MDOT Use Only
Checked _____
Loaded _____
Keyed _____

04 -

SM No. CIM0055022912

# PROPOSAL AND CONTRACT DOCUMENTS

## FOR THE CONSTRUCTION OF

04
OGFC lift approximately 7.3 miles on I-55 from Church Road to Heindl Road, Bridge Repair on I-55 over Church Road (Bridge Nos. 112.3A , 112.3B) & Fog Seal approximately 7.2 miles on I-55 from Hiendl Road to the Yazoo County Line, known as Federal Aid Project Nos. IM-0055-02(291) / 110067301, NHPP-0055-02(287) / 110043301 & IM-0055-02(292) / 110068301 in Madison County.

Project Completion: 129 Working Days

**(STATE DELEGATED)**

**NOTICE**

**BIDDERS MUST COMPLETE AN ONLINE REQUEST FOR PERMISSION TO BID THIS PROJECT.**

**Electronic addendum updates will be posted on www.gomdot.com**

# SECTION 900

## OF THE CURRENT 2017 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

**JACKSON, MISSISSIPPI**

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 8200**

**DATE:** **11/2/2026**

**SUBJECT:** **Readvertisement**

**PROJECT:** **NHPP-0055-02(287)/ 110043301000, IM-0055-02(291)/ 110067301000 & IM-0055-02 (292)/ 110068301000 - Madison County(ies)**

The contents of this proposal are the same as when advertised for the September Letting, except as follows:

Revised Advertisement;

Revised NTB No. 8193;

NBT No. 8341 replaces NTB No. 7624;

SP 907-626-13 replaces SP 907-626-12;

SP 907-828-9 replaces SP 907-828-6;

Revised Bid Items;

Add this Notice to Bidders No. 8200.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**
**TABLE OF CONTENTS**

**PROJECT: NHPP-0055-02(287)/110043301 - Madison**
**IM-0055-02(291)/110067301 - Madison**
**IM-0055-02(292)/110068301 - Madison**

**RE-ADVERTISEMENT NOTICE TO BIDDERS NO. 8200**


Section 901 - Advertisement

Section 904 - Notice to Bidders

| | |
|---|---|
| #1 | Governing Specification, w/ Supplement |
| #2 | Status of ROW, w/ Attachments |
| #3 | Final Cleanup |
| #13 | Safety Edge |
| #296 | Reduced Speed Limit Signs |
| #445 | Mississippi Agent or Qualified Nonresident Agent |
| #516 | Errata and Modifications to the 2017 Standard Specifications |
| #1225 | Early Notice to Proceed |
| #1226 | Material Storage Under Bridges |
| #1241 | Fuel and Material Adjustments |
| #1963 | Guardrail Pads |
| #2206 | MASH Compliant Devices |
| #2273 | Mississippi Special Fuel Tax Law |
| #2895 | Exploratory Joint Cleanout |
| #2954 | Reflective Sheeting for Signs |
| #3676 | Asphalt Gyratory Compactor Internal Angle Calibration |
| #4113 | Unique Entity ID Requirement For Federal Funded Projects |
| #4702 | App for Traffic Control Report |
| #5086 | Detail of Square Tube Sign Posts |
| #5551 | Federal Bridge Formula |
| #5570 | Special Provisions Related to Concrete |
| #8191 | Obligation Date |
| #8193 | Contract Time |
| #8194 | Specialty Items |
| #8195 | Scope of Work |
| #8196 | Lane Closure Restrictions |
| #8197 | Additional Construction Requirements |
| #8198 | Underground Utilities |
| #8199 | Temporary Construction Signs |
| #8341 | Standard Drawings, w/Supplement |
| #8513 | Cooperation Between Contractors |

| | |
|---|---|
| 906 | Required Federal Contract Provisions -- FHWA 1273, w/Supplements |

Section 907 - Special Provisions

| | |
|---|---|
| 907-101-1 | Definitions and Terms |
| 907-102-2 | Bidding Requirements and Conditions |

**PROJECT:** **NHPP-0055-02(287)/110043301 - Madison**
**IM-0055-02(291)/110067301 - Madison**
**IM-0055-02(292)/110068301 - Madison**

| | |
|---|---|
| 907-104-2 | Minor Alterations to the Contract |
| 907-105-3 | Control of Work |
| 907-106-5 | Control of Materials |
| 907-108-4 | Subletting of Contract |
| 907-108-6 | Default and Termination of Contract |
| 907-109-5 | Measurement and Payment |
| 907-401-4 | Asphalt Pavements - General |
| 907-402-9 | Open Graded Friction Course (OGFC) |
| 907-402-10 | Roadway Compaction |
| 907-403-4 | Asphalt Pavements |
| 907-405-2 | Stone Matrix Asphalt |
| 907-407-1 | Tack Coat |
| 907-418-3 | Micro-Surfacing |
| 907-420-4 | Undersealing |
| 907-428-1 | Fog Seals |
| 907-601-1 | Structural Concrete |
| 907-605-1 | Underdrains |
| 907-618-11 | Work Zone Law Enforcement |
| 907-618-12 | Traffic Control Management |
| 907-619-5 | Traffic Control for Construction Zones |
| 907-626-13 | thermoplastic Traffic Markings |
| 907-627-1 | Raised Pavement Markings |
| 907-700-3 | Materials and Tests w/Attachment |
| 907-701-4 | Hydraulic Cement, w/ Supplement |
| 907-702-4 | Bituminous Materials |
| 907-703-2 | Gradation |
| 907-705-1 | Stone Riprap |
| 907-707-3 | Joint Materials |
| 907-711-2 | Plain Steel Wire |
| 907-712-1 | Fence and Guardrail |
| 907-714-4 | Miscellaneous Materials |
| 907-718-1 | Timber and Dimension Lumber |
| 907-720-4 | Pavement Marking Materials |
| 907-721-4 | Materials for Signing |
| 907-799-1 | Hydraulic Cement Concrete Mixtures, w/Supplement |
| 907-804-14 | Bridge Deck Overlay |
| 907-808-1 | Joint Repair |
| 907-823-8 | Preformed Joint Seal |
| 907-824-4 | Routine Bridge Repair |
| 907-828-9 | Hybrid Polymer Concrete Overlay |

Section 905 - Proposal, Proposal Bid Items, Combination Bid Proposal
Certification of Performance - Prior Federal-Aid Contracts
Certification Regarding Non-Collusion, Debarment and Suspension
SAM.GOV Registration and Unique Entity ID
Section 902 - Contract Form
Section 903 - Contract Bond Forms

**PROJECT:** **NHPP-0055-02(287)/110043301 - Madison**
**IM-0055-02(291)/110067301 - Madison**
**IM-0055-02(292)/110068301 - Madison**

Progress Schedule

(REVISIONS TO THE ABOVE WILL BE INDICATED ON THE SECOND SHEET OF SECTION 905 AS ADDENDA)

10/30/2026 09:22 AM

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## SECTION 901 - ADVERTISEMENT

Electronic bids will be received by the Mississippi Transportation Commission at 10:00 o'clock A.M., Tuesday, November 24, 2026, from the Bid Express Service and shorty thereafter publicly read on the Sixth Floor For:

OGFC lift approximately 7.3 miles on I-55 from Church Road to Heindl Road, Bridge Repair on I-55 over Church Road (Bridge Nos. 112.3A , 112.3B) & Fog Seal approximately 7.2 miles on I-55 from Hiendl Road to the Yazoo County Line, known as Federal Aid Project Nos. IM-0055-02(291) / 110067301, NHPP-0055-02(287) / 110043301 & IM-0055-02(292) / 110068301 in Madison County.

The attention of bidders is directed to the Contract Provisions governing selection and employment of labor. Minimum wage rates have been predetermined by the Secretary of Labor and are subject to Public Law 87-581, Work Hours Act of 1962, as set forth in the Contract Provisions.

The specifications are on file in the offices of the Mississippi Department of Transportation.

Contractors may request permission to bid online at http://shop.mdot.ms.gov at no cost. Upon approval, Contractors shall be eligible to submit a bid using Bid Express at http://bidx.com. Specimen proposals may be viewed and downloaded online at no cost at http://mdot.ms.gov or purchased online at http://shop.mdot.ms.gov at a cost of Ten Dollars ($10.00) per proposal plus a small convenience fee. Cash or checks will not be accepted as payment.

Bid bond, signed or countersigned by a Mississippi Agent or Qualified Nonresident Agent, with Power of Attorney attached, a Cashier's check or Certified Check for five (5%) percent of bid, payable to STATE OF MISSISSIPPI, must accompany each proposal.

The attention of bidders is directed to the provisions of Subsection 102.07 pertaining to irregular proposals and rejection of bids.

BRAD WHITE
EXECUTIVE DIRECTOR

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SUPPLEMENT TO NOTICE TO BIDDERS NO. 1**

**DATE:** **06/08/2021**

**SUBJECT:** **Governing Specifications**

Change the web address at the end of the first paragraph to the following.

https://shop.mdot.ms.gov/default.aspx?StoreIndex=1

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 1** **CODE: (IS)**

**DATE: 03/01/2017**

**SUBJECT: Governing Specifications**

The current (2017) Edition of the Standard Specifications for Road and Bridge Construction adopted by the Mississippi Transportation Commission is made a part hereof fully and completely as if it were attached hereto, except where superseded by special provisions, or amended by revisions of the Specifications contained within this proposal. Copies of the specification book may be purchased from the MDOT Construction Division, or online at shopmdot/default.aspx?StoreIndex=1.

A reference in any contract document to controlling requirements in another portion of the contract documents shall be understood to apply equally to any revision or amendment thereof included in the contract.

In the event the plans or proposal contain references to the 2004 Edition of the Standard Specifications for Road and Bridge Construction, it is to be understood that such references shall mean the comparable provisions of the 2017 Edition of the Standard Specifications.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 2** **CODE: (IS)**

**DATE: 03/01/2017**

**SUBJECT: Status of Right-of-Way**

Although it is desirable to have acquired all rights-of-way and completed all railroad agreements, utility adjustments and work to be performed by others prior to receiving bids, sometimes it is not considered to be in the public interest to wait until each and every such clearance has been obtained. The bidder is hereby advised of possible unacquired rights-of-way, relocates, railroad agreements and utilities adjustments which have not been completed.

The status of right-of-way acquisition, utility adjustments, encroachments, potentially contaminated sites, railroad facilities, improvements, and asbestos contamination are set forth in the following attachments.

In the event right of entry is not available to ALL parcels of right-of-way and/or all work that is to be accomplished by others on the date set forth in the contract for the Notice to Proceed is not complete, the Department will issue a restricted Notice to Proceed.

**STATUS OF RIGHT-OF-WAY**
NHPP-0055-02(287) 110043/301000
IM-0055-02(291) 110067/301000
IM-0055-02(292) 110068/301000
Madison County

All rights of way and legal rights of entry have been acquired **except:**

**None.**

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

## Inter-Departmental Memorandum

**TO:** Don Drake
ROW Division

**DATE:** March 7, 2026

**FROM:** Adam L. McDaniel
District Five

Digitally signed by Adam McDaniel
Date: 2026.03.07 06:10:43-06'00'

**SUBJECT OR PROJECT NO:** NHPP-0055-02(287)/110043-301000
IM-0055-02(291)/110067-301000
IM-0055-02(292)/110068-301000
ROW Documentation

**INFORMATION COPY TO:**

**COUNTY:** Madison

Project File
Construction Division

## District Status Report

1. STATUS OF RIGHT OF WAY: No new ROW required.
2. RIGHT OF WAY CLEARANCE: There are no visible encroachments that conflict with construction.
3. STATUS OF AFFECTED RAILROAD OPERATING FACILITIES: No railroads affected.
4. STATUS OF REQUIRED UTILITY RELOCATIONS: An electrical line owned by MDOT is attached to the west overhang on Bridge #112.3B. MDOT shall be responsible for de-energizing this electrical line. There are no other known utility conflicts. Permits showing the approximate location of utilities within or along the ROW are on file with the Department. The Department cannot and does not warrant that this information is complete and accurate. The Contractor is advised to contact MS 811 and MDOT to have utility lines marked prior to subsurface work. The Contractor must coordinate directly with the involved utility owners to have underground utility lines field located in advance of construction.
5. STATUS OF CONSTRUCTION AGREEMENT: None required

ALM:alm

ASBESTOS ABATEMENT STATUS REPORT

NHPP-0055-02(287) 110043-301000
IM-0055-02(291) 110067-301000
IM-0055-02(292) 110068-301000

Madison County

March 9, 2026

Reference is made to notices to bidders entitled "Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP)" and "Removal of Obstructions".

The following pertinent information is furnished concerning asbestos-containing materials (ACMs), if any, found in buildings to be removed by the Contractor.

There is no right-of-way required for this project, and the contractor will not need to remove any buildings.

STATUS OF POTENTIALLY CONTAMINATED SITES REPORT

NHPP-0055-02(287) 110043-301000
IM-0055-02(291) 110067-301000
IM-0055-02(292) 110068-301000

Madison County

March 9, 2026

THERE IS NO RIGHT-OF-WAY REQUIRED FOR THIS PROJECT. NO INITIAL SITE ASSESSMENT WILL BE PERFORMED. IF CONTAMINATION ON THE EXISTING RIGHT-OF-WAY IS DISCOVERED, IT WILL BE HANDLED BY THE DEPARTMENT.

IMPROVEMENTS STATUS REPORT

Improvements to be included in the Notice to Bidders to be removed by the Construction Contractor

FMS Construction Project No: 110043-301000
110067-301000
110068-301000

FMS ROW Project No:

External ROW No: NHPP-0055-02(287)
IM-0055-02(291)
IM-0055-02(292)

IM-0055-02(292)

Parcel No:
Station No:
Property Owner:
Description/Pictures:

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 3** **CODE: (SP)**

**DATE: 01/17/2017**

**SUBJECT: Final Clean-Up**

Immediately prior to final inspection for release of maintenance, the Contractor shall pick up, load, transport and properly dispose of all litter from the entire highway right-of-way that is within the termini of the project.

Litter shall include, but not be limited to, solid wastes such a glass, paper products, tires, wood products, metal, synthetic materials and other miscellaneous debris.

Litter removal is considered incidental to other items of work and will not be measured for separate payment.

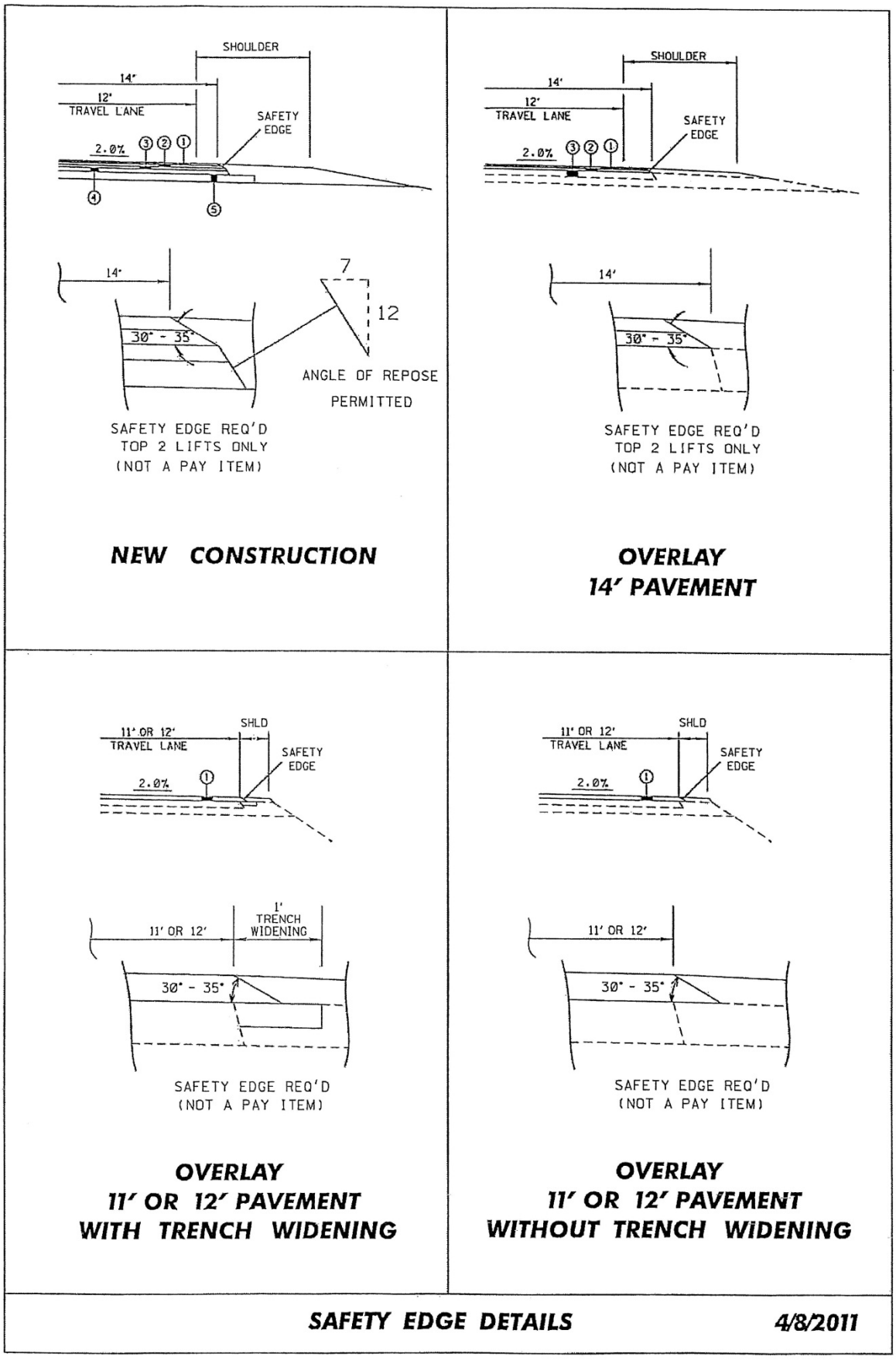
# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 13** **CODE: (IS)**

**DATE: 03/01/2017**

**SUBJECT: Safety Edge**

Bidders are hereby advised that the Shoulder Wedge (Safety Edge) specified in Section 401, Asphalt Pavements, shall only apply to the top two (2) lifts of asphalt. Open Graded Friction Courses (OGFC) are not to be considered a lift as it pertains to safety edge. Attached is a drawing showing the safety edge. Note that the shoulder dimensions in the bottom two drawings will be less than three feet (3').


SHOULDER
14'
12'
TRAVEL LANE
SAFETY EDGE
2.0%
③ ② ①
④
⑤
14'
7
12
30° - 35°
ANGLE OF REPOSE PERMITTED
SAFETY EDGE REQ'D TOP 2 LIFTS ONLY (NOT A PAY ITEM)
NEW CONSTRUCTION
SHOULDER
14'
12'
TRAVEL LANE
SAFETY EDGE
2.0%
③ ② ①
14'
30° - 35°
SAFETY EDGE REQ'D TOP 2 LIFTS ONLY (NOT A PAY ITEM)
OVERLAY 14' PAVEMENT
11' OR 12'
TRAVEL LANE
SHLD
SAFETY EDGE
2.0%
①
1' TRENCH WIDENING
11' OR 12'
30° - 35°
SAFETY EDGE REQ'D (NOT A PAY ITEM)
OVERLAY 11' OR 12' PAVEMENT WITH TRENCH WIDENING
11' OR 12'
TRAVEL LANE
SHLD
SAFETY EDGE
2.0%
①
11' OR 12'
30° - 35°
SAFETY EDGE REQ'D (NOT A PAY ITEM)
OVERLAY 11' OR 12' PAVEMENT WITHOUT TRENCH WIDENING
SAFETY EDGE DETAILS
4/8/2011

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 296** **CODE: (SP)**

**DATE: 07/25/2017**

**SUBJECT: Reduced Speed Limit Signs**

Bidders are advised that when the plans or contract documents require the speed limit on a project to be reduced, the Contractor shall begin work within 48 hours of installing the reduced speed limit signs. Should the Contractor not start work or have no plans to start work within 48 hours of installing the signs, the reduced speed limit signs shall be covered and existing speed limit signs uncovered.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 445** **CODE: (SP)**

**DATE: 10/10/2017**

**SUBJECT: Mississippi Agent or Qualified Nonresident Agent**

Bidders are hereby advised of the requirements of Subsections 102.08, 103.05.2, and 107.14.2.1 of the *2017 Standard Specifications for Road and Bridge Construction* as it refers to bonding agents. Proposal guaranties, bonds, and liability insurance policies must be signed by a **Mississippi Agent or Qualified Nonresident Agent.**

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 516** **CODE: (IS)**

**DATE: 11/28/2017**

**SUBJECT: Errata and Modifications to the 2017 Standard Specifications**

| Page | Subsection | Change |
|---|---|---|
| 16 | 102.06 | In the seventh full paragraph, change "Engineer" to "Director." |
| 33 | 105.05.1 | In the sixth sentence, change "Contract Administration Engineer" to "Contract Administration Director." |
| 34 | 105.05.2.1 | In subparagraph 2, change "SWPPP, ECP" to "SWPPP and the ECP" |
| 35 | 105.05.2.2 | In subparagraphs 2, add " and" to the end of the sentence. In subparagraph 3, remove ", and" and add ".". |
| 90 | 109.04.2 | In the last paragraph of subparagraph (a), place a period "." at the end of the sentence. |
| 93 | 109.04.2 | In the last paragraph of subparagraph (g), place a period "." at the end of the sentence. Also, in the first paragraph of subparagraph (h), place a period "." at the end of the sentence. |
| 97 | 109.07 | Under ADJUSTMENT CODE, subparagraph (A1), change "HMA mixture" to "Asphalt mixtures." |
| 98 | 109.11 | In the third sentence, change "Engineer" to "Director." |
| 219 | 308.04 | In the last sentence of the last paragraph, change "Contractor's decision" to "Engineer's decision." |
| 300 | 405.02.5.9 | In the first sentence of the second paragraph, change "Hot Mix Asphalt" to "Asphalt Mixtures." |
| 502 | 630.01.1 | In the first paragraph, change "AASHTO" to "AASHTO's LRFD". |
| 636 | 646.05 | Change "each" to "per each" for the pay item units of payment. |
| 640 | 656.02.6.2 | In item 7), change "down stream" to "downstream". |
| 688 | 630.03.2 | Change the subsection number from "630.03.2" to "680.03.2." |

| | | |
|---|---|---|
| 725 | 702.08.3 | In the second sentence of the first paragraph, change "hot-mix" to "asphalt." |
| 954 | 804.02.13.1.6 | In the definition for "M" in the % Reduction formulas, change "paragraph 7.3" to "paragraph 5.3." |

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 1225** **CODE: (SP)**

**DATE: 11/13/2018**

**SUBJECT: Early Notice to Proceed**

Bidders are advised that if an early notice to proceed is allowed by the Department and the Contractor experiences problems or delays between the early notice to proceed date and the original notice to proceed date, this shall not be justification for any monetary compensation or an extension of contract time.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 1226** **CODE: (IS)**

**DATE: 11/16/2018**

**SUBJECT: Material Storage Under Bridges**

Bidders are advised that Subsection 106.08 of the Standard Specifications allows the Contractor to store materials and equipment on portions of the right-of-way. However, the Contractor will not be allowed to store or stockpile materials under bridges without written permission from the Project Engineer. The Contractor shall submit a detailed request of all proposed materials to be stored under bridges to the Engineer a minimum of 14 calendar days prior to anticipated storage. This detail shall include, but not limited to, bridge location, material type, material quantity, and duration of storage. The Project Engineer and any other needed Division will review this information and determine whether to grant approval. The Contractor shall not store any material under any bridge without written approval from the Project Engineer.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 1241** **CODE: (IS)**

**DATE: 11/27/2018**

**SUBJECT: Fuel and Material Adjustments**

Bidder's attention is brought to the last paragraph of Subsection 109.07 of the Standard Specifications which states that no fuel or material adjustment will be made after the completion of contract time. Any fuels consumed or materials incorporated into the work during the monthly estimate period falling wholly after the expiration of contract time will not be subject a fuel or material adjustment.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 1963** **CODE: (SP)**

**DATE: 9/23/2019**

**SUBJECT: Guardrail Pads**

Bidders are hereby advised that prior to construction of the guardrail pads, the Contractor shall coordinate with the guardrail Subcontractor to determine the guardrail pad dimensions necessary to meet MASH compliance.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 2206** **CODE: (IS)**

**DATE: 01/14/2020**

**SUBJECT: MASH Compliant Devices**

Bidders are hereby advised that compliance associated with the requirements of meeting either the National Cooperative Highway Research Program (NCHRP) Report 350 or the Manual for Assessing Safety Hardware (MASH) for installations of certain traffic control devices and permanent safety hardware devices (guardrails, guardrail terminals, permanent portable barriers, cast-in-place barriers, all other permanent longitudinal barriers, crash cushions, cable barriers, cable barrier terminals, bridge rails, bridge rail transitions, all other terminals, sign supports, and all other breakaway hardware) as listed throughout the Standard Specifications and/or the Standard Drawings, or both, is now replaced with the requirements of meeting the 2016 version of MASH after December 31, 2019. This change applies to new permanent installations and to full replacements of existing installations.

At the preconstruction conference or prior to starting any work on the project, the Contractor shall submit a letter stating that the traffic control devices and permanent safety hardware devices as outlined within the paragraph above that are to be used on the project are certified to meet MASH 2016.

When a MASH 2016-compliant device does not exist for the new permanent installations and/or full replacement installations of permanent safety hardware devices, as listed above, a MASH 2009-compliant or a NCHRP 350-compliant device may be proposed by the Contractor for the project. A written request for such instances must be submitted by the Contractor either at the preconstruction conference or prior to starting any work on the project. The Contractor shall submit the following items to the Project Engineer: (1) a detailed list of the proposed devices and locations thereof; and (2) certification letters indicating that the proposed devices are compliant with either MASH 2009 or NCHRP 350.

When a MASH 2016-compliant device does not exist for the temporary work zone traffic control devices (Category 1, Category 2, and Category 3 devices) , a MASH 2009-compliant or a NCHRP 350-compliant device may be proposed by the Contractor for the project. Temporary work zone traffic control devices (Category 1, Category 2, and Category 3 devices) that are MASH 2009-compliant or NCHRP 350–compliant that have been in use prior to December 31, 2019, and that have a remaining service life may be proposed for use throughout their normal service life on the project by the Contractor. For either of these scenarios for temporary work zone traffic control devices, a written request must be submitted by the Contractor either at the preconstruction conference or prior to starting any work on the project. The Contractor shall submit the following items to the Project Engineer: (1) a detailed list of the proposed devices and locations thereof; and (2) certification letters indicating that the proposed devices are compliant with either MASH 2009 or NCHRP 350.

Work will only be allowed to proceed after the Department has granted written concurrence(s) with the proposed request(s) as listed above.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 2273** **CODE: (SP)**

**DATE: 02/12/2020**

**SUBJECT: Mississippi Special Fuel Tax Law**

Bidder's attention is brought to the second paragraph of Subsection 107.02 of the Standard Specifications which states that all Contractors and Subcontractors must comply with all requirements contained in the Mississippi Special Fuel Tax Law, Section 27-55-501, *et seq*. Attached are two Fact Sheets provided by the Mississippi Department of Revenue (MDOR) with additional information.

DEPARTMENT OF REVENUE
STATE OF MISSISSIPPI

# Gasoline and Dyed Diesel Used for Non-Highway Purposes

*Mississippi provides a reduced rate for gasoline and dyed diesel used for non-highway purposes. The reduced rates are 6.44 cents per gallon and 5.75 cents per gallon of gasoline or dyed diesel. These fuels are generally taxed at 18 cents per gallon if for on road use.*

## Gasoline Used for Non-Highway Purposes

You may be entitled to a refund of 11.56 cents per gallon (making this an equivalent to a tax rate of 6.44 cents per gallon) if you desire to purchase gasoline to be used off road. The gasoline must be used for agricultural, maritime, industrial, manufacturing, domestic or non-highway purposes only.

Examples of non-highway include gasoline used in boats, golf carts, machinery used for manufacturing or farm equipment used exclusively in plowing, planting or harvesting farm products.

## Refund Gasoline User

The refund is based on the amount of gallons used. Before a refund is issued, you are required to…

1. Obtain a refund gasoline user's permit and a certificate for refund booklet from the Department of Revenue;
2. Have a storage tank marked "REFUND GASOLINE"; and,
3. Purchase the gasoline from someone who holds a refund gasoline dealer's permit.

No refund will be allowed for gasoline used in motor vehicles owned or operated by a government entity or used in Mississippi government contracts.

## Refund Gasoline Dealer

You must obtain a refund gasoline dealer's permit from the Department of Revenue before selling refund gasoline. At no time should the gasoline be delivered to a tank that is not properly marked. The gasoline must be dyed a distinctive mahogany color at the time of delivery.

The Department of Revenue may waive the dye requirement if the dye may cause damage to the equipment. The refund gasoline user is required to obtain the waiver from the Department of Revenue.

## Dyed Diesel Used for Non-Highway Purposes

Unlike gasoline, you are not required to apply for a refund if you desire to purchase dyed diesel to be used off road. Mississippi provides a reduced rate of 5.75 cents per gallon on dyed diesel used off road. Diesel used on road is subjected to 18 cents per gallon. Dyed diesel used in motor vehicles owned or operated by a government entity or used in Mississippi government contracts will be subjected to 18 cents per gallon.

## Dyed Diesel Used on the Highway

Any person who purchases, receives, acquires or uses dyed diesel for highway use will be liable to pay 18 cents per gallon and subject to a penalty in the amount of $1000.

## Identifying Dyed Diesel

Storage facilities for dyed diesel must be plainly marked "NONHIGHWAY DIESEL FUEL" or "NONHIGHWAY KEROSENE". Retailers are also required to mark all pumps or dispensing equipment.

This fact sheet is intended to help you become more familiar with Mississippi tax laws and your rights and responsibilities under the laws. Nothing in this fact sheet supersedes, alters, or otherwise changes any provisions of the tax law, regulations, court decisions, or notices.



Revised March 2017



Petroleum Tax Bureau
P. O. Box 1033
Jackson, MS 39215-1033
Phone: (601) 923-7150

DEPARTMENT OF REVENUE
STATE OF MISSISSIPPI

# Special Fuel Used on Government Contracts

## State and Local Government Contracts

Special fuel purchased, acquired or used in performing contracts with the State of Mississippi, counties, municipalities or any political subdivision is taxed at a rate of 18 cents per gallon. Special fuel includes but is not limited to the following:

- Dyed diesel fuel;
- Kerosene;
- Undyed diesel fuel; and,
- Fuel oil.

State and local government contracts include construction, reconstruction and maintenance or repairs of projects such as roads, bridges, water systems, sewer systems, buildings, drainage canals and recreational facilities. The Department of Revenue may require contractors to remit the excise tax directly to the state in lieu of paying the tax to a distributor.

## Special Fuel Direct Pay Permit

Contractors that remit the excise tax to the state will be issued a Special Fuel Direct Pay Permit. This permit relieves the distributor from collecting the tax and requires the contractor to file a monthly special fuel return. The distributor should include the contractor's permit number on all invoices that are related to tax-free sales.

The contractor is required to furnish a surety or cash bond guaranteeing the payment of the excise tax prior to receiving the Special Fuel Direct Pay Permit. The Department of Revenue may accept a contractors tax bond if the bond covers the excise tax levied on special fuel.

## Special Fuel Distributors

If the contractor does not have a Special Fuel Direct Pay Permit, distributors are required to collect the 18 cents excise tax and remit the tax to the Department of Revenue. The additional 12.25 cents levied on special fuel (excluding undyed diesel) should be reported on schedules 5F and 5G of the special fuel return.

## Environmental Protection Fee

Special fuel distributors are required to collect the environmental protection fee even if the contractor has a Special Fuel Direct Pay Permit. The fee is levied at 4/10$^{ths}$ of a cent per gallon. The fee is suspended or reinstated when the trust fund has exceeded or fallen below the obligatory balance.

## Penalties

Any person who knowingly and willfully purchases untaxed fuel for use in equipment utilized on a road or highway construction site in this state is guilty of a misdemeanor and, upon conviction, shall be fined not less than $1,000 or more than $100,000, or imprisoned in the county jail for not more than one year, or both.

This fact sheet is intended to help you become more familiar with Mississippi tax laws and your rights and responsibilities under the laws. Nothing in this fact sheet supersedes, alters, or otherwise changes any provisions of the tax law, regulations, court decisions, or notices.



Petroleum Tax Bureau
P. O. Box 1033
Jackson, MS 39215-1033
Phone: (601) 923-7150

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 2895** **CODE: (SP)**

**DATE: 10/14/2020**

**SUBJECT: Exploratory Joint Cleanout**

Bidders are hereby advised that work on this project shall consist of exploratory investigation of bridge joints to determine the appropriate level of repair and will include removal of any trash and debris (including, but not limited to, compacted dirt, vegetation and trash) located at any depth within the joint. Costs of this work will be absorbed in the cost of other items of work if further joint repair work is not required.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 2954** **CODE: (IS)**

**DATE:** **12/01/2020**

**SUBJECT:** **Reflective Sheeting for Signs**

Bidders are hereby advised that the retroreflective sign sheeting used for signs on this project shall be as listed below and shall meet the requirements of Subsection 721.06.

**Temporary Construction Signs**

Temporary traffic control (orange) sign sheeting shall be a minimum Type IX Fluorescent Orange sheeting as shown in Special Provision 907-721.

**Permanent Signs**

Permanent signs, except signs on traffic signal poles/mast arms, shall be as follows:

- Brown background sheeting on guide signs shall be a minimum Type VIII sheeting,
- Green and blue background sheeting on guide signs shall be a minimum Type IX sheeting, and
- All white, yellow, red, fluorescent yellow, and fluorescent yellow/green sheeting shall be Type XI sheeting.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 3676** **CODE: (SP)**

**DATE: 09/21/2021**

**SUBJECT: Asphalt Gyratory Compactor Internal Angle Calibration**

Bidders are advised that by March 1, 2022, all asphalt gyratory compactors shall be calibrated to an internal angle of 1.16° ±0.02°. This requirement will be reflected in updates made to MT-78, MT-80, and MT-83. This calibration requirement also extends to all QC/QA testing.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 4113** **CODE: (SP)**

**DATE:** **03/23/2022**

**SUBJECT:** **Unique Entity ID (SAM) Requirement for Federal Funded Projects**

Bidders are advised that the Prime Contractor must register and maintain a current registration in the System for Award Management (http://sam.gov) at all times during this project. Upon registration, the Contractor will be assigned a SAM Unique Entity ID.

Bidders are also advised that prior to the award of this contract, they MUST be registered, active, and have no active exclusions in the System for Award Management.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 4702** **CODE: (SP)**

**DATE: 11/22/2022**

**SUBJECT: App for Traffic Control Reports**

Bidders are advised that the Department has created a smart phone App for completing and submitting traffic control reports (Form CSD-762) required on this project. The Contractor who monitors traffic control activities and completes traffic control reports will be required to download and use this App when completing and submitting traffic control reports. The reports will then be readily available to all persons who need access to the forms. The App is free and is available for downloading at the following location.

https://extacctmgmt.mdot.state.ms.us/

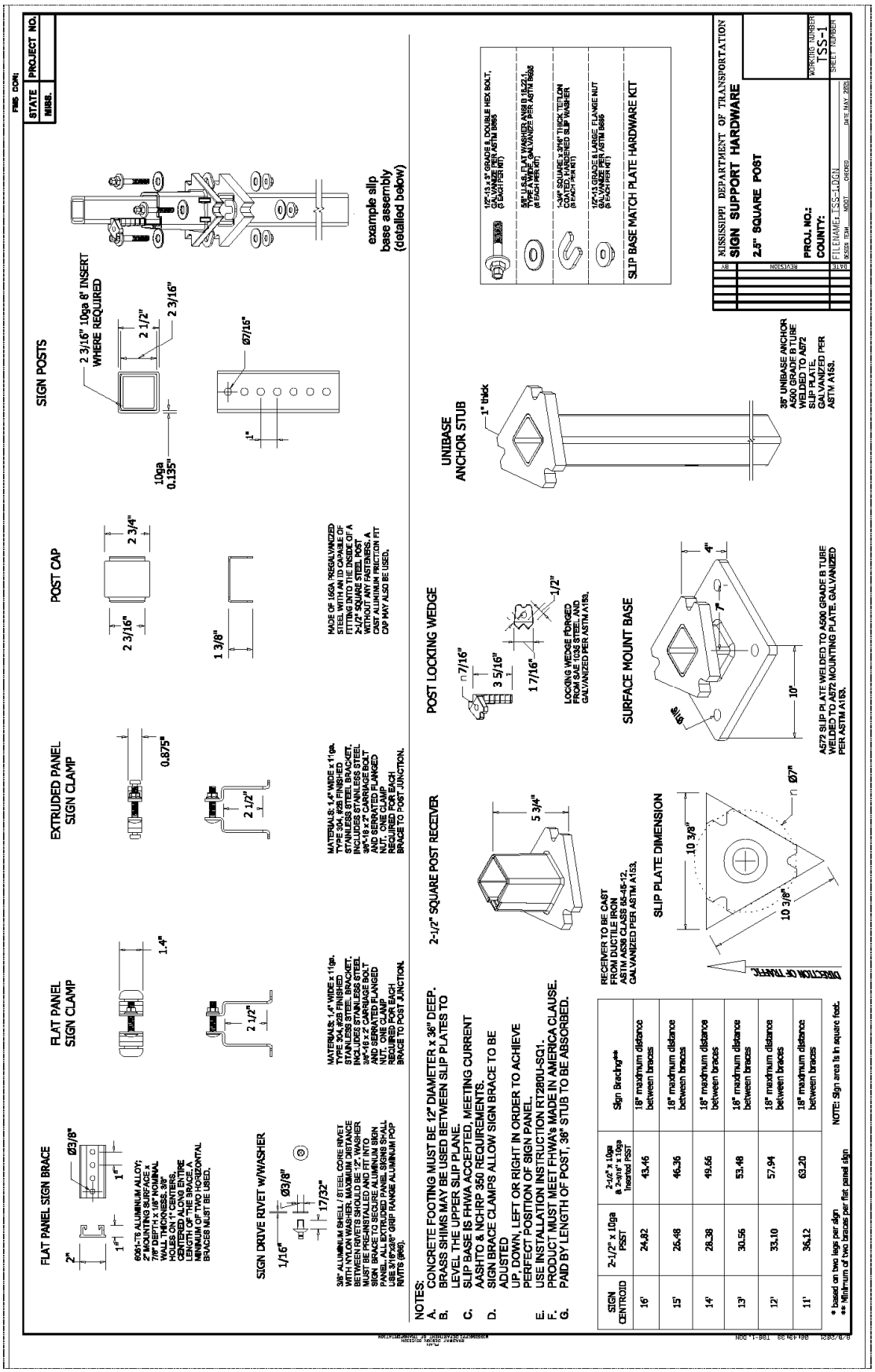
# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 5086** **CODE: (SP)**

**DATE: 05/02/2023**

**SUBJECT: Detail of Square Tube Sign Posts**

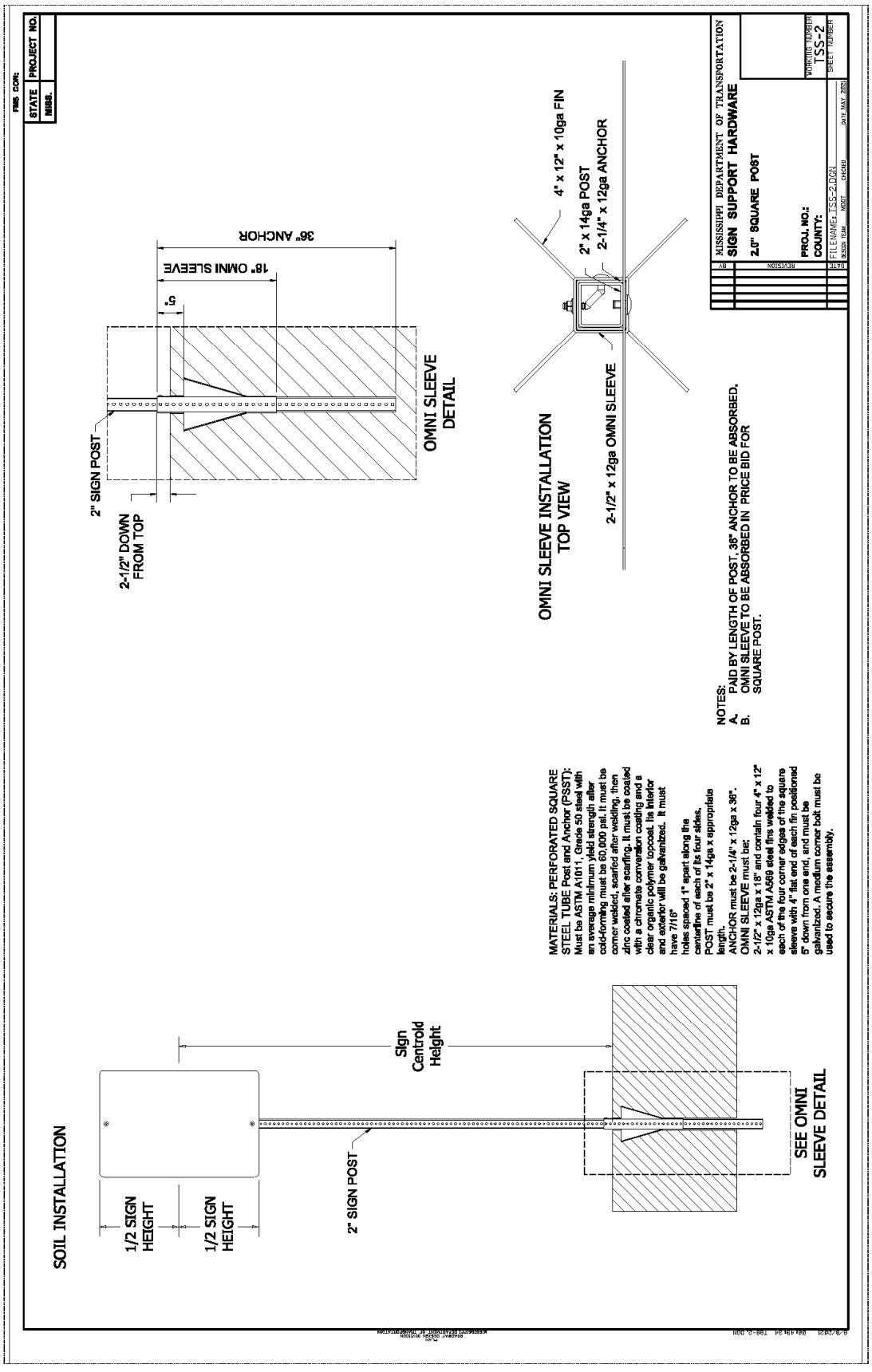
Bidders are advised that the following drawings shall be used in the manufacture and installation of square tube sign posts, unless otherwise directed by the Engineer.

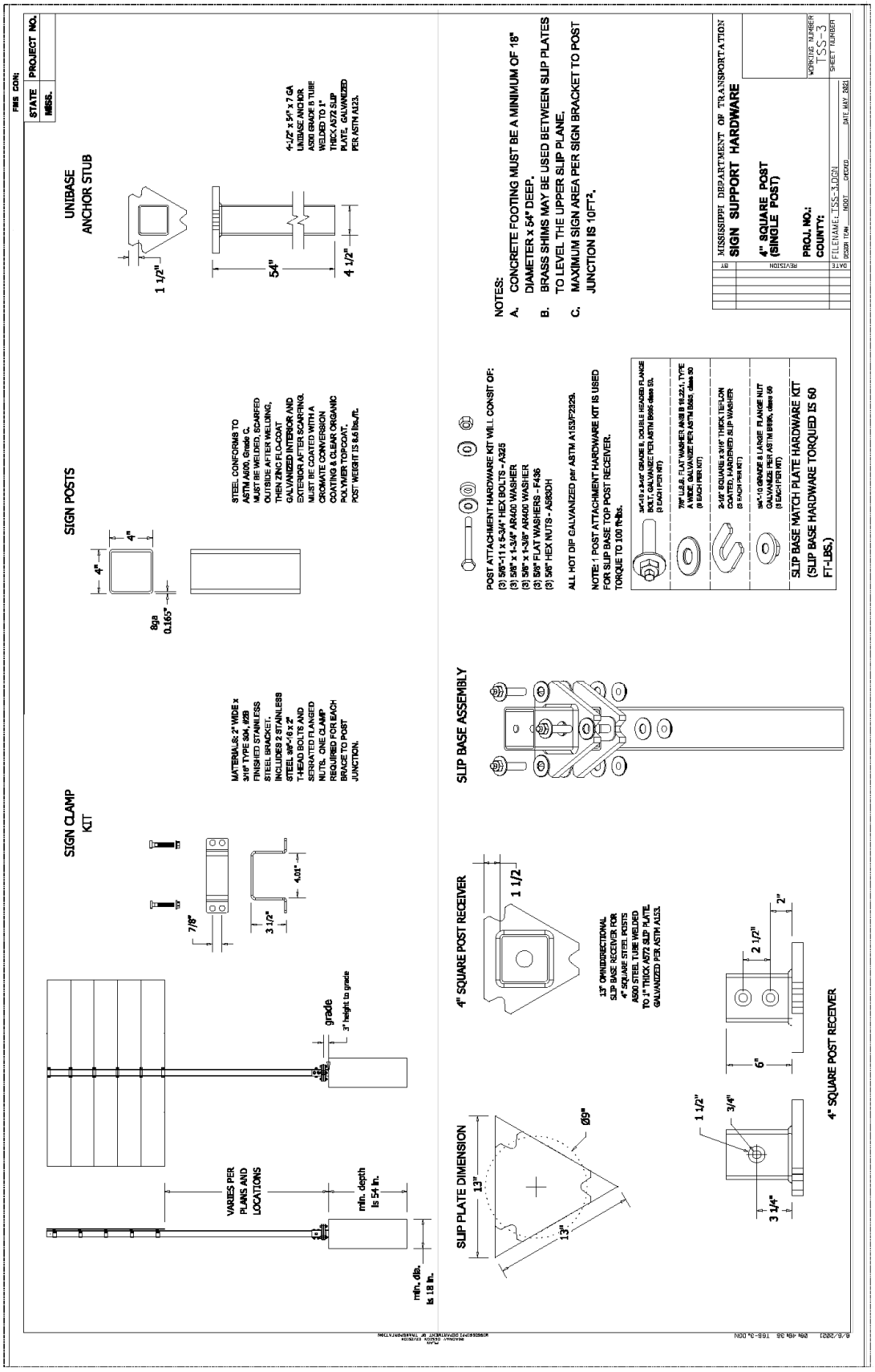


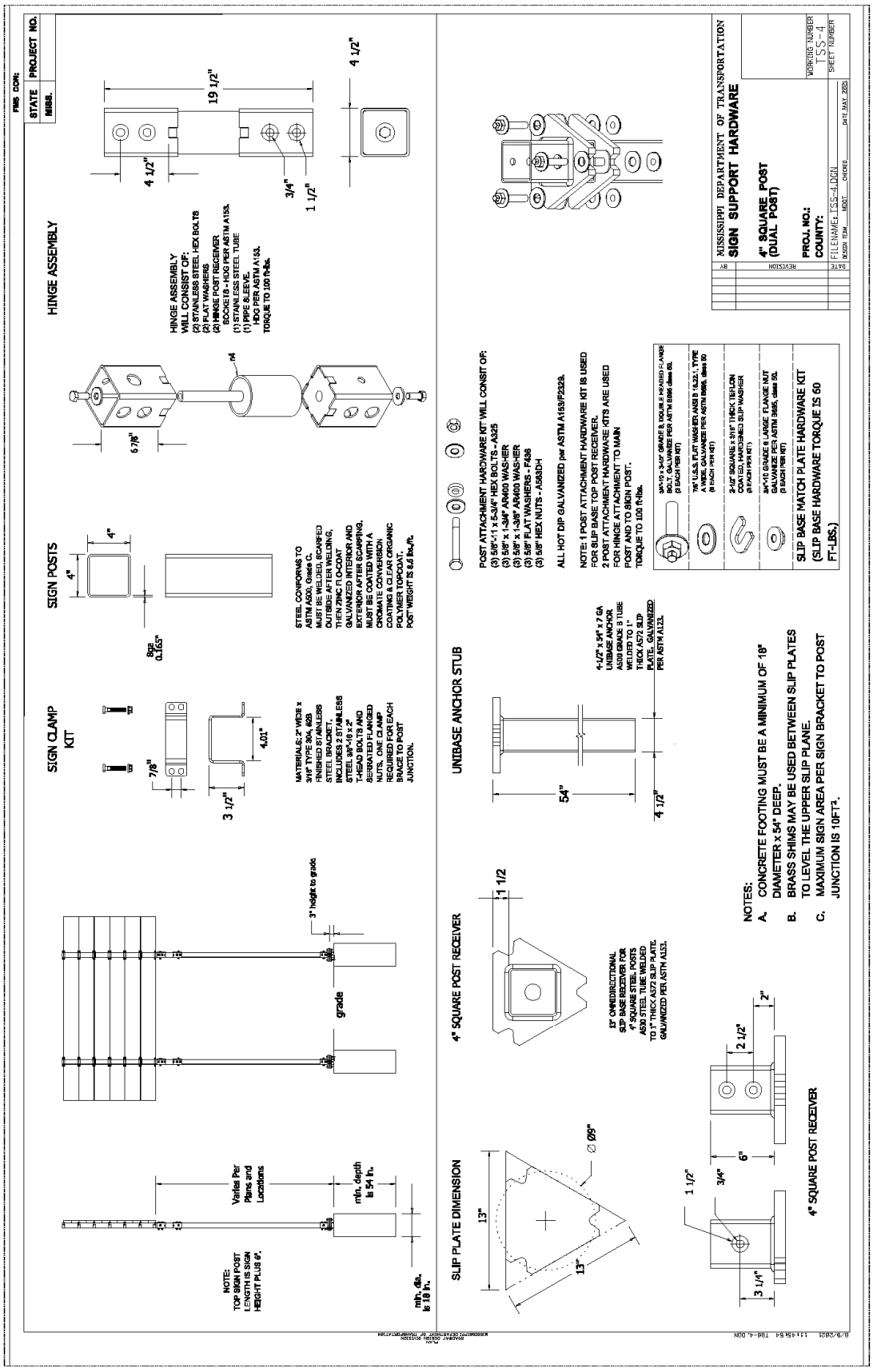

| SIGN CENTROID | 2-1/2" x 10ga PSST | 2-1/2" x 10ga @ 2-3/16" x 10ga Inserted PSST | Sign Bracing** |
|---|---|---|---|
| 16' | 24.82 | 43.46 | 18' maximum distance between braces |
| 15' | 26.48 | 46.36 | 18' maximum distance between braces |
| 14' | 28.38 | 49.66 | 18' maximum distance between braces |
| 13' | 30.56 | 53.48 | 18' maximum distance between braces |
| 12' | 33.10 | 57.94 | 18' maximum distance between braces |
| 11' | 36.12 | 63.20 | 18' maximum distance between braces |

* based on two legs per sign
** Minimum of two braces per flat panel sign

NOTE: Sign area is in square feet.


FHWA CON:
STATE
MISS.
PROJECT NO.
SOIL INSTALLATION
1/2 SIGN HEIGHT
1/2 SIGN HEIGHT
2" SIGN POST
Sign Centroid Height
SEE OMNI SLEEVE DETAIL
MATERIALS: PERFORATED SQUARE STEEL TUBE Post and Anchor (PSST): Must be ASTM A1011, Grade 50 steel with an average minimum yield strength after cold-forming must be 60,000 psi. It must be corner welded, scarfed after welding, then zinc coated after scarfing. It must be coated with a chromate conversion coating and a clear organic polymer topcoat. Its interior and exterior will be galvanized. It must have 7/16" holes spaced 1" apart along the centerline of each of its four sides. POST must be 2" x 14ga x appropriate length. ANCHOR must be 2-1/4" x 12ga x 36". OMNI SLEEVE must be: 2-1/2" x 12ga x 18" and contain four 4" x 12" x 10ga ASTM A569 steel fins welded to each of the four corner edges of the square sleeve with 4" flat end of each fin positioned 5" down from one end, and must be galvanized. A medium corner bolt must be used to secure the assembly.
NOTES:
A. PAID BY LENGTH OF POST. 36" ANCHOR TO BE ABSORBED.
B. OMNI SLEEVE TO BE ABSORBED IN PRICE BID FOR SQUARE POST.
OMNI SLEEVE INSTALLATION TOP VIEW
4" x 12" x 10ga FIN
2" x 14ga POST
2-1/4" x 12ga ANCHOR
2-1/2" x 12ga OMNI SLEEVE
OMNI SLEEVE DETAIL
36" ANCHOR
18" OMNI SLEEVE
5"
2" SIGN POST
2-1/2" DOWN FROM TOP
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SIGN SUPPORT HARDWARE
2.0" SQUARE POST
REVISION
BY
DATE
PROJ. NO.:
COUNTY:
FILENAME: TSS-2.DGN
DESIGN ITEM
MDOT
CHECKED
DATE: MAY 2005
WORKING NUMBER
TSS-2
SHEET NUMBER


FHWA CON:
STATE
MISS.
PROJECT NO.
UNIBASE
ANCHOR STUB
1 1/2"
54"
4 1/2"
4-1/2" x 5/8" x 7 GA UNIBASE ANCHOR ASTM GRADE B TUBE WELDED TO 1" THICK A572 SLIP PLATE, GALVANIZED PER ASTM A123.
SIGN POSTS
4"
4"
8ga 0.165"
STEEL CONFORMS TO ASTM A500, Grade C. MUST BE WELDED, SCARFED OUTSIDE AFTER WELDING, THEN ZINC FLO-COAT GALVANIZED INTERIOR AND EXTERIOR AFTER SCARFING. MUST BE COATED WITH A CROMATE CONVERSION COATING & CLEAR ORGANIC POLYMER TOPCOAT. POST WEIGHT IS 8.6 lbs./ft.
SIGN CLAMP
KIT
MATERIAL-2" WIDE x 3/16" TYPE 304 #2B FINISHED STAINLESS STEEL BRACKET. INCLUDES 2 STAINLESS STEEL 3/8"-16 x 2" T-HEAD BOLTS AND SERRATED FLANGED NUTS. ONE CLAMP REQUIRED FOR EACH BRACE TO POST JUNCTION.
7/8"
3 1/2"
4.01"
SLIP BASE ASSEMBLY
POST ATTACHMENT HARDWARE KIT WILL CONSIST OF:
(3) 5/8"-11 x 5-3/4" HEX BOLTS - A325
(3) 5/8" x 1-3/4" AR400 WASHER
(3) 5/8" x 1-3/8" AR400 WASHER
(3) 5/8" FLAT WASHERS - F436
(3) 5/8" HEX NUTS - A563DH
ALL HOT DIP GALVANIZED per ASTM A153/F2329.
NOTE: 1 POST ATTACHMENT HARDWARE KIT IS USED FOR SLIP BASE TOP POST RECEIVER. TORQUE TO 100 ft/lbs.
3/4"-10 x 3-1/2" GRADE B, DOUBLE HEXAGED FLANGE BOLT, GALVANIZED PER ASTM B695 class 55. (3 EACH PER KIT)
7/8" U.S.S. FLAT WASHER ANSI B 18.22.1, TYPE A WIDE, GALVANIZED PER ASTM B695 class 55 (3 EACH PER KIT)
3-1/8" SQUARE x 3/16" THICK TEFLON COATED, HARDENED SLIP WASHER (3 EACH PER KIT)
3/4"-10 GRADE B LARGE FLANGE NUT GALVANIZED PER ASTM B695, class 55 (3 EACH PER KIT)
SLIP BASE MATCH PLATE HARDWARE KIT (SLIP BASE HARDWARE TORQUED IS 60 FT-LBS.)
NOTES:
A. CONCRETE FOOTING MUST BE A MINIMUM OF 18" DIAMETER x 54" DEEP.
B. BRASS SHIMS MAY BE USED BETWEEN SLIP PLATES TO LEVEL THE UPPER SLIP PLANE.
C. MAXIMUM SIGN AREA PER SIGN BRACKET TO POST JUNCTION IS 10FT².
SLIP PLATE DIMENSION
13"
13"
69°
4" SQUARE POST RECEIVER
1 1/2
13" OMNIDIRECTIONAL SLIP BASE RECEIVER FOR 4" SQUARE STEEL POSTS A500 STEEL TUBE WELDED TO 1" THICK A572 SLIP PLATE, GALVANIZED PER ASTM A123.
4" SQUARE POST RECEIVER
1 1/2"
3/4"
6"
2 1/2"
2"
3 1/4"
VARIES PER PLANS AND LOCATIONS
grade
3" height to grade
mtn. depth is 54 in.
mtn. dia. is 18 in.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SIGN SUPPORT HARDWARE
4" SQUARE POST (SINGLE POST)
PROJ. NO.:
COUNTY:
WORKTAB NUMBER TSS-3
SHEET NUMBER
FILENAME: TSS-3.DGN
DESIGN TEAM
MOOT
CHECKED
DATE: MAY 2021
BY
REVISION
DATE
6/8/2021 08:49:38 TSS-3.DGN


HINGE ASSEMBLY
SIGN POSTS
SIGN CLAMP KIT
UNIBASE ANCHOR STUB
4" SQUARE POST RECEIVER
SLIP PLATE DIMENSION
4" SQUARE POST RECEIVER
NOTES:
A. CONCRETE FOOTING MUST BE A MINIMUM OF 18" DIAMETER x 54" DEEP.
B. BRASS SHIMS MAY BE USED BETWEEN SLIP PLATES TO LEVEL THE UPPER SLIP PLANE.
C. MAXIMUM SIGN AREA PER SIGN BRACKET TO POST JUNCTION IS 10FT².
SLIP BASE MATCH PLATE HARDWARE KIT (SLIP BASE HARDWARE TORQUE IS 60 FT-LBS.)
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
SIGN SUPPORT HARDWARE
4" SQUARE POST (DUAL POST)
PROJ. NO.:
COUNTY:
WORKING NUMBER TSS-4
SHEET NUMBER
FILENAME: TSS-4.DGN
DATE MAY, 2021

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 5551** **CODE: (IS)**

**DATE:** **12/06/2023**

**SUBJECT:** **Federal Bridge Formula**

Bidders are hereby advised that the latest revision of Federal Highway Administration Publication No. FHWA-HOP-06-105, **BRIDGE FORMULA WEIGHTS**, dated August 2006, is made a part of this contract when applicable.

Prior to the preconstruction conference, the Contractor shall advise the Engineer, in writing, what materials, if any, will be delivered to the jobsite via Interstate route(s).

Copies of the **BRIDGE FORMULA WEIGHTS** publication may be obtained by contacting:

Federal Highway Administration
400 7th Street, SW
Washington, DC 20590
(202) 366-2212

or

https://ops.fhwa.dot.gov/freight/publications/brdg_frm_wghts/

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 – NOTICE TO BIDDERS NO. 5570** **CODE: (SP)**

**DATE: 07/28/2025**

**SUBJECT: Special Provisions Related to Concrete**

Bidders are hereby advised that this contract contains one or more of the following **new** Special Provisions related to concrete:

Special Provision No. 907-501-1, Subject: Concrete Pavement
Special Provision No. 907-502-1, Subject: Concrete Bridge End Pavement
Special Provision No. 907-503-1, Subject: Replacement of Concrete Pavement
Special Provision No. 907-504-4, Subject: Fiber-reinforced Concrete Pavement
Special Provision No. 907-601-1, Subject: Structural Concrete
Special Provision No. 907-605-1, Subject: Underdrains
Special Provision No. 907-701-4, Subject: Hydraulic Cement
Special Provision No. 907-799-1, Subject: Hydraulic Cement Concrete Mixtures
Special Provision No. 907-803-6, Subject: Deep Foundations
Special Provision No. 907-804-13, Subject: Concrete Bridges and Structures
Special Provision No. 907-804-14, Subject: Bridge Deck Overlay

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 8191** **CODE: (IS)**

**DATE: 07/01/2026**

**SUBJECT: Obligation Date**

With respect to the obligation date referenced in Special Provision No. 907-700-3 entitled "Materials and Tests", bidders are advised that this project will be obligated on or after October 1, 2025 and before October 1, 2026.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 8193** **CODE: (SP)**

**DATE:** **10/14/2026**

**SUBJECT:** **Contract Time**

**PROJECT:** **IM-0055-02(291) / 110067301 –Madison County**
**IM-0055-02(292) / 110068301 – Madison County**
**NHPP-0055-02(287) / 110043301 – Madison County**

The completion of work to be performed by the Contractor for this project will not be a specified date but shall be when all allowable working days are assessed, or any extension thereto as provided in Subsection 108.06. It is anticipated that the Notice of Award will be issued no later than **December 08, 2026** and the date for Notice to Proceed / Beginning of Contract Time will be **March 10, 2027**.

Should the Contractor request a Notice to Proceed earlier than **March 10, 2027** and it is agreeable with the Department for an early Notice to Proceed, the requested date will become the new Notice to Proceed date. Regardless of whether or not an early Notice to Proceed is granted, contract time will start at the original Notice to Proceed date.

All requests for an early Notice to Proceed shall be sent to the Project Engineer who will forward it to the Contract Administration Division.

**129** Working Days have been allowed for the completion of work on this project.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 8194

DATE: 10/13/2026

SUBJECT: Specialty Items

PROJECT: NHPP-0055-02(287)/110043301 & IM-0055-02(291)/110067301 & IM-0055-02(292)/110068301 - MADISON

Pursuant to the provisions of Section 108, the following work items are hereby designated as "Specialty Items" for this contract. Bidders are reminded that these items must be subcontracted in order to be considered as specialty items.

## CATEGORY: EROSION CONTROL

| Line No | Pay Item | Description |
|---|---|---|
| 0110 | 221-A001 | Concrete Paved Ditch |

## CATEGORY: GUARDRAIL, GUIDERAIL

| Line No | Pay Item | Description |
|---|---|---|
| 0150 | 606-B003 | Guard Rail, Class A, Type 1, 'W' Beam, Metal Post |
| 0160 | 606-C001 | Guard Rail, Cable Anchor Type 1, Metal Post |
| 0170 | 606-D003 | Guard Rail, Bridge End Section, Special Design |
| 0180 | 606-D005 | Guard Rail, Bridge End Section, Type A |
| 0190 | 606-D018 | Guard Rail, Bridge End Section, Type G, Modified |
| 0200 | 606-D023 | Guard Rail, Bridge End Section, Type I, Metal Post |
| 0210 | 606-E005 | Guard Rail, Terminal End Section, Flared |
| 0220 | 606-E007 | Guard Rail, Terminal End Section, Non-Flared |

## CATEGORY: PAVEMENT STRIPING AND MARKING

| Line No | Pay Item | Description |
|---|---|---|
| 0600 | 907-626-A009 | 6" Thermoplastic Traffic Stripe, Skip White |
| 0610 | 907-626-A010 | 6" Thermoplastic Traffic Stripe, Skip White |
| 0620 | 907-626-B006 | 6" Thermoplastic Traffic Stripe, Continuous White |
| 0630 | 907-626-E005 | 6" Thermoplastic Traffic Stripe, Continuous Yellow |
| 0640 | 907-626-E006 | 6" Thermoplastic Traffic Stripe, Continuous Yellow |
| 0650 | 907-626-G004 | Thermoplastic Detail Stripe, White |
| 0660 | 907-626-G005 | Thermoplastic Detail Stripe, Yellow |
| 0670 | 907-627-K001 | Red-Clear Reflective High Performance Raised Markers |

## CATEGORY: TRAFFIC CONTROL - PERMANENT

| Line No | Pay Item | Description |
|---|---|---|
| 0400 | 630-C001 | Square Tube Posts, 4.0 lb/ft |
| 0410 | 630-G005 | Type 3 Object Markers, OM-3R or OM-3L, Post Mounted |
| 0680 | 907-630-PP002 | Roadside Directional Signs, Sheet Aluminum, 0.125" Thickness, Ground Mounted |

## CATEGORY: TRAFFIC CONTROL - TEMPORARY

| Line No | Pay Item | Description |
|---|---|---|
| 0230 | 619-A1001 | Temporary Traffic Stripe, Continuous White |
| 0240 | 619-A1003 | Temporary Traffic Stripe, Continuous White, Paint |
| 0250 | 619-A2001 | Temporary Traffic Stripe, Continuous Yellow |
| 0260 | 619-A2003 | Temporary Traffic Stripe, Continuous Yellow, Paint |

| | | |
|---|---|---|
| 0270 | 619-A3001 | Temporary Traffic Stripe, Skip White |
| 0280 | 619-A3004 | Temporary Traffic Stripe, Skip White, Paint |
| 0290 | 619-A5001 | Temporary Traffic Stripe, Detail |
| 0300 | 619-D1001 | Standard Roadside Construction Signs, Less than 10 Square Feet |
| 0310 | 619-D2001 | Standard Roadside Construction Signs, 10 Square Feet or More |
| 0320 | 619-F3001 | Delineators, Guard Rail, White |
| 0330 | 619-F3002 | Delineators, Guard Rail, Yellow |
| 0340 | 619-G4001 | Barricades, Type III, Double Faced |
| 0350 | 619-G4005 | Barricades, Type III, Single Faced |
| 0360 | 619-G5001 | Free Standing Plastic Drums |
| 0370 | 619-G7001 | Warning Lights, Type "B" |
| 0380 | 619-G8001 | Warning Lights, Type "C" |
| 0590 | 907-619-E3001 | Changeable Message Sign |

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SECTION 904 - NOTICE TO BIDDERS NO. 8195** CODE: (SP)

**DATE: 10/09/2026**

**SUBJECT: Scope of Work**

**PROJECT: IM-0055-02(291) / 110067301 – Madison County**
**IM-0055-02(292) / 110068301 – Madison County**
**NHPP-0055-02(287) / 110043301 – Madison 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 project is as follows.

IM-0055-02(291) / 110067/301000

Replacing the OGFC on approximately 7.7 miles of I-55 beginning 0.37 miles south of Sowell Road (BOP Station 0+00) and ending at Heindl Road in Madison County (Station 371+25). Details of specific work are mentioned in the following sections.

IM-0055-02(292) / 110068/301000

Fog Seal approximately 7.2 miles of I-55 beginning at Heindl Road (Station 371+25) and ending at the Yazoo County Line in Madison County (EOP Station 730+00). Details of specific work are mentioned in the following sections.

Project wide work from Station 0+00 (BOP) to Station 371+25 (Heindl Road)

Mainline

Prior to milling, repair failed areas full depth with 12.5mm HT Leveling Asphalt. Remove the existing 1" OGFC pavement and replace with 1" of 9.5mm OGFC asphalt extending 2 feet outside the travel lane. Use 9.5mm HT asphalt to tie in ramps where OGFC will be removed to match new standard. Fog seal mainline outside shoulders.

Acceleration/Deceleration Lanes at Sowell Road and Nissan Parkway

Prior to milling, repair failed areas full depth with 12.5mm HT leveling asphalt. Mill and remove the existing OGFC pavement 1" and variable and replace with 2 lifts of micro-surface on all areas where OGFC was removed. Use 9.5mm HT asphalt to tie in ramps where OGFC will be removed to match new standard. Fog seal all shoulders.

Project wide work from Station 371+25 (Heindl Road) to Station 730+00 (EOP)

Northbound Travel Lanes

Apply a bio-based rejuvenating fog seal to both lanes leaving the northernmost 1,000 feet untreated. Replace any pavement markings that become damaged or experience performance loss due to fog seal applied.

Southbound Travel Lanes

Apply a petroleum-based rejuvenating fog seal to both lanes leaving the northernmost 1,000 feet untreated. Replace any pavement markings that become damaged or experience performance loss due to fog seal applied.

Milling

Milling/paving will not begin until an approved asphalt mix design has been received, nor until such time that, in the opinion of the Engineer, weather conditions have been consistently suitable enough to allow placement of the asphalt pavement after the milling operations.

The Reclaimed Asphalt Pavement (RAP) material removed by the milling operation shall become the property of the Contractor.

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 operations shall be performed in accordance with the Contract documents and the MDOT Standard Specifications for Road and Bridge Construction. Variable width and length transitions may be required for ties at ramps, local roads, project limits.

Traffic will be allowed to travel on the mainline milled surface for 3 days, and the Contractor will be assessed $5,000 per calendar day afterwards until the mainline milled surface is covered with the next lift of asphalt. This allowance for traffic on mainline milled surface is not a requirement. It shall be determined by the Contractor how many days up to 3 days traffic are allowed on the milled surface. If the milled surface begins to deteriorate under traffic, the Contractor shall make the necessary adjustments to prevent the roadway deterioration. The Contractor shall be responsible for any claims due to the deteriorating roadway.

Traffic will be allowed to run on all milled surfaces other than the mainline for 30 days unless otherwise stated, and the Contractor will be assessed $1,000 per calendar day afterwards until the non-mainline milled surface is covered with the next lift of asphalt. The additional allowance for the non-mainline milled surface is for the Contractor’s convenience, and thus, the Contractor is responsible for any pavement failures or damage sustained during this period.

## Paving

Per Section 401.02.3.2, the asphalt mix design shall be submitted to the Engineer at least 10 working days prior to its proposed use.

Per section 401.03.1.4, irregular areas shall be compacted to refusal densification. An irregular area shall be defined as any area less than 8 feet wide by 300 feet long. The Contractor shall be responsible for conducting all necessary density shots as well as establishing the rolling pattern. If the Contractor elects to not perform density shots, then cores shall be cut by the Contractor for payment determination.

Prior to mainline milling and paving operations, failed areas in the existing pavement shall be removed and backfilled with 12.5mm HT Leveling asphalt pavement as per the attached typical sections and details. Asphalt shall be placed in multiple lifts with a maximum lift thickness of 3". Any base or subgrade material deemed unsuitable by the Engineer shall be removed as directed and backfilled with 12.5mm HT Leveling asphalt pavement. Payment for the excavation of the granular base and subgrade will be made using the 203-G Excess Excavation pay item. A list of the failed areas is shown in the attached tables. Pavement repairs shall be completed as a continuous operation in order to minimize traffic impacts. Lane closures shall remain in place until the failed area has been completely repaired. Lane closures may not be left unattended.

The surface lift for failed area repair or concrete punchout repair shall have a maximum deviation of 3/8" as determined by a 10 foot straight edge. Any location that deviates more than this tolerance, as determined by the Engineer, shall be corrected at no additional cost to the State.

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.

## Temporary and Permanent Pavement Markings

Temporary traffic stripe will be required immediately after the milling and/or required overlay and prior to opening area to traffic. Temporary stripe is to be placed in the same location and configuration as the permanent stripe except that it may be offset as required for milling and paving operations. If temporary stripe is offset, the Contractor shall conduct operations in a manner to ensure 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.

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

All permanent striping will be thermoplastic, 90-mil thickness unless otherwise specified in Section 626.03.1.2. Edge lines will be placed to accommodate the lane widths shown on the attached applicable typical sections unless prevented by field conditions.

Per Section 626.03.1.2, a binder-sealer shall be applied to the concrete pavement or bridge surface prior to the placement of the thermoplastic material and shall be absorbed under the thermoplastic pay items. The type and amount of binder-sealer used shall adhere to the thermoplastic manufacturer's recommendations.

Permanent raised pavement markers shall be installed on mainline and local public roads after completion of all paving operations

Guardrail

Guardrails are to be replaced at the locations shown on the attached table. Removal of guardrail shall consist of removal of bridge end section, w-beam/thrie beam, terminal end section, posts, and all other appurtenances. All guardrail removed is to be replaced the same day and prior to reopening the adjacent lane of traffic. Voids created by the removal of posts, concrete anchors, footings, etc. shall be backfilled and compacted in accordance with Section 203 of the Standard Specifications.

The asphalt guardrail pad shall be milled and paved up to the face of the guardrail. The remainder of the guardrail pad shall be modified or constructed to conform to Special Design Drawing SDGR-PI. Pay Item No. 202-B006 Removal of Asphalt Paved Shoulders, All Depths and Pay Item No. 503-C010 Saw Cut, Full Depth shall be used to modify any existing asphalt guardrail pads. If blading is required in order to meet the minimum depth, then said blading shall be an absorbed item and the excavated material shall be retained and used to raise the existing shoulder to match the new pavement elevation. Material which cannot be placed and blended in adjacent areas and deemed to be excess excavation by the Engineer shall be removed under Pay Item No. 203-G Excess Excavation. The installed guardrail shall meet all requirements in order to be MASH compliant.

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

All dimensions and spacings for bridge rail connectors shall be verified in the field by the Contractor prior to fabrication.

All terminal ends and hardware associated with it shall become the property of the State once removed. The Contractor shall deliver terminal ends and hardware to the Whitfield Maintenance Office located at 3769 MS-468, Pearl, MS 39208. The Contractor shall provide personnel/equipment to unload materials and shall provide Trent Holbrook (601-946-7044) a 48 hour notice prior to materials being delivered.

## Permanent Signs

Permanent signs as listed on the attached tables are to be replaced. Unless otherwise listed in the attached tables, existing posts, anchors, angles/bars, and other components are to be reused. The Contractor shall use new bolts, screws, washers, nuts, etc. of the required sizes in the installation of signs. If required as part of the sign replacement activities, all post and I-beam lengths in these plans are estimated. Post lengths for all signs shall be verified in the field by the Contractor prior to fabrication. Installation dates shall be clearly written in bold black markings on the back bottom half off all signs with a permanent marking stick that is waterproof, fade resistant, and marks on wet or dry surfaces. If existing sign posts or footings are to be replaced, the existing posts and footings are to be removed and the area backfilled and compacted in accordance with Section 203 of the Standard Specifications. Removal of sign, post, and footing and backfilling will be paid using the removal of sign pay item.

Object markers at bridge approaches and other locations are to be replaced as shown in the attached table. Removal of object markers shall be absorbed in the cost of 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 No. 907-618-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, barricades, etc. shall be placed in accordance with the attached tables, drawings, and as directed by the Engineer. W20-1 signs shall be placed on all public road approaches as shown or as directed. Payment for standard roadside construction signs, barricades, etc. will be made using the appropriate pay items.

The Contractor shall on a daily basis, 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; the cost is to be included in the prices of 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.

Temporary asphalt joints (aka paper joints) shall be employed at all locations requiring traffic to traverse an uneven, transverse, pavement joint. Paper joints for 1” OGFC joints shall be a minimum of 3 feet in length. Paper joints shall be adequately maintained.

Potholes that may exist or occur in the existing pavement are to be patched in a timely manner as required. Patching of potholes shall be considered an absorbed item.

Random Clearing

Random clearing shall be required at a distance of seventy feet (70') from the pavement edge or to the right-of-way line, whichever distance is less. In situations where the clearing limits will leave a strip of trees in the median 20 feet (20') wide or less and/or leave a strip of trees 10 feet (10') or less from the edge of ROW or ROW fence, then said strip(s) shall also be cleared. Tree limbing shall be required at a distance of up to thirty feet (30') vertically within the clearing limits.

The random clearing shall encompass trees four inches (4") or greater in diameter, scrubs, and overhang within the clearing limits. Trees shall either be cut flush with the ground line or if the Contractor elects to cut the tree above the groundline then the tree stump shall be ground flush with the ground line. The cut material shall either be hauled away from the project site or mulched in place to a depth of four inches (4") maximum in any one location. If the Contractor elects to utilize other means of disposal for the cut material, then said method shall be approved by the Engineer prior to commencement.

All areas disturbed by the Contractor shall be stabilized to the satisfaction of the Engineer at no additional cost to the state. The Contractor shall be responsible for any damage caused to above ground utilities, private property, and State owned property within the limits of the random clearing.

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 during the life of the contract. No payment will be made for replacement or repair of damaged items.

Any signs that are in conflict with construction of this project shall be removed and relocated by the Contractor as directed by the Engineer, the cost of which is to be absorbed in other items bid.

Removal of existing raised pavement markers is to be included in the prices for 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 and will be considered included in the prices of 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.

Box culverts and drainage channels listed in the attached table shall have the existing debris and sediment removed by the Contractor, and shall be paid for using Pay Item No. 202-B276 Removal of Debris from Drainage Channels. The applicable pay item shall be measured along the length of the box culvert or in the case of multiple barrels along the length of each barrel of the box culvert, and along the length of the drainage channel. The depth of sediment listed for each box culvert/drainage channel is for estimation purposes only, and the actual depth of the sediment shall

be field verified by the Contractor prior to bidding the Project. The disposal of this material will not be measured for separate payment. The Contract quantities for box cleanout and channel excavation shall be paid which encompasses the entirety of each box location, including multiple barrels if present, and the entirety of each channel listed in the appropriate table in the Contract. Additional areas may be added as directed by the Engineer.

Work is required on bridges throughout the project, refer to the included tables for work required at each bridge and the respective pay items. All work required that does not have its own pay item should be considered an absorbed item of work and shall be bid accordingly.

**NHPP-0055-02(287) / 110043301**

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

Minor changes in detail of design or construction procedure may be authorized by the Director of Structures, State Bridge Engineer provided such changes will not be cause for contract price adjustment. Work for which no pay item is provided will not be paid for directly and shall therefore be considered an absorbed item of work.

It shall be the responsibility of the Contractor to protect existing structures from damage which might occur during construction. The Contractor shall replace or repair, as directed by the Director of Structures, State Bridge Engineer, any structures damaged during the life of the contract. No payment will be made for replacement or repair of damaged items.

All details are based on the dimensions shown on the original plans for the existing structure. The Contractor shall be responsible for adjusting the elements of the new construction to ensure a proper fit with the existing structure. The Contractor shall verify all dimensions of the existing structure prior to any fabrication or construction.

During construction, care shall be exercised to ensure that no debris falls onto the roadway below the structures. All debris, including any material that has accumulated on the bridge caps, shall become the property of the Contractor and shall be removed from the construction site.

Work on the project shall consist of the following repairs to bridge numbers 112.3A (12986) and 112.3B (12987) located on I-55 over Church Road in Madison County.
Scope of Work Bridge 112.3A (12986):

- Install Hybrid Polymer Concrete Overlay
- Full Depth Deck Repair on Portion of Span 2
- Replace Bearings at all Bents
- Joint Repair & Sealing
- Reshape Slopes and Install Riprap
- Undersealing at End Bent Nos. 1L & 4L
- General Epoxy Repair
- Clean Caps

Scope of Work Bridge 112.3B (12987):

- Install Hybrid Polymer Concrete Overlay
- Replace Bearings at all Bents
- Joint Repair & Sealing
- Reshape Slopes and Install Riprap
- Undersealing at End Bent No. 4R
- General Epoxy Repair

- Clean Caps

For additional information and details, see work related items below and on the attached Drawings. At the Contractor's request, Bridge Division will provide a complete set of As-Built plans for the existing bridge.

**Hybrid Polymer Concrete Overlay**

Hybrid Polymer Concrete Overlay shall be placed in accordance with Special Provision Subsection 907-828.03 and with the approved materials outlined in Special Provision Subsection 907-828.02.

Overlay limits shall be edge to edge of bridge railing/curb and extend the entire length of bridge deck.

Overlay thickness shall be placed at a minimum thickness of ½", not to exceed ¾".

Estimated quantities are based on ¾" thickness.

All materials and labor associated with this item of work shall be paid for per cubic yard of overlay installed under Pay Item No. 907-828-A001 Hybrid Polymer Concrete Overlay.

**Full Depth Deck Repair**

A full depth deck repair shall be performed in the approximate area shown on the attached Drawings. Removal of concrete shall be performed using 30 lb. hammers. During the removal of concrete during the full depth deck repair, no damage shall be sustained by the existing beams, diaphragms, reinforcement, or any part or the existing structure. If damage occurs, it will be repaired by the Contractor to the satisfaction of the Project Engineer at no additional cost to the State. Removal of bridge deck concrete will be paid for under Pay Item No. 907-824-PP003, Bridge Repair, Removal of Bridge Deck. Concrete to repair full depth deck repair will be paid for under Pay Item 907-804-O001, Bridge Deck Overlay Concrete.

**Bearing Replacements**

Bearings shall be replaced in accordance with Special Provision Subsection 907-824.03.4. Payment for this work shall be made under Pay Item No. 907-824-D002, Bearing Replacements, Prestressed Concrete Girder.

**Joint Repair & Sealing**

The joint repair shall include installation of the preformed joint seal and other necessary work per the included attached Drawings or as directed by the Project Engineer.

The joints shall be sealed by one of the three approved Manufacturers listed in Special Provision 907-823 and installed according to the Manufacturer's specifications. Removal of existing joint material will be paid for under Pay Item No. 202-B169, Removal of Joint Material. Joint Repair

will be paid for under Pay Item No. 907-808-A002, Joint Repair. All new preformed joints shall be paid for under Pay Item No. 907-823-A001, Preformed Joint Seal, Type I.

**Reshape Slope and Install Riprap**

The slopes at all End Bents shall be reshaped to a 2:1 slope and have 100lb riprap installed to the satisfaction of the Project Engineer. Geotextile fabric is required under all riprap. See Riprap Placement Plan shown on attached Drawings. Riprap shall be paid for under Pay Item No. 815-A002, Loose Riprap, Size 100. Geotextile Fabric shall be paid for under Pay Item No. 815-E001, Geotextile Under Riprap. Reshaping Slope shall be paid for under Pay Item No. 907-824-PP004, Bridge Repair, Slope Reshaping, Per Plans

**Undersealing**

In order to fill the void below End Bent Nos. 1L, 4L, & 4R, the void shall be filled with injectable urethane compound material meeting the required properties in Special Provision Subsection 907-420.02. Prior to injection, the site shall be prepared according to the Manufacturer's instructions.

Urethane compound shall be installed in strict accordance with Manufacturer's instructions. All labor, preparations, and materials associated with filling the voids underneath the bent caps shall be included in Pay Item No. 907-420-A001, Undersealing.

**General Epoxy Repair**

General Epoxy Repair shall be done in accordance with Special Provision Subsection 907-824.03.1 and with the approved materials outlined in Special Provision Subsection 907-824.02.1 All work and materials required to perform this item of work shall be paid for under Pay Item No. 907-824-A003, General Epoxy Repair.

This item shall be bid such that this item may be increased, decreased, or eliminated as directed by the Project Engineer.

**Cap Cleaning**

Cap Cleaning shall be done in accordance with Special Provision Subsection 907-824.03.3. This item of work shall be paid for under Pay Item No. 907-824-C001, Cap Cleaning.

**Contractor Submittals:**

Prior to fabrication and construction, the following shall be submitted to the Director of Structures, State Bridge Engineer through the Project Engineer for approval. No work shall begin until all submittals have been authorized by the Director of Structures, State Bridge Engineer.

Field Verification Submittal:

All dimensions of the existing structure and clearances shall be field verified by the Contractor. The Contractor shall be responsible for adjusting the elements of new construction to ensure proper fit with the existing structure. The Contractor shall submit verification of the existing bridge elements associated with the work items described herein. This shall include, but is not limited to:

a. Finish grades of existing structures.
b. Existing open joint widths.
c. Existing bearing dimensions.
d. Existing cap dimensions.
e. Any other element that will affect the work items described herein.

Shop Drawing Submittal:

The Contractor shall submit, in duplicate, shop drawings for new bearing assemblies to be installed at bearing locations. Shop drawings shall not be approved without the corresponding field verification submittal outlined above.

Jacking Plan Submittal:

The Contractor shall submit a set of bracing and jacking arrangement plans along with design calculations.

Containment Plan Submittal:

The Contractor shall submit a containment plan associated with the work items described in this proposal to the Director of Structures, State Bridge Engineer for approval.

**Special Provisions:**

907-420: Undersealing

907-808: Joint Repair

907-823: Preformed Joint Seal

907-824: Routine Bridge Repair

907-828: Hybrid Polymer Concrete Overlay

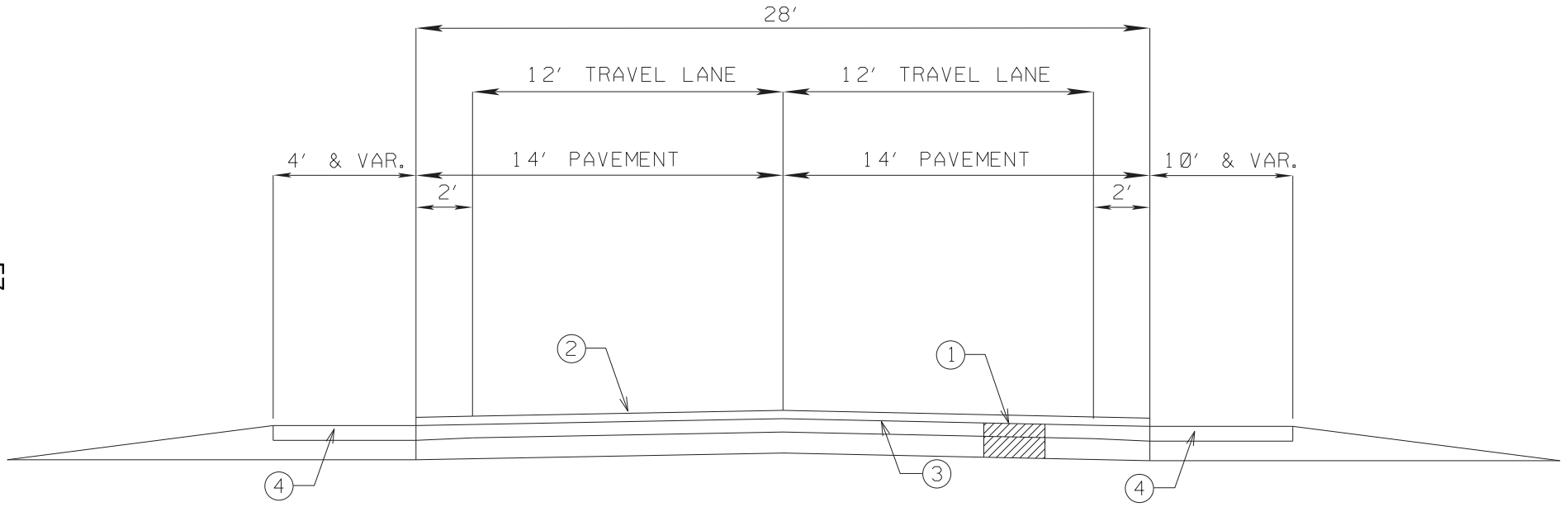
110067/301000-110068/301000
55 OVERLAY
FROM CHURCH RD TO YAZOO COUNTY LINE
MADISON COUNTY



110067/301000

# TYPICAL SECTION

BOP STA 0+00-STA 371+25




1. Failed areas to be removed and back filled with 12.5mm HT Leveling asphalt
2. Mill approximately 1" existing OGFC
3. Overlay with 1" of 9.5mm OGFC asphalt (extend 2' outside the travel lane)
4. Fog seal outside shoulders
5. Existing structure (15 1/2" - 16 1/2")

110068/301000

# TYPICAL SECTION

STA 371-25 - STA 730+00 (EOP)

NORTH BOUND




① Bar-based rejuvenating fog seal (Travel lanes only)
② Existing structure (14" - 16")

110068/301000

**TYPICAL SECTION**

STA 371-25 - STA 730+00 (EOP)

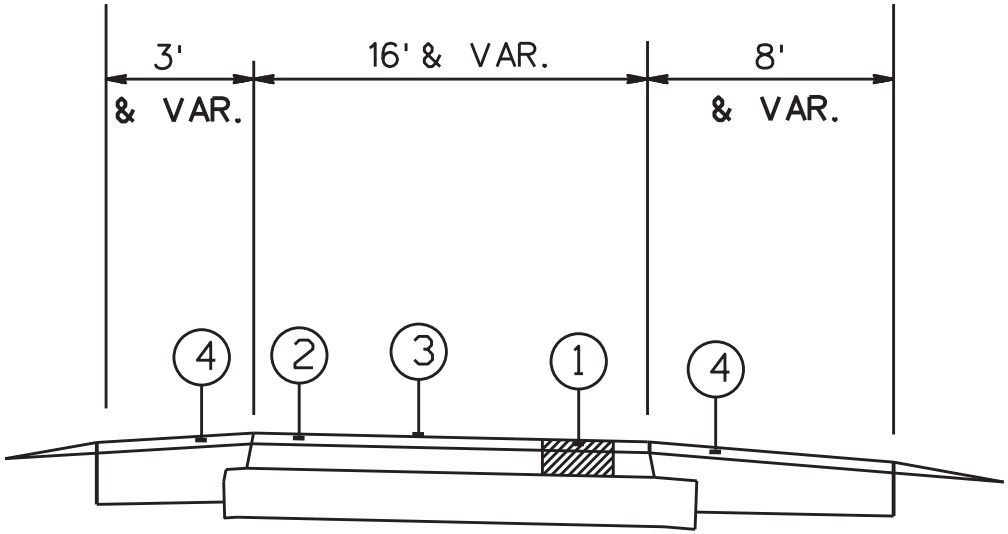
SOUTH BOUND




(1) Petroleum based rejuvenating fog seal (Travel lanes only)
(2) Existing structure (14" - 16")

110067/301000

TYPICAL SECTION
ACCELERATION/DECELERATION LANES
SOWELL RD AND NISSAN PARKWAY




① Failed areas to be removed and back filled with 12mm HT Leveling asphalt

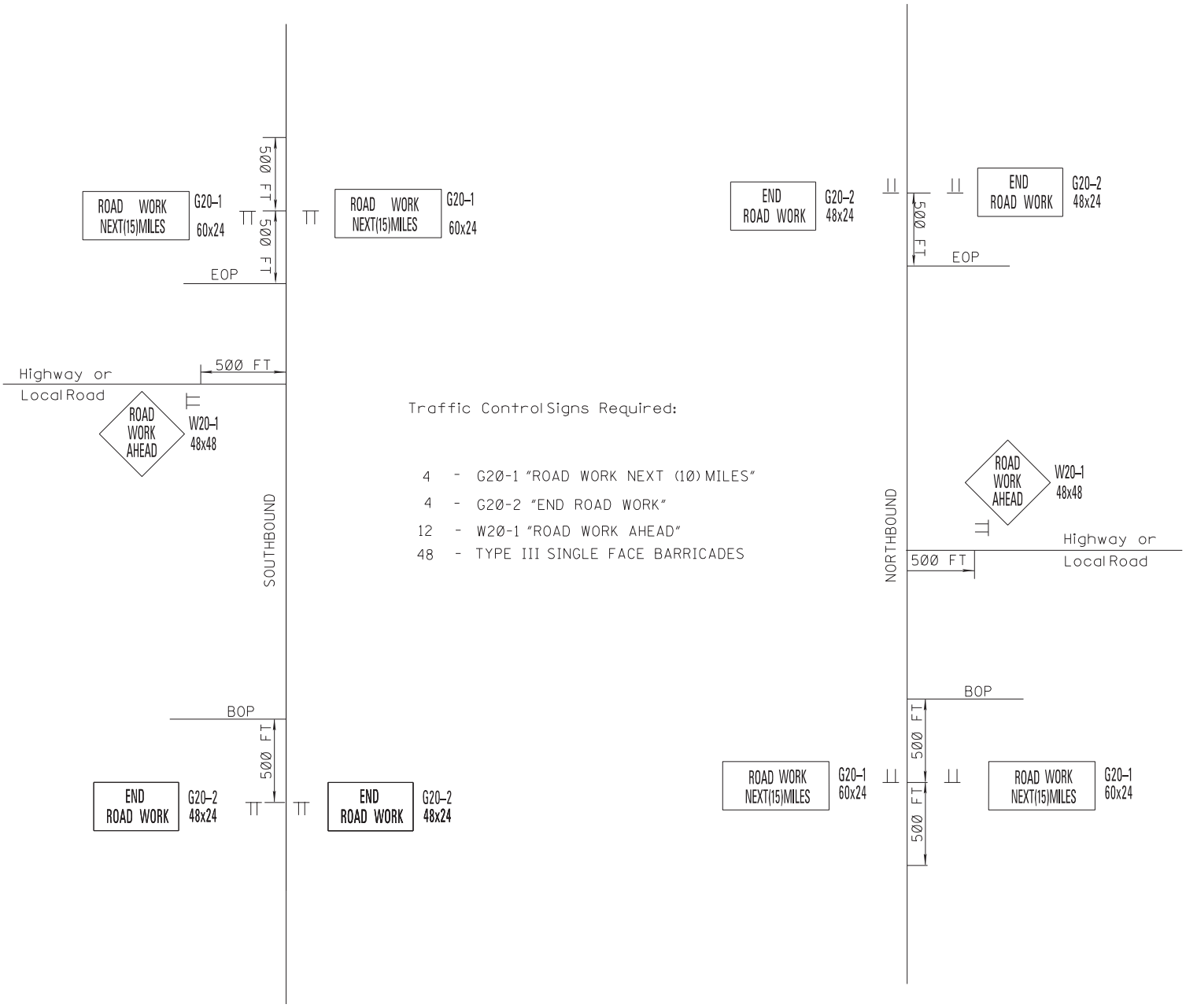
② Mill approxximately 1" existing OGFC

③ Place 2 lifts Microsurface where OGFC was removed

④ Fog seal shoulders

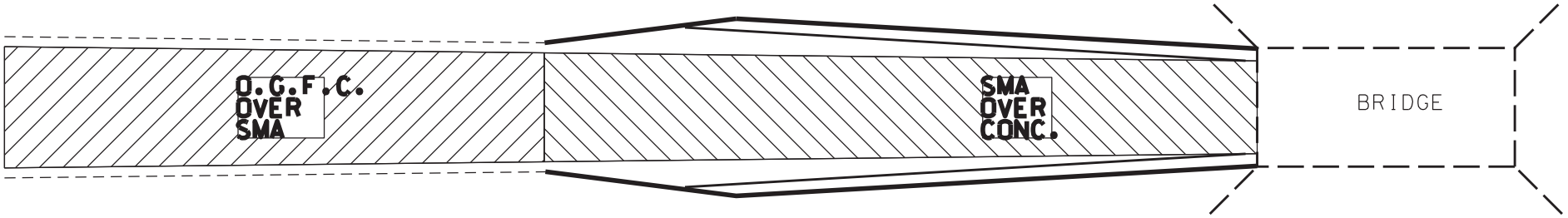
# CONSTRUCTION SIGNING DETAIL
# I 55 OVERLAY

## MADISON COUNTY
## 110067/301000 110068/301000




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

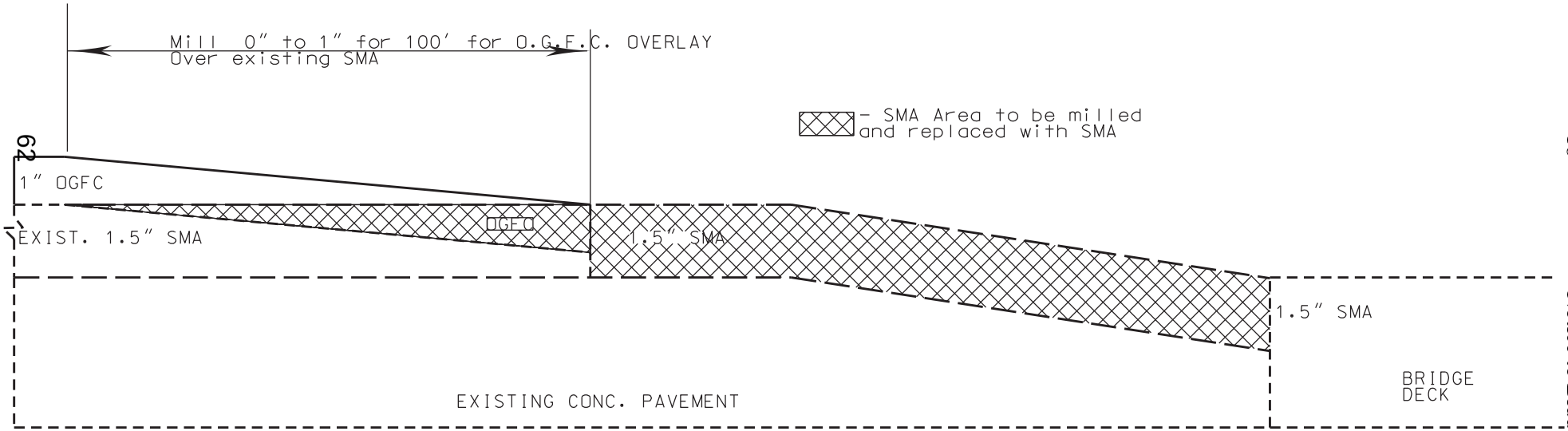
G20-1 and G20-2 signs mounted on Type III Single Faced Barricade.




-OGFC OVER SMA PAVING LIMITS

- SMA PAVING LIMITS

## BRIDGE LIMITS - APPROACH/DEPARTURE




## SMA MILLING REQUIREMENTS

(NOT TO SCALE)

Note:
Weep holes shall be required through the shoulder to prevent water from ponding in the milled areas as directed by Engineer.

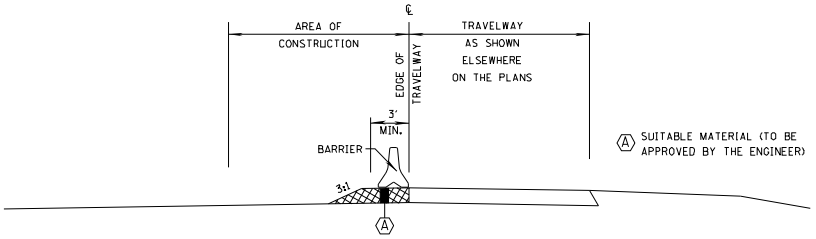
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

PAVING LIMITS
SMA MILLING REQUIRMEN
@ BRIDGES

PROJ. NO.
COUNTY
ELEVATION

PE-BR-1

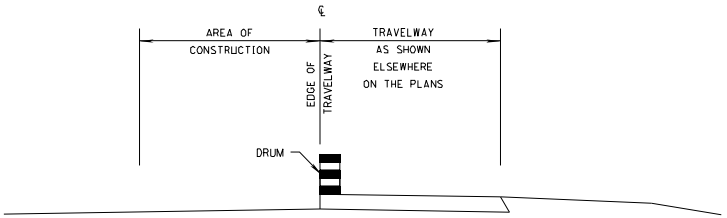
| STATE | PROJECT NO. |
|---|---|
| MISS. | |




ELEVATION VIEW FOR
POSITIVE BARRIER

NOTES:

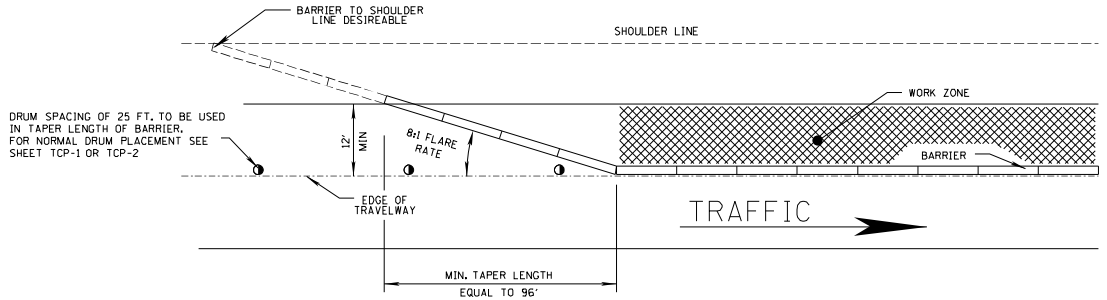
1. POSITIVE BARRIER IS REQ'D IN THE AREA OF OPEN PUNCH OUTS THAT ARE WITHIN SIX (6) FEET OF THE TRAVELWAY WHENEVER ACTUAL REPAIR WORK IS NOT BEING PERFORMED WITHIN THE LANE CLOSURE.
2. MATERIAL USED TO SUPPORT POSITIVE BARRIER MUST BE AT SAME ELEVATION AS PAVEMENT IN ADJACENT TRAVELWAY.
3. DELINEATORS REQUIRED ON ALL NON-REFLECTIVE BARRIER, AS SHOWN ON WORKING NO. CMB-3.



