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18 -



SM No. CMP6049180251

PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

18

Mill & Overlay approximately 6 miles of US 49 from Myers Creek to US 11, known as State Project No. MP-6049-18(025) / 308565301 in Forrest County.

Project Completion: Flexible

(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
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PROJECT: MP-6049-18(025)/308565301 - Forrest

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

04/27/2023 11:57 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, May 23, 2023, from the Bid Express Service and shortly thereafter publicly read on the Sixth Floor for:

Mill & Overlay approximately 6 miles of US 49 from Myers Creek to US 11, known as State Project No. MP-6049-18(025) / 308565301 in Forrest County.

The attention of bidders is directed to the predetermined minimum wage rate set by the U. S. Department of Labor under the Fair Labor Standards Act.

The Mississippi Department of Transportation hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, age, disability, religion or national origin in consideration for an award.

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. 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 as 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. 9

CODE: (IS)

DATE: 03/01/2017

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

http://www.ops.fhwa.dot.gov/Freight/publications/brdg_frm_wgths/bridge_formula_all_rev.pdf

An on line **BRIDGE FORMULA WEIGHTS CALCULATOR** is available at

http://ops.fhwa.dot.gov/freight/sw/brdgcalc/calc_page.htm

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').



MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 113

CODE: (SP)

DATE: 04/18/2017

SUBJECT: Tack Coat

Bidders are advised that in addition to the products listed on the Department's APL as referenced in Subsection 401.03.1.2 on page 256, the Contractor may use one of the following as a tack coat.

- CSS-1
- CSS-1h
- SS-1
- SS-1h

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. 446

CODE: (SP)

DATE: 10/18/2017

SUBJECT: Traffic on Milled Surface in Urban Areas

Bidders are hereby advised that when the main lanes of a roadway are fine milled, traffic will be allowed to run on a milled surfaces for up to five (5) calendar days. The Contractor will be assessed a penalty of **\$5,000 per calendar day** afterwards until the milled surfaces are covered with the next lift of asphalt. It shall be the Contractor's responsibility to ensure that the milling operations do not commence until such time as forecasted weather conditions are suitable enough to allow the placement of the asphalt pavement after the milling operations.

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

<u>Page</u>	<u>Subsection</u>	<u>Change</u>
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.

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.



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.



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:

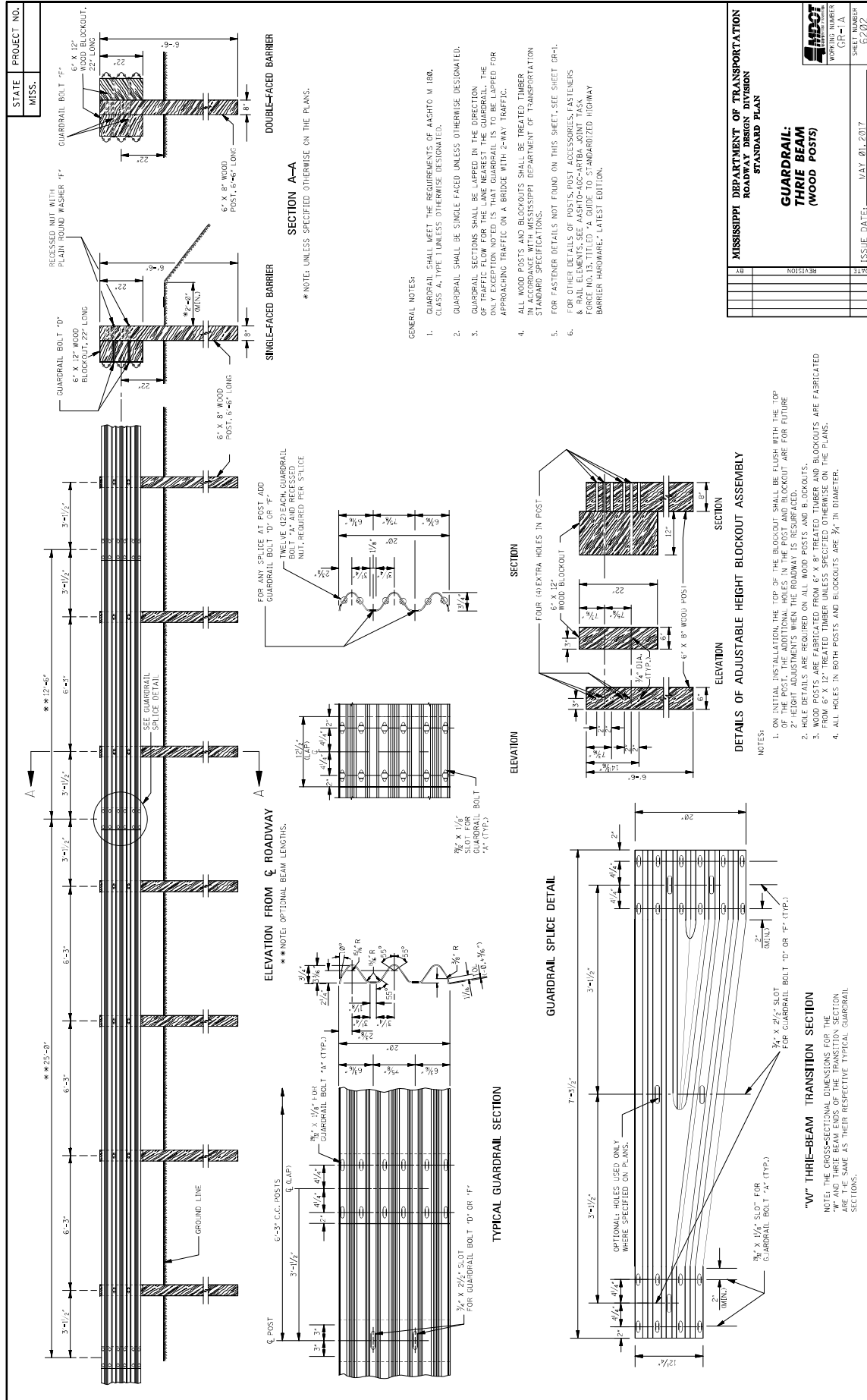
- Brown background sheeting on guide signs shall be a minimum Type VIII sheeting,
- Green and blue background sheeting on guide signs shall be a minimum Type IX sheeting, and
- All white, yellow, red, fluorescent yellow, and fluorescent yellow/green sheeting shall be Type XI sheeting.

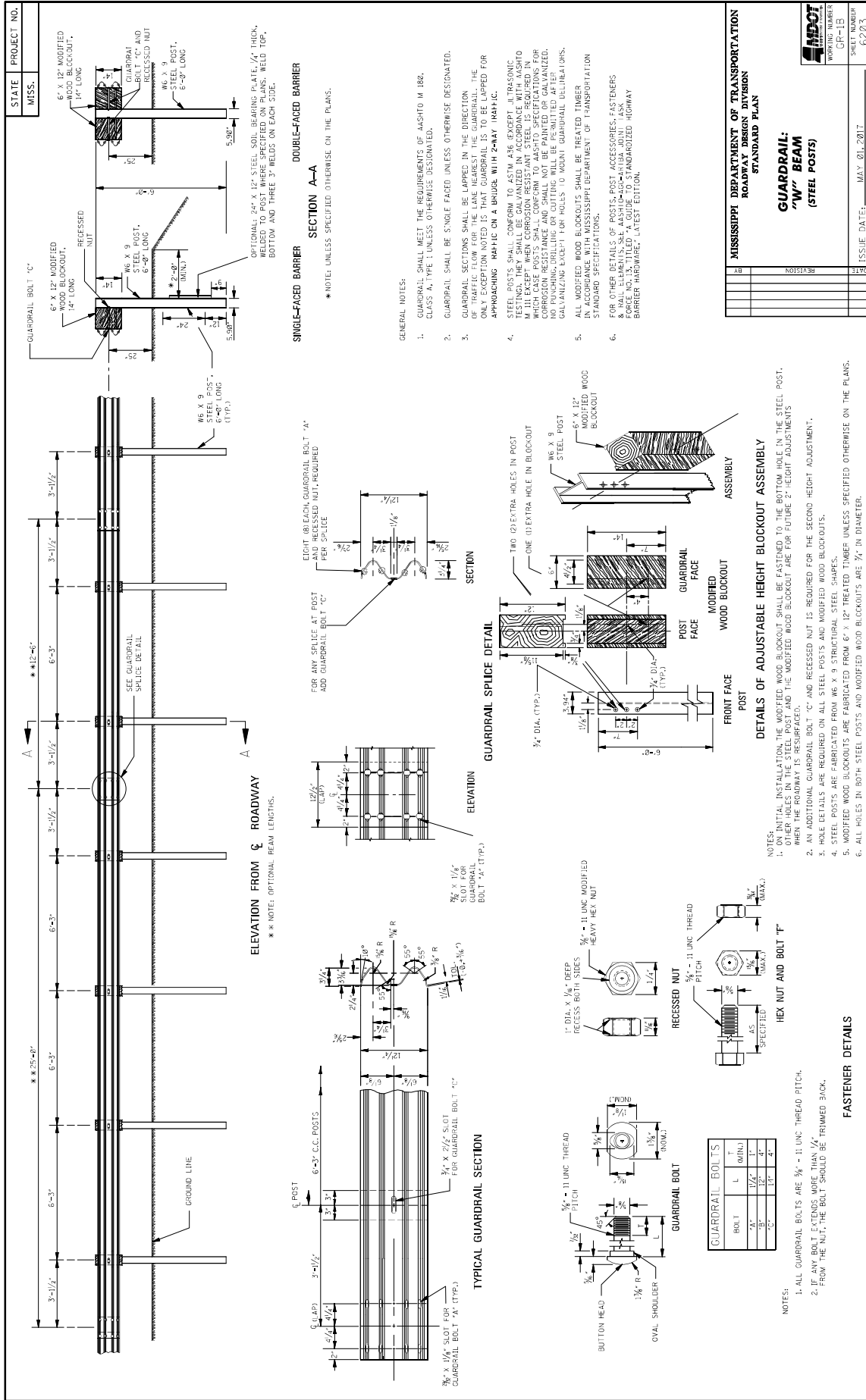
MISSISSIPPI DEPARTMENT OF TRANSPORTATION

| **SUPPLEMENT TO NOTICE TO BIDDERS NO. 3599**

| **DATE: 08/11/2021**

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





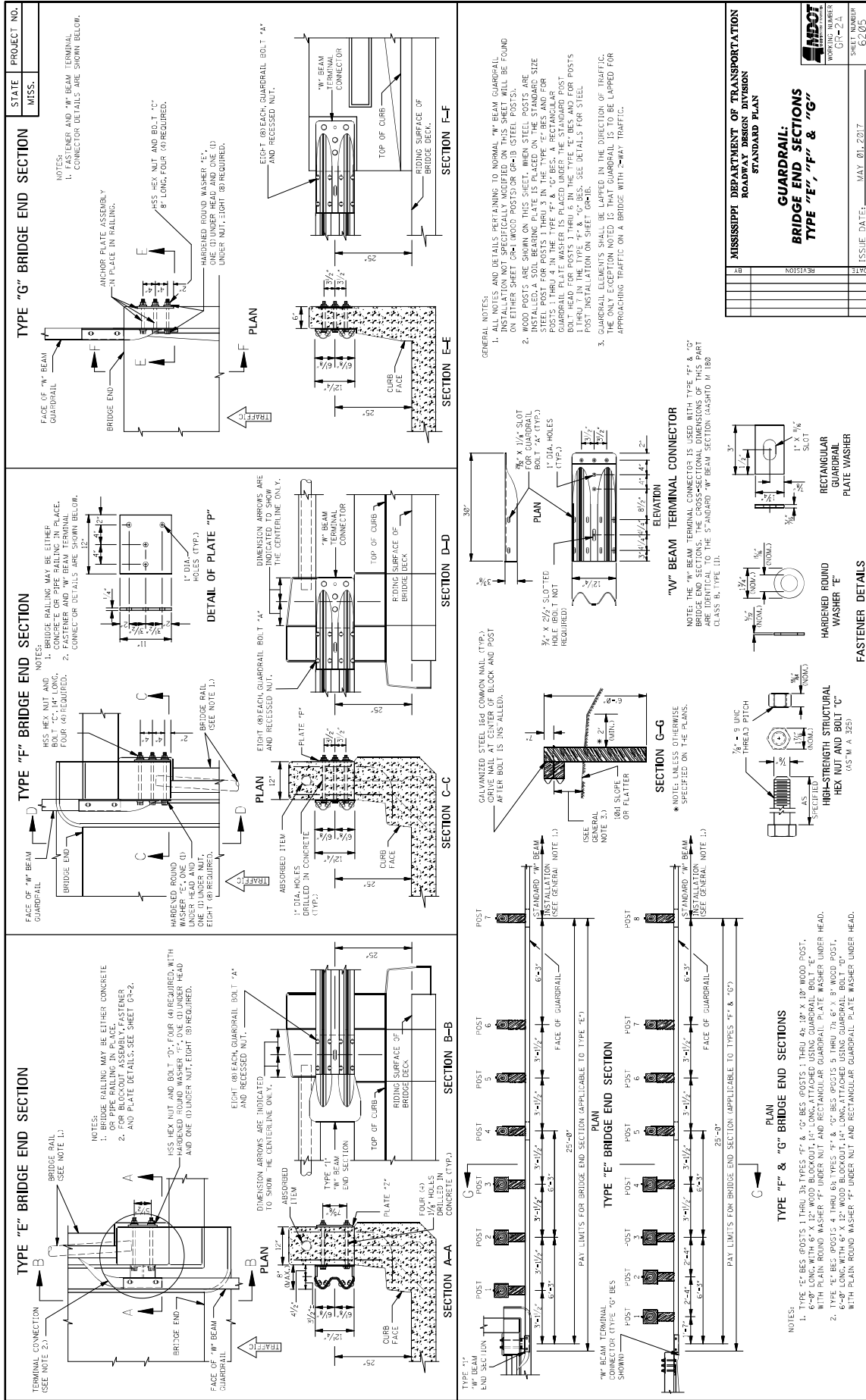
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

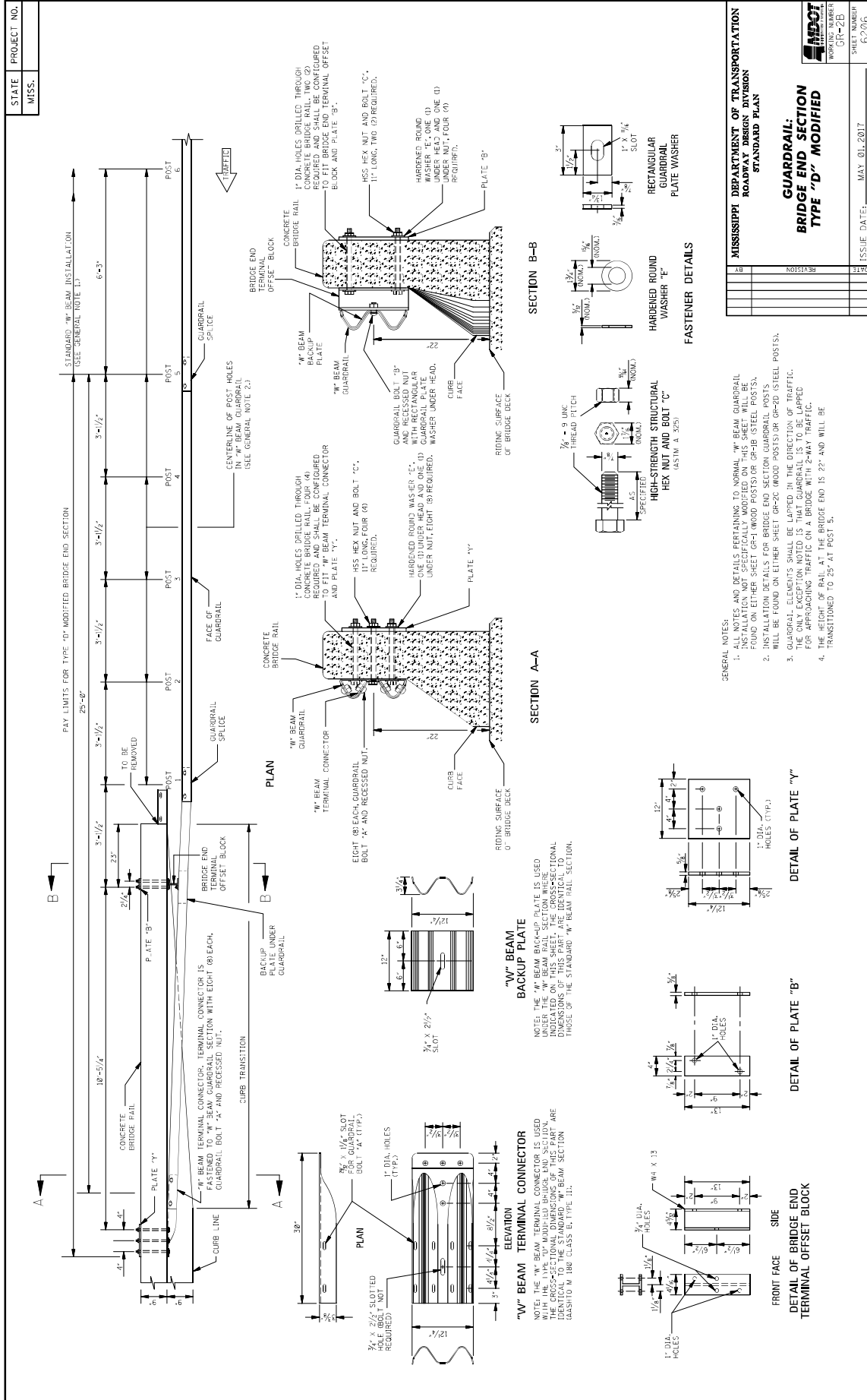
GUARDRAIL:
"W" BEAM
(STEEL POSTS)

WORKING NUMBER
GT-15

SHEET NUMBER
6283

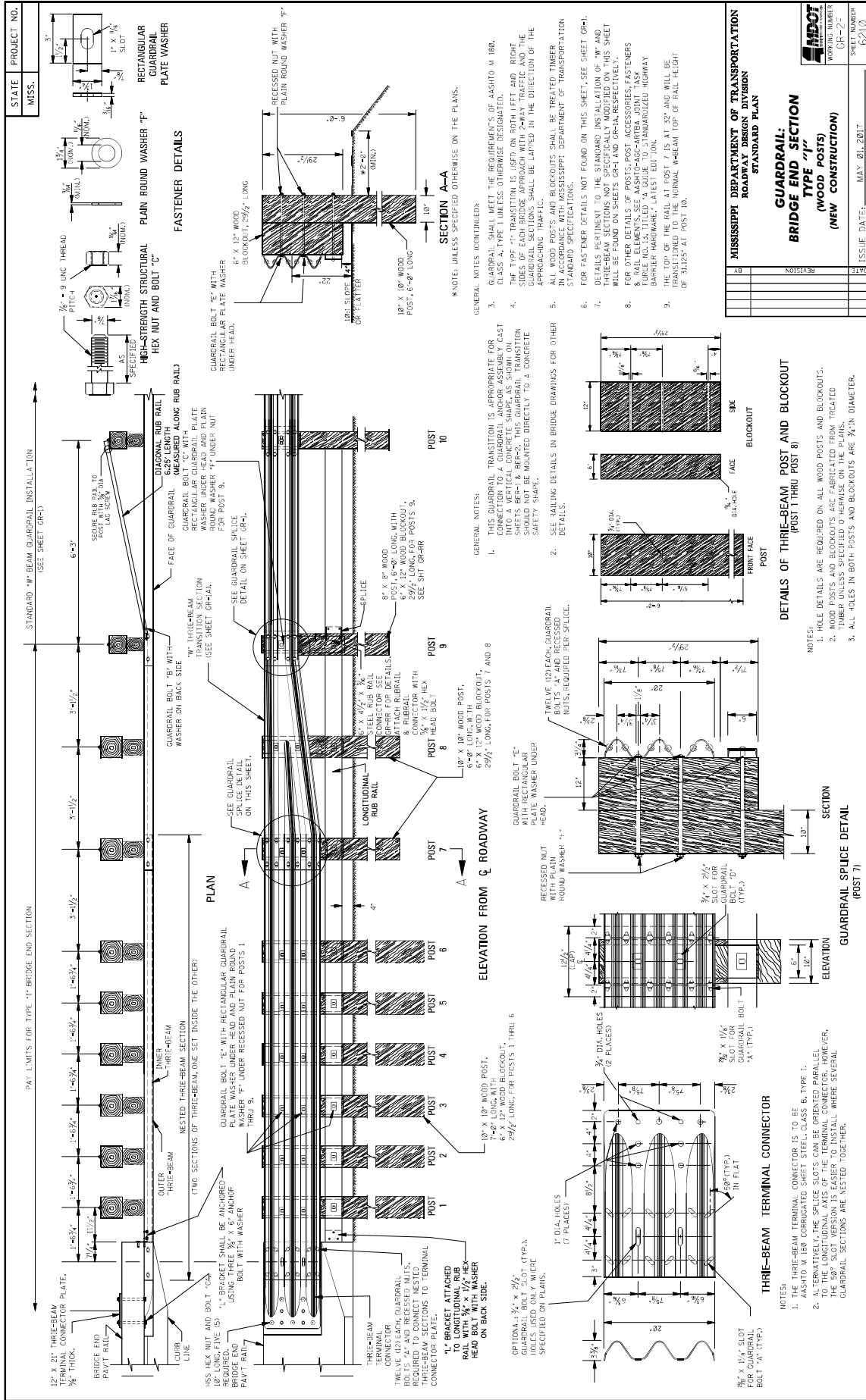
ISSUE DATE: MAY 01, 2011

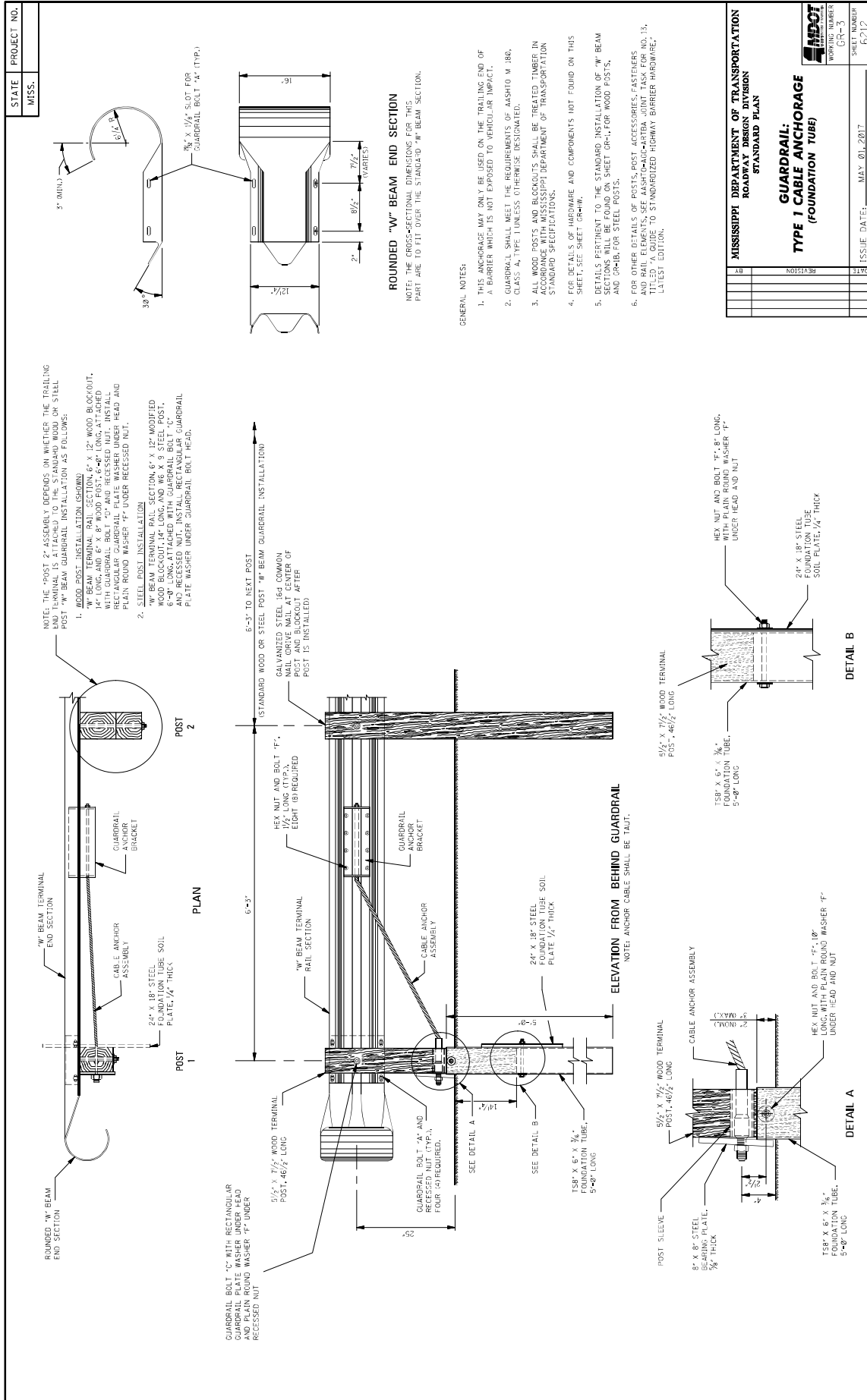


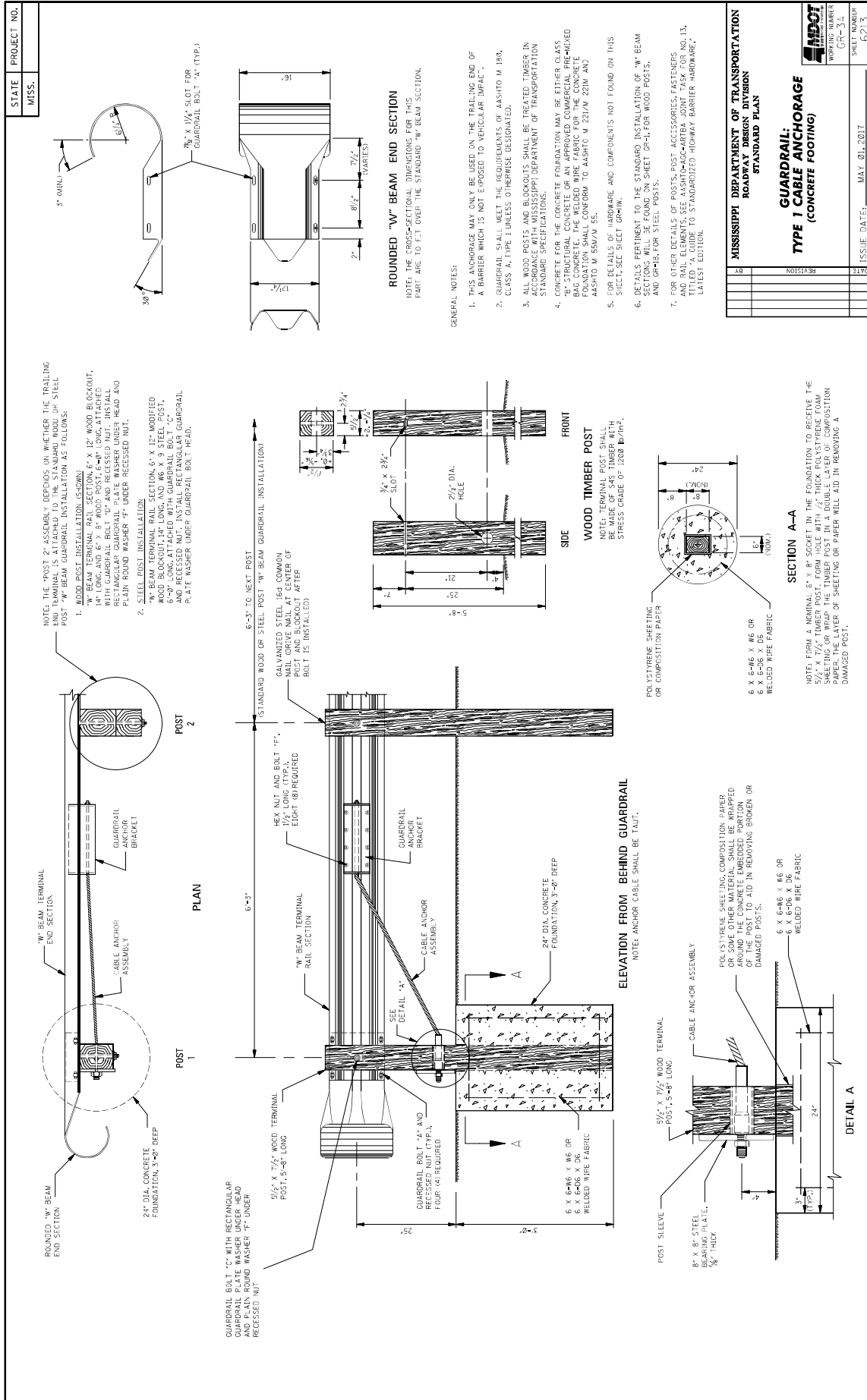


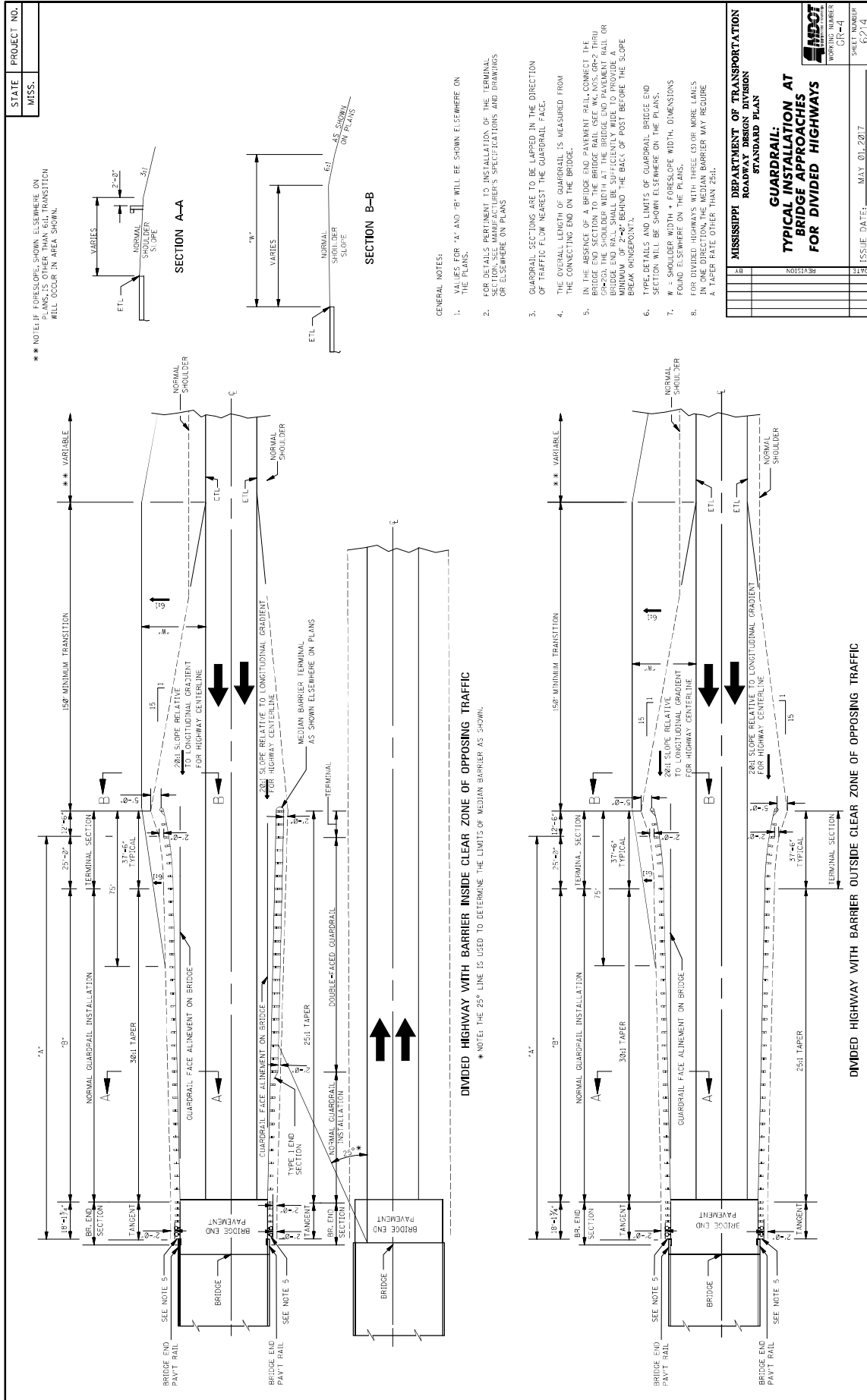
MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION STANDARD PLAN	
DATE	REVISION
ISSUE DATE: MAY 01, 2017	
SHEET NUMBER GT-2B	
SHET NUMBER 02-206	

**GUARDRAIL:
BRIDGE END SECTION
TYPE "D" MODIFIED**









STATE MISS.

