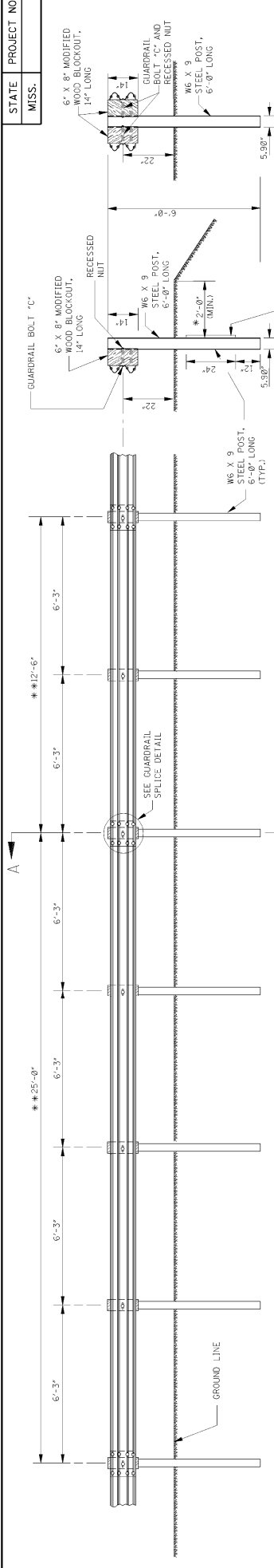


- GENERAL NOTES
1. GUARDRAIL POSTS SHALL NOT BE COMPLETELY SURROUNDED BY PAVEMENT. THE AREA BEHIND AND LATERAL OF THE POST SHALL HAVE A MINIMUM 7" CLEARANCE FROM THE SURROUNDING PAVEMENT TO A MAXIMUM OF 6". IF SURROUNDING PAVEMENT IS TO A MAXIMUM OF 6", IT SHALL BE FILLED IN WITH SHOULDER GRANULAR MATERIAL.
 2. GROUT SHALL BE INSTALLED AT A DEPTH EQUAL TO THE STRENGTH OF 120 PSI.
 3. COST OF GROUT SHALL BE ABSORBED IN THE COST OF OTHER ITEMS BID.
 4. PAVEMENT LEAVE-OUT AREAS ARE REQUIRED FOR STEEL AND WOOD POSTS.
 5. STANDARD ENGAGEMENT DEPTHS STILL APPLY MEASURED FROM THE TOP OF THE PROJECTED PAVEMENT SURFACE.



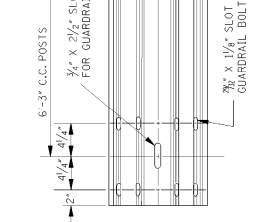
MIN. PAV'T. LEAVE-OUT AREA		SINGLE-FACED		DOUBLE-FACED	
POST	LENGTH (DN.)	WIDTH (DN.)	LENGTH (DN.)	WIDTH (DN.)	LENGTH (DN.)
6"x8" WOOD	28	15	28	22	22
8"x8" WOOD	22	15	22	22	22
10"x10" WOOD	24	17	24	24	24
WxS STEEL	18	13	18	18	28

Guardrail Post Installation in Paved Areas

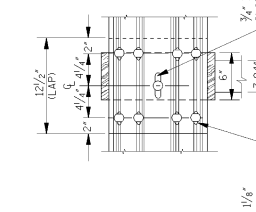


ELEVATION FROM ζ ROADWAY
** NOTE: OPTIONAL BEAM LENGTHS.

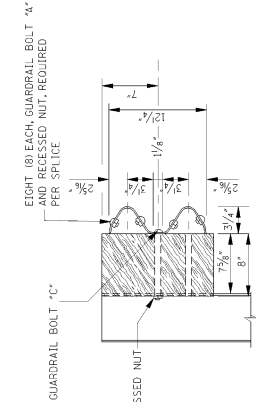
ELEVATION FROM ζ ROADWAY
** NOTE: OPTIONAL BEAM LENGTHS.



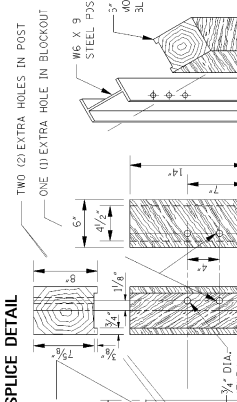
TYPICAL GUARDRAIL SECTION



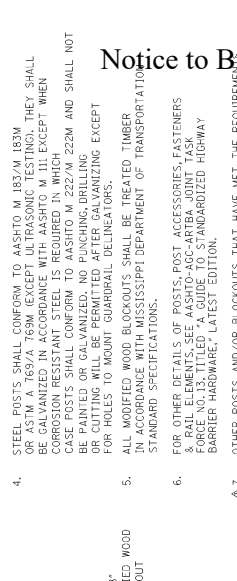
ELEVATION



SECTION



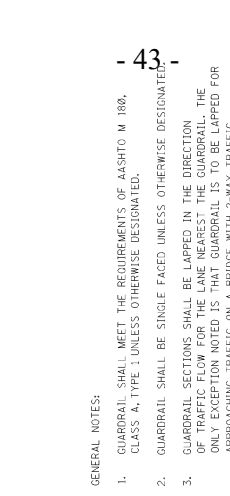
GUARDRAIL SPLICE DETAIL



DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY

- NOTES:
- ON INITIAL INSTALLATION, THE MODIFIED WOOD BLOCKOUT SHALL BE FASTENED TO THE BOTTOM HOLE IN THE STEEL POST. THEREAFTER, THE MODIFIED WOOD BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
 - AN ADDITIONAL GUARDRAIL BOLT "C" AND RECESSED NUT IS REQUIRED FOR THE SECOND HEIGHT ADJUSTMENT.
 - HOLE DETAILS ARE REQUIRED ON ALL STEEL POSTS AND MODIFIED WOOD BLOCKOUTS.
 - STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
 - MODIFIED WOOD BLOCKOUTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
 - ALL HOLES IN BOTH STEEL POSTS AND MODIFIED WOOD BLOCKOUTS ARE 3/4" IN DIAMETER.

SINGLE-FACED BARRIER
DOUBLE-FACED BARRIER
SECTION A-A
*NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.



GENERAL NOTES:

- GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 188, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
- GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
- GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL IS TO BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
- STEEL POSTS SHALL CONFORM TO AASHTO M 183/M 183M OR ASTM A 169/A 169M (EXCEPT ULTRASONIC TESTING). THEY SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 EXCEPT WHEN OTHERWISE SPECIFIED. GALVANIZING SHALL BE IN ACCORDANCE WITH CASE POSTS SHALL CONFORM TO AASHTO M 222/M 222M AND SHALL NOT BE PAINTED OR GALVANIZED. NO PUNCHING, DRILLING OR CUTTING WILL BE PERMITTED AFTER GALVANIZING EXCEPT FOR HOLES TO MOUNT GUARDRAIL DELINEATORS.
- ALL MODIFIED WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
- FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AG-ARTRA JOINT TASK FORCE REPORT FOR 2-DIMENSIONAL UNAUTHORIZED HIGHWAY BARRIER HARDWARE, LATEST EDITION.
- OTHER POSTS AND/OR BLOCKOUTS THAT HAVE MET THE REQUIREMENTS OF THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION AND MISSISSIPPI DEPARTMENT OF TRANSPORTATION MAY BE USED IN LIEU OF THE POST AND BLOCKOUT SHOWN ON THIS STANDARD.

FASTENER DETAILS

- NOTES:
- ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 - IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

GUARDRAIL BOLTS			
BOLT	L	T	
"A"	1 1/2"	1"	
"B"	2"	1 3/4"	
"C"	10"	4"	