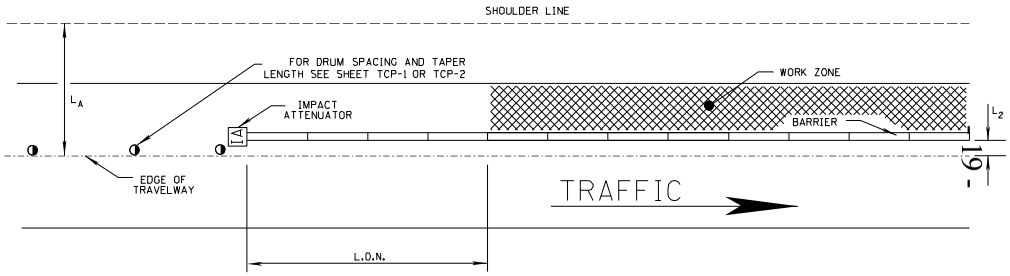

ELEVATION VIEW
FOR DRUM

NOTES:

1. WHILE WORK IS BEING PERFORMED WITHIN THE LANE CLOSURE, DROP-OFFS MUST BE PROTECTED WITH DRUMS, ETC. IN EMERGENCIES EXCAVATED SECTION MAY BE BACKFILLED WITH GRANULAR MATERIAL, STONE OR OTHER APPROVED MATERIAL TO AVOID OVERNIGHT DROP-OFFS.
2. LANE CLOSURES WITH OPEN PUNCH OUT AREAS MAY NOT BE LEFT UNATTENDED WHEN DRUMS ARE BEING USED FOR LANE CLOSURE




DETAIL OF POSITIVE
BARRIER WITH TAPER




DETAIL OF POSITIVE BARRIER
WITH IMPACT ATTENUATOR

NOTES:

1. LENGTH OF NEED, L.O.N. = $\frac{L_R(L_A - L_2)}{L_A}$

WHERE: $L_A$ = LATERAL EXTENT OF THE AREA OF CONCERN
$L_R$ = RUNOUT LENGTH
$L_2$ = LATERAL OFFSET FROM EDGE OF TRAVELED WAY TO BARRIER.

2. RUNOUT LENGTH ($L_R$) IS TO BE DETERMINED USING THE FOLLOWING TABLE:

| RUNOUT LENGTH ($L_R$) GIVEN TRAFFIC VOLUME (ADT) (ft) | | | | |
|---|---|---|---|---|
| DESIGN SPEED (mph) | OVER 10,000 veh/day | 5,000-10,000 veh/day | 1,000-5,000 veh/day | UNDER 1,000 veh/day |
| 70 | 360 | 330 | 290 | 250 |
| 60 | 300 | 250 | 210 | 200 |
| 50 | 230 | 190 | 160 | 150 |
| 40 | 160 | 130 | 110 | 100 |
| 30 | 110 | 90 | 80 | 70 |

GENERAL NOTES:

1. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER OTHER BID ITEMS.
2. FOR DETAILS OF DRUM PLACEMENT SEE OTHER TRAFFIC CONTROL PLANS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**LANE CLOSURE DETAILS FOR GREATER THAN 3 INCH DROPOFF**

PROJ. NO.:
COUNTY:
FILENAME: SDTCP-C.DGN
DESIGN TEAM UPDATE CHECKED UPDATE DATE UPDATE

REVISION BY DATE

WORKING NUMBER
SDTCP-C
SHEET NUMBER

Notice to Bidders No. 8195 -- Contract No. 119 -



PLAN
ROADWAY DESIGN DIVISION
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
MKODTXY 001.00.AMPM.DGN FILENAME

110067/301000

**201-D001 Random Clearing (Acre)**

| Station | Acres |
|---|---|
| 94+75 Right | 0.1 |
| 224+00 - 235+00 Median | 1.16 |
| 320+00 Right | 0.37 |
| 318+00 Left | 0.1 |
| 325+50 - 352+30 Median | 5.45 |
| 327+00 - 338+40 Right | 0.68 |
| BR 116.2 B (East end of Box) | 0.25 |
| **Total** | **8.11** |

| 110067/301000 | | | | | | |
|---|---|---|---|---|---|---|
| Madison County | | | | | | |
| 203-G001 | | | | | | |
| Excess Excavation, FM,AH | | | | | | |
| **Station** | **Direction** | **Length** | **Width** | **Square Feet** | **Square Yards** | **Cubic Yards** |
| 1+00 | NB/RT | 140 | 4 | 560 | 62 | 7 |
| 112.3A | SB/RT | 200 | 4 | 800 | 89 | 10 |
| 112.3A | SB/LT | 200 | 4 | 800 | 89 | 10 |
| 67+00 | NB/RT | 200 | 4 | 800 | 89 | 10 |
| 68+00 | NB/LT | 180 | 4 | 720 | 80 | 9 |
| 71+00 | SB/RT | 190 | 4 | 760 | 84 | 9 |
| 72+00 | SB/LT | 200 | 4 | 800 | 89 | 10 |
| 90+00 | NB/RT | 180 | 4 | 720 | 80 | 9 |
| 90+00 | NB/LT | 180 | 4 | 720 | 80 | 9 |
| 91+00 | SB/LT | 180 | 4 | 720 | 80 | 9 |
| 91+00 | SB/RT | 180 | 4 | 720 | 80 | 9 |
| 114.5B | NB/RT | 220 | 4 | 880 | 98 | 11 |
| 114.5B | NB/LT | 220 | 4 | 880 | 98 | 11 |
| 114.5A | SB/RT | 200 | 4 | 800 | 89 | 10 |
| 114.5A | SB/LT | 200 | 4 | 800 | 89 | 10 |
| 119+00 | NB/RT | 330 | 4 | 1320 | 147 | 16 |
| 116.9D | NB/RT | 210 | 4 | 840 | 93 | 10 |
| 116.9D | NB/LT | 210 | 4 | 840 | 93 | 10 |
| 116.9B | NB/RT | 210 | 4 | 840 | 93 | 10 |
| 116.9B | NB/LT | 210 | 4 | 840 | 93 | 10 |
| 116.9A | SB/RT | 200 | 4 | 800 | 89 | 10 |
| 116.9A | SB/LT | 200 | 4 | 800 | 89 | 10 |
| 117.8B | NB/RT | 200 | 4 | 800 | 89 | 10 |
| 117.8B | NB/LT | 200 | 4 | 800 | 89 | 10 |
| 117.8A | SB/LT | 200 | 4 | 800 | 89 | 10 |
| 117.8A | SB/RT | 200 | 1 | 200 | 22 | 2 |
| 118.3B | NB/RT | 200 | 4 | 800 | 89 | 10 |
| 118.3B | NB/LT | 200 | 4 | 800 | 89 | 10 |
| 118.3A | SB/RT | 200 | 4 | 800 | 89 | 10 |
| 118.3A | SB/LT | 200 | 4 | 800 | 89 | 10 |
| 342+00 | NB/RT | 350 | 4 | 1400 | 156 | 17 |
| 225+00 (Failed Area) | SB | 85 | 8 | 680 | 76 | 25 |
| | | | | | Total | 333 |

## 110067/301000

### I-55 Madison County

| Failed Areas Table | | | | 202-B009 Removal of Asphalt Pavement, Failed Areas | | 503-C010 Saw Cut, Full Depth | 12.5mm Leveling |
|---|---|---|---|---|---|---|---|
| Station | Direction | Length | Width | Sqaure Feet | Square Yards | Linear Feet | Ton |
| 225+00 | SB | 85 | 8 | 680 | 75.556 | 101 | 50 |

## Guardrail Quantities 110067/301000

| STATION (Bridge #) | LOCATION (LT/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) | THRIE BEAM TRANS. SECT. (LF) | THRIE BEAM (LF) | | | | TYPE "A" (EA) | TYPE "G" Modified (EA) | TYPE "I" Metal Post (EA) | SPEC. DESIGN BR END CONN. (EA) | WHITE (EA) | YELLOW (EA) | | | |
| 1+00 | NB/RT | 65 | | | | 2 | 2 | | | | | 7 | | | 140 | |
| 112.3A | SB/LT | 160 | | | 1 | | 1 | 1 | | | 1 | 8 | | 1 | 200 | |
| 112.3A | SB/RT | 160 | | | 1 | | 1 | 1 | | | 1 | | 8 | 1 | 200 | |
| 67+00 | NB/RT | 140 | | | 1 | | 1 | | | 1 | | 9 | | | 200 | |
| 68+00 | NB/LT | 105 | | | 1 | 1 | 2 | | | | | | 8 | | 180 | |
| 71+00 | SB/RT | 115 | | | 1 | 1 | 2 | | | | | | 8 | | 190 | |
| 72+00 | SB/LT | 140 | | | 1 | | 1 | | | 1 | | 8 | | | 200 | |
| 90+00 | NB/RT | 105 | | | 1 | 1 | 2 | | | | | | 7 | | 180 | |
| 90+00 | NB/LT | 105 | | | 1 | 1 | 2 | | | | | 7 | | | 180 | |
| 91+00 | SB/LT | 105 | | | 1 | 1 | 2 | | | | | | 7 | | 180 | |
| 91+00 | SB/RT | 105 | | | 1 | 1 | 2 | | | | | 7 | | | 180 | |
| 114.5B | NB/RT | 180 | | | 1 | | 1 | 1 | | | 1 | 8 | | 1 | 220 | |
| 114.5B | NB/LT | 180 | | | 1 | | 1 | 1 | | | 1 | | 8 | 1 | 220 | |
| 114.5A | SB/RT | 160 | | | 1 | | 1 | 1 | | | 1 | | 8 | 1 | 200 | |
| 114.5A | SB/LT | 160 | | | 1 | | 1 | 1 | | | 1 | 8 | | 1 | 200 | |
| 119+00 | NB/RT | 255 | | | | 2 | 2 | | | | | 11 | | | 330 | |
| 116.9D | NB/RT | 155 | | | 1 | | 1 | | | 1 | | 8 | | 1 | 210 | |
| 116.9D | NB/LT | 155 | | | 1 | | 1 | | | 1 | | | 8 | 1 | 210 | |
| 116.9B | NB/RT | 170 | | | 1 | | 1 | 1 | | | 1 | 8 | | 1 | 210 | |
| 116.9B | NB/LT | 170 | | | 1 | | 1 | 1 | | | 1 | | 8 | 1 | 210 | |
| 116.9A | SB/RT | 160 | | | 1 | | 1 | 1 | | | 1 | | 8 | 1 | 200 | |
| 116.9A | SB/LT | 160 | | | 1 | | 1 | 1 | | | 1 | 8 | | 1 | 200 | |
| 117.8B | NB/RT | 160 | | | 1 | | 1 | | 1 | | | 8 | | 1 | 200 | |
| 117.8B | NB/LT | 160 | | | 1 | | 1 | | 1 | | | | 8 | 1 | 200 | |
| 117.8A | SB/LT | 160 | | | | 1 | 1 | | 1 | | | 8 | | 1 | 200 | |
| 117.8A | SB/RT | 160 | | | 1 | | 1 | | 1 | | | | 8 | 1 | 200 | |
| 118.3B | NB/RT | 160 | | | 1 | | 1 | 1 | | | 1 | 8 | | 1 | 200 | |
| 118.3B | NB/LT | 160 | | | 1 | | 1 | 1 | | | 1 | | 8 | 1 | 200 | |
| 118.3A | SB/RT | 160 | | | 1 | | 1 | 1 | | | 1 | | 8 | 1 | 200 | |
| 118.3A | SB/LT | 160 | | | 1 | | 1 | 1 | - | - | 1 | 8 | | 1 | 200 | |
| 342+00 | NB/RT | 275 | | | 1 | 1 | 2 | | | | | 12 | | | 350 | |
| | | | | | | | | | | | | | | | | |
| **TOTAL =** | | **4765** | **0** | **0** | **28** | **12** | **40** | **14** | **4** | **4** | **14** | **141** | **110** | **20** | **6390** | |
| | | **L.F.** | **EA.** | **LF.** | **EA.** | **EA.** | **EA.** | **EA.** | **EA.** | **EA.** | **EA.** | **EA.** | **EA.** | **EA.** | **LF.** | |

* ALL GUARDRAIL TERMINAL ENDS AND ALL HARDWARE ASSOCIATED WITH THE TERMINAL ENDS SHALL BECOME PROPERTY OF THE DEPARTMENT AS DESCRIBED IN THE SCOPE OF WORK.
* 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 GUARD RAIL.
* REMOVAL OF GUARDRAIL DELINEATORS ARE CONSIDERED INCIDENTAL TO THE REMOVAL OF GUARDRAIL AND WILL NOT BE MEASURED AS A SEPARATE PAY ITEM.
* OBJECT MARKERS SHALL BE MOUNTED ON SQUARE TUBE POSTS.
* 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.

| 110067/301000 | | | | | |
|---|---|---|---|---|---|
| 221-A001 Concrete Paved Ditch (Flumes) | | | | | |
| Bridge # | CY/Flume | # Flumes | Toe Wall | # Toe Walls | Quantity CY |
| 117.8B | 0.452 | 1 | 0.114 | 1 | 0.6 |
| 117.8B | 0.452 | 1 | 0.114 | 1 | 0.6 |
| 117.8A | 0.452 | 1 | 0.114 | 1 | 0.6 |
| 117.8A | 0.452 | 1 | 0.114 | 1 | 0.6 |
| | | Total | | | 2.3 |

| 110067/301000<br>Madison County | | | | |
|---|---|---|---|---|
| 202-B006<br>Removal of Asphalt Paved Shoulder(All Depths) | | | | |
| **Location** | **Direction** | **Length** | **Width** | **SY** |
| 67+00 | NB/RT | 200 | 5 | 111 |
| 72+00 | SB/LT | 200 | 4 | 89 |
| 114.5B | NB/RT | 220 | 4 | 98 |
| 114.5B | NB/LT | 220 | 4 | 98 |
| 114.5A | SB/RT | 200 | 4 | 89 |
| 114.5A | SB/LT | 200 | 4 | 89 |
| 117.8B | NB/RT | 200 | 4 | 89 |
| 117.8B | NB/LT | 200 | 4 | 89 |
| 117.8A | SB/LT | 200 | 4 | 89 |
| 117.8A | SB/RT | 200 | 4 | 89 |
| 118.3B | NB/RT | 200 | 4 | 89 |
| 118.3B | NB/LT | 200 | 4 | 89 |
| 118.3A | SB/RT | 200 | 4 | 89 |
| 118.3A | SB/LT | 200 | 4 | 89 |
| 342+00 | NB/RT | 350 | 4 | 156 |
| | | | **Total** | **1440** |

| 110067/301000<br>Madison County | | | | |
|---|---|---|---|---|
| **202-B063 Removal of Paved Ditch (Bridge Flumes)** | | | | |
| Bridge | Location | Flume SY | Quantity | Total SY |
| 117.8B | NB/RT | 36.612 | 1 | 36.612 |
| 117.8B | NB/LT | 36.612 | 1 | 36.612 |
| 117.8A | SB/RT | 36.612 | 1 | 36.612 |
| 117.8A | SB/LT | 36.612 | 1 | 36.612 |
| | | | **Total** | **146.448** |

**110067/301000**

**STANDARD ROADSIDE SIGNS - 0.125" THICKNESS**

| STATION | SIGN NUMBER | SIZE (in. x in.) | AREA (sf) | PIPE POSTS (lf) | | | | Square POST (lf) | | Class "B" Conc (cy) | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 3" | 3-1/2" | 4" | 5" | 2 lb/ft | 4 lb/ft | | |
| 315+15 RT | M1-1 | 24 x 24 | 4.00 | | | | | | 12.00 | 0.5 | |
| 315+15 RT | M3-1 | 12 x 6 | 0.50 | | | | | | | | Mounted on top of M1-1 |
| 312+00 RT | W8-13 | 36 x 36 | 9.00 | | | | | | 12.00 | 0.5 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| Total this sheet = | | | 13.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 24.00 | 1.00 | |

## IM-0055-02(291) 110067/301000

## I-55 Madison County

| Bridge ID | Bridge Number | Random Clearing (AC) 201-D002 | Removal of Joint Material (LF) 202-B169 | Removal of Debris from Drainage Channel (LF) 202-B276 | Undersealing(LB) 907-420-A001 | Joint Repair (LF) 907-808-A002 | Loose Riprap, Size 200 (TN) 815-A006 | Geotextile Under Riprap (SY) 815-E001 | Preformed Joint Seal, Type I (LF) 907-823-A001 | Saw Cut, Type I (LF) 907-823-B001 | General Epoxy Repairs (SF) 907-824-A003 | General Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 16175 | 112.3C | 0 | 0 | 0 | 200 | 480 | 0 | 0 | 240 | 480 | 0 | Replace all joints. Void under top of slope paving at SW end of Bent 1 cap. |
| 12988 | 113.4 | 0 | 0 | 160 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Silt and Foliage at box culvert ends. |
| 13080 | 113.6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | Small Spalls to Column 3 at Bent 2 and Northwest corner of box girder near endwall. |
| 12968 | 114.5A | 0 | 66 | 0 | 1000 | 420 | 0 | 0 | 210 | 420 | 4 | Remove Joint Armor at Bents 2 and 3. Repair all joints. Small Deck Spalls Span 3, Inside Lane. Void under cap Bent 1. |
| 12969 | 114.5B | 0 | 99 | 0 | 2000 | 420 | 0 | 0 | 210 | 420 | 14 | Remove Joint Armor at Bents 1, 3 and 4. Repair all joints. Small Deck Spalls Spans 1 and 2, Inside Lane. Void under caps at Bents 1 and 4 |
| 12963 | 116.2 | 0 | 0 | 230 | 0 | 0 | 100 | 145 | 0 | 0 | 0 | Silt and Foliage at box culvert ends. Riprap needed at culvert ends. |
| 15884 | 116.2A | 0 | 0 | 80 | 0 | 0 | 80 | 106 | 0 | 0 | 0 | Silt and Foliage on east end of box. Riprap needed at culvert ends. |
| 15885 | 116.2B | 0.25 | 0 | 150 | 0 | 0 | 120 | 178 | 0 | 0 | 2 | Silt and Foliage on west end of box. Clear and Grub east end of box. Riprap needed at culvert ends. Epoxy SE corner damaged by mower |
| 12964 | 116.9A | 0 | 33 | 0 | 0 | 490 | 0 | 0 | 245 | 490 | 0 | Remove Joint Armor at Bent 3. Repair joints at all bents. |
| 12991 | 116.9B | 0 | 33 | 0 | 0 | 490 | 0 | 0 | 245 | 490 | 0 | Remove Joint Armor at Bent 2. Repair joints at all bents. |
| 12992 | 117.8A | 0 | 0 | 0 | 0 | 520 | 0 | 0 | 260 | 520 | 0 | Replace joints. |
| 15476 | 117.8B | 0 | 0 | 0 | 0 | 400 | 0 | 0 | 200 | 400 | 0 | Replace joints. |
| 12967 | 118.3A | 0 | 33 | 0 | 0 | 70 | 0 | 0 | 35 | 70 | 0 | Remove Joint Armor and Repair Joint at Bent 1. |
| 12971 | 119.7A | 0 | 33 | 0 | 2000 | 280 | 0 | 0 | 140 | 280 | 0 | Remove Joint Armor at Bent 1 and Repair Joints at Bents 1 and 4. Void under caps at Bents 1 and 4. |
| 12972 | 119.7B | 0 | 66 | 0 | 1000 | 280 | 0 | 0 | 140 | 280 | 4 | Small Deck Spalls Spans 1 and 2. Remove Joint Armor and Repair Joint at Bents 1 and 4. Void under cap at Bent 1. |
| | Totals | 0.25 | 363 | 620 | 6200 | 3850 | 300 | 429 | 1925 | 3850 | 28 | |

| STATE | PROJECT NO. |
|---|---|
| MISS | IM-0055-02(291) |

## SUMMARY OF QUANTITIES (SHEET 1)

| PAY ITEM NO. | PAY ITEM | UNIT | MADISON : 110067-301000 | |
|---|---|---|---|---|
| | | | Prelim | Final |
| 201-D002 | Random Clearing | ACRE | 9 | |
| 202-B006 | Removal of Asphalt Paved Shoulders, All Depths | SY | 1,440 | |
| 202-B009 | Removal of Asphalt Pavement, Failed Areas | SY | 76 | |
| 202-B063 | Removal of Concrete Paved Ditch | SY | 147 | |
| 202-B158 | Removal of Guard Rail, Including Rails, Posts and Terminal Ends | LF | 6,390 | |
| 202-B169 | Removal of Joint Material | LF | 363 | |
| 202-B240 | Removal of Traffic Stripe | LF | 6,510 | |
| 202-B276 | Removal of Debris from Drainage Channel | LF | 620 | |
| 203-G001 | Excess Excavation, FM, AH | CY | 334 | |
| 209-A005 | Geotextile Stabilization, Type V, Non-Woven | SY | 2,840 | |
| 221-A001 | Concrete Paved Ditch | CY | 3 | |
| 304-D002 | Granular Material, Crushed Stone | TON | 541 | |
| 907-402-A002 | Open Graded Friction Course, 9.5-mm Mixture | TON | 12,156 | |
| 907-402-B001 | Bituminous Tack Coat | GAL | 23,513 | |
| 907-403-A013 | 9.5-mm, HT, Asphalt Pavement | TON | 538 | |
| 907-403-B001 | 12.5-mm, HT, Asphalt Pavement, Leveling | TON | 100 | |
| 907-403-S002 | Joint Sealant | LF | 8,400 | |
| 907-405-A002 | Stone Matrix Asphalt, 12.5 mm Mixture | TON | 1,713 | |
| 406-D001 | Fine Milling of Bituminous Pavement, All Depths | SY | 318,050 | |
| 907-407-A001 | Asphalt for Tack Coat | GAL | 6,856 | |
| 907-418-A001 | Emulsified Asphalt for Micro-Surfacing | GAL | 55,382 | |
| 907-418-B001 | Aggregate for Micro-Surfacing | TON | 1,862 | |
| 907-420-A001 | Undersealing | LBS | 6,200 | |
| 907-428-C001 | Bituminous-Based Fog Seal with Rejuvenator | GAL | 6,670 | |
| 503-C010 | Saw Cut, Full Depth | LF | 101 | |
| 907-601-B001 | Class "B" Structural Concrete, Minor Structures | CY | 1 | |
| 606-B003 | Guard Rail, Class A, Type 1, 'W' Beam, Metal Post | LF | 4,765 | |
| 606-C001 | Guard Rail, Cable Anchor Type 1, Metal Post | EA | 40 | |
| 606-D003 | Guard Rail, Bridge End Section, Special Design | EA | 14 | |
| 606-D005 | Guard Rail, Bridge End Section, Type A | EA | 14 | |
| 606-D018 | Guard Rail, Bridge End Section, Type G, Modified | EA | 4 | |
| 606-D023 | Guard Rail, Bridge End Section, Type I, Metal Post | EA | 4 | |
| 606-E005 | Guard Rail, Terminal End Section, Flared | EA | 28 | |
| 606-E007 | Guard Rail, Terminal End Section, Non-Flared | EA | 12 | |
| 907-618-A001 | Maintenance of Traffic | LS | 1 | |
| 907-618-M2001 | Work Zone Law Enforcement | HRS | 1,000 | |
| 619-A1001 | Temporary Traffic Stripe, Continuous White | MI | 36 | |
| 619-A2001 | Temporary Traffic Stripe, Continuous Yellow | MI | 36 | |
| 619-A3001 | Temporary Traffic Stripe, Skip White | MI | 32 | |
| 619-A5001 | Temporary Traffic Stripe, Detail | LF | 53,784 | |
| 619-D1001 | Standard Roadside Construction Signs, Less than 10 Square Feet | SF | 64 | |
| 619-D2001 | Standard Roadside Construction Signs, 10 Square Feet or More | SF | 192 | |
| 619-F3001 | Delineators, Guard Rail, White | EA | 141 | |
| 619-F3002 | Delineators, Guard Rail, Yellow | EA | 110 | |

C-1

By
Revision
Date

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**
**SUMMARY OF QUANTITIES**

PROJ NO: IM-0055-02(291)
COUNTY: MADISON
FILENAME: 110067/301000
Design Team Checked Date

Working Number: SQ-1
Sheet Number: 1

| STATE | PROJECT NO. |
|---|---|
| MISS | IM-0055-02(291) |

## SUMMARY OF QUANTITIES (SHEET 2)

| PAY ITEM NO. | PAY ITEM | UNIT | MADISON : 110067-301000 | |
|---|---|---|---|---|
| | | | Prelim | Final |
| 619-G4005 | Barricades, Type III, Single Faced | LF | 48 | |
| 619-G7001 | Warning Lights, Type "B" | EA | 12 | |
| 620-A001 | Mobilization | LS | 1 | |
| 907-626-A010 | 6" Thermoplastic Traffic Stripe, Skip White | MI | 16 | |
| 907-626-B006 | 6" Thermoplastic Traffic Stripe, Continuous White | MI | 18 | |
| 907-626-E005 | 6" Thermoplastic Traffic Stripe, Continuous Yellow | MI | 18 | |
| 907-626-G004 | Thermoplastic Detail Stripe, White | LF | 26,892 | |
| 907-626-G005 | Thermoplastic Detail Stripe, Yellow | LF | 614 | |
| 907-627-K001 | Red-Clear Reflective High Performance Raised Markers | EA | 4,657 | |
| 630-C001 | Square Tube Posts, 4.0 lb/ft | LF | 24 | |
| 630-G005 | Type 3 Object Markers, OM-3R or OM-3L, Post Mounted | EA | 20 | |
| 907-630-PP002 | Roadside Directional Signs, Sheet Aluminum, 0.125" Thickness, Ground Mounted | SF | 14 | |
| 907-808-A002 | Joint Repair | LF | 3,850 | |
| 815-A006 | Loose Riprap, Size 200 | TON | 300 | |
| 815-E001 | Geotextile under Riprap | SY | 429 | |
| 907-823-A001 | Preformed Joint Seal, Type I | LF | 1,925 | |
| 907-823-B001 | Saw Cut, Type I | LF | 3,850 | |
| 907-824-A003 | General Epoxy Repair | SF | 28 | |







| By | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>SUMMARY OF QUANTITIES | |
|---|---|---|
| Revision | PROJ NO: IM-0055-02(291)<br>COUNTY: MADISON | Working Number<br>SQ-2 |
| Date | FILENAME: 110067/301000<br>Design Team Checked Date | Sheet Number<br>2 |

| STATE | PROJECT NO. |
|---|---|
| MISS | IM-0055-02(292) |

## SUMMARY OF QUANTITIES (SHEET 1)

| PAY ITEM NO. | PAY ITEM | UNIT | MADISON : 110068-301000 | |
|---|---|---|---|---|
| | | | Prelim | Final |
| 202-B240 | Removal of Traffic Stripe | LF | 1,080 | |
| 907-428-C001 | Bituminous-Based Fog Seal with Rejuvenator | GAL | 13,188 | |
| 907-428-D001 | Bio-Based Fog Seal with Rejuvenator | GAL | 16,261 | |
| 907-618-A001 | Maintenance of Traffic | LS | 1 | |
| 619-A1001 | Temporary Traffic Stripe, Continuous White | MI | 27 | |
| 619-A2001 | Temporary Traffic Stripe, Continuous Yellow | MI | 27 | |
| 619-A3001 | Temporary Traffic Stripe, Skip White | MI | 28 | |
| 619-A5001 | Temporary Traffic Stripe, Detail | LF | 8,180 | |
| 620-A001 | Mobilization | LS | 1 | |
| 907-626-A010 | 6" Thermoplastic Traffic Stripe, Skip White | MI | 14 | |
| 907-626-B006 | 6" Thermoplastic Traffic Stripe, Continuous White | MI | 14 | |
| 907-626-E005 | 6" Thermoplastic Traffic Stripe, Continuous Yellow | MI | 14 | |
| 907-626-G004 | Thermoplastic Detail Stripe, White | LF | 4,090 | |
| 907-627-K001 | Red-Clear Reflective High Performance Raised Markers | EA | 2,122 | |







| By | MISSISSIPPI DEPARTMENT OF TRANSPORTATION<br>SUMMARY OF QUANTITIES | |
|---|---|---|
| Revision | PROJ NO: IM-0055-02(292)<br>COUNTY: MADISON | Working Number: SQ-1 |
| Date | FILENAME: 110068/301000<br>Design Team Checked Date | Sheet Number: 2 |

## SUMMARY OF QUANTITIES (SHEET 1)

| PAY ITEM NO. | PAY ITEM | UNIT | MADISON : 110043-301000 | |
|---|---|---|---|---|
| | | | Prelim | Final |
| 907-618-A001 | Maintenance of Traffic | LS | 1 | |
| 619-A1003 | Temporary Traffic Stripe, Continuous White, Paint | LF | 320 | |
| 619-A2003 | Temporary Traffic Stripe, Continuous Yellow, Paint | LF | 320 | |
| 619-A3004 | Temporary Traffic Stripe, Skip White, Paint | LF | 320 | |
| 619-D1001 | Standard Roadside Construction Signs, Less than 10 Square Feet | SF | 56 | |
| 619-D2001 | Standard Roadside Construction Signs, 10 Square Feet or More | SF | 159 | |
| 907-619-E3001 | Chargeable Message Sign | EA | 2 | |
| 619-G4001 | Barricades, Type III, Double Faced | LF | 126 | |
| 619-G4005 | Barricades, Type III, Single Faced | LF | 24 | |
| 619-G5001 | Free Standing Plastic Drums | EA | 21 | |
| 619-G7001 | Warning Lights, Type "B" | EA | 11 | |
| 619-G8001 | Warning Lights, Type "C" | EA | 4 | |
| 620-A001 | Mobilization | LS | 1 | |
| 907-626-A009 | 6" Thermoplastic Traffic Stripe, Skip White | LF | 320 | |
| 907-626-E006 | 6" Thermoplastic Traffic Stripe, Continucus Yellow | LF | 320 | |
| 907-626-E006 | 6" Thermoplastic Traffic Stripe, Continucus Yellow | LF | 320 | |
| 907-627-K001 | Red-Clear Reflective High Performance Raised Markers | EA | 4 | |

SUMMARY OF QUANTITIES

PROJECT NO.: NHPP-0055-02(282)

COUNTY: MADISON

FMS CON: 110043/301000

DESIGNED BY:

DETAILED BY:

CHECKED BY:

DATE:

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SHEET ID: SQ1

SHEET NO.: 1

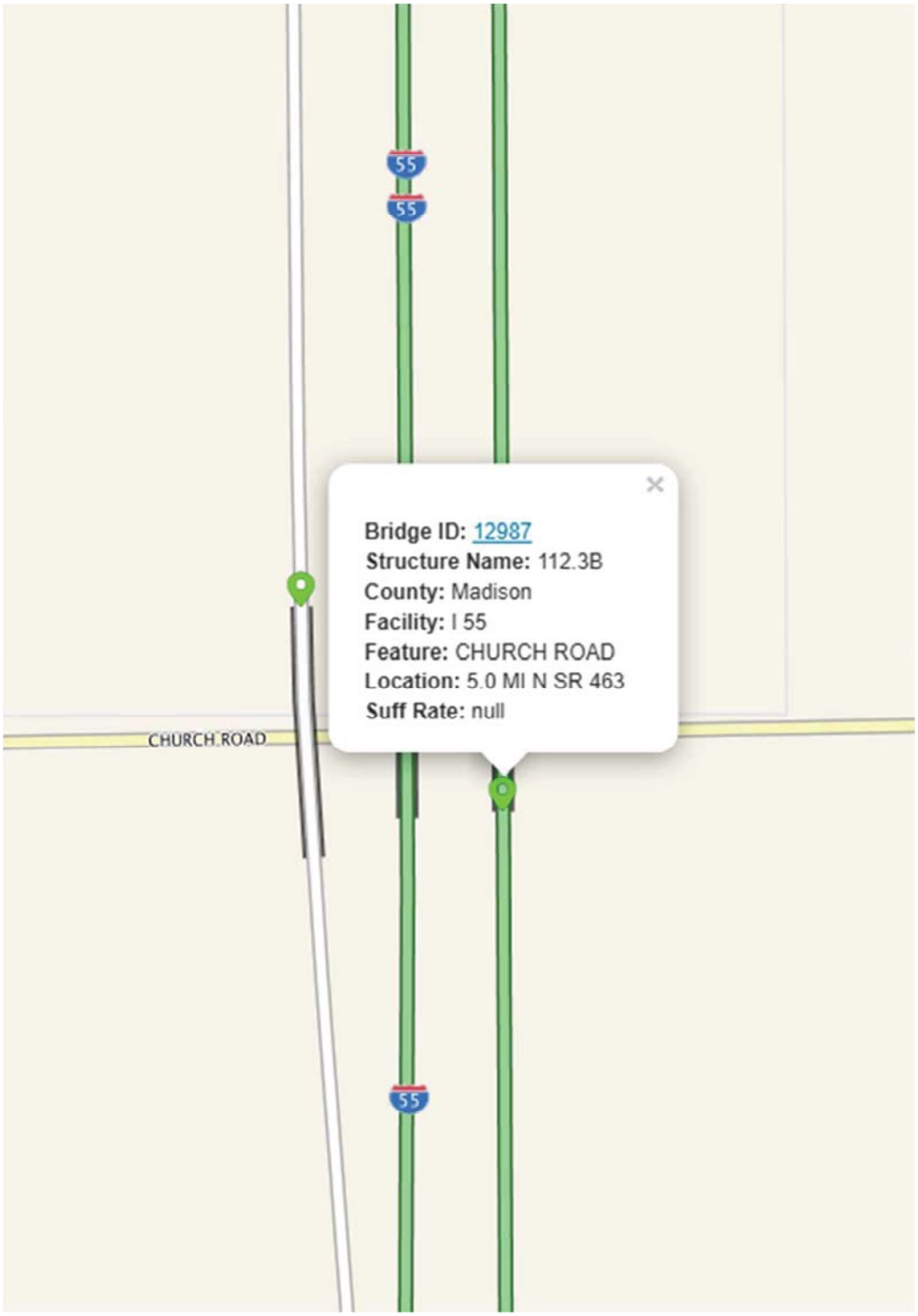
11/19/2025 3:28:33 PM SQ-1.dgn

PLAN SHEET

110403/301000 ESTIMATED QUANTITIES

| PAY ITEM NO. | DESCRIPTION | UNITS | BRIDGE 112.3A (12986) | BRIDGE 112.3B (12987) | PROJECT TOTAL |
|---|---|---|---|---|---|
| 815-A002 | Loose Riprap, Size 100 | Ton | 182.74 | 182.74 | 366 |
| 815-E001 | Geotextile Under Riprap | SY | 260.11 | 260.11 | 521 |
| 907-420-A001 | Undersealing | LBS | 4000.00 | 2000.00 | 6000 |
| 907-804-O001 | Bridge Deck Overlay Concrete | CY | 2.07 | 0.00 | 3 |
| 907-808-A002 | Joint Repair, Without Epoxy | LF | 224.00 | 224.00 | 448 |
| 907-823-A001 | Preformed Joint Seal, Type I | LF | 116.67 | 116.67 | 234 |
| 907-823-B001 | Saw Cut, Type I | LF | 224.00 | 224.00 | 448 |
| 907-824-A003 | General Epoxy Repair | SF | 10.00 | 10.00 | 20 |
| 907-824-C001 | Cap Cleaning | EACH | 4.00 | 4.00 | 8 |
| 907-824-D002 | Bearing Replacements, Prestressed Concrete Girder | EACH | 30.00 | 30.00 | 60 |
| 907-824-PP003 | Bridge Repair, Removal of Bridge Deck | SF | 96.00 | 0.00 | 96 |
| 907-824-PP004 | Bridge Repair, Slope Reshaping, Per Plans | LS | 1.00 | 1.00 | 2 |
| 907-828-A001 | Hybrid Polymer Concrete Overlay | CY | 9.92 | 9.92 | 20 |


55
55
Bridge ID: 12986
Structure Name: 112.3A
County: Madison
Facility: I 55
Feature: CHURCH ROAD
Location: 5.0 MI N SR 463
Suff Rate: null
CHURCH ROAD
55


55
55
Bridge ID: 12987
Structure Name: 112.3B
County: Madison
Facility: I 55
Feature: CHURCH ROAD
Location: 5.0 MI N SR 463
Suff Rate: null
CHURCH ROAD
55

## SIGNS REQUIRED

| | SIGN NO. | SIZE | UNIT AREA FT² | QUAN. REQ'D. | TOTAL SIGN AREA FT² | REMARKS |
|---|---|---|---|---|---|---|
| | G20 - 1 | 60" X 24" | 10.00 ♦ | ___ | ___ | ROAD WORK NEXT XX MILES |
| | G20 - 2 | 48" X 24" | 8.00 | 7 | 56 | END ROAD WORK |
| | G20 - 4 | 36" X 18" | 4.50 | ___ | ___ | PILOT CAR FOLLOW ME |
| | | | | | | |
| 1 | M1 - 1 | 24" X 24" | 4.00 | ___ | ___ | 1 OR 2 DIGIT |
| 1 | M1 - 1 | 30" X 24" | 5.00 | ___ | ___ | 3 DIGIT |
| 2 | M1 - 4 | 24" X 24" | 4.00 | ___ | ___ | 1 OR 2 DIGIT |
| 2 | M1 - 4 | 30" X 24" | 5.00 | ___ | ___ | 3 DIGIT |
| 3 | M1 - 5 | 24" X 24" | 4.00 | ___ | ___ | 1 OR 2 DIGIT |
| 3 | M1 - 5 | 30" X 24" | 5.00 | ___ | ___ | 3 DIGIT |
| 4 | M3 - 1 | 24" X 12" | 2.00 | ___ | ___ | NORTH- 1 OR 2 DIGIT RTE. MARKER |
| 4 | M3 - 1 | 30" X 15" | 3.13 | ___ | ___ | NORTH- 3 DIGIT RTE. MARKER |
| 4 | M3 - 2 | 24" X 12" | 2.00 | ___ | ___ | EAST- 1 OR 2 DIGIT RTE. MARKER |
| 4 | M3 - 2 | 30" X 15" | 3.13 | ___ | ___ | EAST- 3 DIGIT RTE. MARKER |
| 4 | M3 - 3 | 24" X 12" | 2.00 | ___ | ___ | SOUTH- 1 OR 2 DIGIT RTE. MARKER |
| 4 | M3 - 3 | 30" X 15" | 3.13 | ___ | ___ | SOUTH- 3 DIGIT RTE. MARKER |
| 4 | M3 - 4 | 24" X 12" | 2.00 | ___ | ___ | WEST- 1 OR 2 DIGIT RTE. MARKER |
| 4 | M3 - 4 | 30" X 15" | 3.13 | ___ | ___ | WEST- 3 DIGIT RTE. MARKER |
| | M4 - 8 | 24" X 12" | 2.00 | ___ | ___ | DETOUR- 1 OR 2 DIGIT RTE. MARKER |
| | M4 - 8 | 30" X 15" | 3.13 | ___ | ___ | DETOUR- 3 DIGIT RTE. MARKER |
| | | | | | | |
| | M4 - 9 | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR ↑ |
| | M4 - 9L | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR ← |
| | M4 - 9BL | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR ↰ |
| | M4 - 9SL | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR ↖ |
| | M4 - 9BSL | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR ↰ |
| | M4 - 9R | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR → |
| | M4 - 9BR | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR ↱ |
| | M4 - 9SR | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR ↗ |
| | M4 - 9BSR | 48" X 36" | 12.00 ♦ | ___ | ___ | DETOUR ↱ |
| | M4 - 10L | 48" X 18" | 6.00 | ___ | ___ | DETOUR |
| | M4 - 10R | 48" X 18" | 6.00 | ___ | ___ | DETOUR |
| | | | | | | |
| 4 | M4 - 5 | 24" X 12" | 2.00 | ___ | ___ | TO |
| 4 | M5 - 1L | 21" X 15" | 2.19 | ___ | ___ | ↰ |
| 4 | M5 - 1R | 21" X 15" | 2.19 | ___ | ___ | ↱ |
| 4 | M5 - 2L | 21" X 15" | 2.19 | ___ | ___ | ↰ |
| 4 | M5 - 2R | 21" X 15" | 2.19 | ___ | ___ | ↱ |
| 4 | M6 - 1L | 21" X 15" | 2.19 | ___ | ___ | ← |
| 4 | M6 - 1R | 21" X 15" | 2.19 | ___ | ___ | → |
| 4 | M6 - 2L | 21" X 15" | 2.19 | ___ | ___ | ↖ |
| 4 | M6 - 2R | 21" X 15" | 2.19 | ___ | ___ | ↗ |
| 4 | M6 - 3 | 21" X 15" | 2.19 | ___ | ___ | ↑ |
| | | | | | | |
| | | | | | | |

## SIGNS REQUIRED (CONT'D)

| | SIGN NO. | SIZE | UNIT AREA FT² | QUAN. REQ'D. | TOTAL SIGN AREA FT² | REMARKS |
|---|---|---|---|---|---|---|
| 1 | R1 - 1 | 36" OCTAGON | 7.46 | ___ | ___ | STOP |
| 2 | R1 - 1 | 48" OCTAGON | 13.25 ♦ | 2 | 26.5 | |
| 2 | R1 - 2 | 36" X 36" X 36" | 3.90 | ___ | ___ | YIELD |
| 1 | R1 - 2 | 48" X 48" X 48" | 6.93 | ___ | ___ | |
| 2 | R1 - 2 | 60" X 60" X 60" | 10.83 ♦ | ___ | ___ | |
| 1 | R1 - 3 | 18" X 9" | 1.13 | ___ | ___ | 3-WAY, 4-WAY, ETC. |
| 2 | R1 - 3 | 24" X 12" | 2.00 | ___ | ___ | |
| 1 | R2-1 | 24" X 30" | 5.00 | ___ | ___ | SPEED LIMIT |
| 2 | R2-1 | 36" X 48" | 12.00 ♦ | ___ | ___ | |
| 6 | R2-1 | 48" X 60" | 20.00 ♦ | ___ | ___ | |
| | | | | | | |
| 1 | R3-1 | 36" X 36" | 9.00 | ___ | ___ | |
| 2 | R3-1 | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| 1 | R3-2 | 36" X 36" | 9.00 | ___ | ___ | |
| 2 | R3-2 | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| 1 | R3-4 | 36" X 36" | 9.00 | ___ | ___ | |
| 2 | R3-4 | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | R3-5L | 30" X 36" | 7.50 | ___ | ___ | ONLY |
| | R3-5R | 30" X 36" | 7.50 | ___ | ___ | ONLY |
| | R3-6L | 30" X 36" | 7.50 | ___ | ___ | |
| | R3-6R | 30" X 36" | 7.50 | ___ | ___ | |
| | R3-7L | 30" X 30" | 6.25 | ___ | ___ | LEFT LANE MUST TURN LEFT |
| | R3-7R | 30" X 30" | 6.25 | ___ | ___ | RIGHT LANE MUST TURN RIGHT |
| 1 | R4-1 | 24" X 30" | 5.00 | ___ | ___ | DO NOT PASS |
| 2 | R4-1 | 48" X 60" | 20.00 ♦ | ___ | ___ | |
| 1 | R4-2 | 24" X 30" | 5.00 | ___ | ___ | PASS WITH CARE |
| 2 | R4-2 | 48" X 60" | 20.00 ♦ | ___ | ___ | |
| | | | | | | |
| | R4-7 | 48" X 60" | 20.00 ♦ | ___ | ___ | |
| | R4-8 | 48" X 60" | 20.00 ♦ | ___ | ___ | |
| | R5-1 | 48" X 48" | 16.00 ♦ | ___ | ___ | DO NOT ENTER |
| | R5-1a | 42" X 30" | 8.75 | ___ | ___ | WRONG WAY |
| | R6-1L | 36" X 12" | 3.00 | ___ | ___ | ONE WAY |
| | R6-1R | 36" X 12" | 3.00 | ___ | ___ | ONE WAY |
| | R6-2L | 24" X 30" | 5.00 | ___ | ___ | ONE WAY |
| | R6-2R | 24" X 30" | 5.00 | ___ | ___ | ONE WAY |
| | R11-2 | 48" X 30" | 10.00 ♦ | 2 | 20 | ROAD CLOSED |
| | R11-3a | 60" X 30" | 12.50 ♦ | ___ | ___ | ROAD CLOSED XX MILES AHEAD |
| | R11-3b | 60" X 30" | 12.50 ♦ | ___ | ___ | BRIDGE OUT XX MILES AHEAD |
| | R11-4 | 60" X 30" | 12.50 ♦ | ___ | ___ | ROAD CLOSED TO THRU TRAFFIC |
| | R12-1 | 36" X 48" | 12.00 ♦ | ___ | ___ | WEIGHT LIMIT XX TONS |
| 7 | R16-3 | 36" X 48" | 12.00 ♦ | ___ | ___ | WHEN WORKERS ARE PRESENT SPEEDING FINES DOUBLED |
| 6 7 | R16-3 | 48" X 60" | 20.00 ♦ | ___ | ___ | |
| | | | | | | |
| | | | | | | |

## SIGNS REQUIRED (CONT'D)

| | SIGN NO. | SIZE | UNIT AREA FT² | QUAN. REQ'D. | TOTAL SIGN AREA FT² | REMARKS |
|---|---|---|---|---|---|---|
| | W1 - 1L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 1R | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 2L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 2R | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 3L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 3R | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 4aL | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 4aR | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 5L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1 - 5R | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | | | | | | |
| 1 | W1 - 6L | 48" X 24" | 8.00 | ___ | ___ | |
| 2 | W1 - 6L | 60" X 30" | 12.50 ♦ | ___ | ___ | |
| 1 | W1 - 6R | 48" X 24" | 8.00 | ___ | ___ | |
| 2 | W1 - 6R | 60" X 30" | 12.50 ♦ | ___ | ___ | |
| 1 | W1 - 7 | 48" X 24" | 8.00 | ___ | ___ | |
| 2 | W1 - 7 | 60" X 30" | 12.50 ♦ | ___ | ___ | |
| 1 | W1 - 8L | 18" X 24" | 3.00 | ___ | ___ | |
| 2 | W1 - 8L | 36" X 48" | 12.00 ♦ | ___ | ___ | |
| 1 | W1 - 8R | 18" X 24" | 3.00 | ___ | ___ | |
| 2 | W1 - 8R | 36" X 48" | 12.00 ♦ | ___ | ___ | |
| | | | | | | |
| | W1-9L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W1-9L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W2-6 | 36" X 36" | 9.00 | ___ | ___ | |
| | W3-1a | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W3-2a | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W3-3 | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W3-5 | 48" X 48" | 16.00 ♦ | ___ | ___ | SPEED REDUCTION |
| | W4-1L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W4-1R | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W4-2L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W4-2R | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W4-3L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W4-3R | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W4-6 | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W5-1a | 48" X 48" | 16.00 ♦ | ___ | ___ | PAVEMENT NARROWS |
| | W6-1 | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W6-2 | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W6-3 | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W8-1 | 48" X 48" | 16.00 ♦ | ___ | ___ | BUMP |
| | W8-4 | 48" X 48" | 16.00 ♦ | ___ | ___ | SOFT SHOULDER |
| | W8-6 | 48" X 48" | 16.00 ♦ | ___ | ___ | TRUCK CROSSING |
| | | | | | | |
| | | | | | | |

## SIGNS REQUIRED (CONT'D)

| | SIGN NO. | SIZE | UNIT AREA FT² | QUAN. REQ'D. | TOTAL SIGN AREA FT² | REMARKS |
|---|---|---|---|---|---|---|
| | W8-7 | 48" X 48" | 16.00 ♦ | ___ | ___ | LOOSE GRAVEL |
| | W8-9 | 48" X 48" | 16.00 ♦ | ___ | ___ | LOW SHOULDER |
| | W8-11 | 36" X 36" | 9.00 | ___ | ___ | UNEVEN LANES |
| | W8-12 | 48" X 48" | 16.00 ♦ | ___ | ___ | NO CENTER STRIPE |
| 1 | W10-1 | 36" DIA. | 7.07 | ___ | ___ | RXR |
| 2 | W10-1 | 48" DIA. | 12.56 ♦ | ___ | ___ | |
| | W13-1 | 24" X 24" | 4.00 | ___ | ___ | XX MPH |
| 1 | W14-3 | 36" X 48" X 48" | 5.56 | ___ | ___ | NO PASSING ZONE |
| 2 | W14-3 | 48" X 64" X 64" | 9.89 | ___ | ___ | |
| | W16-2 | 24" X 18" | 3.00 | ___ | ___ | XXX FEET |
| | W19-2 | 48" X 48" | 16.00 ♦ | ___ | ___ | BRIDGE MAY ICE IN COLD WEATHER |
| 1 | W20 - 1 | 48" X 48" | 16.00 ♦ | 7 | 112 | ADVANCE ROAD WORK |
| 2 | W20 - 1 | 36" X 36" | 9.00 | ___ | ___ | |
| | | | | | | |
| | W20 - 2 | 48" X 48" | 16.00 ♦ | ___ | ___ | ADVANCE DETOUR |
| | W20 - 3 | 48" X 48" | 16.00 ♦ | ___ | ___ | ADVANCE ROAD CLOSED |
| | W20 - 4 | 48" X 48" | 16.00 ♦ | ___ | ___ | ADVANCE ONE-LN. RD. |
| | W20 - 4b | 48" X 48" | 16.00 ♦ | ___ | ___ | ADVANCE ONE-LN. BR. |
| | W20 - 5L | 48" X 48" | 16.00 ♦ | ___ | ___ | ADVANCE LT. LN. CLOSED |
| | W20 - 5R | 48" X 48" | 16.00 ♦ | ___ | ___ | ADVANCE RT. LN. CLOSED |
| | W20 - 7a | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W21 - 1 | 36" X 36" | 9.00 | ___ | ___ | WORKERS |
| | W21 - 1a | 36" X 36" | 9.00 | ___ | ___ | |
| | W21-2 | 36" X 36" | 9.00 | ___ | ___ | FRESH OIL ( TAR ) |
| | W21-3 | 48" X 48" | 16.00 ♦ | ___ | ___ | ADVANCE ROAD MACHINERY |
| | W21-5 | 48" X 48" | 16.00 ♦ | ___ | ___ | SHOULDER WORK |
| | W21-6 | 36" X 36" | 9.00 | ___ | ___ | SURVEY CREW |
| | | | | | | |
| | W24-1L | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W24-1R | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W24-1aL | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W24-1aR | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W24-1bL | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | W24-1bR | 48" X 48" | 16.00 ♦ | ___ | ___ | |
| | VP-1L | 12" X 36" | 3.00 | ___ | ___ | |
| | VP-1R | 12" X 36" | 3.00 | ___ | ___ | |
| 5 | OM-3L | 12" X 36" | 3.00 | ___ | ___ | |
| 5 | OM-3R | 12" X 36" | 3.00 | ___ | ___ | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | TOTAL SIGN AREA LESS THAN 10 SQ. FT. | | | | 56 | SQ. FT. |
| | TOTAL SIGN AREA GREATER THAN 10 SQ. FT. ♦ | | | | 158.50 | SQ. FT. |

## NOTES

1. STANDARD
2. SPECIAL (USE WHERE WARRANTED)
1. INTERSTATE ROUTE MARKER
2. UNITED STATES ROUTE MARKER
3. STATE ROUTE MARKER
4. COLORS OF CARDINAL DIRECTION MARKERS AND DIRECTIONAL ARROWS SHALL BE APPROPRIATE TO MATCH ACCOMPANYING ROUTE MARKERS.
5. BLACK STRIPES ON YELLOW BACKGROUND
6. INTERSTATE USE ONLY
7. TOP OF SIGN - BLACK LETTERING ON ORANGE BACKGROUND, BOTTOM OF SIGN - BLACK LETTERING ON WHITE BACKGROUND

THE BACKGROUND OF ALL WARNING SIGNS ("W" SERIES) EXCEPT W10-1 SHALL BE ORANGE. THE W10-1 BACKGROUND SHALL BE YELLOW IN ALL CASES.

DEPARTMENT OF TRANSPORTATION — STATE OF MISSISSIPPI

MDOT — MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DESIGNED BY:

DETAILED BY:

CHECKED BY:

DATE:

FMS CON: 110043/301000

PROJECT NO.: NHPP-0055-00(287)

COUNTY: MADISON

TRAFFIC CONTROL SIGNS
ESTIMATED QUANTITIES

Notice to Contractors

SHEET ID
TCPQ-1

SHEET NO.

DATE 10:48:10 AM tcpq-1.dgn PLAN SHEET 80

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DESIGNED BY:
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 110043/301000
PROJECT NO.: NHPP-0055-00(282)

COUNTY: MADISON

TRAFFIC CONTROL PLAN - I-55 SOUTHBOUND

SHEET ID TC-1
SHEET NO.




PLAN SHEET

7/6/2026 10:43:07 AM TC-1.dgn

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
MDOT
DESIGNED BY:
DETAILED BY:
CHECKED BY:
DATE:
FMS CON: 110043/301000
PROJECT NO.: NHPP-0055-(0282)
COUNTY: MADISON
TRAFFIC CONTROL PLAN - I-55 SOUTHBOUND
SHEET ID
TC-2
SHEET NO.
I-55 SOUTHBOUND
I-55 NORTHBOUND
PLAN SHEET
7/6/2026 10:41:28 AM TC-1.dgn

SHEET NO.

SHEET ID
TC-1

TRAFFIC CONTROL PLAN - I-55 SOUTHBOUND

PROJECT NO.: NHPP-0055-02(282)

FMS CON: 110043/301000

COUNTY: MADISON

DESIGNED BY:

DETAILED BY:

CHECKED BY:

DATE:

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

MDOT

DEPARTMENT OF TRANSPORTATION

SOWELL RD.

I-55 SOUTHBOUND

I-55 NORTHBOUND

7/6/2026 10:42:30 AM TC-1.dgn

PLAN SHEET

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
MDOT
DESIGNED BY:
DETAILED BY:
CHECKED BY:
DATE:
FMS CON: 110043/301000
PROJECT NO.: NHPP-0055-02(082)
COUNTY: MADISON
TRAFFIC CONTROL PLAN - I-55 SOUTHBOUND
SHEET ID
TC-1
SHEET NO.
CMS SCREEN MESSAGES
I-55 SOUTH
SCREEN MESSAGE 1
KEEP LEFT
SCREEN MESSAGE 2
CMS
I-55 SOUTHBOUND
I-55 NORTHBOUND
7/6/2026 10:43:52 AM TC-1.dgn
PLAN SHEET

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DESIGNED BY:
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 110043/301000
PROJECT NO.: NHPP-0055-02(082)
COUNTY: MADISON

TRAFFIC CONTROL PLAN - I-55 SOUTHBOUND

SHEET ID TC-3
SHEET NO.




7/6/2026 10:44:35 AM TC-1.dgn

PLAN SHEET

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

DESIGNED BY:
DETAILED BY:
CHECKED BY:
DATE:

FMS CON: 110043/301000
PROJECT NO.: NHPP-0055-02(082)
COUNTY: MADISON

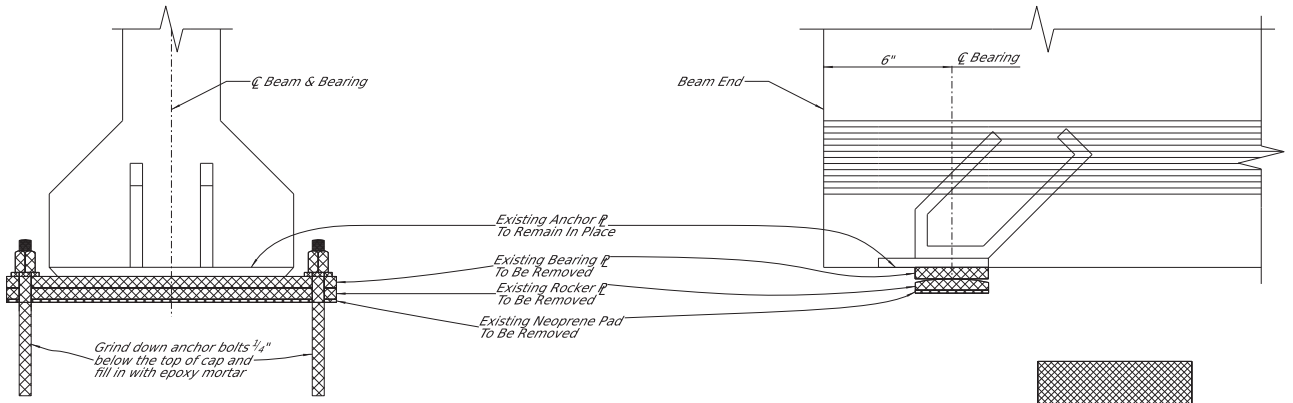
TRAFFIC CONTROL PLAN - I-55 SOUTHBOUND

SHEET ID: TC-8
SHEET NO.

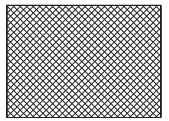



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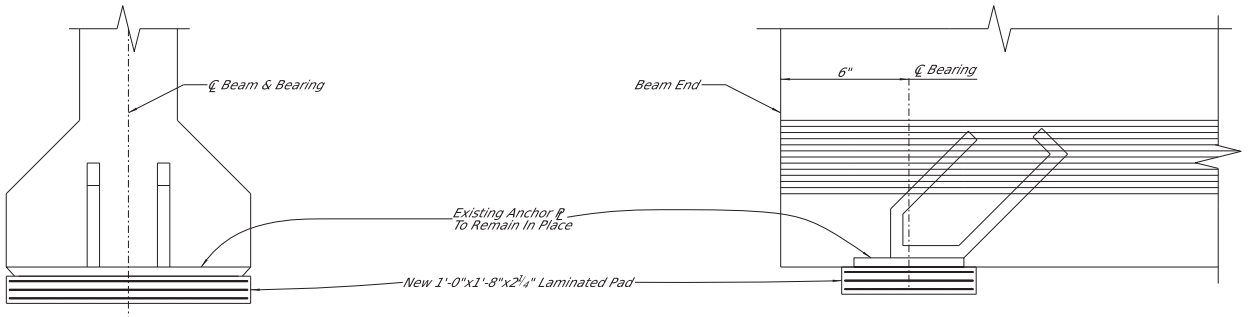
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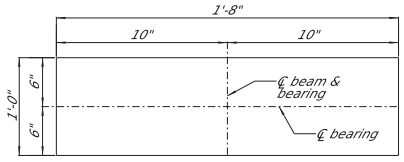

EXISTING BEARING DETAIL



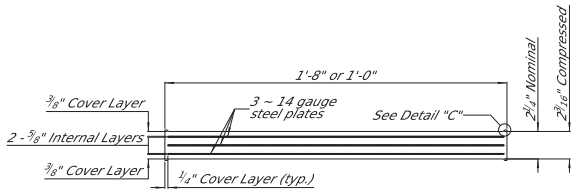
Denotes existing anchor bolts, bearing plates, rocker plates, and neoprene pads to be removed.




REPLACEMENT BEARING DETAIL

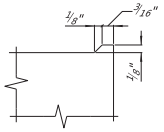



PLAN




ELEVATION

LAMINATED PAD DETAILS



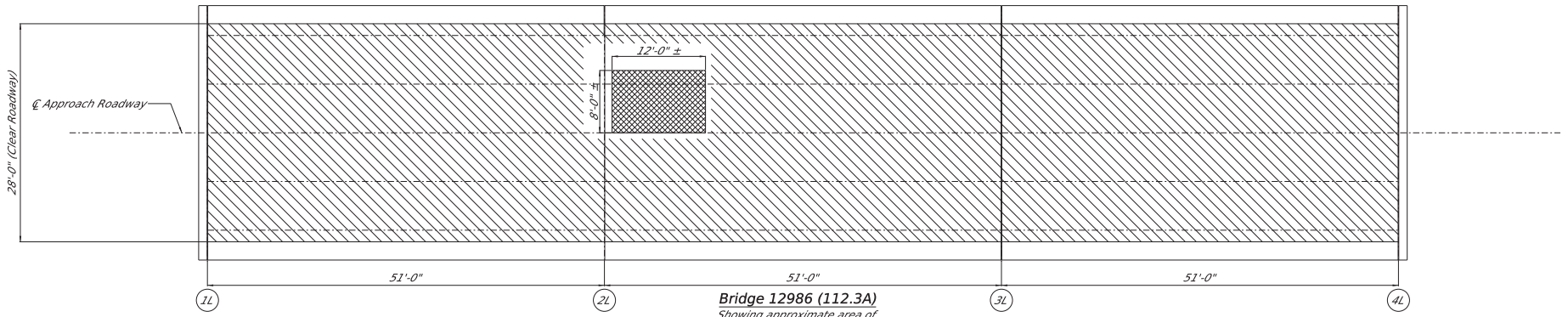

DETAIL "C"

### LAMINATED PAD NOTES

Testing acceptance procedure shall be in accordance with Section 714.10.6 of the Specifications.
Elastomer shall have a hardness of 50 durometer with a minimum shear modulus at 73°F of 0.095 k.s.i. and a maximum shear modulus at 73°F of 0.130 k.s.i.
Bearing area on top of cap shall be cast smooth and true to grade.
In no case shall laminated pads be field cut.
To determine the dimension from the finish grade to cap, the assumption is made that the compressed thickness of the laminated pad is 1/16" less than the original thickness.

### BEARING REPLACEMENT & VERTICAL JACKING NOTE:

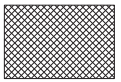
Bearings shall be replaced in accordance with Special Provision 907-824.03.4. Payment for this work shall be made under Pay Item No. 907-824-D002, Bearing Replacements, Prestressed Concrete Girder.



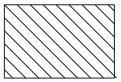

**Bridge 12986 (112.3A)**
*Showing approximate area of full depth deck repair*

**NOTE:**
*This is an approximate area for the full depth deck repair. The total area shall be determined by sounding. The bridge deck shall be removed with 30 lb hammers under pay item 907-824-PP003: Bridge Repair, Removal of Bridge Deck. All concrete placed shall be paid for under pay item 907-804-0001, Bridge Deck Overlay Concrete.*

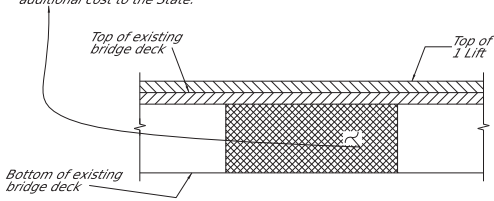
***During full or partial depth removal, the Contractor shall ensure that only bridge deck concrete is removed. No damage shall be sustained by the existing beams, diaphragms, or any other part of the structure beyond the depth of the bridge deck. Any damage that occurs to the existing structure or reinforcement as a result of full or partial depth removal of the bridge deck shall be repaired by the Contractor to the satisfaction of the Engineer at no additional cost to the State.*



*Denotes approximate area of full depth deck repair*



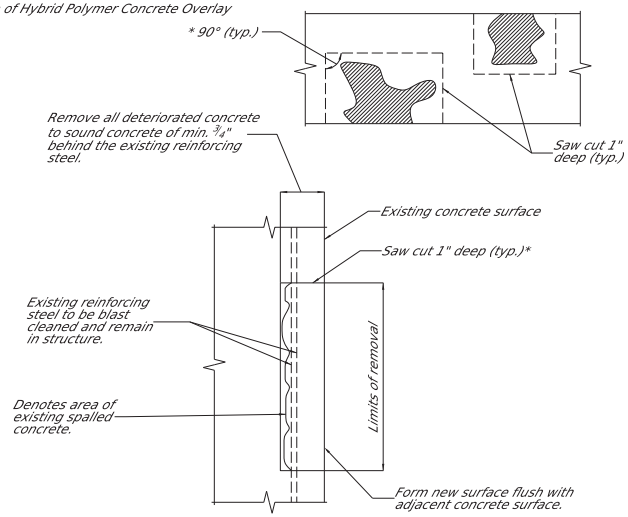
*Denotes approximate area of Hybrid Polymer Concrete Overlay*




**DETAIL OF FULL DEPTH DECK REPAIR**
*Deck reinforcement not shown for clarity (Not to scale)*

**NOTE:**
*New concrete overlay, full depth deck repair, and/or partial depth deck repair shall be placed in 1 lift.*

**NOTE:**
*Prior to construction, the Contractor shall design a containment plan to prevent debris from falling onto the crossing below. The containment system shall be submitted to the Director of Structures, State Bridge Engineer, through the Project Engineer, for approval.*




**SPALL REPAIR DETAILS**
*Details above are for spalled areas where rebar is exposed.*

**SPALL LOCATIONS**

*Bridge 12986 (112.3A):*

*1. Soffit at Beam 5 Span 2*
*2. Face of Cap at Bent 2 Span 1*
*3. Bottom of Cap at Bent 3*

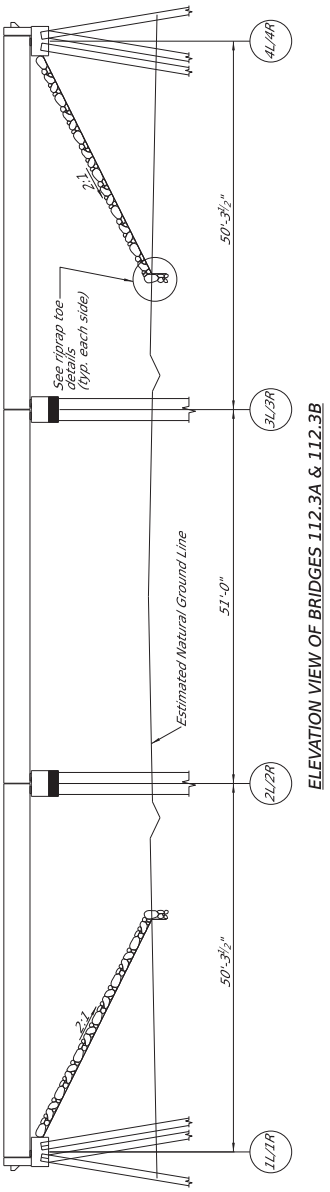
*Bridge 12987 (112.3B):*

*1. Bottom of Cap at Bent 2*
*2. Bottom of Beam at Span 2 Beam 5*

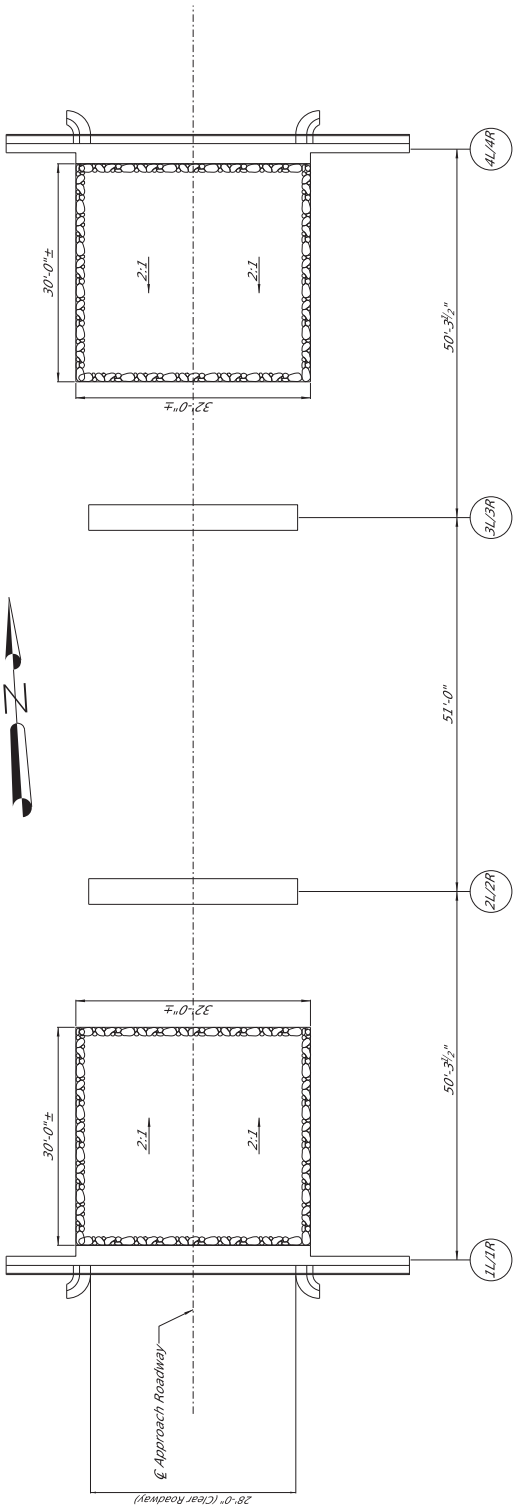


*Denotes areas of existing spalled concrete.*

** Saw cut existing concrete 1" deep so as to obtain a rectangular area. All existing reinforcement shall be carefully preserved and blast cleaned. Prior to saw cutting, the Contractor shall verify the depth and location of reinforcement.*



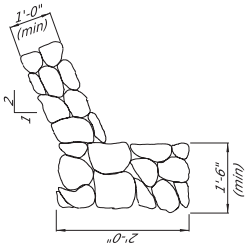

ELEVATION VIEW OF BRIDGES 112.3A & 112.3B




PLAN VIEW OF BRIDGES 112.3A & 112.3B

NOTES: 1. Slopes at all end bents shall be resloped back to a 2:1 slope.
2. Riprap shall be placed in accordance with the "Riprap Placement Plan" on this sheet.
3. Riprap shall be paid for under Pay Item No. 815-A002, Loose Riprap, Size 100.

NOTE: Geotextile fabric is required under all riprap. Geotextile fabric shall be paid for under Pay Item No. 815-E001, Geotextile Under Riprap.




RIPRAP TOE DETAILS

**110043/301000 ESTIMATED QUANTITIES**

| PAY ITEM NO. | DESCRIPTION | UNITS | BRIDGE 112.3A | BRIDGE 112.3B (12987) | PROJECT TOTAL |
|---|---|---|---|---|---|
| 202-B169 | Removal of Joint Material | LF | 224 | 224 | 448.00 |
| 815-A002 | Loose Riprap, Size 100 | Ton | 182.74 | 182.74 | 366.00 |
| 815-E001 | Geotextile Under Riprap | SY | 260.11 | 260.11 | 521.00 |
| 907-420-A001 | Undersealing | LBS | 4000.00 | 2000.00 | 6000.00 |
| 907-804-O001 | Bridge Deck Overlay Concrete | CY | 2.07 | 0.00 | 3.00 |
| 907-808-A002 | Joint Repair | LF | 224.00 | 224.00 | 448.00 |
| 907-823-A001 | Preformed Joint Seal, Type I | LF | 116.67 | 116.67 | 234.00 |
| 907-823-B001 | Saw Cut, Type I | LF | 224.00 | 224.00 | 448.00 |
| 907-824-A003 | General Epoxy Repair | SF | 10.00 | 10.00 | 20.00 |
| 907-824-C001 | Cap Cleaning | EACH | 4.00 | 4.00 | 8.00 |
| 907-824-D002 | Bearing Replacements, Prestressed Concrete Girder | EACH | 30.00 | 30.00 | 60.00 |
| 907-824-PP003 | Bridge Repair, Removal of Bridge Deck | SF | 96.00 | 0.00 | 96.00 |
| 907-824-PP004 | Bridge Repair, Slope Reshaping, Per Plans | LS | 1.00 | 1.00 | 2.00 |
| 907-828-A001 | Hybrid Polymer Concrete Overlay | CY | 9.92 | 9.92 | 20.00 |

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 8196** **CODE: (SP)**

**DATE:** **10/29/2026**

**SUBJECT:** **Lane Closure Restrictions**

**PROJECT:** **IM-0055-02(291) / 110067301 – Madison County**
**NHPP-0055-02(287) / 110043301 – Madison County**
**IM-0055-02(292) / 110068301 – Madison County**

Bidders are hereby advised that lane closure restrictions on the above project shall be as follows:

No lane closures will be permitted on the following holidays or the day preceding them: New Year's Day, Memorial Day, Easter, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day. In the event that one of the above mentioned holidays falls during the weekend or on a Monday, no lane closures will be allowed during that weekend or the Friday immediately preceding that holiday. In addition, no lane closures will be allowed the Friday, Saturday, and Sunday following Thanksgiving. The holiday lane closure restriction applies to the entire calendar day. The above requirements apply to **ALL** Operations of work.

**The following conditions apply for Rip Rap Operations and Slope Reshapement Operations :**

- Lane closures shall be allowed on weekends from 6:00 PM Friday to 6:00 AM Monday.
- The Contractor must give the Engineer a seven (7) calendar day notice prior to beginning said weekend work.

**The following conditions apply for All Operations other than Random Clearing and Sediment Cleanout Operations.**

- Northbound I-55 From Church Road to SR 22
  - No lane closures from 6:00 AM to 6:00 PM
  - No Sunday work. Sunday work is 6:00 PM Saturday to 6:00 PM Sunday.
- Southbound I-55 From Church Road to SR 22
  - No lane closures from 7:00 AM to 6:00 PM
  - No Sunday work. Sunday work is 6:00 PM Saturday to 6:00 PM Sunday.
- Church Road
  - No lane closures from 2:00 PM to 8:00 AM

**The following conditions apply for Random Clearing and Sediment Cleanout Operations.**

- **No lane closures** will be permitted on Sunday. Sunday is defined as 6 PM Saturday to 6 PM Sunday. Otherwise, lane closures shall be allowed from 7:00 AM to 7:00 PM **only for random clearing and sediment cleanout operations.** Lane closures shall be limited to ½ mile; however, if a shorter length lane closure shall suffice then a lane closure utilizing the lesser distance shall be used.

**No exceptions to the above restrictions will be allowed unless specifically approved by the Project Engineer.**

If the lane closure restrictions listed above are violated, the Contractor will be charged a fee of $500.00 for each full or partial five (5) minute period until the roadway is back in compliance with the lane closure restriction requirement.

For the purposes of this contract, official time shall be the announced time available at the Jackson area telephone number (601) 355-9311.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 8197** **CODE: (SP)**

**DATE: 10/14/2026**

**SUBJECT: Additional Construction Requirements**

**PROJECT: IM-0055-02(291) / 110067301 –Madison County**
**IM-0055-02(292) / 110068301 – Madison County**
**NHPP-0055-02(287) / 110043301 – Madison County**

Bidders are hereby advised of the following additional construction requirements:

- An MDOT owned electrical line is located on the west overhang of Bridge #112.3B, and MDOT shall be responsible for de-energizing/re-energizing this line. The Contractor shall contact either Michael Lee or Billy Coward at 601-683-3341 in order to de-energize/re-energize this electrical line. The Contractor shall contact said personnel two (2) working days prior to needing this accomplished.
- A Maintenance Contract for mowing services is in effect within the project limits. The Contractor shall be responsible for coordinating with Ryan Weaver (601-270-5227) in order to allow for said services to continue during the project. Additionally, the Contractor shall remove any construction debris such as but not limited to asphalt piles, milling piles, etc. in advance of the mowing operations.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 8198** **CODE: (SP)**

**DATE:** **10/14/2026**

**SUBJECT:** **Underground Utilities**

**PROJECT:** **IM-0055-02(291) / 110067301 –Madison County**
**IM-0055-02(292) / 110068301 – Madison County**
**NHPP-0055-02(287) / 110043301 – Madison County**

Bidders are hereby advised that utility lines owned and maintained by MDOT may be present within the project limits. These utilities are not located by Mississippi 811. It shall be the Contractor's responsibility to coordinate with MDOT to have the utility lines located and marked prior to beginning work. The Contractor shall give a minimum of three (3) working days of advance notice for locate requests. Also, the Contractor shall be responsible for contacting local public agencies that are not members of Mississippi 811.

Additionally, it shall be the Contractor's responsibility to maintain the utility markings and have the ability to survey the marked utilities and re-establish said utility markings as needed. The Department shall only be responsible for locating and marking the utilities once per Contract.

The contacts for MDOT utility lines are as follows:

Underground Power Lines:
Michael Lee – 601-683-3341 – mlee@mdot.ms.gov
Billy Coward – 601-683-3341 – bcoward@mdot.ms.gov

Underground Communication Lines:
Kerby McFarland – 601-359-7450 – kmcfarland@mdot.ms.gov
Steven Newell – 601-359-7450 – snewell@mdot.ms.gov
Henry Lewis – 601-359-1454 – hlewis@mdot.ms.gov

Underground Signal Lines:
Amrik Singh – 601-359-1454 – asingh@mdot.ms.gov
Kenneth Welch – 601-359-1454 – kwelch@mdot.ms.gov

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 8199** **CODE: (SP)**

**DATE: 10/14/2026**

**SUBJECT: Temporary Construction Signs**

**PROJECT: IM-0055-02(291) / 110067301 –Madison County**
**IM-0055-02(292) / 110068301 – Madison County**
**NHPP-0055-02(287) / 110043301 – Madison County**

Bidders are hereby advised of the following regarding the Temporary Construction Signs required:

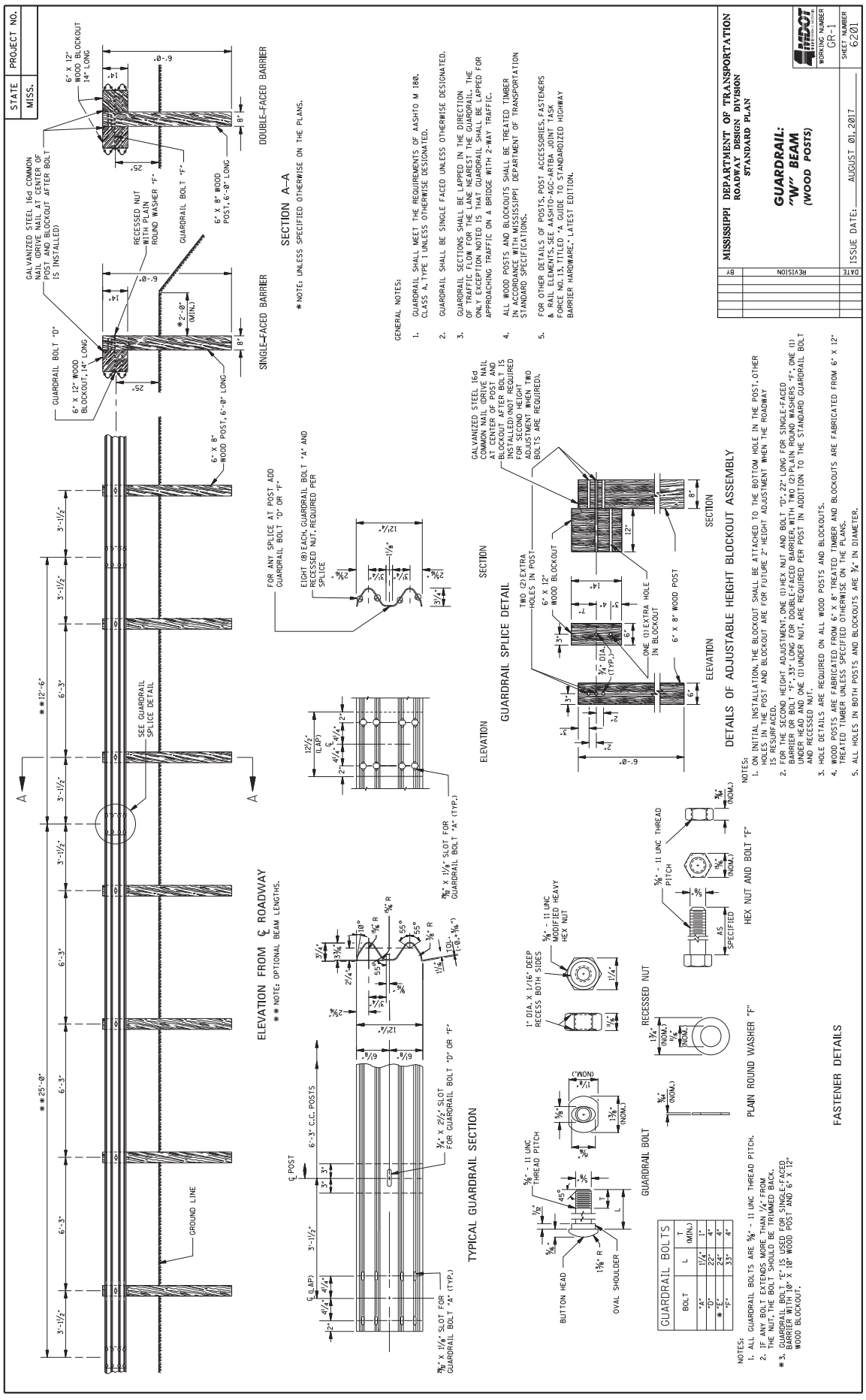
Should the Bidders elect to install Temporary Construction Signs by first driving short u-channel sections and then bolting the longer, correct height u-channel sections to them, the Bidders are advised that these short sections shall be a minimum of five (5) feet from the ground level when driven and the splice must consist of a minimum of eighteen (18) inches of overlap with a total of four (4) bolts. Bidders are also advised that it is mandatory that these short sections be removed at the completion of the project.

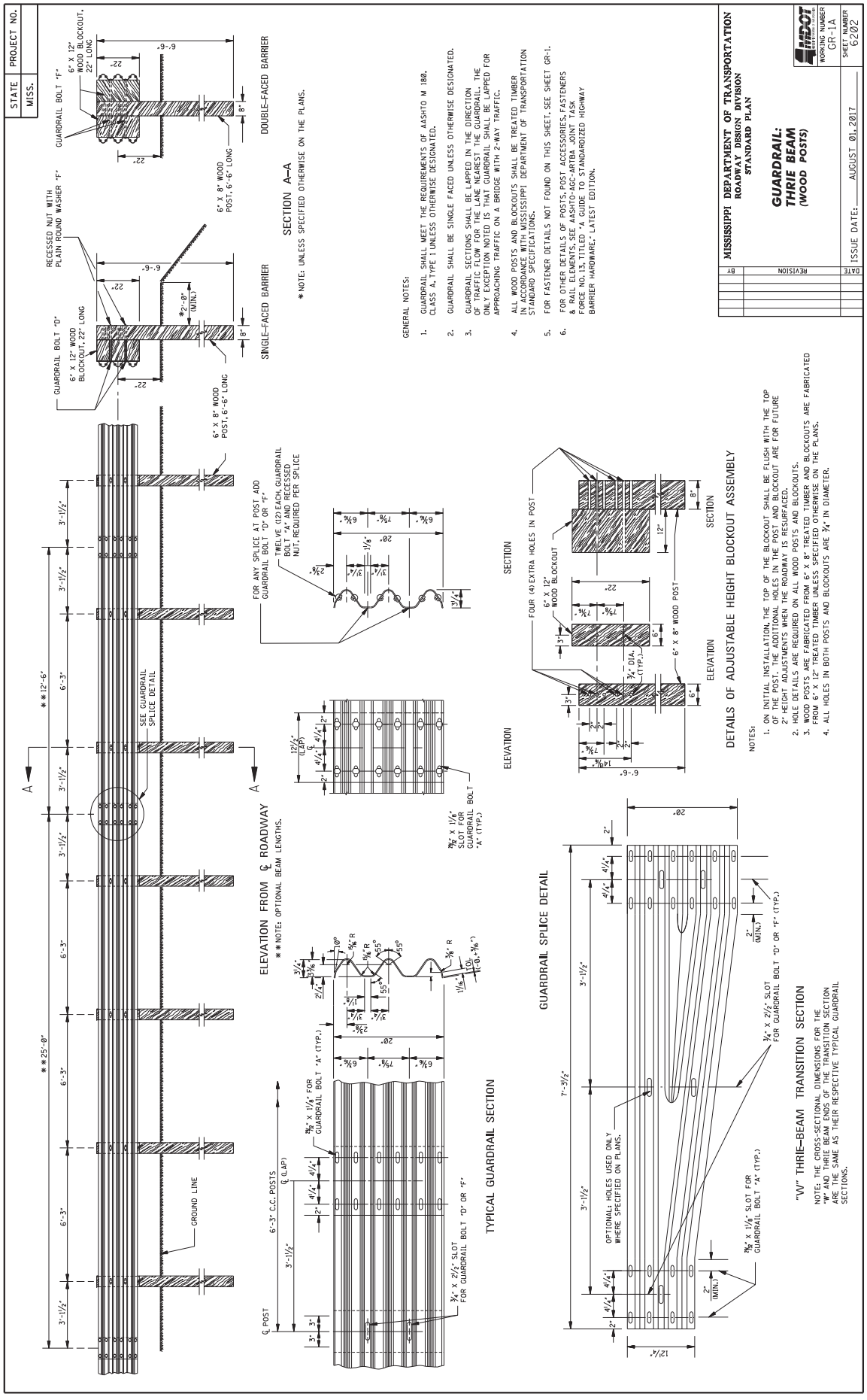
# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

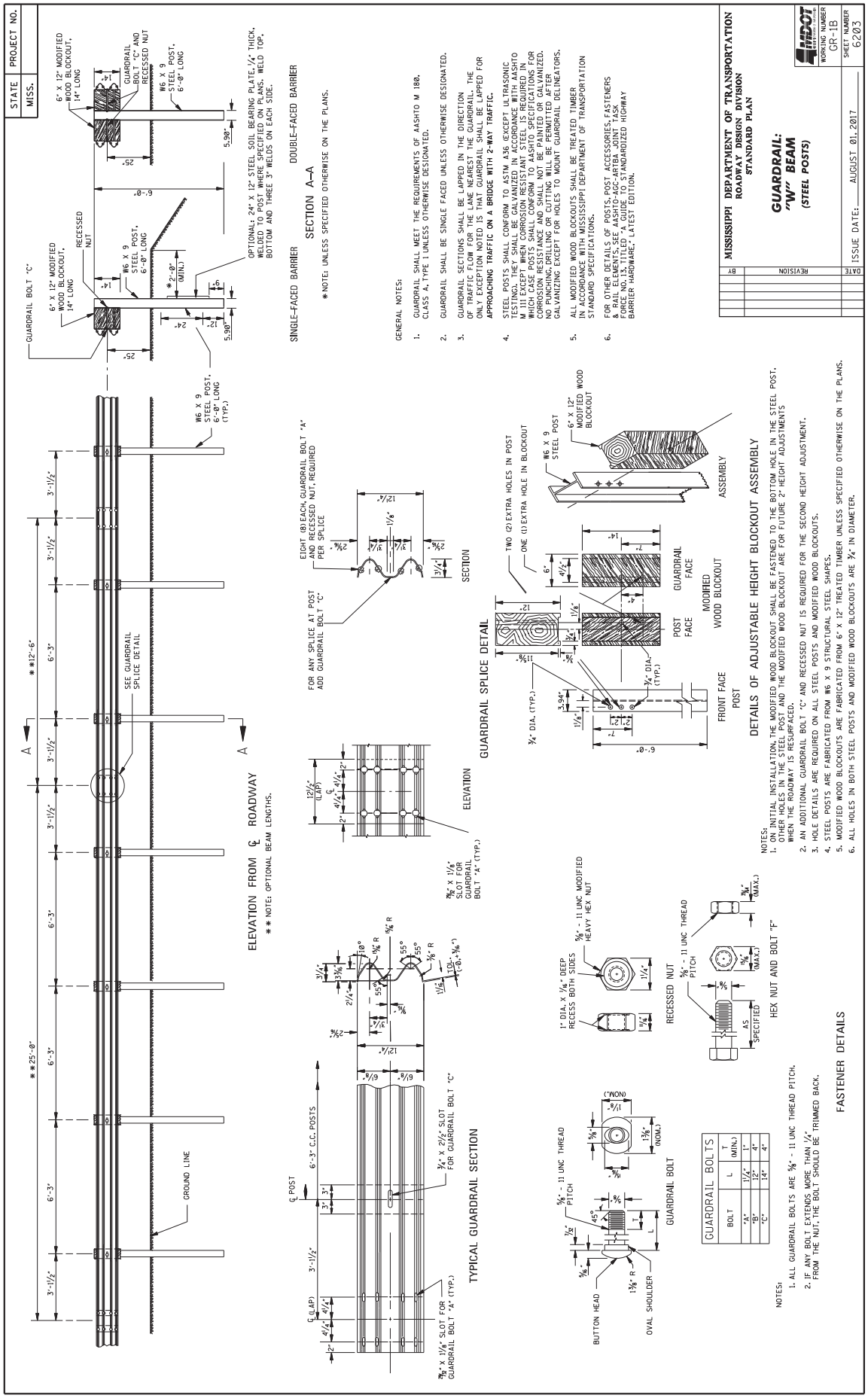
**SUPPLEMENT TO NOTICE TO BIDDERS NO. 8341**

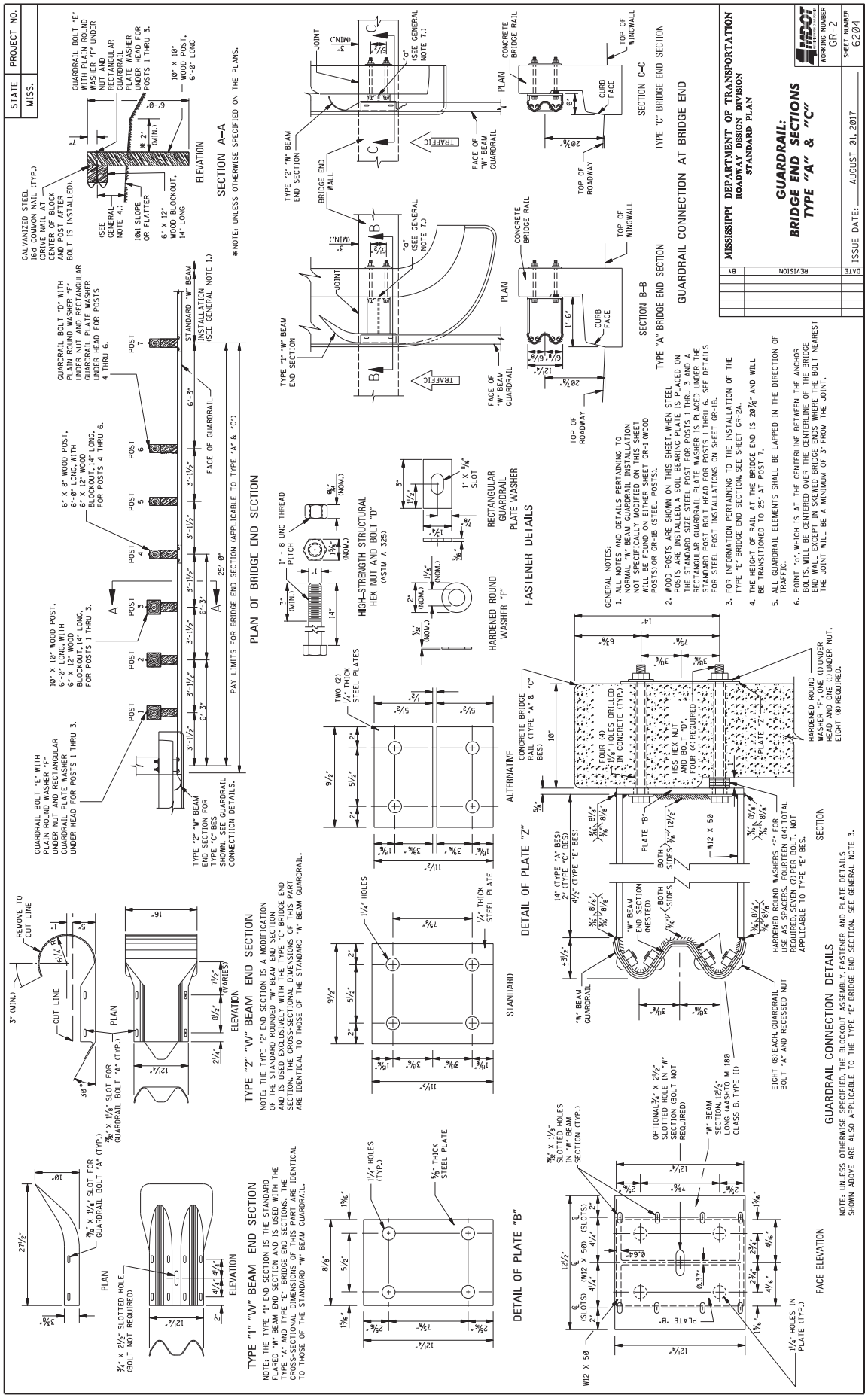
**DATE:** **08/27/2026**

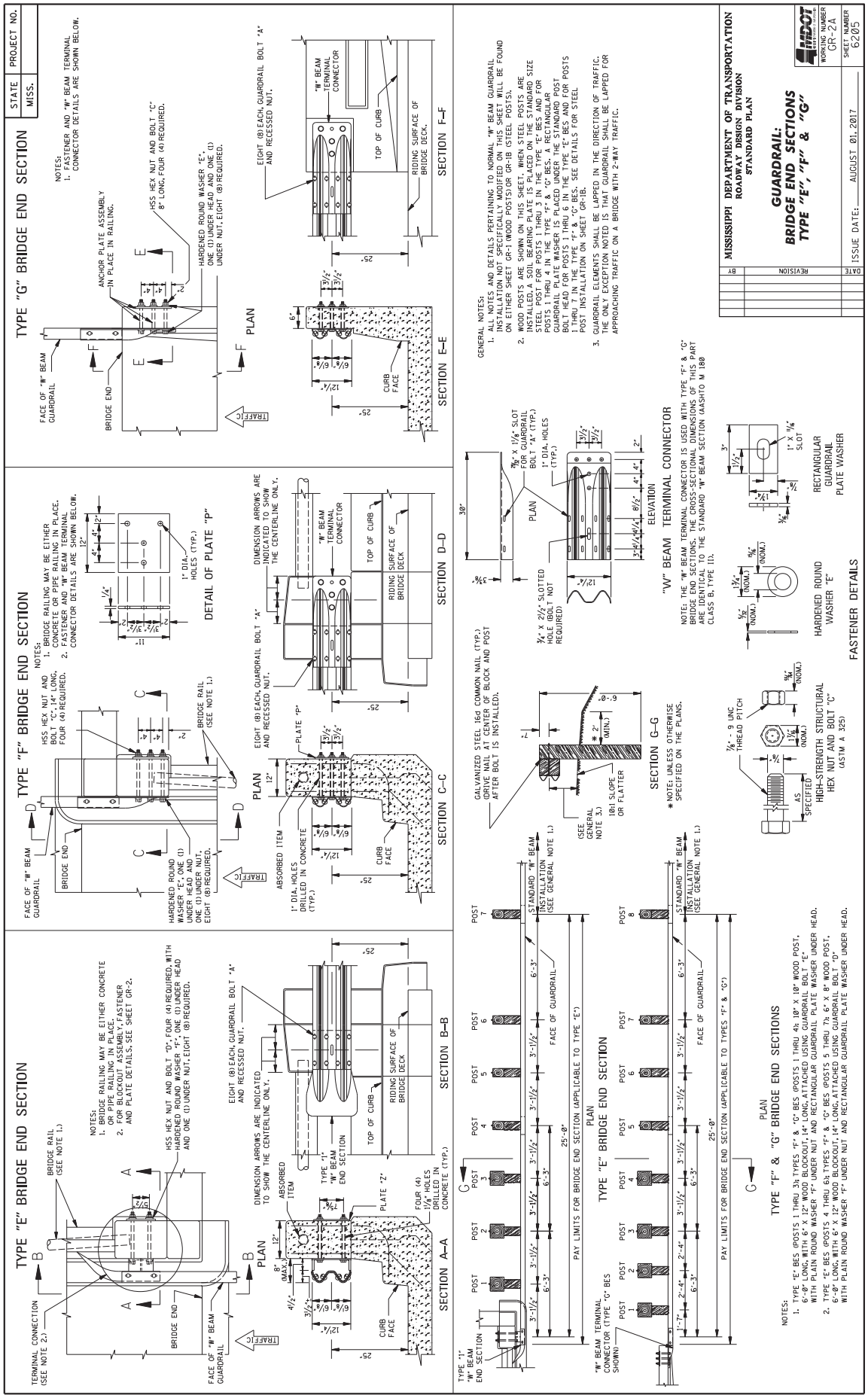
After the last drawing on page 33, add the following.