PROJECT NO.

"W" BEAM TERMINAL CONNECTOR PLATE

NOTES:

- THE "W" BEAM TERMINAL CONNECTOR IS TO BE AASHTO M 189 CORRUGATED SHEET STEEL, CLASS B, TYPE 1.
- SPACER-BOLT SLOTS MAY ALSO BE ORIENTED AT 50° FROM THE PLATE INSTEAD OF 8° AS SHOWN.

STEEL TUBE ANCHOR

NOTE: TERMINAL POST SHOULD BE ABLE TO SLIDE INSIDE TUBE. THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7/8" X 5/8".

TERMINAL POST FOR FOUNDATION TUBE INSTALLATION

NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH 2 STRESS GRADE OF 2000 LBS/IN².

BEARING PLATE

2-3/8" DIA. HOLES FOR 1/4" COMMON NAILS

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

ANCHOR PLATE ASSEMBLY DETAILS

8" - HEX NUT AND BOLT "H", 1/2" LONG, WITH 8" PLAIN ROUND WASHER "H" UNDER HEAD

CABLE ANCHOR ASSEMBLY

1" - 8 UNC THREAD PITCH (BOTH ENDS)

1/2" DIA. 16 X 130 CABLE CABLE TO BE SWAGE-CONNECTED.

STANDARD SWAGED FITTING AND STUD (STUD THREADED ENTIRE LENGTH)

PLAIN ROUND WASHER "H"

HEX NUT "H"

SHELF ANGLE BRACKET

BREAKAWAY TERMINAL POST SLEEVE

END PLATE

1/4" DIA. HOLE

PLAN ROUND WASHER

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"

GUARDRAIL BOLT

3/4" - 11 UNC THREAD

1 1/2" X 1/4" (NOM.)

1 1/2" X 1/4" (NOM.)

1 1/2" X 1/4" (NOM.)

RECESSED NUT

3/4" - 11 UNC THREAD

HEX NUT AND BOLT "H"

HEX NUT AND BOLT "H"

1 1/2" - 8 UNC THREAD PITCH

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

PLAIN ROUND WASHERS

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"

GUARDRAIL BOLT

GUARDRAIL BOLTS	L (MIN)	T (MIN)
1/2"	1 1/2"	1 1/2"
3/4"	1 3/4"	1 3/4"
1"	1 5/8"	1 5/8"
1 1/4"	1 3/4"	1 3/4"
1 1/2"	1 3/4"	1 3/4"

NOTE: 1. ALL GUARDRAIL BOLTS ARE 3/4" - 11 UNC
 2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

ANCHOR PLATE

15"

3/4" DIA. HOLES (6" X 12 1/2" X 3/8")

WELD END PLATE TO BRACKET

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

BEARING PLATE

2-3/8" DIA. HOLES FOR 1/4" COMMON NAILS

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

STEEL TUBE ANCHOR

NOTE: TERMINAL POST SHOULD BE ABLE TO SLIDE INSIDE TUBE. THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7/8" X 5/8".

TERMINAL POST FOR FOUNDATION TUBE INSTALLATION

NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH 2 STRESS GRADE OF 2000 LBS/IN².

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

ANCHOR PLATE ASSEMBLY DETAILS

8" - HEX NUT AND BOLT "H", 1/2" LONG, WITH 8" PLAIN ROUND WASHER "H" UNDER HEAD

CABLE ANCHOR ASSEMBLY

1" - 8 UNC THREAD PITCH (BOTH ENDS)

1/2" DIA. 16 X 130 CABLE CABLE TO BE SWAGE-CONNECTED.

STANDARD SWAGED FITTING AND STUD (STUD THREADED ENTIRE LENGTH)

PLAIN ROUND WASHER "H"

HEX NUT "H"

SHELF ANGLE BRACKET

BREAKAWAY TERMINAL POST SLEEVE

END PLATE

1/4" DIA. HOLE

PLAN ROUND WASHER

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"

GUARDRAIL BOLT

3/4" - 11 UNC THREAD

1 1/2" X 1/4" (NOM.)

1 1/2" X 1/4" (NOM.)

1 1/2" X 1/4" (NOM.)

RECESSED NUT

3/4" - 11 UNC THREAD

HEX NUT AND BOLT "H"

HEX NUT AND BOLT "H"

1 1/2" - 8 UNC THREAD PITCH

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

PLAIN ROUND WASHERS

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"

GUARDRAIL BOLT

GUARDRAIL BOLTS	L (MIN)	T (MIN)
1/2"	1 1/2"	1 1/2"
3/4"	1 3/4"	1 3/4"
1"	1 5/8"	1 5/8"
1 1/4"	1 3/4"	1 3/4"
1 1/2"	1 3/4"	1 3/4"

NOTE: 1. ALL GUARDRAIL BOLTS ARE 3/4" - 11 UNC
 2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

ANCHOR PLATE

15"

3/4" DIA. HOLES (6" X 12 1/2" X 3/8")

WELD END PLATE TO BRACKET

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

BEARING PLATE

2-3/8" DIA. HOLES FOR 1/4" COMMON NAILS

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

STEEL TUBE ANCHOR

NOTE: TERMINAL POST SHOULD BE ABLE TO SLIDE INSIDE TUBE. THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7/8" X 5/8".

TERMINAL POST FOR FOUNDATION TUBE INSTALLATION

NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH 2 STRESS GRADE OF 2000 LBS/IN².

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

ANCHOR PLATE ASSEMBLY DETAILS

8" - HEX NUT AND BOLT "H", 1/2" LONG, WITH 8" PLAIN ROUND WASHER "H" UNDER HEAD

CABLE ANCHOR ASSEMBLY

1" - 8 UNC THREAD PITCH (BOTH ENDS)

1/2" DIA. 16 X 130 CABLE CABLE TO BE SWAGE-CONNECTED.

STANDARD SWAGED FITTING AND STUD (STUD THREADED ENTIRE LENGTH)

PLAIN ROUND WASHER "H"

HEX NUT "H"

SHELF ANGLE BRACKET

BREAKAWAY TERMINAL POST SLEEVE

END PLATE

1/4" DIA. HOLE

PLAN ROUND WASHER

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"

GUARDRAIL BOLT

3/4" - 11 UNC THREAD

1 1/2" X 1/4" (NOM.)

1 1/2" X 1/4" (NOM.)

1 1/2" X 1/4" (NOM.)

RECESSED NUT

3/4" - 11 UNC THREAD

HEX NUT AND BOLT "H"

HEX NUT AND BOLT "H"

1 1/2" - 8 UNC THREAD PITCH

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

PLAIN ROUND WASHERS

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"

GUARDRAIL BOLT

GUARDRAIL BOLTS	L (MIN)	T (MIN)
1/2"	1 1/2"	1 1/2"
3/4"	1 3/4"	1 3/4"
1"	1 5/8"	1 5/8"
1 1/4"	1 3/4"	1 3/4"
1 1/2"	1 3/4"	1 3/4"

NOTE: 1. ALL GUARDRAIL BOLTS ARE 3/4" - 11 UNC
 2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

ANCHOR PLATE

15"

3/4" DIA. HOLES (6" X 12 1/2" X 3/8")

WELD END PLATE TO BRACKET

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

BEARING PLATE

2-3/8" DIA. HOLES FOR 1/4" COMMON NAILS

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

STEEL TUBE ANCHOR

NOTE: TERMINAL POST SHOULD BE ABLE TO SLIDE INSIDE TUBE. THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7/8" X 5/8".

TERMINAL POST FOR FOUNDATION TUBE INSTALLATION

NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH 2 STRESS GRADE OF 2000 LBS/IN².

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

ANCHOR PLATE ASSEMBLY DETAILS

8" - HEX NUT AND BOLT "H", 1/2" LONG, WITH 8" PLAIN ROUND WASHER "H" UNDER HEAD

CABLE ANCHOR ASSEMBLY

1" - 8 UNC THREAD PITCH (BOTH ENDS)

1/2" DIA. 16 X 130 CABLE CABLE TO BE SWAGE-CONNECTED.

STANDARD SWAGED FITTING AND STUD (STUD THREADED ENTIRE LENGTH)

PLAIN ROUND WASHER "H"

HEX NUT "H"

SHELF ANGLE BRACKET

BREAKAWAY TERMINAL POST SLEEVE

END PLATE

1/4" DIA. HOLE

PLAN ROUND WASHER

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"

GUARDRAIL BOLT

3/4" - 11 UNC THREAD

1 1/2" X 1/4" (NOM.)

1 1/2" X 1/4" (NOM.)

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RECESSED NUT

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HEX NUT AND BOLT "H"

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HEX NUT "H"

PLAIN ROUND WASHERS

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"

GUARDRAIL BOLT

GUARDRAIL BOLTS	L (MIN)	T (MIN)
1/2"	1 1/2"	1 1/2"
3/4"	1 3/4"	1 3/4"
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1 1/4"	1 3/4"	1 3/4"
1 1/2"	1 3/4"	1 3/4"

NOTE: 1. ALL GUARDRAIL BOLTS ARE 3/4" - 11 UNC
 2. IF ANY BOLT EXTENDS MORE THAN 1/4" FROM THE NUT, THE BOLT SHOULD BE TRIMMED BACK.

ANCHOR PLATE

15"

3/4" DIA. HOLES (6" X 12 1/2" X 3/8")

WELD END PLATE TO BRACKET

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

BEARING PLATE

2-3/8" DIA. HOLES FOR 1/4" COMMON NAILS

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

STEEL TUBE ANCHOR

NOTE: TERMINAL POST SHOULD BE ABLE TO SLIDE INSIDE TUBE. THE ACTUAL INSIDE DIMENSIONS OF THIS GALVANIZED TUBE CANNOT BE LESS THAN 7/8" X 5/8".

TERMINAL POST FOR FOUNDATION TUBE INSTALLATION

NOTE: TERMINAL POST SHALL BE MADE OF S4S TIMBER WITH 2 STRESS GRADE OF 2000 LBS/IN².

SOIL PLATE

1/4" THICK PLATE

NOTE: 2 REQUIRED

RECTANGULAR GUARDRAIL PLATE WASHER

1 1/2" DIA. X 1/4" DEEP RECESS BOTH SIDES

3/4" - 11 UNC MODIFIED HEAVY-HEX NUT

1 1/2" X 3/4" X 1/4" (NOM.)

HEX NUT "H"

ANCHOR PLATE ASSEMBLY DETAILS

8" - HEX NUT AND BOLT "H", 1/2" LONG, WITH 8" PLAIN ROUND WASHER "H" UNDER HEAD

CABLE ANCHOR ASSEMBLY

1" - 8 UNC THREAD PITCH (BOTH ENDS)

1/2" DIA. 16 X 130 CABLE CABLE TO BE SWAGE-CONNECTED.

STANDARD SWAGED FITTING AND STUD (STUD THREADED ENTIRE LENGTH)

PLAIN ROUND WASHER "H"

HEX NUT "H"

SHELF ANGLE BRACKET

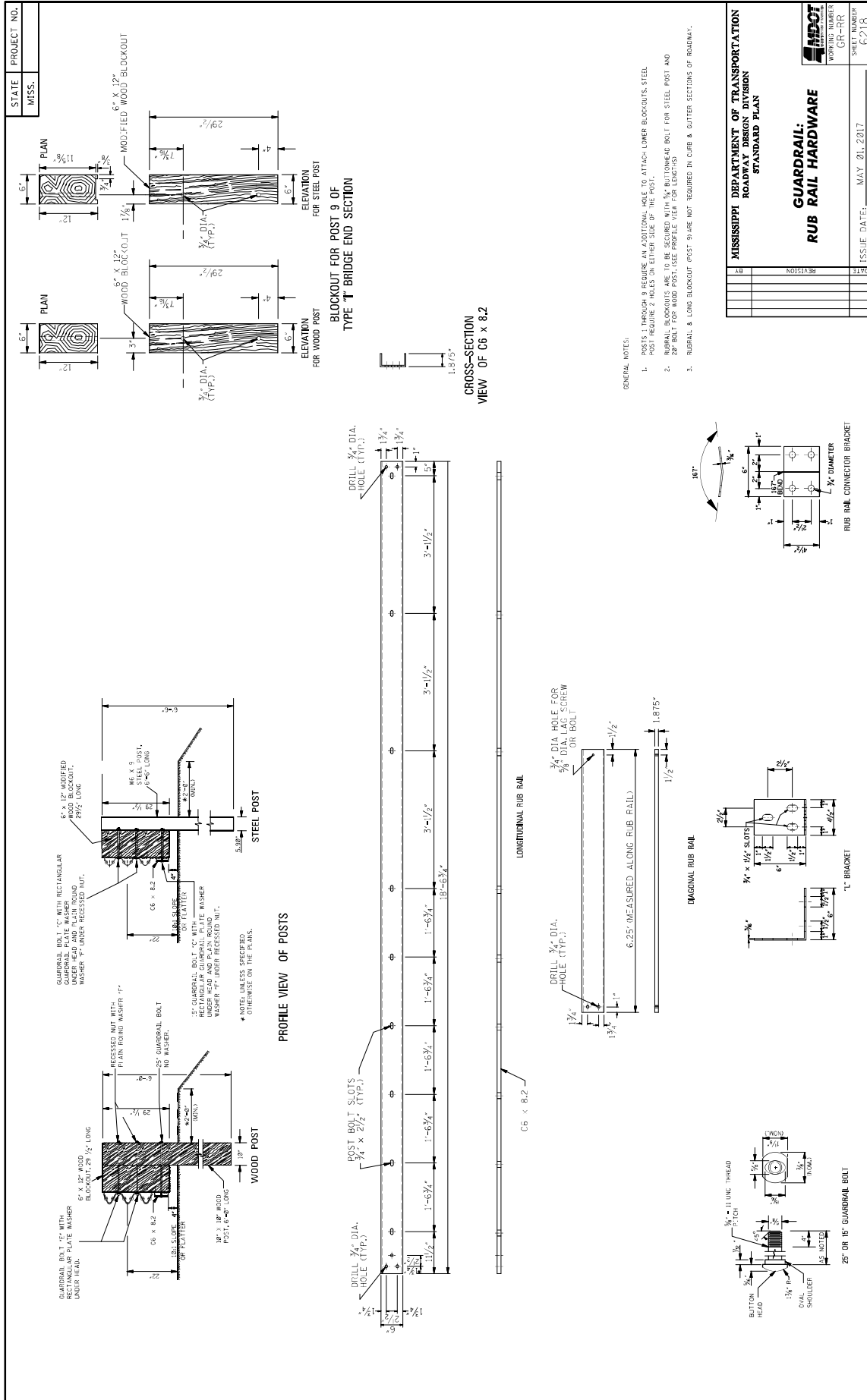
BREAKAWAY TERMINAL POST SLEEVE

END PLATE

1/4" DIA. HOLE

PLAN ROUND WASHER

PLAIN ROUND WASHER	A (NOM.)	B (NOM.)	C (NOM.)
1/4"	1/4"	1/4"	1/4"
3/8"	3/8"	3/8"	3/8"
1/2"	1/2"	1/2"	1/2"
3/4"	3/4"	3/4"	3/4"
1"	1"	1"	1"



MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 – NOTICE TO BIDDERS NO. 3599

CODE: (SP)

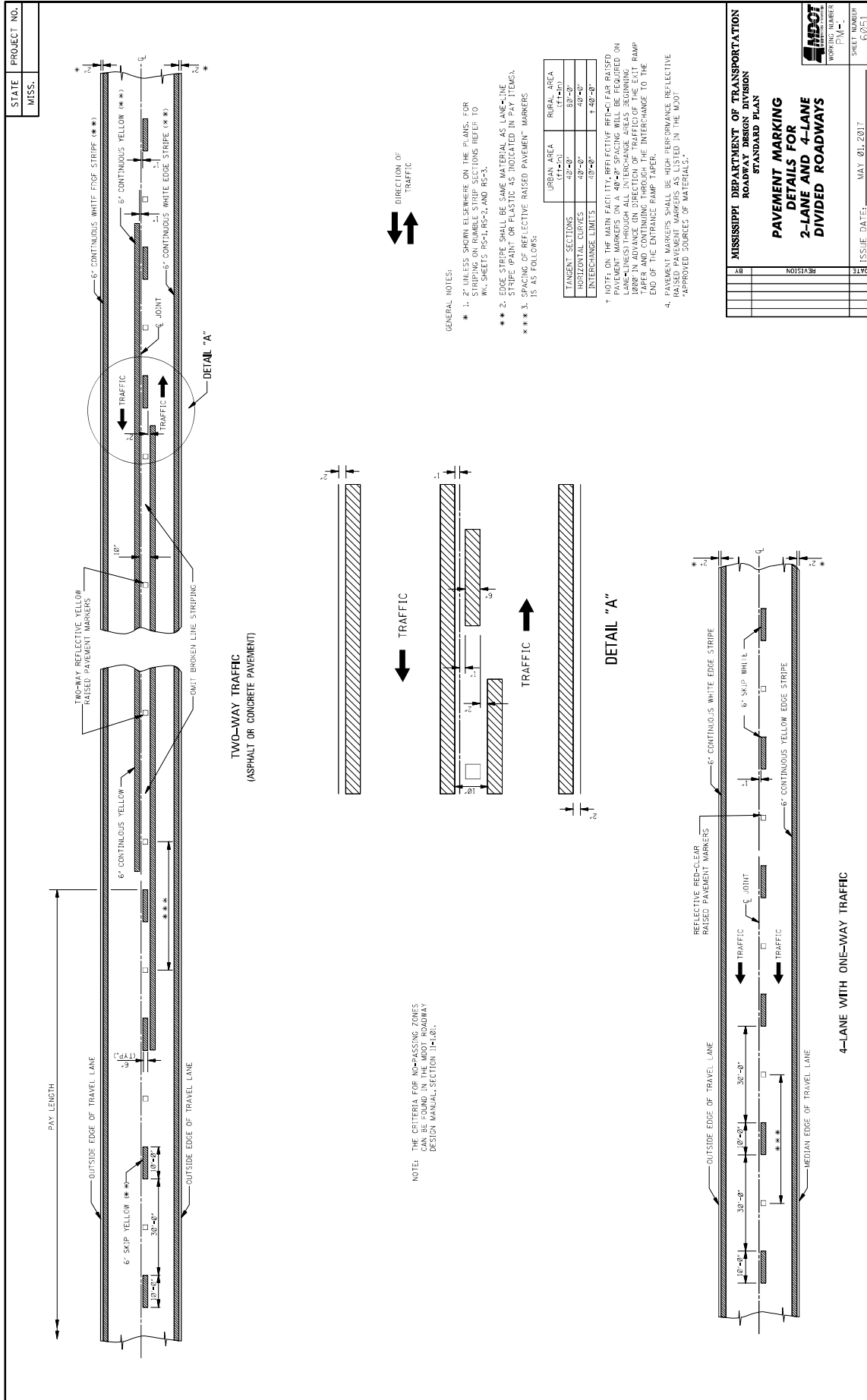
DATE: 08/11/2021

SUBJECT: Standard Drawings

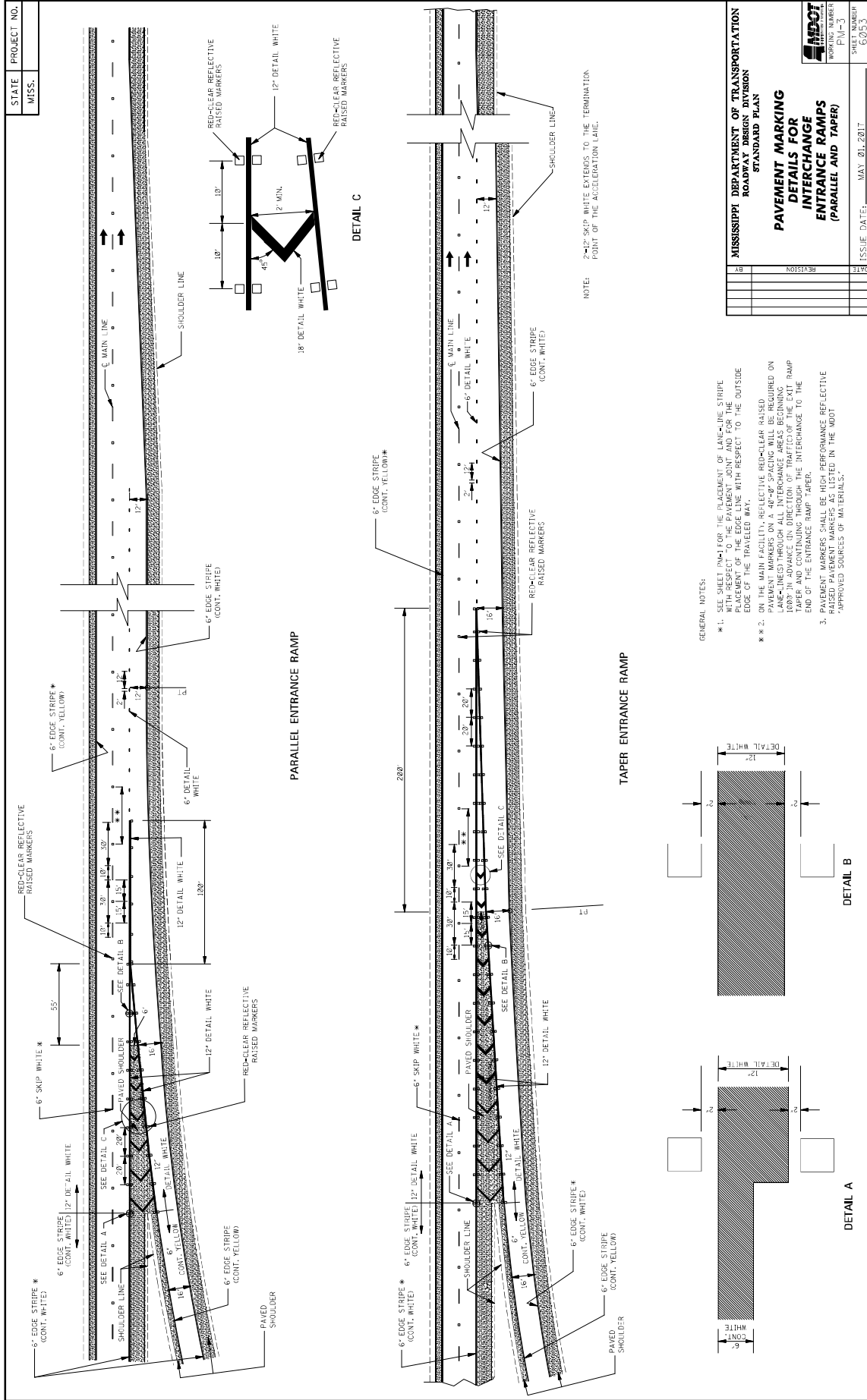
Standard Drawings attached hereto shall govern appropriate items of required work.

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

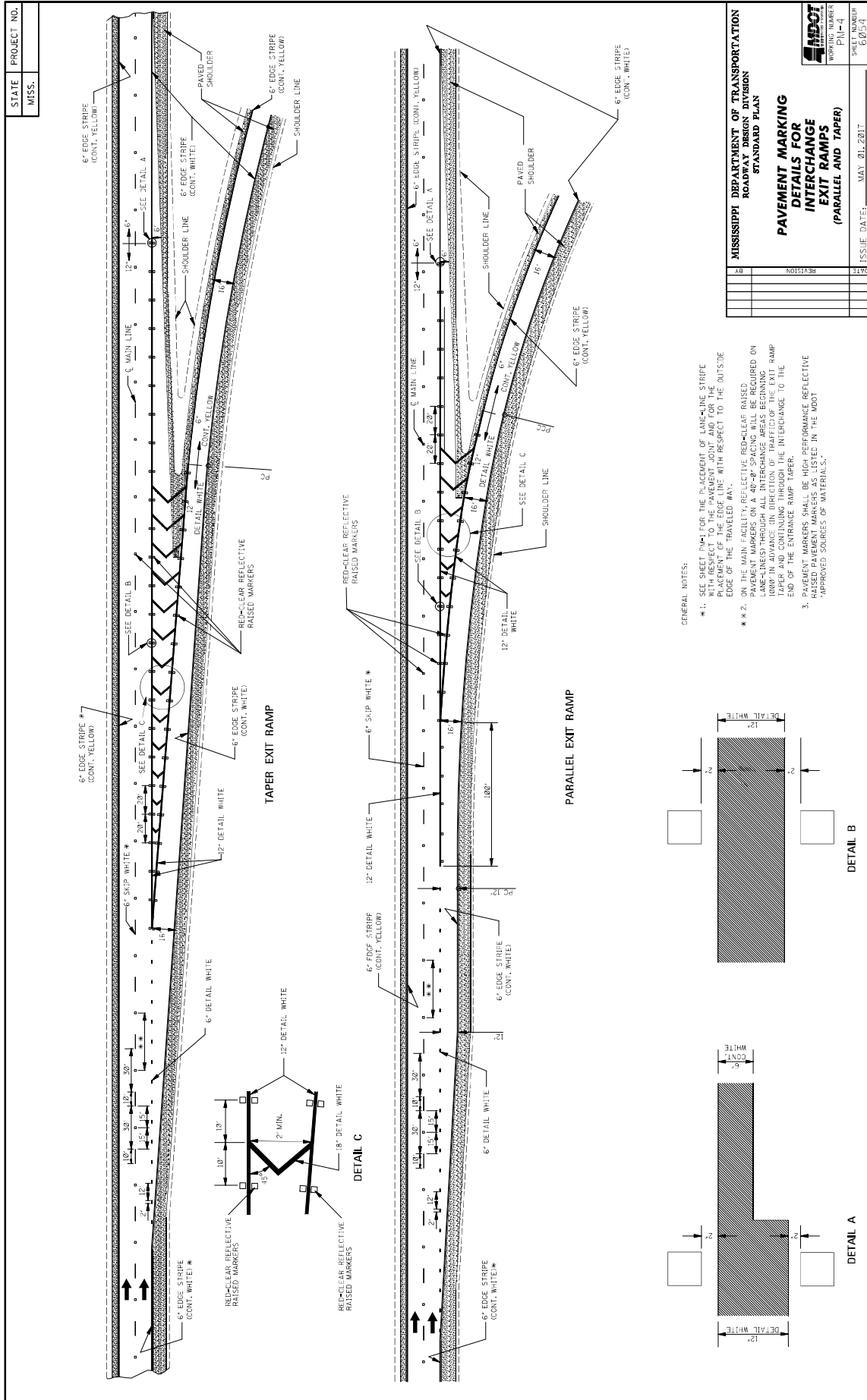


MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
ROADWAY DESIGN DIVISION	
STANDARD PLAN	
PAVEMENT MARKING	
2-LANE AND 4-LANE	
DIVIDED ROADWAYS	
DATE	ISSUE DATE: MAY 01, 2017
BY	SHEET NUMBER 6001
REVISION	WORKING NUMBER P.M.-



MISSISSIPPI DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN DIVISION	
BY	REVISION
DATE	
SHEET NUMBER	60353
WORKING NUMBER	FM-3
ISSUE DATE:	MAY 20, 2017

**PAVEMENT MARKING
DETAILS FOR
INTERCHANGE RAMP
(PARALLEL AND TAPER)**



MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
ROADWAY DESIGN DIVISION	
STANDARD PLAN	
PAVEMENT MARKING	
INTERCHANGE	
EXIT RAMPS	
(PARALLEL AND TAPER)	
SHEET NUMBER	PL-4
WORKING NUMBER	672/3-1
ISSUE DATE:	MAY 01, 2017
DATE	REVISION

- GENERAL NOTES:
- * 1. SEE SHEET PM-1 FOR THE PLACEMENT OF LANE-LINE STRIPE WITH RESPECT TO THE PAVEMENT JOINT AND FOR THE PLACE OF THE 6" EDGE STRIPE WITH RESPECT TO THE OUTSIDE EDGE OF THE PAVED SHOULDER.
 - ** 2. THE RAISED REFLECTIVE ROADWAY MARKERS (PAVEMENT MARKERS ON A 40"-64" SPACING) WILL BE REQUIRED ON 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. RAISED PAVEMENT MARKERS BE HIGH PERFORMANCE REFLECTIVE "APPROVED SOURCES OF MATERIALS."