FASTENER DETAILS

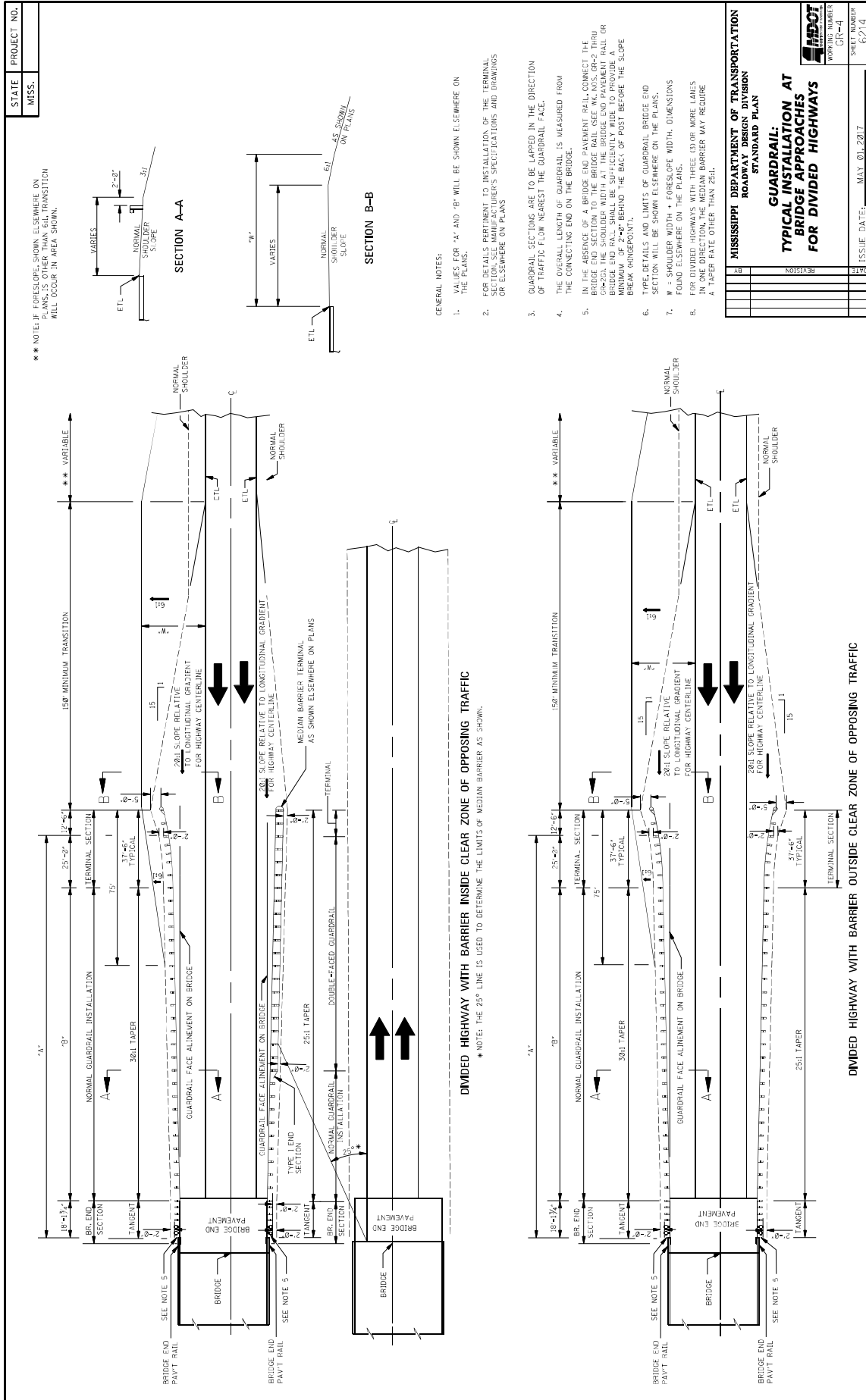
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

DATE	BY	REVISION

**GUARDRAIL:
"W" BEAM
(STEEL POSTS)**

ISSUE DATE: OCTOBER 1, 1998



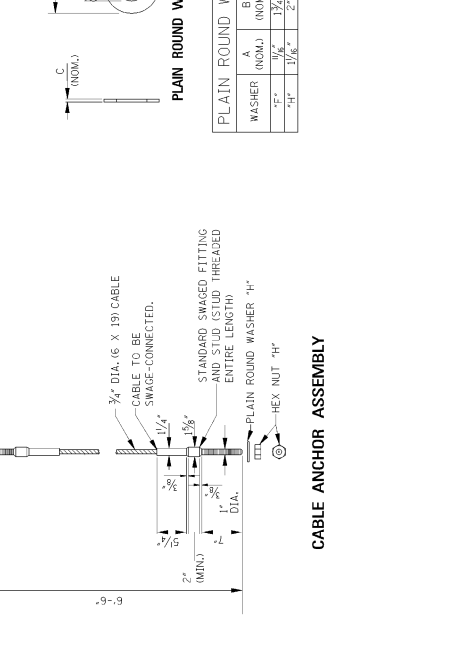
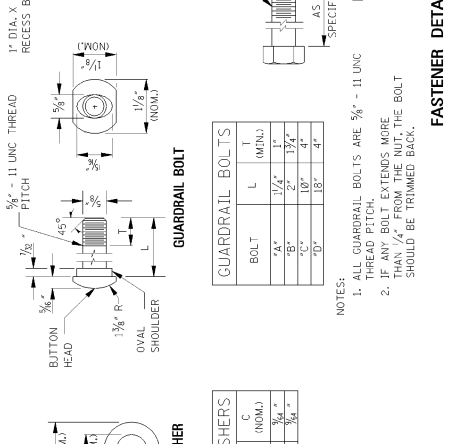
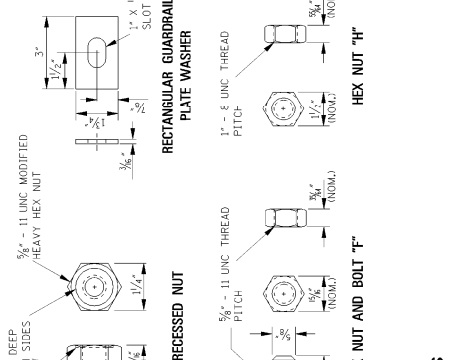
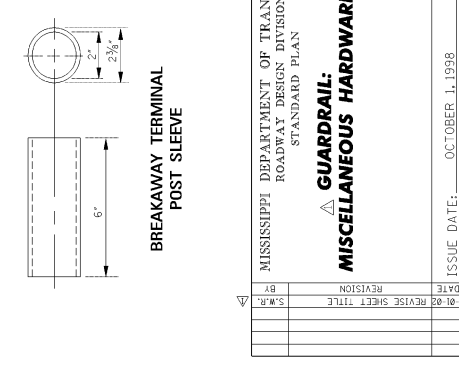
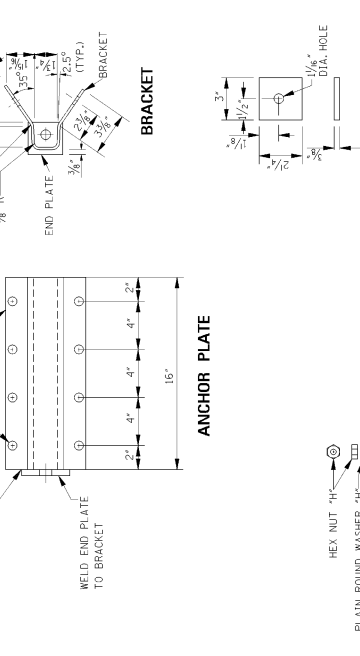
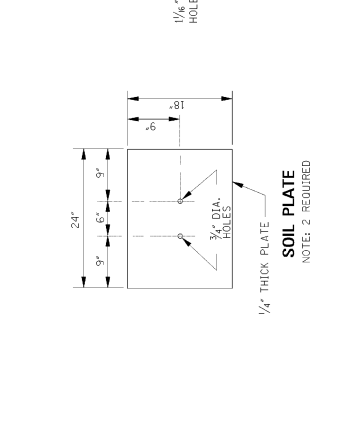
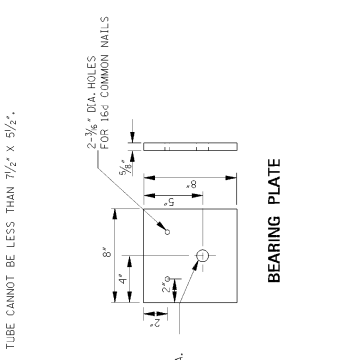
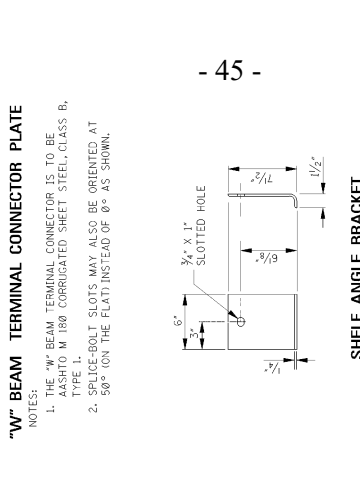
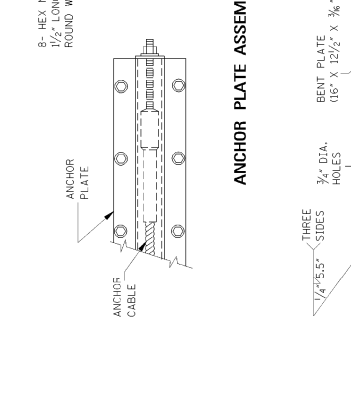
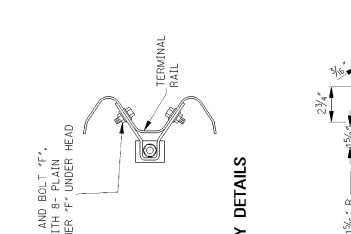
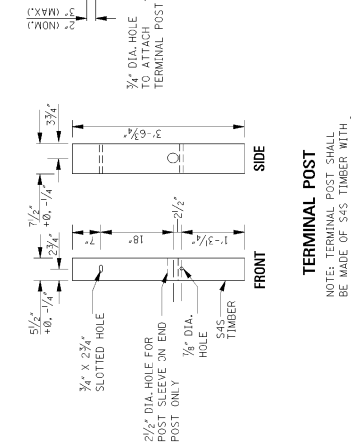
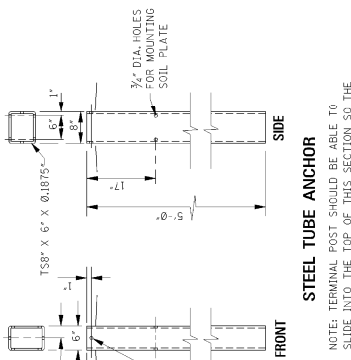
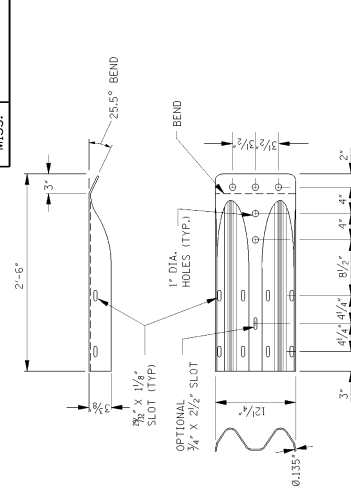