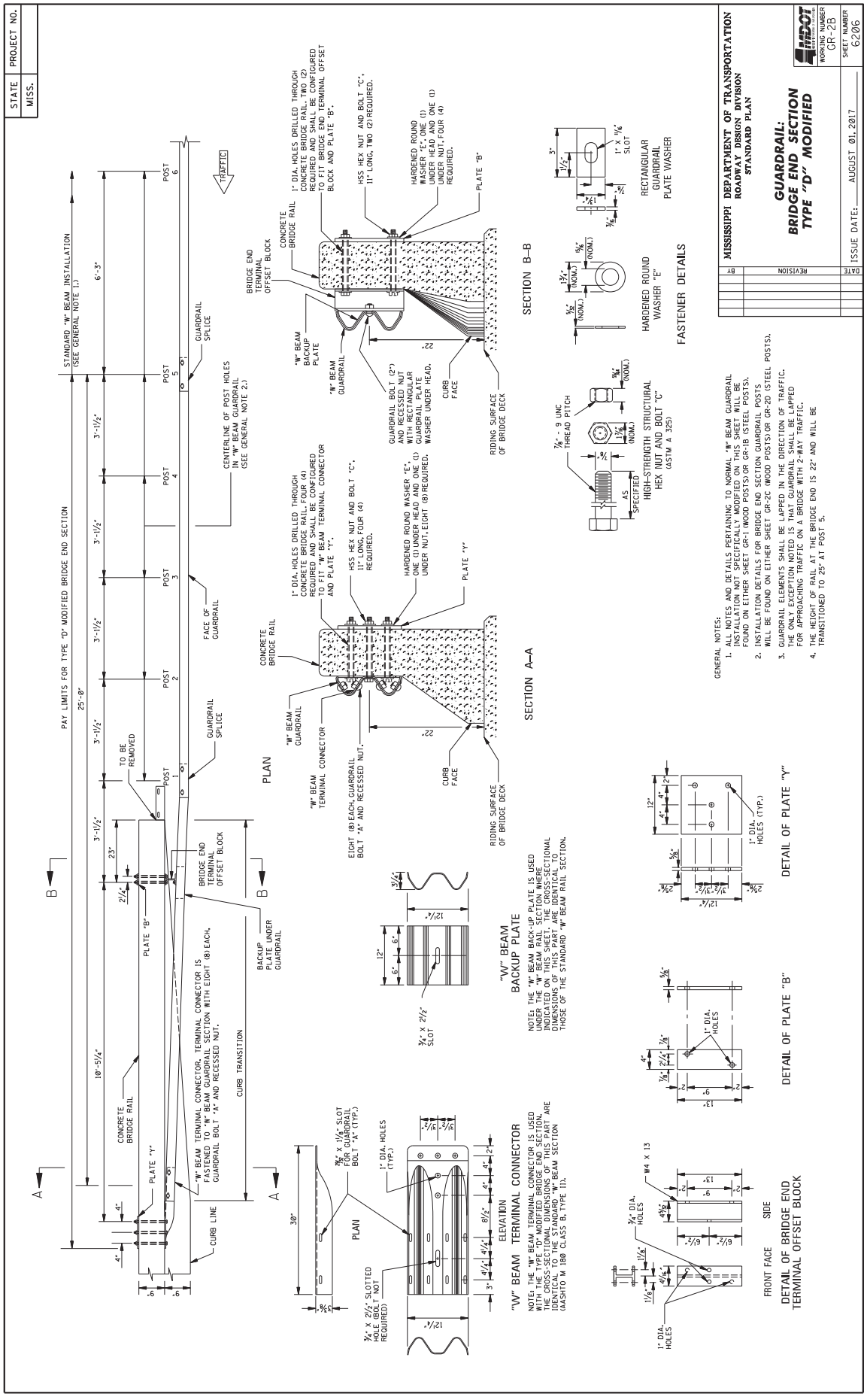

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL: "W" BEAM (WOOD POSTS)
WORKING NUMBER GR-1
SHEET NUMBER 6201
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE I UNLESS OTHERWISE DESIGNATED.
2. GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
4. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
5. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
SINGLE-FACED BARRIER
SECTION A-A
*NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
DOUBLE-FACED BARRIER
GALVANIZED STEEL 16d COMMON NAIL DRIVE NAIL AT CENTER OF POST AND BLOCKOUT AFTER BOLT IS INSTALLED)
6" X 12" WOOD BLOCKOUT 14" LONG
RECESSED NUT WITH PLAIN ROUND WASHER "F"
GUARDRAIL BOLT "F"
6" X 8" WOOD POST, 6'-0" LONG
GUARDRAIL BOLT "D"
6" X 12" WOOD BLOCKOUT, 14" LONG
*2'-0" (MIN.)
6" X 8" WOOD POST, 6'-0" LONG
ELEVATION FROM ℄ ROADWAY
** NOTE: OPTIONAL BEAM LENGTHS.
SEE GUARDRAIL SPLICE DETAIL
GROUND LINE
TYPICAL GUARDRAIL SECTION
℄ POST
6'-3" C.C. POSTS
3/4" X 2 1/2" SLOT FOR GUARDRAIL BOLT "D" OR "F"
13/16" X 1 1/16" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
FOR ANY SPLICE AT POST ADD GUARDRAIL BOLT "D" OR "F"
EIGHT (8) EACH GUARDRAIL BOLT "A" AND RECESSED NUT, REQUIRED PER SPLICE
13/16" X 1 1/16" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
ELEVATION
SECTION
GUARDRAIL SPLICE DETAIL
GALVANIZED STEEL 16d COMMON NAIL DRIVE NAIL AT CENTER OF POST AND BLOCKOUT AFTER BOLT IS INSTALLED) (NOT REQUIRED FOR SECOND HEIGHT ADJUSTMENT WHEN TWO BOLTS ARE REQUIRED.
TWO (2) EXTRA HOLES IN POST
6" X 12" WOOD BLOCKOUT
ONE (1) EXTRA HOLE IN BLOCKOUT
6" X 8" WOOD POST
ELEVATION
SECTION
DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY
NOTES:
1. ON INITIAL INSTALLATION, THE BLOCKOUT SHALL BE ATTACHED TO THE BOTTOM HOLE IN THE POST. OTHER HOLES IN THE POST AND BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENT WHEN THE ROADWAY IS RESURFACED.
2. FOR THE SECOND HEIGHT ADJUSTMENT, ONE (1) HEX NUT AND BOLT "D", 22" LONG FOR SINGLE-FACED BARRIER OR BOLT "F", 33" LONG FOR DOUBLE-FACED BARRIER, WITH TWO (2) PLAIN ROUND WASHERS "F", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, ARE REQUIRED PER POST IN ADDITION TO THE STANDARD GUARDRAIL BOLT AND RECESSED NUT.
3. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
4. WOOD POSTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER AND BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
5. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.
FASTENER DETAILS
1" DIA. X 1/16" DEEP RECESS BOTH SIDES
5/8" - 11 UNC MODIFIED HEAVY HEX NUT
5/8" - 11 UNC THREAD PITCH
BUTTON HEAD
OVAL SHOULDER
GUARDRAIL BOLT
RECESSED NUT
PLAIN ROUND WASHER "F"
HEX NUT AND BOLT "F"
GUARDRAIL BOLTS
BOLT L T (MIN.)
"A" 11 1/2" 1"
"D" 22" 4"
* "E" 24" 4"
"F" 33" 4"
NOTES:
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.
* 3. GUARDRAIL BOLT "E" IS USED FOR SINGLE-FACED BARRIER WITH 10" X 10" WOOD POST AND 6" X 12" WOOD BLOCKOUT.

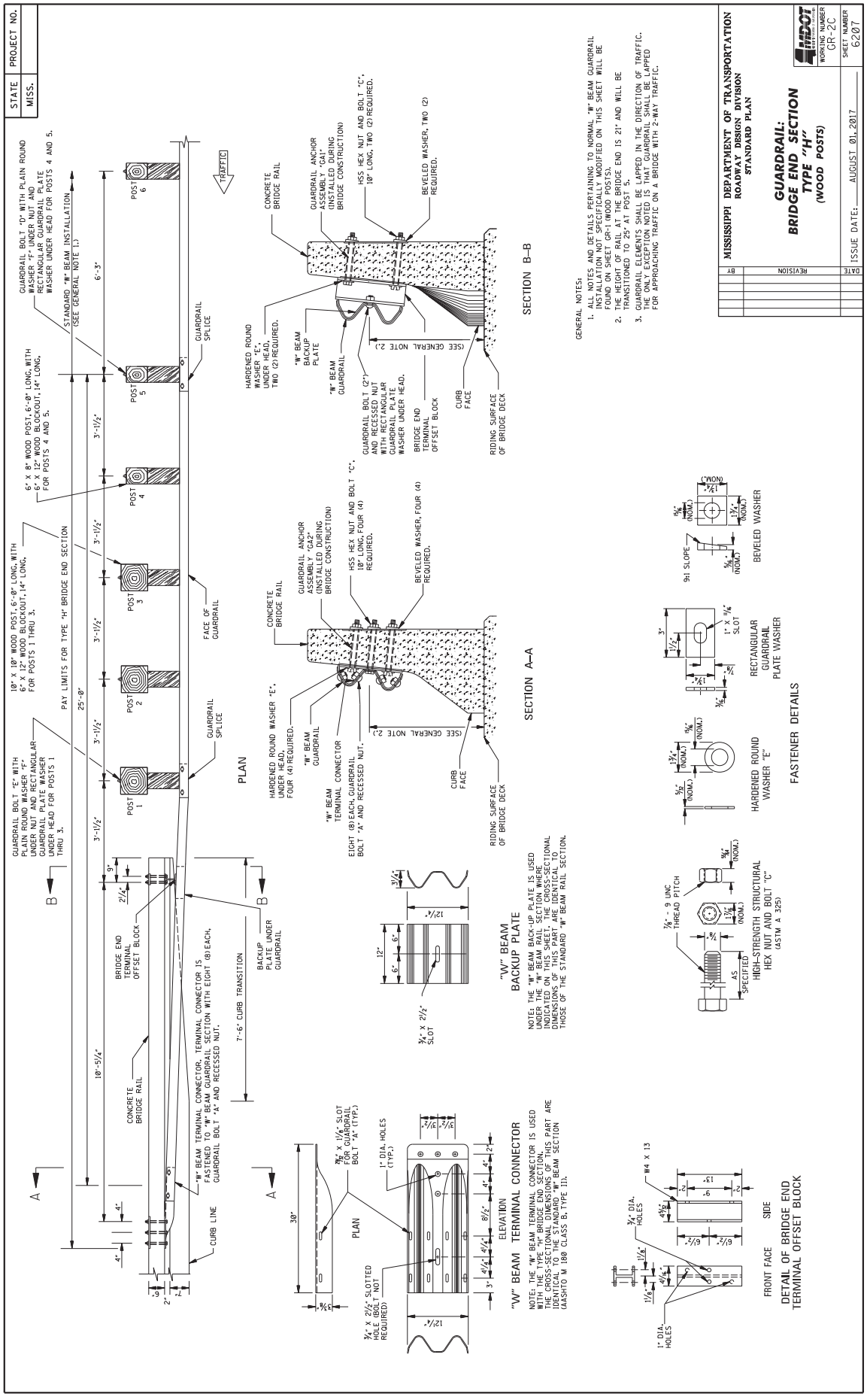

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL: THRIE BEAM (WOOD POSTS)
WORKING NUMBER GR-1A
SHEET NUMBER 6202
ISSUE DATE: AUGUST 01, 2017
BY REVISION DATE
GENERAL NOTES:
1. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
2. GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
4. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
5. FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1.
6. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
SECTION A–A
* NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
SINGLE-FACED BARRIER
DOUBLE-FACED BARRIER
GUARDRAIL BOLT "D"
6" X 12" WOOD BLOCKOUT, 22" LONG
RECESSED NUT WITH PLAIN ROUND WASHER "F"
GUARDRAIL BOLT "F"
6" X 8" WOOD POST, 6'-6" LONG
ELEVATION FROM ℄ ROADWAY
** NOTE: OPTIONAL BEAM LENGTHS.
SEE GUARDRAIL SPLICE DETAIL
GROUND LINE
TYPICAL GUARDRAIL SECTION
℄ POST
6'-3" C.C. POSTS
℄ (LAP)
FOR ANY SPLICE AT POST ADD TWELVE (12) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT, REQUIRED PER SPLICE
GUARDRAIL BOLT "D" OR "F"
ELEVATION
SECTION
FOUR (4) EXTRA HOLES IN POST
6" X 12" WOOD BLOCKOUT
6" X 8" WOOD POST
DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY
NOTES:
1. ON INITIAL INSTALLATION, THE TOP OF THE BLOCKOUT SHALL BE FLUSH WITH THE TOP OF THE POST. THE ADDITIONAL HOLES IN THE POST AND BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
2. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
3. WOOD POSTS ARE FABRICATED FROM 6" X 8" TREATED TIMBER AND BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
4. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE ¾" IN DIAMETER.
GUARDRAIL SPLICE DETAIL
OPTIONAL HOLES USED ONLY WHERE SPECIFIED ON PLANS.
"W" THRIE-BEAM TRANSITION SECTION
NOTE: THE CROSS-SECTIONAL DIMENSIONS FOR THE "W" AND THRIE BEAM ENDS OF THE TRANSITION SECTION ARE THE SAME AS THEIR RESPECTIVE TYPICAL GUARDRAIL SECTIONS.

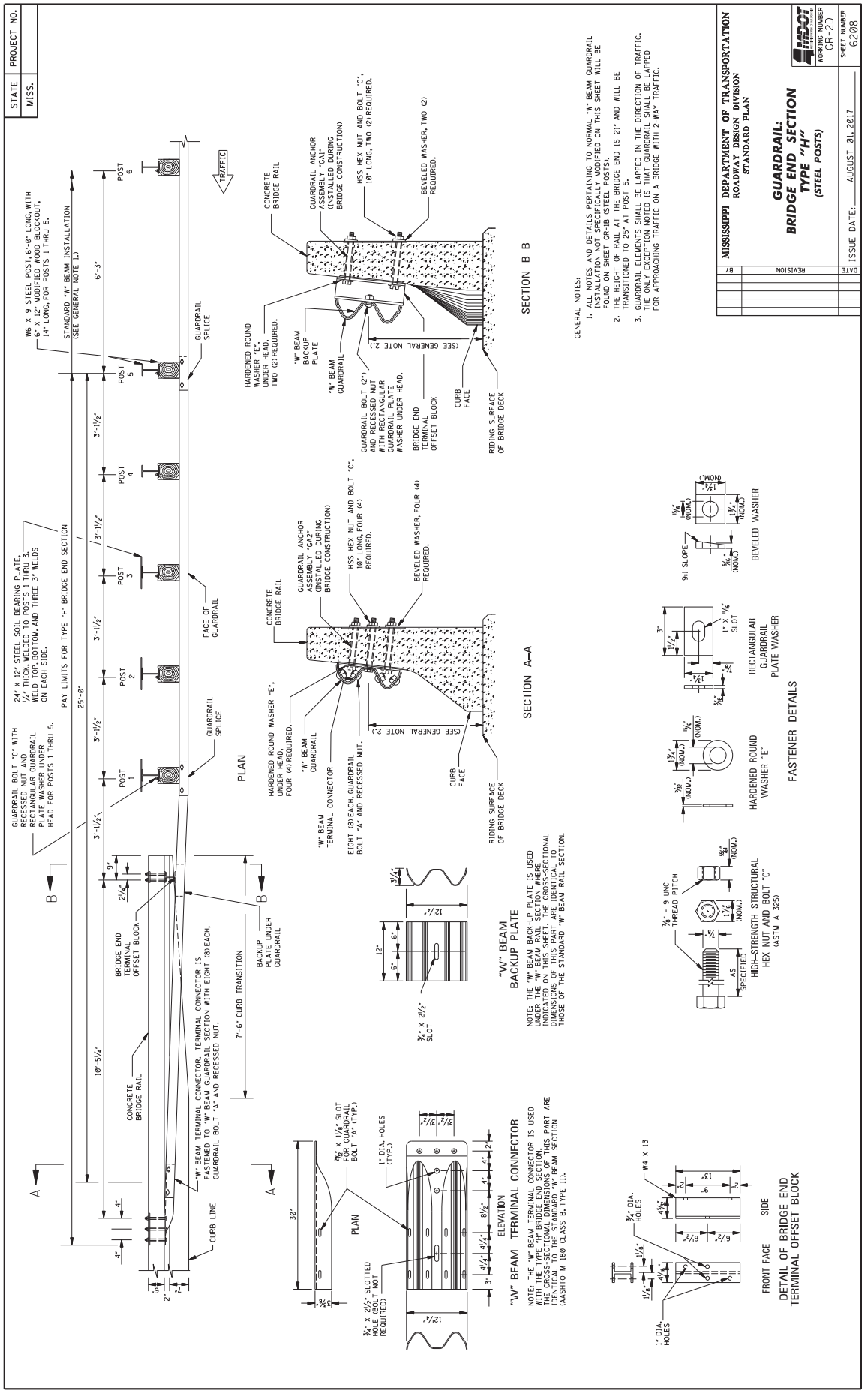

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL: "W" BEAM (STEEL POSTS)
WORKING NUMBER GR-1B
SHEET NUMBER 6203
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
ELEVATION FROM ℄ ROADWAY
** NOTE: OPTIONAL BEAM LENGTHS.
SINGLE-FACED BARRIER
SECTION A–A
DOUBLE-FACED BARRIER
* NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
GENERAL NOTES:
1. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
2. GUARDRAIL SHALL BE SINGLE FACED UNLESS OTHERWISE DESIGNATED.
3. GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW FOR THE LANE NEAREST THE GUARDRAIL. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
4. STEEL POSTS SHALL CONFORM TO ASTM A36 (EXCEPT ULTRASONIC TESTING) AND SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M 111 EXCEPT WHEN CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE POSTS SHALL CONFORM TO AASHTO SPECIFICATIONS FOR CORROSION RESISTANCE AND SHALL NOT BE PAINTED OR GALVANIZED. NO PUNCHING, DRILLING OR CUTTING WILL BE PERMITTED AFTER GALVANIZING EXCEPT FOR HOLES TO MOUNT GUARDRAIL DELINEATORS.
5. ALL MODIFIED WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
6. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
GUARDRAIL BOLTS
BOLT L T
"A" 1½" (MIN.) 1"
"B" 12" 4"
"C" 14" 4"
FASTENER DETAILS
NOTES:
1. ALL GUARDRAIL BOLTS ARE ⅝" - 11 UNC THREAD PITCH.
2. IF ANY BOLT EXTENDS MORE THAN ¼" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.
TYPICAL GUARDRAIL SECTION
GUARDRAIL SPLICE DETAIL
ELEVATION
SECTION
DETAILS OF ADJUSTABLE HEIGHT BLOCKOUT ASSEMBLY
NOTES:
1. ON INITIAL INSTALLATION, THE MODIFIED WOOD BLOCKOUT SHALL BE FASTENED TO THE BOTTOM HOLE IN THE STEEL POST. OTHER HOLES IN THE STEEL POST AND THE MODIFIED WOOD BLOCKOUT ARE FOR FUTURE 2" HEIGHT ADJUSTMENTS WHEN THE ROADWAY IS RESURFACED.
2. AN ADDITIONAL GUARDRAIL BOLT "C" AND RECESSED NUT IS REQUIRED FOR THE SECOND HEIGHT ADJUSTMENT.
3. HOLE DETAILS ARE REQUIRED ON ALL STEEL POSTS AND MODIFIED WOOD BLOCKOUTS.
4. STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
5. MODIFIED WOOD BLOCKOUTS ARE FABRICATED FROM 6" X 12" TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
6. ALL HOLES IN BOTH STEEL POSTS AND MODIFIED WOOD BLOCKOUTS ARE ¾" IN DIAMETER.

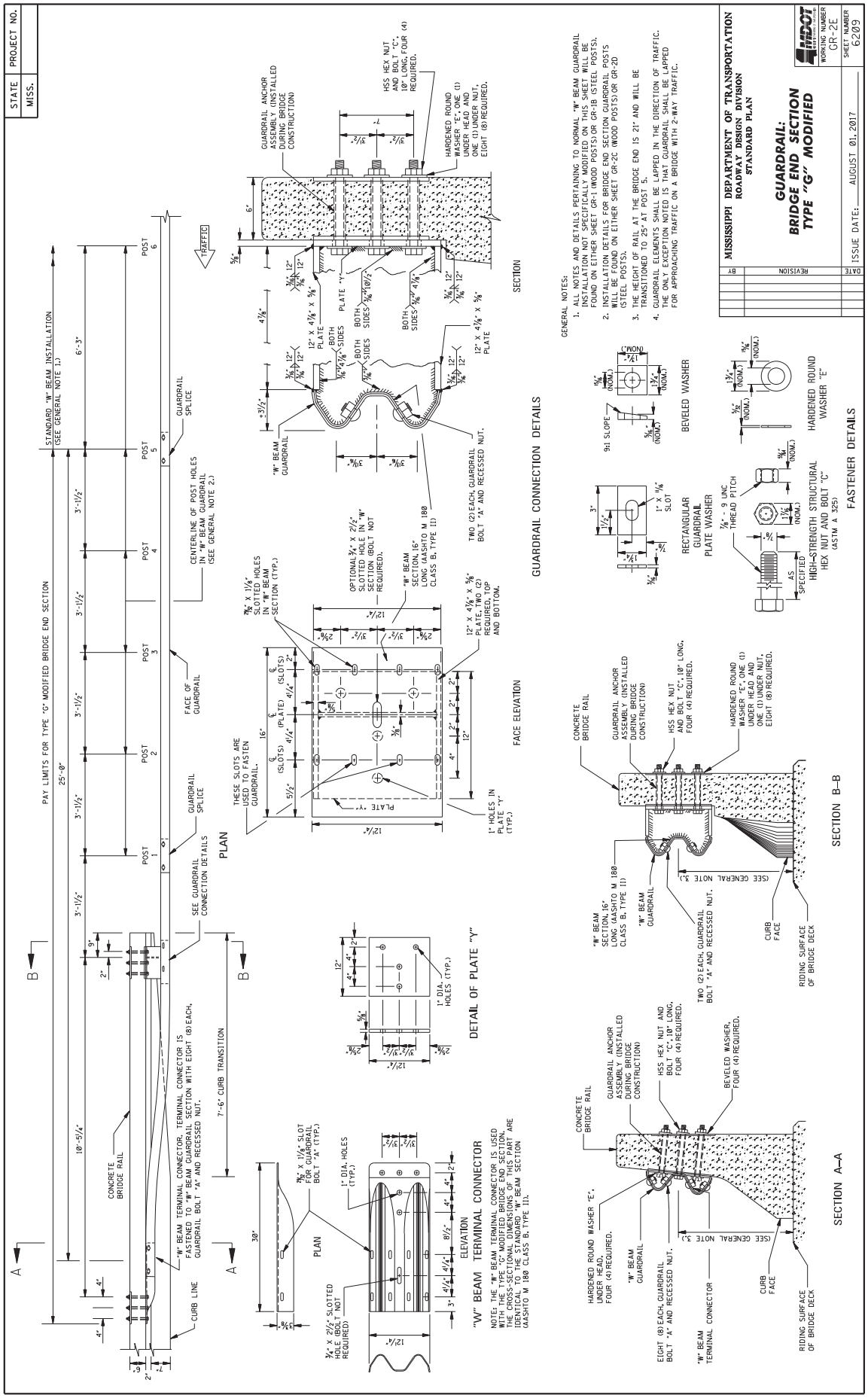

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTIONS
TYPE "A" & "C"
WORKING NUMBER GR-2
SHEET NUMBER 6204
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
PLAN OF BRIDGE END SECTION
SECTION A-A
*NOTE: UNLESS OTHERWISE SPECIFIED ON THE PLANS.
TYPE "2" "W" BEAM END SECTION
TYPE "1" "W" BEAM END SECTION
DETAIL OF PLATE "B"
DETAIL OF PLATE "Z"
FASTENER DETAILS
GUARDRAIL CONNECTION DETAILS
TYPE "A" BRIDGE END SECTION
TYPE "C" BRIDGE END SECTION
GUARDRAIL CONNECTION AT BRIDGE END
SECTION B-B
SECTION C-C
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON EITHER SHEET GR-1 (WOOD POSTS) OR GR-1B (STEEL POSTS).
2. WOOD POSTS ARE SHOWN ON THIS SHEET. WHEN STEEL POSTS ARE INSTALLED, A SOIL BEARING PLATE IS PLACED ON THE STANDARD SIZE STEEL POST FOR POSTS 1 THRU 3 AND A RECTANGULAR GUARDRAIL PLATE WASHER IS PLACED UNDER THE STANDARD POST BOLT HEAD FOR POSTS 1 THRU 6. SEE DETAILS FOR STEEL POST INSTALLATIONS ON SHEET GR-1B.
3. FOR INFORMATION PERTAINING TO THE INSTALLATION OF THE TYPE "E" BRIDGE END SECTION, SEE SHEET GR-2A.
4. THE HEIGHT OF RAIL AT THE BRIDGE END IS 20 5/8" AND WILL BE TRANSITIONED TO 25" AT POST 7.
5. ALL GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC.
6. POINT "G", WHICH IS AT THE CENTERLINE BETWEEN THE ANCHOR BOLTS, WILL BE CENTERED OVER THE CENTERLINE OF THE BRIDGE END WALL EXCEPT IN SKEWED BRIDGE ENDS WHERE THE BOLT NEAREST THE JOINT WILL BE A MINIMUM OF 3" FROM THE JOINT.

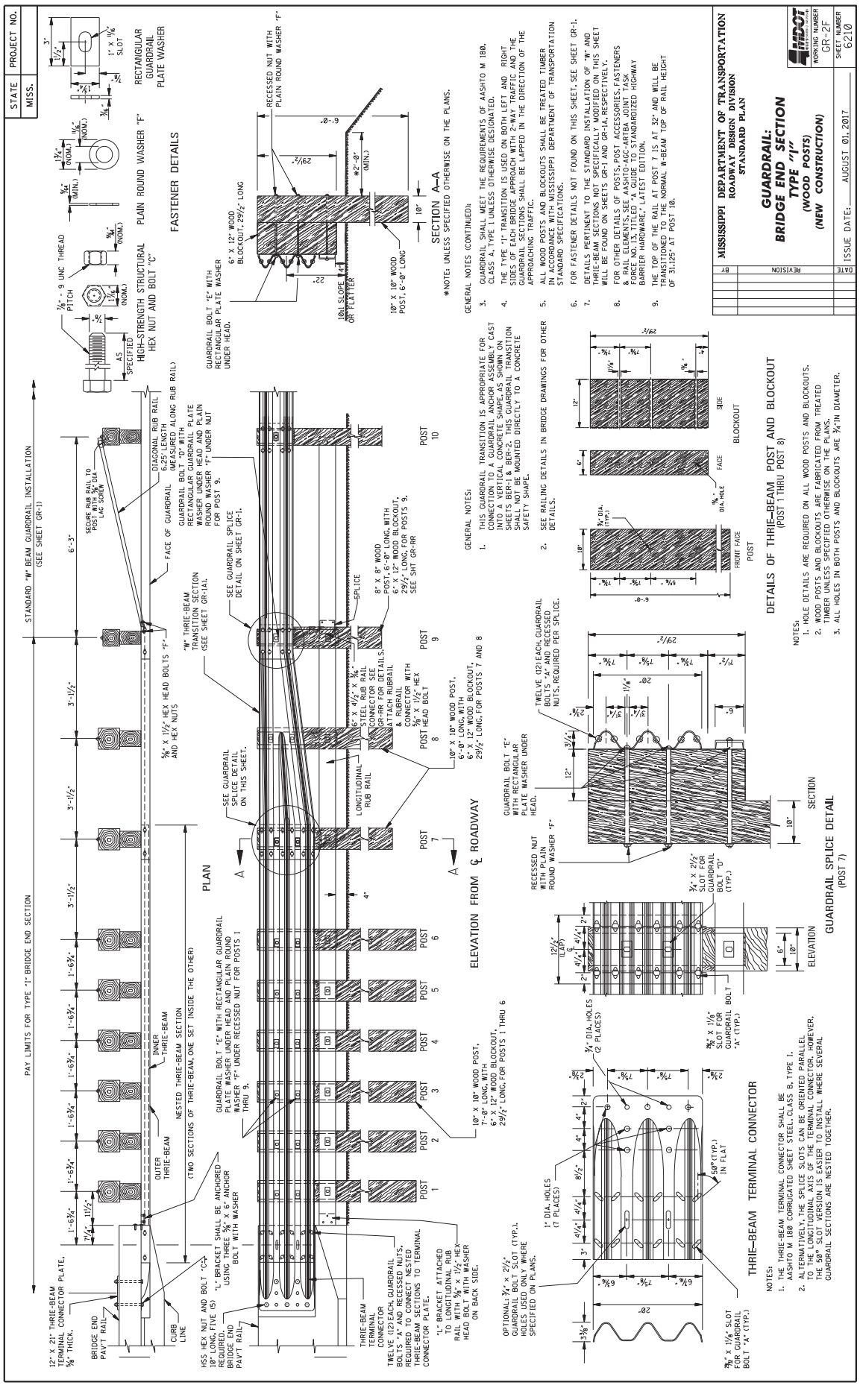

STATE MISS.
PROJECT NO.
TYPE "E" BRIDGE END SECTION
TYPE "F" BRIDGE END SECTION
TYPE "G" BRIDGE END SECTION
DETAIL OF PLATE "P"
SECTION A–A
SECTION B–B
SECTION C–C
SECTION D–D
SECTION E–E
SECTION F–F
SECTION G–G
"W" BEAM TERMINAL CONNECTOR
FASTENER DETAILS
TYPE "E", "F" & "G" BRIDGE END SECTIONS
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTIONS
TYPE "E", "F" & "G"
WORKING NUMBER GR-2A
SHEET NUMBER 6205
ISSUE DATE: AUGUST 01, 2017
REVISION
BY
DATE

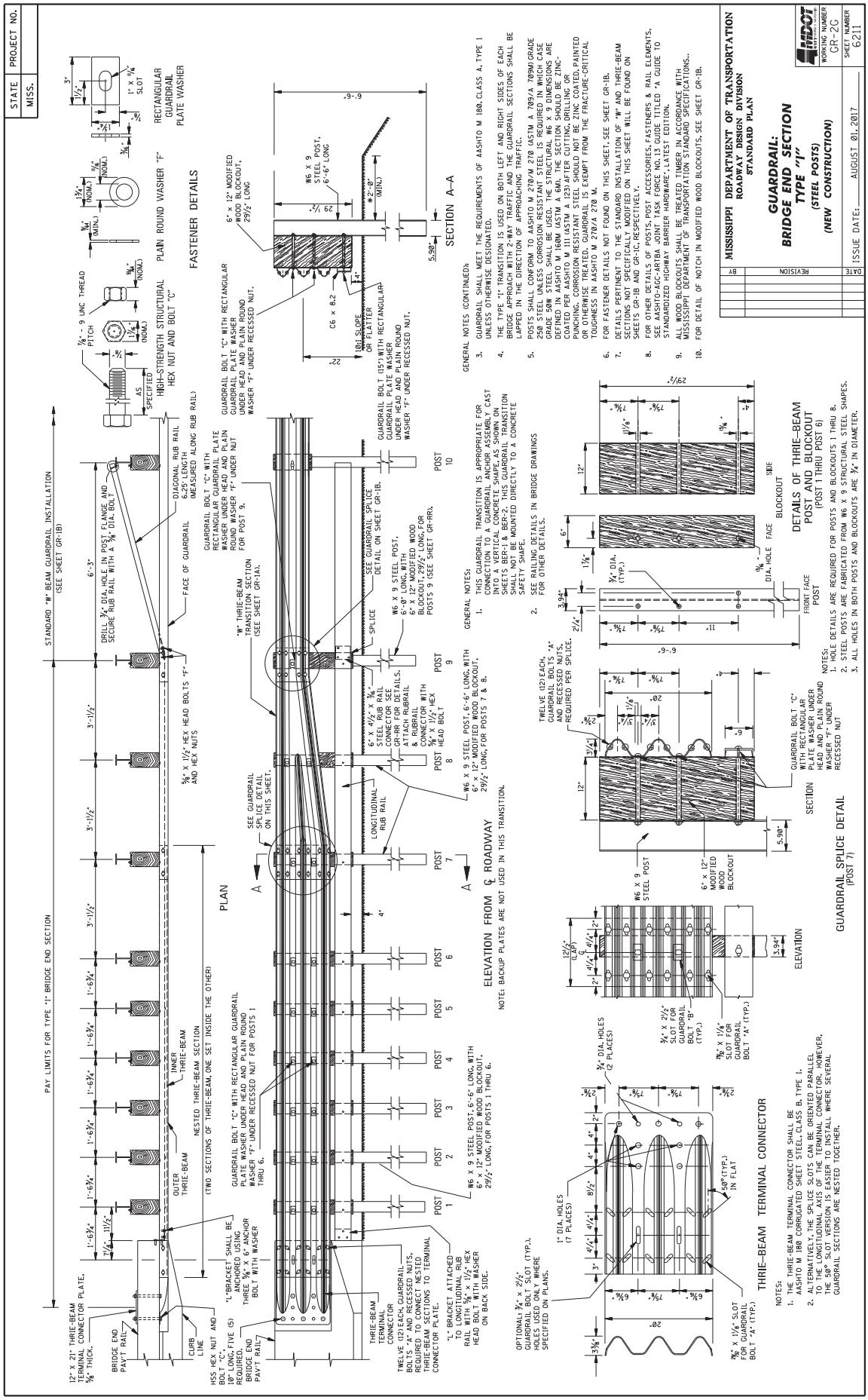

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "D" MODIFIED
WORKING NUMBER GR-2B
SHEET NUMBER 6206
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
PLAN
SECTION A–A
SECTION B–B
FASTENER DETAILS
HARDENED ROUND WASHER
RECTANGULAR GUARDRAIL PLATE WASHER
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C" (ASTM A 325)
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON EITHER SHEET GR-1C (WOOD POSTS) OR GR-1D (STEEL POSTS).
2. INSTALLATION DETAILS FOR BRIDGE END SECTION GUARDRAIL POSTS WILL BE FOUND ON EITHER SHEET GR-2C (WOOD POSTS) OR GR-2D (STEEL POSTS).
3. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
4. THE HEIGHT OF RAIL AT THE BRIDGE END IS 22" AND WILL BE TRANSITIONED TO 25" AT POST 5.
"W" BEAM TERMINAL CONNECTOR
NOTE: THE "W" BEAM TERMINAL CONNECTOR IS USED WITH THE TYPE "D" MODIFIED BRIDGE END SECTION. THE CROSS SECTIONAL DIMENSIONS OF THIS PART ARE IDENTICAL TO THE STANDARD "W" BEAM SECTION (AASHTO M 180 CLASS B, TYPE II).
"W" BEAM BACKUP PLATE
NOTE: THE "W" BEAM BACK-UP PLATE IS USED UNDER THE "W" BEAM RAIL SECTION WHERE INSTALLED ON THIS SHEET. THE CROSS SECTIONAL DIMENSIONS OF THIS PART ARE IDENTICAL TO THOSE OF THE STANDARD "W" BEAM RAIL SECTION.
DETAIL OF PLATE "B"
DETAIL OF PLATE "Y"
DETAIL OF BRIDGE END TERMINAL OFFSET BLOCK

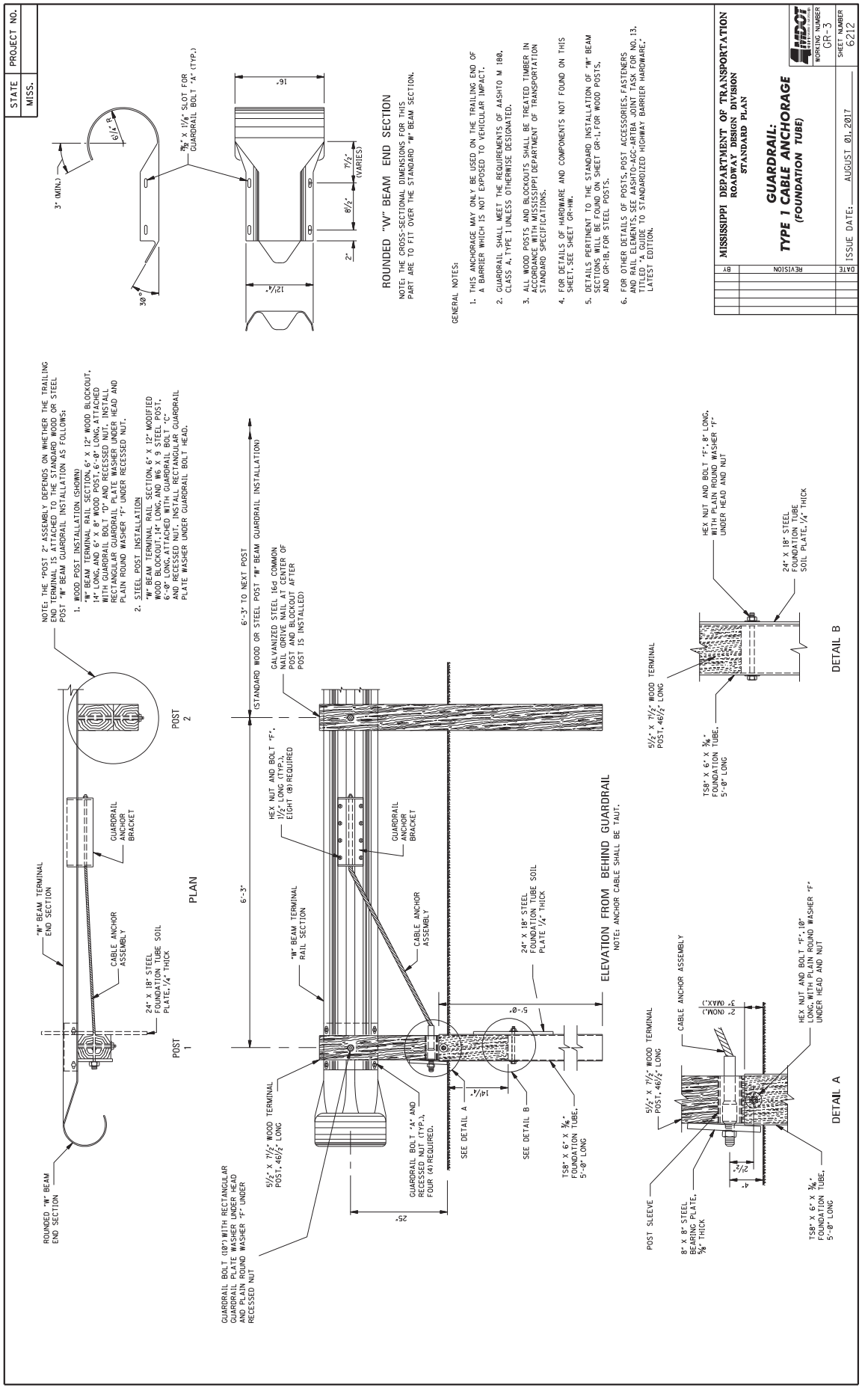

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "H"
(WOOD POSTS)
WORKING NUMBER GR-2C
SHEET NUMBER 6207
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEET GR-1 (WOOD POSTS).
2. THE HEIGHT OF RAIL AT THE BRIDGE END IS 21" AND WILL BE TRANSITIONED TO 25" AT POST 5.
3. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
PLAN
SECTION A–A
SECTION B–B
"W" BEAM TERMINAL CONNECTOR
"W" BEAM BACKUP PLATE
FASTENER DETAILS
DETAIL OF BRIDGE END TERMINAL OFFSET BLOCK
TRAFFIC
CONCRETE BRIDGE RAIL
GUARDRAIL SPLICE
FACE OF GUARDRAIL
BRIDGE END TERMINAL OFFSET BLOCK
BACKUP PLATE UNDER GUARDRAIL
CURB LINE
7'-6" CURB TRANSITION
PAY LIMITS FOR TYPE "H" BRIDGE END SECTION
STANDARD "W" BEAM INSTALLATION (SEE GENERAL NOTE 1.)
10" X 10" WOOD POST, 6'-0" LONG, WITH 6" X 12" WOOD BLOCKOUT, 14" LONG, FOR POSTS 1 THRU 3.
6" X 8" WOOD POST, 6'-0" LONG, WITH 6" X 12" WOOD BLOCKOUT, 14" LONG, FOR POSTS 4 AND 5.
GUARDRAIL BOLT "E" WITH PLAIN ROUND WASHER "F" UNDER NUT AND RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD FOR POSTS 1 THRU 3.
GUARDRAIL BOLT "D" WITH PLAIN ROUND WASHER UNDER NUT AND RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD FOR POSTS 4 AND 5.
POST 1
POST 2
POST 3
POST 4
POST 5
POST 6
25'-0"
3'-1½"
6'-3"
10'-5¼"
4'
9"
2¼"
"W" BEAM TERMINAL CONNECTOR, TERMINAL CONNECTOR IS FASTENED TO "W" BEAM GUARDRAIL SECTION WITH EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
HARDENED ROUND WASHER "E", UNDER HEAD, FOUR (4) REQUIRED.
"W" BEAM GUARDRAIL
"W" BEAM TERMINAL CONNECTOR
EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
GUARDRAIL ANCHOR ASSEMBLY "GA2" (INSTALLED DURING BRIDGE CONSTRUCTION)
HSS HEX NUT AND BOLT "C", 10" LONG, FOUR (4) REQUIRED.
BEVELED WASHER, FOUR (4) REQUIRED.
(SEE GENERAL NOTE 2.)
CURB FACE
RIDING SURFACE OF BRIDGE DECK
HARDENED ROUND WASHER "E", UNDER HEAD, TWO (2) REQUIRED.
"W" BEAM BACKUP PLATE
GUARDRAIL ANCHOR ASSEMBLY "GA1" (INSTALLED DURING BRIDGE CONSTRUCTION)
HSS HEX NUT AND BOLT "C", 10" LONG, TWO (2) REQUIRED.
BEVELED WASHER, TWO (2) REQUIRED.
GUARDRAIL BOLT (2") AND RECESSED NUT WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD.
BRIDGE END TERMINAL OFFSET BLOCK
9:1 SLOPE
BEVELED WASHER
RECTANGULAR GUARDRAIL PLATE WASHER
HARDENED ROUND WASHER "E"
⅞" - 9 UNC THREAD PITCH
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C" (ASTM A 325)
AS SPECIFIED
30"
⅞" X 1¼" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
1" DIA. HOLES (TYP.)
¾" X 2½" SLOTTED HOLE (BOLT NOT REQUIRED)
12¼"
12"
6"
3¼"
¾" X 2½" SLOT
W4 x 13
¾" DIA. HOLES
1" DIA. HOLES
FRONT FACE
SIDE
NOTE: THE "W" BEAM TERMINAL CONNECTOR IS USED WITH THE TYPE "H" BRIDGE END SECTION. THE CROSS-SECTIONAL DIMENSIONS OF THIS PART ARE IDENTICAL TO THE STANDARD "W" BEAM SECTION (AASHTO M 180 CLASS B, TYPE II).
NOTE: THE "W" BEAM BACK-UP PLATE IS USED UNDER THE "W" BEAM RAIL SECTION WHERE INDICATED ON THIS SHEET. THE CROSS-SECTIONAL DIMENSIONS OF THIS PART ARE IDENTICAL TO THOSE OF THE STANDARD "W" BEAM RAIL SECTION.

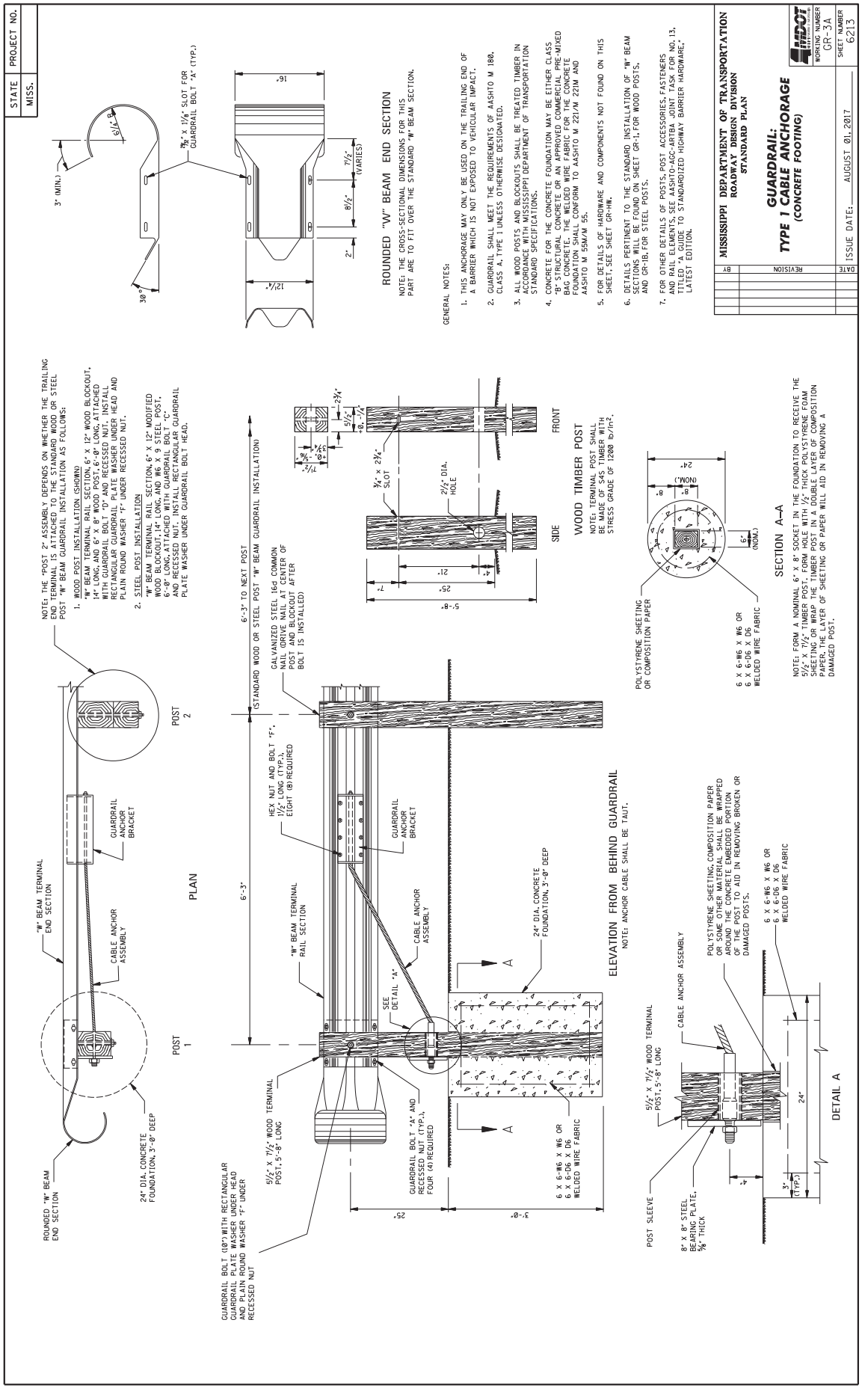

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "H"
(STEEL POSTS)
WORKING NUMBER GR-2D
SHEET NUMBER 6208
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEET GR-1B (STEEL POSTS).
2. THE HEIGHT OF RAIL AT THE BRIDGE END IS 21" AND WILL BE TRANSITIONED TO 25" AT POST 5.
3. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
PLAN
SECTION A–A
SECTION B–B
"W" BEAM TERMINAL CONNECTOR
"W" BEAM BACKUP PLATE
FASTENER DETAILS
DETAIL OF BRIDGE END TERMINAL OFFSET BLOCK
TRAFFIC
STANDARD "W" BEAM INSTALLATION (SEE GENERAL NOTE 1.)
PAY LIMITS FOR TYPE "H" BRIDGE END SECTION
CONCRETE BRIDGE RAIL
GUARDRAIL SPLICE
FACE OF GUARDRAIL
BRIDGE END TERMINAL OFFSET BLOCK
BACKUP PLATE UNDER GUARDRAIL
7'-6" CURB TRANSITION
CURB LINE
"W" BEAM TERMINAL CONNECTOR, TERMINAL CONNECTOR IS FASTENED TO "W" BEAM GUARDRAIL SECTION WITH EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
GUARDRAIL BOLT "C" WITH RECESSED NUT AND RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD FOR POSTS 1 THRU 5.
24" X 12" STEEL SOIL BEARING PLATE, 1/4" THICK, WELDED TO POSTS 1 THRU 3, WELD TOP, BOTTOM, AND THREE 3" WELDS ON EACH SIDE.
W6 X 9 STEEL POST, 6'-0" LONG, WITH 6" X 12" MODIFIED WOOD BLOCKOUT, 14" LONG, FOR POSTS 1 THRU 5.
POST 1
POST 2
POST 3
POST 4
POST 5
POST 6
25'-0"
10'-5 1/4"
3'-1 1/2"
6'-3"
4'
9"
2 1/4"
CONCRETE BRIDGE RAIL
GUARDRAIL ANCHOR ASSEMBLY "GA1" (INSTALLED DURING BRIDGE CONSTRUCTION)
HSS HEX NUT AND BOLT "C", 10" LONG, TWO (2) REQUIRED.
BEVELED WASHER, TWO (2) REQUIRED.
HARDENED ROUND WASHER "E", UNDER HEAD, TWO (2) REQUIRED.
"W" BEAM BACKUP PLATE
"W" BEAM GUARDRAIL
GUARDRAIL BOLT (2") AND RECESSED NUT WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD.
BRIDGE END TERMINAL OFFSET BLOCK
CURB FACE
RIDING SURFACE OF BRIDGE DECK
(SEE GENERAL NOTE 2.)
HARDENED ROUND WASHER "E", UNDER HEAD, FOUR (4) REQUIRED.
"W" BEAM TERMINAL CONNECTOR
EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
HSS HEX NUT AND BOLT "C", 10" LONG, FOUR (4) REQUIRED.
BEVELED WASHER, FOUR (4) REQUIRED.
9:1 SLOPE
BEVELED WASHER
RECTANGULAR GUARDRAIL PLATE WASHER
HARDENED ROUND WASHER "E"
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C" (ASTM A 325)
3/4" X 2 1/2" SLOT
12 1/4"
12"
6"
30"
7/8" X 1 1/4" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
1" DIA. HOLES (TYP.)
3/4" X 2 1/2" SLOTTED HOLE (BOLT NOT REQUIRED)
W4 X 13
3/4" DIA. HOLES
1" DIA. HOLES
FRONT FACE
SIDE

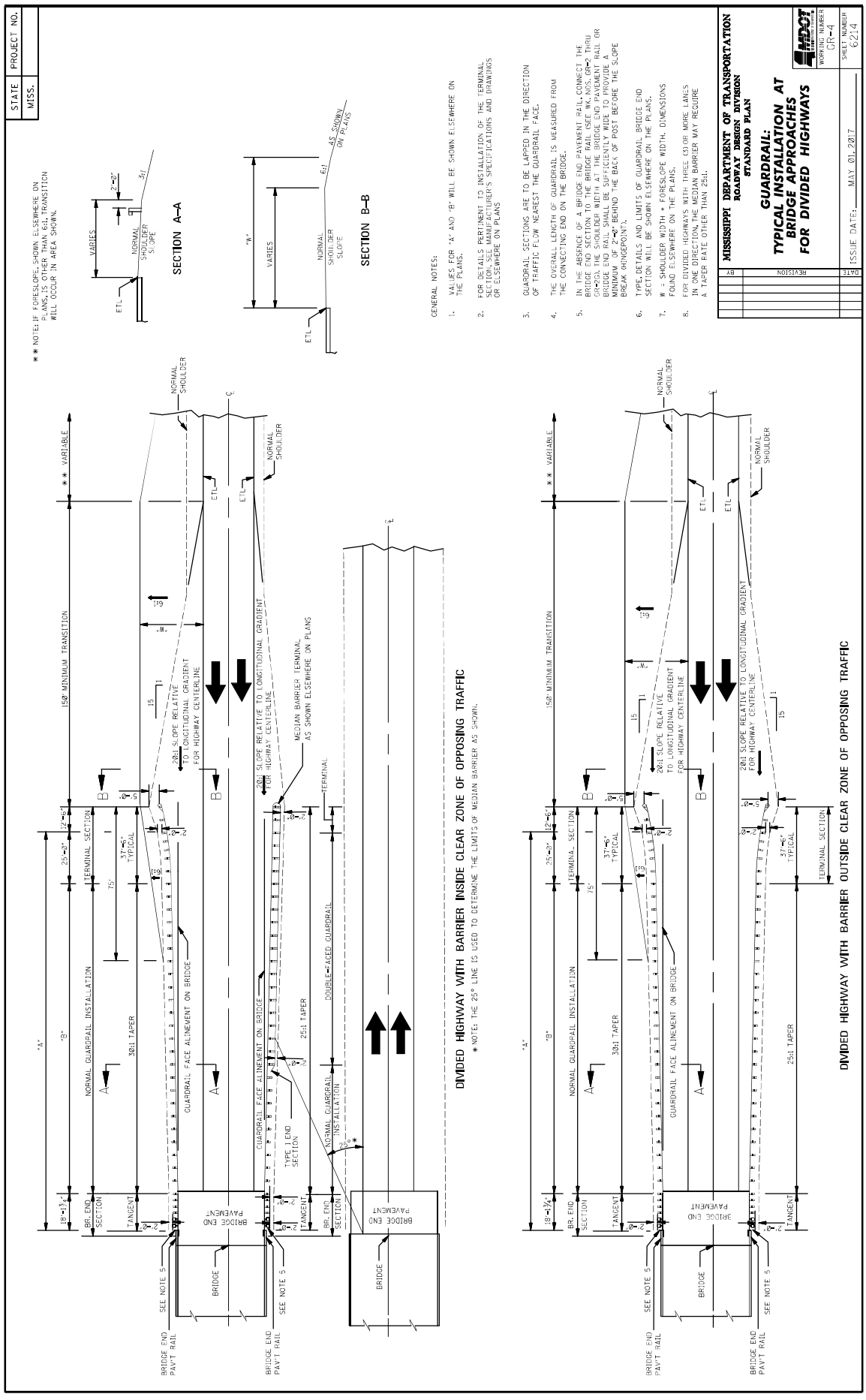

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "G" MODIFIED
WORKING NUMBER GR-2E
SHEET NUMBER 6209
ISSUE DATE: AUGUST 01, 2017
BY REVISION DATE
GENERAL NOTES:
1. ALL NOTES AND DETAILS PERTAINING TO NORMAL "W" BEAM GUARDRAIL INSTALLATION NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON EITHER SHEET GR-1 (WOOD POSTS) OR GR-1B (STEEL POSTS).
2. INSTALLATION DETAILS FOR BRIDGE END SECTION GUARDRAIL POSTS WILL BE FOUND ON EITHER SHEET GR-2C (WOOD POSTS) OR GR-2D (STEEL POSTS).
3. THE HEIGHT OF RAIL AT THE BRIDGE END IS 21" AND WILL BE TRANSITIONED TO 25" AT POST 5.
4. GUARDRAIL ELEMENTS SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC. THE ONLY EXCEPTION NOTED IS THAT GUARDRAIL SHALL BE LAPPED FOR APPROACHING TRAFFIC ON A BRIDGE WITH 2-WAY TRAFFIC.
PAY LIMITS FOR TYPE "G" MODIFIED BRIDGE END SECTION
STANDARD "W" BEAM INSTALLATION (SEE GENERAL NOTE 1.)
25'-0"
10'-5¼"
3'-1½"
6'-3"
POST 1
POST 2
POST 3
POST 4
POST 5
POST 6
GUARDRAIL SPLICE
CENTERLINE OF POST HOLES IN "W" BEAM GUARDRAIL (SEE GENERAL NOTE 2.)
FACE OF GUARDRAIL
SEE GUARDRAIL CONNECTION DETAILS
7'-6" CURB TRANSITION
CONCRETE BRIDGE RAIL
CURB LINE
"W" BEAM TERMINAL CONNECTOR, TERMINAL CONNECTOR IS FASTENED TO THE GUARDRAIL SECTION WITH EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
PLAN
TRAFFIC
SECTION
GUARDRAIL ANCHOR ASSEMBLY (INSTALLED DURING BRIDGE CONSTRUCTION)
HSS HEX NUT AND BOLT "C", 10" LONG, FOUR (4) REQUIRED.
HARDENED ROUND WASHER "E", ONE (1) UNDER HEAD AND ONE (1) UNDER NUT, EIGHT (8) REQUIRED.
PLATE "Y"
12" X 4⅛" X ⅜" PLATE BOTH SIDES
"W" BEAM GUARDRAIL
TWO (2) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
GUARDRAIL CONNECTION DETAILS
THESE SLOTS ARE USED TO FASTEN GUARDRAIL.
⅞" X 1¼" SLOTTED HOLES IN "W" BEAM SECTION (TYP.)
OPTIONAL ¾" X 2½" SLOTTED HOLE IN "W" SECTION (BOLT NOT REQUIRED).
"W" BEAM SECTION, 16' LONG (AASHTO M 180 CLASS B, TYPE II)
12" X 4⅛" X ⅜" PLATE, TWO (2) REQUIRED, TOP AND BOTTOM.
1" HOLES IN PLATE "Y" (TYP.)
FACE ELEVATION
9:1 SLOPE
BEVELED WASHER
RECTANGULAR GUARDRAIL PLATE WASHER
HARDENED ROUND WASHER "E"
¾" - 9 UNC THREAD PITCH
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C" (ASTM A 325)
AS SPECIFIED
FASTENER DETAILS
DETAIL OF PLATE "Y"
1" DIA. HOLES (TYP.)
"W" BEAM TERMINAL CONNECTOR
NOTE: THE "W" BEAM TERMINAL CONNECTOR IS USED WITH THE TYPE "G" MODIFIED BRIDGE END SECTION. THE CROSS-SECTIONAL DIMENSIONS OF THIS PART ARE IDENTICAL TO THE STANDARD "W" BEAM SECTION (AASHTO M 180 CLASS B, TYPE II).
¾" X 1⅛" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
¾" X 2½" SLOTTED HOLE (BOLT NOT REQUIRED)
SECTION A–A
SECTION B–B
HARDENED ROUND WASHER "E", UNDER HEAD, FOUR (4) REQUIRED.
BEVELED WASHER, FOUR (4) REQUIRED.
HSS HEX NUT AND BOLT "C", 10" LONG, FOUR (4) REQUIRED.
EIGHT (8) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
TWO (2) EACH, GUARDRAIL BOLT "A" AND RECESSED NUT.
CURB FACE
RIDING SURFACE OF BRIDGE DECK
(SEE GENERAL NOTE 3.)

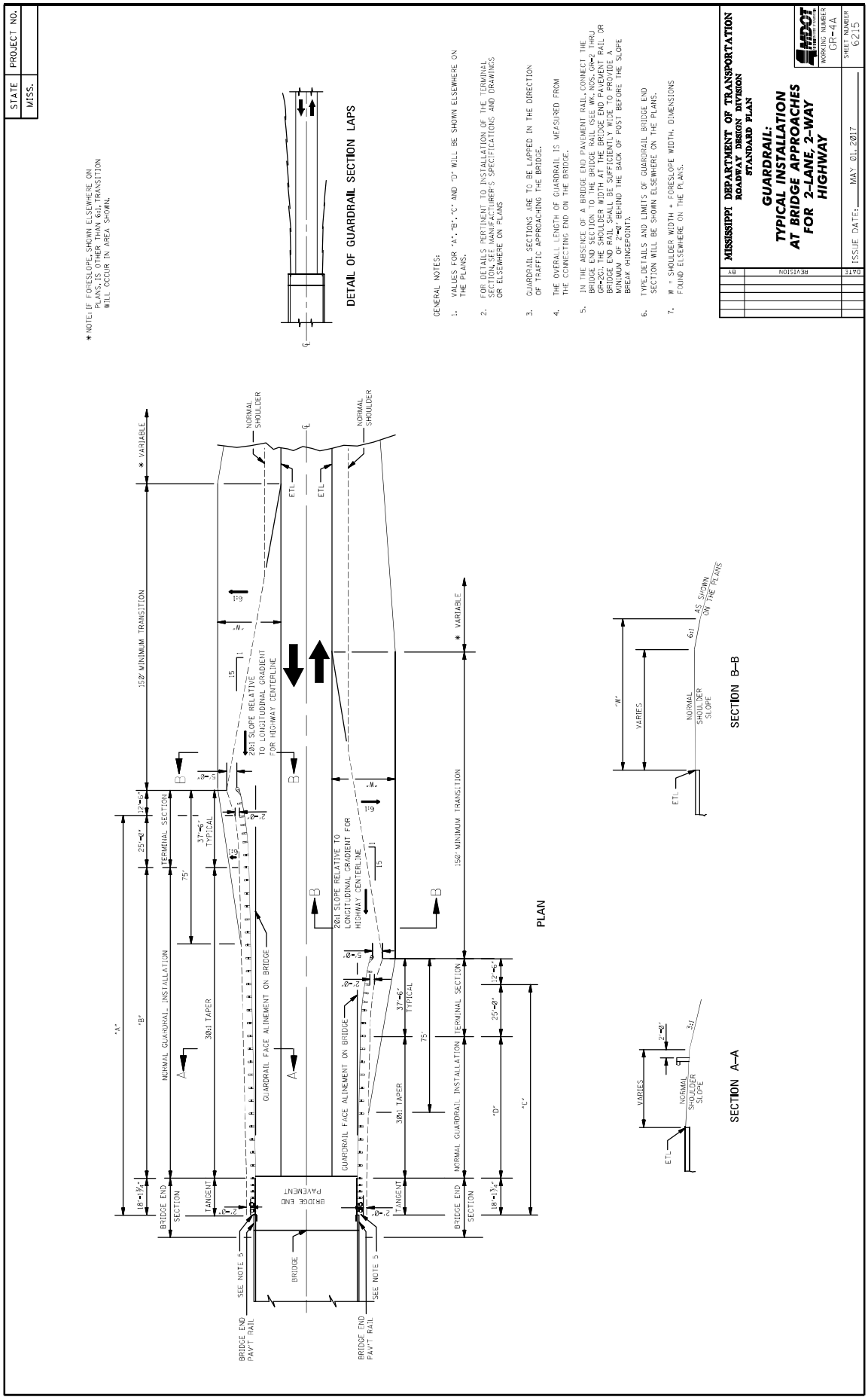

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "I"
(WOOD POSTS)
(NEW CONSTRUCTION)
WORKING NUMBER GR-2F
SHEET NUMBER 6210
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
STANDARD "W" BEAM GUARDRAIL INSTALLATION (SEE SHEET GR-1)
PAY LIMITS FOR TYPE "I" BRIDGE END SECTION
PLAN
ELEVATION FROM ℄ ROADWAY
SECTION A-A
*NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
FASTENER DETAILS
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C"
PLAIN ROUND WASHER "F"
RECTANGULAR GUARDRAIL PLATE WASHER
GENERAL NOTES (CONTINUED):
3. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE I UNLESS OTHERWISE DESIGNATED.
4. THE TYPE "I" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE APPROACHING TRAFFIC SHALL BE LAPPED IN THE DIRECTION OF THE APPROACH.
5. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
6. FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1.
7. DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" AND THRIE-BEAM SECTIONS NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEETS GR-1 AND GR-1A, RESPECTIVELY.
8. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & ALL OTHER COMPONENTS NOT SHOWN ON THIS SHEET, SEE FHWA REPORT NO. FHWA-SA-98-032, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
9. THE TOP OF THE RAIL AT POST 7 IS AT 32" AND WILL BE TRANSITIONED TO THE NORMAL W-BEAM TOP OF RAIL HEIGHT OF 31.125" AT POST 10.
GENERAL NOTES:
1. THIS GUARDRAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO A GUARDRAIL ANCHOR ASSEMBLY CAST INTO A VERTICAL CONCRETE SHAPE AS SHOWN ON SHEETS BER-1 & BER-2. THIS GUARDRAIL TRANSITION SHALL NOT BE MOUNTED DIRECTLY TO A CONCRETE SAFETY SHAPE.
2. SEE RAILING DETAILS IN BRIDGE DRAWINGS FOR OTHER DETAILS.
DETAILS OF THRIE-BEAM POST AND BLOCKOUT (POST 1 THRU POST 8)
NOTES:
1. HOLE DETAILS ARE REQUIRED ON ALL WOOD POSTS AND BLOCKOUTS.
2. WOOD POSTS AND BLOCKOUTS ARE FABRICATED FROM TREATED TIMBER UNLESS SPECIFIED OTHERWISE ON THE PLANS.
3. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE 3/4" IN DIAMETER.
THRIE-BEAM TERMINAL CONNECTOR
NOTES:
1. THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE I.
2. ALTERNATIVELY, THE SPLICE SLOTS CAN BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE TERMINAL CONNECTOR, HOWEVER, THE 50° SLOT VERSION IS EASIER TO INSTALL WHERE SEVERAL GUARDRAIL SECTIONS ARE NESTED TOGETHER.
GUARDRAIL SPLICE DETAIL (POST 7)

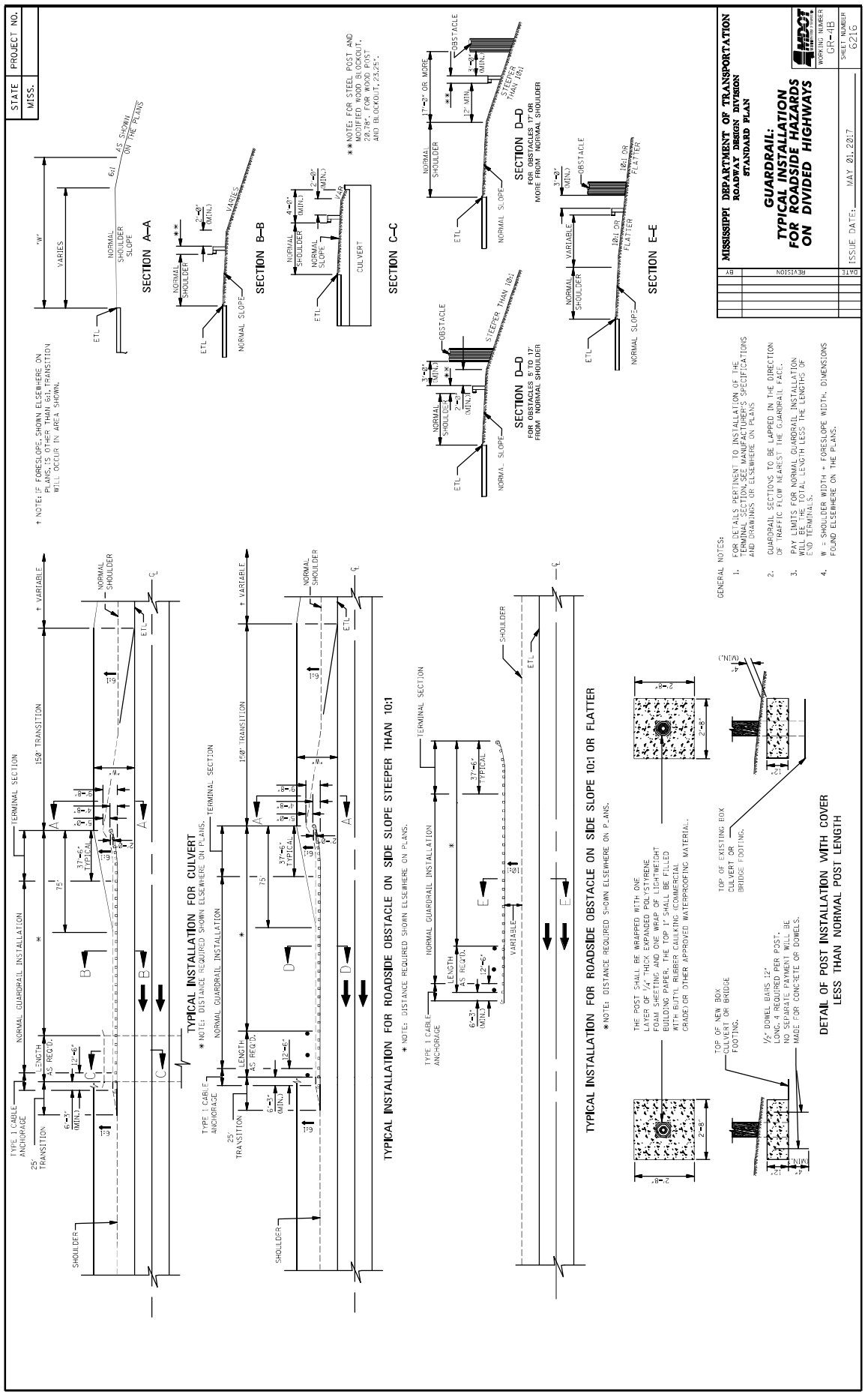

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
BRIDGE END SECTION
TYPE "1"
(STEEL POSTS)
(NEW CONSTRUCTION)
WORKING NUMBER GR-2C
SHEET NUMBER 6211
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
STANDARD "W" BEAM GUARDRAIL INSTALLATION (SEE SHEET GR-1B)
PAY LIMITS FOR TYPE "1" BRIDGE END SECTION
PLAN
ELEVATION FROM ℄ ROADWAY
NOTE: BACKUP PLATES ARE NOT USED IN THIS TRANSITION.
FASTENER DETAILS
HIGH-STRENGTH STRUCTURAL HEX NUT AND BOLT "C"
PLAIN ROUND WASHER "F"
RECTANGULAR GUARDRAIL PLATE WASHER
SECTION A–A
GENERAL NOTES:
1. THIS GUARDRAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO A GUARDRAIL ANCHOR ASSEMBLY CAST INTO A VERTICAL CONCRETE SHAPE, AS SHOWN ON SHEET GR-1A. THIS GUARDRAIL TRANSITION SHALL NOT BE MOUNTED DIRECTLY TO A CONCRETE SAFETY SHAPE.
2. SEE RAILING DETAILS IN BRIDGE DRAWINGS FOR OTHER DETAILS.
3. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
4. THE TYPE "1" TRANSITION IS USED ON BOTH LEFT AND RIGHT SIDES OF EACH BRIDGE APPROACH WITH 2-WAY TRAFFIC AND THE GUARDRAIL SECTIONS SHALL BE LAPPED IN THE DIRECTION OF APPROACHING TRAFFIC.
5. POSTS SHALL CONFORM TO AASHTO M 270/M 270 (ASTM A 709/A 709M) GRADE 250 STEEL UNLESS CORROSION RESISTANT STEEL IS REQUIRED IN WHICH CASE GRADE 50W STEEL SHALL BE USED. THE STRUCTURAL W 6 X 9 DIMENSIONS ARE DESCRIBED IN ASTM A 6/A 6M. ALL STRUCTURAL STEEL SHALL BE ZINC-COATED PER AASHTO M 111/ASTM A 123 AFTER CUTTING, DRILLING OR PUNCHING. CORROSION RESISTANT STEEL SHOULD NOT BE ZINC COATED, PAINTED OR OTHERWISE TREATED. GUARDRAIL IS EXEMPT FROM THE FRACTURE-CRITICAL TOUGHNESS IN AASHTO M 270/A 270 W.
6. FOR FASTENER DETAILS NOT FOUND ON THIS SHEET, SEE SHEET GR-1B.
7. DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" AND THRIE-BEAM SECTIONS NOT SPECIFICALLY MODIFIED ON THIS SHEET WILL BE FOUND ON SHEETS GR-1B AND GR-1C, RESPECTIVELY.
8. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS & RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FORCE NO.13 GUIDE TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE", LATEST EDITION.
9. ALL WOOD BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS..
10. FOR DETAIL OF NOTCH IN MODIFIED WOOD BLOCKOUTS, SEE SHEET GR-1B.
THRIE-BEAM TERMINAL CONNECTOR
NOTES:
1. THE THRIE-BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE I.
2. ALTERNATIVELY, THE SPLICE SLOTS CAN BE ORIENTED PARALLEL TO THE LONGITUDINAL AXIS OF THE TERMINAL CONNECTOR. HOWEVER, THE 50° SLOT VERSION IS EASIER TO INSTALL WHERE SEVERAL GUARDRAIL SECTIONS ARE NESTED TOGETHER.
GUARDRAIL SPLICE DETAIL (POST 7)
NOTES:
1. HOLE DETAILS ARE REQUIRED FOR POSTS AND BLOCKOUTS 1 THRU 8.
2. STEEL POSTS ARE FABRICATED FROM W6 X 9 STRUCTURAL STEEL SHAPES.
3. ALL HOLES IN BOTH POSTS AND BLOCKOUTS ARE ¾" IN DIAMETER.
DETAILS OF THRIE-BEAM POST AND BLOCKOUT (POST 1 THRU POST 6)

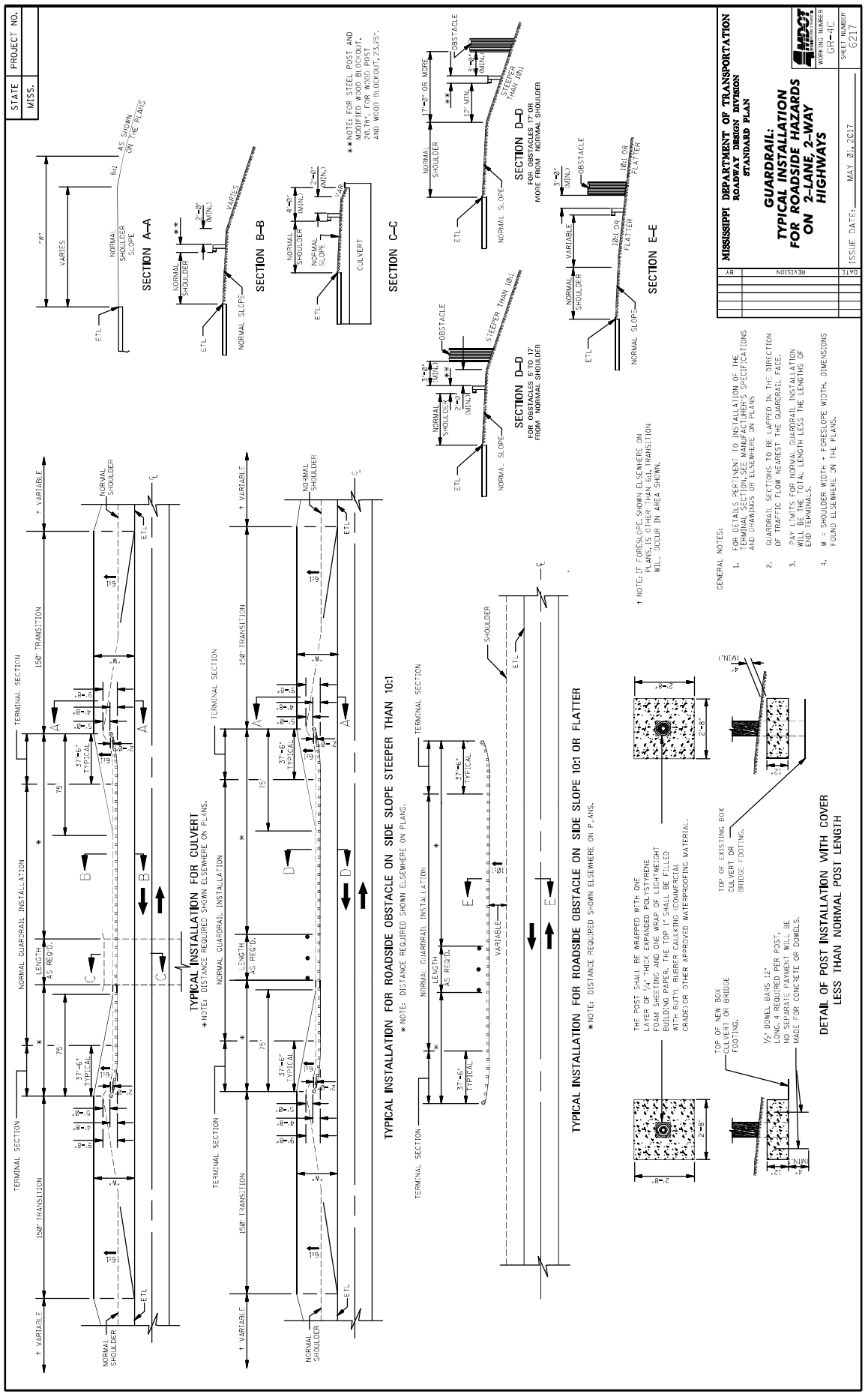

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPE 1 CABLE ANCHORAGE
(FOUNDATION TUBE)
WORKING NUMBER GR-3
SHEET NUMBER 6212
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
ROUNDED "W" BEAM END SECTION
NOTE: THE CROSS-SECTIONAL DIMENSIONS FOR THIS PART ARE TO FIT OVER THE STANDARD "W" BEAM SECTION.
GENERAL NOTES:
1. THIS ANCHORAGE MAY ONLY BE USED ON THE TRAILING END OF A BARRIER WHICH IS NOT EXPOSED TO VEHICULAR IMPACT.
2. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
3. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
4. FOR DETAILS OF HARDWARE AND COMPONENTS NOT FOUND ON THIS SHEET, SEE SHEET GR-HW.
5. DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" BEAM SECTIONS WILL BE FOUND ON SHEET GR-1, FOR WOOD POSTS, AND GR-1B, FOR STEEL POSTS.
6. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS AND RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FOR NO. 13, TITLED "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
3" (MIN.)
6¼" R
⅞" X 1¼" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
30°
12¼"
8½"
7½" (VARIES)
2"
.91
NOTE: THE "POST 2" ASSEMBLY DEPENDS ON WHETHER THE TRAILING END TERMINAL IS ATTACHED TO THE STANDARD WOOD OR STEEL POST "W" BEAM GUARDRAIL INSTALLATION AS FOLLOWS:
1. WOOD POST INSTALLATION (SHOWN)
"W" BEAM TERMINAL RAIL SECTION, 6" X 12" WOOD BLOCKOUT, 14" LONG, AND 6' X 8" WOOD POST, 6'-0" LONG, ATTACHED WITH GUARDRAIL BOLT "D" AND RECESSED NUT. INSTALL RECESSED NUT UNDER GUARDRAIL AS ASSEMBLED. INSTALL PLAIN ROUND WASHER "F" UNDER RECESSED NUT.
2. STEEL POST INSTALLATION
"W" BEAM TERMINAL RAIL SECTION, 6" X 12" MODIFIED WOOD BLOCKOUT, 14" LONG, AND WS 4 x 9 STEEL POST, 6'-0" LONG, ATTACHED WITH GUARDRAIL BOLT "C" AND RECESSED NUT. INSTALL RECTANGULAR GUARDRAIL PLATE WASHER UNDER GUARDRAIL BOLT HEAD.
"W" BEAM TERMINAL END SECTION
GUARDRAIL ANCHOR BRACKET
CABLE ANCHOR ASSEMBLY
24" X 18" STEEL FOUNDATION TUBE SOIL PLATE, ¼" THICK
POST 1
POST 2
PLAN
ROUNDED "W" BEAM END SECTION
6'-3"
6'-3" TO NEXT POST
(STANDARD WOOD OR STEEL POST "W" BEAM GUARDRAIL INSTALLATION)
GALVANIZED STEEL 16d COMMON NAIL (DRIVE NAIL AT CENTER OF POST AND BLOCKOUT AFTER POST IS INSTALLED)
HEX NUT AND BOLT "F", 1½" LONG (TYP.) EIGHT (8) REQUIRED
"W" BEAM TERMINAL RAIL SECTION
CABLE ANCHOR ASSEMBLY
5½" X 7½" WOOD TERMINAL POST, 46½" LONG
GUARDRAIL BOLT (10") WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT
GUARDRAIL BOLT "A" AND RECESSED NUT (TYP.), FOUR (4) REQUIRED.
25"
14¼"
SEE DETAIL A
SEE DETAIL B
5'-0"
TS8" X 6" X ⅜" FOUNDATION TUBE, 5'-0" LONG
24" X 18" STEEL FOUNDATION TUBE SOIL PLATE, ¼" THICK
ELEVATION FROM BEHIND GUARDRAIL
NOTE: ANCHOR CABLE SHALL BE TAUT.
HEX NUT AND BOLT "F", 8" LONG, WITH PLAIN ROUND WASHER "F" UNDER HEAD AND NUT
5½" X 7½" WOOD TERMINAL POST, 46½" LONG
TS8" X 6' X ⅜" FOUNDATION TUBE, 5'-0" LONG
DETAIL B
POST SLEEVE
8" X 8" STEEL BEARING PLATE, ⅜" THICK
TS8" X 6" X ⅜" FOUNDATION TUBE, 5'-0" LONG
CABLE ANCHOR ASSEMBLY
2" (NOM.) 3" (MAX.)
HEX NUT AND BOLT "F", 10" LONG, WITH PLAIN ROUND WASHER "F" UNDER HEAD AND NUT
2½"
4"
DETAIL A

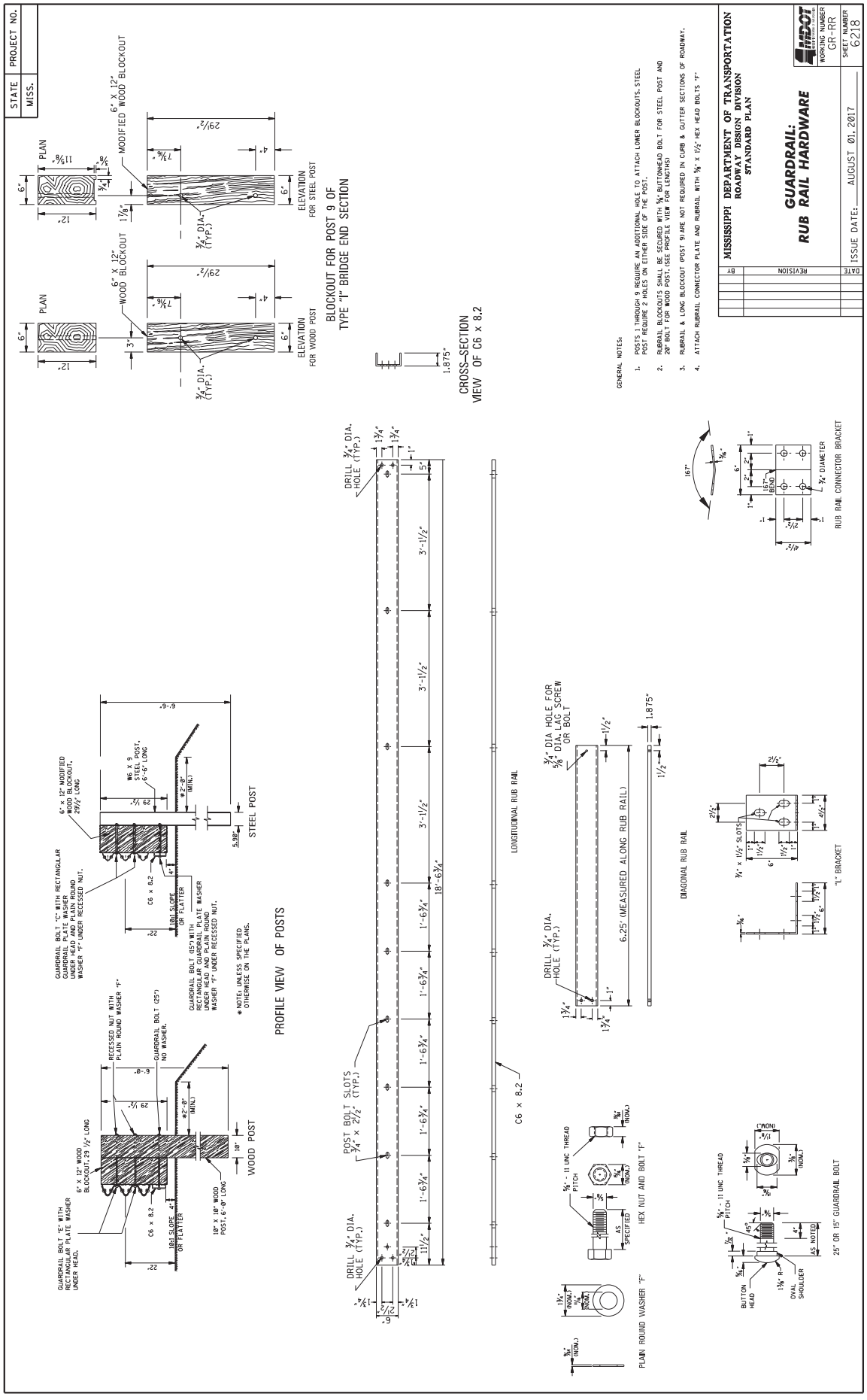

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPE 1 CABLE ANCHORAGE
(CONCRETE FOOTING)
WORKING NUMBER GR-3A
SHEET NUMBER 6213
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
ROUNDED "W" BEAM END SECTION
NOTE: THE CROSS-SECTIONAL DIMENSIONS FOR THIS PART ARE TO FIT OVER THE STANDARD "W" BEAM SECTION.
GENERAL NOTES:
1. THIS ANCHORAGE MAY ONLY BE USED ON THE TRAILING END OF A BARRIER WHICH IS NOT EXPOSED TO VEHICULAR IMPACT.
2. GUARDRAIL SHALL MEET THE REQUIREMENTS OF AASHTO M 180, CLASS A, TYPE 1 UNLESS OTHERWISE DESIGNATED.
3. ALL WOOD POSTS AND BLOCKOUTS SHALL BE TREATED TIMBER IN ACCORDANCE WITH MISSISSIPPI DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
4. CONCRETE FOR THE CONCRETE FOUNDATION MAY BE EITHER CLASS "B" STRUCTURAL CONCRETE OR AN APPROVED COMMERCIAL PRE-MIXED BAG CONCRETE. THE WELDED WIRE FABRIC FOR THE CONCRETE FOUNDATION SHALL CONFORM TO AASHTO M 221/M 221M AND AASHTO M 55M/M 55.
5. FOR DETAILS OF HARDWARE AND COMPONENTS NOT FOUND ON THIS SHEET, SEE SHEET GR-HW.
6. DETAILS PERTINENT TO THE STANDARD INSTALLATION OF "W" BEAM SECTIONS WILL BE FOUND ON SHEET GR-1, FOR WOOD POSTS, AND GR-1B, FOR STEEL POSTS.
7. FOR OTHER DETAILS OF POSTS, POST ACCESSORIES, FASTENERS AND RAIL ELEMENTS, SEE AASHTO-AGC-ARTBA JOINT TASK FOR NO. 13, TITLED A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE," LATEST EDITION.
NOTE: THE "POST 2" ASSEMBLY DEPENDS ON WHETHER THE TRAILING END TERMINAL IS ATTACHED TO THE STANDARD WOOD OR STEEL POST "W" BEAM GUARDRAIL INSTALLATION AS FOLLOWS:
1. WOOD POST INSTALLATION (SHOWN)
"W" BEAM TERMINAL RAIL SECTION, 6' X 12" WOOD BLOCKOUT, 14" LONG, AND 6' X 8" WOOD POST, 6'-0" LONG, ATTACHED WITH GUARDRAIL BOLT "D" AND RECESSED NUT. INSTALL RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT.
2. STEEL POST INSTALLATION
"W" BEAM TERMINAL RAIL SECTION, 6' X 12" MODIFIED WOOD BLOCKOUT, 14" LONG, AND W6 X 9 STEEL POST, 6'-6" LONG ATTACHED WITH GUARDRAIL BOLT "C" AND RECESSED NUT. INSTALL RECTANGULAR GUARDRAIL PLATE WASHER UNDER GUARDRAIL BOLT HEAD.
3" (MIN.)
7/8" X 1 1/8" SLOT FOR GUARDRAIL BOLT "A" (TYP.)
16"
12 1/4"
30°
8 1/2"
7 1/2" (VARIES)
2"
"W" BEAM END SECTION
ROUNDED "W" BEAM END SECTION
CABLE ANCHOR ASSEMBLY
GUARDRAIL ANCHOR BRACKET
24" DIA. CONCRETE FOUNDATION, 3'-0" DEEP
POST 1
POST 2
PLAN
6'-3"
6'-3" TO NEXT POST
(STANDARD WOOD OR STEEL POST "W" BEAM GUARDRAIL INSTALLATION)
GALVANIZED STEEL 16d COMMON NAIL (DRIVE NAIL AT CENTER OF POST AND BLOCKOUT AFTER BOLT IS INSTALLED)
HEX NUT AND BOLT "F", 1 1/2" LONG (TYP.), EIGHT (8) REQUIRED
"W" BEAM TERMINAL RAIL SECTION
SEE DETAIL "A"
5 1/2" X 7 1/2" WOOD TERMINAL POST, 5'-8" LONG
GUARDRAIL BOLT (10") WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT
GUARDRAIL BOLT "A" AND RECESSED NUT (TYP.), FOUR (4) REQUIRED
6 X 6-W6 X W6 OR 6 X 6-D6 X D6 WELDED WIRE FABRIC
25"
3'-0"
ELEVATION FROM BEHIND GUARDRAIL
NOTE: ANCHOR CABLE SHALL BE TAUT.
3/4" X 2 3/4" SLOT
2 1/2" DIA. HOLE
5'-8"
21"
25"
7"
SIDE
FRONT
WOOD TIMBER POST
NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH STRESS GRADE OF 1200 lb/in².
POLYSTYRENE SHEETING OR COMPOSITION PAPER
6 X 6-W6 X W6 OR 6 X 6-D6 X D6 WELDED WIRE FABRIC
24" (NOM.)
8" (NOM.)
SECTION A–A
NOTE: FORM A NOMINAL 6" X 8" SOCKET IN THE FOUNDATION TO RECEIVE THE 5 1/2" X 7 1/2" TIMBER POST. FORM AROUND THE TIMBER POST WITH 1/2" THICK POLYSTYRENE FOAM SHEETING OR WRAP THE TIMBER POST IN A DOUBLE LAYER OF COMPOSITION PAPER. THE LAYER OF SHEETING OR PAPER WILL AID IN REMOVING A DAMAGED POST.
5 1/2" X 7 1/2" WOOD TERMINAL POST, 5'-8" LONG
CABLE ANCHOR ASSEMBLY
POLYSTYRENE SHEETING, COMPOSITION PAPER OR SOME OTHER MATERIAL SHALL BE WRAPPED AROUND THE CONCRETE EMBEDDED PORTION OF THE POST TO AID IN REMOVING BROKEN OR DAMAGED POSTS.
6 X 6-W6 X W6 OR 6 X 6-D6 X D6 WELDED WIRE FABRIC
POST SLEEVE
8" X 8" STEEL BEARING PLATE, 5/8" THICK
24"
4"
3" (TYP.)
DETAIL A

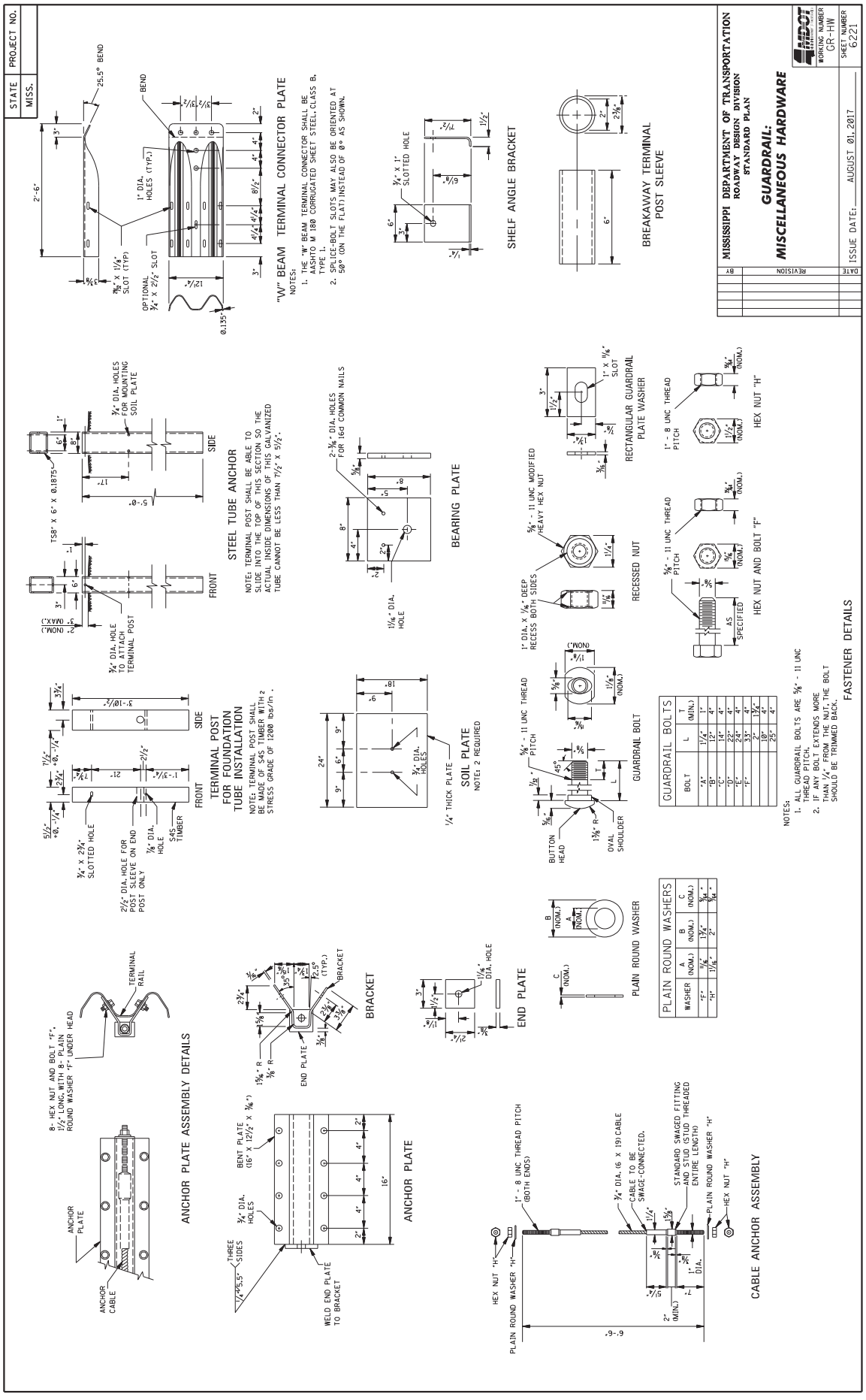

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPICAL INSTALLATION AT BRIDGE APPROACHES FOR DIVIDED HIGHWAYS
WORKING NUMBER GR-4
SHEET NUMBER 6214
ISSUE DATE: MAY 01, 2017
BY
REVISION
DATE
** NOTE: IF FORESLOPE, SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.
SECTION A-A
SECTION B-B
GENERAL NOTES:
1. VALUES FOR "A" AND "B" WILL BE SHOWN ELSEWHERE ON THE PLANS.
2. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
3. GUARDRAIL SECTIONS ARE TO BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW NEAREST THE GUARDRAIL FACE.
4. THE OVERALL LENGTH OF GUARDRAIL IS MEASURED FROM THE CONNECTING END ON THE BRIDGE.
5. IN THE ABSENCE OF A BRIDGE END PAVEMENT RAIL CONNECT THE BRIDGE END SECTION TO THE BRIDGE RAIL SECTION ACROSS THE THRU GRADED SHOULDER WIDTH AT THE BRIDGE END PAVEMENT RAIL OR BRIDGE END RAIL SHALL BE SUFFICIENTLY WIDE TO PROVIDE A MINIMUM OF 2'-0" BEHIND THE BACK OF POST BEFORE THE SLOPE BREAK (HINGEPOINT).
6. TYPE DETAILS AND LIMITS OF GUARDRAIL BRIDGE END SECTION WILL BE SHOWN ELSEWHERE ON THE PLANS.
7. "W" = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.
8. FOR DIVIDED HIGHWAYS WITH THREE (3) OR MORE LANES IN ONE DIRECTION, THE MEDIAN BARRIER MAY REQUIRE A TAPER RATE OTHER THAN 25:1.
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
150' MINIMUM TRANSITION
** VARIABLE
NORMAL GUARDRAIL INSTALLATION
GUARDRAIL FACE ALINEMENT ON BRIDGE
30:1 TAPER
25:1 TAPER
TERMINAL SECTION
DOUBLE-FACED GUARDRAIL
TYPE 1 END SECTION
BRIDGE END SECTION
TANGENT
BRIDGE END PAVEMENT
BRIDGE
SEE NOTE 5
BRIDGE END PAVT RAIL
NORMAL SHOULDER
20:1 SLOPE RELATIVE TO LONGITUDINAL GRADIENT FOR HIGHWAY CENTERLINE
MEDIAN BARRIER TERMINAL AS SHOWN ELSEWHERE ON PLANS
ETL
VARIES
NORMAL SHOULDER SLOPE
4S SHOWN ON PLANS
6:1
3:1
2'-0"
37'-6" TYPICAL
25'-0"
18'-3"
75'

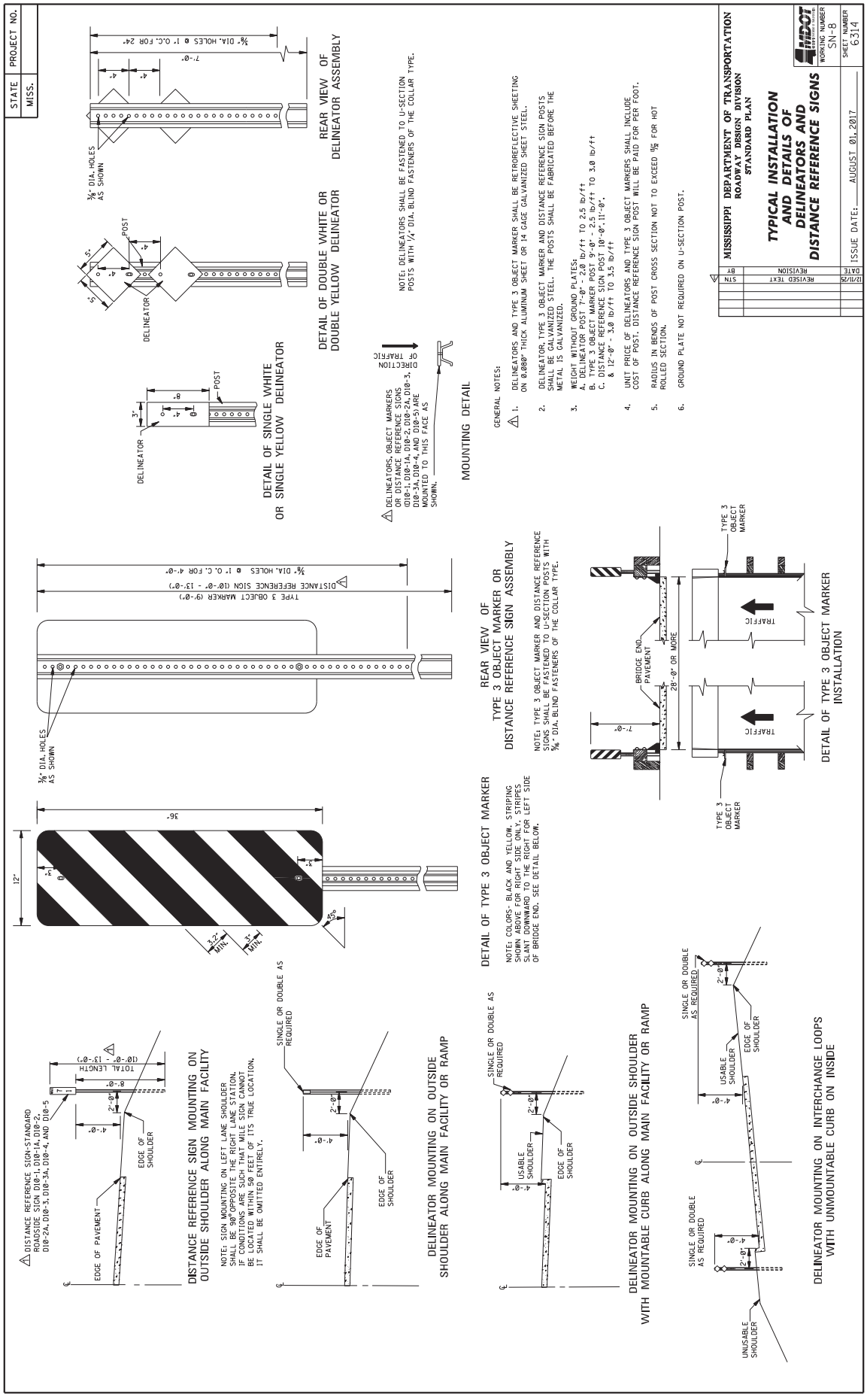

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPICAL INSTALLATION
AT BRIDGE APPROACHES
FOR 2-LANE 2-WAY
HIGHWAY
WORKING NUMBER GR-4A
SHEET NUMBER 6215
ISSUE DATE: MAY 01, 2017
BY REVISION DATE
* NOTE: IF FORESLOPE SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.
DETAIL OF GUARDRAIL SECTION LAPS
GENERAL NOTES:
1. VALUES FOR "A", "B", "C" AND "D" WILL BE SHOWN ELSEWHERE ON THE PLANS.
2. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
3. GUARDRAIL SECTIONS ARE TO BE LAPPED IN THE DIRECTION OF TRAFFIC APPROACHING THE BRIDGE.
4. THE OVERALL LENGTH OF GUARDRAIL IS MEASURED FROM THE CONNECTING END ON THE BRIDGE.
5. IN THE ABSENCE OF A BRIDGE END PAVEMENT RAIL, CONNECT THE BRIDGE END SECTION TO THE BRIDGE RAIL (SEE MS-GR-2 THRU GR-2C). THE SHOULDER WIDTH AT THE BRIDGE END PAVEMENT OR BRIDGE END RAIL SHALL BE EQUAL TO OR EXCEED A MINIMUM WIDTH OF 2'-0" BEHIND THE BACK OF POST BEFORE THE SLOPE BREAK (HINGEPOINT).
6. TYPE DETAILS AND LIMITS OF GUARDRAIL BRIDGE END SECTION WILL BE SHOWN ELSEWHERE ON THE PLANS.
7. W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.
PLAN
SECTION A-A
SECTION B-B
* VARIABLE
150' MINIMUM TRANSITION
NORMAL GUARDRAIL INSTALLATION
TERMINAL SECTION
BRIDGE END SECTION
TANGENT
30:1 TAPER
37'-6" TYPICAL
75'
25'-0"
12'-6"
18'-3"
GUARDRAIL FACE ALINEMENT ON BRIDGE
BRIDGE END PAVEMENT
BRIDGE
SEE NOTE 5
BRIDGE END PAVT RAIL
20:1 SLOPE RELATIVE TO LONGITUDINAL GRADIENT FOR HIGHWAY CENTERLINE
NORMAL SHOULDER
ETL
VARIES
NORMAL SHOULDER SLOPE
AS SHOWN ON THE PLANS
2'-0"
3:1
6:1


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
TYPICAL INSTALLATION
FOR ROADSIDE HAZARDS
ON DIVIDED HIGHWAYS
WORKING NUMBER GR-4B
SHEET NUMBER 6216
ISSUE DATE: MAY 01, 2017
DATE
BY
REVISION
† NOTE: IF FORESLOPE, SHOWN ELSEWHERE ON PLANS, IS OTHER THAN 6:1, TRANSITION WILL OCCUR IN AREA SHOWN.
SECTION A–A
SECTION B–B
SECTION C–C
SECTION D–D
FOR OBSTACLES 5' TO 17' FROM NORMAL SHOULDER
SECTION D–D
FOR OBSTACLES 17' OR MORE FROM NORMAL SHOULDER
SECTION E–E
**NOTE: FOR STEEL POST AND WOOD BLOCKOUT, USE 6"x8" WOOD POST AND BLOCKOUT, 23.25".
TYPICAL INSTALLATION FOR CULVERT
* NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TYPICAL INSTALLATION FOR ROADSIDE OBSTACLE ON SIDE SLOPE STEEPER THAN 10:1
* NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TYPICAL INSTALLATION FOR ROADSIDE OBSTACLE ON SIDE SLOPE 10:1 OR FLATTER
*NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
DETAIL OF POST INSTALLATION WITH COVER
LESS THAN NORMAL POST LENGTH
GENERAL NOTES:
1. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
2. GUARDRAIL SECTIONS TO BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW NEAREST THE GUARDRAIL FACE.
3. PAY LIMITS FOR NORMAL GUARDRAIL INSTALLATION WILL BE THE TOTAL LENGTH LESS THE LENGTHS OF END TERMINALS.
4. W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL: TYPICAL INSTALLATION FOR ROADSIDE HAZARDS ON 2-LANE, 2-WAY HIGHWAYS
WORKING NUMBER GR-4C
SHEET NUMBER 6217
ISSUE DATE: MAY 01, 2017
DATE
REVISION
BY
SECTION A-A
SECTION B-B
SECTION C-C
SECTION D-D FOR OBSTACLES 5' TO 17' FROM NORMAL SHOULDER
SECTION D-D FOR OBSTACLES 17' OR MORE FROM NORMAL SHOULDER
SECTION E-E
** NOTE: FOR STEEL POST AND MODIFIED WOOD BLOCKOUT, USE 12" POWER POST BLOCKOUT AND WOOD BLOCKOUT, 23.25".
† NOTE: IF FORESLOPE SHOWN ELSEWHERE ON PLANS IS OTHER THAN 6:1, TRANSITION WIL. OCCUR IN AREA SHOWN.
TYPICAL INSTALLATION FOR CULVERT
* NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TYPICAL INSTALLATION FOR ROADSIDE OBSTACLE ON SIDE SLOPE STEEPER THAN 10:1
* NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
TYPICAL INSTALLATION FOR ROADSIDE OBSTACLE ON SIDE SLOPE 10:1 OR FLATTER
* NOTE: DISTANCE REQUIRED SHOWN ELSEWHERE ON PLANS.
DETAIL OF POST INSTALLATION WITH COVER
LESS THAN NORMAL POST LENGTH
THE POST SHALL BE WRAPPED WITH ONE LAYER OF 1/4" THICK EXPANDED POLYSTYRENE FOAM SHEETING AND ONE WRAP OF LIGHTWEIGHT BUILDING PAPER. THE TOP 1" SHALL BE FILLED WITH BUTYL RUBBER CAULKING (COMMERCIAL GRADE) OR OTHER APPROVED WATERPROOFING MATERIAL.
TOP OF NEW BOX CULVERT OR BRIDGE FOOTING.
TOP OF EXISTING BOX CULVERT OR BRIDGE FOOTING.
1/2" DOWEL BARS 12" LONG 4 REQUIRED PER POST. NO SPECIAL EQUIPMENT WILL BE MADE FOR CONCRETE OR DOWELS.
GENERAL NOTES:
1. FOR DETAILS PERTINENT TO INSTALLATION OF THE TERMINAL SECTION, SEE MANUFACTURER'S SPECIFICATIONS AND DRAWINGS OR ELSEWHERE ON PLANS
2. GUARDRAIL SECTIONS TO BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW NEAREST THE GUARDRAIL FACE.
3. PAY LIMITS FOR NORMAL GUARDRAIL INSTALLATION WILL BE THE TOTAL LENGTH LESS THE LENGTHS OF END TERMINALS.
4. W = SHOULDER WIDTH + FORESLOPE WIDTH. DIMENSIONS FOUND ELSEWHERE ON THE PLANS.


