MDOT Use Only
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04 -

SM No. CSP0020011711

PROPOSAL AND CONTRACT DOCUMENTS

FOR THE CONSTRUCTION OF

04
Construction of I-20 South Frontage Road Extension to US 80 & I-20 Bridge Repairs, known as State Project No. SP-0020-01(171) / 104299301 in Warren County.

Project Completion: Contractor Determined

(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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Pile Data Form

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

07/31/2019 10:48 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, August 27, 2019, from the Bid Express Service and shortly thereafter publicly read on the Sixth Floor for:

Construction of I-20 South Frontage Road Extension to US 80 & I-20 Bridge Repairs, known as State Project No. SP-0020-01(171) / 104299301 in Warren 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.

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

Contractors may request permission to bid online at http://shopmdot.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://shopmdot.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.

Plans must be purchased online at <https://shopmdot.ms.gov>. Costs of plans will be on a per sheet basis plus a small convenience fee. If you have any questions, you can contact the MDOT Plans Print Shop at (601) 359-7460, or e-mail at plans@mdot.state.ms.us. Plans will be shipped upon receipt of payment. 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.

MELINDA L. MCGRATH
EXECUTIVE DIRECTOR

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

DATE: 03/01/2017

SUBJECT: Governing Specifications

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Transportation Commission is made a part hereof fully and completely as if it were attached hereto, except where superseded by special provisions, or amended by revisions of the Specifications contained within this proposal.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

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

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

DATE: 03/01/2017

SUBJECT: Status of Right-of-Way

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

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

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

STATUS OF RIGHT-OF-WAY
SP-0020-01(171)
104299/301000
Warren County
June 19, 2019

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

None

ASBESTOS CONTAMINATION STATUS OF BUILDINGS
TO BE REMOVED BY THE CONTRACTOR
STPD-0020-01(171)
104299-301000
Warren County
June 17 2019

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

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

There are no buildings in the contract to be removed.

STATUS OF POTENTIALLY CONTAMINATED SITES
STPD-0020-01(171)
104299-301000
Warren County
June 17, 2019

This project has been inspected and there was no visible indication of potentially contaminated sites within the proposed right of way.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

Inter-Departmental Memorandum

To:	Right of Way Division Trudi Loflin	**Date:**	June 17th, 2019
From:	Pre-Construction Engineer District 3 Jarrett Taylor	**Project No:**	104299/301000 SP-0020-01(171)
		County:	Warren

DISTRICT STATUS REPORT

1. **STATUS OF RIGHT OF WAY:** All ROW necessary for construction has been acquired.
2. **RIGHT OF WAY CLEARANCE:** There are no encroachments on the Right of Way.
3. **STATUS OF AFFECTED RAILROAD OPERATING FACILITIES:** The easement and agreement with Meridian Speedway has been obtained.
4. **STATUS OF REQUIRED UTILITY RELOCATIONS:** All known utilities in conflict with construction have been relocated.
5. **STATUS OF CONSTRUCTION AGREEMENT:** None required.

JT:jt

pc: Charlie Milner (District Three)
Leroy Crisco (Construction Division)
Katherine Lamey (Construction Division)
Vicki Shows (Right of Way)
File

ROW STATUS REPORT OF AFFECTED RAILROAD FACILITIES

PROJECT EXTERNAL NUMBER: SP-0020-01(171)
PROJECT FMS NUMBER: 104299/301000
TERMINI: I-20 South Frontage Road extension to US 80
COUNTY: Warren

DATE: February 7, 2018

The railroad agreement and easement has been secured on the affected railroad facilities.

Improvements to be included in Notice to Bidders to be removed by the Construction Contractor
FMS Construction Project No: 104299-301000
FMS ROW Project No: 104299-201000
External ROW No: STPD-0020-01(171)

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

NA

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

DATE: 01/17/2017

SUBJECT: Final Clean-Up

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

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

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 6 **CODE: (SP)**

DATE: 01/02/2018

SUBJECT: Storm Water Discharge Associated with Construction Activity (≥ 5 Acres)

PROJECT: SP-0020-01(171) / 104299301 – Warren County

A Construction Storm Water General NPDES Permit to discharge storm water associated with construction activity is required.

The Department has acquired Certificate of Permit Coverage MSR-107380 under the Mississippi Department of Environmental Quality's (MDEQ) Storm Water Large Construction General Permit. Projects issued a certificate of permit coverage are granted permission to discharge treated storm water associated with construction activity into State waters. Copies of said permit, completed Large Construction Notice of Intent (LCNOI), and Storm Water Pollution Prevention Plan (SWPPP) are on file with the Department.

Prior to the execution of the contract, the successful bidder shall execute and deliver to the Executive Director an original signed copy of the completed Prime Contractor Certification Forms.

Failure of the bidder to execute and file the completed Prime Contractor Certification Forms shall be just cause for the cancellation of the award.

The executed Prime Contractor Certification Forms shall be prima facie evidence that the bidder has examined the permit, is satisfied as to the terms and conditions contained therein, and that the bidder has the primary responsibility for meeting all permit terms including, but not limited to, the inspection and reporting requirements. For this project, the Contractor shall furnish, set up and read, as needed, an on-site rain gauge.

The Contractor shall make inspections in accordance with condition No. S-5, page 23, and shall furnish the Project Engineer with the results of each weekly inspection as soon as possible following the date of inspection. A copy of the inspection form is provided with the packet. The weekly inspections must be documented monthly on the Inspection and Certification Form. The Contractor's representative and the Project Engineer shall jointly review and discuss the results of the inspections so that corrective action can be taken. The Project Engineer shall retain copies of the inspection reports.

The Engineer will have the authority to suspend all work and/or withhold payments for failure of the Contractor to carry out provisions of MDEQ's Storm Water Construction General Permit, the erosion control plan, updates to the erosion control plan, and /or proper maintenance of the BMPs.

Upon successful completion of all permanent erosion and sediment controls, accepted and documented by the full maintenance release, the Construction Division shall submit a completed Request for Termination (RFT) of Coverage to the Office of Pollution Control.

Securing a permit (s) for storm water discharge associated with the Contractor's activity on any other regulated area the Contractor occupies, shall be the responsibility of the Contractor.

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_wghts/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

SUPPLEMENT TO NOTICE TO BIDDERS NO. 14

DATE: 08/06/2018

PROJECT: SP-0020-01(171) / 104299301 -- Warren County

After the second paragraph on page 1, add the following:

Name Insured:	Kansas City Southern Railroad
Description and Designation:	Construction of I-20 South Frontage Road Extension to US 80 crossing KCS Railroad at Station 216+26.16 ±.
Mile Post:	137.48, near Vicksburg, Mississippi.

After the fourth paragraph on page 1, add the following:

Kansas City Southern Railroad
Sylvia Schmidt
4300 Amon Carter Blvd., Suite 100
Fort Worth, TX 76155
(817) 230-2688
Sylvia.Schmidt@am.jil.com

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 14 **CODE: (SP)**

DATE: 01/17/2017

SUBJECT: Railway-Highway Provisions

Prior to bidding, the Contractor shall contact the Railroad concerning insurance coverage required for this project. In case the railroad requires coverage over and above that required by the Standard Specifications, the railroad requirements shall be met.

The name insured, description of the work and designation of the job site to be shown on the Policy are as follows:

Notice of starting to work, completion of any required forms, and correspondence pertaining to railroad liability insurance shall be directed to the person below.

The Contractor shall not commence, or carry on, any work for installation, maintenance, repair, changing or renewal of any FACILITY, under, over or on RAILROAD property at any location without giving at least ten (10) working days prior notice to the RAILROAD authorized representative at the RAILROAD's office(s) below.

If in the opinion of the RAILROAD, the presence of an authorized representative of the RAILROAD is required to supervise the same, the RAILROAD shall render bills to the Contractor for all expenses incurred by it for such supervision. This includes all labor costs for flagmen or cable locate supplied by the RAILROAD to protect RAILROAD operation, and for the full cost of furnishing, installation and later removal of any temporary supports for said tracks, as the RAILROAD's Chief Engineer's Office may deem necessary.

It will be the Contractor's responsibility to pay all bills associated with railroad flagging and cable locating. Generally, the flagging rate is $700.00 per day (1 to 8 hours) plus overtime at $125.00 per hour, however, the Contractor shall contact the RAILROAD to verify all rates.

A flagman is required anytime a Contractor does any work on or near RAILROAD property within twenty-five (25) feet horizontally of the centerline or any work over any railroad track. The RAILROAD, however, also reserves the right to require a flagman for work on RAILROAD property, which is more than twenty-five (25) feet from the centerline of a railroad track when there are other conditions or considerations that would dictate the need for a flagman to safeguard the RAILROAD's operations, property and safety of working personnel.

A cable locate of RAILROAD owned facilities may be required to identify and protect Signal & Communication cables that have been installed to provide power, signal control, wayside communications. These cables are vital to a safe and reliable railway operation. The cable locate will be performed by a qualified RAILROAD employee.

Outside Contractors are prohibited from driving on, along, or across any track that does not have a RAILROAD installed crossing. They may utilize an existing public crossing. The practice of allowing rubber tired equipment to operate over track with no crossing has been banned.

Exceptions to this rule will require the express approval from the RAILROAD Engineers.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

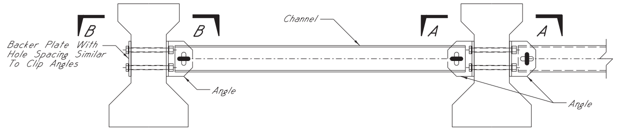
SECTION 904 - NOTICE TO BIDDERS NO. 20 **CODE: (SP)**

DATE: 03/01/2017

SUBJECT: Temporary Steel Bracing

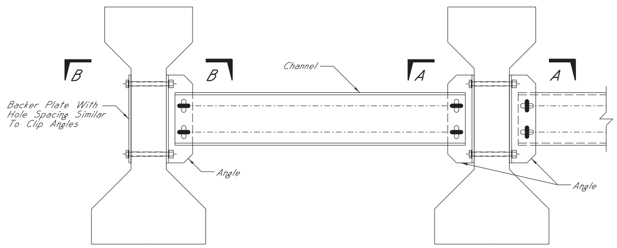
Bidders are advised that temporary steel bracing will be required when beams are to be placed over railroads and roadways. The attached detail sheet shall be used for temporary beam bracing on this project.

STATE	PROJECT NO.
MISS.	



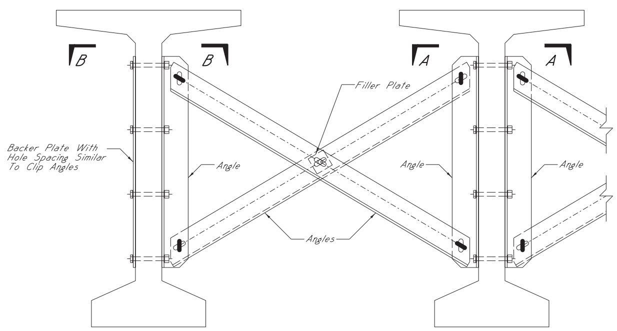
TEMPORARY STEEL BRACING DETAILS

AASHTO Type-I+2, Type-II, & Type-II+2 Beams



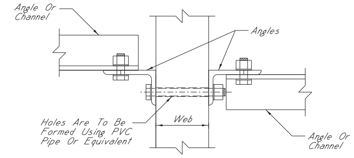
TEMPORARY STEEL BRACING DETAILS

AASHTO Type-III & Type-IV Beams

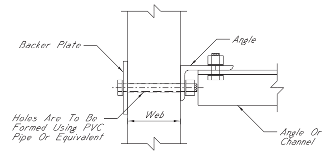


TEMPORARY STEEL BRACING DETAILS

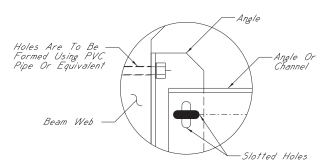
Bulb-T Beams



SECTION A-A



SECTION B-B



CONNECTION DETAIL

NOTE TO CONTRACTOR:

The Contractor Shall Employ The Service Of A MS Registered Professional Engineer Who Is Knowledgeable And Proficient In The Field Of Bridge Design.

Temporary Bracing System Should Be Designed In Accordance With The Latest Edition Of The Guide Design Specifications For Bridge Temporary Works, As Published By A.A.S.H.T.O.

The Design Must Insure That The Locations Of The Temporary Bracing Systems Do Not Interfere With Diaphragms, Prestressing Strands, Or Reinforcing. These Locations Along With The Blockout Holes Shall Be Shown In The Precast Beam Shop Drawings.

Alternate Temporary Bracing Systems May Be Used.

Use Of The Temporary Bracing Systems And/Or Details Shown On This Sheet Are For Information Only And Do Not Relieve The Contractor Of The Responsibility For The Adequacy Of The Bracing And The Safety Of The Structure.

The Contractor's Engineer Shall Determine The Number And Location Of The Temporary Bracing Systems. Each Beam Shall Have A Minimum Of Two (2) Seperate Temporary Bracing Locations.

A Complete Set Of Temporary Bracing Detail Drawings And Design Calculations, Bearing The Design Engineers Seal, Shall Be Submitted To The Project Engineer And Director Of Structures, State Bridge Engineer For Review. The Submittal Shall Specify The Number, Location, And Configuration Of The Temporary Bracing.

After Temporary Bracing System Installation And Prior To Commencing Any Other Work On The Bridge, The Contractor Shall Provide MDOT Written Certification That Installation Of The Temporary Bracing Was In Full Accordance With The Design Plans.

GRADE SEPARATION BRIDGES GENERAL NOTES:

Specifications: MISSISSIPPI Standard Specifications For Road And Bridge Construction, 2004.

Temporary Bracing Systems On Spans Over Traffic And Railways Shall Consist Of Steel Members Only. Temporary Bracing Systems On All Other Spans Shall Conform To The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN And May Consist Of Material Other Than Steel. Although Contractor May Elect To Use Temporary Steel Bracing Systems On All Spans.

Temporary Steel Bracing System Shall Be Designed And Furnished By The Contractor (See NOTE TO CONTRACTOR).

Temporary Steel Bracing Shall Be Installed Progressively With The Erection Of Beams. Temporary Steel Bracing Shall Be Installed Immediately After Erection Of Initial Adjacent Beams. Successive Temporary Steel Bracing Shall Be Installed Immediately After Erection Of Each Additional Beam.

Temporary Steel Bracing Shall Be Installed At The Locations Detailed In The Contractor's Temporary Steel Bracing Plans And Remain In Place Until Permanent Diaphragms As Per The Contract Plans Are In Place. Permanent Bracing May Include Intermediate Diaphragms But Not End Diaphragms. In Spans With No Intermediate Diaphragms, Temporary Steel Bracing Shall Remain In Place Until The Deck Is Poured.

Bulb Tee Beams Shall Be Cross Braced. A Single Temporary Bracing Member May Be Used As Shown For AASHTO Beams.

Temporary Steel Bracing Shall Be Perpendicular To The Beams And Not Skewed.

Temporary Steel Bracing May Be Discontinuous Or Continuous Across The Width Of The Bridge.

Backer Plates Are Required At All Discontinuous Bracing Locations.

Temporary Steel Bracing System Shall Be Constructed Of New Or Used Steel That Conforms To ASTM A36 Or Higher. Used Steel Shall Be In Good, Sound Condition.

Steel May Be Unpainted.

Bolts Shall Be ASTM A325 With Heavy Hex Nuts And Hardened Steel Washers That Meets The Requirements Of ASTM A563 And A436, Respectively. Washers Shall Be Large Enough To Completely Cover The PVC Blockouts.

PVC Blockout Diameter Shall Be No Larger Than $\frac{1}{8}$" Greater Than The Bolt Diameter And Shall Be Fully Grouted With An Approved Non-Shrink Grout After Removal Of Temporary Bracing.

Design Of Reusable Temporary Steel Bracing Systems Comprised Of Members With Slotted Holes May Be Used.

All Material Furnished By The Contractor And Used In Construction Of The Temporary Steel Bracing System Shall Remain The Property Of The Contractor And Shall Be Removed From The Site.

There Will Not Be A Separate Pay Item For The Temporary Steel Bracing System. Payment For The Temporary Steel Bracing System Will Be Absorbed In The Prestress Beam Pay Items.

HYDRAULIC BRIDGES GENERAL NOTES:

Temporary Bracing Systems On Hydraulic Bridges Shall Conform To The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN And May Consist Of Material Other Than Steel. Although Contractor May Elect To Use Temporary Steel Bracing Systems.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TEMPORARY STEEL BRACING

FMS: /
COUNTY:
PROJECT NUMBER:

WORKING NUMBER

SHEET NUMBER

DATE | REVISION | BY

DESIGNER ____ CHECKER ____
DETAILER ____ ISSUE DATE ____
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE DIVISION
PLAN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 21 **CODE: (SP)**

DATE: 03/01/2017

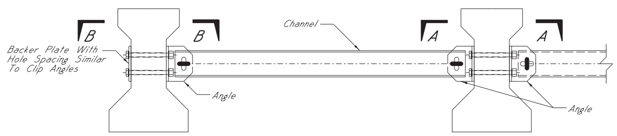
SUBJECT: Intermediate Concrete Diaphragms

Bidders are advised that the bridge plans for this project indicates that intermediate concrete diaphragms are required between the beams. If the bridge is designed using Load and Resistance Factor Design (LRFD), the intermediate concrete diaphragms may be eliminated at the Contractor's option. If the Contractor desires to make this change, a written request shall be sent to the Project Engineer who will forward it to the Bridge Division for concurrence. If eliminated, any concrete and reinforcement shown on the plans for intermediate diaphragms will not be included in the measurement and payment of concrete and reinforcement.

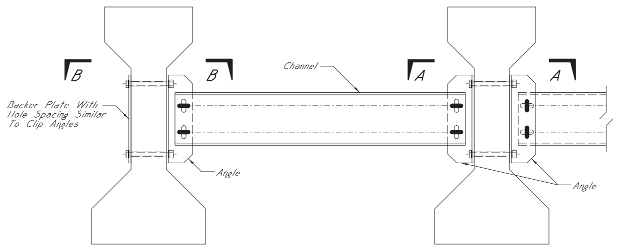
If the intermediate concrete diaphragms are eliminated, the Contractor shall temporarily brace the beams in accordance with the attached detail sheet.

This bracing shall be addressed in the Contractor's written request to eliminated intermediate diaphragms.

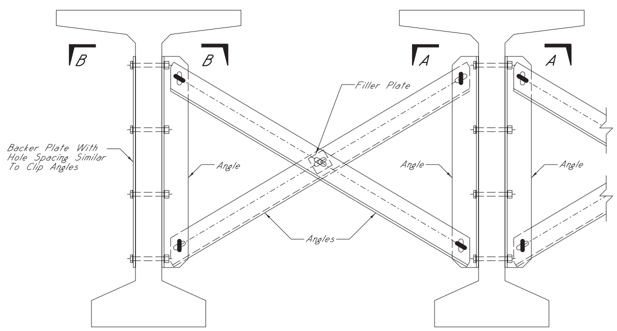
STATE	PROJECT NO.
MISS.	



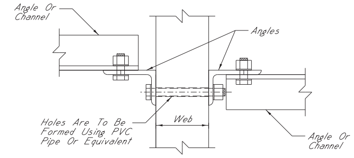
TEMPORARY STEEL BRACING DETAILS
AASHTO Type-I+2, Type-II, & Type-II+2 Beams



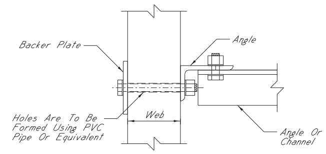
TEMPORARY STEEL BRACING DETAILS
AASHTO Type-III & Type-IV Beams



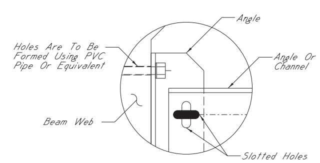
TEMPORARY STEEL BRACING DETAILS
Bulb-T Beams



SECTION A-A



SECTION B-B



CONNECTION DETAIL

NOTE TO CONTRACTOR:

The Contractor Shall Employ The Service Of A MS Registered Professional Engineer Who Is Knowledgeable And Proficient In The Field Of Bridge Design.

Temporary Bracing System Should Be Designed In Accordance With The Latest Edition Of The Guide Design Specifications For Bridge Temporary Works, As Published By A.A.S.H.T.O.

The Design Must Insure That The Locations Of The Temporary Bracing Systems Do Not Interfere With Diaphragms, Prestressing Strands, Or Reinforcing. These Locations Along With The Blockout Holes Shall Be Shown In The Precast Beam Shop Drawings.

Alternate Temporary Bracing Systems May Be Used.

Use Of The Temporary Bracing Systems And/Or Details Shown On This Sheet Are For Information Only And Do Not Relieve The Contractor Of The Responsibility For The Adequacy Of The Bracing And The Safety Of The Structure.

The Contractor's Engineer Shall Determine The Number And Location Of The Temporary Bracing Systems. Each Beam Shall Have A Minimum Of Two (2) Seperate Temporary Bracing Locations.

A Complete Set Of Temporary Bracing Detail Drawings And Design Calculations, Bearing The Design Engineers Seal, Shall Be Submitted To The Project Engineer And Director Of Structures, State Bridge Engineer For Review. The Submittal Shall Specify The Number, Location, And Configuration Of The Temporary Bracing.

After Temporary Bracing System Installation And Prior To Commencing Any Other Work On The Bridge, The Contractor Shall Provide MDOT Written Certification That Installation Of The Temporary Bracing Was In Full Accordance With The Design Plans.

GRADE SEPARATION BRIDGES GENERAL NOTES:

Specifications: MISSISSIPPI Standard Specifications For Road And Bridge Construction, 2004.

Temporary Bracing Systems On Spans Over Traffic And Railways Shall Consist Of Steel Members Only. Temporary Bracing Systems On All Other Spans Shall Conform To The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN And May Consist Of Material Other Than Steel. Although Contractor May Elect To Use Temporary Steel Bracing Systems On All Spans.

Temporary Steel Bracing System Shall Be Designed And Furnished By The Contractor (See NOTE TO CONTRACTOR).

Temporary Steel Bracing Shall Be Installed Progressively With The Erection Of Beams. Temporary Steel Bracing Shall Be Installed Immediately After Erection Of Initial Adjacent Beams. Successive Temporary Steel Bracing Shall Be Installed Immediately After Erection Of Each Additional Beam.