** NOTE: IF FORESLOPE, SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.

DIVIDED HIGHWAY WITH BARRIER INSIDE CLEAR ZONE OF OPPOSING TRAFFIC

* NOTE: THE 25° LINE IS USED TO DETERMINE THE LIMITS OF MEDIAN BARRIER AS SHOWN.

DIVIDED HIGHWAY WITH BARRIER OUTSIDE CLEAR ZONE OF OPPOSING TRAFFIC



GUARDRAIL BOLTS

BOLT	L	T	(MIN.)
"A"	1 1/2"	1 1/2"	1 1/2"
"B"	2"	1 3/4"	1 3/4"
"C"	10"	4"	4"
"D"	18"	4"	4"

NOTE: 1. ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

PLAIN ROUND WASHERS

WASHER	A	B	C	(NOM.)
"E"	3/4"	1 1/4"	2"	3/4"
"H"	1 1/4"	2"	3 1/2"	1 1/4"

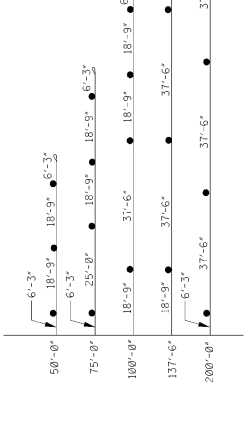
NOTE: 1. ALL GUARDRAIL BOLTS ARE 5/8" - 11 UNC THREAD PITCH.
 2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN

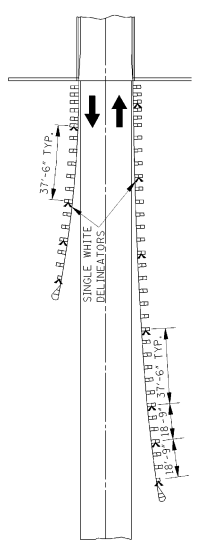
GUARDRAIL: MISCELLANEOUS HARDWARE

REVISION
 5/8/02
 5/8/02
 5/8/02

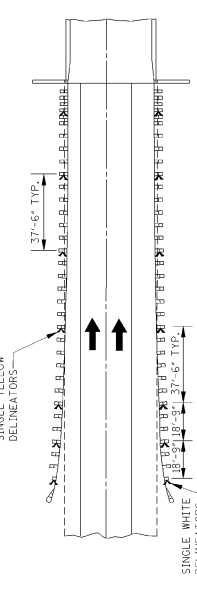
ISSUE DATE: OCTOBER 1, 1998
 SHEET NUMBER: 202



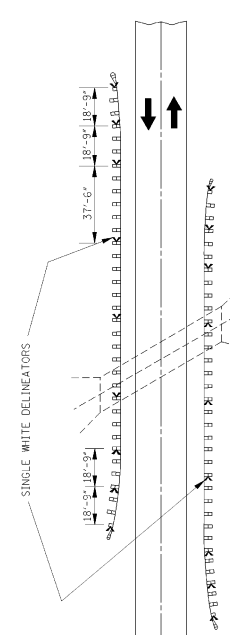
GRAPHIC SHOWING SPACINGS OF GUARDRAIL DELINEATORS AT SOME COMMONLY USED BRIDGE APPROACHES



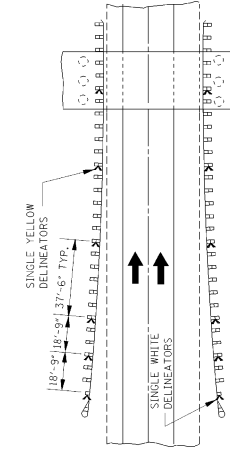
BRIDGE APPROACH INSTALLATION (TWO-WAY TRAFFIC)



BRIDGE APPROACH INSTALLATION (ONE-WAY TRAFFIC)



ROADSIDE OBSTACLE INSTALLATION—LENGTH 250' OR LESS (TWO-WAY TRAFFIC)



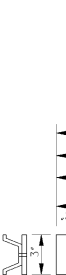
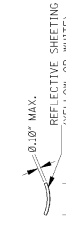
ROADSIDE OBSTACLE INSTALLATION—LENGTH 250' OR LESS (ONE-WAY TRAFFIC)

EMBANKMENT OR ROADSIDE OBSTACLE INSTALLATION—LENGTH GREATER THAN 250' (ONE-WAY TRAFFIC)

NOTE: ONE-WAY TRAFFIC SHOWN. DELINEATOR SPACING FOR TWO-WAY TRAFFIC SIMILAR. DELINEATOR COLOR WILL BE THE SAME AS THE ADJACENT PAVEMENT EDGE MARKING. THE FIRST THREE (3) MARKERS WILL FACE TRAFFIC IN OFF LANE FOR TWO-WAY TRAFFIC AS SHOWN IN DRAWING FOR OBSTACLE INSTALLATION FOR TWO-WAY TRAFFIC.

GENERAL NOTES:

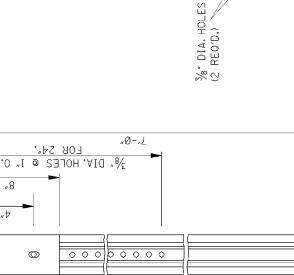
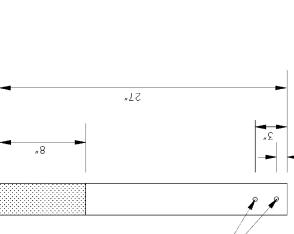
1. THE UNIT PRICE OF DELINEATOR INCLUDES COST(S) OF DELINEATOR FACETS, POST, HARDWARE AND INSTALLATION.
2. DELINEATOR FACE WILL BE ENCAPSULATED LENS REFLECTIVE SHEETING.
3. DELINEATORS FOR GUARDRAIL SHALL BE MOUNTED ON STEEL POSTS OR FLEXIBLE POSTS AS FOLLOWS:



REFLECTIVE SHEETING (YELLOW OR WHITE)

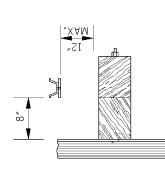
REFLECTIVE SHEETING (YELLOW OR WHITE)

REFLECTIVE SHEETING (YELLOW OR WHITE)