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
RUB RAIL HARDWARE
WORKING NUMBER GR-RR
SHEET NUMBER 6218
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
GENERAL NOTES:
1. POSTS 1 THROUGH 9 REQUIRE AN ADDITIONAL HOLE TO ATTACH LOWER BLOCKOUTS. STEEL POST REQUIRE 2 HOLES ON EITHER SIDE OF THE POST.
2. RUBRAIL BLOCKOUTS SHALL BE SECURED WITH ⅝" BUTTONHEAD BOLT FOR STEEL POST AND 20" BOLT FOR WOOD POST. (SEE PROFILE VIEW FOR LENGTHS)
3. RUBRAIL & LONG BLOCKOUT (POST 9) ARE NOT REQUIRED IN CURB & GUTTER SECTIONS OF ROADWAY.
4. ATTACH RUBRAIL CONNECTOR PLATE AND RUBRAIL WITH ⅝" X 1½" HEX HEAD BOLTS "F"
BLOCKOUT FOR POST 9 OF TYPE "1" BRIDGE END SECTION
PLAN
ELEVATION FOR WOOD POST
6" X 12" WOOD BLOCKOUT
MODIFIED WOOD BLOCKOUT
ELEVATION FOR STEEL POST
¾" DIA. (TYP.)
CROSS-SECTION VIEW OF C6 x 8.2
PROFILE VIEW OF POSTS
GUARDRAIL BOLT "C" WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT.
6" X 12" MODIFIED WOOD BLOCKOUT, 29½" LONG
W6 X 9 STEEL POST, 5'-6" LONG
C6 x 8.2
10¹/₂ SLOPE OR FLATTER
GUARDRAIL BOLT (25") WITH RECTANGULAR GUARDRAIL PLATE WASHER UNDER HEAD AND PLAIN ROUND WASHER "F" UNDER RECESSED NUT.
* NOTE: UNLESS SPECIFIED OTHERWISE ON THE PLANS.
STEEL POST
RECESSED NUT WITH PLAIN ROUND WASHER "F"
GUARDRAIL BOLT (25") NO WASHER.
6" X 12" WOOD BLOCKOUT, 29 ½" LONG
10" X 10" WOOD POST, 6'-0" LONG
WOOD POST
GUARDRAIL BOLT "E" WITH RECTANGULAR PLATE WASHER UNDER HEAD.
POST BOLT SLOTS ¾" X 2½" (TYP.)
DRILL ¾" DIA. HOLE (TYP.)
LONGITUDINAL RUB RAIL
C6 x 8.2
DRILL ¾" DIA HOLE FOR ⅝" DIA. LAG SCREW OR BOLT
6.25" (MEASURED ALONG RUB RAIL)
DIAGONAL RUB RAIL
RUB RAIL CONNECTOR BRACKET
¾" DIAMETER
16.7° BEND
¾" x 1½" SLOTS
"L" BRACKET
⅝" - 11 UNC THREAD
HEX NUT AND BOLT "F"
PLAIN ROUND WASHER "F"
BUTTON HEAD
OVAL SHOULDER
25" OR 15" GUARDRAIL BOLT


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
GUARDRAIL:
MISCELLANEOUS HARDWARE
WORKING NUMBER GR-HW
SHEET NUMBER 6221
ISSUE DATE: AUGUST 01, 2017
REVISION
DATE
BY
"W" BEAM TERMINAL CONNECTOR PLATE
NOTES:
1. THE "W" BEAM TERMINAL CONNECTOR SHALL BE AASHTO M 180 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
2. SPLICE-BOLT SLOTS MAY ALSO BE ORIENTED AT 50° (ON THE FLAT) INSTEAD OF 0° AS SHOWN.
SHELF ANGLE BRACKET
BREAKAWAY TERMINAL POST SLEEVE
STEEL TUBE ANCHOR
NOTE: TERMINAL POST SHALL BE ABLE TO SLIDE INTO THE TOP OF THIS SECTION SO THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7½" X 5½".
BEARING PLATE
TERMINAL POST FOUNDATION TUBE INSTALLATION
NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH a STRESS GRADE OF 1200 lbs/in².
SOIL PLATE
NOTE: 2 REQUIRED
RECTANGULAR GUARDRAIL PLATE WASHER
RECESSED NUT
HEX NUT AND BOLT "F"
HEX NUT "H"
GUARDRAIL BOLT
GUARDRAIL BOLTS
BOLT | L | T (MIN.)
"A" | 1¼" | 1"
"B" | 12" | 4"
"C" | 14" | 4"
"D" | 22" | 4"
"E" | 24" | 4"
"F" | 33" | 4"
"G" | 2' | 1½"
"H" | 10' | 4"
"J" | 25' | 4"
PLAIN ROUND WASHERS
WASHER | A (NOM.) | B (NOM.) | C (NOM.)
"F" | ¾" | 1¾" | ⅜"
"H" | 1⅛" | 2" | ⅝"
PLAIN ROUND WASHER
END PLATE
BRACKET
ANCHOR PLATE ASSEMBLY DETAILS
8- HEX NUT AND BOLT "F", 1½" LONG, WITH 8- PLAIN ROUND WASHER "F" UNDER HEAD
ANCHOR PLATE
ANCHOR CABLE
TERMINAL RAIL
ANCHOR PLATE
CABLE ANCHOR ASSEMBLY
FASTENER DETAILS
NOTES:
1. ALL GUARDRAIL BOLTS ARE ⅝" - 11 UNC THREAD PITCH.
2. IF ANY BOLT EXTENDS MORE THAN ¼" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TYPICAL INSTALLATION AND DETAILS OF DELINEATORS AND DISTANCE REFERENCE SIGNS
WORKING NUMBER SN-8
SHEET NUMBER 6314
ISSUE DATE: AUGUST 01, 2017
REVISION STR
REVISED TEXT
DATE 12/1/25
BY
GENERAL NOTES:
1. DELINEATORS AND TYPE 3 OBJECT MARKER SHALL BE RETROREFLECTIVE SHEETING ON 0.080" THICK ALUMINUM SHEET OR 14 GAGE GALVANIZED SHEET STEEL.
2. DELINEATOR, TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGN POSTS SHALL BE GALVANIZED STEEL. THE POSTS SHALL BE FABRICATED BEFORE THE METAL IS GALVANIZED.
3. WEIGHT WITHOUT GROUND PLATES:
A. DELINEATOR POST 7'-0" - 2.0 lb/ft TO 2.5 lb/ft
B. TYPE 3 OBJECT MARKER POST 9'-0" - 2.5 lb/ft TO 3.0 lb/ft
C. DISTANCE REFERENCE SIGN POST 10'-0"-11'-0". & 12'-0" - 3.0 lb/ft TO 3.5 lb/ft
4. UNIT PRICE OF DELINEATORS AND TYPE 3 OBJECT MARKERS SHALL INCLUDE COST OF POST. DISTANCE REFERENCE SIGN POST WILL BE PAID FOR PER FOOT.
5. RADIUS IN BENDS OF POST CROSS SECTION NOT TO EXCEED 5/8 FOR HOT ROLLED SECTION.
6. GROUND PLATE NOT REQUIRED ON U-SECTION POST.
NOTE: DELINEATORS SHALL BE FASTENED TO U-SECTION POSTS WITH 1/4" DIA. BLIND FASTENERS OF THE COLLAR TYPE.
REAR VIEW OF DELINEATOR ASSEMBLY
DETAIL OF DOUBLE WHITE OR DOUBLE YELLOW DELINEATOR
DETAIL OF SINGLE WHITE OR SINGLE YELLOW DELINEATOR
MOUNTING DETAIL
DELINEATORS, OBJECT MARKERS OR DISTANCE REFERENCE SIGNS (D10-1, D10-1A, D10-2, D10-2A, D10-3, D10-3A, D10-4, AND D10-5) ARE MOUNTED TO THIS FACE AS SHOWN.
DIRECTION OF TRAFFIC
DELINEATOR
POST
3/4" DIA. HOLES AS SHOWN
3/4" DIA. HOLES @ 1' O.C. FOR 24'
7'-0"
4'
5'
8'
3"
TYPE 3 OBJECT MARKER (9'-0")
DISTANCE REFERENCE SIGN (10'-0" - 13'-0")
3/4" DIA. HOLES @ 1' O. C. FOR 4'-0"
36"
12"
2'-2" MIN.
3" MIN.
45°
REAR VIEW OF TYPE 3 OBJECT MARKER OR DISTANCE REFERENCE SIGN ASSEMBLY
NOTE: TYPE 3 OBJECT MARKER AND DISTANCE REFERENCE SIGNS SHALL BE FASTENED TO U-SECTION POSTS WITH 3/4" DIA. BLIND FASTENERS OF THE COLLAR TYPE.
DETAIL OF TYPE 3 OBJECT MARKER
NOTE: COLORS- BLACK AND YELLOW. STRIPING SHOWN ABOVE FOR RIGHT SIDE ONLY. STRIPES SLANT DOWNWARD TO THE RIGHT FOR LEFT SIDE OF BRIDGE END. SEE DETAIL BELOW.
BRIDGE END
PAVEMENT
28'-0" OR MORE
7'-0"
TRAFFIC
TYPE 3 OBJECT MARKER
DETAIL OF TYPE 3 OBJECT MARKER INSTALLATION
DISTANCE REFERENCE SIGN-STANDARD ROADSIDE SIGN D10-1, D10-1A, D10-2, D10-2A, D10-3, D10-3A, D10-4, AND D10-5
TOTAL LENGTH (10'-0" - 13'-0")
8'-0"
2'-0"
4'-0"
EDGE OF SHOULDER
EDGE OF PAVEMENT
DISTANCE REFERENCE SIGN MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY
NOTE: SIGN MOUNTING ON LEFT LANE SHOULDER SHALL BE 90° OPPOSITE THE RIGHT LANE STATION. CONDITIONS ARE SUCH THAT MILE SIGN CANNOT BE LOCATED WITHIN 500 FEET OF ITS TRUE LOCATION, IT SHALL BE OMITTED ENTIRELY.
SINGLE OR DOUBLE AS REQUIRED
DELINEATOR MOUNTING ON OUTSIDE SHOULDER ALONG MAIN FACILITY OR RAMP
USABLE SHOULDER
DELINEATOR MOUNTING ON OUTSIDE SHOULDER WITH MOUNTABLE CURB ALONG MAIN FACILITY OR RAMP
UNUSABLE SHOULDER
DELINEATOR MOUNTING ON INTERCHANGE LOOPS WITH UNMOUNTABLE CURB ON INSIDE

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 – NOTICE TO BIDDERS NO. 8341** **CODE: (SP)**

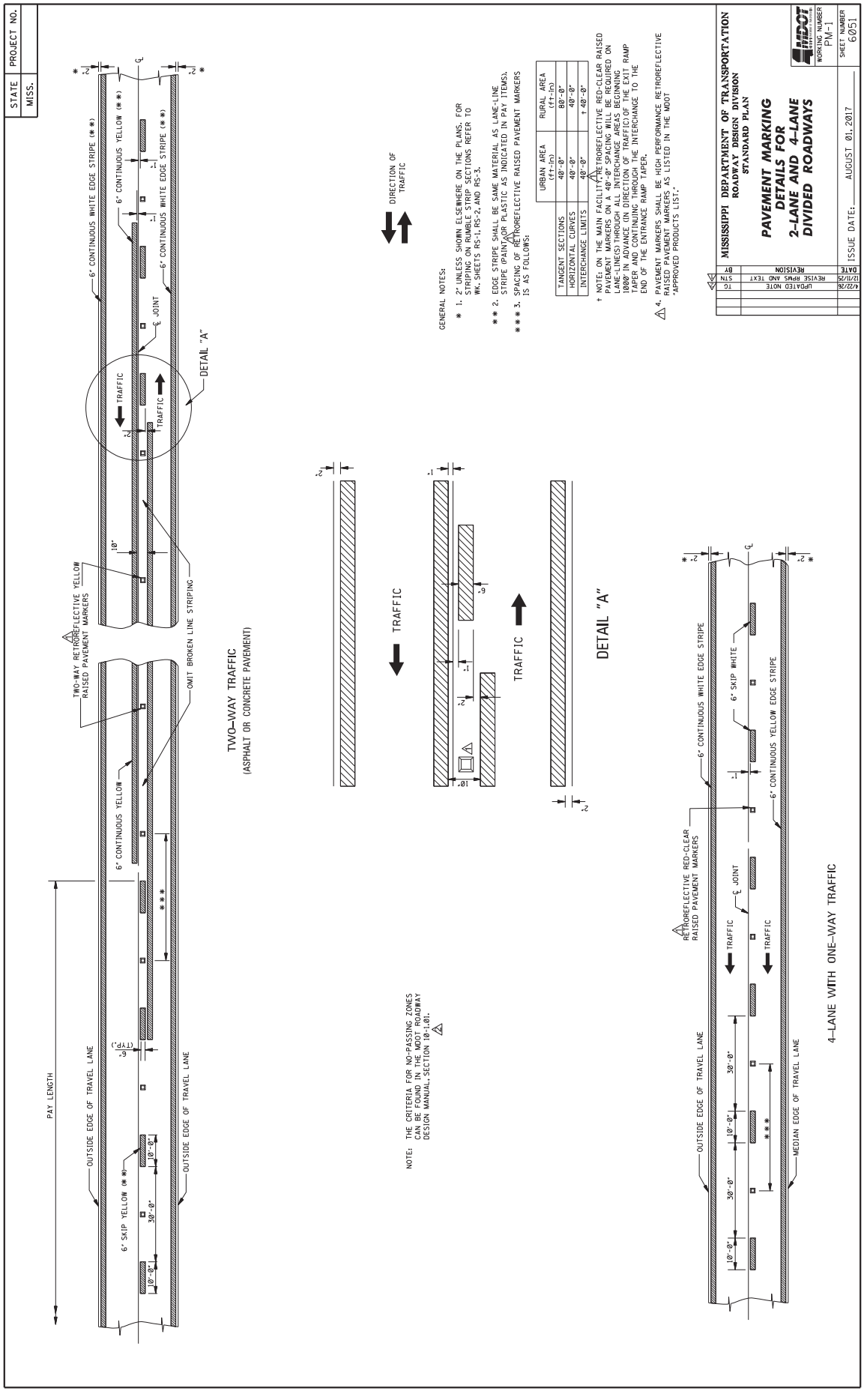
**DATE: 08/27/2026**

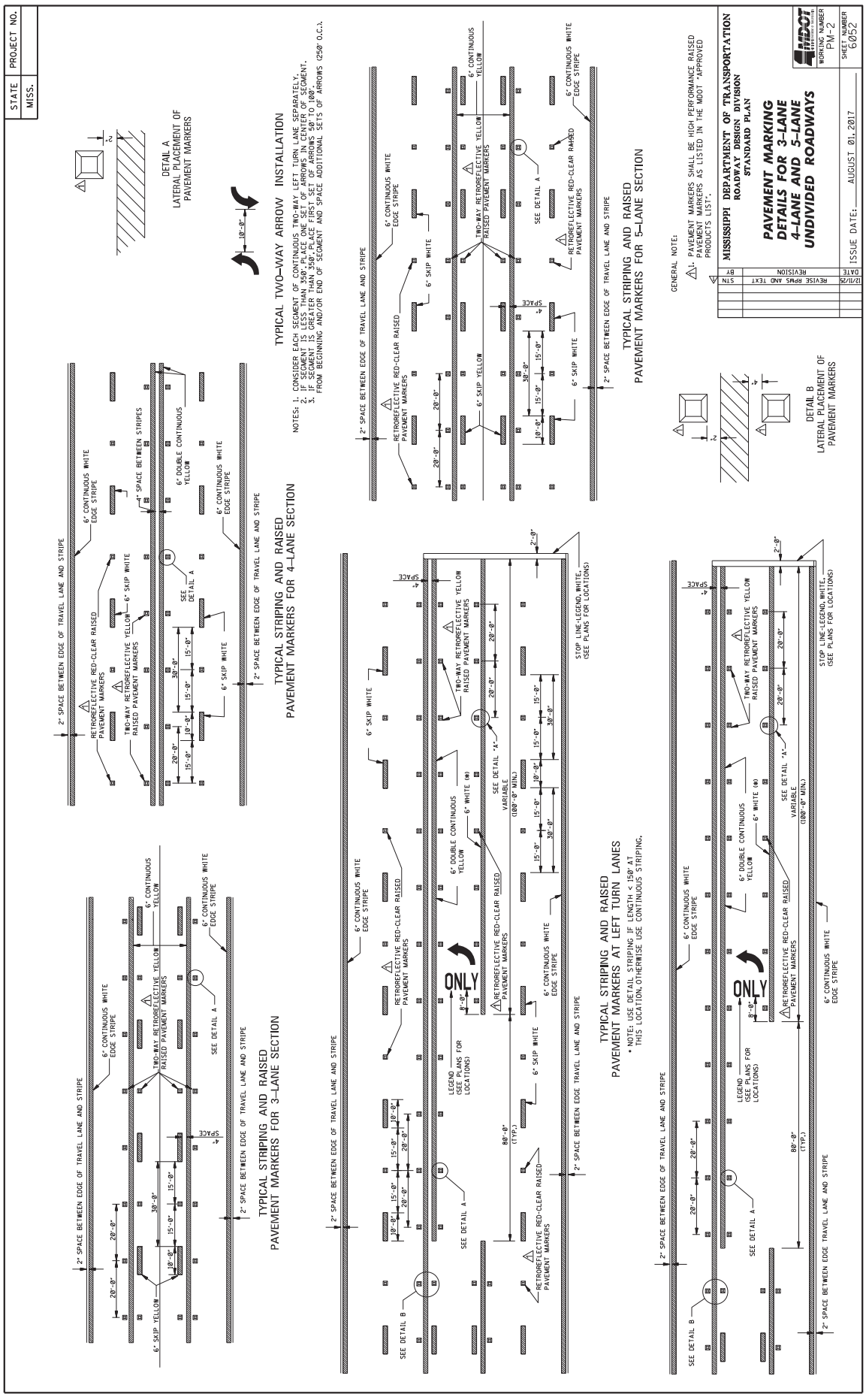
**SUBJECT: Standard Drawings**

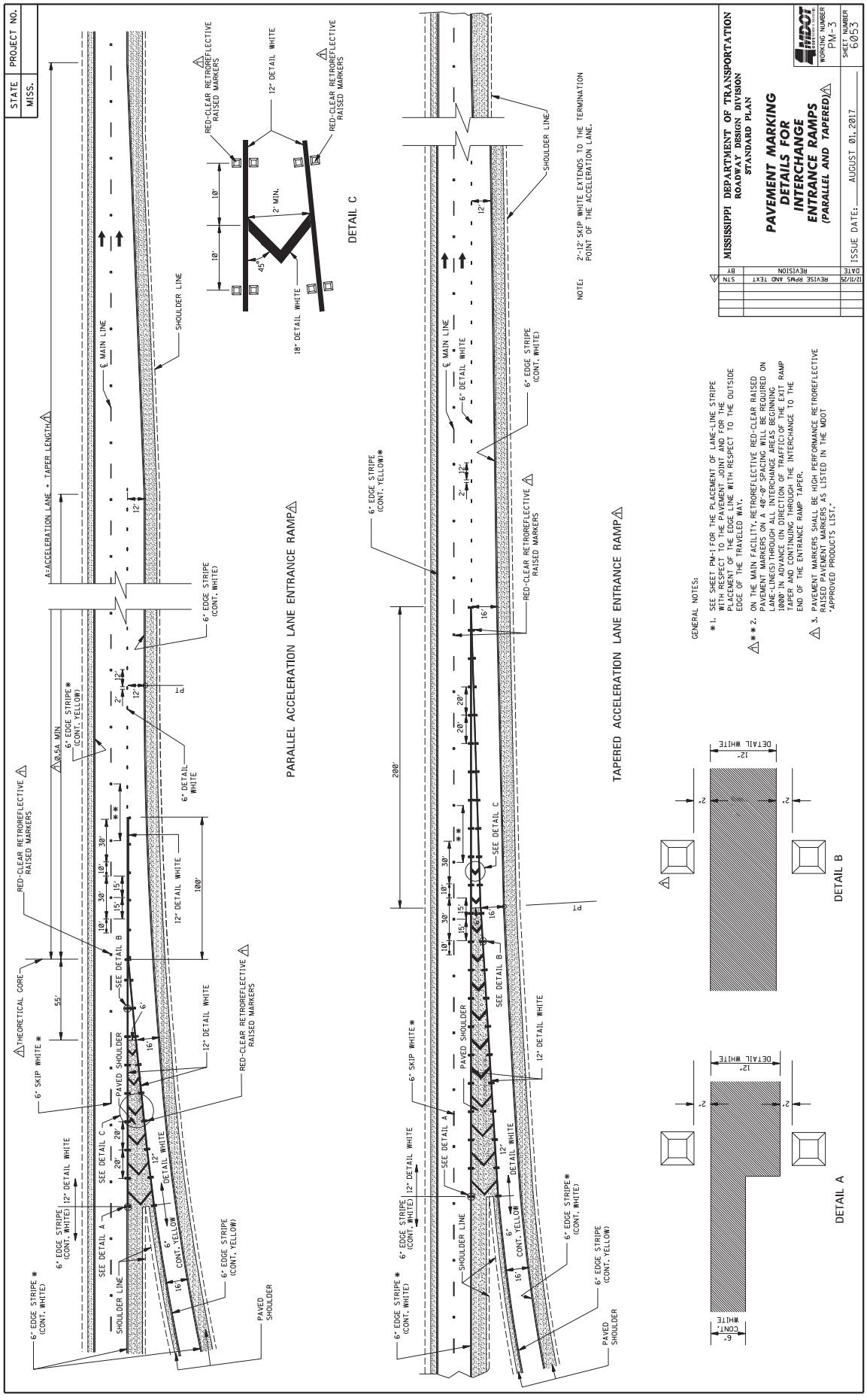
Standard Drawings attached hereto shall govern appropriate items of required work.

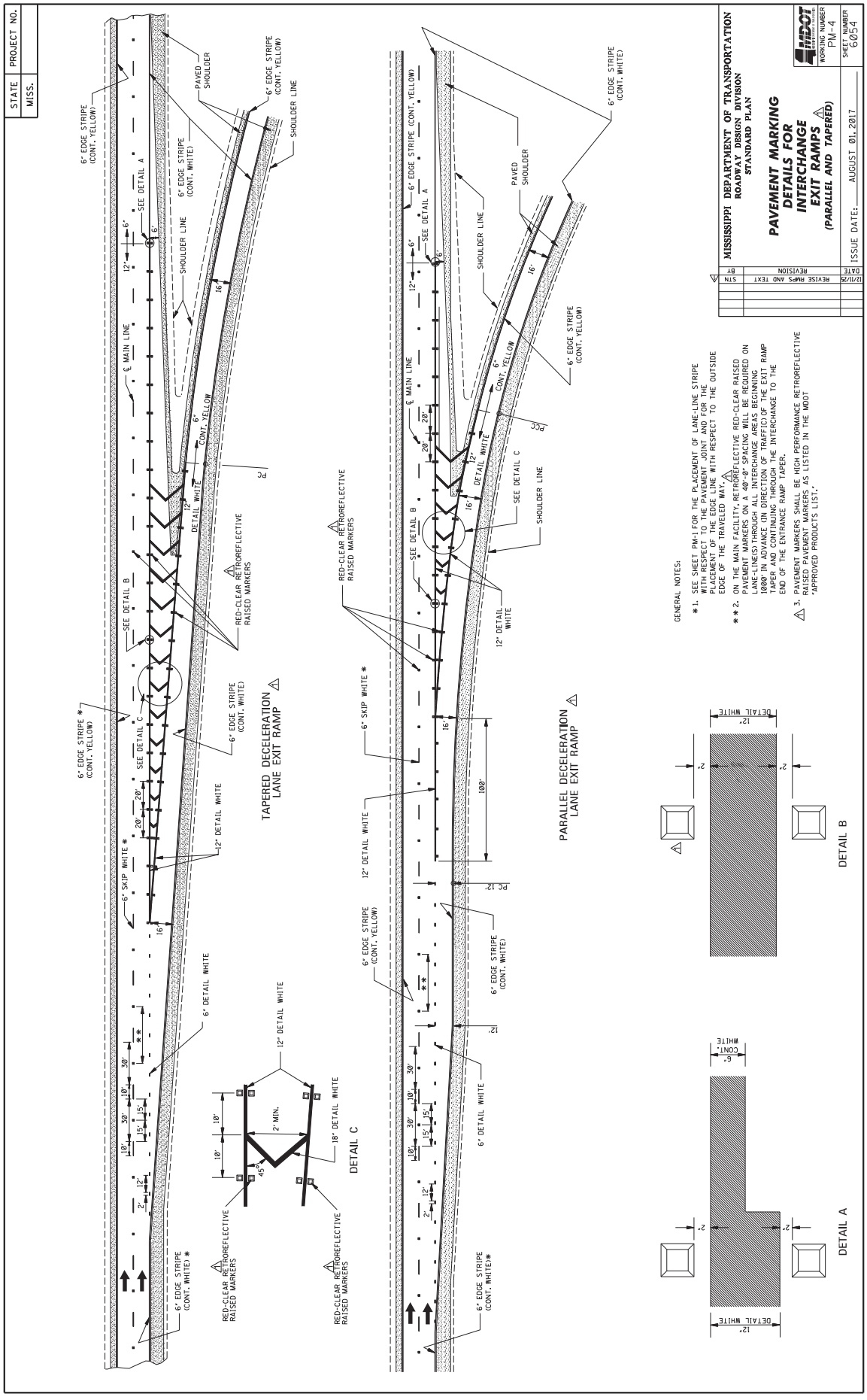
Larger copies of Standard Drawings may be purchased from:

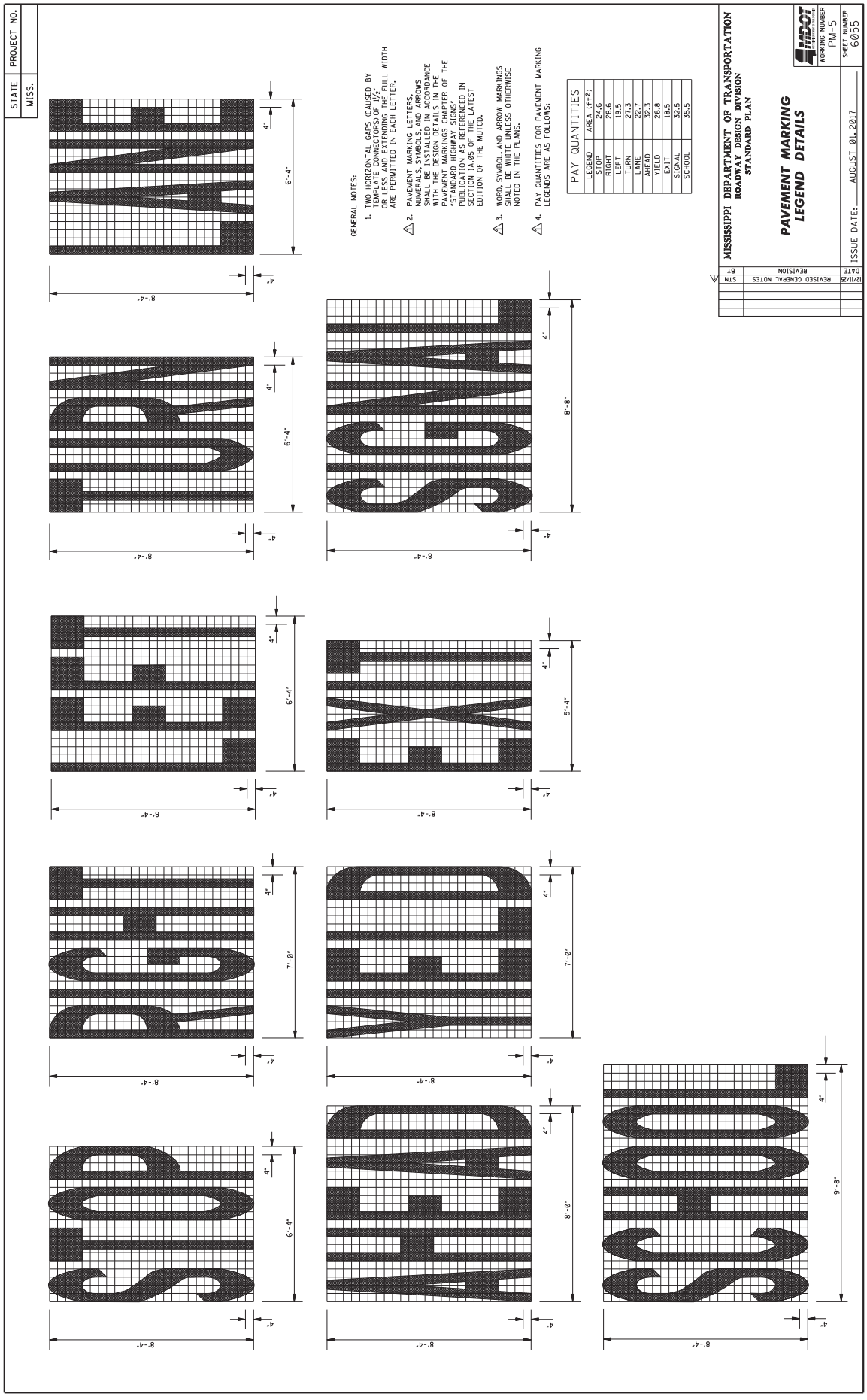
MDOT Plans Print Shop
MDOT Shop Complex, Building C, Room 114
2567 North West Street
P.O. Box 1850
Jackson, MS 39215-1850
Telephone: (601) 359-7460
or FAX: (601) 359-7461
or e-mail: plans@mdot.state.ms.us

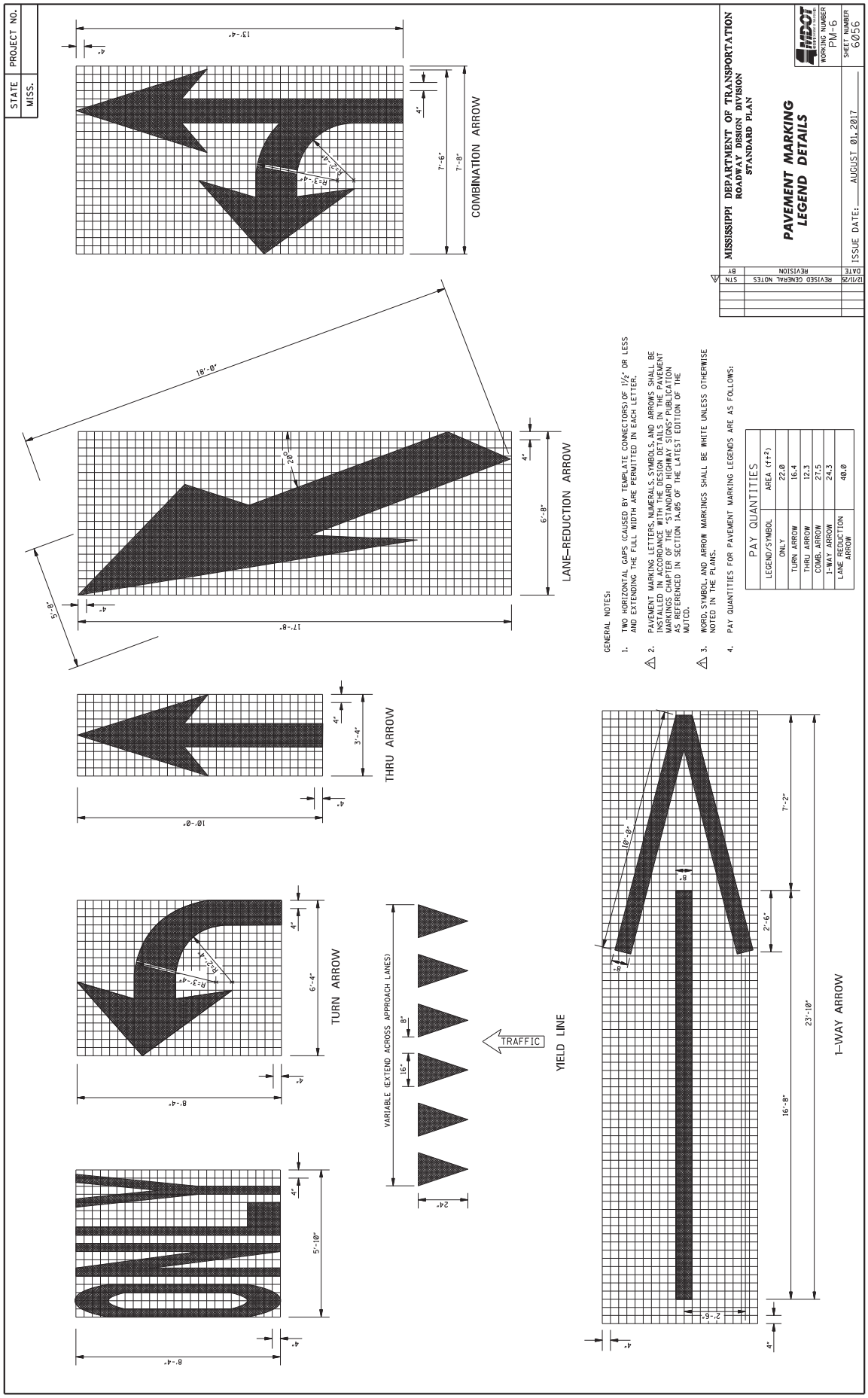

STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR 2-LANE AND 4-LANE DIVIDED ROADWAYS
WORKING NUMBER FM-1
SHEET NUMBER 6051
ISSUE DATE: AUGUST 01, 2017
BY
REVISION
DATE
TO
UPDATED NOTE
4/22/26
STN
REVISE RPMS AND TEXT
12/11/25
PAY LENGTH
OUTSIDE EDGE OF TRAVEL LANE
6" SKIP YELLOW (* *)
6" CONTINUOUS YELLOW
6" CONTINUOUS WHITE EDGE STRIPE (* *)
6" CONTINUOUS YELLOW (* *)
6" CONTINUOUS WHITE EDGE STRIPE (* *)
℄ JOINT
TRAFFIC
DETAIL "A"
TWO-WAY RETROREFLECTIVE YELLOW RAISED PAVEMENT MARKERS
OMIT BROKEN LINE STRIPING
TWO-WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)
DIRECTION OF TRAFFIC
NOTE: THE CRITERIA FOR NO-PASSING ZONES CAN BE FOUND IN THE MDOT ROADWAY DESIGN MANUAL, SECTION 10-1.01.
GENERAL NOTES:
* 1. 2" UNLESS SHOWN ELSEWHERE ON THE PLANS. FOR STRIPING ON RUMBLE STRIP SECTIONS REFER TO WK. SHEETS RS-1, RS-2, AND RS-3.
** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR PLASTIC AS INDICATED IN PAY ITEMS).
*** 3. SPACING OF RETROREFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:
URBAN AREA (ft-in) / RURAL AREA (ft-in)
TANGENT SECTIONS 40'-0" / 80'-0"
HORIZONTAL CURVES 40'-0" / 40'-0"
INTERCHANGE LIMITS 40'-0" / † 40'-0"
† NOTE: ON THE MAIN FACILITY, RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS SHALL BE REQUIRED ON LANE LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
△4. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED PRODUCTS LIST."
RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS
6" CONTINUOUS WHITE EDGE STRIPE
6" SKIP WHITE
6" CONTINUOUS YELLOW EDGE STRIPE
MEDIAN EDGE OF TRAVEL LANE
4-LANE WITH ONE-WAY TRAFFIC

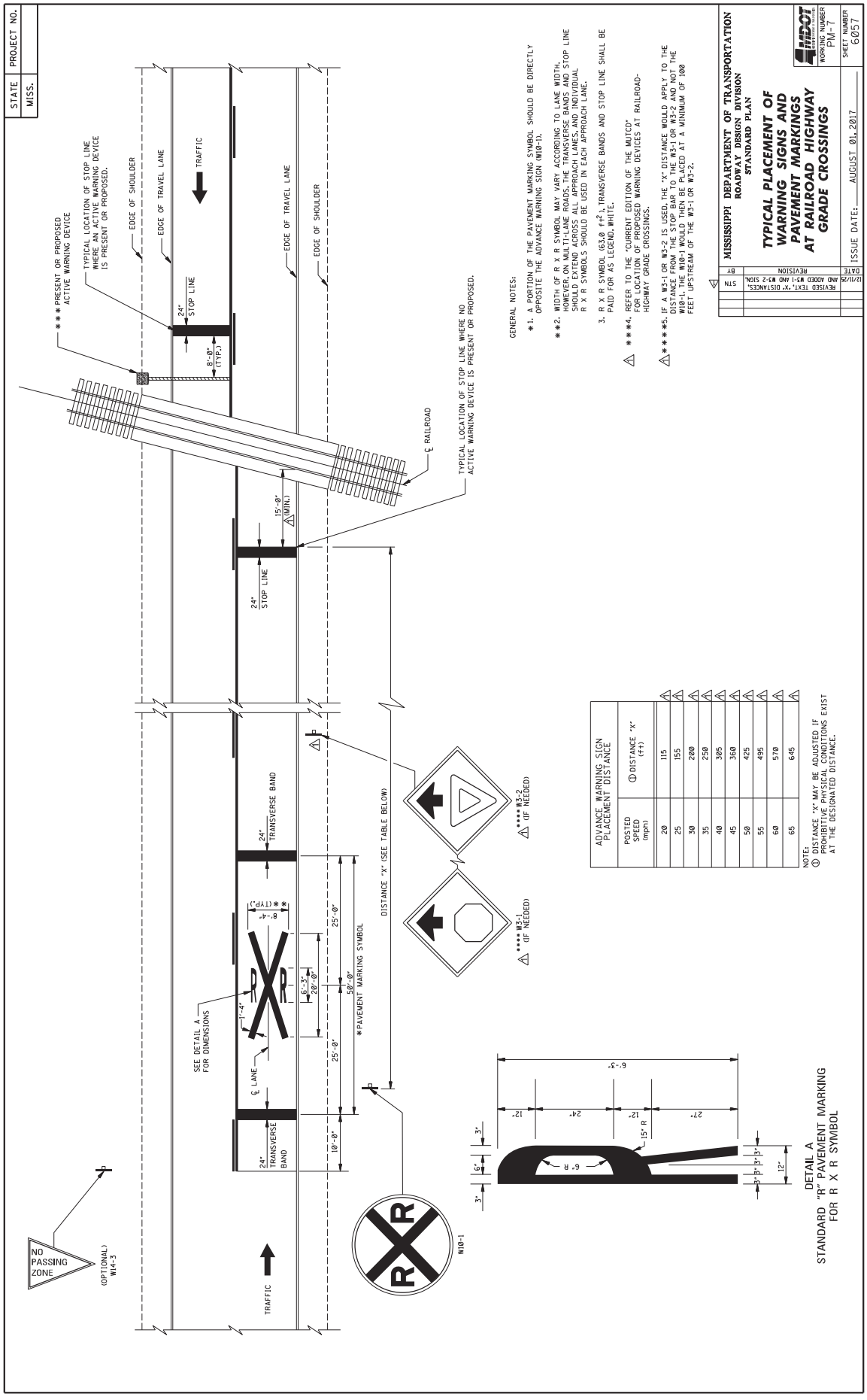

STATE
MISS.
PROJECT NO.
TYPICAL TWO-WAY ARROW INSTALLATION
NOTES: 1. CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
2. IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS AT MIDPOINT OF SEGMENT.
3. IF SEGMENT IS GREATER THAN 350', PLACE FIRST SET OF ARROWS 50' TO 100' FROM BEGINNING AND/OR END OF SEGMENT AND SPACE ADDITIONAL SETS OF ARROWS (250' O.C.).
DETAIL A
LATERAL PLACEMENT OF PAVEMENT MARKERS
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 4-LANE SECTION
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 3-LANE SECTION
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS AT LEFT TURN LANES
* NOTE: USE DETAIL STRIPING IF LENGTH < 150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 5-LANE SECTION
DETAIL B
LATERAL PLACEMENT OF PAVEMENT MARKERS
GENERAL NOTE:
1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED PRODUCTS LIST".
STN
DATE
REVISION
BY
12/1/25
REVISE RPMS AND TEXT
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR 3-LANE 4-LANE AND 5-LANE UNDIVIDED ROADWAYS
ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER PM-2
SHEET NUMBER 6052

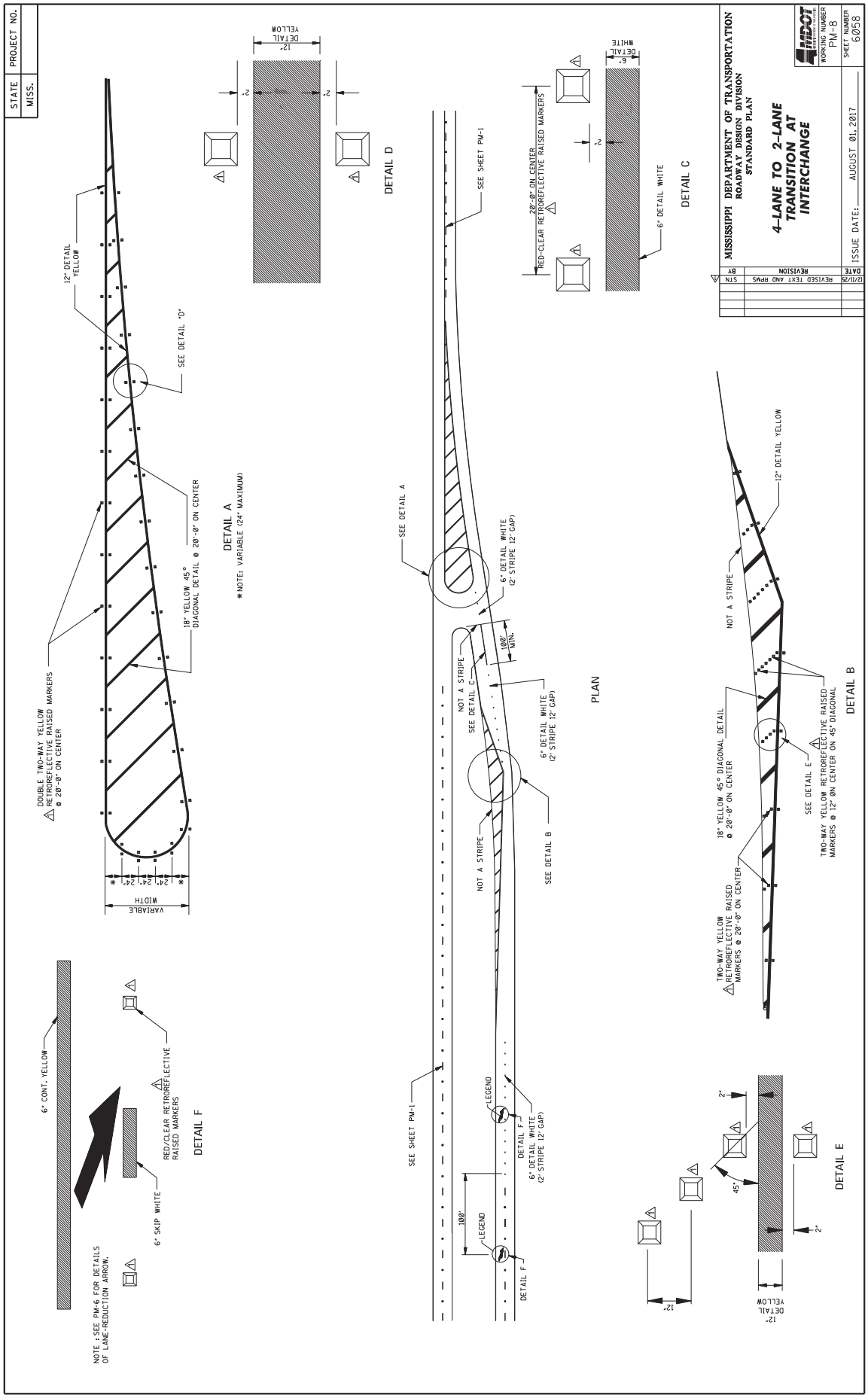

STATE MISS.
PROJECT NO.
PARALLEL ACCELERATION LANE ENTRANCE RAMP
TAPERED ACCELERATION LANE ENTRANCE RAMP
DETAIL A
DETAIL B
DETAIL C
GENERAL NOTES:
*1. SEE SHEET PM-1 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINT AND FOR THE PLACEMENT OF THE EDGE LINE WITH RESPECT TO THE OUTSIDE EDGE OF THE TRAVELED WAY.
**2. ON THE MAIN FACILITY, RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
3. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED PRODUCTS LIST."
NOTE: 2'-12" SKIP WHITE EXTENDS TO THE TERMINATION POINT OF THE ACCELERATION LANE.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR INTERCHANGE ENTRANCE RAMPS (PARALLEL AND TAPERED)
WORKING NUMBER PM-3
SHEET NUMBER 6053
ISSUE DATE: AUGUST 01, 2017
REVISION
BY
DATE

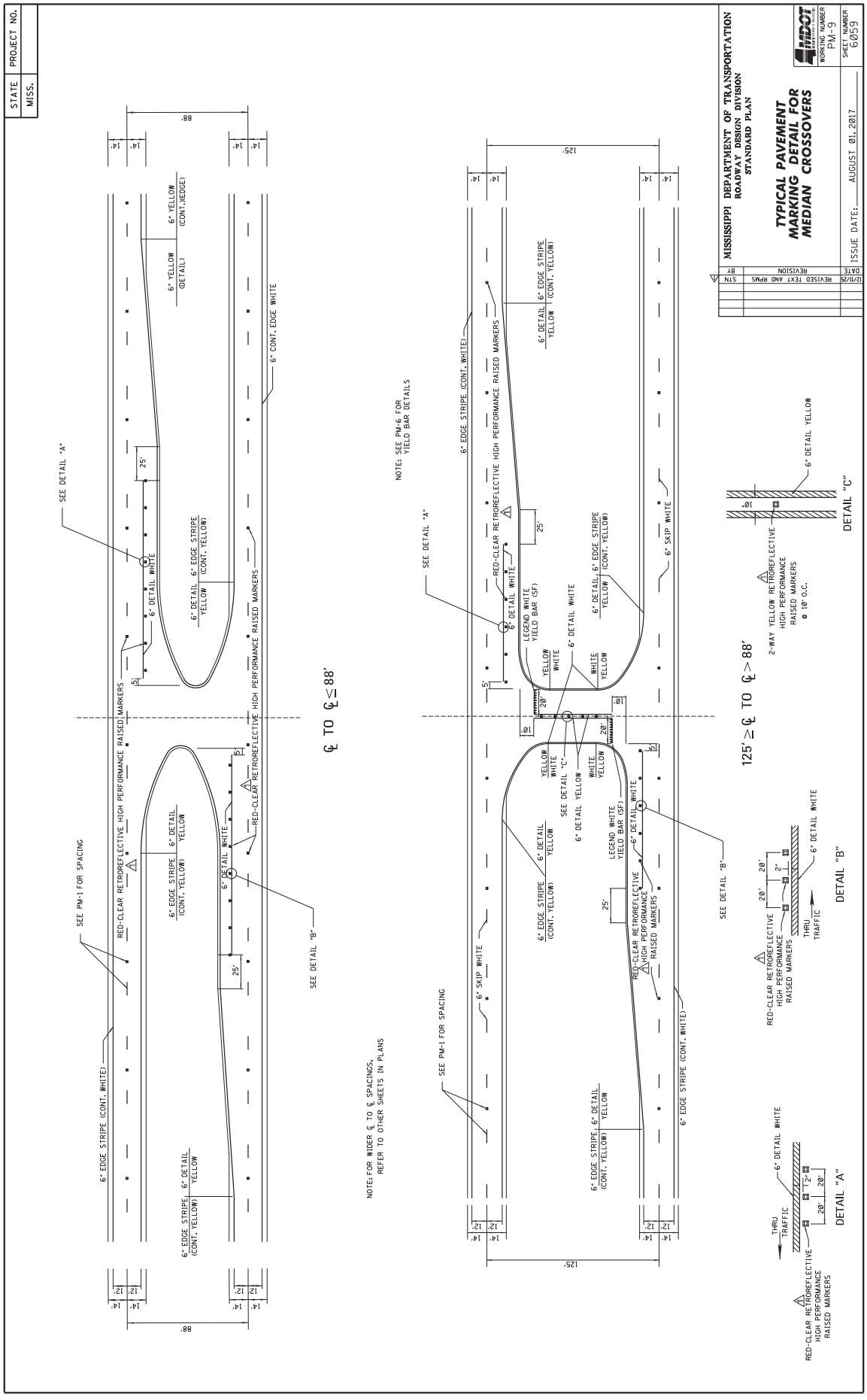

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR INTERCHANGE EXIT RAMPS
(PARALLEL AND TAPERED)
WORKING NUMBER PM-4
SHEET NUMBER 6054
ISSUE DATE: AUGUST 01, 2017
DATE 12/11/25 BY STN REVISION REVISE RAMPS AND TEXT
TAPERED DECELERATION LANE EXIT RAMP
PARALLEL DECELERATION LANE EXIT RAMP
DETAIL A
DETAIL B
DETAIL C
GENERAL NOTES:
* 1. SEE SHEET PM-1 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINTS AND FOR THE PLACEMENT OF THE EDGE LINE WITH RESPECT TO THE OUTSIDE EDGE OF THE TRAVELED WAY.
* * 2. ON THE MAIN FACILITY, RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
3. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED PRODUCTS LIST."

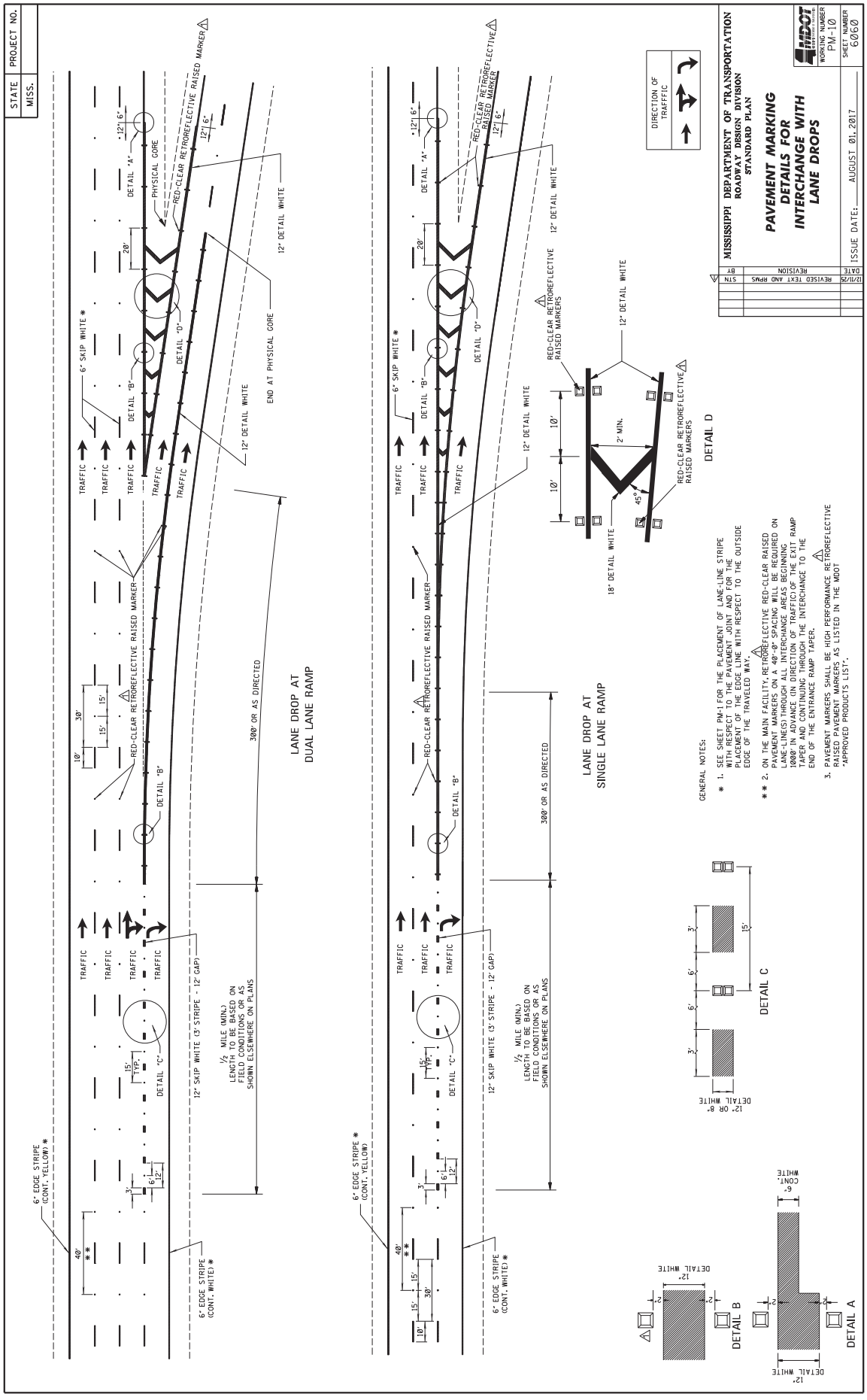

STATE MISS.
PROJECT NO.
GENERAL NOTES:
1. TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1/2" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.
2. PAVEMENT MARKING LETTERS, NUMERALS, SYMBOLS, AND ARROWS SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN DETAILS IN THE PAVEMENT MARKINGS CHAPTER OF THE STANDARD HIGHWAY SIGNS PUBLICATION REFERENCED IN SECTION 1A.05 OF THE LATEST EDITION OF THE MUTCD.
3. WORD, SYMBOL, AND ARROW MARKINGS SHALL BE WHITE UNLESS OTHERWISE NOTED IN THE PLANS.
4. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:
PAY QUANTITIES
LEGEND AREA (FT²)
STOP 24.6
RIGHT 28.6
LEFT 19.5
TURN 27.3
LANE 22.7
AHEAD 32.3
YIELD 26.8
EXIT 18.5
SIGNAL 32.5
SCHOOL 35.5
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING LEGEND DETAILS
WORKING NUMBER PM-5
SHEET NUMBER 6055
ISSUE DATE: AUGUST 01, 2017
DATE BY REVISION STN
12/11/23 REVISED GENERAL NOTES

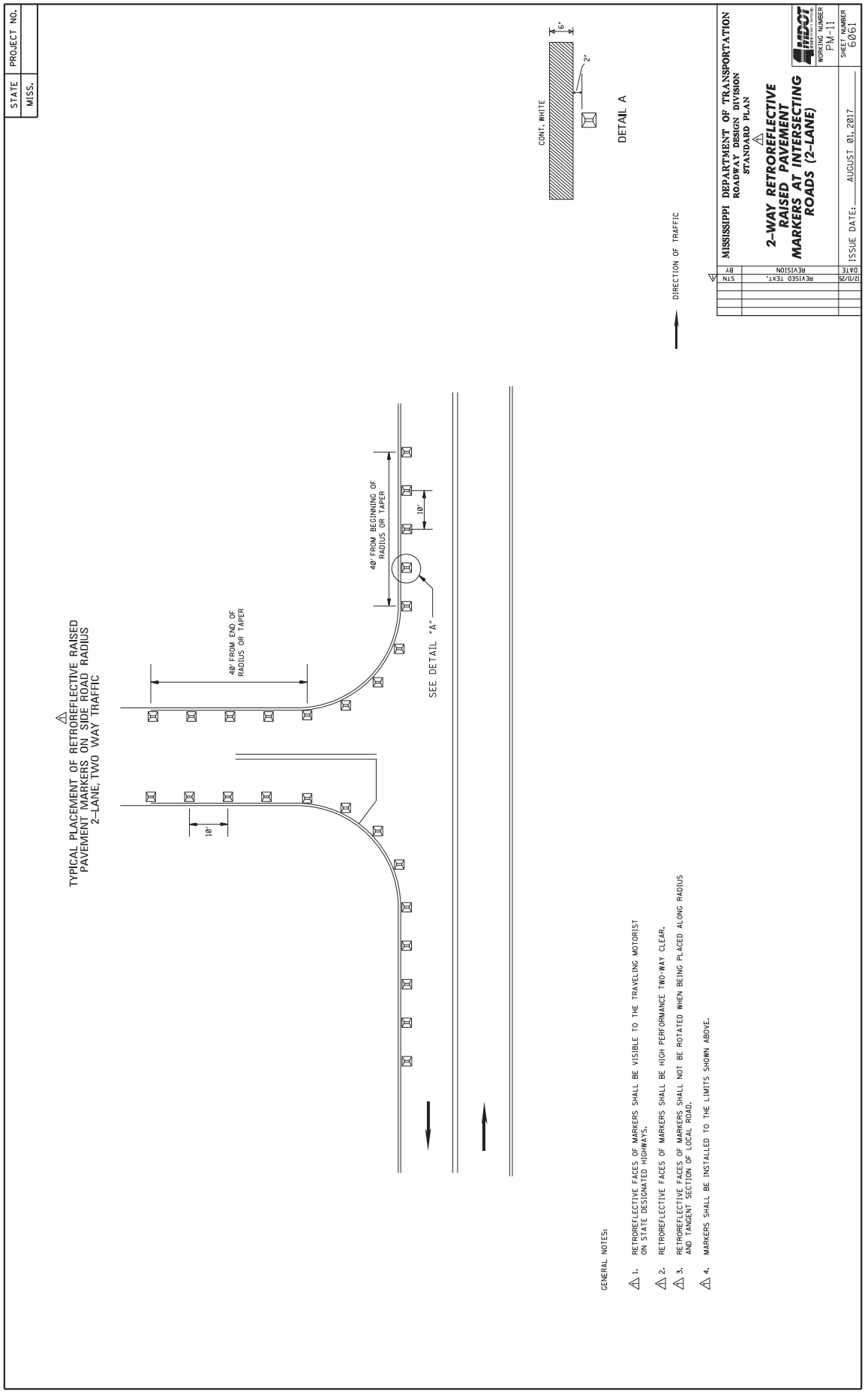

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING LEGEND DETAILS
WORKING NUMBER PM-6
SHEET NUMBER 6056
ISSUE DATE: AUGUST 01, 2017
DATE 12/11/25 REVISED GENERAL NOTES STN
REVISION BY
COMBINATION ARROW
LANE-REDUCTION ARROW
THRU ARROW
TURN ARROW
YIELD LINE
TRAFFIC
1-WAY ARROW
GENERAL NOTES:
1. TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTORS) OF 1/2" OR LESS AND EXTENDING THE FULL WIDTH ARE PERMITTED IN EACH LETTER.
2. PAVEMENT MARKING LETTERS, NUMERALS, SYMBOLS, AND ARROWS SHALL BE INSTALLED IN ACCORDANCE WITH THE DESIGN DETAILS IN THE PAVEMENT MARKINGS CHAPTER OF THE "STANDARD HIGHWAY SIGNS" PUBLICATION AS REFERENCED IN SECTION 1A.05 OF THE LATEST EDITION OF THE MUTCD.
3. WORD, SYMBOL AND ARROW MARKINGS SHALL BE WHITE UNLESS OTHERWISE NOTED IN THE PLANS.
4. PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:
PAY QUANTITIES
LEGEND/SYMBOL | AREA (ft²)
ONLY | 22.0
TURN ARROW | 16.4
THRU ARROW | 12.3
COMB. ARROW | 27.5
1-WAY ARROW | 24.3
LANE REDUCTION ARROW | 40.0

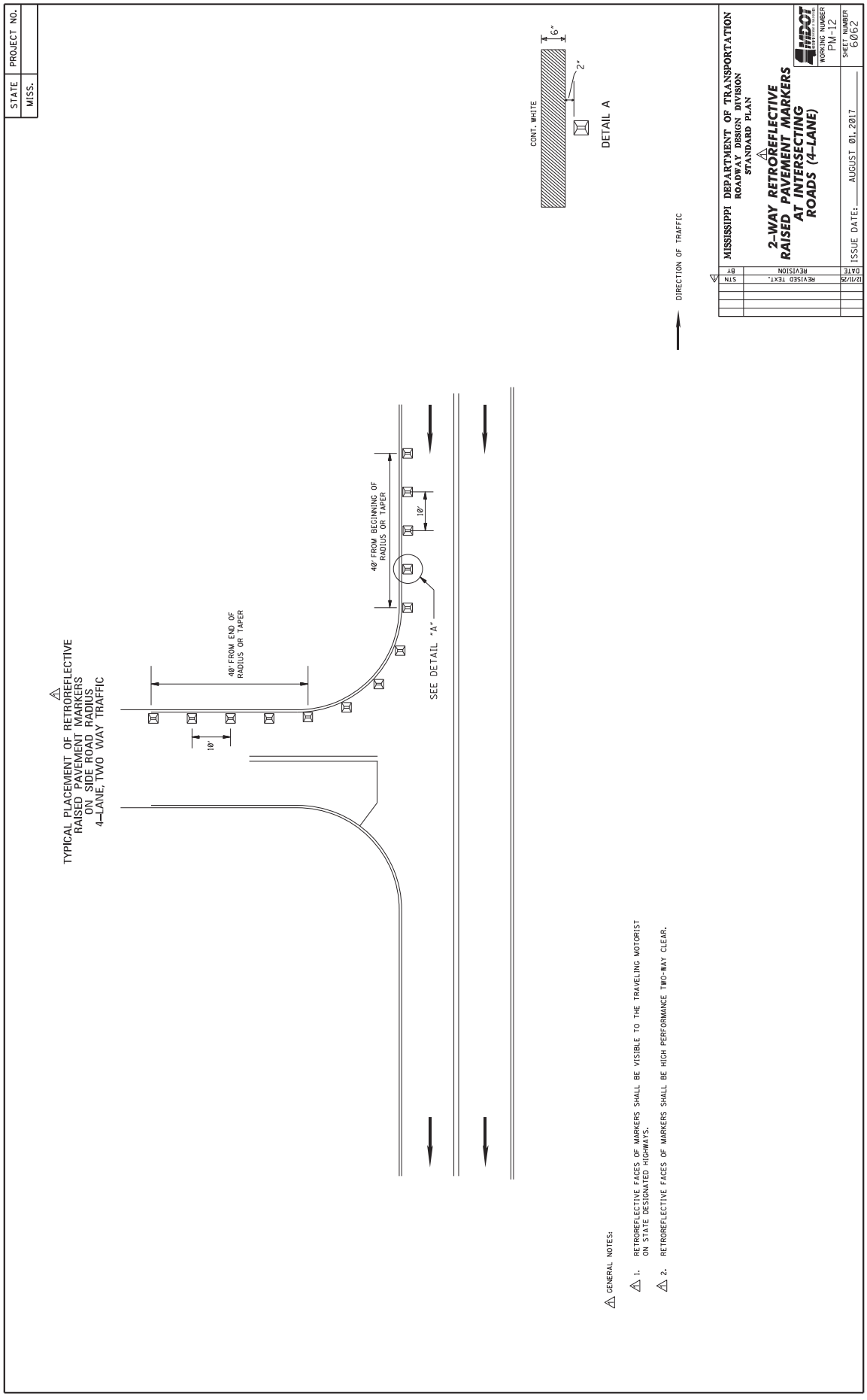

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TYPICAL PLACEMENT OF WARNING SIGNS AND PAVEMENT MARKINGS AT RAILROAD HIGHWAY GRADE CROSSINGS
WORKING NUMBER FM-1
SHEET NUMBER 6057
ISSUE DATE: AUGUST 01, 2017
REVISION
DATE
BY
12/11/25 REVISED TEXT "X" DISTANCES, AND ADDED M3-1 AND M3-2 SIGN. STN
GENERAL NOTES:
*1. A PORTION OF THE PAVEMENT MARKING SYMBOL SHOULD BE DIRECTLY OPPOSITE THE ADVANCE WARNING SIGN (W10-1).
**2. WIDTH OF R X R SYMBOL MAY VARY ACCORDING TO LANE WIDTH. HOWEVER, ON MULTI-LANE ROADS, THE TRANSVERSE BANDS AND STOP LINE SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.
3. R X R SYMBOL (63.0 ft²), TRANSVERSE BANDS AND STOP LINE SHALL BE PAID FOR AS LEGEND, WHITE.
***4. REFER TO THE "CURRENT EDITION OF THE MUTCD" FOR LOCATION OF PROPOSED WARNING DEVICES AT RAILROAD-HIGHWAY GRADE CROSSINGS.
*****5. IF A W3-1 OR W3-2 IS USED, THE "X" DISTANCE WOULD APPLY TO THE DISTANCE FROM THE STOP BAR TO THE W10-1. ON W10-1 AND TO THE W10-1, THE W10-1 WOULD THEN BE PLACED AT A MINIMUM OF 100 FEET UPSTREAM OF THE W3-1 OR W3-2.
EDGE OF SHOULDER
EDGE OF TRAVEL LANE
TRAFFIC
24" STOP LINE
8'-0" (TYP.)
*** PRESENT OR PROPOSED ACTIVE WARNING DEVICE
TYPICAL LOCATION OF STOP LINE WHERE AN ACTIVE WARNING DEVICE IS PRESENT OR PROPOSED.
℄ RAILROAD
TYPICAL LOCATION OF STOP LINE WHERE NO ACTIVE WARNING DEVICE IS PRESENT OR PROPOSED.
15'-0" (MIN.)
24" TRANSVERSE BAND
*PAVEMENT MARKING SYMBOL
DISTANCE "X" (SEE TABLE BELOW)
SEE DETAIL A FOR DIMENSIONS
℄ LANE
10'-0"
25'-0"
50'-0"
20'-0"
6'-3"
1'-4"
0'-4" (TYP.)
**** W3-1 (IF NEEDED)
**** W3-2 (IF NEEDED)
W10-1
NO PASSING ZONE
(OPTIONAL) W14-3
ADVANCE WARNING SIGN PLACEMENT DISTANCE
POSTED SPEED (mph)
① DISTANCE "X" (ft)
20 115
25 155
30 200
35 250
40 305
45 360
50 425
55 495
60 570
65 645
NOTE:
① DISTANCE "X" MAY BE ADJUSTED IF PROHIBITIVE PHYSICAL CONDITIONS EXIST AT THE DESIGNATED DISTANCE.
DETAIL A
STANDARD "R" PAVEMENT MARKING FOR R X R SYMBOL
6'-3"
12'
24'
27'
15° R
6" R
3"
6"
12"

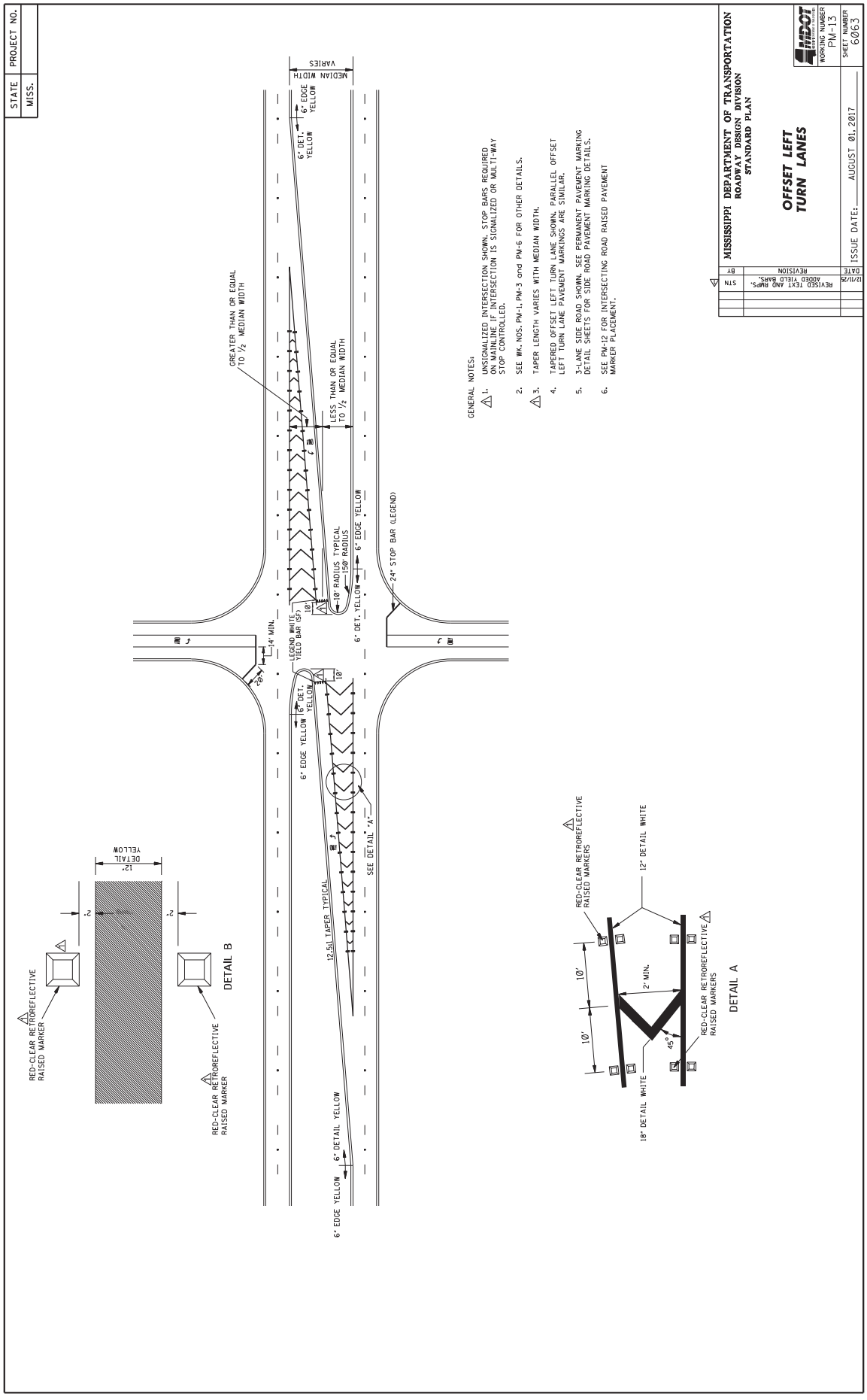

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
4-LANE TO 2-LANE TRANSITION AT INTERCHANGE
WORKING NUMBER PM-8
SHEET NUMBER 6058
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
12/1/25 REVISED TEXT AND RPMS STN
DOUBLE TWO-WAY YELLOW RETROREFLECTIVE RAISED MARKERS @ 20'-0" ON CENTER
12" DETAIL YELLOW
SEE DETAIL "D"
18" YELLOW 45° DIAGONAL DETAIL @ 20'-0" ON CENTER
VARIABLE WIDTH
24" 24" 24" 24"
DETAIL A
*NOTE: VARIABLE (24" MAXIMUM)
DETAIL D
12" DETAIL YELLOW
2"
20'-0" ON CENTER
RED-CLEAR RETROREFLECTIVE RAISED MARKERS
6" DETAIL WHITE
DETAIL C
SEE SHEET PM-1
SEE DETAIL A
6" DETAIL WHITE (2" STRIPE 12' GAP)
100' MIN.
NOT A STRIPE
SEE DETAIL C
SEE DETAIL B
PLAN
LEGEND
DETAIL F
6" CONT. YELLOW
RED/CLEAR RETROREFLECTIVE RAISED MARKERS
6" SKIP WHITE
NOTE : SEE PM-6 FOR DETAILS OF LANE-REDUCTION ARROW.
DETAIL F
TWO-WAY YELLOW RETROREFLECTIVE RAISED MARKERS @ 20'-0" ON CENTER
18" YELLOW 45° DIAGONAL DETAIL @ 20'-0" ON CENTER
SEE DETAIL E
TWO-WAY YELLOW RETROREFLECTIVE RAISED MARKERS @ 12' ON CENTER ON 45° DIAGONAL
DETAIL B
45°
DETAIL E

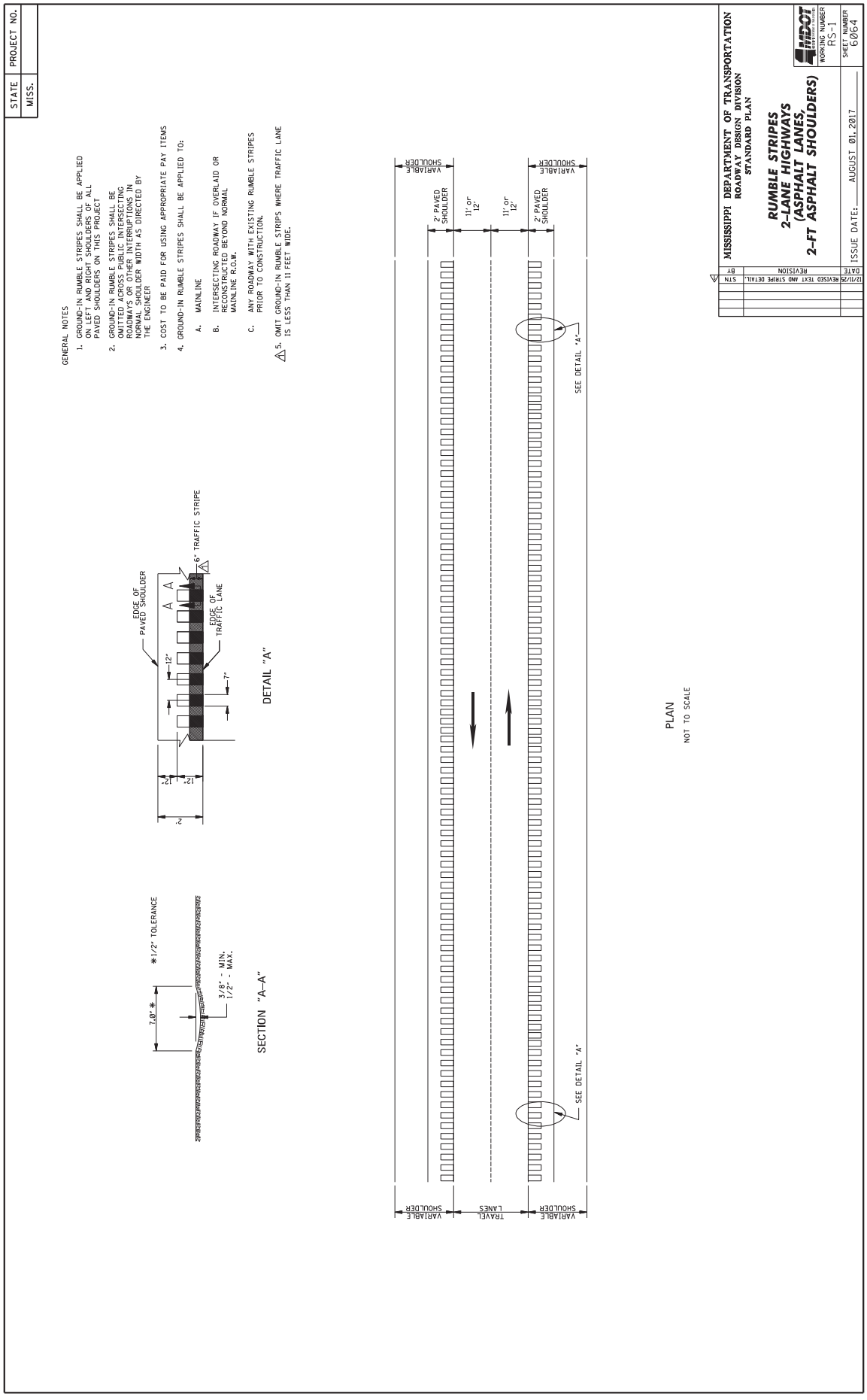

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TYPICAL PAVEMENT MARKING DETAIL FOR MEDIAN CROSSOVERS
WORKING NUMBER PM-9
SHEET NUMBER 6059
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY STN
12/1/25 REVISED TEXT AND RPMS STN
6" EDGE STRIPE (CONT. WHITE)
6" YELLOW (DETAIL)
6" YELLOW (CONT.XEDGE)
6" CONT. EDGE WHITE
SEE DETAIL "A"
SEE PM-1 FOR SPACING
RED-CLEAR RETROREFLECTIVE HIGH PERFORMANCE RAISED MARKERS
6" EDGE STRIPE (CONT. YELLOW)
6" DETAIL YELLOW
6" DETAIL WHITE
SEE DETAIL "B"
℄ TO ℄≤88'
NOTE: FOR WIDER ℄ TO ℄ SPACINGS, REFER TO OTHER SHEETS IN PLANS
NOTE: SEE PM-6 FOR YIELD BAR DETAILS
6" SKIP WHITE
LEGEND WHITE YIELD BAR (SF)
SEE DETAIL "C"
SEE DETAIL "B"
125'≥℄ TO ℄>88'
2-WAY YELLOW RETROREFLECTIVE HIGH PERFORMANCE RAISED MARKERS @ 10' O.C.
DETAIL "C"
DETAIL "B"
DETAIL "A"
THRU TRAFFIC

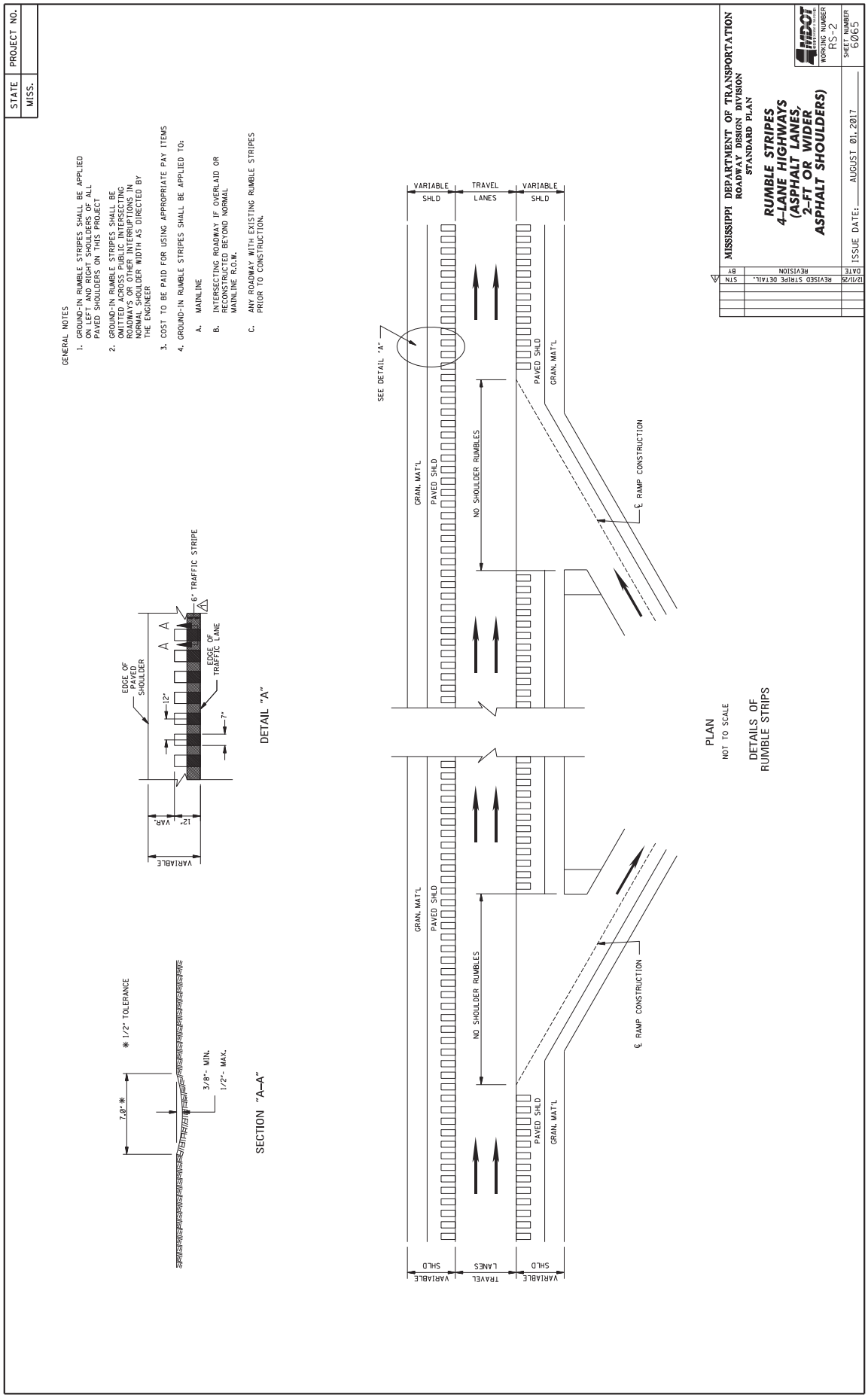

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
PAVEMENT MARKING DETAILS FOR INTERCHANGE WITH LANE DROPS
WORKING NUMBER PM-10
SHEET NUMBER 6060
ISSUE DATE: AUGUST 01, 2017
REVISED TEXT AND RPMS
DATE REVISION BY STN
LANE DROP AT DUAL LANE RAMP
LANE DROP AT SINGLE LANE RAMP
6" EDGE STRIPE (CONT. YELLOW) *
6" EDGE STRIPE (CONT. WHITE) *
6" SKIP WHITE *
RED-CLEAR RETROREFLECTIVE RAISED MARKER
PHYSICAL GORE
END AT PHYSICAL GORE
12" DETAIL WHITE
300' OR AS DIRECTED
½ MILE (MIN.) LENGTH TO BE BASED ON FIELD CONDITIONS OR AS SHOWN ELSEWHERE ON PLANS
12" SKIP WHITE (3' STRIPE - 12' GAP)
DETAIL "A"
DETAIL "B"
DETAIL "C"
DETAIL "D"
TRAFFIC
DIRECTION OF TRAFFIC
RED-CLEAR RETROREFLECTIVE RAISED MARKERS
18' DETAIL WHITE
2' MIN.
45°
DETAIL D
DETAIL C
DETAIL B
DETAIL A
12" OR 8" DETAIL WHITE
12" DETAIL WHITE
6" CONT. WHITE
GENERAL NOTES:
* 1. SEE SHEET PM-1 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINT AND FOR THE PLACEMENT OF THE EDGE LINE WITH RESPECT TO THE OUTSIDE EDGE OF THE TRAVELED WAY.
** 2. ON THE MAIN FACILITY, RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINE(S) THROUGH ALL INTERCHANGE AREAS BEGINNING 1000' IN ADVANCE (IN DIRECTION OF TRAFFIC) OF THE EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
3. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE RAISED PAVEMENT MARKERS AS LISTED IN THE MDOT "APPROVED PRODUCTS LIST".

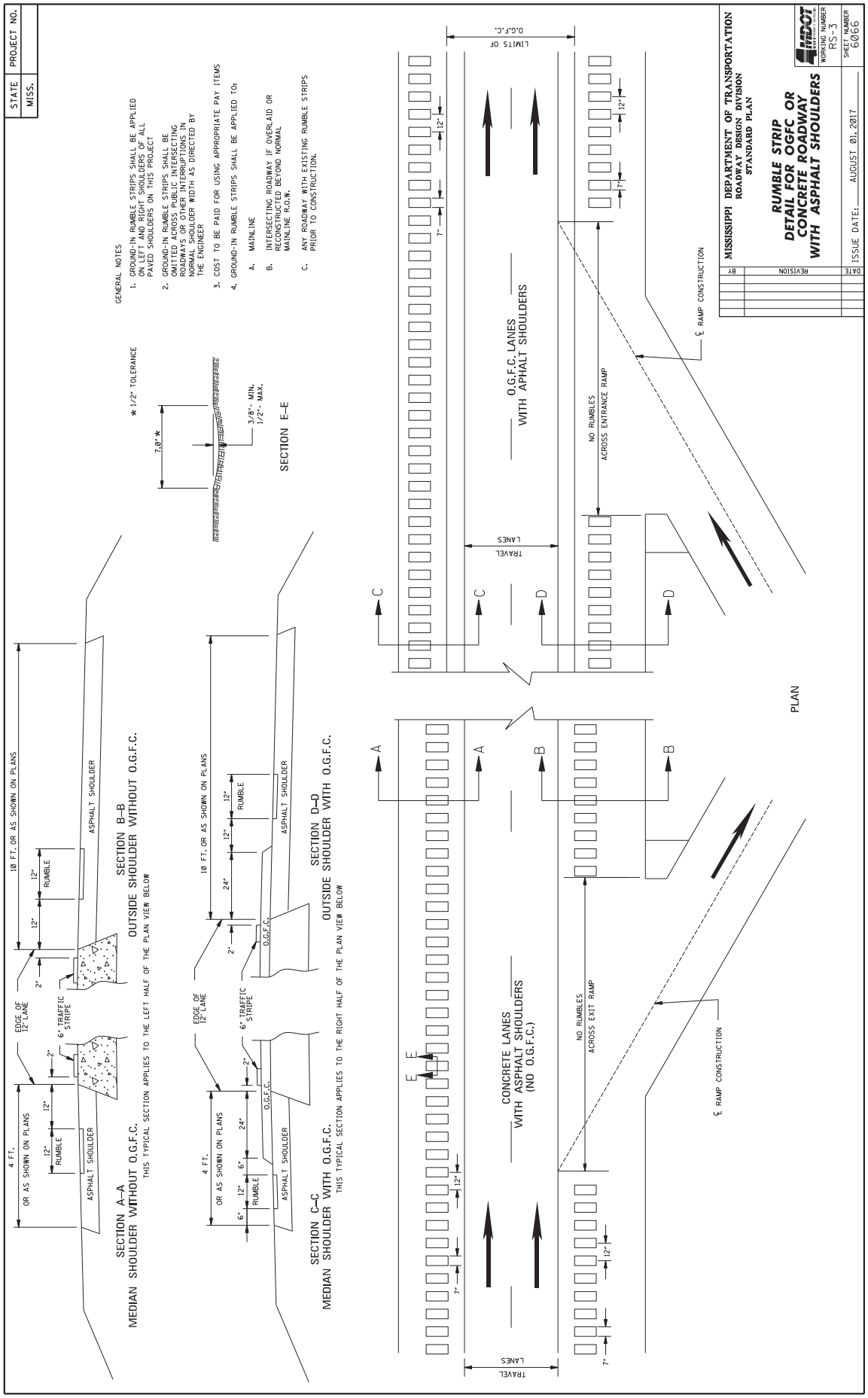

STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
2-WAY RETROREFLECTIVE RAISED PAVEMENT MARKERS AT INTERSECTING ROADS (2-LANE)
WORKING NUMBER PM-11
SHEET NUMBER 6061
ISSUE DATE: AUGUST 01, 2017
DATE
REVISION
BY
12/11/25
REVISED TEXT.
STN
TYPICAL PLACEMENT OF RETROREFLECTIVE RAISED PAVEMENT MARKERS ON SIDE ROAD RADIUS 2-LANE, TWO WAY TRAFFIC
40' FROM END OF RADIUS OR TAPER
40' FROM BEGINNING OF RADIUS OR TAPER
10'
10'
SEE DETAIL "A"
DIRECTION OF TRAFFIC
DETAIL A
CONT. WHITE
6"
2"
GENERAL NOTES:
1. RETROREFLECTIVE FACES OF MARKERS SHALL BE VISIBLE TO THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
2. RETROREFLECTIVE FACES OF MARKERS SHALL BE HIGH PERFORMANCE TWO-WAY CLEAR.
3. RETROREFLECTIVE FACES OF MARKERS SHALL NOT BE ROTATED WHEN BEING PLACED ALONG RADIUS AND TANGENT SECTION OF LOCAL ROAD.
4. MARKERS SHALL BE INSTALLED TO THE LIMITS SHOWN ABOVE.

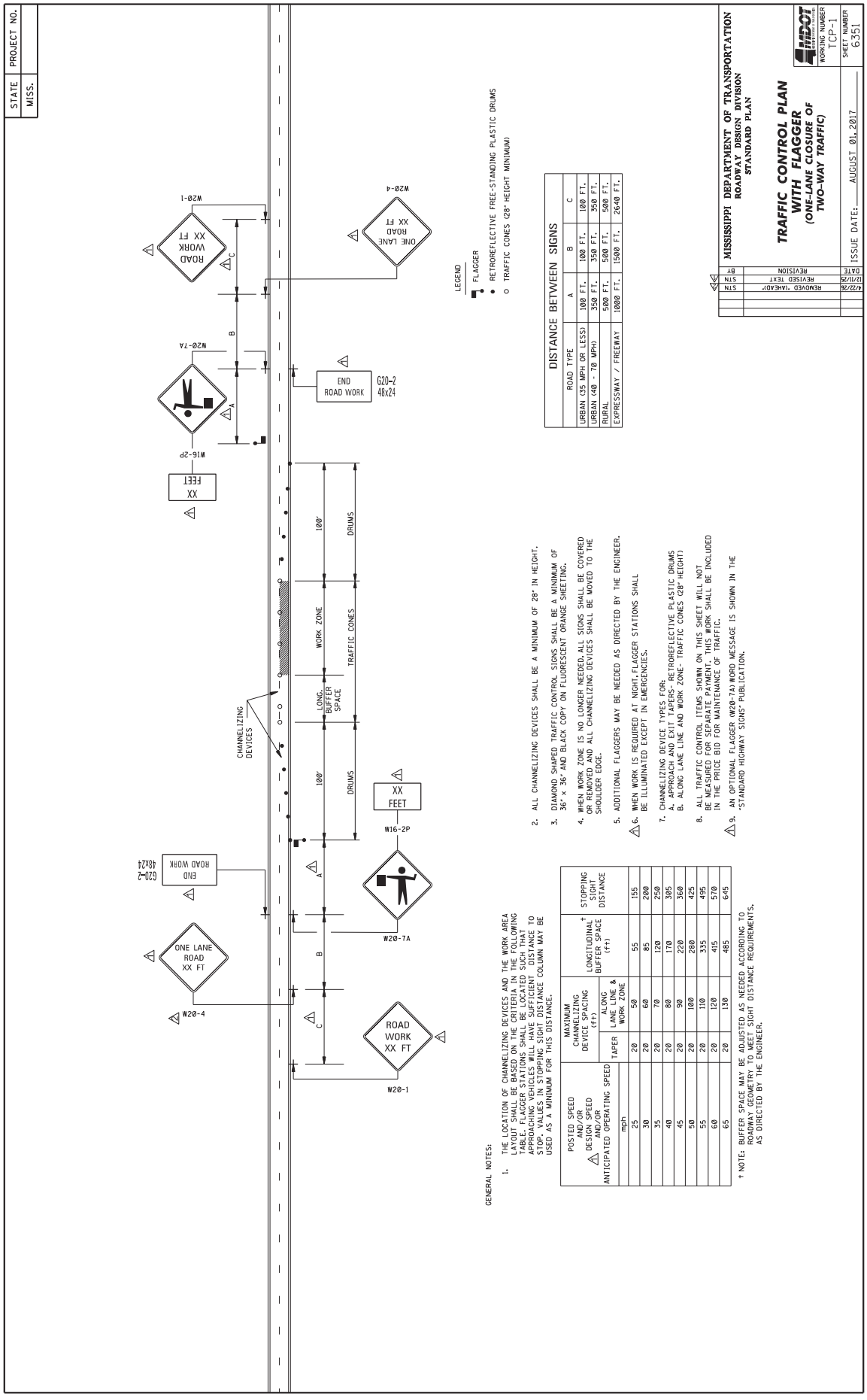

STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
2-WAY RETROREFLECTIVE RAISED PAVEMENT MARKERS AT INTERSECTING ROADS (4-LANE)
WORKING NUMBER PM-12
SHEET NUMBER 6062
ISSUE DATE: AUGUST 01, 2017
DATE
REVISION
BY
12/11/25
REVISED TEXT.
STM
TYPICAL PLACEMENT OF RETROREFLECTIVE RAISED PAVEMENT MARKERS ON SIDE ROAD RADIUS 4-LANE, TWO WAY TRAFFIC
40' FROM END OF RADIUS OR TAPER
40' FROM BEGINNING OF RADIUS OR TAPER
10'
10'
SEE DETAIL "A"
DIRECTION OF TRAFFIC
CONT. WHITE
6"
2"
DETAIL A
GENERAL NOTES:
1. RETROREFLECTIVE FACES OF MARKERS SHALL BE VISIBLE TO THE TRAVELING MOTORIST ON STATE DESIGNATED HIGHWAYS.
2. RETROREFLECTIVE FACES OF MARKERS SHALL BE HIGH PERFORMANCE TWO-WAY CLEAR.