Temporary Steel Bracing Shall Be Installed At The Locations Detailed In The Contractor's Temporary Steel Bracing Plans And Remain In Place Until Permanent Diaphragms As Per The Contract Plans Are In Place. Permanent Bracing May Include Intermediate Diaphragms But Not End Diaphragms. In Spans With No Intermediate Diaphragms, Temporary Steel Bracing Shall Remain In Place Until The Deck Is Poured.

Bulb Tee Beams Shall Be Cross Braced. A Single Temporary Bracing Member May Be Used As Shown For AASHTO Beams.

Temporary Steel Bracing Shall Be Perpendicular To The Beams And Not Skewed.

Temporary Steel Bracing May Be Discontinuous Or Continuous Across The Width Of The Bridge.

Backer Plates Are Required At All Discontinuous Bracing Locations.

Temporary Steel Bracing System Shall Be Constructed Of New Or Used Steel That Conforms To ASTM A36 Or Higher. Used Steel Shall Be In Good, Sound Condition.

Steel May Be Unpainted.

Bolts Shall Be ASTM A325 With Heavy Hex Nuts And Hardened Steel Washers That Meets The Requirements Of ASTM A563 And A436, Respectively. Washers Shall Be Large Enough To Completely Cover The PVC Blockouts.

PVC Blockout Diameter Shall Be No Larger Than 1/8" Greater Than The Bolt Diameter And Shall Be Fully Grouted With An Approved Non-Shrink Grout After Removal Of Temporary Bracing.

Design Of Reusable Temporary Steel Bracing Systems Comprised Of Members With Slotted Holes May Be Used.

All Material Furnished By The Contractor And Used In Construction Of The Temporary Steel Bracing System Shall Remain The Property Of The Contractor And Shall Be Removed From The Site.

There Will Not Be A Separate Pay Item For The Temporary Steel Bracing System. Payment For The Temporary Steel Bracing System Will Be Absorbed In The Prestress Beam Pay Items.

HYDRAULIC BRIDGES GENERAL NOTES:

Temporary Bracing Systems On Hydraulic Bridges Shall Conform To The BRIDGE SUPERSTRUCTURE CONSTRUCTION PLAN And May Consist Of Material Other Than Steel. Although Contractor May Elect To Use Temporary Steel Bracing Systems.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

TEMPORARY STEEL BRACING

FMS: /
COUNTY:
PROJECT NUMBER:

WORKING NUMBER

SHEET NUMBER

DESIGNER
DETAILER
CHECKER
ISSUE DATE
DIRECTOR OF STRUCTURES, STATE BRIDGE ENGINEER - JUSTIN WALKER, P.E.
DEP. DIR. OF STRUCTURES, ASST. STATE BRIDGE ENGINEER - SCOTT WESTERFIELD, P.E.

DATE | REVISION | BY

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
BRIDGE DIVISION
PLAN

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 29 **CODE: (SP)**

DATE: 01/17/2017

SUBJECT: Payroll Requirements for General Obligation Bond Projects

Bidders are hereby advised that the Contractor and Subcontractor(s) are required to submit payroll information to the Project Engineers on a weekly basis.

For this project, CAD-880, CAD-881 and certified payroll submissions are required each week the Contractor or a Subcontractor performs work on the project.

When no work is performed, the Contractor should only submit CAD-880 showing no work activities.

The Contractor shall make all efforts necessary to submit this information to the Project Engineer in a timely manner. The Engineer will have the authority to suspend the work wholly or in part and to withhold payments because of the Contractor's failure to submit the required information. Submission of forms and payrolls shall be current through the first full week of the month for the estimate period in order for the Project Engineer to process an estimate.

Bidders are advised to review the requirements regarding payroll submissions in Special Provision 907-110-1.

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. 114 **CODE: (SP)**

DATE: 04/18/2017

SUBJECT: Right-of-Way Plat

Bidders are advised that pay item 617-A, Right-of-Way Marker not only addresses the requirements for furnishing and placing right-of-way markers but also includes the preparation and submittal of a ROW Plat by a Licensed Professional Surveyor. Since the submittal of the plat is considered a part of the pay item and the pay item is not complete until the plat is received, contract time will not be suspended while waiting on the Contractor to submit the plat.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 246 **CODE: (SP)**

DATE: 06/27/2017

SUBJECT: Kansas City Southern Construction Requirements

Bidders are hereby advised that provisions which are required as per the Notice to Bidders entitled "Railway-Highway Provisions" shall also include the following.

The Contractor shall submit to the Project Engineer and the Railroad detailed plans and design data for temporary construction clearances, stages of construction, erection plans, demolition plans, false-work plans, excavation plans, and temporary shoring plans and calculations, as required, and shall be sealed by a Mississippi Registered Professional Engineer. All submittals must be approved by the Railroad before excavation or construction can begin within Railroad Right-of-Way. All construction submittals for work performed within the Kansas City Southern Railway Company (KCS) right-of-way shall be made per the KCS "Guidelines for the Design and Construction of Railroad Overpasses and Underpasses" as updated in May 2008.

Prior to beginning any work on the KCS right-of-way, the Contractor shall obtain a Right of Entry Permit. To request a permit application, the Contractor should contact Sylvia Schmidt. Mrs. Schmidt's contact information is as follows.

Sylvia Schmidt
Permit Manager
Jones Lang LaSalle Americas, Inc.
3017 Lou Menk Drive, Suite 100
Fort Worth, Texas 76131-2800
817-230-2688

The Contractor shall be responsible for payment of all application fees.

This project will require construction activities on the right-of-way of active railroad tracks which are currently owned and/or operated by KCS. When work requires that equipment or personnel be within the KCS right-of-way or the "foul zone" adjacent to the right-of-way, a qualified "Employee-in-Charge" (EIC) must be present for the purpose of providing on-track safety and flagging protection for the work crews. The EIC shall also be responsible for the coordination of the Contractor's activities within the KCS right-of-way with the operation of the Railroad. The EIC must be certified under the KCS General Code of Operation Rules (GCOR) and must be approved by the local KCS Roadmaster prior to beginning work on the KCS right-of-way. The Contractor will be required to provide radios for the EIC, all equipment operators, supervisors, and foremen in charge of employees working within the KCS right-of-way. All personnel who must enter upon the KCS right-of-way must check in and out with the EIC and be logged in and out of the site.

All personnel who must work within the KCS right-of-way at any time shall be trained and certified as a KCS "Roadway Worker" and must at all times have their certification card with them and available for random inspection. The Contractor will be responsible for providing this training for Contractor employees or any subcontractor(s) employees. The Contractor shall contact Mr. Larry Slater of Track Sense Inc. at 330-847-8661 or 330-219-4721 (lslater@neo.rr.com) for approximate fees and scheduling the necessary training sessions. The Contractor shall also contact the MDOT Project Engineer to see if any MDOT employees need this training. If so, the Contractor shall include the MDOT employees in the list of participates for training. The Contractor shall bear the cost of training the MDOT employees. Costs for training the MDOT employees will be reimbursed to the Contractor by supplemental agreement.

Prior to commencing work, the Contractor shall provide to the Railroad Engineer or the Railroad Engineer's designated representative, with copies to the Project Engineer, a detailed construction schedule for its work on Railroad's right-of-way, including the proposed temporary horizontal and vertical clearances and construction sequence for all work to be performed on Railroad right-of-way. This schedule shall also include the anticipated dates when the milestone events listed below will occur. The Contractor shall update the schedule for these milestone events as necessary, but at least monthly, and shall provide a copy of all updates to the Railroad so that site visits may be scheduled.

- Preconstruction meetings.
- Excavations, shoring placement/removal, pile driving, drilling of caissons or drilled shafts adjacent to tracks.
- Reinforcement and concrete placement for near track piers.
- Erection of precast concrete or steel overpass bridge superstructure.
- Reinforcement and concrete placement of overpass bridge decks.
- Completion of the bridge structure.

The Contractor shall so arrange and conduct construction operations in such a manner that there will be no interference with Railroad operations, including train, signal, telephone and telegraphic services, or damage to the property of the Railroad or to poles, cables or wires (whether overhead or underground) and other facilities or tenants on the rights-of-way of the Railroad. Before undertaking any work within Railroad right-of-way and before placing any obstruction over any track, the Contractor shall:

- Notify the Railroad's representative at least 72 hours in advance of the work.
- Provide assurance to the Railroad's representative that arrangements have been made for any required flagging service.
- Receive permission from the Railroad Engineer to proceed with the work.
- Ascertain that the Project Engineer has received copies of notice to the Railroad and the Railroad's response.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

DATE: 07/25/2017

SUBJECT: Reduced Speed Limit Signs

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

DATE: 10/10/2017

SUBJECT: Mississippi Agent or Qualified Nonresident Agent

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

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

DATE: 11/28/2017

SUBJECT: Errata and Modifications to the 2017 Standard Specifications

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

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 757 **CODE: (IS)**

DATE: 03/20/2018

SUBJECT: Additional Erosion Control Requirements

Bidders are hereby advised of the following requirements that relate to erosion control activities on the project.

THE MAXIMUM TOTAL ACREAGE THAT CAN BE DISTURBED, AT ONE TIME, ON THE PROJECT IS NINETEEN (19) ACRES. THE CONTRACTOR SHALL BE REQUIRED TO STABILIZE DISTURBED AREAS PRIOR TO OPENING UP ADDITIONAL SECTIONS OF THE PROJECT. STABILIZED SHALL BE WHEN THE DISTURBED AREA MEETS ONE OF THE FOLLOWING CRITERIA:

- **THE AREA HAS BEEN SEEDED, EITHER TEMPORARY OR PERMANENT, AND MULCHED ACCORDING TO THE SPECIFICATIONS,OR**
- **A CRUSHED STONE COURSE OR A LIFT OF ASPHALT PAVEMENT HAS BEEN PLACED, OR**
- **THE AREA HAS BEEN CHEMICALLY TREATED USING PORTLAND CEMENT OR LIME-FLY ASH, AND SEALED.**

DISTURBED AREAS INCLUDE THE ROADBED, SLOPES AND REMAINING AREA OUT TO THE ROW LINE.

Clearing and Grubbing: Prior to beginning any clearing and grubbing operations on the project, controls shall be in place to address areas such as drainage structures, wetlands, streams, steep slopes and any other sensitive areas in accordance with the approved Erosion Control Plan or as directed by the Engineer. Clearing and grubbing should be limited to the minimum area necessary to construct the project. Grubbing operations should be minimized in areas outside the construction limits and stumps should be cut off flush with the existing ground elevations. A buffer area of at least fifteen (15) feet or as shown in the Plans shall be in place adjacent to the right-of-way line. The buffer area can either be the existing vegetation that is left undisturbed or re-established by planting new vegetation if clearing and grubbing was required. As applicable, see the Riparian Buffer Erosion Control sheet(s) in the Plans for clearing and grubbing limits adjacent to stream banks.

Unclassified Excavation: Cut sections shall be graded in accordance with the typical sections and plan grades. Permanent erosion control BMP's should be placed as soon as possible after the cut material has been moved. Fill sections that are completed shall have permanent erosion control BMP's placed. Fill sections that are not completed shall be either permanently or temporarily seeded until additional material is made available to complete these sections. All unclassified excavation on the project is be required to be moved prior to incorporating any borrow excavation. The Contractor may have to stockpile unclassified excavation in order to comply with the nineteen (19) acre requirement. No additional compensation will be made for stockpiling operations.

Disturbed areas that remain inactive for a period of more than fourteen (14) days shall be temporary grassed and mulched. Temporary grassing and mulching shall only be paid one time for a given area.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 948 **CODE: (SP)**

DATE: 06/06/2018

SUBJECT: Use of Polyacrylamide (PAM)

Bidders are advised that the use of Polyacrylamide (PAM) will be allowed only for surface erosion control of soil prior to soil stabilization. Prior to use of this material, written notification shall be included in the Storm Water Pollution Prevention Plan (SWPPP). The application rate, areas of application, description of how uniform coverage will be achieved, and how application to non-target areas will be prevented shall be clearly depicted within the SWPPP. Polyacrylamide shall meet the requirements of Special Provision 907-250, and meet all requirements of the Mississippi Department of Environmental Quality's regulations. Polyacrylamide **shall not** be discharged into waters of the state.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1206 **CODE: (SP)**

DATE: 10/16/2018

SUBJECT: MASH Compliant Devices

Bidders are hereby advised that the Standard Specifications may require certain traffic control and permanent safety hardware devices to meet the requirements of the Manual for Assessing Safety Hardware (MASH). However, devices meeting the requirements of NCHRP Report 350 will be allowed until the mandatory effective date for MASH compliance. The following table shows the effective dates for MASH compliant devices.

Device	Effective Date for MASH Compliance
W-beam barriers, cast-in-place concrete barriers	December 31, 2017
W-beam terminals - non-flared	June 30, 2018
Crash cushions	December 31, 2018
Cable barriers, cable barrier terminals, bridge rails, transitions, all other longitudinal barriers including portable barriers installed permanently, W-beam terminals - flared, all other terminals, sign supports, all other breakaway hardware	December 31, 2019

Temporary work zone devices, including portable barriers manufactured after December 31, 2019, must have been successfully tested to the 2016 Edition of MASH. Such devices manufactured on or before this date and successfully tested to NCHRP Report 350 or the 2009 Edition of MASH may continue to be used throughout their normal service lives.

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: (SP)**

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: (SP)**

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. 1434 **CODE: (SP)**

DATE: 03/06/2019

SUBJECT: Erosion Control Plan

Bidders are advised that the Best Management Practices (BMPs) shown at sensitive areas on the Erosion Control Sheets in the Plans shall be shown on the Contractor's Erosion Control Plan and shall be used in the field as indicated on the original plans sheets. Should the installation of these BMPs produce an unsatisfactory result, the Contractor shall submit to the Engineer alternate BMPs for approval. Once approved, the Contractor shall revise the Contractor's Erosion Control Plan to include these changes.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1718 **CODE: (SP)**

DATE: **06/04/2019**

SUBJECT: **Contract Time**

PROJECT: **SP-0020-01(171) / 104299301 – Warren 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 **September 10, 2019** and the date for Notice to Proceed / Beginning of Contract Time will be **November 12, 2019.**

Should the Contractor request a Notice to Proceed earlier than **November 12, 2019** and it is agreeable with the Department for an early Notice to Proceed, the requested date will become the new Notice to Proceed / Beginning of Contract Time date.

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

The Contractor will be allowed to work 24 hours a day, 7 days a week on all work outlined in Phase 2 on Working Number TC-1, Sheet Number 75 of the plans. Refer to Notice to Bidders "Additional Construction Requirements" for more information.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1719 **CODE (SP)**

DATE: 02/07/2019

SUBJECT: Placement of Fill Material in Federally Regulated Areas

PROJECT: SP-0020-01(171) / 104299301 – Warren County

A Permit (404, General, Nationwide, etc.) for placing fill material federally regulated sites is required.

The Department has acquired the following permit for permanently filling at regulated sites that are identified during project development:

General Permit No. 46 (Wetlands & Waters of the U.S.) ---- All Sites
(ID No. MVK-2017-192)

Copies of said permit(s) are on file with the Department.

Securing a permit(s) for the filling of any other regulated site, the purpose of which is temporary construction for the convenience of the Contractor, shall be the responsibility of the Contractor.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1720

DATE: 07/02/2019

SUBJECT: Specialty Items

PROJECT: SP-0020-01(171)/104299301 - WARREN

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

CATEGORY: CURBING, SIDEWALKS, GUTTERS

Line No	Pay Item	Description
0720	608-B001	Concrete Sidewalk, With Reinforcement
0730	609-B002	Concrete Curb, Header
0740	609-D004	Combination Concrete Curb and Gutter Type 2 Modified
0750	609-D008	Combination Concrete Curb and Gutter Type 3A

CATEGORY: EROSION CONTROL

Line No	Pay Item	Description
0170	213-A001	Agricultural Limestone
0180	213-C001	Superphosphate
0190	216-A001	Solid Sodding
0200	219-A001	Watering
0210	221-A001	Concrete Paved Ditch
0220	223-A001	Mowing
0230	225-A001	Grassing
0240	225-C001	Mulch, Vegetative Mulch
0250	226-A001	Temporary Grassing
0260	229-A001	Erosion Mat
0270	234-A001	Temporary Silt Fence
0280	234-D001	Inlet Siltation Guard
0290	235-A001	Temporary Erosion Checks
0300	236-A008	Silt Basin, Type D
0310	237-A002	Wattles, 20"
0320	245-A001	Silt Dike
0330	246-B001	Rockbags
0340	249-A001	Riprap for Erosion Control
1190	907-250-A001	Polyacrylamide (PAM)
1200	907-253-A001	Coir Fiber Baffle
1320	221-A001	Concrete Paved Ditch
1330	229-A001	Erosion Mat

CATEGORY: GUARDRAIL, GUIDERAIL

Line No	Pay Item	Description

CATEGORY: GUARDRAIL, GUIDERAIL

Line No	Pay Item	Description
0680	606-B001	Guard Rail, Class A, Type 1
0690	606-D022	Guard Rail, Bridge End Section, Type I
0700	606-E005	Guard Rail, Terminal End Section, Flared
0710	606-E007	Guard Rail, Terminal End Section, Non-Flared

CATEGORY: MISCELLANEOUS/ SPECIALTY WORK ITEMS

Line No	Pay Item	Description
1220	907-899-A001	Railway-Highway Provisions

CATEGORY: PAVEMENT STRIPING AND MARKING

Line No	Pay Item	Description
0980	626-C003	6" Thermoplastic Edge Stripe, Continuous White
0990	626-D004	6" Thermoplastic Traffic Stripe, Skip Yellow
1000	626-E003	6" Thermoplastic Traffic Stripe, Continuous Yellow
1010	626-G002	Thermoplastic Detail Stripe, White
1020	626-G003	Thermoplastic Detail Stripe, Yellow
1030	626-H004	Thermoplastic Legend, White
1040	626-H005	Thermoplastic Legend, White
1050	627-K001	Red-Clear Reflective High Performance Raised Markers
1060	627-L001	Two-Way Yellow Reflective High Performance Raised Markers
1260	907-624-B002	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White
1270	907-624-D002	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous Yellow
1280	628-H001	6" High Performance Cold Plastic Traffic Stripe, Continuous White
1290	628-J001	6" High Performance Cold Plastic Traffic Stripe, Continuous Yellow

CATEGORY: SURVEY AND STAKING

Line No	Pay Item	Description
1140	699-A001	Roadway Construction Stakes

CATEGORY: TRAFFIC CONTROL - PERMANENT

Line No	Pay Item	Description
1070	630-A001	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
1080	630-A003	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
1090	630-C003	Steel U-Section Posts, 3.0 lb/ft
1100	630-E004	Structural Steel Angles & Bars, 7/16" x 2 1/2" Flat Bar
1110	630-F006	Delineators, Guard Rail, White
1120	630-K001	Welded & Seamless Steel Pipe Posts, 3 1/2"
1130	630-K003	Welded & Seamless Steel Pipe Posts, 4"

CATEGORY: TRAFFIC CONTROL - TEMPORARY

Line No	Pay Item	Description
0830	619-A1003	Temporary Traffic Stripe, Continuous White, Paint
0840	619-A2003	Temporary Traffic Stripe, Continuous Yellow, Paint
0850	619-A6004	Temporary Traffic Stripe, Legend, Paint
0860	619-C10001	Yellow-Clear Reflective High Performance Raised Marker
0870	619-D1001	Standard Roadside Construction Signs, Less than 10 Square Feet
0880	619-D2001	Standard Roadside Construction Signs, 10 Square Feet or More
0890	619-F1001	Concrete Median Barrier, Precast
0900	619-F2001	Remove and Reset Concrete Median Barrier, Precast
0910	619-F3003	Delineators, Median Barrier Mounted, White
0920	619-G4001	Barricades, Type III, Double Faced
0930	619-G5001	Free Standing Plastic Drums
0940	619-J1001	Impact Attenuator, 40 MPH
0950	619-J2001	Impact Attenuator, 40 MPH, Replacement Package
0960	619-J3001	Remove and Reset Impact Attenuator
1210	907-619-E3001	Changeable Message Sign

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1721 **CODE: (SP)**

DATE: 06/24/2019

SUBJECT: A + C Bidding

PROJECT: SP-0020-01(171) / 104299301 – Warren County

Bidders are hereby advised this project contains requirements for A + C bidding.

The bidder shall determine the total number of working days required to complete the work in the contract. The product of the total number of working days required for construction of the project in accordance with the plans and specifications (contract time), as determined by the Bidder, times the disincentive cost of **$10,000.00 per working day** shall be added to the total bid determined from the bid items. The sum of these two amounts will be the amount used for comparison of bids. This information will be shown on the Expedite Bid Sheets.

The proposal guaranty for this project should not include the amount determined for contract time as specified above. The proposal guaranty should be for the amount of the bid items.

After the proposals are opened and read, they will be compared on the basis of the following formula:

X = A + C

Where:

X = The total amount used only for determining the lowest bid for award of Contract.

A = Total Bid - Direct and Dependent Items - This being the summation of the products of the quantities shown in the bid schedule multiplied by their respective unit prices.

C = Value of the Contract Time – This being the total working days required to complete construction of the project in accordance with the plans and specifications (contract time), as determined by the Bidder, multiplied by the disincentive cost of **$10,000.00** per day. The value C is included for comparison of bids only and will NOT be included in any payment to the Contractor. **The total number of days entered for contract time CAN NOT EXCEED 574 Working Days.** If the Contractor enters a Contract Time of more than **574 working days**, the proposal will be considered **irregular, rejected, and returned to the bidder.**

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1722 **CODE: (SP)**

DATE: **06/04/2019**

SUBJECT: **Additional Construction Requirements**

PROJECT: **SP-0020-01(171) / 104299301 – Warren County**

Porters Chapel Road (Phase 2)

Bidders are hereby advised that **all work** outlined in Phase 2 on Working Number TC-1, Sheet Number 75 of the plans shall be **constructed and completed between the dates of June 1 and July 31.**

If any of the work outlined above is performed outside of the specified timeframe, the Contractor shall be assessed a penalty of **$2,500.00** per calendar day.

The Contractor will be allowed to work 24 hours a day, 7 days a week on all work outlined in Phase 2 on Working Number TC-1, Sheet Number 75 of the plans.