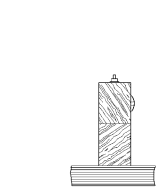


DETAIL OF FLEXIBLE GUARDRAIL DELINEATOR

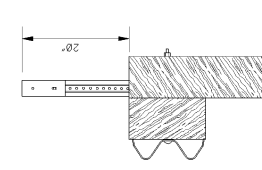
DETAIL OF SINGLE WHITE OR SINGLE YELLOW DELINEATOR



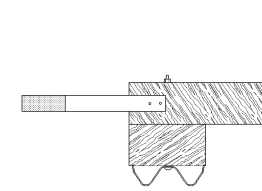
PLAN VIEWS



PLAN VIEWS



TYPICAL STEEL POST DELINEATOR GUARDRAIL INSTALLATION



TYPICAL FLEXIBLE POST DELINEATOR GUARDRAIL INSTALLATION

MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	REVISION DATE	ISSUE DATE: OCTOBER 1, 1998
5/1/02	3/1/02	
1/1/02	1/1/02	
1/1/02	1/1/02	
1/1/02	1/1/02	
1/1/02	1/1/02	
1/1/02	1/1/02	
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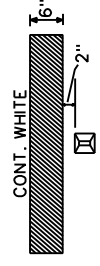
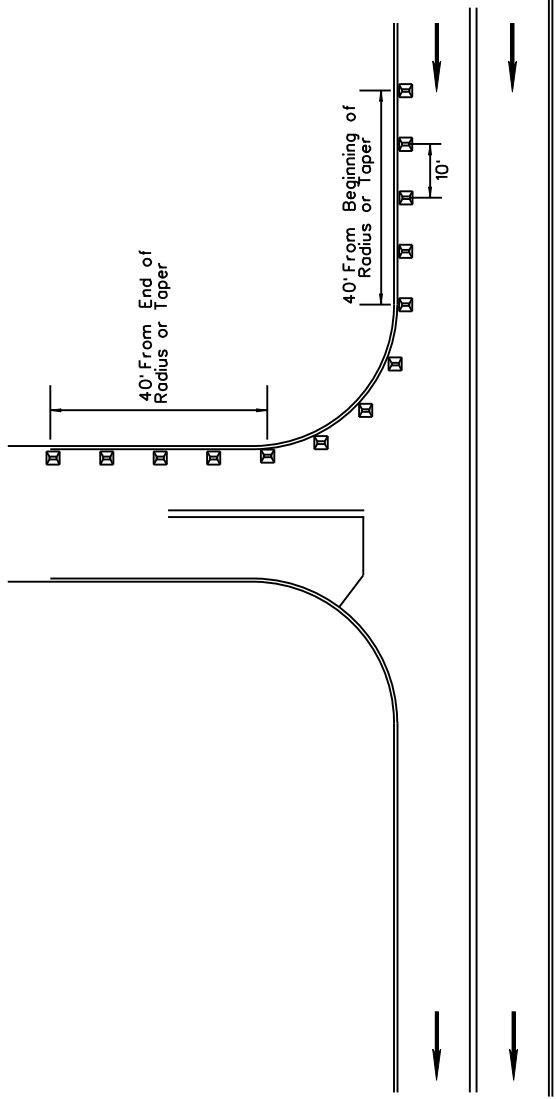


TYPICAL GUARDRAIL DELINEATION

PLATE NUMBER
EN-8C
NUMBER
236

STATE	PROJECT NO.
MISS.	

TYPICAL FOR RAISED PAVEMENT MARKERS PLACED ON SIDE ROAD RADIUS 4-LANE TRAFFIC

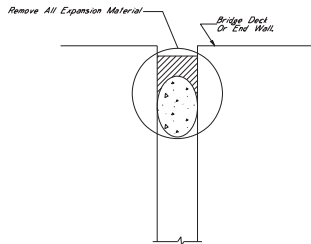


DETAIL A

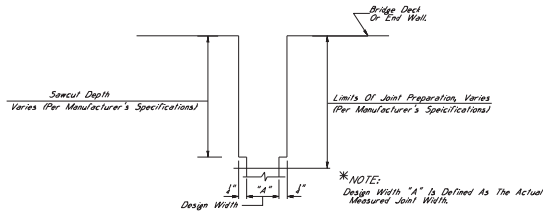
→ DIRECTION OF TRAFFIC

- NOTE 1: MARKERS SHALL BE PLACED EVERY 10 FEET.
- NOTE 2: MARKERS SHALL BE VISIBLE FROM THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
- NOTE 3: MARKERS SHALL BE HIGH PERFORMANCE TWO WAY CLEAR.
- NOTE 4: FIVE (5) MARKERS SHALL BE PLACED ALONG MAINLINE EDGE STRIPE.
- NOTE 5: MARKERS FOR COUNTY ROADS SHALL CONTINUE DOWN THE EDGE STRIPE A DISTANCE OF 40 FEET.
- NOTE 6: MARKERS SHALL NOT BE ROTATED WHEN BEING PLACED ALONG RADIUS OF LOCAL ROAD.

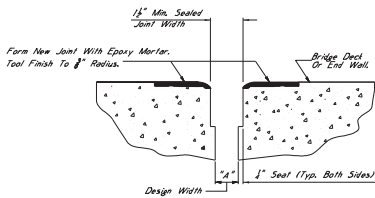
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
4 - LANE	
2-WAY CLEAR RAISED PAVEMENT MARKERS PLACED ON SIDE ROADS	
PROJECT NO.	
COUNTY :	
FILE NAME: SE\SIDERDRM.DGN	
DESIGNER	
CHECKER	
DATE	
WORKING NUMBER	
CRPMSR-14	
SHEET NUMBER	



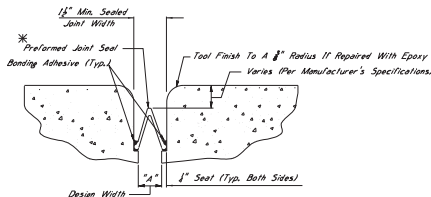
TYPICAL SECTION AT EXISTING JOINT
Showing Existing Expansion Materials To Be Removed And Replaced With Preformed Joint Seal



TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT
Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



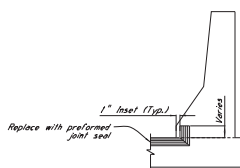
TYPICAL SECTION AT SAWCUT & JOINT REPAIR
Showing Area Where Repairs Are Made After Sawcut, With Epoxy Mortar Or Approved Equivalent



TYPICAL SECTION AT SAWCUT & SEALED JOINT
Showing Sealed Joint After Sawcut

***NOTES:**

- The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:
 - Silcoflex Joint Sealing System Manufactured By R.J. Watson, Inc. In Allen, NY www.rjwatson.com
 - Wobo SPS Joint System Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wobocorp.com
 - Silopac SSS Silicone Strip Seal Manufactured By SSI Commercial & Highway Construction Materials www.ssi.com
- For Estimating Purposes, The R.J. Watson Silcoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Presented By The Manufacturer. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.
- Joints Shall Be Sealed At Their Design Width, Dimension "A", Which Is Defined As, The Actual Width Of The Joint Opening. This Width Does Not Account For The Seal Depth On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than Or Equal To 2", With The Maximum Design Width Along 26" Class Where Design Widths Are Greater Than 26". Another Type Of Expansion Material Shall Be Approved As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



***NOTES:**

- For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 1".
For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-0002 JOINT REPAIR

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Epoxy Mortar Shall Also Be Included Under This Item Of Work. Removal Of Existing Silicone Sealed, Compression And AC Sealed Joint Materials Will Not Be Paid For. Directly And Shall Be Considered As Absorbed Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-808-0003 JOINT REPAIR WITHOUT EPOXY

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Existing Silicone Sealed, Compression And AC Sealed Joint Materials Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-0001 SAW CUT, TYPE I & 907-823-0002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. It Is The Contractor's Responsibility To Ensure That The Proper Depth Is Selected Based On The Manufacturer's Recommendations.

907-823-0001 PREFORMED JOINT SEAL, TYPE I

907-823-0002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal.

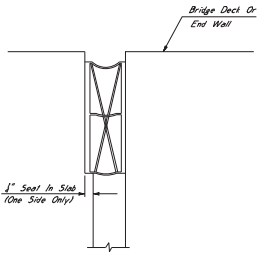
Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

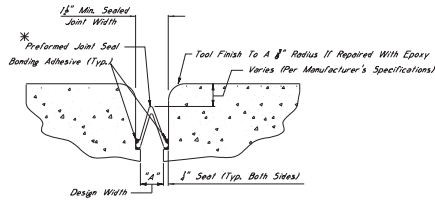
Either Epoxy Mortar Or Polymer Concrete May Be Used. Guidelines For Selection Of Materials Can Be Found In Section 808 of the Specifications.

GENERAL NOTES:

- Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
- No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustments.
- Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.



TYPICAL SECTION AT EXISTING JOINT
Showing Existing Expansion Device To Be Removed And Replaced With Performed Joint Seal



TYPICAL SECTION AT SAWCUT & SEALED JOINT
Showing Sealed Joint After Sawcut And Repair With Epoxy Mortar

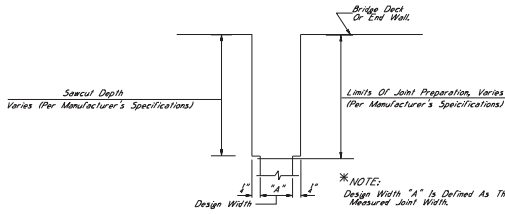
***NOTES:**

1. The Performed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications.

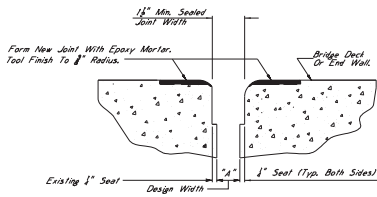
- A. Silcoflex Joint Sealing System
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com
- B. Wolo SPS Joint System
Manufactured By Wolo Bowman Acme Corporation In Amherst, NY
www.wolo.com
- C. Silseac SSS Silicone Strip Seal
Manufactured By SSI Commercial & Highway Construction Materials
www.ssi.com

2. For Estimating Purposes, The R.J. Watson Silcoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variations Between The Specifications Provided By The Manufacturer. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

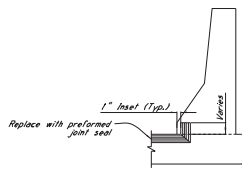
3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As, The Actual Width Of The Joint Opening. This Width Does Not Account For The 1/2" Seal Required On Both Sides Of The Joint. Performed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Performed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than Or Equal To 2", With The Maximum Design Width Being 28". In Cases Where Design Widths Are Greater Than 28", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT
Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



TYPICAL SECTION AT SAWCUT & JOINT REPAIR
Showing Area Where Repairs Are Made After Sawcut, With Epoxy Mortar Or Approved Equivalent



***NOTES:**

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3".
For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 6".