STATE MISS.	PROJECT NO.										
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STOP

RIGHT

AHEAD

SCHOOL

LEFT

YIELD

TRAFFIC

EXIT

SIGNAL

GENERAL NOTES:

- TWO HORIZONTAL GAPS (USED BY TEMPLATE CONNECTIONS) OF 1/2" SHALL BE EXTENDING FULL WIDTH OF RESPECTIVE LETTER.
- FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

LEGEND	AREA (sq ft)
STOP	24.6
RIGHT	28.6
LEFT	19.5
YIELD	27.2
AHEAD	32.4
YIELD	26.8
EXIT	18.5
SIGNAL	32.5
SCHOOL	35.2

**MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN**

**PAVEMENT MARKING
LEGEND DETAILS**

DATE	ISSUE DATE: MAY 01, 2017
BY	
REVISION	

WORKING NUMBER
PM-5

SHEET NUMBER
6035

STATE MISS.	PROJECT NO.		
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ONLY

TURN ARROW

THRU ARROW

YIELD LINE

LANE-REDUCTION ARROW

COMBINATION ARROW

1-WAY ARROW

VARIABLE (EXTEND ACROSS APPROACH LANES)

GENERAL NOTES:

- TWO HORIZONTAL GAPS (CAUSED BY TEMPLATE CONNECTIONS OF 1/8" OR LESS AND EXTENDING THE FULL WIDTH) ARE PERMITTED IN EACH LETTER.
- FOR OTHER DETAILS, SEE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
- DIMENSIONS OF THE YIELD LINE MAY VARY WITH APPROVAL OF THE ENGINEER. SEE MUTCD, LATEST EDITION, FOR ALLOWABLE DIMENSIONS.
- PAY QUANTITIES FOR PAVEMENT MARKING LEGENDS ARE AS FOLLOWS:

PAY QUANTITIES	
LEGEND/SYMBOL	AREA (ft ²)
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

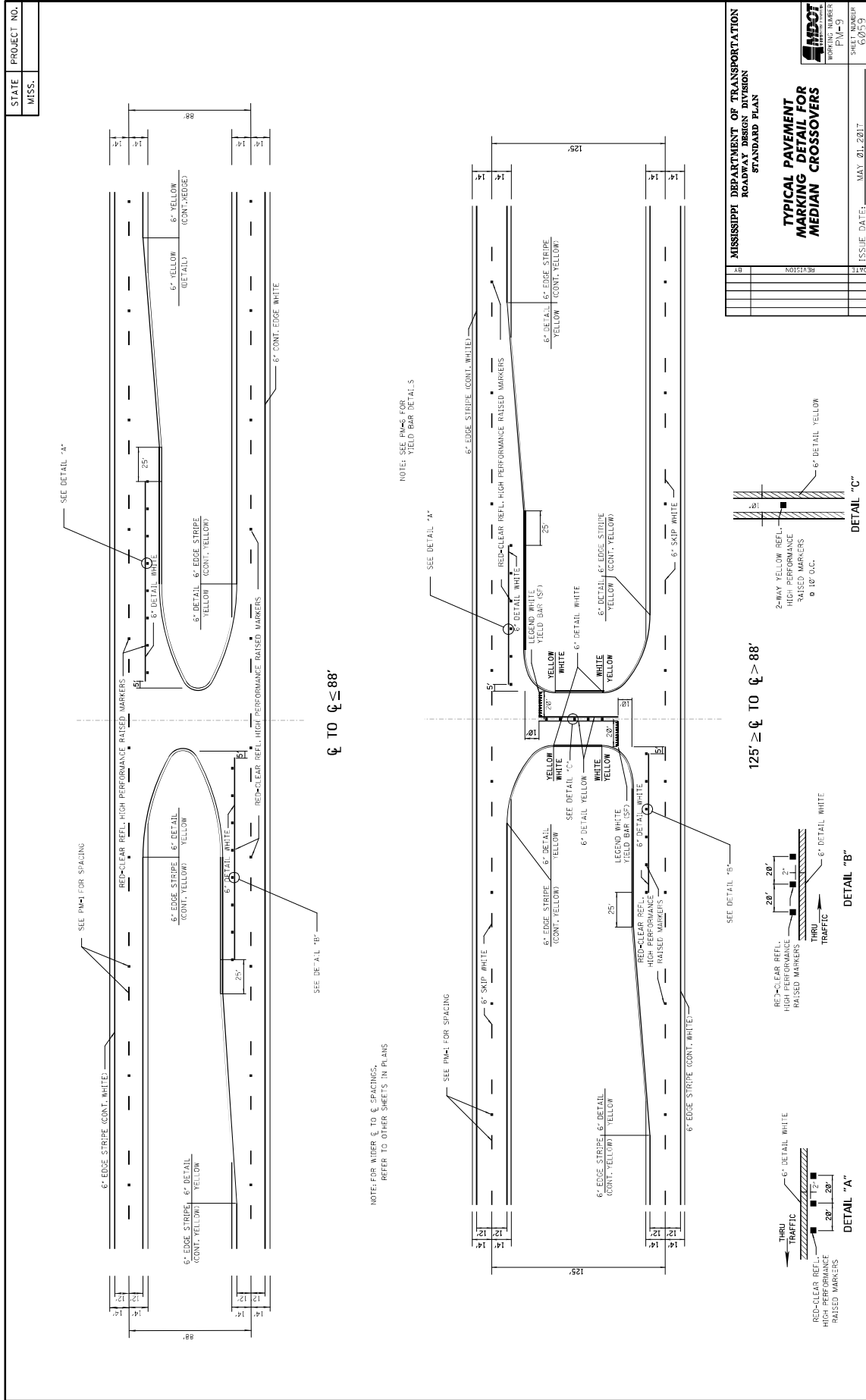
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

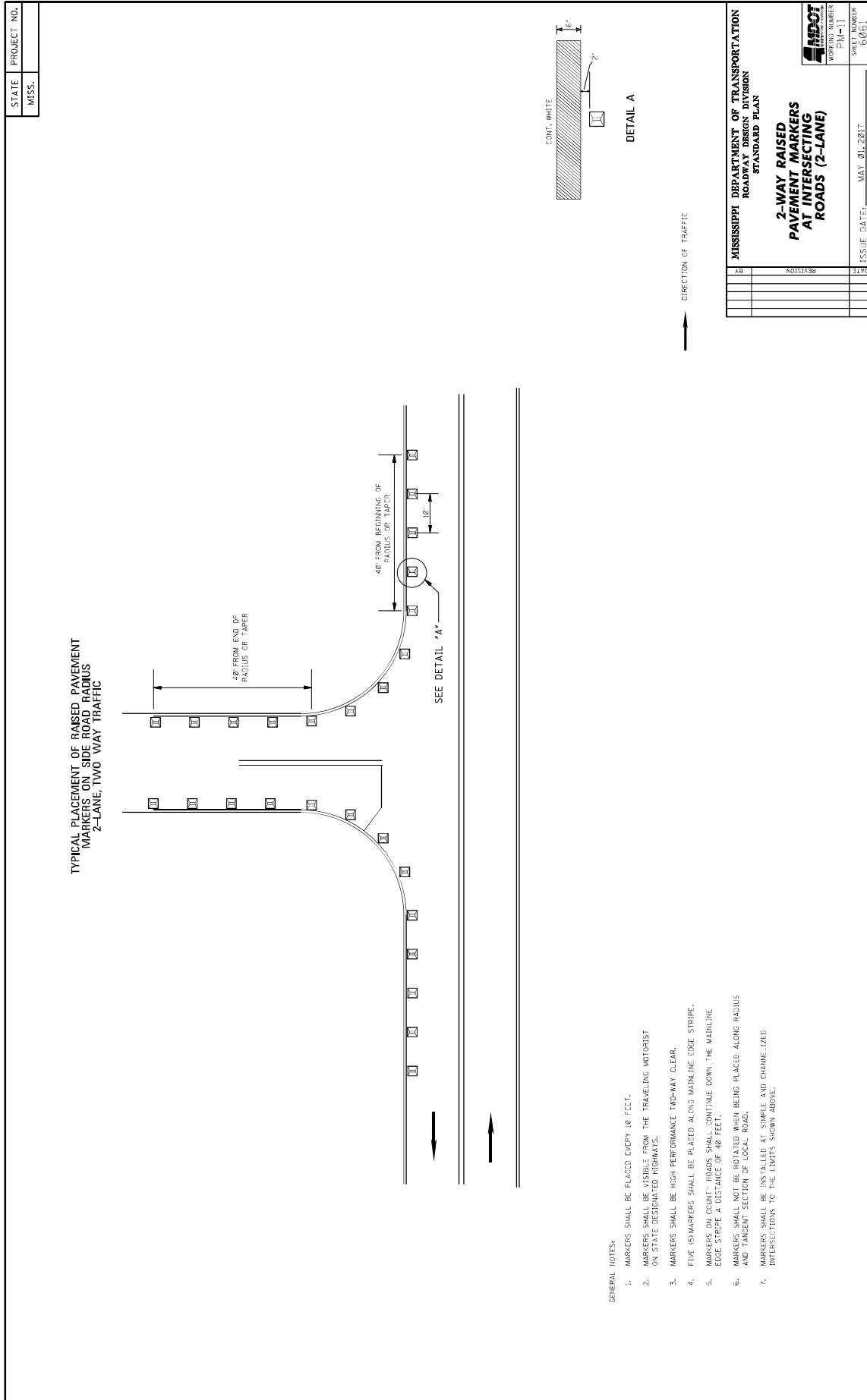
**PAVEMENT MARKING
LEGEND DETAILS**

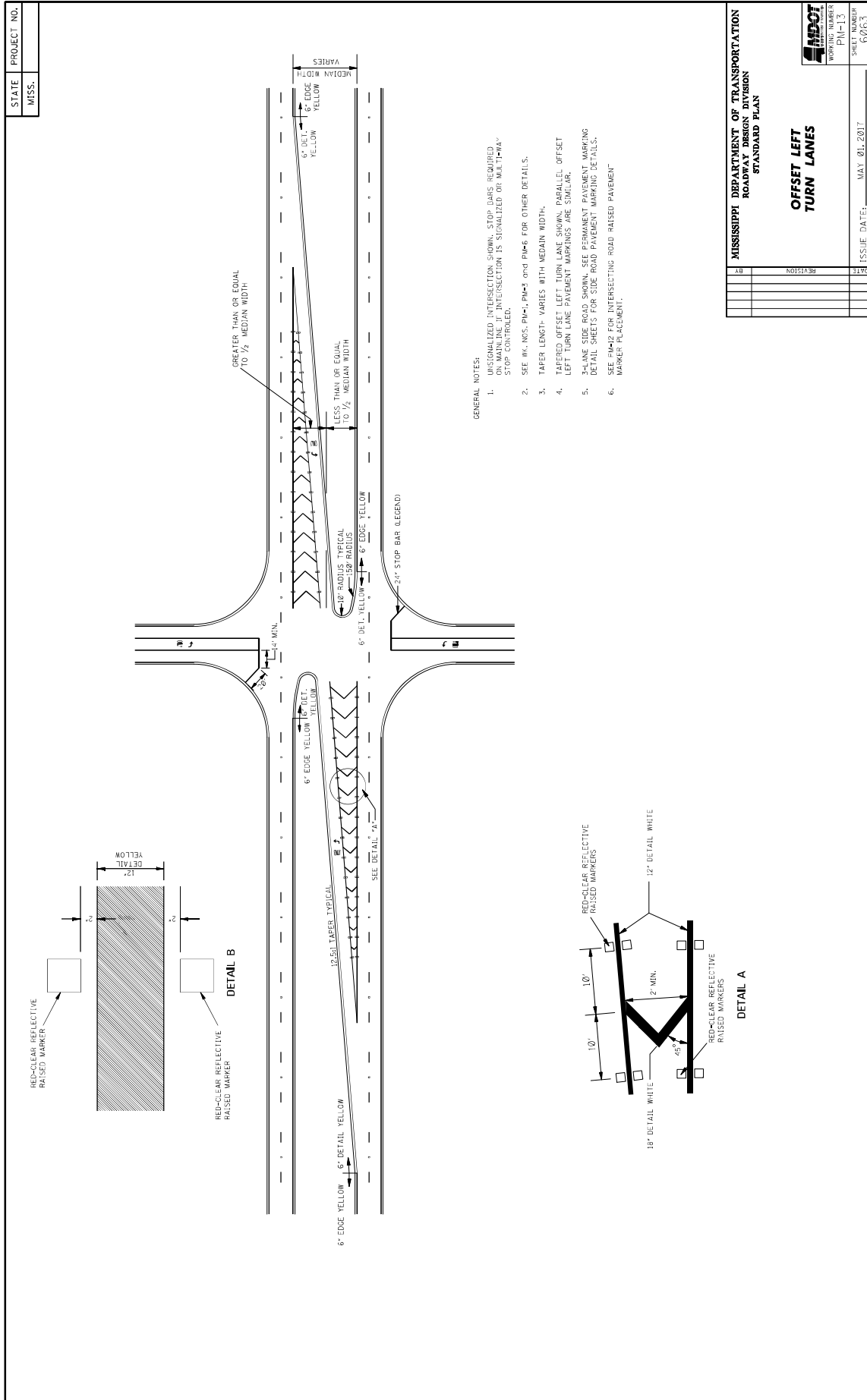
DATE	BY	REVISION	DATE	BY	REVISION	DATE	BY	REVISION

ISSUE DATE: MAY 01, 2017

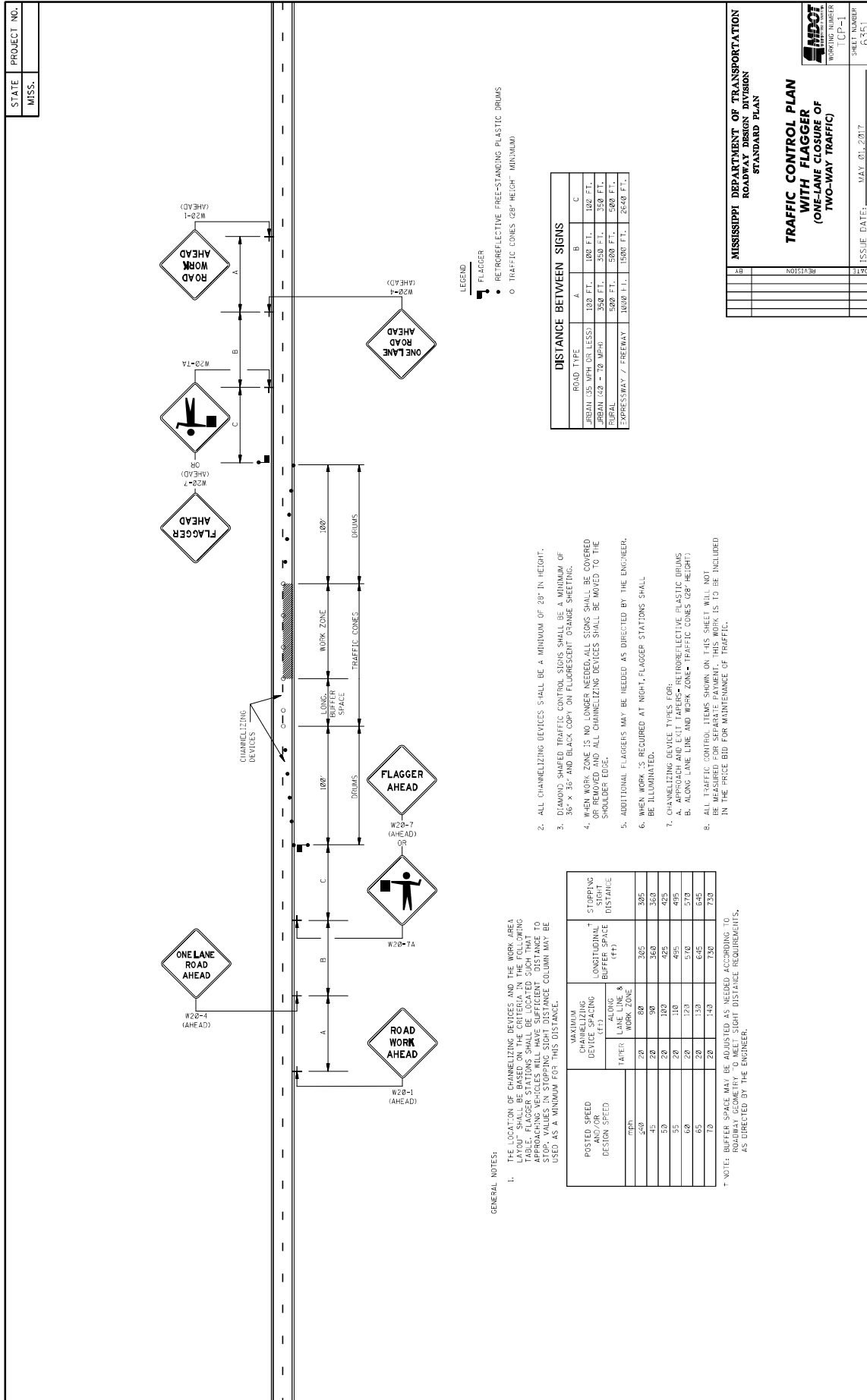
SHEET NUMBER: 60/56







MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
ROADWAY DESIGN DIVISION	
STANDARD PLAN	
OFFSET LEFT TURN LANES	
DATE	ISSUE DATE: MAY 01, 2017
BY	SHEET NUMBER 0263
REVISION	WORKING NUMBER PM-13



STATE PROJECT NO.
MISS.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**TRAFFIC CONTROL PLAN
WITH FLAGGER
(ONE-LANE CLOSURE OF
TWO-WAY TRAFFIC)**

ISSUE DATE: MAY 01, 2017

WORKING NUMBER [CP-1]
SHEET NUMBER 6351

ROAD TYPE	A	B	C
URBAN (35 MPH OR LESS)	100 FT.	100 FT.	100 FT.
URBAN (40 - 70 MPH)	250 FT.	250 FT.	350 FT.
RURAL	500 FT.	500 FT.	500 FT.
EXPRESSWAY / FREEWAY	1000 FT.	1500 FT.	2500 FT.

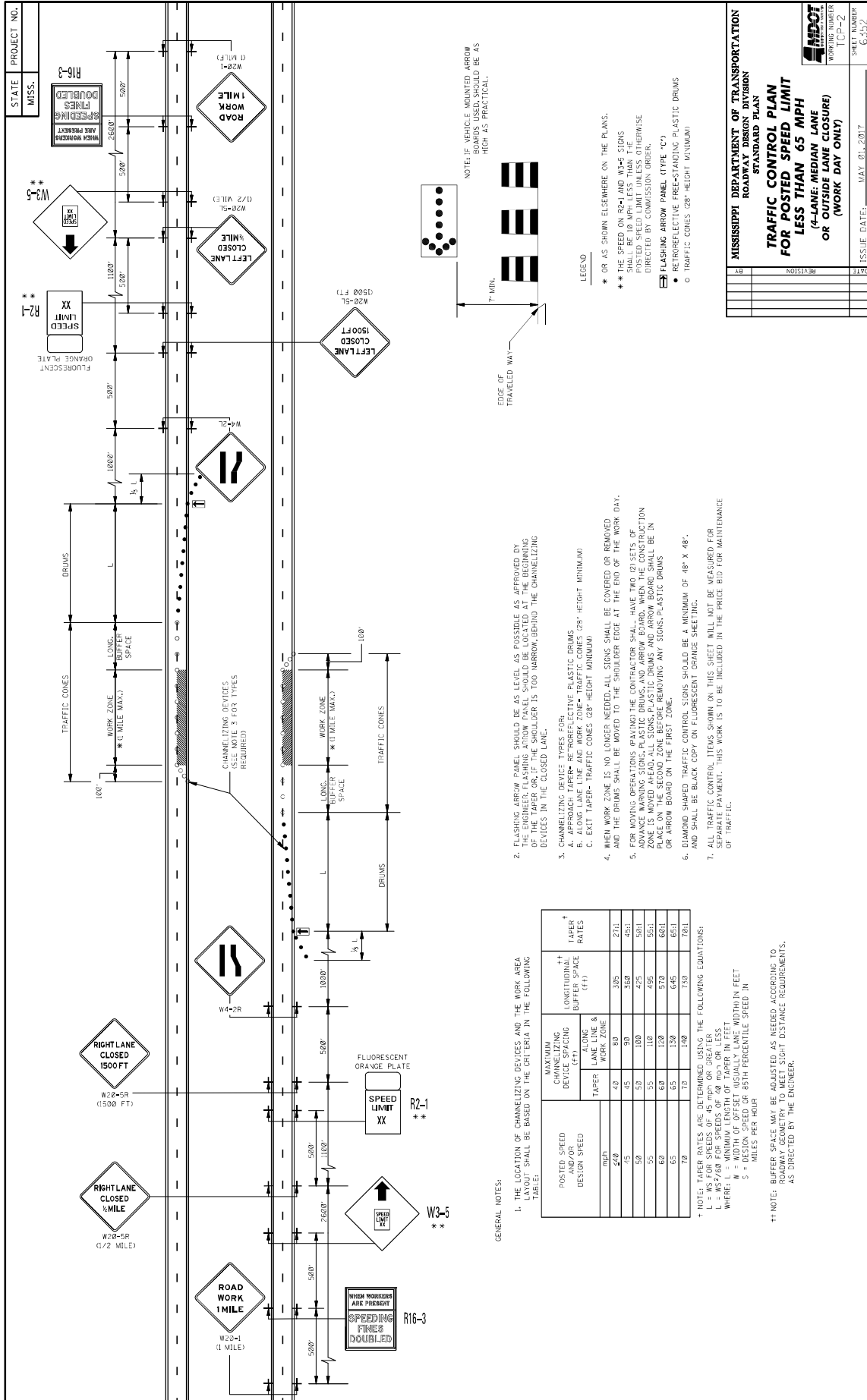
LEGEND

- FLAGGER
- RETROREFLECTIVE PREF-STANDING PLASTIC DRUMS
- TRAFFIC CONES (28" HEIGHT MINIMUM)

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 THE FLAGGER HAS AN UNOBSTRUCTED VIEW OF THE WORK AREA. STOPPING SIGHT DISTANCE VALUES IN THE STOPPING SIGHT DISTANCE COLUMN MAY BE USED AS A MINIMUM FOR THIS DISTANCE.
2. ALL CHANNELIZING DEVICES SHALL BE A MINIMUM OF 20" 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. ALL CHANNELIZING DEVICES SHALL BE MOVED TO THE SHOULDER EDGE.
5. ADDITIONAL FLAGGERS MAY BE NEEDED AT NIGHT. FLAGGER STATIONS SHALL BE ILLUMINATED.
6. WHEN WORK IS REQUIRED AT NIGHT, FLAGGER STATIONS SHALL BE ILLUMINATED.
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 IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

POSTED SPEED DESIGN SPEED	MAXIMUM CHANNELIZING DEVICE SPACING (FT)		STOPPING SIGHT DISTANCE (FT)
	TAPER LANE & WORK ZONE	CONDITIONAL BUFFER SPACE (FT)	
50	20	80	305
45	20	90	320
50	20	100	425
55	20	110	495
60	20	120	570
65	20	130	645
70	20	140	730

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



STATE PROJECT NO.
MISS. R16-3

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

W20-1 (1 MILE)
ROAD WORK 1 MILE
W20-5L (1/2 MILE)
LEFT LANE CLOSED 1/2 MILE
W20-5R (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE
W20-1R (1500 FT)
RIGHT LANE CLOSED 1500 FT
W20-5P (1/2 MILE)
RIGHT LANE CLOSED 1/2 MILE

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.
 [Symbol] FLASHING ARROW PANEL (TYPE 'C')
 [Symbol] RETROREFLECTIVE FREE-STANDING PLASTIC DRUMS
 [Symbol] TRAFFIC CONES (28" HEIGHT MINIMUM)

NOTE: IF VEHICLE MOUNTED ARROW SIGNS ARE USED, THEY SHOULD BE AS HIGH AS PRACTICAL.
 7' MIN. EDGE OF TRAVELED WAY

2. FLASHING ARROW PANEL SHOULD BE AS LEVEL AS POSSIBLE AS APPROVED BY THE ENGINEER. THE PANEL SHOULD BE PLACED AT THE END OF THE WORK DAY. THE PANEL OR, IF THE SHOULDER IS TOO NARROW, BEHIND THE CHANNELIZING DEVICES IN THE CLOSED LANE.

3. CHANNELIZING DEVICES: TYPE 'A' OR 'B'.
 A. APPROACH TAPER- RETROREFLECTIVE PLASTIC DRUMS
 B. ALONG LANE LINE AND WORK ZONE- TRAFFIC CONES (28" HEIGHT MINIMUM)
 C. EXIT TAPER- TRAFFIC CONES (28" HEIGHT MINIMUM)

4. WHEN WORK ZONE IS NO LONGER NEEDED, ALL SIGNS SHALL BE COVERED OR REMOVED.

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 ZONE BEFORE REMOVING ANY SIGNS- PLASTIC DRUMS OR ARROW BOARD ON THE FIRST ZONE.

6. DIAMOND SHAPED TRAFFIC CONTROL SIGNS SHOULD 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 PAYMENT. THIS WORK IS TO BE INCLUDED IN THE PRICE BID FOR MAINTENANCE OF TRAFFIC.

GENERAL NOTES:

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

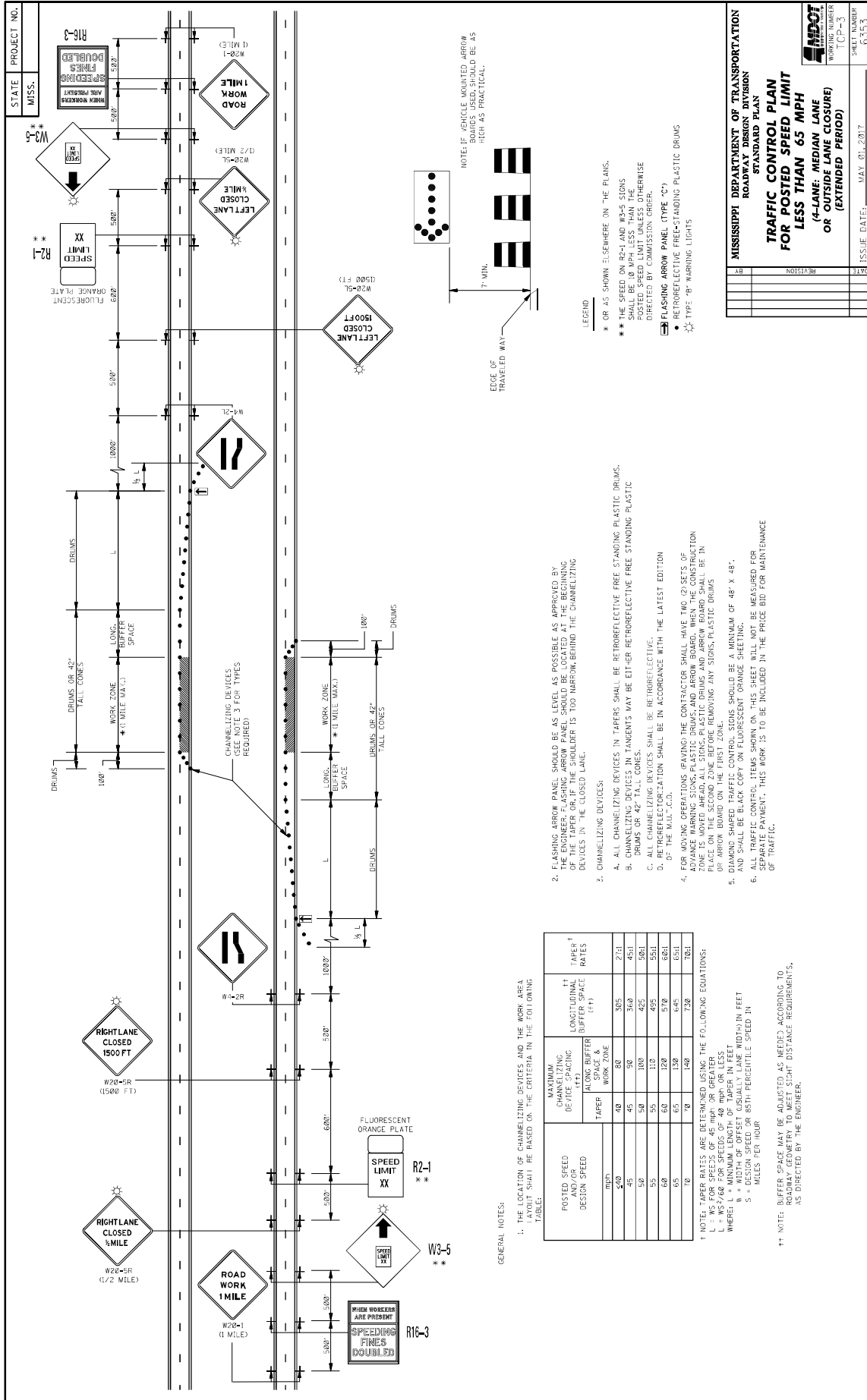
POSTED SPEED AND/OR DESIGN SPEED (MPH)	MAXIMUM CHANNELIZING DEVICE SPACING (FT)		LONGITUDINAL BUFFER SPACE (FT)	TAPER RATES
	LANE LINE & WORK ZONE	WORK ZONE		
20	40	80	305	27:1
25	45	90	350	45:1
30	50	100	425	50:1
35	55	110	495	55:1
40	60	120	570	60:1
45	65	130	645	65:1
50	70	140	730	70:1

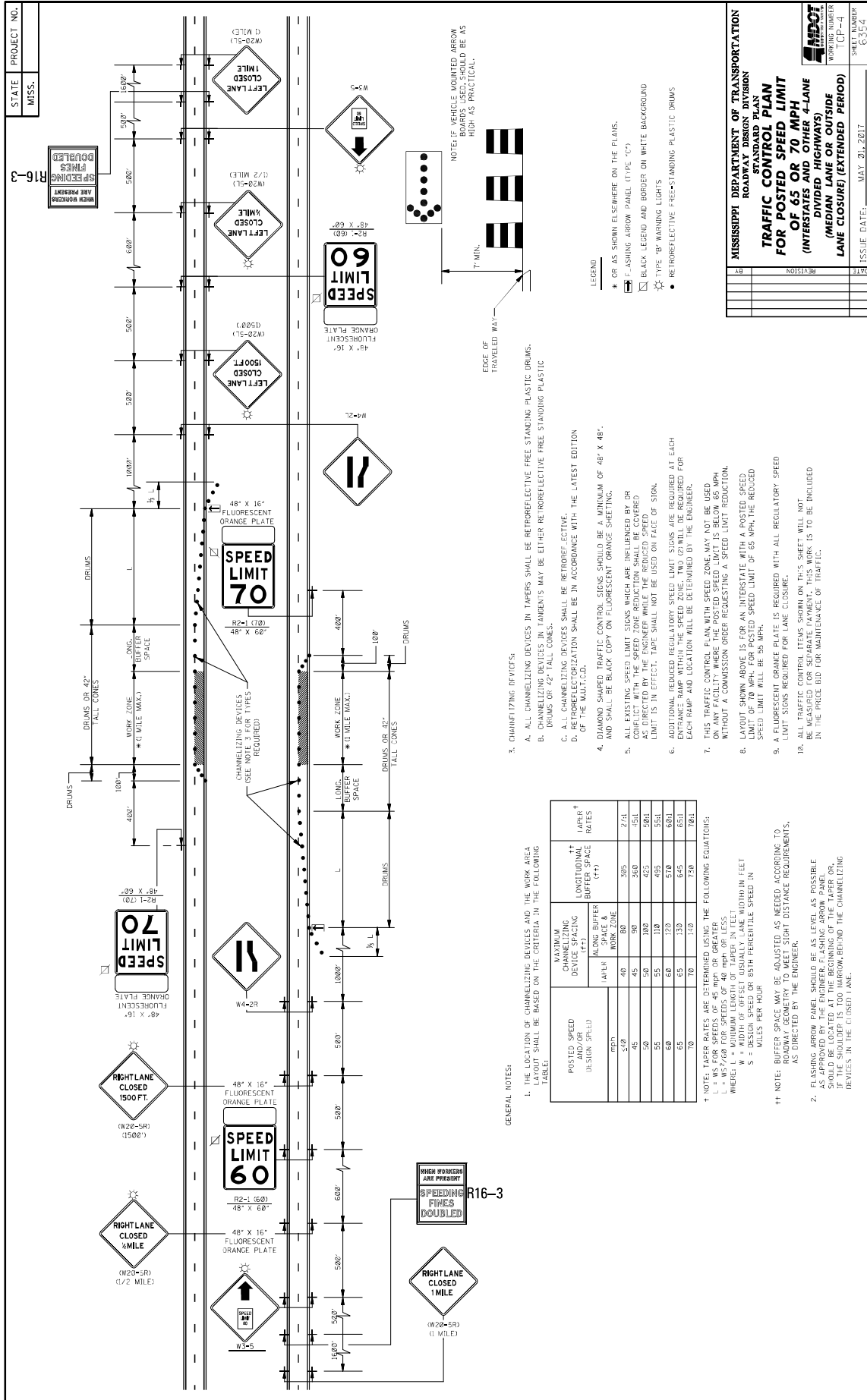
† NOTE: TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATIONS:
 L = MS FOR SPEEDS OF 45 MPH OR GREATER
 L = MS FOR SPEEDS OF 30 MPH OR GREATER
 WHERE: L = MINIMUM LENGTH OF TAPER IN FEET
 S = DESIGN SPEED OR 85TH PERCENTILE SPEED IN MILES PER HOUR

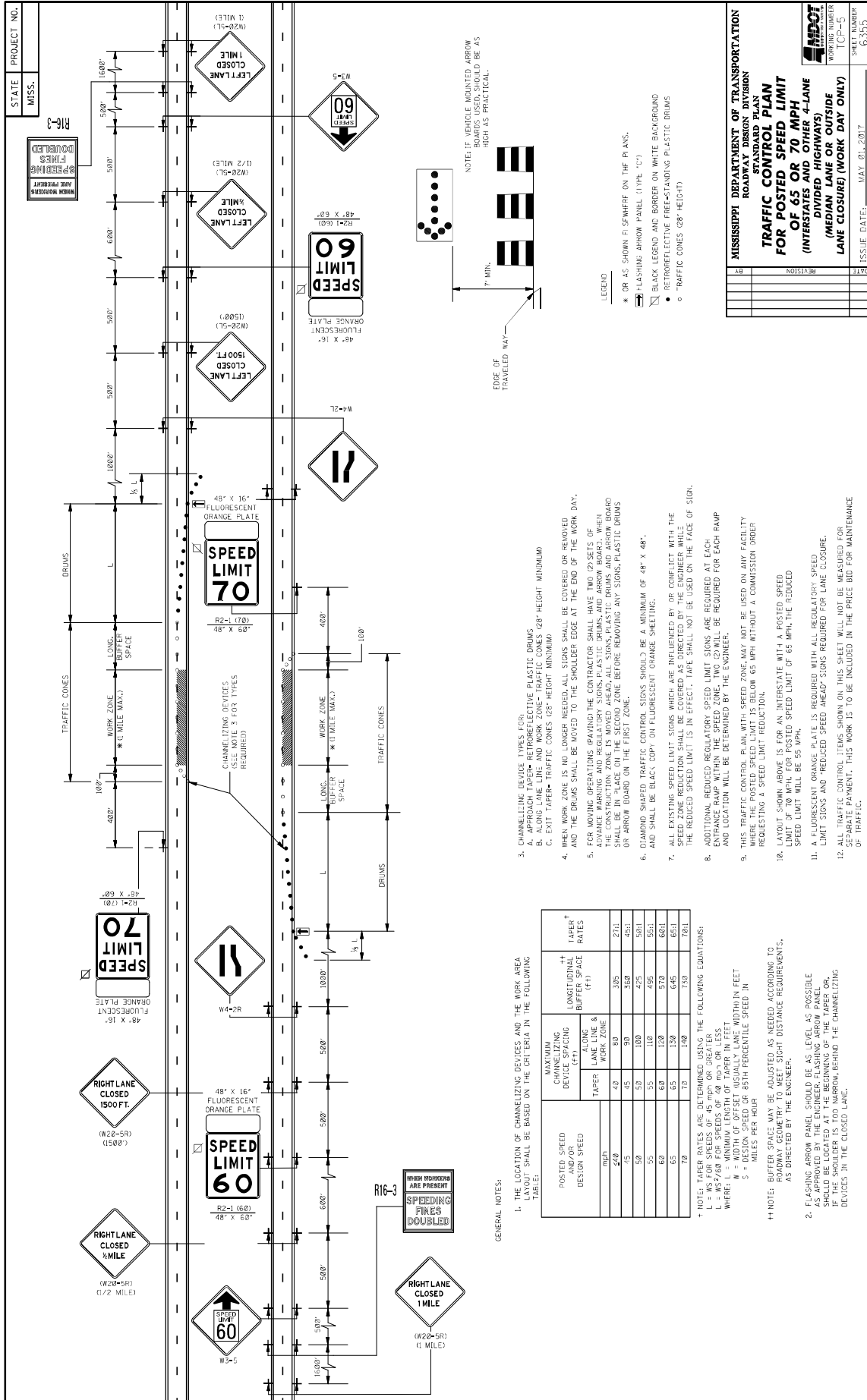
†† NOTE: BUFFER SPACE MAY BE ADJUSTED AS NEEDED ACCORDING TO ROADWAY GEOMETRY TO MEET SIGHT DISTANCE REQUIREMENTS, AS DIRECTED BY THE ENGINEER.