The Contractor shall notify the Project Engineer at least seven (7) calendar days prior to beginning any work outlined in Phase 2.

I-20 Bridge Repairs

Bidders are hereby advised that work on Interstate 20 shall not commence until the I-20 Frontage Road construction is complete and is open to traffic.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1723 **CODE: (SP)**

DATE: 06/04/2019

SUBJECT: Lane Closure Restrictions

PROJECT: SP-0020-01(171) / 104299301 – Warren County

Bidders are hereby advised of the following restrictions on the above captioned project:

Permanent lane closures are defined as the lane closures required for work on Interstate 20, which require the use of temporary precast concrete median barrier. All other lane closures are to be considered temporary.

No temporary or permanent lane closures will be permitted on the following days:

Memorial Day	On the preceding Friday through Memorial Day
Independence Day	July 3rd, July 4th, and any adjacent days that fall on a weekend
Labor Day	On the preceding Friday through Labor Day
Thanksgiving	On the Wednesday before Thanksgiving through the Sunday following Thanksgiving
Christmas/New Year's	December 24th through January 1st and any adjacent days that fall on a weekend

If any of the above restrictions are violated, the Contractor will be charged a fee of **$500.00** for each full or partial five minute period until the roadway is back in compliance with the restriction requirements stated above.

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1746 **CODE: (SP)**

DATE: 06/04/2019

SUBJECT: Work Restrictions Associated with the Railroad

PROJECT: SP-0020-01(171) / 104299301 – Warren County

Bidders are hereby advised that the project requires work adjacent to and over the KCS Railroad. Work will be completed as per the guidelines referenced in NTB 246 (Kansas City Southern Construction Requirements) and 907-899-1 (Railway-Highway Provisions). When it becomes necessary to work in proximity of the Railroad Right of Way and it becomes impractical to work due to train traffic volumes that conflict with the work, the Project Engineer will continue to charge time in accordance to Section 108, Prosecution and Progress, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction.

Delays in the Contractor's prosecution of the work due to conflicts with the Railroad shall not constitute a modification to time or money in the contract.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SECTION 904 - NOTICE TO BIDDERS NO. 1747 **CODE: (SP)**

DATE: **6/24/2019**

SUBJECT: **Liquidated Damages**

PROJECT: **SP-0020-01(171) / 104299301 – Warren County**

Bidders are hereby advised to disregard the values in the "Schedule of Deductions for Each Day of Overrun in Contract Time" table shown in Subsection 108.07 of the Standard Specifications.

Liquidated Damages of **$10,000.00** per calendar day shall be applicable to each calendar day after the Contractor determined number of working days under the contract has been met.

Liquidated damages for this project is a combination of both liquidated damages and road user costs.

General Decision Number: MS190119 01/04/2019 MS119

Superseded General Decision Number: MS20180223

State: Mississippi

Construction Type: Highway

County: Warren County in Mississippi.

HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of $10.60 for calendar year 2019 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least $10.60 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2019. If this contract is covered by the EO and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must pay workers in that classification at least the wage rate determined through the conformance process set forth in 29 CFR 5.5(a)(1)(ii) (or the EO minimum wage rate, if it is higher than the conformed wage rate). The EO minimum wage rate will be adjusted annually. Please note that this EO applies to the above-mentioned types of contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but it does not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60). Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/04/2019

SUMS2010-042 08/04/2014

	Rates	Fringes
CARPENTER (Form Work Only)	$ 12.26	0.12
CARPENTER, Excludes Form Work	$ 14.21	0.00
CEMENT MASON/CONCRETE FINISHER	$ 13.23	0.00
ELECTRICIAN	$ 22.64	7.73
HIGHWAY/PARKING LOT STRIPING: Truck Driver (Line Striping Truck)	$ 12.63	0.00

INSTALLER - GUARDRAIL	$ 11.42	0.00
INSTALLER - SIGN	$ 12.04	0.00
IRONWORKER, REINFORCING	$ 16.43	0.00
LABORER: Common or General, Including Asphalt Raking, Shoveling, Spreading and Concrete Work	$ 10.60	0.00
LABORER: Flagger	$ 9.83	0.00
LABORER: Grade Checker	$ 10.67	0.00
LABORER: Landscape	$ 9.82	0.00
LABORER: Mason Tender - Cement/Concrete	$ 11.69	0.00
LABORER: Pipelayer	$ 13.13	0.00
LABORER: Laborer-Cones/ Barricades/Barrels - Setter/Mover/Sweeper	$ 10.53	0.00
OPERATOR: Asphalt Spreader	$ 16.13	0.00
OPERATOR: Backhoe/Excavator/Trackhoe	$ 13.28	0.00
OPERATOR: Broom/Sweeper	$ 10.17	0.00
OPERATOR: Bulldozer	$ 14.38	0.00
OPERATOR: Concrete Saw	$ 13.60	0.00
OPERATOR: Crane	$ 16.00	0.00
OPERATOR: Distributor	$ 11.70	0.00
OPERATOR: Drill	$ 19.22	0.00
OPERATOR: Grader/Blade	$ 13.84	0.00
OPERATOR: Loader	$ 11.73	0.00
OPERATOR: Mechanic	$ 16.28	0.00
OPERATOR: Milling Machine	$ 15.38	0.00
OPERATOR: Mixer	$ 14.85	0.00
OPERATOR: Oiler	$ 13.08	0.48
OPERATOR: Paver (Asphalt, Aggregate, and Concrete)	$ 13.01	0.00
OPERATOR: Piledriver	$ 15.13	0.00

OPERATOR: Roller (All Types)....$ 11.05 0.00

OPERATOR: Scraper.....$ 12.63 0.00

OPERATOR: Tractor.....$ 9.98 0.00

OPERATOR: Trencher.....$ 15.00 0.00

TRUCK DRIVER: Flatbed Truck.....$ 13.29 0.00

TRUCK DRIVER: Lowboy Truck.....$ 14.83 0.00

TRUCK DRIVER: Mechanic.....$ 12.35 0.00

TRUCK DRIVER: Off the Road Truck.....$ 12.31 0.00

TRUCK DRIVER: Water Truck.....$ 13.15 0.00

TRUCK DRIVER: Dump Truck (All Types).....$ 13.14 0.00

TRUCK DRIVER: Semi/Trailer Truck.....$ 17.34 0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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

The body of each wage determination lists the classification

and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

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

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

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

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

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

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

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

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

Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

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. 907-107-2 **CODE: (SP)**

DATE: **01/31/2018**

SUBJECT: **Contractor's Erosion Control Plan**

Section 107, Legal Relations and Responsibility to Public, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-107.22--Environmental Protection.

907-107.22.1--Contractor's Erosion Control Plan (ECP). After the first sentence of the first paragraph of Subsection 107.22.1 on page 63, add the following.

The ECP shall be submitted electronically to the Project Engineer who will forward it to the appropriate MDOT Divisions.

Delete the example Narrative in Subsection 107.22.1 on page 65, and substitute the following.

EXAMPLE
MISSISSIPPI DEPARTMENT OF TRANSPORTATION
Storm Water Pollution Prevention Plan (SWPPP)
Narrative

General Permit Coverage No: MSR_____
Project Number: _____
County: _____
Route: _____

SITE INFORMATION

This project consists of grading and installing drainage structures necessary to construct approximately 6 miles of parallel lanes on SR 31 between the Hinds County Line and the Rankin County Line.

SEDIMENT AND EROSION CONTROLS

a) Vegetative Controls: Clearing and grubbing areas will be minimized to comply with the buffer zones (minimum of 15 feet along the ROW lines and 5 feet along creeks) as per the contract documents. A combination of temporary and permanent grassing will be used to protect slopes as construction progresses. **Should a disturbed area be left undisturbed for 14 days or more, placement of temporary BMPs (seeding & mulching, silt fences, basins, ditch checks, slope drains, etc.) or permanent erosion control measures (seeding & mulching, riprap, paved ditch, flumes, etc.) will be initiated by the next working day after the land disturbing activities have stopped.**

b) Structural Controls: Gravel construction entrance/exit will be installed near Stations 145+50, 159+50, 164+50 & 172+50. Riprap ditch checks will be constructed at Stations 144+50, 151+75, 162+00 & 166+25. The Concrete washout area will be at Stations 140+25, 152+00 & 168+50.

c) Housekeeping Practices: Structural BMPs will be cleaned out when sediment reaches 1/3 to 1/2 of the height of the BMP. Maintenance and repair of equipment will be performed off-site, material wash out will occur either off-site or within designated wash out areas.

d) Post-Construction Control Measures: As construction is completed, permanent vegetative growth will be established on disturbed soils to improve soil stability and provide a buffer zone for loose material. Paved ditches and flumes will be placed as specified in the ECP to reduce erosion in concentrated flow areas and rip rap will be placed as specified to dissipate flow energy and reduce flow velocity.

IMPLEMENTATION SEQUENCE

Perimeter controls will be installed first. Clearing and grubbing will be performed in 19-acre sections beginning at the BOP and temporary grassing will be installed as needed. Temporary erosion control BMPs will be installed at the drainage structures prior/during construction of the drainage structures. Grading activities will commence at the BOP and proceed towards the EOP, fill slopes will be permanently grassed in stages for fill heights that exceed 5 feet. Base materials will be installed on completed grading sections with the paving to follow.

MAINTENANCE PLAN

All erosion and sediment control practices will be checked for stability and operation following every rainfall but in no case less than once every week. Any needed repairs will be made immediately to maintain all practices as designed. Sediment basins will be cleaned out when the level of sediment reaches 2.0 feet below the top of the riser. Sediment will be removed from the front/upstream end of the BMPs when it becomes about 1/3 to 1/2 height of BMP.

_____ _____
Prime Contractor's Signature Date

_____ _____
Printed Name Title

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-109-1 **CODE: (SP)**

DATE: 05/08/2019

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.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-110-1 **CODE: (SP)**

DATE: 01/17/2017

SUBJECT: Required Contract Provisions for General Obligation Bond Projects

Section 110, Required Contract Provisions, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

Delete Subsections 110.01 and 110.02 on pages 99 and 100, and substitute the following.

907-110.01--Blank.

907-110.02--Application. The following applies to this project.

907-110.02.1--Statements and Payrolls. The Contractor and Subcontractors shall submit weekly two copies of all payrolls to the Project.

The Contractor and sub-contractors shall submit two copies each of Form CAD-880," Weekly Summary of Wage Rates", and CAD-881, "Weekly Statement of Compliance", each week to the Project Engineer. The forms may be obtained from the Contract Compliance Officer, Contract Administration Division, Mississippi Department of Transportation, Jackson, Mississippi. Custom forms, approved by Contract Administration Division, may be used in lieu of CAD forms.

907-110.02.2--Wage Rates. All persons employed or working upon the site of the work will be paid at wage rates not less than those contained in the wage determination decision of the Secretary of Labor in effect 10 days prior to taking bids.

Bidders are advised that regardless of the wage rates listed in the contract, minimum federal wage rates must be paid.

907-110.02.3--Classification. The Department Contract Compliance Officer shall require that any class of laborers or mechanics, including apprentices and trainees, which is not listed in the wage determination and which is to be employed under the contract, shall be classified or reclassified conformably to the wage determination.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-202-3 **CODE: (SP)**

DATE: **04/09/2019**

SUBJECT: **Removal of Bridge Deck**

Section 202, Removal of Structures and Obstructions, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as amended by this special provision is applicable to hydrodemolition of bridge decks only.

907-202.01--Description. This work shall consist of the removal of bridge deck concrete using hydrodemolition equipment as preparation for bridge deck repairs or overlay. Rotomilling of the existing concrete deck prior to hydrodemolition will not be allowed. All work shall be performed in accordance with the details shown on the plans or as directed by the Engineer.

907-202.02--Materials and Equipment. The hydrodemolition equipment shall be a self-propelled machine that utilizes a high pressure water jet stream capable of removing concrete to the depths shown on the plans or as directed by the Engineer and be capable of removing rust and concrete particles from reinforcing steel. Hand-held wands or pneumatic hammers, 30-pound class maximum, may be used to remove unsound concrete in areas that are inaccessible or inconvenient to the self-propelled machine, such as areas under reinforcing steel or around expansion joints. Pneumatic hammers and chipping tools exceeding a 15-pound class shall not be operated at an angle exceeding 45° relative to the surface of the bridge deck. Such tools may be started in the vertical position but must be immediately tilted to a 45° operation angle.

907-202.03--Construction Requirements. Prior to the commencement of the removal operation, the hydrodemolition equipment shall be calibrated on an area of sound concrete approximately 2 feet x 5 feet as directed by the Engineer. The cost of the calibration procedure shall be included in the unit price bid for hydrodemolition. The Engineer shall verify the following settings:

1. Water pressure
2. Machine staging control (step)
3. Nozzle size
4. Nozzle speed (travel)

During the calibration, any or all of the above settings may be adjusted in order to achieve removal in accordance with the requirements of the plans. When the designated depth of removal is attained, the settings shall be recorded and maintained throughout the removal -operation unless otherwise directed by the Engineer. The depth of removal shall be verified periodically and, if necessary, the equipment re-calibrated to ensure the plan depth of removal is obtained.

The concrete bridge deck shall be removed as detailed in the plans or directed by the Engineer. After the hydrodemolition is completed, the deck shall be inspected (by sounding) to insure that all partial depth deteriorated concrete has been removed. Should deteriorated concrete be found,

the Contractor shall remove the areas of deteriorated concrete by additional passes of the hydrodemolition equipment or jackhammers.

No removal of concrete by conventional (mechanical impact) methods will be allowed within a bridge unit (expansion joint to expansion joint) following concrete placement within the same unit until 48 hours of curing has elapsed, unless otherwise approved by the Engineer.

The Contractor shall provide shielding, as necessary, to insure containment of all dislodged concrete within the removal area in order to protect the traveling public from flying debris both on and under the work site.

Waste water from the hydrodemolition process shall be controlled and filtered to produce a visibly clear water prior to releasing it to the surrounding environment. Sediment basins at the end of or outside of the structure shall be used if further filtration is required to produce visibly clear water. Bridge deck drains shall be plugged during the hydrodemolition process. The release of wastewater and solids generated by full depth hydrodemolition shall be minimized.

Cleaning of the bridge deck shall be performed with a vacuum system capable of removing wet debris and water. The deck shall then be blown dry with air to remove excess water and residual debris. Cleaning shall be done before debris and water are allowed to dry on the deck surface. All exposed reinforcing steel which is left unsupported by the hydrodemolition process shall be adequately supported and protected from bending by vacuum trucks or any other equipment. All reinforcing steel damaged or dislodged by these operations shall be replaced with epoxy coated bars of the same size in accordance with the plans or approved by the Engineer, at no additional costs to the State.

When full depth repair is specified on plans, only those areas marked in the field by the Engineer as full depth repair will be paid for as full depth repair. Other areas where hydrodemolition equipment blows through the deck shall be the responsibility of the Contractor and will not be paid for as full depth repair.

907-202.04--Method of Measurement. Removal of Bridge Deck, Hydrodemolition shall be measured by the square yard of the total deck area regardless of depth. Measurements shall be made to the nearest 0.1 square yard.

907-202.05--Basis of Payment. The accepted quantity of Removal of Bridge Deck, Hydrodemolition will be paid for at the contract unit price per square yard, which price will be full compensation for all materials, equipment and labor necessary to remove and dispose of all concrete and other debris to the depth shown on the plans or as directed by the Engineer. This item shall also include vacuuming, shielding, containment and filtration of waste water, additional jackhammering and all other aspects of work necessary to remove bridge deck concrete by hydrodemolition.

Payment will be made under:

907-202-B: Removal of Bridge Deck, Hydrodemolition - per square yard

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-250-2 **CODE: (SP)**

DATE: **06/06/2018**

SUBJECT: **Polyacrylamide (PAM)**

Section 907-250, Polyacrylamide (PAM), is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

SECTION 907-250--POLYACRYLAMIDE (PAM)

907-250.01--Description. This work consists on designing, furnishing, applying, and maintaining a water-soluble anionic polyacrylamide (PAM) as temporary soil binding agents to reduce erosion as a result of storm water on construction sites.

This product shall be applied directly to the soil surface in areas where the timely establishment of vegetation may not be feasible or where vegetative cover is absent or inadequate.

PAM mixtures shall be used in conjunction with, but not a substitute for, other Best Management Practices (BMPs).

907-250.02--Materials. Only anionic PAM mixtures will be allowed. Cationic PAM mixtures shall not be allowed. The Contractor shall make necessary arrangements to get project soil samples analyzed to determine that the correct type of PAM is being used on the project.

The anionic PAM mixtures shall be an environmentally friendly, non-combustible, benign material which is harmless to fish, aquatic organisms, wildlife, and plants.

The PAM mixtures shall meet the following requirements:

- $\leq$ 0.05% free acrylamide monomer by weight,
- have a charge density of 10 to 55 percent, and
- have a molecular weight of 6 to 24 Mg/mole.

The manufacturer/supplier shall provide a certified test report that the material meets these requirements.

The manufacturer/supplier shall provide written instructions to insure proper safety, storage, and mixing of their product.

907-250.03--Construction Requirements. The PAM shall be applied directly to the soil in either a liquid form or a dry form at the application rate specified by the manufacturer. The application rate shall not exceed the maximum application rate specified by the manufacturer. Higher concentrations of anionic PAM mixtures may actually decrease effectiveness. Repeated

applications of PAM mixtures may be applied, if necessary, to ensure adequate effectiveness.

Unused liquid anionic PAM mixtures shall be minimized. Excess material shall not be applied at a rate greater than the maximum application rate. Disposal shall not occur in storm water conveyance systems (i.e. storm sewer manholes, storm sewer inlets, ditches, culverts, etc.).

The manufacturer/supplier shall provide a product expiration date for the PAM mixtures based on product expiration date of the PAM in pure form. The manufacturer/supplier shall provide general written application methods, based on site conditions, such as slope and soil type. The application method shall provide uniform coverage to the target area and avoid drift to non-target areas.

Anionic PAM mixtures may lose its effectiveness due to weather conditions. Areas where PAM is applied shall be inspected within 24 hours after the end of a rainfall event of one-half inch or more, and at least once every seven (7) calendar days. Maintenance needs that are identified during inspections must be accomplished before the next rain event, if possible. Maintenance shall consist of reapplying anionic PAM mixtures to disturbed areas, including high use traffic areas, which interfere in the performance of this application.

907-250.04--Method of Measurement. Polyacrylamide (PAM) will be measured by the actual weight in pounds of PAM applied, including any PAM used during maintenance re-applications. Water or other liquids used during application will not be included in the measurement per pound.

907-250.05--Basis of Payment. Polyacrylamide, measured as prescribed above, will be paid for per pounds, which price shall be full compensation for soil analysis, furnishing all materials, labor, equipment and all incidentals necessary to complete the work.

Payment will be made under:

907-250-A: Polyacrylamide - per pound

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-253-1 **CODE: (SP)**

DATE: 01/17/2017

SUBJECT: Coir Fiber Baffle

Section 907-253, Coir Fiber Baffle, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

SECTION 907-253 -- COIR FIBER BAFFLE

907-253.01--Description. This work consists of furnishing materials, installing, and maintaining coir fiber baffles according to the details in the plans or in locations as directed. Coir fiber baffles shall be installed in silt basins.

907-253.02--Materials.

907-253.02.1--Coir Fiber Mat. Matting shall be provided to meet the requirements of Table 1.

TABLE 1
COIR FIBER MAT PROPERTIES

Property	Requirement	Method
Composition	100% coconut fiber (coir) twine woven into high strength matrix	-
Weight, ounces per square yard	20	ASTM D 5261
Open Area, Measured, percent	50	-

In addition to the above, the product shall be on the Department's APL, or an approved equal.

907-253.02.2--Staples. Staples shall be made of 0.125-inch diameter new steel wire formed into a U-shape not less than 12 inches in length with a throat of one inch (1") in width.

907-253.02.3--Posts. Posts shall meet the requirements of Subsection 714.13.2.2.

907-253.02.4--Tension Wire. The tension wire shall be 9-gauge high tension wire strand of variable lengths.

907-253.02.5--Wire Mesh. The wire mesh for the woven wore backing shall meet the requirements of Subsection 714.13.2.1.

907-253.02.6--Attachment Device. The attachment devices shall be No. 9 staples with at least 1½ inches in length, or an approved equal.

907-253.03--Construction Requirements. The coir fiber baffles shall be placed immediately

upon construction of sediment dams and basins. Three (3) baffles shall be placed in the basins with a spacing of 1/4 the basin length and according to the detail sheets. Two (2) coir fiber baffles shall be placed in basins less than 20 feet in length with a spacing of 1/3 the basin length.

Steel posts shall be installed to a depth of two feet (2') below the basin floor, with spacing of no more than four feet (4'). The top height of the coir fiber baffles shall not be below the elevation of the emergency spillway base of dams and basins. A tension wire strand shall be attached to the steel posts at a height of three feet (3') with plastic ties or wire fasteners. A steel post shall be installed into the side of the basin at a variable depth and a height of three feet (3') from the bottom of the basin to anchor coir fiber mat. The anchor post shall be secured to the upright steel post in basin with wire fasteners.

The coir fiber mat shall be draped over the wire strand with at least three feet (3') of material on each side of the strand. The coir fiber mat shall be secured to the posts and wire strand with wire staples or other acceptable methods. Staples shall be placed across the matting at ends and junctions approximately one foot (1') apart at the bottom and side slopes of basin. The matting shall be overlaid at least six inches (6") where two (2) or more widths of matting are installed side by side. The Engineer may require adjustments in the stapling requirements to fit individual site conditions.

907-253.04--Method of Measurement. Coir fiber baffle will be measured per linear feet of coir fiber baffle.

907-253.05--Basis of Payment. Coir fiber baffle, measured as prescribed above, will be paid for at the contract unit prices per linear feet, which price shall be full compensation for all materials, labor, equipment, placing, securing, excavating, and backfilling of coir fiber baffles, and incidentals necessary to complete the work.

Payment will be made under:

907-253-A: Coir Fiber Baffle - per linear foot

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-619-5 **CODE: (IS)**

DATE: 01/17/2018

SUBJECT: Traffic Control for Construction Zones

Section 619, Traffic Control for Construction Zones, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-619.02--Materials.