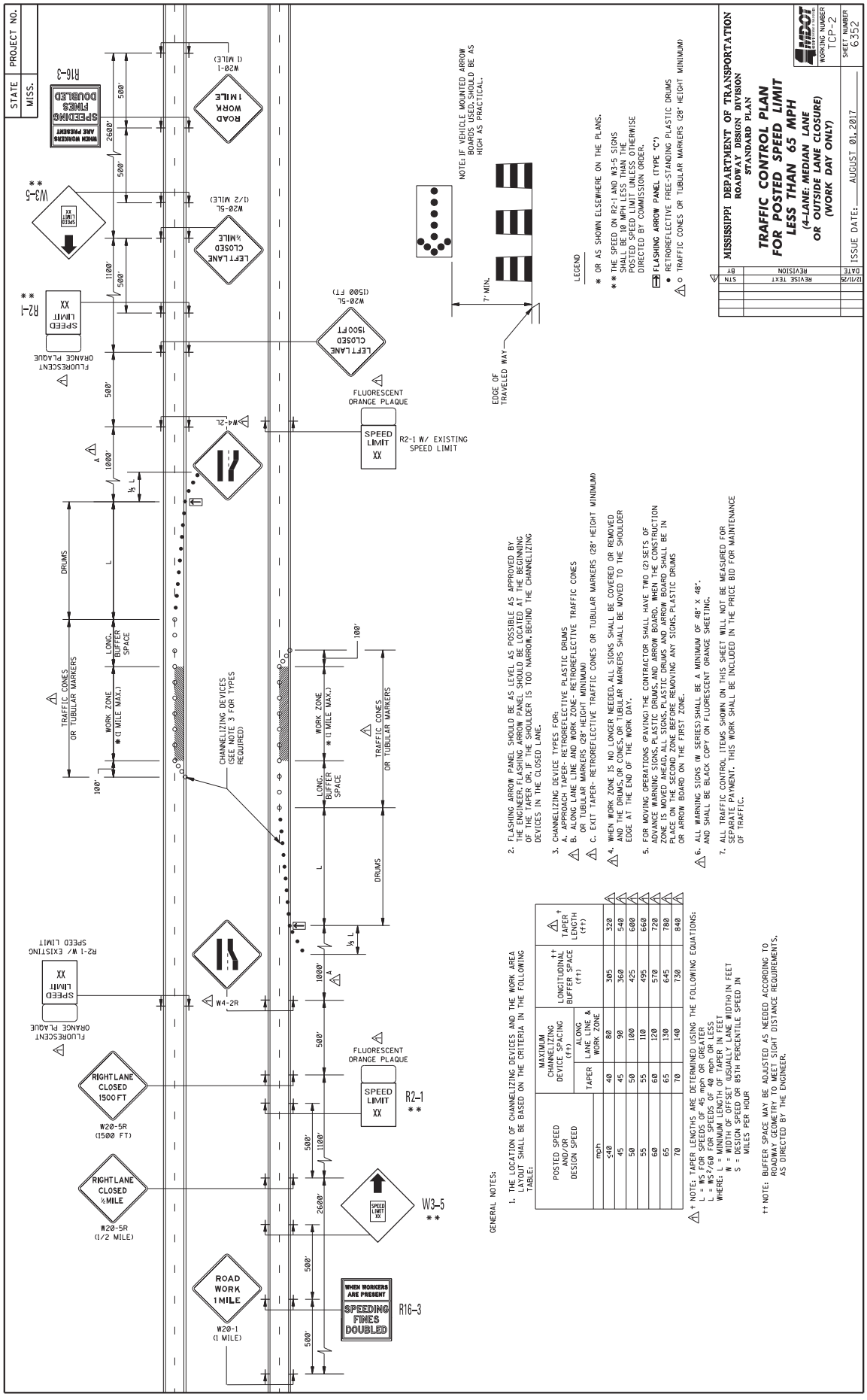

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
OFFSET LEFT TURN LANES
WORKING NUMBER PM-13
SHEET NUMBER 6063
ISSUE DATE: AUGUST 01, 2017
REVISION
ADDED TEXT AND DWGS, ADDED YIELD BARS.
DATE 12/11/25
BY STN
GENERAL NOTES:
1. UNSIGNALIZED INTERSECTION SHOWN. STOP BARS REQUIRED ONLY WHERE INTERSECTION IS SIGNALIZED OR MULTI-WAY STOP CONTROLLED.
2. SEE MK. NOS. PM-1, PM-3 and PM-6 FOR OTHER DETAILS.
3. TAPER LENGTH VARIES WITH MEDIAN WIDTH.
4. TAPERED OFFSET LEFT TURN LANE SHOWN. PARALLEL OFFSET LEFT TURN LANE PAVEMENT MARKINGS ARE SIMILAR.
5. 3-LANE SIDE ROAD SHOWN. SEE PERMANENT PAVEMENT MARKING DETAIL SHEETS FOR SIDE ROAD PAVEMENT MARKING DETAILS.
6. SEE PM-12 FOR INTERSECTING ROAD RAISED PAVEMENT MARKER PLACEMENT.
MEDIAN WIDTH VARIES
6" EDGE YELLOW
6" DET. YELLOW
GREATER THAN OR EQUAL TO ½ MEDIAN WIDTH
LESS THAN OR EQUAL TO ½ MEDIAN WIDTH
10' RADIUS TYPICAL
150' RADIUS
6" DET. YELLOW
6" EDGE YELLOW
24" STOP BAR (LEGEND)
14' MIN.
LEGEND WHITE YIELD BAR (SP)
6" DET. YELLOW
6" EDGE YELLOW
12:1 TAPER TYPICAL
SEE DETAIL "A"
6" EDGE YELLOW
6" DETAIL YELLOW
RED-CLEAR RETROREFLECTIVE RAISED MARKER
DETAIL B
12" DETAIL YELLOW
2"
RED-CLEAR RETROREFLECTIVE RAISED MARKER
RED-CLEAR RETROREFLECTIVE RAISED MARKERS
12" DETAIL WHITE
10'
10'
2' MIN.
45°
18" DETAIL WHITE
RED-CLEAR RETROREFLECTIVE RAISED MARKERS
DETAIL A


STATE
MISS.
PROJECT NO.
GENERAL NOTES
1. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT
2. GROUND-IN RUMBLE STRIPES SHALL BE OMITTED ACROSS PUBLIC INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
3. COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
4. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
A. MAINLINE
B. INTERSECTING ROADWAY IF OVERLAID OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
C. ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.
5. OMIT GROUND-IN RUMBLE STRIPS WHERE TRAFFIC LANE IS LESS THAN 11 FEET WIDE.
EDGE OF PAVED SHOULDER
6" TRAFFIC STRIPE
EDGE OF TRAFFIC LANE
12"
7"
DETAIL "A"
7.0" *
*1/2" TOLERANCE
3/8" - MIN.
1/2" - MAX.
SECTION "A-A"
VARIABLE SHOULDER
2' PAVED SHOULDER
11' or 12'
TRAVEL LANES
SEE DETAIL "A"
PLAN
NOT TO SCALE
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
RUMBLE STRIPES
2-LANE HIGHWAYS
(ASPHALT LANES,
2-FT ASPHALT SHOULDERS)
WORKING NUMBER RS-1
SHEET NUMBER 6064
ISSUE DATE: AUGUST 01, 2017
STN
BY
REVISION
DATE
12/11/25 REVISED TEXT AND STRIPE DETAIL.


STATE
MISS.
PROJECT NO.
GENERAL NOTES
1. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT
2. GROUND-IN RUMBLE STRIPES SHALL BE OMITTED ACROSS PUBLIC INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
3. COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
4. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
A. MAINLINE
B. INTERSECTING ROADWAY IF OVERLAID OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
C. ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.
6" TRAFFIC STRIPE
EDGE OF PAVED SHOULDER
EDGE OF TRAFFIC LANE
12"
7"
12" VAR.
VARIABLE
DETAIL "A"
7.0" *
* 1/2" TOLERANCE
3/8"- MIN.
1/2"- MAX.
SECTION "A–A"
VARIABLE SHLD
TRAVEL LANES
VARIABLE SHLD
SEE DETAIL "A"
GRAN. MAT'L
PAVED SHLD
NO SHOULDER RUMBLES
℄ RAMP CONSTRUCTION
PLAN
NOT TO SCALE
DETAILS OF RUMBLE STRIPS
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
RUMBLE STRIPES
4-LANE HIGHWAYS
(ASPHALT LANES,
2-FT OR WIDER
ASPHALT SHOULDERS)
WORKING NUMBER RS-2
SHEET NUMBER 6065
ISSUE DATE: AUGUST 01, 2017
STN
BY
REVISION
DATE
REVISED STRIPE DETAIL.
12/1/25


STATE MISS.
PROJECT NO.
GENERAL NOTES
1. GROUND-IN RUMBLE STRIPS SHALL BE APPLIED ON LEFT AND RIGHT SHOULDERS OF ALL PAVED SHOULDERS ON THIS PROJECT
2. GROUND-IN RUMBLE STRIPS SHALL BE OMITTED ACROSS PUBLIC INTERSECTING ROADWAYS OR OTHER INTERRUPTIONS IN NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER
3. COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
4. GROUND-IN RUMBLE STRIPS SHALL BE APPLIED TO:
A. MAINLINE
B. INTERSECTING ROADWAY IF OVERLAID OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
C. ANY ROADWAY WITH EXISTING RUMBLE STRIPS PRIOR TO CONSTRUCTION.
* 1/2" TOLERANCE
7.0"*
3/8"- MIN. 1/2"- MAX.
SECTION E–E
SECTION A–A
MEDIAN SHOULDER WITHOUT O.G.F.C.
THIS TYPICAL SECTION APPLIES TO THE LEFT HALF OF THE PLAN VIEW BELOW
4 FT. OR AS SHOWN ON PLANS
EDGE OF 12' LANE
6" TRAFFIC STRIPE
12" RUMBLE
ASPHALT SHOULDER
SECTION B–B
OUTSIDE SHOULDER WITHOUT O.G.F.C.
10 FT. OR AS SHOWN ON PLANS
SECTION C–C
MEDIAN SHOULDER WITH O.G.F.C.
THIS TYPICAL SECTION APPLIES TO THE RIGHT HALF OF THE PLAN VIEW BELOW
O.G.F.C.
SECTION D–D
OUTSIDE SHOULDER WITH O.G.F.C.
PLAN
CONCRETE LANES
WITH ASPHALT SHOULDERS
(NO O.G.F.C.)
O.G.F.C. LANES
WITH APHALT SHOULDERS
NO RUMBLES
ACROSS EXIT RAMP
NO RUMBLES
ACROSS ENTRANCE RAMP
℄ RAMP CONSTRUCTION
TRAVEL LANES
LIMITS OF O.G.F.C.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
RUMBLE STRIP
DETAIL FOR OGFC OR CONCRETE ROADWAY WITH ASPHALT SHOULDERS
WORKING NUMBER RS-3
SHEET NUMBER 6066
ISSUE DATE: AUGUST 01, 2017
BY REVISION DATE


STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
WITH FLAGGER
(ONE-LANE CLOSURE OF TWO-WAY TRAFFIC)
WORKING NUMBER TCP-1
SHEET NUMBER 6351
ISSUE DATE: AUGUST 01, 2017
DATE
REVISION
BY
4/22/26 REMOVED "(ANEAD)" STN
12/1/25 REVISED TEXT STN
LEGEND
FLAGGER
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
TRAFFIC CONES (28" HEIGHT MINIMUM)
ROAD XX FT WORK
ONE LANE ROAD XX FT
END ROAD WORK
XX FEET
W20-1
W20-4
W20-7A
W16-2P
G20-2 48x24
CHANNELIZING DEVICES
LONG. BUFFER SPACE
WORK ZONE
TRAFFIC CONES
DRUMS
100'
A
B
C
DISTANCE BETWEEN SIGNS
ROAD TYPE
A
B
C
URBAN (35 MPH OR LESS)
100 FT.
100 FT.
100 FT.
URBAN (40 - 70 MPH)
350 FT.
350 FT.
350 FT.
RURAL
500 FT.
500 FT.
500 FT.
EXPRESSWAY / FREEWAY
1000 FT.
1500 FT.
2640 FT.
GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE. FLAGGER STATIONS SHALL BE LOCATED SUCH THAT APPROACHING VEHICLES WILL HAVE SUFFICIENT DISTANCE TO STOP. VALUES IN STOPPING SIGHT DISTANCE COLUMN MAY BE USED AS A MINIMUM FOR THIS DISTANCE.
2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 28" IN HEIGHT.
3. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHALL BE A MINIMUM OF 36" x 36" AND BLACK COPY ON FLUORESCENT ORANGE SHEETING.
4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
5. ADDITIONAL FLAGGERS MAY BE NEEDED AS DIRECTED BY THE ENGINEER.
6. WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED EXCEPT IN EMERGENCIES.
7. CHANNELIZING DEVICE TYPES FOR:
A. APPROACH AND EXIT TAPERS- RETROREFLECTIVE PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT)
8. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
9. AN OPTIONAL FLAGGER (W20-7A) WORD MESSAGE IS SHOWN IN THE "STANDARD HIGHWAY SIGNS" PUBLICATION.
POSTED SPEED AND/OR DESIGN SPEED AND/OR ANTICIPATED OPERATING SPEED
MAXIMUM CHANNELIZING DEVICE SPACING (ft)
TAPER
ALONG LANE LINE & WORK ZONE
LONGITUDINAL† BUFFER SPACE (ft)
STOPPING SIGHT DISTANCE
mph
25 20 50 55 155
30 20 60 85 200
35 20 70 120 250
40 20 80 170 305
45 20 90 220 360
50 20 100 280 425
55 20 110 335 495
60 20 120 415 570
65 20 130 485 645
† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.




GENERAL NOTES:

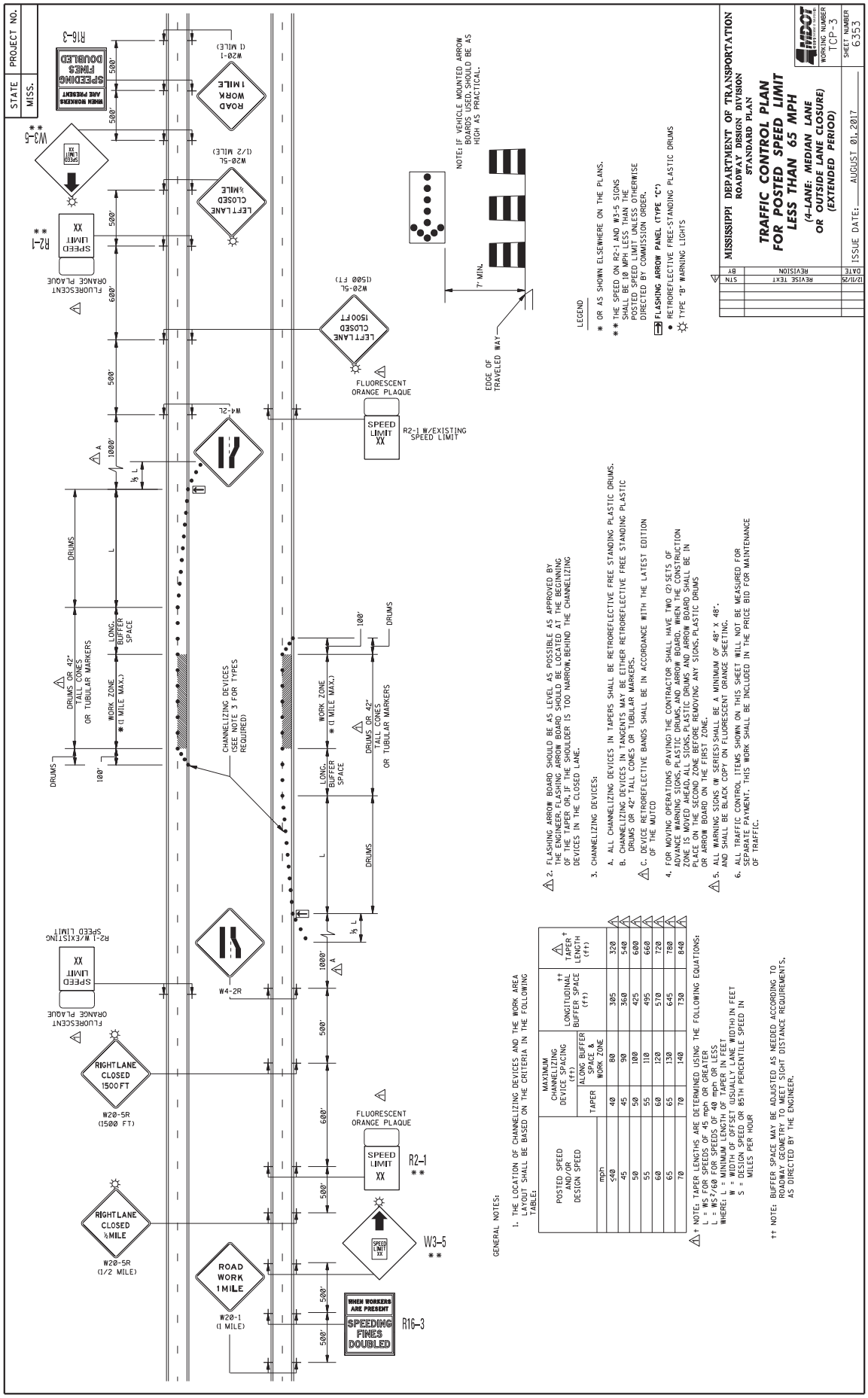
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:

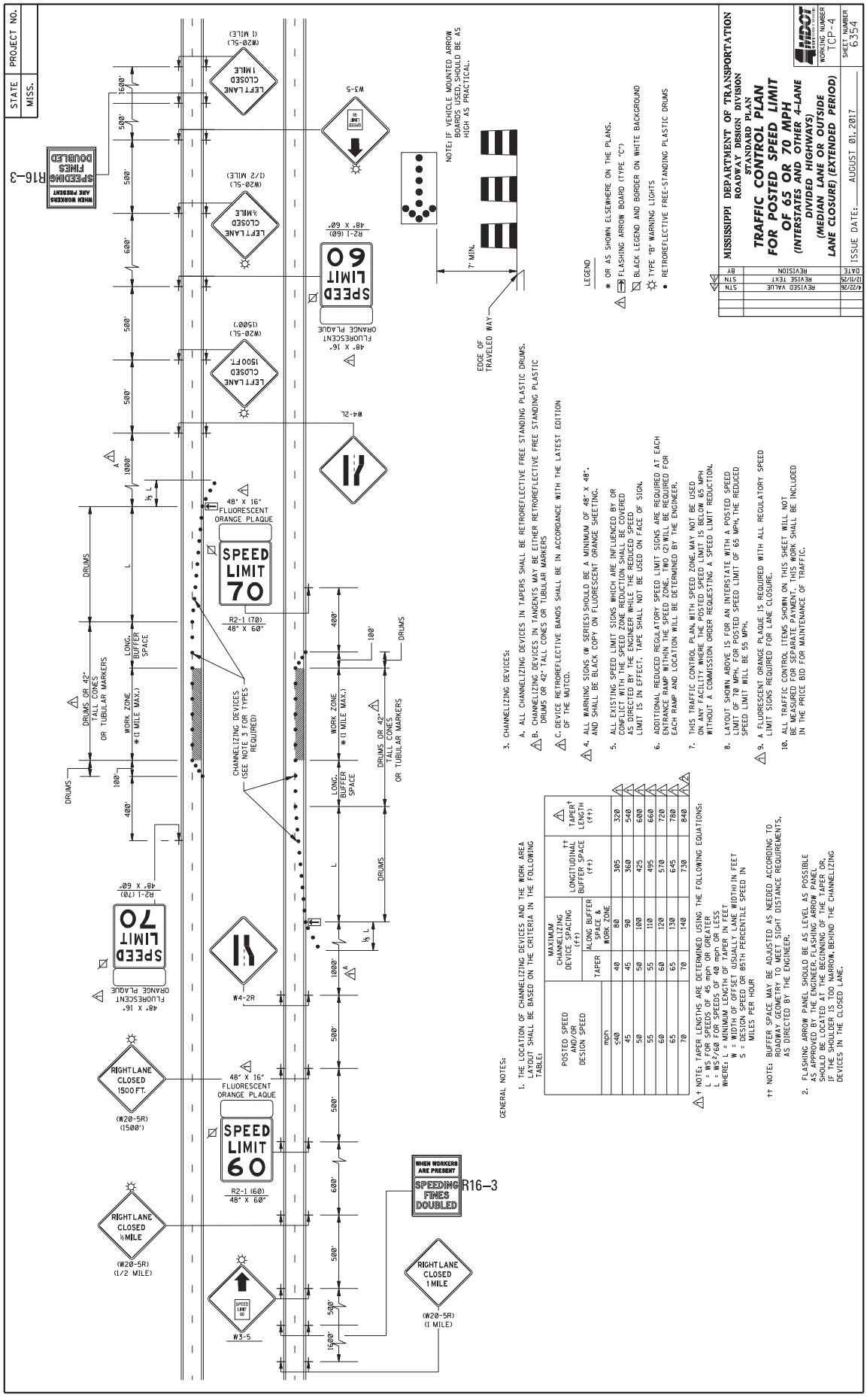
| POSTED SPEED AND/OR DESIGN SPEED | MAXIMUM CHANNELIZING DEVICE SPACING (ft) | | LONGITUDINAL BUFFER SPACE (ft) †† | TAPER † LENGTH (ft) |
|---|---|---|---|---|
| | TAPER | ALONG LANE LINE & WORK ZONE | | |
| mph | | | | |
| ≤40 | 40 | 80 | 305 | 320 |
| 45 | 45 | 90 | 360 | 540 |
| 50 | 50 | 100 | 425 | 600 |
| 55 | 55 | 110 | 495 | 660 |
| 60 | 60 | 120 | 570 | 720 |
| 65 | 65 | 130 | 645 | 780 |
| 70 | 70 | 140 | 730 | 840 |

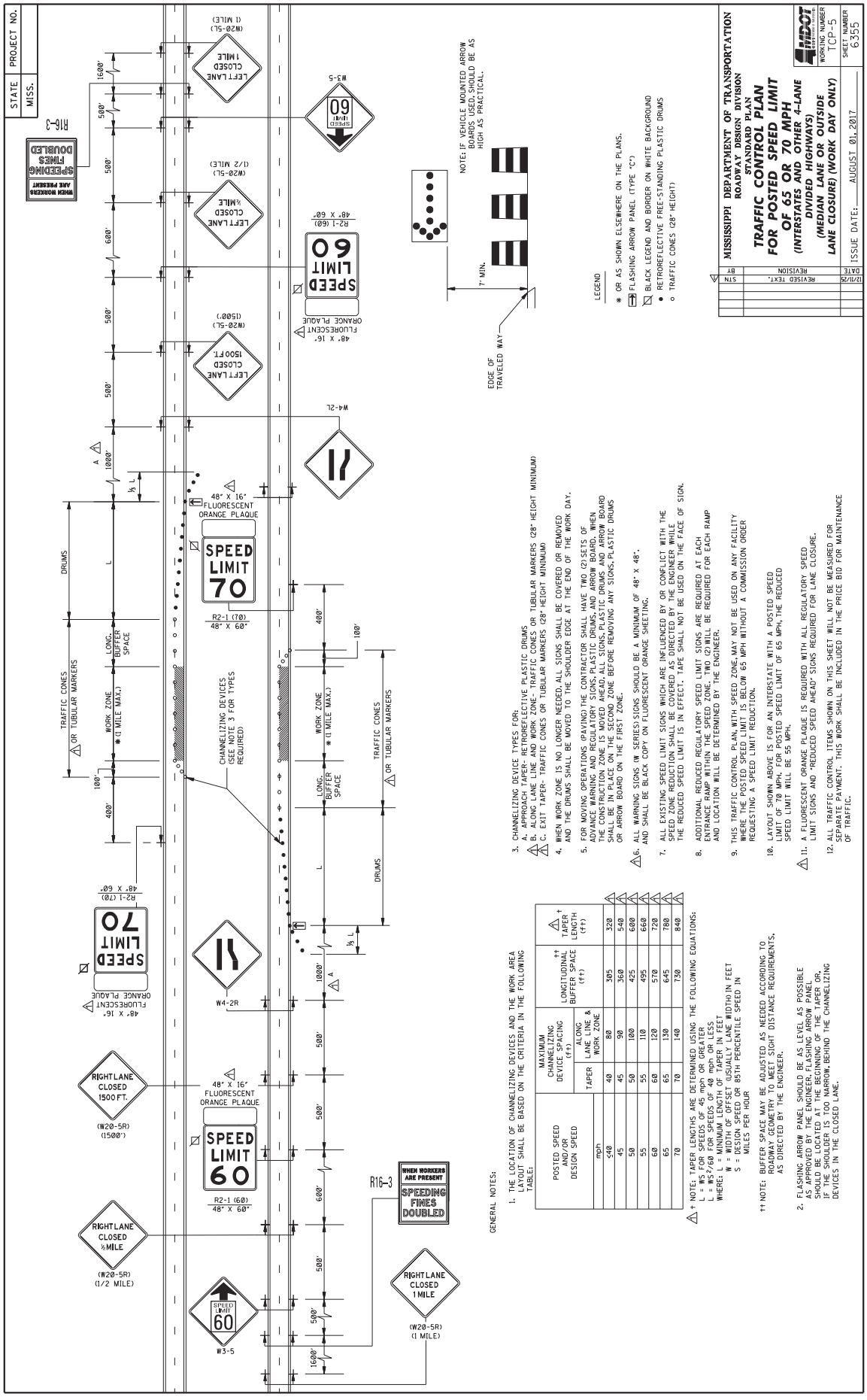
△† NOTE: TAPER LENGTHS ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

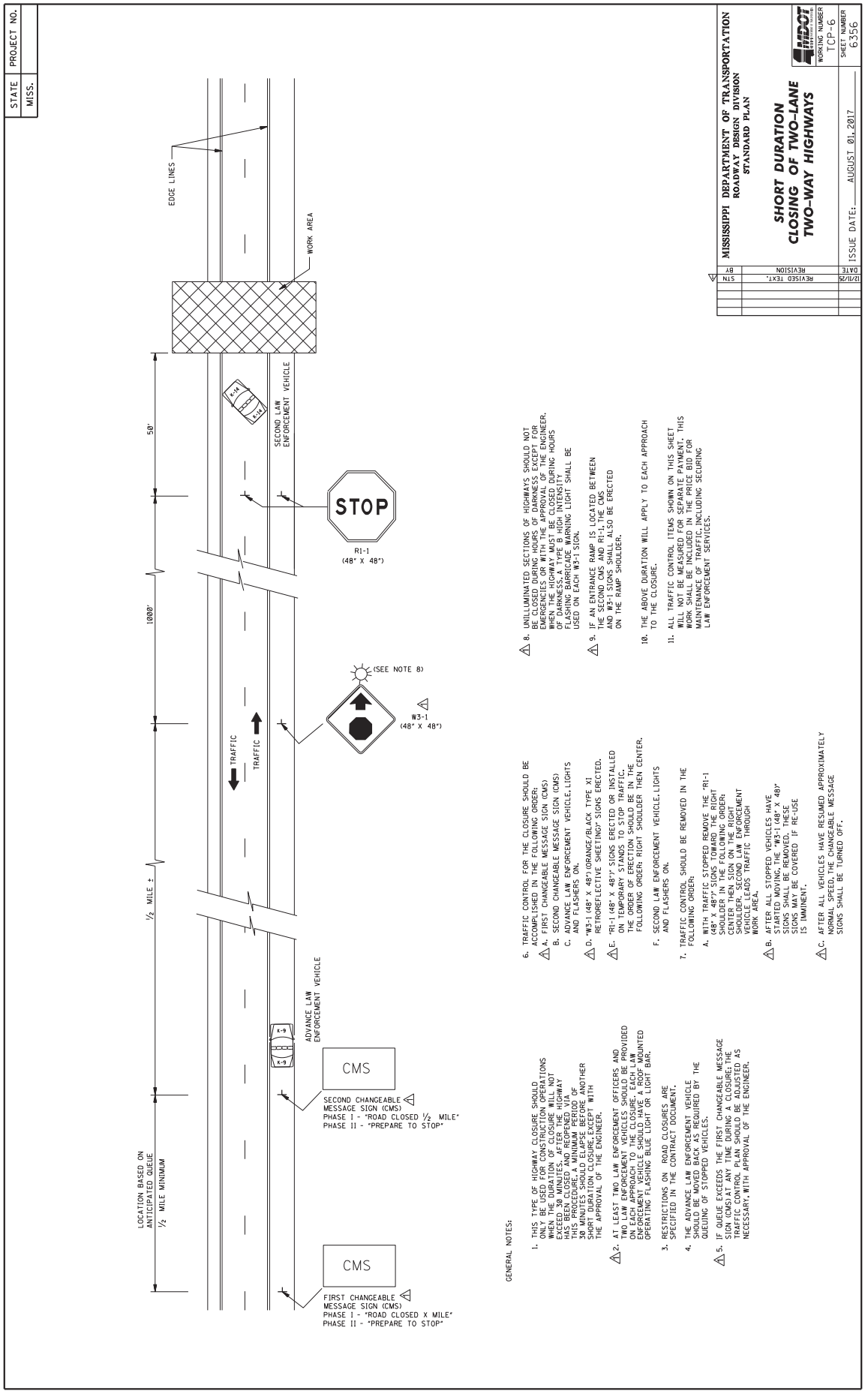
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

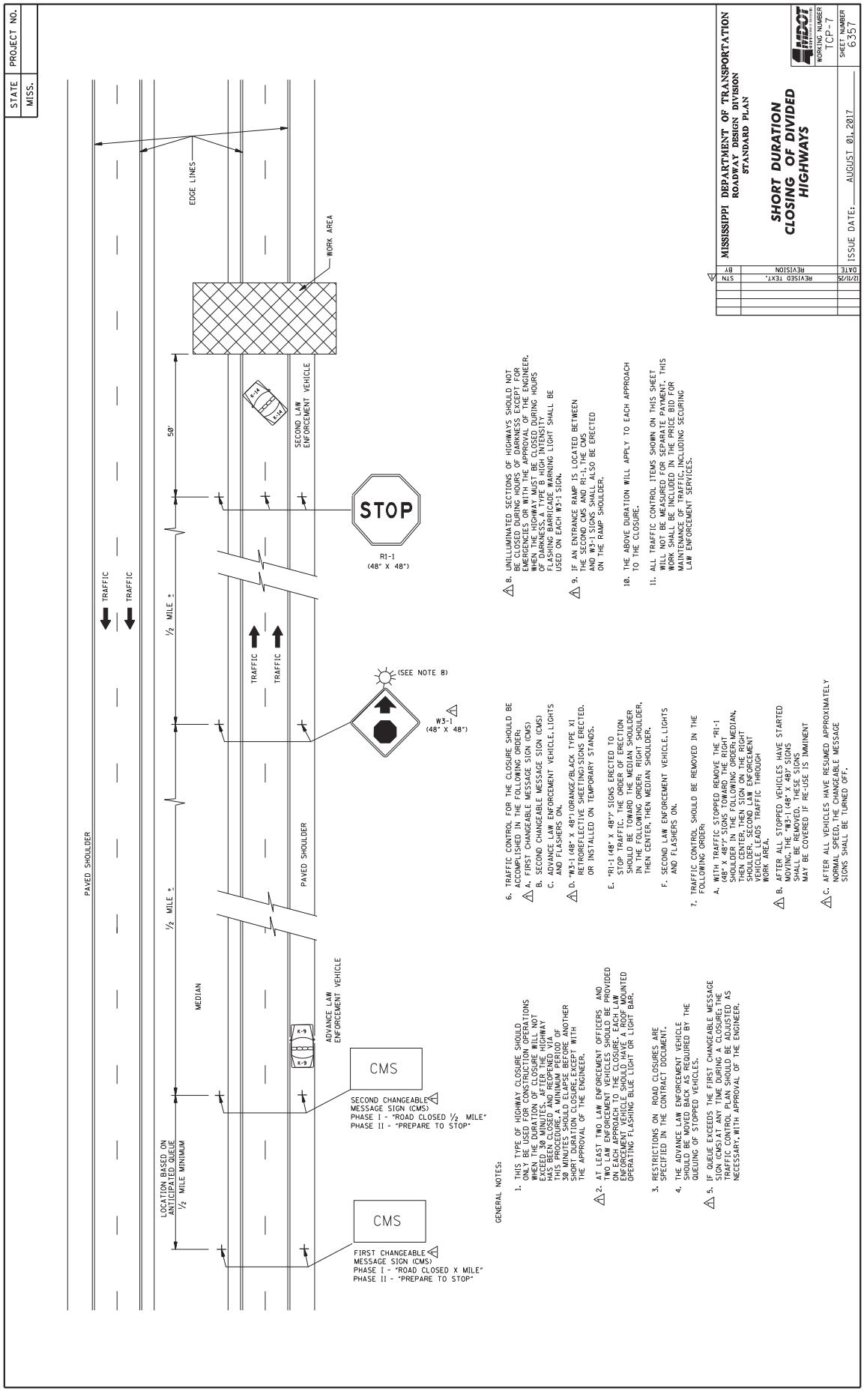
2. FLASHING ARROW PANEL SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. CHANNELIZING DEVICE TYPES FOR:
△ A. APPROACH TAPER- RETROREFLECTIVE PLASTIC DRUMS
△ B. ALONG LANE LINE AND WORK ZONE- RETROREFLECTIVE TRAFFIC CONES OR TUBULAR MARKERS (28" HEIGHT MINIMUM)
△ C. EXIT TAPER- RETROREFLECTIVE TRAFFIC CONES OR TUBULAR MARKERS (28" HEIGHT MINIMUM)
△4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND VEHICLE DRUMS OR CONES OR TUBULAR MARKERS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.
△5. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND SET BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
△6. ALL WARNING SIGNS (W SERIES) SHALL BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
7. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
LESS THAN 65 MPH
(4-LANE: MEDIAN LANE OR OUTSIDE LANE CLOSURE)
(EXTENDED PERIOD)
WORKING NUMBER TCP-3
SHEET NUMBER 6353
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
12/11/25 REVISE TEXT STN
LEGEND
* OR AS SHOWN ELSEWHERE ON THE PLANS.
** THE SPEED ON R2-1 AND W3-5 SIGNS SHALL BE 10 MPH LESS THAN THE POSTED SPEED LIMIT UNLESS OTHERWISE DIRECTED BY COMMISSION ORDER.
FLASHING ARROW PANEL (TYPE "C")
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
TYPE "B" WARNING LIGHTS
NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.
7' MIN.
EDGE OF TRAVELED WAY
ROAD WORK 1 MILE
W20-1 (1 MILE)
LEFT LANE CLOSED ½ MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1500 FT
W20-5L (1500 FT)
RIGHT LANE CLOSED ½ MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1500 FT
W20-5R (1500 FT)
WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
R16-3
SPEED LIMIT XX
R2-1 **
FLUORESCENT ORANGE PLAQUE
R2-1 W/EXISTING SPEED LIMIT
W3-5 **
W4-2R
W4-2L
DRUMS
DRUMS OR 42" TALL CONES OR TUBULAR MARKERS
WORK ZONE * (1 MILE MAX.)
LONG. BUFFER SPACE
CHANNELIZING DEVICES (SEE NOTE 3 FOR TYPES REQUIRED)
100'
500'
600'
1000'
A
½ L
L
GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:
POSTED SPEED = DESIGN SPEED
MAXIMUM CHANNELIZING DEVICE SPACING (ft)
TAPER
ALONG BUFFER SPACE & WORK ZONE
LONGITUDINAL BUFFER SPACE (ft)
TAPER LENGTH (ft)
mph
≤40 40 80 305 320
45 45 90 360 540
50 50 100 425 600
55 55 110 495 660
60 60 120 570 720
65 65 130 645 780
70 70 140 730 840
2. FLASHING ARROW BOARD SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW BOARD SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER ON THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. CHANNELIZING DEVICES:
A. ALL CHANNELIZING DEVICES IN TAPERS SHALL BE RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
B. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER RETROREFLECTIVE FREE STANDING PLASTIC DRUMS OR 42" TALL CONES OR TUBULAR MARKERS.
C. DEVICE RETROREFLECTIVE BANDS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD
4. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING SIGNS, PLASTIC DRUMS, AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
5. ALL WARNING SIGNS (W SERIES) SHALL BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
6. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
† NOTE: TAPER LENGTHS ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS²/60 FOR SPEEDS OF 45 mph OR LESS
L = WS/60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

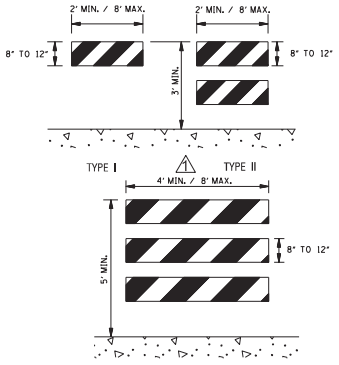

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
OF 65 OR 70 MPH
(INTERSTATES AND OTHER 4-LANE DIVIDED HIGHWAYS)
(MEDIAN LANE OR OUTSIDE LANE CLOSURE) (EXTENDED PERIOD)
WORKING NUMBER TCP-4
SHEET NUMBER 6354
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
4/22/26 REVISED VALUE STN
12/11/25 REVISE TEXT STN
LEGEND
* OR AS SHOWN ELSEWHERE ON THE PLANS.
FLASHING ARROW BOARD (TYPE "C")
BLACK LEGEND AND BORDER ON WHITE BACKGROUND
TYPE "B" WARNING LIGHTS
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:
POSTED SPEED AND/OR DESIGN SPEED
MAXIMUM CHANNELIZING DEVICE SPACING (FEET)
TAPER
ALONG BUFFER SPACE & WORK ZONE
LONGITUDINAL BUFFER SPACE (ft)
TAPER† LENGTH (ft)
mph
<40 40 80 305 320
45 45 90 360 540
50 50 100 425 600
55 55 110 495 660
60 60 120 570 720
65 65 130 645 780
70 70 140 730 840
† NOTE: TAPER LENGTHS ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY, TRAFFIC AND SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.
2. FLASHING ARROW PANEL SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF NO SHOULDER IS TO BE NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. CHANNELIZING DEVICES:
A. ALL CHANNELIZING DEVICES IN TAPERS SHALL BE RETROREFLECTIVE FREE STANDING PLASTIC DRUMS.
B. CHANNELIZING DEVICES IN TANGENTS MAY BE EITHER RETROREFLECTIVE FREE STANDING PLASTIC DRUMS OR 42" TALL CONES OR TUBULAR MARKERS
C. DEVICE RETROREFLECTIVE BANDS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MUTCD.
4. ALL WARNING SIGNS (W SERIES) SHOULD BE A MINIMUM OF 48" X 48". AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
5. ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED AS DIRECTED BY THE ENGINEER WHILE THE REDUCED SPEED LIMIT IS IN EFFECT. TAPE SHALL NOT BE USED ON FACE OF SIGN.
6. ADDITIONAL REDUCED REGULATORY SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. TWO (2) WILL BE REQUIRED FOR EACH RAMP AND LOCATION WILL BE DETERMINED BY THE ENGINEER.
7. THIS TRAFFIC CONTROL PLAN, WITH SPEED ZONE, MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
8. LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. WHERE POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
9. A FLUORESCENT ORANGE PLAQUE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS REQUIRED FOR LANE CLOSURE.
10. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.
7' MIN.
EDGE OF TRAVELED WAY
DRUMS
DRUMS OR 42" TALL CONES OR TUBULAR MARKERS
WORK ZONE * (1 MILE MAX.)
LONG. BUFFER SPACE
CHANNELIZING DEVICES (SEE NOTE 3 FOR TYPES REQUIRED)
W4-2R
W4-2L
W3-5
SPEED LIMIT 70
SPEED LIMIT 60
48" X 16" FLUORESCENT ORANGE PLAQUE
R2-1 (70) 48" X 60"
R2-1 (60) 48" X 60"
R16-3
WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
RIGHT LANE CLOSED 1500 FT. (W20-5R) (1500')
RIGHT LANE CLOSED ½ MILE (W20-5R) (1/2 MILE)
RIGHT LANE CLOSED 1 MILE (W20-5R) (1 MILE)
LEFT LANE CLOSED 1 MILE (W20-5L) (1 MILE)
LEFT LANE CLOSED ½ MILE (W20-5L) (1/2 MILE)
LEFT LANE CLOSED 1500 FT (W20-5L) (1500')
48" X 16" FLUORESCENT ORANGE PLAQUE
48" X 60" R2-1 (60)
SPEED LIMIT 60
48" X 16" FLUORESCENT ORANGE PLAQUE
48" X 60" R2-1 (70)
SPEED LIMIT 70
W3-5
SPEED LIMIT 60
L
½ L
A
100'
400'
500'
600'
1000'
1500'


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
FOR POSTED SPEED LIMIT
OF 65 OR 70 MPH
(INTERSTATES AND OTHER 4-LANE DIVIDED HIGHWAYS)
(MEDIAN LANE OR OUTSIDE LANE CLOSURE) (WORK DAY ONLY)
ISSUE DATE: AUGUST 01, 2017
WORKING NUMBER TCP-5
SHEET NUMBER 6355
REVISION BY DATE
REVISED TEXT. STN 12/11/25
LEGEND
* OR AS SHOWN ELSEWHERE ON THE PLANS.
FLASHING ARROW PANEL (TYPE "C")
BLACK LEGEND AND BORDER ON WHITE BACKGROUND
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
TRAFFIC CONES (28" HEIGHT)
NOTE: IF VEHICLE MOUNTED ARROW BOARDS USED, SHOULD BE AS HIGH AS PRACTICAL.
7' MIN.
EDGE OF TRAVELED WAY
GENERAL NOTES:
1. THE LOCATION OF CHANNELIZING DEVICES AND THE WORK AREA LAYOUT SHALL BE BASED ON THE CRITERIA IN THE FOLLOWING TABLE:
POSTED SPEED AND/OR DESIGN SPEED
MAXIMUM CHANNELIZING DEVICE SPACING (††)
TAPER
ALONG LANE LINE & WORK ZONE
LONGITUDINAL BUFFER SPACE (††)
TAPER † (††)
mph
≤40 40 80 305 320
45 45 90 360 540
50 50 100 425 600
55 55 110 495 660
60 60 120 570 720
65 65 130 645 780
70 70 140 730 840
† NOTE: TAPER LENGTHS ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (USUALLY LANE WIDTH) IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.
2. FLASHING ARROW PANEL SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. FLASHING ARROW PANEL SHOULD BE LOCATED AT THE BEGINNING OF THE TAPER OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.
3. CHANNELIZING DEVICE TYPES FOR:
A. APPROACH TAPER- RETROREFLECTIVE PLASTIC DRUMS
B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES OR TUBULAR MARKERS (28" HEIGHT MINIMUM)
C. EXIT TAPER- TRAFFIC CONES OR TUBULAR MARKERS (28" HEIGHT MINIMUM)
4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED AND THE DRUMS SHALL BE MOVED TO THE SHOULDER EDGE AT THE END OF THE WORK DAY.
5. FOR MOVING OPERATIONS (PAVING) THE CONTRACTOR SHALL HAVE TWO (2) SETS OF ADVANCE WARNING AND REGULATORY SIGNS, PLASTIC DRUMS, AND ARROW BOARD. WHEN THE CONSTRUCTION ZONE IS MOVED AHEAD, ALL SIGNS, PLASTIC DRUMS AND ARROW BOARD SHALL BE IN PLACE ON THE SECOND ZONE BEFORE REMOVING ANY SIGNS, PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.
6. ALL WARNING SIGNS (W SERIES) SIGNS SHOULD BE A MINIMUM OF 48" X 48", AND SHALL BE BLACK COPY ON FLUORESCENT ORANGE SHEETING.
7. ALL EXISTING SPEED LIMIT SIGNS WHICH ARE INFLUENCED BY OR CONFLICT WITH THE SPEED ZONE REDUCTION SHALL BE COVERED AS DIRECTED BY THE ENGINEER WHILE THE REDUCED SPEED LIMIT IS IN EFFECT. TAPE SHALL NOT BE USED ON THE FACE OF SIGN.
8. ADDITIONAL REDUCED REGULATORY SPEED LIMIT SIGNS ARE REQUIRED AT EACH ENTRANCE RAMP WITHIN THE SPEED ZONE. TWO (2) WILL BE REQUIRED FOR EACH RAMP AND LOCATION WILL BE DETERMINED BY THE ENGINEER.
9. THIS TRAFFIC CONTROL PLAN, WITH SPEED ZONE, MAY NOT BE USED ON ANY FACILITY WHERE THE POSTED SPEED LIMIT IS BELOW 65 MPH WITHOUT A COMMISSION ORDER REQUESTING A SPEED LIMIT REDUCTION.
10. LAYOUT SHOWN ABOVE IS FOR AN INTERSTATE WITH A POSTED SPEED LIMIT OF 70 MPH. FOR POSTED SPEED LIMIT OF 65 MPH, THE REDUCED SPEED LIMIT WILL BE 55 MPH.
11. A FLUORESCENT ORANGE PLAQUE IS REQUIRED WITH ALL REGULATORY SPEED LIMIT SIGNS AND "REDUCED SPEED AHEAD" SIGNS REQUIRED FOR LANE CLOSURE.
12. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
TRAFFIC CONES OR TUBULAR MARKERS
WORK ZONE * (1 MILE MAX.)
LONG. BUFFER SPACE
DRUMS
CHANNELIZING DEVICES (SEE NOTE 3 FOR TYPES REQUIRED)
48" X 16" FLUORESCENT ORANGE PLAQUE
SPEED LIMIT 70
R2-1 (70) 48" X 60"
SPEED LIMIT 60
R2-1 (60) 48" X 60"
48" X 16" FLUORESCENT ORANGE PLAQUE
48" X 16" FLUORESCENT ORANGE PLAQUE
W4-2R
W4-2L
W3-5
R16-3
WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
RIGHT LANE CLOSED 1500 FT.
(W20-5R) (1500')
RIGHT LANE CLOSED ½ MILE
(W20-5R) (1/2 MILE)
RIGHT LANE CLOSED 1 MILE
(W20-5R) (1 MILE)
LEFT LANE CLOSED 1 MILE
(W20-5L) (1 MILE)
LEFT LANE CLOSED ½ MILE
(W20-5L) (1/2 MILE)
LEFT LANE CLOSED 1500 FT.
(W20-5L) (1500')
SPEED LIMIT 60
W3-5
FLUORESCENT ORANGE PLAQUE
48" X 16"
SPEED LIMIT 60
R2-1 (60) 48" X 60"
FLUORESCENT ORANGE PLAQUE
48" X 16"
SPEED LIMIT 70
R2-1 (70) 48" X 60"
WHEN WORKERS ARE PRESENT
SPEEDING FINES DOUBLED
R16-3
100'
400'
500'
600'
1000'
1600'
A
½ L
L


STATE
MISS.
PROJECT NO.
EDGE LINES
WORK AREA
SECOND LAW ENFORCEMENT VEHICLE
50'
1000'
½ MILE ±
LOCATION BASED ON ANTICIPATED QUEUE
½ MILE MINIMUM
STOP
R1-1
(48" X 48")
(SEE NOTE 8)
W3-1
(48" X 48")
TRAFFIC
TRAFFIC
ADVANCE LAW ENFORCEMENT VEHICLE
CMS
SECOND CHANGEABLE MESSAGE SIGN (CMS)
PHASE I - "ROAD CLOSED ½ MILE"
PHASE II - "PREPARE TO STOP"
CMS
FIRST CHANGEABLE MESSAGE SIGN (CMS)
PHASE I - "ROAD CLOSED X MILE"
PHASE II - "PREPARE TO STOP"
GENERAL NOTES:
1. THIS TYPE OF HIGHWAY CLOSURE SHOULD ONLY BE USED FOR CONSTRUCTION OPERATIONS WHEN THE DURATION OF CLOSURE WILL NOT EXCEED 30 MINUTES. AFTER THE HIGHWAY HAS BEEN CLOSED AND ESCORTED VIA THIS PROCEDURE, A MINIMUM PERIOD OF 30 MINUTES SHOULD ELAPSE BEFORE ANOTHER SHORT DURATION CLOSURE, EXCEPT WITH THE APPROVAL OF THE ENGINEER.
2. AT LEAST TWO LAW ENFORCEMENT OFFICERS AND TWO LAW ENFORCEMENT VEHICLES SHOULD BE PROVIDED ON EACH APPROACH TO THE CLOSURE. EACH LAW ENFORCEMENT VEHICLE SHOULD HAVE A ROOF MOUNTED OPERATING FLASHING BLUE LIGHT OR LIGHT BAR.
3. RESTRICTIONS ON ROAD CLOSURES ARE SPECIFIED IN THE CONTRACT DOCUMENT.
4. THE ADVANCE LAW ENFORCEMENT VEHICLE SHOULD BE MOVED BACK AS REQUIRED BY THE QUEUING OF STOPPED VEHICLES.
5. IF QUEUE EXCEEDS THE FIRST CHANGEABLE MESSAGE SIGN (CMS) AT ANY TIME DURING A CLOSURE; THE TRAFFIC CONTROL PLAN SHOULD BE ADJUSTED AS NECESSARY, WITH APPROVAL OF THE ENGINEER.
6. TRAFFIC CONTROL FOR THE CLOSURE SHOULD BE ACCOMPLISHED IN THE FOLLOWING ORDER:
A. FIRST CHANGEABLE MESSAGE SIGN (CMS)
B. SECOND CHANGEABLE MESSAGE SIGN (CMS)
C. ADVANCE LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
D. W3-1 (48" X 48") ORANGE/BLACK TYPE XI RETROREFLECTIVE SHEETING" SIGNS ERECTED.
E. "R1-1 (48" X 48")" SIGNS ERECTED OR INSTALLED ON TEMPORARY STANDS TO STOP TRAFFIC, THE ORDER OF ERECTION SHOULD BE IN THE FOLLOWING ORDER: RIGHT SHOULDER THEN CENTER.
F. SECOND LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
7. TRAFFIC CONTROL SHOULD BE REMOVED IN THE FOLLOWING ORDER:
A. WITH TRAFFIC STOPPED REMOVE THE "R1-1 (48" X 48")" SIGNS COMMAND THE FOLLOWING ORDER: CENTER THEN SIGN ON THE RIGHT SHOULDER, SECOND LAW ENFORCEMENT VEHICLE LEADS TRAFFIC THROUGH WORK AREA.
B. AFTER ALL STOPPED VEHICLES HAVE STARTED MOVING W3-1 (48" X 48") SIGNS SHALL BE REMOVED. THESE SIGNS MAY BE COVERED IF RE-USE IS IMMINENT.
C. AFTER ALL VEHICLES HAVE RESUMED APPROXIMATELY NORMAL SPEED, THE CHANGEABLE MESSAGE SIGNS SHALL BE TURNED OFF.
8. UNILLUMINATED SECTIONS OF HIGHWAYS SHOULD NOT BE CLOSED DURING HOURS OF DARKNESS EXCEPT FOR EMERGENCIES OR WITH THE APPROVAL OF THE ENGINEER. WHEN THE HIGHWAY MUST BE CLOSED DURING HOURS OF DARKNESS, A TYPE B HIGH INTENSITY FLASHING BARRICADE WARNING LIGHT SHALL BE USED ON EACH W3-1 SIGN.
9. IF AN ENTRANCE RAMP IS LOCATED BETWEEN THE SECOND CMS AND R1-1, THE CMS AND W3-1 SIGNS SHALL ALSO BE ERECTED ON THE RAMP SHOULDER.
10. THE ABOVE DURATION WILL APPLY TO EACH APPROACH TO THE CLOSURE.
11. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT; THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC, INCLUDING SECURING LAW ENFORCEMENT SERVICES.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
SHORT DURATION
CLOSING OF TWO-LANE
TWO-WAY HIGHWAYS
WORKING NUMBER
TCP-6
SHEET NUMBER
6356
ISSUE DATE: AUGUST 01, 2017
STN
BY
DATE
REVISION
12/11/25
REVISED TEXT.

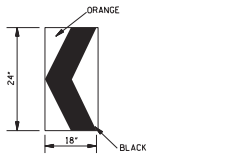

STATE
MISS.
PROJECT NO.
PAVED SHOULDER
TRAFFIC
TRAFFIC
½ MILE ±
MEDIAN
½ MILE ±
EDGE LINES
WORK AREA
50'
SECOND LAW ENFORCEMENT VEHICLE
STOP
R1-1
(48" X 48")
TRAFFIC
TRAFFIC
PAVED SHOULDER
(SEE NOTE 8)
W3-1
(48" X 48")
LOCATION BASED ON ANTICIPATED QUEUE
½ MILE MINIMUM
ADVANCE LAW ENFORCEMENT VEHICLE
CMS
SECOND CHANGEABLE MESSAGE SIGN (CMS)
PHASE I - "ROAD CLOSED ½ MILE"
PHASE II - "PREPARE TO STOP"
CMS
FIRST CHANGEABLE MESSAGE SIGN (CMS)
PHASE I - "ROAD CLOSED X MILE"
PHASE II - "PREPARE TO STOP"
GENERAL NOTES:
1. THIS TYPE OF HIGHWAY CLOSURE SHOULD ONLY BE USED FOR CONSTRUCTION OPERATIONS WHEN THE HIGHWAY CANNOT BE REOPENED IN EXCESS OF 30 MINUTES, AFTER THE HIGHWAY HAS BEEN CLOSED AND REOPENED VIA THIS PROCEDURE. A MINIMUM PERIOD OF 30 MINUTES SHALL ELAPSE BEFORE ANOTHER SHORT DURATION CLOSURE, EXCEPT WITH THE APPROVAL OF THE ENGINEER.
2. AT LEAST TWO LAW ENFORCEMENT OFFICERS AND TWO LAW ENFORCEMENT VEHICLES SHOULD BE PROVIDED ON EACH APPROACH TO THE CLOSURE. EACH LAW ENFORCEMENT VEHICLE SHOULD HAVE A ROOF MOUNTED OPERATING FLASHING BLUE LIGHT OR LIGHT BAR.
3. RESTRICTIONS ON ROAD CLOSURES ARE SPECIFIED IN THE CONTRACT DOCUMENT.
4. THE ADVANCE LAW ENFORCEMENT VEHICLE SHOULD BE MOVED BACK AS REQUIRED BY THE QUEUING OF STOPPED VEHICLES.
5. IF QUEUE EXCEEDS THE FIRST CHANGEABLE MESSAGE SIGN (CMS) AT ANY TIME DURING A CLOSURE, THE TRAFFIC CONTROL PLAN SHOULD BE ADJUSTED AS NECESSARY, WITH APPROVAL OF THE ENGINEER.
6. TRAFFIC CONTROL FOR THE CLOSURE SHOULD BE ACCOMPLISHED IN THE FOLLOWING ORDER:
A. FIRST CHANGEABLE MESSAGE SIGN (CMS)
B. SECOND CHANGEABLE MESSAGE SIGN (CMS)
C. ADVANCE LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
D. "W3-1 (48" X 48") ORANGE/BLACK TYPE XI RETROREFLECTIVE SHEETING) SIGNS ERECTED. OR INSTALLED ON TEMPORARY STANDS.
E. "R1-1 (48" X 48") " SIGNS ERECTED TO STOP TRAFFIC, THE ORDER OF ERECTION SHOULD BE TOWARD THE MEDIAN SHOULDER ON THE FOLLOWING ORDER: RIGHT SHOULDER, THEN CENTER, THEN MEDIAN SHOULDER.
F. SECOND LAW ENFORCEMENT VEHICLE, LIGHTS AND FLASHERS ON.
7. TRAFFIC CONTROL SHOULD BE REMOVED IN THE FOLLOWING ORDER:
A. WITH TRAFFIC STOPPED REMOVE THE "R1-1 (48" X 48") SIGNS TOWARD THE RIGHT SHOULDER, THEN TOWARD THE MEDIAN, THEN CENTER, THEN SIGN ON THE RIGHT SHOULDER, SECOND LAW ENFORCEMENT VEHICLE LEADS TRAFFIC THROUGH WORK AREA.
B. AFTER ALL STOPPED VEHICLES HAVE STARTED MOVING, THE "W3-1 (48" X 48" SIGNS SHALL BE REMOVED. WHEN SIGNS MAY BE COVERED IF RE-USE IS IMMINENT
C. AFTER ALL VEHICLES HAVE RESUMED APPROXIMATELY NORMAL SPEED, THE CHANGEABLE MESSAGE SIGNS SHALL BE TURNED OFF.
8. UNILLUMINATED SECTIONS OF HIGHWAYS SHOULD NOT BE CLOSED DURING HOURS OF DARKNESS EXCEPT FOR EMERGENCIES OR WITH THE APPROVAL OF THE ENGINEER. WHEN SUCH HIGHWAYS ARE CLOSED DURING HOURS OF DARKNESS, A TYPE 'B' HIGH INTENSITY FLASHING BARRICADE WARNING LIGHT SHALL BE USED ON EACH W3-1 SIGN.
9. IF AN ENTRANCE RAMP IS LOCATED BETWEEN THE SECOND CMS AND R1-1, THE CMS AND W3-1 SIGNS SHALL ALSO BE ERECTED ON THE RAMP SHOULDER.
10. THE ABOVE DURATION WILL APPLY TO EACH APPROACH TO THE CLOSURE.
11. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC INCLUDING SECURING LAW ENFORCEMENT SERVICES.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
SHORT DURATION CLOSING OF DIVIDED HIGHWAYS
WORKING NUMBER TCP-7
SHEET NUMBER 6357
ISSUE DATE: AUGUST 01, 2017
REVISED TEXT. STM 12/11/25

| STATE | PROJECT NO. |
|---|---|
| MISS. | |



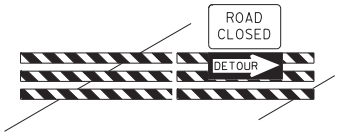

STANDARD BARRICADES

1. THE RETROREFLECTIVE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION THAT TRAFFIC IS TO PASS).
2. RAIL STRIPE SHOULD BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
3. DO NOT PLACE SANDBAGS OR OTHER DEVICES ON BARRICADE RAILS TO PROVIDE MASS SANDBAGS, HOWEVER, MAY BE PLACES AS BALLAST TO THE LOWER PARTS OF THE FRAME OR THE STAYS TO BARRICADES.
4. FOR ADDITIONAL INFORMATION OR DETAILS, SEE MUTCD, LATEST EDITION.
5. BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WORK ZONE DEVICES. A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE: https://highways.dot.gov/safety/RwD/reduce-crash-severity
6. WHERE ROAD USERS INCLUDE PEDESTRIANS, THE PROVISION OF SUPPLEMENTAL AUDIBLE INFORMATION OR DETECTABLE BARRIERS OR BARRICADES SHOULD BE PROVIDED FOR PEOPLE WITH VISION DISABILITIES.
7. BARRICADE RAIL SUPPORTS SHOULD NOT PROJECT INTO PEDESTRIAN CIRCULATION ROUTES MORE THAN 4 INCHES FOR THE SUPPORTS LOCATED BETWEEN 27 INCHES TO 80 INCHES ABOVE THE EXISTING SURFACE.




RETROREFLECTIVE CHEVRON ALIGNMENT SIGN DETAIL (W1–8)

1. A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
2. THE CHEVRON SIGN SHALL BE MOUNTED ON CRASHWORTHY SUPPORT.
3. CHEVRON SIGNS MAY BE USED TO SUPPLEMENT OTHER STANDARD DEVICES WHERE ONE OR MORE LANES ARE CLOSED FOR CONSTRUCTION OR MAINTENANCE. THEY SHOULD BE PLACED APPROXIMATELY 2'-0" BEHIND THE LANE TRANSITION STRIPE.
4. CHEVRON SIGNS SHALL BE INSTALLED AT A MINIMUM HEIGHT OF 4 FEET MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF THE TRAVELWAY.



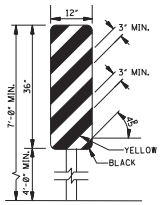

BARRICADE CLOSING A ROAD

BARRICADE CHARACTERISTICS

| | I | II | III |
|---|---|---|---|
| WIDTH OF RAIL * * | 8" MIN. - 12" MAX. | 8" MIN. - 12" MAX. | 8" MIN. - 12" MAX. |
| LENGTH OF RAIL * * | 24" MIN. / 96" MAX. | 24" MIN. /96" MAX. | 48" MIN. / 96" MAX. |
| WIDTH OF STRIPE * | 6" | 6" | 6" |
| HEIGHT | 36" MIN. | 36" MIN. | 60" MIN. |
| NUMBER OF RETROREFLECTORIZED RAIL FACES | 2 (ONE EACH DIRECTION) | 4 (TWO EACH DIRECTION) | 3 IF FACING TRAFFIC IN ONE DIRECTION 6 IF FACING TRAFFIC IN TWO DIRECTIONS |

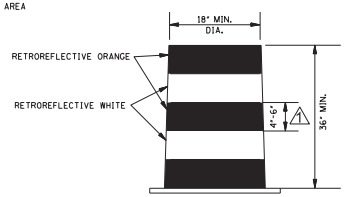
* 1. FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

** 2. BARRICADES INTENDED FOR USE ON EXPRESSWAYS, FREEWAYS AND OTHER HIGH SPEED ROADWAYS, SHALL HAVE A MINIMUM OF 270 $in^2$ OF REFLECTIVE AREA FACING TRAFFIC.

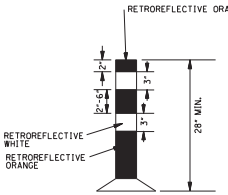



TYPE 3 OBJECT MARKER (OM3–R)

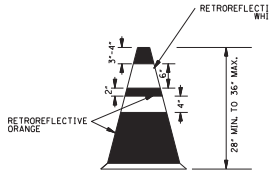
1. TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DEEMED NECESSARY BY THE ENGINEER.
2. THE OM3-R IS SHOWN. THE OM3-L IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
3. THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.
4. THE STRIPING SHALL CONSIST OF ALTERNATING BLACK AND RETOREFLECTIVE YELLOW SLOPING DOWNWARD TOWARD THE SIDE ON WHICH TRAFFIC IS THE PASS.



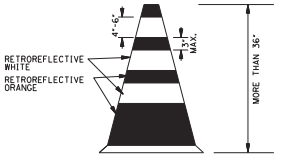

PLASTIC DRUM DETAIL




TUBULAR MARKER DETAIL




PLASTIC CONE DETAIL (28" – 36")




PLASTIC CONE DETAIL (36" OR GREATER)

1. PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF THE DEVICE USED SHALL BE CONSISTENT WITH MARKING STANDARDS FOR BARRICADE. THE PREDOMINANT COLOR ON THE DEVICE USED SHALL BE ORANGE WITH RETROREFLECTIVE, HORIZONTAL, CIRCUMFERENTIAL WHITE STRIPES AS SHOWN ON THE DETAILS.
2. DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
3. WHERE PRACTICAL PLASTIC DRUMS, TUBULAR MARKERS, OR PLASTIC CONES SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.
4. BALLAST SHALL NOT BE PLACED ON THE TOP OF THE DRUM.

| DATE | REVISION | BY |
|---|---|---|
| 12/17/25 | REVISED TEXT AND DETAILS. | STN |

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

# HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

MDOT

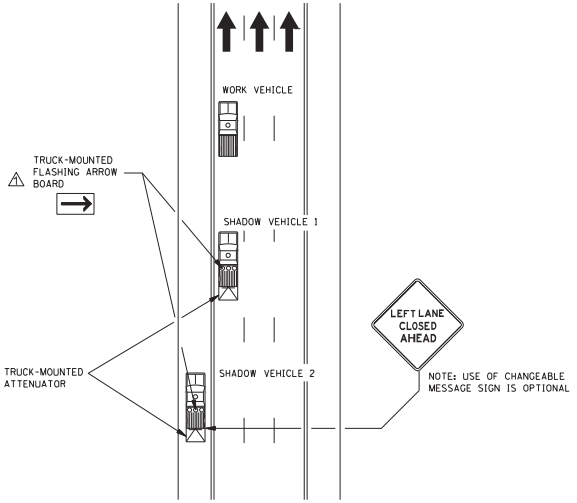
WORKING NUMBER TCP-8

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER 6358

| STATE | PROJECT NO. |
|---|---|
| MISS. | |

## MOBILE OPERATIONS ON MULTILANE ROAD

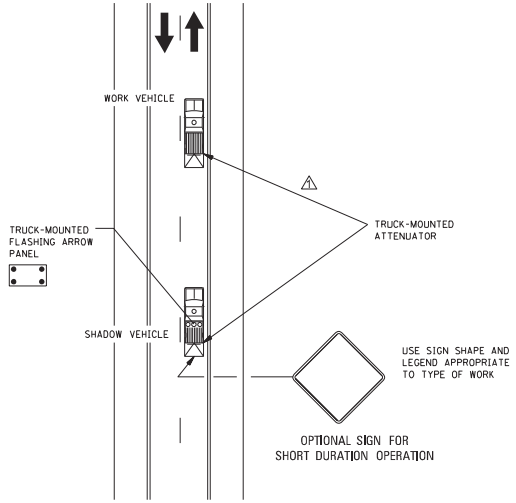



MOBILE OPERATIONS ON MULTILANE ROAD

NOTES FOR MULTILANE LANE OPERATION:

1. SHADOW AND WORK VEHICLES SHALL DISPLAY HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS. AN ARROW BOARD SHALL BE USED WHEN A FREEWAY LANE IS CLOSED. WHEN MORE THAN ONE FREEWAY LANE IS CLOSED, A SEPARATE ARROW BOARD SHALL BE USED FOR EACH CLOSED LANE.
2. SHADOW VEHICLE 2 SHOULD BE EQUIPPED WITH AN ARROW BOARD AND TRUCK MOUNTED ATTENUATOR (TMA), AN APPROPRIATE LANE CLOSURE SIGN SHOULD BE PLACED ON SHADOW VEHICLE 2 SO AS NOT TO OBSCURE THE ARROW BOARD.
3. SHADOW VEHICLE 1 SHOULD BE EQUIPPED WITH AN ARROW BOARD AND TRUCK-MOUNTED ATTENUATOR (TMA).
4. SHADOW VEHICLE 2 SHOULD TRAVEL AT A VARYING DISTANCE FROM THE WORK OPERATION SO AS TO PROVIDE ADEQUATE SIGHT DISTANCE FOR TRAFFIC APPROACHING FROM THE REAR.
5. THE SPACING BETWEEN THE WORK VEHICLES AND THE SHADOW VEHICLES, AND BETWEEN EACH SHADOW VEHICLE, SHOULD BE MINIMIZED TO DETER ROAD USERS FROM DRIVING IN BETWEEN.
6. ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE (NOT SHOWN) MAY BE USED WITH SHADOW VEHICLE 1 IN THE CLOSED LANE, SHADOW VEHICLE 2 STRADDLING THE EDGE LINE, AND SHADOW VEHICLE 3 ON THE SHOULDER.
7. ARROW BOARD SHALL BE AS A MINIMUM TYPE B, 60" X 30" IN ACCORDANCE WITH THE CRITERIA PRESENTED IN THE MUTCD.
8. WORK SHOULD NORMALLY BE DONE DURING OFF-PEAK HOURS.
9. VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
10. WHEN THE WORK VEHICLE OCCUPIES AN INTERIOR LANE (A LANE OTHER THAN THE FAR RIGHT OR FAR LEFT) OF A DIRECTIONAL ROADWAY HAVING A RIGHT-HAND SHOULDER 10 FEET OR MORE IN WIDTH, SHADOW VEHICLE 2 SHOULD DRIVE ON THE RIGHT-HAND SHOULDER WITH A SIGN INDICATING THAT WORK IS TAKING PLACE IN THE INTERIOR LANE.
11. ON HIGH-SPEED ROADWAYS, A THIRD SHADOW VEHICLE (NOT SHOWN) MAY BE USED WITH SHADOW VEHICLE 1 IN THE CLOSED LANE, SHADOW VEHICLE 2 STRADDLING THE EDGE LINE, AND SHADOW VEHICLE 3 ON THE SHOULDER.
12. WHERE ADEQUATE SHOULDER WIDTH IS NOT AVAILABLE, SHADOW VEHICLE 3 MAY ALSO STRADDLE THE EDGE LINE.
13. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

## MOBILE OPERATIONS ON TWO–LANE ROAD




MOBILE OPERATIONS ON TWO–LANE ROAD

NOTES FOR TWO-LANE OPERATION:

1. WHERE PRACTICAL AND WHEN NEEDED, THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS. IF THIS CAN NOT BE DONE FREQUENTLY, AS AN ALTERNATIVE, A "DO NOT PASS" SIGN MAY BE PLACED ON THE REAR OF THE VEHICLE BLOCKING THE LANE.
2. THE DISTANCE BETWEEN THE WORK AND SHADOW VEHICLES MAY VARY ACCORDING TO TERRAIN, PAINT DRYING TIME, AND OTHER FACTORS. SHADOW VEHICLES ARE USED TO WARN TRAFFIC OF THE OPERATION AHEAD. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, THE SHADOW VEHICLE SHOULD MAINTAIN THE MINIMUM DISTANCE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. THE SHADOW VEHICLE SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
3. ADDITIONAL SHADOW VEHICLES TO WARN AND REDUCE THE SPEED OF ONCOMING OR OPPOSING TRAFFIC MAY BE USED. POLICE PATROL CARS MAY BE USED FOR THIS PURPOSE.
4. A TRUCK-MOUNTED ATTENUATOR (TMA) SHOULD BE USED ON THE SHADOW VEHICLE AND MAY BE USED ON THE WORK VEHICLE.
5. THE WORK VEHICLE SHALL BE EQUIPPED WITH BEACONS, AND THE SHADOW VEHICLES SHALL BE EQUIPPED WITH TWO HIGH-INTENSITY FLASHING LIGHTS MOUNTED ON THE REAR, ADJACENT TO THE SIGN. SHADOW AND WORK VEHICLES SHALL DISPLAY FLASHING OR ROTATING BEACONS BOTH FORWARD AND TO THE REAR.
6. VEHICLE-MOUNTED SIGNS SHOULD BE MOUNTED WITH THE BOTTOM OF THE SIGN LOCATED AT A MINIMUM HEIGHT OF 48" ABOVE THE PAVEMENT AND SHALL NOT BE OBSCURED BY EQUIPMENT OR SUPPLIES. SIGN LEGENDS SHALL BE COVERED OR TURNED FROM VIEW WHEN WORK IS NOT IN PROGRESS.
7. ARROW BOARD TO BE USED IN CAUTION MODE.
8. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT. THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

| DATE | REVISION | BY |
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| 12/17/25 | REVISED TEXT AND DETAILS. | STN |

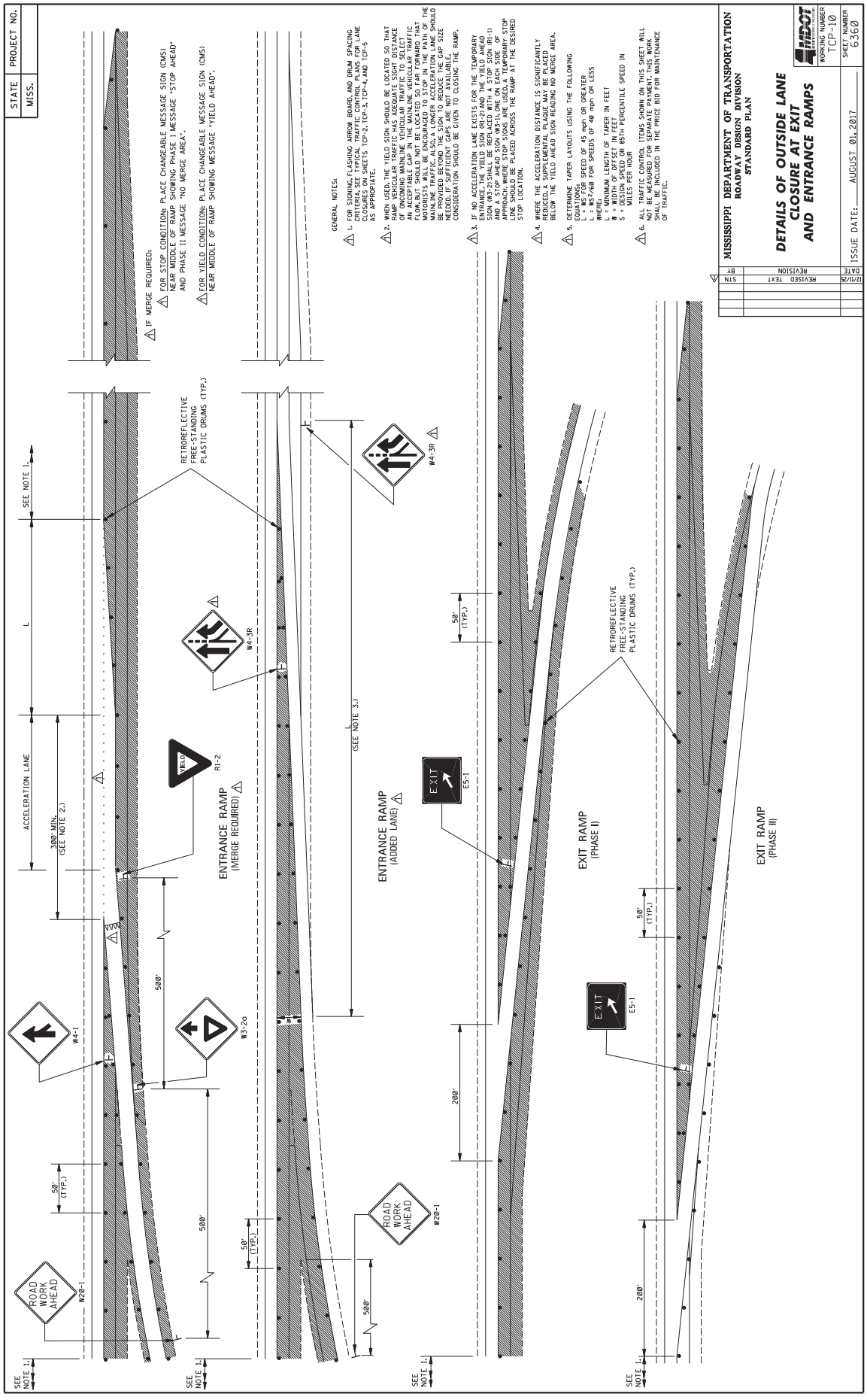
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

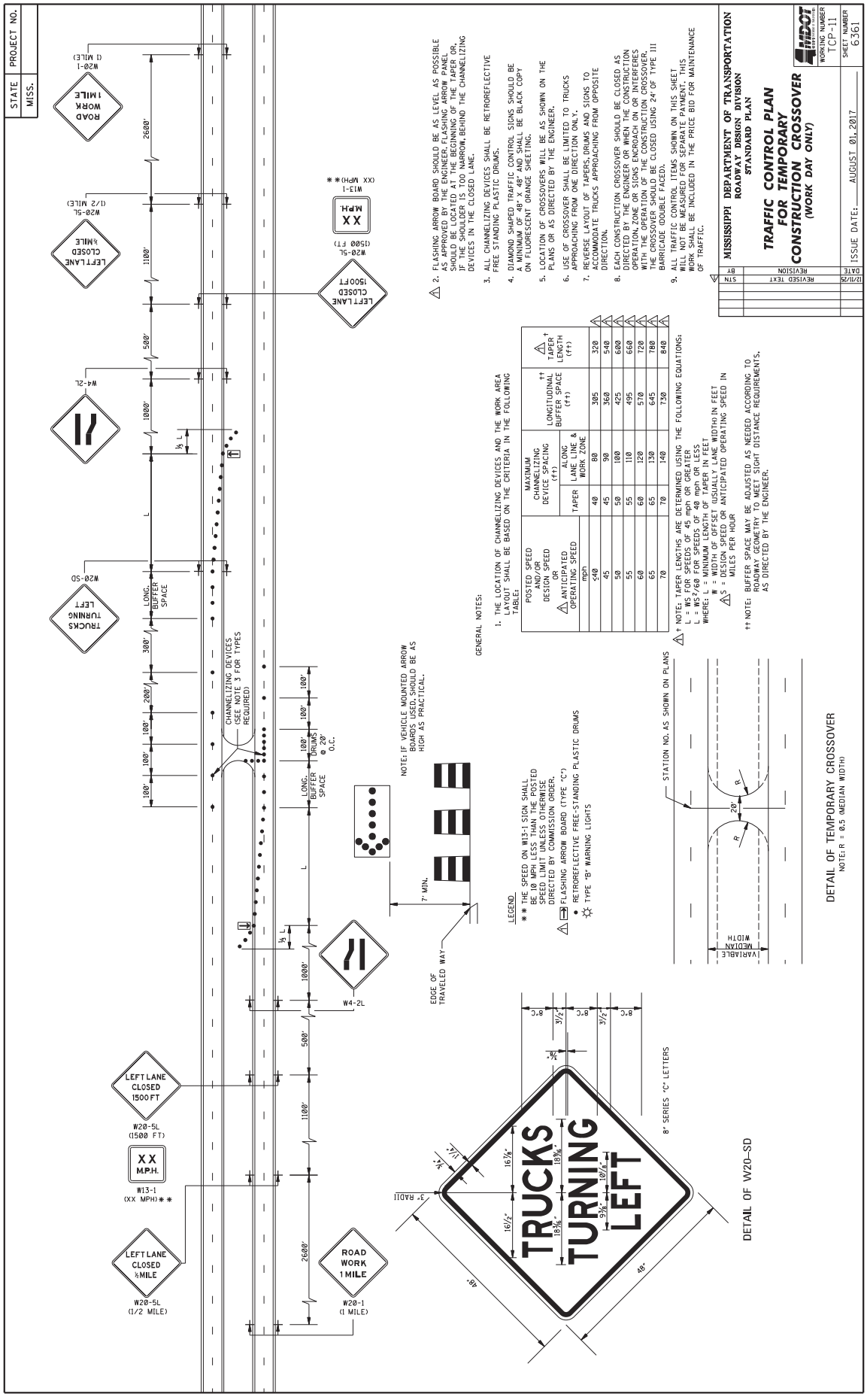
**TRAFFIC CONTROL PLAN**
**MOBILE OPERATIONS**
**MULTILANE ROADS**
**AND**
**TWO–LANE ROADS**

WORKING NUMBER: TCP-9

ISSUE DATE: AUGUST 01, 2017

SHEET NUMBER: 6359


STATE
MISS.
PROJECT NO.
GENERAL NOTES:
1. FOR SIGNING, FLASHING ARROW BOARD, AND DRUM SPACING CRITERIA SEE TYPICAL TRAFFIC CONTROL PLANS FOR LANE CLOSURES ON SHEETS TCP-2, TCP-3, TCP-4, AND TCP-5 AS APPROPRIATE.
2. WHEN USED, THE YIELD SIGN SHOULD BE LOCATED SO THAT RAMP VEHICULAR TRAFFIC HAS ADEQUATE SIGHT DISTANCE OF ONCOMING MAINLINE VEHICULAR TRAFFIC TO SELECT AN ACCEPTABLE GAP IN THE MAINLINE TRAFFIC FLOW. RAMP TRAFFIC FLOW, BUT SHOULD NOT BE LOCATED SO FAR FORWARD THAT MOTORISTS WILL BE ENCOURAGED TO STOP IN THE PATH OF THE MAINLINE TRAFFIC. ALSO, A LONGER ACCELERATION LANE SHOULD BE PROVIDED BECAUSE THE DRIVER MUST ACCEPT A GAP. SIZE NEEDED. IF SUFFICIENT GAPS ARE NOT AVAILABLE, CONSIDERATION SHOULD BE GIVEN TO CLOSING THE RAMP.
3. IF NO ACCELERATION LANE EXISTS FOR THE TEMPORARY ENTRANCE, THE YIELD SIGN (R1-2) AND THE YIELD AHEAD SIGN (W3-2) SHALL BE REPLACED WITH A STOP SIGN (R1-1) AND A STOP AHEAD SIGN (W3-1), ONE ON EACH SIDE OF APPROACHING TRAFFIC. ALSO, A SUPPLEMENTAL STOP LINE SHOULD BE PLACED ACROSS THE RAMP AT THE DESIRED STOP LOCATION.
4. WHERE THE ACCELERATION DISTANCE IS SIGNIFICANTLY REDUCED, A SUPPLEMENTAL PLAQUE MAY BE PLACED BELOW THE YIELD AHEAD SIGN READING NO MERGE AREA.
5. DETERMINE TAPER LAYOUTS USING THE FOLLOWING GUIDELINES:
L = WS FOR SPEED OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE:
L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET IN FEET
S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MPH, IF KNOWN
6. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET WILL NOT BE MEASURED FOR SEPARATE PAYMENT; THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.
IF MERGE REQUIRED:
FOR STOP CONDITION: PLACE CHANGEABLE MESSAGE SIGN (CMS) NEAR MIDDLE OF RAMP SHOWING PHASE I MESSAGE "STOP AHEAD" AND PHASE II MESSAGE "NO MERGE AREA".
FOR YIELD CONDITION: PLACE CHANGEABLE MESSAGE SIGN (CMS) NEAR MIDDLE OF RAMP SHOWING MESSAGE "YIELD AHEAD".
RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS (TYP.)
ACCELERATION LANE
L
300' MIN. (SEE NOTE 2.)
SEE NOTE 1.
ENTRANCE RAMP (MERGE REQUIRED)
ENTRANCE RAMP (ADDED LANE)
EXIT RAMP (PHASE I)
EXIT RAMP (PHASE II)
W4-1
W3-2a
W4-3R
R1-2
E5-1
W20-1
ROAD WORK AHEAD
50' (TYP.)
500'
200'
(SEE NOTE 3.)
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
DETAILS OF OUTSIDE LANE CLOSURE AT EXIT AND ENTRANCE RAMPS
WORKING NUMBER TCP-10
SHEET NUMBER 6360
ISSUE DATE: AUGUST 01, 2017
DATE REVISION BY
12/1/25 REVISED TEXT STN

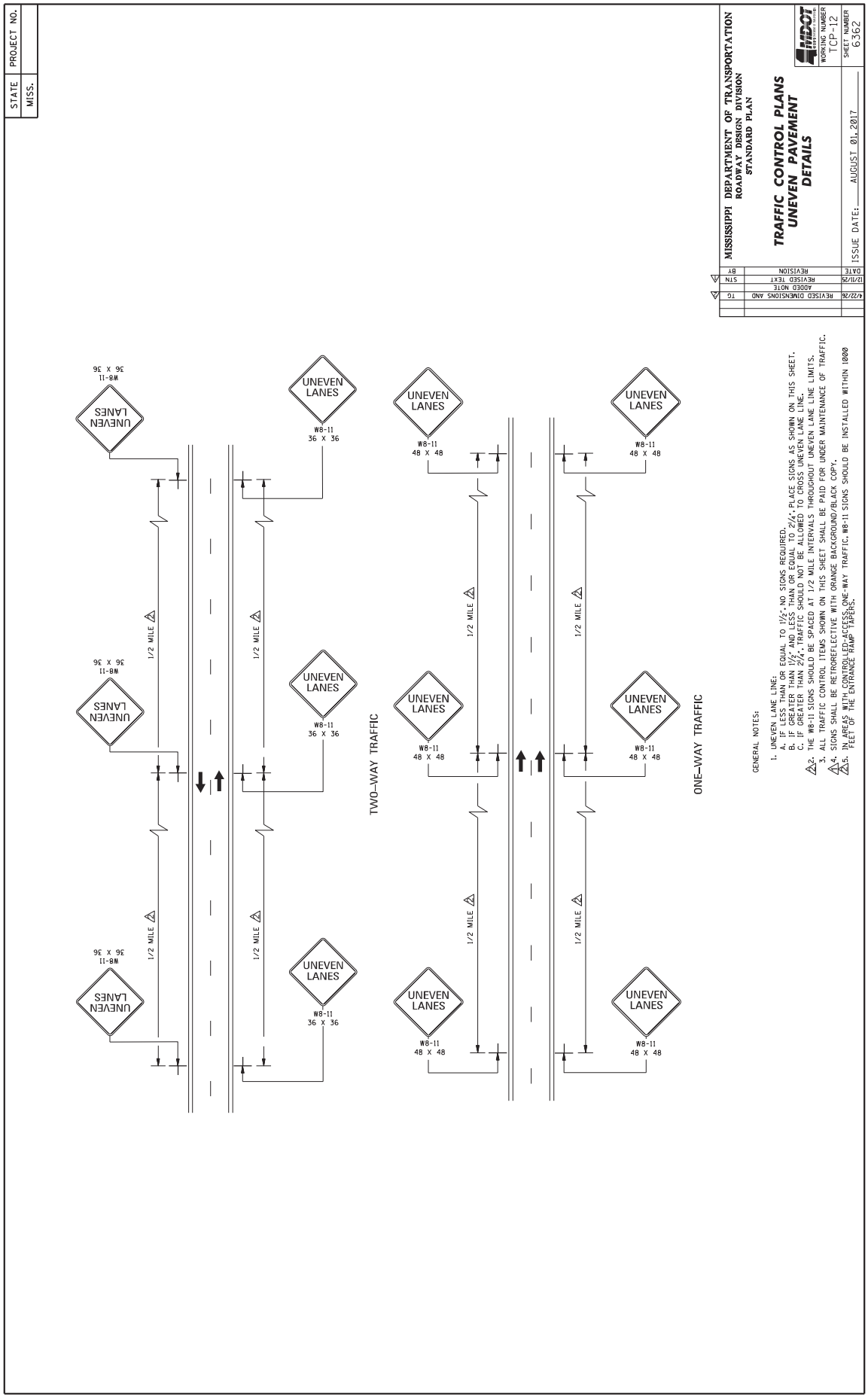


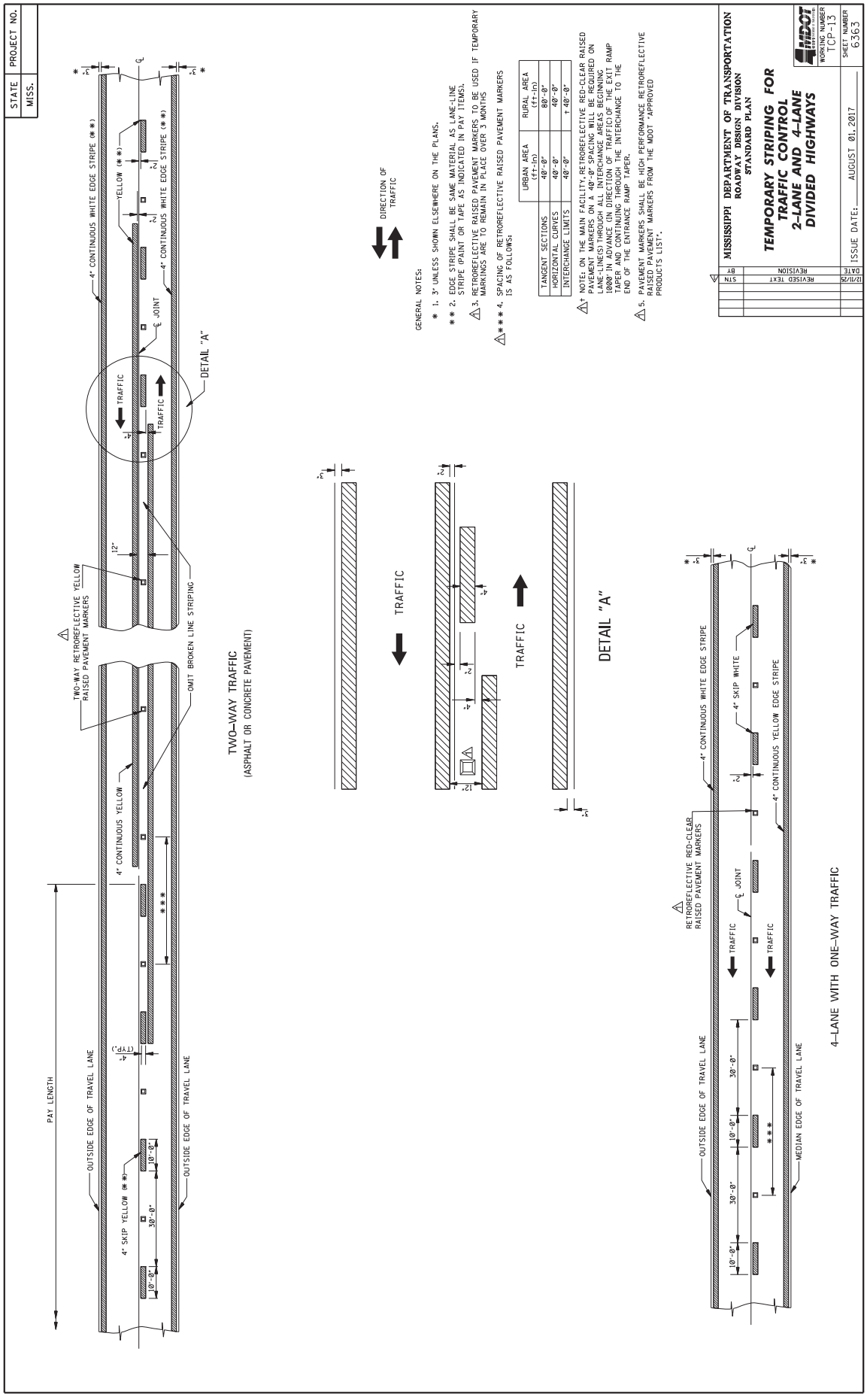

| POSTED SPEED AND/OR DESIGN SPEED OR ⚠ ANTICIPATED OPERATING SPEED mph | TAPER | MAXIMUM CHANNELIZING DEVICE SPACING (ft) ALONG LANE LINE & WORK ZONE | LONGITUDINAL †† BUFFER SPACE (ft) | ⚠ † TAPER LENGTH (ft) |
|---|---|---|---|---|
| ≤40 | 40 | 80 | 305 | 320 |
| 45 | 45 | 90 | 360 | 540 |
| 50 | 50 | 100 | 425 | 600 |
| 55 | 55 | 110 | 495 | 660 |
| 60 | 60 | 120 | 570 | 720 |
| 65 | 65 | 130 | 645 | 780 |
| 70 | 70 | 140 | 730 | 840 |

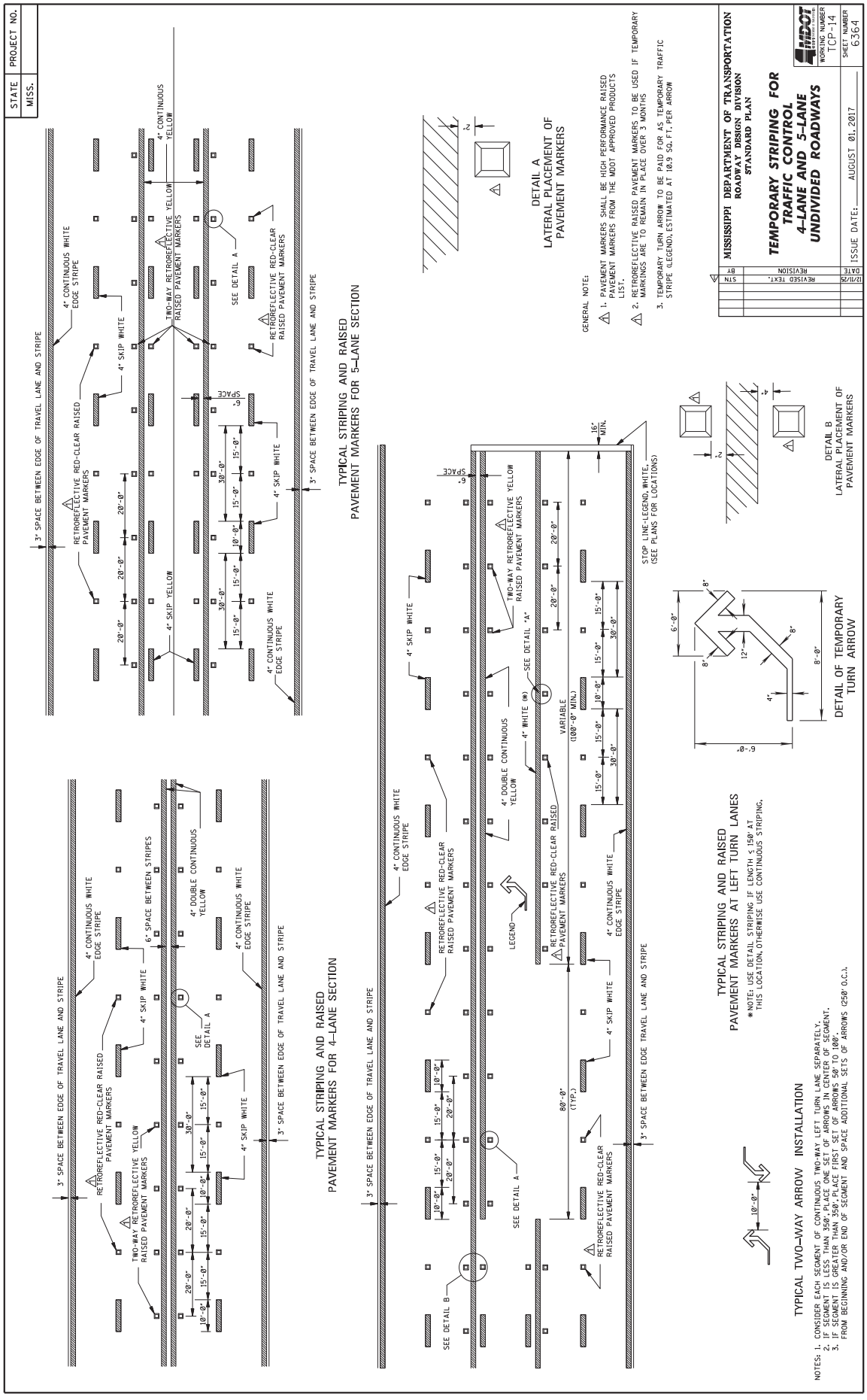
⚠ † NOTE: TAPER LENGTHS ARE DETERMINED USING THE FOLLOWING EQUATIONS:
L = WS FOR SPEEDS OF 45 mph OR GREATER
L = WS²/60 FOR SPEEDS OF 40 mph OR LESS
WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
W = WIDTH OF OFFSET (EQUAL LANE WIDTH) IN FEET
⚠ S = DESIGN SPEED OR ANTICIPATED OPERATING SPEED IN MILES PER HOUR

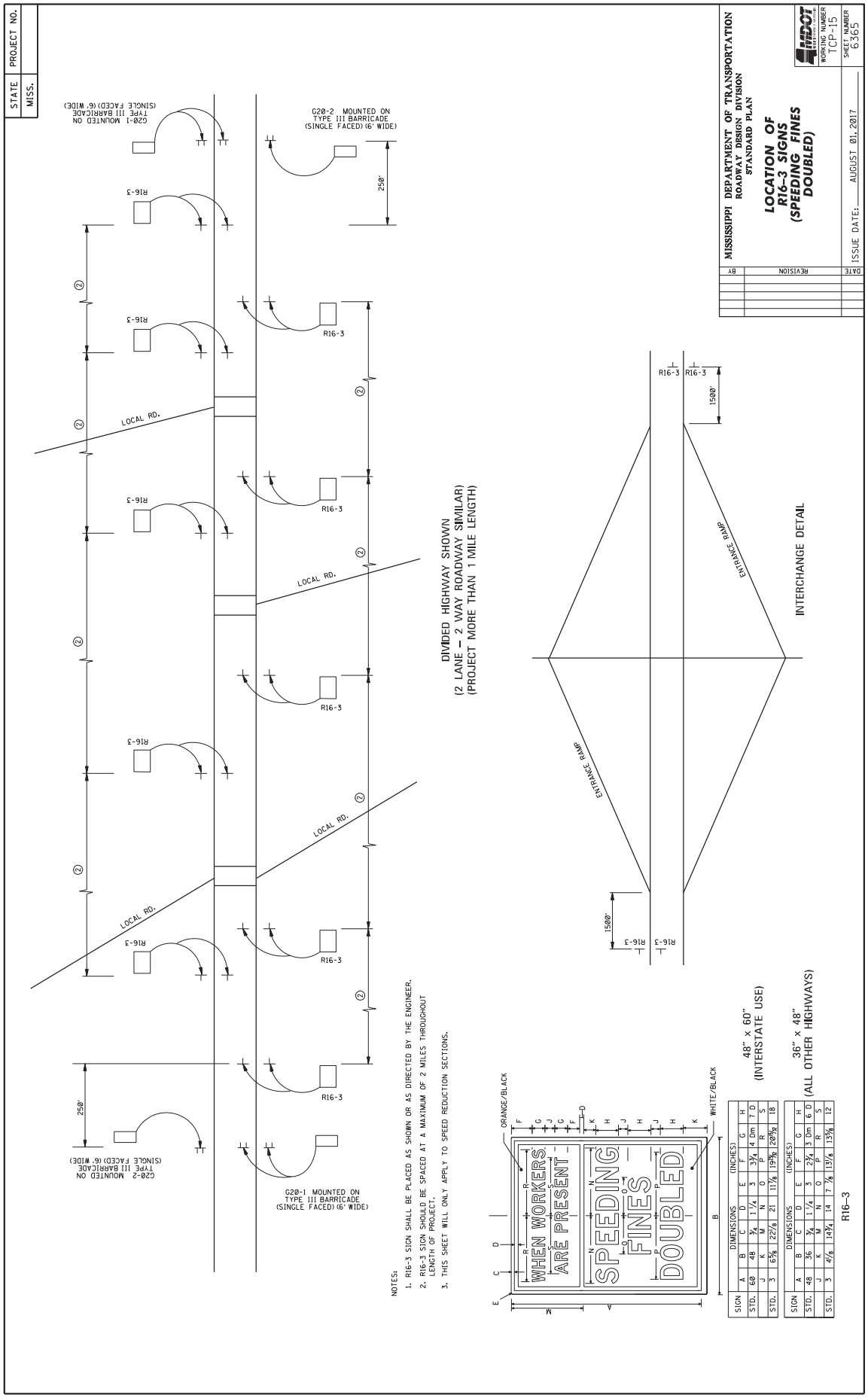
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

| BY | REVISION | DATE |
|---|---|---|
| STN | REVISED TEXT | 12/11/25 |


STATE
MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLANS
UNEVEN PAVEMENT
DETAILS
WORKING NUMBER
TCP-12
SHEET NUMBER
6362
ISSUE DATE: AUGUST 01, 2017
DATE
BY
REVISION
12/11/25
STN
REVISED TEXT
4/22/26
TG
REVISED DIMENSIONS AND
ADDED NOTE
TWO-WAY TRAFFIC
ONE-WAY TRAFFIC
UNEVEN LANES
W8-11
36 X 36
48 X 48
1/2 MILE
GENERAL NOTES:
1. UNEVEN LANE LINE:
A. IF LESS THAN OR EQUAL TO 1½", NO SIGNS REQUIRED.
B. IF GREATER THAN 1½" AND LESS THAN OR EQUAL TO 2¼", PLACE SIGNS AS SHOWN ON THIS SHEET.
C. IF GREATER THAN 2¼", TRAFFIC SHOULD NOT BE ALLOWED TO CROSS UNEVEN LANE LINE.
2. THE W8-11 SIGNS SHOULD BE SPACED AT 1/2 MILE INTERVALS THROUGHOUT UNEVEN LANE LINE LIMITS.
3. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.
4. SIGNS SHALL BE RETROREFLECTIVE WITH ORANGE BACKGROUND/BLACK COPY.
5. IN AREAS WITH CONTROLLED ACCESS, ONE-WAY TRAFFIC, W8-11 SIGNS SHOULD BE INSTALLED WITHIN 1000 FEET OF THE ENTRANCE RAMP TAPERS.