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)
 OR (WORK DAY ONLY)**

ISSUE DATE: MAY 01, 2017
 SHEET NUMBER: 6252
 WORKING NUMBER: T1P-2







STATE PROJECT NO.
MISS.

WORKING NUMBER
ICP-5

SHEET NUMBER
03500

WING BARRICADES

- WING BARRICADES ARE TYPE II BARRICADES ERECTED ON THE SHOULDER OF A ROADWAY OR RESTRICTED ROADWAY. WING BARRICADES MAY BE USED AS A MOUNTING FOR THE ADVANCE WARNING SIGNS OR FLASHERS.
- WING BARRICADES SHOULD BE USED:
 - IN ADVANCE OF A CONSTRUCTION PROJECT EVEN WHEN NO PART OF THE ROADWAY IS ACTUALLY CLOSED.
 - IN ADVANCE OF ALL BRIDGE OR CULVERT WIDENING OPERATIONS.

BARRICADE CLOSING A ROAD

	I	II	III
WIDTH OF RAIL **	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.	8" MIN. - 12" MAX.
LENGTH OF RAIL **	24' MIN.	24' MIN.	48' MIN.
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 4 IF FACING TRAFFIC IN TWO DIRECTIONS

BARRICADE CHARACTERISTICS

* 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' OF REFLECTIVE AREA FACING TRAFFIC.

STANDARD BARRICADES

- THE MARKING FOR BARRICADE RAILS SHALL BE ORANGE AND WHITE (SLOPING DOWNWARD AT AN ANGLE OF 45° IN THE DIRECTION OF TRAFFIC IS TO PASS).
- RAIL STRIPE SHALL BE 6 INCHES, EXCEPT THAT 4-INCH WIDE STRIPES MAY BE USED IF RAIL LENGTHS ARE LESS THAN 36 INCHES.
- DO NOT PLACE SANDBAGS OR OTHER DEVICES TO PROVIDE MASS ON THE BOTTOM RAIL THAT WILL BLOCK VIEW OR RAIL FACE.
- FOR ADDITIONAL INFORMATION OR DETAILS, SEE METHOD, LATEST EDITION.
- BARRICADES ARE CLASSIFIED BY FHWA AS CATEGORY II WHEN ZONE DEVICES WHICH REQUIRE SUCCESSFULLY CRASH TESTED, A LIST OF CRASHWORTHY BARRICADES AND OTHER CATEGORY II DEVICES CAN BE FOUND ON FHWA'S WEBSITE: http://safety.fhwa.dot.gov/roadway_dept/pafety_guidance/road_hardware/cat2.cfm

CHEVRON SIGN DETAIL

- A CHEVRON SIGN CONSISTS OF A BLACK CHEVRON TYPE MARKING ON AN ORANGE BACKGROUND AND SHALL POINT IN THE DIRECTION OF TRAFFIC FLOW.
- THE CHEVRON SIGN SHALL BE MOUNTED ON CRASHWORTHY SUPPORT.
- 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' 40" BEHIND THE LANE TRANSITION STRIPE.

PLASTIC DRUM STRIPING DETAIL

- PLASTIC DRUMS SHALL BE ON END AND USED AS AN EXPEDIENT METHOD FOR TRAFFIC CHANNELIZATION. THE COLOR AND MARKING OF DRUMS SHALL BE CONSISTENT WITH MARKING STRIPES. STRIPES SHALL BE 18" WIDE. THE PREDOMINANT COLOR OF DRUMS WITH MARKING STRIPES SHALL BE RETROREFLECTIVE. HORIZONTAL, CIRCUMFERENTIAL STRIPES (2 ORANGE & 2 WHITE) 6" WIDE.
- DRUMS SHOULD NEVER BE PLACED IN THE ROADWAY WITHOUT WARNING SIGNS.
- WHERE PRACTICAL PLASTIC DRUMS SHOULD BE PLACED NO CLOSER THAN 3'-0" FROM THE EDGE OF TRAVELED LANE.

TYPE 3 OBJECT MARKER (OM-3R)

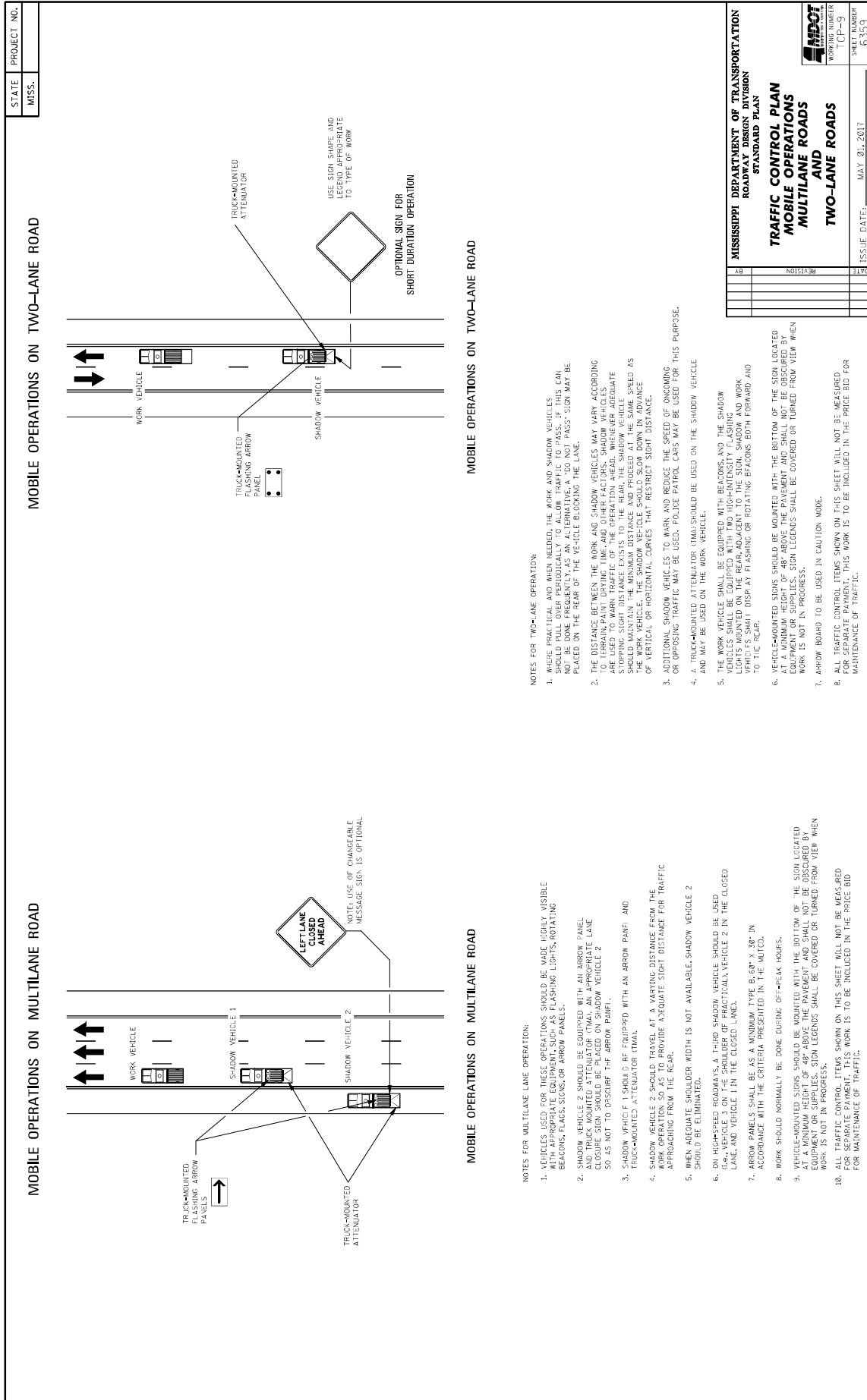
- TYPE 3 OBJECT MARKERS SHALL BE USED AT ALL EXPOSED BRIDGE ABUTMENTS AND AT OTHER LOCATIONS AS DETERMINED NECESSARY BY THE ENGINEER.
- THE OM-3R IS SIMILAR EXCEPT THE STRIPES SLOPE DOWNWARD FROM THE UPPER LEFT SIDE TO THE LOWER RIGHT SIDE AND SHALL BE PLACED ON THE LEFT SIDE OF THE OBJECT.
- THE INSIDE EDGE OF THE MARKER SHALL BE IN LINE WITH THE INNER EDGE OF THE OBSTRUCTION.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

HIGHWAY SIGN AND BARRICADE DETAILS FOR CONSTRUCTION PROJECTS

DATE	REVISION

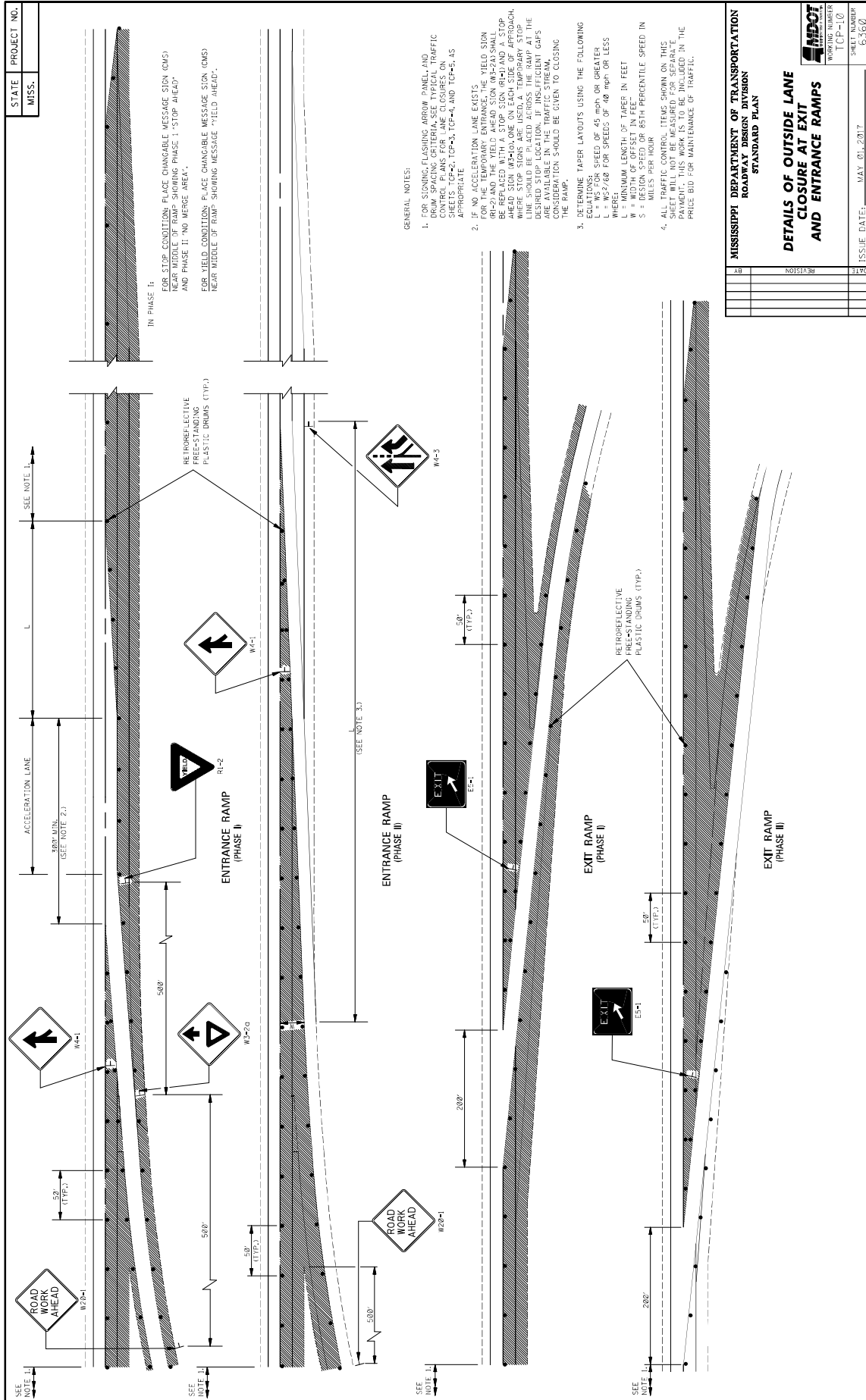
ISSUE DATE: MAY 20, 2017

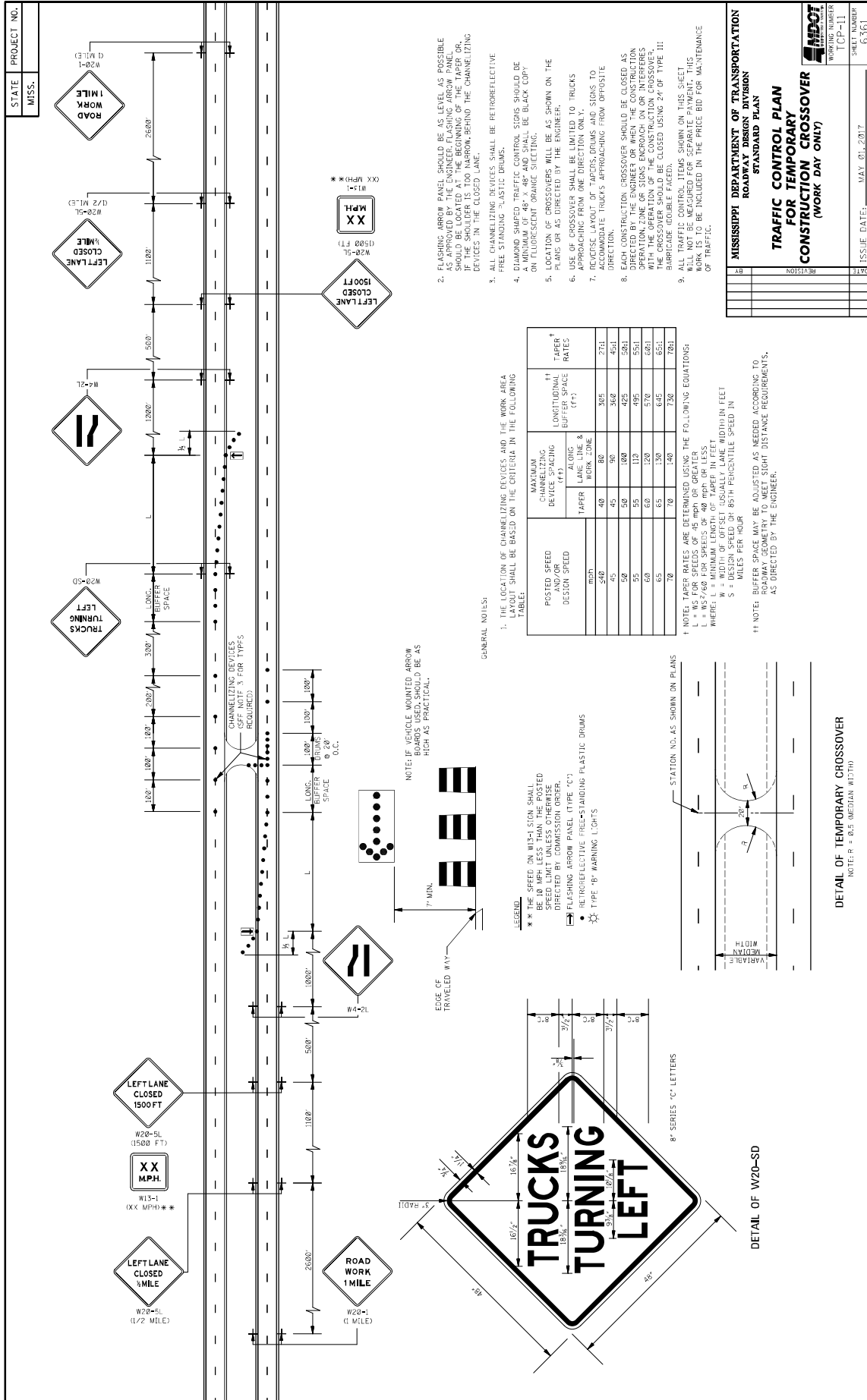


STATE	PROJECT NO.
MISS.	

MOBILE OPERATIONS ON TWO-LANE ROAD

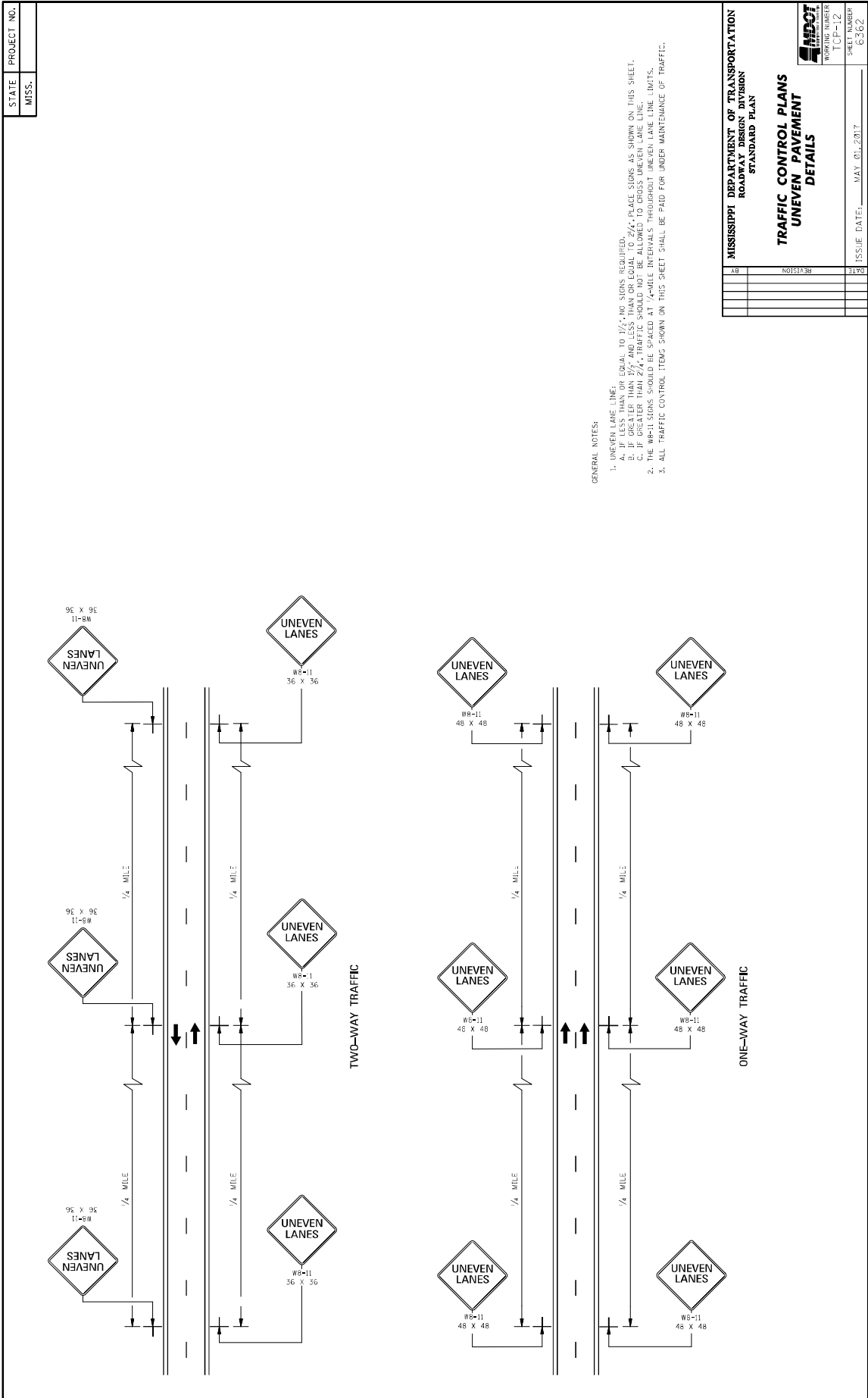
MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
ROADWAY DESIGN DIVISION	
STANDARD PLAN	
TRAFFIC CONTROL PLAN	
MOBILE OPERATIONS	
MULTILANE ROADS	
TWO-LANE ROADS	
ISSUE DATE:	MAY 01, 2017
SHEET NUMBER	CP-9
WORKING NUMBER	6359

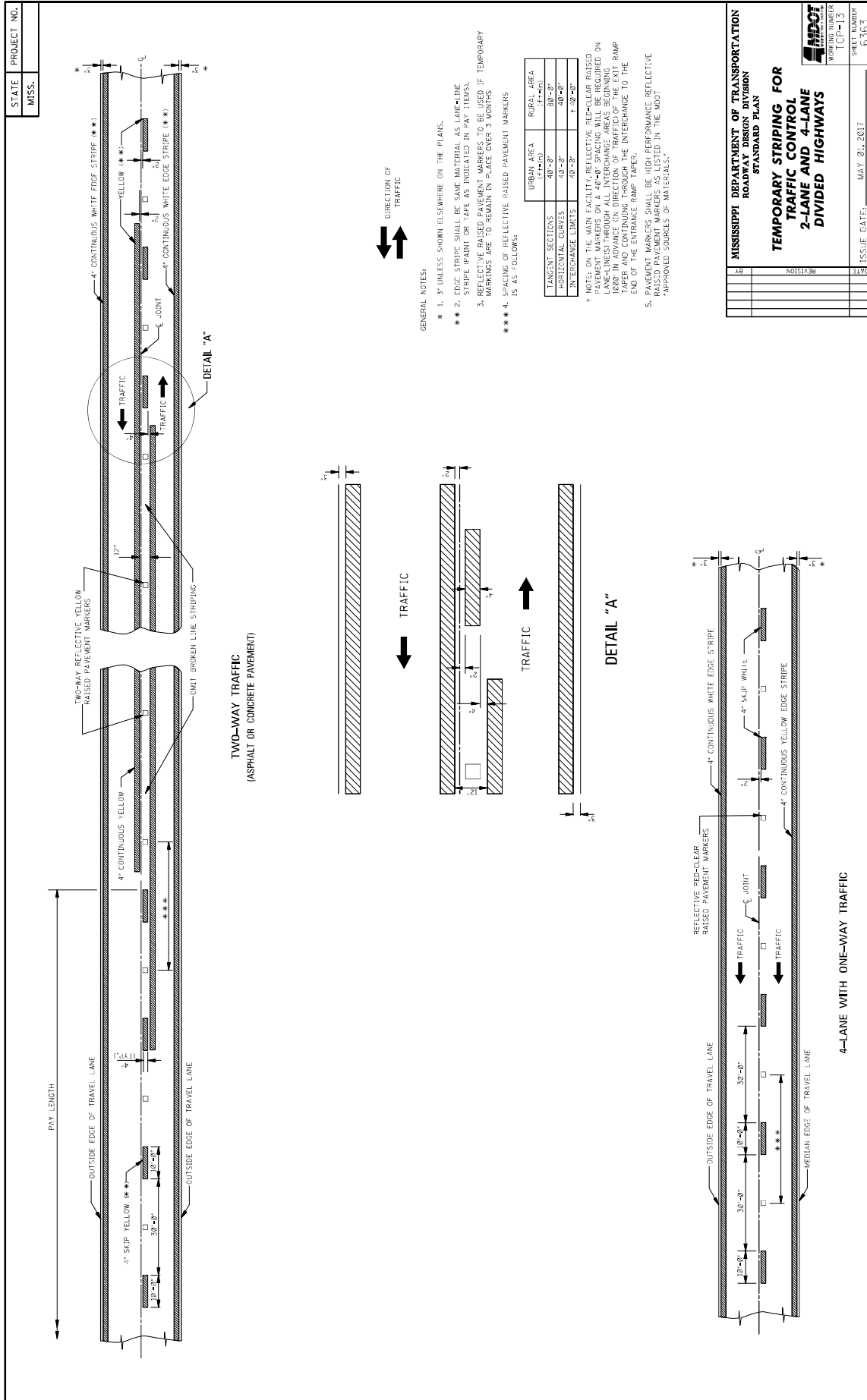


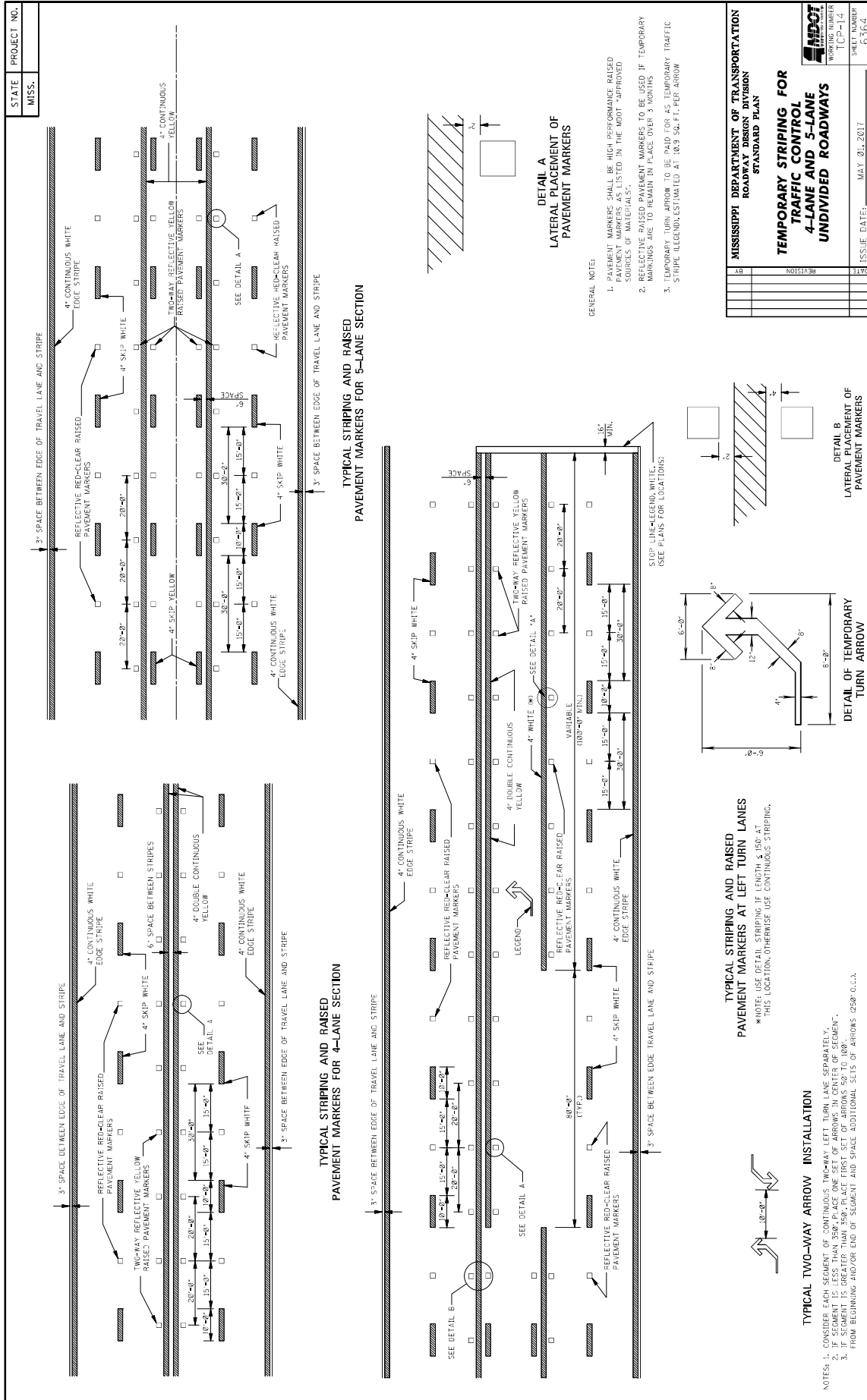


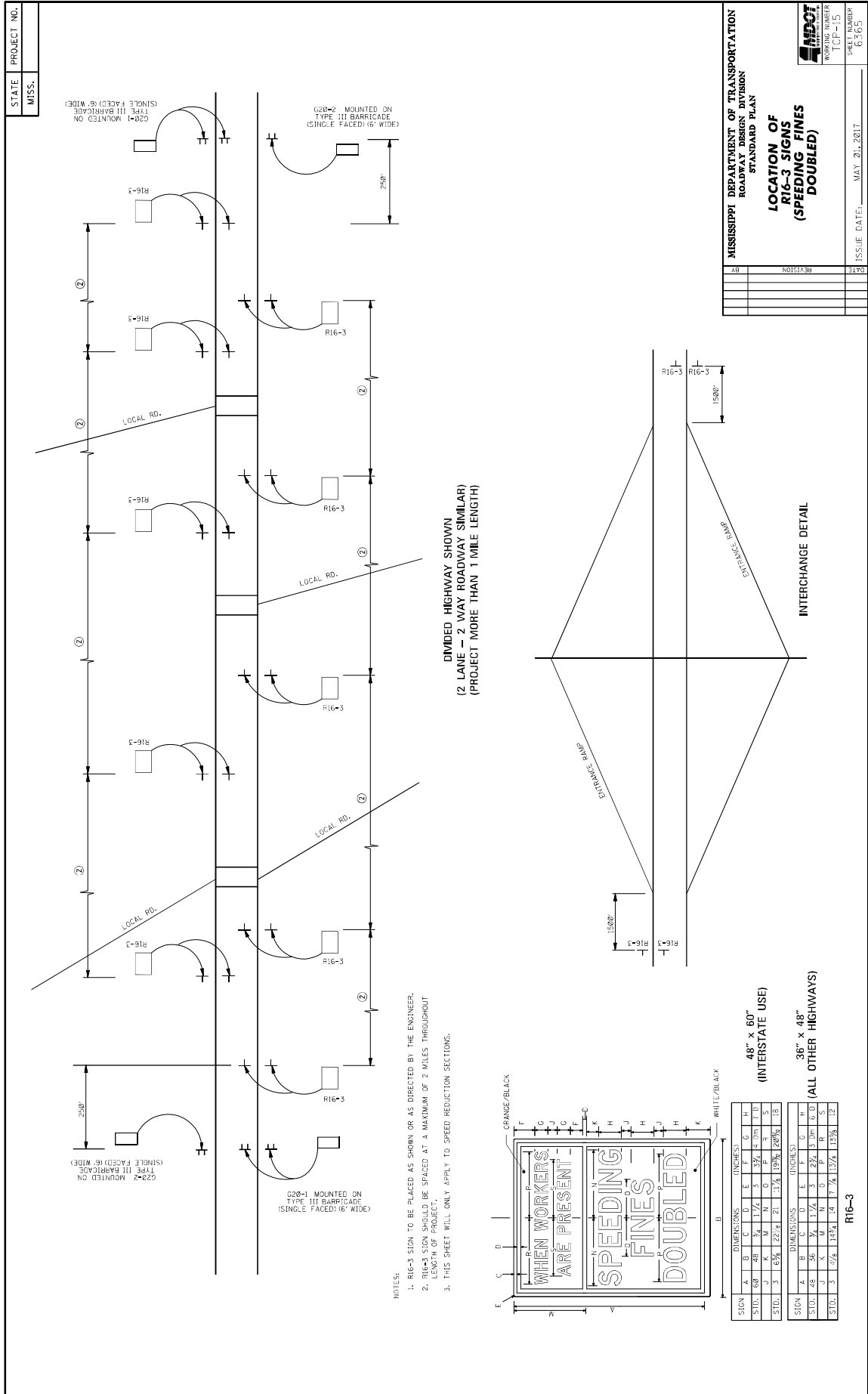
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN
TRAFFIC CONTROL PLAN
FOR TEMPORARY
CONSTRUCTION CROSSOVER
(WORK DAY ONLY)