907-619.02.8--Traffic Signals and Flashers. Delete Subsection 619.02.8.1 on pages 452 thru 455, and substitute the following.

907-619.02.8.1-Portable Traffic Signals. Portable traffic signals shall be trailer or pedestal mounted units that provide for easy, legal transportation and quick setup and deployment. Each unit shall be self-contained. The types of portable traffic signals are as follows.

- Type 1 portable traffic signal shall include two signal heads per trailer with one signal head mounted on an overhead mast arm that can be extended over the travel lane, and the other signal head shall be mounted on the vertical upright of the trailer.

- Type 2 portable traffic signal shall include one signal head that is mounted on the vertical upright of the pedestal/cart or trailer. Pedestal/Cart mounted shall be designated as Type 2A and Trailer mounted shall be designated as Type 2B. Type 2 portable traffic signals shall be tested to MASH Standards or NCHRP Test Level 3 crash testing requirements by an accredited independent test facility, with supporting documentation available upon request.

- Type 3 portable traffic signal shall be the same as Type 1 mentioned above but with enhanced capabilities as mentioned in each applicable section below.

The portable traffic signals shall be MUTCD Compliant and utilize standard ITE signal heads, and adhere to the ITE Specifications and Standards for Vehicle Traffic Control Signal Heads, Light Emitting Diode (LED) Circular Signal Supplement. The units shall be battery powered with a solar charging system, and be equipped with an onboard battery charger capable of being used with a 120V AC power source. Portable traffic signals shall be able to communicate with other portable signals via 900 MHz or other accepted wireless communications. If wireless connectivity is not feasible, hardwired connectivity shall be an acceptable alternative, as approved by the Engineer. Portable Traffic Signals shall include all the major components listed below or be able to perform the functions of these components. The major components of the unit shall include, but are not limited to, the trailer or pedestal/cart, telescoping mast arm (on Type 1 and 3), signal head(s) and back plates, traffic signal controller with operating software, solar charging system with batteries, input and output devices, vehicle detection, flasher units, conflict monitor, relays,

communications system and other equipment required for the safe operation and installation of the unit.

907-619.02.8.1.1--Signal Heads. The signal heads and all applicable components of the portable traffic signal shall meet the physical display and operational requirements of conventional traffic signals as specific in the Manual on Uniform Traffic Control Devices (MUTCD). The signal heads shall be cast aluminum or polycarbonate and shall meet the requirements laid out in the Mississippi Standard Specification for traffic signal heads and associated MDOT material specifications for traffic signal heads. The signal heads shall accommodate standard 12-inch LED indications meeting the ITE Specification "Vehicle Traffic Control Signal Heads" and ITE Specifications and Standards for Vehicle Traffic Control Signal Heads, Light Emitting Diode (LED) Circular Signal Supplement.

For Type 1, Type 2 and Type 3 portable traffic signals, the signal heads shall have the ability to be rotated 180 degrees to face in the opposite direction and shall have the ability to rotate and lock in approximately 10 degree increments to position the signal head for the optimum visibility to motorists.

For Type 1 portable traffic signals, each unit shall contain two signal heads with one signal head mounted on an overhead mast arm that can be extended over the travel lane with a minimum clearance of 17 feet measured from the bottom of the signal head unit to the road surface. The lower signal head shall be mounted to the vertical upright of the trailer at a minimum height of eight feet (8') from the bottom of the signal head unit to the road surface.

For Type 2 portable traffic signals, the signal head shall be mounted to the vertical upright of the trailer at a minimum height of eight feet (8') from the bottom of the signal head unit to the road surface.

For Type 3 portable traffic signals, each unit shall be the same as Type 1 mentioned above but with enhanced capabilities as mentioned below.

907-619.02.8.1.2--Controller and Operating Requirements. The portable traffic signal (Types 1, 2, and 3) shall include a solid state Controller Unit (CU) that is in compliance with NEMA TS 5 Performance Standard. The CU shall have an easy to read front panel backlit display for viewing and programming the configuration settings and CU status. The CU shall be capable of operating the portable traffic signal system in a fixed time, traffic actuated or manual control mode. Multiple portable traffic signals shall have the capability to be interconnected to form a portable traffic signal system. Each portable traffic signal within a connected system shall have the capability to serve as either the master or remote signal. Each portable traffic signal shall include a Conflict Monitor Unit (CMU), or Malfunction Management Unit (MMU) to ensure phase conflicts do not exist during operation.

For Type 1 and Type 2 portable traffic signals, a minimum of five (5) automatic time-of-day timing plans within a 24-hour period should be available in fixed time mode. The CU should have the ability to control a minimum of four (4) traffic phases with programmable cycle time adjustments and user adjustable red, amber, minimum green and maximum green times. The CU shall have

the capability of programming green and red times from 1 to 999 seconds and yellow times up to 15 seconds in one-second increments. The CU shall also have the capability of facilitating standby modes of red, red flash and yellow flash.

For Type 3 portable traffic signals, a minimum of ten (10) automatic time-of-day timing plans within a 24-hour period should be available in fixed time mode. The CU should have the ability to control a minimum of 16 traffic phases with programmable cycle time adjustments and user adjustable red, amber, minimum green and maximum green times. The CU shall have the capability of programming green and red times from 1 to 999 seconds and yellow times up to 15 seconds in one-second increments. The CU shall also have the capability of facilitating standby modes of red, red flash and yellow flash.

The system shall also have the ability to operate in vehicle actuation mode when vehicle detection components are used. The operating system shall have the capability to allow the Portable Traffic Signal to be connected to and controlled by a standard NEMA controller.

The system shall have the capability to be controlled remotely using a hardwired or wireless remote. The wireless radio remote shall be capable of communicating at a clear line of site distance up to ¼ mile from the master.

The CU shall have the capability of interfacing with a Remote Monitoring System (RMS) capable of reporting signal location, battery voltage, and system faults. The RMS shall include a password-protected web site, viewable via an internet connection. In the event of a system fault, the RMS shall provide specific information concerning the cause of the system fault (example: "red lamp on signal number 1 out"). The RMS shall immediately contact previously designated individuals via SMS text messaging or email, upon a fault event.

The active timing program operating the PTS system shall be available and viewable through the RMS website at all times. The RMS shall maintain a history of the operating system in each signal including total operating hours, alerts, and the location of the PTS trailer.

907-619.02.8.1.3--Wireless Communications. The portable traffic signals shall communicate with other portable traffic signals within the signal system via license-free wireless 900 MHZ radio link communications as specified in Subsection 662.02.2 of the radio Interconnect System specification. The radio units shall maintain communications at a minimum distance of one (1) mile. The radio system shall conform to the applicable Federal Communications Commission requirements and all applicable state and local requirements.

The portable traffic signals shall be in direct communication at all times either by wireless or hardwire connection to provide for the required conflict monitoring / malfunction management system.

907-619.02.8.1.4--Power Requirements. Each Portable Traffic Signal shall be equipped with a power source consisting of a solar collection array, solar controller and/or charging unit and batteries sufficient to operate the signal system. The number and size of batteries shall be sufficient to operate the Type 1 and Type 3 signals for a minimum of 30 days and Type 2A signals for

minimum of five (5) days, and Type 2B signals for minimum of 15 days without additional charging or assist from the solar array. An on-board battery charger shall be compatible with both the solar array and with a 120V AC power source.

For Type 1 signals, the solar panel array shall provide for a minimum of 440 watts of solar collection capability.

For Type 2A signals, the solar panel array shall provide for a minimum of 90 watts of solar collection capability.

For Type 2B signals, the solar panel array shall provide for a minimum of 110 watts of solar collection capability.

For Type 3 signals, the solar panel array shall provide for a minimum of 480 watts of solar collection capability and shall include a tilt and rotate system to optimally position the panels.

All instrumentation for the electrical system and battery compartment shall be contained in a lockable weatherproof enclosure. Solar panels shall be secured to the mounting brackets for theft prevention.

907-619.02.8.1.5--Trailer and Lift System. The trailer or pedestal/cart and all mounted components shall conform to the wind loading requirements as follows: 100 mph minimum for Type 1 portable traffic signals, 55 mph minimum for Type 2A portable traffic signals, 75 mph minimum for Type 2B portable traffic signals, and 90 mph minimum for Type 3 portable traffic signals as described in the AASHTO *Standard Specifications for Highway Signs, Luminaries and Traffic Signals*, as specified in the plans including all interims and updates. At the request of the Engineer, proof of conformance to these wind load ratings shall be verified by a third-party. No additional loose ballast shall be used to meet these wind load requirements. The trailer shall be made of structural steel and shall include four (4) leveling/stabilizer jacks capable of lifting the trailer a minimum of six inches (6").

The trailer or pedestal shall be equipped with a mechanical, hydraulic or electric lift system sufficient for one person to be able to raise and lower the vertical upright and/or horizontal mast arm to and from the operating position.

For Type 1, 2B, and Type 3 signals, the trailer shall be equipped to provide legal and safe transport on the public highway system at speeds up to 55 mph.

All exterior metal surfaces, except signal heads and back plates, shall be powder-coat painted highway safety orange.

907-619.02.9--Impact Attenuators. Delete the sentence in the first paragraph of Subsection 619.02.9 on page 455, and substitute the following.

Impact attenuators must be listed on the Department's APL.

907-619.02.11--Snap-Back Delineators. Delete the sentence in the paragraph of Subsection 619.02.11 on page 456, and substitute the following.

Snap-back delineators shall be selected from the list of surface mounted flexible delineator posts as shown on the Department's APL.

907-619.02.14--Changeable Message Sign.

907-619.02.14.5--PCMS Controller and Storage Cabinets. Delete the fifth sentence in the first paragraph of Subsection 619.02.14.5 on pages 462 and 463, and substitute the following.

The controller cabinet shall be illuminated.

907-619.05--Basis of Payment. Add the following to the list of pay items ending on page 480.

907-619-E3: Changeable Message Sign ***** - per each

907-619-H2: Traffic Signal, Portable, Type ___ - per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-624-1 **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 140ºF. 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. S. Standard Sieve	% Passing
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 ±3ºF 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 190ºF 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/fc/sq. ft. for white and 350 mcd/fc/sq. ft. 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/fc/sq. ft. for white and 175 mcd/fc/sq. ft. 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 ±5 minutes at 375 ±3°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 ±5 minutes at 375 ±3°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 ±3°F. The test shall be conducted at room temperature.

907-624.02.3.8--Impact Resistance. After heating the marking compound for 4 hours ±5 minutes at 375 ±3°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 ±3°F on an unprimed sandblasted Portland cement concrete block. The sample is tested with a male indentor 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. S. Standard Sieve	% Passing
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. S. Standard Sieve	% Passing
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 60ºF. 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 400ºF and 430ºF. 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 70ºF, 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**	
	Dry	**Wet**	**Dry**	**Wet**
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, Color *	- per linear foot

* High Contrast may be specified

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-701-1 **CODE: (SP)**

DATE: 10/23/2018

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 third paragraph of Subsection 701.01 on page 718, change "mills" to "plants."

In the second sentence of the seventh 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.

The Equivalent alkali content for all cement types in this Subsection shall not exceed 0.60%.

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 (C_3A) 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.

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

	LD-7		CHPF-1		
Test Requirements	**Min.**	**Max.**	**Min.**	**Max.**	**Test Method**
Viscosity, Saybolt Furol, @ 25°C, Sec.	10	100	-	100	AASHTO T 72
Storage Stability Test, 24 hr, %	-	1	-	1	AASHTO T 59
Settlement, 5 day, %	-	5	-	-	AASHTO T 59
Oil Distillate, %	-	1	-	-	AASHTO T 59
Sieve Test, % *	-	0.3	-	0.1	AASHTO T 59
Residue by Distillation, %	40	-	40	-	AASHTO T 59
Test on Residue from Distillation					
Penetration @ 25°C, 100g, 5 sec	-	20	40	90	AASHTO T 49
Softening Point, °C	65	-	-	-	ASTM D 36
Solubility in trichloroethylene, %	97.5	-	-	-	AASHTO T 44
Elastic Recovery @ 25°C, %	-	-	40	-	AASHTO T 301
Original DSR @ 82° (G*/Sinδ, 10 rad/sec)	1	-	-	-	AASHTO T 111

* The Sieve Test result is tested for reporting purposes only and may be waived if no application problems are present in the field.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-703-1 **CODE: (IS)**

DATE: 06/13/2018

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--Course 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.

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. 907-707-2 **CODE: (SP)**

DATE: **06/05/2019**

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.

907-707.02.3--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. 907-708-2 **CODE: (SP)**

DATE: 11/07/2018

SUBJECT: Reinforced Concrete Pipe

Section 708, Non-Metal Structures and Cattlepasses, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-708.02--Concrete Pipe.

907-708.02.3--Exceptions to AASHTO Standard Specifications. After Subsection 708.02.3.7 on page 760, add the following.

907-708.02.3.8--Lifting Device. In lieu of lift holes, the producer may cast an approved lifting device in the pipe during the manufacturing process. Should a lifting device be included with the pipe, the Contractor shall cut off the lifting device flush with the pipe after placement of the pipe. The area around the lifting device shall be coated with a sealer approved by the Engineer.

907-708.02.5--Reinforced Concrete Pipe. Delete the second paragraph in Subsection 708.02.5 on page 760, and substitute the following.

907-708.02.5.1--Class V Pipe With Diameter 54 Inches and Greater. Class V pipe with diameters of 54 inches and larger shall meet the requirements of AASHTO M 170 or M 242 as modified by Subsection 708.02 and herein.

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. 907-720-2 **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. 907-803-4 **CODE: (SP)**

DATE: **04/03/2019**

SUBJECT: **Test Piles**

Section 803, Deep Foundations, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-803.03--Construction Requirement

907-803.03.1--Driven Piles.

907-803.03.1.9--Determination of Bearing Value of Piling.

907-803.03.1.9.3--Determination of Bearing Value by PDA Monitoring (Dynamic Load Testing).

907-803.03.1.9.3.3--PDA Monitored Driving and/or Restrike of Piling.

907-803.03.1.9.3.3.3--Driving Requirements. Delete the first two sentences of the first paragraph of Subsection 803.03.1.9.3.3.3 on page 907, and substitute the following.

Piles to be used in the determination of pile bearing by PDA monitoring shall be driven with PDA instrumentation attached to the pile and shall have a PDA monitored 1-day restrike performed after the initial pile driving. The Engineer may modify the waiting periods that are required before the restrikes are performed. The Engineer may require additional restrikes after the 1-day restrike if deemed necessary when it is determined pile bearing requirements have not be met. Additional restrikes required by the Engineer will be paid for as a PDA **r**estrike.

907-803.04--Method of Measurement.

907-803.04.12--PDA Test Pile. Delete the second paragraph of Subsection 803.04.12 on page 932 and substitute the following.

Completion of this pay item shall include the 1-day restrike after initial driving and individual components will not be considered separately. Any additional restrike required by the Engineer on this type test pile will be paid for as a Pile Restrike.

907-803.05--Basis of Payment.

907-803.05.2--Conventional Pile Load Tests. Delete the paragraph in Subsection 803.05.2 on page 933 and substitute the following.

Conventional static pile load tests, measured as prescribed above, will be paid for at the contract fixed unit price per each.

Delete pay items 803-B, 803-I, and 803-J on page 935 and substitute the following.

907-803-B:	Conventional Static Pile Load Test	- per each
907-803-I:	PDA Test Pile	- per each
907-803-J:	Pile Restrike	- per each

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-804-6 **CODE: (SP)**

DATE: **02/13/2019**

SUBJECT: **Concrete Bridges and Structures**

Section 804, Concrete Bridges and Structures, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-804.02--Materials.

907-804.02.3—Non-Quality Control / Quality Assurance Concrete.

Delete the third sentence of the first paragraph on page 936 and substitute the following.

The Contractor is required to submit mixture designs to accomplish this work in accordance with Section 804 and perform normal Quality Control functions in accordance with Table 4, Items A and B.

907-804.02.6--Classification and Uses of Concrete. After the last class of concrete listed in Section 804.02.6 on page 938, add the following.

10) Class BDX - Concrete for bridge decks (4,500 psi)

907-804.02.10--Hydraulic Cement Concrete Mixture Design. Add the following to Table 3 in Subsection 804.02.10 on page 941.

BDX	Bridge Deck [1]	57 or 67	0.42-0.45	4500	5 [-2.5]	4.5±1.5 6.5±1.5	N/A

Delete footnote 1 of Table 3 in Subsection 804.02.10 on pages 941 & 942 and substitute the following.

[1] An approved synthetic structural fiber meeting the requirements of Subsection 711.04 shall be incorporated into the mixture at 1.25 times the approved dosage rate. For each additional pound of fibers per cubic yard added in excess of the requirement stated above, an additional inch of slump will be allowed up to a maximum permitted slump of eight (8) inches.

For Class BD, the maximum cementitious material content shall be 550 pounds per cubic yard

For Class BDX, the maximum cementitious material content shall be 564 pounds per cubic yard.

Delete footnote 3 of Table 3 in Subsection 804.02.10 on page 942 and substitute the following:

[3] The design slump selected by the Contractor for the mixture design approval is the maximum slump permitted.

Delete the last sentence of the first paragraph on page 942 and substitute the following.

Other hydraulic cements may be used in accordance with the specifications listed in Section 701. Other small coarse aggregate sizes meeting the requirements of Subsection 703.03.2.4 may be used in conjunction with the coarse aggregate sizes listed in Table 3.

907-804.02.13.1.4--Yield. Delete the first sentence of Subsection 804.02.13.1.4 on page 953 and substitute the following.

If the yield of the concrete mixture is more than plus or minus three percent (±3%) of the design volume, the mixture design shall be adjusted by a Class III Certified Technician representing the Contractor to yield the correct volume, plus or minus three percent (±3%).

907.804.02.13.1.7--Static Segregation. Delete the second sentence of Subsection 804.02.13.1.7 on page 954 and substitute the following.

If the static segregation of the concrete mixture design exceeds this requirement, the mixture design shall be adjusted by a Class III Certified Technician representing the Contractor to ensure a static segregation in conformance with the requirement in Table 3.

907-804.03--Construction Requirements. Delete Subsection 804.03.16.1 on pages 970 & 971, and substitute the following.

907-804.03.16.1--Cold Weather Concreting.

907-804.03.16.1.1--Mixture Acceptance Temperature. For the purpose of job site acceptance temperature in accordance with Subsection 804.02.13.1.5, in cold weather, the acceptance temperature of the concrete when delivered to the job site shall conform to the temperature limitations of "Temperature Limitations on Concrete when Delivered to Job Site" listed in Table 8 below. For the purpose of job site acceptance temperature in accordance with Subsection 804.02.13.1.5, cold weather is defined as three consecutive days when there is a probability that the daily average of the highest and lowest ambient temperatures is expected to be less than 40°F. This three-day forecast shall be based on the latest information available from the National Weather Service.

TABLE 8
COLD WEATHER TEMPERATURE LIMITATIONS ON CONCRETE WHEN DELIVERED TO JOB SITE

Section thickness in the least dimension inches	Jobsite Acceptance Temperature Range °F
Less than 12	55 to 75
12 to 36	50 to 70
36 to 72	45 to 65
Greater than 72	40 to 60

When this definition of cold weather does not apply, there is no minimum job site acceptance temperature and the maximum job site acceptance temperature shall meet the requirements of Subsection 804.02.13.1.5.

907-804.03.16.1.2--Structural Protection. The Contractor shall assume all risk and added cost connected with the placing and protecting of concrete during cold weather. Permission given by the Engineer to place concrete during such time will in no way relieve the Contractor of responsibility for satisfactory results. Should it be determined at any time that the concrete placed under such conditions is unsatisfactory, it shall be removed and replaced with satisfactory concrete by the Contractor without extra compensation.

When the Contractor proposes to place concrete during seasons when there is a probability of ambient temperatures lower than 40°F, the Contractor shall have available on the project the approved facilities necessary to enclose uncured concrete and to keep the temperature of the air inside the enclosure within the ranges and for the minimum periods specified herein.

The Contractor shall assume all risk and added cost connected with the placing and protecting of concrete during cold weather. Permission given by the Engineer to place concrete during such time will in no way relieve the Contractor of responsibility for satisfactory results. Should it be determined at any time that the concrete placed under such conditions is unsatisfactory, it shall be removed and replaced with satisfactory concrete by the Contractor without extra compensation.

When there are indications of temperatures of less than 40°F during the first four days after placement of the concrete, the concrete shall be protected from cold temperatures by maintaining a temperature between 50°F and 100°F for at least four days after placement and between 40°F and 100°F for at least three additional days. The Contractor shall use such heating equipment such as stoves, salamanders, or steam equipment as deemed necessary to protect the concrete. When dry heat is used, means of maintaining atmospheric moisture shall be provided.

At the option of the Contractor with the approval of the Engineer, when concrete is placed during cold weather and there is a probability of ambient temperatures lower than 40°F, an approved maturity meter may be used to determine concrete strengths by inserting probes into concrete placed in a structure. The minimum number of maturity meter probes required for each structural component shall be in accordance with Table 7. An approved insulating blanketing material shall be used to protect the work when ambient temperatures are less than 40°F and shall remain in place until the required concrete strength in Table 6 is achieved. Procedures for using the maturity meter and developing the strength/maturity relationship shall follow the requirements of AASHTO T 325 and ASTM C 1074 specifications. Technicians using the maturity meter or calculating strength/maturity graphs shall be required to have at least two hours of training prior to using the maturity equipment.

Before placing concrete, all ice or frost shall be removed from the forms and reinforcement.

In the case of concrete placed directly on or in the ground, such as for footings or bottom slabs, protection and curing during cold weather may be provided as set for concrete pavement under Subsection 501.03.20.3.

907-804.03.16.1.3--Batching Considerations. One or more of the aggregates and/or mixing water may be heated. The aggregates may be heated by steam, dry heat, or by placing in the mixing

water that has been heated. Frozen aggregates shall not be used. When either aggregates or water are heated above 100°F, the aggregates and water shall be combined first in the mixer before the cement is added to avoid flash set. Cement shall not be mixed with water or with a mixture of water and aggregate having a temperature greater than 100°F.

The use of salt or other chemical admixtures in lieu of heating will not be permitted.

907-804.03.17--Curing Concrete.

907-804.03.17.1--Water with Waterproof Cover. In the second sentence of the fourth paragraph of Subsection 804.03.17.1 on page 973, delete the word "due".