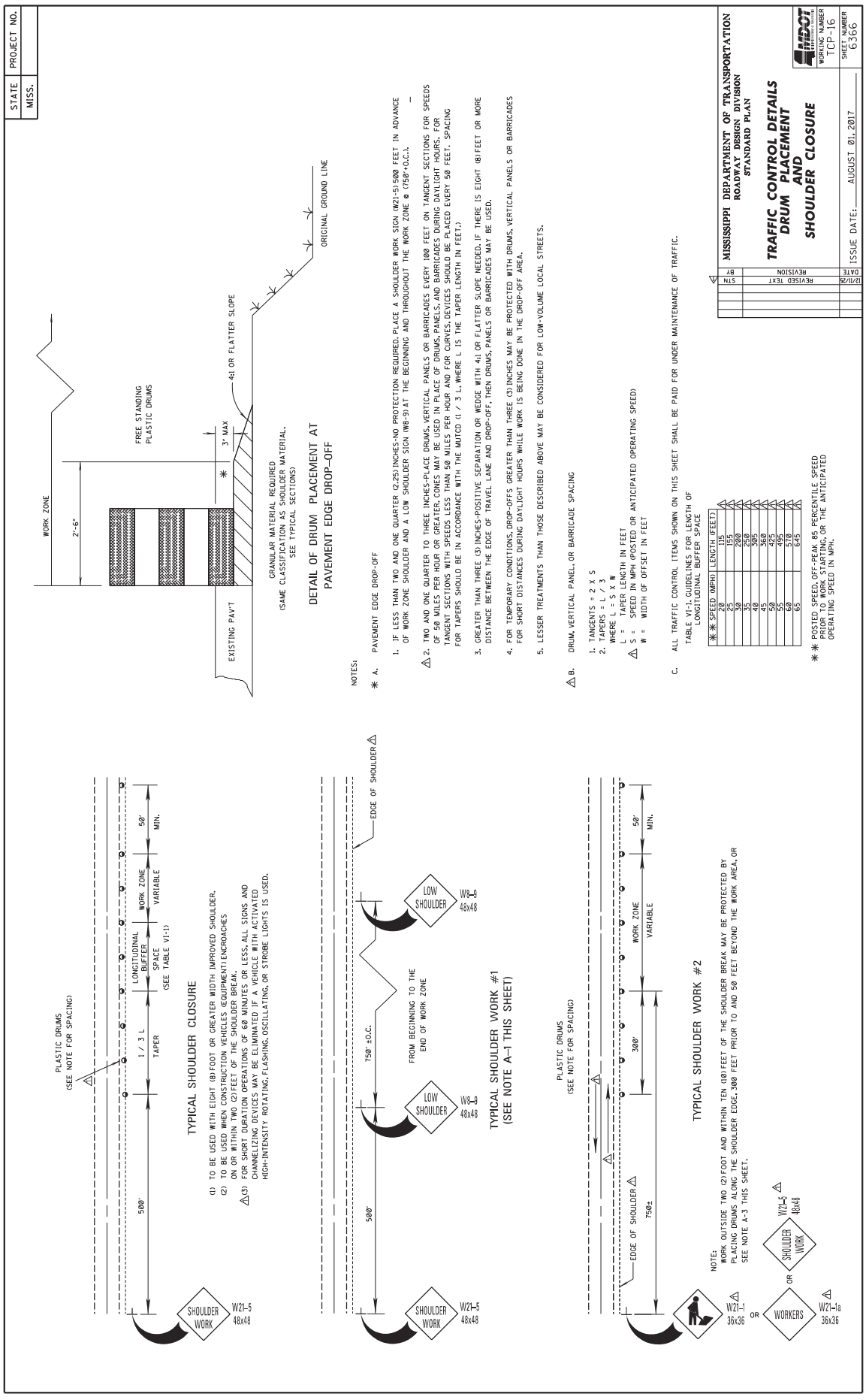

STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TEMPORARY STRIPING FOR TRAFFIC CONTROL 2-LANE AND 4-LANE DIVIDED HIGHWAYS
WORKING NUMBER TCP-13
SHEET NUMBER 6363
ISSUE DATE: AUGUST 01, 2017
REVISED TEXT 12/1/25
PAY LENGTH
OUTSIDE EDGE OF TRAVEL LANE
4" SKIP YELLOW (**)
4" CONTINUOUS YELLOW
TWO-WAY RETROREFLECTIVE YELLOW RAISED PAVEMENT MARKERS
OMIT BROKEN LINE STRIPING
4" CONTINUOUS WHITE EDGE STRIPE (**)
YELLOW (**)
JOINT
TRAFFIC
DETAIL "A"
TWO-WAY TRAFFIC
(ASPHALT OR CONCRETE PAVEMENT)
DIRECTION OF TRAFFIC
GENERAL NOTES:
* 1. 3" UNLESS SHOWN ELSEWHERE ON THE PLANS.
** 2. EDGE STRIPE SHALL BE SAME MATERIAL AS LANE-LINE STRIPE (PAINT OR TAPE AS INDICATED IN PAY ITEMS).
3. RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS
*** 4. SPACING OF RETROREFLECTIVE RAISED PAVEMENT MARKERS IS AS FOLLOWS:
URBAN AREA (ft-in) / RURAL AREA (ft-in)
TANGENT SECTIONS 40'-0" 80'-0"
HORIZONTAL CURVES 40'-0" 40'-0"
INTERCHANGE LIMITS 40'-0" † 40'-0"
† NOTE: ON THE MAIN FACILITY, RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS ON A 40'-0" SPACING WILL BE REQUIRED ON LANE-LINES) THROUGH ALL INTERCHANGE AREAS BEGINNING (ABOVE INSIDE LANE) IN DIRECTION OF TRAFFIC AT EXIT RAMP TAPER AND CONTINUING THROUGH THE INTERCHANGE TO THE END OF THE ENTRANCE RAMP TAPER.
5. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RETROREFLECTIVE RAISED PAVEMENT MARKERS FROM THE MDOT "APPROVED PRODUCTS LIST".
4-LANE WITH ONE-WAY TRAFFIC
RETROREFLECTIVE RED-CLEAR RAISED PAVEMENT MARKERS
4" CONTINUOUS WHITE EDGE STRIPE
4" SKIP WHITE
4" CONTINUOUS YELLOW EDGE STRIPE
MEDIAN EDGE OF TRAVEL LANE


STATE MISS.
PROJECT NO.
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TEMPORARY STRIPING FOR TRAFFIC CONTROL 4-LANE AND 5-LANE UNDIVIDED ROADWAYS
WORKING NUMBER TCP-14
SHEET NUMBER 6364
ISSUE DATE: AUGUST 01, 2017
REVISION
DATE
BY
12/11/25 REVISED TEXT. STM
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 4-LANE SECTION
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS FOR 5-LANE SECTION
TYPICAL STRIPING AND RAISED PAVEMENT MARKERS AT LEFT TURN LANES
* NOTE: USE DETAIL STRIPING IF LENGTH ≤ 150' AT THIS LOCATION, OTHERWISE USE CONTINUOUS STRIPING.
TYPICAL TWO-WAY ARROW INSTALLATION
NOTES: 1. CONSIDER EACH SEGMENT OF CONTINUOUS TWO-WAY LEFT TURN LANE SEPARATELY.
2. IF SEGMENT IS LESS THAN 350', PLACE ONE SET OF ARROWS IN CENTER OF SEGMENT.
3. IF SEGMENT IS GREATER THAN 350', PLACE FIRST SET OF ARROWS 50' TO 100' FROM BEGINNING AND/OR END OF SEGMENT AND SPACE ADDITIONAL SETS OF ARROWS @250 O.C.).
DETAIL A LATERAL PLACEMENT OF PAVEMENT MARKERS
DETAIL B LATERAL PLACEMENT OF PAVEMENT MARKERS
DETAIL OF TEMPORARY TURN ARROW
GENERAL NOTE:
1. PAVEMENT MARKERS SHALL BE HIGH PERFORMANCE RAISED PAVEMENT MARKERS FROM THE MDOT APPROVED PRODUCTS LIST.
2. RETROREFLECTIVE RAISED PAVEMENT MARKERS TO BE USED IF TEMPORARY MARKINGS ARE TO REMAIN IN PLACE OVER 3 MONTHS
3. TEMPORARY TURN ARROW TO BE PAID FOR AS TEMPORARY TRAFFIC STRIPE (LEGEND), ESTIMATED AT 10.9 SQ. FT. PER ARROW




| SIGN | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| STD. | 60 | 48 | ¾ | 1 ¼ | 3 | 3¾ | 4 Dm | 7 D |
| | J | K | M | N | O | P | R | S |
| STD. | 3 | 6⅝ | 22⅛ | 21 | 11⅞ | 19⅜ | 20⅝ | 18 |

| SIGN | A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|---|
| STD. | 48 | 36 | ¾ | 1 ¼ | 3 | 2¾ | 3 Dm | 6 D |
| | J | K | M | N | O | P | R | S |
| STD. | 3 | 4⅛ | 14⅜ | 14 | 7 ⅛ | 13⅜ | 13⅝ | 12 |


STATE MISS.
PROJECT NO.
WORK ZONE
2'-6"
FREE STANDING PLASTIC DRUMS
3" MAX
4:1 OR FLATTER SLOPE
EXISTING PAVT
GRANULAR MATERIAL REQUIRED (SAME CLASSIFICATION AS SHOULDER MATERIAL, SEE TYPICAL SECTIONS)
ORIGINAL GROUND LINE
DETAIL OF DRUM PLACEMENT AT PAVEMENT EDGE DROP-OFF
NOTES:
* A. PAVEMENT EDGE DROP-OFF
1. IF LESS THAN TWO AND ONE QUARTER (2.25) INCHES-NO PROTECTION REQUIRED. PLACE A SHOULDER WORK SIGN (W21-5) 500 FEET IN ADVANCE OF WORK ZONE SHOULDER AND A LOW SHOULDER SIGN (W8-9) AT THE BEGINNING AND THROUGHOUT THE WORK ZONE @ (750'+O.C.).
△2. TWO AND ONE QUARTER TO THREE INCHES-PLACE DRUMS, VERTICAL PANELS OR BARRICADES EVERY 100 FEET ON TANGENT SECTIONS FOR SPEEDS OF 50 MILES PER HOUR OR GREATER. CONES MAY BE USED IN PLACE OF DRUMS, PANELS, AND BARRICADES DURING DAYLIGHT HOURS. FOR TANGENT SECTIONS WITH SPEEDS LESS THAN 50 MILES PER HOUR AND FOR CURVES, DEVICES SHOULD BE PLACED EVERY 50 FEET. SPACING FOR TAPERS SHOULD BE IN ACCORDANCE WITH THE MUTCD (1 / 3 L, WHERE L IS THE TAPER LENGTH IN FEET.)
3. GREATER THAN THREE (3) INCHES-POSITIVE SEPARATION OR WEDGE WITH 4:1 OR FLATTER SLOPE NEEDED. IF THERE IS EIGHT (8) FEET OR MORE DISTANCE BETWEEN THE EDGE OF TRAVEL LANE AND DROP-OFF, THEN DRUMS, PANELS OR BARRICADES MAY BE USED.
4. FOR TEMPORARY CONDITIONS, DROP-OFFS GREATER THAN THREE (3) INCHES MAY BE PROTECTED WITH DRUMS, VERTICAL PANELS OR BARRICADES FOR SHORT DISTANCES DURING DAYLIGHT HOURS WHILE WORK IS BEING DONE IN THE DROP-OFF AREA.
5. LESSER TREATMENTS THAN THOSE DESCRIBED ABOVE MAY BE CONSIDERED FOR LOW-VOLUME LOCAL STREETS.
△B. DRUM, VERTICAL PANEL, OR BARRICADE SPACING
1. TANGENTS = 2 X S
2. TAPERS = L / 3
WHERE L = S X W
L = TAPER LENGTH IN FEET
△S = SPEED IN MPH (POSTED OR ANTICIPATED OPERATING SPEED)
W = WIDTH OF OFFSET IN FEET
C. ALL TRAFFIC CONTROL ITEMS SHOWN ON THIS SHEET SHALL BE PAID FOR UNDER MAINTENANCE OF TRAFFIC.
TABLE VI-1, GUIDELINES FOR LENGTH OF LONGITUDINAL BUFFER SPACE
** SPEED (MPH) | LENGTH (FEET)
20 | 115
25 | 155
30 | 200
35 | 250
40 | 305
45 | 360
50 | 425
55 | 495
60 | 570
65 | 645
** POSTED SPEED, OFF-PEAK 85 PERCENTILE SPEED PRIOR TO WORK STARTING, OR THE ANTICIPATED OPERATING SPEED IN MPH.
PLASTIC DRUMS (SEE NOTE FOR SPACING)
1 / 3 L
TAPER
LONGITUDINAL BUFFER SPACE (SEE TABLE VI-1)
WORK ZONE VARIABLE
50' MIN.
TYPICAL SHOULDER CLOSURE
(1) TO BE USED WITH EIGHT (8) FOOT OR GREATER WIDTH IMPROVED SHOULDER.
(2) TO BE USED WHEN CONSTRUCTION VEHICLES (EQUIPMENT) ENCROACHES ON OR WITHIN TWO (2) FEET OF THE SHOULDER BREAK.
△(3) FOR SHORT DURATION OPERATIONS OF 60 MINUTES OR LESS, ALL SIGNS AND CHANNELIZING DEVICES MAY BE ELIMINATED IF A VEHICLE WITH ACTIVATED HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING, OR STROBE LIGHTS IS USED.
500'
SHOULDER WORK
W21-5 48x48
EDGE OF SHOULDER △
750' ±O.C.
FROM BEGINNING TO THE END OF WORK ZONE
LOW SHOULDER
W8-9 48x48
TYPICAL SHOULDER WORK #1 (SEE NOTE A-1 THIS SHEET)
PLASTIC DRUMS (SEE NOTE FOR SPACING)
300'
750±
WORK ZONE VARIABLE
50' MIN.
TYPICAL SHOULDER WORK #2
NOTE: WORK OUTSIDE TWO (2) FOOT AND WITHIN TEN (10) FEET OF THE SHOULDER BREAK MAY BE PROTECTED BY PLACING DRUMS ALONG THE SHOULDER EDGE. 300 FEET PRIOR TO AND 50 FEET BEYOND THE WORK AREA, OR SEE NOTE A-3 THIS SHEET.
W21-1 36x36
OR
WORKERS
W21-1a 36x36
SHOULDER WORK
W21-5 48x48
REVISED TEXT
DATE 12/11/25
BY STN
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL DETAILS
DRUM PLACEMENT AND
SHOULDER CLOSURE
WORKING NUMBER TCP-16
ISSUE DATE: AUGUST 01, 2017
SHEET NUMBER 6366

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SECTION 904 - NOTICE TO BIDDERS NO. 8513** **CODE: (SP)**

**DATE:** **10/27/2026**

**SUBJECT:** **Cooperation Between Contractors**

**PROJECT:** **IM-0055-02(291) / 110067301 – Madison County**
**NHPP-0055-02(287) / 110043301 – Madison County**
**IM-0055-02(292) / 110068301 – Madison County**

The Bidder's attention is hereby called to Subsection 105.07, Cooperation between Contractors, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction.

The Bidder is advised that these projects adjoin the following project that may be under construction before the completion of this contract:

**STP-0055-02(271) / 108168301, STP-0055-02(275) / 108168302 – Madison County**

The Contractor shall cooperate in all respects and shall coordinate construction of all phases of work with the Contractor of the adjoining project. Failure to coordinate work schedules, such as but not limited to lane closures, shall not be reason to modify contract time.

General Decision Number: MS20260137 05/18/2026

State: Mississippi

Construction Types: Highway

Counties: Mississippi Counties of
Madison

| Modification Number | Publication Date |
|---|---|
| 0 | 01/02/2026 |
| 1 | 05/18/2026 |

ELEC0480-010 01/01/2025

| | Rates | Fringes |
|---|---|---|
| TRAFFIC SIGNALIZATION (ELECTRICIAN) | $ 30.35 | 11.39 |

SUMS2010-060 08/04/2014

| | Rates | Fringes |
|---|---|---|
| TRUCK DRIVER: SEMI/TRAILER TRUCK | $ 12.50 | 0.00 |
| TRUCK DRIVER: DUMP TRUCK (ALL TYPES) | $ 11.02 | 0.00 |
| TRUCK DRIVER: WATER TRUCK | $ 10.00 | 0.00 |
| TRUCK DRIVER: MECHANIC | $ 13.00 | 0.00 |
| TRUCK DRIVER: LOWBOY TRUCK | $ 12.08 | 0.00 |
| TRUCK DRIVER: FLATBED TRUCK | $ 14.06 | 0.00 |
| OPERATOR: TRACTOR | $ 10.56 | 0.00 |
| OPERATOR: SCRAPER | $ 12.25 | 0.00 |
| OPERATOR: ROLLER (ALL TYPES) | $ 10.85 | 0.00 |
| OPERATOR: PAVER (ASPHALT, AGGREGATE, AND CONCRETE) | $ 11.74 | 0.00 |
| OPERATOR: OILER | $ 12.35 | 0.00 |
| OPERATOR: MIXER | $ 14.25 | 0.00 |
| OPERATOR: MILLING MACHINE | $ 14.68 | 0.00 |
| OPERATOR: MECHANIC | $ 13.00 | 0.00 |
| OPERATOR: LOADER | $ 13.28 | 0.00 |
| OPERATOR: GRINDING/GROOVING MACHINE | $ 15.90 | 0.00 |
| OPERATOR: GRADER/BLADE | $ 14.28 | 0.00 |
| OPERATOR: DISTRIBUTOR | $ 10.95 | 0.00 |
| OPERATOR: CRANE | $ 15.00 | 0.00 |
| OPERATOR: CONCRETE SAW | $ 15.50 | 0.00 |
| OPERATOR: BULLDOZER | $ 13.88 | 0.00 |
| OPERATOR: BROOM/SWEEPER | $ 10.48 | 0.00 |
| OPERATOR: BOBCAT/SKID STEER/SKID LOADER | $ 11.64 | 0.00 |
| OPERATOR: BACKHOE/EXCAVATOR/TRACKHOE | $ 14.37 | 0.00 |
| OPERATOR: ASPHALT SPREADER | $ 14.71 | 0.00 |
| LABORER: LABORER-CONES/ BARRICADES/BARRELS - SETTER/MOVER/SWEEPER | $ 10.26 | 0.00 |
| LABORER: PIPELAYER | $ 13.44 | 0.00 |

LABORER:  MASON TENDER - CEMENT/CONCRETE.....$ 11.27  0.00
LABORER:  LUTEMAN.....$ 12.88  0.00
LABORER:  FLAGGER.....$ 9.91  0.00
LABORER:  COMMON OR GENERAL, INCLUDING ASPHALT
RAKING, SHOVELING, SPREADING; AND GRADE CHECKING....$ 10.38  0.00
IRONWORKER, REINFORCING.....$ 15.52  0.00
INSTALLER - SIGN.....$ 11.54  0.00
INSTALLER - GUARDRAIL.....$ 12.07  0.00
HIGHWAY/PARKING LOT STRIPING:  TRUCK DRIVER (LINE
STRIPING TRUCK).....$ 10.86  0.00
ELECTRICIAN.....$ 24.04  5.87
CEMENT MASON/CONCRETE FINISHER.....$ 12.85  0.39
CARPENTER (FORM WORK ONLY).....$ 12.32  0.00
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WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.
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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017.  If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other
health-related needs, including preventive care; or for reasons
resulting from, or to assist a family member (or person who is
like family to the employee) who is a victim of, domestic
violence, sexual assault, or stalking.  Additional information
on contractor requirements and worker protections under the EO
is available at
https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject
to the Davis-Bacon Act that were awarded on or between January 1,
2015 and January 29, 2022, and that have not been renewed or
extended on or after January 30, 2022. Executive Order 13658 does
not apply to contracts subject only to the Davis-Bacon Related Acts
regardless of when they were awarded. If a contract is subject to
Executive Order 13658, the contractor must pay all covered workers
at least $13.65 per hour (or the applicable wage rate listed on this
wage determination, if it is higher) for all hours spent performing on
the contract from May 11, 2026, through December 31, 2026.  The
applicable Executive Order minimum wage rate will be adjusted annually.
Additional information on contractor requirements and worker
protections under Executive Order 13658 is available at
www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ◆SU◆, ◆UAVG◆, ◆SA◆, or ◆SC◆ denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ◆SU◆ identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the

year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

•SU• wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The •SA• identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the •SA• identifier took effect under state law in the state from which the rates were adopted.

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WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via

email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210.

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END OF GENERAL DECISION

**SUPPLEMENT TO FORM FHWA-1273**

**DATE: 07/25/2026**

**SUBJECT: Federal Contract Provisions for Subcontracts**

## Federal Contract Provisions for Subcontracts

All subcontracts shall be in writing and contain all pertinent provisions and requirements of the prime contract.

Each "Request for Permission to Subcontract" (Mississippi Department of Transportation Form CAD-720) shall include a copy of the subcontract. The federal contract provisions (FHWA-1273, SUPPLEMENT TO FORM FHWA-1273, NOTICE OF NON-DISCRIMINATION AND DAVIS-BACON AND RELATED ACT PROVISIONS (WAGE RATES)) must be physically incorporated as part of the subcontract. A completed Mississippi Department of Transportation Form CAD-725 must be attached to the CAD-720.

# CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

I. General
II. Nondiscrimination
III. Davis-Bacon and Related Act Provisions
IV. Contract Work Hours and Safety Standards Act Provisions
V. Subletting or Assigning the Contract
VI. Safety: Accident Prevention
VII. False Statements Concerning Highway Projects
VIII. Implementation of Clean Air Act and Federal Water Pollution Control Act
IX. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
X. Certification Regarding Use of Contract Funds for Lobbying
XI. Use of United States-Flag Vessels

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only).

## I. GENERAL

1. Historically, contracting agencies using Federal-aid highway funds were required to ensure Form FHWA-1273 was physically incorporated into all contracts and subcontracts. Effective June 10, 2026, this requirement was eliminated [91 FR 25492]. Future use of Form FHWA-1273 is now optional on the part of the contracting agency using Federal-aid highway funds. FHWA continues to make Form FHWA-1273 available as a convenience to contracting agencies. Contracting agencies must continue to ensure compliance with the provisions cited in Form FHWA-1273 in accordance with the provisions regardless of the use of Form FHWA-1273. Accordingly, the contracting agency retains the authority to determine whether the contractor must use Form FHWA-1273 to physically incorporate required contract provisions in each subcontract and in lower tier contracts. Where permitted by the contracting agency, the contractor may choose other ways to include required contract provisions in each subcontract, besides incorporating Form FHWA-1273. Contract provisions in Form FHWA-1273 are not required to be physically included in subcontracts for design services on Federal-aid design-build contracts, or in purchase orders, rental agreements and other agreements for supplies or services.

The applicable provisions of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor or design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents.

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

## II. NONDISCRIMINATION

The contractor and all subcontractors must comply with the following policies: 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27, including any amendments thereto.

The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract.

**1. Assurances Required:**

a. The requirements of 49 CFR Part 26, including any amendments thereto, and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26, including any amendments thereto, in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

(1) Withholding monthly progress payments;
(2) Assessing sanctions;
(3) Liquidated damages; and/or
(4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E, including any amendments thereto, are incorporated by reference. 49 CFR Part 21.

**III. DAVIS-BACON AND RELATED ACT PROVISIONS**

This section is applicable to all Federal-aid construction projects exceeding $2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 “Contract provisions and related matters” with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

**1. Minimum wages** (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act (40 U.S.C. 3141(2)(B)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided,* That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH–1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in 29 CFR part 1, a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the

classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to *DBAconformance@dol.gov*. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to *DBAconformance@dol.gov*, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30–day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided,* That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

**2. Withholding** (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph 2.a. of this section or Section IV, paragraph 3.a., or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

**3. Records and certified payrolls** (29 CFR 5.5)

a. *Basic record requirements* (1) *Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act); daily and weekly number

of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in 40 U.S.C. 3141(2)(B) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements* (1) *Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker ( *e.g.,* the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH–347 or in any other format desired. Optional Form WH–347 is available for this purpose from the Wage and Hour Division website at *https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347/.pdf* or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH–347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH–347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 3729.

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under 29 CFR part 6 any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

**4. Apprentices and equal employment opportunity** (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with 29 CFR part 30, including any amendments thereto.

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section III. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

**6. Subcontracts**. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs (1) through (11) of this section, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the

contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility**. a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of 40 U.S.C. 3144(b) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, 18 U.S.C. 1001.

**11. Anti-retaliation**. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or 29 CFR part 1 or 3;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or 29 CFR part 1 or 3; or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or 29 CFR part 1 or 3.

## IV. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* $33 as of January 15, 2025 (See 90 FR 1859) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

**3. Withholding for unpaid wages and liquidated damages**

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section III paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

(1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;

(2) A contracting agency for its reprocurement costs;

(3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;

(4) A contractor's assignee(s);

(5) A contractor's successor(s); or

(6) A claim asserted under the Prompt Payment Act, 31 U.S.C. 3901–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

**V. SUBLETTING OR ASSIGNING THE CONTRACT**

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term “perform work with its own organization” in paragraph 1. of this section refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
(2) the prime contractor remains responsible for the quality of the work of the leased employees;
(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph 1. of this section is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however,

contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

**VI. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

**VII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

**VIII. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT** (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of $150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

**IX. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost $25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1**. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

**2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

* * * * *

3. **Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost $25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. “First Tier Covered Transactions” refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). “Lower Tier Covered Transactions” refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). “First Tier Participant” refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). “Lower Tier Participant” refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the $25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (https://www.sam.gov/), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

**4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

**X. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

**XI. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS PREFERENCE FOR APPALACHIAN DEVELOPMENT HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS ROAD CONTRACTS** (40 U.S.C. sections 14501(d) and 14701 and the Appalachian Regional Commission Code as authorized under 40 U.S.C. section 14302)
This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 40 U.S.C. 14501 allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-101-1** **CODE: (IS)**

**DATE: 07/20/2023**

**SUBJECT: Definitions and Terms**

Section 101, Definitions and Terms, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-101.01--Abbreviations**. After the abbreviation API on page 1, add the following.

APL Approved Products List

Replace the abbreviation for AWPA on page 1 with the following.

AWPA American Wood Protection Association

**907-101.02--Definitions**. Delete the sentence after the list of holidays in Subsection 101.02 on page 6 under **holidays, legal**, and substitute the following.

When a legal holiday falls on a Saturday or Sunday, the succeeding Monday, or as proclaimed by the Governor, will be observed as a legal holiday.

Delete the definition for Notice to Proceed in Subsection 101.02 on page 8, and substitute the following.

**Notice to Proceed** - Written notice to the Contractor to proceed with the contract work.

Delete the definition for "Plans" in Subsection 101.02 on page 8, and substitute the following.

**plans** - The approved plans, profiles, typical cross-sections, working drawings and supplemental drawings, or exact reproduction thereof, that show the location, character, dimensions, and details of the work to be done. The plans may also include electronic files, referred to on the plans as Electronic Files Identified as Plans, which may include engineering models, spreadsheets, CADD files or other electronic files used to convey design intent. When the contract does not have an official set of plans, reference to the plans shall mean the contract documents.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-102-2** **CODE: (IS)**

**DATE: 11/22/2017**

**SUBJECT: Bidding Requirements and Conditions**

Section 102, Bidding Requirements and Conditions, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-102.01--Prequalification of Bidders.** Delete the last sentence of the third paragraph of Subsection 102.01 on page 13, and substitute the following.

The Bidder's Certificate of Responsibility number must be on file with the Department's Contract Administration Division prior to request for permission to bid.

**907-102.02--Contents of Proposal Forms.** Delete the fourth paragraph in Subsection 102.02 on page 13, and substitute the following.

Prospective bidders must complete an online request for permission to be eligible to bid a project. Upon approval, the bidder will be authorized to submit a bid electronically using Bid Express at http://bidx.com.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-104-2** **CODE: (SP)**

**DATE: 06/17/2025**

**SUBJECT: Minor Alteration to the Contract**

Section 104, Scope of Work, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-104.02--Alterations of Plans or Character of Work.**

**907-104.02.3--Minor Alteration to the Contract.** In the first paragraph of Subsection 104.02.3 on page 25, change $10,000.00 to $25,000.00.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-105-3** **CODE: (SP )**

**DATE: 07/21/2026**

**SUBJECT: Control of Work**

Section 105, Control of Work, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-105.01--Authority of the Engineer.** Delete the first sentence of the second paragraph of Subsection 105.01 on page 31, and substitute the following.

The Engineer has the right to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to correct conditions unsafe for workmen or the general public, for failure to carry out provisions of the Contract, or for failure to carry out orders.

**907-105.02--Plans and Working Drawings.** Delete the first paragraph of Subsection 105.02 on page 31, and substitute the following.

After the contract is executed by the Executive Director, the Contractor will receive, free of charge, two bound copies of the proposal and contract documents (one executed and one blank) and five half-scale copies of the Plans and Electronic Files Identified as Plans. The Contractor shall have one copy of the proposal and contract documents and one half-scale copy of the plans available at all times during work activity on the project.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-106-5** **CODE: (IS)**

**DATE: 4/20/2026**

**SUBJECT: Control of Materials**

Section 106, Control of Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

After Subsection 106.13 on page 47, add the following:

**907-106.14--Buy America/Build America. Buy America (BABA) Materials Sourcing Requirements for Federal-Aid Projects.**

The "Infrastructure Investment and Jobs Act" (the "Act"), or Bipartisan Infrastructure Law (BIL), was enacted on November 15, 2021 (See Public Law No. 117-58, Sections 70901-70953). The Build America, Buy America (BABA) provisions of the Act expand the previous Buy America requirements beyond what was currently required for steel and iron products.

Articles, materials, or supplies will only be classified under one of the following categories: iron or steel products, construction materials, manufactured products, or excluded materials (as further described in subsection 907-700.01.1). An article, material, or supply shall not be considered to fall under multiple categories. The applicable classification of the article, material, or supply being permanently incorporated into a construction project will be based on the status at the time the article, material, or supply is brought to the project work site.

Any iron or steel products, construction materials, and manufactured products that are permanently incorporated into a construction project, shall be domestically manufactured and compliant with current requirements of the Act, including 2 CFR 184, 2 CFR 200.322, 0MB 24-02 Memo and related requirements therein, and with the current requirements within 23 CFR 635.410.

It is the prime Contractor's responsibility to ensure all submittals and/or certifications required by the above listed Buy America/BABA provisions are submitted to the Project Engineer prior to the article, material, or supply being incorporated into the work.

Buy America/BABA provisions do not apply to temporarily used articles, materials, or supplies that:
(1) are specified to be removed at the end of the project per the contract provisions, or (2) are specified to remain in place per the contract provisions and are also documented by the Department in the contract provisions to be removed in a subsequent imminent, near-term phased project.

The following categories, as described above, require Domestic Materials Self-Certification Form (as described within Subsection 907-700.01.2) on construction projects:

Iron or Steel Products
Construction Materials
Manufactured Products.

Buy America/BABA provisions do not apply to excluded materials.

A non-exclusive list of items that must comply with the above listed Buy America/BABA requirements and require the submittal of the Buy America Domestic Materials Self- Certification Form may be viewed at www.goMDOT.com under Business Center ➔ Engineering Standards/Guides/Manuals ➔ Construction Materials.

The list of items referenced above is not all-inclusive. All iron or steel products, construction material, and manufactured products permanently incorporated into the project shall comply with the applicable Buy America/Build America (BABA) requirements, regardless of whether such items are specifically Identified.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-108-4** **CODE: (SP)**

**DATE: 10/07/2020**

**SUBJECT: Subletting of Contract**

Section 108, Prosecution and Progress, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-108.01--Subletting of Contract.**

**907-108.01.1--General.** Delete the third sentence of the tenth paragraph of Subsection 108.01.1 on the bottom of page 72.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-108-6** **CODE: (SP)**

**DATE: 03/11/2025**

**SUBJECT: Default and Termination of Contract**

Section 108, Prosecution and Progress, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-108.08--Default and Termination of Contract.** At the end of the Subsection 108.08 on page 85, add the following.

**907-108.08.1--Debarment of Contractor**. If the Contractor is declared to be in default under this Subsection and the Contract terminated for the reason(s) indicated in Subsections 108.08 (d), (f), or (g) above, the Commission may, in its discretion and in addition to default and termination, declare the Contractor to be debarred from bidding on any other projects for a period of one (1) year from the date of the termination letter. If the debarred Contractor has multiple on-going Contracts with the Commission and receives a one (1) year debarment, the on-going Contract(s) may continue; however, the Contractor will not be allowed to bid another project until one (1) year has passed from date of the termination letter.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-109-5** **CODE: (IS)**

**DATE: 11/14/2023**

**SUBJECT: Measurement and Payment**

Section 109, Measurement and Payment, of the 2017 Edition of the Mississippi StandardSpecifications for Road and Bridge Construction is hereby amended as follows.

**907-109.01--Measurement of Quantities**. Delete the sixth full paragraph of Subsection 109.01on page 88, and substitute the following.

If appropriate based on the specific circumstances of the project, the Contractor may request that material specified to be measured by the cubic yard or ton be converted to the other measure. The Contractor must submit this request to the Engineer. The Engineer will provide an approval or denial in writing. The decision is in the sole discretion of the Engineer. If approved, factors for this conversion will be determined by the District Materials Engineer and agreed to by the Contractor. The conversion of the materials along with the conversion factor will be incorporated into the Contract by supplemental agreement. The supplemental agreement must be executed before such method of measurement is used.

**907-109.04--Extra Work.**

**907-109.04.1--Supplemental Agreement**. Delete the second paragraph of Subsection 109.04.1 on page 90.

**907-109.04.2--Force Account Agreement.** Delete the last sentence of subparagraph (c) in Subsection 109.04.2 on page 91, and substitute the following.

An amount will be added equal to fifteen percent (15%) of the sum thereof, excluding sales tax.

Delete subparagraph (d) in Subsection 109.04.2 on pages 91 & 92, and substitute the following.

(d) **Equipment.** Equipment used for force account work shall be of sufficient size and type necessary to perform the required work in an economic and expeditious manner. The Contractor must provide the manufacturer, make, model, year, type of fuel and other necessary information to determine proper hourly payment rates. Subject to advance approval of the Engineer, actual transportation cost for a distance of not more than 200 miles will be reimbursed for equipment not already on the project.

For equipment authorized by the Engineer for use on the force account work, the Engineer will use the equipment rental rates from the "*Rental Rate Blue Book*" as published on the Equipment Watch website www.equipmentwatch.com for the time period the force account work is authorized to determine payment to the Contractor. The maximum allowable rates

are determined as follows:

1. The hourly equipment rate will equal the FHWA total hourly rate. This rate takes into account adjustment factors for age and region.
2. The hourly estimated operating costs have been included in the FHWA total hourly rate.
3. The idle and standby rates shall be as listed in the "*Rental Rate Blue Book*" as reported by *Equipment Watch*.
4. These rates include the basic machine plus any necessary attachments.

Standby rates shall apply when equipment is not in operation and is approved by the Engineer to standby for later use to complete the work. Idle rates shall apply to equipment located on the project and the engine is burning fuel but no ground engaging or other components are actively engaged in meaningful work. In general, idle or standby rates shall apply when equipment is not in use, but will be needed again to complete the work and the cost of moving the equipment will exceed the accumulated standby cost. If the idle standby cost should exceed the equipment moving cost to or from the work site, the Contractor will be entitled to the moving cost only. Idle or standby rates will be used under the following conditions:

1. The equipment is totally dedicated to the force account work and not used intermittently on other work.
2. Idle or standby cost will be considered only after equipment has been operated on force account work.
3. The sum of idle or standby time and operating time shall not exceed eight (8) hours per day or 40 hours in a week.
4. Idle or standby payment will not apply to days not normally considered to be work days such as holidays, weekends, or days of inclement weather when no other work is taking place.

The Department will not pay for idle or standby time when equipment is inoperable, for time spent repairing equipment, or for the time elapsed after the Engineer has advised the Contractor that the equipment is no longer needed. The Department will determine if it will be more cost effective to pay standby time on approved equipment on site or for multiple mobilizations.

If equipment is needed, which is not included in the *Rental Rate Blue Book* as reported by *Equipment Watch*, the Department and Contractor will agree upon reasonable rental rates in writing before the equipment is used.

All equipment shall be subject to approval from day to day in accordance with the requirements of Subsection 108.05.

**907-109.06--Partial Payment.**

**907-109.06.2--Advancement on Materials**.
Delete the next to last paragraph of Subsection 109.06.2 on page 95, and substitute the following.

Materials for which an advanced payment has been allowed must be paid for by the Contractor within 30 days of the estimate on which the advanced payment was first allowed and proof of said payment must be verified by the supplier. If proof of payment is not furnished within the allowable 30 days, the advanced payment will be deducted on subsequent current estimates until such time that proof of payment is furnished.

**907-109.07--Changes in Material Costs.** After the fifth paragraph of Subsection 109.07 on page 96, change the web address to the following.

https://mdot.ms.gov/portal/current_letting

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-401-4** **CODE: (IS)**

**DATE: 03/02/2026**

**SUBJECT: Asphalt Pavement - General**

Section 401, Asphalt Pavement - General, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows..

**907-401.02--Materials.**

**907-401.02.6--Standards of Acceptance.**

**907-401.02.6.4—Acceptance Procedure for Density.**

Delete the paragraph and Lot Determination table of Subsection 401.02.6.4 and substitute the following:

Each completed lift will be accepted with respect to compaction on a lot to lot basis from density tests performed by the Department. For normal production days, every 350 tons will be considered a lot. When cores are being used for the compaction evaluation, randomly obtain one core from each lot. When the nuclear density gauge is being used for compaction evaluation, obtain two random readings from each lot and average the results. See Chapter 7 of the latest edition of MDOT's Field Manual for Asphalt Mixtures for more details. Additional tests may be required by the Engineer to determine acceptance of work appearing deficient. The Contractor shall furnish and maintain traffic control for all compaction evaluations, including coring, required in satisfying specified density requirements.

**907-401.02.6.4.1 –Roadway Density.**

Delete the last sentence in section 1 of Subsection 401.02.6.4.1 on page 250 and substitute the following:

For all other leveling, no density shall be required but the pavement shall be rolled to refusal densification as defined in Subsection 907-401.02.6.4.3.

**907-401.02.6.4.3—Roll to Refusal Densification.**

Roll to refusal densification is defined as the number of roller passes to maximize the in-place unit weight of the mixture. A density gauge shall be used to determine the number of passes to achieve the maximum in-place unit weight.

**907-401.02.6.4.4—Irregular Areas.**

Irregular areas are defined as a mat where an established rolling pattern cannot be obtained. Irregular areas include areas with a width of less than 8 feet or shorter than 300 feet in length, pre-leveling, wedging [less than fifty percent (50%) of width greater than minimum lift thickness], ramp pads, median crossovers, turnouts, and other areas where an established rolling pattern cannot be obtained.

**907-401.02.6.8--Acceptance Procedure for Pavement Smoothness Using Mean Roughness Index (MRI).** Delete the third sentence of the second paragraph of Subsection 401.02.6.8 on page 253, and substitute the following.

The surface shall be tested and corrected to a smoothness index as described herein except those locations or specific projects that are excluded from smoothness testing with an IPS.

Delete the third, fourth and fifth paragraphs of Subsection 401.02.6.8 on pages 253 & 254, and substitute the following.

The smoothness of the surface lift will be determined for traffic lanes, auxiliary lanes, climbing lane and two-way turn lanes. Areas excluded from a smoothness test with the IPS are acceleration and deceleration lanes, tapered sections, transition sections for width, shoulders, crossovers, ramps, side street returns, etc. The roadway pavement on bridge replacement projects having 1,000 feet or less of pavement on each side of the structure will be excluded from a smoothness test. Smoothness testing shall exclude 264 feet from each transverse joint that separates the pavement from a bridge deck, bridge approach slab or existing pavement not constructed under the contract. This can apply to any other exceptions including, but not limited to, railroad crossings and manholes. Segments containing a considerable number of encroachments such as intersections, manholes, curb and gutter sections, etc. may be excluded at the Engineer's discretion.

Once paving has concluded, one final smoothness measurement shall be performed for both pay adjustments and corrective action. Multiple smoothness measurements for pay adjustments and correction can still be performed at the Engineer's discretion. These measurements must be performed at the posted speed limit or 50 miles per hour (±5 miles per hour), whichever is lower. Measurements will be made in both wheel paths of exterior and interior lanes. The wheel paths shall be designated as being located three feet (3') and nine feet (9') from centerline or longitudinal joint, respectively. Testing will also be required on sections that have been surface corrected. No smoothness testing shall be performed when there is any residual moisture on the pavement surface. Any additional testing shall meet the requirements of Subsection 907-403.03.2.

The surface lift will be accepted on a continuous interval basis for pavement smoothness. Continuous reporting is based upon all MRI values for a specified running interval. These values are averaged and presented at the midpoint of the specified running interval.

Delete the last sentence of the last paragraph of Subsection 401.02.6.8 on page 254, and substitute the following.

All tests and corrections shall be in accordance with AASHTO R 54, Accepting Pavement Ride Quality When Measured Using Inertial Profiling Systems.

Delete Subsection 401.02.6.9 on pages 254 & 255, and substitute the following.

**907-401.02.6.9--Inertial Profiling System.**

**907-401.02.6.9.1--General.** The Inertial Profiling System (IPS), furnished and operated by the Contractor under the supervision of the Engineer or the Engineer's representative, shall be a dual-line laser on a high speed vehicle meeting the requirements of AASHTO M 328, Standard Specification for Inertial Profiler. Additionally, each IPS should be equipped with a GPS to ensure distance measurement accuracy. The profiler system and operator shall be certified at an MDOT approved regional calibration facility in accordance with AASHTO R 56, Standard Practice for Certification of Inertial Profiler Systems and AASHTO R 57, Operating Inertial Profiler Systems.

**907-401.02.6.9.2--Computer Requirements.** The computer measurement program must be menu driven, Windows compatible, and able to produce unfiltered profiler runs in the Pavement Profile (*.ppf) file format. The computer shall have the ability to display and print data on site for verification and shall have the ability to save and transfer data via Universal Serial Bus (USB) flash drive, which shall be provided by the Contractor.

All runs must be stored in a directory named in the following format for acceptance by the Project Engineer:

Project_County_Route

All profiler runs must be named in the following format for acceptance by the Project Engineer:

Direction_Lane_BeginStation_EndStation

In addition to manufacturers' software; the latest version of FHWA's ProVAL software shall be installed on the IPS computer.

**907-401.03--Construction Requirements.**

**907-401.03.1--Specific Requirements.**

**907-401.03.1.2--Tack Coat.** Delete the fourth sentence of Subsection 401.03.1.2 and substitute the following:

A hand wand will only be allowed for applying tack coat on irregular areas as defined in Subsection 907-401.02.6.4.4 if the distributor bar is not a feasible option.

**907-401.03.1.4--Density.** Delete the first sentence of the first paragraph of Subsection 401.03.1.4 and substitute the following.

The lot density for all dense graded pavement lifts, except for irregular areas as defined in Subsection 907-401.02.6.4.4, shall not be less than the specified percent (92% or 93%) of the maximum density based upon AASHTO T 209 for the day's production..

Delete the third paragraph of Subsection 401.03.1.4 and substitute the following.

Irregular areas as defined in Subsection 907-401.02.6.4.4 shall be compacted to roll to refusal densification as defined in Subsection 907-401.02.6.4.3.

**907-401.03.9--Material Transfer Equipment.** In the third sentence of Subsection 401.03.9 on page 261, change "include:" to "include".

**907-401.03.14--Shoulder Wedge**. In the second sentence of the first paragraph of Subsection 401.03.14 on page 263, change "cross roads" to "crossroads".

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-402-9** **CODE: (SP)**

**DATE:** **01/06/2025**

**SUBJECT:** **Open Graded Friction Course (OGFC)**

Section 402, Open Graded Friction Course (OGFC), of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-402.02--Materials**.

**907-402.02.5--Contractor's Quality Management Program**.

Delete Subsection 402.02.5.9 on page 271, and substitute the following.

**907-402.02.5.9--Trial Section.** At the beginning of placement for the lift, the Contractor shall construct a trial section of a maximum of 250 tons of mix, for the purpose of establishing and evaluating consistent mixture and compaction properties. At the discretion of the Engineer, the requirement of a trial section may be waived if the Contractor has successfully produced and placed the asphalt mixture within the previous 365 calendar days. The Contractor shall determine the production point at which the mix shall be sampled during trial section construction. This sample does not have to be selected by the formal random selection procedures used during actual production, but should be representative of the mix produced.

The Contractor (QC) and the Department (QA) will conduct tests for mixture quality. A trial section is considered to be successful if the QC test results are within the Warning Limits (the testing indicates a pay factor of 1.0) and the QC tests compare to the QA tests within the allowable differences set forth in Subsection 402.02.6.2. If the criteria for a successful trial section are not achieved, additional trial sections shall be constructed until the criteria are achieved, at which time full production can begin. In the event a successful trial section is not accomplished by the completion of the second trial section, the Contractor shall construct additional trial sections at an offsite location. The Engineer reserves the right to have any trial section removed and replaced at no additional cost to the State, if the pay factor for any characteristic for a trial section is less than 0.75.

For actual payment purposes, a pay factor of 1.00 will be used for the first and second trial sections allowed to remain in place. Any required offsite trial sections will be constructed at no additional cost to the State.

**907-402.02.7--Acceptance Procedure for OGFC Pavement Smoothness.** Delete the paragraph in Subsection 402.02.7 on page 274, and substitute the following.

**907-402.02.7.1--High Speed Inertial Profiling System.** The high speed inertial profiling system shall meet the applicable requirements of Subsection 401.02.6.9. Additionally, each laser shall have minimum footprint of three (3) inches.

**907-402.02.7.2--Smoothness Tolerances.** When the contract requires multiple lifts of asphalt and the top lift is OGFC, the smoothness tolerance shall meet the requirements of Subsection 907-402.02.7.2.1. When the contract only requires an OGFC lift, the smoothness tolerance shall meet the requirements of Subsection 907-402.02.7.2.2.

**907-402.02.7.2.1--Multiple Lifts with OGFC.** Smoothness tolerances for these surfaces shall meet the minimum requirements of the long continuous interval for Category A projects as defined in Subsection 403.03.2.1. Short continuous interval smoothness tolerances shall be applied to the final lift of asphalt preceding placement of OGFC and meet the requirements for Category A projects as defined in Subsection 403.03.2.1. A unit price increase will be added when the MRI for the final surface lift is less than or equal to forty five inches per mile (45.0 inches / mile) on the long continuous interval report. The final riding surface will be considered for incentive pay based on the following guidelines for the long continuous interval MRI.

| Mean Roughness Index (inches/mile) | Contract Price Adjustment Percent of Asphalt Unit Bid Price |
|---|---|
| Less than 30.0 | 108 |
| 30.1 to 35.0 | 106 |
| 35.1 to 40.0 | 104 |
| 40.1 to 45.0 | 102 |
| 45.1 to 60.0 | 100 |

In addition to the above pay factors, the final riding surface will be subject to a disincentive when the Long Continuous Interval MRI exceeds the allowable tolerance based on the following guidelines.

| Mean Roughness Index (inches / mile) | Contract Price Adjustment Percent of Asphalt Unit Bid Price |
|---|---|
| Above 75.1 | 80 |
| 70.1 to 75.0 | 85 |
| 65.1 to 70.0 | 90 |
| 60.1 to 65.0 | 95 |
| Required Surface MRI (60 inches / mile) | 100 |

All transverse joints in or abutting the OGFC shall meet a tolerance of 1/8" or less when checked using a 10-foot straight edge, unless directed by the Engineer.

**907-402.02.7.2.1.1--Surface Correction.** In the event surface correction is needed it shall be accomplished by removal and replacement in accordance with Subsection 403.03.4. All such corrections shall be at no additional cost to the State.

**907-402.02.7.2.2--Single Lift of OGFC.**
When the contract requires the OGFC to be placed on a milled surface, the final OGFC surface shall be measured by a long continuous (528-foot) surface MRI and have a value of no more than

60 inches per mile. The final riding surface will be subject to a disincentive when the Long Continuous Interval MRI exceeds the allowable tolerance based on the following guidelines:

| Mean Roughness Index (inches / mile) | Contract Price Adjustment Percent of Asphalt Unit Bid Price |
|---|---|
| Above 80.1 | 70 |
| 75.1 to 80.0 | 80 |
| 70.1 to 75.0 | 85 |
| 65.1 to 70.0 | 90 |
| 60.1 to 65.0 | 95 |
| Required Surface MRI (60 inches / mile) | 100 |

All transverse joints in or abutting the OGFC shall meet a tolerance of 1/8" or less when checked using a 10-foot straight edge, unless directed by the Engineer.

**907-402.05--Basis of Payment**. Delete the list of the pay items on page 281, and substitute the following.

907-402-A: Open Graded Friction Course, __*__ Mixture - per ton

907-402-B: Bituminous Tack Coat - per gallon

* 9.5-mm mixture or 12.5-mm mixture

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-402-10** **CODE: (SP)**

**DATE: 01/06/2026**

**SUBJECT: Roadway Compaction**

Section 402.03.11 of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**402.03.11 Roadway Compaction**

Delete the first sentence of this provision and replace it with the following:

Compaction shall be achieved by two or three passes of a steel wheel roller (10 ton minimum weight) operating in static mode.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-403-4** **CODE: (SP)**

**DATE:** **03/19/2025**

**SUBJECT:** **Asphalt Pavements**

Section 403, Asphalt Pavements, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-403.03--Construction Requirements.**

**907-403.03.2--Smoothness Tolerances.** In the tenth paragraph of Subsection 403.03.2 on page 283, change "Sections(s)" to "Segment(s)".

**907-403.03.2.1--Smoothness Tolerances for Mean Roughness Index (MRI).** After the second paragraph of Subsection 403.03.2.1 on page 283, add the following.

For all projects, smoothness data shall be reported by two MRI methods:

1. A continuous long interval MRI report
2. A continuous 25-foot short interval MRI report

At the bottom of page 283 and top of 284 in Subsection 403.03.2.1, delete the paragraphs for Category, A, Category B, and Category C, and substitute the following.

**Category A** projects shall have a long interval surface MRI of not more than 60 inches per mile.

**Category B** projects shall have a long interval surface MRI of not more than 70 inches per mile.

**Category C** projects shall have the existing surface profiled at no additional cost to the State. These projects shall be measured by a long fixed interval (528-foot) surface MRI and meet the following requirements:

A 50% improvement in MRI from the existing surface
or
80 inches per mile (whichever value is higher)

Delete the first, second, and third full paragraphs on page 284, and substitute the following.

For all projects, areas of the surface lift with localized roughness greater than 160 inches per mile as determined by the continuous short interval (25') report will be identified for correction by the Contractor.

When a project has multiple lifts, the intermediate lift shall meet the short interval requirement of 200 inches per mile. Corrective action must be taken on those segments that do not meet this requirement. No unit price adjustment will be applied on the underlying lift.

Delete the table at the bottom of page 284, and substitute the following.

| Mean Roughness Index (inches / mile) | Contract Price Adjustment Percent of Asphalt Unit Bid Price |
|---|---|
| Above 20.0 Over | REMOVE AND REPLACE * |
| 15.1 to 20.0 Over | 80 |
| 10.1 to 15.0 Over | 85 |
| 5.1 to 10.0 Over | 90 |
| 0.1 to 5.0 Over | 95 |
| Required Surface MRI | 100 |

* In lieu of removal and replacement, segments may be brought into compliance through corrective action at the discretion of the Project Engineer.

Delete the table and footnote at the top of page 285, and substitute the following.

| Mean Roughness Index (inches/mile) Percent Improvement | Contract Price Adjustment Percent of Asphalt Unit Bid Price |
|---|---|
| Below 30.1 Percent | 80 ** |
| 30.1 to 35.0 Percent | 80 |
| 35.1 to 40.0 Percent | 85 |
| 40.1 to 45.0 Percent | 90 |
| 45.1 to 50.0 Percent | 95 |
| Above 50% | 100 |

** Segments that show less than 30 percent improvement as well as a final surface MRI greater than 100 inches/mile will be subject to removal.

Before the last paragraph on Subsection 403.03.2.1 on page 285, add the following.

**Corrective action** for all categories must be taken on those segments that exceed the localized roughness or the 'Remove and Replace' threshold. All locations must be located and marked by the Contractor and approved by the Project Engineer before corrective action shall take place. The minimum remove and replace length will be 528 feet (0.1 mile). Additional smoothness testing shall be required on segments following corrective action and/or replacement and will be required to meet *at least* the maximum surface MRI short of 'Remove and Replace' tolerance.

**907-403.05--Basis of Payment.**

**907-403.05.2--Pay Items.** Add the "907" prefix to the list of pay items on page 291.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-405-2** **CODE: (IS)**

**DATE:** **07/20/2026**

**SUBJECT:** **Stone Matrix Asphalt**

Section 405, Stone Matrix Asphalt, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

**907-405-2 – Materials.**

**907-405.02.6 --Standards of acceptance.**

**907-405.02.6.4—Acceptance Procedure for Density.**

Delete the paragraph and Lot Determination table of Subsection 405.02.6.4 and substitute the following.

Each completed lift will be accepted with respect to compaction on a lot to lot basis from density tests performed by the Department. Material produced and placed during the trial section(s), if placed on the roadway, will be designated as separate lots. For normal production days, every 350 tons will be considered a lot. When cores are being used for the compaction evaluation, randomly obtain one core from each lot. When the nuclear density gauge is being used for compaction evaluation, obtain two random readings from each lot and average the results. See Chapter 7 of the latest edition of MDOT's Field Manual for Asphalt Mixtures. Additional tests may be required by the Engineer to determine acceptance of work appearing deficient. The Contractor shall furnish and maintain traffic control for all compaction evaluations, including coring, required in satisfying specified density requirements.

**907-405.03 --Construction Requirements.**

**907-405.03.1 –Specific Requirements.**

**907-405.03.1.4—Density.**

Delete the first sentence of the first paragraph of Subsection 405.03.1.4 and substitute the following.

The lot density for all SMA pavement lifts, except for irregular areas as defined in Subsection 907-401.02.6.4.4 shall not be less than 93.0 percent of the maximum density based on AASHTO T 209 for the day’s production.

Delete the third paragraph of Subsection 405.03.1.4 and substitute the following.

Irregular areas as defined in Subsection 907-401.02.6.4.4 shall be compacted to roll to refusal densification as defined in Subsection 907-401.02.6.4.3.

**Basis for Payment.**

Add the "907" prefix to the pay items listed on page 305.

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-407-1** **CODE: (SP)**

**DATE:** **01/16/2026**

**SUBJECT:** **Tack Coat**

Section 407, Tack Coat, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-407.03—Construction Requirements.**

**907-407.03.3—Application of Bituminous Material.**

Delete the second sentence of the first paragraph of Subsection 407.03.3 and substitute the following.

A hand wand will only be allowed for applying tack coat on irregular areas as defined in Subsection 907-401.02.6.4.4.

**907-407-05-- Basis of Payment.**

Add the "907" prefix to the pay item listed on page 309.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-418-3** **CODE: (SP)**

**DATE: 02/18/2025**

**SUBJECT: Micro-Surfacing**

Section 907-418, Micro-Surfacing, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

## SECTION 907-418 -- MICRO-SURFACING

**907-418.01--Description.** This section covers the materials, equipment, construction, and application procedures for placing micro-surfacing material for filling ruts and for surfacing existing paved surfaces. The micro-surfacing shall be a mixture of a polymer-modified asphalt emulsion, 100 percent crushed mineral aggregate, mineral filler, water and other additives for control of set time in the field. All ingredients shall be properly proportioned, mixed and spread on the paved surface in accordance with this Specification and as directed by the Engineer.

**907-418.02--Materials.** The materials to be used and the specifications for them are as listed below.

**907-418.02.1--Aggregate.** Mineral aggregate used in the micro-surfacing material shall meet the quality requirements of Table 1 and grading requirements of Table 2.

**Table 1**
**Aggregate Quality Requirements**

| Test | Test Method | Requirement |
|---|---|---|
| Sand Equivalent, min | T 176 | 65 |
| Los Angeles Abrasion, %, max[a] | T 96 | 30 |
| Magnesium Sulfate Soundness, max loss, %, 4 cycles[a] | T 104 | 25 |

[a] The abrasion and soundness test is to be run on the parent aggregate.

**Table 2**
**Aggregate Grading Requirements**

| Stockpile Tolerance % | Sieve Size | Type II Percent Passing | Type III Percent Passing |
|---|---|---|---|
| ±0 | 3/8" | 100 | 100 |
| ±5 | No. 4 | 90 – 100 | 70 – 90 |
| ±5 | No. 8 | 65 – 90 | 45 – 70 |
| ±5 | No. 16 | 45 – 70 | 28 – 50 |
| ±5 | No. 30 | 30 – 50 | 19 - 34 |
| ±4 | No. 50 | 18 – 30 | 12 - 25 |
| ±3 | No. 100 | 10 – 21 | 7 - 18 |
| ±2 | No. 200 | 5 – 15 | 5 - 15 |

The gradation of the aggregate stockpile shall not vary by more than the stockpile tolerance, as indicated in Table 2, from the mix design gradation.

The specification gradation band for the No. 4, No. 8, No. 16 and No. 30 sieve screens shall be divided into thirds, no result shall move from the top third range to the bottom third range, or vice versa, on successive sieves to avoid any gap grading in the aggregate.

For example:

| Sieve Size | Type II Spec | Type II Lower Range | Type II Middle Range | Type II Upper Range | Type III Spec | Type III Lower Range | Type III Middle Range | Type III Upper Range |
|---|---|---|---|---|---|---|---|---|
| No. 4 Sieve | 90 – 100 | 90-93 | 93-97 | 97-100 | 70 – 90 | 70-77 | 77-83 | 83-90 |
| No. 8 Sieve | 65 – 90 | 65-73 | 73-82 | 82-90 | 45 – 70 | 45-53 | 53-62 | 62-70 |
| No. 16 Sieve | 45 – 70 | 45-53 | 53-62 | 62-70 | 28 – 50 | 28-35 | 35-43 | 43-50 |
| No. 30 Sieve | 30 – 50 | 30-37 | 37-43 | 43-50 | 19 - 34 | 19-24 | 24-29 | 29-34 |

A Type II aggregate with a result of 98% passing the No. 4 screen shall not be lower than 73% on the No. 8 screen.

The two successive sieve requirement can be waived with proof of the aggregate being successfully used in prior projects and at the discretion of the Engineer.

Aggregates shipped to the project shall be uniform and shall not require blending or pre-mixing at the storage area before use. Additionally, the aggregate shall remain within the master gradation band. Mineral filler shall not be used to satisfy the requirements as set forth in Table 2.

**907-418.02.2--Mineral Filler.** The mineral filler shall be Portland Cement or Hydrated Lime meeting the following requirements.

Portland Cement ..... Section 701
Hydrated Lime ..... Subsection 714.03

**907-418.02.3--Cationic Asphalt Emulsion.** The emulsified asphalt shall be a cationic type CQS-1P meeting AASHTO M316 or CSS-EP meeting the following requirements in Table 3.

**Table 3**
**Emulsion Requirements**

| Property | Test Procedure (AASHTO) | Specification | |
|---|---|---|---|
| | | Min | Max |
| **Emulsion Properties** | | | |
| Viscosity, Saybolt-Furol, @ 122°F, SFS | T59 | 15 | 150 |
| Sieve Test, % | T59 | | 0.1 |
| Residue by Evaporation, % | T59 | 62 | |
| **Residue Properties From Low Temperature Evaporation** | **AASHTO R-78[1]** | | |
| MSCR @ 70°C, Recovery @ 3.2 kPa, % | T350 | 80 | |
| MSCR @ 70°C, $J_{nr}$ @ 3.2, 1/kPa | T350 | | 0.50 |

[1] After recovering the residue from AASHTO R-78, the sample may be annealed prior to testing to remove any excess moisture and provide for a consistent sample. The annealing can be accomplished by placing 20 grams of residue in a 6 oz. metal container (approx. 3-inch diameter) and heating to 163°C for no more than 15 minutes. The sample should be stirred with a spatula every 5 minutes. The sample can then be poured directly into a 25mm DSR silicone mold for evaluation.

**907-418.02.5--Tack Coat.** Normally, tack coat is not required unless the surface to be covered is concrete or is extremely dry and raveled. The emulsified asphalt should be the same grade and type as used for the micro-surfacing. The tack coat shall be placed using a standard distributor capable of evenly applying the emulsion. The tack coat shall be allowed to cure sufficiently before the application of micro-surfacing. If the tack coat is required, it will be noted on the plans or in the contract documents.

**907-418.02.6--Water.** The water for the micro-surfacing mixture shall be potable and free from any contaminants detrimental to the mixture.

**907-418.02.7--Approved Additives.** The emulsion manufacturer shall provide approved additives as required to control the set time of the mixture in the field. Approved additives shall be on the Department's APL.

**907-418.02.8--Composition of Mixture.** The Mix Design shall be prepared by an AASHTO-accredited laboratory and must be submitted to the engineer prior to beginning the work. The Mix Design shall be supplied by the Contractor. As a minimum, the design shall include the following: aggregate test properties, aggregate target gradation, results of Table 4 design requirements, design asphalt residue and mineral filler percentages based on dry weight of the aggregate. At least 10 days prior to construction, the Contractor shall submit to the Central Laboratory representative samples of each ingredient to be used in the micro-surfacing mixture for design verification. The samples shall include information relative to sources, type of materials and project number. No micro-surfacing work shall begin nor shall any mixture be accepted until the Laboratory has approved the micro-surfacing design. Acceptance of the design by the Engineer is solely for the purpose of quality control and in no way releases the Contractor from the responsibility to perform acceptable work under this specification.

The micro-surfacing material shall be a uniform mixture of aggregate, emulsified asphalt, mineral filler, water and other additives as required to control the set time in the field. The emulsion and aggregate shall be compatible so that a complete, uniform coating of the aggregate shall be obtained in the mixing unit. The mixture shall have sufficient working life to allow for proper placement at the existing ambient temperature and humidity. The Engineer shall require the mixture to be redesigned if replacement of a constituent, or change in gradation, is needed to produce an acceptable mixture. The constituents shall be proportioned to produce a uniform mixture meeting the requirements of Table 4. Reference to ISSA TB means International Slurry Surfacing Association Technical Bulletin.

**Table 4**
**Mix Design Specifications**

| | Mixture Control Tolerance | Type II | Type III |
|---|---|---|---|
| Range for Residual Asphalt, %[a] | +/- 0.50 | 6.5 – 9.5 | 6.0 – 9.0 |
| Range for Mineral Filler, %[a] | +/- 0.50 | 0.5 – 3.0 | 0.5 – 3.0 |
| Test | Test Method | Value | |
| Wet Track Abrasion Loss, Maximum 1 Hour Soak | TB 100 | 38 g/ft$^2$ | |
| Wet Track Abrasion Loss, Maximum 6 Day Soak | TB 100 | 75 g/ft$^2$ | |
| Lateral Displacement, Maximum % | TB 147 | 5 | |
| Excess Asphalt by LWT, Maximum | TB 109 | 50 g/ft$^2$ | |
| System Compatibility, Minimum | TB 144 | 11 grade points | |
| Mixing Time, Seconds @ 77°F, Minimum | TB 113 | 180 | |
| Set Time, 30 Minutes, Minimum | TB 139 | 12 kg-cm | |
| Early Rolling Traffic Time, 60 Minutes, Minimum | TB 139 | 20 kg-cm | |
| Water Resistance, 30 Minutes | TB 102 | No Discoloration | |
| Wet Stripping Test, % Coating, Minimum | TB 114 | 90 | |
| System Compatibility | TB 115 | Pass | |
| Cantabro Mass Loss[b], %, Maximum | TX 245-F | 2.0 | |
| Ideal CT, peak load, lb-force, Minimum | ASTM D 8225 | 2000 | |
| Ideal CT, Index, minimum | ASTM D 8225 | 100 | |
| Bulk Specific Gravity[b] | AASHTO T-166 | 2.100 – 2.400 | |

[a] Percent residual asphalt and percent mineral filler shall be based on weight of dry aggregate. Should these tolerances fail to be met, immediate adjustments will be made to bring the gradation and percent residual asphalt back within tolerances or the work will not be allowed to continue.

[b] Samples to be prepared by ISSA TB 148 Marshall Compaction only (30 blows/side) and tested in dry condition at 25°C.

**907-418.02.9--Equipment.** The Engineer shall approve all equipment, tools, and machines used in the performance of this work. No work shall be attempted with equipment that is malfunctioning. The Engineer may order that the work be discontinued if sufficient equipment and tools are not in use to place the materials satisfactorily.

**907-418.02.9.1--Mixing Equipment.** The paving mixture shall be blended by a self-propelled, positive, non-slipping aggregate delivery system (belt over chain) micro-surfacing mixing machine which shall be a continuous flow mixing unit able to accurately deliver and proportion the aggregate, emulsified asphalt, mineral filler, field control additives and water to a revolving multi-blade, twin shafted mixer and discharge the mixed product on a continuous flow basis. The mixture shall be thoroughly blended so that no uncoated aggregate is visible upon discharge from the mixing unit. The machine shall be equipped with self-loading devices which provide for the loading of all materials while continuing to lay micro-surfacing, thereby minimizing construction joints. The machine shall be equipped with opposite side driving stations to optimize longitudinal alignment. The machine shall be equipped to allow the operator to have full hydrostatic control of the forward and reverse speed during the application of the micro-surfacing material. Continuous-run equipment will be required to ensure continuity of mix and reduction of start-up joints.

In some cases and with the Engineer's approval, truck mounted units may be used for short narrow roadways, crossovers and irregular areas. If truck mounted units are allowed, they shall be equipped with a positive, non-slipping aggregate delivery system (belt over chain) and have the capability of applying a minimum of 10 tons of aggregate without recharging the aggregate bin.

1. Water Pressure System. The mixing machine shall be equipped with a water pressure system and nozzle type spray bar to provide a water spray ahead of and outside the spreader box when required.

2. Calibration & Proportioning Devices. The machine shall be equipped with individual volume or mass controls or other gauging devices for measuring and proportioning each material added to the mix. Each material control device shall be calibrated, properly marked, and positively interlocked. The aggregate feed to the mixer shall be equipped with a revolution counter or similar device so that the amount of asphalt emulsion, aggregate and mineral filler used may be determined at any time. Each mixing unit shall be calibrated prior to commencement of the work. The calibrations shall be performed and verified in the presence of the Engineer or the Engineer's representative. Once calibrated, the aggregate and emulsion flows shall not be changed without the approval of the Engineer. The water and additive may be adjusted in the field to control the mix properties to produce an acceptable mix. With the Engineers approval, previous calibration documentation covering the exact materials to be used may be acceptable provided they were made within the last three (3) months.

3. Emulsion Pump. The emulsion pump shall be a heated, positive displacement type pump.

Attached to the machine shall be a hydraulically adjustable (adjustable while applying mixture) type spreader box with a positive screed adjustment for yield control. The box shall be attached to the mixer, equipped with ribbon flights mounted on an adjustable shaft to continually agitate and distribute the material throughout the box. The box will be equipped with curb bumpers and replaceable runners with a minimum of 5-foot long end runners. The box shall be equipped with a sufficient walkway to provide access to either side of the spreader box without walking through the freshly applied material. The box must be capable of laying mix to a width of 14 feet. The equipment shall provide sufficient turbulence to prevent the mix from setting in the box or causing excessive build-up or lumps. To prevent the loss of mixture from the box, the Contractor shall attach flexible seals, front and rear, in contact with the road. The full width application box shall be equipped with a secondary strike-off located approximately 2 to 3 feet behind the primary strike-off to minimize transverse corrugations. The secondary strike-off shall have elevation and width adjustments similar to the primary strike-off. It shall have a pivot point where it can be tilted for texturing or raised completely off of the surface. The use of burlap drags or other drags necessary to obtain the desired surface texture, shall require approval by the Engineer. Drags having excessive build-up shall be replaced. Drags shall be kept in a completely flexible condition at all times.

**907-418.02.9.2--Auxiliary Equipment.** Suitable surface cleaning equipment, barricading equipment, hand tools and other support equipment shall be provided by the Contractor as necessary to perform the work.

**907-418.02.10--Stockpiling and Storage.**

**907-418.02.10.1--Aggregate Storage**. The mineral aggregate shall be handled in such a manner as to prevent segregation, mixing of the various materials or sizes, and contamination with foreign materials. The grading of aggregates proposed for use and as supplied to the project shall be uniform. Suitable equipment of acceptable size shall be furnished by the Contractor to maintain the stockpiles and prevent segregation of aggregates. The aggregate shall be passed over a scalping screen immediately prior to transfer to the micro-surfacing mixing machine to remove oversized material. In addition, the scalping screen unit, when payment for micro-surfacing is to be by the ton of aggregate and gallon of asphalt emulsion, shall be equipped with certified scales capable of providing an automated ticket printout for each truck load of material delivered to the micro-surfacing machine. Each ticket shall include the project number, ticket number, truck number, date and batch weight of material loaded.

**907-418.02.10.2--Storage of Bituminous Material**. The bituminous storage shall be adequate to meet the requirements of the production rate. All equipment used in the storage and handling of bituminous material shall be kept in a clean condition at all times and shall be operated in such a manner that there will be no contamination with foreign matter.

**907-418.02.11--Preconstruction Meeting.** Coordinate a preconstruction meeting prior to construction between the Department and the Contractor to discuss the following topics.

- The construction process
- The quality control plan
- Mix design
- Materials control
- Materials measurement
- Equipment calibration
- Traffic control plan
- Equipment/process overview
- Inspection
- Test strip
- Unique project conditions
- Project documentation
- Expectations
- Schedule

**907-418.03--Construction Requirements**. It shall be the responsibility of the Contractor to produce, transport and place the specified materials in accordance with these specifications and as approved by the Engineer. The finished micro-surfacing shall have a uniform texture free from excessive scratch marks, tears or other surface irregularities. The cured mixture shall adhere fully to the underlying surface. Based upon a visual examination or test results the Engineer may reject any work due to poor workmanship, loss of texture, raveling or apparent instability.

**907-418.03.1--Seasonal and Weather Limitations**. No micro-surfacing shall be performed from December 1 and March 1.

The micro-surfacing mixture shall be spread only when both the pavement surface and the ambient temperature is at least 50°F and rising and the weather is not foggy or rainy and there is no forecast of temperatures below 32°F within 48 hours from the time of placement. The Contractor shall supply a surface temperature thermometer.

**907-418.03.2--Surface Preparation**. The area to be surfaced shall be thoroughly cleaned of vegetation, loose aggregate, lane striping, thermoplastic pavement markings, raised pavement markers and soil. Manholes, valve boxes and other service entrances shall be protected from the surfacing material. Crack sealant material shall be allowed to cure for a minimum of 30 days on pavement surfaces that have been crack sealed before application of the micro-surfacing. Unless otherwise directed by the Engineer, pre-wetting of the surface will be required. Water shall be sprayed ahead of and outside of the spreader box at an acceptable rate to dampen the surface without any free flowing water ahead of the spreader box.

**907-418.03.3--Tack Coat**. The tack coat, when required, shall be diluted at the rate of one part emulsion and three parts water and shall be applied with an asphalt distributor. The application rate shall be 0.05 to 0.15 gallons of diluted emulsion per square yard. When required, tack coat will not be measured for separate payment; costs shall be included in other items bid.

**907-418.03.4--Application**. The paving mixture shall be spread on the prepared surface in such a way to leave a uniform finished surface. Care shall be taken when filling ruts to restore the designed profile of the pavement cross section. Excess crowning or overfilling of the rut area will

not be permitted. The Contractor shall use squeegees and lutes to spread the mixture in areas inaccessible to the spreader box and areas requiring hand spreading. A sufficient amount of material shall be carried at all times in all parts of the spreader box to ensure complete coverage.

Adjustments to the additive will be permitted if necessary to provide a slower setting time when hand spreading is needed. If hand spreading is necessary, the mixture shall be poured in a small windrow along one edge of the surface to be covered and then spread uniformly by a hand squeegee or lute. A smooth, neat seam shall be provided where two passes meet. Excess material shall immediately be removed from ends of each run.

**907-418.03.5--Traffic Control**. The emulsified asphalt shall be formulated in such a way to allow the paving mixture to cure at a rate which will permit straight rolling traffic on the pavement within one hour after application without damaging the pavement surface. The Contractor shall maintain traffic control as necessary to prevent damage to the mixture. Any such damage done by traffic to the mixture shall be repaired by the Contractor at the Contractor's expense.

**907-418.03.6--Rut Filling and Leveling Course**. When required, before the final surface course is placed, preliminary micro-surfacing materials shall be required to fill ruts, utility cuts, depressions in the existing surface, etc. Ruts greater than 1/2" in depth shall be filled independently with a rut filling spreader box either 5-foot or 6-foot in width. For irregular or shallow rutting 1/2" or less in depth, a leveling course may be used as directed by the Engineer. The spreader box used for the leveling course shall be the same as used for the surface course; however, a steel or high density strike-off shall be used in lieu of a flexible rubber. Using a rut fill spreader box, each individual rut fill shall be crowned to compensate for traffic compaction at a rate of 1/8" per 1" of rut depth. Rut filling shall be placed and opened to traffic a minimum of 24 hours prior to surfacing. All materials, mixture composition, equipment, and construction procedures and requirements shall be as specified above.

**907-418.03.7--Workmanship.** Excessive buildup, uncovered areas, or unsightly appearance shall not be permitted on longitudinal or transverse joints. Longitudinal joints shall be placed on lane lines and excessive overlap shall not be permitted. Care shall be taken to insure straight lines along the roadway centerline, lane lines, shoulders or edge lines. Longitudinal edge lines shall not vary by more than ±2" in 100 linear feet. If the Contractor is unable to meet this requirement, they shall be required to establish a pilot line. Lines at intersections shall be kept straight to provide a neat and uniform appearance.

1. Finished Surface. The finished micro-surfacing shall have a uniform texture free from excessive scratch marks, tears, or other surface irregularities. Excessive tear marks are considered as four (4) drag marks within 100 linear feet in a single pass or drag marks that are $\geq$1/2" in width and $\geq$6" in length per 100 square yards, or any marks $\geq$1" in width or $\geq$4" in length. The edges of the micro-surfacing shall be neat in appearance and longitudinal alignment shall be parallel to the roadway centerline.

2. Joints and Seams. The longitudinal and transverse joints shall be neat in appearance and uniform. Transverse joints shall be constructed as butt-type joints. No excessive buildup, uncovered areas or unsightly appearance will be permitted on longitudinal or transverse joints. Longitudinal joints shall be placed on lane lines when possible. Gaps between applications shall not be permitted. Joints will be considered acceptable if no more than a

½-inch vertical space exists between the pavement surface and a 4-foot straight edge placed perpendicular on the longitudinal joint, and no more than 1/4" for a transverse joint.

3. Irregular Areas. Areas which cannot be reached with the mixing machine shall be surfaced using hand tools to provide complete and uniform coverage. The area to be hand worked shall be cleaned and lightly dampened prior to mix placement. Care shall be exercised in areas that require handwork so that the finished surface is uniform in texture, dense and of overall neat appearance comparable to that produced by the spreader box. Micro-surfacing material required to repair deficiencies due to unsatisfactory workmanship shall not be paid for but shall be entirely at the Contractor's expense. When transitions are included as part of the work, then these areas are to be surfaced prior to application of the main line. This shall include intersections, turnouts, radii, ramps etc.

**907-418.03.8--Aggregate Application Rate**. The target spread rate for all full width micro-surfacing not intended as a leveling course shall be controlled to within plus or minus two (±2) pounds per square yard of spread rate and shall be based on the weight of dry aggregate. Unless otherwise approved by the Engineer, the full width spread rate shall be 18 pounds per square yard for Type II and 25 pounds per square yard for Type III. For rut filling/leveling courses, the spread rate shall be 25 lbs/sy of Type III. A five-percent (5%) reduction in unit price will be applied for each pound of aggregate per square yard outside the spread rate tolerances established above for each day's placement of material. In lieu of pay reduction, the Contractor may elect to overlay the deficient area at no additional costs to the Department. Continued operation and placement of materials outside the spread rate tolerances shall not be allowed. The Contractor shall make adjustments as necessary in the placement operation to maintain production within the tolerances given.

**907-418.03.9--Quality Control.**
The Contractor is responsible for quality control (QC) sampling and testing and shall submit a written Quality Control Plan (QCP) acceptable to the Engineer. If calibration factors are used as a method of measurement, the QCP shall include calibration procedures used to determine calibration factors.

**907-418.03.9.1--Personnel.** The Contractor is responsible for staffing their project with qualified personnel.

**907-418.03.9.2--Testing Facilities and Equipment**. The Contractor shall supply any testing and equipment needed to comply with their approved QCP.

**907-418.03.9.3--Materials Testing.** The Contractor shall test the materials utilized in a manner to comply with their approved QCP and as required by the Engineer.

**907-418.03.9.4--Compliance with Specifications.** The Contractor shall attest in writing to the Department that the micro surfacing has been constructed in accordance with and meets the requirements of the specifications and their approved QCP at the conclusion of the project.

**907-418.03.9.5--Department Acceptance.** The Department will conduct acceptance sampling, testing, and inspection activities to ensure material quality, correct application rates, and traffic

control are within specification requirements. These activities along with the frequencies will be done at the discretion of the Department.

**907-418.03.9.5.1--Materials Testing.**

**907-418.03.9.5.1.1--Aggregate.** A sample of aggregate should be obtained and tested from the Contractor's project stockpile(s) at the discretion of the Engineer.

**907-418.03.9.5.1.2--Emulsified Asphalt.** A sample of emulsified asphalt should be obtained from the Contractor's distributor on the first day of production and thereafter at a frequency not to exceed 1 sample per 50,000 gallons. Because the time between sampling of the emulsified asphalt and the testing of the material can affect the test results, samples should be sent to the MDOT Central Lab for testing as soon as possible.

**907-418.03.9.5.2--Equipment.** All equipment to be used on the project shall be evaluated by the Engineer.

**907-418.03.9.5.3--Final Inspection.** A final inspection will be done with the Contractor to assure that the project has been constructed and complies with the project specifications.

**907-418.04--Method of Measurement.** Emulsified asphalt for micro-surfacing shall be measured by the gallon. The Contractor will be required to submit certified bill of ladings from the emulsion manufacturer indicating total gallons delivered. The Contractor may elect to use a calibration factor to measure gallons of emulsion using a calibrated metering system incorporated into the application equipment. The Contractor shall determine the calibration factor according to the equipment manufacturer's recommendations. The calibration procedures shall be conducted at the beginning of the project in the presence of the Engineer or designated Department representative. At the conclusion of each workday, the Contractor shall report the amount of emulsified asphalt for micro-surfacing applied to the Engineer. In addition, the Contractor will be responsible for submitting a way-back ticket representing un-used material at the conclusion of each project.

Aggregate for micro-surfacing shall be measured by the ton of dry aggregate used. The aggregate shall be weighed on certified scales. In lieu of certified scales, the Contractor may elect to use a calibration factor to measure tonnage of dry aggregate using a calibrated metering system incorporated into the application equipment. The Contractor shall determine the calibration factor according to the equipment manufacturer's recommendations. The calibration procedures shall be conducted at the beginning of the project in the presence of the Engineer or designated Department representative. Aggregate calibration factors shall be rechecked if there is a significant change in aggregate moisture content. At the conclusion of each workday, the Contractor shall report the amount of aggregate for micro-surfacing applied to the Engineer. The weight will be based on a 2000-pound ton and the aggregate will be corrected for moisture. The mineral filler will be counted by the 94-pound sack and will be included in the payment for aggregate.

**907-418.05--Basis of Payment.** Emulsified asphalt for micro-surfacing, measured as prescribed above, will be paid for at the contract bid price per gallon, which shall be full compensation for furnishing all materials including emulsified asphalt and mineral filler, and for all equipment, work and labor to complete the work.

Aggregate for micro-surfacing, measured as prescribed above, will be paid for at the contract bid price per ton, which shall be full compensation for furnishing all equipment, work and labor to complete the work.

These prices shall be full compensation for furnishing all materials, for preparation, mixing and applying these materials and for all labor, equipment, tools, test design, clean up and incidentals necessary to complete the work as specified herein.

Payment will be made under:

907-418-A: Emulsified Asphalt for Micro-Surfacing - per gallon

907-418-B: Aggregate for Micro-Surfacing - per ton

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-420-4** **CODE: (SP)**

**DATE:** **02/19/2019**

**SUBJECT:** **Undersealing**

Section 907-420, Undersealing, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

## SECTION 907-420 -- UNDERSEALING

**907-420.01--Description.** This work shall consist of filling voids (undersealing) in the soil adjacent to a pipe culvert(s), box culverts(s), bridge structure(s), or other locations determined by the Engineer. It is intended that the voids around the pipe culverts will be filled from the surface and voids around the box culverts will be filled from within the box culvert.

**907-420.02--Material.** The material for filling the voids shall be a "hydro-sensitive" high density polyurethane meeting the following requirements.

| Properties | Test Value | Test Method |
|---|---|---|
| Density, lbs./ft., minimum | 4.0 | ASTM D 1622 |
| Tensile Strength, psi, minimum | 100 | ASTM D 1622 |
| Compression Strength, psi (at yield point), minimum | 90 | ASTM D 1621 |

The Contractor shall furnish the Engineer with certified test reports showing that the material meets the requirements of the specification.

**907-420.03--Construction Requirements.** All undersealing will be done at the locations specified in the plans, or as directed by the Engineer.

**907-420.03.1--Equipment.** The equipment shall be that customarily used in undersealing operations. Generally, it shall consist of a pneumatic or electric drill capable of drilling holes of adequate size in the embankment soil or culvert wall to accomplish the work. The exact depth into the embankment shall be determined by the Contractor. The equipment shall be in satisfactory operating condition and operated in such a manner as to prevent unnecessary damage to existing roadways, structures, and the surrounding area. The pump shall be capable of injecting the high density polyurethane at a rate and to a depth necessary to fill the void adjacent to the existing structures.

**907-420.03.2--Drilling Holes.** Unless otherwise shown in the plans, the size and location of the injection holes shall be as determined by the Manufacturer/Contractor.

**907-420.03.3--Injection Process.** The nozzle of the discharge hose shall be secured in the drilled hole in a manner that provides an adequate seal during the pumping process. The polyurethane

material shall be injected through the drilled holes until all known or encountered voids are filled. The rate and amount of material injection shall be determined by the Manufacturer/Contractor.

When the nozzle is removed, the hole shall be plugged or sealed to the satisfaction of the Engineer. Any excess polyurethane material shall be removed.

**907-420.04--Method of Measurement.** Undersealing, complete and accepted, will be measured by the pound. The quantity of urethane will be based on the supplier's packaging information for the material delivered and incorporated into the project.

**907-420.05--Basis of Payment.** Undersealing, as measured prescribed above, will be paid for at the contract unit price per pound, which price shall include all mobilization, labor, equipment, tools, materials, and incidentals necessary to complete the required work.

Cost for maintenance of traffic and individual traffic control devices as required for undersealing operations shall be included in the unit price for undersealing and will not be measured for separate payment.

Payment will be made under:

907-420-A: Undersealing - per pound

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

**SPECIAL PROVISION NO. 907-428-1** **CODE: (SP)**

**DATE:** **07/06/2026**

**SUBJECT:** **Fog Seals**

Section 907-428, Fog Seals, is hereby added and made part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

## SECTION 907-428 – FOG SEALS

**907-428.01—Description.** This work may require the placement of a fog seal on an existing or newly placed surface as specified on the plans or in the contract documents. The fog seal shall be placed at locations shown on the plans or as directed by the Engineer.

**907-428.02 – Materials.** Emulsions shall not be diluted more than 1:1 by weight without approval from the Engineer. Emulsions shall be diluted at the manufacturer's plant site. Specialty fog seal products may be diluted according to the manufacturer's recommendation.

**907-428.02.1 – Bituminous Fog Seal.** These types of fog seals shall be an emulsified material where the type of bituminous emulsion shall conform to the applicable requirements of AASHTO M 3428.

**907-428.02.2 – Less Tracking Bituminous Fog Seal.** These types of fog seals shall be one from the Department's APL under the category "Less Tracking Bituminous Fog Seal".

**907-428.02.3 – Bituminous-Based Fog Seal with Rejuvenator.** These types of fog seals shall be one from the Department's APL under the category "Bituminous-Based Fog Seal with Rejuvenator".

**907-428.02.4 – Bio-Based Fog Seal with Rejuvenator.** These types of fog seals shall be one from the Department's APL under the category "Bio-Based Fog Seal with Rejuvenator". The rejuvenating agent shall be eighty-five percent bio based and contain no petroleum-derived rejuvenating oils or solvents.

**907-428.03 – Construction Requirements.** The placement of these fog seals shall be in accordance with the requirements set forth in Subsections 410.03.2, 410.03.3, 410.03.5, and 410.03.7, as applicable. Fog seal shall not be placed until after final brooming. Bituminous fog seals are typically placed at a rate of 0.11 gallons per square yard. At the Engineer's discretion, the application rate may be varied according to the following table depending on field conditions. Application rates other than 0.11 gallons per square yard must be approved by the Engineer prior to application.

| Surface Type | Range of Application Rate (gal/sy) |
|---|---|
| Asphalt Mixture – tight texture | 0.06 to 0.11 |
| Asphalt Mixture – open texture | 0.10 to 0.22 |
| Surface Treatment | 0.10 to 0.15 |

For fog seal products classified under 907-428.02.2, 907-428.02.3, and 907-428.02.4, application rates shall follow manufacturer recommendations.

**907-428.04 – Method of Measurement.** Accepted quantities for fog seals will be measured by the gallon as prescribed in Subsection 109.01. Unless otherwise specified, distributor tank measurement will be used. The volume of material over five percent (5%) above the quantity ordered for each shot will be deducted from measured quantities, except that 15 percent (15%) will be allowed for irregular areas (as defined in Subsection 907-401.02.6.4.4) where hand spraying is necessary.

**907-428.05 – Basis of Payment.** These fog seals, measured as prescribed above, will be paid for at the contract unit price per gallon, which shall be full compensation for furnishing all labor, materials, equipment, applying and protecting the fog seal, and all incidentals necessary to complete the work.

| | | |
|---|---|---|
| 907-428-A: | Bituminous Fog Seal | -per gallon |
| 907-428-B: | Less Tracking Bituminous Fog Seal | -per gallon |
| 907-428-C: | Bituminous-Based Fog Seal with Rejuvenator | -per gallon |
| 907-428-D: | Bio-Based Fog Seal with Rejuvenator | -per gallon |

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-601-1** **CODE: (IS)**

**DATE: 11/21/2023**

**SUBJECT: Structural Concrete**

Section 601, Structural Concrete, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-601.02--Materials.**

**907-601.02.1--General**. Delete the first sentence of Subsection 601.02.1 on page 377, and substitute the following.

Materials for structural concrete and their use, care, and handling shall be in accordance with Subsection 907-804.02.

**907-601.02.2--Classification of Concrete**. Delete the second sentence of Subsection 601.02.2 on page 377, and substitute the following.

Classes of concrete are identified in Subsection 907-799.01.

**907-601.03--Construction Requirements**.

Delete Subsection 601.03.1 on page 378 and substitute the following.

**907-601.03.1--Blank.**

**907-601.05--Basis of Payment**. Delete the pay items listed at the end of Subsection 601.05, and substitute the following.

907-601-A: Class ___ Structural Concrete - per cubic yard

907-601-B: Class ___ Structural Concrete, Minor Structures - per cubic yard

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-605-1** **CODE: (IS)**

**DATE: 11/21/2023**

**SUBJECT: Underdrains**

Section 605, Underdrains, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-605.02--Materials.**

**907-605.02.4--Edge Drain Pipe and Fittings.**

**907-605.02.4.4--Miscellaneous.** Delete the first paragraph of Subsection 605.02.4.4 on page 398, and substitute the following.

Concrete for aprons shall be Class "C" concrete meeting the requirements of Section 907-799.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-618-11** **CODE: (SP)**

**DATE: 03/30/2022**

**SUBJECT: Work Zone Law Enforcement**

Pursuant to House Bill No. 580, Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-618.01--Description**. After Subsection 618.01.4 on page 443, add the following.

**907-618.01.6--Work Zone Law Enforcement**. On projects that the Commission determines are on high-volume roadways or are otherwise high risk projects, the Commission may include a pay item to provide for reimbursement to the Contractor for enhanced law enforcement safety operations in the work zone.

According to House Bill No. 580, the work zone safety operations, when required by the Commission, shall consist of utilizing a uniformed law enforcement officer equipped with a patrol vehicle with blue flashing lights to enforce traffic laws and provide for an enhanced law enforcement presence in order to facilitate the safe movement of traffic through the work zone and to protect workers within the work zone.

**907-618.03--Construction Requirements**. After Subsection 618.03.5 on page 447, add the following.

**907-618.03.7--Work Zone Law Enforcement.** The utilization of work zone law enforcement shall be done at such locations and time periods deemed necessary and appropriate by the Engineer, after discussion with the Contractor. The Contractor shall be responsible for the coordination with the work zone law enforcement agency.

The Contractor shall provide a daily work record of the actual hours of work performed by the law enforcement agency and shall be accompanied by signed invoices from the law enforcement agency, which must be verified by the Engineer.

**907-618.04--Method of Measurement**. After the last paragraph of Subsection 618.04 on page 449, add the following.

Work zone law enforcement will be measured per hour for every hour verified by the Engineer using an invoice or other acceptable record. Measurement for payment will not be made for work zone law enforcement after expiration of contract time.

**907-618.05--Basis of Payment**. After the third paragraph of Subsection 618.05 on page 449, add the following.

Work zone law enforcement, measured as prescribed above, will be paid for at the fixed contract unit price per hour, which price shall be full compensation for furnishing and reimbursing work zone law enforcement.

After the last pay item listed on page 450, add the following.

907-618-M2: Work Zone Law Enforcement - per hour

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-618-12** **CODE: (SP)**

**DATE: 05/03/2024**

**SUBJECT: Traffic Control Management**

Section 618, Maintenance of Traffic and Traffic Control Plan, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-618.01--Description.**

**907-618.01.2--Traffic Control Management.** Delete subparagraph (g) of Subsection 618.01.2 on page 441, and substitute the following.

g) Perform a minimum of once-a-week inspections from the Notice to Proceed until a Partial or Final Maintenance Release is obtained. Once work begins, daily daytime inspections and weekly nighttime inspections are required on projects with predominantly daytime work, and daily nighttime inspections and weekly daytime inspections are required on projects with predominantly nighttime work. Weekly inspections will be allowed for periods outside of active construction. When lane closures are present or any non-fixed signs or traffic handling devices such as cones or barrels are in place, inspections shall be performed daily whether work is being performed or not.

**907-618.05--Basis of Payment**. Delete pay item 618-A on page 449 and substitute the following.

907-618-A: Maintenance of Traffic - lump sum

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-619-5** **CODE: (IS)**

**DATE: 01/17/2018**

**SUBJECT: Traffic Control for Construction Zones**

Section 619, Traffic Control for Construction Zones, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-619.02--Materials.**

**907-619.02.8--Traffic Signals and Flashers.** Delete Subsection 619.02.8.1 on pages 452 thru 455, and substitute the following.

**907-619.02.8.1-Portable Traffic Signals.** Portable traffic signals shall be trailer or pedestal mounted units that provide for easy, legal transportation and quick setup and deployment. Each unit shall be self-contained. The types of portable traffic signals are as follows.

- Type 1 portable traffic signal shall include two signal heads per trailer with one signal head mounted on an overhead mast arm that can be extended over the travel lane, and the other signal head shall be mounted on the vertical upright of the trailer.

- Type 2 portable traffic signal shall include one signal head that is mounted on the vertical upright of the pedestal/cart or trailer. Pedestal/Cart mounted shall be designated as Type 2A and Trailer mounted shall be designated as Type 2B. Type 2 portable traffic signals shall be tested to MASH Standards or NCHRP Test Level 3 crash testing requirements by an accredited independent test facility, with supporting documentation available upon request.

- Type 3 portable traffic signal shall be the same as Type 1 mentioned above but with enhanced capabilities as mentioned in each applicable section below.

The portable traffic signals shall be MUTCD Compliant and utilize standard ITE signal heads, and adhere to the ITE Specifications and Standards for Vehicle Traffic Control Signal Heads, Light Emitting Diode (LED) Circular Signal Supplement. The units shall be battery powered with a solar charging system, and be equipped with an onboard battery charger capable of being used with a 120V AC power source. Portable traffic signals shall be able to communicate with other portable signals via 900 MHz or other accepted wireless communications. If wireless connectivity is not feasible, hardwired connectivity shall be an acceptable alternative, as approved by the Engineer. Portable Traffic Signals shall include all the major components listed below or be able to perform the functions of these components. The major components of the unit shall include, but are not limited to, the trailer or pedestal/cart, telescoping mast arm (on Type 1 and 3), signal head(s) and back plates, traffic signal controller with operating software, solar charging system with batteries, input and output devices, vehicle detection, flasher units, conflict monitor, relays,

communications system and other equipment required for the safe operation and installation of the unit.

**907-619.02.8.1.1--Signal Heads**. The signal heads and all applicable components of the portable traffic signal shall meet the physical display and operational requirements of conventional traffic signals as specific in the Manual on Uniform Traffic Control Devices (MUTCD). The signal heads shall be cast aluminum or polycarbonate and shall meet the requirements laid out in the Mississippi Standard Specification for traffic signal heads and associated MDOT material specifications for traffic signal heads. The signal heads shall accommodate standard 12-inch LED indications meeting the ITE Specification "Vehicle Traffic Control Signal Heads" and ITE Specifications and Standards for Vehicle Traffic Control Signal Heads, Light Emitting Diode (LED) Circular Signal Supplement.

For Type 1, Type 2 and Type 3 portable traffic signals, the signal heads shall have the ability to be rotated 180 degrees to face in the opposite direction and shall have the ability to rotate and lock in approximately 10 degree increments to position the signal head for the optimum visibility to motorists.

For Type 1 portable traffic signals, each unit shall contain two signal heads with one signal head mounted on an overhead mast arm that can be extended over the travel lane with a minimum clearance of 17 feet measured from the bottom of the signal head unit to the road surface. The lower signal head shall be mounted to the vertical upright of the trailer at a minimum height of eight feet (8') from the bottom of the signal head unit to the road surface.

For Type 2 portable traffic signals, the signal head shall be mounted to the vertical upright of the trailer at a minimum height of eight feet (8') from the bottom of the signal head unit to the road surface.

For Type 3 portable traffic signals, each unit shall be the same as Type 1 mentioned above but with enhanced capabilities as mentioned below.

**907-619.02.8.1.2--Controller and Operating Requirements**. The portable traffic signal (Types 1, 2, and 3) shall include a solid state Controller Unit (CU) that is in compliance with NEMA TS 5 Performance Standard. The CU shall have an easy to read front panel backlit display for viewing and programming the configuration settings and CU status. The CU shall be capable of operating the portable traffic signal system in a fixed time, traffic actuated or manual control mode. Multiple portable traffic signals shall have the capability to be interconnected to form a portable traffic signal system. Each portable traffic signal within a connected system shall have the capability to serve as either the master or remote signal. Each portable traffic signal shall include a Conflict Monitor Unit (CMU), or Malfunction Management Unit (MMU) to ensure phase conflicts do not exist during operation.

For Type 1 and Type 2 portable traffic signals, a minimum of five (5) automatic time-of-day timing plans within a 24-hour period should be available in fixed time mode. The CU should have the ability to control a minimum of four (4) traffic phases with programmable cycle time adjustments and user adjustable red, amber, minimum green and maximum green times. The CU shall have

the capability of programming green and red times from 1 to 999 seconds and yellow times up to 15 seconds in one-second increments. The CU shall also have the capability of facilitating standby modes of red, red flash and yellow flash.

For Type 3 portable traffic signals, a minimum of ten (10) automatic time-of-day timing plans within a 24-hour period should be available in fixed time mode. The CU should have the ability to control a minimum of 16 traffic phases with programmable cycle time adjustments and user adjustable red, amber, minimum green and maximum green times. The CU shall have the capability of programming green and red times from 1 to 999 seconds and yellow times up to 15 seconds in one-second increments. The CU shall also have the capability of facilitating standby modes of red, red flash and yellow flash.

The system shall also have the ability to operate in vehicle actuation mode when vehicle detection components are used. The operating system shall have the capability to allow the Portable Traffic Signal to be connected to and controlled by a standard NEMA controller.

The system shall have the capability to be controlled remotely using a hardwired or wireless remote. The wireless radio remote shall be capable of communicating at a clear line of site distance up to ¼ mile from the master.