WORKING NUMBER: TCP-11
 SHEET NUMBER: 6361
 ISSUE DATE: MAY 01, 2017



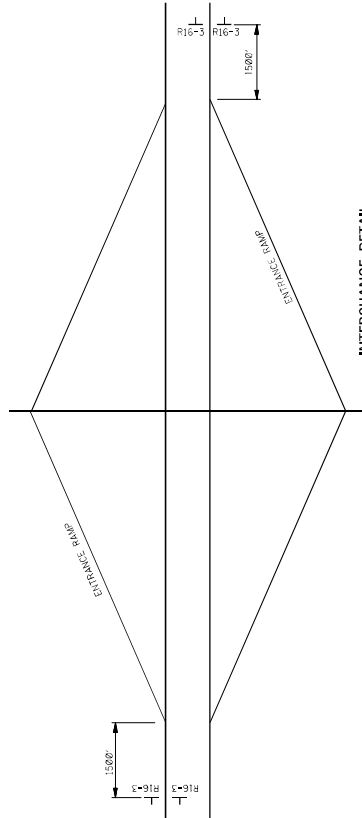




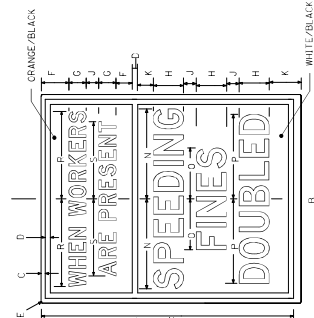


DIVIDED HIGHWAY SHOWN
(2 LANE - 2 WAY ROADWAY SIMILAR)
(PROJECT MORE THAN 1 MILE LENGTH)

- NOTES:
1. R16-3 SIGN TO BE PLACED AS SHOWN OR AS DIRECTED BY THE ENGINEER.
 2. R16-3 SIGN SHOULD BE SPACED AT A MAXIMUM OF 2 MILES THROUGHOUT LENGTH OF PROJECT.
 3. THIS SHEET WILL ONLY APPLY TO SPEED REDUCTION SECTIONS.



INTERCHANGE DETAIL



SIGN		DIMENSIONS (INCHES)											
TYPE	48" X 60"	A	B	C	D	E	F	G	H	I	J	K	L
STD.	600	48	36	1 1/2	5	3 1/2	4	3 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
MIN.	500	48	36	1 1/2	5	3 1/2	4	3 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
MAX.	700	48	36	1 1/2	5	3 1/2	4	3 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
STD.	3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
MIN.	3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
MAX.	3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
STD.	3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
MIN.	3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
MAX.	3	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2

48" X 60"
(INTERSTATE USE)

36" X 48"
(ALL OTHER HIGHWAYS)

R16-3

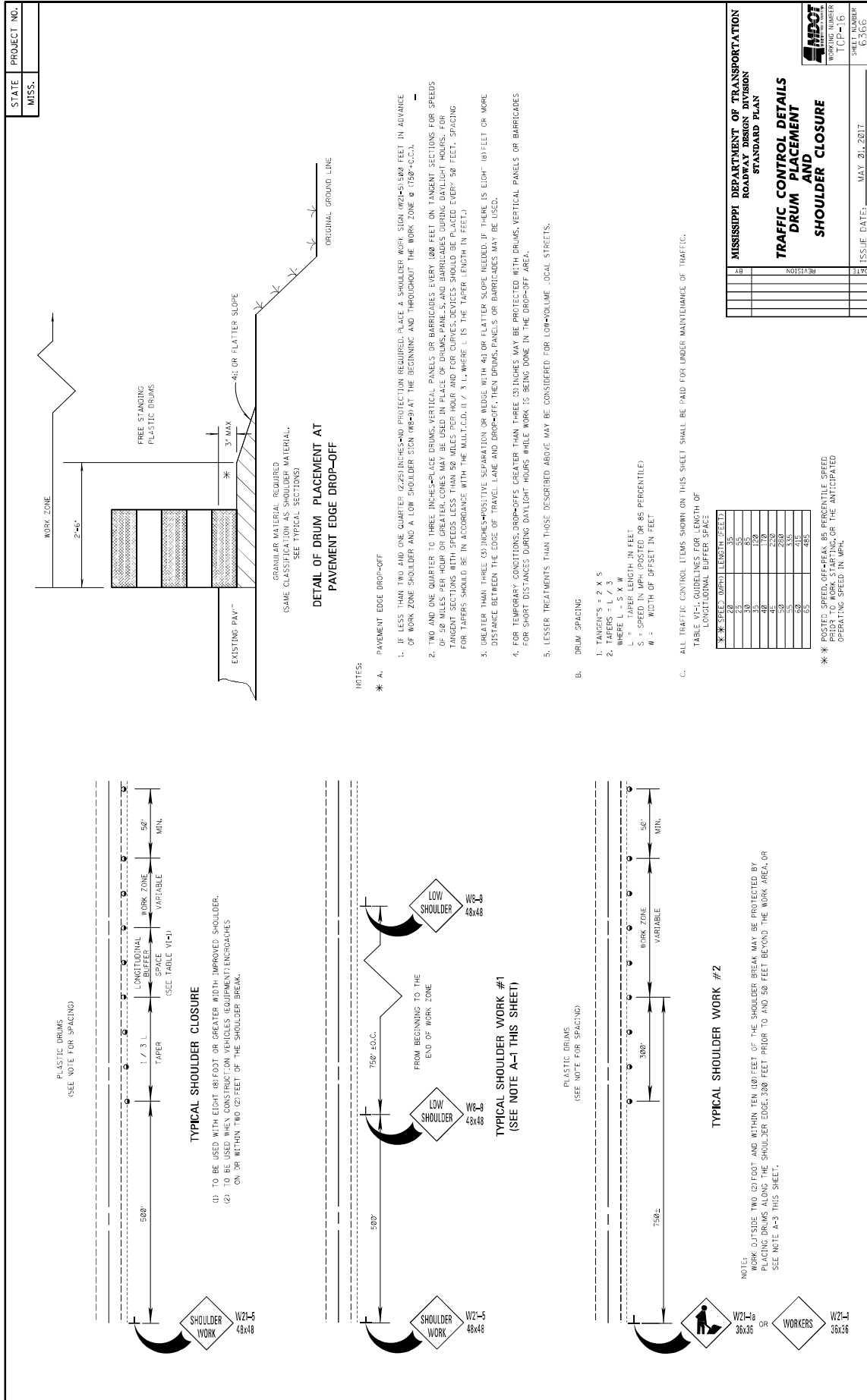
STATE	PROJECT NO.
MISS.	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**LOCATION OF
R16-3 SIGNS
(SPEEDING FINES
DOUBLED)**

DATE	REVISION

ISSUE DATE: MAY 21, 2017
DRAWN BY: LCP-15
CHECKED BY: G-363



MISSISSIPPI DEPARTMENT OF TRANSPORTATION
 ROADWAY DESIGN DIVISION
 STANDARD PLAN

**TRAFFIC CONTROL DETAILS
 DRUM PLACEMENT
 SHOULDER CLOSURE**

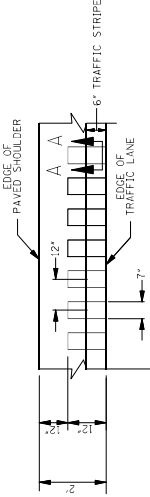
ISSUE DATE: MAY 20, 2017

WORKING NUMBER
 TCF-16

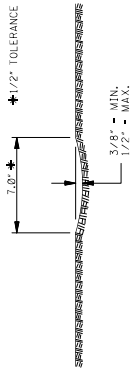
SHEET NUMBER
 63/66

GENERAL NOTES

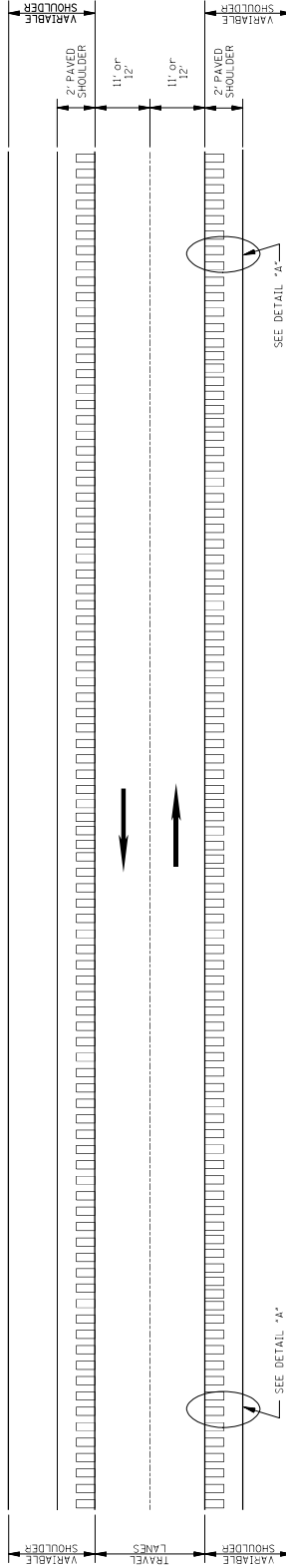
1. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO LEFT SHOULDER OF ALL PAVED SHOULDERS ON THIS PROJECT.
2. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO RIGHT SHOULDER OF ALL PAVED ROADWAYS, EXCEPT INTERSECTIONS, NORMAL SHOULDER WIDTH AS DIRECTED BY THE ENGINEER.
3. COST TO BE PAID FOR USING APPROPRIATE PAY ITEMS
4. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO:
 - A. MAINLINE
 - B. INTERSECTING ROADWAY IF OVERLAP OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
 - C. ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.
5. DO NOT USE WHERE TRAVEL LANE IS LESS THAN 11' WIDE.



DETAIL "A"



SECTION "A-A"



PLAN

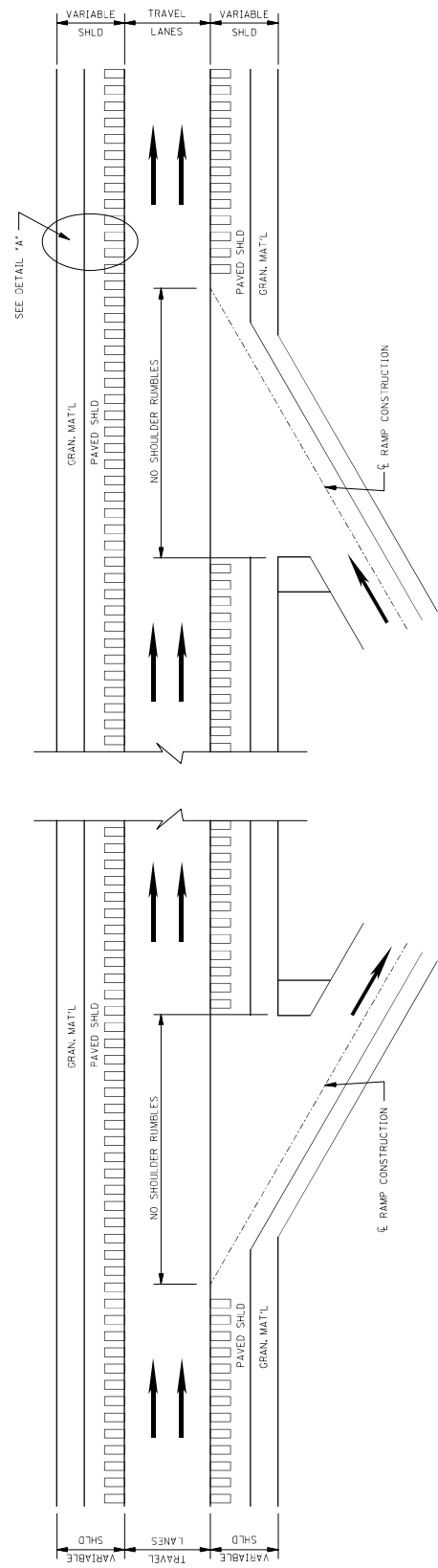
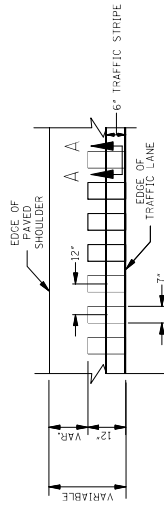
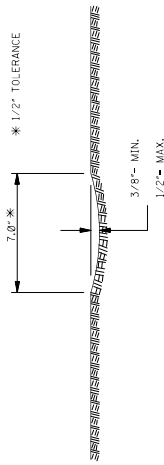
NOT TO SCALE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
ROADWAY DESIGN DIVISION	
STANDARD PLAN	
REVISION	DATE
05R	08/01/17
RUMBLE STRIPES LOCATION	
ISSUE DATE: AUGUST 01, 2017	
DRAWING NUMBER: RS-1	
PROJECT NUMBER: 6064	

RUMBLE STRIPES
2-LANE HIGHWAYS
(ASPHALT LANES,
2-FT ASPHALT SHOULDERS)

GENERAL NOTES

1. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO ALL PAVED SHOULDERS OF ALL PAVED ROADWAYS ON THIS PROJECT.
2. GROUND-IN RUMBLE STRIPES SHALL BE APPLIED TO ALL PAVED SHOULDERS OF ALL PAVED ROADWAYS, INCLUDING INTERSECTIONS, NORMAL SHOULDERS, AND OTHER INTERSECTIONS, IN THE 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 OVERLAP OR RECONSTRUCTED BEYOND NORMAL MAINLINE R.O.W.
 - C. ANY ROADWAY WITH EXISTING RUMBLE STRIPES PRIOR TO CONSTRUCTION.

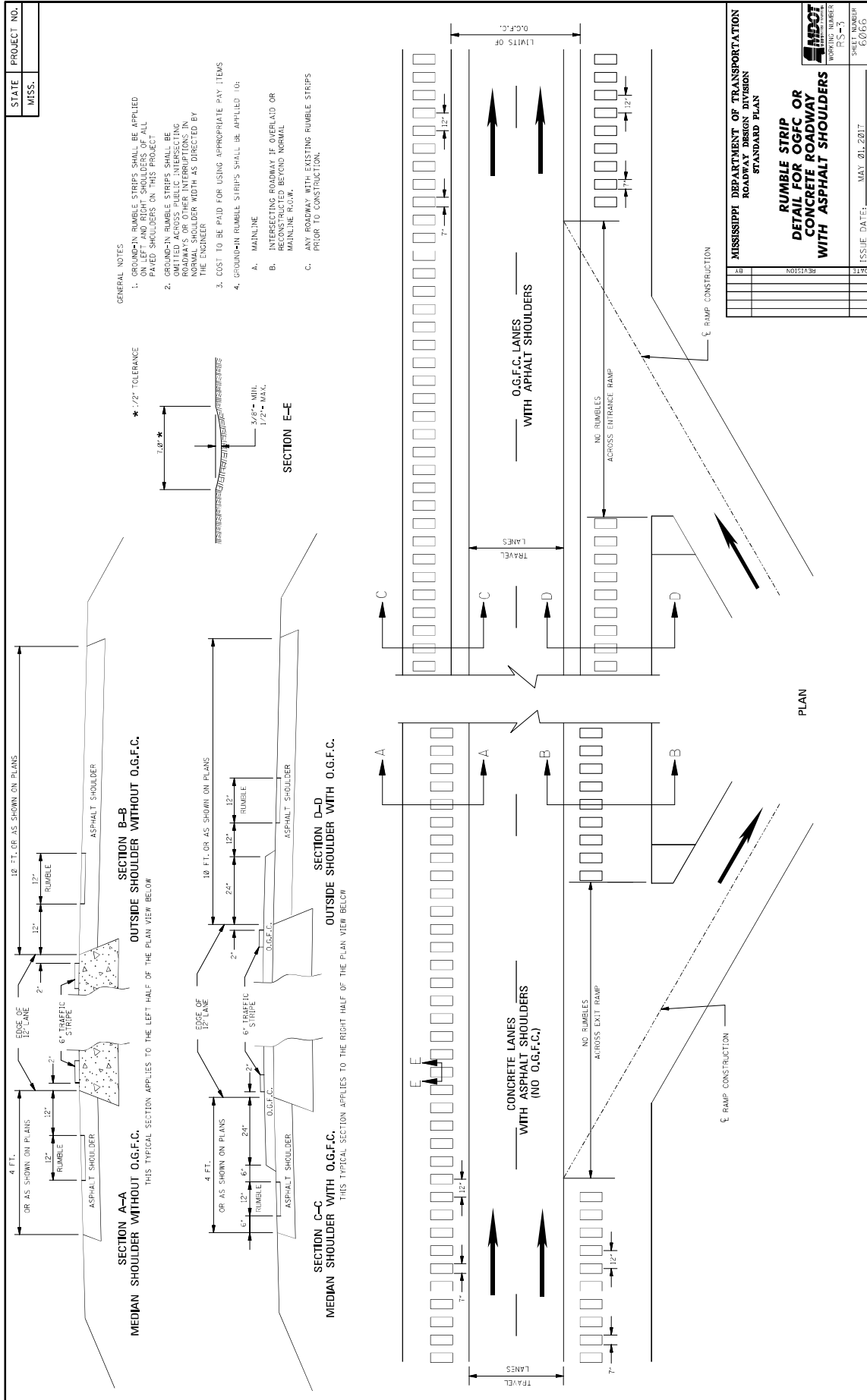


MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

**RUMBLE STRIPES
4-LANE HIGHWAYS
(ASPHALT LANES,
2-FT OR WIDER,
ASPHALT SHOULDERS)**

ISSUE NUMBER: 6065
ISSUE DATE: AUGUST 01, 2017

DATE	REVISION	STRIP LOCATION



MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 3676

CODE: (SP)

DATE: 09/21/2021

SUBJECT: Asphalt Gyrotory Compactor Internal Angle Calibration

Bidders are advised that by March 1, 2022, all asphalt gyrotory compactors shall be calibrated to an internal angle of $1.16^{\circ} \pm 0.02^{\circ}$. 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. 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. 5048

CODE: (SP)

DATE: 4/18/2023

SUBJECT: Contract Time

PROJECT: MP-6049-18(025) / 308565301 – Forrest 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 **June 13, 2023**.

The Contractor shall request a Notice to Proceed/Beginning of Contract Time date between the dates of **July 13, 2023 and September 7, 2023**.

Should the Contractor request a Notice to Proceed earlier than **July 13, 2023** and it is agreeable with the Department for an early Notice to Proceed, the requested date will become the new Notice to Proceed and Beginning of Contract Time date.

Should the Contractor not request a Notice to Proceed by **September 7, 2023**, the date for the Notice to Proceed and Beginning of Contract Time will be **September 7, 2023**.

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

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

The progress schedule for this project shows the Notice to Proceed and Beginning of Contract Time starting at the latest possible date. If the Contractor requests a Notice to Proceed earlier than this date, the Contractor shall submit a revised progress schedule showing the work beginning at the new Notice to Proceed and Beginning of Contract Time date.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 5049

CODE: (SP)

DATE: 04/11/2023

SUBJECT: Scope of Work

PROJECT: MP-6049-18(025) / 308565301 -- Forrest 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".

Work on the project shall consist of the following:

**MILL, LEVEL, AND OVERLAY APPROXIMATELY 5.2 MILES OF US 49
FROM MYERS CREEK TO WILLIAM CAREY PARKWAY (10+00 TO 331+50)**

(A) Prior to the overlay, centerline alignment shall be determined by the Contractor by measuring the existing roadway at 500-foot intervals in tangent sections and 100-foot intervals in horizontal curves. The existing shoulders shall be clipped and surplus material shall be spread along the edge of the shoulders, fore slopes, or other adjacent areas as directed by the Project Engineer, and will be an absorbed item.

(B) The entire road width shall be fine milled from the beginning of the median island pavement (Sta. 230+80) to the E.O.P. (Sta. 331+50) a depth of 1½" on US 49, as well as all transitions including B.O.P., E.O.P., bridge approaches, intersections where concrete median island and curb and gutter are present, and all tie-ins (Approximately 243,910 square yards). All milled areas shall be backfilled with asphalt within five (5) days of milling and the Contractor shall ensure water will not be trapped at milled locations.

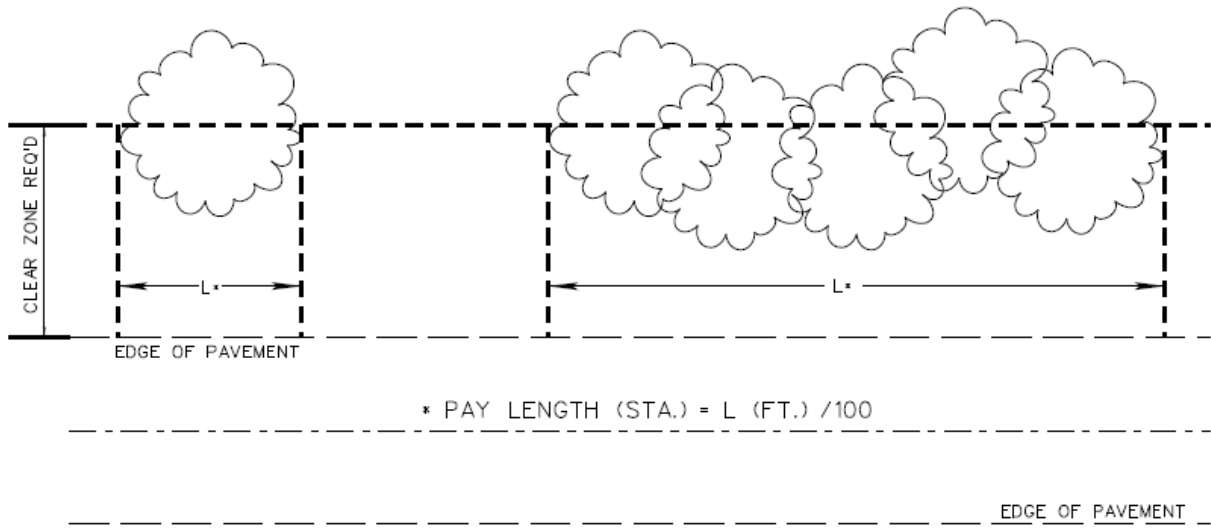
Reclaimed asphalt pavement (RAP) material removed by the milling operation shall become the property of the Contractor except for 1,000 tons or 50% of the total anticipated quantity, whichever is less, and shall be delivered to the MDOT Maintenance Yard located at 1141 Richburg Road, Hattiesburg, MS. Sufficient advance notice shall be given to ensure that MDOT Maintenance personnel will be on hand to direct the delivery.

(C) Sawing and sealing of transverse joints shall be required in the surface asphalt from Station 10+00 to 331+50. The Contractor shall be responsible for locating/markings these joints prior to construction to ensure proper placement after asphalt paving operations.

(D) Approximately 6.1 miles of US 49 shall be overlaid with 1½" of 9.5-mm, HT, Polymer Modified asphalt from B.O.P. (Station 10+00) to E.O.P. (Station 331+50) (Approximately 18,150 tons). Smoothness tolerance for mean roughness index (MRI) and maximum deviation from a 10-foot straight edge will be governed by the Standard Specifications, Section 403, Category B. Prior

to the overlay, a leveling course of 3/4" Ultra-Thin, asphalt will be required from the B.O.P. (Sta. 10+00) to the beginning of the median island pavement (Sta. 230+80) (Approximately 5,320 tons). Publicly maintained roads or streets shall be surfaced with 1½" of 9.5-mm, ST, asphalt to the existing R.O.W. (3,310 tons). Privately owned entrances shall be surfaced a distance of 10 feet and variable from edge of pavement (Approximately 150 tons). Trench widening of 2' wide and 3" deep shall be performed at all crossovers. All crossovers, including those at county road locations, shall be widened on both sides from mainline to mainline. The trench may be filled in concurrence with the 9.5-mm, ST asphalt surface lift (Approximately 210 tons). Crossovers, gore areas, ramps, turn lanes, guardrail pads and existing paved shoulders shall be surfaced with 1½" and variable 9.5-mm, ST, asphalt (Approximately 5,770 tons). Existing cross slopes of 2% in tangent sections or proper superelevation rates in curves shall be maintained. If water stands when project is complete, the Contractor shall correct at no additional cost to the State.

(E) Random clearing shall be performed within the specified clearing limits, including vegetation overhanging the edge of the clearing limits. Overhanging vegetation shall be trimmed to a minimum height of thirty (30) feet above the ground elevation at the edge of the clearing limits. It is the intent of this Contract for vegetation, with the exception of any merchantable timber that the Contractor desires, to be mulched onsite and left in place. Mulching will be prohibited in residential locations that are maintained by adjacent landowners. All vegetative material shall be removed from these areas and mulched at a location on the project where mulching is allowed. In the event random clearing is required in a residential location, when work is complete the location shall be left as close to the original condition as possible. Mulched material shall be spread such that no more than four (4) inches in depth of material is placed in any one location. This work shall be paid for under pay item 201-D: Random Clearing, per station. Each side of the roadway will be measured separately. Clearing within two feet (2') of fences, utilities, and other obstructions as directed by the Project Engineer within the ROW is to be omitted in order to avoid damages.



PAY DETAIL FOR RANDOM CLEARING

(F) The existing shoulders shall be raised to match the new pavement elevation by placing 2¼” and variable Size 825B crushed stone on the shoulders (Approximately 3,770 tons). The material shall be bladed, rolled and compacted to a finished slope of 4% where practical. Shoulders with existing adequate shoulder material in place shall be bladed to a slope of 4%; the cost of which shall be included in the prices of other items bid.

(G) Concrete curb and gutter as well as median island pavement repair will be required at the following locations:

Concrete Curb and Gutter

STATION	TYPE	LENGTH (FEET)
234+10	Header	10
241+10	Type 3	10
251+00	Header	10
293+50	Type 3	5
294+00	Type 3	5
297+00	Type 3	10
300+00	Type 3	20

Concrete Median Island Pavement, 4-inch

STATION	LENGTH (FEET)	WIDTH (FEET)	TOTAL (SQUARE YARDS)
269+50	10	12	13.3
265+00	10	2	2.2
297+00	10	12	13.3
320+00	10	12	13.3

* Saw cuts for removal of existing curb and gutter and concrete median island will be considered an absorbed item.

(H) Drainage Items. Culverts listed on the Estimated Drainage Quantities detail below shall be extended by placing reinforced concrete pipe, flared end sections, toe walls, and pipe collars. Approximately 15 cubic yards of Class B Concrete is required for the toe walls and pipe collars. Any select material that may be required will be paid for under pay item 304. Any structure excavation required will be absorbed in other items of work. The roadway shoulders shall be widened in the vicinity of the culvert extensions using pay item 203 according to the detail in the Pipe Extension Typical Section (approximately 1,850 cubic yards). The entire widened area shall be covered with solid sod (approximately 4,200 square yards).

ESTIMATED DRAINAGE QUANTITIES

Station	Type	Flared End Sections				RCP				Class B Conc.	Remarks
		30"	36"	58"x36"	51" x 31"	30"	36"	58" X 36"	51" x 31"		
201+00	4' x 4' Box			2				2		4.78	Ext Rt & Lt
236+50	36" RCP		2				1			1.22	Ext Rt & Lt
241+00	4' x 4' Box			2				2		4.78	Ext Rt & Lt
247+70	30" RCP	2				2				1.44	Ext Rt & Lt
269+00	3' x 3' Box				1				1	0.61	Ext Rt
276+00	30" RCP	1				1	1			2.10	Ext Rt
	TOTALS	3	2	4	1	3	2	4	1	15.0	
		EA	EA	EA	EA	EA	EA	EA	EA	CY.	