NOTES ON ASSOCIATED ITEMS OF WORK:

907-B08-A002 JOINT REPAIR

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Epoxy Mortar Shall Also Be Included Under This Item Of Work. Removal Of Existing Silicone Sealed, Compression And AC Sealed Joint Materials Will Not Be Paid For Directly And Shall Be Considered As Absorbed Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-B08-A003 JOINT REPAIR WITHOUT EPOXY

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Existing Silicone Sealed, Compression And AC Sealed Joint Materials Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-B23-B001 SAW CUT, TYPE I & 907-B23-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Performed Joint Seal Selected.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. It Is The Contractor's Responsibility To Ensure That The Proper Depth Is Selected Based On The Manufacturer's Recommendations.

907-B23-A001 PREFORMED JOINT SEAL, TYPE I
907-B23-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Performed Joint Seal.

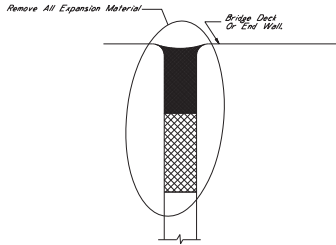
Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

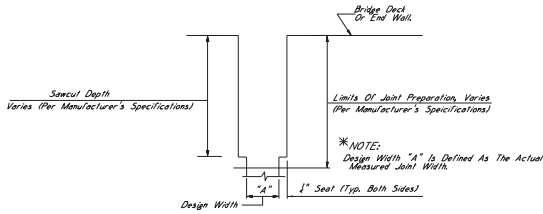
Either Epoxy Mortar Or Polymer Concrete May Be Used. Guidelines For Selection Of Materials Can Be Found In Section 808 Of The Specifications.

GENERAL NOTES:

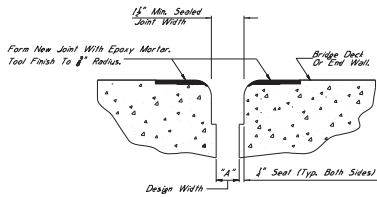
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2012.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustments.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item Of Work.



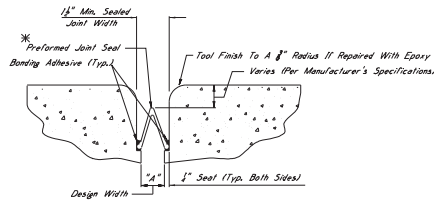
TYPICAL SECTION AT EXISTING JOINT
Showing Existing Expansion Material To Be Removed And Replaced With Performed Joint Seal



TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT
Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



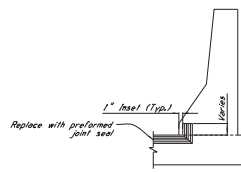
TYPICAL SECTION AT SAWCUT & JOINT REPAIR
Showing Area Where Repairs Are Made After Sawcut With Epoxy Mortar Or Approved Equivalent



TYPICAL SECTION AT SAWCUT & SEALED JOINT
Showing Sealed Joint After Sawcut And Repair With Epoxy Mortar

***NOTES:**

- The Performed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:
 - Silicoflex Joint Sealing System
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com
 - Wedge SPS Joint System
Manufactured By Watson-Bowman Acme Corporation In Amherst, NY
www.wbcorp.com
 - Silicone SSS Silicone Strip Seal
Manufactured By SSI Commercial & Highway Construction Materials
www.ssi.com
- For Estimating Purposes, The R.J. Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Details And Widths, Adhesion, Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturer, A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.
- Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1/2" Seal Required On Both Sides Of The Joint. Performed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Performed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than Or Equal To 2". With The Maximum Design Width Being 2". In Cases Where Design Widths Are Greater Than 2", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-AD02 JOINT REPAIR

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Epoxy Mortar Shall Also Be Included Under This Item Of Work. Removal Of Existing Silicone Sealing, Compression, And AC Sealed Joint Materials Will Not Be Paid For Directly And Shall Be Considered As Absorbed Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-808-AD03 JOINT REPAIR WITHOUT EPOXY

Description: Shall Include The Work Necessary To Repair Joints In Preparation For The Placement Of New Expansion Material, As Designated In The Detail Drawings Provided. Removal Of Existing Silicone Sealing, Compression, And AC Sealed Joint Materials Shall Be Included Under This Item Of Work. All Other Requirements Shall Be In Accordance With The Applicable Provisions Of Section 808 Of The Specifications And Any Other Sections Specified Therein.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-823-B001 SAW CUT, TYPE I & 907-823-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Performed Joint Seal Selected.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. It Is The Contractor's Responsibility To Ensure That The Proper Depth Is Selected Based On The Manufacturer's Recommendations.

907-823-AD01 PREFORMED JOINT SEAL, TYPE I

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Performed Joint Seal.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

Either Epoxy Mortar Or Polymer Concrete May Be Used. Guidelines For Selection Of Materials Can Be Found In Section 808 Of The Specifications.

GENERAL NOTES:

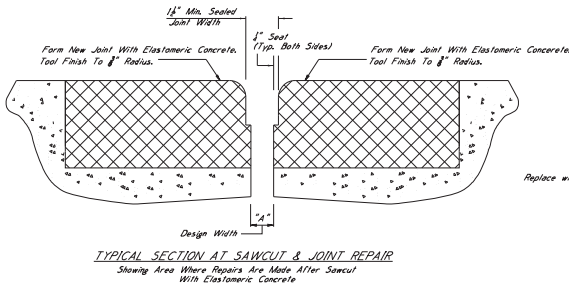
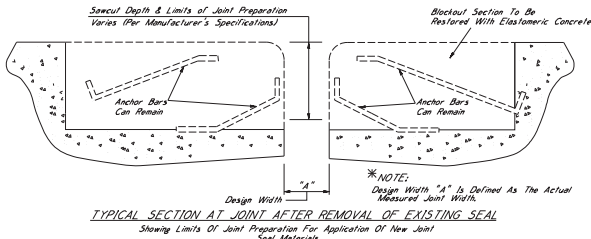
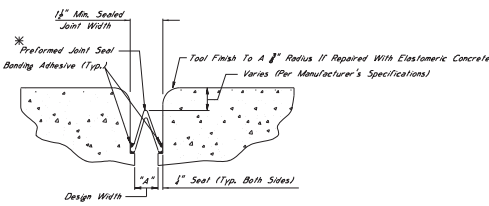
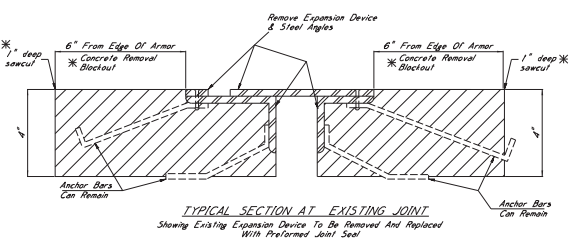
- Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2011.
- No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Or Detail Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
- Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Thereafter Be Considered An Absorbed Item Of Work.

***NOTES:**

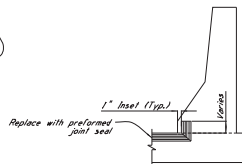
For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3". For Cast And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 6".

*** 1" SAWCUT NOTES:**
All 1" Sawcuts Shall Be Considered An Absorbed Item of Work. The Contractor Shall Verify Depth Of Reinforcing Steel Before Making any Sawcuts. The Depth Of The Sawcut Shall Be No More Than The Depth Of The Reinforcing Steel. Any Damage To Reinforcing Steel Shall Be Repaired To The Satisfaction Of The Engineer At No Cost To The State.

*** CONCRETE REMOVAL BLOCKOUT NOTES**
Removal Of The Concrete Blockout Area Shall Be Considered An Absorbed Item Of Work Under Pay Item 202-B169. The Contractor Shall Use A Hammer No Larger Than 30 Lbs To Complete This Work.