Delete the first sentence of the fifth paragraph of Subsection 804.03.17.1 on page 973, and substitute the following.

The Contractor shall maintain the burlap in a fully wet condition using powered fogging equipment, such as a commercially available pressure washer, which is capable of producing a fog spray of atomized droplets of water (i.e., producing a very fine and gentle mist that looks like a foggy morning) until the concrete has gained sufficient strength to allow foot traffic without the foot traffic marring the surface of the concrete.

In the second sentence of the eighth paragraph of Subsection 804.03.17.1 on page 973, replace the word "like" with "such as".

907-804.03.17.1.2--Liquid Membrane. In the first sentence of the first paragraph of Subsection 804.03.17.1 on page 973, replace "polyethylene sheets" with "white polyethylene sheets."

907-804.05--Basis of Payment. Delete the first and second pay items listed on page 999, and substitute the following.

907-804-A: Bridge Concrete, Class _____ - per cubic yard

907-804-B: Box Bridge Concrete, Class _____ - per cubic yard

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-808-1 **CODE: (SP)**

DATE: 11/01/2018

SUBJECT: Joint Repair

Section 808, Joint Repair, of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction is hereby amended as follows.

907-808.04--Method of Measurement. Delete the paragraph in Subsection 808.04 on page 1009, and substitute the following.

When a pay item is included in the plans, joint repair will be measured by the linear foot and mortar mix will be measured by the gallon. The volume of measurement for the epoxy/sand mortar mix will be determined from the summation of the volumes of the epoxy components and the volume of sand will not be measured for payment.

907-808.05--Basis of Payment. Delete the paragraph in Subsection 808.05 on page 1009, and substitute the following.

When a pay item is included in the plans, joint repair, measured as prescribed above, will be paid for at the contract unit price per linear foot, which price shall be full compensation for furnishing and placing all materials, labor, tools, equipment, and all incidentals necessary to complete the work.

When a pay item is included in the plans, mortar mix, measured as prescribed above, will be paid for at the contract unit price per gallon, which price shall be full compensation for furnishing all materials including sand and forming materials, and all incidentals necessary to complete the work. No payment will be made for the sand used in the epoxy mortar mix.

The price bid for each item of work shall include the cost of continuous maintenance of traffic and protective services as required by the Department's Traffic Control Plan. This shall include all required individual traffic control devices.

Payment will be made under:

907-808-A: Joint Repair - per linear foot

907-808-B: Mortar Mix - per gallon

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISIONS NO. 907-823-6 **CODE: (SP)**

DATE: 07/18/2019

SUBJECT: Preformed Joint Seal

Section 907-823, Preformed Joint Seal, is hereby added to and becomes a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

SECTION 907-823--PREFORMED JOINT SEAL

907-823.01--Description. This work consists of furnishing and installing preformed joint seals in accordance with these specifications and the details shown in the Plans or drawings provided.

907-823.02--Materials. The Contractor shall furnish a manufacturer's certification stating that the material used meets the requirements of this specification.

The preformed joint seal shall be one of the following, or an approved equal. The size of the seal, Type I or Type II, shall be determined based on the size of the joint opening, as detailed in the Plans or drawings provided. It is the Contractor's responsibility to ensure that the size selected is appropriate for the width of the joint. Type I shall be used for joint openings less than two inches (2"). Type II shall be used for joint openings greater than two inches (2"), with the maximum joint opening being two and one-half inches (2½"). In cases where the joint opening is greater than two and one-half inches (2½"), another type of expansion material shall be required as directed by the Director of Structures, State Bridge Engineer.

1. Silicoflex Joint Sealing System
   Manufactured by R.J. Watson, Inc. in Alden, NY
   www.rjwatson.com

2. Wabo®SPS Joint System
   Manufactured by Watson Bowman Acme Corporation in Amherst, NY
   www.wbacorp.com

3. Silspec SSS Silicone Strip Seal
   Manufactured by SSI Commercial & Highway Construction Materials in Tulsa, OK
   www.ssicm.com

907-823.03--Construction Methods. Preformed joint seals shall be installed in accordance with the manufacturer's recommendations. The material shall seal the deck surface, gutters, and curbs to prevent moisture or other contaminants from leaking through the joints. The joint seal shall be installed in such a manner that the top surface of the material is within the minimum and maximum depths below the roadway or bridge surface recommended by the manufacturer.

Saw cutting for the joint repair shall be accomplished by sawing at the locations and depth shown

on the joint repair detail sheets in the plans or in the contract documents. Saw cuts shall be as near vertical as possible at the saw line of the repair area. The saw cut depth shall be equivalent to the installation depth required by the manufacturer's specifications, and the type specified shall be the same as the type specified for preformed joint seal.

907-823.04--Method of Measurement. Preformed joint seal of the type specified will be measured in linear feet along the length of the centerline joint.

Saw cuts of the type specified will be measured by the linear foot along the length of the bridge deck on each side of the centerline joint.

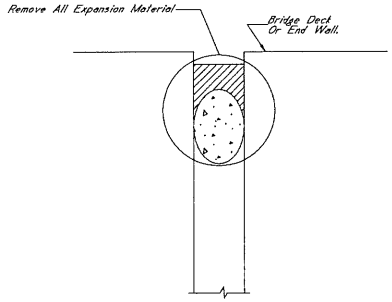
907-823.05--Basis of Payment. Preformed joint seal, measured as prescribed above, will be paid for at the contract unit price per linear foot, which shall be full compensation for furnishing all labor, equipment, tools, materials, and incidentals necessary to complete the work.

Saw cuts, measured as prescribed above, will be paid for at the contract unit price per linear foot, which shall be full compensation for furnishing all labor, equipment, tools, materials, and incidentals necessary to complete the work.

Payment will be made under:

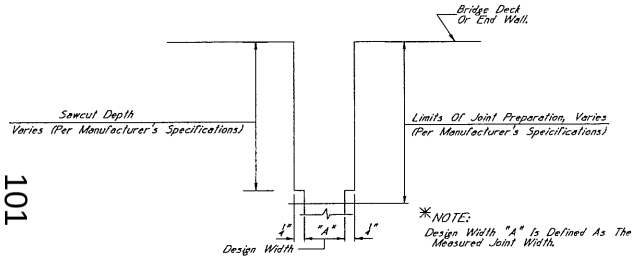
907-823-A: Preformed Joint Seal, Type ___ - per linear foot

907-823-B: Saw Cut, Type _____ - per linear foot



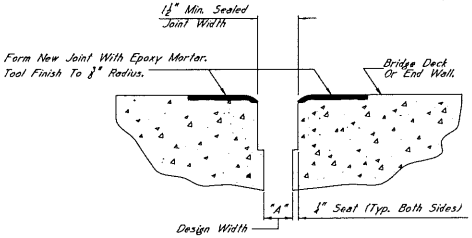
TYPICAL SECTION AT EXISTING JOINT

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



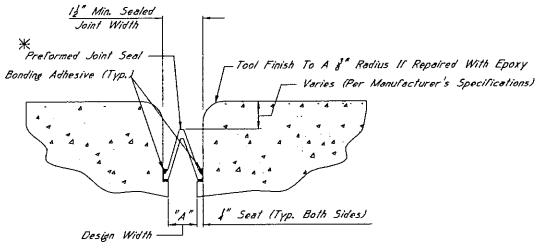
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut, With Epoxy Mortar Or Approved Equivalent



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut

*NOTES:

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

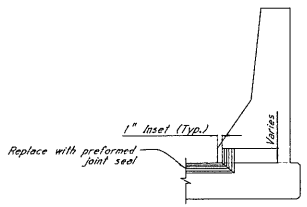
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By 551 Commercial & Highway Construction Materials
   www.ssicm.com

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

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ½" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 3". In Cases Where Design Widths Are Greater Than 3", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



*NOTES:

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

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-A002 JOINT REPAIR

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

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

907-808-A003 JOINT REPAIR WITHOUT EPOXY

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

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

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

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

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

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

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

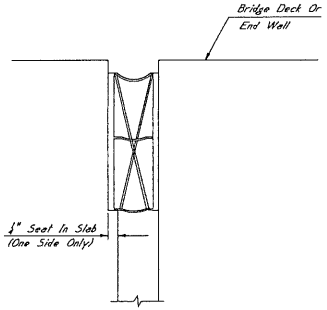
Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

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

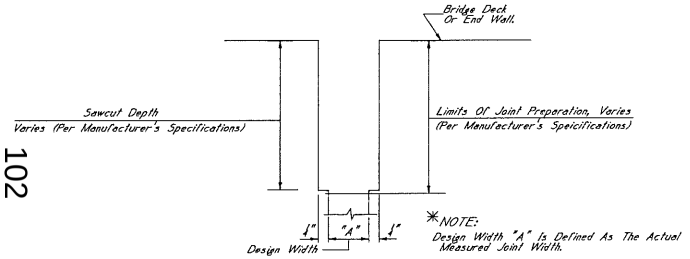
GENERAL NOTES:

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



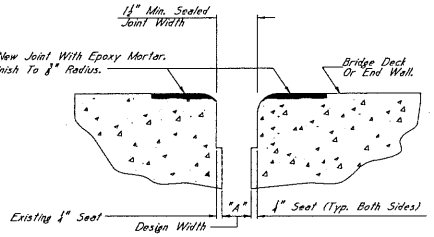
TYPICAL SECTION AT EXISTING JOINT

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



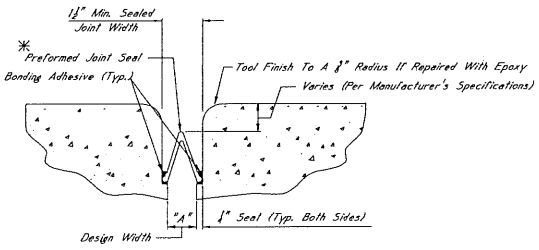
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut, With Epoxy Mortar Or Approved Equivalent



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Epoxy Mortar

*NOTES:

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

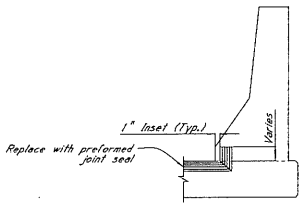
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

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

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The 1" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2" With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



*NOTES:

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

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-A002 JOINT REPAIR

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

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

907-808-A003 JOINT REPAIR WITHOUT EPOXY

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

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

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

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

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

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

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

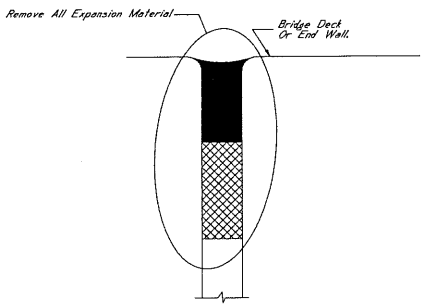
Basis Of Payment: The Accepted Quantities Will Be Paid For In Linear Feet At The Contract Unit Price Along The Length Of The Centerline Joint.

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

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

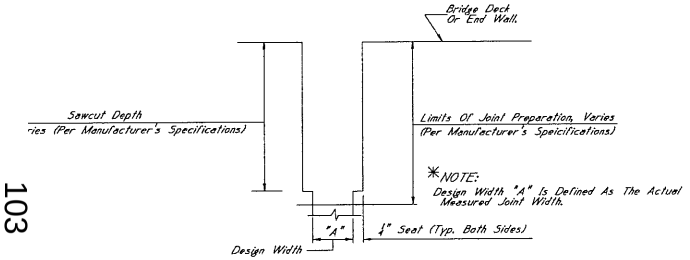
GENERAL NOTES:

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



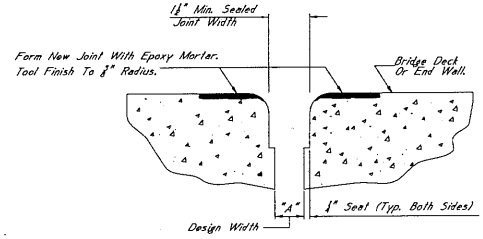
TYPICAL SECTION AT EXISTING JOINT

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



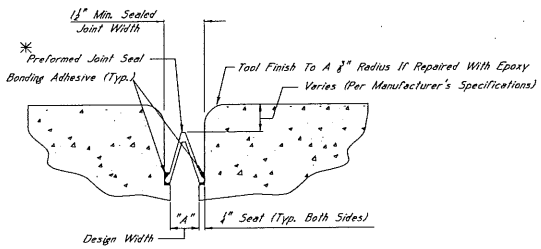
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL AND SAWCUT

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials And Sawcut



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut, With Epoxy Mortar Or Approved Equivalent



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Epoxy Mortar

*NOTES:

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

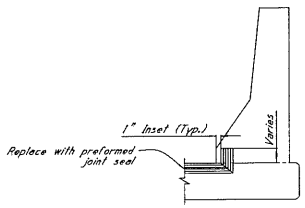
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By 551 Commercial & Highway Construction Materials
   www.sslcm.com

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

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ½" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



ELEVATION AT END OF SPAN

*NOTES:

For Jersey Shape Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 3".
For Post And Beam Barriers, The Minimum Required Vertical Joint Seal Dimension Within The Barrier Is 8".

NOTES ON ASSOCIATED ITEMS OF WORK:

907-808-A002 JOINT REPAIR

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

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

907-808-A003 JOINT REPAIR WITHOUT EPOXY

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

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

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

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

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

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

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

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

EPOXY MORTAR AND POLYMER CONCRETE NOTES:

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

GENERAL NOTES:

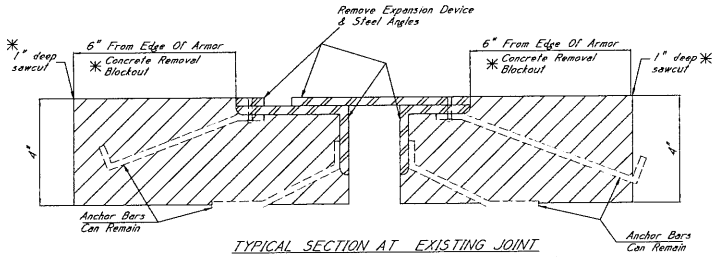
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The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

✳1" SAWCUT NOTES:

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

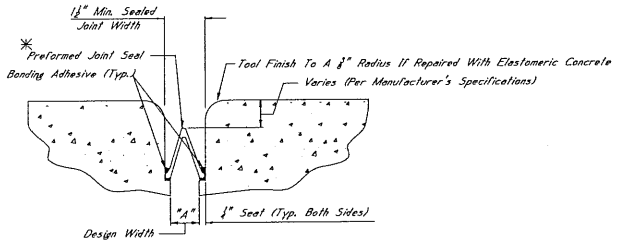
✳CONCRETE REMOVAL BLOCKOUT NOTES

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



TYPICAL SECTION AT EXISTING JOINT

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



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

✳NOTES:

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

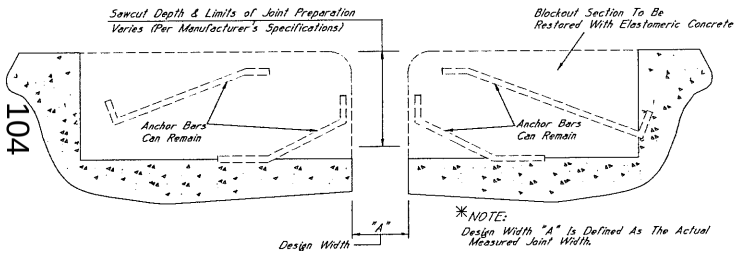
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By 551 Commercial & Highway Construction Materials
   www.sscm.com

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

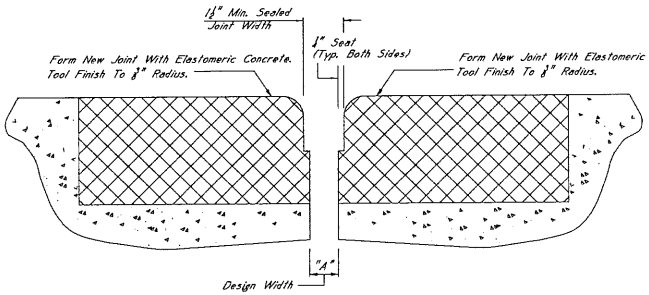
3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ¼" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2". In Cases Where Design Widths Are Greater Than 2", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



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

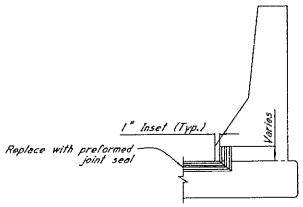
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



✳NOTES:

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

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

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

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

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

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

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

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

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

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

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

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

A. Poly-Tron Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

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

GENERAL NOTES:

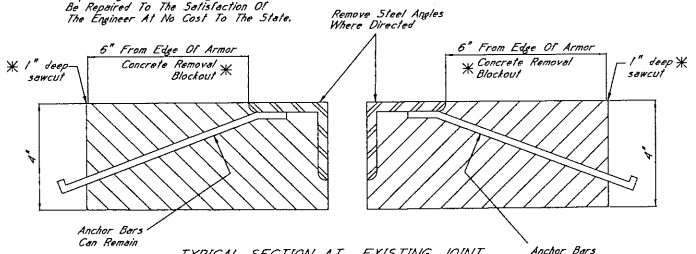
1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Or Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The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

*1" SAWCUT NOTES:

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

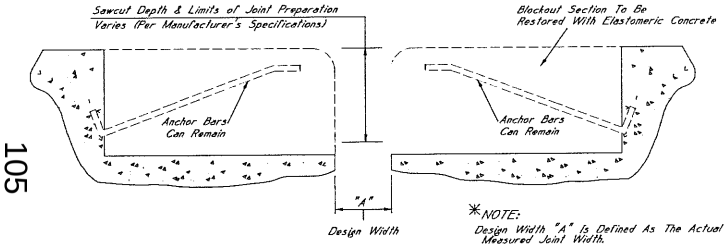
*CONCRETE REMOVAL BLOCKOUT NOTES

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



TYPICAL SECTION AT EXISTING JOINT

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

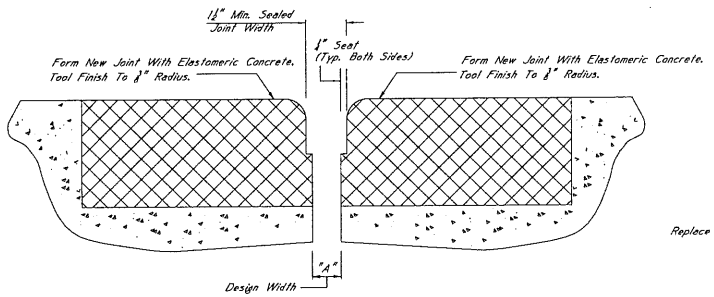


*NOTE:

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

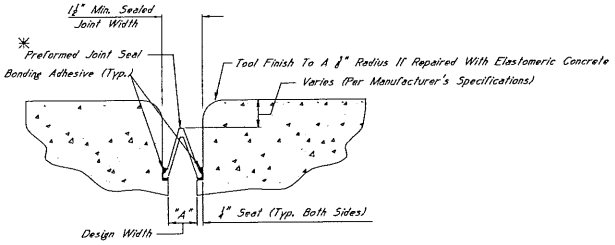
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

*NOTES:

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   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
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   www.wbacorp.com

   C. Siltspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

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

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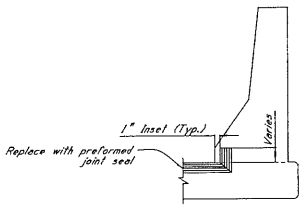

*NOTES:

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

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

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

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

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

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

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

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

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

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

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

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

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www.rjwatson.com

B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
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www.dsbrown.com

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GENERAL NOTES:

1. Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 2017.
2. No Change Of Plans Will Be Permitted Except By Written Approval Of The Director Of Structures, State Bridge Engineer. Minor Changes To Detail Of Design Or Construction Procedure May Be Authorized By The Bridge Engineer Provided Such Changes Will Not Be Cause For Contract Price Adjustment.
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✳1" SAWCUT NOTES:

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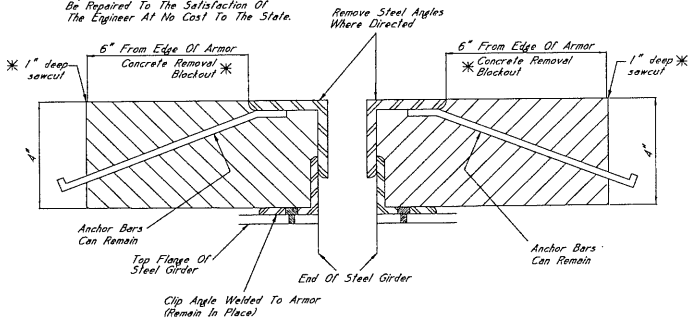
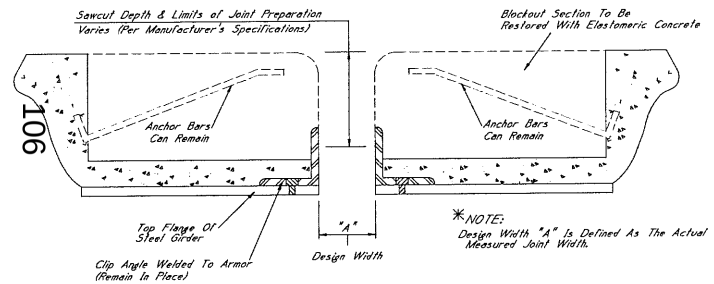


TYPICAL SECTION AT EXISTING JOINT

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

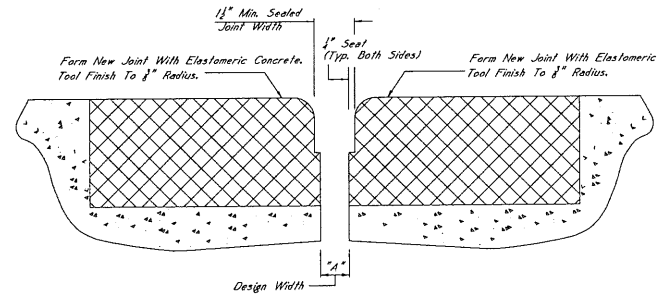


✳NOTE:

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

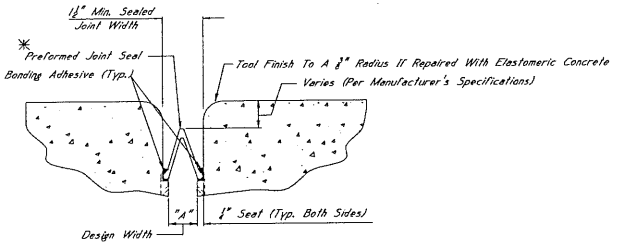
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

✳NOTES:

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

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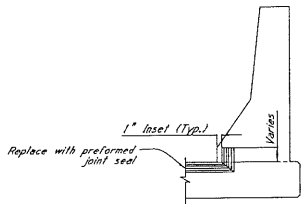
2. For Estimating Purposes, The RJ Watson Silicoflex Joint Sealing System Was Selected. However, Should Another Supplier Be Chosen, It Is The Contractor's Responsibility To Ensure That The Manufacturer's Recommendations Are Followed For Joint Preparation, Installation Depths And Widths, Adhesive Setting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

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ½" Seal Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2". With The Maximum Design Width Being 2". In Cases Where Design Widths Are Greater Than 2", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



✳NOTES:

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

ELEVATION AT END OF SPAN

NOTES ON ASSOCIATED ITEMS OF WORK:

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

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

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

907-823-A001 PREFORMED JOINT SEAL, TYPE I
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ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

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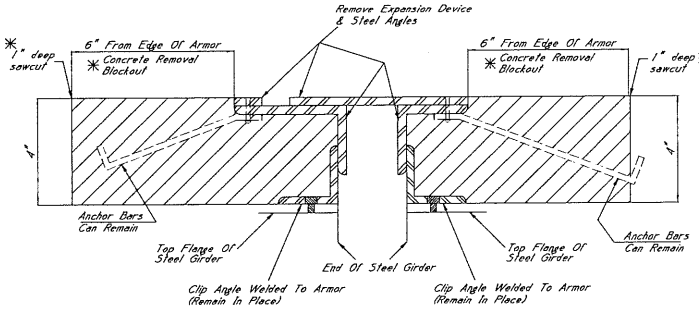
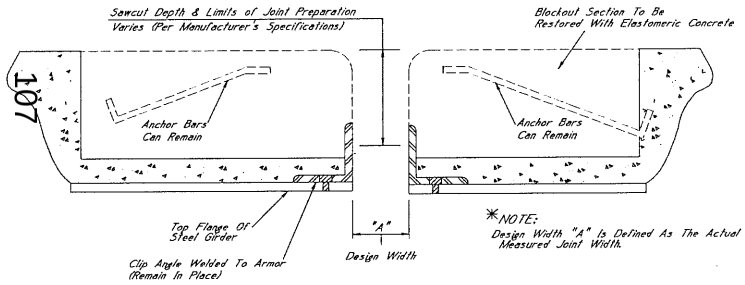


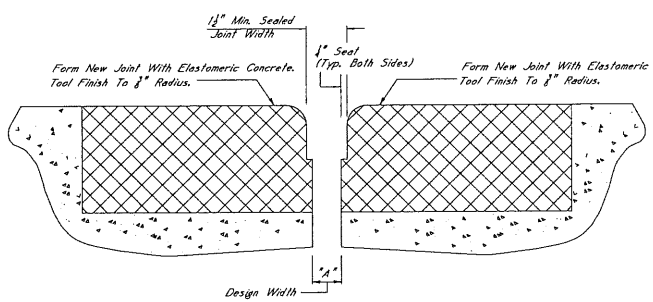
TYPICAL SECTION AT EXISTING JOINT

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



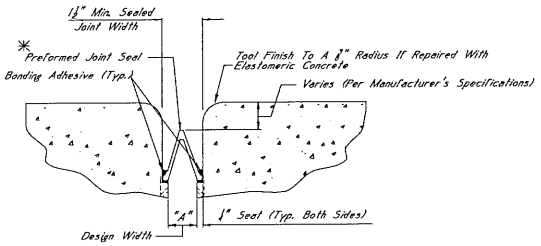
TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials



TYPICAL SECTION AT SAWCUT & JOINT REPAIR

Showing Area Where Repairs Are Made After Sawcut With Elastomeric Concrete



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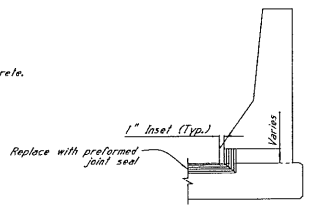

ELEVATION AT END OF SPAN

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NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

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

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

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

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

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

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

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

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

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

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

A. Poly-Tron Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

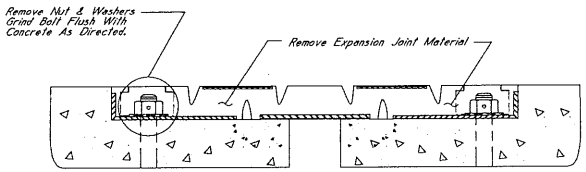
B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

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

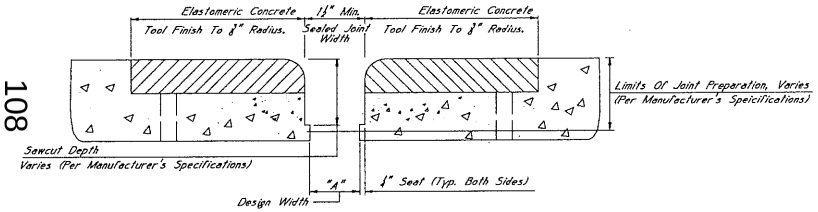
GENERAL NOTES:

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



TYPICAL SECTION AT EXISTING JOINT

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

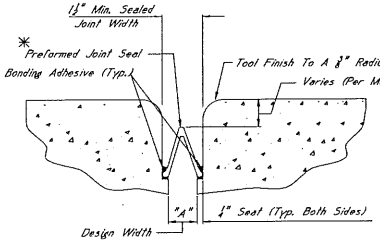


TYPICAL SECTION AT JOINT AFTER REMOVAL OF EXISTING SEAL

Showing Limits Of Joint Preparation For Application Of New Joint Seal Materials

*NOTE:

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



TYPICAL SECTION AT SAWCUT & SEALED JOINT

Showing Sealed Joint After Sawcut And Repair With Elastomeric Concrete

*NOTES:

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

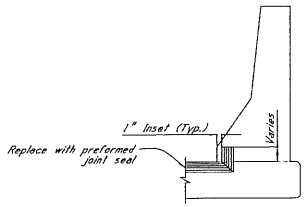
   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc. In Alden, NY
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation In Amherst, NY
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By SSI Commercial & Highway Construction Materials
   www.ssicm.com

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

3. Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ½" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 8". In Cases Where Design Widths Are Greater Than 8", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.



ELEVATION AT END OF SPAN

*NOTES:

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

NOTES ON ASSOCIATED ITEMS OF WORK:

202-B169 REMOVAL OF EXISTING JOINT MATERIAL

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

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

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

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

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

907-823-A001 PREFORMED JOINT SEAL, TYPE I
907-823-A002 PREFORMED JOINT SEAL, TYPE II

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

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

ELASTOMERIC CONCRETE NOTES

907-824-PP007 BRIDGE REPAIR, ELASTOMERIC CONCRETE

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

A. Poly-Tron Elastomeric Concrete
Manufactured By R.J. Watson, Inc. In Alden, NY
www.rjwatson.com

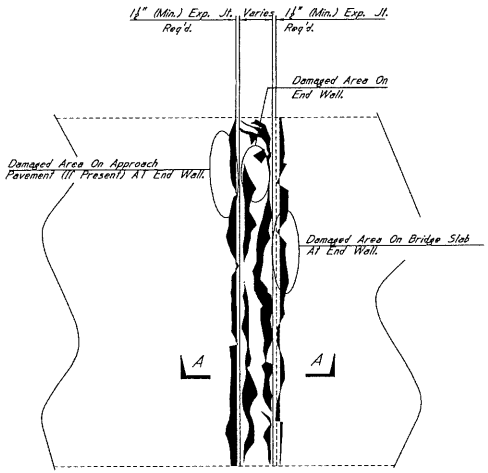
B. WaboCrete II
Manufactured By Watson Bowman Acme Corporation In Amherst, NY
www.wbacorp.com

C. Delcrete Elastomeric Concrete
Manufactured By The D.S. Brown Company In North Baltimore, OH
www.dsbrown.com

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

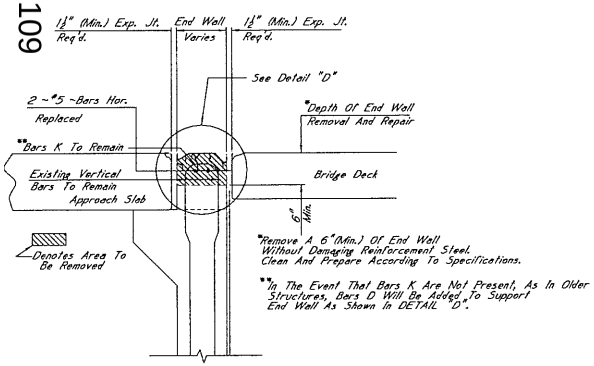
GENERAL NOTES:

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



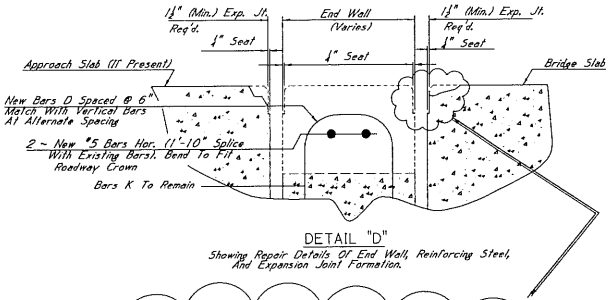
PLAN VIEW

Showing Existing Damaged Areas On And Around End Wall.



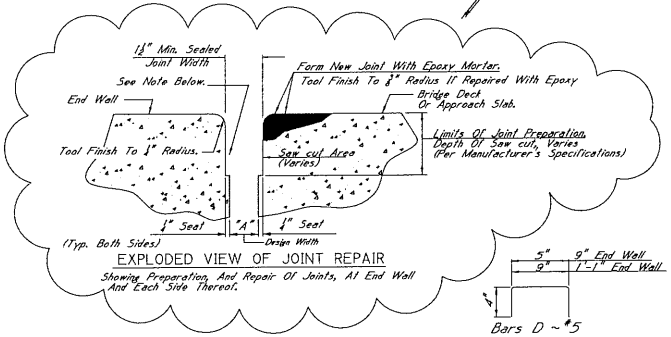
ELEVATION (SECTION A-A)

Showing Details Of Removal Of Damaged End Wall.



DETAIL "D"

Showing Repair Details Of End Wall, Reinforcing Steel, And Expansion Joint Formation.

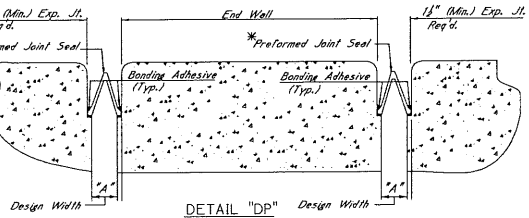


EXPLODED VIEW OF JOINT REPAIR

Showing Preparation, And Repair Of Joints, At End Wall And Each Side Thereof.

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

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



DETAIL "DP"

Showing Sealed Joint After Saw cut And Repair With Epoxy Mortar

*NOTES:

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

   A. Silicoflex Joint Sealing System
   Manufactured By R.J. Watson, Inc.
   www.rjwatson.com

   B. Wabo SPS Joint System
   Manufactured By Watson Bowman Acme Corporation
   www.wbacorp.com

   C. Silspec 555 Silicone Strip Seal
   Manufactured By 551 Commercial & Highway Construction Materials
   www.sscm.com

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

3. *Joints Shall Be Sealed At Their Design Widths, Dimension "A", Which Is Defined As The Actual Width Of The Joint Opening. This Width Does Not Account For The ¼" Seat Required On Both Sides Of The Joint. Preformed Joint Seal, Type I, Shall Be Used For Design Widths Less Than 2". Preformed Joint Seal, Type II, Shall Be Used For Design Widths Greater Than or Equal To 2", With The Maximum Design Width Being 2½". In Cases Where Design Widths Are Greater Than 2½", Another Type Of Expansion Material Shall Be Required As Directed By The Director Of Structures, State Bridge Engineer. It Is The Contractor's Responsibility To Ensure That The Size Selected Is Appropriate For The Width Of The Joint.*

NOTES ON ASSOCIATED ITEMS OF WORK:

907-824-PP008 BRIDGE REPAIR, ENDWALL REPAIR

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

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

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

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

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

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

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

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

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

Curing is to be continuous until 2500 psi is attained. Traffic is to be diverted from the repair area until this value is reached. The Contractor may use the Maturity Method per Section 907-804 to estimate the concrete compressive strength for the purposes of releasing the repair area to traffic. However, final acceptance of the in-place concrete shall be determined using eight concrete test cylinders, which shall be cured in a container next to the concrete placement. Two cylinders are to be tested at 8, 16, and 24 hour intervals. The two remaining cylinders shall be used to determine the 28-day compressive strength of the concrete.

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

202-B169	*REMOVAL OF EXISTING JOINT MATERIAL*
907-808-A002	*JOINT REPAIR*
907-808-A003	*JOINT REPAIR WITHOUT EPOXY*
907-823-B001	*SAW CUT, TYPE I*
907-823-B002	*SAW CUT, TYPE II*
907-823-A001	*PREFORMED JOINT SEAL, TYPE I*
907-823-A002	*PREFORMED JOINT SEAL, TYPE II*

GENERAL NOTES:

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

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-845-2 **CODE: (SP)**

DATE: **05/09/2019**

SUBJECT: **Coating Existing Structural Steel**

Section 907-845, Coating Existing Structural Steel, is hereby added to and made a part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows.

SECTION 907-845 – COATING EXISTING STRUCTURAL STEEL

907-845.01--Description. This work consists of furnishing all labor, material, and equipment required for coating existing structural steel in accordance with the requirements of this Section, by removing and replacing the existing coating where shown in the plans or described herein.

907-845.02--Materials.

907-845.02.1--Coating Systems. One of the following organic zinc/epoxy/urethane three-coat systems, or an approved equal, shall be used for removal and replacement of paint.

	1st	2nd	3rd
Carboline	Carbozinc 859 dft = 3-5 mils	Carbogaurd 888 dft = 3-5 mils	Carbothane 133LH dft = 3-5 mils
Ameron	Amercoat 68HS dft = 3-5 mils	Amercoat 399 dft = 4-8 mils	Amercoat 450H dft = 3-5 mils
Sherwin Williams	Zinc Clad III HS dft = 3-5 mils	Macropoxy 646 dft = 5-10 mils	Acrolon 218HS dft = 3-6 mils

907-845.02.2--Thinners, Solvents and Cleaners. Only thinners, solvents and cleaners listed on the coating manufacturer's product data sheet shall be used.

907-845.02.3--Caulking. Only Caulks that are paintable, compatible with the coating system, and recommended by the coating manufacturer as part of the coating system shall be used.

907-845.02.4--Soluble Salts Test Kit. Soluble salts test kit shall be in accordance with SSPC-Guide 15 utilizing a Class A retrieval method. The test sleeve or cell shall create a sealed, encapsulated environment during ion extraction and be suitable for testing all structural steel surfaces.

907-845.02.5--Abrasives. Properly sized abrasives shall be used to achieve the required cleanliness and surface profile. Abrasives shall meet the requirements of SSPC-AB 1, Mineral and Slag Abrasives, SSPC-AB 2, Cleanliness of Recycled Ferrous Metallic Abrasives, or SSPC-AB 3, Ferrous Metallic Abrasive and shall not introduce any contamination that interferes with the coating application and performance. The Contractor shall provide a certification to the Engineer that the

abrasives used meet the requirements of this specification and do not contain any chlorides and other salts.

For recycled abrasives, the Contractor shall verify compliance with the conductivity and cleanliness requirements of SSPC-AB 2 after each recycling or more frequently if required by the Engineer. A sample shall be selected from each recycling machine in use and water-soluble contaminant and oil content tests conducted as outlined in SSPC-AB 2 at least one time each week or more frequently if directed by the Engineer. The non-abrasive residue and lead content tests shall be conducted as directed by the Engineer. If test results do not meet requirements, the Engineer shall be notified immediately, the abrasive shall be removed and replaced, the recycling equipment shall be cleaned, and tests conducted each day to confirm the equipment is functioning properly. Testing shall return to the weekly testing interval as directed by the Engineer.

907-845.02.6--Rust Preventative Compound. The rust preventative compound shall be a Class 3 compound meeting the requirements of Military Specification MIL-C-11796C, Corrosion Preventative Compound, Petrolatum, Hot Applied.

907-845.02.7--Storage. Materials shall be stored in conformance with the manufacturer's recommendations.

907-845.03--Construction Requirements.

907-845.03.1--Compressed Air. The compressed air system shall be capable of delivering clean, dry, continuous nozzle pressure to achieve the required surface cleanliness and profile or spray pattern. The system must comply with the instructions and recommendations of the manufacturer of the abrasive blasting system or coating application system.

907-845.03.2--Abrasive Blasting System. The blasting system shall be designed to produce the specified cleanliness and profile.

907-845.03.3--Coating Application System. The coating application equipment shall be approved by and in accordance with the Coating Manufacturer's technical data requirements.

907-845.03.4--Quality Control. The Contractor shall provide a current Corporate Quality Control Plan approved by either SSPC under the SSPC QP1 and SSPC QP2 certifications or NIICAP AS-1 and AS-2 certifications as appropriate and a site specific Coating Quality Control Plan to the Engineer at least 14 calendar days prior to beginning coatings work. The Contractor shall not begin coatings work until the site specific Coating Quality Control Plan has been approved by the Engineer.

The Contractor shall submit a specific traffic control plan for each phase of the work that conforms to the project plans and specifications. The Contractor shall not begin work until the traffic control plan is approved by the Department.

907-845.03.5--Inspection. All inspection equipment shall be maintained in accordance with the manufacturer's instructions, calibrated, and in good working condition. All activities shall be observed and approved by a quality control coatings inspector meeting the requirements of this

specification. Daily inspection reports shall be maintained at the job site for review by the Engineer. All daily inspection reports shall be proved to the Engineer upon completion of the project, or more frequently as requested by the Engineer.

907-845.03.6--Qualifications.

907-845.03.6.1--Field Contractor. The Field Contractor shall provide documentation to the Engineer at least 14 days prior to beginning work that the field contractor performing any work in accordance with this specification is certified by either SSPC to the requirements of SSPC-QP1 and/or SSPC-QP2 or NIICAP to the requirements of AS-1 and/or AS-2, as appropriate.

907-845.03.6.2--Quality Control Inspectors in the Shop and Field. The Contractor shall provide documentation to the Engineer that all personnel performing quality control inspections are certified at a minimum as a National Association of Corrosion Engineers (NACE) Coating Inspector Level I or a SSPC Level 1 Bridge Coating Inspector, and that they report directly to a Quality Control Supervisor who is certified either as a NACE Coating Inspector Level 3 or a SSPC Level 2 Bridge Coating Inspector.

907-845.03.6.3--Certifications. Certifications shall be maintained for the duration of the Contract. If the certifications expire, no work shall be performed until certifications are reissued. The Engineer shall be notified of any change in certification status.

907-845.03.7--Surface Preparation.

907-845.03.7.1--General. The portions of the existing coating designated to be removed and replaced shall be cleaned, washed, tested, and soluble salts removed. This shall be accomplished by abrasive blasting or hand and power tool cleaning to remove all existing coating and corrosion in the intended locations. The edges of all existing coating shall be feathered back to remain a minimum of three inches (3") around the area of existing coating to provide a smooth transition. The edges of the existing coating shall be intact and verified by probing with a dull putty knife in accordance with SSPC SP 2. The existing coating in the feathered area shall be roughened to ensure proper adhesion of the new coating. The Engineer shall be notified immediately when any structural steel appears to be defective.

The portions of the existing coating to remain shall be cleaned, washed, tested, and soluble salts removed. All surfaces to be coated shall be clean, dry, and free from oil, grease, dirt, dust, soluble salts, corrosion, peeling, caulking, weld spatter, mill scale and any other surface contaminants. The surface preparations and coating operations shall be performed so that freshly applied coatings will not be contaminated by dust or foreign matter. The Contractor shall protect all equipment and adjacent surfaces not to be coated from surface preparation operations. In the event that any rusting or contamination occurs after the completion of the surface preparation, the surfaces shall be prepared again to the initial requirements. Surface preparation work shall be performed only when the temperature of the steel surface is at least 5°F above the dew point temperature.

907-845.03.7.2--Mechanical Removal of Surface Defects. All corners resulting from sawing, burning, or shearing shall be broke. In areas where burning has been used, the flame hardened

surface of the steel shall be removed to the extent necessary to achieve the required surface profile after abrasive blast cleaning. All weld slag and weld spatter shall be removed. In addition, all pack rust shall be removed prior to solvent cleaning. All of this work shall be conducted in accordance with AASHTO/NSBA Steel Bridge Collaboration S 8.1.

907-845.03.7.3--Cleaning. All steel surfaces shall be cleaned in accordance with the requirements of SSPC-SP 1.

907-845.03.7.4--Washing. All steel surfaces shall be washed during removal of soluble salts in accordance with the requirements of SSPC-SP WJ-4.

907-845.03.7.5--Soluble Salts Detection and Removal. The chloride, sulfate and nitrate concentrations shall be determined on all steel surfaces using soluble salts test kits meeting the requirements of subsection 907-845.02.4. The concentration levels shall be measured using the method described in SSPC-TU 4. The tests shall be performed after washing and after each applied coat of the coating system. Five random locations shall be tested in the first 1,000 square feet and one random location for each subsequent 1,000 square feet. The non-visible surface contaminant concentrations on blast-cleaned surfaces shall not exceed 7 $\mu g/cm^2$ for chloride ions, 10 $\mu g/cm^2$ for ferrous ions, 17 $\mu g/cm^2$ for sulfate ions, and 10 $\mu g/cm^2$ for nitrate ions. When any concentration exceeds these levels, the entire surface area shall be rewashed and retested. If additional washing does not reduce the concentration to the acceptable level, a surface treatment or water additive may be used. Surface treatment or water additive shall be approved by the coating system supplier and the Engineer.