General Notes:

- A concrete collar shall be constructed around the arch pipe so as to completely fill all voids between the pipe and the box culvert. Concrete shall be placed on the inside of the pipe to provide a smooth transition between the existing box flowline and the new pipe flowline.
- Any excavation required to shape the ditch will not be paid separately but will be absorbed in other items of work, as well as, stripping of topsoil and any erosion control items needed to prevent erosion
- Any doweling of the reinforcement into the existing structure, as well as, removal of existing structure will be considered incidental to the work and will not be paid separately but will be absorbed in other items of work.

(I) Temporary striping shall conform to finished stripe specifications for alignment, neatness, reflectivity, and straightness. All permanent pavement markings on asphalt shall be hot thermoplastic. Edge lines shall be placed so as to maintain the original lane width. All traffic stripe on bridges and the intersection of Hardy Street and US 49 shall be removed and replaced with high performance cold plastic or inverted profile thermoplastic. Special care shall be taken for the placement of thermoplastic detail stripe along the edge of pavement at turn-outs on all local roads and along tapers where detail stripe is required as per Typical PM-11. There shall be at least two feet (2') of pavement behind the Traffic Stripe.

(J) All publicly maintained roads and streets shall be marked with two-way clear reflective high performance raised markers according to sheet PM-11 of the Standard Drawings. Red-clear reflective high performance raised markers shall be placed every 40' on US 49 regardless if in tangent or horizontal curves. Any removal of existing raised pavement markers or rumble bars shall be considered an absorbed item. Only flexible adhesive meeting the requirements of Subsection 720.03.7.7 shall be allowed for placement of raised pavement markers. Existing ground mounted delineators shall be removed before paving operations and will be considered an absorbed item.

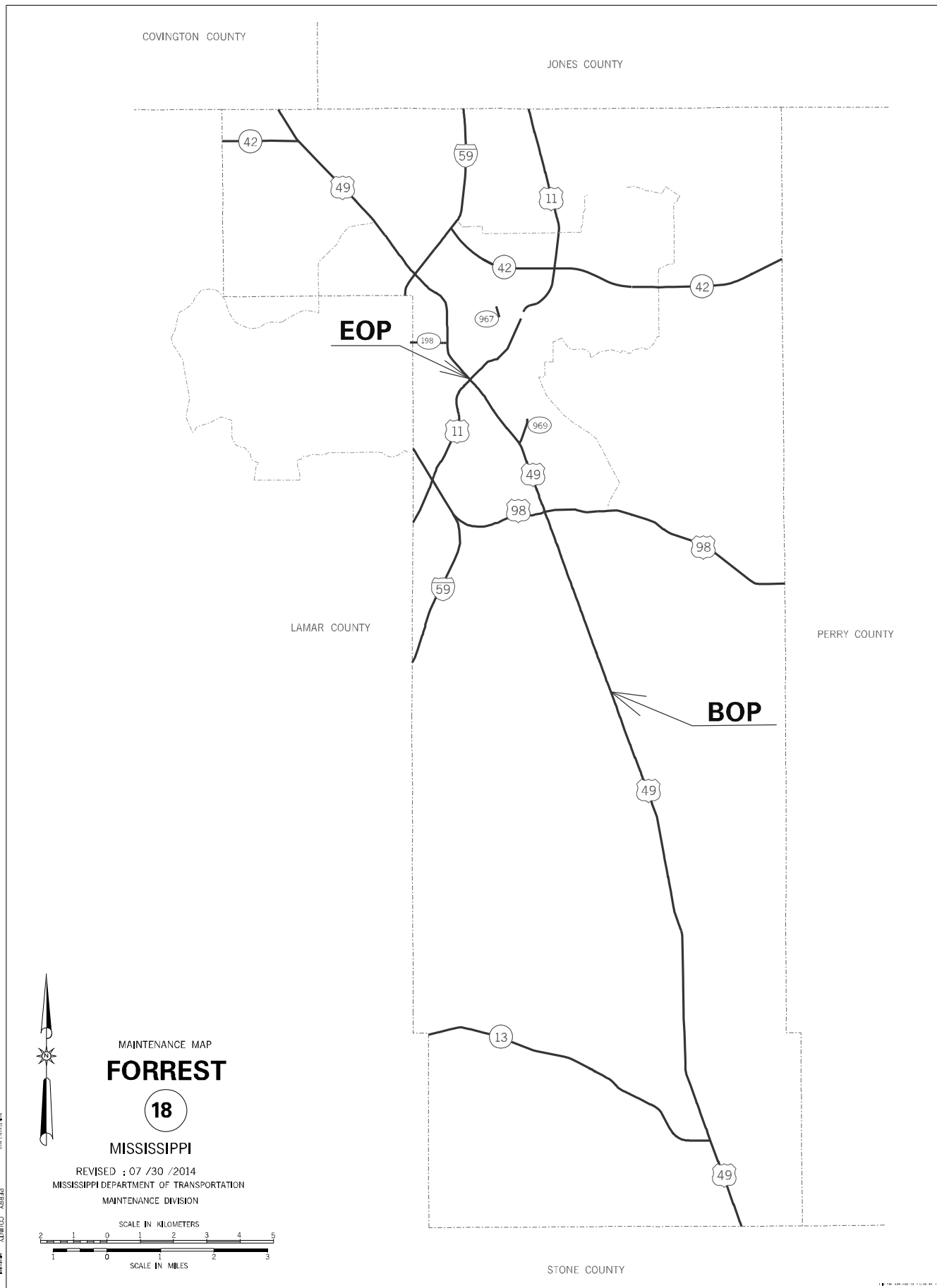
(K) If pavement section marking tape is encountered on this project, it shall be located prior to commencement of work and placed back in the same location after paving operations have ceased. The section marking shall be 6-inch high performance cold plastic detail stripe and shall be four

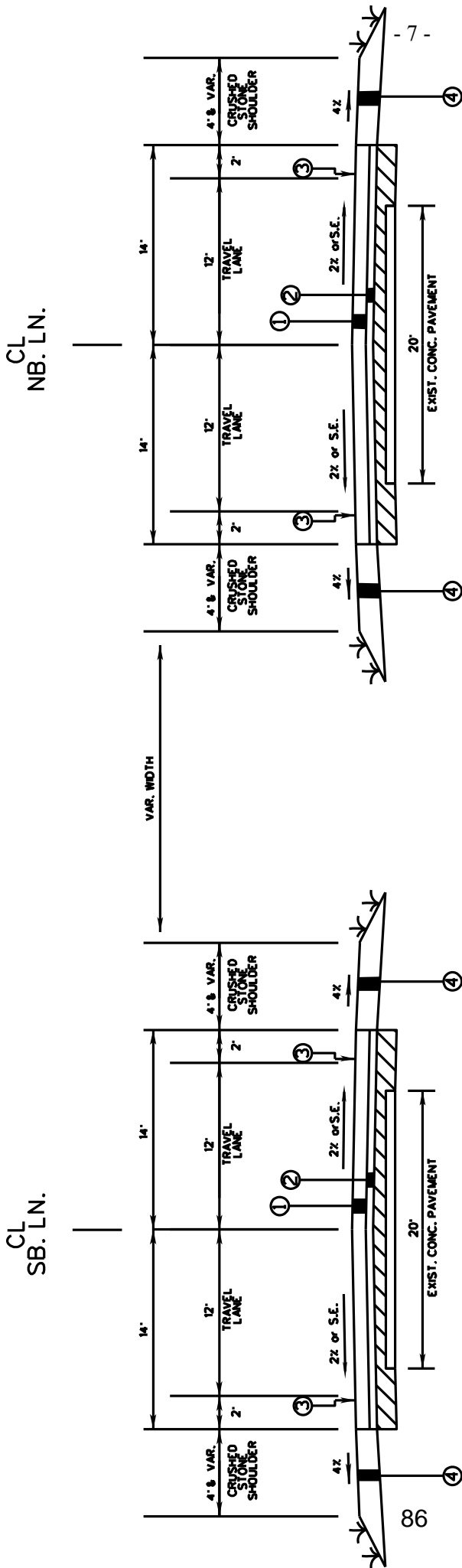
feet (4') in length. The marking shall be centered across the centerline stripe. The cost of this item shall be absorbed in other bid items.

(L) The Contractor shall erect and maintain construction signing, and provide all signs and traffic handling devices, and shall provide two portable R16-3 signs per work zone or lane closure in addition to signs required by standard drawings in accordance with Manual Uniform Traffic Control Devices (MUTCD). The cost of this work shall be included in the price bid for pay item 618-A: Maintenance of Traffic.

(M) Incidental work such as removing vegetation, shaping and compaction of shoulder, removing excess asphalt material, project clean-up, and other incidental work necessary to complete the project will not be measured for separate payment, and should be included in other bid items, and must be performed during the operating hours for this project.

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



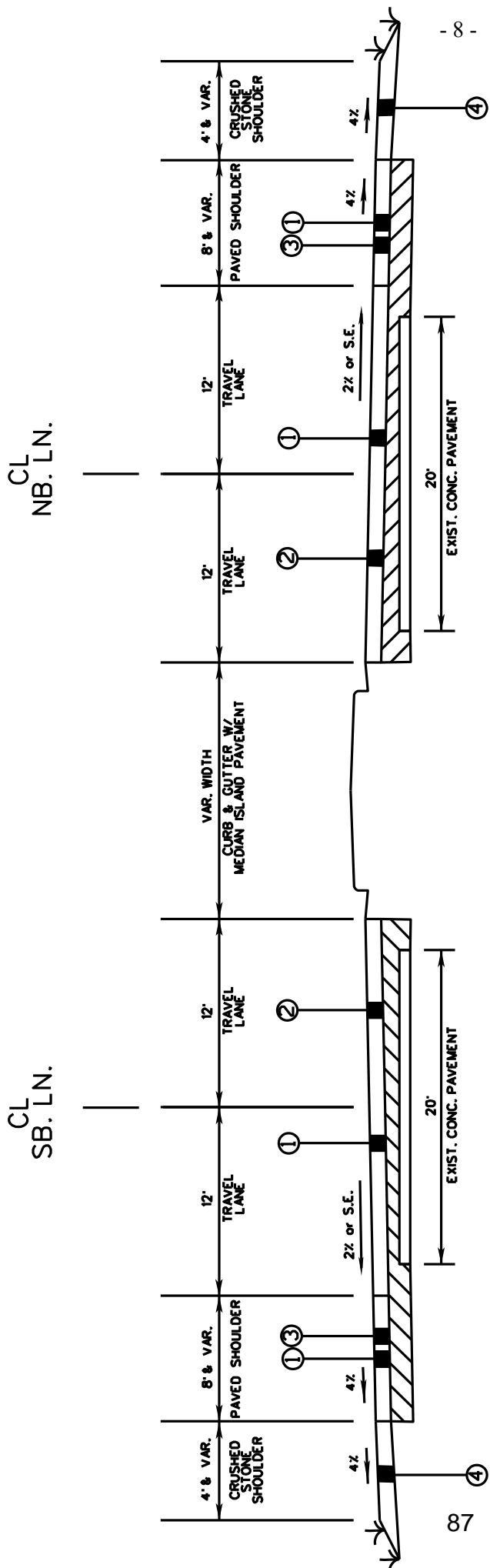


TYPICAL SECTION

LEVEL & OVERLAY
US 49

STA. 10+00 TO STA. 18+00
STA. 75+00 TO STA. 180+00

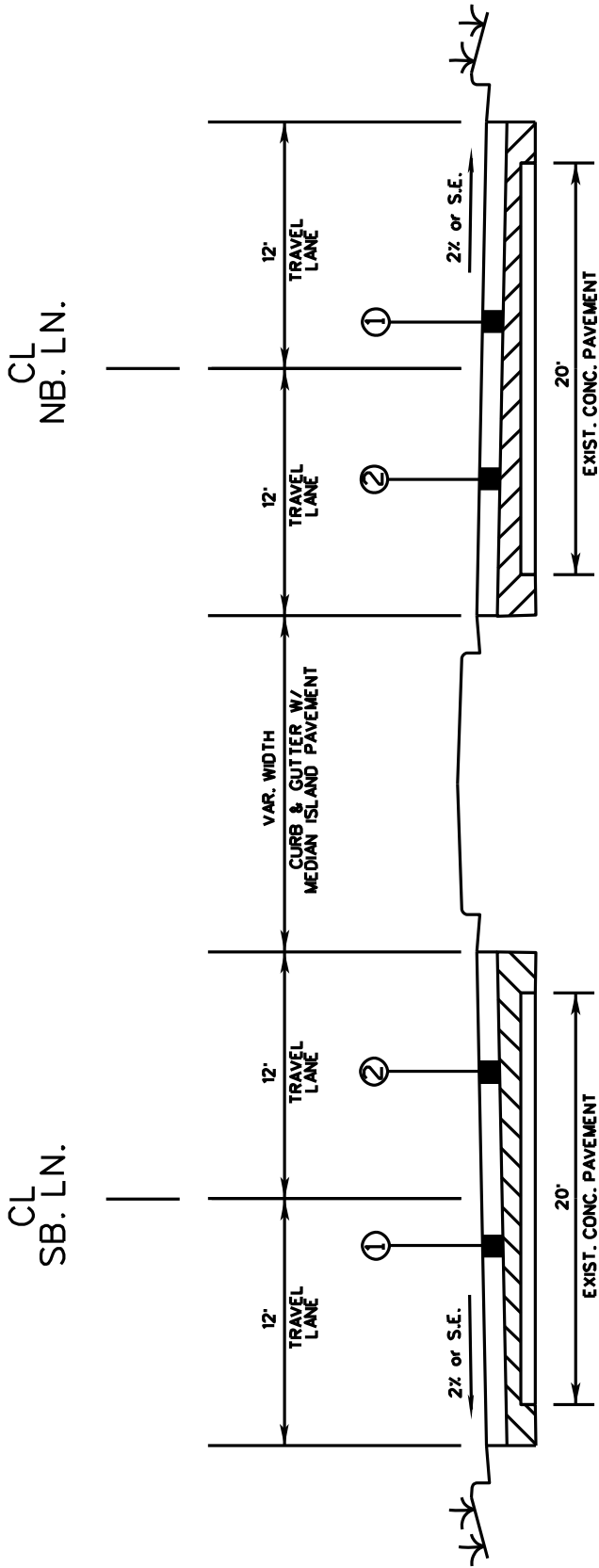
- ① 1 1/2" ASPHALT PAVEMENT, HT POLYMER MODIFIED, 9.5mm MIXTURE
- ② 3/4" ULTRA-THIN, LEVELING, ASPHALT MIXTURE
- ③ RUMBLE STRIP
- ④ 2 1/4" ± VAR. 825B CRUSHED STONE SHOULDERS



TYPICAL SECTION
 MILL & OVERLAY WITHIN MEDIAN ISLAND SECTION
 US 49

STA. 230+00 TO STA. 295+00
 STA. 310+00 TO STA. 331+50

- ① 1 1/2" FINE MILLING
- ② 1 1/2" ASPHALT PAVEMENT, HT POLYMER MODIFIED, 9.5mm MIXTURE
- ③ 1 1/2" ASPHALT PAVEMENT, ST, 9.5mm MIXTURE
- ④ 1 1/2" & VAR. 825B CRUSHED STONE SHOULDERS



TYPICAL SECTION

MILL & OVERLAY WITHIN MEDIAN ISLAND AND OUTSIDE CURB & GUTTER SECTION

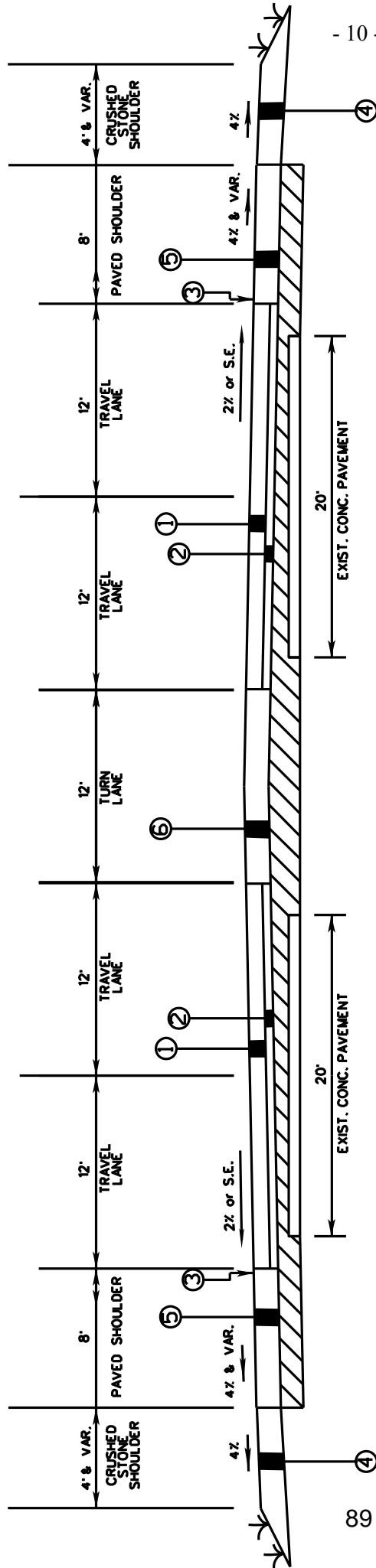
US 49

STA. 295+00 TO STA. 310+00

- ① 1 1/2" FINE MILLING
- ② 1 1/2" ASPHALT PAVEMENT, HT POLYMER MODIFIED, 9.5mm MIXTURE

CL
SB. LN.

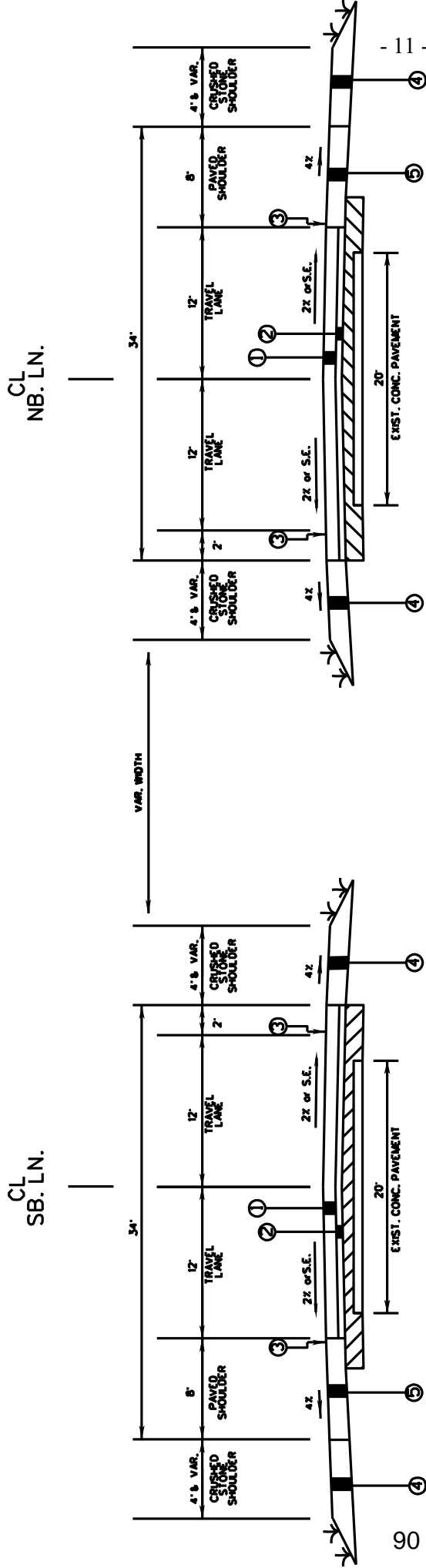
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SB. LN.



TYPICAL SECTION
 LEVEL & OVERLAY WITH PAVED OUTSIDE SHOULDER
 US 49

STA. 180+00 TO STA. 230+00

- ① 1 1/2" ASPHALT PAVEMENT, HT POLYMER MODIFIED, 9.5mm MIXTURE
- ② 3/4" ULTRA-THIN, LEVELING, ASPHALT MIXTURE
- ③ RUMBLE STRIP
- ④ 1 1/2" & VAR. 825B CRUSHED STONE SHOULDERS
- ⑤ 1 1/2" & VAR. DEPTH ASPHALT PAVEMENT, ST, 9.5mm MIXTURE
- ⑥ 2 1/4" & VAR. DEPTH ASPHALT PAVEMENT, HT POLYMER MODIFIED, 9.5mm Mixture

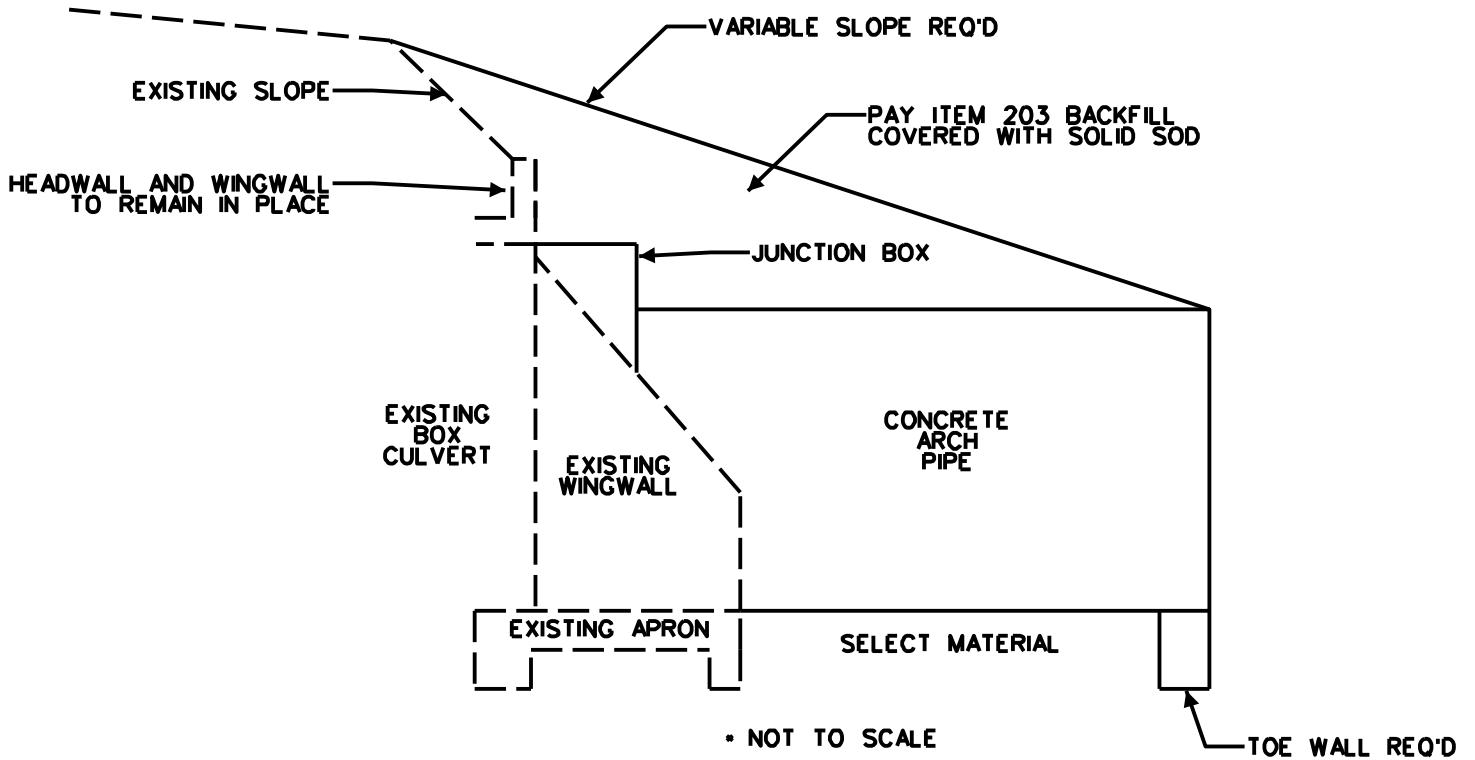
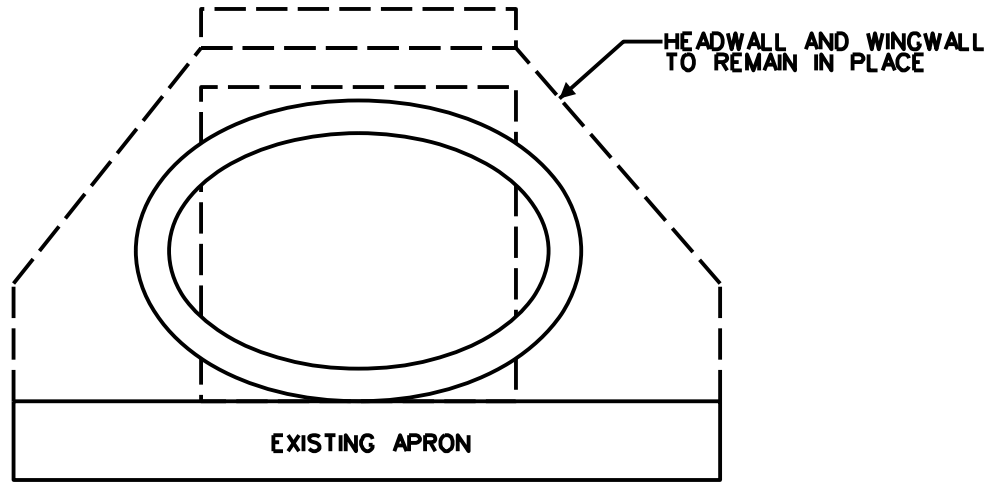


TYPICAL SECTION
 LEVEL & OVERLAY WITH PAVED OUTSIDE SHOULDER
 US 49

STA. 18+00 TO STA. 55+50
 STA. 59+70 TO STA. 75+00

- ① 1 1/2" ASPHALT PAVEMENT, HT POLYMER MODIFIED, 9.5mm MIXTURE
- ② 3/4" ULTRA-THIN, LEVELING, ASPHALT MIXTURE
- ③ RUMBLE STRIP
- ④ 2 1/4" & VAR. 825B CRUSHED STONE SHOULDERS
- ⑤ 1 1/2" & VAR. ASPHALT PAVEMENT, ST 9.5

JUNCTION BOX FOR BOX CULVERT TO CONCRETE ARCH PIPE



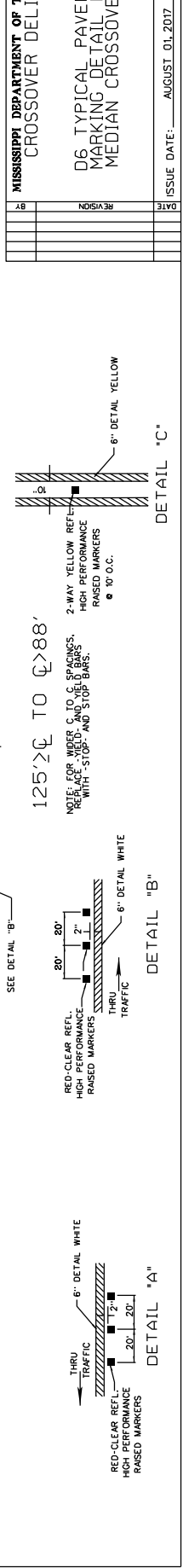
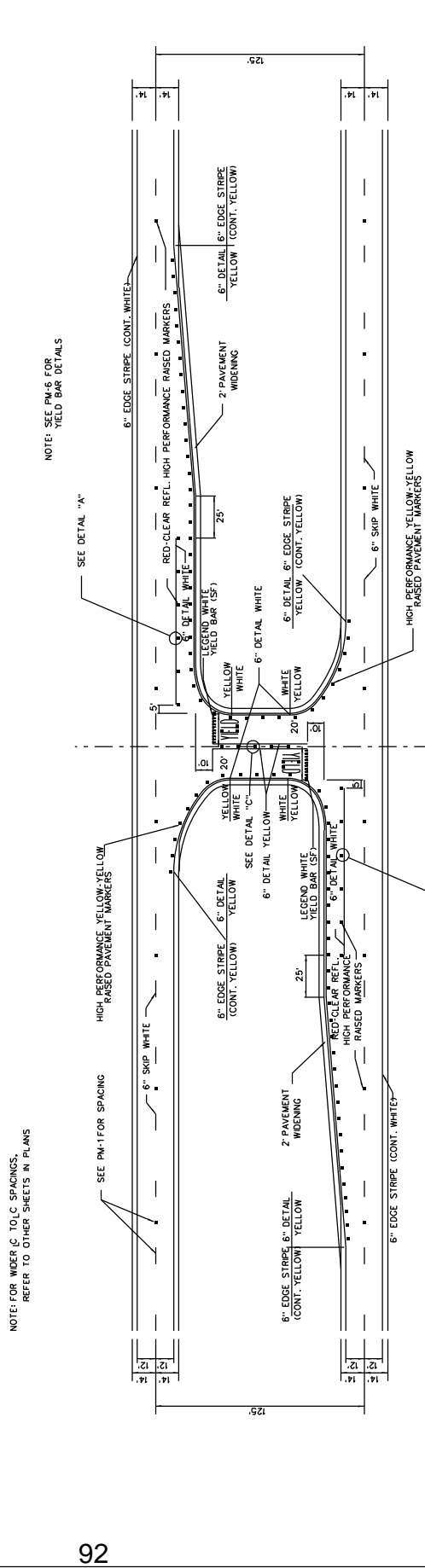
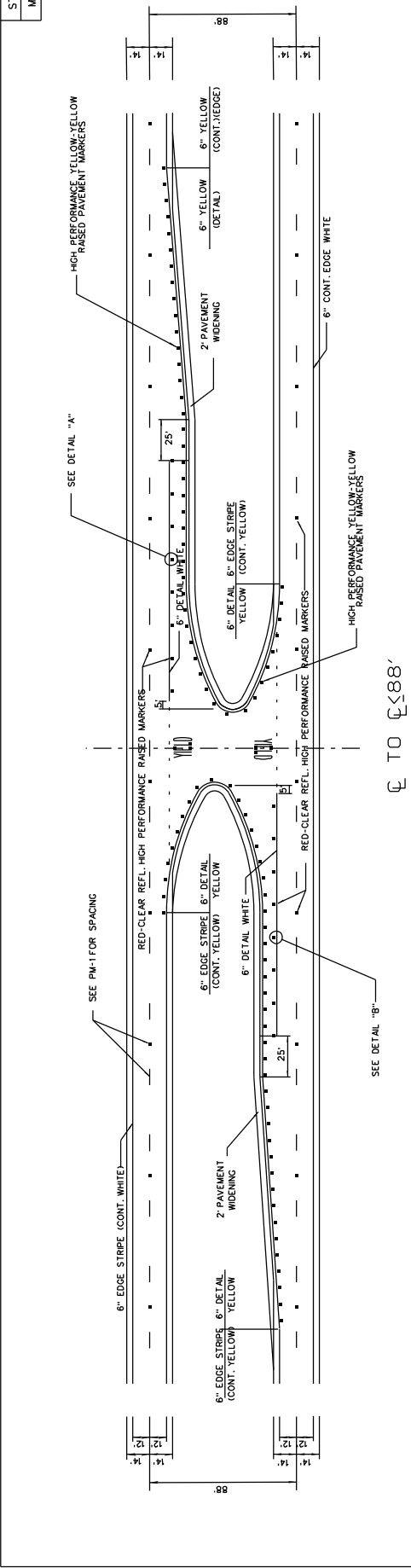
1. MDOT STANDARD DRAWING JB-1A TO BE REFERENCED FOR CONSTRUCTION DETAILS
2. ANY DOWELING OF THE REINFORCEMENT INTO THE EXISTING STRUCTURE WILL BE ABSORBED IN OTHER ITEMS OF WORK.