- * NOTES:**
- The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:
 - A. Silcoflex Joint Sealing System Manufactured By R.J. Watson, Inc. In Alden, NY www.rjwatson.com
 - B. Wolo SFS Joint System Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wbcorp.com
 - C. Silapac 555 Silicone Strip Seal Manufactured By SSI Commercial & Highway Construction Materials www.ssi.com
 - For Estimating Purposes, The R.J. Watson Silcoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Details And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturer. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Scheduled In Installation Of The Joint Material.
 - Joints Shall Be Sealed At Their Design Width, Dimension "A", Which Is Defined As, The Actual Width Of The Joint Opening. This Width Does Not Account For The 1/2" Seal Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than Or Equal To 2". With The Maximum Design Width Being 24". In Cases Where Design Widths Are Greater Than 24", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



*** NOTES:**
For Jersey Slab Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3".
For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 6".

NOTES ON ASSOCIATED ITEMS OF WORK:
202-B169 REMOVAL OF EXISTING JOINT MATERIAL

Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Neoprene Expansion Joints, As Designated In The Detail Drawings Provided. Removal Of The Concrete Blockout Area Shall Be Absorbed Under This Item Of Work. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer.

Basis Of Payment: Removal Of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint, While Removal Of Neoprene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.

907-B23-B001 SAW CUT, TYPE I & 907-B23-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-B23-A001 PREFORMED JOINT SEAL, TYPE I
907-B23-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

ELASTOMERIC CONCRETE NOTES
907-B24-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:

- A. Poly-Tron Elastomeric Concrete Manufactured By R.J. Watson, Inc. In Alden, NY www.rjwatson.com
- B. WoloCrete II Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wbcorp.com
- C. Deterite Elastomeric Concrete Manufactured By The D.S. Brown Company In North Baltimore, OH www.dsbrown.com

Basis of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

GENERAL NOTES:

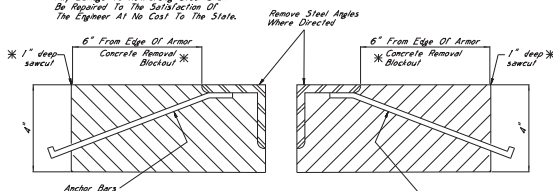
- Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
- No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
- Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.

*** 1" SAWCUT NOTES:**

All 1" Sawcuts Shall Be Considered An Assured Item of Work. The Contractor Shall Verify Depth Of Reinforcing Steel Before Making Any Sawcuts. The Depth Of The Sawcut Shall Be No More Than The Depth Of The Reinforcing Steel. Any Damage To Reinforcing Steel Shall Be Repaired To The Satisfaction Of The Engineer At No Cost To The State.

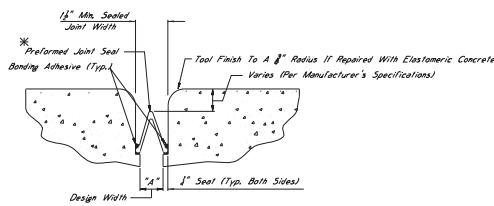
*** CONCRETE REMOVAL BLOCKOUT NOTES**

Removal Of The Concrete Blockout Area Shall Be Considered An Assured Item Of Work Under Pay Item 202-0160. The Contractor Shall Use A Hammer No Larger Than 30 LBS To Complete This Work.



TYPICAL SECTION AT EXISTING JOINT

Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

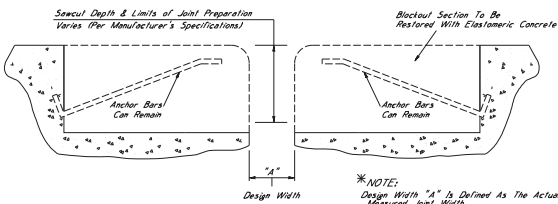
*** NOTES:**

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

- A. Silcoflex Joint Sealing System Manufactured By R.J. Watson, Inc. In Allen, NY www.rjwatson.com
- B. Wela SWS Joint System Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wbacorp.com
- C. Silgan SSS Silicone Strip Seal Manufactured By SSI Commercial & Highway Construction Materials www.ssi.com

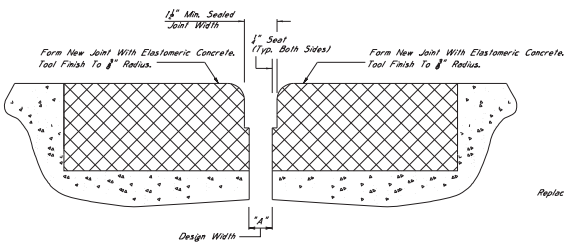
2. For Estimating Purposes, The R.J. Watson Silcoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depth And Width, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturer's & Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

3. Joints Shall Be Sealed At Their Design Width, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seal Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than Or Equal To 2". With The Maximum Design Width Being 28". In Cases Where Design Widths Are Greater Than 28", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



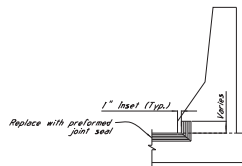
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits of Joint Preparation For Application Of New Joint Seal Material



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



*** NOTES:**

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3". For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 6".

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

202-0160 REMOVAL OF EXISTING JOINT MATERIAL

Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plates, and Heavens Expansion Joints, As Designated In The Detail Drawings Provided. Removal Of The Concrete Blockout Area Shall Be Assured Under This Item Of Work. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer.

Basis Of Payment: Removal of Armor and Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. Heavens Removal of Heavens Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.

907-023-001 SAW CUT, TYPE I & 907-023-002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-023-001 PREFORMED JOINT SEAL, TYPE I

907-023-002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

ELASTOMERIC CONCRETE NOTES

907-024-0001 BRIDGE REPAIR, ELASTOMERIC CONCRETE

Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:

- A. Poly-Ton Elastomeric Concrete Manufactured By R.J. Watson, Inc. In Allen, NY www.rjwatson.com
- B. WelaCure II Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wbacorp.com
- C. Delcrete Elastomeric Concrete Manufactured By The U.S. Brown Company In North Baltimore, OH www.dcbrown.com

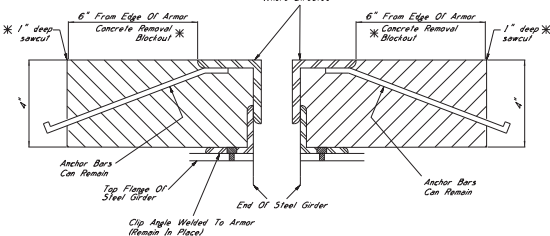
Basis Of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

GENERAL NOTES:

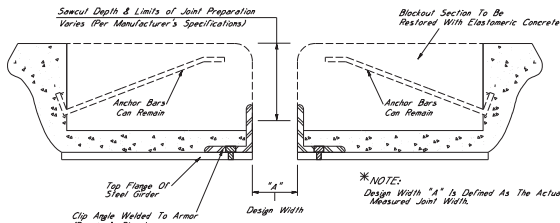
- 1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
- 2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
- 3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Assured Item of Work.

*** 1" SAWCUT NOTES:**
 All 1" Sawcuts Shall Be Considered An Absorbed Item Of Work. The Contractor Shall Verify Depth Of Reinforcing Steel Before Making Any Sawcuts. The Depth Of The Sawcut Shall Be No More Than The Depth Of The Reinforcing Steel. Any Damage To Reinforcing Steel Shall Be Repaired To The Satisfaction Of The Engineer At No Cost To The State.

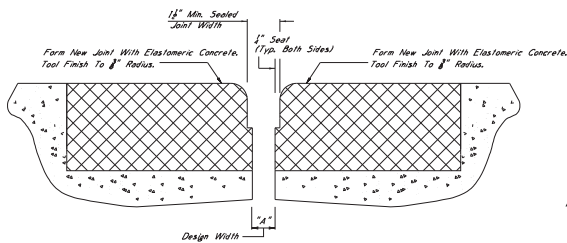
*** CONCRETE REMOVAL BLOCKOUT NOTES**
 Removal Of The Concrete Blockout Area Shall Be Considered An Absorbed Item Of Work Under Pay Item 202-B169. The Contractor Shall Use A Hammer No Larger Than 30 Lbs To Complete This Work.