907-845.03.7.6--Abrasive Blast Cleaning. Steel shall be prepared by abrasive blast cleaning to "Near-White" metal condition as defined in SSPC-SP 10. SSPC VIS 1 shall be used as an aid in establishing cleanliness. After abrasive blast cleaning, the surface profile shall meet the requirements of the coating manufacturer's product data sheet. The surface profile shall be determined by using replica tape in accordance with ASTM D 4417, Method C.

All abrasive blast cleaning shall be performed within a containment system to ensure confinement of all particulates. The containment system shall be designed to comply with all applicable Federal, State, and Local regulations. The abrasive blast cleaning shall not produce holes, cause distortion, remove metal, or cause thinning of the substrate.

907-845.03.7.7--Hand and Power Tool Cleaning. Steel shall be prepared by power and hand tool cleaning as defined in SSPC-SP 11, SSPC-SP 3, and SSPC-SP 2 for touch up and repair when approved by the Engineer. SSPC-VIS 3 shall be used as an aid in establishing cleanliness.

907-845.03.8--Application.

907-845.03.8.1--General. All of the paint on the exposed steel surfaces shall be removed and re-coated, unless otherwise noted or otherwise directed by the Engineer. A coating of rust preventative compound shall be applied to all machine finished or similar surfaces not to be coated as directed by the Engineer. Prior to the application of any coating, the substrate shall be inspected for contamination and defects, and the surface prepared before application of the next coat. Each coat

including a stripe coat shall be applied in a color that contrasts with the substrate or preceding coat.

907-845.03.8.2--Weather and Temperature Limitations. Spray coating shall not be performed when the measured wind speed in the immediate coating area is above 15 miles per hour. Coatings shall not be applied when contamination from rainfall is imminent or when the ambient air temperature, relative humidity, dew point temperature, or temperature of the steel is outside limits of the coating manufacturer's product data sheet.

907-845.03.8.3--Sealing Using Caulk. The perimeter of all faying surfaces, cracks and crevices, joints open less than 1/2 inch, and skip-welded joints shall be completely sealed using caulk. The caulk shall be applied to the joint following the caulk manufacturer's recommendations. The caulk bead shall have a smooth and uniform finish and be cured according to the caulk manufacturer's recommendation prior to the application of the coating system.

907-845.03.8.4--Protection of Adjacent Surfaces. All surfaces and working mechanisms not intended to be coated during the application of coatings shall be protected. Surfaces that have been contaminated with coatings shall be cleaned until all traces of the coating have been removed. Material from cleaning and coating operations shall not be dispersed outside the work site.

907-845.03.8.5--Mixing and Thinning. All coatings shall be mixed in accordance with the manufacturer's product data sheet. Only complete kits shall be mixed. Thinners and solvents shall be in accordance with the requirements of the coating manufacturer's product data sheet. The amount of thinner added shall not exceed any State and Federal regulations regarding Volatile Organic Compounds (VOC). All mixing operations shall be performed over an impervious surface with provisions to prevent runoff to grade of any spilled material.

907-845.03.8.6--Application Methods. The Contractor shall use coating application equipment and apply coatings per the coating manufacturer's product data sheet. Application with brushes may be permitted for minor touchup of spray applications, stripe coats, or when otherwise approved by the Engineer. Spray equipment shall be adjusted to produce an even, wet coat with minimum overspray. Coatings shall be applied in even, parallel passes, overlapping fifty percent (50%). Coatings shall be agitated during application as required by the coating manufacturer's product data sheet.

907-845.03.8.7--Stripe Coating. Stripe coats shall be applied to achieve complete coverage and proper thickness on welds, corners, crevices, sharp edges, bolts, nuts, rivets, and rough or pitted surfaces.

907-845.03.8.8--Thickness of Coats. Coatings shall be applied to the thickness as identified in the manufacturer's product data sheet. After application of each coat, the surfaces shall be thoroughly inspected and the dry film thickness (DFT) measured in accordance with SSPC-PA 2. When the DFT is deficient or excessive, corrections shall be made in accordance with the coating manufacturer's recommendations and retest the area.

907-845.03.8.9--Coating Drying, and Curing. Coatings shall be applied within the time specified by the coating manufacturer's product data sheet for drying and recoating. Before handling, cure shall be tested in accordance with the manufacturer's recommended method. When the

manufacturer's technical data sheet does not state a specified cure test, the requirements of ASTM D 5402 for organic zinc primers shall be met. The Contractor shall obtain the acceptance criteria from the coating manufacturer and report the results to the Engineer.

907-845.03.8.10--Coating Finish. Each coat shall be applied free of runs, sags, blisters, bubbles, and mud cracking; variations in color, gloss, or texture, holidays, excessive film buildup, foreign contaminants, orange peeling, and overspray.

907-845.03.9--Touchup and Repair. All welds, rivets, bolts, and all damaged or defective coating and rusted areas shall be cleaned and coated. Upon approval by the Engineer, aluminum mastic may be used in accordance with the manufacturer's recommendations. Aluminum mastic shall contain aluminum pigment and minimum 80% volume solids.

907-845.03.10--Protection of the Environment, Public, and Workers.

907-845.03.10.1--General. Plans and programs shall be established to protect the environment, public, contractor employees, and other workers from exposure to toxic heavy metals as well as releases and emissions of hazardous materials and nuisance dusts. All coating application and removal operations shall be conducted in compliance with EPA, OSHA, and other applicable Federal, State and local regulations. A contingency plan shall be provided for the remediation of water and land in the event of contamination by solid or liquid paint and contaminated water.

907-845.03.10.2--Environmental Protection. Plans and programs for the protection of the environment and public based on the applicable EPA requirements, the requirements of this Specification, and the Contract Documents shall be prepared and submitted to the Engineer. The plans and programs shall also include the protection of the air, soil/ground, and water.

907-845.03.10.2.1--Pollution Control. The Contractor shall submit a written pollution control and monitoring plan at the preconstruction meeting or as directed by the Engineer which clearly describes the means for complying with all Local, State and Federal regulations including pollution control provisions specified herein. The written plan shall be in accordance with SSPC Project Design: Industrial Lead Paint Removal Handbook, Volume II, Phase 6, Environmental Monitoring, and specifically include, but not be limited to, providing a scaled map of the work site layout showing the proposed number and location of soil sampling, Total Suspended Particulate (TSP) monitoring sites, waste storage areas, staging areas, temporary waste storage areas, and ambient air and personnel sampling frequency.

The Contractor shall comply with all applicable Federal, State, and Local rules and regulations. In the event a violation of any environmental regulation or a failure to properly execute any pollution control provisions occurs, the Contractor shall immediately cease all operations. Operations shall only resume after written proposed corrective procedures have been submitted to and approved by the Engineer and implemented.

907-845.03.10.2.2--Permits. The Contractor shall submit all required permits from all applicable regulatory agencies to the Engineer prior to the commencement of any work. The Contractor shall seek permit determination from these regulatory agencies to avoid any potential permit non-

compliance issues during work activities. The Contractor shall be responsible for all liability resulting from non-compliance with pertinent rules and regulations including permit requirements.

907-845.03.10.2.3--Ambient Air Quality Compliance and Protection of the Air.

907-845.03.10.2.3.1--Visible Emissions. The visible emissions shall be accessed using EPA Method 22, Timing of Emissions as defined by 40 CFR 60, Appendix A, Standards of Performance for New Stationary Sources. During abrasive blasting, the Contractor shall not allow visible emissions from a containment to exceed a random cumulative duration of more than one percent (1%) of the workday (SSPC Guide 6, Level 1 Emissions). During pressurized water cleaning for removal of soluble salts, The Contractor shall not allow visible emissions from a containment to exceed a random cumulative duration of more than ten percent (10%) of the workday (SSPC Guide 6, Level 3 Emissions).

907-865.03.10.2.3.2--Total Suspended Particulate (TSP) Matter. Emissions from the containment area shall be controlled to prevent exceeding the TSP Lead of 1.5 $\mu g/m^3$ over a 90-day period, or the daily and adjusted daily allowances of SSPC-TU 7. TSP Lead monitoring shall be conducted in accordance with 40 CFR 50, Appendix B, Reference Method for Determination of TSP Matter in the Atmosphere (high volume sampler required), and 40 CFR 50, Appendix G, Reference Method for Determination of TSP Matter Collected from Ambient Air. The TSP Lead monitoring equipment shall be positioned in general accordance with 40 CFR 58, Ambient Air Quality Surveillance.

When lead is present in the coating, TSP Lead background monitoring shall be performed for a period of three (3) days prior to the beginning of abrasive blast cleaning operations. The results from background monitoring and the first week of monitoring during abrasive blast cleaning shall be submitted to the Engineer for review within five (5) calendar days after the first week of work. Monitoring shall continue unless otherwise directed by the Engineer.

907-865.03.10.2.3.3--Regulated Area. A regulated area around the work site shall be established to prohibit unauthorized persons from areas where exposure to hazardous airborne metals may exceed the following action levels:

Airborne Metals	Action Level
Lead	30 $\mu g/m^3$
Cadmium	2.5 $\mu g/m^3$
Arsenic	5 $\mu g/m^3$
Hexavalent Chromium (Cr6+)	2.5 $\mu g/m^3$

Monitoring shall be conducted in accordance with the National Institute for Occupational Safety and Health (NIOSH) procedures upon initiation of dust producing operations and the test results shall be submitted to the Engineer within 72 hours of sampling. Sample results shall be reported as 8-hour Time Weighted Averages (TWA). The regulated area shall be re-established and additional sampling shall be performed when the results exceed the action levels or when directed by the Engineer. All pertinent data shall be documented in a field logbook. Air-sampling pumps shall be positioned around the project perimeter where the public or personnel can approach the work area.

Sampler inlets shall be placed at breathing height. The regulated area shall be clearly marked by the use of warning signs, rope, barrier tape, or temporary construction fencing.

907-845.03.10.2.4--Soil/Ground Quality. The ground beneath and in proximity to the structure shall be inspected in the presence of the Engineer for visible paint chips to establish an initial job site cleanliness standard. When heavy metals are in the existing coatings, soil samples shall be tested prior to the beginning of operations and after project completion for heavy metals. The number and specific locations where the initial samples are taken shall be documented as outlined in the SSPC Project Design-Industrial Lead Paint Removal Handbook, Volume 2 to ensure the post samples are collected from the same locations. All samples shall be submitted to the Engineer for review. If the project activities increase the heavy metal content in soil to more than 20% above the pre-job geometric mean or 100% at any one location, the site shall be returned to the pre-job levels. Additional soil testing shall be conducted as necessary to determine the extent of contamination.

In addition, a pre- and post-soil sampling plan shall be submitted for storage areas identifying the sample location, depth, analyses list, lab certification, and turnaround time. Once approved by the Engineer, sampling results shall be submitted along with a scaled drawing indicating designated sample locations.

907-845.03.10.2.5--Water Quality. The Contractor shall not release, discharge or otherwise cause hazardous materials, debris, waste, or paint chips to enter the water. The Contractor shall also protect against releases due to rain and methods of surface preparation from reaching rivers, streams, lakes, storm drains, or other bodies of water.

907-845.03.10.3--Containment System. The Contractor shall submit a written containment system design plan in accordance with this subsection and the contract documents at the pre-construction conference or as directed by the Engineer which clearly describes the proposed containment system applicable to the intended removal method and in accordance with the requirements outlined herein and SSPC Guide 6, Guide for Containing Debris Generated During Paint Removal Activities. The plan shall include, but is not limited to, removal method; methods for collecting debris; and containment enclosure components. Fire retardant materials shall be used. Containment drawings, calculations, and assumptions, including ventilation criteria if applicable, shall be provided signed and sealed by the Contractor's Engineer of Record experienced with containment systems. A complete structural impact analysis prepared by a Specialty Engineer shall be provided to verify the existing structure can withstand the dead, live and wind loads imposed upon the structure due to the containment system. The lighting inside the containment shall be in accordance with SSPC Guide 12, Guide for Illumination of Industrial Painting Projects. Lighting shall have a minimum intensity of 10 ft-cd for general, 20 ft-cd for work, and 50 ft-cd for inspection. All drawings and calculations shall be submitted and accepted before any work begins. A clear description of the ventilation system components and information shall be provided including the fan curve and design point on the proposed dust collector. The Design shall provide ventilation according to the notes provided in SSPC Guide 6: 100 feet per minute for cross draft and 50-60 feet per minute for downdraft.

The immediate area of the structure shall be isolated to ensure compliance with current and permit requirements for air, water, soil, and pollution prevention. The containment system shall be protected from vehicular and pedestrian traffic. Paint, paint chips, or other debris shall not fall

outside of the containment area under any circumstances. Any damage created by fastening, bracing, or handling the scaffolding and staging shall be repaired. If a suspended platform is constructed, rigid or flexible materials shall be used as needed to create an air and dust impenetrable enclosure. The platform and its components shall be designed and constructed to support at least four (4) times its maximum intended load without failure, with wire cables capable of supporting at least six (6) times their maximum intended load without failure. The Contractor shall strictly comply with all applicable OSHA regulations regarding scaffolding. The category and class of containment shall be as required in the Contract Documents.

907-845.03.10.4--Protection of Adjacent Areas. All areas adjacent to abrasive blast cleaning, including machinery and deck grating, shall be protected. Before the commencement of any cleaning and coating operations, a control plan shall be provided for the protection of adjacent surfaces from damage by nearby blasting and coating to the Engineer for review. Any damage to adjacent areas shall be repaired. The repair procedure shall be submitted to the Engineer for acceptance prior to any remediation.

907-845.03.10.5--Worker Protection. The Contractor shall be responsible for complying with all current OSHA regulations regarding worker protection as it relates to the duties required by this Specification. Appropriate safety procedures shall be implemented for all hazards on the job site whether specifically identified herein or not.

907-845.03.11--Waste Handling and Management.

907-845.03.11.1--General. A waste management program plan shall be prepared which addresses the applicable requirements from EPA regulations for hazardous waste management and the Contract Documents. Include provisions for the handling and disposal of non-hazardous waste. The Contractor shall dispose of all waste in accordance with all federal, state, and local laws and regulations.

907-845.03.11.2--Collection and Handling of Waste. All paint removal debris, both solid and liquid, shall be properly classified, packaged and stored in accordance with SSPC Guide 7, Guide for the Disposal of Lead-Contaminated Surface Preparation Debris, the Federal Water Pollution Control Act with amendments, and all other current government regulations and guidelines. The Contractor shall comply with the Resource Conservation and Recovery Act to include, at a minimum, CFR 40 260 through CFR 40 268. Prior to identification and storage, the Contractor shall separate solid and liquid waste, and separate individual waste streams.

907-845.03.11.3--Testing and Analysis. Laboratory analyses for all waste stream and environmental samples shall be conducted by an EPA certified, independent laboratory with an approved Quality Assurance Plan. Laboratory analyses for worker monitoring and regulated area samples shall be conducted by an American Industrial Hygiene Association (AIHA) metals accredited laboratory. A copy of all sampling and test reports shall be provided no later than 72 hours after collection of samples.

907-845.03.11.4--Waste Identification. Samples shall be collected in accordance with EPA SW 846, Test Methods for Evaluating Solid Waste - Physical/Chemical Methods. A random and

representative sampling technique shall be used. A minimum of four representative samples shall be collected of each waste stream. These waste streams shall include, but are not limited to, water, paint chips, dust, and paint chips mixed with disposable abrasives and debris. The Contractor shall complete the initial sampling of each waste stream immediately upon filling the first drum, but shall not allow waste to accumulate for longer than seven (7) days before sampling.

After the representative samples are collected, they shall be sent immediately to the EPA certified laboratory for analysis. Unless otherwise directed by the Engineer, required by State regulations, or required by the waste recycling or disposal facility, once each waste stream is sampled, tested, and classified, additional sampling and analysis will not be required for subsequent shipments unless the waste stream changes. Samples shall be submitted to an approved laboratory to be tested for arsenic, barium, cadmium, hexavalent chromium, lead, mercury, selenium, and silver in accordance with EPA Method 3050 and Method 6010 (content) and EPA Method 1311, Toxicity Characteristics Leaching Procedures (TCLP). Each sample shall be clearly marked with sample number, date and time of sampling, name of collector, and location of collection.

Chain of custody forms shall be maintained for each sample. Each sample shall be entered on a sample analysis request form. The sample numbers, type of waste, amount of each sample, distribution of samples, signature and all other information shall be entered into field logbook.

907-845.03.11.5--Waste Storage. Waste from the control devices, equipment, and all work surfaces shall be collected on a daily basis. Hazardous and non-hazardous waste shall be kept separate. Blasting debris shall not be mixed with any other type of waste. Waste shall be placed in approved storage drums.

All hazardous waste within a regulated area shall be located. The maximum weight for each drum, when filled, shall be 821 lbs. All drums shall be properly sealed and labeled. Waste storage drums shall be transported to a secured, marked, temporary storage area. The temporary storage area shall be located on well-drained ground not susceptible to flooding or storm water run-off. Drums shall be placed on pallets and covered with fiber reinforced, impermeable tarpaulins. Drums shall be stored no more than two drums wide and two drums high. Drums shall be arranged so that labels are easily readable. Waste shall not be stored in the temporary storage area longer than 90 days.

907-845.03.11.6--Waste Disposal. All hazardous and non-hazardous waste shall be transported, treated and disposed of. The Engineer shall be notified a minimum of three (3) weeks prior to the date of shipment of any waste to an off-site facility. The Engineer shall be provided with documentation that the receiving disposal facilities are properly licensed. Manifests shall be provided for all hazardous and non-hazardous waste shipments. Any waste disposal subcontractors shall be identified and provide the Engineer with a copy of their licensing to perform waste disposal and transport operations.

907-845.03.11.7--Permits. The Contractor shall be responsible for all liability resulting from non-compliance with pertinent rules and regulations including permit requirements.

907-845.04--Method of Measurement. Coating Existing Structural Steel will be measured as a lump sum quantity.

907-845.05--Basis of Payment. Coating Existing Structural Steel, measured as prescribed above, will be paid for at the contract lump sum price which shall be full compensation for all materials, labor, tools, equipment, containment systems, testing, removal and disposal of the existing coating, and all incidentals necessary for completing the work as described herein.

Payment will be made under:

907-845-A: Coating Existing Structural Steel - lump sum

MISSISSIPPI DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION NO. 907-899-1 **CODE: (SP)**

DATE: 01/17/2017

SUBJECT: Railway-Highway Provisions

Section 907-899, Railway-Highway Provisions, is hereby added to and made part of the 2017 Edition of the Mississippi Standard Specifications for Road and Bridge Construction as follows:

SECTION 907-899--RAILWAY-HIGHWAY PROVISIONS

907-899.01--Description. This special provision addresses the Contractor's involvement with railroad flagging, Contractor Safety Orientation, Contractor Background Investigation, Contractor Roadway Worker on Track Safety Program and Safety Action Plan, and any other requirements set forth by the Railroad and any attached Exhibits.

Prior to bidding, the Contractor shall read and comply with the requirements of the Railroad and any attached Exhibits. The Contractor shall contact the Railroad concerning insurance coverage requirements, Railroad flagging costs, Contractor Safety Orientation, Contractor Background Investigation, Contractor Roadway Worker on Track Safety Program and Safety Action Plan, and any other requirements set forth by the Railroad and any attached Exhibits. In case the railroad requires coverage over and above that required by the Standard Specifications, the railroad requirements shall be met.

If in the opinion of the RAILROAD, the presence of an authorized representative of the RAILROAD is required to supervise the same, the RAILROAD shall render bills to the Contractor for all expenses incurred by it for such supervision. This includes all labor costs for flagmen or cable locate supplied by the RAILROAD to protect RAILROAD operation, and for the full cost of furnishing, installation and later removal of any temporary supports for said tracks, as the RAILROAD's Chief Engineer's Office may deem necessary.

It will be the Contractor's responsibility to pay all bills associated with the Railroad requirements and any attached Exhibits.

A cable locate of RAILROAD owned facilities may be required to identify and protect Signal & Communication cables that have been installed to provide power, signal control, wayside communications. These cables are vital to a safe and reliable railway operation. The cable locate will be performed by a qualified RAILROAD employee.

Outside Contractors are prohibited from driving on, along, or across any track that does not have a RAILROAD installed crossing. They may utilize an existing public crossing. The practice of allowing rubber tired equipment to operate over track with no crossing has been banned.

The Contractor shall complete and process any required forms addressed by the Railroad or any attached Exhibits. The Contractor shall not commence or carry on any form of work on, under, above or within the designated distance from the Railroad track prior to getting approval from the Railroad.

907-899.02--Blank.

907-899.03--Construction Requirements. The Contractor shall read and comply with the requirements of the Railroad and any attached Exhibits.

907-899.04--Method of Measurement. Railway-highway provisions will be measured as a unit lump sum quantity. Measurement for payment will be in accordance with the following schedule:

a) On the first estimate, twenty five percent (25%) of the amount bid for Railway Highway Provision will be paid.
b) When twenty five percent (25%) of the original contract amount is earned from all direct pay items, fifty percent (50%) of the amount bid for Railway Highway Provision will be paid.
c) When fifty percent (50%) of the original contract amount is earned from all direct pay items, one hundred percent (100%) of the amount bid for Railway Highway Provision will be paid.

907-899.05--Basis of Payment. Railway-highway provisions, measured a prescribed above, will be paid for at the contract lump sum price, which price shall be payment in full for all insurance coverage requirements, railroad flagging costs, Contractor safety orientation, Contractor background investigation, Contractor safety programs and plans, and any other requirements set forth by the Railroad and any attached Exhibits, and other incidentals necessary to complete the requirements of this work.

Payment will be made under:

907-899-A: Railway-Highway Provisions - lump sum

S E C T I O N 9 0 5 - P R O P O S A L

Date _____

Mississippi Transportation Commission
Jackson, Mississippi

Sirs: The following proposal is made on behalf of _____
_____ of _____
_____
for constructing the following designated project(s) within the time(s) hereinafter specified.

The plans are composed of drawings and blue prints on file in the offices of the Mississippi Department of Transportation, Jackson, Mississippi.

The Specifications are the current Standard Specifications of the Mississippi Department of Transportation approved by the Federal Highway Administration, except where superseded or amended by the plans, Special Provisions and Notice(s) to Bidders attached hereto and made a part thereof.

I (We) certify that I (we) possess a copy of said Standard and any Supplemental Specifications.