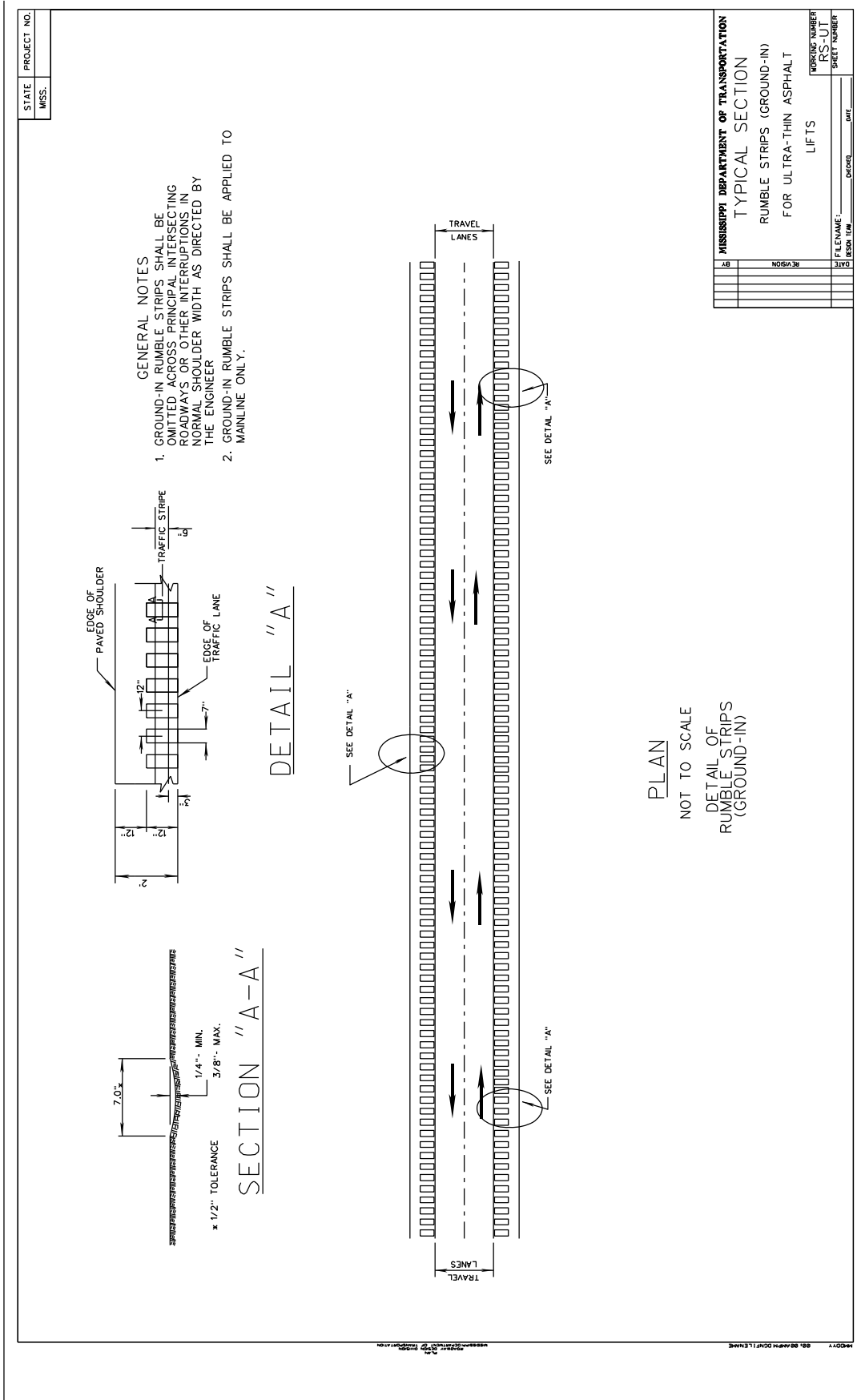
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
CROSSOVER DELINEATION

D6 TYPICAL PAYEMENT MARKING DETAIL FOR MEDIAN CROSSOVERS

ISSUE DATE: AUGUST 01, 2017

WORKING NUMBER: D6-10
SHEET NUMBER: 6059





MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 – NOTICE TO BIDDERS NO. 5050

CODE: (SP)

DATE: 4/18/2023

SUBJECT: Lane Closure Restrictions

PROJECT: MP-6049-18(025)/308565301– Forrest County

Bidders are advised of the following restrictions within the curb and gutter section:

- Lane closures on US 49 shall be restricted between the hours of 6:30 am to 9:00 am and from 3:30 pm to 6:00 pm.
- Changes or variances from the listed restrictions shall be submitted to the Project Engineer in writing for review and written approval.

A lane rental fee of **\$1,500.00** per full or partial 5 minutes shall be assessed for closures or obstructions that extend beyond the times mentioned above. No exposed signs shall be viewable to the traveling public prior to or after the above mentioned times. No part of a closures, drums or cones, shall be in the roadway prior to or after the above mentioned times.

Failure to begin work within this one (1) hour will result in the contractor being assessed a lane rental fee of **\$1,500.00** per full or partial 5 minutes until work begins.

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. 907-103-2

CODE: (SP)

DATE: 06/22/2017

SUBJECT: Award and Execution of Contract

Section 103, Award and Execution of Contract, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-103.01--Consideration of Proposal. Delete the second and third paragraphs of Subsection 103.01 on page 19, and substitute the following.

907-103.01.1--For Projects Constructed Without Federal Funds. Resident Contractors actually domiciled in Mississippi are to be granted preference over nonresidents in awarding of Contracts financed 100% with State funds.

In consideration of proposals that are equal to or in excess of \$50,000 and financed 100% with State funds, a nonresident bidder domiciled in a state having laws granting preference to local Contractors will be considered for such contracts on the same basis as the nonresident bidder's state awards contracts to Mississippi Contractors bidding under similar circumstances. When a nonresident Contractor submits a bid equal to or in excess of \$50,000 on a contract financed 100% with State funds, a copy of the current laws from the state of domicile and an explanation thereof pertaining to treatment of nonresident Contractors shall be attached. If no preferential treatment is provided for Contractors in the state of domicile and contracts are awarded to the lowest responsible bidder, a statement to this effect shall be attached. Should the attachment not accompany the bid when submitted, the Contractor shall have 10 days following the opening of the bids to furnish the required information to the Contract Administration Director for attachment to the bid. Failure to provide the attachment within 10 days will result in the nonresident Contractor's bid being rejected and not considered for award. As used herein, the term "resident Contractor" includes a nonresident person, firm or corporation that has been qualified to do business in this State and has maintained a permanent full-time office in the State of Mississippi for two years prior to the submission of the bid, and the subsidiaries and affiliates of such a person, firm or corporation.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-105-1

CODE: (SP)

DATE: 05/07/2021

SUBJECT: Authority of the Engineer

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

907-105.1--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.

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. 907-109-4

CODE: (IS)

DATE: 04/19/2021

SUBJECT: Measurement and Payment

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

907-109.01--Measurement of Quantities. Delete the sixth full paragraph of Subsection 109.01 on 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.

907-109.06--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. 907-411-1

CODE: (IS)

DATE: 06/13/2018

SUBJECT: Material Transfer Equipment

Section 411, Ultra-Thin Asphalt Pavement, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-411.03--Construction Requirements. After Subsection 411.03.10 on page 327, add the following.

907-411.03.11--Material Transfer Equipment. Excluding the areas mentioned below, the material transferred from the hauling unit shall be remixed prior to being placed in the paver hopper or insert by using an approved Materials Transfer Device. Information on approved devices can be obtained from the State Construction Engineer. Areas excluded from this requirement include: temporary work of short duration, detours, bridge replacement projects having less than 1,000 feet of pavement on each side of the structure, acceleration and deceleration lanes less than 1,000 feet in length, tapered sections, transition sections (for width), shoulders less than 10 feet in width, crossovers, ramps, side street returns and other areas designated by the Engineer.

907-411.05--Basis of Payment. Add the “907” prefix to the pay item listed on page 328.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

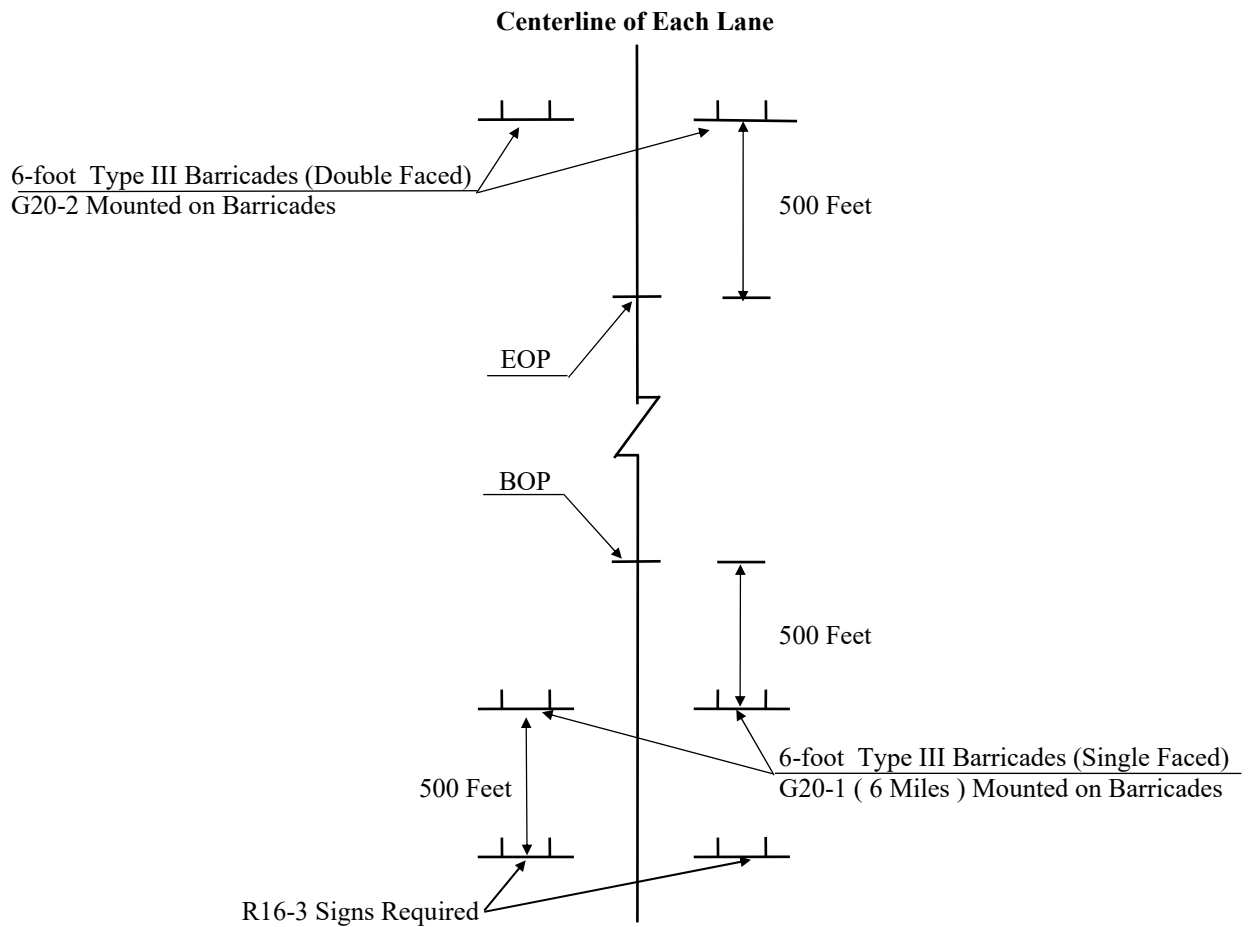
SUPPLEMENT TO SPECIAL PROVISION NO. 907-618-4

DATE: 02/21/2023

PROJECT: MP-6049-18(025)/308565301– Forrest County

After the first paragraph of Subsection 907-618.01.2 on page 1, add the following.

Additional traffic control devices will be required as follows.

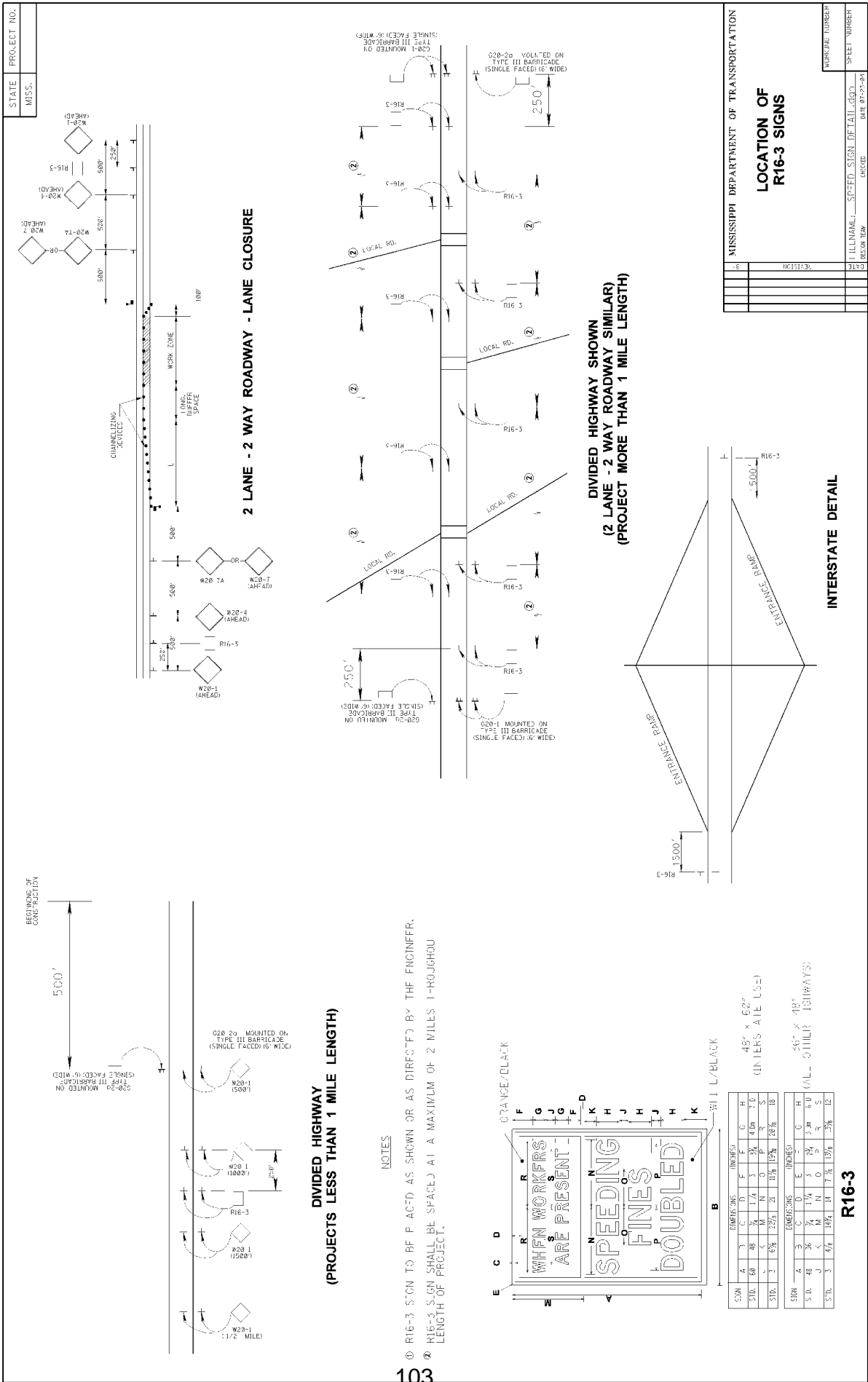


ADDITIONAL TRAFFIC CONTROL SIGNS REQUIRED:

- 34 - W20-1 “AHEAD” signs required. One (1) sign is required at each local road or street entering the project.
- 12 - R16-3 “SPEEDING FINES DOUBLED” signs required.

R16-3 signs shall be spaced in accordance with sheet titled “Location of R16-3 Signs”.

All construction signs and barricades shown on this page shall be included in the bid price for Pay Item 618-A, Maintenance of Traffic. Fluorescent orange sheeting shall be used on all construction and traffic control signs except for R16-3 which shall be black legend and border on white background.



STATE	MISS.
PROJECT NO.	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION	
LOCATION OF R16-3 SIGNS	
PROJECT NO.	MS-11131
DATE	07-27-94
DESIGNED BY	
CHECKED BY	
DATE	
PROJECT NO.	
DATE	

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-618-4

CODE: (SP)

DATE: 02/01/2018

SUBJECT: Additional Signing Requirements

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.

907-618.01.2--Traffic Control Plan. At the end of Subsection 618.01.2 on page 441, add the following:

For compliance with the traffic control plan, the Contractor will be required to install and maintain **traffic control devices** at various locations throughout the project. Payment for these **devices** will be included in the price bid for pay item no. 618-A, Maintenance of Traffic per lump sum.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-624-1

CODE: (SP)

DATE: 01/17/2017

SUBJECT: **Inverted Profile Thermoplastic Traffic Stripe**

Section 907-624, Inverted Profile Thermoplastic Traffic Stripe, is hereby added to and made part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

907-624.01--Description. Inverted profile thermoplastic pavement markings consists of furnishing materials and placing inverted profile thermoplastic pavement markings in reasonably close conformity with these specifications and the details shown on the plans or established.

Inverted profile thermoplastic pavement markings, high contract, shall consist of furnishing materials and placing inverted profile thermoplastic pavement markings over a black thermoplastic pavement marking in order to enhance the marking's visibility.

907-624.02--Materials.

907-624.02.1--General. The inverted profile thermoplastic marking material shall consist of an alkyd/maleic or hydrocarbon based formulation. The material shall be so manufactured as to be applied to the pavement in a molten form, with internal and surface application of glass spheres, and upon cooling to normal pavement temperature, shall produce an adherent, reflectorized pavement marking of specified thickness and width, capable of resisting deformation.

Materials shall be obtained from approved sources as listed on the Department's "List of Approved Sources" for Inverted Profile Thermoplastic Pavement Marking Materials. The material shall not scorch, break down, discolor, or deteriorate when held at the application temperature for four hours or when reheated four times to the application temperature. Temperature-vs-viscosity characteristics of the plastic material shall remain constant when reheated four times, and shall be the same from batch to batch.

The thermoplastic material shall be a product especially compounded for pavement markings. The pavement markings shall maintain their original dimension and shall not smear or spread under normal traffic at temperatures below 140°F. The markings shall have a uniform cross section. Pigment shall be evenly dispersed throughout its thickness. The exposed surface shall be free from tack and shall not be slippery when wet. The material shall not lift from pavement in freezing weather. Cold ductility of the material shall be such as to permit normal movement with the pavement surface without chipping or cracking.

Black thermoplastic compound for the placement of inverted profile thermoplastic pavement markings, high contract, shall consist of a hydrocarbon or alkyd/maleic based formulation.

The manufacturers of the thermoplastic compound, glass beads and epoxy primer sealer shall furnish to the Engineer three copies of certified test reports showing results of all tests specified herein and shall further certify that the materials meet all requirements. The Contractor shall provide the warranty as specified herein to the Engineer.

907-624.02.2--Inverted Profile Thermoplastic Material. The thermoplastic material shall consist of homogeneously mixed pigments, fillers, resins and glass beads, and shall be available in both white and yellow. The material shall be free from all skins, dirt, and foreign objects. Materials shall conform to AASHTO M 249 with the following modifications:

907-624.02.2.1--Intermixed Glass Beads. The thermoplastic material shall contain a minimum of 40 percent Class H glass beads by weight. Class H glass beads shall meet the requirements of ASTM D 1155, and shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO M 247, Section 4.4.2. Class H beads shall have a minimum of 70 percent true spheres and the +20 sieve shall be tested visually.

The gradation of the Class H beads shall meet the following:

<u>U. S. Standard Sieve</u>	<u>% Passing</u>
12	100
14	95 - 100
16	80 - 100
18	30 - 100
20	15 - 100
30	10 - 100
50	0 - 50
100	0 - 5

907-624.02.2.2--Binder Content. The binder content of the thermoplastic material shall be 19 percent minimum.

907-624.02.2.3--Titanium Dioxide. The titanium dioxide shall meet ASTM D 476, Type II, Rutile grade - 10 percent minimum titanium content.

907-624.02.2.4--Yellow Pigment. The yellow pigment for the yellow thermoplastic material shall be five (5) percent minimum.

907-624.02.2.5--Specific Gravity. The specific gravity of the thermoplastic pavement marking material shall not exceed 2.35.

907-624.02.2.6--Flow Characteristics.

907-624.02.2.6.1--Flowability. After heating the thermoplastic material for four (4) hours ±5 minutes at 425 ±3°F and testing flowability, the white thermoplastic shall have a maximum percent residue of 22 percent and the yellow thermoplastic shall have a maximum residue of 24 percent.

907-624.02.2.6.2--Flow Resistance. The material shall exhibit a maximum flow of 10%. The material's ability to form ribs on the markings shall be evaluated by casting a disc of material approximately 3.5 inches wide by 1.0 inch long by and 0.60 inch deep. After the material is cooled to ambient temperature, measure the exact height. The material shall then be stored at 190°F for four (4) hours. After the material is cooled to ambient temperature, re-measure the exact height and express the flow resistance as a flow percentage.

907-624.02.2.7--Reflectivity. The initial reflectance for the in-place marking shall have a minimum reflectance value of 450 mcd/ft² for white and 350 mcd/ft² for yellow, when measured with a MiroLux Ultra 30 retroreflectometer, or approved equal.

907-624.02.2.8--Wet Reflectivity. The initial reflectance for the in-place marking when wet shall have a minimum reflectance value of 200 mcd/ft² for white and 175 mcd/ft² for yellow, when measured with an approved retroreflectometer. The stripe shall be wetted utilizing a pump type sprayer for five (5) seconds. After 30 seconds, place the retroreflectometer on the stripe and measure the reflectance.

907-624.02.2.9--Inverted Profile. The thermoplastic pavement marking material shall be applied to have individual profiles having a minimum height of 0.140 inches with the recessed inverted profiles having a thickness of 0.025 to 0.050 inches. The profiles shall be well defined, spaced approximately one (1) inch apart, and not excessively run back together.

907-624.02.3--Black Pavement Marking Material for High Contrast Inverted Profile Pavement Markings.

907-624.02.3.1--General. In the molten state, the material shall not give off fumes that are toxic or otherwise injurious to persons or property. The manufacturer shall provide material safety data sheets for the product.

The temperature versus viscosity characteristic of the plastic material shall remain constant and the material shall not deteriorate in any manner during three reheating processes. There shall be no obvious change in color of the material as a result of up to three reheatings, or in maintaining the material at application temperature up to an aggregate time of four (4) hours, or from batch to batch. The maximum elapsed time after application at which normal traffic will leave no impression or imprint on the new stripe shall be 30 seconds when the air and road surface temperature is approximately 68 ±5°F. The applied stripe shall remain free from tack and shall not lift from the pavement under normal traffic conditions within a road temperature range of -20°F to 150°F. The stripe shall maintain its original dimensions and placement. Cold ductility of the material shall be such as to permit normal dimensional distortion as a result of tire impact within the temperature range specified.

The material shall provide a stripe that has a uniform thickness throughout its cross section.

907-624.02.3.2--Binder. The binder shall be hydrocarbon or alkyd/maleic based. The binder shall consist of a homogeneous mixture of pigment, fillers, resins, waxes and plasticizers. The total

binder content shall be well distributed throughout the compound. The binder shall be free from all foreign objects or ingredients that would cause bleeding, staining or discoloration. The binder shall be 19 percent minimum by weight of the thermoplastic compound.

907-624.02.3.3--Pigment. The pigment used for black pavement marking compound shall be as required and shall be uniformly distributed throughout the marking compound.

907-624.02.3.4--Filler. The filler to be incorporated with the resins shall be a white calcium carbonate, silica or any approved substitute.

907-624.02.3.5--Specific Gravity. The specific gravity of the marking compound shall not exceed 2.0.

907-624.02.3.6--Softening Point. After heating the marking compound for 4 hours \pm 5 minutes at $375 \pm 3^\circ\text{F}$ and testing in accordance with ASTM E 28, the material shall have a minimum softening point of 180°F as measured by the ring and ball method.

907-624.02.3.7--Tensile Bond Strength. After heating the marking compound for 4 hours \pm 5 minutes at $375 \pm 3^\circ\text{F}$, the tensile bond strength shall exceed 180 psi when tested in accordance with ASTM D 4806. The material shall be applied to unprimed, sandblasted Portland cement concrete block at a thickness of 0.0625-inch and at a temperature of $375 \pm 3^\circ\text{F}$. The test shall be conducted at room temperature.

907-624.02.3.8--Impact Resistance. After heating the marking compound for 4 hours \pm 5 minutes at $375 \pm 3^\circ\text{F}$, the impact resistance shall be a minimum of 50 inch-pounds minimum when tested in accordance with ASTM D 2794. No cracks or bond loss shall occur when a 0.0625-inch thick film drawdown is made at $375 \pm 3^\circ\text{F}$ on an unprimed sandblasted Portland cement concrete block. The sample is tested with a male indenter 5/8-inch and no female Die at room temperature.

907-624.02.3.9--Identification. Each package of material shall be stenciled with the manufacturer's name, the type of material and specification number, the month and year the material was packaged and lot number. The letters and numbers used in the stencils shall be a minimum of 1/2 inch in height.

907-624.02.3.10--Packaging. The material shall be packaged in suitable containers that will not adhere to the product during shipment and storage. The container of pavement marking material shall weigh approximately 50 lbs. Each container shall designate the color, type of resin, type of application and user information. The label shall warn the user that the material shall be heated in the range of 350° to 425°F .

907-624.02.3.11--Storage Life. The material shall meet the requirements of this specification for a period of one year. The material must also meet uniformly with no evidence of skins or unmelted particles for this one-year period. The manufacturer shall replace any material not meeting the above requirements.

907-624.02.3.12--Certifications. The material manufacturer shall furnish a certified copy of material test reports to the Engineer.

907-624.02.4--Drop-On Glass Beads. Drop-on glass beads shall be separated into two (2) classes, as follows:

907-624.02.4.1--Class G Glass Beads. Class G glass beads shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO M 247, Section 4.4.2 and shall exhibit the following characteristics:

- **Color and Clarity:** The glass beads shall be colorless and clear, and shall be free of carbon residues.
- **Index of Refraction:** minimum 1.50
- **Roundness:** The glass beads shall have a minimum of 80% true spheres per screen for the two highest sieve quantities, determined visually, and a maximum of 3% angular particles per sieve, determined visually. The remaining sieves shall have a minimum of 75% true spheres, determined visually per aspect ratio using microfiche reader.
- **Air Inclusions:** 10% maximum
- **Specific Gravity:** The specific gravity of the glass beads shall be a minimum of 2.50.
- **Gradation:** The gradation of Class G glass beads shall be as follows:

<u>U. S. Standard Sieve</u>	<u>% Passing</u>
12	100
14	100 - 95
16	100 - 80
18	100 - 20
20	90 - 20
30	100 - 50
Pan	100 - 90

All Class G glass beads shall be coated with an adhesion promoting coating.

907-624.02.4.2--Class H Glass Beads. Class H glass beads shall meet the requirements of ASTM D 1155, and shall be coated with an adhesion promoting coating which shall also provide moisture resistance as tested by AASHTO M 247, Section 4.4.2. Class H beads shall have a minimum of 70 percent true spheres and the +20 sieve shall be tested visually.

The gradation of the Class H beads shall meet the following:

<u>U. S. Standard Sieve</u>	<u>% Passing</u>
16	99 - 100
20	75 - 100
30	55 - 95
50	10 - 35
100	0 - 5

907-624.03--Construction Requirements.

907-624.03.1--Equipment. The application equipment shall be specifically designed for placing thermoplastic material in a hot molten state on the pavement surface utilizing a pressure type application method. The thermoplastic stripe shall be formed by a die that is allowed to drag along in proximity with the pavement surface. The die is pulled forward by a special linkage that will allow it to automatically level itself as to float and remain parallel with the pavement surface. The traffic stripe shall be formed by reason that the hot thermoplastic material is forced under pressure through four sides to the die onto the pavement surface. The top of the die shall be enclosed and provide entry means for the hot molten thermoplastic material to enter the die cavity. The bottom of the die shall contain a movable door that is remote controlled so as to start or stop the flow of thermoplastic material onto the pavement surface. When the movable door is open, thermoplastic material can flow through the die and will apply a thermoplastic stripe that will be formed rearward of the advancing die. The pavement surface shall be at the bottom of the die enclosure. Thermoplastic material shall be fed to the die under pressure through flexible oil-jacketed stainless steel hoses. The thermoplastic material must be either pumped or fed from a pressure vessel to the die under pressure in order to obtain the proper adhesion with the pavement surface.

The system shall consist of a low pressure drop-on type glass bead gun, (bead coat #1). The thermoplastic die shall be oil-jacketed on four (4) sides and is formed from a single solid block of steel. The glass bead gun shall dispense glass beads onto the hot thermoplastic stripe from a height of approximately one (1) inch above the pavement surface. The point at which the glass beads strike the surface of the stripe shall be approximately three inches (3”) behind the strike point of the thermoplastic material itself. This reflective bead coat #1 shall utilize Class G glass beads as specified herein, and shall provide a surface coating of 50 percent of the thermoplastic stripe surface. Of this 50 percent stripe coverage, at least 50 percent of the beads shall be embedded to a depth of 60 percent of their diameter.

A second curtain coater, low pressure drop-on type glass bead gun capable of applying a continuous sheet or ribbon of glass beads, shall follow at an interval of approximately 10 inches behind the first bead gun. This second glass bead gun shall apply bead coat #2 which will form a continuous drop-on coat of Class H glass beads immediately in front of the profiling device. This second curtain of glass beads shall have a low impact speed so that they are not forced into the stripe under pressure.

A special rotatable wheel profiling device shall be located approximately eight (8) inches behind bead gun #2. This rotatable wheel device shall be approximately seven (7) inches in diameter and shall have a plurality of spaced projections located around its circumference. The profiling device shall be wider than the stripe being applied in order that the stripe shall be adequately covered. The projections on the rotatable profiling device shall have an angular profiling surface set at an angle to the pavement surface. The rotatable profile device shall be mounted with an automatic leveling device to the same carriage assembly as the thermoplastic gun. This is required so that a traffic stripe of accurate and uniform definition can be obtained. The inverted profile grooves shall be pressed into the hot molten thermoplastic stripe within one (1) second of the thermoplastic material application in order to insure proper bead adhesion to the stripe. Using rollers to place grooves in the traffic stripe utilizing a separate vehicle or grooves that are not pressed within one

(1) second of the thermoplastic material application will not be allowed. To insure that no thermoplastic material adheres to the wheel as it rotates and profiles the stripe, a small air atomizer water jet shall apply a thin mist coat of water to the rotatable profile wheel. It is the intent of this specification that a minimum amount of water be used and that no water puddles greater than ¼ inch in diameter be allowed to accumulate on the pavement surface in proximity to the freshly placed stripe. Excess water on the pavement surface can cause bond failure of the thermoplastic material.

All parts of the thermoplastic holding tank including manifolds, hoses, pipes, dies, etc., shall be oil-jacketed to insure accurate temperature control. The thermoplastic material shall be preheated in kettles designed specifically for that purpose. Each kettle of preheated thermoplastic material shall be properly mixed and heated to the correct application temperature. The preheated material shall then be fed to the thermoplastic gun for application.