The CU shall have the capability of interfacing with a Remote Monitoring System (RMS) capable of reporting signal location, battery voltage, and system faults. The RMS shall include a password-protected web site, viewable via an internet connection. In the event of a system fault, the RMS shall provide specific information concerning the cause of the system fault (example: "red lamp on signal number 1 out"). The RMS shall immediately contact previously designated individuals via SMS text messaging or email, upon a fault event.

The active timing program operating the PTS system shall be available and viewable through the RMS website at all times. The RMS shall maintain a history of the operating system in each signal including total operating hours, alerts, and the location of the PTS trailer.

**907-619.02.8.1.3--Wireless Communications**. The portable traffic signals shall communicate with other portable traffic signals within the signal system via license-free wireless 900 MHZ radio link communications as specified in Subsection 662.02.2 of the radio Interconnect System specification. The radio units shall maintain communications at a minimum distance of one (1) mile. The radio system shall conform to the applicable Federal Communications Commission requirements and all applicable state and local requirements.

The portable traffic signals shall be in direct communication at all times either by wireless or hardwire connection to provide for the required conflict monitoring / malfunction management system.

**907-619.02.8.1.4--Power Requirements.** Each Portable Traffic Signal shall be equipped with a power source consisting of a solar collection array, solar controller and/or charging unit and batteries sufficient to operate the signal system. The number and size of batteries shall be sufficient to operate the Type 1 and Type 3 signals for a minimum of 30 days and Type 2A signals for

minimum of five (5) days, and Type 2B signals for minimum of 15 days without additional charging or assist from the solar array. An on-board battery charger shall be compatible with both the solar array and with a 120V AC power source.

For Type 1 signals, the solar panel array shall provide for a minimum of 440 watts of solar collection capability.

For Type 2A signals, the solar panel array shall provide for a minimum of 90 watts of solar collection capability.

For Type 2B signals, the solar panel array shall provide for a minimum of 110 watts of solar collection capability.

For Type 3 signals, the solar panel array shall provide for a minimum of 480 watts of solar collection capability and shall include a tilt and rotate system to optimally position the panels.

All instrumentation for the electrical system and battery compartment shall be contained in a lockable weatherproof enclosure. Solar panels shall be secured to the mounting brackets for theft prevention.

**907-619.02.8.1.5--Trailer and Lift System**. The trailer or pedestal/cart and all mounted components shall conform to the wind loading requirements as follows: 100 mph minimum for Type 1 portable traffic signals, 55 mph minimum for Type 2A portable traffic signals, 75 mph minimum for Type 2B portable traffic signals, and 90 mph minimum for Type 3 portable traffic signals as described in the AASHTO *Standard Specifications for Highway Signs, Luminaries and Traffic Signals*, as specified in the plans including all interims and updates. At the request of the Engineer, proof of conformance to these wind load ratings shall be verified by a third-party. No additional loose ballast shall be used to meet these wind load requirements. The trailer shall be made of structural steel and shall include four (4) leveling/stabilizer jacks capable of lifting the trailer a minimum of six inches (6").

The trailer or pedestal shall be equipped with a mechanical, hydraulic or electric lift system sufficient for one person to be able to raise and lower the vertical upright and/or horizontal mast arm to and from the operating position.

For Type 1, 2B, and Type 3 signals, the trailer shall be equipped to provide legal and safe transport on the public highway system at speeds up to 55 mph.

All exterior metal surfaces, except signal heads and back plates, shall be powder-coat painted highway safety orange.

**907-619.02.9--Impact Attenuators.** Delete the sentence in the first paragraph of Subsection 619.02.9 on page 455, and substitute the following.

Impact attenuators must be listed on the Department's APL.

**907-619.02.11--Snap-Back Delineators.** Delete the sentence in the paragraph of Subsection 619.02.11 on page 456, and substitute the following.

Snap-back delineators shall be selected from the list of surface mounted flexible delineator posts as shown on the Department's APL.

**907-619.02.14--Changeable Message Sign.**

**907-619.02.14.5--PCMS Controller and Storage Cabinets.** Delete the fifth sentence in the first paragraph of Subsection 619.02.14.5 on pages 462 and 463, and substitute the following.

The controller cabinet shall be illuminated.

**907-619.05--Basis of Payment**. Add the following to the list of pay items ending on page 480.

907-619-E3: Changeable Message Sign ***** - per each

907-619-H2: Traffic Signal, Portable, Type ___ - per each

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-626-13** **CODE: (SP )**

**DATE: 09/16/2026**

**SUBJECT: Thermoplastic Traffic Markings**

Section 626, Thermoplastic Traffic Markings, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

Delete Section 626 on pages 492 thru 496, and substitute the following.

## SECTION 626 - THERMOPLASTIC TRAFFIC MARKINGS

**907-626.01--Description.** This work consists of furnishing materials and placing thermoplastic pavement markings of the type specified in conformity with these specifications and the details shown on the plans or established. All hot-applied thermoplastic pavement markings shall be coated with a double-drop combination of optics.

This work may also consist of placing an audible bump or puck style marking system on the edge line that provides an audible and vibratory warning when driven over. The marking system shall be a road marking system of the dimensions indicated at regular and predetermined intervals.

This work may also consist of placing a profile or raised shape marking system on centerline or edge line that provides audible and vibratory warning when driven over. The marking system shall be a road marking system of the dimensions indicated and at regular and predetermined intervals. When placed on centerline, the markings system shall consist of an extruded black transverse thermoplastic bar of the dimensions indicated at regular and predetermined intervals.

This work may also consist of placing high contrast thermoplastic markings. High contrast thermoplastic markings shall consist of placing thermoplastic pavement markings over a black thermoplastic pavement marking to enhance the marking's visibility.

All pavement marking material, excluding lines over rumble strips, shall be applied using the extrusion/ribbon method. Lines placed over rumble strips shall be applied using the atomization/spray method, unless the extrusion/ribbon method can be demonstrated to perform adequately and is approved by the Engineer.

Permanent pavement marking tape (permanent cold plastic tape) may be used in lieu of hot applied thermoplastic markings. Substitution will only be allowed for pay items 907-626-A through H. Substituted pavement marking tape shall be of the same color and width as that required for the hot applied thermoplastic. Unless otherwise specified, the markings, whether hot applied or pavement marking tape, shall be of the same type of material for the entire project. Stop bars and crosswalks shall not be substituted with pavement marking tape and shall be alkyd hot-applied thermoplastic markings or heat-fused preformed pavement markings. Material and construction

requirements for substituted pavement marking tape shall meet the requirements of Special Provision 907-628. The layout and spacing for substituted pavement markings will remain as shown in the plans, or in the contract documents, for hot applied thermoplastic markings. Measurement of adhesive substituted pavement markings shall be made in accordance with Special Provision 907-628. Payment for adhesive substituted pavement markings shall be made at the unit price for the appropriate hot applied thermoplastic marking.

When thermoplastic pavement markings are used on bridge decks or concrete surfaces, the surface shall be sealed with an epoxy sealer prior to the application of thermoplastic.

**907-626.02--Materials.** All pavement marking materials shall meet the requirements of Special Provision 907-720.

**907-626.02.1--Audible Bumps.** Audible bumps shall have a profile such that the leading and trailing edges are sloped at a sufficient angle to create an audible and vibratory warning.

Audible bumps shall be at least 0.45 inches above the pavement surface at the highest point of the bump. The height shall be measured after the application of drop-on material. The bumps shall have a minimum dimension of two and one-half inches (2½") in both transverse and longitudinal directions. The bumps may have a drainage channel. The width of each drainage channel shall not exceed one-quarter of an inch (¼") at the bottom of the channel.

**907-626.02.2--Audible Transverse Bars.** The length of transverse bars is the measurement lateral to the direction of travel, also known as transverse width. The width of transverse bars is the measurement parallel to the travel way.

Transverse bars on centerline shall have a length of 10 inches, a width of three inches (3"), and a height of 350 mils. Transverse bars on centerline shall be placed on 2-foot centers through no-passing zones and 5-foot centers through passing zones. Transverse bars on centerline shall be placed in advance of permanent thermoplastic markings.

Transverse bars on edge lines shall have a length of six inches (6"), a width of three inches (3"), and a height of 350 mils. Transverse bars on edge lines shall be placed on 2-foot centers. Tolerance for the longitudinal and transverse measurements shall be one quarter of an inch (¼") and the tolerance for height shall be 50 mils. The above dimensions are based on 6-inch strip application.

Thermoplastic material for edge line transverse bars shall be as specified on the Plans and meet the requirements of Special Provision 907-720 or as specified on the plans. Thermoplastic material for centerline transverse bars shall be black and shall meet the requirements of Special Provision 907-720.

**907-626.02.3--High Contrast Markings.** High contrast markings shall be black with the pertinent marking color overlaid on top and shall meet the requirements of Special Provision 907-720.

**907-626.03--Construction Requirements.**

**907-626.03.1--Equipment.** Equipment for hot application shall be of sufficient size and stability to ensure smooth, uniform, properly aligned markings of the dimensions specified. The equipment shall be suitably equipped for heating and controlling the flow of the material. The equipment shall be constructed to provide continuous mixing and agitation of the material. The conveying parts of the equipment, between the main material reservoir and applicator, shall be so constructed as to prevent accumulation and clogging. The equipment shall be constructed so that all mixing and conveying parts, up to and including the applicator, maintain the material at the plastic temperature. The thermoplastic material shall be dispensed at a temperature recommended by the manufacturer. The applicator shall include a cutoff device remotely controlled to provide clean, square stripe ends and to provide a method for applying skip lines. The thermoplastic reservoir shall be insulated and equipped with an automatic thermostatic control to maintain the proper temperature of the material.

The application equipment shall be capable of automatic placement of intermittent and continuous line patterns in single or double line applications simultaneously. The intermittent timer mechanism shall provide a variable ratio of materials applied and variable cycle length such that accurate placement of new patterns, or replacement of existing patterns can be achieved.

The equipment shall also be capable of applying the top dressing of optics (beads) in a manner that firmly embeds them into the surface of the thermoplastic material for at least one half of the diameter of the larger gradation sizes of the optics. The dispensing equipment shall be equipped with an automatic cut-off control for the application of the optics that is synchronized with the cut-off of the thermoplastic material.

Optics applied to the surface of the completed stripe shall be applied by an automatic dispenser attached to the pavement marking equipment in such a manner that the optics are immediately dispensed upon the completed line. The dispenser shall be equipped with an automatic cutoff control, synchronized with the cutoff of the pavement marking equipment. The double-drop optics as defined in 907-720 shall be automatically applied at a uniform rate to achieve the minimum retroreflectivity requirements of 907-626.

**907-626.03.2--Construction Details.** The thermoplastic compound shall be screed or ribbon extruded to the pavement surface. Heat-fused, pre-formed pavement markings shall be fusible to asphalt surfaces by means of the normal heat of a propane weed-burner type of torch or other heating device as recommended by the manufacturer. Heat-fused, pre-formed pavement markings shall be instantly highly reflective without the application of additional optics.

Thermoplastic markings shall not be applied to the pavement surface when the pavement surface temperature is less than 55°F. The pavement surface shall be dry, to the satisfaction of the Engineer, before application will be permitted. Unless otherwise specified by the manufacturer, thermoplastic pavement marking material shall be applied to the surface between 400°F and 450°F with a recommended application temperature being 420°F.

Immediately before application, all areas to be marked shall be thoroughly cleaned. Cleaning may be done by rotary brooms, air blast, scrapers, or whatever combination of equipment is necessary to clean the pavement thoroughly without damage to the pavement surface. On areas of pavement

cured with compound, the membrane shall be removed completely by shot blasting, sand blasting or other approved method. Before edge striping, particular care shall be taken to remove all vegetation, loose soil, and the like from the area to be marked. Should other methods fail, the surface shall be wetted with a water jet and scrubbed as necessary to dislodge all foreign material. After washing, the surface shall be allowed to dry thoroughly, and all films of dried mud apparent after surface drying shall be removed before application of markings. Marking shall follow as closely as practicable after the surface has been cleaned and dried, but no markings shall be applied until the surface has been inspected and permission given to proceed. The cost for preparing the surface shall be included in the contract unit prices for the marking items.

Unless otherwise directed by the Engineer, traffic stripes that are conflicting with the thermoplastic stripe shall be removed prior to placement of the thermoplastic material. Removal of pavement markings shall be done by a means that will not gouge the surface of the pavement in a manner that requires patching to ensure the integrity of the pavement. Temporary paint stripe may be left in place when satisfactorily placed in the proper location. Any temporary stripe not covered shall be removed. Payment for removal of stripe, except temporary stripe, will be made under Section 202.

On newly constructed asphalt pavements, any sand, grit, or other surface contaminants shall be removed using compressed air and/or sweeping. Water blasting may be necessary to remove surface contaminants which cannot be removed by the use of compressed air and/or sweeping. This work is considered surface preparation.

The finished lines shall have well defined edges and the thickness of thermoplastic markings above the roadway surface shall be no less than 90 mils for edge lines, center lines, lane lines, barrier lines, and detail stripe including gore markings, and no less than 120 mils for crosswalks, stop lines, and railroad, word and symbol markings. The minimum thickness, as required above, will be measured in the center of the line when gauged. The minimum thickness one-half inch (½") from the edges shall not be less than 75% of the thickness required in the center.

Any thermoplastic traffic marking less than the required thickness shall be corrected by recapping at no additional costs to the Department. Although a thickness tolerance of 25 percent from center to edge is allowed, a consistent underrun of any amount in thickness as determined by the Engineer will not be acceptable.

The length and width of lines shall be within a tolerance of ±3 inches and ±1/8 inch, respectively. For skip markings, the tolerance for intervals shall not exceed the line length tolerance. On curves, unsightly variations from the normal curvature will not be permitted unless specifically shown on the plans or ordered by the Engineer.

Heat-fused, pre-formed pavement markings shall be supplied with a minimum average thickness of 90 mils before application on the roadway surface.

All newly applied thermoplastic material shall be protected from traffic until the material is sufficiently dry so as not to sustain damage from vehicle tires. Any material so damaged by traffic shall be repaired, and the thermoplastic material tracked onto the pavement shall be removed and

replaced.

**907-626.03.3--Reflectivity Requirements.** The longitudinal pavement markings shall meet the following retroreflectivity values when measured within 10 to 30 calendar days of placement, after removing loose beads.

**Table 1. Minimum Dry Retroreflectivity**

| Color | All Stripe without Rumble mcd/m²/lx | Rumble Stripe mcd/m²/lx |
|---|---|---|
| White | 375 | 250 |
| Yellow | 225 | 150 |

For projects with less than two miles between the BOP and EOP, retroreflectivity measurements will not be required.

**907-626.03.3.1--Measuring Devices.** Retroreflectivity measurements are required to be taken using a vehicle mounted mobile retroreflectometer using 30-meter geometry with video and mapping capabilities as per AASHTO T-398. The retroreflectometer and operator shall be certified by the manufacturer, authorized representative of the manufacturer, or an MDOT approved program such as the Texas A&M Transportation Institute (TTI) Mobile Retroreflectometer Certification Program. The Contractor shall provide copies of current certifications for the operator(s) and the device(s) to the Engineer.

**907-626.03.3.2--Acceptance Procedure.** Averages of the mobile measurements shall be provided for every 0.1 miles unless otherwise specified or approved. Take measurements on each section of roadway for each series of markings (i.e., edge line, center skip line, each line of a double line, etc.) and for each direction of traffic flow. Measure each line in both directions for centerlines on two-way roadways (i.e., measure both double solid line in both directions and measure all center skip lines in both directions). Furnish measurements in compliance with the below requirements. Use all equipment in accordance with the manufacturer's recommendations and directions. Inform the Engineer at least 24 hours before taking any measurements.

A marking meets the retroreflectivity requirements if:

- The combined average retroreflectivity value for a one-mile segment meets the minimum retroreflectivity values specified, and
- Within the one-mile segment, no more than three consecutive 0.1 mile intervals shall have an average retroreflectivity value below the minimum required value.

The one-mile segment will start from the beginning of the data collection and end after a mile worth of measurements have been taken; each subsequent mile of measurements will be a new segment. If the remainder is 0.5 miles or less, it shall be included in the previous mile segment, otherwise the remaining segment of greater than 0.5 mile shall be its own segment. Centerlines with 2 stripes (either solid or broken) will result in 2 miles of data for each mile segment. Each centerline stripe must be tested for compliance as a stand-alone stripe.

The Contractor may elect to restripe with a minimum of 0.060 in. (60 mils) at no cost to the Department each one-mile segment that failed to meet the minimum retroreflectivity requirements.

Measurements shall be retaken within 10 to 30 calendar days after the second application for the mile segment for that series of markings. If the markings do not meet minimum retroreflectivity after the second application, the Engineer may require removal of all existing markings, a new application as initially specified, and a repeat of the application process until minimum retroreflectivity requirements are met.

**907-626.03.3.3--Mobile Retroreflectivity Data Collection.** Mobile Retroreflectivity Data Collection (MRDC) shall be conducted on dry pavement only and when the ambient air temperature is greater than 40°F. Data shall be submitted to the Engineer no later than 3 working days after the day the data is collected. Submit all raw data collected in addition to all other data submitted. Provide data files in Microsoft Excel format or a format approved by the Engineer. The data file and video must contain the following information.

**907-626.03.3.3.1--Data File.** Data files shall be provided with the following:

- Date;
- District;
- County;
- Name of mobile retroreflectometer operator;
- Route number with reference markers or other reference information provided by the Engineer to indicate the location of beginning and end data collection points on that roadway;
- Cardinal direction;
- Line type (single solid, single broken, double solid, etc.);
- Line color;
- File name corresponding to video;
- Data for each centerline listed separately;
- Average reading taken for each 0.1-mi. interval (or interval designated by the Engineer);
- Accurate GPS coordinates (within 20 ft.) for each interval;
- Color-coding for each interval indicating passing or failing, unless otherwise directed by the Engineer (passing and failing thresholds provided by the Engineer);
- Graphical representation of the MRDC (y-axis showing retroreflectivity and x-axis showing intervals) corresponding with each data file;
- Distance in miles driven while measuring the pavement markings;
- Event codes (pre-approved by the Engineer) indicating problems with measurement;
- Upper validation threshold (may be included separately with the raw data but must be clearly identified with the data collected using that threshold).

**907-626.03.3.3.2--Map.** A map shall be provided in an electronic format approved by the Engineer with each MRDC submission that includes the following information:

- Date;
- District number;
- County;

- Color-coded 1-mi. intervals (or interval length designated by the Engineer) for passing and failing retroreflectivity values or retroreflectivity threshold values provided by the Engineer; and
- Percentage of passing and failing intervals, if required by the Engineer.

**907-626.03.3.3.3--Video.** A high-quality video file shall be provided with the following information:

- Date and corresponding data file name on label;
- District number;
- County;
- Route number with reference markers or other designated reference information to indicate the location of beginning and end collection points on that roadway; and
- Retroreflectivity values presented on the same screen with the following information:
    - Date;
    - Location;
    - Starting and ending mileage;
    - Total miles;
    - Retroreflectivity readings; and
    - Upper validation thresholds (may be included separately with the raw data but must be clearly identified with the data collected using that threshold).

**907-626.03.4--Reflectivity Verification Testing.** The Engineer or a third party may perform retroreflectivity verification testing on any project. At a minimum, each Contractor performing work for the Department will be verified on an annual basis. The Contractor-submitted retroreflectivity data will be compared to the verification test data to determine acceptability of the Contractor's mobile retroreflectometer data. Comparison of the data will result in one of the two scenarios below:

- Contractor's Data is Validated – If the difference between Contractor's and Engineer/third party data is 20% or less, then the Contractor's data is validated. The Contractor's data will be used for acceptance.
- Contractor's Data is not Validated – If the difference between the Contractor's and Engineer/third party data is more than 20%, then the Contractor's data is not validated. The Engineer/third party data will be used for acceptance and the Contractor will be required to take corrective action prior to additional Contractor data collection and may require re-certification of the mobile retroreflectometer.

**907-626.04--Method of Measurement.** Thermoplastic stripe completed in accordance with the plans and specifications will be measured by the mile or by the linear foot, as indicated, from end-to-end of individual stripes. In the case of skip lines the measurement will include skip intervals. The length used to measure centerline, lane lines, and edge stripes will be the horizontal length computed along the roadway.

Detail traffic stripe will be measured by the linear foot from end-to-end of individual stripes. Measurements will be made along the surface of each stripe and will exclude skip intervals where

skips are specified. Stripes more than six inches (6") in width will be converted to equivalent lengths of 6-inch stripe.

Hot-applied legend, which is to include railroad markings, pedestrian crosswalks, and stop lines, will be measured by the square foot or linear foot. Pay areas of individual letters and symbols will usually be shown on the plans and measured by the square foot. Transverse railroad bands, pedestrian crosswalks and stop lines will generally be measured by the linear foot, in which case, stripes more than six inches (6") in width will be converted to equivalent lengths of 6-inch widths.

Pre-formed legend which is to include railroad markings and pedestrian crosswalks will be measured and paid for by each.

The length measured for thermoplastic audible bump edge stripe will not include the permanent thermoplastic edge stripe. Permanent thermoplastic edge stripe will be measured for payment under a separate pay item.

Thermoplastic audible bar centerline skip stripe will be measured by the linear foot or mile. Measurements will be made along the surface from end-to-end of the stripe and will include skip intervals. The length used to measure audible bar centerline stripe will be the horizontal length computed along the roadway. The length measured for thermoplastic audible bar centerline skip stripe will not include the permanent centerline continuous or skip stripe. Permanent centerline continuous and skip stripe will be measured for payment under separate pay items.

Thermoplastic audible bar edge stripe will be measured by the linear foot or mile. Measurements will be made along the surface from end-to-end of the stripe. The length used to measure thermoplastic audible bar edge stripe will be the horizontal length computed along the roadway. The length measured for thermoplastic audible bar edge stripe will not include the permanent thermoplastic edge stripe. Permanent thermoplastic edge stripe will be measured for payment under a separate pay item.

**907-626.05--Basis of Payment.** Thermoplastic traffic markings will be paid for at the contract unit price per mile, linear foot, square foot or each as applicable. Any deductions for non-satisfactory material test results will be made after final testing has been performed.

Payment will be made under:

| | | |
|---|---|---|
| 907-626-A: | 6" Thermoplastic Traffic Stripe, Skip White | - per linear foot or mile |
| 907-626-B: | 6" Thermoplastic Traffic Stripe, Continuous White | - per linear foot or mile |
| 907-626-C: | 6" Thermoplastic Edge Stripe, Continuous White | - per linear foot or mile |
| 907-626-D: | 6" Thermoplastic Traffic Stripe, Skip Yellow | - per linear foot or mile |
| 907-626-E: | 6" Thermoplastic Traffic Stripe, Continuous Yellow | - per linear foot or mile |

| | | |
|---|---|---|
| 907-626-F: | 6" Thermoplastic Edge Stripe, Continuous Yellow | - per linear foot or mile |
| 907-626-G: | Thermoplastic Detail Stripe, Color * | - per linear foot |
| 907-626-H: | Thermoplastic Legend, Color * | - per linear foot, square foot, or per each |
| 907-626-Q: | Thermoplastic Audible Bump Edge Stripe | -per linear foot or mile |
| 907-626-R: | Thermoplastic Audible Traffic Stripe, *** | -per linear foot or mile |
| 907-626-AA: | 6" High Contrast Thermoplastic Traffic Stripe, Skip White | - per linear foot or mile |
| 907-626-BB: | 6" High Contrast Thermoplastic Traffic Stripe, Continuous White | - per linear foot or mile |
| 907-626-CC: | 6" High Contrast Thermoplastic Edge Stripe, Continuous White | - per linear foot or mile |
| 907-626-DD: | 6" High Contrast Thermoplastic Traffic Stripe, Skip Yellow | - per linear foot or mile |
| 907-626-EE: | 6" High Contrast Thermoplastic Traffic Stripe, Continuous Yellow | - per linear foot or mile |
| 907-626-FF: | 6" High Contrast Thermoplastic Edge Stripe, Continuous Yellow | - per linear foot or mile |
| 907-626-GG: | High Contrast Thermoplastic Detail Stripe, Color * | - per linear foot |
| 907-626-HH: | High Contrast Thermoplastic Legend, Color * | - per linear foot, square foot, or each |

* Indicate Blue - ADA if applicable
*** Indicate Centerline - Passing Zone, Centerline - No-Passing Zone, or Edge Line

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-627-1** **CODE: (IS)**

**DATE: 06/24/2024**

**SUBJECT: Raised Pavement Markers**

Section 627, Raised Pavement Markers, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows:

Delete Subsection 627.02 on page 496, and substitute the following.

**907-627.02--Materials**. Pavement and jiggle markers of the types specified shall conform to the applicable requirements of Subsection 907-720.06 and shall be listed on the Department's APL.

Type B through G High Performance reflective markers shall be listed on the Department's APL for high performance raised pavement markers.

The bituminous adhesive for pavement markers shall meet the requirements of Subsection 907-720.07.3.

**907-627.05--Basis of Payment.** Add the "907" prefix to the pay items listed on page 498.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-700-3** **CODE: (IS)**

**DATE: 4/20/2026**

**SUBJECT: Materials and Tests**

Section 700, Materials and Tests, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

Delete fourth, fifth, sixth, and seventh paragraph of Subsection 700.01 on page 713, and add the following.

**907-700.01.1--Buy America/Build America. Buy America (BABA) Requirements.**

Iron or Steel Products. Iron or steel or wire products (including prestressed cables and strands) are products that consist wholly or predominantly of iron or steel or a combination of both.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of the iron and steel components.

Iron or steel or wire products, as described above, that are permanently incorporated into a construction project must be produced domestically. All manufacturing processes for iron or steel or wire products, from the initial melting stage through the application of coatings, that are permanently incorporated into a construction project, must occur domestically. However, pig iron and processed, pelletized, and reduced iron ore manufactured outside of the United States may be used in the domestic manufacturing process for iron and/or steel and/or wire products. Coating includes all processes that protect or enhance the value of the material to which the coating is applied.

Construction Materials. Construction materials are articles, materials, or supplies that consist of only one of the items listed (non-ferrous metals, plastic and polymer-based products, glass, fiber-optic cables (including drop cables), optical fibers, lumber, drywall, and engineered woods). Minor additions of articles, materials, supplies, or binding agents to a construction material do not change the categorization of the construction material. All manufacturing processes for the listed construction materials, from the initial processes as described within 2 CFR 184.6 to the final processes as described within 2 CFR 184.6, that are permanently incorporated into a construction project, must occur domestically.

Manufactured Products. Manufactured products are articles, materials, or supplies that have been processed into a specific form or shape; or when combined with other articles, materials, or supplies create a product with different properties than the individual articles, materials, or supplies. An item that is classified as an iron or steel product, a construction material, or an excluded material is not a manufactured product. However, an article, material, or supply classified as a manufactured product

may include components that are iron or steel products, excluded materials, or other product categories as specified by law or in 2 CFR part 184. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product. For construction projects obligated on or after October 1, 2025, the manufactured product must be manufactured domestically. For construction projects obligated on or after October 1, 2026, the manufactured product must be manufactured domestically and the cost of the components of the manufactured product that are mined, produced, or manufactured domestically is greater than 55 percent of the total cost of all components of the manufactured product.

Excluded Materials. Excluded materials, as listed in Section 70917(c) of the Build America, Buy America (BABA) Act, are cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. However, an article, material, or supply classified as a manufactured product may include components that are iron or steel products, excluded materials, or other product categories as specified by law or in 2 CFR part 184. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product.

Domestically shall be understood to mean all States of the United States, District of Columbia, Puerto Rico, American Samoa, Guam, and Virgin Islands and any other place subject to the jurisdiction of the United States.

**907-700.01.2—Certificate of Compliance Requirements.** Prior to incorporation into the work, the Contractor shall furnish the Project Engineer with a Domestic Materials Self-Certification Form documenting conformance to the requirements of Subsection 907-106.14. Attached hereto is the Domestic Materials Self-Certification Form that shall be furnished by the Contractor to the Project Engineer.

# Domestic Materials
# Self-Certification Form

This certification is for a manufacturer/supplier to certify the below articles, materials, or supplies are in compliance with the applicable domestic material content procurement preferences found in the Buy America Act requirements (23 CFR 635.410) and the Build America, Buy America Act (BABA) requirements (2 CFR part 184). The individual completing this form takes full responsibility for the information included in the form. State agencies have the authority to request additional details related to the information provided in the form. All forms shall be submitted via AASHTO DataMine for delivery to authorized governmental users through the Industry Document Repository. The manufacturer/supplier is required to include updates to process changes within 10 days of the change occurring via uploading a revised form into DataMine.

**PART 1: COMPANY CONTACT INFORMATION**

Company/Producer/Manufacturer Name:

Supplier Representative Name:

Contact Email Address: Contact Phone Number:

Date Form is Being Submitted: mm/dd/yyyy

**PART 2: DETAILS OF THE ARTICLE, MATERIAL, OR SUPPLY:**

Using Table 1 below, provide the classification of the article, material, or supply as one of the following: (1) iron or steel product; (2) construction material (3) manufactured product; or (4) excluded materials including Section 70917(c) materials.

| | |
|---|---|
| Classification | |
| Producer of the Article, Material, or Supply: | |
| Product/Model/Part/Material: | |
| Manufacturing Address: | |
| Manufacturing City: | |
| Manufacturing State: | |
| Manufacturing Zip Code: | |
| DataMine # (if applicable): | |
| Federal/State/Local Project number(s): | |
| Pay Code Number (PCN): | |
| Project Item code: | |
| Project Item Description: | |
| Quantity Certified: | |

**TABLE 1: Material Classifications**

| | |
|---|---|
| **(1) Iron or Steel Product** | |
| **Wholly or predominantly Iron or Steel, or a combination of both** (23 CFR 635.410(b)(1)(ii)) | Certification requires predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components. |
| **(2) Construction Material** | |
| **Non-Ferrous Metals** (2 CFR 184.6(a)(1)) | Certification requires all manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States. |
| **Plastic and Polymer based products (including polyvinyl chloride, composite building materials, and polymers used in fiber optic cables)** (2 CFR 184.6(a)(2)) | Certification requires all manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or where applicable, constituent composite materials, until the item is in its final form, occurred in the United States. |
| **Glass (including optic glass)** (2 CFR 184.6(a)(3)) | Certification requires all manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States. |
| **Fiber Optic Cable (including drop cable)** (2 CFR 184.6(a)(4)) | Certification requires all manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacking, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastics and polymer-based products, or any others. |
| **Optical Fiber** (2 CFR 184.6(a)(5)) | Certification requires all manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States |
| **Lumber** (2 CFR 184.6(a)(6)) | Certification requires all manufacturing processes, from initial debarking through treatment and planing, occurred in the United States. |
| **Drywall** (2 CFR 184.6(a)(7)) | Certification requires all manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States. |
| **Engineered Wood** (2 CFR 184.6(a)(8)) | Certification requires all manufacturing processes, from initial combination of constituent materials until the wood product is in its final form, occurred in the United States. |
| **(3) Manufactured Product** | |
| **Manufactured Products other than Precast Concrete Products and Intelligent Transportation Systems and Other Electronic Hardware Systems Installed on the Highway ROW or Other Real Property** (23 CFR 635.410(c)(1)(vii)) and 23 CFR 635.410(c)(1)(iv) | • Certification requires for projects obligated before October 1, 2025, no certification is required (excludes EV chargers).<br>• Certification requires for projects obligated on or after October 1, 2025, certification requires the final manufacturing process occurred in the United States (excludes EV chargers ).<br>• Certification requires for projects obligated on or after October 1, 2026, and all EV chargers , certification requires the final manufacturing process occurred in the United States and the cost of the components that are mined, |

| | |
|---|---|
| | produced, or manufactured in the United States is greater than 55 percent of the total cost of all components of the manufactured product. |
| **Precast Concrete Products** (23 CFR 635.410(c)(2)(i)) | Classified as a manufactured product must comply with both the wholly or predominantly iron or steel or a combination of both product and manufactured product certification requirements as stated above. |
| **Intelligent Transportation Systems and Other Electronic Hardware Systems Installed on the Highway ROW or Other Real Property** (23 CFR 635.410(c)(2)(ii)) | Classified as a manufactured product must comply with both the wholly or predominantly iron or steel or a combination of both product certification requirements for any iron or steel enclosures as well as the manufacturing certification requirements as stated above. |
| **(4) Excluded Materials** | |
| **Excluded Materials Including Section 70917(c) Materials** (23 CFR 635.410(c)(1)(ii)) | No certification is required for excluded materials including Section 70917(c) materials. Section 70917(c) materials means cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. |

**PART 3: DECLARATION OF SUBMITTAL**

Do the articles, materials, or supplies submitted in this form comply with applicable domestic materials content procurement preferences found in the Buy America Act requirements (23 CFR 635.410) and the Build America, Buy America Act requirements (2 CFR part 184) (Y/N)? _____

**PART 4: CERTIFICATION** (Read and check all boxes before signing)
Note: State Departments of Transportation may have different language requirements for this section.

☐ I certify that the description above is a true and accurate description of the article, material, or supply provided, and that the undersigned is in a position to legally bind the Company/Organization represented in this form.

☐ I certify that the iron or steel product, construction material, or manufactured product complies with the applicable Buy America or BABA requirements.

Signature: Date: mm/dd/yyyy

| |
|---|
| Printed Name: |
| Title: |
| Company/Organization: |
| Company/Organization address: |

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-701-4**

**DATE: 11/05/2024**

**SUBJECT: Hydraulic Cement**

**907-701.04--Blended Hydraulic Cement.**

**907-701.04.1--Types of Blended Hydraulic Cement.** After the last paragraph of Subsection 907-701.04.1 on page 1, add the following.

Blended cement Types IL meeting the "HE" high early strength requirement listed in AASHTO M 240, Table 3 shall have the "(HE)" suffix added to the type designation.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-701-4** **CODE: (IS)**

**DATE: 11/21/2023**

**SUBJECT: Hydraulic Cement**

Section 701, Hydraulic Cement, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-701.01--General.** In the first sentence of the second paragraph of Subsection 701.01 on page 718, change "mills" to "plants."

In the second sentence of the sixth paragraph of Subsection 701.01 on pages 718 and 719, change "shall" to "will."

**907-701.02--Portland Cement.**

**907-701.02.1-General.** Delete Subsections 701.02.1.1, 701.02.1.2, 701.02.2, 701.02.2.1, and 701.02.2.2 on pages 719 and 720, and substitute the following.

**907-701.02.1.1--Types of Portland Cement**. Portland cement shall be either Type I, Type II, or Type III conforming to AASHTO M85 or Type III (MS). Type III (MS) is defined as a Type III cement conforming to AASHTO M85 having a maximum tricalcium aluminate ($C_3A$) content of 8%.

**907-701.02.2--Blank.**

**907-701.02.2.1--Blank**.

**907-701.02.2.2--Blank.**

Delete Subsection 701.04 on pages 720 and 721, and substitute the following.

**907-701.04--Blended Hydraulic Cement.**

**907-701.04.1--Types of Blended Hydraulic Cement.** Blended hydraulic cements (blended cements) shall be of the following types and conform to AASHTO M 240:

Type IL – Portland-limestone cement
Type IP – Portland-pozzolan cement
Type IS – Portland blast-furnace slag cement

Blended cement Types IL, IP, and IS meeting the "MS" sulfate resistance requirement listed in AASHTO M 240, Table 3 shall have the "(MS)" suffix added to the type designation.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-702-4** **CODE: (IS)**

**DATE: 09/11/2018**

**SUBJECT: Bituminous Materials**

Section 702, Bituminous Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-702.04--Sampling.** Delete the sentence in Subsection 702.04 on page 722, and substitute the following.

Sampling of bituminous materials shall be as set out in AASHTO R 66.

**907-702.07--Emulsified Asphalt.** Delete the last sentence in Subsection 702.07 on page 724, and substitute the following.

Asphalt for fog seal shall conform to the requirements of Subsection 907-702.12, Table V.

**907-702.12--Tables.** Delete Table V in Subsection 702.12 on page 729, and substitute the following.

**TABLE V**
**SPECIFICATION FOR FOG SEAL**

| | LD-7 | | CHPF-1 | | |
|---|---|---|---|---|---|
| **Test Requirements** | **Min.** | **Max.** | **Min.** | **Max.** | **Test Method** |
| Viscosity, Saybolt Furol, @ 25°C, Sec. | 10 | 100 | - | 100 | AASHTO T 72 |
| Storage Stability Test, 24 hr, % | - | 1 | - | 1 | AASHTO T 59 |
| Settlement, 5 day, % | - | 5 | - | - | AASHTO T 59 |
| Oil Distillate, % | - | 1 | - | - | AASHTO T 59 |
| Sieve Test, % * | - | 0.3 | - | 0.1 | AASHTO T 59 |
| Residue by Distillation, % | 40 | - | 40 | - | AASHTO T 59 |
| **Test on Residue from Distillation** | | | | | |
| Penetration @ 25°C, 100g, 5 sec | - | 20 | 40 | 90 | AASHTO T 49 |
| Softening Point, °C | 65 | - | - | - | ASTM D 36 |
| Solubility in trichloroethylene, % | 97.5 | - | - | - | AASHTO T 44 |
| Elastic Recovery @ 25°C, % | - | - | 40 | - | AASHTO T 301 |
| Original DSR @ 82° (G*/Sinδ, 10 rad/sec) | 1 | - | - | - | AASHTO T 111 |

* The Sieve Test result is tested for reporting purposes only and may be waived if no application problems are present in the field.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-703-2** **CODE: (SP)**

**DATE:** **11/29/2022**

**SUBJECT:** **Gradation**

Section 703, Aggregates, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-703.03--Coarse Aggregates for Hydraulic Cement Concrete.**

**907-703.03.2--Detail Requirements.**

**907-703.03.2.4--Gradation.** In the table in Subsection 703.03.2.4 on page 734, add 100 for the percent passing by weight on the 1½-inch sieve for Size No. 67 aggregates.

Delete Note 2 under the table in Subsection 703.03.2.4 on page 734, and substitute the following.

Note [2] – 100 percent shall pass the 1-inch sieve for Size 67 used in Class F and Class FX concrete.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-705-1** **CODE: (IS)**

**DATE: 06/13/2018**

**SUBJECT: Stone Riprap**

Section 705, Stone Blanket Protection and Filter Blanket Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-705.04--Stone Riprap**. Delete the last sentence of the first paragraph of Subsection 705.04 on page 750, and substitute the following.

Quality requirements for rock to be furnished under these specifications will come from a pre-approved source and be visually approved prior to use.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-707-3** **CODE: (IS)**

**DATE:** **10/27/2021**

**SUBJECT:** **Joint Materials**

Section 707, Joint Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-707.02--Joint Filler**.

**907-707.02.2--Preformed Sponge, Rubber, Cork and Closed-Cell Polypropylene Foam Joint Fillers for concrete Paving and Structural Constructions.** Delete the two paragraphs of Subsection 707.02.2 on page 755, and substitute the following.

Preformed joint filler shall conform to AASHTO M 153 for sponge, rubber, and cork and tested according to ASTM D545. The type required will be indicated on the plans.

Closed-cell polypropylene foam shall conform to the requirements in ASTM D8139 and tested in accordance with ASTM D545.

**907-707.02.3--Wood**. Delete paragraph (b) of Subsection 707.02.3 on page 755, and substitute the following:

(b) Dimensions shall be as shown on the plans Dimensions shown on the plans are "dressed" sizes in accordance with Table 3 of the American Softwood Lumber Standard, SP-20. At the discretion of the Engineer, a 3/4-inch dressed board may be used in lieu of a 1-inch dressed board. A tolerance of plus or minus 1/16 inch thickness and plus or minus 1/8 inch width will be permitted. For slip-form paving a tolerance of minus 1/4 inch on each end in length will be permitted.

**907-707.06--Flexible Plastic Gasket for Joining Conduit**. Delete the third paragraph of Subsection 707.06 on page 756, and substitute the following.

The Department may require the performance test described in ASTM C 990.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-711-2** **CODE: (IS)**

**DATE: 09/11/2018**

**SUBJECT: Plain Steel Wire**

Section 711, Reinforcement and Wire Rope, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-711.02--Deformed and Plain Carbon-Steel Bars for Concrete Reinforcing.**

**907-711.02.3--Steel Welded and Non-Welded Wire Reinforcement, Plain and Deformed, for Concrete**.

**907-711.02.3.1--Plain Steel Wire.** Delete the sentence in Subsection 711.02.3.1 on pages 780 and 781, and substitute the following.

Plain steel wire and plain steel welded wire shall conform to the requirements of AASHTO M 336.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-712-1** **CODE: (SP)**

**DATE: 12/07/2021**

**SUBJECT: Fence and Guardrail**

Section 712, Fence and Guardrail, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-712.01--General**. After the sentence in Subsection 712.01 on page 785, add the following.

All materials' inspection, testing, and certification will be performed in accordance with the requirements of the current version of the Department's *Materials Division Inspection, Testing, and Certification Manual*.

Delete Subsections 712.02 and 712.03 on page 785, and substitute the following.

**907-712.02--Barbed Wire.** Barbed wire shall conform to the requirements of AASHTO M 280. In the coastal counties of Hancock, Harrison, and Jackson, either Coating Type Z Class 3 or Coating Type A shall be furnished. In all other areas of the State, either Coating Type Z Class 1, Coating Type Z Class 3, Coating Type ZA Class 60, or Coating Type A shall be furnished.

**907-712.03--Metallic-Coated, Steel Woven Wire Fence Fabric**. Woven wire fencing (i.e., "hog wire") shall conform to the requirements of AASHTO M 279. In the coastal counties of Hancock, Harrison, and Jackson, either Coating Type Z Class 3 or Coating Type A shall be furnished. In all other areas of the State, either Coating Type Z Class 1, Coating Type Z Class 3, Coating Type ZA Class 60, or Coating Type A shall be furnished.

**907-712.04--Chain Link Fence.** Delete Subsections 712.04.1 thru 712.04.7 on pages 785 & 786, and substitute the following.

**907-712.04.1--Fabric.** In the coastal counties of Hancock, Harrison, and Jackson, either Type I Class D, Type II, Type III, or Type IV fabrics shall be furnished. In all other areas of the State, either Type I Class C, Type I Class D, Type II, Type III, or Type IV fabrics shall be furnished.

**907-712.04.2--Tie Wire**. Tie wire shall be of the same material as the fencing wire being used, shall be of good commercial quality, and shall meet the requirements of AASHTO M 181. Either Type I, Type II, Type III, or Type IV tie wire shall be furnished.

**907-712.04.3--Tension Wire.** Tension wire shall be of the same material as the fencing wire being used, shall be of good commercial quality, and shall meet the requirements of AASHTO M 181. In the coastal counties of Hancock, Harrison, and Jackson, either Type I Class 3, Type II, Type III, or Type IV tension shall be furnished. In all other areas of the State, either Type II, Type III, Type IV, or Type I Classes 1, 2, or 3 tension wires shall be furnished.

**907-712.04.4--Posts Rails, Gate Frames, and Expansion Sleeves.** Posts, rails, gate frames, and expansion sleeves shall conform to the requirements for posts in Subsection 712.05.2, unless otherwise designated in the contract.

**907-712.04.5--Miscellaneous Fittings and Hardware.** Miscellaneous fittings and hardware shall conform to the requirements of Subsection 712.16.

**907-712.05--Fence Posts and Braces.**

**907-712.05.1--Treated Timber Posts and Braces.**

**907-712.05.1.1--General.** Delete the third, fourth, fifth, and sixth paragraphs of Subsection 712.05.1.1 on page 787, and substitute the following.

All wood posts and braces shall be treated in accordance with Subsections 718.03 and 718.04.

**907-712.05.1.2--Round Posts.** Delete the last sentence of the last paragraph of Subsection 712.05.1.2 on page 788.

**907-712.05.1.3--Sawed Posts.** Delete the last sentence of the paragraph of Subsection 712.05.1.3 on page 788.

**907-712.05.1.4--Sawed Braces.** Delete the last sentence of the paragraph of Subsection 712.05.1.4 on page 788.

Delete Subsection 712.05.2 on page 788, and substitute the following.

**907-712.05.2--Metal Posts.**

**907-712.05.2.1--Round Steel Pipe.** Round steel pipe shall meet the requirements of AASHTO M 181, either Grade 1 (i.e., meeting the requirements in ASTM F 1083) or Grade 2 (i.e., meeting the requirements of ASTM F 1043).

Round steel pipe shall be sized in accordance with NPS (nominal pipe size) designations as shown on Plans, and not according to the outer or inner pipe diameter.

**907-712.05.2.2--Steel Fence Post and Assemblies, Hot-Wrought**. Steel posts with the following section shapes, Tee, channel or U, and Y-Bar shall meet the requirements of AASHTO M 281, galvanized in accordance with the requirements of AASHTO M 111, unless otherwise specified in the contract. Acceptance of these steel posts shall be by certification from the manufacturer, producer, supplier, or fabricator, as applicable.

**907-712.05.2.3--Blank.**

**907-712.05.2.4--Steel H-Beam Posts**. Steel H-Beam posts shall be produced from structural quality weldable steel having a minimum yield strength of 45,000 psi and shall be galvanized in accordance with ASTM A 123. Steel H-Beam line posts shall be 2.250 inches by 1.625 inches and shall weigh 3.43 pounds per foot. A tolerance of plus or minus 5.0 percent is allowed for

weight per foot. A tolerance of plus or minus 1.0 percent is allowed for dimensions.

**907-712.05.2.5--Aluminum-Alloy Posts and Assemblies**. Round aluminum-alloy posts shall meet the requirements of ASTM B 241, Alloy 6061, T6. Aluminum-Alloy H-Beam posts shall meet the requirements of ASTM B 221, Alloy 6061, T6.

**907-712.05.2.6--Formed Steel Section Posts.** Formed steel section posts, "C" sections, shall be formed from sheet steel conforming to ASTM A 1011, Grade 45, and shall be galvanized in accordance with ASTM A 123.

**907-712.06--Guard and Guardrail Posts.**

**907-712.06.2--Treated Wood Posts.**

**907-712.06.2.1--Square Posts.** Delete the paragraph in Subsection 712.06.2.1 on page 789, and substitute the following.

All square posts shall be inspected for conformance with Section 712.05, except that the posts may be rough and shall be within ±3/8" of the dimensions shown on the plans.

**907-712.06.2.2--Round Posts.** Delete the paragraph in Subsection 712.06.2.2 on page 789, and substitute the following.

All round posts shall be inspected for conformance with Section 712.05, except that the posts shall be of the shape and dimensions shown on the plans.

**907-712.06.5--Treated Wood Blocks for Use with Metal Guardrail Posts.** Delete the paragraphs of Subsection 712.06.5 on pages 789 & 790, and substitute the following.

Treated wood blocks for use with metal guardrail posts shall be within ±3/8" of the size and dimensions shown on the plans, except that a minus tolerance shall not be allowed for the slotted width in which the metal post must fit.

Delete Subsection 712.16 on page 791, and substitute the following.

**907-712.16--Hardware**. All ferrous metal hardware for fencing such as bolts, nuts, washers, and metal straps shall be as specified on the plans and galvanizing shall not be less than 1.0 ounce per square foot of uncoated area. Aluminum coated hardware shall be coated with aluminum meeting the requirements of AASHTO M 181 for aluminum coating and at the rate of not less than 0.4 ounces per square foot of uncoated area.

Aluminum alloy hardware shall conform to the requirements of ASTM B 221 for extruded aluminum alloy 6063, T6. The finished members shall be of uniform quality.

Aluminum-zinc coated hardware shall be coated with an aluminum-zinc alloy meeting the chemical requirements and weight of coating specified for aluminum-zinc alloy coated metal gates.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-714-4** **CODE: (SP)**

**DATE:** **07/28/2025**

**SUBJECT:** **Miscellaneous Materials**

Section 714, Miscellaneous Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-714.01--Water.**

**907-714.01.1--General.** Delete the last sentence of the second paragraph in Subsection 714.01.1 on page 794.

**907-714.01.2--Water for Use in Concrete.** Delete Subsection 714.01.2 on page 794, and substitute the following:

Water from municipal sources is permitted be used as mixing water in concrete, mortar, and grout without Department testing. Water from non-municipal water sources used in mixing of concrete, mortar, and grout which does not meet the requirements in Subsection 714.01.1 shall be tested for conformance as required in AASHTO M157, Table 1 and Table 2.

**907-714.01.3--Water for Use in Chemically Stabilized Based.** Delete the first sentence of first paragraph in Subsection 714.01.3 on page 794, and substitute the following:

Water used in the construction of bases that contain cement, lime, or other chemical additive shall be as set out in Subsection 714.01.1. Water from municipal sources is permitted to be used without testing for conformance to the requirements below. If water is not from a municipal source, it shall not contain impurities in excess of the following limits:

Delete Subsection 714.01.6 on page 795, and substitute the following.

**907-714.01.6--Blank.**

**907-714.05--Fly Ash.**

**907-714.05.1--General.** Delete the first sentence of the fifth paragraph in Subsection 714.05.1 on page 797.

Delete Subsection 714.06 on page 798, and substitute the following.

**907-714.06--Slag Cement.**

**907-714.06.1--General**. The slag cement source must be approved for listing in the Department's

APL prior to use. The acceptance of slag cement shall be based on certified test reports, certification of shipment from the supplier, and tests performed on samples obtained after delivery in accordance with the Department's *Materials Division Inspection, Testing, and Certification Manual* and Department SOP.

The Contractor shall provide suitable means for storing and protecting the slag cement against dampness and contamination. Separate storage silos, bins, or containers shall be provided for slag cement. Slag cement that is partially set, caked or contains lumps shall not be used.

The State Materials Engineer shall be notified in writing of the nature, amount and identity of any processing or other additions made to the slag cement during production.

Slag cement from different mills shall not be mixed or used alternately in any one class of construction or structure without written permission from the Engineer; except that this requirement will not be applicable to cement treatment of design soils or bases.

No additional cementitious materials, such as blended hydraulic cement, fly ash, metakaolin, or others, shall be added to or as a replacement for hydraulic cement when used with slag cement in the production of concrete. The replacement of hydraulic cement with slag cement shall be in accordance with the applicable replacement content specified in Subsection 701.02.2.

**907-714.06.2--Specific Requirements.** Slag cement shall meet the requirements of AASHTO M 302, Grade 100 or 120. Slag cement shall contain no chlorides.

**907-714.13--Geotextiles.**

**907-714.13.11--Tables.** Delete Table 1 in Subsection 714.13.11 on page 813, and substitute the following.

**Table 1 - Geotextiles**

| Type Designation | I[1] | II[1] | III | IV | V | VI | | VII | | VIII | IX | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Sediment Control | | Drainage | Paving | Separation & Drainage | Separation, Stabilization & Reinforcement | | | | High Strength | | |
| **Physical Property[2]** | | | | | | Woven | Non-Woven | Woven | Non-Woven | | | **Test Method** |
| Grab Strength (lb) | 50 | 90 | 110 | 90 | 200 | 280 | 180 | 450 | 280 | ---- | ---- | ASTM D 4632 |
| Elongation (%) | ---- | 50% max @ 45 lb | 20% min | 50% min @ break | 50% min | 50% max | 50% Min | 50% max | 50% Min | ---- | ---- | ASTM D 4632 |
| Seam Strength (lb) | ---- | ---- | 70 | ---- | 180 | 240 | 160 | 400 | 240 | ---- | ---- | ASTM D 4632 |
| Puncture Strength (lb) | ---- | ---- | 40 | ---- | 80 | 110 | 75 | 180 | 115 | ---- | ---- | ASTM D 6241 |
| Trapezoidal Tear (lb) | ---- | ---- | 40 | ---- | 80 | 100 | 70 | 150 | 100 | ---- | ---- | ASTM D 4533 |
| Asphalt Retention (gal/yd$^2$) | ---- | ---- | ---- | 0.2 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ASTM D 6140 |
| Permittivity (sec$^{-1}$) min | 0.05 | 0.05 | 0.5 | ---- | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | ---- | ---- | ASTM D 4491 |
| AOS Woven (mm) max | 0.60 | 0.60 | 0.6 | ---- | 0.6 | 0.43 | ---- | 0.43 | ---- | ---- | ---- | ASTM D 4751 |
| AOS Non-Woven (mm) max | 0.84 | 0.84 | 0.43 | ---- | 0.43 | ---- | 0.43 | ---- | 0.43 | ---- | ---- | |
| Tensile Strength after UV (% Retained) | 70% @ 500 hr | 70% @ 500 hr | 50% @ 500 hr | ---- | 50% @ 500 hr | 50% @ 500 hr | 50% @ 500 hr | 50% @ 500 hr | 50% @ 500 hr | ---- | ---- | ASTM D 4355 |
| Melting Point °(F) | ---- | ---- | ---- | 325 | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ASTM D 276 |
| Minimum Ultimate Tensile Strength[3] (lb/in) | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 660 | 2000 | ASTM D 4595 |

Notes: 1 - All property values, with the exception of apparent opening size (AOS), represent minimum average roll values in the weakest principal direction. Values for AOS represent the maximum average roll values, 2 - Values not identified in this table should meet manufacturer certification for the use and application, 3- Machine direction

Delete Subsec

**907-714.15--Geogrids.**

**907-714.15.1–General.** A geogrid is defined as a geosynthetic formed by a regular network of connected elements with apertures greater than 0.25 inch to allow interlocking with surrounding soil, rock, and other surrounding materials to function primarily as reinforcement.

Geogrid shall be manufactured from an expanded strain hardened monolithic polymer sheet composed of one or more synthetic polymers and shall be mildew resistant and inert to biological degradation and naturally encountered chemicals, alkalis and acids. The geogrid shall contain stabilizers and/or inhibitors, or a resistance finish or covering to make it resistant to deterioration from direct sunlight, ultraviolet rays, and heat.

Geogrid manufacturers shall participate in and be in compliance with the American Association of State Highway Transportation Officials (AASHTO) National Transportation Product Evaluation Program's (NTPEP) Geosynthetics audit program. Geogrid shall meet the requirements of Table II for the application and type shown on the plans and shall be selected from the Department's Approved Lists.

**907-714.15.1.1--Geogrid for Retaining Walls and Reinforced Soil Slopes.** Geogrid for retaining walls and reinforced soil slopes shall be creep tested in accordance with AASHTO R69 and meet Long Term Design Load, Minimum Ultimate Tensile Strength, and open area criteria listed in Table II. Manufacturers shall perform at least one long-term creep test for no less than 10,000 hours in accordance to ASTM D 5262 for each polymer or composition of polymers from which the geogrid is produced. The long-term design load that shall be reported for design use, shall be that load at which no more than 10% strain occurs over a 100-year design life of the geogrid, as calculated in accordance with AASHTO R69. Long-term design loads shall be reported unfactored, and the AASHTO strength reduction factors (Durability and Installation, and safety factors) will be considered by the Department's Geotechnical Branch on a site specific design basis.

**907-714.15.1.2--Geogrid for Subgrade Stabilization.** Geogrid for subgrade stabilization shall meet Minimum Ultimate Tensile Strength and open area criteria listed in Table II.

**907-714.15.2--Marking, Shipment, and Storage.** Each roll or container of geogrid shall be visibly labeled with the name of the manufacturer, trade name of the product, lot number, and quantity of material. In addition, each roll or container shall be clearly tagged to show the type designation that corresponds to that required by the plans. During shipment and storage the geogrid shall be protected from direct sunlight, and temperatures above 120°F or below 0°F. The geogrid shall either be wrapped and maintained in a heavy duty protective covering or stored in a safe enclosed area to protect from damage during prolonged storage.

**907-714.15.3--Manufacturer Certification.** The Contractor shall furnish the Engineer three copies of the manufacturer's certified test reports indicating that the geogrid furnished conforms to the requirements of the specifications and is of the same composition as the originally approved by the Department.

**907-714.15.4--Acceptance Sampling and Testing.** Final acceptance of each shipment will be

based upon results of tests performed by the Department on verification samples submitted from the project, as compared to the manufacturer's certified test reports. The Engineer will select one roll or container at random from each shipment for sampling. As sample extending full width of the randomly selected roll or container and being at least five (5) square yards in area will be obtained and submitted by the Engineer. All material samples shall be provided at no cost to the State.

**TABLE II**
**GEOGRIDS**

| Physical Properties | Type Designation | | | | | | Test Method |
|---|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI | |
| Long Term Design Load[1], pounds per foot, Machine Direction | 250 | 500 | 750 | 1500 | 2500 | 3500 | AASHTO R69, ASTM D5262 |
| Minimum Ultimate Tensile Strength[2], pounds per foot, Machine Direction | 500 | 1000 | 1500 | 3000 | 5000 | 7000 | ASTM D6637 |
| Open Area, percent | 70 | 70 | 50 | 50 | 50 | 50 | Direct Measurement |

[1] Minimum design criteria requirement.
[2] Minimum Average Roll Value (MARV).

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-718-1** **CODE: (SP)**

**DATE: 12/07/2021**

**SUBJECT: Timber and Dimension Lumber**

Section 718, Timber and Dimension Lumber, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

Delete the Subsections in Section 718 on pages 836 thru 838, and substitute the following.

**907-718.01--General.** All timber and dimension lumber shall be Southern pine and shall conform in all respects to applicable requirements of AASHTO M 168. The Department reserves the right to sample and to test all materials at any time; all inspection, testing, and certification of materials will be performed in accordance with the requirements of the current version of the Department's *Materials Division Inspection, Testing, and Certification Manual*.

Timber and dimension lumber shall be furnished in the sizes shown on the plans or as specified. Unless otherwise specified, timber and dimension lumber shall be No. 1, or better, graded according to the latest American Lumber Standards.

Only one type of preservative shall be used for the treatment of materials for any one class of construction on a project, unless otherwise specified.

Where treated timber and dimensional lumber is to be used in non-highway construction or use, such as decking, handrails in walking trails, or in any manner where general public exposure by touch is possible, the treatment requirements will be as per project plans and/or approved by the State Materials Engineer.

**907-718.02--Untreated Timber and Dimension Lumber.** Untreated timber and dimension lumber shall conform to the requirements of AASHTO M 168.

**907-718.03--Treated Timber and Dimension Lumber.** Timber and dimension lumber to be treated shall meet the requirements herein specified and shall be treated as specified. Treated timber or dimensional lumber will not be accepted for use unless it has been inspected by an authorized representative of the Department and found to be satisfactory after treatment.

**907-718.03.1--Blank.**

**907-718.03.2--Treatment.**

**907-718.03.2.1--General.** All materials shall be treated in accordance with AASHTO M 133 unless otherwise directed by the Environmental Protection Agency (EPA).

**907-718.03.2.2--Blank.**

**907-718.03.2.3--Inspection.** Treated timber and dimension lumber shall be inspected by an authorized representative of the Department before being incorporated into the work. Treatment reports shall be provided to the Department for each lot of material supplied.

**907-718.03.3--Blank.**

**907-718.03.4--Storage of Treated Material.** All material treated for stock shall be stacked as compactly as possible on a well-drained surface. Material shall be supported on sills spaced as necessary, not to exceed 10 foot intervals and shall have at least one foot of air space beneath the stacks.

All materials treated with preservatives for use in buildings and applications where painting is required shall be dried after treatment. The treated wood shall be dried in accordance with American Lumber Standards.

**907-718.04--Preservative.** Preservatives shall be as specified in AASHTO M 133 unless otherwise directed by the Environmental Protection Agency (EPA).

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-720-4** **CODE: (IS)**

**DATE:** **06/17/2025**

**SUBJECT:** **Pavement Marking Materials**

Section 720, Pavement Marking Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

Delete Section 720 on pages 840 thru 854, and substitute the following.

## SECTION 720 - PAVEMENT MARKING MATERIALS

**907-720.01--General.** The Department reserves the right to perform sampling and testing of any materials at any time. Upon request of the Engineer, samples of the material shall be furnished.

**907-720.02--Color Requirements.** All pavement markings except raised pavement markers are required to meet the color requirements of ASTM D6628.

**907-720.03--Optics.** Optics used in thermoplastic pavement markings shall consist of a double-drop system of glass beads or advanced optics.

**907-720.03.1--Glass Beads.** The manufacturer shall furnish the Engineer with a certified test report indicating that the glass beads meet AASHTO M 247. AASHTO Type 4 beads shall be applied to the newly placed stripe first, followed by the application of AASHTO Type 1 or Type 2 beads. Type 1, 2, and 4 glass beads shall be transparent, clean, colorless glass, smooth and spherically shaped, free from milkiness, pits, or excessive air bubbles. Type 1, 2, and 4 glass beads shall be coated with a bead coating that is compatible with the traffic marking material to which the glass beads will be applied and will provide adequate moisture proofing, increased adhesion, and optimum embedment of the glass beads.

**907-720.03.1.1—Acceptance Procedure.** The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

Acceptance sampling and testing will be in accordance with the Materials Division Inspection, Testing, and Certification Manual (Materials Manual).

**907-720.03.2--Advanced Optics.** Advanced optics are materials that do not meet the specific requirements of AASHTO M 247 but produce a final drop-on optics system that meets or exceeds the reflectivity requirements in Special Provision 907-626. Advanced optics shall be a double-

drop system that is pre-approved and listed on the Department's Approved Products List.

**907-720.03.2.1—Acceptance Procedure.** The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

Acceptance sampling and testing may be conducted at the request of the Engineer.

**907-720.04--Thermoplastic Marking Material.** Thermoplastic marking material shall meet the color requirements of Subsection 907-720.02.

There shall be no obvious change in the color of the material if held at its plastic temperature for a period of four (4) hours nor by reason of four (4) re-heatings to its plastic temperature.

The pavement markings shall maintain its original dimension and placement. The material shall not be slippery when wet and it shall not lift from the pavement in freezing weather.

**907-720.04.1--Extruded Thermoplastic Material.** Extruded thermoplastic pavement marking material shall meet the requirements of AASHTO M 249, and shall meet the requirements of 907-720.04 with the following exceptions:

- Blue - ADA thermoplastic marking material shall meet the requirements of Subsection 907-720.04.2 with the exception that the color shall be Blue – ADA, and the Contractor may use hot applied thermoplastic materials meeting the satisfaction of the Engineer.

**907-720.04.2--Spray-Applied Thermoplastic Material.** Spray-applied thermoplastic pavement marking material shall meet the requirements of AASHTO M 249 and shall meet the requirements of 907-720.04.

**907-720.04.3--Pre-formed Thermoplastic Material.** Heat-fused, pre-formed thermoplastic pavement marking material shall meet the color requirements of 907-720.02.

**907-720.04.4—Acceptance Procedure.** The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

**907-720.05--Pavement Marking Tape.** Pavement marking tape shall be listed on the Department's Approved Lists.

**907-720.05.1—Cold Plastic Pavement Markings (Permanent Pavement Marking Tape).** Pavement marking tape for use in roadway applications shall be designated on the Department's Approved Lists as permanent.

The prefabricated markings described shall consist of white or yellow pigmented plastic films with reflective optics uniformly distributed throughout their entire cross-sectional area, and be capable of being affixed by either a pressure sensitive pre-coated adhesive or a liquid contact cement. The markings shall be provided complete in a form that will facilitate rapid application and protect the markings in shipment and storage. The manufacturer shall identify proper solvents and/or adhesives to be applied at the time of application, all equipment necessary for proper application, and recommendations for application that will assure an effective performance life.

Prefabricated legends and symbols shall conform to the applicable shapes and sizes as outlined in the current "Manual on Uniform Traffic Control Devices."

**907-720.05.1.1--Specific Requirements.** Unless otherwise indicated on the plans, the patterned material without adhesive shall have a minimum caliper of 0.065 inch at the thickest portion of the patterned cross-section and a minimum caliper of 0.020 inch at the thinnest portion of the cross-section. The material shall be a pliant polymer film with 50±15% of the surface are raised and presenting a near vertical face angle of 0° to 60° to traffic from any direction. The channels between the raised areas shall be substantially free of exposed optics or particles.

The size and quality of the optics will be such that performance requirements of Subsection 907-720.02 for the retroreflective pliant polymer film shall be met. The pigments shall be selected and blended to provide a marking film that is white or yellow conforming to the performance requirements of Subsection 907-720.02 through the expected life of the film.

**907-720.05.1.2--Conformability and Resealing.** The marking shall be capable of conforming to pavement contours, breaks, faults, etc. through the action of traffic at normal pavement temperatures.

The marking shall have resealing characteristics that allows it to be capable of fusing with itself and previously applied marking of the same composition under normal conditions of use. The marking shall be capable of use for patching worn areas of the same type in accordance with manufacturer's instructions.

**907-720.05.1.3--Tensile Strength and Elongation.** The material shall have a minimum tensile strength of 40 pounds per square inch of cross section when tested according to ASTM D 638. A 6-inch x 1-inch x 0.06-inch sample shall be tested at a temperature between 70°F and 80°F using a jaw speed of 12 inches per minute.

The material shall have a minimum elongation of 75% at break when tested according to ASTM D 638 using a jaw speed of 12 inches per minute.

**907-720.05.1.4--Skid Resistance**. The surface of the material shall provide a minimum skid resistance value of 45 BPN when tested according to ASTM E 303 except values will be taken at

downweb and at a 45-degree angle from downweb. These two values will then be averaged to find the skid resistance of the patterned surface.

**907-720.05.1.5--Effective Performance Life and Warranty.** When applied according to the recommendations of the manufacturer the pavement marking tape shall provide a neat and durable marking that will not flow or distort due to temperature if the pavement surface remains stable. The film shall be weather resistant and through normal traffic wear shall show no appreciable fading, lifting, or shrinkage throughout the useful life of the marking, nor shall it show significant tearing, roll back, or other signs of poor adhesion.

All manufacturer's standard warranties and guarantees on pavement marking tape, which are provided as customary trade practice, shall be delivered to the Engineer at the final inspection. All warranties and guarantees shall be made out to the Department.

**907-720.05.1.6—Acceptance Procedure.** The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

Acceptance sampling and testing will be in accordance with the Materials Division Inspection, Testing, and Certification Manual (Materials Manual). Samples of the material shall be furnished and shall be provided at no cost to the State.

**907-720.05.2--Preformed Pavement Markings for Construction Zones.** Preformed pavement markings for construction zones shall be designated Department's Approved Lists as temporary. Retroreflective preformed pavement markings for construction zones shall be as specified on the plans or in the contract documents.

The markings shall be provided in specified widths and shapes. Preformed words and symbols shall conform to the applicable shapes and sizes as outlined in the current "Manual on Uniform Traffic Control Devices for Streets and Highways," or as modified.

The materials shall be packaged in accordance with accepted commercial standards and when stored indoors in a cool dry place, shall be suitable for use one year after date of purchase.

**907-720.05.2.1--Specific Requirements.** Preformed markings shall consist of retroreflective materials on a conformable backing and shall meet the performance requirements of Subsection 907-720.02. The markings shall consist of a mixture of high-quality polymeric materials, pigments, and optics with a reflective layer of optics bonded to the top surface. The markings shall be pre-coated with a pressure sensitive adhesive capable of adhering to pavement in accordance with the manufacturer's instructions without the use of heat, solvents, or other additional adhesives. The markings and/or adhesive shall not require any curing time after application. A coated non-metallic medium shall be incorporated with the pressure sensitive adhesive to facilitate removal.

**907-720.05.2.2—Acceptance Procedure.** The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

**907-720.06--Raised Pavement Markers.** Pavement markers shall be listed on the Department's Approved Lists and shall conform to ASTM D 4280.

**907-720.06.1--Packaging.** Shipments shall be made in containers acceptable to common carriers and packaged in such a manner as to ensure delivery in perfect condition. All damaged shipments shall be replaced by the Contractor. Each package shall be clearly marked as to the name of the manufacturer, type, quantity enclosed, lot number, and date of manufacture.

**907-720.06.2--Non-Reflective Pavement Markers.** Non-reflective pavement markers are occasionally referred to as "jiggle markers". Non-reflective markers consisting of a heat-fired, vitreous, ceramic base, and a heat-fired, opaque, glazed surface are permitted for use; the bottom of the marker shall not be glazed. Ceramic markers shall be produced from any suitable combination of intimately mixed clays, shales, talcs, flints, feldspars, or other inorganic material. Ceramic markers shall be thoroughly and evenly matured, and all non-reflective pavement markers shall be free from defects which affect appearance or serviceability.

Ceramic non-reflective markers shall conform to the following finish and testing requirements in Table 2 below.

**Table 2**

| Ceramic Non-Reflective Marker Requirements | |
|---|---|
| Glaze Thickness | 0.005 inch, minimum |
| Mohs Hardness | 6, minimum |
| Autoclave | Glaze shall not spall, craze, or peel. |
| Compressive Strength | 750 psi, minimum |
| Water Absorption | 2.0%, maximum |

**907-720.06.3—Acceptance Procedure.** The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

**907-720.07--Adhesive for Pavement Markers.** The adhesive shall be listed on the Department's Approved Lists and shall be an asphaltic material suitable for bonding pavement markers to surfaces when the road surface and marker temperatures are in the range of 50°F to 160°F. The composition of the adhesive must be such that its properties will not deteriorate when heated to and applied at temperatures up to 425°F. Samples may be submitted in the form of an adhesive

testing package from each batch or material obtained from a package shipped to the project.

**907-720.07.1--Packaging and Labeling.** The adhesive shall be packaged in self-releasing cardboard containers that will stack properly. The label shall show the manufacturer, quantity, and lot or batch number. "Adhesive for Pavement Markers" or "Adhesive for Traffic Markers" shall be printed in bold lettering on the label.

**907-720.07.2--Bituminous Adhesive.** The asphaltic adhesive material shall be flexible type.

**907-720.07.2.1--Flexible Bituminous Adhesive.** Flexible bituminous adhesive shall be designated on the Department's Approved Lists as flexible and shall comply with requirements of Table 3 below.

**Table 3**

| **Flexible Bituminous Adhesive Properties** | | | |
|---|---|---|---|
| | Min | Max | Test Method |
| Penetration @ 77°F | - | 25 | ASTM D 5 |
| Softening Point, °F | 200 | - | ASTM D 36 |
| Brookfield Viscosity @ 400°F, cp. | - | 10,000 | ASTM D 3236 |
| Ductility @ 77°F, 5 cm/min | 15 | - | ASTM D 113 |
| Ductility @ 39.2°F, 1 cm/min | 5 | - | ASTM D 113 |
| | | | |
| Asphalt Compatibility | Pass | | ASTM D 5329 |
| Flexibility @ 20°F | Pass | | Per Subsection |

**907-720.07.3—Acceptance Procedure.** The Contractor shall furnish the Engineer with a copy of the manufacturer's certified test reports for the lot(s) of materials from which the shipment originated. The test report shall show all the test results for the material properties and characteristics as specified herein. The test report shall state that the material represented by the test results meets all the requirements of the contract. It shall be the Contractor's responsibility to furnish the manufacturer's test report to the Engineer for each shipment of material to the project.

Acceptance sampling and testing will be in accordance with the Materials Division Inspection, Testing, and Certification Manual (Materials Manual). Samples of the material shall be furnished and shall be provided at no cost to the State.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-721-4** **CODE: (IS)**

**DATE:** **04/19/2022**

**SUBJECT:** **Materials for Signing**

Section 721, Materials for Signing, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-721.06--Reflective Sheeting.**

**907-721.06.2--Performance Requirements.** Delete Table 4 and Table 5 in Subsection 721.06.2 on pages 860 & 861, and substitute the following.

**MINIMUM COEFFICIENTS OF RETROREFLECTION**
**Candela per foot candle per square foot (cd/fc/ft$^2$)**
**Per ASTM Designation D4956**

**TABLE 4**
**Type IX Sheeting**

| Observation Angle | Entrance Angle | White | Yellow | Green | Red | Blue | Fluorescent Yellow/Green | Fluorescent Yellow | Fluorescent Orange |
|---|---|---|---|---|---|---|---|---|---|
| 0.2° | -4.0° | 380 | 285 | 38 | 76 | 17 | 300 | 230 | 115 |
| 0.2° | +30.0° | 215 | 162 | 22 | 43 | 10 | 170 | 130 | 65 |
| 0.5° | -4.0° | 240 | 180 | 24 | 48 | 11 | 190 | 145 | 72 |
| 0.5° | +30.0° | 135 | 100 | 14 | 27 | 6.0 | 110 | 81 | 41 |
| 1.0° | -4.0° | 80 | 60 | 8.0 | 16 | 3.6 | 64 | 48 | 24 |
| 1.0° | +30.0° | 45 | 34 | 4.5 | 9.0 | 2.0 | 36 | 27 | 14 |

**TABLE 5**
**Type XI Sheeting**

| Observation Angle | Entrance Angle | White | Yellow | Green | Red | Blue | Brown | Fluorescent Yellow/Green | Fluorescent Yellow | Fluorescent Orange |
|---|---|---|---|---|---|---|---|---|---|---|
| 0.2° | -4.0° | 580 | 435 | 58 | 87 | 26 | 17 | 460 | 350 | 175 |
| 0.2° | +30.0° | 220 | 165 | 22 | 33 | 10 | 7.0 | 180 | 130 | 66 |
| 0.5° | -4.0° | 420 | 315 | 42 | 63 | 19 | 13 | 340 | 250 | 125 |
| 0.5° | +30.0° | 150 | 110 | 15 | 23 | 7.0 | 5.0 | 120 | 90 | 45 |
| 1.0° | -4.0° | 120 | 90 | 12 | 18 | 5.0 | 4.0 | 96 | 72 | 36 |
| 1.0° | +30.0° | 45 | 34 | 5.0 | 7.0 | 2.0 | 1.0 | 36 | 27 | 14 |

After Subsection 721.10 on page 864, add the following.

**907-721.11--Digital Applied Printing**. The following addresses the requirements for digitally printed finished retroreflective traffic control signs on flat sheet aluminum and digitally printed traffic sign faces intended to be applied to a sign substrate.

**907-721.11.1--Digitally Printed Ink Systems.** Traffic signs must be produced using components, and processes that comply with the retroreflective sheeting manufacturer's recommendations.

Digital printed ink systems used to print traffic signs must meet and comply with daytime and nighttime chromaticity (color standards) as recognized in ASTM D4956 "Standard Specification for Retroreflective Sheeting for Traffic Control."

Digital printed ink systems must meet 70% of the initial retroreflectivity specifications of each respective reflective film color as found in ASTM D4956 "Standard Specification for Retroreflective Sheeting for Traffic Control."

Prior to fabrication and preferably at the preconstruction meeting, the Contractor shall advise the Project Engineer in writing as to which signs on the project will be digitally printed and which ones will be screen printed. The Contractor shall submit to the Project Engineer certifications for all digitally printed signs, which will be forwarded to the State Traffic Engineer for review.

**907-721.11.2--Protective Overlay Film.** Permanent traffic signs printed with digital ink systems will be fabricated with a full sign protective overlay film designed to provide a smooth surface needed for retroreflectivity, and to protect the sign from fading and UV degradation. The overlaminate shall comply with the retroreflective sheeting manufacturer's recommendations to ensure proper adhesion and transparency and will also meet the reflective film durability as identified in Table 1.

**Table 1**
**Retroreflective Film Minimum Durability Requirements**

| ASTM D4956 Type | Full Sign Replacement Term (years) | Sheeting Replacement Term (years) |
|---|---|---|
| IV | 7 | 10 |
| VIII | 7 | 10 |
| IX | 7 | 12 |
| XI | 7 | 12 |

Temporary signs used in work zones printed with black ink only will not require a protective overlay film as long as the finished sign is warranted for a minimum outdoor durability of three years by the sheeting manufacturer.

**907-721.11.3--Inspection.** During fabrication, the Contractor shall provide sufficient testing and quality control throughout fabrication to insure good workmanship. Once the material has been received, it may be subject to random testing to ensure compliance with all requirements. If any test samples do not conform to the requirements, the entire order may be returned at the vendor's expense.

**907-721.11.4--Traffic Sign Performance Warranty Provisions.** Based on the ASTM Type of sheeting specified, traffic control signs shall be warranted for the duration shown in Table 1. The Contractor shall supply a copy of the warranty document with complete details of terms and conditions upon request of the Department.

**907-721.11.5--Certified Digital Sign Fabricator.** Sign fabricators using digital imaging methods to produce regulated traffic signs must be certified by the reflective sheeting manufacturer whose materials are used to produce the delivered signs.

Certified sign fabricators must undergo an audit process by the sheeting manufacturer to ensure they have the proper equipment, manufacturing capabilities, manufacturing application processes and the materials required to fulfill the sheeting manufacturer's warranty obligations. Sign fabricators must recertify annually with reflective sheeting manufacturers or utilize a 3rd party certifier approved by the reflective sheeting manufacturer.

The Contractor shall submit proof of Sign Fabricator Certification as issued by the retroreflective sign sheeting manufacturer to the Project Engineer upon delivery of the signs, or with the Shop Drawings.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SUPPLEMENT TO SPECIAL PROVISION NO. 907-799-1**

**DATE: 07/28/2025**

**SUBJECT: Hydraulic Cement Concrete Mixtures**

**907-799.01.1--Materials**. Delete *Ground Granulated Blast Furnace Slag (GGBFS)* from the list in Subsection 907-799.01.1 on page 1, and substitute the following.

Slag Cement ..... 714.06

Delete the title for Subsection 907-799.02 on page 1, and substitute the following.

**907-799.01.2--Classification and Uses of Concrete.**

Delete numbers 9 through 15 in the classes and general use list on pages 1 & 2, and substitute the following.

9) Class F (SCC) – Self Consolidating Concrete for prestressed members.
10) Class DS – Concrete for drilled shafts.
11) Class FX – Extra Strength concrete for prestressed members, as shown on plans.
12) Class FX (SCC) – Extra Strength Self Consolidating concrete for prestressed members, as shown on plans.
13) Class PA – Concrete paving.
14) Class PO – Concrete for repair of concrete paving.
15) Class PP – Concrete for special design requirements.
16) Class S – For all seal concrete deposited under water.
17) Class WT – Fiber-reinforced concrete pavement.

**907-799.02--Hydraulic Cement Concrete Mixture Design.** Add the following to Table 1 on page 3.

| | | | | | |
|---|---|---|---|---|---|
| F[8] (SCC) | 67 | 0.40 | 5000 | 28[-4][12] | See Note[4] |
| FX[8] (SCC) | 67 | As per mixture design | As shown on plans | 28[-4][12] | See Note[4] |

Delete Note 8 of Table 1 on page 4, and substitute the following.

[8] Type III, Type IL (HE), or Type III (MS) cement may be used in these Classes of concrete.
[12] Refers to slump flow in inches. It shall be acquired by ASTM C1611.

**907-799.02.1.1--Portland Cement.** Delete the paragraph in Subsection 907-799.02.1.1 on page 4, and substitute the following.

Portland cement (cement) shall be either Type I or Type II. Type III, Type IL (HE), or Type III (MS), may be used for the production of precast or precast-prestressed concrete members or Classes of concrete with Note 8 in Table 1.

**907-799.02.2--Replacement of Portland Cement or Blended Cement.** Delete Table X on page 5, and substitute the following.

**Table X**
**Replacement Ranges of Portland Cements and Blended Cements by Fly Ash or Slag Cement**

| Portland Cement or Blended Cement Type | Fly Ash Replacement Range (%) | Slag Cement Replacement Range (%) |
|---|---|---|
| Types I, II, III, and III (MS) | 20 – 25 | 45 – 50 |
| Types IL, IL (MS), and IL (HE) | 20 – 35 | 35 – 40 |
| Types IS and IS (MS) | 20 – 25 | 20 - 25 |
| Types IP and IP (MS) | No replacement combination allowed | |

**907-799.02.4--Exposure to Soluble Sulfates or Seawater.** Delete Table R on page 6, and substitute the following.

**Table R**
**Cementitious Materials Combinations for Soluble Sulfate Conditions or Seawater**

| | **Exposure to Moderate Sulfates or Exposure to Seawater** | **Exposure to Severe Sulfates** |
|---|---|---|
| **Water-soluble sulfate (SO4) in soil, % by mass** | 0.10 – 0.20 | 0.20 – 2.00 |
| **Sulfate (SO4) in water, ppm** | 150 – 1,500 | 1,500 – 10,000 |
| **Portland Cement or Blended Cement Types** | **Replacement Ranges by SCMs (%)** | |
| Type I or Type III | 24.5 – 25.0% Class F fly ash, or<br>49.5 – 50.0% Slag cement, or<br>19.5 – 20.0% Metakaolin | 49.5 – 50.0% Slag cement |
| Type II or Type III (MS) | See Note 1 | 24.5 – 25.0% Class F fly ash, or<br>49.5 – 50.0% Slag cement, or<br>19.5 – 20.0% Metakaolin |
| Type IL or IL (HE) | 24.5 – 35.0% Class F fly ash, or<br>49.5 – 50.0% Slag cement, or<br>19.5 – 20.0% Metakaolin | 49.5 – 50.0% Slag cement |

| | | |
|---|---|---|
| Type IL (MS) | See Note 1 | 24.5 – 35.0% Class F fly ash, or<br>49.5 – 50.0% Slag cement, or<br>19.5 – 20.0% Metakaolin |
| Type IS | 24.5 – 25.0% Class F fly ash, or<br>24.5 – 25.0% Slag cement, or<br>19.5 – 20.0% Metakaolin | 24.5 – 25.0% Class F fly ash, or<br>24.5 – 25.0% Slag cement, or<br>19.5 – 20.0% Metakaolin |
| Type IS (MS) | See Note 1 | 24.5 – 25.0% Class F fly ash, or<br>24.5 – 25.0% Slag cement, or<br>19.5 – 20.0% Metakaolin |
| Type IP (MS) | No replacement combination allowed | Type not allowed |

[1] Class F fly ash or slag cement may be added as a replacement for cement as allowed in Subsection 907-799.02.2.

**907-799.03--Proportioning of Hydraulic Cement Concrete Mixture Design.**

**907-799.03.1--Proportioning on the Basis of Previous Field Experience of Trial Mixtures.** Delete subparagraph (c) on page 7, and substitute the following.

(c) Consists of 10 consecutive tests, an average of three cylinders per test, tested at 28 days. For concrete categorized as a self-consolidating concrete (SCC) mixture, the test data for the plastic concrete shall include the slump flow data, instead of the slump data, and at least one test to determine the static segregation. For all mixture designs, for each of these tests on the plastic concrete the test data shall meet the acceptance criteria of Subsection 907-804.02.13.1.

**907-799.03.2--Proportioning on the Basis of Laboratory Trial Mixtures.** Add the following to the list of restrictions on page 8.

(g) For concrete categorized as a SCC mixture, the mixture shall be designed to produce a slump flow within ±2 inches of the maximum permitted and a maximum static segregation of 15.0 percent. The concrete shall not be rodded or vibrated during casting the test specimens.

(h) For concrete categorized as a SCC mixture, test specimens shall be made in accordance with the above listed specifications with the exception that the concrete shall not be rodded or vibrated during casting the test specimens.

**907-799.05--Field Verification of Concrete Mixture Design.** Delete the second and third paragraphs on page 9, and substitute with the following.

The Contractor's Certified Quality Control Technicians shall test each concrete mixture design upon the first placement of the mix. Aggregates and concrete tests during the first placement shall be as follows.

| Aggregates | Concrete |
|---|---|
| Bulk Specific Gravity | Water Content |
| Moisture | Slump or Slump Flow |
| Gradation | Air Content |
| | Unit Weight |
| | Yield |
| | Static Segregation |

For all Classes of concrete, the mixture shall be verified to yield within 2.0% of the correct volume when all the mix water is added to the batch, either by the batch plant or as ice used to control mixture acceptance temperature. For concrete categorized as a SCC mixture, the mixture shall produce a slump flow within minus four inches (4") of the maximum permitted and a static segregation less than 15.0%.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-799-1** **CODE: (IS)**

**DATE: 11/21/2023**

**SUBJECT: Hydraulic Cement Concrete Mixtures**

Section 907-799, Hydraulic Cement Concrete Mixtures, is hereby added to and made part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

## SECTION 907-799 - HYDRAULIC CEMENT CONCRETE MIXTURES

### 907-799.01--General.

**907-799.01.1--Materials**. The materials for hydraulic cement concrete mixtures shall meet the requirements of the following Subsections:

| | |
|---|---|
| Portland Cement | 701.01 and 701.02 |
| Blended Cement | 701.01 and 701.04 |
| Fine Aggregate | 703.02 |
| Coarse Aggregate | 703.03 |
| Lightweight Aggregate | 703.19.02 |
| Synthetic Structural Fiber | 711.04 |
| Admixtures | 713.02 |
| Water | 714.01.1 and 714.01.2 |
| Fly Ash | 714.05 |
| Ground Granulated Blast Furnace Slag (GGBFS) | 714.06 |
| Metakaolin | 907-714.09.01 |

**907-799.02--Classification and Uses of Concrete.** The classes and general uses of hydraulic cement concrete (concrete) mixtures are as follows:

1) Class AA - Concrete for bridge construction and concrete exposed to seawater.
2) Class B - General use, heavily reinforced sections, cast-in-place concrete piles, and conventional concrete piles.
3) Class BD - Concrete for bridge decks.
4) Class BDX - Extra strength concrete for bridge decks.
5) Class BDO - Concrete for bridge deck overlay.
6) Class C - Massive sections or lightly reinforced sections.
7) Class D - Massive unreinforced sections and riprap.
8) Class F - Concrete for prestressed members.
9) Class DS - Concrete for drilled shafts.
10) Class FX - Extra strength concrete for prestressed members, as shown on plans.
11) Class PA - Concrete paving.

12) Class PO - Concrete for repair of concrete paving.
13) Class PP - Concrete for special design requirements.
14) Class S - For all seal concrete deposited under water.
15) Class WT - Fiber-reinforced concrete pavement.

**907-799.02--Hydraulic Cement Concrete Mixture Design.** At least 10 working days prior to production of concrete, the Contractor shall submit to the Engineer proposed concrete mixture designs complying with the Department's *Concrete Manual*. Materials shall be from approved sources meeting the requirements of the Standard Specifications. Proportions for the mixture designs shall be for the class concrete required by the plans and shall meet the requirements of the "Master Proportion Table for Hydraulic Cement Concrete Designs" listed in Table 1. The concrete producer shall assign a permanent unique mixture number to each mixture design. Each mixture design shall be field verified as required in Subsection 907-799.03.3. Acceptable field verification data shall be required for final approval of a mixture design.

All concrete mixture designs will be reviewed by the Materials Division prior to use. Concrete mixture designs disapproved will be returned to the Contractor with a statement explaining the disapproval.

If the maturity method is used to estimate the compressive strength for applications such as early opening to traffic or form removal, the Contractor shall also submit compressive strength/maturity documentation developed in accordance with Subsection 804.03.15 for the mixture prior to production of concrete.

If the Contractor chooses to cure the concrete in accordance with the requirements listed under **Length of Time Defined by Development of Compressive Strength** in Subsection 804.03.17, the compressive strength/maturity relationship shall be developed for the mixture design for a minimum of 28 days following the requirements of Subsection 804.03.15. The compressive strength/maturity relationship information shall be submitted with the mixture design information.

**Table 1**
**MASTER PROPORTION TABLE FOR HYDRAULIC CEMENT CONCRETE DESIGNS**

| Class | Required Coarse Aggregate Size No.[7] | Maximum w/cm Ratio | Specified Compressive Strength ($f'_c$) psi | Maximum Permitted Slump inches[5] | Total Air Content (%) |
|---|---|---|---|---|---|
| **AA** | 57 or 67 | 0.45 | 4000 | 8 | 3.0-6.0 |
| **B** | 57 or 67 | 0.50 | 3500 | 8 | 3.0-6.0 |
| **BD**[2, 3] | 57 or 67 | 0.45[1] | 4000 | 5 | 3.0-6.0<br>5.0 8.0 |
| **BDX**[2, 3] | 57 or 67 | 0.45[1] | 4500 | 5 | 3.0-6.0<br>5.0 8.0 |
| **BDO**[3, 6, 8, 11] | 7, 8, or 78 | As per mixture design | 2500 | 6 | 3.0-6.0 |
| **C** | 57 or 67 | 0.55 | 3000 | 8 | 3.0-6.0 |
| **D** | 57 or 67 | 0.70 | 2000 | 8 | 3.0-6.0 |
| **DS** | 67 | 0.45 | 4000 | 8±1 | See Note[4] |
| **F**[8] | 67 | 0.40 | 5000 | 8 | See Note[4] |
| **FX**[8] | 67 | As per mixture design | As shown on plans | 8 | See Note[4] |
| **PA** | 467 or 57[9] | 0.48 | 3500 | 3 | 3.0-6.0 |
| **PO**[8, 11] | 57 or 67 | As per mixture design | 3500 | 8 | 3.0-6.0 |
| **PP** | 57 or 67 | 0.45 | Per Plans | 8 | 3.0-6.0 |
| **S** | 57 or 67 | 0.45 | 3000 | 8 | 3.0-6.0 |
| **WT**[3, 8, 10, 11] | 57 or 67 | 0.40 | 3500 | 4 | 3.0-6.0 |

[1] For Class BD concrete for bridge decks, the minimum water/cementitious material ratio shall be 0.43 and the maximum cementitious material content shall be 550 pounds per cubic yard.
For Class BDX concrete for bridge decks, the minimum water/cementitious material ratio shall be 0.42 and the maximum cementitious material content shall be 564 pounds per cubic yard.

[2] For bridge decks constructed following the requirements of Subsection 804.03.19.7.3, Subsection 804.03.14.2, and Subsection 804.03.17.2, then the Class BD or Class BDX mixture design shall contain lightweight aggregate (LWA) and have an internal curing water content of 8.0 lbs per 100 lbs of total cementitious materials in the mixture design; mixture designs not containing LWA and the required minimum internal curing water content shall not be used.

[3] An approved synthetic structural fiber shall be incorporated into the mixture at 1.25 times the approved dosage rate. For each additional pound of fibers per cubic yard added in excess

of the requirement stated above, an additional inch of slump will be allowed up to a maximum permitted slump of eight (8) inches.

[4] Entrained air is not required for Class F, FX, and DS concrete unless exposed to seawater. For concrete not exposed to seawater, the total air content shall not exceed 6.0%. For concrete exposed to seawater, the total air content shall be 3.0-6.0%.

[5] Except as noted for Class DS concrete, the design slump selected by the Contractor for the mixture design may be less than the maximum permitted slump. The design slump is the maximum acceptance slump for field acceptance in accordance with Subsection 907-804.02.13.1.2. Except as noted for Class DS concrete, minus slump requirements shall meet those set forth in Table 3 of AASHTO M157.

[6] For Class BDO the mixture design shall include a minimum 564 pounds per cubic yard of cementitious material with a minimum 15 percent fly ash replacement. The specified strength shall be achieved prior to Opening To Traffic.

[7] Other small coarse aggregate sizes meeting the requirements of Subsection 703.03.2.4 may be used in conjunction with the coarse aggregate sizes listed. Lightweight aggregate (LWA) meeting the requirements of Subsection 703.19.2 may also be used as a partial replacement for fine aggregate.

[8] Type III or Type III (MS) portland cement may be used in these Classes of concrete.

[9] The oven-dry coarse aggregate volume per cubic yard of concrete shall be a minimum of 72%.

[10] The coarse aggregate size requirements shall meet the requirements of Subsection 907-799.02.4.2.

[11] Non-chloride based accelerating admixtures may be used in these Classes of concrete.

**907-799.02.1--Allowable Hydraulic Cement Types.**

**907-799.02.1.1--Portland Cement.** Portland cement (cement) shall be either Type I or Type II. Type III or Type III (MS) may be used for the production of precast or precast-prestressed concrete members or Classes of concrete with Note 8 in Table 1.

**907-799.02.1.2--Blended Cement.** Blended hydraulic cements (blended cements) shall be of the following types and conform to Subsection 701.04:

Type IL – Portland-limestone cement
Type IP – Portland-pozzolan cement
Type IS – Portland blast-furnace slag cement

Blended cement Types IL, IP, and IS meeting the "MS" sulfate resistance requirements listed in AASHTO M 240, Table 3 may also be used.

**907-799.02.2--Replacement of Portland Cement or Blended Cement.** Replacement of portland cement or blended cement shall be on a weight basis. At least 50% by weight of total cementitious material per cubic yard shall be portland cement.

Except as noted for concrete exposed to soluble sulfates or sea water in Subsection 907-799.02.4, the maximum replacement limits of portland cement or blended cement by weight by fly ash and

slag cement shall be in accordance with Table X provided the 50% by weight of total cementitious material per cubic yard of portland cement is maintained.

**Table X**
**Replacement Ranges of Portland cements and Blended cements by Fly Ash or Slag Cement**

| Portland cement or Blended cement type | Fly ash replacement range (%) | Slag cement replacement range (%) |
|---|---|---|
| Types I, II, III, and III (MS) | 20 - 25 | 45 - 50 |
| Types IL and IL (MS) | 20 - 35 | 35 - 40 |
| Types IS and IS (MS) | 20 - 25 | 20 - 25 |
| Types IP and IP (MS) | No replacement combination allowed | |

Replacement contents below the range minimum in Table X may be used in concrete, but the concrete does not qualify for any special considerations, such as the maximum acceptance temperature for concrete in Subsection 804.02.13.1.5. Special considerations shall only apply for replacement of both portland cement and blended cement by either fly ash or slag cement.

**907-799.02.3--Alkali Content.** The total alkali content for all classes of concrete shall not exceed 4.0 lb per cubic yard based on the alkali contribution from the portland cement. The maximum cement alkali content reported on the cement mill certificate shall be used in this determination. An example calculation can be found in the Department's *Concrete Manual*.

**907-799.02.4--Exposure to Soluble Sulfates or Seawater.** When portland cement or blended cement concrete is exposed to moderate or severe soluble sulfate conditions or to seawater listed, cement types and replacement of cement by Class F fly ash, slag cement, or metakaolin shall be as follows in Table R.

Class C fly ash shall not be used as a replacement for cement in any of the sulfate exposure conditions listed below. Type IP blended cement shall not be used in any of the sulfate exposure conditions listed below.

**Table R**
**Cementitious Materials Combinations for Soluble Sulfate Conditions or Seawater**

| | **Exposure to Moderate Sulfates or Exposure to Seawater** | **Exposure to Severe Sulfates** |
|---|---|---|
| **Water-soluble sulfate ($SO_4$) in soil, % by mass** | 0.10 - 0.20 | 0.20 - 2.00 |
| **Sulfate ($SO_4$) in water, ppm** | 150 - 1,500 | 1,500 - 10,000 |
| **Portland cement or Blended cement types** | **Replacement Ranges by SCMs (%)** | |
| Type I or Type III | 24.5 - 25.0% Class F fly ash, or<br>49.5 - 50.0% Slag cement, or<br>19.5 - 20.0% Metakaolin | 49.5 - 50.0% Slag cement |
| Type II or Type III (MS) | See Note 1 | 24.5 - 25.0% Class F fly ash, or<br>49.5 - 50.0% Slag cement, or<br>19.5 - 20.0% Metakaolin |
| Type IL | 24.5 - 35.0% Class F fly ash, or<br>49.5 - 50.0% Slag cement, or<br>19.5 – 20.0% Metakaolin | 49.5 - 50.0% Slag cement |
| Type IL (MS) | See Note 1 | 24.5 - 35.0% Class F fly ash, or<br>49.5 - 50.0% Slag cement, or<br>19.5 - 20.0% Metakaolin |
| Type IS | 24.5 - 25.0% Class F fly ash, or<br>24.5 - 25.0% Slag cement, or<br>19.5 - 20.0% Metakaolin | 24.5 - 25.0% Class F fly ash, or<br>24.5 - 25.0% Slag cement, or<br>19.5 - 20.0% Metakaolin |
| Type IS (MS) | See Note 1 | 24.5 - 25.0% Class F fly ash, or<br>24.5 - 25.0% Slag cement, or<br>19.5 - 20.0% Metakaolin |
| Type IP (MS) | No replacement combination allowed | Type not allowed |

[1] Class F fly ash or slag cement may be added as a replacement for cement as allowed in Subsection 907-799.02.2.

**907-799.02.5--Chemical Admixtures.** At least one water-reducing admixture or water-reducing/set-retarding admixture shall be used in all classes of concrete in accordance with the manufacturer's recommended dosage range. Admixtures providing a specific performance characteristic other than those of water reduction or set retardation may be used in accordance with the manufacturer's recommended dosage range. Accelerating admixtures shall not be used unless approved by the State Materials Engineer and as applied to Classes by Note 11 in Table 1. Any combinations of admixtures shall be approved by the Engineer before their use.

**907-799.02.6--Aggregates.**

**907-799.02.6.1--Lightweight Aggregate Requirements for Bridge Decks.** For bridge decks constructed following the requirements of Subsection 804.03.19.7.3, Subsection 804.03.14.2 and Subsection 804.03.17.2, then the Class BD or Class BDX mixture design shall contain LWA meeting the requirements of Subsection 703.19.2 and have an internal curing water content of 8.0 lbs. per 100 lbs. of total cementitious materials in the mixture design; mixture designs not containing LWA and the required minimum internal curing water content shall not be used.

**907-799.02.6.2--Class WT Concrete.** Class WT concrete used in fiber-reinforced concrete pavements with a design thickness greater than or equal to 4 inches, size 57 coarse aggregate shall be used. Class WT concrete used in fiber-reinforced concrete pavements with a design thickness less than 4 inches, size 67 coarse aggregate shall be used.

**907-799.03--Proportioning of Hydraulic Cement Concrete Mixture Design.** Proportioning of hydraulic cement concrete shall be based on an existing mixture of which the producer has field experience and documentation or based on a recently batched laboratory mixture tested according to the required specifications.

**907-799.03.1--Proportioning on the Basis of Previous Field Experience of Trial Mixtures.** Where a concrete production facility has a record, based on at least 10 consecutive strength tests from at least 10 different batches within the past 12 months from a mixture not previously used on Department projects, the standard deviation shall be calculated. The record of tests from which the standard deviation is calculated shall:

(a) Represent similar materials and conditions to those expected. Changes in materials and proportions within the test record shall not have been more closely restricted than those for the proposed work.
(b) Represent concrete produced to meet a specified strength.
(c) Consist of 10 consecutive tests, average of three cylinders per test, tested at 28 days. For all mixture designs, for each of these tests on the plastic concrete the test data shall meet the acceptance criteria of Subsection 804.02.13.1.

The standard deviation, *s,* shall be calculated as:

$$s = \left[\sum (X_i - \bar{X})^2 \div (N - 1)\right]^{1/2}$$

where:

$X_i$ = the strength result of an individual test
$\bar{X}$ = the average of individual tests in the series
$N$ = number of tests in the series

When the concrete production facility does not have a record of tests for calculation of standard deviation, as required in the above formula, the requirements of Subsection 907-799.03.2 shall govern.