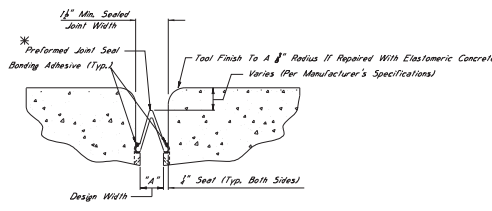
TYPICAL SECTION AT EXISTING JOINT
 Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal



TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL
 Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials

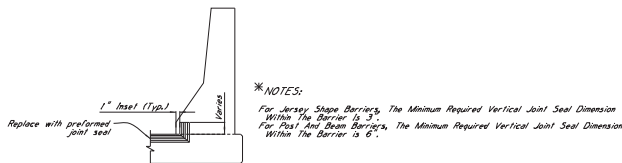


TYPICAL SECTION AT SAWCUT & JOINT REPAIR
 Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



TYPICAL SECTION AT SAWCUT & SEALED JOINT
 Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

- * NOTES:**
- The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:
 - A. SilicoFlex Joint Sealing System Manufactured By R.J. Watson, Inc. In Allen, NY www.rjwatson.com
 - B. Wabo SPS Joint System Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wabocorp.com
 - C. Slopac SSS Silicone Strip Seal Manufactured By SSI Commercial & Highway Construction Materials www.ssi.com
 - For Estimating Purposes, The R.J. Watson SilicoFlex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturer. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Scheduled In Installation Of The Joint Material.
 - Joints Shall Be Sealed At Their Design Widths, Dimension "A" Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seal Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than Or Equal To 2". With The Maximum Design Width Being 6". In Cases Where Design Widths Are Greater Than 6", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



ELEVATION AT END OF SPAN

*** NOTES:**
 For Jersey Slope Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3"
 For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 6"

NOTES ON ASSOCIATED ITEMS OF WORK:

- 202-B169 REMOVAL OF EXISTING JOINT MATERIAL**
- Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Neoprene Expansion Joints, As Designated In The Detail Drawings Provided. Removal Of The Concrete Blockout Area Shall Be Absorbed Under This Item Of Work. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer.
- Basis Of Payment: Removal Of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint, While Removal Of Neoprene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.
- 907-B23-B001 SAW CUT, TYPE I & 907-B23-B002 SAW CUT, TYPE II**
- Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.
- Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.
- 907-B23-A001 PREFORMED JOINT SEAL, TYPE I**
907-B23-A002 PREFORMED JOINT SEAL, TYPE II
- Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal.
- Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.
- ELASTOMERIC CONCRETE NOTES**
- 907-B24-PP02 BRIDGE REPAIR, ELASTOMERIC CONCRETE**
- Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:
- A. Poly-Ton Elastomeric Concrete Manufactured By R.J. Watson, Inc. In Allen, NY www.rjwatson.com
 - B. WaboCrete II Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wabocorp.com
 - C. Dikrete Elastomeric Concrete Manufactured By The D.S. Brown Company In North Baltimore, OH www.dsbrown.com
- Basis Of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

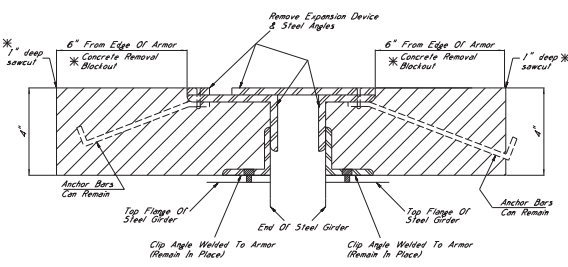
- GENERAL NOTES:**
- Specifications, Mississippi Standard Specifications For Road And Bridge Construction, 2017.
 - No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Or Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
 - Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item Of Work.

*** 1" SAWCUT NOTES:**

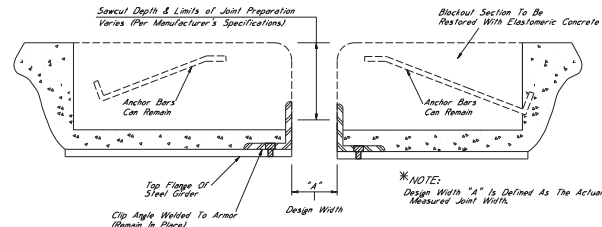
All 1" Sawcuts Shall Be Considered An Absorbed Item of Work. The Contractor Shall Verify Depth of Reinforcing Steel Before Making Any Sawcuts. The Depth Of The Sawcut Shall Be No More Than The Depth Of The Reinforcing Steel. Any Damage To Reinforcing Steel Shall Be Repaired To The Satisfaction Of The Engineer At No Cost To The State.

*** CONCRETE REMOVAL BLOCKOUT NOTES**

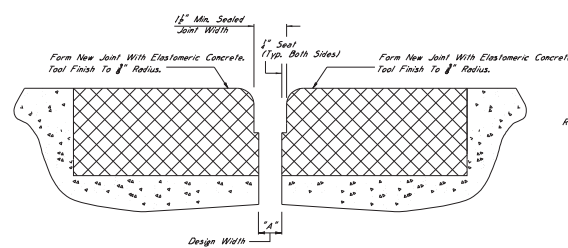
Removal Of The Concrete Blockout Area Shall Be Considered An Absorbed Item Of Work Under Pay Item 202-B169. The Contractor Shall Use A Hammer No Larger Than 30 Lbs To Complete This Work.



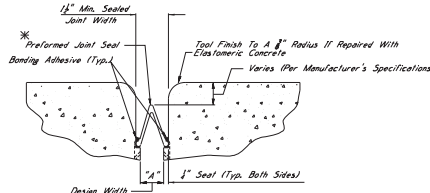
TYPICAL SECTION AT EXISTING JOINT
Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal



TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL
Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



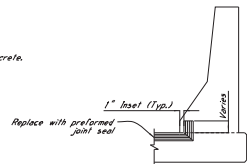
TYPICAL SECTION AT SAWCUT & JOINT REPAIR
Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



TYPICAL SECTION AT SAWCUT & SEALED JOINT
Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

*** NOTES:**

- The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:
 - A. Silux Joint Sealing System Manufactured By R.J. Watson, Inc. In Allen, NY www.rjwatson.com
 - B. Web-Crete Joint System Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wbacorp.com
 - C. Silseal 525 Silicone Strip Seal Manufactured By SSI Commercial & Highway Construction Materials www.ssi.com
- For Estimating Purposes, The R.J. Watson Silux Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturer. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.
- Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seal Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than Or Equal To 2", With The Maximum Design Width Being 8". In Cases Where Design Widths Are Greater Than 8", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



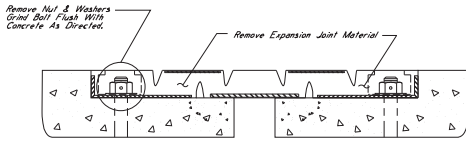
ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

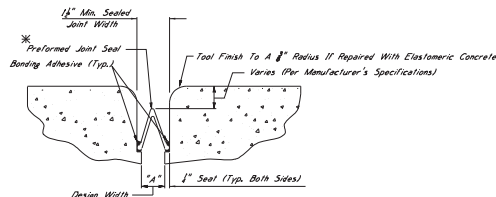
- 202-B169 REMOVAL OF EXISTING JOINT MATERIAL**
Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Noagrene Expansion Joints, As Designated In The Detail Drawings Provided. Removal Of The Concrete Blockout Area Shall Be Absorbed Under This Item Of Work. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer.
Basis of Payment: Removal of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint, While Removal Of Noagrene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.
- 907-B23-B001 SAW CUT, TYPE I & 907-B23-B002 SAW CUT, TYPE II**
Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.
Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.
- 907-B23-A001 PREFORMED JOINT SEAL, TYPE I**
907-B23-A002 PREFORMED JOINT SEAL, TYPE II
Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal.
Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.
- ELASTOMERIC CONCRETE NOTES**
- 907-B24-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE**
Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:
 - A. Poly-Ton Elastomeric Concrete Manufactured By R.J. Watson, Inc. In Allen, NY www.rjwatson.com
 - B. Web-Crete II Manufactured By Watson Bowman Acme Corporation In Amherst, NY www.wbacorp.com
 - C. Dalcrete Elastomeric Concrete Manufactured By The D.S. Brown Company In North Baltimore, OH www.dsbrown.com
- Basis of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

GENERAL NOTES:

- Specifications: Massachusetts Standard Specifications For Road And Bridge Construction, 2012.
- No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
- Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Absorbed Item of Work.



TYPICAL SECTION AT EXISTING JOINT
Showing Existing Expansion Device To Be Removed And Replaced With Preformed Joint Seal



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

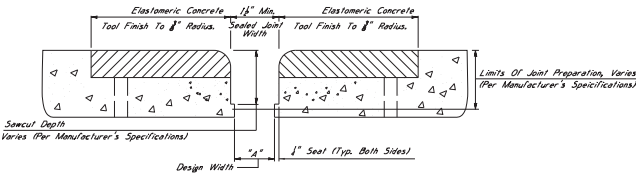
*NOTES:

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:

- A. Silcoflex Joint Sealing System
Manufactured By R.J. Watson, Inc. In Allen, NY
www.rjwatson.com
- B. Wabco Spc Joint System
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wabco.com
- C. Silapac 333 Silicone Strip Seal
Manufactured By SSI Commercial & Highway Construction Materials
www.ssi.com

2. For Estimating Purposes, The R.J. Watson Silcoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturer. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Schooled In Installation Of The Joint Material.