Evidence of my (our) authority to submit the Proposal is hereby furnished. The proposal is made without collusion on the part of any person, firm or corporation. I (We) certify that I (we) have carefully examined the Plans, the Specifications, including the Special Provisions and Notice(s) to Bidders, herein, and have personally examined the site of the work. On the basis of the Specifications, Special Provisions, Notice(s) to Bidders, and Plans, I (we) propose to furnish all necessary machinery, tools, apparatus and other means of construction and do all the work and furnish all the materials in the manner specified. I (We) understand that the quantities mentioned herein are approximate only and are subject to either increase or decrease, and hereby propose to perform any increased or decreased quantities of work at the unit prices bid, in accordance with the above.

I (We) acknowledge that this proposal will be found irregular and/or non-responsive unless a certified check, cashier's check, or Proposal Guaranty Bond in the amount as required in the Advertisement (or, by law) is submitted electronically with the proposal or is delivered to the Contract Administration Engineer prior to the bid opening time specified in the advertisement.

INSTRUCTION TO BIDDERS: Alternate and Optional Items on Bid Schedule.

1. Two or more items entered opposite a single unit quantity WITHOUT DEFINITE DESIGNATION AS "ALTERNATE ITEMS" are considered as "OPTIONAL ITEMS". Bidders may or may not indicate on bids the Optional Item proposed to be furnished or performed WITHOUT PREJUDICE IN REGARD TO IRREGULARITY OF BIDS.
2. Items classified on the bid schedule as "ALTERNATE ITEMS" and/or "ALTERNATE TYPES OF CONSTRUCTION" must be preselected and indicated on bids. However, "Alternate Types of Construction" may include Optional Items to be treated as set out in Paragraph 1, above.
3. Optional items not preselected and indicated on the bid schedule MUST be designated in accordance with Subsection 102.06 prior to or at the time of execution of the contract.
4. Optional and Alternate items designated must be used throughout the project.

I (We) further propose to perform all "force account or extra work" that may be required of me (us) on the basis provided in the Specifications and to give such work my (our) personal attention in order to see that it is economically performed.

I (We) further propose to execute the attached contract agreement (Section 902) as soon as the work is awarded to me (us), and to begin and complete the work within the time limit(s) provided for in the Specifications and Advertisement. I (We) also propose to execute the attached contract bond (Section 903) in an amount not less than one hundred (100) percent of the total of my (our) part, but also to guarantee the excellence of both workmanship and materials until the work is finally accepted.

I (We) shall submit electronically with our proposal or deliver prior to the bid opening time a certified check, cashier's check or bid bond for **five percent (5%) of total bid** and hereby agree that in case of my (our) failure to execute the contract and furnish bond within Ten (10) days after notice of award, the amount of this check (bid bond) will be forfeited to the State of Mississippi as liquidated damages arising out of my (our) failure to execute the contract as proposed. It is understood that in case I am (we are) not awarded the work, the check will be returned as provided in the Specifications.

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.

Construction of I-20 South Frontage Road Extension to US 80 & I-20 Bridge Repairs, known as State Project No. SP-0020-01(171) / 104299301 in Warren County.

Line no.	Item Code	Adj Code	Quantity	Units	Description[Fixed Unit Price]
				Roadway Items	
0010	201-A001		1	Lump Sum	Clearing and Grubbing
0020	201-B001		1	Acre	Clearing and Grubbing
0030	202-B007		7,316	Square Yard	Removal of Asphalt Pavement, All Depths
0040	202-B052		428	Square Yard	Removal of Concrete Driveways, All Depths
0050	202-B063		975	Square Yard	Removal of Concrete Paved Ditch
0060	202-B080		542	Square Yard	Removal of Concrete Sidewalk
0070	202-B088		2,922	Linear Feet	Removal of Curb & Gutter, All Types
0080	202-B126		1,291	Linear Feet	Removal of Fence, All Types
0090	202-B158		116	Linear Feet	Removal of Guard Rail, Including Rails, Posts and Terminal Ends
0100	202-B165		8	Each	Removal of Inlets, All Sizes
0110	202-B191		238	Linear Feet	Removal of Pipe, 8" And Above
0120	203-EX020	(E)	490,371	Cubic Yard	Borrow Excavation, AH, FME, Class B9
0130	206-A001	(S)	4,071	Cubic Yard	Structure Excavation
0140	206-B001	(E)	8,281	Cubic Yard	Select Material for Undercuts, Contractor Furnished, FM
0150	209-A005		25,700	Square Yard	Geotextile Stabilization, Type V, Non-Woven
0160	211-B001	(E)	10,657	Cubic Yard	Topsoil for Slope Treatment, Contractor Furnished
0170	213-A001		39	Ton	Agricultural Limestone
0180	213-C001		10	Ton	Superphosphate
0190	216-A001		3,156	Square Yard	Solid Sodding
0200	219-A001		64	Thousand Gallon	Watering ($20.00)
0210	221-A001	(S)	307	Cubic Yard	Concrete Paved Ditch
0220	223-A001		20	Acre	Mowing ($50.00)
0230	225-A001		20	Acre	Grassing
0240	225-C001		39	Ton	Mulch, Vegetative Mulch
0250	226-A001		20	Acre	Temporary Grassing
0260	229-A001		6,000	Square Yard	Erosion Mat
0270	234-A001		11,850	Linear Feet	Temporary Silt Fence
0280	234-D001		12	Each	Inlet Siltation Guard
0290	235-A001		584	Each	Temporary Erosion Checks
0300	236-A008		4	Each	Silt Basin, Type D
0310	237-A002		4,000	Linear Feet	Wattles, 20"
0320	245-A001		97	Linear Feet	Silt Dike
0330	246-B001		16,251	Each	Rockbags
0340	249-A001		1,078	Ton	Riprap for Erosion Control
0350	304-B004	(GT)	5,593	Ton	Granular Material, Class 5, Group D

Line no.	Item Code	Adj Code	Quantity	Units	Description[Fixed Unit Price]
0360	307-C004	(M)	2,945	Square Yard	6" Soil-Lime-Water Mixing, Class C
0370	307-D001		40	Ton	Lime
0380	307-S001	(A3)	737	Gallon	Bituminous Curing Seal
0390	308-A001		25	Ton	Cement
0400	308-B003	(M)	2,945	Square Yard	Soil-Cement-Water Mixing, Optional Mixers, Design Soil
0410	308-S001	(A3)	737	Gallon	Bituminous Curing Seal
0420	403-A001	(BA1)	2,645	Ton	12.5-mm, HT, Asphalt Pavement
0430	403-A004	(BA1)	3,619	Ton	19-mm, HT, Asphalt Pavement
0440	403-A006	(BA1)	314	Ton	19-mm, ST, Asphalt Pavement
0450	403-A013	(BA1)	2,121	Ton	9.5-mm, HT, Asphalt Pavement
0460	407-A001	(A2)	2,382	Gallon	Asphalt for Tack Coat
0470	502-A001	(C)	418	Square Yard	Reinforced Cement Concrete Bridge End Pavement
0480	503-C010		412	Linear Feet	Saw Cut, Full Depth
0490	601-A001	(S)	807	Cubic Yard	Class "B" Structural Concrete
0500	601-B001	(S)	37	Cubic Yard	Class "B" Structural Concrete, Minor Structures
0510	602-A001	(S)	171,901	Pounds	Reinforcing Steel
0520	603-ALT003	(S)	120	Linear Feet	18" Type A Alternate Pipe
0530	603-ALT006	(S)	16	Linear Feet	24" Type A Alternate Pipe
0540	603-CA003	(S)	16	Linear Feet	15" Reinforced Concrete Pipe, Class III
0550	603-CA011	(S)	296	Linear Feet	18" Reinforced Concrete Pipe, Class III
0560	603-CA026	(S)	144	Linear Feet	24" Reinforced Concrete Pipe, Class III
0570	603-CA035	(S)	680	Linear Feet	24" Reinforced Concrete Pipe, Class V
0580	603-CA040	(S)	72	Linear Feet	30" Reinforced Concrete Pipe, Class III
0590	603-CA042	(S)	136	Linear Feet	30" Reinforced Concrete Pipe, Class IV
0600	603-CA048	(S)	264	Linear Feet	30" Reinforced Concrete Pipe, Class V
0610	603-CA138	(S)	16	Linear Feet	12" Reinforced Concrete Pipe, Class V
0620	603-CB003	(S)	2	Each	18" Reinforced Concrete End Section
0630	603-CB004	(S)	3	Each	24" Reinforced Concrete End Section
0640	603-CB005	(S)	5	Each	30" Reinforced Concrete End Section
0650	603-SB036	(S)	1	Each	30" Branch Connections, Stub into Box Culvert
0660	604-A001		790	Pounds	Castings
0670	604-B001		274	Pounds	Gratings
0680	606-B001		370	Linear Feet	Guard Rail, Class A, Type 1
0690	606-D022		12	Each	Guard Rail, Bridge End Section, Type I
0700	606-E005		2	Each	Guard Rail, Terminal End Section, Flared
0710	606-E007		1	Each	Guard Rail, Terminal End Section, Non-Flared
0720	608-B001	(S)	1,187	Square Yard	Concrete Sidewalk, With Reinforcement
0730	609-B002	(S)	350	Linear Feet	Concrete Curb, Header

Line no.	Item Code	Adj Code	Quantity	Units	Description[Fixed Unit Price]
0740	609-D004	(S)	2,053	Linear Feet	Combination Concrete Curb and Gutter Type 2 Modified
0750	609-D008	(S)	2,192	Linear Feet	Combination Concrete Curb and Gutter Type 3A
0760	613-D005		4	Each	Adjustment of Manhole
0770	614-B003	(S)	685	Square Yard	Concrete Driveway, With Reinforcement, 6-inch Thickness
0780	615-B001	(S)	580	Linear Feet	Precast Concrete Median Barrier
0790	616-A001	(S)	91	Square Yard	Concrete Median and/or Island Pavement, 10-inch
0800	616-A004	(S)	284	Square Yard	Concrete Median and/or Island Pavement, 4-inch
0810	617-A001		58	Each	Right-of-Way Marker
0820	618-A001		1	Lump Sum	Maintenance of Traffic
0830	619-A1003		4,724	Linear Feet	Temporary Traffic Stripe, Continuous White, Paint
0840	619-A2003		6,541	Linear Feet	Temporary Traffic Stripe, Continuous Yellow, Paint
0850	619-A6004		48	Linear Feet	Temporary Traffic Stripe, Legend, Paint
0860	619-C10001		316	Each	Yellow-Clear Reflective High Performance Raised Marker
0870	619-D1001		327	Square Feet	Standard Roadside Construction Signs, Less than 10 Square Feet
0880	619-D2001		1,151	Square Feet	Standard Roadside Construction Signs, 10 Square Feet or More
0890	619-F1001		637	Linear Feet	Concrete Median Barrier, Precast
0900	619-F2001		377	Linear Feet	Remove and Reset Concrete Median Barrier, Precast
0910	619-F3003		30	Each	Delineators, Median Barrier Mounted, White
0920	619-G4001		529	Linear Feet	Barricades, Type III, Double Faced
0930	619-G5001		66	Each	Free Standing Plastic Drums
0940	619-J1001		1	Each	Impact Attenuator, 40 MPH
0950	619-J2001		1	Each	Impact Attenuator, 40 MPH, Replacement Package
0960	619-J3001		1	Each	Remove and Reset Impact Attenuator
0970	620-A001		1	Lump Sum	Mobilization
0980	626-C003		8,017	Linear Feet	6" Thermoplastic Edge Stripe, Continuous White
0990	626-D004		1,081	Linear Feet	6" Thermoplastic Traffic Stripe, Skip Yellow
1000	626-E003		6,927	Linear Feet	6" Thermoplastic Traffic Stripe, Continuous Yellow
1010	626-G002		6,039	Linear Feet	Thermoplastic Detail Stripe, White
1020	626-G003		11,345	Linear Feet	Thermoplastic Detail Stripe, Yellow
1030	626-H004		258	Square Feet	Thermoplastic Legend, White
1040	626-H005		144	Linear Feet	Thermoplastic Legend, White
1050	627-K001		25	Each	Red-Clear Reflective High Performance Raised Markers
1060	627-L001		728	Each	Two-Way Yellow Reflective High Performance Raised Markers
1070	630-A001		164	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.080" Thickness
1080	630-A003		211	Square Feet	Standard Roadside Signs, Sheet Aluminum, 0.125" Thickness
1090	630-C003		473	Linear Feet	Steel U-Section Posts, 3.0 lb/ft
1100	630-E004		114	Pounds	Structural Steel Angles & Bars, 7/16" x 2 1/2" Flat Bar
1110	630-F006		17	Each	Delineators, Guard Rail, White

Line no.	Item Code	Adj Code	Quantity	Units	Description[Fixed Unit Price]
1120	630-K001		33	Linear Feet	Welded & Seamless Steel Pipe Posts, 3 1/2"
1130	630-K003		91	Linear Feet	Welded & Seamless Steel Pipe Posts, 4"
1140	699-A001		1	Lump Sum	Roadway Construction Stakes
1150	815-A002	(S)	89	Ton	Loose Riprap, Size 100
1160	815-A007	(S)	6,319	Ton	Loose Riprap, Size 300
1170	815-E001	(S)	11,552	Square Yard	Geotextile under Riprap
1180	815-F002	(S)	186	Ton	Sediment Control Stone
1190	907-250-A001		800	Pounds	Polyacrylamide (PAM)
1200	907-253-A001		800	Linear Feet	Coir Fiber Baffle
1210	907-619-E3001		7	Each	Changeable Message Sign
1220	907-899-A001		1	Lump Sum	Railway-Highway Provisions
				ALTERNATE GROUP AA NUMBER 1	
1230	304-F001	(GT)	13,203	Ton	3/4" and Down Crushed Stone Base
				ALTERNATE GROUP AA NUMBER 2	
1240	304-F002	(GT)	13,203	Ton	Size 610 Crushed Stone Base
				ALTERNATE GROUP AA NUMBER 3	
1250	304-F003	(GT)	13,203	Ton	Size 825B Crushed Stone Base
				ALTERNATE GROUP CC NUMBER 1	
1260	907-624-B002		661	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous White
1270	907-624-D002		2,182	Linear Feet	6" Inverted Profile Thermoplastic Traffic Stripe, Continuous Yellow
				ALTERNATE GROUP CC NUMBER 2	
1280	628-H001		661	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous White
1290	628-J001		2,182	Linear Feet	6" High Performance Cold Plastic Traffic Stripe, Continuous Yellow
				Bridge Items	
1300	202-B169		1,610	Linear Feet	Removal of Joint Material
1310	203-G001	(E)	120	Cubic Yard	Excess Excavation, FM, AH
1320	221-A001	(S)	10	Cubic Yard	Concrete Paved Ditch
1330	229-A001		178	Square Yard	Erosion Mat
1340	304-D004	(GT)	195	Ton	Granular Material, Size 57
1350	501-K001		2,697	Square Yard	Transverse Grooving
1360	803-C002	(S)	3,120	Linear Feet	14" x 14" Prestressed Concrete Piling
1370	804-C118	(S)	1,550	Linear Feet	78' Prestressed Concrete Beam, Type IV
1380	804-C130	(S)	1,703	Linear Feet	86' Prestressed Concrete Beam, Type IV
1390	805-A001	(S)	264,450	Pounds	Reinforcement
1400	809-A001	(S)	2,979	Square Feet	Retaining Wall System
1410	813-A002	(S)	661	Linear Feet	Concrete Railing, 32"
1420	815-D001	(S)	197	Cubic Yard	Concrete Slope Paving
1430	907-202-B001		32	Square Yard	Removal of Bridge Deck, Hydrodemolition
1440	907-607-PP001		160	Linear Feet	Safety Fence

Line no.	Item Code	Adj Code	Quantity	Units	Description[Fixed Unit Price]
1450	907-803-B001	(S)	1	Each	Conventional Static Pile Load Test ($5000.00)
1460	907-803-I002	(S)	2	Each	PDA Test Pile, Concrete Pile
1470	907-803-I004	(S)	2	Each	PDA Test Pile, Steel Pipe Pile
1480	907-803-J001	(S)	2	Each	Pile Restrike
1490	907-803-PP003		1,340	Linear Feet	30" Steel Pipe Piling, Wall Thickness 0.500"
1500	907-804-A002	(S)	607	Cubic Yard	Bridge Concrete, Class AA
1510	907-804-A004	(S)	745	Cubic Yard	Bridge Concrete, Class BD
1520	907-808-A002	(S)	979	Linear Feet	Joint Repair
1530	907-823-A001		1,142	Linear Feet	Preformed Joint Seal, Type I
1540	907-823-A002		237	Linear Feet	Preformed Joint Seal, Type II
1550	907-823-B001		2,226	Linear Feet	Saw Cut, Type I
1560	907-823-B002		466	Linear Feet	Saw Cut, Type II
1570	907-824-PP003		2,005	Square Feet	Bridge Repair, Painting of Steel Piling
1580	907-824-PP004		1	Lump Sum	Bridge Repair, Remove & Replace Bridge Railing & Deck,Per Plans
1590	907-824-PP006		20	Each	Bridge Repair, Concrete Pile Encasement Wall Removal
1600	907-824-PP006		40	Each	Bridge Repair, Installation of Connection Angle
1610	907-824-PP006		10	Each	Bridge Repair, Pressure Relief Joint, Per Plans
1620	907-824-PP006		7	Each	Bridge Repair, Pressure Washing & Cleaning Bent Caps
1630	907-824-PP006		20	Each	Bridge Repair, Steel Piling Repair for Bent 2-5
1640	907-824-PP007		21	Cubic Yard	Bridge Repair, Elastomeric Concrete
1650	907-824-PP008		336	Linear Feet	Bridge Repair, Pile Encasement
1660	907-845-A001	(S)	1	Lump Sum	Coating Existing Structural Steel

CONDITIONS FOR COMBINATION BID

If a bidder elects to submit a combined bid for two or more of the contracts listed for this month's letting, the bidder must complete and execute these sheets of the proposal in each of the individual proposals to constitute a combination bid. In addition to this requirement, each individual contract shall be completed, executed and submitted in the usual specified manner.

Failure to execute this Combination Bid Proposal in each of the contracts combined will be just cause for each proposal to be received and evaluated as a separate bid.

It is understood that the Mississippi Transportation Commission not only reserves the right to reject any and all proposals, but also the right to award contracts upon the basis of lowest separate bids or combination bids most advantageous to the State.

It is further understood and agreed that the Combination Bid Proposal is for comparison of bids only and that each contract shall operate in every respect as a separate contract in accordance with its proposal and contract documents.

I (We) agree to complete each contract on or before its specified completion date.

* *

COMBINATION BID PROPOSAL

This proposal is tendered as one part of a Combination Bid Proposal utilizing option ___* of Subsection 102.11 on the following contracts:

* Option to be shown as either (a), (b), or (c).

	Project No.	County		Project No.	County
1.	____________	____________	6.	____________	____________
2.	____________	____________	7.	____________	____________
3.	____________	____________	8.	____________	____________
4.	____________	____________	9.	____________	____________
5.	____________	____________	10.	____________	____________

(a) If Combination A has been selected, your Combination Bid is complete.

(b) If Combination B has been selected, then complete the following page.

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. _____	_____	_____	_____	_____	

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. **SP-0020-01(171)/ 104299301000**

in **Warren** 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 **SP-0020-01(171)/ 104299301000**

LOCATED IN THE COUNTY(IES) OF **Warren**

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_____

Title_____

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

_____

MISSISSIPPI TRANSPORTATION COMMISSION

By_____
Executive Director

_____
Secretary to the Commission

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

Revised 8/06/2003

SECTION 903
PERFORMANCE AND PAYMENT BOND

CONTRACT BOND FOR: **SP-0020-01(171)/ 104299301000**

LOCATED IN THE COUNTY(IES) OF: **Warren**

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 **Construction of I-20 South Frontage Road Extension to US 80 & I-20 Bridge Repairs, known as State Project No. SP-0020-01(171) / 104299301 in Warren County.**

NOW THEREFORE, the condition of this obligation is such that if the aforesaid Principal shall be awarded the contract, the said Principal will, within the time required, enter into a formal contract and give a good and sufficient bond to secure the performance of the terms and conditions of the contract, then this obligation to be void; otherwise the Principal and Surety will pay unto the Obligee the difference in money between the amount of the bid of the said Principal and the amount for which the Obligee legally contracts with another party to perform the work if the latter amount be in excess of the former, but in no event shall liability hereunder exceed the penal sum hereof.

Signed and sealed this _____day of _____, 20___

_____
(Principal) (Seal)

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

_____
(Surety) (Seal)

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

_____
(MS Agent)

_____
Mississippi Insurance ID Number

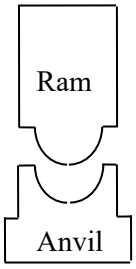
Rev. 6/98

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
PILE AND DRIVING EQUIPMENT DATA FORM

Project No.: _____ Bridge No.: _____

Termini: _____ Pile Driving Contractor: _____

County: _____



Hammer

Manufacture: _____ Model No.: _____

Hammer Type: _____ Serial No.: _____

Manufacturers Maximum Rated Energy: _____ (Kip-ft.)

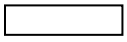
Stroke at Maximum Rated Energy: _____ (ft.)

Range in Operating Energy: _____ to _____ (Kip-ft.)

Range in Operating Stroke: _____ to _____ (ft.)

Modifications: _____

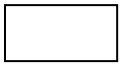
_____



Striker Plate

Weight: _____ (N) Diameter: _____ (in.)

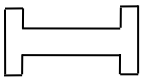
Thickness: _____ (mm)



Hammer Cushion

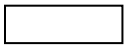
	Material #1	Material #2
	Name: _____	Name: _____
	Area: _____ ($in.^2$)	Area: _____ ($in.^2$)
	Thickness/Plate: _____ (in.)	Thickness/Plate: _____ (in.)
	No. of Plates: _____	No. of Plates: _____

Total Thickness of Hammer Cushion: _____ (in.)



Helmet (Drive Head)

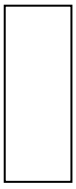
Weight: _____ (lbs.)



Pile Cushion

Material: _____

Area: _____ ($in.^2$) Total Thickness: _____ (in.)



Pile

Submitted By: _____ ***Date:*** _____

Telephone No.: _____