The striping machine shall contain enough glass beads and water to apply one full kettle of thermoplastic material.

907-624.03.2--Cleaning of Pavement Surface. Immediately before application, the areas to receive markings shall be cleaned thoroughly using equipment capable of cleaning without damaging the pavement surface. This will include, but not be limited to, all vegetation, loose soil, oils, and other debris. On areas of pavement cured with compound, the membrane shall be removed completely by "shot" blasting, sand blasting or other approved method. Striping shall follow as closely as practical after the pavement surface has been cleaned.

907-624.03.3--Application Over Existing Striping. Where shown on the plans or directed by the Engineer, the existing traffic stripe shall be removed by grinding or sandblasting. When placing inverted profile thermoplastic pavement markings on existing pavement that has more than one light coat (pavement not showing through stripe) of striping material, the existing stripe shall be removed to the point that 80 percent of the pavement surface is visible.

Removal of existing stripe will be paid for as a separate item of work.

Where unsatisfactory striping performed by the Contractor must be removed and replaced in accordance with these specifications, the Contractor shall use the removal method described above. No payment will be made for removal or replacement of the Contractor's unsatisfactory striping.

907-624.03.4--Surface Conditions. When placing inverted profile thermoplastic pavement markings, no striping shall be permitted when the pavement surface temperature is less than 60°F. A non-contact infrared pyrometer shall be furnished by the Contractor for use by the Engineer for verification of the temperature. Striping shall not be performed when there is moisture on the pavement surface or when winds exceed 12 mph. When unseen moisture is suspected to be present, a moisture test shall be performed. The test shall be as follows:

- 1) Place a piece of roofing felt on the pavement surface.
- 2) Pour 0.5 gallon of thermoplastic material at application temperature onto the paper.

- 3) After two (2) minutes, lift the paper and inspect to see if moisture has been drawn from the pavement.
- 4) If moisture is present, striping is not to begin until the surface is moist free.

Documentation of weather and pavement conditions shall be recorded as part of completing the MDOT Inverted Profile Thermoplastic Pavement Marking Inspectors Report.

907-624.03.5--Application. Prior to the placement of pavement markings, the Contractor shall furnish the Engineer three copies of the manufacturer's warranty stating that the manufacturer will guarantee the pavement marking to meet the requirements of this specification.

The thermoplastic material shall be preheated and thoroughly mixed. The application temperature of the thermoplastic material shall be between 400°F and 430°F. A digital thermometer complete with a 24-inch probe shall be furnished by the Contractor for use by the Engineer for verification of the temperature.

When measured at the highest point of the profile, the cold thickness of the in-place thermoplastic stripe shall be a minimum of 0.140 inch for Inverted Profile Thermoplastic Pavement Markings. The thickness of the thermoplastic material in the bottom of the profiles shall range from 0.025 to 0.050 inch. The individual profiles shall be located transversely across the stripe at intervals of approximately one (1) inch. The bottoms of these intervals shall be between 3/32 inch and 5/16 inch wide. In order to drain water and to reflect light, it is normal for the top surface of the inverted profiles to be irregular. The application rate of thermoplastic material for Inverted Profile Thermoplastic Pavement Markings shall be a minimum of 2700± pounds per mile for a continuous 6-inch stripe.

The application rate for Class G glass beads (bead coat #1) shall be 300± pounds per mile for 6-inch continuous stripe.

The application rate for Class H glass beads (bead coat #2) shall be 300± pounds per mile for 6-inch continuous stripe.

The thickness of the striping materials shall be verified periodically (at least every 1320 feet) and any thickness more than five (5) percent under the designated thickness shall be reworked. A consistent, uncorrected under-run will not be allowed and the Contractor will be required to install the specified minimum thickness of 0.140 inch. A wet thickness gauge and cold thickness gauge shall be furnished by the Contractor for use by the Engineer for the verification of film thickness.

When striping over existing painted stripe (one light coat), on old oxidized asphalt, on all concrete surfaces or on asphalt surfaces when ambient temperatures are below 70°F, a two component epoxy primer sealer shall be used and installed as recommended in writing by the thermoplastic material manufacturer. The epoxy primer sealer shall be EX255/EX256 as manufactured by Crown Paint Company of Oklahoma City, Oklahoma, or approved equal. The Contractor shall furnish certification of compatibility of the epoxy primer sealer to be used with the thermoplastic material supplied. If an alternate epoxy primer sealer to the EX255/EX256 is used, the Contractor

shall furnish a mill analysis and proof of adequate performance of the alternate epoxy primer sealer when used with thermoplastic pavement markings.

907-624.03.6--Inverted Profile Thermoplastic Traffic Stripe, High Contrast. Before applying the black pavement marking material, the Contractor shall remove any dirt, glaze, grease or any other material that would reduce the adhesion of the thermoplastic to the pavement.

The pavement marking material shall be installed in a molten state by the spray method at a minimum temperature of 350°F and a maximum temperature of 425°F. Scorching or discoloration of material shall be cause for rejection by the Engineer. The machinery shall be constructed so that all mixing and conveying parts, up to and including the thermoplastic gun, maintain the material in the molten state.

The pavement marking materials shall not be applied when air and pavement surface temperatures are below 60°F or when the surface of the pavement contains any evidence of moisture.

The pavement marking material shall be applied at a thickness of not less than 0.040-inch.

The equipment used to install hot applied pavement marking material shall provide continuous mixing and agitation of the material while maintaining a minimum temperature exceeding 400°F. A strainer shall be in place between the main material reservoir and the gun to prevent accumulation and clogging. The equipment shall be constructed for easy accessibility to parts requiring cleaning and maintenance.

After the black thermoplastic pavement markings are applied, inverted profile thermoplastic markings shall be placed over the black thermoplastic pavement markings in accordance with the specifications and to the dimensions and details shown on the plans or established.

907-624.03.7--Warranty. The manufacturer shall warrant that the inverted profile thermoplastic markings will meet the minimum performance level of 150 mcd/fc/sq. ft. dry and 75 mcd/fc/sq. ft. wet for a period of 48 months from the date of final inspection when exposed to normal roadway conditions regardless of the average daily traffic. Failure to meet this requirement will result in the total replacement of the portion of the stripe shown to be below these minimums. All costs of labor, material and other incidentals necessary for the replacement of unacceptable pavement markings shall be at no additional costs to the State.

Compliance will be determined by an average brightness reading over a minimum zone marking length of 300 linear feet, using an approved reflectometer. The zone of measurement referred to includes centerline stripe, edge lines and skip lines.

Performance Requirements:	White		Yellow	
	<u>Dry</u>	<u>Wet</u>	<u>Dry</u>	<u>Wet</u>
Initial Reflectivity, mcd/fc/sq. ft.	450	200	350	175
48-Month Retained Reflectivity	150	75	150	75

The measurement procedure for this warranty will entail a visual night inspection by a manufacturer representative and a MDOT representative to identify areas of the installation, which appear to be below the specified minimum, warranted reflectance value. All reflectance measurements for dry conditions shall be made on a clean dry surface at a minimum temperature of 40°F. All reflectance measurements for wet conditions shall be made using the setting conditions of Subsection 907-624.02.2.8 at a minimum temperature of 40°F.

Measurement intervals for installations with areas less than, or equal to, three (3) miles shall be at a minimum of three (3) check points for each zone. These check points should include the start point, approximate mid-point and the end point.

Measurement intervals for installations with areas greater than three (3) miles shall be at a minimum of three (3) check points, one at the start point, one at the end point and additional measurements spaced at 3-mile intervals between the start and end points of the area in question.

The number of measurements at each check point for each zone will be as follows:

- (A) Skip Lines: Eighteen (18) measurements, distributed over six (6) skip lines, shall be made at each check point.
- (B) Center Lines and/or Edge Lines: Eighteen (18) measurements shall be made over 300 linear feet of continuous stripe.

When taking reflectivity measurements, the value of the measurement shall be determined by averaging three measurements; one at the left edge of the stripe, one at the center of the stripe and one at the right edge of the stripe.

In addition, the reflectance values measured at each check point shall be averaged by zone to determine conformance to the minimum warranted reflective values.

907-624.04--Method of Measurement. Inverted profile thermoplastic traffic stripe of the type specified 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 skips. The length used to measure centerline and edge stripes will be the horizontal length computed along the stationed control line. Inverted profile thermoplastic 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 (6) inches in width will be converted to equivalent lengths of six-inch widths.

907-624.05--Basis of Payment. Inverted profile thermoplastic traffic stripe, measured as prescribed above, will be paid for at the contract unit price per mile or linear foot, as applicable, which shall be full compensation for completing the work.

Payment will be made under:

907-624-A:	6" Inverted Profile Thermoplastic Traffic Stripe, Skip White *	- per linear foot or mile
907-624-B:	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White *	- per linear foot or mile
907-624-C:	6" Inverted Profile Thermoplastic Traffic Stripe, Skip Yellow *	- per linear foot or mile
907-624-D:	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous Yellow *	- per linear foot or mile
907-624-E:	Inverted Profile Thermoplastic Detail Traffic Stripe, <u>Color</u> *	- per linear foot

* High Contrast may be specified

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-701-3

CODE: (IS)

DATE: 05/04/2021

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.

907-701.02.1.2--Alkali Content. Delete the sentence in Subsection 701.02.1.2 on page 719, and substitute the following.

When used in portland cement concrete, the total alkali contribution from all cement types in this Subsection shall not exceed 4.0 lb. per cubic yard of concrete calculated as follows:

$$\text{lb alkali per cu Yd} = \frac{(\text{lb cement per cu Yd}) \times (\% \text{Na}_2\text{O equivalent in cement})}{100}$$

In the above calculation, the maximum cement alkali content reported on the cement mill certificate shall be used. An example calculation can be found in the Department’s *Concrete Field Manual*.

907-701.02.2--Replacement by Other Cementitious Materials. Delete the paragraph in Subsection 701.02.2 on page 719, and substitute the following.

The maximum replacement of cement by weight is 25% for fly ash or 50% for ground granulated blast furnace slag (GGBFS). Replacement contents below 20% for fly ash or 45% for GGBFS may be used, but will not be given any special considerations, such as the maximum acceptance temperature for portland cement concrete containing pozzolans in Subsection 804.02.13.1.5. Special considerations shall only apply for replacement of cement by fly ash or GGBFS.

Delete Subsection 701.02.2.1 on pages 719 and 720, and substitute the following.

907-701.02.2.1--Portland Cement Concrete Exposed to Soluble Sulfate Conditions or Seawater.

When portland cement concrete is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash or GGBFS shall be as follows in Table 1. Class C fly ash shall not be used as a replacement for cement in any of the sulfate exposure conditions listed in Table 1.

Table 1- Cementitious Materials for Soluble Sulfate Conditions or Seawater

Sulfate Exposure	Water-soluble sulfate (SO ₄) in soil, % by mass	Sulfate (SO ₄) in water, ppm	Cementitious material required
Moderate and Seawater	0.10 - 0.20	150 - 1,500	Type I cement with one of the following replacements of cement by weight: 24.5 - 25.0% Class F fly ash, or 49.5 - 50.0% GGBFS or Type II ^{**} cement
Severe	0.20 - 2.00	1,500 - 10,000	Type I cement with a replacement by weight of 49.5 - 50.0% GGBFS, or Type II [*] cement with one of the following replacements of cement by weight: 24.5 - 25.0% Class F fly ash, or 49.5 - 50.0% GGBFS

* Type III cement conforming to AASHTO M85 with a maximum 8% tricalcium aluminate (C₃A) may be used in lieu of Type II cement as allowed in Subsection 701.02.1; this cement is given the designation “Type III(MS).”

** Class F fly ash or GGBFS may be added as a replacement for cement as allowed in Subsection 907-701.02.2.

Delete Subsection 701.02.2.2 on page 720, and substitute the following.

907-701.02.2.2--Portland Cement for Soil Stabilization Exposed to Soluble Sulfate Conditions or Seawater. When portland cement for use in soil stabilization is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash or GGBFS shall meet the requirements of Subsection 701.02.2.1.

907-701.04--Blended Hydraulic Cement.

907-701.04.1--General. Delete Subsection 701.04.1.1 on page 720, and substitute the following.

907-701.04.1.1--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.

907-701.04.1.2--Alkali Content. Delete the sentence in Subsection 701.04.1.2 on page 720, and substitute the following.

All blended cement types shall be made with clinker that would result in cement meeting the requirements of Subsection 701.02.1.2 when used in the production of AASHTO M 85, Type I or Type II cement.

The blended cement manufacturer shall include the percent equivalent alkalis as Na₂O on their cement mill reports.

When calculating the total alkali contribution with blended cements, use the equivalent alkali content of the base portland cement. An example calculation for cases where blended cements are used can be found in the Department’s *Concrete Field Manual*.

907-701.04.2--Replacement by Other Cementitious Materials. Delete the paragraph in Subsection 701.04.2 on page 720, and substitute the following.

The maximum replacement of blended cement Type IL by weight is 35% for fly ash or 50% for GGBFS. Replacement contents below 20% for fly ash or 45% for GGBFS may be used, but will not be given any special considerations, such as the maximum acceptance temperature for blended cement concrete containing pozzolans in Subsection 804.02.13.1.5. Special considerations shall only apply for replacement of blended cement by fly ash or GGBFS.

No additional cementitious materials, such as portland cement, blended cement, fly ash, GGBFS, or others, shall be added to or as a replacement for blended cement Types IP and IS.

Delete Subsection 701.04.2.1 on pages 720 and 721, and substitute the following.

907-701.04.2.1--Blended Cement Concrete Exposed to Soluble Sulfate Conditions or Seawater. When blended cement concrete is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash or GGBFS shall be as follows in Table 2. Class C fly ash shall not be used as a replacement for cement in any of the sulfate exposure conditions listed in Table 2.

Table 2- Cementitious Materials for Soluble Sulfate Conditions or Seawater

Sulfate Exposure	Water-soluble sulfate (SO ₄) in soil, % by mass	Sulfate (SO ₄) in water, ppm	Cementitious material required
Moderate and Seawater	0.10 - 0.20	150 - 1,500	Type IL (MS) * cement, Type IL cement with one of the following replacements of cement by weight: 24.5 - 35.0% Class F fly ash, or 49.5 - 50.0% GGBFS, Type IP (MS) cement, or Type IS (MS) cement
Severe	0.20 - 2.00	1,500 - 10,000	Type IL cement with a replacement of cement by weight of 49.5 - 50.0% GGBFS, or Type IL (MS) cement with one of following replacements of cement by weight: 24.5 - 35.0% Class F fly ash, or 49.5 - 50.0% GGBFS

* Class F fly ash or GGBFS may be added as a replacement for cement as allowed in Subsection 907-701.04.2.

Delete Subsection 701.04.2.2 on page 721, and substitute the following.

907-701.04.2.2--Blended Cement for Soil Stabilization Exposed to Soluble Sulfate Conditions or Seawater. When blended cement for use in soil stabilization is exposed to moderate or severe soluble sulfate conditions, or to seawater, cement types and replacement of cement by Class F fly ash or GGBFS shall meet the requirements of Subsection 701.04.2.1.

Delete Subsection 701.04.3 on page 721.

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**

Test Requirements	LD-7		CHPF-1		Test Method
	Min.	Max.	Min.	Max.	
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 $\pm 3/8$ " 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 $\pm 3/8$ " 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. 907-714-3

CODE: (SP)

DATE: 08/31/2021

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.

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 Sediment Control	II ¹ Control	III Drainage	IV Paving	V Separation & Drainage		VI Separation, Stabilization & Reinforcement		VIII High Strength	IX High Strength	Test Method
					Woven	Non-Woven	Woven	Non-Woven			
Grab Strength (lb)	50	90	110	90	200	280	180	450	280	280	ASTM D 4632
Elongation (%)	----	50% max @ 45 lb	20% min	50% min @ break	50% min	50% max	50% min	50% max	50% min	50% min	ASTM D 4632
Seam Strength (lb)	----	----	70	----	180	240	160	400	240	240	ASTM D 4632
Puncture Strength (lb)	----	----	40	----	80	110	75	180	115	115	ASTM D 6241
Trapezoidal Tear (lb)	----	----	40	----	80	100	70	150	100	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	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	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	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 Subsection 714.15 on pages 816 and 817 and substitute the following.

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. 907-720-2

CODE: (IS)

DATE: 09/11/2018

SUBJECT: Acceptance Procedure for Glass Beads

Section 720, Pavement Marking Materials, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-720.01--Glass Beads.

907-720.01.4--Acceptance Procedures. Delete the last sentence of the paragraph in Subsection 720.01.4 on page 841, and substitute the following.

Acceptance sampling and testing of glass beads will be in accordance with the Department's Materials Division Inspection, Testing, and Certification Manual, Section 2.9.2 -- Glass Beads.

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/ft²)
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 overlamine 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.

SECTION 905 - PROPOSAL

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.

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.

Mill & Overlay approximately 6 miles of US 49 from Myers Creek to US 11, known as State Project No. MP-6049-18(025) / 308565301 in Forrest County.

Line no.	Item Code	Adj Code	Quantity	Units	Description[Fixed Unit Price]
Roadway Items					
0010	201-D001		116	Station	Random Clearing
0020	202-B051		60	Linear Feet	Removal of Concrete Curb
0030	202-B136		3,195	Linear Feet	Removal of Guard Rail
0040	202-B168		50	Square Yard	Removal of Island Pavement, All Types
0050	202-B240		25,490	Linear Feet	Removal of Traffic Stripe
0060	203-EX018	(E)	1,850	Cubic Yard	Borrow Excavation, AH, FME, Class B7-6
0070	216-A001		4,200	Square Yard	Solid Sodding
0080	304-F003	(GT)	3,770	Ton	Size 825B Crushed Stone Base
0090	403-A015	(BA1)	9,440	Ton	9.5-mm, ST, Asphalt Pavement
0100	403-D007	(BA1)	18,150	Ton	9.5-mm, HT, Asphalt Pavement, Polymer Modified
0110	406-D001		243,910	Square Yard	Fine Milling of Bituminous Pavement, All Depths
0120	407-A001	(A2)	32,150	Gallon	Asphalt for Tack Coat
0130	413-E001		37,964	Linear Feet	Sawing and Sealing Transverse Joints in Asphalt Pavement
0140	423-A001		17	Mile	Rumble Strips, Ground In
0150	601-B001	(S)	15	Cubic Yard	Class "B" Structural Concrete, Minor Structures
0160	602-A001	(S)	519	Pounds	Reinforcing Steel
0170	603-CA041	(S)	24	Linear Feet	30" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets
0180	603-CA056	(S)	16	Linear Feet	36" Reinforced Concrete Pipe, Class III, Rubber Type Gaskets
0190	603-CB005	(S)	3	Each	30" Reinforced Concrete End Section
0200	603-CB006	(S)	2	Each	36" Reinforced Concrete End Section
0210	603-CE024	(S)	8	Linear Feet	51" x 31" Concrete Arch Pipe, Class A III, Flexible Plastic Gaskets
0220	603-CE029	(S)	32	Linear Feet	58" x 36" Concrete Arch Pipe, Class A III, Flexible Plastic Gaskets
0230	603-CF006	(S)	1	Each	51" x 31" Concrete Arch Pipe End Section
0240	603-CF007	(S)	4	Each	58" x 36" Concrete Arch Pipe End Section
0250	606-B003		2,563	Linear Feet	Guard Rail, Class A, Type 1, 'W' Beam, Metal Post
0260	606-C001		3	Each	Guard Rail, Cable Anchor Type 1, Metal Post
0270	606-D001		12	Each	Guard Rail, Bridge End Section
0280	606-E005		13	Each	Guard Rail, Terminal End Section, Flared
0290	606-E007		2	Each	Guard Rail, Terminal End Section, Non-Flared
0300	609-B002	(S)	10	Linear Feet	Concrete Curb, Header
0310	609-D006	(S)	50	Linear Feet	Combination Concrete Curb and Gutter Type 3
0320	616-A004	(S)	50	Square Yard	Concrete Median and/or Island Pavement, 4-inch
0330	618-A001		1	Lump Sum	Maintenance of Traffic
0340	618-B001		1	Square Feet	Additional Construction Signs (\$10.00)
0350	619-A1001		35	Mile	Temporary Traffic Stripe, Continuous White

Line no.	Item Code	Adj Code	Quantity	Units	Description Fixed Unit Price
0360	619-A2001		27	Mile	Temporary Traffic Stripe, Continuous Yellow
0370	619-A3001		48	Mile	Temporary Traffic Stripe, Skip White
0380	619-A4002		3	Mile	Temporary Traffic Stripe, Skip Yellow
0390	619-A5001		62,630	Linear Feet	Temporary Traffic Stripe, Detail
0400	619-A6001		1,438	Square Feet	Temporary Traffic Stripe, Legend
0410	619-A6002		2,275	Linear Feet	Temporary Traffic Stripe, Legend
0420	620-A001		1	Lump Sum	Mobilization
0430	626-A001		13	Mile	6" Thermoplastic Double Drop Traffic Stripe, Skip White
0440	626-B002		1	Mile	6" Thermoplastic Double Drop Traffic Stripe, Continuous White
0450	626-C002		17	Mile	6" Thermoplastic Double Drop Edge Stripe, Continuous White
0460	626-D001		2	Mile	6" Thermoplastic Double Drop Traffic Stripe, Skip Yellow
0470	626-E001		5	Mile	6" Thermoplastic Double Drop Traffic Stripe, Continuous Yellow
0480	626-F001		10	Mile	6" Thermoplastic Double Drop Edge Stripe, Continuous Yellow
0490	626-G002		46,057	Linear Feet	Thermoplastic Detail Stripe, White
0500	626-G003		28,022	Linear Feet	Thermoplastic Detail Stripe, Yellow
0510	626-H004		2,725	Square Feet	Thermoplastic Legend, White
0520	626-H005		6,260	Linear Feet	Thermoplastic Legend, White
0530	627-J001		1,525	Each	Two-Way Clear Reflective High Performance Raised Markers
0540	627-K001		4,115	Each	Red-Clear Reflective High Performance Raised Markers
0550	627-L001		2,125	Each	Two-Way Yellow Reflective High Performance Raised Markers
0560	628-K001		740	Linear Feet	High Performance Cold Plastic Detail Stripe, White
0570	630-F006		73	Each	Delineators, Guard Rail, White
0580	630-F007		36	Each	Delineators, Guard Rail, Yellow
0590	630-G005		16	Each	Type 3 Object Markers, OM-3R or OM-3L, Post Mounted
0600	907-411-A001	(BA1)	5,320	Ton	Ultra Thin Asphalt Pavement
ALTERNATE GROUP AA NUMBER 1					
0610	907-624-A002		1,225	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Skip White
0620	907-624-B002		11,665	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White
0630	907-624-D002		12,160	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous Yellow
ALTERNATE GROUP AA NUMBER 2					
0640	628-G001		1,225	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Skip White
0650	628-H001		11,665	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous White
0660	628-J001		12,160	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous Yellow

SECTION 905 - COMBINATION BID PROPOSAL (Continued)

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).

	<u>Project No.</u>	<u>County</u>	<u>Project No.</u>	<u>County</u>
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.

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

SECTION 905 - COMBINATION BID PROPOSAL (Continued)

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.



TO: EXECUTIVE DIRECTOR, MISSISSIPPI DEPARTMENT OF TRANSPORTATION
JACKSON, MISSISSIPPI

CERTIFICATE

If awarded this contract, I (we) contemplate that portions of the contract will be sublet. I (we) certify that those subcontracts which are equal to or in excess of fifty thousand dollars (\$50,000.00) will be in accordance with regulations promulgated and adopted by the Mississippi State Board of Contractors on September 8, 2011.

I (we) agree that this notification of intent DOES NOT constitute APPROVAL of the subcontracts.

_____	_____
(Individual or Firm)	(Address)
_____	_____
(Individual or Firm)	(Address)
_____	_____
(Individual or Firm)	(Address)
_____	_____
(Individual or Firm)	(Address)

NOTE: Failure to complete the above DOES NOT preclude subsequent subcontracts. Subsequent subcontracts, if any, equal to or in excess of fifty thousand dollars (\$50,000.00) will be in accordance with regulations promulgated and adopted by the Mississippi State Board of Contractors on September 8, 2011.

Contractor _____

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
CERTIFICATION

I, _____,
(Name of person signing bid)

individually, and in my capacity as _____ of
(Title of person signing bid)

(Name of Firm, partnership, or Corporation)

do hereby certify under 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. **MP-6049-18(025)/ 308565301000**

in **Forrest** _____ 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 are not currently under suspension, debarment, voluntary exclusion or determination of ineligibility; nor have a debarment pending; nor been suspended, debarred, voluntarily excluded or determined ineligible within the past three years by the Mississippi Transportation Commission, the State of Mississippi, any other State or a federal agency; nor been indicted, convicted or had a civil judgment rendered by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three years.

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.

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.

All of the foregoing is true and correct.

(1/2016 S)

SECTION 902

CONTRACT FOR MP-6049-18(025)/ 308565301000

LOCATED IN THE COUNTY(IES) OF Forrest

STATE OF MISSISSIPPI,
COUNTY OF HINDS

This contract entered into by and between the Mississippi Transportation Commission on one hand, and the undersigned contractor, on the other witnesseth;

That, in consideration of the payment by the Mississippi Transportation Commission of the prices set out in the proposal hereto attached, to the undersigned contractor, such payment to be made in the manner and at the time of times specified in the specifications and the special provisions, if any, the undersigned contractor hereby agrees to accept the prices stated in the proposal in full compensation for the furnishing of all materials and equipment and the executing of all the work contemplated in this contract.

It is understood and agreed that the advertising according to law, the Advertisement, the instructions to bidders, the proposal for the contract, the specifications, the revisions of the specifications, the special provisions, and also the plans for the work herein contemplated, said plans showing more particularly the details of the work to be done, shall be held to be, and are hereby made a part of this contract by specific reference thereto and with like effect as if each and all of said instruments had been set out fully herein in words and figures.

It is further agreed that for the same consideration the undersigned contractor shall be responsible for all loss or damage arising out of the nature of the work aforesaid; or from the action of the elements and unforeseen obstructions or difficulties which may be encountered in the prosecution of the same and for all risks of every description connected with the work, exceptions being those specifically set out in the contract; and for faithfully completing the whole work in good and workmanlike manner according to the approved Plans, Specifications, Special Provisions, Notice(s) to Bidders and requirements of the Mississippi Department of Transportation.

It is further agreed that the work shall be done under the direct supervision and to the complete satisfaction of the Executive Director of the Mississippi Department of Transportation, or his authorized representatives, and when Federal Funds are involved subject to inspection at all times and approval by the Federal Highway Administration, or its agents as the case may be, or the agents of any other Agency whose funds are involved in accordance with those Acts of the Legislature of the State of Mississippi approved by the Governor and such rules and regulations issued pursuant thereto by the Mississippi Transportation Commission and the authorized Federal Agencies.

The Contractor agrees that all labor as outlined in the Special Provisions may be secured from list furnished by

It is agreed and understood that each and every provision of law and clause required by law to be inserted in this contract shall be deemed to be inserted herein and this contract shall be read and enforced as though it were included herein, and, if through mere mistake or otherwise any such provision is not inserted, then upon the application of either party hereto, the contract shall forthwith be physically amended to make such insertion.

The Contractor agrees that he has read each and every clause of this Contract, and fully understands the meaning of same and that he will comply with all the terms, covenants and agreements therein set forth.

Witness our signatures this the ___ day of _____, _____.

Contractor(s)

By _____

MISSISSIPPI TRANSPORTATION COMMISSION

Title _____

By _____

Signed and sealed in the presence of:
(names and addresses of witnesses)

Executive Director

Secretary to the Commission

Award authorized by the Mississippi Transportation Commission in session on the ___ day of _____, _____, Minute Book No. _____, Page No. _____.

SECTION 903
PERFORMANCE AND PAYMENT BOND

CONTRACT BOND FOR: MP-6049-18(025)/308565301000

LOCATED IN THE COUNTY(IES) OF: Forrest

STATE OF MISSISSIPPI,
COUNTY OF HINDS

Know all men by these presents: that we, _____
(Contractor)
_____ Principal, a _____

residing at _____ in the State of _____

and _____

(Surety)
residing at _____ in the State of _____,

authorized to do business in the State of Mississippi, under the laws thereof, as surety, effective as of the contract date shown below, are held and firmly bound unto the State of Mississippi in the sum of _____

_____ Dollars, lawful money of the United States of America, to be paid to it for which payment well and truly to be made, we bind ourselves, our heirs, administrators, successors, or assigns jointly and severally by these presents.

The conditions of this bond are such, that whereas the said _____

_____ principal, has (have) entered into a contract with the Mississippi Transportation Commission, bearing the date of _____ day of _____ A.D. _____ hereto annexed, for the construction of certain projects(s) in the State of Mississippi as mentioned in said contract in accordance with the Contract Documents therefor, on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

Now therefore, if the above bounden _____ in all things shall stand to and abide by and well and truly observe, do keep and perform all and singular the terms, covenants, conditions, guarantees and agreements in said contract, contained on his (their) part to be observed, done, kept and performed and each of them, at the time and in the manner and form and furnish all of the material and equipment specified in said contract in strict accordance with the terms of said contract which said plans, specifications and special provisions are included in and form a part of said contract and shall maintain the said work contemplated until its final completion and acceptance as specified in Subsection 109.11 of the approved specifications, and save harmless said Mississippi Transportation Commission from any loss or damage arising out of or occasioned by the negligence, wrongful or criminal act, overcharge, fraud, or any other loss or damage whatsoever, on the part of said principal (s), his (their) agents, servants, or employees in the performance of said work or in any manner connected therewith, and shall be liable and responsible in a civil action instituted by the State at the instance of the Mississippi Transportation Commission or any officer of the State authorized in such cases, for double any amount in money or property, the State may lose or be overcharged or otherwise defrauded of, by reason of wrongful or criminal act, if any, of the Contractor(s), his (their) agents or employees, and shall promptly pay the said agents, servants and employees and all persons furnishing labor, material, equipment or supplies therefor, including premiums incurred, for Surety Bonds, Liability Insurance, and Workmen's Compensation Insurance; with the additional obligation that such Contractor shall promptly make payment of all taxes, licenses, assessments, contributions, damages,

any liquidated damages which may arise prior to any termination of said principal's contract, any liquidated damages which may arise after termination of the said principal's contract due to default on the part of said principal, penalties and interest thereon, when and as the same may be due this state, or any county, municipality, board, department, commission or political subdivision: in the course of the performance of said work and in accordance with Sections 31-5-51 et seq. Mississippi Code of 1972, and other State statutes applicable thereto, and shall carry out to the letter and to the satisfaction of the Executive Director of the Mississippi Department of Transportation, all, each and every one of the stipulations, obligations, conditions, covenants and agreements and terms of said contract in accordance with the terms thereof and all of the expense and cost and attorney's fee that may be incurred in the enforcement of the performance of said contract, or in the enforcement of the conditions and obligations of this bond, then this obligation shall be null and void, otherwise to be and remain in full force and virtue.

_____	_____
(Contractors) Principal	Surety
By _____	By _____
	(Signature) Attorney in Fact
	Address _____

Title _____	_____
(Contractor's Seal)	(Printed) MS Agent

	(Signature) MS Agent
	Address _____

	(Surety Seal)

	Mississippi Insurance ID Number



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 **Mill & Overlay approximately 6 miles of US 49 from Myers Creek to US 11, known as State Project No. MP-6049-18(025) / 308565301 in Forrest 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)

(Witness) (Name) By: _____ (Title)

(Surety) (Seal)

(Witness) (Attorney-in-Fact) By: _____

(MS Agent)

Mississippi Insurance ID Number