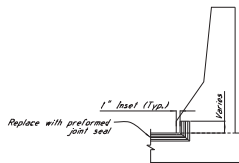
3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seal Required On Both Sides Of The Joint. Preformed Joint Seal Type I Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal Type II Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 28". In Cases Where Design Widths Are Greater Than 28", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL
Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials

*NOTE:

Design Width "A" Is Defined As The Actual Measured Joint Width.



ELEVATION AT END OF SPAN

*NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3".
For Post And Beam Barrages, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 6".

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

Description: Shall Include The Removal Of Material Associated With Armor, Sliding Plate, And Neoprene Expansion Joints, As Designated In The Drawings Provided. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer.

Basis Of Payment: Removal Of Armor And Sliding Plate Joint Material Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint. Whole Removal Of Neoprene Joint Material Will Only Be Paid For As The Length Along The Centerline Of The Joint.

907-B23-B001 SAW CUT, TYPE I & 907-B23-B002 SAW CUT, TYPE II

Description: The Saw Cut Depth Shall Be Equivalent To The Installation Depth Required By The Manufacturer's Specifications. The Saw Cut Type Shall Be The Same As The Preformed Joint Seal Selected.

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Bridge Deck On Each Side Of The Centerline Joint.

907-B23-A001 PREFORMED JOINT SEAL, TYPE I
907-B23-A002 PREFORMED JOINT SEAL, TYPE II

Description: Shall Include The Manufacturer's Required Joint Preparation Including Sandblasting Both Sides Of The Joint And Blowing The Joint Free Of Debris With Compressed Air And Placement Of The New Preformed Joint Seal

Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

ELASTOMERIC CONCRETE NOTES
907-B24-PP007 BRIDGE REPAIR ELASTOMERIC CONCRETE

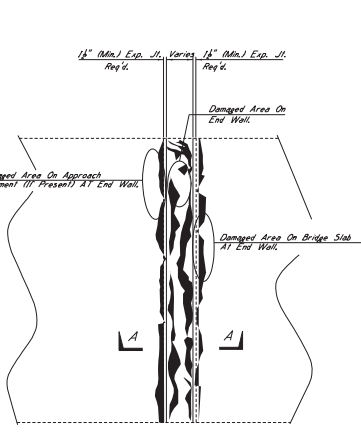
Description: Elastomeric Concrete Shall Be One Of The Following Products, Installed According To The Manufacturer's Specifications:

- A. Poly-Ton Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Allen, NY
www.rjwatson.com
- B. WabcoCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wabco.com
- C. Dcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

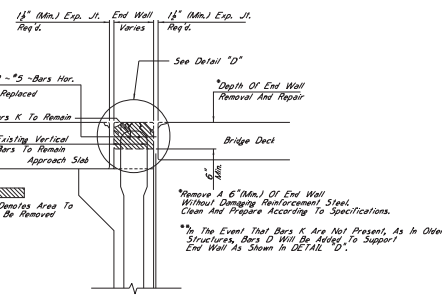
Basis Of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

GENERAL NOTES:

1. Specifications, Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly and Shall Therefore Be Considered An Absorbed Item Of Work.



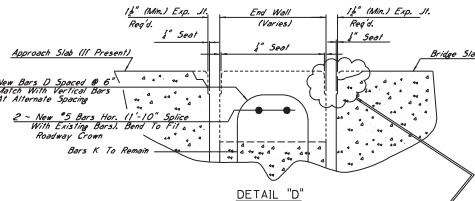
PLAN VIEW
Showing Existing Damaged Areas On And Around End Wall.



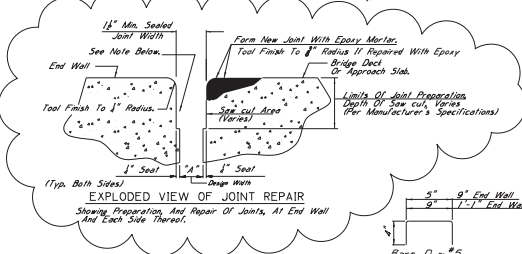
ELEVATION (SECTION A-A)
Showing Details Of Removal Of Damaged End Wall.

***NOTES:**

1. The Preformed Joint Seal Shall Be One Of The Following, Installed According To The Manufacturer's Specifications:
 - A. Siloflex Joint Sealing System
Manufactured By R.J. Watson, Inc.
www.rjwatson.com
 - B. Weto SFS Joint System
Manufactured By Wetsan Business Acme Corporation
www.bacorp.com
 - C. Silpac SSS Silicone Strip Seal
Manufactured By SSF Commercial & Highway Construction Materials
www.ssicm.com



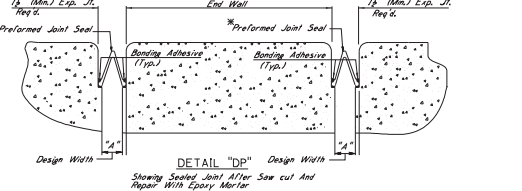
DETAIL "D"
Showing Repair Details Of End Wall Reinforcing Steel And Expansion Joint Formation.



EXPLODED VIEW OF JOINT REPAIR
Showing Preparation And Repair Of Joints At End Wall And Each Side Thereof.

***NOTE:** Form Vertical Faces Of End Wall To Include 1" Seat Such That The Preformed Joint Seal May Be Applied Per Manufacturer's Specification. See Detail "DP".

***NOTE:** Design Width "A" Is Defined As The Actual Measured Joint Width.



DETAIL "DP"
Showing Sealed Joint After Saw Cut And Repair With Epoxy Mortar.

***NOTE:**

2. For Estimating Purposes, The R.J. Watson Silcoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting Times, And Any Other Variances Between The Specifications Provided By The Manufacturer. A Manufacturer Representative Shall Be Present At The Time Joint Sealing Begins To Ensure That The Contractor Is Properly Sealed In Installation Of The Joint Material.
3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than Or Equal To 2". With The Maximum Design Width Being 24". In Cases Where Design Widths Are Greater Than 24", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.

NOTES ON ASSOCIATED ITEMS OF WORK:

907-B24-PP008 BRIDGE REPAIR, ENDWALL REPAIR

Description: Shall Include The Work Necessary To Remove And Replace The Damaged Endwall As Designated In The Detail Drawings Provided. Instead Of Limiting The Repair To The Damaged Section, The Specified Depth Of Endwall Shall Be Removed Along The Entire Width Of The Bridge Deck.

Basis of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Width Of The Bridge Deck.

Damage Caused To Other Elements Of The Structure Or Roadway While Completing This Item Of Work Shall Be Repaired By The Contractor At No Cost To The Department.

Prior to Placing New Concrete All Concrete Surfaces That Will Be In Contact With The New Concrete Shall Be Planted With An Approved Epoxy Binder Designed To Bond New Concrete To Old.

New Concrete Shall Be High Early Strength Bridge Concrete, As Follows:

The concrete mixture design shall be furnished by the Contractor for approval by the Materials Division. Mixture design parameters are as follows:

Required Strength: 2500 psi prior to releasing to traffic
Total Air Content: 3-6 %
Maximum Slump: 6 inches

Non-chloride based accelerator may be used if the ambient temperature is 50°F or less, but shall not be used if the ambient temperature is greater than 50°F.

Synthetic structural fibers shall be used. The Contractor shall select a manufacturer from AASHTO's Approved Products List, and the manufacturer's recommendations shall be followed for the dosage rate.

Curing is to be continuous until 2500 psi is attained. Traffic is to be diverted from the repair area until this value is reached. The Contractor may use the maturity method per Section 907-B04 to estimate the concrete compressive strength for the purposes of releasing the repair area to traffic. However, final acceptance of the in-place concrete shall be determined using eight concrete test cylinders, which shall be cured in a container next to the concrete placement. Two cylinders are to be tested at 8, 16, and 24 hour intervals. The two remaining cylinders shall be used to determine the 28-day compressive strength of the concrete.

The Removal Of Existing Expansion Material May Require Any Number Of The Pay Items Listed Below. Once The Expansion Device Is Identified, Refer To The Corresponding Joint Repair Detail Sheet For Additional Details On The Associated Items Of Work.

202-B169	REMOVAL OF EXISTING JOINT MATERIAL
907-B08-A00P	JOINT REPAIR
907-B08-A003	JOINT REPAIR WITHOUT EPoxy
907-B21-B001	SAW CUT, TYPE I
907-B21-B002	SAW CUT, TYPE II
907-B23-A001	PREFORMED JOINT SEAL, TYPE I
907-B23-A002	PREFORMED JOINT SEAL, TYPE II

GENERAL NOTES:

1. Specifications: Massachusetts Standard Specifications For Road And Bridge Construction, 2017.
2. No Change of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedures May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
3. Work For Which No Pay Item Is Provided In The Proposal Will Not Be Paid For Directly And Shall Therefore Be Considered An Associated Item of Work.