The required average compressive strength ($f'_{cr}$) used as the basis for selection of concrete proportions shall conform to the inequality listed below, while using a standard deviation, $s$, calculated as shown above.

$$\overline{X} \geq f'_{cr}$$

where:

$$f'_{cr} = f'_c + 1.43s$$

where:

$f'_c$ = specified compressive strength of concrete, psi
$f'_{cr}$ = required average compressive strength of concrete, psi
$s$ = standard deviation, psi

1.43 represents the Lower Quality Index necessary to assure that 93% of compressive strength tests are above $f'_c$.

**907-799.03.2--Proportioning on the Basis of Laboratory Trial Mixtures.** When an acceptable record of field test results is not available, concrete proportions shall be established based on laboratory trial mixtures meeting the following restrictions:

(a) The combination of materials shall be those intended for use in the proposed work.
(b) Trial mixtures having proportions and consistencies suitable for the proposed work shall be made using the ACI 211.1 as a guide to proportion the mixture design.
(c) Trial mixtures shall be designed to produce a slump within ±¾ inch of the design slump allowed, and for air-entrained concrete, ±0.5 percent of the maximum permitted air content in Table 1 in Subsection 907-799.02. The temperature of freshly mixed concrete in trial mixtures shall be reported.
(d) For each proposed mixture, at least three compressive test cylinders shall be made and cured in accordance with AASHTO R 39. Each change of water-cement ratio shall be considered a new mixture. The cylinders shall be tested for strength in accordance with AASHTO T 22 and shall be tested at 28 days.
(e) The required average strength of laboratory trial mixes shall exceed $f'_c$ by 1200 psi for concrete mixture designs less than 5000 psi and by 1400 psi for concrete mixture designs of 5000 psi or more.
(f) The laboratory trial batch mixtures shall have been made within the previous 12 months before being submitted for approval and shall not have been previously used on Department projects.

**907-799.04--Documentation of Average Strength.** Documentation that the proposed concrete proportions will produce an average strength equal to or greater than the required average shall consist of the strength test records from field tests or results from laboratory trial mixtures.

**907-799.05--Field Verification of Concrete Mixture Design.** Unless otherwise noted within this Subsection, and except for Class PO, concrete mixture designs will only be tentatively approved pending field verification submission. All concrete placed using a mixture design which has not been acceptably field verified will not be paid for by the Department until field verification is submitted and approved as having been found to meet the requirements in this Subsection and those in the Department's *Concrete Manual*. The requirements for yield, slump, or total air content shall be successfully met within the first three (3) production days. Mixture designs may be transferred to other projects without additional field verification testing if the most recent field verification testing was conducted within the past twelve (12) months. All concrete mixtures will have a complete field verification performed and submitted to the Department's Materials Division every 12 months.

The Contractor's Certified Quality Control Technicians shall test each concrete mixture design upon the first placement of the mixture. Aggregates and concrete tests during the first placement shall be as follows.

| Aggregates | Concrete |
|---|---|
| Bulk Specific Gravity | Water Content |
| Moisture | Slump |
| Gradation | Air Content |
| | Unit Weight |
| | Yield |

For all Classes of concrete, the mixture shall be verified to yield within 2.0% of the correct volume when all the mix water is added to the batch, either by the batch plant or as ice used to control mixture acceptance temperature.

For all Classes of concrete other than DS, F, and FX, the mixture shall produce a slump within a minus 1½-inch tolerance of the design for mixtures with a design slump of three inches (3") or less or within a minus 2½-inch tolerance of the design for mixtures with a design slump of greater than three inches (3"), and producing a total air content within the allowable air content range in Table 3.

For Class DS, the slump range shall be 8 inches ±1 inch. For Class DS exposed to seawater, the total air content shall be within the allowable air content range in Table 3. For Class DS not exposed to seawater the total air content shall be within the requirements in Table 3.

For Classes F and FX, the slump shall be within a minus 1½-inch tolerance of the design for mixtures with a design slump of three inches (3") or less or within a minus 2½-inch tolerance of the design for mixtures with a design slump of greater than three inches (3"). For Classes F and FX exposed to seawater, the total air content shall be within the allowable air content range in Table 3. For Classes F and FX not exposed to seawater the total air content shall be within the requirements in Table 3.

The mixture shall be adjusted and retested, if necessary, on subsequent placements until the above-mentioned properties are met.

If the requirements for yield, slump, or total air content are not met within the first three (3) production days, subsequent field verification testing shall not be permitted on Department projects, and the mixture design shall not be used until the requirements listed above are met. Any mixture design adjustments, changes in the mixture proportions, are to be made by a Class III Certified Technician representing the Contractor. After the mixture design has been verified and adjustments made, verification test results will be reviewed by the Engineer.

**907-799.05.1--Field Verification and Slump Loss of Class DS Concrete Mixture Designs.** Prior to placement of Class DS concrete mixture, the Contractor shall provide test results of a slump loss test using approved methods to demonstrate that the mixture meets the four-hour requirement in Subsection 803.03.2.7.1. The Contractor shall notify the Department 48 hours prior to performing the slump loss test. These tests shall be conducted successfully by an approved testing laboratory during the installation of the trial shaft, with personnel from the Department present. As an alternative, the slump loss test can be performed prior to the installation of the trial shaft.

The slump loss test shall be conducted at temperatures and conditions similar to those expected at the job site at the time of the installation of the trial shaft. The sample for the slump loss test shall be from a minimum batch size of four (4) cubic yards of concrete. If the temperature between a successful slump loss test and the installation of the production shaft exceeds 10ºF above the concrete temperature, another successful slump loss test shall be performed on the first truckload of concrete as part of the installation of the trial shaft. The requirement to limit the time between the previous slump loss test and an installation of the trial shaft also applies to Class DS concrete mixture designs being transferred from another project. During any shaft installation a slump loss test shall be conducted by the Contractor at the direction of the Engineer from the concrete at the site for verification of slump loss requirements using a sample from a minimum batch size of four cubic yards of concrete.

**907-799.05.2--Field Verification of Class BDO and Class WT Concrete Mixture Designs.** Prior to mixture design submittal, the Contractor shall perform a field verification on Class BDO and Class WT concrete mixture designs and submit the field verification data and batch ticket information as part of the mixture submittal.

In addition to the requirements in Subsection 907-799.03.3, this documentation must indicate that the mixture achieves the requirements in Table 1 for:

- the compressive strengths required for acceptance within 28 days;
- the compressive strengths required for early opening to traffic within the time specified by the Engineer; and
- if the maturity method is to be used to estimate the compressive strength for early opening to traffic, the strength/maturity relationship shall be verified within 10% of the predicted compressive strength value determined by the maturity curve following the requirements of AASHTO T325 during the field verification.

**907-799.06--Adjustments of Mixtures.** The mixture design may be adjusted by the Class III Certified Technician representing the Contractor in accordance with the allowable revisions listed in paragraph 5.7 of the Department's *Concrete Manual*. Written notification shall be submitted to the Engineer a minimum of seven (7) days prior to any source or brand of material change, aggregate size change, allowable material type change, or decrease in any cementitious material content. Any adjustments of the concrete mixture design shall necessitate repeat of field verification procedure as described in Subsection 907-799.05 and approval by the Engineer.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-804-14** **CODE: (IS)**

**DATE: 11/21/2023**

**SUBJECT: Bridge Deck Overlay**

Section 804, Concrete Bridges and Structures, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as modified by this special provision is applicable to Bridge Deck Overlays Only.

**907-804.01--General.** This work consists of placing a concrete overlay over an existing bridge deck or a bridge deck that has been partially removed by hydrodemolition, or other methods of removal, to the line, grade and cross-section shown on the plans or as directed by the Engineer.

**907-804.02--Materials.**

**907-804.02.1--General.** Concrete produced and controlled from this specification will be accepted upon proper certification of concrete production through verification by job site acceptance criteria performed by Department personnel.

The materials for partial depth repair of concrete, when sampled and tested in accordance with Subsection 700.03, shall meet the requirements of the following Subsections:

| | |
|---|---|
| Portland Cement | 701.01 and 701.02 |
| Blended Cement | 701.01 and 701.04 |
| Fine Aggregate | 703.02 |
| Coarse Aggregate | 703.03 |
| Joint Material | 707.01, 707.02, and 707.07 |
| Reinforcing Steel | 711.02 |
| Structural Synthetic Fibers | 711.04 |
| Liquid Membrane Compound | 713.01.02 |
| Admixtures | 713.02 |
| Fly Ash | 714.05 |
| Water | 714.01.1 and 714.01.2 |

**907-804.02.2--Hydraulic Cement Concrete Mixture.** The hydraulic cement concrete mixture design shall meet the requirements for Class BDO in Section 907-799.

**907-804.02.3--Sampling & Testing.** Sampling and testing of plastic concrete will be performed by Department personnel having the applicable certifications in Table 2 in Section 804 and in accordance with the applicable test methods listed in Table 1 in Section 804 at the following sampling and testing frequency.

The slump, temperature, and total air content will be determined on the first batch each production day and other subsequent batches until requirements for these plastic properties are met. Slump, temperature, and total air content shall be determined at a minimum frequency of one (1) per each

50 cubic yards of concrete repair, or fraction thereof, but more often if the slump, temperature, or total air content are in question on subsequent batches. Once a batch has been determined to meet the requirements for slump, temperature, and total air content, additional testing on the batch is not required.

At least three concrete test cylinders for acceptance will be cast per day per section of lane for which an individual lane closure is affected and concrete is replaced. The slump, temperature, total air content, and unit weight will be determined for the concrete test cylinders. The concrete test cylinders will be made from approximately the last batch of concrete produced each day.

Compressive strength cylinders for opening to traffic shall be cast and tested by the Contractor in accordance with Subsection 907-804.03.

**907-804.02.4--Basis of Acceptance.** The slump of plastic concrete mixture shall meet the requirements of Subsection 907-804.02.2 with the minus slump limits of AASHTO M157.

Sampling will meet the requirements of AASHTO T141. For additional information concerning sampling concrete, see the Department's *Concrete Field Manual*.

The total air content of the plastic concrete mixture shall meet the requirements of Subsection 907-804.02.2.

The maximum plastic concrete acceptance temperature shall be 90°F. Plastic concrete with a temperature exceeding 90°F will be rejected and not used in Department work. The minimum acceptance temperature shall meet the requirements of Subsection 804.03.16.1 for Cold Weather Concreting.

A check test will be made on another portion of the obtained sample before rejection of any batch.

The compressive strength shall meet the requirements of Subsection 907-804.02.3.

**907-804.03--Construction Requirements.** When the overlay is to be placed on a bridge deck that has been partially removed, the bridge deck overlay shall begin as soon as practical following the deck removal and cleaning of the bridge deck. Any bridge deck repairs shall be performed prior to or concurrent with the placement of the overlay. Any damage to the reinforcing steel as a result of the Contractor's operations shall be corrected to the satisfaction of the Engineer at no additional costs to the State.

During placement of the overlay, the concrete shall be thoroughly consolidated by internal vibration. Finishing may be performed by either machine or hand methods. The concrete shall be screeded longitudinally unless otherwise permitted by the Engineer. The screed shall be metal of a type normally used on bridge deck pours. The overlay shall be checked longitudinally and transversely in order to meet a 1/8-inch in 10 feet smoothness requirement.

After the screeding and floating has been completed and while the concrete is still plastic, the surface of the concrete shall be tested with a 10-foot straightedge. For this purpose the Contractor shall furnish and use an accurate 10-foot straightedge swung from handles three feet longer than one-half the width of the slab. The straightedge shall be held in contact with the surface in

successive positions parallel to the road centerline and the whole area gone over from one side of the slab to the other as necessary. Advance along the road shall be in successive stages of not more than one-half the length of the straightedge. All depressions found shall be immediately filled with freshly mixed concrete, struck off, consolidated, and refinished. High areas shall be cut down and refinished. Special attention shall be given to assure that the surface across joints meets any requirements for smoothness. Straightedge testing and surface corrections shall continue until the entire surface is found to be free from observable departures from the straightedge, and the slab conforms to the required grade and cross section.

The concrete surface shall be protected from premature drying by covering as soon as possible with wetted burlap. It shall be cured with Class 3 burlap, or its equivalent, covered with plastic sheeting. The burlap shall be kept continuously and thoroughly wet. Careful attention shall be given to the proper curing and protection of the concrete, and curing shall continue until the 2,500 psi strength is attained. Twelve (12) test cylinders for verifying strength requirements shall be made and cured under the same conditions as the bridge deck. Three (3) test cylinders shall be tested and the results averaged to represent a test break. Traffic shall not be allowed on the concrete overlay until the required 2,500 psi strength is attained.

**907-804.04--Method of Measurement.** Bridge deck overlay concrete, complete and accepted, will be measured by the cubic yard, determined by calculating the theoretical volume of bridge deck overlay plus any additional concrete placed. Additional concrete placed with the overlay will be calculated by subtracting the theoretical volume of bridge deck overlay from the total ticketed volume of concrete delivered minus the volume estimated by the Engineer of any wasted concrete.

**907-804.05--Basis of Payment.** Bridge deck overlay concrete, measured as prescribed above, will be paid for at the contract unit price per cubic yard, which price shall be full compensation for all materials, tools, equipment, labor, and incidentals necessary to complete the work.

Payment will be made under:

907-804-O: Bridge Deck Overlay Concrete - per cubic yard

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-808-1** **CODE: (IS)**

**DATE: 11/01/2018**

**SUBJECT: Joint Repair**

Section 808, Joint Repair, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

**907-808.04--Method of Measurement.** Delete the paragraph in Subsection 808.04 on page 1009, and substitute the following.

When a pay item is included in the plans, joint repair will be measured by the linear foot and mortar mix will be measured by the gallon. The volume of measurement for the epoxy/sand mortar mix will be determined from the summation of the volumes of the epoxy components and the volume of sand will not be measured for payment.

**907-808.05--Basis of Payment.** Delete the paragraph in Subsection 808.05 on page 1009, and substitute the following.

When a pay item is included in the plans, joint repair, measured as prescribed above, will be paid for at the contract unit price per linear foot, which price shall be full compensation for furnishing and placing all materials, labor, tools, equipment, and all incidentals necessary to complete the work.

When a pay item is included in the plans, mortar mix, measured as prescribed above, will be paid for at the contract unit price per gallon, which price shall be full compensation for furnishing all materials including sand and forming materials, and all incidentals necessary to complete the work. No payment will be made for the sand used in the epoxy mortar mix.

The price bid for each item of work shall include the cost of continuous maintenance of traffic and protective services as required by the Department's Traffic Control Plan. This shall include all required individual traffic control devices.

Payment will be made under:

907-808-A: Joint Repair - per linear foot

907-808-B: Mortar Mix - per gallon

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISIONS NO. 907-823-8** **CODE: (SP)**

**DATE: 08/06/2024**

**SUBJECT: Preformed Joint Seal**

Section 907-823, Preformed Joint Seal, is hereby added to and becomes a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

## SECTION 907-823--PREFORMED JOINT SEAL

**907-823.01--Description.** This work consists of furnishing and installing preformed joint seals in accordance with these specifications and the details shown in the Plans or drawings provided.

**907-823.02--Materials.** The Contractor shall furnish a manufacturer's certification stating that the material used meets the requirements of this specification.

The preformed joint seal shall be one of the following, or an approved equal. The size of the seal, Type I, Type II, or Type III shall be determined based on the size of the joint opening, as detailed in the Plans or drawings provided. It is the Contractor's responsibility to ensure that the size selected is appropriate for the width of the joint. Type I shall be used for joint openings less than two inches (2"). Type II shall be used for joint openings greater than two inches (2"), with the maximum joint opening being two and one-half inches (2½"). Type III shall be used for joint openings greater than two and one-half inch (2½"), with the maximum joint opening being three and one-half inch (3½"). In cases where the joint opening (design width "A" plus seat widths on both sides of the joint opening) is greater than four inches (4"), another type of expansion material shall be required as directed by the Director of Structures, State Bridge Engineer.

1. Silicoflex Joint Sealing System
   Manufactured by R.J. Watson, Inc. in Alden, NY
   www.rjwatson.com

2. Wabo®SPS Joint System
   Manufactured by Watson Bowman Acme Corporation in Amherst, NY
   www.wbacorp.com

3. Silspec SSS Silicone Strip Seal
   Manufactured by SSI Commercial & Highway Construction Materials in Tulsa, OK
   www.ssicm.com

**907-823.03--Construction Methods.** Preformed joint seals shall be installed in accordance with the manufacturer's recommendations. The material shall seal the deck surface, gutters, and curbs to prevent moisture or other contaminants from leaking through the joints. The joint seal shall be installed in such a manner that the top surface of the material is within the minimum and maximum depths below the roadway or bridge surface recommended by the manufacturer.

Saw cutting for the joint repair shall be accomplished by sawing at the locations and depth shown on the joint repair detail sheets in the plans or in the contract documents. Saw cuts shall be as near vertical as possible at the saw line of the repair area. The saw cut depth shall be equivalent to the installation depth required by the manufacturer's specifications, and the type specified shall be the same as the type specified for preformed joint seal.

**907-823.04--Method of Measurement.** Preformed joint seal of the type specified will be measured in linear feet along the length of the centerline joint.

Saw cuts of the type specified will be measured by the linear foot along the length of the bridge deck on each side of the centerline joint.

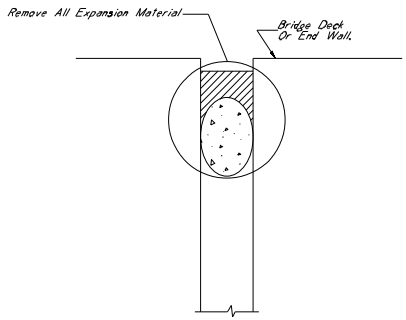
**907-823.05--Basis of Payment.** Preformed joint seal, measured as prescribed above, will be paid for at the contract unit price per linear foot, which shall be full compensation for furnishing all labor, equipment, tools, materials, and incidentals necessary to complete the work.

Saw cuts, measured as prescribed above, will be paid for at the contract unit price per linear foot, which shall be full compensation for furnishing all labor, equipment, tools, materials, and incidentals necessary to complete the work.

Payment will be made under:

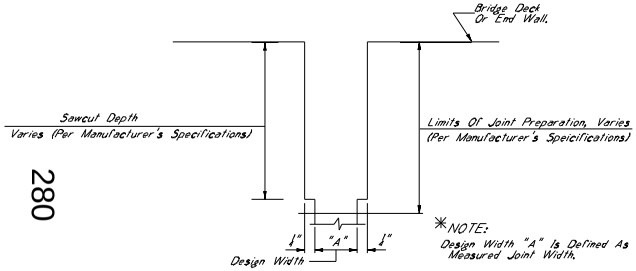
907-823-A: Preformed Joint Seal, Type ___ - per linear foot

907-823-B: Saw Cut, Type _____ - per linear foot



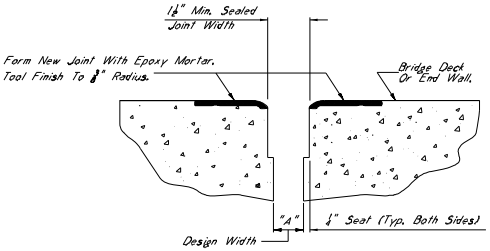

TYPICAL SECTION AT EXISTING JOINT

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



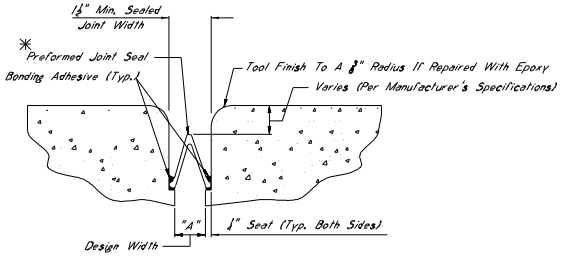

TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

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:

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

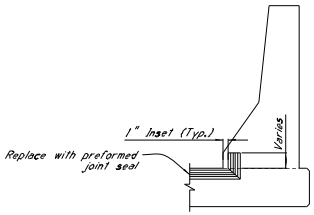
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec S55 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ 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 Manufacturers. 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 ½" 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 2½". Type III Shall Be Used For Design Width Greater Than 2½", With The Maximum Design Width Being 3½". In Cases Where Design Widths Are Greater Than 3½", 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 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:

907-808-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. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited to Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint 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.

907-808-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. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited to Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint 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
907-823-B003 SAW CUT, TYPE III

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 Recomendations.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II
907-823-A003 PREFORMED JOINT SEAL, TYPE III

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

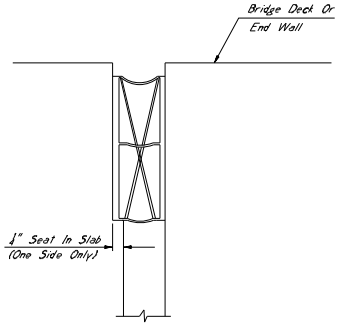
Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

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.

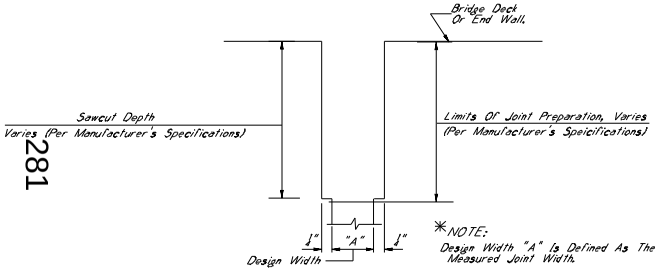
GENERAL NOTES:

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.



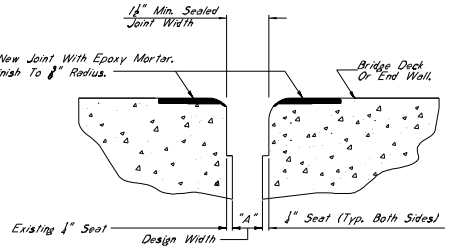

TYPICAL SECTION AT EXISTING JOINT

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



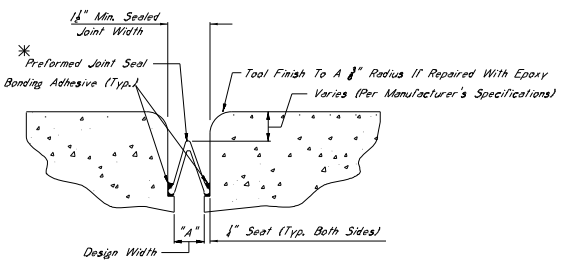

TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

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:

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

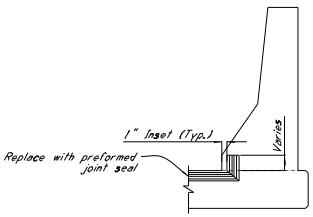
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec SSS Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ 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 Manufacturers. 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 ½" 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 2½". Type III Shall Be Used For Design Width Greater Than 2½", With The Maximum Design Width Being 3½". In Cases Where Design Widths Are Greater Than 3½", 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 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:

907-808-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. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work. 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-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. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint 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-A001 SAW CUT, TYPE I
907-823-A002 SAW CUT, TYPE II
907-823-A003 SAW CUT, TYPE III

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 Recomendations.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II
907-823-A003 PREFORMED JOINT SEAL, TYPE III

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

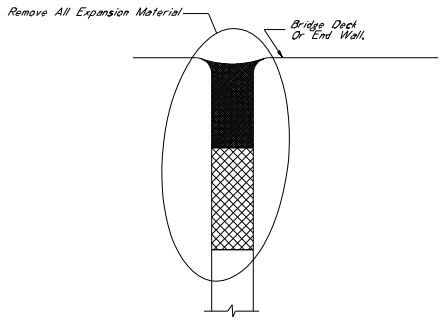
Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

## 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.

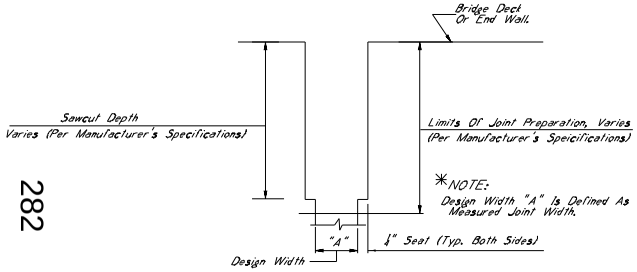
## GENERAL NOTES:

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.



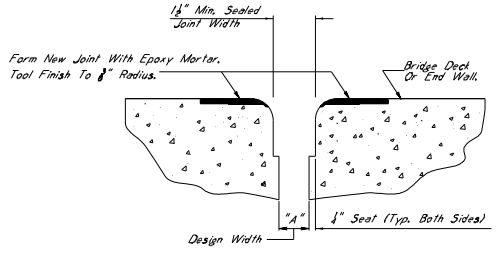

TYPICAL SECTION AT EXISTING JOINT

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



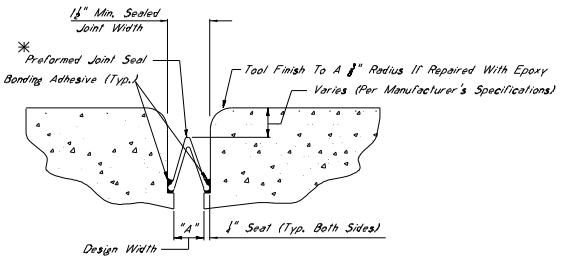

TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

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 And Repair With Epoxy Mortar

✳NOTES:

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

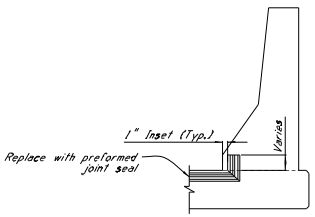
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ 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 Manufacturers. 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 ¼" 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 2½". Type III Shall Be Used For Design Width Greater Than 2½" With The Maximum Design Width Being 3". In Cases Where Design Widths Are Greater Than 3", 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 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:

907-808-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. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation and Trash) Located At Any Depth Within The Joint 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.

907-808-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 Will Not Be Paid For Directly And Shall Be Considered As Absorbed Under This Item Of Work. Removal Of Joint Materials And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint 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
907-823-B003 SAW CUT, TYPE III

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 Recomendations.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II
907-823-A003 PREFORMED JOINT SEAL, TYPE III

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:

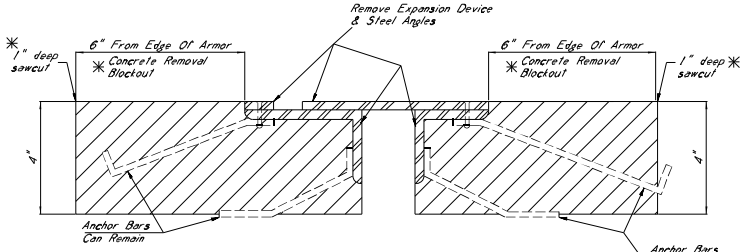
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The 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.

✳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.

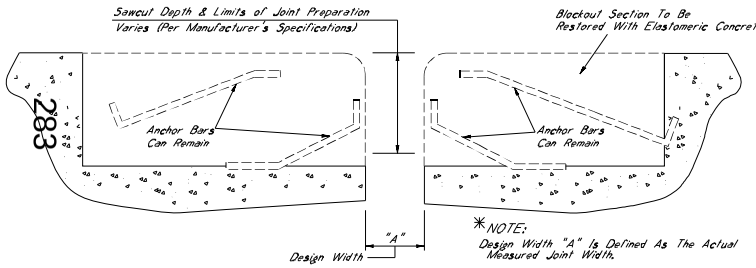
✳CONCRETE REMOVAL BLOCKOUT NOTES

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.



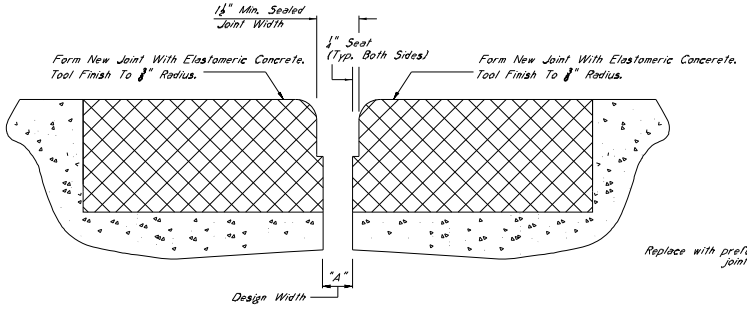

TYPICAL SECTION AT EXISTING JOINT

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



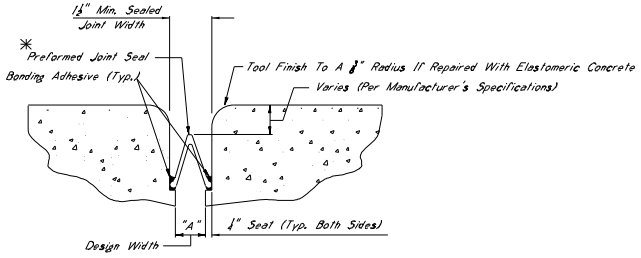

TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

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:

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

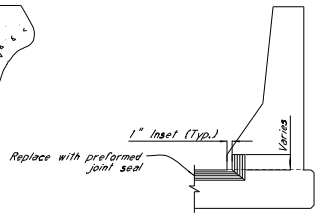
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ 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 Manufacturers. 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 ¼" 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 2½". Type III Shall Be Used For Design Width Greater Than 2½" With The Maximum Design Width Being 3½". In Cases Where Design Widths Are Greater Than 3½", 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 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-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. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.

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.

907-823-B001 SAW CUT, TYPE I
907-823-B002 SAW CUT, TYPE II
907-823-B003 SAW CUT, TYPE III

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.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II
907-823-A003 PREFORMED JOINT SEAL, TYPE III

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

907-824-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. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete 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:

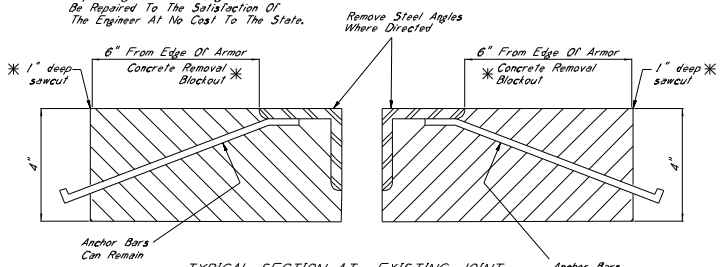
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The 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.

*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.

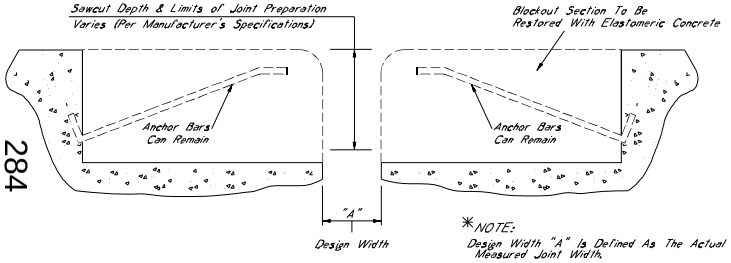
*CONCRETE REMOVAL BLOCKOUT NOTES

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

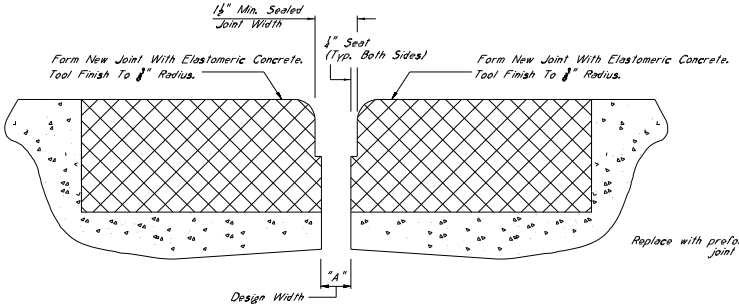



*NOTE:

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

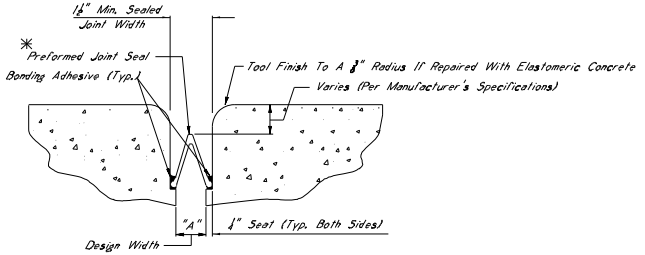
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

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:

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

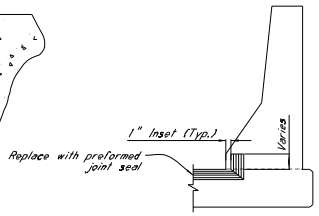
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
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   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec SSS Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. 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 Manufacturers. 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 ½" 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 2½". Type III Shall Be Used For Design Width Greater Than 2½", With The Maximum Design Width Being 3¼". In Cases Where Design Widths Are Greater Than 3¼", 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 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-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. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.

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.

907-823-B001 SAW CUT, TYPE I
907-823-B002 SAW CUT, TYPE II
907-823-B003 SAW CUT, TYPE III

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.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II
907-823-A003 PREFORMED JOINT SEAL, TYPE III

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

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

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

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Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete 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:

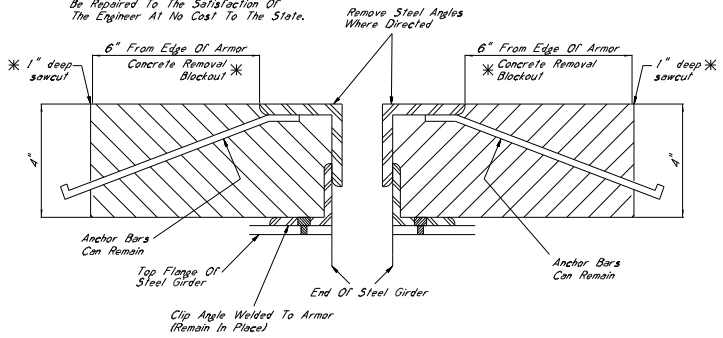
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
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✳1" SAWCUT NOTES:

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.

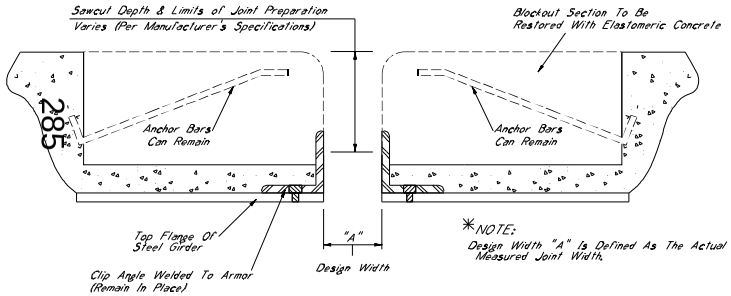
✳CONCRETE REMOVAL BLOCKOUT NOTES

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TYPICAL SECTION AT EXISTING JOINT

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

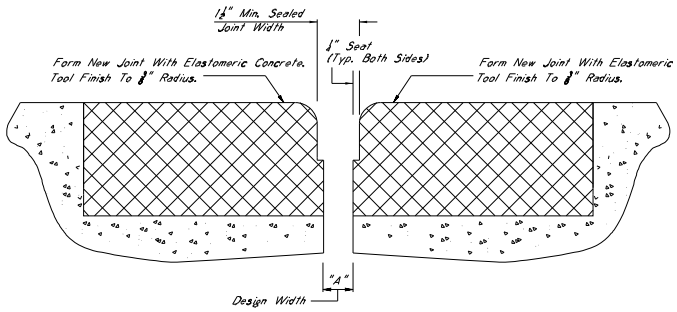



✳NOTE:

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

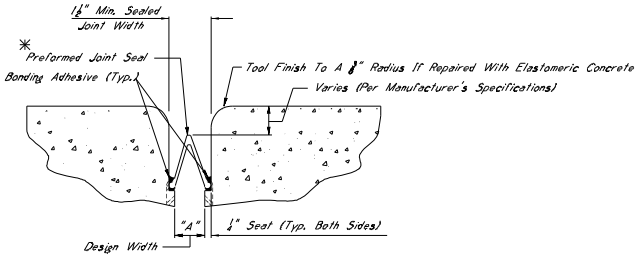
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

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

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

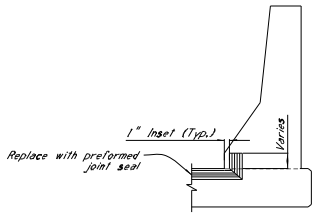
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   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
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2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, 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 Manufacturers. 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.

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✳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-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. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.

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.

907-823-B001 SAW CUT, TYPE I
907-823-B002 SAW CUT, TYPE II
907-823-B003 SAW CUT, TYPE III

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.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II
907-823-A003 PREFORMED JOINT SEAL, TYPE III

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

907-824-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. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete 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:

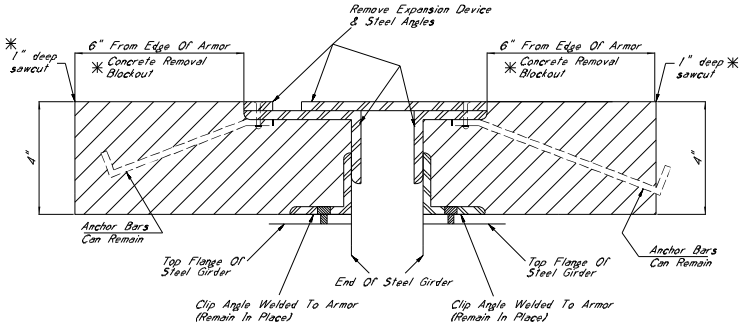
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The 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.

✳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.

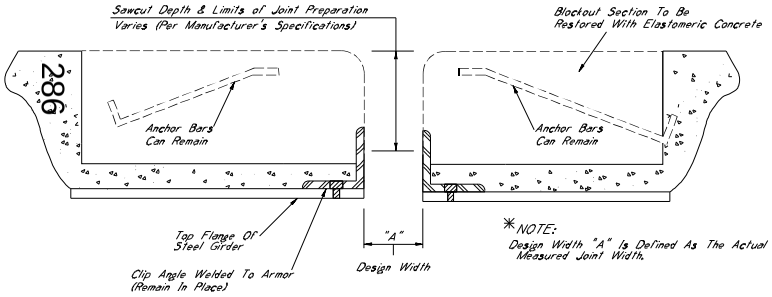
✳CONCRETE REMOVAL BLOCKOUT NOTES

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.



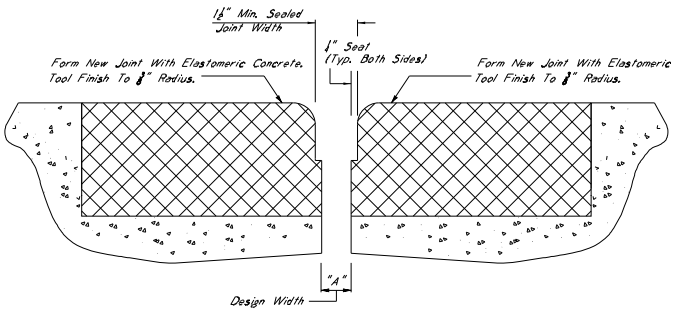

TYPICAL SECTION AT EXISTING JOINT

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



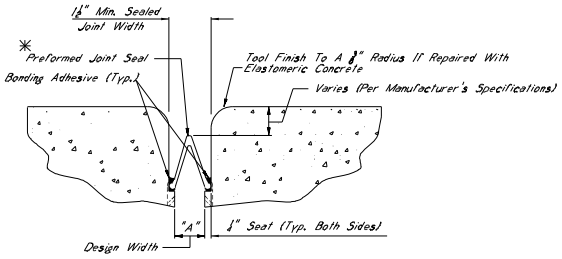

TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

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:

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

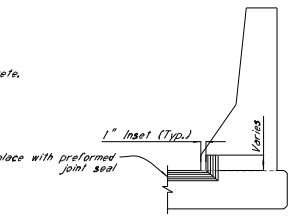
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ 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 Manufacturers. 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 2". Type III Shall Be Used For Design Width Greater Than 2", With The Maximum Design Width Being 3". In Cases Where Design Widths Are Greater Than 3", 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 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-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. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.

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.

907-823-B001 SAW CUT, TYPE I
907-823-B002 SAW CUT, TYPE II
907-823-B003 SAW CUT, TYPE III

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.

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II
907-823-A003 PREFORMED JOINT SEAL, TYPE III

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

907-824-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. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

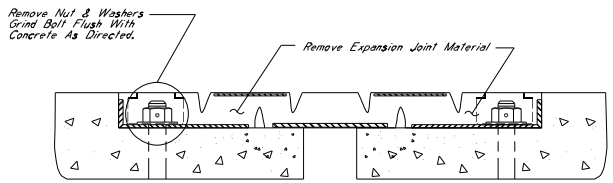
Basis of Payment: The Accepted Quantities Will Be Paid For In Cubic Yards At The Contract Unit Price.

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.

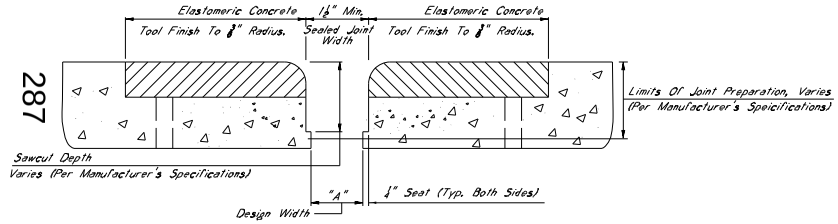


S.P. No. 907-823-8 -- Cont'd.




TYPICAL SECTION AT EXISTING JOINT

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

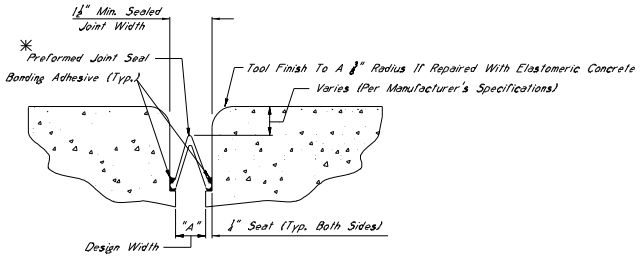



TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

*Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials*

✳NOTE:

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




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:*

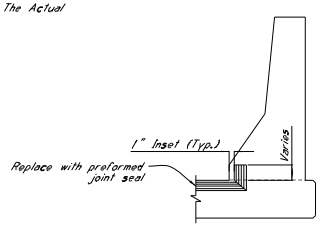
   *A. Silicoflex Joint Sealing System*
   *Manufactured By R.J. Watson, Inc. In Alden, NY*
   *www.rjwatson.com*

   *B. Wabo SPS Joint System*
   *Manufactured By Watson Bowman Acme Corporation In Amherst, NY*
   *www.wbacorp.com*

   *C. Silspec SSS Silicone Strip Seal*
   *Manufactured By SSI Commercial & Highway Construction Materials*
   *www.ssicm.com*

2. *For Estimating Purposes, The RJ 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 Manufacturers. 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" 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 2". Type III Shall Be Used For Design Width Greater Than 2", With The Maximum Design Width Being 3". In Cases Where Design Widths Are Greater Than 3", 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 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-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. Other Joint Types Shall Not Be Included Under This Item Of Work Unless Otherwise Directed By The Engineer. Removal of Joint Material And Any Trash And Debris (Including But Not Limited To Compacted Dirt, Vegetation And Trash) Located At Any Depth Within The Joint Shall Be Included Under This Item Of Work.*

*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.*

*907-823-B001 SAW CUT, TYPE I*
*907-823-B002 SAW CUT, TYPE II*
*907-823-B003 SAW CUT, TYPE III*

*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.*

*907-823-A001 PREFORMED JOINT SEAL, TYPE I*
*907-823-A002 PREFORMED JOINT SEAL, TYPE II*
*907-823-A003 PREFORMED JOINT SEAL, TYPE III*

*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

*907-824-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*

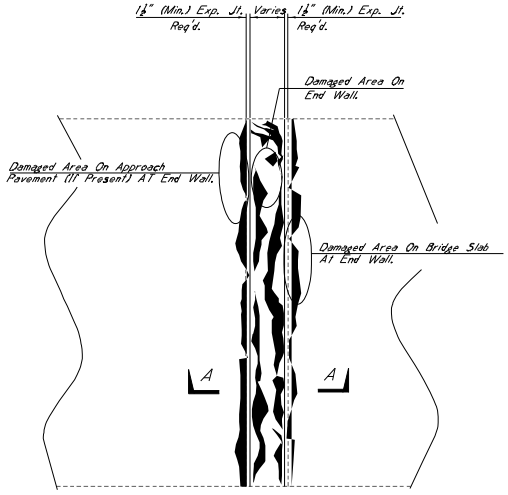
*B. WaboCrete II*
*Manufactured By Watson Bowman Acme Corporation In Amherst, NY*
*www.wbacorp.com*

*C. Delcrete 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.*

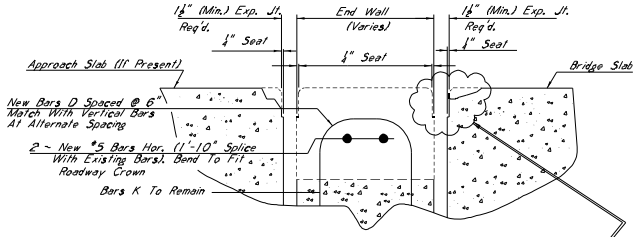
## GENERAL NOTES:

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.*



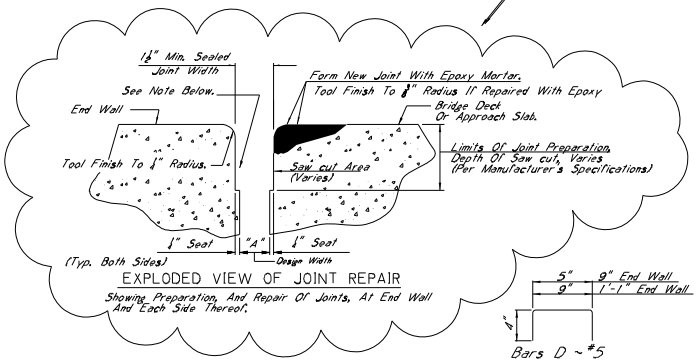

PLAN VIEW

Showing Existing Damaged Areas On And Around End Wall.




DETAIL "D"

Showing Repair Details Of End Wall, Reinforcing Steel, And Expansion Joint Formation.

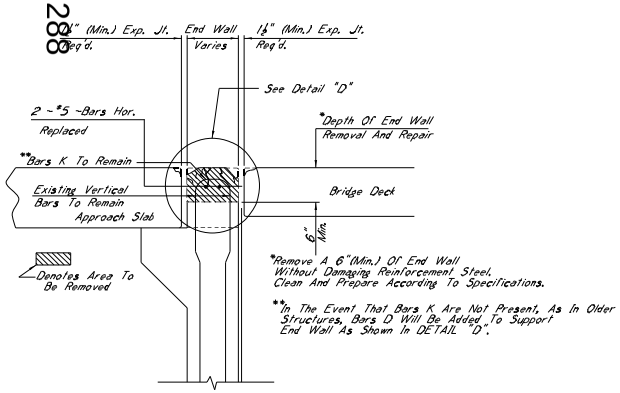



EXPLODED VIEW OF JOINT REPAIR

Showing Preparation, And Repair Of Joints, At End Wall And Each Side Thereof.

*NOTE:
Form Vertical Faces Of End Wall To Include ¼" Seat Such That The Preformed Joint Seal May Be Applied Per Manufacturer's Specification. See Detail "DP" On This Sheet.

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

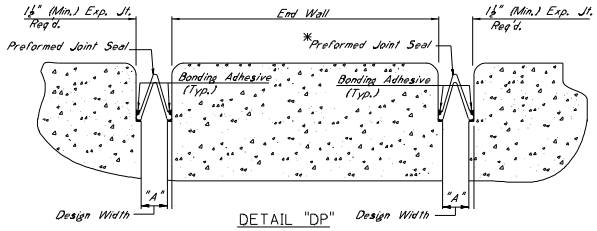



*Remove A 6"(Min.) Of End Wall Without Damaging Reinforcement Steel. Clean And Prepare According To Specifications.

**In The Event That Bars K Are Not Present, As In Older Structures, Bars D Will Be Added To Support End Wall As Shown In DETAIL "D".

ELEVATION (SECTION A-A)

Showing Details Of Removal Of Damaged End Wall.




DETAIL "DP"

Showing Sealed Joint After Saw cut And Repair With Epoxy Mortar

*NOTES:

1. 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.
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation
   www.wbacorp.com

   C. Silspec SSS Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

2. For Estimating Purposes, The RJ 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 Manufacturers. 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 Seat Required On Both Sides Of The Joint. Preformed Joint Strip 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 4". Type III Shall Be Used For Design Width Greater Than 4", 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.

NOTES ON ASSOCIATED ITEMS OF WORK:

907-824-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 Completeing 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 Painted 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 MDOT'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 907-804 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 |
| 907-808-A002 | JOINT REPAIR |
| 907-808-A003 | JOINT REPAIR WITHOUT EPOXY |
| 907-823-B001 | SAW CUT, TYPE I |
| 907-823-B002 | SAW CUT, TYPE II |
| 907-823-B003 | SAW CUT, TYPE III |
| 907-823-A001 | PREFORMED JOINT SEAL, TYPE I |
| 907-823-A002 | PREFORMED JOINT SEAL, TYPE II |
| 907-823-A003 | PREFORMED JOINT SEAL, TYPE III |

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 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.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-824-4** **CODE: (SP)**

**DATE:** **09/09/2025**

**SUBJECT:** **Routine Bridge Repair**

Section 907-824, Routine Bridge Repair, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

## SECTION 907-824 – ROUTINE BRIDGE REPAIR

**907-824.01--Description.** This work shall consist of constructing and installing routine bridge repair items including General Epoxy Repair, Bi-directional or Uni-directional Fiber Reinforced Polymer (FRP) Wrap, Cap Cleaning, Bearing Replacements, Epoxy Injection, and Encapsulated Field Painting in accordance with the details on the plans, and the requirements set out herein.

Minor changes in detail of design or construction procedure may be authorized by the Director of Structures, State Bridge Engineer provided such changes will not be cause for contract price adjustment.

It shall be the responsibility of the Contractor to protect the existing structure 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.

All details are based on the dimensions shown on the original plans for the existing structure. The Contractor shall be responsible for adjusting the elements of the new construction to ensure a proper fit with the existing structure. The Contractor shall verify all dimensions of the existing structure prior to beginning work.

During construction, care shall be exercised to ensure that no debris falls into the crossing below the structure. All debris, including any material that has accumulated on the bridge deck or caps, shall become the property of the Contractor and shall be removed from the construction site and disposed of properly.

For additional information and details, see work related items below and on the standard drawings. At the Contractor's request, Bridge Division will provide a complete set of As-Built plans for the existing bridge.

**907-824.02--Materials.**

**907-824.02.1--General Epoxy Repair.** Materials for general epoxy repair shall be as follows or a material approved by the Director of Structures, State Bridge Engineer.

Epoxy Resin. Resin shall be selected from the MDOT Approved Products List and meet the requirements of ASTM C881, Type I, Grade 2, Class C.

Silica Sand. The materials shall be bagged general purpose cleaning sand.

Epoxy Mortar Mix. The epoxy mortar mix shall consist of part liquid epoxy and part clean dry sand mixed in the ratio recommended by the Manufacturer.

**907-824.02.2--FRP Wrap.** FRP wrap shall be one of the following products, or an approved equal, and shall be applied according to the Manufacturer's recommendations:

- "FRP Wrap" as manufactured by Fyfe Co. LLC, www.aegion.com/about/our-brands/fyfe
- "FRP Wrap" as manufactured by BASF Building Systems LLC, www.master-builders-solutions.basf.us
- "FRP Wrap" as manufactured by Sikawrap Inc. www.usa.sika.com
- "FRP Wrap" as manufactured by MAPEI Corp., www.mapei.com/us/en-us/

**907-824.03--Construction Requirements.**

**907-824.03.1--General Epoxy Repair.** Epoxy repair under this pay item is for general concrete spall repairs, and shall be bid such that the item may be increased, decreased or eliminated as directed by the Project Engineer. All epoxy repairs shall be performed in accordance with the details shown on the Drawings and in accordance with the notes herein. Repair concrete spalled areas on the bridge as directed by the Project Engineer and the locations listed in the plans using epoxy mortar. The Contractor shall determine the depth of reinforcement prior to any saw cutting. Spalled areas where pack rust has developed around or on reinforcement shall be blasted clean prior to repairing the spalled location. All areas of the bridge repaired with epoxy mortar shall be restored to the original dimensions as shown in the information plans, unless noted otherwise.

A Representative of the epoxy manufacturer must be present for sufficient time to ensure that the Contractor is properly schooled in the use of the epoxy material.

Prior to placement of the mortar mix, the prepared surface shall be lightly primed with neat epoxy.

Acetone alcohol may be used to clean and lubricate trowels.

Curing time shall be in accordance with the Manufacturer's recommendations.

**907-824.03.2--FRP Wrap.** After all spalled locations on the bent caps, beams or piling are repaired, the repair locations on all bent caps shall be wrapped with FRP wrap in accordance with the notes below and the drawings.

FRP wrap shall be applied to bent caps, beams or piling as designated in the plans. FRP wrap shall be either bi-directional or uni-directional.

The Contractor shall furnish all submittals indicating the materials, tools, equipment, transportation, necessary storage, labor, installation plan and supervision required for the application of the composite or polymer system to the Director of Structures, State Bridge Engineer through the Project Engineer prior to construction. Products shall be stored according the manufacturer's requirements and shall avoid contact with moisture, dust and chemical exposure. All FRP composite systems shall be proprietary systems consisting of all associated fiber reinforcement and polymer adhesives/resins. FRP composites consisting of fiber reinforcement and polymers provided by more than one manufacturer are not allowed. The FRP composite system shall utilize carbon fiber reinforcement as the primary fiber material (primary structural component). The FRP system shall be top coated with a coating approved by the FRP system supplier. The coating color shall be selected by the Project Engineer.

FRP wraps shall not be installed when the ambient temperature is below 40°F or above 130°F. In cold conditions, auxiliary heat may be applied to raise the ambient temperature to a suitable level. Clean heat sources shall be utilized for this purpose (e.g., electric or propane) that do not contaminate the substrate with carbonation.

FRP wraps shall not be installed when surface moisture is present on the substrate or when rainfall or condensation is anticipated in the work areas. If water leakage exists through cracks or concrete joints, water flow shall be stopped prior to FRP installation. Resins (including primers and fillers) shall be mixed according to the FRP system manufacturer's installation instructions. All resin components shall be at a proper temperature and mixed in the manufacturer's prescribed mix ratio until there is a uniform and complete mixing of components.

Resin components are often contrasting colors, so full mixing is achieved when color streaks are eliminated. Resins should be mixed for the Manufacturer's prescribed mixing time and visually inspected for uniformity of color. A representative of the FRP wrap manufacturer must be present for sufficient time to assure that the Contractor is properly schooled in the installation of FRP wrap. Prior to installation of FRP wraps, the Contractor shall repair concrete spall areas in accordance with general epoxy repair notes herein and the details in the plans. The fibrous reinforcement system shall have a minimum tensile force as shown in the plan details. The direction of the fiber wrap shall be in the direction shown on the Contract Plans.

In addition to the Manufacturer's requirements, the Contractor shall ensure the structural and durability of the reinforced fiber wrap system by meeting the following acceptance guidelines:

Small delaminations, less than two inches (2") each, are permissible as long as the delaminated area is less than 5% of the total laminate area and there are no more than 10 such delamination per 10 feet.

Large delaminations, greater than 25 inches, can affect the performance of the installed system and shall be repaired by selectively cutting away the affected sheet and applying an overlapping sheet patch of equivalent piles. Delaminations less than 25 inches may be repaired by ply replacement.

The Contractor shall submit an FRP repair procedure to the Project Engineer for review and approval by the Director of Structures, State Bridge Engineer. This must be performed prior to repairing and delaminated areas.

**907-824.03.3--Cap Cleaning.** The caps at every bent shall be cleaned to the satisfaction of the Project Engineer after all other work has been done. All large debris shall be removed by hand while other debris, including but not limited to dirt and rust, shall be removed by pressure washing the bent caps. The pressure washer shall be able to maintain 3,500 psi of pressure. Prior to construction, the Contractor shall submit a proposed containment plan to the Project Engineer for approval by the Director of Structures, State Bridge Engineer.

**907-824.03.4--Bearing Replacements.** All bearings should be removed and replaced according to Bearing Assembly Details. All structural steel shall conform to ASTM A709, Grade 50. All steel shall be new. Extreme care shall be exercised in removing the existing bearing plates that are welded to the anchor plates embedded in the prestressed beams. Existing anchor bolts shall be ground to ¼" below the concrete surface and grouted with epoxy mortar.

The bottom of the existing anchor plates shall be finished smooth to accommodate the new steel plates and painted with approved encapsulating paint. All pack rust and scale within the designated areas shall be removed by using small hand tools, mechanical process, or needle gun. All areas required to be painted containing grease films after the initial cleaning shall be cleaned with a biodegradable solvent. All debris removed from the existing structure shall become property of the Contractor and shall be disposed of properly. The Contractor shall provide technical data for the proposed encapsulating paint to be used on this project to the Project Engineer for approval by the Director of Structures, State Bridge Engineer. New paint shall be applied by hand, with either a brush or roller.

The new steel plates shall be cleaned and then painted with one shop coat of inorganic zinc, one field intermediate coat of acrylic latex, and one field top coat of acrylic latex per Section 814 of the Standard Specifications. Painting of new steel plates and existing anchor plates shall not be measured for separate pay and all costs shall be included in the price bid for Bearing Replacement.

Prior to any construction or fabrication, the Contractor shall comply with the submittal requirements listed in the bearing replacement details. The Contractor shall be responsible for adjusting the elements of the new construction to ensure a proper fit with the existing structure.

The Contractor shall provide adequate bracing and jacking arrangements as required to replace the existing bearings. The beam end shall only be raised to ¼" from its original position. Traffic shall be maintained on the bridge during the duration of the repair.

The Contractor shall employ the service of a Mississippi Registered Professional Engineer who is knowledgeable in the field of Bridge Design. A complete set of bracing and jacking arrangement plans along with design calculations shall be submitted to the Director of Structures, State Bridge Engineer through the Project Engineer for review prior to construction and shall bear the design Engineer's seal.

Jacks shall be coupled to a common manifold. Jacking point shall be under the bottom flange of the beam at the bent and no jacking points will be allowed under any diaphragm or bay. After the beam is raised into position, temporary blocking shall be provided to secure the beam in this position while work is being performed. Temporary blocking points shall be under the bottom flange of the beam at the bent and no temporary blocking will be allowed under any diaphragm or bay.

Any damage to the bridge resulting from uneven or improper jacking shall be repaired by the Contractor at no additional cost to the State.

**907-824.03.5--Epoxy Injection.** All cracks greater than 1/32" shall be injected with an approved epoxy resin adhesive of the gel type. Prior to injecting any cracks, the crack shall be cleaned with a high velocity filtered air jet.

A representative of the epoxy manufacturer shall be present for sufficient time to ensure that the Contractor is properly schooled in the use of the epoxy material. Epoxy resin adhesive shall be installed in strict accordance with the manufacturer recommendations. Curing time shall be in accordance with manufacturer's recommendations. After epoxy injection is complete, all injection ports shall be removed.

**907-824.03.6--Encapsulating Field Painting.** The Contractor should be aware that the existing paint on the steel structure may contain lead.

Prior to construction, the Contractor shall submit a Temporary Containment Plan for the removal of the existing paint and rust from the designated repair areas to the Project Engineer for approval by the Director of Structures, State Bridge Engineer. Also, the Contractor shall submit a Temporary Containment Plan for painting the designated repair areas.

All pack rust and scale within the designated areas shall be removed by using small hand tools, mechanical process, or needle gun. All areas required to be painted containing grease films after the initial cleaning shall be cleaned with a biodegradable solvent. Existing paint shall be roughened to ensure the new paint will adhere to the existing painted surface. All debris and paint removed from the existing structure shall become the property of the Contractor and shall be disposed of properly.

All exposed steel surfaces in the repair areas shall be painted with an encapsulating paint designed to encapsulate lead-based paints, and applied according to the manufacturer's recommendations. This will include but is not limited to: existing bearings, beams, and diaphragm assemblies, etc.

The Contractor shall provide technical data for the proposed encapsulating paint to be used on this project to the Project Engineer for approval by the Director of Structures, State Bridge Engineer.

New paint shall be applied by hand with brush or roller.

**907-824.04--Method of Measurement**. Epoxy Repair, completed in accordance with the plans and specifications, will be measured per square foot. All items of work related to epoxy repair shall be included in the square foot unit price.

FRP Wrap, Bi-directional and Uni-directional, completed in accordance with the plans and specifications, will be measured per linear foot or square foot.

Cap Cleaning, completed in accordance with the plans and specifications, will be measured per each.

Bearing Replacements, completed in accordance with the plans and specifications, will be measured per each.

Epoxy injection, complete in accordance with the plans and specifications, will be measured by the linear foot.

Encapsulating Field Painting, complete in accordance with the plans and specifications, will be measured by the square foot.

**907-824.05--Basis of Payment.** Epoxy Repair, measured as prescribed above, will be paid for at the contract unit price per square foot, which price shall be full compensation for materials, labor, equipment, and incidentals necessary to complete the work.

FRP Wrap, Bi-directional and Uni-directional, measured as prescribed above, will be paid for at the contract unit price per linear foot or square foot, which price shall be full compensation for all labor, materials, surface preparation, and incidentals associated with the installation of FRP wraps, including epoxy mortar repairs, necessary to complete the work.

Cap Cleaning, measured as prescribed above, will be paid for at the contract unit price per each, which price shall be full compensation for all materials, labor, equipment and incidentals necessary to complete the work.

Bearing Replacements, measured as prescribed above, will be paid for at the contract unit price per each, which price shall be full compensation for all materials, labor, equipment and incidentals necessary to complete the work.

Epoxy Injection, measured as prescribed above, will be paid for at the contract unit price per linear foot, which price shall be full compensation for all materials, labor, equipment and incidentals necessary to complete the work.

Encapsulating Field Painting, measured as prescribed above, will be paid for at the contract unit price per square foot, which price shall be full compensation for all materials, labor, equipment, cleaning, and incidentals necessary to complete the work.

Payment will made under:

| | | |
|---|---|---|
| 907-824-A: | General Epoxy Repair | - per square foot |
| 907-824-B: | FRP Wrap, * | - per linear foot or square foot |
| 907-824-C: | Cap Cleaning | - per each |
| 907-824-D: | Bearing Replacements ** | - per each |
| 907-824-E: | Epoxy Injection | - per linear foot |
| 907-824-F: | Encapsulating Field Painting | - per square foot |

* Indicate Bi-directional, Uni-directional, etc.

** Type of Bearing (Prestressed Concrete Girder, Concrete Box Girder or Steel Girder) may be specified.

# MISSISSIPPI DEPARTMENT OF TRANSPORTATION

**SPECIAL PROVISION NO. 907-828-9** **CODE: (SP)**

**DATE: 09/21/2026**

**SUBJECT: Hybrid Polymer Concrete Overlay**

Sections 907-828, Hybrid Polymer Concrete Overlay, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

## SECTION 907-828 -- HYBRID POLYMER CONCRETE OVERLAY

**907-828.01--General.** This work consists of placing a hybrid polymer concrete overlay system over a concrete surface / bridge deck as indicated on the Plans.

The Contractor shall furnish all submittals indicating the materials, equipment, installation plan and supervision required for the application of the hybrid polymer concrete overlay system to the Director of Structures, State Bridge Engineer through the Project Engineer prior to construction.

**907-828.02--Materials.** The material used for the overlay shall be the following.

Hybrid Polymer CE700
Manufactured by FasTrac Construction Products
www.fastracproducts.com

**907-828.03--Construction Requirements.** The hybrid polymer concrete (HPC) overlay shall be placed at a thickness such that the original grade of the bridge deck shall be raised by the thickness indicated on the Contract Plans. It shall be the Contractor's responsibility to adjust equipment during placement to ensure that the grade requirements are maintained Hybrid polymer concrete shall not be used for full depth repairs. Hybrid polymer concrete shall not be placed at a thickness greater than three inches (3").

A Manufacturer's representative shall be present for sufficient time to ensure that the Contractor is properly schooled in surface preparation and placement requirements for the overlay.

The hybrid polymer concrete overlay shall have a calcined bauxite topping such that will meet the requirements of Table 1. The calcined bauxite shall be applied by a fully-automated continuous process.

| Table 1<br>Friction Testing Requirements | | | |
|---|---|---|---|
| **Test Measurement** | **Requirement** | **Frequency/Application Area** | **Test Method** |
| Skid Resistance Using Dynamic Friction Tester (12 mph/20 kmh) | min 0.65 | 1 per 200 lane-feet | ASTM E 1911 |

Friction test shall be performed in the presence of the Engineer. The Engineer shall be notified at least 48 hours before friction testing and shall occur within 30 days after installation.

**907-828.03.1--Preparation.**

**907-828.03.1.1--Bridge Expansion Joints.** All bridge expansion joints shall be protected from being contaminated with the HPC components of epoxy resin binder and calcined bauxite aggregate. The bridge expansion joints shall be sealed with taped during the application of the HPC. Any materials entering the bridge expansion joints during the application of the HPC will be removed by the Contractor prior to opening the bridge to traffic.

**907-828.03.1.2--Special Bridge Deck Preparation Adjacent to the Expansion Joints.** In preparation for the installation of the HPC, the bridge deck area at locations adjacent to the bridge expansion joints with steel headers, at locations adjacent to expansion joints at bridge ends, and at locations where HPC will terminate shall be recessed to a depth range of ½" to ¾" below the surface of the bridge deck finish grade. This bridge deck area shall be ground the entire length along the expansion joints/termination locations and a width of twenty feet (20) on both sides of the expansion joints for intermediate bents with steel headers or on the bridge side for end bents, meeting the bridge deck smoothness requirements of section 804.03.19.7.4. A lightweight non-impacting drum grinder or similar approved apparatus shall be used to achieve the desired recessed profile. Prior to grinding the contractor shall field verify the depth of the reinforcing steel. All damage to the reinforcing steel resulting from the Contractor's operation shall be repaired or replaced at the Contractor's expense as directed by the Engineer.

**907-828.03.1.3--Surface Preparation**. Any concrete surface to be treated with HPC shall be shot blasted to remove all visible containments and excess cement paste, yield an open pore structure and expose some aggregate within the concrete. Sand blasting is acceptable for patches, headers, vertical surfaces, and corners inaccessible to the shot blaster. All dirt, slurry, curing compound, laitance, and any other debonding material shall be removed from the surface of the concrete. Vehicular traffic shall be kept from the shot blasted surface unless required by the overlay operation and approved by the Engineer. Concrete substrates that have contaminates that may interfere with the bonding or curing of the overlay shall be cleaned prior to placing the overlay, at no additional cost to the Department. Primer and overlay shall only be applied to clean and dry concrete substrate.

**907-828.04--Method of Measurement.** Hybrid polymer concrete overlay, complete and accepted, will be measured by the cubic yard, determined by calculating the theoretical volume of the overlay plus any additional hybrid polymer concrete placed. Additional hybrid polymer concrete placed with the overlay will be calculated by subtracting the theoretical volume of hybrid

polymer concrete overlay from the total ticketed volume of hybrid polymer concrete delivered minus the volume estimated by the Engineer of any wasted hybrid polymer concrete.

**907-828.05--Basis of Payment.** Hybrid polymer concrete overlay, measured as prescribed above, will be paid for at the contract unit price per cubic yard, which price shall be full compensation for all materials, tools, equipment, labor, and incidentals necessary to complete the work.

Payment will be made under:

907-828-A: Hybrid Polymer Concrete Overlay - per cubic yard

# S E C T I O N  9 0 5 - P R O P O S A L

Date _____

Mississippi Transportation Commission
Jackson, Mississippi

Sirs: The following proposal is made on behalf of _____
_____ of _____
_____
for constructing the following designated project(s) within the time(s) hereinafter specified.

The plans are composed of drawings and blue prints on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

The Specifications are the current Standard Specifications of the Mississippi Department of Transportation approved by the Federal Highway Administration, except where superseded or amended by the plans, Special Provisions and Notice(s) to Bidders attached hereto and made a part thereof.

I (We) certify that I (we) possess a copy of said Standard and any Supplemental Specifications.

Evidence of my (our) authority to submit the Proposal is hereby furnished. The proposal is made without collusion on the part of any person, firm or corporation. I (We) certify that I (we) have carefully examined the Plans, the Specifications, including the Special Provisions and Notice(s) to Bidders, herein, and have personally examined the site of the work. On the basis of the Specifications, Special Provisions, Notice(s) to Bidders, and Plans, I (we) propose to furnish all necessary machinery, tools, apparatus and other means of construction and do all the work and furnish all the materials in the manner specified. I (We) understand that the quantities mentioned herein are approximate only and are subject to either increase or decrease, and hereby propose to perform any increased or decreased quantities of work at the unit prices bid, in accordance with the above.

I (We) acknowledge that this proposal will be found irregular and/or non-responsive unless a certified check, cashier's check, or Proposal Guaranty Bond in the amount as required in the Advertisement (or, by law) is submitted electronically with the proposal or is delivered to the Contract Administration Engineer prior to the bid opening time specified in the advertisement.

INSTRUCTION TO BIDDERS: Alternate and Optional Items on Bid Schedule.

1. Two or more items entered opposite a single unit quantity WITHOUT DEFINITE DESIGNATION AS "ALTERNATE ITEMS" are considered as "OPTIONAL ITEMS". Bidders may or may not indicate on bids the Optional Item proposed to be furnished or performed WITHOUT PREJUDICE IN REGARD TO IRREGULARITY OF BIDS.
2. Items classified on the bid schedule as "ALTERNATE ITEMS" and/or "ALTERNATE TYPES OF CONSTRUCTION" must be preselected and indicated on bids. However, "Alternate Types of Construction" may include Optional Items to be treated as set out in Paragraph 1, above.
3. Optional items not preselected and indicated on the bid schedule MUST be designated in accordance with Subsection 102.06 prior to or at the time of execution of the contract.
4. Optional and Alternate items designated must be used throughout the project.

I (We) further propose to perform all "force account or extra work" that may be required of me (us) on the basis provided in the Specifications and to give such work my (our) personal attention in order to see that it is economically performed.

I (We) further propose to execute the attached contract agreement (Section 902) as soon as the work is awarded to me (us), and to begin and complete the work within the time limit(s) provided for in the Specifications and Advertisement. I (We) also propose to execute the attached contract bond (Section 903) in an amount not less than one hundred (100) percent of the total of my (our) part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

I (We) shall submit electronically with our proposal or deliver prior to the bid opening time a certified check, cashier's check or bid bond for **five percent (5%) of total bid** and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

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## 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.

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.

For Informational Purposes Only

OGFC lift approximately 7.3 miles on I-55 from Church Road to Heindl Road, Bridge Repair on I-55 over Church Road (Bridge Nos. 112.3A , 112.3B) & Fog Seal approximately 7.2 miles on I-55 from Hiendl Road to the Yazoo County Line, known as Federal Aid Project Nos. IM-0055-02(291) / 110067301, NHPP-0055-02(287) / 110043301 & IM-0055-02(292) / 110068301 in Madison County.

| Line no. | Item Code | Adj Code | Quantity | Units | Description[Fixed Unit Price] |
|---|---|---|---|---|---|
| | | | | **Roadway Items** | |
| 0010 | 201-D002 | | 9 | Acre | Random Clearing |
| 0020 | 202-B006 | | 1,440 | Square Yard | Removal of Asphalt Paved Shoulders, All Depths |
| 0030 | 202-B009 | | 76 | Square Yard | Removal of Asphalt Pavement, Failed Areas |
| 0040 | 202-B063 | | 147 | Square Yard | Removal of Concrete Paved Ditch |
| 0050 | 202-B158 | | 6,390 | Linear Feet | Removal of Guard Rail, Including Rails, Posts and Terminal Ends |
| 0060 | 202-B169 | | 363 | Linear Feet | Removal of Joint Material |
| 0070 | 202-B240 | | 7,590 | Linear Feet | Removal of Traffic Stripe |
| 0080 | 202-B276 | | 620 | Linear Feet | Removal of Debris from Drainage Channel |
| 0090 | 203-G001 | (E) | 334 | Cubic Yard | Excess Excavation, FM, AH |
| 0100 | 209-A005 | | 2,840 | Square Yard | Geotextile Stabilization, Type V, Non-Woven |
| 0110 | 221-A001 | (S) | 3 | Cubic Yard | Concrete Paved Ditch |
| 0120 | 304-D002 | (GT) | 541 | Ton | Granular Material, Crushed Stone |
| 0130 | 406-D001 | | 318,050 | Square Yard | Fine Milling of Bituminous Pavement, All Depths |
| 0140 | 503-C010 | | 101 | Linear Feet | Saw Cut, Full Depth |
| 0150 | 606-B003 | | 4,765 | Linear Feet | Guard Rail, Class A, Type 1, 'W' Beam, Metal Post |
| 0160 | 606-C001 | | 40 | Each | Guard Rail, Cable Anchor Type 1, Metal Post |
| 0170 | 606-D003 | | 14 | Each | Guard Rail, Bridge End Section, Special Design |
| 0180 | 606-D005 | | 14 | Each | Guard Rail, Bridge End Section, Type A |
| 0190 | 606-D018 | | 4 | Each | Guard Rail, Bridge End Section, Type G, Modified |
| 0200 | 606-D023 | | 4 | Each | Guard Rail, Bridge End Section, Type I, Metal Post |
| 0210 | 606-E005 | | 28 | Each | Guard Rail, Terminal End Section, Flared |
| 0220 | 606-E007 | | 12 | Each | Guard Rail, Terminal End Section, Non-Flared |
| 0230 | 619-A1001 | | 63 | Mile | Temporary Traffic Stripe, Continuous White |
| 0240 | 619-A1003 | | 320 | Linear Feet | Temporary Traffic Stripe, Continuous White, Paint |
| 0250 | 619-A2001 | | 63 | Mile | Temporary Traffic Stripe, Continuous Yellow |
| 0260 | 619-A2003 | | 320 | Linear Feet | Temporary Traffic Stripe, Continuous Yellow, Paint |
| 0270 | 619-A3001 | | 60 | Mile | Temporary Traffic Stripe, Skip White |
| 0280 | 619-A3004 | | 320 | Linear Feet | Temporary Traffic Stripe, Skip White, Paint |
| 0290 | 619-A5001 | | 61,964 | Linear Feet | Temporary Traffic Stripe, Detail |
| 0300 | 619-D1001 | | 120 | Square Feet | Standard Roadside Construction Signs, Less than 10 Square Feet |
| 0310 | 619-D2001 | | 401 | Square Feet | Standard Roadside Construction Signs, 10 Square Feet or More |
| 0320 | 619-F3001 | | 141 | Each | Delineators, Guard Rail, White |
| 0330 | 619-F3002 | | 110 | Each | Delineators, Guard Rail, Yellow |
| 0340 | 619-G4001 | | 216 | Linear Feet | Barricades, Type III, Double Faced |
| 0350 | 619-G4005 | | 72 | Linear Feet | Barricades, Type III, Single Faced |

For Informational Purposes Only

| Line no. | Item Code | Adj Code | Quantity | Units | Description[Fixed Unit Price] |
|---|---|---|---|---|---|
| 0360 | 619-G5001 | | 21 | Each | Free Standing Plastic Drums |
| 0370 | 619-G7001 | | 28 | Each | Warning Lights, Type "B" |
| 0380 | 619-G8001 | | 4 | Each | Warning Lights, Type "C" |
| 0390 | 620-A001 | | 1 | Lump Sum | Mobilization |
| 0400 | 630-C001 | | 24 | Linear Feet | Square Tube Posts, 4.0 lb/ft |
| 0410 | 630-G005 | | 20 | Each | Type 3 Object Markers, OM-3R or OM-3L, Post Mounted |
| 0420 | 907-402-A002 | (BA1) | 12,156 | Ton | Open Graded Friction Course, 9.5-mm Mixture |
| 0430 | 907-402-B001 | (A3) | 23,513 | Gallon | Bituminous Tack Coat |
| 0440 | 907-403-A013 | (BA1) | 538 | Ton | 9.5-mm, HT, Asphalt Pavement |
| 0450 | 907-403-B001 | (BA1) | 100 | Ton | 12.5-mm, HT, Asphalt Pavement, Leveling |
| 0460 | 907-403-S002 | | 8,400 | Linear Feet | Joint Sealant |
| 0470 | 907-405-A002 | (BA1) | 1,713 | Ton | Stone Matrix Asphalt, 12.5 mm Mixture |
| 0480 | 907-407-A001 | (A2) | 6,856 | Gallon | Asphalt for Tack Coat |
| 0490 | 907-418-A001 | (A2) | 55,382 | Gallon | Emulsified Asphalt for Micro-Surfacing |
| 0500 | 907-418-B001 | (GT) | 1,862 | Ton | Aggregate for Micro-Surfacing |
| 0510 | 907-420-A001 | | 6,200 | Pounds | Undersealing |
| 0520 | 907-428-C001 | (A2) | 19,858 | Gallon | Bituminous-Based Fog Seal with Rejuvenator |
| 0530 | 907-428-D001 | (A2) | 16,261 | Gallon | Bio-Based Fog Seal with Rejuvenator |
| 0540 | 907-601-B001 | (S) | 1 | Cubic Yard | Class "B" Structural Concrete, Minor Structures |
| 0550 | 907-618-A001 | | 1 | Lump Sum | Maintenance of Traffic |
| 0560 | 907-618-M2001 | | 1,000 | Hours | Work Zone Law Enforcement ($60.00) |
| 0570 | 907-619-E3001 | | 5 | Each | Changeable Message Sign |
| 0580 | 907-626-A009 | | 320 | Linear Feet | 6" Thermoplastic Traffic Stripe, Skip White |
| 0590 | 907-626-A010 | | 30 | Mile | 6" Thermoplastic Traffic Stripe, Skip White |
| 0600 | 907-626-B005 | | 320 | Linear Feet | 6" Thermoplastic Traffic Stripe, Continuous White |
| 0610 | 907-626-B006 | | 32 | Mile | 6" Thermoplastic Traffic Stripe, Continuous White |
| 0620 | 907-626-E005 | | 32 | Mile | 6" Thermoplastic Traffic Stripe, Continuous Yellow |
| 0630 | 907-626-E006 | | 320 | Linear Feet | 6" Thermoplastic Traffic Stripe, Continuous Yellow |
| 0640 | 907-626-G004 | | 30,982 | Linear Feet | Thermoplastic Detail Stripe, White |
| 0650 | 907-626-G005 | | 614 | Linear Feet | Thermoplastic Detail Stripe, Yellow |
| 0660 | 907-627-K001 | | 6,783 | Each | Red-Clear Reflective High Performance Raised Markers |
| 0670 | 907-630-PP002 | | 14 | Square Feet | Roadside Directional Signs, Sheet Aluminum, 0.125" Thickness, Ground Mounted |
| | | | | **Bridge Items** | |
| 0680 | 815-A002 | (S) | 366 | Ton | Loose Riprap, Size 100 |
| 0690 | 815-A006 | (S) | 300 | Ton | Loose Riprap, Size 200 |
| 0700 | 815-E001 | (S) | 950 | Square Yard | Geotextile under Riprap |
| 0710 | 907-420-A001 | | 6,000 | Pounds | Undersealing |

For Informational Purposes Only

| Line no. | Item Code | Adj Code | Quantity | Units | Description[Fixed Unit Price] |
|---|---|---|---|---|---|
| 0720 | 907-804-O001 | (S) | 3 | Cubic Yard | Bridge Deck Overlay Concrete |
| 0730 | 907-808-A002 | (S) | 4,298 | Linear Feet | Joint Repair |
| 0740 | 907-823-A001 | | 2,159 | Linear Feet | Preformed Joint Seal, Type I |
| 0750 | 907-823-B001 | | 4,298 | Linear Feet | Saw Cut, Type I |
| 0760 | 907-824-A003 | | 48 | Square Feet | General Epoxy Repair |
| 0770 | 907-824-C001 | | 8 | Each | Cap Cleaning |
| 0780 | 907-824-D002 | | 60 | Each | Bearing Replacements, Prestressed Concrete Girder |
| 0790 | 907-824-PP003 | | 96 | Square Feet | Bridge Repair, Removal of Bridge Deck |
| 0800 | 907-824-PP004 | | 1 | Lump Sum | Bridge Repair, Slope Reshaping, Per Plans |
| 0810 | 907-828-A001 | (S) | 20 | Cubic Yard | Hybrid Polymer Concrete Overlay |

For Informational Purposes Only

## CONDITIONS FOR COMBINATION BID

If a bidder elects to submit a combined bid for two or more of the contracts listed for this month's letting, the bidder must complete and execute these sheets of the proposal in each of the individual proposals to constitute a combination bid. In addition to this requirement, each individual contract shall be completed, executed and submitted in the usual specified manner.

Failure to execute this Combination Bid Proposal in each of the contracts combined will be just cause for each proposal to be received and evaluated as a separate bid.

It is understood that the Mississippi Transportation Commission not only reserves the right to reject any and all proposals, but also the right to award contracts upon the basis of lowest separate bids or combination bids most advantageous to the State.

It is further understood and agreed that the Combination Bid Proposal is for comparison of bids only and that each contract shall operate in every respect as a separate contract in accordance with its proposal and contract documents.

I (We) agree to complete each contract on or before its specified completion date.

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

## COMBINATION BID PROPOSAL

This proposal is tendered as one part of a Combination Bid Proposal utilizing option ___* of Subsection 102.11 on the following contracts:

* Option to be shown as either (a), (b), or (c).

| | Project No. | County | | Project No. | County |
|---|---|---|---|---|---|
| 1. | ______ | ______ | 6. | ______ | ______ |
| 2. | ______ | ______ | 7. | ______ | ______ |
| 3. | ______ | ______ | 8. | ______ | ______ |
| 4. | ______ | ______ | 9. | ______ | ______ |
| 5. | ______ | ______ | 10. | ______ | ______ |

(a) If Combination A has been selected, your Combination Bid is complete.

(b) If Combination B has been selected, then complete the following page.

For Informational Purposes Only

SECTION 905 - COMBINATION BID PROPOSAL (Continued)

| Project Number | Pay Item Number | Unit | Unit Price Reduction | Total Item Reduction | Total Contract Reduction |
|---|---|---|---|---|---|
| 1. _____ | _____ | _____ | _____ | _____ | |
| 2. _____ | _____ | _____ | _____ | _____ | |
| 3. _____ | _____ | _____ | _____ | _____ | |
| 4. _____ | _____ | _____ | _____ | _____ | |
| 5. _____ | _____ | _____ | _____ | _____ | |
| 6. _____ | _____ | _____ | _____ | _____ | |
| 7. _____ | _____ | _____ | _____ | _____ | |
| 8. _____ | _____ | _____ | _____ | _____ | |

For Informational Purposes Only

| Project Number | Pay Item Number | Unit | Unit Price Reduction | Total Item Reduction | Total Contract Reduction |
|---|---|---|---|---|---|
| 9. _____ | _____ _____ | _____ _____ | _____ _____ | _____ _____ | |
| 10. _____ | _____ _____ | _____ _____ | _____ _____ | _____ _____ | |

(c) If Combination C has been selected, then initial and complete ONE of the following.

_____ I (We) desire to be awarded work not to exceed a total monetary value of $ _____.

_____ I (We) desire to be awarded work not to exceed _____ number of contracts.

For Informational Purposes Only

**Certification with regard to the Performance of Previous Contracts or Subcontracts subject to the Equal Opportunity Clause and the filing of Required Reports**

The Bidder hereby certifies that he has ___, has not ___, participated in a previous contract or subcontract subject to the Equal Opportunity Clause, as required by Executive Orders 10925, or 11114, and that he has ___, has not ___, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

_____
(COMPANY)

**DATE:** _____

NOTE: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the Equal Opportunity Clause. Contracts and Subcontracts which are exempt from the Equal Opportunity Clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, Standard Form 100 (EE0-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime Contractors and Subcontractors who have participated in a previous contract or subcontract subject to the Executive orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such Contractors submit a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U. S. Department of Labor.

For Informational Purposes Only

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

CERTIFICATION

I,_____,
(Name of person signing bid)

individually, and in my capacity as_____ of
(Title of person signing bid)

_____do hereby certify under
(Name of Firm, partnership, or Corporation)

penalty of perjury under the laws of the United States and the State of Mississippi that_____

_____, Bidder
(Name of Firm, Partnership, or Corporation)

on Project No. **NHPP-0055-02(287)/ 110043301000, IM-0055-02(291)/ 110067301000 & IM-0055-02 (292)/ 110068301000**

in **Madison** County(ies), Mississippi, has not either directly or indirectly entered into any agreement, participated in any collusion; or otherwise taken any action in restraint of free competitive bidding in connection with this contract; nor have any of its corporate officers or principal owners.

Except as noted hereafter, it is further certified that said legal entity and its corporate officers, principal owners, managers, auditors and others in a position of administering federal funds:

a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in (b) above; and

d) Have not within a three-year period preceding this application/ proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

Do exceptions exist and are made a part thereof? Yes / No

Any exceptions shall address to whom it applies, initiating agency and dates of such action.

For Informational Purposes Only

Note: Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

The bidder further certifies that the certification requirements contained in Section XI of Form FHWA 1273, will be or have been included in all subcontracts, material supply agreements, purchase orders, etc. except those procurement contracts for goods or services that are expected to be less than the Federal procurement small purchase threshold fixed at 10 U.S.C. 2304(g) and 41 U.S.C. 253(g) (currently $25,000) which are excluded from the certification requirements.

The bidder further certifies, to the best of his or her knowledge and belief, that:

1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this contract, Standard Form-LLL, Disclosure Form to Report Lobbying, in accordance with its instructions will be completed and submitted.

The certification contained in (1) and (2) above is a material representation of fact upon which reliance is placed and a prerequisite imposed by Section 1352, Title 31, U.S. Code prior to entering into this contract. Failure to comply shall be subject to a civil penalty of not less than $10,000 and not more than $100,000. The bidder shall include the language of the certification in all subcontracts exceeding $100,000 and all subcontractors shall certify and disclose accordingly.

All of the foregoing is true and correct.

Executed on _____ _____

Signature

(01/2016 F)

For Information Purposes Only

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION**

SAM.GOV Registration and Unique Entity ID

Bidders are advised that the Prime Contractor must register and maintain a current registration in the **System for Award Management** (http://sam.gov) at all times during the project. Upon registration, the Contractor will be assigned a SAM Unique Entity ID.

Bidders are advised that prior to the award of this contract, they MUST be registered in the System for Award Management.

I (We) acknowledge that this contract cannot be awarded if I (We) are not registered in the System for Award Management prior to the award of this contract. _____ (Yes / No)

I (We) have a SAM Unique Entity ID. _____ (Yes / No)

SAM Unique Entity ID: _____

Company Name: _____

Company e-mail address: _____

For Informational Purposes Only

**SECTION 902**

CONTRACT FOR _____
LOCATED IN THE COUNTY(IES) OF _____

STATE OF MISSISSIPPI
COUNTY OF HINDS

This Contract is entered into by and between the Mississippi Transportation Commission (the "Commission") and the undersigned contractor (the "Contractor"), as follows:

As consideration for this Contract, the Commission agrees to pay the Contractor the amount(s) set out in the Proposal attached hereto. Said payment will be made in the manner and at the time(s) specified in the Specifications and/or Special Provisions, if any. In exchange for said consideration, the Contractor hereby agrees to accept the prices stated in the Proposal as full compensation for the furnishing of all labor, materials and equipment, and the execution of the scope of work identified for this referenced Project as contemplated in this Contract, and as more fully outlined in the Contract Documents (the "Work"). The Contract Documents consist of the Advertisement, the Notice to Bidders, the Proposal, the Specifications, the Special Provisions, and the approved Plans, all of which are hereby made a part of this Contract and incorporated herein by reference.

The Contractor shall be responsible for all loss or damage arising out of, or in any way in connection with the Work, or from any unforeseen obstructions or difficulties that may be encountered in the prosecution of the Work, and for all risks of every description connected with the Work, with the exception of any items specifically excluded in the Contract Documents. The Contractor shall fully and faithfully complete the Work in a good and workmanlike manner, according to the Contract Documents and any Supplemental Agreements thereto.

The Contractor further agrees that the Work shall be done under the direct supervision of, and to the complete satisfaction of, the Executive Director of the Mississippi Department of Transportation, or his authorized representative(s), and, when federal funds are involved, subject to the inspection and approval of the Federal Highway Administration, or its agents, and/or the agents of any other state or federal agency whose funds are involved. Further, the Work shall be done in accordance with any applicable state and federal laws, and any such rules and regulations issued by the Commission and/or any relevant Federal Agency.

The Contractor agrees that all labor as outlined in the Contract Documents may be secured from a list furnished by the Manager of the Win Job Center nearest the project location, or any successor thereto.

It is agreed and understood that each and every provision of law and clause required by law to be inserted into this Contract shall be deemed to be inserted herein, and this Contract shall be read and enforced as though it were included herein. If through mere mistake or otherwise, any such provision is not inserted, then upon the application of either party hereto, the Contract shall be physically amended to make such insertion.

For Informational Purposes Only

The Contractor agrees that he has read each and every clause of the Contract Documents, and fully understands the meaning of same, and hereby acknowledges that he will comply with all terms, covenants and agreements therein.

Witness our signatures, this the _____ day of _____, 20___.

_____
Contractor

By: _____
Title: _____

_____
Signed and sealed in the presence of: (name and address of witness)

_____
_____

MISSISSIPPI TRANSPORTATION COMMISSION

_____
Executive Director

_____
Secretary to the Commission

Award authorized by the Mississippi Transportation Commission in session on the ____ day of _____, _____, Minute Book No._____, Page No. _____.

For Informational Purposes Only

**SECTION 903**
**PERFORMANCE BOND**

**PERFORMANCE BOND FOR THE FOLLOWING CONTRACT**:
Project No.: _____

For the construction of: _____

Contract date: _____ Contract Price: _____

**FOR OWNER: MISSISSIPPI TRANSPORTATION COMMISSION, 401 N. WEST STREET, JACKSON, MISSISSIPPI 39201.**

**CONTRACTOR** (full legal name, contact person, phone number and address):
_____
_____
_____
_____

**SURETY** (legal name, phone number, principal place of business and address ***for notice purposes***):
_____
_____
_____

Second Surety (if applicable):
_____
_____
_____

The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns, to the Owner for the performance of the Contract, which is incorporated herein by reference, and subject to the following terms:

1. If the Contractor fully and faithfully performs the Contract, the Surety and the Contractor shall have no obligation under this Bond.

2. The Surety's obligation under this Bond shall arise after:
   (a) the Owner first provides notice to the Contractor and the Surety that termination is imminent, pursuant to the current edition of the Mississippi Standard Specifications for Road and Bridge Construction, which is a part of the Contract; and
   (b) the Owner declares a Contractor Default, terminates the Contract, and notifies the Surety.

3. Within 20 calendar days as set forth in Section 108.08 of the current edition of the Mississippi Standard Specifications for Road and Bridge Construction, the Surety shall, after discussions with and consent from the Owner, and at the Surety's expense, elect to take one of the following actions:
   (a) Arrange for the Contractor, with the consent of the Owner, to perform and complete the Contract;
   (b) Undertake to perform and complete the Contract itself, through its agents or independent contractors;
   (c) Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and after investigation, determine the amount for which it may be liable to the Owner (subject to the consent of the Owner) and as soon as practicable after the amount is determined, make payment to the Owner.

For Informational Purposes Only

4. If the Surety does not proceed, within a reasonable time frame, to enact and carry out the election made in Paragraph 3, then the Surety shall be deemed to be in default on this Bond, and the Owner shall be entitled to enforce any remedy available to it under the Contract and applicable law.

5. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for
   (a) the responsibilities of the Contractor for correction of defective work and completion of the Contract;
   (b) additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 3; and
   (c) liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.

6. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

7. The penal sum of the Bond shall be equal to the Contract Price; however, the penal sum may be increased or decreased as the result of any subsequent Supplemental Agreements and/or final contract quantities.

8. Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address listed for notice purposes on the first page of this Bond.

**CONTRACTOR AS PRINCIPAL**
Company: _____

Signature: _____
Name: _____
Title: _____
Address: _____
_____

**SURETY**
Company: _____

Signature: _____ MS Insurance ID # _____
Name: _____
Title: _____
Address: _____
_____

**SURETY** (if applicable)
Company: _____

Signature: _____ MS Insurance ID # _____
Name: _____
Title: _____
Address: _____
_____

For Informational Purposes Only

**SECTION 903**
**PAYMENT BOND**

**PAYMENT BOND FOR THE FOLLOWING CONTRACT**:
Project No.: _____

For the construction of: _____

Contract date: _____ Contract Price: _____

**FOR OWNER: MISSISSIPPI TRANSPORTATION COMMISSION, 401 N. WEST STREET, JACKSON, MISSISSIPPI 39201.**

**CONTRACTOR** (full legal name, contact person, phone number and address):
_____
_____
_____

**SURETY** (legal name, phone number, principal place of business and address ***for notice purposes***):
_____
_____
_____
Second Surety (if applicable):
_____
_____
_____

The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns, to the Owner for payment of labor, materials and equipment furnished for use in the performance of the Contract, which is incorporated herein by reference, subject to the following terms:

1. If the Contractor promptly makes payment of all sums due to any and all subcontractors, sub-subcontractors, suppliers to the Contractor, suppliers to subcontractors and/or laborers who have performed work on the project site, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Contract, then the Surety and the Contractor shall have no obligation under this Bond.

2. The Owner shall provide notice to the Surety of any claims, demands, liens or suits against the Owner or the Owner's property that it receives from any person or entity ("Claimants") seeking payment for labor, materials or equipment furnished for use in the performance of the Contract.

3. Upon notice of any claims, demands, liens or suits provided by the Owner or Contractor or given to the Surety by a Claimant, the Surety shall promptly and at the Surety's expense, defend, indemnify and hold harmless the Owner against said claim, demand, lien or suit and shall take the following additional actions:
    (a) Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
    (b) Pay or arrange for payment of any undisputed amounts.

For Informational Purposes Only

4. The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond and shall have no obligation under this Bond to make payments to, or give notice on behalf of, Claimants, or otherwise have any obligations to Claimants under this Bond.

5. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders and other obligations.

6. The penal sum of the Bond shall be equal to the Contract Price; however, the penal sum may be increased or decreased as the result of any subsequent Supplemental Agreements and/or final contract quantities.

**CONTRACTOR AS PRINCIPAL**
Company: _____

Signature: _____
Name: _____
Title: _____
Address: _____
_____

**SURETY**
Company: _____

Signature: _____ MS Insurance ID # _____
Name: _____
Title: _____
Address: _____
_____

**SURETY** (if applicable)
Company: _____

Signature: _____ MS Insurance ID # _____
Name: _____
Title: _____
Address: _____
_____

For Informational Purposes Only

# BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we_____
Contractor

_____
Address

_____
City, State ZIP

As principal, hereinafter called the Principal, and _____
Surety

a corporation duly organized under the laws of the state of _____

as Surety, hereinafter called the Surety, are held and firmly bound unto **State of Mississippi, Jackson, Mississippi**

As Obligee, hereinafter called Obligee, in the sum of **Five Per Cent (5%) of Amount Bid**

Dollars($_____)

for the payment of which sum will and truly to be made, the said Principal and said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for **OGFC lift approximately 7.3 miles on I-55 from Church Road to Heindl Road, Bridge Repair on I-55 over Church Road (Bridge Nos. 112.3A , 112.3B) & Fog Seal approximately 7.2 miles on I-55 from Hiendl Road to the Yazoo County Line, known as Federal Aid Project Nos. IM-0055-02 (291) / 110067301, NHPP-0055-02(287) / 110043301 & IM-0055-02(292) / 110068301 in Madison County.**

NOW THEREFORE, the condition of this obligation is such that if the aforesaid Principal shall be awarded the contract, the said Principal will, within the time required, enter into a formal contract and give a good and sufficient bond to secure the performance of the terms and conditions of the contract, then this obligation to be void; otherwise the Principal and Surety will pay unto the Obligee the difference in money between the amount of the bid of the said Principal and the amount for which the Obligee legally contracts with another party to perform the work if the latter amount be in excess of the former, but in no event shall liability hereunder exceed the penal sum hereof.

Signed and sealed this _____day of _____, 20___

_____
(Principal) (Seal)

_____ By:_____
(Witness) (Name) (Title)

_____
(Surety) (Seal)

_____ By:_____
(Witness) (Attorney-in-Fact)

_____
(MS Agent)

_____
Mississippi Insurance ID Number

FORM CSD-612
Rev. 1 / 2015

YEAR 2027 PROGRESS SCHEDULE YEAR 2028

PROJECT NUMBER: IM-0055-02(291)/110067-301, IM-0055-02(292)/110068-301, NHPP-0055-02(287)/110043-301
COUNTY: Madison

| WORK PHASE NO. | DESCRIPTION | LINE NUMBERS | JAN | FEB | MAR | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOV | DEC | JAN | FEB | MAR | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOV | DEC | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Miscellaneous | 10-120,140-220,300-430,530, 560-590,690 | | | 0 | | | | | | | 129 | | | | | | | | | | | | | | | |
| 2 | Milling & Pavement | 130,440-520,540-550 | | | 5 | | | | | | | 126 | | | | | | | | | | | | | | | |
| 3 | Bridge Repair | 700-860 | | | | | | 42 | | | 91 | | | | | | | | | | | | | | | | |
| 4 | Pavement Markings | 230-290,600-680 | | | | | | | | | | 126 | 129 | | | | | | | | | | | | | | |
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| | LET: | 11/24/2026 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NOA: | 12/8/2026 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NTP/BCT: | 3/10/2027 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | W.D.: | 129 | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MONTH | | | JAN | FEB | MAR | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOV | DEC | JAN | FEB | MAR | APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOV | DEC | 172 WORKING DAYS PER YEAR |
| ANTICIPATED WORKING DAYS PER MONTH | | | 6 | 7 | 11 | 15 | 19 | 20 | 21 | 21 | 20 | 16 | 11 | 5 | 6 | 7 | 11 | 15 | 19 | 20 | 21 | 21 | 20 | 16 | 11 | 5 | |

**NOTE: THE ANTICIPATED WORKING DAYS SHOWN ON THIS SCHEDULE ARE FOR INFORMATIONAL PURPOSES ONLY.**
**THE ACTUAL WORKING DAY TOTAL AS ASSESSED BY THE PROJECT ENGINEER ON FORM CSD-765 SHALL GOVERN.**